AP 33518

RECEIVED
AUG 19 2019
Water Protection Program

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

FORM W - CONCENTRATED ANIMAL FEEDING OPERATION (CAFO) OPERATING PERMIT APPLICATION

FOR OFFICE USE ONLY	
CHECK NUMBER: 2469	
DATE RECEIVED 8-19-19	FEE SUBMITTED $150.00

Complete all applicable sections for type of permit being applied for. Instructions for completing the form are located at the end of the form. Sign, date and return the form and all requested documents along with a check for the appropriate permit fee to the Missouri Department of Natural Resources. Make a copy of this completed form and keep it with your Nutrient Management Plan.

PART 1 – PERMIT OWNERSHIP AND CONTACT INFORMATION

1.1 OPERATION NAME: Arnold Farms	CURRENT PERMIT NUMBER: MO-65 10598	COUNTY
PHYSICAL ADDRESS: 350 Co Hwy 405	LEGAL DESCRIPTION: Sec.: Twn.: Rng.:	TELEPHONE NUMBER WITH AREA CODE
CITY: Silveston MO 63801	STATE	ZIP CODE
1.2 OWNER (PROVIDE LEGAL NAME): Tim Arnold & Calvin Arnold	EMAIL ADDRESS: Timarnold1965@yahoo.com	
MAILING ADDRESS: 350 Co Hwy 405		TELEPHONE NUMBER WITH AREA CODE: 57
CITY: Silveston MO	STATE: MO	ZIP CODE: 63801
1.3 CONTINUING AUTHORITY (IF DIFFERENT THAN THE OWNER): Same		
MAILING ADDRESS		TELEPHONE NUMBER WITH AREA CODE
CITY	STATE	ZIP CODE

PART 2 – PERMIT TYPE AND PERMIT ACTION

2.1 PERMIT TYPE

☐ NPDES Site Specific Permit
Request review of draft permit prior to public notice. ☐ Yes ☐ No

☐ NPDES General Permit (MOG01)

☑ State No-Discharge General Permit (MOGS1)

2.2 PERMIT ACTION*

☑ New Permit ☐ Renewal
☐ Modification ☐ Ownership Transfer

PREVIOUS OWNERS NAME

ADRESS

CITY STATE ZIP CODE

SIGNATURE DATE

*See instructions for additional requirements and documents for the request permit action.

PART 3 – DESIGN CAPACITY FOR MANURE STORAGE AND ANIMALS OF EACH CAFO FEATURE

3.1 STORAGE STRUCTURE TYPES, AMOUNT OF STORAGE, AND AMOUNT OF MANURE GENERATED PER YEAR.

List All Manure Storage Structures at each CAFO Feature		Dry Manure Handling System		Wet Manure Handling System			
CAFO Feature	Storage Structure Type(s)	Design Dry Process Waste (tons/yr.)	Days of Storage	Total Storage Capacity (gal)	Design Wastewater per Year (gal./yr.)	Days of Storage	Design Flow MGD
001	F						
002							
003							
004							
005							

3.2 LIST EACH TYPE OF ANIMAL IN CONFINEMENT AND THE NUMBER OF EACH ANIMAL TYPE.

CAFO Feature	Animal Category #1	Animal Numbers	Animal Category #2	Animal Numbers	Animal Category #3	Animal Numbers
001	10	276,000				
002						
003						
004						
005						

PART 4 – OPERATIONAL INFORMATION

4.1 OPERATIONAL INFORMATION (SEE INSTRUCTIONS)
SIC Code(s) 0251 CAFO Class Size 1 C

4.2 Is this an "Export Only" operation? ☐ Yes ☑ No

MO 780-2112 (06-14)

Completing PARTS 5 - 11 will meet the requirements of a Nutrient Management Plan (NMP) for an export only operation.

PART 5 – MANURE STORAGE

5.1 Do all manure storage structures have adequate storage, and operated and maintained as no discharge? ☑ Yes ☐ No

PART 6 – ANIMAL MORTALITY

6.1 PEMANENT METHOD OF DISPOSING OF ROUTINE ANIMAL MORTALITIES.

☑ Composting ☐ Rendering ☐ Send to a Landfill ☐ Incineration ☐ Other (Describe)

6.2 DESCRIBE METHOD OF MORTALITY HANDLING AND STORAGE THROUGH ALL PHASES TO FINAL DISPOSAL. (EXAMPLE: MORTALITIES ARE COMPOSTED WITHIN 24 HOURS OF DEATH AND FINISHED COMPOST PRODUCT IS STORED UNDER ROOF UNTIL LAND APPLIED). ALSO DESCRIBE THE TYPE OF COMPOST STRUCTURE USED, IF APPLICABLE.

