

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
BOARD ACTION SUMMARY

DEPT: Public Works

BOARD AGENDA #: *C-1

AGENDA DATE: August 8, 2017

SUBJECT:

Approval of Amendment #2 to the Agreement for Professional Design Services with NV5, Inc., AKA Nolte Associates, Inc. for the Crows Landing Road Seismic Bridge Replacement Project

BOARD ACTION AS FOLLOWS:

No. 2017-437

On motion of Supervisor Olsen, Seconded by Supervisor DeMartini
and approved by the following vote,

Ayes: Supervisors: Olsen, Withrow, Monteith, DeMartini, and Chairman Chiesa

Noes: Supervisors: None

Excused or Absent: Supervisors: None

Abstaining: Supervisor: None

1) Approved as recommended


2) Denied

3) Approved as amended

4) Other:

MOTION:

ATTEST:


ELIZABETH A. KING, Clerk of the Board of Supervisors

File No.

**THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
AGENDA ITEM**

DEPT: Public Works

Urgent

Routine

BOARD AGENDA #: *C-1

AGENDA DATE: August 8, 2017



CEO CONCURRENCE:

4/5 Vote Required: Yes No

SUBJECT:

Approval of Amendment #2 to the Agreement for Professional Design Services with NV5, Inc., AKA Nolte Associates, Inc. for the Crows Landing Road Seismic Bridge Replacement Project

STAFF RECOMMENDATIONS:

1. Approve Amendment #2 to the Professional Design Services Agreement for additional design and right of way services to NV5, Inc., in the amount of \$851,417, for a total not to exceed amount of \$1,910,103, and reflect the Consultant's name change from "Nolte Associates, Inc." to "NV5, Inc.", for the Crows Landing Road Seismic Bridge Replacement Project.
2. Authorize the Director of Public Works to execute the amendment and to sign necessary documents.
3. Authorize the Director of Public Works to take any appropriate action necessary to carry out the purpose and intent of these recommendations.

DISCUSSION:

On April 22, 1997, the Board of Supervisors' Resolution No. 97-303, declared this bridge as one of three bridges that provide critical links within Stanislaus County for emergency access and must remain open at all times. The three bridges are McHenry Bridge over the Stanislaus River, Crows Landing Road Bridge over the San Joaquin River and the 9th Street Bridge over the Tuolumne River. The 9th Street Bridge replacement project has been completed and the McHenry Bridge project is under construction, with San Joaquin County as the lead agency. The McHenry Bridge should take approximately two years to complete.

In March of 2008, Public Works (Department) staff requested the California Department of Transportation (Caltrans) to re-program this important bridge in Stanislaus County in order to complete the project design. Nolte Associates, Inc. and Department staff worked with Caltrans Local Assistance - Structures for a year to develop the final seismic strategy. The outcome was to replace the 61 year old bridge. This bridge was built in 1949 and consists of a steel stringer and steel plate girder superstructure on reinforced concrete wall piers and reinforced concrete pile bents with reinforced concrete winged abutments. The entire bridge span is approximately 670 linear feet in length and the Average Daily Traffic (ADT) volume is approximately 6,700 vehicles per day. Per the latest Caltrans bridge report issued in September 2011 and FHWA's 1995 Coding Guide, this bridge has been determined to be

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vulnerable to damage if there is a significant flood event on the San Joaquin River. The bridge is also on the Local Seismic Safety Retrofit Program list due to seismic deficiencies and the bridge is listed as functionally obsolete. The proposed replacement bridge will improve safety and capacity within this segment of Crows Landing Road.

The Board approved the Professional Design Services Agreement with Nolte Associates, Inc. on October 19, 2010 to complete the engineering and environmental phases. The environmental clearance was obtained for the bridge for the National Environmental Protection Act on April 9, 2013 and the California Environmental Quality Act clearance was approved by the Board on August 13, 2013.

On August 22, 2014 "Nolte Associates, Inc." changed their company name to "NV5, Inc.". Articles of Incorporation are attached. The amendment reflects this name change to ensure a clear record of the contract parties.

With the PA&ED complete, Stanislaus County received the programming authorization for the Right-of-Way (ROW) phase from Caltrans on September 26, 2013 in the amount up to \$150,000 of which \$132,795 is federally funded. With receipt of the E-76 Amendment Modification Summary, Stanislaus County is now authorized to begin the ROW process. The consultant, NV5, Inc. has provided a comprehensive scope and fee for the ROW phase. Although some ROW work was negotiated for in the 2001 agreement, we did not need comprehensive ROW services as Public Works had a ROW agent and provided most of this service in-house. Due to retirements and budget cuts, Public Works no longer has a ROW agent, therefore it is needed to contract for these services. The amendment for ROW services was approved by the Board on October 29, 2013.

