



**NORTH VINEYARD STATION
SPECIFIC PLAN
DEVELOPMENT IMPACT FEE
PROGRAM**

2019 UPDATE

August, 6, 2019

**NORTH VINEYARD STATION SPECIFIC PLAN
DEVELOPMENT IMPACT FEE PROGRAM
2019 UPDATE**

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
Executive Summary	i
I. Introduction	1
II. Fee Methodology	5
III. Land Use Categories	7
IV. Infrastructure and Public Facilities	8
V. Roadway Facilities and Fee Component	9
VI. Frontage Lane Facilities and Fee Component	13
VII. Park and Recreation Facilities and Fee Component	16
VIII. Library Fee Component	17
IX. Transit Facilities and Fee Component	18
X. Fee Summary and Program Administration	20

MAP

North Vineyard Station Specific Plan Land Use Map	2
---	---

APPENDICES

Appendix A - Detailed Costs for Public Facilities

Appendix B - Fee Calculation Summary Tables

Appendix C - Dwelling Unit Equivalents (DUE)

Appendix D – Park and Recreation Nexus Study Adopted by on June 19, 2018

Appendix E – Roadway and Frontage Lane Exhibits

EXECUTIVE SUMMARY

This document provides an update of the roadway, frontage lane, and transit fees established in the North Vineyard Station Specific Plan Development Impact Fee Program Nexus Study (Fee Program) and adopted by the Sacramento County (County) Board of Supervisors (Board) on September 13, 2005. This report summarizes the analysis methodology, provides an overview of Assembly Bill 1600 requirements, provides cost estimates for the identified improvements, and presents the analysis results. The library fee of the Fee Program was discontinued in 2013 when the Board adopted a county-wide library fee program. Furthermore, an update of the park component of the Fee Program was adopted by the Board on June 19, 2018.

Introduction

The North Vineyard Station Specific Plan (NVSSP) area is located in the County of Sacramento, approximately 13 miles southeast of Downtown Sacramento and two miles north of the City of Elk Grove. Current development plans for the NVSSP area include approximately 1,027 developable acres that are bound by Florin Road on the north, Gerber Road on the South, the extension of Vineyard Road on the east, and Elder Creek (west side, top of channel), which roughly constitutes the western border.

The NVSSP area is planned for over 5,000 residential units as well as numerous developable acres of business professional and commercial uses and will need major backbone infrastructure, such as roadway facilities, frontage lane improvements, library facilities, park facilities, and transit facilities. Much of the funding for these facilities will come from development impact fees. Since such facilities are needed as a result of development in the NVSSP area, the cost of these facilities should be borne by development in the NVSSP area. The roadway, frontage lane, park, and transit impact fees discussed in this report will apply only to development within the NVSSP area.

Purpose of Study

The County of Sacramento retained Goodwin Consulting Group, Inc. to update the roadway, frontage lane, and transit fee components of the Fee Program. The collection of the library fee component was discontinued in 2013 with the adoption of a county-wide library fee program. Furthermore, an update of the park component of the Fee Program was adopted by the Board on June 19, 2018. The NVSSP Fee Program was established by the Board through the adoption of the North Vineyard Station Specific Plan Development Impact Fee Program Nexus Study in 2005. The Nexus Study ensured that a rational nexus exists between future development in the NVSSP area and the use and need of the facilities and the impact fees that fund them. This updated analysis will demonstrate that a reasonable relationship still exists between the amount of the roadway, frontage lane, and transit fees and the cost of those corresponding facilities attributable to the development that will be required to pay the impact fees.

Changes to Roadway, Frontage Lane, Transit, and Administration Fees

This update of the roadway, frontage lane, and transit fees includes several changes since these fees were adopted by the County in 2005, including:

- Roadway, frontage lane, and transit facilities and applicable costs have been updated to reflect current plans and costs.
- Facilities costs are adjusted to reflect existing fee balances collected from parcels that have developed since the Fee Program's adoption in 2005.
- Frontage lane costs are allocated to developable land uses based on trip generation dwelling unit equivalents, which is consistent with roadway improvement costs.
- The Administration fee has been reduced from 5% to 4% of the total roadway, frontage lane, park, and transit fee components as part of this update.

Facilities and Updated Costs

The NVSSP area will fund various types of infrastructure and public facilities that will serve future development in this area. The table below summarizes the roadway, frontage lane, park, and transit facilities in the NVSSP area that will be funded with the components of the NVSSP Fees included in this report. Detailed improvements are presented in Appendix A of this report.

Facilities	Estimated Costs at Buildout	Less: Fee Fund Balance	Estimated Remaining at Buildout
Roadway Improvements	\$76,633,622	(\$364,496)	\$76,269,126
Frontage Lane Improvements	\$13,256,255	(\$1,274,706)	\$11,981,549
Park & Recreation Facilities <i>(adopted June 19, 2018 & inflated on March 1, 2019)</i>	\$42,824,766	(\$5,786,715)	\$37,038,051
Transit Facilities ¹	\$561,010	(\$117,265)	\$443,745
Total Costs	\$133,275,653	(\$7,543,182)	\$125,732,471

¹ Facilities cost represents only the portion of the total cost that is allocated to the NVSSP area.

The infrastructure and costs listed in the table above are not a complete list of the facilities that will be funded by NVSSP development but only those that fees will be collected under the NVSSP Fee Program. The NVSSP area will also be required to pay development impact fees or construct the infrastructure for permanent water, sewer, drainage, fire, library, and schools facilities; however, the fees and costs associated with these facilities are administered under separate County or other jurisdictions' fee programs and therefore are not part of the County's NVSSP Fee Program.

Summary of the NVSSP Fees

The table below summarizes the development impact fee components in the NVSSP Fee Program as calculated in this report.

Zoning Category	Fee per Unit, Acre, or Bldg SF	Roadway Fee /1	Frontage Lane Fee /1	Park & Recreation Fee /2	Transit Fee	Administration Fee (4.0%)	Total Fee
Residential							
Single Family							
AR-5	per Unit	\$19,647	\$3,086	\$10,360	\$67	\$1,326	\$34,486
AR-2	per Unit	\$19,647	\$3,086	\$10,360	\$67	\$1,326	\$34,486
AR-1	per Unit	\$19,647	\$3,086	\$10,360	\$67	\$1,326	\$34,486
RD-1	per Acre	\$19,647	\$3,086	\$10,360	\$67	\$1,326	\$34,486
RD-2	per Acre	\$39,294	\$6,172	\$20,721	\$134	\$2,653	\$68,974
RD-3	per Acre	\$55,012	\$8,641	\$30,046	\$188	\$3,755	\$97,642
RD-4	per Acre	\$68,765	\$10,801	\$38,334	\$235	\$4,725	\$122,860
RD-5	per Acre	\$80,553	\$12,653	\$46,622	\$275	\$5,604	\$145,707
RD-6	per Acre	\$96,270	\$15,121	\$55,946	\$328	\$6,707	\$174,372
RD-7	per Acre	\$111,988	\$17,590	\$65,271	\$369	\$7,809	\$203,027
RD-10	per Acre	\$141,458	\$22,219	\$76,667	\$817	\$9,646	\$250,807
Multi-Family							
MFR 12-22 (RD-20)	per Acre	\$200,399	\$31,477	\$121,217	\$2,553	\$14,226	\$369,872
Non-Residential							
Business Professional (BP)	per Bldg SF	\$17.40	\$2.73	\$2.17	\$0.16	\$0.90	\$23.36
Commercial (LC)	per Bldg SF	\$29.41	\$4.62	\$2.37	\$0.32	\$1.47	\$38.19

/1 Roadway and Frontage Lane fees for Age Restricted residential uses equal 34% of the rates shown in this table.

/2 Park and Recreation fees were adopted by the Board of Supervisors on June 19, 2018, and were escalated to the rates shown here on March 1, 2019.

Park and Recreation fees for Age Restricted residential uses equal 69% of the rates shown in this table.

These impact fees may be adjusted in future years to reflect revised facility standards or costs, receipt of funding from alternative sources (i.e., state or federal grants), or changes in demographics or the NVSSP development land use plan. In addition to such adjustments, the NVSSP Fees will be inflated each year by a construction cost index, as determined by the County.

I. INTRODUCTION

The North Vineyard Station Specific Plan (NVSSP) area is located in the County of Sacramento, approximately 13 miles southeast of Downtown Sacramento and two miles north of the City of Elk Grove. The NVSSP includes approximately 1,591 gross acres that are bound by Florin Road on the north, Gerber Road on the South, the extension of Vineyard Road on the east, and Elder Creek (west side, top of channel), which roughly constitutes the western border. A map of the NVSSP area is shown on the following page.

Originally plans for the NVSSP area comprises approximately 6,050 residential units, including 4,622 low-density single-family units, 309 medium-density units, and 1,119 multi-family units. The NVSSP also includes 78 acres of parks, 22 acres of schools, 39 acres of commercial and business professional, a 20-acre (existing) golf course, a 5-acre regional transit site and 293 acres designated for open space, parkway, landscape, streets, public services, and railroad right of way (ROW). Full development of the NVSSP area is expected to occur between ten to twenty years.

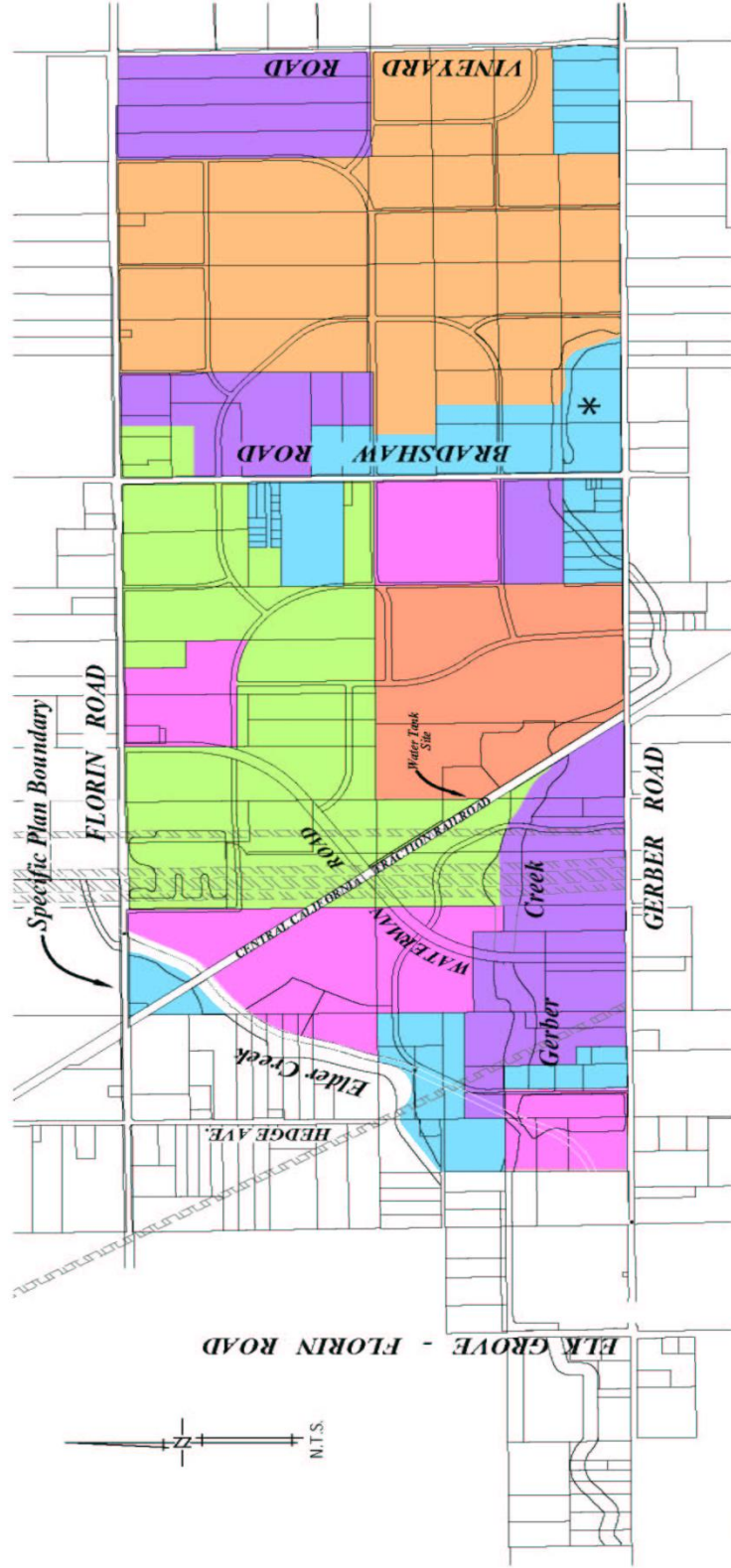
A mapping factor of 10% is applied to all land uses to account for potential loss of developable acreages for purposes of the Fee Program. Account for the 10% mapping factor as well as land use adjustments and development that have transpired since 2005, the Fee Program includes approximately 852 net remaining developable acres. The NVSSP area will need major backbone infrastructure, such as roadway facilities, frontage lane improvements, park facilities, and transit facilities. Much of the funding for these facilities will come from development impact fees. Since such facilities are needed as a result of development in the NVSSP area, the cost of these facilities should be borne by development in the NVSSP area. The roadway, frontage lane, park, and transit impact fees discussed in this report will apply only to development within the NVSSP area.

Purpose of Study

The County of Sacramento (County) retained Goodwin Consulting Group, Inc. to update the roadway, frontage lane, and transit fee components of the North Vineyard Station Specific Plan Development Impact Fee Program (Fee Program). The collection of the library fee component was discontinued in 2013 with the adoption of a county-wide library fee program. An update of the park component of the Fee Program was adopted by the Board on June 19, 2018. The NVSSP Fee Program was established by the Board through the adoption of the *North Vineyard Station Specific Plan Development Impact Fee Program Nexus Study* (Nexus Study) in 2005. The Nexus Study ensured that a rational nexus exists between future development in the NVSSP area and the use and need of the facilities and the impact fees that fund them. This updated analysis will demonstrate that a reasonable relationship still exists between the amount of the roadway, frontage lane, park, and transit fees and the cost of those corresponding facilities attributable to the development that will be required to pay the impact fees.

North Vineyard Station Specific Plan

FEE PROGRAM BOUNDARY
Exhibit for Entire Plan Area



- PHASE A-1
- PHASE A-2
- PHASE B
- PHASE C
- PHASE D
- PHASE E
- * Potential Water Treatment Plant

MACKAY & SOMPS
CIVIL ENGINEERS, INC.
 (916) 929-6092
 SACRAMENTO, CALIFORNIA
 Job Number: 7536-10
 Date: 07/05

AB 1600 Nexus Requirements

Assembly Bill (AB) 1600, which was enacted by the State of California in 1987, created Section 66000 et. seq. of the Government Code. AB 1600, also referred to as the Mitigation Fee Act, requires that all public agencies satisfy the following requirements when establishing, increasing, or imposing a fee as a condition of approval for a development project:

1. Identify the purpose of the fee
2. Identify the use to which the fee will be put
3. Determine how there is a reasonable relationship between:
 - A. The fee's use and the type of development project on which the fee is imposed
 - B. The need for the public facility and the type of development project on which the fee is imposed.
 - C. The amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed.

As stated above, the purpose of this Nexus Study is to demonstrate that the roadway, frontage lane, park, and transit fee components of the NVSSP Fee Program included in this report comply with AB 1600. The assumptions, cost allocation methodology, facility standards that were used to establish the nexus between the roadway, frontage lane, park, and transit fees (NVSSP Fees) in this Nexus Study and the development on which they will be levied are summarized in the subsequent chapters of this report.

Organization of Report

The remainder of this report has been organized into the following chapters:

- | | |
|-------------|--|
| Chapter II | Provides a general explanation of the methodology used to calculate roadway, frontage lane, park, and transit fees in the NVSSP Fee Program. |
| Chapter III | Discusses the NVSSP land uses to be used in the application of the fees. |
| Chapter IV | Defines infrastructure categories in the NVSSP CIP and their related costs |

- Chapters V-IX Provides details of the individual fee component calculations for roadway, frontage lane, and transit facilities. Park and library fee components are also summarized in these chapters.
- Chapter X Provides a summary of the impact fees calculated in this report and addresses future fee adjustments, credit/reimbursement policies, fee implementation issues and administrative duties for the Fee Program

II. FEE METHODOLOGY

When an impact fee is calculated, an analysis must be presented in enough detail to demonstrate that a logical and thorough consideration was applied in the process of determining how the fee relates to the impact from new development. Various findings must be made to ensure that there is a reasonable relationship between the use, need and amount of an impact fee and the type of development on which that impact fee will be levied.

Dwelling Unit Equivalentents (DUE) Factors

Dwelling unit equivalentents factors, or DUEs, are measurements by which the impact on public facilities of one type of land use or zoning category is measured relative to another. This nexus study utilizes DUEs developed by the County to allocate the facilities costs in the NVSSP Capital Improvement Plan (NVSSP CIP), which is presented in Appendix A of this report. The County DUE factors are set up so that the RD-1 land use category equals 1.0 DUE. Other land use categories have their DUE factor calculated based on their relative impact on an infrastructure or facility type to that of the RD-1 category. DUE schedules that show the assigned DUE factor for each land use category are shown in Appendix C.

Fee Calculation

Roadway, frontage lane, park, and transit fees calculated in the Fee Program utilize dwelling unit equivalentents, or DUE factors, to spread the cost of infrastructure and other public facilities over the expected future development in the NVSSP. The steps to calculate each fee component of the Fee Program are as follows:

- Step 1.* Determine the expected number of units or acres by land use zoning in the development area
- Step 2.* Determine the facilities and improvements needed to serve future development
- Step 3.* Estimate the total cost of the facilities needed to serve the future development, less the available balance in the fee fund for each fee component
- Step 4.* Determine the appropriate DUE factors for each land use category, in this case, DUE factors for roadway, frontage lane, park, and transit facilities were provided by the County; apply DUEs to the land use categories for each infrastructure facility or Fee Program cost
- Step 5.* Calculate the total amount of DUEs that will be generated by all future development land use categories by multiplying the net remaining land uses by their assigned DUE factor
- Step 6.* Divide the total cost of the facility by the total DUEs calculated in Step 5 to calculate a cost per DUE for the facility category

- Step 7.** Multiply a land use's DUE factor by the cost per DUE for each facility category to determine the impact fee per acre for each land use category of that facility component
- Step 8.** For AR residential zoning designations, divide the resultant per acre fee by the estimated density for the specific zoning designation to determine the impact fee per unit. For each non-residential use, divide the resultant per acre fee by the estimated building square feet per acre, which is based on an average floor-to-area ratio, for each land use category.

III. LAND USE CATEGORIES

Land Use Categories

The NVSSP includes approximately 1,591 gross acres that are planned for approximately 6,050 residential units. However, there are uncertainties regarding whether an eighty-acre high school site will be located in the NVSSP area and also the potential for loss of developable land due to wetlands. If these events were to occur, there would be a potential for not collecting enough fee revenue to fund the required facilities. To avoid this, the total number of residential units and net developable acres has been reduced in this Nexus Study by a 10% factor to account for this potential loss of developable acreage. In addition, land use adjustments and parcels of developed property are excluded for fee calculation purposes. Accounting for these adjustments, the Fee Program includes approximately 852 net remaining developable acres, as shown in Table B-1 and Table B-2 of Appendix B of this report.

The land use plan in this Nexus Study was derived from the *North Vineyard Station Specific Plan Public Facilities Financing Plan* (NVSSP PFFP) and adjusted by the County. Residential land uses expected in the NVSSP area include zoning categories RD-1 through RD-7, RD-10, and multi-family residential, which is assumed to be the RD-20 zoning category. Non-residential land uses in the NVSSP area include 6.4 acres of Business Professional (BP) and 31.5 acres of Commercial (LC).

The Mitigation Fee Act requires that a reasonable relationship exist between the need for public facilities and the type of development on which an impact fee is imposed. The need for public facilities is related to the level of service demanded, which varies in proportion to the number of residents or employees generated by a particular development type. Therefore, land use categories and DUEs have been calculated in order to distinguish between relative impacts on facilities. NVSSP Fees have been calculated on a per acre basis for residential development and on a per square foot basis for non-residential land use categories. When assigning NVSSP Fees, the County will make the final determination as to which land use category a particular development will be assigned.

IV. INFRASTRUCTURE AND PUBLIC FACILITIES

The NVSSP area will fund various types of infrastructure and public facilities that will serve future development in this area. Table B-3 in Appendix B and the table below summarizes the public facilities and costs in the NVSSP CIP. Approximately \$133.3 million in roadway, frontage lane, park, and transit facilities costs is anticipated to be funded through the applicable components of the NVSSP Fee Program. The roadway, frontage lane, park, and transit fees included in this report are anticipated to fund approximately \$125.7 million of the total facilities costs, which is net of approximately \$7.5 million in fees collected from development that has already occurred. Detailed facilities components and their costs are shown in Appendix A of this report.

Facilities	Estimated Costs at Buildout	Less: Fee Fund Balance	Estimated Remaining at Buildout
Roadway Improvements	\$76,633,622	(\$364,496)	\$76,269,126
Frontage Lane Improvements	\$13,256,255	(\$1,274,706)	\$11,981,549
Park & Recreation Facilities <i>(adopted June 19, 2018 & inflated on March 1, 2019)</i>	\$42,824,766	(\$5,786,715)	\$37,038,051
Transit Facilities ¹	\$561,010	(\$117,265)	\$443,745
Total Costs	\$133,275,653	(\$7,543,182)	\$125,732,471

¹ Facilities cost represents only the portion of the total cost that is allocated to the NVSSP area.

The infrastructure and costs listed in the table above are not a complete list of the facilities that will be funded by NVSSP development but only those for which fees will be collected under the NVSSP Fee Program. The remainder of the costs will be funded through various sources and fees including:

- Sacramento County Transportation Development Fees (SCTDF)
- Sacramento County Water Agency (SCWA) Zone 40 Water Fees
- Sacramento Area Sewer District (SASD) Sewer Fees
- Sacramento Regional County Sanitation District (SRCSD) Sewer Fees
- County Zone 11 Drainage Fees
- County-wide Library Fees
- Sacramento Metro Fire District Capital Facilities Fee
- EGUSD School Fee Program

The following chapters of this report will address the individual facilities listed in the table above and the associated NVSSP Fee components.

V. ROADWAY FACILITIES AND FEE COMPONENT

The roadway fee component of the NVSSP Fee Program includes funding for the construction and widening of roads and intersections, signalization, median improvements with landscaping, culverts, bridges, as well as land acquisitions. The need for these roadway improvements is triggered by the increase in traffic that will be generated by future development in the NVSSP area, and therefore, these improvements will be included in the Fee Program and funded by development in the NVSSP area. The roadway fee component of the NVSSP Fee meets the AB 1600 nexus requirements, as outlined below.

Purpose of Fee

The purpose of the fee is to fund roadway improvements for the NVSSP area.

Use of Fee

NVSSP Fee revenue will fund the construction and improvement of roads, intersections, and other roadway facilities summarized in the Table 1's of Appendix A and shown in Exhibit E-1 of Appendix E of this report.

Reasonable Relationship between the Fee's Use and the Type of Development

Development will place increasing demand on the County's roadways in the NVSSP area and create a need to expand the capacity of the roadway system in this area. Roadway fees imposed on new residential and non-residential land uses will be used to fund the construction and expansion of roadways and thereby meet the increased demand caused by future development in the NVSSP area.

Reasonable Relationship between the Need for the Facility and the Type of Development

This expected development will create new residents and employees who will use the County's roadways. The additional demand placed on existing roadway facilities from new residents and employees will require new roadways to be constructed as well as the existing facilities to be expanded to handle the increased traffic. Roadway fee revenue from new development will be used to fund construction of the needed transportation facilities.

Reasonable Relationship between the Amount of the Fee and the Cost of the Facility

A reasonable relationship between the amount of the fee and the cost of the public facility or portion attributable to new development must be shown. The relationship between the amount of the fee and the portion of the facility and cost attributable to the development type is based on roadway and frontage lane DUEs which in turn are based on the PM peak hour trip generation rates assigned to each specific land use category, as shown in Table C-1 of Appendix C. The amount of PM peak hour trips generated by each land use type establishes the usage or demand for roadway facilities and can therefore be used to quantify a proportionate roadway fee. New development will be allocated a fair share of the cost based on the DUE factor assigned to each land use type.

Existing Facilities

In general, most of the NVSSP area roadways are rural, two-lane facilities with narrow lane widths and unimproved shoulders. Immediate access to the NVSSP area is provided by a grid system of arterial roadways including Florin Road to the north, Gerber Road to the south, Elk Grove-Florin Road to the west and Bradshaw Road, which bisects the NVSSP area. The NVSSP area initially includes two signalized intersections. One is at the intersection of Bradshaw Road and Florin Road and the other is at the intersection of Bradshaw Road and Gerber Road. With the Phase A-1 development of the NVSSP area, the Diamond Ranch Drive and Gerber Road signal was constructed.

Future Facility Requirements and Costs

As discussed in the prior section, existing roadway facilities are not adequate to meet the demand for roadway facilities generated by new development within the NVSSP area. The roadway capital improvement plan of the NVSSP CIP (Roadway CIP) identifies and estimates the costs of roadway improvements needed to serve the NVSSP area. Table A-1.1 through Table A-1.6 in Appendix A identifies roadway project costs in the Roadway CIP by phase. The projects include widening, reconstruction or construction of new and existing major arterial roadways with landscaped median, bridge and culvert improvements, as well as intersection, traffic signal, and railroad crossing improvements.

The Roadway CIP provides fair share funding for a comprehensive transportation network designed in accordance with anticipated traffic volumes and travel demands from the planned land uses, as well as the regional system envisioned by the County General Plan. The circulation system has been designed to adhere to the County's Level of Service (LOS) standards. Major NVSSP roadway improvements included in the Roadway CIP that are funded by the NVSSP area and planned to accommodate the ultimate development in the area include the center sections of following roadway segments, including intervening intersections as well as major drainage and railroad crossings:

- Gerber Road—Ultimate 4-lane arterial
- Florin Road—Ultimate 6-lane thoroughfare
- Bradshaw Road—Ultimate 6-lane thoroughfare
- Vineyard Road—Extend from current Gerber Road terminus to Florin Road two+ lanes
- Waterman Road—New four-lane arterial connecting Gerber and Florin Roads
- South Watt Avenue - Ultimate 6-lane thoroughfare
- Elder Creek Road (Shoulders only)
- Excelsior Road (Shoulders only)

The Roadway CIP includes the estimated cost of ROW acquisition, which is based on 5% of total construction cost. In addition, the Roadway CIP includes a ROW contingency that equals to 1% of the total project cost. The cost of preparing the NVSSP PFFP, the Nexus Study, other

technical studies, and establishing the Fee Program, estimated at \$1.5 million, is also included in the Roadway CIP because the roadway component is the largest element of the Fee Program and essentially creates the need for the Fee Program to be established. This amount does not include the cost of ongoing administration of the Fee Program.

The total cost of the roadway facilities to be funded through the NVSSP Fee Program is approximately \$76.6 million. However, the roadway fees included in this report are anticipated to fund nearly \$76.3 million of the total roadway costs, which is net of approximately \$364,000 in fees collected from development that has already occurred. Some of these roadway facilities are also anticipated to be funded by the SCTDF program. Any overlapping facilities between the SCTDF program and the NVSSP Fee Program will receive a corresponding credit in the SCTDF program.

Roadway CIP Phasing

The phasing of the on-site roadways will be based on individual needs for the subdivision projects. To date, reconstruction of Gerber Road from Elk Grove-Florin Road to Gerber Creek Crossing #3 just west of Bradshaw Road has been completed. Additional improvements consist of the northern half of a 72 foot ROW section, including the two westbound travel lanes, curb and gutter, and a pedestrian path. The construction of Waterman Road between Gerber Road and approximately 465 feet south of the Central California Traction Company (CCTC) railroad crossing as well as the intersection of Waterman Road and Gerber Road are near completion. Waterman Road, from Florin Road to approximately 300 feet north of CCTC railroad crossing, is also under construction with exception of the easterly half of the segment north of Vineyard Creek Units 2 and 3, which will be constructed by future development.

For Florin Road improvements east of Bradshaw, triggers have been included in the Roadway CIP for construction of shoulder widening to satisfy Mitigation Measure TR-8. However, as the County General Plan designates Florin Road as a six lane thoroughfare right-of-way standard, it will not be possible to construct frontage lane improvements consistent with the thoroughfare standard while at the same time widening only the shoulders of the existing rural two lane roadway. As such, the NVSSP proposes to construct the south half of the ultimate six-lane thoroughfare, not including the median. Phasing of improvements would coincide with the earlier of the frontage lane improvement requirements or the shoulder widening thresholds.

Roadway Fee Component

The facilities in the Roadway CIP are required to serve future development in the NVSSP area; no facilities in this CIP will cure existing roadway deficiencies in the County. The expected increases in traffic resulting from development of the NVSSP area will trigger the need for these roadway facilities. As a result, the cost of roadway facilities in the Roadway CIP will be allocated to future development in the NVSSP.

Table B-6 in Appendix B shows the calculation of the roadway fee component of the NVSSP Fee. The \$76.3 million net remaining roadway cost is allocated to future land uses in the NVSSP area based on the roadway DUE factors shown in Table C-1 of Appendix C and summarized in

Table B-4 of Appendix B. The DUE factors are based on peak hour trip rates adjusted for zoning category and assumed development density.

Table B-5 in Appendix B shows that by applying the assigned roadway DUE factors to the expected zoning category and development density, the total remaining roadway DUEs for the NVSSP area equals 3,882. Allocating the \$76.3 million roadway cost to the total remaining roadway DUEs within the NVSSP area yields a cost of \$19,647 per DUE, as shown in Table B-6. The roadway fee per acre for each land use category can be calculated by multiplying the cost per DUE by the per-acre DUE factor assigned to the specific land use category. The total fee for a residential property with an RD zoning designation would be calculated by multiplying the roadway fee per acre for the land use category by the property's acreage. The roadway fee for age-restricted developments within each residential zoning designation is reduced to equal 34% of the non-age restricted development rate based on lower trip generation assumptions for age-restricted land uses.

For AR residential zoning designations, the roadway fee per unit can be determined by dividing the resultant per acre fee by the estimated density for the specific zoning designation. Similarly, the roadway fee per square foot of building space for non-residential categories is calculated by dividing the resultant per acre fee by the Floor Space per Acre shown in Table C-1.

VI. FRONTAGE LANE FACILITIES AND FEE COMPONENT

The frontage lane fee component of the NVSSP Fee Program includes funding for the construction of contiguous frontage lane improvements, which include 11 feet of pavement, as well as improvements along open space and non-developing properties. Frontage lane costs include costs associated with curb, gutter and sidewalk improvements.

Frontage lane improvements are proposed to be phased consistent with the anticipated development phasing as shown on Exhibit E-2 of Appendix E. The development project to front on one of the frontage lane segments (logical segment) identified in the Exhibit E-2 will be responsible for construction of that particular segment. The construction requirement of logical segment has been reduced from approximately 1/2 mile to 1/4 mile in length. The frontage lane improvements and associated cost are included in the frontage lane CIP.

The frontage lane component of the NVSSP Fee calculated in this chapter of the report meets the AB 1600 nexus requirements, as outlined below.

Purpose of Fee

The purpose of the frontage lane fee is to fund frontage improvements that will serve the NVSSP area.

Use of Fee

Frontage lane fee revenue will fund improvements that are part of the Frontage Lane CIP as summarized in Table A-2 of Appendix A and shown on Exhibit E-2 of Appendix E.

Reasonable Relationship between the Fee's Use and the Type of Development

Residents and employees will place increasing demand on the County's frontage lanes in the NVSSP area and create a need to expand the capacity of the frontage lane network in this area. Frontage lane fees imposed on new residential and non-residential land uses will be used to fund the construction and expansion of frontage lanes and thereby meet the increased demand caused by future development in the NVSSP area.

Reasonable Relationship between the Need for the Facility and the Type of Development

New residential and commercial development will generate residents and employees in the NVSSP that will create a demand for road frontage improvements. Fees collected through the NVSSP Fee Program from new development will be used to fund frontage lane improvements that will serve the NVSSP area.

Reasonable Relationship between the Amount of the Fee and the Cost of the Facility

A reasonable relationship between the amount of the fee and the cost of the public facility or portion attributable to new development must be shown. The relationship between the amount of the fee and the portion of the facility and cost attributable to the development type is based on roadway and frontage lane DUEs which in turn are based on the PM peak hour trip generation rates assigned to each specific land use category, as shown in Table C-1 of Appendix C. The amount of PM peak hour trips generated by each land use type establishes the usage or demand for roadway and frontage lane facilities and can therefore be used to quantify a proportionate

frontage lane fee. New development will be allocated a fair share of the cost based on the DUE factor assigned to each land use type.

Future Facility Requirements and Costs

Frontage lane improvements not adjacent to open space corridors, parks, drainage channels, and powerline corridors are typically constructed and financed by adjacent development with no reimbursement from the financing plan. However, as a condition of approval, development within the NVSSP area is required to install roadway frontage lane improvements along a logical segment as well as its own frontage improvements. The frontage lane component of NVSSP Fee Program provides funding for these additional frontage lane improvements. Condition of approval on development and funding for frontage lane improvements help to prevent roadway segments that are commonly referred to as “sawtooth road frontage.” This type of road frontage occurs as a result of noncontiguous development caused by incongruent development timing and, in some cases, property owners that never plan to develop. This creates roadways of varying widths and a mixture of improvement conditions that produce traffic bottlenecks and a lack of continuity for vehicles, bicycles, and pedestrians. In addition to the aesthetic and convenience issues, these unfinished roadway segments can present safety problems in those transportation corridors.

The net remaining cost of the frontage lane facilities to be funded through the NVSSP Fee Program is approximately \$13.3 million. However, the frontage lane fees included in this report are anticipated to fund approximately \$12.0 million of the total frontage lane costs, which is net of approximately \$1.3 million in fees collected from development that has already occurred. The improvements included in the frontage lane CIP overlaps with the NVSSP and SCTDF programs. Some of these frontage lane improvements are also anticipated to be funded by the SCTDF program. Any overlapping facilities between the SCTDF program and the NVSSP Fee Program will receive a corresponding credit in the SCTDF program.

Frontage Lane Fee Component

The frontage lane facilities are required to serve future development in the NVSSP area; no facilities in the Frontage Lane CIP will cure existing frontage lane deficiencies in the County. Table B-7 in Appendix B shows the calculation of the frontage lane fee component of the NVSSP Fee. The \$12.0 million net remaining frontage lane cost is allocated to future land uses in the NVSSP area based on the roadway and frontage lane DUE factors shown in Table C-1 of Appendix C and summarized in Table B-4 of Appendix B. The DUE factors are based on peak hour trip rates adjusted for zoning category and assumed development density.

Table B-5 in Appendix B shows that by applying the assigned frontage lane DUE factors to the expected zoning category and development density, the total remaining frontage lane DUEs for the NVSSP area equals 3,882. Allocating the \$12.0 million frontage lane cost to the total remaining frontage lane DUEs within the NVSSP area yields a cost of \$3,086 per DUE, as shown in Table B-7. The frontage lane fee per acre for each land use category can be calculated by multiplying the cost per DUE by the per-acre DUE factor assigned to the specific land use category. The total fee for a residential property with an RD zoning designation would be

calculated by multiplying the frontage lane fee per acre for the land use category by the property's acreage. The frontage lane fee for age-restricted developments within each residential zoning designation is reduced to equal 34% of the non-age restricted development rate based on lower trip generation assumptions for age-restricted land uses.

For AR residential zoning designations, the frontage lane fee per unit can be determined by dividing the resultant per acre fee by the estimated density for the specific zoning designation. Similarly, the frontage lane fee per square foot of building space for non-residential categories is calculated by dividing the resultant per acre fee by the Floor Space per Acre shown in Table C-1.

VII. PARK AND RECREATION FEE COMPONENT

The Board adopted an update to the park component of the NVSSP Fee Program on June 19, 2018. A copy of the adopted nexus study is included in Appendix D. Park fees included in this report are based on the 2018 adopted rates, which were escalated to 2019 dollars on March 1, 2019. Both the adopted and escalated rates are presented in Table B-8 of Appendix B.

VIII. LIBRARY FEE COMPONENT

The library component of the NVSSP Fee Program was originally adopted in 2005 to fund NVSSP's fair share of the Vineyard Library. The County stopped levying the library fee component of the NVSSP Fee Program on November 25, 2013, which is the effective date for the County-wide Library Impact Fee Program. All new development within the NVSSP area will be subject to the County-wide Library fees. The amount collected under the library component of NVSSP Fee Program will remain in the NVSSP Library Fund to be spent on the Vineyard Library only.

IX. TRANSIT FACILITIES AND FEE COMPONENT

Development in the NVSSP area will be required to contribute to the Sacramento Regional Transit District (Regional Transit) toward the provision of transit facilities. Transit facilities needed to serve the NVSSP area are jointly funded under the SCTDF program and this Fee Program. This Fee Program includes the cost of land acquisition and construction of the planned park and ride facility and bus shelters, while the SCTDF program includes funding for transit facilities that are more regional in nature, such as buses and bus maintenance facilities. The transit fee component of the NVSSP Fee calculated in this Nexus Study meets the AB 1600 nexus requirements, as outlined below.

Purpose of the Fee

The purpose of the transit fee is to fund transit facilities to serve residents and employees in the NVSSP area.

Use of the Fee

Fee revenue will fund the construction of a park and ride facility and bus shelters that will serve the NVSSP area.

Reasonable Relationship between the Fee's Use and the Type of Development

New residential and non-residential development will generate additional residents and employees in the NVSSP area who will create a demand for transit service. The transit facilities, which will serve the NVSSP area, will benefit future residents and employees in the NVSSP area. Impact fees collected through the NVSSP Fee Program from new development will be used to fund these facilities.

Reasonable Relationship between the Need for the Facility and the Type of Development

Development in the NVSSP area will create new residents and employees who will require transit service. Currently, there is no bus or transit service in the NVSSP area. Future bus service will be available to serve residents and employees. The demand for new transit facilities will require Regional Transit to acquire or construct these facilities.

Reasonable Relationship between the Amount of the Fee and the Cost of the Facility

Transit DUEs, shown in Table C-3 of Appendix C, are used to establish the relative impact on transit facilities between land use categories. The County derived the transit DUE factors based on trip generation characteristics, estimated vehicle occupancy rates, and estimated percent of transit trips as documented by the Transportation Research Board's NCHRP Report 187. These transit DUEs are used in this Nexus Study to allocate a fair share portion of the transit facilities cost to each land use in the NVSSP area.

Future Facility Requirements and Costs

Regional Transit does not currently provide service to the NVSSP area. The nearest bus routes operate on Kiefer Boulevard two miles to the north and on Power Inn Road two miles to the west of the NVSSP area. However, Regional Transit's 20-year *Transit Action Plan* identifies services along the Elk Grove Florin Road/Watt Avenue, Bradshaw Road, and Florin Road corridors.

Regional Transit has indicated that these services are planned but not guaranteed. The provision of future transit services will be dependent upon community-wide land use patterns, densities/intensities, street configurations, and the availability of capital and operating funds.

In order to accommodate anticipated growth as a result of development in NVSSP area, Regional Transit staff provided transit facility needs and cost estimates for the transit fee component of the Fee Program. The estimated costs include land and construction costs for a park and ride facility and bus shelters. Table A-4 provides a summary of the transit facilities to be funded by the NVSSP Fee Program. The total transit facilities cost allocated to the NVSSP area is approximately \$561,000. However, the transit fees included in this report are anticipated to fund approximately \$444,000 of the total transit costs, which is net of approximately \$117,000 in fees collected from development that has already occurred. Approximately 90% of the existing transit fee fund balance was allocated to pay for buses and bus maintenance facilities, with the remaining 10% for proposed transit facilities.

Transit Fee Component

Since the demand for transit service is a direct result of development within NVSSP and will primarily benefit future residents and employees in the NVSSP area, the cost of these facilities is allocated among future residents and employees in this area.

Table B-9 in Appendix B shows the calculation of the transit fee component of the NVSSP Fee. The total \$444,000 cost is allocated to remaining land uses in NVSSP area based on 6,623 transit DUEs, which results in a cost of \$67 per DUE. The transit fee per acre for each land use category can be calculated by multiplying the cost per DUE by the per-acre DUE factor assigned to the specific land use category. The total fee for a residential property with an RD zoning designation would be calculated by multiplying the transit fee per acre for the land use category by the property's acreage.

For AR residential zoning designations, the transit fee per unit can be determined by dividing the resultant per acre fee by the estimated density for the specific zoning designation. Similarly, the transit fee per square foot of building space for non-residential categories is calculated by dividing the resultant per acre fee by the Floor Space per Acre shown in Table C-1.

X. FEE SUMMARY AND PROGRAM ADMINISTRATION

The table below summarizes the roadway, frontage lane, park, and transit fee components of the NVSSP Fee Program for the expected land use categories (zoning category) for the NVSSP area. See the section below entitled **NVSSP Fee Calculation** for information on calculating fees for land use categories not listed in the table below.

Zoning Category	Fee per Unit, Acre, or Bldg SF	Roadway Fee /1	Frontage Lane Fee /1	Park & Recreation Fee /2	Transit Fee	Administration Fee (4.0%)	Total Fee
Residential							
Single Family							
AR-5	<i>per Unit</i>	\$19,647	\$3,086	\$10,360	\$67	\$1,326	\$34,486
AR-2	<i>per Unit</i>	\$19,647	\$3,086	\$10,360	\$67	\$1,326	\$34,486
AR-1	<i>per Unit</i>	\$19,647	\$3,086	\$10,360	\$67	\$1,326	\$34,486
RD-1	<i>per Acre</i>	\$19,647	\$3,086	\$10,360	\$67	\$1,326	\$34,486
RD-2	<i>per Acre</i>	\$39,294	\$6,172	\$20,721	\$134	\$2,653	\$68,974
RD-3	<i>per Acre</i>	\$55,012	\$8,641	\$30,046	\$188	\$3,755	\$97,642
RD-4	<i>per Acre</i>	\$68,765	\$10,801	\$38,334	\$235	\$4,725	\$122,860
RD-5	<i>per Acre</i>	\$80,553	\$12,653	\$46,622	\$275	\$5,604	\$145,707
RD-6	<i>per Acre</i>	\$96,270	\$15,121	\$55,946	\$328	\$6,707	\$174,372
RD-7	<i>per Acre</i>	\$111,988	\$17,590	\$65,271	\$369	\$7,809	\$203,027
RD-10	<i>per Acre</i>	\$141,458	\$22,219	\$76,667	\$817	\$9,646	\$250,807
Multi-Family							
MFR 12-22 (RD-20)	<i>per Acre</i>	\$200,399	\$31,477	\$121,217	\$2,553	\$14,226	\$369,872
Non-Residential							
Business Professional (BP)	<i>per Bldg SF</i>	\$17.40	\$2.73	\$2.17	\$0.16	\$0.90	\$23.36
Commercial (LC)	<i>per Bldg SF</i>	\$29.41	\$4.62	\$2.37	\$0.32	\$1.47	\$38.19

/1 Roadway and Frontage Lane fees for Age Restricted residential uses equal 34% of the rates shown in this table.

/2 Park and Recreation fees were adopted by the Board of Supervisors on June 19, 2018, and were escalated to the rates shown here on March 1, 2019. Park and Recreation fees for Age Restricted residential uses equal 69% of the rates shown in this table.

Administration Fee

To defray the County's costs associated with administering the NVSSP Fee Program, tracking fee credits and reimbursements, updating engineering studies, the Nexus Study, and any other necessary studies in support of the NVSSP Fee Program, the County will charge an administration fee equal to 4.0% of the total fees. The administration fee must be paid at the time of building permit issuance, or as designated by the County, and cannot be credited against through a fee credit or reimbursement agreement.

Fee Adjustments

The NVSSP Fees may be adjusted in future years to reflect revised facility costs or standards, or receipt of funding from alternative sources (i.e., state or federal grants). In addition to such adjustments, the NVSSP Fees will be inflated each year by a construction cost index, as determined by the County ordinance adopting the NVSSP Fee Program.

Fee Collection

The four fee components in the NVSSP Fee Program and the administration fee will be collected prior to issuance of building permits. Fees will be placed in separate fee accounts to prevent commingling of revenues and to allow for accurate accounting of funds. Park & Recreation fee and Transit fee revenues will be collected by the County and distributed to the Southgate Recreation and Park District (SRPD) and the Sacramento Regional Transit District, respectively.

NVSSP Fee Calculation

The calculation of the NVSSP Fees will be based on the following formula:

For Residential Land Uses:

RD Zoning Designations:

Cost per DUE x DUE Factor per Acre x Net Acres of Property = NVSSP Fee

AG and AR Zoning Designations:

Cost per DUE x DUE Factor per Acre ÷ Units per Acre x Number of Units = NVSSP Fee

For Non-Residential Land Uses:

Cost per DUE x DUE Factor per Acre ÷ Floor Space per Acre (as identified on Table C-1 of Appendix C) x Building Square Feet (as shown in the building permit) = NVSSP Fee

Cost per DUE - the Cost per DUE for each of separate NVSSP Fee components can be found in Tables B-6 through B-9 in Appendix B.

DUE Factor per Acre – the DUE Factor per Acre for each County land use category (zoning category) is presented in Tables C-1 through C-3 of Appendix C.

Net Acres – Net acres, as shown in the North Vineyard Station Specific Plan Public Facilities Financing Plan equals gross acres less acreage associated with parks, schools, golf course, open space, parkway, major streets, railroad ROW, and any public acreage associated with municipal services and facilities. The total gross acreage in the NVSSP area is 1,591 acres, and the net developable acreage equals 1,027 acres. However, the roadway, frontage lane, park, and transit fees included in this report are allocated to 852 acres, which is net of approximately 175 acres that have already occurred.

The DUE factors used to compute the development fees must be those listed for the land use zoning category for the site that is adopted by ordinance by the Board. If a subdivision site is zoned RD-7, but the developer chooses to build homes on large lots that would comply with RD-5 zoning standards, the NVSSP Fees will be calculated based on the DUE factors for the RD-7 zoning in effect for the property. Only with the approval of a rezone to RD-5, prior to approval of improvement plans, would the fee obligation of the site be reduced to the RD-5 level.

Roadway and Frontage Lane Fee Credit and Reimbursement Policies

Many of the major roadway or frontage lane improvements included in the Fee Program CIP will be constructed privately by developers and dedicated to the County. In order to create the necessary link between the collection of NVSSP fees from new development and the private construction of major roadway improvements, detailed credit and reimbursement procedures are incorporated in the NVSSP Fee Program Ordinance. These credit and reimbursement procedures are necessary to assure that the roadway and frontage lane improvements are constructed and funded in compliance with the scheduling priorities established by the NVSSP CIP. In addition, agreements between the County and developer that further outline the specifics of the credit and reimbursement requirements are required by the NVSSP Fee Program Ordinance.

Amount of Credit / Reimbursement

The amounts to be considered for credit or reimbursement of the facilities constructed by private development will be the actual cost of constructing the facility, including costs such as engineering design, design surveys, construction surveys, construction inspection and materials testing, and contingency, up to the estimated cost contained in the Fee Program CIP, as detailed in Appendix A. In the event that the fee rates and facilities costs are adjusted by either the built-in annual adjustments or periodic program updates, the maximum amount allowed for credit or reimbursement shall be the cost set forth in the NVSSP CIP in effect at the time of the project's acceptance. Amounts for contingencies will be examined on a case-by-case basis and will be allowed based upon the determination of the Administrator of the Municipal Services Agency.

At the time of the execution of the credit/reimbursement agreement, the eligible amount and allowable credits would be based on the estimated cost contained in the Fee Program CIP in effect at the time of the agreement. Upon acceptance of the improvement, the County will verify the actual cost of the project. If the project cost is less than the amount contained in the agreement, the difference in terms of credit will be applied to lower any remaining credits or be paid back to the County by the developer when no more credits are available. If there is reimbursement due the developer, this difference will be adjusted to the reimbursement amount. If the project cost is more than the amount contained in the agreement and the cost in the Fee Program CIP in effect at the time of the project acceptance is greater than amount contained in the agreement due to annual adjustments to the CIP or periodic updates to the Fee Program, the difference between the amount contained in the agreement and the lesser of the project cost or the eligible amount in effect at the time of the project acceptance, will be applied to increase any future available credits or be reimbursed by the County to the developer in accordance with the reimbursement policy.

For NVSSP CIP facilities funded through a community facilities district (CFD), only funding up to the facility category fee for the development will be allowed to be credited; any amount over the fee obligation for the development will not be funded through the CFD. For example, a developer that planned to build 1,000 RD-1 units would have a total roadway fee obligation of approximately \$20.5 million based on the roadway fee calculated in this Nexus Study. Funding of NVSSP CIP roadway facilities up to \$20.5 million would be allowed through the CFD; however, any amount over this would have to be funded by the developer without any funding from the CFD and reimbursed at some future date by the County from the NVSSP Fee Program. Alternatively, the CFD could fund these amounts if the reimbursement from the Fee Program is paid to the CFD and not the developer.

Credit Requirements

To obtain credits, an application must be submitted to the County and a credit agreement must be entered into prior to issuance of any building permit for which the credit will be used. Credits shall be prorated over each unit in a residential subdivision and given after a security is posted for the complete performance of the construction project in a form that is acceptable to the County or after the facility is accepted by the County. Also, credits can be used only against like fees, so that credit for construction of roadway facilities can only be used to reduce the roadway fee obligation.

Reimbursement Requirements

To obtain a reimbursement, a reimbursement agreement between the County and the developer shall be entered into. Reimbursement Agreements shall not be paid unless the improvement is completed and accepted by the County. Reimbursement agreements are an obligation of the NVSSP Fee Program and are not an obligation of the County General Fund or any other fund of the County. Timing of reimbursements will be on a first-come-first-served basis based on the acceptance date of the improvement and the availability of funds in the NVSSP Fee Program Roadway Fund. Construction projects that the County is responsible for will take funding precedence over reimbursing developers.

ROW Acquisitions and Dedications

In addition to roadway and frontage lane fee credits and reimbursements, the County will also provide credits or reimbursements for ROW acquisitions and dedications up to the cost in the NVSSP CIP for roadway ROW at the time of dedication and for up to twenty-five feet in width of the public utility easement area. The land must be dedicated to the County and an agreement must be entered into prior to any credits and/or reimbursements being given. The timing of reimbursement for land dedication is further subject to the availability of funds in the NVSSP Fee Program Roadway Fund and is also given on a first-come-first-served basis based on the dedication date.

Other Facilities

The NVSSP Fee Program Ordinance also allows for credits and reimbursements for park and transit facilities constructed by private development at the discretion of the facility/service provider. If approved, such reimbursements are to be administered by SRPD and Regional Transit, respectively.

