

PUBLIC NOTICE

US Army Corps
of Engineers
New York District, CENAN-OP-R
Upstate Regulatory Field Office
1 Buffington Street, Bldg. 10, 3rd Floor
Watervliet, New York 12189-4000

In replying refer to:
Public Notice Number: NAN-2013-00376
Issue Date: July 17, 2014
Expiration Date: August 16, 2014

To Whom It May Concern:

The New York District, Corps of Engineers has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 U.S. C. 1344).

APPLICANT: NYCO Minerals, Inc.
803 Mountain View Drive
Willsboro, New York 12996

ACTIVITY: Discharge of fill material into waters of the United States to expand an existing mine operation.

WATERWAY: Wetlands and unnamed tributary to Derby Brook, in the Lake Champlain basin

LOCATION: Town of Lewis, Essex County, New York

A detailed description and plans of the applicant's activity are enclosed to assist in your review.

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

The 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 this proposed activity. Any comments received will be considered by the 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 the other public interest factors listed above. Comments are used in 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.

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND MAILED TO THE ATTENTION OF BRAD SHERWOOD AT THE ABOVE ADDRESS, OR SENT VIA ELECTRONIC MAIL TO Brad.Sherwood@usace.army.mil, TO

REACH THIS OFFICE BY THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity. Comments provided will become a part of the public record for this action.

Any person may request, in writing, before this public notice expires, that a public hearing be held to collect information necessary to consider this application. Requests for public hearings shall state, with particularity, the reasons why a public hearing should be held. It should be noted that information submitted by mail is considered just as carefully in the permit decision process and bears the same weight as that furnished at a public hearing.

Pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the District Engineer is consulting with the appropriate Federal agency to determine the presence of and potential impacts to any Federally endangered or threatened species listed in the project area or their critical habitat.

Based upon a review of the latest published version of the National Register of Historic Places, there are no known sites eligible for, or included in, the Register within the permit area. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

Reviews of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act and the applicant will obtain a water quality certificate or waiver from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to a permit decision.

In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

- New York State Department of Environmental Conservation Mined Land Reclamation Permit
- Adirondack Park Agency Permit

In order for us to better serve you, please complete our Customer Service Survey located at:

<http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx>

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact Brad Sherwood of this office at (518) 266-6355.

For more information on New York District Corps of Engineers programs, visit our website at <http://www.nan.usace.army.mil>


for Jodi M. McDonald
Chief, Regulatory Branch

Enclosures

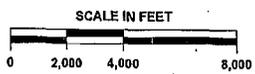
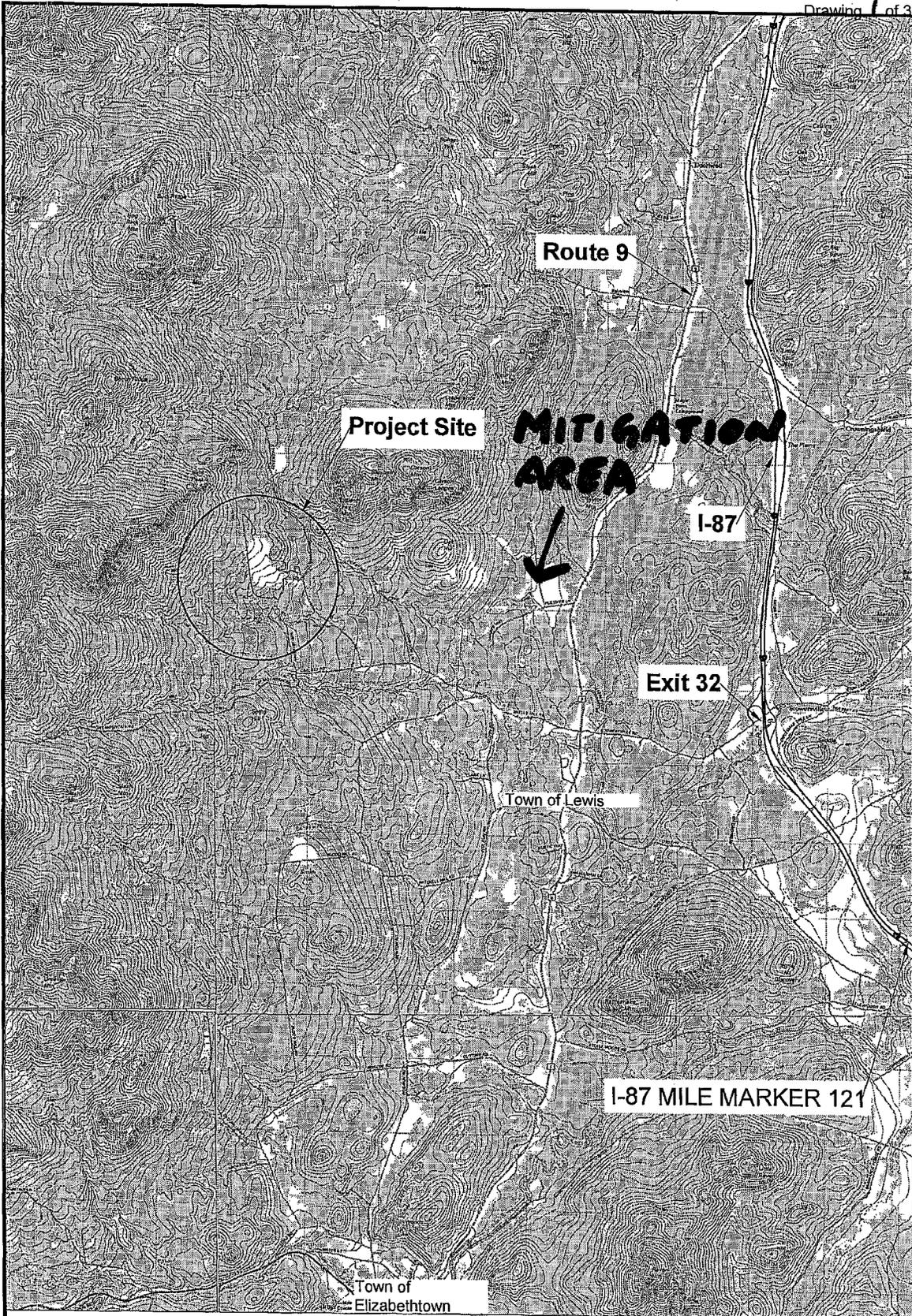
WORK DESCRIPTION

The applicant, NYCO Minerals, Inc., has requested Department of the Army authorization for the discharge of fill material into waters of the United States to facilitate the expansion of an existing wallastonite mine operation known as the Seventy Road Mine. The site is located on the west side of Seventy Road, in the Town of Lewis, Essex County, New York.

The work would involve the discharge of fill material into 1.06 acres of forested wetlands, and 2,446 linear feet of intermittent stream channel, resulting from the blasting and excavation of materials to expand the existing mining operation an additional 132.4 acres. To mitigate for the proposed impacts to aquatic resources, the applicant is proposing to establish 2.20 acres of forested wetlands in close proximity to previously established wetlands and adjacent to Patterson Creek, at the applicant's Oak Hill Mine, located along Pulsifer Road approximately 2.5 miles east of the Seventy Road Mine. In addition, 1,410 linear feet of intermittent stream channel will be relocated and restored to the south of the proposed impact area.

The applicant has stated that they have avoided and minimized proposed impacts to the maximum extent practicable by limiting all mining operations to the smallest area practicable, and has proposed mitigation for the functions proposed to be impacted, including the establishment of forested wetlands similar to those proposed to be impacted.

The stated purpose of the mine expansion is to extend the life of mine operations at the Seventy Road Mine, which would currently expire in three years, by removing additional reserves of wallastonite, thereby delaying the full development of the Oak Hill Mine Site for an additional 3.2 years.



THIS DRAWING IS NOT TO BE USED FOR
 ENGINEERING PURPOSES

DRAWN BY: LAS DESIGN BY: LAS CHECK BY: RAH PROJ. NO : 833.30 SCALE : AS SHOWN DATE : 01-24-13	SEVENTY ROAD MINE - SITE LOCATION MAP NYCO MINERALS TOWN OF LEWIS ESSEX COUNTY, NY	FIGURE 1
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PROPOSED AFFECTED AREA SUMMARY

	EXCAVATION AREA	69.0 ACRES
	OVERBURDEN PILES INCLUDES ALL OF THE NORTH, EAST AND SOUTH PILES	27.2 ACRES
	SETTLING PONDS	1.1 ACRES
	SUPPORT AND OTHER AREAS INCLUDE OFFICE, PLANT, ACCESS ROADS, HAULAGEWAYS, ORE STOCKPILES	35.1 ACRES
	TOTAL AFFECTED AREA	132.4 ACRES

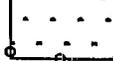
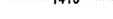
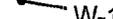
PROPOSED AFFECTED STREAMS

STREAM #3	1,909'
STREAM #4	219'
STREAM #3/4	318'
TOTAL =	2,446'

PROPOSED AFFECTED WETLANDS

WETLAND ID#	ACREAGE
WL #10	0.44
WL #11	0.018
WL #12	0.079
WL #13	0.52
TOTAL =	1.06 ACRES

FIGURE 3 LEGEND

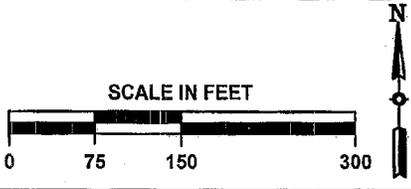
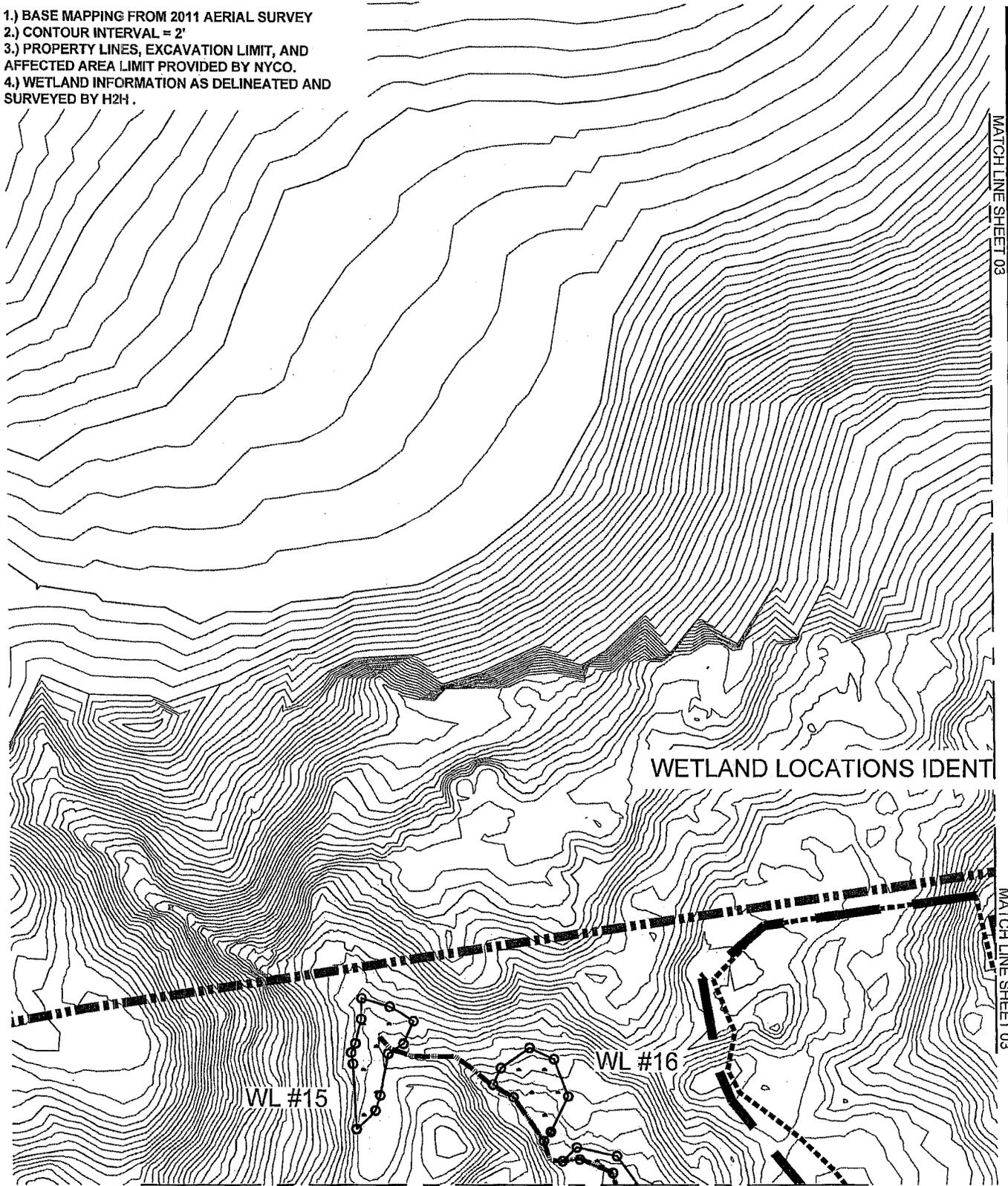
-  PERMITTED EXCAVATION LIMIT (54.1 ACRES)
-  PERMITTED AFFECTED AREA LIMIT (89.9 ACRES)
-  HAUL ROADS
-  PROPERTY CONTROLLED BY OWNER (600 ACRES)
-  WETLANDS (AS DELINEATED BY H2H)
-  STREAM
-  EXISTING MAJOR CONTOURS (10')
-  WETLAND FLAG (GPS'ED)
-  W-1 WETLAND DATA POINT
-  U-1 UPLAND DATA POINT

NOTE:

1.) STREAM 4 IS AN EVENT CREATED STREAM AS A RESULT OF STORMWATER AND QUARRY SUMP DISCHARGE.

THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: LAS	WETLAND DELINEATION MAP DETAIL	
	DESIGN BY: LAS	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PROJ. NO: 533.30	H2H ASSOCIATES	
SCALE: AS SHOWN			FIGURE 3
DATE: 05-18-03	TROY, NY WWW.H2HASSOCIATES.COM		SHEET 01 OF 07

- 1.) BASE MAPPING FROM 2011 AERIAL SURVEY
- 2.) CONTOUR INTERVAL = 2'
- 3.) PROPERTY LINES, EXCAVATION LIMIT, AND AFFECTED AREA LIMIT PROVIDED BY NYCO.
- 4.) WETLAND INFORMATION AS DELINEATED AND SURVEYED BY H2H.

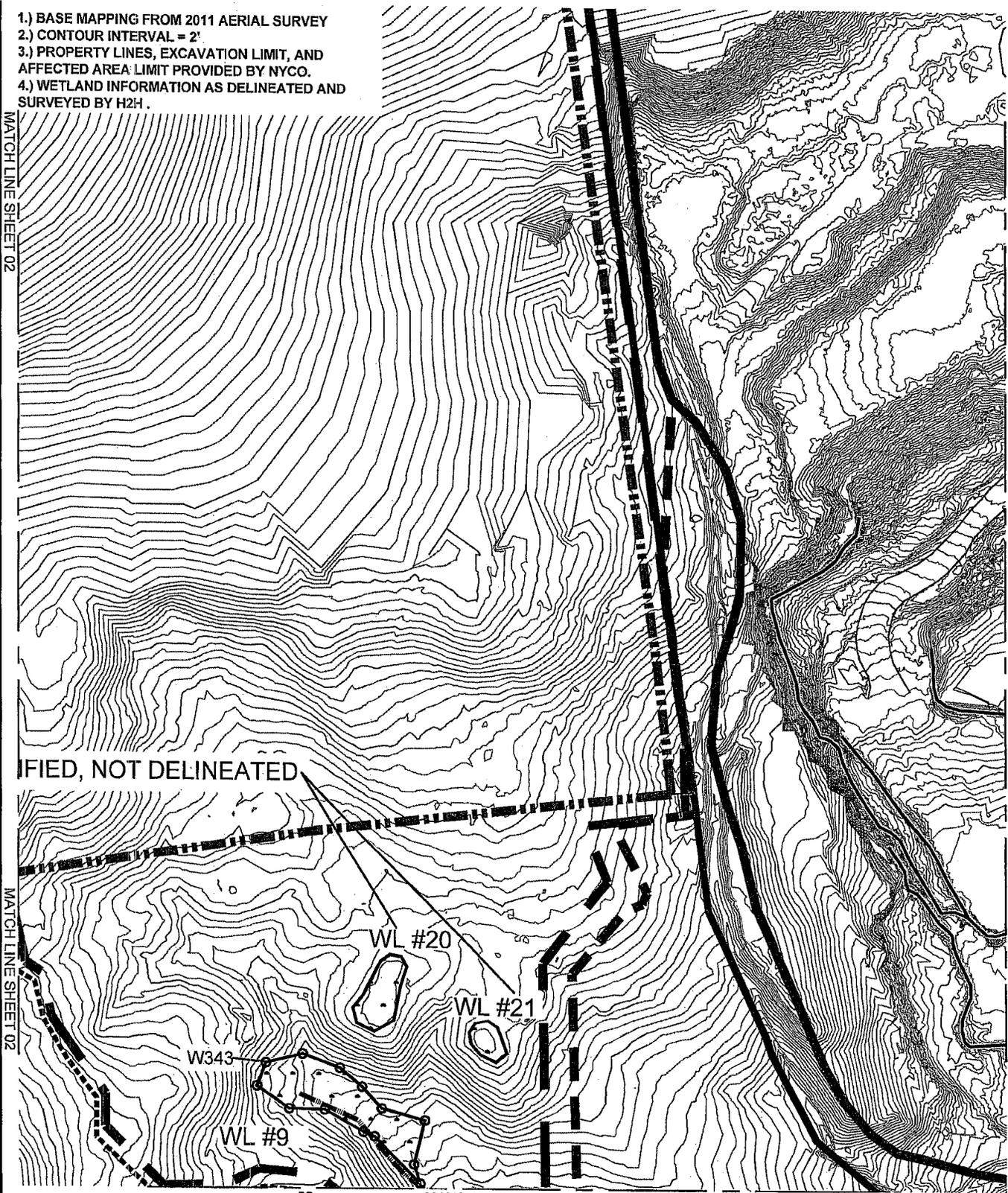


THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: LAS DESIGN BY: LAS CHECK BY: RAH PROJ. NO: 533.30 SCALE: AS SHOWN DATE: 05-18-03	WETLAND DELINEATION MAP DETAIL NYCO MINERALS TOWN OF LEWIS ESSEX COUNTY, NY	
	H2H ASSOCIATES <small>TROY, NY WWW.H2HASSOCIATES.COM</small>	 FIGURE 3 SHEET 02 OF 07	

- 1.) BASE MAPPING FROM 2011 AERIAL SURVEY
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MATCH LINE SHEET 02

MATCH LINE SHEET 04



MATCH LINE SHEET 02

MATCH LINE SHEET 04

MATCH LINE SHEET 06



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DESIGN BY:	LAS
CHECK BY:	RAH
PROJ. NO:	533.30
SCALE:	AS SHOWN
DATE:	05-18-03

WETLAND DELINEATION MAP DETAIL	
NYCO MINERALS	
TOWN OF LEWIS	ESSEX COUNTY, NY
H2H ASSOCIATES TROY, NY WWW.H2HASSOCIATES.COM	
FIGURE 3	
SHEET 03 OF 07	

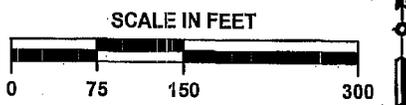
- 1.) BASE MAPPING FROM 2011 AERIAL SURVEY
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- 4.) WETLAND INFORMATION AS DELINEATED AND SURVEYED BY H2H.

