

From: Beccaa Rytlewski <thepuppylove2@yahoo.com>

Sent: Wednesday, February 7, 2024 12:49 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Sunset Amphitheater in Mustang Creek Crossing

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 2:17 pm, Feb 07, 2024

You don't often get email from thepuppylove2@yahoo.com. [Learn why this is important](#)

Hello, to whom it may concern my name is Rebecca Martin, I live at 10404 Leicester Dr. Yukon ok 73099. If you do not know that is a couple of blocks from this amphitheater that is supposed to be built. Honestly, it is a horrible idea to build the amphitheater there. Here are a few of my reasons why:

1. It can and will bring crime to this part of Mustang/Yukon. Mustang/Yukon is seen as a safer place to live. It won't be if it is built.
2. The neighborhood will no longer be quiet and safe, which is why my family and I decided to move here.
3. Once the parking lot is filled, people will start to park in or around the existing neighborhoods.
4. No concert ever ends at 10:30 p.m. Some concerts do not end till midnight or later. That is way too late for me or any of my family to hear or feel vibrations from the amphitheater.
5. As well they have increased the decibel level to 5db over the city code. That is ridiculous, the concerts will get louder by the type of music.
6. They will do a sound check around 2:00 p.m. when kids are in school, young kids already have a hard time paying attention in class. Which can result in children not getting the education they deserve. Those children are the future.
7. Traffic, let's be real, no one wants to wait 40 minutes or more to get out of their neighborhood after a concert.
8. It is super close to an elementary school and middle school, that's not okay, think about children's safety.
9. There are other places to build this where it is not near any school or neighborhood.
10. There are plenty of arenas that can hold concerts downtown OKC. Mustang DOES NOT need one!
11. It is said, that the amphitheater will be close to the size if not bigger than the Paycom center. If that is the case, when the Paycom Center downtown holds concerts you can hear them outside with the doors shut. Imagine how bad the noise will be in an amphitheater a couple blocks from your home!

With that being said, neither I nor others want this Sunset Amphitheater to be built. It needs to be stopped!

feel free to call me if you or anyone in your office would like to talk. My cell number is (405) 593-9814

-Rebecca Martin

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 2:17 pm, Feb 07, 2024

From: lora koeninger <westburyinfo@yahoo.com>

Sent: Wednesday, February 7, 2024 1:22 PM

To: Jerimy Meek <okcward3planning@gmail.com>; Fulton, Boyd; Miller, Deborah K; DS, Subdivision and Zoning <Subdivisionandzoning@okc.gov>; City Clerk Email <CityClerk@okc.gov>; Freeman, Craig A; The Mayor <mayor@okc.gov>; Ward3 <ward3@okc.gov>; Lakin, Cynthia A

Subject: SUNSET AMPHITHEATER BEFORE OK CITY COUNCIL MARCH 12TH - Message to Mayor Holt

You don't often get email from westburyinfo@yahoo.com. [Learn why this is important](#)

This project is too Large for a Small area - needs to be researched thoroughly - see below.

Mayor Holt:

Received Message from Barbara Peck via her facebook message re: Widening of North SARA RD - put on Bond issue which should be coming out in 2-3 years. Also, same message from ACTION LINE. If this SUNSET AMPHITHEATER is approved and project will be construct by 2025 which they forecast - the NARROW 2 LANE SARA RD with three (3) INGRESS/EGRESS into the Amphitheater will have to accommodate 3500-5000 cars plus ubers/buses/etc.. all within the hours of 5:00-6:30 INGRESS and then 10:00-11:00 EGRESS. IF IN FACT the Bond issue is approved in 2-3 years - then it's another 3-4 years for the widening even begins - AT THAT TIME: Amphitheater will be constructed and operating and Widening will progress - effecting the 3500-5000 cars, buses, ubers.

etc...getting into the Amphitheater. This is not ONLY a Hinderance to those living in subdivisions around the Widening but, also those who "own" suites in the Amphitheater who may or may not have expected this upon their purchase of the SUITE. IF you want to see how BAD it will be - drive out to the SW Sector of Oklahoma City and look at the Widening going on today on Sara RD south - it's a mess. We are dealing with that but, will the Owners of the Suites at the Sunset Amphitheater APPRECIATE IT? ASK THE SUNSET AMPHITHEATER TO PAY FOR THE 1/4 MILE WIDENING OF SARA RD NORTH OF SW 15TH IN THE PUD TO BE COMPLETED ALONG WITH THEIR CONSTRUCTION AND FIGURE IT INTO THEIR COST OF DEVELOPMENT.

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 5:14 pm, Feb 07, 2024

From: C Hughes <cap.hughes55@gmail.com>

Sent: Wednesday, February 7, 2024 4:29 PM

To: C Hughes <cap.hughes55@gmail.com>; City Clerk Email <CityClerk@okc.gov>; Freeman, Craig A <craig.freeman>; The Mayor <mayor@okc.gov>; Ward3 <ward3@okc.gov>

Subject: Sunset Amphitheater in Mustang Creek Crossing

Some people who received this message don't often get email from cap.hughes55@gmail.com. [Learn why this is important](#)

Good afternoon, Mayor Holt, Ms.B. Peck, Ms.A. Simpson, and Mr. C. Freeman.

My name is Christine Hughes. I live at 1800 Mackenzie Way, Yukon, OK 73099. Phone # 405-255-3099, and email address is cap.hughes55@gmail.com.

The reason for this email is that as my residence is on the Northeast corner of the purposed Sunset Amphitheater in Mustang Creek Crossing and the concern of problems that will ensue.

- * With each performance there will be a nightmare of traffic making it difficult to get in and out of my neighborhood. 12,500 seating, 3,500 parking.
- * will there be non-resident people trying to park in our neighborhood when other parking is fully occupied? There are multiple cars parked in our streets as it is.
- * Three main entrances/exits on to Sara Road just north of SW 15th. It will become very dangerous and long waits exiting the neighborhood at those times.
- * One entrance/exit south to SW 15th. Once again very dangerous and long waits to exit since Sara Road has become the road most used by the surrounding neighborhoods as well as Westbury South neighborhood to get to Mustang or Yukon.
- * There will be concerts from April to October which means the noise will be unbearable for ours neighbors who have noise issues not to mention those who have to get up early for work.
- * The noise timeframe will be an issue Sun-Thursday 10:30 pm, Friday & Saturday to 11pm. It will take an hour at least for them to breakdown the equipment and leave. Again a good night sleep for those who to go to work or church(on Sunday). What about those who go to bed by 7 pm? Will we need to be on sleep aids too?
- *Will the Mustang Creek school be eliminated as well? There is already a traffic jam when school is in session with parents parking in the lanes to pick up their children.
- * Let's talk about the increase decibel level of 5db over the city code.
- * Let's talk about doing away with the environment. Eliminating the tree islands and the wildlife that live in there.

If these are not issues for you, how about we move this Sunset Amphitheater into your neighborhoods or put it in the OKC downtown area.

I don't have the money to move to get out of the nightmare that is about to happen just so some wealthy people can make more money.

I ask you to look into this and reconsider not to go forward with this problem project.

Thanking you in advance for your consideration.
Christine Hughes

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 10:04 am, Feb 08, 2024

From: Josh <jhayen219@gmail.com>

Sent: Thursday, February 8, 2024 8:46 AM

To: The Mayor <mayor@okc.gov>; Ward3 <ward3@okc.gov>; City Clerk Email <CityClerk@okc.gov>;
Freeman, Craig A

Subject: Sunset Amphitheater

Some people who received this message don't often get email from jhayen219@gmail.com. [Learn why this is important](#)

Good morning,

I am a resident of Yukon and have lived in this area the majority of my life, attending Mustang Creek elementary school at a young age and also recently becoming a homeowner with my first little one on the way.

With the current news that a 12,000 person amphitheater is being created, I was initially excited, but thinking of the logistics of it all, I am now 100% against the development of this music venue. Me and my wife currently live across the street from the proposed location of the venue, and the current traffic in the area is terrible to say the least. SW 15th street is currently a 2 lane road with horrendous traffic during drop off and pick up times for the 2 schools located on this street, so much so that the pick up lines cross Sara rd, making the current intersection at Sara Rd. and SW 15th st. dangerous.

Another factor in the creation of this music venue is the noise. These are very quiet neighborhoods, and traffic on the turnpike can already be loud enough. With our first little one on the way, I am worried that the sound from the venue will travel through the house, making an already tiring and stressful time as a parent even harder. A quick google search shows that this is a common complaint of the other venues that have been built near residential areas across the US. Here are some examples:

<https://www.journal-topics.com/articles/noise-from-music-venue-too-much-for-neighboring-residents/>

<https://www.gainesville.com/story/opinion/columns/more-voices/2017/10/22/karen-orr-amphitheater-would-cause-neighborhood-noise-pollution/18182822007/>

<https://kesq.com/cnn-regional/2022/05/11/homeowners-desperate-for-solutions-to-late-night-amphitheater-noise/>

I urge each of you to please consider your position on the topic. I would love a new amphitheater in OKC, but this proposed location is not suited for the traffic and noise.

Josh Hayen
Yukon Resident
405-328-3262

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 4:32 pm, Feb 22, 2024

From: Heather Meehan <hmeehan@rocketmail.com>

Sent: Thursday, February 22, 2024 4:15 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: PUD 1983 Protest, Sunset Amphitheater

You don't often get email from hmeehan@rocketmail.com. [Learn why this is important](#)

I, Heather Vitry-Meehan, hereby protest PUD-1983 application by Mustang Creek Crossing to rezone 810 South John Kilpatrick Turnpike.

The proximity of this venue is not in harmony with the surrounding zoned PUD's. Two schools as well as established neighborhoods on each side. The developers have created their boundaries within the middle of this area and set back from Sara Rd 350 feet so it would look on paper as if there were no other use zones in conflict. I would say they have been sneaky from the beginning in trying to get this through without protest. Well, hundreds of us in the surrounding neighborhoods are protesting and sending in letters.

The Planning Commission may have voted to recommend PUD-1983, however in their staff report from January 11, 2024 they say:

"The proposal triggers potential operational impacts near the elementary school and middle school to the south. Operational impacts are also identified with the proposed use of an outdoor concert venue/amphitheater near schools and neighborhoods, specifically related to noise and traffic." -Page 10.

"However, potential compatibility issues are identified with the proposed use of an outdoor concert venue/amphitheater near schools and neighborhoods, specifically related to noise and traffic." -Page 13.

In the 'Master Design Statement' Section 4.0 they list the surrounding property zones and say the "The proposed use of this property is in harmony with the surrounding zoning." They purposely created their eastern border set back 350' so they wouldn't have a residential zone in contact with the property. Also, it would cause issues with a valid protest petition because they now only have the developers land (PUD-1628) around them. How are the residents, (owners of 50% of the land within 300') supposed to have a legal protest if the development is skewed in their favor? This is very deceptive of them. We ask to have them alter PUD-1983 and push their parking lot out to Sara Road.

I urge you to visit the site and see just how close this will be to the schools and our homes that we have invested our time and money into.

I am the homeowner of property at 1915 Lankestar Way, Yukon, OK 73099. I ask you vote against this PUD in its current form.

Sincerely,

Heather Vitry-Meehan

[Sent from Yahoo Mail on Android](#)

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 4:32 pm, Feb 22, 2024

From: Jennifer Starks <jenniferstarks83@gmail.com>

Sent: Thursday, February 22, 2024 2:25 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Fwd: Protest PUD 1983 Sunset Amphitheater

You don't often get email from jenniferstarks83@gmail.com. [Learn why this is important](#)

I'm writing with grave concerns about the implications this proposed amphitheater will create for the surrounding community and my husband and myself.

My name is Jennifer Dykstra I'm a homeowner at 1804 Norwich Pl, Yukon, OK 73099.

My husband is a United States Army Veteran of Operation Iraqi Freedom (OIF), his company was the first to enter the Afghanistan Airport when the United States took it over, and as a consequence of bravely defending our country and the people of Afghanistan my husband came home with severe war-related PTSD, from which he has been hospitalized multiple times, he has undergone years of intense therapy even participating in studies for the organizations such as [Operation Mend](#) at the Ronald Reagan UCLA Medical Center.

When Veterans Affairs (VA) deemed my husband 100 percent totally and permanently disabled due to his PTSD, we decided it would be best to move from Washington State to Yukon Oklahoma, a place that protects and advocates for veterans. We contacted a real estate agent and discussed what my husband's needs are to keep him safe, and we chose Yukon (Westbury South) as it is within 30 minutes of the VA and less than 10 minutes from a newly built VA clinic, away from the noise and crowds as he still isn't able to maintain in these situations.

Since moving to Westbury South, I have seen my husband finally start to heal even participating in community activities that he has not attempted since being medevacked out of Iraq in 2004. We are finally starting to see the benefits of all his hard work in therapy, In the past couple of years that we have been in Yukon (Westbury South) our quiet oasis in which he is not afraid to be outside, he noticed that Yukon did not have any testing available for HAM radio Volunteer Examiners (VE's), he now tests once a

month at the [Yukon Police Station](#). I cannot tell you how incredible that is. Before moving here, I could not get him to sit out in our backyard with me, let alone grocery shop or take the lead in speaking with members of the community. Westbury has been a source of healing for us both, and I fear the noise, crowds and everything that comes with bringing events into our backyard will have a very negative effect on him possibly setting him back in his healing.

I'm asking our community leaders to say NO to PUD 1983.

I have attached some of the many articles and studies regarding the triggers and effects that loud noise has on veterans with war-related PTSD for your consideration.

Jennifer Dykstra

360.306.9215

Jenniferstarks83@gmail.com

enclosed:

<https://ajp.psychiatryonline.org/doi/full/10.1176/ajp.155.6.812>

<https://www.tandfonline.com/doi/10.1080/23279095.2018.1433179>

<https://veteranshelppgroup.com/what-causes-ptsd-to-be-triggered-in-veterans/#:~:text=A%20loud%20noise%2Fsound%20can,become%20very%20frightened%20or%20scared.>

<https://www.disabledvets.com/claim-types/mental-health/ptsd/triggers/>

<https://www.helpguide.org/articles/ptsd-trauma/ptsd-in-military-veterans.htm>

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 3:28 pm, Jan 22, 2024

From: [Simpson, Amy K](#)
To: [Hurst, Paula J](#); [Smiley, Dena L](#)
Cc: [Ward3](#)
Subject: FW: Westside Amphitheater
Date: Monday, January 22, 2024 2:36:27 PM

From: Kim Shelton <kshelton59@yahoo.com>
Sent: Monday, January 22, 2024 2:35 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Westside Amphitheater

You don't often get email from kshelton59@yahoo.com. [Learn why this is important](#)

Dear Barbara Peck,

I am writing to as a constituent, to let you know of our opposition to the building of an Amphitheater in our neighborhood at Sarah and SW 15th We have lived in Westbury for almost 42 years. We have enjoyed the schools, the neighbors, and local developments.

I have watched with interest as Carol Hefner Coury has spoken many mistruths about the Amphitheater on Social Media:

- 1) She stated that they owned Red Rocks in Denver. Denver might be interested in that statement as it is owned by that city in Colorado.
- 2) She also claimed that the OKDOT would be widening the roads and planned to build a tunnel for traffic from the Kilpatrick Turnpike. OKDOT came in force denying those claims in a FB post.
- 3) She claimed on Social Media that the pre-purchase of fire pit suites would be refundable if things don't work out. On their FB page it clearly says that if things don't work out the \$100,000 down payment is non-refundable.

So you can imagine our distrust already for this company, Notes Live, as she is their public representative.

This building site is near two schools, a church, and several neighborhoods. We are concerned about increased traffic, noise, trash littering, and light pollution from this development.

We are a quiet area. Law abiding citizens. We go to work, pay our taxes, send our children to local schools, attend local churches, and contribute to an overall healthy economy. Please grant us some consideration in your decision making process. I pray you will research how detrimental this could be to property owners and vote a resounding NO.

We would appreciate very much your support in this matter.

Kim Shelton
405 226-8774
10020 Leeds Drive
Yukon, OK 73099

[Sent from Yahoo Mail for iPhone](#)

Attention City Clerk: PROTEST POD-1983
J. Lee Rockway, hereby protest POD-1983 Application by
Mustang Creek Crossing LLC to Re-Zone 810 John Kilpatrick
Tunpike
February 18, 2024

Dearest Mayor David & Ward 3 Council Woman Barbara Peck,

My name is Lee Rockway. My 92-year old Mother and I live in Ward 3,
where the proposed Sunset Amphitheater is to be built.

We live at 10613 SW 20th St, which is one block south of the SW 15th
Street & Sara Road intersection. We live in a large residential neighborhood.
There are many, many families that live in this area! Your proposed location is
right on top of our elementary and middle schools. I don't see how anyone
could think it is a good idea to place an amphitheater right next to children in
school. An amphitheater, with all of its various events, brings in a bad element,
such as sex predators. It is the adult events put on at the amphitheater that cause
this to happen. We, the residents of Ward 3, do not want our families and
children put in danger.

There are so many vast open locations in OKC better suited for an
amphitheater, such as many along Reno Avenue. Ward 3 requests that you halt
this proposal immediately because we must protect our families. We must
protect our kids and our elders.

I know first hand all of the drug-dealing that follow events like the
amphitheater will be hosting. Ward 3 is a safe neighborhood right now, and we

2024 FEB 27 PM 2:40
OKLAHOMA CITY CLERK

value our safety very much. Drugs not only bring guns and crime to a neighborhood – they bring drug-users near our kids! This is exposure we don't want or need. I implore you to please protect Ward 3 from this monstrosity.

There is another argument to be made against the proposed Ward 3 location for Sunset, which is the fact that it will lower the property value for every resident in Ward 3. This could be grounds for a class action lawsuit filed by Ward 3 against The City of Oklahoma. Have you considered this development which would derail the whole project? It is a very good possibility.

Please Reject Ward 3 as your proposed site for the Sunset Amphitheater.

Sincerely,



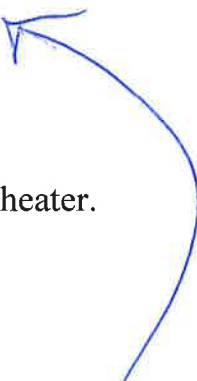
Lee Rockway

Your constituent & Ward 3 Resident

10613 SW 20th St

Yukon (actually OKC), OK 73099

714-206-3612



What I am
trying to say
is this will
change
my home's
habitability.
I'm scared &
so is my Mom!
JR

Hurst, Paula J**Subject:** FW: Protest PUD 1983 Sunset Amphitheater**From:** Austin Webster <austinwebster003@gmail.com>**Sent:** Sunday, February 25, 2024 6:06 PM**To:** City Clerk Email <CityClerk@okc.gov>**Subject:** Protest PUD 1983 Sunset Amphitheater

You don't often get email from austinwebster003@gmail.com. [Learn why this is important](#)

To the City Clerk,

I am writing in protest to PUD 1983 at 810 S John Kilpatrick Turnpike. I feel there will be many problems if this is approved.

My biggest concern is about the noise from the amphitheater. I have looked on google at other similar amphitheaters across the country. They have received multiple noise and vibration complaints from as far as 4 miles away! Just one example is Round Rock, Tx. They have received such complaints, even from people the stage faced away from. The complaints come from all directions in a radius around the amphitheater. [Kvue.com>article>news>local>round-rock-amphitheater](https://www.kvue.com/article/news/local/round-rock-amphitheater). There are many other articles like this.

I am concerned for quiet in my home. I am concerned about quiet if I want to be in my yard. I am concerned about my autistic son & how the noise will affect him. I am concerned for my pets and how the noise will affect them.

ASHA – American Speech Language Hearing Association says that extremely loud noise is dangerous to hearing & can cause medical issues such as: high blood pressure, faster heart rate, upset stomach, problems sleeping, and damage to unborn children.

The noise is the biggest concern but I believe there would be other problems as well. I don't think this kind of venue belongs near any homes and certainly not 1200 feet from 2 schools. Please consider the people living in the area. Please consider the 2 schools so near and how the children will be affected. Please don't make this only about the money.

I am a resident of the property at 10129 Glasgow Terrace, Yukon OK 73099. I live in Westbury North Neighborhood. I am asking you to vote AGAINST this PUD in its current form.

Sincerely,

Austin Webster

Hurst, Paula J

Subject: FW: Protest PUD-1983, Sunset Amphitheater
Attachments: PUD-1983 Exhibit G - Traffic Study.pdf

-----Original Message-----

From: Casey Witvoet <casey.witvoet@yahoo.com>
Sent: Saturday, February 24, 2024 3:35 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Protest PUD-1983, Sunset Amphitheater

[You don't often get email from casey.witvoet@yahoo.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Dear Oklahoma City Clerk,

I am writing to protest the PUD-1983 application by Mustang Creek Crossing to rezone 810 South John Kilpatrick Turnpike. There are many reasons why this should not be approved from the council but here are a few that are very concerning for our family.

Noise pollution is the number one concern from an amphitheater coming into our neighborhood. Living in the city there is noise but the noise coming from this will be so much more of a nuisance since the council has already allowed the Sunset Amphitheatre to raise the noise level 5db's over the city code. This is very concerning to me and my family because of this article which explains how prolonged exposure to loud noise causes hearing loss https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.cdc.gov%2Fnceh%2Fhearing_loss%2Fwhat_noises_cause_hearing_loss.html&data=05%7C02%7Cpaula.hurst%40okc.gov%7Cbe04bf0d06ac40a5b8b208dc36d06a66%7C837e0d97dd9d4d0097e688f05a32ee59%7C0%7C0%7C638445516271720674%7CUnknown%7CTWFpbGZsb3d8eyJWIjojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IjEhaWwiLCJXVCi6Mn0%3D%7C0%7C%7C%7C&sdata=bh1f%2BXLulg2CYXgFZg0F0R%2BhLFe24OnHbPTKBtzAFTM%3D&reserved=0

Sleep is very important for my husband who works on heavy machinery and my child who homeschools in our home. Allowing these concerts to blare music until 10:30 p.m. Sunday-Thursday is not acceptable. It was explained to the council that the noise level would be like a train coming through our backyards. Do you think we will be able to sleep with sound equivalent to a train running though our backyard until 10::30 in the evenings when our family has work and school the next day? Not to mention the sound checks starting at 2 pm in the afternoon because this will affect my child's learning and the children who attend Mustang Creek Elementary School and North Middle School. I would like the council to amend the PUD-1983 that events would only be held on Friday-Saturday evenings, so that people who have children and jobs will not be negatively affected since the Sunset Amphitheatre wants to be a good neighbor to us!

The former U.S. Surgeon General William H. Stewart said, "calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of the people everywhere." Also, in the same article the Centers for Disease Control and Prevention (CDC) states that noise pollution is "an increasing public health problem." At the recent World Health Organization Ministerial Conference, the Environmental Burden of Disease project declared noise the No. 2 threat to public health, after air pollution. As stated in this article https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.gainesville.com%2Fstory%2Fopinion%2Fcolumns%2Fmore-voices%2F2017%2F10%2F22%2Fkaren-orr-amphitheater-would-cause-neighborhood-noise-pollution%2F18182822007%2F%3Ffbclid%3DIwAR1Exe_rIGeCWUfydf9y6fXvrieVcsM-RTRUrwqgWeJnm1bLVvOnC5atolY&data=05%7C02%7Cpaula.hurst%40okc.gov%7Cbe04bf0d06ac40a5b8b208dc36d06a66%7C837e0d97dd9d4d0097e688f05a32ee59%7C0%7C0%7C638445516271728167%7CUnknown%7CTWFpbGZsb3d8eyJWIjojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6IjEhaWwiLCJXVCi6Mn0%3D%7C0%7C%7C%7C&sdata=bh1f%2BXLulg2CYXgFZg0F0R%2BhLFe24OnHbPTKBtzAFTM%3D&reserved=0

WljoiMC4wLjAwMDAiLCJlJoiV2luMzliLCJBTiI6I1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=RCwNpjVNAAVcRtoWMZqbcdfY1UyWNRVUamil164zy1U%3D&reserved=0

Another concern is how the vibrations will affect the structure of our homes and if we will feel vibrations inside of our home since we are only hundreds of feet from the amphitheater. According to Round Rock Community Impact Reports "one resident said his family could not hear the music coming from the show, but they could feel it. He said the vibrations, which traveled approximately four miles to his subdivision, prevented his child from sleeping." in this article <https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.kvue.com%2Farticle%2Fnews%2Flocal%2Fround-rock-amp-noise-complaints%2F269-9f91ea1f-31c5-486b-a4be-cf7c6e189b6c%3Ffbclid%3DIwAR1DBU-lhEWib-csNbNXWVdRNjhXhO-xXgT2zl11jI7ynY0ms1-DHFcGf1I&data=05%7C02%7Cpaula.hurst%40okc.gov%7Cbe04bf0d06ac40a5b8b208dc36d06a66%7C837e0d97dd9d4d0097e688f05a32ee59%7C0%7C0%7C638445516271734123%7CUnknown%7CTWFpbGZsb3d8eyJWljoiMC4wLjAwMDAiLCJlJoiV2luMzliLCJBTiI6I1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=cKqQrWy0P6WprbJYUS%2FamqWUEoGQTmmK9lQgwydgkg8%3D&reserved=0>

Not only is the noise pollution a concern but the vibrations are going to be unbearable in our homes along Sara Road. I would like for the council to have more studies done on noise mitigation, vibrations on our home infrastructure and health risks from feeling vibrations inside of our homes for extended periods of time. These issues that our neighborhood will be facing need to be addressed and how you are going to make sure that the residents and animals that live close by will not have long lasting health problems from dealing with these issues. These things should not be overlooked by the mayor or the council members because this could have long lasting effects on the health and well-being of residents especially the elderly, veterans and children.

Another issue is the light pollution that will be coming into our homes at night with cars leaving the amphitheater due to thousands of cars leaving from the two exits on Sara Road according to the PUD-1983 Exhibit G Traffic Study. Sara Road is a two-lane road which is not going to be widened. I propose that the PUD-1983 would be put on hold until this portion of Sara Road is widened to at least 5 lanes to allow a turning lane for the cars wanting to enter this Amphitheatre.

The last issue I want to bring to your attention is there are only 3,500 parking spaces for 12,500 according to the PUD-1983 which is not adequate parking. If the people coming to attend a concert at this Amphitheatre cannot find a parking spot they will be tempted to park in our neighborhood. Our streets are already congested from residents needing to park in the street and we cannot hold the overflow from these events on our residential streets, it would make it impossible for us to be able to safely leave North Westbury during events.

We are a family that lives off of one income and we cannot afford to relocate if this is passed. Our lives will be forever changed for the WORSE, so I plead with you to vote NO on PUD-1983 and put the residents of North Westbury and all surrounding residents within a four-mile radius FIRST because no one would be happy with this being in their backyard.

Sincerely,

Albert and Casey Witvoet
Homeowners of 1209 Edinburg Dr, Yukon, OK 73099

Traffic Impact Study

Sunset Amphitheater at Mustang Creek

December 2023

FOR SUBMITTAL TO:

City of Oklahoma City, Oklahoma

PREPARED FOR:

Notes Live

PREPARED BY:

4727 Gaillardia Parkway, Suite 250
Oklahoma City, OK 73142
405-241-5423

Kimley»Horn





Traffic Impact Study

Sunset Amphitheater at Mustang Creek

FOR SUBMITTAL TO:

CITY OF OKLAHOMA CITY, OKLAHOMA

PREPARED FOR:

NOTES LIVE

PREPARED BY:



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Appendix

Appendix A: Site Plan
Appendix B: Traffic Count Data
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1.0 Executive Summary

1.1 PROJECT SUMMARY

This traffic study evaluated the anticipated traffic impacts associated with the *Sunset Amphitheater at Mustang Creek* development, which is expected to be completed in 2025 (referred to herein as build-out year). As currently envisioned, the development will consist of an approximate 12,500-seat amphitheater. The approximate 51-acre site is located east of the John Kilpatrick Turnpike and west of S Sara Road at SW 15th Street in the City of Oklahoma City, Oklahoma.

The following scenarios were considered in this analysis:

- Existing 2023 Conditions
- Projected 2025 No-Build Conditions
- Projected 2025 Build Conditions

The study network for this analysis includes the following intersections:

1. Reno Avenue at S Sara Road
2. Reno Avenue at S Morgan Road
3. Interstate 40 at S Morgan Road
4. SW 15th Street at S Morgan Road
5. SW 15th Street at S Sara Road
6. Southernmost Amphitheater Driveway to S Sara Road (Driveway B)
7. Middle Amphitheater Driveway to S Sara Road (Driveway C)
8. Northernmost Amphitheater Driveway to S Sara Road (Driveway D)
9. South Driveway to SW 15th Street (Driveway A)
10. SW 15th Street at John Kilpatrick Turnpike
11. S Mustang Road at SW 11th Street



Figure 1: Traffic Count Locations

Figure 1 shows the locations that traffic counts were taken.

The proposed development will be served by five driveways – three (3) three-legged, unsignalized driveways along S Sara Road (Driveway B-D), one (1) three-legged, unsignalized driveway along SW 15th Street (Driveway A), and one private connecting to Courty Boulevard to the interior (Driveway E).

1.2 EVALUATION

Traffic conditions for the amphitheater site were analyzed to better understand how traffic generated by an event will impact the surrounding roadway network. Modeling the roadway capacity, identifying strategies on vehicle entry and exit to and from the site, and forecasting travel patterns of parking and rideshare vehicles were key factors to forecast the traffic impact of this amphitheater development for the build out year.

1.3 RECOMMENDATIONS

Per the findings of this study, recommendations for on-site and off-site traffic operations for events include:

Event Management Recommendations:

- Parking Information Guide and Access Signage
- On-Site Traffic Control
- Event Day Police Control at Driveways
- Event Day Police-Controlled Intersections
- Multi-Directional Lanes

Infrastructure Improvement Recommendations:

- Revised Signal Timing Plans
- Upgraded Lane Configurations – John Kilpatrick Turnpike (Northbound On-Ramp)

2.0 INTRODUCTION

This Traffic Impact Study evaluated the anticipated traffic associated with the *Sunset Amphitheater at Mustang Creek* development, which is expected to be completed in 2025 (referred to herein as build-out year). As currently envisioned, the development will consist of an approximate 12,500-seat amphitheater. The approximate 51-acre site is located east of the John Kilpatrick Turnpike and west of S Sara Road at SW 15th Street in the City of Oklahoma City, Oklahoma.

The following scenarios were considered in this analysis:

- Existing 2023 – No-Build Conditions
- Forecasted 2025 - No-Build Conditions
- Forecasted 2025 - Build Conditions

The study network for this analysis includes the following intersections:

1. Reno Avenue at S Sara Road
2. Reno Avenue at S Morgan Road
3. Interstate 40 at S Morgan Road
4. SW 15th Street at S Morgan Road
5. SW 15th Street at S Sara Road
6. Southernmost Amphitheater Driveway to S Sara Road (Driveway B)
7. Middle Amphitheater Driveway to S Sara Road (Driveway C)
8. Northernmost Amphitheater Driveway to S Sara Road (Driveway D)
9. South Driveway to SW 15th Street (Driveway A)
10. SW 15th Street at John Kilpatrick Turnpike
11. S Mustang Road at SW 11th Street

The proposed development will be served by access points – three (3) three-legged, unsignalized driveways along S Sara Road (Driveway B-D), one (1) three-legged, unsignalized driveway along SW 15th Street (Driveway C), and one private connection to Courty Boulevard to the west (Driveway E). **Figure 2** provides a location map of the project site. **Figure 3** provide an aerial image of the project site. A site plan is also included in **Appendix A**.

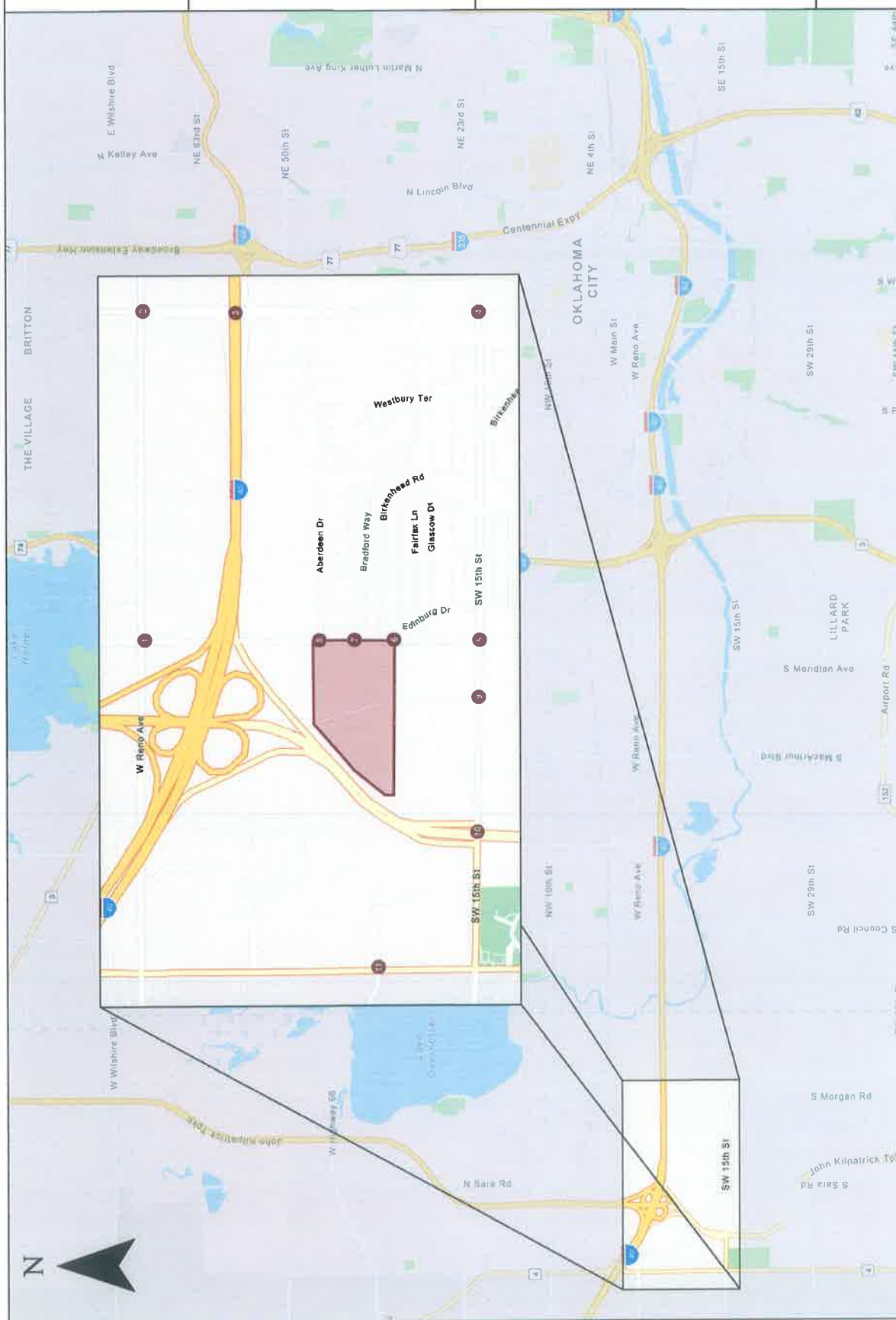


Figure 3

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Sunset Amphitheater at Mustang Creek
Traffic Impact Study

Site Aerial



3.0 EXISTING CONDITIONS

3.1 VEHICULAR NETWORKS

Characteristics for the roadways within the study are summarized in **Table 1** below.

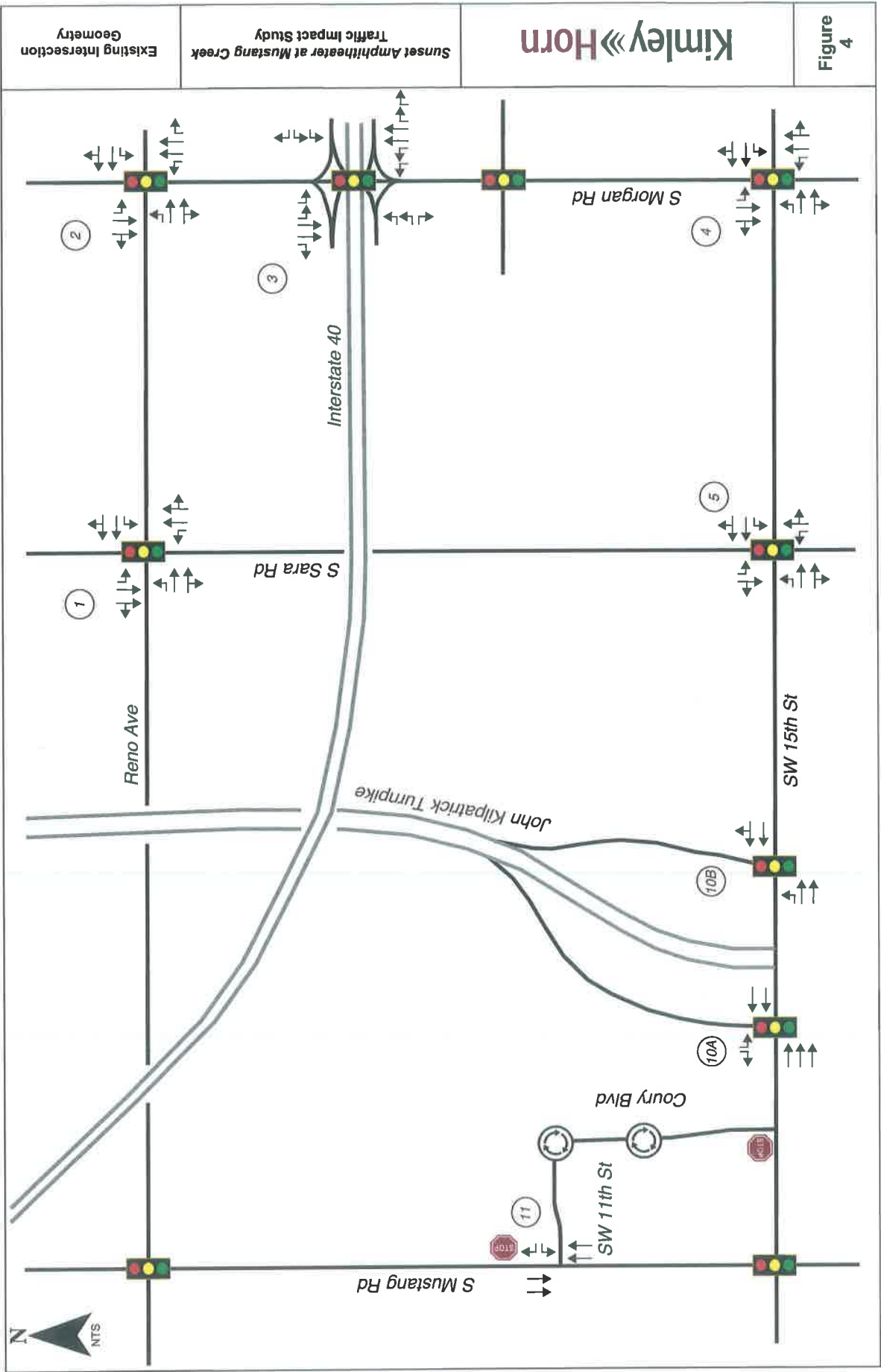
Roadway	Number of Lanes	Posted Speed Limit (MPH)	Road Classification	AADT
SW 15th Street	4	45	Local Road	9,000
S Sara Avenue	2	40	Urban Collector	5,600
S Mustang Road	4	45	Highway Principal Arterial	19,400
S Morgan Road	4 + TWLTL	40	Urban Minor Arterial	13,500
Reno Avenue	4	45	Principal Arterial	9,400

The existing intersection geometry is illustrated in **Figure 4**. SW 15th Street is currently under design and is anticipated to be widened. Construction is anticipated the summer of 2024.

3.2 VEHICULAR VOLUMES

Vehicle peak hour turning movement counts (TMCs) were collected by CJ Hensch & Associates on Thursday, November 2, 2023, for eight (8) of the study intersections listed below. These intersections were observed on evening weekdays to determine the volume counts for the ingress and egress times for the amphitheater. The amphitheater is anticipated to have the peak ingress from 5:30-6:30 PM and peak egress from 9:30-10:30 PM, these times were used to compare against existing traffic to better understand the impact of event traffic on the surrounding intersections. The evaluated ingress/egress times and peak hours for the study intersections are shown in **Table 2**. The existing 2023 traffic volumes are shown in **Figure 5**. The complete traffic count data is provided in **Appendix B**.

Intersection	Count Type	PM Peak	Ingress Hours	Egress Hours
1. Reno Avenue at Sara Road	Miovision TMC	4:45 - 5:45 PM	5:30 - 6:30 PM	9:30 - 10:30 PM
2. Reno Avenue at Morgan Road	Miovision TMC	3:30 - 4:30 PM	5:30 - 6:30 PM	9:30 - 10:30 PM
3. Morgan Street at I-40	Miovision TMC	4:45 - 5:45 PM	5:30 - 6:30 PM	9:30 - 10:30 PM
4. 15th Street at Morgan Street	Miovision TMC	5:00 - 6:00 PM	5:30 - 6:30 PM	9:30 - 10:30 PM
5. 15th Street at Sara Road	Miovision TMC	4:45 - 5:45 PM	5:30 - 6:30 PM	9:30 - 10:30 PM
6. Driveway B	Projected Traffic Volumes	-	5:30 - 6:30 PM	9:30 - 10:30 PM
7. Driveway C	Projected Traffic Volumes	-	5:30 - 6:30 PM	9:30 - 10:30 PM
8. Driveway D	Projected Traffic Volumes	-	5:30 - 6:30 PM	9:30 - 10:30 PM
9. Driveway A	Projected Traffic Volumes	-	5:30 - 6:30 PM	9:30 - 10:30 PM
10A. 15th Street at JKT SBFR	Miovision TMC	4:45 - 5:45 PM	5:30 - 6:30 PM	9:30 - 10:30 PM
10B. 15th Street at JKT NBFR	Miovision TMC	4:45 - 5:45 PM	5:30 - 6:30 PM	9:30 - 10:30 PM
11. Mustang Road at SW 11th Street	Miovision TMC	4:45 - 5:45 PM	5:30 - 6:30 PM	9:30 - 10:30 PM



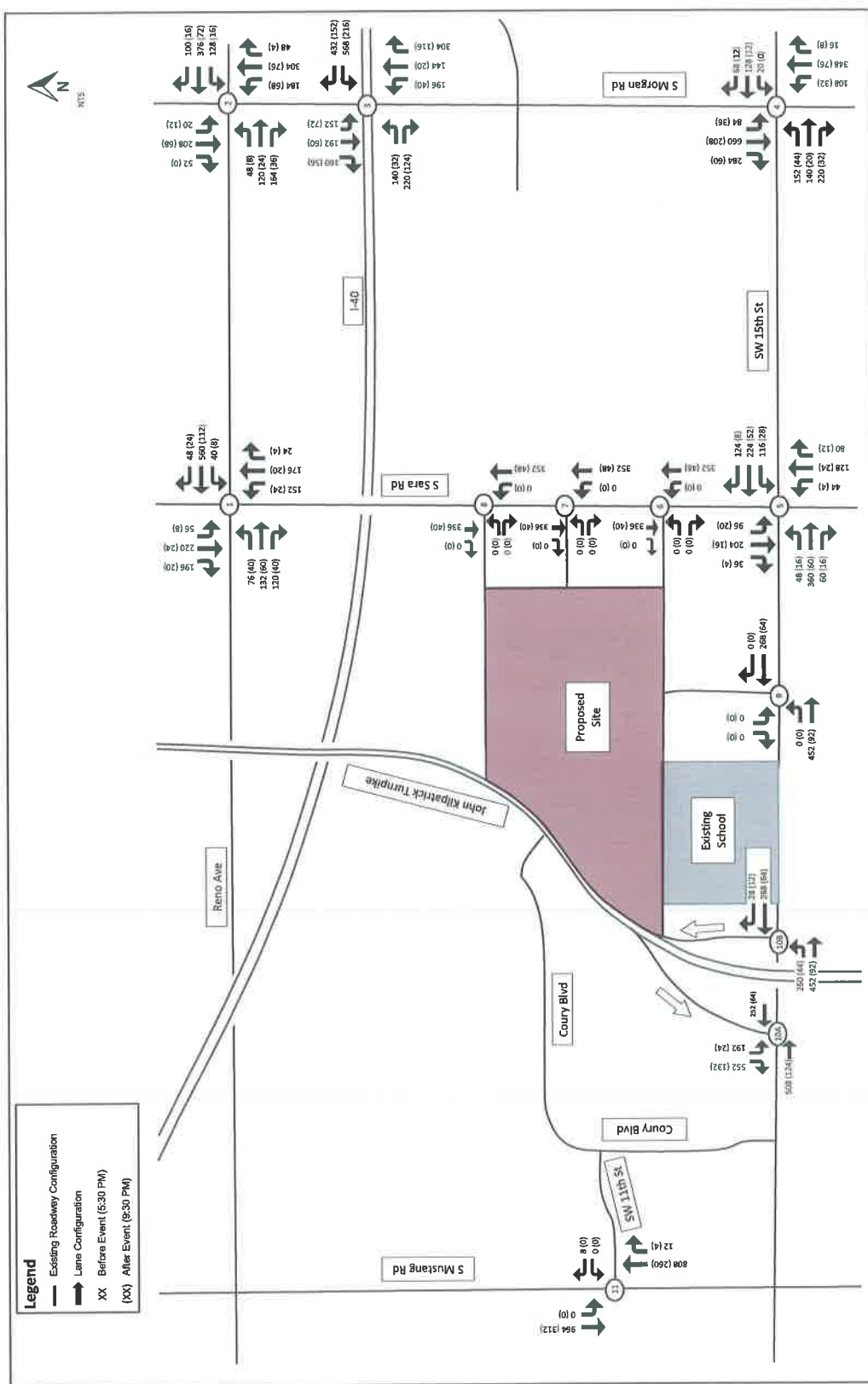


Figure 5

2023 Existing Traffic Volumes
Collected 11/9/2023

4.0 NO-BUILD CONDITIONS

Background traffic is defined as expected traffic on the roadway in future year(s) absent the construction, opening, and operation of the proposed project. Background traffic can include a base growth rate based on historical count data, as well as population growth data and estimates.

Upgraded roadways in the surrounding area will also factor to the roadway capacity. A segment near the site on SW 15th Street is will be widened to four lanes, with construction anticipated starting Summer 2024. This roadway improvement could provide increased traffic capacity between S Sara Road and S Mustang Road. The average annual daily traffic (AADT) for the surrounding roadway network is seen in **Table 3**. Even in no-build conditions, annual traffic has been historically growing at approximately 2.0%. To account for this background traffic, the Existing 2023 traffic volumes and existing 2023 AADT were increased by 2.0% per year for two years to account for the expected background growth through the year 2025.

Table 3: Average Annual Daily Traffic		
Roadway	Road Classification	Existing AADT
SW 15th Street	Local Road	9,000
S Sara Avenue	Urban Collector	5,600
S Mustang Road	Highway Principal Arterial	19,400
S Morgan Road	Urban Minor Arterial	13,500
Reno Avenue	Principal Arterial	9,400

Figure 5 illustrate the Projected 2025 No-Build traffic volumes which includes the existing roadway network, with the 2023 base year traffic grown to the future 2025 year.

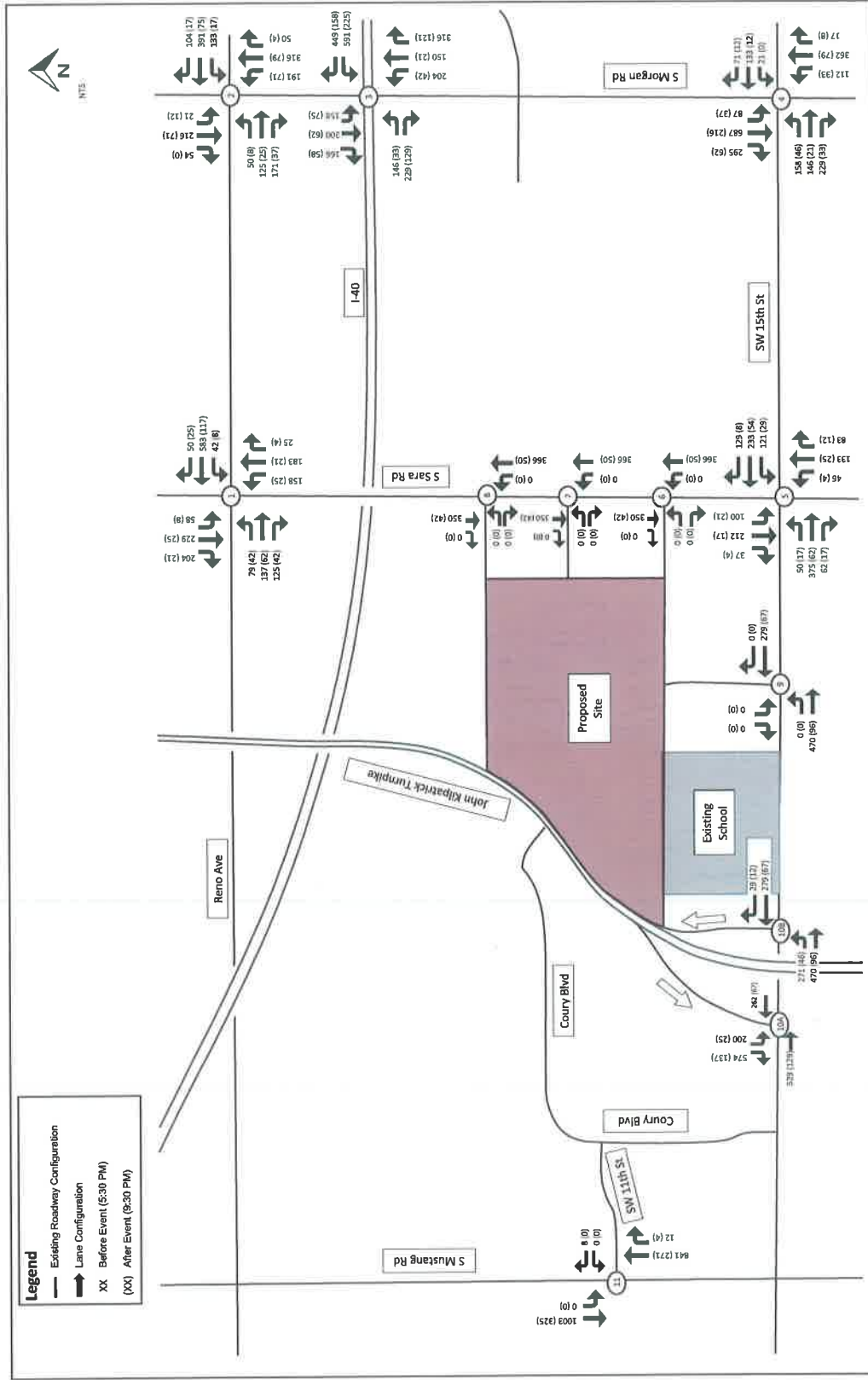


Figure 6

2025 No-Build Traffic Volumes

Sunset Amphitheater at Mustang Creek Traffic Impact Study

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DECLARATION OF CONFLICT OF INTEREST: The authors declare no potential conflict of interest.

5.0 BUILD CONDITIONS

5.1 SITE ACCESS AND CIRCULATION

Access to the proposed site will be provided through five access points. A brief description of the site access is as follows:

- Site Driveway A (to the south)
 - Proposed full access three-legged, unsignalized driveway along SW 15th Street, directly south of the amphitheater site. This driveway provides access to the interior of the site.
- Site Driveway B, C, and D (to the east)
 - Three (3) proposed full access three-legged, unsignalized driveways along S Sara Road, along the east boundary of the site. These three (3) driveways create the southern, middle, and northern most internal circulatory roadways entering on the east side of the site.
- Site Driveway E (to the west)
 - Proposed private driveway connecting Coury Boulevard to the interior circulating roadways via an existing underpass below John Kilpatrick Turnpike. Coury Boulevard then connects to SW 15th Street and N Mustang Road west of the existing John Kilpatrick Turnpike. This connection is located on the northwest corner of the site, directly north of the proposed amphitheater, and is anticipated to be used mainly for the VIP parking and egress.

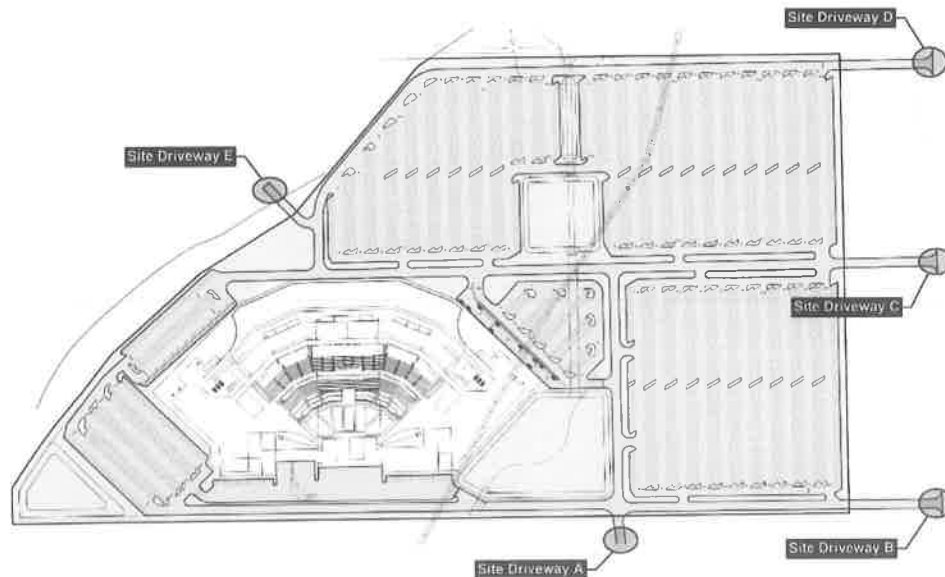


Figure 7: Site Driveway Location

Refer to the site plan in **Appendix A** for a visual representation of vehicular access and circulation throughout the proposed development. **Figure 8** depicts the proposed site access driveways and anticipated roadway geometry.

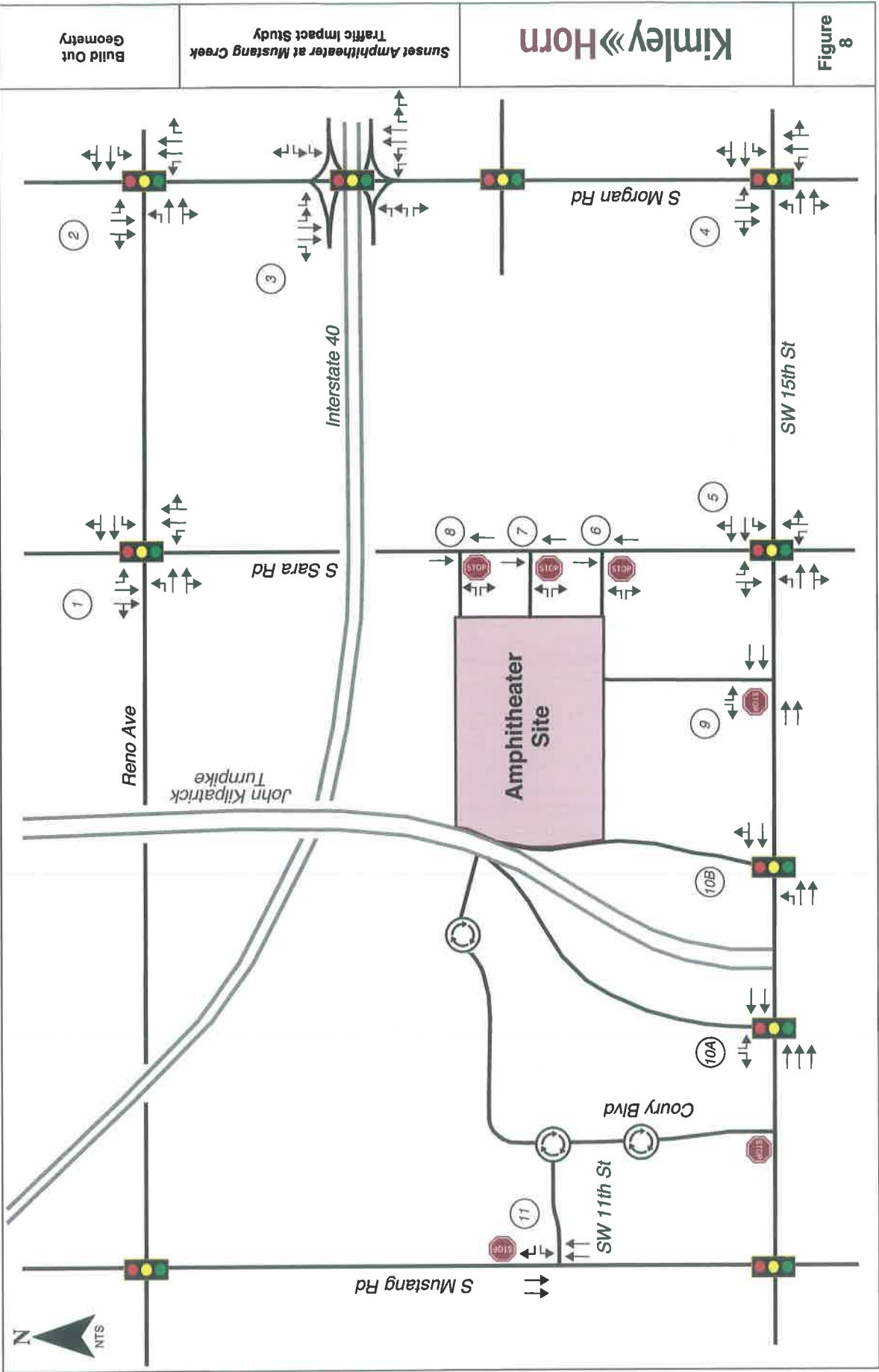


Figure 8

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Sunset Amphitheater at Mustang Creek
Traffic Impact Study

Build Out
Geometry

5.2 TRIP GENERATION

Traffic for the proposed development was calculated using site specific data and projections using engineering judgement. The following items were considered in the methodology for the trip generation calculations:

- Vehicle traffic divided into:
 - Parked vehicles (event attendees parking on site for the entire duration of the event – parked vehicles enter during the ingress period and exit during the egress period only)
 - Rideshare vehicle (vehicles drop off attendees and circulate to exit the site – rideshare vehicles will enter and exit during the same timeframe for both ingress and egress).
- Trip generation was projected for the following event scenarios:
 - Small Event
 - Medium Event
 - Max Event (Full capacity for the amphitheater)

Table 4 summarizes the event ingress/egress distribution. **Table 5** summarizes the projected trip generation for each event scenario.

