

STAFF REPORT

March 14, 2024

TO: Bicycling, Transportation, and Street Safety Commission

FROM: Ryan Chapman, Assistant Director PWET/Traffic Engineer

SUBJECT: Fourteenth Street / Villanova Drive Improvement Project Update

Recommendation

Receive presentation and update on the Fourteenth Street / Villanova Drive Improvements.

Background and Analysis

Historical Context

- In 2014, the City completed a Walk/Bike Audit Report, informed by extensive public outreach at all elementary and junior high schools, including North Davis Elementary School. The Walk/Bike Audit Report analysis for North Davis Elementary School included observed challenges and recommendations along Fourteenth Street. The report identified high, medium and low priority projects. The North Davis Elementary School walk/bike audit took place on April 12, 2023 and included 16 stakeholders including representatives from the City, the school, the school district, the community and interested parents.
- In February 2015, staff shared a plan to the BTSSC to apply for an Active Transportation Program and/or SACOG Bike/Ped Program grant. The grant proposal included the high priority projects at several school sites, including North Davis Elementary School. The BTSSC supported the city pursuing grant funding for this project.
- In June 2015, the City of Davis submitted a grant application under the SACOG Regional/Local funding program which provides funding for maintenance and improvements projects. The City was awarded \$992,000 for this project on Fourteenth Street from F Street to Oak Avenue and on Villanova Drive from Anderson Road to Sycamore Lane. The project was originally scoped for road rehabilitation, buffered bike lanes, intersection curb extensions, pedestrian refuge islands, restriping crosswalks, and green bike lane striping.
- In July 2017, after the project was awarded funding by SACOG, Staff again sought input from the BTSSC to discuss the baseline improvements. While no formal action was taken, commissioners made the following comments:

Due to the high non-motorized activity levels with adjacent institutional uses on

Fourteenth Street and because this corridor is part of a primary east-west bicycling connection across the city (including a key segment of the 12-mile Davis bike loop), this project warranted exploration of more substantive improvements than those originally scoped in the grant application in June 2015.

The BTSSC also highlighted that the interior segment of Villanova Drive between Anderson Road and Oak Avenue should also be considered for inclusion in the project.

- In winter 2018 staff issued a Request for Proposals and selected Alta Planning + Design to provide engineering services for the project. Between winter and summer 2018, Staff and consultants conducted additional corridor analysis and community outreach to develop design concepts for more comprehensive improvements. Outreach included stakeholder interviews and a community open house in spring 2018.
- In 2020, Staff progressed to 60% Design, except for the intersection of Fourteenth and Oak Avenue, which was challenging due to right-of-way and cost constraints. Staff felt that the design should be tested in the field prior to fully committing to a design concept. Staff planned a demonstration project for the proposed cycle-track and intersection improvements at Fourteenth and Oak. However, due to COVID the demonstration was delayed until DJUSD schools returned to in-person instruction.
- In November 2022 a demonstration project was installed for one-week beginning on November 8, 2022. The temporary design included a stop-controlled protected intersection at Fourteenth Street and Oak Ave and a two-way cycle-track on Fourteenth Street between Oak Avenue and B Street. The consultant conducted traffic counts and made observations and conducted a community-wide survey with both qualitative and quantitative questions as part of the demonstration project.
- In March 2022 this project was brought before the BTSSC with an update. At that time the BTSSC chose to move forward with a Cycle track alternative along the north side of Fourteenth Street between Oak Avenue and F Street.
- After the March 2022 BTSSC meeting staff continued to engage with community members as well as with Unitrans and the school district on the project design and scope. Several concerns were raised about the placement of the cycle track and the design on the vertical elements that would be needed to separate it from automobile traffic. These include the following:
 - How will this affect access to the parking lots along the north side of the road, especially the High School student parking lot? Especially the student parking lot at the high school.
 - How will this affect curb side drop off and pick up for students at both North Davis Elementary and Davis High? Where and how would they be crossing the cycle track to get to the sidewalk.
 - How will this affect bus stop accessibility?

- In 2022, based on these concerns and the feedback from the community during the demonstration project, staff developed a new alternative, which replaced the proposed cycle track on the north side of the street with a Class II buffered bike lanes on both sides of the street. Additional crossing improvements for bicyclists and pedestrians are shown in the attached exhibits.
- In April 27, 2023 an in-person community open house was held to discuss current constraints and new proposed buffered bike lane design. Overall the proposal for buffered bike lanes was well received by the attendees. The two following issues were brought up during that meeting:
 - Can we advance traffic calming on Villanova between Sycamore and Anderson?
 - Can the intersection of Oak and Fourteenth be a bike protected intersection?

Additional information can be found at the project website below:

<https://www.cityofdavis.org/city-hall/improvement-projects/fourteenth-street-villanova-drive-improvements>

Current Project Update

Due to the funding constraints (see funding section below) caused by increased costs for both materials and labor, the City asked SACOG to phase the project and assign the grant funding to the first phase. This would allow us to complete the most urgent work and develop a plan to complete the rest of the project using the grant funds for phase 1. The project is currently phased into three segments as follows:

- Phase 1: Fourteenth Street from Oak Avenue to Villanova Drive, including both intersections.
- Phase 2: Villanova Drive from Sycamore Lane to Anderson Road.
- Phase 3: Villanova Drive from Anderson Road to Oak Avenue.