MATCH LINE SHEET 03

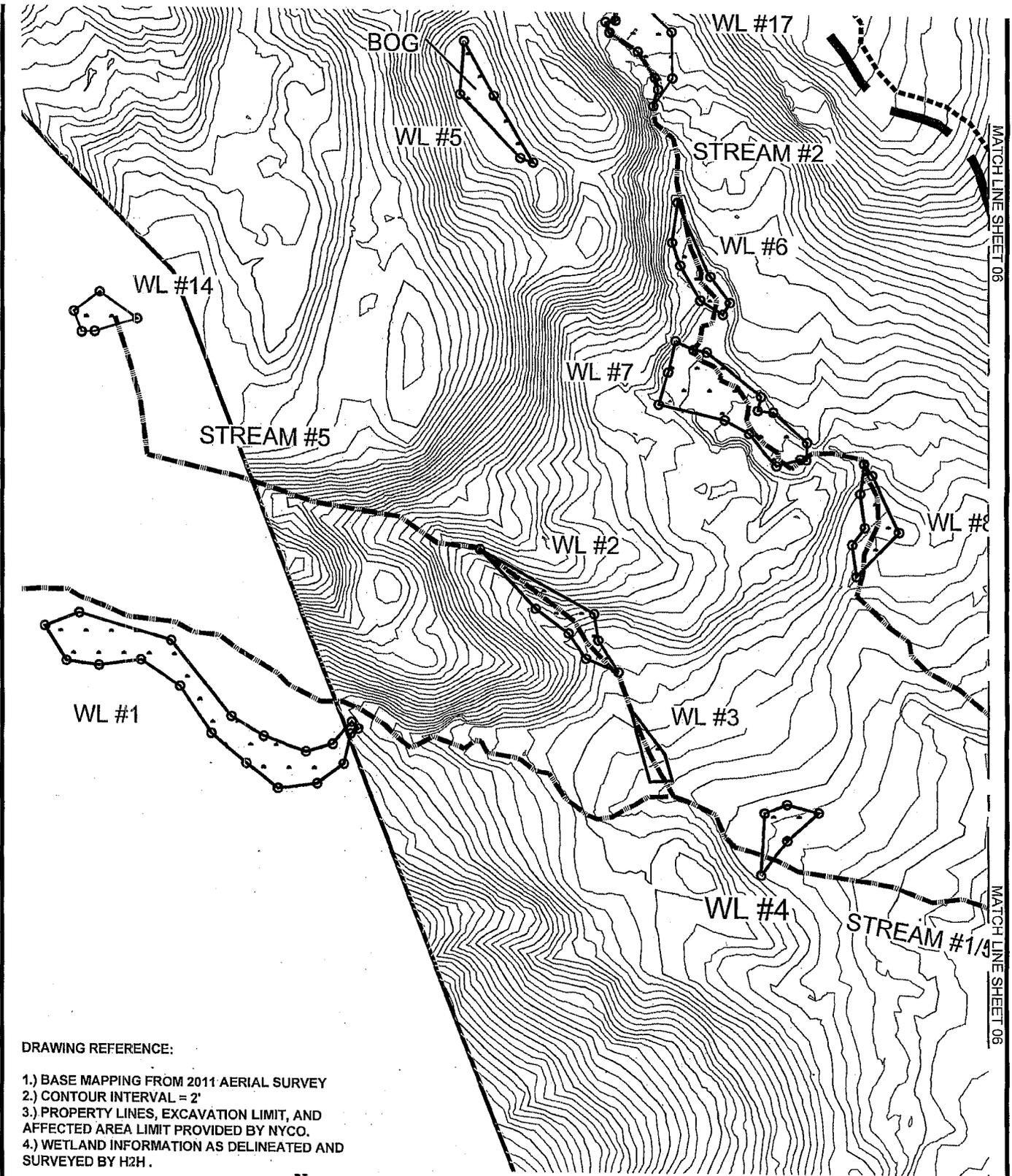
MATCH LINE SHEET 03



MATCH LINE SHEET 07

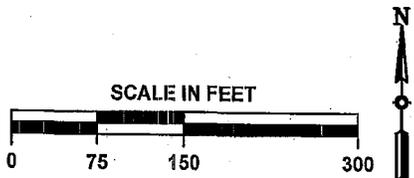


<p>THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES</p>	<p>DRAWN BY: LAS</p>	<p>WETLAND DELINEATION MAP DETAIL</p>
	<p>DESIGN BY: LAS</p>	
	<p>CHECK BY: RAH</p>	<p>NYCO MINERALS</p>
	<p>PROJ. NO: 633.30</p> <p>SCALE: AS SHOWN</p> <p>DATE: 05-18-03</p>	<p>TOWN OF LEWIS</p> <p>H2H ASSOCIATES <small>TRUSTEES</small></p> <p><small>WWW.H2HASSOCIATES.COM</small></p>

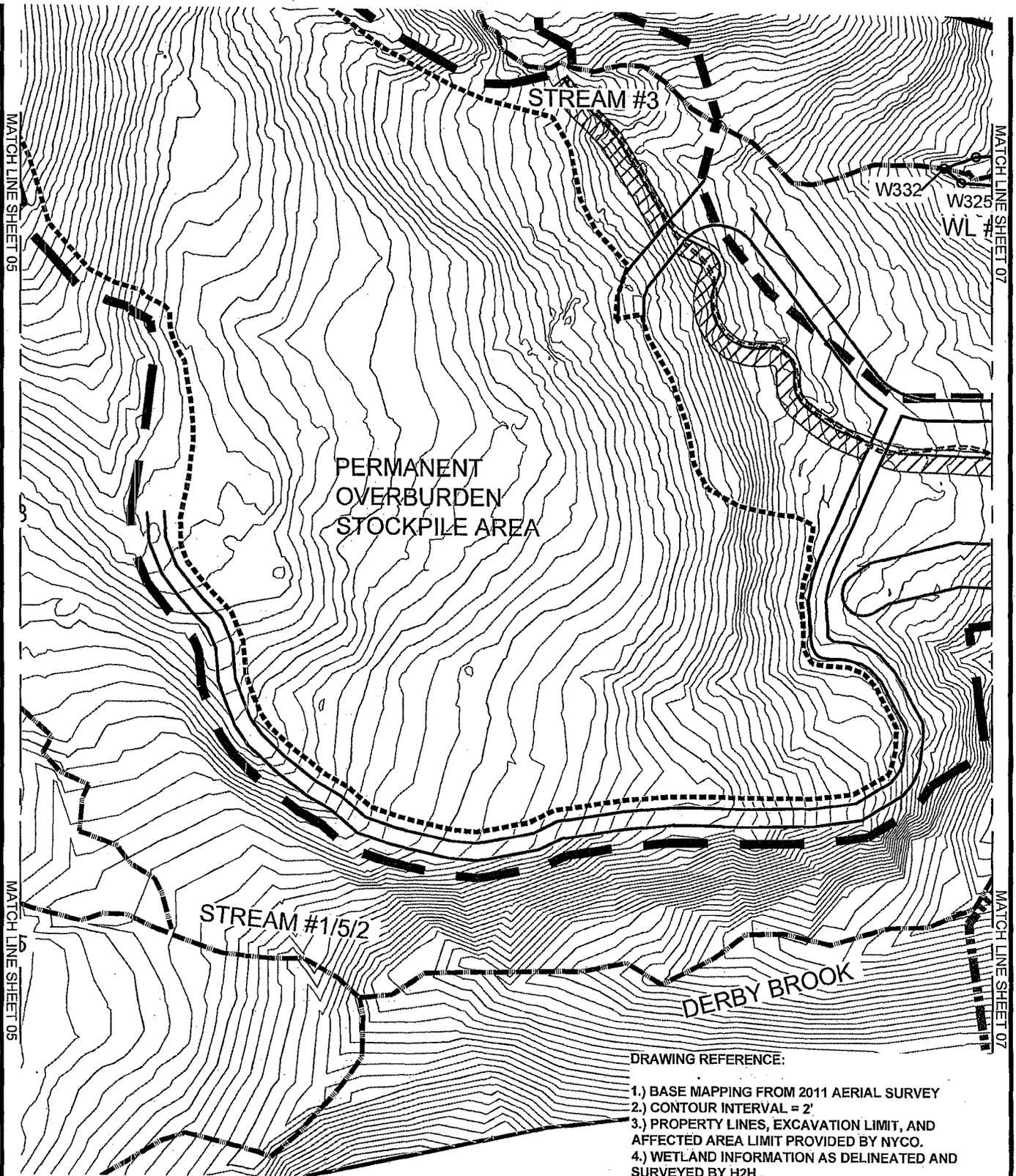


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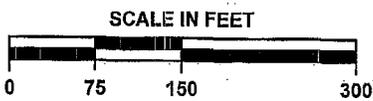


THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: LAS	WETLAND DELINEATION MAP DETAIL	
	DESIGN BY: LAS	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PROJ. NO: 533.30 SCALE: AS SHOWN DATE: 05-18-03	H2H ASSOCIATES <small>TROY, NY WWW.H2HASSOCIATES.COM</small>	
			FIGURE 3 SHEET 06 OF 07



DRAWING REFERENCE:

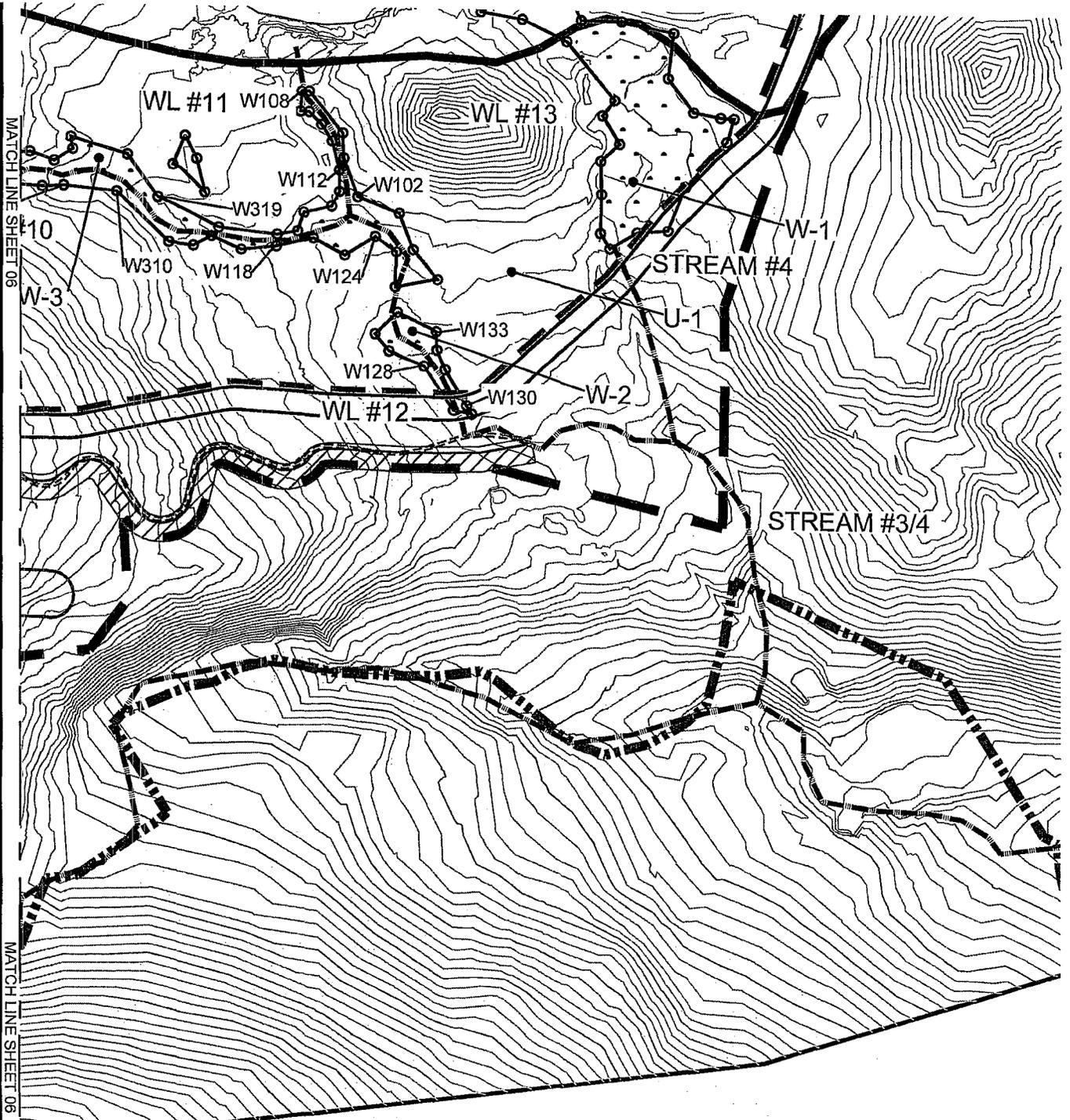
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CHECK BY:	RAH
PROJ. NO.:	633.30
SCALE:	AS SHOWN
DATE:	06-18-03

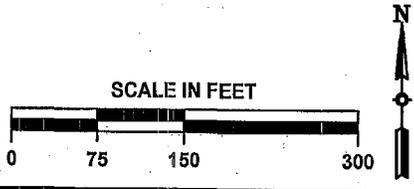
WETLAND DELINEATION MAP DETAIL	
NYCO MINERALS	
TOWN OF LEWIS	ESSEX COUNTY, NY
H2H ASSOCIATES TROY, NY WWW.H2HASSOCIATES.COM	
FIGURE 3	
SHEET 06 OF 07	



MATCH LINE SHEET 06

MATCH LINE SHEET 06

- DRAWING REFERENCE:**
- 1.) BASE MAPPING FROM 2011 AERIAL SURVEY
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	TOWN OF LEWIS NYCO MINERALS		ESSEX COUNTY, NY
		H2H ASSOCIATES <small>TROY, NY WWW.H2HASSOCIATES.COM</small>	FIGURE 3 SHEET 07 OF 07



SECTION

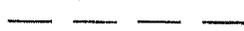
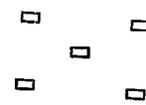
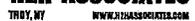
-  -700- PROPOSED MAJOR CONTOUR
-  PROPOSED MINOR CONTOUR
-  700 EXISTING MAJOR CONTOUR
-  EXISTING MINOR CONTOUR
-  LIMITS OF PROPOSED WETLAND
-  LIMITS OF PROPOSED EXCAVATION
-  PIT AND MOUND STRUCTURE
SEE DETAIL
-  EXISTING ROAD/TRAIL
-  EXISTING WETLAND BOUNDARY
-  EXISTING WETLAND
-  EXISTING STAFF GAUGE
WATER LEVEL FROM 05-09-13 SURVEY
- GMW#3**
 GROUNDWATER MONITORING WELL
WATER LEVEL FROM 05-09-13 SURVEY

FIGURE 3 NOTES:

1. A PIT AND MOUND WETLAND DESIGN WILL BE USED IN THE PROPOSED FORESTED WETLAND. APPROXIMATELY 286 PITS AND MOUNDS WILL BE CONSTRUCTED AT AN OFFSET GRID OF 20' X 20'.
2. WETLAND PLANTINGS - NO MORE THAN 3 PLANTS PER MOUND. PLANTS WILL BE CLUMPED TO SIMULATE NATURAL COLONIZATION. ACTUAL SPECIE PLACEMENT MAY BE DIRECTED BY CONTRACT REPRESENTATIVE.
3. UPLAND TREE PLANTING SCHEDULE - ACTUAL SPECIE PLACEMENT MAY BE DIRECTED BY CONTRACT REPRESENTATIVE.
4. H2H ASSOCIATES TAKES NO RESPONSIBILITY TO THE SUCCESS OF WETLAND MITIGATION PROJECT AND/OR THE BUFFER AREA.

THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: LAS	MITIGATION SITE GRADING PLAN	
	DESIGN BY: LAS	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEVING	SEVENTY ROAD MINE
	PROJ. NO: 533.39	ESSEX COUNTY, NY	
SCALE: AS SHOWN			FIGURE 3
DATE: 05-18-03			SHEET 01 OF 09

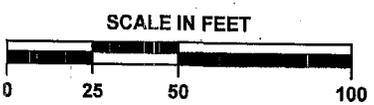
PATTERSON CREEK
 ELEVATION: 688.00 AMSL

INVERT: 687.09' INVERT: 685.12'

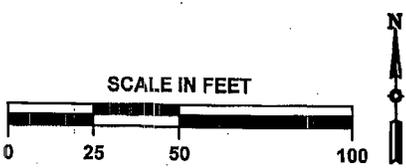
MATCH LINE SHEET 03

MATCH LINE SHEET 03

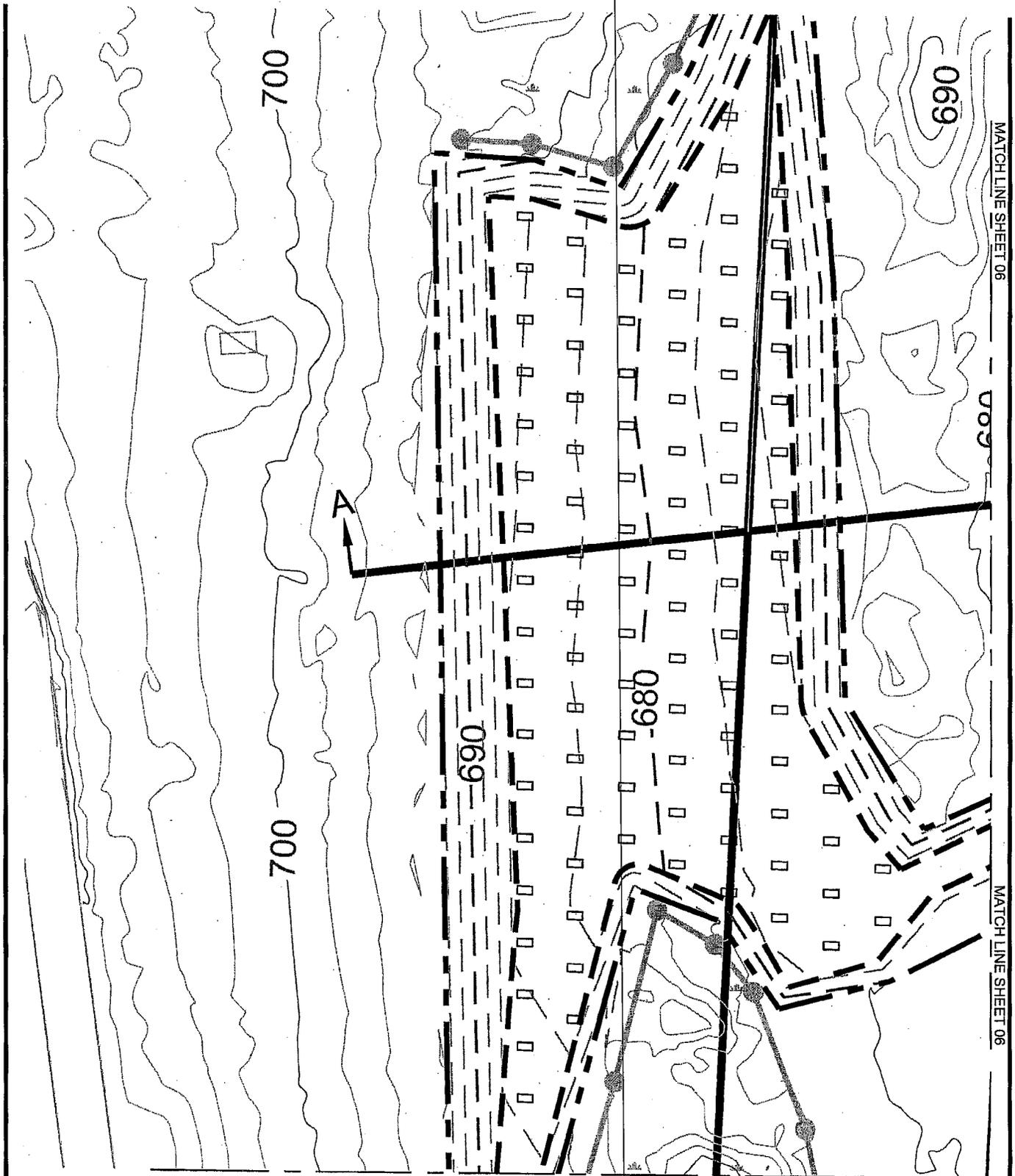
MATCH LINE SHEET 05



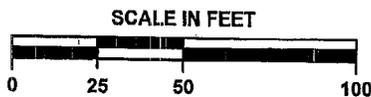
THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: LAS	MITIGATION SITE GRADING PLAN
	DESIGN BY: LAS	
	CHECK BY: RAH	TOWN OF LEWIS
	PROJ. NO: 633.30	NYCO MINERALS SEVENTY ROAD MINE
SCALE: AS SHOWN	DATE: 05-16-03	EBSEX COUNTY, NY
	H2H ASSOCIATES TROY, NY WWW.H2HASSOCIATES.COM	FIGURE 3
		SHEET 02 OF 09



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	<p>DESIGN BY: LAS</p>			
	<p>CHECK BY: RAH</p>	<p>TOWN OF LEVINS</p>	<p>NYCO MINERALS</p> <p>SEVENTY ROAD MINE</p>	<p>FIGURE 3</p>
	<p>PROJ. NO: 533.30</p>	<p>H2H ASSOCIATES</p> <p>TROY, NY</p> <p>WWW.H2HASSOCIATES.COM</p>	<p>SHEET 03 OF 09</p>	
<p>SCALE: AS SHOWN</p>	<p>DATE: 05-18-03</p>			



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DATE:	05-18-03

MITIGATION SITE GRADING PLAN

NYCO MINERALS
 SEVENTY ROAD MINE

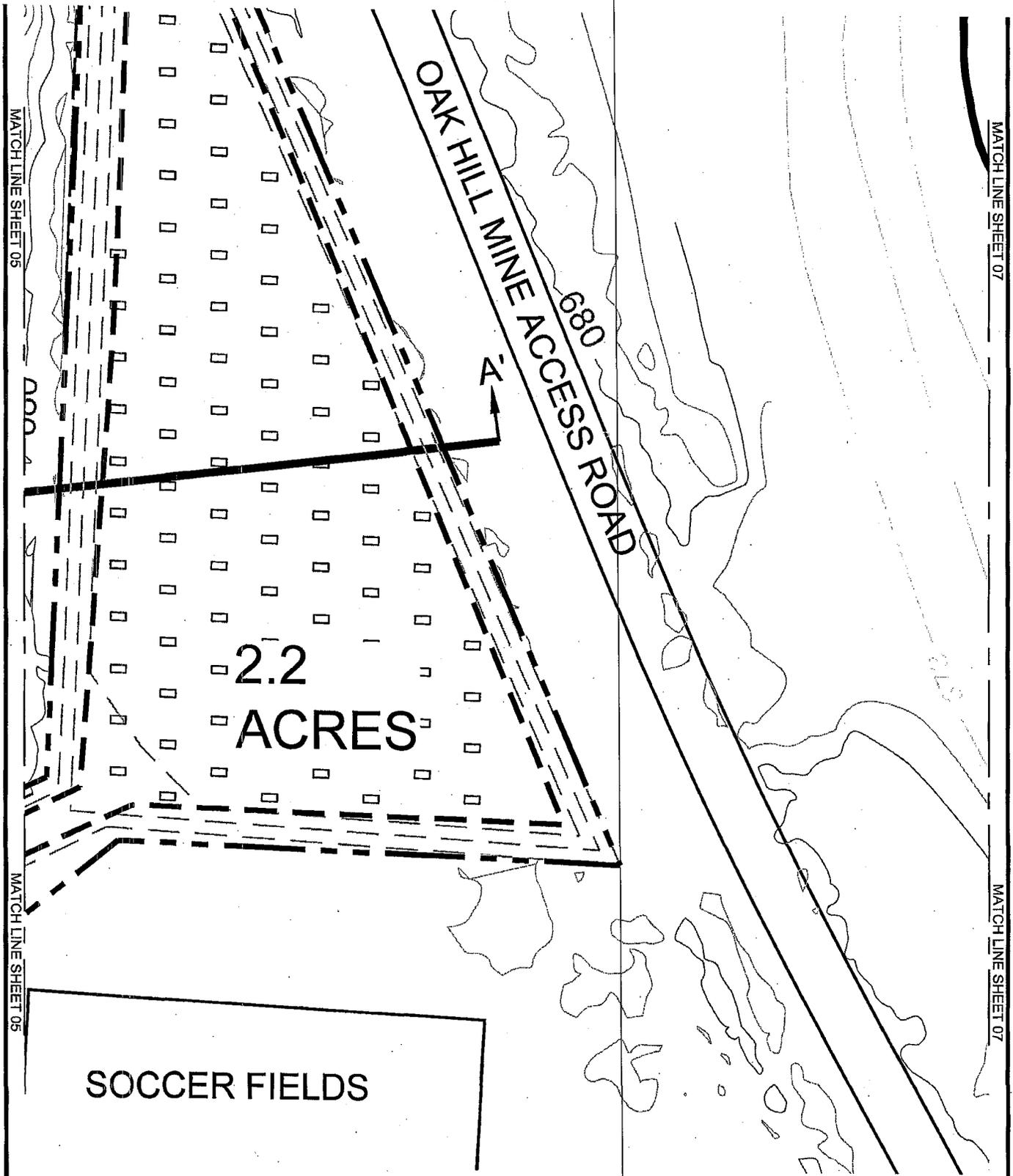
TOWN OF LEVISO

ESSEX COUNTY, NY

H2H ASSOCIATES
 TROY, NY
 WWW.H2HASSOCIATES.COM

FIGURE 3

SHEET 05 OF 08



SOCCER FIELDS

2.2
 ACRES

OAK HILL MINE ACCESS ROAD
 680

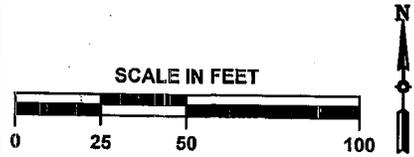
A-A

MATCH LINE SHEET 05

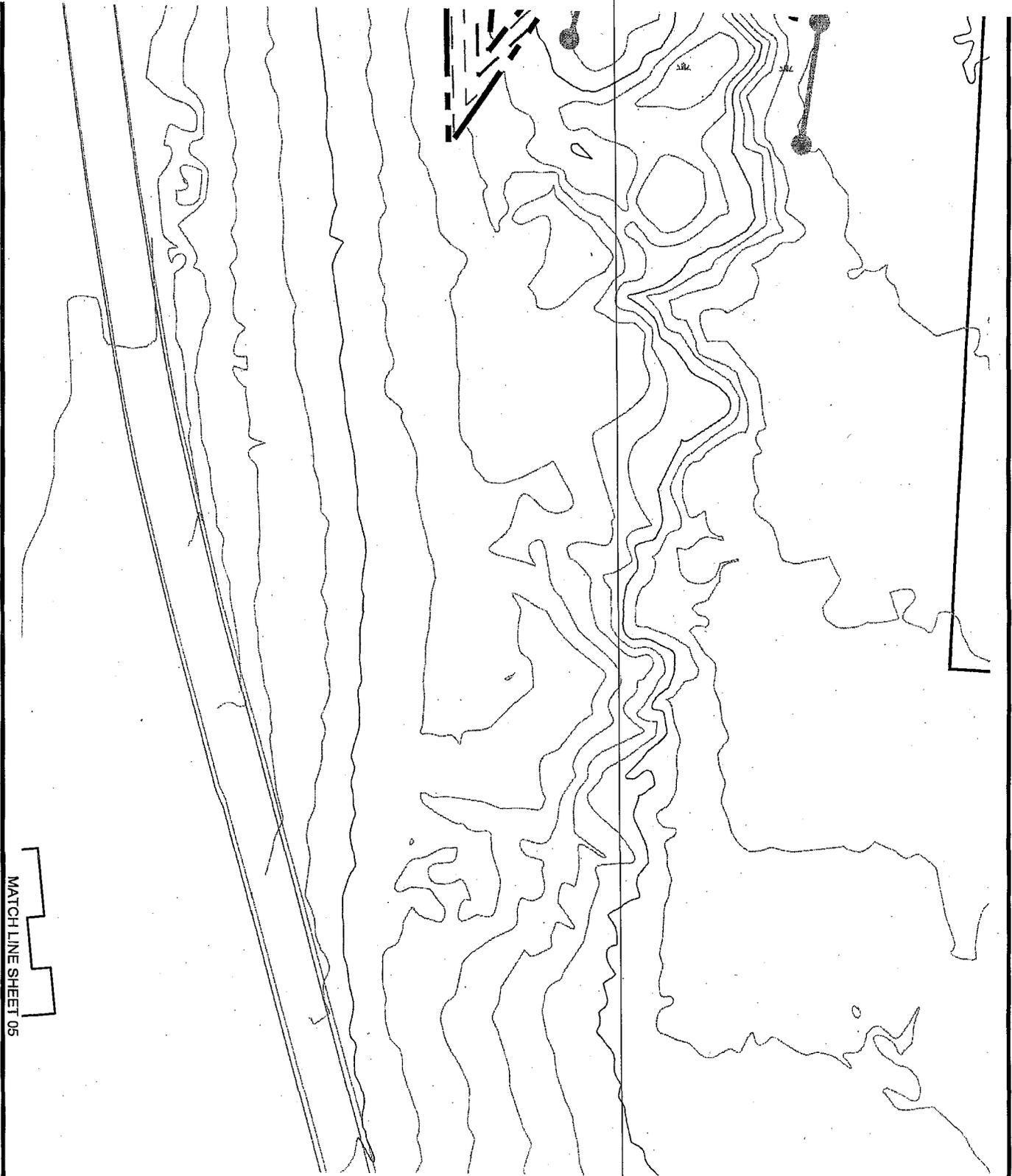
MATCH LINE SHEET 07

MATCH LINE SHEET 05

MATCH LINE SHEET 07



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	DESIGN BY: LAS	NYCO MINERALS SEVENTY ROAD MINE	
	CHECK BY: RAH	TOWN OF LEVISO	ESSEX COUNTY, NY
	PROJ. NO: 533.30 SCALE: AS SHOWN DATE: 05-18-03	H2H ASSOCIATES <small>TRUFT, NY WWW.H2HASSOCIATES.COM</small>	

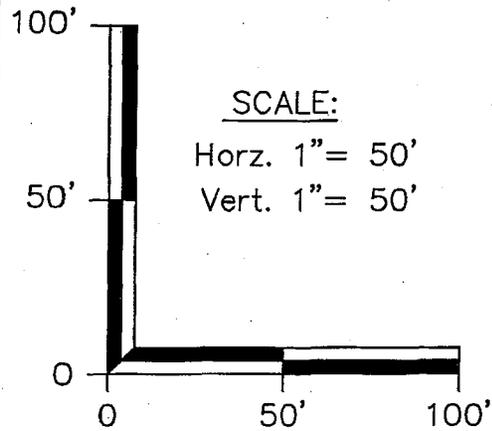
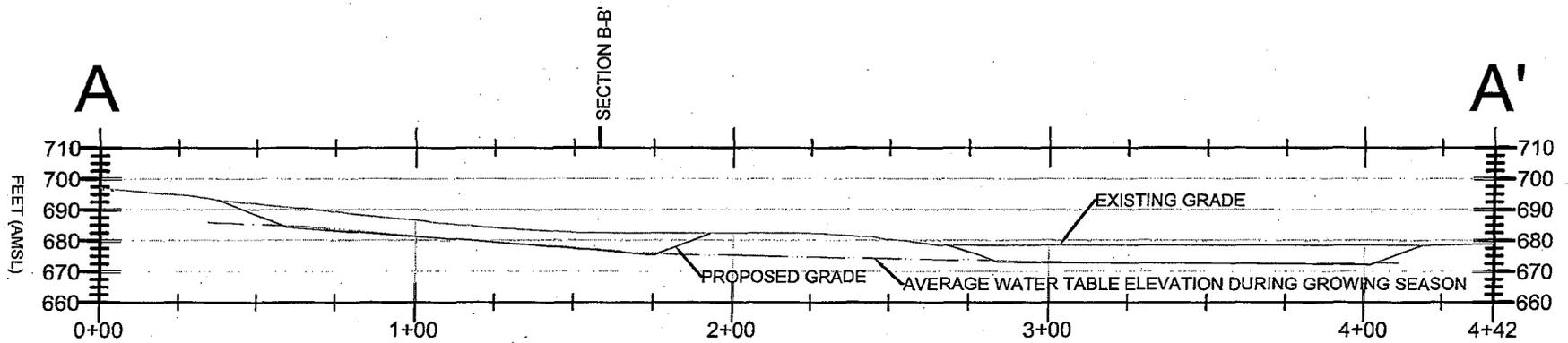


