

DORSET VILLAGE CENTER PEDESTRIAN PLAN



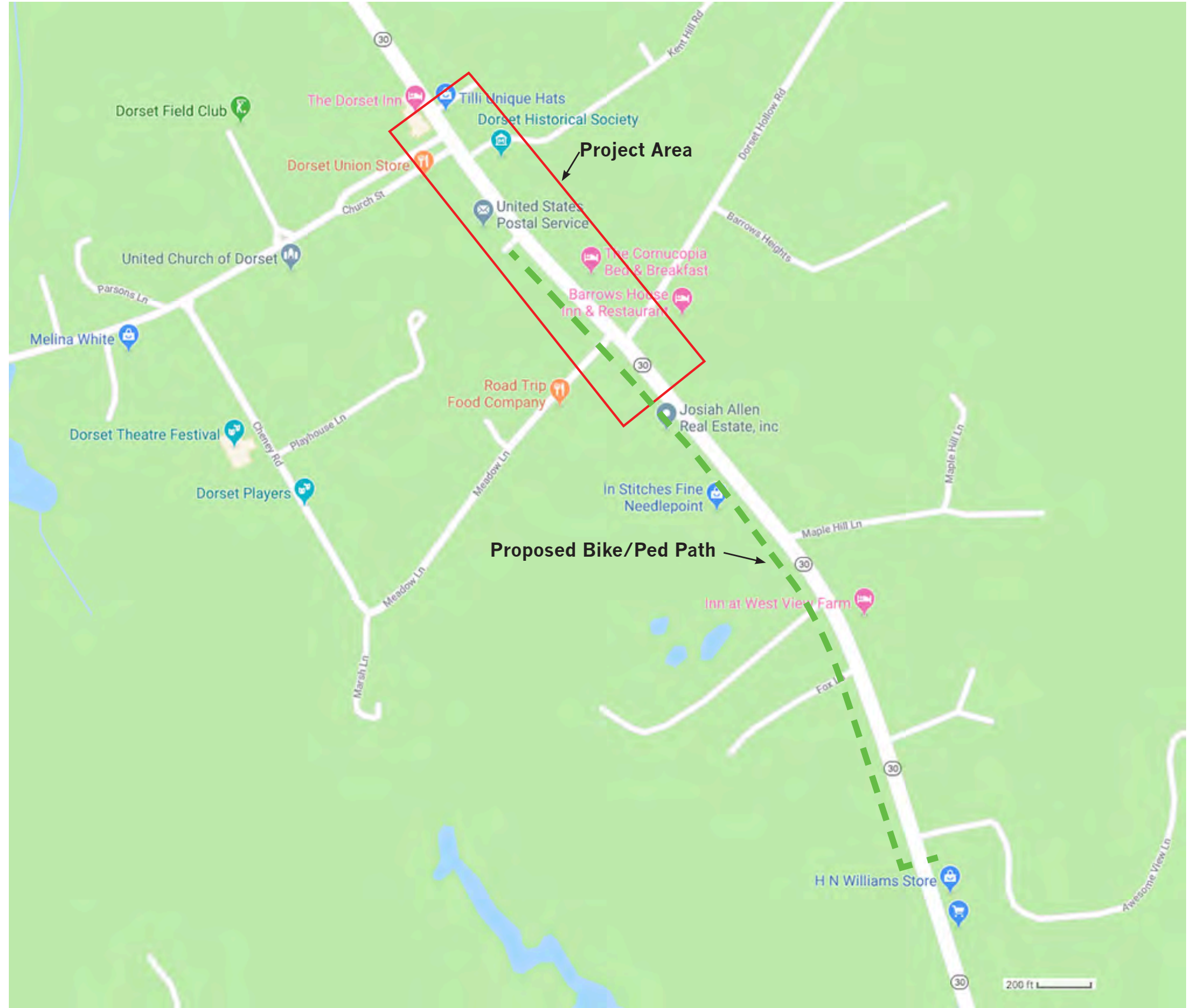
Prepared for the Town of Dorset, VT
by the Bennington County Regional Commission
January, 2018

Funded through a Municipal Planning Grant from the
Vermont Agency of Commerce & Community Development



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INTRODUCTION

The Town of Dorset was awarded a 2017 Municipal Planning Grant from the Vermont Agency of Commerce and Community Development for a plan to make the Dorset's village center more pedestrian and bicycle friendly. This plan was then developed by the Bennington County Regional Commission.