Additionally, intersection modifications will be made at the intersection of Anderson Road and Villanova Drive as part of the Anderson Road Improvements project, (ET8298) about which the BTSSC will receive an update later this year.

As requested at the April 2023 community meeting, a project to install speed humps on Villanova has been delayed several times since it was part of this project's original scope. Because the phasing of the project would move the speed hump installation to a future undetermined date, staff intends to propose installing these speed humps as part of the 2024 speed control project and survey property owners and residents to bring back to the BTSSC later this year.

Funding

The current construction cost estimate for Phase 1 of this project is \$2,677,556 (see attachments), but there is only approximately \$1,676,000 available for construction,

leading to what is currently a one-million-dollar shortfall.

There is an estimated \$950,000 in Local Transportation Funds (LTF) that will be available in FY 24-25 and could be used to partially cover the funding gap on this project. Final LTF funding amounts are not currently known and could change based on tax revenue estimates and the approval of the YTD budget. Additional costs could be covered using project finds from traffic signal modifications or traffic calming.

In any of these scenarios, the City Council would need to approve a budget adjustment in order to use these funds.

Current Funding	Amounts
Grant	\$936,000
Construction Tax	\$617,806
Roadway Impact Fees	\$125,632
Total	\$1,679,438
Project Estimate	\$2,677,556
Existing short-fall	\$1,001,556
Proposed allocation of Local Transportation funds	\$950,000
Remaining short-fall (Signal Mods or Traffic Calming)	\$51,556

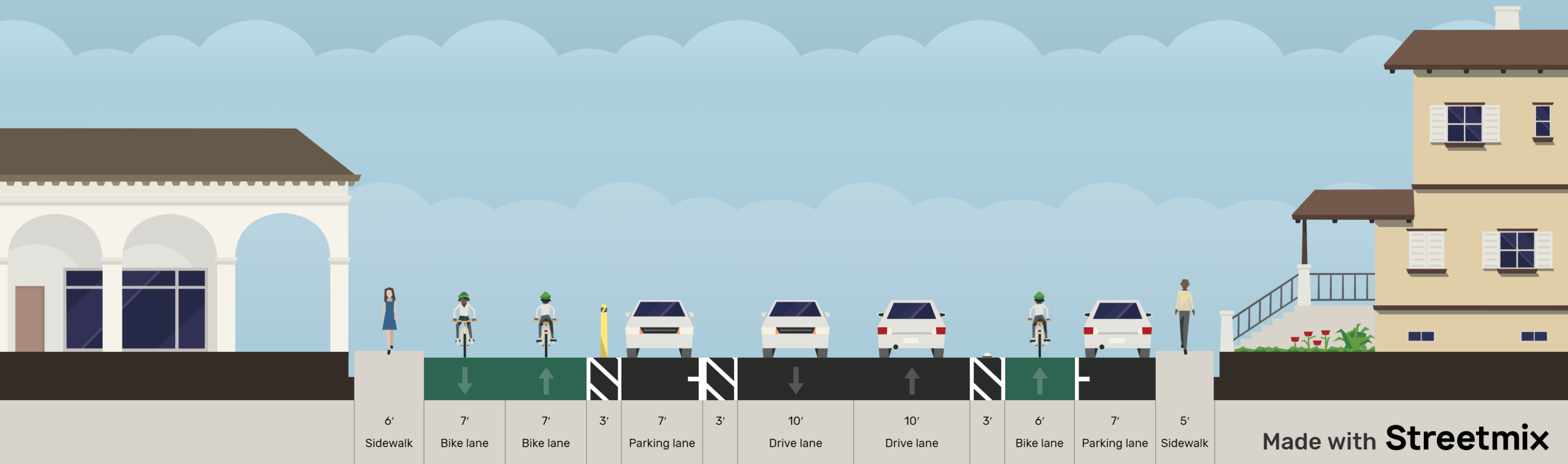
Schedule

Most likely this project would be constructed in the summer of 2025, while the schools are out of session. There are several anticipated construction projects in 2025 including Richards I-80 and the H Street Tunnel so it would be beneficial to complete this project early and avoid having the community impacted by all of these projects at once. Staff is looking for opportunities to move this project up and construct this summer to achieve this.

