

4966/34124 #2



**Remediation and Liability Management Company Inc.**

**James F. Hartnett  
Program Manager**

January 10, 2007

Gerald Rider, P.E., Chief  
Operation & Maintenance Section  
Division of Environmental Remediation  
625 Broadway, 11<sup>th</sup> Floor  
Albany, New York 12233-7014

Re: Ley Creek PCB Dredgings Site (Registry # 7-34-044)  
NYSDEC Order on Consent Index # D-7-0008-97-06  
2006 Annual OM&M Inspection Report

Dear Mr. Rider,

The purposes of this letter are to submit documentation pertaining to the Operation, Maintenance, and Monitoring (OM&M) site inspections that were conducted at the Ley Creek PCB Dredgings Site (Site) in 2006 and present REALM's proposed modifications regarding continued OM&M activities at the Site. The 2006 OM&M site inspections were performed in accordance with the NYSDEC-approved OM&M Manual (O'Brien & Gere 2001) for the Site. The documentation enclosed consists of three letter reports, one each for the two semi-annual site inspections and one for the annual wetland evaluation. Deficiencies identified in the site inspections and wetland evaluation reports will be addressed by REALM during the upcoming 2007 construction season, as site conditions allow.

As set forth in Section 2.1.3 of the NYSDEC-approved OM&M Manual for the Site, an evaluation was performed after the fifth year of OM&M activities (2005) regarding inspection frequency for the Site and again in 2006. Since the first year (2001) of OM&M implementation at the Site, only minor deficiencies to the Site features have been observed in the semi-annual site inspections. The minor deficiencies have included localized cover erosion, debris accumulation around catch basins, and the presence of burrowing animals, which have been addressed by REALM. With the absence of major deficiencies, REALM therefore, for a second consecutive year, proposes that the monitoring frequency for routine site inspections be modified from semi-annual to annual, beginning in 2007.

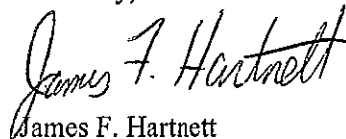
As set forth in Section 2.6.3 of the NYSDEC-approved OM&M Manual for the Site, an assessment of the continued need for wetland monitoring was performed after the fifth year of wetland monitoring (2005). As proposed in the 2006 Annual OM&M Inspection Report dated January 27, 2006, an additional year of wetland monitoring was performed. As documented in the annual wetlands evaluations, there has been a positive trend toward meeting the target restoration goal of 90% ground cover within the sample plots of seeded and wetland-dependent species. The percent of sample plots meeting the target criterion at the

Gerald Rider, P.E., Chief  
January 10 2007  
Page 2 of 2

site has increased over the six-year monitoring period. In 2001 and 2002, only one of the four sample plots met the target criterion. In 2003 and 2004 two of the sample plots met the criterion and in 2005 and 2006, three of the sample plots met the criterion. The location of the three sample plots that met the criterion in both 2005 and 2006 were in similar areas. Based on this consistent positive trend, REALM proposes to perform wetland enhancements within the wetland area immediately adjacent to the plot that did not meet the target restoration goal of 90% ground cover in the Spring of 2007 and continue the wetland monitoring efforts for one additional year (Year 2007 evaluation) only in the enhanced wetland area in the Late Summer/Early Fall of 2007. Additional details regarding the enhancement efforts are provided in the attached O'Brien & Gere 2006 OM&M Wetland Evaluation Report dated November 30, 2006. Upon completion of this additional wetland evaluation year, the need for continued monitoring efforts and maintenance activities will be assessed for the enhanced wetland area. If the target restoration goal is met in 2007, monitoring will be concluded.

REALM would appreciate NYSDEC's concurrence with the proposed modifications contained herein. Should you or your staff have any questions regarding the contents of this annual OM&M inspection report, in particular the proposed modifications, please contact me at (315) 463-2391.

Sincerely,



James F. Hartnett  
Remediation Program Manager

Enclosure

cc: James Burke (NYSDEC)  
Robert Nunes (USEPA)  
Douglas Crawford, P.E. (O'Brien & Gere)

FLOOR COPY

DAC  
MSA  
BAK



## O'BRIEN & GERE

November 30, 2006

Mr. James F. Hartnett  
General Motors Corporation  
One General Motors Drive STE2  
Syracuse, NY 13206-1127

Re: Ley Creek PCB Dredgings Site  
2006 OM&M Wetland Evaluation

File: 4966/34124 #2

Dear Jim:

This letter presents the results of wetland evaluation efforts performed at the Ley Creek PCB Dredgings Site (the Site), located in Syracuse, New York. Kyle Buelow and Ron Chiarello of O'Brien & Gere performed the evaluation on October 3, 2006, in accordance with Section 2.6 of the September 2001 *Operation, Maintenance, and Monitoring Manual* (OM&M Manual), which was approved by the New York State Department of Environmental Conservation (NYSDEC). The United States Protection Agency (USEPA) was present during a portion of the inspection as part of its 5-year review process. Also, representatives from the NYSDEC, Onondaga Nation, and Bond, Schoeneck & King were present for the inspection.

The OM&M Manual specifies that a wetland evaluation is to be performed following the first full growing season (2001) and the subsequent four years (2002 through 2005). As noted in the evaluation prepared in 2005, the restoration goal was met in three of the four sample plots evaluated in 2005. Since the restoration goal was not met in one of the four sample plots, additional restoration activities (overseeding) and an additional year (2006) of monitoring were recommended. This wetland evaluation (Year 2006 Evaluation) represents the sixth full growing season following NYSDEC approval of the *Remedial Action Engineering Report* (O'Brien & Gere, 2001) in 2001.

### BACKGROUND

As documented in the *Wetland Assessment Report* for the Site (O'Brien & Gere 1998), eight emergent wetlands, totaling approximately 1.4 acres and dominated by dense stands of common reed (*Phragmites australis*) were identified at the Site prior to implementation of the Remedial Action. These wetlands were considered fringe wetlands based on their location adjacent to Ley Creek. The implementation of the Remedial Action at the Site temporarily eliminated these wetlands. A Wetland Mitigation Plan (letter report dated September 15, 2000), which consisted of the planting of reed canary grass (*Phalaris arundinacea*), was prepared by O'Brien & Gere on behalf of General Motors Corporation and approved by NYSDEC and the USEPA for the impacted wetlands at the Site. The Wetland Mitigation Plan was based on an evaluation of pre-remediation site conditions and anticipated post-remediation site conditions. The wetland mitigation was incorporated in the

Remedial Design. Figures 1 through 5 of this letter report depict the locations of the restored wetland areas at the Site.

### **INSPECTION ACTIVITIES**

In accordance with the OM&M Manual, a site visit was performed by qualified O'Brien & Gere wetland scientists on October 3, 2006 to evaluate the sixth year conditions of the restored wetlands and to identify maintenance activities that would be recommended to support the success of the wetland mitigation.

### **RESTORATION EVALUATION OBJECTIVES AND CRITERIA**

This letter report presents the results of the sixth evaluation effort for the restored wetlands at the Site. Restoration success is based on the target percentage of ground cover and the density of planted species (reed canary grass). The restoration goal for restored wetlands at the Site, as specified in Section 2.6 of the OM&M Manual, is 90% ground cover within the sample plots of seeded (reed canary grass) and wetland species. The performance standard for wetlands restoration at the Site is measured by the percent of established ground cover, either through planting or natural recruitment.

Consistent with the OM&M Manual, four 9 square-foot sample plots were used to evaluate ground cover in the restored wetlands during the 2006 evaluation. Data collected for these sample plots were recorded on field data forms developed by O'Brien & Gere; the completed forms are included as Attachment 1 of this letter report. The sample plot locations are identified on Figures 1 through 5 of this letter report.

In accordance with the OM&M Manual, percent ground cover evaluation plots were located randomly in representative areas along the access road at the Site. The percent vegetative ground cover and percent ground cover by species was visually estimated within each plot and recorded on field data forms (Attachment 1). The data forms included:

- species observed within the sample plot
- percent ground cover for each species observed
- the United States Fish and Wildlife Service (USFWS) indicator status for each species as described in the USFWS NERC-99/18.21 document dated 1988 - *National List of Plant Species That Occur in Wetlands* and the 1995 Northeast Supplement
- total percent ground cover
- percent of the total ground which are hydrophytic species based on their USFWS indicator status.

### **RESULTS AND DISCUSSION**

Four ground cover sample plots were evaluated within the restored wetlands at the Site. Data collected from the sample plots are presented on the field data forms included as Attachment 1. The comparison of observed percent ground cover to the restoration goal is presented in Table 1. As depicted on the field data forms and Table 1, Plots #2, #3 and #4 exceeded the target ground cover percentage of 90% for seeded (reed canary grass) and wetland species, excluding invasive wetland

species such as *Phragmites australis* (common reed), *Lythrum salicaria* (purple loosestrife), and non-wetland species.

In Plot #2, reed canary grass and other desirable wetland species made up 95% of the total ground cover, with reed canary grass comprising 80% of the total in this plot. In Plot #3 reed canary grass and other desirable wetland species made up 92% of the total ground cover, with reed canary grass comprising 15% of the total in this plot. In Plot #4, reed canary grass and other desirable wetland species made up 98% of the total ground cover, with reed canary grass comprising 90% of the total in this plot.

Sample Plot #1 did not meet the target ground cover percentage. Plot #1 had a total desirable ground cover of 50% (reed canary grass). The co-dominant species in Plot #1 is Lathco flat pea (*Lathyrus sylvestris*). Lathco flat pea was a component of the seed mix used to stabilize and vegetate the main site area. The presence of this species in Plot #1 is likely a result of this species encroaching into the wetland area from the main site area. Lathco flat pea is not included on the USFWS wetland indicator listings and is therefore a non-indicator (NI) species with regards to wetlands.