MATCH LINE SHEET 05

SCALE IN FEET



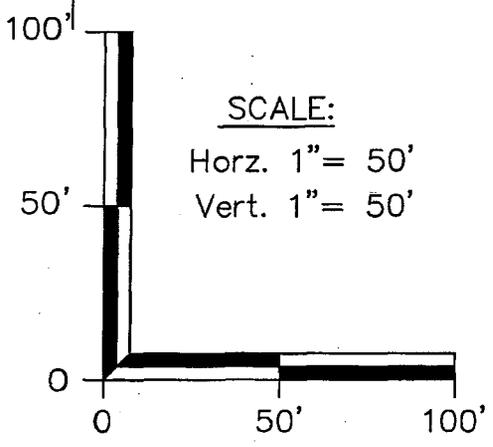
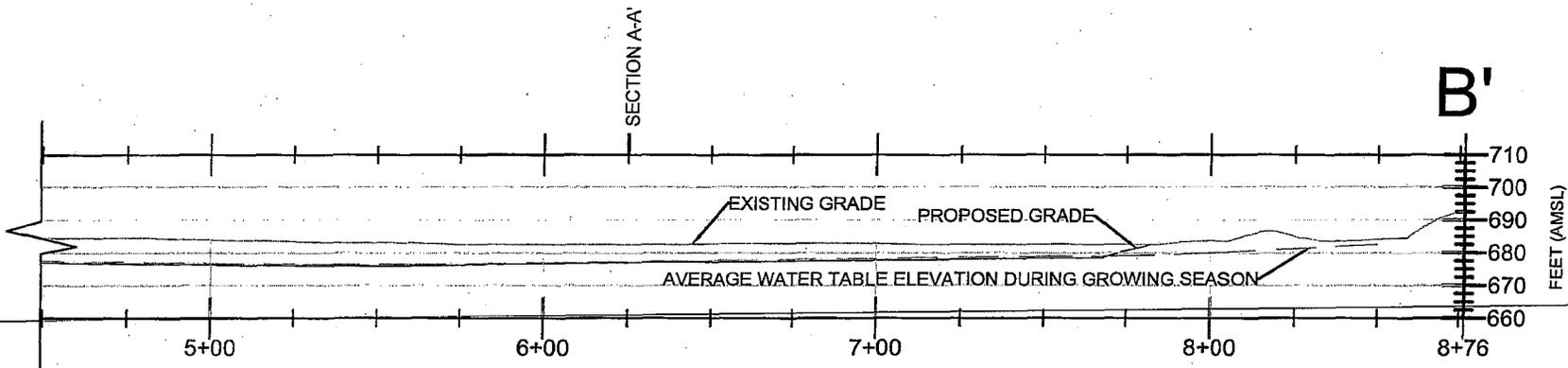
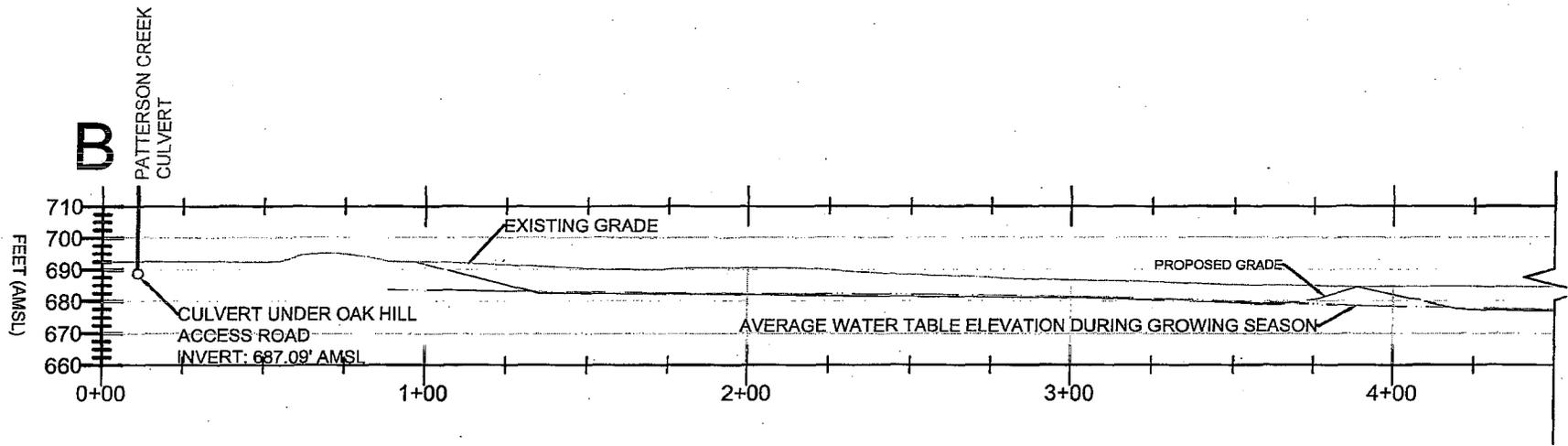
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	<p>DESIGN BY: LAS</p>	<p>NYCO MINERALS</p>	
	<p>CHECK BY: RAH</p>	<p>TOWN OF LEWIS</p>	<p>SEVENTY ROAD MINE</p>
	<p>PROJ. NO: 533.30</p>	<p>ESSEX COUNTY, NY</p>	
<p>SCALE: AS SHOWN</p>	<p>H2H ASSOCIATES</p>		<p>FIGURE 3</p>
<p>DATE: 05-18-03</p>	<p>TROT, NY WWW.H2HASSOCIATES.COM</p>		<p>SHEET 06 OF 09</p>



NOTES:

1. SIDE SLOPES OF THE PROPOSED WETLAND SHALL NOT EXCEED 2.5:1.

THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: LAS	MITIGATION SITE SECTIONS A-A' AND B-B'	
	DESIGN BY: LAS	NYCO MINERALS	
	CHECK BY: RAH	SEVENTY ROAD MINE	
	PROJ. NO: 533.39	TOWN OF LEWIS	ESSEX CO
SCALE: AS SHOWN	H2H ASSOCIATES		FIGUR
DATE: 05-18-03	TMOI, NY www.h2hassociates.com		SHEET 01 G



NOTES:

1. SIDE SLOPES OF THE PROPOSED WETLAND SHALL NOT EXCEED 2.5:1.

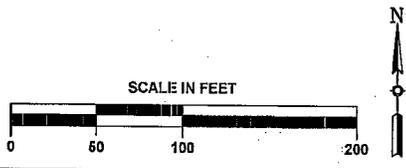
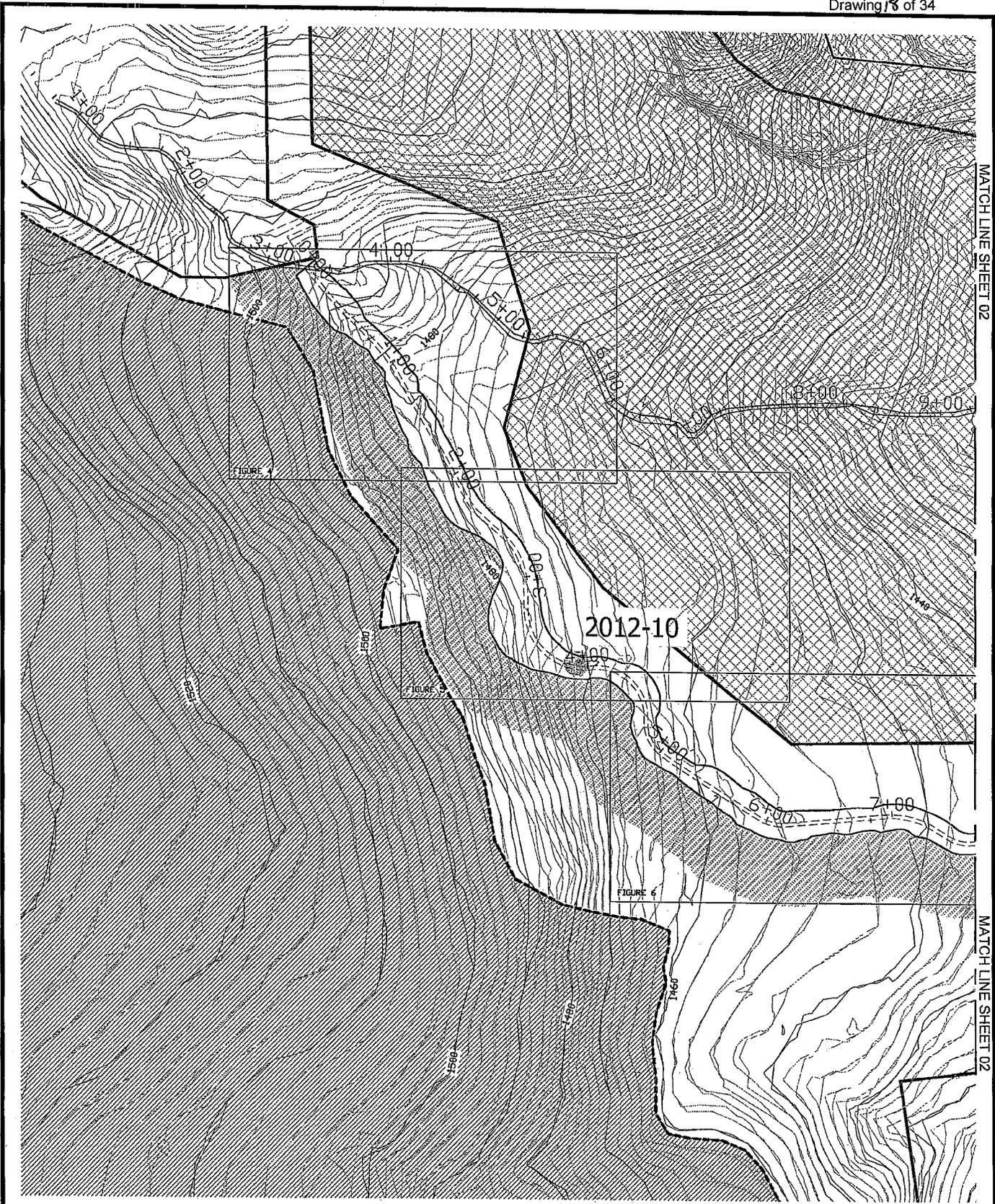
THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: LAS	MITIGATION SITE SECTIONS A-A' AND B-B'	
	DESIGN BY: LAS	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX CO
	PROJ. NO: 533.30	SEVENTY ROAD MINE	
SCALE: AS SHOWN	H2H ASSOCIATES		FIGUR
DATE: 05-18-03	TROT, NY WWW.H2HASSOCIATES.COM		SHEET 02 0

NAN-2013-00376-USH
 NYCO Minerals, Inc.
 Drawing 16 of 34

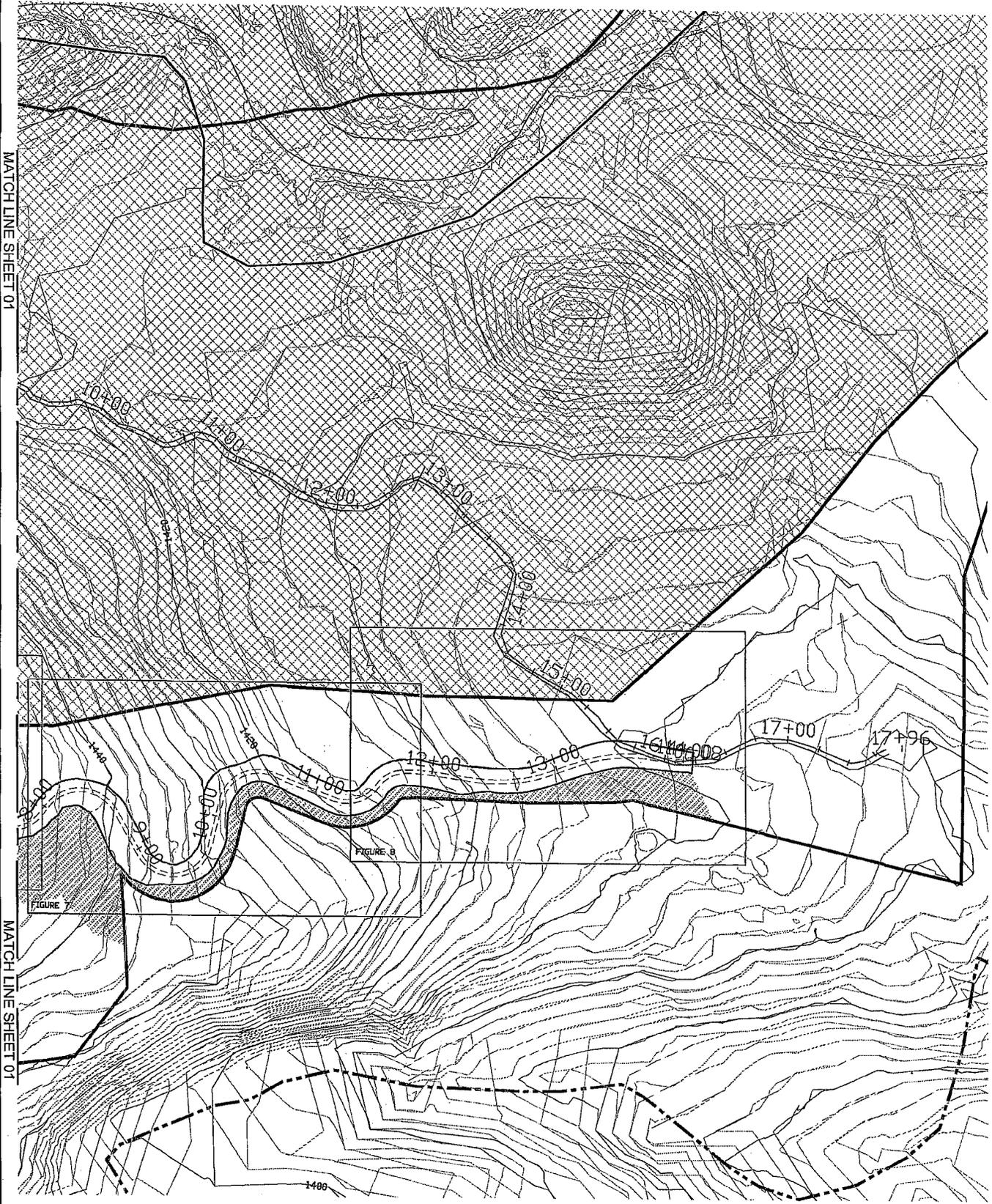
Forested Wetland Planting Schedule

Plant List			Total Acreage		Total Area	
Total Acreage			2.2 acres		97,139 ft squared	
5 species of trees divided equally					19,428 per species	
Tree Plantings						
Scientific Name	Common name	Classification	square foot per plant	area (ft squared)	quantity	
1 Fraxinus pennsylvanica	Green Ash	FACW	60	19,428	324	
2 Acer saccharinum	Silver Maple	FACW	60	19,428	324	
3 Quercus bicolor	Swamp White Oak	FACW	60	19,428	324	
4 Betula populifolia	Gray Birch	FAC	60	19,428	324	
5 Carpinus caroliniana	American Hornbeam	FAC	60	19,428	324	
Total number of Trees					1,619	
Supplemental Plantings						
1 Osmunda regalis	Royal Fern	OBL	60	19,428	324	
2 O. Cinnamomea	Cinnamon Fern	FACW	60	19,428	324	
3 Carex spp	Sedges	FACW	60	19,428	324	
Total number of Supplemental Plantings					971	
Total number of Plantings					2590	

Wetland Seed Mix Design		
Northeast Wetland Forest Herb Mix	3 lbs per acre	@ 90+ seeds per sq. ft. distribute over 2.2 acres
Percent by no. seeds (not weight)	Scientific Name	Common Name
26%	Scirpus atrovirens	Green Bulrush
25%	Scirpus cyperinus	Wool Grass
8%	Carex vulpinoidea	Fox Sedge
8%	Glyceria canadensis	Canada Mannagrass
8%	Verbena hastata	Blus Vervain
6%	Glyceria grandis	Reed Meadowgrass
6%	Glyceria striata	Fowl Mannagrass
2%	Panicum clandestinum	Deertongue
2%	Verbena urticifolia	White Vervain
2%	Glyceria melicaria	Mello Mannagrass
1%	Boehmeria cylindrica	False Nettle
1%	Urtica dioica	Stinging Nettle
1%	Solidago gigantea	Giant Goldenrod
1%	Solidago rugosa	Wrinkled Goldenrod
1%	Cinna arundinacea	Wood Reed
1%	Leersia virginica	Whitegrass
1%	Cephalanthus occidentalis	Butterbush
<1%	Elymus canadensis	Wild Rye
<1%	Sium suave	Water Parsnip
<1%	Elymus virginicus	Virginia Wild Rye
<1%	Polygonum pennsylvanicum	Pennsylvania Smartweed
<1%	Geum macrophyllum	Large-Leaf Avens
<1%	Elymus riparius	Riverbank Wild Rye
<1%	Rumex verticillatus	Water Dock
<1%	Asclepias incarnata	Swamp Milkweed
<1%	Carex lurida	Shallow Sedge
<1%	Lilium superbum	Turks Cap Lily
<1%	Rubus allegheniensis	Blackberry
<1%	Carex lupulina	Hop Sedge

