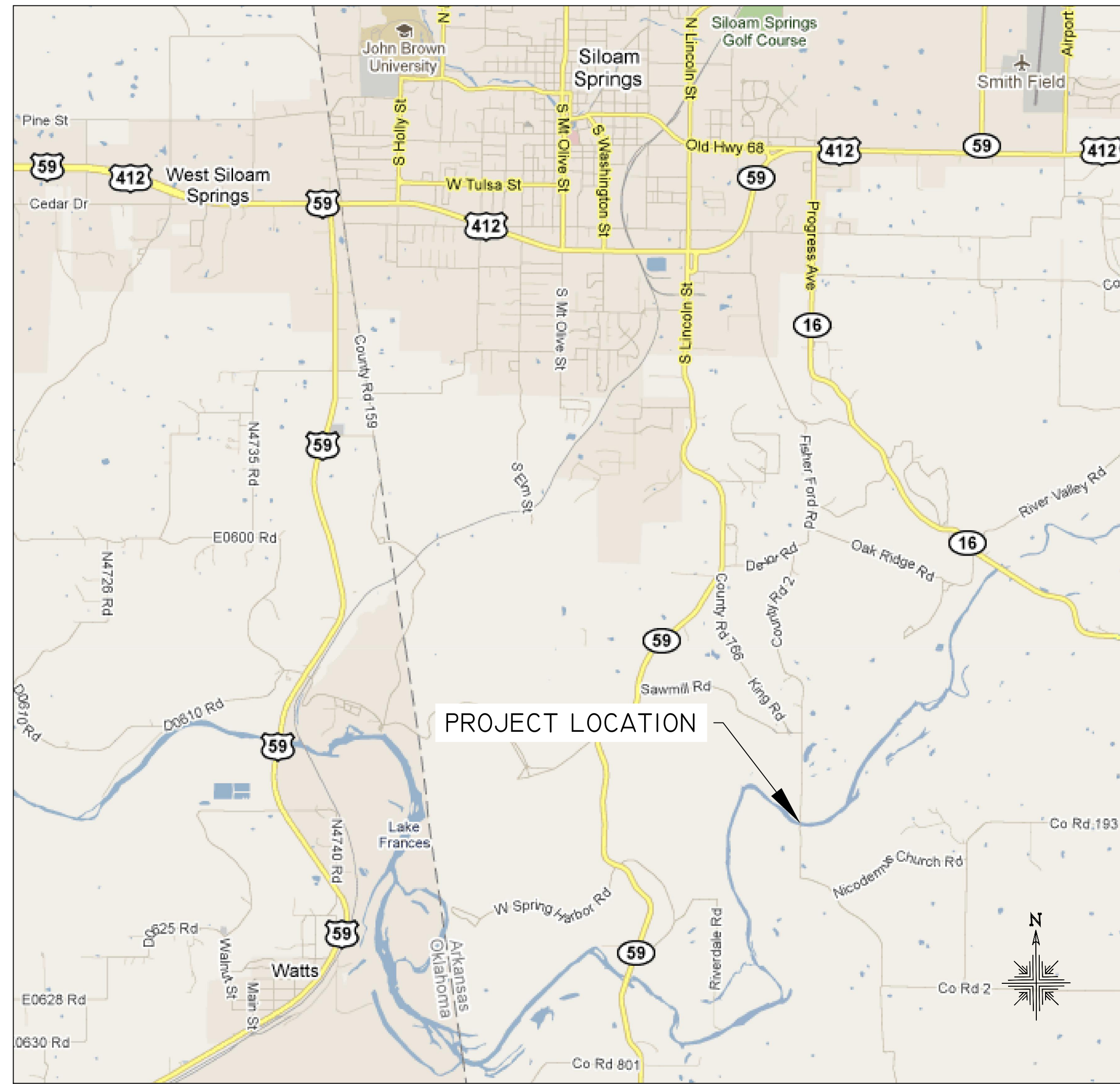


# BENTON COUNTY PERMIT REVISION NOT FOR CONSTRUCTION



**PROJECT LOCATION MAP**

**PROJECT LOCATION**  
 LATITUDE 36° 7'23.75"N  
 LONGITUDE 94°30'58.82"W

**TABLE OF CONTENTS**

1. LOCATION MAP AND TABLE OF CONTENTS
2. PROJECT OVERVIEW PLAN
3. DIMENSION AND SITE LAYOUT PLAN
4. TYPICAL DETAILS
5. SPECIFICATIONS AND NOTES

**PROJECT OWNER:** CITY OF SILOAM SPRINGS  
 C/O DAVID CAMERON  
 PO Box 80  
 SILOAM SPRINGS, AR 72761

**PROPERTY OWNER:** FISHER FORD, LLC  
 AKA WALTON FAMILY FOUNDATION  
 C/O ROB BROTHERS  
 PO Box 1860  
 BENTONVILLE, AR 72712-1860

**ENGINEER:** GARY M. LACY, P.E.  
 RECREATION ENGINEERING AND PLANNING  
 485 ARAPAHOE AVE.  
 BOULDER, CO 80302  
 303-545-5883  
 INFO@BOATERPARKS.COM

**ADJACENT PROPERTY OWNERS**

1. \_\_\_\_\_ GARDENER, STEVEN WADE AND CATHERINE ANN  
 21265 SAWMILL RD. SILOAM SPRINGS, AR 72761
2. \_\_\_\_\_ HOUSTON, LOUIS B  
 21721 SAWMILL RD. SILOAM SPRINGS, AR 72761
3. \_\_\_\_\_ STONER, MARY LOU  
 19836 PINE RIDGE VILLAGE RD. SILOAM SPRINGS, AR 72761
4. \_\_\_\_\_ ORCUTT REVOCABLE TRUST, ROBIN R TRUSTEE  
 15117 HIGHWAY 43 N, SILOAM SPRINGS, AR 72761
5. \_\_\_\_\_ GL HILL, LTD  
 415 2ND ST., INDIAN ROCKS BEACH, FL 33785-2569

**PROJECT PARCEL LEGAL DESCRIPTIONS**

**PARCEL 18-13173-001**

PART OF THE EAST HALF (E½) OF THE EAST HALF (E½) OF THE NORTHEAST QUARTER (NE¼) OF SECTION 29, TOWNSHIP 17 NORTH, RANGE 33 WEST, BENTON COUNTY, ARKANSAS, AND BEING MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE NE CORNER OF SAID SECTION 29; THENCE ALONG THE EAST LINE OF SAID E½ OF THE E½ OF THE NE¼ S00°10'21"W 393.22 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING ALONG SAID EAST LINE S00°10'21"W 2256.79 FEET TO THE SOUTH LINE OF SAID E½ OF THE E½ OF THE NE¼; THENCE ALONG SAID SOUTH LINE N89°43'17"W 660.85 FEET TO THE WEST LINE OF SAID E½ OF THE E½ OF THE NE¼; THENCE ALONG SAID WEST LINE N00°05'24"E 2255.35 FEET; THENCE S89°50'47"E 664.10 FEET TO THE POINT OF BEGINNING, CONTAINING 1,494,593.87 SQUARE FEET OR 34.31 ACRES, MORE OR LESS, AND SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS AND RESTRICTIVE COVENANTS OF RECORD OR FACT.

\*\*\*CONFIRM ACREAGE WITH COUNTY RECORDS AND SURVEYOR WHICH LIST ACREAGE AS 33.92 ACRES.

