

Alternative Hub Options CCTA Transit Center

Alternatives to Single DTC

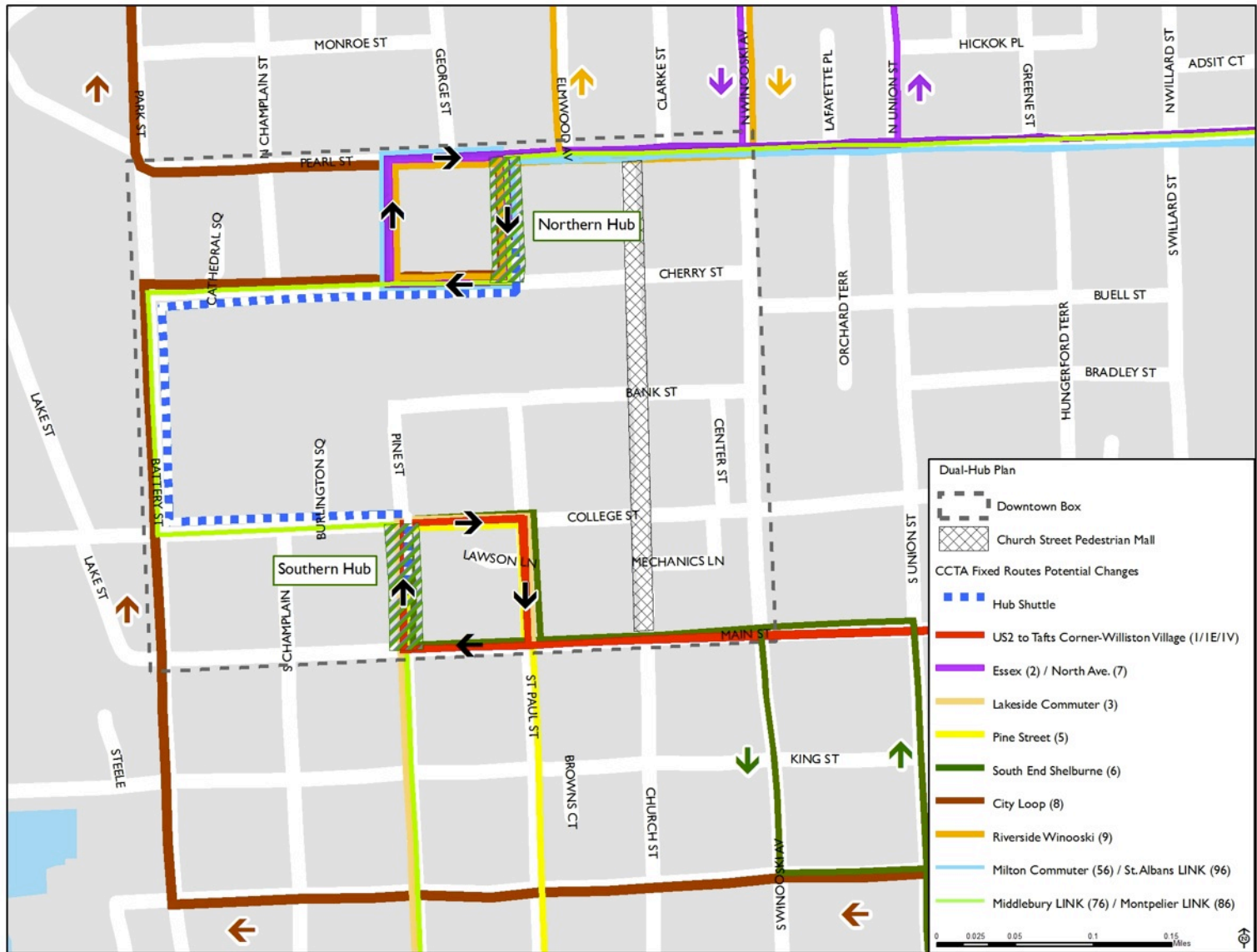
- Primary constraint on site selection in downtown
 - Off-street parcel large enough for 21 bus berths plus passenger and operational facilities
 - On-street location with sufficient continuous curb space and street width
- Dual hub option
 - Two mini-hubs within downtown area, each accommodating half of the system
- Remote hub option
 - Hub located outside of the downtown area