Mortalis Composted within 24 Hrs. of Death

PART 7 – DIVERSION OF CLEAN WATER

7.1 Is clean storm water diverted from the production area? ☑ Yes ☐ No

7.2 IF YES, DESCRIBE CONTROLS AND MEASURES USED TO DIVERT STORM WATER.

Graded To Control Storm water To advert away from building!

7.3 IF NO, DESCRIBE HOW CONTAMINATED STORMWATER IS CONTAINED AND INCLUDE THE STORAGE CAPACITY OF THE CONTAINMENT IF NOT PREVIOUSLY PROVIDED.

PART 8 – PREVENT DIRECT CONTACT OF ANIMALS WITH SURFACE WATERS

8.1 Do the animals have access to waters of the state within the production area? ☐ Yes ☑ No

8.2 LIST MEASURES USED TO PREVENT CONFINED ANIMAL FORM HAVING DIRECT CONTACT WITH WATERS OF THE STATE.

Animals are Housed in Buildings at all Times

PART 9 – CHEMICAL HANDLING

9.1 Check the appropriate boxed below to indicate method for handling and disposal of chemicals used by the operation:

☑ Chemicals are stored, handled, and disposed of according to manufacturer labels.

☐ Chemical storage and handling areas are protected from precipitation and runoff, and any spillage is contained within these areas.

☐ Emergency procedures and equipment are in place to contain and clean up chemical spills.

☐ Equipment wash areas are designed and constructed to prevent contamination of surface waters.

☐ No chemicals are stored or handled in the production area.

PART 10 – MANURE ANALYSIS TESTING

10.1 LIST EACH TYPE OF MANURE SOURCE. (I. e. MANURE, LITTER, COMPOST, WASTE WATER.)

Litter & Compost

10.2 DESCRIBE PROCEDURES FOR ENSURING EACH MANURE SOURCE IS TESTED ANNUALLY.

Samples collected during clean out each year!

PART 11 – RECORD KEEPING

11.1 Are records of all inspections, manure transfers, discharges and land application maintained? ☑ Yes ☐ No

PART 12 – SIGNATURE

NAME Tim Arnold	TITLE Owner
SIGNATURE	DATE 8-9-2019

Part 13 - Engineer Certification

House Bill (HB) 28, which became effective on August 28, 2013 contained provisions that changed construction permitting requirements. Construction permits are required for the construction of an earthen storage structure to hold, convey, contain, store, or treat domestic, agricultural, or industrial process wastewater. Construction of all other point source systems designed to hold, convey, contain, store, or treat domestic, agricultural, or industrial process waste must be designed by a professional engineer registered in Missouri in accordance with design regulations.

Operation Name Address City	Engineer Firm Address City State Zip Code **Allied Engineering Services** **P.O. Box 29** **Bowling Green, MO 63334**
I, Project Engineer certify that above described systems have been designed in accordance with Missouri CAFO design regulations in 10 CSR 20-8.300 PROJECT ENGINEER SIGNATURE	ENGINEER SEAL STATE OF MISSOURI JEFF ERIC BROWNING NUMBER E-28664 REGISTERED PROFESSIONAL ENGINEER

MO 780-2112 (06-14)

NARRATIVE

This facility is located in section 29, Township 27N, Range 14E, Scott County Missouri.

This proposed chicken farm will have (8) broiler barns housing 34,000 birds each and a stack house. Total birds on farm is 272,000 and total animal units are 2,176. This farm is a class IC animal feeding operation as defined by the Missouri Department of Natural Resources.

The proposed Stack House will also serve as a Mortality Composter under the same roof. The new Stack House will need to have a capacity to hold approximately 6,000 tons of litter and compost. Both the new Stack House and Mortality Composter will have a concrete floor and roof to divert storm water from the production area.

Birds are fed in the barn daily and it is estimated that the manure collected in each barn will be 6,504 tons per year. Poultry Litter will be stored in the barns and transferred to the Stack House or directly to off-farm fields during cleanout. There are 5 flocks per year per barn and the barns are "crusted out" between every second or third flock. At "crust out" approximately 250 tons of litter is removed from the surface throughout the barn as needed. The barns have plenty of storage to hold 12 months + of litter and are typically cleaned out annually.

When calculating the expected volume of litter the following was considered: Using MWPS 18 table 6 (as-excreted) the expected volume was calculated to be 9,432 tons/yr. Using MWPS 18 table 10 the expected volume was calculated to be 2,448 tons/yr. When using "like" farms actual recorded volume the expected volume was calculated to be 6,504 tons/yr which is very close to the average of the MWPS numbers so this volume was used along with the nutrient concentrations in table 10.

Land Application

The land application system will employ a litter spreading truck. The litter and finished compost will be sold to the commercial market and land applied off-farm. Records of sales will be kept to include date, quantity sold and purchaser.

Dead Animals

It is estimated that the death loss from this farm will be approximately 5% per year which corresponds to current loss numbers experienced at like operations. Dead birds will be disposed of in accordance with the Missouri Department of Agriculture regulations. Dead animals from this operation will be composted in the stack house in multiple static piles.