PROJECT PURPOSE & NEED

Project Purpose

The proposed project's purpose is to make Dorset's village center safer and more inviting for cyclists and pedestrians.

Project Need

Dorset's village center is a walkable mixed-use community and many residents and visitors walk between businesses, homes, and parking, but in many places basic pedestrian infrastructure is missing. In particular, the project area has the following deficiencies: there are no crosswalks across VT30, Dorset Hollow Road or Church Street although pedestrians frequently cross them; curb radiuses are excessively long at the VT30/Church Street intersection and at the VT 30/Dorset Hollow Road intersection which, lengthens crossing distances, broadens paved areas, and encourages speeding; the marble sidewalk on the east side of VT30 is in poor condition; there is no sidewalk on the west side of VT30 south of the post office although many people walk there; there are no sidewalks between Dorset Hollow Road and the farmers' market/HN Williams Store; VT30 is uninviting for cycling because it has narrow shoulders, typical vehicle speeds between 30-40 mph, and some large truck traffic.

PROJECT AREA

Project Boundaries

The project's boundaries are a corridor along VT30 from Church Street to Dorset Hollow Road. However, one of our recommendations extends to the HN Williams Store 0.6 miles to the south on VT 30.

Right of way

The right of way along VT30 in the project area is 4 rods wide (66 feet). Town highway rights of way are presumed to be 3 rods wide (49.5 feet).

Site Constraints

VT 30 is a state highway. A Section 1111 Permit is required to do construction within the state highway right of way. VTrans will require a plan review before issuing a Section 1111 Permit.

The project area is within Dorset's Historic District.

Speed Limit VT30

30 mph

Traffic Volume

2015 AADT 3,700 (estimated)

RECOMMENDATIONS

Replace dilapidated sidewalks

The 0.2-mile long marble sidewalk on the east side of VT 30 from Dorset Hollow Road to Church Street is in poor condition and should be repaired or replaced.

Provide sidewalks and paved paths where they are needed

Many people walk on the side of the road, or across lawns south of the post office along the west side of VT30. We recommend, at a minimum, installing a sidewalk between the post office and Meadow Lane. As an enhanced alternative, we recommend instead of a sidewalk, constructing a shared-use path between the post office and the HN Williams Store/farmers' market. Shared use paths are for pedestrians, cyclists, runners, and other forms of non-motorized transportation. Paths are typically hard-packed gravel or paved with asphalt and are 10-12 feet wide, although 8 feet is allowed in site constrained areas.

Also, we recommend constructing a new sidewalk on the south side of Dorset Hollow Road between VT30 and Barrows Heights Road.

Provide crosswalks

A state highway, Route VT30, bisects Dorset's Village Center, and many pedestrians cross VT30, but no marked crosswalks span it. The lack of crosswalks makes crossing more dangerous and discourages pedestrian movement within the village. Crosswalks show pedestrians the safest place to cross, and alert motorists to the presence of pedestrians. In Vermont, by law, motorists must stop for pedestrians in crosswalks.

We recommend adding three crosswalks across VT30: at Church Street, near the post office, and at Dorset Hollow Road. Pedestrian travel along VT30 is also impeded by lack of crosswalks. We recommend adding crosswalks across Dorset Hollow Road, and at the tip of Church Street across an expanded median.

Reduce corner radiuses

In places where people walk, corner radiuses should be as small as possible – just long enough to allow vehicles to safely turn, and no longer. The NACTO Design Standards <https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/corner-radii/> recommends curb radiuses no longer than 15 feet in urban/village center areas. Excessively long curb radiuses lengthen the pedestrian crossing distance, allow vehicles to turn at high speeds, and increase the amount of pavement. In the study area, two intersections have excessively long corner radiuses: the VT30/Church Street intersection, and the VT30/Dorset Hollow Road intersection. Our conceptual plan redraws these intersections with 15-foot curb radiuses, however, as the project plans are developed by a civil engineer, the curb radiuses should be checked using software that simulates turning movements to determine the minimum safe curb radius.

