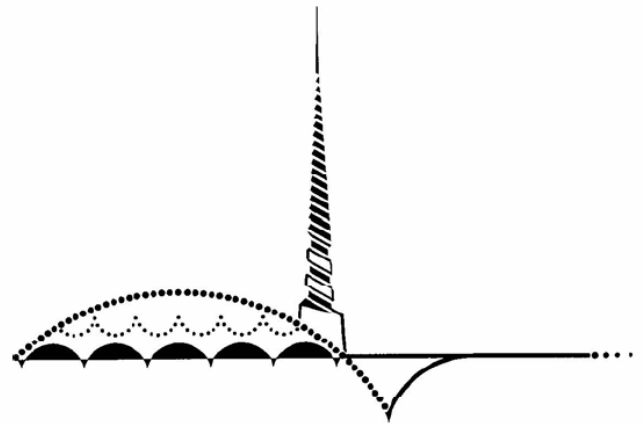


VINEYARD CREEK IMPROVEMENTS

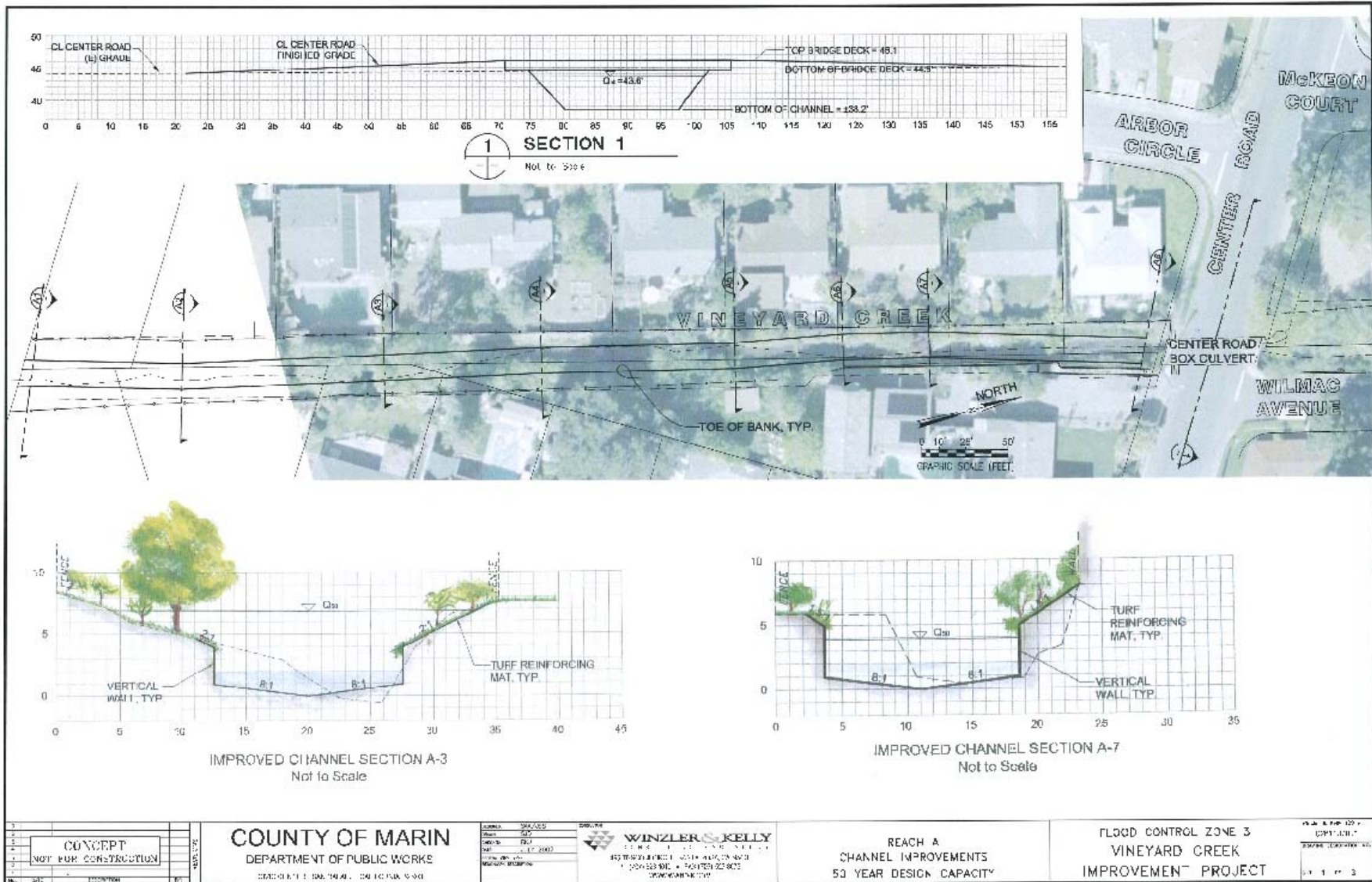
Marin County
Flood Control District
Zone 1



