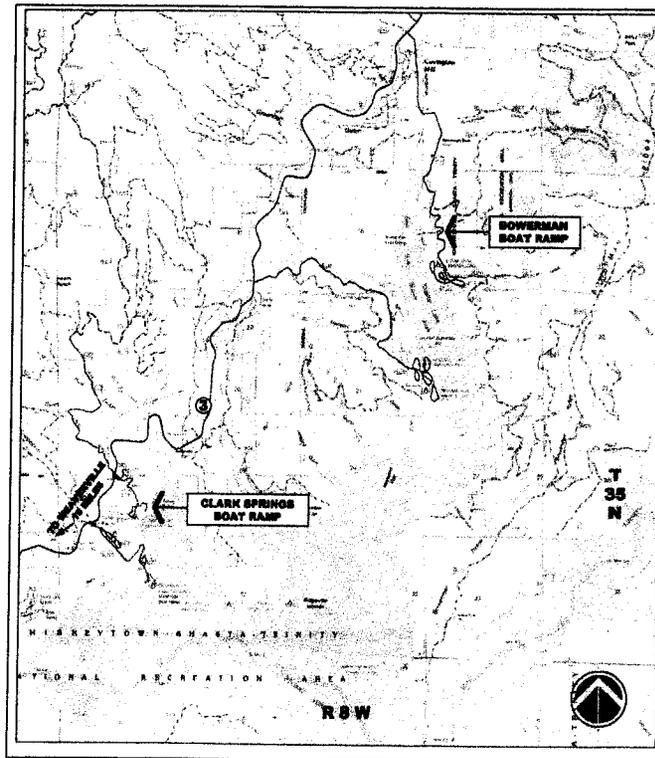
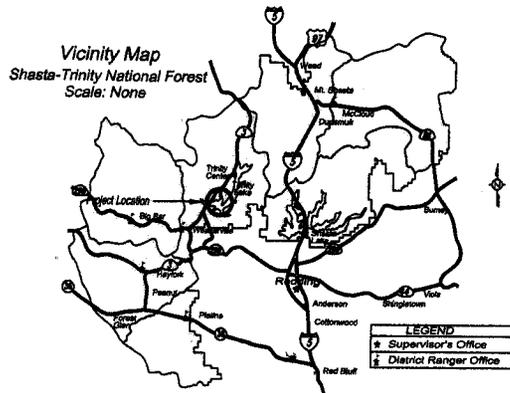


**UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
REGION FIVE**
Shasta-Trinity National Forest
**CLARK SPRINGS AND BOWERMAN
BOAT LAUNCHING FACILITIES**



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 NEW PLAN
 SITE PLAN FOR BATHROOM

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 SIDEWALK AND TRAIL CROSS SECTIONS
 CONCRETE DBAW PROJECT SIGN
 SEPTIC SYSTEM
 BATHROOM CONSTRUCTION PLAN

Reviewed by:

Design Project Leader	_____	Date	_____
Forest C. O. R.	_____	Date	_____
Assistant Forest Engineer	_____	Date	_____