Fee Implementation

According to California Government Code, prior to levying a new fee or increasing an existing fee, an agency must hold at least one open and public meeting. At least 10 days prior to this meeting, the agency must make data on infrastructure costs and funding sources available to the public. Notice of the time and place of the meeting, and a general explanation of the matter, are to be published in accordance with Section 6062a of the Government Code, which states that publication of notice shall occur, for 10 days in a newspaper regularly published once a week or more. The County may then adopt the new fees at the second reading.

The NVSSP Fee Program will be adopted through a County ordinance. Once the NVSSP Fee is adopted by the Board, it shall become effective no sooner than sixty days later, unless an urgency measure is adopted. An urgency measure is an interim authorization that waives the sixty-day waiting period and allows the new fees to be collected immediately if a finding of a current and immediate threat to the public health, welfare and safety can be demonstrated. The interim authorization requires a four-fifths vote of the Board and stays in effect for thirty days; no more than two extensions of the authorization can be granted.

Annual Administrative Duties

The Government Code requires the County to report, every year and every fifth year, certain financial information regarding the impact fees. Within 180 days after the last day of each fiscal year the County must make the following information available for the past fiscal year:

- (a) A brief description of the type of fee in the account or fund
- (b) The amount of fee revenue
- (c) The beginning and ending balance of the account or fund
- (d) The amount of fee revenue collected and interest earned
- (e) An identification of each public improvement on which fees were expended and the amount of expenditures on each improvement, including the total percentage of the cost of public improvement that was funded with fees
- (f) An identification of an approximate date by which time construction on the improvement will commence if the local agency determines that sufficient funds have been collected to complete financing on an incomplete public improvement
- (g) A description of each interfund transfer or loan made from the account or fund, when it will be repaid and at what interest rate
- (h) The amount of any refunds made once it is determined that sufficient monies have been collected to fund all projects

The County must make this information available for public review and must also present it at the next regularly scheduled public meeting not less than 15 days after this information is made available to the public.

Fifth-Year Administrative Duties

For the fifth year following the first deposit into the fee account and every five years thereafter, the County must make the following findings with respect to any remaining funds in the fee accounts:

- (a) Identify the purpose to which the fee is to be put
- (b) Demonstrate a reasonable relationship between the fee and the purpose for which it is charged
- (c) Identify all sources and amounts of funding anticipated to complete financing incomplete improvements
- (d) Designate the approximate dates on which funding is expected to be deposited into the appropriate accounts or funds

As with the annual report, the five-year report must be made public within 180 days after the end of the County's fiscal year and must be reviewed at the next regularly scheduled public meeting. The County must make these findings; otherwise the law states that the County must refund the fee revenue to the then current owners of the development project.

APPENDIX A

Detailed Costs for Public Facilities

Roadway Improvements

Frontage Lane Improvements

Park and Recreation Facilities

Transit Facilities

Table A-1.1
North Vineyard Station Specific Plan Fee Program
Roadway Summary CIP
Phase A-1

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
			PHASE A-1																
			Gerber Road																
7	900	R 4.2	Elk-Grove Florin to Project Boundary (Off-site)	4 Lane 74' R/W Half-section (north side) - Project Complete		A-1.3.2	1,570	L.F.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
8	900	R 4.3	Project Boundary to Waterman (On-site)	4 Lane 74' R/W Half-section (north side) - Project Complete		A-1.3.2	2,620	L.F.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
9	900	R 4.4	Waterman to Gerber Creek Crossing #3 (just w. of Bradshaw) (On-site)	4 Lane 74' R/W Half-section (north side) - Project Complete		A-1.3.2	4,810	L.F.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
10	900	R 4.11	CCTC RR Crossing	Reconstruct at-grade RR crossing (84' R/W) - Project Complete		N/A	1	L.S.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
11		R 4.12	Gerber Creek Crossing # 4 (at the CCTC RR tracks) (On-site)	2-8' X 6' Box Culverts With Headwalls (84' R/W) - Project Complete		A-1.5.4	1	L.S.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
12		R 62	At Collector (Diamond Ranch Dr.) (5 Street) (On-site)	4 X 2 Intersection Signalization, 3-way - Project Complete		A-1.4.1	1	EA	\$ -	\$ -		\$ -			\$ -	\$ -	\$ -	\$ -	\$ -
			Subtotal - Gerber Road																
										\$ -		\$ -	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -
			Onsite Frontage Improvements																
			Internal Public Frontage for Specific Plan Roads	Roadway half sections for public facilities - Project Complete		A-1.6.1	1	L.S.	\$ 154,275	\$ 154,000		\$ -			\$ -	\$ -	\$ 154,000	\$ -	\$ 154,000
			Subtotal - Onsite Frontage Improvements																
										\$ 154,000		\$ -			\$ -	\$ -	\$ -	\$ -	\$ 154,000
			Phase A-1 ROW CONTINGENCY																
							0%	%	\$ 154,000	\$ -					\$ -	\$ -	\$ -	\$ -	\$ 154,000
			Other																
			Preparation of P.F.F.P. and technical studies	Consultant fees		N/A	1	L.S.	\$ 1,500,000	\$ 1,500,000		\$ -			\$ -	\$ -	\$ 1,500,000	\$ -	\$ 1,654,000
			Subtotal - Other																
										\$ 1,500,000		\$ -	\$ -		\$ -	\$ -	\$ 1,500,000	\$ -	\$ 1,654,000
			TOTAL PHASE A-1																
										\$ 1,654,000		\$ -	\$ -		\$ -	\$ -	\$ 1,654,000	\$ -	\$ 1,654,000

Table A-1.1 Cont.
North Vineyard Station Financing Plan
Roadway Summary CIP
Phase A-2

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
PHASE A2																			
Gerber Road																			
17	900	R 4.4.2	Gerber Creek Crossing #3 to Bradshaw	4 Lane 74' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)		A-1.3.3	620	L.F.	\$ 1,023	\$ 634,000	[5]	\$ -			\$ -	\$ -	\$ -	\$ 634,000	\$ 2,288,000
21		R 4.1.3	Gerber Creek Crossing #3 (just west of Bradshaw Rd)	2-8' X 6' Box Culverts With Headwalls (84' R/W)		A-1.5.5	1	L.S.	\$ 1,876,287	\$ 1,876,000	[1]	\$ -			\$ -	\$ -	\$ -	\$ 1,876,000	\$ 4,164,000
20		R 60	At Collector (1 Street)	4 X 2 Intersection Signalization, 3-way		A-1.4.2	1	EA.	\$ 468,000	\$ 468,000		\$ -			\$ -	\$ -	\$ 468,000	\$ -	\$ 4,632,000
22a		R 34a	At Waterman Rd.	4x4 Intersection & Signalization, 3-way (note: northern CRs exist., center section of north leg incl in proj. #7.3.1)		A-1.4.R34a	1	EA.	\$ 1,268,000	\$ 1,268,000		\$ -			\$ -	\$ -	\$ -	\$ 1,268,000	\$ 5,900,000
22b		R 34b	At Waterman Rd.	Construct 3 way 4x4 intersection with signal at Gerber Road and Waterman Road. (fully funded by FVG CIP)		A-1.4.R34b	1	L.S.	\$ -	\$ -		\$ -			\$ -	\$ -	\$ -	\$ -	\$ 5,900,000
123		R 61	At Collector (Bardu Ln)	4 X 2 Intersection Signalization	80	A-1.4.R61	1	EA.	\$ 928,000	\$ 928,000		\$ -		50%	\$ 464,000	\$ 464,000	\$ 464,000	\$ -	\$ 6,364,000
Subtotal - Gerber Road										\$ 5,174,000		\$ -	\$ -	\$ 464,000	\$ 464,000	\$ 932,000	\$ 3,778,000	\$ 6,364,000	
Waterman Road																			
18	900	R 7.3.1	Gerber (Project Boundary) to CCTC RR Crossing	4 Lane 74' R/W cent. sect. w/ med. (excludes outside 11' pvmt. & ftg.)		A-1.3.3	2,680	L.F.	\$ 1,023	\$ 2,742,000		\$ -			\$ -	\$ -	\$ -	\$ 2,742,000	\$ 9,106,000
23		R 7.12	Gerber Creek Crossing	16 ft x 10 ft CON/SPAN Arch Culvert w/headwalls and wingwalls (84' R/W)		A-1.5.3	1	L.S.	\$ 980,427	\$ 980,000		\$ -			\$ -	\$ -	\$ -	\$ 980,000	\$ 10,086,000
24		R 7.12.2	Ped. Crossing @ Gerber Creek (private constr.)	Const. Signal and crossing (included in park facilities fee)		A1.4.PED	0	EA.	\$ 164,000	\$ -		\$ -			\$ -	\$ -	\$ -	\$ -	\$ 10,086,000
Subtotal - Waterman Road										\$ 3,722,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,722,000	\$ 10,086,000
Florin Road																			
93	4500	R 3.3	CCTC RR (Project Boundary) to Waterman	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	89e	A-1.3.5	3,440	L.F.	\$ 1,455	\$ 5,005,000		\$ -		50%	\$ 2,502,500	\$ 2,502,500	\$ -	\$ 2,502,500	\$ 12,588,500
45	1800	R 3.11	CCTC RR Crossing	Reconstruct at-grade RR crossing (108' R/W)	89d	A-1.4.6RR	1	L.S.	\$ 1,485,000	\$ 1,485,000		\$ -		50%	\$ 742,500	\$ 742,500	\$ -	\$ 742,500	\$ 13,331,000
46	1800	R 3.12	Crossing at Elder Creek	New Bridge Construction (108' R/W)	89a	A-1.5.2	1	L.S.	\$ 1,861,000	\$ 1,861,000	[5]	\$ -			\$ -	\$ -	\$ -	\$ 1,861,000	\$ 15,192,000
94	4500	R 3.4.1	Waterman to 1,350' east of Waterman	6 Lane 96' R/W; center sect. w/ med. (excludes outside lanes & ftg.)	89f	A-1.3.5	1,350	L.F.	\$ 1,455	\$ 1,964,000		\$ -		50%	\$ 982,000	\$ 982,000	\$ -	\$ 982,000	\$ 16,174,000
47a	1800	R 3.4.2	1,350' east of Waterman to Bradshaw	6 Lane 96' R/W; center sect. w/ med. (excludes outside lanes & ftg.)	89g	A-1.3.5	1,520	L.F.	\$ 1,455	\$ 2,212,000		\$ -		50%	\$ 1,106,000	\$ 1,106,000	\$ -	\$ 1,106,000	\$ 17,280,000
47b	1800	R 3.4.2	1,350' east of Waterman to Bradshaw	6 Lane 96' R/W; center sect. w/ med. (excludes outside lanes & ftg.)	89b	A-1.5.12b	1	L.S.	\$ 83,000	\$ 83,000		\$ -		50%	\$ 41,500	\$ 41,500	\$ -	\$ 41,500	\$ 17,321,500
Subtotal - Florin Road										\$ 12,610,000		\$ -	\$ -	\$ 5,374,500	\$ 5,374,500	\$ -	\$ 7,235,500	\$ 17,321,500	
Onsite Frontage Improvements																			
			Internal Public Frontage for Specific Plan Roads	Roadway half sections for public facilities		A-1.6.2	1	L.S.	\$ 632,967	\$ 633,000		\$ -			\$ -	\$ -	\$ 633,000	\$ -	\$ 17,954,500
Subtotal - Onsite Frontage Improvements										\$ 633,000		\$ -	\$ -	\$ -	\$ -	\$ 633,000	\$ -	\$ 17,954,500	
Gerber Road - Off-site																			
31		R 4.2	Elk-Grove Florin to Project Bndry (off-site)	12' Median (Imp complete)		A-1.3.8	1,570	L.F.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ 17,954,500
32		R 4.2	Elk-Grove Florin to Project Bndry (off-site)	South Side Arterial Center Lane - Project Complete		A-1.3.9	1,570	L.F.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ 17,954,500
33		R 4.3	Project Boundary to Waterman	12' Median - Project Complete		A-1.3.8	2,620	L.F.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ 17,954,500
34		R 4.3	Project Boundary to Waterman	South Side Arterial Center Lane - Project Complete		A-1.3.9	2,620	L.F.	\$ -	\$ -	[1]	\$ -			\$ -	\$ -	\$ -	\$ -	\$ 17,954,500
35		R 4.4	Waterman to Gerber Creek Crossing #3 (just w. of Bradshaw)	12' Median (Imp partially complete - 550' remaining)	Partial 58	A-1.3.8	550	L.F.	\$ 348	\$ 191,000		\$ -		50%	\$ 95,500	\$ 95,500	\$ -	\$ 95,500	\$ 18,050,000
36		R 4.4	Waterman to Gerber Creek Crossing #3 (just w. of Bradshaw)	South Side Arterial Center Lane - Project Complete		A-1.3.9	0	L.F.	\$ -	\$ -		\$ -			\$ -	\$ -	\$ -	\$ -	\$ 18,050,000
14	800	R 37a	At Excelsior Rd.	4 X 2 Intersection Signalization, 4-way widening		A-1.4.R37a	1	L.S.	\$ 1,605,000	\$ 1,605,000		\$ -			\$ -	\$ -	\$ -	\$ 1,605,000	\$ 19,655,000
Subtotal - Gerber Road - (Off-site)										\$ 1,796,000		\$ -	\$ -	\$ 95,500	\$ 95,500	\$ -	\$ 1,700,500	\$ 19,655,000	
Florin Road - (Off-site)																			
19	900	R 3.2	Elk Grove-Florin to proj. boundary (CCTC RR crossing)	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	3,860	L.F.	\$ 341	\$ 1,316,000		\$ -			\$ -	\$ -	\$ 1,316,000	\$ -	\$ 20,971,000
15a	800	R4.4a	At Hedge Avenue	Widen existing to a 2 x 2 intersection (constructed by Lennar)	56a	-	1	L.S.	\$ 1,781,000	\$ 1,781,000	[7]	\$ -			\$ -	\$ -	\$ -	\$ 1,781,000	\$ 22,752,000
15b	800	R4.4b	At Hedge Avenue	Widen 2 lane intersect. (incl. Protective turn lane & Signal)	56b	A-1.4R4.4b	1	L.S.	\$ 2,664,000	\$ 2,664,000		\$ -		100%	\$ 2,664,000	\$ 2,664,000	\$ -	\$ -	\$ 22,752,000
13	800	R 32.1	At Excelsior Rd.	4 X 2 Intersection Widening, 4-way (incl. 450' intx. leg imps.)	25	A-1.4.4	1	L.S.	\$ 2,355,000	\$ 2,355,000		\$ -		16%	\$ 365,450	\$ 365,450	\$ -	\$ 1,989,550	\$ 24,741,550
Subtotal - Florin Road - (Off-site)										\$ 8,116,000		\$ -	\$ -	\$ 3,029,450	\$ 3,029,450	\$ 1,316,000	\$ 3,770,550	\$ 24,741,550	

Table A-1.1 Cont.
North Vineyard Station Financing Plan
Roadway Summary CIP
Phase A-2

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
PHASE A2 - Continued																			
South Watt - Off-site																			
28	1200	R 6.7	North of Jackson (Jackson to Folsom)	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) - Project Complete		A-1.3.5	2,650	L.F.	\$ -	\$ -		\$ -				\$ -	\$ -	\$ -	\$ 24,741,550
29a	1200	R 25.1a	At Elder Creek Rd.	4 X 6 Intersection Signalization, 4-way (4x4 cost included in COA#29b, R25.1b)		A-1.4.R25.1a	1	EA.	\$ 934,000	\$ 934,000		\$ -				\$ -	\$ -	\$ -	\$ 24,741,550
29b	1200	R 25.1b	At Elder Creek Rd.	Widen existing intersection to modified 4x4 per County S. Watt at Elder Creek Minimum Alternative 1 (includes 6 lane RR Xing)	3	County Min	1	L.S.	\$ 3,900,000	\$ 3,900,000		\$ -	\$ 834,000	100%	\$ 3,066,000	\$ 3,900,000	\$ -	\$ -	\$ 24,741,550
30	1200	R 25.2	At Elder Creek Rd.	Signal and Turn Lane installation (left-turn)		A-1.4.R25.2b	0	L.S.	\$ -	\$ -		\$ -				\$ -	\$ -	\$ -	\$ 24,741,550
Subtotal - South Watt - (Off-site)										\$ 4,834,000		\$ -	\$ 834,000		\$ 3,066,000	\$ 3,900,000	\$ -	\$ -	\$ 24,741,550
Bradshaw Road																			
37	1500	R 8.13	Gerber Creek Crossing (On-site)	2-8' X 5' Box Culverts With Headwalls (108' R/W) - Project Complete		A-1.5.6	1	L.S.	\$ -	\$ -		\$ -				\$ -	\$ -	\$ -	\$ 24,741,550
42	1500	R 8.4	Florin (Project Bndry) to Elder Creek Rd (Off-site)	6 Lane 96' R/W center sect. w/ med.(excl. outside 11' pvmt. & ftg.) - Project Complete		A-1.3.8	0	L.F.	\$ -	\$ -	[4]	\$ -				\$ -	\$ -	\$ -	\$ 24,741,550
38	1500	R 8.14	Elder Creek Crossing (Off-site)	Bridge/Culvert Improvements (widen to 6 lanes, 108' ROW) - Project Complete		N/A	1	L.S.	\$ -	\$ -		\$ -				\$ -	\$ -	\$ -	\$ 24,741,550
43	1500	R 8.5	Elder Creek Rd. to s/o Morrison Creek Crossing (Off-site)	6 Lane 96' R/W center sect. w/ med.(excl. outside 11' pvmt. & ftg.) - Project Complete		A-1.3.5	4,860	L.F.	\$ -	\$ -		\$ -				\$ -	\$ -	\$ -	\$ 24,741,550
39	1500	R 8.16	Tributary to Elder Creek Crossing (Off-site) @ Bradshaw Road	Culvert Improvements	17	A-1.5.8c	1	L.S.	\$ 151,823	\$ 152,000		\$ -		68%	\$ 103,360	\$ 103,360	\$ -	\$ 48,640	\$ 24,790,190
44	1500	R 8.7	South of Morrison Creek Crossing to Jackson (Off-site)	6 Lane 96' R/W center sect. w/ med.(excl. outside 11' pvmt. & ftg.) - Project Complete		A-1.3.5	1,740	L.F.	\$ -	\$ -	[4]	\$ -				\$ -	\$ -	\$ -	\$ 24,790,190
40	1500	R 8.15	Morrison Creek Crossing	Bridge/Culvert Improvements (widen exist. to 6-lane, 108' ROW)	18	A-1.5.9	1	L.S.	\$ 5,822,000	\$ 5,822,000		\$ -		68%	\$ 3,958,960	\$ 3,958,960	\$ -	\$ 1,863,040	\$ 26,653,230
Subtotal - Bradshaw Road										\$ 5,974,000		\$ -	\$ -		\$ 4,062,320	\$ 4,062,320	\$ -	\$ 1,911,680	\$ 26,653,230
Phase A-2 ROW CONTINGENCY										\$ 28,810	[6]						\$ 28,810	\$ 221,182	\$ 26,903,222
TOTAL PHASE A-2										\$ 42,887,810		\$ -	\$ 834,000		\$ 16,091,770	\$ 16,925,770	\$ 2,909,810	\$ 22,339,412	\$ 26,903,222

Table A-1.1 Cont.
North Vineyard Station Financing Plan
Roadway Summary CIP
Phase B

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
PHASE B																			
Gerber Road																			
58a		R 33a	At Elk Grove-Florin Rd.	Widen SB receiving lanes to thoroughfare standard.(County Estimate)		A-1.4.R33a	1	L.S.	\$ 473,385	\$ 473,000	[4]	\$ -				\$ -	\$ -	\$ -	\$ 26,903,222
58b		R 33b	At Elk Grove-Florin Rd.	Widen ex. Intx. to 4X6 Intersection, relocate Signal		A-1.4.R33b	1	L.S.	\$ 969,000	\$ 969,000	[4]	\$ -				\$ -	\$ -	\$ -	\$ 26,903,222
41		R 35	At Bradshaw Rd.	Widen exist. Mod. 4 x 4 to 4 X 6 Intersection, 4-way	78	A-1.4.R35	1	L.S.	\$ 3,170,000	\$ 3,170,000		\$ -		25.0%	\$ 792,500	\$ 792,500	\$ -	\$ 2,377,500	\$ 29,280,722
Subtotal - Gerber Road										\$ 4,612,000		\$ -	\$ -	\$ 792,500	\$ 792,500	\$ -	\$ 2,377,500	\$ 29,280,722	
Waterman Road																			
25	2200	R 7.3.2	CCTC RR Crossing to Florin (Project Bndry)	4 Lane 74' R/W cent. sect. w/ med. (excludes outside 11' pvmt. & ftg.)		A-1.3.3	3,210	L.F.	\$ 1,023	\$ 3,284,000		\$ -				\$ -	\$ -	\$ 3,284,000	\$ 32,564,722
122		R 55	At Collector (1 Street)	4 X 2 Intersection Signalization, 3-way		A-1.4.2	1	EA.	\$ 468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 33,032,722
26		R 7.13	CCTC RR Crossing	Const. new under grade RR crossing (72' R/W)		A-1.4.4RR	1	L.S.	\$ 6,740,000	\$ 6,740,000		\$ -				\$ -	\$ -	\$ -	\$ 33,032,722
125		R 54	At Collector (6 Street)	4 X 2 Intersection Signalization, 3-way		A-1.4.2	1	EA.	\$ 468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 33,500,722
124		R 53	At Collector (4 Street)	4 X 2 Intersection Signalization, 4-way		A-1.4.1	1	EA.	\$ 623,000	\$ 623,000		\$ -				\$ -	\$ 623,000	\$ -	\$ 34,123,722
Subtotal - Waterman Road										\$ 11,583,000		\$ -	\$ -	\$ -	\$ -	\$ 1,559,000	\$ 3,284,000	\$ 34,123,722	
Florin Road																			
27a		R 29a	At Waterman Rd.	Interim 3-way 2 x 2 Intersection (future 6 x 4), construction expected in 2017	70/92a	A-1.4.R29a	1	L.S.	\$ 776,000	\$ 776,000		\$ -		50.0%	\$ 388,000	\$ 388,000	\$ -	\$ 388,000	\$ 34,511,722
27b		R 29b	At Waterman Rd.	6 X 4 Intersection & Signalization, 3-way (Florin & Waterman legs included in segment widening)	70/92b	A-1.4.R29b	1	L.S.	\$ 2,054,000	\$ 2,054,000		\$ -		50.0%	\$ 1,027,000	\$ 1,027,000	\$ -	\$ 1,027,000	\$ 35,538,722
59	2500	R 3.5	Bradshaw to Vineyard (Project Bndry)	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	4,850	L.F.	\$ 341	\$ 1,654,000		\$ -				\$ -	\$ 1,654,000	\$ -	\$ 37,192,722
Subtotal - Gerber Road										\$ 4,484,000		\$ -	\$ -	\$ 1,415,000	\$ 1,415,000	\$ 1,654,000	\$ 1,415,000	\$ 37,192,722	
Bradshaw Road																			
130		R 58	At Collector (11 Street)	6 X 2 Intersection Signalization, 4-way		A-1.4.1	1	EA.	\$ 623,000	\$ 623,000		\$ -				\$ -	\$ 623,000	\$ -	\$ 37,815,722
127		R 57	At Collector (9 Street)	6 X 2 Intersection Signalization, 4-way		A-1.4.1	1	EA.	\$ 623,000	\$ 623,000		\$ -				\$ -	\$ 623,000	\$ -	\$ 38,438,722
129		R 56	At Collector (10 Street)	6 X 2 Intersection Signalization, 4-way		A-1.4.1	1	EA.	\$ 623,000	\$ 623,000		\$ -				\$ -	\$ 623,000	\$ -	\$ 39,061,722
Subtotal - Bradshaw Road										\$ 1,869,000		\$ -	\$ -	\$ -	\$ -	\$ 1,869,000	\$ -	\$ 39,061,722	
Onsite Frontage Improvements																			
			Internal Public Frontage for Specific Plan Roads	Roadway half sections for public facilities		A-1.6.3	1	L.S.	\$ 1,070,685	\$ 1,071,000		\$ -				\$ -	\$ 1,071,000	\$ -	\$ 40,132,722
Subtotal - Onsite Frontage Improvements										\$ 1,071,000		\$ -	\$ -	\$ -	\$ -	\$ 1,071,000	\$ -	\$ 40,132,722	
Gerber Road - Off-site																			
60	2500	R 4.6	Vineyard (Project Boundary) to Excelsior	Widen shoulders to provide minimum pavement width (Arterial Class C)		A-1.3.1	4,820	L.F.	\$ 316	\$ 1,523,000	[3]	\$ 1,523,000				\$ 1,523,000	\$ -	\$ -	\$ 40,132,722
61	2500	R 4.15	Gerber Creek Crsng No. 1 (just east of Vineyard Rd)	Bridge/Culvert Improvements (widen for upgraded 2-lane road)		A-1.5.11	1	L.S.	\$ 7,000	\$ 7,000	[3]	\$ 7,000				\$ 7,000	\$ -	\$ -	\$ 40,132,722
56	2200	R 37b	At Excelsior Rd.	Widen mod. 4x2 intersection to County Standard 4x4		A-1.4.R37b	1	EA.	\$ 1,735,000	\$ 1,735,000		\$ -				\$ -	\$ 1,735,000	\$ -	\$ 41,867,722
Subtotal - Gerber Road - (Off-site)										\$ 3,265,000		\$ 1,530,000	\$ -	\$ -	\$ 1,530,000	\$ -	\$ 1,735,000	\$ 41,867,722	
Florin Road - Off-site																			
62	2500	R 28.1	At Elk Grove-Florin Rd.	Signalization (modify existing) - Project Complete		N/A	1	EA.	\$ -	\$ -		\$ -				\$ -	\$ -	\$ -	\$ 41,867,722
63	2500	R 28.2	At Elk Grove-Florin Rd.	Install westbound right turn lane on Florin Road at Elk Grove Florin Rd - Project Complete			1	L.S.	\$ -	\$ -		\$ -				\$ -	\$ -	\$ -	\$ 41,867,722
48	1800	R 3.6	Vineyard (project Boundary) to Excelsior	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	4,890	L.F.	\$ 341	\$ 1,667,000		\$ -				\$ -	\$ 1,667,000	\$ -	\$ 43,534,722
49	1800	R 3.13	Trib No. 1 to Gerber Creek Crossing (E of Bradshaw Rd)	Bridge/Culvert Improvements (lengthen to upgraded 2)		A-1.5.8b	1	L.S.	\$ 60,647	\$ 61,000		\$ -				\$ -	\$ -	\$ 61,000	\$ 43,595,722
50	1800	R 32.2	At Excelsior Rd.	Widen ex. 4 X 2 Intersection to County standard 4 X 4, 4-way (incl. 450' intx. leg imp.)		A-1.4.6	1	L.S.	\$ 678,000	\$ 678,000		\$ -				\$ -	\$ -	\$ 678,000	\$ 44,273,722
Subtotal - Florin Road - (Off-site)										\$ 2,406,000		\$ -	\$ -	\$ -	\$ -	\$ 1,667,000	\$ 739,000	\$ 44,273,722	

Table A-1.1 Cont.
North Vineyard Station Financing Plan
Roadway Summary CIP
Phase B

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
PHASE B - Continued																			
Bradshaw Road																			
64	2500	R 8.2	Calvine to Gerber (Project Bndry) (Off-site)	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) (Imp partially complete - 430' l.s. median remain)		A-1.3.5	10,500	L.F.	\$ 1,455	\$ 15,278,000		\$ -				\$ -	\$ -	\$ -	\$ 44,273,722
65	2500	R 8.3	Gerber (Project Bndry) to Florin (Project Bndry) (On-site)	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) (Imp partially complete - 3,060' l.s. median remain)		A-1.3.5	5,330	L.F.	\$ 1,455	\$ 7,755,000		\$ -				\$ -	\$ -	\$ -	\$ 44,273,722
73		R 8.13.2	Ped. Crossing @ Gerber Creek (public constr.) (On-site)	Const. Signal and crossing (included in park facilities fee)		A1.4 PED	1	EA.	\$ 164,000	\$ 164,000		\$ -				\$ -	\$ -	\$ -	\$ 44,273,722
Subtotal - Bradshaw Road										\$ 23,197,000		\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 44,273,722
Vineyard Road - (Off-site)																			
66	2500	R 9.11	Calvine to Gerber (Project Boundary)	Widen shoulders to provide minimum pavement width (imp partially complete - 2,436' shoulder widening remain)		A-1.3.1	10,500	L.F.	\$ 316	\$ 3,318,000	[3]	\$ 3,318,000				\$ 3,318,000	\$ -	\$ -	\$ 44,273,722
Subtotal - Vineyard Road - (Off-site)										\$ 3,318,000		\$ -		\$ -	\$ 3,318,000	\$ -	\$ -	\$ -	\$ 44,273,722
Calvine Road - (Off-site)																			
74	2500	R 5.1	Short to Elk Grove-Florin	Widen from 4 to 6 lanes (outside 11' pvmt., c&g), both sides (Imp partially complete - 1,390' (1 side only) of 11' pvmt and C&G, 920' of median removal & construction, 200' soundwall)		A-1.3.7	4,850	L.F.	\$ 486	\$ 2,357,000	[4]	\$ -				\$ -	\$ -	\$ -	\$ 44,273,722
67	2500	R 5.3	1300' East of Waterman (Kingsbridge Dr.) to Bradshaw	Widen shoulders to provide minimum pavement width (thoroughfare Class C) - Project Complete		A-1.3.11	4,050	L.F.	\$ -	\$ -	[7]	\$ -				\$ -	\$ -	\$ -	\$ 44,273,722
68	2500	R 5.4	Bradshaw to Vineyard	Widen shoulders to provide minimum pavement width (thoroughfare Class C) - Project Complete		A-1.3.11	5,340	L.F.	\$ -	\$ -	[7]	\$ -				\$ -	\$ -	\$ -	\$ 44,273,722
Subtotal - Calvine Road - (Off-site)										\$ 2,357,000		\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 44,273,722
Excelsior - (Off-site)																			
69	2500	R 11.2	Calvine to Gerber	Widen shoulders to provide minimum pavement width (Arterial Class C)		A-1.3.1	10,150	L.F.	\$ 316	\$ 3,207,000	[3]	\$ 3,207,000				\$ 3,207,000	\$ -	\$ -	\$ 44,273,722
51		R 11.3	Gerber to Florin	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	4,400	L.F.	\$ 341	\$ 1,500,000		\$ -				\$ -	\$ 1,500,000	\$ -	\$ 45,773,722
52		R 11.4	Florin to Elder Creek Rd.	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	4,890	L.F.	\$ 341	\$ 1,667,000		\$ -				\$ -	\$ 1,667,000	\$ -	\$ 47,440,722
53		R 11.15	Trib to Elder Creek Crossing (betw. Florin & Elder Crk Rd)	Bridge/Culvert Improvements (widen for upgraded 2-lane road)		A-1.5.8a	1	L.S.	\$ 178,227	\$ 178,000		\$ -				\$ -	\$ 178,000	\$ -	\$ 47,618,722
54		R 11.5	Elder Creek Rd. to Jackson	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	2,450	L.F.	\$ 341	\$ 835,000		\$ -				\$ -	\$ 835,000	\$ -	\$ 48,453,722
Subtotal - Excelsior Road - (Off-site)										\$ 7,387,000		\$ -		\$ -	\$ 3,207,000	\$ 4,180,000	\$ -	\$ -	\$ 48,453,722
Elder Creek Road - (Off-site)																			
55		R 27	At Excelsior Rd.	Intx.-Widening, 3-way (shoulder improvements)		A-1.4.9	1	EA.	\$ 348,000	\$ 348,000		\$ -				\$ -	\$ 348,000	\$ -	\$ 48,801,722
Subtotal - Elder Creek Road - (Off-site)										\$ 348,000		\$ -		\$ -	\$ -	\$ 348,000	\$ -	\$ -	\$ 48,801,722
Jackson Road - (Off-site)																			
57a	2200	R 21a	At South Watt Ave.	Modified 4x4 intersection (County Minimum Alternative 1)	27a	A-1.4.R21a/ County Min	1	L.S.	\$ 3,363,000	\$ 3,363,000	[4]	\$ -	\$ 717,000	100.0%	\$ 2,646,000	\$ 3,363,000	\$ -	\$ -	\$ 48,801,722
57b	2200	R 21	At South Watt Ave.	Widen intersection to 4x6 intersection (future 6x6)	27b	A-1.4.R21b	1	L.S.	\$ 805,000	\$ 805,000	[4]	\$ -		100.0%	\$ 805,000	\$ 805,000	\$ -	\$ -	\$ 48,801,722
Subtotal - Jackson Road - (Off-site)										\$ 4,168,000		\$ 717,000		\$ 3,451,000	\$ 4,168,000	\$ -	\$ -	\$ 48,801,722	
South Watt - (Off-site)																			
70	2500	R 6.4	Florin to Elder Creek	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) - (County Minimum Alternative 1)	6	A-1.3.R6.4	1	L.S.	\$ 6,259,000	\$ 6,259,000		\$ -	\$ 1,351,000	95.0%	\$ 4,662,600	\$ 6,013,600	\$ -	\$ 245,400	\$ 49,047,122
75	2500	R 6.7	North of Jackson (Jackson to Folsom)	Widen from ex. sect. to 3 lanes each direction (only SB frontage - 11'pvm't, C, G, & SW - required)	24	A-1.3.7a	1	L.S.	\$ 898,470	\$ 898,000	[3]	\$ -		100.0%	\$ 898,000	\$ 898,000	\$ -	\$ -	\$ 49,047,122
Subtotal - South Watt - (Off-site)										\$ 7,157,000		\$ 1,351,000		\$ 5,560,600	\$ 6,911,600	\$ -	\$ 245,400	\$ 49,047,122	
Elk Grove-Florin Road - (Off-site)																			
76	2500	R 6.2	Calvine to Gerber	Widen from 4 to 6 lanes.	36, 37, 38, 39, 47, 48	-	1	L.S.	\$ 4,727,000	\$ 4,727,000	[8]	\$ -		100.0%	\$ 4,727,000	\$ 4,727,000	\$ -	\$ -	\$ 49,047,122
71	2500	R 6.3	Gerber to Florin	6 Lane 108' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) - (County Minimum Alternative 1)	4	A-1.3.R6.3	1	L.S.	\$ 8,110,565	\$ 8,110,565		\$ 6,288,957		100.0%	\$ 1,821,608	\$ 8,110,565	\$ -	\$ -	\$ 49,047,122
72	2500	R 6.12	Elder Creek Crossing	New Bridge Construction (108' R/W)	5	A-1.5.1	1	L.S.	\$ 8,196,216	\$ 8,196,216		\$ -	\$ 4,413,616	91.0%	\$ 3,442,166	\$ 7,855,782	\$ -	\$ 340,434	\$ 49,387,556
Subtotal - Elk Grove Florin Road - (Off-site)										\$ 21,033,781		\$ 4,413,616		\$ 9,990,774	\$ 20,693,347	\$ -	\$ 340,434	\$ 49,387,556	
PHASE B ROW CONTINGENCY																			
							1%	%		\$ 123,480	[6]						\$ 123,480	\$ 101,363	\$ 49,612,399
TOTAL PHASE B										\$ 98,379,261		\$ 1,530,000		\$ 6,481,616	\$ 21,209,874	\$ 42,035,447	\$ 12,471,480	\$ 10,237,697	\$ 49,612,399

Table A-1.1 Cont.
North Vineyard Station Financing Plan
Roadway Summary CIP
Phase C

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
PHASE C																			
Gerber Road																			
78	N/A	R 4.5	Bradshaw to Vineyard (Project Bndry)	4 Lane 74' R/W center section w/ median (excl. outside 11' pvmt. & ftg.)		A-1.3.3	4,910	L.F.	\$ 1,023	\$ 5,023,000	[3]	\$ 5,023,000				\$ 5,023,000	\$ -	\$ -	\$ 49,612,399
81		R 4.14	Gerber Creek Crossing No. 2 (just east of Bradshaw Rd)	Bridge Replacement (96' wide, 41' span)		A-1.5.7	1	L.S.	\$ 2,273,384	\$ 2,273,000	[3]	\$ 2,273,000				\$ 2,273,000	\$ -	\$ -	\$ 49,612,399
Subtotal - Gerber Road										\$ 7,296,000		\$ 7,296,000	\$ -	\$ -	\$ 7,296,000	\$ -	\$ -	\$ 49,612,399	
Florin Road																			
80		R 3.5	Bradshaw to 3,320' east of Bradshaw	96' R/W Half-section (s. side, excl. median & outside 11' pvmt. & ftg.)		A-1.3.10	2,870	L.F.	\$ 518	\$ 1,487,000		\$ -			\$ -	\$ -	\$ -	\$ 1,487,000	\$ 51,099,399
79		R 30	At Bradshaw Rd.	Added additional lanes in both directions. Update intersection and final location of CR's to a 6x6	67	A-1.4.R30	1	L.S.	\$ 2,366,000	\$ 2,366,000		\$ -		50.0%	\$ 1,183,000	\$ 1,183,000	\$ -	\$ 1,183,000	\$ 52,282,399
Subtotal - Florin Road										\$ 3,853,000		\$ -	\$ -	\$ 1,183,000	\$ 1,183,000	\$ -	\$ 2,670,000	\$ 52,282,399	
Vineyard Road																			
82		R 9.2.1	Gerber (Project Bndry) to 2,640' north of Gerber Rd.	2-plus 66' R/W w/ 2-way center turn lane, c&q, s/w		A-1.3.6	2,640	L.F.	\$ 791	\$ 2,088,000		\$ -			\$ -	\$ -	\$ -	\$ 2,088,000	\$ 54,370,399
Subtotal - Vineyard Road										\$ 2,088,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,088,000	\$ 54,370,399	
Onsite Frontage Improvements																			
Internal Public Frontage for Specific Plan Roads				Roadway half sections for public facilities		A-1.6.4	1	L.S.	\$ 1,987,665	\$ 1,988,000		\$ -			\$ -	\$ -	\$ 1,988,000	\$ -	\$ 56,358,399
Subtotal - Onsite Frontage Improvements										\$ 1,988,000		\$ -	\$ -	\$ -	\$ -	\$ 1,988,000	\$ -	\$ 56,358,399	
Jackson Road - (Off-site)																			
77, 116	3100	R 22	At Bradshaw	Additional Lanes added to existing intersection. Upgrade intersection to a 6x6. (Mitigation 100% funded by others (Sunridge))		A-1.4.R22	1	L.S.	\$ -	\$ -		\$ -			\$ -	\$ -	\$ -	\$ -	\$ 56,358,399
Subtotal - Jackson Road - (Off-site)										\$ -		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56,358,399
Additional County Signal																			
Miscellaneous Signal						A-1.4.1	1	L.S.	\$ 623,000	\$ 623,000		\$ -			\$ -	\$ -	\$ 623,000	\$ -	\$ 56,981,399
Subtotal - Traffic Signal										\$ 623,000		\$ -	\$ -	\$ -	\$ -	\$ 623,000	\$ -	\$ 56,981,399	
PHASE C ROW CONTINGENCY							1%			\$ 26,110	[6]	\$ -				\$ -	\$ 26,110	\$ 47,580	\$ 57,055,089
TOTAL PHASE C										\$ 15,874,110		\$ 7,296,000	\$ -	\$ 1,183,000	\$ 8,479,000	\$ 2,637,110	\$ 4,805,580	\$ 57,055,089	

Table A-1.1 Cont.
North Vineyard Station Financing Plan
Roadway Summary CIP
Phase D

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
PHASE D																			
Florin Road																			
97		R 3.5	3,320' east of Bradshaw to Vineyard	96' R/W Half-section (south side, outside 11' pvmt. & ftg.)		A-1.3.10 + A-1.3.8	1,950	L.F.	\$ 866	\$ 1,689,000		\$ -				\$ -	\$ -	\$ 1,689,000	\$ 58,744,089
83		R 31	At Vineyard Rd.	6 x 2 signalized intersection, north leg existing		A-1.4.R31	1	L.S.	\$ 2,543,000	\$ 2,543,000		\$ -				\$ -	\$ -	\$ 2,543,000	\$ 61,287,089
126		R 50	At Collector (8 Street)	6 X 2 Intersection Signalization, 3-way		A-1.4.2	1	EA.	\$ 468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 61,755,089
Subtotal - Florin Road										\$ 4,700,000		\$ -		\$ -		\$ -	\$ 468,000	\$ 4,232,000	\$ 61,755,089
Onsite Frontage Improvements																			
Internal Public Frontage for Specific Plan Roads				Roadway half sections for public facilities		A-1.6.5	1	L.S.	\$ 646,255	\$ 646,000		\$ -					\$ 646,000	\$ -	\$ 62,401,089
Subtotal - Onsite Frontage Improvements										\$ 646,000		\$ -		\$ -			\$ 646,000	\$ -	\$ 62,401,089
Gerber Road																			
16			Elk Grove-Florin to Gerber Creek Crossing #3 (just w. of Bradshaw)	Landscaped median and south Side Arterial Center Lane - Project Complete		A-1.3.9	0	L.F.	\$ -	\$ -	[1]	\$ -				\$ -	\$ -	\$ -	\$ 62,401,089
105		R 36	At Vineyard Rd.	4 X 2-plus Intersection Wdng & Signal. 4-way (incl. 450' intx. leg imps.)		A-1.4.R36	1	L.S.	\$ 1,699,000	\$ 1,699,000	[3]	\$ 1,699,000				\$ 1,699,000	\$ -	\$ -	\$ 62,401,089
Subtotal - Gerber Road										\$ 1,699,000		\$ 1,699,000		\$ -		\$ 1,699,000	\$ -	\$ -	\$ 62,401,089
Florin Road - (Off-site)																			
95		R 3.1	West of South Watt	Widen from 2 to 4 lanes (existing improvement) - Project Complete		A-1.3.4		L.F.	\$ -	\$ -		\$ -					\$ -	\$ -	\$ 62,401,089
102	4500	R 3.2	Elk-Grove Florin to CCTC RR (Project Boundary)	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	52, 89c, 90	A-1.3.5	2,360	L.F.	\$ 1,455	\$ 3,434,000		\$ -	75.0%	\$ 2,575,500	\$ 2,575,500	\$ -	\$ -	\$ 858,500	\$ 63,259,589
Subtotal - Florin Road - (Off-site)										\$ 3,434,000		\$ -		\$ 2,575,500	\$ 2,575,500	\$ -	\$ -	\$ 858,500	\$ 63,259,589
Calvine Road - (Off-site)																			
85	4100	R 5.3	1300' East of Waterman to Bradshaw	6 Lane 108' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) - Project Complete		A-1.3.5	4,050	L.F.	\$ -	\$ -	[2]	\$ -				\$ -	\$ -	\$ -	\$ 63,259,589
87	4100	R 5.12	Laguna Creek Crossing (west of Bradshaw)	Bridge/Culvert Improvements - Project Complete		N/A	1	L.S.	\$ -	\$ -	[2]	\$ -				\$ -	\$ -	\$ -	\$ 63,259,589
88/91	4100	R 5.13	CCTC RR Crossing	Reconstruct at-grade RR crossing (108' R/W) - Project Complete		N/A	1	L.S.	\$ -	\$ -	[2]	\$ -				\$ -	\$ -	\$ -	\$ 63,259,589
92	4500	R 5.5	Vineyard to Excelsior	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	5,290	L.F.	\$ 341	\$ 1,804,000	[3]	\$ 1,804,000				\$ 1,804,000	\$ -	\$ -	\$ 63,259,589
100	4500	R 5.14	Trib No. 1 to Laguna Creek Crsng (just west of Excelsior)	Bridge/Culvert Improvements		N/A	1	L.S.	\$ 633,351	\$ 633,000		\$ 633,000				\$ 633,000	\$ -	\$ -	\$ 63,259,589
86	5700	R 5.4	Bradshaw to Vineyard	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides (Imp partially complete - 4,380' remain on south side, 1,580' on north side)		A-1.3.7	5,340	L.F.	\$ 486	\$ 2,595,000	[4]	\$ -				\$ -	\$ -	\$ -	\$ 63,259,589
Subtotal - Calvine Road - (Off-site)										\$ 5,032,000		\$ 2,437,000		\$ -		\$ 2,437,000	\$ -	\$ -	\$ 63,259,589
South Watt - (Off-site)																			
103	4500	R 6.5	Elder Creek to Fruitridge	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) - County Minimum alternative	12	A-1.3.R6.5	1	L.S.	\$11,302,000	\$ 11,302,000		\$ -	\$ 2,439,000	100.0%	\$ 8,863,000	\$ 11,302,000	\$ -	\$ -	\$ 63,259,589
104	4500	R 6.6	Fruitridge to Jackson	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	1	A-1.3.R6.6	1	L.S.	\$4,651,000	\$ 4,651,000		\$ -	\$ 1,004,000	100.0%	\$ 3,647,000	\$ 4,651,000	\$ -	\$ -	\$ 63,259,589
Subtotal - South Watt - (Off-site)										\$ 15,953,000		\$ -	\$ 3,443,000		\$ 12,510,000	\$ 15,953,000	\$ -	\$ -	\$ 63,259,589
PHASE D ROW CONTINGENCY							1%			\$ 11,140	[6]						\$ 11,140	\$ 50,905	\$ 63,321,634
TOTAL PHASE D										\$ 31,475,140		\$ 4,136,000	\$ 3,443,000		\$ 15,085,500	\$ 22,664,500	\$ 1,125,140	\$ 5,141,405	\$ 63,321,634

Table A-1.1 Cont.
North Vineyard Station Financing Plan
Roadway Summary CIP
Phase E

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
PHASE E																			
Florin Road																			
131		R 51	At Collector (12 Street)	2 X 2 Intersection Signalization, 3-way		A-1.4.2	1	EA.	\$ 468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 63,789,634
128		R 52	At Collector (9 Street)	2 X 2 Intersection Signalization, 3-way		A-1.4.2	1	EA.	\$ 468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 64,257,634
Subtotal - Florin Road										\$ 936,000		\$ -	\$ -	\$ -	\$ -	\$ 936,000	\$ -	\$ 64,257,634	
Vineyard Road																			
84		R 9.2.2	2,640' north of Gerber Rd. to Florin (Project Bndry)	2-plus 66' R/W w/ 2-way center turn lane, c&g, s/w		A-1.3.6	2,730	L.F.	\$ 791	\$ 2,159,000		\$ -				\$ -	\$ -	\$ 2,159,000	\$ 66,416,634
132		R 66	At Collector (15 Street)	2-plus X 2 Intersection Signalization, 3-way		A-1.4.2	1	EA.	\$ 468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 66,884,634
Subtotal - Vineyard Road										\$ 2,627,000		\$ -	\$ -	\$ -	\$ -	\$ 468,000	\$ 2,159,000	\$ 66,884,634	
Onsite Frontage Improvements																			
Internal Public Frontage for Specific Plan Roads				Roadway half sections for public facilities		A-1.6.6	1	L.S.	\$ 188,490	\$ 188,000		\$ -				\$ -	\$ 188,000	\$ -	\$ 67,072,634
Subtotal - Onsite Frontage Improvements										\$ 188,000		\$ -	\$ -	\$ -	\$ -	\$ 188,000	\$ -	\$ 67,072,634	
Florin Road																			
106	5700	R 28.2	At Elk Grove-Florin Rd.	Construct third thru lane north & south legs of intersection only, no signal	31b	A-1.4.R28.2	1	L.S.	\$ 961,000	\$ 961,000		\$ -		86.9%	\$ 835,109	\$ 835,109	\$ -	\$ 125,891	\$ 67,198,525
Subtotal - Florin Road										\$ 961,000		\$ -	\$ -	\$ 835,109	\$ 835,109	\$ -	\$ 125,891	\$ 67,198,525	
Bradshaw Road - (Off-site)																			
119	5700	R 8.4	Florin (Project Bndry) to Elder Creek Rd.	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides	72	A-1.3.7	4,110	L.F.	\$ 486	\$ 1,997,000	[4]	\$ -				\$ -	\$ -	\$ -	\$ 67,198,525
Subtotal - Bradshaw Road - (Off-site)										\$ 1,997,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67,198,525
Elder Creek Road - (Off-site)																			
107	5700	R 2.2	South Watt to Bradshaw	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	10,030	L.F.	\$ 341	\$ 3,420,000		\$ -	\$ -			\$ -	\$ 3,420,000	\$ -	\$ 70,618,525
108	5700	R 26a	At Bradshaw Rd.	Widen mod. 4x2 to mod 6x2	11	A-1.4.R26a	1	L.S.	\$ 968,000	\$ 968,000		\$ -	\$ -	72.0%	\$ 696,960	\$ 696,960	\$ -	\$ 271,040	\$ 70,889,565
109	5700	R 26b	At Bradshaw Rd.	Widen mod 6x2 to 6x6 intersection. Move CR's to final location.	75	A-1.4.R26b	1	L.S.	\$ 4,514,000	\$ 4,514,000	[5]	\$ -	\$ -	94%	\$ 4,260,080	\$ 4,260,080	\$ -	\$ 253,920	\$ 71,143,485
110	5700	R 2.3	Bradshaw to Excelsior	Widen shoulders to provide minimum pavement width (thoroughfare Class C)		A-1.3.11	10,600	L.F.	\$ 341	\$ 3,615,000		\$ -	\$ -			\$ -	\$ 3,615,000	\$ -	\$ 74,758,485
Subtotal - Elder Creek - (Off-site)										\$ 12,517,000		\$ -	\$ -	\$ 4,957,040	\$ 4,957,040	\$ 7,035,000	\$ 524,960	\$ 74,758,485	
Calvine Road - (Off-site)																			
89	4100	R 5.3	1300' East of Waterman to Bradshaw	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides Imp partially complete - 2,654' remain, south side only). North side complete, south side in City.		A-1.3.7	2,654	L.F.	\$ 243	\$ 645,000	[4]	\$ -				\$ -	\$ -	\$ -	\$ 74,758,485
111	5700	R 5.4	1300' East of Waterman to Vineyard	Widen from 4 to 6 lanes (outside 11' pvmt., Class D). 1,431' remain. South side in City.		A-1.3.7	1,431	L.F.	\$ 243	\$ 348,000		\$ -				\$ -	\$ -	\$ -	\$ 74,758,485
Subtotal - Calvine Road - (Off-site)										\$ 993,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 74,758,485
South Watt - (Off-site)																			
112	5700	R 6.4	Florin to Elder Creek - (Improvement within City of Sacramento)	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), one side	43	A-1.3.7	1,600	L.F.	\$ 243	\$ 388,800		\$ -	\$ -	95.0%	\$ 369,360	\$ 369,360	\$ -	\$ 19,440	\$ 74,777,925
112	5700	R 6.4	Florin to Elder Creek - (Improvement within County of Sacramento)	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), one side	43	A-1.3.7	7,370	L.F.	\$ 243	\$ 1,790,900		\$ -	\$ -	95.0%	\$ 1,701,345	\$ 1,701,345	\$ -	\$ 89,555	\$ 74,867,480
113	5700	R 6.5	Elder Creek to Fruitridge	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides	40	A-1.3.7	3,880	L.F.	\$ 243	\$ 943,000		\$ -	\$ -	94.0%	\$ 886,420	\$ 886,420	\$ -	\$ 56,580	\$ 74,924,060
114	5700	R 6.6	Fruitridge to Jackson	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides	42	A-1.3.7	4,470	L.F.	\$ 486	\$ 2,172,000		\$ -	\$ -	92.0%	\$ 1,998,240	\$ 1,998,240	\$ -	\$ 173,760	\$ 75,097,820
Subtotal - South Watt - (Off-site)										\$ 5,294,700		\$ -	\$ -	\$ 4,955,365	\$ 4,955,365	\$ -	\$ 339,335	\$ 75,097,820	
Elk Grove-Florin Road																			
115	5700	R 6.3	Gerber to Florin (Off-site)	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides	51	A-1.3.7	4,287	L.F.	\$ 486	\$ 2,084,000		\$ -	\$ -	100.0%	\$ 2,084,000	\$ 2,084,000	\$ -	\$ -	\$ 75,097,820
Subtotal - Elk Grove-Florin Road										\$ 2,084,000		\$ -	\$ -	\$ 2,084,000	\$ 2,084,000	\$ -	\$ -	\$ 75,097,820	

Table A-1.1 Cont.
North Vineyard Station Financing Plan
Roadway Summary CIP
Phase E

NVSSP COA #	NVSSP Trigger	Project #	Roadway Segment/ Item	Project Description	Overlapping FVCP COA	Fin Plan Ref Appendix	Qty	Unit	Unit Price	Total Estimated Cost	Notes	Vineyard Fee Program	Measure A/ Federal Funding	FVCP Fair Share % ("E+P" only)	FVCP Funding ("E+P" only)	Other Identified and/or fair share funding	Net Funding oblig. (NVS) for non-SCTDF overlap	Net Funding oblig. (NVS) for SCTDF overlap	Cumulative Total Estimated Net Cost (NVS)
PHASE E - Continued																			
Jackson Road - (Off-site)																			
120	5700	R 1.2	So. Watt Ave to Bradshaw	Widen ex. partial Arterial Center Section from 2 to 4-lane thoroughfare center section (Total segment length= 9,910'; WB widening only = 2,210'; widening EB and WB = 7,700')	50	A-1.3.5; A-1.3.8; A-1.3.10	1	L.S.	\$ 13,117,360	\$ 13,117,000	[4]	\$ -				\$ -	\$ -	\$ -	\$ 75,097,820
121	5700	R 1.3	Bradshaw to Excelsior	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	103	A-1.3.5	10,195	L.F.	\$ 1,455	\$ 14,834,000	[4]	\$ -				\$ -	\$ -	\$ -	\$ 75,097,820
117	5700	R 23	At Excelsior Rd.	6 X 4 Intersection Widening, no. & so. bound only (incl. 450' intx. leg imps.) (Mitigation 100% funded by others (Sunridge))	Partial 107a, Partial 107b	A-1.4.R23	1	L.S.	\$ -	\$ -	[4]	\$ -				\$ -	\$ -	\$ -	\$ 75,097,820
118	5700	R 1.11	Morrison Creek Crossing (just east of Bradshaw)	Bridge/Culvert Improvements	104	A-1.5.10	1	L.S.	\$ 6,469,000	\$ 6,469,000		\$ -				\$ -	\$ -	\$ -	\$ 75,097,820
Subtotal - Jackson Road - (Off-site)										\$ 34,420,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75,097,820
Additional County Signal																			
			Florin Rd at Street 14 (3 Way 6x2)			A-1.4.2	1	L.S.	\$ 468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 75,565,820
			Gerber Rd at Street 19 (3 Way 4x2)			A-1.4.2	1	L.S.	\$468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 76,033,820
			Gerber Rd at Street 18 (3 Way 4x2)			A-1.4.2	1	L.S.	\$468,000	\$ 468,000		\$ -				\$ -	\$ 468,000	\$ -	\$ 76,501,820
Subtotal - Signal										\$ 1,404,000		\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,404,000	\$ -	\$ 76,501,820
PHASE E ROW CONTINGENCY							1%	%		\$ 100,310	[6]	\$ -				\$ -	\$ 100,310	\$ 31,492	\$ 76,633,622
TOTAL PHASE E										\$ 63,522,010		\$ -	\$ -	\$ 12,831,514	\$ 12,831,514	\$ 10,131,310	\$ 3,180,678	\$ 76,633,622	
Grand Total																	\$ 30,928,850	\$ 45,704,772	\$ 76,633,622
NVSSP Roadway Fund Balance ending 6/30/2017																			\$ 1,875,190
NVSSP Interfund Loan Owed to Vineyard 6/30/2017																			\$ (1,510,694)
Net Available NVSSP Roadway Fund Balance ending 6/30/2017																			\$ 364,496
NVSSP Remaining Funding Requirement for Roadway CIP																			\$ 76,269,126

Notes to Tables

- [1] 50% funding participation by VSCP (\$2.04 mil.) shifted to Gerber Rd. Improvements east of Bradshaw Rd. in exchange for NVS assuming 100% of the funding for Gerber Rd. imp. West of Bradshaw (even trade).
- [2] Vineyard PFFP Development Fee
- [3] 100% funding VSCP
- [4] Condition of approval states no fair share from NVS if 100% funded by others.
- [5] Due to construction schedule, a fair share obligation of \$1,010,000 is shifted between NVS and FVCP for an even trade. For an even trade COA #17 and COA # 46 in NVS is allocated additional \$317,000 and \$693,000, respectively, while deducting \$1,010,000 from COA # 109.
- [6] 1% ROW contingency is in addition to 5% ROW line item cost within the conceptual Cost Estimate Summary
- [7] Actual construction cost
- [8] Total project cost is sum of FVCP COA 36,37,38, 47, and 48.