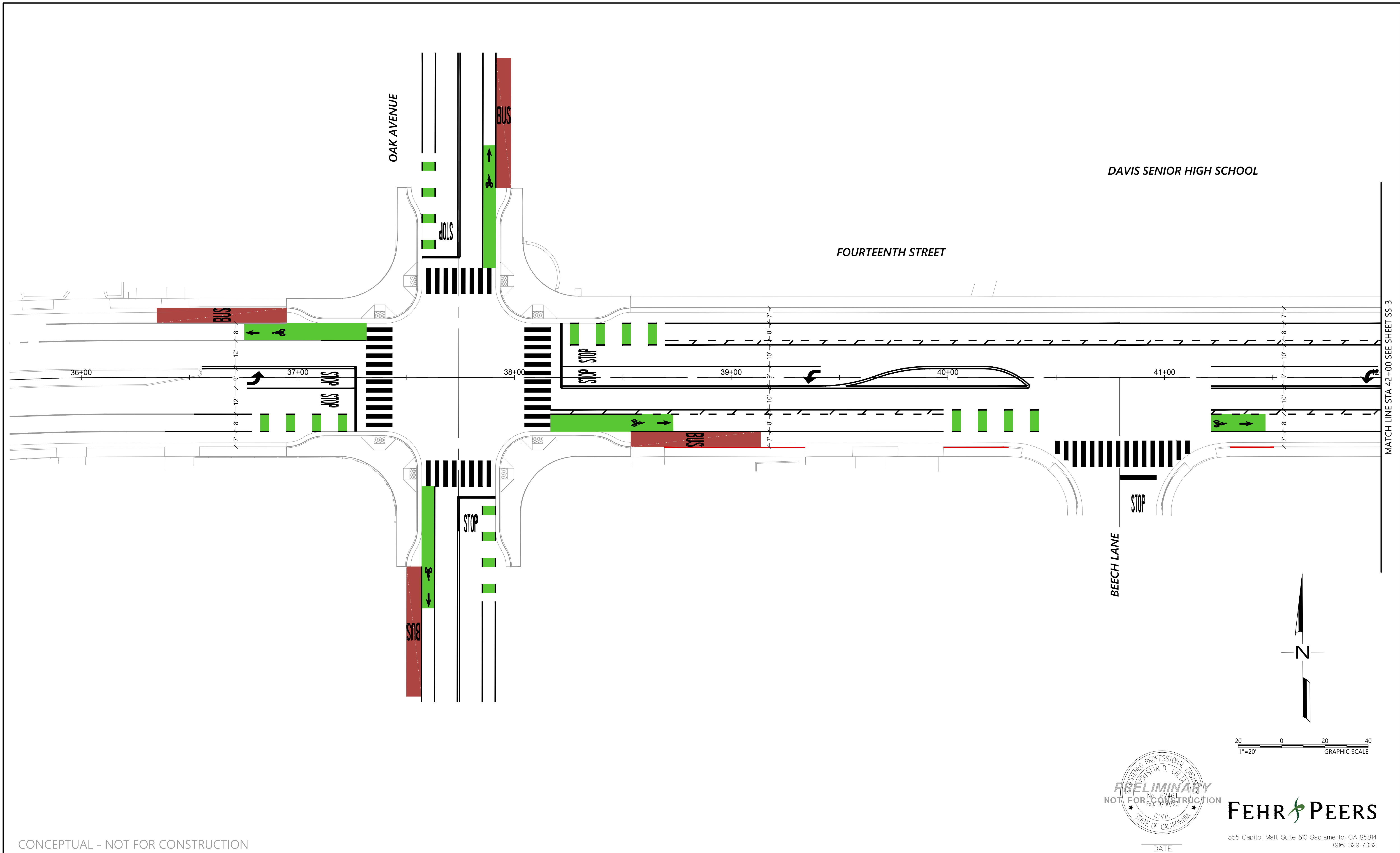
Attachments

1. 2022 Cycle track cross section
2. 2024 Proposed new alternative design
3. Project Area Map
4. Cost Estimate

Fourteenth Street (eastward)



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 Dec 13, 2023



CONCEPTUAL - NOT FOR CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
 KRISTIN D. CALIA
 No. 62461
 Exp. 9/30/23
 CIVIL
 STATE OF CALIFORNIA

