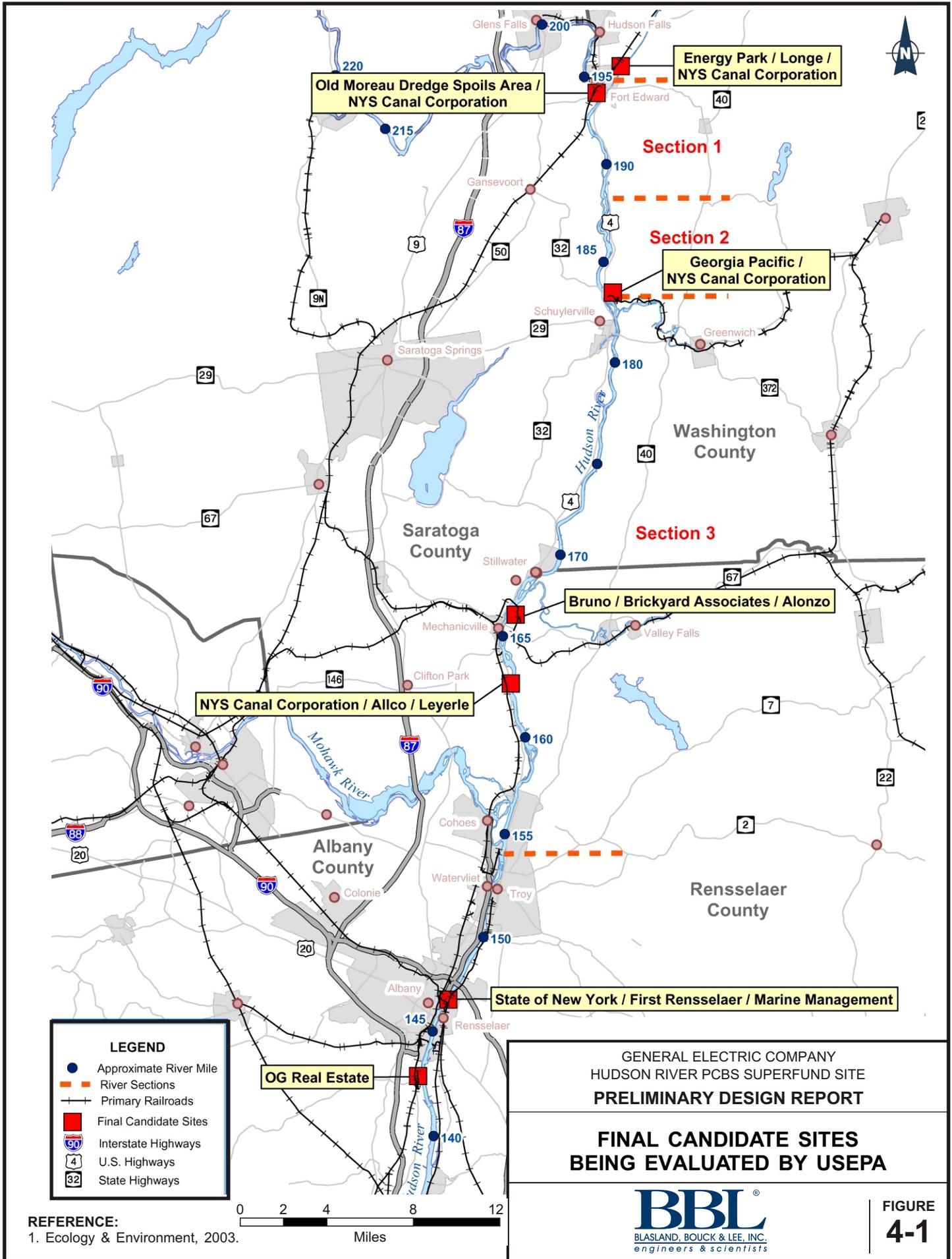


Figures



LEGEND

- Approximate River Mile
- River Sections
- Primary Railroads
- Final Candidate Sites
- 🛣 Interstate Highways
- 🛣 U.S. Highways
- 🛣 State Highways

REFERENCE:
1. Ecology & Environment, 2003.

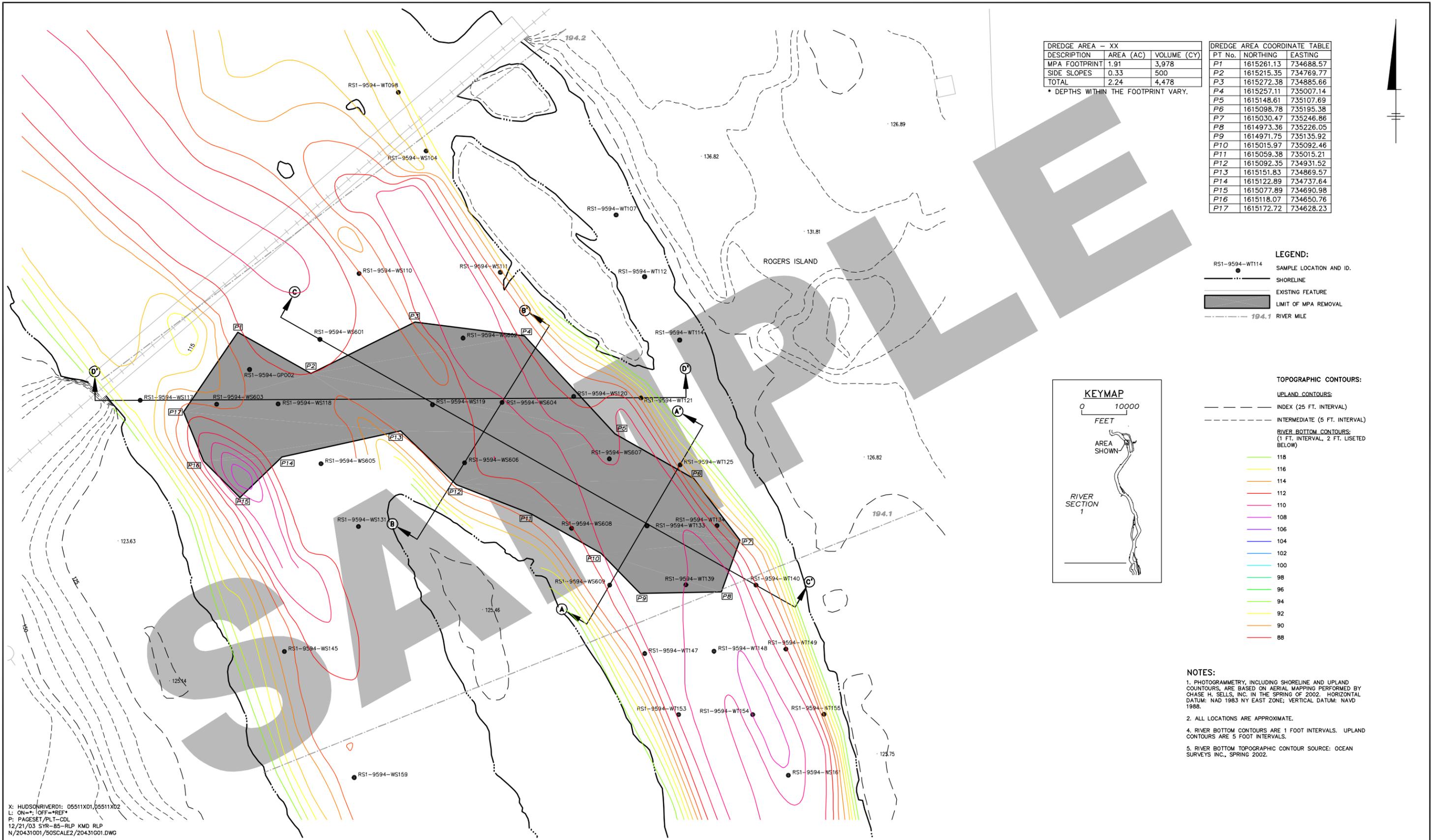


GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
PRELIMINARY DESIGN REPORT

**FINAL CANDIDATE SITES
BEING EVALUATED BY USEPA**



**FIGURE
4-1**



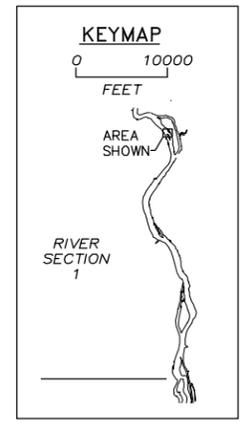
DREDGE AREA - XX		
DESCRIPTION	AREA (AC)	VOLUME (CY)
MPA FOOTPRINT	1.91	3,978
SIDE SLOPES	0.33	500
TOTAL	2.24	4,478

* DEPTHS WITHIN THE FOOTPRINT VARY.

DREDGE AREA COORDINATE TABLE		
PT No.	NORTHING	EASTING
P1	1615261.13	734688.57
P2	1615215.35	734769.77
P3	1615272.38	734885.66
P4	1615257.11	735007.14
P5	1615148.61	735107.69
P6	1615098.78	735195.38
P7	1615030.47	735246.86
P8	1614973.36	735226.05
P9	1614971.75	735135.92
P10	1615015.97	735092.46
P11	1615059.38	735015.21
P12	1615092.35	734931.52
P13	1615151.83	734869.57
P14	1615122.89	734737.64
P15	1615077.89	734690.98
P16	1615118.07	734650.76
P17	1615172.72	734628.23

- LEGEND:**
- RS1-9594-WT114 SAMPLE LOCATION AND ID.
 - SHORELINE
 - EXISTING FEATURE
 - LIMIT OF MPA REMOVAL
 - 194.1 RIVER MILE

- TOPOGRAPHIC CONTOURS:**
- UPLAND CONTOURS:**
- INDEX (25 FT. INTERVAL)
 - INTERMEDIATE (5 FT. INTERVAL)
- RIVER BOTTOM CONTOURS:**
- (1 FT. INTERVAL, 2 FT. LIASED BELOW)
- 118
 - 116
 - 114
 - 112
 - 110
 - 108
 - 106
 - 104
 - 102
 - 100
 - 98
 - 96
 - 94
 - 92
 - 90
 - 88



- NOTES:**
- PHOTOGAMMETRY, INCLUDING SHORELINE AND UPLAND COUNTOURS, ARE BASED ON AERIAL MAPPING PERFORMED BY CHASE H. SELLS, INC. IN THE SPRING OF 2002. HORIZONTAL DATUM: NAD 1983 NY EAST ZONE; VERTICAL DATUM: NAVD 1988.
 - ALL LOCATIONS ARE APPROXIMATE.
 - RIVER BOTTOM CONTOURS ARE 1 FOOT INTERVALS. UPLAND CONTOURS ARE 5 FOOT INTERVALS.
 - RIVER BOTTOM TOPOGRAPHIC CONTOUR SOURCE: OCEAN SURVEYS INC., SPRING 2002.