Add Curb extensions at crosswalks

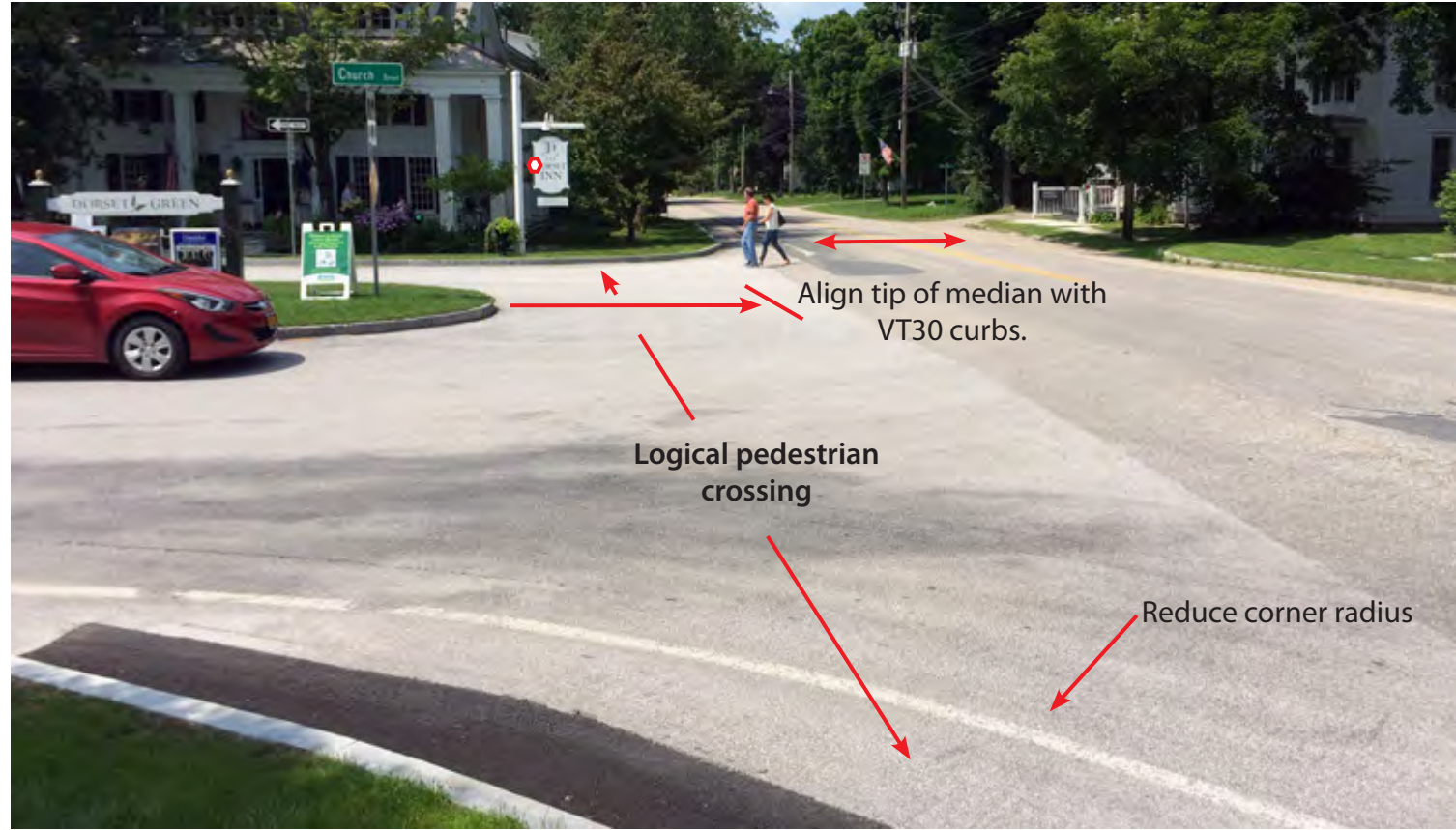
Curb Extensions (also called bulb-outs) are now in wide use in Vermont and can make pedestrian crossings safer and more appealing because they shorten the crossing distance, calm traffic, make pedestrians more visible to motorists, and "daylight" crosswalks by physically preventing parking too close to the crosswalk. In addition, curb extensions can provide opportunities to replace paved areas with landscaped areas. Our report recommends adding curb extensions at all pedestrian crossings.

