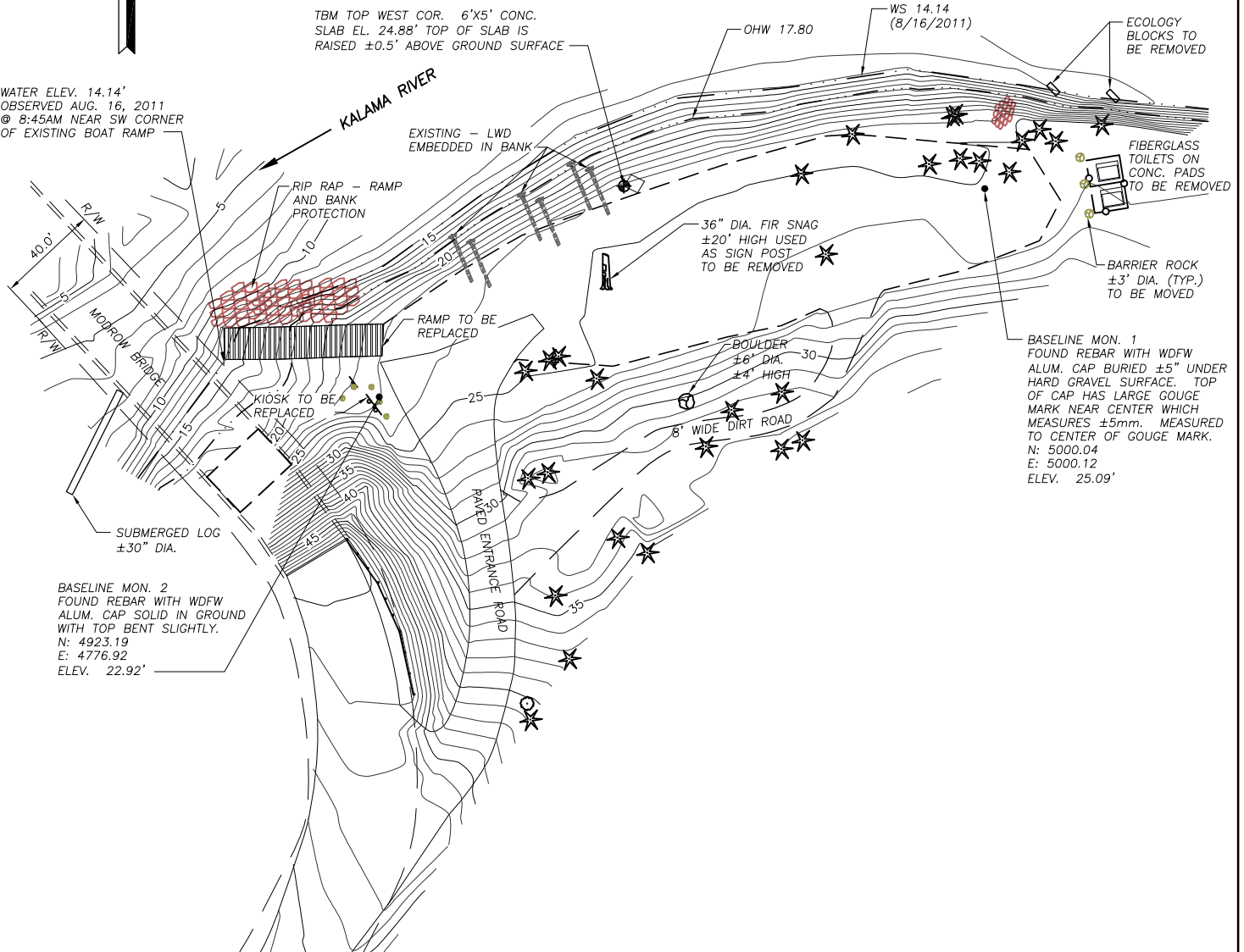


PURPOSE: REPAIR DAMAGED ACCESS RAMP, REPLACE VAULT TOILETS	WASHINGTON DEPT. of FISH & WILDLIFE 600 CAPITOL WAY N. OLYMPIA, WA 98501-1091	PROPOSED: REPLACE ACCESS RAMP ADD ARMORFLEX FOR EROSION CONTROL ADD NEW VAULT TOILET
DATUM: <u>NGVD 29</u> ADJACENT PROPERTY OWNER: 1. _____ 2. _____ ENG. PROJECT NO. <u>CZ:A060:11-1</u>	REFERENCE NO. _____ SITE: MODROW BRIDGE ACCESS ADDRESS: MODROW ROAD KALAMA, WA	IN: <u>KALAMA</u> NEAR: <u>KALAMA RIVER</u> COUNTY OF: <u>COWLITZ</u> STATE: <u>WA</u> PORTION OF: <u>SEC32, T7N, R1W</u> DATE: <u>11/16/2011</u> SHEET <u>1</u> OF <u>11</u>



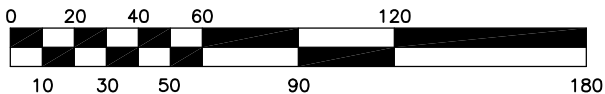
WATER ELEV. 14.14'
OBSERVED AUG. 16, 2011
@ 8:45AM NEAR SW CORNER
OF EXISTING BOAT RAMP

