CONSTRUCTION PLANS FOR
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT NO. 7113714
NEAR WHITE SULPHUR SPRINGS, MONTANA

PREPARED FOR

Montana Fish, Wildlife & Parks

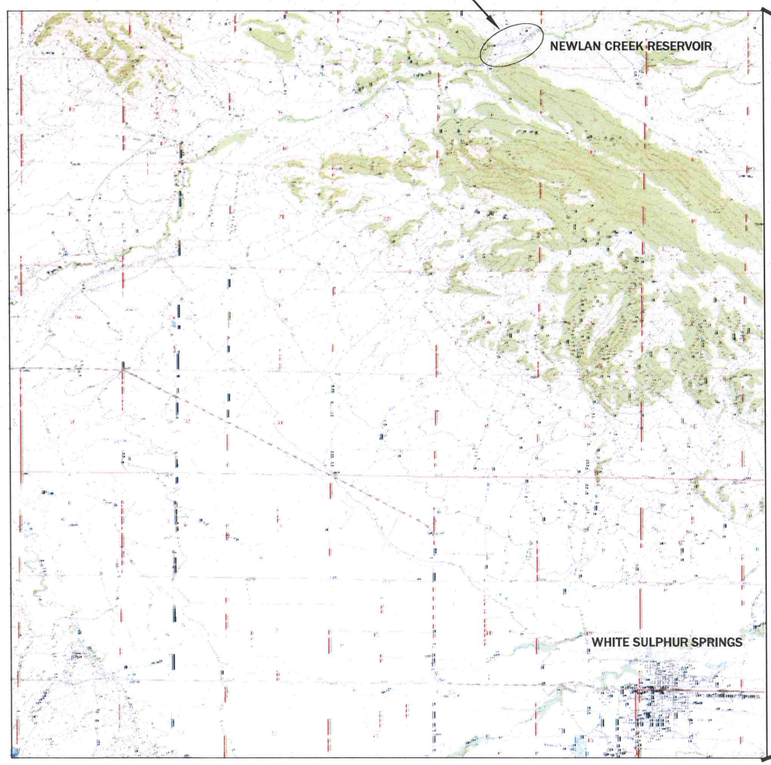
PREPARED BY

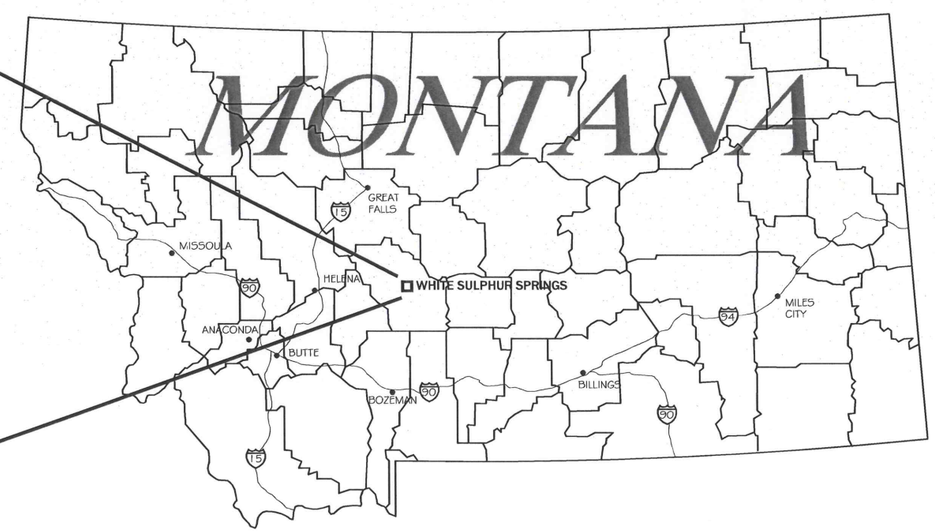
PIONEER TECHNICAL SERVICES, INC.
201 E. BROADWAY, SUITE C
HELENA, MT 59601
(406) 457-8252

JULY 12, 2012

MONTANA
A. COLT WISE
13718PE
LICENSED
7-12-12
PROFESSIONAL ENGINEER

PROJECT LOCATION





SITE VICINITY MAP

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GENERAL NOTES

1. NOTIFY IN WRITING ALL UTILITY COMPANIES AND UTILITY OWNERS AND LOCATE ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK. THE WRITTEN NOTICE TO UTILITY OWNERS SHALL ALSO BE SUBMITTED TO OWNER. PROTECT AND REPAIR ANY DAMAGED UTILITIES AT NO ADDITIONAL EXPENSE TO OWNER. NOTIFY ONE-CALL UTILITY LOCATE AT (800) 424-5555 AT LEAST 48-HOURS PRIOR TO STARTING WORK THAT MAY IMPACT UTILITIES.

2. THE APPROXIMATE UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE BASED ON AERIAL PHOTOGRAMMETRY AND/OR RECORDS PROVIDED BY THE UTILITY OWNERS. ALL UTILITY LOCATIONS SHOWN ARE LIMITED TO THE ACCURACY OF THE LOCATION METHODS AND UTILITY OWNERS RECORDS. UTILITIES MAY HAVE BEEN RELOCATED SINCE THE DRAWINGS WERE PREPARED: UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND ACTUAL DEPTHS AND/OR HEIGHTS MAY VARY. COMPLETE ALL OTHER INQUIRIES AND/OR INVESTIGATIONS NECESSARY TO FURTHER DEFINE THE UTILITY LOCATIONS AS NECESSARY TO COMPLETE THE WORK AT NO ADDITIONAL EXPENSE TO OWNER. NOTIFY ONE-CALL UTILITY LOCATE AT (800) 424-5555 AT LEAST 48-HOURS PRIOR TO STARTING WORK THAT MAY IMPACT UTILITIES.

3. CONTACT UTILITY COMPANIES 48 HOURS PRIOR TO TRENCHING WITHIN 15 FEET OF ALL OVERHEAD POLES TO PROVIDE THE UTILITY COMPANY THE OPPORTUNITY TO SECURE POLES.

4. NOTIFY ENGINEER OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION AND DO NOT BACKFILL UNTIL THE TYPE, SIZE, AND LOCATION HAVE BEEN RECORDED.

5. RESPECT ALL RIGHT-OF-WAY BOUNDARIES. PROTECT BUILDINGS, WALLS, MONUMENTS, TREES AND OTHER LANDSCAPING, UTILITY POLES, AND OTHER FEATURES INSIDE AND OUTSIDE ANY RIGHT-OF-WAYS. REPAIR OR REPLACE ALL SUCH DAMAGE AT NO ADDITIONAL EXPENSE TO OWNER.

6. CONTACT UTILITY OWNER TO COORDINATE INSTALLATION OF POLE WRAPS ON UTILITY POLES WHERE REQUIRED BY UTILITY OWNER.

7. SAFETY

A: GENERAL:
CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION SITE SAFETY. ENSURE SAFE OPERATIONS AND THE SAFETY OF CONTRACTOR'S EMPLOYEES DURING THE WORK. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, AND SEQUENCING OF CONSTRUCTION OPERATIONS. UNDER NO CIRCUMSTANCES SHALL THE INFORMATION PROVIDED BE INTERPRETED TO MEAN THAT THE ENGINEER AND/OR OWNER ARE ASSUMING RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY OR CONTRACTOR'S ACTIVITIES. SUCH RESPONSIBILITY SHALL NEITHER BE IMPLIED NOR INFERRED.

B: EXCAVATION:
CONTRACTOR IS SOLELY RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE TEMPORARY EXCAVATIONS AND SHALL SHORE, SLOPE, OR BENCH THE SIDES OF THE EXCAVATIONS AS REQUIRED TO MAINTAIN STABILITY OF THE EXCAVATION SIDES AND BOTTOM. FOR ALL EXCAVATIONS COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS INCLUDING THE CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS PROVIDED AT 29 CFR PART 1926. IN NO CASE SHALL SLOPE HEIGHT, SLOPE INCLINATION, OR EXCAVATION DEPTH EXCEED THOSE SPECIFIED IN APPLICABLE REGULATIONS.

8. REPLACE OR RESET ALL EXISTING FEATURES REMOVED OR DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITION, AND AS APPROVED BY ENGINEER, INCLUDING BUT NOT LIMITED TO, SIGNS, MAILBOXES, ENTRANCE STRUCTURES, DRAINAGE DITCHES, APPROACHES, DELINEATORS, GRAVEL SURFACES, CONCRETE STRUCTURES INCLUDING CURBS AND SIDEWALKS, ASPHALT PAVEMENT, AND FENCES. VERIFY THE EXTENT OF THIS WORK PRIOR TO BIDDING, INCLUDE THE COST OF THIS WORK IN THE BID PRICES FOR THE WORK, AND COMPLETE THIS WORK AT NO ADDITIONAL COST TO THE OWNER.

9. REMOVE FENCES TO FACILITATE CONSTRUCTION ONLY AFTER RECEIVING PERMISSION FROM ENGINEER. REINSTALL REMOVED FENCES TO A CONDITION THAT IS EQUAL TO OR BETTER THAN THE ORIGINAL.

10. OBTAIN ALL PERMITS REQUIRED TO COMPLETE THE WORK.

11. MAINTAIN ALL EXISTING DRAINAGE PATTERNS UNLESS OTHERWISE SHOWN ON THE DRAWINGS. TEMPORARY CULVERTS MAY BE NEEDED IN SOME LOCATIONS TO COMPLETE THE WORK AND SHALL BE REMOVED WHEN THE WORK IS COMPLETE AT NO ADDITIONAL EXPENSE TO OWNER.

MONTANA
A. COLT WISE
13718PE
LICENSED
7-12-12
PROFESSIONAL ENGINEER

REVISION:
DATE: BY: DESC:

DRAWN BY: CR
DESIGNED BY: ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE:
DATUM:
UNITS:
SOURCE:

SCALE IN FEET
0

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
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SHEET INDEX AND GENERAL NOTES

PIONEER TECHNICAL SERVICES, INC.
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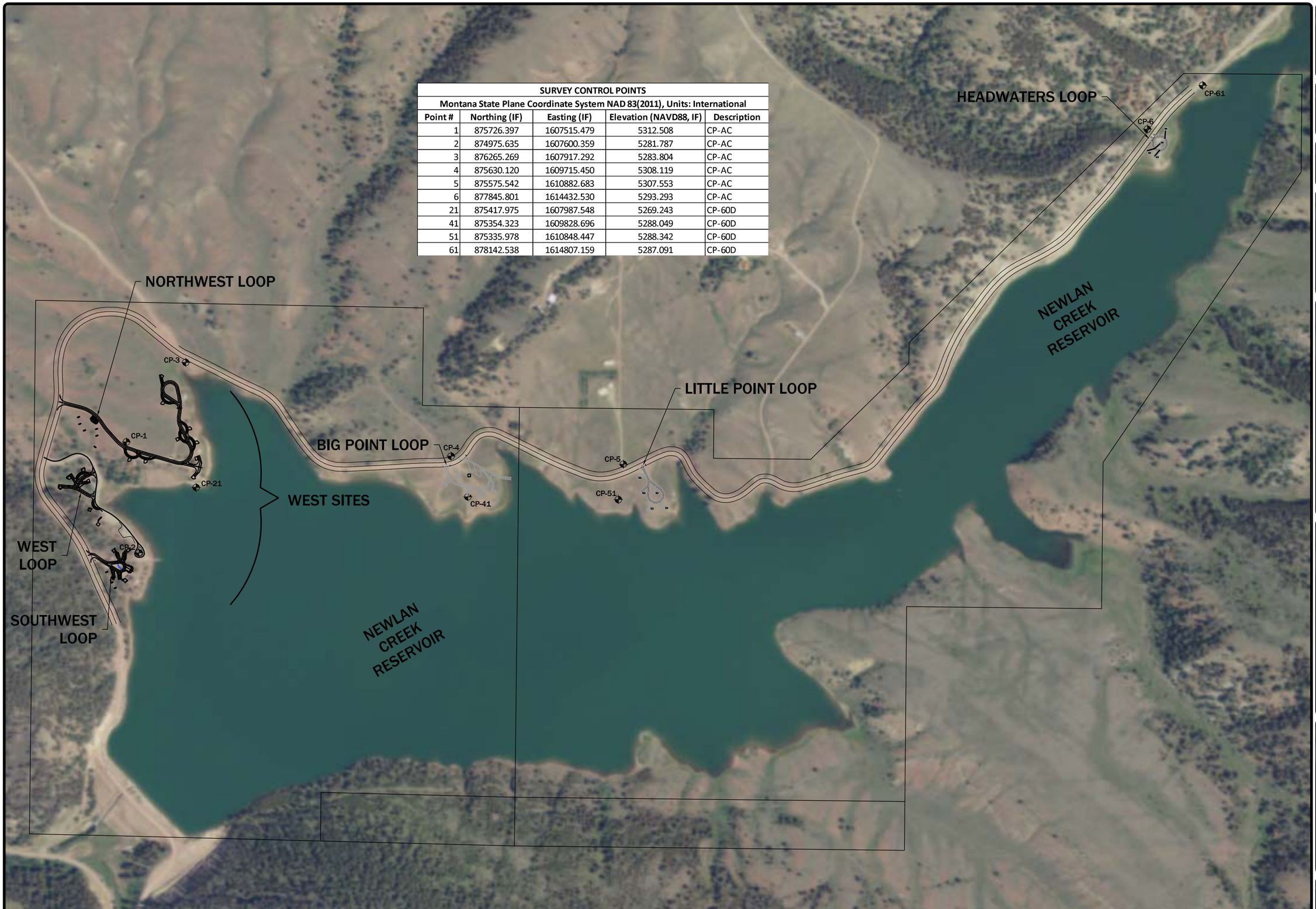
SURVEY CONTROL POINTS				
Montana State Plane Coordinate System NAD 83(2011), Units: International				
Point #	Northing (IF)	Easting (IF)	Elevation (NAVD88, IF)	Description
1	875726.397	1607515.479	5312.508	CP-AC
2	874975.635	1607600.359	5281.787	CP-AC
3	876265.269	1607917.292	5283.804	CP-AC
4	875630.120	1609715.450	5308.119	CP-AC
5	875575.542	1610882.683	5307.553	CP-AC
6	877845.801	1614432.530	5293.293	CP-AC
21	875417.975	1607987.548	5269.243	CP-60D
41	875354.323	1609828.696	5288.049	CP-60D
51	875335.978	1610848.447	5288.342	CP-60D
61	878142.538	1614807.159	5287.091	CP-60D



REVISION:

DATE:	BY:	DESC.

