Public Notice

US ARMY CORPS OF ENGINEERS
St. Louis District
Gateway to Excellence

Reply To:
U.S. Army Corps of Engineers
Attn: CEMVS-OD-F
1222 Spruce Street
St. Louis, Missouri 63103-2833

Public Notice No.
P-2779
Public Notice Date
December 17, 2010
Expiration Date
January 7, 2011

Postmaster Please Post Conspicuously Until:

File Number: MVS-2010-438

Interested parties are hereby notified that an application has been received for a Department of the Army permit for certain work in waters of the United States, as described below and shown on the attached maps.

COMMENTS AND ADDITIONAL INFORMATION: Comments on the described work should reference the U.S. Army Corps of Engineers File Number shown above and must reach this office no later than the above expiration date of the Public Notice to become part of the record and be considered in the decision. Comments should be mailed to the following address:

U.S. Army Corps of Engineers
Regulatory Branch
1222 Spruce Street
St. Louis, Missouri 63103-2833
ATTN: Matt Shively

APPLICANT: Metropolitan St. Louis Sewer District, 2350 Market Street, St. Louis, Missouri, 63103 (314) 768-6275.

LOCATION: The downstream terminus of the proposed project is generally located approximately 2,900 feet north of the intersection of Lindbergh Boulevard (US Hwy 50) and Lemay Ferry Road (State Hwy 267), in the city of Mehlville, Missouri. The upstream terminus of the project is located approximately 2,000 feet north-northwest of said intersection. The project occurs in St. Louis County, Missouri. The approximate geographic coordinates of the upstream and downstream terminations of the project corridor are 38.5139° North, -90.3260° West and 38.5114° North, -90.3275° West (respectively). The project proposes impacts to an unnamed tributary to Gravois Creek. Gravois Creek is a secondary tributary to the Mississippi River.

PROJECT DESCRIPTION: **The applicant seeks authorization to conduct channel stabilization within an approximate 2,300 linear foot reach of an unnamed tributary to Gravois Creek. The project will directly impact a total of approximately 1,160 linear feet of the tributary.** The primary method of stabilization consists of the installation of vegetated stone bank revetment. Portions of the right-descending bank within the project reach will also be stabilized using a modular block wall along the upper bank (395 LF). Beneath the block wall, along the lower bank, vegetated stone revetment will be installed. Portions of the channel bed will also be stabilized using heavy stone revetment (375 LF). At one location within the bed stabilization areas, a severe change in bed gradient will be stabilized using a series of stair-stepped rock weirs. At the upstream end of the project, an existing stormwater discharge will be stabilized with stone revetment. Throughout the project, the stone bank revetment will be vegetated by incorporating live woody plantings (live staking) into the revetment. The livestakes will be installed on spacings not to exceed 4'x4'. The purpose of the proposed

project is to address severe erosion of the channel. The erosion is threatening and/or damaging adjacent residential property.

The District conducted a site visit on May 13, 2010. The existing project reach is moderately to severely degraded. The channel appears to be incised in portions, if not all of the reach. The channel bed contains noticeable quantities of bricks, broken concrete, and other debris. During the site visit, low-quality benthic macroinvertebrates were observed in limited numbers within the channel. The macroinvertebrates were not species that are indicative of high-quality habitat, such as EPT taxa. However, they do indicate that the tributary is likely at least perennially pooled. The forested riparian corridor of the channel is moderately to extremely narrow, and is typical of urban conditions. In most places, the forested riparian corridor consists of a single row of trees along the top-of-bank, and whatever trees or understory species can grow on the bank face.

The channel incision has likely contributed to an ongoing bank erosion problem within the reach. Substantial portions of the channel bed and banks have historically been impacted by homeowners' attempts to stabilize the channel. The methods of stabilization that have been used range from staked timber walls, manufactured gabion baskets, homemade gabion baskets, grouted stone, stacked blocks, bagged concrete, staked tire revetment, and a large anchored log. The existing stabilization measures are pervasive throughout the reach. At one location within the channel, an approximate 4-ft. vertical change in bed elevation has been fixed in place through the construction of a poured concrete weir. The efficacy of these attempts varies greatly. Construction of the project will require the removal of most of the existing stabilization structures. The newer gabion walls will be incorporated into the proposed design, in order to minimize disturbance. The log toe protection will also be preserved to minimize disturbance, and to retain the structure's beneficial habitat component. Photos of the existing conditions can be provided electronically, upon request.

The Applicant will submit a detailed Analysis of Alternatives for the project. The Analysis of Alternatives will describe the avoidance and minimization measures considered for the project, as well as economic, environmental, engineering, and civic justifications for the proposed impacts. At this time, the District is considering waiving mitigation requirements for this project. The District is making this consideration based on the existing degraded condition of the project reach; as well as the components for aquatic habitat and stream function that have been included in the project. These components include vegetation of the rock revetment, as well as some replanting of trees along the top-of-bank. The District will also consider comments submitted by interested parties regarding mitigation requirements.

LOCATION MAPS AND DRAWINGS: See attached.

ADDITIONAL INFORMATION: Additional information may be obtained by contacting Matt Shively, Project Manager, U.S. Army Corps of Engineers, at (314) 331-8632. Your inquiries may also be sent by electronic facsimile to (314) 331-8741 or by e-mail to matt.s.shively@usace.army.mil.

AUTHORITY: This permit will be processed under Section 404 of the Clean Water Act (33 U.S.C. 1344).

WATER QUALITY CERTIFICATION: The project plans have been submitted to the Missouri Department of Natural Resources, Water Protection Program for state certification of the proposed work in accordance with Section 401 of the Clean Water Act. The certification is requested as of the date of this Public Notice, and if issued, will express the Agency's opinion that the proposed activities will not violate applicable water quality standards. Written comments concerning possible impacts to waters of Missouri should be addressed to: Water Protection Program, Post Office Box 176, Jefferson City, Missouri 65102-0176, with a copy provided to the Corps of Engineers.

