



CHITTENDEN COUNTY RPC
Communities Planning Together

Traffic Impact Studies 101

CCRPC TAC

May 4, 2021

What's a Traffic Impact Study? (TIS)

- Study that assesses traffic impacts of a development
 - Safety & congestion
- Will it have adverse impacts?
- Can they be mitigated?

When is One Needed?

- 75 trips or more
- Documented safety problem
- Municipal regulations or request

Who puts one together?

- Developer, meet Traffic Engineer

Redstone



FARRELL
PROPERTIES

But How?

- VTrans TIS Guidelines
- VTrans TDM Guidance

TRAFFIC IMPACT STUDY GUIDELINES

Vermont Agency of Transportation
Policy and Planning Division
Development Review and Permitting Services



TRANSPORTATION DEMAND MANAGEMENT (TDM) GUIDANCE

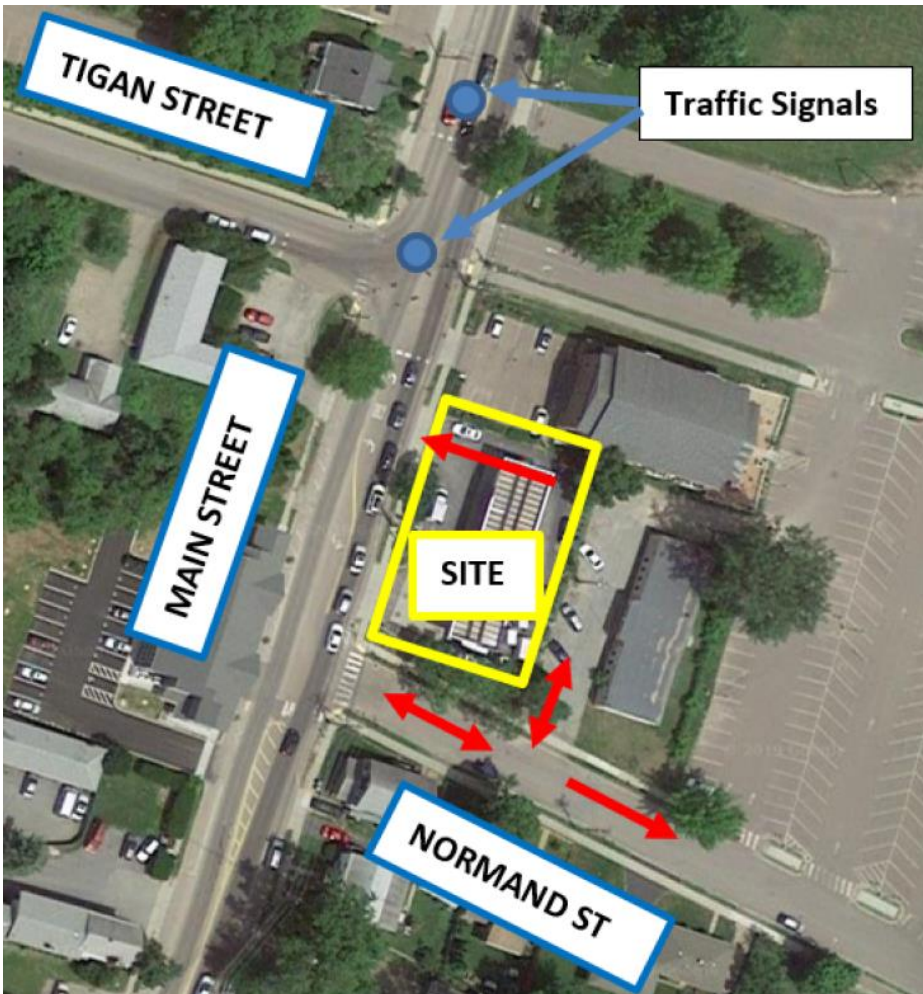


Vermont Agency of Transportation
Policy, Planning, and Intermodal Development Division

What's Inside?

- Existing Conditions
- Development Proposal
- Trip Generation & Distribution
- TDM Reductions
- Traffic Analysis & Mitigation
- Traffic Safety
- Transportation Impact Fee Estimates