In 2015, Caltrans modified their funding policies for bridges in order to stretch Highway Bridge Program (HBP) funds. The new policy put a greater burden on local funding. This burden has necessitated consideration of additional alternatives. The additional work to develop this alternative is included in this proposed amendment. NV5 and the County considered additional alternatives and in consultation with Caltrans Headquarters and District 10 Local Assistance staff a new bridge alternative was selected. Due to the design changes we have received additional Caltrans funding for design and right-of-way. The environmental document will have to be re-validated and the remaining parcel acquired.

It is proposed that the project agreement be:

Professional Design Services Agreement (Board approved on 10-19-2010)	\$ 942,760
Amendment #1 (Board approved on 10-29-2013)	\$ 115,926
Amendment #2	\$ 851,417
Total Amount	\$1,910,103

Staff is recommending that amendment #2 to the agreement be entered into for the revised scope. Additionally, "Nolte Associates, Inc." changed its name to "NV5, Inc." on August 22, 2014, as indicated in the Amendment to the Articles of Incorporation, on file with the California Secretary of State. Staff is recommending an amendment to the Agreement to reflect this name change.

POLICY ISSUE:

Public Contract Code Section 22032 requires Board of Supervisors' approval for all contracts exceeding \$175,000.

FISCAL IMPACT:

The proposed amendment is for \$851,417 which will bring the total design of the project to approximately \$1,910,103. The project will be funded with a combination of Federal Highway Bridge Program Funds and County Public Facilities Fees (PFF) funds. Funding for the environmental phase of the project is included in Public Works Fiscal Year 2017 - 2018 Adopted Proposed Road Projects budget.

Cost of recommended action:		\$ 851,417
Source(s) of Funding:		
Federal Highway Bridge Program	\$ 753,759	
Public Facilities Fees	97,658	
Funding Total:		851,417
Net Cost to County General Fund		\$ -

Fiscal Year:	2017-2018
Budget Adjustment/Appropriations needed:	No

BOARD OF SUPERVISORS' PRIORITY:

The recommended actions are consistent with the Board's priorities of providing A Safe Community, A Healthy Community, and A Well Planned Infrastructure System by expanding the County road system to facilitate and promote the efficient movement of goods and services.

STAFFING IMPACT:

Existing Public Works staff is overseeing this project.

CONTACT PERSON:

Matt Machado, Public Works Director Telephone: (209) 525-4153

ATTACHMENT(S):

1. NV5 Associates, Inc. - Amendment No. 2
2. Certificate of Amendment of Articles of Incorporation of Nolte Associates, Inc.

ATTACHMENT 1

NV5 ASSOCIATES, INC. – AMENDMENT NO. 2

STANISLAUS COUNTY

Second Amendment to Professional Design Services Agreement
Crows Landing Road Seismic Bridge Replacement Project

This Amendment is made and entered into this 8th day of August, 2017, in the City of Modesto, State of California, by and between the County of Stanislaus (“County”) and NV5, Inc. AKA “Nolte Associates, Inc.”, (“Consultant”), for and in consideration of the promises, and the mutual promises, covenants, terms, and conditions, hereinafter contained.

WHEREAS, on October 19, 2010, the Stanislaus County Board of Supervisors awarded a Professional Design Services Agreement (“Agreement”) to Consultant for the Crows Landing Road Seismic Bridge Replacement project in the amount of \$942,760;

WHEREAS, on October 29, 2013, the Stanislaus County Board of Supervisors approved Amendment No. 1 for \$115,926;

WHEREAS, on August 22, 2014, “Nolte Associates, Inc.” changed their company name to “NV5 Inc.”;

WHEREAS, there is a need for additional services in the amount of \$851,417, as shown in “Exhibit 1-A”, attached hereto and made a part of this Amendment;

WHEREAS, the Director of Public Works has determined that the additional services are necessary for Consultant to complete the project;

WHEREAS, this amendment exceeds 10% of the contract and requires Board of Supervisor approval;

WHEREAS, an increase of Eight Hundred Fifty-One Thousand Four Hundred Seventeen Dollars (\$851,417) is required to cover additional services;

\$942,760	Original Agreement
+115,926	First Amendment
<u>+851,417</u>	Second Amendment
\$1,910,103	Total

WHEREAS, Consultant has continued to diligently perform the services requested to support this project in good faith; and,

WHEREAS, Section 7.20 of the Agreement states that it may be amended by a writing executed by both parties.

NOW THEREFORE, the parties agree as follows:

1. The initial paragraph of the Agreement is amended to read as follows:

“This Agreement is made and entered into by and between the County of Stanislaus, a political subdivision of the State of California, herein referred to as “County” and NV5, Inc., herein referred to as “Consultant.”

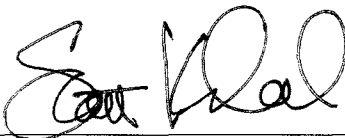
2. Section 1.1 Scope of Services is amended to include additional services as shown in “Exhibit 1-A” attached hereto and made a part of this Amendment.
3. Section 2.1 - Compensation is amended to include additional fees of Eight Hundred Fifty-One Thousand Four Hundred Seventeen Dollars (\$851,417) as shown in “Exhibit 1-A” attached hereto and made a part of this Amendment. Consultant’s compensation shall in no case exceed One Million Nine Hundred Ten Thousand One Hundred Three Dollars (\$1,910,103).
4. All other terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Second Amendment effective on the date written above.