**PARCEL 18-13187-001**

A PART OF THE EAST HALF (E½) OF THE EAST HALF (E½) OF THE SOUTHEAST QUARTER (SE¼) OF SECTION 29, TOWNSHIP 17 NORTH, RANGE 33 WEST, BENTON COUNTY, ARKANSAS, AND BEING MORE PARTICULARLY DESCRIBED AS:

BEGINNING AT THE EAST ¼ QUARTER OF SECTION 29; THENCE ALONG THE EAST LINE OF SAID E½ OF THE E½ S00°10'21"W 273.42 FEET; THENCE N83°14'24"W 106.89 FEET; THENCE N73°05'19"W 201.03 FEET; THENCE N57°57'05"W 105.63 FEET; THENCE N50°13'49"W 109.40 FEET; THENCE N63°33'59"W 31.35 FEET; THENCE N55°58'33"W 66.70 FEET; THENCE N61°16'35"W 34.64 FEET; THENCE N78°33'40"W 58.11 FEET TO THE NORTH LINE OF SAID E½ OF THE E½; THENCE ALONG SAID NORTH LINE S89°43'17"E 643.62 FEET TO THE POINT OF BEGINNING, CONTAINING 104,006.11 SQUARE FEET OR 2.39 ACRES, MORE OR LESS, AND SUBJECT TO ALL RIGHTS-OF-WAY, EASEMENTS AND RESTRICTIVE COVENANTS OF RECORD OR FACT.

## WHITewater AND HABITAT IMPROVEMENTS

ILLINOIS RIVER, SILOAM SPRINGS, ARKANSAS

LOCATION MAP AND TABLE OF CONTENTS  
 PRELIMINARY (NOT FOR CONSTRUCTION)

**DRAFT**

**PROJECT OWNER:**  
 CITY OF SILOAM SPRINGS  
 C/O DAVID CAMERON  
 PO Box 80  
 SILOAM SPRINGS, AR 72761

DESIGNED: SS  
 DRAFTED: AR  
 CHECKED: GL, SS  
 PLOT DATE: FEB 27, 2013  
 REVISIONS:

SHEET NUMBER:

1

SHEET 1 OF 5

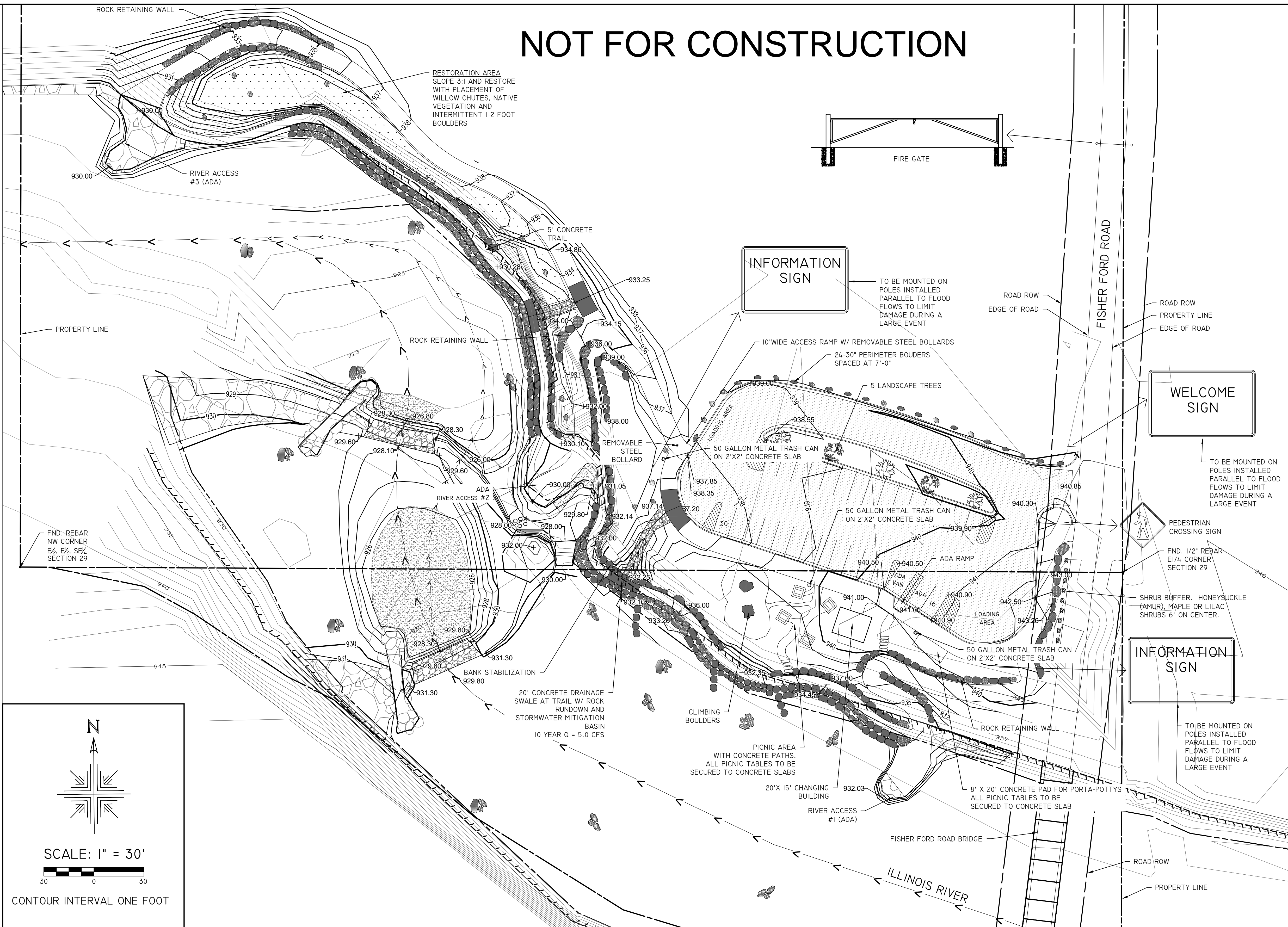


RECREATION ENGINEERING AND PLANNING  
 485 ARAPAHOE AVE.  
 BOULDER | CO | 80302  
 WWW.BOATERPARKS.COM

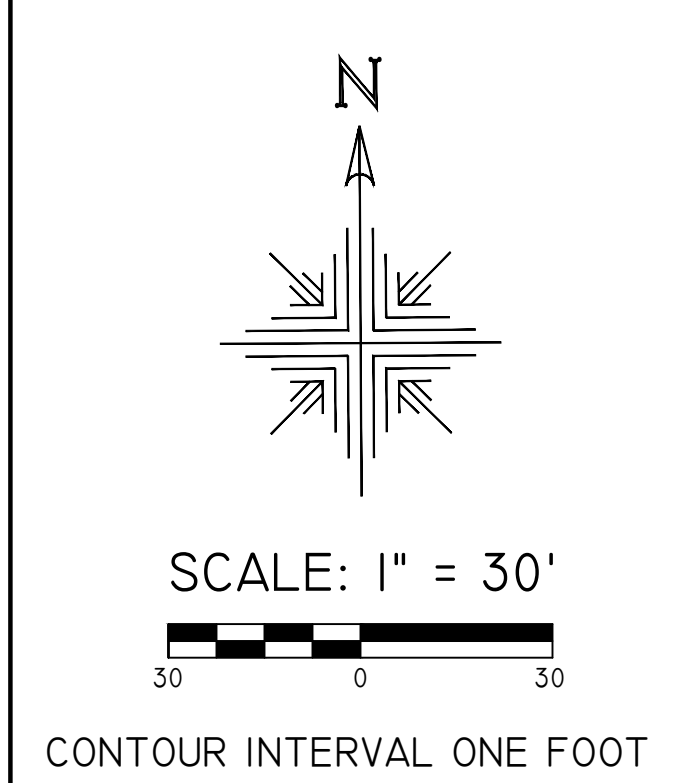
# NOT FOR CONSTRUCTION

## LEGEND

- EXISTING CONTOUR LINES
- DESIGN CONTOUR LINES
- INSTREAM STRUCTURE (BY OTHERS)
- BANK STABILIZATION/RETAINING WALL
- THALWEG AND DIRECTION OF FLOW
- ORDINARY HIGH WATER MARK
- ORDINARY LOW WATER MARK
- RESTORATION AREA