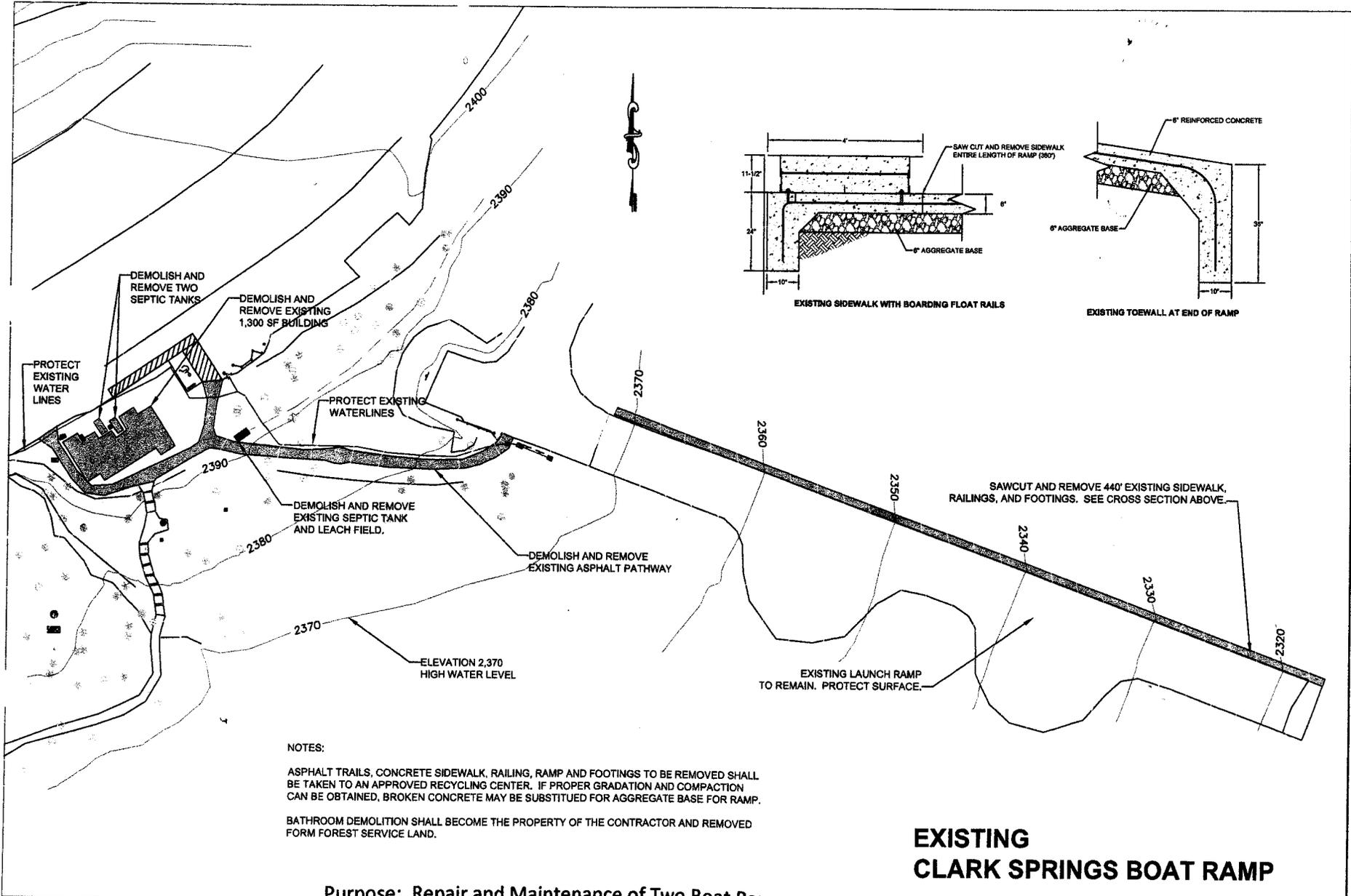
Approved by:

Forest Engineer	_____	Date	_____
District Ranger	_____	Date	_____



TRINITY RIVER MANAGEMENT UNIT
Shasta-Trinity National Forest

Sheet No.
 1 OF 2
 File Name:
 CLARK/BOWERMAN



NOTES:

ASPHALT TRAILS, CONCRETE SIDEWALK, RAILING, RAMP AND FOOTINGS TO BE REMOVED SHALL BE TAKEN TO AN APPROVED RECYCLING CENTER. IF PROPER GRADATION AND COMPACTION CAN BE OBTAINED, BROKEN CONCRETE MAY BE SUBSTITUTED FOR AGGREGATE BASE FOR RAMP.

BATHROOM DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FORM FOREST SERVICE LAND.

Purpose: Repair and Maintenance of Two Boat Ramps
At: Bowerman & Clark Springs, In: Trinity Lake, County:
 Trinity, State: CA, Application By: U.S. Forest Service