As these sample plot results indicate, 75% of the Site restored wetlands have met the target ground cover percentage of 90% reed canary grass and other desirable wetland species, which is comparable with the success rate observed in 2005. The sample plots evaluated indicated that the seeded species (reed canary grass) along with other desirable wetland species, which are present due to natural recruitment, have been established in three of the four evaluated areas. An improvement in the percent cover of reed canary grass was observed within Plot #1 for the 2006 evaluation year, as compared to 2005. In 2005, the percent of reed canary grass was 30% as compared to 50% reed canary grass cover in 2006. A photograph log of the sample plot areas is included as Attachment 2.

Common reed (*Phragmites australis*) and purple loosestrife (*Lythrum salicaria*), two highly invasive species, were generally observed in large numbers along the banks of Ley Creek in the Site area; however, it did not appear that these species were dominating the restored wetlands. Neither of these species was present in the sample plots evaluated in 2001. In 2002, both were present in Plot #3, and common reed was present in Plot #4. In 2003, both were present in Plot #3 and neither of these species was observed in the sample plots in 2004. Common reed was observed in Plot #1 in 2005. Neither of these species was present in the sample plots evaluated in 2006. This variability in the presence of invasive species within the sample plots from year to year may be attributed to the randomness of the plot selection for each evaluation.

## **CONCLUSIONS AND RECOMMENDATIONS**

Evaluation efforts performed during the sixth full growing season (Year 2006 evaluation) indicated that the restored wetlands have improved slightly in 2006 as compared to the observations made during the 2005 evaluation. Similar to the 2005 evaluation, the restoration goal was exceeded in three of the four sample plots evaluated in 2006. Plot #1 did not meet the target ground cover percentage of 90% reed canary grass and other desirable wetland species. However, as compared to the 2005 percent cover data in Plot #1, the percent cover of reed canary grass increased from 30% to 50%.

Although the vegetation within the restored wetlands has become well established and a high percentage of desirable species is present, O'Brien & Gere recommends the following activities be

Mr. James F. Hartnett  
November 30, 2006  
Page 4 of 4

performed within a portion of the restored wetland at the times presented below to establish the target ground cover percentage of 90% reed canary grass in the portion of the restored wetland that does not currently meet the target goals:

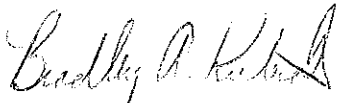
- Additional seeding of herbaceous wetland species (reed canary grass) is recommended in the emergent portion of the wetland as indicated on Figure 1 and 2, and should be performed in Spring 2007. Mowing of the current vegetation and discing of the ground surface prior to the seeding of this area is also recommended. Fertilizer 6-44-12 should be applied at a rate of 300 lbs per acre and FINN HST soil conditioner should be applied at a rate of 2.5 gallons per acre. Conwed HYDRO MULCH 2000 should be applied at a rate of 2,500 lbs per acre to minimize the potential of newly applied seed/fertilizer/soil conditioner being carried away during high discharge periods within Ley Creek.

The implementation of this recommendation in the 2007 growing season should assist in deterring the establishment of invasive species within the wetlands and accelerate the restoration of the wetlands towards meeting the restoration goal in portions of the wetlands that do not currently meet the goal (area of Plot #1). An evaluation of the portion of the restored wetland subject to the above recommendations is proposed to be performed in the Fall of 2007. Based on the past and continued success of meeting the target restoration goals in the areas of Plots #2, #3 and #4, and in accordance with the OM&M Manual, continued monitoring of these areas is no longer required.

If you should have any questions pertaining to the information presented in this letter, please feel free to contact Maureen Markert or me at (315) 437-6100.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.



Bradley A. Kubiak, P.E.  
Senior Project Engineer

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cc: Ronald P. Chiarello – O'Brien & Gere  
Douglas M. Crawford, P.E. – O'Brien & Gere  
Maureen S. Markert, P.E.- O'Brien & Gere

**Table 1. Summary of Evaluation Criteria Comparisons**

Sample Plot #	Desirable Ground Cover Criterion <sup>a</sup>	Observed Ground Cover	Observed Desirable Ground Cover <sup>b</sup>
1	90%	130% <sup>c</sup>	50%
2	90%	96%	95%
3	90%	100%	92%
4	90%	100%	98%

<sup>a</sup> Ground cover of seeded and wetland-dependent species.

<sup>b</sup> Calculated by subtracting % cover of undesirable wetland species, *i.e.*, *Lythrum salicaria*, *Phragmites australis*, if present, and non-wetland species from total % ground cover.

<sup>c</sup> Ground cover in plot measured over 100% because species are layered within the plot and overlap each other within same plot.

**Attachment 1**

**Field Data Forms**

## GROUND COVER DATA FORM

**Site:** GM Ley Creek Site - Restored Wetland  
**Date:** 10/3/2006  
**Investigator(s):** K. Buelow & R. Chiarello  
**Plot:** Plot #1  
**Wetland type:** Emergent

Species	Wetland Indicator Status	Percent cover
<i>Phalaris arundinacea</i>	FACW+	50
<i>Lathyrus sylvestris</i>	NI	50
<i>Lotus corniculatus</i>	FACU-	25
<i>Hieracium vulgatum</i>	NI	5
<b>Total ground cover (%)</b>		130 <sup>a</sup>
<b>% desirable ground cover</b>		50 <sup>b</sup>
<b>% ground cover hydrophytic (FAC, FACW and OBL)</b>		38 <sup>c</sup>

Note

<sup>a</sup>Ground cover in plot measured over 100% because species are layered within the plot and overlap each other within same plot.

<sup>b</sup>Calculated by subtracting % cover of undesirable wetland species, *i.e.*, *Lythrum salicaria*, *Phragmites australis*, if present, non-wetland (FACU, FACU- and UPL), and non-indicator (NI) species from total % ground cover.

<sup>c</sup>Calculated by adding percent cover for hydrophytic indicator status and dividing by total ground cover %. This value is an indicator of the predominant vegetation type (hydrophytic or upland) in the sample plot.

*Wetland Indicator Status Range*

UPL (obligate upland) = probability of occurrence in wetland <1%

FACU (facultative upland) = probability of occurrence in wetland in the range 1 to 33%

FACU- (facultative upland -) = probability of occurrence in wetland in the lower part of the range 1 to 33%

FACU+ (facultative upland +) = probability of occurrence in wetland in the upper part of the range 1 to 33%

FAC (facultative) = probability of occurrence in wetland in the range 34 to 66%

FAC- (facultative -) = probability of occurrence in wetland in the lower part of the range 34 to 66%

FAC+ (facultative +) = probability of occurrence in wetland in the upper part of the range 34 to 66%

FACW (facultative wetland) = probability of occurrence in wetland in the range 67 to 99%

FACW- (facultative wetland -) = probability of occurrence in wetland in the lower part of the range 67 to 99%

FACW+ (facultative wetland +) = probability of occurrence in wetland in the upper part of the range 67 to 99%

OBL (obligate wetland) = probability of occurrence in wetland >99%

NI = non indicator species (not included on indicator listing)

## GROUND COVER DATA FORM

**Site:** GM Ley Creek Site - Restored Wetland  
**Date:** 10/3/2006  
**Investigator(s):** K. Buelow & R. Chiarello  
**Plot:** Plot #2  
**Wetland type:** Emergent

Species	Wetland Indicator Status	Percent cover
<i>Phalaris arundinacea</i>	FACW+	80
<i>Aster vimineus</i>	FAC	15
<i>Trifolium repense</i>	FACU-	1
<b>Total ground cover (%)</b>		96
<b>% desirable ground cover</b>		95 <sup>a</sup>
<b>% ground cover hydrophytic (FAC, FACW and OBL)</b>		99 <sup>b</sup>

Note

<sup>a</sup>Calculated by subtracting % cover of undesirable wetland species, *i.e.*, *Lythrum salicaria*, *Phragmites australis*, if present, non-wetland (FACU, FACU- and UPL), and non-indicator (NI) from total % ground cover.

<sup>b</sup>Calculated by adding percent cover for hydrophytic indicator status and dividing by total ground cover %. This value is an indicator of the predominant vegetation type (hydrophytic or upland) in the sample plot.

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FAC (facultative) = probability of occurrence in wetland in the range 34 to 66%

FAC- (facultative -) = probability of occurrence in wetland in the lower part of the range 34 to 66%

FAC+ (facultative +) = probability of occurrence in wetland in the upper part of the range 34 to 66%

FACW (facultative wetland) = probability of occurrence in wetland in the range 67 to 99%

FACW- (facultative wetland -) = probability of occurrence in wetland in the lower part of the range 67 to 99%

FACW+ (facultative wetland +) = probability of occurrence in wetland in the upper part of the range 67 to 99%

OBL (obligate wetland) = probability of occurrence in wetland >99%

## GROUND COVER DATA FORM

**Site:** GM Ley Creek Site - Restored Wetland  
**Date:** 10/3/2006  
**Investigator(s):** K. Buelow & R. Chiarello  
**Plot:** Plot #3  
**Wetland type:** Emergent

Species	Wetland Indicator Status	Percent cover
<i>Phalaris arundinacea</i>	FACW+	15
<i>Aster lateriflorus</i>	FACW-	70
<i>Bidens connata</i>	FACW+	5
<i>Lotus corniculatus</i>	FACU-	5
<i>Artemisia vulgaris</i>	FACU-	2
<i>Fraxinus pennsylvanica</i>	FACW	2
<i>Trifolium repense</i>	FACU-	1
<b>Total ground cover (%)</b>		100
<b>% desirable ground cover</b>		92 <sup>a</sup>
<b>% ground cover hydrophytic (FAC, FACW and OBL)</b>		92 <sup>b</sup>

Note

<sup>a</sup>Calculated by subtracting % cover of undesirable wetland species, *i.e.*, *Lythrum salicaria*, *Phragmites australis*, if present, non-wetland (FACU, FACU- and UPL), and non-indicator (NI) species from total % ground cover.

<sup>b</sup>Calculated by adding percent cover for hydrophytic indicator status and dividing by total ground cover %. This value is an indicator of the predominant vegetation type (hydrophytic or upland) in the sample plot.

