

# Calapooia River Reach 3 Restoration, Stabilization, and Conservation Projects

## PROJECT PARTNERS



LOCAL LANDOWNERS LOCATED IN REACH 3 OF THE CALAPOOIA RIVER NEAR BROWNSVILLE, OREGON.

## PROJECT DESCRIPTION

PROPOSED RESTORATION, STABILIZATION, AND CONSERVATION PROJECTS ARE PROPOSED FOR REACH 3 OF THE CALAPOOIA RIVER. THE CALAPOOIA WATERSHED COUNCIL IS WORKING WITH LANDOWNERS TO ENHANCE RIVER AND FLOODPLAIN HABITAT IN REACH 3.

## BENCHMARK

SURVEY CONTROL USED FOR THE PROJECT IS PROVIDED ON DRAWING 2.0. THE HORIZONTAL DATUM IS NAD 83, STATE PLANE COORDINATES, OREGON ZONE NORTH, AND THE VERTICAL DATUM IS NAVD 88. THE BENCHMARK COORDINATES CORRESPOND TO THE TOP CENTER OF CONTROL MARKERS LISTED ON DRAWING.

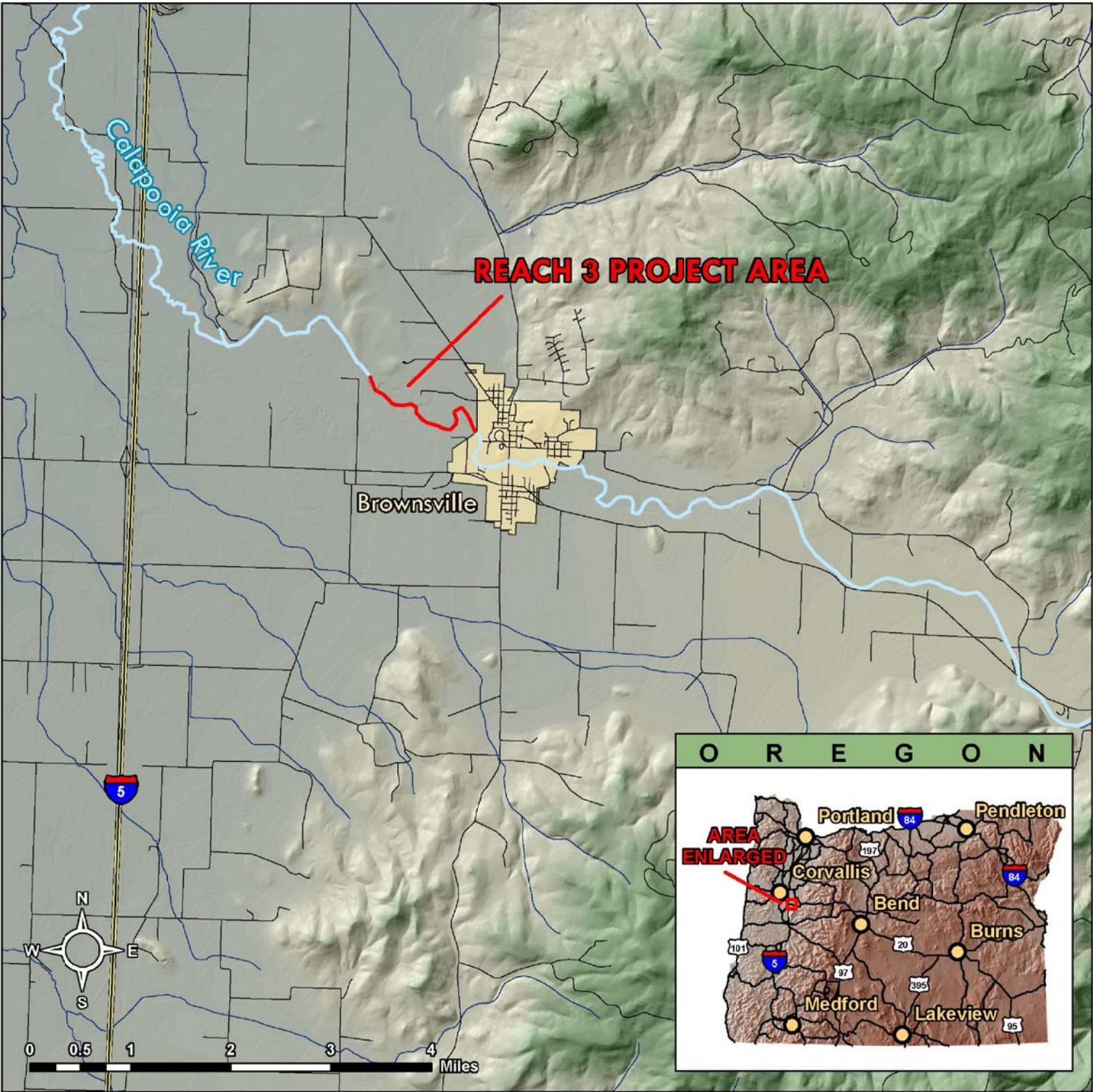
## GENERAL NOTES

1. DUE TO THE INHERENT VARIABILITY AND DYNAMIC NATURE OF RIVERS, IT IS NECESSARY TO REVIEW CURRENT CONDITIONS PRIOR TO IMPLEMENTATION OF THE DESIGN DRAWINGS TO ENSURE SITE CONDITIONS MATCH CONDITIONS DEPICTED IN DRAWINGS.