Existing Conditions



Site Characteristics

Traffic volumes/speeds, roadway geometry

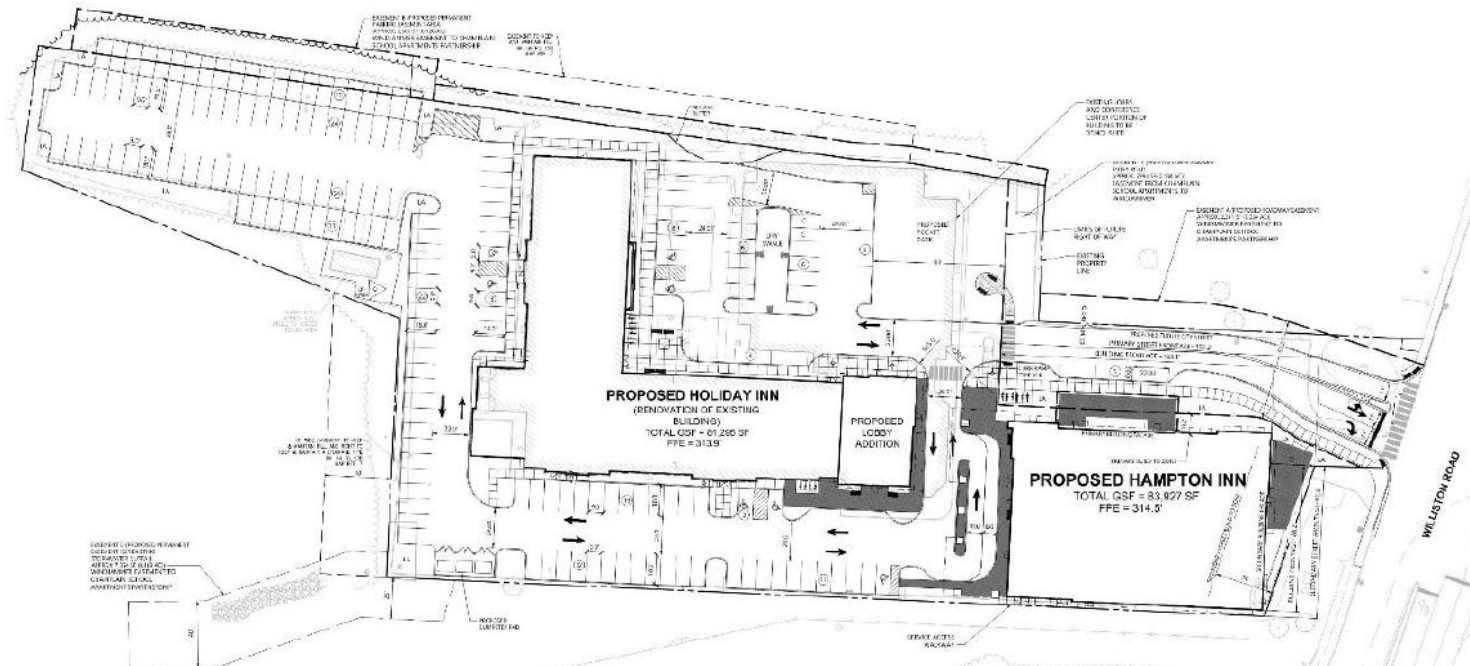
Nearby planned developments/improvements

Transit service

Crash Data

Bike/Ped facilities

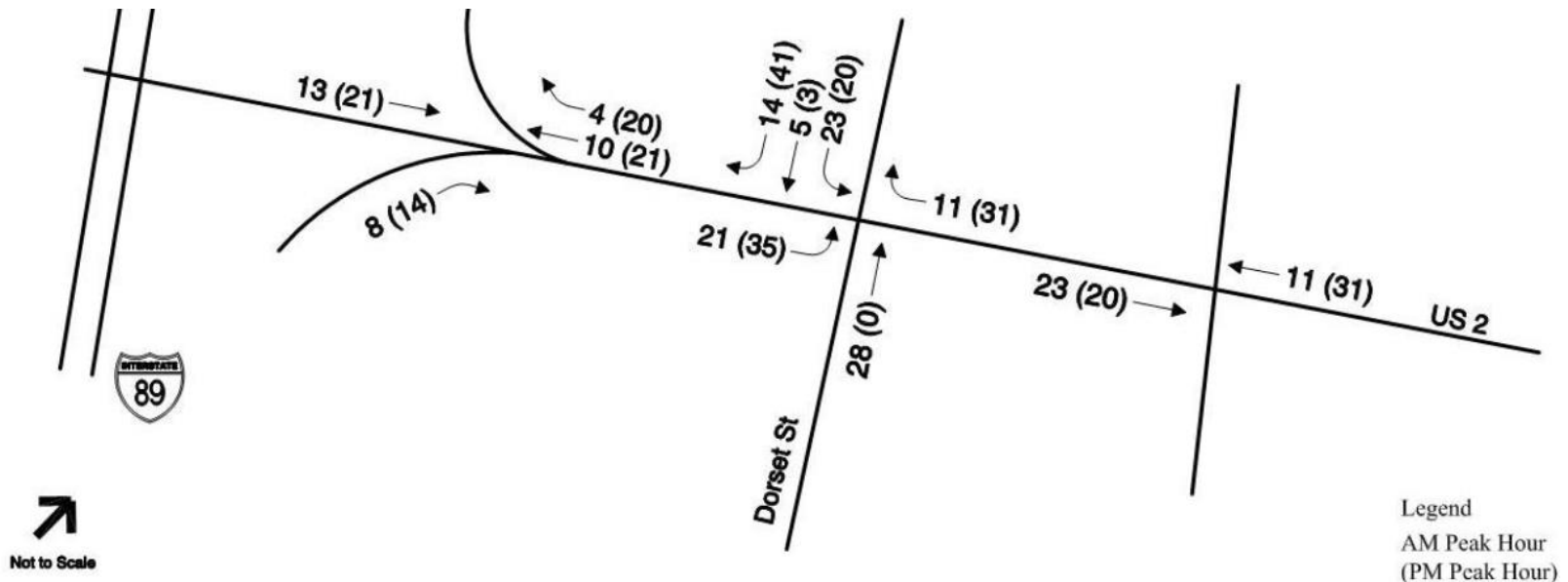
Development Proposal



- Site Plan
- Commercial
 - square feet
 - retail, industrial, etc.
- Residential
 - # of units
 - condo, single family, etc.
- Parking