TBM TOP WEST COR. 6'X5' CONC.
SLAB EL. 24.88' TOP OF SLAB IS
RAISED ±0.5' ABOVE GROUND SURFACE



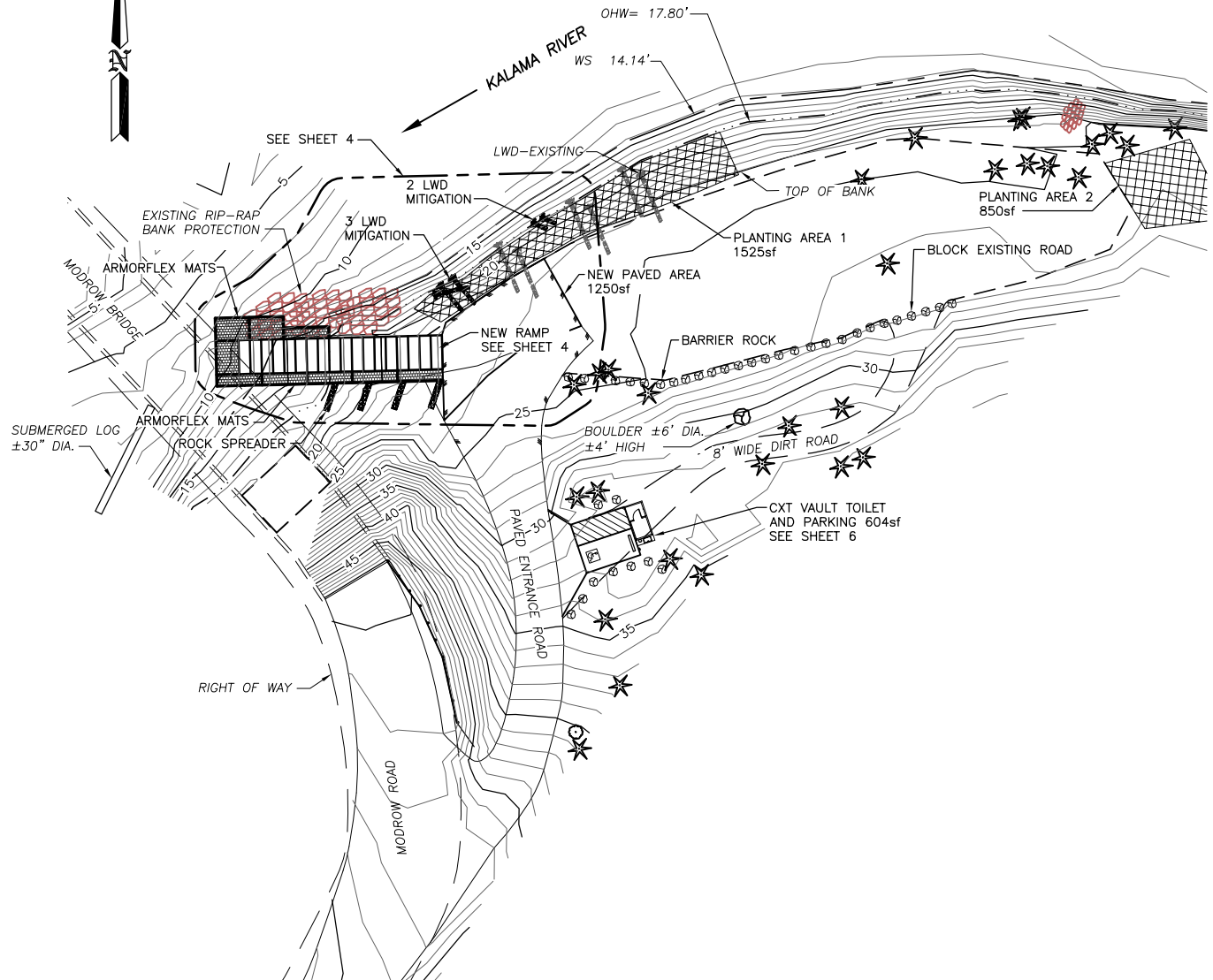
EXISTING SITE PLAN

SCALE: 1" = 60'

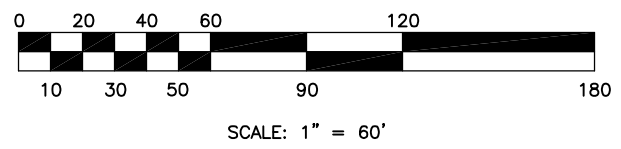


SCALE: 1" = 60'

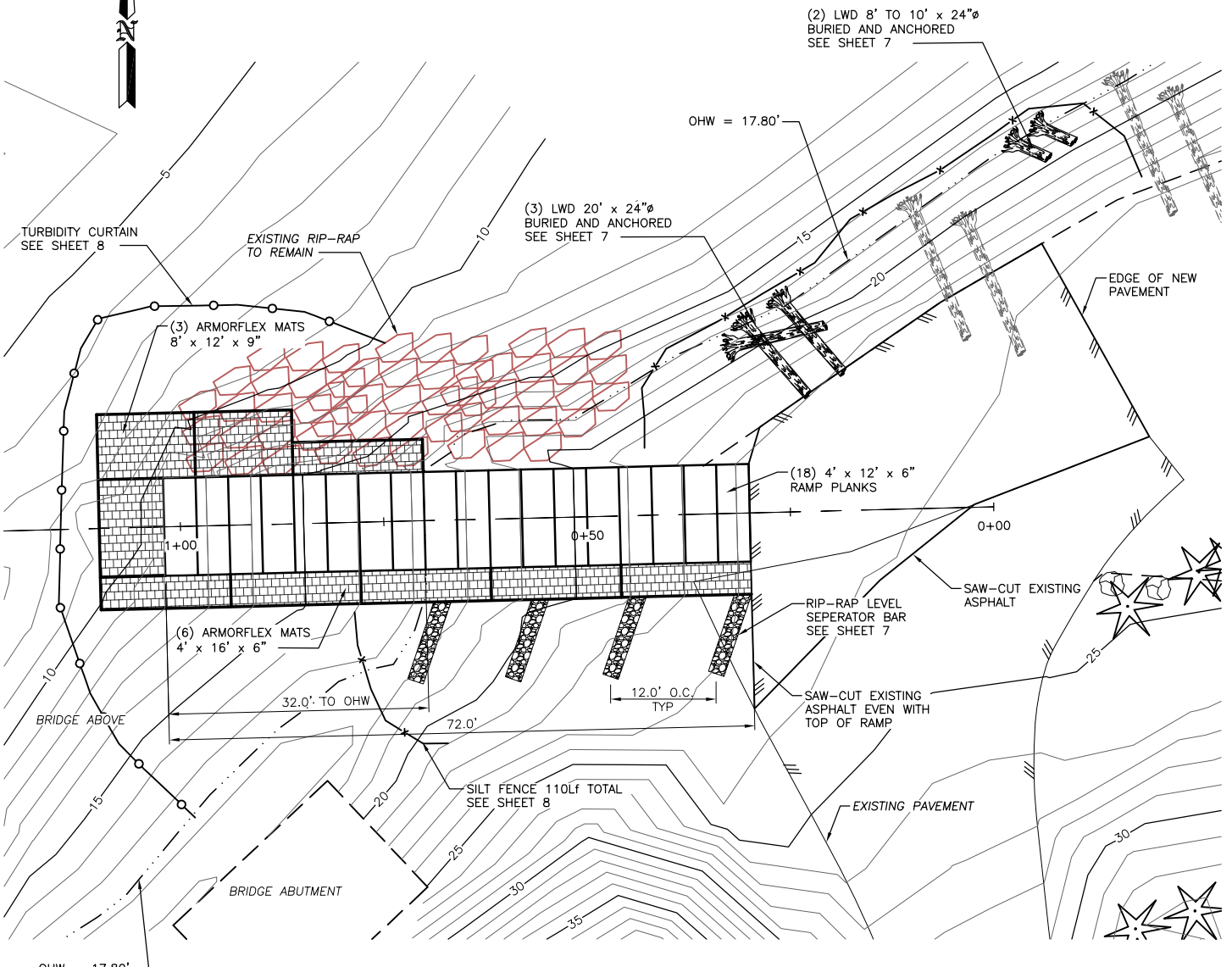
REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS KALAMA RIVER EXISTING SITE PLAN
AT: <u>KALAMA</u> , WASHINGTON
DATE: <u>11/16/2011</u> SHEET <u>2</u> OF <u>11</u>