X: HUDSONRIVERD1: 05511X01,05511X02
 L: ON=*, OFF=*REF*
 P: PAGESET/PLT-CDL
 12/21/03 SYR-B5-RLP KMD RLP
 N/20431001/50SCALE2/20431G01.DWG



THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

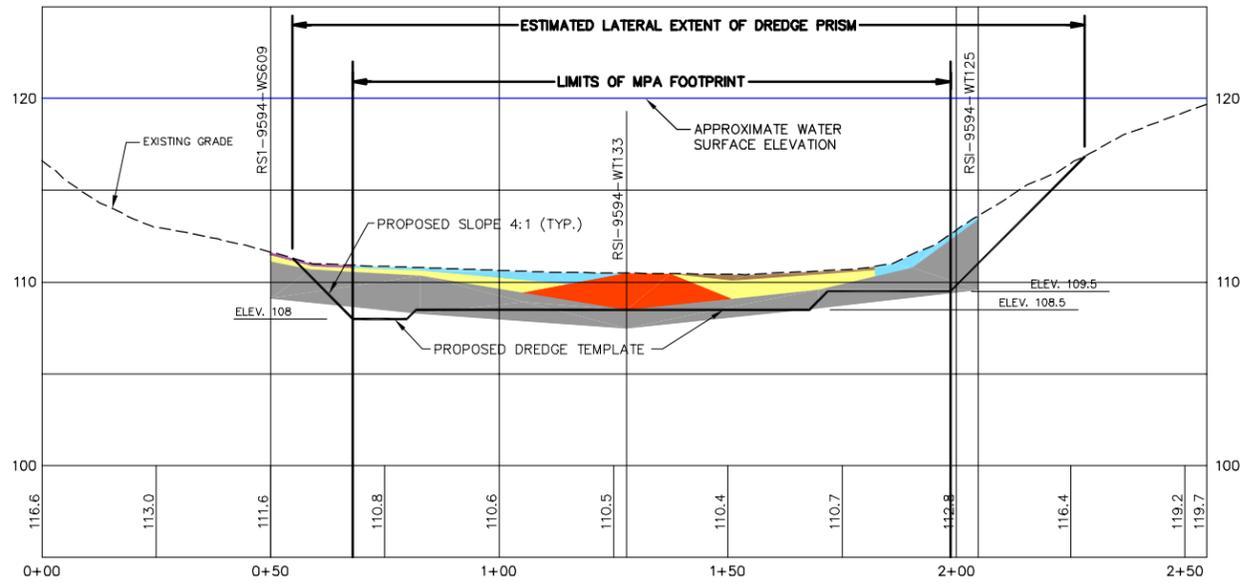
No.	Date	Revisions	Init

Professional Engineer's Name	
Professional Engineer's No.	
State	Date Signed
Project Mgr.	Designed by
	Drawn by

GENERAL ELECTRIC COMPANY • HUDSON RIVER PCBs SUPERFUND SITE
 PRELIMINARY DESIGN REPORT

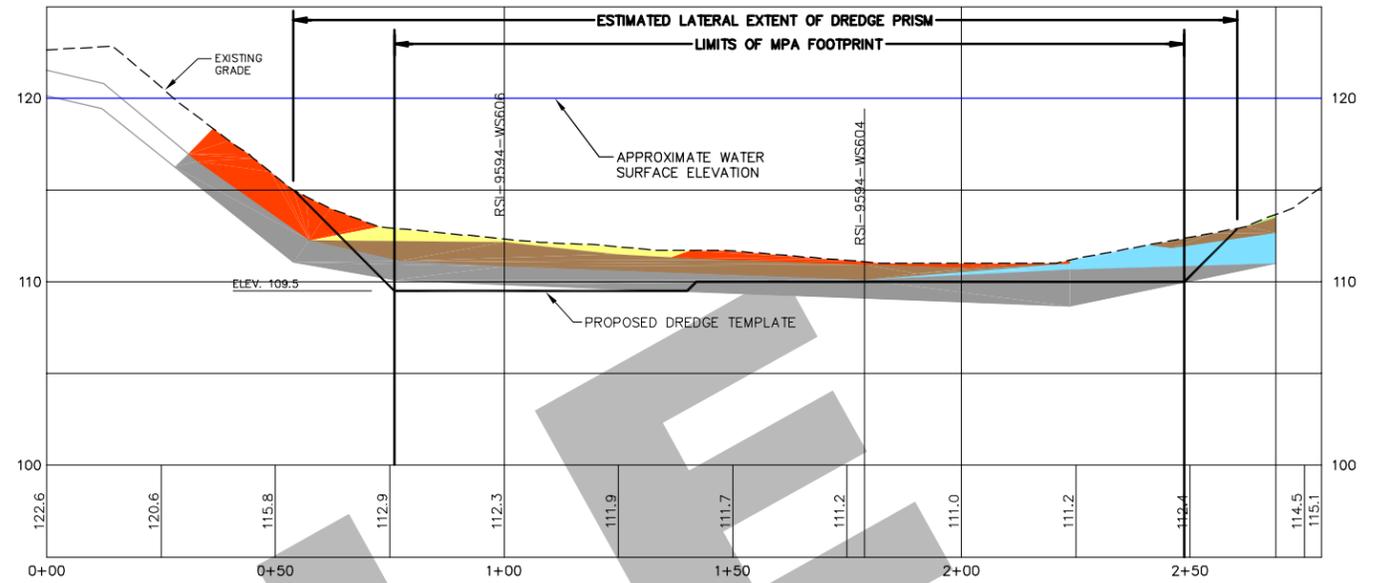
SAMPLE DREDGE AREA

BBL Project No. 20431.001
Date DECEMBER 2003
Blasland, Bouck & Lee, Inc. Corporate Headquarters 6723 Towpath Road Syracuse, NY 13214 315-446-9120



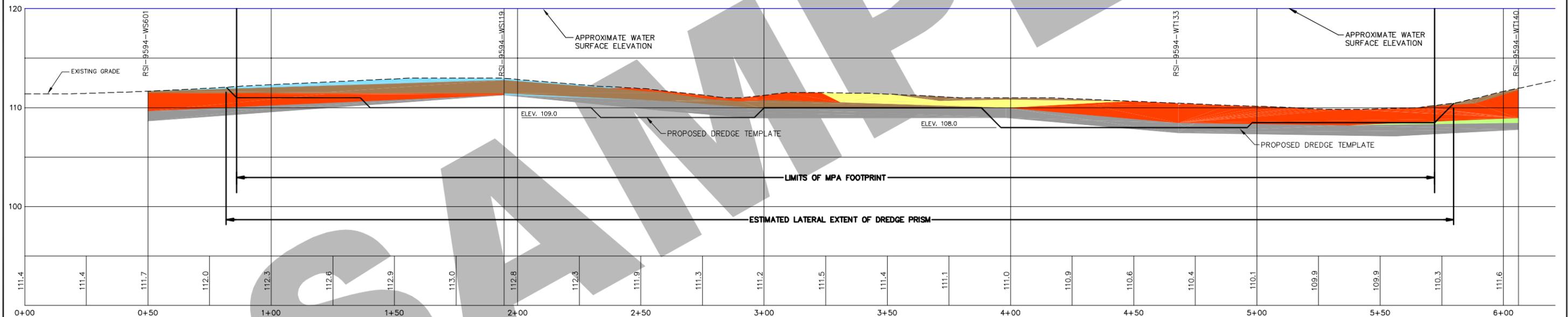
SECTION A-A'

SCALE: 1" = 20' HORIZ.
1" = 5' VERT.



SECTION B-B'

SCALE: 1" = 20' HORIZ.
1" = 5' VERT.



SECTION C-C'

SCALE: 1" = 20' HORIZ.
1" = 5' VERT.

LEGEND:

- FINE SAND
- CLAY
- GRAVEL
- COARSE SAND
- SILT
- ORGANIC
- MEDIUM SAND
- EXISTING GRADE

X: NONE
L: ON=*, OFF=*REF*.SCREEN
P: PAGESET/PLT-CDL
12/21/03 SYR-B5-RPL KMD RLP
N/20431001/50SCALE2/20431002.DWG



THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

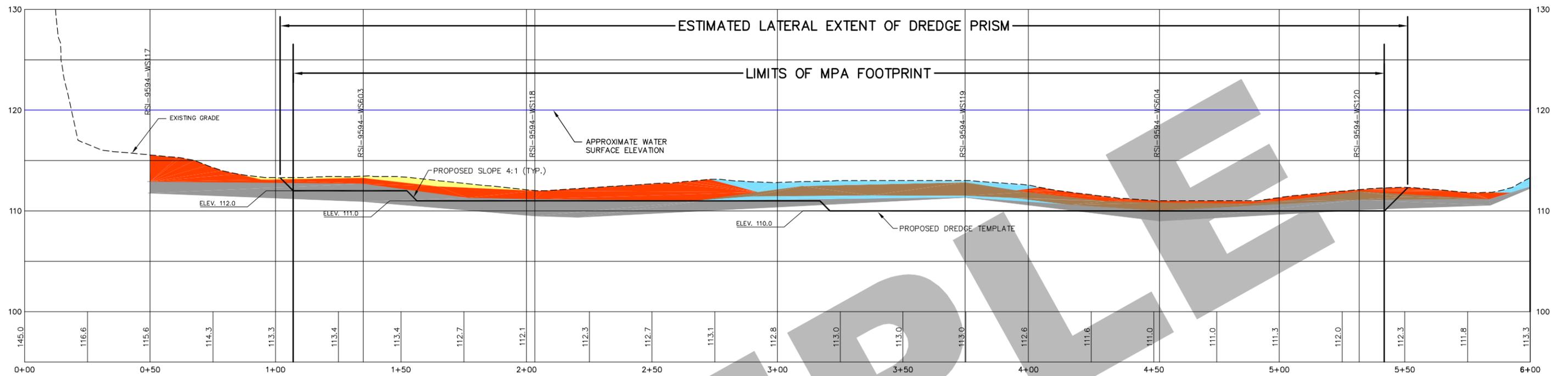
No.	Date	Revisions	Init

Professional Engineer's Name	
Professional Engineer's No.	
State	Date Signed
Project Mgr.	Designed by
	Drawn by



GENERAL ELECTRIC COMPANY • HUDSON RIVER PCBs SUPERFUND SITE
PRELIMINARY DESIGN REPORT
**SAMPLE DREDGE AREA:
SECTIONS A-A', B-B', AND C-C'**

BBL Project No. 20431.001
Date: DECEMBER 2003
Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315-446-9120



SECTION D-D'

SCALE: 1" = 20' HORIZ.
1" = 5' VERT.