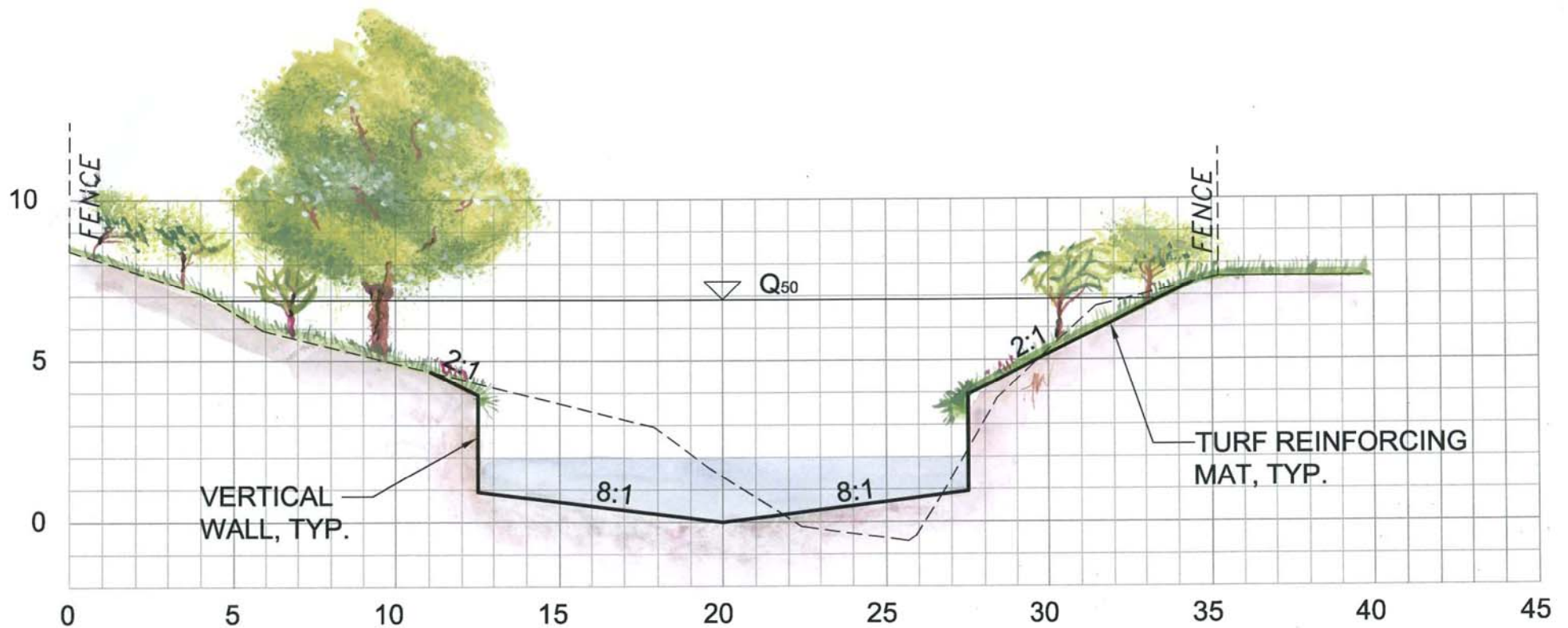
Presented by: Rick Jorgensen, PE

July 26, 2007