*Wetland Indicator Status Range*

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FAC+ (facultative +) = probability of occurrence in wetland in the upper part of the range 34 to 66%

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FACW+ (facultative wetland +) = probability of occurrence in wetland in the upper part of the range 67 to 99%

OBL (obligate wetland) = probability of occurrence in wetland >99%

## GROUND COVER DATA FORM

**Site:** GM Ley Creek Site - Restored Wetland  
**Date:** 10/3/2006  
**Investigator(s):** K. Buelow & R. Chiarello  
**Plot:** Plot #4  
**Wetland type:** Emergent

Species	Wetland Indicator Status	Percent cover
<i>Phalaris arundinacea</i>	FACW+	90
<i>Aster lateriflorus</i>	FACW-	5
<i>Solidago canadensis</i>	FACU	2
<i>Boehmeria cylindrica</i>	FACW+	2
<i>Solanum dulcamara</i>	FAC	1
<b>Total ground cover (%)</b>		100
<b>% desirable ground cover</b>		98 <sup>a</sup>
<b>% ground cover hydrophytic (FAC, FACW and OBL)</b>		98 <sup>b</sup>

Note

<sup>a</sup>Calculated by subtracting % cover of undesirable wetland species, *i.e.*, *Lythrum salicaria*, *Phragmites australis*, if present, non-wetland (FACU, FACU- and UPL), and non-indicator (NI) species from total % ground cover.

<sup>b</sup>Calculated by adding percent cover for hydrophytic indicator status and dividing by total ground cover %. This value is an indicator of the predominant vegetation type (hydrophytic or upland) in the sample plot.

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FAC (facultative) = probability of occurrence in wetland in the range 34 to 66%

FAC- (facultative -) = probability of occurrence in wetland in the lower part of the range 34 to 66%

FAC+ (facultative +) = probability of occurrence in wetland in the upper part of the range 34 to 66%

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FACW+ (facultative wetland +) = probability of occurrence in wetland in the upper part of the range 67 to 99%

OBL (obligate wetland) = probability of occurrence in wetland >99%

**Attachment 2**

**Photograph Log**



Photo 1: Looking east at area of restored wetland evaluation Plot #1.  
Date photo taken: 10/3/2006



Photo 2: Looking west at area of restored wetland evaluation Plot #2.  
Date photo taken: 10/3/2006



Photo 3: Looking west at area of restored wetland evaluation Plot #3.  
Date photo taken: 10/3/2006



Photo 4: Looking northwest at area of restored wetland evaluation Plot #4.  
Date photo taken: 10/3/2006

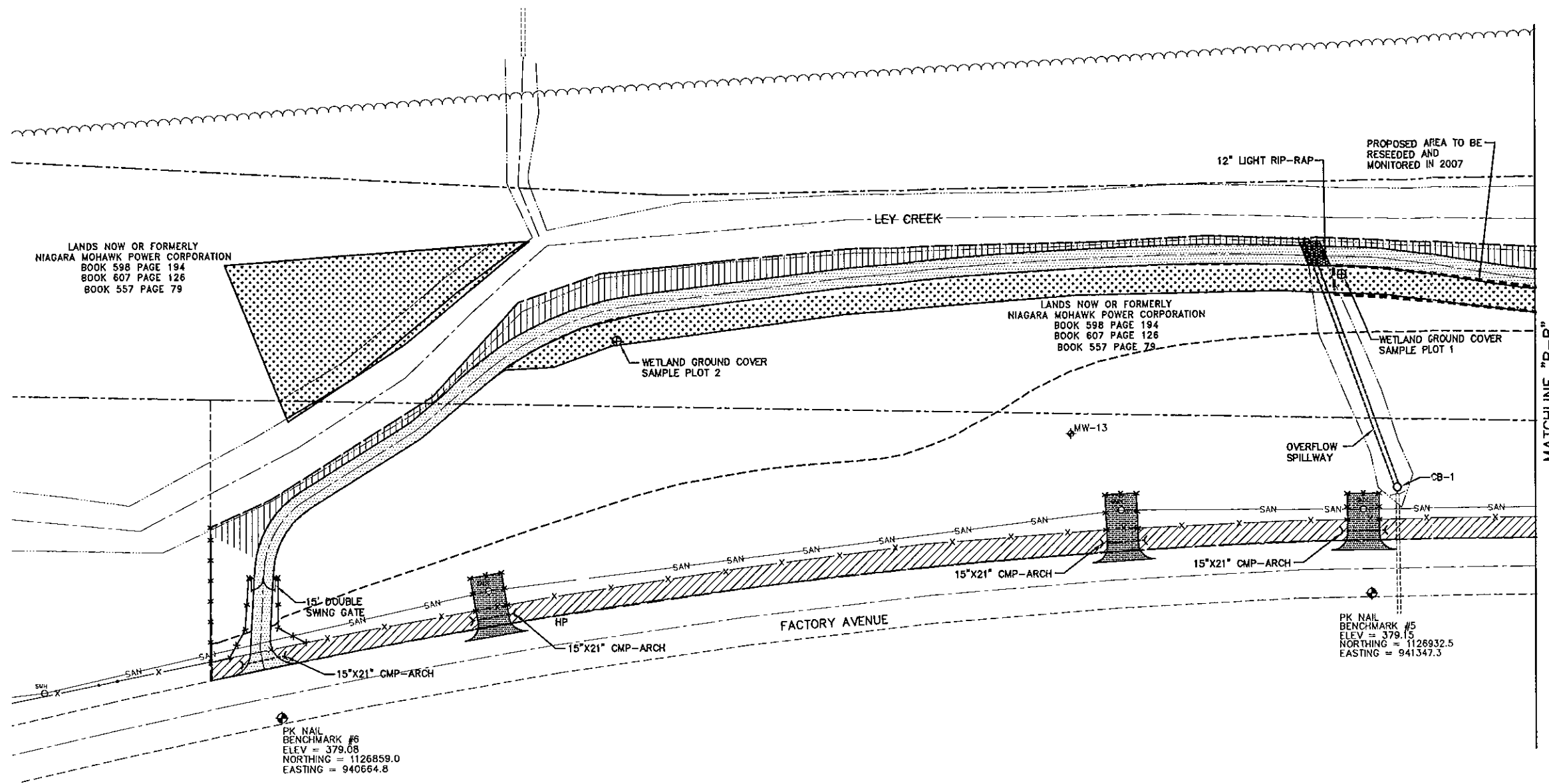
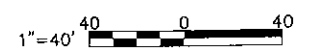


FIGURE 1

- LEGEND**
- SEEDED WITH CANARY GRASS
  - OVERHEAD WIRES
  - PROPERTY BOUNDARY
  - EDGE OF WOODS
  - UTILITY POLE
  - GUY WIRE
  - SANITARY SEWER
  - SANITARY MANHOLE
  - CATCH BASIN
  - SECURITY FENCE (SEE GENERAL NOTE 4)
  - PAVEMENT
  - GRAVEL ACCESS ROAD
  - LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
  - CATCH BASIN
  - MODIFIED MONITORING WELL
  - MONITORING WELL PRESUMED DESTROYED
  - ABANDONED MONITORING WELL
  - NEW MONITORING WELL
  - LIMITS OF EROSION CONTROL MAT
  - LIMITS OF COVER SYSTEM
  - LIMITS OF NON-WOVEN GEOTEXTILE
  - WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