Clean Water Diversion

A major source of unplanned waste from animal confinement facilities comes from clean rain water coming into contact with pollutants. The pollutants that could contaminate clean rainwater are the chickens, manure, mortality compost, feed, diesel fuel, and oils and lubricants for farm machinery. All of these pollutants are kept under roof. They do not come into contact with clean rain water or add to the contaminated waste on the farm.

A common way for clean water to become contaminated is by contacting ventilated dust on the ground around the barn. To treat any rainwater that becomes contaminated by this dust, the barn will be surrounded by grass. The grass acts as a filter which reduces runoff and settles out any solids. The grass also helps prevent erosion around the barns, which reduces suspended solids in the runoff. If runoff from the barn area becomes contaminated, it must travel through at least 60' of grass filter before it enters any surface water.

The following practices will help ensure that clean water does not become contaminated:

- Follow good housekeeping, clean up any spilled feed or other pollutants sources.
- Check the exposed foundations and roofs of the barns weekly for leaks and cracks.
- Check the feed bins and augers to make sure that feed is not spilling.

Proposed EQIP Practices for this farm include:

Practice Code 313 – Waste Storage Facility (Estimated Implementation Date February 2020)

This proposed facility will be a dry stack facility with reinforced concrete floor and concrete side walls. A roof is to be included in the installation refer to Practice Standard 367 - Roofs and Covers below. The purpose of this practice is to properly store manure and other agricultural by-products that are stackable until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.

Before Practice Installation: Manure and other agricultural by-products are not being utilized or controlled in an environmentally safe manner. The wastes are accumulating at the source. This situation poses an environmentally threat of excessive nutrients, organics and pathogens being transported into surface and groundwaters, in addition to the use of excessive amounts of fertilizers. Grass areas where forage is fed during the winter are degraded.

After Practice Installation: The practice will include a concrete slab with walls. The facility floor is reinforced concrete. Walls allow for greater storage volume. Manure and other agricultural by-products will be contained by the collection at the source, and stored temporarily at an environmentally suitable location until such time that they are disposed of or utilized in a proper manner in accordance with the nutrient management plan. Winter feeding can be done in a manner that reduces non-point source pollution of excessive nutrients, organics, and pathogens being transported into surface and groundwater resources. The old winter feeding areas will be decommissioned and grass and plants can be reestablished in those areas.

Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area.

Practice Code 316 – Animal Mortality Facility

This proposed practice will be a static pile composter for large animals, the size will need to be large enough to accommodate a tractor with standard end loader (contact the local NRCS office for size). There will be a concrete pad and side walls on three sides. Facility sizing parameters include primary and secondary composting area requirements to allow piles to be turned at least once to go into another heat cycle prior to final disposal which will be land application. The site will be located out of drainage areas, off-site water will be diverted. A roof is to be included in the installation refer to Practice Standard 367 - Roofs and Covers.

Site preparation includes topsoil removal, minimal regrading and compaction, installing gravel or sand sub base and then concrete.

Before Practice Installation: Animal mortality is done in a manner that results in non-point source pollution of excessive nutrients, organics, and pathogens being transported into surface and groundwater resources. Improper operation results in odors and spread of pathogens from incomplete composting or interaction with predators. No plan is formulated for either normal or catastrophic mortality events.

After Practice Installation: Animal mortality can be done in a manner that prevents non-point source pollution of excessive nutrients, organics, and pathogens being transported into surface and groundwater resources. Proper operation results in little to no odors, complete composting, and protection from predators to minimize pathogen survival or spreading. The overall plan covers normal and catastrophic mortality events.

Potential Associated Practices: Roofs and Covers (367), Roof Runoff Structure (558), Heavy Use Area Protection (561), Underground Outlet (620), Diversion (362), Fence (382), Critical Area Planting (342), Nutrient Management (590), Access Road (560), Structure for Water Control (587), Subsurface Drain (606).

Practice Code 367 – Roofs and Covers (Estimated Implementation Date February 2020)

This proposed practice will be a timber or steel framed roof structure with a wood sheathing, steel "sheet" or fabric-like roof. Manure, compost or agriculture by product is stored as a solid on concrete surfaces.

Associated practices include Waste Storage Facility (313), Animal Mortality Facility (316) and Roof Runoff Structure (558).

Without Practice Installation: Precipitation could enter animal waste storage and mortality compost facility. Manure is stored as a solid on concrete surfaces. Excess precipitation can cause nutrients to leach from solid manure piles leading to uncontrolled runoff as well as odor issues.

With Practice Installation: A timber or steel framed roof structure with a wood sheathing, steel "sheet" or fabric-like roof. Roof or cover will be engineered and installed in accordance with appropriate building codes and permits. It will be designed to prevent precipitation to allow proper management of animal waste streams (manure or compost streams), thus mitigating the negative factors from the "without practice installation".