Reach A Improvements

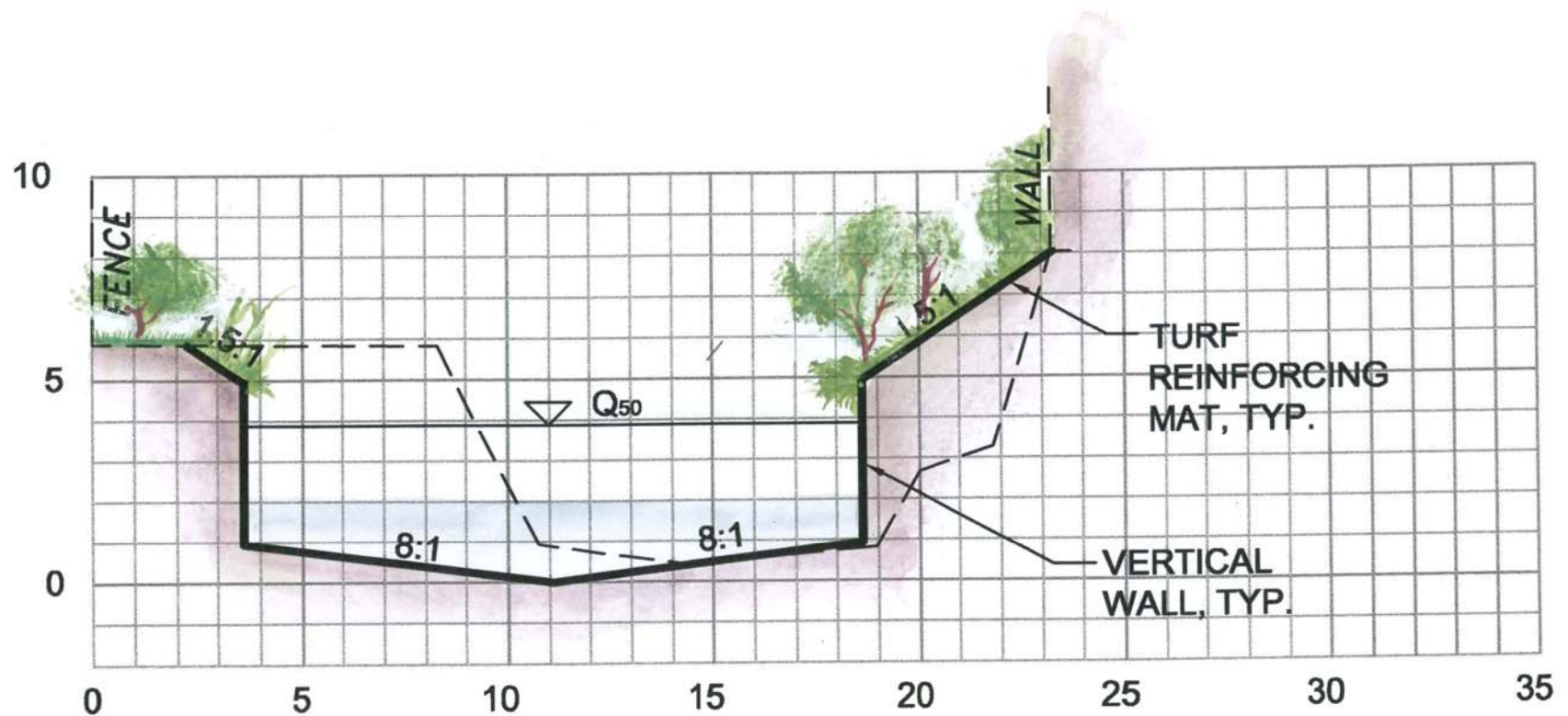


Reach A Improvements



