Burlington Complete Streets Guidance

Navigating the Mandatory Reporting Requirement of Act 34

Provided by the Department of Public Works
Purpose

1. Ensure compliance with Act No. 34 (effective July 1, 2011), “an act relating to a transportation policy that considers all users” by providing guidance, interpretation, and reporting tools for municipal use.
2. Implement transportation projects in accordance with the City of Burlington 2011 Transportation Plan, which follows a complete streets strategy and Street Design Guidelines.

Introduction to Act 34

Pursuant to Act 34, all transportation projects and project phases managed by a municipality – including planning, development, construction, or maintenance –must consider “complete streets” principles, which are principles of safety and accommodation of all transportation system users, regardless of age, ability, or modal preference; except projects or project components involving unpaved highways.

If, after the consideration required by Act 34, a project does not incorporate complete streets principles, the municipality shall make a written determination that one or more of the following circumstances exist:

1. Use of the transportation facility by pedestrians, bicyclists, or other users is prohibited by law.
2. The cost of incorporating complete streets principles is disproportionate to the need or probable use as determined by factors such as land use, current and projected user volumes, population density, crash data, historic and natural resource constraints, and maintenance requirements. The municipality shall consult local and regional plans, as appropriate, in assessing these and any other relevant factors.
3. Incorporating complete streets principles is outside the scope of a project because of its very nature.

The written determination must be supported by documentation and available for public inspection at the office of the municipal clerk and at the agency of transportation. This determination shall be final and not subject to appeal or further review.

Introduction to City Policy

Adoption of the 2011 Transportation Plan requires a different way of planning for transportation in Burlington. The Plan is directed at promoting a Strong and Healthy City, Transportation Choices, and Great Streets. To develop Great Streets, transportation planning has shifted to a complete streets strategy and new Street Design Guidelines. Streets are classified beyond the traditional identification of local, collector, primary or arterial streets and now focus on Complete Streets, Transit Streets, Bicycle Streets, Slow Streets, Truck Routes, and Neighborhood Streets. The Street
Design Guidelines provide a description of complete streets features that should be considered for each class of streets in Burlington.

In 2012 the City of Burlington was a recipient of a Sustainable Communities Building Blocks grant through the Environmental Protection Agency. After a full-day workshop with local decisionmakers and stakeholders, a “Next Steps Memorandum” was provided to summarize the key issues identified at the workshop and key strategies for complete streets implementation. The city will continue to work on comprehensive actions for implementation of our complete streets strategy, including attention on engagement, education, and engineering actions.

The Project Review Process

It is the responsibility of the City to consider complete streets principles unless a project meets one of the three exemptions under Act 34 (as described on page 1). The attached Complete Streets Toolbox for Burlington will help city staff and design teams understand and document the process of considering complete street principles on Burlington streets.

The Complete Streets Toolbox for Burlington includes three components:

1. **Project Reporting** ([Form CS-1](#)) - a required document if complete streets principles will not be included in a project;
2. **Street Design Guidelines Worksheet** ([Form CS-2](#)) - a street-by-street analysis to identify features to be considered;
3. **Cost Disproportionate to Need Worksheet** ([Form CS-3](#)) - a required to document if complete streets principles will not be included due to cost.
COMPLETE STREETS PROJECT REPORTING FORM

Form CS-1

A transportation project may be considered as involving full depth construction, extensive earthwork, impacts to adjacent resources, involvement of multiples departments / agencies / divisions, and/or having a project budget approved by a governing body.

Project Name

Project Manager and Department

Date

Filepath

Complete Streets principles WERE considered.

☐  Form CS-2 attached

Complete Streets principles WERE NOT considered. This project is exempt because: (Check ONE)

☐  Use of the facility by pedestrians, bicyclists, or other users is prohibited by law.
   Identify the limited access roadway: ________________________________

☐  The cost of incorporating Complete Streets principles is disproportionate to the need or probable use of the facility.
   ☐  Form CS-3 attached

☐  The project scope of work was approved prior to July 1, 2011.
   Identify the project: ________________________________

The following activities are outside the scope of a transportation project and are not reported: Pothole patching / roadway preventative maintenance, shim paving, traffic signal upgrades to LED bulbs, sidewalk repair, catchbasin repair or installation, street sweeping or plowing, roadside mowing or trimming, sign replacement or installation, electrical upgrades, and emergency repairs.