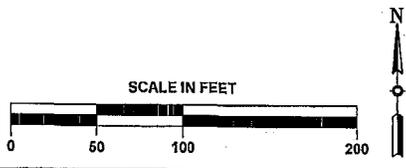


<p>THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES</p>	<p>DRAWN BY: TRT</p>	<p>SEVENTY ROAD MINE STREAM RESTORATION / RELOCATION PLAN</p>	<p>NYCO MINERALS</p>
	<p>DESIGN BY: TRT</p>		
	<p>CHECK BY: RAH</p>	<p>TOWN OF LEWIS</p>	<p>ESSEX COUNTY, NY</p>
	<p>PROJ. NO: 533.60</p> <p>SCALE: AS SHOWN</p> <p>DATE: 06-12-2013</p>	<p>H2H ASSOCIATES TROY, NY WWW.H2HASSOCIATES.COM</p>	



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MATCH LINE SHEET 01



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	<p>DESIGN BY: TRT</p>	
	<p>CHECK BY: RAH</p>	<p>NYCO MINERALS</p>
	<p>PROJ. NO: 533.60 SCALE: AS SHOWN DATE: 06-12-2013</p>	<p>TOWN OF LEWIS</p>

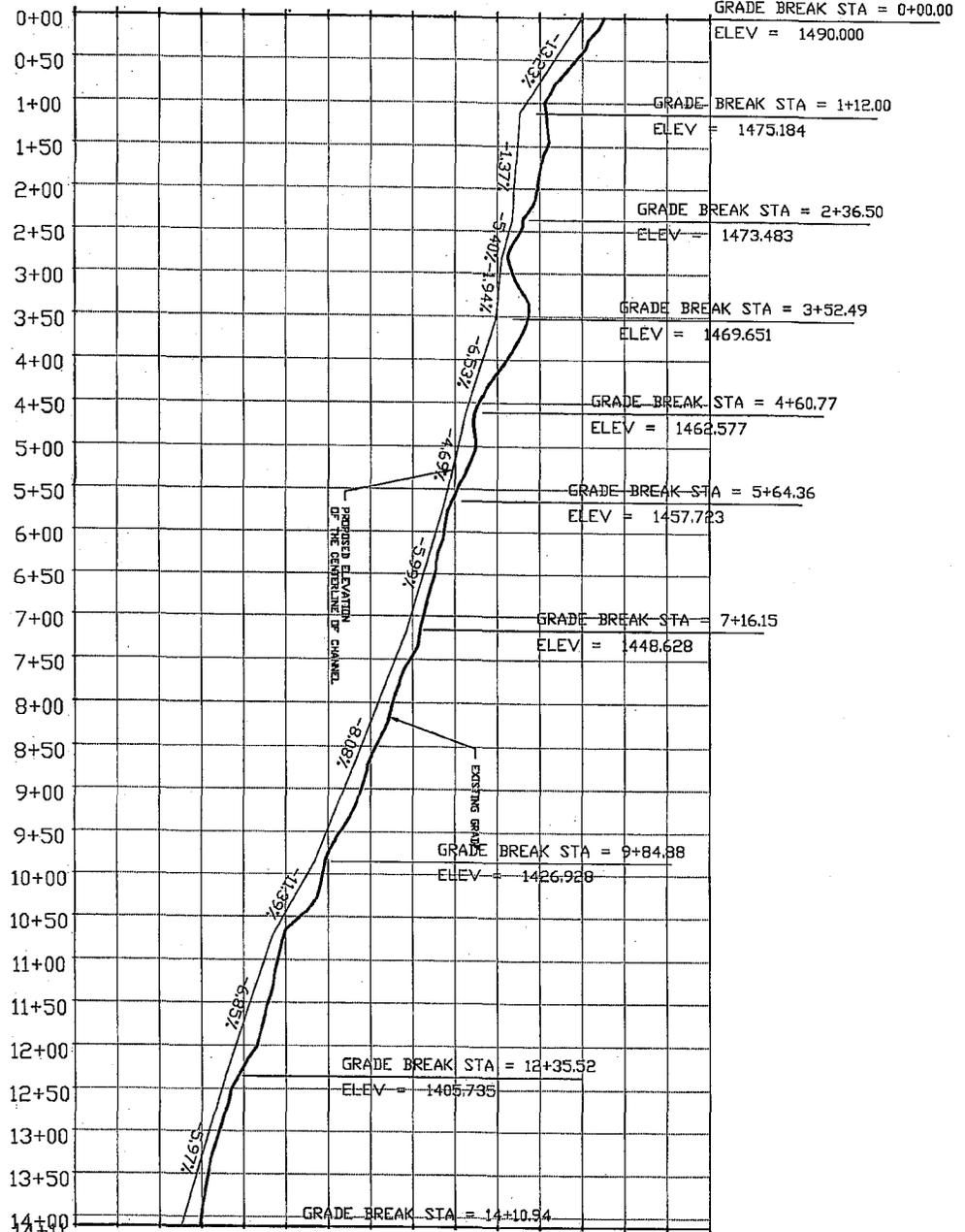
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 TRIV, NY WWW.H2HASSOCIATES.COM



FIGURE 2
 SHEET 02 OF 02

ELEVATION (FT AMSL)

1520
 1510
 1500
 1490
 1480
 1470
 1460
 1450
 1440
 1430
 1420
 1410
 1400
 1390
 1380
 1370



ELEVATION (FT AMSL)

1520
 1510
 1500
 1490
 1480
 1470
 1460
 1450
 1440
 1430
 1420
 1410
 1400
 1390
 1380
 1370

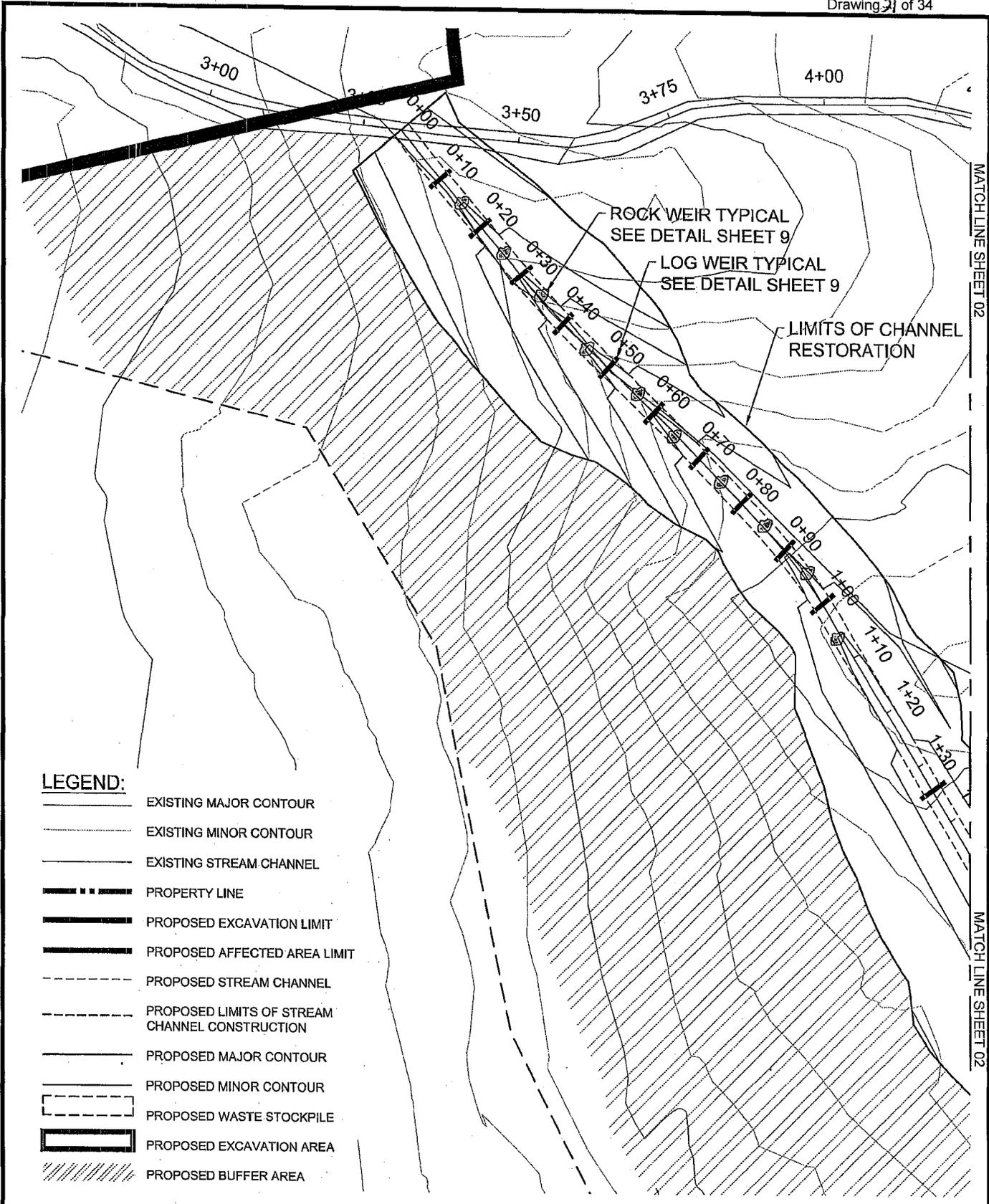
STATION (FEET)

SCALE:
 Horz. 1" = 200'
 Vert. 1" = 40'



THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES

PROJ. NO.:	ES340	TOWN OF LEWIS	H2H ASSOCIATES 1301 W. NEWBODEN AVENUE NEW BRITAIN, CT 06053
CHECK BY:	BAH	NYCO MINERALS	
DATE:	06-12-2013	ESSEX COUNTY, VT	FIGURE 3

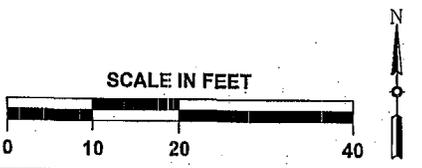


MATCH LINE SHEET 02

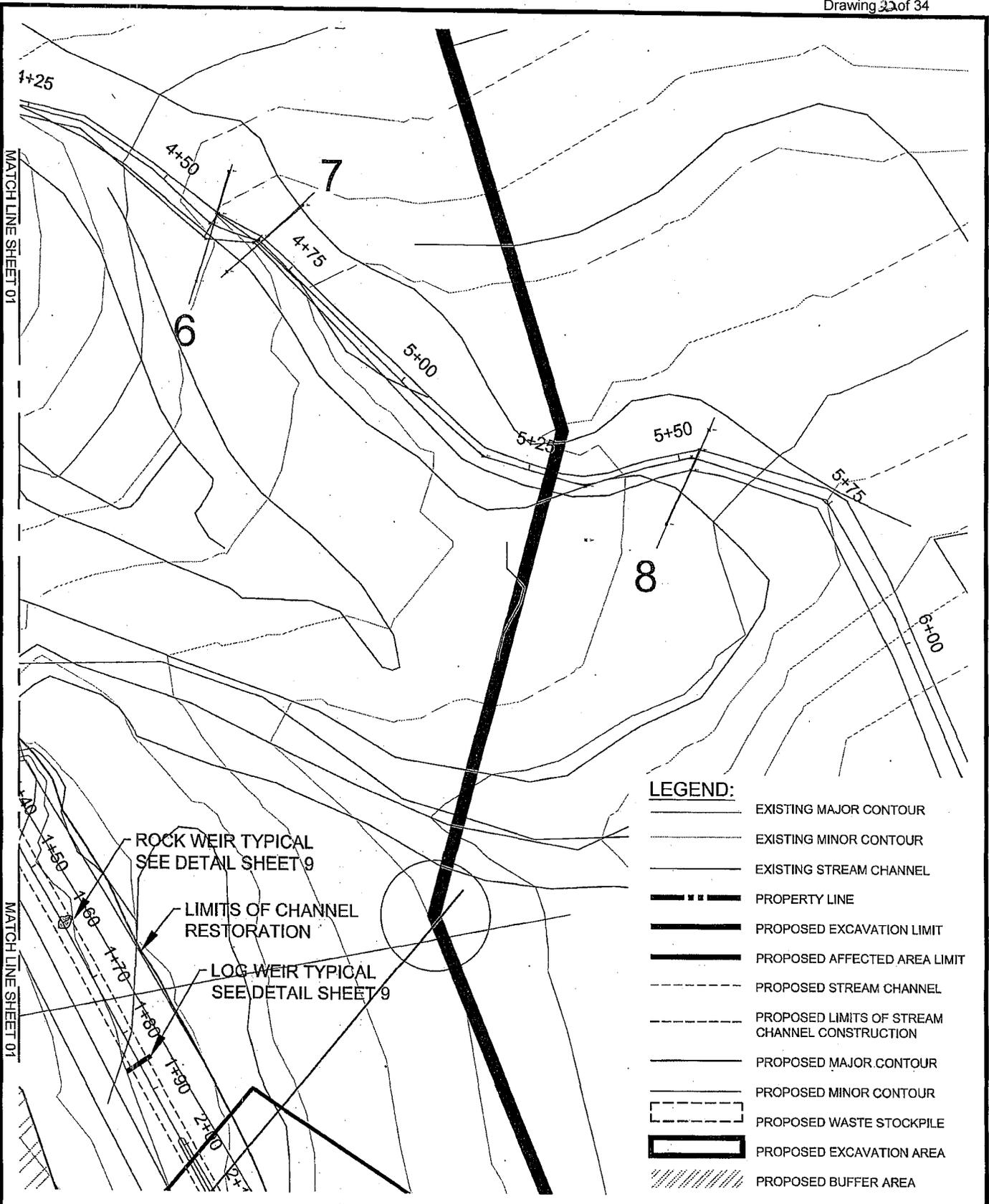
MATCH LINE SHEET 02

LEGEND:

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING STREAM CHANNEL
- PROPERTY LINE
- PROPOSED EXCAVATION LIMIT
- PROPOSED AFFECTED AREA LIMIT
- PROPOSED STREAM CHANNEL
- PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED WASTE STOCKPILE
- PROPOSED EXCAVATION AREA
- PROPOSED BUFFER AREA



<p>THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES</p>	DRAWN BY: TRT	SEVENTY ROAD MINE STREAM RESTORATION PLAN (STA 0+00 - 2+00)	
	DESIGN BY: TRT	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PROJ. NO: 633.30		
SCALE: AS SHOWN	H2H ASSOCIATES <small>TROY, NY WWW.H2HASSOCIATES.COM</small>		<p>FIGURE 4</p>
DATE: 08-12-2013			<p>SHEET 01 OF 02</p>

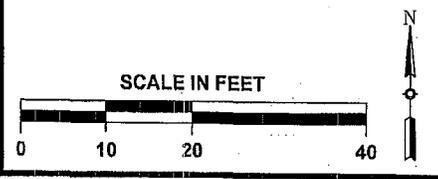


- LEGEND:**
- EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - EXISTING STREAM CHANNEL
 - PROPERTY LINE
 - PROPOSED EXCAVATION LIMIT
 - PROPOSED AFFECTED AREA LIMIT
 - PROPOSED STREAM CHANNEL
 - PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - PROPOSED WASTE STOCKPILE
 - PROPOSED EXCAVATION AREA
 - PROPOSED BUFFER AREA