SECTION 404 (b)(1) EVALUATION: The impact of the activity on the public interest will be evaluated in accordance with the Environmental Protection Agency guidelines pursuant to Section 404 (b)(1) of the Clean Water Act.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that

a public hearing be held to consider the applicant's proposal. Any request for a public hearing shall state, with particularity, the reason for the hearing, and must be based on issues that would warrant additional public review.

ENDANGERED SPECIES: A preliminary determination, in compliance with the Endangered Species Act, as amended, has been made that the work that is proposed would not affect species designated as threatened or endangered, or adversely affect critical habitat. Therefore, no formal consultation request has been made to the United States Department of Interior, Fish and Wildlife Service. **In order to complete our evaluation, comments are solicited from the Fish and Wildlife Service** and other interested agencies and individuals through this Public Notice.

CULTURAL RESOURCES: The St. Louis District will evaluate information provided by the State Historic Preservation Officer (SHPO) and the public in response to this public notice. Based upon the comments received concerning the potential for cultural resources within the project site, the District may require a reconnaissance survey of the project area or additional cultural resources preservation measures in compliance with Section 106 of the National Historic Preservation Act.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the described activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that may reasonably be expected to accrue from the described activity must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the activity described, will be considered including the cumulative effects. Among factors considered are: conservation; economics; aesthetics; general environmental concerns; wetlands;
historic properties; fish and wildlife values; flood hazards; flood plain values; land use; navigation; shoreline erosion and accretion; recreation; water supply and conservation; water quality; energy needs; safety; food and fiber production; mineral needs; consideration of property ownership; and in general the needs and welfare of the people.

SOLICITATION OF COMMENTS: The U.S. Army Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of the proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

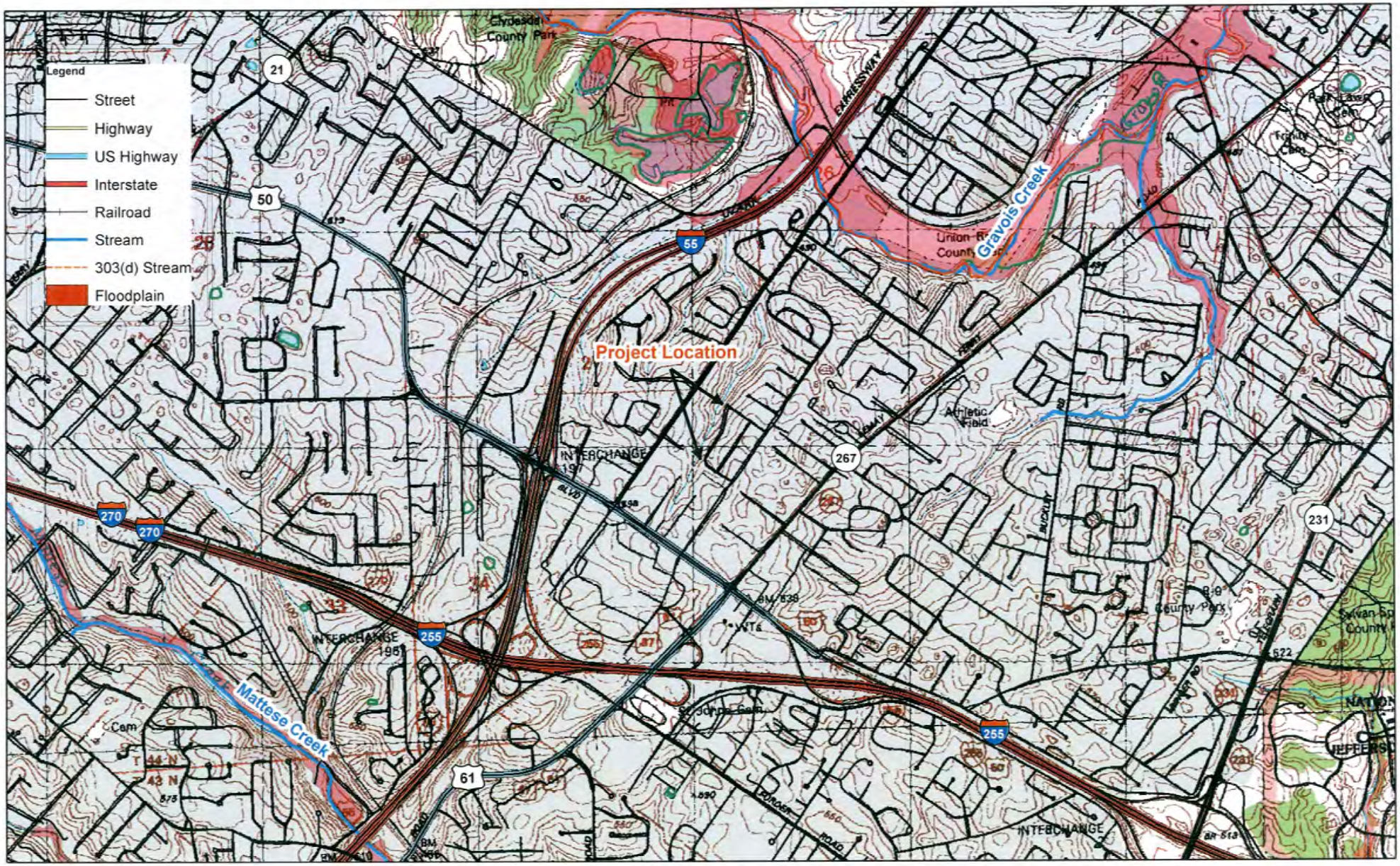
Danny D. McClendon

DANNY D. MCCLENDON
Chief, Regulatory Branch

Attachments

NOTICE TO POSTMASTERS:

It is requested that this notice be conspicuously and continually placed for 21 days from the date of this issuance of this notice.