This form was distributed:

Click here to enter a date.  Clerk / Treasurer’s Office, Attn: Lori Olberg
Click here to enter a date.  Agency of Transportation, Attn: Chris Cole
STREET DESIGN GUIDELINES WORKSHEET

This is only a guide. It is intended to quickly navigate the Street Design Guidelines and ensure basic features are considered; this should not be considered an inclusive checklist.

Instructions
1. This worksheet is organized by Street Classification. Each street or street segment is listed under the appropriate section.
2. Find your project site on the map below or on the attached worksheets.
3. Using the form for your project’s street classification, consider the complete street principles listed. Refer to the Street Design Guidelines for additional detail on the individual features of complete streets.
4. If a feature should be considered but can’t be included, note the reason.

Form CS-2C Complete Streets
Form CS-2T Transit Streets
Form CS-2B Bicycle Streets
Form CS-2S Slow Streets
Form CS-2SR/NC State Truck Routes
Form CS-2N Neighborhood Streets
STREET CLASSIFICATION – COMPLETE STREETS

The project is located on:

- North Avenue* from Northgate Road to its southern end
- Colchester Avenue*
- Main Street** from University Terrace to the South Burlington town line
- South Winooski Avenue from Main Street to Pearl Street
- Battery Street from Sherman Street to Main Street
- Pine Street from Lakeside Avenue to Kilburn Street
- Shelburne Street*/** from Howard Street to the South Burlington town line

* Also refer to Neighborhood Transition Centers (CS-2NC)
** Also refer to State Truck Routes (CS-2SR)

The following features should be considered on Burlington’s Complete Streets

Sidewalks
- both sides of the street, or at least one side of the street on Neighborhood Streets
- 5’ minimum in residential areas
- >5’ in neighborhood centers and high density residential
- 8’ – 10’ on Slow Streets
- 5’ clear zone

Tree Belt
- 5’ minimum
- 2’ minimum for snow storage
- structural soil in neighborhood centers, high density residential

Street Trees
- hardscape or tree grates for passenger loading/unloading

Parking
- back-in angled or parallel if next to bike lanes

Furniture
- benches
- kiosks
- bike racks

Street Lighting
- ornamental light fixtures at gateways
- ornamental and 10’ – 14’ high light fixtures in neighborhood centers, pedestrian promenades, college campus networks, high-pedestrian zones and Slow Streets

Transit Shelters (at stops with high ridership)
- outside of 5’ clear zone
- benches
- lighting
- street trees
- pedestrian-scale signs

Vehicle lanes
- Complete Streets: 10’ – 11’
Form CS-2C

STREET CLASSIFICATION – COMPLETE STREETS

Bike Lanes
- 5’ minimum
- 6’ minimum next to parking lane
- green bike lane for complex areas
- bike safe drain grates
- 30’ two-way street with parking: widen street by 5’ for single-direction bike lane
- 30’ two-way street without parking: two single-direction bike lanes (in each direction)
- 30’ one-way street with parking: two single-direction bike lanes (in each direction)
- 40’ two-way street with parking: two single-direction bike lanes (in each direction)
- at intersections with right turn lane, stripe through bike lane to the left of the turn lane

NOTES:

Two-way left turn lane
- Considered

NOTES:

Curb radii
- 10’ – 15’

NOTES:

Crosswalks
- at each intersection
- special pavement treatment at high volume crossings (if textured, only smooth)
- every 300’ – 400’

NOTES:

Medians or refuge islands
- at mid-block location: 6’ x 20’ minimum with 5’ pedestrian path
- landscaped refuge island (not paved)

NOTES:

Mid-block Crosswalks
- warranted by pedestrian volumes
- 6’ – 10’ wide
- ladder, zebra, fully painted, or colored and textured bounded by white
- raised crossing
- Z-crossing if median or refuge provided
- Signage and/or signage with warning lights

NOTES:

Stormwater Planter
- in place of greenbelt on level streets

NOTES:

Porous Paving
- within on-street parking lane

NOTES:

Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming
- speed tables and raised crosswalks at mid-block locations
- raised intersections, calming two streets at once
- colored / textured pavement for prominent pedestrian zones
- neighborhood traffic circles / intersection island, calming two streets at once
- chicanes
- pedestrian refuges or center islands, for refuge or gateway treatment
- curb extensions or chokers, at intersections or mid-block

NOTES:
STREET CLASSIFICATION – TRANSIT STREETS

This project is on:

- Saint Paul Street from Main Street to Howard Street
- Kilburn Street
- Main Street** from Battery Street to University Terrace
- Pearl Street from Battery Street North Prospect Street
- Plattsburg Avenue

**Also refer to State Truck Route Worksheet

The following features should be considered on Burlington’s Transit Streets

Sidewalks
- both sides of the street, or at least one side of the street on Neighborhood Streets
- 5’ minimum in residential areas
- >5’ in neighborhood centers and high density residential
- 8’ – 10’ on Slow Streets
- 5’ clear zone

Tree Belt
- 5’ minimum
- 2’ minimum for snow storage
- structural soil in neighborhood centers, high density residential

Street Trees
- hardscape or tree grates for passenger loading/unloading

Street Lighting
- ornamental light fixtures at gateways
- ornamental and 10’ – 14’ high light fixtures in neighborhood centers, pedestrian promenades, college campus networks, high-pedestrian zones and Slow Streets

Furniture
- benches
- kiosks
- bike racks

Transit Shelters (at stops with high ridership)
- outside of 5’ clear zone
- benches
- lighting
- street trees
- pedestrian-scale signs

Transit Stops
- placed in front of crosswalks
- 100’ – 140’ curbside for streets with higher lower volume
- bus bulbs (6’ x 35’) for streets with higher traffic volume, high transit ridership, crowded sidewalks and/or inadequate space for transit stop amenities
- 100’ – 140’ bus turnouts for transit stops with longer dwell times

NOTES:
**Form CS-2T**  
**STREET CLASSIFICATION – TRANSIT STREETS**

### Queue Jump Lanes
- □ shared with right turn lane at intersection, with stop across intersection  
  NOTES:

### Parking:
- □ removed at transit stops  
- □ back-in angled or parallel if next to bike lanes  
  NOTES:

### Vehicle lanes
- □ Transit Streets and Truck Routes: 10’ – 12’  
  NOTES:

### Crosswalks
- □ at each intersection  
- □ special pavement treatment at high volume crossings (if textured, only smooth)  
- □ every 300’ – 400’  
  NOTES:

### Medians or refuge islands
- □ at mid-block location: 6’ x 20’ minimum with 5’ pedestrian path  
- □ landscaped refuge island (not paved)  
  NOTES:

### Mid-block Crosswalks
- □ warranted by pedestrian volumes  
- □ 6’ – 10’ wide  
- □ ladder, zebra, fully painted, or colored and textured bounded by white  
- □ raised crossing  
- □ Z-crossing if median or refuge provided  
- □ Signage and/or signage with warning lights  
  NOTES:

### Curb radii
- □ 10’ – 15’  
  NOTES:

### Curb Extensions
- □ Considered  
  NOTES:

### Traffic Calming
Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming
- □ speed tables and raised crosswalks at mid-block locations  
- □ raised intersections, calming two streets at once  
- □ colored / textured pavement for prominent pedestrian zones  
- □ neighborhood traffic circles / intersection island, calming two streets at once  
- □ chicanes  
- □ pedestrian refuges or center islands, for refuge or gateway treatment  
- □ curb extensions or chokers, at intersections or mid-block  
  NOTES:
- STREET CLASSIFICATION – BICYCLE STREETS

This project is on:

- Pine Street from Lakeside Avenue to Queen City Park Road and from Kilburn Street to Maple Street
- South Winooski Avenue from Howard Street to Main Street
- North Winooski Avenue*/**
- South Union Street
- North Union Street
- South Willard Street** from Main Street to North Street
- Mansfield Avenue
- College Street from South Winooski Avenue to South Prospect Street
- North Street*
- Riverside Avenue*/**
- Intervale Road
- Route 127 entrance to and including Ethan Allen Homestead

* Also refer to Neighborhood Transition Centers (CS-2NC)
** Also refer to State Truck Routes (CS-2SR)

The following features should be considered on Burlington’s Bicycle Streets

Sidewalks
- both sides of the street, or at least one side of the street on Neighborhood Streets
- 5’ minimum in residential areas
- >5’ in neighborhood centers and high density residential
- 8’ – 10’ on Slow Streets
- 5’ clear zone

NOTES:

Tree Belt
- 5’ minimum
- 2’ minimum for snow storage
- structural soil in neighborhood centers, high density residential

NOTES:

Street Trees
- hardscape or tree grates for passenger loading/unloading

NOTES:

Street Lighting
- ornamental light fixtures at gateways
- ornamental and 10’ – 14’ high light fixtures in neighborhood centers, pedestrian promenades, college campus networks, high-pedestrian zones and Slow Streets

NOTES:

Furniture
- benches
- kiosks
- bike racks

NOTES:
Form CS-2B  STREET CLASSIFICATION – BICYCLE STREETS

Bike Lanes
☐ 5’ minimum
☐ 6’ minimum next to parking lane
☐ green bike lane for complex areas
☐ bike safe drain grates
☐ 30’ two-way street with parking: widen street by 5’ for single-direction bike lane
☐ 30’ two-way street without parking: two single-direction bike lanes (in each direction)
☐ 30’ one-way street with parking: two single-direction bike lanes (in each direction)
☐ 40’ two-way street with parking: two single-direction bike lanes (in each direction)
☐ at intersections with right turn lane, stripe through bike lane to the left of the turn lane
NOTES:

Vehicle lanes
☐ Bicycle Streets: 10’
NOTES:

Transit Shelters (at stops with high ridership)
☐ outside of 5’ clear zone
☐ benches
☐ lighting
☐ street trees
☐ pedestrian-scale signs
NOTES:

Parking:
☐ back-in angled or parallel if next to bike lanes

Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming
☐ speed tables and raised crosswalks at mid-block locations
☐ raised intersections, calming two streets at once
☐ colored / textured pavement for prominent pedestrian zones
☐ neighborhood traffic circles / intersection island, calming two streets at once
☐ chicanes
☐ pedestrian refuges or center islands, for refuge or gateway treatment
☐ curb extensions or chokers, at intersections or mid-block
NOTES:
**STREET CLASSIFICATION – SLOW STREETS**

*The project is on:*
- Maple Street from South Winooski Street to its western terminus
- King Street from South Winooski Street to its western terminus
- College Street from South Winooski Street to its western terminus
- Bank Street
- Cherry Street
- Lake Street

*The following features should be considered on Burlington’s Slow Streets*

**Sidewalks**
- both sides of the street, or at least one side of the street on Neighborhood Streets
- 5’ minimum in residential areas
- >5’ in neighborhood centers and high density residential
- 8’ – 10’ on Slow Streets
- 5’ clear zone

**Tree Belt**
- 5’ minimum
- 2’ minimum for snow storage
- structural soil in neighborhood centers, high density residential

**Street Trees**
- hardscape or tree grates for passenger loading/unloading

**Street Lighting**
- ornamental light fixtures at gateways
- ornamental and 10’ – 14’ high light fixtures in neighborhood centers, pedestrian promenades, college campus networks, high-pedestrian zones and Slow Streets

**Transit Shelters** (at stops with high ridership)
- outside of 5’ clear zone
- benches
- lighting
- street trees
- pedestrian-scale signs

**Vehicle lanes**
- Slow Streets: 10’ – 12’, greater for higher mix of uses

**Crosswalks**
- at each intersection
- special pavement treatment at high volume crossings (if textured, only smooth)
- every 300’ – 400’

**Furniture**
- benches
- kiosks
- bike racks
**Form CS-2S  STREET CLASSIFICATION – SLOW STREETS**

**Mid-block Crosswalks**
- □ warranted by pedestrian volumes
- □ 6’ – 10’ wide
- □ ladder, zebra, fully painted, or colored and textured bounded by white
- □ raised crossing
- □ Z-crossing if median or refuge provided
- □ Signage and/or signage with warning lights

**Parking:**
- □ back-in angled or parallel if next to bike lanes
- □ removed at transit stops
- □ parking meters behind tree belt, centralized pay stations

**Curb radii**
- □ 10’ – 15’

**Curb Extensions**
- □ Considered

**Stormwater Planter**
- □ in place of greenbelt on level streets

**Porous Paving**
- □ within on-street parking lane

**Enhanced Intersection**
- □ raised
- □ special paving treatments and/or colors
- □ curb extensions with bollards

**Traffic Calming** should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming
- □ speed tables and raised crosswalks at mid-block locations
- □ raised intersections, calming two streets at once
- □ colored / textured pavement for prominent pedestrian zones
- □ neighborhood traffic circles / intersection island, calming two streets at once
- □ chicanes
- □ pedestrian refuges or center islands, for refuge or gateway treatment
- □ curb extensions or chokers, at intersections or mid-block

