

An aerial photograph of a street, identified as Church Street, showing a yellow double line down the center. The street is flanked by dense green trees and foliage. The image has a slightly grainy, painterly quality. The text is overlaid on the lower portion of the image.

Bicycle Advisory Committee Recommendations for Enhancing Bicycle Parking on Church Street

September 29, 2015

Introduction

Town of Vienna staff have received complaints regarding the lack of and quality of bicycle parking within the commercial district of Church Street. The Town's Bicycle Advisory Committee (BAC) was asked to look at opportunities to enhance and improve bicycle parking on Church Street and report back to the Transportation Safety Commission (TSC) with their findings.

This report examines the area of Church Street extending from Lawyers Road to Dominion Road. The exercise focused on areas within public rights of way. It addresses short-term bicycle parking needs, defined by the Association of Pedestrian and Bicycle Professionals (APBP) as parking for a short duration (usually less than two hours) and convenient to businesses/services frequented by bicyclists.

Existing Conditions

The Town receives many complaints regarding the lack of automobile parking on Church Street. The same can be said for bicycle parking. Field inspections revealed minimal existing bicycle parking and, in some cases, substandard or poorly located equipment. Table 1 below reflects the inventory of on-street parking spaces, the number of bicycle racks, and the number of commercial entrances. This is included because it has a direct correlation to the number of both automobile and bicycle parking spaces that can be accommodated within the study area.

Table 1
Inventory of Parking Spaces, Bicycle Racks, and Commercial Entrances

Church Street: Lawyers Road to Center Street					
North Side			South Side		
Parking Spaces	Bicycle Racks*	Commercial Entrances	Parking Spaces	Bicycle Racks*	Commercial Entrances
15	1	7	16	1	7
<i>*Number of bicycle parking spaces varies depending on rack type</i>					

Church Street: Center Street to Dominion Road					
North Side			South Side		
Parking Spaces	Bicycle Racks*	Commercial Entrances	Parking Spaces	Bicycle Racks*	Commercial Entrances
2	0	5	3	1	3
<i>*Number of bicycle parking spaces varies depending on rack type</i>					

Church Street from Lawyers Road to Center Street

Although there is demand for bicycle parking in this block, there are very few opportunities to expand parking. Narrow sidewalks, a raised landscape area, and multiple commercial entrances restrict placement of bicycle racks within the public right of way. An existing bicycle rack located at “Nielsen’s Frozen Custard” is heavily used during the summer months. Its placement and rack type could be improved in

order to increase capacity. Area bicyclists told BAC members that they would like to see more bike



parking in this block of Church Street, particularly in the vicinity of “Great Harvest Bread” and “Nielsen’s Frozen Custard”.

Church Street from Center Street to Dominion Road

There is no bicycle parking (within public right of way) in this block of Church Street yet there is demand, particularly in the vicinity of retail establishments that are frequented by bicyclists such as “Café Amouri”. It should be noted that Café Amouri has provided a bicycle rack on site but its placement in relationship to the automobile parking limits its use and is frequently full on weekends.

Similar conditions, as identified in the previous block of Church Street, limit the opportunities to expand bicycle parking. However, there are several opportunities to provide in-street bicycle parking, commonly referred to as bike corrals. An in-street bike corral can be created from converting one or more automobile parking spaces to bicycle parking spaces. One standard automobile parking space can provide up to 12 bicycle parking spaces. Corrals can be designed and installed in a manner that allows flexibility and maneuverability. As an example, a corral could be relocated to meet changing parking demands or removed in order to accommodate road maintenance or winter snow removal. Locally, corrals can be found in the City of Alexandria, Arlington County, and the District of Columbia. The following photographs show various bike parking corral configurations from other jurisdictions.



King Street at Union Street, City of Alexandria



Chicago IL, Logan Square Neighborhood



Chicago, IL Andersonville Neighborhood



Gramby Street, Norfolk, VA



Chattanooga, TN: DERO auto rack in a “back-in” diagonal parking space



Rohoboth, DE: Corrals with planters

Potential (In-Street) Bicycle Parking Locations on Church Street

Understanding the sensitivity and demand for automobile parking spaces on Church Street, the BAC looked at locations that would not eliminate any on-street automobile parking spaces. Areas along the street, too small to accommodate automobile parking could be retrofitted as mini corrals. These corrals could be designed to provide parking for 4 – 8 bicycles. Based on the existing automobile parking layout on Church Street, four locations have been identified that could support potential bike corrals. These are shown on the attached map.