Dual Hub Option

- Northern mini-hub
 - St. Paul Street between Pearl and Cherry
- Serves northern routes
 - Essex Junction (2)
 - North Avenue (7)
 - City Loop (8)
 - Riverside/Winooski (9)
 - Milton (56)
 - Montpelier-PM (86)
 - St. Albans (96)

Dual Hub Option

- Southern mini-hub
 - Pine Street between Main and College
- Serves southern routes
 - Williston/Will-Essex (1/1E)
 - Williston Village (1V)
 - Lakeside (3)
 - Pine Street (5)
 - Shelburne Road (6)
 - Middlebury (76)
 - Montpelier-AM (86)



Operational & Ridership Impacts

- No running time impacts to current routes
 - Slight reliability improvement for southern routes
- Significant impact on passengers currently transferring downtown
 - 64% of transferring passengers would need to ride a new shuttle between the two mini-hubs
 - 588 weekday transfers (and 20+ from Neighborhood Specials), 360 Saturday transfers affected
 - Forced transfer and extra travel time results in loss of 320 weekday and 190 Saturday transfer trips – 92,000 per year

Transfer Matrix

To From	1	2	5	6	7	8	9	12	1E	1V
1		40	9	29	37	13	27	73	5	3
2	43		24	36	29	12	24	3	8	2
5	23	23		7	15	6	8	1	0	0
6	36	38	6		26	16	17	1	2	1
7	46	34	16	28		13	16	0	1	4
8	18	9	6	12	14		7	2	0	0
9	19	21	9	20	13	6		0	0	2
12	72	3	0	4	3	2	3		0	0
1E	4	6	0	1	1	1	0	0		0
1V	1	3	0	1	1	0	0	3	0	