Diamond Head Drive Storm Sewer MVS-2010-438 (P-2779)

Project Vicinity Map / Floodplain

Mehlville, St. Louis County, Missouri

N

0 1,450 2,900 5,800 Feet

US Army Corps of Engineers ®
St Louis District

Attachment X of X

Diamond Head Drive Storm Sewer MVS-2010-438 (P-2779)

2009 Aerial / NWI map (none shown)

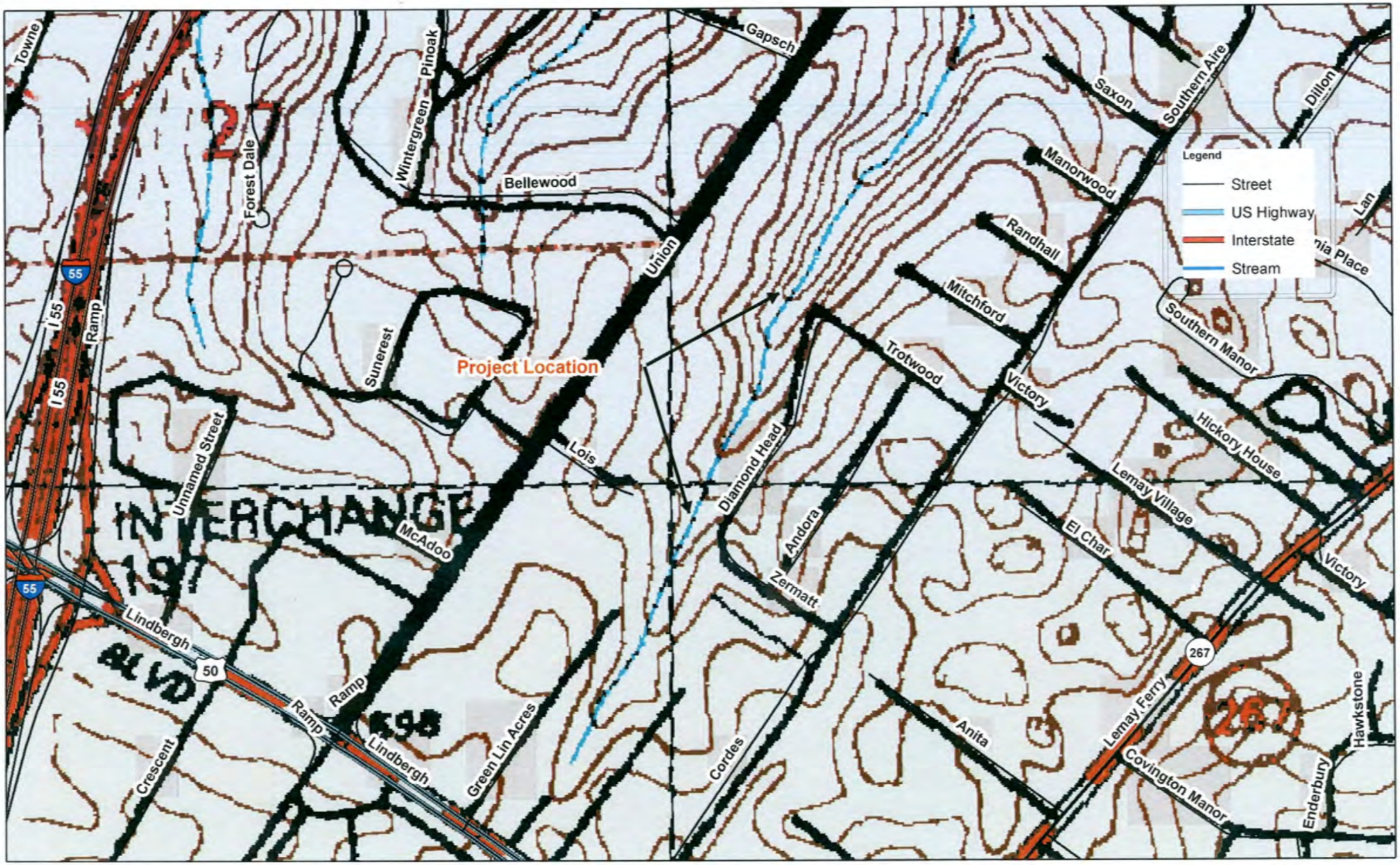
Mehlville, St. Louis County, Missouri

N

0 260 520 1,040 Feet

US Army Corps of Engineers ®
St Louis District

Attachment X of X



Diamond Head Drive Storm Sewer MVS-2010-438 (P-2779)

