



NAPA VALLEY TRANSPORTATION AUTHORITY Board Agenda Letter

TO: NVTA Board of Directors
FROM: Kate Miller, Executive Director
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SUBJECT: Public Hearing and Approval of Staff Recommendation for Vine Vision
Phase II Changes to Vine Local Service in the City of Napa

RECOMMENDATION

That the Napa Valley Transportation Authority (NVTA) Board hold a Public Hearing and approve staff's recommendation for local Vine service in the City of Napa.

OTHER OPTIONS FOR CONSIDERATION

Staff has evaluated a number of scenarios to improve local Vine service in the City of Napa and has narrowed consideration for those changes to four options. Staff is recommending that the board approve Option #1. A discussion of all four options follow.

Option #1: Small Loops –Option #1 is the staff recommendation for moving forward. This service is an amalgamation of the current system and the fixed route elements of Option #2 and Option #3. It would retain most of the coverage offered by the current Vine service. The exceptions are the northern most part of the Route 6 and the Route 4 service along Terrace Drive. These areas have low ridership as a proportion of the entire route. The routes in this option would not be true bidirectional routes, however, most routes would result in equal travel times to and from a destination. As NVTA is able to expand its fleet and increase its budget many of the routes under this option could be easily altered to become bidirectional.

Option #2: NVTA Optimum but Cost Prohibitive Service Plan – This option is a combination of on demand and fixed route service that was initially introduced to the board at its Board Retreat in September 2018. Low ridership areas in the City of Napa would be shifted to on demand service and the majority of the fixed routes would be bidirectional. Service along Foster Road and Imola Avenue west of Jefferson would be eliminated. Frequencies would be reduced to thirty minutes on all but one route. The on demand areas would be initially served by paratransit vehicles until NVTA could acquire dedicated fleet for each service. The cost of the service and the costs projected to address induced ridership for on demand service far exceeds the resources the agency currently has available. Staff still believes there is merit in this proposal and Option #1 provides a

baseline system that could eventually transition towards a system similar to Option #2 when additional resources become available.

Option #3 Direct Service Plan with Removal of Low Productivity Routes – This option would be a dramatic shift away from the Vine’s current coverage based system because it eliminates all unproductive service focusing exclusively on areas of known ridership demand. Transit service on Browns Valley Road west of Laurel and service north of Trancas and Redwood Road would be eliminated. These two areas have historically produced the lowest ridership on the Vine. Eliminating these two areas would shift the Vine structure toward a productivity-based system. Removing hours from unproductive areas would free up resources to provide higher frequencies and better service coverage in more productive areas of the system but it could cause mobility challenges for individuals that cannot drive in a significant portion of the City.

Option #4 – On-Demand Everywhere - This option would remove all local fixed route service from the City of Napa and replace it with on demand shuttle service. While staff believes that this may be a viable option in the future, NVTA is not currently in a position to implement such a service primarily because of anticipated issues resulting from expected induced ridership demand. The current Vine fleet make up and number of vehicles is insufficient. The primary hurdle would be staffing of NVTA’s dispatch. While the Ride the Vine app would be employed, staff anticipates a high number of call-in requests for rides. Finally, the cost to deploy this service is likely to exceed current financial resources.

COMMITTEE RECOMMENDATION

None

EXECUTIVE SUMMARY

NVTA staff have finished the Vine comprehensive operational analysis (COA). The COA is a multi-year planning process. The culmination of this planning effort is the Vine Vision. The Vine Vision is two phases. Phase I consists of changes to the Vine’s regional services which was implemented in April of 2019. Phase II focuses on local service in the City of Napa. The following report will provide the NVTA Board with four service options. Staff will begin implementation of the new service in the winter of 2019 upon approval of the NVTA Board to proceed.

