



PUBLIC WORKS

## City of New Braunfels Traffic Impact Analysis (TIA) Worksheet Guide

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## Overview

A completed traffic impact analysis (TIA) worksheet is a requirement for zoning, master plan, plat and permit as specified in the City of New Braunfels Code of Ordinances, Sections 144-99 and 118-46. This guide describes each section of the current TIA worksheet accepted by the city. The intent of the TIA worksheet is to assist the owner and city staff in reviewing traffic impacts and determining conformance with previously approved TIA.

A sample completed TIA worksheet is provided in Appendix A for reference.

## Instructions for TIA Worksheet

### Section 1: General Information

Complete this section with general information about the project, owner, and preparer.

- **Project Name:** Include the specific subdivision unit or phase number for the application, if applicable.
- **Date:** Provide the date of the TIA worksheet preparation.
- **Subdivision Plat Name:** Provide the legal subdivision plat name.
- **Project Address/Location:** Provide the specific address or intersection location.
- **Owner Name, Address, Email, and Phone Number**
- **Preparer Company, Name, Address, Email, and Phone Number**
- **TIA Report Scoping Meeting:** A TIA Report scoping meeting is encouraged as the ordinance specifies the *minimum* requirements. If a TIA Report scoping meeting was conducted with City Engineering Division staff, list the date of the meeting.
- **TIA Worksheet/Report approved with previous zoning, plan, plat or permit?:** If No, Page 1 is required for a project and a blank Page 2 does not need to be submitted. If yes, Pages 1 and 2 are required to be submitted.
- **Application Type or Reason for a TIA Worksheet/Report**
- **TIA Submittal Type:** Select what is being submitted for the application.

### Section 2: Proposed Land Use and Trip Information for Application

Complete this section with information about the project that is being submitted using the data in the *Institute of Transportation Engineers (ITE) Trip Generation Manual*, 10<sup>th</sup> or most recent edition.

- **Unit:** Provide the subdivision unit or phase number for the application, if applicable.
- **Land Use, ITE Code, ITE Unit:** These values are from the *ITE Trip Generation Manual*, 10<sup>th</sup> or most recent edition.
- **Estimated Project Units:** This is the value used to calculate the peak hour and daily trips from the information in the *ITE Trip Generation Manual*, 10<sup>th</sup> or most recent edition.
- **Critical Peak Hour:** List the critical peak hour for this land use and unit.

- AM Peak Hour, PM Peak Hour, Weekend Peak Hour, and Daily Trip Rates: These values are from the *ITE Trip Generation Manual*, 10<sup>th</sup> or most recent edition. Leave blank if rates are not available.
- AM Peak Hour, PM Peak Hour, Weekend Peak Hour, and Daily Trips: These values are calculated using the applicable trip rates and the estimated project units listed for this land use and unit. Leave blank if trips are not available.
- Total from additional tabulation sheet: If additional rows are needed in Section 2, an additional tabulation sheet can be attached.
- Total: Sum each trips column in Section 2, including totals from any additional tabulation sheets.

### Section 3: Approved TIA Worksheet/Report

Complete this section with information about any TIA worksheet or report that has been previously approved by the city.

- Project Name: If the previously approved TIA was a master plan, indicate that here.
- Preparer Company and Name
- Type: Select the type of TIA that was previously approved.
- Approved with: Select the stage of development that the previous TIA was approved at.

### Section 4: Update to and Status of Land Use and Trip Information for Total Development with Approved TIA Worksheet/Report (All Subdivision Units)

Complete this section with information about all subdivision units or phases that were included in the previously approved TIA worksheet or report, including the unit or phase in the current TIA worksheet and application. If any subdivision units or phases have already been permitted or completed with different trips generated than what was included in the previously approved TIA worksheet or report, the actual trips generated are listed in Section 4 instead of the values from the previously approved TIA worksheet or report.

- Unit: List each subdivision unit or phase separately. If the unit (or land use) for the application was previously part of a larger unit or land use, list on a separate line.
- Land Use: This is from the *ITE Trip Generation Manual*, 10<sup>th</sup> or most recent edition.
- Status: Indicate the current approved status of each unit using the following codes:
  - PLAN = Zoning/Concept Plan/Detail Plan/Master Plan approved by planning commission and city council, if applicable
  - PP = Preliminary Plat approved by planning commission
  - FP = Final Plat approved by planning commission
  - P = Permit approved and issued by the city
  - C = Unit completed and accepted by the city
  - A = Unit with this application
- ITE Code, ITE Unit: These values are from the *ITE Trip Generation Manual*, 10<sup>th</sup> or most recent edition.