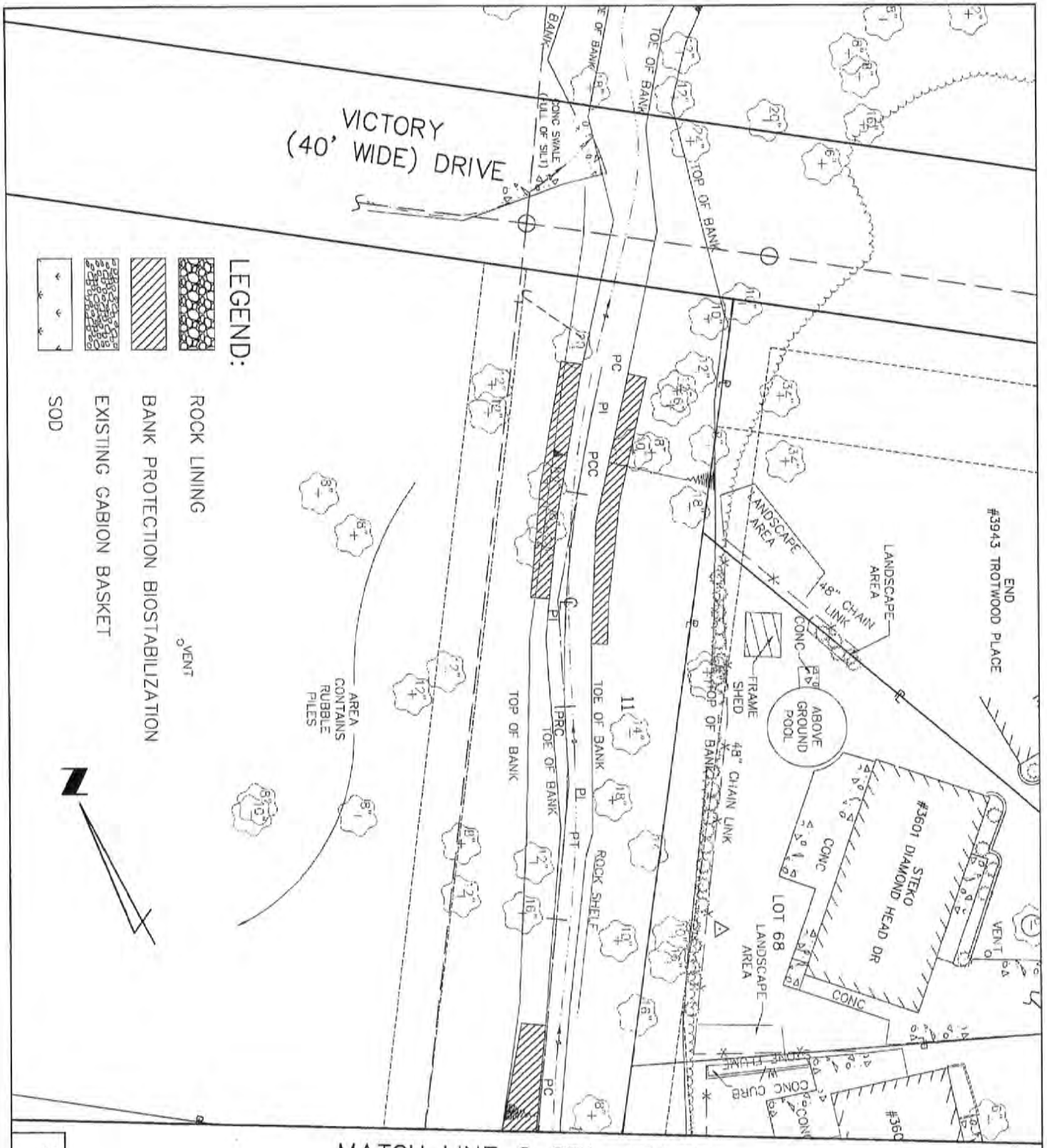
USGS Topographic Map

Mehlville, St. Louis County, Missouri

Feet
0 350 700 1,400

US Army Corps of Engineers ®
St Louis District

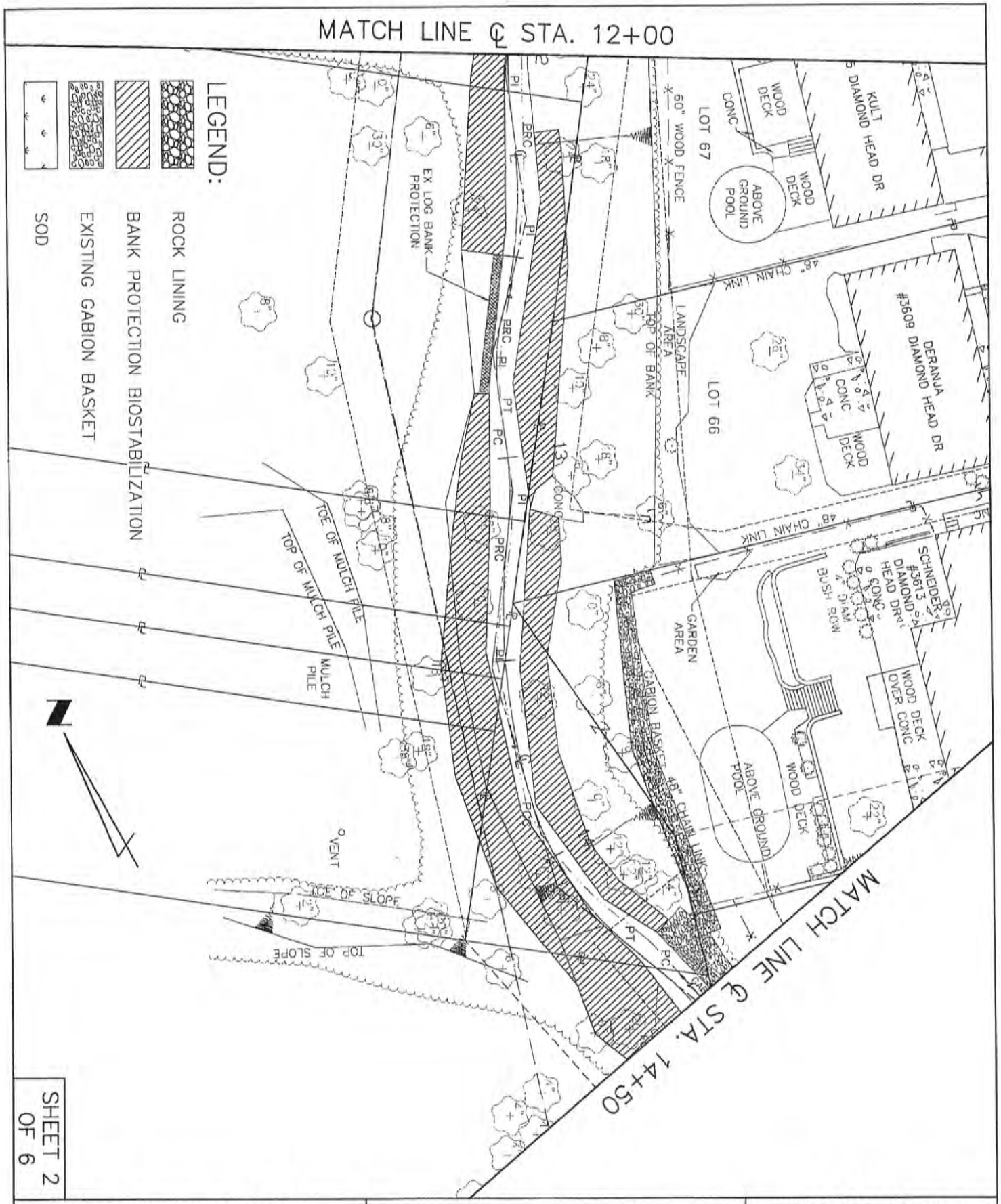
Attachment X of X



MATCH LINE ℄ STA. 12+00

SHEET 1 OF 6

DIAMOND HEAD DRIVE STORM SEWER (GCUC – 110) 10248–015.1 (2007182)	METROPOLITAN