COUNTY OF STANISLAUS


NV5, INC.

By: _____
Matt Machado, Director
Department of Public Works

By: 

Scott Kvandal
Chief Operations Officer

APPROVED AS TO FORM
John P. Doering, County Counsel

By: 

Amanda DeHart
Deputy County Counsel

NV5, Inc.
Stanislaus County
Crows Landing Road Bridge

6/20/2017

TASK	TASK ITEMS DESCRIPTION	NV5 LABOR HOURS TO COMPLETE FINAL PS&E								NV5 LABOR/CADD COSTS \$	SUB CONSULT	NON-LABOR COSTS	TOTAL COSTS \$	
		Project Manager	Senior Engr	Associate Engr	Junior Engineer	Senior Surveyor	Survey Crew	CADD	PROJ ASSIST					
		\$210	\$188	\$175	\$129	\$188	\$236	\$120	\$80					
										\$0			\$0	
1	Project Management									\$0			\$0	
	Management and Review Meetings	120							8	\$25,840			\$25,840	
	QA/QC	24								\$5,040			\$5,040	
2	Existing Document Review / Review Existing Bridge									\$0			\$0	
3	Survey & Mapping									\$0			\$0	
	Aerial Photomapping									\$0			\$0	
	Topographic Survey and Mapping									\$0			\$0	
	San Joaquin River Topographic Survey And Mapping									\$0			\$0	
4	Geotechnical Investigation									\$0			\$0	
	Predrill Services									\$0			\$0	
	Clearing and Grading for Field Access(Task Deleted)									\$0			\$0	
	Field Exploration									\$0			\$0	
	Rotary Wash Borings									\$0			\$0	
	Cone Penetrometer Test (CPT)									\$0			\$0	
	Lab Testing									\$0			\$0	
	Geotechnical Report Preparation									\$0	\$19,228		\$19,228	
5	Environmental Clearance Documents									\$0			\$0	
	Preinvestigation Services									\$0			\$0	
	Environmental Technical Studies & CEQA / NEPA Documents	16								\$3,360	\$40,975		\$44,335	
	Initial Site Assessment (ISA) & Lead - Asbestos Survey									\$0			\$0	
6	Hydrological and Hydraulic Analysis		36	30	118					\$27,240			\$27,240	
7	Preliminary Engineering and Type Selection									\$0			\$0	
	Extra Work Seismic Strategy Update (2007)									\$0			\$0	
	Additional Cost Estimate (2007)									\$0			\$0	
	Bridge Replacement Justification (2008 - 2009)									\$0			\$0	
	Additional Geotechnical Investigations (2008-2009)									\$0			\$0	
	Preliminary Engineering Roadway	16		40				60		\$17,560			\$17,560	
	Preliminary Engineering Structural	16		40				60		\$17,560			\$17,560	
8	Right-of-Way Engineering Services			16				16		\$6,576			\$6,576	
9	Utility Coordination	4		180	180				90	\$62,760			\$62,760	
10	Preliminary (30%) Bridge and Roadway Plans									\$0			\$0	
	Roadway Plans		8		16					\$3,568			\$3,568	
	Bridge Plans			8						\$1,400			\$1,400	
11	Preliminary (30%) Construction Cost Estimates		4	4						\$1,452			\$1,452	
PHASE II - Final Design														\$0
12	Final Plans and Special Provisions									\$0			\$0	
	Roadway Plans									\$0			\$0	
	65% Road Plan Development		68		136					\$30,328			\$30,328	
	95% Road Plan Development	32	52		102					\$29,654			\$29,654	
	Final CD 100% Road Plan Development		34		68					\$15,164			\$15,164	
	Final Design Crows Landing Non-Participating Portion (Optional)			40	40			80		\$21,760			\$21,760	

