



WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

WENAS WILDLIFE AREA YAKIMA ROAD RENOVATION YA:R3:12-1

INDEX

SHEET NO.

1. COVER SHEET
2. OVERALL SITE PLAN & VICINITY MAP
3. SITE PLAN 1
4. SITE PLAN 2
5. SITE PLAN 3
6. SITE PLAN 4
7. COTTONWOOD CREEK FORD & CROSSING DETAILS
8. SITE PLAN 5
9. CROSS DRAIN INSTALLATION & DETAILS
10. DITCHOUT & CHECK DAM DETAILS

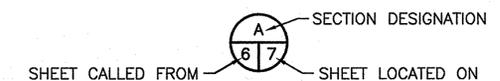
ABBREVIATIONS

APPROX.-	APPROXIMATELY
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	COMPANY
CONC.	CONCRETE
CSBC	CRUSHED SURFACING BASE COURSE
Ø	DIAMETER
DEPT.	DEPARTMENT
ELEV	ELEVATION
FT	FEET
IE	INVERT ELEVATION
JCT.	JUNCTION
LF	LINEAR FEET
LG	LONG
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MOD.	MODEL
OC	ON CENTER
PT.	POINT
RD	ROAD
REQ'D	REQUIRED
SEC.	SECTION
S.F.	SQUARE FEET
SHT.	SHEET
SPEC'S.	PROJECT SPECIFICATIONS
TYP	TYPICAL
W.S.	WATER SURFACE

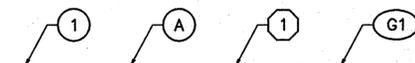
SHEET SYMBOLS



DETAIL



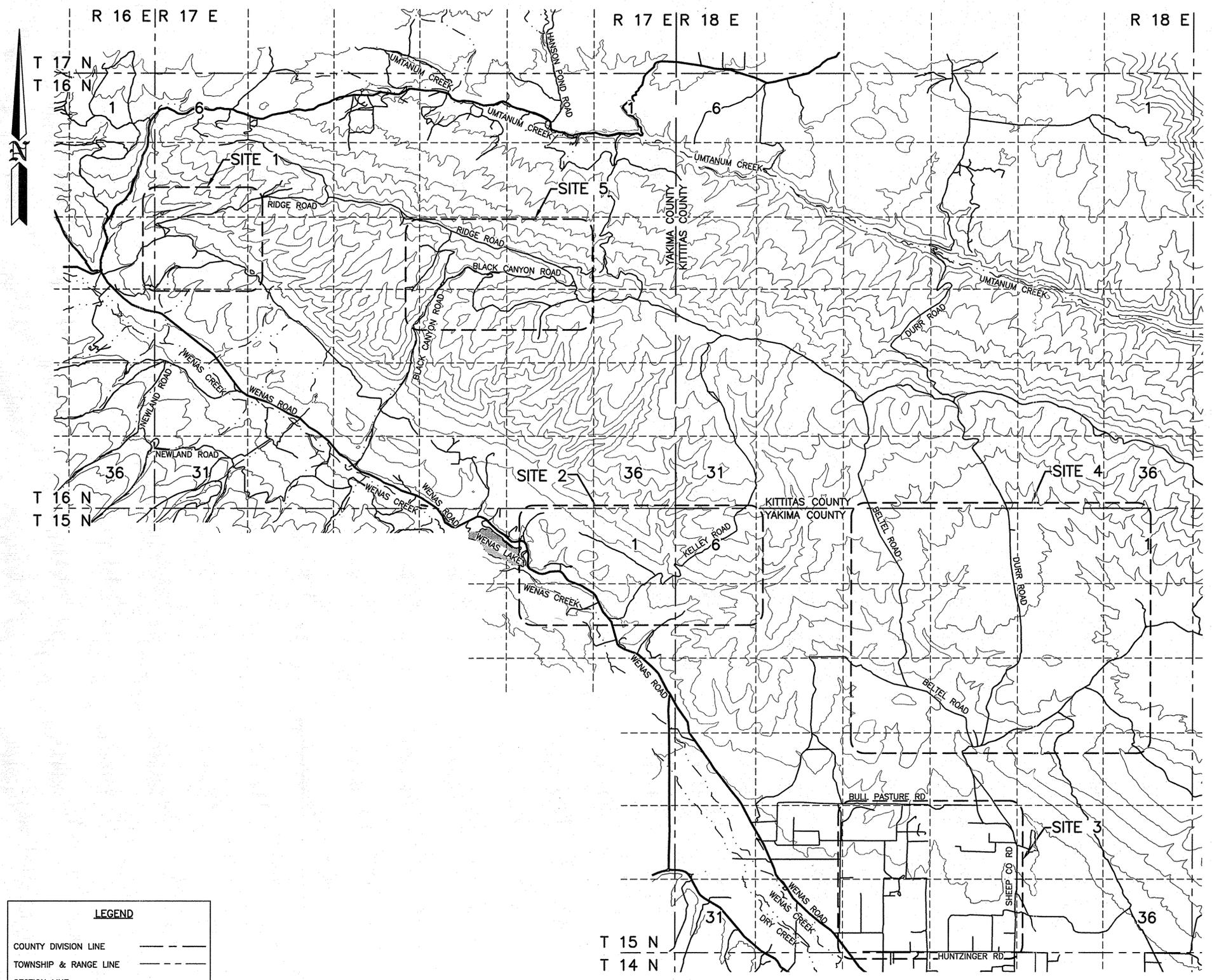
SECTION



NOTE REFERENCE
REFERENCE DESIGNATION TO NOTE
APPEARING ON SAME SHEET OR A
PART OR MATERIAL IN A SCHEDULE

PROJECT NO.
YA:R3:12-1

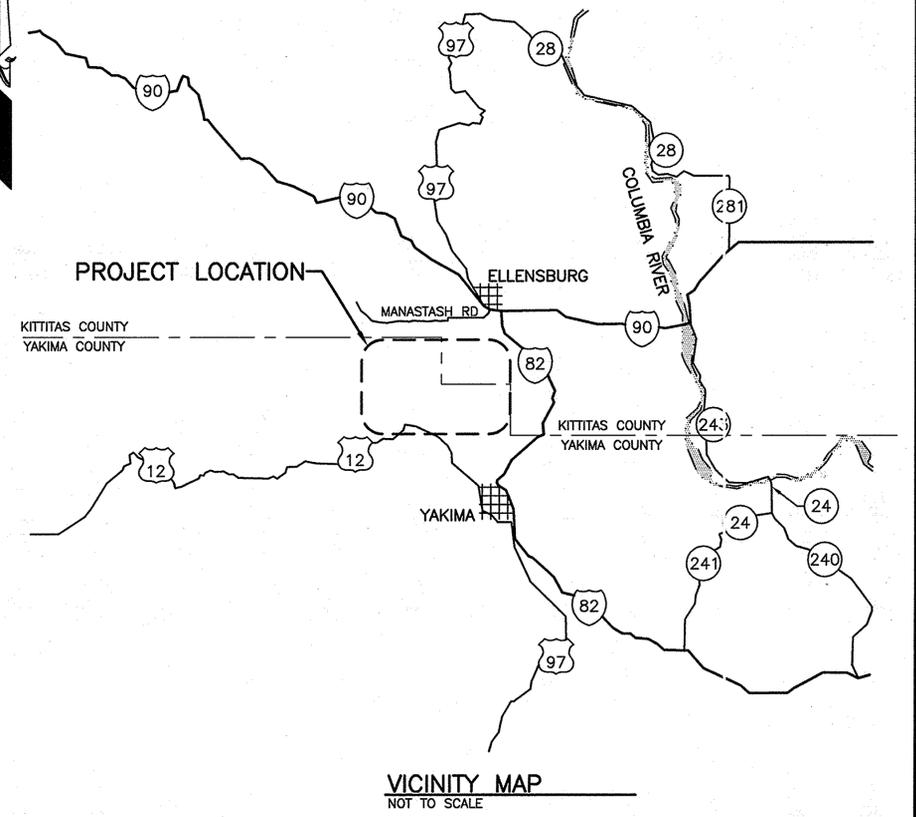
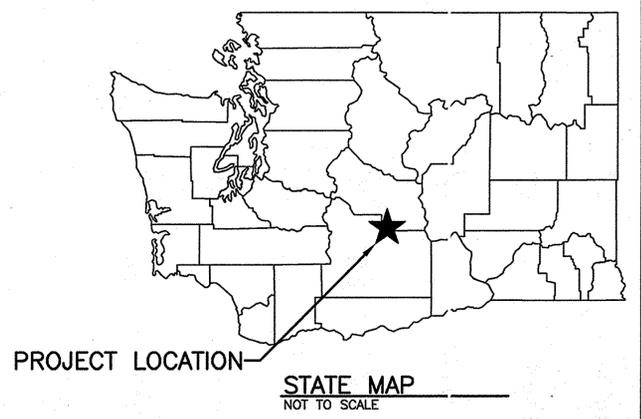
SHEET	OF
1	10