2. RIVER DESIGN GROUP MAKES NO REPRESENTATION OF THE EXISTENCE OR NONEXISTENCE OF UTILITIES. CONTRACTOR IS RESPONSIBLE FOR CALLING THE OREGON UTILITY NOTIFICATION CENTER (800-332-2344) AT LEAST TWO BUSINESS DAYS PRIOR TO DIGGING.
3. EXCAVATION, TRENCHING, SHORING, AND SHIELDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE WORK, THESE DRAWINGS ARE NOT INTENDED TO PROVIDE MEANS OR METHODS OF CONSTRUCTION.
4. PRESERVE AND PROTECT ALL VEGETATION TO THE FULLEST EXTENT POSSIBLE.
5. METHODS FOR WORK AREA ISOLATION, FISH REMOVAL, AND EROSION CONTROL SHALL BE SUBMITTED TO RIVER DESIGN GROUP FOR APPROVAL PRIOR TO COMMENCING WORK.
6. THE LANDOWNER IS RESPONSIBLE FOR PROCURING AND COMPLYING WITH ALL PERMITS AND EASEMENTS INCLUDING ALL FEDERAL, STATE, COUNTY, AND LOCAL PERMITS.
7. THESE DRAWINGS AND THE ASSOCIATED WRITTEN SPECIFICATIONS REPRESENT THE CONSTRUCTION DOCUMENTS. ANY DEVIATIONS FROM THESE DRAWINGS AND ASSOCIATED SPECIFICATIONS WITHOUT WRITTEN APPROVAL FROM RIVER DESIGN GROUP, INC. MAY RESULT IN NOT MEETING CONTRACT DOCUMENTS AND MAY RESULT IN NOT BEING ACCEPTED FOR PAYMENT.