Time	Event Status	Parked		Rideshare	
		Ingress	Egress	Ingress	Egress
5:00 PM	-	25%	-	25%	25%
6:00 PM	Doors Open	60%	-	60%	60%
7:00 PM	Event Start	15%	-	15%	15%
8:00 PM	Event	-	-	-	-
9:00 PM	Event	-	15%	15%	15%
10:00 PM	Event End	-	75%	75%	75%
11:00 PM	-	-	10%	10%	10%

Time	Small Event		Medium Event		Max Event	
	Enter	Exit	Enter	Exit	Enter	Exit
5:00 PM	400	120	800	240	1250	375
6:00 PM	960	288	1920	576	3000	900
7:00 PM	243	72	486	144	759	225
8:00 PM	0	0	0	0	0	0
9:00 PM	72	240	144	480	225	750
10:00 PM	360	1200	720	2400	1125	3750
11:00 PM	48	160	96	320	150	500

The values in the table above represent anticipated trips per hour for each scenario. The max event scenario for the amphitheater site was analyzed in this study within the study area. The max event scenario is anticipated to be the least frequent event scenario to occur and is considered the worst-case traffic scenario associated with this development.

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The [City of Oklahoma City Code of Ordinance](#) provides minimum parking ratios for different business and land uses. After considering the description of the three (3) types of spectator sports and entertainment land venues, the amphitheater aligns with the description provided in the Code or Ordinance with "Spectator Sports and Entertainment: High Impact". However, since this land use type requires director approval for parking, a comparable category would be "Participant Recreation and Entertainment Indoor (Theaters)". The parking required by the Zoning Ordinance is provided in **Table 6** below.

Table 6: Oklahoma City Parking Requirements			
Land Use	Density	Parking Ratio	Required Parking
Indoor Amusement (Amphitheater)	12,500 seats	1 space / 4 seats	3,125 spaces
Total Required Parking			3,125 spaces

The visitor base parking ratio were assuming 2.5 visitors per vehicle. The adjustment is based on rideshare data provided by AEG Presents showing approximately 35-45 percent of venue customers with similar demographics tend to use rideshare transportation to/from performance venues. Due to Oklahoma City's single occupancy vehicle personal driving preferences being higher than the national average, a more conservative rideshare rate of 30% was assumed. This adjusted model was applied to three scenarios: max event (sold out), medium event, and small event. The proposed parking supply on-site is approximately 3,600 parking spaces. **Table 7** below shows the site parking demand projections for the maximum, medium, and small events at the amphitheater.

Table 7: Site Parking Demand Projections							
Scenario	Facility	Density	User	Base Ratio	Rideshare/ Dropoff/	Internal Capture	Parking Demand
Max Event	Amphitheater	12,500 seats	Visitor	0.4	30%	0%	3500
	Total Spaces						3,500
Medium Event	Amphitheater	8,000 seats	Visitor	0.4	30%	0%	2240
	Total Spaces						2,240
Small Event	Amphitheater	4,000 seats	Visitor	0.4	30%	0%	1120
	Total Spaces						1120

The projected parking demand for a max event (sold out) is forecasted to be accommodated within the 3,600 spaces on-site. Off-site employee parking (through shared parking agreements) and walk or shuttle to site is a consideration.

Table 8 below shows the service rate and curb capacity projections for a maximum, medium, and small event which determines the number of stalls and amount of linear feet needed for the rideshare zone(s). In general, rideshare drivers tend to dwell longer during pickup than drop-off because the rider(s) may not be ready to travel yet. The Uber and Lyft apps urge customers to come out to meet their driver immediately, and wait charges begin after 2-3 minutes of wait time. However, because of this inevitable wait time, we project an estimated 50 stalls needed to provide service to rideshare riders post-show during high event attendance conditions. The proposed rideshare zone for the site is located northeast of the proposed amphitheater. Rideshare drivers are proposed be directed to enter the site from the west via Coury Boulevard via SW 15th Street/S Mustang Road to circulate around the amphitheater and exit to the south. A site plan is provided in the attachments that includes mark-ups for access, parking, and rideshare indicating the location and recommendation for the rideshare zone(s).

Table 8: Rideshare Service and Curb Capacity Projections						
PRE-SHOW						
Event Scenario	Visitors	Visitors/ Rideshare Vehicle	Rideshare Trips¹	Service Rate/Stall/Hour²	Required Stalls	Linear Feet³
Max	12,500	2.5	1500	60	25	550
Medium	8,000	2.5	960	60	16	352
Small	4,000	2.5	480	60	6	132
POST-SHOW						
Event Scenario	Visitors	Visitors/ Rideshare Vehicle	Rideshare Trips	Service Rate/Stall/Hour⁴	Required Stalls	Linear Feet
Max	12,500	2.5	1500	30	50	1100
Medium	8,000	2.5	960	30	32	704
Small	4,000	2.5	480	30	16	352

¹ Estimated trips based on assumption of 30 percent rideshare as shown in Table 5

² Assumed each stall can accommodate 1 drop-off per 1 minute

³ Each stall measures 22 feet in length

⁴ Assumed each stall can accommodate 1 pickup per 2 minutes

⁵ Assumed show ending time of 10:00pm; some customers will leave up to 30 minutes early

5.3 TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution and assignment of new project trips was based on a review of land uses, population densities in the area, existing turning movement counts, and access to widely used routes, such as interstate and turnpikes. **Figures 9** provides the directional distribution and assignment of new project trips. **Figure 10** illustrates the assignment of projected trips from an event to the study network. The Projected 2025 Build peak hour volumes are shown in **Figure 11**, estimating the number of vehicles generated by the site.

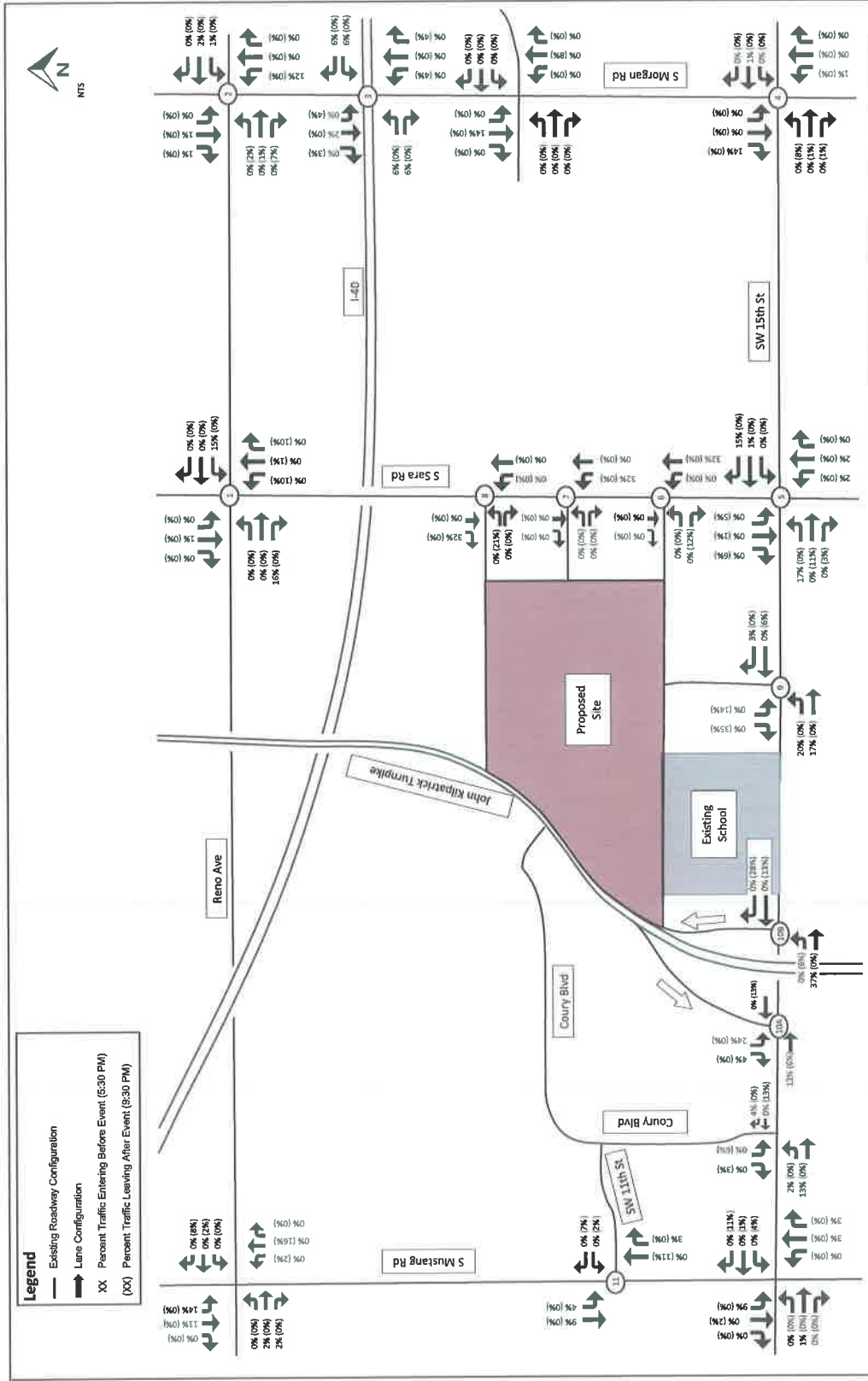
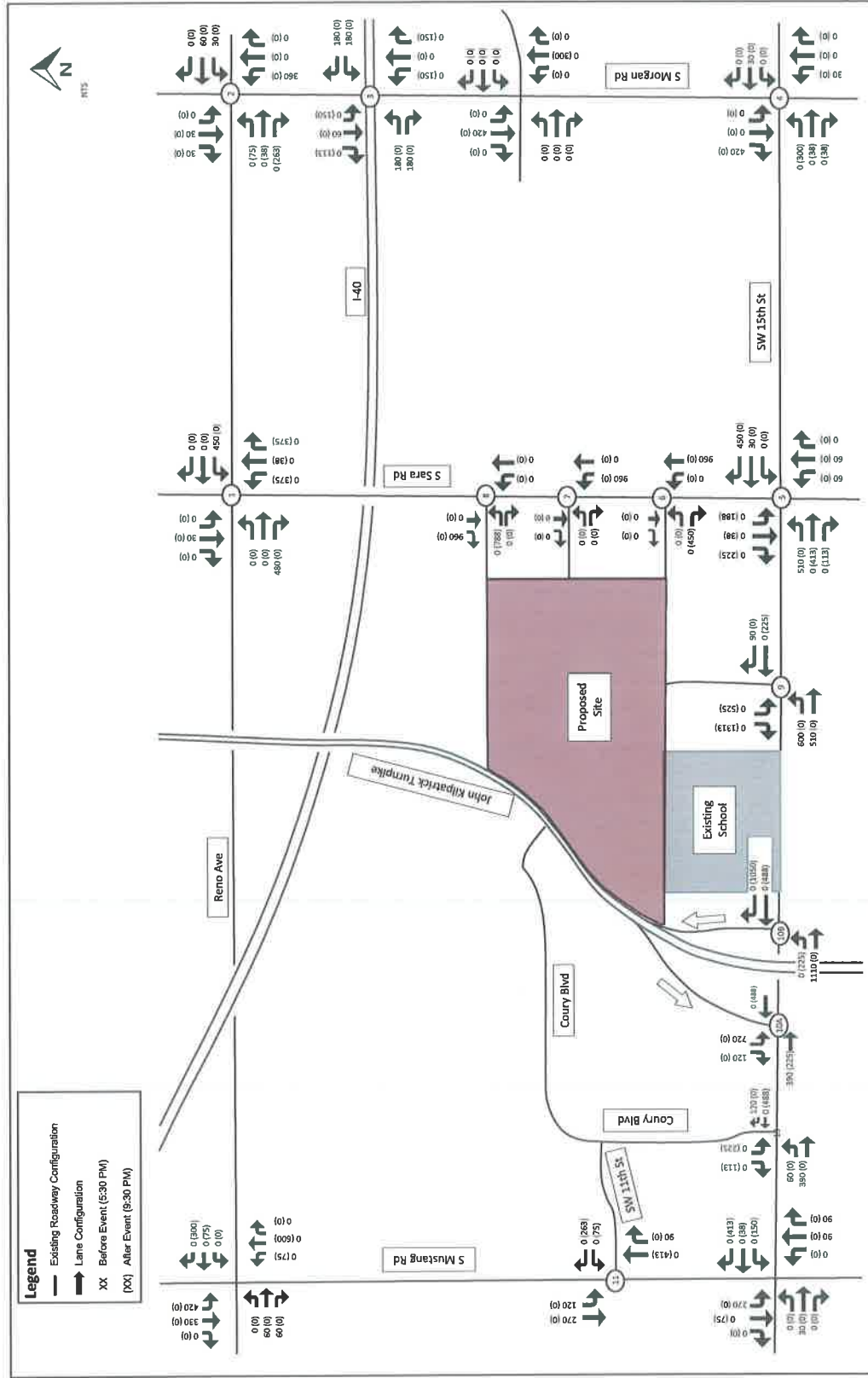


Figure 9

Traffic Distribution Entering and Exiting an Event

Sunset Amphitheater at Mustang Creek Traffic Impact Study

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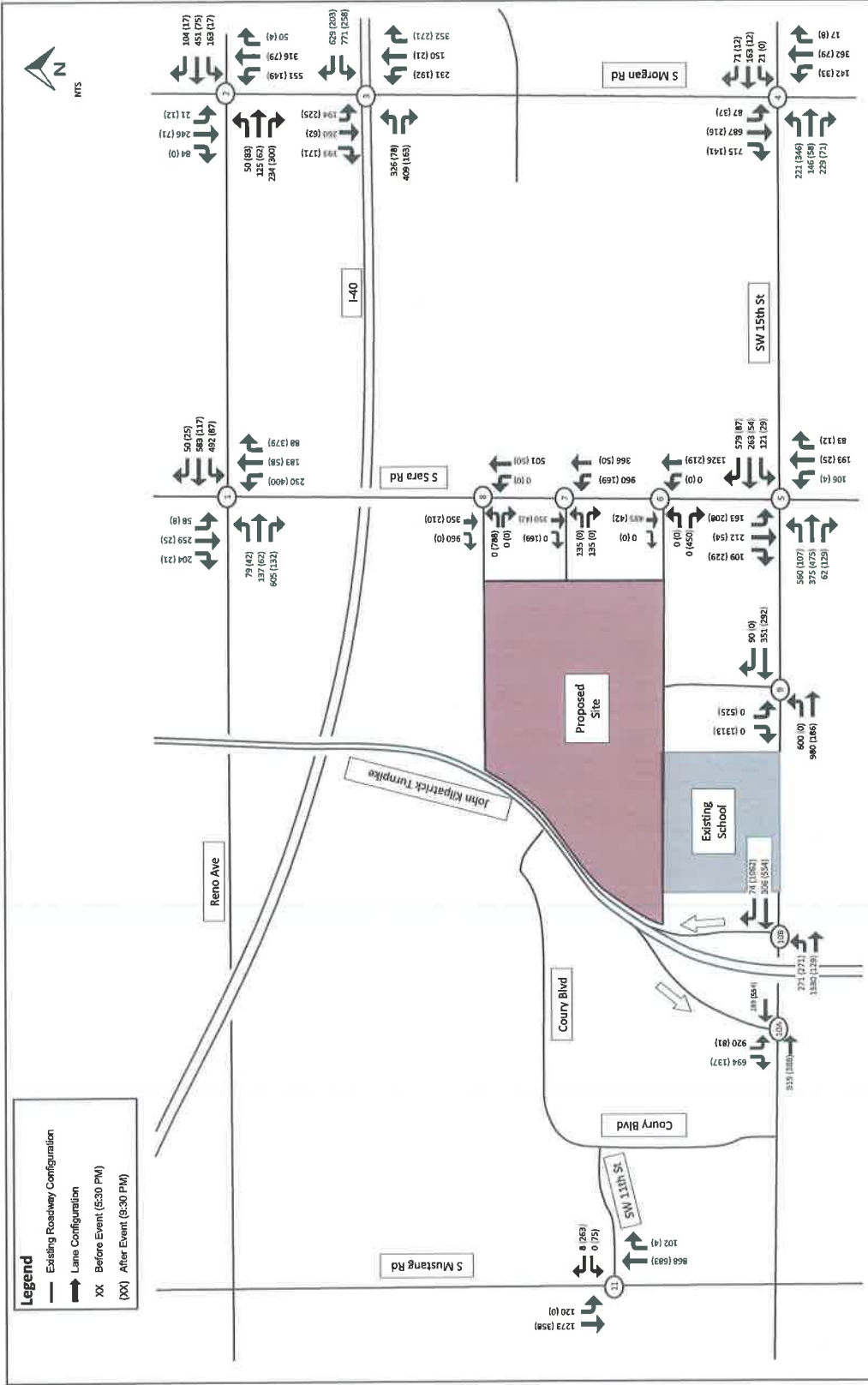


Figure 11

2025 Forecasted Background + Site Traffic Volumes

Sunset Amphitheater at Mustang Creek Traffic Impact Study

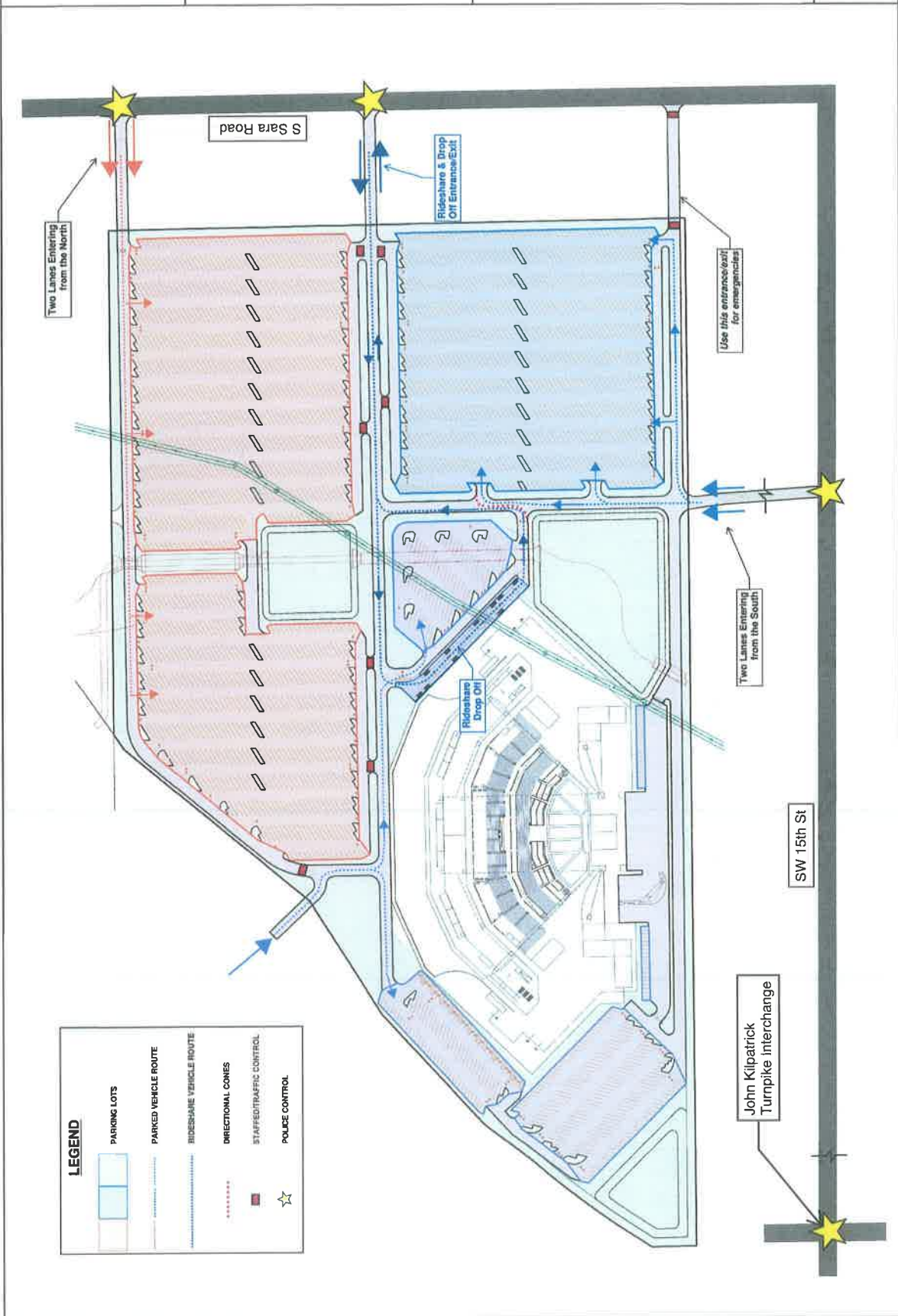


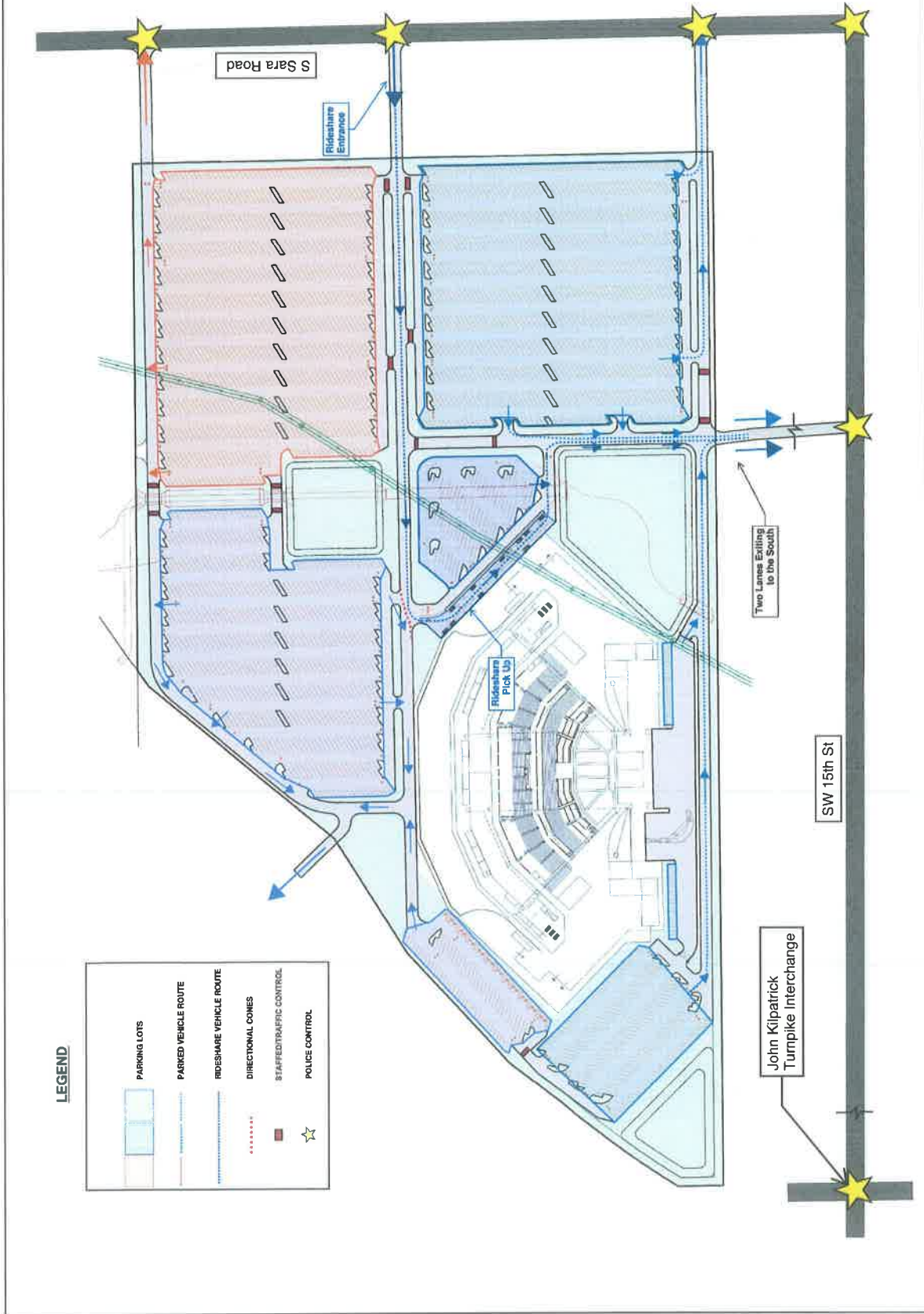
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5.4 PARKING ACCESS PLAN

An important component of the proposed development is controlling how vehicles enter and exit the amphitheater site during events to maximize traffic flow. A Traffic Management Plan reflects which parking lots are accessed by certain driveways as well as which exits certain parking lots will utilize after the event is finished. Traffic events vary, the figures below reflect an event utilizing the maximum number of anticipated vehicles. The figures below also depict appropriate locations where police control of driveways entering streets would be located during the peak ingress and egress times around events. Police control of driveways allows drivers to be directed in the appropriate direction so that congestion is reduced for all drivers attempting to enter and exit the site. **Figure 12** depicts the on-site parking control for the ingress of both parking and rideshare vehicles. **Figure 13** depicts the on-site control for both parked and rideshare vehicles to exit the site, to reduce the amount of congestion that is generated.

Figure 12





6.0 CAPACITY ANALYSES

Level-of-service (LOS) determinations were made for the two PM hours previously described for the study network intersections using *Synchro™, Version 11*, utilizing the methodologies contained in the *Highway Capacity Manual, 6th Edition* to determine the operating characteristic of an intersections. Capacity is defined as the maximum number of vehicles that can pass over a particular road segment or through a particular intersection within a specified period under prevailing roadway, traffic, and control conditions.

LOS is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions of a traffic stream. The *Highway Capacity Manual* defines six level of service, LOS A through LOS F, with A being the best and F the worst. A description of each of each operational state for both signalized and unsignalized intersections is presented in **Table 9**.

Levels-of-service for signalized and all-way stop controlled (AWSC) intersections are reported for the intersection as a whole. One or more movement sat an intersection may experience a low level-of-service, while the intersection as a whole may operate acceptably.

LOS	Average Control Delay (sec/veh)		Description
	Signalized	Unsignalized	
A	≤ 10	≤ 10	No delays at intersections with continuous flow traffic. Uncongested operations; high frequency of long gaps available for all left and right turning traffic; no observational queues.
B	> 10 and ≥ 20	> 10 and ≥ 15	
C	> 20 and ≥ 35	> 15 and ≥ 25	Moderate delays at intersections with satisfactory to good traffic flow. Light congestion; infrequent backups on critical approaches.
D	> 35 and ≥ 55	> 25 and ≥ 35	Increased probability of delays along every approach. Significant congestion on critical approaches, but intersection functional. No long-standing lines formed.
E	> 55 and ≥ 80	> 35 and ≥ 50	Heavy traffic flow condition. Heavy delays probable. No available gaps for cross-street traffic or main street turning traffic. Limit of stable flow.
F	>80	>50	Unstable traffic flow. Heavy congestion. Traffic moves in forced flow condition. Average delays greater than one minute highly probable. Total breakdown.

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Capacity analyses were performed for the two main ingress and egress hours for three scenarios (Existing 2023, Projected 2025 No-Build, and Projected 2025 Build traffic conditions). The results of the capacity analyses are summarized in **Table 10**. The *Synchro* analyses reports are included in **Appendix C**.

Table 10: Level of Service Summary LOS (Delay in Seconds)							
Intersection	Approach/ Movement	Existing 2023		Projected 2025 No-Build		Projected 2025 Build	
		PM Ingress Peak	PM Egress Peak	PM Ingress Peak	PM Egress Peak	PM Ingress Peak	PM Egress Peak
1. Reno Avenue at S Sara Road	Overall	C (28)	B (11)	C (29)	B (12)	E (69)	B (17)
2. Reno Avenue at S Morgan Road	Overall	C (26)	B (14)	C (27)	B (14)	D (49)	C (22)
3. I-40 at S Morgan Road	Overall	B (17)	B (11)	B (18)	B (11)	B (18)	B (16)
4. SW 15th Street at S Morgan Road	Overall	C (34)	C (23)	C (35)	C (23)	E (65)	D (38)
5. SW 15th Street at S Sara Road	Overall	C (25)	B (16)	C (25)	B (16)	E (69)	C (22)
10A. SW 15th Street at JKT SB Off Ramp	Overall	A (10)	A (5)	A (10)	A (5)	D (36)	A (7)
10B. SW 15th Street at JKT NB On Ramp	Overall	A (3)	A (1)	A (3)	A (1)	A (2)	B (13)
11. S Mustang Road at SW 11th Street	Overall	A (2)	A (1)	A (3)	A (1)	B (13)	C (19)

7.0 CONCLUSION

On-site traffic control and parking management can improve the efficiency and outcome of vehicles entering and exiting parking lots for events. At this amphitheater, event management techniques such as clear signage for lot parking, on-site staff to direct traffic, and police control at driveways exiting to public streets will improve the traffic flow during events. Event traffic can cause congestion on local road leading up and following events. Improvements such as updated signal timing plans, improved signage, event day police-controlled intersections for larger events, and upgraded lane configurations can help mitigate congestion. A site map of potential improvements is shown in **Figure 14**.

Potential improvements include the following:

7.1 EVENT MANAGEMENT RECOMMENDATIONS

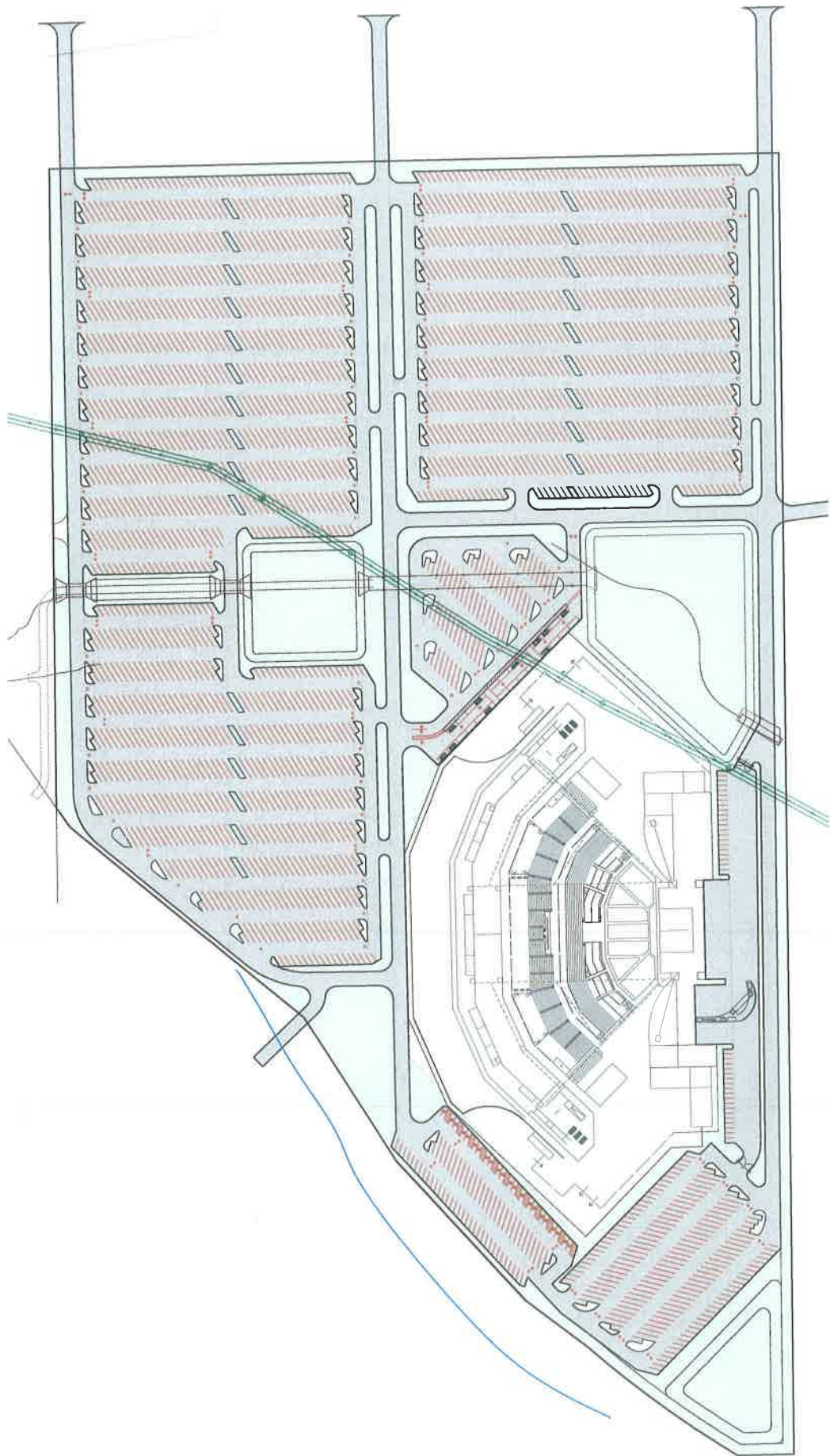
- Parking Information Guide and Access Signage
 - Place clear signage and marking directing parking vehicles.
 - Have signage directing how rideshare drivers enter, drop off, and exit the site.
 - Information guides that can be distributed with ticket sales to better direct patrons into the site.
- On-Site Traffic Control
 - Have staff directing vehicles to the correct parking lots upon entering the site.
 - Provide clear direction to vehicles where to exit the site.
- Event Day Police Control at Driveways
 - Provide police control to direct traffic to enter at certain driveways and exits in certain directions on the public streets.
 - Police control can decrease congestion among drivers and reduces confusion on how to enter and exit the site, especially during egress when surrounding traffic is at its least.
- Event Day Police-Controlled Intersection
 - At intersections near the proposed site, police control can help mitigate congestion during large amphitheater events.
 - Intersections that could benefit from police control:
 - SW 15th Street at S Sara Road
 - John Kilpatrick Turnpike at SW 15th Street
- Multi-Directional Lanes
 - Transition driveways into and out of the site for dual lanes to increase traffic flow and decrease congestion.
 - Multilane Entry – Northernmost driveway at S Sara Avenue (Driveway D) and South driveway off SW 15th Street (Driveway A).
 - Multilane Exit – South driveway off SW 15th Street (Driveway A)

7.2 SURROUNDING INFRASTRUCTURE IMPROVEMENT RECOMMENDATIONS

- Revised Traffic Signal Timing Plans
 - Develop coordinated traffic signal timing plans at signalized intersections to increase level of service and reduce control delay around events.
 - Intersections that would benefit from revised timing plans:
 - SW 15th Street at S Morgan Road
 - SW 15th Street at S Sara Road
 - John Kilpatrick Turnpike at SW 15th Street
 - SW 15th Street at S Mustang Road
 - Reno Avenue at S Sara Road
- Upgraded Lane Configurations – John Kilpatrick Turnpike (Northbound On-Ramp)
 - Increasing the capacity for the northbound on-ramp of the John Kilpatrick Turnpike at SW 15th Street by adding a second tolling lane will help decrease congestion in the future. This increased capacity will help vehicles both at events and as vehicle traffic in this area increases in the future.



Appendix A: Site Plan



Appendix B: Traffic Count Data

1. Reno Avenue at Morgan Road - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128550, Location: 35.464342, -97.689054



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Morgan Road Southbound					Reno Avenue Westbound					Morgan Road Northbound					Reno Avenue Eastbound									
Time	R	T	L	U	App Ped*	R	T	L	U	App Ped*	R	T	L	U	App Ped*	R	T	L	U	App Ped*	Int				
2023-11-02 2:00PM	18	60	15	0	93	0	12	54	23	0	89	0	12	72	35	2	121	0	38	22	9	0	372		
2:15PM	10	47	8	0	65	0	8	43	28	0	79	0	17	62	51	0	130	0	32	28	12	0	346		
2:30PM	14	79	18	0	111	0	8	43	27	0	78	0	13	58	38	0	109	0	53	33	13	0	397		
2:45PM	7	66	10	0	83	0	16	45	24	0	85	0	30	72	40	0	142	0	35	28	10	0	383		
Hourly Total	49	252	51	0	352	0	44	185	102	0	331	0	72	264	164	2	502	0	158	111	44	0	1498		
3:00PM	11	105	7	0	123	0	9	45	33	0	87	0	22	69	30	0	121	0	36	24	9	0	400		
3:15PM	11	75	18	0	104	0	17	54	28	0	99	0	18	78	41	0	137	0	38	36	11	0	425		
3:30PM	10	61	14	0	85	0	28	54	25	0	107	0	29	78	56	0	163	0	89	53	38	0	535		
3:45PM	11	82	13	0	106	0	17	59	21	0	97	0	20	85	66	0	171	0	59	47	10	0	490		
Hourly Total	43	323	52	0	418	0	71	212	107	0	390	0	89	310	193	0	592	0	222	160	68	0	1850		
4:00PM	18	109	11	0	138	0	24	62	43	0	129	0	27	72	41	0	140	0	81	47	29	0	564		
4:15PM	10	95	22	0	127	0	20	80	27	0	127	0	18	85	41	0	144	0	34	28	10	0	470		
4:30PM	18	57	6	0	81	0	27	68	34	0	129	0	21	62	45	0	128	0	66	40	16	0	460		
4:45PM	19	71	8	0	98	0	26	74	43	0	143	0	20	62	45	0	127	0	62	39	7	0	476		
Hourly Total	65	332	47	0	444	0	97	284	147	0	528	0	86	281	172	0	539	0	243	154	62	0	1970		
5:00PM	22	108	9	0	139	0	36	94	50	1	181	0	23	87	41	0	151	0	65	43	11	0	590		
5:15PM	10	77	6	0	93	0	18	89	51	0	158	0	19	97	45	0	161	0	46	42	6	0	506		
5:30PM	13	52	5	0	70	0	25	94	32	0	151	0	12	76	46	0	134	0	41	30	12	0	438		
5:45PM	9	51	7	0	67	0	14	57	27	0	98	0	6	80	47	1	134	0	35	26	9	0	369		
Hourly Total	54	288	27	0	369	0	93	334	160	1	588	0	60	340	179	1	580	0	187	141	38	0	1903		
6:00PM	4	52	2	0	58	0	10	55	28	0	93	0	11	40	35	0	86	0	23	34	4	0	298		
6:15PM	4	42	11	0	57	0	7	50	13	0	70	0	15	50	31	0	96	0	31	24	9	0	287		
6:30PM	6	39	6	0	51	0	13	39	16	0	68	0	9	45	21	0	75	0	26	19	7	0	246		
6:45PM	9	42	8	0	59	0	8	30	13	0	51	0	3	40	15	0	58	0	21	17	4	0	210		
Hourly Total	23	175	27	0	225	0	38	174	70	0	282	0	38	175	102	0	315	0	101	94	24	0	1041		
7:00PM	6	27	4	0	37	0	9	38	19	0	66	0	6	47	22	0	75	0	23	13	5	0	219		
7:15PM	5	30	2	0	37	0	9	39	16	0	64	0	5	49	16	0	70	0	20	14	2	0	207		
7:30PM	1	18	2	0	21	0	5	24	6	0	35	0	3	39	17	0	59	0	8	18	6	0	147		
7:45PM	1	23	3	0	27	0	2	29	6	0	37	0	11	36	25	0	72	0	8	13	4	0	161		
Hourly Total	13	98	11	0	122	0	25	130	47	0	202	0	25	171	80	0	276	0	59	58	17	0	734		
8:00PM	2	21	6	0	29	0	4	14	5	0	23	0	4	37	17	0	58	0	9	9	3	0	131		
8:15PM	0	21	2	0	23	0	7	26	12	0	45	0	2	32	14	0	48	0	17	16	1	0	150		
8:30PM	4	11	3	0	18	0	5	21	4	0	30	0	2	28	23	0	53	0	8	8	1	0	118		
8:45PM	6	17	2	0	25	0	10	24	11	0	45	0	2	26	13	0	41	0	10	12	1	0	134		
Hourly Total	12	70	13	0	95	0	26	85	32	0	143	0	10	123	67	0	200	0	44	45	6	0	533		
9:00PM	3	17	2	0	22	0	10	26	8	0	44	0	2	28	25	0	55	0	15	14	5	0	155		
9:15PM	4	15	0	0	19	0	1	18	10	0	29	0	1	29	21	0	51	0	11	20	6	0	136		
9:30PM	0	17	3	0	20	0	4	18	4	0	26	0	1	19	17	0	37	0	9	6	2	0	100		
9:45PM	0	19	0	0	19	0	3	6	6	0	15	0	1	26	8	0	35	0	4	8	5	0	86		
Hourly Total	7	68	5	0	80	0	18	68	28	0	114	0	5	102	71	0	178	0	39	48	18	0	477		
10:00PM	0	11	0	0	11	0	4	7	0	0	11	0	1	27	10	0	38	0	10	7	2	0	79		
10:15PM	1	13	0	0	14	0	3	3	4	0	10	0	2	30	4	0	36	0	3	4	1	0	68		
10:30PM	1	13	0	0	14	0	7	6	4	0	17	0	0	29	8	0	37	0	6	10	5	0	89		
10:45PM	2	10	0	0	12	0	1	8	3	0	12	0	0	28	5	0	33	0	4	3	5	0	69		
Hourly Total	4	47	0	0	51	0	15	24	11	0	50	0	3	114	27	0	144	0	23	24	13	0	305		
11:00PM	2	27	7	0	36	0	2	5	3	0	10	0	3	23	10	0	36	0	10	3	1	0	96		
11:15PM	0	9	1	0	10	0	1	6	1	0	8	0	2	14	3	0	19	0	3	5	2	0	47		
11:30PM	0	18	2	0	20	0	3	7	1	0	11	0	0	9	5	0	14	0	3	3	1	0	52		
11:45PM	1	13	1	0	15	0	0	5	1	0	6	0	0	13	5	1	19	0	4	6	1	0	51		
Hourly Total	3	67	11	0	81	0	6	23	6	0	35	0	5	59	23	1	88	0	20	17	5	0	246		
Total	273	1720	244	0	2237	0	433	1519	710	1	2663	0	393	1939	1078	4	3414	0	1096	852	295	0	2243	1	10557
% Approach	12.2%	76.9%	10.9%	0%	-	-	16.3%	57.0%	26.7%	0%	-	-	11.5%	56.8%	31.6%	0.1%	-	-	48.9%	38.0%	13.2%	0%	-	-	
% Total	2.6%	16.3%	2.3%	0%	21.2%	-	4.1%	14.4%	6.7%	0%	25.2%	-	3.7%	18.4%	10.2%	0%	32.3%	-	10.4%	8.1%	2.8%	0%	21.2%	-	
Lights	266	1635	211	0	2112	-	416	1485	619	1	2521	-	327	1818	944	2	3091	-	962	827	285	0	2074	-	9798
% Lights	97.4%	95.1%	86.5%	0%	94.4%	-	96.1%	97.8%	87.2%	100%	94.7%	-	83.2%	93.8%	87.6%	50.0%	90.5%	-	87.8%	97.1%	96.6%	0%	92.5%	-	92.8%
Articulated Trucks	5	55	18	0	78	-	7	6	75	0	88	-	41	68	91	2	202	-	104	11	4	0	119	-	487
% Articulated Trucks	1.8%	3.2%	7.4%	0%	3.5%	-	1.6%	0.4%	10.6%	0%	3.3%	-	10.4%	3.5%	8.4%	50.0%	5.9%	-	9.5%	1.3%	1.4%	0%	5.3%	-	4.6%
Buses and Single-Unit Trucks	2	30	15	0	47	-	10	28	16	0	54	-	25	53	43	0	121	-	30	14	6	0	50	-	272

Leg Direction	Morgan Road Southbound						Reno Avenue Westbound						Morgan Road Northbound						Reno Avenue Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
% Buses and Single-Unit Trucks	0.7%	1.7%	6.1%	0%	2.1%	-	2.3%	1.8%	2.3%	0%	2.0%	-	6.4%	2.7%	4.0%	0%	3.5%	-	2.7%	1.6%	2.0%	0%	2.2%	-	2.6%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	0
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	1
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 100%

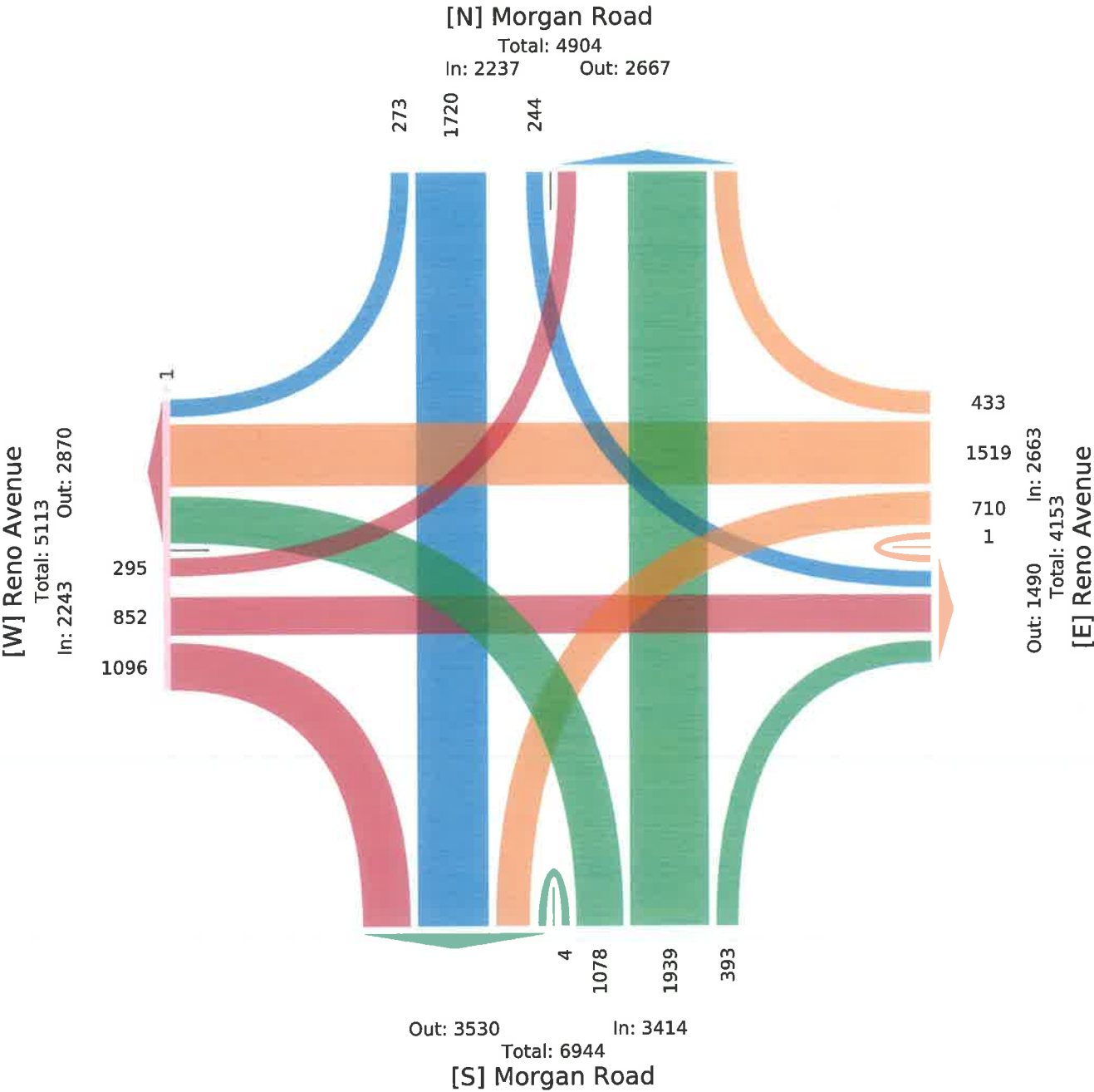
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. Reno Avenue at Morgan Road - TMC

Thu Nov 2, 2023
Full Length (2 PM-12 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1128550, Location: 35.464342, -97.689054



Provided by: C. J. Hensch & Associates
Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



1. Reno Avenue at Morgan Road - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 3:30PM - 4:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128550, Location: 35.464342, -97.689054



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Morgan Road Southbound						Reno Avenue Westbound						Morgan Road Northbound						Reno Avenue Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 3:30PM	10	61	14	0	85	0	28	54	25	0	107	0	29	78	56	0	163	0	89	53	38	0	180	0	535
3:45PM	11	82	13	0	106	0	17	59	21	0	97	0	20	85	66	0	171	0	59	47	10	0	116	0	490
4:00PM	18	109	11	0	138	0	24	62	43	0	129	0	27	72	41	0	140	0	81	47	29	0	157	0	564
4:15PM	10	95	22	0	127	0	20	80	27	0	127	0	18	85	41	0	144	0	34	28	10	0	72	0	470
Total	49	347	60	0	456	0	89	255	116	0	460	0	94	320	204	0	618	0	263	175	87	0	525	0	2059
% Approach	10.7%	76.1%	13.2%	0%	-	-	19.3%	55.4%	25.2%	0%	-	-	15.2%	51.8%	33.0%	0%	-	-	50.1%	33.3%	16.6%	0%	-	-	-
% Total	2.4%	16.9%	2.9%	0%	22.1%	-	4.3%	12.4%	5.6%	0%	22.3%	-	4.6%	15.5%	9.9%	0%	30.0%	-	12.8%	8.5%	4.2%	0%	25.5%	-	-
PHF	0.681	0.796	0.682	-	0.826	-	0.795	0.797	0.674	-	0.891	-	0.810	0.941	0.773	-	0.904	-	0.739	0.825	0.572	-	0.729	-	0.913
Lights	48	335	48	0	431	-	84	247	107	0	438	-	78	298	175	0	551	-	246	168	86	0	500	-	1920
% Lights	98.0%	96.5%	80.0%	0%	94.5%	-	94.4%	96.9%	92.2%	0%	95.2%	-	83.0%	93.1%	85.8%	0%	89.2%	-	93.5%	96.0%	98.9%	0%	95.2%	-	93.2%
Articulated Trucks	0	5	6	0	11	-	2	2	6	0	10	-	8	16	20	0	44	-	13	3	0	0	16	-	81
% Articulated Trucks	0%	1.4%	10.0%	0%	2.4%	-	2.2%	0.8%	5.2%	0%	2.2%	-	8.5%	5.0%	9.8%	0%	7.1%	-	4.9%	1.7%	0%	0%	3.0%	-	3.9%
Buses and Single-Unit Trucks	1	7	6	0	14	-	3	6	3	0	12	-	8	6	9	0	23	-	4	4	1	0	9	-	58
% Buses and Single-Unit Trucks	2.0%	2.0%	10.0%	0%	3.1%	-	3.4%	2.4%	2.6%	0%	2.6%	-	8.5%	1.9%	4.4%	0%	3.7%	-	1.5%	2.3%	1.1%	0%	1.7%	-	2.8%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

1. Reno Avenue at Morgan Road - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 3:30PM - 4:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

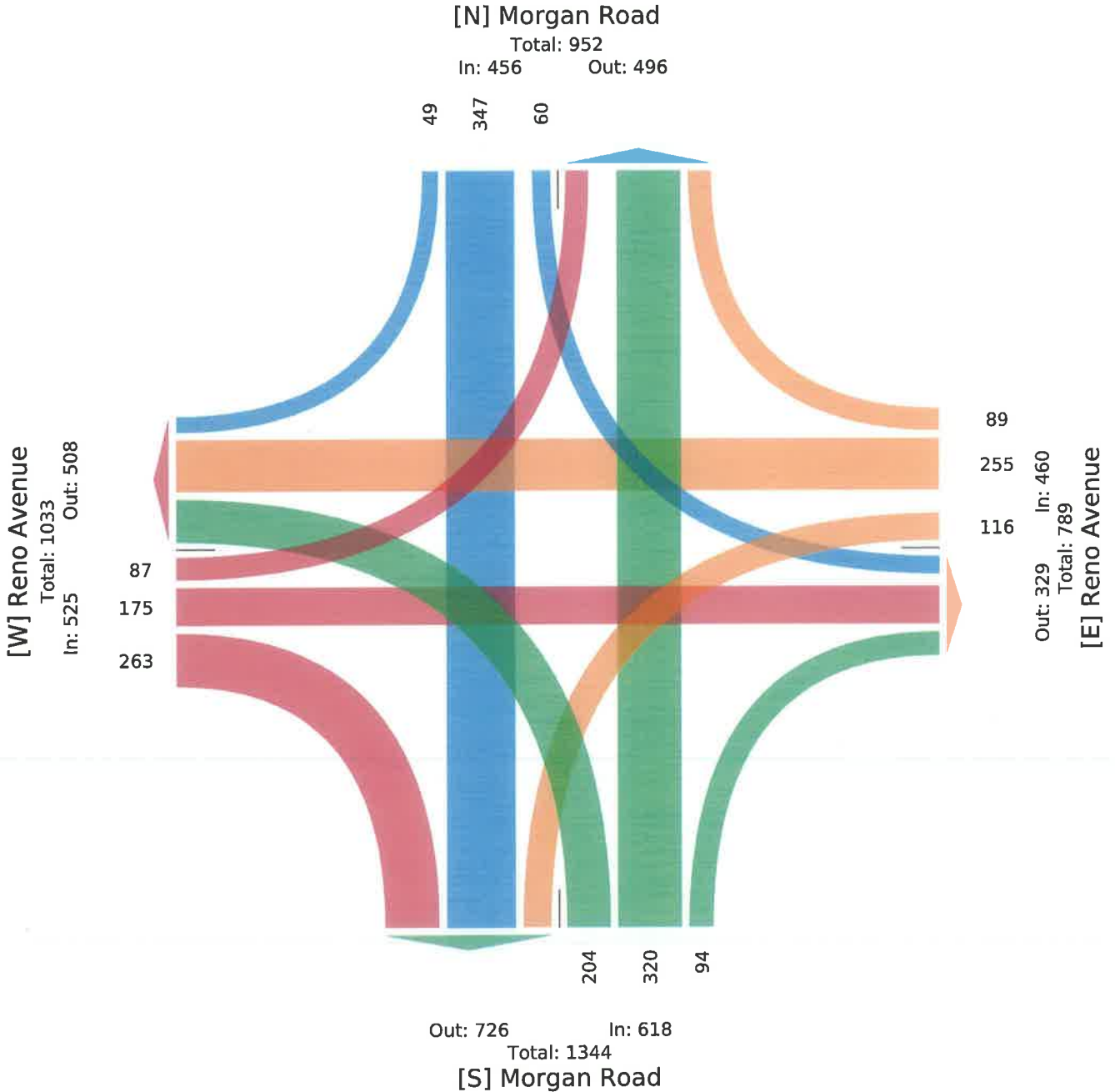
All Movements

ID: 1128550, Location: 35.464342, -97.689054



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



2. Reno Avenue at Sara Road - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128551, Location: 35.464331, -97.706851