EXISTING CLARK SPRINGS BOAT RAMP

Date: 2-8-2011

Sheet 2 of 6

U S D A
FOREST SERVICE

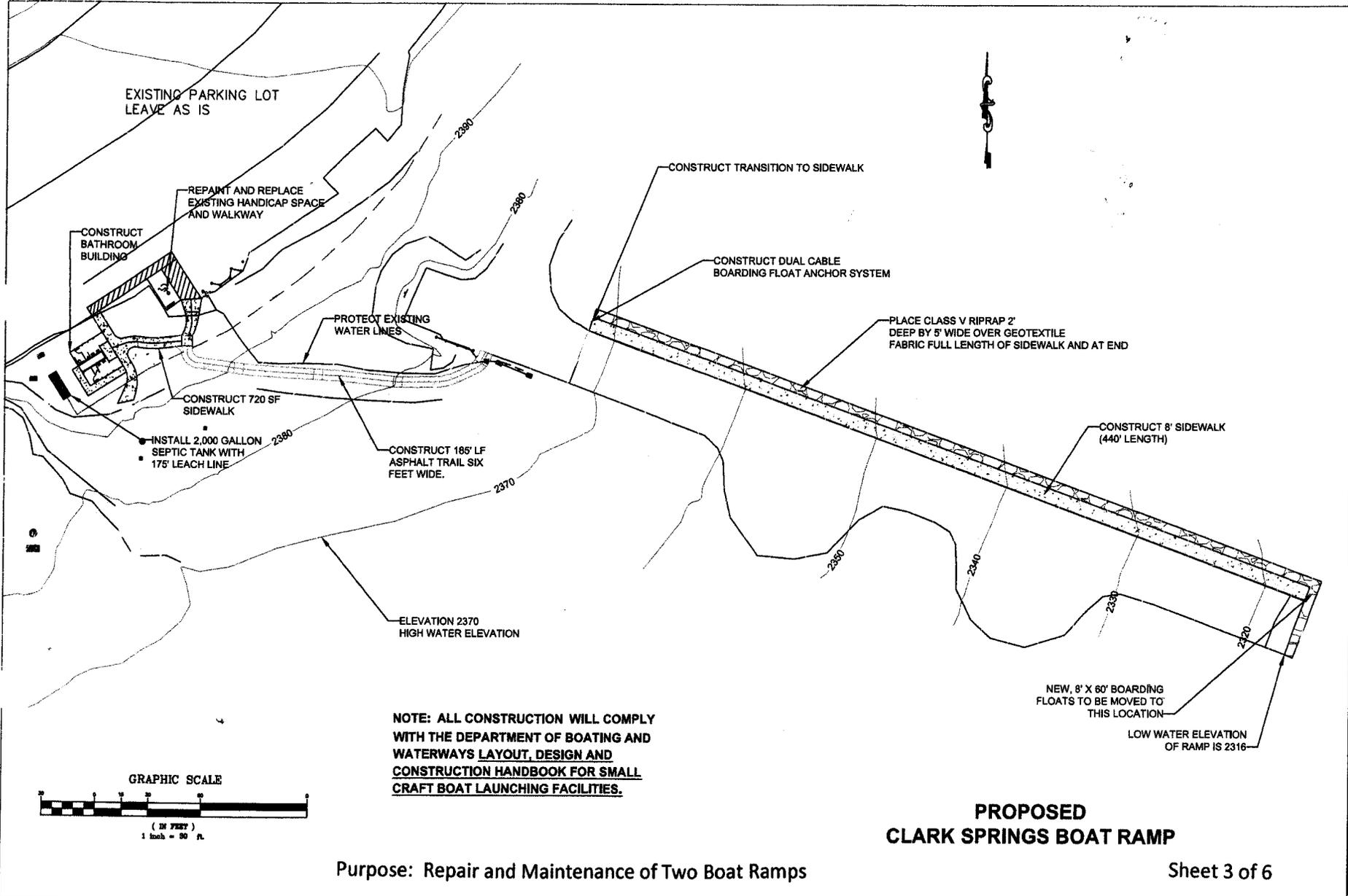
PACIFIC
SOUTHWEST
REGION
R5

NO.	DATE	REVISED					

SHASTA-TRINITY NATIONAL FOREST
 CLARK SPRINGS LAUNCHING FACILITY
 DEMOLITION PLAN

PROJECT: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: 02/08/11
 SCALE: AS SHOWN

SHEET 5 OF 7?



NOTE: ALL CONSTRUCTION WILL COMPLY WITH THE DEPARTMENT OF BOATING AND WATERWAYS LAYOUT, DESIGN AND CONSTRUCTION HANDBOOK FOR SMALL CRAFT BOAT LAUNCHING FACILITIES.