SITE PLAN
SCALE: 1" = 60'



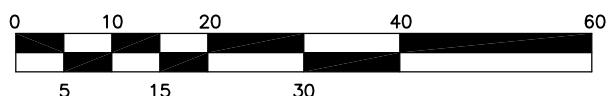
REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS KALAMA RIVER SITE PLAN
AT: <u>KALAMA</u> , WASHINGTON
DATE: <u>11/16/2011</u> SHEET <u>3</u> OF <u>11</u>



RAMP PLAN
SCALE: 1" = 20'

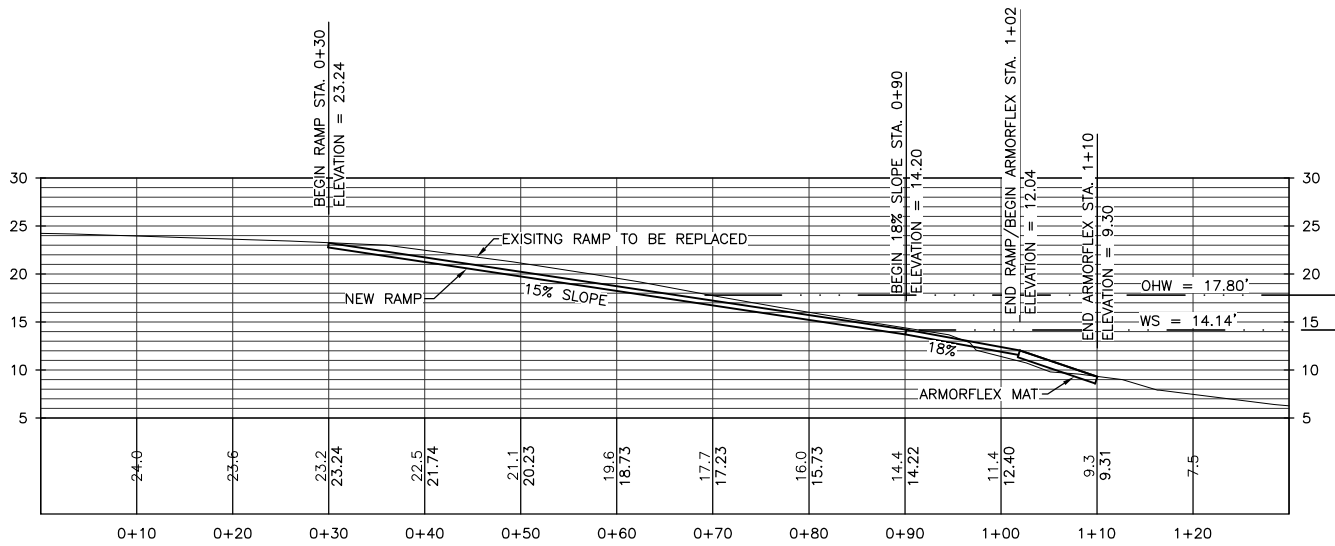
CUT AND FILL DATA	
SITE	TOTALS
CUT ABOVE OHW	28.4cy
CUT BELOW OHW	9.5cy
FILL ABOVE OHW	11.9cy
FILL BELOW OHW	23.6cy
NET BELOW OHW	14.4cy FILL
NET ABOVE OHW	16.5cy CUT

SURFACE AREA BELOW OHW:
 NEW RAMP EXTENSION = 48sf
 REPLACED RAMP = 144sf
 ARMORFLEX = 512sf
 TOTAL AREA BELOW OHW = 704sf

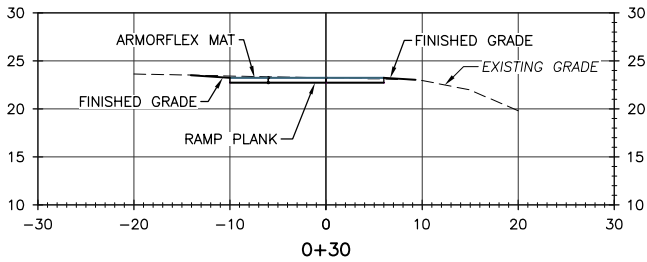


SCALE: 1" = 20'

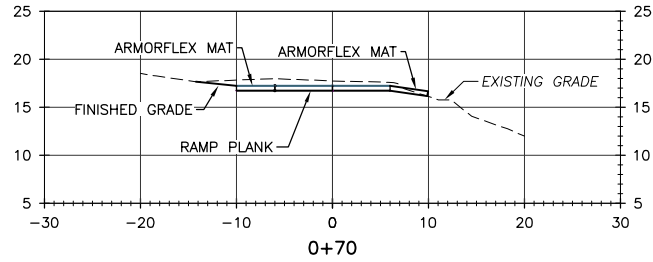
REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS KALAMA RIVER RAMP PLAN
AT: <u>KALAMA</u> , WASHINGTON
DATE: <u>11/16/2011</u> SHEET <u>4</u> OF <u>11</u>



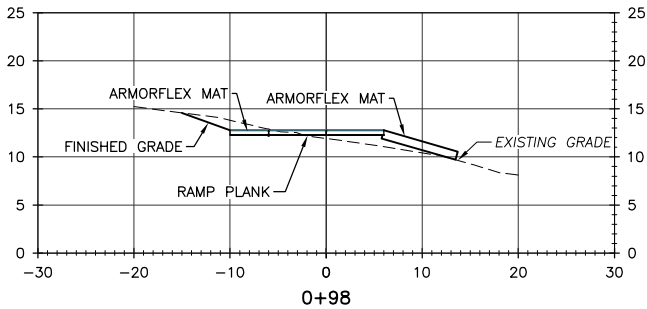
RAMP PROFILE
SCALE: 1" = 20'