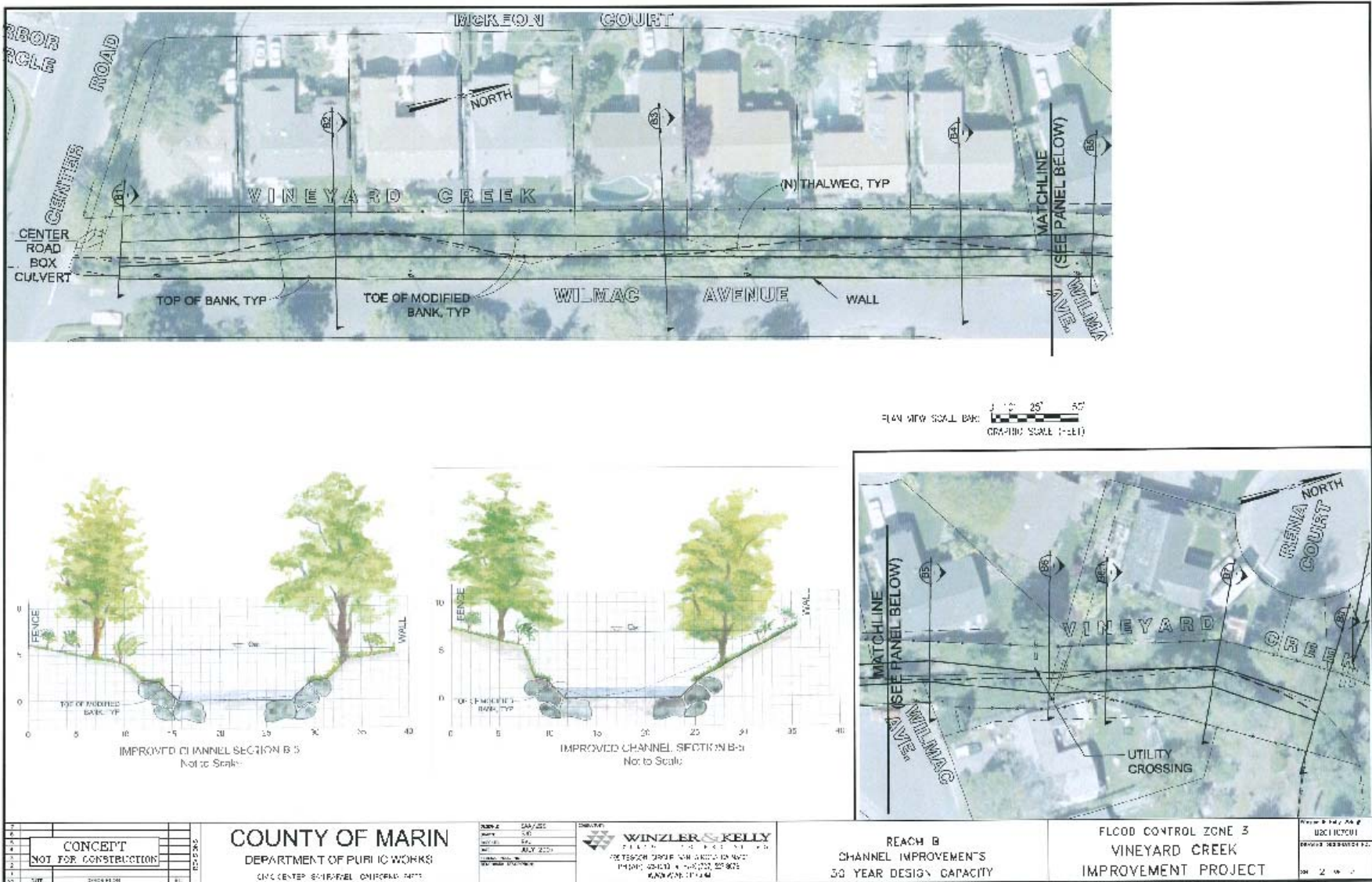
IMPROVED CHANNEL SECTION A-3
Not to Scale