PROPOSED CLARK SPRINGS BOAT RAMP

Purpose: Repair and Maintenance of Two Boat Ramps

Sheet 3 of 6

At: Bowerman & Clark Springs, In: Trinity Lake, County:

Trinity, State: CA, Application By: U.S. Forest Service

Date: 2-8-2011

**U S D A
FOREST SERVICE**



PACIFIC SOUTHWEST REGION RS

NO.	DATE	REVISIONS

SHASTA-TRINITY NATIONAL FOREST

CLARK SPRINGS BOAT LAUNCHING FACILITY

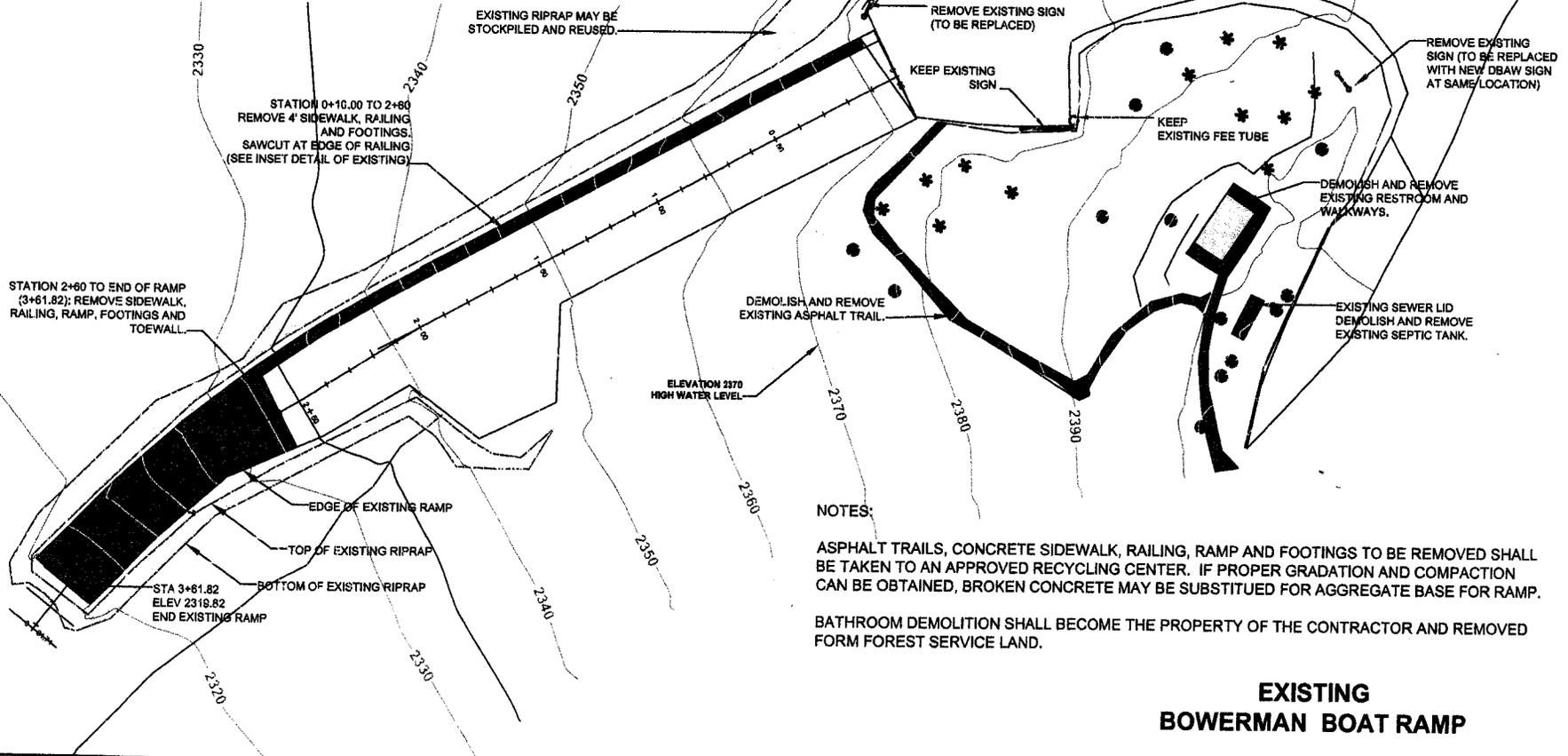
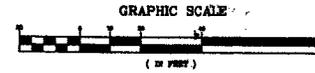
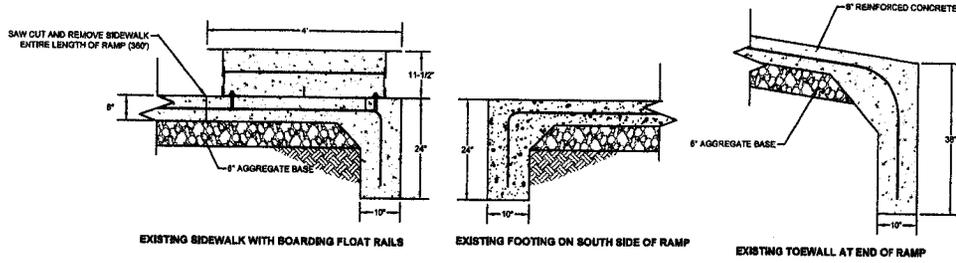
RAMP PLAN