- GENERAL NOTES:**
1. ALL ELEVATIONS GIVEN IN FEET ABOVE SEA LEVEL (NAVD 1988).
  2. ROCK FILL/HATCH AND VEGETATIVE IMAGES SHOWN FOR ILLUSTRATIVE PURPOSES. NOT TO SCALE.
  3. MINOR CHANGES MAY BE MADE BY AN RWE REPRESENTATIVE.
  4. AN RWE REPRESENTATIVE SHALL BE PRESENT DURING CONSTRUCTION OF KEY PORTIONS OF THE PROJECT.
  5. THE BATHYMETRIC SURVEY WAS COMPLETED ON OCTOBER 12, 2010 BY RECREATION ENGINEERING AND PLANNING. THE MEAN FLOW ON THIS DAY FOR USGS 07195430 ILLINOIS RIVER SOUTH OF SILOAM SPRINGS, ARKANSAS WAS 185 CUBIC FEET PER SECOND. THE LOWEST MEAN MONTHLY FLOW FOR THIS GAUGE IS DURING AUGUST WHEN FLOWS AVERAGE 246CFS. BASED ON THIS INFORMATION, REP USED THE DAY OF SURVEY WATER SURFACE ELEVATION AS AN APPROXIMATION OF THE ORDINARY LOW WATER LINE.
  6. THE CITY OF SILOAM SPRINGS IS RESPONSIBLE FOR ALL MAINTENANCE AND REPLACEMENT OF LANDSCAPE BUFFERS, SIGNAGE, GATES, STORMWATER DRAINAGE SYSTEM, ALL TRAILS AND ACCESS POINTS AND PARKING LOT MAINTENANCE. IN ADDITION, THE CITY IS RESPONSIBLE FOR ALL TRASH REMOVAL AND MAINTENANCE OF PORTA-POTTY FACILITIES AND MANAGEMENT OF ALL OF THESE RESOURCES DURING FLOODING CONDITIONS.
  7. BASE FLOOD ELEVATION FOR THIS PROJECT IS 946.5 FEET AS SHOWN IN THE FLOOD DETERMINATION REPORT COMPLETED BY RECREATION ENGINEERING AND PLANNING, MARCH 2013.
  8. SCOPE OF THIS PLAN SET INCLUDES THE 5' CONCRETE TRAIL ALONG THE RIVER AT THE ORDINARY HIGH WATER MARK (OHWM) AND ALL IMPROVEMENTS UPLAND. ALL INSTREAM IMPROVEMENTS UP TO THE OHWM ARE TO BE COMPLETED BY RECREATION ENGINEERING AND PLANNING.



## WHITewater AND HABITAT IMPROVEMENTS

ILLINOIS RIVER, SILOAM SPRINGS, ARKANSAS

PROJECT OVERVIEW PLAN  
PRELIMINARY - NOT FOR CONSTRUCTION

**DRAFT**

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C/O DAVID CAMERON  
PO Box 80  
SILOAM SPRINGS, AR 72761

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PLOT DATE: FEB 27, 2013  
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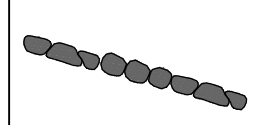
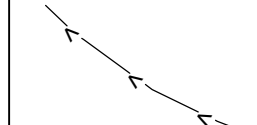
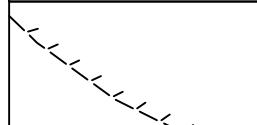
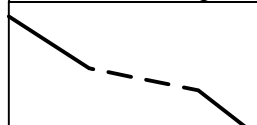
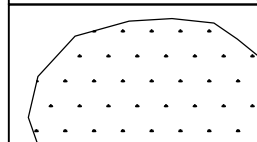
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**2**  
SHEET 2 OF 5



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BOULDER | CO | 80302  
WWW.BOATERPARKS.COM

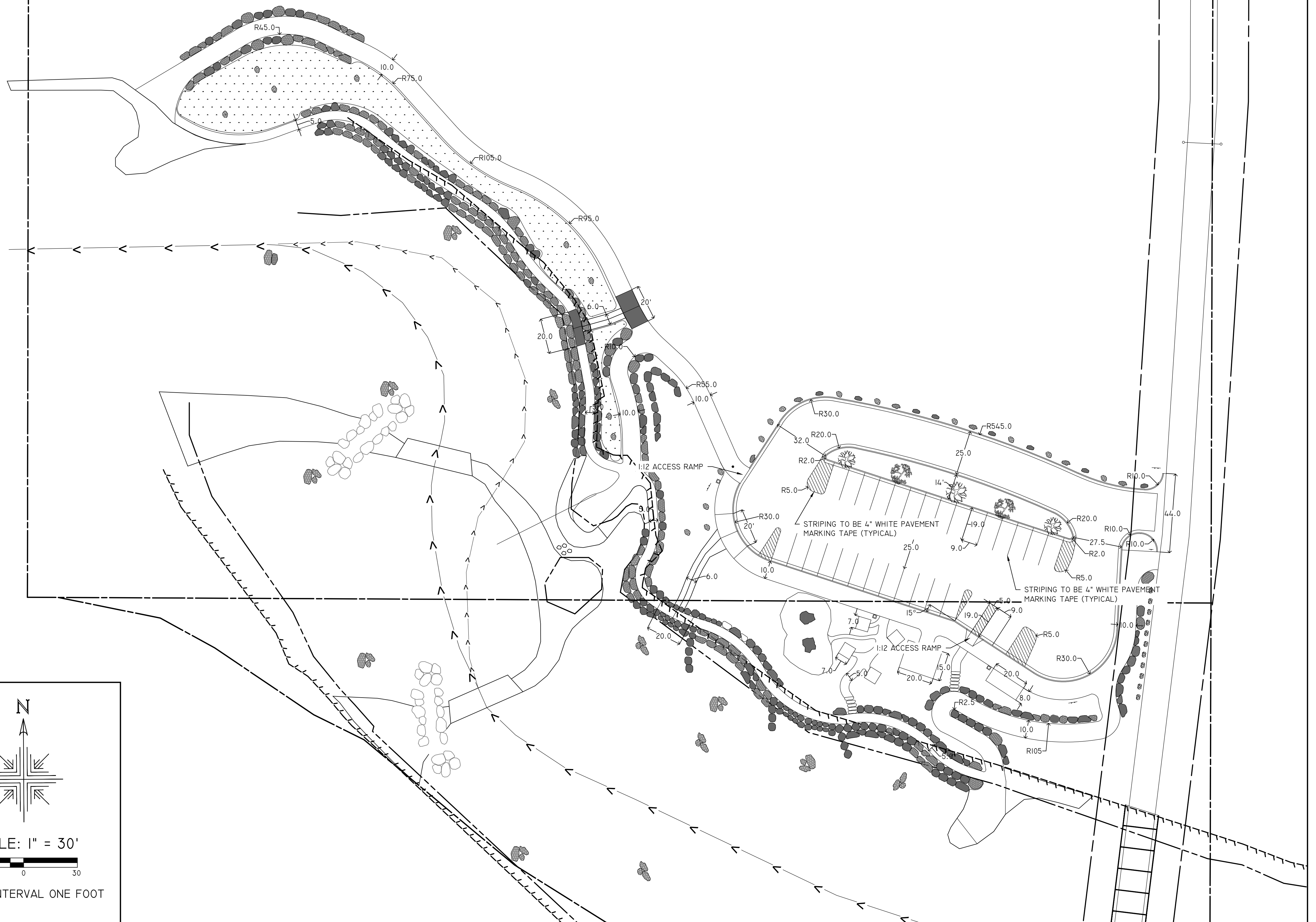
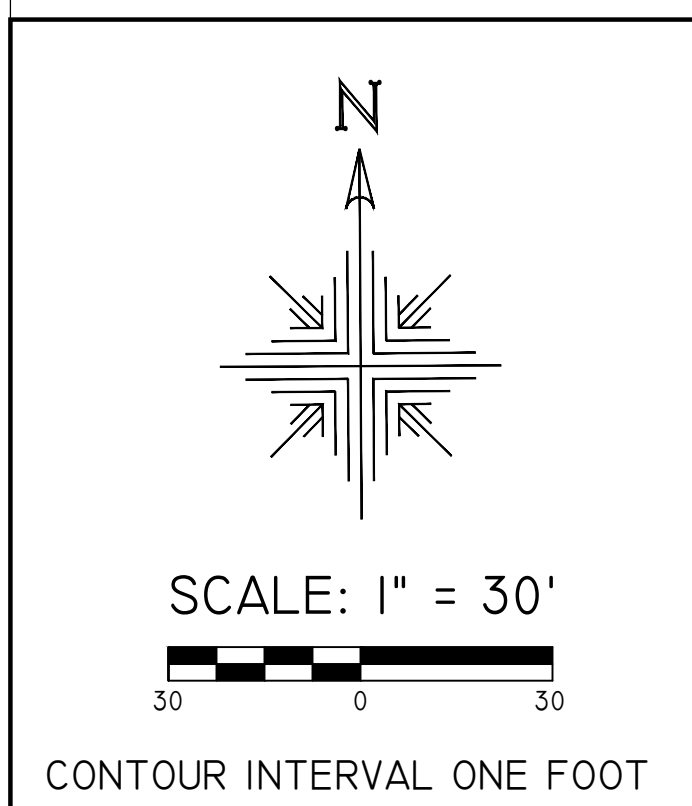
NOT FOR CONSTRUCTION