Reach A Improvements



IMPROVED CHANNEL SECTION A-7
Not to Scale

Reach B Improvements



DATE	DESCRIPTION
07/20/2011	CONCEPT NOT FOR CONSTRUCTION
07/20/2011	DATE

COUNTY OF MARIN
 DEPARTMENT OF PUBLIC WORKS
 CIVIL CENTER 675 TRAFALGAR CENTER RD. S.F. CA 94068

NO. 4	DATE
1	07/20/2011
2	07/20/2011
3	07/20/2011

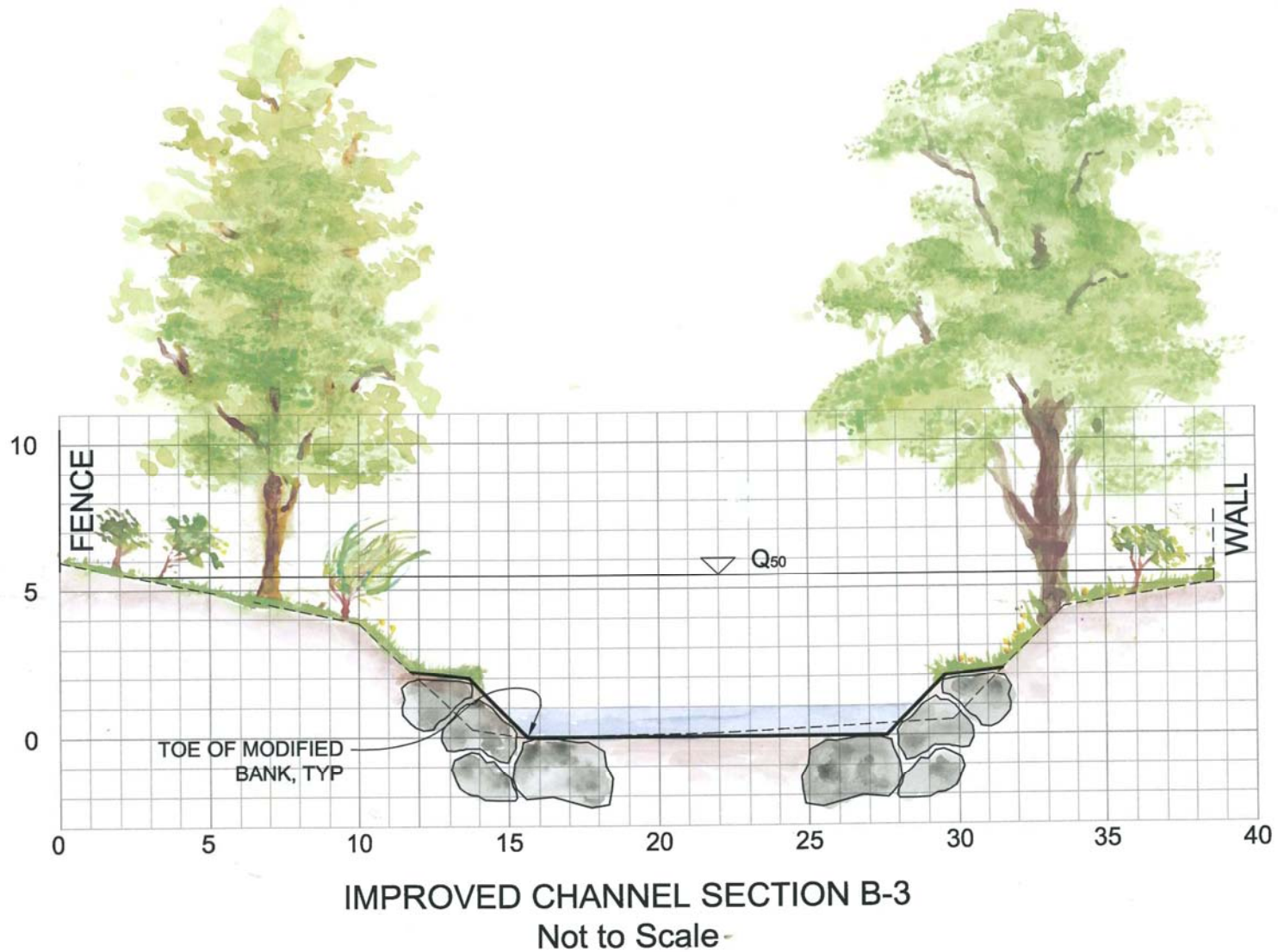
WINZLER & KELLY
 CONSULTING ENGINEERS
 10000 SAN BRUNO AVENUE, SUITE 100
 SAN BRUNO, CALIFORNIA 94061