198 Northern
 137 Southern
 588 Cross Hub
 145 UMail

Dual Hub Cost Impacts

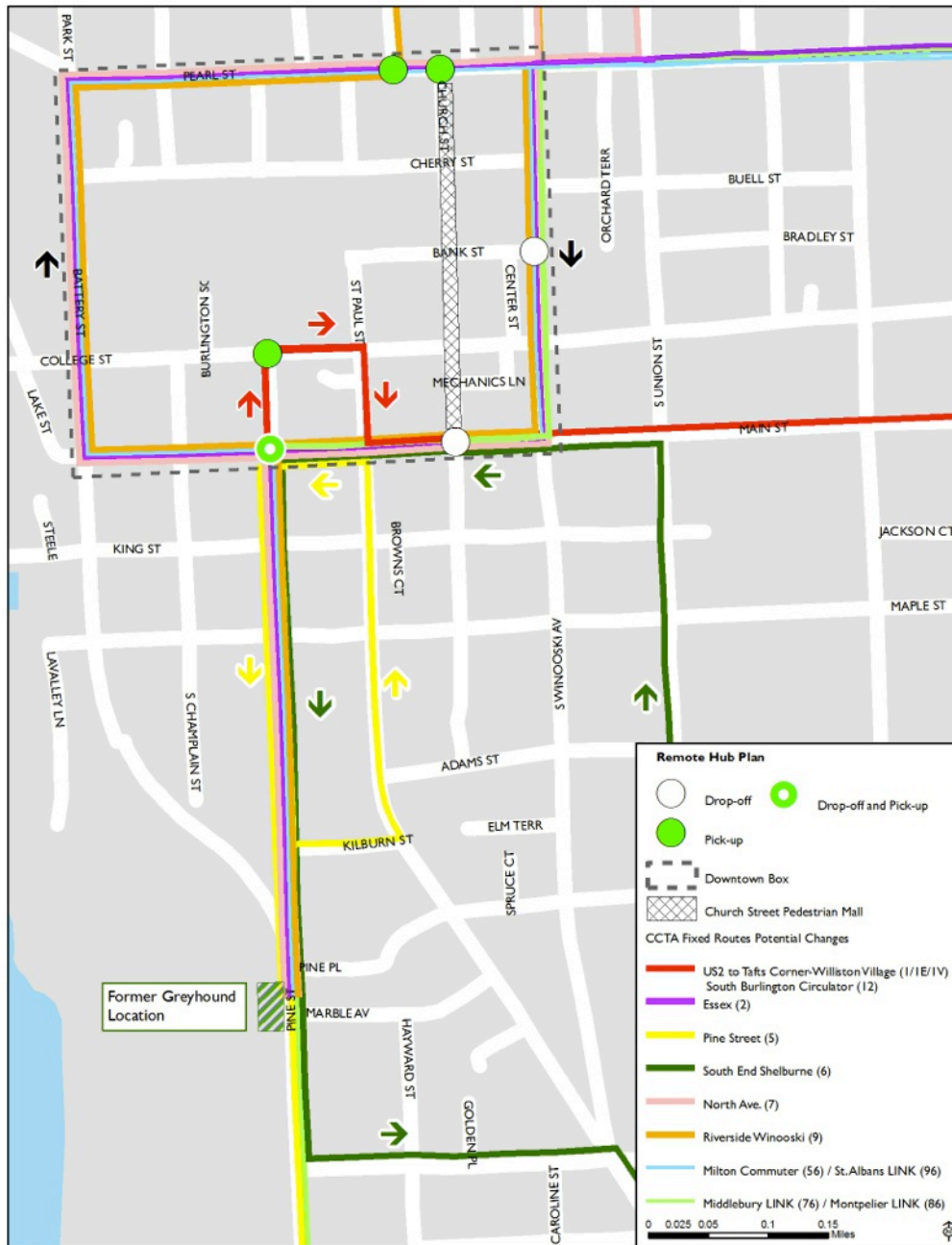
- New shuttle would operate 11.5 hours Mon-Sat
 - Serve northern hub at :00 and :30 and southern hub at :15 and :45
 - Annual operating cost of \$333,000 in 2015
- Additional information and security staff: \$81,000
- Fare revenue loss estimated at \$77,000
- Total annual operating cost impact: \$490K
- Capital cost for new shuttle bus: \$400K

Remote Hub Option

- Consider hub located at former Greyhound
 - One mile south of downtown
 - Routes from north and east would skirt the downtown area for drop-offs and pick-ups
 - Routes from south would loop to edge of downtown
 - City Loop & College St Shuttle would not serve hub
- Would function as *transfer* center and layover point, rather than transit center, as walk-in traffic would be minimal

Remote Hub Downtown Impacts

- Facilities needed for downtown walk-in traffic
 - Two passenger shelters with curb space for two buses out of the traffic stream
 - Pine Street at College Street
 - Main Street at Pine Street
 - Pearl Street at Church Street
 - Pearl Street at Elmwood (single shelter only)
- Would not provide staffed facilities or restrooms for passengers in the downtown



Operational Impacts

- Extra running time for all routes except Pine Street and Shelburne Road
 - 5 minutes each way most of the day
 - 15 minutes outbound in the PM peak due to congestion on Pine Street approaching Main Street
- Requires extra bus in service
 - Williston all day Mon-Sat
 - Williston-Essex all day Mon-Sat
 - Riverside/Winooski all day Mon-Fri, 6 hours on Sat
 - Essex Junction 4 hours in afternoon Mon-Fri

Remote Hub Cost and Ridership

- Estimated operating cost for extra buses is \$990,000 annually
 - 9% increase in urban fixed-route operating budget
- Loss of about 32,500 trips annually
 - Increased travel time on buses to get to transfer point at remote hub
 - Increased waiting time for passengers transferring from Williston routes
- Total additional operating cost over \$1 million/yr
- Capital cost for three new buses: \$1.2 million

Summary

- Increase in annual operating costs
 - Nearly \$0.5 million for dual hub
 - Over \$1 million for remote hub
- Capital costs for new bus(es)
 - \$400K for dual hub
 - \$1.2 million for remote hub
- Ridership losses
 - 92,000 for dual hub
 - 32,500 for remote hub