**OM&M PARTIAL  
SITE PLAN  
WETLAND  
EVALUATION**



FILE NO. 4966.34124.061  
DECEMBER 2006



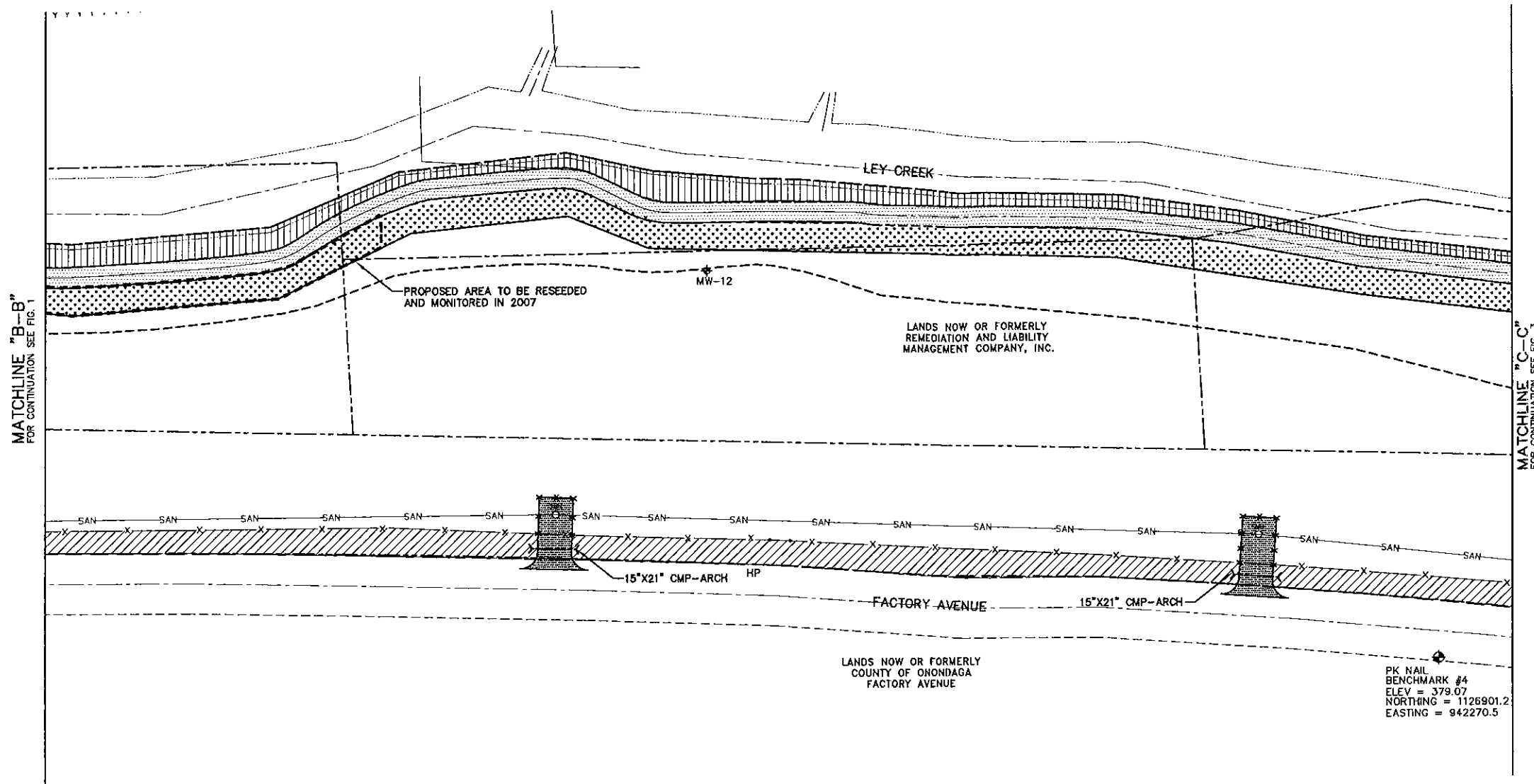


FIGURE 2

- LEGEND**
- SEEDED WITH CANARY GRASS
  - OVERHEAD WIRES
  - PROPERTY BOUNDARY
  - EDGE OF WOODS
  - UTILITY POLE
  - GUY WIRE
  - SANITARY SEWER
  - SANITARY MANHOLE
  - CATCH BASIN
  - SECURITY FENCE (SEE GENERAL NOTE 4)
  - PAVEMENT
  - GRAVEL ACCESS ROAD
  - LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
  - CATCH BASIN
  - MODIFIED MONITORING WELL
  - MONITORING WELL PRESUMED DESTROYED
  - ABANDONED MONITORING WELL
  - NEW MONITORING WELL
  - LIMITS OF EROSION CONTROL MAT
  - LIMITS OF COVER SYSTEM
  - LIMITS OF NON-WOVEN GEOTEXTILE
  - WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

**OM&M PARTIAL  
SITE PLAN  
WETLAND  
EVALUATION**



FILE NO. 4966.34124.062  
DECEMBER 2006



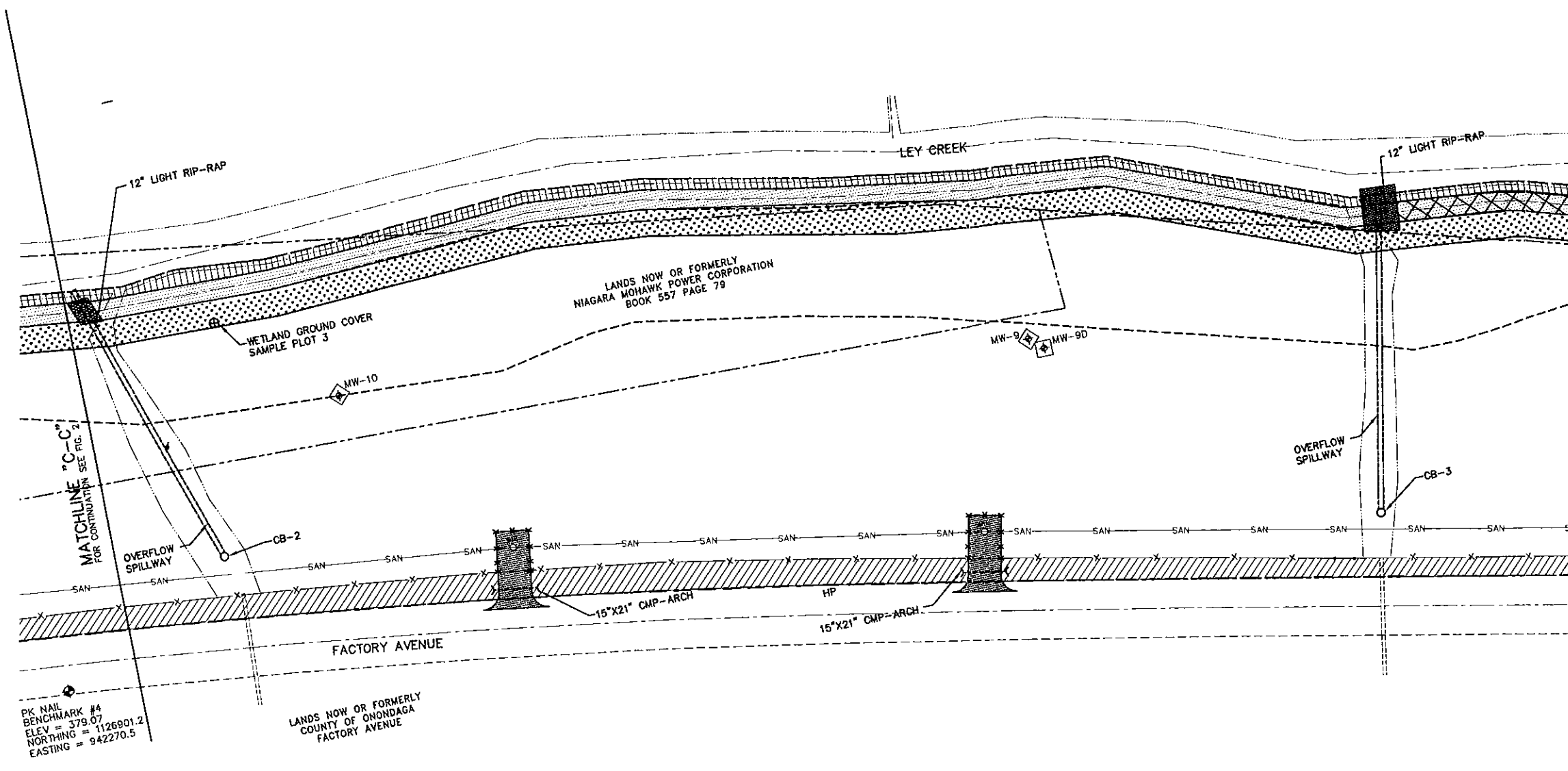


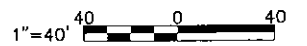
FIGURE 3

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- CATCH BASIN
- SECURITY FENCE (SEE GENERAL NOTE 4)
- PAVEMENT
- GRAVEL ACCESS ROAD
- LIMITS OF SOIL LOCATED ALONG FACTORY AVENUE RELOCATED BENEATH COVER SYSTEM
- CATCH BASIN
- MODIFIED MONITORING WELL
- MONITORING WELL PRESUMED DESTROYED
- ABANDONED MONITORING WELL
- NEW MONITORING WELL
- LIMITS OF EROSION CONTROL MAT
- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

OM&M PARTIAL  
SITE PLAN  
WETLAND  
EVALUATION



FILE NO. 4966.34124.063  
DECEMBER 2006



MATCHLINE "D-D"  
FOR CONTINUATION SEE FIG. 3

MATCHLINE "E-E"  
FOR CONTINUATION SEE FIG. 5

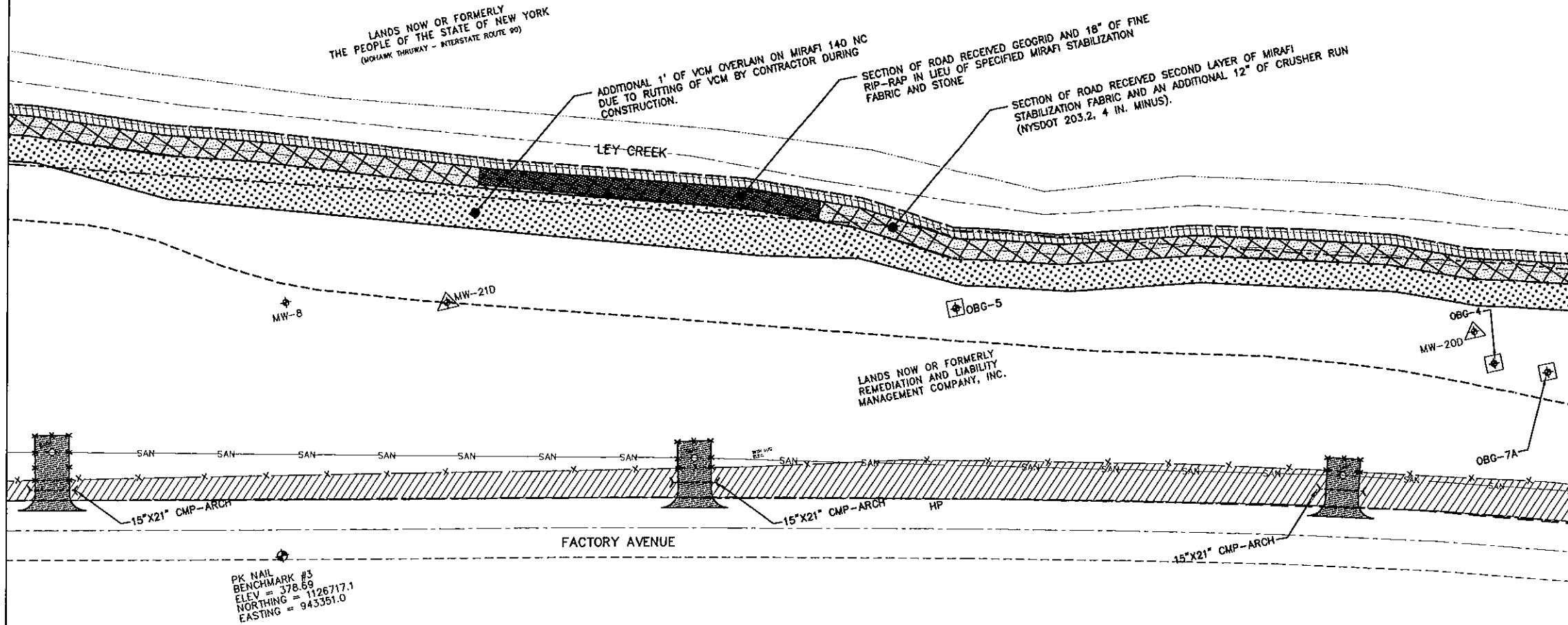


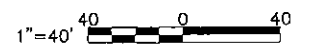
FIGURE 4

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
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- WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

