

Act 145
Transportation Impact Fee
Guidance



Vermont Agency of Transportation
Development Review and Permitting Services

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1.0 INTRODUCTION AND PURPOSE OF GUIDE

Act 145 of 2014-Transportation Impact Fees (10 VSA Sections 6101-6111) allows the Vermont Agency of Transportation (VTrans) and Act 250 District Commissions, which are responsible for issuing state land use permits, to establish and assess transportation impact fees under certain circumstances. This guide provides background information on Act 145, outlines the circumstances under which it applies, describes the methods VTrans uses to estimate the basic impact fee for a specific transportation project, and demonstrates how the fee is applied to development proposals.

An interactive online map is provided that identifies the transportation projects for which Act 145 transportation impact fees have been established to date and includes the basic fee and other descriptive information. The map also identifies potential locations where an Act 145 transportation impact fee may be applied but has not yet been officially established.

The online map and guide will help potential Act 250 applicants determine whether their project may be subject to an Act 145 transportation impact fee. The guide also provides information on how to estimate the fee based on the circumstances of a specific development. VTrans is responsible for developing and recommending Act 145 fees to Act 250 District Commissions and will develop preliminary estimates for a specific development proposal when requested (with enough notice) to assist with preparing an Act 250 application, or to help with identifying costs during pre-permit planning.

This guide and the online map may also be useful to future Act 250 applicants that may wish to develop their own fee estimate to assist with the financial planning for their projects or may want to provide their own evidence during the Act 250 review process regarding the fee.

To request assistance with estimating an Act 145 fee, or for additional information please contact:

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1.1 Act 145 Overview

Act 145 became effective on July 1, 2014 with the purpose of addressing the “last-one-in pays” dilemma. Criterion 5 of Act 250 requires a proposed development to mitigate transportation impacts that cause unreasonable congestion or unsafe conditions. The last-one-in approach allowed the first few development projects in an area to consume capacity in the surrounding road network without contributing to the cost of replacing that capacity when necessary. Eventually, one development proposal would trigger the need for mitigation such as a traffic signal or new turn lane and would be made responsible for the full cost of improvements. Act 145 addresses the last-one-in dilemma by providing a mechanism to share the cost of transportation improvements among developers and the public that benefit from a transportation project.

The act provides two approaches to establishing a fee:

1. A fee that is applied for a suite of transportation projects within a Transportation Improvement District (TID) established by VTrans; or
2. A fee that is established by Act 250 District Commissions, as recommended by VTrans, for specific transportation projects in response to a land use permit application.

To date, there have not been any TIDs established. The remainder of this Act 145 guide describes the process that VTrans follows to estimate and recommend fees for consideration by Act 250 District Commissions as they review land use permit applications.

1.2 Act 145 Transportation Project On-Line Map

The online map shows the locations of transportation projects where Act 145 fees have been officially established by a District Commission (displayed in red), where preliminary fees have been developed but have not been officially established (yellow), and Act 145 eligible transportation projects where a fee has not been developed or officially established (green).

Selecting either the red, green or yellow highlighted projects will display the VTrans project identification number, a brief description of the project, and the Act 145 base fee when available.

Act 145 fees may be established for state projects, municipal projects or projects built and funded by applicants.

[Act 145 Online Map](#)

2.0 ACT 145 ELIGIBILITY

An Act 145 transportation impact fee may be established by a District Commission and assessed in response to an Act 250 land use permit application. VTrans will calculate and recommend a fee for consideration by a District Commission during its review of a land use application. If approved by the District Commission, the fee payment would be included as a condition in the land use permit. Based on the requirements in Act 145, VTrans will recommend that an Act 145 transportation impact fee be established under the following circumstances:

- An Act 145 fee can be established for publicly funded transportation projects that are sufficiently defined and included in the latest version of the [VTrans Capital Program](#) or in a Municipal Capital Program. A sufficiently defined project will have enough detail to allow development of a reliable cost estimate and capacity calculation. Inclusion in a VTrans or municipal capital program ensures that the state or municipality are committed to funding and building the project.
- An Act 145 transportation fee can also be established for a transportation project that is funded and built by an applicant as a condition in an Act 250 permit. In this case, the fee would be assessed by Act 250 District Commissions on future development projects that

benefit from the developer-built project. The applicant that built the transportation project would receive all future fees.