Table A-1.2
North Vineyard Station Specific Plan Fee Program
SCTDF Roadway Fair Share CIP Summary
Phase A-2

NVSSP COA #	Project #	Roadway Segment/ Item [1], [2]	Project Description	NVSSP's Regional Fair Share	Net Funding oblig. (NVS) for SCTDF overlap
PHASE A2					
Gerber Road					
17	R 4.4.2	Gerber Creek Crossing #3 to Bradshaw	4 Lane 74' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	\$ 199,396	\$ 634,000
21	R 4.13	Gerber Creek Crossing #3 (just west of Bradshaw Rd)	2-8' X 6' Box Culverts With Headwalls (84' R/W)	\$ 1,180,023	\$ 1,876,000
22a	R 34a	At Waterman Rd.	4x4 Intersection & Signalization, 3-way (note: northern CRs exist., center section of north leg incl in proj. #7.3.1)	\$ 218,189	\$ 1,268,000
Subtotal - Gerber Road				\$ 1,597,608	\$ 3,778,000
Waterman Road					
18	R 7.3.1	Gerber (Project Boundary) to CCTC RR Crossing	4 Lane 74' R/W cent. sect. w/ med. (excludes outside 11' pvmt. & ftg.)	\$ 1,228,223	\$ 2,742,000
23	R 7.12	Gerber Creek Crossing	16 ft x 10 ft CON/SPAN Arch Culvert w/headwalls and wingwalls (84' R/W)	\$ 379,583	\$ 980,000
Subtotal - Waterman Road				\$ 1,607,806	\$ 3,722,000
Florin Road					
93	R 3.3	CCTC RR (Project Boundary) to Waterman	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	\$ 1,435,724	\$ 2,502,500
45	R 3.11	CCTC RR Crossing	Reconstruct at-grade RR crossing (108' R/W)	\$ 425,984	\$ 742,500
46	R 3.12	Crossing at Elder Creek	New Bridge Construction (108' R/W)	\$ 397,585	\$ 1,861,000
94	R 3.4.1	Waterman to 1,350' east of Waterman	6 Lane 96' R/W; center sect. w/ med. (excludes outside lanes & ftg.)	\$ 563,389	\$ 982,000
47a	R 3.4.2	1,350' east of Waterman to Bradshaw	6 Lane 96' R/W; center sect. w/ med. (excludes outside lanes & ftg.)	\$ 634,530	\$ 1,106,000
47b	R 3.4.2	1,350' east of Waterman to Bradshaw	6 Lane 96' R/W; center sect. w/ med. (excludes outside lanes & ftg.)	\$ 23,809	\$ 41,500
Subtotal - Florin Road				\$ 3,481,021	\$ 7,235,500
Gerber Road - Off-site					
35	R 4.4	Waterman to Gerber Creek Crossing #3 (just w. of Bradshaw)	12' Median (Imp partially complete - 550' remaining)	\$ 60,070	\$ 95,500
14	R 37a	At Excelsior Rd.	4 X 2 Intersection Signalization, 4-way widening	\$ 2,954	\$ 1,605,000
Subtotal - Gerber Road - (Off-site)				\$ 63,024	\$ 1,700,500
Florin Road - (Off-site)					
15a	R4.4a	At Hedge Avenue	Widen existing to a 2 x 2 intersection (constructed by Lennar)	\$ 329,940	\$ 1,781,000
15b	R4.4b	At Hedge Avenue	Widen 2 lane intersect. (incl. Protective turn lane & Signal)	\$ 329,835	\$ -
13	R 32.1	At Excelsior Rd.	4 X 2 Intersection Widening, 4-way (incl. 450' intx. leg imp.)	\$ 225,734	\$ 1,989,550
Subtotal - Florin Road - (Off-site)				\$ 885,509	\$ 3,770,550
South Watt - Off-site					
29a	R 25.1a	At Elder Creek Rd.	4 X 6 Intersection Signalization, 4-way (4x4 cost included in COA#29b, R25.1b)	\$ 17,741	\$ -
29b	R 25.1b	At Elder Creek Rd.	Widen existing intersection to modified 4x4 per County S. Watt at Elder Creek Minimum Alternative 1 (includes 6 lane RR Xing)	\$ 74,078	\$ -
Subtotal - South Watt - (Off-site)				\$ 91,819	\$ -
Bradshaw Road					
39	R 8.16	Tributary to Elder Creek Crossing (Off-site) @ Bradshaw Road	Culvert Improvements	\$ 3,556	\$ 48,640
40	R 8.15	Morrison Creek Crossing	Bridge/Culvert Improvements (widen exist. to 6-lane, 108' ROW)	\$ 136,222	\$ 1,863,040
Subtotal - Bradshaw Road				\$ 139,778	\$ 1,911,680
Phase A-2 ROW CONTINGENCY					\$ 221,182
TOTAL PHASE A-2				\$ 7,866,565	\$ 22,339,412

Table A-1.2 Cont.
North Vineyard Station Financing Plan
SCTDF Roadway Fair Share CIP Summary
Phase B

COA #	Project #	Roadway Segment/ Item [1], [2]	Project Description	NVSSP's Regional Fair Share	Net Funding oblig. (NVS) for SCTDF overlap
	PHASE B				
	Gerber Road				
41	R 35	At Bradshaw Rd.	Widen exist. Mod. 4 x 4 to 4 X 6 Intersection, 4-way	\$ 445,739	\$ 2,377,500
		Subtotal - Gerber Road		\$ 445,739	\$ 2,377,500
	Waterman Road				
25	R 7.3.2	CCTC RR Crossing to Florin (Project Bndry)	4 Lane 74' R/W cent. sect. w/ med. (excludes outside 11' pvmt. & ftg.)	\$ 1,271,992	\$ 3,284,000
26	R 7.13	CCTC RR Crossing	Const. new under grade RR crossing (72' R/W)	\$ 835,393	\$ -
		Subtotal - Waterman Road		\$ 2,107,385	\$ 3,284,000
	Florin Road				
27a	R 29a	At Waterman Rd.	Interim 3-way 2 x 2 Intersection (future 6 x 4), construction expected in 2017	\$ 164,403	\$ 388,000
27b	R 29b	At Waterman Rd.	6 X 4 Intersection & Signalization, 3-way (Florin & Waterman legs included in segment widening)	\$ 435,160	\$ 1,027,000
		Subtotal - Gerber Road		\$ 599,563	\$ 1,415,000
	Gerber Road - Off-site				
56	R 37b	At Excelsior Rd.	Widen mod. 4x2 intersection to County Standard 4x4	\$ 3,193	\$ 1,735,000
		Subtotal - Gerber Road - (Off-site)		\$ 3,193	\$ 1,735,000
	Florin Road - Off-site				
49	R 3.13	Trib No. 1 to Gerber Creek Crossing (E of Bradshaw Rd)	Bridge/Culvert Improvements (lengthen to upgraded 2)	\$ 49,280	\$ 61,000
50	R 32.2	At Excelsior Rd.	Widen ex. 4 X 2 Intersection to County standard 4 X 4, 4-way (incl. 450' intx. leg imps.)	\$ 64,988	\$ 678,000
		Subtotal - Florin Road - (Off-site)		\$ 114,268	\$ 739,000
	Calvine Road - (Off-site)				
74	R 5.1	Short to Elk Grove-Florin	Widen from 4 to 6 lanes (outside 11' pvmt., c&g), both sides (Imp partially complete - 1,390' (1 side only) of 11' pvm't and C&G, 920' of median removal & construction, 200' soundwall)	\$ 567,528	\$ -
		Subtotal - Calvine Road - (Off-site)		\$ 567,528	\$ -
	South Watt - (Off-site)				
70	R 6.4	Florin to Elder Creek	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) - (County Minimum Alternative 1)	\$ 225,326	\$ 245,400
		Subtotal - South Watt - (Off-site)		\$ 225,326	\$ 245,400
	Elk Grove-Florin Road - (Off-site)				
76	R 6.2	Calvine to Gerber	Widen from 4 to 6 lanes (outside 11' pvmt., c&g), both sides (partially complete - 5,850' (one side) remaining)	\$ 1,162,519	\$ -
71	R 6.3	Gerber to Florin	6 Lane 108' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) - (County Minimum Alternative 1)	\$ 130,018	\$ -
72	R 6.12	Elder Creek Crossing	New Bridge Construction (108' R/W)	\$ 110,417	\$ 340,434
		Subtotal - Elk Grove Florin Road - (Off-site)		\$ 1,402,954	\$ 340,434
	PHASE B ROW CONTINGENCY				\$ 101,363
	TOTAL PHASE B			\$ 5,465,956	\$ 10,237,697

Table A-1.2 Cont.
North Vineyard Station Financing Plan
SCTDF Roadway Fair Share CIP Summary
Phase C

COA #	Project #	Roadway Segment/ Item [1], [2]	Project Description	NVSSP's Regional Fair Share	Net Funding oblig. (NVS) for SCTDF overlap
	PHASE C				
	Florin Road				
80	R 3.5	Bradshaw to 3,320' east of Bradshaw	96' R/W Half-section (s. side, excl. median & outside 11' pvmt. & ftg.)	\$ 1,201,309	\$ 1,487,000
79	R 30	At Bradshaw Rd.	Added additional lanes in both directions. Update intersection and final location of CR's to a 6x6	\$ 107,184	\$ 1,183,000
		Subtotal - Florin Road		\$ 1,308,493	\$ 2,670,000
	Vineyard Road				
82	R 9.2.1	Gerber (Project Bndry) to 2,640' north of Gerber Rd.	2-plus 66' R/W w/ 2-way center turn lane, c&g, s/w	\$ 349,221	\$ 2,088,000
		Subtotal - Vineyard Road		\$ 349,221	\$ 2,088,000
		PHASE C ROW CONTINGENCY			\$ 47,580
		TOTAL PHASE C		\$ 1,657,714	\$ 4,805,580

Table A-1.2 Cont.
North Vineyard Station Financing Plan
SCTDF Roadway Fair Share CIP Summary
Phase D

COA #	Project #	Roadway Segment/ Item [1], [2]	Project Description	NVSSP's Regional Fair Share	Net Funding oblig. (NVS) for SCTDF overlap
	PHASE D				
		Florin Road			
97	R 3.5	3,320' east of Bradshaw to Vineyard	96' R/W Half-section (south side, outside 11' pvmt. & ftg.)	\$ 1,364,500	\$ 1,689,000
83	R 31	At Vineyard Rd.	6 x 2 signalized intersection, north leg existing	\$ 272,896	\$ 2,543,000
		Subtotal - Florin Road		\$ 1,637,396	\$ 4,232,000
		Florin Road - (Off-site)			
102	R 3.2	Elk-Grove Florin to CCTC RR (Project Boundary)	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	\$ 492,535	\$ 858,500
		Subtotal - Florin Road - (Off-site)		\$ 492,535	\$ 858,500
		South Watt - (Off-site)			
103	R 6.5	Elder Creek to Fruitridge	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.) - County Minimum alternative	\$ 552,277	\$ -
104	R 6.6	Fruitridge to Jackson	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	\$ 213,733	\$ -
		Subtotal - South Watt - (Off-site)		\$ 766,010	\$ -
		PHASE D ROW CONTINGENCY			\$ 50,905
		TOTAL PHASE D		\$ 2,895,941	\$ 5,141,405

Table A-1.2 Cont.
North Vineyard Station Financing Plan
SCTDF Roadway Fair Share CIP Summary
Phase E

COA #	Project #	Roadway Segment/ Item [1], [2]	Project Description	NVSSP's Regional Fair Share	Net Funding oblig. (NVS) for SCTDF overlap
	PHASE E				
	Vineyard Road				
84	R 9.2.2	2,640' north of Gerber Rd. to Florin (Project Bndry)	2-plus 66' R/W w/ 2-way center turn lane, c&g, s/w	\$ 361,096	\$ 2,159,000
		Subtotal - Vineyard Road		\$ 361,096	\$ 2,159,000
	Florin Road				
106	R 28.2	At Elk Grove-Florin Rd.	Construct third thru lane north & south legs of intersection only, no signal	\$ 421,754	\$ 125,891
		Subtotal - Florin Road		\$ 421,754	\$ 125,891
	Bradshaw Road - (Off-site)				
119	R 8.4	Florin (Project Bndry) to Elder Creek Rd.	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides	\$ 1,314,923	\$ -
		Subtotal -Bradshaw Road - (Off-site)		\$ 1,314,923	\$ -
	Elder Creek Road - (Off-site)				
108	R 26a	At Bradshaw Rd.	Widen mod. 4x2 to mod 6x2	\$ 103,980	\$ 271,040
109	R 26b	At Bradshaw Rd.	Widen mod 6x2 to 6x6 intersection. Move CR's to final location.	\$ 484,883	\$ 253,920
		Subtotal - Elder Creek - (Off-site)		\$ 588,863	\$ 524,960
	South Watt - (Off-site)				
112	R 6.4	Florin to Elder Creek - (Improvement within City of Sacramento)	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), one side	\$ 13,997	\$ 19,440
112	R 6.4	Florin to Elder Creek - (Improvement within County of Sacramento)	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), one side	\$ 64,473	\$ 89,555
113	R 6.5	Elder Creek to Fruitridge	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides	\$ 46,080	\$ 56,580
114	R 6.6	Fruitridge to Jackson	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides	\$ 99,813	\$ 173,760
		Subtotal - South Watt - (Off-site)		\$ 224,363	\$ 339,335
	Elk Grove-Florin Road				
115	R 6.3	Gerber to Florin (Off-site)	Widen from 4 to 6 lanes (outside 11' pvmt., Class D), both sides	\$ 34,483	\$ -
		Subtotal - Elk Grove-Florin Road		\$ 34,483	\$ -
	Jackson Road - (Off-site)				
120	R 1.2	So. Watt Ave to Bradshaw	Widen ex. partial Arterial Center Section from 2 to 4-lane thoroughfare center section (Total segment length= 9,910'; WB widening only = 2,210'; widening EB and WB = 7,700')	\$ 394,227	\$ -
121	R 1.3	Bradshaw to Excelsior	6 Lane 96' R/W center sect. w/ med. (excludes outside 11' pvmt. & ftg.)	\$ 10,834	\$ -
118	R 1.11	Morrison Creek Crossing (just east of Bradshaw)	Bridge/Culvert Improvements	\$ 4,725	\$ -
		Subtotal - Jackson Road - (Off-site)		\$ 409,786	\$ -
	PHASE D ROW CONTINGENCY				\$ 31,492
	TOTAL PHASE E			\$ 3,355,268	\$ 3,180,678
	Total SCTDF Fairshare for Overlapping NVSSP Roadway CIP			\$ 21,241,444	\$ 45,704,772

Notes to Tables

[1] SCTDF overlapping projects but not included in "Other Identified Funding," as it is assumed that overlapping portion will be addressed in the form of credit against the SCTDF fee.

[2] Segment funding shown in SCTDF program update (2018) is detailed in SCTDF program; exclude 500' intersection leg (450' plus 50' to P.1.) from segment funding and show it as part of intersection reimbursements.

North Vineyard Station
Table A-1.3
Roadway Cross Section Index
Summary of Preliminary Per Foot Cost Estimates

SHEET	PROJECT NAME	TOTAL COST PER L.F.
A-1.3.1	Widen Shoulders to Provide Minimum Pvmnt Width (Arterial Class C)	\$ 316.00
A-1.3.2	74' R/W (Arterial) Half-Section (Class A)	\$ 1,078.00
A-1.3.3	74' R/W (Arterial) Center Section (Class D)	\$ 1,023.00
A-1.3.4	Widen Existing Arterial Center Section from 2 to 4 Lanes (Class D)	\$ 441.00
A-1.3.5	96' R/W (Thoroughfare) Center Section (Class D)	\$ 1,455.00
A-1.3.6	66' (2-plus) R/W (Class A)	\$ 791.00
A-1.3.7	Typical Off-Site Thoroughfare Frontage Lane	\$ 243.00
A-1.3.7a	South Watt Ave.: Kiefer to SR 16*	\$ 898,470.00
A-1.3.8	12' Median	\$ 348.00
A-1.3.9	South Side Arterial Center Lane (Class D)	\$ 307.00
A-1.3.10	Typical 96' R/W (Thoroughfare) 2-lane 1/2 Section (Class D)	\$ 518.00
A-1.3.11	Widen Shoulders to Provide Minimum Pvmnt Width (Thoroughfare Class C)	\$ 341.00
A-1.3.R6.3	Widen 2-Lane to 4-Lane Thouroughfare Center Section*	\$ 8,110,565.00
A-1.3.R6.4	South Watt Ave - Elder Creek Road to Florin Road	\$6,259,000
A-1.3.R6.5	South Watt Ave - Elder Creek Road to Fruitridge Road*	\$ 11,302,000.00
A-1.3.R6.6	South Watt Ave - Fruitridge to Jackson*	\$ 4,651,000.00

* Denotes that the associated cost shown is total cost of project, not cost per L.F. as indicated by column header

North Vineyard Station

Date: 10/18/2017

Figure A-1.3.1

Job # 27134.000

Roadway Cross Section Index

By: HF

Preliminary Per Foot Cost Estimate

Typical Widen Shoulders to Provide Minimum Pavement Width on an Arterial (Class A)

Project Description: Exist.arterial roadway width varies 20' to 23' (EP to EP); target width = 36' (incl. 6' shoulders); add 6' (min.) Pavement Each Side (assumes saw cut & remove 1' pvm't ea. side), 6' Roadside Ditch Easement = 24' and varies; incl. 2" AC overlay over exist.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION (based on 22' exist)	CY	\$ 18.00	1.09	\$ 19.56
TOTAL FOR ITEM 1 EARTHWORK				\$ 19.56
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	1	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" + 2" AC)	TON	\$ 100.00	0.80	\$ 80.00
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	1.60	\$ 32.59
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 112.59
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%		\$ 44.14
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 44.14

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 191.28
CONTINGENCY	%	15.0%		\$ 28.69
TOTAL CONSTRUCTION COST				\$ 219.98
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 219.98	\$ 6.60
ENVIRONMENTAL DOCUMENT	%	1.5%	\$ 219.98	\$ 3.30
DESIGN ENGINEERING	%	12.0%	\$ 219.98	\$ 26.40
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 219.98	\$ 3.30
CONSTRUCTION STAKING	%	2.5%	\$ 219.98	\$ 5.50
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 219.98	\$ 28.60
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 73.69
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	220	\$ 11.00
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 11.00
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 219.98	\$ 4.40
TOTAL FOR ITEM 10 UTILITIES				\$ 4.40
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 219.98	\$ 6.60
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 6.60

GRAND TOTAL \$ 316.00

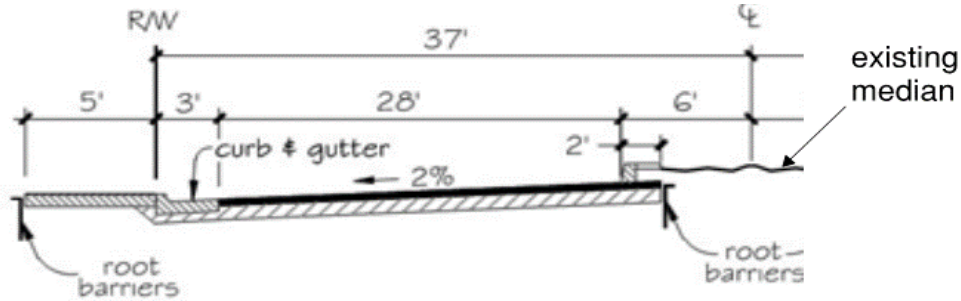
NOTES:

- 1 JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20

North Vineyard Station
Figure A-1.3.2
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Typical 74' R/W (Arterial) Half-Section (Class A)

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 28' Pavement, 3' C&G, w/ 5' Sidewalk. Salvage existing median.



ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	2.51	\$ 45.22
TOTAL FOR ITEM 1 EARTHWORK				\$ 45.22
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0.5	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" AC)	TON	\$ 100.00	1.03	\$ 103.13
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	2.99	\$ 61.10
SIDEWALK	SF	\$ 6.00	5	\$ 30.00
CURB & GUTTER	LF	\$ 26.00	1	\$ 26.00
MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL FOR ITEM 3 PAVEMENT				\$ 220.22
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0.5	\$ 31.82
JOINT TRENCH	LF	\$ 380.00	0.5	\$ 190.00
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 221.82
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%		\$ 150.68
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 150.68

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 652.95
CONTINGENCY	%	15.0%	\$ 652.95	\$ 97.94
TOTAL CONSTRUCTION COST				\$ 750.89
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 750.89	\$ 22.53
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 750.89	\$ 11.26
DESIGN ENGINEERING	%	12.0%	\$ 750.89	\$ 90.11
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 750.89	\$ 11.26
CONSTRUCTION STAKING	%	2.5%	\$ 750.89	\$ 18.77
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 750.89	\$ 97.62
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 251.55
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	751	\$ 37.54
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 37.54
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 750.89	\$ 15.02
TOTAL FOR ITEM 10 UTILITIES				\$ 15.02
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 750.89	\$ 22.53
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 22.53

GRAND TOTAL \$ 1,078.00

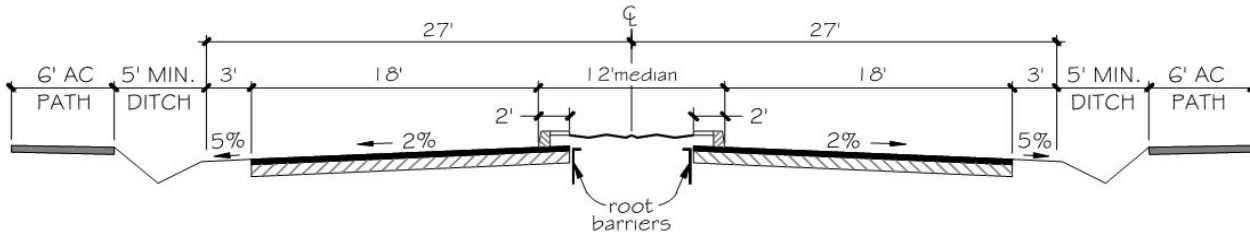
NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20

North Vineyard Station
Figure A-1.3.3
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Typical 74' R/W (Arterial) Center-Section, Class D

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 12' Landscape Median, 18' Pavement, 3' Shoulder, 5' Roadside Ditch and 6' AC Path (Each Side)



ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	3.3	\$ 58.67
TOTAL FOR ITEM 1 EARTHWORK				\$ 58.67
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	1	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" AC + 4" AC)	TON	\$ 100.00	1.7	\$ 167.50
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	4.0	\$ 81.46
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	2	\$ 34.00
TOTAL OR ITEM 3 PAVEMENT				\$ 282.96
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	8	\$ 120.00
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 120.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 476.63	\$ 142.99
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 142.99

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 619.62
CONTINGENCY	%	15.0%	\$ 619.62	\$ 92.94
TOTAL CONSTRUCTION COST				\$ 712.56
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 712.56	\$ 21.38
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 712.56	\$ 10.69
DESIGN ENGINEERING	%	12.0%	\$ 712.56	\$ 85.51
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 712.56	\$ 10.69
CONSTRUCTION STAKING	%	2.5%	\$ 712.56	\$ 17.81
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 712.56	\$ 92.63
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 238.71
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 712.56	\$ 35.63
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 35.63
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 712.56	\$14.25
TOTAL FOR ITEM 10 UTILITIES				\$14.25
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 712.56	\$ 21.38
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 21.38

GRAND TOTAL \$ 1,023.00

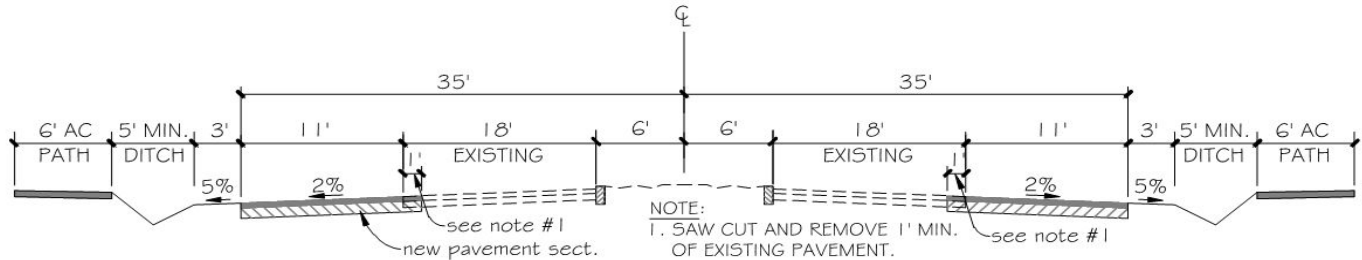
NOTES:

- 1 JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 OUTSIDE 11' TRAVEL LANE, CURB, GUTTER & S/W ARE NOT INCLUDED

North Vineyard Station
Figure A-1.3.4
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Widen Exist Arterial Center Section from 2 to 4 Lanes, Class D

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 12' Pavement, 3' Shoulder, 5' Roadside Ditch and 6' AC Path (Each Side) - assumes 1' sawcut & pvm't removal on ex. outside edge



ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
1	Earthwork				
	ROADWAY EXCAVATION	CY	\$ 18.00	1.6	\$ 29.33
	TOTAL FOR ITEM 1 EARTHWORK				\$ 29.33
2	DRAINAGE				
	DRAINAGE	LF	\$ 15.00	1	\$ 15.00
	TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3	PAVEMENT				
	ASPHALT CONCRETE (5 1/2" + 4" AC)	TON	\$ 100.00	1.1	\$ 112.50
	AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	2.4	\$ 48.88
	SIDEWALK	SF	\$ 6.00	0	\$ -
	CURB & GUTTER	LF	\$ 26.00	0	\$ -
	MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
	TOTAL OR ITEM 3 PAVEMENT				\$ 161.38
4	MISCELLANEOUS				
	STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
	LANDSCAPING	SF	\$ 15.00	0	\$ -
	TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5	MINOR ITEMS				
	MINOR ITEMS	%	30.0%	\$ 205.71	\$ 61.71
	TOTAL FOR ITEM 5 MINOR ITEMS				\$ 61.71

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 267.43
CONTINGENCY	%	15.0%	\$ 267.43	\$ 40.11
TOTAL CONSTRUCTION COST				\$ 307.54
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 307.54	\$ 9.23
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 307.54	\$ 4.61
DESIGN ENGINEERING	%	12.0%	\$ 307.54	\$ 36.90
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 307.54	\$ 4.61
CONSTRUCTION STAKING	%	2.5%	\$ 307.54	\$ 7.69
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 307.54	\$ 39.98
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 103.03
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	308	\$ 15.38
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 15.38
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 307.54	\$6.15
TOTAL FOR ITEM 10 UTILITIES				\$ 6.15
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 307.54	\$ 9.23
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 9.23

GRAND TOTAL \$ 441.00

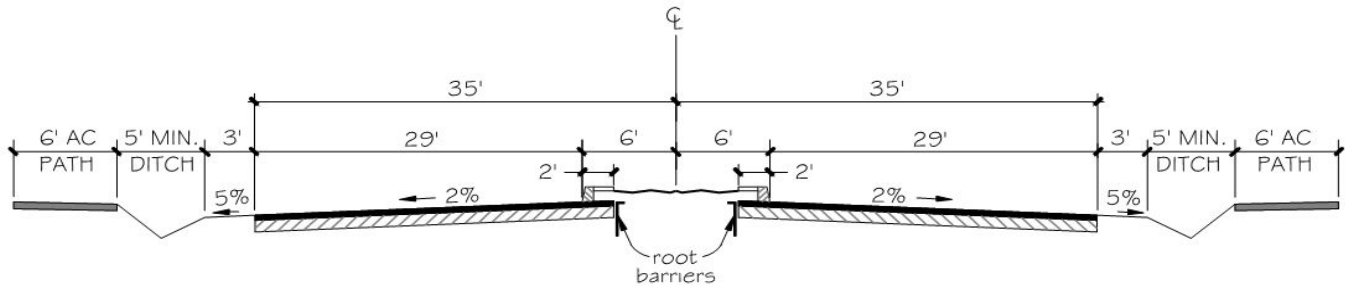
NOTES:

- 1 JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 OUTSIDE 11' TRAVEL LANE, CURB, GUTTER & S/W ARE NOT INCLUDED
- 4 OVERLAY OF EXIST. SECTION NOT REQUIRED - SECTION ASSUMED PER COUNTY STD.

North Vineyard Station
Figure A-1.3.5
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Typical 96' R/W (Thoroughfare), 4 lane Center Section Only (Class D)

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 12' Landscaped Median plus 31' Pavement, 3' Shoulder, 5' Roadside Ditch, and 6' AC Path (Each Side)



ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
1	Earthwork				
	ROADWAY EXCAVATION	CY	\$ 18.00	5.2	\$ 93.33
	TOTAL FOR ITEM 1 EARTHWORK				\$ 93.33
2	DRAINAGE				
	DRAINAGE	LF	\$ 15.00	1	\$ 15.00
	TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3	PAVEMENT				
	ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	2.8	\$ 281.88
	AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	6.6	\$ 133.92
	SIDEWALK	SF	\$ 6.00	0	\$ -
	CURB & GUTTER	LF	\$ 26.00	0	\$ -
	MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	2	\$ 34.00
	TOTAL OR ITEM 3 PAVEMENT				\$ 449.80
4	MISCELLANEOUS				
	STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
	LANDSCAPING	SF	\$ 15.00	8	\$ 120.00
	TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 120.00
5	MINOR ITEMS				
	MINOR ITEMS	%	30.0%	\$ 678.13	\$ 203.44
	TOTAL FOR ITEM 5 MINOR ITEMS				\$ 203.44

ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
6	STRUCTURES				
	BRIDGES	SF	\$ 350.00	0	\$ -
	CULVERTS	LF	\$ 375.00	0	\$ -
	TOTAL FOR ITEM 6 STRUCTURES				\$ -
7	CONTINGENCY				
	SUBTOTAL CONSTRUCTION COST				\$ 881.57
	CONTINGENCY	%	15.0%	\$ 881.57	\$ 132.24
	TOTAL CONSTRUCTION COST				\$ 1,013.81
8	ENGINEERING & MANAGEMENT				
	ENGINEERING STUDIES	%	3.0%	\$ 1,013.81	\$ 30.41
	ENVIROMENTAL DOCUMENT	%	1.5%	\$ 1,013.81	\$ 15.21
	DESIGN ENGINEERING	%	12.0%	\$ 1,013.81	\$ 121.66
	DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 1,013.81	\$ 15.21
	CONSTRUCTION STAKING	%	2.5%	\$ 1,013.81	\$ 25.35
	CONSTRUCTION MANAGEMENT	%	13.0%	\$ 1,013.81	\$ 131.79
	TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 339.63
	(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9	RIGHT OF WAY				
	RIGHT OF WAY	%	5.0%	\$ 1,013.81	\$ 50.69
	EASEMENT	SF	\$ 3.00	0	\$ -
	TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 50.69
10	UTILITIES				
	UTILITIES RELOCATION	%	2.0%	\$ 1,013.81	\$20.28
	TOTAL FOR ITEM 10 UTILITIES				\$20.28
11	ENVIROMENTAL MITIGATION				
	ENVIROMENTAL MITIGATION	%	3.0%	\$ 1,013.81	\$ 30.41
	TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 30.41

GRAND TOTAL \$ 1,455.00

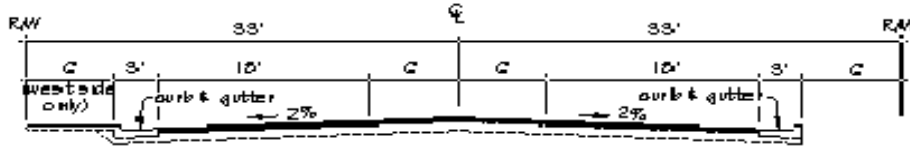
NOTES:

- 1 JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 OUTSIDE 11' TRAVEL LANE, CURB, GUTTER & S/W ARE NOT INCLUDED
- 4 OVERLAY OF EXIST. SECTION NOT REQUIRED - SECTION ASSUMED PER COUNTY STD.

North Vineyard Station
Figure A-1.3.6
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Typical 66' (2-plus) R/W

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 12' Two-Way Center Turn Lane, 18' Pavement and 3' Curb & Gutter Each Side, 6' temp. AC walk west side only = 60'



ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	3.67	\$ 66.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 66.00
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	1	\$ 30.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 30.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" + 4" AC)	TON	\$ 100.00	1.80	\$ 180.00
AGGREGATE BASE (15 1/2" AB)	TON	\$ 20.43	4.79	\$ 97.76
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 277.76
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 17.05	0	\$ -
JOINT TRENCH	LF	\$ 380.00	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 373.76	\$ 112.13
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 112.13

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 485.88
CONTINGENCY	%	15.0%	\$ 485.88	\$ 72.88
TOTAL CONSTRUCTION COST				\$ 558.77
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 558.77	\$ 16.76
ENVIRONMENTAL DOCUMENT	%	1.5%	\$ 558.77	\$ 8.38
DESIGN ENGINEERING	%	12.0%	\$ 558.77	\$ 67.05
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 558.77	\$ 8.38
CONSTRUCTION STAKING	%	2.5%	\$ 558.77	\$ 13.97
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 558.77	\$ 72.64
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 187.19
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	559	\$ 27.94
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 27.94
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ -	\$ -
TOTAL FOR ITEM 10 UTILITIES				\$ -
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 558.77	\$ 16.76
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 16.76

GRAND TOTAL \$ 791.00

NOTES:

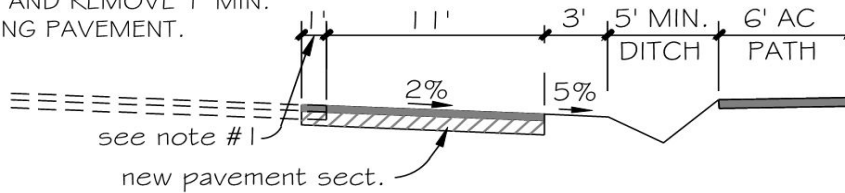
- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20 AND ARTERIAL STD.
- 3 NO UTILITY RELOCATION ASSUMED REQ'D FOR NEW STREET

North Vineyard Station
Figure A-1.3.7
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Typical Off-Site Thoroughfare Frontage Lane

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 12' Pavement, 3' Shoulder, 5' Roadside Ditch, 6' AC Path (w/o Soundwall; assumes 1' saw cut & pvm't removal of exist. edge)
 Widening / Outside Travel Lane - One Side Only

NOTE:
 1. SAW CUT AND REMOVE 1' MIN.
 OF EXISTING PAVEMENT.



ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.9	\$ 16.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 16.00
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	0.5	\$ 7.50
TOTAL FOR ITEM 2 DRAINAGE				\$ 7.50
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.6	\$ 63.75
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	1.3	\$ 25.92
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 89.67
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 113.17	\$ 33.95
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 33.95

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 147.12
CONTINGENCY	%	15.0%	\$ 147.12	\$ 22.07
TOTAL CONSTRUCTION COST				\$ 169.19
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 169.19	\$ 5.08
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 169.19	\$ 2.54
DESIGN ENGINEERING	%	12.0%	\$ 169.19	\$ 20.30
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 169.19	\$ 2.54
CONSTRUCTION STAKING	%	2.5%	\$ 169.19	\$ 4.23
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 169.19	\$ 21.99
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 56.68
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	SF	5%	169.19	\$ 8.46
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 8.46
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 169.19	\$ 3.38
TOTAL FOR ITEM 10 UTILITIES				\$ 3.38
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 169.19	\$ 5.08
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 5.08

GRAND TOTAL \$ 243.00

In Case of Both Sides of Street Use \$ 486.00

NOTES:

- 1 JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 OUTSIDE CURB, GUTTER & S/W ARE NOT INCLUDED
- 4 OVERLAY OF EXIST. SECTION NOT REQUIRED - SECTION ASSUMED PER COUNTY STD.
- 5 ROADSIDE DRAINAGE COST OF \$15/LF COVERS BOTH SIDES OF ROADWAY

North Vineyard Station
Figure A-1.3.7a
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
South Watt Ave.: Kiefer to SR 16

Date: 10/18/2017
 Job # 27121.000
 By: N.T./HF

Project Description:
 11' Pavement (incl. 1' pavement cut & replace), 3' C&G, 5' sidewalk = 20'
 Widening / Outside Travel Lane - One Side Only (2,010 LF)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	1.04	\$ 18.67
TOTAL FOR ITEM 1 EARTHWORK				\$ 18.67
2 DRAINAGE				
DRAINAGE	LF	\$30.00	0.5	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" AC)	TON	\$100.00	0.45	\$ 44.69
AGGREGATE BASE (17 1/2" AB)	TON	\$20.43	1.16	\$ 23.76
SIDEWALK	SF	\$6.00	5	\$ 30.00
CURB & GUTTER	LF	\$26.00	1	\$ 26.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 124.45
4 MISCELLANEOUS				
TRAFFIC SIGNAL	EA	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	EA	\$ 150,000	0	\$ -
RELOCATE TRAFFIC SIGNAL	LF	\$ 50	1	\$ 50.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
JOINT TRENCH	LF	\$380.00	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 50.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	208	\$ 62.43
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 62.43

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$175.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 270.55
CONTINGENCY	%	15.0%	270.55	\$ 40.58
TOTAL CONSTRUCTION COST				\$ 311.13
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	311.13	\$ 9.33
ENVIROMENTAL DOCUMENT	%	1.5%	311.13	\$ 4.67
DESIGN ENGINEERING	%	12.0%	311.13	\$ 37.34
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	311.13	\$ 4.67
CONSTRUCTION STAKING	%	2.5%	311.13	\$ 7.78
CONSTRUCTION MANAGEMENT	%	13.0%	311.13	\$ 40.45
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 104.23
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	311.13	\$ 15.56
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 15.56
10 UTILITIES				
UTILITIES RELOCATION	%	2%	311.13	\$6.22
TOTAL FOR ITEM 10 UTILITIES				\$6.22
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	311.13	\$ 9.33
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 9.33

SUBTOTAL \$ 447.00

NOTES:

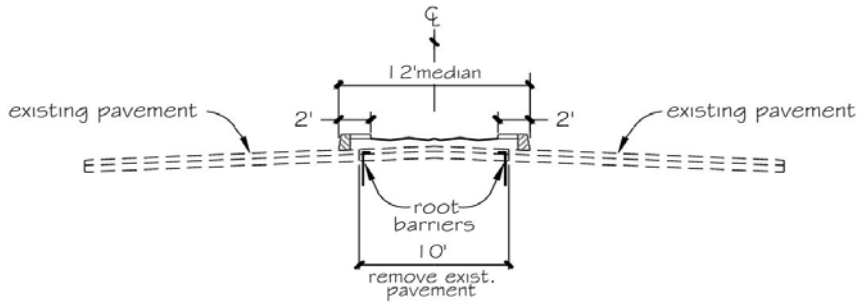
GRAND TOTAL PROJECT COST (2,010 LF): \$ 898,470.00

- 1 FRONTAGE LANDSCAPING, STREETLIGHTS, SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 3 COST OF SIGNAL RELOCATION SPREAD OVER TOTAL LENGTH OF PROJECT

North Vineyard Station
Figure A-1.3.8
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
12' Median in Exist. Roadway

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 12' Landscape Median = 12'



ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
1	Earthwork				
	ROADWAY EXCAVATION	CY	\$ 18.00	0.7	\$ 13.33
	TOTAL FOR ITEM 1 EARTHWORK				\$ 13.33
2	DRAINAGE				
	DRAINAGE	LF	\$ 15.00	0	\$ -
	TOTAL FOR ITEM 2 DRAINAGE				\$ -
3	PAVEMENT				
	ASPHALT CONCRETE	TON	\$ 100.00	0.0	\$ -
	AGGREGATE BASE	TON	\$ 20.43	0.0	\$ -
	SIDEWALK	SF	\$ 6.00	0	\$ -
	CURB & GUTTER	LF	\$ 26.00	0	\$ -
	MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	2	\$ 34.00
	TOTAL OR ITEM 3 PAVEMENT				\$ 34.00
4	MISCELLANEOUS				
	STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
	LANDSCAPING	SF	\$ 15.00	8.0	\$ 120.00
	TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 120.00
5	MINOR ITEMS				
	MINOR ITEMS	%	30.0%	\$ 167.33	\$ 50.20
	TOTAL FOR ITEM 5 MINOR ITEMS				\$ 50.20

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 217.53
CONTINGENCY	%	15.0%		\$ 32.63
TOTAL CONSTRUCTION COST				\$ 250.16
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 250.16	\$ 7.50
ENVIROMENTAL DOCUMENT	%	1.5%	\$ -	\$ -
DESIGN ENGINEERING	%	12.0%	\$ 250.16	\$ 30.02
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 250.16	\$ 3.75
CONSTRUCTION STAKING	%	2.5%	\$ 250.16	\$ 6.25
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 250.16	\$ 32.52
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 80.05
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	250	\$ 12.51
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 12.51
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 250.16	\$5.00
TOTAL FOR ITEM 10 UTILITIES				\$5.00
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ -	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -

GRAND TOTAL \$ 348.00

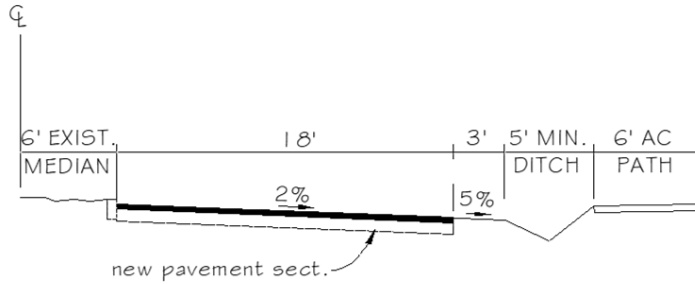
NOTES:

1. "Utility Relocation" assumed to cover items such as adjustment of valves to grade, setting valve boxes, etc.
2. JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED

North Vineyard Station
Figure A-1.3.9
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
South Side Arterial Center Lane (Class D)

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 18' Pavement and 3' Shoulder, 5' Roadside Ditch, 6' temp. AC Walk (South Side)



ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	1.2	\$ 22.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 22.00
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	0.5	\$ 7.50
TOTAL FOR ITEM 2 DRAINAGE				\$ 7.50
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" +4" AC)	TON	\$ 100.00	0.8	\$ 76.88
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	1.8	\$ 36.66
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 113.53
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 143.03	\$ 42.91
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 42.91

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 185.94
CONTINGENCY	%	15.0%	\$ 185.94	\$ 27.89
TOTAL CONSTRUCTION COST				\$ 213.84
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 213.84	\$ 6.42
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 213.84	\$ 3.21
DESIGN ENGINEERING	%	12.0%	\$ 213.84	\$ 25.66
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 213.84	\$ 3.21
CONSTRUCTION STAKING	%	2.5%	\$ 213.84	\$ 5.35
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 213.84	\$ 27.80
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 71.64
THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	214	\$ 10.69
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 10.69
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 213.84	\$4.28
TOTAL FOR ITEM 10 UTILITIES				\$4.28
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 213.84	\$ 6.42
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 6.42

GRAND TOTAL \$ 307.00

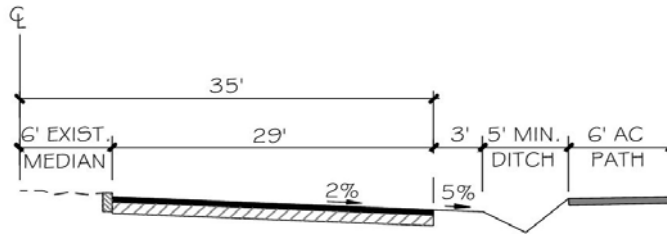
NOTES:

- 1 JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 OUTSIDE 11' TRAVEL LANE, CURB, GUTTER & S/W ARE NOT INCLUDED
- 4 OVERLAY OF EXIST. SECTION NOT REQUIRED - SECTION ASSUMED PER COUNTY STD.

