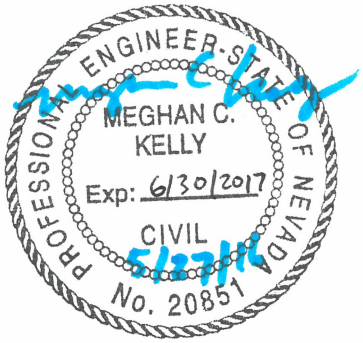
SOLICITATION DOCUMENTS & SPECIFICATIONS

FOR

BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1
STATELINE
DOUGLAS COUNTY, NEVADA
EIP #01.02.03.0001



BY
NEVADA TAHOE CONSERVATION DISTRICT
400 DORLA COURT
ZEPHYR COVE, NEVADA 89448

(775) 586-1610

SOLICITATION DOCUMENTS & SPECIFICATIONS
FOR
BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT –PHASE 1
STATELINE, DOUGLAS COUNTY, NEVADA

NOTICE TO CONTRACTORS

1. Sealed proposals will be received in the Office of the Nevada Tahoe Conservation District at 400 Dorla Court, Zephyr Cove, Nevada, until **4:00 P.M. on June 28, 2016** for the **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT –PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"**. Such sealed proposals will be opened publicly at 4:05 P.M. the same day in the NTCD Conference Room, in the NTCD Office Building at 400 Dorla Court, Zephyr Cove, Nevada. The Nevada Tahoe Conservation District Board of Supervisors will consider award of the contract at a subsequently regularly scheduled meeting on July 21st, 2016.

2. To assure consideration, all proposals shall be made on the blank form of proposal attached to these Specifications and shall be enclosed and sealed in an envelope which is addressed to the Nevada Tahoe Conservation District 400 Dorla Court, Zephyr Cove, Nevada, and marked, **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT - PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"**.

3. No proposal will be considered unless accompanied by a cashier's check, certified check, or bid bond in an amount equal to five percent (5%) of the bid, made payable to Nevada Tahoe Conservation District as provided for in the General Conditions. The Engineer's estimate of cost for this project is between $850,000 and $1,050,000.

4. Project Contract Documents may be viewed or obtained at no cost at Nevada Tahoe Conservation District at 400 Dorla Court, Zephyr Cove, Nevada 89448, (775) 586-1610.

5. Project Contract Documents may obtained electronically at no cost at Nevada Tahoe Conservation District's website http://ntcd.org.

6. Following receipt of written notification of contract award, the contractor shall execute and return the Agreement with in ten (10) calendar days. The contract work shall be commenced upon receiving the NOTICE TO PROCEED. The Notice to Proceed will be issued by the NTCD after execution of the contract.

7. Contracts to work under this proposal will obligate the contractors and subcontractors not to discriminate in employment practices pursuant to Section 338.125 NRS. If the contract sum is $100,000 or more, the Contractor must pay the prevailing wage rates pursuant to NRS Chapter 338, copies of which may be obtained at the Office of the Nevada State Labor Commission.

8. The Contractor shall visit the project site and familiarize himself with the scope of the Project PRIOR TO SUBMITTING A BID. If the Contractor finds any errors, omissions, or discrepancies in the plans or specifications, he shall notify the Engineer immediately.

9. No work may be performed outside the period of May 1 to October 15 without written permission from the TRPA.

SCOPE OF WORK

1. **WORK UNDER THIS CONTRACT:** includes but is not limited to, all material, labor, tools, expendable equipment, utility and transportation service, traffic control, signage, and all other incidental items necessary to perform and complete, in a workmanlike manner, the work described within and required for:
   - Construction special technical provisions as prepared by NTCD.
   - Construction of improvements– including, but not limited to:
     1. Install all temporary best management practices and dewatering equipment as required by permitting agencies.
     2. Construct 272 linear feet of new channel and in channel structures.
     3. Locate and protect all utilities as necessary. Contractor must coordinate with utility companies.
     4. Replace Burke Creek culvert at Highway 50 and decommission existing culvert.
     5. Construct the culvert outfall
     6. Grade site to design elevations including the proposed berm.
     7. Revegetate the site per plan.
     8. Fill and decommission the existing channel.
     9. Perform traffic control.
     10. Haul any extra material to an approved disposal site.
     11. Repair all existing site improvements damaged during the course of the work.
     12. Provide job cleanup at all sites to the satisfaction of NTCD.

2. **CONFORM WITH THE FOLLOWING SCHEDULE*:*** work shall begin within thirty (30) calendar days from the date of the Notice to Proceed. Work must be completed by October 15, 2016 unless written approval from TRPA is provided to NTCD by the Contractor. Work must be completed between May 1 and October 15 unless written approval from TRPA is provided to NTCD by the Contractor. If the construction schedule cannot be completed within the scheduled time due to circumstances beyond the Contractor's control, the construction schedule can be extended through a revised schedule established at the discretion of Nevada Tahoe Conservation District and retention shall be held until construction work is completed.

3. **PERMITS AND LICENSES:** NTCD will apply for the TRPA, USACE, NDOT, NDEP, Douglas County, US Forest Service Permits, however, the Contractor is responsible for obtaining the permits prior to commencing construction. Contractor shall obtain any other permits and licenses required to complete this work. The Contractor shall procure and maintain, at his expense, all licenses, insurance policies, etc. as may be necessary to comply with Federal, State or local laws in the performance of the work, unless noted otherwise in the Special Technical Provisions.

4. **BID IRREGULARITIES:** The NTCD reserves the right to reject any or all bids and to withhold award for up to thirty (30) days. If there are minor irregularities or informalities in any bid or in the bidding process, the NTCD reserves the right to waive provisions of the specifications relating to said minor irregularities of informalities.

INSTRUCTIONS TO BIDDERS

Proposals, to be entitled for consideration, must be made in accordance with the following instructions:

1. Proposals shall be made on the form provided therefore in these Solicitation Documents, and all applicable blank spaces in the form shall be filled; numbers for item bid shall be stated both in writing and in figures; the signatures of all persons shall be in longhand; and the completed form shall be without interlineation, alteration or erasure. The form shall be enclosed and sealed in an envelope which is to be marked **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"**, and it shall be addressed to the Nevada Tahoe Conservation District 400 Dorla Court, Zephyr Cove, Nevada 89448.

2. No proposal will be considered unless accompanied by cashier's check, certified check, or bid bond in an amount equal to five percent (5%) of the bid, made payable to the Nevada Tahoe Conservation District as provided in the General Conditions. The Engineer's estimate of cost for this project is between $850,000 and $1,050,000.

3. Proposals shall not contain any recapitulation of the work to be done. No oral, telegraphic or telephonic proposals or modifications will be considered.

4. Bids will be accepted only on the complete project as outlined in the Scope of Work. No partial bids will be accepted.

5. Bidder shall visit the site and know all requirements of work within these specifications to his/her satisfaction before submitting a bid. **An optional pre-bid meeting will be held at 2:00 P.M. on June 16th, 2016 at 177 US Highway 50, Stateline, NV 89449**.

6. Should a bidder find discrepancies in, or omissions from, the drawings or documents, or should he be in doubt as to their meaning, he should at once notify NTCD, who will send a written instruction to all bidders. Neither NTCD nor the Engineer will be responsible for any oral instructions.

7. Any written instructions, bulletins or drawings issued to bidders by NTCD or Engineer during the course of bidding shall be covered in the proposal, and in closing a contract, they will become a part thereof.

8. The Agreement Form attached hereto will be used in executing a contract for this work.

9. Following receipt of written notification of contract award, the contractor shall execute and return the Agreement within ten (10) calendar days. The Notice to Proceed will be issued by NTCD after execution of the contract, and confirm the date by which work under the contract must commence. Work shall be completed by October 15, 2016.

10. Should the Contractor fail or refuse to complete the work within the stipulated time, including any authorized extensions of time, there shall be deducted from the monies due him, not as a penalty but as liquidated damages, FIVE HUNDRED DOLLARS ($500.00) for each day required to complete the work in addition to the period of time hereinbefore set forth.

11. A Labor & Material Payment Bond and a Performance & Completion Bond, each in an amount equal to one hundred percent (100%) of the total contract sum, shall be provided by the successful contractor in accordance with the forms as shown on Pages L-1 through L-2 and PB-1 through PB-2 herein. Said bonds shall be in favor of "Nevada Tahoe Conservation District, a political subdivision of the State of Nevada".

12. Bidders attention is directed to the Insurance Specifications attached as Exhibit "A". The successful bidder shall be required to comply with such provisions.

13. NTCD reserves the right to reject any or all bids and to withhold award for up to thirty (30) days. If there are minor irregularities or informalities in any bid or in the bidding process, NTCD reserves the right to waive provisions of the Specifications relating to said minor irregularities or informalities.

14. Contracts for work under this proposal will obligate the Contractor and subcontractors not to discriminate in employment practices pursuant to NRS 338.125. Further, in the event the contract sum is $100,000 or more, the Contractor must pay the prevailing wage rates pursuant to NRS Chapter 338, copies of which are available at the office of the Nevada State Labor Commission.

15. Attorneys-in-fact who sign contract bonds must file with each bond a certified and effectively dated copy of their Power of Attorney.

16. Award of the contract will be made to the best value bidder as determined by the NTCD in compliance with the bid documents and which, in the NTCD's sole judgment, best meet the NTCD's needs. In the event that additive alternate and/or optional bid items are requested by the NTCD, in determining the low bid, the NTCD reserves the right, within its sole judgment and discretion, to make the award of the base bid alone, or of the base bid with alternates and any combination or order of additive optional bid items which represent the lowest overall bid combining the base bid, alternates and optional bid items selected by the NTCD. The selected combination and/or order of any additive alternate bid items along with the base bid shall be final at the time of award.

17. Pursuant NRS 338.143 a person or firm who files a notice of protest regarding the award of a public works contract is required to post with NTCD a security in the form of; a bond, or certificate of deposit containing an acknowledgement by a qualified financial institution that a sum of money has been received. The security shall be equal to the lesser of twenty five percent of the value of the protester's bid or $250,000. The security is required to be posted at the time of the filing of the written notice of protest.

18. The bidder's attention is directed to NRS 338.147. All bidders who would like to claim preferential bidder status should read the "Preferential Bidder Status" form and submit required documents with the Bid Proposal and Schedule. **A copy of a valid Nevada State Contractor's Board, Interim Certificate of Eligibility shall be submitted with the bid proposal.** It is the intent of NTCD to enact the provisions of NRS 338 in regards to preferential bidder status only in the event that a 5% preference is utilized in the determination of the low bidder.

19. Each Contractor, subcontractor and other person who provides labor, equipment, materials, supplies or services for the public work must comply with the requirements of all applicable state and local laws, including without limitation, any applicable licensing requirements and requirements for the payment of sales and use taxed on equipment, materials and supplies provided for the public work.

BID PROPOSAL

NEVADA TAHOE CONSERVATION DISTRICT
400 Dorla Court
Zephyr Cove, Nevada 89448

Gentlemen:

I (we) hereby submit my (our) proposal for the **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"**.

In compliance with your published Notice to Contractors, the undersigned as bidder declares that he has carefully examined the location of the proposed work and the Plans and Specifications therefore, together with addenda numbered _____ through _____, and I (we) propose and agree that if this proposal is accepted, I (we) will contract with the Nevada Tahoe Conservation District (NTCD) to provide all necessary labor, machinery, tools, apparatus, and other means of construction, and do all the work and furnish all the materials required to complete construction of the project, in a satisfactory manner at the prices stated in the bid proposal.

Construction shall be in strict conformity with the 100% Design Plans, Special Technical Provisions, Specifications, and contract documents prepared therefore, which hereby are made a part of this proposal.

The bidder proposes and agrees to contract with NTCD to furnish and perform all of the described work, including subsidiary obligations as defined in said contract documents and specifications and to complete the work in the manner and within the time limits set forth in the Contract Documents.

The bidder understands that the following quantities are approximate, only being given as a basis for the comparison of Proposals; and that NTCD does not expressly or by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of work as may be deemed necessary or advisable by the Engineer.

BID SCHEDULE

BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1

BASE BID: Burke Creek Hwy 50 Crossing and Realignment Project Phase 1 construction per bid items. All required equipment, personnel, sweeping, traffic control, public notification, and signage for the complete project shall be part of the unit prices. All items not covered by in the Plans, Special Provisions, and Special Technical Specifications but are necessary for completion of the project are incidentals to the listed Bid Items.

Base Bid					
Bid Item No.	***Description***	***Unit***	***Unit Cost***	***Quantity***	***Total Cost***
1	Mobilization/Demobilization	LS	$_____	1	$_____
2	Staging and Storage (including parking lot repaving)	LS	$_____	1	$_____
3	Traffic Control	LS	$_____	1	$_____
4	Dewatering/Diversion	LS	$_____	1	$_____
5	Temporary Erosion Control	LS	$_____	1	$_____
6	Clearing and Grubbing (trees under 6" DBH)	LS	$_____	1	$_____
7	Tree Removal	LS	$_____	1	$_____
8	Remove Existing Improvements	LS	$_____	1	$_____
9	Remove Existing Woody Debris Crossing	EA	$_____	5	$_____
10	Remove Large Debris	LS	$_____	1	$_____
11	Protect in Place Existing Utilities	LS	$_____	1	$_____
12	Utility Relocation - Gas	LS	$_____	1	$_____
13	Utility Relocation - Communication	LS	$_____	1	$_____
14	Utility Relocation - Electrical	LS	$_____	1	$_____
15	Sanitary Sewer Protection	LS	$_____	1	$_____
16	Utility Relocation - Potable Water	LS	$_____	1	$_____
17	Stream Earthwork	LS	$_____	1	$_____
18	CMAP Culvert	LS	$_____	1	$_____
19	Culvert Headwalls	EA	$_____	2	$_____
20	Curb & Gutter (Vertical & Rolled)	LF	$_____	255	$_____
21	Combination Drop Inlet	EA	$_____	1	$_____
22	Double Sediment Trap	EA	$_____	1	$_____
23	Trench Drain	LF	$_____	70	$_____
24	15" RCP Pipe	LF	$_____	30	$_____
25	Vertical Curb (Parking Lot)	LF	$_____	195	$_____
26	Highway Buffer Improvements	LS	$_____	1	$_____
27	Proposed Creek Channel	LS	$_____	272	$_____
28	Willow Debris Structures	EA	$_____	13	$_____
29	Flow Split	LS	$_____	1	$_____
30	Boulder Step Pool	EA	$_____	10	$_____
31	Log Step Pool	EA	$_____	3	$_____
32	Culvert Outfall	LS	$_____	1	$_____
33	Boulder Sill	LF	$_____	73	$_____
34	Rock Slope Protection	SF	$_____	477	$_____
35	Revegetation	LS	$_____	1	$_____

BASE BID TOTAL (in numerals) _____

BASE BID TOTAL (in words) _____

BID ALTERNATE SCHEDULE

BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1

BASE BID: Burke Creek Hwy 50 Crossing and Realignment Project Phase 1 construction per bid alternate items. All required equipment, personnel, sweeping, traffic control, public notification, and signage for the complete project shall be part of the unit prices. All items not covered by in the Plans, Special Provisions, and Special Technical Provisions but are necessary for completion of the project are incidentals to the listed Bid Items.

Bid Alternate - Sierra Colina Work					
Bid Item No.	***Description***	***Unit***	***Unit Cost***	***Quantity***	***Total Cost***
ALT-1	Mobilization/Demobilization - Sierra Colina	LS	$_____	1	$_____
ALT-2	Temporary BMPs	LS	$_____	1	$_____
ALT-3	Trash Removal	LS	$_____	1	$_____
ALT-4	Road Decommissioning	SF	$_____	3821	$_____
ALT-5	Trail Decommissioning	SF	$_____	1730	$_____

BID ALTERNATE TOTAL (in numerals) _____

BID ALTERNATE TOTAL (in words) _____

BID SUMMARY

BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT –PHASE 1

TOTAL BID: $_____

The unit prices above shall be the basis of determining the amount paid for the completed project including any increased or decreased quantities authorized by the Engineer.

If the undersigned be notified of the acceptance of his proposal, he agrees to execute the Agreement within ten (10) calendar days for the work covered in his proposal for the above stated prices as full compensation for furnishing all materials and labor, and doing all of the work, in strict accordance with the contract documents, to the satisfaction of the Engineer.

The undersigned further agrees to commence the work within the time stated in the Notice to Proceed and to complete the work specified within the time stated in the Agreement.

The undersigned states that he has a thorough understanding of the conditions embodied in the contract documents and specifications.

Name of Firm_____

By_____

Address_____

_____

Phone_____

Fax_____

Email_____

Nevada Contractor's License
No._____

Date_____

_____
WITNESS

PREFERENTIAL BIDDER STATUS

NRS 338.147 and NRS 338.1389 provides that a contractor who has been found to be a responsible contractor and who provides proof to, and receives an Interim Certificate of Eligibility from, the Nevada State Contractor's Board that certifies the payment of:

(1) The sales and use taxes imposed pursuant to Chapter 372, 374 and 377 of NRS on materials used for construction in the State of Nevada of not less than $5,000 for each consecutive 12-month period for 60 months immediately preceding the submission of his bid;

(2) The motor vehicle privilege tax imposed pursuant to Chapter 371 of NRS on the vehicles used in the operation of the general contractor's business in the State of Nevada of not less than $5,000 for each consecutive 12-month period for 60 months immediately preceding the submission of his bid; or

(3) Any combination of such sales and use taxes and motor vehicle privilege tax, or

(4) Acquired, by inheritance, gift, or transfer through a stock option plan for employees, all the assets and liabilities of a viable, operating construction firm that possesses a:

a) License as a general contractor pursuant to the provisions of Chapter 624 of the NRS; and
b) Interim Certificate of Eligibility to receive a preference in bidding on public works

shall be deemed to have submitted a better bid than a competing contractor who has been certified to have made payment of those taxes if the amount of his bid is not more than 5% higher than the amount bid by the competing contractor.

Contractors who desire to claim this preference, must submit to NTCD with the bid, a copy of a valid Nevada State Contractor's Board Interim Certificate of Eligibility and the Preferential Bidder Status Affidavit provided on the following page.

PREFERENTIAL BIDDER STATUS
AFFIDAVIT

I, _____, on behalf of the Prime Contractor,_____ _____, swear and affirm that in order to be in compliance with NRS 338 and be eligible to receive a preference in bidding on **BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA**, certify that the following requirement will be adhered to, documented and attained on completion of the contract. Upon submission of this affidavit on behalf of _____, I recognize and accept that failure to comply with any requirements is a material breach of the contract and entitles the Awarding Body to damages. In addition the Contractor may lose its certification for a preference in bidding for 5 years and/or its ability to bid on any contracts for public works for one year pursuant to NRS 338:

1. The Contractor shall ensure at least 50 percent of the workers possess a Nevada driver's license or identification card;
2. The Contractor shall ensure all of the non-apportioned vehicles primarily used on this project are registered in Nevada;
3. The Contractor shall ensure at least 25 percent of the materials used on this project are purchased in Nevada and;
4. The Contractor shall ensure payroll records related to this project are maintained and available within the State of Nevada.

By:_____

Title:_____

Signature:_____

Date:_____

Signed and sworn to (or affirmed) before me on this _____ day of _____, 20_____, by_____ (name of person making statement).

_____ STAMP AND SEAL
Notary Signature

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____

_____, as Principal, and _____

_____

(legal description and address of Surety)

authorized to do business of Surety in the State of Nevada, as Surety, are held and firmly bound unto Nevada Tahoe Conservation District, as NTCD, in the sum of _____ Dollars ($_____), (which is not less than 5% of the contract price) for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, and administrators, successors, and assigns.

Signed this _____ day of _____, 2016.

The conditions of the above obligation is such that whereas the Principal has submitted to NTCD, a certain bid, attached hereto and hereby made a part hereof, to enter into a Contract in writing for the **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT –PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"**.

Now, therefore, if said bid shall be rejected, or in the alternative, if said bid shall be accepted and the Principal shall execute and deliver a Contract in the form of contract attached hereto (properly completed in accordance with said Bid) and shall furnish a Bond for his Faithful Performance of said Contract, and a Bond for the payment of all persons performing labor or furnishing materials in connection therewith, and shall provide and comply with the insurance requirements, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void.

Otherwise, the same shall remain in force and effect, and the sum herein specified paid over to the NTCD, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the NTCD may accept such bid; and said Surety does hereby waive notice of such extension.

In Witness whereof, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their officers, the day and year first set forth above.

_____
Principal

Seal: _____
Signature

_____
Surety

Seal: _____
Signature

BID BOND (continued)

On this _____ day of _____, 2016, personally appeared before me, a Notary Public,

_____,who acknowledged to me that he/she was the Principal authorized to sign the foregoing Bid Bond.

_____
NOTARY PUBLIC

On this _____ day of _____, 2016, personally appeared before me, a Notary Public,

_____, who acknowledged to me that he/she was the Surety authorized to sign the foregoing Bid Bond.

_____
NOTARY PUBLIC

Surety's Licensed Nevada Agent:

_____
Company Name

_____

_____
Address

_____
Telephone

By:_____
(Note: Signature to be Notarized)

Type:_____

Bond No._____

Subscribed and sworn to before me this _____ day of _____, 2016.

_____
Notary Public

GENERAL CONTRACTOR

_____ _____

(Firm Name) (Nevada Contractors License #)

_____

(Name of Officer) is authorized to bid and to enter into this Contract for the above listed firm.

The firm is: (check one)

____ a corporation ____ a partnership ____ sole proprietorship

Principal Officers:

Name	Title	Signature

Owners Not Listed Above:

I _____ (Name of Officer) certify that the above lists includes all officers, owners and financial partners of the above mentioned firm corporate structures to the best of my knowledge.

_____

Signature and Title of Officer

FIVE PERCENT LIST OF RESPONSIBLE TRADES

PURSUANT TO NRS 338 PRIME CONTRACTORS MUST LIST THE WORK THEY INTEND ON COMPLETING THAT MEETS THE REQUIREMENTS OF 5% ON THIS FORM

List below the name, address and contractor's license number for each company by trade who will provide labor or a portion of the work on this project for which the company will be paid an amount exceeding five percent (5%) of the prime contractor's total bid. (Attach additional sheets if necessary.)

	Trade (type of work)	Name/Address	License No.
1.	_____	_____	_____
		_____	
		_____	
2.	_____	_____	_____
		_____	
		_____	
3.	_____	_____	_____
		_____	
		_____	
4.	_____	_____	_____
		_____	
		_____	
5.	_____	_____	_____
		_____	

Note: Within 2 hours after bid opening, the bidders who submitted the three lowest bids must submit a list of the name and contractor's license number of each contractor who will provide labor or a portion of the work on the project for which he will be paid an amount exceeding one percent (1%) of the contractor's total bid or $50,000, whichever is greater. A bidder who fails to submit the lists as required herein within the time prescribed herein shall be deemed not responsive. The bidder is hereby notified that the prime contractor must include his name on the list required by NRS 338.141(3) if he is to perform any of the work that is required to be listed. The prime contractor's bid will be deemed not responsive for failure to comply with this statutory requirement.

A bidder whose bid is accepted may not substitute subcontractors named in the bid or listed within 2 hours after bid opening, except as provided in NRS 338.141

TWO HOUR ONE PERCENT LIST OF RESPONSIBLE TRADES

PURSUANT TO NRS 338 PRIME CONTRACTORS MUST LIST THE WORK THEY INTEND ON COMPLETING THAT MEETS THE REQUIREMENTS OF 1% ON THIS FORM

List below the name, address and contractor's license number for each company by trade who will provide labor or a portion of the work on this project for which the company will be paid an amount exceeding one percent (1%) of the prime contractor's total bid. (Attach additional sheets if necessary.)

	Trade (type of work)	Name/Address	License No.
1.	_____	_____	_____
		_____	
		_____	
2.	_____	_____	_____
		_____	
		_____	
3.	_____	_____	_____
		_____	
		_____	
4.	_____	_____	_____
		_____	
		_____	
5.	_____	_____	_____
		_____	

Note: Within 2 hours after bid opening, the bidders who submitted the three lowest bids must submit a list of the name and contractor's license number of each contractor who will provide labor or a portion of the work on the project for which he will be paid an amount exceeding one percent (1%) of the prime contractor's total bid or $50,000, whichever is greater. A bidder who fails to submit the lists as required herein within the time prescribed herein shall be deemed not responsive. The bidder is hereby notified that the prime contractor must include his name on the list required by NRS 338.141(3) if he is to perform any of the work that is required to be listed. The prime contractor's bid will be deemed not responsive for failure to comply with this statutory requirement.

A bidder whose bid is accepted may not substitute subcontractors named in the bid or listed within 2 hours after bid opening, except as provided in NRS 338.141.

Nevada Tahoe Conservation District, FAX (775) 586-1612

AFFIDAVIT OF NONCOLLUSION

State of _____)
) SS
County of _____)

I, _____ (Name of party signing this affidavit and the Proposal Form),

_____ (title), under penalty of perjury, being duly sworn, depose and

say: That _____ (name of person, firm, association, or corporation) has not, either directly or indirectly, entered into agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this Contract.

_____
Signature

_____
Title

SUBSCRIBED AND SWORN to before me
this _____ day of _____,_____.

_____
NOTARY PUBLIC

CERTIFICATION OF BIDDER, PROPOSED CONTRACTOR OR SUBCONTRACTOR REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY OR VOLUNTARY EXCLUSION

The undersigned bidder, proposed contractor or subcontractor certifies, to the best of his knowledge and belief, that:

1. Neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this contract by any Federal department, agency or program.

2. Neither it nor its principles are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in public works contracts by the Nevada Labor Commissioner.

3. Where either the bidder or subcontractor is unable to certify to any of the above statements, the bidder or subcontractor shall attach an explanation as to why a certification cannot be submitted.

_____

Name of Bidder, Proposed Contractor or Subcontractor

_____

Name and Title of Authorized Representative

_____ _____

Signature Date

CERTIFICATION OF BIDDER REGARDING PENALTIES FOR NONCOMPLIANCE WITH NEVADA PREVAILING WAGE REQUIREMENTS

The undersigned bidder, proposed contractor or subcontractor certifies that:

1. This contract is for a public work as set forth in Nevada Revised Statutes Chapter 338.

2. A contractor engaged on public works shall forfeit, as a penalty to the public body on behalf of which the contract has been made and awarded to the contractor, not less than $20 nor more than $50 for each calendar day or portion thereof that each workman employed on the public work:

   a) Is paid less than the designated rate for any work done under the contract, by the contractor or any subcontractor under him;

   b) Is not reported accurately to the public body awarding the contract as required pursuant to NRS 338.070.

3. If a penalty is imposed pursuant to this section, the costs of the proceeding, including investigative costs and attorney's fees, may be recovered by the Labor Commissioner.

_____
Name of Bidder

_____
Name and Title of Authorized Representative

_____ _____
Signature Date

QUALIFICATION OF BIDDER CERTIFICATE

The undersigned bidder, proposed contractor or subcontractor certifies, that they are qualified to do the Burke Creek Hwy 50 Crossing and Realignment Project Phase 1 and associated revegetation as described in Section 102 CONTRACTOR QUALIFICATIONS of the Special Technical Provisions and submitted all qualification as stated in 102.01 Description together with the bid document.

Contractor Qualifications _____

_____

_____

_____

_____

_____

_____

_____

_____

Name of Bidder, Proposed Contractor or Subcontractor

_____

Name and Title of Authorized Representative

_____ _____

Signature Date

AGREEMENT FORM

THIS AGREEMENT, made and entered into this _____ day of _____, 2016, by and between the NEVADA TAHOE CONSERVATION DISTRICT, a political subdivision of the State of Nevada, acting through its Board of Supervisors, hereinafter called the "NTCD" and _____ General Contractor, Nevada State License No. _____, hereinafter called the "Contractor".

W I T N E S E T H :

That the NTCD and the Contractor, for the consideration hereinafter named, agree as follows:

Article 1. Scope of Work. The Contractor shall furnish all of the materials and perform all of the work described in the Plans and Specifications entitled **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"**, prepared by the Nevada Tahoe Conservation District, and shall do everything required by this Agreement and the Specifications.

Article 2. Time of Completion. The work to be performed under this Agreement shall be completed within sixty-five (65) working days from the date that the Contractor is issued the Notice to Proceed.

The date specified in the Notice to Proceed shall be the effective date of this Agreement.

Should the Contractor fail or refuse to complete the work within the stipulated time, including any authorized extensions of time, there shall be deducted from the monies due him, not as a penalty, but as liquidated damages, FIVE HUNDRED DOLLARS and NO CENTS ($500.00) for each work day required to complete the work in addition to the period of time hereinbefore set forth.

In the event that the NTCD has failed to appropriate or budget funds for the purposes specified in this agreement, or that NTCD has been required (in its sole judgment) to amend previous appropriations or budgeted amounts to eliminate or reduce funding for the purposes in this agreement, this agreement shall be terminated without penalty, charge or sanction. (NRS 244.320)

Article 3. Contract Time Extensions. All claims for extensions of time shall be made in writing to the Engineer within seven (7) calendar days after the beginning of the delay; otherwise, they will be disallowed.

If the Contractor is delayed at any time in the progress of the work by any act or neglect of the NTCD or the Engineer, or by any employee of either, or by any separate contractor disputes, fire, unusual weather conditions, unusual delay in transportation, or by unavoidable casualties, the contract time may be extended by change order for such reasonable time as the NTCD may determine.

It is further expressly understood and agreed that the Contractor shall not be entitled to any damages or compensation, or be reimbursed for any losses, on account of any delay resulting from any of the aforesaid causes or any other cause regardless of whether the delay is foreseeable or not, except that the NTCD agrees to compensate the Contractor for any damage resulting from any affirmative, willful act in bad faith performed by the NTCD or its employees which unreasonably interferes with the Contractor's ability to perform the work.

An extension of contract time for a delay will be allowed only in the case that a normal working day is lost. A normal working day is defined as any day, except weekends and holidays, during which the Contractor can work for at least four hours. Delays will not be allowed for non-working days (e.g., weekends and holidays). Claims by the Contractor for delays will not be allowed on account of failure to furnish information, until 14 days after a request for information is submitted by the Contractor, and then not unless such claim is reasonable.

Extensions of contract time shall not be allowed for the following types of delays:

1. Delays which could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor.
2. Delays in the execution of parts of the work, which may in themselves be unavoidable, but do not prevent or delay prosecution of other parts of the work, or the completion of the whole work within the time specified.

3. Delays arising from interruptions occurring during the prosecution of the work on account of reasonable interference of other contractors employed by the NTCD, which do not prevent the completion of the whole work within the contract time.

Article 4. Progress Payments. If acceptable progress has been made, the NTCD shall, once each month, make an estimate of the total amount of work completed to date and the monetary value thereof and make a partial payment on the Contract.

The NTCD shall retain ten percent (10%) of such estimated value of the work done as part security for the fulfillment of the Contract and shall pay monthly to the Contractor, while carrying on the work the balance not retained, after deducting there from all previous payments.

The amount withheld as provided herein shall be retained for a period of thirty (30) days from the date of the Notice of Completion.

NTCD shall pay to Contractor, at the end of each quarter this Agreement is in effect, interest for the quarter on the amount withheld at a rate to be determined by NTCD in accordance with State law. If the amount due the Contractor pursuant to this provision for any quarter is less than Five Hundred Dollars ($500.00), the NTCD may withhold the interest until: (1) the end of a subsequent quarter after which the amount of interest due is Five Hundred Dollars ($500.00) or more; (2) the end of the fourth consecutive quarter for which no interest has been paid to the Contractor; or (3) final payment is due under the Agreement or State law; whichever occurs first. Contractor shall pay the subcontractors progress payments and pay interest on amounts retained from said progress payments in accordance with the provisions of State law.

Article 5. Acceptance and Final Payment. As soon as practical, following the completion of the work, the Contractor shall make a request by letter to the NTCD for a final inspection and acceptance of the work; if, in the NTCD's opinion, all provisions of the Construction Specifications and Agreement have been satisfied, the NTCD will cause a Notice of Completion to be filed with the Douglas County Recorder.

At the expiration of thirty (30) days following the filing of the Notice of Completion or use or occupancy of the public work by the NTCD, final payment shall be made as follows:

After deducting all previous payments from the total value of the work, the remaining balance shall be paid unless any of the following conditions exist to allow withholding of payment: (a) claims, liens or outstanding debt have been filed against the Contractor or against the work because of Contractor or its agents; (b) claims or demands by NTCD including those involving: disputes about the Contract, Contractor or subcontractor compliance with applicable codes and laws, the work, time or liquidated damages; (c) amounts required by law to be retained by the NTCD. Contractor shall submit proof satisfactory to the NTCD that all payrolls, materials, bills, and other indebtedness relating to the work performed, have been paid before final payment is made.

Article 6. The Contract Sum. The NTCD shall pay the Contractor, as full compensation for furnishing all materials and labor and doing all the work in strict accordance with the Construction Specifications and to the satisfaction of the Engineer the amount set forth in the contract documents. This sum is to be paid in the manner and under the conditions here in before specified.

Article 7. Performance and Payment Bonds. The Contractor agrees that he will, before this contract becomes effective, furnish the NTCD a Performance and Completion Bond and a Labor and Material Payment Bond, furnished by a company or companies acceptable to the NTCD, each in an amount equal to one hundred percent (100%) of the total contract sum. The Performance and Completion Bond shall be conditioned upon the Contractor's full and faithful performance of the contract in accordance with the plans, specifications and conditions of the contract in accordance with the Contract Documents and this Agreement and further conditioned upon the guarantee of said work for a period of one (1) year from the date the work is completed and accepted by NTCD. The Labor and Material Payment Bond is solely for the protection of claimants supplying labor or materials to the contractor to whom the contract was awarded and shall be conditioned upon the Contractor's obligation to pay for all materials and labor provided on the work. (See NRS 339.025)

Article 8. The Contract Documents. The following is an enumeration of all of the Contract Documents making up the Agreement (also herein and throughout the Contract Documents referred to as Contract), which are by this reference hereby incorporated into this Agreement and they are as fully a part of the Agreement as if hereto attached or herein repeated:

- Notice to Contractors
- Scope of Work

- Instructions to Bidders
- Bid Proposal
- Bid Schedule
- Bid Summary
- Preferential Bidder Status
- Bid Bond
- General Contractor Information Form
- Five Percent List of Responsible Trades
- Two Hour One Percent List of Responsible Trades
- Affidavit of Non-Collusion
- Certification of Bidder, Proposed Contractor or Subcontractor Regarding Debarment, Suspension, Ineligibility or Voluntary Exclusion
- Certification of Bidder Regarding Penalties for Noncompliance with Nevada Prevailing Wage Requirements
- Agreement Form
- Labor & Material Payment Bond
- Performance and Completion Bond
- Hazard Communication Program Contractor Communication Form
- Special Provisions to the Standard Specifications for Public Works Construction, 2016, or latest edition, including Special Technical Provisions for **Burke Creek Hwy 50 Crossing and Realignment Project – Phase 1**
- General Provisions of the Standard Specifications for Public Works Construction, 2016, or latest edition
- Exhibit A - Public Works Construction/Indemnification and Insurance Specifications
- Exhibit B - Prevailing Wage Rates
- Exhibit C - TRPA Permit File Number EIP #01.02.03.0001
- Exhibit D – Other Permits
- Addenda
- Change Orders
- Construction Change Directives
- Any amendments made hereto

In the event of any conflict between any of the Contract Documents, this contract shall be governed in accordance with the following order:

a) This Agreement
b) Special Technical Provisions
c) Standard Specifications
d) Drawings
e) General Provisions

Article 9. Nondiscrimination. In accordance with NRS 338.125, in connection with the performance of work under this Agreement, the Contractor agrees not to discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, sexual orientation or age, including, without limitation, with regard to employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including, without limitation, apprenticeship. The Contractor further agrees to insert this provision in all subcontracts hereunder, except subcontracts for standard commercial supplies or raw materials. Any violation of this article constitutes a material breach of the Contract.

Article 10. Veteran's Preference. As provided in NRS 338.130, Contractor agrees as follows:

1. When persons are employed in the performance of this contract or in the construction of this public work, employment preference will be given, the qualifications of the applicants otherwise being equal:

(a) First: To persons who:

(1) Have been honorably discharged from the Army, Navy, Air Force, Marine Corps or Coast Guard of the United States, a reserve component thereof or the National Guard; and

(2) Are citizens of the State of Nevada.

(b) Second: To other citizens of the State of Nevada.

NOTICE TO CONTRACTORS:

If the provisions of NRS 338.130 (dealing with Preferential Employment in Construction of Public Works) are not complied with by the contractor engaged on the public work, THE CONTRACT IS VOID, and any failure or refusal to comply with any of the provisions of this section renders any such contract void. All boards, commissions, officers, agents and employees having the power to enter into contracts for the expenditure of public money on public works such as this contract shall file in the Office of the Labor Commissioner the names and addresses of all contractors holding contracts with the public body, and upon the letting of new contracts, the names and addresses of such new contractors must likewise be filed with the Labor Commissioner. Upon the demand of the Labor Commissioner, contractor shall furnish a list of the names and addresses of all subcontractors employed by the contractor engaged on a public work. Subject to the exceptions contained in NRS 338.130, no money may be paid out of the treasury of NTCD to any person employed on any work mentioned in this section unless there has been compliance with the provisions of this section. Any contractor engaged on a public work or any other person who violates any of the provisions of this section is guilty of a misdemeanor**.**

Article 11. Prevailing Wage Rates. In the event that the Contract sum as listed above exceeds One Hundred Thousand Dollars ($100,000.00) or more due to a change order, Contractor agrees that it shall pay the prevailing wage rates in effect at the time of the bid to the persons who are entitled to such wages as determined by the regulations of the labor commissioner. This applies to the entire contract period. Further, and in accordance with NRS 338.060, Contractor shall forfeit as a penalty to the NTCD, Twenty to Fifty Dollars ($20.00 - $50.00) for each worker employed for each calendar day or portion thereof that such worker is paid less than the designated rate for any work done under the Agreement by him or any subcontractor under him. The exact amount of the penalty is determined by the labor commissioner's regulations. In addition, Contractor shall keep accurate records showing the name, occupation and actual per diem wages and benefits paid to each worker employed by him in connection with this project. The records shall be open to inspection by the NTCD, its officers and agents at all reasonable hours. No provision of this Contract shall be construed to excuse any duty either Party has under the prevailing wage laws of Nevada. (NRS 338.010 et.seq.)

Article 12. Indemnification/Insurance. NTCD has established specific indemnification and insurance requirements for agreements/contracts with contractors to help assure that reasonable insurance coverage is maintained. Indemnification and hold harmless clauses are intended to assure that contractors accept and are able to pay for the loss of liability related to their activities. Exhibit A, pages 1-5, is included by reference. All conditions and requirements identified in this exhibit shall apply to any work completed under this Agreement.

Article 13. Alternative Dispute Resolution. NRS 338.150 requires that a method of alternate dispute resolution be utilized to resolve any disputes that arise between the public body and the contractor engaged on a public work before initiation of a judicial action. The parties agree to submit any dispute that arises under this contract to a mutually agreeable alternative dispute resolution method prior to the initiation of a judicial proceeding. In addition, it is further agreed that neither party is entitled to an award of attorney's fees from the opposing party as a result of the outcome of an alternative dispute resolution method or a judicial proceeding even if the party is considered to be a prevailing party.

Article 14. Termination. In addition to the other provisions of this Agreement, NTCD has the right to terminate the Agreement without cause at any time upon giving the Contractor seven (7) days notice in writing. In the event the Agreement is terminated by NTCD in accordance with this provision, NTCD agrees to pay Contractor for all work satisfactorily completed and for materials installed prior to the date of termination.

Article 15. Laws and Compliance with Laws. This Contract is governed by and shall be interpreted under the laws of the State of Nevada. The Contractor and his agents including subcontractors, employees and persons who provide labor, equipment, materials, supplies or services for the work shall comply with the requirements of all applicable state and local laws, including, without limitation, any applicable licensing requirements and the requirements for the payment of sales and use taxes on equipment, materials and supplies provided for the work. In addition, the parties to this contract agree and stipulate that the venue for any dispute arising under this Agreement will be in a court of competent jurisdiction in Washoe County, Nevada.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

NEVADA TAHOE CONSERVATION DISTRICT, by:

_____

GLEN SMITH, Chairman
NEVADA TAHOE CONSERVATION DISTRICT

STATE OF NEVADA)
) SS:
COUNTY OF DOUGLAS)

On this _____ day of _____, 2016, before the undersigned, a Notary Public in and for the County of Douglas, State of Nevada, personally appeared before me _____, as Chairman of the Nevada Tahoe Conservation District Board of Supervisors, whose name is subscribed to the above agreement, and who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

_____

NOTARY PUBLIC

_____

CONTRACTOR

STATE OF NEVADA)
) SS:
COUNTY OF DOUGLAS)

On this _____ day of _____, 2012, before the undersigned, a Notary Public in and for the County of Douglas, State of Nevada, personally appeared before me _____, General Contractor, whose name is subscribed to the above agreement, and who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

_____

NOTARY PUBLIC

LABOR AND MATERIAL PAYMENT BOND
FOR PUBLIC WORKS REQUIRED PURSUANT TO NRS CHAPTER 339

KNOW ALL MEN BY THESE PRESENTS: That _____
(Name and Address [or legal description] of Contractor)
as Principal, hereinafter called "Principal", and _____

_____
(Legal Designation and Address of Surety)
authorized to do business of surety in the State of Nevada, as Surety, hereinafter called "Surety", are held and firmly bound unto the NEVADA TAHOE CONSERVATION DISTRICT, a political subdivision of the State of Nevada, as Obligee, hereinafter called "NTCD", for the use and benefit of claimants supplying labor or materials to the Principal or to any of the Principal's subcontractors in the prosecution of the work provided for in the Contract referred to below in the amount of _____
_____Dollars ($_____) said sum being 100% of the contract amount payable by the NTCD under the terms of the Contract referred to below, for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____**,** entered into contract with NTCD for **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"** which contract and its plans and specifications are attached hereto and by reference made a part hereof, as if fully and completely set out in full herein, and is hereinafter referred to as the "Contract".

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, and shall save and hold harmless and indemnify NTCD from and against any and all claims and demands of liens for work performed and materials supplied, then this obligation shall be void; otherwise it shall remain in full force and effect.

THIS BOND is executed for the purpose of complying with the laws of the State of Nevada as contained in Chapter 339 of Nevada Revised Statutes and all acts amendatory thereof and supplemental thereto, and this Bond shall inure to the benefit of any and all persons who perform labor upon or furnish materials to be used in or furnish appliances, teams or power contributing to the work described in said contract, in accordance with provisions of Chapter 339 of Nevada Revised Statutes.

Any suit or action brought on this bond shall be maintained in accordance with provisions as set forth in Chapter 339 of NRS, and all acts amendatory thereof and supplemental to.

IN WITNESS WHEREOF, the above bounden Principal and the above bounden Surety have hereunto set their hands and seal, this _____ day of _____, ____.

PRINCIPAL:_____ By:_____

(Note: Signature to be notarized)

Type:_____

Title:_____

State of Nevada Contractor's License #

_____

Subscribed and sworn to before me this

_____day of _____, ____.

_____

Notary Public

Surety:

_____

Name of Surety

By:_____

(Note: Signature to be Notarized)

Type:_____

Attorney-in-Fact

Amount of Bond Premium (to be filled in by the Surety Company):

$_____

Subscribed and sworn before me this _____day of _____, ____.

_____

Notary Public

Surety's Licensed Nevada Agent:

_____

Company Name

_____

_____

Address

_____

Telephone

By:_____

(Note: Signature to be Notarized)

Type:_____

Bond No._____

Subscribed and sworn to before me this _____ day of _____, ____.

_____

Notary Public

PERFORMANCE AND COMPLETION BOND
FOR PUBLIC WORKS REQUIRED PURSUANT TO NRS CHAPTER 339

KNOW ALL MEN BY THESE PRESENTS: That _____

_____

(Name and Address [or legal description] of Contractor)

As Principal, hereinafter called "Principal", and _____

_____

(Legal Designation and Address of Surety)

authorized to do business of surety in the State of Nevada, as Surety, hereinafter called "Surety", are held and firmly bound unto the NEVADA TAHOE CONSERVATION DISTRICT, a political subdivision of the State of Nevada, as Obligee, hereinafter called "NTCD", in the amount of _____ _____ Dollars ($_____) said sum being 100% of the contract amount payable by the NTCD under the terms of the Contract referred to below, for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____, entered into contract with NTCD for **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"** which contract and its plans and specifications are attached hereto and by reference made a part hereof, as if fully and completely set out in full herein, and is hereinafter referred to as the "Contract"; and

WHEREAS, said Principal is required by the Nevada Revised Statutes 339.025, and all acts amendatory thereof and supplemental thereto, to furnish a bond in connection with said Contract guaranteeing the faithful performance thereof; and

WHEREAS, the Principal under the terms of the Contract agrees to replace and/or repair without cost to the NTCD any damage or imperfections due to faulty labor or materials incorporated in said work, including the landscaping, for a period of one (1) year, from and after the date of completion and acceptance by NTCD of the work contracted to be performed.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, if Principal shall well and truly perform and complete in all its parts of the work described in said Contact within the time and in the manner therein specified and shall, for a period of one (1) year from the date of the work contracted to be performed is completed and accepted by NTCD, replace and repair any and all defects arising in said work, whether resulting from defective material or workmanship, and shall also observe, perform, fulfill, and keep all and every covenant and agreement in said Contract on the part of the Principal to be kept, performed and complied with within the time and manner therein specified and shall truly and fully comply with all guarantees required in said Contract, then this obligation shall become null and void, otherwise it shall remain in full force and effect.

And the said Surety, for value received, hereby stipulates and agrees, if requested to do so by the NTCD, to perform and fully complete the work mentioned and described in said Contract, pursuant to the terms, conditions and covenants thereof, if for any cause, said Principal fails or neglects to so perform and fully complete said work; the said Surety further agrees to commence said work to full completion within twenty (20) days after notice thereof from the NTCD, and to fully complete the same with all due diligence and in accordance with the plans and specifications.

Further, Surety for value received, hereby stipulates and agrees that no prepayment or delay in payment and no change, extension, addition or alteration of the work or any provision of the Contract or in the plans, profiles, detailed drawings, specifications, and no extension of time and no forbearance on the part of the NTCD shall operate to release or exonerate the Surety upon this bond, and consent thereto without notice to or consent by Surety is hereby given, and Surety hereby waives provisions of any law relating thereto. It is expressly agreed and understood that this bond is made and executed contemporaneously with the Contract above mentioned, and in consideration of the covenants and agreements therein made and entered into on the part of the NTCD; and that the due execution and delivery hereof is condition precedent to liability on the part of the NTCD, on said above mentioned Contract. It is further understood and agreed that this bond is

made in compliance with NRS 339.025 and all acts amendatory thereof and supplemental thereto; and that all benefits therein set forth inure to the benefits of the NTCD.