## DRAWING INDEX

1.0	COVER PAGE AND NOTES
1.1	REACH OVERVIEW
2.0	PROJECT LAYOUT
2.1	CROSS SECTIONS
3.0	LARGE WOOD HABITAT STRUCTURE

## CALAPOOIA RIVER REACH 3 VICINITY MAP



## COVER PAGE AND NOTES

CALAPOOIA RIVER REACH 3 RESTORATION  
CALAPOOIA WATERSHED COUNCIL - PERRY PROPERTY

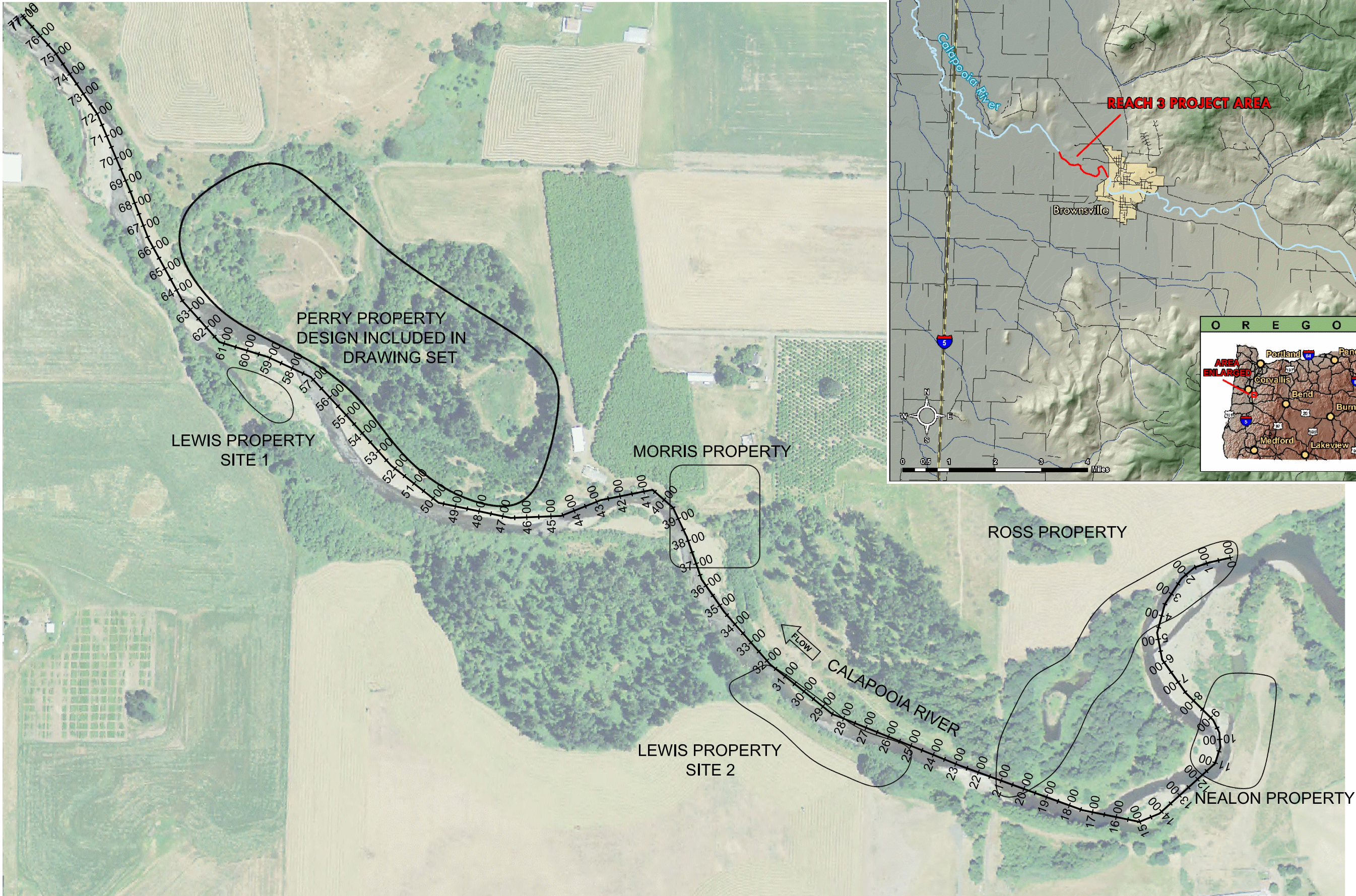
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1	12/17/09	RB	90% DESIGN	TB

