

Traffic Impact Analysis Questions: Cross Timbers Business Park

[ORIGINAL QUESTION]: Is the firm used for studies chosen by the town, or is the applicant allowed to pick their own firm?

[ANSWER:] Developments that require TIA use one of the Town's consultants that are chosen every couple of years. Currently we have three firms that are for Traffic Engineering. The development chooses from one of the three. Then the Town goes out and gets a scope and fee from that consultant and the fee is passed along to the development to pay.

[FOLLOW UP QUESTION]: How are the firms chosen?

[ANSWER:] Firms first submit statements of qualifications (SOQ) as part of a request for SOQ on a biannual basis. Any engineering firm is eligible to submit an SOQ. Based on the SOQ, each of the engineering firms are ranked based on that SOQ by the Assistant Director of Engineering (CIP), project engineers and managers. Depending on amount and type of work anticipated over the next 2 years, various engineering firms are recommended to Town Council. The recommended list of firms based on the SOQ are then taken to Town Council for them to ultimately approve the list of firms. The last approval was in June of 2020 so the request for SOQ will come up again this spring for the next round of request for SOQ.

[ORIGINAL QUESTION]: Is the outcome purely a count of the number of cars versus 18 wheelers?

[ANSWER:] The Institute of Transportation Engineers (ITE) has a trip generation manual that has been refined over decades and is solely based on trips not vehicles.

[FOLLOW UP QUESTION]: If you could clarify, I am still a bit fuzzy, is a car trip and an 18-wheeler trip counted the same way?

[ANSWER:] Yes. The trip generation manual does not break down trips by each classification of vehicle. They are simply trips to/from the land use.

[FOLLOW UP QUESTION (answers in bold/underlined)]: When a TIA study comes back, is it a total trip count, all vehicles, **Yes**, or does it distinguish between a car count and commercial count (i.e.: 18-wheeler) **No**, or the net of current residential cars vs. the current commercial land use being studied **No**, and the proposed vehicles needed for that land use? **Need to clarify this last statement. If by proposed vehicles needed for that land use refers to the number of trips generated for a particular land use, then yes. Not sure I'm answering your question on this last part.**

[FOLLOW UP QUESTION]: Also, are previously approved developments included in a TIA study if the same roads will be used?

[ANSWER:] Yes. If the previous development is already open and operating, then the trips for that development are simply part of the existing background traffic. If it is a proposed development that has been approved but not operating then those are added into the study and added to background traffic at the appropriate time

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[FOLLOW UP QUESTION (answers in bold/underlined): When thinking of 1171, from the Canyon Falls entrance to I35, are considerations made in the TIA study for Cross Timber Business Park for the apartments approved on south side of the CF entrance in Northlake? **Yes. The Northlake apartments were part of this study.** Or, is there a size assessment done where, for example, the number of cars is divided by 3 as that equates to the length of an 18 wheeler? **There is not a size assessment per se but knowing the type of development an where they want to go/come from drives the distribution of the trips.**

[FOLLOW UP QUESTION]: I-35 is one of the longest interstate highways in the US, Laredo TX to Duluth MN, a top transportation highway in the US. Does the TIA' study of commercial traffic from Cross Timbers Business Park, and / or the trip generation manual, take into consideration that these planned warehouses are off I-35?

[ANSWER]: Yes. Based on the location of the development and its proximity to I 35W creates a dominate direction of travel of the trips to/from I 35W. It is understandable that some of those trips are headed towards the I 35E corridor or south on the US 377 to SH 114 corridor so that is the second highest directional split yet still considerably lower than going towards/from I 35W. It is reasonable that some of the workers may be coming from the north, so a very small percentage of trips will go to/from the north side of this site.

[FOLLOW UP QUESTION]: Due to the land's location, does the volume of trips get sized appropriately? For example, one could anticipate more truck trips when a property will be using I-35 vs using 121

[ANSWER]: Trips are based on the intensity and mix of the land uses. If a development was coming in for I 35 and expected to be busier than a development along SH 121, it would behoove the developer to right size their development based on their research and knowledge of the area or operations. It would seem to be poor planning on their part if they are anticipating a very successful business and have too small of a location or on the flip side, build a grandiose facility when the research only shows mediocre activity. So...the answer is yes but only because it should be something that the development should right size to the right intensity.