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
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DISPLAYED AS:
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UNITS: INT. FT.
SOURCE: PIONEER

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MONTANA FISH, WILDLIFE & PARKS
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OVERALL SITE PLAN AND SURVEY CONTROL POINTS

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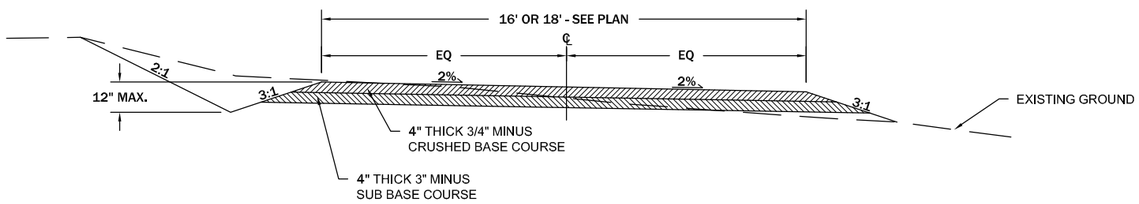
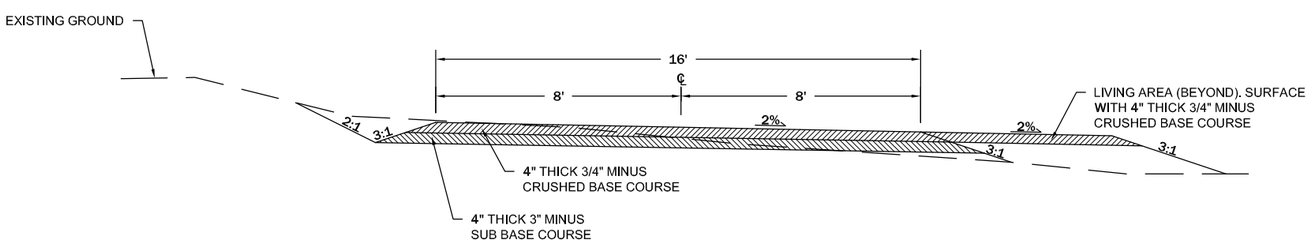
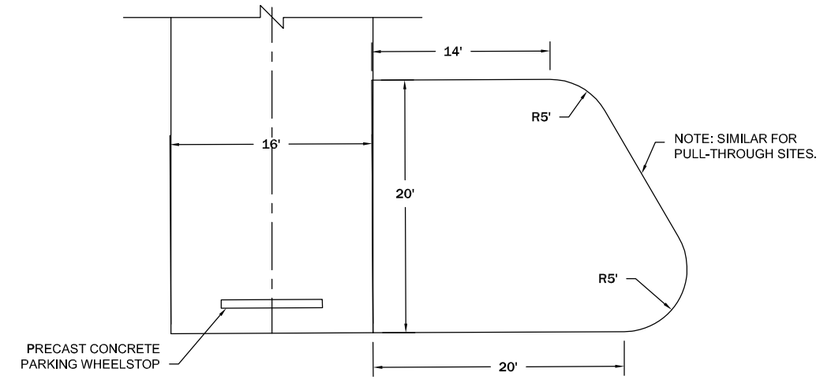
SHEET 3 OF 25



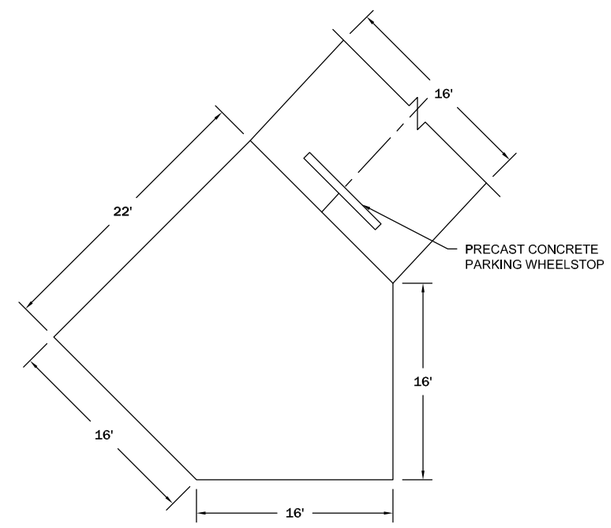
TYPICAL SECTION - ROAD (1/4)
N.T.S.



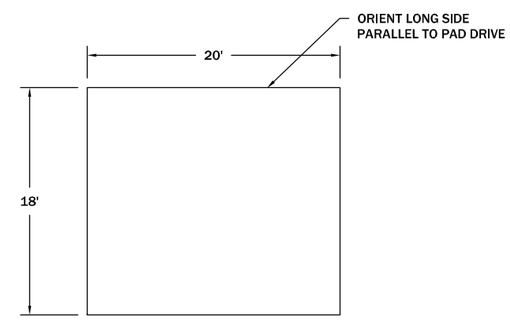
TYPICAL SECTION - CAMP SITE DRIVE (2/4)
N.T.S.



LIVING AREA AT SIDE



LIVING AREA AT END



DETACHED

LIVING AREA DETAILS (3/4)
N.T.S.

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DESIGNED BY: ACW
CHECKED BY: ACW
APPROVED BY: ACW
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TYPICAL SECTIONS
AND LIVING AREA
DETAILS

PIONEER TECHNICAL SERVICES, INC.
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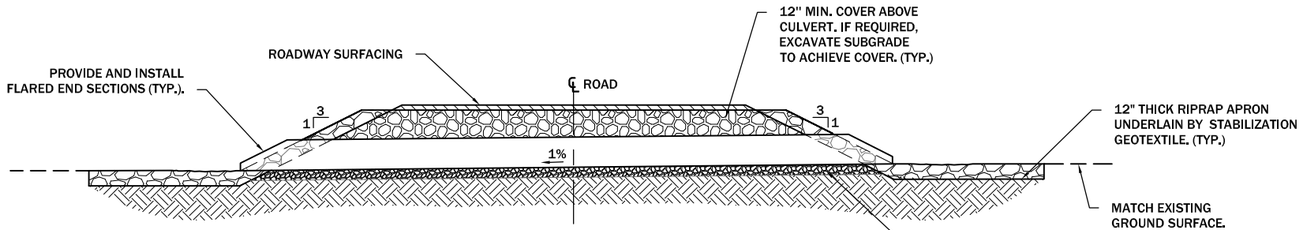

12" CULVERT TYPICAL DETAIL (1/5)

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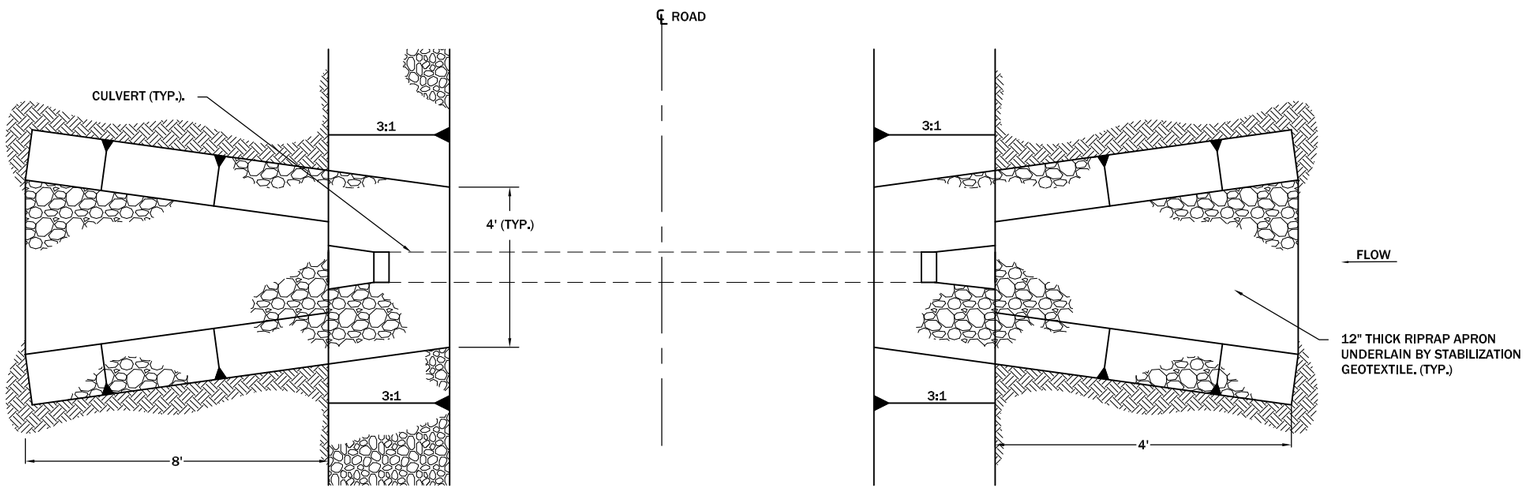
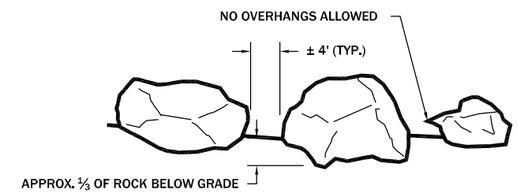


CULVERT TYPICAL PLAN (2/5)

N.T.S.

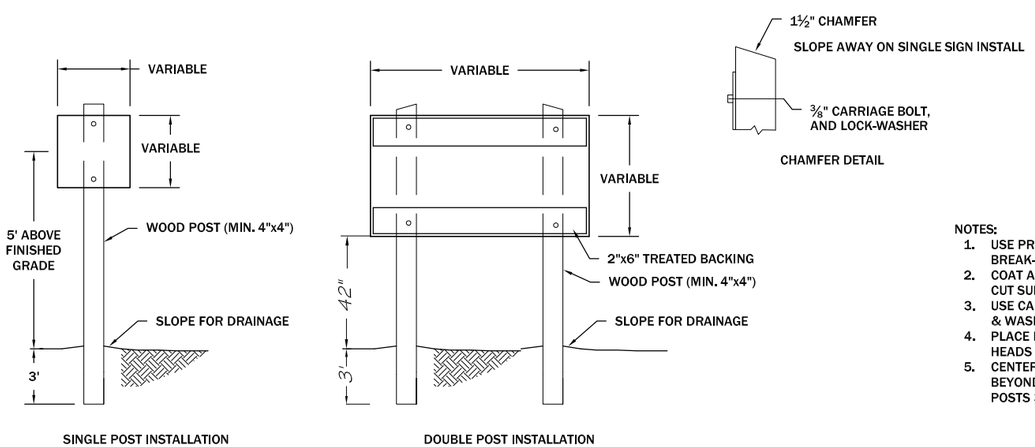


NOTES:

1. LANDSCAPE & BARRIER ROCK WILL BE PLACED IN NATURAL ARRANGEMENTS.
2. MINIMUM SIZE SHALL BE 6 C.F. NO DIMENSION SHALL BE LESS THAN 1/3 OF THE LONGEST DIMENSION.
3. ROCK SHALL BE HARD, DURABLE w/NO MAJOR MACHINE MARKS OR BLEMISHES.
4. BARRIER ROCKS SHALL BE SET SO THAT THEIR LONG AXIS IS PARALLEL TO THE GROUND AND ROAD SURFACING.
5. THERE SHALL BE NO ACUTE ANGLES AT THE GROUND LINE.
6. APPROXIMATELY I/3 OF EACH ROCK SHALL BE PLACED BELOW GRADE.
7. PLACE ROCK SO THAT ANY MOSS SHALL BE ON THE TOP.
8. ALL EXCESS MATERIAL SHALL USED ON SITE AS DIRECTED BY THE PROJECT MANAGER OR IF UNSUITABLE, REMOVED FROM THE SITE.
9. ADJACENT ROCKS SHALL NOT BE THE SAME SIZE NOR BE SET SO THE TOP OF THE ROCKS ARE THE SAME HEIGHT.
10. UNLESS OTHERWISE DIRECTED BARRIERS SHALL BE PLACED APPROXIMATELY 5' APART FROM EDGE TO EDGE.
11. A SUBSTANTIAL SUB-GRADE WILL BE PROVIDED TO ELIMINATE SETTLEMENT.
12. THE PROPER FINISHED GRADE WILL BE ESTABLISHED AROUND EACH ROCK.

BARRIER ROCK DETAIL (PROVIDED BY FWP) (3/5)

N.T.S.



NOTES:

1. USE PRESSURE TREATED TIMBERS FOR ALL SIGN POSTS. NEED BREAK-AWAY HOLES (OR DEVICE) FOR LARGER POSTS.
2. COAT ALL POSTS WITH PRESERVATIVE FOR ALL DRILLED HOLES AND CUT SURFACES.
3. USE CADMIUM PLATED OR GALVANIZED STEEL FOR ALL BOLTS, NUTS & WASHERS.
4. PLACE BOLTS TO NOT INTERFERE WITH SIGN LETTERING. PAINT BOLT HEADS TO MATCH SIGN.
5. CENTER SINGLE POST PANELS TO POST, OVERHANG PANELS 3" BEYOND POSTS FOR DOUBLE POST INSTALLATIONS. EXTEND ALL POSTS 3" ABOVE SIGN PANELS.

SIGN POST MOUNTING DETAIL (PROVIDED BY FWP) (4/5)

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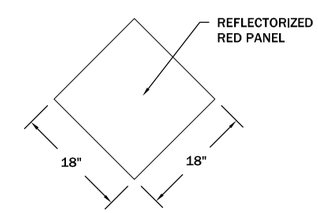

END OF ROAD MARKER (5/5)

N.T.S.

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APPROVED BY: ACW
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CULVERTS, SIGNS AND BARRIER ROCK DETAILS

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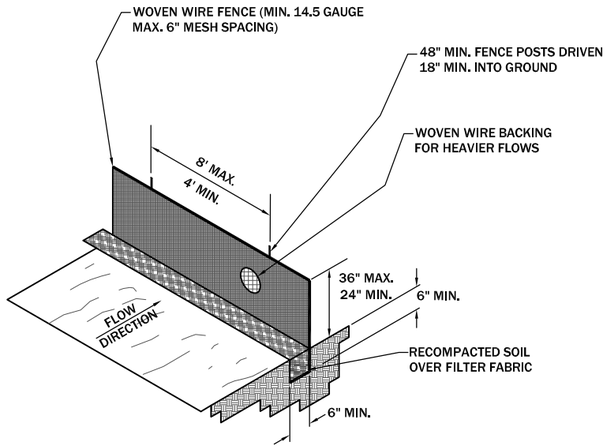

FILTER FENCE DETAIL 1/6

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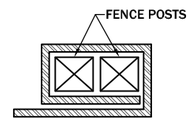

END STAKE DETAIL 1A/6

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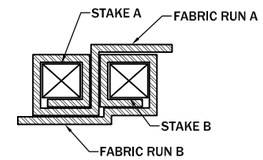
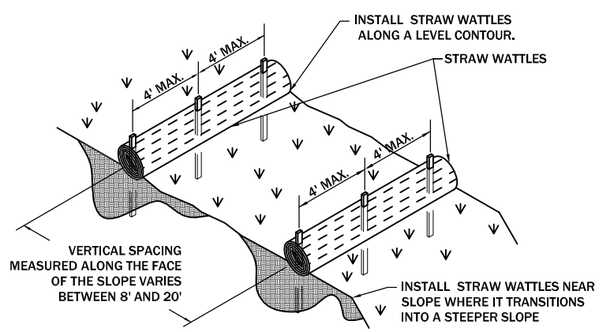
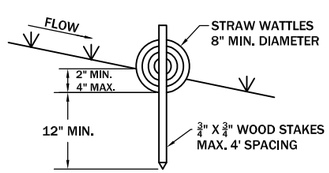


JOINING SECTION DETAIL 1B/6

N.T.S.