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Sara Road Southbound						Reno Avenue Westbound						Sara Road Northbound						Reno Avenue Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 2:00PM	12	27	20	0	59	0	16	66	15	0	97	0	4	24	21	0	49	0	26	30	15	0	71	0	276
2:15PM	28	27	20	0	75	0	24	48	11	0	83	0	5	19	20	0	44	0	25	35	13	0	73	0	275
2:30PM	23	31	15	0	69	0	15	59	7	0	81	0	3	23	21	0	47	0	29	40	16	0	85	0	282
2:45PM	19	25	11	0	55	0	17	55	8	0	80	0	8	24	27	0	59	0	20	39	12	0	71	0	265
Hourly Total	82	110	66	0	258	0	72	228	41	0	341	0	20	90	89	0	199	0	100	144	56	0	300	0	1098
3:00PM	20	30	20	0	70	0	14	58	6	0	78	0	6	26	26	0	58	0	26	29	14	0	69	0	275
3:15PM	28	38	19	0	85	0	5	56	8	0	69	0	6	37	22	0	65	0	21	39	11	0	71	0	290
3:30PM	27	38	12	0	77	0	26	71	13	0	110	0	9	28	16	0	53	0	24	37	22	0	83	0	323
3:45PM	35	40	21	0	96	0	12	73	14	0	99	0	4	30	29	0	63	0	28	43	20	0	91	0	349
Hourly Total	110	146	72	0	328	0	57	258	41	0	356	0	25	121	93	0	239	0	99	148	67	0	314	0	1237
4:00PM	46	51	23	0	120	0	20	91	24	0	135	0	4	38	36	0	78	0	29	24	25	0	78	0	411
4:15PM	58	41	16	0	115	0	19	83	15	0	117	0	4	25	32	0	61	0	29	31	24	0	84	0	377
4:30PM	51	43	20	0	114	0	26	106	27	0	159	0	6	24	29	0	59	0	32	32	19	0	83	0	415
4:45PM	56	42	15	0	113	0	23	92	21	0	136	0	5	31	37	0	73	0	28	31	22	0	81	0	403
Hourly Total	211	177	74	0	462	0	88	372	87	0	547	0	19	118	134	0	271	0	118	118	90	0	326	0	1606
5:00PM	41	44	22	0	107	0	20	131	30	0	181	0	3	37	37	0	77	0	34	37	23	0	94	0	459
5:15PM	60	71	17	0	148	0	16	118	16	0	150	0	4	35	37	0	76	0	42	42	28	0	112	0	486
5:30PM	49	55	14	0	118	0	12	140	10	0	162	0	6	44	38	0	88	0	30	33	19	0	82	0	450
5:45PM	36	47	16	0	99	0	5	97	13	0	115	0	6	32	40	0	78	0	26	36	17	0	79	0	371
Hourly Total	186	217	69	0	472	0	53	486	69	0	608	0	19	148	152	0	319	0	132	148	87	0	367	0	1766
6:00PM	34	32	11	0	77	0	5	86	5	0	96	0	6	23	25	0	54	0	34	31	24	0	89	0	316
6:15PM	44	26	14	0	84	0	9	68	14	0	91	0	8	36	32	0	76	0	37	32	19	0	88	0	339
6:30PM	28	27	14	0	69	0	16	53	6	0	75	0	3	21	26	0	50	0	45	29	18	0	92	0	286
6:45PM	19	28	2	0	49	0	8	47	7	0	62	0	11	21	22	0	54	0	21	21	21	0	63	0	228
Hourly Total	125	113	41	0	279	0	38	254	32	0	324	0	28	101	105	0	234	0	137	113	82	0	332	0	1169
7:00PM	27	25	3	0	55	0	11	50	4	0	65	0	4	24	17	0	45	0	28	13	18	0	59	0	224
7:15PM	22	24	12	0	58	0	8	52	5	0	65	0	1	16	16	0	33	0	28	15	11	0	54	0	210
7:30PM	17	24	4	0	45	0	3	27	6	0	36	0	4	14	19	0	37	0	25	18	16	0	59	0	177
7:45PM	19	23	6	0	48	0	11	33	5	0	49	0	1	20	14	0	35	0	23	18	16	0	57	0	189
Hourly Total	85	96	25	0	206	0	33	162	20	0	215	0	10	74	66	0	150	0	104	64	61	0	229	0	800
8:00PM	16	5	3	0	24	0	2	23	7	0	32	0	5	12	10	0	27	0	15	10	11	0	36	0	119
8:15PM	14	14	7	0	35	0	4	20	4	0	28	0	4	8	13	0	25	0	23	17	19	0	59	0	147
8:30PM	17	15	5	0	37	0	6	36	2	0	44	0	2	11	11	0	24	0	15	10	11	0	36	0	141
8:45PM	9	10	5	0	24	0	5	35	3	0	43	0	2	7	11	0	20	0	20	13	13	0	46	0	133
Hourly Total	56	44	20	0	120	0	17	114	16	0	147	0	13	38	45	0	96	0	73	50	54	0	177	0	540
9:00PM	8	7	5	0	20	0	5	32	2	0	39	0	1	7	14	0	22	0	12	15	4	0	31	0	112
9:15PM	11	8	4	0	23	0	7	31	4	0	42	0	4	8	8	0	20	0	16	22	7	0	45	0	130
9:30PM	6	5	2	0	13	0	6	28	2	0	36	0	1	5	6	0	12	0	10	15	10	0	35	0	96
9:45PM	14	10	3	0	27	0	2	10	0	0	12	0	0	3	5	0	8	0	7	12	10	0	29	0	76
Hourly Total	39	30	14	0	83	0	20	101	8	0	129	0	6	23	33	0	62	0	45	64	31	0	140	0	414
10:00PM	4	4	4	0	12	0	1	12	3	0	16	0	2	6	8	0	16	0	8	10	6	0	24	0	68
10:15PM	8	8	1	0	17	0	0	4	0	0	4	0	0	6	5	0	11	0	7	4	12	0	23	0	55
10:30PM	4	2	3	0	9	0	0	14	0	0	14	0	1	7	1	0	9	0	10	14	4	0	28	0	60
10:45PM	6	1	1	0	8	0	2	10	1	0	13	0	1	1	2	0	4	0	4	9	3	0	16	0	41
Hourly Total	22	15	9	0	46	0	3	40	4	0	47	0	4	20	16	0	40	0	29	37	25	0	91	0	224
11:00PM	8	6	9	0	23	0	1	7	1	0	9	0	0	4	0	0	4	0	3	6	1	0	10	0	46
11:15PM	2	2	1	0	5	0	1	9	1	0	11	0	0	2	2	0	4	0	3	5	0	0	8	0	28
11:30PM	1	4	1	0	6	0	0	6	2	0	8	0	1	3	3	0	7	0	2	9	2	0	13	0	34
11:45PM	5	1	4	0	10	0	0	12	0	0	12	0	0	2	2	0	4	0	1	4	5	0	10	0	36
Hourly Total	16	13	15	0	44	0	2	34	4	0	40	0	1	11	7	0	19	0	9	24	8	0	41	0	144
Total	932	961	405	0	2298	0	383	2049	322	0	2754	0	145	744	740	0	1629	0	846	910	561	0	2317	0	8998
% Approach	40.6%	41.8%	17.6%	0%	-	-	13.9%	74.4%	11.7%	0%	-	-	8.9%	45.7%	45.4%	0%	-	-	36.5%	39.3%	24.2%	0%	-	-	-
% Total	10.4%	10.7%	4.5%	0%	25.5%	-	4.3%	22.8%	3.6%	0%	30.6%	-	1.6%	8.3%	8.2%	0%	18.1%	-	9.4%	10.1%	6.2%	0%	25.8%	-	-
Lights	922	937	340	0	2199	-	331	2033	316	0	2680	-	142	718	736	0	1596	-	840	888	553	0	2281	-	8756
% Lights	98.9%	97.5%	84.0%	0%	95.7%	-	86.4%	99.2%	98.1%	0%	97.3%	-	97.9%	96.5%	99.5%	0%	98.0%	-	99.3%	97.6%	98.6%	0%	98.4%	-	97.3%
Articulated Trucks	5	12	51	0	68	-	29	7	2	0	38	-	1	8	0	0	9	-	0	12	7	0	19	-	134

Leg Direction	Sara Road Southbound						Reno Avenue Westbound						Sara Road Northbound						Reno Avenue Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
% Articulated Trucks	0.5%	1.2%	12.6%	0%	3.0%	-	7.6%	0.3%	0.6%	0%	1.4%	-	0.7%	1.1%	0%	0%	0.6%	-	0%	1.3%	1.2%	0%	0.8%	-	1.5%
Buses and Single-Unit Trucks	5	12	14	0	31	-	23	9	4	0	36	-	2	18	4	0	24	-	6	10	1	0	17	-	108
% Buses and Single-Unit Trucks	0.5%	1.2%	3.5%	0%	1.3%	-	6.0%	0.4%	1.2%	0%	1.3%	-	1.4%	2.4%	0.5%	0%	1.5%	-	0.7%	1.1%	0.2%	0%	0.7%	-	1.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. Reno Avenue at Sara Road - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

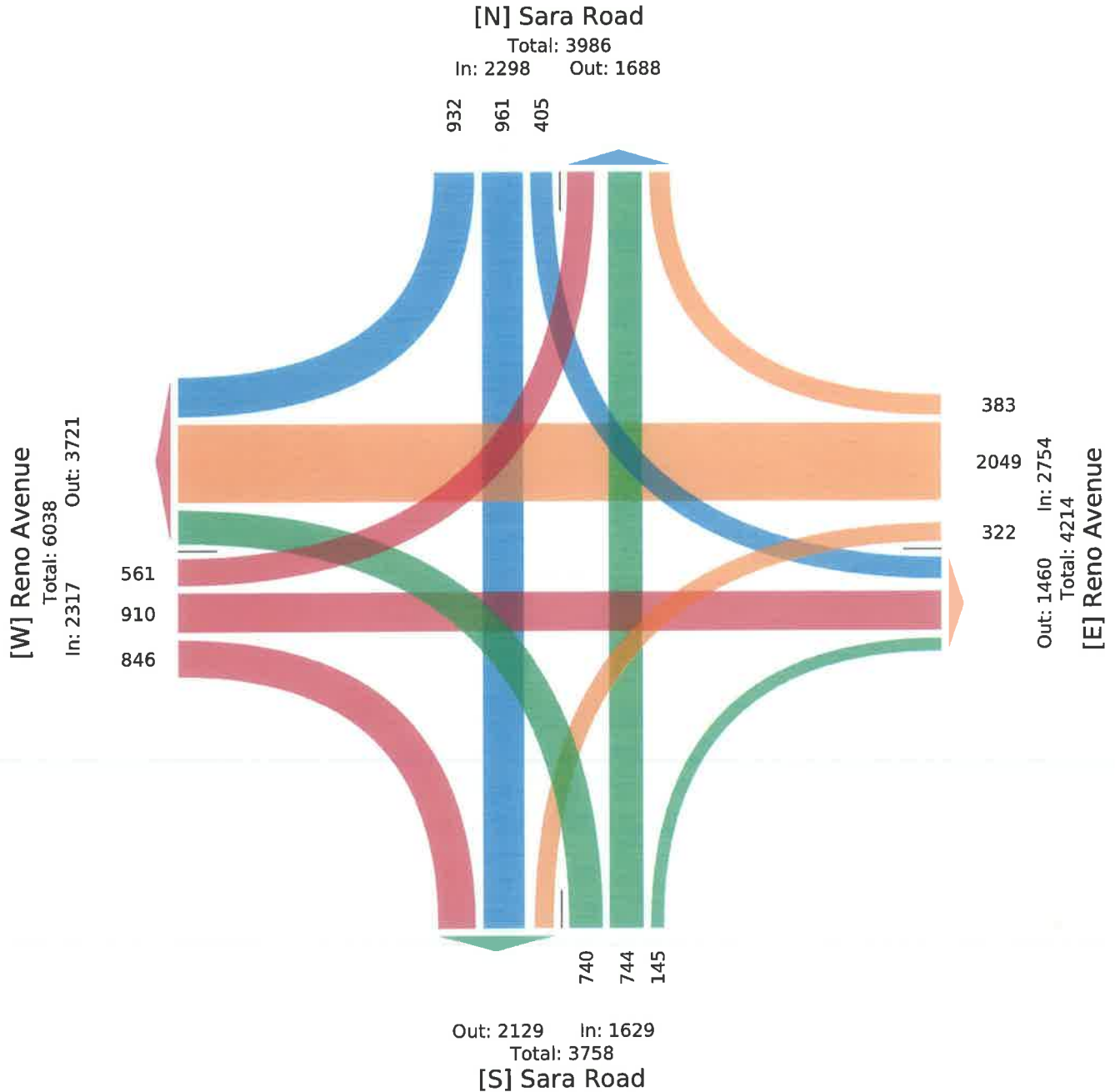
All Movements

ID: 1128551, Location: 35.464331, -97.706851



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



2. Reno Avenue at Sara Road - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128551, Location: 35.464331, -97.706851



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Sara Road Southbound						Reno Avenue Westbound						Sara Road Northbound						Reno Avenue Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 4:45PM	56	42	15	0	113	0	23	92	21	0	136	0	5	31	37	0	73	0	28	31	22	0	81	0	403
5:00PM	41	44	22	0	107	0	20	131	30	0	181	0	3	37	37	0	77	0	34	37	23	0	94	0	459
5:15PM	60	71	17	0	148	0	16	118	16	0	150	0	4	35	37	0	76	0	42	42	28	0	112	0	486
5:30PM	49	55	14	0	118	0	12	140	10	0	162	0	6	44	38	0	88	0	30	33	19	0	82	0	450
Total	206	212	68	0	486	0	71	481	77	0	629	0	18	147	149	0	314	0	134	143	92	0	369	0	1798
% Approach	42.4%	43.6%	14.0%	0%	-	-	11.3%	76.5%	12.2%	0%	-	-	5.7%	46.8%	47.5%	0%	-	-	36.3%	38.8%	24.9%	0%	-	-	-
% Total	11.5%	11.8%	3.8%	0%	27.0%	-	3.9%	26.8%	4.3%	0%	35.0%	-	1.0%	8.2%	8.3%	0%	17.5%	-	7.5%	8.0%	5.1%	0%	20.5%	-	-
PHF	0.858	0.746	0.773	-	0.821	-	0.772	0.859	0.642	-	0.869	-	0.750	0.835	0.980	-	0.892	-	0.798	0.851	0.821	-	0.824	-	0.925
Lights	205	209	63	0	477	-	64	481	75	0	620	-	18	143	149	0	310	-	134	140	92	0	366	-	1773
% Lights	99.5%	98.6%	92.6%	0%	98.1%	-	90.1%	100%	97.4%	0%	98.6%	-	100%	97.3%	100%	0%	98.7%	-	100%	97.9%	100%	0%	99.2%	-	98.6%
Articulated Trucks	1	0	4	0	5	-	3	0	1	0	4	-	0	0	0	0	0	-	0	1	0	0	1	-	10
% Articulated Trucks	0.5%	0%	5.9%	0%	1.0%	-	4.2%	0%	1.3%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0%	0.7%	0%	0%	0.3%	-	0.6%
Buses and Single-Unit Trucks	0	3	1	0	4	-	4	0	1	0	5	-	0	4	0	0	4	-	0	2	0	0	2	-	15
% Buses and Single-Unit Trucks	0%	1.4%	1.5%	0%	0.8%	-	5.6%	0%	1.3%	0%	0.8%	-	0%	2.7%	0%	0%	1.3%	-	0%	1.4%	0%	0%	0.5%	-	0.8%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

2. Reno Avenue at Sara Road - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

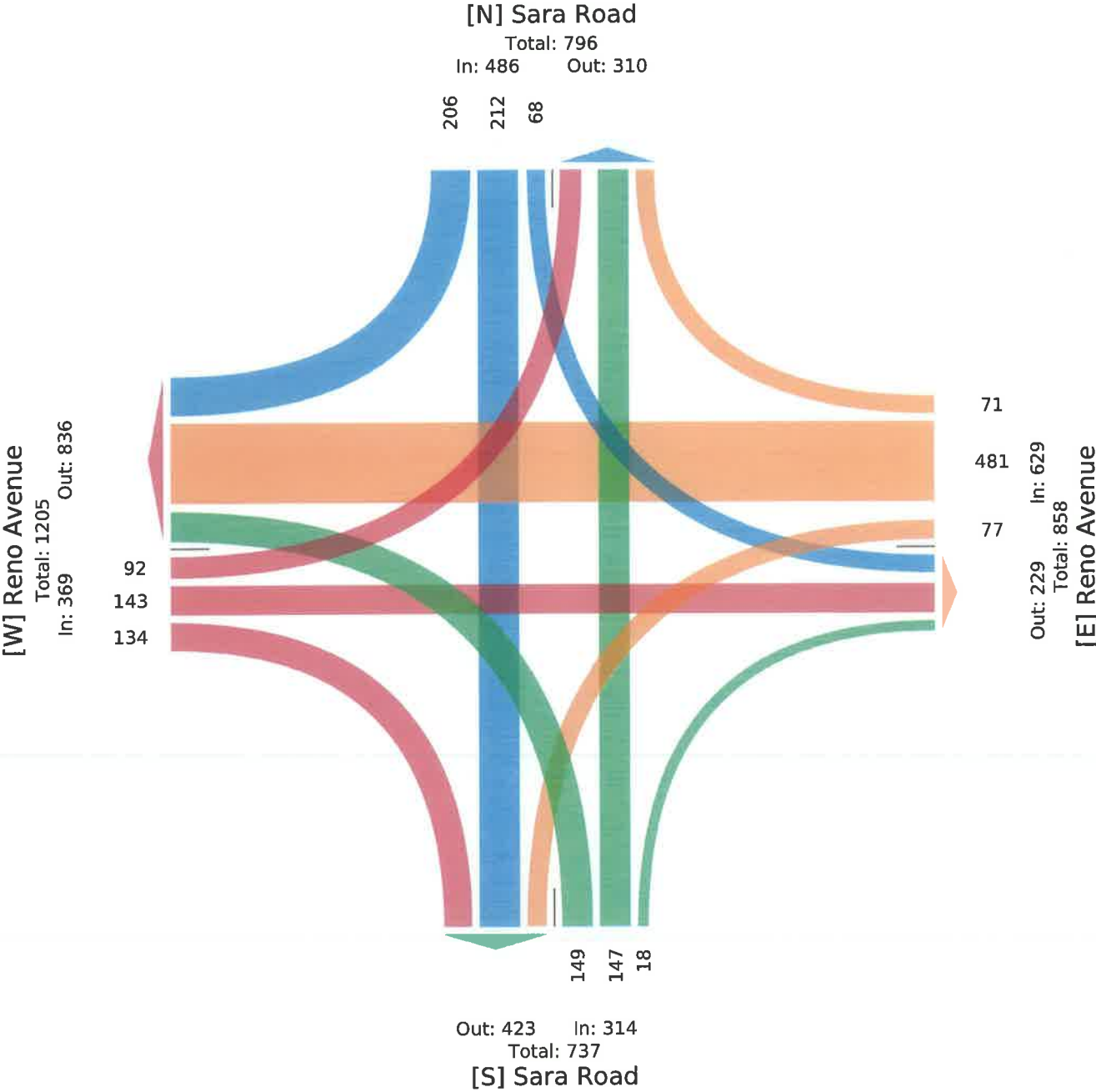
All Movements

ID: 1128551, Location: 35.464331, -97.706851



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



3. Mustang Road at SW 11th Street - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128552, Location: 35.454129, -97.724691



Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Mustang Road Southbound					SW 11th Street Westbound					Mustang Road Northbound					SW 11th Street Eastbound									
Time	R	T	L	U	App Ped*	R	T	L	U	App Ped*	R	T	L	U	App Ped*	R	T	L	U	App Ped*	Int				
2023-11-02 2:00PM	6	152	0	0	158	0	0	0	0	0	0	157	6	0	163	0	11	0	3	0	14	0	335		
2:15PM	10	163	0	0	173	0	0	0	0	0	0	182	14	0	196	0	8	0	8	0	16	0	385		
2:30PM	4	167	0	0	171	0	1	0	0	1	0	185	15	0	201	0	7	0	8	0	15	0	388		
2:45PM	8	169	0	0	177	0	1	0	0	1	1	209	14	0	223	0	8	0	4	0	12	0	413		
Hourly Total	28	651	0	0	679	0	2	0	0	2	1	733	49	0	783	0	34	0	23	0	57	0	1521		
3:00PM	11	175	0	0	186	0	0	0	0	0	0	173	11	0	185	0	15	0	6	0	21	0	392		
3:15PM	10	189	0	0	199	0	0	0	0	0	1	203	17	0	220	0	13	0	6	0	19	0	438		
3:30PM	14	183	1	0	198	0	2	0	0	2	0	204	19	0	223	0	7	0	6	0	13	0	436		
3:45PM	23	200	0	0	223	0	0	0	0	0	0	202	23	0	225	0	11	0	8	0	19	0	467		
Hourly Total	58	747	1	0	806	0	2	0	0	2	1	782	70	0	853	0	46	0	26	0	72	0	1733		
4:00PM	9	183	1	0	193	0	1	0	0	1	1	196	22	0	219	0	4	0	6	0	10	0	423		
4:15PM	19	203	0	0	222	0	0	0	0	0	1	189	6	0	195	0	13	0	12	0	25	0	442		
4:30PM	18	229	1	0	248	0	1	0	0	1	1	169	23	0	192	0	16	0	4	0	20	0	461		
4:45PM	18	235	0	0	253	0	0	0	0	0	0	209	16	0	225	0	19	0	7	0	26	0	504		
Hourly Total	64	850	2	0	916	0	2	0	0	2	3	763	67	0	831	0	52	0	29	0	81	0	1830		
5:00PM	22	253	1	0	276	0	2	0	0	2	1	208	21	0	230	0	13	0	6	0	19	0	527		
5:15PM	18	246	0	0	264	0	1	1	0	2	0	235	22	0	257	0	18	0	11	0	29	0	552		
5:30PM	18	241	0	0	259	0	2	0	0	2	0	3	202	13	0	218	0	11	0	3	0	14	0	493	
5:45PM	14	245	0	0	259	0	1	0	0	1	1	188	20	0	209	0	13	0	8	0	21	0	490		
Hourly Total	72	985	1	0	1058	0	6	1	0	7	2	5	833	76	0	914	0	55	0	28	0	83	0	2062	
6:00PM	11	223	1	0	235	0	1	1	0	2	1	188	12	0	201	0	13	0	6	0	19	0	457		
6:15PM	16	207	0	0	223	0	0	0	0	0	0	213	21	0	234	0	10	0	8	1	19	0	476		
6:30PM	15	236	0	0	251	0	0	0	0	0	0	177	6	0	183	0	8	0	4	0	12	0	446		
6:45PM	12	178	0	0	190	0	0	0	0	0	0	174	7	0	181	0	11	0	5	0	16	0	387		
Hourly Total	54	844	1	0	899	0	1	1	0	2	1	1	752	46	0	799	0	42	0	23	1	66	0	1766	
7:00PM	8	156	0	0	164	0	0	0	0	0	0	150	10	0	160	0	7	0	5	0	12	0	336		
7:15PM	14	141	0	0	155	0	0	0	0	0	0	169	8	0	178	0	4	0	6	0	10	0	343		
7:30PM	9	143	0	0	152	0	0	0	0	0	1	126	7	0	133	0	6	0	7	0	13	0	298		
7:45PM	10	123	0	0	133	0	0	1	0	1	0	136	5	0	141	0	6	0	8	0	14	0	289		
Hourly Total	41	563	0	0	604	0	0	1	0	1	1	1	581	30	0	612	0	23	0	26	0	49	0	1266	
8:00PM	13	132	0	0	145	0	0	0	0	0	0	125	9	0	134	0	3	0	2	0	5	0	284		
8:15PM	7	117	0	0	124	0	0	0	0	0	0	99	9	0	108	0	7	0	7	0	14	0	246		
8:30PM	9	112	0	0	121	0	0	0	0	0	0	100	4	0	104	0	6	0	3	0	9	0	234		
8:45PM	8	83	0	0	91	0	1	0	0	1	0	86	8	0	94	0	7	0	3	0	10	0	196		
Hourly Total	37	444	0	0	481	0	1	0	0	1	0	0	410	30	0	440	0	23	0	15	0	38	0	960	
9:00PM	8	107	0	0	115	0	0	0	0	0	0	71	4	0	75	0	5	0	4	0	9	0	199		
9:15PM	10	80	0	0	90	0	0	0	0	0	0	90	4	0	94	0	6	0	4	0	10	0	194		
9:30PM	10	78	0	0	88	0	0	0	0	0	0	65	6	0	72	0	4	0	1	0	5	0	165		
9:45PM	4	63	0	0	67	0	0	0	0	0	0	51	2	0	53	0	3	0	5	0	8	0	128		
Hourly Total	32	328	0	0	360	0	0	0	0	0	0	1	277	16	0	294	0	18	0	14	0	32	0	686	
10:00PM	6	58	0	0	64	0	0	0	0	0	0	44	4	0	48	0	6	0	2	0	8	0	120		
10:15PM	6	45	0	0	51	0	0	0	0	0	0	51	3	0	54	0	2	0	5	0	7	0	112		
10:30PM	5	35	0	0	40	0	0	0	0	0	0	34	3	0	37	0	1	0	4	0	5	0	82		
10:45PM	1	33	0	0	34	0	0	0	0	0	0	27	1	0	28	0	1	0	5	0	6	0	68		
Hourly Total	18	171	0	0	189	0	0	0	0	0	0	0	156	11	0	167	0	10	0	16	0	26	0	382	
11:00PM	4	29	0	0	33	0	0	0	0	0	0	1	29	2	0	32	0	1	0	0	0	1	0	66	
11:15PM	3	21	0	0	24	0	0	0	0	0	0	0	23	5	0	28	0	2	0	3	0	5	0	57	
11:30PM	0	19	0	0	19	0	0	0	0	0	0	0	21	1	0	22	0	0	0	1	0	1	0	42	
11:45PM	3	24	0	0	27	0	1	0	0	1	0	0	18	0	0	18	0	0	0	1	0	1	0	47	
Hourly Total	10	93	0	0	103	0	1	0	0	1	0	1	91	8	0	100	0	3	0	5	0	8	0	212	
Total	414	5676	5	0	6095	0	15	3	0	18	9	12	5378	403	0	5793	0	306	0	205	1	512	0	12418	
% Approach	6.8%	93.1%	0.1%	0%	-	-	83.3%	16.7%	0%	0%	-	0.2%	92.8%	7.0%	0%	-	59.8%	0%	40.0%	0.2%	-	-	-	-	
% Total	3.3%	45.7%	0%	0%	49.1%	-	0.1%	0%	0%	0.1%	-	0.1%	43.3%	3.2%	0%	46.7%	-	2.5%	0%	1.7%	0%	4.1%	-	-	
Lights	412	5641	5	0	6058	-	15	3	0	18	-	12	5323	398	0	5733	-	300	0	204	1	505	-	12314	
% Lights	99.5%	99.4%	100%	0%	99.4%	-	100%	100%	0%	0%	100%	-	100%	99.0%	98.8%	0%	99.0%	-	98.0%	0%	99.5%	100%	98.6%	-	99.2%

Leg Direction	Mustang Road Southbound						SW 11th Street Westbound						Mustang Road Northbound						SW 11th Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
Articulated Trucks	0	8	0	0	8	-	0	0	0	0	0	-	0	12	1	0	13	-	0	0	0	0	0	-	21
% Articulated Trucks	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0.2%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.2%
Buses and Single-Unit Trucks	2	27	0	0	29	-	0	0	0	0	0	-	0	43	4	0	47	-	6	0	1	0	7	-	83
% Buses and Single-Unit Trucks	0.5%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	0.8%	1.0%	0%	0.8%	-	2.0%	0%	0.5%	0%	1.4%	-	0.7%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	- 77.8%	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	- 22.2%	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

3. Mustang Road at SW 11th Street - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

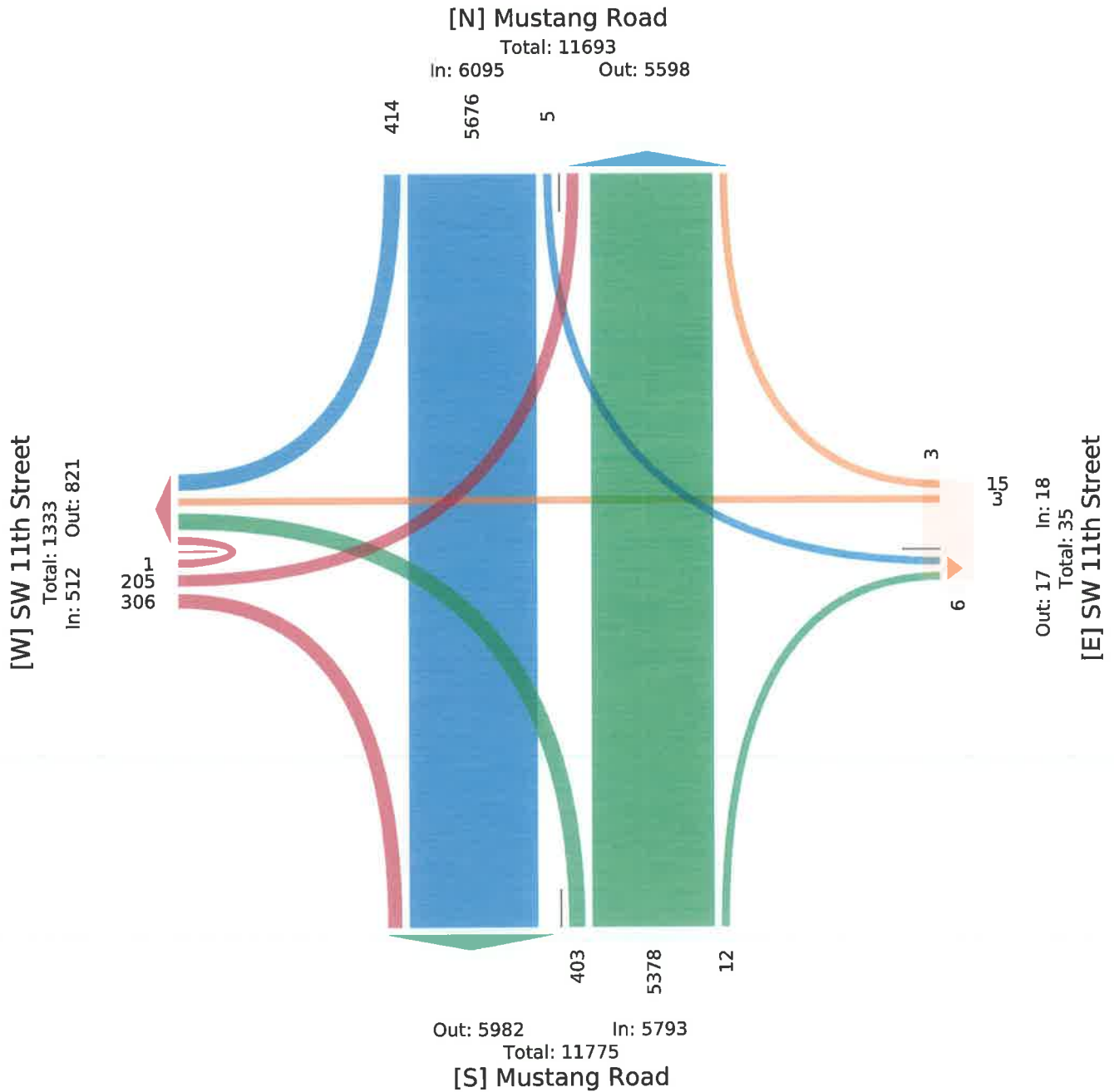
All Movements

ID: 1128552, Location: 35.454129, -97.724691



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



3. Mustang Road at SW 11th Street - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128552, Location: 35.454129, -97.724691



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Mustang Road Southbound						SW 11th Street Westbound						Mustang Road Northbound						SW 11th Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 4:45PM	18	235	0	0	253	0	0	0	0	0	0	0	0	209	16	0	225	0	19	0	7	0	26	0	504
5:00PM	22	253	1	0	276	0	2	0	0	0	2	1	1	208	21	0	230	0	13	0	6	0	19	0	527
5:15PM	18	246	0	0	264	0	1	1	0	0	2	0	0	235	22	0	257	0	18	0	11	0	29	0	552
5:30PM	18	241	0	0	259	0	2	0	0	0	2	0	3	202	13	0	218	0	11	0	3	0	14	0	493
Total	76	975	1	0	1052	0	5	1	0	0	6	1	4	854	72	0	930	0	61	0	27	0	88	0	2076
% Approach	7.2%	92.7%	0.1%	0%	-	-	83.3%	16.7%	0%	0%	-	-	0.4%	91.8%	7.7%	0%	-	-	69.3%	0%	30.7%	0%	-	-	-
% Total	3.7%	47.0%	0%	0%	50.7%	-	0.2%	0%	0%	0%	0.3%	-	0.2%	41.1%	3.5%	0%	44.8%	-	2.9%	0%	1.3%	0%	4.2%	-	-
PHF	0.864	0.963	0.250	-	0.953	-	0.625	0.250	-	-	0.750	-	0.333	0.909	0.818	-	0.905	-	0.803	-	0.614	-	0.759	-	0.940
Lights	76	972	1	0	1049	-	5	1	0	0	6	-	4	849	70	0	923	-	61	0	27	0	88	-	2066
% Lights	100%	99.7%	100%	0%	99.7%	-	100%	100%	0%	0%	100%	-	100%	99.4%	97.2%	0%	99.2%	-	100%	0%	100%	0%	100%	-	99.5%
Articulated Trucks	0	2	0	0	2	-	0	0	0	0	0	-	0	2	1	0	3	-	0	0	0	0	0	-	5
% Articulated Trucks	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.2%	1.4%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0.2%
Buses and Single-Unit Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	3	1	0	4	-	0	0	0	0	0	-	5
% Buses and Single-Unit Trucks	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0%	0.4%	1.4%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.2%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-

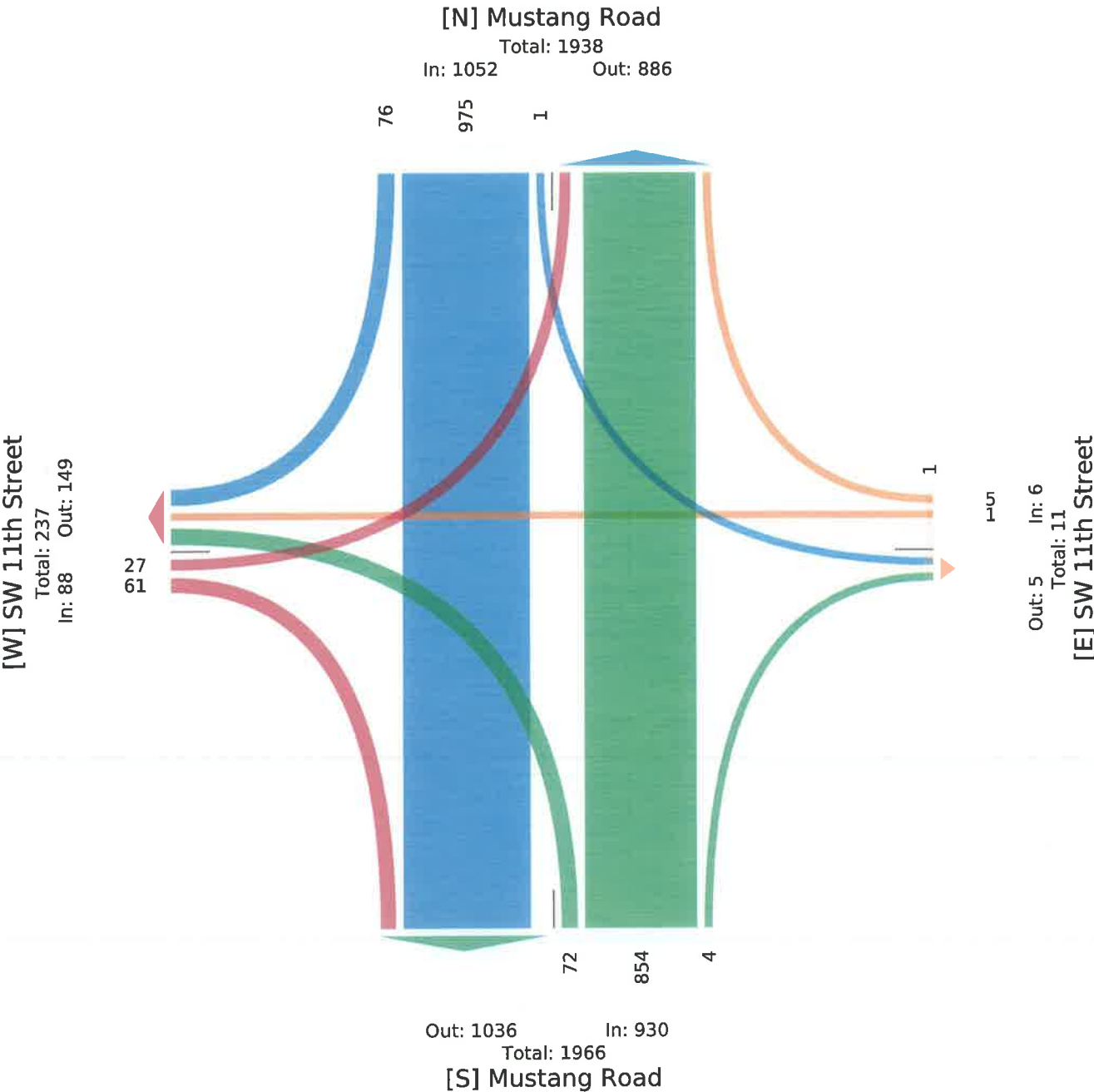
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

3. Mustang Road at SW 11th Street - TMC

Thu Nov 2, 2023
PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1128552, Location: 35.454129, -97.724691



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



4. 15th Street at JKT SBFR - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128553, Location: 35.449766, -97.717931



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	JKT SBFR Southbound					15th Street Westbound					15th Street Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	U	App	Ped*	Int
2023-11-02 2:00PM	52	15	0	67	0	0	47	0	47	0	98	0	0	98	0	212
2:15PM	74	15	0	89	0	0	42	1	43	0	97	0	0	97	0	229
2:30PM	67	9	0	76	0	0	88	0	88	0	89	0	0	89	0	253
2:45PM	67	6	0	73	0	0	92	0	92	0	103	0	0	103	0	268
Hourly Total	260	45	0	305	0	0	269	1	270	0	387	0	0	387	0	962
3:00PM	68	13	0	81	0	0	57	0	57	0	92	0	0	92	0	230
3:15PM	79	28	0	107	0	0	49	0	49	0	117	0	0	117	0	273
3:30PM	102	15	0	117	0	0	82	0	82	0	92	0	0	92	0	291
3:45PM	103	12	0	115	0	0	85	0	85	0	105	0	0	105	0	305
Hourly Total	352	68	0	420	0	0	273	0	273	0	406	0	0	406	0	1099
4:00PM	101	21	0	122	0	0	64	0	64	0	97	0	0	97	0	283
4:15PM	144	34	0	178	0	1	59	1	61	0	103	0	0	103	0	342
4:30PM	132	18	0	150	0	0	54	0	54	0	132	0	0	132	0	336
4:45PM	152	49	0	201	0	1	65	0	66	0	115	0	0	115	0	382
Hourly Total	529	122	0	651	0	2	242	1	245	0	447	0	0	447	0	1343
5:00PM	146	32	0	178	0	0	68	0	68	0	120	0	0	120	0	366
5:15PM	164	42	0	206	0	0	80	0	80	0	111	1	0	112	0	398
5:30PM	138	48	0	186	0	1	63	0	64	0	127	2	0	129	0	379
5:45PM	119	26	0	145	0	0	61	0	61	0	88	1	0	89	0	295
Hourly Total	567	148	0	715	0	1	272	0	273	0	446	4	0	450	0	1438
6:00PM	105	22	0	127	0	0	63	0	63	0	108	0	0	108	0	298
6:15PM	96	18	0	114	0	0	68	0	68	0	106	0	0	106	0	288
6:30PM	82	12	0	94	0	0	43	0	43	0	112	0	0	112	0	249
6:45PM	74	18	0	92	0	0	36	0	36	0	101	0	0	101	0	229
Hourly Total	357	70	0	427	0	0	210	0	210	0	427	0	0	427	0	1064
7:00PM	59	9	0	68	0	0	56	0	56	0	96	0	0	96	0	220
7:15PM	69	19	0	88	0	0	39	0	39	0	70	0	0	70	0	197
7:30PM	52	11	0	63	0	0	37	0	37	0	58	0	0	58	0	158
7:45PM	62	10	0	72	0	0	28	0	28	0	63	0	0	63	0	163
Hourly Total	242	49	0	291	0	0	160	0	160	0	287	0	0	287	0	738
8:00PM	59	11	0	70	0	0	41	0	41	0	63	0	0	63	0	174
8:15PM	56	16	0	72	0	0	28	0	28	0	66	0	0	66	0	166
8:30PM	48	8	0	56	0	0	32	0	32	0	37	0	0	37	0	125
8:45PM	43	13	0	56	0	0	17	0	17	0	46	0	0	46	0	119
Hourly Total	206	48	0	254	0	0	118	0	118	0	212	0	0	212	0	584
9:00PM	44	11	0	55	0	0	16	0	16	0	44	0	0	44	0	115
9:15PM	43	10	0	53	0	0	18	0	18	0	38	0	0	38	0	109
9:30PM	33	6	0	39	0	0	16	0	16	0	31	0	0	31	0	86
9:45PM	27	8	0	35	0	0	14	0	14	0	26	0	0	26	0	75
Hourly Total	147	35	0	182	0	0	64	0	64	0	139	0	0	139	0	385
10:00PM	30	8	0	38	0	0	14	0	14	0	24	0	0	24	0	76
10:15PM	29	6	0	35	0	0	9	0	9	0	29	0	0	29	0	73
10:30PM	24	1	0	25	0	0	6	0	6	0	16	0	0	16	0	47
10:45PM	17	5	0	22	0	0	5	0	5	0	17	0	0	17	0	44
Hourly Total	100	20	0	120	0	0	34	0	34	0	86	0	0	86	0	240
11:00PM	18	1	0	19	0	0	8	0	8	0	12	0	0	12	0	39
11:15PM	12	2	0	14	0	0	7	0	7	0	9	0	0	9	0	30
11:30PM	9	1	0	10	0	0	7	0	7	0	13	0	0	13	0	30
11:45PM	9	5	0	14	0	0	3	0	3	0	5	0	0	5	0	22
Hourly Total	48	9	0	57	0	0	25	0	25	0	39	0	0	39	0	121
Total	2808	614	0	3422	0	3	1667	2	1672	0	2876	4	0	2880	0	7974
% Approach	82.1%	17.9%	0%	-	-	0.2%	99.7%	0.1%	-	-	99.9%	0.1%	0%	-	-	-

Leg Direction	JKT SBFR Southbound					15th Street Westbound					15th Street Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	U	App	Ped*	Int
% Total	35.2%	7.7%	0%	42.9%	-	0%	20.9%	0%	21.0%	-	36.1%	0.1%	0%	36.1%	-	-
Lights	2786	605	0	3391	-	3	1630	2	1635	-	2824	4	0	2828	-	7854
% Lights	99.2%	98.5%	0%	99.1%	-	100%	97.8%	100%	97.8%	-	98.2%	100%	0%	98.2%	-	98.5%
Articulated Trucks	0	8	0	8	-	0	3	0	3	-	5	0	0	5	-	16
% Articulated Trucks	0%	1.3%	0%	0.2%	-	0%	0.2%	0%	0.2%	-	0.2%	0%	0%	0.2%	-	0.2%
Buses and Single-Unit Trucks	22	1	0	23	-	0	34	0	34	-	47	0	0	47	-	104
% Buses and Single-Unit Trucks	0.8%	0.2%	0%	0.7%	-	0%	2.0%	0%	2.0%	-	1.6%	0%	0%	1.6%	-	1.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

4. 15th Street at JKT SBFR - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

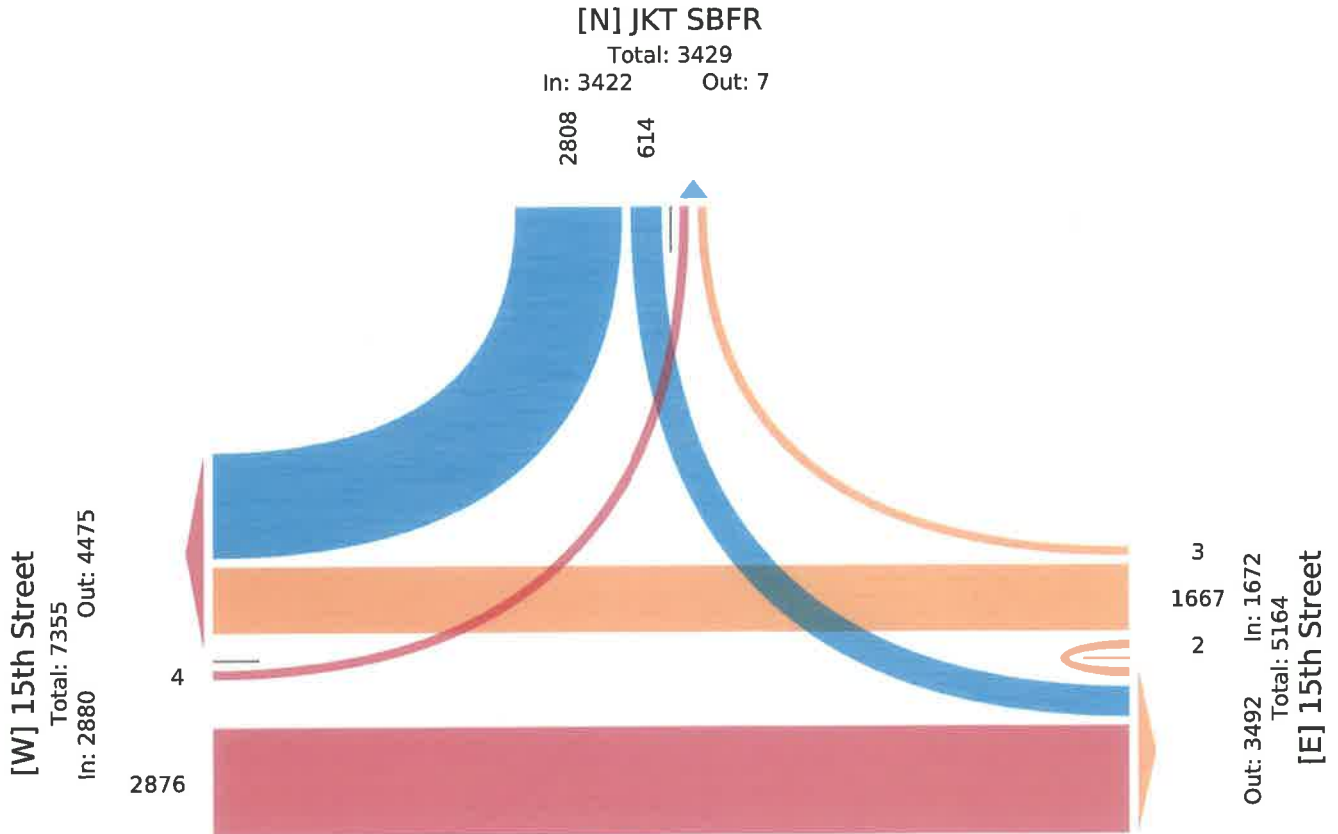
All Movements

ID: 1128553, Location: 35.449766, -97.717931



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



4. 15th Street at JKT SBFR - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128553, Location: 35.449766, -97.717931



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	JKT SBFR Southbound					15th Street Westbound					15th Street Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	U	App	Ped*	Int
2023-11-02 4:45PM	152	49	0	201	0	1	65	0	66	0	115	0	0	115	0	362
5:00PM	146	32	0	178	0	0	68	0	68	0	120	0	0	120	0	366
5:15PM	164	42	0	206	0	0	80	0	80	0	111	1	0	112	0	398
5:30PM	138	48	0	186	0	1	63	0	64	0	127	2	0	129	0	379
Total	600	171	0	771	0	2	276	0	278	0	473	3	0	476	0	1525
% Approach	77.8%	22.2%	0%	-	-	0.7%	99.3%	0%	-	-	99.4%	0.6%	0%	-	-	-
% Total	39.3%	11.2%	0%	50.6%	-	0.1%	18.1%	0%	18.2%	-	31.0%	0.2%	0%	31.2%	-	-
PHF	0.915	0.872	-	0.936	-	0.500	0.863	-	0.869	-	0.931	0.375	-	0.922	-	0.958
Lights	595	168	0	763	-	2	275	0	277	-	470	3	0	473	-	1513
% Lights	99.2%	98.2%	0%	99.0%	-	100%	99.6%	0%	99.6%	-	99.4%	100%	0%	99.4%	-	99.2%
Articulated Trucks	0	2	0	2	-	0	0	0	0	-	0	0	0	0	-	2
% Articulated Trucks	0%	1.2%	0%	0.3%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0.1%
Buses and Single-Unit Trucks	5	1	0	6	-	0	1	0	1	-	3	0	0	3	-	10
% Buses and Single-Unit Trucks	0.8%	0.6%	0%	0.8%	-	0%	0.4%	0%	0.4%	-	0.6%	0%	0%	0.6%	-	0.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

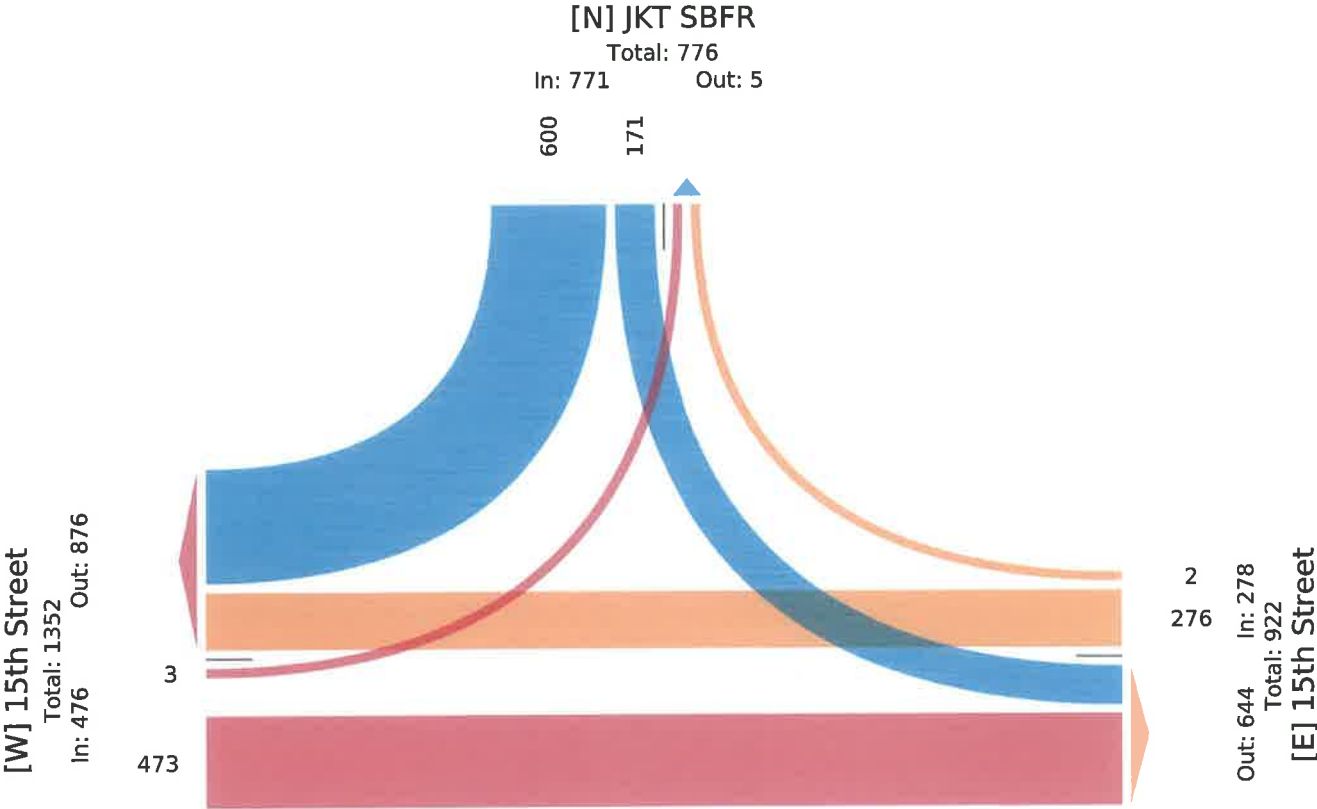
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

4. 15th Street at JKT SBFR - TMC

Thu Nov 2, 2023
PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 1128553, Location: 35.449766, -97.717931



Provided by: C. J. Hensch & Associates
Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



5. 15th Street at JKT NBFR - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128554, Location: 35.449767, -97.716844



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	JKT NBFR Southbound					15th Street Westbound					15th Street Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	U	App	Ped*	Int
2023-11-02 2:00PM	0	0	0	0	0	9	49	0	58	0	69	49	0	118	0	176
2:15PM	0	0	0	0	0	3	43	0	46	0	63	47	0	110	0	156
2:30PM	0	0	0	0	0	3	83	0	86	0	52	54	0	106	0	192
2:45PM	0	0	0	0	0	6	97	0	103	0	63	44	0	107	0	210
Hourly Total	0	0	0	0	0	21	272	0	293	0	247	194	0	441	0	734
3:00PM	0	0	0	0	0	3	56	0	59	0	59	50	0	109	0	168
3:15PM	0	0	0	0	0	3	50	0	53	0	92	61	0	153	0	206
3:30PM	0	0	0	0	0	8	84	0	92	0	64	52	0	116	0	208
3:45PM	0	0	0	0	0	7	84	0	91	0	67	53	0	120	0	211
Hourly Total	0	0	0	0	0	21	274	0	295	0	282	216	0	498	0	793
4:00PM	0	0	0	0	0	4	65	0	69	0	72	46	0	118	0	187
4:15PM	0	0	0	0	0	5	59	0	64	0	78	64	0	142	0	206
4:30PM	0	0	0	0	0	7	50	0	57	0	76	70	0	146	0	203
4:45PM	0	0	0	0	0	5	65	0	70	0	100	66	0	166	0	236
Hourly Total	0	0	0	0	0	21	239	0	260	0	326	246	0	572	0	832
5:00PM	0	0	0	0	0	13	71	0	84	0	86	65	0	151	0	235
5:15PM	0	0	0	0	0	12	75	0	87	0	84	82	0	166	0	253
5:30PM	0	0	0	0	0	7	67	0	74	0	113	65	0	178	0	252
5:45PM	0	0	0	0	0	7	58	0	65	0	71	53	0	124	0	189
Hourly Total	0	0	0	0	0	39	271	0	310	0	354	265	0	619	0	929
6:00PM	0	0	0	0	0	13	66	0	79	0	80	62	0	142	0	221
6:15PM	0	0	0	0	0	9	67	0	76	0	77	48	0	125	0	201
6:30PM	0	0	0	0	0	12	44	0	56	0	65	64	0	129	0	185
6:45PM	0	0	0	0	0	4	37	0	41	0	87	37	0	124	0	165
Hourly Total	0	0	0	0	0	38	214	0	252	0	309	211	0	520	0	772
7:00PM	0	0	0	0	0	2	57	0	59	0	69	40	0	109	0	168
7:15PM	0	0	0	0	0	7	41	0	48	0	61	38	0	99	0	147
7:30PM	0	0	0	0	0	1	38	0	39	0	44	30	0	74	0	113
7:45PM	0	0	0	0	0	3	27	0	30	0	54	22	0	76	0	106
Hourly Total	0	0	0	0	0	13	163	0	176	0	228	130	0	358	0	534
8:00PM	0	0	0	0	0	2	40	0	42	0	45	28	0	73	0	115
8:15PM	0	0	0	0	0	3	32	0	35	0	50	30	0	80	0	115
8:30PM	0	0	0	0	0	2	32	0	34	0	27	20	0	47	0	81
8:45PM	0	0	0	0	0	4	17	0	21	0	44	14	0	58	0	79
Hourly Total	0	0	0	0	0	11	121	0	132	0	166	92	0	258	0	390
9:00PM	0	0	0	0	0	6	16	0	22	0	32	20	0	52	0	74
9:15PM	0	0	0	0	0	2	18	0	20	0	32	24	0	56	0	76
9:30PM	0	0	0	0	0	3	16	0	19	0	23	11	0	34	0	53
9:45PM	0	0	0	0	0	0	12	0	12	0	27	11	0	38	0	50
Hourly Total	0	0	0	0	0	11	62	0	73	0	114	66	0	180	0	253
10:00PM	0	0	0	0	0	4	15	0	19	0	21	11	0	32	0	51
10:15PM	0	0	0	0	0	1	10	0	11	0	23	13	0	36	0	47
10:30PM	0	0	0	0	0	1	6	0	7	0	9	8	0	17	0	24
10:45PM	0	0	0	0	0	2	4	0	6	0	13	6	0	19	0	25
Hourly Total	0	0	0	0	0	8	35	0	43	0	66	38	0	104	0	147
11:00PM	0	0	0	0	0	0	8	0	8	0	9	5	0	14	0	22
11:15PM	0	0	0	0	0	0	7	0	7	0	6	5	0	11	0	18
11:30PM	0	0	0	0	0	0	7	0	7	0	10	4	0	14	0	21
11:45PM	0	0	0	0	0	0	3	0	3	0	6	5	0	11	0	14
Hourly Total	0	0	0	0	0	0	25	0	25	0	31	19	0	50	0	75
Total	0	0	0	0	0	183	1676	0	1859	0	2123	1477	0	3600	0	5459
% Approach	0%	0%	0%	-	-	9.8%	90.2%	0%	-	-	59.0%	41.0%	0%	-	-	-

Leg Direction	JKT NBFR Southbound						15th Street Westbound						15th Street Eastbound						
Time	R	L	U	App	Ped*		R	T	U	App	Ped*		T	L	U	App	Ped*	Int	
% Total	0%	0%	0%	0%	-		3.4%	30.7%	0%	34.1%	-		38.9%	27.1%	0%	65.9%	-	-	
Lights	0	0	0	0	-		180	1642	0	1822	-		2087	1453	0	3540	-	5362	
% Lights	0%	0%	0%	-	-		98.4%	98.0%	0%	98.0%	-		98.3%	98.4%	0%	98.3%	-	98.2%	
Articulated Trucks	0	0	0	0	-		1	4	0	5	-		5	7	0	12	-	17	
% Articulated Trucks	0%	0%	0%	-	-		0.5%	0.2%	0%	0.3%	-		0.2%	0.5%	0%	0.3%	-	0.3%	
Buses and Single-Unit Trucks	0	0	0	0	-		2	30	0	32	-		31	17	0	48	-	80	
% Buses and Single-Unit Trucks	0%	0%	0%	-	-		1.1%	1.8%	0%	1.7%	-		1.5%	1.2%	0%	1.3%	-	1.5%	
Pedestrians	-	-	-	-	0		-	-	-	-	0		-	-	-	-	0		
% Pedestrians	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	0		-	-	-	-	0		-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

5. 15th Street at JKT NBFR - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128554, Location: 35.449767, -97.716844

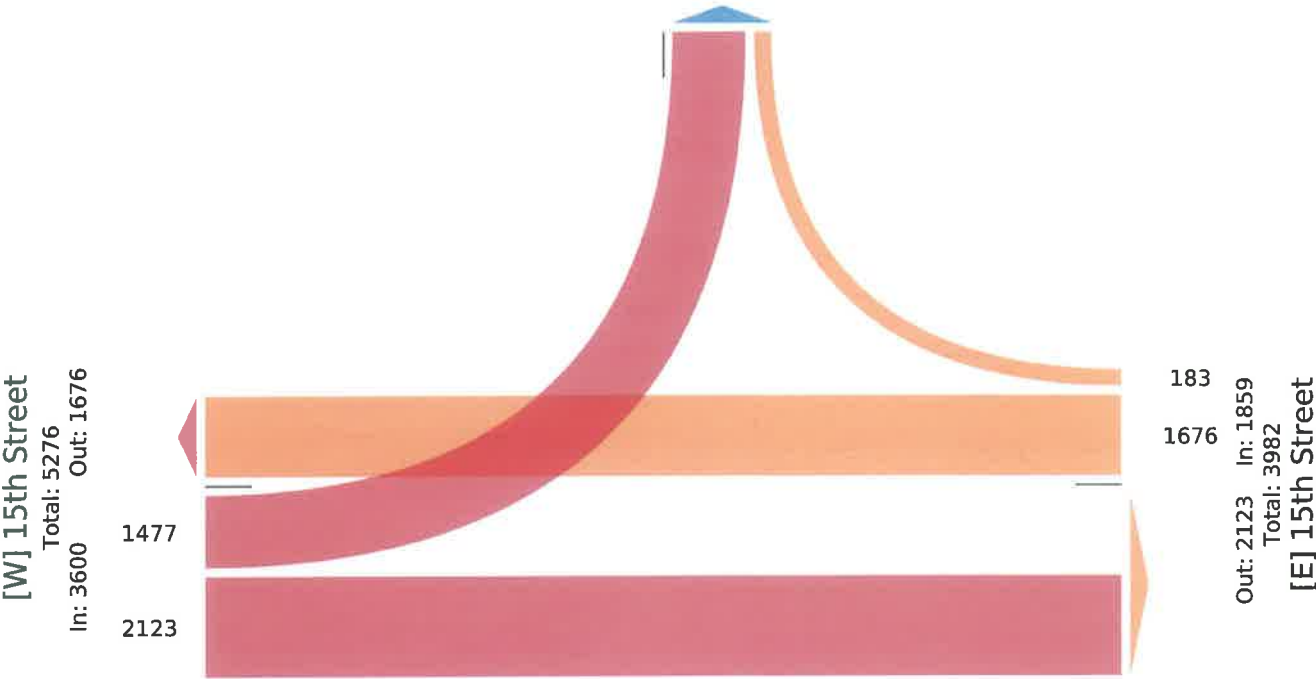


Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] JKT NBFR

Total: 1660
In: 0 Out: 1660



5. 15th Street at JKT NBFR - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128554, Location: 35.449767, -97.716844