LEGEND

- BANK STABILIZATION/  
RETAINING WALL 
- THALWEG AND DIRECTION  
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- ORDINARY HIGH WATER MARK 
- ORDINARY LOW WATER MARK 
- RESTORATION AREA 

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WHITewater AND HABITAT IMPROVEMENTS

ILLINOIS RIVER, SILOAM SPRINGS, ARKANSAS

DIMENSION AND SITE LAYOUT PLAN  
PRELIMINARY - NOT FOR CONSTRUCTION

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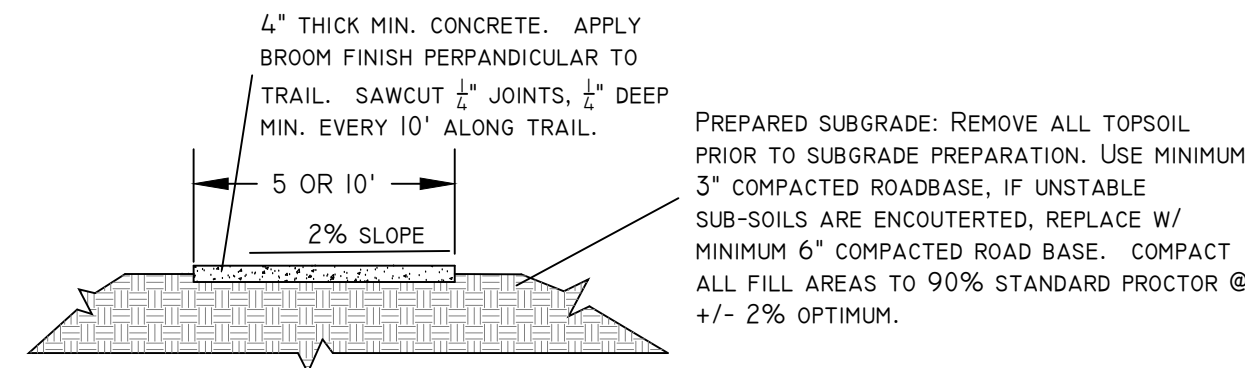
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PLOT DATE: FEB 27, 2013  
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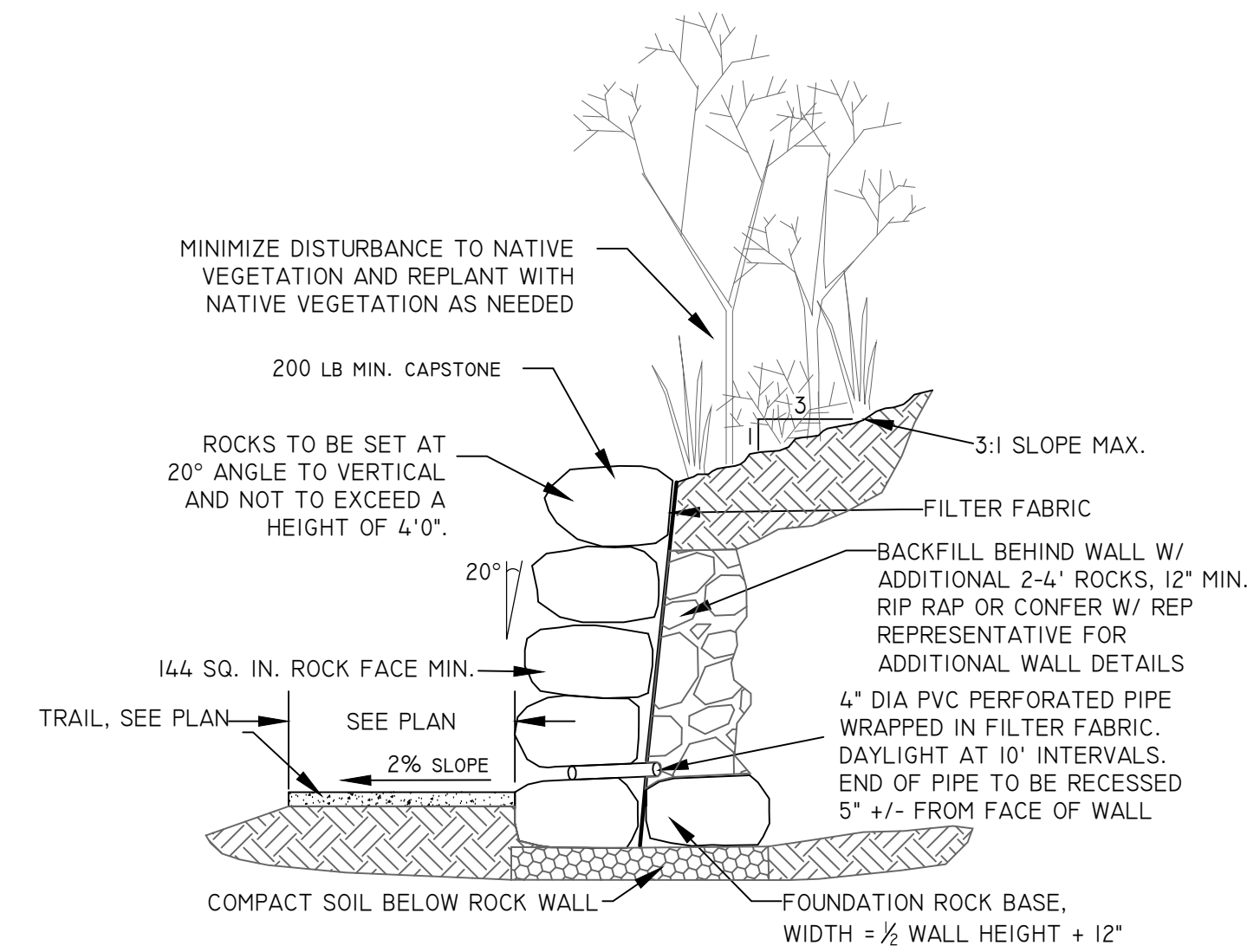
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SHEET 3 OF 5