PRELIMINARY
 NOT FOR CONSTRUCTION

FEHR PEERS
 555 Capitol Mall, Suite 510 Sacramento, CA 95814
 (916) 329-7332

DATE: _____

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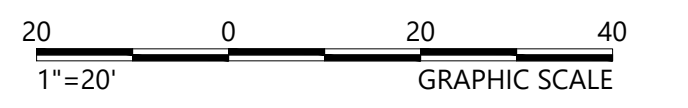
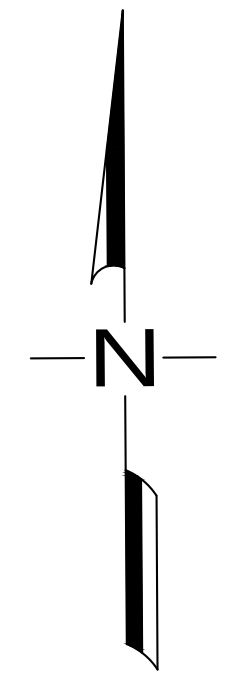
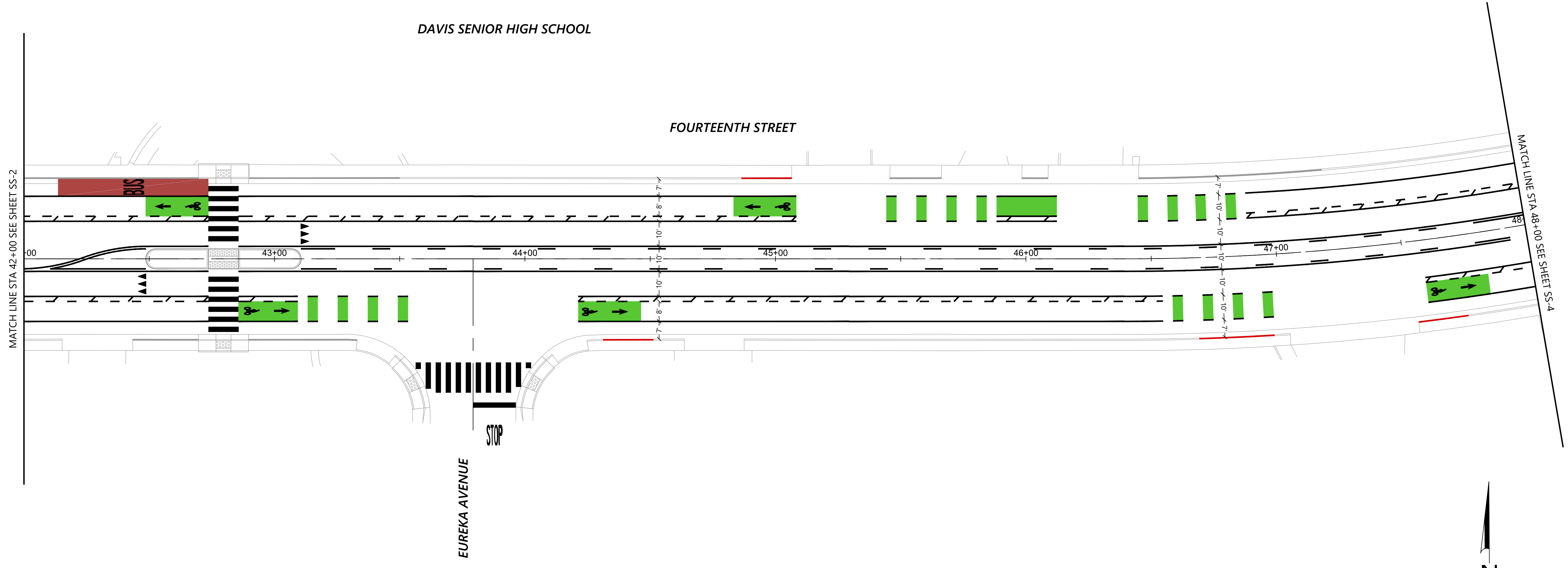
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SIGNING AND STRIPING
 C.I.P. # XXXX



CITY OF DAVIS
 PUBLIC WORKS DEPARTMENT
 1717 5TH STREET
 PHONE (530)757-5686 FAX (530)758-4738

DESIGNED BY: K. Baumgartner	DATE: 12/13/2023
CHECKED BY: K. Calia	DATE: 12/13/2023
DRAWN BY: B. Situ	DATE: 12/13/2023
SHEET 02 OF XX SHEETS	
DWG. NO. SS-2	