LEGEND:

- FINE SAND
- CLAY
- GRAVEL
- COARSE SAND
- SILT
- ORGANIC
- MEDIUM SAND
- EXISTING GRADE

X: NONE
L: ON=*, OFF=*REF*, SCREEN
P: PAGESET/PLT-CDL
12/21/03 SYR-B5-RP KMD RLP
N/20431001/50SCALE2/20431G03.DWG



THIS DRAWING WAS PREPARED AT THE SCALE INDICATED IN THE TITLE BLOCK. INACCURACIES IN THE STATED SCALE MAY BE INTRODUCED WHEN DRAWINGS ARE REPRODUCED BY ANY MEANS. USE THE GRAPHIC SCALE BAR IN THE TITLE BLOCK TO DETERMINE THE ACTUAL SCALE OF THIS DRAWING.

No.	Date	Revisions	Init

Professional Engineer's Name	
Professional Engineer's No.	
State	Date Signed
Project Mgr.	Designed by
	Drawn by

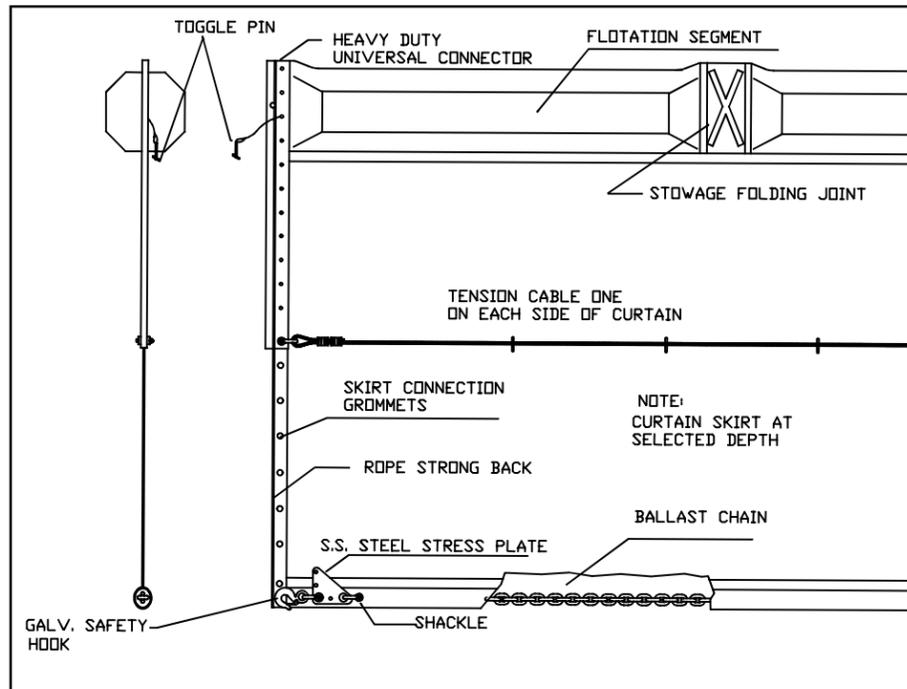
Professional Engineer's Name	
Professional Engineer's No.	
State	Date Signed
Project Mgr.	Designed by
	Drawn by



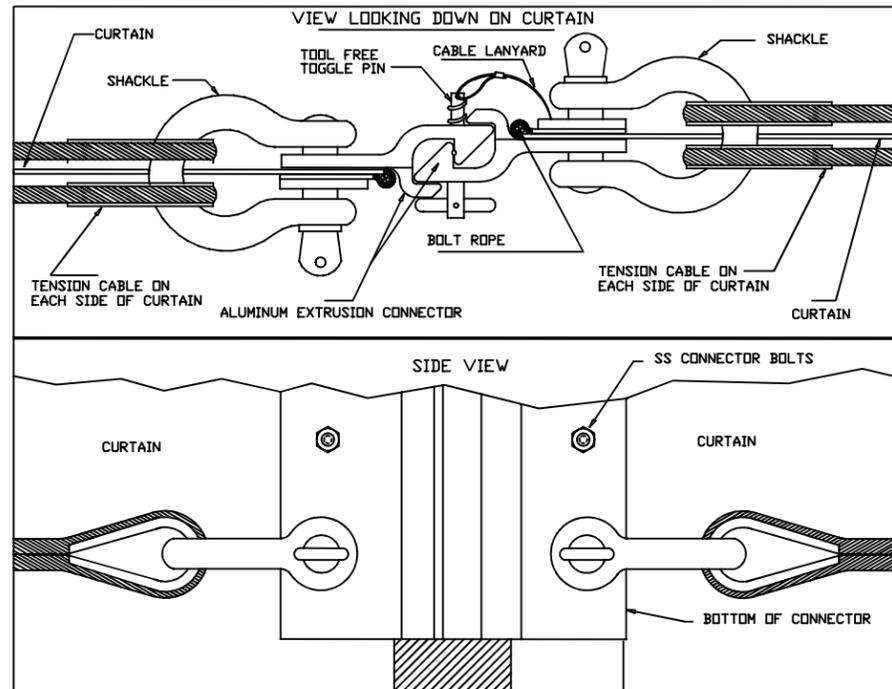
GENERAL ELECTRIC COMPANY • HUDSON RIVER PCBs SUPERFUND SITE
PRELIMINARY DESIGN REPORT

SAMPLE DREDGE AREA: SECTION D-D'

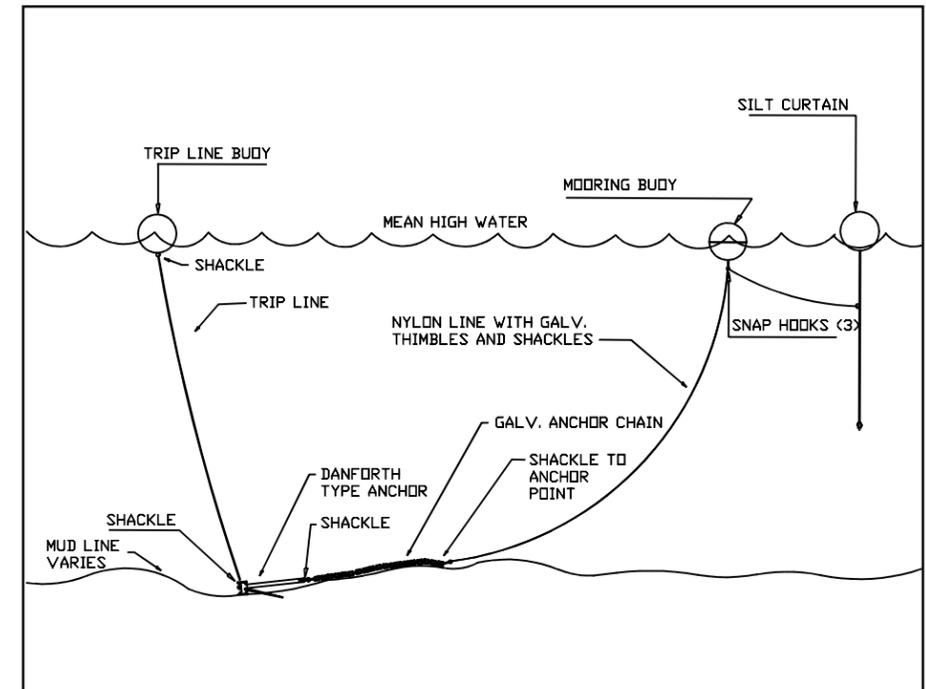
BBL Project No.
20431.001
Date
DECEMBER 2003
Blasland, Bouck & Lee, Inc.
Corporate Headquarters
6723 Towpath Road
Syracuse, NY 13214
315-446-9120



CENTER TENSION SILT CURTAIN



SILT CURTAIN LOAD TYPE CONNECTOR



MOORING AND ANCHOR SYSTEM

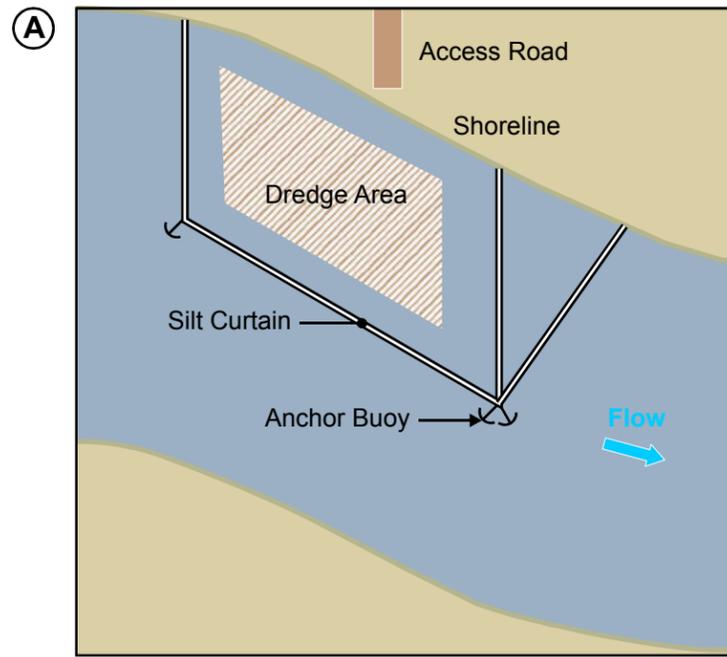
SOURCE:
1. Parker Systems, 2003.