North Vineyard Station
Figure A-1.3.10
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Typical 96' R/W (Thoroughfare) 2-lane 1/2 Section (Class D)

Date: 10/18/2017
 Job # 27121.000
 By: N.T./HF

Project Description:
 29' Pavement and 3' Shoulder, 5' Roadside Ditch, 6' AC Path, South Side Only, not incl. outside travel lane



ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
1	Earthwork				
	ROADWAY EXCAVATION	CY	\$ 18.00	2.1	\$ 38.67
	TOTAL FOR ITEM 1 EARTHWORK				\$ 38.67
2	DRAINAGE				
	DRAINAGE	LF	\$ 15.00	0.5	\$ 7.50
	TOTAL FOR ITEM 2 DRAINAGE				\$ 7.50
3	PAVEMENT				
	ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	1.3	\$ 132.81
	AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	3.1	\$ 62.64
	SIDEWALK	SF	\$ 6.00	0	\$ -
	CURB & GUTTER	LF	\$ 26.00	0	\$ -
	MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
	TOTAL OR ITEM 3 PAVEMENT				\$ 195.45
4	MISCELLANEOUS				
	STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
	LANDSCAPING	SF	\$ 15.00	0	\$ -
	TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5	MINOR ITEMS				
	MINOR ITEMS	%	30.0%	\$ 241.62	\$ 72.49
	TOTAL FOR ITEM 5 MINOR ITEMS				\$ 72.49

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 314.11
CONTINGENCY	%	15.0%	\$ 314.11	\$ 47.12
TOTAL CONSTRUCTION COST				\$ 361.22
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 361.22	\$ 10.84
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 361.22	\$ 5.42
DESIGN ENGINEERING	%	12.0%	\$ 361.22	\$ 43.35
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 361.22	\$ 5.42
CONSTRUCTION STAKING	%	2.5%	\$ 361.22	\$ 9.03
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 361.22	\$ 46.96
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 121.01
THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	361	\$ 18.06
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 18.06
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 361.22	\$ 7.22
TOTAL FOR ITEM 10 UTILITIES				\$ 7.22
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 361.22	\$ 10.84
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 10.84

GRAND TOTAL \$ 518.00

NOTES:

- 1 JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 OUTSIDE 11' TRAVEL LANE, CURB, GUTTER & S/W ARE NOT INCLUDED

North Vineyard Station
Figure A-1.3.11
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
Typical Widen Shoulders to Provide Minimum Pavement Width (Thoroughfare Class C)

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description: Exist roadway width varies; add 6' (min.) Pavement Each Side (assumes saw cut & remove 1' pvm't ea. side), 6' Roadside Ditch Easement = 24' and varies; incl. 2" AC overlay over exist.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION (based on 22' exist)	CY	\$ 18.00	1.09	\$ 19.56
TOTAL FOR ITEM 1 EARTHWORK				\$ 19.56
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	1	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 2" AC)	TON	\$ 100.00	0.90	\$ 90.00
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	1.69	\$ 34.56
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 124.56
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%		\$ 47.73
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 47.73

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 206.85
CONTINGENCY	%	15.0%		\$ 31.03
TOTAL CONSTRUCTION COST				\$ 237.88
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 237.88	\$ 7.14
ENVIRONMENTAL DOCUMENT	%	1.5%	\$ 237.88	\$ 3.57
DESIGN ENGINEERING	%	12.0%	\$ 237.88	\$ 28.55
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 237.88	\$ 3.57
CONSTRUCTION STAKING	%	2.5%	\$ 237.88	\$ 5.95
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 237.88	\$ 30.92
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 79.69
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	238	\$ 11.89
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 11.89
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 237.88	\$ 4.76
TOTAL FOR ITEM 10 UTILITIES				\$ 4.76
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 237.88	\$ 7.14
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 7.14

GRAND TOTAL \$ 341.00

NOTES:

- 1 JOINT TRENCH, FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20

North Vineyard Station
Figure A-1.3.R6.3
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate

COA #71

Date: 10/18/2017
 Job # 27134.000
 By: N.T./HF

Project Description:

Widen existing 2 lane rural road to 4 lane thoroughfare center section. Improvements begin at Elder Creek Crossing to 500' South of Florin Road Intersection.

COUNTY OF SACRAMENTO
MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

ENGINEER'S ESTIMATE - "C"

Project: Elk Grove-Florin Road Widening
 Limits: Elk Grove-Florin Rd (Omitted Elk Grove-Florin Rd & Florin Rd Intersection & Florin Road Improvements)

Date: August 2017
 Prepared By: JVC & YTR

BID OPEN:		ENGINEER'S ESTIMATE			
AWARD:		QUANTITY	UNIT	UNIT PRICE	AMOUNT
ITEM NO.	ITEM DESCRIPTION				
1	Project Information Signs	4	EA	\$300.00	\$ 1,200.00
2	Survey Monument (Type D)	1	EA	\$1,000.00	\$ 1,000.00
3	Clearing and Grubbing	1	LS	\$80,000.00	\$ 80,000.00
4	Storm Water Pollution Program Preparation	1	Allowance	\$7,000.00	\$ 7,000.00
5	Storm Water Pollution Control	1	Allowance	\$25,000.00	\$ 25,000.00
6	Roadway Excavation	30,415	CY	\$45.00	\$ 1,368,675.00
7	Imported Borrow	0	CY	\$50.00	\$ -
8	Asphalt Rubber Hot Mix-Gap Graded (ARHM-GG)	3,251	TN	\$125.00	\$ 406,375.00
9	Asphalt Concrete	6,437	TN	\$115.00	\$ 740,255.00
10	Aggregate Base (Class 2)	25,792	TN	\$85.00	\$ 2,192,320.00
11	PCC Curb Type 4/4A	5,080	LF	\$35.00	\$ 177,800.00
12	Detail 9 - Thermoplastic Striping	6,070	LF	\$0.50	\$ 3,035.00
13	Detail 22 - Thermoplastic Striping	850	LF	\$1.50	\$ 1,275.00
14	Detail 32 - Thermoplastic Striping	555	LF	\$1.50	\$ 832.50
15	Detail 38 - Thermoplastic Striping	180	LF	\$1.50	\$ 270.00
16	Detail 39 - Thermoplastic Striping	6,955	LF	\$1.00	\$ 6,955.00

P:\Shared Folders\Projects\Elk Grove Florin Rd - Elder Creek to Florin\Estimates\For ATWAL\EGF - B Plan Estimate C.xlsx

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
17	Detail 39A - Thermoplastic Striping	120	LF	\$1.00	\$ 120.00
18	Pavement Markings - Thermoplastic	235	SF	\$5.00	\$ 1,175.00
19	Pavement Marker (Type D)	117	EA	\$3.50	\$ 409.50
20	Pavement Marker (Type G)	134	EA	\$3.50	\$ 469.00
21	Pavement Marker (Type H)	106	EA	\$3.50	\$ 371.00
22	Object Marker (Type K-1 CA)	3	EA	\$6.00	\$ 18.00
23	Fence Relocation (Barbed Wire)	2,805	LF	\$15.00	\$ 42,075.00
24	Fence Relocation (Iron Fence)	150	LF	\$40.00	\$ 6,000.00
25	Fence Relocation (Chainlink Fence)	75	LF	\$25.00	\$ 1,875.00
26	Tree Removal	1	LS	\$45,000.00	\$ 45,000.00
27	Drainage	1	LS	\$85,000.00	\$ 85,000.00
TOTAL BASE BID (Items 1-27)					\$ 5,194,505.00

P:\Shared Folders\Projects\Elk Grove Florin Rd - Elder Creek to Florin\Estimates\For ATWAL\EGF - B Plan Estimate C.xlsx

COUNTY OF SACRAMENTO
MUNICIPAL SERVICES
DEPARTMENT OF TRANSPORTATION

PRELIMINARY SUMMARY OF PROJECT COSTS

Project: Elk Grove-Florin Road Widening: Elder Creek to Florin Road

Limits: Segment C - Elder Creek (End of Bridge Project) to 500' south of intersection with Florin Road (Stations 360+50 to 396+80).

Date: August 24, 2017

ESTIMATED CONSTRUCTION COST (No Contingency) **\$5,200,000.00**

COST No.	COST DESCRIPTION	COST as % of CONSTRUCTION COST	AMOUNT
1	ROADWAY DESIGN	17	\$780,000
2	ENVIRONMENTAL (Permitting, CEQA & NEPA)	0.6	\$31,200.00
3	CONSTRUCTION INSPECTION	12	\$624,000.00
4	CONSTRUCTION ENGINEERING	0.75	\$39,000.00
5	MATERIAL LABORATORY (Material Testing)	1	\$62,400.00
6	REAL ESTATE LABOR (14 parcels, 13 owners @ \$12,500/owner)	13	\$162,500.00
7	RIGHT-OF-WAY (Per RE Documents)	85.000	\$85,000.00
8	COUNTY SURVEY	3	\$156,000.00
9	CONSTRUCTION COST	100	\$5,200,000.00
	Project SUB-TOTAL COST		\$7,140,100.00
	PROJECT CONTINGENCY (10% of Project SUB-TOTAL)		\$714,010.00
	PROJECT TOTAL COST		\$7,854,110.00

2017 Estimate

\$7,854,110.00

Updated Design Cost December 2018

\$8,110,565.00

North Vineyard Station
Figure A-1.3.R6.4
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate

COA #70

Date: 10/18/2017
 Job # 27134.000
 By: N.T./HF

Project Description:
 South Watt Ave - Florin Road to Elder Creek Road
 Widen existing 2 lane rural road to 4 lane thoroughfare center section

County of Sacramento
 Municipal Services Agency - Department of Transportation
PRELIMINARY CONSTRUCTION ESTIMATE

Project: **SOUTH WATT AVE - Florin Rd to Elder Creek Rd**
 Date: 11/01/16

Item	Description	Unit	Quantity	Unit Price	Amount
1	SWPPP	AL	1	25,000.00	25,000.00
2	Water Pollution Control	AL	1	75,000.00	75,000.00
3	Clearing & Grubbing	LS	1	35,000.00	35,000.00
4	Roadway Excavation	CY	17,380	29.00	504,020.00
5	Aggregate Base, Class 2	TN	23,850	36.00	858,600.00
6	Type 4 Curb	LF	27,230	17.00	462,910.00
7	Asphalt Concete (Type A)	TN	7,440	85.00	632,400.00
8	Slurry Seal (Type II)	SF	127,400	0.60	76,440.00
9	Median Landscape	LS	1	500,800.00	500,800.00
					-
					-
SUBTOTAL					3,170,170
CONTINGENCY (25%)					792,542.50
TOTAL CONSTRUCTION ESTIMATE					3,962,713

**SOUTH WATT AVENUE - FLORIN RD TO ELDER CREEK RD
TOTAL PROJECT EXPENDITURES**

Nov-16

ASSUMPTIONS:

Project Length 4,620 LF
Structural Section: 6.5" AC over 23" AB (thoroughfare)
Streetlights not included

RESOURCE	COST
DESIGN	
Design Services (20%)	792,543
Survey Labor (3.5%)	138,695
Material Testing	25,000
Environmental	
PER (with mitigation)	20,000
Permits	0
Right of Way	
Real Estate Labor	155,000
Title Reports	6,500
Acquisition	29,000
Total PS&E	1,167,000
Construction	
Contract	3,962,713
Construction Support	
Construction Inspection (12%)	475,526
Construction Engineering (2%)	79,254
Construction Surveys (3.5%)	138,695
Materials Testing (1%)	39,627
Contingency (10%)	396,271
Total Construction	5,092,000
TOTAL PROJECT EXPENDITURES	
	6,259,000

\$6,259,000

North Vineyard Station
Figure A-1.3.R6.5
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
South Watt from Elder Creek to Fruitridge

COA #103

Date: 10/18/2017
 Job # 27134.000
 By: N.T./HF

Project Description:
 South Watt Ave - Elder Creek Road to Fruitridge Road

SOUTH WATT AVENUE - ELDER CREEK RD TO FRUITRIDGE RD
TOTAL PROJECT EXPENDITURES

Nov-16

ASSUMPTIONS:

Project Length 4,760 LF
 Structural Section: 6.5" AC over 23" AB (thoroughfare)
 Streetlights not included
 Includes bridge at Morrison Creek

RESOURCE	COST
DESIGN	
Design Services (20%)	1,381,250
Survey Labor (3.5%)	241,719
Material Testing	25,000
Consulting Services	300,000
Environmental	
PER (with mitigation)	20,000
Permits	50,000
Right of Way	
Real Estate Labor	110,000
Title Reports	4,000
Acquisition	19,275
Total PS&E	2,151,000
Construction	
Contract	6,906,250
Construction Support	
Construction Inspection (15%)	1,035,938
Construction Engineering (2%)	138,125
Construction Surveys (3.5%)	241,719
Materials Testing (2%)	138,125
Contingency (10%)	690,625
Total Construction	9,151,000
TOTAL PROJECT EXPENDITURES	11,302,000

\$ 11,302,000.00

County of Sacramento
Municipal Services Agency - Department of Transportation
PRELIMINARY CONSTRUCTION ESTIMATE

Project: **SOUTH WATT AVE - Elder Creek to Fruitridge**
Date: 11/01/16

Item	Description	Unit	Quantity	Unit Price	Amount
1	SWPPP	AL	1	25,000.00	25,000.00
2	Water Pollution Control	AL	1	100,000.00	100,000.00
3	Clearing & Grubbing	LS	1	35,000.00	35,000.00
4	Roadway Excavation	CY	18,970	29.00	550,130.00
5	Aggregate Base, Class 2	TN	34,920	36.00	1,257,120.00
6	Type 4 Curb	LF	7,850	17.00	133,450.00
7	Asphalt Concete (Type A)	TN	9,160	85.00	778,600.00
8	Slurry Seal (Type II)	SF	99,000	0.60	59,400.00
9	Median Landscape	LS	1	516,300.00	516,300.00
9	Bridge at Morrison Creek	LS	1	2,070,000.00	2,070,000.00
					-
SUBTOTAL					5,525,000
CONTINGENCY (25%)					1,381,250.00
TOTAL CONSTRUCTION ESTIMATE					6,906,250

North Vineyard Station
Figure A-1.3.R6.6
Roadway Cross Section Index
Preliminary Per Foot Cost Estimate
South Watt from Fruitridge to Jackson

COA #104

Date: 10/18/2017
 Job # 27134.000
 By: N.T./HF

Project Description:
 South Watt Ave - Fruitridge to Jackson

SOUTH WATT AVENUE - FRUITRIDGE RD TO JACKSON RD
TOTAL PROJECT EXPENDITURES

Nov-16

ASSUMPTIONS:

Project Length 4,360 LF
 Structural Section: 6.5" AC over 23" AB (thoroughfare)
 Streetlights not included

RESOURCE	COST
DESIGN	
Design Services (20%)	603,012
Survey Labor (3.5%)	105,527
Material Testing	25,000
Environmental	
PER (with mitigation)	20,000
Permits	0
Right of Way	
Real Estate Labor	10,000
Title Reports	500
Acquisition	13,250
Total PS&E	777,000
Construction	
Contract	3,015,060
Construction Support	
Construction Inspection (12%)	361,807
Construction Engineering (2%)	60,301
Construction Surveys (3.5%)	105,527
Materials Testing (1%)	30,151
Change Order (10%)	301,506
Total Construction	3,874,000
TOTAL PROJECT EXPENDITURES	4,651,000

\$ 4,651,000.00

County of Sacramento
Municipal Services Agency - Department of Transportation
PRELIMINARY CONSTRUCTION ESTIMATE

Project: **SOUTH WATT AVE - Fruitridge to Jackson**
Date: 11/01/16

Item	Description	Unit	Quantity	Unit Price	Amount
1	SWPPP	AL	1	25,000.00	25,000.00
2	Water Pollution Control	AL	1	75,000.00	75,000.00
3	Clearing & Grubbing	LS	1	35,000.00	35,000.00
4	Roadway Excavation	CY	13,850	29.00	401,850.00
5	Aggregate Base, Class 2	TN	18,100	36.00	651,600.00
6	Type 4 Curb	LF	6,700	17.00	113,900.00
7	Asphalt Concrete (Type A)	TN	6,240	85.00	530,400.00
8	Slurry Seal (Type II)	SF	141,830	0.60	85,098.00
9	Median Landscape	LS	1	494,400.00	494,400.00
					-
SUBTOTAL					2,412,048
CONTINGENCY (25%)					603,012.00
TOTAL CONSTRUCTION ESTIMATE					3,015,060

North Vineyard Station
Table A-1.4
Roadway Traffic Signals and Intersection Index
Summary of Preliminary Cost Estimates

SHEET	PROJECT NAME	TOTAL COST
A-1.4.1	4 way Traffic Signal Estimate	\$ 623,000
A-1.4.2	3 way Traffic Signal Estimate	\$ 468,000
A-1.4.3	(Not Used)	n/a
A-1.4.4	Typical 4x2 Intersection Widening	\$ 2,355,000
A-1.4.5	Typical 6x4 Intersection	\$ 700,000
A-1.4.6	Typical 4x2 to 4x4 Intersection Widening	\$ 678,000
A-1.4.7	(Not Used)	n/a
A-1.4.8	(Not Used)	n/a
A-1.4.9	Intersection widening (3-way)	\$ 348,000
A-1.4.4RR	4-lane Railroad Crossing	\$ 6,740,000
A-1.4.6RR	6-lane Railroad Crossing	\$ 1,485,000
A-1.4.R4.4a	Typical 2x2 Intersection Widening (Florin and Hedge)	\$ 1,781,000
A-1.4.R4.4b	Typical 4x2 Intersection Widening (Florin and Hedge)	\$ 2,664,000
A-1.4.R21a	Mod. 4x5 intersection (S. Watt at SR 16)	\$ 3,363,000
A-1.4.R21b	Widen existing modified 4x5 (County Minimum) intx. to 4x6 intx	\$ 805,000
A-1.4.R22	Jackson and Bradshaw	\$ -
A-1.4.R23	Jackson and Excelsior	\$ -
A-1.4.R25.1a	South Watt Ave. at Elder Creek Road (S. Watt & Elder Creek)	\$ -
A-1.4.R25.1b	South Watt Ave. at Elder Creek Road (S. Watt & Elder Creek)	\$ 3,900,000
A-1.4.R25.2	South Watt Ave. at Elder Creek Road (S. Watt & Elder Creek)	\$ 934,000
A-1.4.R26a	Existing mod 2x4 to mod 2x6 (Elder Creek and Bradshaw)	\$ 968,000
A-1.4.R26b	Mod 2x6 to 6x6 intersection (Elder Creek and Bradshaw)	\$ 4,514,000
A-1.4.R28.2	6x4 intersection (Florin and Elk Grove Florin Rd)	\$ 961,000
A-1.4.R29a	3-way interim 2x2 intersection	\$ 776,000
A-1.4.R29b	3-way 4x6 intersection	\$ 2,054,000
A-1.4.R30	Widen Existing 4 x 2-Plus to 6X 6 (Florin and Bradshaw)	\$ 2,366,000
A-1.4.R31	6x2-Plus Intersection (3-way)	\$ 2,543,000
A-1.4.R33a	Widen SB receiving lane	\$ 473,385
A-1.4.R33b	4x4 to 4x6 intersection (Gerber Rd. at Elk Grove-Florin Rd.)	\$ 969,000
A-1.4.R34a	Construct northern leg of Gerber Road at Waterman Road	\$ 1,268,000
A-1.4.R34b	3 way, 4x4 intersection (Gerber Road at Waterman Road)	\$ -
A-1.4.R35	4x4 intx to standard 4x6 intx (Gerber and Bradshaw)	\$ 3,170,000
A-1.4.R36	Typical 4x2 -Plus Intersection (Gerber and Vineyard)	\$ 1,699,000
A-1.4.R37a	4x2 interim intersection (Gerber and Excelsior)	\$ 1,605,000
A-1.4.R37b	Widen 4x2 to County Standard 4x4 (Gerber and Excelsior)	\$ 1,735,000
A-1.4.R61	Gerber and Bardu	\$ 928,000
1.4.PED	Pedestrian Crossing	\$ 164,000

North Vineyard Station
Appendix A-1.4.1
Traffic Signals and Intersection Index
Preliminary Cost Estimate - 4 Way Traffic Signal

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description: 4 way traffic signal within NVS

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$15.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2")	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (16 1/2" AB)	TON	\$20.43	0.0	\$ -
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	1	\$ 300,000.00
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
JOINT TRENCH	LF	\$380.00	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 300,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 300,000.00	\$ 90,000.00
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 90,000.00

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 390,000.00
CONTINGENCY	%	15.0%	\$ 390,000.00	\$ 58,500.00
TOTAL CONSTRUCTION COST				\$ 448,500.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 448,500.00	\$ 13,455.00
ENVIROMENTAL DOCUMENT	%	1.5%	\$ -	\$ -
DESIGN ENGINEERING	%	12.0%	\$ 448,500.00	\$ 53,820.00
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 448,500.00	\$ 6,727.50
CONSTRUCTION STAKING	%	2.5%	\$ 448,500.00	\$ 11,212.50
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 448,500.00	\$ 58,305.00
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 143,520.00
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 448,500.00	\$ 22,425.00
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 22,425.00
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 448,500.00	\$8,970.00
TOTAL FOR ITEM 10 UTILITIES				\$8,970.00
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ -	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -

GRAND TOTAL \$ 623,000.00

North Vineyard Station
Appendix A-1.4.2
Traffic Signals and Intersection Index
Preliminary Cost Estimate - 3 Way Traffic Signal

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description:3 way traffic signal within NVS

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$15.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2")	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (16 1/2" AB)	TON	\$20.43	0.0	\$ -
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0.75	\$ 225,000.00
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
JOINT TRENCH	LF	\$380.00	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 225,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 225,000.00	\$ 67,500.00
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 67,500.00

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 292,500.00
CONTINGENCY	%	15.0%	\$ 292,500.00	\$ 43,875.00
TOTAL CONSTRUCTION COST				\$ 336,375.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 336,375.00	\$ 10,091.25
ENVIROMENTAL DOCUMENT	%	1.5%	\$ -	\$ -
DESIGN ENGINEERING	%	12.0%	\$ 336,375.00	\$ 40,365.00
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 336,375.00	\$ 5,045.63
CONSTRUCTION STAKING	%	2.5%	\$ 336,375.00	\$ 8,409.38
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 336,375.00	\$ 43,728.75
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 107,640.00
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 336,375.00	\$ 16,818.75
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 16,818.75
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 336,375.00	\$6,727.50
TOTAL FOR ITEM 10 UTILITIES				\$6,727.50
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ -	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -

GRAND TOTAL \$ 468,000.00

North Vineyard Station
Appendix A-1.4.3
Traffic Signals and Intersection Index

Date: 10/18/2017
Job # 27134.000
By: HF/NT

Project Description:

COST ESTIMATE NOT USED.

North Vineyard Station
Appendix A-1.4.4
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 4x2 Intersection Widening
Widen two-lane rural intersection incl. protective turn lane

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description:
 Update CR's at final Location. Drainage is added for each leg including 45MPH tapers on 4-lane sections. Protected LT on all 4 approaches.
 Roadway excavation includes removal of existing pavement and added lanes with CR tapers as needed.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	6,719	\$ 120,938.89
TOTAL FOR ITEM 1 EARTHWORK				\$ 120,938.89
2 DRAINAGE				
DRAINAGE	LF	\$15.00	1390	\$ 20,850.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 20,850.00
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2"+3-1/2" AC)	TON	\$100.00	4,019.8	\$ 401,984.38
AGGREGATE BASE (17-1/2" AB)	TON	\$20.43	10,461.9	\$ 213,736.64
SIDEWALK	SF	\$6.00	1060	\$ 6,360.00
CURB & GUTTER	LF	\$26.00	200	\$ 5,200.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	1680	\$ 28,560.00
TOTAL OR ITEM 3 PAVEMENT				\$ 655,841.01
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	1	\$ 300,000.00
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 300,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 1,097,629.90	\$ 329,288.97
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 329,288.97

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,426,918.87
CONTINGENCY	%	15.0%	\$ 1,426,918.87	\$ 214,037.83
TOTAL CONSTRUCTION COST				\$ 1,640,956.70
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 1,640,956.70	\$ 49,228.70
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 1,640,956.70	\$ 24,614.35
DESIGN ENGINEERING	%	12.0%	\$ 1,640,956.70	\$ 196,914.80
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 1,640,956.70	\$ 24,614.35
CONSTRUCTION STAKING	%	2.5%	\$ 1,640,956.70	\$ 41,023.92
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 1,640,956.70	\$ 213,324.37
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 549,720.50
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 1,640,956.70	\$ 82,047.84
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 82,047.84
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 1,640,956.70	\$32,819.13
TOTAL FOR ITEM 10 UTILITIES				\$32,819.13
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 1,640,956.70	\$ 49,228.70
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 49,228.70

GRAND TOTAL \$ 2,355,000.00

NOTES:

- 1 FRONTAGE IMPROVEMENTS (C&G, SIDEWALK, JOINT TRENCH, STREETLIGHTS, LANDSCAPING, AND SOUNDWALL) ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 3 INCLUDES 450' INTERSECTION LEGS EACH WAY PLUS TAPER
- 4 CURB RETURNS ARE INCLUDED AND PLACED AT ULTIMATE LOCATION (100' TAPERS PROVIDED AS NEEDED)

North Vineyard Station
Appendix A-1.4.5
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 6x4 Intersection
Widen Existing 4 x 4 to 4 X 6

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description: Widen full 4x4 Intx to full 6x6

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	1,007	\$ 18,133.33
TOTAL FOR ITEM 1 EARTHWORK				\$ 18,133.33
2 DRAINAGE				
DRAINAGE	LF	\$15.00	1,560	\$ 23,400.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 23,400.00
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" AC)	TON	\$100.00	552.5	\$ 55,250.00
AGGREGATE BASE (17-1/2" AB)	TON	\$20.43	1,437.9	\$ 29,376.64
SIDEWALK	SF	\$6.00	1,060	\$ 6,360.00
CURB & GUTTER	LF	\$26.00	1,680	\$ 43,680.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 134,666.64
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 326,199.97	\$ 97,859.99
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 97,859.99

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
			SUBTOTAL CONSTRUCTION COST	\$ 424,059.96
CONTINGENCY	%	15.0%	\$ 424,059.96	\$ 63,608.99
			TOTAL CONSTRUCTION COST	\$ 487,668.96
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 487,668.96	\$ 14,630.07
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 487,668.96	\$ 7,315.03
DESIGN ENGINEERING	%	12.0%	\$ 487,668.96	\$ 58,520.27
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 487,668.96	\$ 7,315.03
CONSTRUCTION STAKING	%	2.5%	\$ 487,668.96	\$ 12,191.72
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 487,668.96	\$ 63,396.96
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 163,369.10
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 487,668.96	\$ 24,383.45
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 24,383.45
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 487,668.96	\$9,753.38
TOTAL FOR ITEM 10 UTILITIES				\$9,753.38
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 487,668.96	\$ 14,630.07
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 14,630.07

GRAND TOTAL \$ 700,000.00

NOTES:

- 1 FRONTAGE IMPROVEMENTS (11' PVM'T, C&G, LANDSCAPING, AND SOUNDWALL) ARE EXCLUDED
- 2 CURB RETURNS ARE INCLUDED AND ASSUMED AT ULTIMATE LOCATION (100' TAPERS PROVIDED)
- 3 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 4 INCLUDES 450' INTERSECTION LEGS EACH WAY

North Vineyard Station
Appendix A-1.4.6
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 4x2 to 4x4 Intersection Widening

Date: 10/18/2017
Job #: 27134.000
By: HF/NT

Project Description:
Widen 4x2 intersection to County Standard 4x4

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	1,007	\$ 18,133.33
TOTAL FOR ITEM 1 EARTHWORK				\$ 18,133.33
2 DRAINAGE				
DRAINAGE	LF	\$15.00	1560	\$ 23,400.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 23,400.00
3 PAVEMENT				
ASPHALT CONCRETE (5-1/2" AC)	TON	\$100.00	467.5	\$ 46,750.00
AGGREGATE BASE (16-1/2" AB)	TON	\$20.43	1,355.8	\$ 27,697.97
SIDEWALK	SF	\$6.00	1060	\$ 6,360.00
CURB & GUTTER	LF	\$26.00	1680	\$ 43,680.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 124,487.97
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 316,021.31	\$ 94,806.39
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 94,806.39

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00	0	\$ -
CULVERTS	LF	\$375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 410,827.70
CONTINGENCY	%	15.0%	\$ 410,827.70	\$ 61,624.15
TOTAL CONSTRUCTION COST				\$ 472,451.85
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 472,451.85	\$ 14,173.56
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 472,451.85	\$ 7,086.78
DESIGN ENGINEERING	%	12.0%	\$ 472,451.85	\$ 56,694.22
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 472,451.85	\$ 7,086.78
CONSTRUCTION STAKING	%	2.5%	\$ 472,451.85	\$ 11,811.30
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 472,451.85	\$ 61,418.74
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 158,271.37
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 472,451.85	\$ 23,622.59
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 23,622.59
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 472,451.85	\$9,449.04
TOTAL FOR ITEM 10 UTILITIES				\$9,449.04
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 472,451.85	\$ 14,173.56
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 14,173.56

GRAND TOTAL \$ 678,000.00

NOTES:

- 1 FRONTAGE IMPROVEMENTS (JOINT TRENCH, STREETLIGHTS, LANDSCAPING, AND SOUNDWALL) ARE EXCLUDED
- 2 EX. CURB RETURNS ASSUMED AT ULTIMATE LOCATION
- 3 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 4 INCLUDES 450' INTERSECTION LEGS EACH WAY

North Vineyard Station
Appendix A-1.4.7
Traffic Signals and Intersection Index

rev. date: 10/18/2017

Job # 27134.000

By: HF/NT

Project Description:

COST ESTIMATE NOT USED.

North Vineyard Station

rev. date: 10/18/2017

Appendix A-1.4.8

Job # 27134.000

Traffic Signals and Intersection Index

By: HF/NT

Project Description:

COST ESTIMATE NOT USED.

North Vineyard Station
Appendix A-1.4.9
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening (3-way)
shoulder improvements

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description: Shoulder widening only
 22' wide existing pavement assumed. Widen to 36' min Class C plus 1' sawcut.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	1,467	\$ 26,400.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 26,400.00
2 DRAINAGE				
DRAINAGE	LF	\$15.00	1,170	\$ 17,550.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 17,550.00
3 PAVEMENT				
ASPHALT CONCRETE (5-1/2" AC)	TON	\$100.00	742.5	\$ 74,250.00
AGGREGATE BASE (16-1/2" AB)	TON	\$20.43	2,153.3	\$ 43,990.90
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 118,240.90
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	162,191	\$ 48,657.27
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 48,657.27

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 210,848.17
CONTINGENCY	%	15.0%	210,848	\$ 31,627.23
TOTAL CONSTRUCTION COST				\$ 242,475.39
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	242,475	\$ 7,274.26
ENVIROMENTAL DOCUMENT	%	1.5%	242,475	\$ 3,637.13
DESIGN ENGINEERING	%	12.0%	242,475	\$ 29,097.05
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	242,475	\$ 3,637.13
CONSTRUCTION STAKING	%	2.5%	242,475	\$ 6,061.88
CONSTRUCTION MANAGEMENT	%	13.0%	242,475	\$ 31,521.80
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 81,229.26
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	242,475	\$ 12,123.77
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 12,123.77
10 UTILITIES				
UTILITIES RELOCATION	%	2%	242,475	\$ 4,849.51
TOTAL FOR ITEM 10 UTILITIES				\$ 4,849.51
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	242,475	\$ 7,274.26
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 7,274.26

GRAND TOTAL \$ 348,000.00

WITHOUT TRAFFIC SIGNAL, USE \$ 348,000.00

NOTES:

- 1 FRONTAGE IMPROVEMENTS (JOINT TRENCH, STREETLIGHTS, LANDSCAPING, AND SOUNDWALL) ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 3 INCLUDES 450' INTERSECTION LEGS EACH WAY

North Vineyard Station
Appendix A-1.4.4RR
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Railroad Crossing
4-lane Railroad Crossing
WATERMAN AT CCTC RR

Date: 10/18/2017
 Job # 27121.000
 By: HF/NT

Project Description:
 Arterial RR under grade crossing.

NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
	PATH ITEMS				
1	Roadway Excavation	27,000	CY	\$25	\$675,000
2	MSE Retaining Walls	24,000	SF	\$55	\$1,320,000
3	Drainage Pump Station	1	LS	\$450,000	\$450,000
4	Railroad Bridge	2,760	SF	\$400	\$1,104,000
5	Railroad Coordination	1	LS	\$25,000	\$25,000
	Misc. Minor Items	10%			\$357,000
	SUBTOTAL				\$3,931,000
	Mobilization	10%			\$393,000
	Contingencies	25%			\$983,000
	TOTAL CONSTRUCTION ESTIMATE				\$5,307,000
	ESTIMATED "SOFT" OR "OTHER" COSTS				
	Estimated Engineering and Environmental	15%			\$796,050
	Estimated Construction Administration/Staking	12%			\$636,840
	TOTAL ESTIMATED COST				\$6,740,000

NOTES:

- 1 High level estimate provided by Mark Thomas & Co on 1/13/17
- 2 Does not include pavement, sidewalk or credit for not installing a gated at grade crossing
- 3 Estimate assumes no rail road shoo fly during construction

North Vineyard Station
Appendix A-1.4.6RR
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Railroad Crossing
6-lane Railroad Crossing

Date: 10/18/2017
 Job # 27121.000
 By: HF/NT

Project Description:
 replace existing with new 6-lane RR X-ing (108' RW)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$15.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" + 4" AC)	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (16 1/2" AB)	TON	\$20.43	0.0	\$ -
ASPHALT CONCRETE (6 1/2" AC)	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (17 1/2" AB)	TON	\$20.43	0.0	\$ -
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB	LF	\$17.00	0	\$ -
			0	
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	0	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00	0	\$ -
4-LANE RR X-ING W/APPURTENANCES	EA	\$800,000.00	0	\$ -
6-LANE RR X-ING W/APPURTENANCES	EA	\$900,000.00	1	\$ 900,000.00
TOTAL FOR ITEM 6 STRUCTURES				\$ 900,000.00
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 900,000.00
CONTINGENCY	%	15.0%	900,000	\$ 135,000.00
TOTAL CONSTRUCTION COST				\$ 1,035,000.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	1,035,000	\$ 31,050.00
ENVIROMENTAL DOCUMENT	%	1.5%	1,035,000	\$ 15,525.00
DESIGN ENGINEERING	%	12.0%	1,035,000	\$ 124,200.00
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	1,035,000	\$ 15,525.00
CONSTRUCTION STAKING	%	2.5%	1,035,000	\$ 25,875.00
CONSTRUCTION MANAGEMENT	%	13.0%	1,035,000	\$ 134,550.00
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 346,725.00
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	1,035,000	\$ 51,750.00
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 51,750.00
10 UTILITIES				
UTILITIES RELOCATION	%	2%	1,035,000	\$20,700.00
TOTAL FOR ITEM 10 UTILITIES				\$20,700.00
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	1,035,000	\$ 31,050.00
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 31,050.00

GRAND TOTAL \$ 1,485,000.00

NOTES:

North Vineyard Station
Appendix A-1.4.R4.4a
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 2x2 Intersection Widening
Widen two-lane rural intersection
FLORIN and HEDGE

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

COA#15a

Project Description: Widen existing to a 2 x 2 intersection (constructed by Lennar)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$15.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" + 4" AC)	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (16 1/2" AB)	TON	\$20.43	0.0	\$ -
ASPHALT CONCRETE (6 1/2" AC)	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (17 1/2" AB)	TON	\$20.43	0.0	\$ -
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB	LF	\$17.00	0	\$ -
			0	
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	0	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ -
CONTINGENCY	%	15.0%	0	\$ -
TOTAL CONSTRUCTION COST				\$ -
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	0	\$ -
ENVIROMENTAL DOCUMENT	%	1.5%	0	\$ -
DESIGN ENGINEERING	%	0.0%	0	\$ -
DESIGN SERVICES DURING CONSTRUCTION	%	0.0%	0	\$ -
CONSTRUCTION STAKING	%	0.0%	0	\$ -
CONSTRUCTION MANAGEMENT	%	0.0%	0	\$ -
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ -
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	0	\$ -
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ -
10 UTILITIES				
UTILITIES RELOCATION	%	0%	0	\$0.00
TOTAL FOR ITEM 10 UTILITIES				\$0.00
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	0	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -

GRAND TOTAL ¹ \$ 1,781,000.00

NOTES:

1 Actual Construction Cost

North Vineyard Station
Appendix A-1.4.R4.4b
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 4x2 Intersection Widening
Widen two-lane rural intersection
FLORIN and HEDGE

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

COA#15b

Project Description: Widen exist. Intx.to County standard 2x4

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	41,387	\$ 744,960.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 744,960.00
2 DRAINAGE				
DRAINAGE	LF	\$15.00	3490	\$ 52,350.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 52,350.00
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" AC)	TON	\$100.00	1,891.5	\$ 189,150.00
AGGREGATE BASE (17-1/2" AB)	TON	\$20.43	4,922.8	\$ 100,571.78
SIDEWALK	SF	\$6.00	120	\$ 720.00
CURB & GUTTER	LF	\$26.00	160	\$ 4,160.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 294,601.78
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 1,241,911.78	\$ 372,573.53
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 372,573.53

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,614,485.32
CONTINGENCY	%	15.0%	\$ 1,614,485.32	\$ 242,172.80
TOTAL CONSTRUCTION COST				\$ 1,856,658.11
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 1,856,658.11	\$ 55,699.74
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 1,856,658.11	\$ 27,849.87
DESIGN ENGINEERING	%	12.0%	\$ 1,856,658.11	\$ 222,798.97
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 1,856,658.11	\$ 27,849.87
CONSTRUCTION STAKING	%	2.5%	\$ 1,856,658.11	\$ 46,416.45
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 1,856,658.11	\$ 241,365.55
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 621,980.47
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 1,856,658.11	\$ 92,832.91
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 92,832.91
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 1,856,658.11	\$37,133.16
TOTAL FOR ITEM 10 UTILITIES				\$37,133.16
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 1,856,658.11	\$ 55,699.74
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 55,699.74

GRAND TOTAL \$ 2,664,000

NOTES:

- 1 2 CURB RETURNS ARE INCLUDED AND ASSUMED AT ULTIMATE LOCATION
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 3 INCLUDES 310' ARTERIAL AND 255' COLLECTOR INTERSECTION LEGS EACH WAY

North Vineyard Station
Appendix A-1.4.R21a
Traffic Signals and Intersection Index
Preliminary Cost Estimate
Replacement of Two-Lane Rural Intersection

COA#57a

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description: South Watt Ave at SR 16 modified 4x5 intersection per County Alternative Minimum 1

SOUTH WATT AVENUE AT STATE ROUTE 16 INTERSECTION
TOTAL PROJECT EXPENDITURES

Sep-16

ASSUMPTIONS:

Project Length 3,580 LF
 Structural Section: 6.5" AC over 23" AB (thoroughfare)
 Streetlights not included

RESOURCE	COST
DESIGN	
Design Services (18%)	371,578
Survey Labor (3%)	61,930
Material Testing	25,000
Environmental	
PER (with mitigation)	20,000
Permits	
Right of Way	
Real Estate Labor	130,000
Title Reports	2,000
Acquisition	109,800
Total Prelim Engg Costs	720,308
Construction	
Contract	2,064,323
Construction Support	
Construction Inspection (12%)	247,719
Construction Engineering (2%)	41,286
Construction Surveys (3%)	61,930
Materials Testing (1%)	20,643
Change Order (10%)	206,432
Total Construction Costs	2,642,333
TOTAL PROJECT EXPENDITURES	3,363,000

County of Sacramento
Municipal Services Agency - Department of Transportation
PRELIMINARY CONSTRUCTION ESTIMATE

Project: **SOUTH WATT AVE AT SR 16 INTERSECTION**
Date: 09/16/16

Item	Description	Unit	Quantity	Unit Price	Amount
1	SWPPP	AL	1	25,000.00	25,000.00
2	Water Pollution Control	AL	1	75,000.00	75,000.00
3	Clearing & Grubbing	LS	1	35,000.00	35,000.00
4	Roadway Excavation	CY	6,860	29.00	198,940.00
5	Aggregate Base, Class 2	TN	11,020	36.00	396,720.00
6	Type 2 Curb and Gutter	LF	240	23.00	5,520.00
7	Type 4 Curb	LF	1,500	17.00	25,500.00
8	PCC Sidewalk	SF	2,310	7.00	16,170.00
9	Asphalt Concete (Type A)	TN	3,160	85.00	268,600.00
10	Slurry Seal (Type II)	SF	130,680	0.60	78,408.00
11	Traffic Signal @ SR 16 Road	LS	1	500,000.00	500,000.00
12	Median Hardscape	LS	1	26,600.00	26,600.00
					-
					-
SUBTOTAL					1,651,458
CONTINGENCY (25%)					412,864.50
TOTAL CONSTRUCTION ESTIMATE					2,064,323

North Vineyard Station
Appendix A-1.4.R21b
Traffic Signals and Intersection Index
Preliminary Cost Estimate

COA#57b

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

SR 16 at South Watt Ave

Project Description: Widen existing modified 4x5 (County Minimum) intx. to 4x6 intx based on COA #57a imp's: add SB thru + receiving lane w/merge taper and additional EB and WB LT. Includes 150' of intersection legs.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	2,208	\$ 39,746.67
TOTAL FOR ITEM 1 EARTHWORK				\$ 39,746.67
2 DRAINAGE				
DRAINAGE	LF	\$15.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" AC)	TON	\$100.00	1,211.0	\$ 121,103.13
AGGREGATE BASE (17-1/2" AB)	TON	\$20.43	3,151.8	\$ 64,391.00
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
sl				\$ 185,494.12
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 375,240.79	\$ 112,572.24
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 112,572.24

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 487,813.03
CONTINGENCY	%	15.0%	\$ 487,813.03	\$ 73,171.95
TOTAL CONSTRUCTION COST				\$ 560,984.98
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 560,984.98	\$ 16,829.55
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 560,984.98	\$ 8,414.77
DESIGN ENGINEERING	%	12.0%	\$ 560,984.98	\$ 67,318.20
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 560,984.98	\$ 8,414.77
CONSTRUCTION STAKING	%	2.5%	\$ 560,984.98	\$ 14,024.62
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 560,984.98	\$ 72,928.05
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 187,929.97
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 560,984.98	\$ 28,049.25
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 28,049.25
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 560,984.98	\$11,219.70
TOTAL FOR ITEM 10 UTILITIES				\$11,219.70
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 560,984.98	\$ 16,829.55
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 16,829.55

GRAND TOTAL \$ 805,000

NOTES:

- 1 2 CURB RETURNS ARE INCLUDED AND ASSUMED AT ULTIMATE LOCATION
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 3 INCLUDES 310' ARTERIAL AND 255' COLLECTOR INTERSECTION LEGS EACH WAY

North Vineyard Station

Appendix A-1.4.R22

Traffic Signals and Intersection Index

COA#77

Date: 10/18/2017

Job # 27134.000

By: HF/NT

Jackson & Bradshaw

Project Description:

Per the County, "COA #77 states that if this project is indicated as 100% funded by others (Sunridge) needs supplemental funding to work with DOT on design. We are not looking to add this project to the CIP". Cost estimate has been left blank intentionally.

North Vineyard Station

Appendix A-1.4.R23

COA#117

Date: 10/18/2017

Job # 27134.000

By: HF/NT

Traffic Signals and Intersection Index

Preliminary Cost Estimate - Typical 6x4 Intersection

Widen Existing 4x2

Jackson & Excelsior

Project Description:

Per the County, "COA #77 states that if this project is indicated as 100% funded by others (Sunridge) needs supplemental funding to work with DOT on design. We are not looking to add this project to the CIP". Cost estimate has been left blank intentionally.

**SOUTH WATT AVENUE AT ELDER CREEK INTERSECTION
TOTAL PROJECT EXPENDITURES**

Sep-16

ASSUMPTIONS:

Project Length 3,100 LF
 Structural Section: 6.5" AC over 23" AB (thoroughfare)
 Streetlights not included
 Includes Civil and Railroad crossing

RESOURCE	COST
DESIGN	
Design Services (20%)	361,716
Survey Labor (3%)	54,257
Material Testing	25,000
Environmental	
PER (with mitigation)	20,000
Permits	0
Right of Way	
Real Estate Labor	125,000
Title Reports	2,500
Acquisition	96,400
Total Prelim Engg Costs	685,000
Construction	
Contract	1,808,580
Construction Support	
Construction Inspection (12%)	217,030
Construction Engineering (2%)	36,172
Construction Surveys (3%)	54,257
Materials Testing (1%)	18,086
Change Order (10%)	180,858
RR Crossing Upgrades	900,000
Total Construction Costs	3,215,000
TOTAL PROJECT EXPENDITURES	
	3,900,000

County of Sacramento
Municipal Services Agency - Department of Transportation
PRELIMINARY CONSTRUCTION ESTIMATE

Project: **SOUTH WATT AVE AT ELDER CREEK RD INTERSECTION**
Date: 09/16/16

Item	Description	Unit	Quantity	Unit Price	Amount
1	SWPPP	AL	1	25,000.00	25,000.00
2	Water Pollution Control	AL	1	75,000.00	75,000.00
3	Clearing & Grubbing	LS	1	35,000.00	35,000.00
4	Roadway Excavation	CY	6,110	29.00	177,190.00
5	Aggregate Base, Class 2	TN	9,380	36.00	337,680.00
6	Type 2 Curb and Gutter	LF	720	23.00	16,560.00
7	Type 4 Curb	LF	1,960	17.00	33,320.00
8	PCC Sidewalk	SF	4,810	7.00	33,670.00
9	Asphalt Concrete (Type A)	TN	2,790	85.00	237,150.00
10	Slurry Seal (Type II)	SF	152,990	0.60	91,794.00
11	Traffic Signal @ Elder Creek Road	LS	1	300,000.00	300,000.00
12	Median Hardscape	LS	1	84,500.00	84,500.00
					-
					-
SUBTOTAL					1,446,864
CONTINGENCY (25%)					361,716.00
TOTAL CONSTRUCTION ESTIMATE					1,808,580

North Vineyard Station
Appendix A-1.4.R25.2b
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening 6x4
South Watt Ave. at Elder Creek Road

Date: 10/18/2017
 Job # 27121.000
 By: HF/NT

Project Description:

Widen intersection to 6x4 and modify signal. Based on County "minimum Alternate 1" project. Replace Class A frontage on the westbound receiving lane and construct Class D on northbound, southbound and eastbound receiving.
 (see also COA #29/30 R25.1a)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	2,325	\$ 41,841.67
TOTAL FOR ITEM 1 EARTHWORK				\$ 41,841.67
2 DRAINAGE				
DRAINAGE	LF	\$15.00	1,800	\$ 27,000.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 27,000.00
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" AC)	TON	\$100.00	1,301.4	\$ 130,140.63
AGGREGATE BASE (17 1/2" AB)	TON	\$20.43	2,860.0	\$ 58,429.27
SIDEWALK	SF	\$6.00	2,700	\$ 16,200.00
CURB & GUTTER	LF	\$26.00	450	\$ 11,700.00
MEDIAN CURB	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 216,469.89
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	435,312	\$ 130,593.47
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 130,593.47

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00	0	\$ -
4-LANE RR X-ING W/APPURTENANCES	EA	\$800,000.00	0	\$ -
6-LANE RR X-ING W/APPURTENANCES	EA	\$900,000.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 565,905.03
CONTINGENCY	%	15.0%	565,905	\$ 84,885.75
TOTAL CONSTRUCTION COST				\$ 650,790.78
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	650,791	\$ 19,523.72
ENVIROMENTAL DOCUMENT	%	1.5%	650,791	\$ 9,761.86
DESIGN ENGINEERING	%	12.0%	650,791	\$ 78,094.89
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	650,791	\$ 9,761.86
CONSTRUCTION STAKING	%	2.5%	650,791	\$ 16,269.77
CONSTRUCTION MANAGEMENT	%	13.0%	650,791	\$ 84,602.80
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 218,014.91
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	650,791	\$ 32,539.54
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 32,539.54
10 UTILITIES				
UTILITIES RELOCATION	%	2%	650,791	\$13,015.82
TOTAL FOR ITEM 10 UTILITIES				\$13,015.82
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	650,791	\$ 19,523.72
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 19,523.72

COUNTY GRAND TOTAL \$ 934,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 3 INTERSECTION ESTIMATE R25.1A IS ASSUMED COMPLETE PER COUNTY. IMPROVEMENTS CAPTURED IN COA#3.

North Vineyard Station
Appendix A-1.4.R26a
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 6x2 Intersection
Replacement of 4X2-Lane Rural Intersection

COA#108,109

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Elder Creek and Bradshaw Road

Project Description:

Widen ex. mod 2x4 to mod 2x6 (Add NB & SB Shared Through / Right Turn Lanes, incl. SB receiving frontage as part of Plan Area frontage imp's (EB approach & departure Class D frontage imp's included)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	2,882	\$ 51,867.89
TOTAL FOR ITEM 1 EARTHWORK				\$ 51,867.89
2 DRAINAGE				
DRAINAGE	LF	\$15.00	900	\$ 13,500.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 13,500.00
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$100.00	1,123.7	\$ 112,371.88
AGGREGATE BASE (17 1/2" AB)	TON	\$20.43	2,540.7	\$ 51,905.93
ASPHALT CONCRETE (5 1/2" AC)	TON	\$100.00	450.5	\$ 45,048.44
AGGREGATE BASE (16 1/2" AB)	TON	\$20.43	1,306.4	\$ 26,689.85
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 236,016.09
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 451,383.98	\$ 135,415.19
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 135,415.19

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 586,799.17
CONTINGENCY	%	15.0%	\$ 586,799.17	\$ 88,019.88
TOTAL CONSTRUCTION COST				\$ 674,819.04
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 674,819.04	\$ 20,244.57
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 674,819.04	\$ 10,122.29
DESIGN ENGINEERING	%	12.0%	\$ 674,819.04	\$ 80,978.29
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 674,819.04	\$ 10,122.29
CONSTRUCTION STAKING	%	2.5%	\$ 674,819.04	\$ 16,870.48
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 674,819.04	\$ 87,726.48
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 226,064.38
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 674,819.04	\$ 33,740.95
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 33,740.95
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 674,819.04	\$13,496.38
TOTAL FOR ITEM 10 UTILITIES				\$13,496.38
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 674,819.04	\$ 20,244.57
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 20,244.57

GRAND TOTAL \$ 968,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20

North Vineyard Station
Appendix A-1.4.R26b
Traffic Signals and Intersection Index
Preliminary Cost Estimate

COA#108,109

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Elder Creek and Bradshaw Road

Project Description:
 Improve 6x2 intersection to a 6x6 intersection.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	54,533	\$ 981,600.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 981,600.00
2 DRAINAGE				
DRAINAGE	LF	\$15.00	2,940	\$ 44,100.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 44,100.00
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" + 5-1/2" + 4" AC)	TON	\$100.00	5,900.0	\$ 590,000.00
AGGREGATE BASE (17-1/2" + 16-1/2" AB)	TON	\$20.43	16,012.4	\$ 327,132.31
SIDEWALK	SF	\$6.00	1,000	\$ 6,000.00
CURB & GUTTER	LF	\$26.00	200	\$ 5,200.00
MEDIAN CURB	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 928,332.31
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 2,104,032.31	\$ 631,209.69
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 631,209.69

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 2,735,242.00
CONTINGENCY	%	15.0%	\$ 2,735,242.00	\$ 410,286.30
TOTAL CONSTRUCTION COST				\$ 3,145,528.30
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 3,145,528.30	\$ 94,365.85
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 3,145,528.30	\$ 47,182.92
DESIGN ENGINEERING	%	12.0%	\$ 3,145,528.30	\$ 377,463.40
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 3,145,528.30	\$ 47,182.92
CONSTRUCTION STAKING	%	2.5%	\$ 3,145,528.30	\$ 78,638.21
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 3,145,528.30	\$ 408,918.68
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 1,053,751.98
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 3,145,528.30	\$ 157,276.42
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 157,276.42
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 3,145,528.30	\$62,910.57
TOTAL FOR ITEM 10 UTILITIES				\$62,910.57
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 3,145,528.30	\$ 94,365.85
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 94,365.85

GRAND TOTAL \$ 4,514,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20

North Vineyard Station
Appendix A-1.4.R28.2
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening
Florin Road at Elk Grove-Florin Road

COA#106

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description: Through 3rd lane NB and South Bound only. 6x4 Layout without Frontage. Keep existing pavement and widen to accommodate Future 6x6. Curb Return in final location with 100' tapers included. 460LF of Taper used for South Bound.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	2,591	\$ 46,640.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 46,640.00
2 DRAINAGE				
DRAINAGE	LF	\$15.00	480	\$ 7,200.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 7,200.00
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" AC)	TON	\$100.00	1,405.8	\$ 140,582.81
AGGREGATE BASE (17-1/2" AB)	TON	\$20.43	3,658.8	\$ 74,748.42
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	1,680	\$ 28,560.00
TOTAL OR ITEM 3 PAVEMENT				\$ 243,891.23
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	447,731	\$ 134,319.37
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 134,319.37

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 582,050.60
CONTINGENCY	%	15.0%	582,051	\$ 87,307.59
TOTAL CONSTRUCTION COST				\$ 669,358.20
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	669,358	\$ 20,080.75
ENVIROMENTAL DOCUMENT	%	1.5%	669,358	\$ 10,040.37
DESIGN ENGINEERING	%	12.0%	669,358	\$ 80,322.98
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	669,358	\$ 10,040.37
CONSTRUCTION STAKING	%	2.5%	669,358	\$ 16,733.95
CONSTRUCTION MANAGEMENT	%	13.0%	669,358	\$ 87,016.57
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 224,235.00
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	669,358	\$ 33,467.91
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 33,467.91
10 UTILITIES				
UTILITIES RELOCATION	%	2%	669,358	\$13,387.16
TOTAL FOR ITEM 10 UTILITIES				\$13,387.16
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	669,358	\$ 20,080.75
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 20,080.75

GRAND TOTAL \$ 961,000.00

NOTES:

- 1 FRONTAGE IMPROVEMENTS (JOINT TRENCH, STREETLIGHTS, LANDSCAPING, AND SOUNDWALL) ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 3 DRAINAGE UNIT COST COVERS BOTH SIDES OF STREET => DIVIDE PROJECT LENGTH BY 2 FOR ONE SIDE OF ROAD

North Vineyard Station
Appendix A-1.4.R29a
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening (3 way)
Waterman Road at Florin Road

COA#27

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description:3-way interim 2x2 intersection (E, W, S) (Future 6 x 4). Interim 2 x 2 intersection expected to be built in summer of 2017 by Lennar. Additional pavement rehab required by the project is covered by the "Minor Items" line item.
 (See Appendix A1.4 R29b for 6x4 widening)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$15.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" AC)	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (17-1/2" AB)	TON	\$20.43	0.0	\$ -
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	0	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ -
CONTINGENCY	%	15.0%	0	\$ -
TOTAL CONSTRUCTION COST				\$ 540,667.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	540,667	\$ 16,220.01
ENVIROMENTAL DOCUMENT	%	1.5%	540,667	\$ 8,110.01
DESIGN ENGINEERING	%	12.0%	540,667	\$ 64,880.04
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	540,667	\$ 8,110.01
CONSTRUCTION STAKING	%	2.5%	540,667	\$ 13,516.68
CONSTRUCTION MANAGEMENT	%	13.0%	540,667	\$ 70,286.71
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 181,123.45
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	540,667	\$ 27,033.35
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 27,033.35
10 UTILITIES				
UTILITIES RELOCATION	%	2%	540,667	\$10,813.34
TOTAL FOR ITEM 10 UTILITIES				\$10,813.34
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	540,667	\$ 16,220.01
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 16,220.01

GRAND TOTAL \$ 776,000.00

NOTES:

- 1 Cost Estimate based on approved Waterman Road improvement plans dated 2/06/2017

North Vineyard Station
Appendix A-1.4.R29b
Traffic Signals and Intersection Index
Preliminary Cost Estimate - 6x4 Intersection widening (3-way)
Waterman Road at Florin Road

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

COA #27

Project Description: Intx widening of interim 2 x 2 3 way intersection (expected construction in 2017, see Appendix A1.4.R29a) to a 3-way 4x6 intersection (E, W, S) and signalization .