PROJECT NUMBER  
RDG-08-067

DRAWING NUMBER  
**1.0**

Drawing 1 of 5





**1 PROJECT SITES OVERVIEW**  
1" = 400'



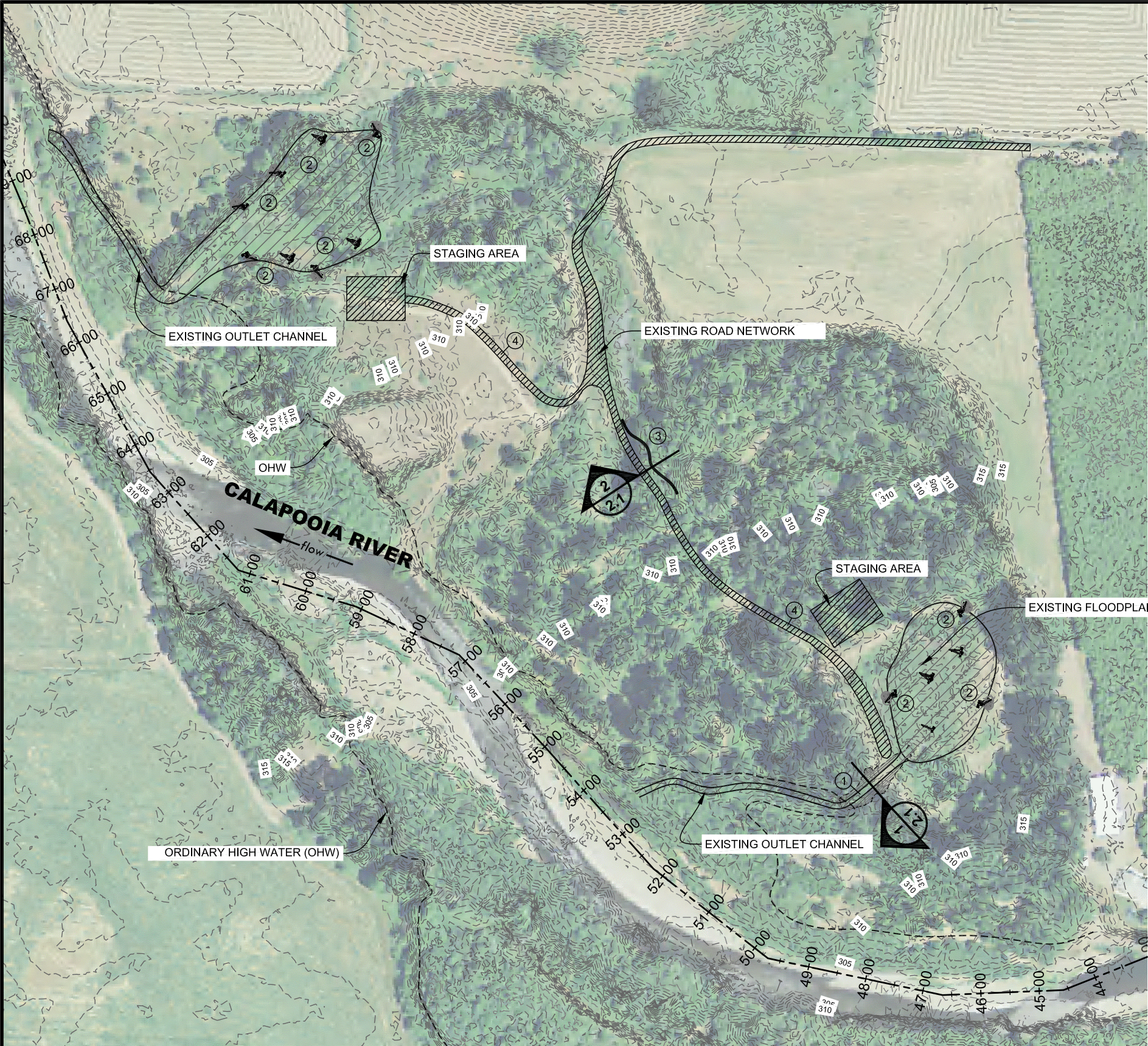
**REACH OVERVIEW**  
CALAPOOVIA RIVER REACH 3 RESTORATION  
CALAPOOVIA WATERSHED COUNCIL - PERRY PROPERTY

NO.	DATE	BY	DESCRIPTION	CHK
1	12/17/09	RB	90% DESIGN	TB

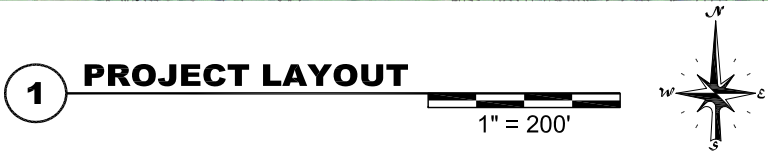
PROJECT NUMBER  
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DRAWING NUMBER  
**1.0**





NOTES:  
1. CONTOURS ARE FROM WATERSHED SCIENCES  
LIDAR DATA ACQUIRED FALL 2008.  
2. AERIAL PHOTO IS 2009 NAIP IMAGE.