- Estimated Project Units: This is the value used to calculate the peak hour and daily trips from the information in the *ITE Trip Generation Manual*, 10<sup>th</sup> or most recent edition.
- Critical Peak Hour: List the critical peak hour for this land use and unit.
- AM Peak Hour, PM Peak Hour, Weekend Peak Hour, and Daily Trip Rates: These values are from the *ITE Trip Generation Manual*, 10<sup>th</sup> or most recent edition. Leave blank if rates are not available.
- AM Peak Hour, PM Peak Hour, Weekend Peak Hour, and Daily Trips: These values are calculated using the applicable trip rates and the estimated project units listed for this land use and unit. Leave blank if trips are not available.
- Total from additional tabulation sheet: If additional rows are needed in Section 4, an additional tabulation sheet can be attached.
- Total: Sum each column in Section 4, including totals from any additional tabulation sheets.

## Section 5: Approved TIA Worksheet/Report Conformance

The information in this section is used to compare the totals for peak hour and daily trips in the previously approved TIA worksheet or report to the values calculated in this worksheet. This information is used to determine if a new TIA report is required.

- Approved development total AM Peak Hour, PM Peak Hour, Weekend Peak Hour, Daily Trips: List the values in each column from the previously approved TIA worksheet or report.
- Updated development total AM Peak Hour, PM Peak Hour, Weekend Peak Hour, Daily Trips: List the values in each column from the Total row in the table in Section 4 above.
- Difference in development total AM Peak Hour, PM Peak Hour, Weekend Peak Hour, Daily Trips: Calculate the difference between the approved and updated development totals for each column.
- New TIA Report Required: If there is an increase in peak hour trips over 100, then a new TIA report is required to be approved prior to permit approval.

## Section 6: Required TIA Mitigation Measures

Complete this section with any TIA mitigation measures that are required by a previously approved TIA report. Indicate the unit that the mitigation measure is to be installed with for each mitigation measure.

## Review

City staff will review the TIA worksheet and determine if it acceptable, requires correction and if a TIA report is or not required. An accepted TIA worksheet is required prior to plat recordation or permit issuance.

## Contact

Contact the City of New Braunfels Engineering Division with questions regarding this form or to schedule a TIA report scoping meeting at 830-221-4020.

## Appendix A: Sample Completed TIA Worksheet

**\*\*SAMPLE\*\* CITY OF NEW BRAUNFELS TRAFFIC IMPACT ANALYSIS (TIA) WORKSHEET \*\*SAMPLE\*\***

Complete this worksheet as a requirement for zoning, master plan, plat and permit as specified in City of New Braunfels Code of Ordinances Sections 114-99 and 118-46.  
 Note: The Code provides the minimum information for a TIA report and it is recommended that a scoping meeting be scheduled with the Engineering Division.

**Section 1: General Information**

<b>General Information</b>			
Project Name: New Braunfels Subdivision Unit 4			Date: 01/15/2018
Subdivision Plat Name: New Braunfels Subdivision		Project Address/Location: Landa Street and Walnut Avenue, New Braunfels	
<b>Location?</b>	<input checked="" type="checkbox"/> City of New Braunfels	<input type="checkbox"/> New Braunfels ETJ	<input checked="" type="checkbox"/> Comal County
			<input type="checkbox"/> Guadalupe County
Owner Name: John Smith		Owner Email: <a href="mailto:smith@email.com">smith@email.com</a>	
Owner Address: 550 Landa Street, New Braunfels, TX 78130		Owner Phone: 830-221-4020	
Preparer Company: TIA Engineering & Company			
Preparer Name: Jane Johnson		Preparer Email: <a href="mailto:johnson@tia.com">johnson@tia.com</a>	
Preparer Address: 123 Consultant Road, New Braunfels, TX 78130		Preparer Phone: 830-221-4020	
TIA Report scoping meeting with City Engineering Division staff?		TIA Worksheet/Report approved with previous zoning, plan, plat or permit?	
<input checked="" type="checkbox"/> Yes. Date: 12/20/2017 <input type="checkbox"/> No.		<input type="checkbox"/> No. Complete Page 1 only. <input checked="" type="checkbox"/> Yes. Complete Pages 1 and 2.	
<b>Application Type or Reason for TIA Worksheet/Report</b>			
<input type="checkbox"/> Zoning/Concept Plan/Detail Plan <input type="checkbox"/> Master Plan <input type="checkbox"/> Preliminary Plat <input checked="" type="checkbox"/> Final Plat <input type="checkbox"/> Permit <input type="checkbox"/> Other			
<b>TIA Submittal Type</b> (A TIA Worksheet is required with all zoning, plan, plat and permit applications)			
<input type="checkbox"/> TIA Worksheet Only (100 peak hour trips or less)		<input type="checkbox"/> Level 1 TIA Report (101-500 peak hour trips)	
<input checked="" type="checkbox"/> TIA Worksheet Only – Previous TIA Report Approved		<input type="checkbox"/> Level 2 TIA Report (501-1,000 peak hour trips)	
<input type="checkbox"/> TIA Worksheet Only – Previous TIA Report not required (supporting documentation may be required)		<input type="checkbox"/> Level 3 TIA Report (1,001 or more peak hour trips)	