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	7,227	\$ 130,089
TOTAL FOR ITEM 1 EARTHWORK				\$ 130,089
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	2,700	\$ 40,500.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 40,500.00
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" + 4" AC)	TON	\$ 100.00	2,293.0	\$ 229,301.56
AGGREGATE BASE (17-1/2" AB)	TON	\$ 20.43	5,712.0	\$ 116,696.53
ASPHALT CONCRETE (5-1/2" AC)	TON	\$ 100.00	1,632.8	\$ 163,281.25
AGGREGATE BASE (16-1/2" AB)	TON	\$ 20.43	4,735.2	\$ 96,739.24
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	1,800	\$ 30,600.00
TOTAL OR ITEM 3 PAVEMENT				\$ 636,618.59
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	957,207	\$ 287,162.24
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 287,162.24

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 175.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,244,369.72
CONTINGENCY	%	15.0%	1,244,370	\$ 186,655.46
TOTAL CONSTRUCTION COST				\$ 1,431,025.18
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	1,431,025	\$ 42,930.76
ENVIROMENTAL DOCUMENT	%	1.5%	1,431,025	\$ 21,465.38
DESIGN ENGINEERING	%	12.0%	1,431,025	\$ 171,723.02
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	1,431,025	\$ 21,465.38
CONSTRUCTION STAKING	%	2.5%	1,431,025	\$ 35,775.63
CONSTRUCTION MANAGEMENT	%	13.0%	1,431,025	\$ 186,033.27
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 479,393.43
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	1,431,025	\$ 71,551.26
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 71,551.26
10 UTILITIES				
UTILITIES RELOCATION	%	2%	1,431,025	\$ 28,620.50
TOTAL FOR ITEM 10 UTILITIES				\$ 28,620.50
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	1,431,025	\$ 42,930.76
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 42,930.76

GRAND TOTAL \$ 2,054,000.00

NOTES:

- 1 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 2 INCLUDES 450' INTERSECTION LEGS EACH WAY
- 3 FOR EASE OF ADMINISTRATION, THE INTERSECTION IMPROVEMENTS FOR COA 70 AND 92 HAVE BEEN CONSOLIDATED INTO A SINGLE ESTIMATE.

North Vineyard Station
Appendix A-1.4.R30
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 6x6 Intersection
Widen Existing 4 x 2-Plus to 6X 6
FLORIN AND BRADSHAW

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

COA#79

Project Description:
 Added additional lanes in both directions. Class D frontage on the south side.
 Includes drainage along tapers to existing lanes. intersection Paving and CR's to remain.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	8,087	\$ 145,573.33
TOTAL FOR ITEM 1 EARTHWORK				\$ 145,573.33
2 DRAINAGE				
DRAINAGE	LF	\$15.00	2,000	\$ 30,000.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 30,000.00
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" AC+4" AC)	TON	\$100.00	4,893.9	\$ 489,385.94
AGGREGATE BASE (17-1/2" AB)	TON	\$20.43	11,301.9	\$ 230,898.21
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	3,360	\$ 57,120.00
TOTAL OR ITEM 3 PAVEMENT				\$ 777,404.15
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
JOINT TRENCH	LF	\$380.00	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 1,102,977.48	\$ 330,893.24
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 330,893.24

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,433,870.73
CONTINGENCY	%	15.0%	\$ 1,433,870.73	\$ 215,080.61
TOTAL CONSTRUCTION COST				\$ 1,648,951.33
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 1,648,951.33	\$ 49,468.54
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 1,648,951.33	\$ 24,734.27
DESIGN ENGINEERING	%	12.0%	\$ 1,648,951.33	\$ 197,874.16
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 1,648,951.33	\$ 24,734.27
CONSTRUCTION STAKING	%	2.5%	\$ 1,648,951.33	\$ 41,223.78
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 1,648,951.33	\$ 214,363.67
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 552,398.70
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 1,648,951.33	\$ 82,447.57
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 82,447.57
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 1,648,951.33	\$32,979.03
TOTAL FOR ITEM 10 UTILITIES				\$32,979.03
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 1,648,951.33	\$ 49,468.54
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 49,468.54

GRAND TOTAL \$ 2,366,000.00

NOTES:

- 1 LANDSCAPING, AND SOUNDWALL ARE EXCLUDED
- 2 EX. CURB RETURNS ASSUMED AT ULTIMATE LOCATION
- 3 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 4 INCLUDES 450' INTERSECTION LEGS EACH WAY
- 5 OFFSITE FRONTAGE = CLASS D

North Vineyard Station
Appendix A-1.4.R31
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 6x2-Plus Intersection (3-way)
Replacement of Two-Lane Rural Intersection
FLORIN AND VINYARD RD

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

COA#83

Project Description:
 Construct a 6x2 signalized intersection, north leg existing. Drainage includes tapers to existing lanes. Construct all four CRs at ultimate 6x4 location; NVS frontage improvements included (4-lane)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	8,159	\$ 146,863.56
TOTAL FOR ITEM 1 EARTHWORK				\$ 146,863.56
2 DRAINAGE				
DRAINAGE	LF	\$15.00	1,970	\$ 29,550.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 29,550.00
3 PAVEMENT				
ASPHALT CONCRETE (6-1/2" AC+5-1/2" + 4")	TON	\$100.00	4,326.2	\$ 432,619.06
AGGREGATE BASE (17-1/2" AB+16-1/2" AB)	TON	\$20.43	11,430.7	\$ 233,529.53
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	2,520	\$ 42,840.00
TOTAL OR ITEM 3 PAVEMENT				\$ 708,988.59
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	1	\$ 300,000.00
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
JOINT TRENCH	LF	\$380.00	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 300,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	1,185,402	\$ 355,620.64
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 355,620.64

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,541,022.79
CONTINGENCY	%	15.0%	1,541,023	\$ 231,153.42
TOTAL CONSTRUCTION COST				\$ 1,772,176.21
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	1,772,176	\$ 53,165.29
ENVIROMENTAL DOCUMENT	%	1.5%	1,772,176	\$ 26,582.64
DESIGN ENGINEERING	%	12.0%	1,772,176	\$ 212,661.15
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	1,772,176	\$ 26,582.64
CONSTRUCTION STAKING	%	2.5%	1,772,176	\$ 44,304.41
CONSTRUCTION MANAGEMENT	%	13.0%	1,772,176	\$ 230,382.91
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 593,679.03
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	1,772,176	\$ 88,608.81
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 88,608.81
10 UTILITIES				
UTILITIES RELOCATION	%	2%	1,772,176	\$35,443.52
TOTAL FOR ITEM 10 UTILITIES				\$35,443.52
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	1,772,176	\$ 53,165.29
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 53,165.29

GRAND TOTAL \$ 2,543,000.00

NOTES:

- 1 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20
- 2 INCLUDES 450' INTERSECTION LEGS (EAST, WEST AND SOUTH) PLUS TAPERS
- 3 CURB RETURNS ARE INCLUDED AND ASSUMED AT ULTIMATE 6X4 LOCATION (100' TAPERS PROVIDED)
- 4 GENERAL PLAN DESIGNATION CHANGED TO 6X4 INTERSECTION

North Vineyard Station
Appendix A-1.4.R33a
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening
Gerber Rd. at Elk Grove-Florin Rd.

COA #58a

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description:
 Widen SB receiving lane to (3) Through, bike lane, bus turnout, c&g and sidewalk. Estimate provided by County DOT.

COUNTY OF SACRAMENTO
MUNICIPAL SERVICES AGENCY
DEPARTMENT OF TRANSPORTATION

ENGINEER'S ESTIMATE - "A"

Project: Elk Grove-Florin Road Widening
 Limits: 700' South of Gerber Rd to Gerber Rd

Date: August 2017
 Prepared By: JVC & YTR

BID OPEN:		ENGINEER'S ESTIMATE			
AWARD:		QUANTITY	UNIT	UNIT PRICE	AMOUNT
ITEM NO.	ITEM DESCRIPTION				
1	Project Information Signs	2	EA	\$300.00	\$ 600.00
2	Clearing and Grubbing	1	LS	\$5,000.00	\$ 5,000.00
3	Storm Water Pollution Program Preparation	1	Allowance	\$2,500.00	\$ 2,500.00
4	Storm Water Pollution Control	1	Allowance	\$5,000.00	\$ 5,000.00
5	Roadway Excavation	1,348	CY	\$45.00	\$ 60,660.00
6	Imported Borrow	0	CY	\$50.00	\$ -
7	Asphalt Rubber Hot Mix-Cap Graded (ARHM-GC)	88	TN	\$125.00	\$ 11,000.00
8	Asphalt Concrete	171	TN	\$115.00	\$ 19,665.00
9	Aggregate Base (Class 2)	685	TN	\$85.00	\$ 58,225.00
10	Slurry Seal (Type 2)	21,790	SF	\$1.00	\$ 21,790.00
11	PCC Curb Type 4/4A	1,170	LF	\$35.00	\$ 40,950.00
12	PCC Curb & Gutter (Type 2)	295	LF	\$25.00	\$ 7,375.00
13	PCC Curb & Gutter (Type 2 Reinforced)	260	LF	\$35.00	\$ 9,100.00
14	PCC Sidewalk	2,955	SF	\$10.00	\$ 29,550.00
15	Remove Traffic Stripe & Pavement Markings- Thermoplastic	1,266	SF	\$4.00	\$ 5,064.00
16	Detail 9 - Thermoplastic Striping	1,400	LF	\$0.50	\$ 700.00

P:\Shared Folders\Projects\Elk Grove Florin Rd - Elder Creek to Florin\Estimates\For ATWALIEGF - B Plan Estimate A.xlsx

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
17	Detail 22 - Thermoplastic Striping	5	LF	\$1.50	\$ 7.50
18	Detail 38 - Thermoplastic Striping	125	LF	\$1.50	\$ 187.50
19	Detail 39 - Thermoplastic Striping	700	LF	\$1.00	\$ 700.00
20	Detail A (12" White) - Thermoplastic	40	LF	\$5.00	\$ 200.00
21	Pavement Markings - Thermoplastic	18	SF	\$5.00	\$ 90.00
22	Pavement Marker (Type D)	5	EA	\$3.50	\$ 17.50
23	Pavement Marker (Type G)	34	EA	\$3.50	\$ 119.00
24	Pavement Marker (Type H)	14	EA	\$3.50	\$ 49.00
25	Object Marker (Type K-1 CA)	1	EA	\$6.00	\$ 6.00
26	Relocate Roadside Sign	2	EA	\$200.00	\$ 400.00
27	Tree Removal	1	LS	\$500.00	\$ 500.00
28	Drainage	1	LS	\$10,000.00	\$ 10,000.00
TOTAL BASE BID (Items 1-28)					\$ 289,455.50

P:\Shared Folders\Projects\Elk Grove Florin Rd - Elder Creek to Florin\Estimates\FOR ATWAL\EGF - B Plan Estimate A.xlsx

COUNTY OF SACRAMENTO
MUNICIPAL SERVICES
DEPARTMENT OF TRANSPORTATION

PRELIMINARY SUMMARY OF PROJECT COSTS

Project: Elk Grove-Florin Road Widening: Elder Creek to Florin Road

Limits: Segment A - 700' south of Gerber Road to Gerber Road (Stations 342+31 to 348+00).

Date: August 24, 2017

ESTIMATED CONSTRUCTION COST (No Contingency) **\$300,000.00**

COST No.	COST DESCRIPTION	COST as % of CONSTRUCTION COST	AMOUNT
1	ROADWAY DESIGN	17	\$51,000.00
2	ENVIRONMENTAL (Permitting, CEQA & NEPA)	0.5	\$1,500.00
3	CONSTRUCTION INSPECTION	12	\$36,000.00
4	CONSTRUCTION ENGINEERING	0.75	\$2,250.00
5	MATERIAL LABORATORY (Material Testing)	1	\$3,600.00
6	REAL ESTATE LABOR (3 parcels, 2 owners @ \$12,500/owner)	2	\$25,000.00
7	RIGHT-OF-WAY (Per RE Documents)	2,000	\$2,000.00
8	COUNTY SURVEY	3	\$9,000.00
9	CONSTRUCTION COST	100	\$300,000.00
	Project SUB-TOTAL COST		\$430,350.00
	PROJECT CONTINGENCY (10% of Project SUB-TOTAL)		\$43,035.00
	PROJECT TOTAL COST		\$473,385.00

P:\Shared Folders\Projects\Elk Grove Florin Rd - Elder Creek to Florin\Estimates\For ATWALIEGFR WIDENING SEGMENT A ALL COSTS.xlsx of 1

\$473,385.00

North Vineyard Station
Appendix A-1.4.R33b
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening
Gerber Rd. at Elk Grove-Florin Rd.

COA #58b

Date: 10/18/2017
 Job #: 27134.000
 By: HF/NT

Project Description:

Widen exist 4x4 to 4x6 Intx (N/E corner completed). Add SB RT, bus turnout and receiving lane; add EB receiving lane, RT, bus turnout and shoulder, NB thru and RT, WB bus turnout and receiving lane.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	1,193	\$ 21,478.89
TOTAL FOR ITEM 1 EARTHWORK				\$ 21,478.89
2 DRAINAGE				
DRAINAGE	LF	\$30.00	2,250	\$ 67,500.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 67,500.00
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" AC)	TON	\$100.00	232.4	\$ 23,237.50
AGGREGATE BASE (17 1/2" AB)	TON	\$20.43	604.8	\$ 12,355.47
ASPHALT CONCRETE (5 1/2" AC)	TON	\$100.00	322.1	\$ 32,209.38
AGGREGATE BASE (16 1/2" AB)	TON	\$20.43	934.1	\$ 19,083.09
SIDEWALK	SF	\$6.00	11,250	\$ 67,500.00
CURB & GUTTER	LF	\$26.00	2,250	\$ 58,500.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 212,885.43
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
JOINT TRENCH	LF	\$ 380.00	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	451,864	\$ 135,559.30
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 135,559.30

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 587,423.62
CONTINGENCY	%	15.0%	587,424	\$ 88,113.54
TOTAL CONSTRUCTION COST				\$ 675,537.16
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	675,537	\$ 20,266.11
ENVIROMENTAL DOCUMENT	%	1.5%	675,537	\$ 10,133.06
DESIGN ENGINEERING	%	12.0%	675,537	\$ 81,064.46
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	675,537	\$ 10,133.06
CONSTRUCTION STAKING	%	2.5%	675,537	\$ 16,888.43
CONSTRUCTION MANAGEMENT	%	13.0%	675,537	\$ 87,819.83
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 226,304.95
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	675,537	\$ 33,776.86
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 33,776.86
10 UTILITIES				
UTILITIES RELOCATION	%	2%	675,537	\$13,510.74
TOTAL FOR ITEM 10 UTILITIES				\$ 13,510.74
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	675,537	\$ 20,266.11
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 20,266.11

GRAND TOTAL \$ 969,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20

North Vineyard Station
Appendix A-1.4.R34a
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening
Waterman Rd & Gerber Rd

COA #22a

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description:
 Construct arterial northern leg of Waterman Road and Gerber Road. Quantities based on Lennar's improvement plans for Vineyard Creek dated 5/16/17.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	2,911	\$ 52,390.87
TOTAL FOR ITEM 1 EARTHWORK				\$ 52,390.87
2 DRAINAGE				
DRAINAGE	LF	\$15.00	888	\$ 13,320.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 13,320.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" AC)	TON	\$100.00	1,180.3	\$ 118,026.56
AGGREGATE BASE (21" AB)	TON	\$20.43	4,506.5	\$ 92,067.16
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	894	\$ 15,198.00
TOTAL OR ITEM 3 PAVEMENT				\$ 225,291.72
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	1	\$ 300,000.00
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
JOINT TRENCH	LF	\$ 380.00	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 300,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	591,003	\$ 177,300.78
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 177,300.78

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 768,303.36
CONTINGENCY	%	15.0%	768,303	\$ 115,245.50
TOTAL CONSTRUCTION COST				\$ 883,548.87
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	883,549	\$ 26,506.47
ENVIROMENTAL DOCUMENT	%	1.5%	883,549	\$ 13,253.23
DESIGN ENGINEERING	%	12.0%	883,549	\$ 106,025.86
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	883,549	\$ 13,253.23
CONSTRUCTION STAKING	%	2.5%	883,549	\$ 22,088.72
CONSTRUCTION MANAGEMENT	%	13.0%	883,549	\$ 114,861.35
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 295,988.87
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	883,549	\$ 44,177.44
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 44,177.44
10 UTILITIES				
UTILITIES RELOCATION	%	2%	883,549	\$17,670.98
TOTAL FOR ITEM 10 UTILITIES				\$ 17,670.98
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	883,549	\$ 26,506.47
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 26,506.47

GRAND TOTAL \$ 1,268,000.00

NOTES:

- FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED

North Vineyard Station
Appendix A-1.4.R34b
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening
Waterman Rd & Gerber Rd

COA #22b

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description:
 Construct 3 way 4x4 intersection with Signal at Gerber Road and Waterman Road. Note, this improvement is fully funded by FVG CIP.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$30.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" AC)	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (21" AB)	TON	\$20.43	0.0	\$ -
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
JOINT TRENCH	LF	\$ 380.00	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	0	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ -
CONTINGENCY	%	15.0%	0	\$ -
TOTAL CONSTRUCTION COST				\$ -
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	0	\$ -
ENVIROMENTAL DOCUMENT	%	1.5%	0	\$ -
DESIGN ENGINEERING	%	12.0%	0	\$ -
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	0	\$ -
CONSTRUCTION STAKING	%	2.5%	0	\$ -
CONSTRUCTION MANAGEMENT	%	13.0%	0	\$ -
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ -
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	0	\$ -
EASEMENT	SF	\$3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ -
10 UTILITIES				
UTILITIES RELOCATION	%	2%	0	\$0.00
TOTAL FOR ITEM 10 UTILITIES				\$0.00
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	0	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -

GRAND TOTAL \$ -

NOTES:

- Improvements to the north leg and north side of the east and west legs of intersection constructed by NVS. Therefore, the remaining improvements to complete the intersection to a standard 4x4 is the responsibility of FVG

North Vineyard Station
Appendix A-1.4.R35
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Intersection widening
Gerber Rd. at Bradshaw Rd.

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

COA #41

Project Description: Improve existing modified 4x4 intx to standard 4x6 intx. Add NB bus turnout and RT, Add SB bus turnout and single thru with 550' taper, Add west bound thru, RT bus turnout and single receiving lane, add all CR's to final location. Includes remodel of existing gas station at northwest corner.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	3,852	\$ 69,338.33
TOTAL FOR ITEM 1 EARTHWORK				\$ 69,338.33
2 DRAINAGE				
DRAINAGE	LF	\$15.00	2,700	\$ 40,500.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 40,500.00
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 5 1/2"+ 4" AC)	TON	\$100.00	2,584.5	\$ 258,454.69
AGGREGATE BASE (17 1/2" + 16 1/2" AB)	TON	\$20.43	5,564.1	\$ 113,675.55
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 372,130.24
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	631,969	\$ 189,590.57
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 189,590.57

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 821,559.15
CONTINGENCY	%	15.0%	821,559	\$ 123,233.87
TOTAL CONSTRUCTION COST				\$ 944,793.02
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	944,793	\$ 28,343.79
ENVIROMENTAL DOCUMENT	%	1.5%	944,793	\$ 14,171.90
DESIGN ENGINEERING	%	12.0%	944,793	\$ 113,375.16
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	944,793	\$ 14,171.90
CONSTRUCTION STAKING	%	2.5%	944,793	\$ 23,619.83
CONSTRUCTION MANAGEMENT	%	13.0%	944,793	\$ 122,823.09
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 316,505.66
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	944,793	\$ 47,239.65
EASEMENT	SF	\$3.00	0	\$ -
PROPERTY ACQUISITION	EA	\$1,800,000.00	1	\$ 1,800,000.00
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 1,847,239.65
10 UTILITIES				
UTILITIES RELOCATION	%	2%	944,793	\$18,895.86
TOTAL FOR ITEM 10 UTILITIES				\$18,895.86
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL DOCUMENTATION	%	1.50%	944,793	\$ 14,171.90
ENVIROMENTAL MITIGATION	%	3.0%	944,793	\$ 28,343.79
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 42,515.69

GRAND TOTAL \$ 3,170,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 COSTS TO REMODEL GAS STATION AT NE CORNER OF INTERSECTION IS PLACEHOLDER ONLY
- 3 ROADWAY SECTION ASSUMES AVERAGE R VALUE OF 20

North Vineyard Station
Appendix A-1.4.R36
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Typical 4x2 -Plus Intersection Widening
Widen Existing two-lane rural 3 way to a 4 way 4X2 plus intersection
Gerber Road and Vineyard Road

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

COA#105

Project Description: Widen exist. 3-way intx. to 4-way intx. (Modify from 3 way to 4 way mod 4x4)
 (Note: Wildhawk Subdivision To build out Southwest Corner Of Intersection; In Design Fall '14)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	5,467	\$ 98,413.89
TOTAL FOR ITEM 1 EARTHWORK				\$ 98,413.89
2 DRAINAGE				
DRAINAGE	LF	\$15.00	2505	\$ 37,575.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 37,575.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2")	TON	\$100.00	2,609.9	\$ 260,992.19
AGGREGATE BASE (16 1/2" AB)	TON	\$20.43	7,568.8	\$ 154,630.04
SIDEWALK	SF	\$6.00	1,000	\$ 6,000.00
CURB & GUTTER	LF	\$26.00	1,040	\$ 27,040.00
MEDIAN CURB	LF	\$17.00	3,360	\$ 57,120.00
TOTAL OR ITEM 3 PAVEMENT				\$ 505,782.23
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
JOINT TRENCH	LF	\$380.00	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 791,771.12	\$ 237,531.34
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 237,531.34

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,029,302.45
CONTINGENCY	%	15.0%	\$ 1,029,302.45	\$ 154,395.37
TOTAL CONSTRUCTION COST				\$ 1,183,697.82
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 1,183,697.82	\$ 35,510.93
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 1,183,697.82	\$ 17,755.47
DESIGN ENGINEERING	%	12.0%	\$ 1,183,697.82	\$ 142,043.74
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 1,183,697.82	\$ 17,755.47
CONSTRUCTION STAKING	%	2.5%	\$ 1,183,697.82	\$ 29,592.45
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 1,183,697.82	\$ 153,880.72
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 396,538.77
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 1,183,697.82	\$ 59,184.89
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 59,184.89
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 1,183,697.82	\$23,673.96
TOTAL FOR ITEM 10 UTILITIES				\$23,673.96
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 1,183,697.82	\$ 35,510.93
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 35,510.93

GRAND TOTAL \$ 1,699,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20

CONCEPTUAL COST ESTIMATE SUMMARY

<p>North Vineyard Station Appendix A-1.4.R37a Traffic Signals and Intersection Index Preliminary Cost Estimate Widen two-lane rural intersection Gerber and Excelsior</p>	<p>Date: 10/18/2017 Job # 27134.000 By: N.T./HF</p>
<p>COA #14</p>	
<p>Project Description: Construct 4 way modified 4x2 signalized intersection - construction quantities and cost provided by Lennar.</p>	

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	0.0	\$ -
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	0	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

CONCEPTUAL COST ESTIMATE SUMMARY

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 175.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 972,851.00
CONTINGENCY	%	15.0%	972,851	\$ 145,927.65
TOTAL CONSTRUCTION COST				\$ 1,118,778.65
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	1,118,779	\$ 33,563.36
ENVIROMENTAL DOCUMENT	%	1.5%	1,118,779	\$ 16,781.68
DESIGN ENGINEERING	%	12.0%	1,118,779	\$ 134,253.44
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	1,118,779	\$ 16,781.68
CONSTRUCTION STAKING	%	2.5%	1,118,779	\$ 27,969.47
CONSTRUCTION MANAGEMENT	%	13.0%	1,118,779	\$ 145,441.22
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 374,790.85
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	1,118,779	\$ 55,938.93
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 55,938.93
10 UTILITIES				
UTILITIES RELOCATION	%	2%	1,118,779	\$ 22,375.57
TOTAL FOR ITEM 10 UTILITIES				\$ 22,375.57
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	1,118,779	\$ 33,563.36
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 33,563.36

GRAND TOTAL \$ 1,605,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20

CONCEPTUAL COST ESTIMATE SUMMARY

PRELIMINARY COST ESTIMATE

Excelsior Road

Sacramento County, CA

Based on Based on 3rd Submittal of Improvements Plans
dated March, 2017

CONSTRUCTION COSTS

<u>ITEM No.</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>	<u>UNIT PRICE</u>	<u>AMOUNT</u>
A. EARTHWORK					
1	1	LS	Erosion Control	\$10,000.00	\$10,000
2	1	LS	Clear & Grub	\$10,000.00	\$10,000
3	160,600	SF	Finish Grading	\$0.25	\$40,150
TOTAL EARTHWORK					\$60,150
B. STORM DRAIN SYSTEM					
1	62	LF	12" Storm Drain, RCP	\$55.00	\$3,410
2	213	LF	12" Storm Drain, CMP	\$50.00	\$10,650
3	19	TON	12"Cobble Rock Slope Protection	\$35.00	\$665
4	510	SF	Geotextile Fabric	\$0.19	\$97
TOTAL STORM DRAIN SYSTEM					\$14,822
C. CONCRETE WORK					
1	99	LF	Type 1A Curb & Gutter	\$17.00	\$1,683
2	998	SF	Sidewalk ramps(2-2 ea plaza style)	\$5.00	\$4,990
3	567	LF	Type 4 Median curb	\$15.00	\$8,505
4	48	SF	Pedestrian Landing 3.6"PCC/6"AB	\$10.00	\$480
TOTAL CONCRETE WORK					\$15,658
D. STREETWORK					
1	84,252	SF	5.5" A.C. Paving / 18" A.B.	\$8.00	\$674,016
2	583	SF	4" AC Paving / 4" AB (pedestrian landing)	\$4.00	\$2,332
3	149	LF	AC Dike	\$15.00	\$2,235
4	230	LF	Sidewalk Barricade	\$20.00	\$4,600
5	25,632	SF	6" to 1" Slurry Seal Overlay	\$5.00	\$128,160
6	16,536	SF	6" Slurry Seal Overlay	\$3.00	\$49,608
7	13,463	SF	2"Slurry Seal Overlay	\$0.80	\$10,770
8	1	EA	Centerline Monuments	\$500.00	\$500
9	1	LS	Striping	\$10,000.00	\$10,000
TOTAL STREETWORK					\$882,221
E. SIGNAL					
1	1	LS	Traffic Signal	\$300,000.00	\$300,000
TOTAL STREETWORK					\$300,000

CONCEPTUAL COST ESTIMATE SUMMARY

CONSTRUCTION COST ESTIMATE SUMMARY

A. EARTHWORK	\$60,150
B. STORM DRAIN SYSTEM	\$14,822
C. CONCRETE	\$15,658
D. STREETWORK	\$882,221
E. SIGNAL	\$300,000
Subtotal Construction Costs (A-F)	\$972,851
15% Contingency	\$145,900
TOTAL CONSTRUCTION COST	\$1,118,751

CONCEPTUAL COST ESTIMATE SUMMARY

<p>North Vineyard Station Appendix A-1.4.R37b Traffic Signals and Intersection Index Preliminary Cost Estimate Widen Mod. 4x2 intersection Gerber and Excelsior</p>	<p>Date: 10/18/2017 Job # 27134.000 By: N.T./HF</p>
<p>COA #56</p>	
<p>Project Description: Widen modified 4x2 intersection to county standard 4x4 intersection. Tapers on the EB, WB and NB receiving lane.</p>	

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	6,521	\$ 117,370.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 117,370.00
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	100	\$ 3,000.00
DRAINAGE	LF	\$ 15.00	2,250	
TOTAL FOR ITEM 2 DRAINAGE				\$ 3,000.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" AC)	TON	\$ 100.00	3,301.0	\$ 330,103.13
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	9,573.0	\$ 195,576.20
SIDEWALK	SF	\$ 6.00	400	\$ 2,400.00
CURB & GUTTER	LF	\$ 26.00	100	\$ 2,600.00
MEDIAN CURB	LF	\$ 17.00	450	\$ 7,650.00
TOTAL OR ITEM 3 PAVEMENT				\$ 538,329.32
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	1	\$ 150,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 150,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	808,699	\$ 242,609.80
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 242,609.80

CONCEPTUAL COST ESTIMATE SUMMARY

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 175.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,051,309.12
CONTINGENCY	%	15.0%	1,051,309	\$ 157,696.37
TOTAL CONSTRUCTION COST				\$ 1,209,005.49
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	1,209,005	\$ 36,270.16
ENVIROMENTAL DOCUMENT	%	1.5%	1,209,005	\$ 18,135.08
DESIGN ENGINEERING	%	12.0%	1,209,005	\$ 145,080.66
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	1,209,005	\$ 18,135.08
CONSTRUCTION STAKING	%	2.5%	1,209,005	\$ 30,225.14
CONSTRUCTION MANAGEMENT	%	13.0%	1,209,005	\$ 157,170.71
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 405,016.84
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	1,209,005	\$ 60,450.27
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 60,450.27
10 UTILITIES				
UTILITIES RELOCATION	%	2%	1,209,005	\$ 24,180.11
TOTAL FOR ITEM 10 UTILITIES				\$ 24,180.11
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	1,209,005	\$ 36,270.16
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 36,270.16

GRAND TOTAL \$ 1,735,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20

CONCEPTUAL COST ESTIMATE SUMMARY

<p>North Vineyard Station Appendix A-1.4.R61 Traffic Signals and Intersection Index Preliminary Cost Estimate Widen two-lane rural intersection Gerber and Bardu</p>	<p>Date: 10/18/2017 Job # 27123.000 By: N.T./HF</p>
<p>COA #123</p>	
<p>Project Description: 2x4 Intersection Widening & Signalization; north west CR's exist. (Bardu leg = Collector)</p>	

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	1,091	\$ 19,644.44
TOTAL FOR ITEM 1 EARTHWORK				\$ 19,644.44
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	150	\$ 4,500.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 4,500.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" + 4" AC)	TON	\$ 100.00	704.4	\$ 70,437.50
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	1,455.4	\$ 29,734.59
SIDEWALK	SF	\$ 6.00	750	\$ 4,500.00
CURB & GUTTER	LF	\$ 26.00	150	\$ 3,900.00
MEDIAN CURB	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 108,572.09
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	1	\$ 300,000.00
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 300,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	432,717	\$ 129,814.96
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 129,814.96

CONCEPTUAL COST ESTIMATE SUMMARY

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 175.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 562,531.49
CONTINGENCY	%	15.0%	562,531	\$ 84,379.72
TOTAL CONSTRUCTION COST				\$ 646,911.22
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	646,911	\$ 19,407.34
ENVIROMENTAL DOCUMENT	%	1.5%	646,911	\$ 9,703.67
DESIGN ENGINEERING	%	12.0%	646,911	\$ 77,629.35
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	646,911	\$ 9,703.67
CONSTRUCTION STAKING	%	2.5%	646,911	\$ 16,172.78
CONSTRUCTION MANAGEMENT	%	13.0%	646,911	\$ 84,098.46
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 216,715.26
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	646,911	\$ 32,345.56
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 32,345.56
10 UTILITIES				
UTILITIES RELOCATION	%	2%	646,911	\$ 12,938.22
TOTAL FOR ITEM 10 UTILITIES				\$ 12,938.22
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	646,911	\$ 19,407.34
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 19,407.34

GRAND TOTAL \$ 928,000.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION BASED ON DOT STD.
- 3 NORTHWEST CR AND SIDEWALK TO REMAIN
- 4 NE, SE AND SW CURB RETURNS TO BE PLACED AT ULTIMATE LOCATION
- 5 NORTH AND SOUTH LEG IMPROVEMENTS WILL BE IMPROVED BY THE FRONTING DEVELOPER

North Vineyard Station
Appendix A-1.4.PED
Traffic Signals and Intersection Index
Preliminary Cost Estimate - Pedestrian Crossing

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description: Pedestrian Crossing within NVS

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$15.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2")	TON	\$100.00	0.0	\$ -
AGGREGATE BASE (16 1/2" AB)	TON	\$20.43	0.0	\$ -
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
PEDESTRIAN CROSSING	EA	\$ 80,000	1	\$ 80,000.00
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
JOINT TRENCH	LF	\$380.00	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 80,000.00
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 80,000.00	\$ 24,000.00
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 24,000.00

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$350.00		\$ -
CULVERTS	LF	\$375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 104,000.00
CONTINGENCY	%	15.0%	\$ 104,000.00	\$ 15,600.00
TOTAL CONSTRUCTION COST				\$ 119,600.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 119,600.00	\$ 3,588.00
ENVIROMENTAL DOCUMENT	%	1.5%	\$ -	\$ -
DESIGN ENGINEERING	%	12.0%	\$ 119,600.00	\$ 14,352.00
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 119,600.00	\$ 1,794.00
CONSTRUCTION STAKING	%	2.5%	\$ 119,600.00	\$ 2,990.00
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 119,600.00	\$ 15,548.00
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 38,272.00
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 119,600.00	\$ 5,980.00
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 5,980.00
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ -	\$0.00
TOTAL FOR ITEM 10 UTILITIES				\$0.00
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ -	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -

GRAND TOTAL \$ 164,000.00

NOTES:

- 1 ALL WORK TO OCCUR WITHIN EXISTING PAVEMENT AND RIGHT OF WAY

North Vineyard Station
Table A-1.5
Roadway Drainage Structure Cost Index
Summary of Costs

SHEET	PROJECT NAME	TOTAL COST
A-1.5.1	Elder Creek Crossing at Elk Grove-Florin Road	\$8,196,216
A-1.5.2	Elder Creek Crossing at Florin Road	\$ 1,861,000
A-1.5.3	Gerber Creek Crossing at Waterman Road	\$ 980,427
A-1.5.4	Gerber Creek Crossing #4 at Gerber Road (built as part of Vineyard Point project)	\$ -
A-1.5.5	Gerber Creek Crossing #3 at Gerber Road	\$ 1,876,287
A-1.5.6	Gerber Creek Crossing at Bradshaw Road (built as part of County's Bradshaw Rd. project)	\$ -
A-1.5.7	Gerber Creek Crossing #2 at Gerber Road	\$ 2,273,384
A-1.5.8a	Tributary to Elder Creek Crossing at Excelsior Road	\$ 178,227
A-1.5.8b	Tributary #1 to Gerber Creek Crossing at Florin Road	\$ 60,647
A-1.5.8c	Tributary to Elder Creek Crossing at Bradshaw Road	\$ 151,823
A-1.5.9	Morrison Creek Crossing at Bradshaw Road	\$ 5,822,000
A-1.5.10	Morrison Creek Crossing at Jackson Road	\$ 6,469,000
A-1.5.11	Gerber Creek Crossing #1 @ Gerber Road	\$ 7,000
A-1.5.12b	Roadside Ditch Crossing culvert @ Florin Road (2,842' west of Bradshaw)	\$ 83,000

North Vineyard Station
Appendix A-1.5.1
Roadway Drainage Structure Cost Index
Cost Detail - Elder Creek Crossing at Elk Grove-Florin Road

Date: 10/18/2017
Job # 27134.000
By: HF
revised: 7/5/2017

Project Description:

Replace existing EGF bridge over Elder Creek with thoroughfare standard bridge.

NOTE: PROJECT IS FULLY DESIGNED AND FUNDED THROUGH VINEYARD, FLORIN VINEYARD AND NORTHVINEYARD STATION FEE PROGRAMS - SCHEDULED FOR CONSTRUCTION IN 2019

Vineyard Fee Program Cost (2018)	\$6,200,000.00
Adjustment (~32.1970%)	\$8,196,216.00
Updated December 2018	\$8,196,216.00

North Vineyard Station
Appendix A-1.5.2
Roadway Drainage Structure Cost Index
Cost Detail - Elder Creek Crossing at Florin Road

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 Existing 2 lane culvert crossing replacement with new triple 10'x14' pre-cast culverts to accomodate 6 lanes
 Note: project is scheduled for construction by Lennar in 2017

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ -	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LS	\$ 1,127,788.35	1	\$ 1,127,788.35
TOTAL FOR ITEM 6 STRUCTURES				\$ 1,127,788.35
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,127,788.35
CONTINGENCY	%	15.0%	\$ 1,127,788.35	\$ 169,168.25
TOTAL CONSTRUCTION COST				\$ 1,296,956.60
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 1,296,956.60	\$ 38,908.70
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 1,296,956.60	\$ 19,454.35
DESIGN ENGINEERING	%	12.0%	\$ 1,296,956.60	\$ 155,634.79
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 1,296,956.60	\$ 19,454.35
CONSTRUCTION STAKING	%	2.5%	\$ 1,296,956.60	\$ 32,423.92
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 1,296,956.60	\$ 168,604.36
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 434,480.46
HE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WOR				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	1,296,956.60	\$ 64,847.83
EASEMENT	SF	\$ 3.00	0.00	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 64,847.83
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 1,296,956.60	\$25,939.13
TOTAL FOR ITEM 10 UTILITIES				\$25,939.13
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 1,296,956.60	\$ 38,908.70
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 38,908.70

GRAND TOTAL \$ 1,861,000.00

NOTES:

- 1 Span = 35.25' (per M&S improvement plans)
- 2 Width =119' (per M&S improvement plans)
- 3 Culvert cost estimate is placeholder estimate based on M&S improvement plans;

North Vineyard Station
Appendix A-1.5.3
Roadway Drainage Structure Cost Index
Cost Detail - Gerber Creek Crossing at Waterman Road

Date: 10/18/2017
Job # 27134.000
By: HF

Project Description: 86.46 lf x 16 ft x 10 ft CON/SPAN Arch Culvert w/two 5 ft tall headwalls and four wingwalls 48 ft (+/-) long (note: description per Contech bid 9-10-2016)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ -	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS (16' x 10' CONSPAN CULVERT)	LS	\$ 594,108.00	1	\$ 594,108.00
TOTAL FOR ITEM 6 STRUCTURES				\$ 594,108.00
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 594,108.00
CONTINGENCY	%	15.0%	\$ 594,108.00	\$ 89,116.20
TOTAL CONSTRUCTION COST				\$ 683,224.20
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 683,224.20	\$ 20,496.73
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 683,224.20	\$ 10,248.36
DESIGN ENGINEERING	%	12.0%	\$ 683,224.20	\$ 81,986.90
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 683,224.20	\$ 10,248.36
CONSTRUCTION STAKING	%	2.5%	\$ 683,224.20	\$ 17,080.61
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 683,224.20	\$ 88,819.15
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 228,880.11
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 683,224.20	\$ 34,161.21
EASEMENT	SF	\$ 3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 34,161.21
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 683,224.20	\$13,664.48
TOTAL FOR ITEM 10 UTILITIES				\$13,664.48
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 683,224.20	\$ 20,496.73
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 20,496.73

GRAND TOTAL \$ 980,427.00

NOTES:

- 1 NEW BOX CULVERT CONSTRUCTION - COST PER CONSTRUCTION BID
- 2 COST INCL. CONSTRUCTION OF HEADWALLS AND WINGWALLS
- 3 CHANNEL EXCAVATION INCLUDED IN GERBER CREEK REACH 2A CHAN. IMPS.
- 4 NEW ROAD & CULVERT CONSTRUCTION; THUS NO UTILITY RELOCATION

PROJECT NO. : R 4.12
PROJECT NAME: GERBER CREEK CROSSING #4 @ GERBER RD.
(ADJACENT TO CCTCRR)

PROJECT DESCRIPTION: Exist. new bridge (86' x 100')

PROJECT COSTS:
Exist. New Bridge

NOTES:

North Vineyard Station
Appendix A-1.5.5
Roadway Drainage Structure Cost Index
Cost Detail - Gerber Creek Crossing #3 at Gerber Road

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description: Replace exist. culvert with bridge per VE Solutions Inc. estimate.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL FOR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
5 STRUCTURES				
BRIDGES	LS	\$ 874,593.50	1	\$ 874,593.50
TOTAL FOR ITEM 6 STRUCTURES				\$ 874,593.50
6 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 874,593.50	\$ 262,378.05
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 262,378.05
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,136,971.55
CONTINGENCY	%	15.0%	\$ 1,136,971.55	\$ 170,545.73
TOTAL CONSTRUCTION COST				\$ 1,307,517.28
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 1,307,517.28	\$ 39,225.52
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 1,307,517.28	\$ 19,612.76
DESIGN ENGINEERING	%	12.0%	\$ 1,307,517.28	\$ 156,902.07
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 1,307,517.28	\$ 19,612.76
CONSTRUCTION STAKING	%	2.5%	\$ 1,307,517.28	\$ 32,687.93
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 1,307,517.28	\$ 169,977.25
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 438,018.29
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 1,307,517.28	\$ 65,375.86
EASEMENT	SF	\$ 3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 65,375.86
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 1,307,517.28	\$26,150.35
TOTAL FOR ITEM 10 UTILITIES				\$26,150.35
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 1,307,517.28	\$ 39,225.52
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 39,225.52

GRAND TOTAL \$ 1,876,287.00

NOTES:

- 1 Gerber Road bridge cost estimate provided by VE Solutions Inc, date 06/22/17.
- 2 Total construction cost estimate provided by VE solutions includes mobilization. Minor items added to the construction cost at the request of the County DOT.
- 3 All roadway excavation assumed by others
- 4 Channel work and Rock Slope Protection included in Gerber Creek Reach 2A & 2B channel improvements.

**Opinion of Probable Construction Costs
Gerber Road Bridge Replacement Project**

Item	Description	Qty	Unit	Unit Price	Amount
	Bridge Removal	1	LS	35000	\$ 35,000.00
	Structure Excavation, Bridge	420	LF	\$85	\$ 35,700.00
	Structure Backfill, Bridge	85	CY	\$125	\$ 10,625.00
	24" Cast-in-Drilled-Hole Concrete Piling	690	LF	\$150	\$ 103,500.00
	Structural Concrete, Bridge Footing	65	CY	\$550	\$ 35,750.00
	Structural Concrete, Bridge	387	CY	\$850	\$ 328,950.00
	Bar Reinforcing Steel, Bridge	124900	LBS	\$1.40	\$ 174,860.00
	Concrete Barrier (Type 732 SW)	LF	140	250	\$ 35,000.00
	Midwest Guardrail System	LF	150	50	\$ 7,500.00
	Transition Railing (Type WB-31)	EA	4	3800	\$ 15,200.00
	Alternate In-Line Terminal System	EA	2	3500	\$ 7,000.00
	Alternate Flared Terminal System	EA	2	3000	\$ 6,000.00
					\$ -
					\$ -
	Subtotal - Construction Estimate				\$ 795,085.00
			Mobilization @	0.1	\$ 79,508.50
			Subtotal		\$ 874,593.50
			Contingency @	0.25	\$ 218,648.38
	Total Construction w/ mob & contingency				\$ 1,093,241.88

North Vineyard Station
Appendix A-1.5.7
Roadway Drainage Structure Cost Index
Cost Detail - Gerber Creek Crossing #2 at Gerber Road
(just upstream of Bradshaw Rd.)

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description: Gerber Creek Bridge replacement (96' wide, 41' span)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ -	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	3,936	\$ 1,377,600.00
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ 1,377,600.00
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 1,377,600.00
CONTINGENCY	%	15.0%	\$ 1,377,600.00	\$ 206,640.00
TOTAL CONSTRUCTION COST				\$ 1,584,240.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 1,584,240.00	\$ 47,527.20
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 1,584,240.00	\$ 23,763.60
DESIGN ENGINEERING	%	12.0%	\$ 1,584,240.00	\$ 190,108.80
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 1,584,240.00	\$ 23,763.60
CONSTRUCTION STAKING	%	2.5%	\$ 1,584,240.00	\$ 39,606.00
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 1,584,240.00	\$ 205,951.20
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 530,720.40
HE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WOR				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 1,584,240.00	\$ 79,212.00
EASEMENT	SF	\$ 3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 79,212.00
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 1,584,240.00	\$31,684.80
TOTAL FOR ITEM 10 UTILITIES				\$31,684.80
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 1,584,240.00	\$ 47,527.20
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 47,527.20

GRAND TOTAL \$ 2,273,384.00

NOTES:

- 1 WIDTH = = 96' (BASED ON PRELIM. WILDHAWK IMP. PLANS)
- 2 SPAN = 41'
- 3 SQUARE FEET TO CONSTRUCT = 3,936 S.F.
- 4 COST INCL. DEMOLITION, EROSION CONTROL, ETC.
- 5 CHANNEL EXCAVATION INCLUDED IN GERBER CREEK REACH 2C & WILDHAWK CHAN. IMPS.