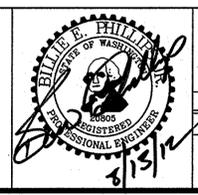
LEGEND

COUNTY DIVISION LINE	---
TOWNSHIP & RANGE LINE	- - - -
SECTION LINE	- · - · -
WORK POINT	○
BARRIER ROCK	×

OVERALL SITE PLAN
NOT TO SCALE



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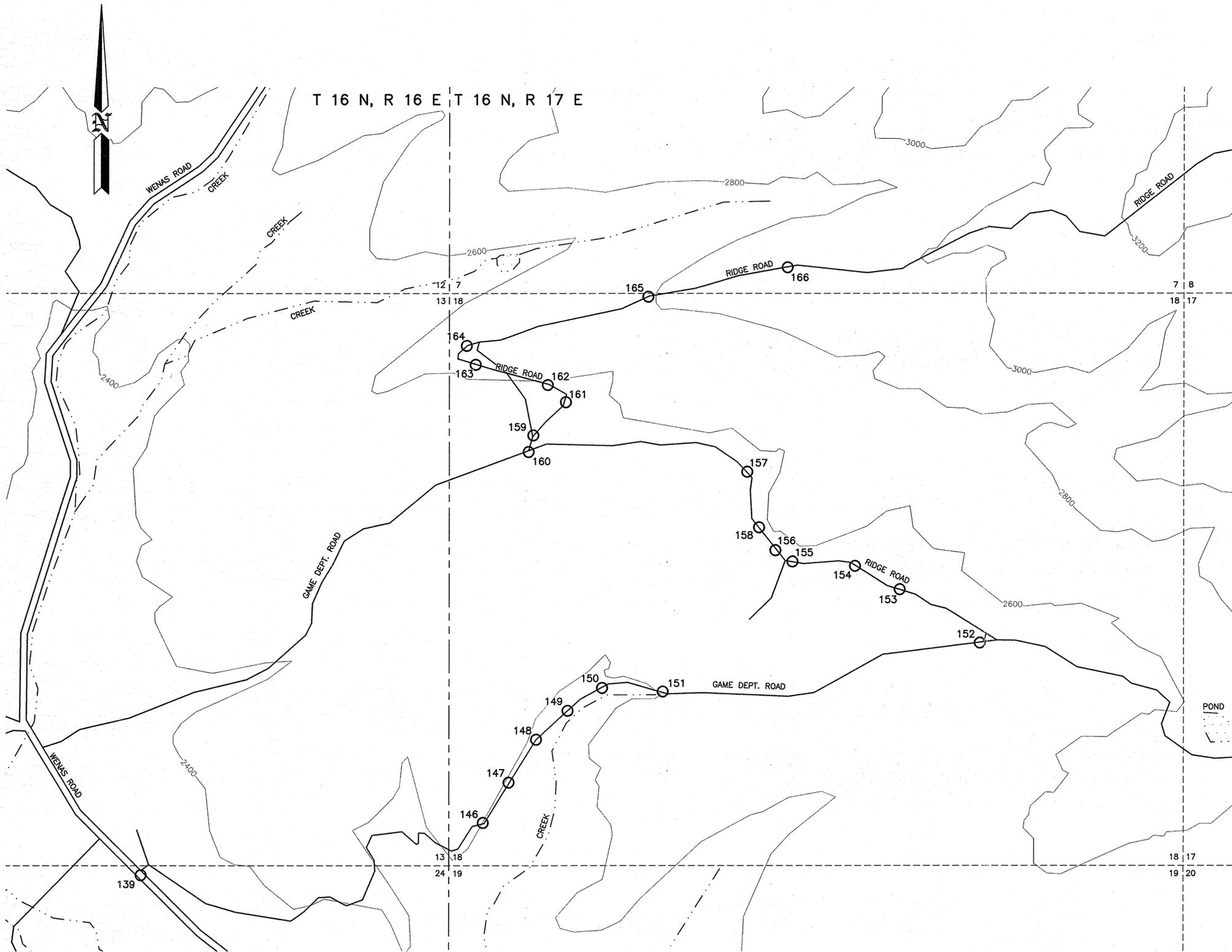
SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
CHIEF ENGINEER		DATE: 8/13/12	
PROGRAM		DATE:	

0 ——— 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

DESIGNED BY	K. KUYKENDALL
CHECKED BY	
DRAWN BY	A. JOHNSON
DATE	08/14/2012

WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
OVERALL SITE PLAN
& VICINITY MAP

PROJECT NO. YA:R3:12-1	
SHEET	OF
2	10



ROAD MAINTENANCE GPS POINTS			
POINT #	LATITUDE	LONGITUDE	REMARKS
139	N46 52.129	W120 46.219	TURNOFF FROM COUNTY ROAD
146	N46 52.228	W120 45.598	WATERBAR
147	N46 52.276	W120 45.557	WATERBAR
148	N46 52.320	W120 45.521	WATERBAR
149	N46 52.389	W120 45.455	WATERBAR
150	N46 52.410	W120 45.396	WATERBAR
151	N46 52.350	W120 45.224	ADD 6" LIFT OF BALLAST ROCK ACROSS FORD
152	N46 52.489	W120 44.690	ROAD JCT. FOR REFERENCE
153	N46 52.580	W120 44.830	DRAINAGE DIP
154	N46 52.575	W120 44.921	DRAINAGE DIP
155	N46 52.620	W120 45.032	DRAINAGE DIP
156	N46 52.627	W120 45.078	ADD 10cy TO FILL HOLE COMPACTED
157	N46 52.741	W120 45.125	DRAINAGE DIP
158	N46 52.638	W120 45.117	DRAINAGE DIP
159	N46 52.804	W120 45.425	JCT. - END WORK
160	N46 52.774	W120 45.529	DRAINAGE DIP - DRAIN TO THE NORTHWEST
161	N46 52.845	W120 45.445	DRAINAGE DIP
162	N46 52.889	W120 45.496	DRAINAGE DIP
163	N46 52.907	W120 45.612	BEGIN ROCK = 6" LIFT CSBC
164	N46 52.926	W120 45.625	END ROCK
165	N46 53.002	W120 45.282	DRAINAGE DIP
166	N46 53.041	W120 45.051	END WORK

SITE PLAN 1
NOT TO SCALE

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DEPARTMENT OF FISH AND WILDLIFE