Trip Generation & Distribution

- No Build & Build Scenarios
- DHV (Design Hourly Volume) or AM/PM Peak
- Pass-by trips
- Internal trip capture



TDM Reductions

- Physical
 - Transit stop, bike parking, showers
- Operational
 - Flextime, telecommuting
- Financial
 - Rewards programs
- Organizational
 - Join a TMA (CATMA)

<i>Operational</i>	
Flextime	4%
Compressed work week	2%
Telecommuting	3%
Preferential parking	0.5%
Participation in ridematching program with GRH option	1-2%
Participation in vanpool or shuttle program with GRH option	1-2%
On-site carsharing	1%
On-site bikesharing	1%

Traffic Analysis & Mitigation

- Capacity Tables
 - Level of Service (LOS)
 - Queuing
 - Volume to Capacity (v/c)
- Signal Retiming
- Roadway Improvements
 - Turn lane
 - Signal warrant analysis
 - Stop sign guidance
- Monitoring

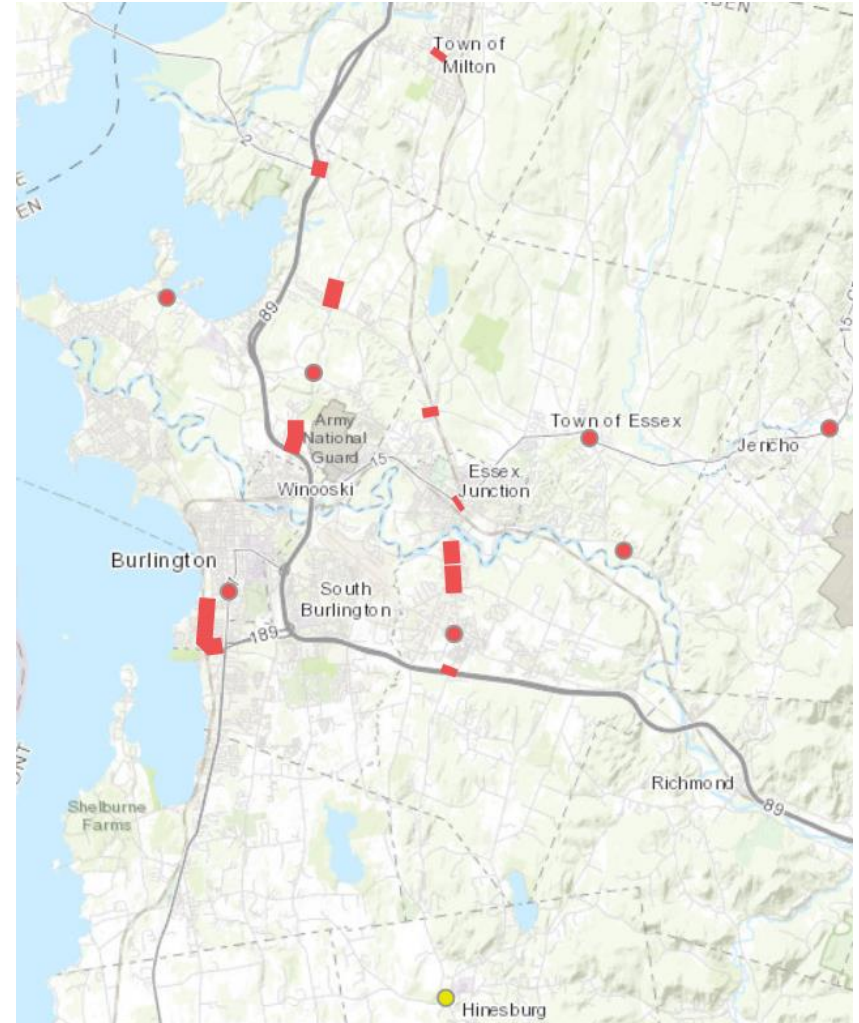
Intersection	Peak Hour	2019 No Build			2024 No Build		
		v/c*	Delay**	LOS***	v/c	Delay	LOS
Williston Rd at Dorset St / Holiday Inn	Weekday AM	0.94	35	C	0.96	38	D
	Weekday PM	1.05	53	D	1.07	56	E
Williston Rd at Doubletree / Windjammer	Weekday AM	0.55	9	A	0.57	9	A
	Weekday PM	0.57	8	A	0.58	8	A

Traffic Safety

- Existing High Crash Location (HCL)?
 - See [ECOS Map](#)
- Crash History
- Adequate Sight Distances
- Bike/Ped Safety

Transportation Impact Fees

- Act 145 Fee
 - [Map](#)
 - [Guidance](#)
- Local Fee



We can help!

- Questions/concerns?
 - Please reach out
- Typically get involved late in the process
 - Act250 Major Application for traffic