ROCK WEIR TYPICAL
 SEE DETAIL SHEET 9

LIMITS OF CHANNEL RESTORATION

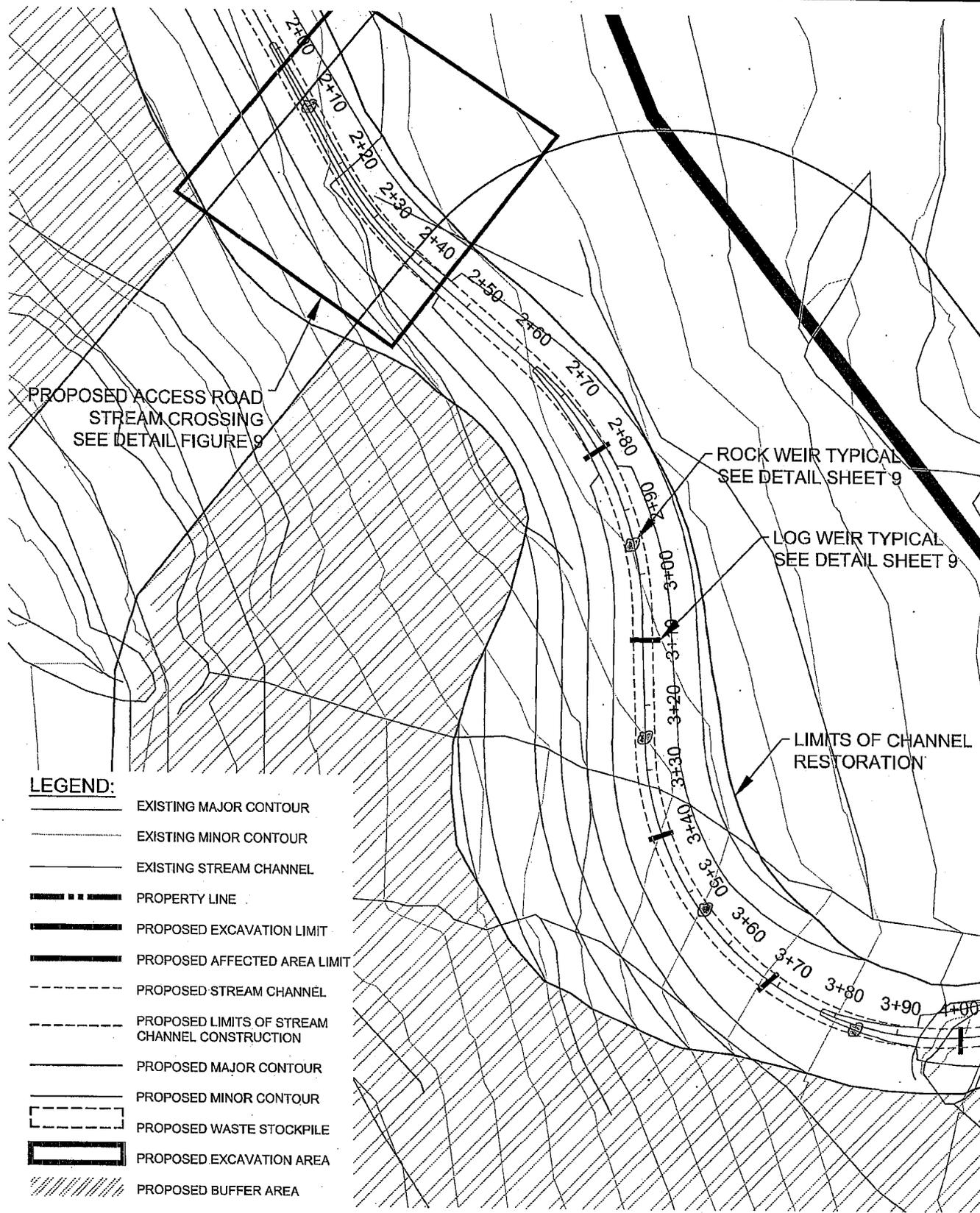
LOG WEIR TYPICAL
 SEE DETAIL SHEET 9



<p>THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES</p>	<p>DRAWN BY: TRT</p>	<p>SEVENTY ROAD MINE STREAM RESTORATION PLAN (STA 0+00 - 2+00)</p>	
	<p>DESIGN BY: TRT</p>	<p>NYCO MINERALS</p>	
<p>CHECK BY: RAH</p>	<p>TOWN OF LEWIS</p>		<p>ESSEX COUNTY, NY</p>
<p>PROJ. NO: 533.30</p>	<p>H2H ASSOCIATES</p>		<p>FIGURE 4</p>
<p>SCALE: AS SHOWN</p>	<p>TROY, NY WWW.H2HASSOCIATES.COM</p>		<p>SHEET 02 OF 02</p>
<p>DATE: 06-12-2013</p>			

MATCH LINE SHEET 02

MATCH LINE SHEET 02



PROPOSED ACCESS ROAD
 STREAM CROSSING
 SEE DETAIL FIGURE 9

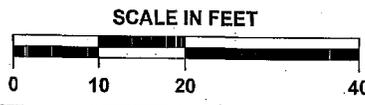
ROCK WEIR TYPICAL
 SEE DETAIL SHEET 9

LOG WEIR TYPICAL
 SEE DETAIL SHEET 9

LIMITS OF CHANNEL
 RESTORATION

LEGEND:

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING STREAM CHANNEL
- PROPERTY LINE
- PROPOSED EXCAVATION LIMIT
- PROPOSED AFFECTED AREA LIMIT
- PROPOSED STREAM CHANNEL
- PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED WASTE STOCKPILE
- PROPOSED EXCAVATION AREA
- PROPOSED BUFFER AREA



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	DESIGN BY: TRT			
	CHECK BY: RAH	<p>NYCO MINERALS</p>		
	PROJ. NO: 533,30	TOWN OF LEWIS	<p>ESSEX COUNTY, NY</p>	
SCALE: AS SHOWN	<p>H2H ASSOCIATES</p>		<p>FIGURE 5</p>	
DATE: 08-12-2013	TROY, NY	<p><small>WWW.H2HASSOCIATES.COM</small></p>		
			<p>SHEET 01 OF 02</p>	

LEGEND:

-  EXISTING MAJOR CONTOUR
-  EXISTING MINOR CONTOUR
-  EXISTING STREAM CHANNEL
-  PROPERTY LINE
-  PROPOSED EXCAVATION LIMIT
-  PROPOSED AFFECTED AREA LIMIT
-  PROPOSED STREAM CHANNEL
-  PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
-  PROPOSED MAJOR CONTOUR
-  PROPOSED MINOR CONTOUR
-  PROPOSED WASTE STOCKPILE
-  PROPOSED EXCAVATION AREA
-  PROPOSED BUFFER AREA

MATCH LINE SHEET 01

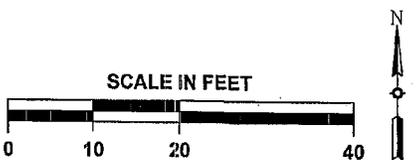
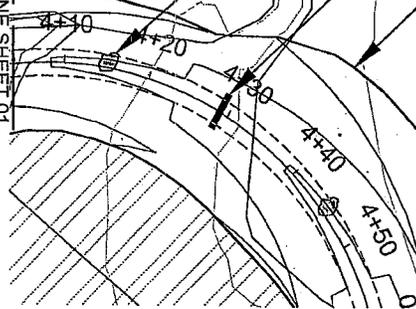
MATCH LINE SHEET 01

ROCK WEIR TYPICAL
 SEE DETAIL SHEET 9

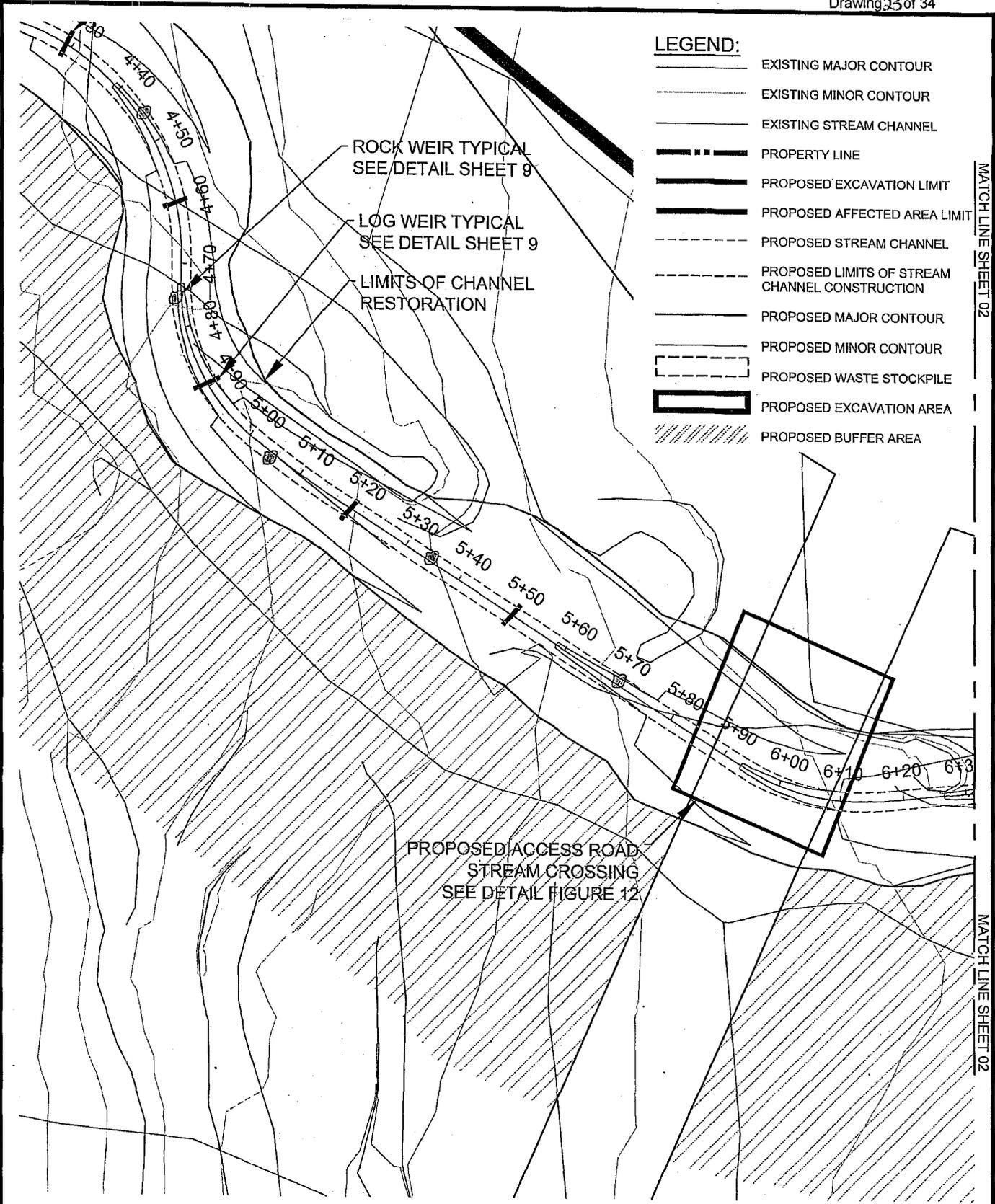
LOG WEIR TYPICAL
 SEE DETAIL SHEET 9

LIMITS OF CHANNEL
 RESTORATION

ROCK WEIR TYPICAL
 SEE DETAIL SHEET 9



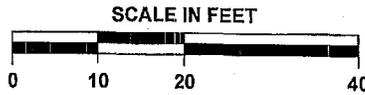
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	DESIGN BY: TRT	
	CHECK BY: RAH	NYCO MINERALS
	PROJ. NO: 533.30 SCALE: AS SHOWN DATE: 06-12-2013	TOWN OF LEWIS H2H ASSOCIATES TROY, NY <small>WWW.H2HASSOCIATES.COM</small>



- LEGEND:**
- EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - EXISTING STREAM CHANNEL
 - PROPERTY LINE
 - PROPOSED EXCAVATION LIMIT
 - PROPOSED AFFECTED AREA LIMIT
 - PROPOSED STREAM CHANNEL
 - PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - PROPOSED WASTE STOCKPILE
 - PROPOSED EXCAVATION AREA
 - PROPOSED BUFFER AREA

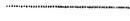
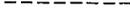
MATCH LINE SHEET 02

MATCH LINE SHEET 02



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	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PROJ. NO: 633.30 SCALE: AS SHOWN DATE: 06-12-2013	H2H ASSOCIATES <small>TRIO, NY WWW.H2HASSOCIATES.COM</small>	
			FIGURE 6 SHEET 01 OF 02

LEGEND:

-  EXISTING MAJOR CONTOUR
-  EXISTING MINOR CONTOUR
-  EXISTING STREAM CHANNEL
-  PROPERTY LINE
-  PROPOSED EXCAVATION LIMIT
-  PROPOSED AFFECTED AREA LIMIT
-  PROPOSED STREAM CHANNEL
-  PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
-  PROPOSED MAJOR CONTOUR
-  PROPOSED MINOR CONTOUR
-  PROPOSED WASTE STOCKPILE
-  PROPOSED EXCAVATION AREA
-  PROPOSED BUFFER AREA

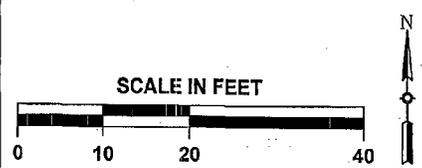
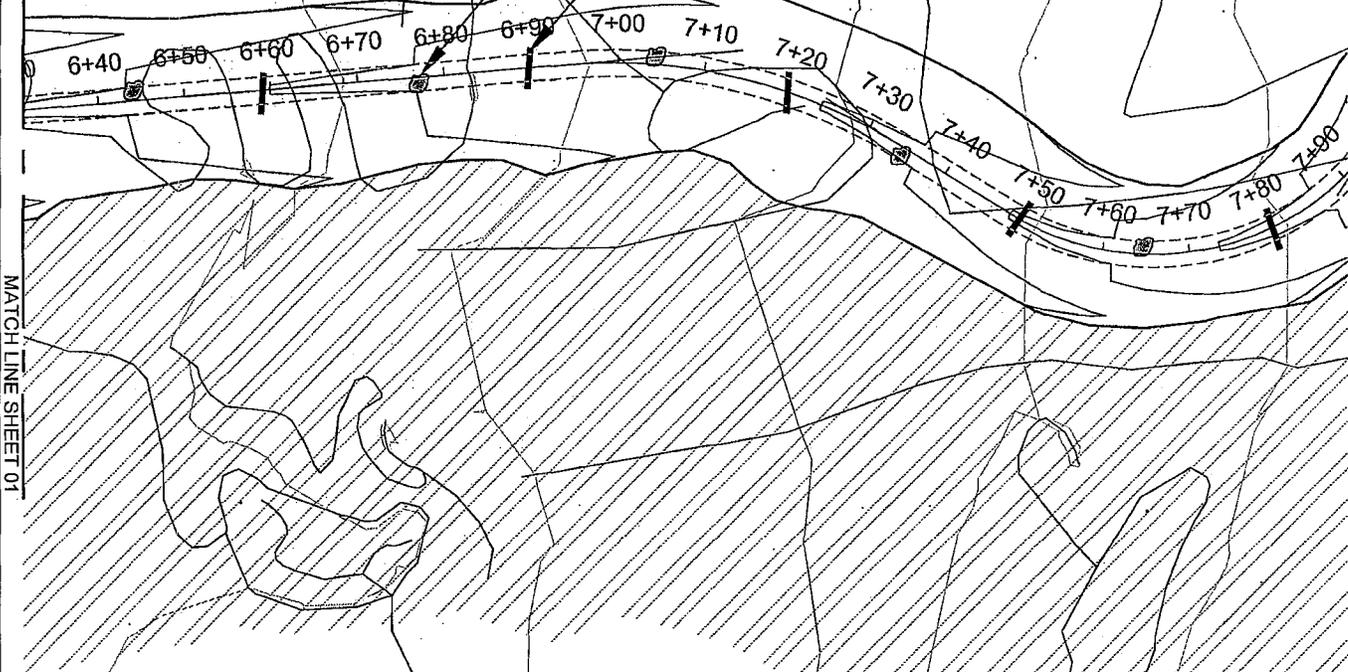
MATCH LINE SHEET 01

MATCH LINE SHEET 01

ROCK WEIR TYPICAL
 SEE DETAIL SHEET 9

LOG WEIR TYPICAL
 SEE DETAIL SHEET 9

LIMITS OF CHANNEL
 RESTORATION

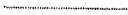
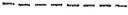


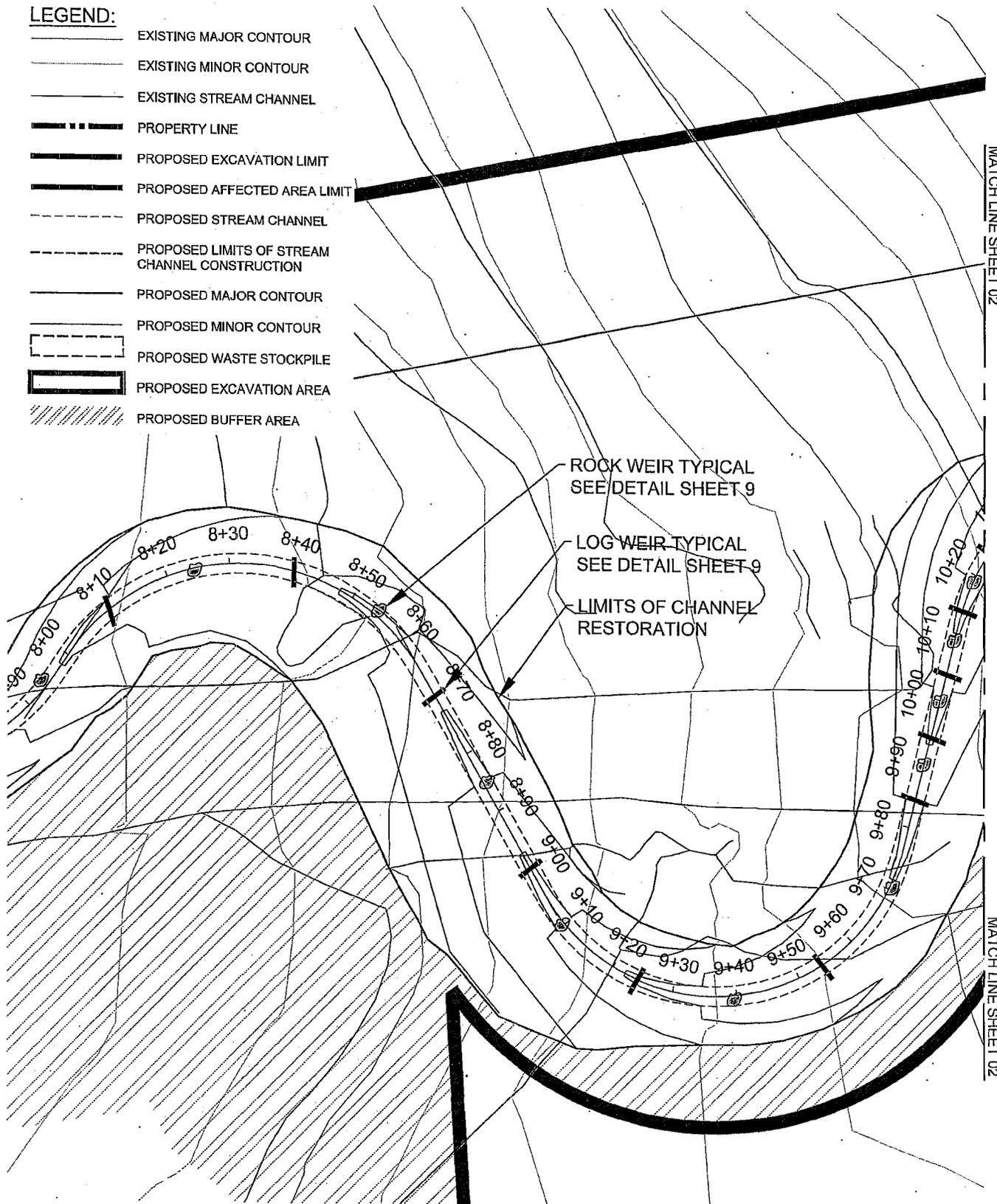
<p>THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES</p>	<p>DRAWN BY: TRT</p>	<p>SEVENTY ROAD MINE STREAM RESTORATION PLAN (STA 4+70 - 8+00)</p>
	<p>DESIGN BY: TRT</p>	<p>NYCO MINERALS</p>
	<p>CHECK BY: RAH</p>	<p>TOWN OF LEWIS</p>
	<p>PROJ. NO: 533.30</p> <p>SCALE: AS SHOWN</p> <p>DATE: 08-12-2013</p>	<p>ESSEX COUNTY, NY</p>