RAMP SECTION STA. 0+30
SCALE: 1" = 20'

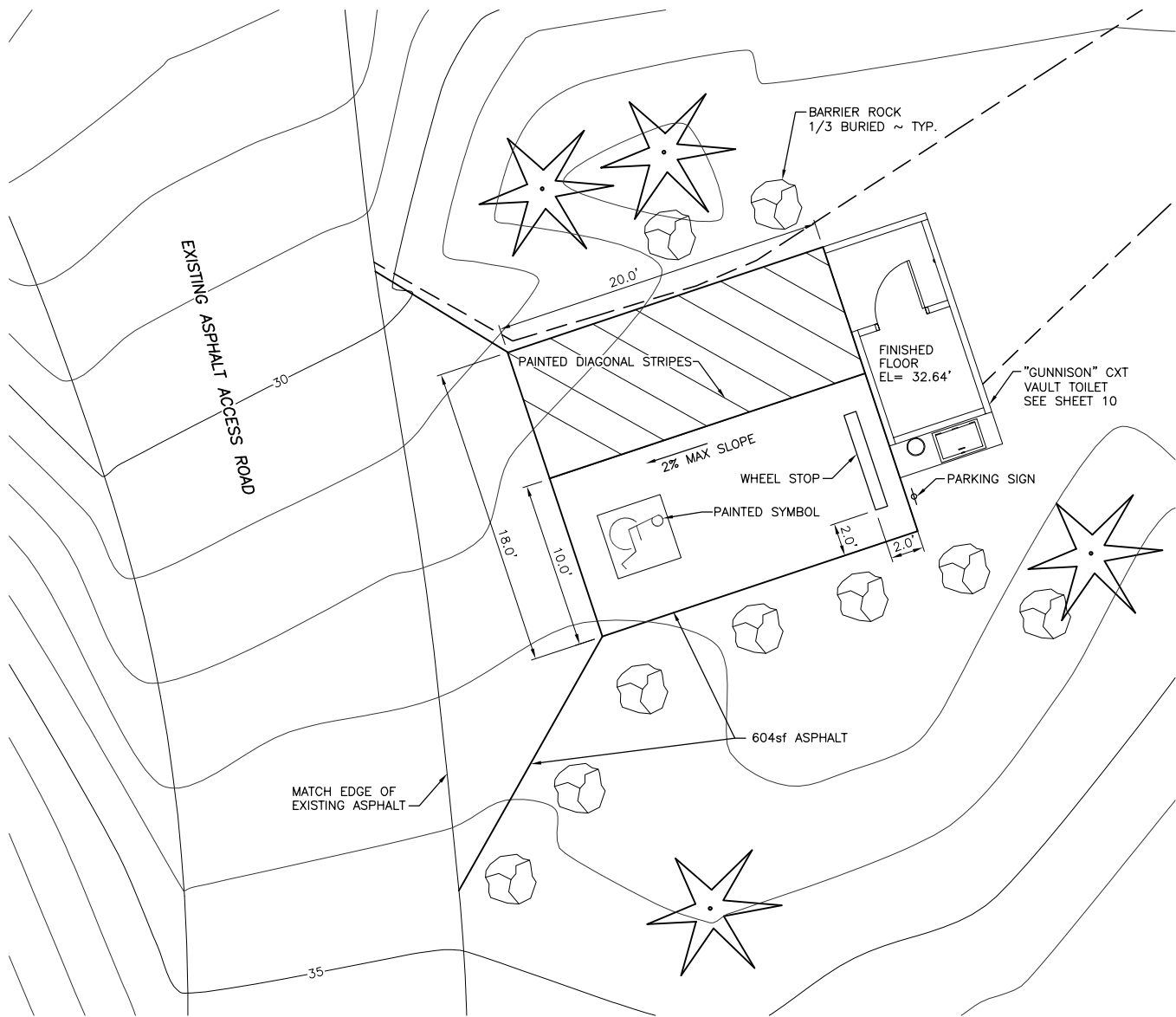


RAMP SECTION STA. 0+70
SCALE: 1" = 20'



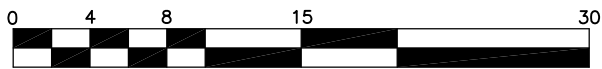
RAMP SECTION STA. 0+98
SCALE: 1" = 20'

REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS KALAMA RIVER RAMP PROFILE AND SECTIONS
AT: _____, WASHINGTON
DATE: 11/16/2011 SHEET 5 OF 11



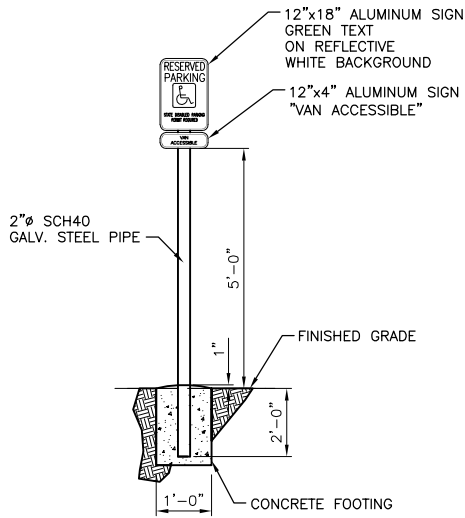
CXT VAULT TOILET PLAN

SCALE: 1" = 10'

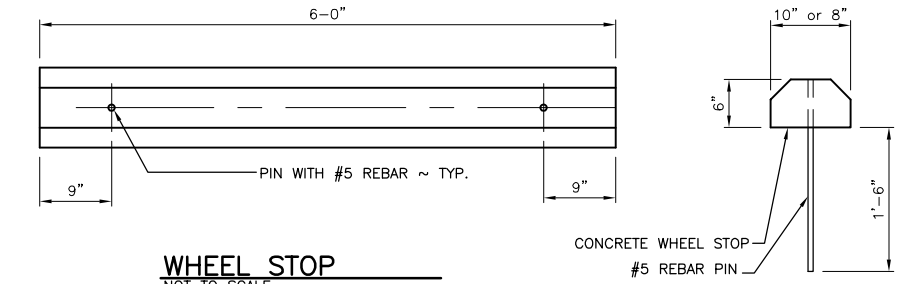


SCALE: 1" = 10'