- An Act 145 fee can only be established for transportation projects that *add capacity*. Examples include, but are not limited to, additional thru lanes, new left or right turn lanes, new traffic signals, or new roundabouts.
- Act 145 fees cannot be established for operations and maintenance projects such as paving, or a bridge rehabilitation project that does not add lanes or operating a bus.
- A development project may be assessed an Act 145 fee only if the transportation project on which the fee is based mitigates the impact of or benefits the proposed development project.

Other Important Act 145 Requirements

- In addition to being assessed an Act 145 fee, applicants may still have to mitigate site specific impacts of their proposed project when necessary. For example, if a proposed development warrants a left turn lane from a state highway to its driveway and is also close to an Act 145 eligible transportation project, the applicant may be responsible for constructing the left turn lane and paying an Act 145 fee.
- Act 145 allows the development to open before the transportation project for which the fee is being assessed is complete UNLESS there is a safety issue that is exacerbated by the development.
- An Act 145 fee will remain in effect for a specific transportation project until the capacity of that project is completely consumed.
- Payback of the Act 145 fee to the applicant is required if the assessed fee is not used to implement the transportation project on which it is based within 15 years.
- Payment of Act 145 fees will typically be required before the development project starts construction. Payment may also be made in phases when appropriate and would be specified within the permit condition.

For additional information about Act 145, please see 10 VSA Sections 6101-6111 available at <http://legislature.vermont.gov/statutes/fullchapter/10/151>.

3.0 CALCULATING ACT 145 FEES

This section describes the methodology for calculating the basic Act 145 fee for a transportation project and how the fee is applied and adjusted to account for the circumstances of a specific development project.

3.1 Basic Act 145 Impact Fee

The basic fee is a unit cost per peak hour vehicle for a specific transportation project. The formula used to calculate the basic transportation impact fee is:

Basic Act 145 Fee = Total Cost of Transportation Project / Total Capacity = \$\$\$\$ / Peak Hour Trip

The following examples demonstrate how the basic fee is calculated for a transportation project and applied to a proposed development to determine the total, unadjusted fee.

Basic Fee Calculation Example: A VTrans intersection improvement project involves the installation of a traffic signal and the addition of a right turn lane. The total project cost is \$1.5 million. The total capacity of the intersection is calculated by obtaining the Design Hour Volumes of all movements in the intersection and determining the volume to capacity (v/c) ratios. Those ratios are then raised to 1 (or 100%) to simulate an intersection at *full capacity*. The resulting capacity volumes are then obtained from this 100% v/c ratio. In this example, the total intersection capacity volume is calculated to be 3,000 vehicles per hour. Apply the Total Cost / Total Capacity formula: (\$1,500,000 / 3,000 vph) to obtain a base Act 145 fee of **\$500/PM Peak Hour Vehicle**.

Total Unadjusted Development Fee Example: A new development is being built and it is determined that 10 PM Peak Hour vehicles will pass through the intersection improvement. The total Act 145 fee for the proposed development would be \$5,000 (10 PM Peak Hour Trips x \$500 per PM Peak Hour Vehicle). The total fee may be adjusted as described in the following section.

3.2 Act 145 Fee Adjustments for Specific Development Projects

The Act 145 fee for a specific development proposal can be adjusted to reflect unique circumstances by (1) reducing its trip generation estimate, and (2) reducing the basic fee to account for location in a state designated center, municipal impact fees and applicant funded transportation projects.

Trip Generation Reduction Adjustments

Trip Generation Allocations from existing Act 250 permits

Many Act 250 applications involve the amendment of a previous land use permit. Act 145 fees may be adjusted to account for trip allocations specified in previous Act 250 permit applications. The previous Act 250 permit may have established an allowable trip generation for an entire residential, commercial or mixed-use subdivision. Over time, applicants seek permit amendments for each building that is constructed within the subdivision and incrementally consume the permitted trip generation allocation.