IN WITNESS WHEREOF, the above bounden Principal and the above bounden Surety have hereunto set their hands and seal, this _____ day of _____, ____.

PRINCIPAL:_____ By:_____

(Note: Signature to be Notarized)

Type:_____

Title:_____

State of Nevada Contractor's License #

_____

Subscribed and sworn to before me this

_____day of _____, ____.

_____

Notary Public

Surety:

_____

Name of Surety

By:_____

(Note: Signature to be Notarized)

Type:_____

Attorney-in-Fact

Amount of Bond Premium (to be filled in by the Surety Company):

$_____

Subscribed and sworn before me this _____day of _____, ____.

_____

Notary Public

Surety's Licensed Nevada Agent:

_____

Company Name

_____

_____

Address

_____

Telephone

By:_____

(Note: Signature to be Notarized)

Type:_____

Bond No._____

Subscribed and sworn to before me this _____ day of _____, ____.

_____

Notary Public

*** SAMPLE ***

NEVADA TAHOE CONSERVATION DISTRICT

HAZARD COMMUNICATION PROGRAM
CONTRACTOR COMMUNICATION FORM

To meet the requirements of the OSHA Hazard Communication Standard, information regarding the hazards of chemicals or compounds brought to the project site must be exchanged between the Department and the Contractor. This form is designed to satisfy those communication requirements.

Project Name/Location: **"BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT- PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA"**

Contractor: _____

Subcontractor: _____

Nature of work to be completed: _____

_____

Effective date: Start of construction through the Notice of Acceptance.

Chemical Used or Stored at Project in Work Area	Required Precautions	Emergency Actions

All chemical (compounds) containers must be labeled with the name of the chemical and the hazards of that chemical. Detailed information regarding the hazards and protective measures for all chemicals found at this project can be found in the "MATERIAL SAFETY DATA SHEETS" for those chemicals and are collected in a binder labeled "NTCD HAZARD COMMUNICATION" located in the office of the Nevada Tahoe Conservation District.

The Contractor is responsible to ensure that their employees and the employees of any subcontractor are informed of the information provided here.

Before contract work can begin, the Contractor must provide the Department with complete "MATERIAL SAFETY DATA SHEETS" for all chemicals brought to the work area by the Contractor. All containers must be labeled with chemical name and hazard information.

Examples, but not a complete list, of chemicals requiring "MATERIAL SAFETY DATA SHEETS": Painting materials, drywall compounds, concrete hardener, caulking, ceramic tile bedding, vinyl tile adhesive, cleaning compounds, etc.

_____ _____

CONTRACTOR SIGNATURE DATE

Exhibit A

CONSTRUCTION/INDEMNIFICATION AND INSURANCE SPECIFICATIONS FOR BURKE CREEK HWY 50 CROSSING AND REALIGNMENT PROJECT – PHASE 1, STATELINE, DOUGLAS COUNTY, NEVADA

INTRODUCTION

NTCD has established specific indemnification, insurance, and safety requirements for public works construction contracts to help assure that reasonable insurance coverage is purchased and safe working conditions are maintained. Indemnification and hold harmless clauses are intended to assure that CONTRACTOR accepts and is able to pay for the loss or liability related to its activities.

BIDDERS' ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW. IT IS HIGHLY RECOMMENDED THAT BIDDERS CONFER WITH THEIR RESPECTIVE INSURANCE CARRIERS OR BROKERS TO DETERMINE IN ADVANCE OF BID SUBMISSION THE AVAILABILITY OF INSURANCE CERTIFICATES AND ENDORSEMENTS AS PRESCRIBED AND PROVIDED HEREIN. IF ANY APPARENT LOW BIDDER FAILS TO COMPLY STRICTLY WITH THE INSURANCE REQUIREMENTS, THAT BIDDER MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

INDEMNIFICATION AGREEMENT

CONTRACTOR agrees to hold harmless, indemnify, and defend NTCD, its officers, agents, employees, and volunteers from any loss or liability, financial or otherwise resulting from any claim, demand, suit, action, or cause of action based on bodily injury including death or property damage, including damage to CONTRACTOR'S property or injury to CONTRACTOR'S employee, caused by any action, either direct or passive, the omission, failure to act, or negligence on the part of CONTRACTOR, its employees, agents, representatives, or Subcontractors arising out of the performance of work under this Agreement by CONTRACTOR, or by others under the direction or supervision of CONTRACTOR.

CONTRACTOR must either defend NTCD or, upon determination that the work performed by CONTRACTOR was negligent in any manner or that CONTRACTOR failed to perform any duty set forth in this Agreement, pay NTCD'S costs related to the investigation and defense of any claim, demand, action, or cause of action.

If NTCD's personnel are involved in defending such actions, CONTRACTOR shall reimburse NTCD for the time spent by such personnel at the actual cost incurred by NTCD for such services.

In determining the nature of the claim against NTCD, the incident underlying the claim shall determine the nature of the claim, notwithstanding the form of the allegations against NTCD.

GENERAL REQUIREMENTS

CONTRACTOR shall purchase Industrial Insurance, General Liability, Automobile Liability, Property Insurance and Professional Insurance as described below. The cost of such insurance shall be included in the CONTRACTOR'S bid.

INDUSTRIAL INSURANCE

It is understood and agreed that there shall be no Industrial Insurance coverage provided for CONTRACTOR or any Subcontractor by NTCD. CONTRACTOR agrees, as a precondition to the performance of any work under this Agreement and as a precondition to any obligation of the NTCD to make any payment under this Agreement to provide NTCD with a certificate issued by an insurer in accordance with NRS 616B.627 and with certificates of an insurer showing coverage pursuant to NRS 617.210 for CONTRACTOR and all subcontractors.

If CONTRACTOR or Subcontractor is unlicensed and is a sole proprietor, coverage for the sole proprietor must be purchased and evidence of coverage must appear on the Certificate of Insurance. Such requirement may be waived for a sole proprietor who does not use the services of any employees, subcontractors, or independent contractors and completes an Affirmation of Compliance pursuant to NRS 616B.627(2).

It is further understood and agreed by and between NTCD and CONTRACTOR that CONTRACTOR shall procure, pay for, and maintain the above mentioned industrial insurance coverage at CONTRACTOR'S sole cost and expense.

Should CONTRACTOR be self-funded for Industrial Insurance, CONTRACTOR shall so notify NTCD in writing prior to the signing of this Agreement. NTCD reserves the right to approve said retentions, and may request additional documentation, financial or otherwise, for review prior to the signing of this Agreement.

MINIMUM LIMITS OF INSURANCE

CONTRACTOR shall maintain limits no less than:

1. General Liability: $1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, the general aggregate limit shall be increased to equal twice the required occurrence limit or revised to apply separately to each project or location.

2. Automobile Liability: $1,000,000 combined single limit per accident for bodily injury and property damage covering "Any Auto". No aggregate limits may apply.

3. Professional Errors and Omissions as required by Risk Manager, $0.

The General Contractor shall provide, at its sole cost and expense, maintaining during the entire term of this Agreement, a policy of commercial general liability insurance naming NEVADA DEPARTMENT OF TRANSPORTATION, DOUGLAS COUNTY, SIERRA COLINA LLC, NEVADA TAHOE CONSERVATION DISTRICT and NEVADA DIVISION OF STATE LANDS as an additional insured covering the premises (including the land, equipment, controls and other facilities) insuring against the risks of death, bodily injury, property damage and personal injury liability arising out of or in connection with the use of the roads on the Premises, including roads used for traffic diversion purposes in connection with the Project, for the purposes authorized by this Agreement. Such insurance shall provide not less than the following limits: One Million Dollars ($1,000,000.00) with respect to bodily injury or death to any one person; Two Million Dollars ($2,000,000.00) with respect to bodily injury or death arising out of any one (1) occurrence; and One Million Dollars ($1,000,000.00) with respect to property damage or other loss arising out of any one (1) occurrence. The insurance required under this Agreement shall (a) be issued by insurance companies authorized to do business in the State of Nevada, with classification of at least A and a financial rating of XI or better as rated in the most current issue of "Best's Key Rating Guide," and (b) contain an endorsement requiring thirty (30) days' written notice from the insurance company to all additional insureds before cancellation or change in the coverage, scope, or amount of the policy.

DEDUCTIBLES AND SELF-INSURED RETENTIONS

Any deductibles or self-insured retentions must be declared to and approved by the NTCD. NTCD reserves the right to request additional documentation, financial or otherwise, prior to giving its approval of the deductibles and self-insured retention and prior to executing the underlying agreement. Any changes to the deductibles or self-insured retentions made during the term of this Agreement or during the term of any policy, must be approved by the NTCD prior to the change taking effect.

OTHER INSURANCE PROVISIONS

The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverages

a. NTCD, its officers, agents, employees, and volunteers are to be included as insureds as respects damages and defense arising from: activities performed by or on behalf of CONTRACTOR, including the insured's general supervision of CONTRACTOR; products and completed operations of CONTRACTOR; premises owned, occupied, or used by CONTRACTOR; or automobiles owned, leased, hired, or borrowed by the CONTRACTOR. The coverage shall contain no special limitations on the scope of protection afforded to the additional insureds nor shall the rights of the additional insureds be affected by the insured's duties after an accident or loss.

b. CONTRACTOR'S insurance coverage shall be primary insurance as respects NTCD, its officers, agents, employees, and volunteers. Any insurance or self-insurance maintained by NTCD, its officers, employees, or volunteers shall be excess of CONTRACTOR'S insurance and shall not contribute with it in any way.

c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to NTCD, its officers, agents, employees, or volunteers.

d. CONTRACTOR'S insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

e. CONTRACTOR'S insurance shall issue a Waiver of Subrogation endorsement.

2. Property Coverages

CONTRACTOR shall provide builders risk insurance on an "All Risk" basis on a policy form satisfactory to NTCD. The limit of coverage will be the amount necessary to cover the bid value of any structures in the Contract or other value determined by NTCD. CONTRACTOR shall provide boiler and machinery insurance coverage or other forms of property insurance as appropriate for the project. If the project is in a flood plain, NTCD reserves the right to require flood coverage at CONTRACTOR'S expense. Losses paid under any property insurance policy or policies shall be paid directly to NTCD by the insurer(s).

3. All Coverages

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled, or non-renewed by either CONTRACTOR or by the insurer, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to NTCD except for nonpayment of premium.

ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a Best's rating of no less than A-: VII. NTCD, with the approval of the Risk Manager, may accept coverage with carriers having lower Best's ratings upon review of financial information concerning CONTRACTOR and insurance carrier. NTCD reserves the right to require that CONTRACTOR'S insurer be a licensed and admitted insurer in the State of Nevada, or on the Insurance Commissioner's approved but not admitted list.

VERIFICATION OF COVERAGE

CONTRACTOR shall furnish NTCD with certificates of insurance and with original endorsements affecting coverage required by this exhibit. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. ***All certificates and endorsements are to be addressed to the NTCD and be received and approved by NTCD before work commences.*** NTCD reserves the right to require complete certified copies of all required insurance policies at any time.

SUBCONTRACTORS

CONTRACTOR shall include all Subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each Subcontractor. All coverages for Subcontractors shall be subject to all of the requirements stated herein.

MISCELLANEOUS CONDITIONS

1. CONTRACTOR shall be responsible for and remedy all damage or loss to any property, including property of NTCD, caused in whole or in part by CONTRACTOR, any Subcontractor, or anyone employed, directed, or supervised by CONTRACTOR.

2. Nothing herein contained shall be construed as limiting in any way the extent to which CONTRACTOR may be held responsible for payment of damages to persons or property resulting from its operations or the operations of any Subcontractors under it.

3. In addition to any other remedies NTCD may have if CONTRACTOR fails to provide or maintain any insurance policies or policy endorsements to the extent and within the time herein required, NTCD may, at its sole option:

    a. Purchase such insurance to cover any risk for which NTCD may be liable through the operations of CONTRACTOR under this Agreement and deduct or retain the amount of the premiums for such insurance from any sums due under the Agreement;

    b. Order CONTRACTOR to stop work under this Agreement and/or withhold any payments which become due CONTRACTOR here under until CONTRACTOR demonstrates compliance with the requirements hereof; or,

    c. Terminate the Agreement.

SAFETY PROGRAM

CONTRACTOR shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work.

CONTRACTOR shall take all necessary precautions for the safety of, and shall provide all necessary protection to prevent damage, injury, or loss to:

1. All employees on the work site and all other persons who may be affected thereby.

2. All the work, materials, and equipment to be incorporated therein, whether in storage on or off the site.

3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations, and others of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. He shall erect and maintain, as required by existing conditions and progress on the work, all necessary safeguards for safety and protection, including posting danger signs, other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent utilities. CONTRACTOR shall comply with OSHA'S Hazard Communication Standards.

CONTRACTOR shall designate a responsible member of its organization at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR'S superintendent unless otherwise designated in writing by CONTRACTOR to the Owner and the Engineer.

Exhibit B

2015/2016 PREVAILING WAGE RATES
For
DOUGLAS COUNTY

Shall be
Obtained at

http://labor.nv.gov/uploadedFiles/labornvgov/content/PrevailingWage/DOUGLAS.pdf

By Contractor for utilization

Hard copies or questions call the Nevada Labor Commission @ 775-687-6409

DATE OF DETERMINATION: October 1, 2015

APPLICABLE FOR PUBLIC WORKS PROJECTS BID/AWARDED OCTOBER 1, 2015 THROUGH SEPTEMBER 30, 2016*

*Pursuant to NAC 338.040(3), "After a contract has been awarded, the prevailing rates of wages in effect at the time of the opening of bids remain in effect for the duration of the project."

As Amendments/Addenda are made to the wage rates, such will be posted to sites of the respective counties. Please review regularly for any amendments posted or contact our offices directly for further assistance with any amendments to the rates.

Exhibit C

SPECIAL TECHNICAL PROVISIONS

SPECIAL TECHNICAL PROVISIONS

FOR

BURKE CREEK HIGHWAY 50 CROSSING AND REALIGNMENT PROJECT

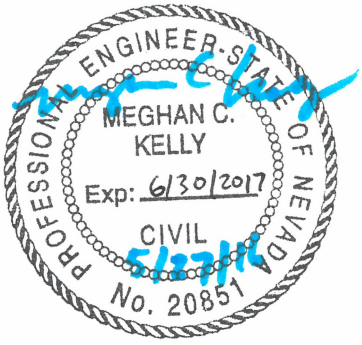
NEVADA TAHOE CONSERVATION DISTRICT

DOUGLAS COUNTY, NEVADA

FOR USE WITH:

Standard Specifications, as referred to in these Special Technical Provisions, are the Standard Specifications for Public Works Construction – Washoe County "Orange Book," current edition. These Special Technical Provisions are supplemental to the Standard Specifications.

PREPARED BY:



Nevada Tahoe Conservation District
400 Dorla Court
Box 915
Zephyr Cove, NV 89448

Meghan Kelly, P.E.
NV P.E. #: CE 020851

Date: May 2016

Contents

SECTION 100 – GENERAL

101.01 Description
The work described herein shall conform to the Contract Documents, Project Plans, Standard Specifications, these Special Technical Provisions, and Project Permits. Standard Specifications, as referred to in these Special Technical Provisions, are the Standard Specifications for Public Works Construction – Douglas County "Orange Book," current edition. These Special Technical Provisions are supplemental to the Standard Specifications. Where applicable in the Nevada Department of Transportation (NDOT) right of way, the NDOT Standard Specifications for Road and Bridge Construction, current edition (NDOT Standard Specifications).

In case of conflict between the Standard Specifications and these Special Technical Provisions, the Special Technical Provisions shall govern, take precedence over, and be used in lieu of such conflicting portions.

SECTION 102 – CONTRACTOR QUALIFICATIONS

102.01 Description
In addition to any bidder qualifications noted elsewhere in the Contract Documents, Project Plans, Standard Specifications, and these Special Technical Provisions, each bidder shall attach sufficient documentation to the bid forms to clearly demonstrate his/her ability to meet the minimum experience qualifications stated in this section. The following items shall be included in the bid submittal:

1. Project descriptions of similar projects to the Burke Creek Highway 50 Crossing and Realignment Project including:
    a. Location of projects
    b. Dates project was initiated and completed by the Contractor
    c. Description of size of restoration and any road crossings
    d. Total contract costs
    e. Client/agency contact in responsible charge (owner of the work)
2. Other references demonstrating Contractor qualifications on similar projects. These references shall only include regulatory, funding and/or local agency representatives or licensed Professional Engineers working on similar projects within the Lake Tahoe Basin.
3. Contractor's license number, classification, & status.

The above items shall clearly demonstrate the Contractor's qualifications to perform the work associated with the Burke Creek Highway 50 Crossing and Realignment Project and past similar experience on other projects. The experience to be demonstrated above is required to meet the following minimum requirements:

A. The Contractor and his/her designated Foreman is required to have successfully performed a minimum of one (1) project, within the past five (5) years, which included work components of a similar scope and nature (within a US Army Corps of Engineer regulated wetland area or a TRPA Stream Environment Zone) as to that which is indicated herein consisting of minimum project total costs of $700,000 and contract times exceeding 20 days.
B. The Contractor and his/her designated Foreman is required to have successfully performed and completed up to one (1) project, within the past five (5) years, which involved working within

waterways under an NDEP or equivalent regulatory agency permit, and preferably within the Lake Tahoe basin.

C. The Contractor and his/her designated Foreman is required to have successfully performed and completed up to one (1) project, within the past five (5) years, which involved working with potable drinking water lines under an NDEP or equivalent regulatory agency permit, and preferably within the Lake Tahoe basin.
D. All landscape and revegetation work required as part of this project shall be performed by a licensed Landscape Contractor (C-10 in Nevada). The licensed Landscape Contractor is required to have successfully performed and completed a minimum of three (3) projects, within the past five (5) years, which included landscape and revegetation work components of a similar scope and nature as to that which is indicated herein (within a US Army Corps of Engineers regulated wetland area, or TRPA Stream Environment Zone). In addition at least two (2) of these representative projects shall include revegetation and/or bank stabilization work within waterways under an NDEP or equivalent regulatory agency permit, and preferably within the Lake Tahoe basin.

Failure of the Contractor to submit the information required or to demonstrate experience as required in this section shall warrant the Contractor's bid submittal incomplete. The determination of whether the Contractor meets the qualifications is at the sole discretion of the Nevada Tahoe Conservation District.

102.02 Measurement and Payment

There will be no compensation for providing required bid documents and support materials for a complete bid package for this project. Incomplete bid packages or bid packages received after the submittal deadline will not be considered.

SECTION 110 – ORDER OF WORK

110.01 Description

The construction of this project shall conform to the Contract Documents, Plans, Standard Specifications, and these Special Technical Provisions. Prior to commencing work, the Contractor shall submit to the Engineer a sequence and schedule of work for review and acceptance in accordance with the Standard Specifications and these Special Technical Provisions. The schedule shall include all work necessary for a full and complete project as shown on the 100% Design Plans and described in these Special Technical Provisions.

The project requires coordination with several different public entities (Douglas County, the US Forest Service, the Nevada Department of Transportation, the Nevada Tahoe Conservation District, Nevada Division of Environmental Protection (NDEP), and the Tahoe Regional Planning Agency). The Nevada Tahoe Conservation District will assist the contractor in coordinating with all entities public and private. The Contractor shall be solely responsible for coordinating with all contractors working in the area whether listed in these Special Technical Provisions or not.

The order of work shall be as follows:

1. Verification of all underground utilities within the project area.
2. Installation of Temporary Traffic Control Measures.
3. Construction of all temporary erosion control measures as shown on the project plans and as approved by the Engineer and Tahoe Regional Planning Agency (TRPA).

4. Construction of project as shown on the project plans and as described in these Special Technical Provisions. Contractor may select sequence for construction.
5. Restoration of entire project site:
    a. Restoration/revegetation of all disturbed areas.
    b. Road sweeping.
    c. Restoration of staging and access.
    d. Removal of temporary BMPs with approval of Engineer.
6. Pre-Final site walk with the Engineer, Contractor, Douglas County, US Forest Service, NDOT, and TRPA.
    a. Development of project punchlist (by Engineer).
7. Completion of punchlist items.
8. Final site walk with Engineer and Contractor.

The Contractor may submit a revised order of work to the Engineer for review and approval. In the event the Engineer does not accept the Contractor's proposed order of work, the above order of work shall hold for the contract.

The Contractor will be responsible for meeting all the requirements of all the regulations and requirements set forth by TRPA, Douglas County, NDEP, USFS, NDOT, and all other permitting and funding agencies. In the event fines are levied by any of these agencies, the Contractor shall be solely responsible for all costs associated with these fines. In the event the project receives a stop work order by any entity, the Contractor will not be granted any additional working days. The working days during which no work is performed will be counted as contract working days, even though the Contractor is unable to work due to the stop work order.

The Contractor shall submit a construction schedule in accordance with the provisions of this section, these Special Technical Provisions and the Standard Specifications for review and approval by the Engineer.

110.02 Measurement and Payment
Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for all work associated with all work involved in provisions of this section, complete in place as shown on the Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, shall be considered as included in prices paid for the various contract items of work involved; no additional compensation will be allowed.

SECTION 120 – PROJECT PERMITS

120.01 Description
This project is located within Douglas County, Nevada and the Lake Tahoe Basin, which is regulated by Douglas County, the Tahoe Regional Planning Agency (TRPA), and the Nevada Division of Environmental Protection (NDEP). Additionally the project is being funded by the US Forest Service (USFS) and occurs on portions of USFS land and requires the issuance of a USFS Special Use Permit (SUP). Furthermore the project is constructing improvements in a US Army Corps of Engineers jurisdictional wetland, which requires the issuance of a nationwide permit from the US Army Corps of Engineers. Finally, a portion of the work is within the NDOT right-of-way, which requires the issuance of an encroachment permit by NDOT.

The project permits have not been received for the project at the time of Bid, however the contractor will be responsible for all permit requirements upon receipt of the permits for the project and no additional compensation shall be allowed for. The project permit(s) will have specific requirements covering work to be performed under this contract. The Contractor shall meet the permit(s) requirements for grading season restrictions, stormwater discharges, Best Management Practices (BMPs), selection of staging and storage areas, dewatering and diversion practices, revegetation and restoration requirements, and all other agency approval conditions. The Contractor shall note that the project is located in sensitive lands (TRPA Stream Environment Zone and US Army Corp of Engineers Wetlands) and thus require special care during construction.

In addition to TRPA and NDEP stormwater discharges and temporary erosion control and BMP requirements, the Contractor shall be responsible for complying with all Douglas County and NDOT permits and other agency requirements and responsibilities as provided in the project permit(s), Contract Documents, Plans, Standard Specifications, these Special Technical Provisions, and the SWPPP. **The Contractor is required to procure a site improvement permit from Douglas County prior to initiating any work on the site.**

The Contractor shall maintain a copy of all permit(s) at the construction site and shall make the permit(s) available to operating personnel during construction activities; also upon request these permit(s) must be made available for public inspection.

The Contractor shall maintain a set of stamped plans and special provisions at the construction site and shall make them available to operating personnel during construction activities; also upon request, plans and special provisions must be made available for public inspection.

It shall be the Contractor's responsibility to completely inform him or herself of the conditions of all Project Permit(s) and conduct construction operations accordingly. Any requested change to an agency's permit conditions of approval, proposed by the Contractor, shall be submitted to the Engineer for transmittal to TRPA, NDEP, or other agency for their approval. The Contractor shall also be responsible for adhering to the requirements of the TRPA Code of Ordinances relating to this project. Should conflicts arise between the Standard Specifications and the TRPA Code of Ordinances, the TRPA Code of Ordinances shall supersede the Standard Specifications.

The **Contractor is responsible for coordinating the pre-grading meeting with TRPA** to allow for review of the project site and determination of the adequacy of temporary erosion control measures and BMPs deployed by the Contractor. The Contractor shall coordinate the meeting so that the Contractor, Engineer, TRPA, NDEP, and NTCD staff are present. The Contractor shall follow the requests of the reviewing environmental agencies as necessary to bring the construction site temporary erosion control devices and BMPs into compliance with the permit(s) requirements, regulations, and other provisions of these Special Technical Provisions, and the SWPPP. The Contractor shall maintain all temporary erosion control devices and BMPs until all work is complete and the project site is stabilized per acceptance of the Engineer and all relevant agencies in review of the project site at the "Final Walk Through". The Contractor can remove temporary erosion control devices and BMPs only upon approval by the Engineer, TRPA, and NDEP to do such. Attention is directed to the revegetation requirements found elsewhere in these Special Technical Provisions.

The Contractor shall comply with all noxious weed requirements per the United States Forest Service (USFS) and other regulatory agencies. These requirements include but are not limited to the following:

- All tools, equipment and vehicles used for project implementation are required to be weed-free.
- All tools, equipment and vehicles will be cleaned of all attached mud, dirt, and plant parts. This will be done at a vehicle washing station or steam cleaning facility (power or high pressure cleaning) before the equipment and vehicles enter the project area, and before vehicles enter the Lake Tahoe Basin (if they originate from outside the Basin).
- All soil, fill, gravel, rock, mulch, seed, organic matter or other imported materials are required to be weed-free. Use onsite soils, gravel, rock, or organic matter when possible. Otherwise, obtain materials from pits, quarries, nurseries, and other sources that are certified or have been determined to be weed-free by the noxious weed coordinator of the USFS Lake Tahoe Basin Management Unit.
- Minimize the amount of ground and vegetation disturbance in the construction areas. Reestablish vegetation on all disturbed bare ground to minimize weed establishment and infestation.
- Use weed-free mulches, and seed sources. Salvage topsoil from project area for use in onsite revegetation, unless contaminated with noxious weeds. All activates that require seeding or planting must utilize locally collected native seed sources when possible. Plant and seed material should be collected from or near the project area, from within the same watershed, and at a similar elevation when possible. Persistent non-native such as Phleum pretense (cultivated timothy), Dactylis glomerata (orchard grass), or Lolium spp. (ryegrass) will not be used. This requirement is consistent with the USFS Region 5 policy that directs the use of native plant material for revegetation and restoration for maintaining "the overall national goal of conserving the biodiversity, health, productivity, and sustainable use of forest, rangeland, and aquatic ecosystems." Seed mixes should be accepted by the Revegetation Specialist.
- Staging areas for equipment, materials, or crews shall not be sited in weed infested areas.

The project is located within a sensitive land capability class area (1b SEZ) as classified by the TRPA. Therefore the Contractor will be required to use extreme caution in all activities associated with the project. The Contractor will be required to meet all of the requirements shown on the Plans, as described in the Project Permit(s), these Special Technical Provisions and as stated in the SWPPP. The Contractor is restricted from parking equipment, and storing materials within the Project limits, except as shown on the Plans or as directed by the Engineer. Soil and other materials shall not be stored, stockpiled, or otherwise placed within areas or on a surface that is not designated for such treatment on the drawings. Refueling of equipment will not be allowed within the floodplain project work areas or other SEZ areas.

The Contractor is further required to only use "low impact equipment" for this project. No equipment having a ground pressure that will disturb and/or compact the ground (generally ground pressures less than 25 psi) will be allowed off of paved areas, or designated temporary truck haul routes under any circumstance. All equipment on the project site, (off paved areas or designated truck haul routes), shall meet this low pressure requirement. TRPA prefers the use of "rubber track" equipment as low impact equipment and the Contractor is encouraged to use "rubber track" equipment in sensitive land capability areas. The Contractor shall provide detailed information, (manufacture's data brochure, or other product specific materials), to the Engineer for review and acceptance prior to any equipment being mobilized to the project site and placed in the work.

The Contractor shall meet all of the requirements of the SWPPP, and the project permit(s) as issued by the permitting agencies, and any provisions for rights-of-entries issued by land owners. The Contractor

will be responsible for adhering to all requirements of the permit(s), and no additional compensation will be allowed for. The following project permits may be found as appendices to the Contract Documents:

- Tahoe Regional Planning Agency
- US Forest Service – Special Use Permit
- Nevada Department of Environmental Protection – *Stormwater General Permit, 401 Water*
- *Quality Certification, Temporary Authorization to Discharge, Working in Waterways, DeMinimus*
- US Army Corp of Engineers – *NWP#27*
- NDOT – *Right-of-way Occupancy*
- Douglas County – *Site Improvement Permit*

120.02 Measurement and Payment
Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for all work associated with performing all the work involved in provisions of this section, complete in place as shown on the Project Plans, as specified in the Contract Documents, Project Permits(s), Standard Specifications, these Special Technical Provisions, the SWPPP, and as directed by the Engineer, shall be considered as included in prices paid for the various contract items of work involved; and no additional compensation will be allowed for.

SECTION 125 – STORM WATER POLLUTION PREVENTION COMPLIANCE

125.01 Description
The Contractor shall implement the requirements for erosion control due to storm water and construction related runoff from construction sites as established under Nevada Revised Statutes (NRS) and Nevada Administrative Code (NAC) 445A. It shall be the Contractor's responsibility to provide day-to-day operational control of activities and the implementation of Best Management Practices (BMPs) that are necessary to control and reduce the pollution of Waters of the US from stormwater discharges and other pollutants and runoff associated with construction activities, and to ensure compliance with the requirements of National Pollutant Discharge Elimination System (NPDES) permit coverage. Work shall include, but is not limited to:

- Complete and submit a Notice of Intent (NOI) including any permit and filing fees
- Develop and Implement a Storm Water Pollution Prevention Plan (SWPPP)
- Furnishing all materials
- Implementing all practices and installing, constructing and maintaining all BMPs and temporary and/or permanent control measures for the duration of the project
- Submit a Notice of Termination (NOT) upon completion of the project

For coverage under the NDEP stormwater general permit, an NOI must be submitted no later than fourteen (14) days prior to the start of construction. The Contractor shall complete the NOI form and electronically file it with NDEP on-line at the following website: https://genpermits.ndep.nv.gov/
After filing the NOI electronically the applicant must print, sign and submit the confirmation page, including any permit and filing fees, to NDEP by mail to the following address:

Stormwater Coordinator
Bureau of Water Pollution Control

Nevada Division of Environmental Protection
901 South Stewart Street, Suite 4001
Carson City, NV 89701
Phone: (775) 687-4670

In accordance with NAC 445A.269, NDEP may require a general stormwater permit holder to apply for and obtain an individual permit.

125.02 Storm Water Pollution Prevention Plan
The Storm Water Pollution Prevention Plan (SWPPP) shall include, but is not limited to:

- Project Description
- Stormwater Controls
- Material Storage Areas
- Stabilization Practices
- Erosion and Sediment Controls
- Structural Practices
- Spill Contingency Plan
- Post Construction Stormwater Management
- Non-Storm Water Discharge Maintenance
- Maintenance and Inspection Requirements
- Dewatering and Diversion Requirements
- Watering/Dust Control Requirements
- Sampling and Analysis Plan

The SWPPP will describe and ensure the implementation of practices that will assure compliance with the terms and conditions of all of the project permits in accordance with good Engineering practices and cost effective approaches as outlined in Regional BMP Manuals, TRPA handbook, Nevada Contractors Field Guide for Construction Site BMPs and other related documents.

A draft SWPPP is provided in the appendix of the Contract Documents. This draft plan will provide the Contractor with a basis for the requirements of the project SWPPP. **The Contractor, within ten (10) days after the effective date of the executed Contract, shall acknowledge and certify the project SWPPP.** Any requested revisions to the draft SWPPP (i.e. amendments) shall be submitted to the Engineer for review and acceptance, including applicable permitting agencies prior to any modifications being implemented by the Contractor. Such requested modifications shall be noted in red on the original plan (or other suitable format that is clear). Subcontractors shall also sign (i.e. certify) the SWPPP and must comply with the requirements of all of the project permits under the supervision of the Contractor. Attention is directed to Section 160, “Temporary Erosion Control Measures and BMPs,” of these Special Technical Provisions and the applicable Project Plan sheets for Temporary Erosion Control and Dewatering and Diversion operations.

A copy of the Contractor's NOI, SWPPP, and applicable inspection and maintenance records shall be provided to the Engineer at least seven (7) calendar days prior to start of construction and shall be posted at the construction site with other project records; upon request these records, NOI, and SWPPP must also be made available for public inspection.

125.03 Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for all work associated with performing all the work involved in provisions of this section, complete in place as shown on the Project Plans, as specified in the Contract Documents, Project Permit(s), Standard Specifications, these Special Technical Provisions, the SWPPP, and as directed by the Engineer, shall be considered as included in prices paid for the various contract items of work involved; and no additional compensation will be allowed for.

SECTION 130 – MOBILIZATION & DEMOBILIZATION

130.01 Mobilization

This item shall consist of mobilization of the Contractor's forces which shall include obtaining all bonds, insurance, and permits; purchasing, transportation, setup, staging and storage of equipment and materials; establishing a field office at the project site; plus furnishing all labor, materials, tools, equipment, and incidentals required for performance and completion of the work as shown on the Project Plans, and specified in the Contract Documents, Project Permit(s), Standard Specifications, these Special Technical Provisions, the SWPPP, and as directed by the Engineer. Mobilization shall also include but not be limited to the following items:

- Provide on-site sanitary facilities;
- Post all Occupational Safety and Health Administration (OSHA) required notices;
- Post all prevailing wage requirements;
- Prepare and transmit all submittals as noted on the Plans, and as specified in the Contract Documents, Standard Specifications, and these Special Technical Provisions;
- Wash and clean all tools and equipment prior bringing on site, as specified in the Project Permits, Contract Documents, Standard Specifications, these Special Technical Provisions, and as required by TRPA.

130.02 Project Sign

Mobilization shall include construction and erection of one project sign. The project sign shall be constructed in accordance with details provided within the Project Plans, and located as directed by the Engineer. The project sign shall be constructed within ten (10) working days after notice to proceed. Maintenance of the project sign is the Contractor's responsibility until the sign is removed by the Contractor at the end of the construction contract. For this project, one (1) project sign will be erected.

130.03 Demobilization

Demobilization shall consist of the removal of all materials, equipment, signage, temporary pollution control materials, trash, debris, and all other items imported to or generated on-site as a result of the work completed by the Contractor and his/her operations. Furthermore, demobilization shall include cleaning the existing drainage inlets, sediment caps, pipes, and culverts within the project boundary. Furthermore, demobilization shall include repairing all pavements, walkways, infrastructure, signage, landscape, trails, or other public or private facilities damaged by construction activities to their pre-construction conditions using comparable materials as accepted and directed by the Engineer. All disturbed areas shall be returned, as nearly as possible, to the lines and grades which existed prior to construction except where modified as part of the work so designated on the Plans. Attention is directed to Section 335, “Cleanup,” of the Standard Specifications.

At the conclusion of work, final acceptance of the Project improvements must be in the form of a written “Notice of Completion.”

130.04 Record Drawings

The Contractor shall keep accurate records on a set of project black line prints (22 inches x 34 inches) of all additions and deletions to the work and of all changes in location, elevation, and character of the work not otherwise shown or noted on the Project Plans. NTCD will furnish up to six (6) sets of full size black line prints for use at no cost to the Contractor.

Record drawings plans shall be provided to the Engineer for acceptance within one (1) calendar month after project completion as defined by the Engineer. Release of retention monies will not occur prior to submittal and acceptance of the final record drawings, which shall be a comprehensive set of Record Drawings detailing all aspects of the Project. Two (2) sets of full sized (22x34) hard copy record drawings shall be provided with changes to the original Contract work shown in red color, including revision clouds. All redline changes and details to be shown on the record drawings shall include, but not be limited to, difference in quantities of the original plans vs. actual installation (as appropriate), modifications to the location and elevations of public utility and storm drainage facilities, any utility relocations, any signage or traffic control devices, and any other modifications, additions or adjustments to any other facilities not shown or as modified on the Project Plans.

Record drawings plans shall be signed and dated by the Contractor or the sub-contractor that actually constructed the facility. In addition, company names of the Contractor and sub-contractors shall be added to the Title Sheet of the record drawings. Should the Contractor not provide this information to the Engineer in the time specified in this section, or to the acceptance of the Engineer (record drawings do not note all changes to the project) the Engineer will not accept the record drawings, retention shall not be released on the project, the record plans will be returned to the Contractor and the Contractor shall resubmit the record drawings to meet the requirements of this section to the acceptance of the Engineer.

130.05 Measurement and Payment

Mobilization and Demobilization, as described above shall be considered one bid item. Project Sign, as described above shall be considered as included with Mobilization and Demobilization and no additional compensation shall be allowed for. Record Drawings, as described above shall be considered as included with Mobilization and Demobilization and no additional compensation shall be allowed for. Mobilization and Demobilization shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work.

The contract price paid for Mobilization and Demobilization shall include full compensation for mobilizing the Contractor's forces which shall include but not be limited to: bonds, insurance, permits, record drawings, purchasing, transporting equipment, setup, temporary power source and installation, project signs, establishment of a field office, sanitation facilities, and furnishing all labor, materials, tools, equipment, and incidentals required for performance and completion of the work; including full compensation for operations required to demobilize the Contractor's forces which shall include but not be limited to: the removal of all equipment, materials, debris, project signs, field office, sanitation facilities, temporary BMPs, tree protection fencing, and project clean-up; for the contract lump sum price bid, as shown on the Plans, in accordance with the Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, project permit(s), and to the satisfaction of the Engineer.

Partial payments paid for Mobilization and Demobilization shall be made as follows:

- When 5% of the total original contract amount is earned from other bid items, 50% of the amount bid for mobilization/demobilization will be paid.
- When 10% of the total original contract amount is earned from other bid items, 100% of the amount bid for mobilization will be paid.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 140 – STAGING AND STORAGE

140.01 Staging and Storage Areas

The staging and storage areas as identified on the Project Plans are allowed for use by the Contractor in accordance with the Contract Documents, Project Permit(s), SWPPP, Standard Specifications, these Special Technical Provisions, and any easement provisions. These staging/storage areas are controlled by various private and public entities and shall be maintained at all times in a clean and safe environment, including any provisions for rights-of-entries issued by land owners. The Contractors use of the designated staging/storage areas shall be limited to and/or controlled by the time allowances and other restrictions as noted on the Project Plans, Project Permits, rights of entry, and elsewhere in these Special Technical Provisions.

Storage of construction materials, supplies, and equipment within the public right-of-way is prohibited. At no time shall materials, supplies, or equipment be stored or stockpiled within twenty (20) feet of a travel lane unless separated by guardrail or concrete barrier rail in accordance with NDOT requirements and the Standard Specifications.

If the Contractor wishes to make use of additional areas, for staging/storage activities, not identified on the Plans, it will be the Contractor's sole responsibility to secure use of these areas with agreements with the individual property owners; and file a copy of said authorization with the Engineer. The Contractor shall further be responsible for establishing all necessary and required temporary erosion control protections and updating the Project SWPPP. The Contractor will be responsible for bearing all costs with securing these areas, and all efforts associated with the approvals, setup, maintenance, decommissioning and restoration, with no additional compensation allowed for.

The Contractor shall be responsible for appropriate security and safety measures at all staging/storage areas to protect property and the public.

Set-up, use, and restoration of all staging/storage areas requires the Contractor to protect all existing facilities, equipment, vegetation, utilities (above and below ground/grade) and surface features (such as, but not limited to, fences, posts, signs, boulders, landscaping, slopes, etc.) in place. Should the Contractor's operations damage any of these items the Contractor shall replace, in kind, the damaged or destroyed item. The damage or destruction of any item will be determined by the Engineer during the course of construction or at the final punchlist development. In the event the Contractor needs to relocate any item (boulder, fence, etc.) the Contractor shall replace the item to its original location. If the relocated item is damaged, as determined by the Engineer, the Contractor will be required to

replace the damaged item with an in-kind replacement. No additional compensation will be allowed for any relocation, or replacement of damaged items, this will be at the sole cost to the Contractor.

The Contractor shall not proceed with any construction until truck haul routes and temporary haul roads have been identified and accepted to the satisfaction of the Engineer, NTCD, NDEP and TRPA. **The Contractor shall submit four (4) copies of a proposed truck haul route plan, along with the proposed project construction schedule and traffic control plan, to the Engineer for review and acceptance at least seven (7) calendar days prior to the scheduled Pre-Construction Meeting.** Any days lost due to the lack of an accepted truck haul plan will be charged against the Contractor's allowable work days. The Contractor's truck haul route plan shall include, but not be limited to, the following:

- Proposed construction zone;
- Proposed storage areas;
- Location of flaggers (to control truck access, where applicable);
- Construction phasing (including phasing of intersection construction and detours, if any); and,
- Proposed truck route (including the location of other construction projects which impact, or may be impacted by, the proposed haul route.)

All staging/storage areas shall comply with the SWPPP and TRPA's requirements for BMPs while storing or stockpiling materials. The Contractor shall be responsible for locating staging/storage areas and will need to install all temporary erosion controls and BMPs and maintain them at all times during construction and until project closeout. The limits of the staging/storage areas shall be reviewed and accepted by the Engineer, NTCD, NDEP and TRPA prior to use. All necessary temporary BMPs shall be installed at the staging/storage areas prior to the TRPA Pre-Grade Meeting and will be inspected during said meeting to ensure proper installation and controls are in place.

At the completion of the work or when no longer required for use, all construction staging/storage areas shall be cleared of all equipment, tools, materials, trash, debris, etc to produce a clean area and returned, as nearly as possible, to the lines and grades which existed prior to construction.

The restored staging/storage areas, if areas exist as an unpaved condition, shall be treated with the final Revegetation Treatment Type as shown on the Plans (if any areas for Staging/Storage are used and not shown on the Revegetation Plans, the Contractor shall treat the area with Revegetation Treatment Type 5 or as directed by the Revegetation Specialist) and as described in these Special Technical Provisions. For storage and staging areas in paved areas, the areas shall be swept clean and returned to the existing condition, prior to use. The Engineer will inspect the paved areas, and if damage has occurred, whether by fault of the contractor's operations or not, the contractor will be required to make remedial action, including complete pavement restoration. No additional compensation shall be allowed for any remedial restoration work of paved areas, including complete replacement of the pavement areas.

140.02 Coordinating with Adjacent Private Property

Two construction easements exist for the Project with private property owners Sierra Colina LLC. and Apartments 801 LLC as depicted in the Plans. Where work is on easements on private property, Contractor shall coordinate work with the property owner and business owners so that work will minimize inconvenience to property owner.

Contractor shall notify adjacent private property owners and business owners in writing 10 Days prior to the start of construction and at least 48 hours in advance of the interruption of utility service or the

interruption of access, or the installation of bituminous material. A copy of the notice is to be submitted to the NTCD at the same time.

Contractor shall maintain access to businesses at all times and shall not materially interfere with businesses. Contractor shall provide a sign stating "Business Open During Construction" visible from Highway 50 during active construction. The easement on Apartments 801 LCC property shall be used for ingress/egress only and shall not be used to store construction equipment or material unless permission is granted by the property owner.

140.03 AC Paving

Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary for the complete construction of an asphalt concrete structural pavement section where the staging area is indicated on Douglas County property. Paving may also be necessary to repair damaged parking lot on private property. This work shall include excavation, subgrade preparation, aggregate base course, and striping as shown on the Project Plans and in accordance with the Contract Documents, Standard Specifications, Special Technical Provisions, Project Permits, or as directed by the Engineer. All repaving shall occur upon completion of construction.

Aggregate base shall be produced from commercial quality aggregates and be Type 2, Class B conforming to Tables 200.01.03-I and 200.01.03-II, of the Standard Specifications. Existing asphalt concrete (AC) pavement may be crushed or pulverized and mixed with virgin aggregate or used solely as aggregate base, provided the resulting processed material complies with the requirements of the Standard Specifications (Section 200.01.03 for Type 1, Class A or Type 2, Class B Crushed Aggregate Base) or where accepted and as directed by the Engineer comply with the requirements of the Standard Specifications for recycled asphalt concrete base (Section 200.01.04 for Type 1 or Type 2 Recycled Aggregate Base). The Contractor is responsible to perform and furnish all material testing as necessary to ensure compliance with the provisions in the Standard Specifications and these Special Technical Provisions. No existing AC is to be recycled and used on the Project on-site.

The construction including placement, spreading, and compaction of one or more courses of aggregate base on a prepared sub-grade shall be in accordance with Section 308, "Aggregate Base Courses" of the Standard Specifications. Aggregate base shall be a minimum or 6" thick or match existing, whichever is greater.

Asphalt concrete shall be Type 3 (4% Marshal Voids) and shall conform to the provisions of the applicable sections of the Standard Specifications and these Special Technical Provisions. Asphalt concrete shall be a minimum of 3" thick or match existing, whichever is greater. Asphalt concrete shall be placed to the lines, dimensions, and grades shown on the Plans or as directed by the Engineer. Asphalt concrete shall be produced from commercial quality asphalt and aggregates at a central mixing plant and conform to the following requirements:

A. Asphalt binder (cement) shall be performance graded PG 64-22NV conforming to Table 201.02-III, of the Standard Specifications.
B. Aggregate shall be Type 3 conforming to Tables 200.02.03-I and 200.02.03-II, of the Standard Specifications.
C. A mix design shall be completed and submitted by the Contractor prior to incorporation in the work, in accordance with Section 337, "Composition of Mixtures" and Section 337.04, "Bituminous Plantmix" of the Standard Specifications.

The Contractor shall make all provisions to saw cut the edges of existing asphalt to expose the full depth of the section and form a clean edge at any transverse joint, for the freshly laid mixture. As directed by the Engineer in the field, a twelve inch (12") "T" cap key-in joint shall be created at all transverse joints with existing asphalt structural sections.

A tack coat of liquid asphalt shall be applied in accordance with the provisions in Section 316, "Tack Coat" of the Standard Specifications, to all contact surfaces of existing pavement, curbing, manholes, and other surfaces as designated by the Engineer prior to any asphalt concrete pavement being placed against them.

Striping shall be applied to the Douglas County parking lot labeled in the plans as the staging and storage area after repaving occurs. Striping shall conform to section 324, Painting Pavement Striping and Marking, of the Standard Specifications and Douglas County code section 20.692. Striping pattern shall be two sided 90 degree angle parking with two-way aisles. Per Douglas County Code, the stalls shall be a minimum of 9 feet wide by 20 feet long and the two-way aisle shall be 25 feet wide. This pattern will provide approximately 12 spaces on the west side of the parking lot and 13 spaces on the east side. Contractor shall strip the maximum number of spaces possible while accommodating the 9 foot wide parking stalls. Excess width shall be divided equally between all parking stalls on each side. If the total width of the parking lot cannot accommodate the 65 foot striping pattern, parking stall length shall be reduced equally for each parking side up to one foot.