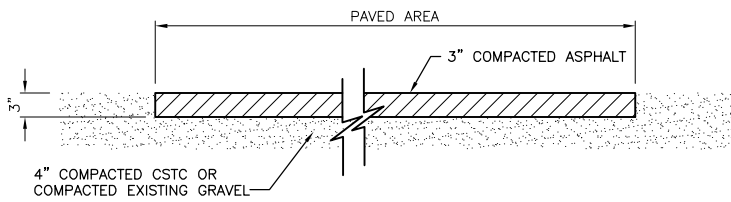
REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS KALAMA RIVER CXT VAULT TOILET PLAN
AT: <u>KALAMA</u> , WASHINGTON
DATE: <u>11/16/2011</u> SHEET <u>6</u> OF <u>11</u>



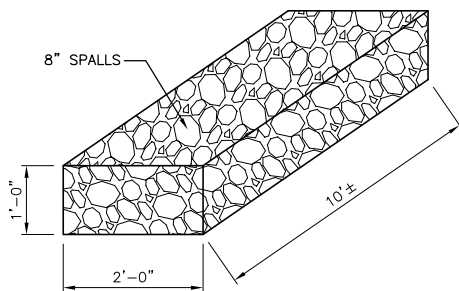
ACCESSIBLE PARKING SIGN
NOT TO SCALE



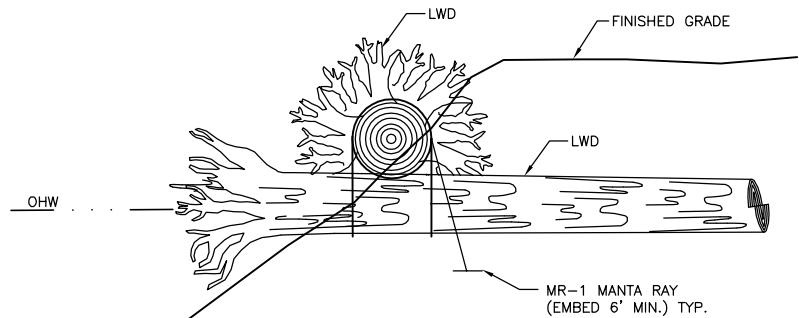
WHEEL STOP
NOT TO SCALE



PAVEMENT SECTION
NOT TO SCALE



LEVEL SEPERATOR BAR
NOT TO SCALE

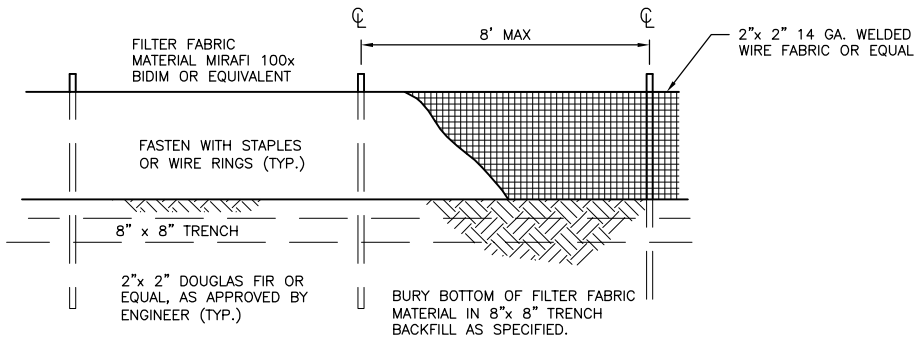


BURIED LWD DETAILS
NOT TO SCALE

NOTE:

1. LWD LOCATIONS SHALL BE STAKED IN FIELD BY ENGINEER.
2. MR-1 EARTH ANCHORS WITH 1/2" GALVANIZED CHAIN STAPLED 2 PLACES EACH (MIN.) & SCREW PIN SHACKLES - EMBED ANCHOR MIN. DEPTH 6 FT (TYP.)

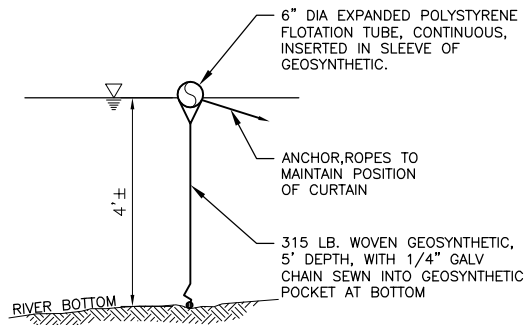
REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS KALAMA RIVER SITE DETAILS
AT: <u>KALAMA</u> , WASHINGTON
DATE: <u>11/16/2011</u> SHEET <u>7</u> OF <u>11</u>



FILTER FABRIC FENCE
NOT TO SCALE

FILTER FABRIC NOTES:

1. FILTER FABRIC SHALL BE PURCHASED CONTINUOUS ROLL CUT TO LENGTH OF BARRIER AS NEEDED. IF JOINTS ARE NECESSARY FABRIC SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POSTS WITH A MINIMUM OF (6) INCH OVERLAP. BOTH ENDS SHALL BE SECURED AS REQUIRED.
2. FILTER FABRIC SHALL BE INSTALLED TO FOLLOW CONTOURS. FENCE POSTS SHALL BE SPACED A MAXIMUM OF EIGHT (8) FEET APART UNLESS OTHERWISE SHOWN HEREIN. ALL POSTS SHALL BE DRIVEN INTO THE GROUND A MINIMUM OF 30 INCHES.
3. A TRENCH SHALL BE EXCAVATED, ROUGHLY EIGHT (8) INCHES WIDE BY EIGHT (8) INCHES DEEP UP SLOPE AND ADJACENT TO THE POST TO ALLOW THE FILTER FABRIC TO BE BURIED.
4. WHEN STANDARD STRENGTH FILTER FABRIC IS UTILIZED, A WIRE SINGLE SPACE MESH SUPPORT FENCE SHALL BE FASTENED TO THE UPSLOPE (OR UPSTREAM) SIDE OF THE POSTS USING ONE (1) INCH MINIMUM LENGTH WIRE STAPLES, TIE WIRE OR APPROVED HOG RINGS. ALL WIRE SUPPORT SHALL EXTEND INTO THE TRENCH A MINIMUM OF FOUR (4) INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE ORIGINAL GRADE.
5. ALL FILTER FABRIC SHALL BE STAPLED OR WIRED TO SUPPORT FENCING AND A MINIMUM OF 20 INCHES OF FABRIC SHALL BE EXTENDED INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED OR FASTENED TO EXISTING TREES OR STRUCTURES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. IF HIGH STRENGTH FILTER FABRIC AND CLOSER SPACING ARE USED, THE WIRE SUPPORT FENCING MAY BE ELIMINATED. HIGH STRENGTH FABRIC SHALL BE STAPLED OR WIRED DIRECTLY TO POSTS AS REQUIRED BY THE ENGINEER.
7. CUTOFF TRENCH SHALL BE BACKFILLED WITH 3/4 INCH MINIMUM DIAMETER WASHED GRAVEL OR OTHER SIMILAR SOURCE AS APPROVED BY THE ENGINEER.
8. FILTER FENCING SHALL BE INSTALLED WHERE SHOWN ON THE PLAN, OR AS MARKED IN THE FIELD BY THE ENGINEER, PRIOR TO COMMENCEMENT OF WORK. ALL FENCING SHALL BE INSPECTED DAILY DURING CONSTRUCTION AND AFTER EACH SIGNIFICANT RAINFALL EVENT UNTIL SITE HAS BEEN PERMANENTLY STABILIZED. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
9. REMOVAL OF TRAPPED SEDIMENT SHALL BE PERFORMED WHEN AMOUNTS REACH APPROXIMATELY 1/3 HEIGHT OF THE FENCE.
10. FILTER FENCING SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN REVEGETATED TO ORIGINAL CONDITION OR DIRECTED BY THE ENGINEER.