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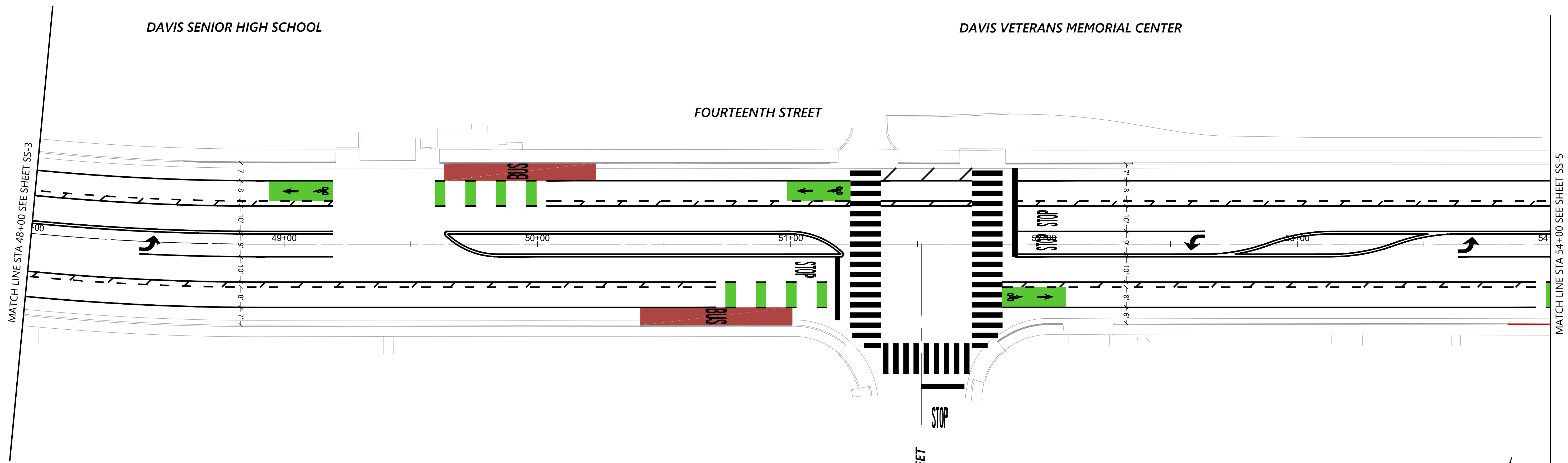
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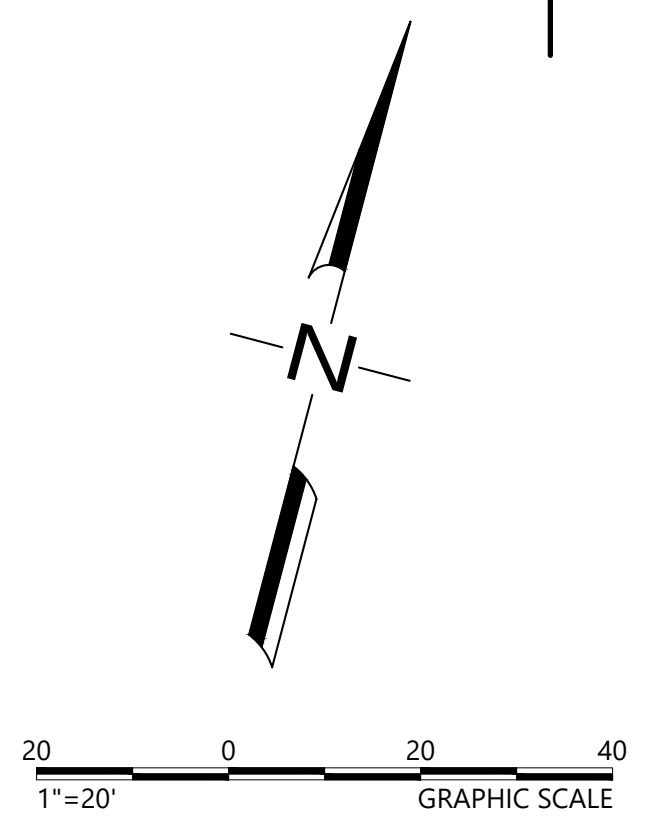