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HUDSON RIVER PCBS SUPERFUND SITE
PRELIMINARY DESIGN REPORT

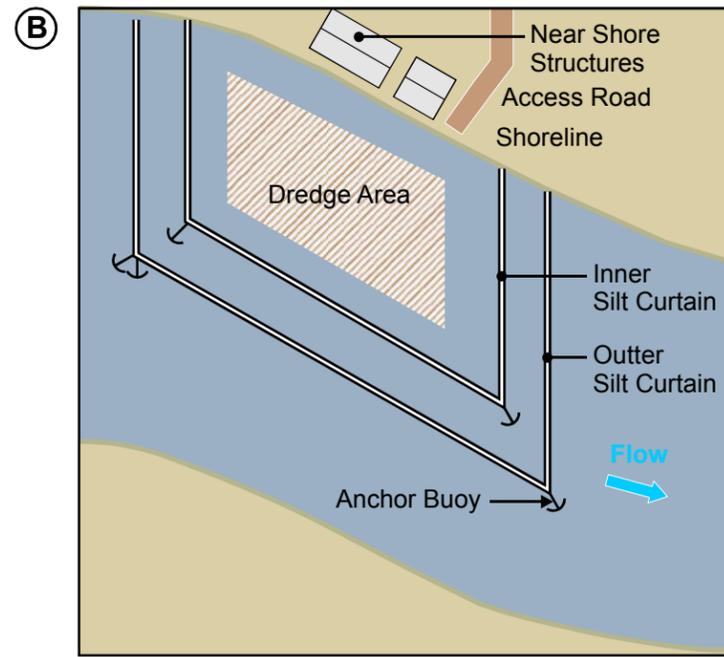
**TYPICAL DETAILS OF TURBIDITY
CURTAIN CONTROL PROCESS OPTION**

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

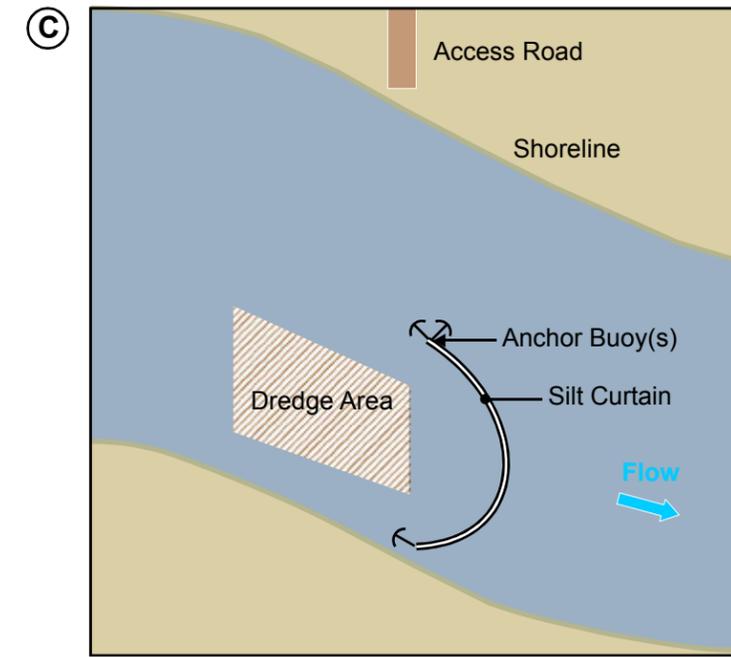
FIGURE
6-1



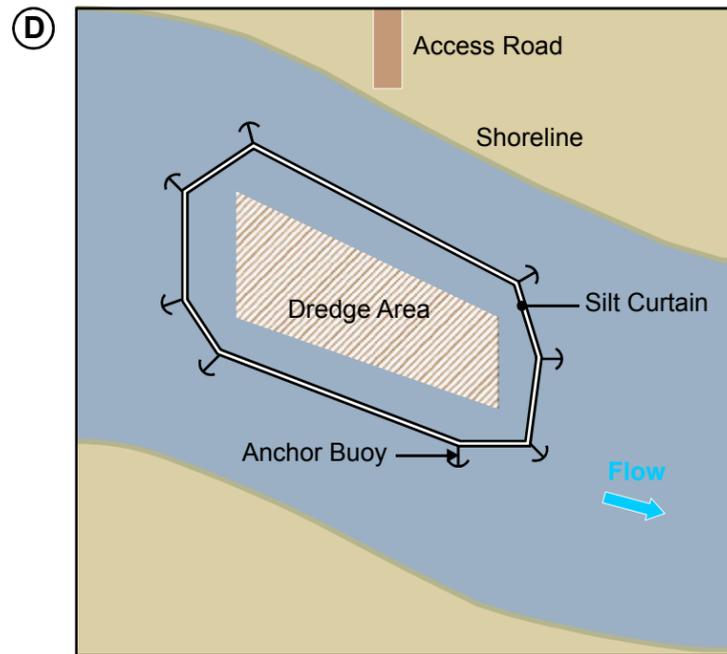
Single silt curtain control for near shoreline dredge area. Secondary downstream silt curtain to allow access to dredge area.



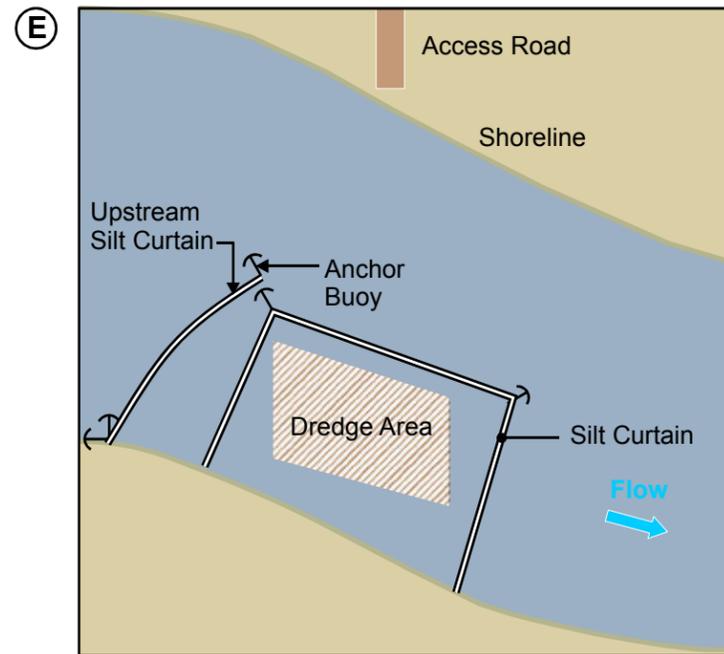
Double silt curtain control to allow alternative openings for vessel access along near shoreline dredge area.



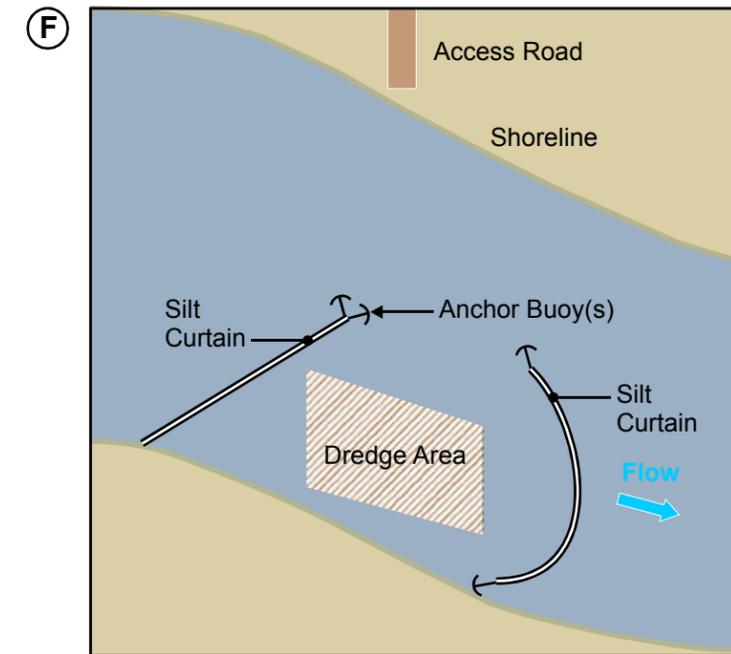
U-shaped silt curtain.



Single mid-river perimeter silt curtain.



Single silt curtain control with upstream velocity reduction secondary silt curtain.



Upstream deflection with U-shaped curtain downstream.

NOT-TO-SCALE

NOTES:

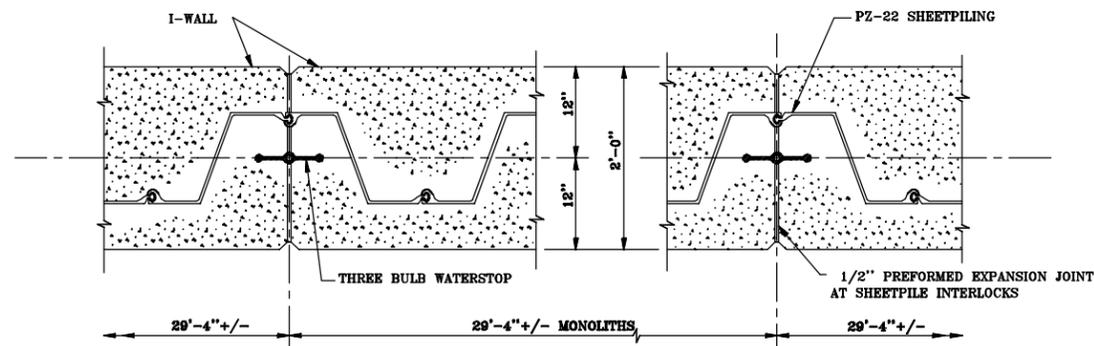
1. These are conceptual layouts and are not meant to represent all possible combinations.
2. Certain sections of silt curtain maybe temporarily removed to allow vessel access.

GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBS SUPERFUND SITE
PRELIMINARY DESIGN REPORT

**POTENTIAL CONCEPTUAL LAYOUT
AND CONFIGURATION OF SILT
CURTAIN CONTROL**

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engineers & scientists

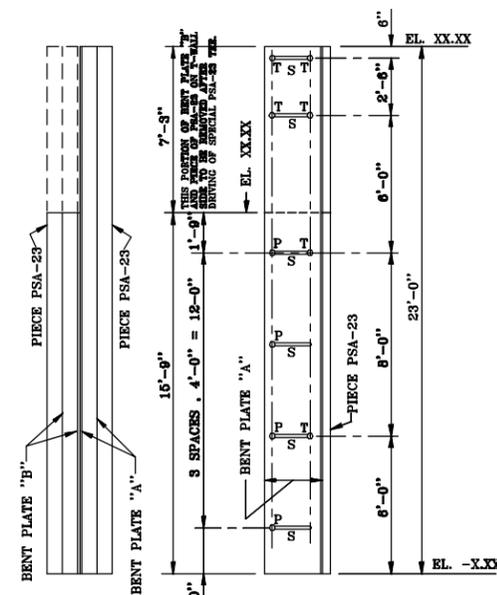
FIGURE
6-2



TYPICAL MONOLITH AT SHEETPILE INTERLOCKS

SCALE: 1 1/2" = 1' - 0"

NOTE:
I-WALL MONOLITHS SHALL BE 29'-4" +/- UNLESS OTHERWISE INDICATED ON THE PROFILE. EACH MONOLITH SHALL END AT THE CENTER OF THE NEAREST SHEETPILE INTERLOCK.