STRAW WATTLES (FIBER ROLLS) DETAILS 2/6

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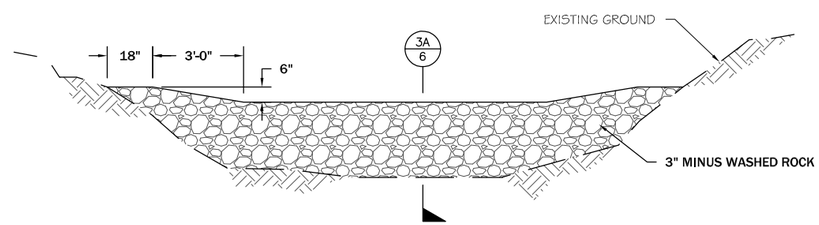

STONE CHECK DAM - ELEVATION VIEW 3/6

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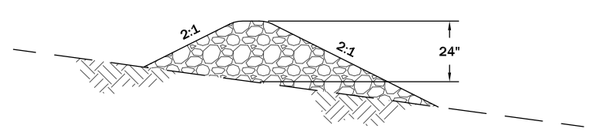

STONE CHECK DAM - TYPICAL SECTION 3A/6

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SCALE IN FEET
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MONTANA FISH, WILDLIFE & PARKS
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TYPICAL BMP DETAILS

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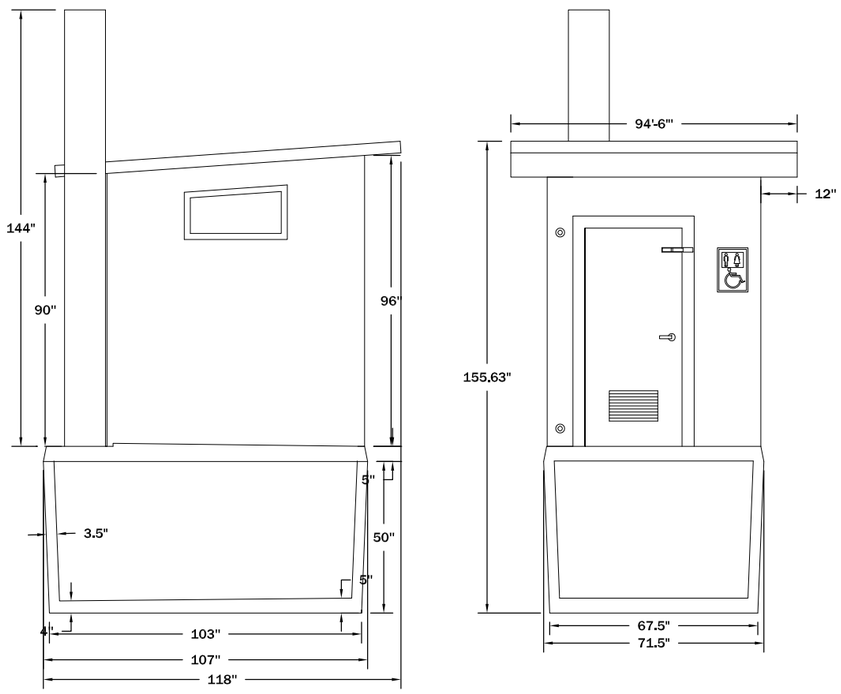

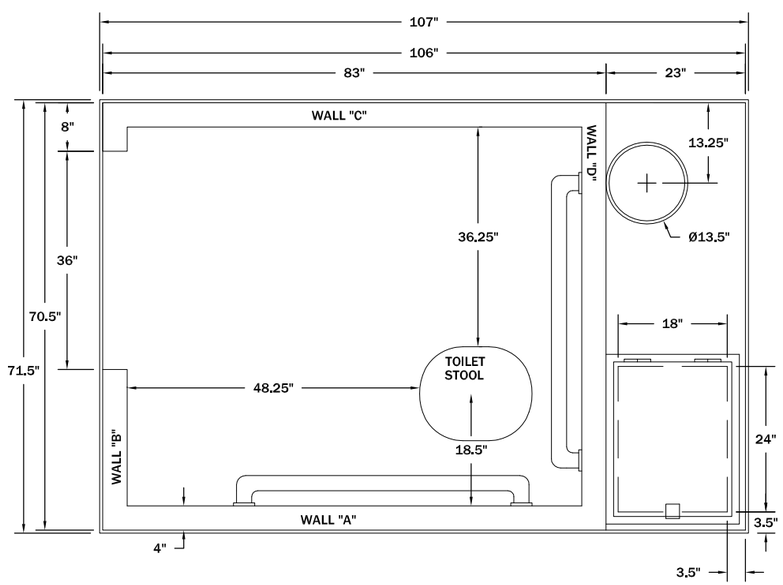

GENERAL
FOR INFORMATION ONLY.
RELOCATE EXISTING LATRINE.
ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED AND ARE APPROXIMATE. ACTUAL DIMENSIONS MAY DIFFER.

INSTALLATION
GENERAL INSTALLATION INVOLVES EXCAVATION, LEVELING BOTTOM OF HOLE WITH DRAIN AGGREGATE, INSTALLING LATRINE, BACKFILLING AROUND LATRINE AND LANDSCAPING.

EXCAVATION
A. EXCAVATE SUBSOIL TO A POINT 12 INCHES DEEPER THAN REQUIRED FOR LATRINE INSTALLATION.
B. FINISH FLOOR ELEVATION SHALL BE A MINIMUM OF 4-6 INCHES ABOVE NATURAL GRADE MEASURED AT THE FRONT ENTRANCE.
C. MINIMIZE OVER-EXCAVATION. STOCKPILE EXCAVATED MATERIAL FOR LATER BACKFILLING AND LANDSCAPING.
D. COMPACT BOTTOM OF HOLE WITH THREE PASSES OF WHACKER OR SKID PLATE COMPACTION DEVICE.

LEVELING
A. USE SMALL GRAVEL, ⅜ INCH MINUS GRAVEL, AND PLACE ENOUGH IN BOTTOM OF HOLE SUCH THAT WHEN COMPACTED, IT WILL BE 12 INCHES DEEP.
B. COMPACT LEVELING MATERIAL WITH THREE PASSES OF COMPACTION DEVICE.
C. LEVEL BASE FOR INSTALLATION OF LATRINE.

LATRINE INSTALLATION
A. INSURE THAT LATRINE SITS LEVEL AND PLUMB WHEN DONE INSTALLING.

BACKFILLING
A. PLACE 12 INCHES OF ⅜ INCH GRAVEL AROUND BASE OF VAULT AND COMPACT.
B. PLACE IN SUCCESSIVE 8 INCH LAYERS MATERIAL PREVIOUSLY EXCAVATED FROM HOLE AND COMPACT.
1. REMOVE ROCKS LARGER THAN 6 INCHES IN DIAMETER FROM THE FILL.
2. REMOVE BRANCHES, ROOTS AND OTHER ORGANIC DEBRIS IN FILL.

LANDSCAPING
A. SLOPE GRADE AWAY FROM LATRINE.
B. BLEND FILL SLOPE INTO SURROUNDING TERRAIN.
C. REMOVE SURPLUS FILL MATERIAL.
D. REMOVE SOIL TO A DEPTH OF 2 INCHES BENEATH LOCATION FOR ENTRANCE SLAB AND COMPACT.
E. PLACE TWO INCHES OF ¾ INCH PEA GRAVEL FOR SLAB BEDDING, LEVEL AND COMPACT.

(DETAIL PROVIDED BY FWP)

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LATRINE DETAILS

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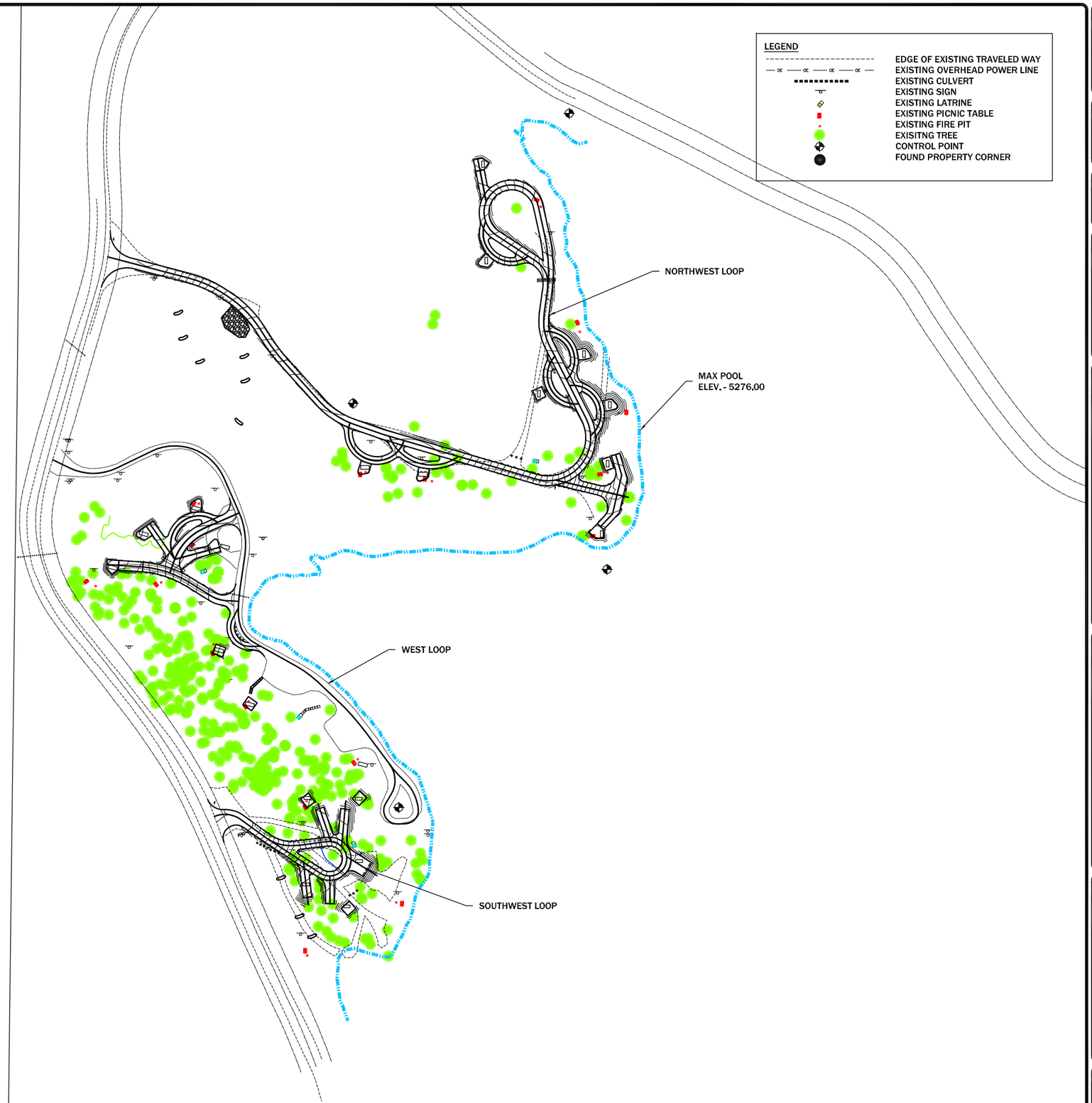
HELENA, MONTANA 59601
(406) 457-8252



REVISION:

DATE:	BY:	DESC.

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 7-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

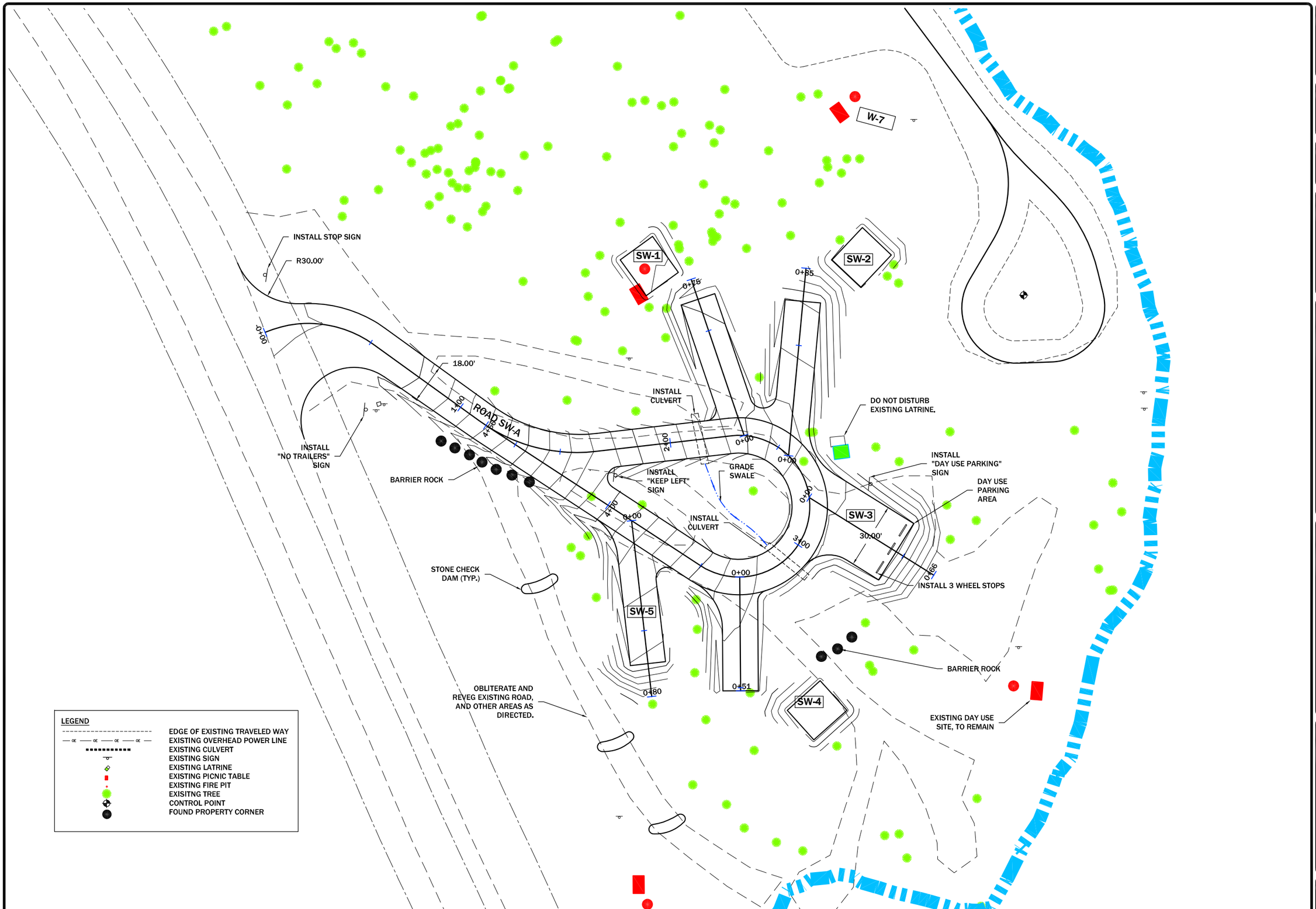
N

SCALE IN FEET
0 100 200

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
NEWLAN CREEK FAS IMPROVEMENTS
FWP PROJECT #7113714

WEST SITES
SITE PLAN

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252



REVISION:

DATE:	BY:	DESC.