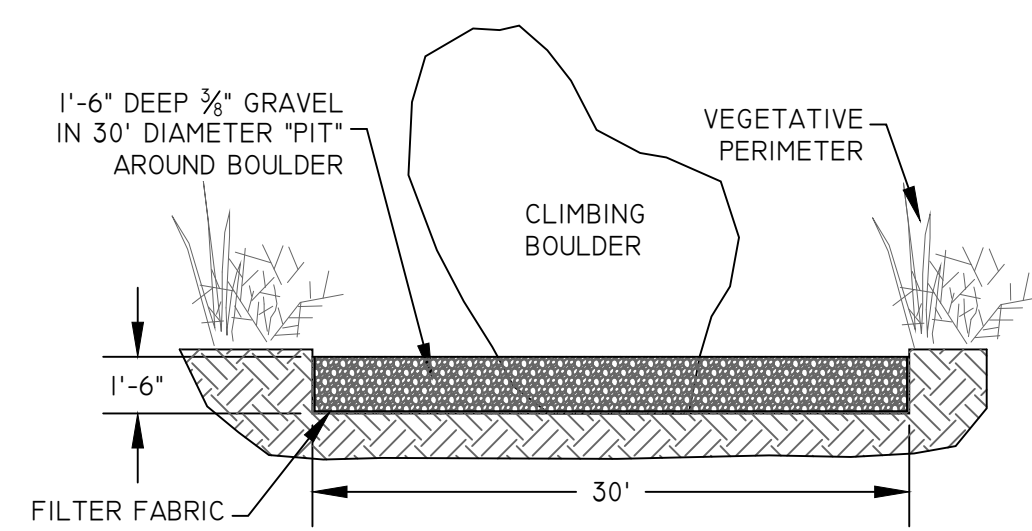
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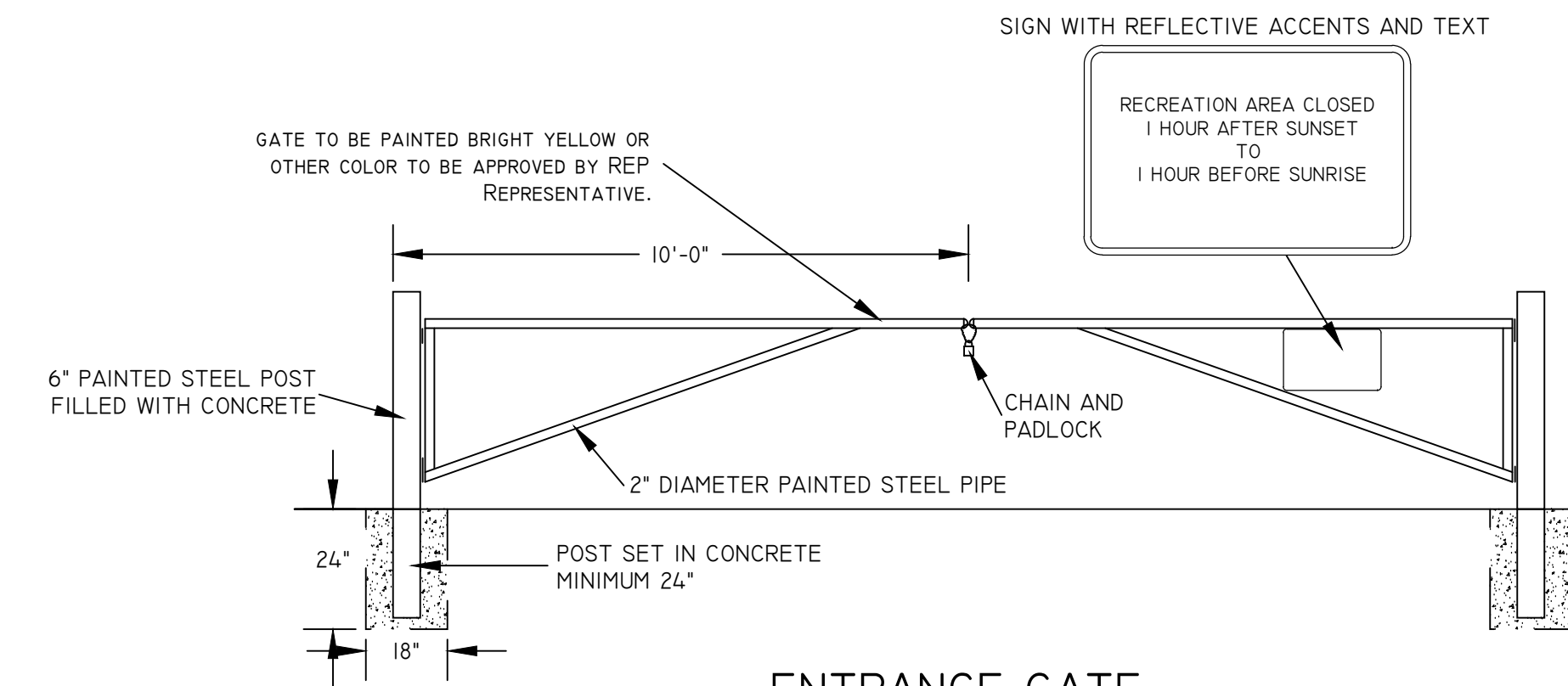
TYPICAL CONCRETE TRAIL SECTION