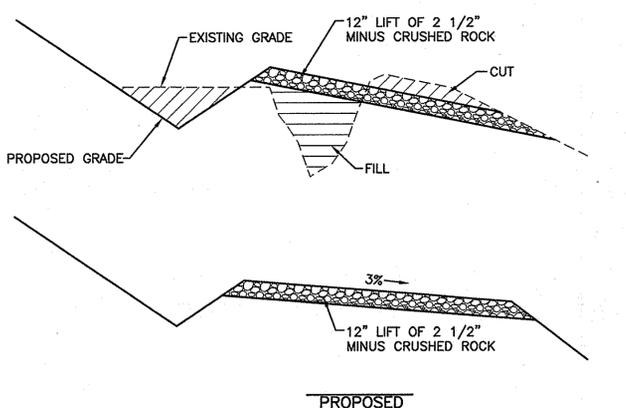
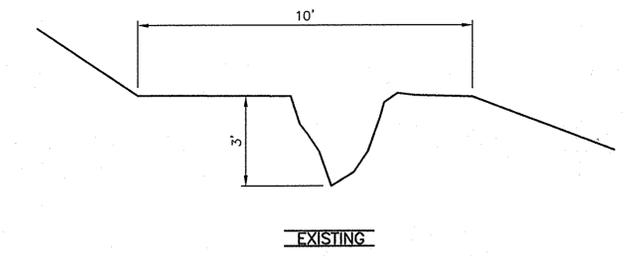
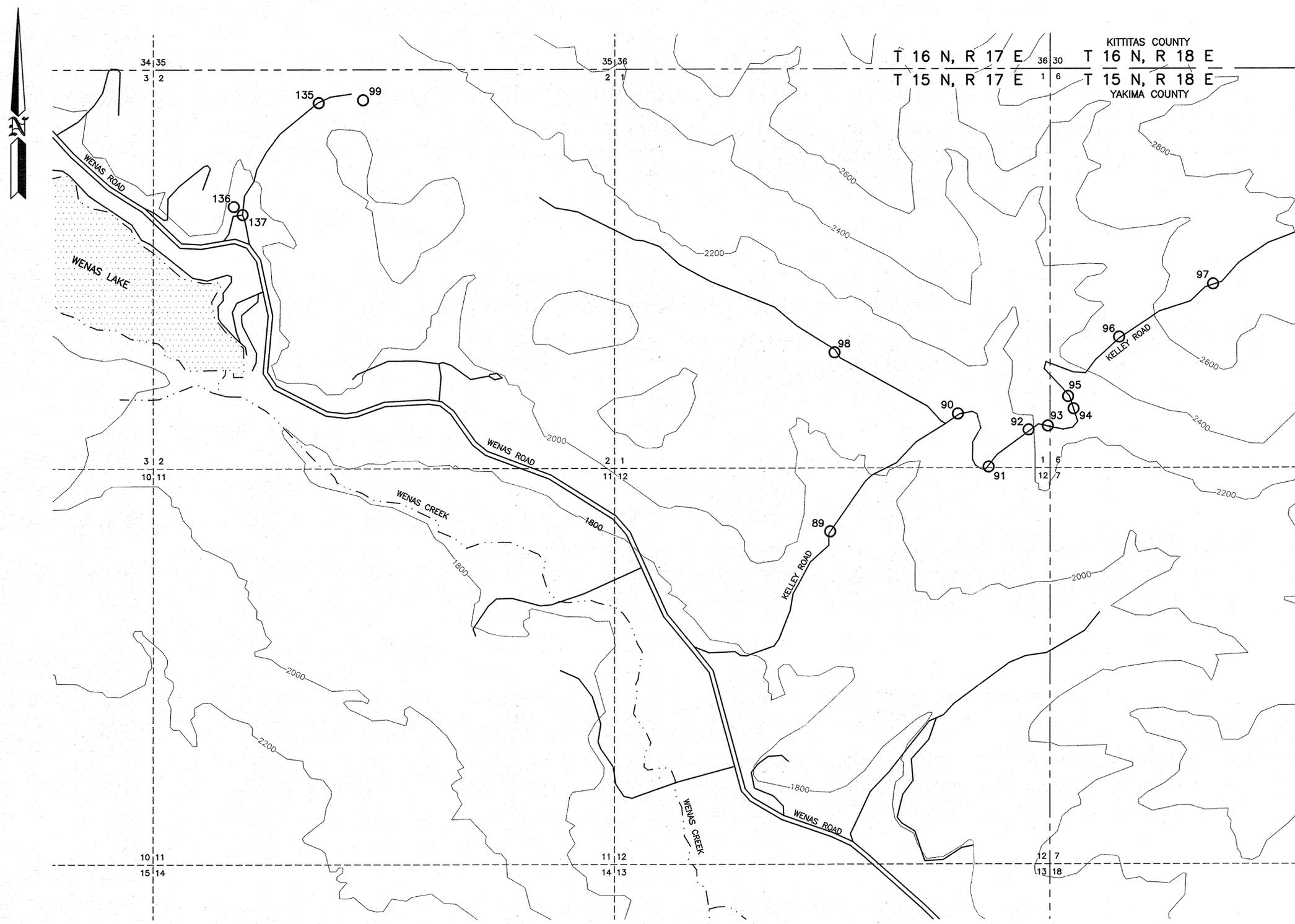
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APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER	DATE: 8/13/12		DESIGNED BY: K. KUYKENDALL
PROGRAM	DATE:	CHECKED BY:	DRAWN BY: A. JOHNSON
			DATE: 08/14/2012

0 1" BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS

WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
SITE PLAN 1

PROJECT NO. YA:R3:12-1
SHEET 3 OF 10

ROAD MAINTENANCE GPS POINTS			
POINT #	LATITUDE	LONGITUDE	REMARKS
89	N46 48.528	W120 38.674	KELLEY ROAD START MAINTENANCE
90	N46 48.786	W120 38.336	EXISTING FORD-ROCK 50 FEET EACH SIDE WITH CSBC
91	N46 48.668	W120 38.255	DRAIN DIP
92	N46 48.764	W120 38.152	HEAVILY RUTTED ROAD, SEE DETAIL ON THIS SHEET
93	N46 48.769	W120 38.078	DRAIN DIP, BEGIN TYPICAL OUTSLOPE ROAD
94	N46 48.790	W120 38.032	END OUTSLOPE, END GRADING
95	N46 48.815	W120 38.041	BLOCK OFF SHORT-CUT ROAD - ROAD CLOSURE BERM
96	N46 48.925	W120 37.912	SHALE IN ROAD, SOURCE MAY BE USED FOR ROCKING DRAIN DIPS
97	N46 49.072	W120 37.912	END WORK ON KELLEY ROAD
98	N46 48.919	W120 38.680	USE DOZER TO GRADE ROAD TO TYPICAL STANDARD, ADD 6" OF 2-INCH MINUS CRUSHED ROCK FOR 100 LF UPHILL
99	N46 49.434	W120 39.896	CAMPSITE FOR REFERENCE ONLY
135	N46 49.473	W120 40.114	END GRADING
136	N46 49.243	W120 40.322	BLOCK SPUR
137	N46 49.231	W120 40.310	JCT., START GRADING

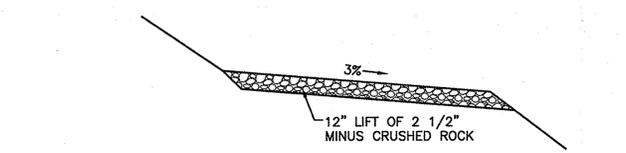


RUT REPAIR (PT. 92 TO PT. 93)

NOT TO SCALE

NOTE:

USE REGRADE MATERIAL TO FILL RUT COMPACT IN 12" LIFTS

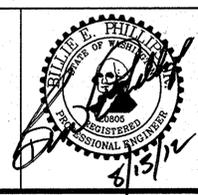


OUTSLOPE, NO DITCH (PT. 93)

NOT TO SCALE

SITE PLAN 2
NOT TO SCALE

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE



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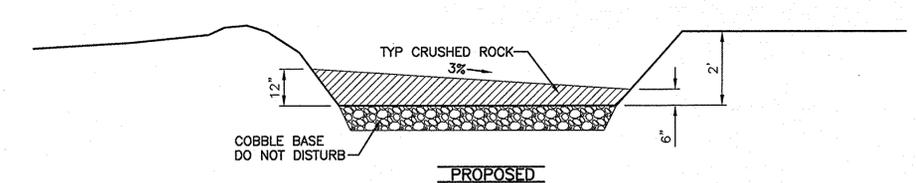
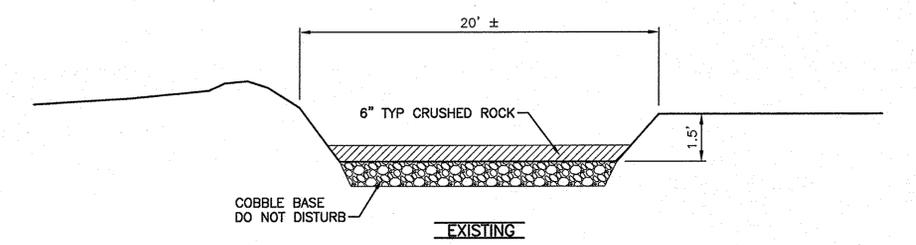
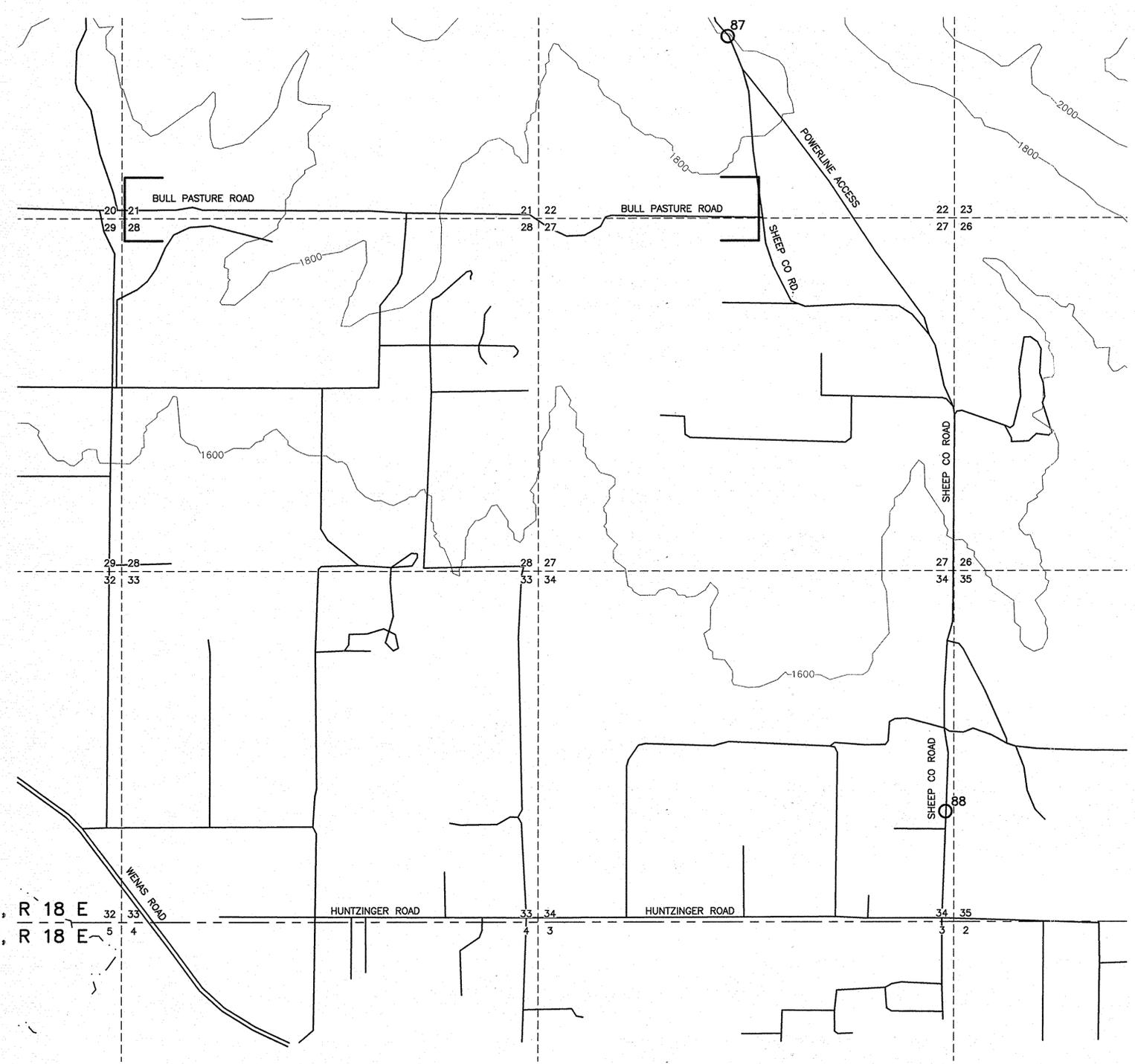
0 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
SITE PLAN 2