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

N

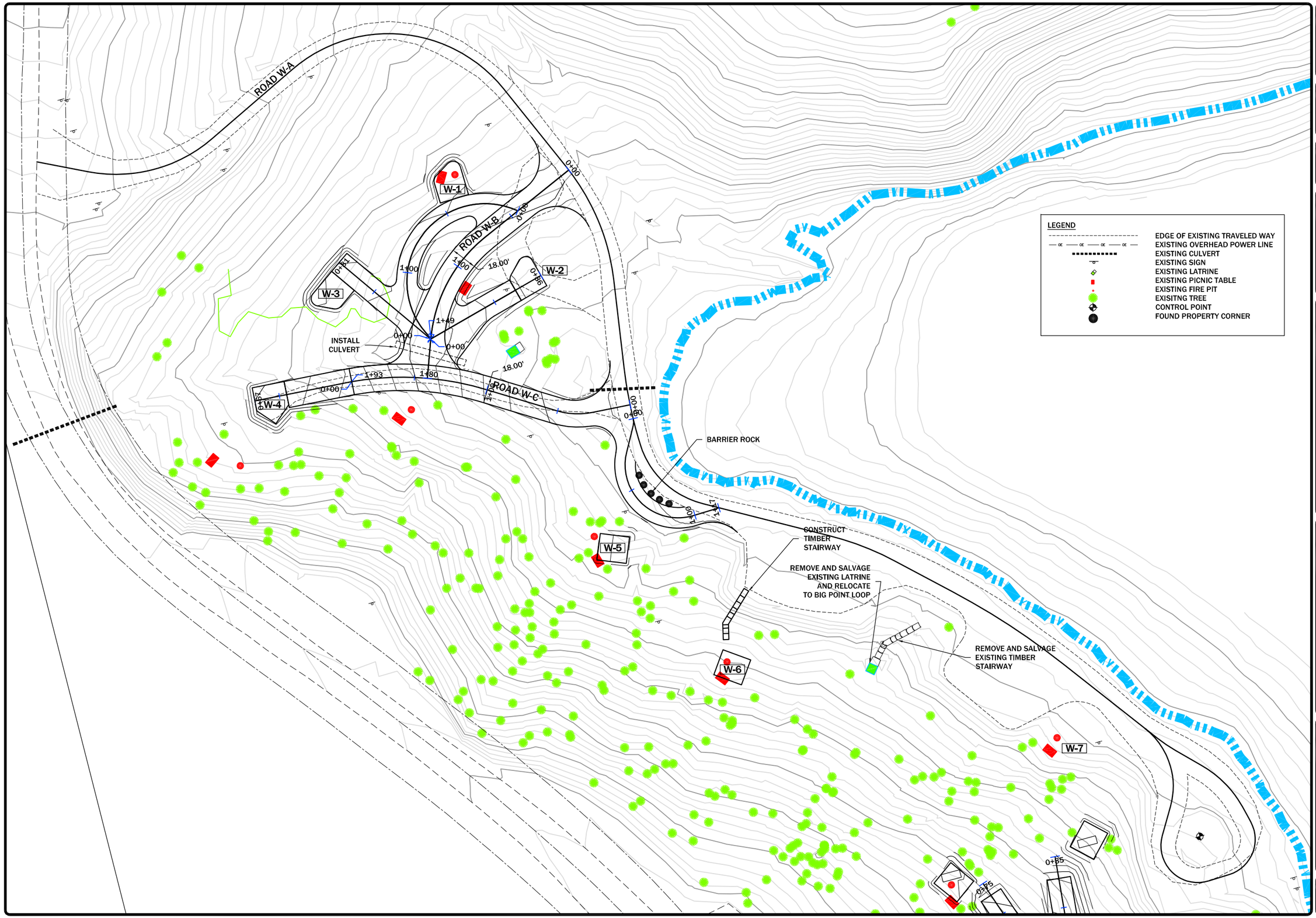
SCALE IN FEET
0 20 40

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
NEWLAN CREEK FAS IMPROVEMENTS
FWP PROJECT #7113714

SOUTHWEST LOOP
SITE PLAN

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

7/11/2012 9:28:56 AM P:\HELENADATA\FWP\NEWLAN CRK FAS - 16801\DRAWINGS\DESIGN\NEWLAN-DE-PLN-001-12.DWG



REVISION:

DATE:	BY:	DESC.

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

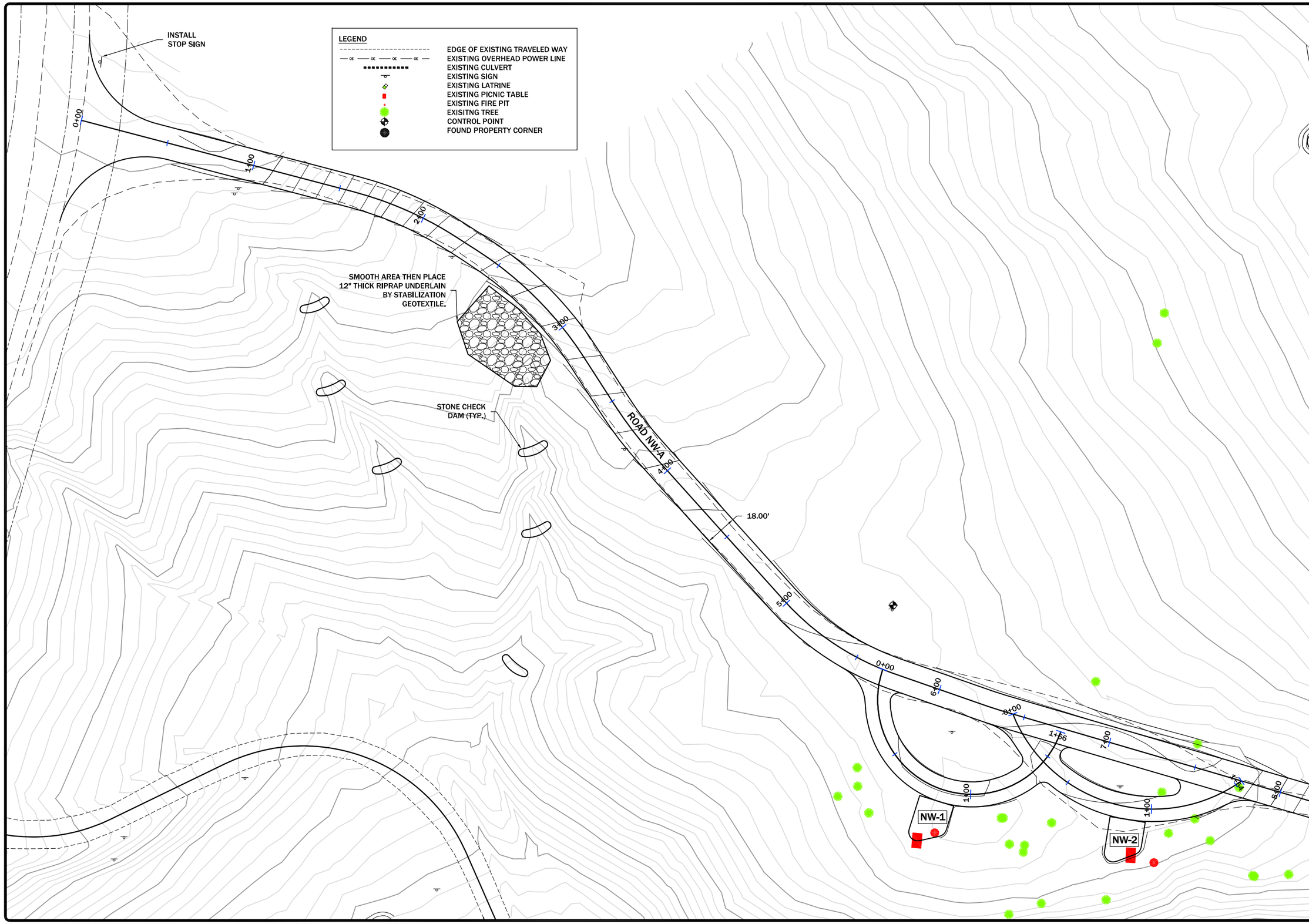
SCALE IN FEET
0 30 60

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
NEWLAN CREEK FAS IMPROVEMENTS
FWP PROJECT #7113714

WEST LOOP SITE PLAN

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

SHEET
10 OF 25



REVISION:

DATE:	BY:	DESC.

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

N

SCALE IN FEET
0 50 100

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
NEWLAN CREEK FAS IMPROVEMENTS
FWP PROJECT #7113714

NORTHWEST LOOP
SITE PLAN
SHEET A

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

SHEET
11 OF 25

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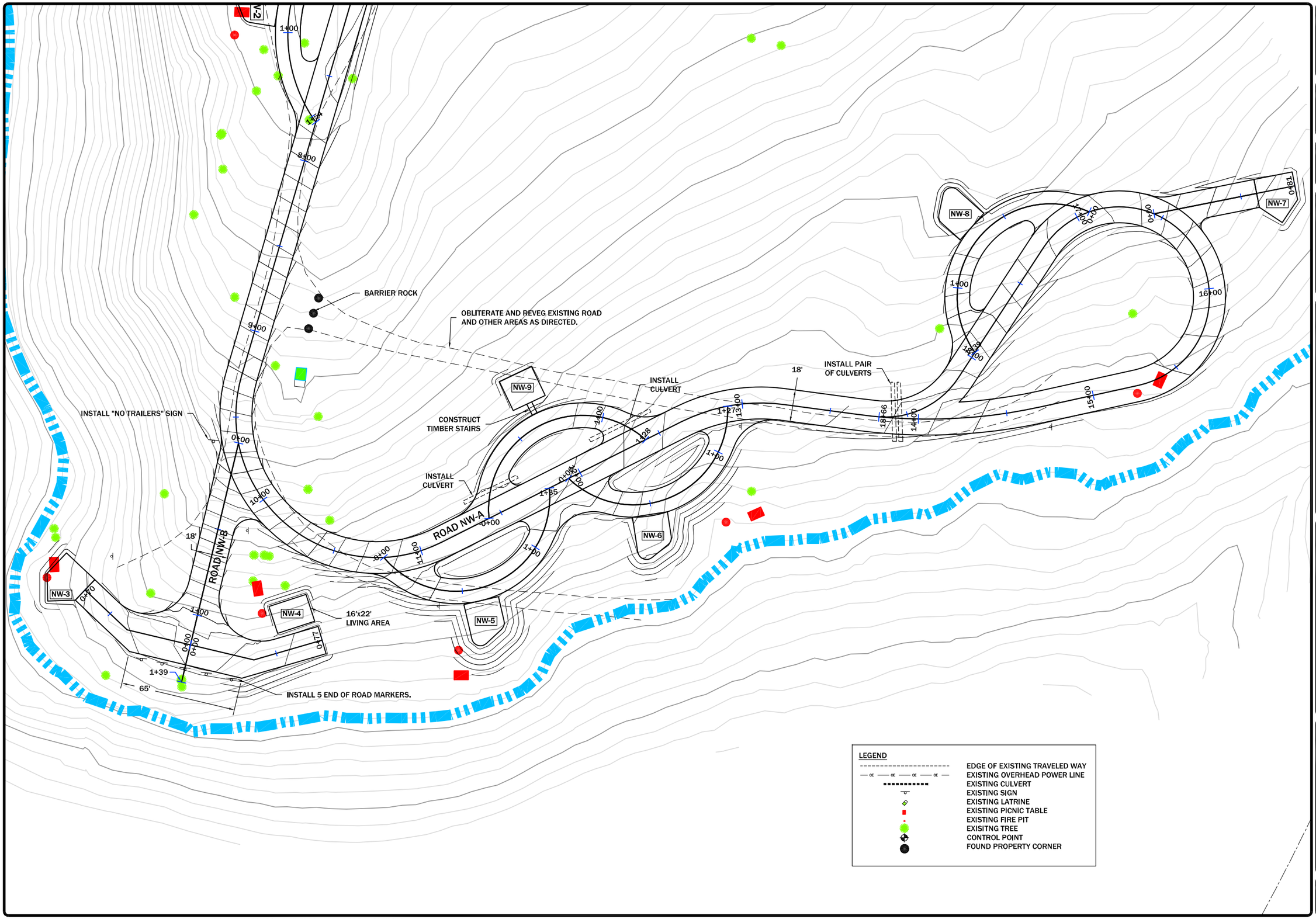

REVISION:

DATE:	BY:	DESC.

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

SCALE IN FEET
0 25 50

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
NEWLAN CREEK FAS IMPROVEMENTS
FWP PROJECT #7113714

NORTHWEST LOOP
SITE PLAN
SHEET B

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

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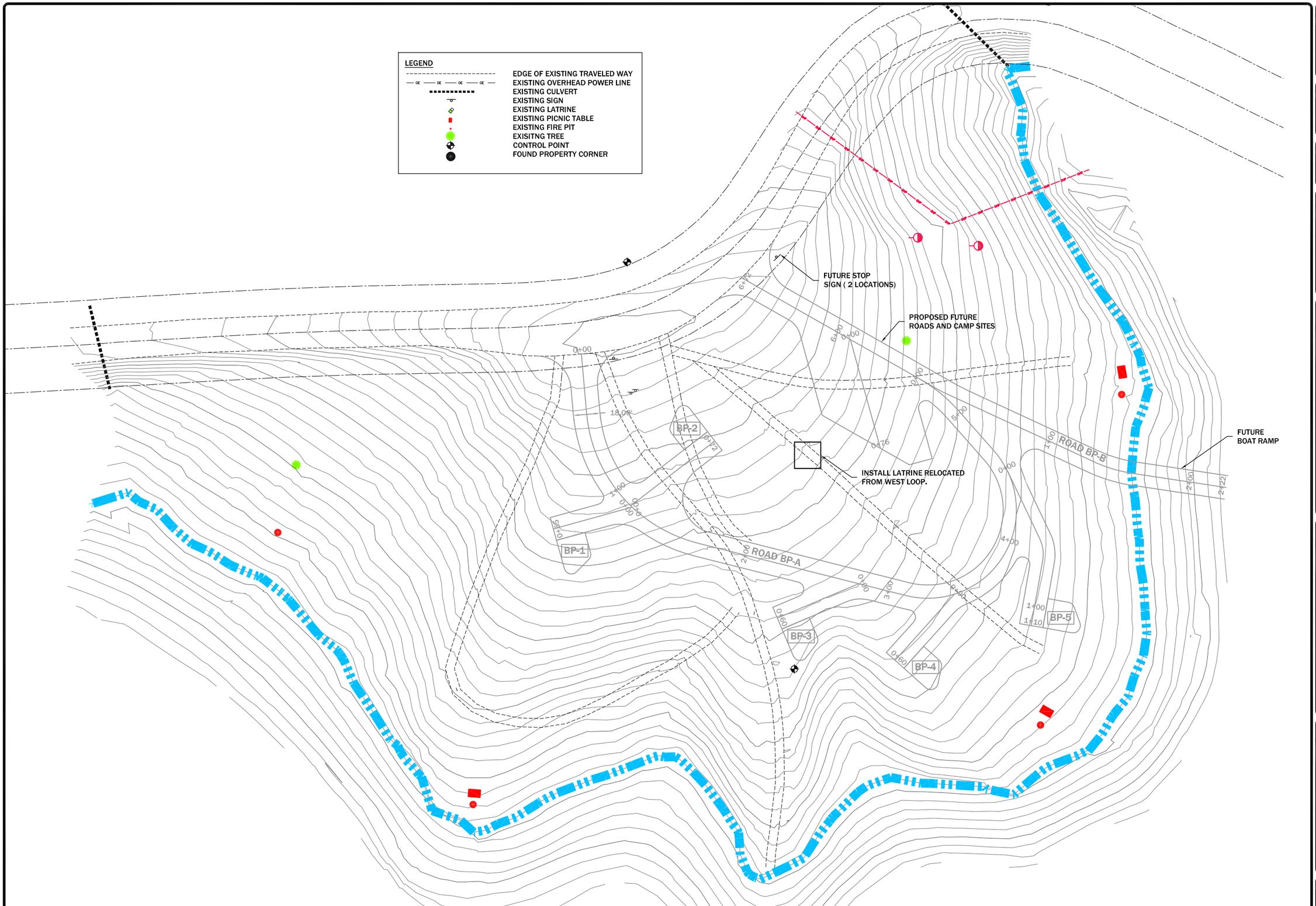


REVISION:

DATE:	BY:	DESC.