TASK	TASK ITEMS DESCRIPTION	NV5 LABOR HOURS TO COMPLETE FINAL PS&E								NV5 LABOR/CADD COSTS \$	SUB CONSULT	NON-LABOR COSTS	TOTAL COSTS \$
		Project Manager	Senior Engr	Associate Engr	Junior Engineer	Senior Surveyor	Survey Crew	CADD	PROJ ASSIST				
	Bridge Plans									\$0			\$0
	65% Bridge Plan Development (Stage 1)	6	480					300		\$127,500			\$127,500
	65% Bridge Plan Development (Stage 2 & Final)	6	540					300		\$138,780			\$138,780
	Bridge Quantities		4					80		\$10,352			\$10,352
	65% Bridge Specifications	8	24							\$6,192			\$6,192
	65% Cost Opinion		8							\$1,504			\$1,504
	Review and Incorporate 65% Comments		80							\$15,040			\$15,040
	95% Bridge Plan Development (Includes IC all stages)	0		700						\$122,500			\$122,500
	Bridge Quantities Check		4		80					\$11,072			\$11,072
	90% Specs	60								\$12,600			\$12,600
	90% Cost Opinion		8							\$1,504			\$1,504
	Review and Incorporate 90% Comments	8	80							\$16,720			\$16,720
	Final CD 100% Bridge Plan Development	8		24	24					\$8,976			\$8,976
13	Final PS&E Submittal	16		40						\$10,360			\$10,360
14	Independent Design Check									\$0			\$0
15	Construction Cost Estimate									\$0			\$0
16	Traffic Control Plan									\$0			\$0
17	Permitting									\$0			\$0
	Project Permitting Support (NV5)	40		24						\$12,600			\$12,600
	SWPPP Preparation		20		16					\$5,824			\$5,824
	Project Permitting (Basecamp)									\$0	\$10,428		\$10,428
	Permitting Activities Already Completed (ICF)									\$0			\$0
	Geotechnical Drilling Permit (ICF)									\$0			\$0
	Geotechnical Drilling Biological Compliance Monitoring (Deleted)									\$0			\$0
18	Construction Bid Assistance									\$0			\$0
19	Amendment No. 1									\$0			\$0
	Additional Project Management									\$0			\$0
	NMFS Coordination (NV5)									\$0			\$0
	NMFS Coordination (ICF)									\$0			\$0
	Right of Way Appraisal/Services (NV5)									\$0			\$0
	Right of Way Appraisal/Services (OPC)									\$0			\$0
20	Vittoria Pump Relocation									\$0			\$0
21	Other Direct Costs (Budgetary As-Needed)									\$0		\$10,000	\$10,000
	TOTAL	380	1,450	1,146	780	0	16	880	98	\$ 770,786	\$ 70,631	\$ 10,000	\$ 851,417

PREVIOUSLY PERFORMED

The items in this section describe out of scope work that was requested by the County during the 95% design effort and as a part of the requested out-of-scope services performed to support the approved Type Selection Report.

Item 1: Work performed at cost to revise the Bridge Type Selection Report (March 2015 - February 2017)

Based on comments from Caltrans and agreement by the County, the Type Selection Report was updated three separate times as follows:

- Roadway geometry and associated exhibits and cost estimates revised from County preferred to AASHTO standards. The Caltrans HDM design criteria that had been used prior had been previously approved by both Caltrans and the County
- Addition of a new staged construction alternative and related exhibits
- Addition of a single stage construction alternative with full road closure
- Additional design and coordination for access roads
- Additional survey staking for right of way activities
- Additional exhibits and cost estimates for new stage constructed bridge alternatives
- Advanced scour analysis using alternative methodologies per Caltrans recommendation
- Increased span length to avoid scour zone
- Revised design approach for the northern embankment
- Revision of bridge foundation system
- Advanced design methodology of two-stage, continuously post-tensioned precast drop-in span
- Bent style abutment design
- Abutment 6 redesign to address possible thalweg meander and consistency with Abutment 1
- Approach embankment protection
- Advanced geotechnical guidance for reasonable lateral spreading values
- Q80 Design Criterion support and additional exhibits

Phase I - Preliminary Engineering, NEPA/CEQA Documentation

The items indicated below are required to complete the redesign and are based on the approved Type Selection Report with the recommended alternative 4a, stage constructed post-tensioned box girder bridge.

Task 1. Project Management and Project Review Meetings

NV5 will perform the activities necessary to plan, direct, and coordinate the work of the design project. This work includes updating project work plan, project schedule, and regular monthly project invoices that include percentage of project completion reports. As part of the project, NV5 will keep project records with all correspondence and submittals.

Following the Notice to Proceed, NV5 will attend a project re-kickoff meeting to review the schedule and other project items, and to reestablish communication lines with Stanislaus County and other team members. The NV5 Project Manager will coordinate closely with the Stanislaus County Project Manager to ensure critical issues are raised and resolved at the meetings. Key NV5 team staff will attend these meetings as needed.

Task 2. Quality Assurance/ Quality Control

Throughout the project, NV5 will ensure project quality at all levels of design by incorporating our standardized Quality Assurance/Quality Control Plan. This includes implementing our standardized process flow charts for HBRR projects, developing a project work plan manual, and conducting peer reviews and an independent bridge design check. We have referenced the various steps of our Quality Assurance/Quality Control Plan throughout our proposed project scope of work.

Task 3. Geotechnical Investigation

Geo-Logic Associates, Inc. As a subconsultant to NV5 will revise Draft Foundation Report to reflect the stage construction design. This revision will include the iterative process to refine recommendations and substructure design details shown on the bridge plans.

After the design is complete, Geo-Logic will review the design plans to ensure conformance with their findings and recommendations. After incorporating any needed changes into the design, Geo-Logic will update the foundation report and issue a Final in conformance with Caltrans standards for use in bidding the project and as needed in the field during construction.