SITE B-1 This site is located on the north side of Church Street between the Diamond Spa and the commercial entrance to the Thomas Building. Initial field measurements indicate there is an area approximately 16 feet in length that can support in-street bicycle parking. Sketch B-1 (attached) shows a design concept using four rail mounted inverted “U” racks



SITE B-2 This location is on the north side of Church Street between the Cocoa Vienna chocolate shop and Dominion Road. This area is similar in size to Location B-1 (approximately 16 feet in length) and can accommodate parking for eight bicycles. (see Sketch B-1).

A bicycle corral at this



location could benefit pedestrians as well by functioning as a bulb-out and reducing the width and time it takes to cross Church Street.

SITE B-3 This location is on the south side of Church Street between Center Street and the commercial entrance to Café Amouri. The one automobile parking space currently located in this area is set back from the Center Street intersection approximately 38 feet (measured from pedestrian crosswalk marking). In-street bicycle parking can be accommodated in this area while maintaining the existing parking space. This can be accomplished by shifting the automobile parking space west approximately 12 feet (closer to the Center Street intersection), and installing the in-street bike corral between the parking space and driveway entrance. This is graphically depicted on Sketch B-3. This design concept can accommodate four rail mounted inverted “U” racks providing parking for eight bicycles.



SITE B-4 This location is on the south side of Church Street in front of Terra Christa. With the pending redevelopment of the Arrington Property, an existing driveway entrance will be closed allowing two additional on-street parking spaces. Based on these improvements, the BAC recommends converting the parking space directly in front of Terra Christa to bicycle parking (adjacent to the entrance to “Bikes @ Vienna”, Pure Pasty, and Sweet City Desserts). Not only will this address a need for additional bicycle parking in this area, it will also improve intersection sight distance for both automobiles and bicycles entering/exiting



Church Street from this entrance.