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

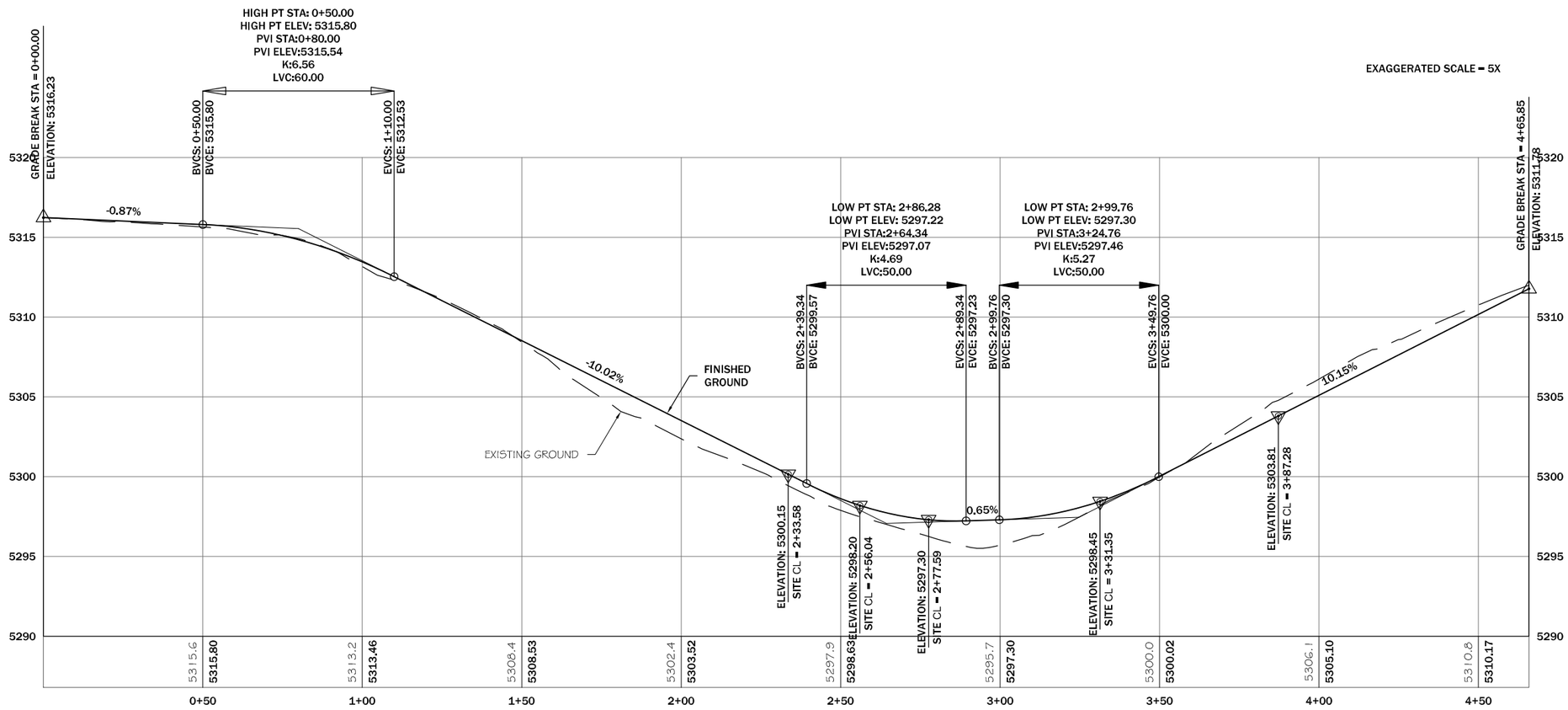
DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

SCALE IN FEET
0 30 60

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
NEWLAN CREEK FAS IMPROVEMENTS
FWP PROJECT #7113714

BIG POINT LOOP
SITE PLAN

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252



REVISION: DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

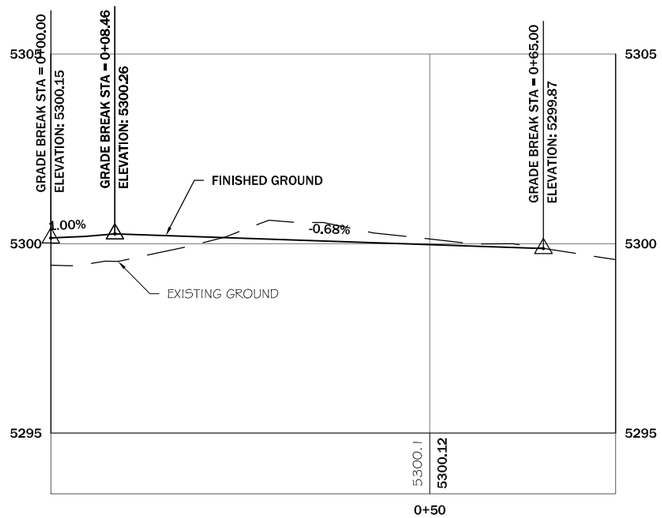
SCALE IN FEET
0 20 40

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

ROAD SW-A
PROFILE

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

EXAGGERATED SCALE = 5X
PROFILES AT 1" = 30'
SECTIONS AT 1" = 20'



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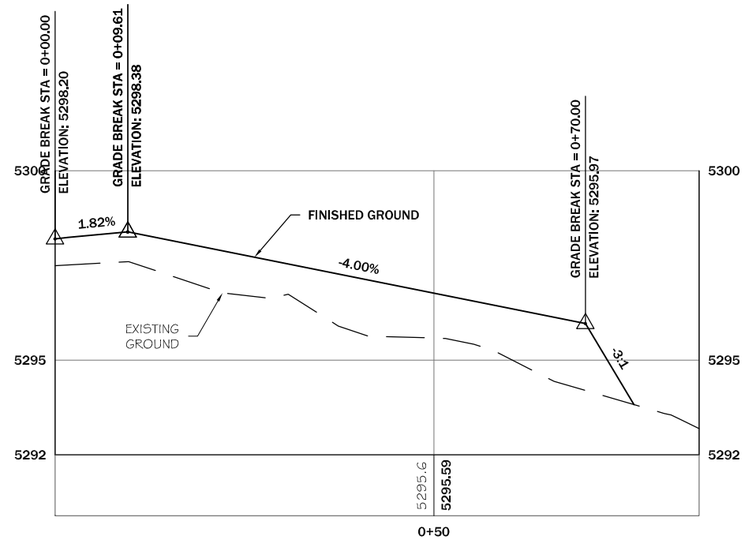

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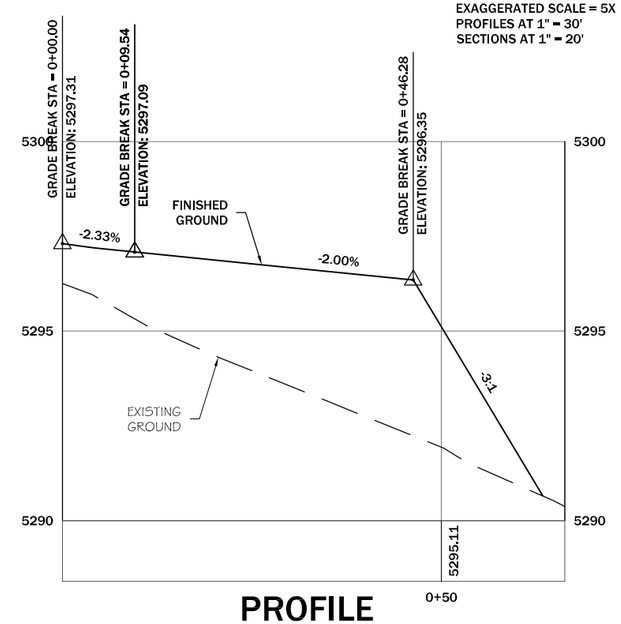

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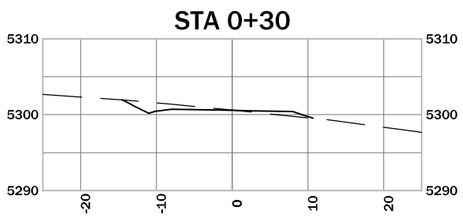

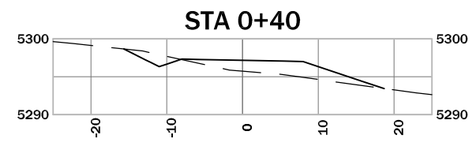

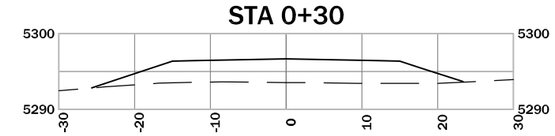

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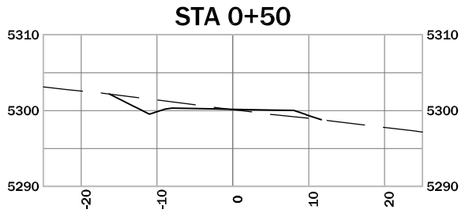

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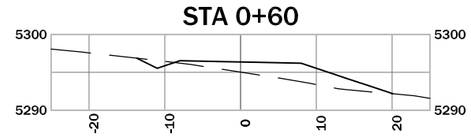


SW-2

REVISION:		
DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

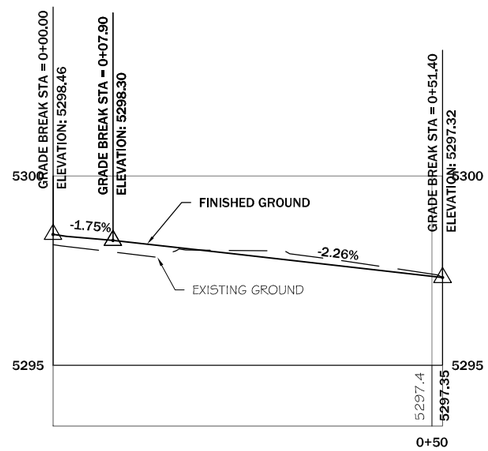
SCALE IN FEET
0

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

SW-1 -SW3
PROFILES &
CROSS-SECTIONS

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

EXAGGERATED SCALE = 5X
PROFILES AT 1" = 30'
SECTIONS AT 1" = 20'



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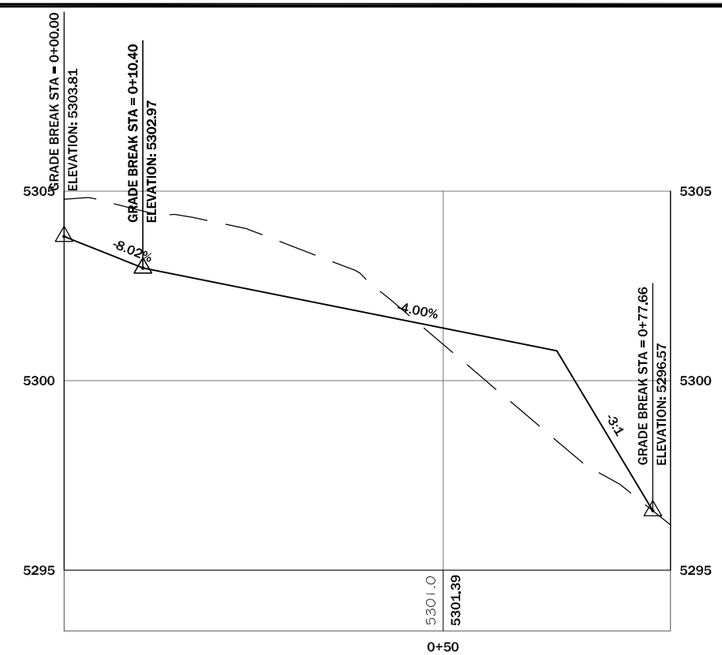

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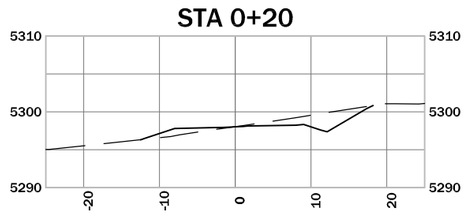
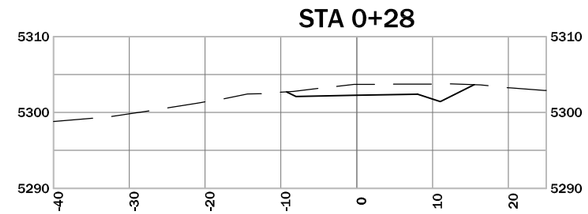
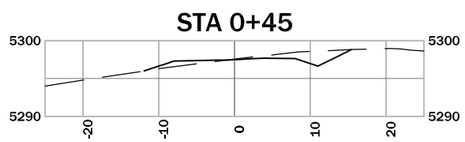
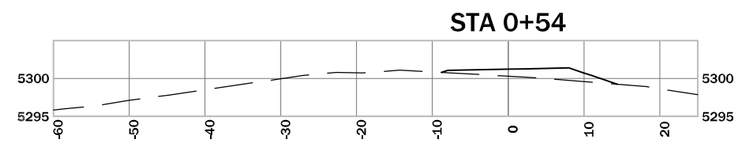






SW-4



SW-5

REVISION:

DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

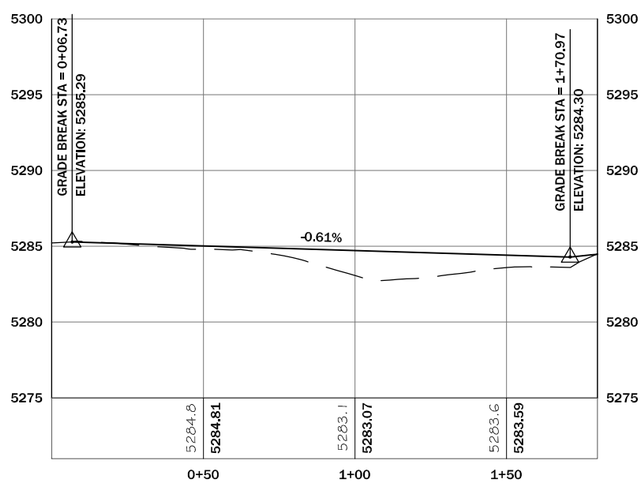
SCALE IN FEET
0

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

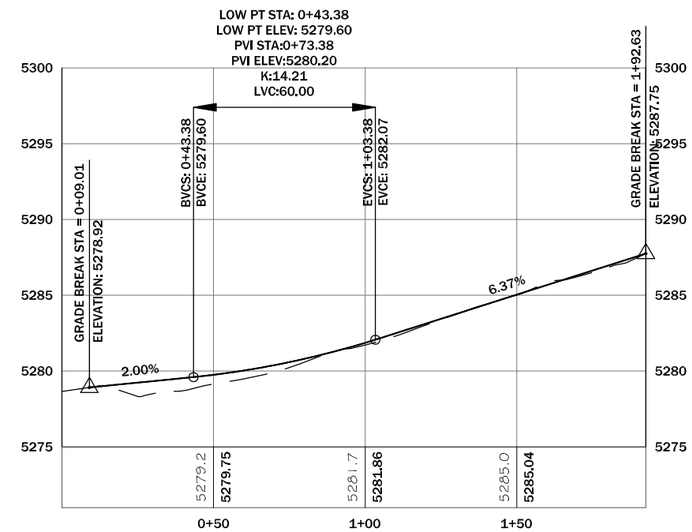
SW-4 & SW-5
PROFILES &
CROSS-SECTIONS

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

EXAGGERATED SCALE = 5X



ROAD W-B



ROAD W-C

REVISION:

DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

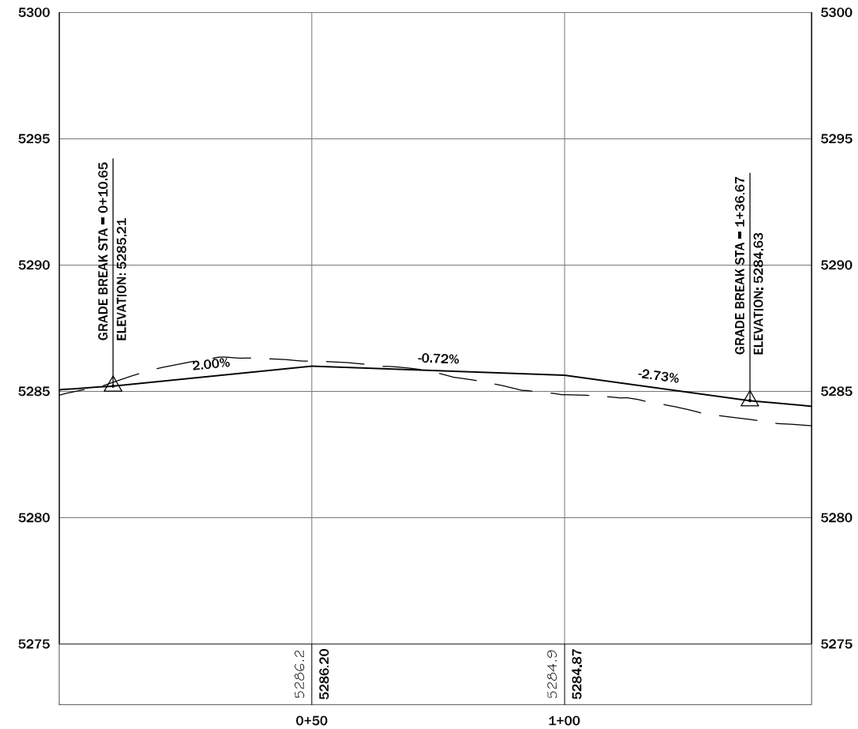
SCALE IN FEET
0 25 50

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

ROADS W-B & W-C
PROFILES

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

EXAGGERATED SCALE = 5X
PROFILES AT 1" = 30'
SECTIONS AT 1" = 20'



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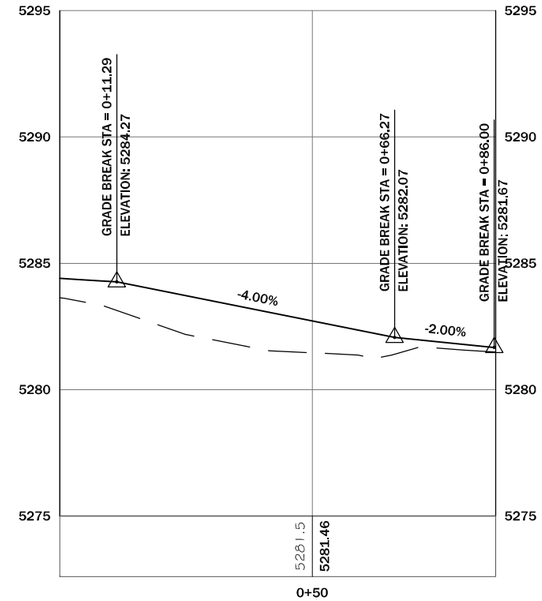

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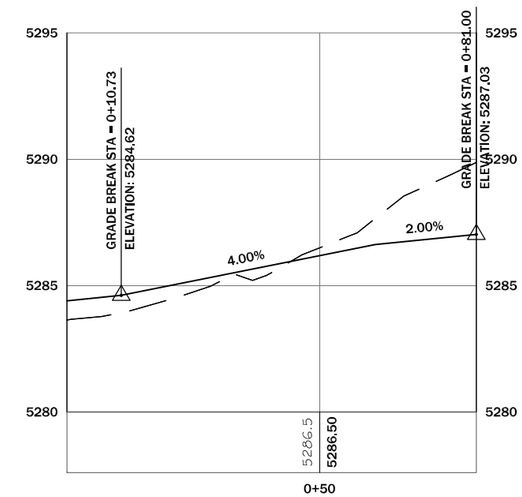

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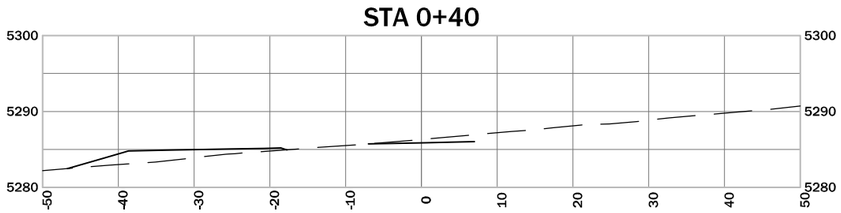
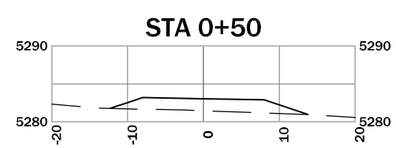
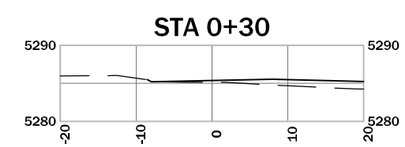
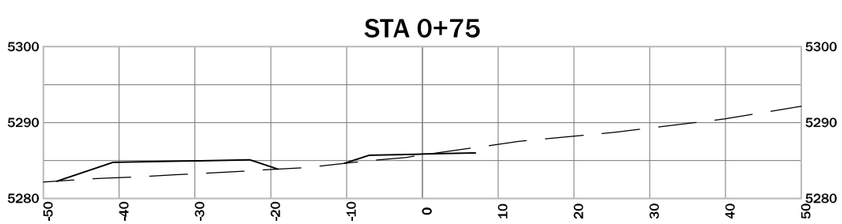
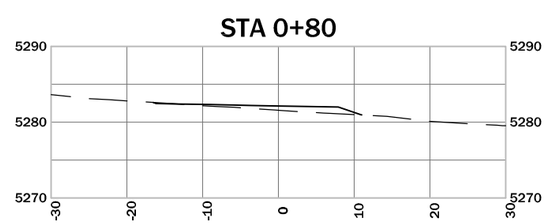
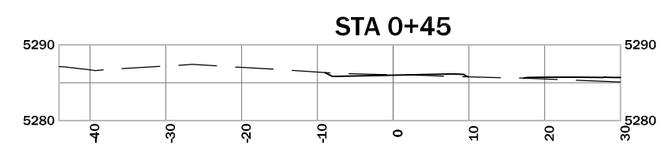












W-1

W-2

W-3

REVISION:

DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

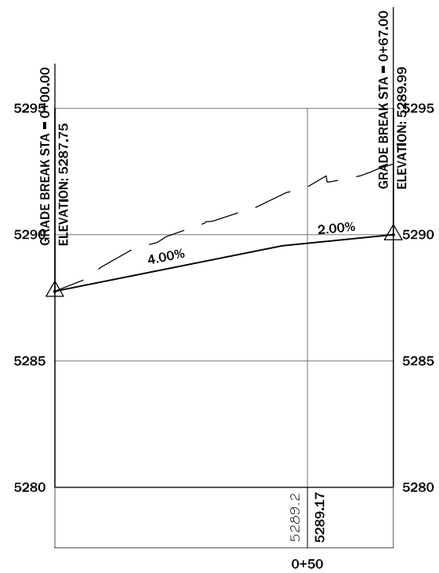
SCALE IN FEET
0

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

W-1 THRU W-3
PROFILES &
CROSS-SECTIONS

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

EXAGGERATED SCALE = 5X
PROFILES AT 1" = 30'
SECTIONS AT 1" = 20'



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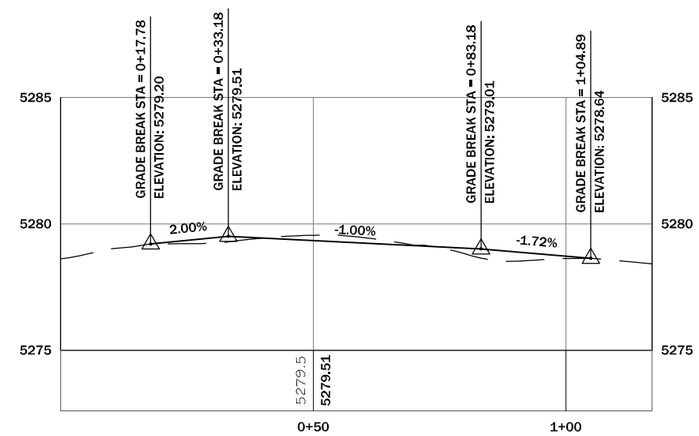

PROFILE

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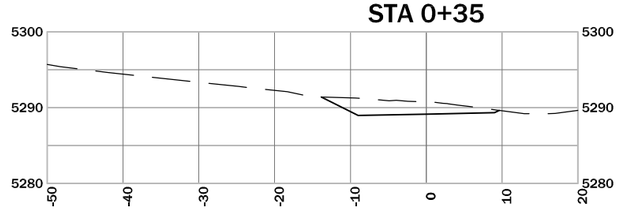
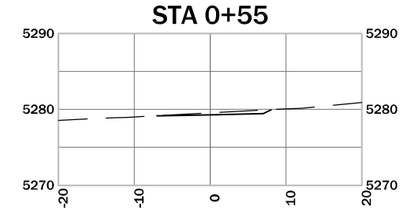


W-4

STA 0+55



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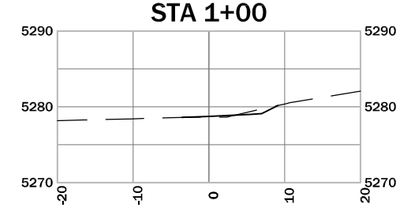


W-5

REVISION:

DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

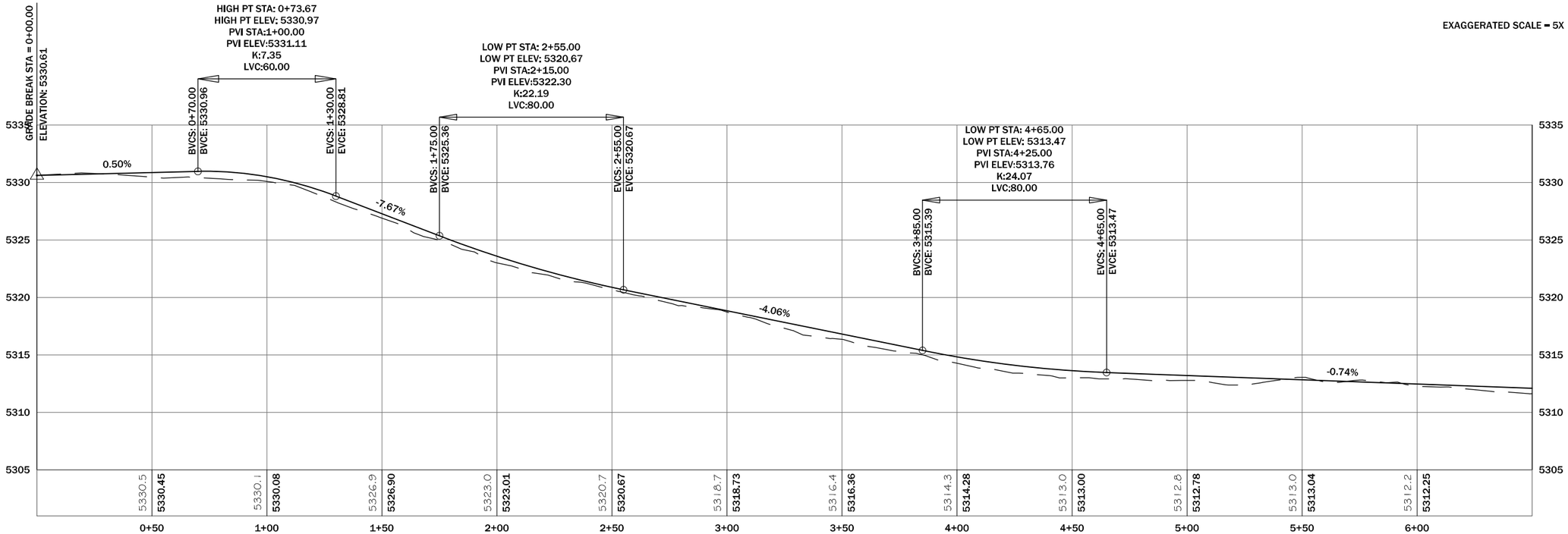
DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