North Vineyard Station
Appendix A-1.5.8a
Roadway Drainage Structure Cost Index
Offsite Roadway Crossings

Date: 10/18/2017
 Job # 27134.000
 By: HF

R11.15 TRIBUTARY TO ELDER CREEK CROSSING AT EXCELSIOR (between Florin and Elder Creek Roads)

Project description: lengthen single 36" dia. and dual 42" CMP culverts by 9' ea. side

ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
1	Earthwork				
	ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
	TOTAL FOR ITEM 1 EARTHWORK				\$ -
2	DRAINAGE				
	DRAINAGE	LF	\$ 30.00	0	\$ -
	TOTAL FOR ITEM 2 DRAINAGE				\$ -
3	PAVEMENT				
	ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
	AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
	SIDEWALK	SF	\$ 6.00	0	\$ -
	CURB & GUTTER	LF	\$ 26.00	0	\$ -
	MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
	TOTAL OR ITEM 3 PAVEMENT				\$ -
4	MISCELLANEOUS				
	STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
	LANDSCAPING	SF	\$ 15.00	0	\$ -
	TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5	MINOR ITEMS				
	MINOR ITEMS	%	30.0%	\$ -	\$ -
	TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
6	STRUCTURES				
	BRIDGES	SF	\$ 350.00	0	\$ -
	CULVERTS	LF	\$ 2,000.00	54	\$ 108,000.00
	TOTAL FOR ITEM 6 STRUCTURES				\$ 108,000.00
7	CONTINGENCY				
	SUBTOTAL CONSTRUCTION COST				\$ 108,000.00
	CONTINGENCY	%	15.0%	\$ 108,000.00	\$ 16,200.00
	TOTAL CONSTRUCTION COST				\$ 124,200.00
8	ENGINEERING & MANAGEMENT				
	ENGINEERING STUDIES	%	3.0%	\$ 124,200.00	\$ 3,726.00
	ENVIROMENTAL DOCUMENT	%	1.5%	\$ 124,200.00	\$ 1,863.00
	DESIGN ENGINEERING	%	12.0%	\$ 124,200.00	\$ 14,904.00
	DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 124,200.00	\$ 1,863.00
	CONSTRUCTION STAKING	%	2.5%	\$ 124,200.00	\$ 3,105.00
	CONSTRUCTION MANAGEMENT	%	13.0%	\$ 124,200.00	\$ 16,146.00
	TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 41,607.00
	THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK				
9	RIGHT OF WAY				
	RIGHT OF WAY	%	5.0%	\$ 124,200.00	\$ 6,210.00
	EASEMENT	SF	\$ 3.00	\$ -	\$ -
	TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 6,210.00
10	UTILITIES				
	UTILITIES RELOCATION	%	2.0%	\$ 124,200.00	\$2,484.00
	TOTAL FOR ITEM 10 UTILITIES				\$2,484.00
11	ENVIROMENTAL MITIGATION				
	ENVIROMENTAL MITIGATION	%	3.0%	\$ 124,200.00	\$ 3,726.00
	TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 3,726.00

GRAND TOTAL \$ 178,227.00

NOTES:

- 1 LENGTHEN EXIST. CULVERTS; INCL. HEAD / WINGWALLS
- 2 CONSTRUCTION COST INCLUDES DEMOLITION OF EXIST. HEAD AND/OR WINGWALL STRUCTURES

North Vineyard Station
Appendix A-1.5.8b
Roadway Drainage Structure Cost Index
Offsite Roadway Crossings

Date: 10/18/2017
 Job # 27134.000
 By: HF

R 3.13 TRIBUTARY #1 TO GERBER CREEK CROSSING @ FLORIN ROAD
 (located at s/e corner of water treatment plant site)

Project Description:
 Extend exist. 36" (+/-) CMP culverts 9 L.F. each side at time roadway is widened to include shoulders

ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
1	Earthwork				
	ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
	TOTAL FOR ITEM 1 EARTHWORK				\$ -
2	DRAINAGE				
	DRAINAGE	LF	\$ 30.00	0	\$ -
	TOTAL FOR ITEM 2 DRAINAGE				\$ -
3	PAVEMENT				
	ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
	AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
	SIDEWALK	SF	\$ 6.00	0	\$ -
	CURB & GUTTER	LF	\$ 26.00	0	\$ -
	MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
	TOTAL OR ITEM 3 PAVEMENT				\$ -
4	MISCELLANEOUS				
	STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
	LANDSCAPING	SF	\$ 15.00	0	\$ -
	TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5	MINOR ITEMS				
	MINOR ITEMS	%	30.0%	\$ -	\$ -
	TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
6	STRUCTURES				
	BRIDGES	SF	\$ 350.00	0	\$ -
	CULVERTS	LF	\$ 375.00	18	\$ 6,750.00
	CULVERT HEADWALLS AND WINGWALLS	EA	\$ 15,000.00	2	\$ 30,000.00
	TOTAL FOR ITEM 6 STRUCTURES				\$ 36,750.00
7	CONTINGENCY				
	SUBTOTAL CONSTRUCTION COST				\$ 36,750.00
	CONTINGENCY	%	15.0%	\$ 36,750.00	\$ 5,512.50
	TOTAL CONSTRUCTION COST				\$ 42,262.50
8	ENGINEERING & MANAGEMENT				
	ENGINEERING STUDIES	%	3.0%	\$ 42,262.50	\$ 1,267.88
	ENVIROMENTAL DOCUMENT	%	1.5%	\$ 42,262.50	\$ 633.94
	DESIGN ENGINEERING	%	12.0%	\$ 42,262.50	\$ 5,071.50
	DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 42,262.50	\$ 633.94
	CONSTRUCTION STAKING	%	2.5%	\$ 42,262.50	\$ 1,056.56
	CONSTRUCTION MANAGEMENT	%	13.0%	\$ 42,262.50	\$ 5,494.13
	TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 14,157.94
	THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK				
9	RIGHT OF WAY				
	RIGHT OF WAY	%	5.0%	\$ 42,262.50	\$ 2,113.13
	EASEMENT	SF	\$ 3.00	\$ -	\$ -
	TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 2,113.13
10	UTILITIES				
	UTILITIES RELOCATION	%	2.0%	\$ 42,262.50	\$845.25
	TOTAL FOR ITEM 10 UTILITIES				\$845.25
11	ENVIROMENTAL MITIGATION				
	ENVIROMENTAL MITIGATION	%	3.0%	\$ 42,262.50	\$ 1,267.88
	TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 1,267.88

GRAND TOTAL \$ 60,647.00

NOTES:

- 1 LENGTHEN EXIST. CULVERTS

North Vineyard Station
Appendix A-1.5.8c
Roadway Drainage Structure Cost Index
Offsite Roadway Crossings
R8.16 TRIBUTARY TO ELDER CREEK CROSSING @ BRADSHAW ROAD

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 108' FT ROW; Extend exist. 97 LF dbl. RCP culverts to 108 FT.

	ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1	Earthwork				
	ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
	TOTAL FOR ITEM 1 EARTHWORK				\$ -
2	DRAINAGE				
	DRAINAGE	LF	\$ 30.00	0	\$ -
	TOTAL FOR ITEM 2 DRAINAGE				\$ -
3	PAVEMENT				
	ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
	AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
	SIDEWALK	SF	\$ 6.00	0	\$ -
	CURB & GUTTER	LF	\$ 26.00	0	\$ -
	MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
	TOTAL OR ITEM 3 PAVEMENT				\$ -
4	MISCELLANEOUS				
	STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
	LANDSCAPING	SF	\$ 15.00	0	\$ -
	TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5	MINOR ITEMS				
	MINOR ITEMS	%	30.0%	\$ -	\$ -
	TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION		UNIT	PRICE	QUANTITY	COST
6	STRUCTURES				
	BRIDGES	SF	\$ 350.00	0	\$ -
	CULVERTS	LF	\$ 2,000.00	11	\$ 22,000.00
	CULVERT HEADWALLS AND WINGWALLS	EA	\$ 35,000.00	2	\$ 70,000.00
	TOTAL FOR ITEM 6 STRUCTURES				\$ 92,000.00
7	CONTINGENCY				
	SUBTOTAL CONSTRUCTION COST				\$ 92,000.00
	CONTINGENCY	%	15.0%	\$ 92,000.00	\$ 13,800.00
	TOTAL CONSTRUCTION COST				\$ 105,800.00
8	ENGINEERING & MANAGEMENT				
	ENGINEERING STUDIES	%	3.0%	\$ 105,800.00	\$ 3,174.00
	ENVIROMENTAL DOCUMENT	%	1.5%	\$ 105,800.00	\$ 1,587.00
	DESIGN ENGINEERING	%	12.0%	\$ 105,800.00	\$ 12,696.00
	DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 105,800.00	\$ 1,587.00
	CONSTRUCTION STAKING	%	2.5%	\$ 105,800.00	\$ 2,645.00
	CONSTRUCTION MANAGEMENT	%	13.0%	\$ 105,800.00	\$ 13,754.00
	TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 35,443.00
	THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK				
9	RIGHT OF WAY				
	RIGHT OF WAY	%	5.0%	\$ 105,800.00	\$ 5,290.00
	EASEMENT	SF	\$ 3.00	\$ -	\$ -
	TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 5,290.00
10	UTILITIES				
	UTILITIES RELOCATION	%	2.0%	\$ 105,800.00	\$2,116.00
	TOTAL FOR ITEM 10 UTILITIES				\$2,116.00
11	ENVIROMENTAL MITIGATION				
	ENVIROMENTAL MITIGATION	%	3.0%	\$ 105,800.00	\$ 3,174.00
	TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 3,174.00

GRAND TOTAL \$ 151,823.00

NOTES:

- 1 LENGTHEN EXIST. CULVERTS
- 2 CULVERTS UNIT COST BASED ON PRELIMINARY ENGINEERS ESTIMATE

North Vineyard Station
Appendix A-1.5.9
Roadway Drainage Structure Cost Index
Cost Detail - Morrison Creek Crossing at Bradshaw Road

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 Replace exist. 69' wide bridge with 110' wide bridge

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ -	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	10,080	\$ 3,528,000.00
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ 3,528,000.00
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 3,528,000.00
CONTINGENCY	%	15.0%	\$ 3,528,000.00	\$ 529,200.00
TOTAL CONSTRUCTION COST				\$ 4,057,200.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 4,057,200.00	\$ 121,716.00
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 4,057,200.00	\$ 60,858.00
DESIGN ENGINEERING	%	12.0%	\$ 4,057,200.00	\$ 486,864.00
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 4,057,200.00	\$ 60,858.00
CONSTRUCTION STAKING	%	2.5%	\$ 4,057,200.00	\$ 101,430.00
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 4,057,200.00	\$ 527,436.00
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 1,359,162.00
HE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WOR				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 4,057,200.00	\$ 202,860.00
EASEMENT	SF	\$ 3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 202,860.00
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 4,057,200.00	\$81,144.00
TOTAL FOR ITEM 10 UTILITIES				\$81,144.00
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 4,057,200.00	\$ 121,716.00
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 121,716.00

GRAND TOTAL \$ 5,822,000.00

NOTES:

- 1 WIDTH = = 108' + 4' = 112'
- 2 SPAN = 90'
- 3 SQUARE FEET TO CONSTRUCT = 10,080 S.F.
- 4 COST INCL. DEMOLITION, EROSION CONTROL, ETC.

North Vineyard Station
Appendix A-1.5.10
Roadway Drainage Structure Cost Index
Cost Detail - Morrison Creek Crossing at Jackson Road
COA #118 / R1.11

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 New Bridge Construction (108' R/W + 2' curb & rail ea. side)

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ -	\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	11,200	\$ 3,920,000.00
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ 3,920,000.00
7 CONTINGENCY				
			SUBTOTAL CONSTRUCTION COST	\$ 3,920,000.00
CONTINGENCY	%	15.0%	\$ 3,920,000.00	\$ 588,000.00
			TOTAL CONSTRUCTION COST	\$ 4,508,000.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 4,508,000.00	\$ 135,240.00
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 4,508,000.00	\$ 67,620.00
DESIGN ENGINEERING	%	12.0%	\$ 4,508,000.00	\$ 540,960.00
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 4,508,000.00	\$ 67,620.00
CONSTRUCTION STAKING	%	2.5%	\$ 4,508,000.00	\$ 112,700.00
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 4,508,000.00	\$ 586,040.00
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 1,510,180.00
HE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WOR				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 4,508,000.00	\$ 225,400.00
EASEMENT	SF	\$ 3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 225,400.00
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 4,508,000.00	\$90,160.00
TOTAL FOR ITEM 10 UTILITIES				\$90,160.00
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 4,508,000.00	\$ 135,240.00
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 135,240.00

GRAND TOTAL \$ 6,469,000.00

NOTES:

- 1 WIDTH = 108' + 4' = 112'
- 2 SPAN = 100'
- 3 COST INCLUDES DEMOLITION, EROSION CONTROL, ETC.
- 4 EASEMENT COST ASSUMED TO BE COVERED BY R.O.W. COST, GIVEN CONSERVATIVE NATURE OF CREEK COST.

North Vineyard Station
Appendix A-1.5.11
Roadway Drainage Structure Cost Index
Cost Detail - Gerber Creek Crossing #1 At Gerber Road
COA #61 / R 4.15

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 Culvert improvement (widen for upgraded 2 lane road)

	ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1	Earthwork				
	ROADWAY EXCAVATION	CY	\$ 18.00	0.0	\$ -
	TOTAL FOR ITEM 1 EARTHWORK				\$ -
2	DRAINAGE				
	DRAINAGE	LF	\$ 30.00	0	\$ -
	TOTAL FOR ITEM 2 DRAINAGE				\$ -
3	PAVEMENT				
	ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.0	\$ -
	AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	0.0	\$ -
	SIDEWALK	SF	\$ 6.00	0	\$ -
	CURB & GUTTER	LF	\$ 26.00	0	\$ -
	MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
	TOTAL OR ITEM 3 PAVEMENT				\$ -
4	MISCELLANEOUS				
	STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
	LANDSCAPING	SF	\$ 15.00	0	\$ -
	TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5	MINOR ITEMS				
	MINOR ITEMS	%	30.0%	\$ -	\$ -
	TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00	0	\$ -
CULVERTS	LF	\$ 375.00	12	\$ 4,500.00
TOTAL FOR ITEM 6 STRUCTURES				\$ 4,500.00
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 4,500.00
CONTINGENCY	%	15.0%	\$ 4,500.00	\$ 675.00
TOTAL CONSTRUCTION COST				\$ 5,175.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 5,175.00	\$ 155.25
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 5,175.00	\$ 77.63
DESIGN ENGINEERING	%	12.0%	\$ 5,175.00	\$ 621.00
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 5,175.00	\$ 77.63
CONSTRUCTION STAKING	%	2.5%	\$ 5,175.00	\$ 129.38
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 5,175.00	\$ 672.75
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 1,733.63
HE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WOR				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 5,175.00	\$ 258.75
EASEMENT	SF	\$ 3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 258.75
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 5,175.00	\$103.50
TOTAL FOR ITEM 10 UTILITIES				\$103.50
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 5,175.00	\$ 155.25
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 155.25

GRAND TOTAL \$ 7,000.00

NOTES:

- 1 CULVERT LENGTHEN BY 6' ON BOTH SIDES DUE TO ADDITION OF SHOULDER IMPROVEMENTS.
- 2 COST INCLUDES DEMOLITION, EROSION CONTROL, ETC.
- 3 EASEMENT COST ASSUMED TO BE COVERED BY R.O.W. COST, GIVEN CONSERVATIVE NATURE OF CREEK R.O.W. UNIT COST

North Vineyard Station
Appendix A-1.5.12
Roadway Drainage Structure Cost Index
Cost Detail - Roadside Ditch crossing culvert @ Florin Rd. (2,842 west of
Bradshaw Road)
COA #47b / R 3.4.2

Date: 10/18/2017
 Job # 27134.000
 By: HF/NT

Project Description:
 Existing 2 lane arch CMP culvert crossing (3.5'x2.4') to be lengthened to accomodate 6 lanes

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$18.00	0	\$ -
IMPORT FILL	CY	\$16.00	0	\$ -
TOTAL FOR ITEM 1 EARTHWORK				\$ -
2 DRAINAGE				
DRAINAGE	LF	\$30.00	0	\$ -
TOTAL FOR ITEM 2 DRAINAGE				\$ -
3 PAVEMENT				
ASPHALT CONCRETE	TON	\$100.00	0	\$ -
AGGREGATE BASE	TON	\$20.43	0	\$ -
SIDEWALK	SF	\$6.00	0	\$ -
CURB & GUTTER	LF	\$26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ -
4 MISCELLANEOUS				
TRAFFIC SIGNAL	INT	\$ 300,000	0	\$ -
TRAFFIC SIGNAL MODIFICATION	INT	\$ 150,000	0	\$ -
STREET LIGHTS / ELECTROLIERS	LF	\$63.64	0	\$ -
LANDSCAPING	SF	\$15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%		\$ -
TOTAL FOR ITEM 5 MINOR ITEMS				\$ -

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
CULVERTS	SF	\$300.00	68	\$ 20,400.00
CULVERT HEADWALLS AND WINGWALLS	EA	\$ 15,000.00	2	\$ 30,000.00
TOTAL FOR ITEM 6 STRUCTURES				\$ 50,400.00
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 50,400.00
CONTINGENCY	%	15.0%		\$ 7,560.00
TOTAL CONSTRUCTION COST				\$ 57,960.00
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 57,960.00	\$ 1,738.80
DESIGN ENGINEERING	%	12.0%	\$ 57,960.00	\$ 6,955.20
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 57,960.00	\$ 869.40
CONSTRUCTION STAKING	%	2.5%	\$ 57,960.00	\$ 1,449.00
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 57,960.00	\$ 7,534.80
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 18,547.20
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 57,960.00	\$ 2,898.00
EASEMENT	SF	\$3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 2,898.00
10 UTILITIES				
UTILITIES RELOCATION	%	2%	\$ 57,960.00	\$1,159.20
TOTAL FOR ITEM 10 UTILITIES				\$1,159.20
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 57,960.00	\$ 869.40
ENVIROMENTAL MITIGATION	%	3.0%	\$ 57,960.00	\$ 1,738.80
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 2,608.20

GRAND TOTAL \$ 83,000.00

NOTES:

Span = exist. = 40'; ultimate = 108'

Table A-1.6
Interior Roadway Frontage Index
Summary of Total Costs
North Vineyard Station

SHEET	PROJECT NAME	TOTAL COST
A-1.6.1	Phase A-1 Public Frontage	\$ 154,275
A-1.6.2	Phase A-2 Public Frontage	\$ 632,967
A-1.6.3	Phase B Public Frontage	\$ 1,070,685
A-1.6.4	Phase C Public Frontage	\$ 1,987,665
A-1.6.5	Phase D Public Frontage	\$ 646,255
A-1.6.6	Phase E Public Frontage	\$ 188,490
	Onsite Public Frontage Total	\$ 4,680,337

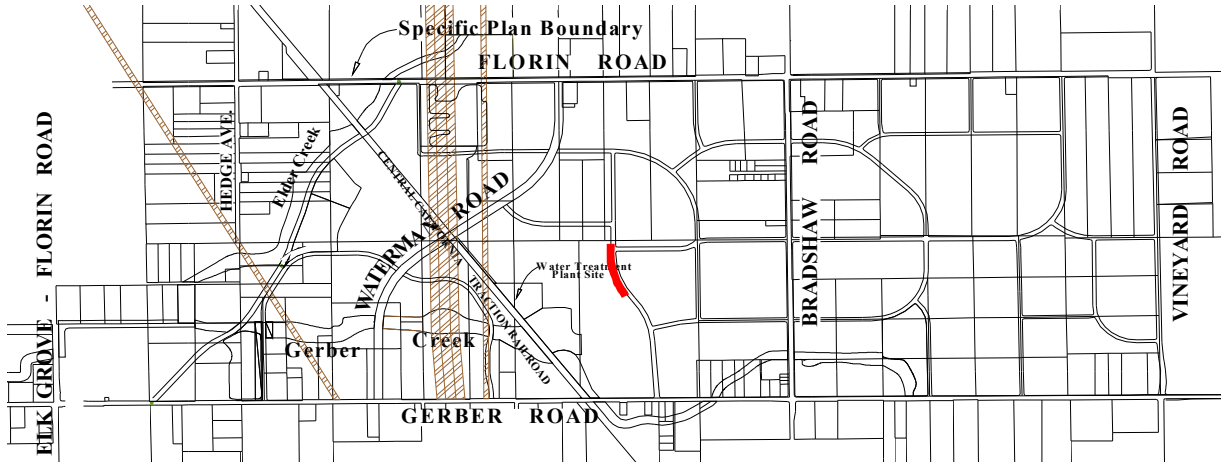
NOTES:

1. TOTAL COST REDUCED BY EXIST. VINEYARD POINTE SUBDIVISION
2. FRONTAGE FOR THE FLOATING 6.2 ACRE PARK WILL NEED TO BE INCLUDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED.
3. FRONTAGE IMPROVEMENTS INCLUDE JOINT TRENCH CONSTRUCTION.

**Appendix A-1.6.1
 Interior Roadway Frontage Index
 Preliminary Per Foot Cost Estimate
 Phase A-1 Public Frontage
 North Vineyard Station**

Date: 10/18/2017
 Job # 27134.000
 By: HF

**Project Name: Public Frontage for Specific Plan Roads
 Phase A-1**



Phase A-1 Public Frontage
N.T.S.

ITEM	REF. TABLE	QUANTITY	UNIT	UNIT PRICE	COST
1. 25' Half Section	A-1.6.7	0	L.F.	\$ 309.00	\$ -
2. 28' Half Section	A-1.6.8	0	L.F.	\$ 332.00	\$ -
3. 30' Half Section	A-1.6.9	605	L.F.	\$ 255.00	\$ 154,275
Grand Total Phase A-1 Public Frontage					\$ 154,275

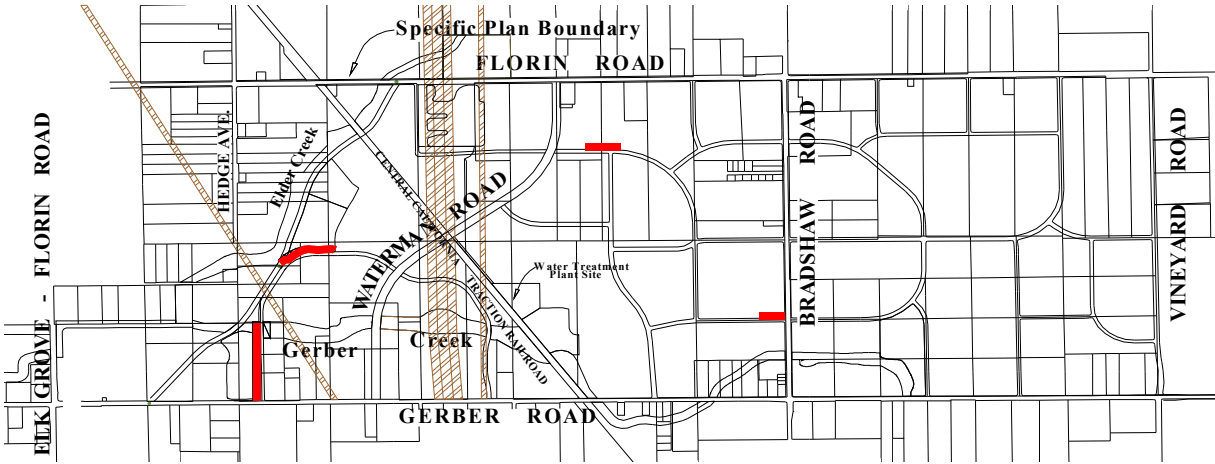
NOTES:

1. VINEYARD POINTE SUBDIVISION EXISTS; QUANTITIES HAVE BEEN REDUCED ACCORDINGLY.
2. FRONTAGE FOR THE FLOATING 6.2 ACRE PARK WILL NEED TO BE INCLUDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED.
3. CONSTRUCTED BUT NOT REIMBURSED AT THE TIME OF FEE PROGRAM UPDATE.

**Appendix A-1.6.2
Interior Roadway Frontage Index
Preliminary Per Foot Cost Estimate
Phase A-2 Public Frontage
North Vineyard Station**

Date: 10/18/2017
Job # 27134.000
By: HF

**Project Name: Public Frontage for Specific Plan Roads
Phase A-2**



**Phase A-2 Public Frontage
N.T.S.**

ITEM	REF. TABLE	QUANTITY	UNIT	UNIT PRICE	COST
1. 25' Half Section	A-1.6.7	568	L.F.	\$ 309.00	\$ 175,512
1a. 25' Half Section	A-1.6.7	87	L.F.	\$ 225.00	\$ 19,575
2. 28' Half Section	A-1.6.8	0	L.F.	\$ 332.00	-
3. 30' Half Section	A-1.6.9	1,230	L.F.	\$ 356.00	\$ 437,880
Grand Total Phase A-2 Public Frontage					\$ 632,967

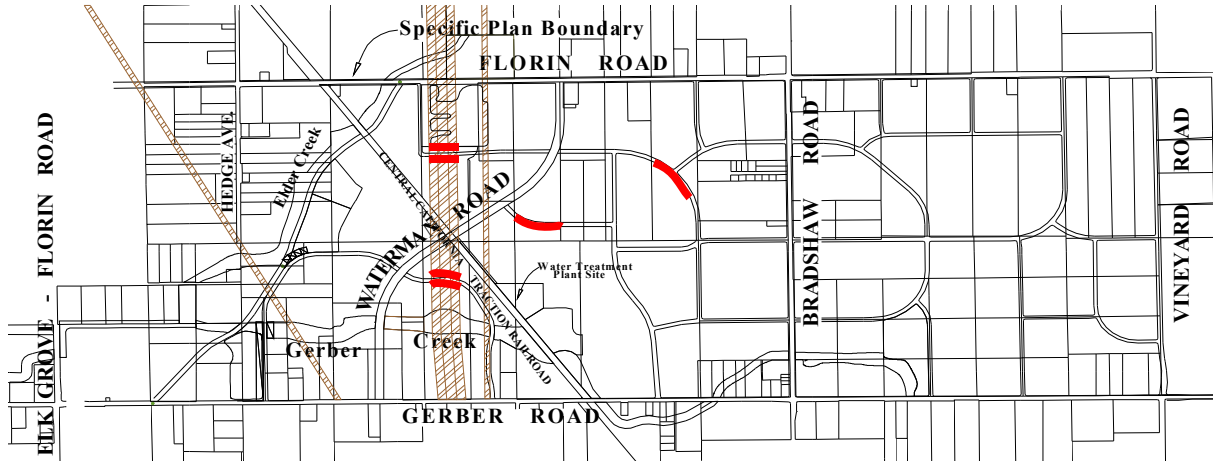
NOTES:

1. VINEYARD POINTE SUBDIVISION EXISTS; QUANTITIES HAVE BEEN REDUCED ACCORDINGLY.
- 1a. 87' NORTHSIDE FRONTAGE ON ALDER CREEK DRIVE ON SMUD PROPERTY. CONSTRUCTED BUT NOT REIMBURSED AT THE TIME OF FEE PROGRAM UPDATE.
2. FRONTAGE FOR THE FLOATING 6.2 ACRE PARK WILL NEED TO BE INCLUDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED.

**Appendix A-1.6.3
 Interior Roadway Frontage Index
 Preliminary Per Foot Cost Estimate
 Phase B Public Frontage
 North Vineyard Station**

Date: 10/18/2017
 Job # 27134.000
 By: HF

**Project Name: Public Frontage for Specific Plan Roads
 Phase B**



N.T.S.

<u>ITEM</u>	<u>REF. TABLE</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
1. 25' Half Section	A-1.6.7	1,685	L.F.	\$ 309.00	\$ 520,665
2. 28' Half Section	A-1.6.8	0	L.F.	\$ 332.00	-
3. 30' Half Section	A-1.6.9	1,545	L.F.	\$ 356.00	\$ 550,020
Grand Total Phase B Public Frontage					\$ 1,070,685

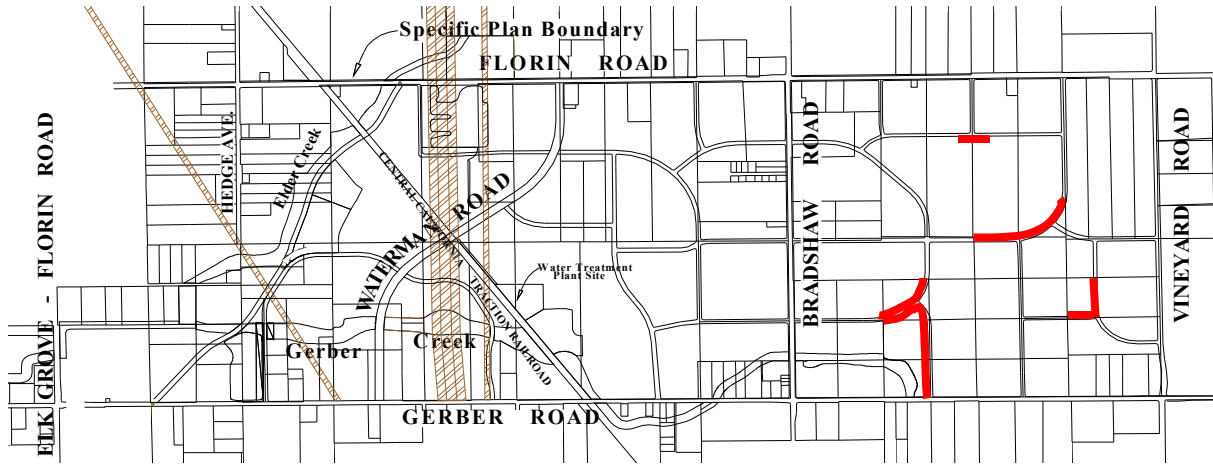
NOTES:

- FRONTAGE FOR THE FLOATING 6.2 ACRE PARK WILL NEED TO BE INCLUDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED.

**Appendix A-1.6.4
Interior Roadway Frontage Index
Preliminary Per Foot Cost Estimate
Phase C Public Frontage
North Vineyard Station**

Date: 10/18/2017
Job # 27134.000
By: HF

**Project Name: Public Frontage for Specific Plan Roads
Phase C**



**Phase C Public Frontage
N.T.S.**

ITEM	REF. TABLE	QUANTITY	UNIT	UNIT PRICE	COST
1. 25' Half Section	A-1.6.7	2,285	L.F.	\$ 309.00	\$ 706,065
2. 28' Half Section	A-1.6.8	0	L.F.	\$ 332.00	-
3. 30' Half Section	A-1.6.9	3,600	L.F.	\$ 356.00	\$ 1,281,600
Grand Total Phase C Public Frontage					\$ 1,987,665

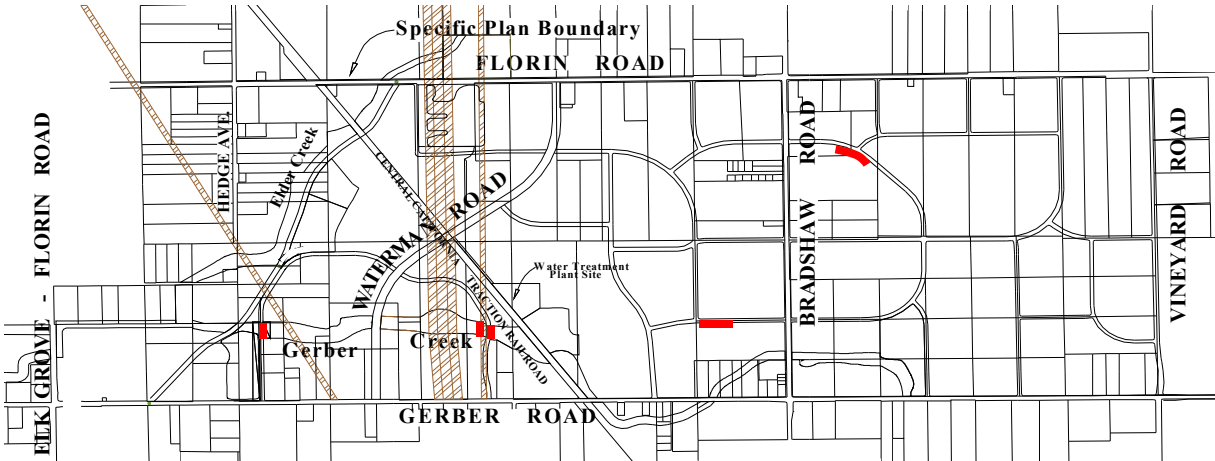
NOTES:

- FRONTAGE FOR THE FLOATING 6.2 ACRE PARK WILL NEED TO BE INCLUDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED.

**Appendix A-1.6.5
 Interior Roadway Frontage Index
 Preliminary Per Foot Cost Estimate
 Phase D Public Frontage
 North Vineyard Station**

Date: 10/18/2017
 Job # 27134.000
 By: HF

**Project Name: Public Frontage for Specific Plan Roads
 Phase D**



**Phase D Public Frontage
 N.T.S.**

<u>ITEM</u>	<u>REF. TABLE</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>COST</u>
1. 25' Half Section	A-1.6.7	755	L.F.	\$ 309.00	\$ 233,295
2. 28' Half Section	A-1.6.8	0	L.F.	\$ 332.00	-
3. 30' Half Section	A-1.6.9	1,160	L.F.	\$ 356.00	\$ 412,960
Grand Total Phase D Public Frontage					\$ 646,255

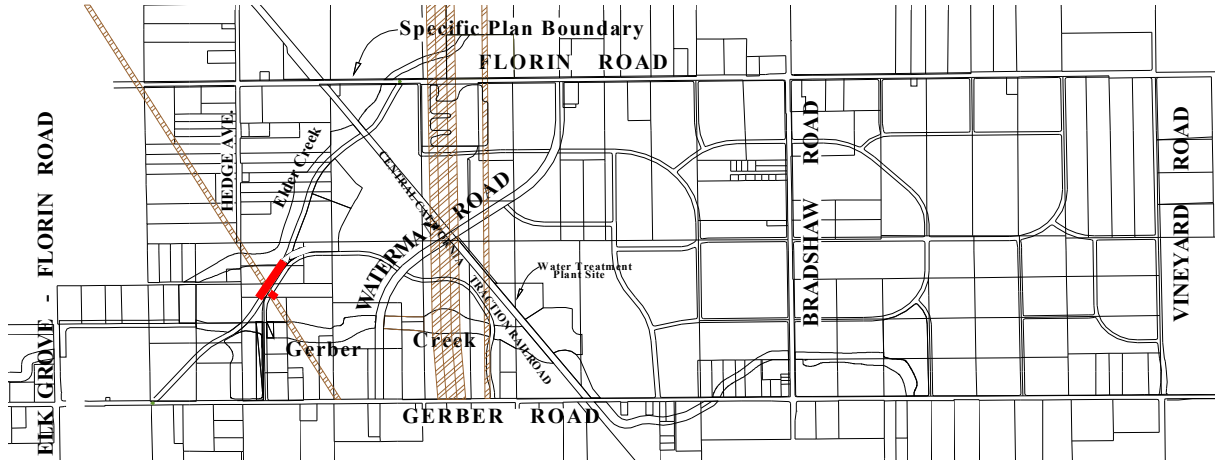
NOTES:

1. PARK FRONTAGE ON SOUTHSIDE OF ALDER CREEK DRIVE CONSTRUCTED BY VINEYARD POINT INCLUDING PAVEMENT, CURB AND GUTTER, BUT, NOT REIMBURSED.
2. FRONTAGE FOR THE FLOATING 6.2 ACRE PARK WILL NEED TO BE INCLUDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED.

**Appendix A-1.6.6
 Interior Roadway Frontage Index
 Preliminary Per Foot Cost Estimate
 Phase E Public Frontage
 North Vineyard Station**

Date: 10/18/2017
 Job # 27134.000
 By: HF

**Project Name: Public Frontage for Specific Plan Roads
 Phase E**



**Phase E Public Frontage
 N.T.S.**

ITEM	REF. TABLE	QUANTITY	UNIT	UNIT PRICE	COST
1. 25' Half Section	A-1.6.7	610	L.F.	\$ 309.00	\$ 188,490
2. 28' Half Section	A-1.6.8	0	L.F.	\$ 332.00	\$ -
3. 30' Half Section	A-1.6.9	0	L.F.	\$ 356.00	\$ -
Grand Total Phase E Public Frontage					\$ 188,490

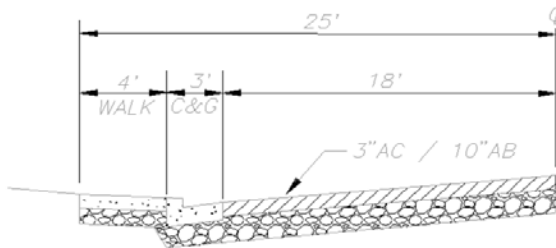
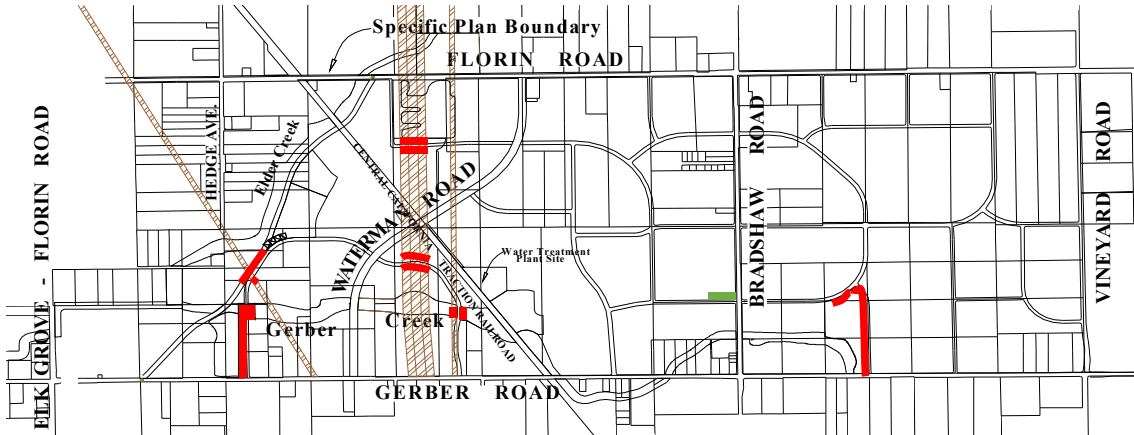
NOTES:

- FRONTAGE FOR THE FLOATING 6.2 ACRE PARK WILL NEED TO BE INCLUDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED.

Appendix A-1.6.7
Interior Roadway Frontage Index
Preliminary Per Foot Cost Estimate
Frontage - 25' Half Section
North Vineyard Station

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Name: Public Frontage for Specific Plan Roads
 25' Half Section Adjacent to Open Space, Drainage Facilities, Parkways & SMUD Substation



TYPICAL FRONTAGE SECTION ~ 25' HALF SECTION

N.T.S.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.84	\$ 15.17
TOTAL FOR ITEM 1 EARTHWORK				\$ 15.17
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0.5	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (3" AC)	TON	\$ 100.00	0.34	\$ 33.75
AGGREGATE BASE (10" AB)	TON	\$ 20.43	1.09	\$ 22.22
SIDEWALK	SF	\$ 6.00	4	\$ 24.00
CURB & GUTTER	LF	\$ 26.00	1	\$ 26.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 105.97

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 18.75	1	\$ 18.75
JOINT TRENCH	LF	\$ 380.00	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 18.75
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 154.88	\$ 46.47
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 46.47
6 STRUCTURES				
BRIDGES	SF	\$ 175.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
			SUBTOTAL CONSTRUCTION COST	\$ 201.35
CONTINGENCY	%	15.0%		\$ 30.20
			TOTAL CONSTRUCTION COST	\$ 231.55
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 231.55	\$ 6.95
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 231.55	\$ 3.47
DESIGN ENGINEERING	%	12.0%	\$ 231.55	\$ 27.79
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 231.55	\$ 3.47
CONSTRUCTION STAKING	%	2.5%	\$ 231.55	\$ 5.79
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 231.55	\$ 30.10
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 77.57
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5%	\$ -	\$ -
EASEMENT	SF	\$ 3.00	N/A	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ -
10 UTILITIES				
UTILITIES RELOCATION	%	0%	N/A	\$ -
TOTAL FOR ITEM 10 UTILITIES				\$ -
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	N/A	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -
GRAND TOTAL				\$ 309.00
FRONTAGE ~25' HALF SECTION ~ ESTIMATED COST	LF	5,903	\$ 309.00	\$ 1,824,027.00
FRONTAGE ~25' HALF SECTION ~ ESTIMATED COST	LF	87	\$ 225.00	\$ 19,575.00

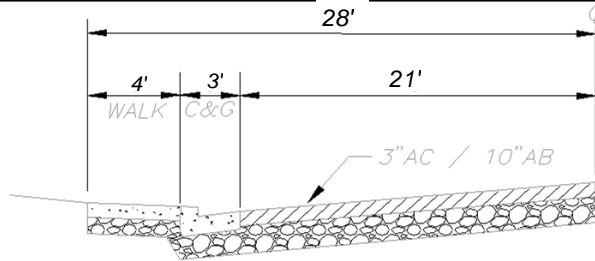
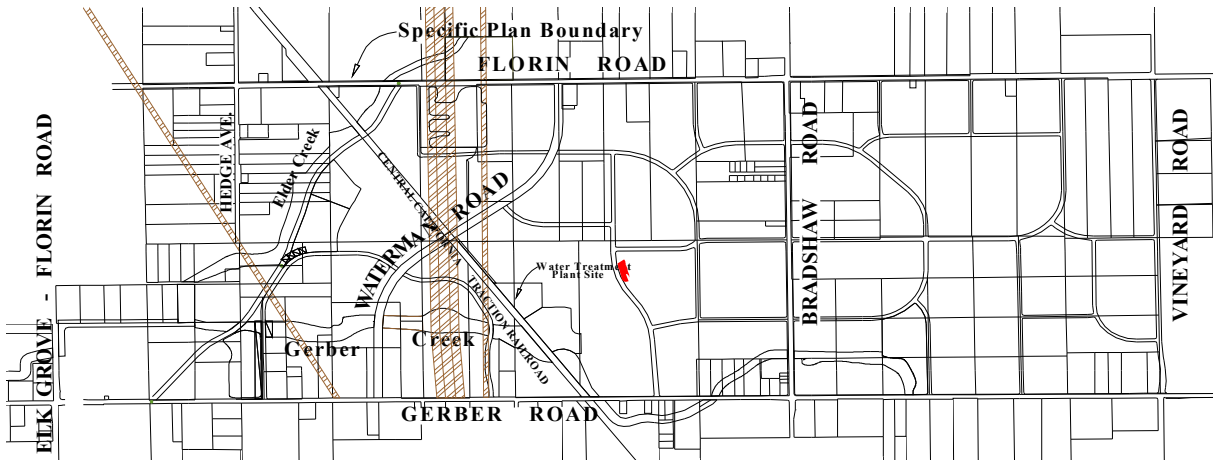
NOTES:

1. DRAINAGE UNIT COST COVERS 2 SIDES OF STREET
2. STREETLIGHT COST = \$7,500 EA AT 200' ALT SPACING
3. RIGHT OF WAY & EASEMENTS ASSUMED TO BE DEDICATED
4. UTILITY RELOCATION NOT APPLICABLE TO GREEN-FIELD DEVELOPMENT
5. ENVIRONMENTAL MITIGATION N/A - PART OF IN-TRACT DEVELOPMENT COSTS OF DEVELOPMENT
6. FRONTAGE FOR THE FLOATING 6.2-ACRE PARK WILL NEED TO BE ADDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED
7. EXIST. VINEYARD POINTE SUBDIVISION FRONTAGES NOT INCLUDED IN TOTAL LENGTH
8. GREEN SEGMENTS INDICATE THE PROJECT HAS BEEN BUILT.

Appendix A-1.6.8
Interior Roadway Frontage Index
Preliminary Per Foot Cost Estimate
Frontage - 28' Half Section
North Vineyard Station

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Name: Public Frontage for Specific Plan Roads
 28' Half Section Adjacent to Well Site



TYPICAL FRONTAGE SECTION ~ 28' HALF SECTION
N.T.S.

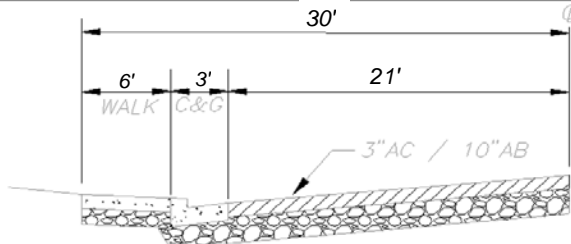
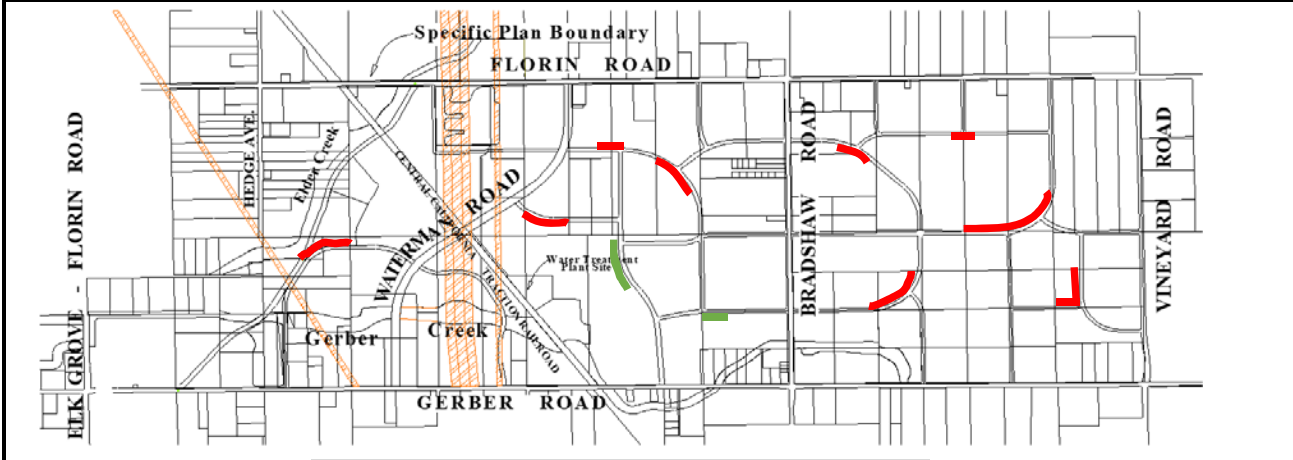
ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.96	\$ 17.33
TOTAL FOR ITEM 1 EARTHWORK				\$ 17.33
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0.5	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (3" AC)	TON	\$ 100.00	0.39	\$ 39.38
AGGREGATE BASE (10" AB)	TON	\$ 20.43	1.27	\$ 25.92
SIDEWALK	SF	\$ 6.00	4	\$ 24.00
CURB & GUTTER	LF	\$ 26.00	1	\$ 26.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 115.30

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 18.75	1	\$ 18.75
JOINT TRENCH	LF	\$ 380.00	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 18.75
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 166.38	\$ 49.91
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 49.91
6 STRUCTURES				
BRIDGES	SF	\$ 175.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
			SUBTOTAL CONSTRUCTION COST	\$ 216.29
CONTINGENCY	%	15.0%		\$ 32.44
			TOTAL CONSTRUCTION COST	\$ 248.74
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 248.74	\$ 7.46
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 248.74	\$ 3.73
DESIGN ENGINEERING	%	12.0%	\$ 248.74	\$ 29.85
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 248.74	\$ 3.73
CONSTRUCTION STAKING	%	2.5%	\$ 248.74	\$ 6.22
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 248.74	\$ 32.34
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 83.33
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5%	\$ -	\$ -
EASEMENT	SF	\$ 3.00	N/A	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ -
10 UTILITIES				
UTILITIES RELOCATION	%	0%	N/A	\$ -
TOTAL FOR ITEM 10 UTILITIES				\$ -
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	N/A	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -
GRAND TOTAL				\$ 332.00
FRONTAGE ~28' HALF SECTION ~ ESTIMATED COST		LF	0	\$ 332.00
				\$ -
NOTES:				
1. DRAINAGE UNIT COST COVERS 2 SIDES OF STREET				
2. STREETLIGHT COST = \$7,500 EA AT 200' ALT SPACING				
3. RIGHT OF WAY & EASEMENTS ASSUMED TO BE DEDICATED				
4. UTILITY RELOCATION NOT APPLICABLE TO GREEN-FIELD DEVELOPMENT				
5. ENVIRONMENTAL MITIGATION N/A - PART OF IN-TRACT DEVELOPMENT COSTS OF DEVELOPMENT				
6.FRONTAGE FOR THE FLOATING 6.2-ACRE PARK WILL NEED TO BE ADDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED				
7. EXIST. VINEYARD POINTE SUBDIVISION FRONTAGES NOT ACCOUNTED FOR IN TOTAL LENGTH				

Appendix A-1.6.9
Interior Roadway Frontage Index
Preliminary Per Foot Cost Estimate
Frontage - 30' Half Section
North Vineyard Station

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Name: Public Frontage for Specific Plan Roads
 30' Half Section Adjacent to Parks & Schools



TYPICAL FRONTAGE SECTION ~ 30' HALF SECTION
 N.T.S.

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.96	\$ 17.33
TOTAL FOR ITEM 1 EARTHWORK				\$ 17.33
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0.5	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (3" AC)	TON	\$ 100.00	0.39	\$ 39.38
AGGREGATE BASE (10" AB)	TON	\$ 20.43	1.27	\$ 25.92
SIDEWALK	SF	\$ 6.00	6	\$ 36.00
CURB & GUTTER	LF	\$ 26.00	1	\$ 26.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 127.30

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 18.75	1	\$ 18.75
JOINT TRENCH	LF	\$ 380.00	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 18.75
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 178.38	\$ 53.51
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 53.51
6 STRUCTURES				
BRIDGES	SF	\$ 175.00	0	\$ -
CULVERTS	LF	\$ 375.00	0	\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 231.89
CONTINGENCY	%	15.0%		\$ 34.78
TOTAL CONSTRUCTION COST				\$ 266.68
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 266.68	\$ 8.00
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 266.68	\$ 4.00
DESIGN ENGINEERING	%	12.0%	\$ 266.68	\$ 32.00
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 266.68	\$ 4.00
CONSTRUCTION STAKING	%	2.5%	\$ 266.68	\$ 6.67
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 266.68	\$ 34.67
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 89.34
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5%	\$ -	\$ -
EASEMENT	SF	\$ 3.00	N/A	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ -
10 UTILITIES				
UTILITIES RELOCATION	%	0%	N/A	\$ -
TOTAL FOR ITEM 10 UTILITIES				\$ -
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	N/A	\$ -
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ -
GRAND TOTAL				\$ 356.00
FRONTAGE ~30' HALF SECTION ~ ESTIMATED COST	LF	6,305	\$ 356.00	\$ 2,244,580.00
FRONTAGE ~30' HALF SECTION ~ ESTIMATED COST	LF	605	\$ 255.00	\$ 154,275.00
NOTES:				
1. DRAINAGE UNIT COST COVERS 2 SIDES OF STREET				
2. STREETLIGHT COST = \$7,500 EA AT 200' ALT SPACING				
3. RIGHT OF WAY & EASEMENTS ASSUMED TO BE DEDICATED				
4. UTILITY RELOCATION NOT APPLICABLE TO GREEN-FIELD DEVELOPMENT				
5. ENVIRONMENTAL MITIGATION N/A - PART OF IN-TRACT DEVELOPMENT COSTS OF DEVELOPMENT				
6. FRONTAGE FOR THE FLOATING 6.2-ACRE PARK WILL NEED TO BE ADDED ONCE THE LAYOUT AND LOCATION HAVE BEEN DETERMINED				
7. EXIST. VINEYARD POINTE SUBDIVISION FRONTAGES NOT ACCOUNTED FOR IN TOTAL LENGTH				
8. GREEN SEGMENTS INDICATE THE PROJECT HAS BEEN BUILT.				

Table A-2.0
North Vineyard Station Specific Plan Fee Program
Roadway CIP Frontage Lane Improvements

Date Revised: 1-31-19

SHEET	PROJECT NAME	TOTAL COST	SCTDF Fair Share
A-2.2.1	Phase A-2 Frontage	\$ 3,617,890	\$ 1,868,811
A-2.2.2	Phase B Frontage	\$ 4,533,845	\$ 1,901,019
A-2.2.3	Phase C Frontage	\$ 1,405,670	\$ 731,552
A-2.2.4	Phase D Frontage	\$ 1,055,835	\$ 644,317
A-2.2.5	Phase E Frontage	\$ 2,643,015	\$ 1,140,749

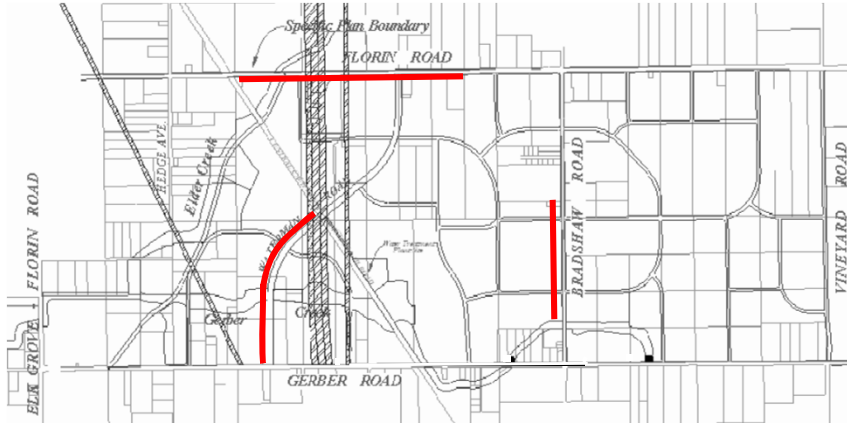
Total Frontage	\$	13,256,255	\$	6,286,448
Fund Balance 6/30/2017		\$1,274,706		
Net Frontage Lane Funding Requirement		\$11,981,549		

Notes:

1. Frontages associated with Phase A-1 (Elk Grove-Florin Road to Gerber Creek Crossing #3) are included in Roadway Improvements CIP.
2. Florin Road frontage (south side) - Elk Grove-Florin Road to NVSSP boundary equals 3,800 LF (unimproved).
3. All lengths are subject to change.
4. Cost per LF is based on CIP estimates dated August 2016 (see attached cost breakdown).
5. Class 'A' frontage include joint trench construction.