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	JKT NBFR Southbound					15th Street Westbound					15th Street Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	U	App	Ped*	Int
2023-11-02 4:45PM	0	0	0	0	0	5	65	0	70	0	100	66	0	166	0	236
5:00PM	0	0	0	0	0	13	71	0	84	0	86	65	0	151	0	235
5:15PM	0	0	0	0	0	12	75	0	87	0	84	82	0	166	0	253
5:30PM	0	0	0	0	0	7	67	0	74	0	113	65	0	178	0	252
Total	0	0	0	0	0	37	278	0	315	0	383	278	0	661	0	976
% Approach	0%	0%	0%	-	-	11.7%	88.3%	0%	-	-	57.9%	42.1%	0%	-	-	-
% Total	0%	0%	0%	0%	-	3.8%	28.5%	0%	32.3%	-	39.2%	28.5%	0%	67.7%	-	-
PHF	-	-	-	-	-	0.712	0.927	-	0.905	-	0.847	0.848	-	0.928	-	0.964
Lights	0	0	0	0	-	37	278	0	315	-	382	275	0	657	-	972
% Lights	0%	0%	0%	-	-	100%	100%	0%	100%	-	99.7%	98.9%	0%	99.4%	-	99.6%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	1	1	0	2	-	2
% Articulated Trucks	0%	0%	0%	-	-	0%	0%	0%	0%	-	0.3%	0.4%	0%	0.3%	-	0.2%
Buses and Single-Unit Trucks	0	0	0	0	-	0	0	0	0	-	0	2	0	2	-	2
% Buses and Single-Unit Trucks	0%	0%	0%	-	-	0%	0%	0%	0%	-	0%	0.7%	0%	0.3%	-	0.2%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

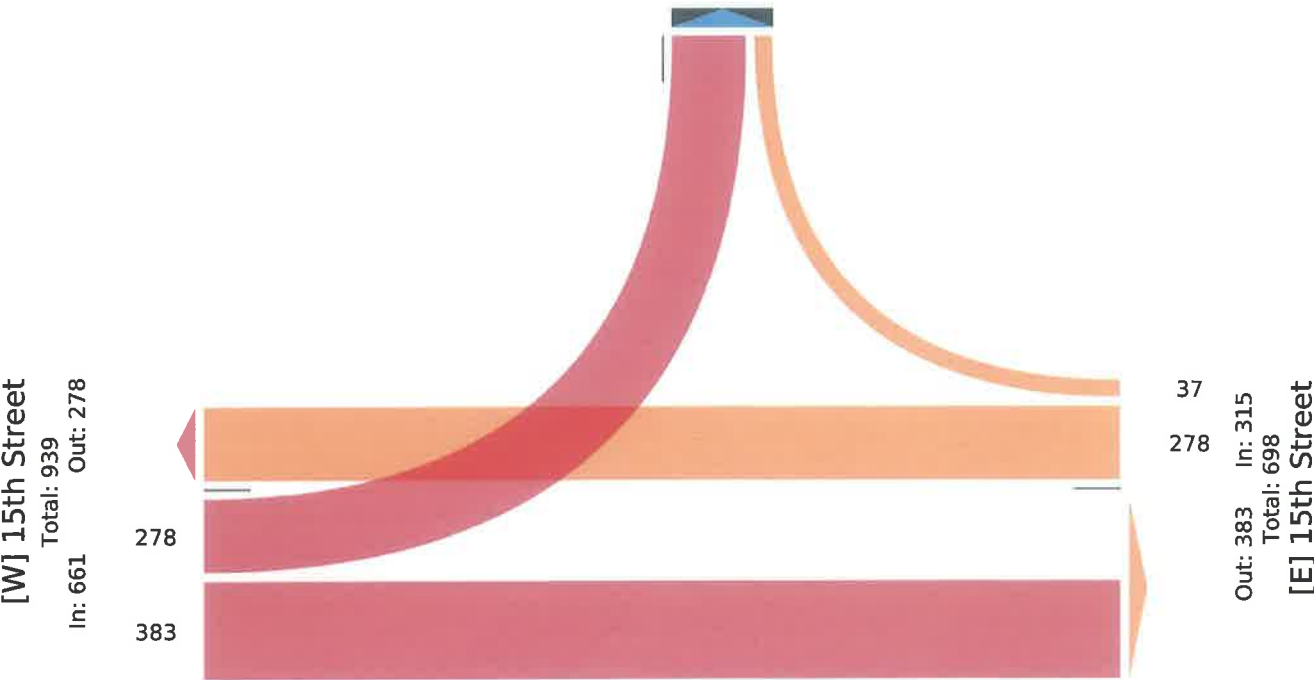
5. 15th Street at JKT NBFR - TMC

Thu Nov 2, 2023
PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians,
Bicycles on Crosswalk)
All Movements
ID: 1128554, Location: 35.449767, -97.716844



Provided by: C. J. Hensch & Associates
Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] JKT NBFR
Total: 315
In: 0 Out: 315



6. 15th street at Sara Road - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128555, Location: 35.449628, -97.706911



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Sara Road Southbound						15th Street Westbound						Sara Road Northbound						15th Street Eastbound						Int
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 2:00PM	19	22	15	0	56	0	9	38	8	0	55	0	6	19	10	0	35	0	13	46	7	0	66	0	212
2:15PM	5	20	14	0	39	0	15	31	18	0	64	0	16	18	6	0	40	0	15	46	4	0	65	0	208
2:30PM	22	22	19	0	63	0	14	65	12	0	91	0	18	23	3	0	44	0	16	41	6	0	63	0	261
2:45PM	3	23	12	0	38	0	8	39	18	0	65	0	21	28	8	0	57	0	10	52	9	0	71	0	231
Hourly Total	49	87	60	0	196	0	46	173	56	0	275	0	61	88	27	0	176	0	54	185	26	0	265	0	912
3:00PM	8	27	20	0	55	0	22	46	14	0	82	0	15	23	6	0	44	0	9	43	8	0	60	0	241
3:15PM	10	26	17	0	53	0	18	47	14	0	79	0	17	25	18	0	60	0	14	49	7	0	70	0	262
3:30PM	3	35	15	0	53	0	13	69	17	0	99	0	12	29	17	0	58	0	24	68	9	0	101	0	311
3:45PM	7	40	16	0	63	0	26	55	20	0	101	0	18	31	12	0	61	0	28	65	11	0	104	0	329
Hourly Total	28	128	68	0	224	0	79	217	65	0	361	0	62	108	53	0	223	0	75	225	35	0	335	0	1143
4:00PM	10	46	21	0	77	0	27	45	19	0	91	0	23	32	5	0	60	0	15	51	12	0	78	0	306
4:15PM	6	36	26	0	68	0	20	55	11	0	86	0	11	27	5	0	43	0	12	52	8	0	72	0	269
4:30PM	7	53	20	0	80	0	17	50	16	0	83	0	20	31	11	0	62	0	9	64	8	0	81	0	306
4:45PM	14	47	17	0	78	0	26	43	10	0	79	1	18	33	10	0	61	0	13	64	7	0	84	0	302
Hourly Total	37	182	84	0	303	0	90	193	56	0	339	1	72	123	31	0	226	0	49	231	35	0	315	0	1183
5:00PM	10	61	22	0	93	0	25	72	17	0	114	0	28	39	12	0	79	0	23	66	6	0	95	0	381
5:15PM	18	49	20	0	87	0	22	71	22	0	115	0	17	47	16	0	80	0	5	61	11	0	77	0	359
5:30PM	9	51	24	0	84	0	31	56	29	0	116	0	20	32	11	0	63	0	15	90	12	0	117	0	380
5:45PM	10	39	18	0	67	0	20	51	18	0	89	0	27	27	7	0	61	0	6	70	7	0	83	0	300
Hourly Total	47	200	84	0	331	0	98	250	86	0	434	0	92	145	46	0	283	0	49	287	36	0	372	0	1420
6:00PM	11	29	18	0	58	0	20	54	18	0	92	0	19	32	10	0	61	0	10	58	8	0	76	0	287
6:15PM	9	32	15	0	56	0	18	55	21	0	94	0	16	29	10	0	55	0	8	57	7	0	72	0	277
6:30PM	7	29	28	0	64	0	14	45	19	0	78	0	9	31	5	0	45	0	12	47	2	0	61	0	248
6:45PM	2	20	18	0	40	0	8	36	16	0	60	0	16	29	5	0	50	0	9	60	10	0	79	0	229
Hourly Total	29	110	79	0	218	0	60	190	74	0	324	0	60	121	30	0	211	0	39	222	27	0	288	0	1041
7:00PM	4	20	17	0	41	0	6	38	5	0	49	0	24	23	8	0	55	0	10	53	10	0	73	0	218
7:15PM	5	20	18	0	43	0	6	30	13	0	49	0	10	16	2	0	28	0	13	46	5	0	64	0	184
7:30PM	9	26	10	0	45	0	3	20	7	0	30	0	8	20	8	0	36	0	4	42	3	0	49	0	160
7:45PM	2	21	10	0	33	0	0	22	7	0	29	0	13	17	3	0	33	0	4	38	8	0	50	0	145
Hourly Total	20	87	55	0	162	0	15	110	32	0	157	0	55	76	21	0	152	0	31	179	26	0	236	0	707
8:00PM	4	7	10	0	21	0	3	32	8	0	43	0	6	18	2	0	26	0	13	31	6	0	50	0	140
8:15PM	3	14	9	0	26	0	7	26	5	0	38	0	10	13	1	0	24	0	7	37	6	0	50	0	138
8:30PM	7	11	12	0	30	0	6	15	5	0	26	0	8	12	5	0	25	0	2	25	4	0	31	0	112
8:45PM	3	11	9	0	23	0	8	13	4	0	25	0	5	9	3	0	17	0	7	28	7	0	42	0	107
Hourly Total	17	43	40	0	100	0	24	86	22	0	132	0	29	52	11	0	92	0	29	121	23	0	173	0	497
9:00PM	3	9	6	0	18	0	4	16	5	0	25	0	2	14	2	0	18	0	5	26	1	0	32	0	93
9:15PM	1	10	6	0	17	0	7	18	5	0	30	0	6	9	0	0	15	0	2	27	7	0	36	0	98
9:30PM	1	4	5	0	10	0	2	13	7	0	22	0	3	6	1	0	10	0	4	15	4	0	23	0	65
9:45PM	0	4	4	0	8	0	5	10	3	0	18	0	3	2	0	0	5	0	6	16	4	0	26	0	57
Hourly Total	5	27	21	0	53	0	18	57	20	0	95	0	14	31	3	0	48	0	17	84	16	0	117	0	313
10:00PM	0	5	4	0	9	0	5	18	2	0	25	0	2	7	0	0	9	0	4	13	2	0	19	0	62
10:15PM	3	4	4	0	11	0	1	7	2	0	10	0	7	5	0	0	12	0	1	23	1	0	25	0	58
10:30PM	0	2	4	0	6	0	2	6	0	0	8	0	1	5	1	0	7	0	1	8	0	0	9	0	30
10:45PM	0	2	0	0	2	0	2	4	2	0	8	0	2	2	2	0	6	0	1	10	3	0	14	0	30
Hourly Total	3	13	12	0	28	0	10	35	6	0	51	0	12	19	3	0	34	0	7	54	6	0	67	0	180
11:00PM	1	3	3	0	7	0	1	6	0	0	7	0	0	1	0	0	1	0	2	5	1	0	8	0	23
11:15PM	1	3	3	0	7	0	1	5	1	0	7	0	0	1	0	0	1	0	1	5	1	0	7	0	22
11:30PM	2	2	2	0	6	0	2	5	1	0	8	0	1	3	0	0	4	0	2	4	2	0	8	0	26
11:45PM	0	2	1	0	3	0	2	2	2	0	6	0	0	1	0	0	1	0	0	7	0	0	7	0	17
Hourly Total	4	10	9	0	23	0	6	18	4	0	28	0	1	6	0	0	7	0	5	21	4	0	30	0	88
Total	239	887	512	0	1638	0	446	1329	421	0	2196	1	458	769	225	0	1452	0	355	1609	234	0	2198	0	7484
% Approach	14.6%	54.2%	31.3%	0%	-	-	20.3%	60.5%	19.2%	0%	-	-	31.5%	53.0%	15.5%	0%	-	-	16.2%	73.2%	10.6%	0%	-	-	-
% Total	3.2%	11.9%	6.8%	0%	21.9%	-	6.0%	17.8%	5.6%	0%	29.3%	-	6.1%	10.3%	3.0%	0%	19.4%	-	4.7%	21.5%	3.1%	0%	29.4%	-	-
Lights	238	861	508	0	1607	-	444	1299	414	0	2157	-	454	744	220	0	1418	-	351	1583	229	0	2163	-	7345
% Lights	99.6%	97.1%	99.2%	0%	98.1%	-	99.6%	97.7%	98.3%	0%	98.2%	-	99.1%	96.7%	97.8%	0%	97.7%	-	98.9%	98.4%	97.9%	0%	98.4%	-	98.1%
Articulated Trucks	0	10	1	0	11	-	0	5	0	0	5	-	0	9	1	0	10	-	0	7	0	0	7	-	33
% Articulated Trucks	0%	1.1%	0.2%	0%	0.7%	-	0%	0.4%	0%	0%	0.2%	-	0%	1.2%	0.4%	0%	0.7%	-	0%	0.4%	0%	0%	0.3%	-	0.4%

Leg Direction	Sara Road Southbound						15th Street Westbound						Sara Road Northbound						15th Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
Buses and Single-Unit Trucks	1	16	3	0	20	-	2	25	7	0	34	-	4	16	4	0	24	-	4	19	5	0	28	-	106
% Buses and Single-Unit Trucks	0.4%	1.8%	0.6%	0%	1.2%	-	0.4%	1.9%	1.7%	0%	1.5%	-	0.9%	2.1%	1.8%	0%	1.7%	-	1.1%	1.2%	2.1%	0%	1.3%	-	1.4%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

6. 15th street at Sara Road - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

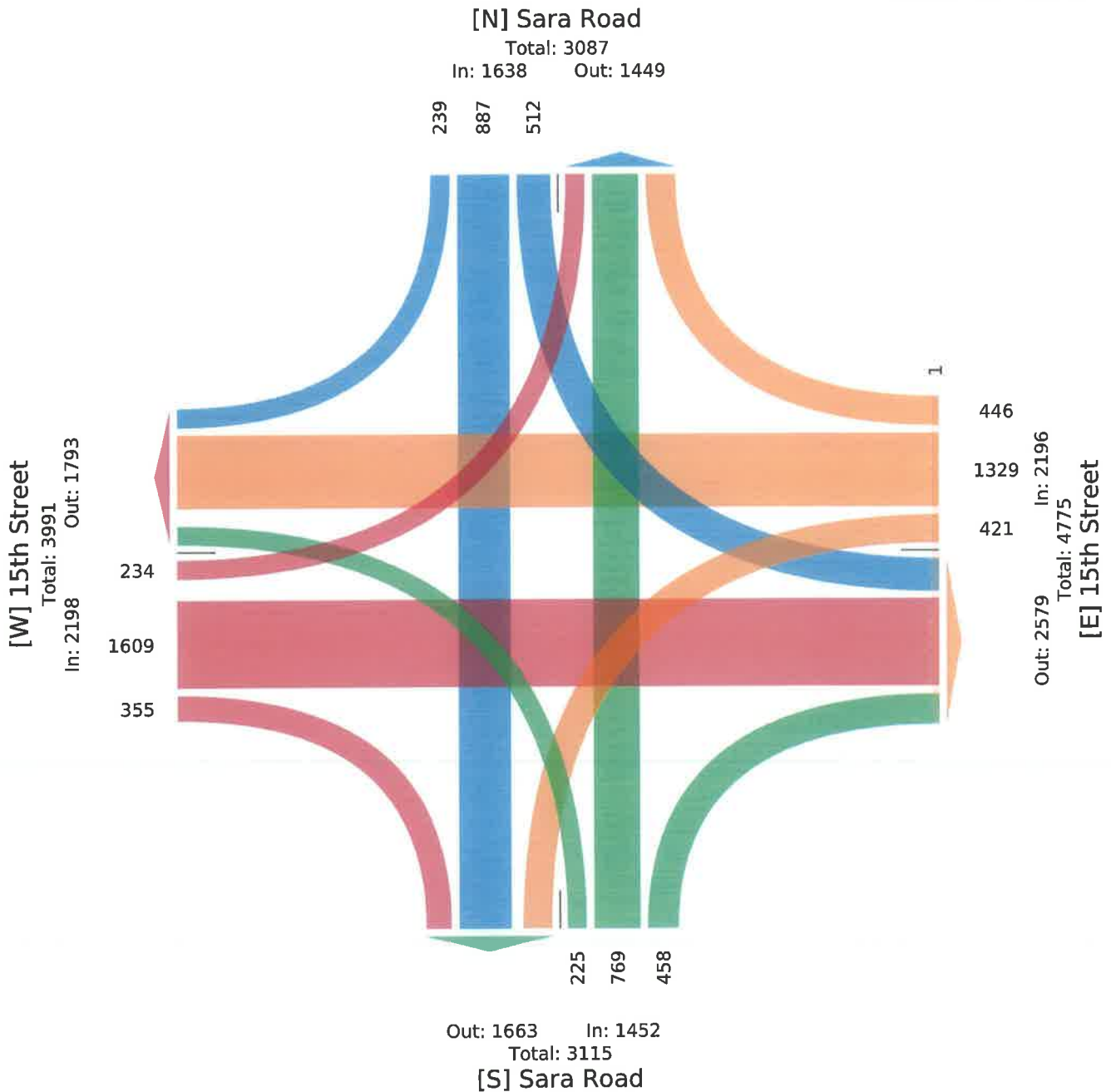
ID: 1128555, Location: 35.449628, -97.706911



Provided by: C. J. Hensch & Associates

Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



6. 15th street at Sara Road - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128555, Location: 35.449628, -97.706911



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Sara Road Southbound						15th Street Westbound						Sara Road Northbound						15th Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 4:45PM	14	47	17	0	78	0	26	43	10	0	79	1	18	33	10	0	61	0	13	64	7	0	84	0	302
5:00PM	10	61	22	0	93	0	25	72	17	0	114	0	28	39	12	0	79	0	23	66	6	0	95	0	381
5:15PM	18	49	20	0	87	0	22	71	22	0	115	0	17	47	16	0	80	0	5	61	11	0	77	0	359
5:30PM	9	51	24	0	84	0	31	56	29	0	116	0	20	32	11	0	63	0	15	90	12	0	117	0	380
Total	51	208	83	0	342	0	104	242	78	0	424	1	83	151	49	0	283	0	56	281	36	0	373	0	1422
% Approach	14.9%	60.8%	24.3%	0%	-	-	24.5%	57.1%	18.4%	0%	-	-	29.3%	53.4%	17.3%	0%	-	-	15.0%	75.3%	9.7%	0%	-	-	-
% Total	3.6%	14.6%	5.8%	0%	24.1%	-	7.3%	17.0%	5.5%	0%	29.8%	-	5.8%	10.6%	3.4%	0%	19.9%	-	3.9%	19.8%	2.5%	0%	26.2%	-	-
PHF	0.708	0.852	0.865	-	0.919	-	0.839	0.840	0.672	-	0.914	-	0.741	0.803	0.766	-	0.884	-	0.609	0.781	0.750	-	0.797	-	0.933
Lights	51	203	83	0	337	-	104	242	78	0	424	-	83	149	49	0	281	-	56	279	36	0	371	-	1413
% Lights	100%	97.6%	100%	0%	98.5%	-	100%	100%	100%	0%	100%	-	100%	98.7%	100%	0%	99.3%	-	100%	99.3%	100%	0%	99.5%	-	99.4%
Articulated Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	2	0	0	2	-	2
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0.7%	0%	0%	0.5%	-	0.1%
Buses and Single-Unit Trucks	0	5	0	0	5	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	7
% Buses and Single-Unit Trucks	0%	2.4%	0%	0%	1.5%	-	0%	0%	0%	0%	0%	-	0%	1.3%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

6. 15th street at Sara Road - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 4:45PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

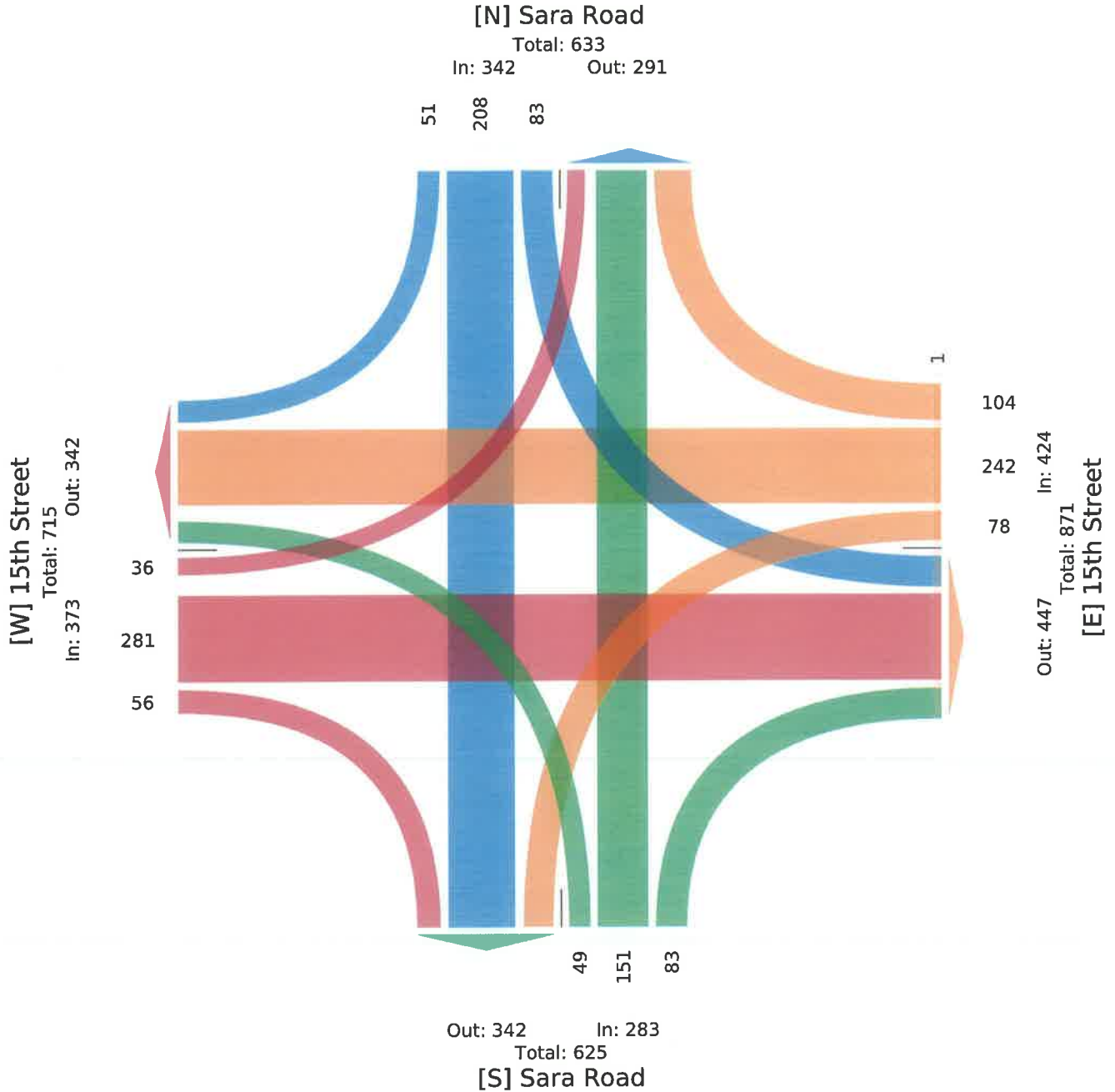
All Movements

ID: 1128555, Location: 35.449628, -97.706911



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



7. 15th Street at Morgan Street - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128556, Location: 35.449646, -97.689248



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Morgan Road Southbound							15th Street Westbound							Morgan Road Northbound							15th Street Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*	Int	
2023-11-02 2:00PM	34	73	14	0	121	0		21	16	1	0	38	0		4	56	23	0	83	0		25	24	26	0	75	0		317
2:15PM	38	64	19	0	121	0		14	11	4	0	29	0		4	68	22	0	94	1		21	15	31	0	67	0		311
2:30PM	36	79	24	0	139	0		18	22	3	0	43	0		6	86	23	0	115	2		20	25	25	0	70	0		367
2:45PM	40	84	11	1	136	0		18	15	6	0	39	0		8	77	31	0	116	0		22	16	31	0	69	0		360
Hourly Total	148	300	68	1	517	0		71	64	14	0	149	0		22	287	99	0	408	3		88	80	113	0	281	0		1355
3:00PM	35	76	13	0	124	0		23	33	5	0	61	0		6	79	37	0	122	0		22	28	25	0	75	0		382
3:15PM	43	101	22	0	166	0		16	27	8	0	51	0		7	72	32	0	111	0		30	15	29	0	74	0		402
3:30PM	43	107	23	0	173	1		27	43	4	0	74	0		6	67	31	0	104	0		43	22	20	0	85	0		436
3:45PM	49	131	25	0	205	0		17	29	8	0	54	0		2	83	34	0	119	0		35	36	16	0	87	0		465
Hourly Total	170	415	83	0	668	1		83	132	25	0	240	0		21	301	134	0	456	0		130	101	90	0	321	0		1685
4:00PM	38	118	17	0	173	0		45	42	15	0	102	0		16	67	37	0	120	0		31	19	32	0	82	0		477
4:15PM	43	149	25	0	217	0		17	28	5	0	50	0		7	71	27	0	105	0		34	23	26	0	83	0		455
4:30PM	57	121	14	0	192	1		26	30	7	0	63	0		6	94	31	0	131	0		31	27	27	0	85	0		471
4:45PM	53	133	25	0	211	1		27	33	10	0	70	0		7	76	37	0	120	0		45	27	29	0	101	0		502
Hourly Total	191	521	81	0	793	2		115	133	37	0	285	0		36	308	132	0	476	0		141	96	114	0	351	0		1905
5:00PM	59	148	29	0	236	0		46	51	14	0	111	0		5	78	33	0	116	0		38	30	23	0	91	0		554
5:15PM	58	138	25	0	221	0		31	53	12	0	96	0		8	84	43	0	135	0		43	36	28	0	107	0		559
5:30PM	71	165	21	0	257	0		17	32	5	0	54	0		4	87	27	0	118	0		55	35	38	0	128	0		557
5:45PM	58	136	20	0	214	0		15	42	7	0	64	0		1	102	29	0	132	0		37	35	24	0	96	0		506
Hourly Total	246	587	95	0	928	0		109	178	38	0	325	0		18	351	132	0	501	0		173	136	113	0	422	0		2176
6:00PM	47	115	19	0	181	0		7	32	4	0	43	0		2	81	33	0	116	0		27	22	29	0	78	0		418
6:15PM	42	105	16	0	163	0		14	33	4	0	51	0		4	61	29	0	94	0		17	19	20	0	56	0		364
6:30PM	41	84	13	0	138	0		13	19	5	0	37	0		1	76	20	0	97	0		33	25	28	0	86	0		358
6:45PM	43	86	10	0	139	0		13	18	8	0	39	0		2	63	19	0	84	0		27	18	31	0	76	0		338
Hourly Total	173	390	58	0	621	0		47	102	21	0	170	0		9	281	101	0	391	0		104	84	108	0	296	0		1478
7:00PM	39	93	11	0	143	0		15	22	1	0	38	0		2	55	21	0	78	1		28	22	25	0	75	0		334
7:15PM	41	88	9	0	138	0		13	8	1	0	22	0		2	43	21	0	66	0		28	20	22	0	70	0		296
7:30PM	30	72	15	0	117	1		7	13	8	0	28	0		2	49	19	0	70	0		21	12	15	0	48	0		263
7:45PM	21	89	8	0	118	0		5	11	3	0	19	0		0	38	17	0	55	0		18	11	13	0	42	0		234
Hourly Total	131	342	43	0	516	1		40	54	13	0	107	0		6	185	78	0	269	1		95	65	75	0	235	0		1127
8:00PM	27	58	17	0	102	0		8	12	5	0	25	0		5	37	16	0	58	0		14	13	4	0	31	0		216
8:15PM	28	90	9	0	127	0		3	14	2	0	19	0		4	24	17	0	45	0		22	10	6	0	38	0		229
8:30PM	19	61	15	0	95	0		6	7	5	0	18	0		2	24	11	0	37	0		14	9	13	0	36	0		186
8:45PM	19	54	12	0	85	0		5	6	4	0	15	0		4	29	12	0	45	0		15	7	13	0	35	0		180
Hourly Total	93	263	53	0	409	0		22	39	16	0	77	0		15	114	56	0	185	0		65	39	36	0	140	0		811
9:00PM	20	53	12	0	85	0		3	8	0	0	11	0		3	22	14	0	39	0		9	9	5	0	23	0		158
9:15PM	21	41	12	0	74	0		8	5	2	0	15	0		4	21	6	0	31	0		18	7	4	0	29	0		149
9:30PM	15	52	9	0	76	1		3	3	0	0	6	0		2	19	8	0	29	0		8	5	11	0	24	0		135
9:45PM	14	33	2	0	49	0		4	6	1	0	11	0		1	8	5	0	14	0		12	9	7	0	28	0		102
Hourly Total	70	179	35	0	284	1		18	22	3	0	43	0		10	70	33	0	113	0		47	30	27	0	104	0		544
10:00PM	12	38	3	0	53	0		4	11	0	0	15	0		0	21	5	0	26	0		7	5	5	0	17	2		111
10:15PM	10	20	4	0	34	0		0	2	0	0	2	0		0	15	3	0	18	0		11	5	9	0	25	0		79
10:30PM	10	19	5	0	34	0		2	6	1	0	9	0		0	9	0	0	9	0		7	6	4	0	17	0		69
10:45PM	4	9	6	0	19	0		1	2	1	0	4	0		1	6	4	0	11	0		6	1	7	0	14	0		48
Hourly Total	36	86	18	0	140	0		7	21	2	0	30	0		1	51	12	0	64	0		31	17	25	0	73	2		307
11:00PM	5	16	2	0	23	0		5	0	0	0	5	0		0	5	5	0	10	0		1	4	5	0	10	0		48
11:15PM	13	23	5	0	41	0		2	4	1	0	7	0		0	3	1	0	4	0		4	2	6	0	12	0		64
11:30PM	4	11	2	0	17	0		0	6	1	0	7	0		0	7	2	0	9	0		2	3	0	0	5	0		38
11:45PM	5	11	3	0	19	0		1	2	0	0	3	0		0	1	1	0	2	0		2	9	2	0	13	0		37
Hourly Total	27	61	12	0	100	0		8	12	2	0	22	0		0	16	9	0	25	0		9	18	13	0	40	0		187
Total	1285	3144	546	1	4976	5		520	757	171	0	1448	0		138	1964	786	0	2888	4		883	666	714	0	2263	2		11575
% Approach	25.8%	63.2%	11.0%	0%	-	-		35.9%	52.3%	11.8%	0%	-	-		4.8%	68.0%	27.2%	0%	-	-		39.0%	29.4%	31.6%	0%	-	-		-
% Total	11.1%	27.2%	4.7%	0%	43.0%	-		4.5%	6.5%	1.5%	0%	12.5%	-		1.2%	17.0%	6.8%	0%	25.0%	-		7.6%	5.8%	6.2%	0%	19.6%	-		-
Lights	1273	3108	499	1	4881	-		470	740	166	0	1376	-																

Leg Direction	Morgan Road Southbound							15th Street Westbound							Morgan Road Northbound							15th Street Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*	Int	
% Buses and Single-Unit Trucks	0.7%	0.7%	3.3%	0%	1.0%	-		4.8%	1.7%	2.9%	0%	3.0%	-		10.9%	2.0%	0.9%	0%	2.1%	-		1.6%	2.0%	1.1%	0%	1.5%	-	1.6%	
Pedestrians	-	-	-	-	-	5		-	-	-	-	-	0		-	-	-	-	-	4		-	-	-	-	-	2		
% Pedestrians	-	-	-	-	-	- 100%		-	-	-	-	-	- 100%		-	-	-	-	-	- 100%		-	-	-	-	-	- 100%	-	
Bicycles on Crosswalk	-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		-	-	-	-	-	0		
% Bicycles on Crosswalk	-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	0%		-	-	-	-	-	0%	-	

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

7. 15th Street at Morgan Street - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

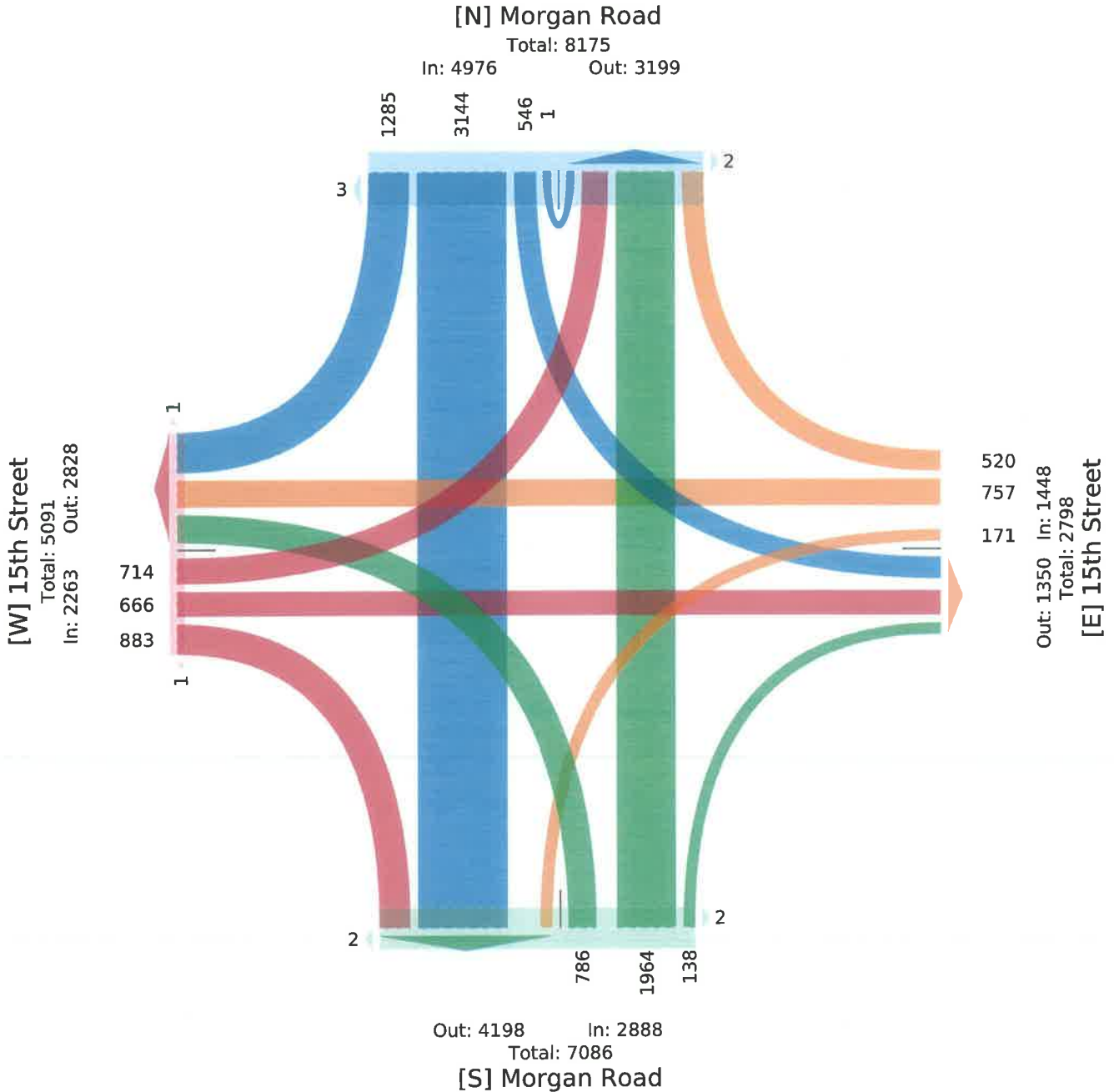
All Movements

ID: 1128556, Location: 35.449646, -97.689248



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



7. 15th Street at Morgan Street - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128556, Location: 35.449646, -97.689248



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Morgan Road Southbound						15th Street Westbound						Morgan Road Northbound						15th Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 5:00PM	59	148	29	0	236	0	46	51	14	0	111	0	5	78	33	0	116	0	38	30	23	0	91	0	554
5:15PM	58	138	25	0	221	0	31	53	12	0	96	0	8	84	43	0	135	0	43	36	28	0	107	0	559
5:30PM	71	165	21	0	257	0	17	32	5	0	54	0	4	87	27	0	118	0	55	35	38	0	128	0	557
5:45PM	58	136	20	0	214	0	15	42	7	0	64	0	1	102	29	0	132	0	37	35	24	0	96	0	506
Total	246	587	95	0	928	0	109	178	38	0	325	0	18	351	132	0	501	0	173	136	113	0	422	0	2176
% Approach	26.5%	63.3%	10.2%	0%	-	-	33.5%	54.8%	11.7%	0%	-	-	3.6%	70.1%	26.3%	0%	-	-	41.0%	32.2%	26.8%	0%	-	-	-
% Total	11.3%	27.0%	4.4%	0%	42.6%	-	5.0%	8.2%	1.7%	0%	14.9%	-	0.8%	16.1%	6.1%	0%	23.0%	-	8.0%	6.3%	5.2%	0%	19.4%	-	-
PHF	0.866	0.889	0.819	-	0.903	-	0.592	0.840	0.679	-	0.732	-	0.563	0.860	0.767	-	0.928	-	0.786	0.944	0.743	-	0.824	-	0.973
Lights	246	583	89	0	918	-	102	177	38	0	317	-	17	340	132	0	489	-	172	135	111	0	418	-	2142
% Lights	100%	99.3%	93.7%	0%	98.9%	-	93.6%	99.4%	100%	0%	97.5%	-	94.4%	96.9%	100%	0%	97.6%	-	99.4%	99.3%	98.2%	0%	99.1%	-	98.4%
Articulated Trucks	0	1	3	0	4	-	5	0	0	0	5	-	0	2	0	0	2	-	0	1	0	0	1	-	12
% Articulated Trucks	0%	0.2%	3.2%	0%	0.4%	-	4.6%	0%	0%	0%	1.5%	-	0%	0.6%	0%	0%	0.4%	-	0%	0.7%	0%	0%	0.2%	-	0.6%
Buses and Single-Unit Trucks	0	3	3	0	6	-	2	1	0	0	3	-	1	9	0	0	10	-	1	0	2	0	3	-	22
% Buses and Single-Unit Trucks	0%	0.5%	3.2%	0%	0.6%	-	1.8%	0.6%	0%	0%	0.9%	-	5.6%	2.6%	0%	0%	2.0%	-	0.6%	0%	1.8%	0%	0.7%	-	1.0%
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

7. 15th Street at Morgan Street - TMC

Thu Nov 2, 2023

PM Peak (Nov 02 2023 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

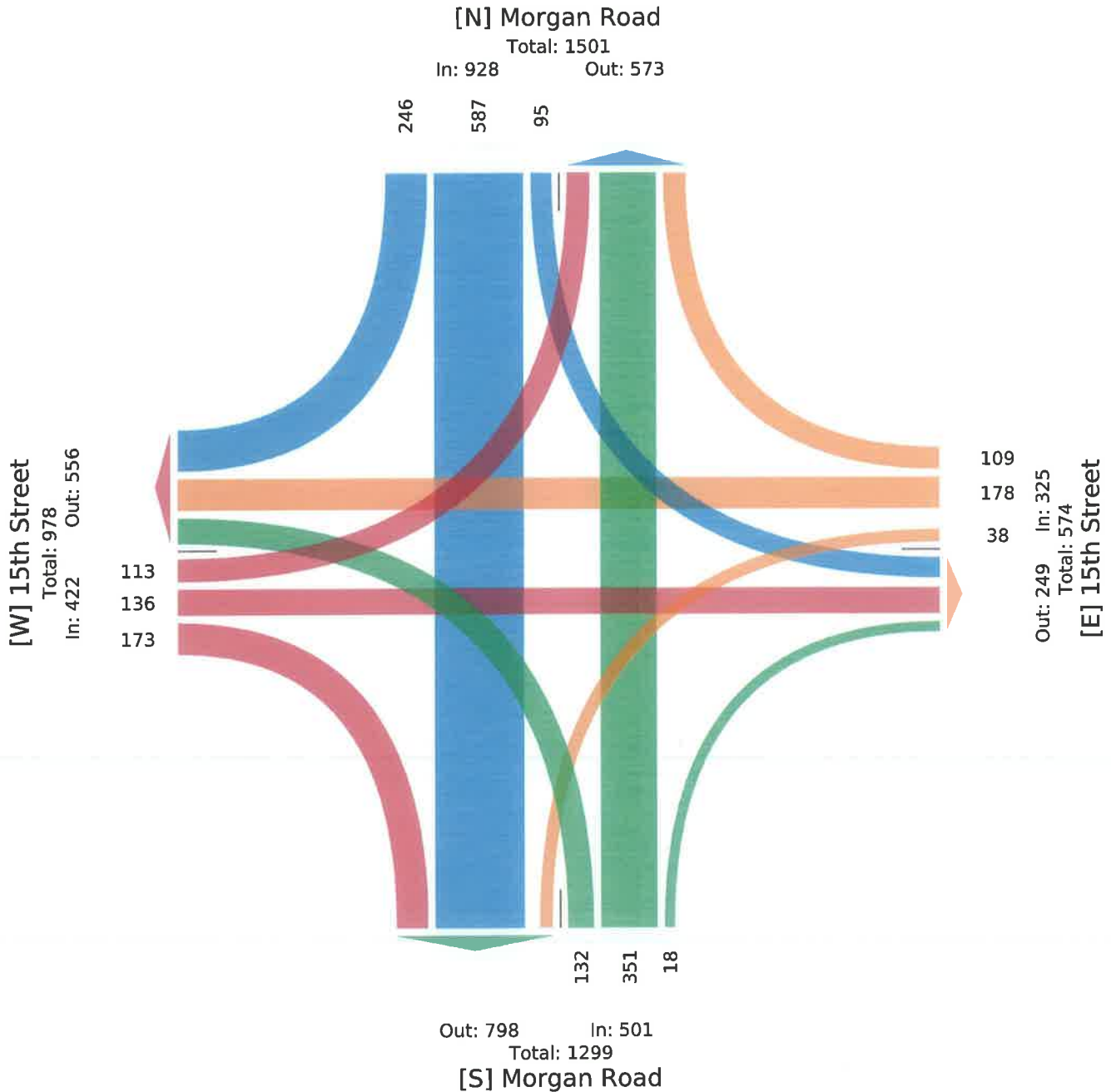
All Movements

ID: 1128556, Location: 35.449646, -97.689248



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



8. Morgan Street at I-40 - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

All Classes (Vehicles, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128557, Location: 35.460177, -97.689144



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg Direction	Morgan Road Southbound						I-40 EBFR Westbound						Morgan Road Northbound						I-40 WBFR Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 2:00PM	28	48	63	0	139	1	85	0	73	0	158	0	88	48	31	0	167	0	43	0	10	0	53	1	517
2:15PM	21	39	39	0	99	1	105	0	73	0	178	0	59	38	42	0	139	0	38	0	13	0	51	0	467
2:30PM	34	46	79	0	159	0	82	0	87	0	169	0	77	40	37	0	154	0	40	0	18	0	58	0	540
2:45PM	27	33	60	0	120	0	72	0	80	0	152	0	70	44	46	0	160	0	40	0	28	0	68	0	500
Hourly Total	110	166	241	0	517	2	344	0	313	0	657	0	294	170	156	0	620	0	161	0	69	0	230	1	2024
3:00PM	44	42	75	0	161	0	76	0	76	0	152	0	64	49	27	0	140	0	40	0	22	0	62	0	515
3:15PM	35	50	71	0	156	2	121	0	95	0	216	1	62	40	38	0	140	0	40	0	23	0	63	0	575
3:30PM	28	41	95	0	164	1	111	0	99	0	210	1	75	63	41	0	179	0	56	0	30	0	86	1	639
3:45PM	25	45	108	0	178	2	115	0	124	0	239	1	49	38	52	0	139	0	59	0	25	0	84	0	640
Hourly Total	132	178	349	0	659	5	423	0	394	0	817	3	250	190	158	0	598	0	195	0	100	0	295	1	2369
4:00PM	45	43	114	0	202	0	77	0	119	0	196	0	67	48	62	0	177	0	46	0	31	0	77	0	652
4:15PM	47	60	74	0	181	0	99	0	125	0	224	0	55	46	44	0	145	0	51	0	22	0	73	0	623
4:30PM	40	50	75	0	165	2	100	0	109	0	209	0	73	36	54	0	163	0	47	0	18	0	65	0	602
4:45PM	32	40	89	0	161	0	87	0	150	0	237	0	61	41	57	0	159	0	52	0	27	0	79	2	636
Hourly Total	164	193	352	0	709	2	363	0	503	0	866	0	256	171	217	0	644	0	196	0	98	0	294	2	2513
5:00PM	57	63	88	0	208	0	121	0	140	0	261	0	82	34	66	0	182	0	56	0	39	0	95	0	746
5:15PM	39	77	48	0	164	0	101	0	148	0	249	0	66	50	63	0	179	0	70	0	27	0	97	0	689
5:30PM	40	48	38	0	126	0	108	0	142	0	250	0	76	36	49	0	161	0	55	0	35	0	90	1	627
5:45PM	28	39	48	0	115	0	83	0	128	0	211	0	72	40	52	0	164	0	49	0	19	0	68	0	558
Hourly Total	164	227	222	0	613	0	413	0	558	0	971	0	296	160	230	0	686	0	230	0	120	0	350	1	2620
6:00PM	29	40	55	0	124	0	66	0	95	0	161	0	75	33	43	0	151	0	64	0	25	0	89	0	525
6:15PM	24	29	46	0	99	0	63	0	101	0	164	0	67	23	52	0	142	0	49	0	24	0	73	0	478
6:30PM	18	36	47	0	101	0	64	0	82	0	146	0	77	30	40	0	147	0	43	0	14	0	57	0	451
6:45PM	24	27	35	0	86	0	46	0	72	0	118	0	58	31	32	0	121	0	55	0	14	0	69	0	394
Hourly Total	95	132	183	0	410	0	239	0	350	0	589	0	277	117	167	0	561	0	211	0	77	0	288	0	1848
7:00PM	13	36	36	0	85	2	45	0	78	0	123	0	55	18	25	0	98	0	34	0	9	0	43	0	349
7:15PM	15	17	50	0	82	0	47	0	77	0	124	0	42	23	30	0	95	0	45	0	8	0	53	0	354
7:30PM	7	20	16	0	43	0	55	0	53	0	108	0	48	24	31	0	103	0	55	0	11	0	66	0	320
7:45PM	9	13	22	0	44	0	47	0	67	0	114	0	29	9	15	0	53	0	47	0	12	0	59	0	270
Hourly Total	44	86	124	0	254	2	194	0	275	0	469	0	174	74	101	0	349	0	181	0	40	0	221	0	1293
8:00PM	11	14	10	0	35	0	50	0	58	0	108	0	40	14	8	0	62	0	40	0	12	0	52	0	257
8:15PM	12	31	20	0	63	0	45	0	68	0	113	0	31	11	16	0	58	0	43	0	9	0	52	0	286
8:30PM	14	14	12	0	40	0	55	0	61	0	116	0	32	19	12	0	63	0	44	0	6	0	50	0	269
8:45PM	15	14	16	0	45	0	55	0	41	0	96	0	42	10	9	0	61	0	45	0	9	0	54	2	256
Hourly Total	52	73	58	0	183	0	205	0	228	0	433	0	145	54	45	0	244	0	172	0	36	0	208	2	1068
9:00PM	15	19	22	0	56	0	38	0	54	0	92	1	32	17	13	0	62	0	36	0	8	0	44	0	254
9:15PM	19	10	22	0	51	0	53	0	55	0	108	0	33	13	7	0	53	0	26	0	8	0	34	0	246
9:30PM	14	15	18	0	47	0	38	0	54	0	92	0	29	5	10	0	44	0	31	0	8	0	39	0	222
9:45PM	12	10	22	0	44	0	24	0	41	0	65	0	20	11	4	0	35	0	11	0	13	0	24	0	168
Hourly Total	60	54	84	0	198	0	153	0	204	0	357	1	114	46	34	0	194	0	104	0	37	0	141	0	890
10:00PM	10	16	16	0	42	0	38	0	37	0	75	0	20	14	11	0	45	0	18	0	9	0	27	0	189
10:15PM	8	4	19	0	31	0	43	0	30	0	73	0	28	12	4	0	44	0	11	0	7	0	18	0	166
10:30PM	12	7	15	0	34	0	34	0	32	0	66	0	13	7	5	0	25	0	11	0	5	0	16	0	141
10:45PM	13	9	11	0	33	0	31	0	10	0	41	1	11	6	1	0	18	0	21	0	6	0	27	0	119
Hourly Total	43	36	61	0	140	0	146	0	109	0	255	1	72	39	21	0	132	0	61	0	27	0	88	0	615
11:00PM	5	15	12	0	32	0	27	0	15	0	42	0	16	11	5	0	32	0	15	0	7	0	22	0	128
11:15PM	7	7	11	0	25	0	21	0	38	0	59	0	19	1	6	0	26	0	10	0	5	0	15	0	125
11:30PM	4	4	15	0	23	0	23	0	15	0	38	0	16	5	2	0	23	0	10	0	2	0	12	0	96
11:45PM	4	5	17	0	26	0	19	0	12	0	31	0	7	5	2	0	14	0	13	0	8	0	21	0	92
Hourly Total	20	31	55	0	106	0	90	0	80	0	170	0	58	22	15	0	95	0	48	0	22	0	70	0	441
Total	884	1176	1729	0	3789	11	2570	0	3014	0	5584	5	1936	1043	1144	0	4123	0	1559	0	626	0	2185	7	15681
% Approach	23.3%	31.0%	45.6%	0%	-	-	46.0%	0%	54.0%	0%	-	-	47.0%	25.3%	27.7%	0%	-	-	71.4%	0%	28.6%	0%	-	-	-
% Total	5.6%	7.5%	11.0%	0%	24.2%	-	16.4%	0%	19.2%	0%	35.6%	-	12.3%	6.7%	7.3%	0%	26.3%	-	9.9%	0%	4.0%	0%	13.9%	-	-
Vehicles	884	1176	1729	0	3789	-	2570	0	3014	0	5584	-	1936	1043	1144	0	4123	-	1559	0	626	0	2185	-	15681
% Vehicles	100%	100%	100%	0%	100%	-	100%	0%	100%	0%	100%	-	100%	100%	100%	0%	100%	-	100%	0%	100%	0%	100%	-	100%
Pedestrians	-	-	-	-	-	11	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6

Leg	Morgan Road						I-40 EBFR						Morgan Road						I-40 WBFR						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	85.7%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	14.3%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

8. Morgan Street at I-40 - TMC

Thu Nov 2, 2023

Full Length (2 PM-12 AM)

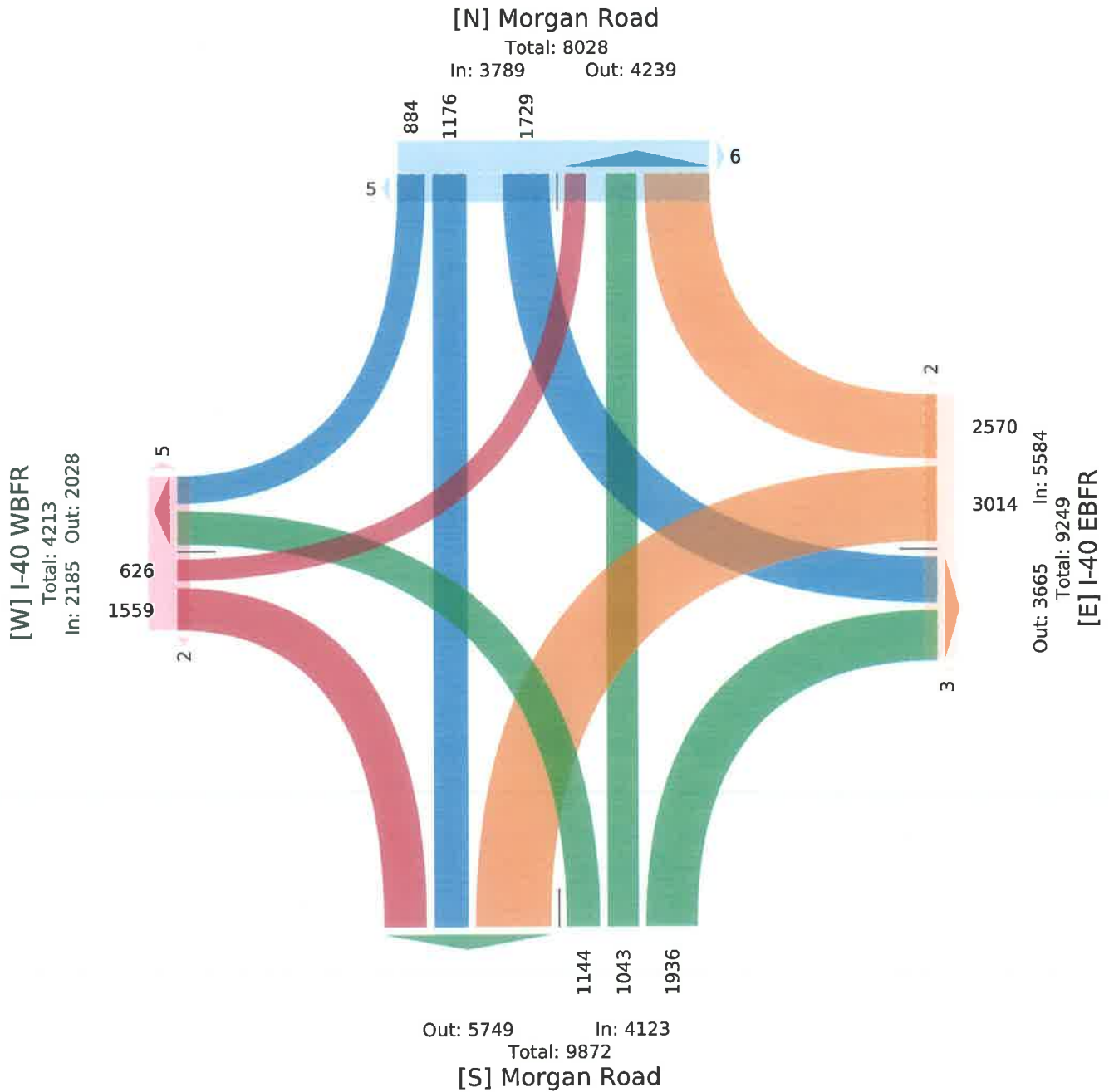
All Classes (Vehicles, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128557, Location: 35.460177, -97.689144



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US



8. Morgan Street at I-40 - TMC

Thu Nov 2, 2023

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Vehicles, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128557, Location: 35.460177, -97.689144



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg	Morgan Road						I-40 EBFR						Morgan Road						I-40 WBFR						
Direction	Southbound						Westbound						Northbound						Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2023-11-02 4:45PM	32	40	89	0	161	0	87	0	150	0	237	0	61	41	57	0	159	0	52	0	27	0	79	2	636
5:00PM	57	63	88	0	208	0	121	0	140	0	261	0	82	34	66	0	182	0	56	0	39	0	95	0	746
5:15PM	39	77	48	0	164	0	101	0	148	0	249	0	66	50	63	0	179	0	70	0	27	0	97	0	689
5:30PM	40	48	38	0	126	0	108	0	142	0	250	0	76	36	49	0	161	0	55	0	35	0	90	1	627
Total	168	228	263	0	659	0	417	0	580	0	997	0	285	161	235	0	681	0	233	0	128	0	361	3	2698
% Approach	25.5%	34.6%	39.9%	0%	-	-	41.8%	0%	58.2%	0%	-	-	41.9%	23.6%	34.5%	0%	-	-	64.5%	0%	35.5%	0%	-	-	-
% Total	6.2%	8.5%	9.7%	0%	24.4%	-	15.5%	0%	21.5%	0%	37.0%	-	10.6%	6.0%	8.7%	0%	25.2%	-	8.6%	0%	4.7%	0%	13.4%	-	-
PHF	0.737	0.740	0.739	-	0.792	-	0.862	-	0.967	-	0.955	-	0.869	0.805	0.890	-	0.935	-	0.832	-	0.821	-	0.930	-	0.904
Vehicles	168	228	263	0	659	-	417	0	580	0	997	-	285	161	235	0	681	-	233	0	128	0	361	-	2698
% Vehicles	100%	100%	100%	0%	100%	-	100%	0%	100%	0%	100%	-	100%	100%	100%	0%	100%	-	100%	0%	100%	0%	100%	-	100%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