Task 4. Environmental Documentation Revalidation

BaseCamp Environmental, Inc. proposes to assist the County in the NEPA re-evaluation. The work would be conducted primarily by myself, Senior Planner Terry Farmer and other members of my staff. Biological, cultural resource and noise experts will be retained to

assist in the review of the biological, cultural resource and noise technical studies, the biological consultations and permits. These experts would include Shelly Davis-King of Davis-King and Associates, Diane Moore of Moore Biological Consultants and Luke Saxelby of J.C. Brennan Acoustical Consultants. We have worked with each of the experts extensively over the years. Both Mr. Farmer and I have experience on Stanislaus County bridge projects. Our proposed scope of work, schedule and fees are described below.

The previous NEPA review of the project, which concluded with a Categorical Exclusion, consists of a number of elements, including the following:

- Area of Potential Effect
- Archaeological Survey Report
- Historical Resources Evaluation Report
- Historic Properties Survey Report
- Natural Environment Study
- Biological Assessments (Fish)
- Consultations and Biological Opinions (NMFS,
- Wetland Delineation
- Air Quality Report
- Water Quality Assessment
- Community Impact Assessment
- Noise Study Report
- Initial Site Assessment & Lead Asbestos Survey
- Visual Impact Assessment
- Riparian Mitigation Plan

In addition, the NEPA review relied on a Location Hydraulic Study and Floodplain Evaluation. These engineering reports will need to be reviewed by NV5 or another subcontractor.

BaseCamp will work closely with NV5 in the review of the current proposed project description and its relationship to the revised project. We will detail changes in the size, location, timing, footprint and construction methods associated with the previously-approved project. This comparison will be summarized in a comparison table for submittal to and review by the County and Caltrans. The comparison table will form the basis for the re-evaluation of the project's environmental effects documented in the above-listed technical studies.

BaseCamp staff and technical subcontractors will conduct a thorough review of each of the listed technical studies in light of the modified project description. The review will include consideration of the general adequacy of each study in documenting

the potential effects of the modified project and any relevant changes in scientific and regulatory information. The results of each review will be reported to NV5 and the County in writing, including specific identification of any concerns that would affect the applicability of the existing NEPA approval. Work or documentation required to provide adequate documentation to support NEPA review will be identified.

Based on the above reports, BaseCamp will develop specific recommendations for acceptance, modification or re-drafting of the technical studies as required. Any related issues associated with project permits, including recommendations for communication, application modification or the like will be identified. These recommendations will be submitted with a recommended scope of work and cost estimate for their implementation.

BaseCamp will meet periodically with Caltrans, County and NV5 during the work to review progress, discuss concerns, obtain information and modify the work requirements. A total of three meetings to be conducted at Caltrans District 10 offices are accounted for in the cost proposal.

The proposed services would be provided over a period of approximately 6 weeks, with meetings interspersed as needed. A kickoff meeting will be scheduled early in the process. It is anticipated that the report of recommendations for re-validation and renewal of applications will be completed by the end of the sixth week.

Task 5. Hydrologic and Hydraulic Analysis

We understand that the Crows Landing Hydrology & Hydraulics Report (90%) previously prepared by NV5 San Jose needs updating to reflect design changes to the proposed bridge configuration. We anticipate the following tasks need to be completed for this effort:

1. Review previously prepared report, agency comments, and new bridge design.
2. Review and updated previously prepared existing conditions HEC-RAS model.
3. Update proposed bridge HEC-RAS model incorporating design changes.
4. Update NCHRP scour calculations basin on new bridge design.
5. Update report text and supporting exhibits incorporating new results. This includes:
 - a. Addressing Caltrans comments dated 10/19/09
 - b. Incorporate new hydraulic results
 - c. Update exhibits

- d. Create new exhibit showing HEC-RAS sections at proposed bridge
- e. Incorporate scour discussion and results
- f. Update Location Hydraulic Study Form
6. Compile report for 35% submittal.
7. Respond to 35% comments.
8. Update HEC-RAS model, scour calculations, and report for 65% submittal.
9. Compile report for 65% submittal.
10. Respond to 65% comments.
11. Update HEC-RAS model, scour calculations, and report for 100% submittal.
12. Compile report for 100% submittal.
13. QA/QC for each submittal.

Assumptions:

1. The findings documented within the July 2011 Location Hydraulic Study Form and Summary Floodplain Encroachment Report will not be revised.
2. No floodplain mapping will be prepared as part of the Location Hydraulic Study.

Task 6. Utility Coordination

NV5 will provide utility coordination by contacting Stanislaus County, Pacific Gas & Electric Company, Pacific Bell, Turlock Irrigation District (TID), and Kinder Morgan to identify the locations of existing utilities and the requirements for planned utility relocations for this project. Coordination with the utilities will occur in three basic steps.