REACH B CHANNEL IMPROVEMENTS
 30 YEAR DESIGN CAPACITY

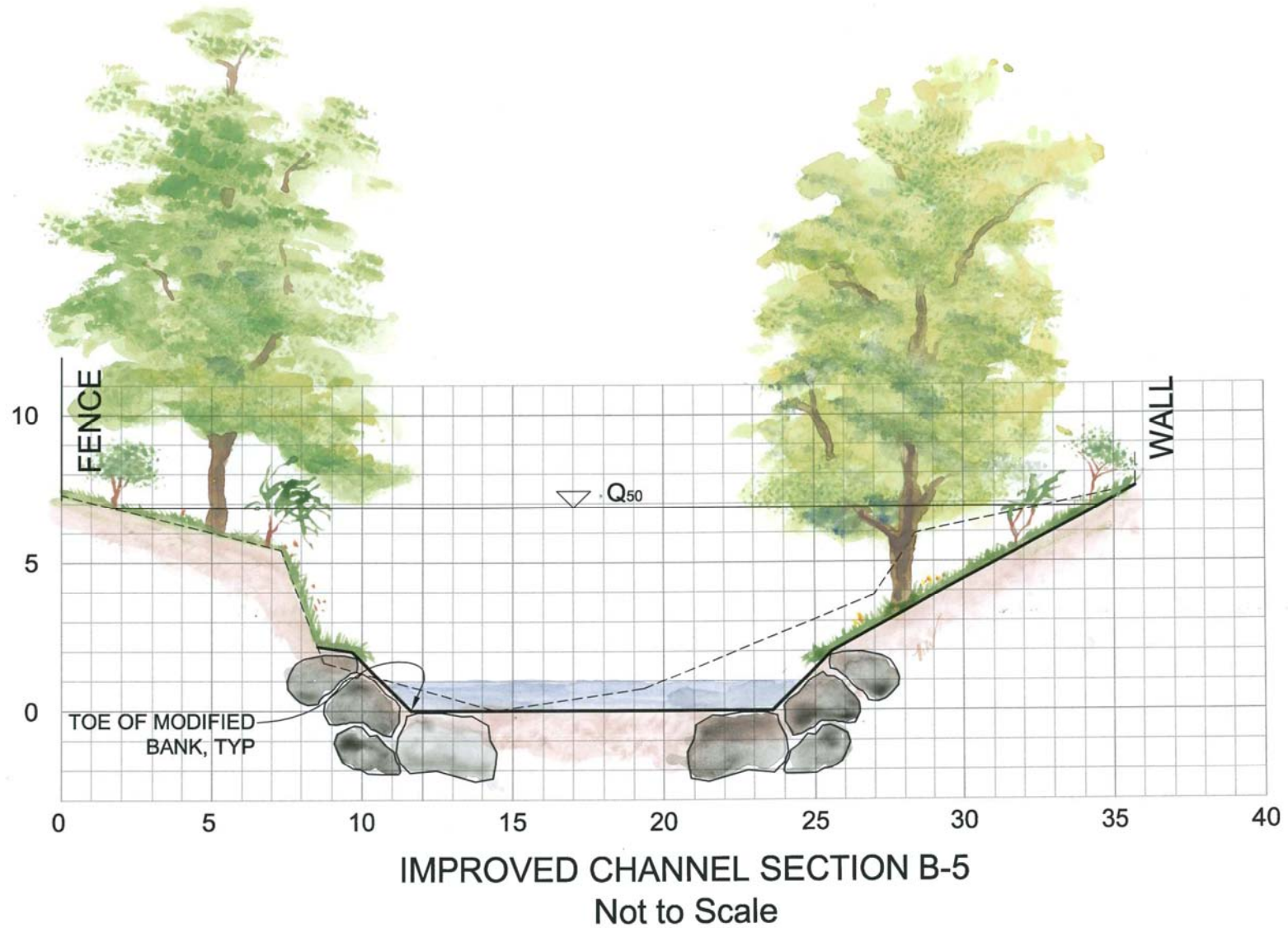
FLOOD CONTROL ZONE 3
 VINEYARD CREEK
 IMPROVEMENT PROJECT

NO. 2	DATE
1	07/20/2011

Reach B Improvements



Reach B Improvements



Reach C Improvements



1	CONCEPT
2	NOT FOR CONSTRUCTION
3	
4	
5	
6	

COUNTY OF MARIN
DEPARTMENT OF PUBLIC WORKS
CIVIL ENGINEER: SAUL MARRAS, P.E. (10010000000000)