Practice Code 590 – Nutrient Management (Estimated Implementation Date October 2020)

This practice implements a basic nutrient management system for manure and compost application in addition to commercial fertilizer applications. The planned NM system will meet the current 590 standard. Implementation will result in the proper rate, source, method of placement, and timing of nutrients while minimizing off-site degradation or the excessive built up of N and P. Risk assessments including PI (phosphorus index) and NI (nitrogen index) has been completed with proposed applications of manure completed based on risk results. Records demonstrating implementation of the 4 R's of the NM plan will be required along with copies of risk assessments.

Before Practice Implementation: The fertility program does not meet the 590 nutrient management standard. Soil testing and manure testing is not completed on a regular basis and applications of nutrients are not based on land grant university recommendations or a nutrient budget. Nutrients and manure solids are transported to surface waters through runoff or erosion or to groundwater through leaching in quantities that degrade water quality and limit use of intended purposes. Soil quality may be degraded by excess or inadequate nutrients.

After Practice Implementation: Plan Development • A nutrient management system that includes manure as a source has been developed to meet the NRCS 590 standard. • The development and implementation of the nutrient management plan (NMP) will benefit plant productivity and reduce off-site degradation. • A nutrient management plan has been developed for each field based on soil tests and manure test analysis along with land grant university recommendations or crop removal rates. Testing/Nutrient Data Collection • Soil testing is completed according to LGU recommendations. • The use of pre-plant soil tests will assist with the proper development of the annual nutrient budget. Applications of manure are based on risk assessments (PI - phosphorus index). • The use of post-harvest soil tests (results interpreted by crop consultant) will help establish the adequacy of the plan in meeting crop needs while minimizing P application rate and residual N. • The use of Pre side-dress soil nitrogen test (PSNT) or a Pre Top Dress Tissue test (PTDTT) when applicable prior to the rapid biomass growth of the plant will assist the producer in evaluating the mineralization of Nitrogen from manures / cover crops in providing adequate nitrogen to meet the crop requirements, thus reducing the potential for off-site impacts. Producer Activities/Equipment Needed • Records are maintained annually documenting current soil tests, manure tests, analyses, amount of application, forms and rates of nutrients for each field, including post harvest analysis. • Applications will be completed in a manner that minimizes nutrient runoff and leaching or build up of excess nutrient concentrations.

Practice Code 634 – Waste Transfer (Estimated Implementation Date May 2020)

This practice includes installation of a concrete channel that consists of a slab with curb for the entire length of the channel to enable the facility manager to direct waste to the storage facility. Water quality concerns will be addressed by preventing liquid waste from entering surface waters, and to facilitate timely land application of manure and wastewater at agronomic rates according to the CNMP. This practice addresses the potential for surface water and groundwater quality degradation.

Before Practice Installation: Waste can potentially flow uncontrolled during periods of precipitation events or cleaning operations such that water resources could be contaminated.

After Practice Installation: Installation of a concrete channel that consists of a concrete slab with curbing. The purpose is to transfer manure from one area to the waste storage facility.

Associated practices may include: 313 Waste Storage Facility for storage structures; 590 Nutrient Management for waste application; 633, Waste Recycling.

Practice Code 342 – Critical Area Planting (Estimated Implementation Date April 2020)

This practice includes establishing permanent vegetation on sites that have, or are expected to have, high erosion rates, and on sites that have physical, chemical, or biological conditions that prevent the establishment of vegetation with normal seeding/planting methods. This practice will address soil and water quality by reducing soil losses from erosion.

Before Practice Installation: Construction installation of a new practice results in bare ground without vegetation. This situation poses an environmentally threat of excessive soil, nutrients, organics and pathogens being transported into surface and groundwaters via erosion.

After Practice Installation: Vegetation is established and prevents erosion.

Potential Associated practices: 362-Diversion, 500-Obstruction Removal , 606-Subsurface Drain, 620-Underground Outlet, 450-Anionic Polyacrylamide Application.

Recorded in Scott County, Missouri

Recording Date/Time: 08/14/2019 at 01:07:10 PM
Instr #: 20193215
Book: 2019 Page: 3215
Type: WAIV
Pages: 3
Fee: $30.00 S 20190002804

TIM ARNOLD

Tara Mason
Recorder of Deeds

(Space above reserved for Recorder of Deeds certification)

1. ***Title of Document:*** Buffer Waiver Agreement
2. ***Date of Document:*** 8/14/19
3. ***Grantor(s)*** David Grubbs
4. ***Grantee(s)*** Timothy Arnold
5. ***Statutory Mailing Address(s):*** N/A
6. ***Legal Description:*** See Page 1
7. ***Reference Book and Page(s):***

(If there is not sufficient space on this page for the information required, state the page reference where it is contained within the document.)