Example: Assume that an Act 250 application has been submitted for a new building within an existing industrial park with multiple parcels. There is a transportation project nearby for which an Act 145 fee has been established. The original Act 250 permit for the industrial park was issued in 2012 (before Act 145) and is based on a maximum trip generation of 300 AM Peak Hour Trips and 450 PM Peak Hour Trips. Certain parcels have been built out over time and the number of trips currently generated is 150 AM Peak Hour Trips and 180 PM Peak Hour trips. The proposed development is estimated to add 20 AM and 20 PM Peak Hour trips which puts the total trip generation for the industrial park at 170 AM Peak Hour

Trips and 200 PM Peak Hour Trips. This trip generation is less than the total allocated in the original Act 250 permit. Therefore, VTrans would recommend that the proposed development not be assessed an Act 145 fee. If the proposed development generated enough traffic to push the entire industrial park over the amount allocated in the original Act 250 permit, an Act 145 fee would be assessed based on the difference between the new and approved total trip generation.

Pass-by Trips

Pass-by trips are existing vehicles that travel by the site of the proposed development. Pass-by trips enter and exit a proposed development but do not add traffic to the surrounding network. Therefore, pass-by trips can be deducted from the Act 145 fee calculation. Refer to the [VTrans Traffic Impact Study Guidelines](#) and the latest edition of the Institute of Transportation Engineer's Trip Generation Handbook for methods used to estimate pass-by trips.

Example: if a new gas station is creating 65 PM peak hour trips but 25 of those trips are considered pass-by trips, the Act 145 fee will only be assessed on 40 PM trips.

Mixed-use Internal Capture Trips.

When a proposed development includes a mix of land use types (residential, office, and retail for example), there will be less vehicle trips added to the adjacent street network compared to a scenario where each use is located on a separate parcel with its own access to the highway system. Therefore, internal capture trips can be deducted from the Act 145 fee calculation. Refer to the latest edition of the Institute of Transportation Engineer's Trip Generation Handbook for methods to estimate internal capture trips.

Example: if a mixed-use development is creating 100 PM peak hour trips but 20% of those trips are calculated to be captured internally, the Act 145 fee will be assessed only on the 80 remaining PM peak hour trips.

Existing Site Traffic

If an existing building is being renovated and the trips generated by the new land use is equal to or less than the traffic generated by the previous land use, an Act 145 fee will not be assessed for the site. If the new use creates more trips than the original use, then the Act 145 fee will be assessed on the *difference* in trips (net addition) between the previous land use and the proposed land use

Example Scenario 1: An office building currently has 75 PM peak hour trips. The building is proposed to be renovated to be a mixed-use building consisting of a deli on the ground floor and apartments on the upper floors. The total trip generation for the new use is 70 PM peak hour trips. Since the number of trips generated by the new use is less than the existing trips (-5 net trips), an Act 145 fee would not be assessed.

Example Scenario 2: A residential building that had created 40 PM peak hour trips is proposed to be completely renovated into commercial office space. This new office space will create 65 PM peak hour trips. The Act 145 fee will be assessed on the

difference between the trips from the new renovation compared to the existing trips. In this case: 65 PM peak hour trips minus the 40 PM peak hour trips (existing) = 25 PM peak hour trips.

Transportation Demand Management (TDM)

If the proposed development utilizes transportation demand management strategies that help reduce the use of single occupancy vehicles, VTrans will recommend that the Act 145 fee be reduced by 5% to a maximum of 20%. Examples of TDM strategies include new sidewalks connecting to existing pedestrian facilities, bicycle paths, trails to other developments, bus shelters, or a dedicated shuttle service. The TDM reduction is also available for applicants that are currently members or demonstrate a commitment to join a Transportation Management Association. A TMA is an organized group of employers that share resources to facilitate various TDM programs such as ridesharing, car-sharing, walking and biking incentives, parking management, and subsidized transit passes for employees. The [Chittenden Area TMA](#) and the [Upper Valley TMA](#) are examples with a long-standing record of offering TDM programs in Vermont. The same types of TDM programs may also be provided by individual employers. [Go Vermont](#), managed by the Vermont Agency of Transportation, is another resource that offers TDM programs across the state, and can support the TDM efforts of individual employers.