PROCEDURAL REQUIREMENTS

1. Open Public Hearing
2. Staff Report
3. Public Comment
4. Close Public Hearing
5. Motion, Second, Discussion and Vote

FISCAL IMPACT

Is there a Fiscal Impact? Yes. The financial ramifications of each option are summarized in Table 1 below. A detailed description of each option can be found in the Background and Discussion section of this report. The costs for each service were calculated using both cost per mile (\$0.54) and cost per hour (\$48.00).

Table 1: Summary of Option Costs

Current Service	Total Annual Cost	% Change
Option #1	\$1,829,727.00	-1%
Option #2	\$2,259,609.00	23%
Option #3	\$1,643,526.00	-11%
Option #4	\$2,203,980.00	20%

STRATEGIC GOALS MET BY THIS PROPOSAL

- Goal 1 – Serve the transportation needs of the entire community regardless of age, income, or ability
- Goal 3 – Use taxpayer dollars efficiently
- Goal 4 – Support Napa County’s economic vitality
- Goal 5 – Minimize the energy and resources required to move people and goods

CEQA REQUIREMENTS

ENVIRONMENTAL DETERMINATION: The proposed action is not a project as defined by 14 California Code of Regulations 15378 (California Environmental Quality Act (CEQA) Guidelines) and therefore CEQA is not applicable.

BACKGROUND AND DISCUSSION

NVTA staff is providing the Board with four service options. The four options all work towards NVTA’s goal of creating more direct service for the residents in the City of Napa. In addition, staff strove to keep each option’s service hours and peak vehicle demands the same as the current fixed route service in the City of Napa. Some options, however, exceed the current service hours and peak vehicle resources. Nevertheless, staff is presenting these options to ensure the Board can deliberate on all possibilities for service in the City of Napa. Each option is culmination of public input, Board input, and best practices in transit planning.

Option #1: Small Loops (Staff’s Recommendation)

Table 2: Service Summary Option #1

	Current Service	Option #3	Change
Daily Hours	135	133	-1.5%
Daily Miles	1,251	1,319	5.4%
Peak Fixed Route Vehicles	11	11	0
Peak On Demand Vehicles	0	0	0
30 Minute Headways	6	5	-1
45 Minute Headways	2	0	-2
60 Minute Headways	0	3	+3
On Demand Service	0	0	0
Additional Costs (TapRide)	\$0.00	\$0.00	0.0%
Daily Costs	\$7,230.60	\$7,175.40	-0.8%
Total Annual Costs	\$1,843,803.00	\$1,829,727.00	-0.8%

Option #1 is an amalgamation of the current system and the following two options in this report. It would retain most of the coverage offered by the current Vine service. The exceptions are the northern most part of the Route 6 and the service on the Route 4 along Terrace Dr. These areas have low ridership as a proportion of the whole route. The routes in this option are not true bidirectional routes. However, most route designs would result in equal travel times to and from a destination. As NVTA is able to expand its fleet and increase its budget many of the routes under this option can be easily altered to become bidirectional. The service design can be reviewed in Figure 3: Option #1

Pros

- Cost neutral
- Creates a “high frequency” corridor along Jefferson between Lincoln and Trancas
- Retains higher frequency on all routes
- Can be easily upgraded to bidirectional service at a later date
- Areas with low productivity are served by a single route making elimination at a later date easier
- Achieves “Directness of travel” need from COA Needs Assessment

Cons

- Not true bidirectional service

Option #2: Optimum but Cost Prohibitive Service Plan (NVTA Board Retreat Service)

Table 3: Service Summary Option #2

	Current Service	Option #1	Change
Daily Hours	135	160	19.0%
Daily Miles	1,251	1,753	40.0%
Peak Fixed Route Vehicles	11	9	-3
Peak On Demand Vehicles	0	3	+3
30 Minute Headways	6	1	-5
45 Minute Headways	2	3	-1
60 Minute Headways	0	1	+1
On Demand Service	0	2	+2
Additional Costs (TapRide)	\$0.00	\$34,000.00	100.0%
Daily Costs	\$7,230.60	\$8,731.80	20.8%
Total Annual Costs	\$1,843,803.00	\$2,259,609.00	22.6%

Option #2 is a combination of on demand and fixed route service. Low ridership areas in the City of Napa would be shifted to on demand service and all fixed route service is bidirectional with the exclusion of the Route D (See Figure 1: Option #2 Service Map). Service would be removed along Foster Rd. and Imola west of Jefferson. During the course of the COA, ridership in this area was low but has recently experienced a resurgence. Frequencies would be reduced from thirty minutes on all but one route, Route C. The on demand areas would be initially served by paratransit vehicles until NVTA acquires a dedicated fleet for each service type.