140.04 Measurement and Payment

Staging and Storage shall be measured on a lump sum basis, accepted by the Engineer as conforming to all the requirements in the complete work. The contract price paid for Staging and Storage shall include set-up of all staging and storage areas and installation of any applicable temporary erosion control measures and BMPs (except where otherwise paid for) and furnishing all labor, materials, tools, equipment, and incidentals required for performance and completion of the work; including full compensation for operations required to remove and dispose of all materials, clean-up, and restore the site to its pre-construction condition, and re-pave and stripe the parking area as shown on Plans; for the contract lump sum price bid, as shown on the Plans, in accordance with the Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and to the satisfaction of the Engineer.

The schedule for payment for Staging and Storage shall be in direct proportion to the percentage of work completed; i.e. if 20% of the project is completed, the Contractor may request payment for 20% of the lump sum total of the bid item for Staging and Storage. Measurement of the percentage of work completed shall be based on the percentage of work billed by the Contractor based on the total dollar amount of the contract bid price. Increases in the total contract price for any reason do not justify an increase in the lump sum price paid for any of the Staging, Storage and Access bid items. The Engineer reserves the right to adjust the partial payment amounts of these said bid items based on any adjustments made to other pay items on the payment request by the Engineer.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 145 – SUBMITTALS

145.01 General

Where required by the Contract Documents, project permit(s), Project Plans, SWPPP, Standard Specifications, elsewhere in these Special Technical Provisions, and/or as indicted herein, the Contractor shall provide submittals, and furnish shop drawings and material certifications to the Engineer for review and acceptance. The required number of submittals, shop drawings and certificates shall be delivered within the specified time frames, including a transmittal letter in conformance with the Contract Documents, Standard Specifications, and these Special Technical Provisions. The transmittal letter at a minimum shall include the following information:

A. Submittal number and item description
B. Scheduled date of submittal
C. Specification section/item number
D. Supplier and/or manufacturer, plus contact information
E. Contractor or sub-contractor name and point of contact information

The number of copies to be submitted will be according to the following, unless specified elsewhere:

Construction Schedule, Traffic Control Plan, and Truck Haul Routes – 4 copies
Submittals & Shop Drawings – 4 copies
Certifications – 3 copies (conforming certifications will not be retuned)

145.02 Submittals Required

The following items require a submittal, shop drawing, and/or material certification for review and acceptance by the Engineer (this list may not be complete; it is the Contractors responsibility to review and be knowledgeable with all portions of the project permits, SWPPP, Plans, Contract Documents, Standard Specifications, and these Special Technical Provisions for any additional requirements):

- Construction Schedule
- Traffic Control Plan, and Truck Haul Routes
- SWPPP authorization, revisions, and dewatering plans
- NDEP NOI and NOT
- Equipment list for all equipment to be used, including the following minimum information:
    - Manufacturer and Model
    - Ground pressure rating (in psi)
    - Certification for washing/steam cleaning, including date
- Filter fence, sediment coir logs, and other BMP materials
- Construction limit fence
- Engineered fabrics
- Aggregates used in the work
- Chinking, cobble, boulders, and gravel used in the work
- Aggregate base (AB), imported fill, engineered fill, imported topsoil, and bedding materials
- Material testing reports and other data necessary to provide the Engineer with established laboratory values for optimum moisture and maximum dry density, for use of any native soils, imported soils and aggregates requiring density testing
- Potable water pipe and fittings
- Shop drawings and installation specifications for structures, including the culvert, headwalls, trench drain, drainage inlet, and water line structures

- Concrete mix design(s), admixtures, and curing agents
- Testing and QA/QC certifications for any precast concrete structures
- Asphalt mix design and other bituminous materials used in the work
- Utility boxes, manholes, grates, and other miscellaneous iron/steel products used in the work
- Loose aggregate samples as specified in Section 200 “Gravel, Cobble, Rock, Boulder & Other
- Aggregates”
- Revegetation items as specified in Section 260 “Revegetation”
- Record Drawings

145.03 Measurement and Payment
Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for all work associated with performing all the work involved in provisions of this section, complete in place as shown on the Project Plans, as specified in the Contract Documents, Project Permit(s), Standard Specifications, these Special Technical Provisions, the SWPPP, and as directed by the Engineer, shall be considered as included in prices paid for the various contract items of work involved; and no additional compensation will be allowed for.

SECTION 150 – TRAFFIC CONTROL

150.01 Traffic Control Plan
Work under this item shall consist of furnishing all labor, tools, materials, and equipment necessary to complete and maintain all traffic control provisions in accordance with the Plans, Contract Documents, Standard Specifications and these Special Technical Provisions, and as directed by the Engineer during the life of the Contract. All traffic control devices and plans shall conform to the latest editions of the Manual on Uniform Traffic Control Devices (MUTCD) and the State of Nevada Department of Transportation (NDOT) Standard Specifications and Plans for Road and Bridge Construction.
The Contractor shall submit four (4) copies of a proposed traffic control plan, along with the proposed project construction schedule and truck haul route plan, to the Engineer for review and comments at least seven (5) calendar days prior to the scheduled Pre-Construction Meeting.

- The Contractor's traffic control plans shall include, but not be limited to, the following:
- Designated construction site Traffic Control Supervisor (TCS) name and contact information
- Proposed construction zone and existing speed limits
- All construction signing
- Location of flaggers
- Types and location of traffic control devices
- Construction phasing (including phasing of intersection construction and detours, if any)
- Lane crossovers between construction phases
- Special events scheduling
- Detours
- 8 5"x 11" individual access plans for multi-access properties
- Accommodations for pedestrians and bicycles
- Intersection Control Strategy

The Engineer and NTCD personnel will provide written comments and/or corrections to the Traffic

Control Plans. If necessary, the Contractor and Engineer will meet to consider the comments and/or corrections to the plan prior to the preconstruction conference to resolve any issue relative to the traffic control plans. Upon resolution of all issues or acceptance of the traffic control plans as submitted, the Engineer shall accept the plans in writing.

Acceptance by the Engineer of the submitted traffic control plans shall in no way relieve the Contractor of the responsibility for safety requirements. Acceptance of the traffic control plans by the Engineer indicates that the plans generally appear to conform to the contract requirements. Such acceptance shall in no way be construed as confirmation of the technical accuracy or adequacy of the contents of the plans and shall not relieve the Contractor of the obligation to institute traffic control measures in full compliance with contract requirements, and which function safely and correctly, and are in conformance with applicable statutes, ordinances, and regulations.

Immediately after set up of new or modified traffic control plans, the Contractor shall have the TCS inspect the controls installed in the field to determine if all required controls have been installed and are operating as intended. The TCS shall submit to the Engineer a written inspection report on the traffic controls conformance with the accepted traffic control plans and contract requirements. If the TCS determines that the traffic controls are not in conformance with the accepted traffic control plans, contract requirements, or determines that the traffic controls are not functioning as intended, the report shall address such deficiencies and make recommendations for changes.

If at any time it is determined that traffic controls have been modified or are not functioning as intended, the Engineer's representative may request NDOT to evaluate the traffic controls installed by the Contractor. Additionally, if during construction, revisions to the accepted plans are necessary for safety or accommodation to traffic, the Engineer may require such revisions.

Any request by the Contractor to change the traffic control plans shall be submitted in writing at least five (5) working days prior to implementation. Such requests must be accepted in writing by the Engineer prior to implementation. Traffic control plans shall be maintained and must be current with the applicable phase of the work.

150.02 Traffic Control Notification

Upon acceptance of the traffic control plans, and at least 2 working days prior to beginning construction, the Contractor shall notify and submit a copy of the accepted traffic control plans to the Engineer, refuse collection agencies, and appropriate police and fire departments, REMSA, and any other emergency service as directed by the Engineer.

150.03 Traffic Control General Requirements

The Contractor shall designate a construction site TCS who shall be responsible for initializing, installing and maintaining all traffic control devices as shown on the traffic control plans, as specified in the MUTCD, the NDOT Standard Plans for Road and Bridge Construction, applicable Project Plan sheets, and these Special Technical Provisions. The construction TCS shall be under the direct supervision of the construction site Superintendent. The construction TCS shall be available to be contacted by the Engineer's representative 24 hours a day, 7 days a week for the life of this contract, and shall be available to be present on the work site within sixty (60) minutes after notification by the Engineer's representative.

The Contractor shall submit the designated construction TCS's name, ATSSA certification number, and qualifications for the Engineer's acceptance at the preconstruction conference. The construction TCS shall:

- Understand the contract requirements
- Understand the MUTCD requirements
- During a work day, make at least 2 inspections of the condition and position of all traffic control devices in use each day
- Correct all traffic control deficiencies
- Report all corrective actions to maintain and protect traffic through the project
- Review work areas, equipment operation and storage, and material and handling and storage relative to traffic safety
- Furnish weekly written certification to the Engineer that inspections and reviews were conducted and that traffic control devices met or exceeded the contract requirements. Weekly certification shall include daily records of traffic control activities and reviews.

The Contractor shall not proceed with any construction until traffic control plans and the construction TCS have been accepted and the proper traffic control has been provided to the satisfaction of the Engineer. Any days lost due to improper traffic control or lack of a designated construction TCS, will be charged against the Contractor's allowable working days.

The Contractor shall maintain public traffic throughout the project in accordance with the accepted traffic control plan and perform work in a manner that assures the safety and convinces of the public and protect the people and property adjacent to the project site. During the course of construction, the Contractor shall be prepared to provide access through the construction zone for police, fire or emergency vehicles as necessary to reach their destination with a minimum delay.

Unless otherwise accepted by the Engineer, the Contractor shall maintain two-way traffic on all roads in and around the project area at all times for the duration of the project. The Contractor shall make special considerations for local access to and from properties adjacent to the construction zone. All efforts shall be made to minimize the inconveniences to the local residents and business owners. All driveways shall be opened and accessible at the end of a shift.

Type I or Type II barricades will not be permitted for use to prevent vehicle traffic from entering a closed portion of roadway. Only Type III barricades will be used in all such instances. Type III-B barricades used for this purpose will be placed a maximum 4 feet apart. Yellow warning lights may be necessary for some barricade or drum applications.

Traffic control devices shall be removed as soon as they no longer apply to the current construction activities, including daily operations.

150.04 Existing Signs

If existing traffic control device regulatory signage (i.e. stop, yield, speed limit, etc) is removed or damaged due to the Contractor's operations, the Contractor shall notify the appropriate jurisdiction maintenance department and immediately install temporary signs of the same designation as close as possible to the original location.

All existing traffic control devices removed to facilitate construction of the project improvements, shall be salvaged and replaced to its original condition as part of the work. Any materials that are damaged or lost shall be replaced in like kind. All traffic control devices require acceptance of the Engineer.

150.05 Measurement and Payment
"Traffic Control" shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work.

The contract price paid for "Traffic Control" shall include full compensation for preparation and submittal of a traffic control plan, and for furnishing all labor, materials, tools, equipments, and incidentals to perform all the work involved in provisions of this section, including but not limited to temporary construction signs and traffic control devices, flagging, flasher units, barricades, lights, electrical power, resetting of traffic signs and delineators, and all incidentals and materials necessary to provide these items for the duration of construction.

The schedule for payment for "Traffic Control" shall be in direct proportion to the percentage of work completed; i.e. if 20% of the project is completed, the Contractor may request payment for 20% of the lump sum total of the bid item for traffic control. Measurement of the percentage of work completed per each phase shall be based on the percentage of work billed by the Contractor based on the total dollar amount of the contract bid price. Increases in the total contract price for any reason do not justify an increase in the lump sum price paid for any of the traffic control bid items. The Engineer reserves the right to adjust the partial payment amounts of these said bid items based on any adjustments made to other pay items on the payment request by the Engineer.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 155 – CONSTRUCTION STAKING

155.01 Description
Work under this item shall consist of furnishing all labor, tools, materials, and equipment necessary to complete construction staking in accordance with the Standard Plans and Specifications and these Special Technical Provisions.

NTCD shall furnish one set of stakes and/or marks to establish lines and grades required for the completion of the work as shown on the Plans and as specified in the Standard Specifications and these Special Technical Provisions. The Contractor is responsible for notifying the Engineer at least seven (7) days in advance of when staking is needed. The Contractor will be responsible for any and all additional construction staking necessary for the full and complete construction of the Project. The Contractor shall be solely responsible for maintenance and protection of the survey stakes or marks. Contractor's construction staking will be verified by the Engineer, at the Engineer's discretion.

NTCD shall furnish labor and surveying equipment necessary for staking the Project including the following:

- Control points,
- Limits of grading and grade breaks,

- Stream alignments and offsets,
- In stream structure locations and offsets,
- Stormwater infrastructure locations and offsets,
- Berm alignment and offsets, and
- Culvert alignment.

The contractor shall provide any survey in excess of the aforementioned items.

All stakes and survey markers will be conspicuously marked with flagging tape or paint. The Contractor shall inform the Subcontractors of the importance of the preservation of all survey markers. The Contractor shall be responsible for protecting and maintaining all stakes from destruction. In the event that one or more of the stakes are damaged or destroyed, the Contractor will replace the stakes at the expense of the Contractor.

The Contractor's surveyor will be provided with the northing, easting, and elevation of the control points existing in the field as shown on the Project Plans. Additionally, the Contractor's surveyor will be provided with an electronic copy (ASCI Format) of the control points depicted on the Project Plans to develop the construction staking as stated in these Special Technical Provisions.

If the Contractor's surveyor wishes to develop a different work plan it shall be the Contractor's responsibility to develop such a work plan and present to the Project Engineer for approval.

155.02 Measurement and Payment
Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for all work associated with all work involved in provisions of this section, complete in place as shown on the Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, should be incidental to the other construction items; no additional compensation will be allowed.

SECTION 160 – TEMPORARY EROSION CONTROL

160.01 General
This work shall consist of temporary erosion control measures, devices, and BMPs that may be shown on the Project Plans, and as specified in the Contract Documents, Project Permit(s), Standard Specifications, these Special Technical Provisions the Project SWPPP, or as directed by the Engineer during the life of the contract. Temporary erosion control measures will also be required at staging/storage areas utilized during project construction. Said work is intended to provide prevention, control, and abatement of water and air pollution within the limits of the project and to minimize damage to the work, adjacent properties and Lake Tahoe, streams, or other bodies of water.

Attention is directed to Section 125.02, "Storm Water Pollution Prevention Plan," of these Special Technical Provisions. As part of the SWPPP certification and submittal process, **the Contractor shall submit two (2) copies of any proposed revisions to the applicable Project Plan sheets for Temporary Erosion Control and the Dewatering and/or Diversion operations**. No work shall be started until the SWPPP, applicable plan sheets, schedules and methods of operation for temporary pollution control are reviewed and accepted by the Engineer, NTCD, TRPA, and NDEP. The Contractor is reminded that the project is located within the Lake Tahoe Basin and all pollution control measures and clean-up

procedures must satisfy the requirements of TRPA, NDEP and the permit(s) issued for the project. During the course of project construction, the Contractor shall cooperate with the Engineer, TRPA, NDEP and other regulatory officials and take immediate action as directed to protect water bodies and sensitive areas, and provide for erosion or other pollution control.

Installation and maintenance of temporary erosion control measures, devices and BMPs shall conform to the requirements as stated within this section, the SWPPP, and the Nevada Contractors Field Guide for Construction Site BMPs (hard copies are available for purchase from the Truckee Meadows Watershed Committee 775-334-3314, or a free electronic copy "pdf" is available for download from the NDEP website http://ndep.nv.gov/bwqp/bmp05.htm).

As Directed Placement

Due to the nature of the project and expected field direction from the Engineer, NTCD, and permitting agencies, the Contractor shall make provisions to furnish all labor, tools, materials, and equipment as necessary to furnish and place additional temporary erosion control devices in the work (i.e. beyond or in addition to what is designated on the Project Plans or in the Project SWPPP) as directed by the Engineer, in conformance with the Contract Documents, Project Permits, SWPPP, Standard Specifications, and these Special Technical Provisions. Installation, maintenance, removal, and disposal of any additional as directed temporary erosion control device shall be considered as included in the applicable "as directed" bid item unit price, and no additional compensation will be allowed. The installation and location of any as directed temporary erosion control device shall only occur as determined and marked in the field by the Engineer.

The intent of the as directed temporary erosion control device bid items, is to provide the Engineer and Contractor with a means and allowance for additional temporary erosion control devices to be incorporated in the work where modifications to the construction sequence, changing field conditions, temporary stockpiles, and other potential minor unknowns can be adequately addressed in order to maintain compliance with the SWPPP and Project permits.

The Contractor will not be compensated for the installation of any additional "as directed" temporary erosion control devices without prior direction and acceptance of the Engineer.

Temporary Soil Stabilization

The Contractor shall install temporary soil stabilization materials for water pollution control in all disturbed work areas that are considered inactive (i.e. excess of 14 days) or before forecast storm events. Should any temporary erosion control of this nature be required elsewhere as directed by the Engineer and/or regulatory agencies, the Contractor shall install within 48 hours of notification. Where applicable and upon acceptance of the Engineer, the Contractor shall furnish and apply/install temporary mulch, temporary hydraulic mulch, temporary erosion control blankets, or temporary covers in conformance with the Standard Specifications and these Special Provisions. Materials and construction methods shall comply with the Standard Specifications and these Special Provisions. The Contractor shall maintain a temporary cover on all stockpiles at all times. Whenever a temporary cover is removed to perform other work, the temporary cover shall be replaced and secured within one (1) hour of stopping work.

Compensation for the requirements of this section, not otherwise provided for in a specified bid item, shall be considered included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

160.02 Gravel Construction Entrance/Exit

Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to install, maintain, remove, and dispose of this temporary erosion control measure as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and TRPA Best Management Practices.

Work under this item shall consist of clearing and grubbing, excavation, furnishing and placing reinforcement mat, furnishing and placing rock at each entrance/exit access road, maintenance (i.e. removal of large quantities of captured sediment, and/or placement of additional rock during course of construction), removal, disposal of excess materials, and restoration of disturbed area.

Fabric to be used for the reinforcement mat shall be manufactured from polyester, nylon, or polypropylene material, or any combination thereof. Fabric shall be manufactured from virgin, or recycled or a combination of virgin and recycled, polymer materials. No virgin or recycled materials shall contain biodegradable filler materials that can degrade the physical or chemical characteristics of the finished fabric. The fabric shall be a non-woven, needle-punched fabric. The fabric shall be permeable, not act as a wicking agent, and shall conform to the following:

Test	**Test Method**	**Requirement**
Weight, grams per square meter	D 3776	135 min.
Grab Tensile Strength, Newton, (25 millimeter grip, in each direction)	D 4623	0.40 min.
Elongation at Break, percent	D 4632	30 min.
Toughness, kilonewtons (percent elongation x grab tensile strength)		26 min.
Permittivity, 1/sec.	D 4491	0.5 min.
Ultraviolet Resistance, percent strength retention	D 4355	70 min.

Rocks shall be angular to sub-angular in shape and shall conform to the material quality requirements in Section 200.07, Riprap, of the Standard Specifications for resistance to wear, absorption, apparent specific gravity, and durability. Rocks used for the gravel construction entrance/exit shall conform to the following sizes:

Square Screen Size	Percent Passing
6 inches	100
3 inches	0-20

Each gravel construction entrance/exit shall be of adequate size to prevent the tracking of sediment and materials onto any paved public right-of-way. At a minimum the size of each gravel construction entrance/exit shall be as shown on the Project Plans.

While the gravel construction entrance/exit is in use, pavement shall be cleaned and sediment removed at least once a day and as often as necessary when directed by the Engineer. Soil and sediment or other extraneous material tracked onto existing pavement shall not be allowed to enter any existing or proposed drainage facilities.

In the event the Contractor's operations are causing excessive tracking of materials the Engineer may direct the Contractor to replace the gravel construction entrance/exit, expand the size (area – length

and/or width) of the gravel construction entrance/exit, and/or expand the depth of the gravel construction entrance/exit. In the event this is required, the Contractor will not be entitled to any additional payment.

When no longer required as shown on the Project Plans or as determined by the Engineer, each gravel construction entrance/exit shall become the property of the Contractor and be removed and disposed of in conformance with the Contract Documents, Standard Specifications, Project SWPPP, and these Special Technical Provisions. Under no circumstance shall any of the materials used for gravel construction entrance/exit be re-used on the project. All areas disturbed by the placement and use of each gravel construction entrance/exit shall be graded and restored to its pre-existing condition, including any provisions for revegetation found elsewhere in these Special Technical Provisions.

Gravel construction entrance/exit is considered a temporary erosion control measure or BMP. A fine of $100 per day will be levied against the Contractor for each day the Contractor delays in responding to the Engineer's request to install new temporary erosion control devices and/or maintain existing temporary erosion control devices, in addition to any other fines levied by any other regulatory agency with no additional compensation allowed for.

160.03 Construction Limit Fence. Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to install, maintain, remove, and dispose of this BMP as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and TRPA Best Management Practices.

The Contractor shall perform all construction activities that are outside the road right-of-way within the construction limits (and/or grading limits) as shown on the Project Plans and staked by the Contractor's surveyor, and as delineated with construction limit fence installed by the Contractor. Where directed by the Engineer and/or shown on the plans, construction limit fence shall be placed around individual trees or groups of trees that are to remain, in accordance with the Tree Protection and Construction Limit Fence depicted on the project plans.

The area within which the Contractor will be allowed to conduct his/her construction operations will be the area within the limits of the construction limit fencing and/or grading limits as shown on the Project Plans. Where located within the immediate vicinity of any trees (or dripline), the width of the work area will be reduced in order to protect the trees. The Contractor shall review each such location to determine what equipment can be used to install the improvements at these locations or if hand work will be necessary. The costs associated with working within these reduced widths shall be included in the unit price bid for the applicable item of work with no additional compensation therefore.

Contractor's attention is directed to the applicable bid item descriptions in these Special Technical Provisions regarding the type of equipment that can be used in construction on sensitive land areas. Where tree protection fencing cannot be placed at the dripline of the tree, as determined by the Engineer in coordination with TRPA, wood batten (as shown on the Project Plans) with bottom set approximately 3 feet above ground surface shall be strapped to the tree trunk (space between wood batten shall be no more than 6"). The unit price bid for construction limit and tree protection fence shall also apply to this condition (i.e. linear foot measurement of tree circumference where wood batten is attached). Construction limit and tree protection fencing shall be inspected daily and repaired, secured, and/or replaced as necessary to maintain and preserve its intended purpose. All construction limit and tree protection fencing shall remain in place during any construction activities unless directed by the

Engineer. Tree protection and construction limit fencing is considered a temporary erosion control measure or BMP.

A fine of $100 per day will be levied against the Contractor for each day the Contractor delays in responding to the Engineer's request to install new temporary erosion control devices and/or maintain existing temporary erosion control devices, in addition to any other fines levied by any other regulatory agency with no additional compensation allowed for.

160.04 Filter Fence. Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to install, maintain, remove, and dispose of this temporary erosion control measure as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and TRPA Best Management Practices.

Filter (silt) fence shall be manufactured from polyester or polypropylene material. The fabric shall be woven and shall conform to the following:

Test	Test Method	Requirement
Grab Tensile Strength, Newton, (25 millimeter grip, in each direction)	4623	400 min.
Elongation at Break, percent	4632	20 min.
Apparent Opening Size, Micrometers (um)	D 4751	850 min.
Coefficient of Permeability, cm/sec.	D 4491	0.01 min.
Ultraviolet Resistance, percent strength retention	D 4355	90 min.

- Filter fence fabric shall be handled and placed in accordance with the manufacturer's recommendations. The fabric shall be aligned and placed in a wrinkle-free manner.
- When joints are necessary, filter fence fabric shall be spliced together only at a support post, with a minimum twelve (12) inches overlap and securely sealed or stitched. See manufacturer's recommendations. Should the filter fence fabric be damaged, the torn or punctured section shall be repaired by placing a piece of fabric that is large enough to cover the damaged area and to meet the overlap requirement.
- Posts shall be spaced a maximum of ten (10) feet apart at the barrier location or as recommended by the manufacturer if less than ten (10) feet and driven securely into the ground (minimum of 1 foot). The posts and fence shall be angled ten (10) degrees off vertical up-slope for stability.
- A trench shall be excavated approximately four (4) inches wide and six (6) inches deep along the line of posts and upslope from the barrier in accordance with manufacturer's recommendations.
- A wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy duty wire staples at least one (1) inch long, tie wires or hog rings. The wire mesh shall extend into the trench a minimum of two (2) inches and shall not extend more than three (3) feet above the original ground surface.
- The filter fence fabric shall be installed on the upslope side of the wire mesh fence and shall be stapled, wired, or tied to the wire fence and eight (8) inches of the fabric shall be extended into the trench. The fabric shall not extend more than three (3) feet above the original ground surface.
- Filter fence fabric shall not be stapled to existing trees.
- The trench shall be backfilled and the soil compacted over the filter fence fabric.

- For installations on slopes less than 20%, slope lengths of 200 feet or less and around drainage inlets, the Contractor has the option to use fiber rolls in lieu of filter fence.
- Should the filter fence fabric decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly.

Filter fence shall remain in place for the complete duration of the project (all Phases of work) as necessary to conform to the Project Permit(s) and SWPPP. All filter fence shall be routinely inspected and maintained at all times and on a continual basis for the duration of the Project, and is expected to be in good condition at the time the Notice of Completion is issued. Repair and or replacement of any damaged filter fence, upon discovery or as directed by the Engineer, shall be considered as included in the prices paid for this bid item of work, and no additional compensation will be allowed. At the conclusion of the project or as directed by the Engineer, TRPA and NDEP, all filter fence shall become the property of the Contractor and be completely removed from the project site and disposed of in conformance with the Contract Documents, Standard Specifications, and these Special Technical Provisions.

Sediment log (fiber roll) shall not be used in place of filter fence without prior acceptance and written consent of the Engineer. Filter fencing is considered a temporary erosion control measure or BMP. A fine of $100 per day will be levied against the Contractor for each day the Contractor delays in responding to the Engineer's request to install new temporary erosion control devices and/or maintain existing temporary erosion control devices, in addition to any other fines levied by any other regulatory agency with no additional compensation allowed for.

160.05 Sediment Log (Coir Log). Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to install, maintain, remove, and dispose of this temporary erosion control measure as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, Project Permit(s), and TRPA Best Management Practices. **The Contractor shall submit a material specification for the sediment log, for acceptance of the Engineer, prior to placement in the work.**

Sediment logs shall be provided in standard lengths of 10 or 20 feet long per the size diameter as shown on the Plans, and shall be prefabricated fiber roll logs or wattles filled with a rice straw, wood excelsior fiber, coconut fiber or other similar filler material, and covered with a biodegradable jute, sisal, or coir fiber netting or open weave containment fabric secured tightly at each end. The use of plastic/photodegradable netting shall not be allowed. All materials shall be certified weed free.

Sediment logs with a diameter of 8 to 10 inches shall have a density of at least 1.1 lb/ft, and sediment logs with a diameter of 12-inches shall have a density of at least 3 lb/ft. Its basic purpose is to provide a flexible, lightweight, porous sediment control device demonstrating the ability to conform to terrain details, dissipate water velocity, and capture loose sediment. All fiber rolls shall be properly staked in place, except where its use is intended to be short term (daily operations) or reposition of the fiber roll will occur on a regular basis (i.e. active construction areas, trenching operations and windrows, temporary or active stockpiles, active areas for soil processing/screening operations, spill containment devices, etc.) as determined by the Engineer. In such instances where a fiber roll is not staked, it shall be weighted or secured in place using a sufficient number of gravel bags to control the flow of storm water and capture sediment.

The Contractor shall furnish, install, maintain, and remove when no longer required, all sediment logs per the Manufacturer's directions, as shown on the Project Plans and as directed by the Engineer (where applicable to each Phase of the work), including but not limited to the following general requirements:

- Prior to fiber roll installation; the Contractor shall excavate a concave trench along the contour line, three (3) inches to five (5) inches deep. Soil excavated from the trench shall be placed on the uphill or flow side of the roll to prevent water from undercutting the roll.
- The Contractor shall place the fiber roll in the trench and stake on both sides of the fiber roll within eight (8) inches of each end and then at a maximum spacing of four (4) feet, using one (1) by two (2) inch stakes.
- When more than one fiber roll is placed in a row or check dam, the fiber rolls shall be overlapped in a horizontal configuration to provide a tight joint.

Sediment log shall remain in place, where directed by the Engineer, for the complete duration of the project (all Phases of work) as necessary to conform to the Project Permit(s) and SWPPP. All sediment logs shall be routinely inspected and maintained at all times and on a continual basis for the duration of the Project. Repair and or replacement of any damaged sediment log, upon discovery or as directed by the Engineer, shall be considered as included in the prices paid for this bid item of work, and no additional compensation will be allowed. At the conclusion of the revegetation "maintenance and bonding period" or where accepted to occur at an earlier date as directed by the Engineer, TRPA and NDEP, all sediment log shall become the property of the Contractor and be completely removed from the project site and disposed of in conformance with the Contract Documents, Standard Specifications, and these Special Technical Provisions.

Any sediment logs required or used in the work on a short term basis that are not permanently staked in place or are anticipated to be moved on a daily or routine basis (such as areas immediately adjacent to trench excavations, temporary stockpiles, active areas for soil processing/screening operations, spill containment devices, etc.) shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

Sediment logs are considered a temporary erosion control measure or BMP. A fine of $100 per day will be levied against the Contractor for each day the Contractor delays in responding to the Engineer's request to install new temporary erosion control devices and/or maintain existing temporary erosion control devices, in addition to any other fines levied by any other regulatory agency with no additional compensation allowed for.

160.06 Drainage Inlet Protection. Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to install, maintain, remove, and dispose of this temporary erosion control measure as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, Project Permit(s), and TRPA Best Management Practices.

The gravel bag material for drainage inlet protection should be woven polypropylene, polyethylene or polyamide geotextile fabric, with a minimum unit weight of 4 oz/sq/yd, Mullen burst strength exceeding 300 psi (ASTM D3786), and ultraviolet stability exceeding 70% (ASTM D4355). The gravel bag fill material should be 3/8 to 3/4 inch open graded, non-cohesive, porous gravel, and washed clean and free from clay, organic matter and other deleterious materials.

Gravel bags shall remain in place, where directed by the Engineer, as necessary to conform to the Project Permit(s) and SWPPP. All gravel bags shall be routinely inspected and maintained at all times and on a continual basis for the duration of the Project. Repair and or replacement of any damaged gravel bag, upon discovery or as directed by the Engineer, shall be considered as included in the prices paid for the applicable bid item of work, and no additional compensation will be allowed. At the conclusion of the project or where accepted to occur at an earlier date as directed by the Engineer, TRPA and NDEP, all gravel bags shall become the property of the Contractor and be completely removed from the project site and disposed of in conformance with the Contract Documents, Standard Specifications, and these Special Technical Provisions.

Drainage inlet protection considered a temporary erosion control measure or BMP. A fine of $100 per day will be levied against the Contractor for each day the Contractor delays in responding to the Engineer's request to install new temporary erosion control devices and/or maintain existing temporary erosion control devices, in addition to any other fines levied by any other regulatory agency with no additional compensation allowed for.

160.07 Temporary Concrete Washout Facility. Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to construct, maintain and later remove when no longer required, including all waste materials, a temporary concrete washout facility in accordance with the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, Project Permit(s), Project SWPPP and TRPA Best Management Practices.

When a temporary concrete washout facility is no longer required for the work, as determined by the Engineer, all materials including the hardened concrete and liquid residue are considered the property of the Contractor and shall be removed and disposed of in conformance with the provisions found elsewhere in these Special Technical Provisions, and the Standard Specifications.

Ground disturbance, including holes and depressions, caused by the installation and removal of the temporary concrete washout facility shall be backfilled and repaired in conformance with the provisions found elsewhere in these Special Technical Provisions, and the Standard Specifications. Details for an alternative temporary concrete washout facility shall be submitted to the Engineer for acceptance at least seven (7) days prior to installation.

Materials

A. Plastic Liner
   Plastic liner shall be single ply, new polyethylene sheeting, a minimum of ½ inch thick, and shall be free of holes, punctures, tears, or other defects that compromise the impermeability of the material. Plastic liner shall not have seams or overlapping joints.
B. Permeable Material
   Permeable material shall be as specified in Section 200.03.05, "Class D Backfill" of the Standard Specifications.
C. Sediment Log
   Sediment Log shall be as specified in Section 160 of these Special Technical Provisions.
D. Gravel Bags
   Gravel bags shall as specified in Section 160 of these Special Technical Provisions.
E. Stakes
   Stakes shall be wood or metal. Wood stakes shall be untreated fir, redwood, cedar, or pine; shall be cut from sound timber; and shall be straight and free from loose or unsound knots and other

defects which would render them unfit for the purpose intended. Wood stakes shall be minimum one (1) inch x two (2) inches in size. Metal stakes may be used as an alternative and shall be a minimum 1/2 inch in diameter. Stakes shall be a minimum four (4) feet in length. The tops of the metal stakes shall be bent at a 90-degree angle or capped with an orange or red plastic safety cap that fits snugly to the metal stake. The Contractor shall submit a sample of the metal stake and plastic cap, if used, for the Engineer's acceptance prior to installation.

Installation

The temporary concrete washout facility shall be installed as shown in the Plans and as follows:

A. The temporary concrete washout facility shall be installed prior to beginning placement of concrete and located a minimum of 50 (fifty) feet away from storm drain inlets, open drainage facilities, and water courses unless determined infeasible by the Engineer. The facility shall be located away from construction traffic or direct access to the staging and storage area.
B. The temporary concrete washout facility shall be constructed in sufficient size to contain liquid and concrete waste generated by washout operations for concrete wastes. The facility shall be constructed to contain liquid and concrete waste without seepage, spillage, or overflow.
C. The depressed area or pit shall be covered with a plastic liner in order to protect the underlying soils from contamination.
D. The plastic liner may be held in place using sediment logs, gravel bags, or berms constructed from compacted native materials.

Maintenance

The temporary concrete washout facility shall be maintained to provide adequate holding capacity with a minimum freeboard of twelve (12) inches. Maintaining the temporary concrete washout facility shall include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials shall be removed and disposed of in conformance with the provisions found elsewhere in these Special Technical Provisions, and the Standard Specifications. Holes, rips, and voids in the plastic liner shall be patched and repaired by taping, or the plastic liner shall be replaced. Plastic liner shall be replaced when patches or repairs compromise the impermeability of the material as determined by the Engineer.

The temporary concrete washout facility shall be repaired or replaced on the same day when the damage occurs. Damage to the temporary concrete washout facility resulting from the Contractor's vehicles, equipment, or operations shall be repaired at the Contractor's expense.

160.08 Watering/Dust Control

Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to provide construction water for the control of dust generated by the Contractors activities as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, Project Permit(s), Project SWPPP and TRPA Best Management Practices.

The Contractor shall be responsible for dust control throughout all phases of construction. All federal, state, regional and local ordinances regarding dust control shall be complied with. The responsibility of obtaining the regulations and requirements and full compliance with such ordinances is solely that of the Contractor.

No chemical additives shall be permitted for any watering/dust controls operations.

If the Contractor desires to use water from fire hydrant(s) during construction, permission for the use of hydrant(s) shall be obtained from the proper agency (Kingsbury General Improvement District, KGID). The Contractor shall use said hydrant(s) in accordance with any rules, regulations, and procedures as established by the agency.

160.09 Sweeping

Work under this item shall consist of furnishing all labor, tools, materials, and equipment necessary to sweep all paved areas within the project site, and streets adjacent to the project site, and dispose of the swept materials in accordance with the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, Project Permit(s), Project SWPPP and TRPA Best Management Practices. Tracking of sediment onto public streets shall be minimized by a combination of road sweeping and use of gravel construction entrance/exit areas designated on the Plans during soil hauling operations, during equipment transporting from one work area to another, and as necessary to keep the streets and other paved areas clear of soil and debris. Tracking control applies to streets within the project area as well streets adjacent to the project area that have the potential to be impacted by tracking from the Contractor's operations.

The Contractor shall provide sweeping equipment that conforms to the following minimum requirements: **The sweeper, provided by the Contractor, shall be a chassis-mounted vehicle capable of vacuuming the roadways such that the swept material is placed into a hopper, from which the swept material can be removed and disposed of. Broom sweepers that are attachments to other equipment are not acceptable sweepers.**

Affected streets shall be swept a minimum of three times daily (e.g. mid-morning, mid-afternoon, and at the end of the day) during soil hauling operations, during equipment transporting from one work area to another, and as necessary to keep the streets clear of soil and debris. The swept material shall be disposed of in accordance with the standard specifications, project permits and these Special Technical Provisions.

Sweeping is considered a temporary erosion control measure or BMP. A fine of $100 per day will be levied against the Contractor for each day the Contractor delays in responding to the Engineer's request to install new temporary erosion control devices and/or maintain existing temporary erosion control devices, in addition to any other fines levied by any other regulatory agency with no additional compensation allowed for.

160.10 Maintenance

The Contractor shall maintain all temporary erosion control measures, devices, and/or BMPs placed in the work, for the duration of the project. Maintenance includes all Manufacture's recommendations, and includes but is not limited to the following:

- Damage to any temporary erosion control devices and/or BMPs during the course of the project shall be repaired by the Contractor immediately upon discovery and at his expense.
- Temporary erosion control devices and/or BMPs shall be inspected routinely and immediately after each rainfall event and at least daily during prolonged rainfall events. Any required repairs shall be made immediately.
- Construction limit and tree protection fencing shall be inspected daily and repaired, secured, and/or replaced as necessary to maintain and preserve its intended purpose.
- All signage as required for the project shall be routinely inspected and repaired or replaced upon discovery of damage, vandalism, and/or missing parts.

- Should the filter fence fabric decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly.
- Should a sediment log decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the sediment log shall be replaced promptly.
- Any single or group of gravel bag(s) shall be replaced when the bag material is ruptured or when the yarn has failed, allowing the bag contents to spill out.
- Any stakes and/or rope used to secure a sediment log in place shall be routinely inspected and repaired as necessary if found to be loose or ineffective.
- Sediment deposits and other debris shall be removed when they reach approximately one-half the height of the sediment barrier (or as recommended by the Manufacture) and disposed of in a manner acceptable to the Engineer, NDEP, TRPA, and in conformance with the SWPPP.
- Any sediment deposits remaining in place after the temporary erosion control measure and/or BMPs is no longer required shall be removed and disposed of in a manner acceptable to the Engineer, NDEP, TRPA, and in conformance with the SWPPP.

160.11 Measurement and Payment. Temporary BMPs including filter fence, construction limit fence, drainage inlet protection, coir logs, gravel construction entrances, dust control, concrete washout, and sweeping shall be measured as a lump sum bid price for "Temporary Erosion Control." Payment for Temporary BMPs shall be made at the contract lump sum bid price which shall be deemed full compensation for all labor, materials, equipment and incidentals necessary to complete and maintain the work as specified and making any required modifications due to field conditions.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 165 – DEWATERING AND/OR DIVERSION

165.01 General

Work under this item shall consist of furnishing all labor, tools, equipment, and materials as necessary to dewater, divert and/or bypass any groundwater or surface waters and to maintain a reasonably dry excavation or general work area for the proper installation, construction, curing, grow-in, maintenance, and completion of any improvements and utility relocates, including revegetation/restoration activities, for a complete job in place as shown on the Project Plans, described in the Special Technical Provisions, the Project SWPPP and Standard Specifications, or as directed by the Engineer.

Dewatering and/or Diversion operations as stated herein, or as directed by the Engineer, are required to be performed at any time and on a continual basis, for the duration of the project and any ensuing maintenance period, as necessary to install, construct, complete and maintain all project improvements.

In general, the Contractor should expect/anticipate that groundwater may be encountered at any time the existing ground is disturbed within the project area, as a majority of the project site is located within a TRPA delineated SEZ (land capability SEZ 1b) shown on the Project Plans.

The Contractors attention is directed to the "Dewatering and Diversion Plan." All dewatering and/or diversion operations and activities shall be in complete compliance with the Project Plans, Project

Permits, SWPPP, the Standard Specifications, these Special Technical Provisions, and other applicable regulatory agency requirements.

The Contractor shall be responsible for the final design, installation, operation, maintenance and removal of any dewatering and/or diversion systems as required for completion of the contract work. The Project Plan sheets and Dewatering and Diversion Plan as provided as part of the Contract Documents provide a basis for, show, and describe dewatering scenarios and minimum requirements. **The Contractor shall submit their own detailed Dewatering and Diversion Plan (including all necessary diagrams/ exhibits) to the Engineer for review and acceptance (by the Engineer, NTCD, TRPA, and NDEP) prior to commencement of any construction activities that may require dewatering and/or diversion operations.** The proposed Dewatering and Diversion Plan shall be prepared by a licensed Engineer in the state of Nevada, or qualified licensed Contractor (at discretion of the Engineer) that specializes in dewatering, filtration, pumping, and liquid handling operations. Information required to be submitted shall included but is not limited to the following:

- Any Sub-Contractor information and proof of experience
- Qualified operator of the system and equipment
- Access routes, pads, spill containment devices, and locations for equipment
- Sources for power supply and pump operation
- Dewatering/diversion system design performance measures for volume and pumping rates
- Pump equipment description, performance measures and manufacture's data sheets
- Intake and discharge locations, methods, and materials
- Disposal methods and any proposed treatment practices
- Provisions to provide back-up equipment and/or stage on-site
- Emergency plan to accommodate high flow flood events
- Other requirements as stated in the SWPPP

If the Contractor plans to conduct any dewatering and/or diversion operations, he/she shall contact the Engineer for authorization, prior to starting the work at a given location. In the event the Contractor initiates dewatering and/or diversion operations without prior authorization of the Engineer, no payment for that work will be made.

165.02 Dewatering and/or Diversion for Culvert Construction

Dewatering and/or diversion operations as necessary for, including but not limited to, the construction of the proposed culvert structure and any associated utility relocates (described elsewhere in these Special Technical Provisions), shall be as shown on the accepted Contractor's Dewatering and Diversion Plan, and in conformance with the Project Plans, SWPPP and these Special Technical Provisions. Discharge of all captured and/or diverted waters shall be in conformance with the SWPPP and all project permit regulations.

The excavation and general work area shall be sufficiently dry to allow for the proper construction and inspection of the culvert and headwalls for a complete in place culvert structure, as shown on the Project Plans and described in these Special Technical Provisions. The location and depth of sumps and/or well points for pumping of ground water or surface water is at the discretion of the Contractor, but shall be reviewed and accepted by the Engineer prior to initiating the work involved. The dewatering operations shall also be sufficient to produce a stable sub-grade within the excavation or general work area as necessary for access of equipment and personnel to complete the work.

In the event there is a storm event which increases the flow of the creek above its banks, the Contractor shall make provisions for and have equipment (i.e. pumps, piping, gravel bags, plastic sheeting, temporary dams, etc.) on standby; to provide adequate protection of the work area, avoid flooding and inundation of the excavation, prevent erosion and discharge of sediment or other pollutants, and divert the increase in flows to stabilized downstream areas, away from any active work site(s).

165.03 Dewatering and/or Diversion for Creek Channel Construction
Dewatering and/or diversion operations as necessary for, including but not limited to, the construction of the proposed creek channel, side channels, and culverts, in stream structures, boulder sills, floodplain improvements and grading operations, as well as the removal and/or abandonment of the existing pipe culvert structures (described elsewhere in these Special Technical Provisions), shall be as shown on the accepted Contractor's Dewatering and Diversion Plan, and in conformance with the Project Plans, SWPPP and these Special Technical Provisions. Discharge of all captured and/or diverted waters shall be in conformance with the SWPPP and all project permit regulations.

The creek channel excavation(s), floodplain, and general work area shall be sufficiently dry to allow for the proper construction and inspection of the proposed creek channel and side channels, in stream structures, boulder sills, floodplain improvements and grading operations, as well as the removal/ abandonment of the existing pipe culvert structures, for a complete job in place as shown on the Project Plans and described in these Special Technical Provisions. The location and depth of sumps and/ or well points for pumping of ground water or surface water is at the discretion of the Contractor, but shall be reviewed and accepted by the Engineer prior to initiating the work involved. The dewatering operations shall also be sufficient to produce a stable sub-grade within the excavation(s) or general work area as necessary for access of equipment and personnel to complete the work.

The Dewatering and Diversion operations shall adequately protect the work area(s) from creek flows, prevent erosion and discharge of sediment or pollutants, and divert "bypass" creek flows to designated stable discharge points downstream. Fish screens shall be installed as indicated on the Project Plans and described in the Dewatering and Diversion Plan. In the event there is a storm event which increases the flow of the creek beyond what can be handled by the Contractor's established creek diversion "by-pass" operations, the Contractor shall make provisions for and have equipment (i.e. pumps, piping, gravel bags, plastic sheeting, temporary dams, etc.) on standby to either provide additional pumping capacity to handle the additional flow, or provide for a complete gravity flow by-pass system. In addition the Contractor shall make all provisions to provide adequate protection of the active work area(s), avoid flooding and inundation of excavation(s), divert runoff to stabilized downstream areas away from any active work site(s), and reduce and/or prevent erosion and discharge of sediment or other pollutants.

165.04 Dirt Bag Device. Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to install, maintain, remove, and dispose of this temporary erosion control measure as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, Project Permit(s), and TRPA Best Management Practices. **The Contractor shall submit a material specification for the 'Dirtbag' device, for acceptance of the Engineer, prior to placement in the work.**

Use of any 'Dirtbag' or other similar sediment control filter bag device used in coordination with pumping of sediment laden waters for discharge shall be as shown on the Project Plans and details and conform to the provisions of the Project Permits and SWPPP. The 'Dirtbag' shall be a commercially

manufactured nonwoven geotextile fabric bag (polypropylene or equivalent) intended for such use, with a minimum grab tensile strength of 200 psi in any principal direction (ASTM D4632), and permittivity of 0.05 sec (ASTM D4491). For project area soils (source of sediment in waters) with more than 15% by weight passing a No. 200 sieve the fabric shall have an apparent opening size between 50 and 140, and for project area soils (source of sediment in waters) with less than 15% by weight passing a No. 200 sieve the fabric shall have an apparent opening size between 20 and 50. The geotextile fabric material shall contain ultraviolet ray inhibitors and stabilizers to provide an expected usable life comparable to the anticipated construction period; ultraviolet stability shall exceed 70% after 500 hours of exposure (ASTM D4355). The 'Dirtbag' device shall have a fill spout large enough to accommodate a pump four (4) inch discharge hose and attachment straps to secure the hose in place. The Dirtbag' device shall be sized to accommodate the applicable flow rates and prohibit release of the target effluent. Location of any 'Dirtbag' device requires acceptance of the Engineer, equipment access for removal and off-site disposal, and the area shall be stable to prevent erosion. Placement of drain rock, fabric, or other suitable substance to create a stable discharge site is the responsibility of the Contractor. Any 'Dirtbag' device shall be fitted with straps strong enough for lifting and the device removed from the Project site and properly disposed of; **cutting open the device and leaving the captured sediment/fines in place is prohibited**. Removal and off-site disposal may be facilitated by placing the 'Dirtbag' device on pallets, crates, trailer, or some other small mobile device to dismiss the need for lifting the 'Dirtbag' device by straps.