**Section 2: Proposed Land Use and Trip Information for Application**

Unit	Land Use	ITE Code <sup>1</sup>	ITE Unit <sup>2</sup>	Est. Project Units	Critical Peak Hour	AM Peak Hour Rate	PM Peak Hour Rate	WKND Peak Hour Rate	Daily Trip Rate	AM Peak Hour Trips	PM Peak Hour Trips	WKND Peak Hour Trips	Daily Trips
4	Single Family Homes	210	DU	50	PM	0.75	1.00		9.52	38	50		476
<i>Total from additional tabulation sheet (if necessary):</i>										38	50		476
<b>Total:</b>										<b>38</b>	<b>50</b>		<b>476</b>

<sup>1</sup>Institute of Transportation Engineers (ITE) Trip Generation, 10<sup>th</sup> Edition or most recent; <sup>2</sup>E.g., Dwelling Units, Acres, Employees, KSF, etc.

<b>Internal Use Only</b>	Reviewed by:	Date:
	<input type="checkbox"/> TIA Worksheet is acceptable. <input type="checkbox"/> TIA Worksheet requires corrections. <input type="checkbox"/> TIA Report required.	<input type="checkbox"/> TIA Report not required.

**Section 3: Approved TIA Worksheet/Report**

Approved TIA Worksheet/Report			
Project Name: New Braunfels Subdivision Master Plan			
Preparer Company: TIA Engineering & Company	Preparer Name: Susan Smith	Date: 05/22/2015	
Type: <input type="checkbox"/> TIA Worksheet Only	<input checked="" type="checkbox"/> Level 1 TIA Report	<input type="checkbox"/> Level 2 TIA Report	<input type="checkbox"/> Level 3 TIA Report
Approved with: <input type="checkbox"/> Zoning/Concept Plan/Detail Plan	<input checked="" type="checkbox"/> Master Plan	<input type="checkbox"/> Plat	<input type="checkbox"/> Permit <input type="checkbox"/> Other

**Section 4: Update to and Status of Land Use and Trip Information for Total Development with Approved TIA Worksheet/Report (All Subdivision Units)**

Unit	Land Use	Status <sup>3</sup>	ITE Code <sup>1</sup>	ITE Unit <sup>2</sup>	Est. Project Units	Critical Peak Hour	AM Peak Hour Rate	PM Peak Hour Rate	WKND Peak Hour Rate	Daily Trip Rate	AM Peak Hour Trips	PM Peak Hour Trips	WKND Peak Hour Trips	Daily Trips
1	Single Family Homes	C	210	DU	24	PM	0.75	1.00		9.52	18	24		228
2	Single Family Homes	C	210	DU	43	PM	0.75	1.00		9.52	32	43		409
3	Single Family Homes	FP	210	DU	30	PM	0.75	1.00		9.52	23	30		286
4	Single Family Homes	A	210	DU	50	PM	0.75	1.00		9.52	38	50		476
5	Single Family Homes	PP	210	DU	47	PM	0.75	1.00		9.52	35	47		447
6	Single Family Homes	PLAN	210	DU	23	PM	0.75	1.00		9.52	17	23		219
<i>Total from additional tabulation sheet (if necessary):</i>											163	217		2065
<b>Total:</b>											<b>163</b>	<b>217</b>		<b>2065</b>

<sup>1</sup>Institute of Transportation Engineers (ITE) Trip Generation, 10<sup>th</sup> Edition or most recent; <sup>2</sup>E.g., Dwelling Units, Acres, Employees, KSF, etc.;

<sup>3</sup>Specify current approved status of unit: PLAN – Zoning/Concept Plan/Detail Plan/Master Plan, PP – Preliminary Plat, FP – Final Plat, P – Permit, C – Completed, A – With this Application (current)

**Section 5: Approved TIA Worksheet/Report Conformance**

Approved TIA Conformance	AM Peak Hour Trips	PM Peak Hour Trips	WKND Peak Hour Trips	Daily Trips
Approved development total:	154	204		1986
Updated development total:	163	217		2065
Difference development total:	+9	+13		+79
New TIA Report Required?				
Increase in Peak Hour Trips over 100?	<input type="checkbox"/> Yes. New TIA Report required to be approved prior to approval.			
	<input checked="" type="checkbox"/> No.			

**Section 6: Required TIA Mitigation Measures**

Mitigation Measures	Unit
1. left turn lane on WB Main St at 1 <sup>st</sup> Ave	2
2.	
3.	
4.	