BUFFER WAIVER AGGREMENT

I agree to waive my right to the 1,000' separation distance between my residence and the proposed animal waste storage structures and confinement buildings at the Arnold Farms Broiler operation CAFO located at 350 County Highway 405, Sikeston, MO 63801, per 10 CSR 20-6.300(5)(A).

I understand this agreement will be recorded on the chain of title of my property located at 378 County Highway 405, Sikeston, MO 63801, also known as the residence in the NW ¼, SE ¼, NW ¼, Section 29, Township 27N, Range 14E, Scott County Missouri.

_____ I am the sole owner of the residence located at this address.
(Check if applicable)

Include printed names and signature(s) of all owners, date, and notary seal (if required by county recorder).

Grantors (Neighboring homeowners granting the waiver):

Printed Name	Signature	Date
David W. Grubbs	David W. Grubbs	8-14-19

Grantees (CAFO Owners):

Printed Name	Signature	Date
Timothy E. Arnold	Timothy E. Arnold	8-14-19

Buffer waiver aggrement for Timothy E Arnord & David W Grubbs

State of Missouri

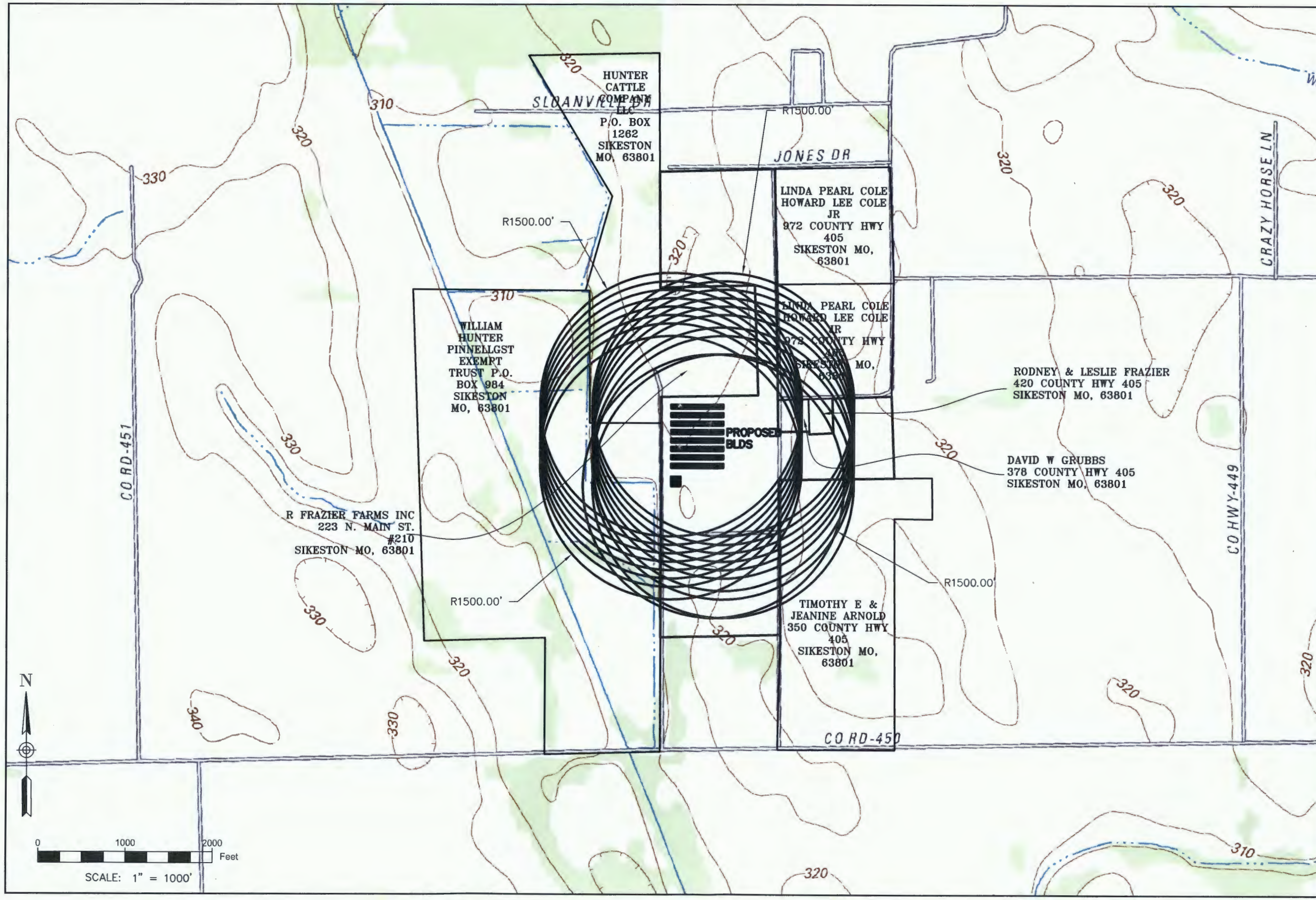
County of Scott

Subscribed and sworn to before me this 14th day of August in the year 2019.