Table 1 presents the trip generation reductions VTrans will utilize to estimate the effect of TDM strategies.

Table 1: Trip Generation Reductions by TDM Measure

TDM Measure	Peak Hour Trip Reduction
Participation in a TMA or Establishment of an Individual Employer TDM program.	10%
Pedestrian Aids: New Crosswalks, Flashing Pedestrian Warning Signs	5%
New Sidewalk Connecting to Existing or Planned Pedestrian Networks	10%
New Bicycle Paths/Trails Connecting to Existing or Planned Bicycle Network	10%
New Bus Shelter or New Bus Stop	10%
Dedicated Shuttle Service	15%

Process to determine TDM Adjustment

1. The TDM percentage is additive to the adjustment made for location within a state designated center (as explained below). For instance, if a project is located in a state designated downtown and warrants a 15% TDM reduction, the Act 145 base fee will be

reduced by 50% for location in a state designated center plus 15% for a 65% total reduction.

2. A maximum TDM reduction of 15% can be achieved with any combination of sidewalks, crosswalks, flashing pedestrian warning signs, bike paths, or participation in a TMA or individual employer TDM program. To receive the TDM reduction for sidewalks or trails, they must connect to other existing or planned sidewalks or trails to provide connectivity to other areas.
3. The TDM maximum discount is capped at 20%.
4. A 20% TDM reduction requires that one of the bus or shuttle service options is provided.
5. If a development is being proposed in an area with existing transit service, bicycle and pedestrian facilities, a TDM discount will only be recommended if the applicant is a member or will join a TMA, or if an individual employer has an existing or planned TDM program.
6. The [Transportation Demand Management Guidance \(2016\)](#) can be used to estimate more specific reductions for various TDM strategies in different land use and transit situations. Applicants may choose to use the specific reductions provided for in the TDM Guidance when advocating for reductions beyond what VTrans recommends to a District Commission based on Table 1. However, VTrans will continue to recommend total TDM reductions be capped at 20%.

Act 145 Fee Adjustments

Location in a State Designated Centers or Neighborhood:

If the proposed development is located within a State Designated Downtown, Village Center, Growth Center, New Town Center, or Designated Neighborhood, the Act 145 base fee will be reduced by 50%. State designated centers are mapped here:

<http://maps.vermont.gov/ACCD/PlanningAtlas/index.html?viewer=PlanningAtlas>

Example: An auto dealership is proposed in a state designated growth center. The site is less than half a mile from a roundabout project identified in the VTrans Capital project which has an Act 145 fee of \$728/PM peak hour vehicle. The Act 145 base fee will be reduced 50% to \$364/PM peak hour trip.

Municipal Impact Fees Paid by the Developer

For many years, municipalities in Vermont have had the statutory authority to establish local impact fees for transportation and other capital investments that provide capacity for growth. Municipal impact fees must be based on a list of identified transportation projects. In some cases, the list of projects could include a transportation project that is also eligible for an Act 145 fee. In these situations, the Act 145 fee would only be assessed if it exceeds the amount of the local impact fee.

Example: A transportation project is being assessed a municipal impact fee of \$700 per PM peak hour vehicle. There are 10 new PM peak hour vehicles from a proposed

development that will be benefitting from the transportation project, therefore the developer will be assessed a municipal impact fee of \$7,000. There is also an Act 145 fee of \$500 per PM peak hour trip associated with the same transportation project. This amount multiplied by the ten PM vehicles equals \$5,000. The Act 145 fee is less than the \$7,000 the municipality is assessing so the Act 145 fee would be offset and not charged. If the Act 145 fee was more than the municipal impact fee (\$1,000 for example), the developer would pay the *difference* between the municipal impact fee amount and the Act 145 fee amount. Ten PM peak vehicles x \$1,000 = \$10,000 for Act 145. Ten PM peak vehicles x \$700 = \$7,000 for the municipal impact fee. The developer would pay \$7,000 to the municipality and \$3,000 to the Agency of Transportation.