Cost Estimates

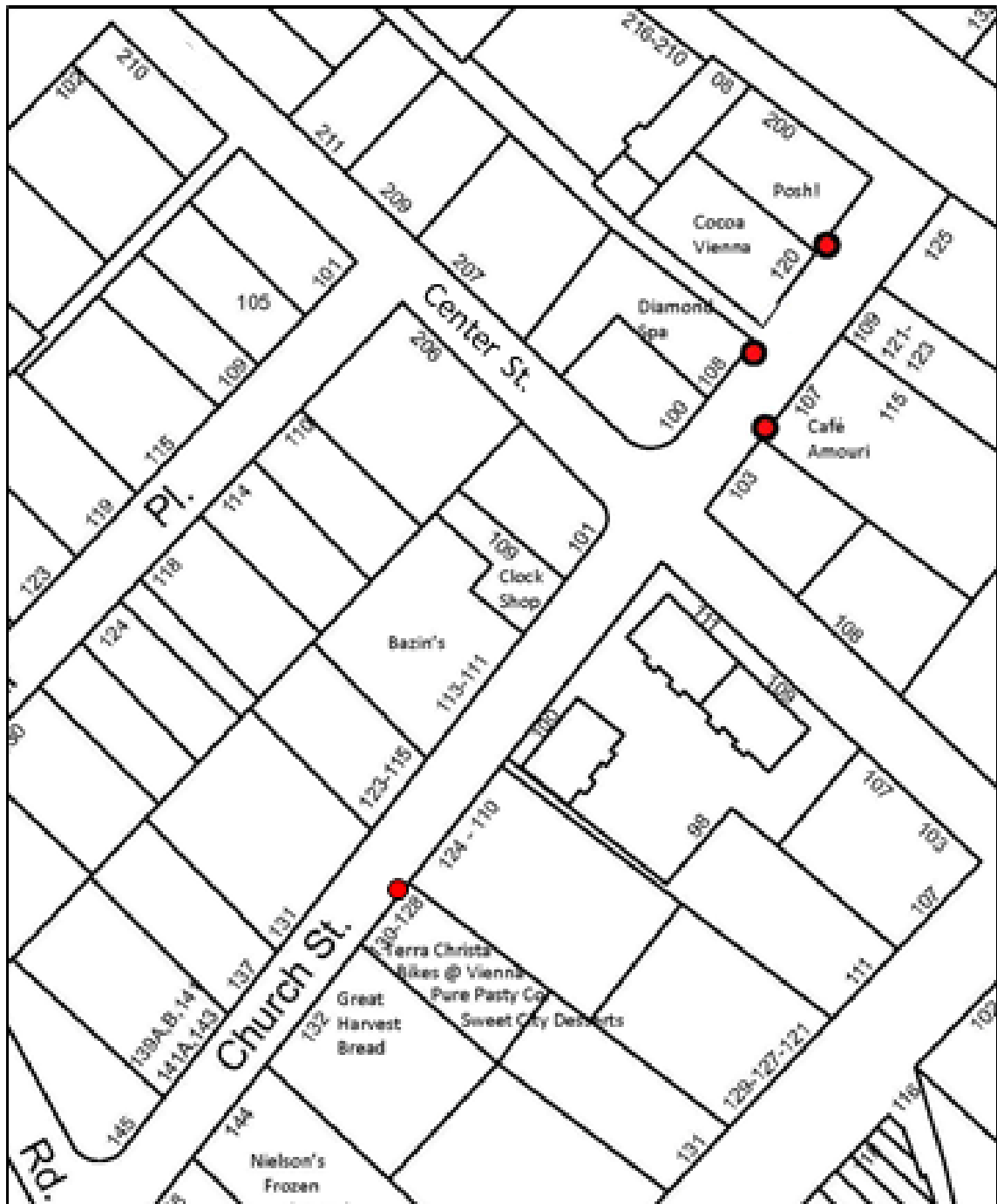
Bicycle parking is a relatively inexpensive element of any streetscape/roadway improvement. Costs vary depending on the amount of the parking, field conditions, and equipment choices. For Church Street, the rail mounted, inverted “U” rack was selected. Planning estimates were prepared for options B-1, B-3, and B-4. The following estimates do not include installation costs.