TURBIDITY CURTAIN

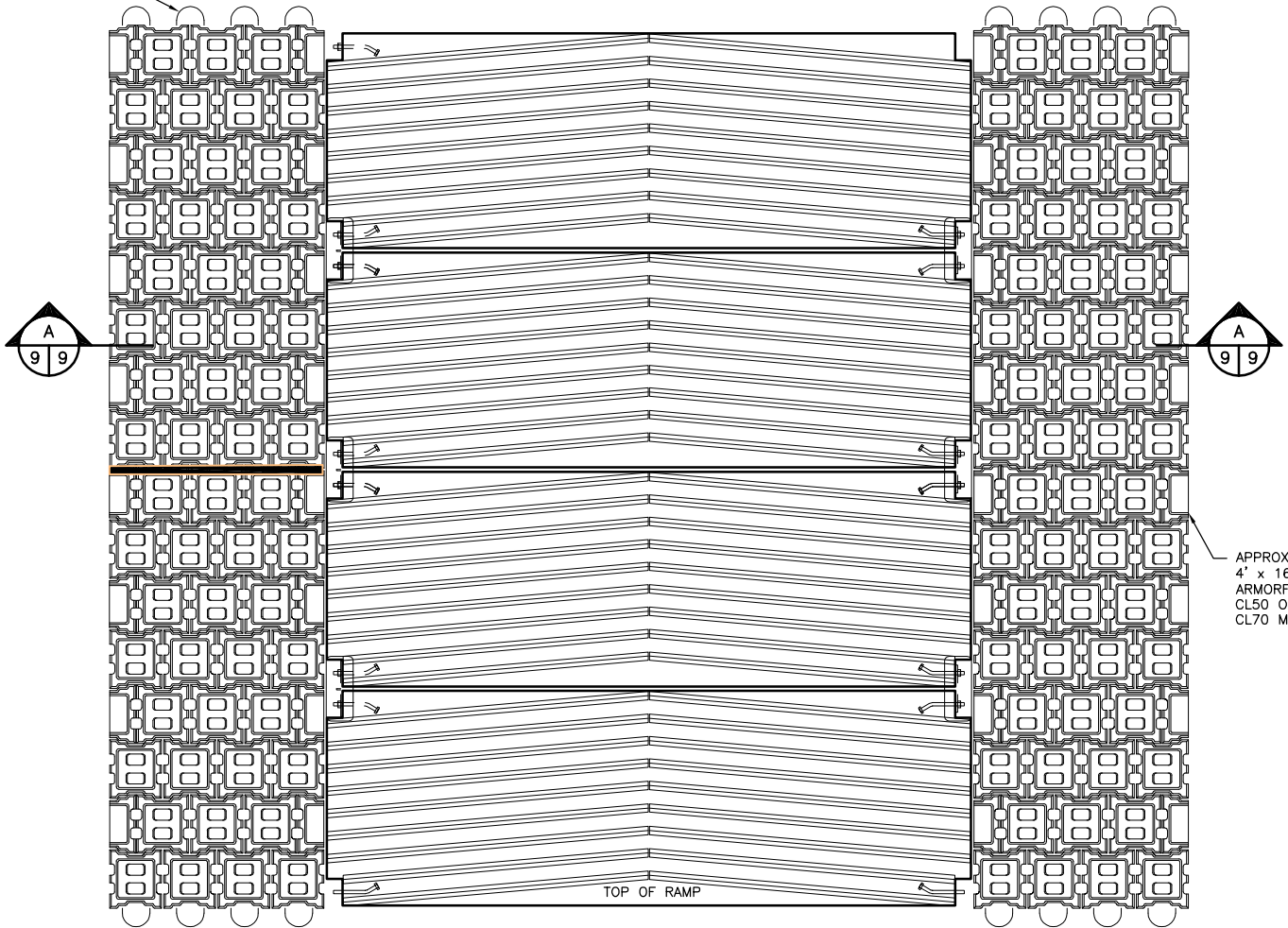
NOT TO SCALE

NOTES:

1. SILT CURTAIN AVAILABLE FROM NORTHWEST LININGS, KENT, WA.
2. GEOSYNTHETIC SHALL BE PERMEATEX 2315 OR EQUAL.

REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS KALAMA RIVER SITE DETAILS
AT: <u>KALAMA</u> , WASHINGTON
DATE: <u>11/16/2011</u> SHEET <u>8</u> OF <u>11</u>

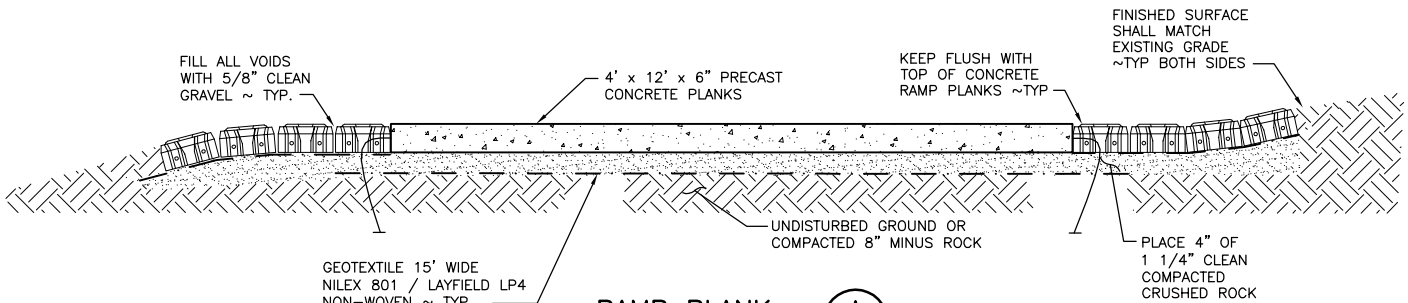
APPROX. 4' x 16'
ARMORFLEX CL50
OR CL70 MAT