ST. LOUIS SEWER DISTRICT	EFK•Moen, LLC. Civil Engineering Design 13523 Barrett Parkway Suite 250 St. Louis, Mo 63021 Phone (314)729-4100



SHEET 2 OF 6

DIAMOND HEAD DRIVE
STORM SEWER (GCUC – 110)
10248–015.1 (2007182)

METROPOLITAN
ST. LOUIS SEWER DISTRICT

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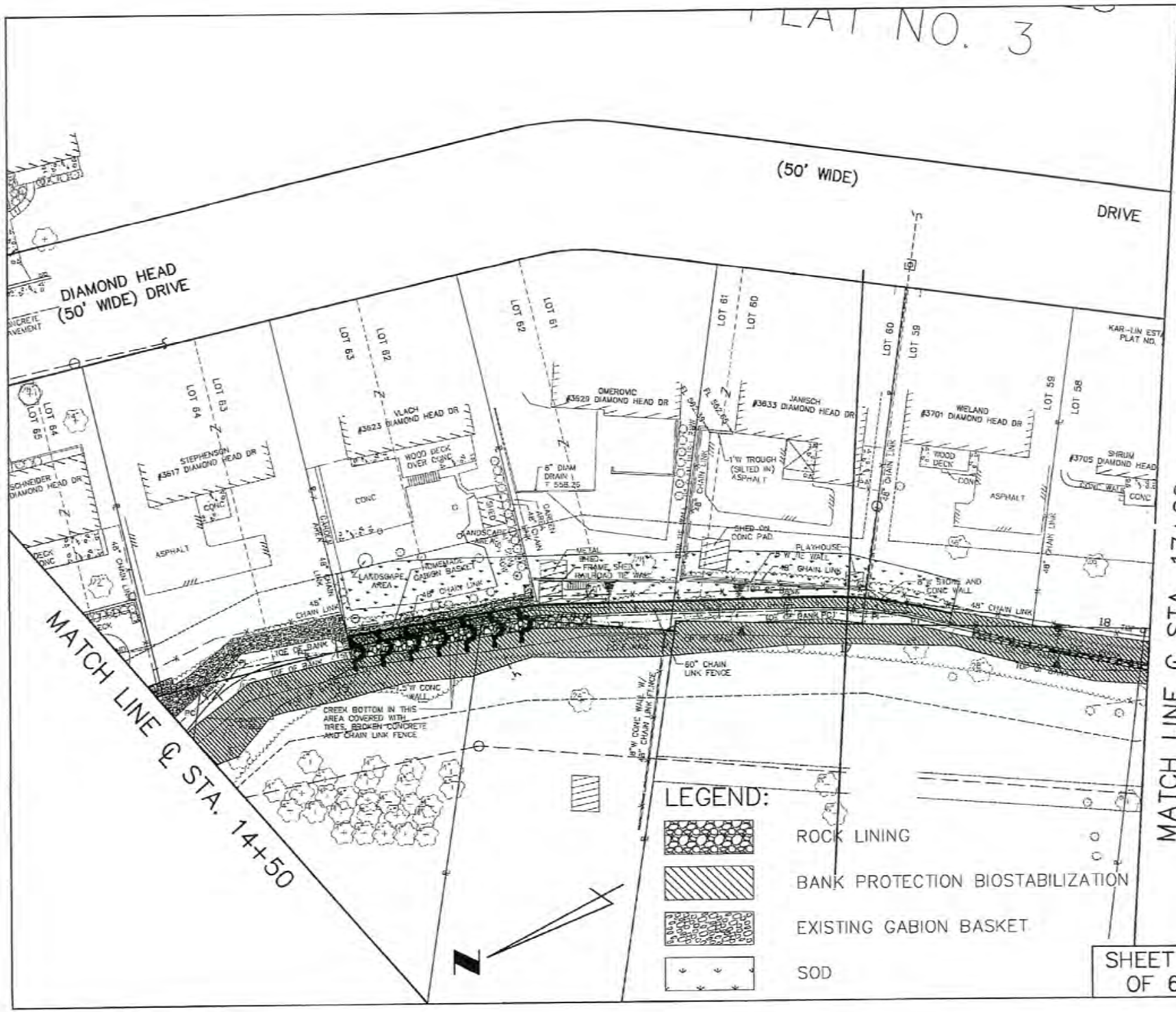