PROJECT NO.
YA:R3:12-1
SHEET 4 OF 10

ROAD MAINTENANCE GPS POINTS			
POINT #	LATITUDE	LONGITUDE	REMARKS
87	N46 46.494	W120 33.810	DRAIN DIP/END ROAD MAINTENANCE
88	N46 44.576	W120 33.129	START ROAD MAINTENANCE, GRADE, GRAVEL, ROLL - SEE DETAIL ON THIS SHEET

NOTE: BULL PASTURE ROAD, [] = GRADE ENTIRE ROAD, ADD ROCK IN LOW SPOTS AS NEEDED.



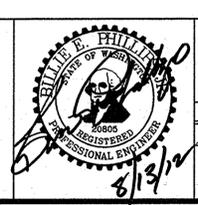
SHEEP COMPANY ROAD DETAIL (PT. 88 TO PT. 87)
NOT TO SCALE

- NOTE:
- ROCK SHALL BE PLACED IN 6" LIFTS AND ROLLED W/PNEUMATIC SMOOTH DRUM ROLLER.
 - WATER SHALL BE ADDED AS NECESSARY.
 - ROCK SHALL BE 1 1/4" MINUS OR CSBC.
 - EXISTING DRAIN DIPS SHALL BE CLEARED AND ROCKED W/2 1/2" MINUS.

T 15 N, R 18 E
T 14 N, R 18 E

SITE PLAN 3
NOT TO SCALE

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

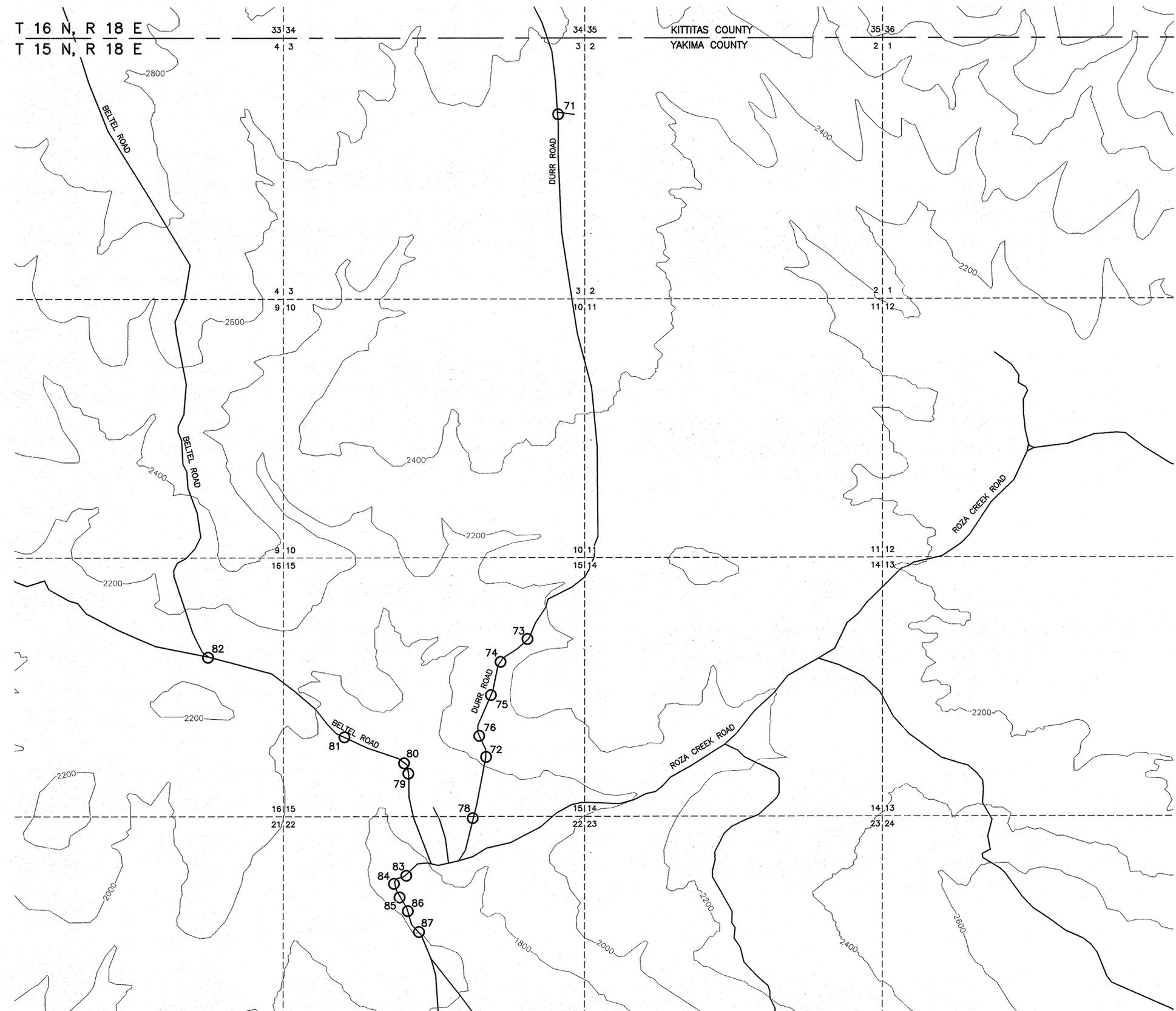


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CHIEF ENGINEER		DATE: 8/13/12	
PROGRAM		DATE:	