Pros

- True bidirectional service
- Provides and on demand pilot
- Achieves “Directness of travel” need from COA Needs Assessment

Cons

- Increase in hours
- Increase in miles
- Increase in costs
- Removes service along Foster Road
- Removes service on Imola from Foster to Jefferson
- Will increase call wait times for all on demand services operated by the Vine

Option #3: Direct Service Plan with Removal of Low Productivity Routes

Table 4: Service Summary Option #3

	Current Service	Option #2	Change
Daily Hours	135	122	-9.6%
Daily Miles	1,251	982	-21.5%
Peak Fixed Route Vehicles	11	12	+1
Peak On Demand Vehicles	0	0	0
30 Minute Headways	6	1	-5
45 Minute Headways	2	3	-2
60 Minute Headways	0	2	+7
On Demand Service	0	0	0
Additional Costs (TapRide)	\$0.00	\$0.00	0.0%
Daily Costs	\$7,230.60	\$6,445.20	-10.9%
Total Annual Costs	\$1,843,803.00	\$1,643,526.00	-10.9%

Option #3 is a dramatic shift away from the Vine’s current coverage based system. Transit service on Browns Valley Rd. west of Laurel and service north of Trancas and Redwood Rd. would be eliminated. These two areas have historically produced the lowest ridership on the Vine. Eliminating these two areas would shift the Vine toward a productivity based system. Removing hours from unproductive areas allows more routes to retain higher frequencies. Please see Figure 2: Option #3 Service Map for a detailed outline of the proposed routes and their frequencies.

Pros

- True bidirectional service
- Reduces costs
- Creates a “high frequency” corridor along Jefferson between Lincoln and Trancas
- Retains higher frequency on most routes

Cons

- Requires more peak vehicles
- Eliminates service to Vintage High
- Eliminates service completely to certain areas creating mobility challenges to existing users.

Option #4: On Demand Everywhere

Table 5: Service Summary Option #4

	Current Service	Option #4	Change
Daily Hours	135	144	6.7%
Daily Miles	1,251	1,140	-8.9%
Peak Fixed Route Vehicles	11	0	0
Peak On Demand Vehicles	0	12	+12
30 Minute Headways	6	0	-6
45 Minute Headways	2	0	-2
60 Minute Headways	0	0	0
On Demand Service	0	12	0
Additional Costs (TapRide/CS)	\$0.00	\$252,832- \$286,416	100.0%
Daily Costs	\$7,230.60	\$7,956.00	10.0%
Total Annual Costs*	\$1,843,803.00	\$2,203,980.00	19.5%

*Cost is low end of range for three CS/Dispatch staff

Option #4 This option would remove all local fixed route service from the City of Napa and replace it with on demand shuttle service. While staff believes that this may be a viable option in the future, NVTA is not currently in a position to implement such a service primarily because of anticipated issues resulting from expected ridership demand. The current Vine fleet make up and number of vehicles is insufficient. The primary hurdle would be staffing NVTA’s dispatch. While the Ride the Vine app would be employed, staff anticipates a high number of call-in requests for rides. Finally, the cost to deploy this service is likely to exceed current financial resources.