**NOTES:**
STATE TRUCK ROUTES

The project is on:
- Shelburne Street
- Willard Street
- Main Street
- Riverside Avenue
- North Winooski Avenue

The following features should be considered:

Vehicle lanes
- Truck Routes: 10’ – 12’

NOTES:

NEIGHBORHOOD TRANSITION CENTERS

The project is located at:
- North Avenue at Plattsburg Avenue
- North Avenue from Ethan Allen Shopping Center to Ethan Allen Parkway
- Riverside Avenue / Colchester Avenue intersection
- Shelburne Street from Birchcliff Parkway to Lyman Avenue
- Shelburne Street from Home Avenue to the South Burlington town line
- North Street from North Avenue to North Winooski Avenue
- North Winooski Avenue from North Street to Riverside Avenue

The following features should be considered:
- bus bulbouts / curbside transit stops
- curb extensions
- shared lane markings and signs replace bike lanes
- structural soil and street trees
- pedestrian-scale lighting, furniture, plantings, and sidewalk patterns
- on-street parking

NOTES:
Form CS-2N

STREET CLASSIFICATION – NEIGHBORHOOD STREET

Any street not listed above.
Street Name: ____________________________________________

The following features should be considered on Burlington’s Neighborhood Streets

Sidewalks
- both sides of the street, or at least one side of the street on Neighborhood Streets
- 5’ minimum in residential areas
- >5’ in neighborhood centers and high density residential
- 8’ – 10’ on Slow Streets
- 5’ clear zone
NOTES:

Tree Belt
- 5’ minimum
- 2’ minimum for snow storage
- structural soil in neighborhood centers, high density residential
NOTES:

Street Trees
- hardscape or tree grates for passenger loading/unloading
NOTES:

Transit Shelters (at stops with high ridership)
- outside of 5’ clear zone
- benches
- lighting
- street trees
- pedestrian-scale signs
NOTES:

Parking:
- back-in angled or parallel if next to bike lanes
NOTES:

Transit Stops
- placed in front of crosswalks
- 100’ – 140’ curbside for streets with higher lower volume
- bus bulbs (6’ x 35’) for streets with higher traffic volume, high transit ridership, crowded sidewalks and/or inadequate space for transit stop amenities
- 100’ – 140’ bus turnouts for transit stops with longer dwell times
NOTES:

Traffic Calming should be included on all streets with existing traffic calming features or on streets with an assessed need for traffic calming
- speed tables and raised crosswalks at mid-block locations
- raised intersections, calming two streets at once
- colored / textured pavement for prominent pedestrian zones
- neighborhood traffic circles / intersection island, calming two streets at once
- chicanes
- pedestrian refuges or center islands, for refuge or gateway treatment
- curb extensions or chokers, at intersections or mid-block
NOTES:
Instructions
If the cost of including complete streets features outweighs the need or probable use of the facility, project teams should provide adequate detail to support that determination. The analysis should consider access, safety and mobility for all current and future users.

This worksheet is required if the cost of incorporating complete streets principles is disproportionate to the need or probable use, resulting in a project that does not incorporate complete streets principles. The final determination shall be approved by the Public Works Commission and is not subject to appeal.

Be concise yet descriptive.

**OBTAIN LOCAL AND/OR REGIONAL PLANS**

- Municipal Development Plan (including the 2011 Transportation Plan)
- Plan BTV
- Regional Pedestrian and Bicycle Plan
- Chittenden County Regional Plan
- Metropolitan Transportation Plan
- Scoping, Feasibility, Corridor or other project reports
  List: ________________________________
- Other: ________________________________

Identify the multi-modal status of the project site as recommended in the planning documents:

Describe the current and future land use and density (population and development):
Other information relevant to this project:

**OBTAIN TRANSPORTATION DATA**

Describe the Street Classification recommended in the Transportation Plan:

Describe the existing and future pedestrian, bicycle and transit facilities:

Describe the current and projected traffic volumes:

Describe current and projected pedestrian and bicycle volumes:

Describe crash data for the project area:

**OBTAIN TRANSPORTATION FACTORS**

Describe the existing right-of-way dimensions and use:

Describe the surrounding economic development:

Describe the nearby origins and destinations and the aesthetic environment:

Describe constraints (natural resources, historic resources, environmental resources, maintenance, etc.):

**ALTERNATIVES CONSIDERED**

Describe any alternatives that were considered: