IRRIGATION LEGEND

- **P.O.C.** Shall be established by the Water District in the locations shown on these plans. (Note: The Water District is responsible for all upstream connections.) Components Shall be Placed at the Water District's risk. The Contractor shall be responsible for backfilling in a manner that shall not affect the integrity of the irrigation system. **IRRIGATION SCHEDULE, NOTES, / MODEL DETAIL REMARKS** Shall be installed per irrigation specifications and shall Include an EXCAVATION and backfill.

- **N/A** shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **NO STENCIL** shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **NO SYMBOL** shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **CONTROL VALVE** Shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **BASKET FILTER** Shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **SUB-SURFACE** Shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **EC” line** Shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **IRRIGATION MAINLINE TO BE PLACED 2’ FROM BACK OF SIDEWALK** Shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **REFERENCES** shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **BIOSWALE** shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **SUB-SURFACE LATERAL** shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **LINES AND NUMBERS** shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **PRECAUTIONS** shall be placed by the contractor at locations shown on these plans, as indicated in the irrigation plans.

- **SCALE:** 1" = 40'

IRRIGATION PLAN ADDITIVE ALTERNATE

STATION 31+80 TO STATION 42+80

SCALE: 1" = 40'

**IRRIGATION LATERAL LINE TO BE PLACED 1’ FROM EDGE OF FENCE. EACH VINE PLANTING SHALL BE IRRIGATED WITH A 0.25 GPM WATERING WELL BUBBLER SYSTEM, TYP. BUBBLER SYMBOL NOT SHOWN. SIZE LATERAL LINE AS SHOWN, TYP. INSTALL IRRIGATION WATERING SYSTEM PER DETAIL 04/ID-1.**

REFER TO SHEET ID-1 FOR IRRIGATION SCHEDULE NOTES, AND DETAILED SPECIFICATIONS.

IT IS ASSUMED THAT EACH POINT OF CONNECTION WILL SUPPLY A MINIMUM 60 GPM AT 60 PSI. THE CONTRACTOR SHALL VERIFY THESE SPECIFICATIONS IN THE FIELD PRIOR TO WORK.

ALL CONTROL VALVES AND IRRIGATION PREVENTERS SHALL BE AS SHOWN ON IRRIGATION PLAN SHEETS IP-1 TO IP-7. CRANE VALVES SHALL BE INSTALLED AT ALL LOW POINTS ALONG ALL LATERAL LINES WHERE WATER IS LIKELY TO POOL DURING NON-OCCUPATION.

WATER WELL BUBBLER SYSTEMS SHALL USE HUNTER 18" ROOT ZONE WATERING SYSTEM WITH 0.50 GPM BUBBLERS FOR ALL TREE 8 CONTAINERS AND 0.25 GPM FOR ALL 1 GALLON CONTAINER PLANTS OR APPROVED EQUAL. WATERING WELL AND BUBBLER SYSTEM SHALL BE INSTALLED ON ALL TREES AND SHRUBS EXCEPT FOR GROUNDCOVER AND HERBACEOUS PLANTING AREAS AT INTERSECTIONS AS IDENTIFIED ON THE IRRIGATION PLANS. WATER WELL AND BUBBLER SYSTEM SHALL BE INSTALLED PER DETAIL AND WRITTEN SPECIFICATIONS.

IRRIGATION SUB-SURFACE LATERAL SHALL HAVE 0.9 GPH EMITTERS SPACED 12” OR 18” ALONG LENGTH OF LATERAL. LAY DRIPLINE IN LOCATIONS AS SHOWN ON IRRIGATION PLANS PRIOR TO PLACEMENT OF MULCH. FOR ALL DRIPLINES IRRIGATING ALLIUM X ‘GLOBEMASTER’ PLANTING BEDS USE DRIPLINE WITH 12” EMITTER SPACING. FOR ALL OTHER AREAS USE 18” EMITTER SPACING. INSTALL LATERAL PIPE SHALL BE CHROMIUM POISONED PP CPVC PIPE 1” - 2” PVC SCH. 40 OR APPROVED EQUAL.

DRAIN VALVES SHALL BE INSTALLED PER SPECIFICATIONS AT ALL LOW POINTS ALONG ALL LATERAL LINES WHERE WATER IS LIKELY TO POOL DURING NON-OCCUPATION.

DRAIN VALVES SHALL BE INSTALLED PER SPECIFICATIONS AT ALL LOW POINTS ALONG ALL LATERAL LINES WHERE WATER IS LIKELY TO POOL DURING NON-OCCUPATION.
IRRIGATION PLAN ADDITIVE ALTERNATE
STATION 42+80 TO STATION 54+40
SCALE: 1" = 40'

THE WATER DISTRICT IS RESPONSIBLE FOR ALL CONNECTION COMPONENTS UPSTREAM FROM ALL POC LOCATIONS INCLUDING WATER METERS AND GATE VALVES. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK DOWNSTREAM FROM POC STARTING WITH THE BACKFLOW PREVENTOR (BFP). BFP SHALL BE A REDUCED PRESSURE BFP WITH ENCLOSURE AND BLANKET PER CALTRAN STANDARDS, TYP.

SEE SHEET IP-4 - IRRIGATION PLAN (PIONEER LN. INTERSECTION DETAIL) - ADDITIVE ALTERNATE FOR POC, VALVE INFORMATION, LINE SIZE, AND IRRIGATION LAYOUT

4" SCHEDULE 80 PVC IRRIGATION SLEEVE INSTALLED UNDER PHASE 1 CONTRACT, NIC

BACK OF SIDEWALK SEE ROAD PLANS

IRRIGATE VINES ALONG FENCE LINE, TYP

8" WATER LINE SEE UTILITY PLANS, TYP.

0 20 40 60

MARTIN ROAD

NORTH

0 20 40 60

IRRGATION PLAN ADDITIVE ALTERNATE
STATION 42+80 TO STATION 54+40
SCALE: 1" = 40'

IP-2

RESTORATION ENGINEERING
4400 CINCINNATI AVENUE
ROCKLIN, CA 95765 TEL 916.408.2990 FAX 916.408.2999
www.restoration-resources.net
CA LIC. #
IRRIGATION LATERAL LINE TO BE PLACED 1' FROM EDGE OF FENCE. EACH VINE PLANTING SHALL BE IRRIGATED WITH A 0.25 GPM WATERING WELL BUBBLER SYSTEM, TYP. BUBBLER SYMBOL NOT SHOWN. SIZE LATERAL LINE AS SHOWN, TYP. INSTALL IRRIGATION WATERING SYSTEM PER DETAIL 2460-1.

4" SCHEDULE 80 PVC IRRIGATION SLEEVE - SEE ROAD PLANS

SHEET IP-7 - SEE IRRIGATION PLAN (RIPARIAN COMPLEX A - PLANTING & VEGETATION MANAGEMENT) FOR VALVE INFORMATION, LINE SIZE AND IRRIGATION LAYOUT ASSOCIATED WITH MITIGATION WORK
IRRIGATION PLAN ADDITIVE ALTERNATE
HWY 3 INTERSECTION DETAIL

SCALE: 1" = 10'

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CA LIC. # 14414

1" SCHEDULE 80 PVC IRIGATION SLEEVE - INSTALLED UNDER PHASE 1 CONTRACT, INC.

DRIPLINE:
153' LENGTH 18" EMITTER SPACING

DRIPLINE:
150' LENGTH 18" EMITTER SPACING

DRIPLINE:
31' LENGTH 12" EMITTER SPACING

DRIPLINE:
25' LENGTH 12" EMITTER SPACING

DRIPLINE:
20' LENGTH 12" EMITTER SPACING

DRIPLINE:
13' LENGTH 12" EMITTER SPACING

DRIPLINE:
30' LENGTH 12" EMITTER SPACING

DRIPLINE:
25' LENGTH 12" EMITTER SPACING

DRIPLINE:
20' LENGTH 12" EMITTER SPACING

DRIPLINE:
14' LENGTH 12" EMITTER SPACING

DRIPLINE:
150' LENGTH 18" EMITTER SPACING

DRIPLINE:
153' LENGTH 18" EMITTER SPACING

DRIPLINE:
150' LENGTH 18" EMITTER SPACING

DRIPLINE:
30' LENGTH 12" EMITTER SPACING

DRIPLINE:
25' LENGTH 12" EMITTER SPACING

DRIPLINE:
20' LENGTH 12" EMITTER SPACING

DRIPLINE:
14' LENGTH 12" EMITTER SPACING

DRIPLINE:
150' LENGTH 18" EMITTER SPACING

DRIPLINE:
153' LENGTH 18" EMITTER SPACING

DRIPLINE:
150' LENGTH 18" EMITTER SPACING

REFER TO SHEET ID-1 FOR IRRIGATION SCHEDULE, NOTES, AND DETAILS.
IT IS ASSUMED THAT EACH POINT OF CONNECTION WILL SUPPLY A MINIMUM OF 60 GPM AT 60 PSI. THE CONTRACTOR SHALL VERIFY THESE SPECIFICATIONS IN THE FIELD PRIOR TO WORK.
ALL CONTROL VALVES AND DRAIN VALVES SHALL BE INSTALLED PER SPECIFICATIONS AS SHOWN ON IRRIGATION PLAN DRAWING SHEETS ID-1 TO ID-7.
DRAIN VALVES SHALL BE INSTALLED PER SPECIFICATIONS AT ALL LOW POINTS ALONG ALL LATERAL LINES WHERE WATER IS LIKELY TO SLOW DURING NON-OPERATION.
Refer to sheet ID-1 for irrigation schedule, notes, and details.

It is assumed that each point of connection will supply a minimum 60 gpm at 60 psig. The contractor shall verify these specifications in the field prior to work.

All control valves and irrigation pipe shall be sized as shown on irrigation plan drawings sheets IP-1 to IP-7. Drain valves shall be installed per specifications at all low points along all lateral lines where water is likely to pool during non-operation.

4" Schedule 80 PVC irrigation sleeve - see road plans.
MITIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL VALVE AND ALL DOWNSTREAM IRRIGATION SYSTEM COMPONENTS FOR VALVE 15.

NORTH DRAIN VALVES SHALL BE INSTALLED PER SPECIFICATIONS AT ALL LOW POINTS ALONG ALL LATERAL LINES WHERE WATER IS LIKELY TO POOL DURING NON-OPERATION.
**ROADSIDE LANDSCAPING IRRIGATION DETAILS**

- **4"x4" PTW POST PAINTED WHITE**
- **YEARS 1, 2, & 3: MARCH 15 - APRIL 30: CONCRETE BOX W/ STEEL VANDAL-PROOF LID PER CALTRANS STANDARDS, OR APPROVED EQUAL. IRRIGATE 1 TIME PER WEEK (6 GAL. PER TREEPOT 8 PLANT/APPLICATION AND 3 GAL. PER 1 GALLON PLANT/APPLICATION)**
- **MAY 1 - JUNE 30: REBAR STAKE OR 1 3/4" HOSE CLAMPS.**
- **JULY 1 - SEPTEMBER 30: RAINBIRD 3-RC Q.C.V. OR APPROVED EQUAL. IRRIGATE 1 TIME PER WEEK (6 GAL. PER TREEPOT 8 PLANT/APPLICATION AND 3 GAL. PER 1 GALLON PLANT/APPLICATION).**

**NOTE: IRRIGATION SHALL ONLY RUN DURING OFF-PEAK HOURS. OFF-PEAK HOURS ARE SET BY WCSD.**

**IRRIGATION SCHEDULE**

- Spring: 1, 2, & 3 - March 15 - April 30: 1 time per week (6 gal. per treepot 8 plant/application and 3 gal. per 1 gallon plant/application)
- May 1 - June 30: Rebar stake or 1 3/4" hose clamps
- July 1 - September 30: Rainbird 3-RC Q.C.V. or approved equal (6 gal. per treepot 8 plant/application and 3 gal. per 1 gallon plant/application)
- October 1 - October 31: 1 time per week (6 gal. per treepot 8 plant/application and 3 gal. per 1 gallon plant/application)

**IRRIGATION DETAIL ADDITIVE ALTERNATE ROADSIDE LANDSCAPING IRRIGATION SCHEDULE, NOTES, AND DETAILS**

**DEPARTMENT OF TRANSPORTATION**

**4" LAYER OF SHREDDED WOOD MULCH CHIPPED FROM WOODY DEBRIS SALVAGED FROM ONSITE CLEARING ACTIVITIES. MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN. 4" LAYER OF SHREDDED WOOD MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN.**

**IRRIGATION DETAIL ADDITIVE ALTERNATE ROADSIDE LANDSCAPING IRRIGATION SCHEDULE, NOTES, AND DETAILS**

**DEPARTMENT OF TRANSPORTATION**

**4" LAYER OF SHREDDED WOOD MULCH CHIPPED FROM WOODY DEBRIS SALVAGED FROM ONSITE CLEARING ACTIVITIES. MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN. 4" LAYER OF SHREDDED WOOD MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN.**

**IRRIGATION DETAIL ADDITIVE ALTERNATE ROADSIDE LANDSCAPING IRRIGATION SCHEDULE, NOTES, AND DETAILS**

**DEPARTMENT OF TRANSPORTATION**

**4" LAYER OF SHREDDED WOOD MULCH CHIPPED FROM WOODY DEBRIS SALVAGED FROM ONSITE CLEARING ACTIVITIES. MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN. 4" LAYER OF SHREDDED WOOD MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN.**

**IRRIGATION DETAIL ADDITIVE ALTERNATE ROADSIDE LANDSCAPING IRRIGATION SCHEDULE, NOTES, AND DETAILS**

**DEPARTMENT OF TRANSPORTATION**

**4" LAYER OF SHREDDED WOOD MULCH CHIPPED FROM WOODY DEBRIS SALVAGED FROM ONSITE CLEARING ACTIVITIES. MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN. 4" LAYER OF SHREDDED WOOD MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN.**

**IRRIGATION DETAIL ADDITIVE ALTERNATE ROADSIDE LANDSCAPING IRRIGATION SCHEDULE, NOTES, AND DETAILS**

**DEPARTMENT OF TRANSPORTATION**

**4" LAYER OF SHREDDED WOOD MULCH CHIPPED FROM WOODY DEBRIS SALVAGED FROM ONSITE CLEARING ACTIVITIES. MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN. 4" LAYER OF SHREDDED WOOD MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN.**

**IRRIGATION DETAIL ADDITIVE ALTERNATE ROADSIDE LANDSCAPING IRRIGATION SCHEDULE, NOTES, AND DETAILS**

**DEPARTMENT OF TRANSPORTATION**

**4" LAYER OF SHREDDED WOOD MULCH CHIPPED FROM WOODY DEBRIS SALVAGED FROM ONSITE CLEARING ACTIVITIES. MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN. 4" LAYER OF SHREDDED WOOD MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN.**

**IRRIGATION DETAIL ADDITIVE ALTERNATE ROADSIDE LANDSCAPING IRRIGATION SCHEDULE, NOTES, AND DETAILS**

**DEPARTMENT OF TRANSPORTATION**

**4" LAYER OF SHREDDED WOOD MULCH CHIPPED FROM WOODY DEBRIS SALVAGED FROM ONSITE CLEARING ACTIVITIES. MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN. 4" LAYER OF SHREDDED WOOD MULCH SHALL COVER ENTIRE LIMIT OF ROADWAY, SHOULDERS, AND MEDIAN.**
Habitat Restoration Irrigation Details

IRrigate every 2 weeks (6 gal. per tree pot & 8 gallon plant/applications & 3 gal. per 1 gallon plant/applications)

May - Oct. 15: Concrete Valve Box with Steel Per Caltrans Standards or Approved Equal

2" KBI Model or Approved Equal

24" 3" Above Finish Grade

SCH 80 PVC Finished Grade Male Adapter

24" Mainline 12" From Backflow Protected 3/4" Drain Rock (4" Layer)

1/2" Pea Gravel (4" Layer)

Hunter ICV Valve with Latching Manual Isolation

Not to Scale

IRrigation Shall Only Run During Off-Peak Hours. Off-Peak Hours Are Set By Weaverville Community Service District (WCSD).

Concrete Valve Box with Steel Per Caltrans Standards or Approved Equal

2" KBI Model or Approved Equal

24" 3" Above Finish Grade

SCH 80 PVC Finished Grade Male Adapter

24" Mainline 12" From Backflow Protected 3/4" Drain Rock (4" Layer)

1/2" Pea Gravel (4" Layer)

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SCH 80 PVC Finished Grade Male Adapter

24" Mainline 12" From Backflow Protected 3/4" Drain Rock (4" Layer)

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Concrete Valve Box with Steel Per Caltrans Standards or Approved Equal

2" KBI Model or Approved Equal

24" 3" Above Finish Grade

SCH 80 PVC Finished Grade Male Adapter

24" Mainline 12" From Backflow Protected 3/4" Drain Rock (4" Layer)

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Not to Scale

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1/2" Pea Gravel (4" Layer)

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Not to Scale

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Concrete Valve Box with Steel Per Caltrans Standards or Approved Equal

2" KBI Model or Approved Equal

24" 3" Above Finish Grade

SCH 80 PVC Finished Grade Male Adapter

24" Mainline 12" From Backflow Protected 3/4" Drain Rock (4" Layer)

1/2" Pea Gravel (4" Layer)

Hunter ICV Valve with Latching Manual Isolation

Not to Scale

IRrigation Shall Only Run During Off-Peak Hours. Off-Peak Hours Are Set By Weaverville Community Service District (WCSD).
CREATED CHANNEL REROUTE TO CONNECT INTO BOX CULVERT ASSOCIATED WITH ROADWAY CONSTRUCTION

CIVIL CONTRACTOR CREATED ROCK ARMORED ENERGY DISSIPATION CHANNEL (NOT FOR MITIGATION)

USE EXCESS SPOILS TO CREATE BERMS ON BOTH SIDES OF CREATED REROUTE CHANNEL

LIMIT OF WETLAND MITIGATION DISTURBANCE

24" WIDE RIPARIAN WETLAND BEAM 12" ABOVE THALWEG OF REROUTE CHANNEL

WATERS OF THE US (CHANNEL)

WATERS OF THE US (CHANNEL)

WATERS OF THE US SEARCH PLANS

DISTURBED AREA NATIVE GRASSLAND, TYP.

DISTURBED AREA WATERS (CHANNEL)

EXISTING WETLANDS AND WATERS OF THE US

EXISTING SENSITIVE HABITATS

PROPOSED WETLANDS AND WATERS OF THE US

PROPOSED SENSITIVE HABITATS

CONSTRUCTION PLAN

RIPARIAN COMPLEX A

SCALE: 1" = 1'
PLANTING NOTES

1. Plants to be installed shall be relatively small container stock, but with high root-to-shoot ratios to assist rapid plant establishment. Woody plant locations will be flagged (indicating each species) by the Contractor and approved by the Project Restoration Ecologist before plant installation. All trees shall be treated in a container size or approved equal. All shrubs and vines shall be 1 gallon container size or approved equal. All herbaceous plugs shall be tree bands or approved equal. Water all plants (including bubs) immediately after planting.

2. For all native planting (including roadside and intersection planting) plant holes shall be excavated and amended per the specifications and details. Each woody plant shall be placed in a shallow water retention basin 30” in diameter (constructed of site soil) such that irrigation water may fill around the plant but not submerge the crown of the root area. The basin will be filled with wood mulch to a depth of 3”. All woody plants will be fitted with animal protection screens.

3. All herbaceous plants (weeds, bushes, and grasses) will be installed in small patches located along bioswales, generally composed of multiple-species patches of varying size and shape. Plants shall be planted in a triangular pattern. See detail 03 & 04/LD-1 for clarification. The Project Restoration Ecologist shall mark out all patch locations and limits in the field prior to planting.

4. All vining plantings shall be installed per detail 02/LD-1 and per the specification. Watering berm shall be a half circle with plant installed 6” from edge of fence.

5. Herbaceous plants (weeds, bushes, and grasses) will be installed in small patches located along bioswales, generally composed of multiple-species patches of varying size and shape. Plants shall be planted in a triangular pattern. See detail 03 & 04/LD-1 for clarification. The Project Restoration Ecologist shall mark out all patch locations and limits in the field prior to planting.

6. All native plantings shall be planted per specifications in areas identified on the intersection planting detail plan sheets. Plant twice the depth of the bulbs (12”) placed 8’ of each reach of chain link fence. Plant twice the depth of the bulbs (12”) placed 8’ of each reach of chain link fence.

7. Refer to the planting palette and the details on this page for specific planting instructions.

PLANTING DETAILS

ADDITIVE ALTERNATE

ADDITIVE ALTERNATE PLANT PALETTES

ADDITIVE ALTERNATE TREE AND SHRUB PLANTINGS

HERBACEOUS SEED AND TREEBAND PLUG PLANTING

PHASE 2 PLANT PALETTES

PHASE 2 BIOSWALE FABRIC REQUIREMENTS

TYPICAL BIOSWALE DESIGN

LANDSCAPE DETAIL

ROADSIDE AND INTERSECTION PLANT PALETTES, NOTES, & DETAILS

Contract No. 14-R042-01

Federal Project # RSPFL — 5905(102)
PLANTING NOTES

1. Plants to be installed will be relatively small container stock, but with high over-summer rates to assist rapid plant establishment. Woody plants will be flagged planting and identified by the Contractor and approved by the Project Restoration Ecologist before plant installation. All trees except visible species (Sapling) shall be flagged if container size is approved equal. All shrubs will be tagged as pole planting. All shrubs shall be 1 gallon container size or approved equal.

2. Plant holes will be excavated and amended per the specifications and details. Each woody plant shall be placed in a shallow water retention basin 30" in diameter (crown level) and 6" deep in the center of each circular area. The basin will be filled with weed mat to a depth of 3". All woody plants will be filled with annual protection screen as shown in detail 0-1 & 0-2 and described in the specifications.

3. Herbaceous plants, natives, and grasses will be installed in small patches located across their designated planting areas, generally composed of single-species sections of continuous strips of rows planted in transect pattern. See detail 0-3 for clarification. The Project Restoration Ecologist shall mark all patch locations and shrubs at the field prior to planting.

4. Refer to the planting details attached below for specific planting instructions.

5. Woody plants shall be maintained for five years. Baseline shall be hand weeded, or a minimum of 4 times per year (April, June, August, & October). In a 6' minimum distance from the plant basins, grass shall be kept mowed or string-trimmed to a height of approximately 6 inches. Woody plants shall be watered adequately to ensure survival and vigorous growth. The site shall be monitored on or about October 15 following or near each maintenance year. Any dead woody plants found at the time of monitoring shall be replaced to plans and specifications during the fall and winter following the first and second growing seasons.

6. Enhanced biofilter Riparian habitat area to be maintained and replanted in accordance with specifications and schedule outlined on Sheet CD-1 and other technical specifications. Of the 0.7 acres of species-enhancement area approximately 0.2 acres will require plug (treeband) planting revegetation as shown on the planting palette. The contractor shall hydroseed entire enhancement area after invasive vegetation removal and acceptance from the County’s Representative and Project Restoration Ecologist. Plug planting revegetation will occur at the end of year 1 establishment period after secondary removal efforts and will be focused on areas disturbed due to follow-up invasive vegetation control (see plans). The Riparian biofilter Riparian planting plantings including contract growth, purchase, delivery, setup and installation shall be included in the lump sum Plant Installation work category.

HERBACEOUS PLUG PLANTING

PLANTING DETAILS

1. Tree seedling planting

2. Shrub seedling planting

3. Pole cutting planting

4. Herbaceous plug planting
THE CIVIL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A STAGING AREA AND ACCESS ROUTE THAT CAN BE UTILIZED BY THE MITIGATION CONTRACTOR AS NEEDED.

APPROPRIATE AREA AS DETERMINED BY THE CIVIL CONTRACTOR.

MONTANE RIPARIAN, CHANNEL. SEE NOTES ON THIS SHEET.

INCLUDE: TOPSOIL SALVAGE (TOP 4" OF EXCAVATION ACROSS THE ENTIRE LIMIT OF WETLAND MITIGATION DISTURBANCE (SEE LABELED, DASHED LINE ON SHEET C-1); THE ROUGH AND FINISH GRADING CHANNEL. SEE NOTES ON THIS SHEET.

AND ROCK ARMORING OF THE REROUTED CHANNEL (SEE SHEET C-1 AND DETAILS 1 & 2 SHEET CD-1); THE ROUGH GRADING OF THE CHANNEL BENCHES; AND, THE ROUGH GRADING INCLUDING 4" OVER SHEET.

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The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

1. The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

2. A field maintenance crew shall complete all punch-list items by the end of May.

3. The ecologist shall map the locations of any re-sprouting Himalayan blackberry and mark them in the field with flagging tape or non-toxic marking paint.

4. Monitoring shall include qualitative surveys during the April and September site inspections.

5. Water Maintenance and Monitoring During Establishment Years 1 - 3:

5.1. Monitoring shall include qualitative surveys during the April and September site inspections. Year 1 - The ecologist shall flag locations for plug planting patches for installation during the fall for the first year of establishment. Species, quantity, and layout shall be in accordance with sheet LD-2. Year 2: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Species, quantity, and layout shall be in accordance with sheet LD-2. Year 3: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

5.2. Results of qualitative ocular estimates of cover. 5.3. A comparison of results to previous surveys. 5.4. Reports shall be delivered to the County’s representative by December 31st of each year.

5.5. Monitoring and reporting shall be completed by a qualified biologist with at least a four-year degree in biological sciences and a working knowledge of the flora and fauna of the Pacific Northwest.

1. Monitoring shall include qualitative surveys during the April and September site inspections.

2. Field maintenance crews shall complete all punch-list items by the end of May.

3. All other punch-list items identified by the restoration ecologist shall be completed during the maintenance event.

4. Monitoring shall include qualitative surveys during the April and September site inspections. Year 1 - The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 2: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 3: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

5. Water Maintenance and Monitoring During Establishment Years 4 and 5:

5.1. Monitoring shall include qualitative surveys during the April and September site inspections. Year 4: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 5: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

5.2. Results of qualitative ocular estimates of cover. 5.3. A comparison of results to previous surveys. 5.4. Reports shall be delivered to the County’s representative by December 31st of each year.

5.5. Monitoring and reporting shall be completed by a qualified biologist with at least a four-year degree in biological sciences and a working knowledge of the flora and fauna of the Pacific Northwest.

Initial Weed Management During Establishment Years 1 - 3:

1. The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

2. Monitoring shall include qualitative surveys during the April and September site inspections. Year 1 - The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 2: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 3: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

3. Water Maintenance and Monitoring During Establishment Years 1 - 3:

3.1. Monitoring shall include qualitative surveys during the April and September site inspections. Year 1 - The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 2: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 3: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

3.2. Results of qualitative ocular estimates of cover. 3.3. A comparison of results to previous surveys. 3.4. Photos from photo-documentation.

3.5. Monitoring and reporting shall be completed by a qualified biologist with at least a four-year degree in biological sciences and a working knowledge of the flora and fauna of the Pacific Northwest.

1. Monitoring shall include qualitative surveys during the April and September site inspections.

2. Field maintenance crews shall complete all punch-list items by the end of May.

3. All other punch-list items identified by the restoration ecologist shall be completed during the maintenance event.

4. Monitoring shall include qualitative surveys during the April and September site inspections. Year 1 - The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 2: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 3: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

5. Water Maintenance and Monitoring During Establishment Years 4 and 5:

5.1. Monitoring shall include qualitative surveys during the April and September site inspections. Year 4: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 5: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

5.2. Results of qualitative ocular estimates of cover. 5.3. A comparison of results to previous surveys. 5.4. Reports shall be delivered to the County’s representative by December 31st of each year.

5.5. Monitoring and reporting shall be completed by a qualified biologist with at least a four-year degree in biological sciences and a working knowledge of the flora and fauna of the Pacific Northwest.

CONSTRUCTION NOTES

1. The Civil Contractor shall be responsible for providing a staging area and access route that can be utilized by the Mitigation Contractor as needed.

2. The Mitigation Contractor shall be responsible for all on-site fencing adjacent to riparian habitat mitigation work (outside area of contact associated with roadway contractor).

3. The Mitigation Contractor shall be responsible for all on-road traffic shielding operations within the large-scale route work area. Waste materials shall be placed in appropriate areas as determined by the Civil Contractor.

4. The Mitigation Contractor shall be responsible for the relocation of existing and grading of the riparian corridor. All large-scale route work area. Waste materials shall be placed in appropriate areas as determined by the Civil Contractor.

5. The Mitigation Contractor shall be responsible for the placement of 4" of stockpiled topsoil across all disturbed areas to meet prescribed finish grades with this exception the riparian corridor.

6. The Mitigation Contractor shall be responsible for all finish grading activities directly tied to the mitigation habitat areas. Finish-grade shall be performed in curbens by the Mitigation Contractor to meet design detail and channeling. All work is to be left in an ungraded condition and completed by the following year. The Mitigation Contractor shall be responsible for performing any additional work and grading.

7. The Mitigation Contractor shall be responsible for the disposal or burial of the cleared and grubbed material associated with mitigation construction. Material shall be hauled off-site or burned under minimal if possible to reduce likelihood of odors/unit weight of material.

APPROPRIATE AREA AS DETERMINED BY THE CIVIL CONTRACTOR.

MONTANE RIPARIAN, CHANNEL. SEE NOTES ON THIS SHEET.

INCLUDE: TOPSOIL SALVAGE (TOP 4" OF EXCAVATION ACROSS THE ENTIRE LIMIT OF WETLAND MITIGATION DISTURBANCE (SEE LABELED, DASHED LINE ON SHEET C-1); THE ROUGH AND FINISH GRADING OVER SHEET.

AND ROCK ARMORING OF THE REROUTED CHANNEL (SEE SHEET C-1 AND DETAILS 1 & 2 SHEET CD-1); THE ROUGH GRADING OF THE CHANNEL BENCHES; AND, THE ROUGH GRADING INCLUDING 4" OVER SHEET.

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The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

1. The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

2. A field maintenance crew shall complete all punch-list items by the end of May.

3. All other punch-list items identified by the restoration ecologist shall be completed during the maintenance event.

4. Monitoring shall include qualitative surveys during the April and September site inspections. Year 1 - The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 2: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 3: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

5. Water Maintenance and Monitoring During Establishment Years 4 and 5:

5.1. Monitoring shall include qualitative surveys during the April and September site inspections. Year 4: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit. Year 5: The project restoration ecologist shall conduct a site inspection in mid-April and develop a punch-list of tasks for the May maintenance site visit.

5.2. Results of qualitative ocular estimates of cover. 5.3. A comparison of results to previous surveys. 5.4. Photos from photo-documentation.

5.5. Monitoring and reporting shall be completed by a qualified biologist with at least a four-year degree in biological sciences and a working knowledge of the flora and fauna of the Pacific Northwest.

CONSTRUCTION DETAIL HABITAT MITIGATION CONSTRUCTION NOTES AND DETAILS CD-1

CD-1