APPROX.
4' x 16'
ARMORFLEX
CL50 OR
CL70 MAT

TYPICAL RAMP PLANK PLAN

NOT TO SCALE



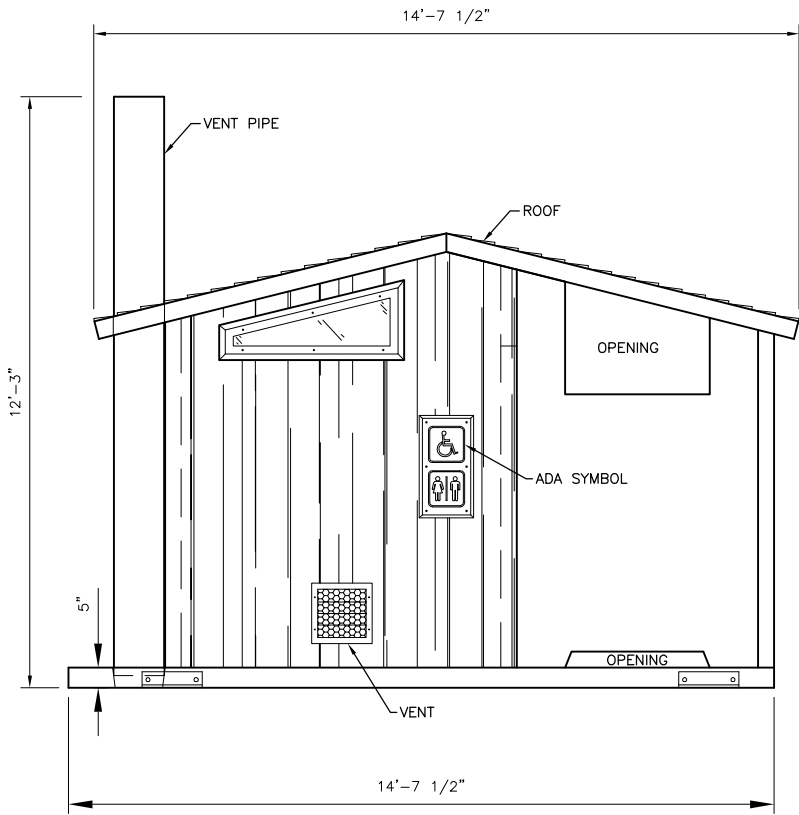
RAMP PLANK

NOT TO SCALE

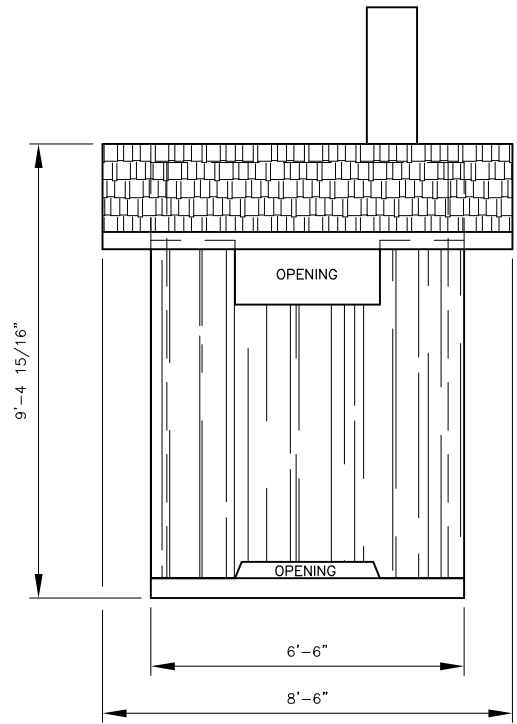
NOTE:
SEE SITE PLAN FOR SIZE AND LAYOUT OF
ARMORFLEX MATS

REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS TYPICAL RAMP INSTALLATION PLAN AND SECTION

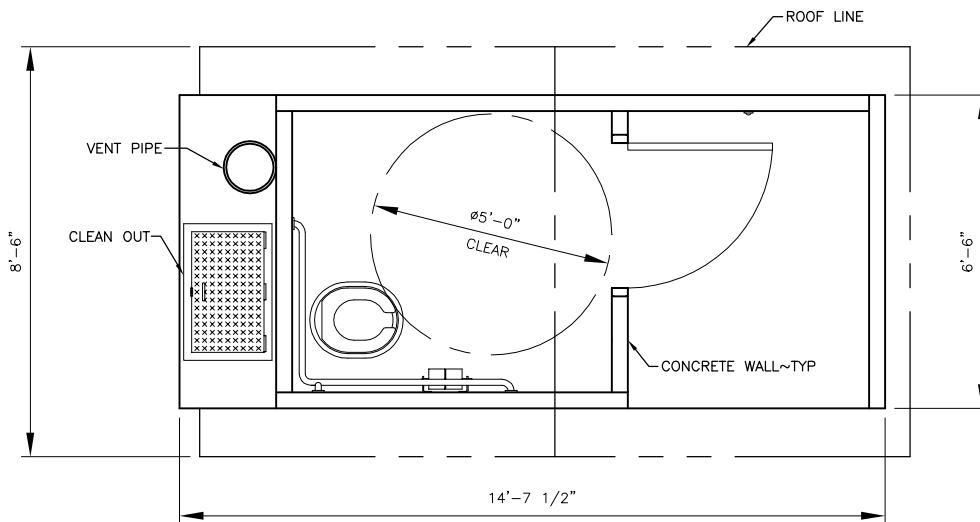
AT: KALAMA, WASHINGTON
DATE: 11/16/2011 SHEET 9 OF 11