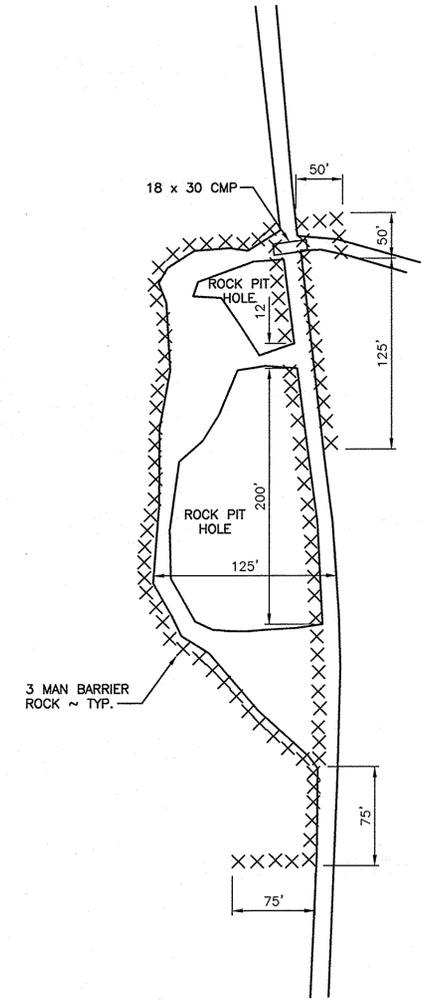
DESIGNED BY	K. KUYKENDALL
CHECKED BY	
DRAWN BY	A. JOHNSON
DATE	08/14/2012

WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
SITE PLAN 3

PROJECT NO. YA:R3:12-1	
SHEET	OF
5	10



ROAD MAINTENANCE GPS POINTS			
POINT #	LATITUDE	LONGITUDE	REMARKS
71	N46 49.321	W120 33.237	ROCK PIT SITE - SEE DETAIL ON THIS SHEET 1100 LF OF BARRIER ROCK APPROX. 275 PIECES
72	N46 47.085	W120 33.533	DRIVABLE DIP
73	N46 47.485	W120 33.342	DRIVABLE DIP
74	N46 47.423	W120 33.451	DRIVABLE DIP
75	N46 47.298	W120 33.507	DRIVABLE DIP
76	N46 47.160	W120 33.553	DRIVABLE DIP
78	N46 46.891	W120 33.584	ROCK 150 LF OF ROAD 14 FT WIDE WITH 6" CSBC
79	N46 47.051	W120 33.842	DRIVABLE DIP
80	N46 47.069	W120 33.866	REMOVE CONCRETE FORD - SEE DETAIL ON SHEET 7
81	N46 47.152	W120 34.092	ADD 6" LIFT OF 2" MINUS ROCK FOR 300 FEET GRADE ROAD AND CLEAN DITCH TO TYPICAL ROAD STANDARD
82	N46 47.448	W120 34.706	ROAD JUNCTION = END WORK
83	N46 46.691	W120 33.855	DRAIN DIP - SEE DETAIL ON SHEET 7
84	N46 46.669	W120 33.904	COTTONWOOD CREEK EXISTING CULVERT - SEE DETAIL ON SHEET 7
85	N46 46.623	W120 33.891	DRAIN DIP - SEE DETAIL ON SHEET 7
86	N46 46.574	W120 33.857	DRAIN DIP
87	N46 46.494	W120 33.810	DRAIN DIP



DURR ROAD DETAIL (PT. 71)
NOT TO SCALE

SITE PLAN 4
NOT TO SCALE

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE



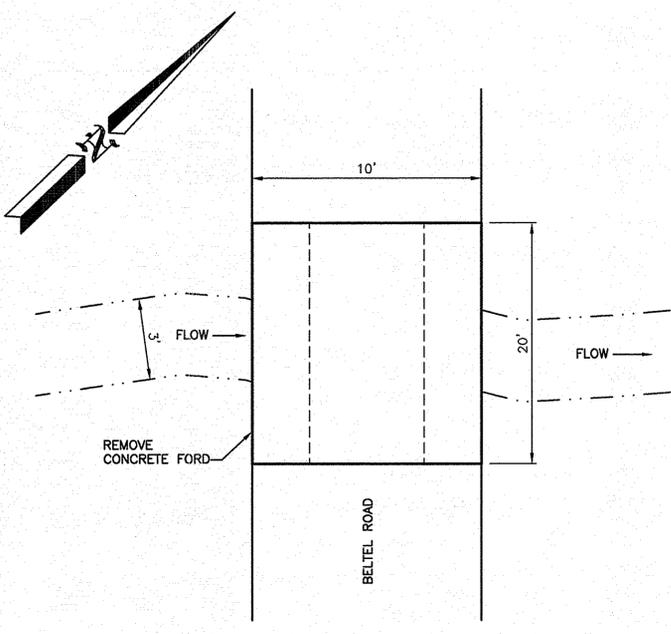
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APPROVED AND RELEASED FOR CONSTRUCTION			DESIGNED BY K. KLYKENDALL
CHIEF ENGINEER <i>[Signature]</i> DATE: 8/13/12			CHECKED BY A. JOHNSON
PROGRAM			DATE 08/14/2012

0 = 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

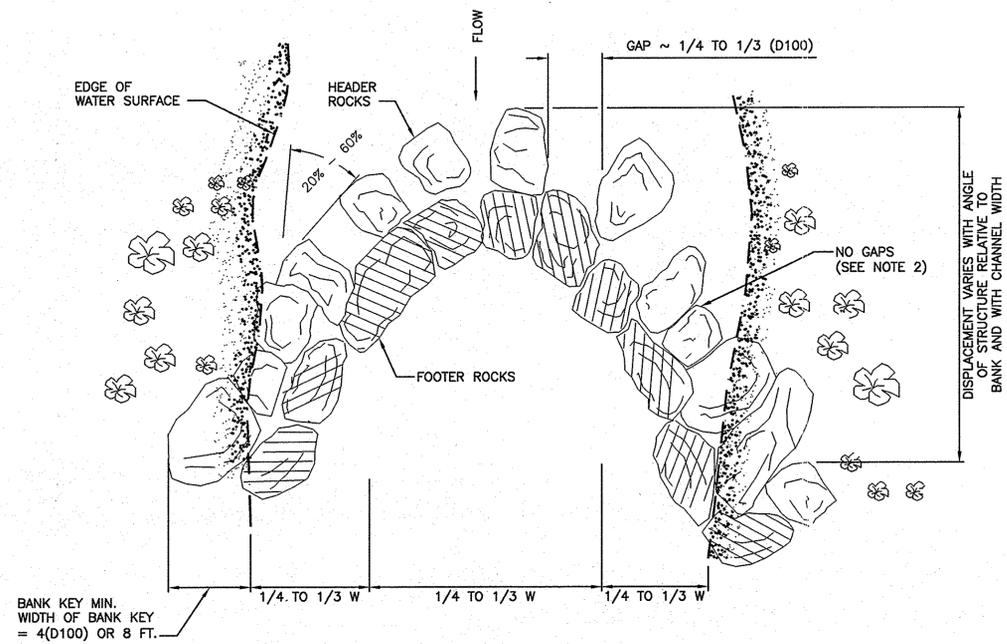
WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
SITE PLAN 4

PROJECT NO.
YA:R3:12-1
SHEET 6 OF 10

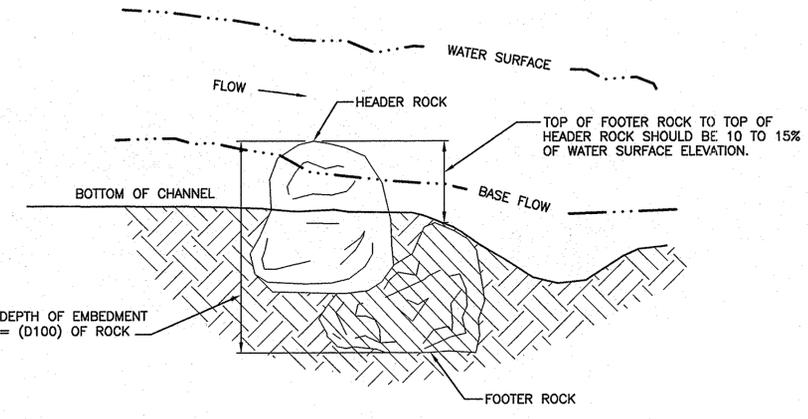
- NOTES:**
1. D100 = MAX. ROCK SIZE 24"
 2. AVOID GAPS BETWEEN HEADER ROCKS IN VICINITY OF BANKS
 3. TYPICAL RECOMMENDED SLOPE OF THE TOP OF THE CANE IS BETWEEN 2 TO 7% (50H:1V TO 15H:1V). MAX. RECOMMENDED SLOPE IS 20% (5H:1V)