DRY STACK ROCK WALL  
N.T.S

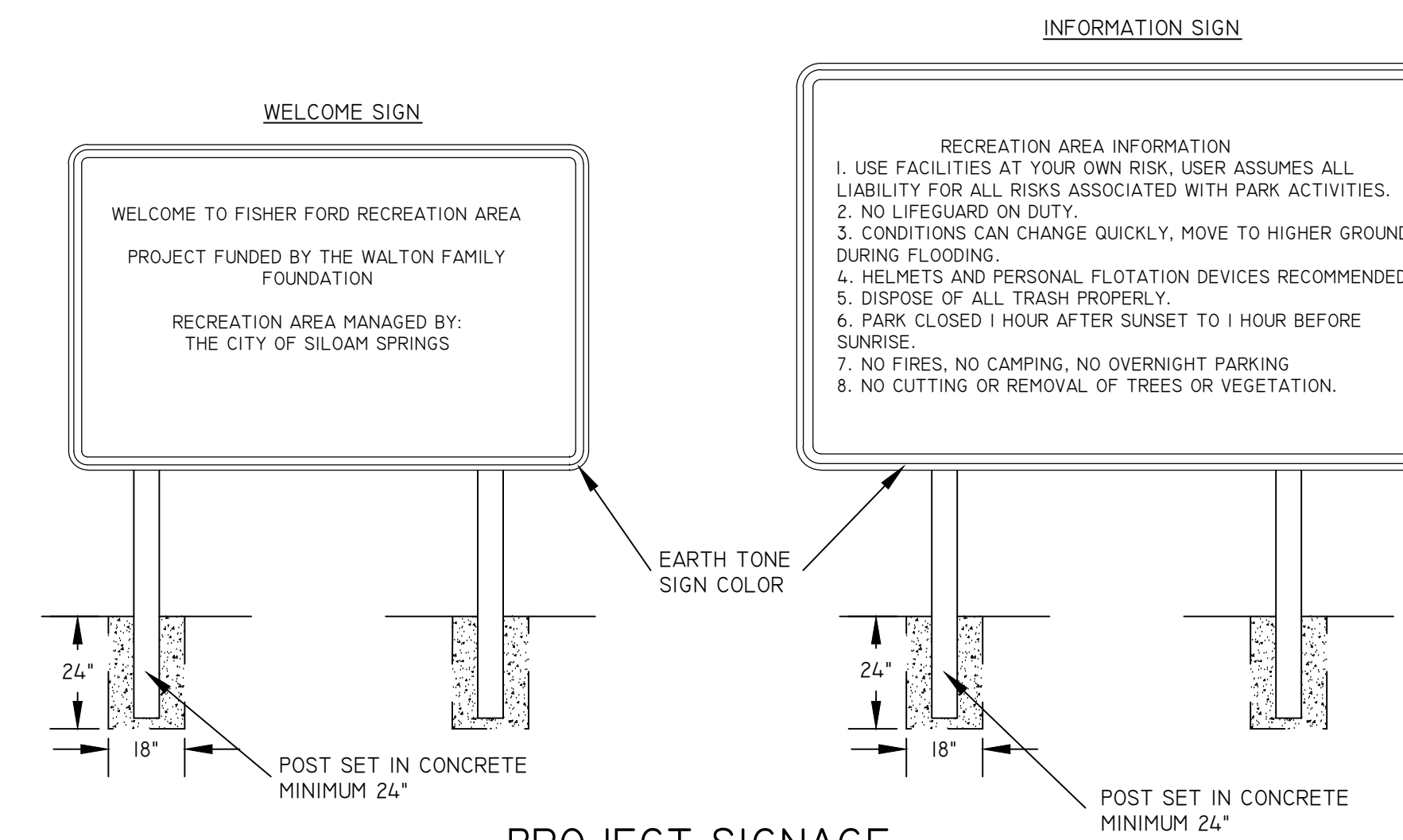


CLIMBING BOULDER W/ GRAVEL PIT  
N.T.S

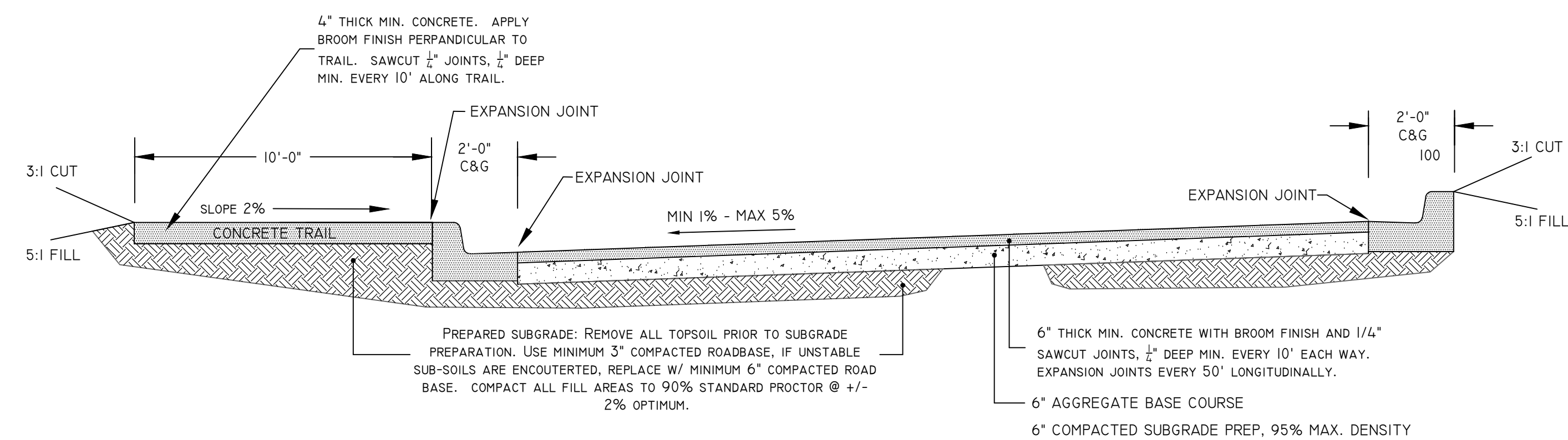


ENTRANCE GATE

NOTE:  
CONFER WITH AN REP REPRESENTATIVE AND THE OWNER'S REPRESENTATIVE FOR THE FINAL SIGN TEXT PRIOR TO ORDERING OR FABRICATING ANY SIGNS.



PROJECT SIGNAGE



TYPICAL PARKING LOT SECTION  
N.T.S



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## WHITewater AND HABITAT IMPROVEMENTS

ILLINOIS RIVER, SILOAM SPRINGS, ARKANSAS

TYPICAL DETAILS  
PRELIMINARY - NOT FOR CONSTRUCTION

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SHEET NUMBER:

4

SHEET 4 OF 5

# NOT FOR CONSTRUCTION

- OVERSIGHT
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS AND PROJECT DRAWINGS APPLICABLE TO THE PROJECT AND SHALL CONFORM TO THE REGULATIONS, STANDARDS AND SPECIFICATIONS FOR THE SUBDIVISION, CONVEYANCE, DEVELOPMENT AND IMPROVEMENT OF UNINCORPORATED LAND IN BENTON COUNTY, REVISED APRIL, 2011.
  - ALL EXISTING TOPOGRAPHIC SURVEY DATA AND UTILITY LOCATIONS SHOWN ON THESE PLANS HAS BEEN OBTAINED AND CERTIFIED BY OTHERS. RIVERWISE ENGINEERING, HAS UNDERTAKEN NO FIELD VERIFICATION OF THIS INFORMATION, MAKES NO REPRESENTATION PERTAINING THERETO, AND THEREFORE ASSUMES NO RESPONSIBILITY OR LIABILITY.
  - THE CONTRACTOR SHALL CONFINE HIS OPERATIONS TO THE CONSTRUCTION LIMITS OF THE PROJECT AND IN NO WAY SHALL ENCROACHMENT OCCUR ONTO ADJACENT PROPERTIES UNLESS LEGAL EASEMENTS ARE OBTAINED. ALL FILL AND CUT SLOPES SHALL BE SETBACK FROM THE PROPERTY LINE IN ACCORDANCE WITH CHAPTER 70 OF THE UNIFORM BUILDING CODE. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY AGREEMENTS NECESSARY FOR DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES TO PUBLIC OR PRIVATE PROPERTY, INCLUDING UTILITIES.
  - THE DEVELOPER/CONTRACTOR SHALL MAINTAIN THE PROPER TRAFFIC CONTROL DEVICES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES DURING CONSTRUCTION.
  - THE CONTRACTOR SHALL IMPLEMENT THE NECESSARY SITE EROSION CONTROL MEASURES FOR INHIBITING DUST WIND AND AIR SEDIMENT MOVEMENT OFFSITE DURING ALL PHASES OR STAGES OF CONSTRUCTION. THESE MEASURES SHALL BE BASED ON BEST MANAGEMENT PRACTICES (BMPs).
  - THE CONTRACTOR SHALL PROVIDE AN AREA TO STORE CONSTRUCTION DEBRIS WHERE IT WILL NOT BE A NUISANCE TO THE SURROUNDING NEIGHBORHOOD. ALL DEBRIS SHALL BE CONTAINED IN SUCH A MANNER THAT WILL PREVENT SCATTERING. ALL DEBRIS, INCLUDING TREES AND UNDERGROWTH SHALL BE DISPOSED OF PROPERLY WITHIN THE LANDFILL. ALL DEBRIS SHALL BE REMOVED FROM THE SITE PRIOR TO FINAL SITE INSPECTION.
  - RIVERWISE ENGINEERING IS TO BE NOTIFIED PRIOR TO ANY PLAN CHANGES OR ON-SITE DESIGN MODIFICATIONS. ALL PLAN CHANGES MUST BE APPROVED BY A RIVERWISE ENGINEERING REPRESENTATIVE.
  - RIVERWISE ENGINEERING WAIVES ANY AND ALL RESPONSIBILITY AND ARE NOT LIABLE FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS SPECIFICATIONS AND THE DESIGN INTENT THEY CONVEY, FOR PROBLEMS WHICH ARISE FROM OTHERS OR OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW RIVERWISE ENGINEERING'S GUIDANCE WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES OR CONFLICTS.
  - THE CONSTRUCTION SURVEYOR SHALL VERIFY ALL BUILDING, PARKING AND SIDEWALK LOCATIONS AS WELL AS PROPOSED GRADES AND INVERT ELEVATIONS, FLOW LINES, ALIGNMENTS, SETBACKS AND TOPOGRAPHY PRIOR TO CONSTRUCTION. ALL PLACEMENTS, ALIGNMENTS, ELEVATIONS, DIMENSIONS, AND THE ORIENTATION OF ALL ELEMENTS SHOWN IN THE PLANS MUST BE APPROVED BY THE ENGINEER OR ENGINEER'S REPRESENTATIVE (RWE ENGINEER)
  - WORK SHALL NOT COMMENCE UNTIL AFTER THE DATE OF THE ON-SITE PRE-CONSTRUCTION MEETING WHICH MUST BE ATTENDED BY REPRESENTATIVES OF THE ENGINEER, PROJECT OWNER, CONTRACTOR, AND ANY SUB-CONTRACTORS. IF WORK DOES NOT BEGIN IMMEDIATELY FOLLOWING THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL PROVIDE REPRESENTATIVES OF THE PROJECT OWNER, THE RWE ENGINEER, ANY SUB-CONTRACTORS, AND RELEVANT AGENCIES TWO WEEKS NOTICE PRIOR TO ANY CONSTRUCTION ACTIVITIES.