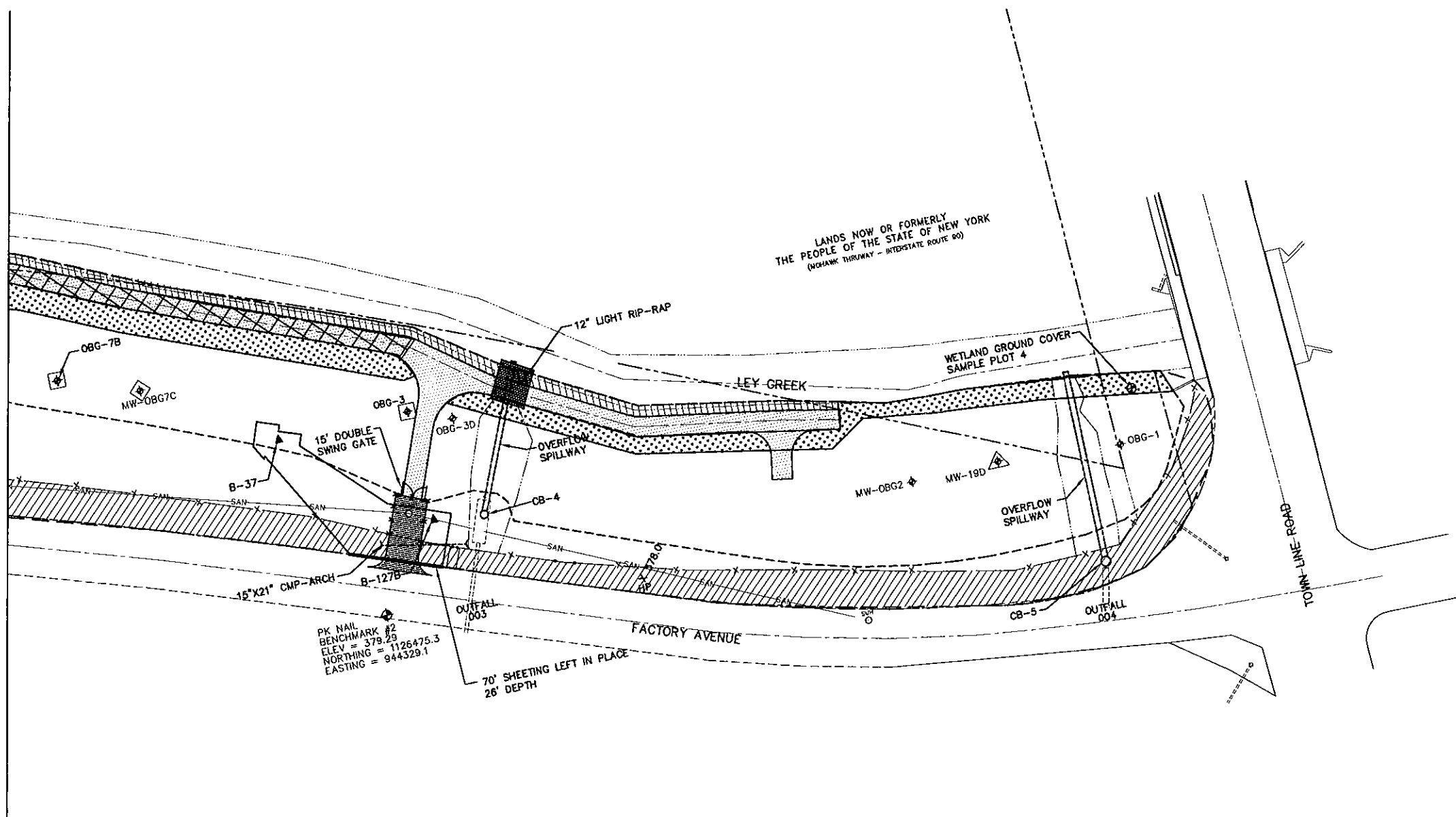
OM&M PARTIAL  
SITE PLAN  
WETLAND  
EVALUATION



FILE NO. 4966.34124.064  
DECEMBER 2006



MATCHLINE "E-E"  
FOR CONTINUATION SEE FIG. 4



LANDS NOW OR FORMERLY  
THE PEOPLE OF THE STATE OF NEW YORK  
(MOHAWK THRUWAY - INTERSTATE ROUTE 90)



FIGURE 5

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
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- SANITARY SEWER
- SANITARY MANHOLE
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LEY CREEK PCB DREGGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

OM&M PARTIAL  
SITE PLAN  
WETLAND  
EVALUATION



FILE NO. 4966.34124.065  
DECEMBER 2006





DRAW COPY

~~BAR~~  
~~ASIT~~  
DNC

October 19, 2006

James F. Hartnett  
Remediation and Liability Management Company, Inc.  
1 General Motors Drive  
Suite 2  
Syracuse, New York 13206-1127

Re: Ley Creek PCB Dredgings Site  
October 2006 OM&M Inspection

File: 4966/34124 #2

Dear Jim:

This letter documents the Operation, Maintenance, and Monitoring (OM&M) site inspection conducted on October 3, 2006 by O'Brien & Gere at the Ley Creek PCB Dredgings Site (the Site), located in Syracuse, New York. The United States Environmental Protection Agency (USEPA) was present during the inspection as part of its 5-year review process being performed for the Site. Also, representatives from New York State Department of Environmental Conservation (NYSDEC), Onondaga Nation, and Bond, Schoeneck & King were present for the inspection. A copy of the sign-in sheet is attached. This inspection was performed in accordance with the NYSDEC-approved OM&M Manual, dated September 2001.

### SITE INSPECTION

On October 3, 2006, an OM&M site inspection was performed at the Site. The inspection checklist with comments is attached. The inspection photographs are also attached with descriptions of the photographs. The approximate locations of where the photographs were taken are shown on the attached site figures with corresponding photograph numbers.

Areas that were repaired prior to the inspection to address erosion areas (Figures 3 and 4 and Photographs 4, 10, and 13) that were observed during the August 2006 inspection should be monitored during subsequent inspections to evaluate vegetation establishment.

Issues observed during the October 2006 inspection are as follows:

- Partially clogged grate at catch basin CB-3 (Figure 3 and Photograph 8)
- Animal burrow in vegetative cover (Figures 1, 3, and 5 and Photographs 12 and 20)
- Exposed non-woven geotextile fabric within CB-3 overflow spillway (Figure 3 and Photograph 9)

James F. Hartnett  
October 19, 2006  
Page 2

- Exposed non-woven geotextile fabric and erosion along creek bank near CB-1 outlet (Figure 1 and Photographs 17 and 18)
- Exposed erosion control fabric within CB-3 overflow spillway (Figure 3 and Photograph 11)
- Erosion at fenceline near CB-3 overflow spillway (Figure 3 and Photographs 6 and 7)
- Garbage near stone access road near western Site entrance (Figure 1)
- Soil covering MW-13 monitoring well (Figure 1 and Photograph 22)
- Access road rutting (Figures 2, 3, and 4)
- Phragmites in asphalt (Figure 2)
- Concrete rubble near Factory Avenue (Figure 3)
- Damage to asphalt (Figure 3)
- Significant vegetation growth along Factory Avenue site perimeter fence and within area around catch basins (Figures 1, 3, and 5 and Photographs 2, 8, 14, and 19).

The next OM&M inspection is scheduled to occur in the Spring of 2007.

If you should have any questions pertaining to the information presented in this letter, please feel free to contact me at (315) 437-6100.

Very truly yours,

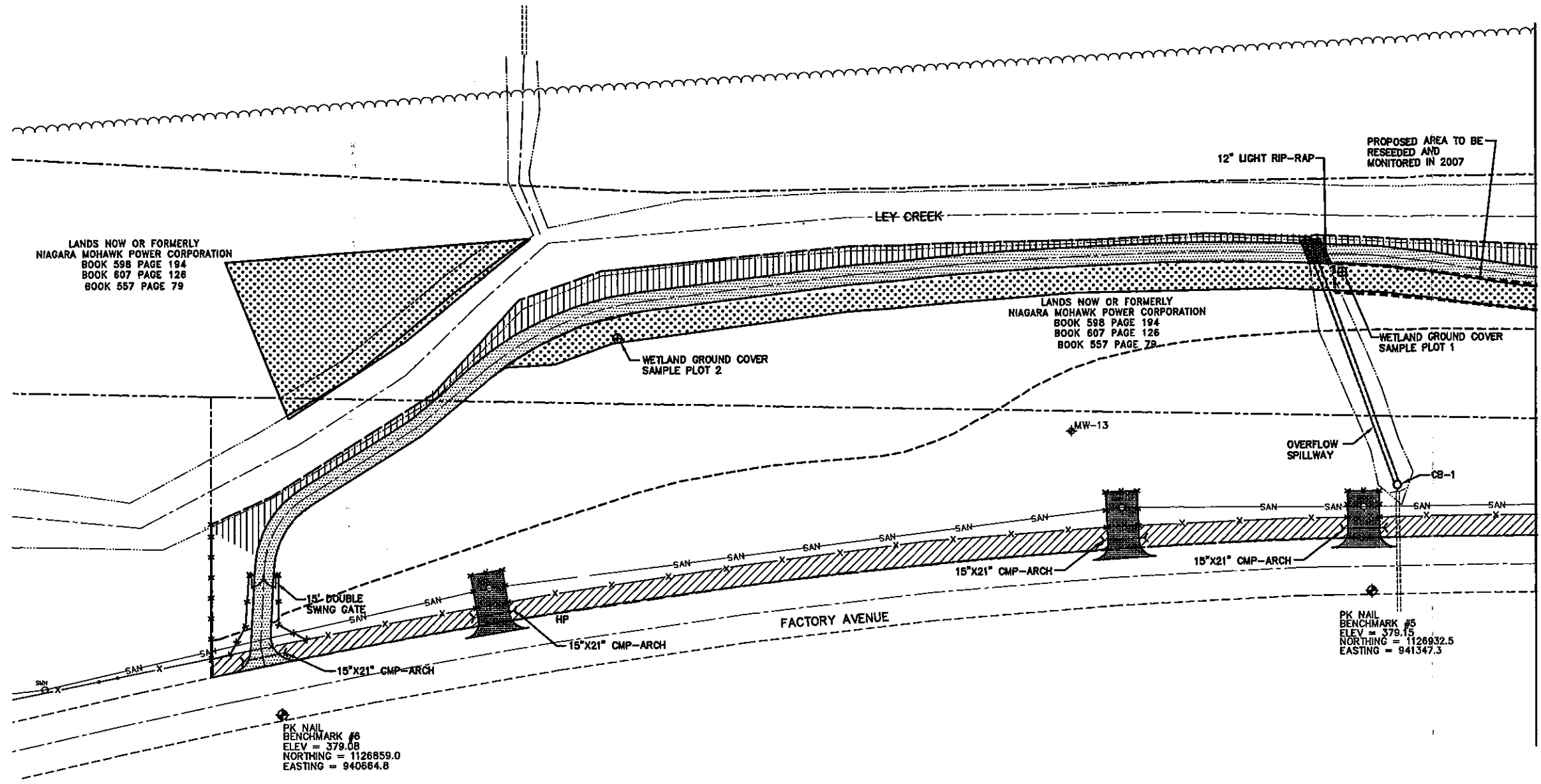
O'BRIEN & GERE ENGINEERS, INC.