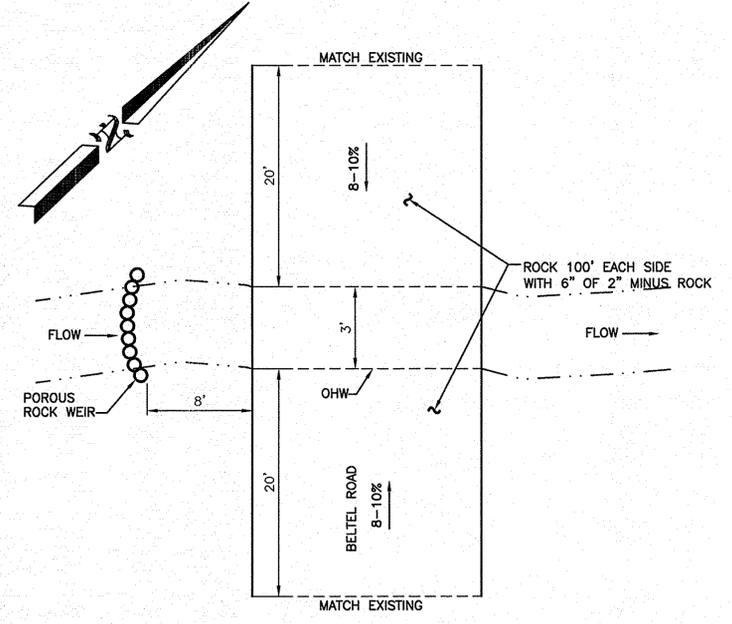
EXISTING



PLAN

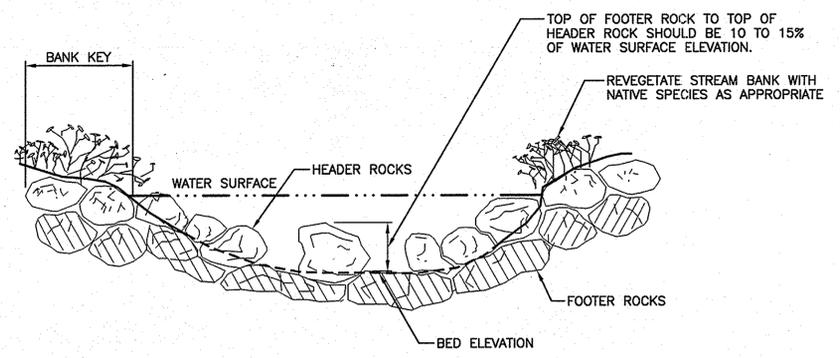


SECTION



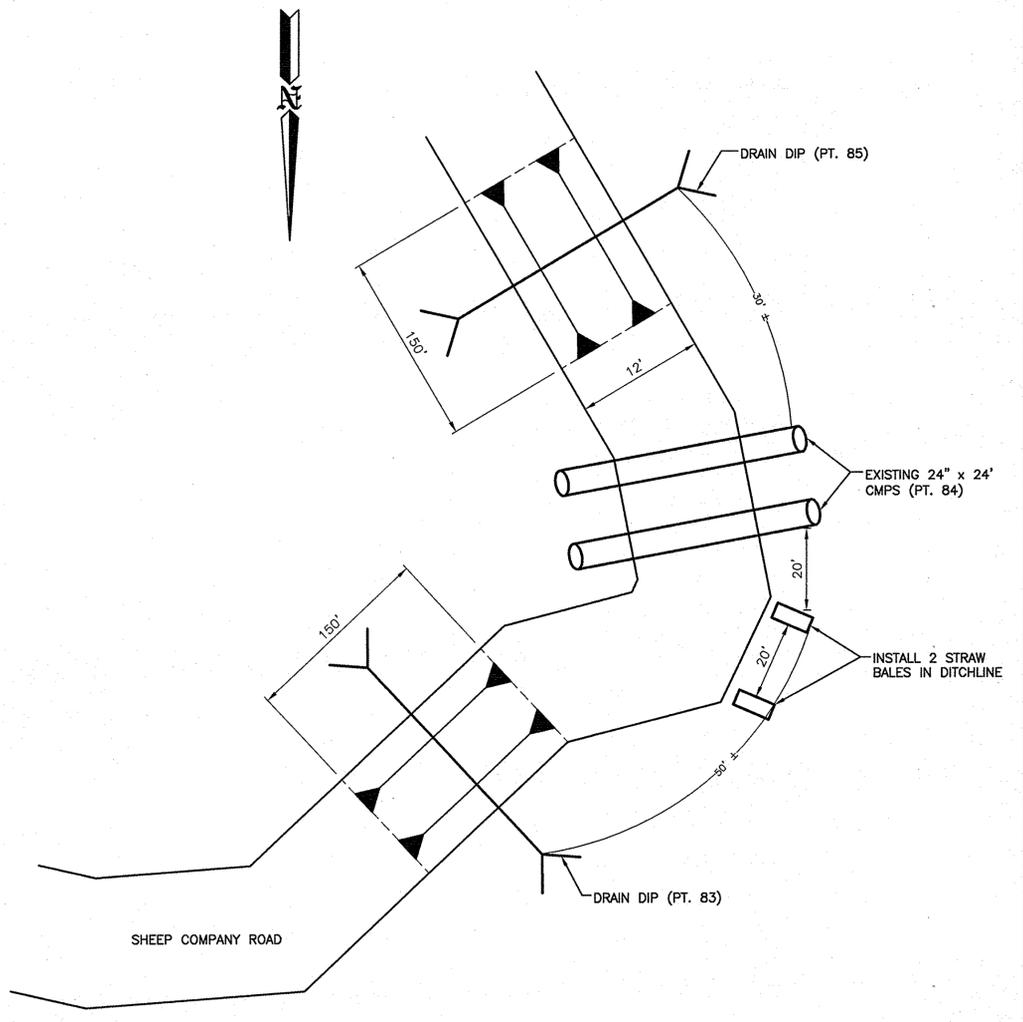
PROPOSED

COTTONWOOD CREEK FORD (PT.80)
NOT TO SCALE



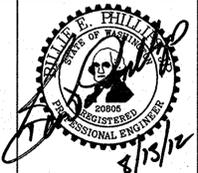
ELEVATION

POROUS ROCK WEIR
SCALE: 1" = 1'-0"



COTTONWOOD CREEK CROSSING (PT. 83 TO PT. 85)
NOT TO SCALE

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE



SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER		<i>Phillips</i>	DATE: 8/13/12
PROGRAM			DATE: 08/14/2012

0 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

DESIGNED BY K. KUYKENDALL
CHECKED BY
DRAWN BY A. JOHNSON
DATE 08/14/2012

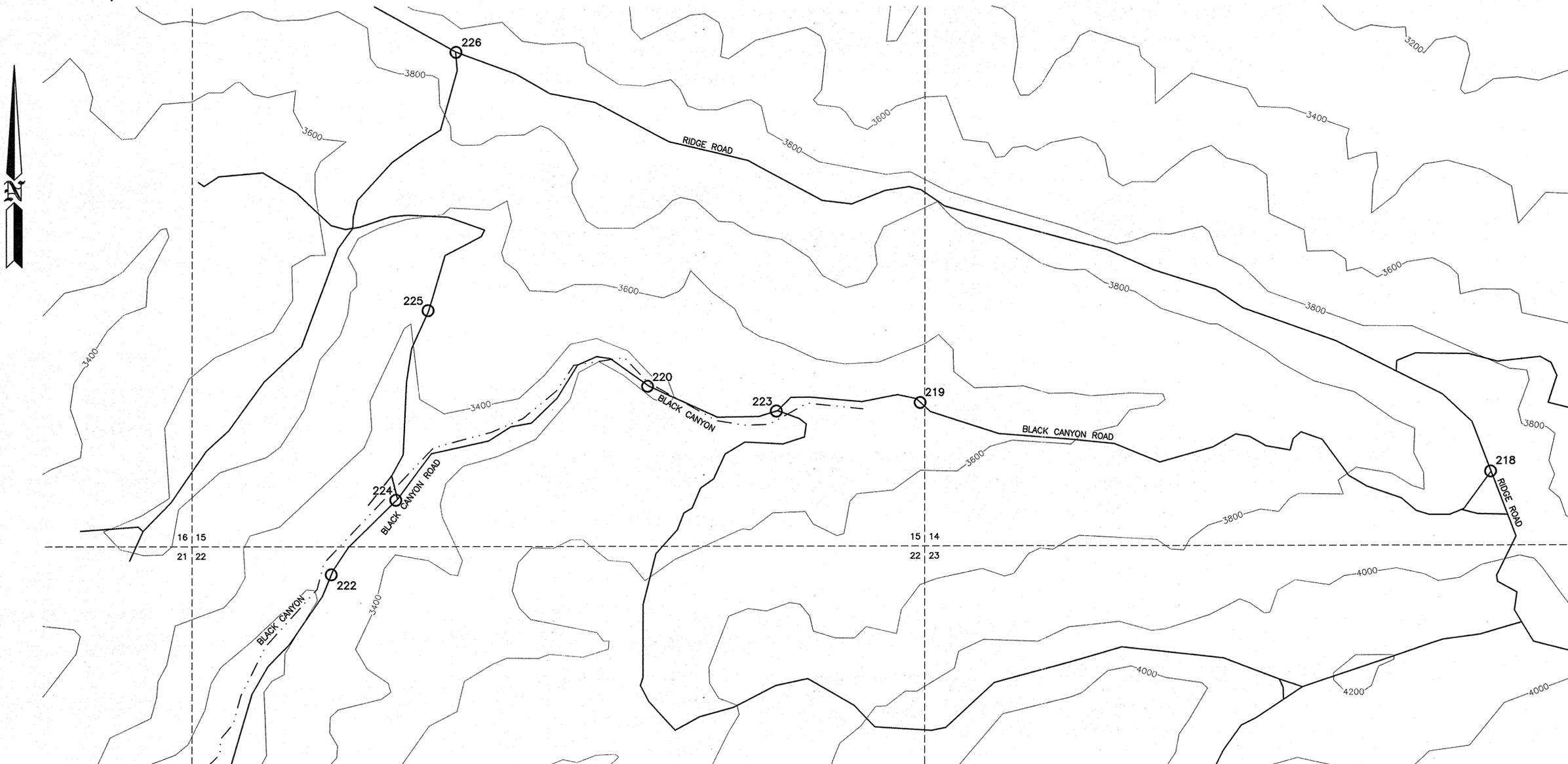
WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
COTTONWOOD CREEK
FORD & CROSSING DETAILS

PROJECT NO.
YA:R3:12-1

SHEET OF
7 10

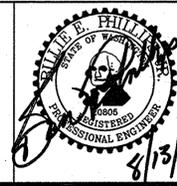
ROAD MAINTENANCE GPS POINTS			
POINT #	LATITUDE	LONGITUDE	REMARKS
218	N46 87.081	W120 65.972	BLACK CANYON JCT. WITH RIDGE ROAD; START GRADING
219	N46 87.257	W120 67.629	24" CMP CLEAN INLET; 20' WEST ROCK DRAIN DIP
220	N46 87.301	W120 68.415	ROAD WASHOUT; BYPASSED BY PUBLIC
222	N46 86.851	W120 69.308	REINFORCE BARRIERS; END OF GREEN DOT
223	N46 87.233	W120 68.016	FORD CROSSING OF OLD SPUR ROAD; ROCK APPROACHES 50' EACH SIDE 6" CSBC
224	N46 87.040	W120 69.117	FORD CROSSING; E FORK, JUST WEST OF JCT.; ROCK APPROACHES 50' EACH SIDE 6" CSBC
225	N46 87.489	W120 69.015	REGRADE ROAD
226	N46 88.064	W120 68.942	BLACK CANYON ROAD EAST JCT. WITH RIDGE ROAD; END ROAD MAINTENANCE

T 16 N, R 17 E



SITE PLAN 5
NOT TO SCALE

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE



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		APPROVED AND RELEASED FOR CONSTRUCTION	
		CHIEF ENGINEER	<i>[Signature]</i>
		PROGRAM	

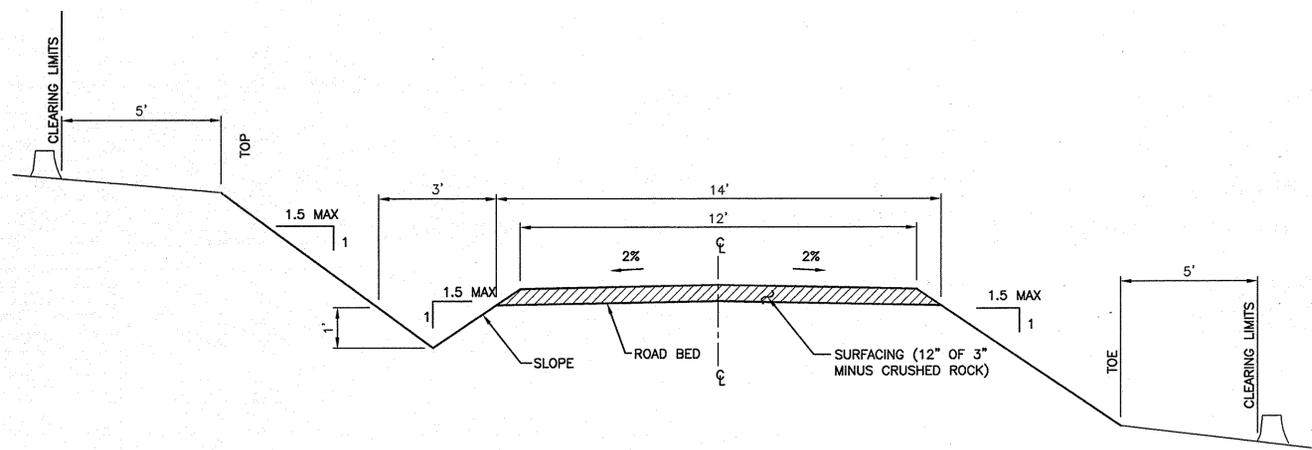
DESIGNED BY	K. KUYKENDALL
CHECKED BY	
DRAWN BY	A. JOHNSON
DATE	08/14/2012

0 ——— 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

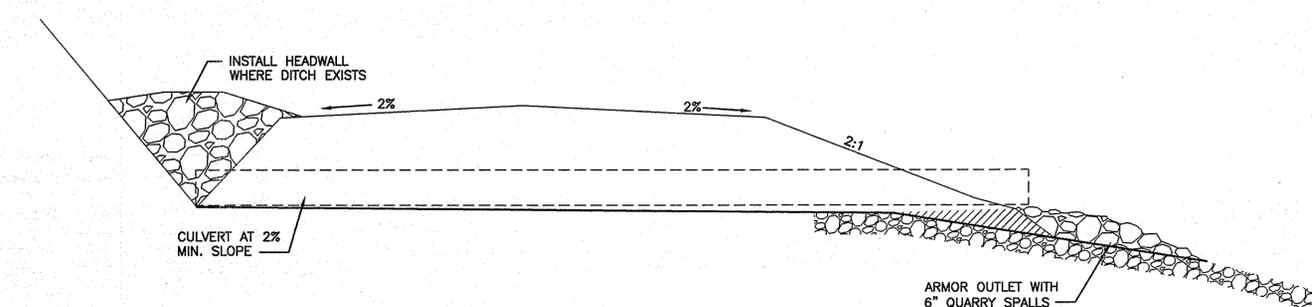
WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
SITE PLAN 5

PROJECT NO.
YA:R3:12-1

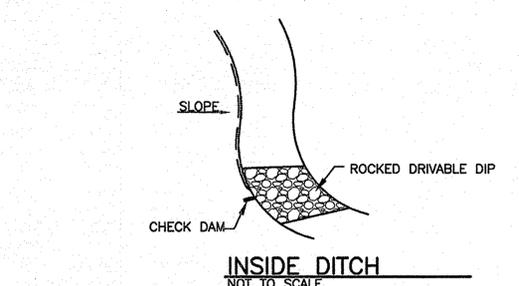
SHEET	OF
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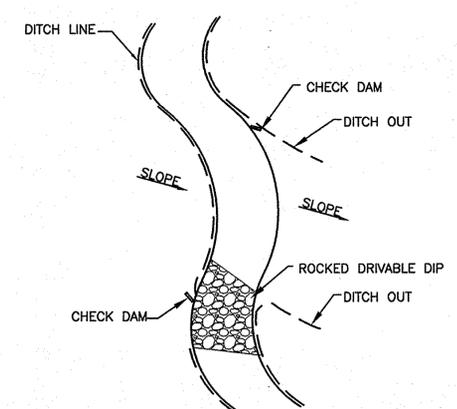
TYPICAL ROAD DETAIL
NOT TO SCALE