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 TROY, NY
 WWW.H2HASSOCIATES.COM

FIGURE 6
 SHEET 02 OF 02

LEGEND:

-  EXISTING MAJOR CONTOUR
-  EXISTING MINOR CONTOUR
-  EXISTING STREAM CHANNEL
-  PROPERTY LINE
-  PROPOSED EXCAVATION LIMIT
-  PROPOSED AFFECTED AREA LIMIT
-  PROPOSED STREAM CHANNEL
-  PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
-  PROPOSED MAJOR CONTOUR
-  PROPOSED MINOR CONTOUR
-  PROPOSED WASTE STOCKPILE
-  PROPOSED EXCAVATION AREA
-  PROPOSED BUFFER AREA



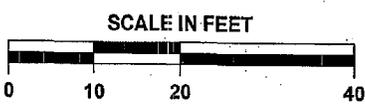
ROCK WEIR TYPICAL
 SEE DETAIL SHEET 9

LOG WEIR TYPICAL
 SEE DETAIL SHEET 9

LIMITS OF CHANNEL
 RESTORATION

MATCH LINE SHEET 02

MATCH LINE SHEET 02



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 PURPOSES

DRAWN BY:	TRT
DESIGN BY:	TRT
CHECK BY:	RAH
PROJ. NO:	533.30
SCALE:	AS SHOWN
DATE:	06-12-2013

SEVENTY ROAD MINE STREAM RESTORATION PLAN (STA 8+00-11+90)

NYCO MINERALS
 TOWN OF LEWIS ESSEX COUNTY, NY

H2H ASSOCIATES
 TROY, NY WWW.H2HASSOCIATES.COM

FIGURE 7
 SHEET 01 OF 02

MATCH LINE SHEET 01

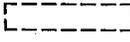
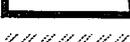
MATCH LINE SHEET 01

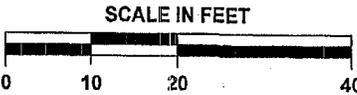
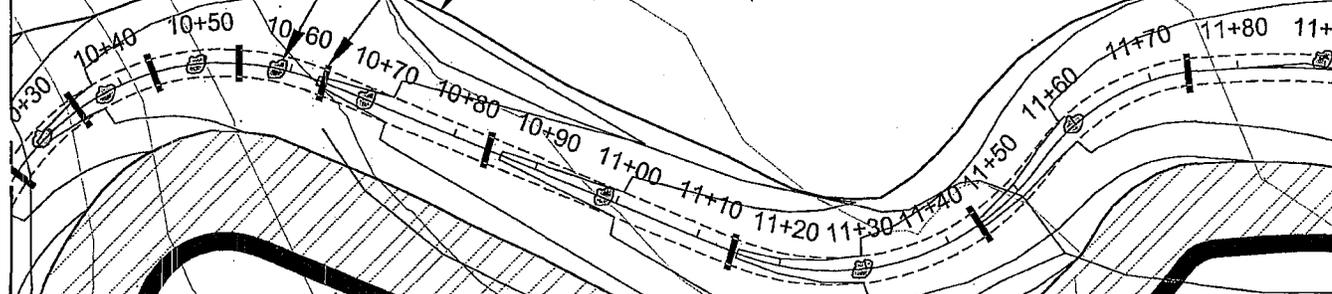
ROCK WEIR TYPICAL
 SEE DETAIL SHEET 9

LOG WEIR TYPICAL
 SEE DETAIL SHEET 9

LIMITS OF CHANNEL
 RESTORATION

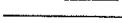
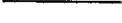
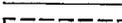
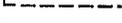
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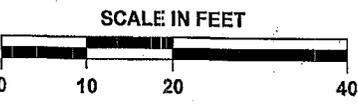
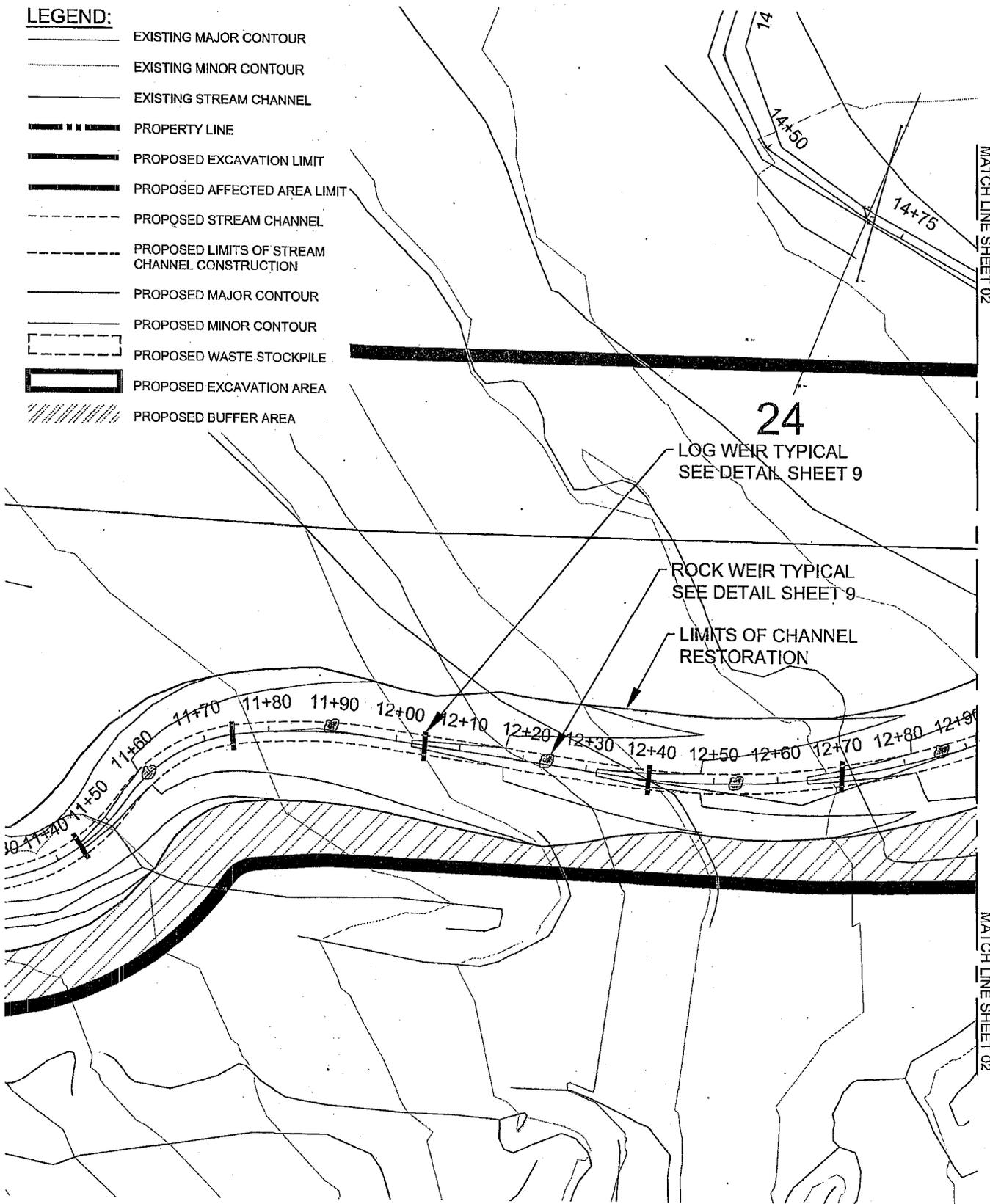
-  EXISTING MAJOR CONTOUR
-  EXISTING MINOR CONTOUR
-  EXISTING STREAM CHANNEL
-  PROPERTY LINE
-  PROPOSED EXCAVATION LIMIT
-  PROPOSED AFFECTED AREA LIMIT
-  PROPOSED STREAM CHANNEL
-  PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
-  PROPOSED MAJOR CONTOUR
-  PROPOSED MINOR CONTOUR
-  PROPOSED WASTE STOCKPILE
-  PROPOSED EXCAVATION AREA
-  PROPOSED BUFFER AREA



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	<p>DESIGN BY: TRT</p>	<p>NYCO MINERALS</p>	
	<p>CHECK BY: RAH</p>	<p>TOWN OF LEWIS</p>	<p>ESSEX COUNTY, NY</p>
	<p>PROJ. NO: 533.30</p> <p>SCALE: AS SHOWN</p> <p>DATE: 06-12-2013</p>	<p>H2H ASSOCIATES</p> <p>TROY, NY  WWW.H2HASSOCIATES.COM</p>	
			<p>FIGURE 7</p>
			<p>SHEET 02 OF 02</p>

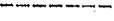
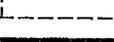
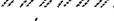
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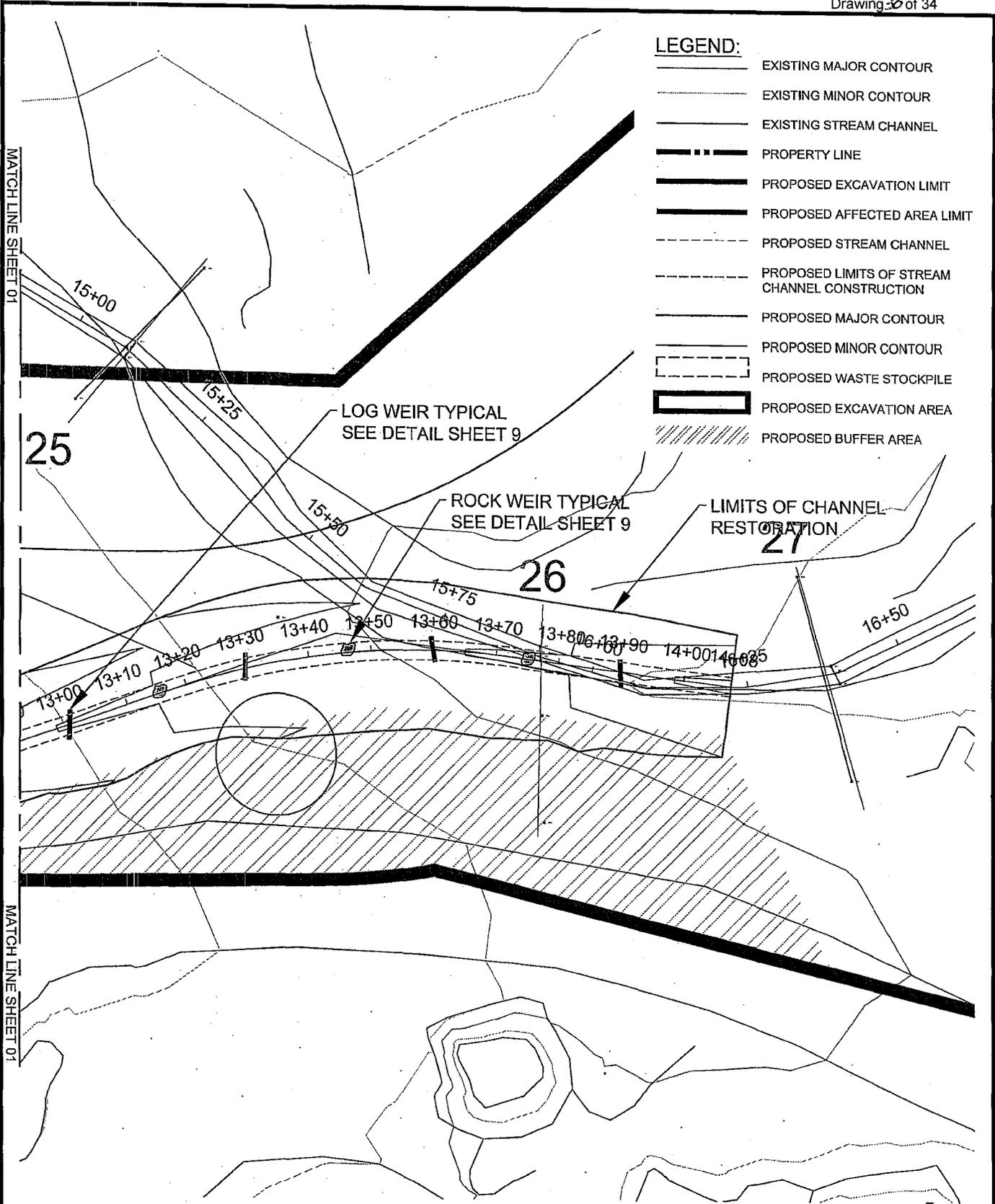
-  EXISTING MAJOR CONTOUR
-  EXISTING MINOR CONTOUR
-  EXISTING STREAM CHANNEL
-  PROPERTY LINE
-  PROPOSED EXCAVATION LIMIT
-  PROPOSED AFFECTED AREA LIMIT
-  PROPOSED STREAM CHANNEL
-  PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
-  PROPOSED MAJOR CONTOUR
-  PROPOSED MINOR CONTOUR
-  PROPOSED WASTE STOCKPILE
-  PROPOSED EXCAVATION AREA
-  PROPOSED BUFFER AREA



<p>THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES</p>	<p>DRAWN BY: TRT</p>	<p>SEVENTY ROAD MINE STREAM RESTORATION PLAN (STA 11+90-14+10)</p>
	<p>DESIGN BY: TRT</p>	
	<p>CHECK BY: RAH</p>	
	<p>PROJ. NO: 533.30</p>	
<p>SCALE: AS SHOWN</p>	<p>TOWN OF LEWIS</p>	<p>NYCO MINERALS</p>
<p>DATE: 06-12-2013</p>	<p>H2H ASSOCIATES TROY, NY WWW.H2HASSOCIATES.COM</p>	<p>ESSEX COUNTY, NY</p>
		<p>FIGURE 8</p>
		<p>SHEET 01 OF 02</p>

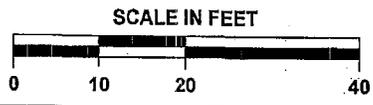
LEGEND:

-  EXISTING MAJOR CONTOUR
-  EXISTING MINOR CONTOUR
-  EXISTING STREAM CHANNEL
-  PROPERTY LINE
-  PROPOSED EXCAVATION LIMIT
-  PROPOSED AFFECTED AREA LIMIT
-  PROPOSED STREAM CHANNEL
-  PROPOSED LIMITS OF STREAM CHANNEL CONSTRUCTION
-  PROPOSED MAJOR CONTOUR
-  PROPOSED MINOR CONTOUR
-  PROPOSED WASTE STOCKPILE
-  PROPOSED EXCAVATION AREA
-  PROPOSED BUFFER AREA