Bradley A. Kubiak, P.E.  
Senior Project Engineer

I:\DIV71\Projects\4966\34124\2\_corres\Client\October 2006 OM&M Inspection\jh OMM 1006 ltr.doc

cc: Douglas Crawford, P.E.  
Maureen Markert, P.E.



MATCHLINE "B-B"  
FOR CONTINUATION SEE FIG. 2

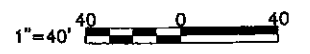
FIGURE 1

LEGEND

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- PROPERTY BOUNDARY
- EDGE OF WOODS
- UTILITY POLE
- GUY WIRE
- SANITARY SEWER
- SANITARY MANHOLE
- CATCH BASIN
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- PAVEMENT
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- LIMITS OF COVER SYSTEM
- LIMITS OF NON-WOVEN GEOTEXTILE
- WETLAND GROUND COVER SAMPLE PLOT LOCATION

LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

OM&M PARTIAL  
SITE PLAN  
WETLAND  
EVALUATION



FILE NO. 4966.34124.061  
DECEMBER 2006



# SIGN IN SHEET

Ley Creek PCB Dredgings Site  
Syracuse, NY

October 3, 2006

NAME

SIGNATURE

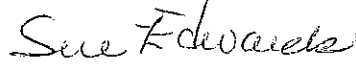
CONTACT INFORMATION

BRAD KUBIAK



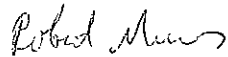
O'BRIEN & GERÉ 437-6100  
KUBIAKBA@OBG.COM

Sue Edwards



NYSDEC 518-402-9767

Bob Nunes



EPA 212-637-4254

BARRY R KOGUT



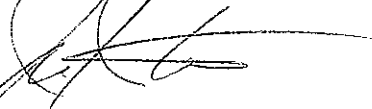
BOND, Schoenbeck & KING, PLLC  
315-218-8181

Thane Joyal



thanejoyal@earthlink.net

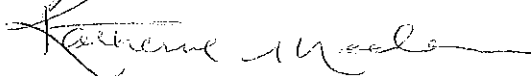
JOE HEATH



315-475-2559

475-2359

Katie Nadeau

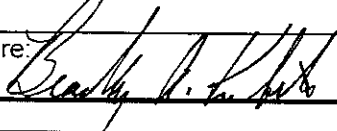


Knadeau@mr55.com

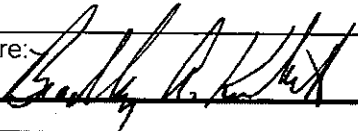
Summer Frazier Summer Frazier

freshwatereel@hotmail.com

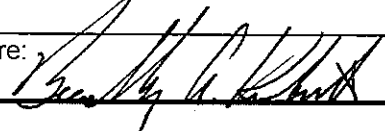
Inspection checklist

Date Performed: <b>October 3, 2006</b>			Weather: <b>Cloudy/Rainy 60 F</b>	
Site Name: <b>Ley Creek PCB Dredgings Site</b>			Inspector Name: <b>Brad Kubiak</b>	
Site Location: <b>Syracuse, New York</b>			Inspector Signature: 	
Item	Task	Response		Comments
		Yes	No	
<b>Vegetative Cover</b>	<b>Visually inspect surface conditions.</b>			
	1. Areas of settlement?		<b>X</b>	
	2. Areas of erosion?	<b>X</b>		Figures 1 and 3 - Photographs 6, 7, 9, 11, 17 and 18
	3. Areas where geotextile visible due to erosion?	<b>X</b>		Figures 1 and 3 - Photographs 9, 11, and 17
	4. Areas of slope instability?		<b>X</b>	
	5. Lack or thinning vegetation?		<b>X</b>	
	6. Presence of burrowing animals?	<b>X</b>		Figures 1, 3, and 5 - Photographs 12 and 20
	7. Areas of damage?	<b>X</b>		Figures 3 and 5 - Photographs 10 and 4 (areas repaired)
	8. Drainage problems?		<b>X</b>	
	9. Mowing required?	<b>X</b>		Figures 1, 3, and 5 - Photographs 2, 8, 14, and 19
<b>Access Road</b>	<b>Visually inspect conditions.</b>			
	1. Areas of settlement?		<b>X</b>	

Inspection checklist

Date Performed: <b>October 3, 2006</b>			Weather: <b>Cloudy/Rainy 60 F</b>	
Site Name: <b>Ley Creek PCB Dredgings Site</b>			Inspector Name: <b>Brad Kubiak</b>	
Site Location: <b>Syracuse, New York</b>			Inspector Signature: 	
Item	Task	Response		Comments
		Yes	No	
<b>Access Road</b>	2. Areas of erosion?		<b>X</b>	
	3. Areas rutted or potholes present?	<b>X</b>		Figures 2, 3, and 4
	4. Areas of damage?		<b>X</b>	
<b>Surface Water Drainage</b>	<b>Visually inspect ditches, catch basins, etc.</b>			
	1. Accumulation of debris?	<b>X</b>		Figure 3 - Photograph 8
	2. Excessive scouring?		<b>X</b>	
	3. Areas of damage?		<b>X</b>	
<b>Ground Water Wells</b>	1. Casings secure and locked?	<b>X</b>		
	2. Areas of damage?		<b>X</b>	
<b>Sanitary sewer access paths</b>	<b>Visually inspect conditions.</b>			
	1. Cracks in asphalt?	<b>X</b>		Figures 2 and 3
	2. Manhole covers in place?	<b>X</b>		

Inspection checklist

Date Performed: <b>October 3, 2006</b>		Weather: <b>Cloudy/Rainy 60 F</b>		
Site Name: <b>Ley Creek PCB Dredgings Site</b>		Inspector Name: <b>Brad Kubiak</b>		
Site Location: <b>Syracuse, New York</b>		Inspector Signature: 		
Item	Task	Response		Comments
		Yes	No	
<b>Sanitary sewer access paths</b>	3. Debris accumulating in access paths?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Physical Site Security</b>	<b>Visually inspect fences and gates</b>			
	1. Signs intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	2. Fence breached?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	3. Access gates locked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
	4. Areas of damage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
<b>Note any additional comments.</b>				
Areas repaired since last inspection should be monitored for vegetation establishment				
Garbage adjacent to access road near western entrance				