Cynthia A Milam

(Notary)

CYNTHIA A. MILAM
My Commission Expires 12-14-20
NOTARY PUBLIC
NOTARY SEAL
SCOTT COUNTY
Commission # 12-155
STATE OF MISSOURI



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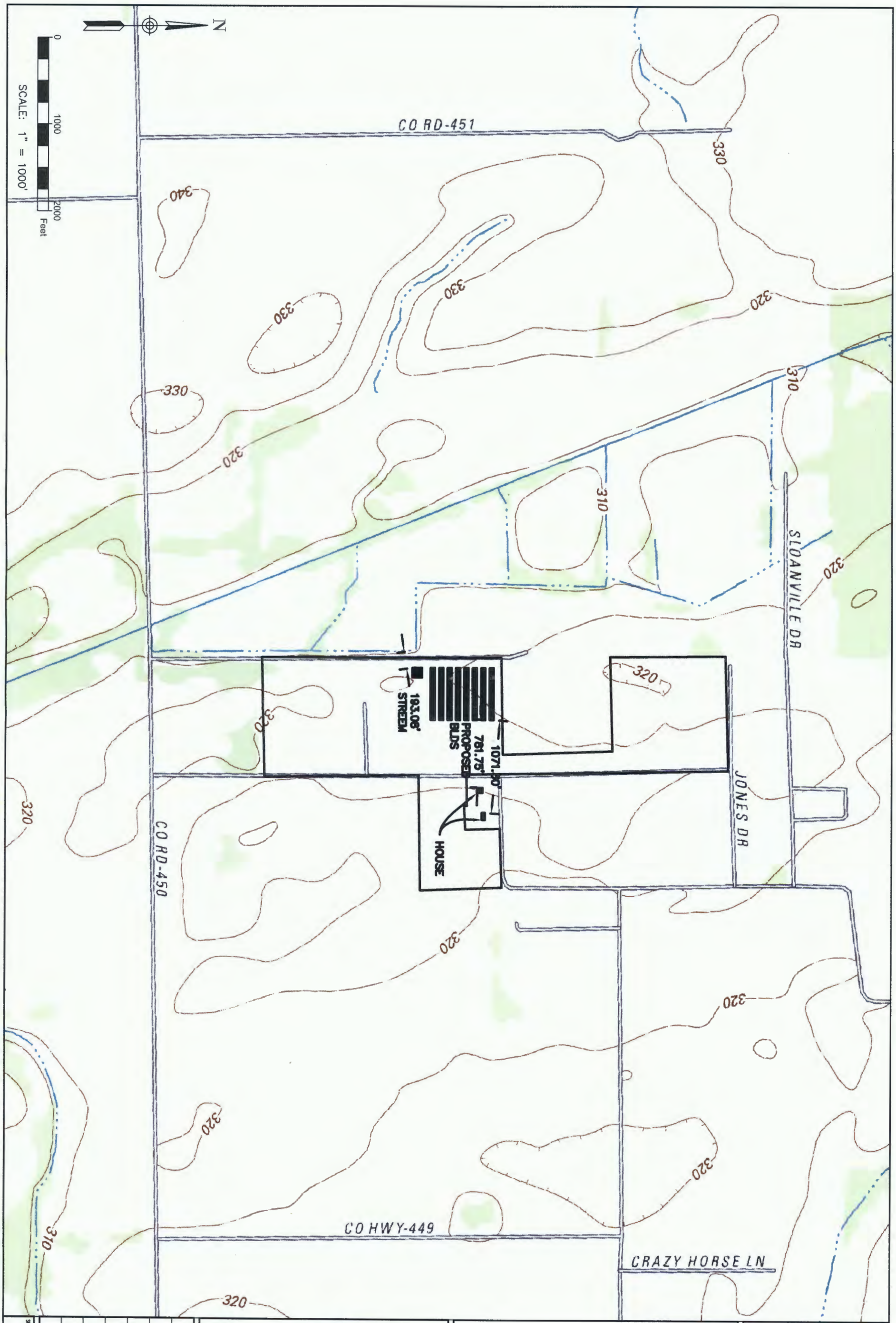
Water Protection Program

ALLIED ENGINEERING SERVICES, LLC
Engineering-Surveying-Construction
224 WEST MAIN, P.O. BOX 29
BOWLING GREEN, MO 63334
PHONE: (573) 324-6860

ARNOLD FARMS
350 CO HWY 405
SIKESTON, MO 63801

SHEET TITLE: NEIGHBOR NOTIC MAP

FILE NAME	19-3767
DRAWN BY	TRD
CHECKED BY	TRD
PROJECT ENGINEER	JEB
CONTACT OFFICE	BOWLING GREEN
DATE	8-13-19
JOB NUMBER	19-3767
SHEET NUMBER	1