165.05 Measurement and Payment

The "Dewatering/Diversion" bid item shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work. Payment for "Dewatering/ Diversion" shall be made at the lump sum price bid, with no additional compensation therefore. The "Dewatering/Diversion" bid item shall be paid in full if any dewatering operations are required and performed as part of the project work, as directed and accepted by the Engineer. No additional compensation will be allowed for if excess ground water or higher than expected creek flows are encountered and dewatering operations beyond what was anticipated by the Contractor is required for proper construction of the project improvements. All dewatering necessary for the proper installation, construction, and maintenance of the project improvements, including revegetation/restoration activities shall be included in this bid item(s). Any dewatering and diversion operations performed during the revegetation "maintenance period" (i.e. after completion and acceptance of all project improvements) shall be considered as included in the "Dewatering/Diversion" bid item.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 170 – CLEARING AND GRUBBING AND TREE REMOVAL

170.01 Description

This section covers the construction methods involved in all clearing and grubbing, and tree removal operations as shown on the Project Plans, described in the Standard Specifications, these Special Technical Provisions, SWPPP and/or as directed by the Engineer. Work under this item shall consist of furnishing all labor, tools, equipment, and materials as necessary to perform operations, including but not limited to, clearing and grubbing, topsoil salvage, tree removal, stump removal, and disposal of waste and other miscellaneous debris in accordance with the Project Plans, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer.

170.02 Clearing and Grubbing

Clearing and grubbing shall consist of removing all objectionable and unacceptable natural or artificial materials from within the construction area project limits, and disposal of said material off the job site, in order to construct the project in a proper manner, in accordance with the Project Plans, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, as directed by the Engineer, and other applicable Local, Regional, State, and Federal requirements. This work includes but is not limited to any earthen material, organic growth, willow and alder clumps, trees and stumps (less than 6-inches diameter at breast height – DBH will be measured at 4.5-ft above the existing ground surface on uphill side of tree), man-made deposits, industrial waste, sludge or landfill, and other materials as designated by the Engineer. Existing structures, to be preserved, shall be protected and restored upon completion of the work.

Clearing and grubbing shall extend to the outer limits of excavation and fill slope lines, except where slopes are to be rounded in which case the areas shall extend to the outside limits of slope rounding. Within the limits of clearing, all stumps and roots 1-1/2 inches in diameter or larger, buried logs, and all other objectionable material shall be removed up to three (3) feet below the existing ground surface or subgrade, whichever is deeper. All existing vegetation, outside the areas to be cleared and grubbed, shall be protected from injury or damage resulting from the Contractor's operations. For typical protection of trees and other vegetation, see the Project Plans and SWPPP.

No live trees or downed logs or wood (equal to or greater than 6-inches diameter) shall be removed from the project site that are not identified and marked by the Engineer. In the event the Contractor removes any live trees or downed logs or wood (equal to or greater than 6-inches diameter) not marked by the Engineer, the Contractor shall be solely responsible for any and all fines and/or penalties levied to the Contractor, Engineer, NTCD, NDSL, or applicable property owners in association with the removal.

For the purposes of this Project, willow and alder clump vegetation shall not be considered singular trees as part of the tree removal bid item work. Any willow/alder material shall be removed and disposed of within the project limits/areas of disturbance (clearing and grubbing limits as shown on the Project Plans), unless specifically directed to be protected in place of as part of the work. Any removal and disposal of existing willow/alder vegetation shall be considered as part of the clearing and grubbing efforts, and no additional compensation shall be allowed for.

Existing signs, fences and other facilities within the construction limits shall be removed, salvaged and reinstalled as shown on the Project Plans and as directed by the Engineer. If existing traffic control signs are removed (i.e. stop, yield signs) the Contractor shall install temporary signs of the same designation as close as possible to the original position, immediately upon completion of the clearing and grubbing work. Upon completion of the project these temporary signs shall be replaced with permanent signs of the same type and condition as prior to the Contractor’s operations on the project site.

Existing aggregate and asphalt roadway materials may be reused for embankments after being reduced in size to particles of three inches (3”) maximum diameter. Pulverizing and replacement of this material is part of this work. All embankment and fill, and areas over excavated shall be compacted to a relative density of ninety five percent (95%) within the roadway and shoulder prism, and ninety (90%) in ditch and slope areas. This work shall be performed in advance of grading and trenching operations and in accordance with the requirements herein specified, subject to all erosion control requirements.

Topsoil and Organic Materials

During clearing and grubbing, the Contractor shall salvage and stockpile topsoil for reuse in the project area in accordance with Section 260, "Revegetation," of these Special Technical Provisions. Topsoil shall not be stockpiled for a period greater than two (2) weeks or greater than three (3) feet in height unless accepted by the Revegetation Specialist (RS) and Engineer. Topsoil shall be re-applied within the project area in accordance with Section 260, "Revegetation," of these Special Technical Provisions.

All suitable organic materials removed during the clearing and grubbing operation including, but not limited to, pine needles, leaves, duff, trees smaller than six (6) inches DBH, stumps, and suitable roots shall be stockpiled and used for revegetation/restoration treatments. The Contractor shall make allowances for chipping larger organic materials such as trees, suitable roots, branches, and stumps so that these materials can be used for project revegetation/restoration efforts.

The Contractor shall not stockpile any vegetation or other debris generated as a result of the clearing and grubbing or tree removal operations that is not suitable for use in revegetation efforts. All unsuitable vegetation or other debris shall be removed from the job site by the end of each working day.

170.03 Tree Removal

Work under these bid items shall consist of furnishing all labor, tools, equipment and materials necessary for the removal of trees equal to or larger than 6-inches in diameter, measured at an elevation of 4.5-feet above the prevailing existing ground surface on uphill side of tree (a.k.a diameter at breast height - DBH). Trees equal to or larger than 6-inches DBH to be removed are schematically shown on the Project Plans and will be conspicuously marked in the field by the Engineer and TRPA forester (**no tree shall be removed unless marked in the field**). Tree removal shall include the removal of associated stumps and roots necessary for a complete removal of the tree and its appurtenances, and backfilling the remaining hole with native material, as directed by the Engineer.

The quantity (contract value) of trees to be removed, as shown on the Project Plans, may be more or less than the contract amount, as determined by the Engineer. Final quantities may fluctuate based on field conditions and actual construction staking, layout, and grading limits at the time of construction. All trees necessary for removal, as determined by the Engineer and TRPA staff forester, will be identified and conspicuously marked in the field for removal.

Prior to timber removal operations all associated temporary erosion control measures and BMPs, and traffic control must be in place, in accordance with the SWPPP, Project Permit(s), Standard Specifications and these Special Technical Provisions.

Trees shall be felled to minimize disturbance to surrounding facilities, structures, vegetation and traffic flow on roadways. The Contractor shall make all efforts to minimize any damage to trees and/or root systems that are to remain in place. The Contractor shall be liable for damage to utility service lines, fences or other structures.

The Contractor shall set aside specific materials (trees, stumps, slash, etc.) onsite for use and placement in the work and/or revegetation treatments. All such materials, and quantities, will be clearly identified and marked by the Engineer and Revegetation Specialist prior to the start of clearing and grubbing, and tree removal operations. Any applicable trees marked for this application will be included for payment as part of the tree removal bid item(s). Contractor is responsible for complete site cleanup, including slash disposal. No slash may be stored or burned on site. All wood products must be removed from the site prior to resale.

No trees (equal to or greater than 6-inches diameter) shall be removed from the project site that are not identified and marked by the Engineer. In the event the Contractor removes any trees (equal to or greater than 6-inches diameter) not marked by the Engineer, the Contractor shall be solely responsible for any and all fines and/or penalties levied to the Contractor, Engineer, NTCD, NDSL, or applicable property owners in association with the removal.

170.04 Stump Removal
Work under this item shall be considered part of the clearing and grubbing work and shall consist of furnishing all labor, tools, equipment and materials necessary for the removal and disposal of stumps depicted on the project plans, or as directed by the Engineer. Stump removal as described herein will only consist of stumps to be removed that are not directly associated with the removal of a tree (as defined herein - tree removal bid items and prices include the cost of removing the associated stump).

Trees and stumps designated for removal shall be removed to at least three (3) feet below finished grade. Ground trees and stumps intended for use as wood chip mulch shall conform to the requirements of these Special Technical Provisions. Trees and stumps not suited as wood chip mulch or for use in project improvements shall be removed and appropriately disposed of outside the project limits. The Engineer and Revegetation Specialist will determine which trees and stumps are suited for use as wood chip mulch and for use in project improvements. The Contractor shall schedule an inspection of stumps and trees with the Engineer, at least 10 days prior to the Contractor scheduling wood chipping operations, for a determination of what can be used as mulch.

Compensation for the removal of trees and stumps less than six (6) inch diameter and stumps greater than six (6) inch diameter, as necessary for construction of the various items of work as staked by the Engineer, shall be included in the clearing and grubbing bid item and no additional compensation shall be made therefore.

170.05 Work Outside of Stated Limits
The Contractor shall not, and no payment will be made to the Contractor, for clearing and grubbing outside the stated limits as shown on the Project Plans, or as described in these Special Technical Provisions, unless such work is authorized by the Engineer.

170.06 Existing Signs
Existing signs, snow markers and the like within the construction limits, which interfere with the work, shall be removed, salvaged and reinstalled as directed by the Engineer. If existing traffic control regulatory signs are removed (i.e. stop, yield signs, etc.) the Contractor shall install temporary signs of the same designation as close as possible to the original position immediately. Existing mailboxes within the construction limits, which interfere with the work, shall be removed, salvaged and reinstalled as close to the original position as possible after construction in the area is completed. Mail service shall not be interrupted at any time due to construction activities. Any materials that are damaged or lost shall be replaced in like kind of equal or better quality.

170.07 Protection of Plants
Trees and plants that are not to be removed shall be fully protected from injury by the Contractor at his/her expense. Trees shall be removed in such a manner as not to injure standing trees, plants, and improvements which are to be preserved. The Contractor shall remove tree branches under the

direction of the Engineer and Revegetation Specialist, in such a manner that the tree will present a balanced appearance.

Scars resulting from the removal of branches shall be treated with a heavy coat of a tree sealant accepted by the Engineer and Revegetation Specialist. Construction limit fence shall be installed around all trees to be protected near excavation limits at the dripline of the tree as shown on the Project Plans. If large roots of protected trees are encountered during excavation activities, work shall cease in this area and the Engineer shall be notified. Work shall commence as directed by the Engineer, Revegetation Specialist, and TRPA.

170.08 Removal and Disposal of Materials
All materials scheduled or specified for removal and disposal shall be removed and hauled from the site at the Contractor's expense, unless otherwise specified, and disposed of outside of the Lake Tahoe Basin in accordance with TRPA ordinances and NAC 444.8565. The construction area shall be left with a neat and finished appearance.

170.09 Measurement and Payment
"Clearing and Grubbing" (including trees under 6-inch DBH) shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The lump sum price for "Clearing and Grubbing" (including trees under 6-inch DBH) shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in the clearing and grubbing of the project site as shown on the plans and as specified in the Project Plans, Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer including the removal and disposal of all the resulting materials from the Tahoe Basin.

"Tree Removal" shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The lump sum price for "Tree Removal" shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing each tree and associated stump and stockpiling the trees as necessary for the construction of in stream structures shown on the plans and as specified in the Project Plans, Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, including the removal and disposal of all the materials not to be used in the project from the Tahoe Basin.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 175 – REMOVAL OF EXISTING IMPROVEMENTS

175.01 General. Work under this section shall conform to the project permits, Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP and TRPA Best Management Practices. The Contractor's attention is directed to Section 301, "Removal of Existing Improvements", of the Standard Specifications.

Work under this section shall consist of the removal and disposal of existing improvements and facilities, which interfere with construction or as required to properly construct the project, as shown on the

Project Plans, described in the Standard Specifications, these Special Provisions, and as directed by the Engineer. Any materials removed, including excavated earthen material, in conformance with this section shall become the property of the Contractor and shall be removed and disposed of by the Contractor in accordance with all federal, state, and local ordinances and permit conditions. All materials scheduled or specified for removal shall be removed from the project area and disposed of outside of the Lake Tahoe basin in accordance with TRPA ordinances and NAC 444.8565.

Where any pipes, fittings, valves, drainage inlets, frames and covers, or other devices are removed from any manhole, structure, junction box, joint, valve, fitting, valve, etc. and the remaining facility is to be protected in place; all repairs, seals, plugs, caps, and other modifications as necessary to make the structure or device sound and complete shall be constructed by the Contractor as shown on the Project Plans, and in conformance with the Standard Specifications and these Special Provisions, or as directed by the Engineer. All repairs, plugs, caps and other modifications as noted above shall be considered as included in the prices paid for each associated bid item of work, not otherwise provided for, and no additional compensation shall be allowed for.

175.02 Remove Asphalt/Concrete Pavements and Structures

Work under this section shall include removal of asphalt concrete pavement and other concrete surface improvements as required to properly construct the project, as shown on the Project Plans, described in the Standard Specifications, these Special Technical Provisions, and/or as directed by the Engineer. This includes removal and disposal of any and all asphalt/concrete structural section associated with the removal of any existing facility or installation of all proposed improvements shown on the Project Plans including curb and gutter, sidewalk, parking islands, parking lot asphalt, associated landscaping, and any other miscellaneous structures. Where no joint exists in the pavement on the line at which pavement is to be removed, a straight, neat cut with a power driven saw shall be made along the line to a minimum depth of 6-inches before removing pavement. If saw cut pavement is damaged prior to paving, it shall be the Contractor's responsibility to re-cut any damaged, broken, or uneven portion prior to paving at his own expense. Under no circumstance shall the Contractor be allowed to "jack-hammer" the existing pavement instead of cutting with a power driven saw.

Any materials removed in conformance with this provision shall become the property of the Contractor and shall be removed and disposed of by the Contractor in conformance with the Standard Specifications and these Special Technical Provisions. AC pavement removed from the work area may NOT be ground up and re-used as base material for roadway reconstruction.

Sawcutting of all roadways required for the proper construction of the Project in accordance with the Project Plans, these Special Technical Provisions, the Project SWPPP, the Project permits and as directed by the engineer shall be included in costs of various other items of work and no additional compensation shall be allowed for.

175.03 Remove Storm Drainage Structures

Work under this section shall include the complete removal and disposal of storm drainage structures, the backfill, and compaction, and restoration of the disturbed area as shown on the Project Plans, described in the Standard Specifications, these Special Technical Provisions, and/or as directed by the Engineer. Any areas where storm drainage structures are removed shall be backfilled, graded, and restored to match the surrounding area, unless otherwise noted on the plans, or directed by the Engineer. The resulting waste materials and debris shall become the property of the Contractor and disposed of by the Contractor in conformance with the Standard Specifications, Project Permits, the

SWPPP, and these Special Technical Provisions. Under no circumstances shall any segment of storm drainage pipe designated for removal be abandoned in place, unless otherwise noted on the plans and/or acceptance of the Engineer.

Existing Upstream Pipe Inlet for Burke Creek at Highway 50
The designated portions of the upstream end of the existing drainage pipe at Hwy 50 shall be cut by mechanical means to provide a clean, neat, and even finish and removed where indicated on the Project Plans, applicable details, and as directed by the Engineer. Following removal of the designated end sections and the remnant culvert section shall be abandoned in place by completely filling with concrete slurry backfill to the existing drainage inlet.

The remnant pipe culvert sections shall be free of any standing water (by trash pumps or other means) prior to placement of the slurry backfill. The slurry backfill shall be Type A (excavatable) in conformance with Section 337.08, "Slurry Backfill" of the Standard Specifications. **The Contractor shall submit a slurry backfill mix design to the Engineer for review and acceptance at least ten (10) working days prior to placement in the work.**

The Engineer will only accept the work where the designated portion of the existing pipe culvert has been properly abandoned in place; the Contractor is required to completely fill the remnant drain pipe section with slurry backfill and make all necessary provisions to prevent any air pockets or other void spaces. For placement of the slurry backfill it shall be the sole responsibility of the Contractor, including any required engineering design, to furnish all materials and equipment as necessary to fully close off or plug the ends of the existing drainage pipe in order to abandon the remnant portion of the existing drainage pipe in place.

Under no circumstance shall any portion of the existing drainage pipe including inlet and outlet structures and associated creek channel areas, be disturbed or removed from service until Burke Creek is properly diverted and authorization is granted by the Engineer. See Section 165 Dewatering and/or Diversion of these Special Provisions and the SWPPP. The Contractor shall notify the Engineer in advance of the intended pipe culvert removal/abandonment (10 working day minimum notification required).

175.04 Remove Existing Lamp Posts
Work under this section shall include the complete removal and disposal of lamp post, associated conduit and conductors, the backfill, and compaction, and restoration of the disturbed area as shown on the Project Plans, described in the Standard Specifications, these Special Technical Provisions, and/or as directed by the Engineer. Any areas where lamp post and associated conduit and conductors are removed shall be backfilled, graded, and restored to match the surrounding area, unless otherwise noted on the plans, or directed by the Engineer.

All conduit shall be removed or capped in accordance with the Standard Specifications. Electrical conduit shall be removed and disposed of as necessary to allow for project grading.

The resulting waste materials and debris shall become the property of the Contractor and disposed of by the Contractor in conformance with the Standard Specifications, Project Permits, the SWPPP, and these Special Technical Provisions.

175.05 Backfill and Compaction

All disturbed areas where pipe, structures, surface pavements, and other miscellaneous improvements are removed, shall be restored in like kind to match the pre-existing lines and grades and surrounding adjacent area, unless otherwise noted on the Plans, or as directed by the Engineer. The Contractor is required to backfill and compact excavated trenches to sub-grade using accepted native material and/or local borrow or imported borrow as determined by the Engineer if import is required; replace the sidewalk, landscaping, and other surface improvements as applicable; and/or replace the topsoil and pre-existing landscape features or revegetate the disturbed area. **Any native, local borrow, or imported borrow soils used for backfill shall be accepted by the Engineer prior to placement**.

Trenches, holes, depressions and pits caused by the removal of existing improvements shall be backfilled with materials equal to or better in quality and to the same thicknesses as the surrounding materials, and in conformance with Section 304, "Unclassified Fill", of the Standard Specifications. **No broken concrete, asphalt concrete, or other debris shall be left in excavated trenches or be included as part of the backfill.** All backfill materials at a minimum shall not exceed optimum moisture content, and be free of stones or lumps exceeding 3 inches in greatest dimension, organic matter, or other unsatisfactory material that may restrict compaction requirements. In surfaced areas (i.e. pavement, concrete) that are otherwise to remain undisturbed, the structural section shall be replaced with materials equal to or better in quality and to the same thicknesses as the surrounding materials.

Fill to be placed beneath concrete slabs and all other components subject to structural loading shall conform to the requirements of Section 200.01.09 "Structural Fill" of the Standard Specifications. If a new structure is specified to replace the old structure, unsuitable materials shall be removed as directed by the Engineer. Unless otherwise specified, remaining material and fill material shall be compacted to ninety percent (90%) in ditch and slope areas, and brought up to the bottom grade of aggregate structural section of the new structure, unless otherwise specified on the Project Plans (compaction requirements on the Project Plans shall govern).

Restoration of an area and/or replacement of all other surface improvements in conformance with this section shall be considered as included in the prices paid for each associated bid item removed, except components of the work for which payment is made under separate contract items, and no additional compensation shall be allowed for.

175.06 Measurement and Payment

Full compensation for saw cutting, removal, and disposal of existing asphalt/concrete and associated backfills in conformance with this section and other sections of the Standard Specifications, and these Special Technical Provisions is included in the prices paid for various Contract items of work involved, and no additional compensation will be allowed.

"Remove Existing Improvements" shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The lump sum price for "Remove Existing Improvements" shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in the removal and disposal of the existing asphalt, curb and gutter, lamp posts, parking islands, landscaping, and the storm drain pipe culvert structure, including associated surface improvements (asphalt concrete, aggregate base), as shown on the project Plans and as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation shall be allowed for. This work also includes the removal and disposal of all the resulting materials from the Tahoe Basin; and any backfill and compaction of the remnant trench, including aggregate base, for a complete restoration of the area as

shown on the Plans, described elsewhere in these Special Technical Provisions, and/or as directed by the Engineer.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 176 – REMOVAL OF EXISTING MICELLANEOUS ITEMS

176.01 General. Work under this section shall conform to the project permits, Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP and TRPA Best Management Practices

176.02 Remove Existing Woody Debris Crossings
Work under this section shall include removal and disposal of woody debris crossings as required to properly construct the project, as shown on the Project Plans, described in the Standard Specifications, these Special Technical Provisions, and/or as directed by the Engineer.

Human placed woody debris crossing shall be removed at locations shown on plans. Woody debris and logs that are embedded into the creek banks shall remain in place.

Any materials removed in conformance with this provision shall become the property of the Contractor and shall be removed and disposed of by the Contractor in conformance with the Standard Specifications and these Special Technical Provisions.

176.03 Remove Existing Large Debris
Work under this section shall include removal and disposal of large human generated debris and miscellaneous items as required to properly construct the project, as shown on the Project Plans, described in the Standard Specifications, these Special Technical Provisions, and/or as directed by the Engineer. Items include concrete drums and an automobile fuel tank.

The automobile fuel tank is partially buried near the stream channel. Care shall be taken not to disturb stream banks or place fill into the existing creek channel. Any liquid contained within the fuel tank shall be treated as hazardous waste and disposed of in accordance to all federal, state, and local regulations.

Any materials removed in conformance with this provision shall become the property of the Contractor and shall be removed and disposed of by the Contractor in conformance with the Standard Specifications and these Special Technical Provisions.

The Contractor is required to backfill and compact excavated areas to match existing topography using accepted native material and/or local borrow or imported borrow as determined by the Engineer if import is required. **Any native, local borrow, or imported borrow soils used for backfill shall be accepted by the Engineer prior to placement**.

Trenches, holes, depressions and pits caused by the removal of existing improvements shall be backfilled with materials equal to or better in quality and to the same thicknesses as the surrounding materials, and in conformance with Section 304, “Unclassified Fill”, of the Standard Specifications. **No**

broken concrete, asphalt concrete, or other debris shall be left in excavated areas or be included as part of the backfill.

176.04 Measurement and Payment
Payment for "Remove Existing Woody Debris Crossing" shall be made at the contract unit price per each, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price for "Remove Existing Woody Debris Crossing" shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work including but not limited to removing debris, water quality control measures, and off-haul and disposal of excess materials, for a complete job in place as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

"Remove Large Debris" shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price for "Remove Large Debris" shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work including but not limited to removal and disposal of concrete drums and an automobile fuel tank, excavation, backfill, local borrow, import, compaction, and off-haul and disposal of excess materials, for a complete job in place as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

SECTION 180 – EXISTING UTILITIES AND UNDERGROUND FACILITIES

180.01 General
The Contractor shall inform him or herself of the exact location of all conduits, ducts, cables, pipe systems, or other above ground and/or underground facilities and shall protect all utilities encountered in the process of construction. The Contractor shall contact Underground Service Alert (USA) at least 48 hours prior to any construction activity. Any damages to above or underground facilities shall be immediately repaired by the Contractor at his own expense, except for damage to utilities, in which case the Contractor shall immediately notify the proper Utility Company. Unless cleared by the Utility Company, the Contractor shall be responsible for reimbursing said Utility Company for any and all work required to repair or replace damaged utility facilities with no additional compensation allowed for.

The Contractor shall not begin excavation work within the immediate vicinity of any know sanitary sewer force main or potable water main prior to contacting DCSID (sewer) and KGID (water) at least 10 working days in advance.

180.02 Potholing of Existing Utilities
The Contractor shall be responsible for verifying the location of all existing underground facilities within the project area, which may have potential to conflict with the location of proposed improvements, as shown on the Project Plans and as indicated by USA markings. Actual field conditions and locations can vary considerably from those shown on the Project Plans; therefore the Engineer and/or Owner cannot, and does not, assume responsibility for the existence or location of any underground structures such as, but not limited to, pipelines, laterals, conduits, valves, meters, vaults, manholes, junction boxes, and other components of a typical utility, drainage, or irrigation system. The Contractor shall be responsible for contacting all utilities, agencies and/or public and private owners to verify such information prior to and during construction of any of the proposed improvements.

The Contractor shall notify the Engineer in advance of all potholing activities. Any delays that may result from failure of the Contractor to locate and/or pothole a potential utility conflict shall be at the Contractor's expense. Any costs incurred due to relocations, shutoff, startup, or any other costs related to utility relocations due to the construction of the project, not otherwise provided for in a specific Contract item, shall be the responsibility of the Contractor.

As part of the Contract work the Contractor will be installing improvements in the vicinity of existing utility systems and other various public improvements. Where conflicts are known to and appear to exist with underground utilities (locations indicated on Project Plans) the Contractor is hereby advised that he/she will be required to pothole each location prior to any work in the vicinity of the subject utility, in order to properly identify and locate its position. The Contractor is responsible to schedule the Contractor's surveyor to be onsite during potholing of conflicts for utility elevation verification (surveying of the horizontal and vertical location of the top of the pipe is required). Upon verification such utilities will require relocation by the Contractor or utility agency or its agents in accordance with these Special Technical Provisions, Project Plans, Standard Specifications, and associated utility standards. **Any potholing shall be completed where conflicts are known to and appear to exist with underground utilities a minimum of five (5) working days before beginning construction on the proposed improvements which appear to cause conflict.**

All potholing, as identified in the paragraph above, shall be performed by the Contractor and considered as included in prices paid for the various Contract items of work involved and no additional compensation will be allowed for.

If any existing utilities that are not shown by USA or on the Plans as indicated to be relocated by others are found to be in conflict with the proposed location of the improvements shown on the Plans, the Contractor shall contact the Engineer. The Engineer will either provide the Contractor with new grades/elevations to eliminate such conflicts or shall contact the utility agency to arrange for relocation of the conflicting utility. The Contractor shall coordinate all necessary activities with the utility agency in order to complete or facilitate the subject relocation(s). Such work shall be considered change order work.

180.03 Protect In Place Existing Utilities
All utilities that are not to be relocated or removed shall be protected in place from injury or damage per the Standard Specifications section 300.04.

180.04 Utility Relocation – Gas
Any and all underground gas line relocations as required to facilitate construction of the proposed project improvements, shall be coordinated with Southwest Gas at least four (4) weeks prior to commencement of work in that area. Contractor shall use Southwest Gas's preferred subcontractor to complete gas line relocation work. Any costs incurred due to relocation, shutoff, or any other costs due to the construction of the project shall be the responsibility of the Contractor, not otherwise provided for in a specified bid item of work.

Any saw-cutting and removal of existing pavements shall be in conformance with Section 175 "Removal of Existing Improvements" of these Special Technical Provisions.

Should the Contractors operations be delayed, for whatever reason, as a result of the relocation of gas lines, no additional contract time, or compensation will be allowed for.

180.05 Utility Relocation – Communication

Any and all underground communication line relocations, including utility box modifications, as required to facilitate construction of the proposed project improvements, shall be coordinated with Frontier Communications at least four (4) weeks prior to commencement of work in that area. Contractor shall use Frontier's preferred subcontractor to complete communication line relocation work. Any costs incurred due to relocation, shutoff, or any other costs due to the construction of the project shall be the responsibility of the Contractor, not otherwise provided for in a specified bid item of work.

Any saw-cutting and removal of existing pavements shall be in conformance with Section 175 "Removal of Existing Improvements" of these Special Technical Provisions.

Should the Contractors operations be delayed, for whatever reason, as a result of the relocation of communication lines, no additional contract time, or compensation will be allowed for.

180.06 Utility Relocation – Electric

Any and all underground electric line relocations, including utility box modifications, as required to facilitate construction of the proposed project improvements, shall be coordinated with NV Energy at least four (4) weeks prior to commencement of work in that area. Any costs incurred due to relocation, shutoff, or any other costs due to the construction of the project shall be the responsibility of the Contractor, not otherwise provided for in a specified bid item of work.

Any saw-cutting and removal of existing pavements shall be in conformance with Section 175 "Removal of Existing Improvements" of these Special Technical Provisions.

Should the Contractors operations be delayed, for whatever reason, as a result of the relocation of electrical lines or utility boxes, no additional contract time, or compensation will be allowed for.

180.07 Sanitary Sewer Protection

The work covered under this specification consists of furnishing all the labor, materials, tools, and equipment necessary for the protection of an existing asbestos concrete (AC) sewer pipe owned and operated by Douglas County Sewer Improvement District (DCSID) and the construction of slurry support walls to reinforce the sewer pipe's structural integrity. This work includes, but is not limited to, excavation, construction, and backfilling.

The protection of the DCSID sewer pipe and other adjacent utilities shall conform to the requirements of Section 300.04 "Protection of Utilities and Underground Facilities" of the Standard Specifications, Section 107.17 "Contractor's Responsibility for Utility Property and Service" of the NDOT Standard Specifications, and as modified by these Special Technical Provisions.

Construction

The contractor shall provide 48-hour notification to DCSID of construction schedule prior to commencing construction, as well as for any changes to that schedule, to allow DCSID the opportunity to inspect each step of construction in the vicinity of their infrastructure prior to it being covered.

The contractor shall locate the existing sewer pipe at each end of slurry supports by exposing it using a non-force method such as a vactor truck or hydro-excavation. During construction, the contractor shall limit the use of vibratory equipment within 5 feet (vertical and horizontal) from existing pipe.

The slurry backfill shall be Type A (excavatable) in conformance with Section 337.08, "Slurry Backfill" of the Standard Specifications. **The Contractor shall submit a slurry backfill mix design to the Engineer for review and acceptance at least ten (10) working days prior to placement in the work.** The slurry support walls shall be constructed in accordance to the Contract Documents, Section 337.08 "Slurry Backfill" and Section 200.03 "Aggregates for Bedding and Backfill" of the Standard Specifications, as modified by these Special Technical Provisions, and in conformity with the lines, grades, dimensions, and general design parameters as shown on the Project Plans, and as established and directed by the Engineer.

Video Inspection

A pre-construction video inspection was performed by DCSID on October 7, 2015. The contractor shall accept this video as pre-project condition or perform independent video inspection prior to mobilization of heavy equipment. The contractor shall perform post-construction video inspection after backfill and final grading is complete.

Damage and Repair

In the event of a pipe failure during construction, the contractor shall be responsible for all resulting costs including but not limited to emergency containment, environmental cleanup, bypass pumping, repair, fines, and fees. DCSID shall be notified immediately of any damage to or issues with their infrastructure. The contractor shall repair any damage to DCSID infrastructure to the satisfaction of DCSID and in accordance with DCSID approved methodology.

180.08 Measurement and Payment

"Protect in Place Existing Utilities" shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Protect in Place Existing Utilities" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in protecting existing utility lines as shown on the Project Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer and utility purveyor; and no additional compensation will be allowed.

"Utility Relocation - Gas" shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Utility Relocation - Gas" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in constructing a relocation of existing gas lines, complete in place, including any coordination with the utility purveyor, utility box modification, excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer and utility purveyor; and no additional compensation will be allowed.

"Utility Relocation - Communication" shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Utility Relocation - Communication" shall include full compensation for furnishing all labor,

materials, tools, equipment, and incidentals, and for performing all the work involved in constructing a relocation of existing communication lines, complete in place, including any coordination with the utility purveyor, utility box modification, excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer and utility purveyor; and no additional compensation will be allowed.

"Utility Relocation - Electrical" shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Utility Relocation - Electrical" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in constructing a relocation of existing electrical lines and utility boxes, complete in place, including any coordination with the utility purveyor, utility box modification, excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer and utility purveyor; and no additional compensation will be allowed.

"Sanitary Sewer Protection" shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved to protect the existing Sanitary Sewer line, complete in place, including but not limited to excavation, slurry support wall construction, compaction, inspection, and transport and disposal of excess materials and waste debris as shown on the Plans, as specified in these Special Technical Provisions, the Standard Specifications, NDOT Standard Plans and Specifications, and as directed by the Engineer; and no additional compensation will be allowed.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 190 – UTILITY RELOCATION – POTABLE WATER

190.01 Description:
Any and all potable water line relocations, as required to facilitate construction of the proposed project improvements, shall be coordinated with the Kingsbury General Improvement District (KGID) at least two (2) weeks prior to commencement of work in that area. The Contractor will perform all work as described herein in coordination with KGID and in conformance with the Project Plans, all permits, and these Special Technical Specifications.

Any saw-cutting and removal of existing pavements shall be in conformance with Section 175 "Removal of Existing Improvements" of these Special Technical Specifications.

The Contractor shall be responsible for the final design, installation, construction, operation, maintenance and removal and relocation of the potable water main as required for completion of the contract work. The applicable Project Plan sheets provide a basis for, show, and describe a preliminary

potable water main relocation plan and minimum requirements. **The Contractor shall submit their own detailed Temporary Potable Water Main Bypass or Relocation Plan (including all necessary diagrams/exhibits) to the Engineer for review and acceptance prior to commencement of any construction activities that may require bypass or relocation of an existing water main.** Should the Contractors operations be delayed, for whatever reason, as a result of the relocation of potable water lines, no additional contract time, or compensation will be allowed for.

Work under this item shall include repair and/or replacement of any applicable components of the potable water system that are removed, relocated, or damaged as part of this work. The subject potable water system shall be returned to its pre-construction condition, for a sound, complete and fully operational water main and potable water system in conformance with all the requirements of KGID. Any components of the existing water system that is removed from service may not be reused without prior acceptance from the Engineer and KGID. KGID valves shall NOT be turned by Contractor. Contractor shall coordinate with KGID to turn valves in their system necessary to complete Project improvements.

Based on preliminary information provided by KGID, the existing ten-inch (10”) water main is a major transmission line and shall not be shut down for any extended periods of time (not to exceed eight (8) continuous hours in any given period of time) unless permitted in writing by KGID.

In addition, no existing isolation valves are located within the vicinity of the project on either side of the projected excavation (for the proposed arch culvert structure). In order to minimize impacts on existing service laterals (i.e. water service to residences and businesses) one additional gate valves shall be installed to the north side of the excavation area as shown on the Project Plans and directed by the Engineer. The following time constraints, requirements, and notifications shall be adhered to during all applicable portions of the work:

- Contractor to schedule shut downs with KGID a minimum of one week in advance
- Contractor to provide the Engineer with a 72 hour notice of any shut down
    - Shall include notification to Tahoe Douglas Fire Protection District for any impacts to fire hydrants or other fire protection apparatus.
- Contractor to post all affected residences and businesses with door hangers supplied by NTCD – posted 48 hours prior to shut down
- Maximum of 4 hours (shut down time) allowed for the installation of the proposed gate valve on the existing 10” AC water main – where it has effect on service laterals
- Maximum of 8 hours (shut down time) allowed for the water main relocation – shall be completed in conjunction with the installation the gate valve in order to limit impacts to water services and reduce shut downs to one working day.
- All conformance testing and disinfection requirements are applicable to any temporary water main bypass work and permanent water main replacement work.

Following completion of the culvert structure, any associated utility relocations, and any inspections, the resultant disturbed area within the roadway shall receive a temporary hot mix asphalt roadway patch as shown on the Plans, and as directed by the Engineer and NDOT. This temporary roadway patch shall be in place prior to opening the full width of the roadway to public traffic.

All backfill within the roadway prism and roadway structural section, including aggregate base, shall be as depicted on the Project Plans and conform to these Special Technical Specifications and Standard Specifications, Project Permits, or as directed by the Engineer.

190.02 Materials

All materials shall conform to the Standard Specifications except as follows.

A. Pipe:

(1) Polyvinylchloride (PVC) in accordance with AWWA C900, able to withstand 250 psi, in the size and class shown on the plans

(2) Lubricant shall be FDA approved for human consumption, non-toxic, ecologically safe, water soluble, etc., and shall be designed to be used for installation of potable water line systems.

(3) C900 will be restrained thirty feet (30') from fitting on pipe main, and bends with restraining couplers.

B. Fittings:

(1) Fittings shall be installed in strict accordance with the recommendations for the manufacturer, the Specifications, and AWWA C605.

(a) Thrust blocks will be poured at fittings, bends and tees as required by the Project Plans, Special Provisions, and Standard Specifications. Thrust blocks shall be concrete and placed between solid ground and the fitting or appurtenance to be anchored. The thrust blocks shall be placed so that the pipe and fitting joints shall be accessible for repair.

(b) All fittings will be wrapped in plastic prior to pouring concrete.

(2) Service line fittings shall be flared or mechanical compression type.

(3) Miscellaneous fittings, necessary for service connections, including reducers and adapters, shall be brass construction, Mueller Company, Ford Manufacturing Company, or equal.

(4) Flange fittings and blind flanges shall be drilled and faced to AWWA Standards. Dimensions of specials shall conform to those stated in the AWWA Standards. Prior to fabrication of specials, the CONTRACTOR shall furnish the ENGINEER shop drawings showing the details of such specials for acceptance.

(5) Flexible couplings and flange coupling adapters shall be as manufactured by Romac, Rockwell, or accepted equal. All mechanical couplings shall have the longest standard sleeve length. Coupling adapters shall be restrained.

(6) Romac (slip-on type) reducers will not be allowed.

(7) Tapping sleeve shall be stainless steel with flange face, and meet required Class rating of connecting pipe.

(8) All bolts shall be 316 stainless steel.

C. Valves:

(1) Gate valves larger than two inches (2") shall be modified wedge disc, resilient seat, NRS valves with O-ring seals, similar and equal to Mueller A-2360, and shall open when the stem is rotated counter-clockwise. Unless otherwise shown, valves shall have a two-inch (2") square operating nut. Valves shall conform to AWWA C-509. All valves shall be of the same manufacturer. All valves shall be restrained.

(a) Valve bodies shall be cast iron ASTM A-126, Class B.

(b) Joint materials for flanged joints shall consist of full-face one-piece gaskets conforming to AWWA C-207. Bolts and nuts shall conform to AWWA C-207.

(c) All shaft bearings shall be of the self-lubricating, corrosion resistant, sleeve type.
(d) All valves shall be hydrostatic and leak tested according to AWWA C-504.
(e) Operator components shall withstand an input torque of three hundred foot-pounds (300 ft/lbs.) at extreme operator positions without damage, per AWWA C-505.
(f) Valves two inches (2") and smaller shall be wedge disc, non-rising stem, screwed, all bronze, similar and equal to Crane No. 438.
(g) Valve boxes shall be provided for all gate valves placed underground, and shall be similar and equal to Christy G5, with a six-inch (6") PVC (SDR 35) pipe extension sleeve. Cover shall be marked *"WATER."*
(h) Concrete pillow under valves for support as shown in Project Plans.
(i) All bolts shall be 316 stainless steel.

D. Miscellaneous Appurtenances:

(1) Location wire shall be Number 10 solid, insulated, AWG copper, soft drawn with connectors wrapped in insulation tape, or copperhead steel core copper wire #10 with snake bite direct bury connectors.
(2) Warning tape shall be blue color, three inches (3") in width, 5 mil thickness, permanently printed "CAUTION: BURIED WATER LINE BELOW."
(3) Valve stem extensions shall be provided where necessary so that the operating nut for any valve is not more than thirty-six inches (36") below the valve box cover.
(4) Magnesium Anode to be five pound (5#) "High Potential" packaged in chemical backfill with ten feet (10') of number twelve (#12) leadwire. Connecting clamp to be CalPico GC or equivalent.
(5) Full circle repair clamp: Single-band stainless steel single lug ductile iron gasket, Grade 60; bolts are low alloy.

E. NDOT Base Aggregates

(a) Waterline installed in NDOT right of way shall follow the most current version of the NDOT Standard Specifications for Road and Bridge Construction. Materials used for backfilling trenches shall include NDOT granular backfill, NDOT class B bedding, and NDOT type 1 class B aggregate base as shown on the Project plans. Refer to section 704 “Base Aggregates” of the NDOT Standard Specifications.

190.03 Execution. All materials shall be handled and stored in a manner that will not damage or depreciate the integrity and quality of the material or its coating. Before installation, each article shall be inspected and any damaged material shall be removed from the site. Any damaged coating shall be repaired. The interior and ends of the pipe and appurtenances shall be clean. When it is necessary to cut pipe, such cuts shall be neatly made. All valves and appurtenances shall be thoroughly cleaned before installation and shall be installed in strict accordance with the manufacturer's recommendations. Contractor shall submit As-Built plans to KGID upon completion of work including GPS points and/or coordinates for all valves fittings and pipes. Contractor shall assure NDEP Bureau of Safe Drinking Water (BSDW) approval of the Project has been granted prior to commencing construction.

At all times when laying is not in progress, open ends of pipe shall be closed by temporary water tight plugs or by other approved means. If water is in the trench when work is resumed, the plug shall not be removed until all danger of water entering the pipe has passed.

Water Mains

A. The depth of pipe shall be a minimum of 40 inches, unless indicated otherwise on the plans, from finished surface grade to top of pipe.
B. The minimum separation between the water line and the proposed corrugated metal arch culvert at Highway 50 shall be 6 inches.
C. All gate valves will be restrained and wrapped in plastic prior to pouring thrust blocks.
D. All joints shall be restrained

Valves and Appurtenances
A. Valves shall be set plumb and inspected in opened and closed positions to ensure that all parts are in working condition.
B. Flanged valves and appurtenances shall be set with no stresses on the flanges. Bolts shall be tightened uniformly around the joints.
C. All underground valves shall be provided with valve boxes.
(1) Valve boxes shall be centered and set plumb over the operating nut of the valves so that they do not transmit shock or stress to the valves. Valve box covers shall be set three-eighths to five-eighths inch (3/8" to 5/8") below the surface of the finished pavement as shown on the plans, or as instructed by the Engineer. Riser pipe shall be cut to the proper length so that the valve box does not ride on the riser pipe when set at grade, and the top of the riser pipe is at least six inches (6") below the top of the box.
D. All valves and fittings will be wrapped in plastic prior to pouring concrete.

Testing
A. Scope:

(1) The CONTRACTOR shall provide all labor, tools, and equipment necessary to perform the required pipeline tests.
(2) The hydrostatic test shall be completed prior to the chlorination test and then a final flushing of the line shall be done.
(3) Hydrostatic testing shall comply with AWWA Standards C605 and the Standard Specifications
(4) Disinfection and testing shall comply with AWWA Standards C651, C652, C653, and C654 and the Standard Specifications.
(5) Disposal of any water shall comply with NDEP permits and the Project SWPPP.

B. Hydrostatic Tests:

(1) All appurtenances of the entire main line, including service saddles and corporation stops, shall be installed prior to testing. The pipeline shall be tested at a pressure equal to the class of pipe or 50 psi over working pressure, whichever is greater. The tests shall be made in the presence of the ENGINEER or his representative.
(2) Before the test, the pipeline shall be completely anchored and backfilled. During the filling of the line with water, precautions shall be taken to prevent air pockets at high points. Water may be allowed to stand in the line for several hours prior to the test. During the test, which shall be conducted for at least sixty (60) minutes, the allowable leakage shall be as computed by the following formula:

$$\frac{L = SD\,P^{1/2}}{148{,}000}$$

L = allowable leakage in gallons per hour
S = length of pipe being tested
D = nominal diameter of the pipe in inches

P = test pressure in pounds per square inch gage

If any valved section of pipe shows greater leakage than specified, the CONTRACTOR shall locate and repair the leaks and shall retest that section of line at no additional cost.

C. Disinfection of Completed Mains:

(1) Before being placed in service, the entire main line shall be chlorinated by the CONTRACTOR. Chlorine shall be applied by the following methods: Liquid chlorine or calcium hypochlorite water mixture, unless KGID approves another method. The chlorinating agent shall be applied at the beginning of each section adjacent to the feeder connection and shall be injected through a corporation stop, hydrant, or other connection ensuring treatment of the entire line. One test point shall be installed per 300 feet of line being tested with no less than two (2) test points for sections of less than 300 feet. Water shall be fed slowly into the line with chlorine applied in amounts to produce a dosage of 50 parts per million. Portions of the existing mains, which have been connected to a new line or otherwise contaminated by construction, shall be included in the system being sterilized. The solution shall remain in the line for a minimum of 24 hours. A residual of not less than 10 parts per million shall be produced in all parts of the line after the 24-hour period. During the chlorination process, all valves shall be operated. Tablets will NOT be installed in pipe sections during installation. CONTRACTOR to coordinate with KGID for collecting all disinfection testing samples. Frequency and types of samples shall be per AWWA Standards.

D. Final Flushing:

(1) After chlorination, the CONTRACTOR shall flush all the water from the lines at the extremities until the replacement water tests are equal, chemically, in turbidity and bacteriologically to those of the permanent water supply. The treated water shall be discharged into a sanitary sewer manhole.

190.04 Measurement and Payment

"UTILITY RELOCATION – POTABLE WATER" shall be measured on a lump sum basis, completed and accepted by the Engineer as conforming to all the requirements in the complete work.
The contract unit price paid shall include full compensation for furnishing all labor, materials (i.e. pipe, couplings, fittings, valves, concrete, slurry, aggregate base, backfill, etc.), tools, equipment, and incidentals, and for performing all the work involved in providing for and/or constructing a temporary potable water main bypass or relocation and replacement of existing water main pipes, complete in place, including any excavation, diversion and re-routing of the water main lines during construction, bedding, structural backfill, temporary roadway patch, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the Standard Specifications, these Special Technical Specifications, and as directed by the Engineer and utility purveyor: and no additional compensation will be allowed.

SECTION 195 – TRENCH EXCAVATION AND BACKFILL

220.01 General

Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary for all excavation, trenching, bedding, and backfilling for all the contract work items involved or delineated as trench work as shown on the Project Plans, and as described in the Standard Specifications and these Special Technical Provisions. All excavations shall be made true to the lines and grades as shown on the

Project Plans, staked by the Contractor, and verified by the Engineer, and shall be so constructed as to avoid removing or loosening any material outside the required slopes and grading limits. Attention is directed to Section 305, "Trench Excavation and Backfill", of the Standard Specifications.

All excavation, bedding, fill, structural backfill, materials, and compaction associated with the work shall be in accordance with the Project Plans, Contract Documents, Project Permit(s), Standard Specifications, these Special Technical Provisions, SWPPP, and as directed by the Engineer.

Trench excavations shall include the removal and disposal of all water and unsuitable materials of any nature which interfere with completion of the construction work. Removal of ground water to a level below the pipe or structure subgrade shall be accomplished as necessary. Attention is directed to Section 165, "Dewatering and/or Diversion" of these Special Technical Provisions.

The Contractor shall follow the applicable rules, orders and regulations of the United States Department of Labor Occupational Safety and Health Administration (OSHA - 29 CFR, Part 1926, Subpart P, Excavations) for sloping the sides of excavations, using shoring and bracing, and for using other safety features. When sides of excavations are sloped for safety considerations the Contractor shall provide, for informational purposes, one copy of the design that demonstrates conformity with OSHA regulations to the Engineer. Where support systems, shield systems, or other protective systems are to be used, the Contractor shall submit to the Engineer, design calculations along with detailed drawings that demonstrate conformity with OSHA regulations. Such drawings shall be stamped with a seal and signed by an Engineer who is registered as a Civil Engineer in the State of Nevada.

The Contractor is advised of the possibility of encountering large boulders, rock, and other similar materials while excavating. There shall be no additional compensation or payment made to the Contractor for encountering or excavating such materials.

195.02 Work in the NDOT Right of Way

For all trenches and excavation in the NDOT right of way. Materials and methods shall be as specified in the most current version of the NDOT Standard Specification for Road and Bridge Construction (NDOT Standard Specifications). All backfill within the roadway prism and roadway structural section, including aggregate base, shall be as depicted on the Project Plans and conform to these Special Technical Provisions and NDOT Standard Specifications. Attention is directed to section 704 "Base Aggregates" of the NDOT Standard Specifications. Full compensation shall be considered as included in the price bid for construction for the installation of the items to which such structural fill is required and will be considered incidental or appurtenant. Please refer to sections of the special provisions including section 190 "Utility Relocation-Potable Water," section 210 "CMAP Culvert," section 215 "Culvert Headwall," and section 220 "Stormwater Structures."

195.03 Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for all work associated with performing all the work involved in provisions of this section, complete in place as shown on the Project Plans, as specified in the Contract Documents, Project Permits(s), Standard Specifications, these Special Technical Provisions, the SWPPP, and as directed by the Engineer, shall be considered as included in prices paid for the various contract items of work involved; and no additional compensation will be allowed for. There shall be no additional compensation for protective systems required by the OSHA regulations.

SECTION 200 – GRAVEL, COBBLE, ROCK, BOULDER & OTHER AGGREGATES

200.01 General. Work under this item shall consist of furnishing all labor, tools, materials, and equipment necessary to furnish and place gravel, cobble, rock, boulder, sand aggregate, and other aggregates in the work, including but not limited to, channel bed and bank material, in stream structures, boulder sills, rock slope protection, aggregate base courses, bituminous courses, bedding and backfill, mortar and grout, Portland cement, and general rip-rap as indicated on the Project Plans, described in these Special Technical Provisions, and directed by the Engineer, in conformance with the Contract Documents, Project Permits, Standard Specifications, and these Special Technical Provisions.

The limits of loose aggregate and aggregate base course placement as indicated on the Project Plans are approximate, and the exact limits of placement shall be determined in the field by the Engineer. All aggregates used in the work for aggregate base courses, bituminous courses, bedding and backfill, mortar and grout, Portland cement, and general rip-rap shall be in strict conformance with the Standard Specifications, and other applicable provisions found elsewhere in these Special Technical Provisions.

All chinking, gravel, cobble, rock, boulders, sand aggregate, and other loose aggregate used in the work for proposed creek channel, in stream structures, boulder sills, and all other areas requiring said materials shall be in conformance with these Special Technical Provisions, and other applicable provisions of the Standard Specifications. **All chinking, gravel, cobble, rock, boulders, sand aggregate, and other loose aggregate used in the work for proposed creek channel and in stream structures, including imported and reused rock, shall be thoroughly washed outside of the confines of the proposed stream and floodplain in a location approved by the engineer so that each material runs clear when water is applied.**

All stone, aggregate materials, and soils imported to the site shall be from a certified “Weed Free” source approved by the Nevada Department of Agriculture and/or TRPA.

All loading, transport, temporary stockpiling, on-site hauling, excavation, preparation of sub-grade, placement, embedment, backfill, compaction, clean-up, and off-haul and disposal of excess materials needed to install all gravel, cobble, rock, boulder, sand aggregate, and other aggregates where incorporated in the work shall be considered as included in the applicable bid item unit price, and no additional compensation will be allowed.

All aggregate materials generated on-site and meeting the quality requirements as stated in Section 200, “Gravel, Cobble, Rock, Boulder & Other Aggregates” of these Special Technical Provisions may be incorporated in the work upon acceptance of the Engineer prior to placement; any such material that is rejected for placement in the work shall be removed and disposed of in conformance with the provisions found elsewhere in these Special Technical Provisions, and the Standard Specifications. Use of said aggregate material in the work shall be considered as included in prices paid for the various contract items of work involved; and no additional compensation will be allowed for.

200.02 Submittals
The Contractor shall submit certificate(s) and other material testing data as necessary to validate the source of the chinking, gravel, cobble, rock, boulder, sand aggregate, and other aggregate materials and its conformance with the Standard Specifications and these Special Technical Provisions. Include all applicable test results for specific gravity, resistance to degradation, absorption, durability index, and

soundness (as described elsewhere in these Special Technical Provisions). Samples of loose stone aggregates shall be submitted to the Engineer a minimum of ten (10) working days prior to large-scale delivery to the project site or placement in the work, for review and acceptance of color and material.

All aggregate materials generated on site shall be reviewed and accepted by the Engineer, prior to placement in the work. Visual evaluation of the source, samples, suitable certificates and material testing data sheets, and service records may be used to determine the acceptability of any aggregate materials imported or generated on-site. The Engineer reserves to the right to reject said materials.

200.03 Quality Requirements for Loose Stone Aggregates.
The Contractor shall use stone (i.e. gravel, cobble, rock, boulder, etc.) that is sound and durable against disintegration under conditions to be met in handling and placing, and is hard and tenacious and otherwise of a suitable quality to ensure permanency in the specified kind of work. All applicable stone materials shall meet the requirements stated herein and conform to the following test requirements.

	Requirement	Test Method
Apparent specific gravity, minimum	2.5	ASTM C-127-59
Abrasion, maximum percent	45	ASTM C-535-65
Freeze-thaw loss, maximum percent	10	AASHTO 103
After 12 cycles		Procedure A

Stone shall be of such shape to form a stable protection structure for the required section or feature. Flat or elongated shapes will not be accepted unless the thickness of the individual pieces is at least 1/3 of the length. Stones shall be sound, durable, hard, resistant to abrasion and free from laminations, weak cleavage planes, and the undesirable effects of weathering. It shall be of such character that it will not readily disintegrate from the action of air, water, or the typical conditions experienced during handling and placing. All aggregate material shall be clean and free from deleterious impurities, including alkali, earth, clay, refuse, and adherent coatings.

Gravel, cobble, rock, and boulder identified for use in the proposed creek channel, in stream structures, and other areas subject to or where it is expected to be exposed to hydraulic conditions (water flow) shall be smooth and rounded in shape, as is typical of river run cobblestone, fieldstone, or that from a former stream deposited source. Angular rock, quarried, split rock, crushed rock or shot rock shall not be used (except where specified or allowed as shown on the Plans). In addition the aforementioned stone materials shall be of a native nature to the Tahoe Basin (i.e. of similar color and texture to that generally found within the Tahoe Basin and in particular the project area Stateline, NV and vicinity). All creek channel toe boulders and other specified boulders used for the in stream structures that are located within and immediately adjacent to the proposed creek channel shall be smooth and rounded in shape as noted above and of a natural earth tone color/hue that blends with the surrounding environment (or generally described as “round and brown”). Attention is directed to the submittal requirements as noted in this section.

The stone used for “chinking” material, creek channel sub bed material (only where defined/shown on the Plans), shall be angular, fractured or crushed stone and be in conformance with these Special Technical Provisions, and the Standard Specifications.

200.04 Sand Requirements and Standards

Sand shall be medium to coarse sand, and shall be free of organic debris and other deleterious substances. The sand shall have a minimum specific gravity of 2.5 and shall be sub-rounded to rounded. Volcanic cinder material shall not be acceptable. Samples of the proposed sand shall be submitted to the Engineer for approval 10 days prior to placement. Placement of sand will be as-directed by Engineer only.

200.05 Channel Bed Material (CBM) Type 1
Channel Bed Material Type 1 shall be "round and brown" as described in Section 200.03 and conform to the gradation requirements below:

D90 = 8 inches
D50 = 2 inches
D10 = 0.5 inches
D0 = 0.15 inches (i.e. no material smaller than 0.15 inches)

Where identified on the Project Plans, the channel bed material shall be a well graded blend of the sizes as indicated, uniformly and evenly distributed by weight.

200.06 Channel Bed Material (CBM) Type 2
Channel Bed Material Type 2 shall be "round and brown" as described in Section 200.03 and conform to the gradation requirements below:

D90 = 12 inches
D50 = 6 inches
D10 = 3 inches
D0 = 1 inch (i.e. no material smaller than 1 inch)

Where identified on the Project Plans, the channel bed material shall be a well graded blend of the sizes as indicated, uniformly and evenly distributed by weight.

200.07 Chinking Mix
Chinking Mix shall be a well graded coarse aggregate with a nominal size of 1 to 3 inches and conform to the gradation requirements of the table, below:

Size	**Percent finer than by Weight**
3"	100
2.5"	90-100
2"	35-70
1"	5-15
¾"	0-5

200.08 Placement
In general, larger rock and boulders shall be placed with their longitudinal axis normal to the slope face, fully seated on a stable sub-grade or foundation course, and arranged so that each large rock or boulder above the foundation course has a minimum 3 point bearing on any underlying rocks. A full bearing load only on cobble and smaller rock, such as chinking rock for voids, shall not be acceptable.

The placement of any chinking, gravel, cobble, rock, or boulder strictly by dumping shall not be permitted. Hand and/or mechanical adjustments/placement of the stone materials are expected in order to meet the requirements stated herein. Larger rock and boulders shall not be dropped during placement operations, in a manner that will cause significant scaring of the surface, or fracture to minimize its roundness. All larger rock and boulder shall generally be placed with the smoothest side up; care shall be taken to place a rough or coarse textured side of a large rock or boulder to its underside.

All stone products shall be placed to follow the lines and grades shown on the Project Plans. Prevent the contamination of stone features, channel bed material, chinking mix, and other designated rock fills by soil and other earthen materials during excavation, placement, and/or backfill. All stone features shall be blended with adjacent rock areas and grades, by tapering margins, mixing rock color, and keying into and around existing bedrock, rock, soils, and vegetation. The Engineer will direct the Contractor in placement of chinking mix and boulders for construction of designated stone features and proposed creek channel, to attain a natural appearance and complete job in place as shown on the Project Plans and described in these Special Technical Provisions. Exact elevations and horizontal locations of the stone materials and features as shown on the Project Plans may be slightly adjusted in the field by the Engineer, with no additional compensation allowed for.

All channel bed material shall be placed in the locations as shown on the Project Plans in such a manner to produce a relatively uniform graded mass. Place material to thicknesses shown on the Project Plans and uniformly distribute stone and sand materials to produce the required gradation of rock and wheel-roll into place (or compact by other methods) to create a firm and stable structure, and meet finished grade as shown on the Project Plans. Placement of channel bed material and chinking mix shall be conducted in a manner as not to produce a downstream turbidity or other pollutant discharge in violation of the project permit(s) or other water quality standards.

The segregation of mixed stone materials may occur during transport, dumping, on-site hauling, etc. The Contractor shall distribute all stone materials to produce the required gradation of rock. Routine control of gradation will be by visual inspection.

"Chinking" – All larger rock and boulders used in construction of the proposed creek channel banks, log and boulder step pools, flow split structures, culvert outfall, and boulder sill structures shall have chinking material (specified in Section 200.05) placed immediately adjacent to (minimum 9-inches) and into all void spaces. All said larger rock and boulders will be placed in succession and/or in combination with the chinking material in order to effectively reduce void spaces and produce a solid matrix of rock, which will help to control piping of waters and reduce the chances for failure of the structure. The Contractor is expected to hand place and tamp (using hand tools, feet, etc.) all chinking material to form a tight, firm, well compacted, and cohesive structure. Detailed inspection and/or direction from the Engineer shall occur in the field. The finished height or position of any chinking material shall be left below the top (1-3 inches +/-) of any exposed larger rock and boulders to where it is not readily visible and/or will be covered by suitable backfill. The associated cost to furnish and place all chinking material in the work shall be considered as included in the unit bid price of the various items of work requiring said material, and no additional compensation will be allowed.

Rounded and smooth gravel, cobbles, rock, and boulder shall not be used on slopes steeper than 2:1 (horizontal: vertical) unless otherwise directed by the Engineer. Rounded and smooth gravel, cobbles, rock, and boulders are intended to be used in the proposed creek channel, in stream structures, boulder

sills, and other designated areas subject to or where it is expected to be exposed to hydraulic conditions.

200.09 RipRap. In addition to the requirements of Section 200.07 of the Standard Specifications, riprap stone shall be of such shape to form a stable protection structure for the required section. Stones shall be sound, durable, hard, resistant to abrasion and free from laminations, weak cleavage planes, and the undesirable effects of weathering. It shall be of such character that it will not disintegrate from the action of air, water, or the conditions experienced during handling and placing. Stone shall additionally be of native nature to the Tahoe Basin, of similar color and texture to that found within the Tahoe Basin and in particular the project area, and samples shall be provided to the Engineer for review and approval for use, prior to placement of any stone. All material shall be clean and free from deleterious impurities, including alkali, earth, clay, refuse, and adherent coatings. Visual evaluation of the source, suitable tests and service records may be used to determine the acceptability of the stone. Routine control of gradation will be by visual inspection.

RIPRAP SIZE SPECIFICATION TABLE

% PASSING	**SIZE (diameter inches)**
8" TO 10" ROCK RIPRAP	
100	10
35-50	8
0-15	4
10" TO 15" ROCK RIPRAP	
100	15
35-50	10
0-15	6

200.10 Work in the NDOT Right of Way

For all trenches and excavation in the NDOT right of way. Materials and methods shall be as specified in the most current version of the NDOT Standard Specification for Road and Bridge Construction (NDOT Standard Specifications). All backfill within the roadway prism and roadway structural section, including aggregate base, shall be as depicted on the Project Plans and conform to these Special Technical Provisions and NDOT Standard Specifications. Attention is directed to section 704 "Base Aggregates" of the NDOT Standard Specifications. Full compensation shall be considered as included in the price bid for construction for the installation of the items to which such structural fill is required and will be considered incidental or appurtenant. Please refer to sections of the special provisions including section 190 "Utility Relocation - Potable Water," section 210 "CMAP Culvert," section 215 "Culvert Headwall," and section 220 "Stormwater Structures."

200.11 Measurement and Payment. Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for the materials in this section, complete in place as shown on the Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, should be incidental to the other construction items; no additional compensation will be allowed.

SECTION 205 – STREAM EARTHWORK

205.01 General

Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary for stream and floodplain excavations, berm construction, local borrow native soils, import, structural fill, engineered fill, salvage topsoil, imported topsoil, amended fill, existing sub-grade scarification and preparation, rough grading, compaction, finish grading, loading, transport, onsite hauling, off-site hauling, temporary stockpile, off-site stockpile, processing/conditioning, screening, placement, and disposal/salvage of unsuitable or surplus materials, for all the contract work items involved or delineated as excavation, earthwork, or grading as shown on the Project Plans, and as described in the Standard Specifications and these Special Technical Provisions. All excavations, fill, earthwork, and associated grading shall be made true to the lines and grades as shown on the Project Plans, staked by the Contractor, and verified by the Engineer, and shall be so constructed as to avoid removing or loosening any material outside the required slopes and grading limits. Excavation and fill for the culvert is not considered a part of "Stream Earthwork" and is covered in Section 210 "Culvert."

Attention is directed to Section 303, "Unclassified Excavation", of the Standard Specifications and Section 304, "Unclassified Fill", of the Standard Specifications.

Because of the nature of the project, careful excavation, backfill, and grading are mandatory. The proposed contours, representative cross sections, and applicable typical cross section as shown on the Project Plans represent the intended shape of the land but the Contractor shall take into account that the proposed channel, in stream structures, floodplain grading areas, existing channel backfill, slopes, grade breaks, etc., shall be constructed and graded to natural shapes that transition smoothly to adjacent features and grades. As part of the scope of this item of work, the Contractor shall work under the direction of the Engineer to create a natural-looking finished grade surface. The Contractor may be directed in the field to make minor modifications to the depth of cuts, heights of fills, angle of slopes, and other contour grading to achieve a natural appearance, and the desired functioning of the system and proposed improvements. Additionally, the Contractor may be field directed, by the Engineer, to slightly modify the alignment or elevation of the proposed improvements to account for variations in substrate or topography, and true field conditions present at the time of construction. Compensation for these potential directives and minor field modifications, as noted above, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

All finished areas with cut and/or fill slopes shall be graded as indicated on the Project Plans, staked in the field, and directed by the Engineer. The Contractor shall employ excavation and/or placement methods that does not disturb or damage other work. Areas that are shown to not have any excavation or grading shall be protected and remain undisturbed to protect the existing soil profile and vegetation cover. The surface - top four to six inches (4"-6") of on-site soils (topsoil) - shall be segregated from the underlying soils and salvaged, stockpiled, disposed of, or reused as designated elsewhere in these Special Technical Provisions as directed by the Revegetation Specialist. These organic rich surface soils shall not be used in, or blended to incorporate with, the native fill, engineered fill, structural fill or other designated fill material. The Contractors attention is directed to Sections 195.02, "Clearing and Grubbing" and 260, "Revegetation," of these Special Technical Provisions.

Cobbles and boulders will likely be encountered during grading and should not be incorporated within the floodplain grading or other fill areas. If these oversize particles conform to the description of

Channel Bed Materials as described in Section 200 of these Special Technical Provisions, they should be set aside for other applications on the project site as accepted and allowed per direction of the Engineer.

During the course of the project (all phases) any damage to previously installed and accepted work including but not limited to any creek channel, in stream structures, and floodplain areas shall be repaired/replaced at the Contractor's expense. Furthermore, the Contractor shall protect all previously installed revegetation treatments and irrigation equipment; and repair/replace all areas that are damaged as a result of the Contractors operations. The Contractor shall reshape, grade, and re-compact (where applicable) any areas subjected to displacement from vehicular traffic. The Contractor is responsible to locate, identify, and protect all existing utilities from damage.

205.02 Miscellaneous and Temporary Grading and Excavation
Work under this item shall consist of providing all labor, tools, materials, and equipment necessary to perform minor excavation, temporary excavation and finish grading as directed by the Engineer. Miscellaneous and temporary excavation and grading includes excavation, grading, fill, compaction, and disposal of excess materials as necessary to construct the project improvements (including the installation of the culvert structure), maintain prevailing grades, and create minor drainage swales to ensure correct flow paths and positive drainage is maintained within the finished project site. In addition, miscellaneous grading and excavation shall include finish/contour grading within the project area to create natural shapes that transition smoothly to adjacent features, grades and slopes and generally provide for a natural appearance, in accordance with the Project Plans, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer. All such miscellaneous excavation and grading, including detailed finish grading as directed by the Engineer in the field to produce a natural finish, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

205.03 Stream and Floodplain Grading
Clearing and grubbing, excavation, sub-grade scarification and preparation, rough grading, fill, compaction, finish grading, and disposal/salvage of unsuitable or surplus materials within the designated areas of the stream and floodplain shall produce a finished surface to the lines and grades as shown on the Project Plans, and all work shall be in conformance with the applicable sections of these Special Technical Provisions.

The Contractor is only permitted to use "low impact equipment" within the floodplain/SEZ areas for completion of this work. The Contractor's attention is directed to Section 120, "Project Permits."

Any fill materials used in the work shall be in conformance with the Standard Specifications, these Special Technical Provisions, and at a minimum shall not exceed optimum moisture content, and be free of stones or lumps exceeding 3 inches in greatest dimension, organic matter, or other unsatisfactory material that may restrict compaction requirements.

Following completion of the excavation and rough grading work within the floodplain grading areas, and prior to placement of any topsoil, the Engineer and Revegetation Specialist will inspect the work site subgrade (using a soil probe or penetrometer) for any areas of excessive compaction. Upon discovery the Engineer will mark the limits of all areas, and the Contractor shall loosen/decompact the areas in accordance with the applicable provisions of Section 260, "Revegetation" of these Special Technical Provisions.

Placement of topsoil and revegetation treatments shall be as specified elsewhere in these Special Technical Provisions, or as directed by the Engineer.

205.04 Local Borrow (Native Fill)
Selected material and other local borrow native earthen material encountered and/or generated on-site in excavation within the project limits may be used as backfill where shown on the Plans for construction of the proposed creek channel, as specified for backfill of existing channel, and/or placed in designated fill areas within the floodplain, and as specified for the berm where shown on the Project Plans, as specified in the Special Technical Provisions, the Standard Specifications, or as directed by the Engineer.

All fill materials used in the work shall be in conformance with the Standard Specifications, these Special Technical Specifications, and at a minimum shall not exceed optimum moisture content, and be free of stones or lumps exceeding 3 inches in greatest dimension, organic matter, or other unsatisfactory material that may restrict compaction requirements. **Any native, local borrow, or imported borrow soils used for backfill shall be accepted by the Engineer prior to placement**. Any screening operations and processing of soils as required for conformance with this section shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

Local borrow (topsoil, and underlying native earthen soils) generated on-site in excavation within the project limits may be placed in the fill only in locations as specified on the Project Plans and described in these Special Technical Provisions. Topsoil excavated and properly salvaged within the grading limits may be considered as a select material or local borrow only for the purpose of placement in areas to be planted or revegetated as specified elsewhere in these Special Technical Provisions, or as directed by the Engineer.

The Contractor shall perform and/or submit all material testing reports and other data as necessary to provide the Engineer with established laboratory values for optimum moisture and maximum dry density, for any local borrow native fill requiring density testing.

205.05 Import
Importing of earthwork fill material, if necessary or required to meet the grades and elevations shown on the plans, shall be considered included in the Contractor's bid for the various items of work involved and no additional compensation will be made therefore. Should such imported material be required, the Contractor shall notify the Engineer of the borrow site location at least 72 hours in advance, and provide an adequate sample size (~ 1 cubic foot) so the Engineer can verify the suitability of the material. All imported materials shall be proposed by the Contractor in writing in accordance with the submittal requirements of these Special Provisions and the Standard Specifications.

The Contractor shall perform and/or submit all material testing reports and other data as necessary to provide the Engineer with established laboratory values for optimum moisture and maximum dry density, for any imported material requiring density testing.

205.06 Backfill of Existing Channel
Backfill, grading, and compaction of the existing creek channel shall produce a finished grade surface to the lines and grades as shown on the Project Plans, and all work shall be in conformance with the

applicable sections of these Special Technical Provisions, and as directed by the Engineer. Placement of topsoil and associated finish grading, and revegetation treatments shall be as specified elsewhere in these Special Technical Provisions, or as directed by the Engineer.

Earthen materials used for native fill and import fill shall be in conformance with the requirements stated herein. Placement, layering, compaction, and locations of the fill materials to create a distinct soil profile to produce a finished grade surface shall be as shown on the Project Plans, described herein, and as directed by the Engineer.

Execution of Work

Prior to the placement of fill materials the exposed channel sub-grade should be cleared of excessively loose or disturbed soil and stone materials, large woody debris, vegetation, organic matter, and other waste materials (i.e. clearing and grubbing). No fill should be placed on frozen ground; and placement of fill on or in standing water will not be allowed. If soft, wet, or pumping subgrade soils are present, the required minimum level of compaction for the initial fill lift shall be eighty-five percent (85%) of the soil's maximum dry density as determined in accordance with ASTM D 1557. Construction traffic on soft, wet, or pumping subgrade soils shall be reduced to a minimum. The intent of the reduction is to limit the amount of construction traffic that could lead to further deterioration and destabilization of the exposed subgrade and to build a more stable pad upon which to place subsequent fill lifts.

Fills shall be placed in loose lifts not to exceed eight (8) inches and shall be compacted to not less than ninety percent (90%) of the soil's maximum dry density as determined in accordance with ASTM D 1557. Pumping or deflection within fill lifts is acceptable as long as the required level of compaction is being met and does not preclude achieving adequate density in subsequent lifts. No frozen fill should be placed. Placement and compaction of the channel fills should be accomplished under full-time observation from the Engineer. Testing of compaction will be conducted throughout the process. Fill shall be benched into existing channel sidewalls where sidewall slopes exceed 4:1 (V:H).

Materials

Soils used as Native Fill should consist of native materials generated during construction operations for the new channel area or floodplain grading, following associated clearing and grubbing and topsoil salvage. Native fill generated on site should be relatively free (i.e. less than 5 percent) of organics. Import fill, if required or desired for use, shall be free of organics and other perishable material and meet the requirements as noted below. For placement in the work, all native fill or import shall be free of construction debris and shall meet the following requirements:

Channel Fill Requirements	
Sieve Size	**Percent Passing (by dry weight)**
6”	100
4”	90 - 100
¾”	70-100
No. 40	10-85
No. 200	8-45
Liquid Limit	60 max.
Plasticity Index	30 max.

A Geotechincal Engineer, employed by NTCD, will be on site to identify native fill suitable for both channel backfill and berm construction. The Contractor shall inform NTCD at least 48 hours in advance if the Geotechnical Engineer is needed on site. The Contractor shall perform and submit material testing reports and other data as necessary to validate the source and makeup of import fill selected for placement in the work, and to provide the Engineer with established laboratory values for optimum moisture and maximum dry density, for any fill material requiring density testing. Any proposed import fill that deviates from the criteria stated herein, shall have written acceptance from the Engineer and geotechnical engineer prior to import or placement in the work.

The Contractor is hereby advised that some of the on-site soils may be saturated and will require drying prior to placement in order to achieve the specified degree of compaction.

205.07 Backfill of Berm

Backfill, grading, and compaction of the proposed berm shall produce a finished grade surface to the lines and grades as shown on the Project Plans, and all work shall be in conformance with the applicable sections of these Special Technical Provisions, and as directed by the Engineer. Placement of topsoil and associated finish grading, and revegetation treatments shall be as specified elsewhere in these Special Technical Provisions, or as directed by the Engineer.

Earthen materials used for native fill and import fill shall be in conformance with the requirements stated herein. Placement, layering, compaction, and locations of the fill materials to create a distinct soil profile to produce a finished grade surface shall be as shown on the Project Plans, described herein, and as directed by the Engineer.

Site Preparation

All debris, pavement, and concrete shall be removed from the berm site. Recycled materials shall not be used within the earthen berm fills. Because the site has been previously developed, Contractor shall exercise care during grading to locate and identify any existing buried improvements that require removal and replacement. Aggregate base or bedding sand encountered during the removal of improvements may be sufficiently blended with the native silty sands and stockpiled for re-use provided it meets the requirements for berm fill. The Contractor shall have fill materials, including those generated on site, sampled, tested, and approved by the Geotechnical Engineer prior to placement and compaction.

Grading and Filling

Once the asphalt, debris, and vegetation are removed from areas to receive berm fill, the existing subgrade shall be scarified to a depth of 12" minimum, moisture content within 3 percent of optimum, and compacted to at least 90 percent relative compaction (ASTM D1557). Any soft or wet zones shall be stabilized by methods such as excavation or dewatering prior to final grading. Berm fill materials shall not be placed on surfaces that are muddy, frozen, or contain frost or ice.

With the exception of asphalt, debris, and vegetation, the soils removed from beneath the parking lot are generally suitable as berm fill materials. All materials used for the berm fill shall be approved by the Geotechnical Engineer prior to placement. Contractor shall take due care to protect the resulting native material stockpiles from being compromised with coarse particles such as cobbles or asphalt. Oversized particles (greater than 4" diameter) shall be removed from berm fill material or import fill will be required. Berm fill shall meet the following requirements:

Berm Fill Requirements	
Sieve Size	**Percent Passing (by dry weight)**
4"	100
¾"	70-100
No. 40	15-80
No. 200	5-40
Liquid Limit	40 max.
Plasticity Index	10 max.

Berm fill shall be placed in a maximum of 8 inch loose lifts and densified to at least 90 percent relative compaction except, where fill depth is to be greater than 2 feet, 95 percent relative compaction will be required (ASTM D1557). Berm fill shall have a moisture content within 3 percent of optimum. Higher moisture contents may be acceptable if the soil lift is stable, required compaction is attained, and approval is given by Geotechnical Engineer. Field density testing shall be performed on each lift of fill.

A Geotechincal Engineer, employed by NTCD, will be on site to identify native fill suitable for both channel backfill and berm construction. The Contractor shall inform NTCD at least 48 hours in advance if the Geotechnical Engineer is needed on site. The Contractor shall perform and submit material testing reports and other data as necessary to validate the source and makeup of import fill selected for placement in the work, and to provide the Engineer with established laboratory values for optimum moisture and maximum dry density, for any fill material requiring density testing. Any proposed import fill that deviates from the criteria stated herein, shall have written acceptance from the Engineer and geotechnical engineer prior to import or placement in the work.

The Contractor is hereby advised that some of the on-site soils may be saturated and will require drying prior to placement in order to achieve the specified degree of compaction.

205.08 Topsoil Placement

Placement of topsoil (salvage, import, or amended fill) to the required thickness, including any associated finish grading and compaction, shall produce a finished surface to the lines and grades as shown on the Project Plans, and all work shall be in conformance with the applicable sections of these

Special Technical Provisions. The topsoil (salvage, import, or amended fill) shall be placed to blend with the adjacent project improvements and floodplain areas to create a generally smooth, natural appearance (including minor variations) as directed by the Engineer; and to create a stable area to receive all proposed revegetation treatments as specified elsewhere in these Special Technical Provisions.

Prior to any topsoil placement the underlying subgrade shall be left rough as directed by the Engineer. Topsoil shall be placed to uniform depths as indicated on the Project Plans.

Following completion of excavations, fills, grading, compaction, placement of aggregates, and construction of all proposed improvements as shown on the Project Plans as required prior to placement of any topsoil (salvage, import, or amended fill), the Contractor shall schedule for a site inspection by the Engineer and Revegetation Specialist (minimum of 4 working days notice required) in order to inspect the subject work area for conformance with the contract documents, plans, and specifications. **Placement of topsoil shall not commence until the Engineer and Revegetation Specialist have inspected and accepted the subject work area**. In addition the base soils will be inspected (using a soil probe or penetrometer) for any areas of excessive compaction. Upon discovery the Engineer will mark all areas/items required for corrective measures, and mark the limits of areas where soils shall be loosened/decompacted in order to commence placement of topsoil (salvage, import, or amended fill) and subsequent installation of the revegetation treatments in accordance with the applicable provisions of Section 260, “Revegetation” of these Special Technical Provisions.

Salvaged topsoil shall only be generated from the project site (within the limits of grading) as specified in Sections 195 “Clearing and Grubbing” and 260 “Revegetation” of these Special Technical Provisions.

Earthen materials used for imported topsoil shall be imported to the project site and/or produced on-site, and all construction and materials shall be in conformance with the Plans and applicable portions of these Special Technical Provisions and Standard Specifications. Attention is directed to Section 260 “Revegetation” of these Special Technical Provisions for specific material requirements for the imported topsoil and amended fill.

205.09 Unsuitable Soils, Surplus Earthen Material, and Stockpiles
Unsuitable soils, surplus soils, and other excess earthen materials shall be removed and disposed of in accordance with all local, state, and federal regulations from the project site as a part of this item of work. No unsuitable or surplus material may be disposed of within the rights-of-way or project limits. The Contractor shall make all arrangements for disposal of the materials at off-site locations (including disposal outside of Tahoe basin) and at the Contractor’s expense.

All surplus materials generated from the project site during construction operations, including but not limited to, clearing and grubbing, topsoil salvage, organic matter salvage, the culvert structure, proposed creek channel, floodplain grading, and other operations, shall be off-hauled and salvaged/disposed of outside the project limits and Tahoe basin (unless a specific off-site area is authorized for use by the Engineer and applicable regulatory agencies). Any shortage of material caused by premature disposal of the surplus or salvaged materials, by the Contractor, shall be replaced by him/her and no additional compensation will be allowed for such replacement.

205.10 Measurement and Payment. Stream Earthwork shall be measured on a lump sum basin, complete in place and accepted by the Engineer as conforming to all the requirements in the complete

work. The contractor shall bid based on the cut and fill quantities provided on the Project Plans. If the contractor disputes the quantities provided on the plans, the contractor shall pay for and provide a survey, at his/her own expense and prepare the necessary figures and calculations to support the claim. Excess quantities will be paid for as a percent increase based on the original lump sum bid. Any associated contour grading and other general earthwork movement as required to complete the work shall be considered as included in the lump sum price.

The lump sum price paid for "Stream Earthwork" shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the earthwork involved, including but not limited to, excavation, loading, transport, onsite hauling, local borrow, import, screening, conditioning, backfill, rough grading, scarifying, compacting, finish grading, disposal of unsuitable or surplus materials, and otherwise manipulating the existing ground surface and soils, and placing additional local borrow or import soils as required for the grading and construction of the designated creek, floodplain areas, and berm for a complete job in place to the lines and grades as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 210 – CORRUGATED METAL ARCH PIPE (CMAP) CULVERT

210.01 General

Work covered under this specification consists of furnishing all of the labor, materials, tools, and equipment necessary for the furnishing and installation of a corrugated metal arch pipe (CMAP) culvert in accordance with the Contract Documents, Standard Specifications, and these Special Technical Provisions, and in conformity with the lines, grades, dimensions, and general design parameters as shown on the Project Plans, and as established and directed by the Engineer. Where used in these Special Technical Provisions 'CMAP culvert' shall mean to include all components necessary to provide for a complete and fully functional CMAP culvert as shown on the Project Plans. In situations where two or more specifications or standards apply to this work, the most stringent requirements shall govern.

In addition to these Special Technical Provisions and the Standard Specifications (see Section 203.02, Corrugated Metal Pipe (CMP)), all work for the design, furnishing, and construction of the CMPA culvert shall conform to the applicable portions of the current version of the State of Nevada Department of Transportation (NDOT) Standard Specifications and Plans for Road and Bridge Construction (NDOT Standard Plans). Attention is directed to the NDOT Standard Plans included as details in the Project Plans, and Sections 601 "Pipe Culverts," 604 "Corrugated Metal Pipe and Metal Arch Pipe," and 709 "Metal Pipe and Drains" of the NDOT Standard Specifications. In addition, the CMAP culvert shall conform to the current/applicable AASHTO and ASTM standards.

The Contractor is advised that utility relocation is necessary to facilitate construction of the CMAP culvert. Utility coordination has been ongoing and additional coordination is necessary between the Contractor and the applicable utility company regarding utility relocation activities and schedules. In no circumstance shall these relocations have cause for any modification to the lines, grades, dimensions, and general design parameters of the CMAP culvert as shown on the Project Plans.

Excavation depths and cover heights for the CMAP culvert is expected to be in close proximity to that which is depicted on the Project Plans.

Any trench shoring/protective systems as necessary for protection of existing utilities and/or to facilitate completion of the work for the CMPA culvert is the sole responsibility of the Contractor, including engineering design, and shall be considered as included in the prices paid for construction of the CMAP culvert. The Contractors attention is directed to the applicable provisions of Section 220 "Trench Excavation and Backfill of these Special Technical Provisions and Section 305, "Trench Excavation and Backfill" of the Standard Specifications. The Contractor is advised of the possibility of encountering ground water, large boulders, rock, and other similar materials while excavating. There shall be no additional compensation or payment made to the Contractor for encountering or excavating such materials.

All liability associated with the CMAP culvert will be borne by the Contractor and the Contractor shall hold the NTCD and NDOT harmless for any claims associated with the CMAP culvert or any CMAP culvert failure. The liability duration/timeframe shall be two (2) years from the date of completion and final acceptance of the project work (or Notice of Completion). Should any failure, as determined by the NTCD, occur during this time frame the Contractor will be liable for all costs associated with the repair and any other damages.

210.02 Installation
All materials and construction methods shall conform to the applicable provisions of these Special Technical Provisions, the Standard Specifications, and NDOT Standard Plans and Specifications.

Any saw-cutting and removal of existing pavements shall be in conformance with Section 200 of these Specifications and Section 301 "Removal of Existing Improvements" of the Standard Specifications. Material and structures scheduled for removal shall be removed entirely and disposed in appropriate disposal facilities outside the Lake Tahoe Basin. All waste material shall be disposed of in accordance with Tahoe Regional Planning Agency (TRPA) ordinances.

The culvert shall be a corrugated metal helical aluminized Type II steel pipe (2 2/3" x 1/2" corrugation profile) as per Standard Specification Section 203.02. Work shall conform to the requirements of Section 306 of the Standard Specifications and as modified by these Special Technical Provisions. Headwall shall be constructed in accordance to the Project Plans and these Special Technical Provisions.

The CMAP culvert shall be laid to the lines and grade shown on the Plans. The Contractor shall clean the interior of the CMAP culvert as work progresses, and the CMAP culvert shall be clear and free of all debris and sediment before acceptance by the Engineer and the introduction of channel flow to the proposed channel and culvert.

The bottom of the trench shall be graded and prepared so as to provide a firm and uniform bearing for the CMAP culvert along its entire length (or applicable segment for portion of the work) and prepared as indicated in the submitted and accepted installation specifications. Where the trench bottom is unsuitable (i.e. soft muck/refuse or bedrock/unyielding material unable to provide long-term support), the Contractor shall excavate to a depth required by the Engineer and replace with suitable material as specified or directed by the Engineer and geotechnical engineer. Sub-base and/or bedding materials shall be placed so as to provide a firm and uniform foundation and bedding for the CMAP culvert along its entire length, well consolidated and compacted in conformance with the submitted and accepted

installation specifications (bedding material shall be of no less quality and thickness as designated on the Plans). Structural backfill shall be as shown on the Plans and conform to Section 304.07 "Structure Backfill" of the Standard Specifications. No payment will be made for unclassified structure backfill as such. All backfill within the roadway prism and roadway structural section, including aggregate base, shall be as depicted on the Project Plans and conform to these Special Technical Provisions and NDOT Standard Specifications. Attention is directed to section 704 "Base Aggregates" of the NDOT Standard Specifications. Full compensation shall be considered as included in the price bid for construction for the installation of the items to which such structural fill is required and will be considered incidental or appurtenant.

Any resultant disturbed areas, bare soils, etc., that remain following the construction of the CMPA culvert and completion of any applicable revegetation treatments, shall be stabilized and maintained in conformance with Section 160 "Erosion Control Measures" of these Special Technical Provisions.

Culvert may be repaired, if appropriate, because of handling damage and will be acceptable if, in the opinion of the Engineer, the repairs are sound and properly finished, and the repaired section conforms to the requirements of these Special Technical Provisions, the Standard Specifications, NDOT Standard Plans and Specifications, and any manufacturer's requirements.

Prior to acceptance of the CMAP culvert, any damage, defects, and/or associated repairs are subject to review by an applicable pipe manufacturer. Any associated costs shall be the responsibility of the Contractor, and no additional compensation shall be allowed for.

210.03 Marking for Corrugated Metal Pipe
Each section of the CMAP culvert shall be marked in accordance to Section 203.02.02 of the Standard Specifications.

210.04 AC Paving
Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary for the complete construction of an asphalt concrete structural pavement section to replace the pavement removed for installation of the CMAP culvert crossing. This work shall include excavation, subgrade preparation, and aggregate base course, as shown on the Project Plans and in accordance with the Contract Documents, Standard Specifications, Special Technical Provisions, Project Permits, or as directed by the Engineer.

Aggregate base shall be produced from commercial quality aggregates and be Type 2, Class B conforming to section 704.03.05 of the NDOT Standard Specifications. Existing asphalt concrete (AC) pavement may be crushed or pulverized and mixed with virgin aggregate or used solely as aggregate base, provided the resulting processed material complies with the requirements of the NDOT Standard Specifications (Section 704.03.05) or where accepted and as directed by the Engineer comply with the requirements of the NDOT Standard Specifications for recycled asphalt concrete base (Section 402). The Contractor is responsible to perform and furnish all material testing as necessary to ensure compliance with the provisions in the Standard Specifications and these Special Technical Provisions. No existing AC is to be recycled and used on the Project on-site.

The construction including placement, spreading, and compaction of one or more courses of aggregate base on a prepared sub-grade shall be in accordance with Section 302, "Aggregate Base Courses" of the NDOT Standard Specifications.

Asphalt concrete shall be Type 3 (4% Marshal Voids) and shall conform to the provisions of the applicable sections of the NDOT Standard Specifications and these Special Technical Provisions. Asphalt concrete shall be placed to the lines, dimensions, and grades shown on the Plans or as directed by the Engineer. Asphalt concrete shall be produced from commercial quality asphalt and aggregates at a central mixing plant and conform to the following requirements:

A. Asphalt binder (cement) shall be performance graded PG 64-22 conforming to section 704 "Bituminous Materials", of the NDOT Standard Specifications.
B. Aggregate shall be Type 3 conforming to Section 705.03.01, of the NDOT Standard Specifications.
C. A mix design shall be completed and submitted by the Contractor prior to incorporation in the work.

The Contractor shall make all provisions to saw cut the edges of existing asphalt to expose the full depth of the section and form a clean edge at any transverse joint, for the freshly laid mixture. As directed by the Engineer in the field, a twelve inch (12") "T" cap key-in joint shall be created at all transverse joints with existing asphalt structural sections.

A tack coat of liquid asphalt shall be applied in accordance with the provisions in Section 316, "Tack Coat" of the Standard Specifications, to all contact surfaces of existing pavement, curbing, manholes, and other surfaces as designated by the Engineer prior to any asphalt concrete pavement being placed against them. Shoulder and Traffic Striping shall occur as dictated by the NDOT Standard Specifications.

210.05 Measurement and Payment
"CMAP CULVERT" shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work.

The contract unit price paid for "CMAP CULVERT" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in constructing the CMAP culvert, complete in place, including but not limited to saw-cutting and removal of existing pavements and curb and gutter, trench excavation, shoring, sub-grade preparation, bedding, furnishing, inspecting, compaction, replacement of curb and gutter, pavement, and striping, transport, and disposal of excess materials and waste debris as shown on the Plans, as specified in these Special Technical Provisions, the Standard Specifications, NDOT Standard Plans and Specifications, and as directed by the Engineer; and no additional compensation will be allowed.

Full compensation for all labor, material, tools, equipment, and incidentals necessary to perform specified design tasks, provide temporary soil stabilization and BMPs, provide the requested markings for the CMAP, and conform to all other applicable provisions as identified in this section or as required in the Standard Specifications, NDOT Standard Plans and Specifications, and as directed by the Engineer shall be considered as included in the contract unit price paid for "CMAP CULVERT" and no additional compensation will be allowed.

SECTION 215 – CULVERT HEADWALL

215.01 General

Work covered under this specification consists of furnishing all of the labor, materials, tools, and equipment necessary for the construction and installation of a concrete headwall in accordance with the Contract Documents, NDOT Standard Plans and Specifications, and these Special Technical Provisions, and in conformity with the lines, grades, dimensions, and general design parameters as shown on the Project Plans, and as established and directed by the Engineer.

215.02 Mix Design
A mix design shall be performed and submitted to the Engineer in accordance with Subsections 337.01 "Mix Design" and 337.10 – "General Structural Use Portland Cement Concrete" to determine the composition of the mixture. Unless otherwise specified, Portland Cement for concrete shall be Type II, low alkali. All concrete mixes shall meet the requirements of Section 337.10.01.01, Portland Cement Concrete Exposed to Freeze-Thaw Cycles of the Standard Specifications. No concrete shall be placed without approval by the Engineer of a mix design.

215.03 Construction
The headwall shall be constructed in accordance to the NDOT Standard Plans, sheet R-2.6.1 and R-2.6.1.1.

215.04 Measurement and Payment
"Culvert Headwall" shall be measured on a per each basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. Mortar, grout, finishing, all equipment, labor, and materials shall be included in the unit price established for concrete structures and masonry construction.

This unit price shall include full compensation for excavation, removal of excavated material, concrete, rebar, frame work, associated hardware, backfill, drain rock, pipe connection, and furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in installing the headwalls as shown on the plans, as specified in the Special Provisions, and as directed by the NTCD.

SECTION 220 – STORMDRAIN STRUCTURES

220.01 General
Work covered under this specification consists of furnishing all of the labor, materials, tools, and equipment necessary for the construction and installation of stormdrain structures including curb and gutter, combination drop inlet, double sediment trap, trench drain, and all appurtenances in accordance with the Contract Documents, NDOT Standard Specifications, and these Special Technical Provisions, and in conformity with the lines, grades, dimensions, and general design parameters as shown on the Project Plans, and as established and directed by the Engineer.

220.02 Curb and Gutter
Work under this item shall consist of furnishing all labor, tools, equipment, and materials, and incidentals necessary for construction of the curb and gutter as shown on the plans. Vertical and rolled curb and gutter in the NDOT right of way shall be constructed in conformance with section 613 "Concrete Curbs, Gutters, and Sidewalks" of the NDOT Standard Specifications. Backfill materials shall be in conformance with section 704 "Base Aggregates" of the NDOT Standard Specifications.

220.03 Combination Drop Inlet

Work under this item shall consist of furnishing all labor, tools, equipment, and materials, and incidentals necessary for construction of the combination drop inlet as shown on the plans. Inlets shall be constructed in conformance with section 609 of the NDOT Standard Specifications. Grate elevations shall be field fit with existing pavement and improvements and as directed by Engineer.

220.04 Double Sediment Trap

Work under this item shall consist of furnishing all labor, tools, equipment, and materials, and incidentals necessary for construction of the double sediment trap as shown on the plans. Double sediment trap to be installed per plan and the NDOT Standard Specifications. Lids design for each sediment trap shall be solid, H20 traffic rated, and removable. Lid design shall be submitted to Engineer for approval at least three (3) weeks prior to installation per Special Provision section 145 "Submittals". Geotextile shall be non-woven class 1 geotextile and conform to section 731 "Engineering Fabrics" of the NDOT Standard Specifications. Backfill materials including drain rock shall be in conformance with section 704 "Base Aggregates" of the NDOT Standard Specifications.

220.05 Trench Drain

Trench drains shall be constructed in conformance with section 600 "Trench Drains" of the NDOT Standard Specifications.

220.06 Reinforced Concrete Pipe (RCP)

Reinforced Concrete Pipe (RCP) shall be 15" and constructed in conformance with section 601 "Pipe Culverts - General" of the NDOT Standard Specifications. Backfill materials shall be in conformance with section 704 "Base Aggregates" of the NDOT Standard Specifications.

220.07 Measurement and Payment

"Curb and Gutter" shall be measured on the unit price established per linear foot, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Curb and Gutter" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in constructing vertical and rolled curb and gutter, complete in place, including any excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the NDOT Standard Specifications, these Special Technical Provisions, and as directed by the Engineer; and no additional compensation will be allowed.

"Combination Drop Inlet" construction shall be measured and compensated for the unit price established per each structure, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Combination Drop Inlet" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in constructing the inlet, complete in place, including any excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the NDOT Standard Specifications, these Special Technical Provisions, and as directed by the Engineer; and no additional compensation will be allowed.

"Double Sediment Trap" construction shall be measured and compensated for the unit price established per each structure, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Double Sediment Trap" shall include full

compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in constructing the double sediment trap, complete in place, including any excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the NDOT Standard Specifications, these Special Technical Provisions, and as directed by the Engineer; and no additional compensation will be allowed.

"Trench Drain" shall be measured on the unit price established per linear foot, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Trench Drain" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in constructing trench drain, complete in place, including any excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the NDOT Standard Specifications, these Special Technical Provisions, and as directed by the Engineer; and no additional compensation will be allowed.

"15" RCP" shall be measured on the unit price established per linear foot, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "15" RCP" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved installing 15" RCP, complete in place, including any excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the NDOT Standard Specifications, these Special Technical Provisions, and as directed by the Engineer; and no additional compensation will be allowed.

This unit prices shall include full compensation for excavation, removal of excavated material, concrete, rebar, frame work, associated hardware, backfill, drain rock, pipe connection, and furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in installing the all stormdrain structures as shown on the plans, as specified in the Special Provisions, and as directed by the NTCD.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 225 – VERTICAL CURB

225.01 General

Vertical curb is to be constructed on Douglas County Property in accordance with the plans, these special provisions and in conformance with the Standard Specifications. Attention is directed to section 312 "Concrete Curbs, Gutters, Walks, Driveways, and Alley Returns" of the Standard Specifications. Vertical curb shall be constructed to finish the remaining parking lot. Contractor shall make transitions from existing to new curb uniform.

225.02 Measurement and Payment
"Vertical Curb" shall be measured on the unit price established per linear foot, completed and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Vertical Curb" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved installing vertical curb, complete in place, including any excavation, bedding, structural backfill, concrete, roadway paving, off-haul and disposal of excess materials and waste debris, and performance of conformance testing as shown on the Project Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer; and no additional compensation will be allowed.

SECTION 228 – HIGHWAY BUFFER IMPROVEMENTS

228.01 General
Work under this item shall consist of furnishing all labor, tools, equipment, and materials, and incidentals necessary for construction of the sidewalk, post and rail fence, and landscaping in the highway buffer area as shown on the plans. The highway buffer area is the area between highway 50 and the upstream inlet of the CMAP culvert crossing.

228.02 Sidewalk
Sidewalk is to be constructed on Douglas County Property in accordance with the plans, these special provisions and in conformance with the Standard Specifications. Attention is directed to section 312 "Concrete Curbs, Gutters, Walks, Driveways, and Alley Returns" of the Standard Specifications. Contractor shall make transitions from existing to new sidewalk uniform.

228.03 Post and Rail Fence
Post and Rail Fence is to be constructed on Douglas County Property in accordance with the plans, these special provisions and in conformance with the Standard Specifications. Attention is directed to section 330 "Timber Construction" of the Standard Specifications. Contractor shall construct fence to be barrier between sidewalk and pedestrian area and the cut slope leading to the CMAP inlet and the floodplain.

228.04 Landscaping
Landscaping including rock mulch is to be constructed on Douglas County Property in accordance with the plans, these special provisions and in conformance with the Standard Specifications. Attention is directed to section 333 "Landscaping" of the Standard Specifications. Contractor shall salvage, storage, and reuse existing rock mulch if possible. If additional rock mulch is needed, materials shall match existing in color size and shape.

228.05 Measurement and Payment
"Highway Buffer Improvements" shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price for "Highway Buffer Improvements" shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing the improvements, including but not limited to, excavation, sub-grade preparation, grading, stone and wood materials, concrete, backfill, local borrow, import, compaction, and off-haul and disposal of excess materials, for a complete job in place to the lines, grades, and dimensions as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

SECTION 230 – PROPOSED CREEK CHANNEL

230.01 General
Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to construct the proposed creek channel to the limits shown and in accordance with the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and as directed by the Engineer and Revegetation Specialist.

The alignment, elevations, grades, slopes, dimensions, etc. of the proposed creek channel is shown on the Project Plans to provide a basis for construction and bidding purposes. The Engineer is expected to make minor revisions and provide direction in the field to fit any varying field conditions. The Contractor shall include all costs for working under the direction of the Engineer in his/her bid for this work, as no additional compensation will be allow therefore. Removal and disposal of all excess materials and waste debris shall be as specified elsewhere in these Special Technical Provisions.

230.02 Proposed Creek Channel
The designated area shall be cleared and grubbed, and excavated/fill to the lines and grades as shown on the Project Plans. The sub-grade shall be graded and compacted as shown on the Project Plans. Upon acceptance of the sub-grade by the Engineer the Contractor shall prepare (mixed thoroughly and uniformly as described in these Specifications) and compact, the channel bed of the channel section as shown on the Plans, and all stone materials, sand, and aggregate shall be placed to the lines, grades, and dimensions as shown on the Project Plans, and as directed by the Engineer (in accordance with Section 200, "Gravel, Cobble, Rock, Boulder & Other Aggregates," of these Special Technical Provisions). During the placement of the channel bed the Contractor shall place the toe rock on both sides of the channel, as shown on the Project Plans. The bed materials shall be filled and compacted around all edges of the toe rock not to be exposed to fill all the voids around the toe rock. The Contractor shall uniformly distribute stone materials to produce the required gradation of rock and to meet finished grades as shown on the Project Plans. As the work progresses the Contractor shall backfill and compact around the sides and edges of all stone materials to produce a stable channel bed.

Following the placement of all stone materials, sand, aggregate, and chinking, for the sub-grade and bed, as accepted by the Engineer, the Contractor shall then properly place and compact all designated fill (as specified on the plans) to create the banks of the proposed creek channel and produce a firm and stable creek channel to the lines, grades, and dimensions as shown on the Project Plans and as directed by the Engineer. All fill including topsoil shall be placed to the required thickness, and finish graded to blend with the adjacent floodplain areas to create a smooth, natural appearance as directed by the

Engineer; and to create a stable area to receive all proposed revegetation treatments as specified elsewhere in these Special Technical Provisions. If directed by the Engineer, the Contractor shall place sand and or "Chinking Material" to fill voids in both the channel bed and banks.

230.03 Measurement and Payment
"Proposed Creek Channel" shall be measured on a per linear foot basis along the centerline of the facility (i.e. alignments as shown on the Project Plans), complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The linear foot price for "Proposed Creek Channel" shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing the proposed creek channel, including but not limited to, excavation, sub-grade preparation, grading, stone materials, backfill, local borrow, import, compaction, and off-haul and disposal of excess materials, for a complete job in place to the lines, grades, and dimensions as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

SECTION 235 – LOGS AND TIMBER

235.01 General
All logs shall be sized as indicated in the Plans. All logs are to be harvested from the trees marked for removal on site by the Contractor and cost of salvaging and storing these logs shall be included in other bid items. If logs are damaged by the contractor during removal, it is the sole responsibility of the Contractor to find a suitable replacement and import the logs into the site. Only logs from coniferous trees native to the Tahoe basin will be acceptable. All logs to be incorporated into the project must be tight grain sound wood with no rot. The Engineer has the right to refuse unsatisfactory logs prior to placement in the structures.

235.02 Measurement and Payment. Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for the materials in this section, complete in place as shown on the Plans, as specified in the Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, should be incidental to the other construction items; no additional compensation will be allowed.

SECTION 240 – IN STREAM STRUCTURES

240.01 Description
Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to construct the in stream structures, including the flow split, log and boulder step pools and the culvert outfall structure, in accordance with the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and as directed by the Engineer.

The location, angles, elevation, grade, dimensions, slope, etc. of the proposed in stream structures are shown on the Project Plans to provide a basis for construction and bidding purposes. The Engineer is expected to make minor revisions and provide direction in the field to fit any varying field conditions. The Contractor shall include all costs for working under the direction of the Engineer in his/her bid for

this work, as no additional compensation will be allow therefore. Removal and disposal of all excess materials and waste debris shall be as specified elsewhere in these Special Technical Provisions.

240.02 Willow Debris Structures

The Contractor shall notify the Engineer at least 72 hours in advance of work occurring in the area to receive willow debris structures. The Engineer will conspicuously mark the location of the structures in the field. The contractor will harvest willow stakes per Section 260 "Revegetation." Before installing the willow stakes, the Contractor shall obtain approval of the stakes from the Engineer and Revegetation Specialist (RS). Upon approval, using hand work only, the contractor shall install each row of willow stakes as indicated on the plans. Care shall be taken to avoid considerable disturbance to the creek bed. During installation, NTCD will conduct downstream water quality monitoring and if the standards in the permit are violated, dewatering and diversion measures may need to be implemented. The Contractor shall include all costs for possible dewatering in his/her bid for this work, as no additional compensation will be allow therefore. The Contractor shall carefully cut any split ends of the willow stakes. Once the willow stake rows are accepted by the Engineer, the Contractor may place the debris as directed by the Engineer.

240.03 Flow Split

The designated area shall be cleared and grubbed, and excavated/fill to the lines and grades as shown on the Project Plans. The sub-grade shall be prepared and compacted as shown on the Plans, and channel bed material and chinking mix shall be placed to the lines, grades, and dimensions as shown on the Project Plans, and as directed by the Engineer (in accordance with Section 200, "Cobble, Rock, Boulder & Other Aggregates", of these Special Technical Provisions). Following the placement of the channel bed and chinking materials, the Contractor shall properly place the boulders and logs as shown on the Project Plans and as directed by the Engineer. Following the placement of boulders, logs, and necessary chinking material, the Contractor shall then properly place and compact all designated fill (as specified on the plans) to create the banks of the proposed creek channel and floodplain areas in order to produce a firm and stable creek channel and floodplain to the lines, grades, and dimensions as shown on the Project Plans and as directed by the Engineer. All fill including topsoil shall be placed to the required thickness, and finish graded to blend with the adjacent floodplain areas to create a smooth, natural appearance as directed by the Engineer; and to create a stable area to receive all proposed revegetation treatments as specified elsewhere in these Special Technical Provisions. If directed by the Engineer, the Contractor shall place additional "Chinking Material" and/or sand to fill additional voids in both the channel bed and structure. Any willow stakes shall be incorporated with the work as necessary in order to meet the revegetation treatment requirements (see Section 260, "Revegetation").

240.04 Boulder Step Pool

The designated area shall be cleared and grubbed, and excavated/fill to the lines and grades as shown on the Project Plans. The sub-grade shall be prepared and compacted as shown on the Plans, and channel bed material and chinking mix shall be placed to the lines, grades, and dimensions as shown on the Project Plans, and as directed by the Engineer (in accordance with Section 200, "Cobble, Rock, Boulder & Other Aggregates", of these Special Technical Provisions). Following the placement of the channel bed and chinking materials, the Contractor shall properly place the boulders as shown on the Project Plans and as directed by the Engineer. Following the placement of boulders and necessary chinking material, the Contractor shall then properly place and compact all designated fill (as specified on the plans) to create the banks of the proposed creek channel and floodplain areas in order to produce a firm and stable creek channel and floodplain to the lines, grades, and dimensions as shown on the Project Plans and as directed by the Engineer. All fill including topsoil shall be placed to the required

thickness, and finish graded to blend with the adjacent floodplain areas to create a smooth, natural appearance as directed by the Engineer; and to create a stable area to receive all proposed revegetation treatments as specified elsewhere in these Special Technical Provisions. If directed by the Engineer, the Contractor shall place additional "Chinking Material" and/or Channel Bed Material to fill additional voids in both the channel bed and structure. Any willow stakes shall be incorporated with the work as necessary in order to meet the revegetation treatment requirements (see Section 260, "Revegetation").

240.05 Log Step Pool

The designated area shall be cleared and grubbed, and excavated/fill to the lines and grades as shown on the Project Plans. The sub-grade shall be prepared and compacted as shown on the Plans, and channel bed material and chinking mix shall be placed to the lines, grades, and dimensions as shown on the Project Plans, and as directed by the Engineer (in accordance with Section 200, "Cobble, Rock, Boulder & Other Aggregates", of these Special Technical Provisions). Following the placement of the channel bed and chinking materials, the Contractor shall properly place the boulders and logs as shown on the Project Plans and as directed by the Engineer. Following the placement of boulders, logs, and necessary chinking material, the Contractor shall then properly place and compact all designated fill (as specified on the plans) to create the banks of the proposed creek channel and floodplain areas in order to produce a firm and stable creek channel and floodplain to the lines, grades, and dimensions as shown on the Project Plans and as directed by the Engineer. All fill including topsoil shall be placed to the required thickness, and finish graded to blend with the adjacent floodplain areas to create a smooth, natural appearance as directed by the Engineer; and to create a stable area to receive all proposed revegetation treatments as specified elsewhere in these Special Technical Provisions. If directed by the Engineer, the Contractor shall place additional "Chinking Material" and/or Chanel Bed Material to fill additional voids in both the channel bed and structure. Any willow stakes shall be incorporated with the work as necessary in order to meet the revegetation treatment requirements (see Section 260, "Revegetation").

240.06 Proposed Creek Channel, Culvert Outfall Treatment

The designated area shall be cleared and grubbed, and excavated/fill to the lines and grades as shown on the Project Plans. The sub-grade shall be prepared and compacted as shown on the Plans, and the large embedded boulders shall be placed as shown on the plans and as directed by the engineer. The contractor shall then place Channel Bed Material Type 2 to the lines, grades, and dimensions as shown on the Project Plans, and as directed by the Engineer. Following the placement of the channel bed material, the Contractor shall properly place the remaining boulders and logs as shown on the Project Plans and as directed by the Engineer. Following the placement of boulders, logs, and necessary chinking material, the Contractor shall then properly place and compact all designated fill (as specified on the plans) to create the banks of the proposed creek channel and floodplain areas in order to produce a firm and stable creek channel and floodplain to the lines, grades, and dimensions as shown on the Project Plans and as directed by the Engineer. All fill including topsoil shall be placed to the required thickness, and finish graded to blend with the adjacent floodplain areas to create a smooth, natural appearance as directed by the Engineer; and to create a stable area to receive all proposed revegetation treatments as specified elsewhere in these Special Technical Provisions. Attention is directed to section 205 "Stream Earthwork" of these special provisions. If directed by the Engineer, the Contractor shall place additional "Chinking Material" and/or Channel Bed Material to fill additional voids in both the channel bed and structure. Any willow stakes shall be incorporated with the work as necessary in order to meet the revegetation treatment requirements (see Section 260, "Revegetation").

240.07 Measurement and Payment

Payment for “Willow Debris Structures” shall be made at the contract unit price per each, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price for “Willow Debris Structures” shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing the each structure, including but not limited to, harvesting stakes and debris, installation, inspections, water quality control measures, dewatering and diversion, and off-haul and disposal of excess materials, for a complete job in place to the lines, grades, and dimensions as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

“Flow Split” shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price for “Flow Split” shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing the flow split, including but not limited to, excavation, sub-grade preparation, grading, stone and log materials, backfill, local borrow, import, compaction, and off-haul and disposal of excess materials, for a complete job in place to the lines, grades, and dimensions as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

Payment for “Boulder Step Pools” and “Log Step Pools” shall be made at the contract unit price per each, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price for “Boulder Step Pools” and “Log Step Pools” shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing the each step pool, including but not limited to, excavation, sub-grade preparation, grading, stone and log materials, backfill, local borrow, import, compaction, and off-haul and disposal of excess materials, for a complete job in place to the lines, grades, and dimensions as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

“Culvert Outfall” shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price for “Culvert Outfall” shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing the culvert outfall, including but not limited to, sub-grade preparation, grading, stone and log materials, backfill, local borrow, import, compaction, and off-haul and disposal of excess materials, for a complete job in place to the lines, grades, and dimensions as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

SECTION 250 – BOULDER SILL

250.01 Description
Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to construct the boulder sill structures in accordance with the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and as directed by the Engineer.

The designated area shall be cleared and grubbed, and excavated/fill to the lines and grades as shown on the Project Plans. The sub-grade shall be prepared and compacted as shown on the Plans, and all stone materials, including chinking, shall be placed to the lines, grades, and dimensions as shown on the Project Plans, and as directed by the Engineer. Uniformly distribute stone materials to produce the required configuration of the boulder structure and to meet finished grades as shown on the Project Plans. As the work progresses, place all chinking and backfill and compact around the sides and edges of all stone materials to produce a stable structure. Following the placement of all stone materials and chinking the Contractor shall then properly place and compact all designated fill (as specified on the plans) in order to produce a firm and stable floodplain to the lines, grades, and dimensions as shown on the Project Plans and as directed by the Engineer. All fill including topsoil shall be placed to the required thickness, and finish graded to blend with the adjacent floodplain areas to create a smooth, natural appearance as directed by the Engineer; and to create a stable area to receive all proposed revegetation treatments as specified elsewhere in these Special Technical Provisions. Any willow stakes shall be incorporated with the work as necessary in order to meet the revegetation treatment requirements

The location, elevation, grade, dimensions, slope, etc. of the boulder sill structures are shown on the Project Plans to provide a basis for construction and bidding purposes. The Engineer is expected to make minor revisions and provide direction in the field to fit any varying field conditions. The Contractor shall include all costs for working under the direction of the Engineer in his/her bid for this work, as no additional compensation will be allow therefore. Removal and disposal of all excess materials and waste debris shall be as specified elsewhere in these Special Technical Provisions.

250.02 Measurement and Payment
Payment for “Boulder Sill” shall be made at the contract unit price per linear foot, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price for “Boulder Sill” shall include furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing each boulder sill, including but not limited to, excavation, sub-grade preparation, grading, stone materials, backfill, local borrow, import, compaction, and off-haul and disposal of excess materials, for a complete job in place to the lines, grades, and dimensions as shown on the Project Plans, and specified in the Contract Documents, Project Permits, SWPPP, Standard Specifications, these Special Technical Provisions, and as directed by the Engineer, and no additional compensation will be allowed.

SECTION 255 – ROCK SLOPE PROTECTION

255.01 General. Work under this item shall consist of furnishing all labor, tools, materials, and equipment necessary to remove, wash, relocate, furnish, and place rock as indicated on the Project Plans, described in these Special Technical Provisions, and directed by the Engineer, in conformance with the Contract Documents, Project Permits, Standard Specifications, and these Special Technical Provisions. The limits of rock placement as indicated on the Project Plans are approximate, and the exact limits of placement shall be determined in the field by the Engineer. All rock used shall be in strict conformance with the Standard Specifications, and other applicable provisions found elsewhere in these Special Technical Provisions. Attention is directed to section 200.07 “RIPRAP” of the Standard Specifications.

Rock size shall be angular and conform to Class D riprap as defined in table 200.07.03-I of the Standard Specifications unless otherwise called out on in the plans.

255.02 Execution.
All Rip Rap, including imported and reused rock, shall be thoroughly washed outside of the confines of the proposed basin in a location approved by the engineer so that each material runs clear when water is applied. RipRap shall be placed to the lines, grades and depths shown on the Project Plans, or as directed by the Engineer. Place rock so as to minimize the number of voids. Rock shall be placed in lifts with a thickness not exceeding the D100 of the specified stone. Each lift shall be backfilled to half its depth with "Backfill Material", prior to placement of the subsequent lift. Backfill shall be placed in a manner that does not interfere with direct rock to rock contact of successive lifts. Backfill shall be placed to match the finished surface of the Riprap and water-jetted to fill all voids, as directed by the Engineer.

255.03 Measurement and Payment.
"Rock Slope Protection" will be paid for at the contract price per square foot, which price will be payment in full for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the riprap placement, including rock removal, relocation, staging, backfill, excavation, subgrade preparation, processing work, and rock placement as shown on the plans and as specified in these Special Technical Provisions, and as directed by the Engineer.

SECTION 260 – REVEGETATION

260.01 General. Work shall be conducted and/or overseen by a licensed Landscape Contractor (C-10) and will be inspected by the Engineer, in conjunction with a Revegetation Specialist (RS). The Contractor shall perform all revegetation work as specified herein and in accordance with the provisions of these Special Technical Provisions, the Project Plans, and the Standard Specifications. The revegetation work shall consist of all site preparations associated with the revegetation treatments and shall include temporary erosion control, wetland plant salvage, storage and replanting, soil amending and conditioning, seedbed preparation, seeding, mulching, installation of erosion control blankets, installation of containerized plants, installation of willow stakes and poles, and maintenance and record keeping in accordance with the requirements as shown on the Project Plans, and as directed by the Engineer and/or the RS. Areas to receive revegetation treatments shall include all areas disturbed during construction and all areas indicated on the plans and as directed by the Engineer and/or the RS.

Revegetation work shall be conducted during non-windy conditions. Windy conditions are defined as a sustained wind of 8 mph or more; gusts where the difference between the ambient and the increased velocity is more than 4 mph; or any conditions that may make the dispersal of revegetation and erosion control material difficult or inaccurate. The Contractor is responsible for providing certified instruments or data from certified instruments in case of a claim or conflict. There shall be no pay item, payment or claim for instruments or data from measuring instruments.

All revegetated areas shall be maintained for two years following completion of work to ensure proper establishment of vegetation. Supplemental treatments may be required if revegetation efforts are unsatisfactory following completion of work as determined by the Engineer. This re-treatment may include re-application of the seed mix, willow poles and stakes, containerized plants, mulch and other items as necessary to achieve the performance measures below. The cost of this bonding shall be included in the Revegetation bid item. The Contractor must achieve 70% vegetative cover for areas receiving seed mix application. A warranty of 80% survival of all containerized plantings and 50% survival of all poles and stakes shall accompany containerized plants, poles, and stakes.

The Contractor shall notify the Engineer and Revegetation Specialist no less than three (3) working days in advance of revegetation work and shall not begin work until prepared revegetation treatment areas have been accepted by the Engineer and Revegetation Specialist. The Contractor shall request that treatment types and boundaries are located by the Engineer and/or RS prior to progressing with the work.

No substitutions or alterations to these Special Technical Provisions shall be accepted without the prior written approval of the Engineer and the Revegetation Specialist. No further disturbance of any treatment area shall be allowed once seeding or installation of cuttings and plant materials has been initiated.

260.02 Soil Disturbance
Soil disturbance shall be minimized and limited to those areas that require treatment. All existing vegetation within the project limits not designated for removal shall be protected. Delineate project boundaries with fencing per the requirements in Construction Limit Fencing and in these Special Technical Provisions. Traffic outside of project area is prohibited. Any existing or previously installed vegetation damaged shall be replaced by the Contractor. Areas to receive revegetation treatments shall include all areas disturbed during construction, as indicated on the Project Plans and as directed by the Engineer and/or the Revegetation Specialist.

260.03 Submittals. Within ten (10) calendar days following the Notice to Proceed for the contract, the Contractor shall submit to the Engineer statements proving that orders for compost, mycorrhizae, humic molecules, organic fertilizer, erosion control blanket and stakes have been received and accepted by the supplier(s). The statement(s) shall include product specifications and quantity of product(s) to be delivered and the estimated date(s) of delivery. Additionally, the Contractor shall submit plans, labels or material samples for the following items:

- Revegetation Schedule and Order of Work
- Irrigation Plan and Schedule
- Aged Wood Chips
- Mulch

Proposed substitutions must be submitted in writing for approval by the Engineer.

260.04 Materials
Seed
All Seed Mix shall be supplied by the NTCD to the Contractor 3 days prior to seeding. NTCD will supply the contractor with enough seed for applying to disturbed areas plus an additional 10%. Contractor will supply at their expense any additional seed necessary to adequately seed the revegetation areas.

Seed mix will include the following shallow rooted annual grasses and wildflowers.

Seed Mix 1 (Riparian)		
Species (Common Name)	Species (Botanical Name)	LBS per Acre
Meadow Barley	*Hordeum brachyantherum*	2.00
Tufted Hairgrass	*Deschampsia cespitosa*	2.00
Baltic Rush	*Juncus balticus*	0.10
Swordleaf Rush	*Juncus ensifolius*	0.10

Nebraskensis Sedge	*Carex nebrascensis*Dewey	0.50
Praegracilis Sedge	*Carex praegracilis*	0.50
Bigleaf Lupine	*Lupinus polyphyllus*	0.50
Lupine, perennis	*Lupinus perennis*	0.50
Streambank Wheatgrass 'Sodar'	*Elymus lanceolatus ssp. psammophilus 'Sodar'*	6.00
Monkeyflower, yellow	*Mimulus guttatus*	0.05
Penstemon, rydbergii	*Penstemon rydbergii*	0.25
Columbine, red	*Aquilegia Formosa*	0.05
Gilia, golden	*Linanthus aureus*	0.10
Total PLS LBS/ACRE RATE		**12.65**

Seed Mix 2 (Floodplain)		
Species (Common Name)	Species (Botanical Name)	LBS per Acre
Blue Wildrye	*Elymus glaucus*	5.00
Big Bluegrass	*Poa ampla 'Sherman'*	2.00
Creeping Wildrye	*Elymus triticoides*	2.00
Streambank Wheatgrass 'Sodar'	*Elymus lanceolatus ssp. psammophilus 'Sodar'*	7.00
Slender Wheatgrass	*Elymus trachycaulus 'Revenue'*	7.00
Hard Fescue	*Festuca trachyphylla 'Durar'*	4.00
California Sierra Brome	*Bromus carinatus*	5.00
Lupine, argentus	*Lupinus argenteus*	1.00
Lupine, perennis	*Lupinus perennis*	1.00
Showy Penstemon	*Penstemon speciosus*	0.50
Arrowleaf Balsamroot	*Balsamorhiza sagittata*	1.00
Total PLS LBS/ACRE RATE		**35.50**

Seed Mix 3 (Upland)		
Species (Common Name)	Species (Botanical Name)	LBS per Acre
Big Bluegrass	*Poa ampla 'Canby'*	2.00
Sheep Fescue 'Covar'	*Festuca trachyphylla 'Covar'*	3.50
Hard Fescue	*Festuca trachyphylla 'Durar'*	3.50
Squirreltail	*Elymus elymoides*	2.00
Creeping Wildrye	*Elymus triticoides*	4.00
Slender Wheatgrass	*Elymus trachycaulus 'Revenue'*	5.00
California Sierra Brome	*Bromus carinatus*	4.00
Western Needlegrass	*Achnatherum occidentale*	1.00
Blue Flax	*Linum perenne*	1.00
California Poppy	*Eschscholzia californica*	2.00
Sulfur-flower Buckwheat	*Eriogonum umbellatum*	3.00
Yarrow	*Achillea millefolium*	0.50
Woods Rose	*Rosa woodsii*	0.50
Total PLS LBS/ACRE RATE		**32.00**

Containerized Plants

All containerized plants shall be supplied by NTCD to the Contractor 3 days prior to planting. Prior to delivery to the site the Contractor shall review all material with NTCD and Engineer for acceptance. All material not deemed acceptable by the Contractor and/or the Engineer shall be replaced by NTCD. Upon acceptance of material by the Contractor, the Contractor shall assume responsibility for plant health and survival. Plants shall be planted in the locations shown on the plans and directed in the field by the Engineer or RS. Plants shall be supplied on site by NTCD at no additional cost to the Contractor.

Salvaged Wetland Plugs

Salvaged wetland plant plugs shall be obtained during regrading and filling of the existing stream channel and shall be replanted as shown on the Project Plans and as directed by the Engineer and/or the RS. Work shall progress in such a manner as to minimize the disturbance of the soil bound by the root mass and the contiguous integrity of the material. Material that cannot be moved in a contiguous manner shall be salvaged and re-applied as organic matter. The Contractor shall minimize the duration of storage and shall re-plant or-reapply concurrent with channel construction to the greatest extent possible and as directed by the RS. The Contractor is responsible for providing adequate moisture to the material during the interim storage period, and is responsible for maintaining healthy material until it is replanted.

Willow Poles, Stakes and Cuttings

All materials shall be cut from healthy, live, dormant branches of willow (*Salix lemmonii, S. geyeriana*) and shall be taken from suitable plants within the project area as identified by the RS. Exclusively cutting poles from one plant will not be allowed. Poles shall measure at a minimum of six feet in length and three (3) to four (4) inches in diameter. Stakes may vary in length, depending on source material and application, but shall be a minimum of two (2) feet in length and a minimum of one (1) inch diameter and a maximum of two (2) inches diameter. Cuttings shall be material less than one (1) inch diameter with the leaves and stems intact. Material shall not be cut more than seven days prior to installation unless approved by the RS in accordance with construction schedules. Poles and stakes shall be straight, with all leaves removed from the stems. All cuts shall be clean without frayed ends. Cut bottoms on a forty-five degree angle. Keep material cut bottoms in a water filled bucket in a shaded environment or submerge the cut bottoms in a shaded stream pool.

Local Topsoil

Local topsoil has been identified for salvage and reuse adjacent to the parking lot removal area. The RS or Engineer will identify the extent of the topsoil to be salvaged prior to construction. Once removed, topsoil and duff shall be stockpiled in designated areas prior to excavation or equipment traffic. Topsoil will be stored with a minimum of handling. Subsoil spoil material shall not be mixed with salvaged topsoil. Stockpiled topsoil will not be piled or compacted in a manner that significantly alters its inherent density, water holding capacity or infiltration.

Topsoil shall be stockpiled for as short a time period as is possible, since storage periods of over three months have been shown to be detrimental to soil organic matter amount and quality. Topsoil shall not be compacted, used as temporary fill or further disturbed once stockpiling has occurred unless approved in writing by the RS or Engineer. Topsoil shall be stockpiled at designated material storage areas and shall not be stockpiled in a manner which destroys or damages existing vegetated areas not marked for excavation

If salvaged topsoil is lost or disturbed such that it can no longer be reused, the volume of topsoil specified for salvage shall be replaced with a comparable material (to be determined by the Engineer) at the Contractor's expense.

Imported topsoil shall comply with the following requirements:

- Contain no less than 3 percent nor more than 13 percent organic matter, as determined by the test for organic matter in accordance with ASTM D2974.
- Contain no less than 25 percent or more than 40 percent clay, as determined in accordance with ASTM D422.
- Sand content shall not exceed 55 percent, as determined in accordance with ASTM D422.
- Silt Content shall be between 30 and 50 percent, as determined in accordance with ASTM D422.
- The pH shall not be lower than 5.0 or higher than 8.0. The pH shall be determined with an acceptable pH meter on that portion of the sample passing the No. 10 sieve, in accordance with the "Suggested Methods of Tests for Hydrogen Ion Concentration (pH) of Soils," included in the ASTM Procedures for Testing Soils issued December 1964.
- Topsoil shall meet the following mechanical criteria: 100 percent shall pass the 1-inch screen; and 40-60 percent shall pass the No. 100 mesh sieve.

Any topsoil imported from outside the project area must consist of fertile, friable soil of loamy character that contains organic matter in amounts natural to the region and be capable of sustaining healthy plant life. Imported topsoil must be free from deleterious substances such as litter, refuse, toxic waste, stones larger than 1 inch in size, coarse sand, heavy or stiff clay, brush, sticks, grasses, roots, noxious weed seed, weeds, and other substances detrimental to plant, animal, and human health. **Topsoil shall be certified to be free of non-native noxious vegetation and seed documented in writing from the Vendor**. Should such regenerative material be present in the soil, the Contractor shall remove, at his expense and in a manner satisfactory to the Engineer, all such growth, both surface and root, which may appear in the imported topsoil within 1 (one) year following acceptance of the work.

Aged Wood Chips

Aged wood chips shall consist of wood chips originating in the Tahoe Basin. The wood chips shall be free of rock fines, soil, and other extraneous material. The wood chips shall be stored unprotected outside for at least 6 months, so as to have been subjected to weather and precipitation. A sample of the aged wood chips shall be submitted to the Engineer ten (10) days prior to expected use for written approval. Sawdust will not be acceptable.

Aged wood chips shall be graded to conform with:

Sieve Size	Percent Passing (by weight)
1 3/4"	100
7/8"	60-90
5/8"	25—55
No. 4	0—5

Alternatively, tub-ground wood chips (tub grindings) may be used if aged wood chips are unavailable. Tub grindings are those wood materials that are produced by a hammer mill-type tub grinder and are of

uneven consistency. Tub grindings shall be at least six months old prior to use in the project area. Tub grindings aged at least one season are preferred. Tub grindings shall be derived from clean, disease-free trees or tree stumps. No tub grindings derived from building materials shall be used. If tub grindings are unavailable or if wood chips are able to be produced from onsite materials, wood chips may be substituted for tub grindings if approved by the Engineer. Wood chips are those materials that are produced by a standard wood chipper and are of relatively even consistency. Neither wood chips nor tub grindings shall contain more than five percent pine needles or other non-wood material.

Compost
Compost shall consist of Full Circle Compost Boost only.

Mycorrhizae
Mycorrhyzae shall consist of BioOrganics™ MycoMinerals™ Organic Soil Amendment only.

Humic Acids
Humic Acids shall consist of Soil Secrets LLC. Commercial Grade TerraPro® only.

Organic Fertilizer
Organic Fertilizer shall consist of Soil Secrets LLC. Protein Crumblies® only.

Mulch
Mulch shall be wood chips, tub grindings or pine needles. Mulch shall contain no more than 5% impurities by volume such as pine cones, twigs, rocks or other material. Garbage shall represent no more that 0.5% of the total volume. Mulch shall contain no more than 2% by volume mineral soil and no more than 10% by volume decomposed organic matter.

Tackifier
Tackifier material includes soil stabilizing compound and soil binder reinforcement, and shall meet the following minimum specifications:

The soil stabilizing compound shall be a polymer dispersion, (e.g. Quattro Environmental "ATLAS SoilLok™" or equivalent) designed to form a flexible, water-insoluble, porous membrane (distinctive lattice-like structure) in the topmost soil layer. Land-Grab™ (Cognis) and Henkel 56-8379™ (Henkel) are also acceptable products and may be applied at the same rate as specified herein. Other products meeting the following salient characteristics will also be acceptable:

- Consists of a polyvinyl-acetate compound containing not less than 55% active solids.
- Contains no poly-acrylates or polyvinyl-acrylics.
- Readily miscible in water.
- Flexible and retains its flexibility after curing.
- Does not inhibit water and oxygen infiltration.
- Organic, biodegradable, non-polluting, non-volatile, non-toxic, and leaves no undesirable residues in the soil.
- Does not impair existing vegetative growth.
- Does not re-emulsify once dry.
- Non-injurious to seeds, human and animal life.
- Non-flammable.
- Effective with either acid or alkaline soils.

Erosion Control Blanket and Stakes

Blankets shall be North American Green SC150 BN 70% straw and 30% coconut fiber, 9.66 ounces per square yard, sewn between 2 biodegradable natural fiber nets, or equivalent as approved by the Engineer. Each roll of fabric shall be identified with a tag or label securely affixed to the outside of the roll on one end. The label shall include the manufacturer or supplier, the style number, and the roll and lot numbers. Stakes shall be 12 inches in length, manufactured from a wood (North American Green Eco-STAKE or equivalent), or as approved by the Engineer.

260.05 Installation of Treatments

The Contractor shall notify the Engineer and RS no less than three working days in advance of revegetation work and shall not begin the work until prepared treatment areas have been approved. The Engineer or RS shall verify labeling of erosion control blankets, stakes, mycorrhizae, compost, humic acids, and organic fertilizer materials upon delivery to the site and prior to application.

Preparing Seed Beds

All soils in the project area, and those in areas outside the project area that were disturbed by the Contractor, shall be loosened as needed to a depth of 6 inches unless otherwise specified on the plans or directed by the Engineer and/or RS. Soils shall be loosened with hand tools, an agricultural disc, rippers, or other equipment approved by the Engineer and RS. Soils shall be loosened so that no soil clods are larger than an average of 1 inch in diameter. Care must be taken around existing trees and shrubs to prevent root damage during soil conditioning, grading and excavation activities. No mechanical loosening of soil shall take place within the dripline of mature trees or shrubs. Final surfaces shall be left rough unless erosion control blankets are specified, in which case soils shall be raked smooth. No wheeled or other mechanical equipment shall be permitted to travel on the prepared seedbed.

Aged Wood Chips

Aged wood chips shall be placed on the soil surface with other amendments, such as topsoil, to specified depth of two (2) inches depth prior to final tilling. Prior to tilling, aged wood chips depth shall be inspected by the Engineer. Aged wood chips shall be mixed during the soil loosening process such that amendments are stratified with the greatest concentration of material near the soil surface and becoming less concentrated at greater depths, to be accomplished through normal mechanical soil loosening techniques.

Installing Local Topsoil

Topsoil shall be applied to all locations receiving Treatment Types 1, 2, and 3 as shown on the Sheet R-1 of the Project Plans. A depth of two (2) inches of topsoil shall be applied after seedbed preparation as directed by Engineer. Topsoil placed in revegetation treatment areas shall not be compacted.

Placing and spreading of topsoil shall not be done when the ground is frozen, excessively wet or otherwise in a condition detrimental to the work. Surfaces designated to be covered shall be lightly scarified just prior to the spreading operation. Compaction of topsoil will not be allowed.

Applying Mycorrhizae, Humic Acids and Organic Fertilizer

A dust mask must be used when handling soil inoculants (mycorrhizae, humic acids and organic fertilizer). Soil inoculants may be applied hydraulically at the following rates per 100 square feet:

Two (2) pounds of mycorrhizae
Three (3) pounds of humic acids
One and a half (1 ½) pounds organic fertilizer

If the Contractor chooses to apply the innoculents by hand broadcast, the inoculants shall be mixed with compost at the following rates per 25 lbs:

Two (2) pounds of mycorrhizae
Three (3) pounds of humic acids
One and a half (1 ½) pounds organic fertilizer

After application, the compost and inoculants shall be incorporated by raking.

Seeding
Seed shall be uniformly broadcast with hand-held seeders to achieve desired application rate. Incorporate seed by raking or harrowing to a depth of ¼ inch to ½ inch. Seed shall not be left uncovered more than 24 hours. Seeding shall not occur under conditions that would allow the seed to become windborne (winds greater than 5 mph) or to wash away.

Applying Compost
Compost shall be applied to the revegetation treatment areas after preparation of seed beds, application of inoculants (if done hydraulically) and seeding. Compost shall be applied evenly to the treatment area surface to a depth of ¼ inch and left as a topdressing prior to the installation of mulch and/or erosion control blankets.

Applying Tackifier
Tackifier shall be applied to the revegetation treatment areas after preparation of seed beds, application of inoculants (if done hydraulically), seeding, and compost application. Tackifier shall be applied hydraulically and evenly to the treatment area surface at a rate of 50lbs/acre prior to the installation of mulch and/or erosion control blankets.

Mulching
Material shall be evenly applied to a depth of approximately one (1) to two (2) inches, for 100% cover over revegetation areas (except for areas to receive the erosion control blanket—which shall not receive mulch).

Installing Erosion Control Blankets
Install where shown on the project plans according to the treatment types. For stream channel, install blankets beginning at the channel outlet working up the channel. Carefully key in blankets (6" keyed) under all structures. Overlap blankets eighteen (18) inches working up the channel. Stake with stakes installed three (3) feet on center. Key fabric in to a six (6) inch deep toe trench at the top of the channel. Anchor blankets in trenches with the stakes on one-foot centers, backfill the trench and compact loose soil. Overlap blanket any blanket ends twelve (12) inches minimum. The final result should achieve 100% cover over berm, floodplain, and riparian area as shown on plans and directed in the field by the Engineer or RS.

Installing Containerized Plants

The RS shall approve the planting dates and final locations. Plants shall be stored in shady location until 1 hour before planting. The contractor shall schedule the planting three working days in advance of the proposed planting time with the RS. Thoroughly water all plants before planting.

Cut an 'X' through the erosion control blanket the width of the required hole (diameter of pot minimum). Remove mulch and expose soil. For shrubs and trees, hand dig holes at a minimum four inches deeper and 12 inches wider than the root ball (six inches on either side). Thoroughly water holes prior to planting and plant immediately to avoid drying of soils. Loosen soils in the bottom and along the sides of the hole. Place the plant in the hole and backfill with the excavated moist soil so that the crown is at grade. Tamp soil firmly into place. Form a saucer with a two-inch doughnut-shaped berm centered on the plants. Replace any displaced mulch and/or blanket. Immediately water plants after completion of planting.

Re-planting Salvaged Wetland Plugs

The RS shall approve the planting dates and final locations. The contractor shall schedule the planting three working days in advance of the proposed planting time with the RS. Thoroughly water all plugs before re-planting. Plugs shall be transported from their storage location to planting location within 5 minutes. Re-plant salvaged wetland plugs adjacent to the stream channel in areas identified by the RS.

Cut an 'X' through the erosion control blanket the width of the required hole. Remove mulch and expose soil. Salvaged wetland plugs shall be planted into moist soil in holes approximately an inch deeper and two (2) inches wider than the root ball (one inch on either side). Backfill with excavated moist soil so that the crown is at grade. Tamp soil firmly into place. Replace any displaced mulch and/or blanket. Immediately water salvaged wetland plugs after completion of re-planting.

Installing Willow Poles, Stakes and Cuttings

Install willow poles and stakes per the project plans. Poles and stakes shall be pushed into a hole slightly larger than the diameter of the pole, prepared using a 4' bucket stinger, power auger, Waterjet Stinger, (ftp://ftpfc.sc.egov.usda.gov/ID/programs/technotes/waterjet.pdf), or other approved methodology. The bottom of the pole shall be at an elevation below the bankfull water elevation of the adjacent creek. Insert the pole or stake in the excavated hole to the proper depth, backfill the hole with the excavated material and firmly tamp the soil around the poles to eliminate air pockets and hold the poles in place. Cuttings shall be woven into the headcut stabilization structures per the design plans and as directed by the Engineer and/or RS.

Hydraulic Seeding

The Contractor may install the soil inoculants, seed, compost, and tackifier using a hydroseeder. The hydraulic application of the seed, amendment, mulch and tackifier slurry shall be accomplished using a hydroseeding unit that must be capable of providing a uniform application using water as the carrying agent. Use of a hydroseeding unit equipped with gear driven pumps will not be permitted as it may result in damage to the seed. The hydroseeding unit must be equipped with a centrifugal pump with a minimum discharge capacity of 275 GPM, 105 PSI, with 3/4 inch solid clearance. Tanks shall be equipped with a paddle type agitator designed for maximum mixing extending the full length of the tank and supported on each end. The agitator should be variable from 10 to 120 RPM, reversible, and should provide valved by-pass back to the tank to allow for liquid recirculation to implement mixing and allow for remote valve operation. The Contractor shall notify the Engineer and RS at least 10 days in advance if they plan to use hydraulic application.

260.06 Revegetation Treatment Types

Treatment Type 1 (TT1): Riparian

Place local topsoil and incorporate aged wood chips. Rake smooth. Apply soil inoculants, Seed Mix 1, and compost topdressing. Install erosion control blanket. Notify Engineer or RS when erosion control blanket is installed. RS will mark locations for containerized plants, salvaged wetland plugs, and willow stakes. Install containerized plants, salvaged wetland plugs, and willow poles in the marked locations.

Treatment Type 2 (TT2): Floodplain

Place local topsoil and incorporate aged wood chips. Rake smooth. Apply soil inoculants, Seed Mix 2, and compost topdressing. Install erosion control blanket. Notify Engineer or RS when erosion control blanket is installed. RS will mark locations for containerized plants and willow stakes. Install containerized plants and willow poles in the marked locations.

Treatment Type 3 (TT3): Berm

Place local topsoil on berm and rake smooth. Apply soil inoculants, Seed Mix 3, and compost topdressing. Install erosion control blanket.

Treatment Type 4 (TT4): Landscape Island

Salvage river rock mulch to reapply. Grade landscape island and incorporate aged wood chips. Apply soil inoculants, and compost topdressing. Install containerized plants as shown on plans and directed by the Engineer or RS. Apply salvaged river rock mulch.

Treatment Type 5 (TT5): Upland areas

Loosen soil to a depth of 6 inches. Rake smooth. Apply Seed Mix 3. Add one (1) to two (2) inch layer of mulch.

260.07 Temporary Irrigation

Temporary irrigation shall be used to encourage rapid plant establishment. Irrigation is intended solely as an initial assistance for germination and establishment and is not intended to continue past the initial vegetation establishment period. Riparian area, floodplain, berm, and landscape island revegetation areas shall receive temporary irrigation as directed by the Engineer and/or RS.

Temporary irrigation shall be performed with a low-pressure impact system in order to establish vegetation to conditions described in these Special Provisions. Irrigation shall be performed such that water is applied evenly throughout all revegetation treatment areas and shall penetrate to at least six (6) inches below the ground surface within twelve (12) hours of irrigation and allows the surface soil to dry out while maintaining adequate moisture levels at depth. Exact irrigation scheduling for all areas shall depend on air and soil temperatures and will require adjusting during the course of the growing season. Irrigation schedules shall be as described in these Special Technical Provisions and submitted to the Engineer and RS for acceptance to ensure proper timing, frequency and duration. Above-ground irrigation shall take place early in the morning or late in the evening whenever possible in order to minimize water loss due to high air temperatures and wind. A suitable timer/controller device shall be part of the temporary irrigation system in order to program an irrigation schedule an apply water to the revegetation treatments areas as specified herein.

The temporary irrigation system shall consist of above-ground piping that is flexible, highly burst resistant and suitable for use in a pressure piping system (Certa-Lok Yelomine ™ or accepted equal), and the piping shall be capable of connecting to full circle heads (low precipitation rate, < 2.5 gallons per

minute [gpm]) each with a radius of 20 feet stream rotor or equivalent spray heads capable of delivering water to the areas where the applicable revegetation treatments are applied as shown on the Plans. Irrigation to the landscape island area may be low flow drip emitter type system that meets the water application criteria above. Previously used piping and spray heads may be used in the project work as long as the materials are in good working condition and meet the standards as noted herein. Above-ground irrigation shall be constructed in a manner that the reach of sprinklers shall overlap thirty (30) percent in order to cover the entire surface of the revegetated area. The Contractor shall be responsible to provide for any underground crossings and pipe sleeves as may be necessary to avoid surface conflicts with roads, trails, and other public use areas. Restoration of any paved/concrete surface shall be considered included with this item of work, and no additional compensation will be allowed. No irrigation application or overspray to concrete or asphalt surfaces will be allowed.

The Contractor is responsible for locating a potable water source for irrigation. The Contractor is further responsible for the connection to the existing system, disconnection of the existing system, usage metering, and the necessary repairs to the existing system to assure a properly functioning system during and after the Contractor's irrigation period. The Contractor is responsible for all costs associated with connecting to the system (including paperwork and permitting), water usage, disconnection from the system, and system repairs. An irrigation connection plan must be submitted to and approved by KGID prior to beginning irrigation work. Alternate irrigation methods proposed by the Contractor shall be submitted to the Engineer for review and acceptance prior to commencement of irrigation activities.

260.08 Maintenance and Revegetation Maintenance Bond

A Maintenance Bond (24 month) shall be supplied by the Contractor prior to acceptance of the revegetation and irrigation work, by the Contractor (at the completion of the construction of the project and acceptance of the entire project by the Engineer). The Maintenance Bond shall be in the amount of $100,000 or the lump sum bid value of the revegetation bid item, whichever value is greater, for a length of two years from the date of final acceptance.

The two year maintenance period shall start when the overall project has been accepted, in full, by the Engineer in writing (completion of construction of the project – final payment). The Owner and Engineer will not accept portions of the revegetation or irrigation work nor will it "stager" the start of the two year maintenance period. If at any time it is deemed that proper maintenance is not being performed, the countdown for the maintenance period shall be stopped and not resumed until the project is brought up to the specifications and proper maintenance is resumed, thus increasing the "calendar" duration time of the maintenance period. All costs with re-issuance of the bond as a result of this extension will be borne by the Contractor and no additional compensation will be allowed for.

Work under this item shall consist of maintaining all revegetation areas (and revegetation types) and irrigation systems for two years following completion of construction and acceptance of the Project (acceptance of the entire project, and closeout of the construction contract, NOT upon completion of any specific revegetation component) so that there is no evidence of erosion, such as rills or gullies, or failure to the irrigation system. This may require re-application of seed, amendments, inoculants, tackifiers, erosion control blankets, and mulches. During the maintenance period, seeded areas shall be kept free from noxious and invasive weeds at all times. Revegetation maintenance shall further include the following:

- Maintain health of all containerized plants and willow stakes,
- Maintain full coverage of soil by erosion control blankets through 12 months,

- Maintain irrigation system as needed, and
- Insure establishment of revegetation.

260.09 Performance Standard and Acceptance
The Contractor shall guarantee revegetation in accordance with these Special Technical Provisions. Revegetated areas will be inspected by the Engineer at completion of installation and accepted subject to compliance with specified materials and installation requirements.

Following two full growing seasons after treatment, the Contractor must achieve 70% vegetative cover for areas receiving seed mix application and 90% mulch coverage. Cover assessment shall be assessed by the point-intercept method. If specified coverage is not achieved, the Contractor may be required to re-seed, and/or re-mulch.

A warranty of 80% survival of all containerized species and 50% of willow poles shall accompany containerized plants and willow poles. The Engineer, upon the Contractor's request, will make final inspection and acceptance at the conclusion of the maintenance period. The Contractor will provide the Engineer notification at least ten working days before the requested inspection date.

Security shall remain in effect until maintenance and survival guarantee criteria have been met as defined herein and accepted in writing by the Engineer. The acceptance for releasing the security will occur following the end of the second growing season if the success criteria is met. This guarantee period constitutes the warranty period strictly associated with the revegetation work described herein.

Acceptance of other work and/or filing of a Notice of Completion shall not constitute acceptance, waiver and/or modification of the revegetation, revegetation maintenance, and survival guarantee portion of the project.

260.10 Measurement and payment
"Revegetation" shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract price paid for "Revegetation" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in completing the revegetation, including the required maintenance and bonding, complete in place, as shown on the Plans, as specified in these Special Technical Provisions and as directed by the Engineer; and no additional compensation will be allowed.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

SECTION 270 – SIERRA COLINA WORK

270.01 General.
This work shall consist of mobilization and demobilization, temporary BMPs, trash removal, and decommissioning the dirt access road and the user-created footpaths on the Sierra Colina LLC. Property as shown on the Project Plans. This work is part of a bid alternate item and will only be awarded based on available funding and at the discretion of the private property owner for Sierra Colina, LLC. No substitutions or alterations to these Special Technical Provisions shall be accepted without the prior

written approval of the Engineer and the Revegetation Specialist. No further disturbance of any treatment area shall be allowed once seeding or installation of cuttings and plant materials has been initiated.

270.02 Mobilization and Demobilization – Sierra Colina
This item shall consist of mobilization of the Contractor's forces for Sierra Colina work as described in this section which shall include obtaining all permissions and permits; purchasing, transportation, setup, staging and storage of equipment and materials; plus furnishing all labor, materials, tools, equipment, and incidentals required for performance and completion of the work as shown on the Project Plans, and specified in the Contract Documents, Project Permit(s), Standard Specifications, these Special Technical Provisions, the SWPPP, and as directed by the Engineer. Mobilization shall also include but not be limited to the following items:

• Prepare and transmit all Sierra Colina submittals as noted on the Plans, and as specified in the Contract Documents, Standard Specifications, and these Special Technical Provisions;
• Wash and clean all tools and equipment prior bringing on site, as specified in the Project Permits, Contract Documents, Standard Specifications, these Special Technical Provisions, and as required by TRPA.
• Coordinate with Sierra Colina LLC. to gain access to the property and inform Sierra Colina of construction schedule. Contactor shall inform Sierra Colina a minimum of one (1) week prior to commencing work under this section.

Demobilization shall consist of the removal of all materials, equipment, signage, temporary pollution control materials, trash, debris, and all other items imported to or generated on-site as a result of the work completed by the Contractor and his/her operations for the Sierra Colina work. Furthermore, demobilization shall include repairing all pavements, walkways, infrastructure, signage, landscape, trails, or other public or private facilities damaged by construction activities to their pre-construction conditions using comparable materials as accepted and directed by the Engineer. All disturbed areas shall be returned, as nearly as possible, to the lines and grades which existed prior to construction except where modified as part of the work so designated on the Plans. Attention is directed to Section 335, “Cleanup,” of the Standard Specifications.

All items under this section are considered mitigation measures subject to approval by TRPA. The Contractor shall be responsible for coordinating with TRPA to gain written approval for all Sierra Colina items before they are considered complete.

270.02 Trash Removal
Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to remove, dispose, and restore to natural conditions any human created trash within the Project boundary on Sierra Colina LLC. property as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and TRPA Best Management Practices. Trash removal shall be a one-time occurrence and shall happen at the completion of construction activities. Any holes left behind by trash that may be partially buried shall be filled with native material to match surrounding grade and restored to natural conditions. Trash shall be disposed of offsite in accordance with all local, regional, state, and federal regulations.

270.03 Temporary BMPs for Sierra Colina Work

Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to install, maintain, remove, and dispose of this temporary best management practices and erosion control measures for Sierra Colina work as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and TRPA Best Management Practices.

Gravel Construction Entrance/Exit

Work under this item shall consist of clearing and grubbing, excavation, furnishing and placing reinforcement mat, furnishing and placing rock at each entrance/exit access road, maintenance (i.e. removal of large quantities of captured sediment, and/or placement of additional rock during course of construction), removal, disposal of excess materials, and restoration of disturbed area.

Fabric to be used for the reinforcement mat shall be manufactured from polyester, nylon, or polypropylene material, or any combination thereof. Fabric shall be manufactured from virgin, or recycled or a combination of virgin and recycled, polymer materials. No virgin or recycled materials shall contain biodegradable filler materials that can degrade the physical or chemical characteristics of the finished fabric. The fabric shall be a non-woven, needle-punched fabric. The fabric shall be permeable, not act as a wicking agent, and shall conform to the following:

Test	**Test Method**	**Requirement**
Weight, grams per square meter	D 3776	135 min.
Grab Tensile Strength, Newton, (25 millimeter grip, in each direction)	D 4623	0.40 min.
Elongation at Break, percent	D 4632	30 min.
Toughness, kilonewtons (percent elongation x grab tensile strength)		26 min.
Permittivity, 1/sec.	D 4491	0.5 min.
Ultraviolet Resistance, percent strength retention	D 4355	70 min.

Rocks shall be angular to sub-angular in shape and shall conform to the material quality requirements in Section 200.07, Riprap, of the Standard Specifications for resistance to wear, absorption, apparent specific gravity, and durability. Rocks used for the gravel construction entrance/exit shall conform to the following sizes:

Square Screen Size	Percent Passing
6 inches	100
3 inches	0-20

Each gravel construction entrance/exit shall be of adequate size to prevent the tracking of sediment and materials onto any paved public right-of-way. At a minimum the size of each gravel construction entrance/exit shall be as shown on the Project Plans.

Each gravel construction entrance/exit shall be maintained to minimize tracking of soil and sediment onto existing public roads and rights-of-way. While the gravel construction entrance/exit is in use, pavement shall be cleaned and sediment removed at least once a day and as often as necessary when directed by the Engineer. Soil and sediment or other extraneous material tracked onto existing pavement shall not be allowed to enter any existing or proposed drainage facilities.

In the event the Contractor's operations are causing excessive tracking of materials the Engineer may direct the Contractor to replace the gravel construction entrance/exit, expand the size (area – length and/or width) of the gravel construction entrance/exit, and/or expand the depth of the gravel construction entrance/exit. In the event this is required the Contractor will not be entitled to any additional payment.

When no longer required as shown on the Project Plans or as determined by the Engineer, each gravel construction entrance/exit shall become the property of the Contractor and be removed and disposed of in conformance with the Contract Documents, Standard Specifications, Project SWPPP, and these Special Technical Provisions. Under no circumstance shall any of the materials used for gravel construction entrance/exit be re-used on the project. All areas disturbed by the placement and use of each gravel construction entrance/exit shall be graded and restored to its pre-existing condition, including any provisions for revegetation found elsewhere in these Special Technical Provisions.

Gravel construction entrance/exit is considered a temporary erosion control measure or BMP. A fine of $100 per day will be levied against the Contractor for each day the Contractor delays in responding to the Engineer's request to install new temporary erosion control devices and/or maintain existing temporary erosion control devices, in addition to any other fines levied by any other regulatory agency with no additional compensation allowed for.

Construction Limit Fence

Work under this item shall consist of furnishing all labor, tools, equipment, and materials necessary to install, maintain, remove, and dispose of this BMP as required by the Project Plans, Contract Documents, Standard Specifications, these Special Technical Provisions, SWPPP, Project Permit(s), and TRPA Best Management Practices.

The Contractor shall perform all construction activities that are outside the road right-of-way within the construction limits (and/or grading limits) as shown on the Project Plans and staked by the Contractor's surveyor, and as delineated with construction limit fence installed by the Contractor. Where directed by the Engineer and/or shown on the plans, construction limit fence shall be placed around individual trees or groups of trees that are to remain, in accordance with the Tree Protection and Construction Limit Fence depicted on the project plans.

The area within which the Contractor will be allowed to conduct his/her construction operations will be the area within the limits of the construction limit fencing and/or grading limits as shown on the Project Plans. Where located within the immediate vicinity of any trees (or dripline), the width of the work area will be reduced in order to protect the trees. The Contractor shall review each such location to determine what equipment can be used to install the improvements at these locations or if hand work will be necessary. The costs associated with working within these reduced widths shall be included in the unit price bid for the applicable item of work with no additional compensation therefore.

Contractor's attention is directed to the applicable bid item descriptions in these Special Technical Provisions regarding the type of equipment that can be used in construction on sensitive land areas. Where tree protection fencing cannot be placed at the dripline of the tree, as determined by the Engineer in coordination with TRPA, lath (as shown on the Project Plans) with bottom set approximately 2 feet above ground surface shall be strapped to the tree trunk (space between wood batten shall be no more than 6"). The unit price bid for construction limit and tree protection fence shall also apply to this condition (i.e. linear foot measurement of tree circumference where wood batten is attached).

Construction limit and tree protection fencing shall be inspected daily and repaired, secured, and/or replaced as necessary to maintain and preserve its intended purpose. All construction limit and tree protection fencing shall remain in place during any construction activities unless directed by the Engineer. Tree protection and construction limit fencing is considered a temporary erosion control measure or BMP.

A fine of $100 per day will be levied against the Contractor for each day the Contractor delays in responding to the Engineer's request to install new temporary erosion control devices and/or maintain existing temporary erosion control devices, in addition to any other fines levied by any other regulatory agency with no additional compensation allowed for.

270.04 Road Decommissioning

In order to minimize disturbance, the decommissioned road will not be re-contoured to original terrain but instead modified to include rolling dips to intercept, disperse, and infiltrate runoff and prevent concentrated flows. Additional treatments will include scarifying (i.e. tilling) the road to reduce compaction and application of a native seed mix and mulch.

Execution

The Contractor shall install the gravel construction entrance and construction limit fencing as described in these Specifications and shown on the Project Plans. Upon acceptance of these temporary erosion control measures, the Contractor shall install the rolling dips per plan. Rolling dips should be relatively flat in relation to existing grade, allowing water to slow down and drop sediment before draining from the tread. They should be out sloped 2 to 5 percent to drain effectively. By having a wider and flatter dip and drain outlet water will be dispersed and slowed therefore reducing the potential for erosion. Swale-like dips are preferable (>20 wide). See Project Plans for additional details.

The Contractor shall scarify soils in the footprint of the road with the exception of the newly constructed rolling dips. Soils shall be loosened to a depth of 6 inches with hand tools, an agricultural disc, rippers, or other equipment approved by the Engineer and RS. Soils shall be loosened so that no soil clods are larger than an average of 1 inch in diameter. Care must be taken around existing trees and shrubs to prevent root damage during soil conditioning, grading and excavation activities. No mechanical loosening of soil shall take place within the dripline of mature trees or shrubs. Final surfaces shall be left rough. No wheeled or other mechanical equipment shall be permitted to travel on the prepared seedbed.

All Seed Mix shall be supplied by the NTCD to the Contractor 3 days prior to seeding. NTCD will supply the contractor with enough seed for applying to disturbed areas plus an additional 10%. Contractor will supply at their expense any additional seed necessary to adequately seed the revegetation areas. Seed mix will include the following shallow rooted annual grasses and wildflowers.

Seed Mix 3 (Upland)		
Species (Common Name)	Species (Botanical Name)	LBS per Acre
Big Bluegrass	*Poa ampla 'Canby'*	2.00
Sheep Fescue 'Covar'	*Festuca trachyphylla 'Covar'*	3.50
Hard Fescue	*Festuca trachyphylla 'Durar'*	3.50
Squirreltail	*Elymus elymoides*	2.00
Creeping Wildrye	*Elymus triticoides*	4.00

Slender Wheatgrass	*Elymus trachycaulus 'Revenue'*	5.00
California Sierra Brome	*Bromus carinatus*	4.00
Western Needlegrass	*Achnatherum occidentale*	1.00
Blue Flax	*Linum perenne*	1.00
California Poppy	*Eschscholzia californica*	2.00
Sulfur-flower Buckwheat	*Eriogonum umbellatum*	3.00
Yarrow	*Achillea millefolium*	0.50
Woods Rose	*Rosa woodsii*	0.50
Total PLS LBS/ACRE RATE		**32.00**

Seed shall be uniformly broadcast with hand-held seeders to achieve desired application rate. Incorporate seed by raking or harrowing to a depth of ¼ inch to ½ inch. Seed shall not be left uncovered more than 24 hours. Seeding shall not occur under conditions that would allow the seed to become windborne (winds greater than 5 mph) or to wash away.

Mulch shall be evenly applied to a depth of approximately one (1) to two (2) inches, for 100% cover over revegetation areas. Mulch shall be wood chips, tub grindings or pine needles. Mulch shall contain no more than 5% impurities by volume such as pine cones, twigs, rocks or other material. Garbage shall represent no more that 0.5% of the total volume. Mulch shall contain no more than 2% by volume mineral soil and no more than 10% by volume decomposed organic matter.

270.05 Trail Decommissioning

Notify the Engineer at least 3 days in advance of commencing trail decommissioning. The Contractor shall install construction limit fence per Project Plan and per these Specifications. Upon acceptance of these temporary erosion control measures, the Engineer will stake the extents of the two types of treatment: woody debris scattering and hand raking. The treatment types are also shown on the Project Plans.

A mixture of woody debris (salvaged branches, logs, etc) shall be scattered within the first 200 feet of ingress and egress for the user-created footpaths as indicated on the Project Plans. The final results should cover 80% of the trail surface and deter pedestrian usage. The remaining portions of the trails shall be hand raked to push trailside duff over the trail to a depth of ½". The Contractor shall install Revegetation Area signage per Project Plans to inform and discourage use.

270.06 Measurement and payment

"Trash Removal" shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Trash Removal" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in trash removal complete in place, as shown on the Plans, as specified in these Special Technical Provisions and as directed by the Engineer; and no additional compensation will be allowed.

"Temporary BMPs for Sierra Colina Work" shall be measured on a lump sum basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Temporary BMPs for Sierra Colina Work" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in the installation and removal of construction limit fence and a temporary gravel construction

entrance, as shown on the Plans, as specified in these Special Technical Provisions and as directed by the Engineer; and no additional compensation will be allowed.

"Road Decommissioning" shall be measured on a per square foot basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Road Decommissioning" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in completing the road decommissioning complete in place, as shown on the Plans, as specified in these Special Technical Provisions and as directed by the Engineer; and no additional compensation will be allowed. Total square footage shall be as shown in the plans unless Contractor supplies their own survey.

"Trail Decommissioning" shall be measured on a per square foot basis, complete in place and accepted by the Engineer as conforming to all the requirements in the complete work. The contract unit price paid for "Trail Decommissioning" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for performing all the work involved in completing the trail decommissioning complete in place, as shown on the Plans, as specified in these Special Technical Provisions and as directed by the Engineer; and no additional compensation will be allowed. Total square footage shall be as shown in the plans unless Contractor supplies their own survey.

Full compensation for conforming to the provisions of this Section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved, and no additional compensation will be allowed.

Appendix A: Stormwater Pollution Prevention Plan

Stormwater Pollution Prevention Plan (SWPPP)

Table of Contents

Site / Owner / Operator

Provide site, owner, and operator information.

Site	
ID Number	CSW-
Name	Burke Creek Highway 50 Crossing and Realignment Project
Address Line 1	just north of Highway 50 Kahle Drive intersection
Address Line 2	
City	Stateline
State	NV
Zip Code	89449
Contact Name	
Phone Number	
Email Address	

Owner	
Name	Nevada Tahoe Conservation District (NTCD)
Address Line 1	400 Dorla Court
Address Line 2	PO Box 915
City	Zephyr Cove
State	NV
Zip Code	89449-0915
Contact Name	Meghan Kelly
Phone Number	775-586-1610x30
Email Address	mkelly@ntcd.org

Operator 1	
Name	
Address Line 1	
Address Line 2	
City	
State	
Zip Code	
Contact Name	
Title	
Phone Number	
Email Address	
If there is more than one operator, identify the areas and phases over which Operator 1 has control.	

Operator 2	
Name	
Address Line 1	
Address Line 2	
City	
State	
Zip Code	
Contact Name	
Title	
Phone Number	
Email Address	
Identify the areas and phases over which Operator 2 has control.	

Operator 3	
Name	
Address Line 1	
Address Line 2	
City	
State	
Zip Code	
Contact Name	
Title	
Phone Number	
Email Address	
Identify the areas and phases over which Operator 3 has control.	

Stormwater Team

List the name, title, and individual responsibilities for each member of the stormwater team. The stormwater team is responsible for overseeing the development of the SWPPP, any modifications to the SWPPP, and compliance with the requirements of the *Construction Stormwater General Permit NVR100000* (hereinafter referred to as the "Permit"). The team may include members who are not employed by the operator (such as third party consultants).

Stormwater Team Member 1	
Name	
Title	
Responsibilities	

Stormwater Team Member 2	
Name	
Title	
Responsibilities	

Stormwater Team Member 3	
Name	
Title	
Responsibilities	

Stormwater Team Member 4	
Name	
Title	
Responsibilities	

Stormwater Team Member 5	
Name	
Title	
Responsibilities	

Nature of Construction Activities

Describe the nature of the construction activities, including the size of the property and the total area expected to be disturbed by construction activities, construction support activity areas covered by the Permit, and the maximum area expected to be disturbed at any one time.

Nature of Construction Activities		
What is the size of the property?	9.15	acres
What is the total area expected to be disturbed by construction activities?	0.5	acres
What is the maximum area expected to be disturbed at any one time?	0.5	acres

Describe the construction support activity areas covered by the Permit. Construction support activities covered by the Permit are described in Permit section *1.2.1.2* and defined on page 40 of the Permit.

Burke Creek is a small stream in the Lake Tahoe Basin which passes just north of the intersection of Highway 50 and Kahle Drive in Stateline, NV. It has an approximately 4.5 square mile drainage area to Lake Tahoe. The Burke Creek Highway 50 crossing and Realignment Project (Project) boundary encompasses 9.15 acres to connect the various area where improvements will be installed and access routes. However the total area that will be disturbed by construction activities and grading is approximately 0.5 acres. The Project area includes a parking lot that infringes on the stream's floodplain and meadow. The Project extends from Highway 50 to approximately 1000 feet upstream of Highway 50.

The goal of the Project is to construct a crossing for Burke Creek under Highway 50 that restores hydrologic and sediment transport continuity, restores wet meadow conditions to Rabe Meadow (Phase 2), and improves drainage on Highway 50. Improvements include:

- construction of stabilizing in-channel structures in the upstream reach
- construction of new channel, secondary side channel, and floodplain upstream of Highway 50
- decommissioning a portion of the existing channel,
- construction of a corrugated arch culvert crossing highway 50,
- realignment of an existing channel berm,
- construction of a culvert outfall structure
- drainage improvements such as curb and gutter, trench drains, and sediment cans
- water, communication, and gas line relocation,
- installation/construction of mitigation measures for the Sierra Colina LLC development project as part of a bid alternate

Construction activities and support activities include staging and storage, demolition of existing improvements, clearing and grubbing, tree removal, trenching, grading and offhaul of material, in-channel improvements, utility relocation, paving & concrete, dewatering, installing a creek diversion, and revegetation.

Emergency-Related Construction Activities

For earth-disturbing activities in response to a public emergency, document the cause of the public emergency, provide information substantiating its occurrence, and describe the construction necessary to reestablish affected public services.

Cause of the Public Emergency
Describe the cause of the public emergency (e.g., natural disaster, extreme flooding conditions, etc.).
N/A

Substantiating Information
Provide information substantiating the occurrence of the public emergency (such as a state disaster declaration or similar state or local declaration). Attach supporting documentation to the end of the SWPPP.
N/A

Necessary Construction
Describe the construction necessary to reestablish affected public services.
N/A

Sequence and Estimated Dates of Construction Activities

Provide a schedule of the estimated start dates and the duration of the activity for installation of stormwater control measures, construction activities, cessation of construction activities, and stabilization of areas of exposed soil.

Installation of Stormwater Control Measures	
What is the estimated start date for the installation of stormwater control measures?	8 / 15 / 2016
What is the estimated duration of the installation of stormwater control measures?	as necessary for the duration of construction activities approximately 75 calendar days

When will the stormwater control measures be made operational?

Prior to the start of construction activities

Explain the sequence and schedule for installation of stormwater control measures.

No construction activities will occur without adequate storm water control measures in place.

Construction Activities	
What is the estimated start date of construction activities?	8 / 15 / 2016
What is the estimated duration of construction activities?	75 calendar days

Describe the intended sequence of construction activities. Construction activities include clearing and grubbing, grading, site preparation (i.e., excavating, cutting, and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization.

The order of work shall be as follows:
1. Verification of all underground utilities within the project area.
2. Installation of Temporary Traffic Control Measures.
3. Construction of all temporary erosion control measures as shown on the project plans and as approved by the Engineer and Tahoe Regional Planning Agency (TRPA).
4. Construction of project as shown on the project plans and as described in the Special Technical Provisions.
   a. Establish staging storage and access areas; b. Upstream improvements; c. Culvert outlet grading and construction; d. Parking lot removal and demolition
   e. Stormwater improvements; f. Utility relocation; g. Culvert installation; h. Diversion of Burke Creek; i. Stream grading; j. Revegetation and landscaping
5. Restoration of entire project site:
   a. Restoration/revegetation of all disturbed areas; b. Road sweeping; c. Restoration of staging and access; d. Removal of temporary BMPs with approval of Engineer.
6. Pre-Final site walk with the Engineer, Contractor, Douglas County, US Forest Service, NDOT, and TRPA.
a. Development of project punchlist (by Engineer).
7. Completion of punchlist items.
8. Final site walk with Engineer and Contractor.

Cessation of Construction Activities		
What is the estimated start date for the cessation of construction activities?	10 / 15 / 2016	
Will the cessation of construction activities be temporary or permanent?	Temporary	Permanent
If the cessation of construction activities will be temporary, provide the estimated duration of the cessation of construction activities.	N/A	
Will the cessation of construction activities occur on the entire site (100%) or in designated portions of the site?	100%	Designated Portions
If the cessation of construction activities will occur in designated portions of the site, identify the designated portions of the site where the cessation of construction activities will occur. It is estimated that all grading will cease October 15th, 2016. However, some construction activities such as revegetation and project site restoration may occur throughout the site and as indicated on the project plans.		

Stabilization of Areas of Exposed Soil	
What is the estimated start date for the *temporary* stabilization of areas of exposed soil?	8 / 15 / 2016
What is the estimated duration of the *temporary* stabilization of areas of exposed soil?	14 days for various areas throughout the duration of construction
What is the estimated start date for the *final* stabilization of areas of exposed soil?	9 / 5 / 2016
What is the estimated duration of the *final* stabilization of areas of exposed soil?	Final stabilization shall occur as the new channel is constructed. Approximately 35 calendar days.
Note: The dates for stabilization shall reflect the applicable deadlines in Permit section *3.6 Site Stabilization Requirements, Schedules, and Deadlines*.	

Departures from Initial Projections
If departures from initial projections for any of the activities on pages 6 and 7 of this SWPPP are necessary, identify and describe such departures. Alternatively, documentation describing such departures may be attached to the end of the SWPPP.

Site Description

Provide the following construction site information.

Site Description	
Project Name	Burke Creek Highway 50 Crossing and Realignment Project
Project Address	just north of the intersection of Highway 50 and Kahle Drive
Project City	Stateline
Project County	Douglas
Project APN	1318-22-002-017; 1318-23-401-047; 1318-23-401-005; 1318-23-301-001; NDOT right-of-way

Describe the site and its intended use after the Notice of Termination is filed (e.g., low density residential, shopping mall, highway, etc.)

Current site includes creek, parking lot, and highway. Intended use is open space (creek and floodplain) and highway.

What is the total area of the site?	9.15	acres
What is the estimated total area of the site expected to be disturbed by construction activities, including off-site supporting activities, borrow and fill areas, and staging and equipment storage areas?	0.5	acres
What percentage of the site is impervious before and after construction?	Before: 37.56	%
	After: 35.42	%

Describe the soils at the site, including the potential for erosion.

Soils in the Burke Creek watershed range from very well-drained, gravelly soils along the rim of the Tahoe Basin to poorly-drained, silty-loamy soils near Lake Tahoe. Granodiorite is the parent material for most soils in the Burke Creek system. The highest portions of the watershed (roughly 7,800 feet and above) are dominated by the Dagget complex. These soils are very well-drained (hydrologic soil group A), and are composed of a gravel-sand-loam mixture. From US 50 (approximately 6,300 feet) up to 7,800 feet the soils are of the Cassenai-Cagwin complex. These soils are well-drained (hydrologic soil groups A or B) and are composed of a coarse sand-loam mixture. Cassenai soils tend to form on north aspects and are deeper due to dense vegetation cover, whereas Cagwin soils tend to form on south aspects and are shallower due to mostly shrub vegetation. In the meadow downsteam of US 50, soils are mostly of the Tahoe complex. These soils are poorly-drained (hydrologic soil groups C and D) and are composed of a sand-loam-silt mixture (USGS and NRCS, 2007). The Tahoe complex (as well as the Cassenai-Cagwin complex) is listed in the NRCS database as a potentially hydric soil, however, none have been field-verified as such. Soils are erosive and so protective measures will be taken throughout the project.

For areas where it is infeasible to maintain a 50-foot buffer in accordance with Permit section *3.5.1*, provide the reasons why the 50-foot buffer cannot be maintained, identify and describe the alternative additional erosion and sediment controls that were selected for the site, document the natural buffer width retained on the property, and attach any relevant documentation to the end of the SWPPP.

Because the construction project will realign and restore Burke Creek, a 50 foot buffer will not be feasible. A Dewatering and Diversion Plan has been established. See attachments.

Identify and describe all on-site and off-site material storage areas, including overburden, stockpiles of dirt, borrow areas, etc.

One staging and storage area has bee identified on within a parking lot on Douglas County parcel 1318-23-401-047.

Attach a general location map to the end of the SWPPP. The map should contain enough detail to identify the following items:

- the location of the construction site and one-mile radius
- the waters of the State of Nevada, including tributaries, within a one-mile radius of the site

Site Map(s)

Attach a site map or series of maps to the end of the SWPPP.

Site Map(s)	
Attach, to the end of the SWPPP, a legible site map or series of maps completed to scale. The map(s) should show the entire site and identify all of the items listed below. Check the box next to each item to confirm that the item is identified on the map(s).	
☑	Topography of the site, existing types of cover (e.g., forest, pasture, pavement, structures), and drainage pattern(s) of flow onto, over, and from the site both before and after major grading activities — Figures 1, 2, 3
☑	Areas of soil disturbance and areas that will not be disturbed — Figure 3
☑	Boundaries of the property — Figure 2
☑	Locations where construction activities will occur, noting any phasing — Figure 3, Sheet G-4
☑	Locations where sediment or soil will be stockpiled — Sheet G-1
☑	Locations of any crossings of surface waters — Figure 2, Sheet G-4
☑	Designated points on the site where vehicles will exit onto paved road — Sheet G-1
☑	Locations of construction support activity areas covered by the Permit — Sheet G-1
☑	Locations of temporary and permanent stormwater control measures identified in this SWPPP — Sheet G-2
☑	Locations where stabilization control measures are expected to occur — Project Plans including civil sheets and R-1
☑	Areas protected by buffers (i.e., either the 50-foot buffer or other buffer areas retained on site when within 50 feet of perennial water) consistent with Permit section *3.5.1*, as well as the boundary line of all such buffers — N/A
☑	Locations of on-site material, waste, borrow areas or equipment storage areas, and other supporting activities (per Permit section 1.2.1.2) — Sheet G-1
☑	Locations of all potential pollutant-generating activities identified on pages 14-15 of this SWPPP — Figure 3
☑	Locations of all surface waters and any impaired waters within ¼ mile of the site — Figure 1
☑	Stormwater discharge locations, using arrows to indicate discharge directions, including: • locations where stormwater and/or allowable non-stormwater discharges are discharged to a Water of the U.S. • locations of any discharges to municipal separate storm sewer systems (MS4s) from the construction site — Figure 3, Sheet G-1, Sheet G-4
☑	Areas where final stabilization has been accomplished and no further construction permit requirements apply — Project Plans
☑	Location of trees and boundaries of environmentally sensitive areas and buffer zones to be preserved — Sheet G-2, G-3

Receiving Waters

Identify the receiving waters.

Receiving Waters
Identify the name of the receiving water(s) and the areal extent and description of wetland or other special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the construction site.
The receiving water for the project area is Burke Creek, a tributary of Lake Tahoe.

Impaired Water		
Is any discharge point from the construction site within ¼ mile of impaired water?	Yes	No
If any discharge point from the construction site is within ¼ mile of impaired water, identify any common construction-related pollutants, such as sediment, sediment-related parameters, and nutrients (including nitrogen and phosphorous), listed on the 303(d) list that may potentially be discharged from the construction site and describe additional or enhanced control measures to minimize discharges of these pollutants. The 303(d) list can be found on the Nevada Division of Environmental Protection (NDEP), Bureau of Water Quality Planning (BWQP) website (http://ndep.nv.gov/bwqp/303dlist2012.htm). N/A		

Stormwater Control Measures

Describe the stormwater control measures that will be used during construction activity.

Stormwater Control Measures
Identify and describe all control measures as required by Permit section *3.0* that will be implemented and maintained as part of the construction project to reduce and control pollutants in stormwater discharges from the construction site. Include control measures used at support activity areas.
Control Measure 1
Erosion and Sediment Control- will include drainage inlet protection, filter fence, sediment rolls, perimeter control through construction limit fencing, temporary gravel construction entrances, daily sweeping, dust control via watering truck, and properly stored spoil piles.
Control Measure 2
Site Stabilization- Temporary stabilization will be achieved by above described erosion and sediment control measures, activity sequencing, and utilizing site topography. Permanent stabilization will include rock and log placement in the new channel and erosion control blanket and revegetation using both seed and containerized plants in the floodplain. The project site will be considered stabilized upon the completion of construction activities
Control Measure 3
Pollution Prevention- The staging and storage area will be the only designated area for any hazardous waste, fueling, a concrete washout facility, and materials storage. All materials shall be stored in accordance with local, state, and federal regulations as well as the NDEP 2015 Construction Stormwater General Permit
Control Measure 4
Dewatering and Diversion- see attached plan and sheet G-4 of the Project Plans
Control Measure 5
Control Measure 6

Stormwater Control Measures for Major Construction Activities

For each major construction activity at the site, describe the appropriate control measures and the general timing (or sequence) during the construction process that the measure will be implemented and identify the operator responsible for implementation of the control measures. Fill out one table for each major construction activity.

Construction Activity 1

Identify the type of construction activity.

Staging and Storage

Describe the control measure(s) used for this activity.

The staging and storage area will be the only designated area for any fueling, a concrete washout facility, and materials storage. All materials shall be stored in accordance with local, state, and federal regulations as well as the NDEP 2015 Construction Stormwater General Permit. access to staging area will be via Kahle drive only. BMPs such as perimeter fencing and DI protection will be installed in staging area as shown in figures to prevent run-off.

Describe the general timing/sequence during the construction process that the measure(s) will be implemented.

Throughout construction activities

Which operator is responsible for implementation of this control measure?

Construction Activity 2

Identify the type of construction activity.

Grading

Describe the control measure(s) used for this activity.

Grading to occur downstream of the Highway 50 will be off-line from the existing creek. Erosion control measures such as filter fence will be used for temporary controls to protect the existing meadow. Permanent measures include installation of rock and dissipation structure. The project required net cut, Off haul will be conducted immediately to minimize the need for spoil pile storage. See Dewatering and Diversion Plan for measures associated with stream grading upstream of Highway 50.

Describe the general timing/sequence during the construction process that the measure(s) will be implemented.

Completion of the permanent stabilization measures for culvert outfall will be completed before diversion or creek water will be introduced.

Which operator is responsible for implementation of this control measure?

Construction Activity 3

Identify the type of construction activity.

Paving and concrete installation

Describe the control measure(s) used for this activity.

Pollution Prevention- The staging and storage area will be the only designated area for any waste, fueling, a concrete washout facility, and materials storage. All materials shall be stored in accordance with local, state, and federal regulations as well as the NDEP 2015 Construction Stormwater General Permit

Describe the general timing/sequence during the construction process that the measure(s) will be implemented.

measures will be implemented during pavement and concrete installation. Installation will not occur during storm events or inclement weather.

Which operator is responsible for implementation of this control measure?

Construction Activity 4
Identify the type of construction activity. Construct in-channel structures (woody debris structures)
Describe the control measure(s) used for this activity. Hand and small equipment placement of materials shall be utilized to minimize any sediment discharges due to structure installation. A turbidity curtain will be utilized to prevent any sediment discharges from continuing downstream. The curtain will be monitored for effectiveness, If a turbidity curtain proves ineffective, temporary diversion of the creek may be necessary
Describe the general timing/sequence during the construction process that the measure(s) will be implemented. Measures will be implemented during the construction of any in-channel structures
Which operator is responsible for implementation of this control measure?

Construction Activity 5
Identify the type of construction activity. utility relocations- communications, gas, potable water, and electrical
Describe the control measure(s) used for this activity. Trenching for utility relocations will utilize trenching for the culvert where possible to minimize excavation. Water from draining and testing the relocated potable water line will be hauled off-site and disposed of per local, state, and federal regulations.
Describe the general timing/sequence during the construction process that the measure(s) will be implemented. prior to installation of the culvert
Which operator is responsible for implementation of this control measure?

Construction Activity 6
Identify the type of construction activity. Dewatering and Diversion
Describe the control measure(s) used for this activity. See attached Dewatering and Diversion Plan
Describe the general timing/sequence during the construction process that the measure(s) will be implemented. As necessary during grading activities
Which operator is responsible for implementation of this control measure?

Potential Pollutant Sources

Identify and describe any pollutant sources expected to be associated with the project.

Potential Pollutant Sources
Identify all potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the construction site. Also identify the location of and describe any pollutant sources, including any non-stormwater discharges expected to be associated with the project, from areas other than construction (i.e., support activities including stormwater discharges from dedicated asphalt or concrete plants and any other non-construction pollutant sources such as fueling and maintenance operations, materials stored on-site, waste piles, equipment staging yards, etc.).

Potential Pollutant Source 1
What is the location of the potential pollutant source?
Stormwater discharges from grading areas as show on the plans upstream of, downstream of and in the Highway 50 right of way.
Describe the potential pollutant source.
Sediment could run off in stormwater discharges from temporarily unstable grading areas. Dust could be propagated and sediment could be tracked from temporarily unstable grading areas

Potential Pollutant Source 2
What is the location of the potential pollutant source?
proposed in-channel structures at the upstream reach
Describe the potential pollutant source.
Sediment could be discharged into the creek during construction of in-channel structures

Potential Pollutant Source 3
What is the location of the potential pollutant source?
Staging and storage area in Douglas County parking lot
Describe the potential pollutant source.
stormwater and non-stormwater discharges from materials storage, fuel, concrete and paving materials

Potential Pollutant Source 4
What is the location of the potential pollutant source? Sierra Colina LLC Property
Describe the potential pollutant source. Tracking of sediment and revegetation materials could occur during road and trail decommissioning.

Potential Pollutant Source 5
What is the location of the potential pollutant source? Burke Creek Diversion and groundwater dewatering
Describe the potential pollutant source. See Dewatering and Diversion Plan

Potential Pollutant Source 6
What is the location of the potential pollutant source?
Describe the potential pollutant source.

Potential Pollutant Source 7
What is the location of the potential pollutant source?
Describe the potential pollutant source.

Spill Prevention & Response

Describe procedures to prevent and respond to spills, leaks, and other releases. Other existing spill prevention plans, such as the Spill Prevention Control and Countermeasure (SPCC) plans developed for the construction activity under Part 311 of the Clean Water Act (CWA), or spill control programs otherwise required by NDEP permits for the construction activity, may be referenced provided that a copy of that other plan is kept onsite with the SWPPP. Attach a copy of any referenced plan(s) to the end of the SWPPP.

Container Labeling

Describe procedures for plainly labeling containers (e.g., "Used Oil", "Pesticides", etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response as spills or leaks occur.

Containers will be clearly labeled before arriving on site. Temporary containers will be labeled before use. Material safety data sheets (MSDS) will be kept on site for all necessary materials.

Preventive Measures

Describe preventive measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling.

Construction equipment shall be stored at the designated staging area at the end of each work day. The Contractor will divert concentrated stormwater runoff around equipment, vehicles, and materials staging areas. Tracking control devices will be maintained to and from all work areas to paved areas (e.g. stabilized gravel entrance and rumble strips). All vehicular access from work areas to paved areas will utilize the tracking controls. A concrete washout facility will be maintained within the staging area. All fueling will occur in the designated staging area. The Contractor shall maintain all construction equipment, to prevent oil and fluid leaks. The Contractor shall regularly inspect all equipment and vehicles for fluid leaks. Pallets and secondary containment areas shall be provided for chemicals, drums, or bagged materials that require special controls.

Spill/Leak Stoppage, Containment, and Cleaning

Describe procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases.

All staging areas must a have an appropriate spill response and cleanup kit available and visible at these locations. Should materials spills occur; materials and/or contaminants will be promptly cleaned from the Project site and recycled or disposed of to the satisfaction of NDEP. All on-site construction personnel shall be trained in spill prevention practices and provided visibly available spill containment kits at all staging areas. All Contractors are responsible for instructing their personnel on how to effectively deploy and properly use the spill containment kits.

The Contractor shall store an adequate amount of extra BMP materials such as silt fence, fiber rolls, and gravel bags on site for use during major storm events or accidental water and sewer line utility breaks. In the event of any accidental water and sewer line utility breaks the Contractor shall immediately contact NTCD, who will provide immediate notice to TRPA, NDEP, Douglas County, NDOT, and the appropriate utility provider

Identify the name or position of the employee(s) responsible for detecting and responding to spills or leaks.

Spill/Leak Notification

Describe procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under 40 Code of Federal Regulations (CFR) Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period. Contact information shall be in locations that are readily accessible and available.

Facility Personnel

Emergency Response Agencies

Regulatory Agencies

Waste Management

Describe procedures for handling and disposing of all wastes generated at the site.

Waste Management Procedures

Describe procedures for handling and disposing of all wastes generated at the site, including, but not limited to, clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

The amount of construction materials stored on site shall be minimized. Soil materials shall not be stockpiled on site over a weekend (Saturday, Sunday and Holidays) unless they are completely covered (in accordance with TRPA and NDEP standards, regulations and permits) and tacked down or secured with a 12 inch diameter fiber roll installed around the entire perimeter.

Solid waste dumpsters, if used, shall be covered during storm events and locked at the end of each work day. The dumpster cover will be carefully secured to withstand weather conditions and animal intrusion. The Contractor shall separate wastes and recycle or dispose of them off-site n compliance with local, regional and/or state regulation.

The Project requires the use of heavy mechanical equipment, machinery and materials which have the potential to generate solid and liquid wastes that requires proper disposal. All construction related material waste such as, excess sediment/soil, aggregate, decomposed granite, excess pipe, etc., will be disposed of at a site approved by NTCD, NDEP and TRPA.

The Contractor shall place liquid wastes (i.e. grease, oil, oil filters, antifreeze, cleaning solutions, batteries, hydraulic fluids, transmission fluids, etc.) in proper sealed containers, store the containers in designated storage areas, and ultimately properly dispose or recycle the materials off-site.

Documentation Requirements

Provide the following information.

Notice of Intent (NOI)
Attach, to the end of the SWPPP, a copy of the signed electronic NOI certification page submitted to the NDEP.

Approval Letter
Attach, to the end of the SWPPP, a copy of the approval letter received from the NDEP.

Permit
Attach a copy of the Permit to the end of the SWPPP.

Significant Spills/Leaks/Releases
Describe any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants in stormwater to a regulated MS4 or waters of the State of Nevada that meet the definition of Waters of the U.S. Include the date of occurrence, the circumstances leading to the release, actions taken in response to the release, and measures taken to prevent recurrence of such releases.

Structural Control Measure Repairs
Attach, to the end of the SWPPP, documentation of repairs made to structural control measures. Such documentation shall include the date(s) of discovery of areas in need of repair/replacement, date(s) that the structural control measure(s) returned to full function, and the justification for any extended repair schedules.

Inspection Reports
Attach, to the end of the SWPPP, all inspection reports including post-storm event inspections.

Corrective Action
Describe any corrective action taken at the site. Include events and dates when problems were discovered and modification occurred.

Buffer Documentation
If the site's disturbance area is located within 50 feet of perennial water, attach buffer documentation to the end of the SWPPP.

Employee Training Records
Attach records of employee training to the end of the SWPPP. Records should include the date training was received.

Plans Required By Other Agencies
The SWPPP may incorporate by reference the appropriate elements of plans required by other agencies. Attach, to the end of the SWPPP, a copy of the requirements incorporated by reference.

DeMinimis Discharges
For DeMinimis discharges, describe the discharge, provide the beginning and end dates of the discharge, and attach a copy of the sampling analysis report to the end of the SWPPP.

DeMinimis Discharge 1	
Start Date	**Description**
_____/_____/_____	
End Date	
_____/_____/_____	

DeMinimis Discharge 2	
Start Date	**Description**
_____/_____/_____	
End Date	
_____/_____/_____	

DeMinimis Discharge 3	
Start Date	**Description**
_____/_____/_____	
End Date	
_____/_____/_____	

Post-Construction Stormwater Management
Describe the stormwater management control measures that will be installed during the construction process to control pollutants in stormwater discharges after construction has been completed.
The project will install rock, woody debris, logs, container plants and seed revegetation as permanent erosion control measures for the stream work. The newly created floodplain will help separate creek flow from commercial stormwater flows in the adjacent parking lot. Curb and gutter, trench drain and other stormwater improvements are planned for installation in the highway. Road and trail decommissioning on Sierra Colina LLC property will reduce rilling and compaction of exposed soils.

Inspection, Maintenance, and Corrective Action

Describe the procedures operators will follow for maintaining their stormwater control measures, conducting site inspections, and, where necessary, taking corrective actions, in accordance with Permit sections *3.0 Effluent Limitations Applicable to All Discharges from Construction Sites*, *4.0 Effluent Limitations Applicable to Sites Using Constructed Stormwater Conveyance Channels or Sediment Basins* , and *5.0 Inspections*.

Inspection Procedures

Describe the procedures operators will follow for conducting site inspections.

All areas of disturbed and bare soil, areas used for storage of materials and equipment that are exposed to precipitation, on-site vehicle entrance and exit locations and all on-site erosion and sediment control BMPs shall be routinely inspected. Dewatering and diversion equipment shall be inspected daily at a minimum or as necessary to ensure functioning. Inspectors shall keep record daily construction activities and BMP conditions. Inspection the entire project area will occur prior to storm events and the engineer or NTCD inspector will direct the Contractor to take the appropriate corrective actions.

Identify the personnel responsible for conducting inspections.

Provide the inspection schedule that will be followed based on whether the site is subject to Permit section *5.2 Routine Site Inspection Procedures*, or whether the site qualifies for the reduced inspection frequency in Permit section *5.3 Reduced Inspection Schedule*. If the site qualifies for a reduced inspection schedule in accordance with Permit section *5.3 Reduced Inspection Schedule*, include the beginning and ending dates of the reduced inspection period.

Inspection shall comply with section 5.2 Routine Site Inspection Procedures for the duration of construction activities.

Routine Facility Inspection Documentation

Attach all documented findings of each routine site inspection to the end of the SWPPP. Routine facility inspection documentation requirements are outlined in Permit section *5.4 Routine Facility Inspection Documentation*.

Inspection Results

Attach, to the end of the SWPPP, records of actions taken based on inspection results in accordance with Permit section *5.5 Inspection Results*.

Inspection or Maintenance Checklists
Attach any inspection or maintenance checklists or other forms that will be used to the end of the SWPPP.

Maintenance Procedures
Describe the procedures operators will follow for maintaining their stormwater control measures.

Corrective Action Procedures
Describe the procedures operators will follow for taking any necessary corrective actions.

Additional Information

Provide the following additional information.

Discharges To Water Quality Impaired Waters		
Does the facility discharge to a surface water contained in the current 303(d) *Impaired Water Body* listing issued by the NDEP BWQP that is impaired for (1) sediment or a sediment-related parameter, such as total suspended solids (TSS) or turbidity, and/or (2) nutrients, including impairments for nitrogen and/or phosphorous?	Yes	No

If yes, make one of the following demonstrations (check the appropriate box to indicate which one has been selected) and attach such data and technical information to the end of the SWPPP:

	That the site will employ measures to prevent the discharge of stormwater pollutant(s) for which the waterbody is impaired; or
	That the discharge from the site has no potential to contain the pollutants causing impairment; or
	That the discharge is not expected to cause or contribute to an exceedance of an applicable water quality standard.

Control Measure Addition/Repair/Modification

If it is determined, based on an inspection of control measures performed in accordance with the inspection requirements of Permit section *5.0 Inspections*, that installation of additional control measures, or significant repair or modification of existing control measures, is necessary, and implementation before the next storm event is impracticable, document the reason(s) for the delay in the area below.

Identify and describe the modifications made to control measures.

Permit Requirement Waiver
If the project is waived from complying with a specific requirement in Permit section *3.0 Effluent Limitations Applicable to All Discharges from Construction Sites* in accordance with Permit section 3.1.1, document this fact in the area below.

Departures from Design Specifications
Explain any departures from design specifications for the installation of all stormwater control measures.

Culvert Stabilization
If culverts are present on the site, describe the measures implemented to sufficiently minimize the threat of erosion at culvert locations to prevent the formation of rills and gullies during construction.

Unique Construction Disturbances
If the project involves construction approved under a CWA Section 404 permit or construction of a water-dependent structure or water access area (e.g., pier, boat ramp, trail), document this fact in the area below and on the site map.

Linear Construction Projects
For linear construction projects where it is infeasible to comply with the requirements of Permit section *3.5.1.2*, document the rationale for why it is infeasible to do so, and describe any buffer width retained and/or supplemental erosion and sediment controls installed.
For linear projects with rights-of-way that restrict or prevent the use of perimeter controls required by Permit section *3.5.2 Install Perimeter Controls*, identify the areas where it is impracticable to maximize the use of perimeter controls and explain why it is impracticable to do so.

Track-Out
If site conditions make it infeasible to install structural controls to prevent track-out (e.g., linear project along a paved right-of-way), explain why such controls cannot be installed and describe the alternative measures that will be used to prevent, monitor, and remove track-out sediment from paved roadways.

Sediment or Soil Stockpiles
If it is infeasible to place sediment or soil stockpiles away from stormwater conveyances, such as curb and gutter systems, and streets leading to such conveyances, explain why it is infeasible to do so.

Non-Vegetative Stabilization Methods
Describe all non-vegetative methods of stabilization employed at the site.
rocks, logs, erosion control blanket, and tackifier will all be used as non-vegetative methods of soil stabilization

Discharges to Impaired Waterbodies Without Established Total Maximum Daily Loads
If the site discharges to a water quality-impaired water (contained in the current 303(d) impaired water body listing) for which a Total Maximum Daily Load has not been established, describe the condition for which the water has been listed and include a demonstration that the Best Management Practices that are selected for implementation will be sufficient to ensure that the discharges will not cause or contribute to an exceedance of an applicable State water quality standard.

Sediment Basin Discharges
If the use of outlet structures that withdraw water from the surface of the sediment basin in order to minimize the discharge of pollutants is determined to be infeasible, explain why it is infeasible and attach any supporting documentation to the end of the SWPPP.

Additional Discharge Requirements
Where NDEP determines it is necessary to impose additional requirements on the discharge, attach a copy of any correspondence describing such requirements to the end of the SWPPP, and describe the stormwater control measures that will be used to meet such requirements.

Signature Requirements

Print out the completed SWPPP and sign and date below in accordance with Permit section *7.23 Signature Requirements*. All operators shall also sign and certify the SWPPP in accordance with the Permit signature requirements. Digital signatures are not accepted.

Adherence Statement	
"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."	
Name (print)	**Title**
Signature	**Date**
	_____/_____/_____

Operator 1	
Name (print)	**Title**
Signature	**Date**
	_____/_____/_____

Operator 2	
Name (print)	**Title**
Signature	**Date**
	_____/_____/_____

Operator 3	
Name (print)	**Title**
Signature	**Date**
	_____/_____/_____

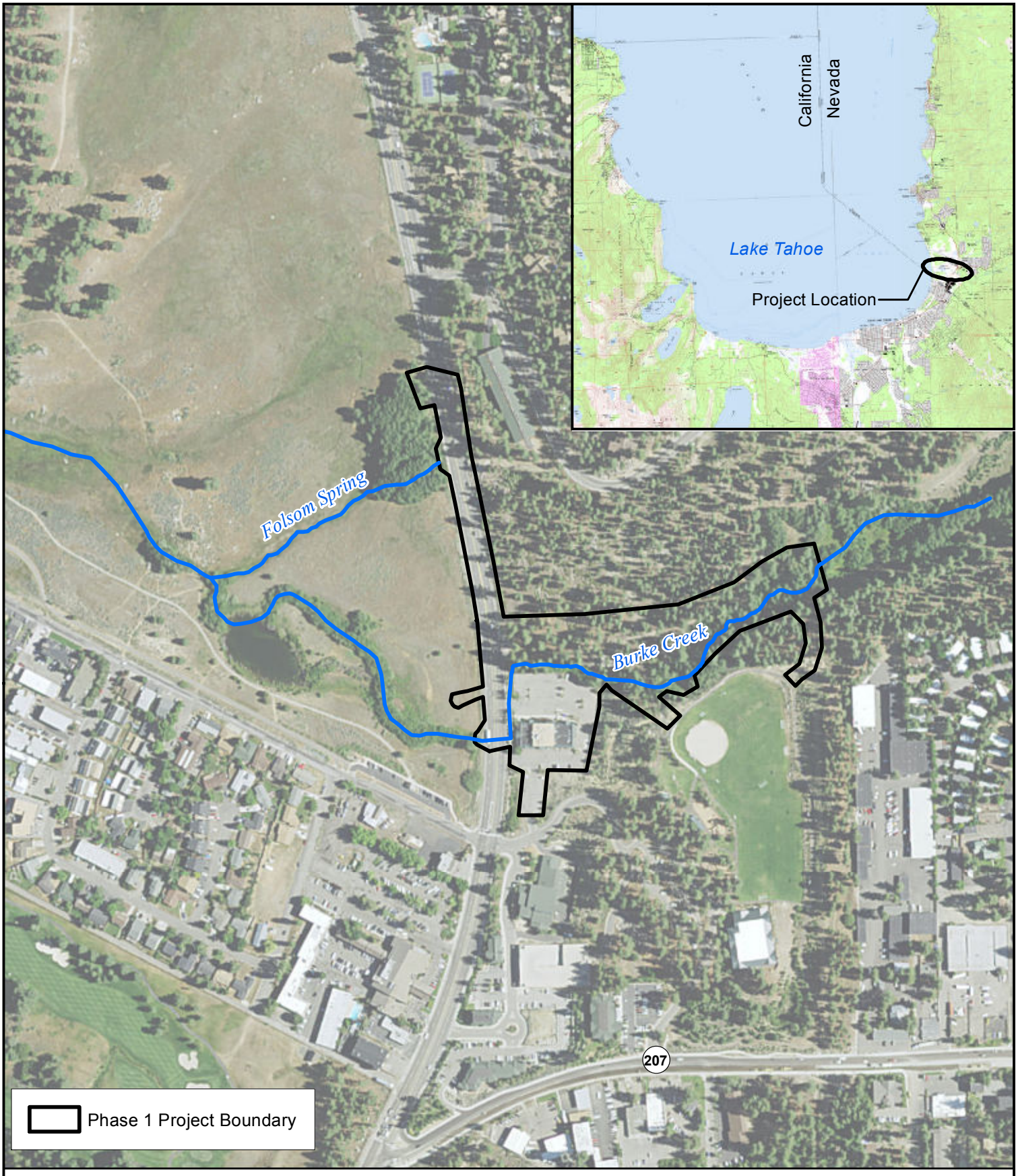


FIGURE 1: VICINITY MAP

BURKE CREEK HIGHWAY 50 CROSSING AND REALIGNMENT
DOUGLAS COUNTY, NV
APRIL, 2016

NORTH

0 300 600
FEET

NOTES:

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid,

Nevada Tahoe Conservation District

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DEVELOPING INNOVATIVE DESIGN SOLUTIONS
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Reno, NV 89511 Fax: 775.823.4066

Nevada Tahoe Conservation District

FIGURE 2: SWPPP EXISTING DRAINAGE

NOTES:
1. EXISTING HIGHWAY AND COMMERCIAL PARKING LOT DRAINAGE MIX WITH BURKE CREEK FLOWS AND OUTLET DOWNSTREAM OF HIGHWAY 50

PLAN - STREAM WORK
SCALE: 1" = 100'

PLAN - NORTHERN DRAINAGE WORK
SCALE: 1" = 100'

LEGEND:
- PARCEL BOUNDARY
- PROJECT BOUNDARY
- SURFACE FLOW ARROW
- BURKE CREEK FLOW ARROW
- EXISTING DRAINAGE INLET
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN OUTFALL

POTENTIAL POLLUTANT SOURCE 4: PROPOSED ROAD DECOMMISSIONING ON SIERRA COLINA LLC. PROPERTY

PROPOSED CULVERT OUTFALL

PROPOSED CULVERT BURKE CREEK CROSSING

PROPOSED BURKE CREEK ALIGNMENT AND FLOODPLAIN GRADING

POTENTIAL POLLUTANT SOURCE 2: PROPOSED BURKE CREEK IN CHANNEL STRUCTURES

HIGHWAY 50

EXISTING BURKE CREEK ALIGNMENT

EXISTING NDOT HIGHWAY 50 ALIGNMENT

POTENTIAL POLLUTANT SOURCE 3: PROPOSED STAGING AND STORAGE AREA

KAHLE DRIVE

SHADY LANE

NOTES:
1. POTENTIAL POLLUTANT SOURCE 1: FROM GRADING ACTIVITIES OF SHOWN GRADING LIMITS, STORM WATER SYSTEM IMPROVEMENT, AND UTILITY RELOCATIONS.
2. POST PROJECT, THE OUTLET DOWNSTREAM OF HIGHWAY 50 ONLY CARRIES STORM WATER FLOWS. BURKE CREEK IS REALIGNED.

0 50 100
SCALE IN FEET

PLAN - STREAM WORK
SCALE: 1" = 100'

HIGHWAY 50

FOLSOM SPRING

EXISTING NDOT HIGHWAY 50 ALIGNMENT

GRADING FOR WATERLINE ISOLATION VALVE INSTALLATION

PLAN - NORTHERN DRAINAGE WORK
SCALE: 1" = 100'

LEGEND:
- PARCEL BOUNDARY
- SURFACE FLOW ARROW
- BURKE CREEK FLOW ARROW
- EXISTING DRAINAGE INLET
- EXISTING STORM DRAIN
- EXISTING STORM DRAIN OUTFALL
- LIMIT OF GRADING
- PROPOSED CURB AND GUTTER
- PROPOSED STORM DRAIN PIPE
- PROPOSED DRAINAGE INLET/TRENCH DRAIN

Nevada Tahoe Conservation District

FIGURE 3: SWPPP
PROPOSED DRAINAGE

PRELIMINARY DEWATERING AND DIVERSION PLAN

BURKE CREEK HIGHWAY 50 CROSSING AND REALIGNMENT PROJECT- PHASE I

Prepared For:

ndep
NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
protecting the future for generations

Prepared By:

Nevada Tahoe Conservation District

March 2016

TABLE OF CONTENTS

1.0 BACKGROUND AND OBJECTIVES

The Burke Creek Highway 50 Crossing and Realignment Project (Project) goals include restoring ecological function and processes within the Burke Creek channel and its adjacent floodplain, reducing pollutant loading to Lake Tahoe, and improving public safety on Highway 50 related to flooding. Work within the riparian corridor will be limited to the period of May 01 to October 15, 2016. Phase I Project improvements include:

- construction of new channel, secondary side channel, and floodplain upstream of Highway 50
- decommissioning a portion of the existing channel,
- construction of a corrugated arch culvert crossing highway 50,
- realignment of an existing channel berm,
- drainage improvements such as curb and gutter, trench drains, and sediment cans
- water, communication, and gas line relocation,
- and other work as shown on the project plans.

The purpose of this Dewatering and Diversion Plan (DDP) is to detail the control of intercepted creek, groundwater, and seepage flows during the construction of proposed improvements described above. Dewatering and discharge processes and monitoring described in the following sections will allow the system to operate at an acceptable level while protecting water quality until construction is completed.

The Contractor shall submit a detailed Dewatering and Diversion Plan to the Engineer for distribution to NTCD, NDEP and TRPA prior to the initiation of and construction activities, and in accordance with the project plans, standard specifications, the special technical specifications, the SWPPP, and this plan. These entities will review and comment on the Plan within twenty (20) working days and provide comments to the Engineer who will then provide the comments to the Contractor. The Contractor will update the plan based on the comments, if needed, and re-submit to the Engineer for review and acceptance. No work on the Project will be allowed to be performed until an accepted plan has been provided and certified.

The detailed dewatering plan shall include the Contractors approach for dewatering including but not limited to: the dewatering location(s), number and size of pumping units (if applicable), power source for pumping units (if applicable), size and materials for pipes, materials for damming, piping discharge point(s), fuel storage location (if applicable), location of emergency or back up detention system, settling basin (if applicable), gravel bags, baker tank (if applicable), dirt bag filter (s) and location of filtration of diverted water. The Contractor shall include manufacture's specifications were applicable.

The detailed diversion plan shall include the Contractors approach for diverting the natural flow of Rosewood Creek during construction of in channel work including but not limited to: diversion method and materials, number and size of pumping units, power source for pumping units, piping discharge point(s), access and installation methodologies, protection methods for discharge point(s), fuel storage (if applicable), design flow rates, and final method for introducing natural flow into the newly constructed channel while concurrently meeting all applicable regulatory water quality standards for discharge. The Contractor shall include manufacture's specifications were applicable.

2.0 EFFLUENT REQUIREMENTS

The diversion and dewatering operations as well as the introduction of flow into the newly constructed channel are required to meet the permit requirements of Nevada Division of Environment Protection (NDEP), and the Tahoe Regional Planning Agency (TRPA). The NDEP standards for tributaries in the Lake Tahoe Basin reference the Nevada Administrative Code - Chapter 445A – NAC 445A.1915. The TRPA standards are specified in Chapter 81 – Water Quality Control of the TRPA Code of Ordinances. The more stringent NDEP standard for turbidity governs.

Operations will be required to fully accommodate all in- channel flows and intercepted groundwater for entire duration of the Project to assure Project success and to protect the downstream reaches of Burke Creek and Lake Tahoe from any discharge exceeding 10 NTUs, or the baseline turbidity value established prior to construction, whichever is higher.

3.0 DIVERSION REQUIREMENTS

3.1 Summary

The existing channel of Burke Creek upstream of Highway 50 is located on top of an embankment. The creek then enters a culvert that parallels the highway and flows for approximately two hundred feet before crossing the highway. The realignment of the creek will bring the channel off of the embankment into a newly constructed channel and floodplain on Douglas County property. The creek will also be realigned to take a more direct path across the highway in a new culvert crossing. A portion of the existing channel will remain intact and serve as a high flow channel. A portion of the existing channel will be abandoned, regraded, and revegetated. See project plans.

The creek will need to be diverted for a majority of the grading work as the stability of existing embankment is unknown and could be adversely effected by grading activities. The diversion may be routed through the existing culvert before the proposed culvert is constructed. After the proposed culvert construction, the diversion can be directed into the culvert and, after energy dissipation, can be released into the meadow. The diversion is further complicated by the fact that the proposed culvert alignment intersects the existing culvert. For this reason the diversion may need to be routed around the culvert while installation is occurring.

3.2 Water Introduction

Water introduction into the new channel shall be for existing natural creek channel flow only and no pumping of water will be allowed without prior acceptance of the Engineer, NTCD, NDEP and TRPA. Decommissioning of the diversion dam shall only be initiated after acceptance of the new channel and all channel tie-ins by the Engineer, NTCD, NDEP and TRPA. The decommissioning shall start with the shutdown of the diversion pump, if required, and then proceed with the slow and careful removal of portion(s) of the diversion dam. The portion(s) of the diversion dam to be removed shall only be the top layers of the dam in order to minimize the downstream

forces of the water on the creek channel. The diversion dam shall be removed in a manner as to not create turbidity within the creek and shall be done all by hand (no use of equipment). Once the portion of the diversion dam has been removed, the natural creek flow will be introduced to the new channel. The creek flow will flow naturally through the new channel. The introduction of the natural flow into the newly constructed channel must meet effluent water quality criteria. See section 2.0.

3.3 Winterization

Water introduction into the new channel will happen directly proceeding construction, however the downstream section slated for phase 2 of the project will not yet be complete. An interim solution for directing Burke Creek flows during the winter season between phases must be established. The preferred method is to construct a rock dissipater below the new culvert outlet and allow the creek to spread naturally through the existing meadow. Other options may be suggested by the Contractor but will be subject to NTCD and USFS approval. The winterization period will be from October 15, 2016 or the end of 2016 Construction, whichever is later, to April 30, 2017.

3.4 Diversion Flow Rates

The hydrology provided in the alternatives analysis report for the Burke Creek Restoration project completed in 2009 (Winzler&Kelly, 2009) is the basis for current design. Monitoring information gathered for the Winzler & Kelly report estimated average summer base flow in the creek to be 0.22 cfs. Based on this monitoring information, the Contractor will be required to maintain a diversion capable of conveying a minimum of 0.5 cfs during all times of diversion during construction. The winterized diversion shall be able to accommodate the 50 year return period storm at a minimum, 94 cfs. The proposed culvert can accommodate the 100 year return period. Estimated peak flows for Burke Creek during storm events are given in Table 1 below:

Table 1: Estimated Peak Flow for Burke Creek above Highway 50*

	Peak Flow for Indicated Return Period [cfs]					
	1.2 yr	**5 yr**	**10 yr**	**25 yr**	**50 yr**	**100 yr**
Burke Creek Above Highway 50	8	32	47	71	94	121

*peak flows given by Winzler&Kelly, 2009

4.0 DEWATERING REQUIREMENTS

4.1 Summary

In addition to the low from Burk Creek being routed downstream of the construction area as described in Section 3.0, planned excavation for the culvert installation and new channel construction may introduce additional flow from groundwater into the system. Groundwater and seepage flows will be removed from construction and excavation areas as necessary and not be returned to Burke Creek without proper treatment. It is assumed that the Contractor will use flexible hose to carry the sediment-laden water from portable sump

pumps to a more fixed connector pipe. A check valve should be placed on this line to assure no backflow into the construction area. After treatment, if the effluent meets water quality standards, it will be discharged to a downstream point in Burke Creek or may be reused for construction purposes as described in section 4.3. If the effluent does not meet water quality standards, it will be reused for construction purposes as described in section 4.3.

4.2 Dewatering Flow Rates

Flow from groundwater and seepage into the construction area for in-channel work, culvert placement, and grading may be encountered. No direct aquifer testing has been completed to accurately estimate the maximum rate of groundwater flow which will need to be pumped in order maintain a dewatered construction area of the new channel. Groundwater elevations have been logged in the Project Geotechnical Report (Wood Rodgers, 2015) from 3 feet below ground surface in the parking lot to 6 feet below ground surface in the culvert alignment along the Highway 50 shoulder. The Contractor is responsible to appropriately dewater the construction site in order to construct the Project improvements as described in this plan, the SWPPP and the Special Technical Specifications. A copy of the Project Geotechnical Report is provided with the contract documents for the Contractor's use and information on the geotechnical conditions within the Project area.

4.3 Discharge and Treatment Options

Treatment options may include the use of dirt bag filters. The effluent that discharges from any dirt bag filter on the Project site will meet groundwater quality discharge standards before being allowed to infiltrate into the soil in a location that can appropriately accommodate it. The position shall be accepted by the Engineer prior to placement and use by the Contractor.

If the treated effluent meets water quality standards, it will be discharged to a downstream point in Burke Creek. The discharge point will include rocked erosion protection at the outlet. Treated water may also be used for dust control or irrigation purposes.

If the treated decant is unable to meet requirements for direct release to the creek downstream of the work area, than it may be applied to the vegetation for percolation or pumped to a water truck and used as applied dust control. All discharge effluent water used for irrigation will occur at least 30 feet away from Burke Creek and will be immediately discontinued upon evidence of runoff. The effluent shall not be discharged into storm sewers for the duration of construction.

If the treated water is unable to meet quality requirements and the volume of water is too large to be consumed by use for construction purposes, a sedimentation tank may be necessary to treat the water. If necessary, a sedimentation tank would be used to bring the water to effluent standards before being discharged to Burke Creek.

5.0 OPERATIONS AND MAINTENANCE

All temporary sumps and pumping systems necessary for dewatering activities shall be designed, operated, and maintained to avoid pumping of fine sediments from the subsurface. Monitoring of sumps and pump systems shall be conducted by the contractor to ensure that subsurface fine sediments are not being removed by the dewatering operation. Dewatering fluids and debris shall be disposed of in a suitable manner in compliance with the requirements of the SWPPP. Sedimentation tanks used on the project site, if required, shall only be flushed and cleaned outside of the project area at an approved facility. Disposal of material shall meet all federal, state, and local requirements. No runoff waters or stormwater shall be allowed to drain into excavated areas, except where specifically identified in the project plans.

Routine monitoring of all diversion and dewatering systems will be conducted daily by the Contractor during active construction. If it is discovered that any portion of the system is not functioning properly, the Contractor shall shut down operations until the problem is evaluated and the necessary repairs to the system are made.

Winter monitoring of the diversion system will occur weekly and be performed by NTCD. The Contractor shall make staff available to mobilize for immediate repairs if any issues are identified.

6.0 MONITORING

6.1 Recorded Data

When discharging construction water to the creek, the discharge effluent volumes are to be read daily from the flow meter placed on the discharge piping. Date and time of reading will also be noted. Discharge effluent water quality will be measured for turbidity. Grab samples will be taken at the discharge point and recorded a minimum of 1 x daily during any active dewatering operations. Additionally, the following visual inspection data will be collected at the discharge point:

- Date and time
- Weather conditions
- Presence of waterfowl or aquatic wildlife
- Color and clarity of discharge effluent
- Erosion or ponding downstream of discharge site
- Photographs taken

If Turbidity levels fall outside the limits stated in section 2.0 or if the discharge exhibits any odors, discoloration or oily sheen, the Contractor shall shut down operations until the problem is evaluated and the necessary repairs to the system are made

6.2 Visual Inspections

When functioning, the Contractor will perform a visual inspection of the entire dewatering and diversion systems daily from intake to discharge point and note any problems or deficiencies in the system.

APPENDIX A:

EXAMPLE DEWATERING AND DIVERSION DAILY INSPECTION FORM

SWPPP INSPECTION REPORT	Approx. Temperature: _____	Storm Start: _____ (date)
Project: _____	PPT: ____Y / N____	Storm Duration: _____
Inspector: _____	PPT Amount at time of inspection: _____ in.	Time since last storm: _____

DATE: _____ TIME: _____	DAY:	M	T	W	TH	F	SA	SU

Construction Stage: _____

Area of site exposed to storm water runoff: _____

Construction Activities: _____

_____

Inspection Type

Daily ☐ Prior to Predicted Rain ☐ Following Rain Event ☐

Weekly ☐ During Rain Event ☐

Blank=No Inspection NC=Needs Correction, See Observations OK or Check Mark=Meets Standards NA=Not Applicable

1)	Damage to containment dikes or erosion control fencing?	
2)	Improperly installed or ineffective erosion control fencing?	
3)	Unauthorized vehicle access, vehicles accessing designated non-construction areas not subject to disturbance?	
4)	Boundary fence damage or removal?	
5)	Disturbed areas with inadequate erosion prevention and sediment control protection?	
6)	Evidence of any sediment leakage through erosion control fencing or containment dikes?	
7)	Soil piles and other earthen materials which are unprotected or located in a drainage way?	
8)	Spilled and improperly stored chemicals, paint, fuel, oil, solvents, sealants, etc.?	
9)	Upstream runoff diversion structures (are in place and operational)?	
10)	Any evidence of sediment tracking from construction equipment?	
11)	Any signs of soil erosion or deposition down gradient from runoff discharges?	
12)	Sediment accumulation within onsite storm water drainage control facilities, and facilities in need of maintenance?	
13)	Any evidence of non-storm water discharges from the project site? Authorized, illicit, BMP condition?	
14)	Does SWPPP or WPCP require revisions?	
15)	Notable observation at relevant discharge points and downstream locations of the receiving water?	
16)	Observed impacts to the receiving water?	
17)	Photographs taken?	

Date = Defeciency to be addressed O = Observation

Date added	Observation/Inspection	WPCD #	Photo	Date Completed

SIGNATURE: _____ **TITLE:** _____

Exhibit D

Permits

NVW-42034

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

TEMPORARY
AUTHORIZATION TO DISCHARGE

In compliance with the provisions Chapter 445A of the Nevada Revised Statutes (NRS), the Permittee,

Nevada Tahoe Conservation District
PO Box 915
Zephyr Cove, NV 89448

is authorized to operate heavy equipment (rolling stock) and to work in waters of the State, in Douglas County, Nevada for the restoration of stream habitat and water quality functions to the stream environment of Burke Creek. The project work is located along the west side of US 50 in and along Burke Creek. The permit is issued in accordance with the plans and information submitted to NDEP for the project located approximately at:

Burke Creek
US Hwy 50
Section 22 & 23, T13N R18E MDB&M
Latitude 39.9717N Longitude 119.9361 W
Douglas County, Nevada

in receiving waters named:

Burke Creek

in accordance with the discharge limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall become effective on **July 1, 2016**.

This permit shall expire at midnight **December 28, 2016.**

Signed this 17th day of May, 2016.

Nicholas S. Brothers, P.E.
Bureau of Water Pollution Control

PART I

I.A. DISCHARGE LIMITATIONS, MONITORING, AND CONDITIONS

Introduction: The proposed project will stabilize portions of the Burke Creek channel and its adjacent floodplain, reduce pollutant loading from in-channel and urban source areas to Lake Tahoe, and improve conveyance capacity of the Burke Creek culvert beneath US50. The Permittee, Nevada Tahoe Conservation District, is proposing to conduct Phase 1 replacing existing culverts at US 50, removing approximately 9,000 square feet of parking lot, stabilize portions of Burke Creek channel and construct new stream channel and floodplain. The overall project purpose is to reduce sediment loads to Lake Tahoe.

Best Management Practices (BMPs) may include diversion of active flows, cofferdam, silt barriers, hay bales, construction limit fencing, vegetation protection, sediment logs, storm drain protection, and other BMPs as needed; daily BMP inspections will occur during construction.

I.A.1. **Discharge Limitations:** During the period beginning on the effective date of this permit and lasting until the permit expires, the Permittee is authorized to operate equipment (rolling stock) and to work within the waters of the State in Burke Creek and its associated floodplain in Douglas County, Nevada. BMPs shall be implemented to prevent water quality degradation, and minimize erosion and sediment transport, in accordance with plans and information submitted to the Division.

The water quality shall be limited and monitored by the Permittee as specified below:

Table I.A.1 Discharge Limits, Sampling and Monitoring Requirements

Parameters and Units		Discharge Limits	Monitoring Requirements		
			Location	Frequency	Sample Type
Diversion Discharge Rate	gpm	M&R	001, 002	Daily*	Flow meter, calculation
Turbidity –S.V.	NTU	002 ≤ 10 > 001 [1]	001, 002	Daily*	Field Measurement

001= Burke Creek background monitoring location, located approximately 100 feet upstream of the active project work area.

002 = Burke Creek compliance sampling point, located approximately 100 feet downstream of the active project work area.

* Monitor daily during dewatering, or flow diversion discharge to the Creek.

1. Monitor turbidity in Glenbrook Creek at 001 and 002; if 002 turbidity readings exceed 001 by greater than 10 NTU, then additional BMPs are to be implemented prior to work resuming.

gpm:	gallons per minute	M&R:	Monitor and Report
NTU:	Nephelometric Turbidity Units	S.V.:	Single Value

I.A.2. **Monitoring and Sampling Requirements:** The project monitoring shall be conducted in two ways: 1) by means of water quality sampling and analysis, and 2)

by means of a final concise narrative report describing the project, with a series of photos documenting the project activities as presented to NDEP, including the implementation of water quality, sediment and erosion management BMPs. The "before, during and after" photos, shall document the construction activities as well as the diversion, discharge, BMPs, and other project activities. The photos shall be taken from established photo points. The photos, along with the narrative report of the project activities and work completed at the project sites shall be submitted to NDEP by the 28th day of the month following expiration of the permit or conclusion of the project whichever is less; the first DMR is due **August 28, 2016**. Water quality sampling and analytical data shall be submitted to NDEP monthly on DMR forms. If no diversion or dewatering occurs during a monthly monitoring period, then no sampling is required; the DMR is still required to be submitted, with the notation that no discharge occurred.

Specific Sampling Requirements: Water quality monitoring conducted in compliance with the monitoring requirements specified in I.A.1. shall be taken in Burke Creek, one upstream of the active work area (001) and one downstream of the active work area (002). Water quality samples taken in compliance with the monitoring requirements specified in I.A.1 shall be taken daily at 001, and 002, and downstream concentrations at 002 compared with background concentrations at 001. Turbidity results shall be compared between the two monitoring locations. Daily measurements in the Creek shall be recorded in a log, with copies included with the monthly DMRs.

Sampling is not required when the equipment is not in or near the Creek or floodplain, and no project work or de-watering discharge is active.

Sampling by qualified personnel knowledgeable in sample collection will only be required daily during actual work in the waterbodies and adjacent areas, including diversion discharges. Analytical work, if required, shall be conducted by a Nevada Certified Laboratory.

Sampling results shall be submitted monthly as per Part I.B.2.

I.A.3. **Specific Conditions:** For or any heavy equipment used in the Creek and adjacent areas in the project area, the operations shall be conducted in accordance with the plans information, the specifications submitted to the Division, and the following terms and conditions:

a. Any heavy equipment (excavator, backhoe, trackhoe, front-end loader, bulldozer, etc.) to be used in the work area must be steam cleaned at least once before work in the water bodies commences. All equipment shall be inspected for leaks daily prior to use. All leaks shall be repaired immediately. All equipment fueling and storage of fuels shall be conducted off-site and at least 200 feet away from the Creek.

b. Precautions must be taken to minimize damage to any aquatic habitat in the project area during operation of equipment on the project. Disturbed areas

shall be restored as much as practicable in conformance with approved plans.

c. Best Management Practices (BMPs) shall be applied and precautions shall be taken: to prevent and control releases of: debris, sediment, any transport of sediments, and to prevent and control turbidity in the Creeks during the construction activities. Prior to project construction diversion structures such as cofferdam, sandbags and filter fabric fences shall be installed upstream and downstream to divert flows away from active project areas. Other BMPs may include but will not be limited to construction fences, track-out devices, vegetation protection, sediment logs, storm drain protection, erosion blankets and other BMPs as consistent with all applicable BMP manuals and handbooks. If at any time, the current BMPs are not effective, consultation with permitting agencies is required prior to work resuming.

d. If a visible sediment plume results from project work, the work shall cease and the current BMPs shall be re-evaluated, and an additional set of more restrictive BMPs shall be instituted before work resumes. In addition, NDEP-BWPC must be notified as soon as practicable of any release.

e. The pumped water shall be pre-filtered with sand/gravel pack around sumps, and hay bales, silt fencing, and sediment basins, as needed. Where water to be discharged into the Creek will create excessive turbidity, the water shall be routed through a sediment interceptor or other facilities until turbidity measurements at 002 do not exceed turbidity measurements at 001 by more than 10 NTU.

f. A record shall be kept of each day's use of heavy equipment in the Creek and adjacent project areas.

g. The Permittee shall provide a Spill Prevention Plan for the use of any hazardous materials or equipment used during the project activities.

h. Every precaution must be taken in site stabilization of the area by the replacement of vegetation as applicable and practicable. Native vegetation and mulch shall be applied. Where appropriate, native plants, rock, wood and soils salvaged from project excavation shall be used in revegetation of areas disturbed for construction access.

i. The Permittee, **Nevada Tahoe Conservation District,** and engineer and contractors, bear the responsibility to ensure that the requirements of this temporary permit are fully satisfied.

I.A.4. **Documentation:** Documentation, in addition to sampling, must be submitted as specified in Part I.A.2.

I.A.5. **Final Report:** The final narrative report with photos describing and documenting the results of the project's activities shall be submitted after the end of the permit. Water quality monitoring results shall also be received monthly and with the final report.

The final report shall be received, at the address given below, by the 28th day of the month following project completion or permit expiration, whichever comes first, at latest by **January 28, 2017**:

Nevada Division of Environmental Protection
Bureau of Water Pollution Control
901 S. Stewart Street, Suite 4001
Carson City, NV 89701

I.A.6. There shall be no discharge of substances that would cause a violation of water quality standards of the State of Nevada.

I.A.7. There shall be no objectionable odors generated in the conduct of this project.

I.A.8. There shall be no construction activities undertaken in the water bodies in relation to this project except those as authorized by this permit.

I.A.9. The project elements/components/activities shall be constructed and or conducted in accordance with the plans submitted to and approved by the Division. The plans must be approved by the Division prior to the start of construction. **All changes to the approved plans must be approved by the Division.**

I.A.10. **Presumption of Possession and Compliance:** Copies of this permit, any subsequent modifications shall be maintained at the permitted project site at all times.

I.A.11. **Schedule of Compliance:** The Permittee shall achieve compliance with the permit limitations upon issuance of the permit.

I.B. MONITORING AND REPORTING

I.B.1. Monitoring

a. **Representative Samples:** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

b. **Test Procedures:** Analyses shall be conducted by a "certified laboratory" using an "approved method of testing", as defined in NAC 445A.0564 and NAC 445A.0562, respectively.

c. **Recording the Results:** For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:

i. The exact place, date, and time of sampling;
ii. The dates the analyses were performed;
iii. The person(s) who performed the analyses;
iv. The analytical techniques or methods used; and
v. The results of all required analyses, including reporting limits.

d. **Additional Monitoring by Permittee:** If the Permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in any calculation and/or reported value required by this permit. Such increased frequency shall also be indicated in required reports.

e. **Records Retention:** All records and information resulting from monitoring activities; the permit application; reporting required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of five (5) years or longer if required by the Administrator.

f. **Reporting Limits:** Unless otherwise allowed by the Division, the approved method of testing selected for analyses shall have a reporting limit which is:

i. Half or less of the discharge limit; or, if there is no discharge limit;
ii. Half of less of the applicable water quality criteria; or, if there is no limit or criteria
iii. The lowest reasonably obtainable limit using an approved test method.

g. **Modification of Monitoring Frequency and Sample Type:** After considering monitoring data, discharge flow, discharge frequency, and receiving water conditions, the Division and/or Administrator may, for just cause, modify the monitoring frequency and/or sample type by issuing an order to the Permittee.

h. **Definitions**

i. **30-day average discharge:** means the total discharge during a month divided by the number of samples in the period that the facility was discharging. Where less than daily sampling is required by this permit, the 30-day average discharge shall be determined by the summation of all the measured discharges divided by the number of samples during the period when the measurements were made.
ii. **Daily maximum:** is the highest measurement obtained during the monitoring period.
iii. **30-day average concentration:** means the arithmetic mean of measurements made during a month.
iv. **"Discrete" sample:** means any individual sample collected in less than 15 minutes.
v. **Composite sample:** flow rate composite means the arithmetic mean of no fewer than six individual measurements taken at equal time intervals for 24 hours, or for the duration of discharge, whichever is shorter. For other than flow rate a composite sample means a combination of no fewer than six individual flow-weighted samples obtained at equal time intervals for 24 hours, or for the duration of the

discharge, whichever is shorter. Flow-weighted sample means that the volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling.

I.B.2. **Reporting:** Analytical data and monitoring results shall be summarized and/or tabulated for presentation in Discharge Monitoring Reports (DMRs). Laboratory reports for quantitative analyses conducted by State of Nevada certified laboratories must accompany DMR submittals.

Monthly DMRs shall be received by the 28th day of the month following the effective date of the permit and the 28th day of each month for the duration of the permit. If no discharge occurs during the reporting period, summarize the project status and report "no discharge" on the submitted DMR.

DMRs must be signed by the authorized representative that is responsible for the facility. The first DMR submitted under this permit must include the written designation of the authorized representative elected to sign DMRs. The designated representative responsible for facility operations must sign each subsequent DMR submitted to the Division. If the authorized representative changes, a new designation letter must be submitted.

a. **Monthly Reporting:** Monitoring results for the discharge monitoring requirements described in Part I.A.2.a. shall be summarized and tabulated for each month. The Permittee is considered in compliance if the reported results are less than the established permit limits.

b. **Other Information:** Where the Permittee becomes aware of failure to submit any relevant facts in a permit application or has submitted incorrect information in a permit application or in any report to the Division, the Permittee shall promptly submit such facts or information.

c. **Planned Changes:** The Permittee shall give notice to the Division as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition to a permitted facility:

   i. Could significantly change the nature or increase the quantity of pollutants discharged; or
   ii. Results in a significant change to the Permittee's sludge management practice or disposal sites.

d. **Anticipated Noncompliance:** The Permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

e. **Submittal:** An original signed copy of these, and all other reports required herein, shall be submitted to the Division at the following address:

Nevada Division of Environmental Protection
Bureau of Water Pollution Control
901 South Stewart Street, Suite 4001
Carson City, Nevada 89701-5249

I.B.3. **Signatory Certification Required on Application and Reporting Forms:**

a. All applications, reports, or information submitted to the Administrator shall be signed and certified by making the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

b. All applications, reports, or other information submitted to the Division shall be signed by one of the following:

i. A principal executive officer of the corporation (of at least the level of vice president) or his authorized representative who is responsible for the overall operation of the facility from which the discharge described in the application or reporting form originates;
ii. A general partner of the partnership;
iii. The proprietor of the sole proprietorship; or
iv. A principal executive officer, ranking elected official, or other authorized employee of the municipal, state, or other public facility.

c. **Changes to Authorization:** If an authorization under Part I.B.3. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part I.B.3. must be submitted to the Administrator prior to or together with any reports, information, or applications to be signed by an authorized representative.

PART II

II.A. MANAGEMENT REQUIREMENTS

II.A.1. **Change in Discharge:** All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than, or at a level in excess of, that authorized shall constitute a violation of the permit.

Any anticipated facility expansions that will result in new, different, or increased discharges of pollutants must be reported by submission of a new application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Any changes to the permitted facility must comply with NAC 445A.283 to 445A.285. Pursuant to NAC 445A.263, the permit may be modified to specify and limit any pollutants not previously limited.

II.A.2. **Facilities Operation-Proper Operation and Maintenance:** The Permittee shall, at all times, maintain in good working order and operate as efficiently as possible all control facilities, collection systems, or pump stations installed or used by the Permittee to achieve compliance with the terms and conditions of this permit.

II.A.3. **Adverse Impact-Duty to Mitigate:** The Permittee shall take all reasonable steps to minimize releases to the environment resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. The Permittee shall carry out such measures, as reasonable, to prevent significant adverse impacts on human health or the environment.

II.A.4. **Noncompliance, Unauthorized Discharge, Bypassing, and Upset:**

a. Any diversion, bypass, spill, overflow, or discharge of wastewater from evaporation or conveyance facilities under the control of the Permittee is prohibited except as authorized by this permit. In the event the Permittee has knowledge that a diversion, bypass, spill, overflow, or discharge not authorized by this permit is probable, the Permittee shall immediately notify the NDEP Spill Hotline at 1-888-331-6337.

b. The Permittee shall notify the Administrator by calling the NDEP Spill Hotline at 1-888-331-6337 within twenty-four (24) hours of any diversion, bypass, spill, upset, overflow, or release of discharge other than that which is authorized by the permit. The following shall be included as information which must be reported within 24 hours:

   i. Any unanticipated bypass which exceeds any effluent limitation in the permit;
   ii. Any upset which exceeds any effluent limitation in the permit; and
   iii. Any violation of a limitation for any toxic pollutant or any pollutant identified as the method to control a toxic pollutant.

c. A written report shall be submitted to the Division within five (5) days of diversion, bypass, spill, overflow, upset, or discharge detailing the entire incident including:

   i. Time and date of discharge;
   ii. Exact location and estimated amount of discharge;
   iii. Flow path and any bodies of water which the discharge contacts;
   iv. The specific cause of the discharge; and

v. The preventive and/or corrective actions taken.

d. The Permittee shall report all instances of noncompliance not reported under Part II.A.4.c. at the time monitoring reports are submitted. The reports shall contain the information listed in Part II.A.4.c.

e. A "bypass" means the intentional diversion of waste streams from any portion of a facility.

i. Bypass not exceeding limitations: The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.A.4.a. and II.A.4.b.

ii. Anticipated bypass: If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least ten (10) days before the date of bypass.

f. Bypass is prohibited, and the Division may take enforcement action against a Permittee for bypass, unless:

i. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There were no feasible alternatives to the bypass, such as the use of auxiliary evaporation facilities or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurs during normal periods of equipment downtime or preventative maintenance; and

iii. The Permittee submitted notices as required under Part II.A.4.e.

g. The Division may approve an anticipated bypass, after considering its adverse effects, if the Division determines that it will meet the three conditions listed in Part II.A.4.f.

h. An "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed facilities, lack of preventive maintenance, or careless or improper operation.

i. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and the Permittee can identify the cause(s) of the

upset;

ii. The permitted facility was at the time being properly operated;

iii. The Permittee submitted notice of the upset as required under Part II.A.4.b. and c.; and

iv. The Permittee complied with any remedial measures required under II.A.3.

j. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part II.A.4.i. are met.

k. In selecting the appropriate enforcement option, the Administrator shall consider whether or not the noncompliance was the result of an upset. The burden of proof is on the Permittee to establish that an upset occurred.

II.A.5. **Removed Substances:** Solids, sludges, filter backwash, or other pollutants removed in the course of control of process wastewaters shall be disposed of in a manner such as to prevent any pollution from such materials from entering any navigable waters.

II.A.6. **Safeguards to Electric Power Failure:** In order to maintain compliance with the effluent limitations and prohibitions of this permit the Permittee shall either:

a. Provide, at the time of discharge, an alternative power source sufficient to operate the wastewater control facilities; or

b. Halt or reduce all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

II.B. RESPONSIBILITIES

II.B.1. **Right of Entry and Inspection:** The Permittee shall allow the Administrator and/or his authorized representatives, upon the presentation of credentials, to:

a. Enter, at reasonable times, upon the Permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit;

b. Have access to and copy any records required to be kept under the terms and conditions of this permit;

c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations required in this permit; and

d. Perform any necessary sampling or monitoring to determine compliance with this permit at any location for any parameter.

II.B.2. **Transfer of Ownership or Control:** In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the Permittee

shall notify the succeeding owner or controller of the existence of this permit, by letter, a copy of which shall be forwarded to the Administrator. The Administrator may require modification or revocation and re-issuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary. The Division shall approve all transfer of permits.

II.B.3. **Availability of Reports:** Except for data determined to be confidential under NRS 445A.665, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of the Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.

II.B.4. **Furnishing False Information and Tampering with Monitoring Devices:** Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation, or order issued pursuant thereto or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive or by any permit, rule, regulation, or order issued pursuant thereto is guilty of a gross misdemeanor and shall be punished by a fine of not more than $10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, provided pursuant to NRS 445A.300 to 445A.730, inclusive.

II.B.5. **Penalty for Violation of Permit Conditions:** NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.705.

II.B.6. **Permit Modification, Suspension, or Revocation:** After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

II.B.7. **Toxic Pollutants:** Notwithstanding Part II.B.6., if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

II.B.8. **Liability:** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable Federal, State, or local laws, regulations, or ordinances.

II.B.9. **Property Rights:** The issuance of this permit does not convey any property rights, in either real or personal property, or any exclusive privileges, rights, or rights of access or easement; nor does it authorize any injury to private property, any invasion of personal rights, or any infringement of Federal, State, or local laws or regulations.

II.B.10. **Severability:** The provisions of this permit are severable, and if any provision of this permit or the application of any provisions of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

II.B.11. **Need to Halt or Reduce Activity Not a Defense:** The need to halt or reduce permitted activities in order to maintain compliance with the conditions of this permit shall not be a defense for a Permittee in an enforcement action.

II.B.12. **Duty to Provide Information:** The Permittee shall furnish to the Administrator, within a reasonable time, any relevant information which the Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Administrator, upon request, copies of records required to be kept by this permit.

PART III

III.A. OTHER REQUIREMENTS

III.A.1. **Signatures, certification required on application and reporting forms:**

a. All applications, reports, or information submitted to the Administrator shall be signed and certified by making the following certification:
"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

b. All applications, reports or other information submitted to the Administrator shall be signed by one of the following:

i. A principal executive officer of the corporation (of at least the level of vice president) or his authorized representative who is responsible for

the overall operation of the facility from which the discharge described in the application or reporting form originates; or

ii. A general partner of the partnership; or

iii. The proprietor of the sole proprietorship; or

iv. A principal executive officer, ranking elected official or other authorized employee of the municipal, state or other public facility.

c. **Duly Authorized Representative:** All Discharge Monitoring Reports and any other information required by this permit or requested by the Administrator shall be signed by a person described in paragraph (b) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

i. The authorization is made in writing by a person described in paragraph (a) of this section

ii The authorization specifies either an individual or a position having responsibility for environmental matters for the company, and

iii. The authorization is submitted to the Division.

d. **Changes to Authorization:** If an authorization under paragraph c. of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph b. of this section must be submitted to the Administrator prior to or together with any reports, information, or applications to be signed by an authorized representative.