Pros

- Could reduce paratransit costs
- More competitive with car
- Reduces infrastructure costs
- Allows service to be more responsive to construction projects
- Vehicle procurement timelines are shorter
- May reduce cost of maintenance facility

Cons

- Induced demand may exceed resource availability
- Politically difficult to move back to fixed route if not productive
- Cost
- Need to reconfigure fleet to small vehicles
- Will require vehicles to be replaced more frequently
- Would require more vehicles in the future due to CARB requirement
- NVTA not support local transit service during Bottlerock or other large scale events

Staff's Recommendation

Staff is recommending that the Board select Option #1. This option provides the most stable foundation to improve transit in the City of Napa over the next three years. The newly designed local service in Option #1 focuses on service that is more direct using routes that are more linear and travel along a single line for the majority of their length. This is in opposition to the current Vine system with its long, circular loops that require riders to make longer, less direct trips. Staff hopes to make travel times equal from Point A to Point B and Point B back to Point A, as well as, minimize transfers between routes. This service design will allow NVRTA to easily shift more productive routes to true bidirectional service. Some routes in Option #1 operate less frequently. To achieve more linear routes within the current budget staff had to make some service less frequent. Option #1 positions the system in a way to easily increase frequencies where the demand warrants when financial resources and buses become available.

Staff identified key corridors and locations frequented by Vine riders during the planning process. Transfer pairs gave staff the clearest indication of where riders were coming from and going to. The data indicated a strong north/south travel pattern. The three routes driving this pattern were the Routes 2, 5, and 8. Using boarding and alighting data, coupled with load factor data, staff was able to determine the ultimate destination for the majority of these riders. Not surprising those destinations were the businesses and medical facilities along Trancas. This was especially true on the Route 5 where the majority of boardings were at the transit center with the ultimate destination being Clinic Olé on Pear Tree Lane just south of Trancas. Option #1 provides a high level of service to these destinations.

Within three years staff hopes to see an increase in productivity on local service in the City of Napa. In the first year staff anticipates a decrease in the number of trips taken on the Vine. This hypothesis is based on two factors: at the outset of any change, use tends to lessen and the new system will require fewer transfers leading to a reduction in the overall trips taken on the Vine. Staff anticipates that Phase II recommendations will ultimately lead to a more efficient system with greater utility for current and future riders.

NVRTA staff welcomes and encourages feedback from the riding public and will provide updates on public feedback to the Board. Future changes to the Vine system will largely be in the hands of the riders. Feedback in tandem with data will inform staff on changes that need to be made to the system.

Next Steps

NVRTA staff will implement a public engagement campaign to prepare riders for the changes. Staff plans to implement the changes during winter break (January) of next year. This timeline will give staff ample opportunity to engage the public, and will minimize disruptions to students using the bus system to get to and from school.