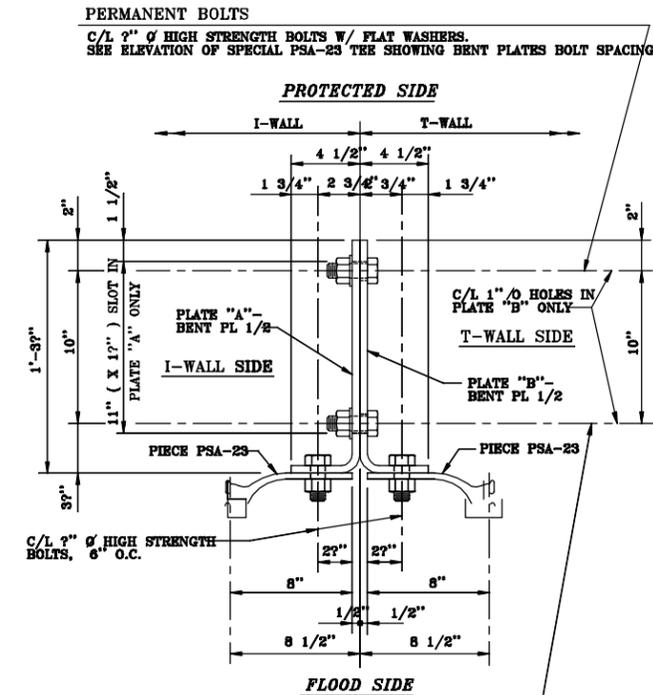


PROTECTED SIDE ELEVATION I-WALL SIDE ELEVATION

STA. XXX+XX.XX W/L
ELEVATION OF SPECIAL PSA-23 TEE
SHOWING BENT PLATES BOLT SPACING

SCALE: HORIZ. 3/4" = 1' - 0"
VERT. 3/8" = 1' - 0"

LEGEND
P = PERMANENT BOLT
T = TEMPORARY BOLT
S = SLOTTED HOLE (PLATE "A" ONLY)



PERMANENT BOLTS
C/L 2" Ø HIGH STRENGTH BOLTS W/ FLAT WASHERS.
SEE ELEVATION OF SPECIAL PSA-23 TEE SHOWING BENT PLATES BOLT SPACING.

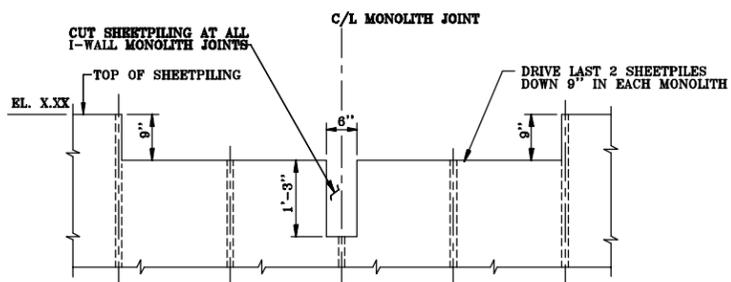
PROTECTED SIDE

I-WALL SIDE T-WALL SIDE

FLOOD SIDE

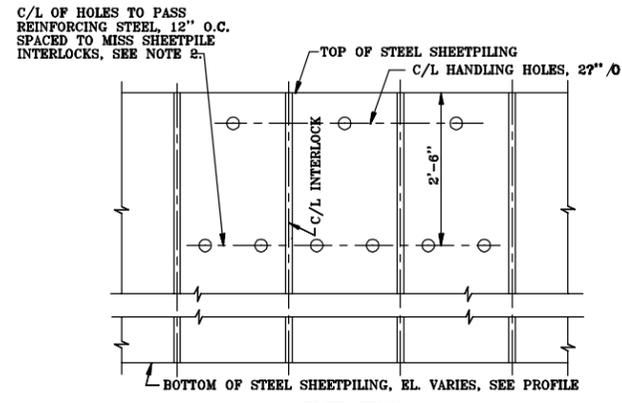
TEMPORARY DRIVING BOLTS
C/L 2" Ø HIGH STRENGTH BOLTS W/ FLAT WASHERS.
SEE ELEVATION OF SPECIAL PSA-23 TEE SHOWING BENT PLATES BOLT SPACING.
THESE BOLTS ARE TO BE REMOVED WHEN EACH BOLT IS APPROXIMATELY 6" ABOVE GROUND LINE AS SPECIAL PSA-23 TEE IS DRIVEN, SO THAT UPON COMPLETION OF DRIVING NO TEMPORARY BOLTS SHALL REMAIN.

DETAIL 1
SPECIAL PSA-23 TEE
SCALE: 3" = 1' - 0"



SHEETPIILING DETAILS
I-WALL MONOLITH JOINTS

SCALE: 1" = 1' - 0"

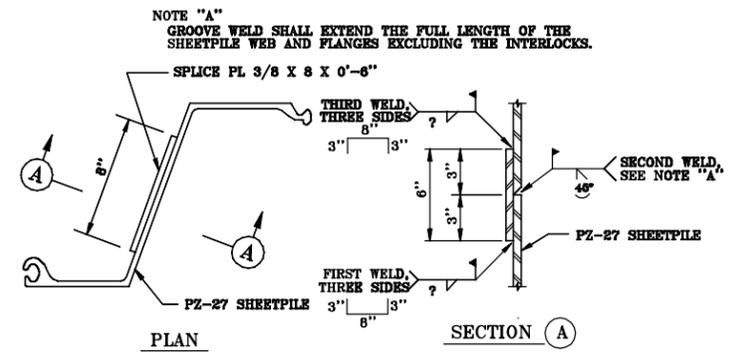


DETAILS OF HOLES IN SHEETPIILING

SCALE: 1" = 1' - 0"

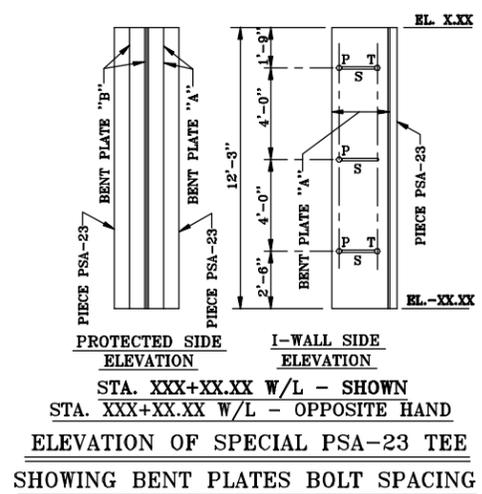
SHEETPILE NOTES

- HOLES CUT IN STEEL SHEETPIILING FOR PASSING REINFORCING BARS SHALL NOT EXCEED 2" Ø. WHERE HOLES FALL WITHIN THE WEB OF THE STEEL SHEETPILE, THE HOLE SHALL BE SLOTTED 4" HORIZONTALLY TO ACCOMMODATE PASSING THE REINFORCING BARS.
- ANY SUBSTITUTIONS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER REPRESENTATIVE FOR APPROVAL.
- STEEL SHEETPILE SURFACE PREPARATION AND PAINTING SHALL BE IN ACCORDANCE WITH SECTION 9A OF THE SPECIFICATIONS.



SHEETPILE SPLICE DETAIL

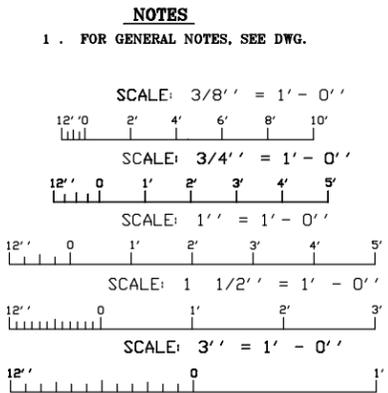
SCALE: 3" = 1' - 0"



PROTECTED SIDE ELEVATION I-WALL SIDE ELEVATION

STA. XXX+XX.XX W/L - SHOWN
STA. XXX+XX.XX W/L - OPPOSITE HAND
ELEVATION OF SPECIAL PSA-23 TEE
SHOWING BENT PLATES BOLT SPACING

SCALE: HORIZ. 3/4" = 1' - 0"
VERT. 3/8" = 1' - 0"



DRAWING REDUCED TO 1/3 OF INDICATED SCALE.

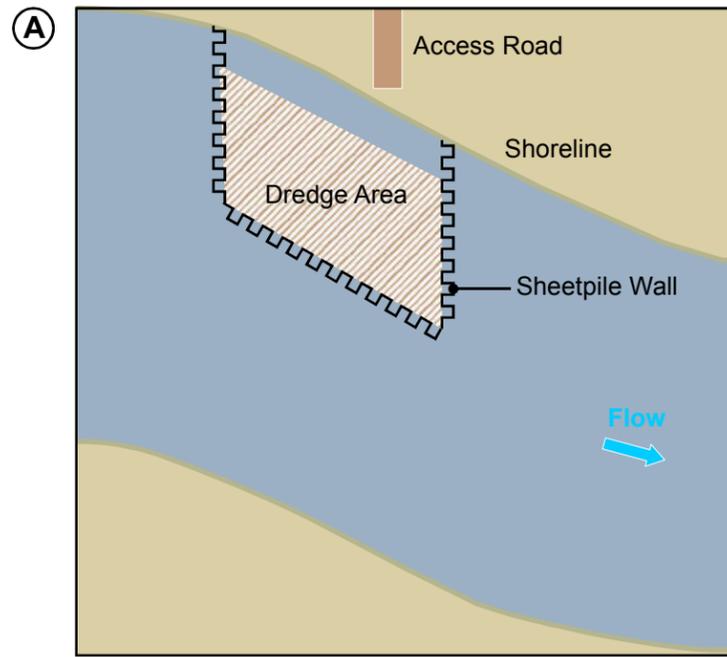
NOTES
1. FOR GENERAL NOTES, SEE DWG.

GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBs SUPERFUND SITE
PRELIMINARY DESIGN REPORT