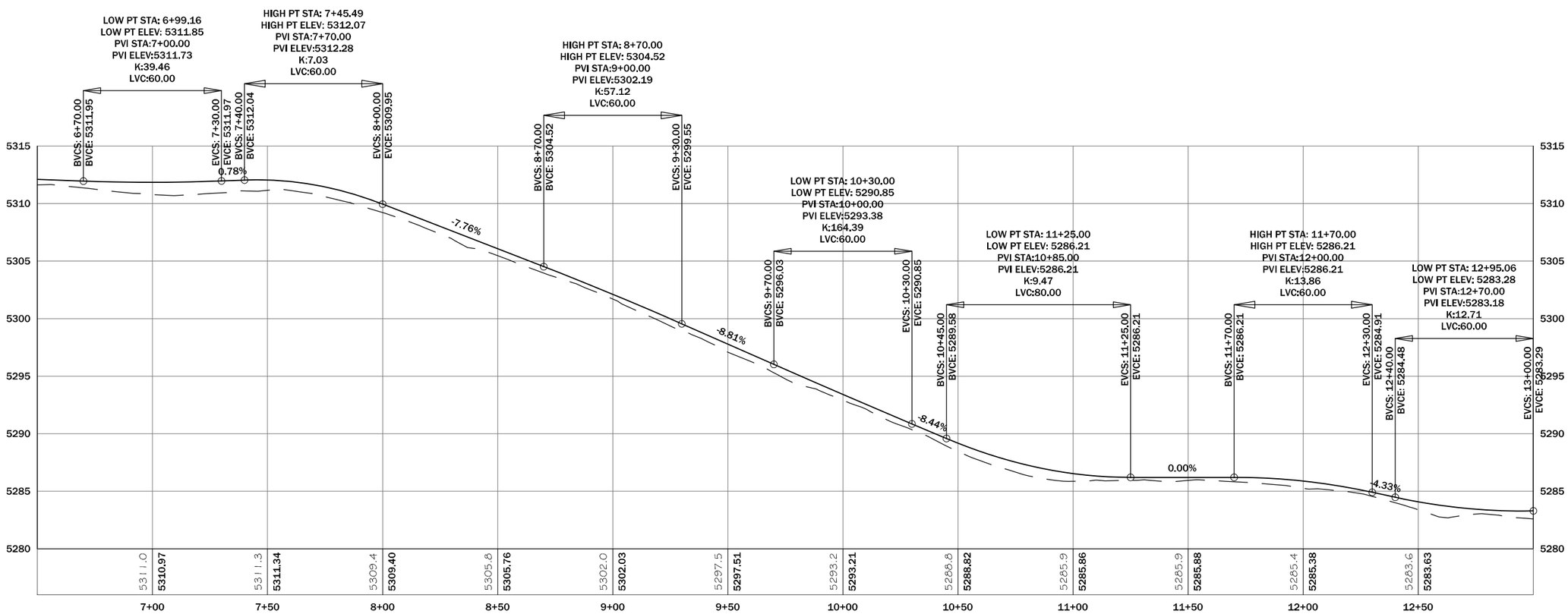
SCALE IN FEET
0

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

W-4 & W-5
PROFILES &
CROSS SECTIONS

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252





REVISION:

DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

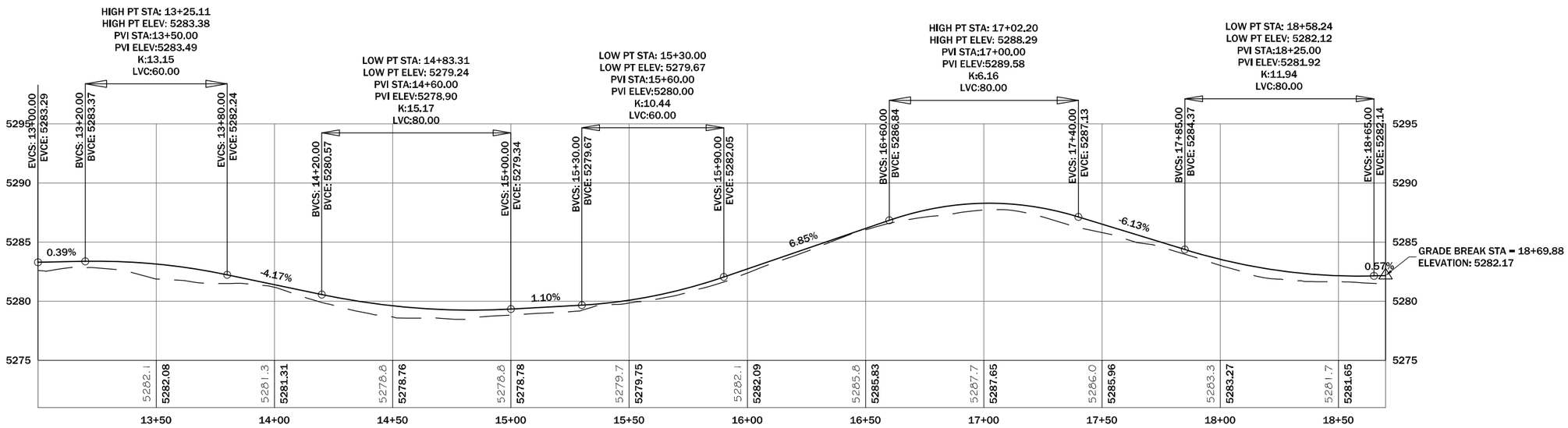
SCALE IN FEET
0 25 50

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

ROAD NW-A
PROFILE
SHEET A

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

EXAGGERATED SCALE = 5X



REVISION: DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

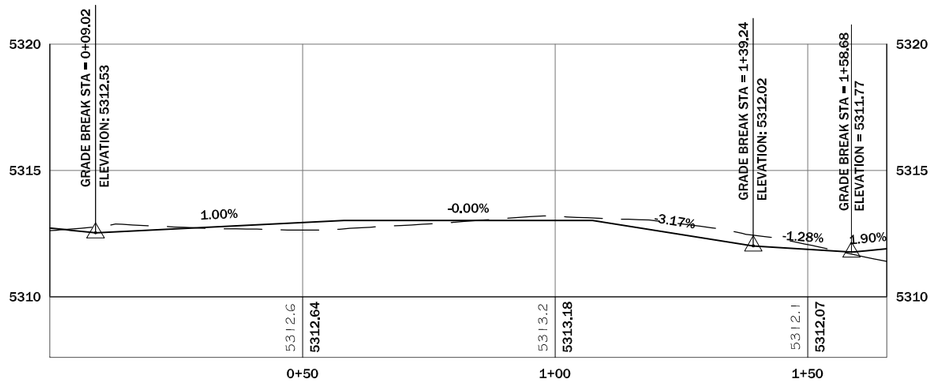
SCALE IN FEET
0 25 50

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

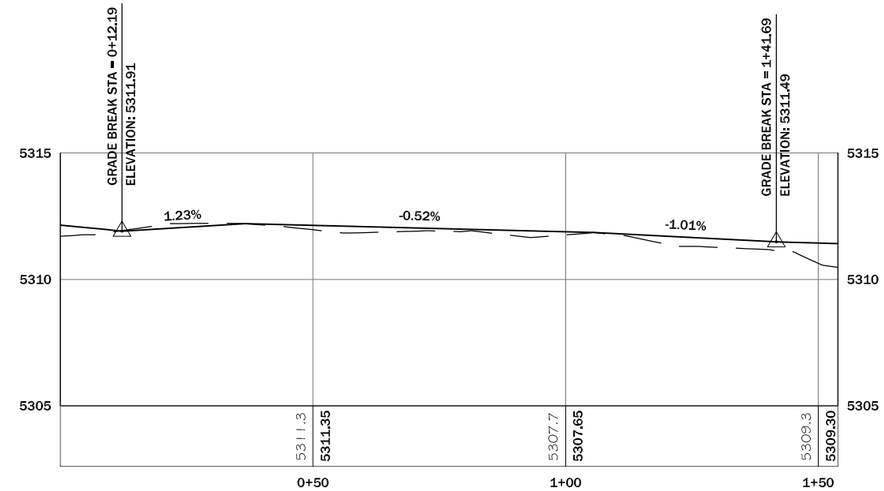
ROAD NW-A
PROFILE
SHEET B

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

EXAGGERATED SCALE = 5X
PROFILES AT 1" = 30'
SECTIONS AT 1" = 20'



PROFILE



PROFILE

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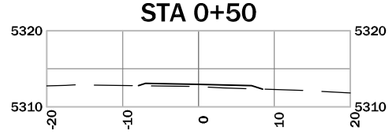

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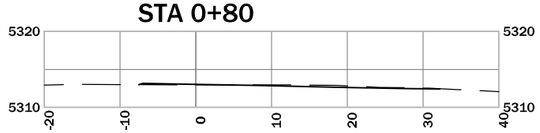

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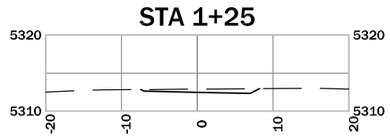
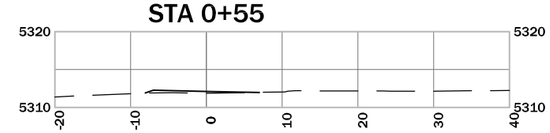
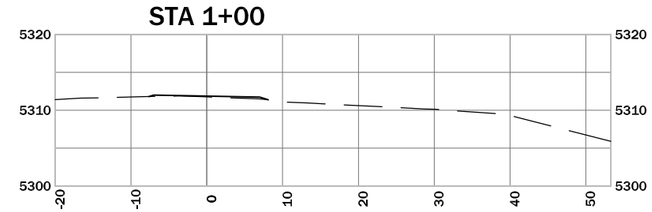


NW-1

STA 0+55



STA 1+00



NW-2

REVISION:		
DATE:	BY:	DESC:

DRAWN BY:	TJF
DESIGNED BY:	TJF/ACW
CHECKED BY:	ACW
APPROVED BY:	ACW
PROJECT NO:	16801
DATE:	07-12-12

DISPLAYED AS:	
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	INT. FT.
SOURCE:	PIONEER

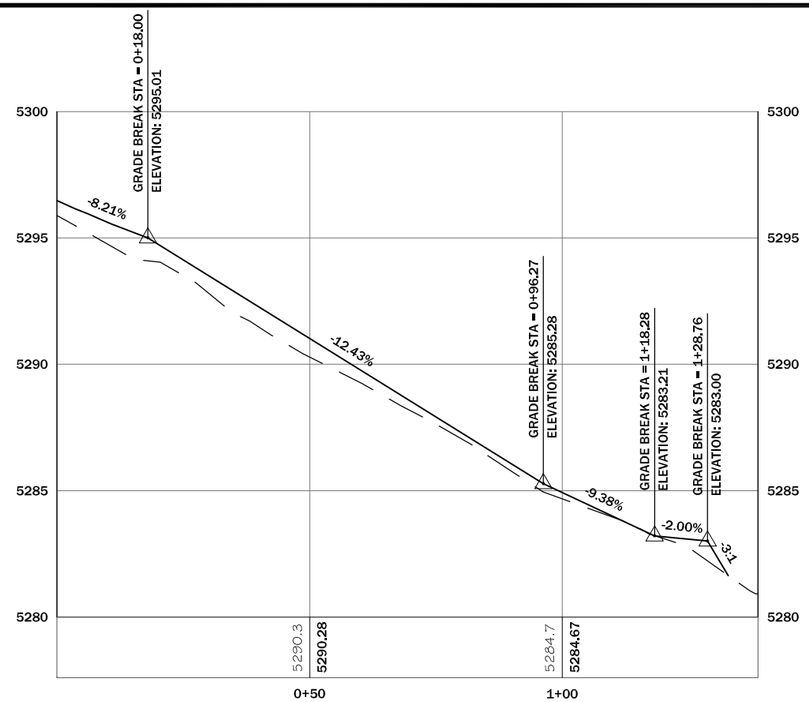
SCALE IN FEET
0

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

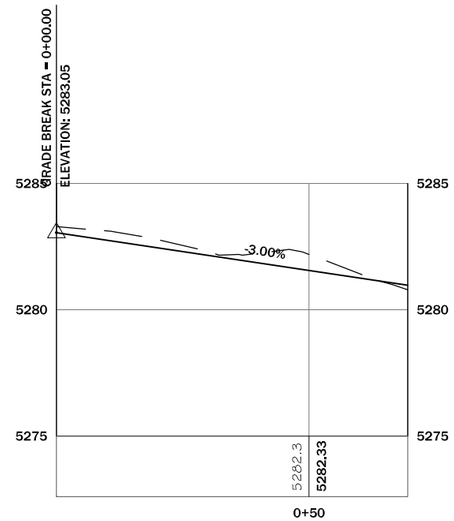
NW-1 & NW-2
PROFILES

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

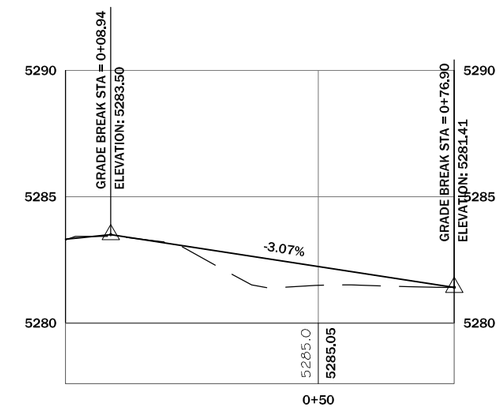
EXAGGERATED SCALE = 5X
PROFILES AT 1" = 30'
SECTIONS AT 1" = 20'



PROFILE

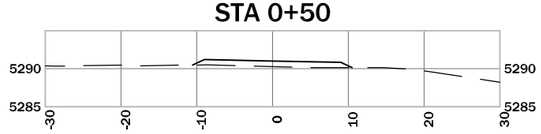


PROFILE



PROFILE

STA 0+50



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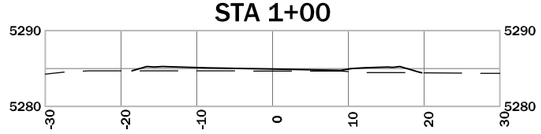
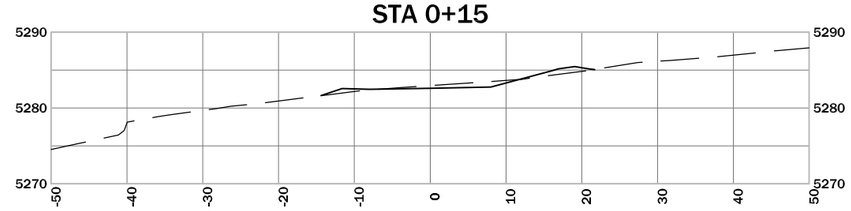


ROAD NW-B

STA 0+15



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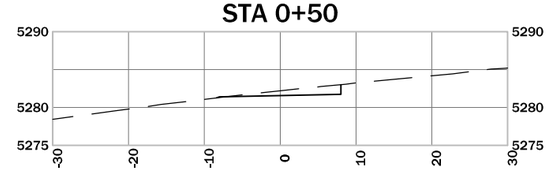
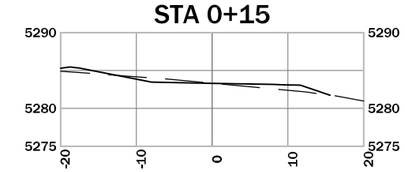
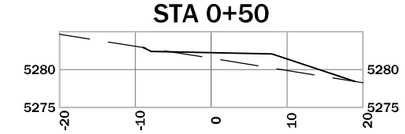