The first will be to send project limit drawings to all of the affected utility companies and request information related to location of the existing utilities. Then the existing utilities will be plotted on preliminary alignment drawings and resubmitted to the utility companies, for verification, review of required relocations, and for the determination of additional facilities that should be provided for future utility services. Finally, once the utility information has been incorporated into the plans, NV5 will resubmit the plans to the utility companies for final review and approval

Deliverables:

- Two sets of Project Limit Drawings to be submitted to each affected utility company
- Two sets of plans to be submitted to each affected utility for their final review

Task 7. Preliminary (30%) Bridge and Roadway Plans

Upon receipt of written documentation from Stanislaus County identifying the bridge type to design, NV5 will prepare a Preliminary Design for the optimum alternative (one alternative).

The preliminary design will consist of the Bridge General Plan Sheet, Roadway, and Plan and Profile Sheets, and Construction Staging Plans. The plans will be prepared in metric units and will provide enough data to convey a complete understanding of the project.

Deliverables:

- Four sets of Plan and Profile Sheets, Preliminary Staging Plans, and the Bridge General Plan Sheet (11"x 17")

Task 8. Preliminary (30%) Construction Cost Estimates

NV5 will prepare preliminary construction costs to accompany the Preliminary Bridge and Roadway Plans. The costs will be based on quantities of materials as determined during the Preliminary Engineering Design.

Costs will be estimated for approximate quantities of structural concrete, piles, excavation, backfill, bridge railing, traffic control system, roadway materials, and import borrow. Construction cost estimates will also include estimates for applicable utility relocations, temporary construction easements, and any right-of-way costs. The cost estimate spreadsheets will be developed using Microsoft Excel.

Deliverables:

- Four sets of preliminary construction cost estimates for the Preliminary Design.

Phase II - Final Design

After review and approval of the preliminary design documents, the NV5 team will proceed with final design to:

- Complete plans, specifications & estimate
- Process permitting
- Develop traffic control plans
- Provide construction bid assistance
- Review construction submittals

Task 1. Final Plans and Special Provisions

Task 1.1 Intermediate (60%) PS&E

After the environmental documents have been approved and acceptance has been given on the preliminary plans, NV5 will begin the design work and preparation of the PS&E. This phase will include the development of the bridge and roadway plans which will be prepared in accordance with the Bridge Design Details Manual and the Highway Design Manual as published by Caltrans. This phase will also include the preparation of Special Provisions to accompany the State of California Standard Specifications. An intermediate submittal will be presented which includes plans, special provisions, and estimates.

A detailed description of the bridge design subtasks follow:

Superstructure Design - The superstructure will be designed to meet the requirements of the Caltrans Bridge Design Specifications Manual. Design loading on the superstructure will include HS20-44, Permit, and Alternative Vehicle live loads. The analysis of the bridge superstructure will utilize the Bridge Design Systems (BDS) computer program for live loads, which is widely used on Caltrans bridges. In conjunction with the design calculations, NV5 will prepare the Typical Section Sheet of the plans, the Deck Reinforcing Sheets, Girder Details, and Girder Layout Sheets.

Substructure Design - The support reactions from the superstructure will be used to design the substructure components, consisting of two-column bents and abutments. The substructure items will be designed in accordance with the Caltrans Bridge Design Specifications Manual for vertical loading and lateral loading. NV5 will prepare the Foundation Plan Sheets, the Abutment Plan and Details Sheets, and the Pier Detail Sheets for the structure in conjunction with the design calculations for the substructure.

Seismic Design - After member sizes have been determined during the Superstructure and Substructure designs, NV5 will analyze the bridge for seismic loading. Information that will be used to determine the design seismic loads includes the maximum ground acceleration, and depth to bedrock. This information is to be supplied by Geo-Logic Associates. In addition, liquefiable zones will be identified and the appropriate foundation system will be designed.

Once we have obtained the site parameters, this information will be coupled with the structural parameters of the bridge to determine seismic loads and reactions. Requirements in the Caltrans Bridge Design Specifications Manual and the Caltrans Memo to Designers Manual will be used to determine the loading. The Caltrans approved

SEISAB computer program will be used to distribute the loads to the components of the structure. This analysis will then be used to design the lateral load resisting system of the bridge. It is assumed that there will not be a seismic analysis of any one construction phase and seismic design will be isolated to the final bridge configuration.

Plan Preparation and Draft Special Provisions - Throughout the design of the bridge and roadway, the plan sheets will be prepared (in metric). NV5 intends to use AutoCAD. All details from the Caltrans Standard Plans will be detailed on the contract plans as specified by Stanislaus County. We will develop our drawing files using Stanislaus County's standard color coding system.

We will also utilize the County's standard detail sheet 24x36 paper such that all drawings can be readily reduced to half-scale on 11x17 paper.

NV5 will use the most current version of the Standard Special Provisions available from Caltrans, and will revise the Standard Special Provisions to meet the requirements of this specific project. Revisions to the Standard Special Provisions will be made by underlining any new items to the Special Provisions and marking a line through and deleted items of the Special Provisions. This process is used to easily identify the changes that are being made to the provisions. The special provisions document will be developed using Microsoft Word.