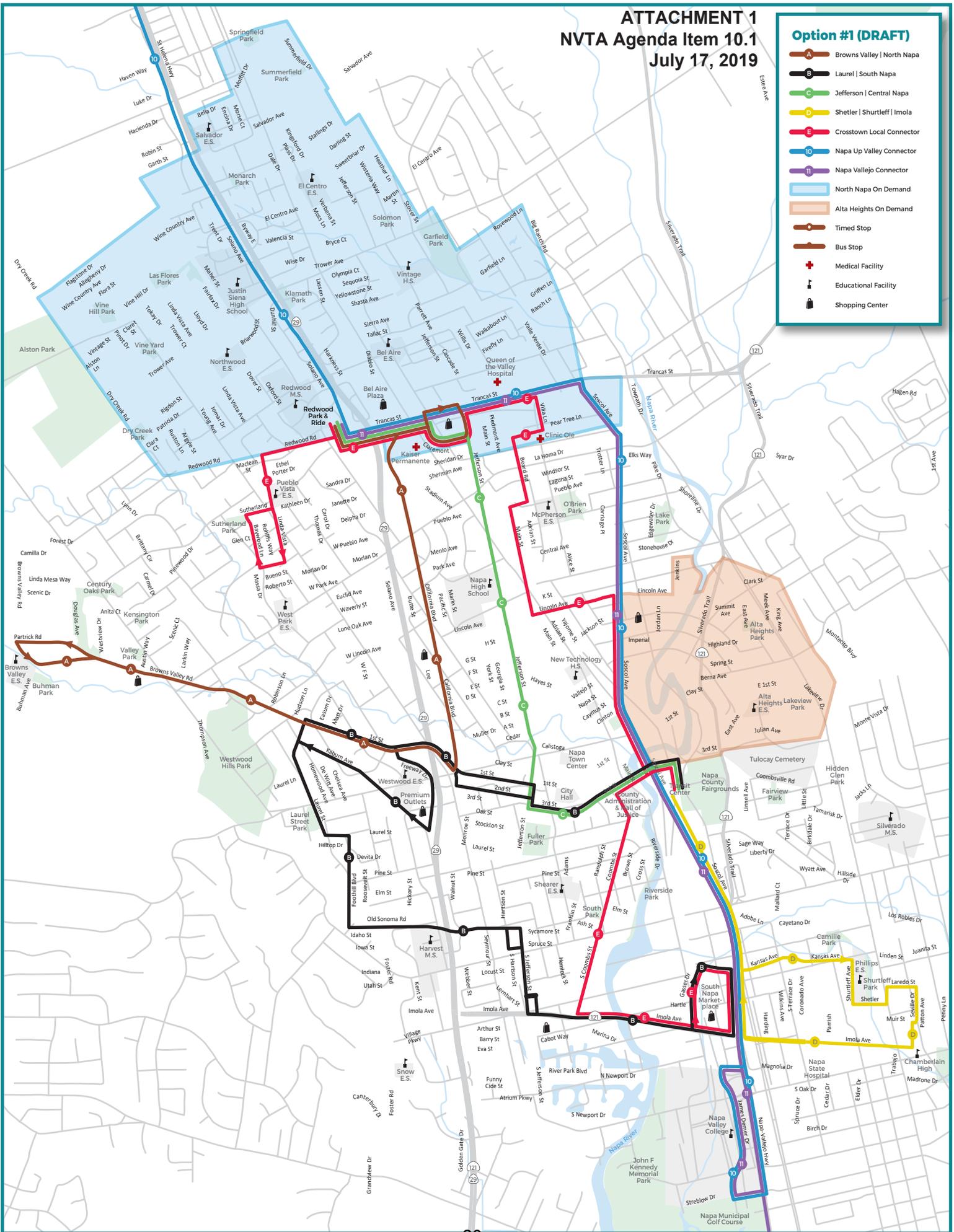
SUPPORTING DOCUMENTS

Attachments: (1) Figures 1-3 (Draft Options 1-3 Route Maps)