**Photograph 1:** Looking at east from CB-1 overflow spillway.



**Photograph 2:** View of vegetation around CB-1.



**Photograph 3:** View looking west from eastern access gate.



**Photograph 4:** View of repaired erosion area near OBG-20D.



**Photograph 5:** View looking west from CB-3 overflow spillway.



**Photograph 6:** View of erosion channel near CB-3 along fenceline.



**Photograph 7:** View of erosion channel near CB-3 along fenceline.



**Photograph 8:** View looking at CB-3 (clogged grate).



**Photograph 9:** Non-woven geotextile exposed due to erosion within CB-3 overflow spillway.



**Photograph 10:** View of repaired erosion areas within CB-3 overflow spillway.



**Photograph 11:** View of exposed erosion control fabric within CB-3 overflow spillway.



**Photograph 12:** View of burrowing animal hole at crest of CB-2 overflow spillway slope.



**Photograph 13:** View of repaired erosion areas within CB-2 overflow spillway.



**Photograph 14:** View of CB-2.



**Photograph 15:** View looking west from CB-2 overflow spillway.



**Photograph 16:** View of exposed soil near around MW-12.



**Photograph 17:** View of exposed non-woven geotextile fabric along creek bank near CB-1 outlet.



**Photograph 18:** View of erosion near outlet of CB-1 at Ley Creek bank.



**Paragraph 19:** View looking at CB-1.



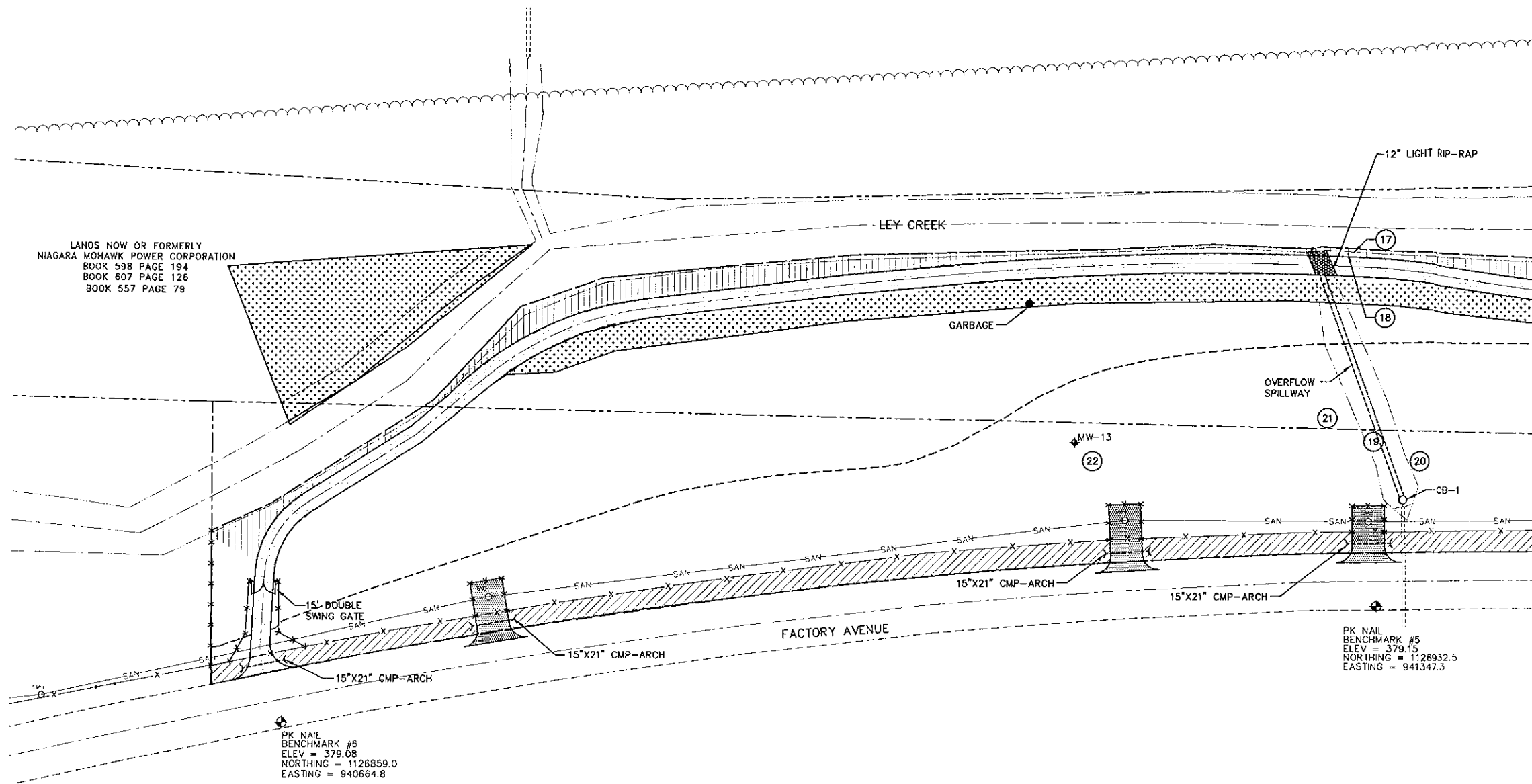
**Photograph 20:** View of burrowing animal hole at crest of CB-21 overflow spillway slope.



**Photograph 21:** View looking west from CB-1 overflow spillway.



**Photograph 22:** View looking at MW-13 covered with soil.



MATCHLINE "B-B"  
FOR CONTINUATION SEE FIG. 2

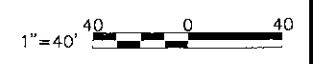
FIGURE 1

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
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- PHOTOGRAPH LOCATION

LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

OCTOBER 2006  
OM&M INSPECTION  
PARTIAL SITE PLAN



FILE NO. 4966.34124.056  
OCTOBER 2006



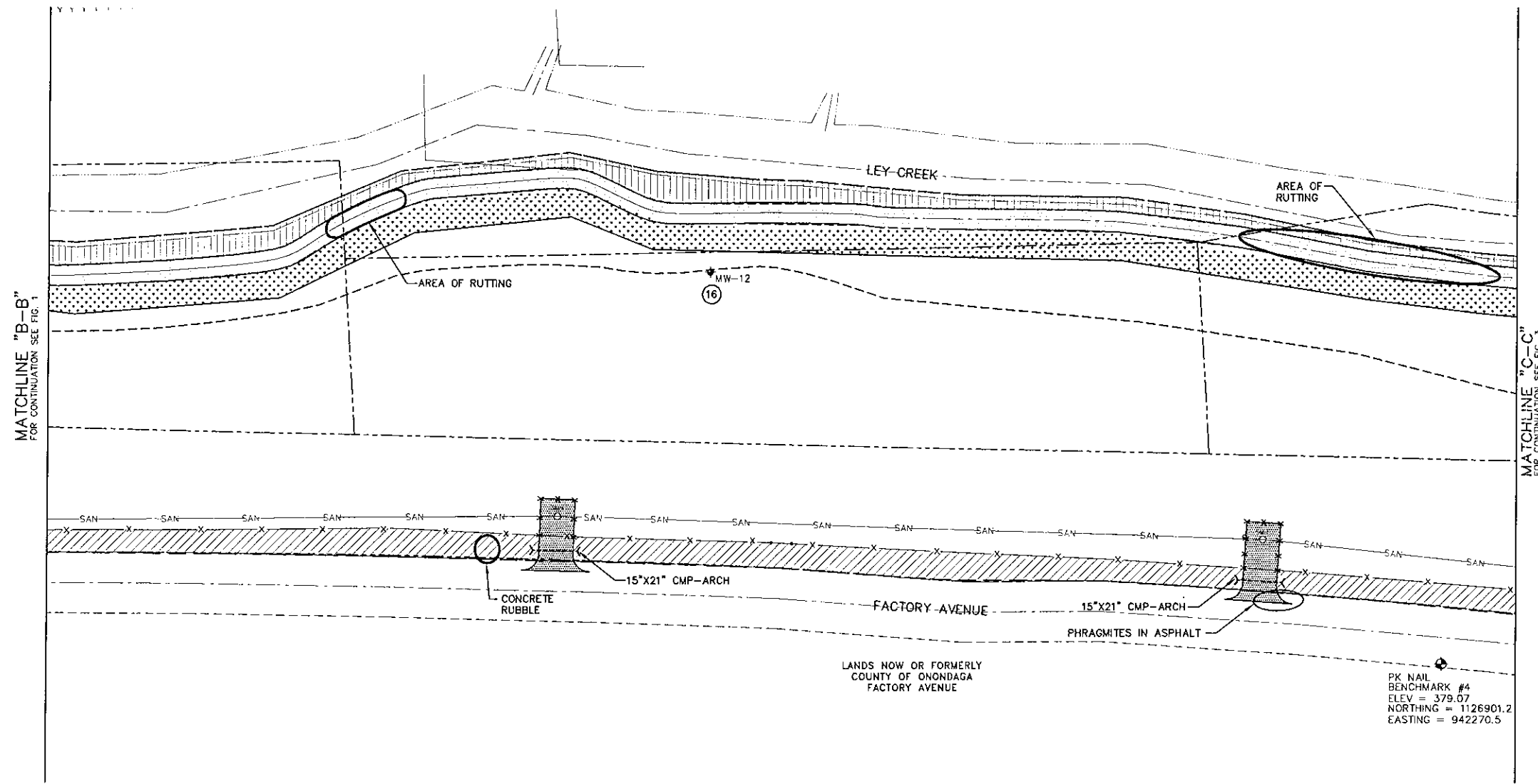


FIGURE 2

LEGEND

- SEEDED WITH CANARY GRASS
- OVERHEAD WIRES
- PROPERTY BOUNDARY
- EDGE OF WOODS
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- LIMITS OF NON-WOVEN GEOTEXTILE
- PHOTOGRAPH LOCATION

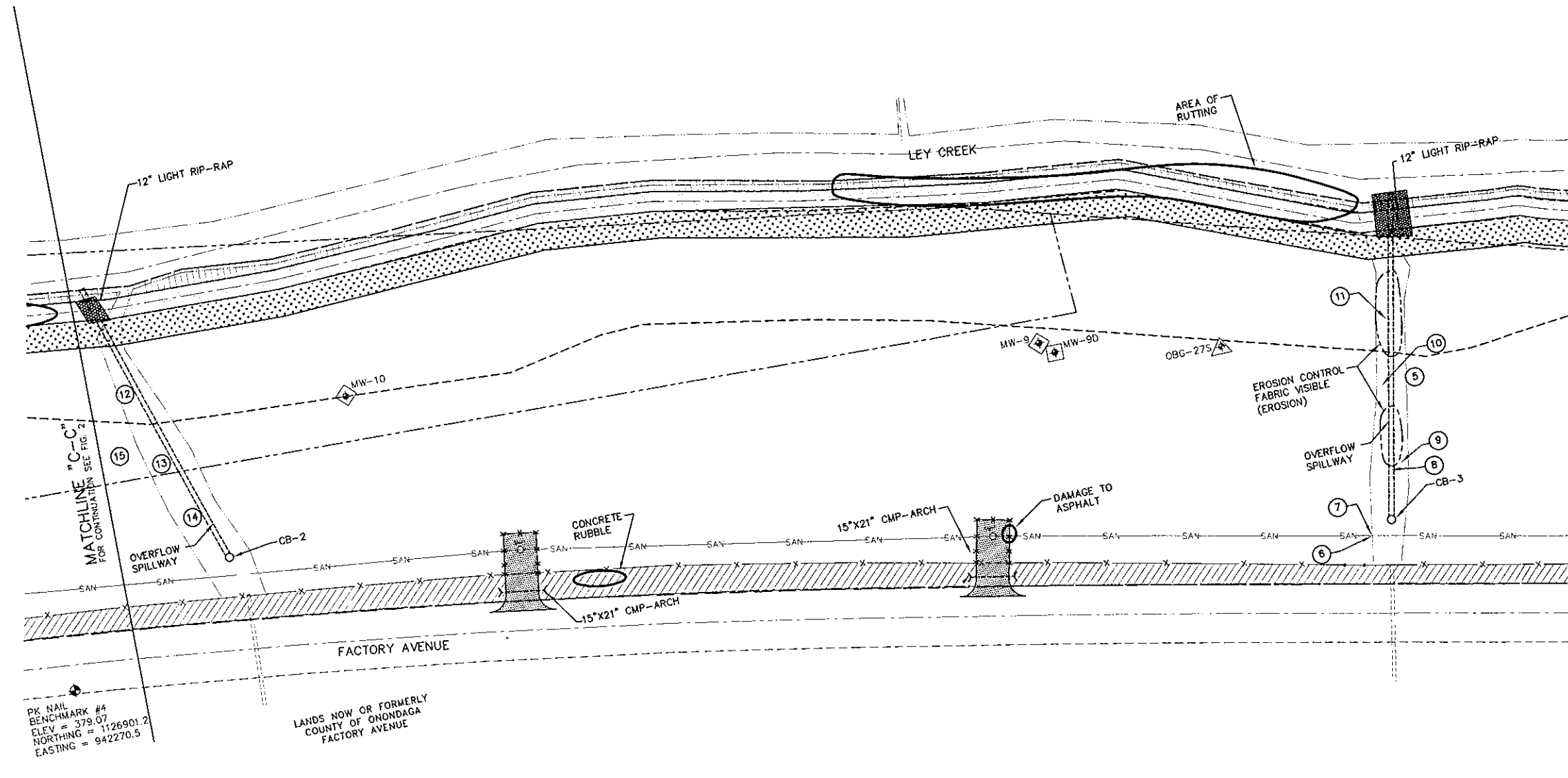
LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