Intermediate (60%) PS&E Submittal - Upon completion of the portion of the work, a 60 Percent PS&E package will be submitted for review and comment.

Deliverables:

- Four full-size sets of 60 Percent Plans
- Four half-size sets of 60 Percent Plans
- Four sets of annotated Bridge Special Provisions

Task 1.2 Design Check

At the 60% complete stage of the project, a comprehensive Quality Control Review of the Plans, Specifications, and Construction Cost Estimate will be performed by a senior staff member. In addition, an independent bridge design check will be conducted. The independent design check will be performed on the 60 percent plan set by an engineer not involved in the initial design of the project. It will consist of a thorough review of the Bridge Plans and Draft Special Provisions. The design checker for action

or response will prepare a list of issues to be addressed by the designer and a set of independent check calculations.

Task 1.3 Response to Reviewer Comments/Plan Revisions

Upon receipt of the County, State, and other review agency comments, revisions will be made to the Plans, Specifications and Special Provisions in preparation for the 90 percent submittal package. A written response will be prepared by the designer addressing any reviewer or checker comments, suggestions or proposed revisions.

Standard Special Provisions will be finalized in Caltrans' standard format for inclusion in the Bid Documents along with the boilerplate portion provided by Stanislaus County.

Task 1.4 Construction Cost Estimate

A Marginal Estimate will be prepared as an estimate of probable construction cost for the project. This estimate will be based on quantity take-off calculation performed and checked by the designer and checker and unit cost information for each of the items listed.

The unit cost data will be based on past relevant experience with similar projects, including any Stanislaus County construction cost data, and the latest version of Contract Cost Data as prepared by Caltrans.

Task 1.5 90 Percent PS&E Submittal

A complete set of checked Plans, Specifications, and Construction Cost Estimate will be submitted for final review and approval by Stanislaus County.

Deliverables:

The 90 percent submittal will include items listed below:

- Four sets of full size bond 90 percent plans (22"x34")
- Four sets of half size 90 percent plans
- Four sets of annotated Special Provisions
- Four copies of the Construction Cost Estimate
- Four sets of the Final Foundation Report with Log of Test Borings
- Four sets of the Final Hydrologic and Hydraulic Report

Task 1.6 Final PS& E Submittal

Crows Landing Road Redesign

Design comments on the 90 percent PS&E submittal made by Stanislaus County and Caltrans will be incorporated into the Final Plans Special Provisions and Estimates, as appropriate.

The final PS&E will include the following items:

- Checked Structural Bridge Plans
- Final Roadway Plans
- Utility Relocation Information
- Special Provisions for Construction
- Engineer's Estimate

The original drawings, special provisions, and estimates will be prepared in accordance with the Local Programs Manual and presented to Stanislaus County at the completion of the design phase of the project.

All documents will be stamped and signed by a licensed civil or structural engineer registered in California.

Deliverables:

The final submittal will consist of:

- One set of full size (24"x36") Plans signed and stamped on Mylar
- One set of half size (11"x17") Plans signed and stamped on Mylar
- One camera-ready set of Bid Documents, including Stanislaus County's Boiler Plate as provided by the County
- Four sets of Quantity Calculations
- Four sets of signed and stamped bridge calculations
- Compact Disk containing electronic files of the contract plans (AutoCAD), special provisions (Microsoft Word), and estimate (Microsoft Excel)

Task 1.7 Final Design Crows Landing Non-Participating Portion

(Optional)

At the option of the Client the NV5 team will develop the plans, specifications and estimate for approximately 1,200 linear feet of Crows Landing Road. This design will proposed improvements to raise the centerline profile above the Q80 elevation for an approximate width of 40-feet. This package is assumed to be compiled separate from the Crows Landing Road bridge replacement project to ensure separation of scope and funding between the two projects.

Deliverables:

- 30% PS&E

- 60% PS&E
- 90% PS&E
- Final PS&E

Task 2. Permitting

BaseCamp will also review the various permit approvals granted for the project, reporting on the status of the permit, permit term, procedures for modification, applicability of conditions of approval with respect to technical reports as revised, revisions needed to permits and application, and other permit elements that are dependent on the approved NEPA technical studies. Project-related permits and approvals that we are aware of include the following:

- USACOE PCN, Section 404, Nationwide Permit 23
- USACOE Section 10, Navigable Waters
- Calif WRCB Section 401 Water Quality Certification
- Calif Dept of Fish and Wildlife Lake and Streambed Alteration
- California State Lands Commission, Lease
- US Coast Guard, Section 10 Authorization, Section 9 Bridge
- Central Valley Flood Protection Board, Encroachment
- National Marine Fisheries Service, Biological Opinion
- SHPO Concurrence Letter

Task 3. Traffic Control Plan

NV5 will develop a plan regarding the sequencing of the construction of the Crows Landing Road Bridge to minimize disruption to local traffic during construction. Traffic control for construction will consist of a traffic control plan. It will be developed to provide two travel lanes during construction. The Construction Traffic Handling Plans will include temporary signing, striping, and temporary K-rail required during construction. This plan will be delivered with appropriate submittals identified in **Task 1. Final Plans and Special Provisions.**

Task 4. Construction Bid Assistance

NV5 will assist Stanislaus County during the pre-bid opening. If requested, we will suggest any pre-qualification criteria for the construction bidder. In addition, NV5 will prepare required addenda to be distributed to the bidders, and answer technical questions relative to the plans, special provisions, and quantity estimates. Fifteen hours of services have been established for assistance during the pre-bid period.