**PRELIMINARY
 PER FOOT COST ESTIMATE
 North Vineyard Station**

Project Name: Phase A-2 Frontage

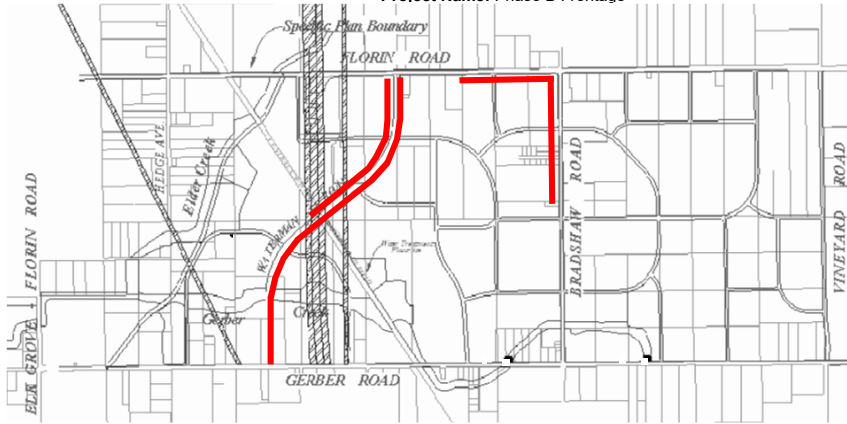


PHASE A-2 FRONTAGE

ITEM	Project Name	REFERENCE	QUANTITY	UNIT	PER FT. COST	SUBTOTAL	SCTDF Fair Share
		APPENDIX					
Florin Rd. (south side) - CCTC Crossing to 1350' east of Waterman Rd.	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	3,515	L.F.	\$ 243.00	\$ 854,145	\$ 490,036
	Thoroughfare Roadway Frontage 2	A-2.2.7.TH-cl A	1,335	L.F.	\$ 1,239.00	\$ 1,654,065	\$ 948,963
Subtotal						\$ 2,508,210	\$ 1,438,999
Waterman Rd. (west side) - Gerber Rd. to CCTC Crossing	Arterial Roadway Frontage 1	A-2.2.6.AR-cl D	2,160	L.F.	\$ 221.00	\$ 477,360	\$ 184,896
	Arterial Roadway Frontage 2	A-2.2.6.AR-cl A	520	L.F.	\$ 1,216.00	\$ 632,320	\$ 244,916
Subtotal						\$ 1,109,680	\$ 429,812
Bradshaw Road (west side) - Gerber Creek to 270' north of '9th' Street (Ballinger Dr.) [Constructed]	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	0	L.F.	\$ 243.00	\$ -	\$ -
Subtotal						\$ -	\$ -
Grand Total Phase A-2 Frontage						\$ 3,617,890	\$ 1,868,811

**PRELIMINARY
 PER FOOT COST ESTIMATE
 North Vineyard Station**

Project Name: Phase B Frontage

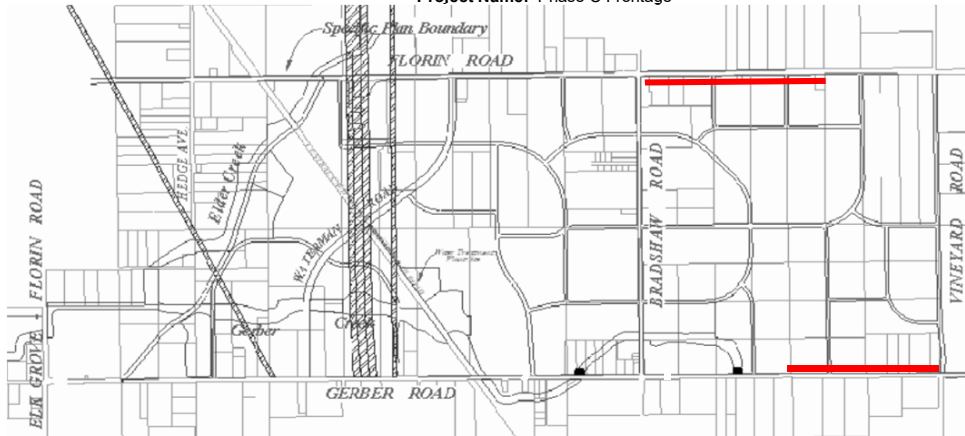


PHASE B FRONTAGE

<u>ITEM</u>	<u>Project Name</u>	<u>REFERENCE APPENDIX</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PER FT. COST</u>	<u>SUBTOTAL</u>	<u>SCTDF Fair Share</u>
Florin Rd. (south side) - 1350' east of Waterman Rd. to Bradshaw Rd.	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	1,970	L.F.	\$ 243.00	\$ 478,710	\$ 274,643
						Subtotal	\$ 478,710 \$ 274,643
Waterman Rd. (east side) - Gerber Rd. to Florin Rd.	Arterial Roadway Frontage 1	A-2.2.6.AR-cl D	5,090	L.F.	\$ 221.00	\$ 1,124,890	\$ 435,704
	Arterial Roadway Frontage 2	A-2.2.6.AR-cl A	800	L.F.	\$ 1,216.00	\$ 972,800	\$ 376,795
						Subtotal	\$ 2,097,690 \$ 812,499
Waterman Rd. (west side) - CCTC Crossing to Florin Rd.	Arterial Roadway Frontage 1	A-2.2.6.AR-cl D	2,930	L.F.	\$ 221.00	\$ 647,530	\$ 250,808
	Arterial Roadway Frontage 2	A-2.2.6.AR-cl A	280	L.F.	\$ 1,216.00	\$ 340,480	\$ 131,878
						Subtotal	\$ 988,010 \$ 382,686
Bradshaw Road (west side) - 270' north of '9th' Street to Florin Rd.	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	2,025	L.F.	\$ 243.00	\$ 492,075	\$ 218,868
	Thoroughfare Roadway Frontage 3	A-2.2.7.TH-cl A wall	340	L.F.	\$ 1,404.00	\$ 477,360	\$ 212,323
						Subtotal	\$ 969,435 \$ 431,191
Grand Total Phase B Frontage						\$ 4,533,845	\$ 1,901,019

**PRELIMINARY
 PER FOOT COST ESTIMATE
 North Vineyard Station**

Project Name: Phase C Frontage

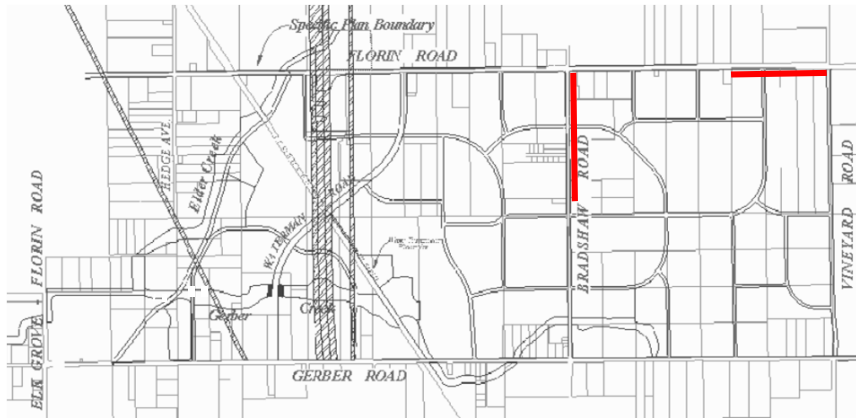


PHASE C FRONTAGE

<u>ITEM</u>	<u>Project Name</u>	<u>REFERENCE APPENDIX</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PER FT. COST</u>	<u>SUBTOTAL</u>	<u>SCTDF Fair Share</u>
Gerber Rd. (north side) - 2,650' east of Bradshaw Rd. to Vineyard Rd.	Arterial Roadway Frontage 1	A-2.2.6.AR-cl D	2,710	L.F.	\$ 221.00	\$ 598,910	\$ 79,791
						Subtotal	\$ 598,910
Florin Rd. (south side) - Bradshaw Rd. to 3,320' east of Bradshaw Rd.	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	3,320	L.F.	\$ 243.00	\$ 806,760	\$ 651,761
						Subtotal	\$ 806,760
Grand Total Phase C Frontage						\$ 1,405,670	\$ 731,552

**PRELIMINARY
 PER FOOT COST ESTIMATE
 North Vineyard Station**

Project Name: Phase D Frontage

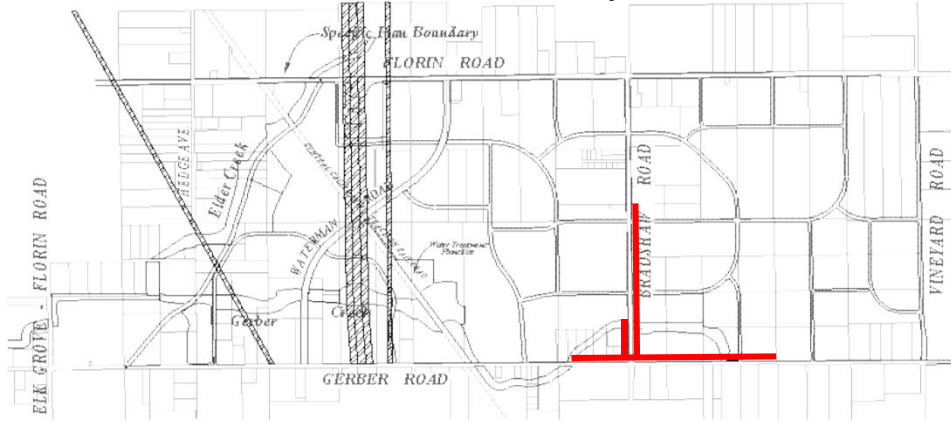


PHASE D FRONTAGE

<u>ITEM</u>	<u>Project Name</u>	<u>REFERENCE</u> <u>APPENDIX</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>PER FT. COST</u>	<u>SUBTOTAL</u>	<u>SCTDF Fair Share</u>
Florin Rd. (south side) - 3,320' east of Bradshaw Rd. to Vineyard Rd.	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	1,980	L.F.	\$ 243.00	\$ 481,140	\$ 388,701
Subtotal						\$ 481,140	\$ 388,701
Bradshaw Road (east side) - 270' north of '9th' Street to Florin Rd.	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	2,365	L.F.	\$ 243.00	\$ 574,695	\$ 255,616
Subtotal						\$ 574,695	\$ 255,616
Grand Total Phase D Frontage						\$ 1,055,835	\$ 644,317

**PRELIMINARY
 PER FOOT COST ESTIMATE
 North Vineyard Station**

Project Name: Phase E Frontage



PHASE E FRONTAGE

ITEM	Project Name	REFERENCE APPENDIX	QUANTITY	UNIT	PER FT. COST	SUBTOTAL	SCTDF Fair Share
Gerber Rd. (noth side) - Gerber Creek	Arterial Roadway Frontage 1	A-2.2.6.AR-cl D	3,250	L.F.	\$ 221.00	\$ 718,250	\$ 161,431
Crossing #3 to 2,650' east of Bradshaw	Arterial Roadway Frontage 2	A-2.2.6.AR-cl A	550	L.F.	\$ 1,216.00	\$ 668,800	\$ 420,682
					Subtotal	\$ 1,387,050	\$ 582,114
Bradshaw Rd. (west side) - Gerber Rd. to Gerber Creek	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	640	L.F.	\$ 243.00	\$ 155,520	\$ 69,173
	Thoroughfare Roadway Frontage 2	A-2.2.7.TH-cl A	170	L.F.	\$ 1,239.00	\$ 210,630	\$ 93,685
	(incl. Alder Creek Rd. curb resturns, east)				Subtotal	\$ 366,150	\$ 162,858
Bradshaw Road (east side) - Gerber Rd. to 270' north of '9th' Street	Thoroughfare Roadway Frontage 1	A-2.2.7.TH-cl D	2,795	L.F.	\$ 243.00	\$ 679,185	\$ 302,092
	Thoroughfare Roadway Frontage 2	A-2.2.7.TH-cl A	170	L.F.	\$ 1,239.00	\$ 210,630	\$ 93,685
					Subtotal	\$ 889,815	\$ 395,777
Grand Total Phase E Frontage						\$ 2,643,015	\$ 1,140,749

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

<p>North Vineyard Station Appendix A-2.2.6 AR - CL D Roadway Cross Section index Preliminary Per Foot Cost Estimate Typical 74' R/W Arterial Frontage 1 (Class 'D')</p> <p>Project Description: 12' Pavement, 3' Shoulder, 5' Roadside Ditch, 6' AC Path (w/o soundwall) Widening / Outside Travel Lane - One Side Only</p> <p>NOTE: 1. SAW CUT AND REMOVE 1' MIN. OF EXISTING PAVEMENT.</p> <p style="text-align: center;">see note #1 new pavement sect.</p>	Date: 10/18/2017 Job # 27121.000 By: N.T.
---	---

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
oi ROADWAY EXCAVATION	CY	\$ 18.00	0.8	\$ 14.67
TOTAL FOR ITEM 1 EARTHWORK				\$ 14.67
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	0.5	\$ 7.50
TOTAL FOR ITEM 2 DRAINAGE				\$ 7.50
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" + 4" AC)	TON	\$ 100.00	0.6	\$ 56.25
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	1.2	\$ 24.44
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 80.69
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 102.86	\$ 30.86
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 30.86

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00		\$ -
CULVERTS	SF	\$ 375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 133.71
CONTINGENCY	%	15.0%	\$ 133.71	\$ 20.06
TOTAL CONSTRUCTION COST				\$ 153.77
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 153.77	\$ 4.61
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 153.77	\$ 2.31
DESIGN ENGINEERING	%	12.0%	\$ 153.77	\$ 18.45
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 153.77	\$ 2.31
CONSTRUCTION STAKING	%	2.5%	\$ 153.77	\$ 3.84
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 153.77	\$ 19.99
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 51.51
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 153.77	\$ 7.69
EASEMENT	SF	\$ 3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 7.69
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 153.77	\$ 3.08
TOTAL FOR ITEM 10 UTILITIES				\$ 3.08
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 153.77	\$ 4.61
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 4.61

GRAND TOTAL \$ 221.00

WHEN CONSTRUCTED CONCURRENTLY WITH CENTER SECTION IMP'S, USE \$206.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 OUTSIDE CURB, GUTTER, S/W, AND STREET LIGHTS ARE NOT INCLUDED
- 4 WHEN CONSTRUCTING CONCURRENT W/CENTER SECTION, COST IS REDUCED BY 1' PVM'T CUT/REPLACE

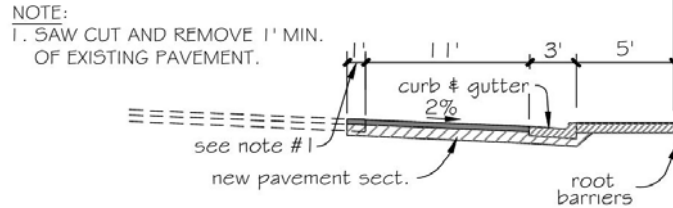
North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

North Vineyard Station
Appendix A-2.2.6.b AR-CL A
Roadway Cross Section index
Preliminary Per Foot Cost Estimate
Typical 74' R/W Arterial Frontage 2 (Cass A)

Date: 10/18/2017
 Job # 27134.000
 By: HF

Project Description:
 12' Pavement, 3' C&G, 5' Sidewalk (W/O Soundwall)
 Widening / Outside Travel Lane - One Side Only



ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	1.0	\$ 18.33
TOTAL FOR ITEM 1 EARTHWORK				\$ 18.33
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0.5	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (5 1/2" AC)	TON	\$ 100.00	0.4	\$ 41.25
AGGREGATE BASE (16 1/2" AB)	TON	\$ 20.43	1.2	\$ 24.44
SIDEWALK	SF	\$ 6.00	5	\$ 30.00
CURB & GUTTER	LF	\$ 26.00	1	\$ 26.00
MEDIAN CURB & 16" CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 121.69
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0.5	\$ 31.82
JOINT TRENCH	LF	\$ 380.00	1	\$ 380.00
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 411.82
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 566.84	\$ 170.05
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 170.05

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 736.90
CONTINGENCY	%	15.0%	\$ 736.90	\$ 110.53
TOTAL CONSTRUCTION COST				\$ 847.43
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 847.43	\$ 25.42
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 847.43	\$ 12.71
DESIGN ENGINEERING	%	12.0%	\$ 847.43	\$ 101.69
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 847.43	\$ 12.71
CONSTRUCTION STAKING	%	2.5%	\$ 847.43	\$ 21.19
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 847.43	\$ 110.17
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 283.89
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	\$ 847.43	\$ 42.37
EASEMENT	SF	\$ 3.00	\$ -	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 42.37
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 847.43	\$ 16.95
TOTAL FOR ITEM 10 UTILITIES				\$ 16.95
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 847.43	\$ 25.42
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 25.42

GRAND TOTAL \$ 1,216.00

WHEN CONSTRUCTED CONCURRENTLY WITH CENTER SECTION IMP'S, USE \$1,202.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 WHEN CONSTRUCTING CONCURRENT W/CENTER SECTION, COST IS REDUCED BY 1' PVM'T CUT/REPLACE

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

<p>North Vineyard Station Appendix A-2.2.7 TH-CL D Roadway Cross Section index Preliminary Per Foot Cost Estimate Typical Thoroughfare Frontage 1 (Class 'D')</p> <p>Project Description: 12' Pavement, 3' Shoulder, 5' Roadside Ditch, 6' AC Path (w/o Soundwall; assumes 1' saw cut & pvm't removal of exist. edge) Widening / Outside Travel Lane - One Side Only</p> <p>NOTE: 1. SAW CUT AND REMOVE 1' MIN. OF EXISTING PAVEMENT.</p> <p style="text-align: center;">see note #1 new pavement sect.</p>	Date: 10/18/2017 Job #: 27134.000 By: N.T./HF
---	---

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	0.9	\$ 16.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 16.00
2 DRAINAGE				
DRAINAGE	LF	\$ 15.00	0.5	\$ 7.50
TOTAL FOR ITEM 2 DRAINAGE				\$ 7.50
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" + 4" AC)	TON	\$ 100.00	0.6	\$ 63.75
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	1.3	\$ 25.92
SIDEWALK	SF	\$ 6.00	0	\$ -
CURB & GUTTER	LF	\$ 26.00	0	\$ -
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 89.67
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0	\$ -
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ -
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 113.17	\$ 33.95
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 33.95

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00		\$ -
CULVERTS	SF	\$ 375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 147.12
CONTINGENCY	%	15.0%	\$ 147.12	\$ 22.07
TOTAL CONSTRUCTION COST				\$ 169.19
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 169.19	\$ 5.08
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 169.19	\$ 2.54
DESIGN ENGINEERING	%	12.0%	\$ 169.19	\$ 20.30
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 169.19	\$ 2.54
CONSTRUCTION STAKING	%	2.5%	\$ 169.19	\$ 4.23
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 169.19	\$ 21.99
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 56.68
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	169	\$ 8.46
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 8.46
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 169.19	\$ 3.38
TOTAL FOR ITEM 10 UTILITIES				\$ 3.38
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 169.19	\$ 5.08
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 5.08

GRAND TOTAL \$ 243.00

WHEN CONSTRUCTED CONCURRENTLY WITH CENTER SECTION IMP'S, USE \$ 227.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 OUTSIDE CURB, GUTTER, S/W, AND STREET LIGHTS ARE NOT INCLUDED
- 4 WHEN CONSTRUCTING CONCURRENT W/CENTER SECTION, COST IS REDUCED BY 1' PVM'T CUT/REPLACE

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

<p>North Vineyard Station Appendix A-2.2.7. TH-CL A Roadway Cross Section index Preliminary Per Foot Cost Estimate Typical On-Site Thoroughfare Frontage 2</p> <p>Project Description: 11' Pavement, 3' C&G, 5' Sidewalk = 20' (w/o Soundwall) Widening / Outside Travel Lane - One side Only</p> <p>NOTE: 1. SAW CUT AND REMOVE 1' MIN. OF EXISTING PAVEMENT.</p>	Date: 10/18/2017 Job #: 27134.000 By: HF
---	--

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	1.1	\$ 20.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 20.00
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0.5	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" AC)	TON	\$ 100.00	0.5	\$ 48.75
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	1.3	\$ 25.92
SIDEWALK	SF	\$ 6.00	5	\$ 30.00
CURB & GUTTER	LF	\$ 26.00	1	\$ 26.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 130.67
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0.5	\$ 31.82
JOINT TRENCH	LF	\$ 380.00	1	\$ 380.00
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 411.82
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 577.49	\$ 173.25
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 173.25

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00		\$ -
CULVERTS	LF	\$ 375.00		\$ -
TOTAL FOR ITEM 6 STRUCTURES				\$ -
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 750.74
CONTINGENCY	%	15.0%	\$ 750.74	\$ 112.61
TOTAL CONSTRUCTION COST				\$ 863.35
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 863.35	\$ 25.90
ENVIROMENTAL DOCUMENT	%	1.5%	\$ 863.35	\$ 12.95
DESIGN ENGINEERING	%	12.0%	\$ 863.35	\$ 103.60
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 863.35	\$ 12.95
CONSTRUCTION STAKING	%	2.5%	\$ 863.35	\$ 21.58
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 863.35	\$ 112.24
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 289.22
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	863	\$ 43.17
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 43.17
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 863.35	\$ 17.27
TOTAL FOR ITEM 10 UTILITIES				\$ 17.27
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 863.35	\$ 25.90
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 25.90

GRAND TOTAL \$ 1,239.00

WHEN CONSTRUCTED CONCURRENTLY WITH CENTER SECTION IMP'S, USE \$1,219.00

NOTES:

- 1 FRONTAGE LANDSCAPING AND SOUNDWALL ARE EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

<p>North Vineyard Station Appendix A-2.2.7. TH-CL A wall Roadway Cross Section index Preliminary Per Foot Cost Estimate Typical On-Site Thoroughfare Frontage 3</p> <p>Project Description: 12' Pavement, 3' C&G, 5' Sidewalk = 20' with Soundwall (at exist. residences) Widening / Outside Travel Lane - One side Only</p> <p>NOTE: 1. SAW CUT AND REMOVE 1' MIN. OF EXISTING PAVEMENT.</p>	Date: 10/18/2017 Job #: 27134.000 By: HF
--	--

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
1 Earthwork				
ROADWAY EXCAVATION	CY	\$ 18.00	1.1	\$ 20.00
TOTAL FOR ITEM 1 EARTHWORK				\$ 20.00
2 DRAINAGE				
DRAINAGE	LF	\$ 30.00	0.5	\$ 15.00
TOTAL FOR ITEM 2 DRAINAGE				\$ 15.00
3 PAVEMENT				
ASPHALT CONCRETE (6 1/2" AC)	TON	\$ 100.00	0.5	\$ 48.75
AGGREGATE BASE (17 1/2" AB)	TON	\$ 20.43	1.3	\$ 25.92
SIDEWALK	SF	\$ 6.00	5	\$ 30.00
CURB & GUTTER	LF	\$ 26.00	1	\$ 26.00
MEDIAN CURB & 2' CONCRETE LANDSCAPE STRIP	LF	\$ 17.00	0	\$ -
TOTAL OR ITEM 3 PAVEMENT				\$ 130.67
4 MISCELLANEOUS				
STREET LIGHTS / ELECTROLIERS	LF	\$ 63.64	0.5	\$ 31.82
JOINT TRENCH	LF	\$ 380.00	1	\$ 380.00
LANDSCAPING	SF	\$ 15.00	0	\$ -
TOTAL FOR ITEM 4 MISCELLANEOUS				\$ 411.82
5 MINOR ITEMS				
MINOR ITEMS	%	30.0%	\$ 577.49	\$ 173.25
TOTAL FOR ITEM 5 MINOR ITEMS				\$ 173.25

North Vineyard Station Specific Plan CIP
ROADWAY CIP FRONTAGE LANE IMPROVEMENTS

27134.000
 Date Revised: 10/18/17
 Revised From: 04/29/05

ITEM DESCRIPTION	UNIT	PRICE	QUANTITY	COST
6 STRUCTURES				
BRIDGES	SF	\$ 350.00		\$ -
CULVERTS	LF	\$ 375.00		\$ -
SOUNDWALL	LF	\$ 100.00	1	\$ 100.00
TOTAL FOR ITEM 6 STRUCTURES				\$ 100.00
7 CONTINGENCY				
SUBTOTAL CONSTRUCTION COST				\$ 850.74
CONTINGENCY	%	15.0%	\$ 850.74	\$ 127.61
TOTAL CONSTRUCTION COST				\$ 978.35
8 ENGINEERING & MANAGEMENT				
ENGINEERING STUDIES	%	3.0%	\$ 978.35	\$ 29.35
ENVIRONMENTAL DOCUMENT	%	1.5%	\$ 978.35	\$ 14.68
DESIGN ENGINEERING	%	12.0%	\$ 978.35	\$ 117.40
DESIGN SERVICES DURING CONSTRUCTION	%	1.5%	\$ 978.35	\$ 14.68
CONSTRUCTION STAKING	%	2.5%	\$ 978.35	\$ 24.46
CONSTRUCTION MANAGEMENT	%	13.0%	\$ 978.35	\$ 127.19
TOTAL FOR ITEM 8 ENGINEERING & MANAGEMENT				\$ 327.75
(THE ABOVE EXCLUDES LAND AND RIGHT OF WAY & MAJOR STRUCTURES WORK)				
9 RIGHT OF WAY				
RIGHT OF WAY	%	5.0%	978	\$ 48.92
EASEMENT	SF	\$ 3.00	0	\$ -
TOTAL FOR ITEM 9 RIGHT OF WAY				\$ 48.92
10 UTILITIES				
UTILITIES RELOCATION	%	2.0%	\$ 978.35	\$ 19.57
TOTAL FOR ITEM 10 UTILITIES				\$ 19.57
11 ENVIROMENTAL MITIGATION				
ENVIROMENTAL MITIGATION	%	3.0%	\$ 978.35	\$ 29.35
TOTAL FOR ITEM 11 ENVIROMENTAL MITIGATION				\$ 29.35

GRAND TOTAL \$ 1,404.00

WHEN CONSTRUCTED CONCURRENTLY WITH CENTER SECTION IMP'S, USE \$1,384.00

NOTES:

- 1 FRONTAGE LANDSCAPING IS EXCLUDED
- 2 ROADWAY SECTION ASSUMES AN AVERAGE R VALUE OF 20
- 3 INCLUDES SOUNDWALL ADJACENT TO EXISTING RESIDENCES

Table A-3.0
North Vineyard Station Specific Plan Fee Program
Parks and Recreation Capital Improvements Plan Summary [Adopted June 19, 2018]

Description	Units	Cost per Unit	Total Cost (Adopted 6/9/2018)	Total Cost (Effective 3/1/2019 Adjusted by 1.028%)
Basic Park Development Costs /1				
1 to 3 acres	4.0 acres	\$ 365,538	\$ 1,462,154	\$ 1,477,185
3 to 6 acres	14.6 acres	\$ 264,522	\$ 3,862,019	\$ 3,901,720
6 to 11 acres	17.9 acres	\$ 225,000	\$ 4,027,500	\$ 4,068,903
11 + acres	28.5 acres	\$ 209,934	\$ 5,983,119	\$ 6,044,625
Subtotal Basic Park Development Costs (with contingency) /2	65.0 acres		\$ 16,868,270	\$ 17,041,676
Park Facilities Costs				
Playground Equipment - Small	7 each	\$ 175,000	\$ 1,225,000	\$ 1,237,593
Playground Equipment - Large	8 each	\$ 350,000	\$ 2,800,000	\$ 2,828,784
Soccer Fields	11 each	\$ 15,000	\$ 165,000	\$ 166,696
Softball Fields	3 each	\$ 60,000	\$ 180,000	\$ 181,850
Youth Baseball Fields Backstops Only	6 each	\$ 50,000	\$ 300,000	\$ 303,084
Tennis Court with Fence (set of 2)	4 each	\$ 100,000	\$ 400,000	\$ 404,112
Sports Lighting (multiple fields for 3 parks)	50 each	\$ 39,000	\$ 1,950,000	\$ 1,970,046
Basketball Courts (1/2 Court)	9 each	\$ 45,000	\$ 405,000	\$ 409,163
Shade Structures - Large (50 people)	1 each	\$ 90,300	\$ 90,300	\$ 91,228
Shade Structures - Small (25 people)	18 each	\$ 46,200	\$ 831,600	\$ 840,149
Restroom Buildings	2 each	\$ 290,000	\$ 580,000	\$ 585,962
Parking Lots (2 Lots; 2 @ 70 & 150 stalls)	220 stall	\$ 3,700	\$ 814,000	\$ 822,368
Subtotal Park Facilities Costs (with contingency) /2			\$ 10,714,990	\$ 10,825,140
Community Center Facilities	10,000 square feet	\$ 551	\$ 5,510,000	\$ 5,566,643
Site Improvements for 2 Acre Site	lump sum		\$ 577,500	\$ 583,437
Architectural & Engineering Fees @ 12%	percentage		\$ 730,500	\$ 738,010
Subtotal Community Center Facilities Costs (with contingency) /2			\$ 7,499,800	\$ 7,576,898
TOTAL Park Development Costs (With Community Center)			\$ 35,083,060	\$ 35,443,714
Fund Balance Proportioned to Park Improvements /3			\$ (4,740,615)	
Net Remaining Park Funding Requirement			\$ 30,342,445	\$ 30,654,366
Fee per DUE for Park Development Only			\$ 8,487	\$ 8,574
Drainage Parkway and Other Trail Facilities				
Pedestrian Signal Crossings				
Gerber Creek at Bradshaw Rd. & Waterman Rd.	2 lump sum	\$ 164,000	\$ 328,000	\$ 331,372
Drainage Parkway Trail Facilities /4				
Gerber Creek Trail System Improvements /5	13,590 lineal feet	\$ 176	\$ 2,386,640	\$ 2,411,175
Elder Creek Trail System Improvements	6,595 lineal feet	\$ 176	\$ 1,158,196	\$ 1,170,103
Other Linear Open Space Trail /6	5,225 lineal feet	\$ 178	\$ 932,343	\$ 941,927
Subtotal Trail Cost (with contingency) /2			\$ 5,285,697	\$ 5,340,034
JOINT-USE Detention Basins (Five Basins)				
Trail & Trailside Improvements /7	16,500 lineal feet	\$ 120	\$ 1,980,000	\$ 2,000,354
District Park, Recreation & Open Space Master Plan	lump sum		\$ 40,250	\$ 40,664
TOTAL TRAIL DEVELOPMENT COST			\$ 7,305,947	\$ 7,381,052
Fund Balance Proportioned to Trail Improvements /3			\$ (987,219)	
Net Remaining Trail Funding Requirement			\$ 6,318,728	\$ 6,383,685
Fee per DUE for Drainage Parkway and Trails			\$ 1,767	\$ 1,786
Remaining Park DUE's /8	3,575			
ADD: INFRASTRUCTURE-Drainage & Sewer				
Impact Fees & Zone 40 Water Fees			\$ -	\$ -
Fee per Remaining Park DUE's With Detention Basins			\$ 10,255	\$ 10,360

/1 Water and drainage fees are included in the Basic Park Development Costs and sanitary sewer fees are included in the cost of the restroom buildings. The developer is responsible for paying for any cost shortfall if the Drainage Fees and Zone 40 Water Fee Costs are more than the estimated costs included in the Fee Study, plus any annual inflation adjustment.

/2 Contingency is 10%

/3 An existing Park Fee fund balance of \$5,727,834 is allocated proportionately between Park and Trails improvement costs.

/4 Improvements costs include 12' wide trail construction including clearing for the bike and a 4' equestrian trail, excavation, grading, aggregate base, asphalt pavement, and 2' DG shoulders, as well as, striping, drinking fountains, benches and minimal landscape plantings.

/5 The Developer of Javani Estates to pay for Pedestrian Bridge improvements on the east side of Bradshaw Road.

/6 Other trail improvements costs for the approximate 5,225 lin. ft. transmission easement includes an 8' trail including; excavation, grading, aggregate base & asphalt pavement and revegetation hydroseed only.

/7 Improvement cost include 8' wide paved trail construction, including; excavation, grading, aggregate base & concrete pavement, as well as lights, benches and landscape plantings for 5 basins with a total of approximately 16,500 linear feet.

/8 Total estimate of Park DUE's is 4,568 and based on 5 Ac of parkland per 1,000 persons that is 65.0 ac of parkland.

**Table A-3.1
North Vineyard Station Specific Plan Fee Program
Park and Recreation Facilities**

Park/Facility Name or Number	Type	Acres	Soccer Fields	Softball Fields	Youth Baseball Fields	Sport &/or Tennis Courts (set of 2)	Sport &/or Basketball Courts (1/2)	Shade Shelter & Picnic Tables	Restrooms	Playgrounds	Parking Lot
PHASE A-1											
Vineyard Point Park North		14.3	2*		1	2*	2*	3S	1	1L/1S	1
Sub-total	C	14.3	2	0	1	2	2	3S	1	1L/1S	1
PHASE A-2											
Vineyard Creek Park	C	14.2	2*	3*		2*	2	1L/2S	1	1L/1S	1
North Morvai Park	M	2.0					1	2S		1S	
Sub-total		16.2	2	3	0	2	3	1L/4S	1	1L/2S	1
PHASE B											
South Morvai Park	N	6.4	1		1		1	2S		1L/1S	
Sub-total		6.4	1	0	1	0	1	2S	0	1L/1S	0
PHASE C											
Apostol Park	M	2.0						1S		1L	
Law Park	N	6.5	1				1	2S		1L/1S	
Oshiro Park	N	5.4	1		1		1	2S		1L/1S	
Sub-total		13.9	2	0	1	0	2	5S	0	3L/2S	0
PHASE D											
Aston Trust Park	N	9.2	3*		2*			2S		1L/1S	
Vineyard Point Park East	N	5.0	1		1		1	2S		1L	
Sub-total		14.2	4	0	3	0	1	4S	0	2L/1S	0
PHASE E											
		0.0									
Total (1)		65.0	11	3	6	4	9	1L/18S	2	8L/7S	2

C=Community Park
M=Mini Park
N=Neighborhood Park

Source: County of Sacramento; Southgate Recreation and Park District
(3) Community Center funding combined with EGWV funds for 1 facility to serve both areas

Table A-4
North Vineyard Station Specific Plan Fee Program
Transit Cost and Fair-Share Allocation to NVS

Description	Cost	Proposed Funding through SCTDF (2019)	NVS Fee Program Funding Obligation
Bus Vehicles			
Cost per Unit	\$ 665,000		
Quantity	5		
Estimated Current Year Cost	\$ 3,325,000	\$ 3,325,000	\$ -
Park & Ride Facilities: 100 spaces per acre	50 spaces; 1/2 acre		
Land Acquisition Cost	\$ 64,375		
Construction Cost	\$ 257,500		
Total Cost	\$ 321,875	\$ -	\$ 321,875
Bus Maintenance Facility (BMF)			
Estimated Cost of New Bus Maintenance Facility	\$ 63,522,614		
Proposed Capacity of New Facility	250 buses		
Estimated Cost of New Facility per Bus	\$ 254,090		
Quantity of Buses to Purchase for Specific Plan Area	5		
Proposed Specific Area Contribution Toward New Bus Maintenance Facility	\$ 1,270,452	\$ 1,270,452	\$ -
Interim Bus Stops			
Interim bus stops to include, but not limited to, shelter, bench, lighting			
Number of Stops	5		
Cost to Construct	\$ 47,827		
Total Cost	\$ 239,135	\$ -	\$ 239,135
GRAND TOTAL - TRANSIT FACILITIES & EQUIPMENT	\$ 5,156,462	\$ 4,595,452	\$ 561,010
Proportional Transit Fund Balance as of 6/30/2017 (1)	\$ 1,077,830	\$ 960,565	\$ 117,265
Net Remaining Transit Funding Requirement			\$ 443,745
NVS Transit DUEs			6,623
NVS Transit Fee Per DUE			\$ 67

Notes:

(1) Existing fund balance for Transit was split approximately by 90% allocation for Buses and BMF and remaining 10% for proposed CIP.

APPENDIX B

Fee Calculation Summary Tables

Table B-1
North Vineyard Station Specific Plan Fee Program
Land Use Summary

Zoning Category	Original Unit Assumption	Original Total Net Acres	Original Fee Program Net Acres /1	2017 Adjusted Total Fee Program Net Acres	Developed Acres /2	Remaining Fee Program Net Acres /2
Residential						
Single Family						
SFR 1-3	485	269.8	242.9	235.7	-	235.7
SFR 3-5	2,633	578.8	520.9	511.8	92.0	419.8
SFR 4-7	1,042	188.1	169.3	142.1	58.4	83.7
MDR 7-12	278	30.9	27.8	43.5	17.4	26.1
Subtotal	4,438	1,067.6	960.9	933.1	167.8	765.3
Multi-Family						
MFR 12-22	1,007	62.2	56.0	56.0	7.5	48.5
Total Residential	5,445	1,129.8	1,016.9	989.1	175.3	813.8
Non-Residential						
Business Professional (BP)		7.1	6.4	6.4	-	6.4
Commercial (LC)		30.1	27.1	31.5	-	31.5
Total Non-Residential		37.2	33.5	37.9	-	37.9
TOTAL	5,445	1,167.0	1,050.4	1,027.0	175.3	851.7

/1 The North Vineyard Station Fee Program assumes a 10% reduction in net acres to address development uncertainties regarding the high school site and the potential for loss of acreage due to wetlands.

/2 As of July 2017.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

Table B-2
North Vineyard Station Specific Plan Fee Program
Land Use Allocation

Zoning Category		Original Fee Program Net Acres /1	2018/19 Adjusted Total Fee Program Net Acres	Developed Acres /2	Remaining Fee Program Net Acres /2
Residential					
Single Family					
RD-1		24.3	20.4	0.0	20.4
RD-2		194.3	163.4	0.0	163.4
RD-3		50.3	63.3	0.0	63.3
RD-4		60.6	24.9	0.0	24.9
RD-5		451.2	489.9	92.0	397.9
RD-6		143.9	38.1	2.8	35.3
RD-7		30.7	96.4	55.6	40.8
RD-10		5.6	36.7	17.4	19.3
Subtotal		960.9	933.1	167.8	765.3
Multi-Family					
MFR 12-22		56.0	56.0	7.5	48.5
Total Residential		1,016.9	989.1	175.4	813.7
Non-Residential					
	<u>FAR</u>	<u>Square Feet</u>			
Business Professional (BP)	0.35	97,574	6.4	6.4	6.4
Commercial (LC)	0.25	343,035	27.1	31.5	31.5
Total Non-Residential		440,609	33.5	37.9	37.9
Total		1,050.4	1,027.0	175.4	851.6

/1 The North Vineyard Station Fee Program assumes a 10% reduction in net acres to address development uncertainties regarding the high school site and the potential for loss of acreage due to wetlands.

/2 As of July 2017.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

**Table B-3
North Vineyard Station Specific Plan Fee Program
Facility Costs Summary**

Facility	Estimated Costs at Buildout	Less: Fee Fund Balance	Estimated Remaining at Buildout
Roadway Improvements	\$76,633,622	(\$364,496)	\$76,269,126
Frontage Lane Improvements	\$13,256,255	(\$1,274,706)	\$11,981,549
Park & Recreation Facilities (adopted June 19, 2018 & inflated on March 1, 2019)	\$42,824,766	(\$5,786,715)	\$37,038,051
Transit Facilities	\$561,010	(\$117,265)	\$443,745
Total Costs	\$133,275,653	(\$7,543,182)	\$125,732,471

/1 Excludes costs for park and recreation facilities. The NVSSP park and recreation fee was adopted on June 19, 2018.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

Table B-4
North Vineyard Station Specific Plan Fee Program
Dwelling Unit Equivalents (DUEs) per Acre

Land Use Category	Roadway & Frontage Lane DUEs per Acre	Park DUEs per Acre	Transit DUEs per Acre
Residential DUEs			
Single Family			
RD-1	1.00	1.00	1.00
RD-2	2.00	2.00	2.00
RD-3	2.80	2.90	2.80
RD-4	3.50	3.70	3.50
RD-5	4.10	4.50	4.10
RD-6	4.90	5.40	4.90
RD-7	5.70	6.30	5.52
RD-10	7.20	7.38	12.21
Multi-Family			
MFR 12-22 (RD-20)	10.20	11.70	38.10
Non-Residential DUEs			
Business Professional (BP)	13.50	3.20	36.90
Commercial (LC)	16.30	2.50	52.80

Source: County of Sacramento; Goodwin Consulting Group, Inc.

**Table B-5
North Vineyard Station Specific Plan Fee Program
DUE Summary**

Land Use Category	Remaining Roadway & Frontage Lane DUEs	Remaining Park DUEs	Remaining Transit DUEs
Residential DUEs			
Single Family			
RD-1	20	20	20
RD-2	327	327	327
RD-3	177	184	177
RD-4	87	94	87
RD-5	1,631	1,717	1,631
RD-6	173	182	173
RD-7	232	254	225
RD-10	139	142	236
Subtotal	2,787	2,920	2,877
Multi-Family			
MFR 12-22 (RD-20)	494	567	1,847
Total Residential DUEs	3,282	3,487	4,724
Non-Residential DUEs			
Business Professional (BP)	86	20	236
Commercial (LC)	513	68	1,663
Total Non-Residential DUEs	600	88	1,899
TOTAL DUEs (rounded)	3,882	3,575	6,623

Source: County of Sacramento; Goodwin Consulting Group, Inc.

Table B-6
North Vineyard Station Specific Plan Fee Program
Roadway Fee Calculation

Net Remaining Roadway CIP Costs						\$76,269,126
Total Remaining DUEs						3,882
Cost per DUE						\$19,647
<hr/>						
		DUE		Estimated	Impact Fee	Age Restricted
Residential	Unit of	Factor	Cost	Density or	per Unit of	Impact Fee
	Measure	per Acre /1	per Acre	FAR /1	Measure /2	per Unit of
						Measure /2,3
Single Family						
AR-5	<i>per Unit</i>	0.20	\$3,929	0.20	\$19,647	-
AR-2	<i>per Unit</i>	0.50	\$9,824	0.50	\$19,647	-
AR-1	<i>per Unit</i>	1.00	\$19,647	1.00	\$19,647	-
RD-1	<i>per Acre</i>	1.00	\$19,647	n/a	\$19,647	\$6,680
RD-2	<i>per Acre</i>	2.00	\$39,294	n/a	\$39,294	\$13,360
RD-3	<i>per Acre</i>	2.80	\$55,012	n/a	\$55,012	\$18,704
RD-4	<i>per Acre</i>	3.50	\$68,765	n/a	\$68,765	\$23,380
RD-5	<i>per Acre</i>	4.10	\$80,553	n/a	\$80,553	\$27,388
RD-6	<i>per Acre</i>	4.90	\$96,270	n/a	\$96,270	\$32,732
RD-7	<i>per Acre</i>	5.70	\$111,988	n/a	\$111,988	\$38,076
RD-9	<i>per Acre</i>	6.50	\$127,706	n/a	\$127,706	\$43,420
RD-10	<i>per Acre</i>	7.20	\$141,458	n/a	\$141,458	\$48,096
Multi-Family						
MFR 12-22 (RD-20)	<i>per Acre</i>	10.20	\$200,399	n/a	\$200,399	\$68,136
Non-Residential						
Business Professional (BP)	<i>per Bldg SF</i>	13.5	\$265,235	0.35	\$17.40	-
Commercial (LC)	<i>per Bldg SF</i>	16.3	\$320,246	0.25	\$29.41	-

/1 Based on DUE factors and density assumptions shown in Table C-1.

/2 Impact Fees do not include the County's 4.0% administrative fee.

/3 For Age-restricted development, an adjustment factor of 34% is applied to reduce the applicable residential zoning category.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

Table B-7
North Vineyard Station Specific Plan Fee Program
Frontage Lane Fee Calculation

Net Remaining Frontage Lane CIP Costs						\$11,981,549
Total Remaining DUEs						3,882
Cost per DUE						\$3,086
<hr/>						
		DUE		Estimated	Impact Fee	Age Restricted
Residential	Unit of	Factor	Cost	Density or	per Unit of	Impact Fee
	Measure	per Acre /1	per Acre	FAR /1	Measure /2	per Unit of
						Measure /2,3
Single Family						
AR-5	<i>per Unit</i>	0.20	\$617	0.20	\$3,086	-
AR-2	<i>per Unit</i>	0.50	\$1,543	0.50	\$3,086	-
AR-1	<i>per Unit</i>	1.00	\$3,086	1.00	\$3,086	-
RD-1	<i>per Acre</i>	1.00	\$3,086	n/a	\$3,086	\$1,049
RD-2	<i>per Acre</i>	2.00	\$6,172	n/a	\$6,172	\$2,098
RD-3	<i>per Acre</i>	2.80	\$8,641	n/a	\$8,641	\$2,938
RD-4	<i>per Acre</i>	3.50	\$10,801	n/a	\$10,801	\$3,672
RD-5	<i>per Acre</i>	4.10	\$12,653	n/a	\$12,653	\$4,302
RD-6	<i>per Acre</i>	4.90	\$15,121	n/a	\$15,121	\$5,141
RD-7	<i>per Acre</i>	5.70	\$17,590	n/a	\$17,590	\$5,981
RD-9	<i>per Acre</i>	6.50	\$20,059	n/a	\$20,059	\$6,820
RD-10	<i>per Acre</i>	7.20	\$22,219	n/a	\$22,219	\$7,555
Multi-Family						
MFR 12-22 (RD-20)	<i>per Acre</i>	10.20	\$31,477	n/a	\$31,477	\$10,702
Non-Residential						
Business Professional (BP)	<i>per Bldg SF</i>	13.5	\$41,661	0.35	\$2.73	-
Commercial (LC)	<i>per Bldg SF</i>	16.3	\$50,302	0.25	\$4.62	-

/1 Based on DUE factors and density assumptions shown in Table C-1.

/2 Impact Fees do not include the County's 4.0% administrative fee.

/3 For Age-restricted development, an adjustment factor of 34% is applied to reduce the applicable residential zoning category.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

**Table B-8
North Vineyard Station Specific Plan Fee Program
Park and Recreation Fee Calculation**

					<u>June 19, 2018</u>			<u>March 1, 2019</u>
Net Remaining Park CIP Costs					\$36,661,173			\$37,038,051
Total Remaining DUEs					3,575			3,575
Cost per DUE					\$10,255			\$10,360
Annual Escalator								1.028%
<hr/>								
					<u>As Adopted by the Board on June 19, 2018</u>		<u>Effective March 1, 2019</u>	
					<u>Age Restricted</u>		<u>Age Restricted</u>	
Residential	<u>Unit of Measure</u>	<u>DUE Factor per Acre /1</u>	<u>Cost per Acre</u>	<u>Estimated Density or FAR /1</u>	<u>Impact Fee per Unit of Measure /2</u>	<u>Impact Fee per Unit of Measure /2,3</u>	<u>Impact Fee per Unit of Measure /2</u>	<u>Impact Fee per Unit of Measure /2,3</u>
Single Family								
AR-5	<i>per Unit</i>	0.20	\$2,051	0.20	\$10,255	-	\$10,360	-
AR-2	<i>per Unit</i>	0.50	\$5,128	0.50	\$10,255	-	\$10,360	-
AR-1	<i>per Unit</i>	1.00	\$10,255	1.00	\$10,255	-	\$10,360	-
RD-1	<i>per Acre</i>	1.00	\$10,255	n/a	\$10,255	\$7,076	\$10,360	\$7,148
RD-2	<i>per Acre</i>	2.00	\$20,510	n/a	\$20,510	\$14,152	\$20,721	\$14,297
RD-3	<i>per Acre</i>	2.90	\$29,740	n/a	\$29,740	\$20,521	\$30,046	\$20,732
RD-4	<i>per Acre</i>	3.70	\$37,944	n/a	\$37,944	\$26,181	\$38,334	\$26,450
RD-5	<i>per Acre</i>	4.50	\$46,148	n/a	\$46,148	\$31,842	\$46,622	\$32,169
RD-6	<i>per Acre</i>	5.40	\$55,377	n/a	\$55,377	\$38,210	\$55,946	\$38,603
RD-7	<i>per Acre</i>	6.30	\$64,607	n/a	\$64,607	\$44,579	\$65,271	\$45,037
RD-9	<i>per Acre</i>	6.64	\$68,093	n/a	\$68,093	\$46,984	\$68,793	\$47,467
RD-10	<i>per Acre</i>	7.40	\$75,887	n/a	\$75,887	\$52,362	\$76,667	\$52,900
Multi-Family								
MFR 12-22 (RD-20)	<i>per Acre</i>	11.70	\$119,984	n/a	\$119,984	\$82,789	\$121,217	\$83,640
Non-Residential								
Business Professional (BP)	<i>per Bldg SF</i>	3.20	\$32,816	0.35	\$2.15	-	\$2.17	-
Commercial (LC)	<i>per Bldg SF</i>	2.50	\$25,638	0.25	\$2.35	-	\$2.37	-

/1 Based on DUE factors and density assumptions shown in Table C-2.

/2 Impact Fees do not include the County's 4.0% administrative fee.

/3 For Age-restricted development, an adjustment factor of 69% is applied to reduce the applicable residential zoning category.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

**Table B-9
North Vineyard Station Specific Plan Fee Program
Transit Fee Calculation**

Net Remaining Transit CIP Costs					\$443,745
Total Remaining DUEs					6,623
Cost per DUE					\$67
<hr/>					
	Unit of Measure	DUE Factor per Acre /1	Cost per Acre	Estimated Density or FAR /1	Impact Fee per Unit of Measure /2
Residential					
Single Family					
AR-5	<i>per Unit</i>	0.20	\$13	0.20	\$67
AR-2	<i>per Unit</i>	0.50	\$34	0.50	\$67
AR-1	<i>per Unit</i>	1.00	\$67	1.00	\$67
RD-1	<i>per Acre</i>	1.00	\$67	n/a	\$67
RD-2	<i>per Acre</i>	2.00	\$134	n/a	\$134
RD-3	<i>per Acre</i>	2.80	\$188	n/a	\$188
RD-4	<i>per Acre</i>	3.50	\$235	n/a	\$235
RD-5	<i>per Acre</i>	4.10	\$275	n/a	\$275
RD-6	<i>per Acre</i>	4.90	\$328	n/a	\$328
RD-7	<i>per Acre</i>	5.50	\$369	n/a	\$369
RD-9	<i>per Acre</i>	11.00	\$737	n/a	\$737
RD-10	<i>per Acre</i>	12.20	\$817	n/a	\$817
Multi-Family					
MFR 12-22 (RD-20)	<i>per Acre</i>	38.10	\$2,553	n/a	\$2,553
Non-Residential					
Business Professional (BP)	<i>per Bldg SF</i>	36.90	\$2,472	0.35	\$0.16
Commercial (LC)	<i>per Bldg SF</i>	52.80	\$3,538	0.25	\$0.32

/1 Based on DUE factors shown in Table C-3 and density assumptions shown in Table C-1.