8. Morgan Street at I-40 - TMC

Thu Nov 2, 2023

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

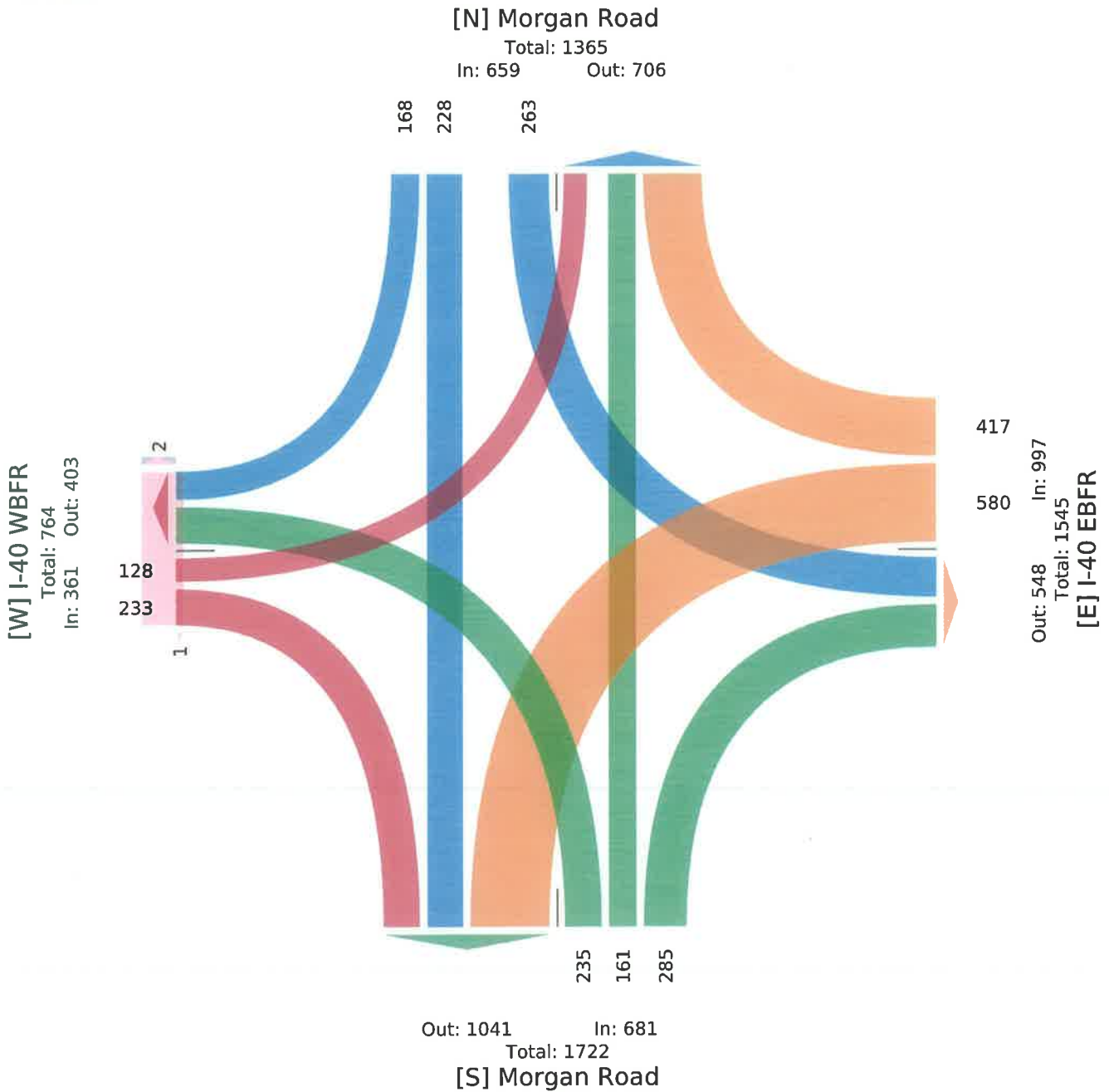
All Classes (Vehicles, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 1128557, Location: 35.460177, -97.689144
























Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US



Appendix C: ***Synchro* Reports**





















HCM 6th Signalized Intersection Summary 401: Morgan Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	120	164	128	376	100	184	304	48	20	208	52
Future Volume (veh/h)	48	120	164	128	376	100	184	304	48	20	208	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	141	193	151	442	118	216	358	56	24	245	61
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	319	284	192	683	181	252	1196	533	40	614	150
Arrive On Green	0.04	0.18	0.18	0.11	0.25	0.25	0.14	0.34	0.34	0.02	0.22	0.22
Sat Flow, veh/h	1781	1777	1585	1781	2779	736	1781	3554	1585	1781	2832	691
Grp Volume(v), veh/h	56	141	193	151	281	279	216	358	56	24	152	154
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1738	1781	1777	1585	1781	1777	1746
Q Serve(g_s), s	1.8	4.0	6.4	4.7	8.0	8.1	6.7	4.2	1.4	0.8	4.1	4.3
Cycle Q Clear(g_c), s	1.8	4.0	6.4	4.7	8.0	8.1	6.7	4.2	1.4	0.8	4.1	4.3
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	74	319	284	192	437	427	252	1196	533	40	386	379
V/C Ratio(X)	0.76	0.44	0.68	0.79	0.64	0.65	0.86	0.30	0.11	0.61	0.39	0.41
Avail Cap(c_a), veh/h	252	944	842	252	551	539	252	1196	533	252	598	587
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	20.7	21.6	24.6	19.1	19.1	23.7	13.8	12.9	27.4	18.9	19.0
Incr Delay (d2), s/veh	14.6	1.0	2.8	11.5	1.7	1.9	24.0	0.6	0.4	14.0	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.5	2.3	2.3	2.9	2.9	4.1	1.5	0.5	0.4	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	21.6	24.5	36.0	20.8	21.0	47.6	14.5	13.3	41.4	19.6	19.7
LnGrp LOS	D	C	C	D	C	C	D	B	B	D	B	B
Approach Vol, veh/h	390			711			630			330		
Approach Delay, s/veh	25.9			24.1			25.7			21.2		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	17.3	7.3	18.9	6.3	24.0	11.1	15.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	19.0	8.0	17.5	8.0	19.0	8.0	30.0				
Max Q Clear Time (g_c+I1), s	8.7	6.3	3.8	10.1	2.8	6.2	6.7	8.4				
Green Ext Time (p_c), s	0.0	1.2	0.0	1.8	0.0	1.8	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	24.5											
HCM 6th LOS	C											





















HCM 6th Signalized Intersection Summary 403: Morgan Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	140	220	20	128	68	108	348	16	84	660	284
Future Volume (veh/h)	152	140	220	20	128	68	108	348	16	84	660	284
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	179	165	259	24	151	80	127	409	19	99	776	334
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	334	298	32	207	104	152	1936	90	123	1315	565
Arrive On Green	0.12	0.19	0.19	0.02	0.09	0.09	0.09	0.56	0.56	0.07	0.54	0.54
Sat Flow, veh/h	1781	1777	1585	1781	2288	1152	1781	3458	160	1781	2420	1040
Grp Volume(v), veh/h	179	165	259	24	115	116	127	210	218	99	569	541
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1663	1781	1777	1842	1781	1777	1683
Q Serve(g_s), s	12.8	10.8	20.6	1.7	8.2	8.8	9.1	7.7	7.7	7.1	28.0	28.1
Cycle Q Clear(g_c), s	12.8	10.8	20.6	1.7	8.2	8.8	9.1	7.7	7.7	7.1	28.0	28.1
Prop In Lane	1.00		1.00	1.00		0.69	1.00		0.09	1.00		0.62
Lane Grp Cap(c), veh/h	205	334	298	32	161	151	152	995	1031	123	965	914
V/C Ratio(X)	0.87	0.49	0.87	0.76	0.72	0.77	0.83	0.21	0.21	0.81	0.59	0.59
Avail Cap(c_a), veh/h	260	472	421	110	321	301	206	995	1031	192	965	914
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	56.6	47.2	51.2	63.6	57.5	57.8	58.5	14.3	14.3	59.7	20.0	20.0
Incr Delay (d2), s/veh	18.0	0.9	10.5	29.8	5.8	7.9	19.0	0.5	0.5	10.8	2.2	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	4.8	8.8	1.0	3.9	4.0	4.8	3.1	3.2	3.5	11.6	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.6	48.1	61.7	93.3	63.3	65.6	77.6	14.8	14.8	70.5	22.1	22.3
LnGrp LOS	E	D	E	F	E	E	E	B	B	E	C	C
Approach Vol, veh/h	603			255			555			1209		
Approach Delay, s/veh	61.8			67.2			29.1			26.2		
Approach LOS	E			E			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.1	76.6	20.0	17.3	13.9	78.8	7.3	30.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	6.0	5.0	5.5				
Max Green Setting (Gmax), s	15.0	51.0	19.0	23.5	14.0	52.0	8.0	34.5				
Max Q Clear Time (g_c+I1), s	11.1	30.1	14.8	10.8	9.1	9.7	3.7	22.6				
Green Ext Time (p_c), s	0.1	7.3	0.2	0.9	0.1	2.4	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	39.0											
HCM 6th LOS	D											





















HCM 6th Signalized Intersection Summary
575: Sara Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	132	120	40	560	48	152	176	24	56	220	196
Future Volume (veh/h)	76	132	120	40	560	48	152	176	24	56	220	196
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	155	141	47	659	56	179	207	28	66	259	231
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	116	535	453	63	873	74	226	903	121	85	375	323
Arrive On Green	0.07	0.29	0.29	0.04	0.26	0.26	0.13	0.29	0.29	0.05	0.21	0.21
Sat Flow, veh/h	1781	1825	1544	1781	3315	281	1781	3151	421	1781	1811	1556
Grp Volume(v), veh/h	89	151	145	47	353	362	179	116	119	66	254	236
Grp Sat Flow(s),veh/h/ln	1781	1777	1592	1781	1777	1820	1781	1777	1795	1781	1777	1590
Q Serve(g_s), s	3.1	4.2	4.5	1.7	11.6	11.7	6.2	3.2	3.2	2.3	8.4	8.8
Cycle Q Clear(g_c), s	3.1	4.2	4.5	1.7	11.6	11.7	6.2	3.2	3.2	2.3	8.4	8.8
Prop In Lane	1.00		0.97	1.00		0.15	1.00		0.23	1.00		0.98
Lane Grp Cap(c), veh/h	116	521	467	63	468	479	226	509	514	85	368	330
V/C Ratio(X)	0.77	0.29	0.31	0.74	0.75	0.76	0.79	0.23	0.23	0.78	0.69	0.72
Avail Cap(c_a), veh/h	419	710	636	419	710	727	419	696	703	419	696	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	17.4	17.5	30.5	21.6	21.6	27.0	17.4	17.4	30.0	23.4	23.5
Incr Delay (d2), s/veh	10.0	0.3	0.4	15.8	2.5	2.4	6.1	0.2	0.2	13.9	2.3	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.5	1.5	0.9	4.5	4.6	2.8	1.2	1.2	1.3	3.4	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	17.7	17.9	46.3	24.1	24.1	33.1	17.6	17.6	44.0	25.7	26.5
LnGrp LOS	D	B	B	D	C	C	C	B	B	D	C	C
Approach Vol, veh/h	385			762			414			556		
Approach Delay, s/veh	22.8			25.4			24.3			28.2		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.1	19.2	9.2	22.3	8.0	24.3	7.3	24.2				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	* 6	5.0	5.5				
Max Green Setting (Gmax), s	15.0	25.0	15.0	25.5	15.0	* 25	15.0	25.5				
Max Q Clear Time (g_c+I1), s	8.2	10.8	5.1	13.7	4.3	5.2	3.7	6.5				
Green Ext Time (p_c), s	0.2	2.4	0.1	3.1	0.1	1.1	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay	25.5											
HCM 6th LOS	C											
Notes												










HCM 6th Signalized Intersection Summary
576: Sara Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	360	60	116	224	124	44	128	80	96	204	36
Future Volume (veh/h)	48	360	60	116	224	124	44	128	80	96	204	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	424	71	136	264	146	52	151	94	113	240	42
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	587	98	302	534	286	464	390	243	501	601	105
Arrive On Green	0.04	0.19	0.19	0.08	0.24	0.24	0.04	0.36	0.36	0.06	0.39	0.39
Sat Flow, veh/h	1781	3049	507	1781	2234	1198	1781	1078	671	1781	1550	271
Grp Volume(v), veh/h	56	246	249	136	208	202	52	0	245	113	0	282
Grp Sat Flow(s),veh/h/ln	1781	1777	1779	1781	1777	1655	1781	0	1750	1781	0	1822
Q Serve(g_s), s	1.8	9.5	9.6	4.4	7.4	7.7	1.3	0.0	7.6	2.9	0.0	8.2
Cycle Q Clear(g_c), s	1.8	9.5	9.6	4.4	7.4	7.7	1.3	0.0	7.6	2.9	0.0	8.2
Prop In Lane	1.00		0.29	1.00		0.72	1.00		0.38	1.00		0.15
Lane Grp Cap(c), veh/h	295	342	342	302	424	395	464	0	633	501	0	706
V/C Ratio(X)	0.19	0.72	0.73	0.45	0.49	0.51	0.11	0.00	0.39	0.23	0.00	0.40
Avail Cap(c_a), veh/h	533	716	717	458	740	690	705	0	633	696	0	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	27.7	27.8	21.5	24.0	24.1	14.0	0.0	17.3	13.4	0.0	16.2
Incr Delay (d2), s/veh	0.3	2.8	3.0	1.0	0.9	1.0	0.1	0.0	1.8	0.2	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.9	4.0	1.7	2.9	2.9	0.5	0.0	3.1	1.0	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.9	30.5	30.7	22.6	24.9	25.2	14.1	0.0	19.1	13.7	0.0	17.9
LnGrp LOS	C	C	C	C	C	C	B	A	B	B	A	B
Approach Vol, veh/h	551			546			297			395		
Approach Delay, s/veh	29.8			24.4			18.2			16.7		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	33.9	8.2	23.0	10.0	32.0	11.6	19.6				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	12.5	26.5	12.5	30.5	12.5	26.5	12.5	29.5				
Max Q Clear Time (g_c+I1), s	3.3	10.2	3.8	9.7	4.9	9.6	6.4	11.6				
Green Ext Time (p_c), s	0.0	1.3	0.1	2.1	0.1	1.2	0.1	2.5				
Intersection Summary												
HCM 6th Ctrl Delay	23.4											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary
2361: SW 15th St & Kilpatrick Turnpike

11/20/2023

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	260	452	268	28	0	0
Future Volume (veh/h)	260	452	268	28	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		
Adj Flow Rate, veh/h	306	532	315	33		
Peak Hour Factor	0.85	0.85	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	946	2636	894	93		
Arrive On Green	0.21	0.74	0.28	0.28		
Sat Flow, veh/h	1781	3647	3342	338		
Grp Volume(v), veh/h	306	532	171	177		
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1810		
Q Serve(g_s), s	1.7	0.9	1.5	1.5		
Cycle Q Clear(g_c), s	1.7	0.9	1.5	1.5		
Prop In Lane	1.00			0.19		
Lane Grp Cap(c), veh/h	946	2636	489	498		
V/C Ratio(X)	0.32	0.20	0.35	0.36		
Avail Cap(c_a), veh/h	2415	5506	2753	2803		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	2.4	0.8	5.6	5.6		
Incr Delay (d2), s/veh	0.2	0.0	0.4	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.6	0.8	6.1	6.1		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		838	348			
Approach Delay, s/veh		1.5	6.1			
Approach LOS		A	A			
Timer - Assigned Phs			3	4		8
Phs Duration (G+Y+Rc), s			9.0	10.3		19.4
Change Period (Y+Rc), s			5.0	5.0		5.0
Max Green Setting (Gmax), s			20.0	30.0		30.0
Max Q Clear Time (g_c+l1), s			3.7	3.5		2.9
Green Ext Time (p_c), s			0.8	1.8		3.4
Intersection Summary						
HCM 6th Ctrl Delay			2.8			
HCM 6th LOS			A			























HCM 6th Signalized Intersection Summary
2362: SW 15th St & Kilpatrick Turnpike

11/20/2023

	EBL	EBT	WBT	WBR	SBL	SBR
Movement						
Lane Configurations		↑↑↑	↑↑		↑	↑
Traffic Volume (veh/h)	8	508	252	4	192	552
Future Volume (veh/h)	8	508	252	4	192	552
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	598	296	5	226	649
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	110	1264	918	15	832	740
Arrive On Green	0.26	0.26	0.26	0.26	0.47	0.47
Sat Flow, veh/h	26	5076	3670	60	1781	1585
Grp Volume(v), veh/h	229	378	147	154	226	649
Grp Sat Flow(s),veh/h/ln	1851	1549	1777	1860	1781	1585
Q Serve(g_s), s	0.0	3.7	2.4	2.4	2.8	13.4
Cycle Q Clear(g_c), s	3.7	3.7	2.4	2.4	2.8	13.4
Prop In Lane	0.04			0.03	1.00	1.00
Lane Grp Cap(c), veh/h	579	795	456	477	832	740
V/C Ratio(X)	0.40	0.48	0.32	0.32	0.27	0.88
Avail Cap(c_a), veh/h	1619	2568	1473	1541	984	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	11.4	10.9	10.9	5.9	8.7
Incr Delay (d2), s/veh	0.4	0.4	0.4	0.4	0.2	8.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.9	0.7	0.7	0.5	3.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.8	11.8	11.3	11.3	6.1	17.6
LnGrp LOS	B	B	B	B	A	B
Approach Vol, veh/h		607	301		875	
Approach Delay, s/veh		11.8	11.3		14.6	
Approach LOS		B	B		B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		21.9		14.3		14.3
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		20.0		30.0		30.0
Max Q Clear Time (g_c+I1), s		15.4		4.4		5.7
Green Ext Time (p_c), s		1.5		1.5		3.5
Intersection Summary						
HCM 6th Ctrl Delay			13.1			
HCM 6th LOS			B			

HCM Signalized Intersection Capacity Analysis 396: EB I-40 Ramp/WB I-40 Ramp & Morgan Rd

11/20/2023

												
Movement	NBL	NBT	NBR	NBR2	SBL	SBT	SBR	SBR2	NEL	NER2	SWL	SWR2
Lane Configurations												
Traffic Volume (vph)	196	144	304	0	152	192	160	0	140	220	568	432
Future Volume (vph)	196	144	304	0	152	192	160	0	140	220	568	432
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	5.5			5.5	6.0			6.5	4.0	5.5	4.0
Lane Util. Factor	0.97	0.95			0.97	0.95			0.97	1.00	0.97	1.00
Frt	1.00	0.90			1.00	0.93			1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (prot)	3433	3179			3433	3298			3433	1583	3433	1583
Flt Permitted	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (perm)	3433	3179			3433	3298			3433	1583	3433	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.85
Adj. Flow (vph)	231	169	358	0	179	226	188	0	165	259	668	508
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	231	527	0	0	179	414	0	0	165	259	668	508
Turn Type	Prot	NA		Prot	Prot	NA		Free	Prot	Free	Prot	Free
Protected Phases	1	6		6	5	2			3		7	
Permitted Phases								Free		Free		Free
Actuated Green, G (s)	9.7	16.9			8.8	14.0			15.2	58.4	16.2	58.4
Effective Green, g (s)	9.7	16.9			8.8	14.0			15.2	58.4	16.2	58.4
Actuated g/C Ratio	0.17	0.29			0.15	0.24			0.26	1.00	0.28	1.00
Clearance Time (s)	7.0	5.5			5.5	6.0			6.5		5.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0			3.0		3.0	
Lane Grp Cap (vph)	570	919			517	790			893	1583	952	1583
v/s Ratio Prot	0.07	c0.17			0.05	0.13			0.05		c0.19	
v/s Ratio Perm										0.16		c0.32
v/c Ratio	0.41	0.57			0.35	0.52			0.18	0.16	0.70	0.32
Uniform Delay, d1	21.8	17.7			22.2	19.3			16.8	0.0	18.9	0.0
Progression Factor	1.00	1.00			1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	0.9			0.4	0.6			0.1	0.2	2.4	0.5
Delay (s)	22.2	18.5			22.6	19.9			16.9	0.2	21.3	0.5
Level of Service	C	B			C	B			B	A	C	A
Approach Delay (s)		19.7				20.7						
Approach LOS		B				C						
Intersection Summary												
HCM 2000 Control Delay		15.1				HCM 2000 Level of Service			B			
HCM 2000 Volume to Capacity ratio		0.68										
Actuated Cycle Length (s)		58.4				Sum of lost time (s)			19.5			
Intersection Capacity Utilization		50.0%				ICU Level of Service			A			
Analysis Period (min)		15										

c Critical Lane Group

HCM 6th TWSC
17: S Mustang Rd & SW 11th St

11/20/2023

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕		↕	↕			↕		
Traffic Vol, veh/h	12	0	44	0	0	8	52	808	12	0	964	72
Future Vol, veh/h	12	0	44	0	0	8	52	808	12	0	964	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	52	0	0	9	61	951	14	0	1134	85






















Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	1775	2264	610	1647	-	483	1219	0
Stage 1	1177	1177	-	1080	-	-	-	-
Stage 2	598	1087	-	567	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-
Pot Cap-1 Maneuver	52	40	437	65	0	530	568	-
Stage 1	203	263	-	233	0	-	-	-
Stage 2	456	290	-	476	0	-	-	-
Platoon blocked, %								
Mov Cap-1 Maneuver	42	31	437	47	-	530	568	-
Mov Cap-2 Maneuver	42	31	-	47	-	-	-	-
Stage 1	156	263	-	179	-	-	-	-
Stage 2	344	223	-	420	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	49	11.9	1.8	0
HCM LOS	E	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	568	-	-	145	-	530	709	-	-
HCM Lane V/C Ratio	0.108	-	-	0.454	-	0.018	-	-	-
HCM Control Delay (s)	12.1	1.2	-	49	0	11.9	0	-	-
HCM Lane LOS	B	A	-	E	A	B	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	2.1	-	0.1	0	-	-





















HCM 6th Signalized Intersection Summary
401: Morgan Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	24	36	16	72	16	68	76	4	12	68	0
Future Volume (veh/h)	8	24	36	16	72	16	68	76	4	12	68	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	28	42	19	85	19	80	89	5	14	80	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	157	140	34	284	62	101	1521	678	25	1370	0
Arrive On Green	0.01	0.09	0.09	0.02	0.10	0.10	0.06	0.43	0.43	0.01	0.39	0.00
Sat Flow, veh/h	1781	1777	1585	1781	2904	630	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	9	28	42	19	51	53	80	89	5	14	80	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1757	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	0.2	0.6	1.1	0.5	1.2	1.2	2.0	0.7	0.1	0.3	0.6	0.0
Cycle Q Clear(g_c), s	0.2	0.6	1.1	0.5	1.2	1.2	2.0	0.7	0.1	0.3	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	17	157	140	34	174	172	101	1521	678	25	1370	0
V/C Ratio(X)	0.53	0.18	0.30	0.57	0.29	0.31	0.79	0.06	0.01	0.55	0.06	0.00
Avail Cap(c_a), veh/h	321	1201	1071	321	700	693	321	1521	678	321	1521	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.9	18.7	18.9	21.6	18.6	18.6	20.7	7.4	7.3	21.7	8.6	0.0
Incr Delay (d2), s/veh	23.7	0.5	1.2	14.1	0.9	1.0	12.9	0.1	0.0	17.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.4	0.3	0.4	0.4	1.0	0.2	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	19.3	20.1	35.7	19.5	19.6	33.5	7.5	7.3	39.0	8.6	0.0
LnGrp LOS	D	B	C	D	B	B	C	A	A	D	A	A
Approach Vol, veh/h	79				123				174			
Approach Delay, s/veh	22.7				22.1				19.5			
Approach LOS	C				C				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	22.1	5.4	9.3	5.6	24.0	5.8	8.9				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	19.0	8.0	17.5	8.0	19.0	8.0	30.0				
Max Q Clear Time (g_c+l1), s	4.0	2.6	2.2	3.2	2.3	2.7	2.5	3.1				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.3	0.0	0.3	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	19.4											
HCM 6th LOS	B											





















HCM 6th Signalized Intersection Summary 403: Morgan Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	20	32	0	12	12	32	76	8	36	208	60
Future Volume (veh/h)	44	20	32	0	12	12	32	76	8	36	208	60
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	24	38	0	14	14	38	89	9	42	245	71
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	171	152	1	35	30	49	2436	243	54	2049	581
Arrive On Green	0.04	0.10	0.10	0.00	0.02	0.02	0.03	0.75	0.75	0.03	0.75	0.75
Sat Flow, veh/h	1781	1777	1585	1781	1809	1558	1781	3263	325	1781	2733	775
Grp Volume(v), veh/h	52	24	38	0	14	14	38	48	50	42	157	159
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1590	1781	1777	1812	1781	1777	1731
Q Serve(g_s), s	3.8	1.6	2.9	0.0	1.0	1.2	2.8	0.9	0.9	3.0	3.2	3.3
Cycle Q Clear(g_c), s	3.8	1.6	2.9	0.0	1.0	1.2	2.8	0.9	0.9	3.0	3.2	3.3
Prop In Lane	1.00		1.00	1.00		0.98	1.00		0.18	1.00		0.45
Lane Grp Cap(c), veh/h	68	171	152	1	35	31	49	1326	1352	54	1332	1297
V/C Ratio(X)	0.77	0.14	0.25	0.00	0.39	0.46	0.77	0.04	0.04	0.77	0.12	0.12
Avail Cap(c_a), veh/h	288	526	469	110	349	312	247	1326	1352	274	1332	1297
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99
Uniform Delay (d), s/veh	62.0	53.8	54.4	0.0	63.0	63.0	62.8	4.3	4.3	62.6	4.5	4.5
Incr Delay (d2), s/veh	16.5	0.4	0.8	0.0	7.1	10.2	22.4	0.1	0.1	19.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.7	1.2	0.0	0.5	0.5	1.5	0.3	0.3	1.7	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.4	54.2	55.3	0.0	70.1	73.2	85.2	4.3	4.3	82.5	4.7	4.7
LnGrp LOS	E	D	E	A	E	E	F	A	A	F	A	A
Approach Vol, veh/h	114				28				136			
Approach Delay, s/veh	65.6				71.7				26.9			
Approach LOS	E				E				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	103.4	9.9	8.0	9.0	103.0	0.0	18.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	6.0	5.0	5.5				
Max Green Setting (Gmax), s	18.0	44.0	21.0	25.5	20.0	42.0	8.0	38.5				
Max Q Clear Time (g_c+I1), s	4.8	5.3	5.8	3.2	5.0	2.9	0.0	4.9				
Green Ext Time (p_c), s	0.0	1.8	0.1	0.1	0.1	0.5	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	28.4											
HCM 6th LOS	C											





















HCM 6th Signalized Intersection Summary
575: Sara Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	60	40	8	112	24	24	20	4	8	24	20
Future Volume (veh/h)	40	60	40	8	112	24	24	20	4	8	24	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	47	71	47	9	132	28	28	24	5	9	28	24
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	466	283	17	547	113	49	323	65	17	177	134
Arrive On Green	0.04	0.22	0.22	0.01	0.19	0.19	0.03	0.11	0.11	0.01	0.09	0.09
Sat Flow, veh/h	1781	2123	1292	1781	2932	606	1781	2946	594	1781	1926	1459
Grp Volume(v), veh/h	47	58	60	9	79	81	28	14	15	9	26	26
Grp Sat Flow(s),veh/h/ln	1781	1777	1638	1781	1777	1761	1781	1777	1763	1781	1777	1608
Q Serve(g_s), s	0.9	0.9	1.0	0.2	1.2	1.3	0.5	0.2	0.2	0.2	0.4	0.5
Cycle Q Clear(g_c), s	0.9	0.9	1.0	0.2	1.2	1.3	0.5	0.2	0.2	0.2	0.4	0.5
Prop In Lane	1.00		0.79	1.00		0.34	1.00		0.34	1.00		0.91
Lane Grp Cap(c), veh/h	76	390	359	17	331	329	49	195	194	17	163	148
V/C Ratio(X)	0.62	0.15	0.17	0.53	0.24	0.25	0.57	0.07	0.08	0.53	0.16	0.18
Avail Cap(c_a), veh/h	810	1373	1266	810	1373	1361	810	1400	1390	810	1346	1218
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.5	10.4	10.4	16.3	11.4	11.4	15.9	13.2	13.2	16.3	13.8	13.8
Incr Delay (d2), s/veh	8.1	0.2	0.2	22.8	0.4	0.4	10.1	0.2	0.2	22.8	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	0.2	0.2	0.4	0.4	0.3	0.1	0.1	0.2	0.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	10.6	10.6	39.1	11.8	11.8	26.0	13.3	13.4	39.1	14.2	14.4
LnGrp LOS	C	B	B	D	B	B	C	B	B	D	B	B
Approach Vol, veh/h	165			169			57			61		
Approach Delay, s/veh	14.3			13.3			19.6			18.0		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	9.0	6.4	11.7	5.3	9.6	5.3	12.7				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	* 6	5.0	5.5				
Max Green Setting (Gmax), s	15.0	25.0	15.0	25.5	15.0	* 26	15.0	25.5				
Max Q Clear Time (g_c+I1), s	2.5	2.5	2.9	3.3	2.2	2.2	2.2	3.0				
Green Ext Time (p_c), s	0.0	0.2	0.1	0.7	0.0	0.1	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay	15.1											
HCM 6th LOS	B											
Notes												










HCM 6th Signalized Intersection Summary
576: Sara Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	60	16	28	52	8	4	24	12	20	16	4
Future Volume (veh/h)	16	60	16	28	52	8	4	24	12	20	16	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	71	19	33	61	9	5	28	14	24	19	5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	382	98	331	458	66	711	483	242	712	610	161
Arrive On Green	0.02	0.14	0.14	0.03	0.15	0.15	0.01	0.41	0.41	0.02	0.43	0.43
Sat Flow, veh/h	1781	2796	721	1781	3116	450	1781	1176	588	1781	1427	376
Grp Volume(v), veh/h	19	44	46	33	34	36	5	0	42	24	0	24
Grp Sat Flow(s),veh/h/ln	1781	1777	1741	1781	1777	1789	1781	0	1764	1781	0	1803
Q Serve(g_s), s	0.5	1.2	1.3	0.9	0.9	1.0	0.1	0.0	0.8	0.4	0.0	0.4
Cycle Q Clear(g_c), s	0.5	1.2	1.3	0.9	0.9	1.0	0.1	0.0	0.8	0.4	0.0	0.4
Prop In Lane	1.00		0.41	1.00		0.25	1.00		0.33	1.00		0.21
Lane Grp Cap(c), veh/h	336	242	238	331	261	263	711	0	725	712	0	771
V/C Ratio(X)	0.06	0.18	0.19	0.10	0.13	0.14	0.01	0.00	0.06	0.03	0.00	0.03
Avail Cap(c_a), veh/h	710	957	937	686	957	964	1108	0	725	1079	0	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	20.9	21.0	19.5	20.3	20.3	9.4	0.0	9.7	8.9	0.0	9.1
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.1	0.2	0.2	0.0	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.5	0.3	0.3	0.4	0.0	0.0	0.3	0.1	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	21.3	21.4	19.6	20.5	20.6	9.4	0.0	9.9	8.9	0.0	9.2
LnGrp LOS	B	C	C	B	C	C	A	A	A	A	A	A
Approach Vol, veh/h	109				103				47			
Approach Delay, s/veh	21.1				20.2				9.8			
Approach LOS	C				C				A			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	28.9	6.5	13.5	6.7	28.0	7.1	13.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	12.5	22.5	12.5	29.5	12.5	22.5	12.5	29.5				
Max Q Clear Time (g_c+I1), s	2.1	2.4	2.5	3.0	2.4	2.8	2.9	3.3				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay	17.2											
HCM 6th LOS	B											
Notes												


HCM 6th Signalized Intersection Summary
2361: SW 15th St & Kilpatrick Turnpike

11/20/2023

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	44	92	64	12	0	0
Future Volume (veh/h)	44	92	64	12	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		
Adj Flow Rate, veh/h	52	108	75	14		
Peak Hour Factor	0.85	0.85	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	948	2445	936	170		
Arrive On Green	0.06	0.69	0.31	0.31		
Sat Flow, veh/h	1781	3647	3096	546		
Grp Volume(v), veh/h	52	108	44	45		
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1772		
Q Serve(g_s), s	0.2	0.2	0.3	0.3		
Cycle Q Clear(g_c), s	0.2	0.2	0.3	0.3		
Prop In Lane	1.00			0.31		
Lane Grp Cap(c), veh/h	948	2445	554	553		
V/C Ratio(X)	0.05	0.04	0.08	0.08		
Avail Cap(c_a), veh/h	2500	6649	3325	3316		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	2.2	0.8	3.9	3.9		
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.2	0.8	4.0	4.0		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		160	89			
Approach Delay, s/veh		1.3	4.0			
Approach LOS		A	A			
Timer - Assigned Phs			3	4		8
Phs Duration (G+Y+Rc), s			6.0	10.0		16.0
Change Period (Y+Rc), s			5.0	5.0		5.0
Max Green Setting (Gmax), s			15.0	30.0		30.0
Max Q Clear Time (g_c+I1), s			2.2	2.3		2.2
Green Ext Time (p_c), s			0.1	0.4		0.5
Intersection Summary						
HCM 6th Ctrl Delay			2.2			
HCM 6th LOS			A			























HCM 6th Signalized Intersection Summary
2362: SW 15th St & Kilpatrick Turnpike

11/20/2023

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑		↘	↗
Traffic Volume (veh/h)	0	124	64	0	24	132
Future Volume (veh/h)	0	124	64	0	24	132
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	146	75	0	28	155
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	1419	987	0	297	264
Arrive On Green	0.00	0.28	0.28	0.00	0.17	0.17
Sat Flow, veh/h	0	5443	3741	0	1781	1585
Grp Volume(v), veh/h	0	146	75	0	28	155
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1781	1585
Q Serve(g_s), s	0.0	0.4	0.3	0.0	0.2	1.6
Cycle Q Clear(g_c), s	0.0	0.4	0.3	0.0	0.2	1.6
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1419	987	0	297	264
V/C Ratio(X)	0.00	0.10	0.08	0.00	0.09	0.59
Avail Cap(c_a), veh/h	0	8511	5924	0	1980	1761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	4.8	4.8	0.0	6.4	6.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.9	4.8	0.0	6.5	9.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		146	75		183	
Approach Delay, s/veh		4.9	4.8		8.6	
Approach LOS		A	A		A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		8.0		10.0		10.0
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		20.0		30.0		30.0
Max Q Clear Time (g_c+I1), s		3.6		2.3		2.4
Green Ext Time (p_c), s		0.5		0.3		0.8
Intersection Summary						
HCM 6th Ctrl Delay			6.6			
HCM 6th LOS			A			

HCM Signalized Intersection Capacity Analysis 396: EB I-40 Ramp/WB I-40 Ramp & Morgan Rd

11/20/2023

												
Movement	NBL	NBT	NBR	NBR2	SBL	SBT	SBR	SBR2	NEL	NER2	SWL	SWR2
Lane Configurations												
Traffic Volume (vph)	40	20	116	0	72	60	56	0	32	124	216	152
Future Volume (vph)	40	20	116	0	72	60	56	0	32	124	216	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	5.5			5.5	6.0			6.5	4.0	5.5	4.0
Lane Util. Factor	0.97	0.95			0.97	0.95			0.97	1.00	0.97	1.00
Frt	1.00	0.87			1.00	0.93			1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (prot)	3433	3088			3433	3283			3433	1583	3433	1583
Flt Permitted	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (perm)	3433	3088			3433	3283			3433	1583	3433	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.85
Adj. Flow (vph)	47	24	136	0	85	71	66	0	38	146	254	179
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	47	160	0	0	85	137	0	0	38	146	254	179
Turn Type	Prot	NA		Prot	Prot	NA		Free	Prot	Free	Prot	Free
Protected Phases	1	6		6	5	2			3		7	
Permitted Phases								Free		Free		Free
Actuated Green, G (s)	2.6	15.5			4.0	14.9			8.3	45.3	9.3	45.3
Effective Green, g (s)	2.6	15.5			4.0	14.9			8.3	45.3	9.3	45.3
Actuated g/C Ratio	0.06	0.34			0.09	0.33			0.18	1.00	0.21	1.00
Clearance Time (s)	7.0	5.5			5.5	6.0			6.5		5.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0			3.0		3.0	
Lane Grp Cap (vph)	197	1056			303	1079			629	1583	704	1583
v/s Ratio Prot	0.01	0.05			c0.02	0.04			0.01		c0.07	
v/s Ratio Perm										0.09		c0.11
v/c Ratio	0.24	0.15			0.28	0.13			0.06	0.09	0.36	0.11
Uniform Delay, d1	20.4	10.3			19.3	10.6			15.3	0.0	15.4	0.0
Progression Factor	1.00	1.00			1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.1			0.5	0.1			0.0	0.1	0.3	0.1
Delay (s)	21.0	10.4			19.8	10.7			15.3	0.1	15.8	0.1
Level of Service	C	B			B	B			B	A	B	A
Approach Delay (s)		12.8				14.2						
Approach LOS		B				B						
Intersection Summary												
HCM 2000 Control Delay			10.0									A
HCM 2000 Volume to Capacity ratio			0.27									
Actuated Cycle Length (s)			45.3									
Intersection Capacity Utilization			41.7%									A
Analysis Period (min)			15									
c Critical Lane Group												

HCM 2010 TWSC
17: S Mustang Rd & SW 11th St

11/20/2023

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↖		↗	↔			↔		
Traffic Vol, veh/h	4	0	16	0	0	0	24	260	4	0	312	40
Future Vol, veh/h	4	0	16	0	0	0	24	260	4	0	312	40
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	19	0	0	0	28	306	5	0	367	47






















Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	600	758	207	549	-	156	414	0
Stage 1	391	391	-	365	-	-	-	-
Stage 2	209	367	-	184	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-
Pot Cap-1 Maneuver	385	335	799	419	0	862	1141	-
Stage 1	605	606	-	627	0	-	-	-
Stage 2	774	621	-	800	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	376	325	799	400	-	862	1141	-
Mov Cap-2 Maneuver	376	325	-	400	-	-	-	-
Stage 1	587	606	-	608	-	-	-	-
Stage 2	751	602	-	781	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	0	0.8	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1141	-	-	652	-	-	1246	-	-
HCM Lane V/C Ratio	0.025	-	-	0.036	-	-	-	-	-
HCM Control Delay (s)	8.2	0.1	-	10.7	0	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	-	0	-	-





















HCM 6th Signalized Intersection Summary
401: Morgan Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	125	171	133	391	104	191	316	50	21	216	54
Future Volume (veh/h)	50	125	171	133	391	104	191	316	50	21	216	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	147	201	156	460	122	225	372	59	25	254	64
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	328	293	197	704	185	249	1180	526	41	607	150
Arrive On Green	0.04	0.18	0.18	0.11	0.25	0.25	0.14	0.33	0.33	0.02	0.22	0.22
Sat Flow, veh/h	1781	1777	1585	1781	2783	733	1781	3554	1585	1781	2824	698
Grp Volume(v), veh/h	59	147	201	156	293	289	225	372	59	25	158	160
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1738	1781	1777	1585	1781	1777	1745
Q Serve(g_s), s	1.9	4.2	6.8	4.9	8.4	8.5	7.1	4.5	1.5	0.8	4.4	4.5
Cycle Q Clear(g_c), s	1.9	4.2	6.8	4.9	8.4	8.5	7.1	4.5	1.5	0.8	4.4	4.5
Prop In Lane	1.00		1.00	1.00		0.42	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	76	328	293	197	450	440	249	1180	526	41	382	375
V/C Ratio(X)	0.78	0.45	0.69	0.79	0.65	0.66	0.90	0.32	0.11	0.61	0.41	0.43
Avail Cap(c_a), veh/h	249	931	831	249	543	532	249	1180	526	249	590	579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	20.7	21.8	24.8	19.1	19.2	24.2	14.3	13.3	27.7	19.3	19.4
Incr Delay (d2), s/veh	15.6	1.0	2.8	12.5	2.0	2.2	32.8	0.7	0.4	13.9	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.6	2.4	2.5	3.1	3.1	4.9	1.6	0.5	0.5	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.7	21.7	24.6	37.3	21.1	21.4	57.0	15.0	13.7	41.6	20.1	20.2
LnGrp LOS	D	C	C	D	C	C	E	B	B	D	C	C
Approach Vol, veh/h	407			738			656			343		
Approach Delay, s/veh	26.2			24.7			29.3			21.7		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	17.3	7.4	19.5	6.3	24.0	11.3	15.6				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	19.0	8.0	17.5	8.0	19.0	8.0	30.0				
Max Q Clear Time (g_c+I1), s	9.1	6.5	3.9	10.5	2.8	6.5	6.9	8.8				
Green Ext Time (p_c), s	0.0	1.3	0.0	1.8	0.0	1.9	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	25.9											
HCM 6th LOS	C											





















HCM 6th Signalized Intersection Summary
403: Morgan Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	146	229	21	133	71	112	362	17	87	687	295
Future Volume (veh/h)	158	146	229	21	133	71	112	362	17	87	687	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	172	269	25	156	84	132	426	20	102	808	347
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	349	311	33	216	111	158	1897	89	127	1287	551
Arrive On Green	0.12	0.20	0.20	0.02	0.09	0.09	0.09	0.55	0.55	0.07	0.53	0.53
Sat Flow, veh/h	1781	1777	1585	1781	2274	1164	1781	3456	162	1781	2423	1038
Grp Volume(v), veh/h	186	172	269	25	120	120	132	219	227	102	592	563
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1661	1781	1777	1841	1781	1777	1684
Q Serve(g_s), s	13.3	11.2	21.4	1.8	8.5	9.2	9.5	8.2	8.3	7.3	30.4	30.6
Cycle Q Clear(g_c), s	13.3	11.2	21.4	1.8	8.5	9.2	9.5	8.2	8.3	7.3	30.4	30.6
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.09	1.00		0.62
Lane Grp Cap(c), veh/h	213	349	311	33	169	158	158	975	1011	127	944	895
V/C Ratio(X)	0.87	0.49	0.86	0.77	0.71	0.76	0.84	0.22	0.23	0.81	0.63	0.63
Avail Cap(c_a), veh/h	288	526	469	110	349	326	247	975	1011	274	944	895
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	56.3	46.5	50.6	63.5	57.1	57.4	58.3	15.1	15.1	59.5	21.4	21.4
Incr Delay (d2), s/veh	15.7	0.8	8.3	30.5	5.5	7.3	13.3	0.5	0.5	9.3	2.6	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	4.9	9.0	1.1	4.0	4.1	4.8	3.3	3.4	3.6	12.7	12.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.9	47.3	58.9	94.0	62.6	64.7	71.6	15.6	15.6	68.8	24.0	24.2
LnGrp LOS	E	D	E	F	E	E	E	B	B	E	C	C
Approach Vol, veh/h	627				265				578			
Approach Delay, s/veh	59.6				66.5				28.4			
Approach LOS	E				E				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.5	75.1	20.5	17.8	14.2	77.4	7.4	31.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	6.0	5.0	5.5				
Max Green Setting (Gmax), s	18.0	44.0	21.0	25.5	20.0	42.0	8.0	38.5				
Max Q Clear Time (g_c+I1), s	11.5	32.6	15.3	11.2	9.3	10.3	3.8	23.4				
Green Ext Time (p_c), s	0.2	5.6	0.2	1.0	0.1	2.4	0.0	2.2				
Intersection Summary												
HCM 6th Ctrl Delay	38.9											
HCM 6th LOS	D											





















HCM 6th Signalized Intersection Summary
575: Sara Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	137	125	42	583	50	158	183	25	58	229	204
Future Volume (veh/h)	79	137	125	42	583	50	158	183	25	58	229	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	161	147	49	686	59	186	215	29	68	269	240
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	547	466	64	888	76	233	920	122	88	380	328
Arrive On Green	0.07	0.30	0.30	0.04	0.27	0.27	0.13	0.29	0.29	0.05	0.21	0.21
Sat Flow, veh/h	1781	1820	1549	1781	3311	285	1781	3152	420	1781	1808	1559
Grp Volume(v), veh/h	93	157	151	49	368	377	186	120	124	68	264	245
Grp Sat Flow(s),veh/h/ln	1781	1777	1592	1781	1777	1819	1781	1777	1795	1781	1777	1590
Q Serve(g_s), s	3.4	4.5	4.9	1.8	12.7	12.8	6.8	3.4	3.5	2.5	9.2	9.6
Cycle Q Clear(g_c), s	3.4	4.5	4.9	1.8	12.7	12.8	6.8	3.4	3.5	2.5	9.2	9.6
Prop In Lane	1.00		0.97	1.00		0.16	1.00		0.23	1.00		0.98
Lane Grp Cap(c), veh/h	122	534	479	64	477	488	233	518	524	88	374	335
V/C Ratio(X)	0.76	0.29	0.32	0.77	0.77	0.77	0.80	0.23	0.24	0.77	0.71	0.73
Avail Cap(c_a), veh/h	401	679	609	401	679	696	401	666	673	401	666	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	17.9	18.0	31.9	22.5	22.5	28.1	17.9	18.0	31.3	24.4	24.6
Incr Delay (d2), s/veh	9.5	0.3	0.4	17.4	3.5	3.4	6.2	0.2	0.2	13.3	2.5	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.7	1.6	1.0	5.1	5.2	3.1	1.3	1.3	1.3	3.8	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	18.2	18.4	49.3	26.0	26.0	34.4	18.2	18.2	44.7	26.9	27.7
LnGrp LOS	D	B	B	D	C	C	C	B	B	D	C	C
Approach Vol, veh/h	401			794			430			577		
Approach Delay, s/veh	23.3			27.4			25.2			29.3		
Approach LOS	C			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.7	20.0	9.6	23.4	8.3	25.5	7.4	25.6				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	* 6	5.0	5.5				
Max Green Setting (Gmax), s	15.0	25.0	15.0	25.5	15.0	* 25	15.0	25.5				
Max Q Clear Time (g_c+l1), s	8.8	11.6	5.4	14.8	4.5	5.5	3.8	6.9				
Green Ext Time (p_c), s	0.2	2.5	0.1	3.1	0.1	1.2	0.1	1.5				
Intersection Summary												
HCM 6th Ctrl Delay	26.7											
HCM 6th LOS	C											
Notes												










HCM 6th Signalized Intersection Summary
576: Sara Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	375	62	121	233	129	46	133	83	100	212	37
Future Volume (veh/h)	50	375	62	121	233	129	46	133	83	100	212	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	441	73	142	274	152	54	156	98	118	249	44
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	617	102	318	557	300	422	350	220	461	549	97
Arrive On Green	0.04	0.20	0.20	0.09	0.25	0.25	0.04	0.33	0.33	0.07	0.36	0.36
Sat Flow, veh/h	1781	3054	502	1781	2230	1201	1781	1074	675	1781	1548	273
Grp Volume(v), veh/h	59	255	259	142	217	209	54	0	254	118	0	293
Grp Sat Flow(s),veh/h/ln	1781	1777	1780	1781	1777	1654	1781	0	1749	1781	0	1821
Q Serve(g_s), s	1.8	9.2	9.4	4.3	7.2	7.5	1.4	0.0	7.9	3.0	0.0	8.5
Cycle Q Clear(g_c), s	1.8	9.2	9.4	4.3	7.2	7.5	1.4	0.0	7.9	3.0	0.0	8.5
Prop In Lane	1.00		0.28	1.00		0.73	1.00		0.39	1.00		0.15
Lane Grp Cap(c), veh/h	310	359	360	318	444	413	422	0	570	461	0	647
V/C Ratio(X)	0.19	0.71	0.72	0.45	0.49	0.51	0.13	0.00	0.45	0.26	0.00	0.45
Avail Cap(c_a), veh/h	562	759	761	486	759	707	678	0	570	665	0	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	25.7	25.7	19.7	22.1	22.2	14.8	0.0	18.3	14.2	0.0	17.1
Incr Delay (d2), s/veh	0.3	2.6	2.7	1.0	0.8	1.0	0.1	0.0	2.5	0.3	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.8	3.8	1.6	2.8	2.7	0.5	0.0	3.2	1.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	28.3	28.4	20.7	23.0	23.2	14.9	0.0	20.9	14.4	0.0	19.4
LnGrp LOS	C	C	C	C	C	C	B	A	C	B	A	B
Approach Vol, veh/h	573			568			308			411		
Approach Delay, s/veh	27.6			22.5			19.8			18.0		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.1	30.0	8.2	22.7	10.1	28.0	11.5	19.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	12.5	22.5	12.5	29.5	12.5	22.5	12.5	29.5				
Max Q Clear Time (g_c+I1), s	3.4	10.5	3.8	9.5	5.0	9.9	6.3	11.4				
Green Ext Time (p_c), s	0.1	1.2	0.1	2.2	0.1	1.1	0.2	2.6				
Intersection Summary												
HCM 6th Ctrl Delay	22.6											
HCM 6th LOS	C											
Notes												

HCM 6th Signalized Intersection Summary
2361: SW 15th St & Kilpatrick Turnpike

11/20/2023

	EBL	EBT	WBT	WBR	SBL	SBR
Movement						
Lane Configurations						
Traffic Volume (veh/h)	271	470	279	29	0	0
Future Volume (veh/h)	271	470	279	29	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		
Adj Flow Rate, veh/h	319	553	328	34		
Peak Hour Factor	0.85	0.85	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	944	2647	910	94		
Arrive On Green	0.21	0.74	0.28	0.28		
Sat Flow, veh/h	1781	3647	3346	335		
Grp Volume(v), veh/h	319	553	178	184		
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1810		
Q Serve(g_s), s	1.7	0.9	1.6	1.6		
Cycle Q Clear(g_c), s	1.7	0.9	1.6	1.6		
Prop In Lane	1.00			0.18		
Lane Grp Cap(c), veh/h	944	2647	497	506		
V/C Ratio(X)	0.34	0.21	0.36	0.36		
Avail Cap(c_a), veh/h	2387	5438	2719	2770		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	2.5	0.8	5.7	5.7		
Incr Delay (d2), s/veh	0.2	0.0	0.4	0.4		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.1	0.1		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.7	0.8	6.1	6.1		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		872	362			
Approach Delay, s/veh		1.5	6.1			
Approach LOS		A	A			
Timer - Assigned Phs			3	4		8
Phs Duration (G+Y+Rc), s			9.1	10.5		19.6
Change Period (Y+Rc), s			5.0	5.0		5.0
Max Green Setting (Gmax), s			20.0	30.0		30.0
Max Q Clear Time (g_c+I1), s			3.7	3.6		2.9
Green Ext Time (p_c), s			0.8	1.9		3.5
Intersection Summary						
HCM 6th Ctrl Delay			2.8			
HCM 6th LOS			A			























HCM 6th Signalized Intersection Summary
2362: SW 15th St & Kilpatrick Turnpike

11/20/2023

	EBL	EBT	WBT	WBR	SBL	SBR
Movement						
Lane Configurations		↑↑↑	↑↑		↘	↗
Traffic Volume (veh/h)	8	529	262	4	200	574
Future Volume (veh/h)	8	529	262	4	200	574
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	622	308	5	235	675
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	106	1276	927	15	847	754
Arrive On Green	0.26	0.26	0.26	0.26	0.48	0.48
Sat Flow, veh/h	24	5078	3672	58	1781	1585
Grp Volume(v), veh/h	238	393	153	160	235	675
Grp Sat Flow(s),veh/h/ln	1852	1549	1777	1860	1781	1585
Q Serve(g_s), s	0.0	4.1	2.6	2.6	3.0	14.7
Cycle Q Clear(g_c), s	4.1	4.1	2.6	2.6	3.0	14.7
Prop In Lane	0.04			0.03	1.00	1.00
Lane Grp Cap(c), veh/h	579	802	460	482	847	754
V/C Ratio(X)	0.41	0.49	0.33	0.33	0.28	0.90
Avail Cap(c_a), veh/h	1557	2468	1416	1482	946	842
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	11.8	11.3	11.3	6.0	9.0
Incr Delay (d2), s/veh	0.5	0.5	0.4	0.4	0.2	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.0	0.8	0.8	0.6	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	12.3	11.7	11.7	6.1	20.4
LnGrp LOS	B	B	B	B	A	C
Approach Vol, veh/h		631	313		910	
Approach Delay, s/veh		12.3	11.7		16.7	
Approach LOS		B	B		B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		22.9		14.8		14.8
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		20.0		30.0		30.0
Max Q Clear Time (g_c+I1), s		16.7		4.6		6.1
Green Ext Time (p_c), s		1.3		1.6		3.7
Intersection Summary						
HCM 6th Ctrl Delay			14.4			
HCM 6th LOS			B			

HCM Signalized Intersection Capacity Analysis 396: EB I-40 Ramp/WB I-40 Ramp & Morgan Rd

11/20/2023

												
Movement	NBL	NBT	NBR	NBR2	SBL	SBT	SBR	SBR2	NEL	NER2	SWL	SWR2
Lane Configurations												
Traffic Volume (vph)	204	150	316	0	158	200	166	0	146	229	591	449
Future Volume (vph)	204	150	316	0	158	200	166	0	146	229	591	449
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	5.5			5.5	6.0			6.5	4.0	5.5	4.0
Lane Util. Factor	0.97	0.95			0.97	0.95			0.97	1.00	0.97	1.00
Frt	1.00	0.90			1.00	0.93			1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (prot)	3433	3179			3433	3298			3433	1583	3433	1583
Flt Permitted	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (perm)	3433	3179			3433	3298			3433	1583	3433	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.85
Adj. Flow (vph)	240	176	372	0	186	235	195	0	172	269	695	528
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	240	548	0	0	186	430	0	0	172	269	695	528
Turn Type	Prot	NA		Prot	Prot	NA		Free	Prot	Free	Prot	Free
Protected Phases	1	6		6	5	2			3		7	
Permitted Phases								Free		Free		Free
Actuated Green, G (s)	9.9	17.2			9.0	14.3			15.6	59.3	16.6	59.3
Effective Green, g (s)	9.9	17.2			9.0	14.3			15.6	59.3	16.6	59.3
Actuated g/C Ratio	0.17	0.29			0.15	0.24			0.26	1.00	0.28	1.00
Clearance Time (s)	7.0	5.5			5.5	6.0			6.5		5.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0			3.0		3.0	
Lane Grp Cap (vph)	573	922			521	795			903	1583	961	1583
v/s Ratio Prot	0.07	c0.17			0.05	0.13			0.05		c0.20	
v/s Ratio Perm										0.17		c0.33
v/c Ratio	0.42	0.59			0.36	0.54			0.19	0.17	0.72	0.33
Uniform Delay, d1	22.1	18.1			22.6	19.6			17.0	0.0	19.3	0.0
Progression Factor	1.00	1.00			1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	0.5	1.0			0.4	0.8			0.1	0.2	2.7	0.6
Delay (s)	22.6	19.1			23.0	20.4			17.1	0.2	22.0	0.6
Level of Service	C	B			C	C			B	A	C	A
Approach Delay (s)		20.2				21.2						
Approach LOS		C				C						
Intersection Summary												
HCM 2000 Control Delay		15.5				HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio		0.70										
Actuated Cycle Length (s)		59.3				Sum of lost time (s)				19.5		
Intersection Capacity Utilization		51.2%				ICU Level of Service				A		
Analysis Period (min)		15										

c Critical Lane Group





















HCM 6th TWSC
17: S Mustang Rd & SW 11th St

11/20/2023

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↵		↶		↔			↔	
Traffic Vol, veh/h	12	0	46	0	0	8	54	841	12	0	1003	75
Future Vol, veh/h	12	0	46	0	0	8	54	841	12	0	1003	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	54	0	0	9	64	989	14	0	1180	88
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1847	2355	634	1714	-	502	1268	0	0	1003	0	0
Stage 1	1224	1224	-	1124	-	-	-	-	-	-	-	-
Stage 2	623	1131	-	590	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	46	35	422	58	0	515	544	-	-	686	-	-
Stage 1	190	250	-	219	0	-	-	-	-	-	-	-
Stage 2	440	277	-	461	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	36	26	422	40	-	515	544	-	-	686	-	-
Mov Cap-2 Maneuver	36	26	-	40	-	-	-	-	-	-	-	-
Stage 1	139	250	-	161	-	-	-	-	-	-	-	-
Stage 2	317	203	-	402	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	59.1		12.1		2.1		0					
HCM LOS	F		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	544	-	-	131	-	515	686	-	-			
HCM Lane V/C Ratio	0.117	-	-	0.521	-	0.018	-	-	-			
HCM Control Delay (s)	12.5	1.5	-	59.1	0	12.1	0	-	-			
HCM Lane LOS	B	A	-	F	A	B	A	-	-			
HCM 95th %tile Q(veh)	0.4	-	-	2.5	-	0.1	0	-	-			





















HCM 6th Signalized Intersection Summary
401: Morgan Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	25	37	17	75	17	71	79	4	12	71	0
Future Volume (veh/h)	8	25	37	17	75	17	71	79	4	12	71	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	29	44	20	88	20	84	93	5	14	84	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	17	158	141	35	288	63	107	1518	677	25	1356	0
Arrive On Green	0.01	0.09	0.09	0.02	0.10	0.10	0.06	0.43	0.43	0.01	0.38	0.00
Sat Flow, veh/h	1781	1777	1585	1781	2894	638	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	9	29	44	20	53	55	84	93	5	14	84	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1755	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	0.2	0.7	1.2	0.5	1.2	1.3	2.1	0.7	0.1	0.3	0.7	0.0
Cycle Q Clear(g_c), s	0.2	0.7	1.2	0.5	1.2	1.3	2.1	0.7	0.1	0.3	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	17	158	141	35	177	174	107	1518	677	25	1356	0
V/C Ratio(X)	0.53	0.18	0.31	0.57	0.30	0.32	0.79	0.06	0.01	0.55	0.06	0.00
Avail Cap(c_a), veh/h	320	1199	1069	320	699	691	320	1518	677	320	1518	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.9	18.8	19.0	21.6	18.6	18.6	20.6	7.5	7.3	21.8	8.7	0.0
Incr Delay (d2), s/veh	23.7	0.5	1.2	13.7	0.9	1.0	12.1	0.1	0.0	17.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.4	0.3	0.4	0.5	1.1	0.2	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.7	19.3	20.2	35.4	19.5	19.6	32.7	7.6	7.3	39.0	8.7	0.0
LnGrp LOS	D	B	C	D	B	B	C	A	A	D	A	A
Approach Vol, veh/h	82			128			182			98		
Approach Delay, s/veh	22.7			22.1			19.2			13.1		
Approach LOS	C			C			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.7	22.0	5.4	9.4	5.6	24.0	5.9	9.0				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	8.0	19.0	8.0	17.5	8.0	19.0	8.0	30.0				
Max Q Clear Time (g_c+I1), s	4.1	2.7	2.2	3.3	2.3	2.7	2.5	3.2				
Green Ext Time (p_c), s	0.0	0.3	0.0	0.3	0.0	0.4	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	19.3											
HCM 6th LOS	B											





