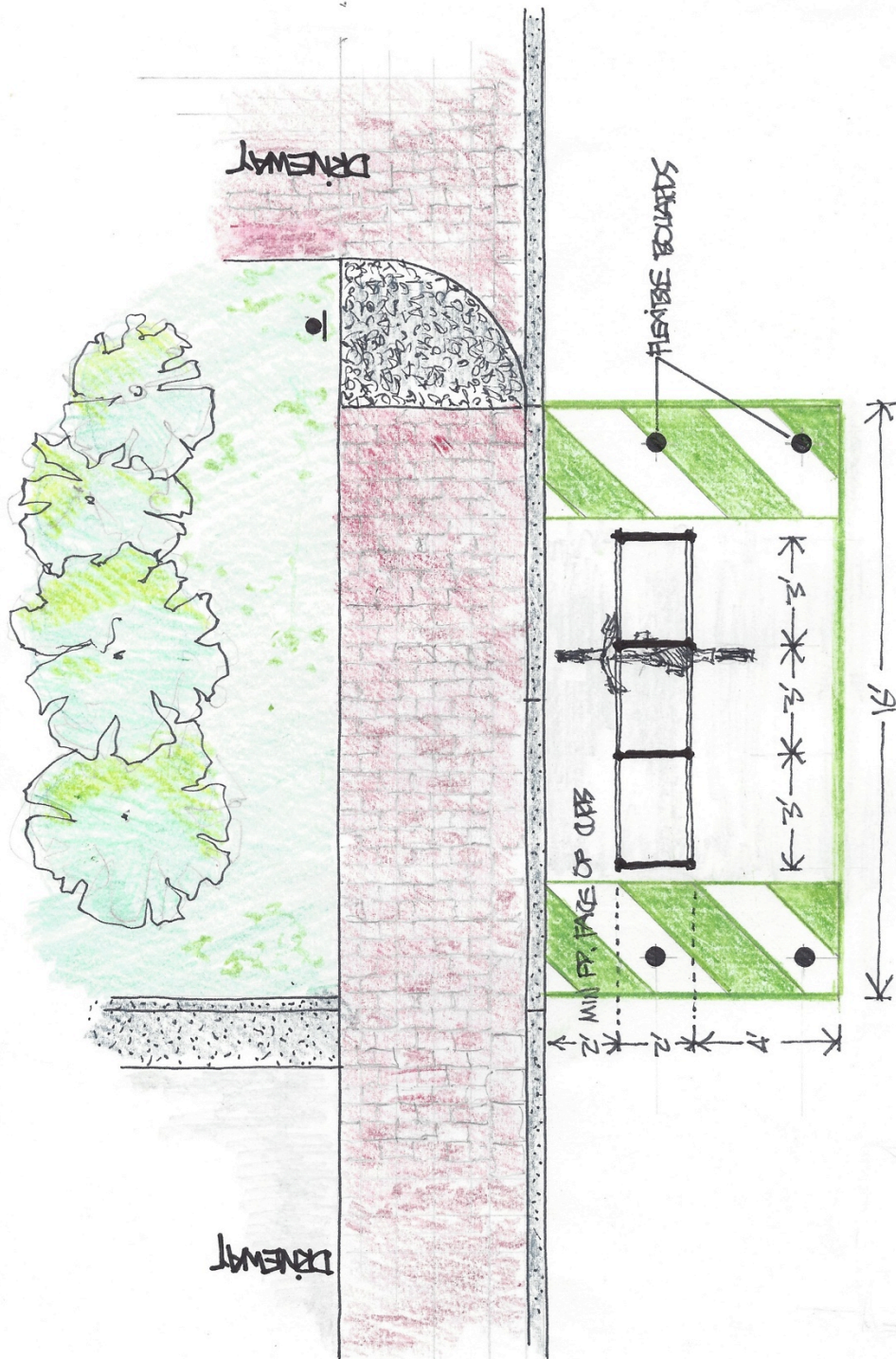
B-1	4 inverted “U” racks (Plastisol coating) @ \$216.00	\$864.00
	Set of rails	\$255.00
	4 flexi-post bollards @ \$45.00	\$180.00
	2 Green Thermoplastic markings @ \$130.00	\$260.00
	1 Bicycle Parking Sign (Optional)	\$50.00
	TOTAL	\$1,609.00
B-2	4 inverted “U” racks (Plastisol coating) @ \$216.00	\$864.00
	Set of rails	\$255.00
	4 flexi-post bollards @ \$45.00	\$180.00
	2 Green Thermoplastic markings @ \$130.00	\$260.00
	1 Bicycle Parking Sign (Optional)	\$50.00
	TOTAL	\$1,609.00
B-3	4 inverted “U” racks (Plastisol coating) @ \$216.00	\$864.00
	Set of rails	\$255.00
	4 flexi-post bollards @ \$45.00	\$180.00
	2 Green Thermoplastic markings @ \$130.00	\$260.00
	Eradicate existing parking space markings @ 5.00/ft	\$180.00
	Paint new relocated parking space @ \$1.25/ft	\$45.00
	1 Bicycle Parking Sign (Optional)	\$50.00
	TOTAL	\$1834.00
B-4	6 inverted “U” racks (Plastisol coating) @ \$216.00	\$1296.00
	Set of rails	\$510.00
	4 flexi-post bollards @ \$45.00	\$180.00
	2 Green Thermoplastic markings @ \$130.00	\$260.00
	1 Bicycle Parking Sign (Optional)	\$50.00
	TOTAL	\$2296.00