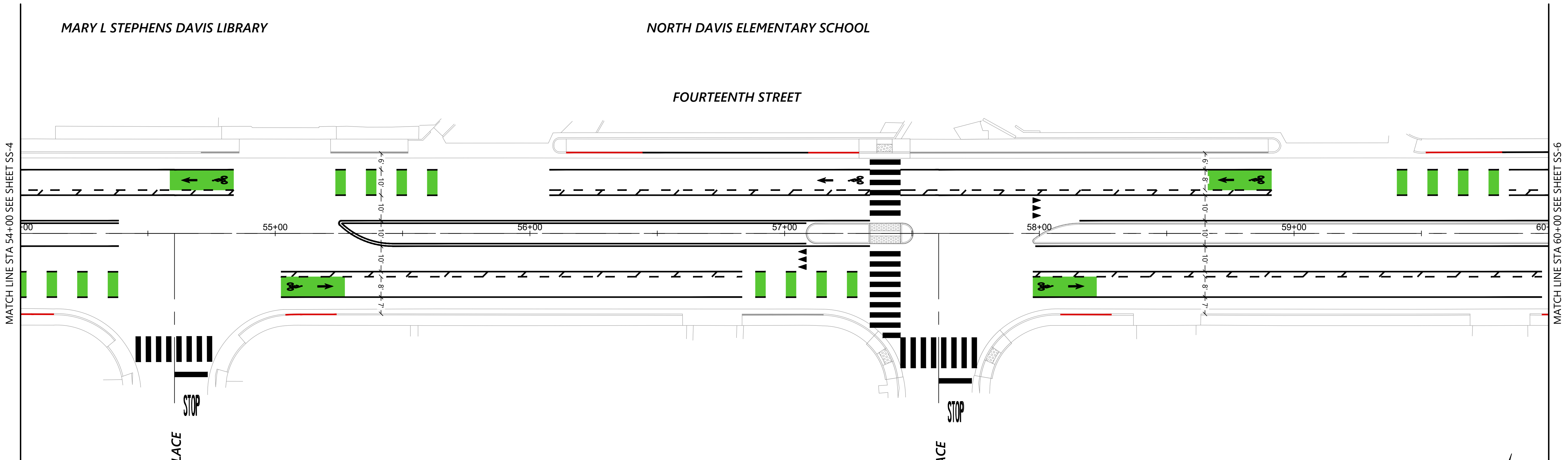
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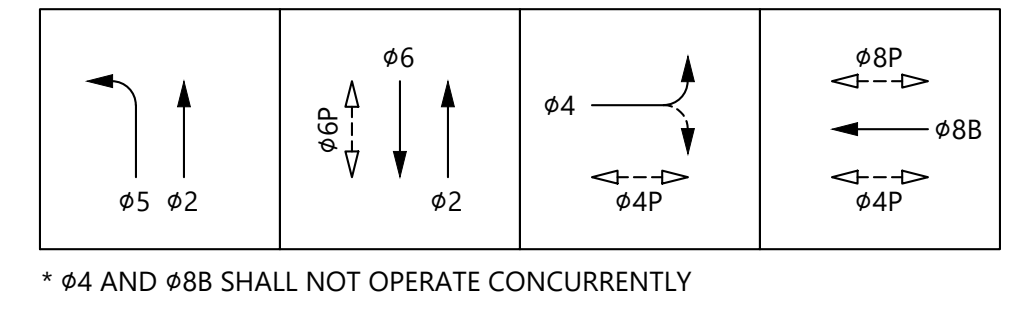
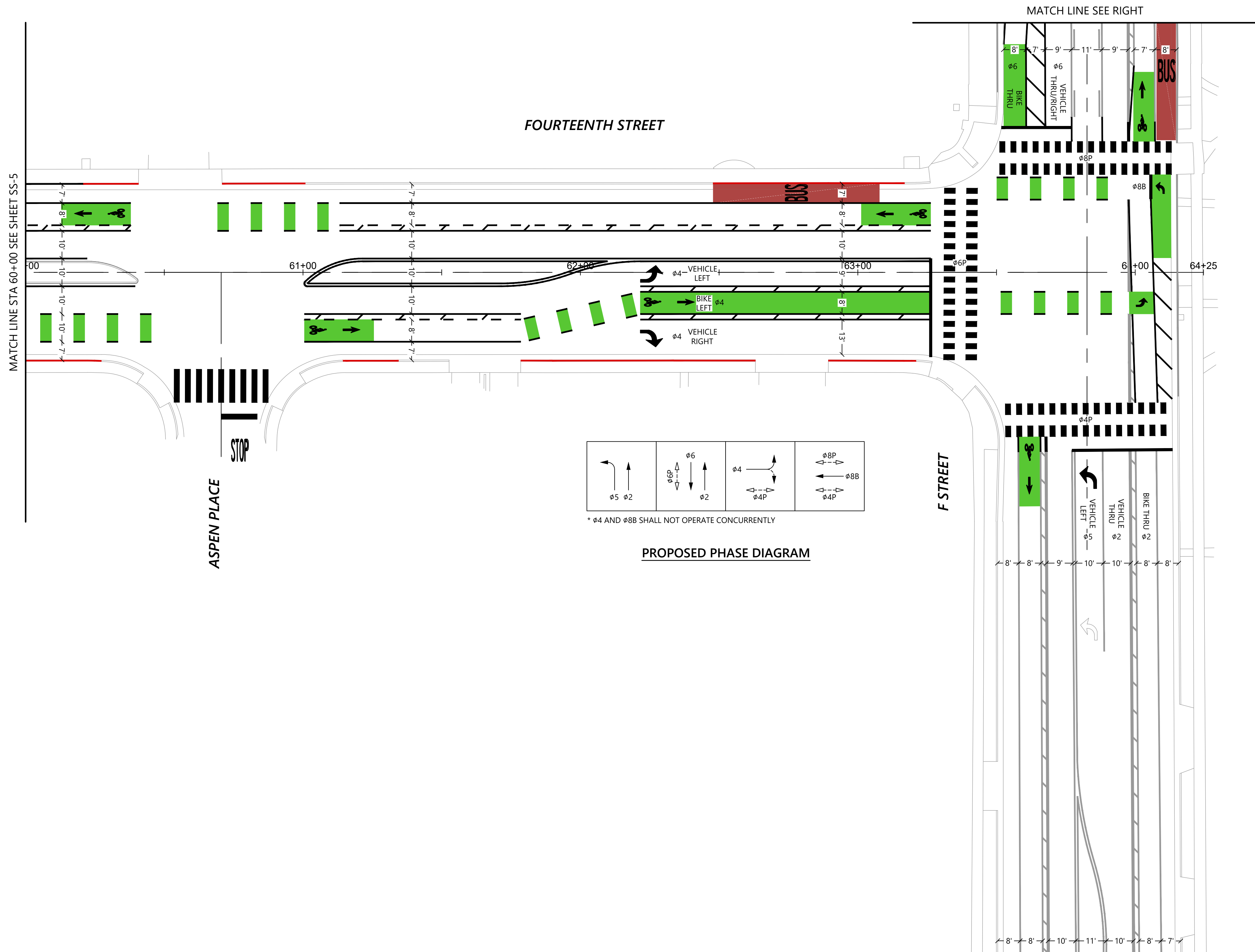


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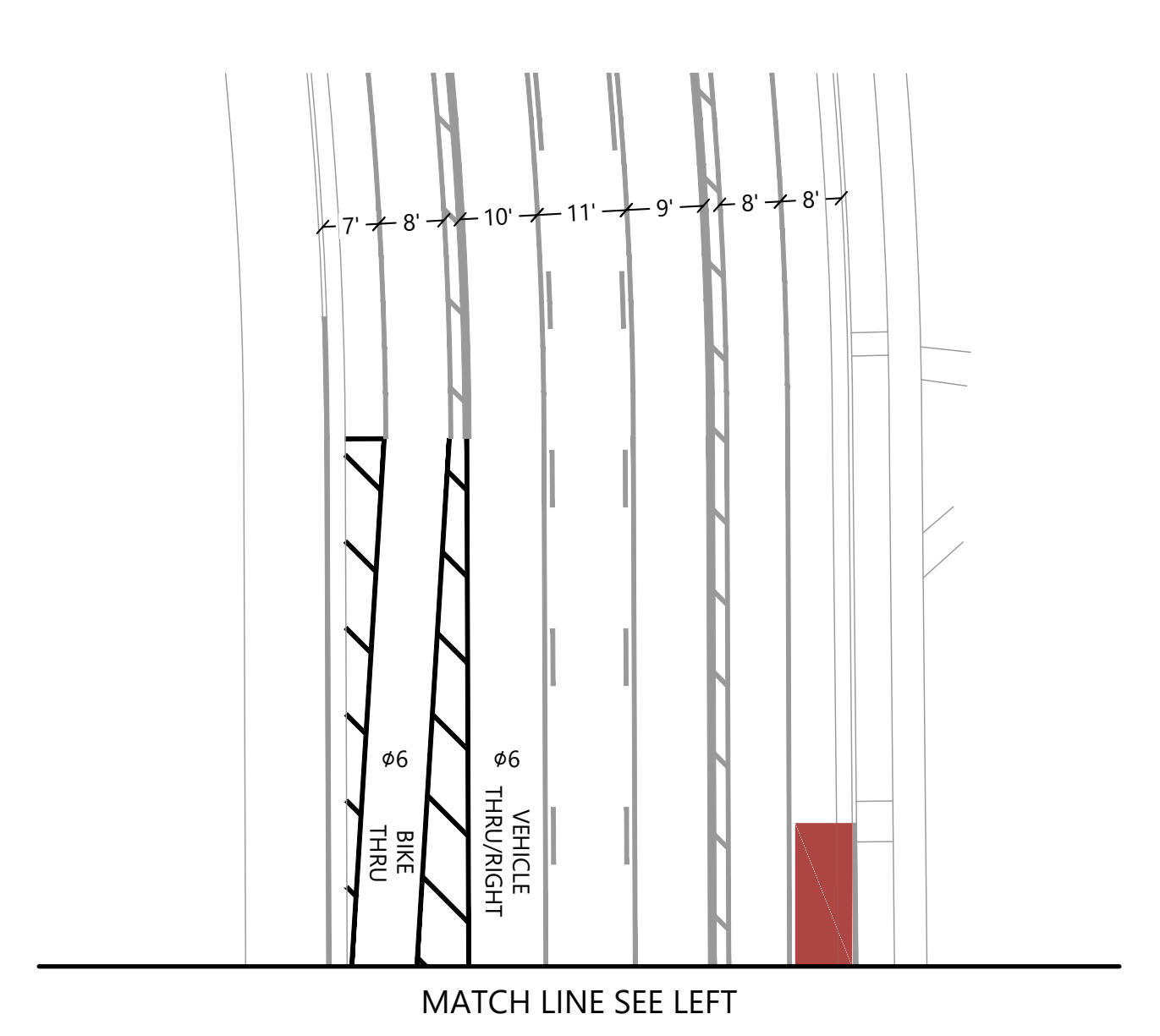
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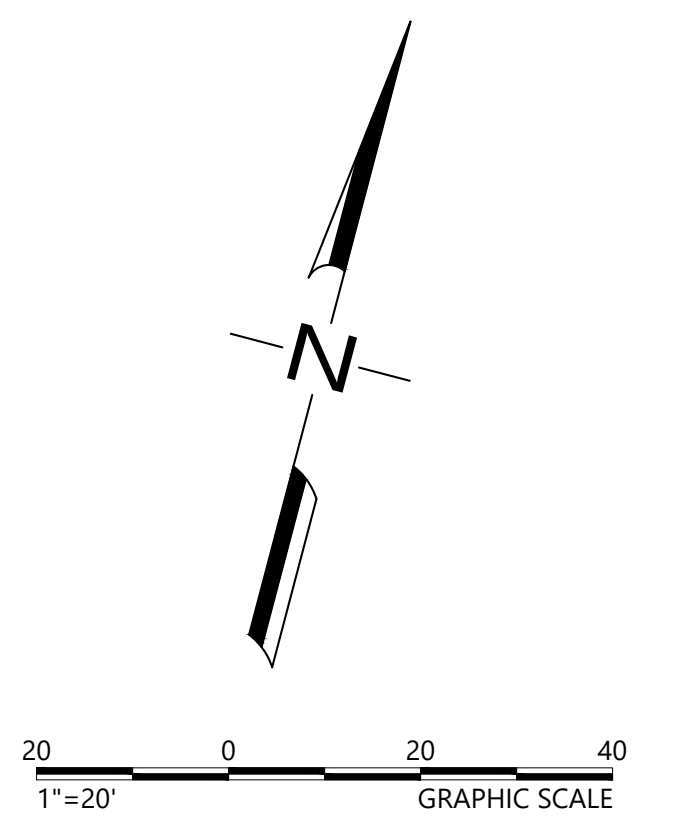