[FOLLOW UP QUESTION]: If a development is highly successful due to the location of the land, next to a highway, I understand that TIA studies do not have a line item/calculation in their manual to quantify the number of trips for land next to one of the top nationally recognized interstate highways for transportation. Am I interpreting that correctly?

[ANSWER]: Whether or not the development is located along a nationally recognized roadway or located along a backwoods country road, the potential for trips is really going to be primarily based on the intensity of the use. If the proposed project is located along the interstate but is only 30,000 square feet. It's only going to be able to handle so many trips, no matter how successful. Not to say that if a very popular warehouse couldn't have higher trips than in the ITE Trip Generation manual, but they still will be limited by the intensity of the space they can occupy. If very successful, it may drive market research indicating that

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more warehouse is needed somewhere in the Metroplex. Typically, general warehouse and office are pretty stable without huge swings in variability. Hope that helps.

[FOLLOW UP QUESTION]: Northlake is exploding with warehouse development, what they have coming, on I35. Due to the explosion for them, and NL being right down the street from the proposed Crowe development, I don't think it's too much of a stretch to assume a high volume of truck trips could be possible, depending on the tenant, which may not be captured in the current TIA. What are your thoughts?

[ANSWER]: For the NL industrial, unless the trucks are headed to the Lewisville/Carrollton area, it is not likely that they are going to increasing truck traffic on FM 1171 significantly to the east of their developments. Like this proposed development, their main focus will be I 35W. However, anytime there is a designated truck route near an industrial corridor such as what is in NL and Alliance etc., and with this area being Master Planned on the Town's side as Campus Industrial, it is not too much of a stretch to expect an increase in truck traffic over present day conditions. The TIA does not specifically have a break out of passenger vehicle trips vs truck trips but both types of vehicle trips are definitely part of the trip generation for this TIA. The overall trip generation for the proposed development is obviously a mix of both of those types of vehicles. The exact mix of those vehicles would be more tenant specific. As far as high volume of truck traffic, it depends on your definition of high.

[ORIGINAL QUESTION]: When is the last time Flower Mound conducted an audit on a random sample of studies? For example, a study three years ago forecasted X. An audit conducted three years after the build reflected the reality, Y. Therefore the accuracy of the TIA studies are Z, and any study produced going forward may need a forecast adjustment based on the audit findings.

[ANSWER]: We do traffic counts on all of the major streets roughly every 4-5 years. We do not go and sit at every development to determine the number of peak hour trips generated by a specific development. We do not have the staff to do that and over the years, the ITE trip generation has been pretty accurate. I have not sat down and looked at every land use but have done it for residential and the numbers in the ITE trip generation manual are right on.

[FOLLOW UP QUESTION]: To confirm my understanding, formal audits are not conducted on TIA studies. Residential has been looked at by the Town, but commercial has not. In that case, when it comes to your feedback on ITE generation being pretty accurate, is that feedback based on residential only?

[ANSWER]: For personal observation, it has been for residential. However, based on the regression analysis that has been done for the sampling of studies that make up the ITE Trip Generation manual, the quality of the trip generation data based on that analysis is high. As successive editions of the ITE Trip Generation manual are released, additional studies are

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typically conducted for a majority, if not all, of the various land uses. Thus the reliability of the information improves each time. ITE has a panel called the Trip Generation Expert Review committee with an assortment of research institution, public sector and private sector reviewers. The manual is looked at and older data that may not be relevant to today is removed. That is the basis of my confidence in the various land uses within the ITE Trip Generation manual. If there is a category where there are few studies, I have the consultant look at possible other locations in the Metroplex area to help validate those numbers. Warehousing and office, however, have been studied several times, so there is no need for the additional study.

[FOLLOW UP QUESTION]: To review my understanding, a rephrase, Flower Mound uses the ITE standards for TIA study reliability as they analyze / update / refine their manual. Is that correct? Is the manual used on a national / state / metro level?

[ANSWER]: Define "their" (Town, ITE?) manual. The Town has a SMARTGrowth manual and the Transportation piece of the SMARTGrowth manual is tied to the ITE Trip Generation Manual. The ITE Trip Generation Manual is a national publication.

[ORIGINAL QUESTION]: Do you have a prior campus industrial TIA you can share? That may help with some of my confusion.

[ANSWER]: Yes. The Duke Silveron project was a study very similar to this one.