Task 5. Review Construction Submittals

During the construction period, NV5 will review materials

Crows Landing Road Redesign

submittals that are typically the responsibility of the design engineer. This consists of submittals required for permanent construction of the bridge. NV5 will review the following submittals:

- Concrete mix designs
- Reinforcing steel shop drawings
- Structural steel shop drawings
- (railings, inserts, etc.)
- Post-tensioning shop drawings

The construction manager typically reviews submittals of temporary items of construction, such as falsework. Upon request by Stanislaus County, NV5 is available to provide the review of these temporary items. We can also supply construction assistance in the form of responding to Requests for Information (RFIs), as well as providing periodic or full-time inspection services. These services, however, are not included in our proposed fee. Upon request they can be conducted on a time-and-materials basis at our standard charge rates.

ATTACHMENT 2

CERTIFICATE OF AMENDMENT OF ARTICLES OF INCORPORATION OF NOLTE
ASSOCIATES, INC.

A0759762

NOTO

1015797

**CERTIFICATE OF AMENDMENT
OF
ARTICLES OF INCORPORATION
OF
NOLTE ASSOCIATES, INC.,
a California corporation**

FILED *cmv*
Secretary of State
State of California */RST*

AUG 22 2014

1 cc

The undersigned hereby certify that:

1. They are the Chief Executive Officer and the Secretary, respectively, of Nolte Associates, Inc., a California corporation (the "Company").

2. Article I of the Company's Articles of Incorporation is hereby amended and replaced in its entirety to read as follows:

The name of the corporation is NV5, Inc.

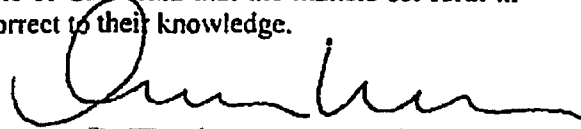
3. The foregoing amendment of the Articles of Incorporation has been duly approved by the board of directors of the Company.

4. The foregoing amendment was approved by the holders of the requisite number of shares of the Company in accordance with Section 902 of the California Corporations Code and the Articles of Incorporation of the Company. The total number of outstanding shares entitled to vote with respect to the foregoing amendment was 100 shares of Common Stock. The number of shares voting in favor of the foregoing amendment equaled or exceeded the vote required, such required vote being a majority of the outstanding shares of Common Stock.

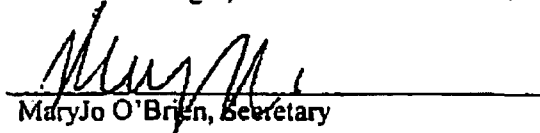
[Signature page follows]

A0759762

IN WITNESS WHEREOF, the undersigned have executed this Certificate of Amendment of Articles of Incorporation on August 22, 2014, and declares under penalty of perjury under the laws of the State of California that the matters set forth in this Certificate of Amendment are true and correct to their knowledge.



Dickerson Wright, Chief Executive Officer



MaryJo O'Brien, Secretary

A0759762

NV Inc.

5/7/2014

California Secretary of State
Business Programs Division
1500 11th Street, 3rd Floor
Sacramento, CA 95814

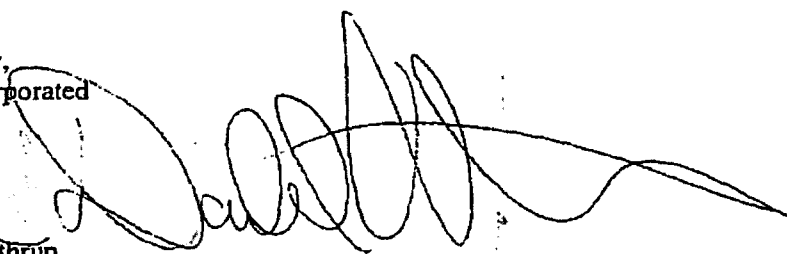
**RE: Consent from NV Incorporated for use of the name NV5, Inc. in accordance
with California Code of Regulations**

To whom this may concern:

The undersigned, Donald Northrup, as President of NV Incorporated, hereby gives permission and consent for Nolte Associates, Inc., a California corporation to the use of the name NV5, Inc. in forming a corporation in the State of California.

Sincerely,
NV Incorporated

By:
Don Northrup
President

A large, stylized handwritten signature in black ink, appearing to read 'Don Northrup', is written over the typed name and title.