Location Map

Potential bicycle parking locations on Church Street

● proposed bicycle parking





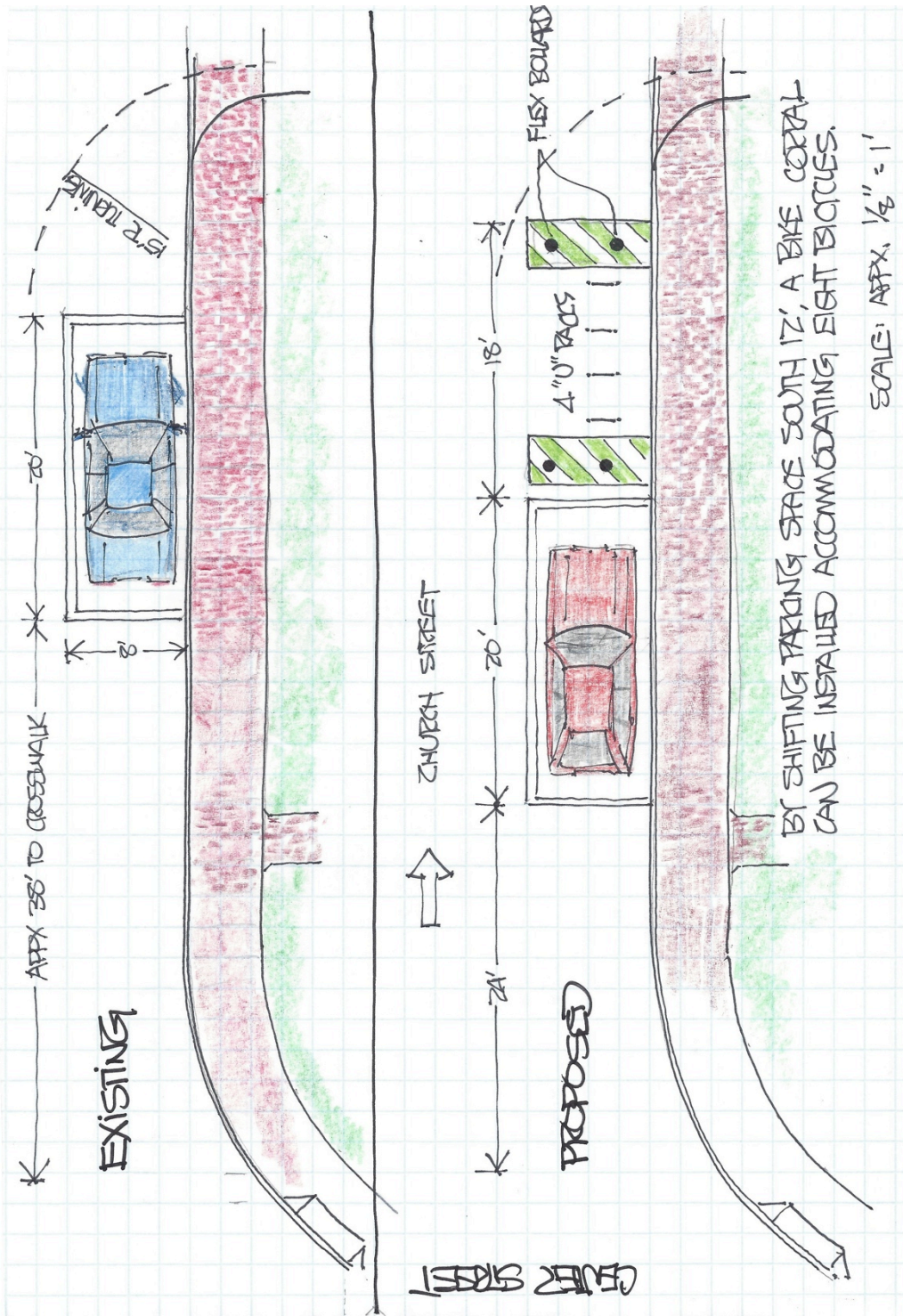
Location B-1 and B-2 Church Street In-Street Bicycle Parking

Space can accommodate four "U" racks providing parking for eight bicycles

SCALE: APPX. $\frac{1}{4}" = 1'$

Location B-3 Church Street In-Street Bicycle Parking

Space can accommodate four "U" racks providing parking for eight bicycles



Location B-4 Church Street In-Street Bicycle Parking

Space can accommodate six "U" racks providing parking for twelve bicycles