SHEET 3
OF 6

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METROPOLITAN
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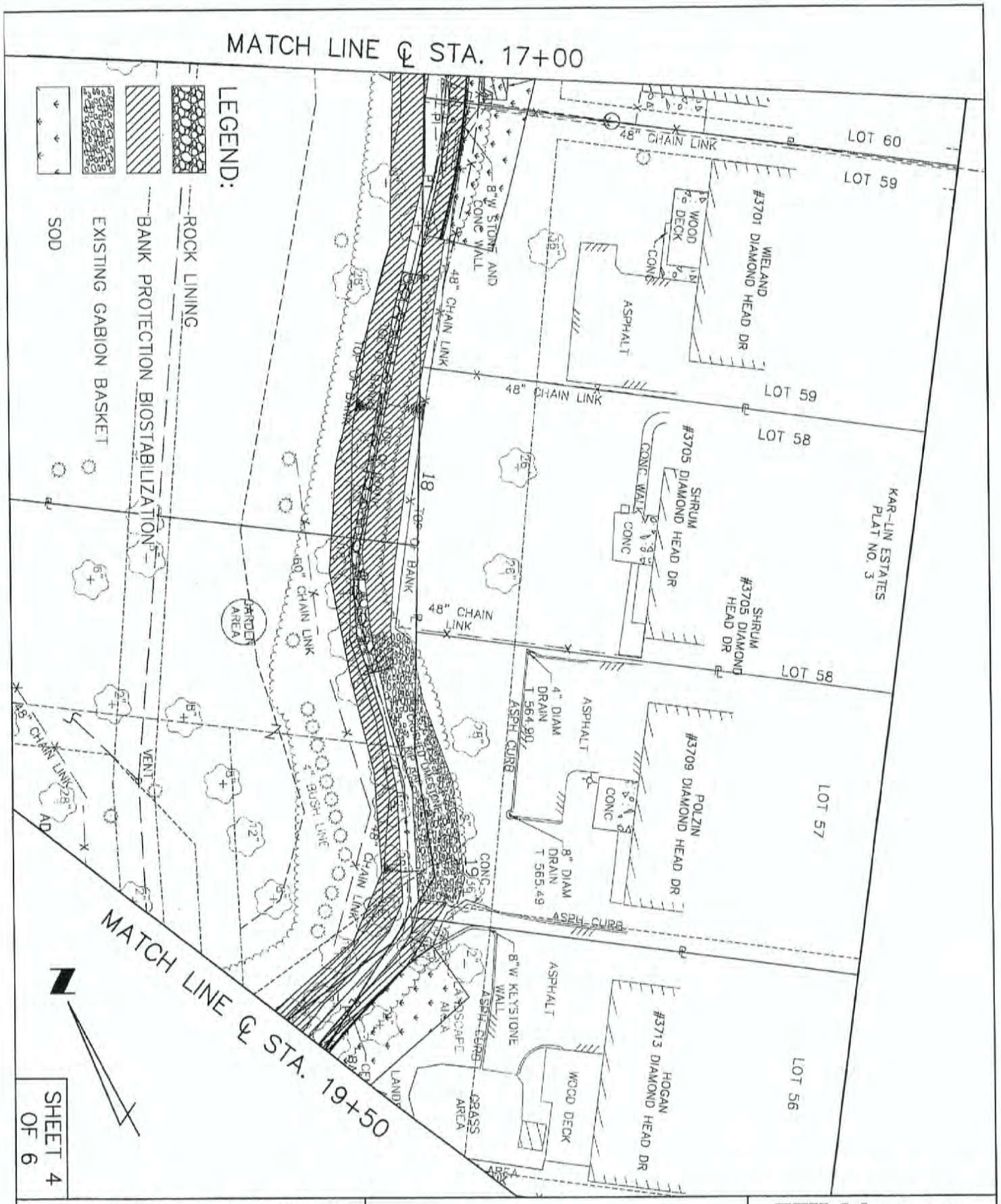

SHEET 4 OF 6

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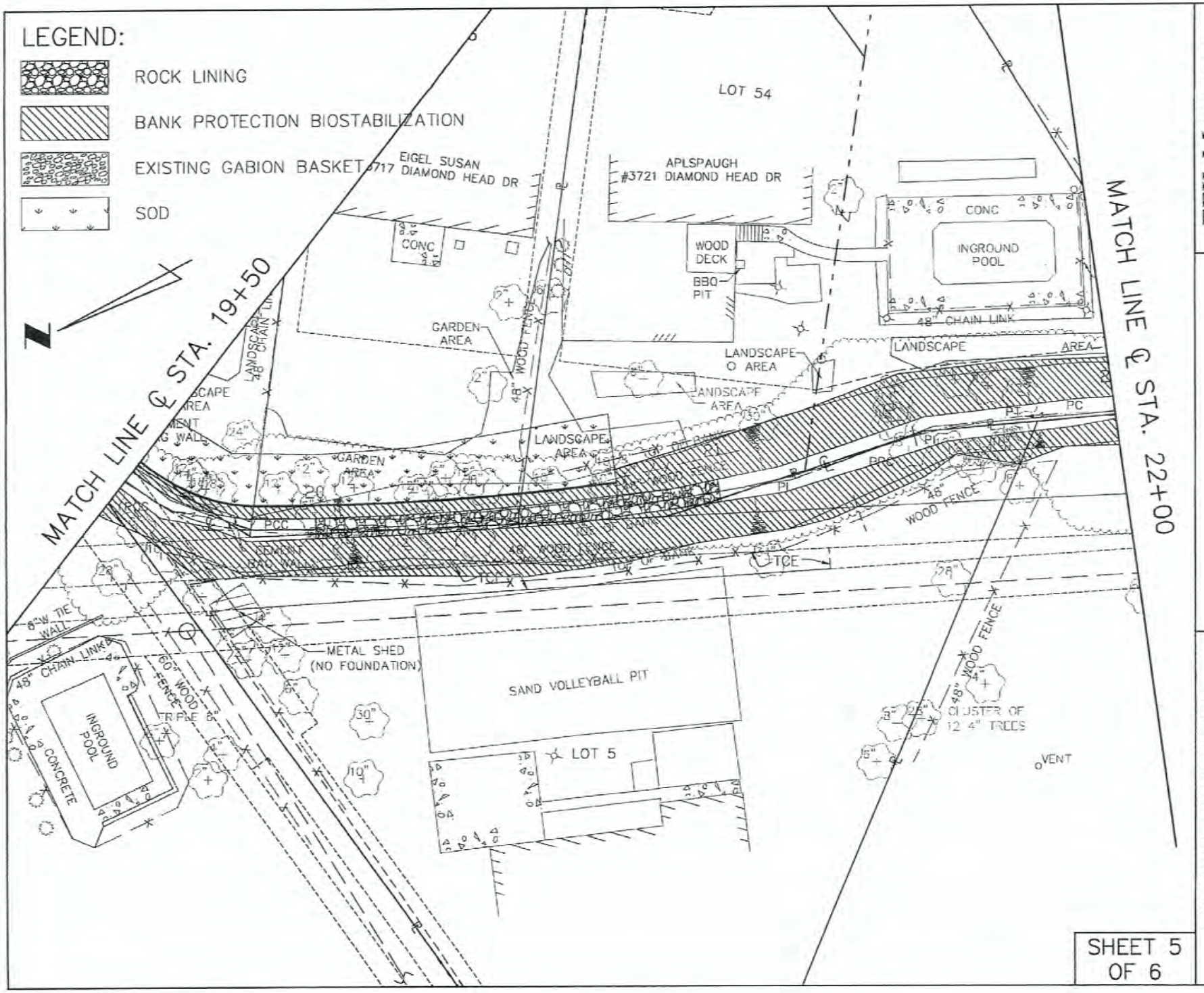