/2 Impact Fees do not include the County's 4.0% administrative fee.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

APPENDIX C

Dwelling Unit Equivalents (DUEs)

**Table C-1
North Vineyard Station Specific Plan Fee Program
Roadway and Frontage Lane Facilities DUES**

I. Residential Dwelling Units Equivalent (DUE) Factors

ZONING	A MAXIMUM ZONING DENSITY PER ACRE	B ASSUMED DENSITY	C ASSUMED YIELD UNITS PER ACRE (AxB)	D PEAK HOUR TRIPS PER UNIT	E PEAK HOUR TRIPS PER ACRE (DUE FACTOR) (Cx D)
AR-5	0.20	100%	0.20	1.00	0.20
AR-2	0.50	100%	0.50	1.00	0.50
AR-1	1.00	100%	1.00	1.00	1.00
RD-1	1.00	100%	1.00	1.00	1.00
RD-2	2.00	100%	2.00	1.00	2.00
RD-3	3.00	97%	2.91	0.97	2.80
RD-4	4.00	93%	3.72	0.93	3.50
RD-5	5.00	90%	4.50	0.90	4.10
RD-6	6.00	90%	5.40	0.90	4.90
RD-7	7.00	90%	6.30	0.90	5.70
RD-9	9.00	90%	8.10	0.80	6.50
RD-10	10.00	90%	9.00	0.80	7.20
RD-20	20.00	85%	17.00	0.60	10.20

II. Non Residential Dwelling Unit Equivalent (DUE) Factors

ZONING	ASSUMED FLOOR AREA RATIO	FLOORSPACE PER ACRE	PEAK HOUR TRIPS PER ACRE (DUE FACTOR)
BP	35%	15,246	13.5
LC	25%	10,890	16.3

**Table C-2
North Vineyard Station Specific Plan Fee Program
Park Improvement Facilities DUES**

I. Residential Dwelling Units Equivalent (DUE) Factors

ZONING	A MAXIMUM ZONING DENSITY PER ACRE	B ASSUMED YIELD UNITS PER ACRE	C PERSONS PER HOUSEHOLD	D PERSON PER ACRE (BxC)	E PEAK HOUR TRIPS PER ACRE (DUE FACTOR) (D/2.88)
AR-5	0.20	0.20	2.88	0.58	0.20
AR-2	0.50	0.50	2.88	1.44	0.50
AR-1	1.00	1.00	2.88	2.88	1.00
RD-1	1.00	1.00	2.88	2.88	1.00
RD-2	2.00	2.00	2.88	5.76	2.00
RD-3	3.00	2.91	2.88	8.38	2.90
RD-4	4.00	3.72	2.88	10.71	3.70
RD-5	5.00	4.50	2.88	12.96	4.50
RD-6	6.00	5.40	2.88	15.55	5.40
RD-7	7.00	6.30	2.88	18.14	6.30
RD-9	9.00	8.10	2.36	19.12	6.64
RD-10	10.00	9.00	2.36	21.24	7.40
RD-20	20.00	17.00	1.98	33.66	11.70

II. Non Residential Dwelling Unit Equivalent (DUE) Factors

ZONING	EMPLOYEES PER ACRE	EMPLOYEE DENSITY (Ax0.25)	DUE FACTOR PERSONS/ACRE (B/2.88)
BP	37.30	9.33	3.2
LC	28.75	7.19	2.5

From 1990 Census data, per SACOG

HOUSING TYPE	PERSONS PER HOUSEHOLD IN UNINCORPORATED COUNTY
SINGLE FAMILY:	2.88
DUPLEX-QUADPLEX:	2.36
5+ MULTIFAMILY APTS:	1.98

**Table C-3
North Vineyard Station Specific Plan Fee Program
Transit Facilities DUES**

I. Residential Dwelling Units Equivalent (DUE) Factors

ZONING	A PEAK HOUR VEHICLE TRIPS PER ACRE	B TYPICAL VEHICLE OCCUPANCY	C PEAK HOUR TRIPS PER ACRE (AxB)	D PERCENT TRANSIT TRIPS /1	E PEAK HOUR TRANSIT TRIPS/ACRE /1 (Cx D)	F PEAK HOUR TRIPS PER ACRE (DUE FACTOR) (E/.052)
AR-5	0.20	1.62	0.32	0.032	0.010	0.20
AR-2	0.50	1.62	0.81	0.032	0.026	0.50
AR-1	1.00	1.62	1.62	0.032	0.052	1.00
RD-1	1.00	1.62	1.62	0.032	0.052	1.00
RD-2	2.00	1.62	3.24	0.032	0.104	2.00
RD-3	2.80	1.62	4.54	0.032	0.145	2.80
RD-4	3.50	1.62	5.67	0.032	0.181	3.50
RD-5	4.10	1.62	6.64	0.032	0.213	4.10
RD-6	4.90	1.62	7.94	0.032	0.254	4.90
RD-7	5.70	1.57	8.95	0.032	0.286	5.50
RD-9	6.50	1.57	10.21	0.056	0.571	11.00
RD-10	7.20	1.57	11.30	0.056	0.633	12.20
RD-20	10.20	1.56	15.91	0.124	1.973	38.10

II. Non Residential Dwelling Unit Equivalent (DUE) Factors

ZONING	A PEAK HOUR VEHICLE TRIPS PER ACRE	B TYPICAL VEHICLE OCCUPANCY	C PEAK HOUR TRIPS PER ACRE (AxB)	D PERCENT TRANSIT TRIPS /1	E PEAK HOUR TRANSIT TRIPS/ACRE /1 (Cx D)	F PEAK HOUR TRIPS PER ACRE (DUE FACTOR) 9.2x(E/0.48)
BP	28.30	1.35	38.21	0.05	1.91	36.90
LC	55.50	1.64	91.02	0.03	2.73	52.80

/1 From NCHRP Report 187, Transportation Research Board, 1978.

APPENDIX D

*NVSSP Park Fee Update
Nexus Study Adopted by the Board on
June 19, 2018*

GCG

GOODWIN CONSULTING GROUP

**NORTH VINEYARD STATION SPECIFIC PLAN
DEVELOPMENT IMPACT FEE PROGRAM
PARK FEE UPDATE**

JUNE 19, 2018

**NORTH VINEYARD STATION SPECIFIC PLAN
DEVELOPMENT IMPACT FEE PROGRAM
PARK FEE UPDATE**

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
I. Introduction	1
II. Fee Methodology	3
III. Land Use Categories	4
IV. Nexus Findings	5
V. Park Facilities and Costs	6
VI. Park Fee and Program Administration	7

APPENDIX

Appendix A - Fee Calculation Summary Tables

Appendix B - Dwelling Unit Equivalent Table

Appendix C - Basic Park Development Unit Costs

I. INTRODUCTION

This document provides an update of the park fee established in the North Vineyard Station Specific Plan Development Impact Fee Program Nexus Study (“Fee Program”) and adopted by the Sacramento County Board of Supervisors on September 13, 2005. This report summarizes the analysis methodology, provides an overview of Assembly Bill 1600 requirements, provides cost estimates for the identified improvements, and presents the analysis results. A comprehensive update of the remaining fees in the Fee Program will be completed at a later date.

Introduction

The North Vineyard Station Specific Plan (“NVSSP”) area is located in the County of Sacramento, approximately 13 miles southeast of Downtown Sacramento and two miles north of the City of Elk Grove. The NVSSP includes approximately 1,027 developable acres that are bound by Florin Road on the north, Gerber Road on the South, the extension of Vineyard Road on the east, and Elder Creek (west side, top of channel), which roughly constitutes the western border.

The NVSSP area is planned to have over 5,000 residential units and will need major backbone infrastructure and municipal facilities, such as roadways, frontage lane improvements, park facilities, and transit facilities. Much of the funding for these facilities will come from development impact fees. Since such facilities are needed as a result of development in the NVSSP area, the cost of these facilities should be borne by development in the NVSSP area. The park fee component discussed in this document will apply only to development within the NVSSP area. The NVSSP is in the Southgate Recreation and Park District (“District”).

Purpose of Analysis

The County of Sacramento retained Goodwin Consulting Group, Inc. to update the park fee component of the Fee Program. The NVSSP Fee Program was established by the Sacramento County Board of Supervisors through the adoption of the North Vineyard Station Specific Plan Development Impact Fee Program Nexus Study. The Nexus Study ensured that a rational nexus exists between future development in the NVSSP area and the use and need of the facilities and the impact fees that fund them. This analysis will demonstrate that a reasonable relationship exists between the amount of the park fee and the cost of the park facilities attributable to the development that will be required to pay the impact fees.

Changes to Park Fee

This update of the park fee includes several changes since this fee was adopted by the County in 2005, including:

- Park development and facilities costs have been updated to reflect current costs.

- Certain park facilities have been updated and/or resized; for example, the community center has been downsized from 15,000 square feet to 10,000 square feet; the number of sports field lighting has been reduced from 99 to 50; the number of tennis courts has increased from 3 to 4; and the number of restrooms has been reduced from 3 to 2.
- Due to age-restricted development planned for NVSSP, this park fee update calculates fees for this type of development.

II. FEE METHODOLOGY

When an impact fee is calculated, an analysis must be presented in enough detail to demonstrate that a logical and thorough consideration was applied in the process of determining how the fee relates to the impact from new development. Various findings must be made to ensure that there is a reasonable relationship between the use, need and amount of an impact fee and the type of development on which that impact fee will be levied.

Fee Calculation

The park fees calculated in this analysis utilize dwelling unit equivalents, or DUE factors, to spread the cost of park facilities over the expected future development in the NVSSP. The steps to calculate the park fee are as follows:

- Step 1.*** Determine the expected number of acres by land use zoning in the development area
- Step 2.*** Determine the park facilities and improvements needed to serve future development
- Step 3.*** Estimate the total cost of the park facilities needed to serve the future development
- Step 4.*** Determine the appropriate DUE factors for each land use category, in this case, DUE factors for park facilities were determined by County staff through detailed reviews of impacts on parks by various development types and densities
- Step 5.*** Calculate the total amount of DUEs that will be generated by all future development land use categories by multiplying the land uses by their assigned DUE factor
- Step 6.*** Divide the total cost of the park facilities by the total DUEs calculated in Step 5 to calculate a cost per DUE for the park fee
- Step 7.*** Multiply each land use's DUE factor by the cost per DUE to determine the park fee for each land use category

III. LAND USE CATEGORIES

The NVSSP area includes approximately 1,027 developable acres that are designated for residential and non-residential development. The developable acres in this Nexus Study reflect both the actual acres from final mapped and tentative mapped areas, as well as acreage from the unmapped areas which have been reduced by a 10% factor to account for the potential loss of developable acreage due to wetlands and uncertainties regarding the high school site. Of the 1,027 acres, a total of 175 acres of residential property has been developed in the NVSSP area. The remaining amount, approximately 851 acres, represents the total developable acres included in this updated analysis. Residential land uses in the NVSSP area include zoning categories RD-1 through RD-7, RD-10, and multi-family residential, assumed to be the RD-20 zoning category. Nonresidential land uses include 6.4 acres of Business Professional (BP) and 27.1 acres of Commercial (LC). More detail regarding the acreage associated with each zoning category can be found in Tables A-1 and A-2 in Appendix A.

The Mitigation Fee Act requires that a reasonable relationship exist between the need for public facilities and the type of development on which an impact fee is imposed. The need for public facilities is related to the level of service demanded, which varies in proportion to the number of residents or employees generated by a particular development type. Therefore, land use categories and DUEs have been calculated in order to distinguish between relative impacts on park facilities. The park fee has been calculated on a per acre basis for residential development and on a per building square foot basis for non-residential land use categories. The County will make the final determination as to which land use category a particular development will be assigned.

IV. NEXUS FINDINGS

The park fee component of the NVSSP Development Impact Fee Program – Park Fee Update calculated in this report meets the AB 1600 nexus requirements, as outlined below.

Purpose of the Fee

The purpose of the park fee is to fund park, trail, and recreation facilities to serve the NVSSP area.

Use of the Fee

Fee revenue will be used to fund development of two community parks, two mini-parks, five neighborhood parks, trails within the open space/drainage preserve and detention basins, a 10,000 square foot community center, and various other park amenities identified in Table A-5.

Reasonable Relationship between the Fee's Use and the Type of Development

New development will generate additional residents and employees that will create the demand for parks and recreational facilities, which will require the development of parks and recreational facilities within the NVSSP area. Park fee revenue from residential and nonresidential development will fund these facilities and will benefit future residents and employees in the NVSSP area.

Reasonable Relationship between the Need for the Facility and the Type of Development

Development in the NVSSP area will create new residents and employees who will use parks and recreation facilities. The demand for parks and recreation facilities from new residents and employees will require the District to construct new facilities to handle the increased demand. The District has established a level of service of 5 acres per 1,000 residents.

Reasonable Relationship between the Amount of the Fee and the Cost of the Facility

The relationship between the amount of the park fee and the portion of the facility and cost attributable to the development type is based on the number of residents or employees for each specific land use category, as shown in Table B-1 in Appendix B which shows park DUE factors. The number of residents or employees generated by each land use type establishes the potential for usage or demand for parks and recreation facilities and can therefore be used to quantify a proportionate park fee for each land use category.

V. PARK FACILITIES AND COSTS

Future Facility Requirements and Costs

The District requires a level of services of 5 acres of park land per 1,000 population. According to the NVSSP PFFP and the District, two community parks, two mini-parks, and five neighborhood parks are planned for the NVSSP area. The park fee will also fund open space/drainage parkway and trail facilities, linear open space trail facilities, joint-use detention basin/trail facilities, playground facilities, and a 10,000 square foot community center in the NVSSP area. Currently no park or trail facilities have been developed in the NVSSP area.

The total cost of park facilities is estimated to be \$42.4 million. This amount includes \$16.9 million for basic park development, \$7.5 million for a community center, \$5.3 million for drainage parkway and trail facilities, \$10.7 million for park facilities and additional improvements, and \$2.0 million for joint use detention basins and trail improvements. The total cost also includes contingency and master plan costs. In addition, \$5.7 million in the park fee fund held by the District and paid by existing development in the NVSSP area is used to offset the total cost and thereby reducing it to a net cost of \$36.7 million. Tables A-5 and A-6 in Appendix A summarize the park facilities and costs.

Roadway frontage improvements adjacent to parks, open space, and parkways are included in the roadway fee component of the NVSSP Fee Program. The park fee component includes funding for excavation and construction of paved trails/maintenance road located in the drainage corridor. Trail improvements shall be constructed concurrently with drainage corridor improvements.

The detention basins within the NVSSP area will be designed to serve several functions: drainage, storm water detention and retention, water quality and passive recreation. The District will maintain the perimeter of the detention basins within the NVSSP area. Drainage and flood control functions will remain the responsibility of the County of Sacramento Water Resources and will be managed through an easement to the District and a future Detention Basin Joint Use Agreement. The park fee will fund certain detention basin improvement costs including, but not limited to, landscaping, trail and trailside improvements, and signage. At a minimum, upon completion, passive recreational uses will be available to the public in conjunction with these basins. Walking paths, benches, resting and viewing areas will be constructed around the basin perimeters. Possible joint use and active recreational areas will be considered in the final design and construction of the basins for the greatest public benefit.

Similar to the detention basins, the District will ultimately own and maintain the open space/drainage corridors within the NVSSP area. Drainage and flood control functions will remain the responsibility of the County of Sacramento Water Resources and will be managed through an easement from the District and an Open Space/Drainage Corridor Working Agreement. This area will be designated a "Preserve area," which will significantly limit the access and types of use and activity within the area. Upon completion, passive recreational uses will be available to the public in conjunction with the open space and multi-use trails. Walking/bicycling paths, equestrian trails, benches, resting and viewing areas will be constructed along the Gerber Creek and Elder Creek Open Space/Drainage Corridor.

VI. PARK FEE AND PROGRAM ADMINISTRATION

Park Development Fee

Since there are currently no parks within the NVSSP area, new parks will have to be built to serve development within NVSSP. The net cost of these facilities is allocated among future residents and employees in this area.

Table A-5 in Appendix A shows the Southgate Recreation and Park District Capital Improvements Plan Summary (“Park CIP”) for the NVSSP area totals approximately \$36.7 million. Facilities in the Park CIP are based on a development base of 3,575 DUEs, which is the expected development remaining in NVSSP. Table A-7 in Appendix A shows the calculation of the updated park fee component of the NVSSP fee program. The \$36.7 million park cost is allocated to future land uses in the NVSSP area based on the park DUE factors shown in Table A-3 in Appendix A. The cost per DUE, based on the \$36.7 million Park CIP is \$10,255. The park fees per acre are calculated by multiplying the \$10,255 cost per DUE by the DUE factor assigned to each land use category.

Fee Summary and Program Administration

The tables below summarize the park fees for the expected land use categories in the NVSSP area. For age-restricted development, as shown in Table A-7 of Appendix A, an adjustment factor is applied to each zoning category to calculate the age-restricted park fees.

Park Fee – Non Age-Restricted

Zoning Category	Park Fee
<u>Residential</u>	<u>Fee per Acre</u>
RD – 1	\$10,255
RD – 2	\$20,510
RD – 3	\$29,740
RD – 4	\$37,944
RD – 5	\$46,148
RD – 6	\$55,377
RD – 7	\$64,607
RD – 10	\$75,887
MFR (RD – 20)	\$119,984
<u>Non-Residential</u>	<u>Fee per Building Square Foot</u>
Office (BP)	\$2.15
Commercial (LC)	\$2.35

Due to age-restricted development planned in NVSSP, this park fee update includes park fees for this type of development. County staff estimates that residents from age-restricted development will impact the need for parks at a level that is 69% of other residential development types.

Therefore, the age-restricted park fees shown in the table below are 69% of the park fees shown in the fee table above for non age-restricted development.

Park Fee --Age Restricted

Zoning Category	Park Fee
<i>Residential</i>	<i>Fee per Acre</i>
RD – 1	\$7,076
RD – 2	\$14,152
RD – 3	\$20,521
RD – 4	\$26,181
RD – 5	\$31,842
RD – 6	\$38,210
RD – 7	\$44,579
RD – 10	\$52,362
MFR (RD – 20)	\$82,789

Fee Adjustments

The park fee component may be adjusted in future years to reflect revised facility costs or standards, or receipt of funding from alternative sources (i.e., state or federal grants). In addition to such adjustments, the park fee component will be inflated each year by a construction cost index, as determined by the County ordinance.

Fee Collection

The park fee component and the administration fee will be collected prior to issuance of building permits. Fees will be placed in separate fee accounts to prevent commingling of revenues and allow for accurate accounting of funds. Park fee revenues will be collected by the County and then distributed to the Southgate Recreation and Park District.

NVSSP Fee Calculation

The calculation of the total NVSSP Park Fees will be based on the following formula:

For Residential Land Uses:

$$\text{Cost per DUE} \times \text{DUE Factor per Acre} \times \text{Net Acres of Property} = \text{NVSSP Park Fee}$$

For Nonresidential Land Uses:

$$\text{Cost per DUE} \times \text{DUE Factor per Acre} \div \text{Floor Space Per Acre} \times \text{Building Square Feet (as shown in the building permit)} \times \text{Building Square Feet (as shown in the building permit)} = \text{NVSSP Park Fee}$$

Cost per DUE - the Cost per DUE for the park fee component can be found in Table A-7 in Appendix A.

DUE Factor per Acre – the DUE Factor per Acre for each County land use category (zoning category) is presented in Table B-1 in Appendix B.

Floor Space per Acre – as presented in Table B-1 in Appendix B.

Net Acres – Net acres, as shown in the North Vineyard Station Specific Plan Public Facilities Financing Plan equals gross acres less acreage associated with parks, schools, golf course, open space, parkway, major streets, railroad ROW, and any public acreage associated with municipal services and facilities.

The DUE factors used to compute the development fees must be those listed for the land use zoning category for the site that is adopted by ordinance by the Sacramento County Board of Supervisors. If a subdivision site is zoned RD-7, but the developer chooses to build homes on large lots that would comply with RD-5 zoning standards, the park fee component will be calculated based on the DUE factors for the RD-7 zoning in effect for the property. Only with the approval of a rezone to RD-5, prior to approval of improvement plans, would the fee obligation of the site be reduced to the RD-5 level.

Credit / Reimbursement Requirements

The NVSSP Fee Program Ordinance allows for credits for park improvements, which are constructed by private development at the discretion of the facility/service provider. Additionally, the Ordinance allows for reimbursement of park improvements that are constructed by private development. Such reimbursements are to be administered by the District.

Amount of Credit / Reimbursement

The amounts to be considered for credit or reimbursement of the facilities constructed by private development will be the actual cost of constructing the facility, including costs such as engineering design, design surveys, construction surveys, construction inspection and materials testing, and contingency, up to the estimated cost contained in the Park CIP, as detailed in Appendix A and C. In the event that the fee rates and facilities costs are adjusted by either the built-in annual adjustments or periodic program updates, the maximum amount allowed for credit or reimbursement shall be the cost set forth in the Park CIP in effect at the time of the project's acceptance. Amounts for contingencies will be examined on a case-by-case basis and will be allowed based upon the determination of the Administrator of the Municipal Services Agency.

At the time of the execution of the credit/reimbursement agreement, the eligible amount and allowable credits would be based on the estimated cost contained in the Park CIP in effect at the time of the agreement. Upon acceptance of the improvement, the County will verify the actual cost of the project. If the project cost is less than the amount contained in the agreement, the difference in terms of credit will be applied to lower any remaining credits or be paid back to the County by the developer when no more credits are available. If there is reimbursement due to the

developer, this difference will be adjusted to the reimbursement amount. If the project cost is more than the amount contained in the agreement and the cost in the Park CIP in effect at the time of the project acceptance is greater than the amount contained in the agreement due to annual adjustments to the Park CIP or periodic updates to the Fee Program, the difference between the amount contained in the agreement and the lesser of the project cost or the eligible amount in effect at the time of the project acceptance, will be applied to increase any future available credits or be reimbursed by the County to the developer in accordance with the reimbursement policy.

For Park CIP facilities funded through a community facilities district (CFD), only funding up to the park fee for the development will be allowed to be credited; any amount over the fee obligation for the development will not be funded through the CFD. Alternatively, the CFD could fund these amounts if the reimbursement from the Fee Program is paid to the CFD and not the developer.

Fee Implementation

According to California Government Code, prior to levying a new fee or increasing an existing fee, an agency must hold at least one open and public meeting. At least 10 days prior to this meeting, the agency must make data on infrastructure costs and funding sources available to the public. Notice of the time and place of the meeting, and a general explanation of the matter, are to be published in accordance with Section 6062a of the Government Code, which states that two publications of notice shall occur, with at least five days intervening between the dates of first and last publication in a newspaper regularly published once a week or more.

The park fee component established herein will be adopted through a County resolution. Once the park fee is adopted by the Board of Supervisors, it shall become effective no sooner than sixty days later, unless an urgency measure is adopted. An urgency measure is an interim authorization that waives the sixty-day waiting period and allows the new fees to be collected immediately if a finding of a current and immediate threat to the public health, welfare and safety can be demonstrated. The interim authorization requires a four-fifths vote of the Board and stays in effect for thirty days; no more than two extensions of the authorization can be granted.

Annual Administrative Duties

The Government Code requires the County to report, every year and every fifth year, certain financial information regarding the impact fees. Within 180 days after the last day of each fiscal year the County must make the following information available for the past fiscal year:

- (a) A brief description of the type of fee in the account or fund
- (b) The amount of fee revenue
- (c) The beginning and ending balance of the account or fund
- (d) The amount of fee revenue collected and interest earned
- (e) An identification of each public improvement on which fees were expended and the amount of expenditures on each improvement, including the total percentage of the cost of public improvement that was funded with fees
- (f) An identification of an approximate date by which time construction on the improvement will commence if the local agency determines that sufficient funds have been collected to complete financing on an incomplete public improvement

- (g) A description of each interfund transfer or loan made from the account or fund, when it will be repaid and at what interest rate
- (h) The amount of any refunds made once it is determined that sufficient monies have been collected to fund all projects

The County must make this information available for public review and must also present it at the next regularly scheduled public meeting not less than 15 days after this information is made available to the public.

Fifth-Year Administrative Duties

For the fifth year following the first deposit into the fee account and every five years thereafter, the County must make the following findings with respect to any remaining funds in the fee accounts:

- (a) Identify the purpose to which the fee is to be put
- (b) Demonstrate a reasonable relationship between the fee and the purpose for which it is charged
- (c) Identify all sources and amounts of funding anticipated to complete financing incomplete improvements
- (d) Designate the approximate dates on which funding is expected to be deposited into the appropriate accounts or funds

As with the annual report, the five-year report must be made public within 180 days after the end of the County's fiscal year and must be reviewed at the next regularly scheduled public meeting. The County must make these findings; otherwise the law states that the County must refund the fee revenue to the then current owners of the development project.

Appendix A

Fee Calculation Summary Tables

**Table A-1
North Vineyard Station Fee Program
Land Use Summary**

Land Use	Original Unit Assumption	Original Total Net Acres	Original Fee Program Net Acres /1	2017		Remaining Fee Program Net Acres /2
				Adjusted Total Fee Program Net Acres	Developed Acres /2	
Residential						
Single Family						
SFR 1-3	485	269.8	242.8	235.7	0.0	235.7
SFR 3-5	2,633	578.8	520.9	515.8	92.0	423.8
SFR 4-7	1,042	188.1	169.3	142.1	58.4	83.7
MDR 7-12	278	30.9	27.8	43.5	17.4	26.1
Subtotal	4,438	1,067.6	960.8	937.1	167.8	769.3
Multi-Family						
MFR 12-22	1,007	62.2	56.0	56.0	7.5	48.5
Total Residential	5,445	1,129.8	1,016.8	993.1	175.3	817.8
Non-Residential						
Business Professional (BP)		7.1	6.4	6.4	0.0	6.4
Commercial (LC)		30.1	27.1	27.1	0.0	27.1
Total Non-Residential		37.2	33.5	33.5	0.0	33.5
Total		1,167.0	1,050.3	1,026.6	175.3	851.3

/1 The North Vineyard Station Fee Program assumes a 10% reduction in net acres to address development uncertainties regarding the high school site and the potential for loss of acreage due to wetlands.

/2 As of July 2017.

Source: North Vineyard Station Specific Plan PFFP; County of Sacramento

**Table A-2
North Vineyard Station Fee Program
Land Use Allocation**

Land Use	2017		Developed Acres /1	Remaining Fee Program Net Acres /1
	Original Total Net Acres	Adjusted Total Fee Program Net Acres		
Residential				
Single Family				
RD-1	24.3	20.4	0.0	20.4
RD-2	194.3	163.4	0.0	163.4
RD-3	50.3	63.5	0.0	63.5
RD-4	60.6	25.3	0.0	25.3
RD-5	451.2	493.3	92.0	401.3
RD-6	143.9	38.1	2.8	35.3
RD-7	30.7	96.4	55.6	40.8
RD-10	5.6	36.7	17.4	19.3
Subtotal	960.9	937.1	167.8	769.3
Multi-Family				
MFR 12-22	56.0	56.0	7.5	48.5
Total Residential	1,016.9	993.1	175.3	817.8
Non-Residential				
	<u>FAR</u>	<u>SF</u>		
Business Professional (BP)	0.35	97,834	6.4	6.4
Commercial (LC)	0.25	295,402	27.1	27.1
Total Non-Residential			33.5	33.5
Total			1,050.4	1,026.6

/1 As of July 2017.

Source: North Vineyard Station Specific Plan PFFP; County of Sacramento

**Table A-3
North Vineyard Station Fee Program
DUEs Per Acre**

Land Use	Park DUEs
Residential	
Single Family	
RD-1	1.0
RD-2	2.0
RD-3	2.9
RD-4	3.7
RD-5	4.5
RD-6	5.4
RD-7	6.3
RD-10	7.4
Multi-Family	
MFR 12-22	11.7
Non-Residential	
Business Professional (BP)	3.2
Commercial (LC)	2.5

Source: County of Sacramento

**Table A-4
North Vineyard Station Fee Program
DUE Summary**

Land Use	2017 Adjusted Net Acres	2017 Adjusted Total Park DUEs	Remaining Park DUEs
Residential			
Single Family			
RD-1	20.4	20.4	20.4
RD-2	163.4	326.8	326.8
RD-3	63.5	184.2	184.2
RD-4	25.3	93.6	93.6
RD-5	493.3	2,122.4	1,716.6
RD-6	38.1	196.7	181.6
RD-7	96.4	604.8	254.4
RD-10	36.7	230.9	142.1
Multi-Family			
MFR 12-22	56.0	655.4	567.3
Total Residential		4,435.2	3,487.0
Non-Residential			
Business Professional (BP)	6.4	20.5	20.5
Commercial (LC)	27.1	67.8	67.8
Total Non-Residential DUEs		88.3	88.3
TOTAL DUEs (rounded)		4,524	3,575

Source: County of Sacramento

Table A-5
North Vineyard Station Comprehensive Plan Area
Southgate Recreation and Park District
Capital Improvements Plan Summary

Description	Units	Cost per Unit	Total Cost
Basic Park Development Costs /1			
1 to 3 acres	4.0 acres	\$365,538	\$1,462,154
3 to 6 acres	14.6 acres	\$264,522	\$3,862,019
6 to 11 acres	17.9 acres	\$225,000	\$4,027,500
11 + acres	28.5 acres	\$209,934	\$5,983,119
Subtotal Basic Park Development (with contingency) /2	65.0 acres		\$16,868,270
Park Facilities Costs			
Playground Equipment - Small	7 each	\$175,000	\$1,225,000
Playground Equipment - Large	8 each	\$350,000	\$2,800,000
Soccer Fields	11 each	\$15,000	\$165,000
Softball Fields	3 each	\$60,000	\$180,000
Youth Baseball Fields Backstops Only	6 each	\$50,000	\$300,000
Tennis Court with Fence (set of 2)	4 each	\$100,000	\$400,000
Sports Lighting (multiple fields for 3 parks)	50 each	\$39,000	\$1,950,000
Basketball Courts (1/2 Court)	9 each	\$45,000	\$405,000
Shade Structures - Large (50 people)	1 each	\$90,300	\$90,300
Shade Structures - Small (25 people)	18 each	\$46,200	\$831,600
Restroom Buildings	2 each	\$290,000	\$580,000
Parking Lots (2 Lots; 2 @ 100 & 120 stalls)	220 stall	\$3,700	\$814,000
Subtotal Park Facilities Costs (with contingency) /2			\$10,714,990
TOTAL Park Development Costs			\$27,583,260
Community Center Facilities	10,000 square feet	\$551	\$5,510,000
Site Improvements for 2 Acre Site	lump sum		\$577,500
Architectural & Engineering Fees @ 12%	percentage		\$730,500
Subtotal Community Center Facilities (with contingency) /2			\$7,499,800
TOTAL Park Development Costs (With Community Center)			\$35,083,060
Fund Balance Proportioned to Park Improvements /3			(\$4,740,615)
Net Remaining Park Funding Requirement			\$30,342,446
Fee Rate per DUE for Park Development With Community Center			\$8,487
Drainage Parkway and Other Trail Facilities			
Pedestrian Signal Crossings			
Gerber Creek at Bradshaw Rd.&Waterman Rd.	2 lump sum	\$164,000	\$328,000
Drainage Parkway Trail Facilities /4			
Gerber Creek Trail System Improvements /5	13,590 lineal feet	\$176	\$2,386,640
Elder Creek Trail System Improvements	6,595 lineal feet	\$176	\$1,158,196
Other Linear Open Space Trail /6	5,225 lineal feet	\$178	\$932,343
Subtotal Trail Costs (with contingency) /2			\$5,285,697
JOINT-USE Detention Basins (Five Basins)			
Trail & Trailside Improvements /7	16,500 lineal feet	\$120	\$1,980,000
District Park, Recreation & Open Space Master Plan	lump sum		\$40,250
TOTAL Trail Development Costs			\$7,305,947
Fund Balance Proportioned to Trail Improvements /3			(\$987,219)
Net Remaining Trail Funding Requirement			\$6,318,728
Fee Rate per DUE For Trails Development			\$1,767
Total Estimated Park DUE's /8	3,575		
ADD: INFRASTRUCTURE-Drainage & Sewer			
Impact Fees & Zone 40 Water Fees			\$10,255
TOTAL Park Fee per DUE			\$10,255

- /1 Water and drainage fees are included in the Basic Park Development Costs and sanitary sewer fees are included in the cost of the restroom buildings. The developer is responsible for paying for any cost shortfall if the Drainage Fees and Zone 40 Water Fee Costs are more than the estimated costs included in the this Fee Study, plus any annual inflation adjustment.
- /2 Contingency is 10%.
- /3 An existing Park Fee fund balance of \$5,727,834 is allocated proportionately between Park and Trail improvement costs.
- /4 Improvements costs include 12' wide trail construction including clearing for the bike and a 4' equestrian trail, excavation, grading, aggregate base, asphalt pavement, and 2' DG shoulders, as well as, striping, drinking fountains, benches and minimal landscape plantings.
- /5 The developer of Javani Estates will pay for Pedestrian Bridge improvements on the east side of Bradshaw Road.
- /6 Other trail improvements costs for the approximate 5,225 lin.ft. transmission easement includes an 8' trail including; excavation, grading, aggregate base & asphalt pavement and revegetation hydroseed only.
- /7 Improvements costs include 8' wide paved trail construction, including; excavation, grading, aggregate base & concrete pavement, as well as, lights, benches and landscape plantings for 5 basins with a total of approximately 16,500 linear feet.
- /8 Total estimate of Park DUE's is 4,568 and based on 5 ac of parkland/1000 that is 65.0 ac of parkland.

**Table A-6
North Vineyard Station Fee Program
Park and Recreation Facilities**

Park/Facility Name or Number	Type	Acres	Soccer Fields	Softball Fields	Youth Baseball Fields	Sport &/or Tennis Courts (set of 2)	Sport &/or Basketball Courts (1/2 C)	Shade Shelter & Picnic Tables	Restrooms	Playgrounds	Parking Lot
PHASE A-1											
Vineyard Point Park North		14.3	2*		1	2*	2*	3S	1	1L/1S	1
Sub-total	C	14.3	2	0	1	2	2	3S	1	1L/1S	1
PHASE A-2											
Vineyard Creek Park	C	14.2	2*	3*		2*	2	1L/2S	1	1L/1S	1
North Morvai Park	M	2.0					1	2S		1S	
Sub-total		16.2	2	3	0	2	3	1L/4S	1	1L/2S	1
PHASE B											
South Morvai Park	N	6.4	1		1		1	2S		1L/1S	
Sub-total		6.4	1	0	1	0	1	2S	0	1L/1S	0
PHASE C											
Apostol Park	M	2.0						1S		1L	
Law Park	N	6.5	1				1	2S		1L/1S	
Oshiro Park	N	5.4	1		1		1	2S		1L/1S	
Sub-total		13.9	2	0	1	0	2	5S	0	3L/2S	0
PHASE D											
Aston Trust Park	N	9.2	3*		2*			2S		1L/1S	
Vineyard Point Park East	N	5.0	1		1		1	2S		1L	
Sub-total		14.2	4	0	3	0	1	4S	0	2L/1S	0
PHASE E											
Total		65.0	11	3	6	4	9	1L/18S	2	8L/7S	2

C=Community Park

M=Mini Park

N=Neighborhood Park

* Sports Field Lighting to be included.

Source: County of Sacramento; Southgate Recreation and Park District

Table A-7
North Vineyard Station Fee Program
Park Fee Calculation

Total Park Development Costs					\$35,083,060	
Total Trail Development Costs					\$7,305,947	
Total Park and Trail Development Costs					\$42,389,007	
Less: Park Fee Fund Balance					(\$5,727,834)	
Net Parks and Trail Costs					\$36,661,173	
Total DUEs					3,575	
Cost Per DUE					\$10,255	
<hr/>						
		Per Acre				
		DUE				
		Factor				
			Total	Cost		Age Restricted
Residential	Acres	Factor	DUEs	Allocation	Park Fee /1	Park Fee /1, /2
Single Family						
RD-1	20.4	1.0	20.4	\$209,202	\$10,255	\$7,076
RD-2	163.4	2.0	326.8	\$3,351,334	\$20,510	\$14,152
RD-3	63.5	2.9	184.2	\$1,888,971	\$29,740	\$20,521
RD-4	25.3	3.7	93.6	\$959,868	\$37,944	\$26,181
RD-5	401.3	4.5	1,716.6	\$17,603,733	\$46,148	\$31,842
RD-6	35.3	5.4	181.6	\$1,862,308	\$55,377	\$38,210
RD-7	40.8	6.3	254.4	\$2,608,872	\$64,607	\$44,579
RD-10	19.3	7.4	142.1	\$1,457,236	\$75,887	\$52,362
Multi-Family						
MFR 12-22	48.5	11.7	567.3	\$5,817,662	\$119,984	\$82,789
Non-Residential						
Business Professional (BP)	6.4	3.2	20.5	\$210,228	\$2.15	--
Commercial (LC)	27.1	2.5	67.8	\$695,289	\$2.35	--
<hr/>						
Total	851.3		3,575.0	\$36,664,702		

/1 Park fees do not include the County's 5.0% administrative fee.

/2 For Age-restricted development, an adjustment factor of 69% is applied to reduce the applicable residential zoning category.

Source: County of Sacramento; Goodwin Consulting Group, Inc.

Appendix B

Dwelling Unit Equivalent Table

Table B-1
North Vineyard Station Fee Program
Park Improvement Facility DUES

I. Residential Dwelling Unit Equivalent (DUE) Factors

ZONING	A MAXIMUM ZONING DENSITY PER ACRE	B ASSUMED YIELD UNITS PER ACRE	C PERSONS PER HOUSEHOLD	D PERSON PER ACRE (BxC)	F DUE FACTOR (D/2.88)
AG-80	0.01	0.01	2.88	0.04	0.01
AG-20	0.05	0.05	2.88	0.14	0.05
AR-10	0.10	0.10	2.88	0.29	0.10
AR-5	0.20	0.20	2.88	0.58	0.20
AR-2	0.50	0.20	2.88	1.44	0.50
AR-1	1.00	1.00	2.88	2.88	1.00
RD-1	1.00	1.00	2.88	2.88	1.00
RD-2	2.00	2.00	2.88	5.76	2.00
RD-3	3.00	2.91	2.88	8.38	2.90
RD-4	4.00	3.72	2.88	10.71	3.70
RD-5	5.00	4.50	2.88	12.96	4.50
RD-6	6.00	5.40	2.88	15.55	5.40
RD-7	7.00	6.30	2.88	18.14	6.30
RD-9	9.00	8.10	2.36	19.12	6.64
RD-10	10.00	9.00	2.36	21.24	7.40
RD-12	12.00	10.80	2.28	24.62	8.60
RD-15	15.00	13.50	2.17	29.30	10.20
RD-20	20.00	17.00	1.98	33.66	11.70
RD-25	25.00	20.00	1.98	39.60	13.80
RD-30	30.00	24.00	1.98	47.52	16.50

II. Non-Residential Dwelling Unit Equivalent (DUE) Factors

ZONING	FLOOR SPACE PER ACRE	A EMPLOYEES PER ACRE	B EMPLOYEE DENSITY (Ax0.25)	C DUE FACTOR PERSONS/ACRE (B/2.88)
M-1/M-2	15,246	17.35	4.34	1.5
MP	17,424	40.60	10.15	3.5
BP	15,246	37.30	9.33	3.2
SC	12,197	23.90	5.98	2.1
GC	10,890	19.80	4.95	1.7
LC	10,890	28.75	7.19	2.5
TC	10,890	34.60	8.65	3.0

From 1990 Census data, per SACOG:

HOUSING TYPE	PERSONS PER HOUSEHOLD IN UNINCORPORATED COUNTY
SINGLE FAMILY:	2.88
DUPLEX-QUADPLEX:	2.36
5+ MULTIFAMILY APTS:	1.98

Appendix C

Basic Park Development Unit Costs

Table C-1
Southgate Recreation and Park District
Basic Park Development Unit Costs
2018 Update

Improvements	Cost per Acre based on Park Size ¹			
	1-3 acres	4-6 acres	7-11 acres	12 acres+
1. Site Improvement Costs ²	\$277,185	\$190,344	\$156,478	\$143,877
2. Architect, Engineer & Environmental				
Survey and Material Testing	3,000	3,000	3,000	3,000
Engineering/Design @ 12%	33,262	22,841	18,777	17,265
Contract Administration @ 3%	8,316	5,710	4,694	4,316
Inspection/Plan Check, Env. Rev.& SWPPP	5,750	4,600	4,025	3,450
Drainage Fees ³	13,832	13,832	13,832	13,832
Zone 40 Water Fees ⁴	24,194	24,194	24,194	24,194
Subtotal	\$88,354	\$74,177	\$68,522	\$66,057
TOTAL CONSTRUCTION COSTS PER ACRE	\$365,538	\$264,522	\$225,000	\$209,934

1. Cost per acre based on recent park construction data from local communities.
2. Site improvement costs include start-up costs (security fencing, construction staking, clearing and grubbing, earthwork and grading); planting material costs (turf trees, shrubs, ground cover, soil prep, mulch, irrigation and landscape maintenance); concrete walkways, mowbands, curbing, ramps, pads and decomposed granite, electrical service conduit (but not light fixtures), park sign and site furnishings including benches, bollards, drinking fountains, bike racks and trash receptacles.
3. Drainage fees include the cost for park impervious surface areas only estimated at 8% of park acreage. Other Drainage Fees for graded site are include in the infrastructure costs paid by Developer at the time of map approval.
4. Zone 40 Water Fees include costs for Park Service Fee and Water Meter Connection Fees.

APPENDIX E

Roadway and Frontage Lane Exhibits

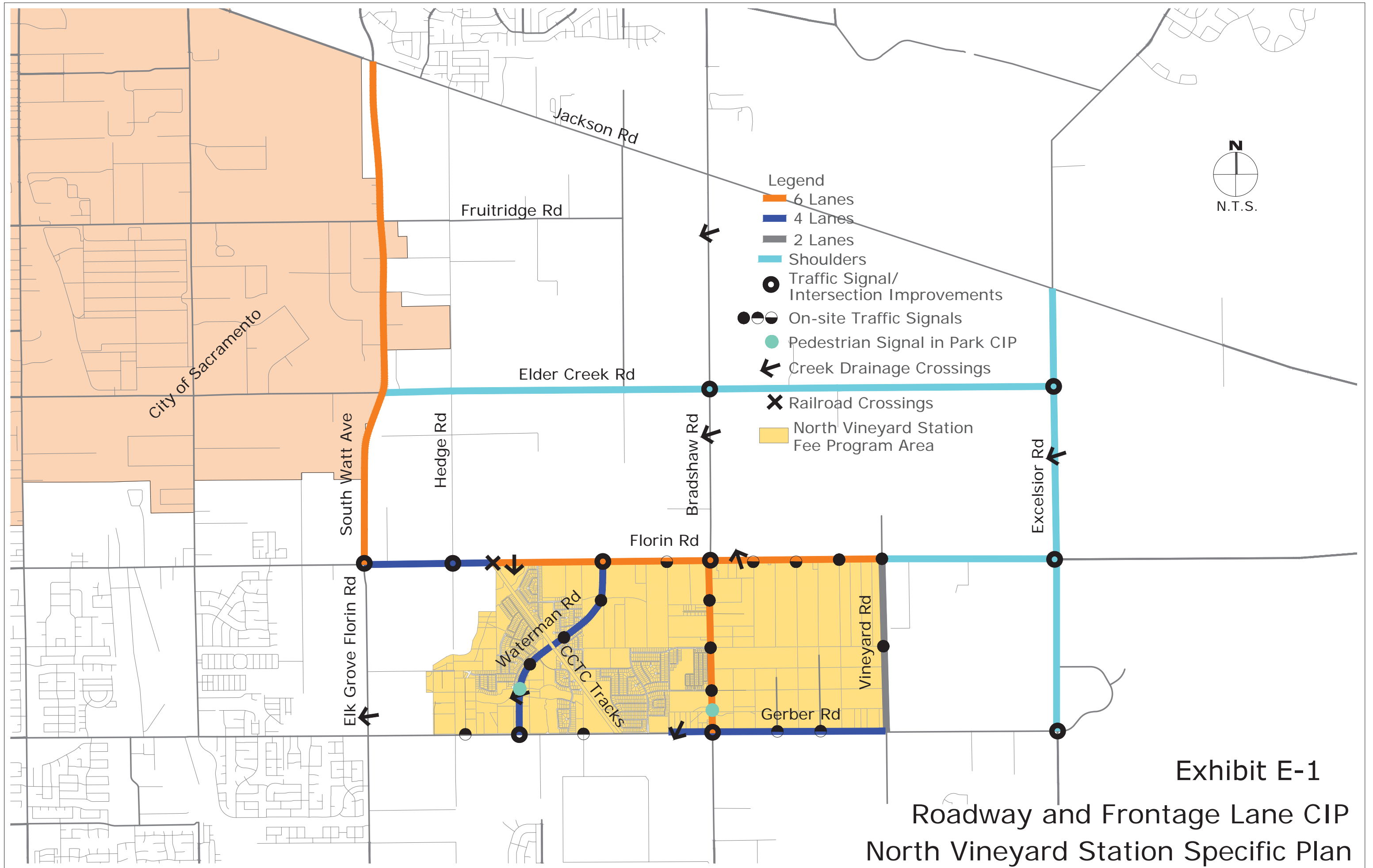
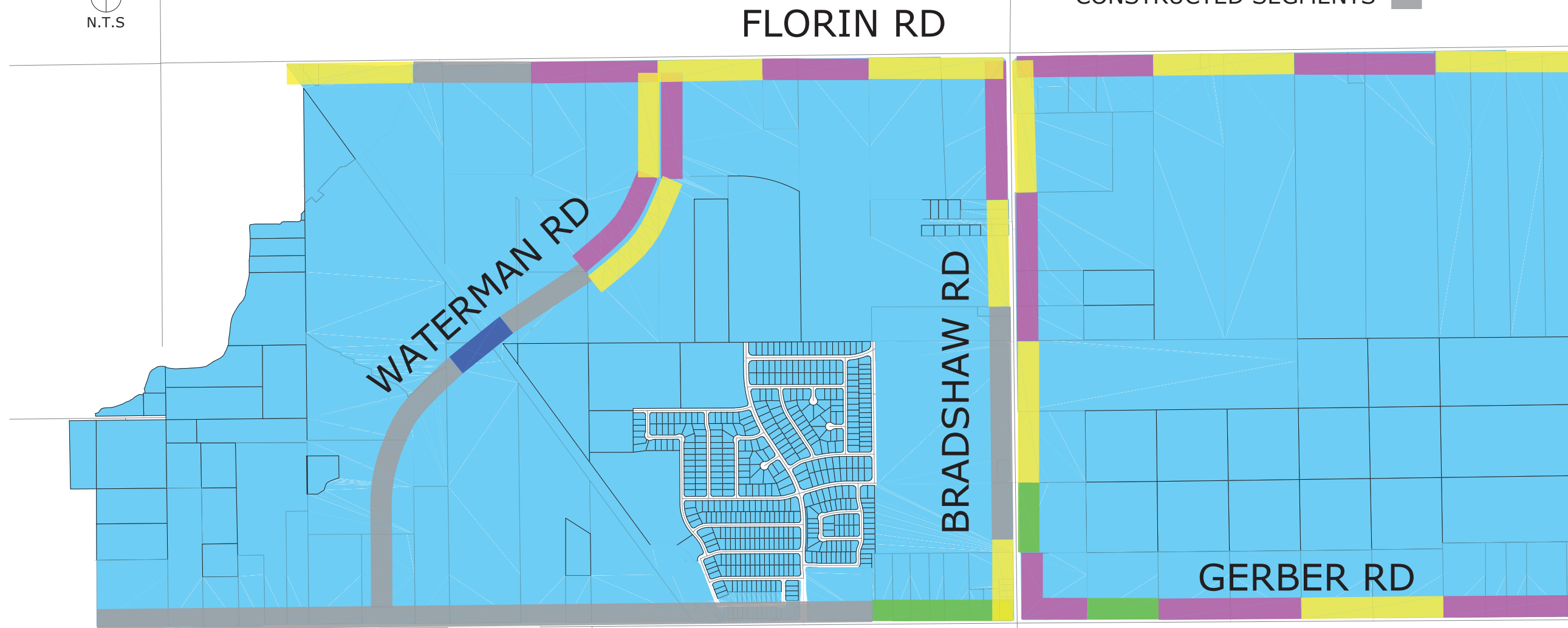


Exhibit E-1
 Roadway and Frontage Lane CIP
 North Vineyard Station Specific Plan



LEGEND
LOGICAL SEGMENTS [Green] [Purple] [Yellow] [Blue]
CONSTRUCTED SEGMENTS [Grey]



NOTES:

1. LOGICAL SEGMENTS ARE TYPICALLY +/- ¼ MILE IN LENGTH AS DEPICTED ON THIS EXHIBIT. DEPARTMENT OF TRANSPORTATION STAFF WILL EXERCISE DISCRETION TO IDENTIFY SENSIBLE LIMITS OF SPECIFIC LOGICAL SEGMENTS TAKING INTO ACCOUNT ITEMS SUCH AS BUT NOT LIMITED TO FUTURE STREET INTERSECTIONS, EXISTING ADJACENT STREET IMPROVEMENTS, PROPERTY LINES, BRIDGES, CREEKS, AND RAILROADS.
2. FOR DEVELOPMENT PROJECTS LOCATED AT THE INTERSECTION OF TWO MAJOR ROADS, THE PROJECT WILL BE RESPONSIBLE FOR CONSTRUCTING ITS FULL FRONTAGE IMPROVEMENTS AND THE LOGICAL SEGMENT ON ONE OF THE TWO ROADWAYS FRONTING THE PROJECT. SELECTION OF THE SPECIFIC LOGICAL SEGMENT WILL BE AT STAFF'S DISCRETION, TAKING INTO CONSIDERATION EXISTING ROADWAY CONDITIONS AND ANTICIPATED TRAFFIC GENERATED BY THE DEVELOPMENT.

Exhibit E-2

FRONTAGE LANE IMPROVEMENTS
LOGICAL SEGMENTS
NORTH VINEYARD STATION SPECIFIC PLAN