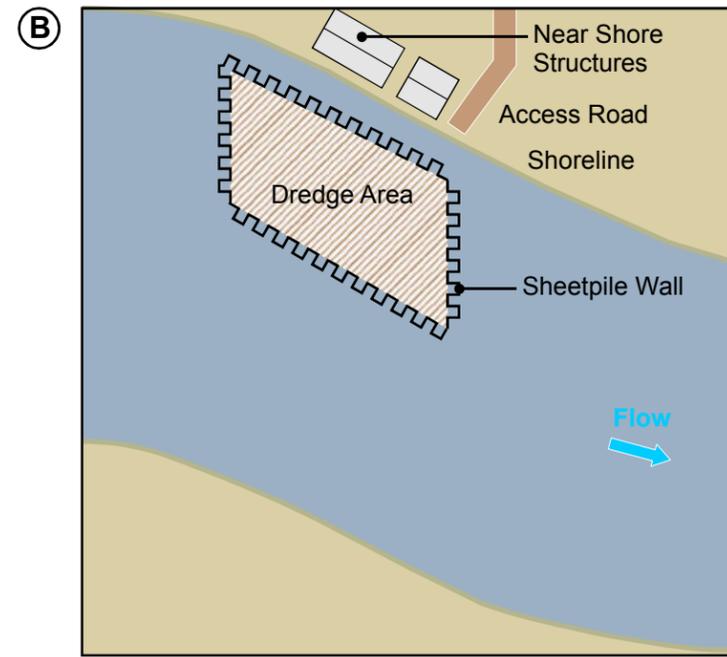
TYPICAL SHEETPILE DETAILS

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engineers & architects

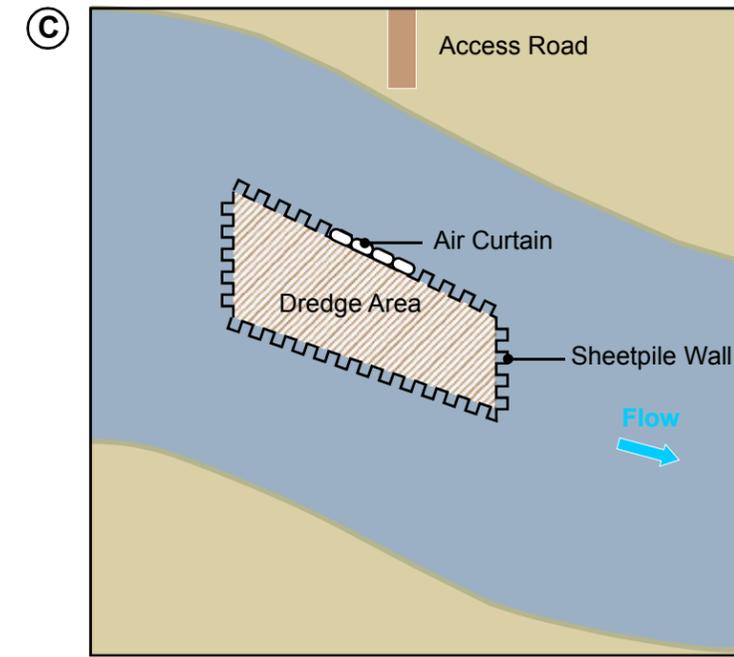
FIGURE
6-3



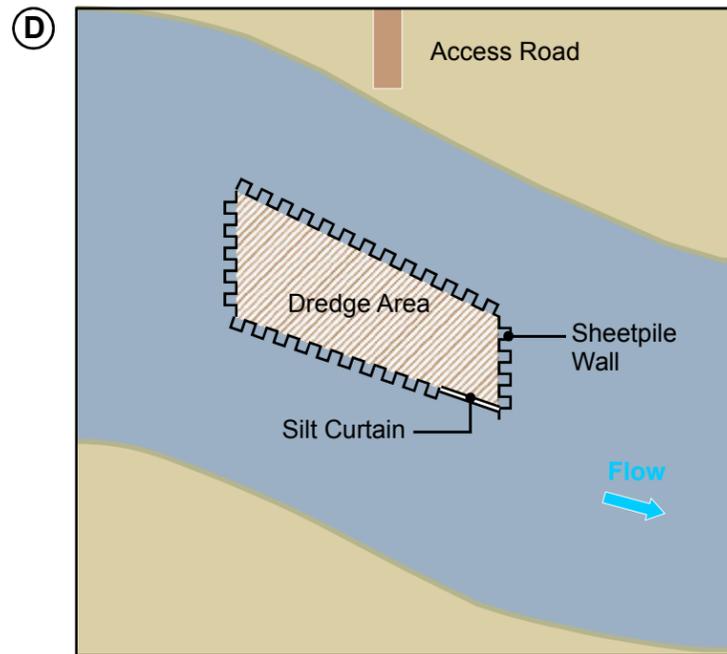
Sheetpile wall control for near shoreline dredge area.



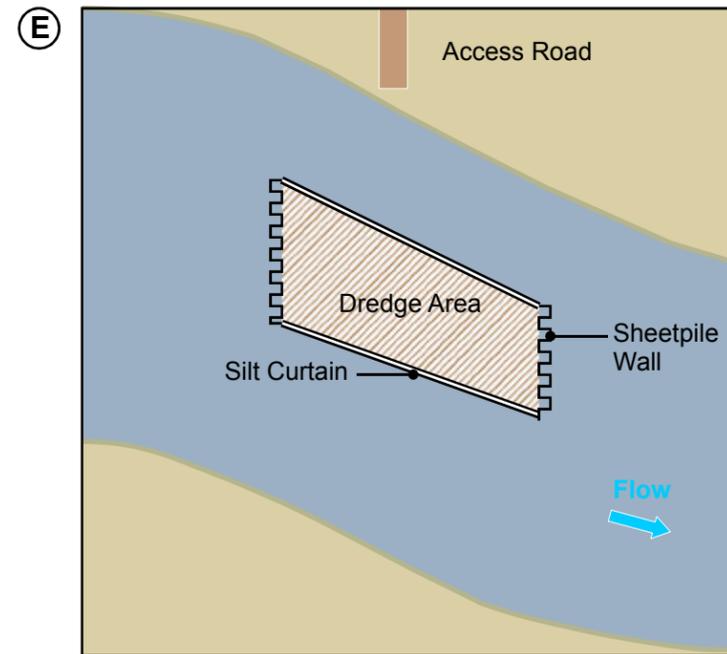
Sheetpile wall control for near shoreline dredge area near sensitive structure (as needed).



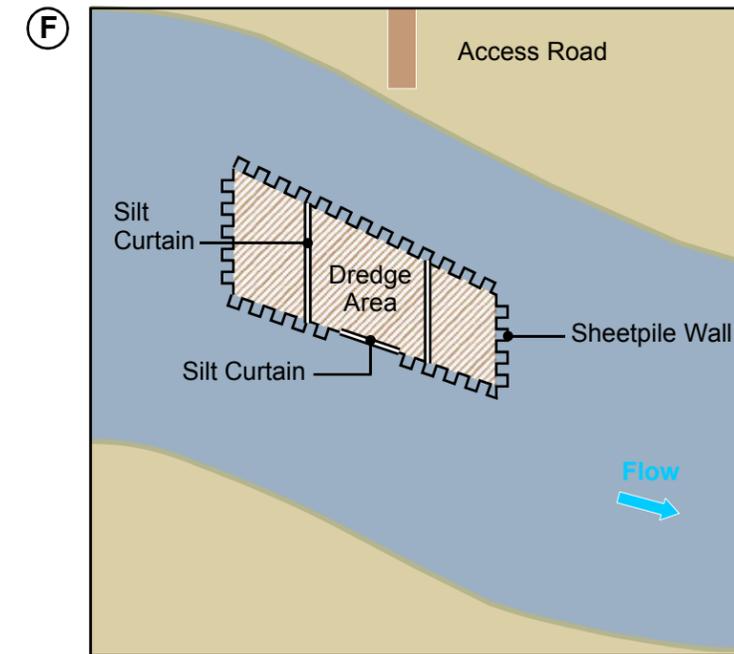
Sheetpile wall control utilizing air curtain to provide access for vessels.



Sheetpile wall control for mid-river dredge area with silt curtain for gate protection.



Partial sheetpile wall control utilizing silt curtains for mid-river dredge area. Silt curtain may be removed to allow vessel access.



Sheetpile wall control with internal silt curtains to separate work areas and allow area access protection.

NOT-TO-SCALE

NOTES:

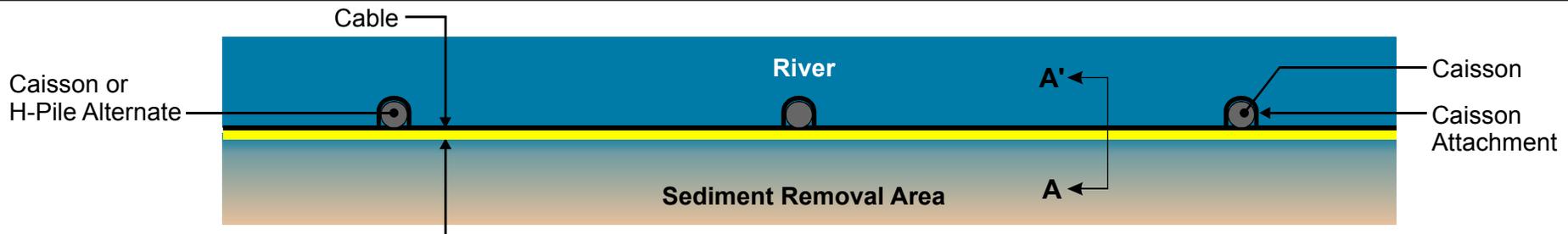
1. These are conceptual layouts and are not meant to represent all possible combinations.
2. Certain sections of silt curtain maybe temporarily removed to allow vessel access.