SHEET 5 OF 6

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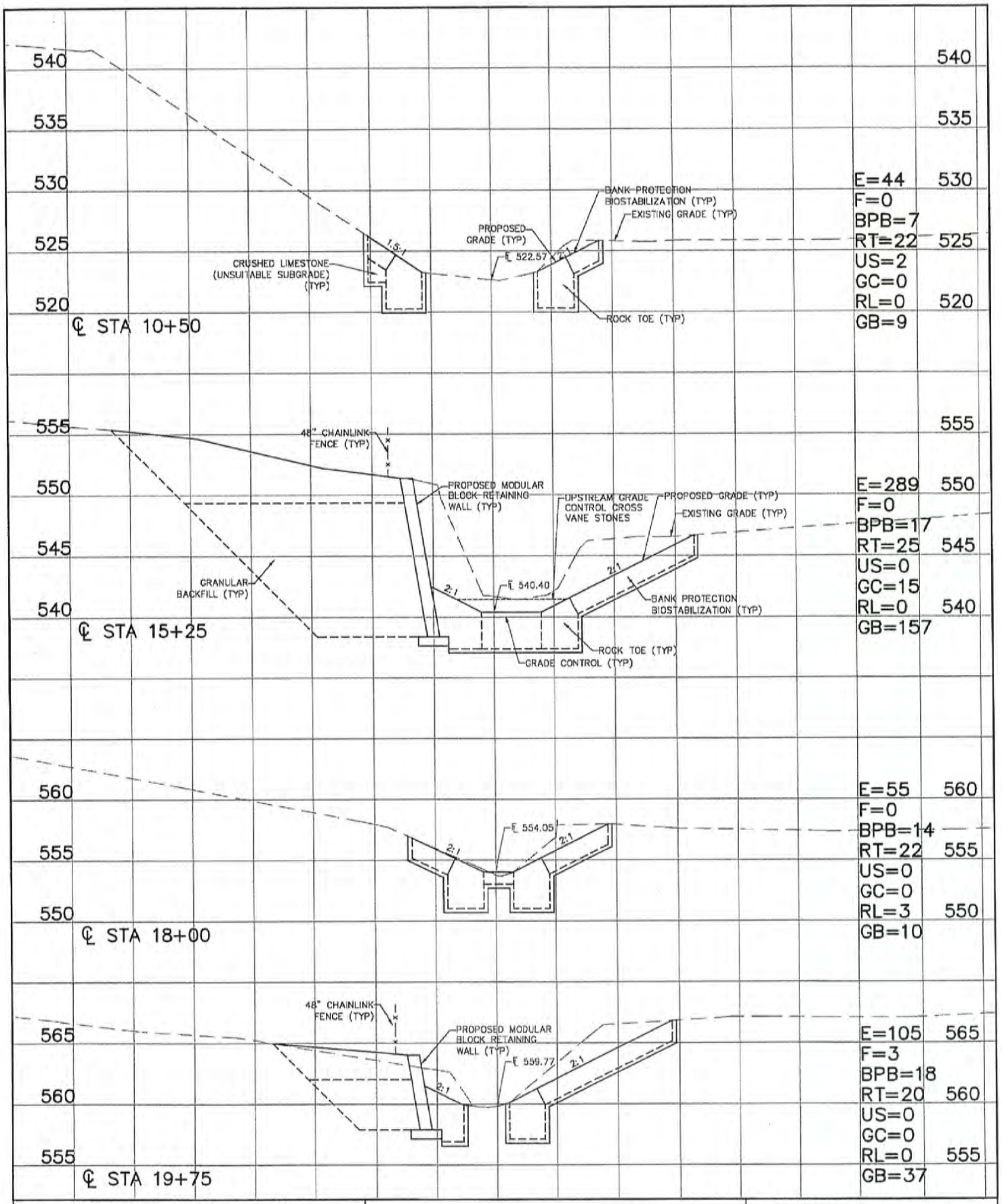