DATE	2022/05/05
SCALE	AS SHOWN
BY	SAUL MARRAS
CHECKED	SAUL MARRAS
APPROVED	

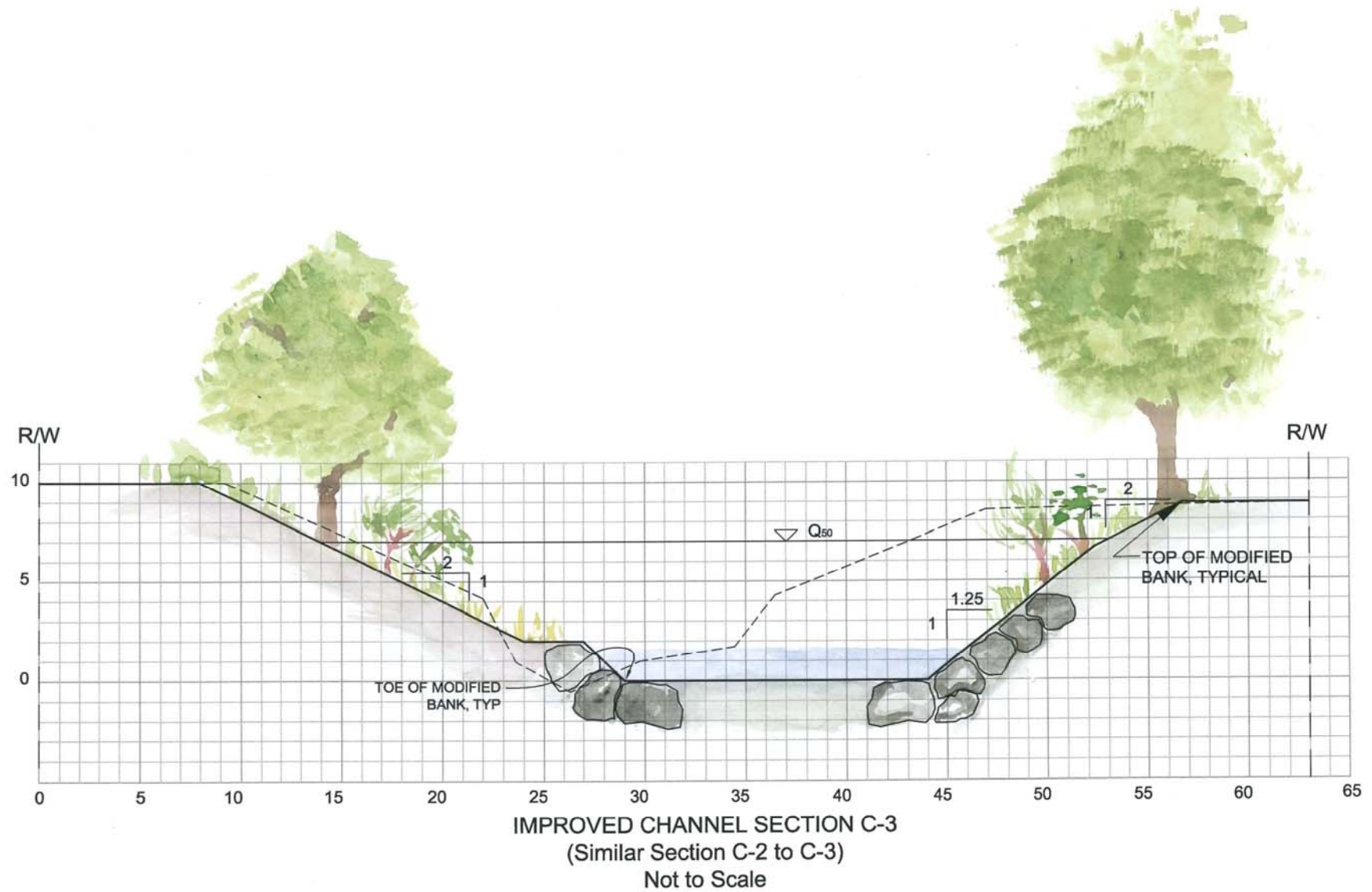
WINZLER & KELLY
CONSULTING ENGINEERS
455 BEECH CIRCLE, SUITE 200, SAN RAFAEL, CA 94903
PH: (415) 452-1100 FAX: (415) 452-1101
WWW.W&K.COM