ARNOLD FARMS
350 CO HWY 405
SIKESTON, MO 63801

SHEET TITLE:
TOPOGRAPHIC MAP WITH FEATURES

ALLIED ENGINEERING SERVICES, LLC

Engineering-Surveying-Construction

224 WEST MAIN, P.O. BOX 29
BOWLING GREEN, MO 63334
PHONE: (573) 324-6860

REVISED

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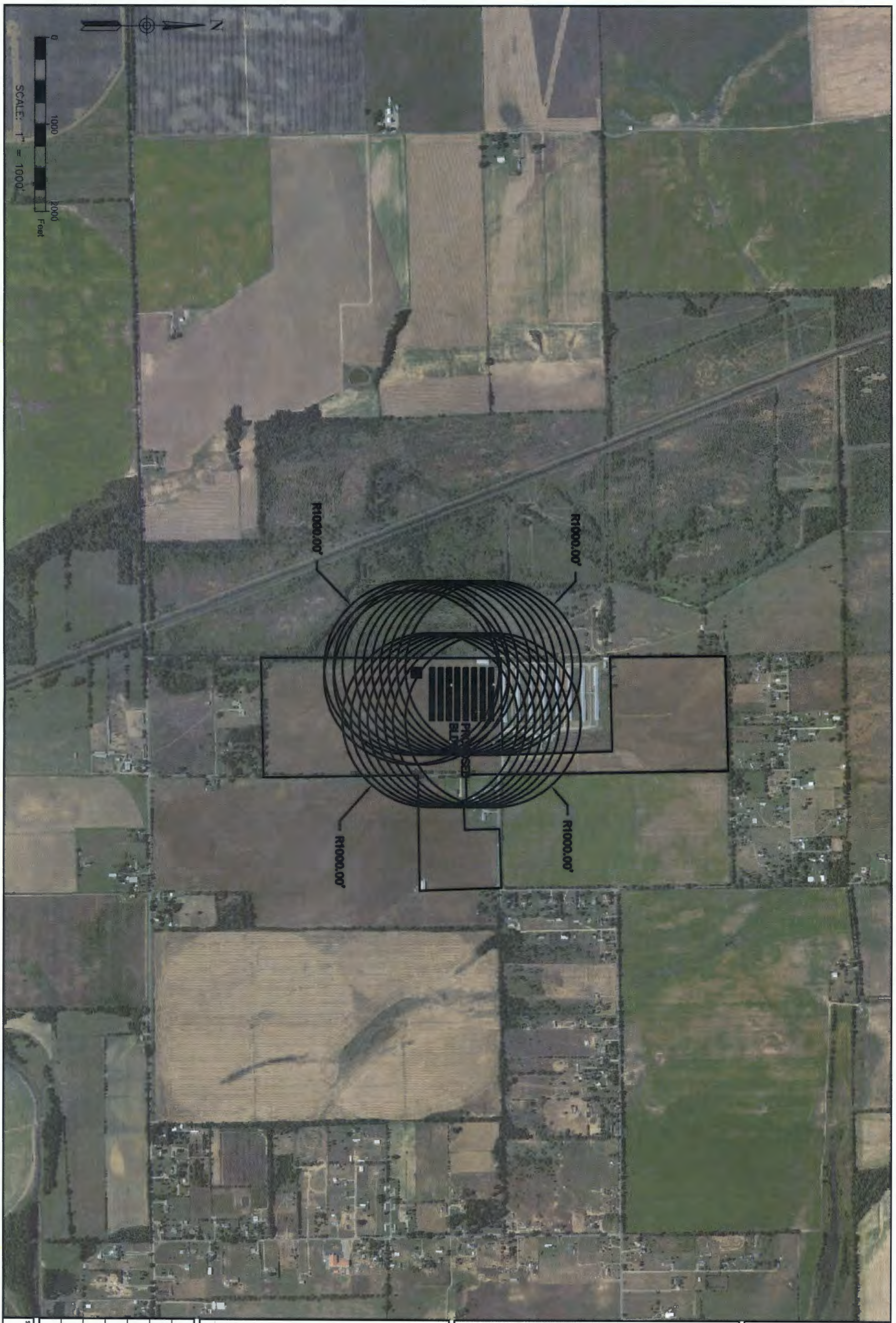