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ROCK TOE GRADATION TABLE
D_{90} = 24"

RIPRAP ROCK SIZE (inches)	PERCENT PASSING
0.001	5
0.04	10
3.29	15
7	30
12	50
19	70
23	85
24	90

BANK PROTECTION–BIOSTABILIZATION GRADATION TABLE
D_{90} = 12"

RIPRAP ROCK SIZE (inches)	PERCENT PASSING
0.001	5
0.04	10
1.64	15
3.5	30
7	50
10	70
11.5	85
12	90

GRANULAR BACKFILL GRADATION TABLE (2" MINUS)

SIEVE NUMBER	PERCENT PASSING
200	6
30	15
4	35
0.5	65
1	90
2	100

70% of rock shall be 7" or larger.
50% of rock shall be 12" or larger.
30% of rock shall be 19" or larger.
10% of rock shall be 24" or larger.

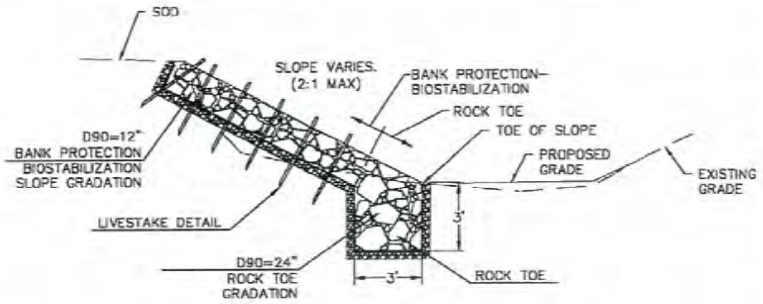
70% of rock shall be 3.5" or larger.
50% of rock shall be 7" or larger.
30% of rock shall be 10" or larger.
10% of rock shall be 12" or larger.

NOTES:

1. Rock shall be hard, durable, angular in shape and resist weathering. Rock shall not contain shale. Neither breadth nor thickness of a single stone shall be less than 1/3 its length. Rock shall be well graded. Rock may be shot rock as long as it generally conforms with the gradation presented. The rock shall contain fines in sufficient quantities to fill voids while allowing point–to–point contact between rocks. Rock suspended in a matrix of fines shall not be allowed. THERE SHALL BE NO VISIBLE VOIDS IN ROCK STRUCTURES.

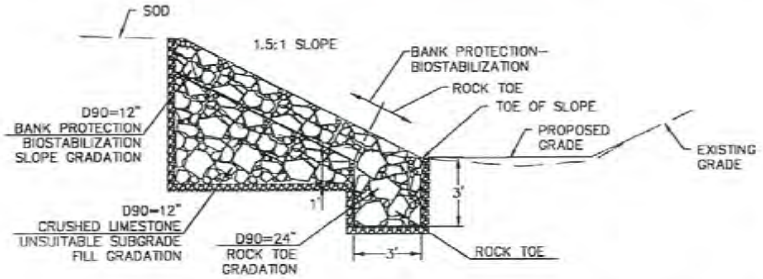
2. MSD Type 2 bedding is an acceptable substitute for the granular backfill gradation specified above.

ROCK GRADATION TABLES



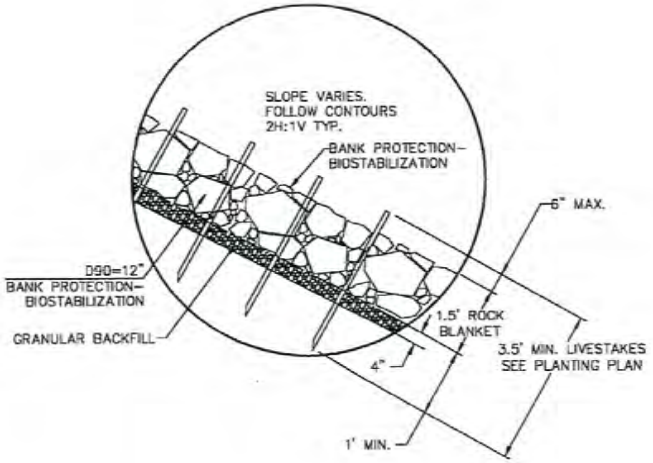
BANK PROTECTION–BIOSTABILIZATION/ ROCK TOE

SCALE: N.T.S.



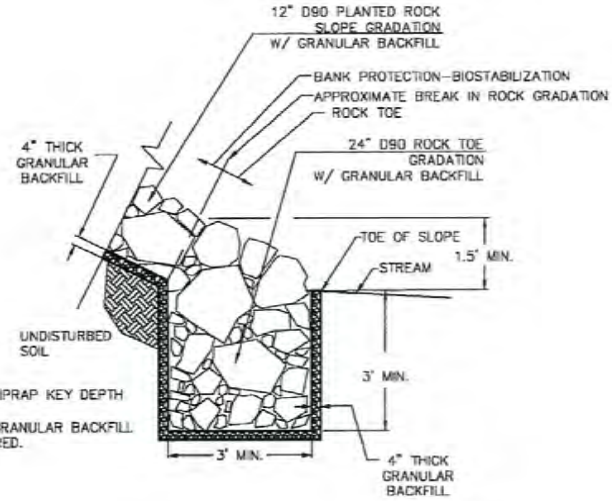
BANK PROTECTION–BIOSTABILIZATION/ ROCK TOE W/UNSUITABLE SUBGRADE FILL

SCALE: N.T.S.



LIVESTAKE DETAIL

NOT TO SCALE



NOTES:
1. IN BEDROCK, RIPRAP KEY DEPTH IS 3' MIN.
2. IN BEDROCK, GRANULAR BACKFILL IS NOT REQUIRED.

ROCK TOE

NOT TO SCALE

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