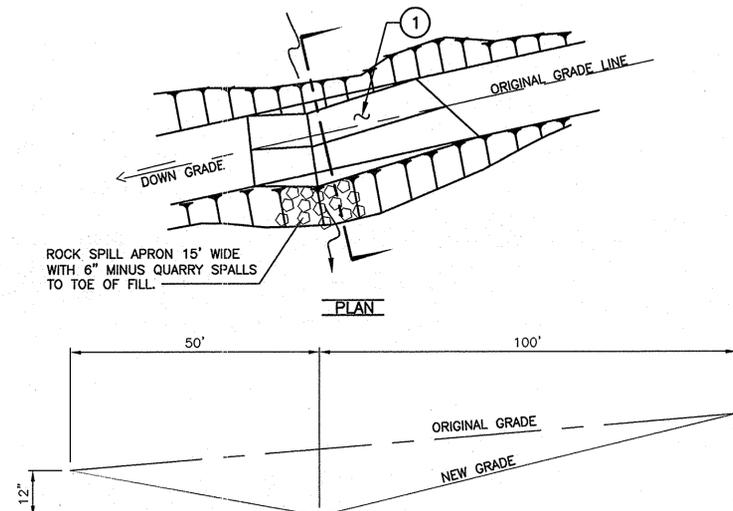
CROSS DRAIN INSTALLATION DETAIL
NOT TO SCALE



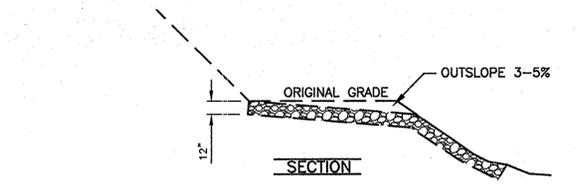
INSIDE DITCH
NOT TO SCALE



2 DITCH
NOT TO SCALE

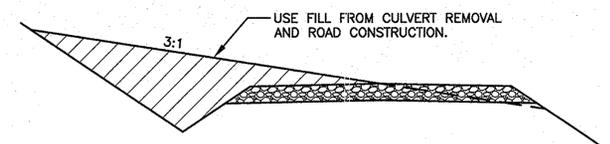


CENTER LINE PROFILE



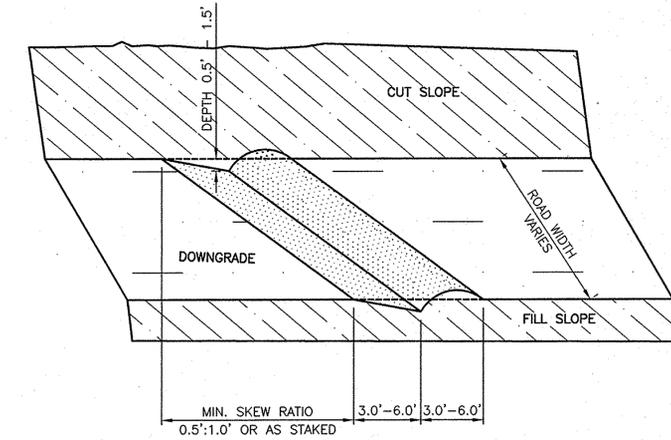
DRIVABLE DIP
NOT TO SCALE

- DRIVABLE DIP NOTES:**
1. ROCKED DRIVABLE DIPS SHALL BE ROCKED THROUGHOUT THE ENTIRE EXCAVATED AREA WITH 4"-6" QUARRY SPALLS COMPACTED.
 2. PLAN OF DRIVABLE DIP SHOWN IS FOR OUTSLOPED DRIVABLE DIP. DRIVABLE DIPS MAY BE EITHER INSLOPED OR OUTSLOPED.
 3. WHEN INSLOPED, DRIVABLE DIPS SHALL DISCHARGE INTO A CULVERT DROP INLET OR OVERSIDE DRAIN OR DRAINAGE DITCH.
 4. WHEN OUTSLOPED, DRIVABLE DIPS SHALL DISCHARGE INTO AN OVERSIDE DRAIN OR ON TO NATURAL GROUND.
 5. THE OUTSLOPE SHALL BE 3% - 5%. LOCATE LOW POINT TO DRAIN TO EXISTING CROSS DRAINAGE OR LOW AREA.



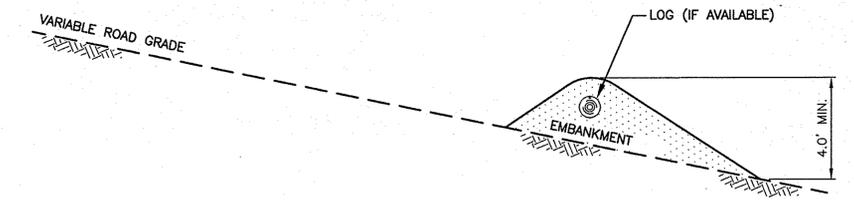
ROAD ABANDONMENT
NOT TO SCALE

- GENERAL ROAD CONSTRUCTION NOTES:**
1. ROAD CONSTRUCTION CONSISTS OF WIDENING EXISTING ROAD GRADE TO TYPICAL ROAD SECTION STANDARDS.
 2. ROAD LOCATION IS MARKED WITH PINK FLAGGING IN FIELD.
 3. PRE-WORK MEETING SHALL BE ARRANGED PRIOR TO STARTING THE WORK.
 4. ALL TREES AND BRUSHED CLEARED SHALL BE PLACED ON STABLE GROUND AND NOT MIXED WITH FILL MATERIAL.
 5. SUBGRADE SHALL BE SHAPED, COMPACTED WITH TRACKED EQUIPMENT, AND APPROVED BY AN INSPECTOR PRIOR TO ADDING ROCK.
 6. EXCESS FILL MAY BE HAULED TO ROAD ABANDONMENT LOCATION.



WATER BAR
NOT TO SCALE

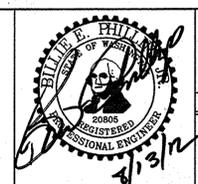
- WATER BAR NOTES:**
1. ALL WATER BARS SHALL BEGIN AT THE INTERSECTION OF THE ROAD BED AND CUT SLOPE THEN RUN ACROSS THE ENTIRE WIDTH OF THE ROAD BED.
 2. ALL WATER BARS SHALL HAVE FREE FLOWING OUTLETS.
 3. WHEN STAKES ARE USED, THEY DESIGNATE THE OUTLET LOCATION.
 4. WATER BAR SPACING-
AT LESS THAN 5% SLOPE - 125'
BETWEEN 5% AND 10% - 80'
BETWEEN 10% AND 20% - 50'
GREATER THAN 20% - 30'



TANK TRAP
NOT TO SCALE

- TANK TRAP NOTES:**
1. PLACE 1.5' x 12.0' LOG IN EMBANKMENT AND COVER WITH AT LEAST 1.0' OF EMBANKMENT MATERIAL. LOG MAY BE DELETED WITH APPROVAL BY THE ENGINEER.
 2. THE BOTTOM OF THE TANK TRAP SHALL BE OUT SLOPED ON A 7% GRADE UNLESS OTHERWISE DIRECTED.
 3. ROAD TANK TRAP SHALL BE CONSTRUCTED AT LOCATIONS STAKED BY THE ENGINEER OR AS SHOWN ON LOCATION CHART.

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

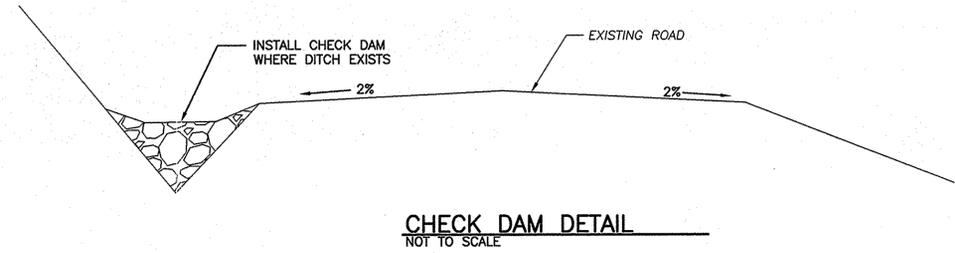
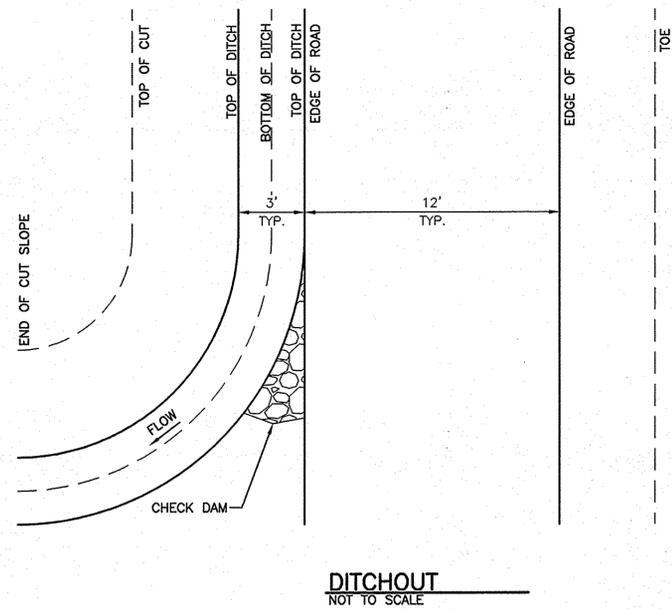


SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
		DESIGNED BY K. KUYKENDALL	
		CHECKED BY	
		DRAWN BY A. JOHNSON	
		DATE 08/14/2012	

0 1"
BAR MEASURES
ONE INCH ON
ORIGINAL DRAWINGS

WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
CROSS DRAIN INSTALLATION & DETAILS

PROJECT NO.
YA:R3:12-1
SHEET OF
9 10



WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE



SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER		<i>Phillip E. Philp</i>	DATE: 8/13/12
PROGRAM			DATE:

0 — 1" BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS

DESIGNED BY	K. KUYKENDALL
CHECKED BY	
DRAWN BY	A. JOHNSON
DATE	08/14/2012

WENAS WILDLIFE AREA
YAKIMA ROAD RENOVATION
DITCHOUT & CHECK DAM
DETAILS

PROJECT NO.
YA:R3:12-1

SHEET	OF
10	10