OCTOBER 2006  
OM&M INSPECTION  
PARTIAL SITE PLAN



FILE NO. 4966.34124.057  
OCTOBER 2006





MATCHLINE "D-D"  
FOR CONTINUATION SEE FIG. 4

FIGURE 3

LEGEND

- SEEDED WITH CANARY GRASS
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LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

OCTOBER 2006  
OM&M INSPECTION  
PARTIAL SITE PLAN



FILE NO. 4966.34124.058  
OCTOBER 2006



MATCHLINE "D-D"  
FOR CONTINUATION SEE FIG. 3

MATCHLINE "E-E"  
FOR CONTINUATION SEE FIG. 5

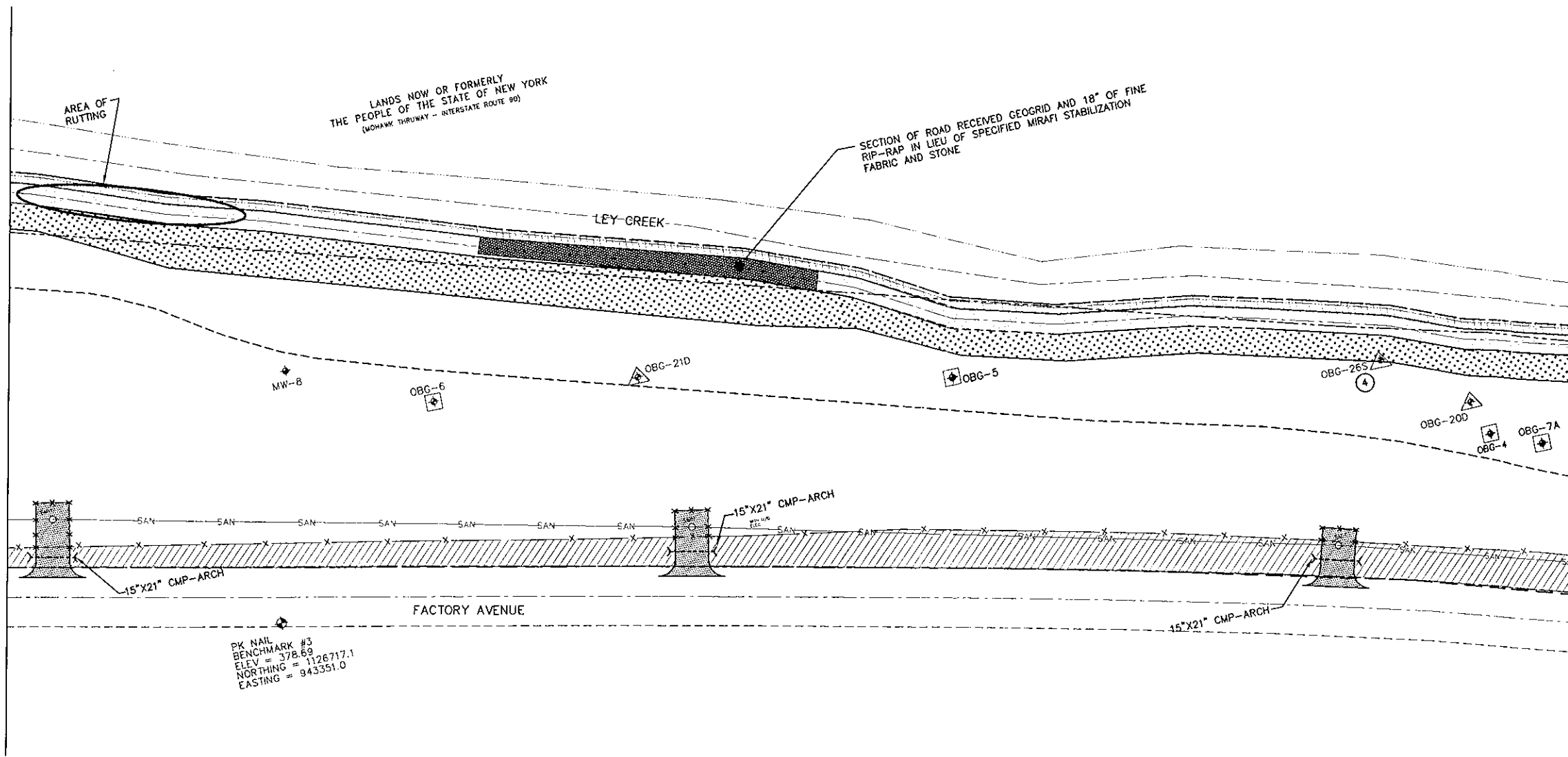


FIGURE 4

LEGEND

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LEY CREEK PCB DREDGINGS SITE  
SYRACUSE, NEW YORK  
SITE REMEDIATION PROJECT

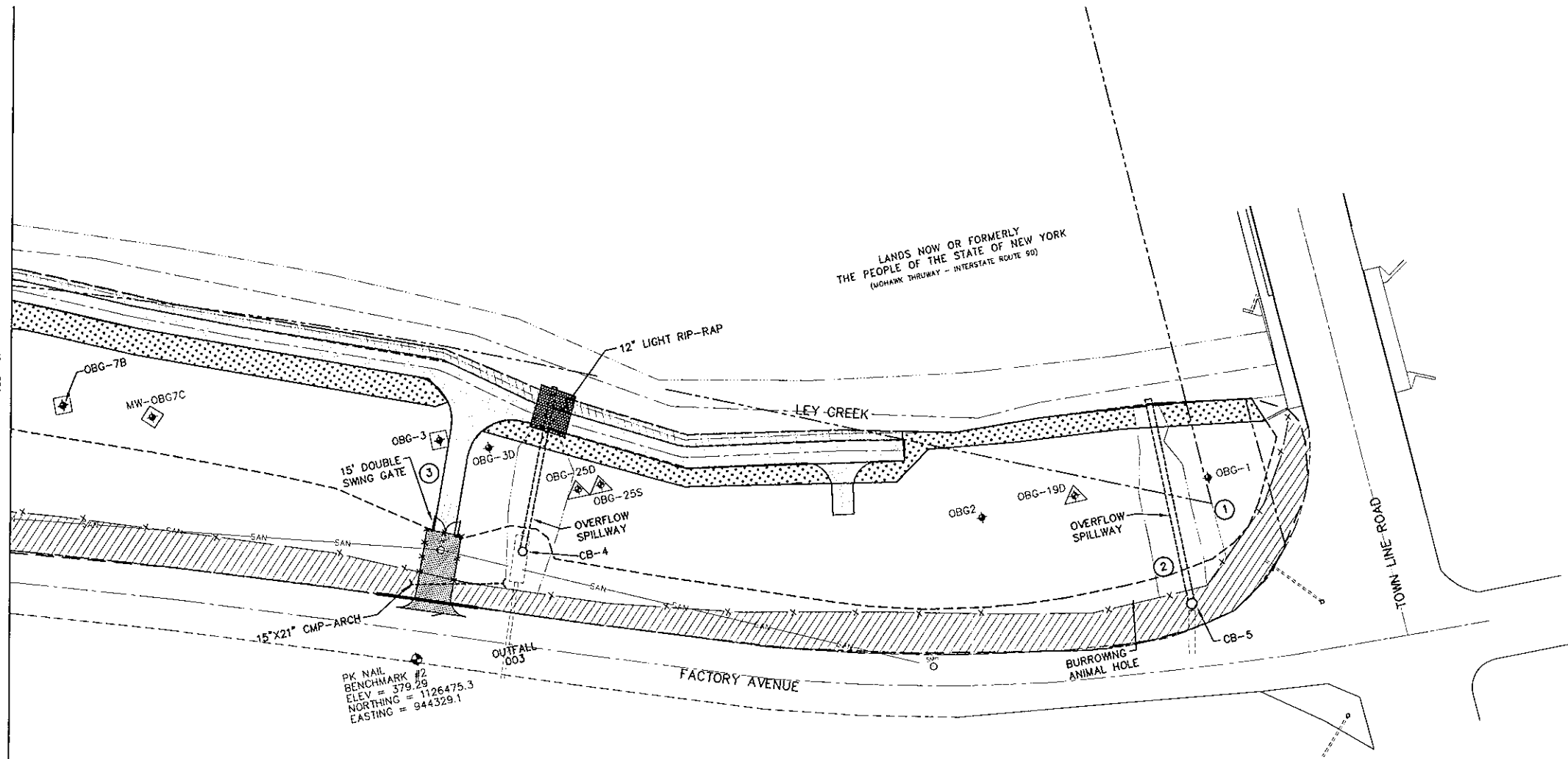
OCTOBER 2006  
OM&M INSPECTION  
PARTIAL SITE PLAN



FILE NO. 4966.34124.059  
OCTOBER 2006



MATCHLINE "E-E"  
FOR CONTINUATION SEE FIG. 4



PK NAIL  
BENCHMARK #2  
ELEV = 379.29  
NORTHING = 1126475.3  
EASTING = 944329.1



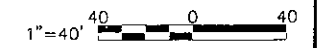
FIGURE 5

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