- ROCK
- QUALITY
  - INDIVIDUAL STONE BOULDERS SHALL BE FREE FROM CRACKS, SEAMS AND OTHER DEFECTS CONDUCIVE TO ACCELERATED WEATHERING
  - IRREGULAR OR HIGHLY ANGULAR ROCKS SHALL NOT BE USED IN FINISHING LOCATIONS. THE BOULDERS SHALL BE ROUNDED TO SUB-ROUNDED IN SHAPE. AT A MINIMUM EXPOSED ROCK SHOULD HAVE ONE FLAT SURFACE PLACED UP FOR EASE OF USE BY THE PUBLIC.
  - THE ROCK SHALL HAVE THE FOLLOWING PROPERTIES:
    - BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) NOT LESS THAN 2.5.
    - ABSORPTION NOT MORE THAN 2% BY WEIGHT.
    - THE BULK SPECIFIC GRAVITY AND ABSORPTION SHALL BE DETERMINED BY ASTM METHOD C-127.

- BOULDER PLACEMENT
- STONE BOULDERS SHALL BE PLACED AS SHOWN ON THE DRAWINGS WITHOUT ANY GAPS, SO THAT EACH BOULDER TOUCHES THE NEXT ONE.
  - EACH STONE SHALL BE PLACED TO THE FINAL POSITION BE SUITABLE EQUIPMENT FOR HANDLING MATERIAL AND, IF NECESSARY, THE STONE SHALL BE PICKED UP AND REPOSITIONED.
  - DRAGLINE BUCKETS AND SKIPS SHALL NOT BE USED FOR PLACEMENT OF BOULDERS. IT SHOULD BE ANTICIPATED THAT RE-HANDLING OF INDIVIDUAL STONES, AFTER INITIAL PLACEMENT WILL BE REQUIRED TO ACHIEVE REQUIRED SLOPES, GRADES, ELEVATIONS AND POSITION.
  - THE ENGINEER SHALL OBSERVE ALL ROCK PLACEMENT AND APPROVE OF THE PLACEMENT BEFORE BOULDERS ARE CHINKED OR BACKFILLED, UNLESS EXPLICIT EXCEPTION IS MADE BY THE ENGINEER BEFORE PLACEMENT.

- SITE PREPARATION- ROCKS PLACED IN BANK STONE TERRACING
- ALL ROCK PLACED AS BANK TERRACING OR STABILIZATION SHALL BE KEVED INTO THE BANKS, IN UNDISTURBED SUBGRADE OR APPROPRIATE COMPACTED SUBGRADE FILL, A MINIMUM OF 12 INCHES IN THE HORIZONTAL AND VERTICAL DIRECTION.
  - ALL STONE TERRACING SHALL BE BACKFILLED WITH CLEAN FILL AND REVEGETATED AS NOTED IN THE DRAWINGS.
  - ALL ROCKS SHALL BE PLACED AS DIRECTED BY RWE REPRESENTATIVE.
- PERMITS
- AS NOTED OR DEFINED IN ALL RELEVANT PERMITS, THE CONTRACTOR SHALL HAVE COPIES OF ANY REQUIRED PERMITS ON SITE AT ALL TIMES. THE PERMITS MUST BE DISPLAYED IN A CONSPICUOUS LOCATION.
  - THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL STIPULATIONS AND CONDITIONS OF ALL REQUIRED PERMITS.

- UTILITIES
- THE CONTRACTOR SHALL LOCATE AND MARK ALL UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND SHALL NOT RELY SOLELY ON THESE CONSTRUCTION PLANS FOR UTILITY LOCATIONS. CONTRACTOR MUST COMPLETE ALL UTILITY LOCATES PRIOR TO CONSTRUCTION. FOR UTILITY LOCATES CONTACT ARKANSAS ONE CALL 1-800-482-8998. DAMAGE TO ANY EXISTING UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - NO EXCAVATION SHALL OCCUR IN THE AREA SURROUNDING A UTILITY CROSSING. NO IMPROVEMENTS THAT MAY CAUSE SCOUR OR EROSION, ARE TO BE PLACED IN THE VICINITY OF A UTILITY CROSSING.
  - IF UTILITIES ARE IDENTIFIED WITHIN THE PROJECT AREA, A MINIMUM BUFFER OF NO DISTURBANCE IS TO BE MAINTAINED ON ALL UTILITY CROSSINGS AS DEFINED AND APPROPRIATELY MARKED IN THE FIELD.

- BASE COURSE
- THE BASE COURSE AND SURFACING SHALL BE PLACED ON A FIRM FOUNDATION THAT IS THOROUGHLY STABLE. THE TOP SIX INCHES OF THE SUBGRADE SHALL BE COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DENSITY OBTAINED BY THE STANDARD METHOD OF TEST FOR THE COMPACTION AND DENSITY OF SOILS, AASHTO DESIGNATION T-99. AREAS OF SOFT UNSUITABLE MATERIAL SHALL BE COMPLETELY EXCAVATED AND REPLACED WITH GOOD EMBANKMENT MATERIAL.
  - THE BASE COURSE SHALL BE EITHER GRAVEL OR CRUSHED STONE. THE BASE COURSE MAY BE DELETED FOR PORTIONS OF A ROAD WHERE THE SUBGRADE MEETS THE REQUIREMENTS AS OUTLINED BELOW FOR COMPACTION, GRADATION, AND SHAPING. CONSTRUCTION METHODS - THE BASE COURSE MATERIAL SHALL BE PLACED ON A COMPLETED AND APPROVED SUBGRADE THAT HAS BEEN BLADED SMOOTH AND UNIFORM, AND CONFORMING TO THE TYPICAL SECTION SHOWN. BASE COURSE MATERIAL SHALL NOT BE PLACED ON A FROZEN SUBGRADE. THE BASE COURSE SHALL BE PLACED ON THE SUBGRADE AND SPREAD UNIFORMLY TO SUCH DEPTH AND LINES THAT WHEN COMPACTED, IT WILL HAVE THE THICKNESS, WIDTH AND CROSS SECTION SHOWN ON THE PLANS. WHEN THE COMPACTED DEPTH OF THE BASE COURSE AS SHOWN ON THE TYPICAL SECTION EXCEEDS SIX INCHES, THE MATERIAL SHALL BE PLACED IN TWO OR MORE COURSES OF APPROXIMATELY EQUAL DEPTHS. NO COURSE SHALL EXCEED SIX INCHES IN COMPACTED THICKNESS. EACH COURSE SHALL BE COMPACTED BY ANY SATISFACTORY METHOD THAT WILL OBTAIN A DENSITY OF 95% OF A LABORATORY RUN PROCTOR DENSITY TEST ON THE MATERIAL.