## PROJECT INTENT

THE PROPOSED PROJECT INCLUDES REMOVING FILL MATERIAL FROM THE OUTLET OF A SEASONAL FLOODPLAIN POND. REMOVING THE FILL WILL INCREASE CONNECTIVITY BETWEEN THE POND AND THE CALAPOOIA RIVER VIA AN EXISTING FLOODPLAIN CHANNEL. LARGE WOOD HABITAT STRUCTURES WILL BE PLACED IN TWO PONDS TO INCREASE HABITAT DIVERSITY FOR FISH, TURTLES, AND WATERFOWL. A NARROW CHANNEL WILL BE EXCAVATED BETWEEN TWO FLOODPLAIN DEPRESSIONS IN ORDER TO PROVIDE CONNECTIVITY BETWEEN THE DEPRESSIONS WHEN THEY ARE INUNDATED. WATER CURRENTLY FLOWS DOWN THE EXISTING DIRT ROAD NETWORK WHEN THE AREA IS INUNDATED.

## PROJECT COMPONENTS

- EXCAVATE POND OUTLET TO CONNECT POND AND OUTLET CHANNEL
- CONSTRUCT LARGE WOOD HABITAT STRUCTURE. DRAWING 3.0
- EXCAVATE CONNECTOR CHANNEL
- REMOVE CONSTRUCTION DEBRIS, RECLAIM ACCESS ROUTES, AND SEED DISTURBED AREAS.

## PROJECT MATERIALS/QUANTITIES

PROJECT EXCAVATION	500 CY
LARGE WOOD HABITAT STRUCTURES (15)	75 CY
SALVAGED SITE MATERIAL PLACEMENT	75 CY
ROOTWAD (20' X18", RWD 3' DIA)	15
TREE TOP (25' X >18")	45
REBAR PINS (1"Ø X 3' LENGTH)	60
OFF SITE MATERIAL DISPOSAL	425 CY



EXISTING DOWNSTREAM FLOODPLAIN POND

## SITE BENCHMARKS

POINT #	NORTHING	EASTING	ELEV (FT)	DESCRIPTION
1	276945.45	7547906.11	318.86	SET RDG
2	277411.18	7548065.36	317.44	SET RDG
6	277304.42	7549814.74	325.07	SET RDG

COORDINATE SYSTEM: OREGON STATE PLANE NORTH  
HORIZONTAL DATUM: NAD83  
VERTICAL DATUM: NAVD88 (GEOID 03)  
UNITS: INTERNATIONAL FEET

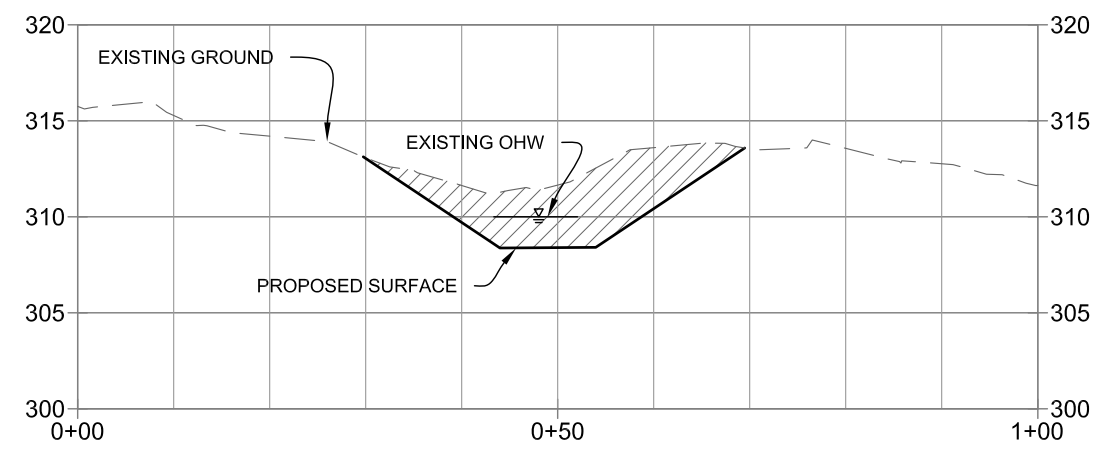
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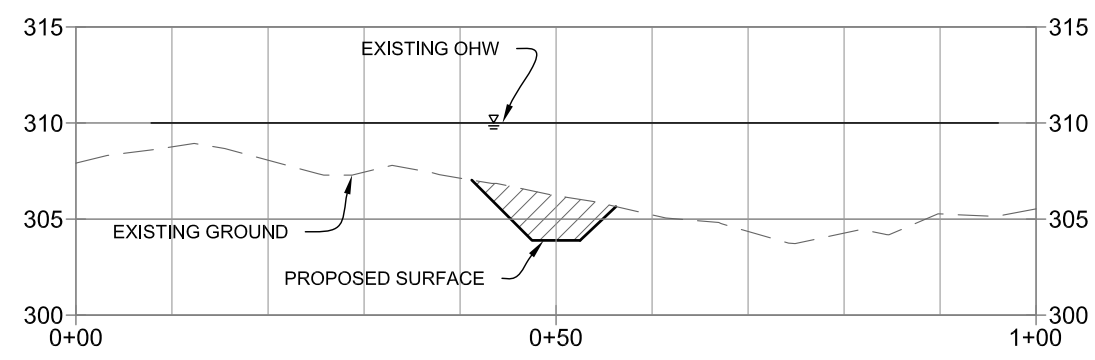
**2.0**