PROJECT NO. _____
DRAWING NAME _____

DESIGNED BY: S. JOYCE
CHECKED BY: T. MORNESS
DATE: 02/07/11
SCALE: AS SHOWN
DRAWN BY: C. LOHMEYER
CHECKED BY: G. RAND

SHEET 5 OF 77

Trinity, State: CA, Application By: U.S. Forest Service



NOTES:

ASPHALT TRAILS, CONCRETE SIDEWALK, RAILING, RAMP AND FOOTINGS TO BE REMOVED SHALL BE TAKEN TO AN APPROVED RECYCLING CENTER. IF PROPER GRADATION AND COMPACTION CAN BE OBTAINED, BROKEN CONCRETE MAY BE SUBSTITUTED FOR AGGREGATE BASE FOR RAMP.

BATHROOM DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FORM FOREST SERVICE LAND.

**EXISTING
BOWERMAN BOAT RAMP**



NO.	DATE	REVISIONS

PROJECT: SHASTA-TRINITY NATIONAL FOREST
 PROPERTY: BOWERMAN LAUNCHING FACILITY
 DRAWING NAME: DEMOLITION PLAN

DESIGNED BY: S. JOYCE
 CHECKED BY: T. MOONNESS
 DATE: 08/2011
 DRAWN BY: C. LOHUIS
 CHECKED BY: G. RAND
 SCALE: AS SHOWN

SHEET 5 OF ??

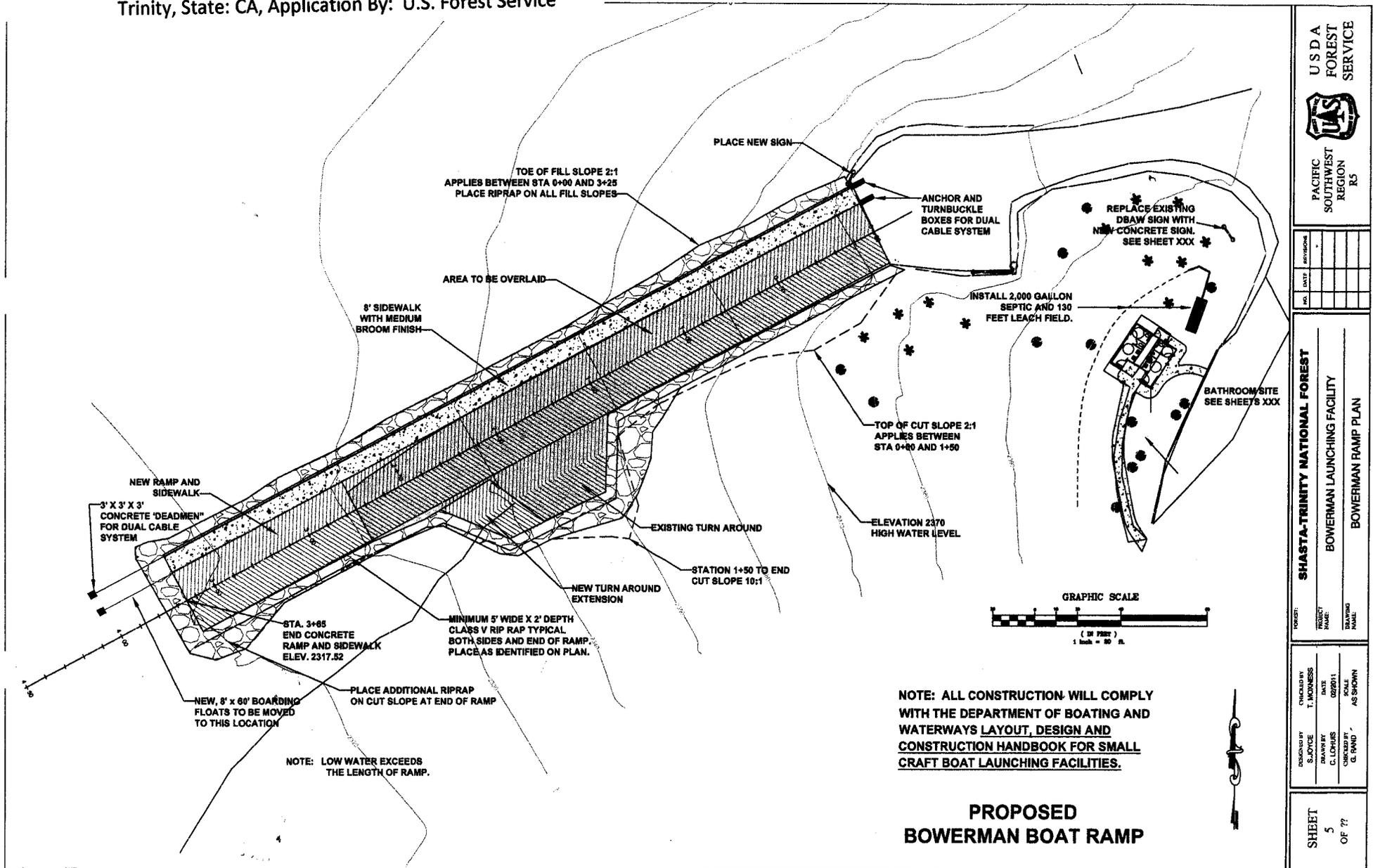
Purpose: Repair and Maintenance of Two Boat Ramps