ARNOLD FARMS
350 CO HWY 405
SIKESTON, MO 63801

SHEET TITLE:
SETBACK MAP

ALLIED ENGINEERING SERVICES, LLC

Engineering-Surveying-Construction

224 WEST MAIN, P.O. BOX 29
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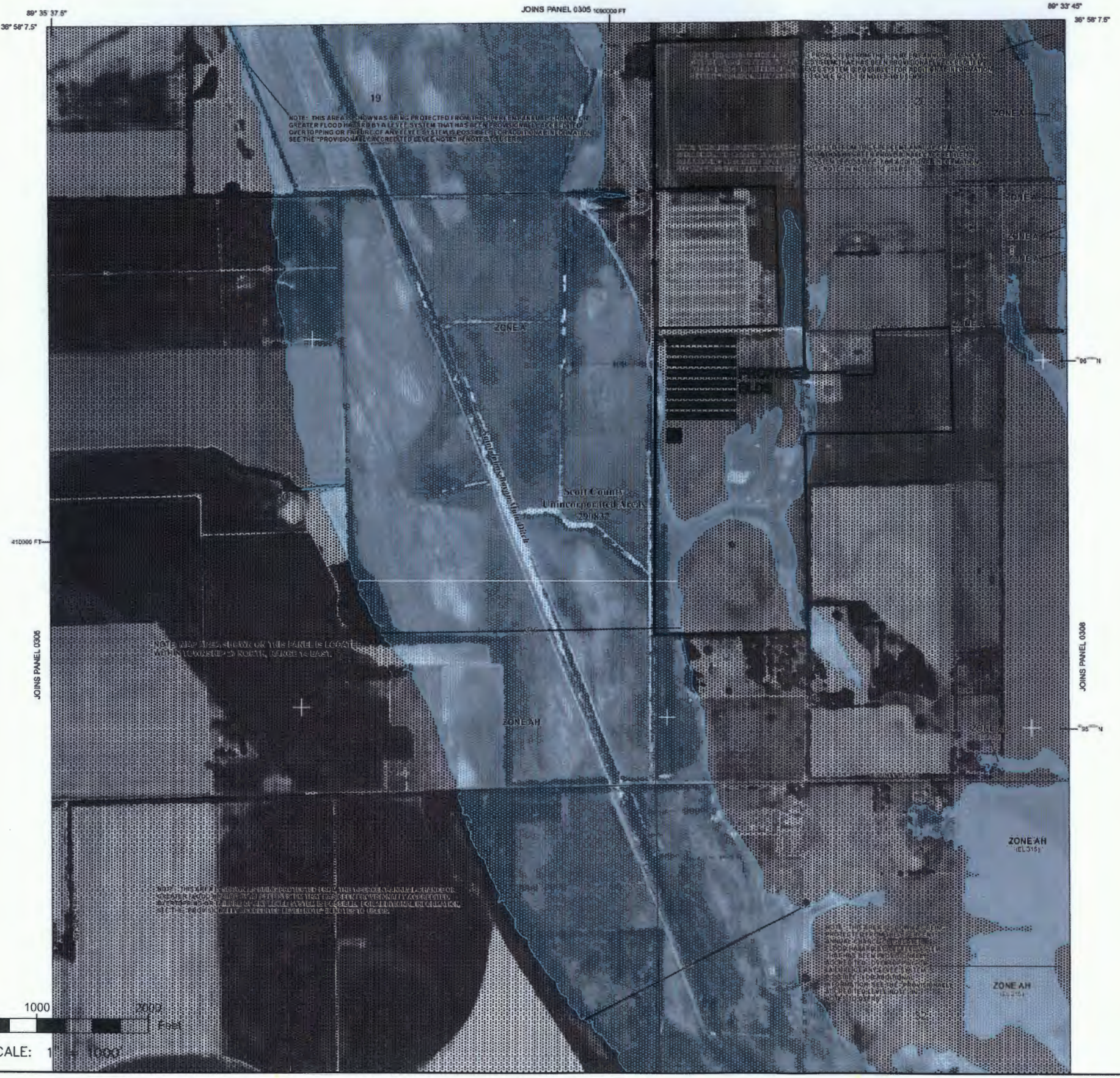

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAS)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% annual chance floodplain boundary
0.2% annual chance floodplain boundary
Floodway boundary
Zone D boundary
boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
CBRS and OPA boundary
International, State, or County boundary
Corporate, Extraterritorial Jurisdiction, or Urban Growth boundary
Area Not Included boundary
Military Reservation, Native American Lands boundary
313 — Base Flood Elevation line and value; elevation in feet*
(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*
* Referenced to the North American Vertical Datum of 1988
(A)——(A) Cross section line
(23)- - - -(23) Transect line
87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
4276000mE — 1000-meter Universal Transverse Mercator grid values, zone 15
600000 FT — 5000-foot grid ticks: Missouri State Plane coordinate system, east zone (FIPS 2401), Transverse Mercator projection
DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
• M1.5 — River Mile
Road or Railroad Bridge

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
JUNE 5, 2012

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP PROGRAM

PANEL 0304D

FIRM
FLOOD INSURANCE RATE MAP

SCOTT COUNTY, MISSOURI
AND INCORPORATED AREAS

REVISED

ALLIED ENGINEERING SERVICES, LLC
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