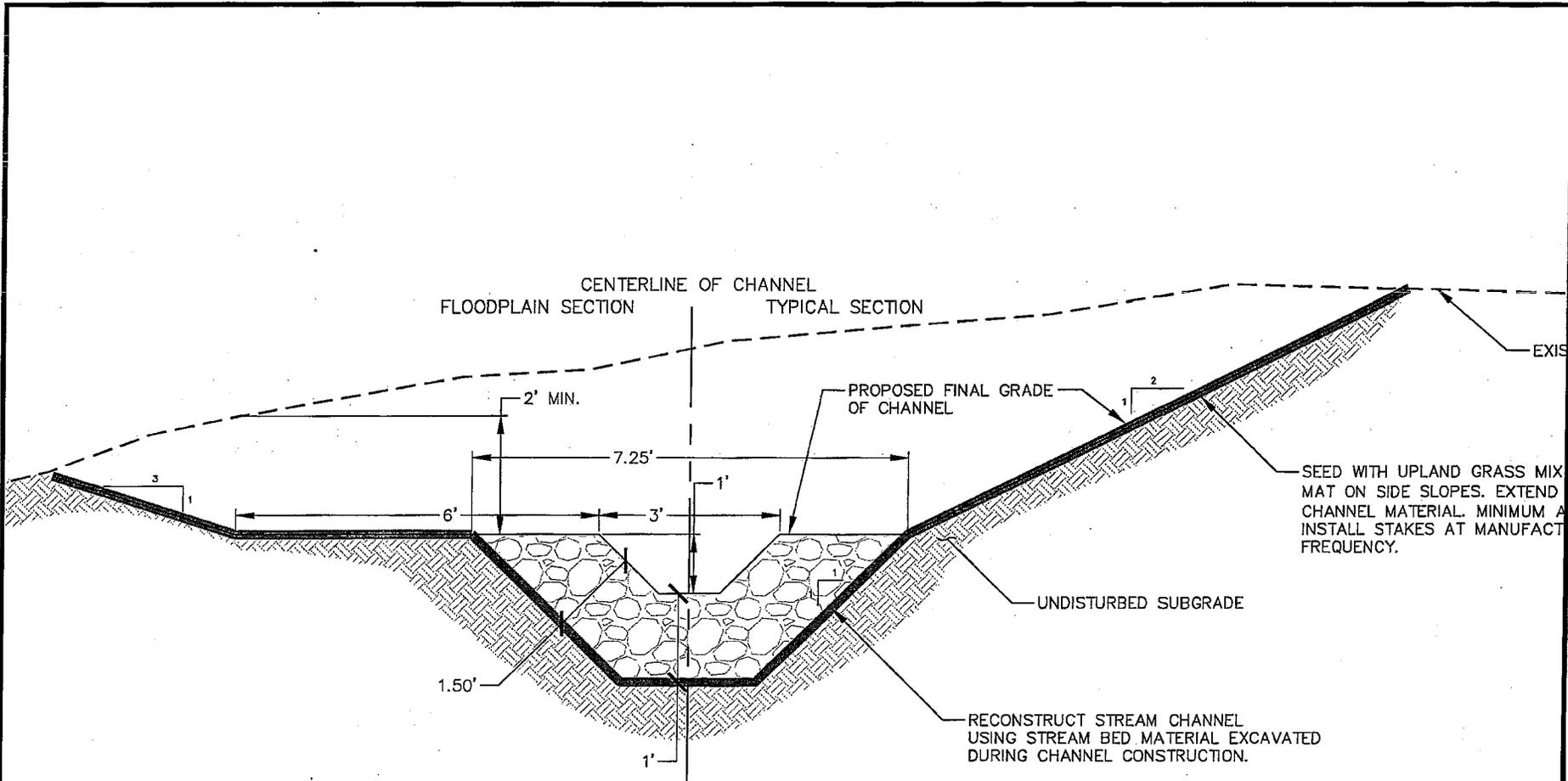


MATCH LINE SHEET 01

MATCH LINE SHEET 01

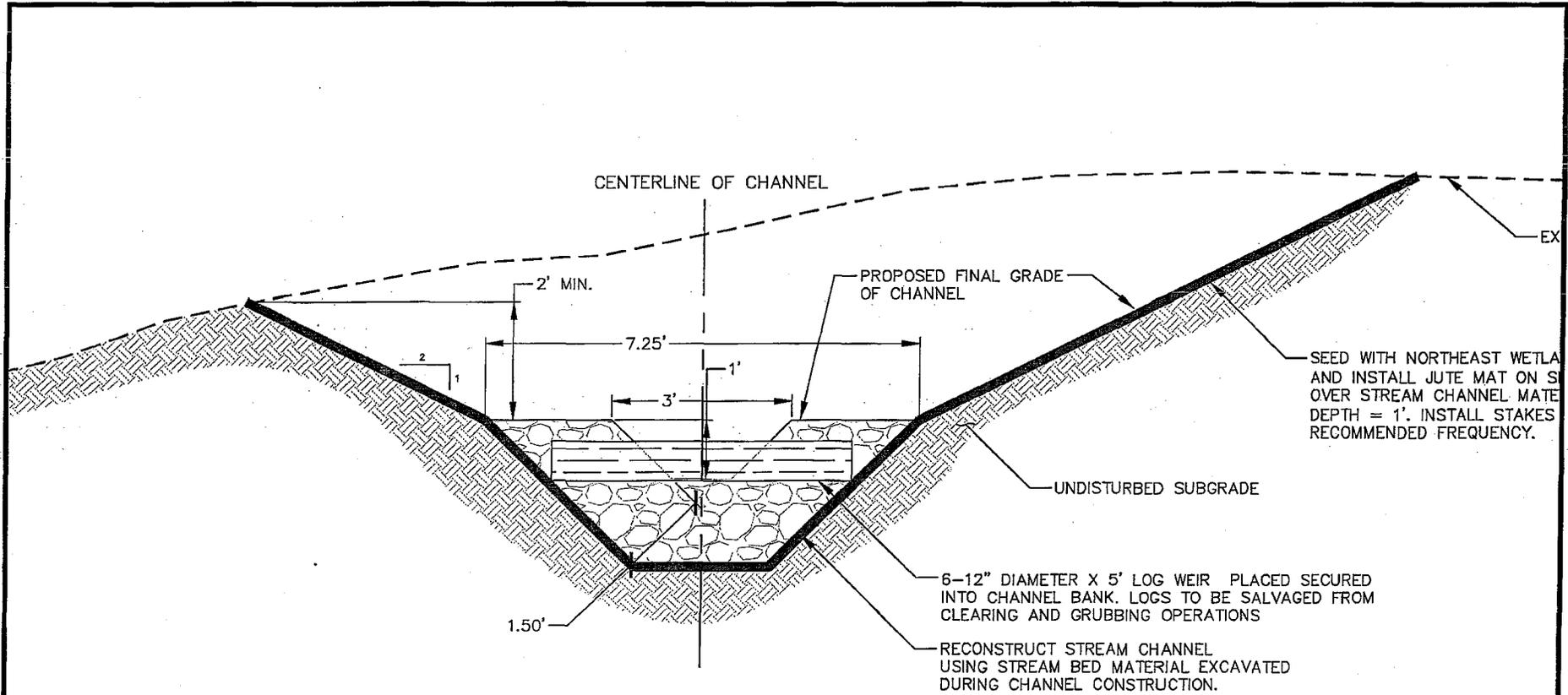


THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: TRT	SEVENTY ROAD MINE STREAM RESTORATION PLAN (STA 11+90 - 14+10)	
	DESIGN BY: TRT	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PROJ. NO: 533.30		
SCALE: AS SHOWN	H2H ASSOCIATES <small>TROY, NY WWW.H2HASSOCIATES.COM</small>		FIGURE 7 <small>SHEET 02 OF 02</small>
DATE: 06-12-2013			



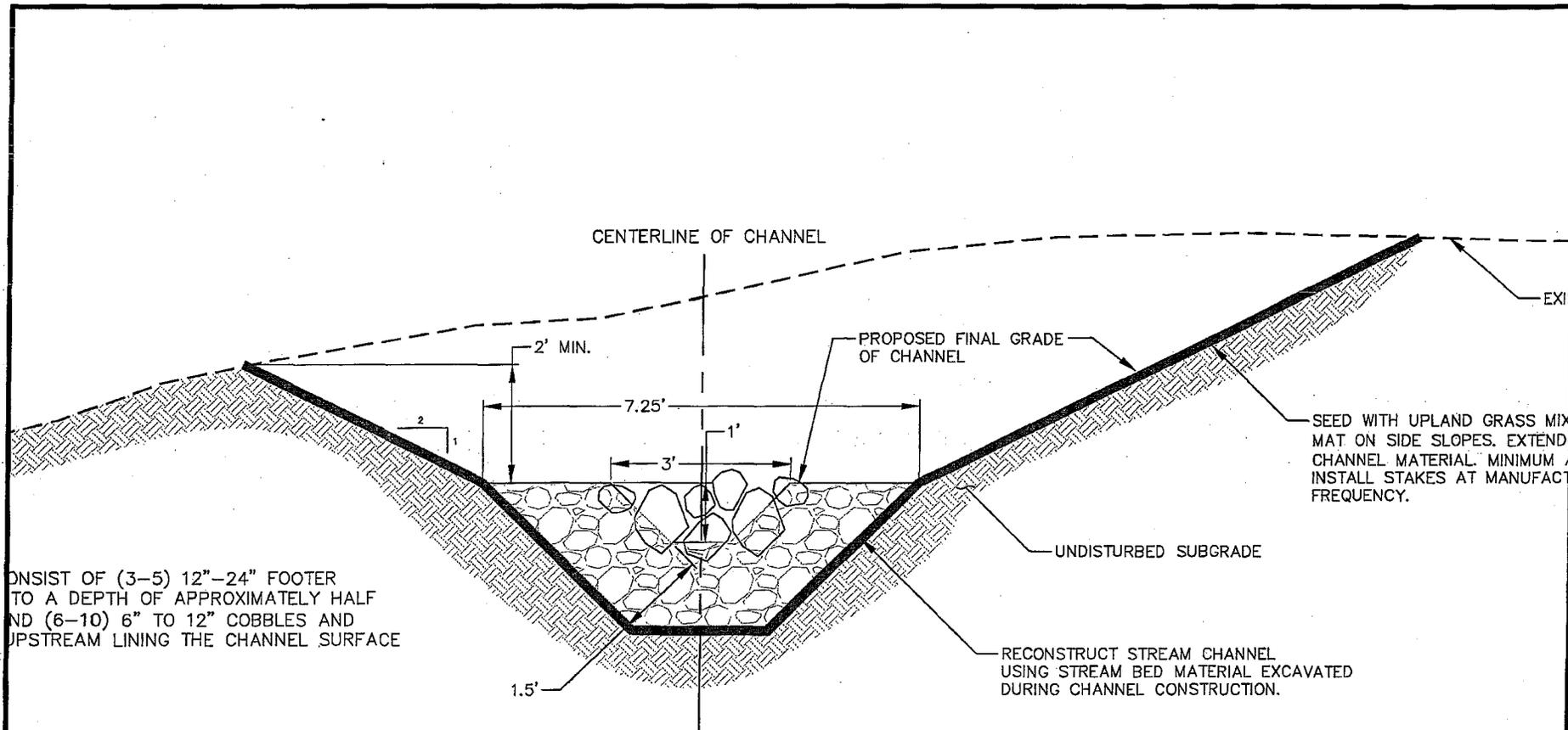
THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: TRT	STREAM CROSSING AND RESTORATION DETAILS - STREAM CHANNEL RESTORATION DETAIL	
	DESIGN BY: TRT	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PROJ. NO: 533.30	H2H ASSOCIATES	
	SCALE: AS SHOWN		
DATE: 06-12-2013	TROY, NY WWW.H2HASSOCIATES.COM		FIGURE 9 SHEET 01 OF 07

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 Drawing 31 of 34



THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: TRT	STREAM CROSSING AND RESTORATION DETAILS - STREAM CHANNEL RESTORATION DETAIL AT LOG WEIR	
	DESIGN BY: TRT	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PROJ. NO: 633,30		
	SCALE: AS SHOWN		
DATE: 06-12-2013	H2H ASSOCIATES TROY, NY WWW.H2HASSOCIATES.COM	FIGURE 9 SHEET 02 OF 07	

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ONSIST OF (3-5) 12"-24" FOOTER
TO A DEPTH OF APPROXIMATELY HALF
ND (6-10) 6" TO 12" COBBLES AND
UPSTREAM LINING THE CHANNEL SURFACE

SEED WITH UPLAND GRASS MIX
MAT ON SIDE SLOPES. EXTEND
CHANNEL MATERIAL MINIMUM
INSTALL STAKES AT MANUFACT
FREQUENCY.

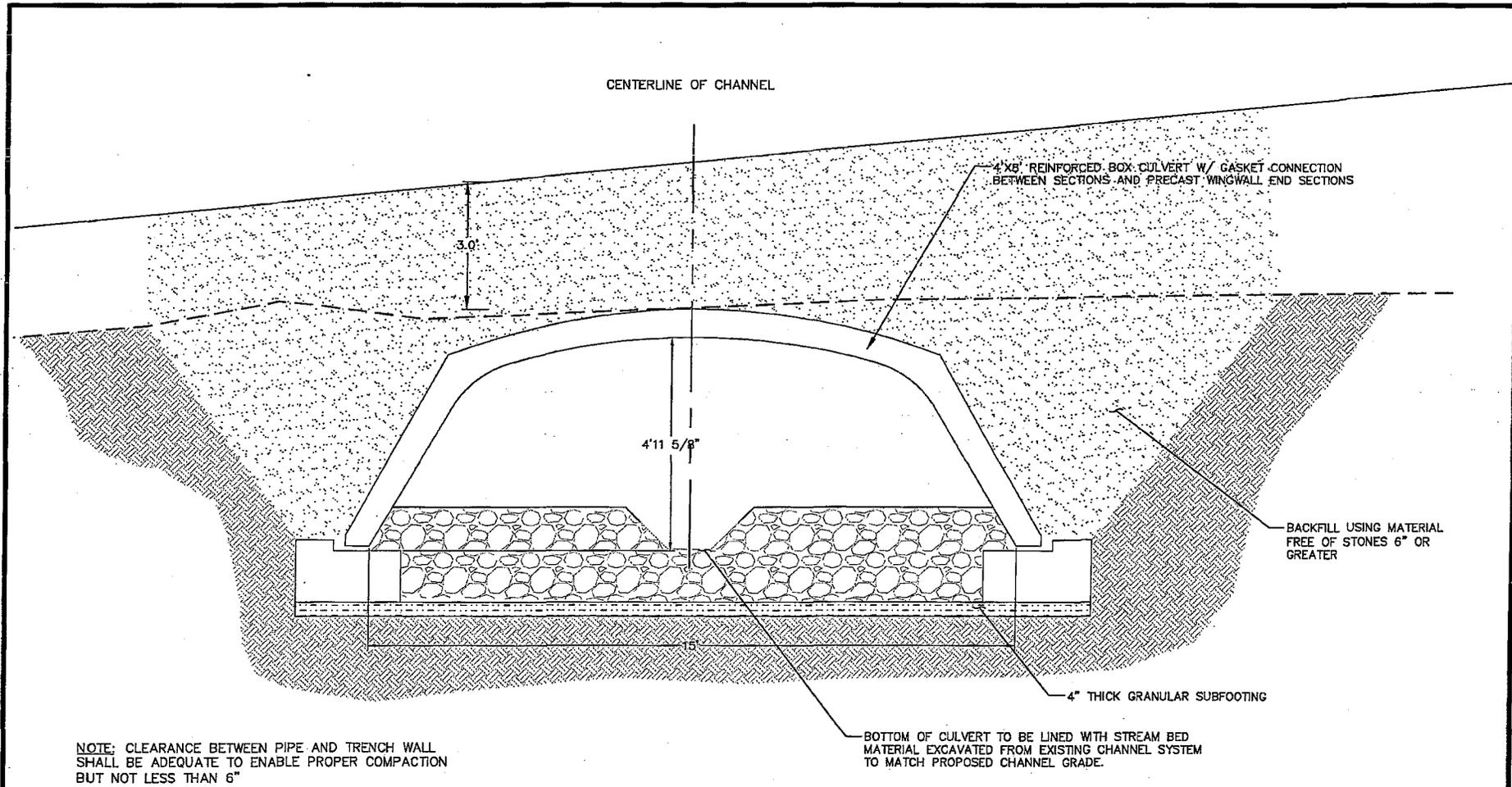
RECONSTRUCT STREAM CHANNEL
USING STREAM BED MATERIAL EXCAVATED
DURING CHANNEL CONSTRUCTION.

NOTE:

1) ROCK WEIR TO CONSIST OF (3-5) 12"-24" FOOTER BOULDERS
BURIED TO A DEPTH OF APPROXIMATELY HALF THEIR DIAMETER. AND
(6-10) 6" TO 12" COBBLES AND SMALL BOULDERS UPSTREAM LINING
THE CHANNEL SURFACE

THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES	DRAWN BY: TRT	STREAM CROSSING AND RESTORATION DETAILS - STREAM CHANNEL RESTORATION DETAIL AT ROCK WEIR	
	DESIGN BY: TRT	NYCO MINERALS	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PROJ. NO: 533.30		
SCALE: AS SHOWN			FIGURE 9
DATE: 06-12-2013			SHEET 03 OF 07

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 Drawing 35 of 34



NOTE: CLEARANCE BETWEEN PIPE AND TRENCH WALL SHALL BE ADEQUATE TO ENABLE PROPER COMPACTION BUT NOT LESS THAN 6"

BOTTOM OF CULVERT TO BE LINED WITH STREAM BED MATERIAL EXCAVATED FROM EXISTING CHANNEL SYSTEM TO MATCH PROPOSED CHANNEL GRADE.

STREAM CROSSING AT ACCESS ROAD - STATION 2+37

<p>THIS DRAWING IS NOT TO BE USED FOR ENGINEERING PURPOSES</p>	DRAWN BY: TRT	<p>STREAM CROSSING AND RESTORATION DETAILS - STREAM CHANNEL AT ACCESS ROAD CROSSING</p>	
	DESIGN BY: TRT	<p>NYCO MINERALS</p>	
	CHECK BY: RAH	TOWN OF LEWIS	ESSEX COUNTY, NY
	PRCJ. NO: 533.30	<p>H2H ASSOCIATES</p>	
	SCALE: NTS		
DATE: 06-12-2013	TROY, NY	<p>WWW.H2HASSOCIATES.COM</p>	<p>FIGURE 9</p>
			<p>SHEET 04 OF 07</p>

MAN-2013-00376-USH
 NYCO Minerals, Inc.
 Drawing 34 of 34