



Left Turn Access and Pedestrian Crossing Design for Mustang Fields, Yorba Linda, CA

AlphaTech Engineering - Design Team T-4

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Project Description

AlphaTech Engineering is working with LIN Consulting, Inc. to improve accessibility to Mustang Fields in Yorba Linda, CA. AlphaTech Engineering will conceptualize and design a left turn access and pedestrian crossing route to Mustang Fields for northbound traveling traffic. The feasibility of traffic signals and other alternatives will be ranked, and the best alternative will be chosen. The project will consist of environmental documentation, alternative analysis, traffic modeling, and plan designs.

Design Methods

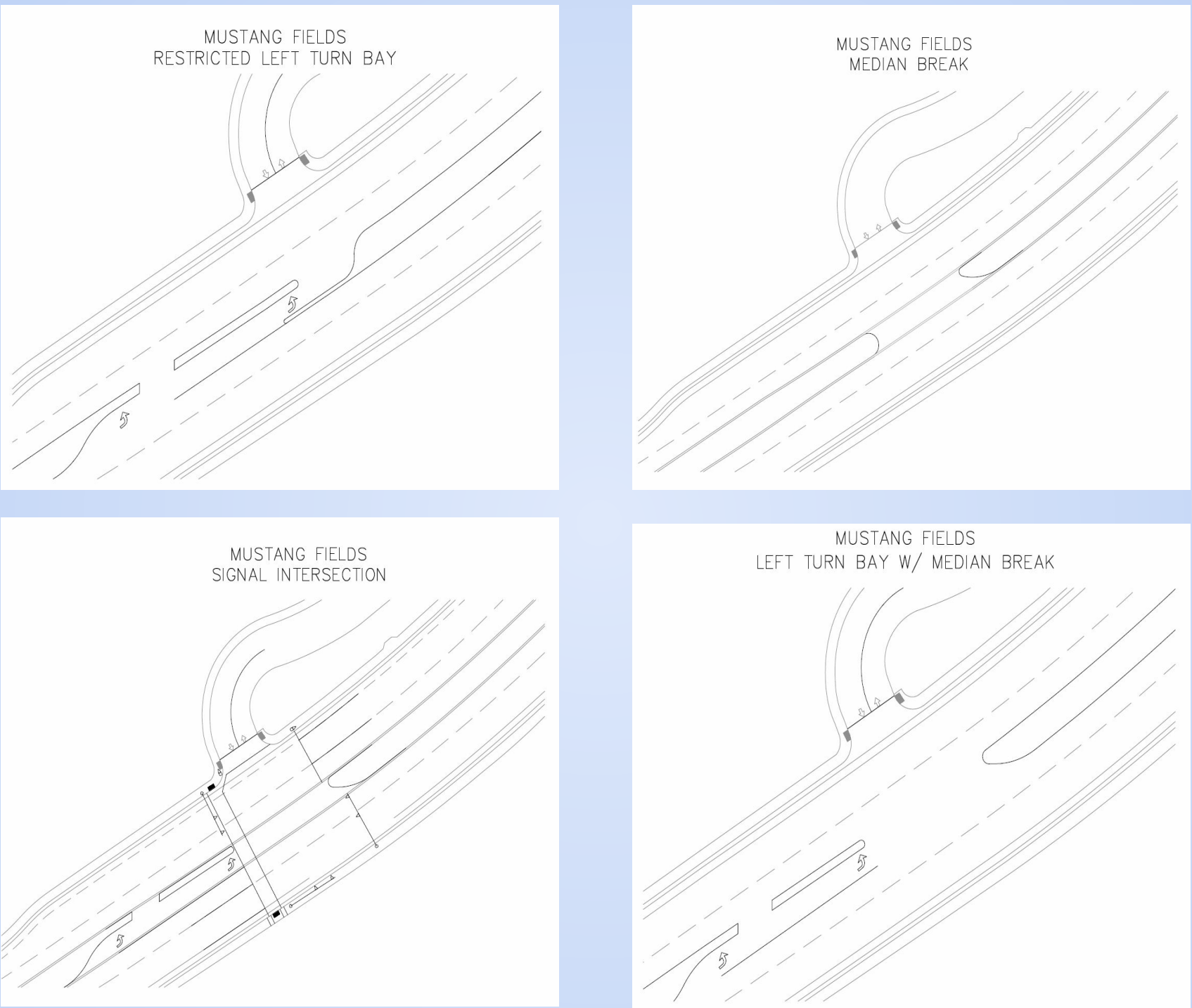
- Followed MUTCD guidelines for signs and marking standards
- Used FHWA guide for pedestrian safety improvements at uncontrolled crossings
- Software like Civil 3D and Synchro were used to help develop an alternative traffic analysis and drafting processes.
- HWD Manual was used to guide the Stopping Sight Distance Analysis

Plans for Next Phase

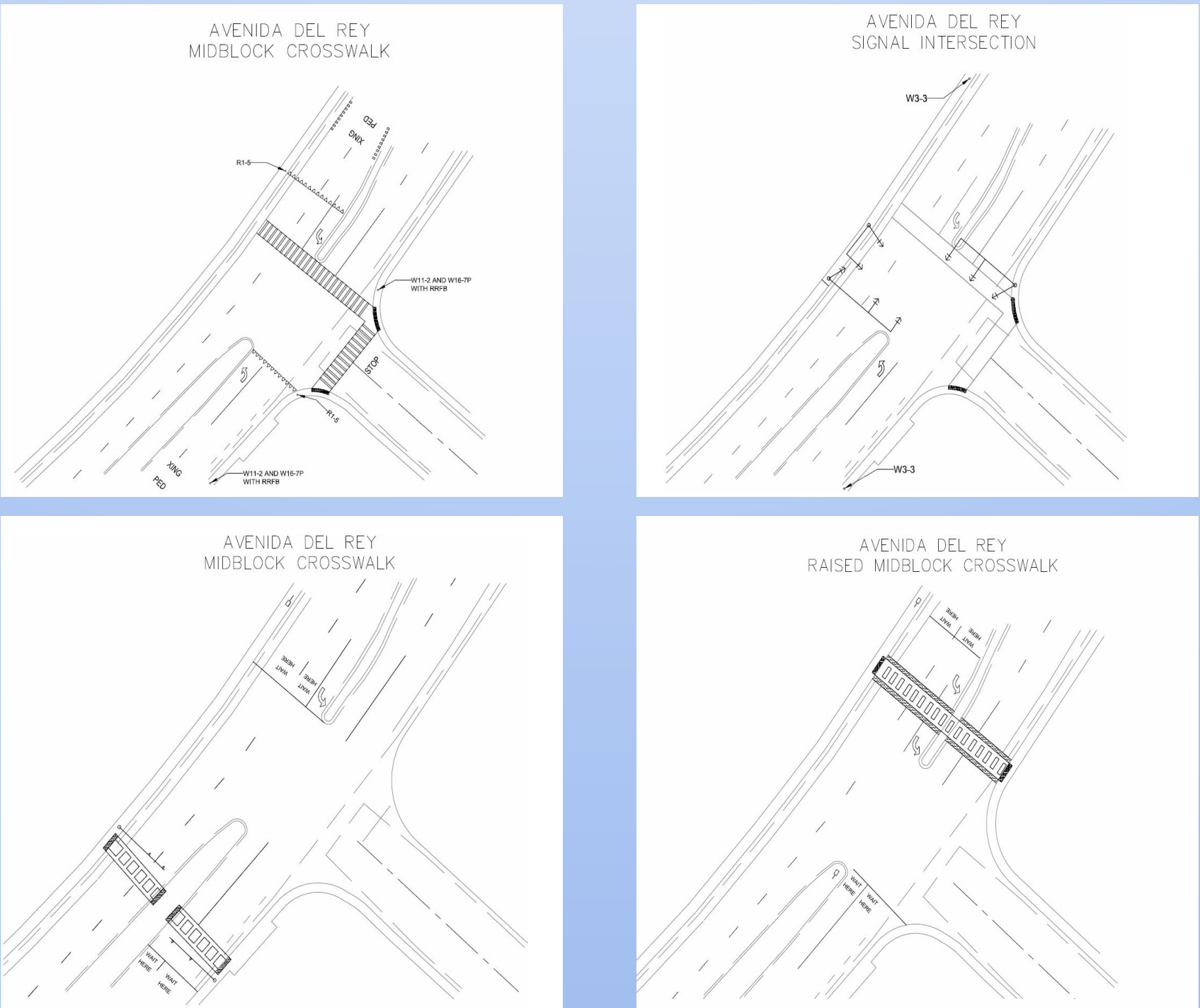
- Select final design
- Environmental documentation
- Roadwork planning and design
- Cost estimates
- Risk assessment

Alternative Designs

Mustang Fields



Avenida Del Rey



Site Location



- Steep grade and sight line obstructions lead to safety concerns
- Nearby school causes irregular traffic patterns
- High speed combined with steep grade mandate proper safety precautions
- No current direct access to Mustang Fields for northbound traffic

Alternative's Analysis

		Mustang Fields				Avenida Del Rey			
	AVERAGE	LT Bay	Signal	Restricted LT	Break	Signal	Uncontrolled CW	Raised CW	HAWK
Weight	Criteria	A	B	C	D	A	B	C	D
16.25	Cost	4	1	4	5	1	4	4	2
15.00	Access & Mobility	4	5	2	3	3.25	3.25	1.5	3
32.50	Safety **	3	3	5	1	3.25	2.25	2.5	4
6.25	Environmental	3	4	3	3	3.25	4	3.25	3.5
12.50	Traffic	4	3	4	3	3	4	1	4
17.50	Community Acceptance	3	1	3	3	1	4	1	2
100.00	Total	340	255	390	260	242.5	331.25	213.75	317.5

- Weighted criteria was used to determine the best design alternatives for the areas of interest