Alternative: consider a pedestrian refuge island at VT/30 Church St. At a minimum, we recommend a curb extension at the proposed crosswalk across VT30 at Church Street, but an alternative to consider is a pedestrian refuge island. Pedestrian refuge islands have the advantage of allowing pedestrians to cross one lane of traffic at a time instead of having to wait for the entire road to be clear before crossing. A refuge island could also serve as a landscaped gateway to the Village Center, announcing to motorists that they are entering the village and need to slow down. A disadvantage is a 100-foot painted taper may be required north of refuge island to warn motorists of the obstruction ahead.

Extend median on Church Street

We recommend extending the Church Street median by 16 feet, so that its tip aligns with the curbs along VT30. This will replace a large and unnecessary paved area in the heart of the village with grass and will create a pedestrian refuge for the proposed Church Street pedestrian crossing.

Church St./VT30 intersection



Post office on VT30



Post Office parking lot



Post office parking lot



VT30 just north of Dorset Hollow Rd.



Dilapidated sidewalk discourages walking

Repave. Extend parking lane for overflow parking. Consider adding curb to improve drainage and re-establish green strip.

VT30



Worn path shows need for sidewalk

VT30



No sidewalk or path to walk to businesses in village center on east side of VT30 south of the post office

VT30



Uninviting walking environment just south of Dorset Hollow Road

VT30/Dorset Hollow Rd.



VT30 near Church St.



VT30 near Church St.