- BLACKTOP SPECIFICATIONS
- ASPHALTIC CONCRETE HOT MIX SURFACE COURSE - THIS ITEM SHALL CONSIST OF AN ASPHALTIC CONCRETE WEARING SURFACE COMPOSED OF A COMPACTED MIXTURE OF MINERAL

AGGREGATE AND ASPHALT CEMENT, CONSTRUCTED ON THE COMPLETED AND ACCEPTED BASE COURSE. THE WEARING SURFACE SHALL BE COMPOSED OF A MIXTURE OF MINERAL AGGREGATE AND ASPHALT CEMENT AS SHOWN FOR TYPE II, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, ARKANSAS STATE HIGHWAY COMMISSION, EDITION OF 1978. THE MINERAL AGGREGATE FOR ASPHALTIC CONCRETE HOT MIX SURFACE COURSE SHALL CONSIST OF A COMBINATION OF COARSE AGGREGATE, FINE AGGREGATE AND MINERAL FILLER. THE COARSE AGGREGATE SHALL BE CRUSHED GRAVEL OR CRUSHED STONE. THE COARSE AGGREGATE IS THAT FRACTION RETAINED ON THE NUMBER 10 SIEVE. CRUSHED STONE SHALL CONSIST OF HARD, TOUGH, DURABLE FRAGMENTS OF ROCK OF UNIFORM QUALITY, FREE FROM AN EXCESS OF SOFT PARTICLES. GRAVEL SHALL CONSIST OF HARD, DURABLE PEBBLES FREE FROM AN EXCESS OF SOFT PARTICLES. CRUSHED GRAVEL IS THAT GRAVEL OF WHICH ONE HUNDRED PERCENT OF THE PARTICLES HAVE BEEN PRODUCED FROM LARGER PARTICLES. ASPHALT CEMENT SHALL BE PREPARED FROM PETROLEUM, SHALL BE HOMOGENOUS, FREE FROM WATER, SHALL NOT FOAM WHEN HEATED TO 34.7 DEGREES F., AND SHALL COMPLY WITH SPECIFICATIONS SHOW IN STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, ARKANSAS STATE HIGHWAY COMMISSION, EDITION OF 1978. THE MIXTURE SHALL BE COMPACTED WHILE IN A PLASTIC CONDITION AS SOON AFTER BEING SPREAD AS IT WILL BEAR THE WEIGHT OF THE ROLLERS WITHOUT UNDUE DISPLACEMENT. NO ROLLER SHALL BE OPERATED AT A SPEED GREATER THAN 3 MILES PER HOUR. THE FINISHED SURFACE COARSE SHALL BE COMPACTED TO NOT LESS THAN 92% OF THE THEORETICAL DENSITY. HOT MIX BITUMINOUS MATERIAL SHALL NOT BE MIXED OR PLACED WHEN THE AIR TEMPERATURE IS BELOW 40 DEGREES F. OR WHEN THERE IS FROST ON THE BASE OR SUBGRADE.

- CONCRETE SPECIFICATIONS
- ALL CONCRETE SHALL BE 4000PSI AND SHALL MEET THE FOLLOWING REQUIREMENTS:
    - CONTRACTOR SHALL SUBMIT FOR REVIEW THE PROPOSED MIX DESIGN.
    - AN APPROVED CURING COMPOUND SHALL BE USED ON ALL FLAT WORK.
    - MAXIMUM SPACING OF CONTRACTION JOINTS IN CURB AND GUTTER SHALL BE 10 FEET.
    - SIDEWALKS, DRIVE APRONS AND HANDICAP RAMPS CONTRACTION JOINTS SHALL PROVIDE PANELS AS NEARLY SQUARE AS PRACTICAL. IN RECTANGULAR PANELS, THE LONG SIDE SHALL BE NO LONGER THAN 1-1/2 TIMES AS LONG AS THE SHORT SIDE.
    - ALL SIDEWALK CONTRACTION JOINTS SHALL BE TOOLED UNLESS SAW CUT OR STRIP LOCK IS APPROVED. THE GROOVE OF CONTRACTION JOINTS SHALL BE 1/4 OF THE SLAB THICKNESS. THE RADIUS AT THE TOP OF THE GROOVE SHALL BE AS SMALL AS POSSIBLE.
    - CONTRACTION JOINTS SHALL BE PROVIDED AT RE-ENTRANT CORNERS. FIXED OBJECTS ISOLATED WITHIN AN INDIVIDUAL SECTION SHALL BE ISOLATED FROM THE MAIN SLAB WITH EXPANSION MATERIAL. TWO JOINTS SHALL RADIATE FROM THE OBJECT AND SHALL BE PERPENDICULAR TO THE JOINTS OF THE INDIVIDUAL SECTION.
    - EXPANSION JOINTS SHALL BE INSTALLED IN SIDEWALKS AT APPROXIMATELY 100' INTERVALS.
    - EXPANSION JOINTS SHALL BE INSTALLED WHEN ABUTTING CONCRETE OR A FIXED STRUCTURE UNLESS SHOWN OTHERWISE IN THE PROJECT DRAWINGS OR AS APPROVED BY THE COUNTY PUBLIC WORKS DIRECTOR OR COUNTY ENGINEER.
    - EXPANSION JOINT MATERIAL SHALL BE 1/2" THICK AND SHALL EXTEND THE FULL DEPTH OF THE CONTACT SURFACE.
  - ALL PAVING GRADES SHALL NOT EXCEED A 5% SLOPE. ALL SIDEWALK GRADES SHALL NOT EXCEED A 5% SLOPE IN THE LONGITUDINAL DIRECTION. ALL SIDEWALK CROSS SLOPES SHALL NOT EXCEED 2%. THE MINIMUM SLOPE IN ALL DIRECTIONS TO PREVENT POOLING OF WATER IS 1%. ALL SLOPES SHALL MEET THESE CRITERIA UNLESS NOTED ON THE PLANS.
  - THE COUNTY MAY PROVIDE SOME TESTING FOR THEIR OWN BENEFIT IN ADDITION TO TESTING REQUIRED BY THE OWNER/DEVELOPER AND/OR CONTRACTOR. DEVELOPER/CONTRACTOR SHALL NOTIFY OWNER AND/OR COUNTY SUFFICIENTLY IN ADVANCE OF OPERATIONS AND SHALL PROVIDE ACCESS TO THE WORK TO BE TESTED. IF TESTS FAIL TO MEET SPECIFIED REQUIREMENTS, THE CONTRACTOR SHALL PROMPTLY REMEDY SUCH DEFICIENCIES, AND SHALL BE RESPONSIBLE TO THE OWNER FOR THE COSTS OF ANY RETESTING DEEMED NECESSARY TO VERIFY CORRECTION OF THE DEFICIENCY.



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## WHITEWATER AND HABITAT IMPROVEMENTS

ILLINOIS RIVER, SILOAM SPRINGS, ARKANSAS

SPECIFICATIONS AND NOTES  
PRELIMINARY - NOT FOR CONSTRUCTION

**DRAFT**

PROJECT OWNER:  
CITY OF SILOAM SPRINGS  
C/O DAVID CAMERON  
PO Box 80  
SILOAM SPRINGS, AR 72761

DESIGNED: SS  
DRAFTED: AR  
CHECKED: GL, SS  
PLOT DATE: FEB 27, 2013  
REVISIONS:

SHEET NUMBER:

5

SHEET 5 OF 5