ATTACHMENT 1 NVRTA Agenda Item 10.1 July 17, 2019

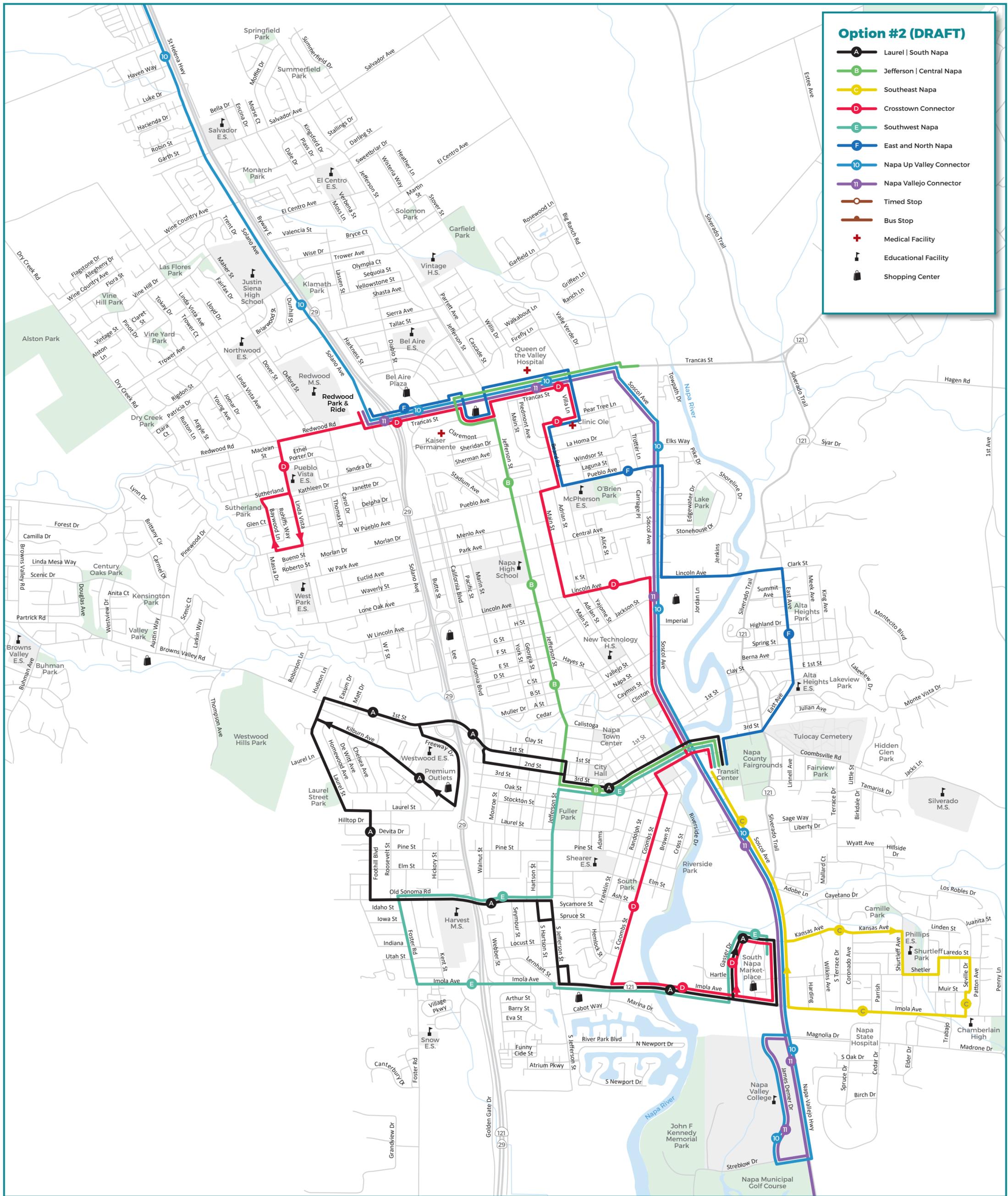
Option #1 (DRAFT)

- A — Browns Valley | North Napa
- B — Laurel | South Napa
- C — Jefferson | Central Napa
- D — Shetler | Shurtleff | Imola
- E — Crosstown Local Connector
- 10 — Napa Up Valley Connector
- 11 — Napa Vallejo Connector
- North Napa On Demand
- Alta Heights On Demand
- Timed Stop
- Bus Stop
- + Medical Facility
- + Educational Facility
- + Shopping Center



Option #2 (DRAFT)

- A** Laurel | South Napa
- B** Jefferson | Central Napa
- C** Southeast Napa
- D** Crosstown Connector
- E** Southwest Napa
- F** East and North Napa
- 10** Napa Up Valley Connector
- 11** Napa Vallejo Connector
- Timed Stop
- Bus Stop
- +** Medical Facility
- 🏫** Educational Facility
- 🛍️** Shopping Center



Option #3 (DRAFT)

- A Browns Valley | North Napa
- B Laurel | South Napa
- C Jefferson | Central Napa
- D Shetler | Shurtleff | Imola
- E Northwest Napa
- F Southwest Napa
- G Coombs
- H North Napa
- IO Napa Up Valley Connector
- II Napa Vallejo Connector
- Timed Stop
- Bus Stop
- + Medical Facility
- + Educational Facility
- + Shopping Center