Enclosure 1

At: Bowerman & Clark Springs, In: Trinity Lake, County:

File No. 2011-00056

Trinity, State: CA, Application By: U.S. Forest Service



PACIFIC SOUTHWEST REGION RS

NO.	DATE	REVISIONS

SHASTA-TRINITY NATIONAL FOREST
 BOWERMAN LAUNCHING FACILITY
 BOWERMAN RAMP PLAN

PROJECT: BOWERMAN LAUNCHING FACILITY
 DRAWING NAME: BOWERMAN RAMP PLAN
 DRAWING NUMBER:

DESIGNED BY: S. JOYCE
 CHECKED BY: T. WOODNESS
 DATE: 02/20/11
 SCALE: AS SHOWN
 AS SHOWN

SHEET 5 OF ??

NOTE: ALL CONSTRUCTION WILL COMPLY WITH THE DEPARTMENT OF BOATING AND WATERWAYS LAYOUT, DESIGN AND CONSTRUCTION HANDBOOK FOR SMALL CRAFT BOAT LAUNCHING FACILITIES.

PROPOSED BOWERMAN BOAT RAMP

Summary of activities taking place below high water (full pool of reservoir is at 2370 feet elevation) at each location:

Bowerman Boat Ramp:

1. Remove the lower portion of the curving, one lane boat ramp and replace it with a 2-lane (30 feet wide) straight ramp.
2. Replace entire ramp overlay with V-grooved concrete.
3. Replace the 4-foot wide sidewalk with an 8-foot wide concrete sidewalk.
4. Install a double cable system for the boarding float.
5. Install rock slope protection (rip rap) on the sides of the ramp for erosion control.

Clark Springs Boat Ramp:

1. Replace the 3-foot wide sidewalk with an 8-foot wide concrete sidewalk.
2. Install a double cable system for the boarding float.
3. Install rock slope protection (rip rap) on the sides of the ramp for erosion control.

Approximate amounts of material removed and added below high water:

BOWERMAN BOAT RAMP	
Remove from below high water	Amount (Cubic yards)
Unsuitable material*	150
Rip rap	100
Concrete from ramp and sidewalk	136
Add below high water	Amount (Cubic yards)
New concrete	403
New aggregate	124
New rip rap	275
Area to be disturbed below high water: 4.16 acres	
*“Dirt” we will have to remove to accommodate the ramp.	

CLARK SPRINGS BOAT RAMP	
Remove from below high water	Amount (Cubic yards)
Concrete from ramp sidewalk (including footing)	90
Add below high water	Amount (Cubic yards)
New concrete	185
New aggregate	65
New rip rap	165
Area to be disturbed below high water: 1.27 acres	