NW-3

STA 0+15



STA 0+50



NW-4

REVISION: DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

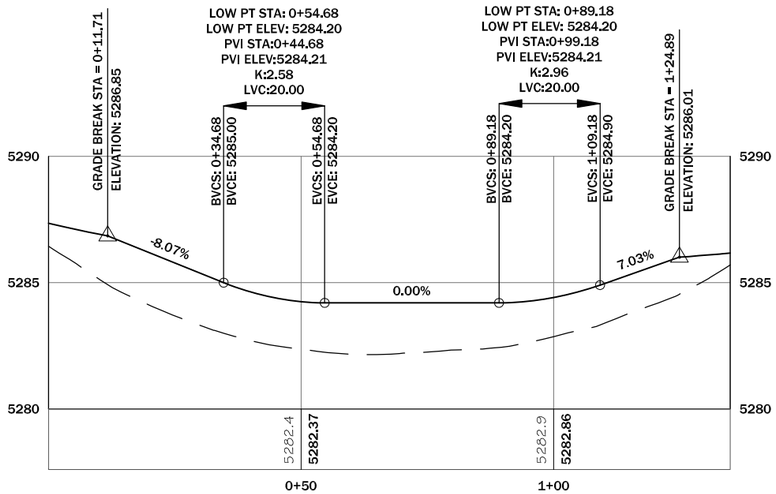
DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

SCALE IN FEET
0

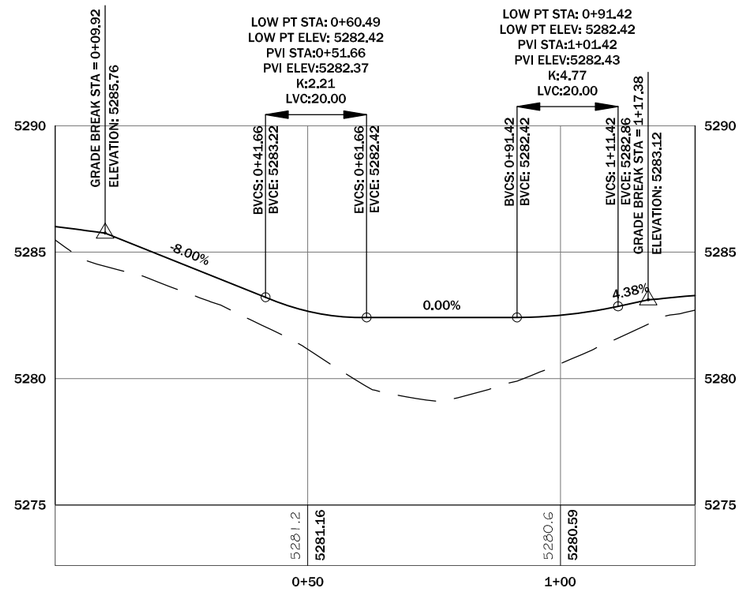
MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

ROAD NW-B &
NW-3 & NW-4
PROFILES &
CROSS SECTIONS

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

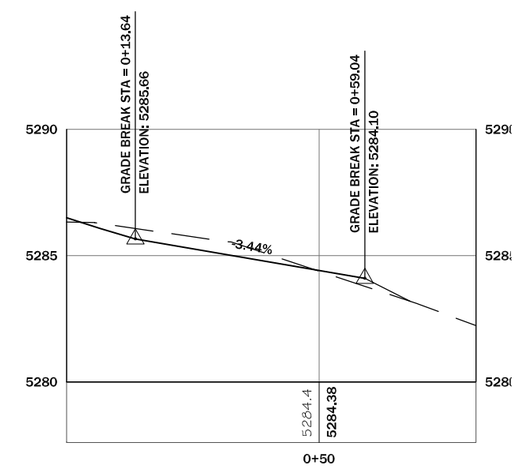


PROFILE

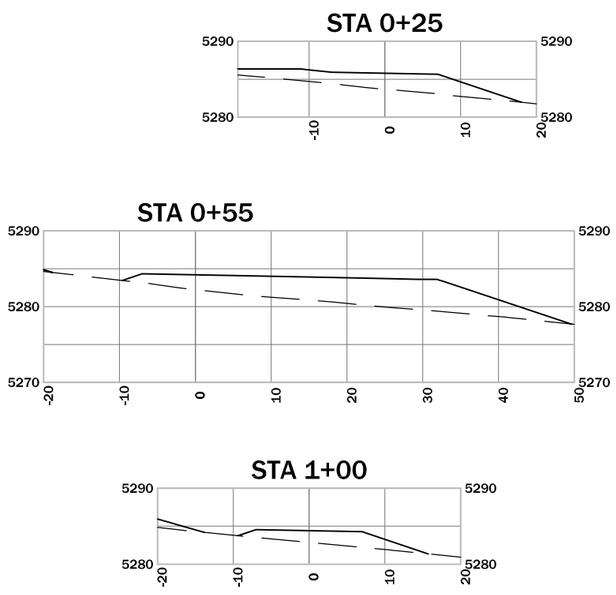


PROFILE

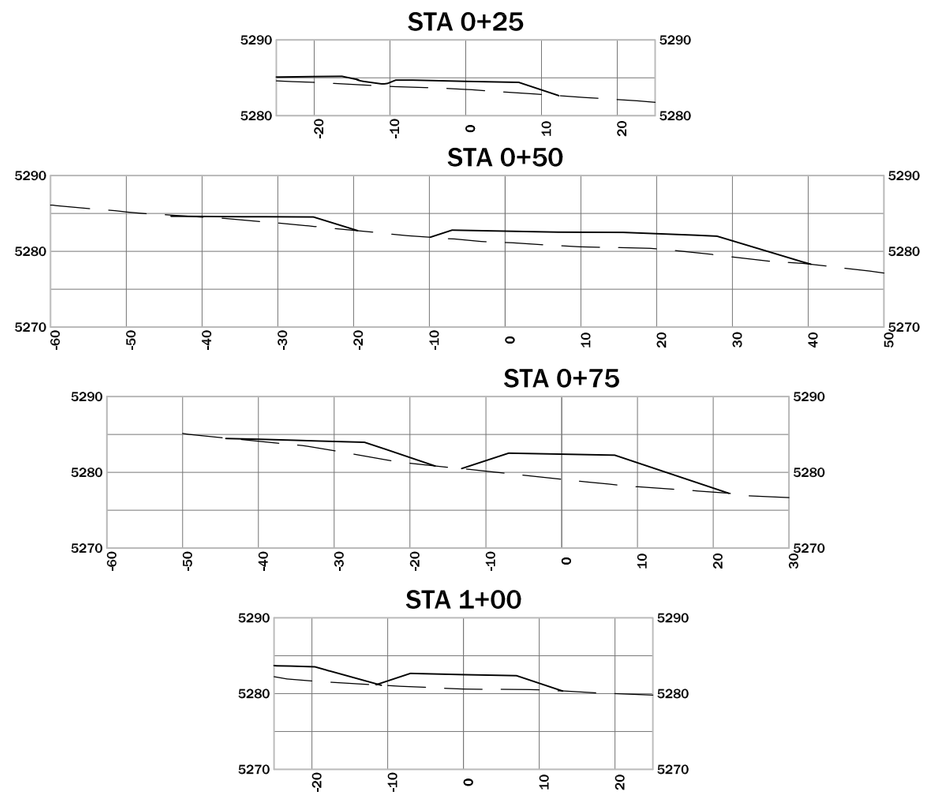
EXAGGERATED SCALE = 5X
PROFILES AT 1" = 30'
SECTIONS AT 1" = 20'



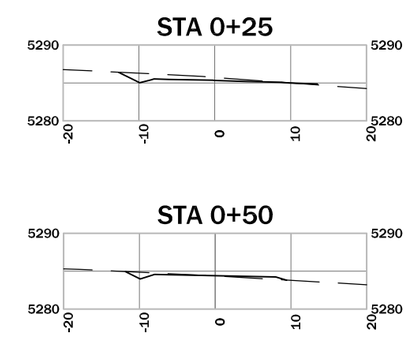
PROFILE



NW-5



NW-6



NW-7

REVISION: DATE:	BY:	DESC:

DRAWN BY:	TJF
DESIGNED BY:	TJF/ACW
CHECKED BY:	ACW
APPROVED BY:	ACW
PROJECT NO:	16801
DATE:	07-12-12

DISPLAYED AS:	
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	INT. FT.
SOURCE:	PIONEER

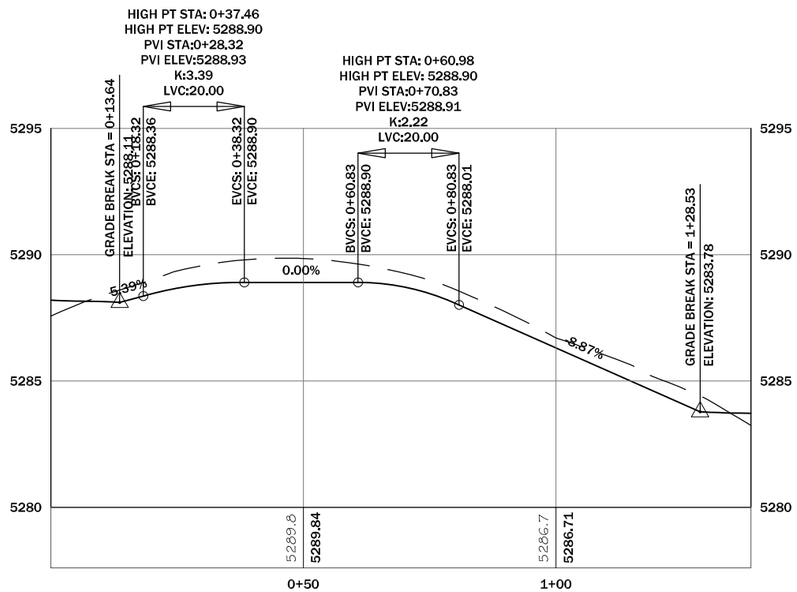
SCALE IN FEET
0

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

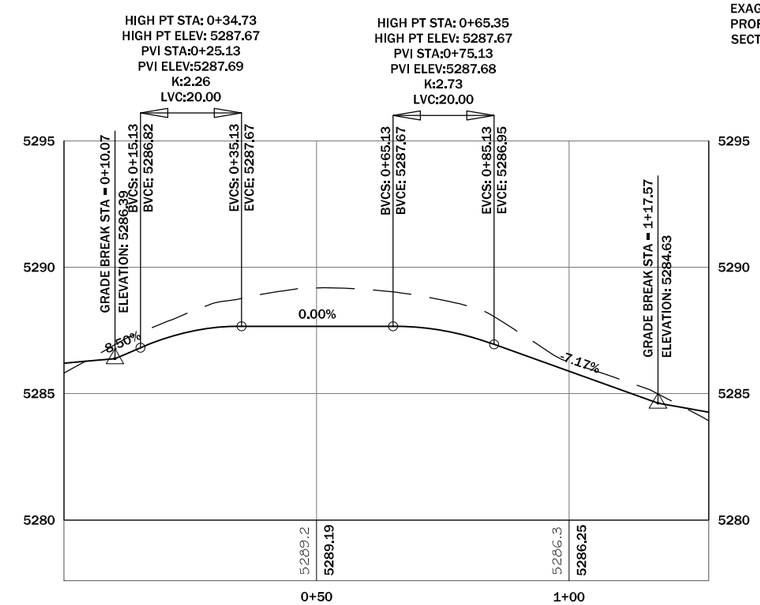
NW-5 THRU NW-7
PROFILES AND
CROSS-SECTIONS

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252

7/11/2012 10:01:23 AM P:\HELENADATA\FWP\NEWLAN CRK FAS - 16801\DRAWINGS\DESIGN\NEWLAN-DE-PLN-004-12.DWG



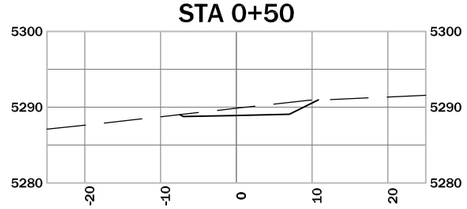
PROFILE



EXAGGERATED SCALE = 5X
PROFILES AT 1" = 30'
SECTIONS AT 1" = 20'

PROFILE

STA 0+50



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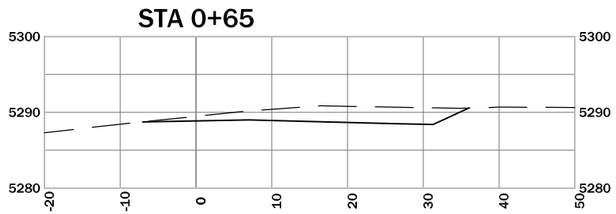

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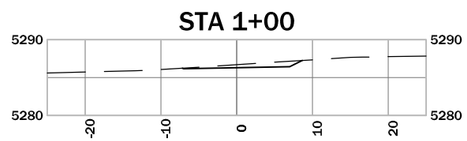
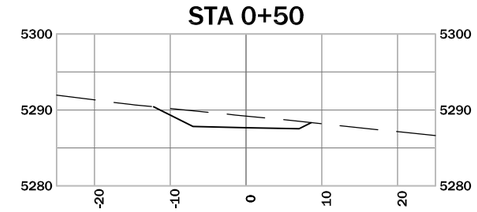


NW-8

STA 0+50



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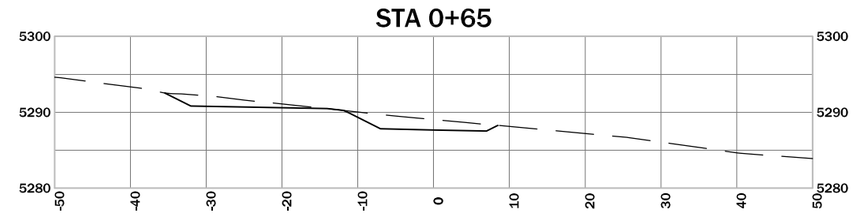

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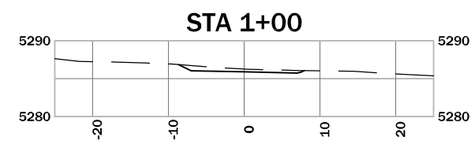

NW-9

REVISION: DATE:	BY:	DESC:

DRAWN BY: TJF
DESIGNED BY: TJF/ACW
CHECKED BY: ACW
APPROVED BY: ACW
PROJECT NO: 16801
DATE: 07-12-12

DISPLAYED AS:
COORD SYS/ZONE: MSP
DATUM: NAD 83
UNITS: INT. FT.
SOURCE: PIONEER

SCALE IN FEET
0

MONTANA FISH, WILDLIFE & PARKS
NEWLAN CREEK RESERVOIR
FISHING ACCESS SITE IMPROVEMENTS
FWP PROJECT #7113714

NW-8 & NW-9
PROFILES &
CROSS-SECTIONS

PIONEER TECHNICAL SERVICES, INC.
201 EAST BROADWAY
HELENA, MONTANA 59601
(406) 457-8252