Post Office – Before and After Simulation



Church Street – Before & After Simulation







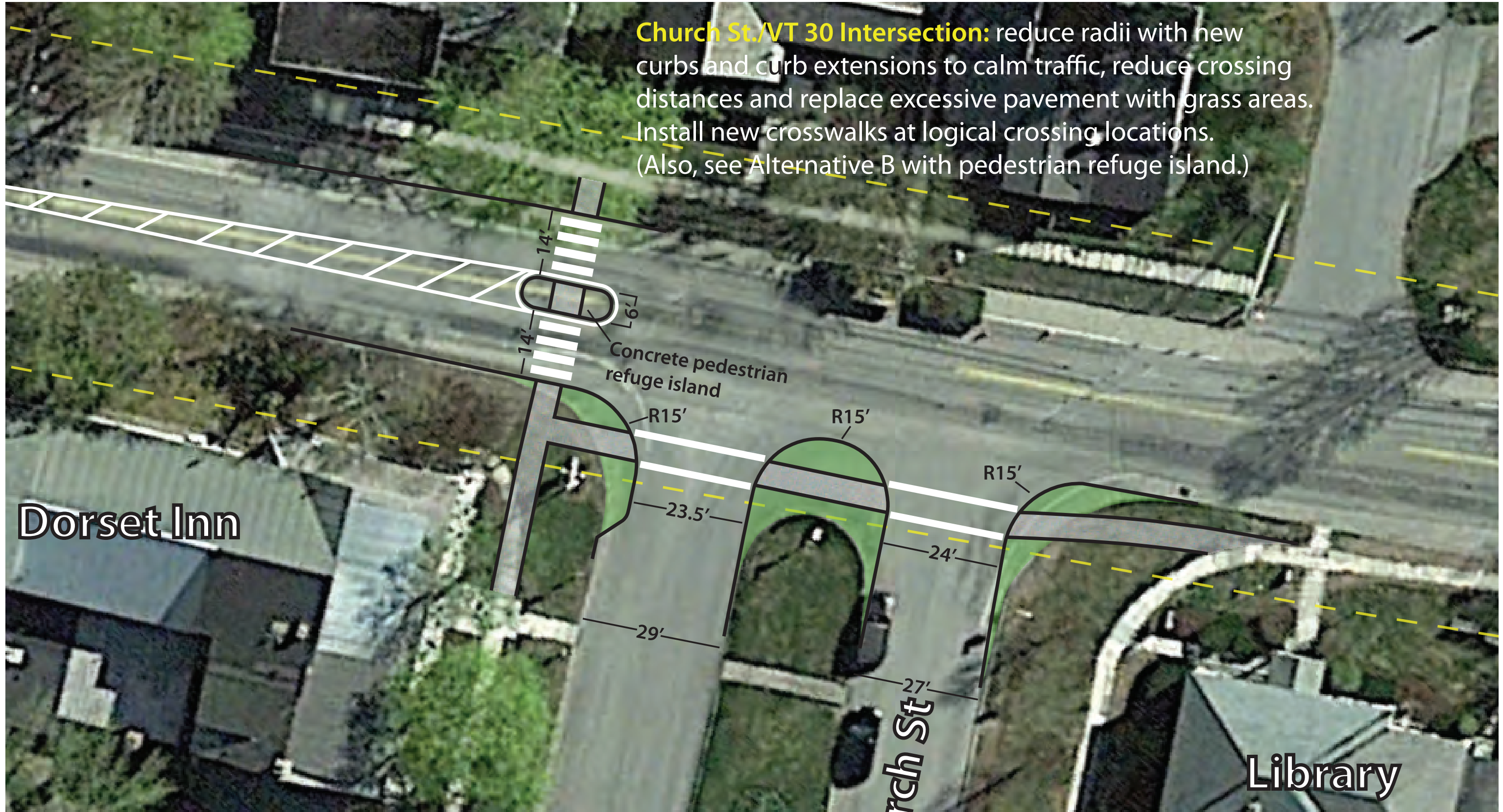
Dovetail
Inn

Church St./VT 30 Intersection: reduce radii with new curbs and curb extensions to calm traffic, reduce crossing distances and replace excessive pavement with grass areas. Install new crosswalks at logical crossing locations. (Also, see Alternative B with pedestrian refuge island.)

Dorset Inn

Church St

Library



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Dorset Inn

Library



Alternate: sloped, accessible walk

Curbed grass neckdowns

Extend new sidewalk across driveway

New x-walk

Parking

New bike/ped path

Post Office



Dorset Hollow Rd./VT 30 Intersection: reduce radii with new curbs and curb extensions to calm traffic, reduce crossing distances and replace excessive pavement with grass areas. Install new crosswalks at logical crossing locations.

12/14/2018 - PRE-DESIGN OPINION OF PROBABLE COST - Dorset Bike/Ped Improvements

Item No.	Item Description	Unit	QTY	Unit Cost	Total
PHASE 1 - SIDEWALK & INTERSECTION IMPROVEMENTS TO DORSET HOLLOW ROAD					
1	Mobilization/Demobilization	LS	1	\$ 10,024.00	\$ 10,024.00
2	Traffic Control	LS	1	\$ 5,000.00	\$ 5,000.00
3	Common Excavation	CY	500	\$ 15.00	\$ 7,500.00
4	Cast-In-Place Curb	LF	900	\$ 30.00	\$ 27,000.00
5	Asphalt Patching for Curbing	TON	50	\$ 150.00	\$ 7,500.00
6	Reconstruct Marble Sidewalk	SY	330	\$ 100.00	\$ 33,000.00
7	5' Wide PCC Sidewalk - 5" Depth	SY	700	\$ 75.00	\$ 52,500.00
8	Fine Graded Crushed Gravel - 12" Depth	CY	400	\$ 40.00	\$ 16,000.00
9	Detectable Warning Panels	SF	96	\$ 45.00	\$ 4,320.00
10	Pavement Markings	LS	1	\$ 5,000.00	\$ 5,000.00
11	Lawn Restoration	LS	1	\$ 5,000.00	\$ 5,000.00
12	PCC Sidewalk	SY	50	\$ 85.00	\$ 4,250.00

Work and Material Total	\$ 167,070.00
Total with Mob/Demob	\$ 177,094.00
Contingency 30%	\$ 53,128.20
Total Construction Cost	\$ 230,222.20
Permitting Fees	\$ 5,000.00
Engineering & Design Fees	\$ 27,626.66
Construction Administration Fees	\$ 23,022.22
Total Estimated Project Cost	\$ 285,871.08

Item No.	Item Description	Unit	QTY	Unit Cost	Total
PHASE 2 - SHARED USE PATH TO HN WILLIAMS					
1	Mobilization/Demobilization	LS	1	\$ 11,274.00	\$ 11,274.00
2	Traffic Control	LS	1	\$ 10,000.00	\$ 10,000.00
3	Common Excavation	CY	1500	\$ 15.00	\$ 22,500.00
4	Bituminous Concrete Pavement - 4" Depth	TON	750	\$ 120.00	\$ 90,000.00
5	Fine Graded Crushed Gravel - 12" Depth	CY	1200	\$ 40.00	\$ 48,000.00
6	Geotextile	SY	3700	\$ 2.00	\$ 7,400.00
7	Lawn Restoration	LS	1	\$ 10,000.00	\$ 10,000.00