REACH C
CHANNEL IMPROVEMENTS
50 YEAR DESIGN CAPACITY

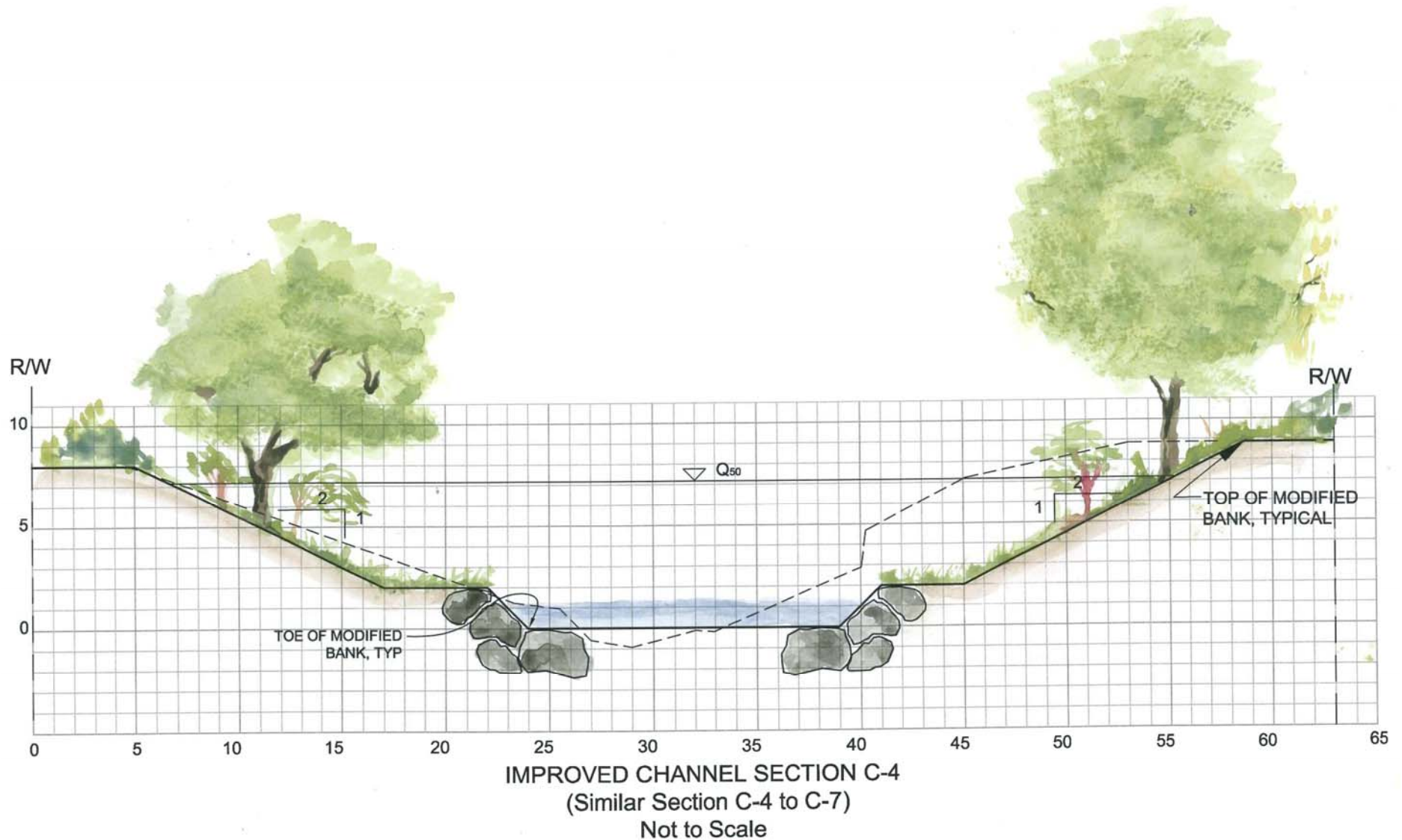
FLOOD CONTROL ZONE 3
VINEYARD CREEK
IMPROVEMENT PROJECT

DATE	2022/05/05
SCALE	AS SHOWN
BY	SAUL MARRAS
CHECKED	SAUL MARRAS
APPROVED	

Reach C Improvements



Reach C Improvements



Project Summary

Improvements	Improvement Description	Opinion of Probable Cost
Reach A	<ul style="list-style-type: none"> • Vertical wall with vegetated upper slope designed to convey 50-year event • Improved channel grade • Re-vegetated with native riparian and upland species 	\$495,000
Reach B	<ul style="list-style-type: none"> • Toe rock to define bankfull flow channel, preservation of existing vegetation, and buttressing of upper bank slope • Improved channel grade • Re-vegetated with native riparian and upland species 	\$505,000
Reach C	<ul style="list-style-type: none"> • Toe rock to define bankfull flow channel and buttressing of new vegetated terrace • Improved channel grade • Re-vegetated with native riparian and upland species 	\$740,000
Center Road Crossing	<ul style="list-style-type: none"> • New bridge crossing • Approximate 1-foot rise in top of road elevation over crossing • 1-foot freeboard between 50-year WSE and proposed lower bridge chord • 18-inch thick bridge deck 	\$900,000
Total		\$2,640,000