FRONT ELEVATION
NOT TO SCALE

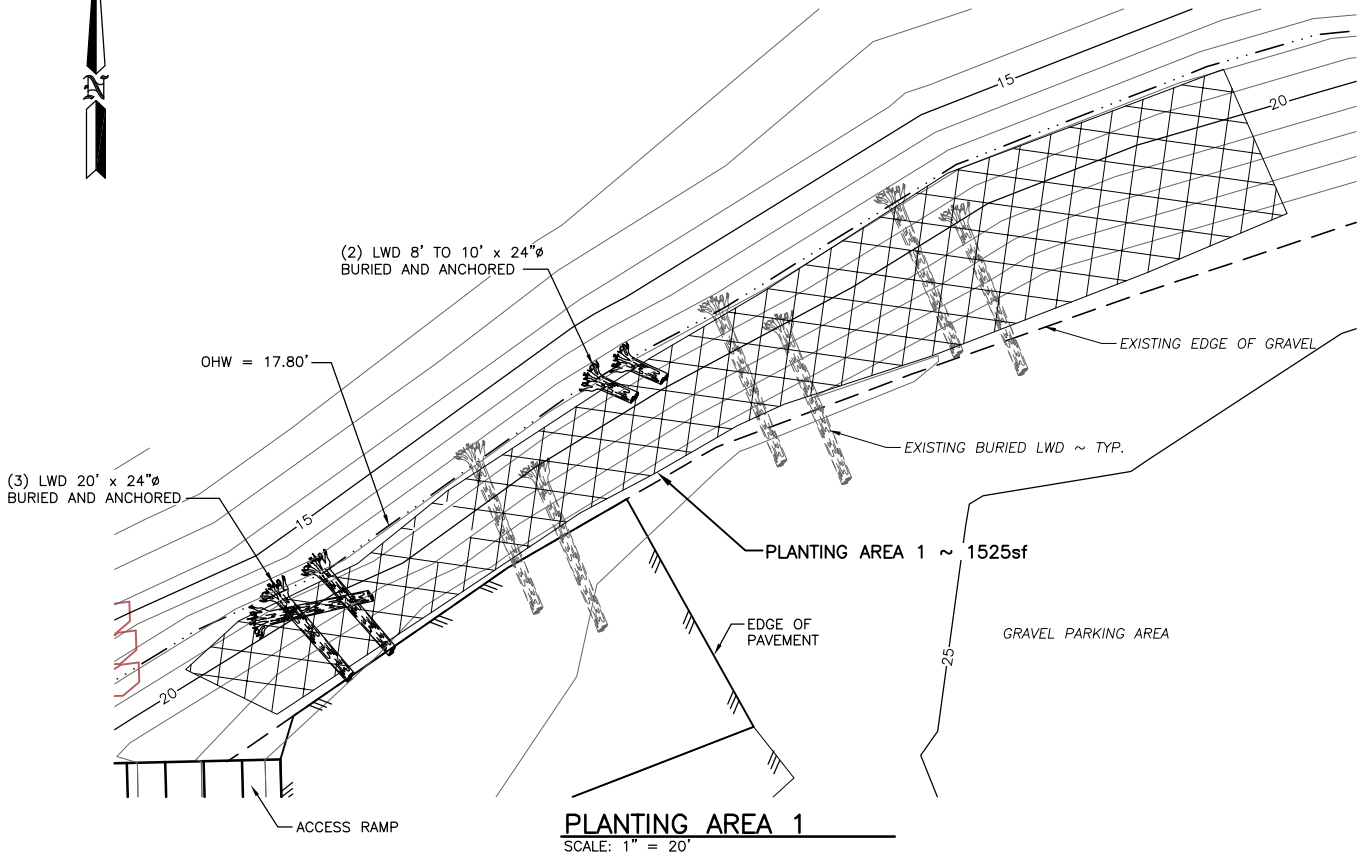


SIDE ELEVATION
NOT TO SCALE

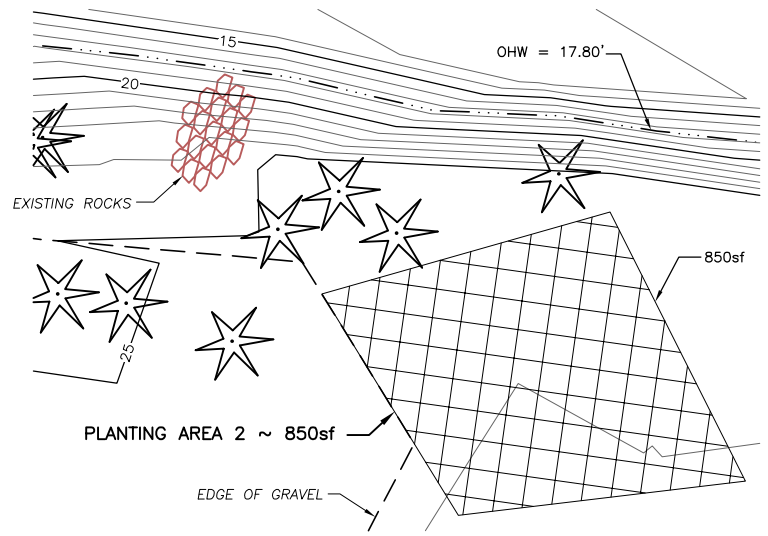


CXT VAULT TOILET PLAN
NOT TO SCALE

REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS CXT VAULT TOILET PLAN AND ELEVATIONS
AT: <u>KALAMA</u> , WASHINGTON
DATE: <u>11/16/2011</u> SHEET <u>10</u> OF <u>11</u>



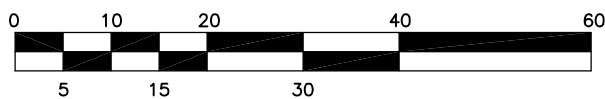
PLANTING AREA 1
SCALE: 1" = 20'



PLANTING AREA 2
SCALE: 1" = 20'

NOTE:
APPLY HERBICIDE BY LICENSED APPLICATOR WITH
AQUATIC ENDORSEMENT. REMOVE ALL INVASIVE PLANTS

MITIGATION PLANTING			
AREA	AREA SF	PLANTINGS	QUANTITY
1	1525	WILLOW STAKES	170
2	850	WESTERN RED CEDAR	13
		SALAL	25



SCALE: 1" = 20'

REFERENCE NO. _____
APPLICANT: WASHINGTON DEPT. of FISH & WILDLIFE
MODROW BRIDGE ACCESS KALAMA RIVER PLANTING PLAN
AT: <u>KALAMA</u> , WASHINGTON
DATE: <u>11/16/2011</u> SHEET <u>11</u> OF <u>11</u>