GENERAL ELECTRIC COMPANY
HUDSON RIVER PCBS SUPERFUND SITE
PRELIMINARY DESIGN REPORT

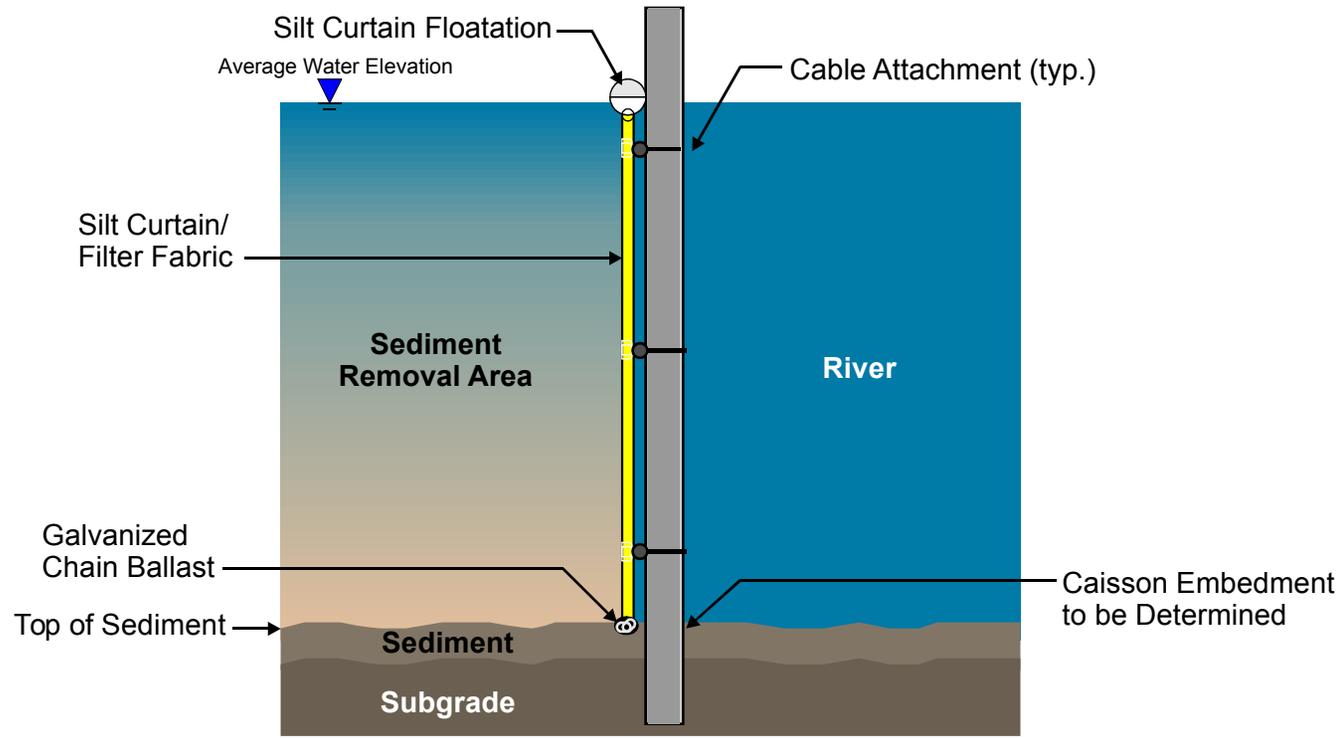
**POTENTIAL CONCEPTUAL LAYOUT
AND CONFIGURATION OF
SHEETPILE WALL CONTROL**



FIGURE
6-4



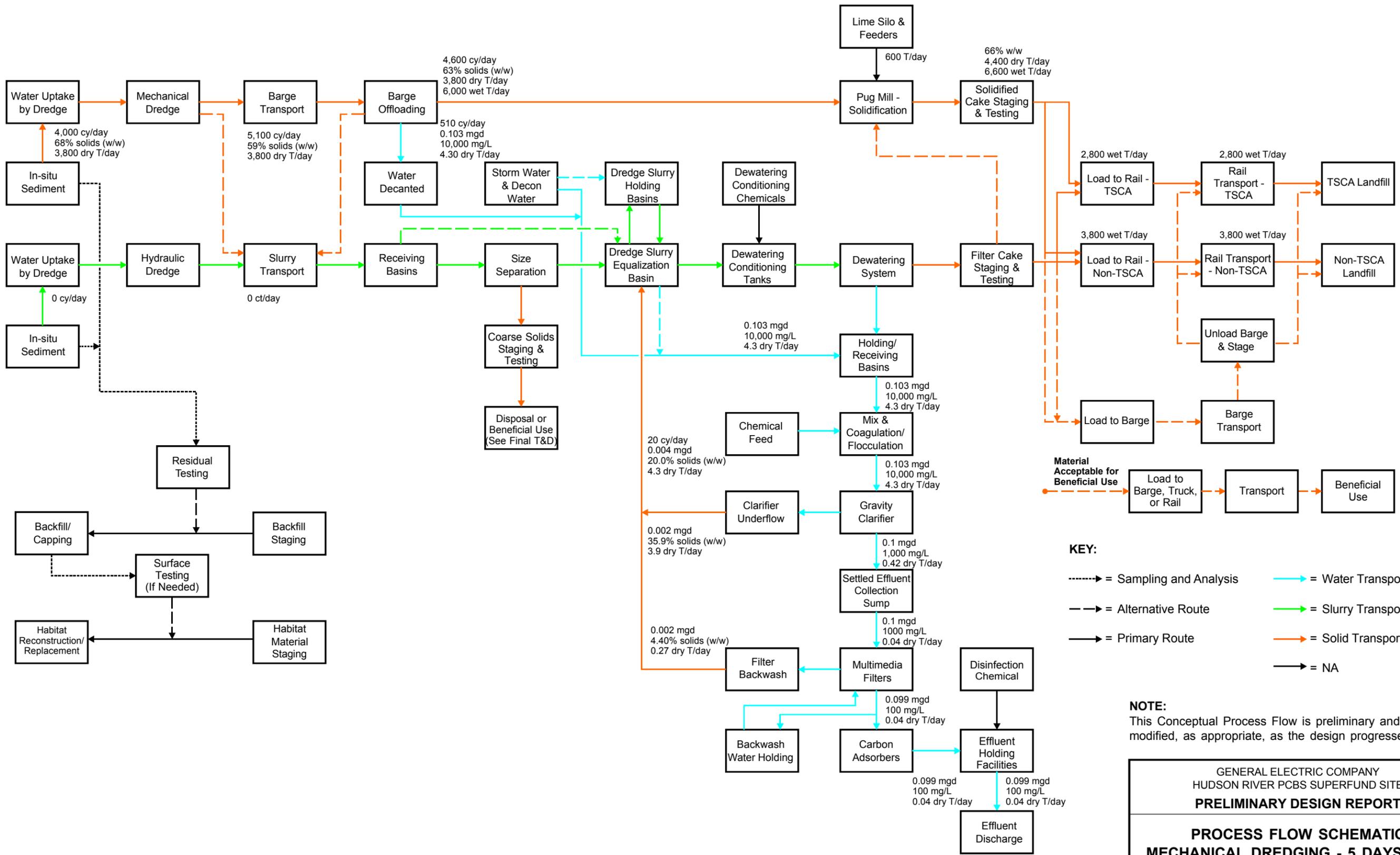
SEDIMENT REMOVAL AREA TYPICAL PLAN VIEW



SECTION A - A'

NOTE:
Curtain will ride up and down as the water level changes.

GENERAL ELECTRIC COMPANY HUDSON RIVER PCBS SUPERFUND SITE PRELIMINARY DESIGN REPORT	
KING PILE SYSTEM	
	FIGURE 6-5



- KEY:**
- > = Sampling and Analysis
 - > = Alternative Route
 - > = Primary Route
 - > = NA
 - > = Water Transport
 - > = Slurry Transport
 - > = Solid Transport

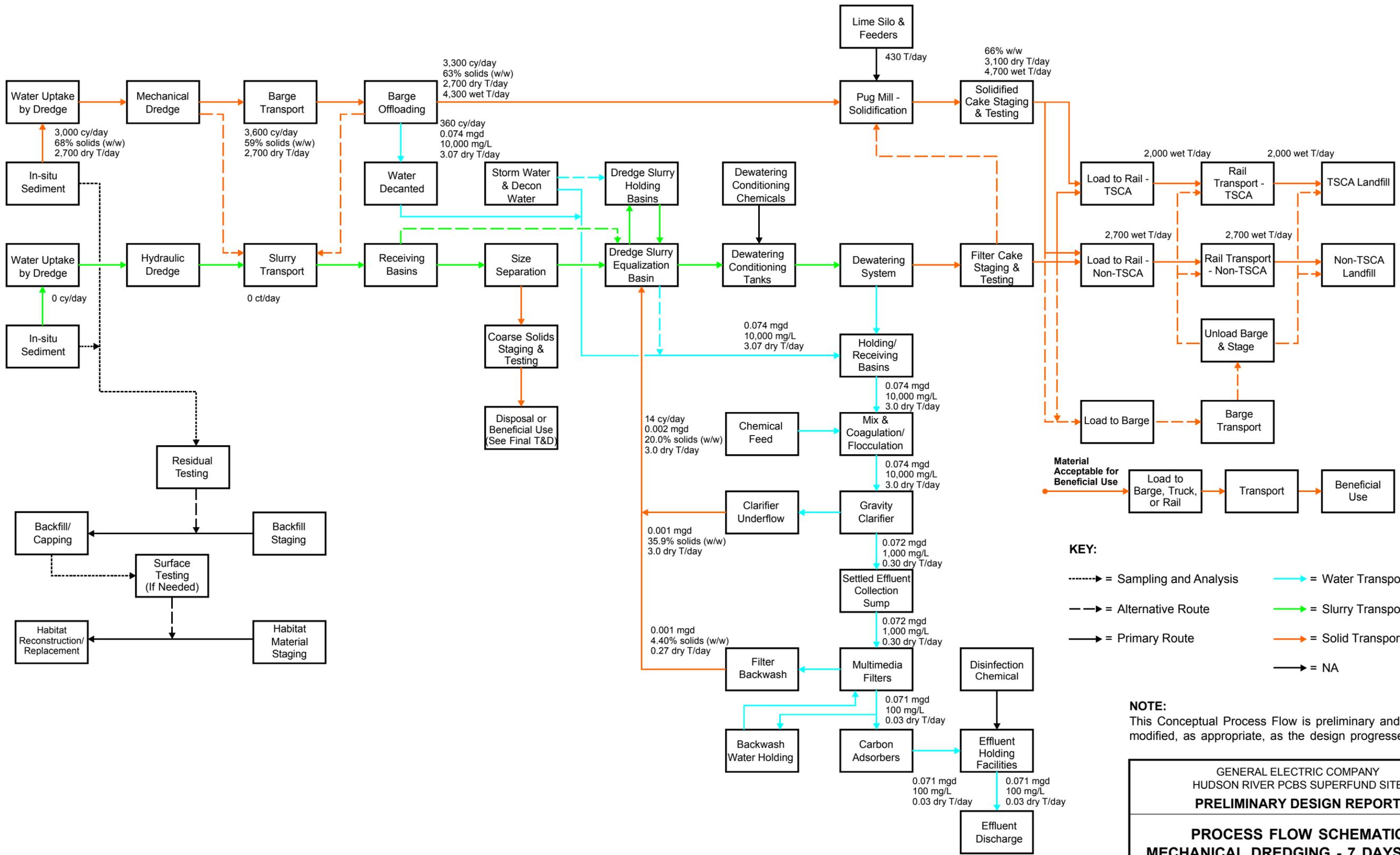
NOTE:
 This Conceptual Process Flow is preliminary and will be modified, as appropriate, as the design progresses.

GENERAL ELECTRIC COMPANY
 HUDSON RIVER PCBs SUPERFUND SITE
PRELIMINARY DESIGN REPORT

**PROCESS FLOW SCHEMATIC
 MECHANICAL DREDGING - 5 DAYS/WEEK**

BBL
 BLASLAND, BOUCK & LEE, INC.
 engineers & scientists

**FIGURE
 8-1**



KEY:

- > = Sampling and Analysis
- > = Alternative Route
- > = Primary Route
- > = NA
- > = Water Transport
- > = Slurry Transport
- > = Solid Transport