Applicant Built Transportation Projects

In some cases, an applicant may construct a portion, or the entirety of, a transportation project that would have otherwise been constructed by VTrans or a municipality. In these cases, the Act 145 fee will be adjusted to reflect the value of the work completed by the applicant. In most cases, the adjustment would more than offset the Act 145 fee.

Example 1: An applicant is required as a condition of an Act 250 permit to install a left turn lane at an existing intersection on a state highway at a cost of \$200,000 as an immediate mitigation solution to address a safety issue. The complete plan for the intersection project includes a left turn lane, right turn lane, and a traffic signal to eventually be constructed by VTrans. Based on the Act 145 fee developed for the complete intersection project, the applicant's total fee would be \$20,000. However, since the construction cost the applicant will pay for the left turn lane is greater than Act 145 fee amount, an Act 145 fee would not be assessed.

Example 2: An applicant is assessed an Act 145 fee of \$40,000 for a future VTrans roundabout project. However, the applicant has paid \$10,000 for the installation of dilemma zone detectors at the intersection for increased safety until the roundabout is constructed. In this case, the \$10,000 would be deducted from the Act 145 fee and the applicant would be assessed the remaining balance of \$30,000.

Applicants may also be required to mitigate the impact of their project on the transportation system in a location where neither VTrans or a municipality has a defined transportation project in a capital program. In these situations, the fee would be established by an Act 250 District Commission, with assistance from VTrans, and assessed on future development projects that benefit from the applicant-built project. Future applicants would pay the fee to the applicant that funded and built the transportation project.

Example 3: Acme Inc. is required to construct a left turn lane at a town highway intersection with US-7 as traffic mitigation for their new building location. The left turn lane is not included in a VTrans or municipal capital program, so Acme will need to pay the entire cost of the construction. The lane is completed, and the construction cost is \$200,000. An Act 250 application is reviewed by the commission a month later for Widget Inc., a new development in the area that benefits from the left turn lane Acme constructed on US-7. The Act 250 commission determines that the Act 145 base fee for the left turn is \$700 per PM peak hour vehicle and 30 PM vehicles from Widget will be

benefitting from the lane. Widget will pay *Acme Inc.* an Act 145 fee of **\$21,000** (\$700/PM peak hour trip x 30 trips).

4.0 SUMMARY OF STEPS TO DETERMINE AN ACT 145 FEE

VTrans is responsible for recommending Act 145 impact fees to District Commissions. VTrans will provide preliminary estimates to an applicant when requested with enough notice. However, an applicant may wish to develop their own estimate to assist with the financial planning for their projects or may want to provide their own evidence during the Act 250 review process regarding a VTrans recommended fee. The following general steps describe the process for estimating the fee.

1. Review the online map to see if there are any transportation projects for which Act 145 fees have been established or estimated that are near the proposed development project. Use a rule of thumb of 5 road miles from the proposed development to identify potential transportation projects that may require payment of an Act 145 fee.
2. Note the basic Act 145 fee if available from the online map. If a basic fee has is not provided in the online map, it will need to be estimated as described above. Estimating the fee will require transportation engineering expertise to determine the cost and capacity of the transportation project.
3. Determine the peak hour trip generation for the proposed development project. See the [VTrans Traffic Impact Study Guidelines](#) for the methods used to estimate trip generation. Adjust the trip generation to account for previous Act 250 trip allocations, existing site traffic, pass-by and internal mixed-use capture trips, and TDM.
4. Determine how many of the adjusted peak hour vehicles from the proposed development will pass through nearby Act 145 transportation projects. The VTrans Traffic Impact Study Guidelines describes different methods used to assign traffic from a proposed development to the highway system.
5. Adjust the basic fee by 50% if the proposed development project is located within a state designated center. Multiply the adjusted development trips by the adjusted Act 145 transportation fee to determine the total Act 145 fee for the proposed project.
6. Make final adjustments to the proposed development's total fee to account for municipal impact fees due for the same Act 145 projects and for the value of the applicant's construction of some portion an Act 145 project.

To request assistance with estimating an Act 145 fee, or for additional information please contact:

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