**1** **UPSTREAM OUTLET CHANNEL**

HORIZ 1" = 20'  
VERT 1" = 10'



**2** **CONNECTOR CHANNEL**

HORIZ 1" = 20'  
VERT 1" = 10'

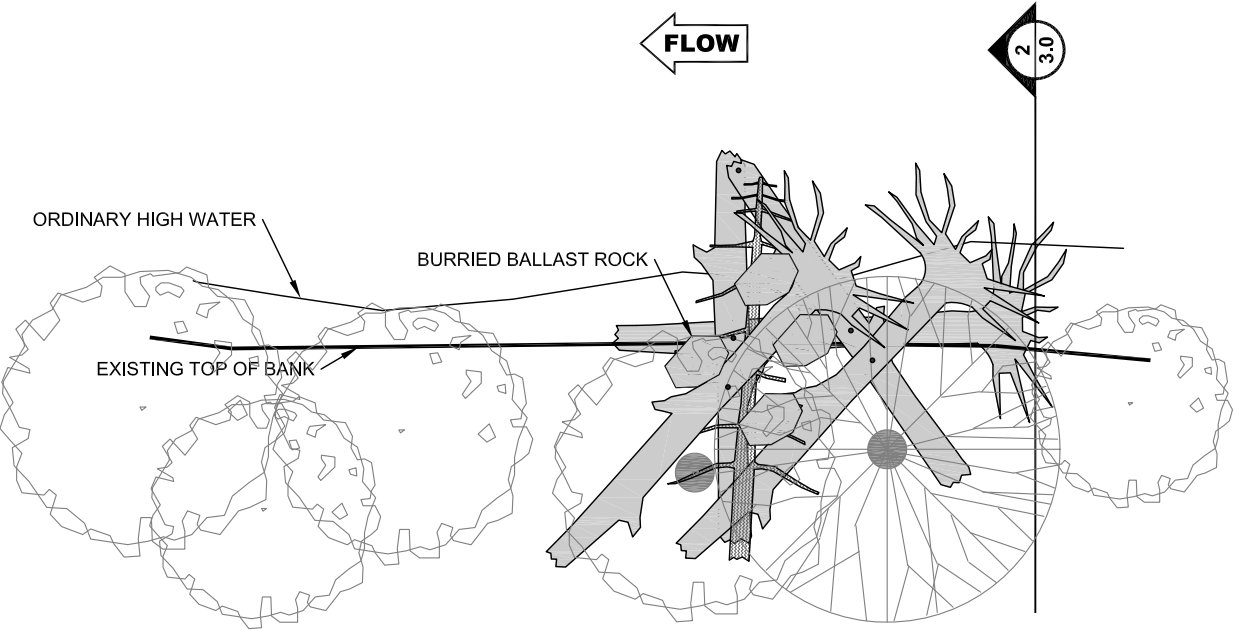
**CROSS SECTIONS**

CALAPOOIA RIVER REACH 3 RESTORATION

CALAPOOIA WATERSHED COUNCIL - PERRY PROPERTY

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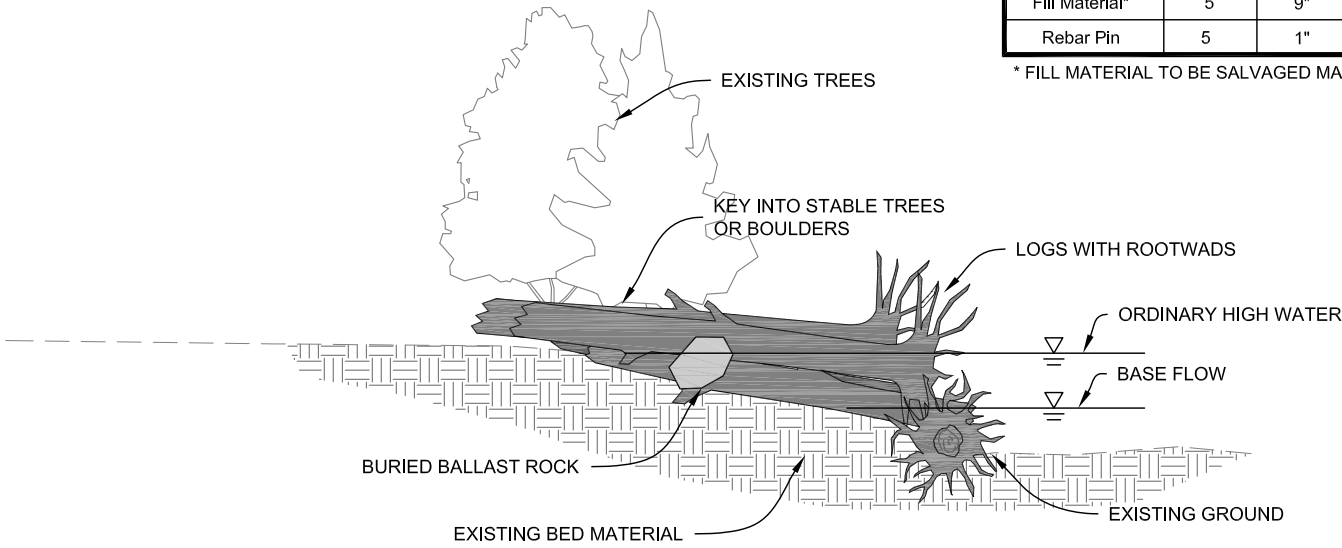
1 PLAN VIEW

1" = 10'

MATERIAL SCHEDULE (PER STRUCTURE)

Item	Quantity	Dia. (in)	Length (ft)	Rootwad (Y/N)
Rootwad Log	1	18	20	Yes - 3 ft Dia. Min.
Deflector Log	3	18	25	No
Fill Material*	5	9"		
Rebar Pin	5	1"	3	

\* FILL MATERIAL TO BE SALVAGED MATERIAL OR PIT RUN



2 STRUCTURE PROFILE

HORIZ 1" = 10'  
VERT 1" = 10'

DESIGN INTENT

THE LARGE WOOD HABITAT STRUCTURE IS INTENDED TO PROVIDE HABITAT DIVERSITY BY ENHANCING SCOUR POOLS, ACTING AS REFUGIA AREA DURING HIGH FLOW, CREATING NEAR-BANK FLOW PARTITION ZONES, AND POOL COVER.

CONSTRUCTION NOTES

LOGS FOR THE HABITAT STRUCTURES SHALL BE CEDAR, SPRUCE, PINE, OR FIR - APPROXIMATELY 15'-20' LONG AND 18" DIAMETER WITH 3' DIAMETER ROOTWADS. OTHER TYPES OF LOGS MAY BE USED IF APPROVED PRIOR TO CONSTRUCTION BY THE PROJECT ENGINEER.

LOGS SHALL BE ANCHORED TO EXISTING STABLE TREES. BALLAST ROCKS SHALL BE USED TO ANCHOR HABITAT LOGS WHEN STABLE TREES ARE NOT PRESENT OR INSUFFICIENT FOR STABILIZING STRUCTURES.

THE NUMBER OF LOGS AND ROOTWADS, THEIR ORIENTATION, AND BALLAST REQUIREMENTS FOR A PARTICULAR STRUCTURE WILL BE DETERMINED ON-SITE BY PROJECT ENGINEER BASED ON INDIVIDUAL SITE CHARACTERISTICS.



EXAMPLE LARGE WOOD HABITAT STRUCTURES

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3.0