Work and Material Total	\$ 187,900.00
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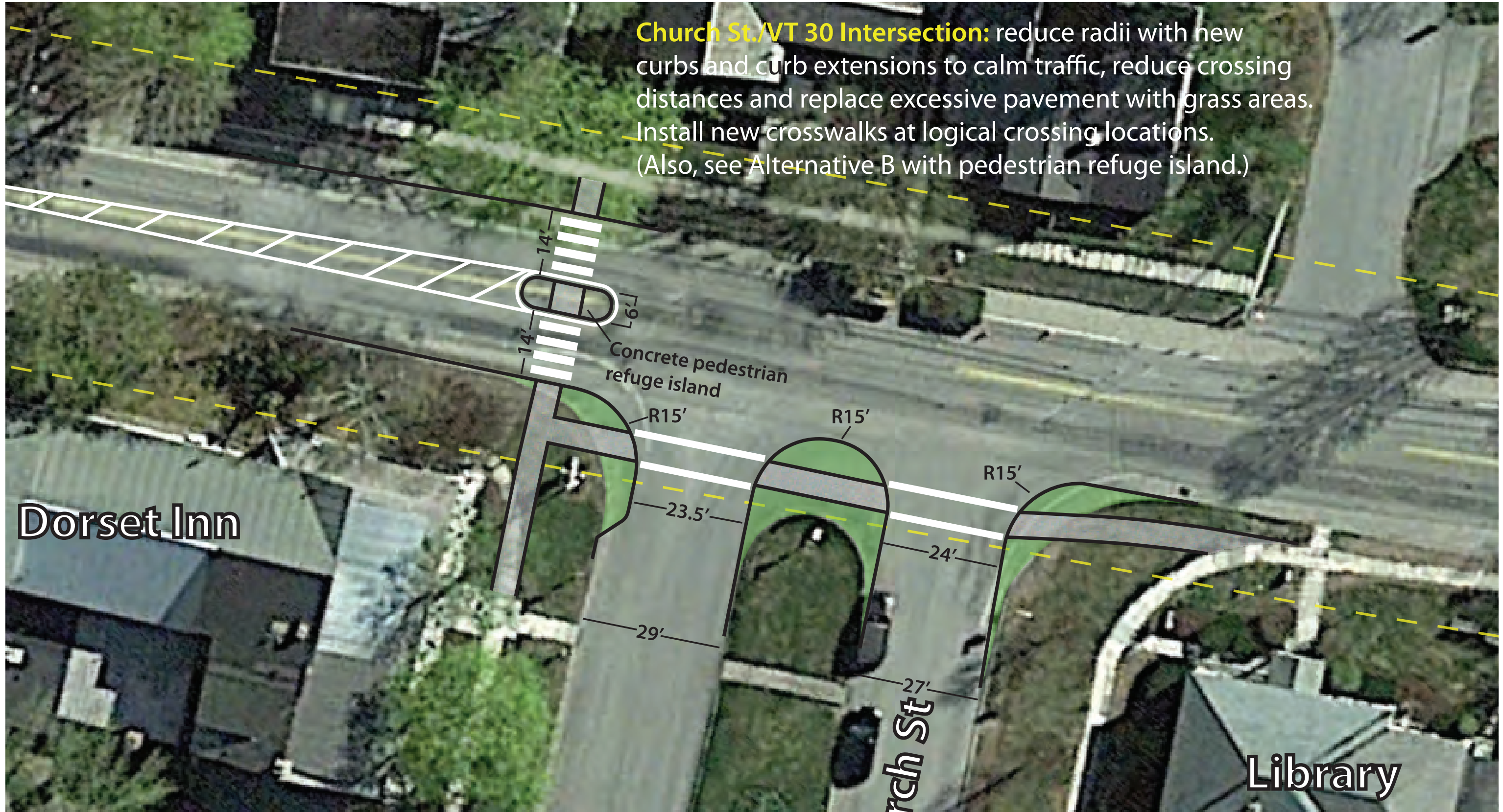
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