HCM 6th Signalized Intersection Summary
403: Morgan Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	21	33	0	12	12	33	79	8	37	216	62
Future Volume (veh/h)	46	21	33	0	12	12	33	79	8	37	216	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	25	39	0	14	14	39	93	9	44	254	73
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	70	173	155	1	35	30	50	2437	233	57	2046	576
Arrive On Green	0.04	0.10	0.10	0.00	0.02	0.02	0.03	0.74	0.74	0.03	0.75	0.75
Sat Flow, veh/h	1781	1777	1585	1781	1809	1558	1781	3278	313	1781	2738	770
Grp Volume(v), veh/h	54	25	39	0	14	14	39	50	52	44	163	164
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1590	1781	1777	1814	1781	1777	1732
Q Serve(g_s), s	3.9	1.7	3.0	0.0	1.0	1.2	2.8	1.0	1.0	3.2	3.3	3.4
Cycle Q Clear(g_c), s	3.9	1.7	3.0	0.0	1.0	1.2	2.8	1.0	1.0	3.2	3.3	3.4
Prop In Lane	1.00		1.00	1.00		0.98	1.00		0.17	1.00		0.44
Lane Grp Cap(c), veh/h	70	173	155	1	35	31	50	1321	1349	57	1328	1294
V/C Ratio(X)	0.77	0.14	0.25	0.00	0.39	0.46	0.77	0.04	0.04	0.77	0.12	0.13
Avail Cap(c_a), veh/h	288	526	469	110	349	312	247	1321	1349	274	1328	1294
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98
Uniform Delay (d), s/veh	61.8	53.7	54.3	0.0	63.0	63.0	62.7	4.4	4.4	62.4	4.6	4.6
Incr Delay (d2), s/veh	16.0	0.4	0.8	0.0	7.1	10.2	21.8	0.1	0.1	18.9	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.8	1.2	0.0	0.5	0.5	1.6	0.3	0.3	1.7	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.8	54.1	55.1	0.0	70.1	73.2	84.5	4.5	4.5	81.3	4.8	4.8
LnGrp LOS	E	D	E	A	E	E	F	A	A	F	A	A
Approach Vol, veh/h	118				28				141			
Approach Delay, s/veh	65.3				71.7				26.6			
Approach LOS	E				E				C			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.7	103.2	10.1	8.0	9.2	102.7	0.0	18.2				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	6.0	5.0	5.5				
Max Green Setting (Gmax), s	18.0	44.0	21.0	25.5	20.0	42.0	8.0	38.5				
Max Q Clear Time (g_c+l1), s	4.8	5.4	5.9	3.2	5.2	3.0	0.0	5.0				
Green Ext Time (p_c), s	0.0	1.9	0.1	0.1	0.1	0.5	0.0	0.3				
Intersection Summary												
HCM 6th Ctrl Delay	28.3											
HCM 6th LOS	C											





















HCM 6th Signalized Intersection Summary 575: Sara Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	62	42	8	117	25	25	21	4	8	25	21
Future Volume (veh/h)	42	62	42	8	117	25	25	21	4	8	25	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	73	49	9	138	29	29	25	5	9	29	25
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	78	471	290	17	554	114	50	336	65	17	181	138
Arrive On Green	0.04	0.22	0.22	0.01	0.19	0.19	0.03	0.11	0.11	0.01	0.09	0.09
Sat Flow, veh/h	1781	2110	1302	1781	2937	602	1781	2968	575	1781	1921	1463
Grp Volume(v), veh/h	49	60	62	9	82	85	29	15	15	9	27	27
Grp Sat Flow(s),veh/h/ln	1781	1777	1636	1781	1777	1762	1781	1777	1767	1781	1777	1607
Q Serve(g_s), s	0.9	0.9	1.0	0.2	1.3	1.4	0.5	0.2	0.3	0.2	0.5	0.5
Cycle Q Clear(g_c), s	0.9	0.9	1.0	0.2	1.3	1.4	0.5	0.2	0.3	0.2	0.5	0.5
Prop In Lane	1.00		0.80	1.00		0.34	1.00		0.33	1.00		0.91
Lane Grp Cap(c), veh/h	78	396	365	17	336	333	50	201	200	17	168	152
V/C Ratio(X)	0.63	0.15	0.17	0.53	0.24	0.26	0.58	0.07	0.08	0.53	0.16	0.18
Avail Cap(c_a), veh/h	801	1359	1251	801	1359	1347	801	1332	1325	801	1332	1205
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	10.4	10.5	16.4	11.5	11.5	16.0	13.2	13.2	16.4	13.9	13.9
Incr Delay (d2), s/veh	8.1	0.2	0.2	22.9	0.4	0.4	10.0	0.2	0.2	22.9	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	0.3	0.2	0.4	0.4	0.3	0.1	0.1	0.2	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	10.6	10.7	39.3	11.9	11.9	26.0	13.4	13.4	39.3	14.3	14.5
LnGrp LOS	C	B	B	D	B	B	C	B	B	D	B	B
Approach Vol, veh/h	171				176				59			
Approach Delay, s/veh	14.4				13.3				19.6			
Approach LOS	B				B				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	9.1	6.5	11.8	5.3	9.8	5.3	12.9				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	* 6	5.0	5.5				
Max Green Setting (Gmax), s	15.0	25.0	15.0	25.5	15.0	* 25	15.0	25.5				
Max Q Clear Time (g_c+I1), s	2.5	2.5	2.9	3.4	2.2	2.3	2.2	3.0				
Green Ext Time (p_c), s	0.0	0.2	0.1	0.7	0.0	0.1	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay	15.1											
HCM 6th LOS	B											
Notes												










HCM 6th Signalized Intersection Summary
576: Sara Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	62	17	29	54	8	4	25	12	21	17	4
Future Volume (veh/h)	17	62	17	29	54	8	4	25	12	21	17	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	20	73	20	34	64	9	5	29	14	25	20	5
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	337	381	101	331	463	64	708	488	236	711	617	154
Arrive On Green	0.02	0.14	0.14	0.03	0.15	0.15	0.01	0.41	0.41	0.02	0.43	0.43
Sat Flow, veh/h	1781	2781	734	1781	3137	432	1781	1192	575	1781	1444	361
Grp Volume(v), veh/h	20	46	47	34	36	37	5	0	43	25	0	25
Grp Sat Flow(s),veh/h/ln	1781	1777	1738	1781	1777	1793	1781	0	1767	1781	0	1805
Q Serve(g_s), s	0.5	1.2	1.3	0.9	1.0	1.0	0.1	0.0	0.8	0.4	0.0	0.4
Cycle Q Clear(g_c), s	0.5	1.2	1.3	0.9	1.0	1.0	0.1	0.0	0.8	0.4	0.0	0.4
Prop In Lane	1.00		0.42	1.00		0.24	1.00		0.33	1.00		0.20
Lane Grp Cap(c), veh/h	337	244	238	331	262	264	708	0	724	711	0	772
V/C Ratio(X)	0.06	0.19	0.20	0.10	0.14	0.14	0.01	0.00	0.06	0.04	0.00	0.03
Avail Cap(c_a), veh/h	708	954	934	684	954	963	1104	0	724	1075	0	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	21.0	21.0	19.5	20.4	20.4	9.4	0.0	9.8	9.0	0.0	9.1
Incr Delay (d2), s/veh	0.1	0.4	0.4	0.1	0.2	0.2	0.0	0.0	0.2	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	0.5	0.3	0.4	0.4	0.0	0.0	0.3	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	21.4	21.4	19.6	20.6	20.6	9.4	0.0	10.0	9.0	0.0	9.2
LnGrp LOS	B	C	C	B	C	C	A	A	A	A	A	A
Approach Vol, veh/h	113			107			48			50		
Approach Delay, s/veh	21.1			20.3			9.9			9.1		
Approach LOS	C			C			A			A		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	29.0	6.6	13.6	6.8	28.0	7.1	13.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	12.5	22.5	12.5	29.5	12.5	22.5	12.5	29.5				
Max Q Clear Time (g_c+I1), s	2.1	2.4	2.5	3.0	2.4	2.8	2.9	3.3				
Green Ext Time (p_c), s	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay	17.3											
HCM 6th LOS	B											
Notes												

HCM 6th Signalized Intersection Summary
2361: SW 15th St & Kilpatrick Turnpike

11/20/2023

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	46	96	67	12	0	0
Future Volume (veh/h)	46	96	67	12	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		
Adj Flow Rate, veh/h	54	113	79	14		
Peak Hour Factor	0.85	0.85	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	948	2448	942	163		
Arrive On Green	0.07	0.69	0.31	0.31		
Sat Flow, veh/h	1781	3647	3123	524		
Grp Volume(v), veh/h	54	113	46	47		
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1776		
Q Serve(g_s), s	0.3	0.2	0.3	0.3		
Cycle Q Clear(g_c), s	0.3	0.2	0.3	0.3		
Prop In Lane	1.00			0.29		
Lane Grp Cap(c), veh/h	948	2448	553	553		
V/C Ratio(X)	0.06	0.05	0.08	0.09		
Avail Cap(c_a), veh/h	3046	6634	3317	3315		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	2.2	0.8	3.9	3.9		
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.3	0.8	4.0	4.0		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		167	93			
Approach Delay, s/veh		1.3	4.0			
Approach LOS		A	A			
Timer - Assigned Phs			3	4		8
Phs Duration (G+Y+Rc), s			6.1	10.0		16.1
Change Period (Y+Rc), s			5.0	5.0		5.0
Max Green Setting (Gmax), s			20.0	30.0		30.0
Max Q Clear Time (g_c+I1), s			2.3	2.3		2.2
Green Ext Time (p_c), s			0.1	0.4		0.6
Intersection Summary						
HCM 6th Ctrl Delay			2.2			
HCM 6th LOS			A			























HCM 6th Signalized Intersection Summary
2362: SW 15th St & Kilpatrick Turnpike

11/20/2023

	EBL	EBT	WBT	WBR	SBL	SBR
Movement						
Lane Configurations		↑↑↑	↑↑		↖	↗
Traffic Volume (veh/h)	0	129	67	0	25	137
Future Volume (veh/h)	0	129	67	0	25	137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	152	79	0	29	161
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	1413	983	0	303	270
Arrive On Green	0.00	0.28	0.28	0.00	0.17	0.17
Sat Flow, veh/h	0	5443	3741	0	1781	1585
Grp Volume(v), veh/h	0	152	79	0	29	161
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1781	1585
Q Serve(g_s), s	0.0	0.4	0.3	0.0	0.2	1.7
Cycle Q Clear(g_c), s	0.0	0.4	0.3	0.0	0.2	1.7
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1413	983	0	303	270
V/C Ratio(X)	0.00	0.11	0.08	0.00	0.10	0.60
Avail Cap(c_a), veh/h	0	8475	5899	0	1971	1754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	4.9	4.8	0.0	6.3	6.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.9	4.9	0.0	6.5	9.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		152	79		190	
Approach Delay, s/veh		4.9	4.9		8.6	
Approach LOS		A	A		A	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		8.1		10.0		10.0
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		20.0		30.0		30.0
Max Q Clear Time (g_c+I1), s		3.7		2.3		2.4
Green Ext Time (p_c), s		0.5		0.4		0.8
Intersection Summary						
HCM 6th Ctrl Delay			6.6			
HCM 6th LOS			A			

HCM Signalized Intersection Capacity Analysis 396: EB I-40 Ramp/WB I-40 Ramp & Morgan Rd

11/20/2023

												
Movement	NBL	NBT	NBR	NBR2	SBL	SBT	SBR	SBR2	NEL	NER2	SWL	SWR2
Lane Configurations												
Traffic Volume (vph)	42	21	121	0	75	62	58	0	33	129	225	158
Future Volume (vph)	42	21	121	0	75	62	58	0	33	129	225	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	5.5			5.5	6.0			6.5	4.0	5.5	4.0
Lane Util. Factor	0.97	0.95			0.97	0.95			0.97	1.00	0.97	1.00
Frt	1.00	0.87			1.00	0.93			1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (prot)	3433	3088			3433	3283			3433	1583	3433	1583
Flt Permitted	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (perm)	3433	3088			3433	3283			3433	1583	3433	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.85
Adj. Flow (vph)	49	25	142	0	88	73	68	0	39	152	265	186
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	49	167	0	0	88	141	0	0	39	152	265	186
Turn Type	Prot	NA		Prot	Prot	NA		Free	Prot	Free	Prot	Free
Protected Phases	1	6		6	5	2			3		7	
Permitted Phases								Free		Free		Free
Actuated Green, G (s)	2.6	15.2			4.0	14.6			8.4	45.1	9.4	45.1
Effective Green, g (s)	2.6	15.2			4.0	14.6			8.4	45.1	9.4	45.1
Actuated g/C Ratio	0.06	0.34			0.09	0.32			0.19	1.00	0.21	1.00
Clearance Time (s)	7.0	5.5			5.5	6.0			6.5		5.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0			3.0		3.0	
Lane Grp Cap (vph)	197	1040			304	1062			639	1583	715	1583
v/s Ratio Prot	0.01	c0.05			c0.03	0.04			0.01		c0.08	
v/s Ratio Perm										0.10		c0.12
v/c Ratio	0.25	0.16			0.29	0.13			0.06	0.10	0.37	0.12
Uniform Delay, d1	20.3	10.5			19.2	10.8			15.1	0.0	15.3	0.0
Progression Factor	1.00	1.00			1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1			0.5	0.1			0.0	0.1	0.3	0.2
Delay (s)	21.0	10.6			19.8	10.8			15.1	0.1	15.6	0.2
Level of Service	C	B			B	B			B	A	B	A
Approach Delay (s)		12.9				14.3						
Approach LOS		B				B						
Intersection Summary												
HCM 2000 Control Delay		10.0				HCM 2000 Level of Service			A			
HCM 2000 Volume to Capacity ratio		0.28										
Actuated Cycle Length (s)		45.1				Sum of lost time (s)			19.5			
Intersection Capacity Utilization		41.7%				ICU Level of Service			A			
Analysis Period (min)		15										

c Critical Lane Group

HCM 6th TWSC
17: S Mustang Rd & SW 11th St

11/20/2023

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↖		↗	↔			↔		
Traffic Vol, veh/h	4	0	17	0	0	0	25	271	4	0	325	42
Future Vol, veh/h	4	0	17	0	0	0	25	271	4	0	325	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	20	0	0	0	29	319	5	0	382	49























Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	625	789	216	571	-	162	431	0
Stage 1	407	407	-	380	-	-	-	-
Stage 2	218	382	-	191	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-
Pot Cap-1 Maneuver	369	321	789	404	0	854	1125	-
Stage 1	592	596	-	614	0	-	-	-
Stage 2	764	611	-	792	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	360	311	789	385	-	854	1125	-
Mov Cap-2 Maneuver	360	311	-	385	-	-	-	-
Stage 1	574	596	-	595	-	-	-	-
Stage 2	740	592	-	772	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	0	0.8	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1125	-	-	643	-	-	1233	-	-
HCM Lane V/C Ratio	0.026	-	-	0.038	-	-	-	-	-
HCM Control Delay (s)	8.3	0.1	-	10.8	0	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	-	0	-	-





















HCM 6th Signalized Intersection Summary
401: Morgan Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	125	234	163	451	104	551	316	50	21	246	84
Future Volume (veh/h)	50	125	234	163	451	104	551	316	50	21	246	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	147	275	192	531	122	648	372	59	25	289	99
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	76	359	321	184	756	173	654	1728	771	35	362	122
Arrive On Green	0.04	0.20	0.20	0.10	0.26	0.26	0.37	0.49	0.49	0.02	0.14	0.14
Sat Flow, veh/h	1781	1777	1585	1781	2872	657	1781	3554	1585	1781	2613	877
Grp Volume(v), veh/h	59	147	275	192	328	325	648	372	59	25	195	193
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1752	1781	1777	1585	1781	1777	1713
Q Serve(g_s), s	3.5	7.6	17.8	11.0	17.7	17.8	38.4	6.4	2.1	1.5	11.2	11.6
Cycle Q Clear(g_c), s	3.5	7.6	17.8	11.0	17.7	17.8	38.4	6.4	2.1	1.5	11.2	11.6
Prop In Lane	1.00		1.00	1.00		0.38	1.00		1.00	1.00		0.51
Lane Grp Cap(c), veh/h	76	359	321	184	467	461	654	1728	771	35	246	237
V/C Ratio(X)	0.77	0.41	0.86	1.04	0.70	0.71	0.99	0.22	0.08	0.71	0.79	0.81
Avail Cap(c_a), veh/h	151	502	448	184	535	528	654	1728	771	134	335	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.3	36.8	40.9	47.6	35.4	35.4	33.4	15.7	14.6	51.8	44.2	44.4
Incr Delay (d2), s/veh	15.2	0.7	11.4	77.4	3.4	3.6	32.7	0.3	0.2	23.5	8.7	11.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	3.3	7.7	8.6	7.7	7.6	21.3	2.5	0.8	0.9	5.4	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	37.6	52.2	125.0	38.8	39.0	66.2	15.9	14.8	75.3	52.9	55.4
LnGrp LOS	E	D	D	F	D	D	E	B	B	E	D	E
Approach Vol, veh/h	481			845			1079			413		
Approach Delay, s/veh	49.4			58.5			46.0			55.4		
Approach LOS	D			E			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	44.0	19.7	9.5	32.9	7.1	56.6	16.0	26.5				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	39.0	20.0	9.0	32.0	8.0	51.0	11.0	30.0				
Max Q Clear Time (g_c+I1), s	40.4	13.6	5.5	19.8	3.5	8.4	13.0	19.8				
Green Ext Time (p_c), s	0.0	1.1	0.0	2.8	0.0	2.5	0.0	1.7				
Intersection Summary												
HCM 6th Ctrl Delay	51.7											
HCM 6th LOS	D											





















HCM 6th Signalized Intersection Summary
403: Morgan Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	146	229	21	163	71	142	362	17	87	687	715
Future Volume (veh/h)	221	146	229	21	163	71	142	362	17	87	687	715
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	260	172	269	25	192	84	167	426	20	102	808	841
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	390	348	34	256	108	148	1766	83	127	887	791
Arrive On Green	0.13	0.22	0.22	0.02	0.11	0.11	0.08	0.51	0.51	0.07	0.50	0.50
Sat Flow, veh/h	1781	1777	1585	1781	2436	1026	1781	3456	162	1781	1777	1585
Grp Volume(v), veh/h	260	172	269	25	138	138	167	219	227	102	808	841
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1686	1781	1777	1841	1781	1777	1585
Q Serve(g_s), s	16.0	10.0	19.1	1.7	9.0	9.6	10.0	8.2	8.3	6.8	50.1	59.9
Cycle Q Clear(g_c), s	16.0	10.0	19.1	1.7	9.0	9.6	10.0	8.2	8.3	6.8	50.1	59.9
Prop In Lane	1.00		1.00	1.00		0.61	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	238	390	348	34	187	177	148	908	941	127	887	791
V/C Ratio(X)	1.09	0.44	0.77	0.74	0.74	0.78	1.13	0.24	0.24	0.80	0.91	1.06
Avail Cap(c_a), veh/h	238	466	416	119	348	330	148	908	941	193	887	791
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	52.0	40.4	44.0	58.6	52.1	52.3	55.0	16.4	16.4	54.9	27.6	30.1
Incr Delay (d2), s/veh	82.2	0.7	6.4	27.3	5.6	7.2	111.4	0.6	0.6	12.0	13.9	48.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	4.3	7.9	1.0	4.2	4.3	9.0	3.3	3.5	3.4	23.2	31.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.2	41.1	50.4	85.9	57.7	59.5	166.4	17.0	17.0	66.9	41.6	78.7
LnGrp LOS	F	D	D	F	E	E	F	B	B	E	D	F
Approach Vol, veh/h	701			301			613			1751		
Approach Delay, s/veh	79.2			60.9			57.7			60.9		
Approach LOS	E			E			E			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.0	65.9	21.0	18.1	13.5	67.3	7.3	31.9				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	6.0	5.0	5.5				
Max Green Setting (Gmax), s	10.0	49.0	16.0	23.5	13.0	46.0	8.0	31.5				
Max Q Clear Time (g_c+I1), s	12.0	61.9	18.0	11.6	8.8	10.3	3.7	21.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.1	2.5	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay	64.1											
HCM 6th LOS	E											





















HCM 6th Signalized Intersection Summary
575: Sara Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	137	605	492	583	50	230	183	88	58	259	204
Future Volume (veh/h)	79	137	605	492	583	50	230	183	88	58	259	204
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	161	712	579	686	59	271	215	104	68	305	240
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	117	394	352	419	1295	111	299	722	337	87	360	276
Arrive On Green	0.07	0.22	0.22	0.23	0.39	0.39	0.17	0.31	0.31	0.05	0.19	0.19
Sat Flow, veh/h	1781	1777	1585	1781	3311	285	1781	2353	1097	1781	1915	1468
Grp Volume(v), veh/h	93	161	712	579	368	377	271	160	159	68	282	263
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1819	1781	1777	1673	1781	1777	1606
Q Serve(g_s), s	5.9	8.9	25.5	27.0	18.3	18.3	17.2	7.9	8.3	4.3	17.6	18.2
Cycle Q Clear(g_c), s	5.9	8.9	25.5	27.0	18.3	18.3	17.2	7.9	8.3	4.3	17.6	18.2
Prop In Lane	1.00		1.00	1.00		0.16	1.00		0.66	1.00		0.91
Lane Grp Cap(c), veh/h	117	394	352	419	695	711	299	545	513	87	334	302
V/C Ratio(X)	0.79	0.41	2.02	1.38	0.53	0.53	0.91	0.29	0.31	0.78	0.85	0.87
Avail Cap(c_a), veh/h	202	394	352	419	695	711	326	572	539	155	387	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	38.2	44.7	43.9	26.9	26.9	46.9	30.3	30.5	54.0	45.0	45.3
Incr Delay (d2), s/veh	11.3	0.7	470.7	186.8	0.8	0.7	26.3	0.3	0.3	13.7	14.2	18.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.8	55.6	33.1	7.5	7.7	9.6	3.4	3.3	2.2	8.9	8.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	38.9	515.4	230.7	27.6	27.6	73.2	30.6	30.8	67.7	59.2	63.7
LnGrp LOS	E	D	F	F	C	C	E	C	C	E	E	E
Approach Vol, veh/h	966			1324			590			613		
Approach Delay, s/veh	392.5			116.4			50.2			62.1		
Approach LOS	F			F			D			E		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	24.3	27.6	12.6	50.4	10.6	41.3	32.0	31.0				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	* 6	5.0	5.5				
Max Green Setting (Gmax), s	21.0	25.0	13.0	39.5	10.0	* 37	27.0	25.5				
Max Q Clear Time (g_c+I1), s	19.2	20.2	7.9	20.3	6.3	10.3	29.0	27.5				
Green Ext Time (p_c), s	0.2	1.4	0.1	4.0	0.0	1.8	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	172.1											
HCM 6th LOS	F											
Notes												










HCM 6th Signalized Intersection Summary 576: Sara Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	560	375	62	121	263	579	106	193	83	163	212	109
Future Volume (veh/h)	560	375	62	121	263	579	106	193	83	163	212	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	659	441	73	142	309	681	125	227	98	192	249	128
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	617	1422	234	399	407	363	171	243	105	217	247	127
Arrive On Green	0.31	0.47	0.47	0.08	0.23	0.23	0.06	0.20	0.20	0.08	0.21	0.21
Sat Flow, veh/h	1781	3054	502	1781	1777	1585	1781	1239	535	1781	1164	598
Grp Volume(v), veh/h	659	255	259	142	309	681	125	0	325	192	0	377
Grp Sat Flow(s),veh/h/ln	1781	1777	1780	1781	1777	1585	1781	0	1774	1781	0	1763
Q Serve(g_s), s	37.5	10.8	10.9	7.2	19.5	27.5	6.7	0.0	21.6	9.5	0.0	25.5
Cycle Q Clear(g_c), s	37.5	10.8	10.9	7.2	19.5	27.5	6.7	0.0	21.6	9.5	0.0	25.5
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.30	1.00		0.34
Lane Grp Cap(c), veh/h	617	827	828	399	407	363	171	0	347	217	0	375
V/C Ratio(X)	1.07	0.31	0.31	0.36	0.76	1.87	0.73	0.00	0.94	0.88	0.00	1.01
Avail Cap(c_a), veh/h	617	827	828	404	407	363	171	0	347	217	0	375
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.3	20.0	20.1	31.5	43.2	46.3	37.8	0.0	47.5	39.2	0.0	47.3
Incr Delay (d2), s/veh	56.0	0.2	0.2	0.5	8.1	404.0	14.6	0.0	34.4	31.9	0.0	48.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	26.8	4.3	4.4	3.1	9.2	51.2	3.6	0.0	12.6	6.4	0.0	15.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	90.2	20.2	20.3	32.0	51.2	450.3	52.4	0.0	81.9	71.1	0.0	95.4
LnGrp LOS	F	C	C	C	D	F	D	A	F	E	A	F
Approach Vol, veh/h	1173			1132			450			569		
Approach Delay, s/veh	59.6			288.9			73.7			87.2		
Approach LOS	E			F			E			F		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	31.0	43.0	33.0	15.0	29.0	14.6	61.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	7.5	25.5	37.5	27.5	9.5	23.5	9.5	55.5				
Max Q Clear Time (g_c+l1), s	8.7	27.5	39.5	29.5	11.5	23.6	9.2	12.9				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0				
Intersection Summary												
HCM 6th Ctrl Delay	144.3											
HCM 6th LOS	F											
Notes												

HCM 6th Signalized Intersection Summary
2361: SW 15th St & Kilpatrick Turnpike

11/20/2023

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	271	1580	306	74	0	0
Future Volume (veh/h)	271	1580	306	74	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		
Adj Flow Rate, veh/h	319	1859	360	87		
Peak Hour Factor	0.85	0.85	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	938	3113	1797	429		
Arrive On Green	0.12	0.88	0.63	0.63		
Sat Flow, veh/h	1781	3647	2939	679		
Grp Volume(v), veh/h	319	1859	223	224		
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1748		
Q Serve(g_s), s	1.7	5.5	2.1	2.2		
Cycle Q Clear(g_c), s	1.7	5.5	2.1	2.2		
Prop In Lane	1.00			0.39		
Lane Grp Cap(c), veh/h	938	3113	1122	1104		
V/C Ratio(X)	0.34	0.60	0.20	0.20		
Avail Cap(c_a), veh/h	1827	10131	3744	3683		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	1.3	0.6	3.1	3.1		
Incr Delay (d2), s/veh	0.2	0.2	0.1	0.1		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.2	0.2		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	1.5	0.8	3.2	3.2		
LnGrp LOS	A	A	A	A		
Approach Vol, veh/h		2178	447			
Approach Delay, s/veh		0.9	3.2			
Approach LOS		A	A			
Timer - Assigned Phs			3	4		8
Phs Duration (G+Y+Rc), s			9.9	30.5		40.3
Change Period (Y+Rc), s			5.0	5.0		5.0
Max Green Setting (Gmax), s			25.0	85.0		115.0
Max Q Clear Time (g_c+I1), s			3.7	4.2		7.5
Green Ext Time (p_c), s			0.9	2.6		27.9
Intersection Summary						
HCM 6th Ctrl Delay			1.3			
HCM 6th LOS			A			
























HCM 6th Signalized Intersection Summary
2362: SW 15th St & Kilpatrick Turnpike

11/20/2023

	EBL	EBT	WBT	WBR	SBL	SBR
Movement						
Lane Configurations		↑↑↑	↑↑		↗	↖
Traffic Volume (veh/h)	8	919	289	4	920	694
Future Volume (veh/h)	8	919	289	4	920	694
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	1081	340	5	1082	816
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	39	1412	1025	15	1102	981
Arrive On Green	0.29	0.29	0.29	0.29	0.62	0.62
Sat Flow, veh/h	14	5095	3679	53	1781	1585
Grp Volume(v), veh/h	409	681	168	177	1082	816
Grp Sat Flow(s),veh/h/ln	1859	1549	1777	1861	1781	1585
Q Serve(g_s), s	1.6	21.0	7.8	7.8	61.7	42.3
Cycle Q Clear(g_c), s	21.0	21.0	7.8	7.8	61.7	42.3
Prop In Lane	0.02			0.03	1.00	1.00
Lane Grp Cap(c), veh/h	566	885	508	532	1102	981
V/C Ratio(X)	0.72	0.77	0.33	0.33	0.98	0.83
Avail Cap(c_a), veh/h	832	1332	764	800	1107	985
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	34.2	29.5	29.5	19.4	15.7
Incr Delay (d2), s/veh	1.8	1.6	0.4	0.4	22.6	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.3	7.7	3.2	3.4	27.7	14.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.9	35.8	29.9	29.8	42.0	21.8
LnGrp LOS	D	D	C	C	D	C
Approach Vol, veh/h		1090	345		1898	
Approach Delay, s/veh		35.8	29.9		33.3	
Approach LOS		D	C		C	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		69.7		34.9		34.9
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		65.0		45.0		45.0
Max Q Clear Time (g_c+I1), s		63.7		9.8		23.0
Green Ext Time (p_c), s		1.0		1.8		6.9
Intersection Summary						
HCM 6th Ctrl Delay			33.8			
HCM 6th LOS			C			









HCM Signalized Intersection Capacity Analysis 396: EB I-40 Ramp/WB I-40 Ramp & Morgan Rd

11/20/2023

												
Movement	EBL	EBR	WBL	WBR	NBL	NBT	NBR	NBR2	SBL	SBT	SBR	SBR2
Lane Configurations					 	 		 	 	 		
Traffic Volume (vph)	326	409	771	629	231	150	352	0	194	260	193	0
Future Volume (vph)	326	409	771	629	231	150	352	0	194	260	193	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					7.0	5.5			5.5	6.0		
Lane Util. Factor					0.97	0.95			0.97	0.95		
Frt					1.00	0.89			1.00	0.94		
Flt Protected					0.95	1.00			0.95	1.00		
Satd. Flow (prot)					3433	3167			3433	3313		
Flt Permitted					0.95	1.00			0.95	1.00		
Satd. Flow (perm)					3433	3167			3433	3313		
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	384	481	907	740	272	176	414	0	228	306	227	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	272	590	0	0	228	533	0	0
Turn Type	Perm		Perm		Prot	NA		Prot	Prot	NA		Free
Protected Phases					1	6		6	5	2		
Permitted Phases	4!		8!									Free
Actuated Green, G (s)					9.5	15.9			8.9	13.3		
Effective Green, g (s)					9.5	15.9			8.9	13.3		
Actuated g/C Ratio					0.27	0.44			0.25	0.37		
Clearance Time (s)					7.0	5.5			5.5	6.0		
Vehicle Extension (s)					3.0	3.0			3.0	3.0		
Lane Grp Cap (vph)					910	1406			853	1230		
v/s Ratio Prot					c0.08	c0.19			0.07	0.16		
v/s Ratio Perm												
v/c Ratio					0.30	0.42			0.27	0.43		
Uniform Delay, d1					10.5	6.8			10.8	8.4		
Progression Factor					1.00	1.00			1.00	1.00		
Incremental Delay, d2					0.2	0.2			0.2	0.2		
Delay (s)					10.7	7.0			11.0	8.7		
Level of Service					B	A			B	A		
Approach Delay (s)						8.2				9.4		
Approach LOS						A				A		
Intersection Summary												
HCM 2000 Control Delay	Error			HCM 2000 Level of Service						F		
HCM 2000 Volume to Capacity ratio	0.81											
Actuated Cycle Length (s)	35.8			Sum of lost time (s)						24.0		
Intersection Capacity Utilization	Err%			ICU Level of Service						H		
Analysis Period (min)	15											
! Phase conflict between lane groups.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
396: EB I-40 Ramp/WB I-40 Ramp & Morgan Rd

11/20/2023

				
Movement	NEL	NER2	SWL	SWR2
Lane Configurations				
Traffic Volume (vph)	0	0	0	0
Future Volume (vph)	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900
Total Lost time (s)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Peak-hour factor, PHF	0.85	0.85	0.85	0.85
Adj. Flow (vph)	0	0	0	0
RTOR Reduction (vph)	0	0	0	0
Lane Group Flow (vph)	0	0	0	0
Turn Type	Prot	Free	Prot	Free
Protected Phases	3!		7!	
Permitted Phases		Free		Free
Actuated Green, G (s)				
Effective Green, g (s)				
Actuated g/C Ratio				
Clearance Time (s)				
Vehicle Extension (s)				
Lane Grp Cap (vph)				
v/s Ratio Prot				
v/s Ratio Perm				
v/c Ratio				
Uniform Delay, d1				
Progression Factor				
Incremental Delay, d2				
Delay (s)				
Level of Service				
Approach Delay (s)				
Approach LOS				
Intersection Summary				

HCM 6th TWSC
17: S Mustang Rd & SW 11th St

11/20/2023

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↖		↗	↔			↔		
Traffic Vol, veh/h	12	0	46	0	0	8	54	868	102	120	1273	75
Future Vol, veh/h	12	0	46	0	0	8	54	868	102	120	1273	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	54	0	0	9	64	1021	120	141	1498	88






















Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	2463	3093	793	2240	-	571	1586	0
Stage 1	1824	1824	-	1209	-	-	-	-
Stage 2	639	1269	-	1031	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-
Pot Cap-1 Maneuver	16	12	331	23	0	464	410	-
Stage 1	80	127	-	194	0	-	-	-
Stage 2	431	238	-	249	0	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	0	331	-	-	464	410	-
Mov Cap-2 Maneuver	-	0	-	-	-	-	-	-
Stage 1	45	0	-	108	-	-	-	-
Stage 2	235	133	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		12.9	3.4	5.6
HCM LOS	-	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	410	-	-	-	-	-	464	608	-
HCM Lane V/C Ratio	0.155	-	-	-	-	-	0.02	0.232	-
HCM Control Delay (s)	15.4	3	-	-	0	12.9	12.7	5.3	-
HCM Lane LOS	C	A	-	-	A	B	B	A	-
HCM 95th %tile Q(veh)	0.5	-	-	-	-	0.1	0.9	-	-





















HCM 6th Signalized Intersection Summary
401: Morgan Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	62	300	17	75	17	149	79	4	12	71	0
Future Volume (veh/h)	83	62	300	17	75	17	149	79	4	12	71	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	73	353	20	88	20	175	93	5	14	84	0
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	127	462	412	31	597	132	216	1721	767	23	1337	0
Arrive On Green	0.07	0.26	0.26	0.02	0.21	0.21	0.12	0.48	0.48	0.01	0.38	0.00
Sat Flow, veh/h	1781	1777	1585	1781	2894	638	1781	3554	1585	1781	3647	0
Grp Volume(v), veh/h	98	73	353	20	53	55	175	93	5	14	84	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1755	1781	1777	1585	1781	1777	0
Q Serve(g_s), s	4.8	2.8	18.8	1.0	2.2	2.3	8.5	1.2	0.1	0.7	1.3	0.0
Cycle Q Clear(g_c), s	4.8	2.8	18.8	1.0	2.2	2.3	8.5	1.2	0.1	0.7	1.3	0.0
Prop In Lane	1.00		1.00	1.00		0.36	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	127	462	412	31	366	362	216	1721	767	23	1337	0
V/C Ratio(X)	0.77	0.16	0.86	0.64	0.14	0.15	0.81	0.05	0.01	0.60	0.06	0.00
Avail Cap(c_a), veh/h	381	740	660	201	560	553	582	1721	767	201	1337	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	40.5	25.4	31.3	43.3	28.8	28.9	38.0	12.1	11.9	43.6	17.7	0.0
Incr Delay (d2), s/veh	9.5	0.2	6.4	19.7	0.2	0.2	7.1	0.1	0.0	22.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.1	7.4	0.6	0.9	0.9	3.9	0.5	0.0	0.4	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	25.5	37.7	63.1	29.0	29.1	45.1	12.2	11.9	65.6	17.7	0.0
LnGrp LOS	D	C	D	E	C	C	D	B	B	E	B	A
Approach Vol, veh/h	524			128			273			98		
Approach Delay, s/veh	38.3			34.4			33.3			24.6		
Approach LOS	D			C			C			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.8	38.4	11.3	23.3	6.2	48.0	6.6	28.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	29.0	24.0	19.0	28.0	10.0	43.0	10.0	37.0				
Max Q Clear Time (g_c+I1), s	10.5	3.3	6.8	4.3	2.7	3.2	3.0	20.8				
Green Ext Time (p_c), s	0.4	0.3	0.2	0.4	0.0	0.5	0.0	2.3				
Intersection Summary												
HCM 6th Ctrl Delay	35.2											
HCM 6th LOS	D											





















HCM 6th Signalized Intersection Summary
403: Morgan Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	346	58	71	0	12	12	33	79	8	37	216	141
Future Volume (veh/h)	346	58	71	0	12	12	33	79	8	37	216	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	407	68	84	0	14	14	39	93	9	44	254	166
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	438	531	474	1	34	29	50	1821	174	57	1169	738
Arrive On Green	0.25	0.30	0.30	0.00	0.02	0.02	0.03	0.56	0.56	0.03	0.56	0.56
Sat Flow, veh/h	1781	1777	1585	1781	1809	1558	1781	3278	313	1781	2091	1319
Grp Volume(v), veh/h	407	68	84	0	14	14	39	50	52	44	214	206
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1590	1781	1777	1814	1781	1777	1633
Q Serve(g_s), s	32.4	4.0	5.7	0.0	1.1	1.3	3.2	1.9	1.9	3.6	8.8	9.2
Cycle Q Clear(g_c), s	32.4	4.0	5.7	0.0	1.1	1.3	3.2	1.9	1.9	3.6	8.8	9.2
Prop In Lane	1.00		1.00	1.00		0.98	1.00		0.17	1.00		0.81
Lane Grp Cap(c), veh/h	438	531	474	1	33	30	50	987	1008	57	994	913
V/C Ratio(X)	0.93	0.13	0.18	0.00	0.41	0.48	0.78	0.05	0.05	0.78	0.22	0.23
Avail Cap(c_a), veh/h	848	1035	924	98	288	258	98	987	1008	98	994	913
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.76	0.76	0.76	0.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	53.5	37.1	37.6	0.0	70.4	70.5	70.0	14.7	14.7	69.7	16.0	16.1
Incr Delay (d2), s/veh	7.3	0.1	0.1	0.0	8.0	11.6	22.0	0.1	0.1	19.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.0	1.8	2.2	0.0	0.6	0.6	1.7	0.8	0.8	1.9	3.7	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.8	37.1	37.8	0.0	78.4	82.1	92.0	14.8	14.8	88.8	16.5	16.7
LnGrp LOS	E	D	D	A	E	F	F	B	B	F	B	B
Approach Vol, veh/h	559				28				141			
Approach Delay, s/veh	54.4				80.3				36.2			
Approach LOS	D				F				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.1	87.1	40.6	8.2	9.6	86.6	0.0	48.8				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	6.0	5.0	5.5				
Max Green Setting (Gmax), s	8.0	23.0	69.0	23.5	8.0	23.0	8.0	84.5				
Max Q Clear Time (g_c+I1), s	5.2	11.2	34.4	3.3	5.6	3.9	0.0	7.7				
Green Ext Time (p_c), s	0.0	1.8	1.2	0.1	0.0	0.4	0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay	40.8											
HCM 6th LOS	D											





















HCM 6th Signalized Intersection Summary 575: Sara Rd & Reno Ave

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	62	132	87	117	25	400	58	379	8	25	21
Future Volume (veh/h)	42	62	132	87	117	25	400	58	379	8	25	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	73	155	102	138	29	471	68	446	9	29	25
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	68	256	229	132	529	109	552	679	606	17	157	119
Arrive On Green	0.04	0.14	0.14	0.07	0.18	0.18	0.31	0.38	0.38	0.01	0.08	0.08
Sat Flow, veh/h	1781	1777	1585	1781	2937	602	1781	1777	1585	1781	1921	1463
Grp Volume(v), veh/h	49	73	155	102	82	85	471	68	446	9	27	27
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1762	1781	1777	1585	1781	1777	1607
Q Serve(g_s), s	1.5	2.0	5.1	3.1	2.2	2.3	13.7	1.4	13.3	0.3	0.8	0.9
Cycle Q Clear(g_c), s	1.5	2.0	5.1	3.1	2.2	2.3	13.7	1.4	13.3	0.3	0.8	0.9
Prop In Lane	1.00		1.00	1.00		0.34	1.00		1.00	1.00		0.91
Lane Grp Cap(c), veh/h	68	256	229	132	320	317	552	679	606	17	145	131
V/C Ratio(X)	0.72	0.28	0.68	0.77	0.26	0.27	0.85	0.10	0.74	0.54	0.18	0.21
Avail Cap(c_a), veh/h	258	822	733	323	886	879	1195	1805	1610	258	838	758
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	21.1	22.4	25.1	19.4	19.5	17.8	10.9	14.6	27.2	23.6	23.7
Incr Delay (d2), s/veh	13.2	0.6	3.5	9.1	0.4	0.4	3.9	0.1	1.8	24.6	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.8	1.9	1.5	0.8	0.8	5.2	0.4	4.1	0.2	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	21.7	25.9	34.2	19.8	19.9	21.7	11.0	16.4	51.8	24.2	24.4
LnGrp LOS	D	C	C	C	B	B	C	B	B	D	C	C
Approach Vol, veh/h	277			269			985			63		
Approach Delay, s/veh	27.2			25.3			18.6			28.2		
Approach LOS	C			C			B			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	22.1	10.5	7.1	15.4	5.5	27.1	9.1	13.5				
Change Period (Y+Rc), s	5.0	6.0	5.0	5.5	5.0	* 6	5.0	5.5				
Max Green Setting (Gmax), s	37.0	26.0	8.0	27.5	8.0	* 56	10.0	25.5				
Max Q Clear Time (g_c+I1), s	15.7	2.9	3.5	4.3	2.3	15.3	5.1	7.1				
Green Ext Time (p_c), s	1.4	0.2	0.0	0.8	0.0	3.7	0.1	1.1				
Intersection Summary												
HCM 6th Ctrl Delay	21.6											
HCM 6th LOS	C											
Notes												










HCM 6th Signalized Intersection Summary
576: Sara Rd & SW 15th St

11/20/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	475	129	29	54	87	4	25	12	208	54	229
Future Volume (veh/h)	107	475	129	29	54	87	4	25	12	208	54	229
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	126	559	152	34	64	102	5	29	14	245	64	269
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	415	727	197	189	382	341	407	393	190	720	138	581
Arrive On Green	0.07	0.26	0.26	0.03	0.21	0.21	0.01	0.33	0.33	0.12	0.44	0.44
Sat Flow, veh/h	1781	2763	749	1781	1777	1585	1781	1192	575	1781	314	1319
Grp Volume(v), veh/h	126	359	352	34	64	102	5	0	43	245	0	333
Grp Sat Flow(s),veh/h/ln	1781	1777	1736	1781	1777	1585	1781	0	1767	1781	0	1633
Q Serve(g_s), s	4.4	15.5	15.6	1.2	2.4	4.5	0.2	0.0	1.4	7.0	0.0	11.9
Cycle Q Clear(g_c), s	4.4	15.5	15.6	1.2	2.4	4.5	0.2	0.0	1.4	7.0	0.0	11.9
Prop In Lane	1.00		0.43	1.00		1.00	1.00		0.33	1.00		0.81
Lane Grp Cap(c), veh/h	415	467	456	189	382	341	407	0	583	720	0	719
V/C Ratio(X)	0.30	0.77	0.77	0.18	0.17	0.30	0.01	0.00	0.07	0.34	0.00	0.46
Avail Cap(c_a), veh/h	487	954	931	347	954	851	559	0	583	1041	0	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.3	28.2	28.3	25.2	26.5	27.3	18.4	0.0	19.1	13.6	0.0	16.3
Incr Delay (d2), s/veh	0.4	2.7	2.8	0.5	0.2	0.5	0.0	0.0	0.2	0.3	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	6.4	6.3	0.5	1.0	1.6	0.1	0.0	0.6	2.6	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	30.9	31.1	25.6	26.7	27.8	18.4	0.0	19.3	13.9	0.0	18.5
LnGrp LOS	C	C	C	C	C	C	B	A	B	B	A	B
Approach Vol, veh/h	837				200				48			
Approach Delay, s/veh	29.7				27.1				19.2			
Approach LOS	C				C				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	42.0	11.7	23.3	15.1	32.9	7.7	27.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	7.5	36.5	9.5	44.5	24.5	19.5	9.5	44.5				
Max Q Clear Time (g_c+I1), s	2.2	13.9	6.4	6.5	9.0	3.4	3.2	17.6				
Green Ext Time (p_c), s	0.0	2.0	0.1	0.9	0.6	0.1	0.0	4.2				
Intersection Summary												
HCM 6th Ctrl Delay	24.5											
HCM 6th LOS	C											

HCM 6th Signalized Intersection Summary 2361: SW 15th St & Kilpatrick Turnpike

11/20/2023

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	271	129	554	1062	0	0
Future Volume (veh/h)	271	129	554	1062	0	0
Initial Q (Qb), veh	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00			1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00		
Work Zone On Approach		No	No			
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		
Adj Flow Rate, veh/h	319	152	652	1249		
Peak Hour Factor	0.85	0.85	0.85	0.85		
Percent Heavy Veh, %	2	2	2	2		
Cap, veh/h	403	3171	1147	1023		
Arrive On Green	0.14	0.89	0.65	0.65		
Sat Flow, veh/h	1781	3647	1870	1585		
Grp Volume(v), veh/h	319	152	652	1249		
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585		
Q Serve(g_s), s	3.8	0.2	9.5	30.0		
Cycle Q Clear(g_c), s	3.8	0.2	9.5	30.0		
Prop In Lane	1.00			1.00		
Lane Grp Cap(c), veh/h	403	3171	1147	1023		
V/C Ratio(X)	0.79	0.05	0.57	1.22		
Avail Cap(c_a), veh/h	922	4206	1147	1023		
HCM Platoon Ratio	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	1.00	1.00		
Uniform Delay (d), s/veh	14.0	0.3	4.6	8.2		
Incr Delay (d2), s/veh	3.5	0.0	0.7	108.2		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	2.1	0.0	1.3	33.7		
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.6	0.3	5.3	116.4		
LnGrp LOS	B	A	A	F		
Approach Vol, veh/h		471	1901			
Approach Delay, s/veh		12.0	78.3			
Approach LOS		B	E			
Timer - Assigned Phs		3	4		8	
Phs Duration (G+Y+Rc), s		11.5	35.0		46.5	
Change Period (Y+Rc), s		5.0	5.0		5.0	
Max Green Setting (Gmax), s		20.0	30.0		55.0	
Max Q Clear Time (g_c+I1), s		5.8	32.0		2.2	
Green Ext Time (p_c), s		0.8	0.0		0.9	
Intersection Summary						
HCM 6th Ctrl Delay		65.1				
HCM 6th LOS		E				























HCM 6th Signalized Intersection Summary
2362: SW 15th St & Kilpatrick Turnpike

11/20/2023

	EBL	EBT	WBT	WBR	SBL	SBR
Movement						
Lane Configurations		↑↑↑	↑↑		↑	↑
Traffic Volume (veh/h)	0	388	554	0	81	137
Future Volume (veh/h)	0	388	554	0	81	137
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	0	456	652	0	95	161
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	0	2	2	0	2	2
Cap, veh/h	0	2038	1418	0	309	275
Arrive On Green	0.00	0.40	0.40	0.00	0.17	0.17
Sat Flow, veh/h	0	5443	3741	0	1781	1585
Grp Volume(v), veh/h	0	456	652	0	95	161
Grp Sat Flow(s),veh/h/ln	0	1702	1777	0	1781	1585
Q Serve(g_s), s	0.0	1.4	3.2	0.0	1.1	2.2
Cycle Q Clear(g_c), s	0.0	1.4	3.2	0.0	1.1	2.2
Prop In Lane	0.00			0.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	2038	1418	0	309	275
V/C Ratio(X)	0.00	0.22	0.46	0.00	0.31	0.59
Avail Cap(c_a), veh/h	0	6550	4558	0	1523	1355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	4.6	5.2	0.0	8.4	8.9
Incr Delay (d2), s/veh	0.0	0.1	0.2	0.0	0.6	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.2	0.0	0.2	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.7	5.4	0.0	9.0	10.9
LnGrp LOS	A	A	A	A	A	B
Approach Vol, veh/h		456	652		256	
Approach Delay, s/veh		4.7	5.4		10.2	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4		8
Phs Duration (G+Y+Rc), s		9.1		14.3		14.3
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		20.0		30.0		30.0
Max Q Clear Time (g_c+I1), s		4.2		5.2		3.4
Green Ext Time (p_c), s		0.6		4.2		2.9
Intersection Summary						
HCM 6th Ctrl Delay			6.1			
HCM 6th LOS			A			

HCM Signalized Intersection Capacity Analysis 396: EB I-40 Ramp/WB I-40 Ramp & Morgan Rd

11/20/2023

												
Movement	NBL	NBT	NBR	NBR2	SBL	SBT	SBR	SBR2	NEL	NER2	SWL	SWR2
Lane Configurations												
Traffic Volume (vph)	192	21	271	0	225	62	171	0	78	163	258	203
Future Volume (vph)	192	21	271	0	225	62	171	0	78	163	258	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.0	5.5			5.5	6.0			6.5	4.0	5.5	4.0
Lane Util. Factor	0.97	0.95			0.97	0.95			0.97	1.00	0.97	1.00
Frt	1.00	0.86			1.00	0.89			1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (prot)	3433	3047			3433	3150			3433	1583	3433	1583
Flt Permitted	0.95	1.00			0.95	1.00			0.95	1.00	0.95	1.00
Satd. Flow (perm)	3433	3047			3433	3150			3433	1583	3433	1583
Peak-hour factor, PHF	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.92	0.85	0.85	0.85	0.85
Adj. Flow (vph)	226	25	319	0	265	73	201	0	92	192	304	239
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	226	344	0	0	265	274	0	0	92	192	304	239
Turn Type	Prot	NA		Prot	Prot	NA		Free	Prot	Free	Prot	Free
Protected Phases	1	6		6	5	2			3		7	
Permitted Phases								Free		Free		Free
Actuated Green, G (s)	9.3	14.3			9.6	12.6			10.9	52.3	11.9	52.3
Effective Green, g (s)	9.3	14.3			9.6	12.6			10.9	52.3	11.9	52.3
Actuated g/C Ratio	0.18	0.27			0.18	0.24			0.21	1.00	0.23	1.00
Clearance Time (s)	7.0	5.5			5.5	6.0			6.5		5.5	
Vehicle Extension (s)	3.0	3.0			3.0	3.0			3.0		3.0	
Lane Grp Cap (vph)	610	833			630	758			715	1583	781	1583
v/s Ratio Prot	0.07	c0.11			c0.08	0.09			0.03		c0.09	
v/s Ratio Perm										0.12		c0.15
v/c Ratio	0.37	0.41			0.42	0.36			0.13	0.12	0.39	0.15
Uniform Delay, d1	18.9	15.6			18.9	16.5			16.8	0.0	17.1	0.0
Progression Factor	1.00	1.00			1.00	1.00			1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.3			0.5	0.3			0.1	0.2	0.3	0.2
Delay (s)	19.3	15.9			19.3	16.8			16.9	0.2	17.4	0.2
Level of Service	B	B			B	B			B	A	B	A
Approach Delay (s)		17.2				18.1						
Approach LOS		B				B						
Intersection Summary												
HCM 2000 Control Delay		13.7				HCM 2000 Level of Service			B			
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		52.3				Sum of lost time (s)			19.5			
Intersection Capacity Utilization		42.9%				ICU Level of Service			A			
Analysis Period (min)		15										

c Critical Lane Group

HCM 6th TWSC
17: S Mustang Rd & SW 11th St

11/20/2023

Intersection												
Int Delay, s/veh	22.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖		↖		↔			↔	
Traffic Vol, veh/h	4	0	17	75	0	263	194	683	4	0	358	42
Future Vol, veh/h	4	0	17	75	0	263	194	683	4	0	358	42
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	20	88	0	309	228	804	5	0	421	49
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1304	1711	235	1474	-	405	470	0	0	809	0	0
Stage 1	446	446	-	1263	-	-	-	-	-	-	-	-
Stage 2	858	1265	-	211	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	-	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	-	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	118	90	767	~ 88	0	595	1088	-	-	812	-	-
Stage 1	561	572	-	180	0	-	-	-	-	-	-	-
Stage 2	318	239	-	771	0	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	40	56	767	~ 60	-	595	1088	-	-	812	-	-
Mov Cap-2 Maneuver	40	56	-	~ 60	-	-	-	-	-	-	-	-
Stage 1	347	572	-	111	-	-	-	-	-	-	-	-
Stage 2	94	148	-	751	-	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	29.4		101.5		2.9		0					
HCM LOS	D		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1088	-	-	172	60	595	812	-	-	-		
HCM Lane V/C Ratio	0.21	-	-	0.144	1.471	0.52	-	-	-			
HCM Control Delay (s)	9.2	1.1	-	29.4	396.5	17.4	0	-	-			
HCM Lane LOS	A	A	-	D	F	C	A	-	-			
HCM 95th %tile Q(veh)	0.8	-	-	0.5	7.8	3	0	-	-			
Notes												
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon												

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 9:52 am, Feb 15, 2024

From: McDermid, Aubrey E
Sent: Thursday, February 15, 2024 8:46 AM
To: Dawn <dawn777t@gmail.com>
Cc: DS, Subdivision and Zoning <Subdivisionandzoning@okc.gov>; Martin, Debi A; Simpson, Amy K
Subject: RE: Objection to PUD-1983

Hello,

I am copying those who compile and distribute citizen protest letters for Planning Commission and City Council meetings.

Thank you,
Aubrey

From: Dawn <dawn777t@gmail.com>
Sent: Wednesday, February 14, 2024 6:29 PM
To: McDermid, Aubrey E
Subject: Objection to PUD-1983

You don't often get email from dawn777t@gmail.com. [Learn why this is important](#)

I am writing in protest to PUD-1983 application by Mustang Creek Crossing to rezone at 810 South John Kilpatrick Turnpike. There will be problems if this is approved.

My concern that I am writing to you today is about adequate parking for this venue. My understanding, from what has been submitted, is that there are going to be less than 4,000 spaces for a venue which could potentially hold up to 12,500 people. According to the paperwork submitted, this is based on an estimated 30% of people arriving through a rideshare type of transportation as well as multiple patrons coming to the venue in the same vehicle. I ask that at the very least, additional studies be conducted, and additional parking be added to prevent potential parking in nearby neighborhoods that could impede emergency vehicles from traveling down residential streets.

I also ask you to carefully consider page 13 of the planning commission staff report on January 11th that talks about compatibility issues with this location.

Perhaps, an amendment can be made to PUD-1983 to look for alternative sites, such as land south of I-40 on Frisco Rd. This area has little to no residential developments and is still in Oklahoma City Ward 3, with easy access to I-40.

I am the homeowner of property at 10408 Leicester Dr, Yukon, OK . I ask you to vote against this PUD in its current form.

Sincerely,

Dawn Taylor

10408 Leicester Dr.

Yukon Ok 73099

(405) 227-2916

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 9:31 am, Feb 20, 2024

-----Original Message-----

From: Don Levings <dlevings@niagarawater.com>

Sent: Monday, February 19, 2024 6:57 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Amphitheater concerns

[You don't often get email from dlevings@niagarawater.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

I am a home owner and resident of Westberry addition at SW 15th and Sara road. My address is 1234, Birkenhead Rd, Yukon OK 73099. I want it say how bad of an idea this could be with noise and traffic in this area. The roads here are already busy and difficult to get around but adding the traffic would make it even more difficult. Then with the noise going on it will be hard to live a quiet life. Not counting what could happen to our property values. I hope each of you that have a say in this decision wouldnt want this built next to your home. Imagine this next door to your home and you are having a outdoor event at your house and all you can hear is the bass thumping from a half mile away. It sounds like we won't have a quiet weekend during warm part of the year. Please keep this away from your neighbors here. If it doesn't fit all it shouldn't be here.

Don Levings
1234 Birkenhead Rd
Yukon ok.

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 11:11 am, Feb 13, 2024

From: Donsolom4 <donsolom4@aol.com>

Sent: Tuesday, February 13, 2024 8:24 AM

To: The Mayor <mayor@okc.gov>; Ward3 <ward3@okc.gov>; City Clerk Email <CityClerk@okc.gov>;
Freeman, Craig A <craig.freeman@okc.gov>

Subject: Sunset Amphitheater

You don't often get email from donsolom4@aol.com. [Learn why this is important](#)

Hello. I'm writing to express my OPPOSITION to Sunset Amphitheater in my neighborhood. I live in North Westbury at SW 15th and Sara Rd. I believe the noise and traffic would interrupt our lives. We can barely accommodate the traffic that the home growth has created in our area. I'm hopeful you'll reconsider the placement of this amphitheater.

[Sent from the all new AOL app for iOS](#)

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 8:11 am, Feb 20, 2024

From: Emily Finsand <emfinsand@yahoo.com>
Sent: Monday, February 19, 2024 7:59 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: PUD 1983, Sunset Amphitheater

You don't often get email from emfinsand@yahoo.com. [Learn why this is important](#)

VIA EMAIL TO: cityclerk[@okc.gov](mailto:cityclerk@okc.gov)

VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

2/19/2024

Dear City Clerk,

I am writing in protest to PUD 1983 at 810 South John Kilpatrick Turnpike. There will be problems for Oklahoma City if this is approved.

- The noise from this 12,000 seat amphitheater will cause noise pollution not only to my house but to the homes in my neighborhood and others in a much larger area around us.
- An article in the Gainesville Sun discusses the serious health effects caused by noise.

[Amphitheater would cause neighborhood noise pollution](#)



Amphitheater would cause neighborhood noise pollution

Former U.S. Surgeon General William H. Stewart said, "Calling noise a nuisance is like calling smog an inconveni..."

From the Gainesville Sun - "When presented with the possibility of an amphitheater, Virginia Beach residents were concerned but meekly acquiesced when assured there would be no noise problems due to newer-style speakers that were directed away from them, sound walls and a partly underground structure. In reality, neighbors are bombarded with hooting, yelling, chanting and amplified noise projected into their homes.

From the beginning, neighbors of the amphitheater at the Florida State Fairgrounds said noise is so intense, pictures rattle and they are forced to leave home. A mother living less than a mile away said crowd noise is audible even with windows closed. The amplified noise creates headaches and keeps her husband and children awake. Despite legal actions by the Hillsborough County Environmental Protection Commission, noise problems continued."

'Former U.S. Surgeon General William H. Stewart said, "Calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of people everywhere."

- Please do not repeat the same mistake that other cities have. Please keep OKC a great place to live and the Westbury North neighborhood one that I have freedom from excessive noise from the venue.
- The USA constitution was established for the "general welfare" of the people. We want to maintain our residential neighborhood.
- I also am concerned about discarded drug paraphernalia and other concert debris being close to the Elementary and Middle School. I love concerts and have gone to concerts, but have also seen the aftermath debris field.

We are the homeowners at 10509 Aberdeen Dr., Yukon (OKC), OK 73099. We ask that you vote against this PUD in its current form.

Sincerely,

Emily Finsand

cell 405-412-9194

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 5:16 pm, Feb 12, 2024

From: Emily Finsand <emfinsand@yahoo.com>
Sent: Monday, February 12, 2024 2:25 PM
To: Ward3 <ward3@okc.gov>
Subject: PUD 1983, Sunset Amphitheater

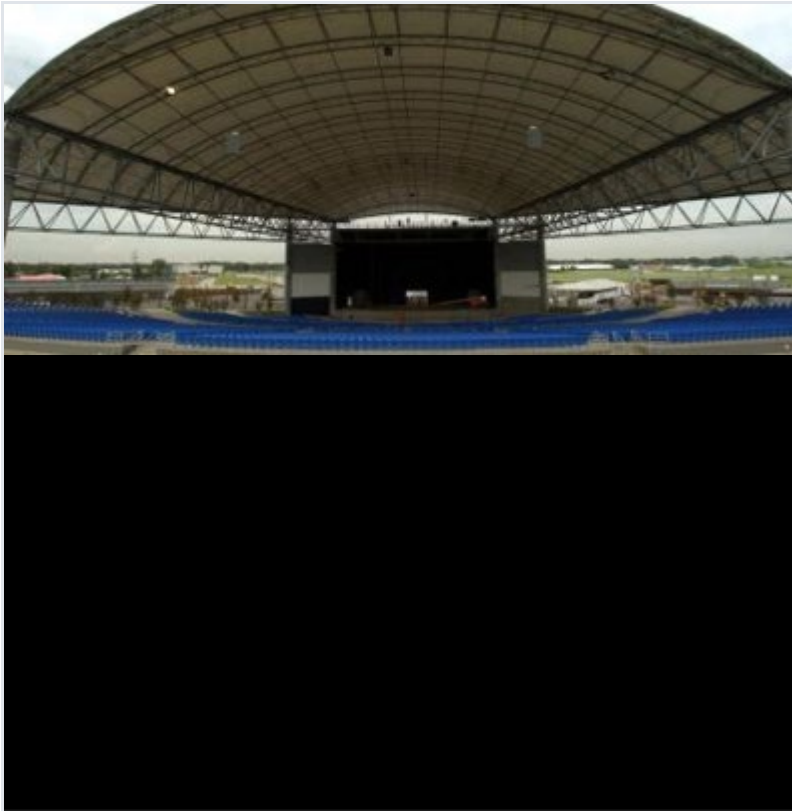
You don't often get email from emfinsand@yahoo.com. [Learn why this is important](#)

I understand that you are our Ward 3 Council member.

I am writing in protest to PUD 1983 at 810 South John Kilpatrick Turnpike. There will be problems for Oklahoma City if this is approved.

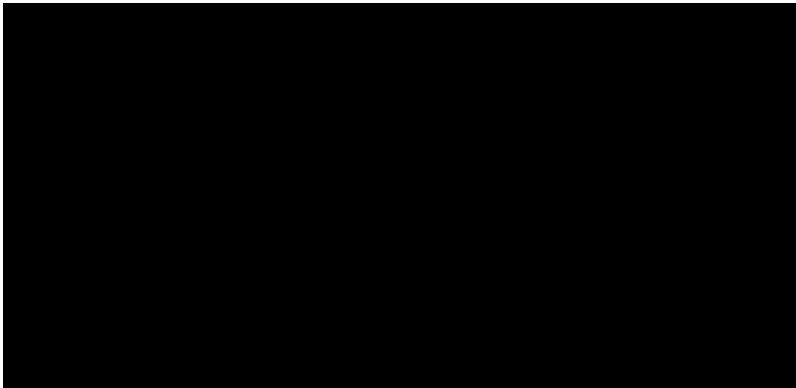
- The noise from this 12,000 seat amphitheater will cause noise pollution not only to my house but to the homes in my neighborhood and others in a much larger area around us.
- An article in the Gainesville Sun discusses the serious health effects caused by noise.

[Amphitheater would cause neighborhood noise pollution](#)



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'Former U.S. Surgeon General William H. Stewart said, "Calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of people everywhere."

- Please do not repeat the same mistake that other cities have. Please keep OKC a great place to live and the Westbury North neighborhood one that I have freedom from excessive noise from the venue.
- The USA constitution was established for the "general welfare" of the people. We want to maintain our residential neighborhood.

We are the homeowners at 10509 Aberdeen Dr., Yukon (OKC), Ok 73099. We ask that you vote against this PUD in its current form.

Sincerely,

Emily Finsand

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 3:10 pm, Feb 20, 2024

From: Darrell Schmidt <texomalife1@att.net>

Sent: Tuesday, February 20, 2024 1:46 PM

To: City Clerk Email <CityClerk@okc.gov>; Ward3 <ward3@okc.gov>

Subject: Protest PUD-1983- Mustang Creek Crossing / Sunset Amphitheatr

You don't often get email from texomalife1@att.net. [Learn why this is important](#)

WARNING: The sender of this email could not be validated and may not match the person in the "From" field..

I, Darrell Schmidt, 1241 Edinburg Drive, Yukon, Ok. 73099, would like to file a protest for the development of the Sunset Amphitheater.

I don't believe the developer has sufficiently answered the concerned citizens and homeowners questions and concerns.

They claim that they sent 5000 notices to nearby residences but I'm as close as you can get and I did not receive one.

My neighbors and I are concerned about the noise levels and what assurances we will be given by the city that the noise ordinance will be adhered to. I know that they have already asked for extensions on noise levels and ending times. What recourse would we as citizens/homeowners have if they do not? I do not think we should be forced out of our homes for 90-100 days per year to get some peace and quiet.

Their plans look pretty on paper but the traffic and parking issues are also going to be a nightmare on SW 15th and on Sara Road which has only two lanes.

I also believe this will drive down the value of our homes as who would want to live 1500 feet from a nuisance such as this.

Sincerely,

Darrell Schmidt

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 3:10 pm, Feb 20, 2024

From: Gloria Trotter <gloria_trotter@sbcglobal.net>

Sent: Tuesday, February 20, 2024 2:35 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Opposed to the Proposed Sunset Amphitheater.

You don't often get email from gloria_trotter@sbcglobal.net. [Learn why this is important](#)

WARNING: The sender of this email could not be validated and may not match the person in the "From" field..

I Don W. Trotter live in Westbury North (913 Exter Circle), and oppose the proposed Sunset Amphitheater at Mustang Creek Crossing. Please ask yourself if You Would Want This Sunset Amphitheater in your (Neighborhood).

Very Concerned !!!

Don W. Trotter

[Sent from AT&T Yahoo Mail for iPhone](#)

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 11:52 am, Feb 20, 2024

----- Forwarded Message -----

From: JACK BELANGER <jacksbel@att.net>

To: "mayor@okc.gov" <mayor@okc.gov>

Sent: Monday, February 12, 2024 at 09:18:04 PM CST

Subject: PUD 1983 Sunset Amphitheater at 810 South John Kilpatrick Turnpike

I am writing in protest against PUD 1983, Sunset Amphitheater.

My name is Jack S Belanger

10129 Dover Dr

Yukon, OK 73099 Oklahoma City Resident.

I am a 100% disabled veteran with hearing loss and PTSD. I am heavily medicated to control my PTSD.

Problem 1. The lights and sounds alone will set off any veteran with PTSD to an immeasurable level. The unmeasured low frequency bass that thumps and rattles your car, ears, home, and windows would be heard over 5 miles away.

These sounds will set off car and home alarms and it will cause noise pollution.

Every pet and person would be affected.

The PUD 1983 Sunset Amphitheater is being built in a strictly residential area with close to 4000 homes in a 1 mile radius from this proposal.

Please I beg you to reconsider the location for this venue.

Problem 2. Sarah Road is only a 2 lane street, one lane going north and one lane going south with nothing in the plans to widen this road. Three of the entrances would be on Sarah Road leaving the residents of North Westbury blocked from their neighborhoods for hours. North Westbury's only entrances are on Sarah and SW 15th.

Problem 3. Only 3,500 parking spots for 12,500 people, that is only 28 percent if each person drives or only 56 percent with Two people in each car.

That leaves 5,500 people without a parking spot.

The neighborhoods will be packed with cars blocking people from going down the road and the fields will have ruts in them.

Problem 4. Some types of music has a lot of cussing such as Rap. I don't want my grandkids hearing about gang violence, shooting cops, and F this and F that.

Oklahoma City area is vast and there has got to be a better location for this to go.

Thank you for your consideration.

Jack and Barbara Belanger

Westbury North President.


From: Taylor Jennings <jennings.taylord@gmail.com>

Sent: Tuesday, February 20, 2024 8:38 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD-1983

2024 FEB 21 AM 9:03
OKLAHOMA CITY CLERK

 You don't often get email from jennings.taylord@gmail.com. [Learn why this is important](#)

Dear Ms. Amy Simpson,

I, Taylor Jennings, a resident of Ward 3, hereby protest PUD-1983 application by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike.

My address is 10613 SW 23rd Pl Yukon, OK 73099. As a resident of Ward 3, I oppose this rezoning and the building of the Sunset Amphitheater. This area is directly North of both a middle school and elementary school, as well as being in the middle of a highly residential area. The schools would be disrupted, and residents of the surrounding area would be consistently disturbed by both the noise and the traffic.

I ask the council to please oppose this proposal so that we may maintain our peaceful community, and so the students at our schools can stay focused on their learning.

Thank you for your time.

Sincerely,

Taylor Jennings

-----Original Message-----

From: Magean Wolf <magean.wolf@gmail.com>

Sent: Tuesday, February 20, 2024 8:05 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Opposition to Sunset Amphitheater in Mustang Creek Crossing

2024 FEB 21 AM 9:03
OKLAHOMA CITY CLERK

[You don't often get email from magean.wolf@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Hello,

My name is Magean Wolf. I live at 10432 Hollyhead Way in Ward 3.

I love a concert as much as the next person, but an amphitheater so close to schools and neighborhoods is extremely inconsiderate of the community they intend to encroach upon. I am a mom of a small child and my husband is an Oklahoma City firefighter; the noise is going to disrupt their sleep.

Our backyard backs up to 15th and we're off Edinburg, the closest street to the propose amphitheater. So I'm also concerned about people - likely under the influence of alcohol and/or drugs - loitering in our neighborhood. Admittedly, there's already a high crime rate in our neighborhood than I'm comfortable with. We've been trying to move for years, but we can't really afford to. It's scary and upsetting to think there will be thousands more people brought near our home in search of parking, potentially putting our houses, cars, and personal safety at risk.

Traffic is also a concern. The construction around here has been such a pain and this will only exacerbate that.

Please take whatever action possible to prevent the building of Sunset Amphitheater in Mustang Creek Crossing.

Thank you,

Magean Wolf


2024 FEB 21 AM 9:03
OKLAHOMA CITY CLERK

From: popesterm hotmail.com <popesterm@hotmail.com>

Sent: Tuesday, February 20, 2024 6:24 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD-1983

 You don't often get email from popesterm@hotmail.com. [Learn why this is important](#)

Please include my protest in the legal count.

I Michele Digby herby protest PUD-1983 application by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike.

In particular I am strongly opposed to the increased decibel level, 5db over city sound ordinance and extended noise timeframes, Sun - Thur 10:30, Fri -Sat 11 pm. Based on the proximity, the Amphitheater, once built will prevent me and my family from the **implied covenant of quiet enjoyment** of our home.

Thank you for your attention to this project. I urge you to stop the project.

Michele Digby
2717 Ryder Drive
Yukon, OK 73099
860-328-0900 Michele

From: Patricia Waken <pchristmas18@yahoo.com>
Sent: Wednesday, February 21, 2024 8:06 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: "Protest PUD-1983" Sunset Amphitheater Mustang Creek Crossing

2024 FEB 21 AM 8:06
OKLAHOMA CITY CLERK

|| You don't often get email from pchristmas18@yahoo.com. [Learn why this is important](#)

I Pat Waken hereby protest PUD-1983 application by Mustang Creek Crossing to rezone 810 South John Kilpatrick Turnpike.

Is this Noise Pollution going to be in your backyard along with the thousands of cars driving up and down a two-lane street as long as the concerts are going on. We will not be able to get in and out of our neighborhood. Please hear us out.

Huge complaint: NOISE POLLUTION

What is it like to go to a concert to hear the loud noises?

Highly likely Going to a concert without ear protection can cause damage or not be very good for the ears, but this will recover. After attending a concert or exposure to loud noises (neighborhood), your eardrums will feel painful, and you'll feel 'clogged'. This is because the cells in your ear are very sensitive; exposure to loud music at a concert will cause damage.

Why do your ears feel clogged after a concert?

I found any analogy in reference to Why do your ears feel clogged after a concert. If you were to go underwater deep enough until it goes into your nose, mouth, and even your lungs – of course, you'd have the sensation of having water in them. Once you come up from underwater, the bubbles of air escape out of your mouth because the water is making it look like it's foggy. This is very much how your ear drums are when exposed to loud noises. There is pressure from this that has caused damage and only way it will get repaired is by using more cells, which take time depending on the age of the person and how frequently you are exposed to loud noises.

How long your hearing ability returns depends on how much you have been affected and the frequency you experience these symptoms. One concert you may be able to hear again at 100% and there are cases to where people have reported that their hearing hasn't returned after two weeks. Sunset Amphitheater plans maybe just be one concert in a week and it can take around 1-2 months to recover if you are older. Concert goers can choose for themselves to attend these concerts and Westbury North and South Neighborhood and other neighborhoods in the 15-mile radius cannot avoid the noise pollution day after day, month after month. How would you like to have continuous noise pollution in your backyard?

Former U.S. Surgeon General William H. Stewart said, "Calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of people everywhere."

The Centers for Disease Control and Prevention states that noise pollution is "an increasing public health problem." At the recent World Health Organization Ministerial Conference, the Environmental Burden of Disease project declared noise the No. 2 threat to public health, after air pollution.

Intrusive noise can lead to cardiovascular disease, sleep disruption, reduced productivity, impaired teaching and learning, absenteeism, increased drug use and accidents. Noise can destroy the enjoyment of one's property and leisure time. It adversely affects general health and well-being and increases anti-social behavior. Future generations are harmed by degraded home, social and learning environments, with corresponding economic losses.

Scientific warnings about the harms of noise are well known. It's impossible to have such a venue without damaging the lives of thousands of people nearby. This information came from Amphitheater would cause neighborhood noise pollution Karen Orr Special to The Sun Published Oct 22, 2017.

I am asking for a NO vote on **April 9th** on behalf of your constituents' health, well-being and safety. As mentioned, the hazardous effects of this venue close to homes will impact thousands of lives, not once, not 10 times, but 50-60 times a year.

The neighborhood and I are aware that millions of dollars in revenue will come through this venue, but at the expense of Oklahomans. Time to think about the families and their homes that will suffer unnecessary pain and heartache.

Thank you for your consideration,

Pat Waken
1020 Westbury Terrace
Yukon, Ok 73099
405-324-6079

Sent from Mail for Windows

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 8:36 am, Feb 20, 2024

From: John Brewer <john@fbcmustang.org>
Sent: Friday, February 16, 2024 10:45 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Sunset Amphitheater in Mustang Creek Crossing

You don't often get email from john@fbcmustang.org. [Learn why this is important](#)

WARNING: The sender of this email could not be validated and may not match the person in the "From" field..

Mrs. Simpson,

I'm writing out of concern as a resident of Ward 3 in the Westbury South housing division. As you are well aware at this point, my house is less than one mile from the proposed Sunset Amphitheater in Mustang Creek Crossing.

I am a father of 4 boys ranging in age from 5-14. While I understand the initial economic appeal of having a facility like this come to our city, I have several major concerns as it relates to my specific neighborhood and those surrounding the area where the amphitheater will be put in:

1. There are no plans to widen Sara Rd. where 3 main entrances and exits are expected. This will create a traffic nightmare.
2. There are no plans to widen SW 15th st. where 1 entrance/exit is expected. This will create a traffic nightmare.
3. Sound decibel levels have been approved for 5db over city code with extended noise timeframes set to end 2 hours after my, and hundreds of neighbor's, children's bedtimes on school nights. Particularly concerning are reports of low-frequency vibrations that affect homes multiple miles away from similar amphitheaters around the country.
4. Sound checks have been approved to start at 2pm which is while school is still in session at a campus where my children are zoned to attend (Mustang North Middle School).

The City Council has a responsibility to represent the citizens who live in your city and fight for their well being. Please hear the requests of the residents in this area to reconsider allowing the Sunset Amphitheater to build in Mustang Creek Crossing. Please consider whether you would personally want your home to be a mile away from an open air concert venue who puts on 50-60 concerts throughout the year. Please vote to reject the approval of this project.

Thank you for your time.

John Brewer
Associate Pastor of Worship
First Baptist Mustang

Home Address:
2000 Edinburg Dr.
Yukon, OK 73099

Cell: 405-401-9780

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 3:30 pm, Feb 08, 2024

-----Original Message-----

From: Judy Cameron <osufijimom@aol.com>

Sent: Thursday, February 8, 2024 3:23 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Sunset Amphitheater in Mustang Creek Crossing

[You don't often get email from osufijimom@aol.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

My name is Judy Cameron and my husband, Don, and I live in Westbury South. Our address is 9917 Birkenhead Court, Yukon OK 73099. My cell phone is 405-623-0868. We have lived in our home since 1990 and have watched our area swallowed up by money-hungry developers with no regard for natural habitats, traffic patterns, school overcrowding, etc. Now we are faced with greed again and no consideration for the people who choose to live here and raise their families.

The noise, additional traffic, crime, litter, disruption of school schedules, displacement of wildlife in the wetland area next to Creek Elementary School and general lack of respect for the citizens of our area is appalling. Would any of these money grabbers want an amphitheater in their yards? My guess would be a resounding "no!"

Aside from the noise this "entertainment venue" would produce, open fire pits with Oklahoma winds is not exactly smart. Factor in alcohol and trash plus lack of consideration for the surrounding neighborhoods in general and you have a hot mess.

Please consider your fellow citizens and vote against this horrible idea and send these people back to Colorado (or wherever they're from).

Thank you,
Judy Cameron
9917 Birkenhead Court
Yukon, Ok 73099

Subject: FW: "Protest PUD-1983" Sunset Amphitheater Mustang Creek Crossing

From: Patricia Waken <pchristmas18@yahoo.com>

Sent: Friday, February 23, 2024 7:04 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: "Protest PUD-1983" Sunset Amphitheater Mustang Creek Crossing

You don't often get email from pchristmas18@yahoo.com. [Learn why this is important](#)

I Pat Waken hereby protest PUD-1983 application by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike.

There are plans to have 12,500 seats with only 3500 parking spaces. I read they expect most of the concert goers to Uber in. One concern is we will have cars parking in our neighborhood causing dangerous conditions for pedestrians. Our neighborhood doesn't have sidewalks and many families walk and bike with their kids through the streets. This is dangerous for concert goers and our neighbors. Also, there are currently no other retail businesses in this area for cars to park. This will cause a line of cars down SW 15th street causing a street closure as it is currently two-lane road. This street becomes blocked every morning and afternoon with parents dropping children off at the elementary school. I know there is a plan for widening SW 15th street between Sara Road and Mustang Road and it is behind schedule as they are still finishing Sara Rd south of SW 15th Street. There is no current plan for widening Sara Rd north of SW 15th Street, which is a narrow two-lane road. Huge concern for how Will Emergency vehicles get through all this. Currently the only planned route out of the amphitheater would take cars to SW15th and or Sara Road. Sara Road does not have an off or on ramp to I-40 for the traffic. SW15th traveling further east will take traffic to Morgan Road which is also a congested area. Currently there was a request to the city to get SW15th resurfaced or continue to get patched SW15th from Morgan Road to Sara Road was not included on the last bond issue (2017). That stretch is on the Councilwoman's unfunded list for consideration on the next bond issue. (TBD). When I moved out here in 1999 the speed was 25mph now 45 mph (residential street) and truckers were not to take SW15th but to go north on Morgan Road where the 4 truck stops area is. Now truckers travel SW15th to get to the Turnpike. Not sure if traffic will go thru the Westbury North neighborhood and this is not a good idea, but these streets need resurfacing too. Per Councilwoman's office the streets within Westbury North were not included in the last bond issue either. Westbury North's streets have been on the Councilwoman's unfunded list since 7/26/2022. Do not need any more traffic going through the neighborhood. Our area will be greatly affected and definitely cannot handle that influx of traffic and the potential strain on our grid.

Another concern coming from the neighborhood is having adequate noise control. Very likely we would be hearing annoying and inescapable low-frequency impulsive bass/subwoofer noise in our homes each time the Amphitheater is opened to the public. "The World Health Organization defines noise pollution as noise that "seriously harms human health and interferes with people's daily activities at school, at work, at home and during leisure time. We do get noise from I-40 depending which way the wind blows. Would any of you like to have an Amphitheater less than a mile away in your backyard?

As a resident of Westbury North neighborhood for over 23 years just east of the proposed Sunset Amphitheater I am not in favor of the project in the location and urge you to help protect existing individual property owners, school property, their peace of mind, their health in this nearby quiet community to carry out our daily lives for years to help us get a No vote April 9th from the City Councilmembers.

Thank you,

Pat Waken

1020 Westbury Terrace

Yukon, Oklahoma 73099

405-324-6079

David Wrights

From: Lowry <lowrycy@gmail.com>
Sent: Tuesday, February 20, 2024 8:47 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Amphitheater and set speed limit concerns

2024 FEB 20 AM 8:48
OKLAHOMA CITY CLERK

|| You don't often get email from lowrycy@gmail.com. [Learn why this is important](#)

I am sending this email in hopes you will have enough feedback to this proposition and hope that you will deny the zoning change request that would allow the ampitheater to be built in our area. This venue is a great idea, wrong location.

I also would like to know how to request a speed limit change in this area. Mustang road from Reno to SW 59th has had a large increase in the number of outlets for businesses and housing off this road in the past several years. 55 mph from 15th to 59th is dangerous. There have been multiple accidents and getting out of businesses and housing additions is very difficult. This road is also the main road to Mustang High School, which teenage drivers use regularly. Please consider decreasing the speed limit.

Respectfully,

Cheryl Lowry
11701 Sandy Cir
Yukon, Ok 73099
(Okc city limits, Yukon mailing, Mustang schools)

From: Eugene Younger <eugene.younger@gmail.com>

Sent: Tuesday, February 20, 2024 8:28 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Sunset Amphitheater - Opposed

2024 FEB 20 AM 9:43
OKLAHOMA CITY CLERK

You don't often get email from eugene.younger@gmail.com. [Learn why this is important](#)
Hello,

I have been made aware of the proposed construction of an amphitheater northwest of the intersection of SW 15th and Sara in Yukon. I believe this project would have negative results to this local community including, but not limited to, issues related to noise and traffic, and home values specifically.

This area is appealing because it is a quiet place to raise a family. An amphitheater appeals to an environment of entertainment, which is solely antithetical. I have a child under two years old, and getting them to sleep is difficult enough without accounting for reverberation from a venue such as the proposed.

The possibility that this installation might increase local business is only in the event that completely new businesses move into the area to cater to these crowds. I can assure you that those attending an event there are unlikely to increase revenue for the civil engineering firm standing opposite the intersection.

Families desperate to leave the area will be more interested in selling their homes quickly rather than waiting for offers, resulting in lower sale prices. This shift in home value will encourage others to leave before losing out on, what is for many, their largest investment. This shift is likely to change the area from pleasant neighborhoods to low income housing. While this may be hypothetical, it is a distinct possibility with dire repercussions to the area overall, including the appeal of this proposed amphitheater.

I implore you to reconsider this proposal, and encourage those who would build in that area to adjust their focus to something that might foster a community rather than destroy it.

Thank you,
Eugene Younger
10417 Glasgow Dr.,
Yukon, OK 73099

2024 FEB 20 AM 8:49
OKLAHOMA CITY CLERK

From: Janey Myers <janeymyers@hotmail.com>

Sent: Tuesday, February 20, 2024 8:17 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Sunset Amphitheater

You don't often get email from janeymyers@hotmail.com. [Learn why this is important](#)

To Whom it May Concern,

I am writing to let you know that I am opposed to the construction of the Sunset Amphitheater in Mustang Creek Crossing. I own a home in the Westbury North Addition on Sara Road and SW 15th St. I am concerned about the traffic that would add to the already congested conditions in this area. But more concerning would be the noise created by this project. It is my understanding that not only would we be able to hear the music, but that there would be a constant vibration that would be felt inside our homes that is quite uncomfortable. During the fall when the North Middle School band practices outdoors for the parade, their sound is heard clearly in the neighborhood. Imagine professional concerts that are amplified. I hope you will take seriously that many of us have spent the last 30 years working hard to own our homes. Please do not let this become our biggest regret. Thank you for your consideration to this matter.

Sincerely,

Janey Myers

10429 Birkenhead Road

Yukon, OK. 73099

405-761-4007

From: Kristen Bruce <kristen.g.bruce@gmail.com>

Sent: Tuesday, February 20, 2024 8:13 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD- 1983

2024 FEB 20 AM 8:49
OKLAHOMA CITY CLERK

You don't often get email from kristen.g.bruce@gmail.com. [Learn why this is important](#)
Hello,

First, thank you for serving residents in our city. I know that the Council Member's compensation is not a full time job worth, yet you have a heavy load. That tells me you want to serve. Thank you.

Okay, straight to my point, there is a 12,500-capacity amphitheater proposed to be built less than a mile from my house. Sam Coury and Carol Hefner plan to sell their land to this multi-million dollar company and thousands of families, children and elderly will be affected by this.

I protest the rezoning of PUD - 1983 and approval of this development.

A quick 10-minute search on google of the complaints of other amphitheaters reveals staggering information. Residents from varying distances (in my research I saw less than a mile to 15 miles!) have numerous complaints. Here are some complaints:

- Windows rattling
- Walls shaking
- Picture frames vibrating
- Interference with watching tv
- Feeling the low frequency bass sounds
- Inability to sleep for kids and themselves
- Inability to enjoy their own homes
- Distracted family time
- Hearing profanities blasted out the speakers

Most of these complaints are from miles away. I can supply information for all the articles I have found.

When you investigate the health effects of noise pollution, which the government recognizes as a thing and fights against in other issues, it's just disheartening. In a Gainesville Sun article concerning their own amphitheater issues, they reported that:

"Intrusive noise can lead to cardiovascular disease, sleep disruption, reduced productivity, impaired teaching and learning, absenteeism, increased drug use and accidents...It adversely affects general health and well-being, and increases anti-social behavior. Future generations are harmed by degraded home, social and learning environments, with corresponding economic loss."

As you can see, this is very concerning to me, not only for my seven children's health and well-being, but also my and my husband's own health and well-being. If the Momma of the house is up late trying to get kids to sleep and does not get some quiet time or good sleep herself, then she struggles with the patience and grace that she (I) needs to be a good mom.

However, this also concerns me for all my neighbors in this very large 10–15-mile bubble. What about their stress level? What about their kids' study and sleep needs? What about the effect it will have on their ability to parent, work, handle conflict, engage other people? This affects all of our life.

I am asking you to vote on behalf of your constituents' health, well-being and safety. As mentioned, the hazardous effects of this venue close to homes will impact thousands of lives, not once, not 10 times, but 50-60 times a year.

I am fully aware that millions of dollars in revenue will come into the city through this venue, but at the expense of Oklahomans. It's down right rude and inconsiderate to sell your own people's well-being to bring in money. Reject these plans until a plan is presented that does not jeopardize Oklahomans freedom to enjoy their families and homes in quiet.

Thank you for looking into this matter. I know your plate is full.

Kristen Bruce

1601 Birkenhead Rd.

2024 FEB 20 AM 8:10
OKLAHOMA CITY CLERK

From: Lori Rehrig <rehrigs@gmail.com>
Sent: Tuesday, February 20, 2024 8:10 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Sunset Amphitheater, Mustang Creek Crossing

You don't often get email from rehrigs@gmail.com. [Learn why this is important](#)

I am a resident of Westbury North, located just north of SW 15th and East of Sara Road in Yukon.

I am very much opposed to the new Sunset Amphitheater being built directly west of our neighborhood in Yukon. The two main reasons are (1) the noise level and vibrations from such a loud volume for several hours at a time up to 60 days a year and (2) the huge increase of traffic on all surrounding streets. We will be greatly inconvenienced having such a huge attraction just a few hundred yards from our homes. I wonder if even our property values may be affected.

Please consider whether you would want a large amphitheater being built this close to YOUR home, YOUR neighborhood. We in Westbury North DO NOT.

Please stop Sunset Amphitheater from being built in Mustang Creek Crossing.

Lori Rehrig
10105 Banff Way
Yukon, OK 73099
405-229-4715

From: Kristen Bruce <kristen.g.bruce@gmail.com>

Sent: Tuesday, February 20, 2024 8:09 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD 1983

2024 FEB 20 AM 9:49
OKLAHOMA CITY CLERK

You don't often get email from kristen.g.bruce@gmail.com. [Learn why this is important](#)

Hello City Clerk Amy Simpson,

I got to speak at the last City Council Meeting. I am one of the homeowners at 1601 Birkenhead Road.

First, thank you for serving our City. I know you all carry the heavy weight of decision making, thank-you.

I protest the location of PUD 1983 Sunset Amphitheater development.

To think of 12,000 people bombarding this quiet area for loud concerts, with multiple neighborhoods in the 1-mile bubble, is egregious.

Common sense tells anyone that there will be a huge problem with noise.

In a quick search on Google of complaints by residents near amphitheaters, I found complaints ranging from ½ mile to 15 miles away- like Brushy Creek Amphitheater in Hutto, TX (12,000 capacity).

<https://communityimpact.com/austin/pflugerville-hutto/city-county/2021/10/21/sound-study-recommends-relocation-of-brushy-creek-amphitheater/>

How did these venues win approval to build near homes?

One big way was by telling City Councils that noise won't be a problem because of...

- New-style speakers
- Better Acoustical designs
- Partly underground structures
- Sound walls
- Speakers would be aimed away from houses

- It'll be optimized and designed to minimize sound
- Sound will be distributed into the bowl

These sound like many answers OKC residents have heard:

- Carol Hefner said "The stage will be positioned "pointing north" so all of the sound will be abated"
 - Notes Live Application says "the seating bowl will reduce noise emissions..."
 - Application also states "The subwoofer can be arrayed to provide low frequency directivity"
- (Except that low frequencies are not positional and go in every direction)

They are speaking technical terms that most people do not grasp.

My concern is this. This same situation has happened over and again:

1. An amphitheater is proposed.
2. Residents have concerns about noise.
3. Reasons are given why it will not be as loud as they fear.
4. It gets approved
5. After built, the noise pollution is so severe it effects health, stress level, sleep, school, study time, relationships, freedom to enjoy family
6. The Residents complain
7. But complaints are met with:
 - "City council can't lower volume."
 - "There's little you can do because of the zoning code."
 - "We are within legal limits."

You can see why I'd be concerned about a possible approval of a large outdoor concert hall less than a mile from my house. The track record is not good for these venues, regardless of their claims.

City Clerk Amy Simpson, I want you to go home after a long day, spend time with your family, go to sleep when you want to, and wake up refreshed.

I want the same for my engineer husband, 7 kids and neighbors.

Councilwoman Nikki Nice quoted about a different topic: "The health, safety and welfare of our constituents resides within our hands." She's right.

I want the residents of Ward 3 protected from the hazards of a large music venue. But I also want Ward 1, Ward 2, Ward 4, Ward 5, Ward 6, Ward 7 and Ward 8 protected.

You are one of the gatekeepers. Don't let a multi-million dollar company come and hoodwink any Oklahomans who deserve peace and quiet in their homes.

If you want this type of development in our city, then you need to require the applicant to pick a location that will not harm Oklahoman's health, sleep and time with family.

Thank you.

Kristen Bruce

From: Stephanie Schmidt <stephanie.schmidt@bcbtransport.com>

Sent: Tuesday, February 20, 2024 6:11 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD-1983 - Sunset Amphitheater

You don't often get email from stephanie.schmidt@bcbtransport.com. [Learn why this is important](#)

I, Stephanie Schmidt, 1241 Edinburg Drive, Yukon, Ok. 73099, hereby protest the proposed PUD-1983 by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike, Oklahoma City.

I'm not opposed to this type of venue, but I am opposed to the site that is proposed. I have lived in my home in Westbury North for 39 years. Our family home backs up to Sara Road and will be a mere 1500-2000 feet from this venue. I believe this will make our home uninhabitable from 2:00PM until 10:30-11:00PM on concert evenings for nearly one-third of the year.

I believe the proposed site is not suitable for this endeavor for the following reasons.

1. This property is located in the middle of a residential area with thousands of homes that will be impacted by the noise and vibration that simply cannot/won't be controlled because of they type of venue that it is. The nearest home is only 1500 feet from this proposed site.
2. This property is adjacent to an elementary and middle school which is only 1250 feet away. The students will still be in class when the 2:00PM sound checks begin, There are many after school sports and events as well.
3. The roads surrounding the property are already insufficient for the amount of traffic that uses them daily. Three of their proposed exits are dumping on Sara Road which is a two-lane road with no interstate access. Currently there are no plans to widen this roadway or add interstate access.
4. I don't believe 3600 parking spaces for a 12,500-seat venue is sufficient. There is no other large parking area for overflow which will cause street parking in our neighborhoods and along Sara Road which as I stated is only two lanes. This lack of parking will essentially block us either in or out of our own neighborhood on concert nights.
5. As I understand it there have been no restrictions on how many shows they will book per year or that they will all be on weekends. This will leave many homes uninhabitable in the evening for one-third of the year.
6. Oklahoma City has a noise ordinance that Mustang Creek Crossing LLC has already requested another 5dB increase.
7. Mustang Creek Crossing LLC has also requested an extension of noise timeframes on school/work nights to 10:30 and 11:00 on weekends.

Before casting your vote, please consider whether you would want this to be in your backyard. None of the thousands who purchased homes in this area signed up for a nuisance such as this to be approved in their neighborhood.

Respectfully,

Stephanie Schmidt

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 9:11 am, Feb 14, 2024

From: Donnine Andrews <ronnieandrews64@gmail.com>

Sent: Tuesday, February 13, 2024 4:30 PM

To: Ward3 <ward3@okc.gov>; City Clerk Email <CityClerk@okc.gov>; Freeman, Craig A
<craig.freeman@okc.gov>

Subject: Sunset Amphitheater in Mustang Creek Crossing

[Some people who received this message don't often get email from ronnieandrews64@gmail.com.
Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

To whom it may concern,

My family and I have lived in the area for over 22 years. We enjoy the country atmosphere. We are near amenities, but are not right in the middle of the city. We are not excited about having an amphitheater nearby seven months out of the year with an increased decibel level 5 db over city code. We're also not thrilled about the increased traffic this will cause. Please consider building the Sunset Amphitheater somewhere else.

Thank you,

Ronnie Andrews

1904 Edinburg Drive

Yukon, OK 73099

Sent from Donnine's iPhone

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 4:26 pm, Feb 29, 2024

From: Kim Shelton <kshelton59@yahoo.com>
Sent: Thursday, February 29, 2024 10:09 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: PUD 1983, Sunset Amphitheater at Mustang Creek

You don't often get email from kshelton59@yahoo.com. [Learn why this is important](#)

Dear Council Members and Mayor Holt

I am writing in protest to PUD 1983 at 810 South John Kilpatrick Turnpike.

I appreciate you continuing to listen and consider our concerns regarding the Sunset Amphitheater at Mustang Creek's proposed site. We are spreading awareness, growing in number, organizing, and coming together unified in our concerns and opposition to not only the location of this site, but also the unenforceable restrictions, such as noise reduction if they go over stated and agreed to limits with regard to noise and curfew.

From my understanding, if they go beyond restrictions, they only have to pay a fine then they may continue with the concert. Same with stated curfews, all they have to do as written, is pay a fine and continue ignoring their neighbors need for peace and quiet. There will be no viable outlet for us to complain, if you approve this as is, we will need enforceable restrictions. We would like to have a requirement for a thick, 12 ft brick wall to encase the entire site for soundproofing installed. Enforceable penalties and curfew. Charge them \$75 a ticket every time they go beyond the agreed to restrictions.

Widen Sara Road before any construction can begin.

How will they monitor weapons brought to the venue? What kind of security is determined? We've seen assaults and violence carried out in outdoor venues across the nation. The first one that comes to mind is the Las Vegas mass shooting in 2017, where nearly 60 were killed and wounding at least almost 500 with approximately 22,000 in attendance. [59 people killed, more than 500 hurt in Las Vegas Strip shooting](#)



59 people killed, more than 500 hurt in Las Vegas Strip shooting

At least 59 people were killed when a gunman opened fire during a Jason Aldean performance from the 32nd floor o...

Please come and see for yourself how close in proximity this site is to many backyards and two public schools. The satellite images don't do justice to an up close and personal visual. The commercials and press releases by Notes Live have been misleading, they present this area as only surrounded by fields. In my opinion, that is deceptive to the rest of the public. Which causes me to question their stated desire to be a good neighbor. Please watch this interview with Channel 5 news. They give a different

perspective from a neighbor's backyard and you can see how close this will be to the neighborhood and two local schools.

[Homeowners worry about possible noise, traffic from west OKC amphitheater development](#)



Homeowners worry about possible noise, traffic from west OKC amphitheater...

Jason Burger

Residents worried that the Sunset Amphitheater, a facility that would seat thousands of people, would hit close ...

I thank you for listening to the citizens of OKC. I thank you for looking into this further. I trust that you will make a well-informed decision by asking more questions, meeting with us, and visiting the site. Then, put into place protections for your citizens before ever denying or allowing Sunset Amphitheater to build so close to many families in the area. It is for our health and well-being that we are pleading this case. We cannot compete with their dollars, but we feel our well-being and the sanctuary of our homes should be of utmost concern.

I am the homeowner of property at 10020 Leeds Drive, Yukon, OK 73099. I ask you to vote against the PUD in its current form.

Sincerely,

Kim Shelton
405 226-8774

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 4:27 pm, Feb 29, 2024

From: Beth Orton <beth.orton1@gmail.com>
Sent: Thursday, February 29, 2024 3:44 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Protest PUD-1983

You don't often get email from beth.orton1@gmail.com. [Learn why this is important](#)

I, Beth Orton, hereby protest PUD-1983 Application by Mustang Creek Crossing, LLC to rezone 810 South John Kilpatrick Turnpike. I am reaching out regarding the Sunset Amphitheater and the proposed rezoning of the area. My family and I have lived at our current address for more than 12 years and feel the proposed location is not ideal for the surrounding neighborhoods.

The rezoning area is next to a number of neighborhoods that are filled with thousands of families. Many of these families have children; children that typically have earlier bedtimes. I understand it has been stated the events will occur from April-October with times occurring until 10:30 p.m. or 11 p.m. As the timeframes for the events could go late into the night it causes legitimate concerns. I have a special needs child who requires a very strict routine. Inconsistency from his routine can cause severe behavior issues. His bedroom faces the proposed location for the Sunset Amphitheater, which causes his dad and I concern about his sleep being disrupted. I understand that the suggested fixes for the noise and vibrations is to build businesses in between the Amphitheater and the neighborhoods; however, there is no guarantee this will happen or that this option will help reduce the noise levels or vibrations. Our house is within a mile of the proposed location. We will be able to hear the music and feel the vibrations, which means my son will be able to hear and feel them too. There are so many houses, with more neighborhood additions going in, one currently is being built on the corner of SW 15th and Sara Road, that make this area an undesirable location for a venue such as the Sunset Amphitheater.

Also, two schools, one being an elementary school, will be directly south of the proposed location with no barriers in between the structures. It has been stated sound checks will be allowed to begin at 2 p.m. School is still in session at this time. The sound and vibrations will be heard and felt at the school causing disruption to the school day.

In addition, the main road to be utilized for traffic will be SW 15th Street. I understand traffic is normally an issue everywhere; however, during the afternoon and evenings SW 15th Street is backed up due to the number of people trying to get to the school or their homes. Adding another 5,000 or more cars trying to get to the venue will make the street a parking lot. The cars will be exiting from Mustang Road, Morgan Road and John

Kilpatrick Turnpike and converging onto SW 15th Street where there will be no where to go, possibly causing traffic issues for hours. The residents of this area should not have to worry about whether or not they will be able to get to and from their homes.

The proposed parking for the venue is also a concern. From the information provided it appears as though the proposed parking areas will not be able to accommodate the number of cars, thereby, causing people to park in the nearby neighborhoods. This will only add to the difficulty of residents trying to come and go as needed.

When making the final decision on whether or not to go forward with rezoning the land, we ask that you take into consideration the children in the area, including the children with disabilities, like my son, that need to have a consistent routine and how the Amphitheater may be disruptive to their schedules. Please consider if you would want this type of venue a couple blocks or even a mile or two from your own home and vote as if that were the case. I am the homeowner of property 2008 Edinburg Drive, Yukon, OK 73099. I ask you to vote against this PUD in its current form.

If you would like to discuss further, please do not hesitate to call me at 405-740-1675.

Thank you,

Beth Orton

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 4:27 pm, Feb 29, 2024

From: Patricia Waken <pchristmas18@yahoo.com>

Sent: Thursday, February 29, 2024 3:44 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Homeowners worry about possible noise, traffic from west OKC amphitheater development

You don't often get email from pchristmas18@yahoo.com. [Learn why this is important](#)

I thought you would be interested in this story I found on MSN: Homeowners worry about possible noise, traffic from west OKC amphitheater development -

<https://www.msn.com/en-us/video/lifestyle/homeowners-worry-about-possible-noise-traffic-from-west-okc-amphitheater-development/vi-BB1j4VTG?ocid=socialshare>

Sent from [Mail](#) for Windows

David Wrights

From: Lowry <lowrycy@gmail.com>
Sent: Tuesday, February 20, 2024 8:47 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Amphitheater and set speed limit concerns

2024 FEB 20 AM 8:48
OKLAHOMA CITY CLERK

|| You don't often get email from lowrycy@gmail.com. [Learn why this is important](#)

I am sending this email in hopes you will have enough feedback to this proposition and hope that you will deny the zoning change request that would allow the ampitheater to be built in our area. This venue is a great idea, wrong location.

I also would like to know how to request a speed limit change in this area. Mustang road from Reno to SW 59th has had a large increase in the number of outlets for businesses and housing off this road in the past several years. 55 mph from 15th to 59th is dangerous. There have been multiple accidents and getting out of businesses and housing additions is very difficult. This road is also the main road to Mustang High School, which teenage drivers use regularly. Please consider decreasing the speed limit.

Respectfully,

Cheryl Lowry
11701 Sandy Cir
Yukon, Ok 73099
(Okc city limits, Yukon mailing, Mustang schools)

From: Eugene Younger <eugene.younger@gmail.com>

Sent: Tuesday, February 20, 2024 8:28 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Sunset Amphitheater - Opposed

2024 FEB 20 AM 9:43
OKLAHOMA CITY CLERK

You don't often get email from eugene.younger@gmail.com. [Learn why this is important](#)
Hello,

I have been made aware of the proposed construction of an amphitheater northwest of the intersection of SW 15th and Sara in Yukon. I believe this project would have negative results to this local community including, but not limited to, issues related to noise and traffic, and home values specifically.

This area is appealing because it is a quiet place to raise a family. An amphitheater appeals to an environment of entertainment, which is solely antithetical. I have a child under two years old, and getting them to sleep is difficult enough without accounting for reverberation from a venue such as the proposed.

The possibility that this installation might increase local business is only in the event that completely new businesses move into the area to cater to these crowds. I can assure you that those attending an event there are unlikely to increase revenue for the civil engineering firm standing opposite the intersection.

Families desperate to leave the area will be more interested in selling their homes quickly rather than waiting for offers, resulting in lower sale prices. This shift in home value will encourage others to leave before losing out on, what is for many, their largest investment. This shift is likely to change the area from pleasant neighborhoods to low income housing. While this may be hypothetical, it is a distinct possibility with dire repercussions to the area overall, including the appeal of this proposed amphitheater.

I implore you to reconsider this proposal, and encourage those who would build in that area to adjust their focus to something that might foster a community rather than destroy it.

Thank you,
Eugene Younger
10417 Glasgow Dr.,
Yukon, OK 73099

2024 FEB 20 AM 8:49
OKLAHOMA CITY CLERK

From: Janey Myers <janeymyers@hotmail.com>

Sent: Tuesday, February 20, 2024 8:17 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Sunset Amphitheater

You don't often get email from janeymyers@hotmail.com. [Learn why this is important](#)

To Whom it May Concern,

I am writing to let you know that I am opposed to the construction of the Sunset Amphitheater in Mustang Creek Crossing. I own a home in the Westbury North Addition on Sara Road and SW 15th St. I am concerned about the traffic that would add to the already congested conditions in this area. But more concerning would be the noise created by this project. It is my understanding that not only would we be able to hear the music, but that there would be a constant vibration that would be felt inside our homes that is quite uncomfortable. During the fall when the North Middle School band practices outdoors for the parade, their sound is heard clearly in the neighborhood. Imagine professional concerts that are amplified. I hope you will take seriously that many of us have spent the last 30 years working hard to own our homes. Please do not let this become our biggest regret. Thank you for your consideration to this matter.

Sincerely,

Janey Myers

10429 Birkenhead Road

Yukon, OK. 73099

405-761-4007

From: Kristen Bruce <kristen.g.bruce@gmail.com>

Sent: Tuesday, February 20, 2024 8:13 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD- 1983

2024 FEB 20 AM 8:49
OKLAHOMA CITY CLERK

You don't often get email from kristen.g.bruce@gmail.com. [Learn why this is important](#)
Hello,

First, thank you for serving residents in our city. I know that the Council Member's compensation is not a full time job worth, yet you have a heavy load. That tells me you want to serve. Thank you.

Okay, straight to my point, there is a 12,500-capacity amphitheater proposed to be built less than a mile from my house. Sam Coury and Carol Hefner plan to sell their land to this multi-million dollar company and thousands of families, children and elderly will be affected by this.

I protest the rezoning of PUD - 1983 and approval of this development.

A quick 10-minute search on google of the complaints of other amphitheaters reveals staggering information. Residents from varying distances (in my research I saw less than a mile to 15 miles!) have numerous complaints. Here are some complaints:

- Windows rattling
- Walls shaking
- Picture frames vibrating
- Interference with watching tv
- Feeling the low frequency bass sounds
- Inability to sleep for kids and themselves
- Inability to enjoy their own homes
- Distracted family time
- Hearing profanities blasted out the speakers

Most of these complaints are from miles away. I can supply information for all the articles I have found.

When you investigate the health effects of noise pollution, which the government recognizes as a thing and fights against in other issues, it's just disheartening. In a Gainesville Sun article concerning their own amphitheater issues, they reported that:

"Intrusive noise can lead to cardiovascular disease, sleep disruption, reduced productivity, impaired teaching and learning, absenteeism, increased drug use and accidents...It adversely affects general health and well-being, and increases anti-social behavior. Future generations are harmed by degraded home, social and learning environments, with corresponding economic loss."

As you can see, this is very concerning to me, not only for my seven children's health and well-being, but also my and my husband's own health and well-being. If the Momma of the house is up late trying to get kids to sleep and does not get some quiet time or good sleep herself, then she struggles with the patience and grace that she (I) needs to be a good mom.

However, this also concerns me for all my neighbors in this very large 10–15-mile bubble. What about their stress level? What about their kids' study and sleep needs? What about the effect it will have on their ability to parent, work, handle conflict, engage other people? This affects all of our life.

I am asking you to vote on behalf of your constituents' health, well-being and safety. As mentioned, the hazardous effects of this venue close to homes will impact thousands of lives, not once, not 10 times, but 50-60 times a year.

I am fully aware that millions of dollars in revenue will come into the city through this venue, but at the expense of Oklahomans. It's down right rude and inconsiderate to sell your own people's well-being to bring in money. Reject these plans until a plan is presented that does not jeopardize Oklahomans freedom to enjoy their families and homes in quiet.

Thank you for looking into this matter. I know your plate is full.

Kristen Bruce

1601 Birkenhead Rd.

2024 FEB 20 AM 8:10
OKLAHOMA CITY CLERK

From: Lori Rehrig <rehrigs@gmail.com>
Sent: Tuesday, February 20, 2024 8:10 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Sunset Amphitheater, Mustang Creek Crossing

You don't often get email from rehrigs@gmail.com. [Learn why this is important](#)

I am a resident of Westbury North, located just north of SW 15th and East of Sara Road in Yukon.

I am very much opposed to the new Sunset Amphitheater being built directly west of our neighborhood in Yukon. The two main reasons are (1) the noise level and vibrations from such a loud volume for several hours at a time up to 60 days a year and (2) the huge increase of traffic on all surrounding streets. We will be greatly inconvenienced having such a huge attraction just a few hundred yards from our homes. I wonder if even our property values may be affected.

Please consider whether you would want a large amphitheater being built this close to YOUR home, YOUR neighborhood. We in Westbury North DO NOT.

Please stop Sunset Amphitheater from being built in Mustang Creek Crossing.

Lori Rehrig
10105 Banff Way
Yukon, OK 73099
405-229-4715

From: Kristen Bruce <kristen.g.bruce@gmail.com>

Sent: Tuesday, February 20, 2024 8:09 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD 1983

2024 FEB 20 AM 9:49
OKLAHOMA CITY CLERK

You don't often get email from kristen.g.bruce@gmail.com. [Learn why this is important](#)

Hello City Clerk Amy Simpson,

I got to speak at the last City Council Meeting. I am one of the homeowners at 1601 Birkenhead Road.

First, thank you for serving our City. I know you all carry the heavy weight of decision making, thank-you.

I protest the location of PUD 1983 Sunset Amphitheater development.

To think of 12,000 people bombarding this quiet area for loud concerts, with multiple neighborhoods in the 1-mile bubble, is egregious.

Common sense tells anyone that there will be a huge problem with noise.

In a quick search on Google of complaints by residents near amphitheaters, I found complaints ranging from ½ mile to 15 miles away- like Brushy Creek Amphitheater in Hutto, TX (12,000 capacity).

<https://communityimpact.com/austin/pflugerville-hutto/city-county/2021/10/21/sound-study-recommends-relocation-of-brushy-creek-amphitheater/>

How did these venues win approval to build near homes?

One big way was by telling City Councils that noise won't be a problem because of...

- New-style speakers
- Better Acoustical designs
- Partly underground structures
- Sound walls
- Speakers would be aimed away from houses

- It'll be optimized and designed to minimize sound
- Sound will be distributed into the bowl

These sound like many answers OKC residents have heard:

- Carol Hefner said "The stage will be positioned "pointing north" so all of the sound will be abated"
 - Notes Live Application says "the seating bowl will reduce noise emissions..."
 - Application also states "The subwoofer can be arrayed to provide low frequency directivity"
- (Except that low frequencies are not positional and go in every direction)

They are speaking technical terms that most people do not grasp.

My concern is this. This same situation has happened over and again:

1. An amphitheater is proposed.
2. Residents have concerns about noise.
3. Reasons are given why it will not be as loud as they fear.
4. It gets approved
5. After built, the noise pollution is so severe it effects health, stress level, sleep, school, study time, relationships, freedom to enjoy family
6. The Residents complain
7. But complaints are met with:
 - "City council can't lower volume."
 - "There's little you can do because of the zoning code."
 - "We are within legal limits."

You can see why I'd be concerned about a possible approval of a large outdoor concert hall less than a mile from my house. The track record is not good for these venues, regardless of their claims.

City Clerk Amy Simpson, I want you to go home after a long day, spend time with your family, go to sleep when you want to, and wake up refreshed.

I want the same for my engineer husband, 7 kids and neighbors.

Councilwoman Nikki Nice quoted about a different topic: "The health, safety and welfare of our constituents resides within our hands." She's right.

I want the residents of Ward 3 protected from the hazards of a large music venue. But I also want Ward 1, Ward 2, Ward 4, Ward 5, Ward 6, Ward 7 and Ward 8 protected.

You are one of the gatekeepers. Don't let a multi-million dollar company come and hoodwink any Oklahomans who deserve peace and quiet in their homes.

If you want this type of development in our city, then you need to require the applicant to pick a location that will not harm Oklahoman's health, sleep and time with family.

Thank you.

Kristen Bruce

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 12:47 pm, Feb 22, 2024

From: Karen Cagle <kjcagle54@gmail.com>
Sent: Thursday, February 22, 2024 12:11 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: "Protest PUD-1983"

You don't often get email from kjcagle54@gmail.com. [Learn why this is important](#)

We are writing in protest to PUD-1983 Application by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike. If approved, there will be many issues.

First of all, the location for this venue is **NOT** the ideal location. It is in a heavy residential area which will affect many lives in the neighborhood. There are so many other locations which are not in a residential area. Your consideration for another location for this venue would be greatly appreciated.

Secondly, on top of the fact we'll have to deal with the loud noise the traffic is going to be a nightmare. I live in Westbury North and the only way I can get home is on SW 15th between Morgan Road and Sara Rd. Those of us in Westbury North will have a problem getting to our residence as this is the only access we have to our property.

We are the homeowners of property at 10201 Hollyhead Way, Yukon, OK 73099. We ask you to vote **AGAINST** this PUD in its current form.

Sincerely,
Ted & Karen Cagle

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 12:47 pm, Feb 22, 2024

From: Hannah Savage <hannah.ellice@gmail.com>

Sent: Thursday, February 22, 2024 11:11 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD-1983

You don't often get email from hannah.ellice@gmail.com. [Learn why this is important](#)

Dear City Clerk's office, I hope this email finds you well. I, Hannah Savage, hereby protest PUD-1983 application by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike. As a resident of this community, I strongly protest the proposed rezoning and urge you to consider the impact it will have on our neighborhood.

The proposed development will have significant negative effects on the area, including increased traffic, noise pollution, and decreased property values. I urge you to carefully consider the potential effects of this rezoning and to take into account the concerns of the community. Thank you for your attention to this matter. Sincerely, Hannah Savage

10609 SW 22ND ST, Yukon, OK 73099

972-489-1156

Hurst, Paula J**Subject:** FW: Protest PUD-1983**From:** Ruth Warner <ruthwarner@protonmail.com>**Sent:** Sunday, February 25, 2024 10:22 AM**To:** City Clerk Email <CityClerk@okc.gov>**Subject:** Protest PUD-1983

You don't often get email from ruthwarner@protonmail.com. [Learn why this is important](#)

I, Ruth Warner, hereby protest PUD-1983 application by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike.

I understand this zoning change is for the construction of a major amphitheater.

Please consider our families, our community, our neighborhood, and most of all our children during your vote. Do not forget us in your decision.

The current plans need consideration and work. The proposed locale is far less than ideal. This is a highly residential area. The amphitheater may be a great thing for Yukon, but the proposed placement for it would be harmful to all of us who live close to it.

How will increased traffic benefit our businesses if the people are coming to an area with only homes and a school?

How is this safe for the school nearby? The traffic is already phenomenal just for school pickup. How will adding up to 3500 vehicles to this area help that?

How will I manage to put my small child to sleep while just down the block there is a party with 12,500 people going on?

This does not enrich my family's life. Home should be a place of peace, quiet, and rest. How is this possible with a mass of 12,500 exited people just down the road?

Small children still go outside to play here. How can this be safe right next to roads that are proposed to cart in 12,500 people?

Thank you.

Sincerely,

Ruth Warner
10628 SW 23rd PI
Yukon, OK 73099

(469) 388-8715

Sent with [Proton Mail](#) secure email.

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 5:00 pm, Feb 29, 2024

From: Bobby <robaita@gmail.com>
Sent: Wednesday, February 28, 2024 12:44 PM
Subject: Protest of PUD-1983

You don't often get email from robaita@gmail.com. [Learn why this is important](#)

Good afternoon,

I hope this email finds you well. I am writing to express my strong opposition to the proposed zoning change. As a concerned resident, I believe this decision warrants careful consideration and community input.

Here are my key points of concern:

1. **Community Impact:** The proposed zoning change could significantly affect the character of our neighborhood. It is essential to consider how this development aligns with the existing infrastructure, traffic patterns, and overall quality of life for residents.
2. **Environmental Considerations:** Any development should prioritize environmental sustainability. I urge the City Council to assess the environmental impact of this project, including factors such as green spaces, water management, and wildlife preservation.
3. **Traffic and Infrastructure:** The proposed development's impact on traffic flow, road safety, and infrastructure must be thoroughly evaluated. We need assurance that adequate measures will be taken to mitigate any adverse effects.
4. **Increased Noise Levels:** The proposed amphitheater will significantly **escalate noise pollution** in our community. As residents, we value our peace and quiet, and any development that disrupts this tranquility should be carefully reconsidered.

In conclusion, I respectfully urge reconsidering the long-term implications of this zoning change. Our community's well-being and future depend on thoughtful decision-making that prioritizes transparency, environmental responsibility, and the needs of residents.

Thank you for your attention to this matter. I look forward to a thorough discussion during the public hearing.

Roberto Aita
11012 SW 38th Cir
Oklahoma City, OK 73064

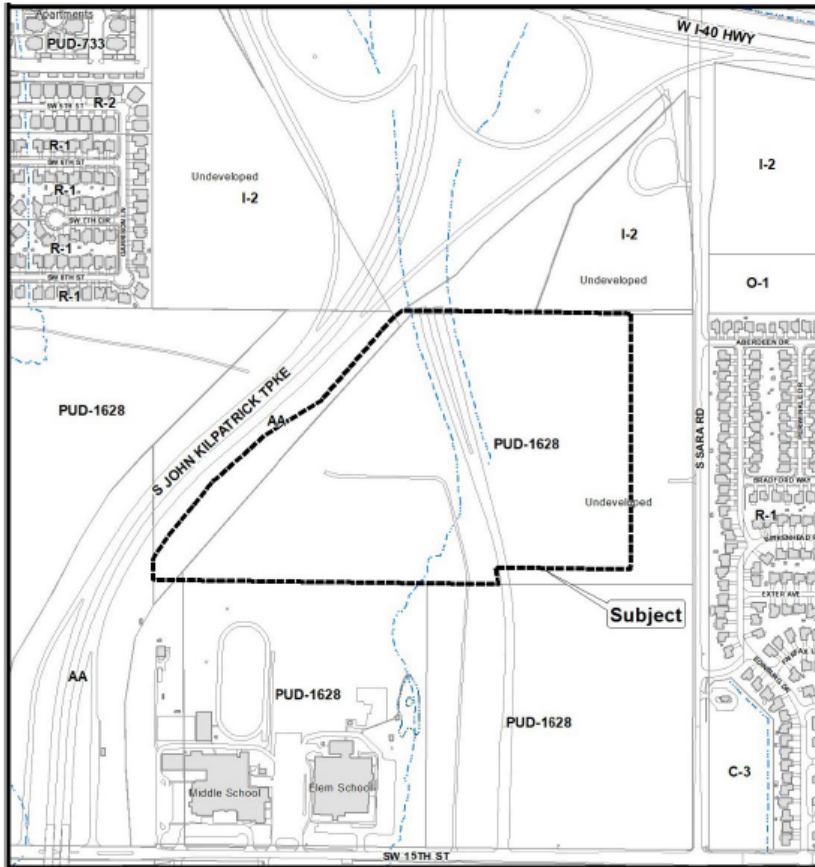
PROPOSED ZONING CHANGE:

CASE NUMBER: PUD-1983

FROM: AA Agricultural and PUD-1628 Planned Unit Development Districts

TO: PUD-1983 Planned Unit Development District

ADDRESS OF PROPERTY: 810 South John Kilpatrick Turnpike



RECEIVED

By The City of Oklahoma City Office of the City Clerk at 9:43 am, Feb 20, 2024

From: Richard Dykstra <rdykstra82@gmail.com>
Sent: Monday, February 19, 2024 10:03 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: PROTEST PUD-1983, Sunset Amphitheater

You don't often get email from rdykstra82@gmail.com. [Learn why this is important](#)

I am writing in Protest to the PUD 1983 at 810 South Kilpatrick Turnpike. There will be problems should this be approved. I will outline below my concerns in regards to this matter.

1. I am a Disabled Combat Veteran and the noise from the 12,000 seat amphitheater concerts will be very loud to the surrounding neighborhoods. To be quite honest any loud bangs or anything to that effect startle me.
2. I bought my property here 3 1/2 years ago after moving from Washington State because it was peaceful and quiet. I really do not wish to have to sell my home and move due to noise levels from the amphitheater.

I, Richard L Dykstra hereby protest PUD-1983 application by Mustang Creek Crossing to rezone 810 South John Kilpatrick Turnpike.

I am the homeowner of property at:

1804 Norwich Pl.
Yukon, OK 73099.

I ask you to vote against this PUD in its current form.

--

Richard L Dykstra, N7WFK
ARRL Volunteer Examiner Liaison
Cell: (360) 224-7785

Hurst, Paula J**Subject:** FW: Protest PUD -1983

v

From: Tommy and Robin Beavers <tandrbeavers@gmail.com>**Sent:** Saturday, February 24, 2024 9:22 PM**To:** City Clerk Email <CityClerk@okc.gov>**Subject:** Protest PUD -1983

You don't often get email from tandrbeavers@gmail.com. [Learn why this is important](#)

Hello,

We are Tommy and Robin Beavers and we hereby protest the PUD-1983 application by Mustang Creek Crossing to rezone 810 South John Kilpatrick Turnpike.

From the "Staff Report" by the Planning Commission Jan 11, 2024--- *However, potential compatibility issues are identified with the proposed use of an outdoor concert venue/amphitheater near schools and neighborhoods, specifically related to noise and traffic.*

We live approximately 1.5 miles from the proposed site for the amphitheater. From what I have found online, the noise and vibrations from these amphitheaters can carry up to 3 miles or farther so we are concerned about possible noise pollution at our home that we have lived in for 34 years. I can't even imagine what it will be like for the neighborhoods that are within walking distance. These are families with children that want to enjoy their evenings in their own backyards.

We firmly believe that a more suitable commercial site could be located that would not affect neighborhoods and schools. The two school buildings are just 1250 feet away. The nearest residence is 1500 feet away. How does it even make sense to build a 12,500 seat amphitheater so close to schools and homes??

A simple google search of sound complaints with amphitheaters brings up numerous complaints about the sound from other amphitheaters across the nation in reference to nearby neighborhoods. Below is a link for reference regarding issues with other amphitheater sites around the country. I would bring to your attention the initial paragraph on how the communities were "**misled**" about the concert noise. It also states that it is **impossible** to have a concert venue without it affecting the nearby neighborhoods.

Therefore, we respectfully request that you decline the PUD-1983 application by Mustang Creek Crossing to rezone 810 South John Kilpatrick Turnpike.

Thank you for your consideration.

Tommy and Robin Beavers
12307 SW 13th St.
Yukon, OK 73099

<https://evanstonroundtable.com/2023/07/20/letter-to-the-editor-concerts-not-music-to-all-ears/>

“Across the nation, there is widespread growing opposition to the practice of locating outdoor concert venues in residential neighborhoods. In most cases, the main issue is NOISE. Here are a just a few of many examples where communities were misled about concert noise”

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 8:40 am, Feb 28, 2024

From: Debora Snyder <deborasnyder10@gmail.com>
Sent: Tuesday, February 27, 2024 6:46 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Sunset Amphitheater in Mustang Creek Crossing

You don't often get email from deborasnyder10@gmail.com. [Learn why this is important](#)

Please DO NOT let the amphitheater be placed in Mustang Creek Crossing. The amphitheater would cause traffic issues for those of us who live in the area. The noise will cause issues and greatly disturb our lives. There are two schools that would be directly affect by the sound checks. How do you expect our children to learn under those circumstances. When concerts are going on parents will have issues with children not being able to study or go to sleep due to the noise disruption. This construction will decrease our home values and greatly disturb our peaceful environment. Please find a more suitable location than in our back yards.

Sincerely yours,

Debora Snyder
10724 SW 21st Street
Yukon, Ok

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 8:40 am, Feb 28, 2024

-----Original Message-----

From: Casey Witvoet <casey.witvoet@yahoo.com>

Sent: Wednesday, February 28, 2024 7:52 AM

To: City Clerk Email <CityClerk@okc.gov>; City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD-1983 Sunset Amphitheater

[You don't often get email from casey.witvoet@yahoo.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Amy K. Simpson,

I am writing you today to protest the PUD-1983 for the Sunset Amphitheater. My name is Casey Witvoet and I live at 1209 Edinburg Dr. I was legally notified by your letter on February 14th that on April 9th a vote would take place to put the Sunset Amphitheater a few hundred feet from my backyard. I think this short notice is unacceptable!

We have lived in our home for thirteen years. The thing we love the most about our home is the backyard because it has gorgeous sunsets. I can hear the sounds of the animals while gardening in the evenings in my backyard which has been very important for my mental health while living in the city which I find to be very stressful and fast paced.

If you vote to allow them to build this amphitheater, it will destroy my family's quality of life and force us out of our homes because we cannot live in a home that is constantly being disturbed by low frequency vibrations and 12,500 screaming people 350 feet from our home. I do not believe anyone would want an outdoor theater this close to their home! Having concerts during the week is unacceptable because it will disturb our sleep. Many people go to bed before 10:30 p.m. at night because they have work and school the next day.

When we bought our home, we did not sign up to have "noise equivalent to a train running through our backyards without the horn" as it was described in the Commissioner's meeting on January 11th, 2024.

I am asking you to vote on April 9, 2024, to reject the PUD-1983 to prevent concerts from going late into the evening during the week keeping our community from getting sleep, because there is no one to enforce a curfew. I am not sure if you are aware, but this area is Mustang Public Schools, Yukon addresses and Oklahoma City utilities so calling the police and getting a response is already a huge problem for us. There will be no one coming to hold them accountable when residents call to complain, and fines are nothing to concert venues because they will just pay them and play on. There needs to be a better remedy than just calling the police our community needs some kind of reassurance like a device put in place that will shut power off if they exceed the volume requirements or time limits.

Noise pollution is not the only concern I have but also the low frequencies that cannot be controlled that will vibrate the inside of our homes along Sara Road. This is something that needs to be addressed. I would like to propose that Notes Live pay to soundproof our homes as a form of mitigation to stop the low frequency bass and the sound of 12,500 people screaming across the street. If this is not done our homes along Sara Road will be unlivable for even the most avid music lover.

These are some of the issues our neighborhood will be facing, and they need to be addressed properly and I feel in the current state of this PUD-1983 the people who will mostly be affected have not even

been considered. I have neighbors who have autistic children, veterans with PTSD and spouses with dementia. These people should be taken into consideration on how this will affect them.

Noise is a very serious issue as the former U.S. Surgeon General, William H. Stewart said, "calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of the people everywhere."

This is not the Oklahoma way! We put children, people and communities before million-dollar companies and tax revenue. I hope that you will take into consideration the things I have shared with you and vote NO on PUD-1983 and do what is best for the people who put their trust in you when we elected you to the position that you are holding today.

Sincerely,

Casey and Albert Witvoet

1209 Edinburg Dr, Yukon, OK 73099- Westbury North Homeowner

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 8:13 am, Feb 20, 2024

From: Karen Smith <karensmith3@att.net>

Sent: Monday, February 19, 2024 6:12 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Opposition to Proposed Rezoning for Ampitheater PUD-1984

You don't often get email from karensmith3@att.net. [Learn why this is important](#)

WARNING: The sender of this email could not be validated and may not match the person in the "From" field..

I am contacting you in reference to the proposed zoning change to allow for the building of an amphitheater in the middle of a residential neighborhood(s). I have been a resident of Westbury North since 2000 and moved here because it was out and away from the hub bub of OKC proper. Since that time the residential construction has exploded with other people looking for a quiet refuge from the city. Now we are faced with having our nice quiet neighborhood(s) besieged with extremely loud music/noise and an onslaught of traffic. Referencing the proposed plans for this amphitheater it appears that the performance stage and amps are only about a 200 yards away from the neighborhood houses. These residents will be constantly barraged with loud music through out the concert/event season not to mention the neighborhoods directly south who will have the entire event blasted directly at them.

I feel there is a location better suited for this type of construction. A location not in the center of neighborhoods and schools.

I am voicing my opposition of re-zoning the north east corner of SW 15th and Sara to allow the building and operation of the Sunset Ampitheater. I hope that our council members and our mayor will put their constituents first, ahead of big business. We all just want a nice quiet place to live. A place we can find peace after a hard days work and worries of our daily lives.


Sincerely

Karen Smithee-Smith
10328 Bradford Way
Yukon, OK 73099

Get [Outlook for Android](#)

From: Kate Stringer <stringerkatelyn@gmail.com>
Sent: Tuesday, February 27, 2024 9:59 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: PUD-1983

2024 FEB 27 PM 12:27
OKLAHOMA CITY CLERK

 You don't often get email from stringerkatelyn@gmail.com. [Learn why this is important](#)
Hello Amy Simpson,

I, Katelyn Stringer, herby protest PUD-1983 Application by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike. As a mom of four with two of them being little, I am extremely concerned about the sound coming into our home at late hours. We love our home and the peace it brings us!

The Oklahoman has reported concerns from residents who have lost that peace.
https://www.oklahoman.com/story/opinion/2024/02/15/opinion-noise-pollution-from-planned-amphitheater-not-seen-as-neighborly/72570060007/?fbclid=IwAR09uwTaqJaluCxRlkXTWMBdiWNpGC69JEZgLWavnaFWuuYqS8SHY9abV8w_aem_ATwcJB7klHqPH4Q-aF2rOj1Mmz-AEq_rtLkLJSj4qT6URw4OdG-9DOARCcgGx4mX6qY#lt4ixu6wc4a7ut1oyg8

Here is what those parents and homeowners say “From over 3 miles away, a homeowner near Hayden Homes Amphitheater in Bend, Oregon, reported she could “...feel and hear a low-frequency vibrating bass that permeates the entire house.” Another resident over a mile from Red Rocks Amphitheater in Morrison, Colorado, complained, “The windows are rattling, the walls shake, you put covers over your head, and it doesn’t do anything.” In Round Rock, Texas, a homeowner 4 miles away from the Round Rock Amphitheater said the vibrations were so strong, his child could not sleep.”

I am the home owner of 9929 Sudbury Rd Yukon Ok 73099 and I ask that you vote NO on the PUD-1983 rezoning.

Thank you.

Katelyn Stringer

From: Jennifer Starks <jenniferstarks83@gmail.com>

Sent: Tuesday, February 27, 2024 11:06 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Protest PUD 1983 Sunset Amphitheater

2024 FEB 27 PM 12:27
OKLAHOMA CITY CLERK

You don't often get email from jenniferstarks83@gmail.com. [Learn why this is important](#)

I'm writing with grave concerns about the implications this proposed amphitheater will create for the surrounding community and my husband and myself.

My name is Jennifer Dykstra I'm a homeowner at 1804 Norwich Pl, Yukon, OK 73099.

My husband is a United States Army Veteran of Operation Iraqi Freedom (OIF), his company was the first to enter the Afghanistan Airport when the United States took it over, and as a consequence of bravely defending our country and the people of Afghanistan my husband came home with severe war-related PTSD, from which he has been hospitalized multiple times, he has undergone years of intense therapy even participating in studies for the organizations such as Operation Mend at the Ronald Reagan UCLA Medical Center.

When Veterans Affairs (VA) deemed my husband 100 percent totally and permanently disabled due to his PTSD, we decided it would be best to move from Washington State to Yukon Oklahoma, a place that protects and advocates for veterans. We contacted a real estate agent and discussed what my husband's needs are to keep him safe, and we chose Yukon (Westbury South) as it is within 30 minutes of the VA and less than 10 minutes from a newly built VA clinic, away from the noise and crowds as he still isn't able to maintain in these situations.

Since moving to Westbury South, I have seen my husband finally start to heal even participating in community activities that he has not attempted since being medevacked out of Iraq in 2004. We are finally starting to see the benefits of all his hard work in therapy, In the past couple of years that we have been in Yukon (Westbury South) our quiet oasis in which he is not afraid to be outside, he noticed that Yukon did not have any testing available for HAM radio Volunteer Examiners (VE's), he now tests once a month at the Yukon Police Station. I cannot tell you how incredible that is. Before moving here, I could not get him to sit out in our backyard with me, let alone grocery shop or take the lead in speaking with members of the

community. Westbury has been a source of healing for us both, and I fear the noise, crowds and everything that comes with bringing events into our backyard will have a very negative effect on him possibly setting him back in his healing.

I'm asking our community leaders to say NO to PUD 1983.

I have attached some of the many articles and studies regarding the triggers and effects that loud noise has on veterans with war-related PTSD for your consideration.

Jennifer Dykstra

360.306.9215

Jenniferstarks83@gmail.com

enclosed:

<https://ajp.psychiatryonline.org/doi/full/10.1176/ajp.155.6.812>

<https://www.tandfonline.com/doi/10.1080/23279095.2018.1433179>

<https://veteranshelppgroup.com/what-causes-ptsd-to-be-triggered-in-veterans/#:~:text=A%20loud%20noise%2Fsound%20can,become%20very%20frightened%20or%20scared.>

<https://www.disabledvets.com/claim-types/mental-health/ptsd/triggers/>

<https://www.helpguide.org/articles/ptsd-trauma/ptsd-in-military-veterans.htm>

From: MIKE ROBINSON <flukie@cox.net>
Sent: Tuesday, February 27, 2024 11:52 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Protest PUD 1983 Sunset Amphitheater

2024 FEB 27 PM 12:27
OKLAHOMA CITY CLERK

You don't often get email from flukie@cox.net. [Learn why this is important](#)

I, Lois Robinson, hereby protest the PUD 1983 application by Mustang Creek Crossing to rezone 810 Sarah John Kilpatrick Turnpike. There will be problems if this is approved.

1. Curfew and Decibel Levels Monitoring

- Standard code for business's PUD is 65 db. This project got approved by the planning committee for up to 75 db, which exceeds this threshold.
- Curfew on Sunday-Thursday in the area is set for 10:30 PM and 11 PM on Friday and Saturday. The current city code is 10 PM.
 - Who will be responsible for monitoring this timeframe?
 - Police?
 - Owners?
 - Developers?
 - Who will be penalized if the sound levels and curfew restrictions are not maintained?
 - Owners?
 - Performers?
 - Developers?
 - Planning Committee?

2. Safety

- Will individuals be checked for weapons?
 - Who will be monitoring for weapons?

3. Individuals Impacted by Noise and Vibrations

- Children with noise related defects (autism, hearing problems, etc.)
- Veterans and others with PTSD
- Individuals working on weekends (nurses, policemen, firemen, etc.)
- Children going to be early (8-9 PM)

4. Property Value

- Home values dropped by over 25% in 1984 when Penn Square Bank went under. With the development of this amphitheater this could happen again.


I am the homeowner of property at 10409 Fairfax Lane, Yukon, OK 73099. This is an established neighborhood since the 1970's. We have owned and lived in our home for 41 years.

I invite Mayor Holt and the Council Members to our neighborhood to understand why we are protesting PUD 1983 Sunset Amphitheater. Please take this all into consideration. Ask yourself, would you want this project developed in your neighborhood? I ask you to vote against PUD 1983 in its current form.

Sincerely,
Lois A. Robinson

From: Karl Edgin <kje56@hotmail.com>
Sent: Monday, February 26, 2024 2:23 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Against PUD 1983 Sunset Amphitheater

2024 FEB 27 PM 12:27
OKLAHOMA CITY CLERK

 You don't often get email from kje56@hotmail.com. [Learn why this is important](#)

The plans presented to the planning committee doesn't show the entire picture of the impacted area.

1: This concert venue will be right directly across the street from several housing additions! One in which I live.

Directly east, southeast and a new large housing being built directly south. We're not talking miles away nor blocks away It's directly across the street!

2: Families, children, infants n will be severely impacted by the loud noise, and amount of traffic into our neighborhoods where our kids play

I am the home owner of the property at 10412 Fairfax Ln, Yukon, OK

Sincerely, Karl J Edgin 405-802-8097

2024 FEB 27 PM 12:27
OKLAHOMA CITY CLERK

From: vickie coombes <coombes4osu@att.net>
Sent: Monday, February 26, 2024 2:06 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Sunset Amphitheater in Mustang Creek Crossing

You don't often get email from coombes4osu@att.net. [Learn why this is important](#)
WARNING: The sender of this email could not be validated and may not match the person in the "From" field..

We live at 12109 Stockdale Place Yukon, OK 73099 about 1 mile from where the Sunset Amphitheater is projected to be built.

we are very much against this project.

We do NOT want the traffic, trash or loud music within our housing additions.

This is located entirely too close to schools, I understand the concerts will be on the weekends. But you will have traffic coming and going before hand to get everything set up.

How is this fair to residents who purchased homes with the expectation of enjoying their outdoor areas.

Please vote against this proposal, again we do not want it in our neighborhood.

Sincerely,

Vickie Coombes
12109 Stockdale Place
Yukon, OK 73099
405-426-5832

2024 FEB 27 PM 12:23
OKLAHOMA CITY CLERK

From: James R King <jamesrking72@icloud.com>
Sent: Monday, February 26, 2024 2:03 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Fwd: No Sunset Amphitheater, Protest PUD-1983

You don't often get email from jamesrking72@icloud.com. [Learn why this is important](#)

Begin forwarded message:

From: James R King <jamesrking72@icloud.com>
Subject: Re: No Sunset Amphitheater, Protest PUD-1983
Date: February 14, 2024 at 1:57:02 PM CST
To: ward3@okc.gov

Dear Barbara,

I didn't see my first letter attached the agenda item PUD-1983. I wanted to make an update as I have gained new knowledge, and make sure it was attached properly.

I James R King herby protest PUD-1983 application by Mustang Creek Crossing to rezone 810 South John Kilpatrick Turnpike.

The proximity of this venue is not in harmony with the surrounding zoned PUD's. Two schools as well as established neighborhoods on each side. The developers have created their boundaries within the middle of this area and set back from Sara Rd 350 feet so it would look on paper as if there were no other use zones in conflict. I would say they have been sneaky from the beginning in trying to get this through without protest. Well, hundreds of us in the surrounding neighborhoods are protesting and sending in letters.

The Planning Commission may have voted to recommend PUD-1983, however in their staff report from January 11, 2024 they say:

"The proposal triggers potential operational impacts near the elementary school and middle school to the south. Operational impacts are also identified with the proposed use of an outdoor concert venue/amphitheater near schools and neighborhoods, specifically related to noise and traffic." -Page 10.

"However, potential compatibility issues are identified with the proposed use of an outdoor concert venue/amphitheater near schools and neighborhoods, specifically related to noise and traffic." -Page 13.

In the 'Master Design Statement' Section 4.0 they list the surrounding property zones and say the "The proposed use of this property is in harmony with the surrounding zoning." They purposely created their eastern border set back 350' so they wouldn't have a residential zone in contact with the property. Also, it would cause issues with a valid protest petition because they now only have the developers land (PUD-1628) around them. How are the residents, (owners of 50% of the land within 300') supposed to

have a legal protest if the development is skewed in their favor? This is very deceptive of them. We ask to have them alter PUD-1983 and push their parking lot out to Sara Road.

I urge you to visit the site and see just how close this will be to the schools and our homes that we have invested our time and money into.

I am the homeowner of property at 10200 Hollyhead Way, Yukon, OK 73099. I ask you vote against this PUD in its current form.

Sincerely,
James R King

On Jan 23, 2024, at 3:37 PM, James R King <jamesrking72@icloud.com> wrote:

Dear Barbara Peck,

I am writing with concerns about the proposed Sunset Amphitheater that could be located in Mustang Creek Crossing just northwest of SW 15th and Sara Road in the Yukon/Mustang area.

They are planing to have 12,500 seats yet only 3500 parking spaces. I read they expect most of the concert goers to Uber in and even so those Ubers need a holding ground. My concern is we will have cars parking in our neighborhood causing dangerous conditions for pedestrians. Our neighborhood doesn't have sidewalks and many families walk and bike with their kids through the streets. This is dangerous for concert goers and our neighbors. Also, there are currently no other retail businesses in this area for cars to park. This will cause a line of cars down SW 15th street causing a street closure as it is currently two lane road. This street becomes blocked every morning and afternoon with parents dropping children off at the elementary school. I know there is a plan for widening SW 15th street and it is behind schedule as they are still finishing Sara Rd south of SW 15th Street. There also is no current plan for widening Sara Rd north of SW 15th Street, which is a narrow two lane road.

The proximity to two schools, Mustang Creek Elementary and Mustang North Middle School also give concerns. In one of the early articles I read they stated they would like to have concerts almost everyday. Have they communicated with the schools about scheduling around school hours or functions? Not only for sound but also traffic? There are soccer and baseball fields just south of the schools that can get very busy. Currently the only planned route out of the amphitheater would take cars to SW 15th Street and or Sara Road. There is no I-40 access at Sara Road so cars will still need to make their way to and from Mustang Road or Morgan Road.

How has Livenotes guaranteed music acts will book at the amphitheater? Paycom Center and Criterion have a contract with LiveNation for booking acts and I don't think they easily just share them when a schedule allows. Do they have any ongoing talks with the music industry to guarantee acts? This unknown business planing also brings up that Canadian County currently doesn't allow alcohol sales on Sundays. I know it will be up for vote in March but that doesn't guarantee it will pass. This all just seems like poor planning to me and tied to millions of investors dollars can easily become a scam not unlike Frye Festival.

They promised to be "great neighbors" but most in my neighborhood and the surrounding neighborhoods have yet to receive any communication from Livenotes. Articles mention flyers being sent out but no one has seen said flyers.

As a resident of Westbury North neighborhood just east of the proposed Sunset Amphitheater I am opposed to the project and urge you to vote no on March 12th.

James Rogers King
10200 Hollyhead Way
Yukon, OK 73099
(405)-761-6747

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 2:38 pm, Feb 08, 2024

From: Kim Shelton <kshelton59@yahoo.com>
Sent: Thursday, February 8, 2024 1:28 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Mustang Creek Sunset Amphitheater

You don't often get email from kshelton59@yahoo.com. [Learn why this is important](#)

Please forward to OK City Council Members and Mayor Holt.

I can appreciate the heavy burden you carry for the citizens of OKC. Looking out for the well-being of all and at the same time bringing in revenue that benefits the city. I am asking as a constituent and concerned neighbor that you listen to our plea for help in stopping the proposed Sunset Amphitheater so close to many families in the area. It is for our health and well-being that we are pleading this case. We cannot compete with their dollars, but we feel our well-being is of utmost concern.

Major Concerns about the Sunset Amphitheater:

1) Noise - will need Buffers to the East along Sara Road (The Westbury neighborhoods across the street within 1200 feet). The neighborhood in Westpoint off Mustang backs up to the planned Amphitheater. The schools and churches nearby will be affected by noise pollution during soundchecks, concerts, other live venues. The bass vibrations have been proven to shake structures and disturb the peace of those in their homes, businesses, churches, schools. Noise pollution is indeed a significant public health concern. According to the American Public Health Association, noise is recognized as a public health hazard, with human exposure to harmful noise levels being widespread. It can cause a range of health problems, including hearing loss, sleep disruption, stress, cardiovascular disease, and even premature mortality. The World Health Organization (WHO) and the European Environmental Agency report that noise ranks second only to air pollution as the environmental exposure most harmful to public health.

2) Traffic - Sara Road between SW 15th and the North end of the three (2) Ingress/Egress into the proposed project are on a narrow 2 lane road (Sara Road). And I believe one other at SW 15th. This will not only affect the property owners adjacent to the project and other subdivisions on down Sara, but the attendees of the Amphitheater. Traffic will back up for miles between the hours of 5:30-6:30 trying to get into the Amphitheater. The access on Turnpike is VIP. The Access on SW 15th is already backed up with rush hour traffic off the turnpike during these hours.

3) OK City Council Members, PLEASE take some time in making this decision about the Amphitheater. Do some research please on this project, look at both sides – and make an

INFORMED DECISION! I am asking you to vote on behalf of your constituents' health, well-being, and safety. As mentioned, the hazardous effects of this venue close to homes will impact thousands of lives, not once, not 10 times, but 50-60 times a year.

Sincerely,
Kim Shelton 10020 Leeds Drive Yukon, OK
(405) 226-8774

From: lora koeninger <westburyinfo@yahoo.com>

Sent: Thursday, February 22, 2024 7:15 AM

To: westburyinfo@yahoo.com

Subject: Fw: Councilwoman Barbara Peck - PUD-1983 amphitheater response

2024 FEB 22 AM 8:38
OKLAHOMA CITY CLERK

You don't often get email from westburyinfo@yahoo.com. [Learn why this is important](#)

WSNA Ward 3 Members, Adjoining Ward 3 Neighborhoods, and Ward 3 residents:

Please see Barbara Peck's, Ward 3 City Council person's response to the Amphitheater Project and comments regarding forwarding your concerns to the City Clerk's office to be documented as a Concern or Protest. Many of you who have already filed a protest or concern may have received this email.

----- Forwarded Message -----

From: Ward3 <ward3@okc.gov>

To: Ward3 <ward3@okc.gov>

Sent: Monday, February 19, 2024 at 04:58:03 PM CST

Subject: Councilwoman Barbara Peck - PUD-1983 amphitheater response

Hello neighbors,

I hope this email finds you well. It's sometimes hard to catch up with everyone timely especially when there is a case like the amphitheater with so much interest. And it's just ONE of the many cases coming soon before council. I know you all understand that city council members have regular jobs, families, friends in addition to our City Council roles. I love it so much and I count each of you as a neighbor and a friend. I'm so grateful for your engagement and concern for our community. I continue to work through the call back list as time permits, so don't give up on my getting back to you via phone or email. For now, I hope this email shows that I am reviewing all of your comments & concerns.

Here goes:

- I read and make note of every email received as I consider the public hearing ahead of us. Emails to me or my office are not however logged as protest to be included with the packet provided to council. Only those sent to the City Clerk's office are counted and only those on the legally required notice list are counted as what's called a "legal protest". Including your address allows staff to document whether your protest is a "legal" one or one from the community. Both are very important to me and to the process.

Ways to contact the City Clerk's Office –

Via email: cityclerk@okc.gov

or mail: City Clerk

200 N Walker, 2nd Fl

OKC, OK 73102

- This is not a city project. This is a property owner selling their property to a business to develop. The only involvement from the City of OKC is related to the zoning change needed to allow for development. Neither I, nor any city staff or council members, decided to build an amphitheater on this land.
- I want you to know I live in Johnson Farms near SW 44th and Mustang Rd. I drive SW 15th many times each week, some weeks daily depending on activities. I have been blessed to have lived in Westbury, Westbury North, and Ashford Place since moving to Ward 3 in 2007. I've lived in my current home since 2020. My kids started school at Mustang Creek and attended Valley, Canyon Ridge, North and MHS. We are proud Broncos!
- I've been the one in the drop off and pick up lines at Creek and North as well as being a passerby for all of the other school pick up lines in our area. The struggle is real. We continue to work collaboratively to improve those situations for our schools and community as funding allows.
- I share in the concerns that you have. (traffic & noise) The template emails that we get are not my favorite, but I know sometimes someone else just says it well. Just be careful who you get your information from. Please keep in touch!
- You probably know by now, that per my request, the applicant held a community meeting before applying for zoning change. Since then, they have made changes as a result of comments from the community, the planning and zoning commissioners, and city staff. My understanding is, they are still accepting suggestions as they desire to be good neighbors. We are beginning to share your emails with the applicant (they are public record and such was their request). They've asked for the opportunity to respond to your concerns as well.

There is still a lot of time before this item has its public hearing at city council. I am still learning everything that I can about the application, all our neighbors thoughts, concerns, and suggestions; as well as the ordinances and state laws that govern a development like this. There are remedies the developer could pursue even with a denial at council that may negate a denial. I continue to research to help inform my future vote on the matter.

I want you to know that YOU are why I choose to serve our city. I came to do everything I can to bring attention to the needs of all our friends and neighbors in Ward 3. I thank you so much for allowing me to represent you and for your engagement in the development of our city.

Barbara Peck

Councilwoman, Ward 3



The City of
OKLAHOMA CITY

ward3@okc.gov | 405-297-2402 | City Hall – 200 N. Walker Ave, 3rd Fl | Oklahoma City, OK 73102 | <http://www.okc.gov/>

CONFIDENTIALITY NOTE: This e-mail message and any attachments are intended solely for the person to which it is addressed and may contain privileged and confidential information protected by law. If you have received this communication in error, please notify the sender immediately by telephone or e-mail, destroy this message and delete any copies held in your electronic files. Unauthorized use and/or re-disclosure may subject you to penalties under applicable state and federal laws.

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 12:32 pm, Feb 12, 2024

From: Mitzi McAllister <mitzim1954@icloud.com>

Sent: Monday, February 12, 2024 11:54 AM

To: The Mayor <mayor@okc.gov>

Cc: Ward3 <ward3@okc.gov>; City Clerk Email <CityClerk@okc.gov>; Freeman, Craig A <craig.freeman@okc.gov>

Subject: Sunset Amphitheater in Mustang Creek Crossing

You don't often get email from mitzim1954@icloud.com. [Learn why this is important](#)

To Whom It May Concern:

I am writing with concerns about the proposed Sunset Amphitheater that may be located in Mustang Creek Crossing just northwest of SW 15th and Sara Road in the Yukon/Mustang area. They are planning to have 12,500 seats yet only 3500 parking spaces. I read they expect most of the concert goers to Uber in and even so those Ubers need a holding ground. One of my concerns is we will have cars parking in our neighborhood causing dangerous conditions for pedestrians. Our neighborhood doesn't have sidewalks and many families walk and bike with their small kids through the streets. We have multiple children who ride their bicycles through the neighborhood on a regular basis. This is dangerous for concert goers and our neighbors. Also, there are currently no other retail businesses in this area for cars to park. This will cause a line of cars down SW 15th street causing a street closure as it is currently two lane road. This street becomes blocked every morning and afternoon with parents dropping children off at the elementary school. I know there is a plan for widening SW 15th street and it is behind schedule as they are still finishing Sara Rd south of SW 15th Street. There also is no current plan for widening Sara Rd north of SW 15th Street, which is a narrow two lane road. Some of us have been notified by Ms. Hefner that ODOT was proposing to widen the streets. However, ODOT informed us that this was not true.

Another concern is trash, beer bottles/cans being left on the street after a concert. We know this will not be picked up in a timely manner.

The proximity to two schools, Mustang Creek Elementary and Mustang North Middle School also give concerns. In one of the early articles I read they stated they would like to have concerts almost everyday. Have they communicated with the schools about scheduling around school hours or functions? Not only for sound but also traffic? There are soccer and baseball fields just south of the schools that can get very busy. Currently the only planned route out of the amphitheater would take cars to SW 15th Street and or Sara Road. There is no I-40 access at Sara Road so cars will still need to make their way to and from Mustang Road or Morgan Road.

How has Livenotes guaranteed music acts will book at the amphitheater? Paycom Center and Criterion have a contract with LiveNation for booking acts and I don't think they easily just share them when a schedule allows. Do they have any ongoing talks with the music industry to guarantee acts? This unknown business planning also brings up that Canadian County currently doesn't allow alcohol sales on Sundays. I know it will be up for vote in March but that doesn't guarantee it will pass. This all just seems like poor planning to me and tied to millions of investors dollars can easily become a scam not unlike Frye Festival.

They promised to be “great neighbors” but most in my neighborhood and the surrounding neighborhoods have yet to receive any communication from Livenotes. Articles mention flyers being sent out but no one has seen flyers.

For once, put yourself in our shoes. Rather than focusing on dollars, will you please consider focusing on quality of life for those who do not have the means to move?

As a resident of Westbury South neighborhood just east of the proposed Sunset Amphitheater, I am opposed to the project and urge you to vote no on March 12th.

Mitzi McAllister
1801 Mackenzie Way
979-820-4566

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 12:04 pm, Feb 20, 2024

From: Kristen Bruce <kristen.g.bruce@gmail.com>
Sent: Tuesday, February 20, 2024 8:09 AM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Protest PUD 1983

You don't often get email from kristen.g.bruce@gmail.com. [Learn why this is important](#)

Hello City Clerk Amy Simpson,

I got to speak at the last City Council Meeting. I am one of the homeowners at 1601 Birkenhead Road.

First, thank you for serving our City. I know you all carry the heavy weight of decision making, thank-you.

I protest the location of PUD 1983 Sunset Amphitheater development.

To think of 12,000 people bombarding this quiet area for loud concerts, with multiple neighborhoods in the 1-mile bubble, is egregious.

Common sense tells anyone that there will be a huge problem with noise.

In a quick search on Google of complaints by residents near amphitheaters, I found complaints ranging from ½ mile to 15 miles away- like Brushy Creek Amphitheater in Hutto, TX (12,000 capacity).

<https://communityimpact.com/austin/pflugerville-hutto/city-county/2021/10/21/sound-study-recommends-relocation-of-brushy-creek-amphitheater/>

How did these venues win approval to build near homes?

One big way was by telling City Councils that noise won't be a problem because of...

- New-style speakers
- Better Acoustical designs
- Partly underground structures
- Sound walls
- Speakers would be aimed away from houses

- It'll be optimized and designed to minimize sound
- Sound will be distributed into the bowl

These sound like many answers OKC residents have heard:

- Carol Hefner said "The stage will be positioned "pointing north" so all of the sound will be abated"
- Notes Live Application says "the seating bowl will reduce noise emissions..."
- Application also states "The subwoofer can be arrayed to provide low frequency directivity"
(Except that low frequencies are not positional and go in every direction)

They are speaking technical terms that most people do not grasp.

My concern is this. This same situation has happened over and again:

1. An amphitheater is proposed.
2. Residents have concerns about noise.
3. Reasons are given why it will not be as loud as they fear.
4. It gets approved
5. After built, the noise pollution is so severe it effects health, stress level, sleep, school, study time, relationships, freedom to enjoy family
6. The Residents complain
7. But complaints are met with:
"City council can't lower volume."
"There's little you can do because of the zoning code."
"We are within legal limits."

You can see why I'd be concerned about a possible approval of a large outdoor concert hall less than a mile from my house. The track record is not good for these venues, regardless of their claims.

City Clerk Amy Simpson, I want you to go home after a long day, spend time with your family, go to sleep when you want to, and wake up refreshed.

I want the same for my engineer husband, 7 kids and neighbors.

Councilwoman Nikki Nice quoted about a different topic: “The health, safety and welfare of our constituents resides within our hands.” She’s right.

I want the residents of Ward 3 protected from the hazards of a large music venue. But I also want Ward 1, Ward 2, Ward 4, Ward 5, Ward 6, Ward 7 and Ward 8 protected.

You are one of the gatekeepers. Don’t let a multi-million dollar company come and hoodwink any Oklahomans who deserve peace and quiet in their homes.

If you want this type of development in our city, then you need to require the applicant to pick a location that will not harm Oklahoman’s health, sleep and time with family.

Thank you.

Kristen Bruce

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 4:59 pm, Feb 27, 2024

From: Patricia Waken <pchristmas18@yahoo.com>
Sent: Tuesday, February 27, 2024 2:54 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: "Protest PUD-1983" Sunset Amphitheater Mustang Creek Crossing

You don't often get email from pchristmas18@yahoo.com. [Learn why this is important](#)

I Pat Waken hereby protest PUD-1983 application by Mustang Creek Crossing LLC to rezone 810 South John Kilpatrick Turnpike.

Noise Pollution- When we step outside it is obvious the world is a noisy place. Researchers have studied effects of noise on humans for decades. It is known that loud and constant noise can create physical and psychological stress, interfere with communication and cause sleep disturbances. Severe cases can cause cognitive impairment, tinnitus, hearing loss and even affect overall health.

Besides harming humans noise pollution can harm wildlife in several ways. These animals have a reduction to hear natural sounds, which means difference between life and death for many animals. Mating behavior hunting and survival instincts of animals are altered by excessive noise. One more way noise pollution can cause animals to become ill, especially small animals like mice.

There are so many more ways noise pollution affects humans and wildlife. Currently this area has wildlife and a neighborhood of humans. And I am one of the humans that has invested in home in this area, and it is very difficult to move as I am retired. There are more retired humans, and it just kills them to hear that someone wants to cause pollution entertainment in this quiet area. There are plenty of other areas that the entertainment industry can thrive and not kill off humans and animals.

I am a resident of Westbury North neighborhood for over 23 years just east of the proposed Sunset Amphitheater I am not in favor of the project so please help us get a No vote April 9th from all the City Councilmembers so we can get back to our daily lives. Please would you like an entertainment venue less than a mile from your home. We also will not be able to get out of our homes when the concerts are going on. We will be locked into our neighborhoods. From 7-9 am and 2-4 daily five days a week the neighborhood has to make sure we do not have to leave during those times because of the parents taking and picking up their precious children from school.

Thank you for your consideration,

*Pat Waken
1020 Westbury Terrace
Yukon, Oklahoma 73099
405-324-6079*

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 9:42 am, Feb 20, 2024

From: Lisa Bailey <lbailey1960@gmail.com>
Sent: Monday, February 19, 2024 5:06 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Protesting PUD 1983/Sunset Ampitheatre

You don't often get email from lbailey1960@gmail.com. [Learn why this is important](#)

Dear City Clerk,

My name is Lisa Bailey and I am a homeowner that lives at 10301 Kendal Ave, 3/4 of a mile from the proposed "Sunset Ampitheatre" site.

I am very concerned about noise pollution and extreme proximity of the surrounding neighborhoods.

Please refer to the Daily Oklahoman article from February 15th:

"A quick search on Google on amphitheater complaints garners staggering results. Noise pollution is at the top of the list — specifically, the bass frequencies. We all know that annoyance (cue the booming music of a lowrider truck). But an amphitheater with 12,000 spectators and numerous loudspeakers will be more than just a nuisance. The former U.S. Surgeon General William H. Stewart said, "Calling noise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the health of people everywhere".

The first hazard is lack of sleep. From over 3 miles away, a homeowner near Hayden Homes Amphitheater in Bend, Oregon, reported she could "...feel and hear a low-frequency vibrating bass that permeates the entire house." Another resident over a mile from Red Rocks Amphitheater in Morrison, Colorado, complained, "The windows are rattling, the walls shake, you put covers over your head, and it doesn't do anything." In Round Rock, Texas, a homeowner 4 miles away from the Round Rock Amphitheater said the vibrations were so strong, his child could not sleep.

Some of the homes across street from the actual proposed amphitheatre look to be extremely close, about 1000ft.

There are also 2 schools that are directly adjacent to proposed site.

This site should not be approved due to the effects of sound pollution on school age children and grandchildren and their quality of life.

I have been a homeowner at 10301 Kendal Ave, Yukon, OK 73099 for over 30 years and adamantly protest this proposed amphitheatre site.

Sincerely,
Lisa Bailey

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 2:23 pm, Feb 29, 2024

To the following:

Mayor David Holt

Ward 3 City Council- Barbara Peck

City Clerk- Amy K. Simpson

City Manager- Craig Freeman

Opposition to Sunset Amphitheater in Mustang Creek Crossing

The proposed Sunset Amphitheater in Mustang Creek Crossing is a great concern to my community and myself. The location is simply outrageous itself! Right by our Elementary, Middle School, and Intermediate schools is not only an unacceptable location, it's a disgrace. With a distance of only 1250' north of North Middle and Mustang Creek Elementary School, how is this even legal? Our children are the most important, but only the first of many concerns we have in this Amphitheater.

Having Sunset Amphitheater at its planned location will increase the number of people around the schools, (affecting our children's safety). Having Sunset Amphitheater in this location will affect school with sound checks which can start at 2pm, (affecting our children's learning). Having Sunset Amphitheater at this location will increase our decibel level over city code to 5db., not only with noise, but also vibrating our schools and homes, both nearby and up to miles away. Having Sunset Amphitheater at this location will extend our noise timeframes to 10:30pm Sunday through Thursday. On Friday and Saturday, the noise timeframe is increased an extra 30 minutes to 11pm. We are housing developments with children, lives, and rights to have an acceptable environment in which we have chosen to buy our homes. Having Sunset

Amphitheater at its planned location will overtake 7 acres of land! Of all places to put an Amphitheater that has 12, 500 seats, would hold 50-60 concerts from April to October, and have so many impacts to its location, this location was the thought-out plan? I can't seem to wrap my head around that concept. No one should be able to understand nor accept this location of the proposed Sunset Amphitheater!

I would hate to think our community could be thought of so little as to put such a horrendous grievance literally right behind our schools. Impacting our children's safety, learning, ability to get a good night's rest, right not have our homes vibrating from the noise, and having to wait in traffic just to pull into our homes is not acceptable. I for one, want Sunset Amphitheater to be stopped at its proposed location which has been shown above to be a critical location in our community. Other spaces in more acceptable locations should have been the first planned location of this new "cash cow." I do not want this in my community; nor should anyone accept this in this community. Please find another location more acceptable for the proposed Sunset Amphitheater in Mustang Creek Crossing.

Sincerely,

Monica Poe

1342 Selborne Pl.

Yukon OK, 73099

(520)258-9097

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 9:41 am, Feb 20, 2024

From: Linda Risk <linda_risk@att.net>
Sent: Saturday, February 17, 2024 12:07 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: Sunset Amphitheater

You don't often get email from linda_risk@att.net. [Learn why this is important](#)

WARNING: The sender of this email could not be validated and may not match the person in the "From" field..

Amy Simpson
City Clerk

I would like to let you know that I DO NOT want the Sunset Amphitheater to go in at Mustang Creek Crossing.

I retired and bought my home at 10333 Banff Way, Yukon, OK when I retired 20 years ago. This has always been a nice and quiet neighborhood. Banff Way is only 5 blocks from Sara Road.

I feel this will be a very bad thing to come into our area. They plan 3 exits onto Sara Rd. and one on 15th Street. These two are already have an extreme amount of traffic.

This will take an extreme amount of power to operate, and I am on oxygen 24/7, so if we lose power, it is horrible for me.

I can't be around any loud noises, and this will be unbearable. We won't even be able to listen to each other talk, hear our tv or radio, and the bass will rattle our windows and walls.

We won't be able to sleep either.

It is planned to be built by the two schools, which I think is terrible.

Please do everything in your power to keep this Amphitheater from going in.

Thank you for your consideration in this matter.

Linda Risk
10333 Banff Way
Yukon, OK 73099

405-246-6686 phone

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 3:41 pm, Feb 15, 2024

-----Original Message-----

From: Manda Banks <banks.manda777@gmail.com>

Sent: Thursday, February 15, 2024 3:03 PM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Sunset Amphitheater in Mustang Creek Crossing

[You don't often get email from banks.manda777@gmail.com. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Hello:

I am a resident of the Westbury neighborhoods. We recently moved to Oklahoma, and love our home and its location. The proposed building would cause multiple issues for residents in Yukon and Mustang. We have children that go to school in the area, this amphitheater would cause traffic and safety concerns as the road around us do not support something of this magnitude, and would cause an influx of traffic unsafe to children in and around those schools. It would lower any home values around with the noise and crowds it would bring in. This is not only traffic, this will disrupt the peace of the neighborhoods surrounding. We love the community we have around us, that we can feel safe about our children being in a residential area, and the land that isn't over crowded, this will go directly against that. We love concerts as much as the next person, but this isn't the right area for a development of this magnitude. It goes against every reason we moved our family to this beautiful quiet area.

Please consider moving this project to an area that is already zoned for more commercial use, as this space isn't suitable and is more residential.

Shawn and Amanda Kelly

9928 Fairfax Terrace

Yukon OK 73099

801-935-0327

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 12:32 pm, Feb 12, 2024

From: Mitzi McAllister <mitzim1954@icloud.com>

Sent: Monday, February 12, 2024 11:54 AM

To: The Mayor <mayor@okc.gov>

Cc: Ward3 <ward3@okc.gov>; City Clerk Email <CityClerk@okc.gov>; Freeman, Craig A <craig.freeman@okc.gov>

Subject: Sunset Amphitheater in Mustang Creek Crossing

You don't often get email from mitzim1954@icloud.com. [Learn why this is important](#)

To Whom It May Concern:

I am writing with concerns about the proposed Sunset Amphitheater that may be located in Mustang Creek Crossing just northwest of SW 15th and Sara Road in the Yukon/Mustang area. They are planning to have 12,500 seats yet only 3500 parking spaces. I read they expect most of the concert goers to Uber in and even so those Ubers need a holding ground. One of my concerns is we will have cars parking in our neighborhood causing dangerous conditions for pedestrians. Our neighborhood doesn't have sidewalks and many families walk and bike with their small kids through the streets. We have multiple children who ride their bicycles through the neighborhood on a regular basis. This is dangerous for concert goers and our neighbors. Also, there are currently no other retail businesses in this area for cars to park. This will cause a line of cars down SW 15th street causing a street closure as it is currently two lane road. This street becomes blocked every morning and afternoon with parents dropping children off at the elementary school. I know there is a plan for widening SW 15th street and it is behind schedule as they are still finishing Sara Rd south of SW 15th Street. There also is no current plan for widening Sara Rd north of SW 15th Street, which is a narrow two lane road. Some of us have been notified by Ms. Hefner that ODOT was proposing to widen the streets. However, ODOT informed us that this was not true.

Another concern is trash, beer bottles/cans being left on the street after a concert. We know this will not be picked up in a timely manner.

The proximity to two schools, Mustang Creek Elementary and Mustang North Middle School also give concerns. In one of the early articles I read they stated they would like to have concerts almost everyday. Have they communicated with the schools about scheduling around school hours or functions? Not only for sound but also traffic? There are soccer and baseball fields just south of the schools that can get very busy. Currently the only planned route out of the amphitheater would take cars to SW 15th Street and or Sara Road. There is no I-40 access at Sara Road so cars will still need to make their way to and from Mustang Road or Morgan Road.

How has Livenotes guaranteed music acts will book at the amphitheater? Paycom Center and Criterion have a contract with LiveNation for booking acts and I don't think they easily just share them when a schedule allows. Do they have any ongoing talks with the music industry to guarantee acts? This unknown business planning also brings up that Canadian County currently doesn't allow alcohol sales on Sundays. I know it will be up for vote in March but that doesn't guarantee it will pass. This all just seems like poor planning to me and tied to millions of investors dollars can easily become a scam not unlike Frye Festival.

They promised to be “great neighbors” but most in my neighborhood and the surrounding neighborhoods have yet to receive any communication from Livenotes. Articles mention flyers being sent out but no one has seen flyers.

For once, put yourself in our shoes. Rather than focusing on dollars, will you please consider focusing on quality of life for those who do not have the means to move?

As a resident of Westbury South neighborhood just east of the proposed Sunset Amphitheater, I am opposed to the project and urge you to vote no on March 12th.

Mitzi McAllister
1801 Mackenzie Way
979-820-4566

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 2:46 pm, Feb 23, 2024

From: Marvin Wier <marvinwier@hotmail.com>

Sent: Friday, February 23, 2024 10:08 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Proposed Sunset Amphitheater in Mustang Creek Crossing

You don't often get email from marvinwier@hotmail.com. [Learn why this is important](#)

Dear Ms Simpson ,

I am a very concerned resident living next to where the proposed Sunset Ampitheater in Mustang Creek Crossing will be located. There are several issues with that should be considered before approval of this project:

There is a very large number of school aged children that will be affected by the noise after 8:30 pm on school nights in the surrounding neighborhoods.

Sound checks starting at 2pm on school days will disrupt the classrooms of the adjoining schools.

The streets that will be used to process the heavy traffic for this amphitheater cannot effectively handle the vehicles.

There is proposed 3 entrances/exits to be on Sara Road which is only two lanes across.

Also the traffic using the single entrance/exit on Sw15th street will be backed up heading west (to the major thoroughfare of Mustang Road) due to the narrowing of traffic on a two lane bridge.

Oklahoma City currently does a inadequate job of maintaining the surfaces of both Sara Road and Sw15th Street in that affected area.

The presence of such facility will decrease the property values of the homes surrounding that venue.

I hope (and pray) that you will vote NO on approving that amphitheater!

Sincerely,

Marvin Wier

10424 Leicester Drive

Yukon, Oklahoma

405-708-1720

Hurst, Paula J**Subject:** FW: Protest PUD 1983, Sunset Amphitheater**From:** Mark Webster <mtwebster426@gmail.com>**Sent:** Sunday, February 25, 2024 6:01 PM**To:** City Clerk Email <CityClerk@okc.gov>**Subject:** Protest PUD 1983, Sunset Amphitheater

You don't often get email from mtwebster426@gmail.com. [Learn why this is important](#)

To the City Clerk,

I am writing in protest to PUD 1983 at 810 S John Kilpatrick Turnpike. I feel there will be many problems if this is approved.

My biggest concern is about the noise from the amphitheater. I have looked on google at other similar amphitheaters across the country. They have received multiple noise and vibration complaints from as far as 4 miles away! Just one example is Round Rock, Tx. They have received such complaints, even from people the stage faced away from. The complaints come from all directions in a radius around the amphitheater. [Kvue.com>article>news>local>round-rock-amphitheater](https://www.kvue.com/article/news/local/round-rock-amphitheater). There are many other articles like this.

I am concerned for quiet in my home. I am concerned about quiet if I want to be in my yard. I am concerned about my autistic son & how the noise will affect him. I am concerned for my pets and how the noise will affect them.

ASHA – American Speech Language Hearing Association says that extremely loud noise is dangerous to hearing & can cause medical issues such as: high blood pressure, faster heart rate, upset stomach, problems sleeping, and damage to unborn children.

The noise is the biggest concern but I believe there would be other problems as well. I don't think this kind of venue belongs near any homes and certainly not 1200 feet from 2 schools. Please consider the people living in the area. Please consider the 2 schools so near and how the children will be affected. Please don't make this only about the money.

I am the homeowner of the property at 10129 Glasgow Terrace, Yukon OK 73099. I live in Westbury North Neighborhood. I am asking you to vote AGAINST this PUD in its current form.

Sincerely,

Cathy Webster

RECEIVED

By The City of Oklahoma City Office of the City Clerk at 11:54 am, Feb 20, 2024

From: Lorena Massey <lorena.laks@gmail.com>

Sent: Tuesday, February 20, 2024 11:00 AM

To: City Clerk Email <CityClerk@okc.gov>

Subject: Sunset Amphitheater opposition

You don't often get email from lorena.laks@gmail.com. [Learn why this is important](#)

Good morning,

I am writing to express my opposition towards the Sunset Amphitheater being approved at the March 12th meeting. I am a current resident of Westbury North (10428 Hollyhead Way, Yukon, OK 73099) and I am concerned about the proposed location of the amphitheater causing the following issues:

Traffic: All possible entrances to the amphitheater, whether from the turnpike or highway, all lead to traffic entering from either Sara road or SW 15th street. Neither of these roads are built or expanded enough to withstand the traffic flow coming to and from the amphitheater. This will cause significant traffic in the area and make it impossible to get out of our neighborhood during concert times.

Parking: I was informed that there aren't enough parking spaces for a sold out show. The amphitheater is supposed to seat a maximum of 12,500 with only 3,500 parking spaces planned out. Those that are situated closer to the amphitheater in Westbury North, including our home, will result in attendees parking in our neighborhood. I don't believe placement of "no parking" signs will deter people from parking in our neighborhood or along our block. There has been no indication from the developer on whether a third party company will be hired to patrol our neighborhood so no one parks in it. Our HOA doesn't believe a mandatory HOA fee is possible for us to gate in all of our entrances to prevent attendees from parking. We have absolutely no answers for the parking situation, which is extremely frustrating for us. We do not want to be responsible for calling towing companies to tow cars every time there is a concert.

With the parking issue, we are concerned that attendees parking in our neighborhood may make the neighborhood unsafe with people we don't know roaming around to find their car, especially if those people have been drinking. We are concerned about people coming up to our doors or not leaving the neighborhood in a timely fashion. Attendees trashing up our neighborhood is also a concern.

If you look at the OKC dodgers stadium as an example and contrast, it is situated downtown with a max seat capacity of 9,000. However, there are several parking options downtown that do not interfere with residences. Most of the parking can be found at Bass Pro Shop and curves around to the Harkins Movie Theater. There is also paid parking meters all around and other lots that people can pay to park in.

The Sunset Amphitheater is much bigger than the OKC dodgers stadium in an area that primarily has residences around them with no additional parking options. It is clear that the Sunset Amphitheater is not located in a place where additional parking options are available. It will leave the neighborhoods to suffer with the inconveniences of events.

Noise: Since the amphitheater is being built as an outdoor venue, the sound from the events will travel and be heard throughout our neighborhood. I understand that the event has to be cut off by a certain hour, but the event organizer can always choose to pay to extend their time at the venue without any

consideration for the neighborhoods around them. The traffic noise from people leaving the concert will also take a while to clear up.

Property values: Although this venue is supposedly going to drive up property values, I strongly disagree with this. Westbury has been around since the 70s, maybe earlier than that, so this is a much older neighborhood with families and those who are elderly. We are not interested in living in a highly congested and noisy area when this neighborhood has been exactly the opposite for decades. This will make selling property here extremely difficult unless we find someone on the off chance that doesn't care about all the commotion going on around the neighborhood.

Thank you for your time and consideration in this matter. Please feel free to contact me should you need any additional information about my concerns.

Sincerely,

Lorena M. Massey
915-494-5737
10428 Hollyhead Way, Yukon, OK 73099

-----Original Message-----

From: Rachel Earls <rachzoology@gmail.com>

Sent: Thursday, February 22, 2024 12:23 AM

To: City Clerk Email <CityClerk@okc.gov>

Cc: Rachel Earls <rachzoology@gmail.com>

Subject: Protest PUD-1983

2024 FEB 22 AM 8:33
OKLAHOMA CITY CLERK

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Dear Mayor, City Manager and Council Members,

My name is Rachel Earls. I live at 10228 Aberdeen Dr. in Yukon. I am very disappointed with the way the City has handled the proposed Sunset Amphitheater in Oklahoma City/Yukon. I have already emailed Council Member Barbara Peck on 7/18/23 and Mayor David Holt on 9/6/23. None of my communications were included in the Planning Commission Meeting packet on January 11th, 2024. I also wasn't notified of the Planning Commission Meeting (even though the email reply from Boyd Fulton on 7/19/23 said I would be notified of any meetings in relation to this project). How many other resident communications were left out of the packet and who else wasn't notified of the meeting(s)?!

The Developers have already received approval from the Planning Commission to go above the noise limit, go past curfew hours, have a tv screen bigger than what is allowed and not adhere to the landscaping rules for the parking lot. There is a reason why all of these rules are being broken...the Amphitheater does not belong in this location! It is ridiculously too big with 12,500 outdoor seats.

Our traffic will be a nightmare, there will be more wind due to less landscaping, more flooding from water runoff and constant noise during each concert. Their proposal of having workers "direct traffic" at each Sara Road intersection in the dark seems very dangerous around intoxicated, sleepy drivers. The Developers have also stated they will be blasting their noise towards I-40 and the Kilpatrick Turnpike. How long before the sound startles passing motorists and causes accidents?!

This Amphitheater is clearly not the best option for this location and I feel the City is only looking at dollar signs which is a shame. Especially since the Community just voted to build the new Thunder Arena. Our property values will go down and our quality of life will be affected. We are not against developing the area, we just ask for a combination of little shops and restaurants with trees and sidewalks. A place we can all walk to and enjoy. Please don't allow the rezoning and building of this Amphitheater.

Thank you,
Rachel Earls

From: Kim Shelton <kshelton59@yahoo.com>
Sent: Wednesday, February 21, 2024 12:59 PM
To: City Clerk Email <CityClerk@okc.gov>
Subject: PUD 1983, Sunset Amphitheater at Mustang Creek

2024 FEB 22 AM 11:16
OKLAHOMA CITY CLERK

You don't often get email from kshelton59@yahoo.com. [Learn why this is important](#)
Dear Mayor and Council Members:

I am writing in protest to PUD 1983 at 810 South John Kilpatrick Turnpike.

Major Concerns about the Sunset Amphitheater:

1) Noise - will need Buffers to the East along Sara Road (The Westbury neighborhoods across the street within 1200 feet). The neighborhood in West Pointe off Mustang backs up to the planned Amphitheater. The schools and church nearby will be affected by noise pollution during soundchecks, concerts, other live venues. The bass vibrations have been proven to shake structures and disturb the peace of those in their homes, businesses, churches, schools. Noise pollution is indeed a significant public health concern. According to the American Public Health Association, noise is recognized as a public health hazard, with human exposure to harmful noise levels being widespread. It can cause a range of health problems, including hearing loss, sleep disruption, stress, cardiovascular disease, and even premature mortality. The World Health Organization (WHO) and the European Environmental Agency report that noise ranks second only to air pollution as the environmental exposure most harmful to public health.

2) Common complaints like these are typical around amphitheaters: This is from East Nashville, the complaints came in steadily Sunday night as residents from across the river once again found themselves protesting all that racket at Ascend Amphitheater. Metro in 2016 instituted new rules over sound at Ascend Amphitheater including an 11 p.m. curfew and limits on sound decibel levels capped at 102 at the sound mixer and 98 at the furthest property line of the park.



But based on the feedback from Sunday's show, the problems have not gone away. In the article above: Live Nations said, "at no time during the Sunday night Beck show did decibel levels eclipse the acceptable level that Metro Parks and Live Nation have agreed for shows at Ascend." The concert provider proclaimed compliance, but their self-regulation of noise levels did not protect the residents. Please do not repeat the

same mistake. OKC residents deserve better. Please protect OKC residents from noise pollution.

3) OK City Council Members, PLEASE take some time in making this decision about the Amphitheater. Do some research please on this project, look at both sides – and make an INFORMED DECISION! I am asking you to vote on behalf of your constituents' health, well-being, and safety. As mentioned, the hazardous effects of this venue close to homes will impact thousands of lives, not once, not 10 times, but 50-60 times a year.

I can appreciate the heavy burden you carry for the citizens of OKC. Looking out for the well-being of all and at the same time bringing in revenue that benefits the city. I am asking as a constituent and concerned neighbor that you listen to our plea for help in stopping the proposed Sunset Amphitheater so close to many families in the area. It is for our health and well-being that we are pleading this case. We cannot compete with their dollars, but we feel our well-being and sanctuary of our homes is of utmost concern.

I am the homeowner of property at 10020 Leeds Drive, Yukon, OK 73099. I ask you to vote against the PUD in its current form.

Sincerely,

Kim Shelton
405 226-8774