* phi 4 AND phi 8B SHALL NOT OPERATE CONCURRENTLY

PROPOSED PHASE DIAGRAM



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OPTION 1 _____ DATE _____

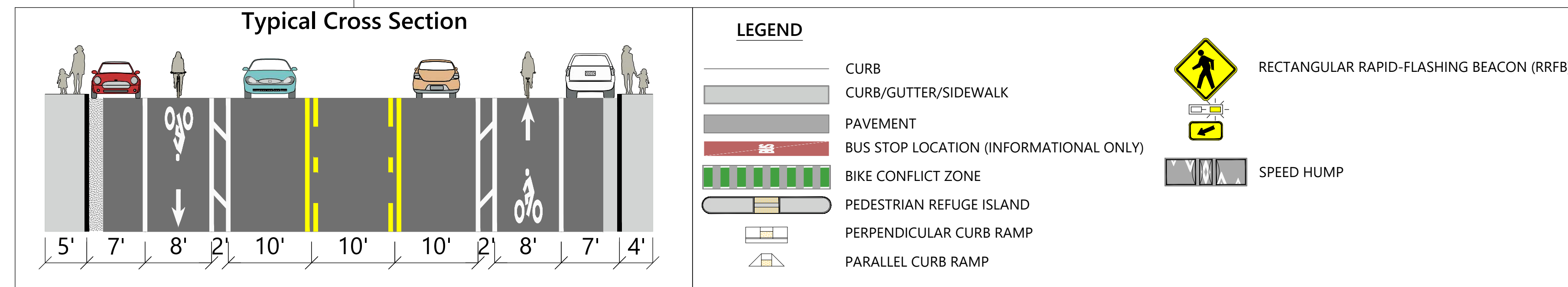
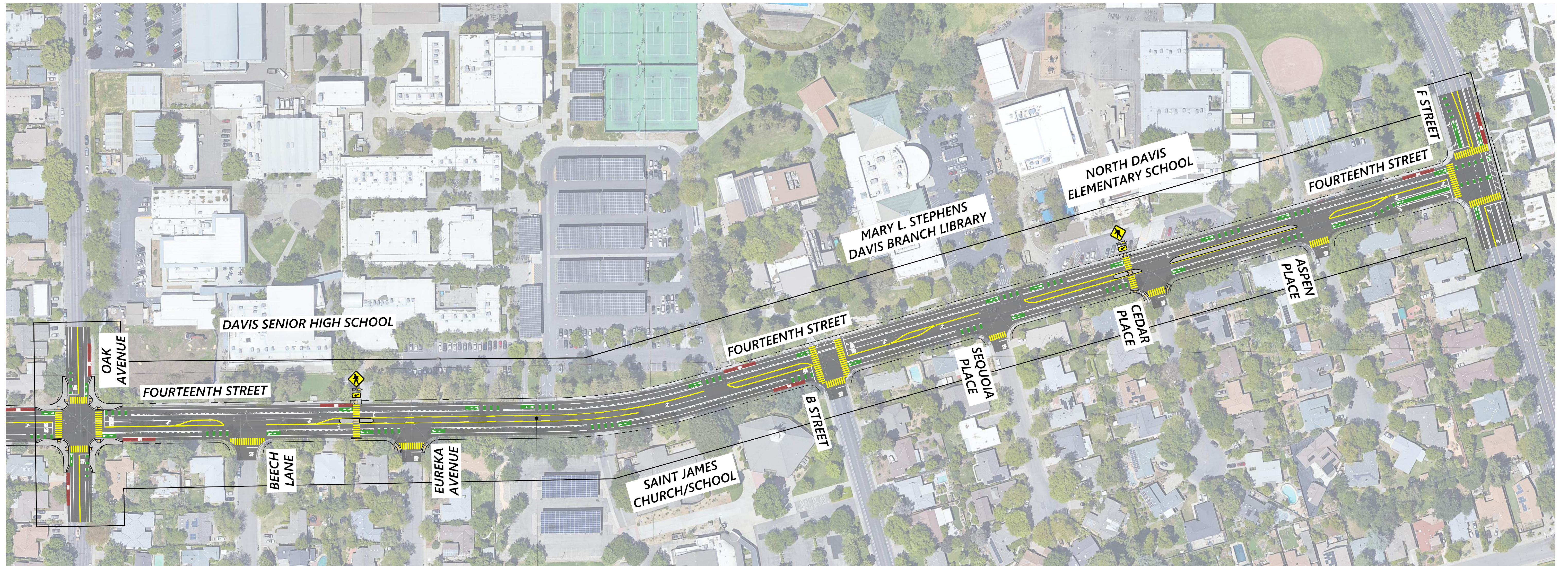
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DRAWN BY: B. Situ	DATE: 12/13/2023
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ESTIMATE OF CONSTRUCTION COST

Project: Fourteenth Street Improvements Concept - Oak Ave to F St

Date: 1/29/2024

Project #: SA22-0181

By: Adrian Engel

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
000001	Traffic Control System	LS	1	\$100,000	\$100,000
000002	Water Pollution Control	LS	1	\$30,000	\$30,000
000003	Roadway Excavation	CY	1,690	\$100	\$169,000
000004	Hot Mix Asphalt	TON	2,750	\$180	\$495,000
000005	Aggregate Base Class 2	CY	1,095	\$125	\$136,875
000006	Cold Plane Asphalt Pavement - 2"	SY	20,000	\$5	\$100,000
000007	Minor Concrete (Medians/Refuge Islands)	CY	50	\$400	\$20,000
000008	Minor Concrete (Bulbouts)	CY	100	\$400	\$40,000
000009	ADA Curb Ramp (Including Detectable Warning Surface)	EA	31	\$7,500	\$232,500
000010	Minor Utility and Drainage Adjustments	LS	1	\$250,000	\$250,000
000011	Signing & Striping	LS	1	\$190,000	\$190,000
000012	Traffic Signal Modification - Fourteenth St & F St	LS	1	\$200,000	\$200,000
000013	Reset Existing RRFB's	EA	2	\$10,000	\$20,000
				SUB-TOTAL :	\$1,983,375
Notes : This cost pertains to Electrical, Civil, and Signing & Striping Work only, based on Preliminary Conceptual Design.				TOTAL :	\$1,983,375
				10% MOBILIZATION:	\$198,338
				25% CONTINGENCY:	\$495,844
				TOTAL CONSTRUCTION COST:	\$2,677,556