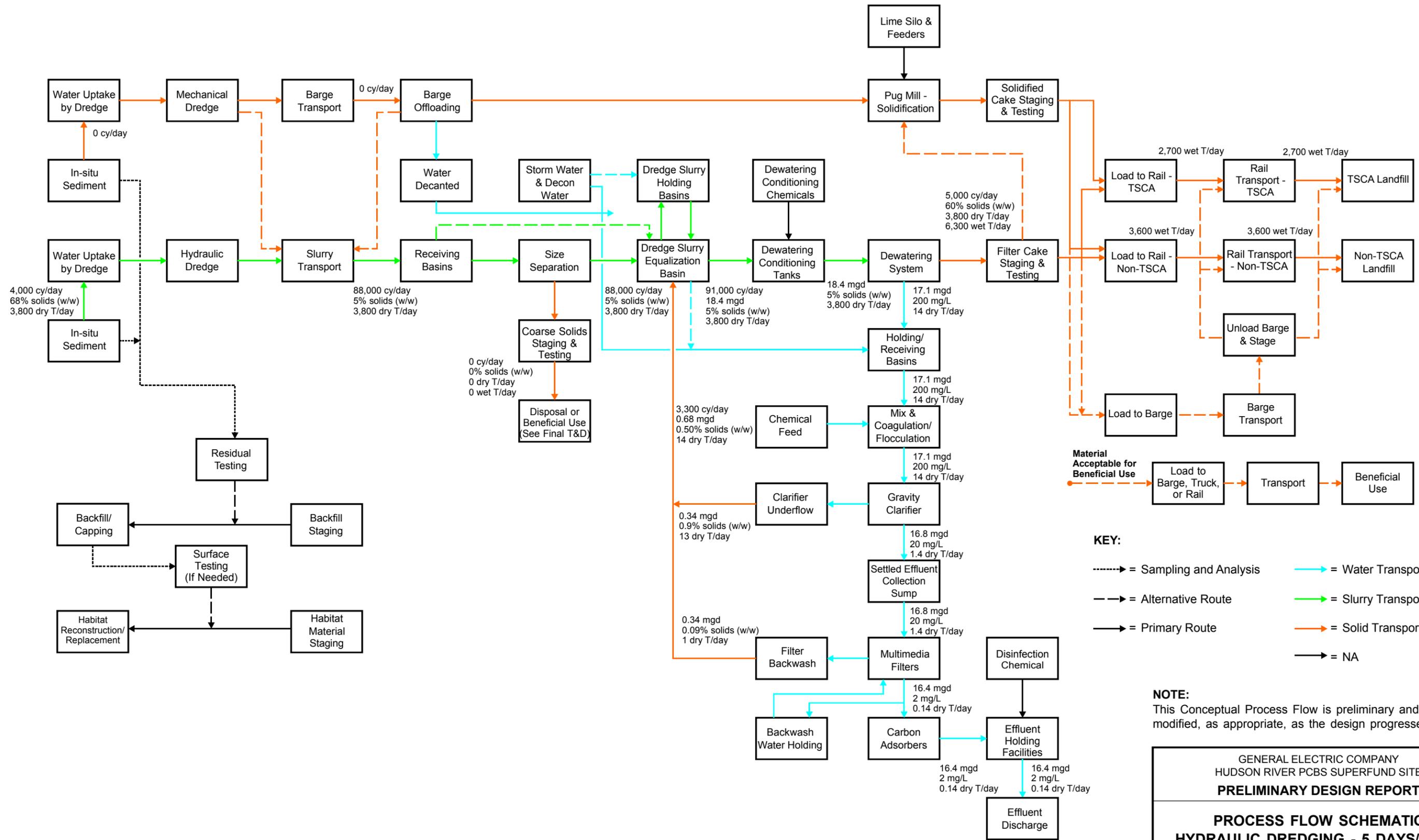
NOTE:
 This Conceptual Process Flow is preliminary and will be modified, as appropriate, as the design progresses.

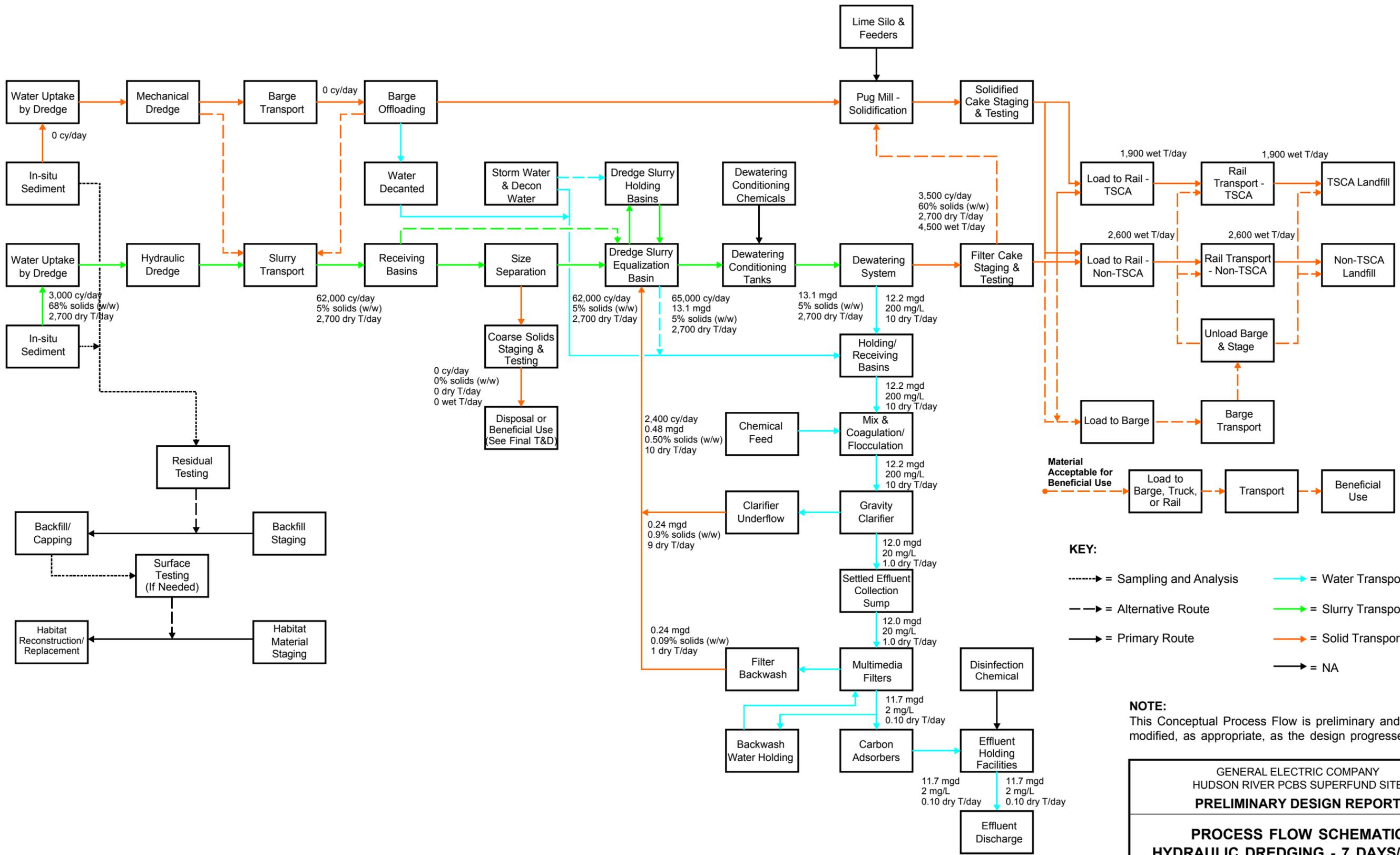
GENERAL ELECTRIC COMPANY
 HUDSON RIVER PCBs SUPERFUND SITE
PRELIMINARY DESIGN REPORT

PROCESS FLOW SCHEMATIC
MECHANICAL DREDGING - 7 DAYS/WEEK

BBL
 BLASLAND, BOUCK & LEE, INC.
 engineers & scientists

FIGURE
8-2





KEY:

- > = Sampling and Analysis
- > = Alternative Route
- > = Primary Route
- > = NA
- > = Water Transport
- > = Slurry Transport
- > = Solid Transport

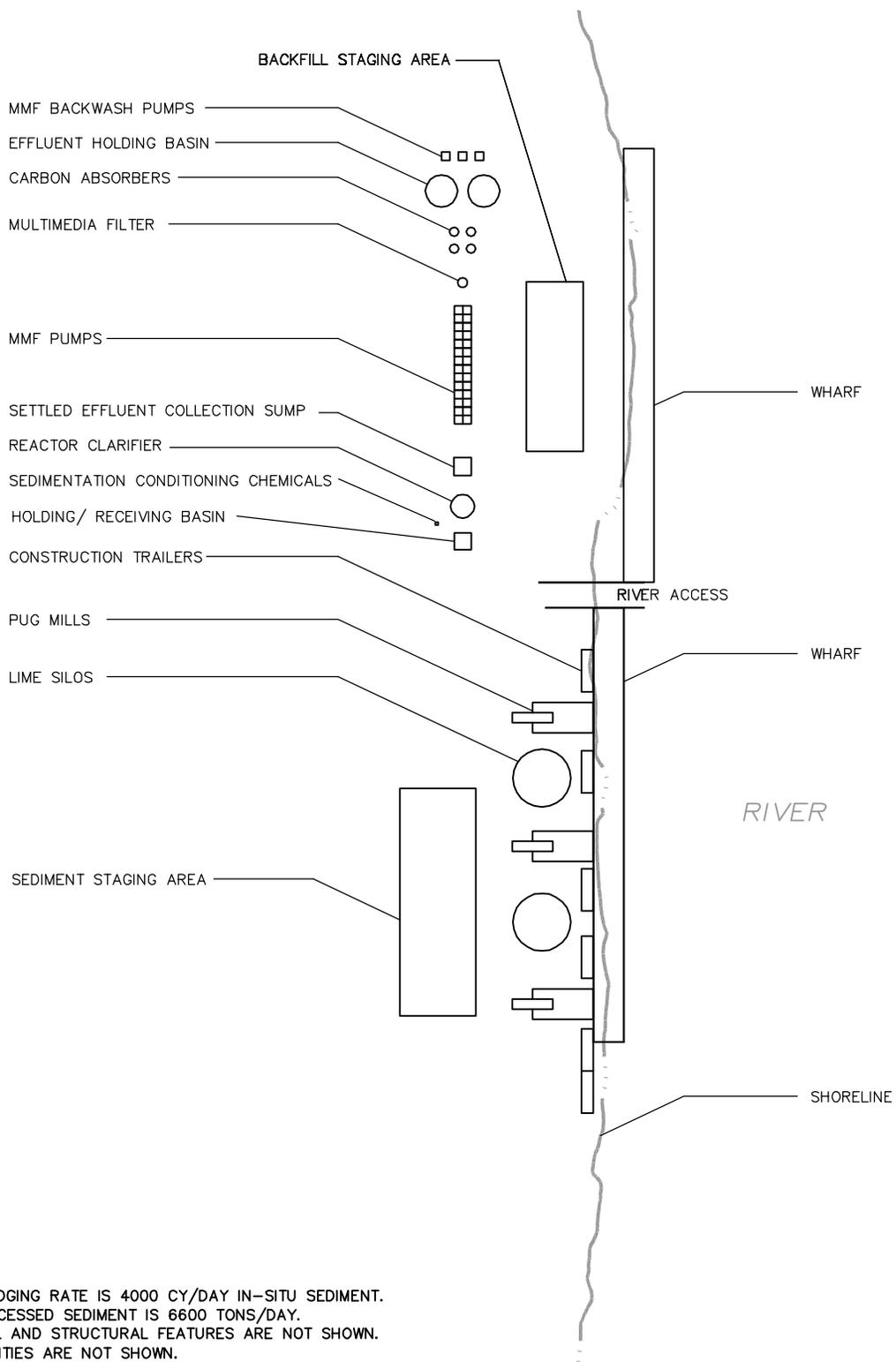
NOTE:
 This Conceptual Process Flow is preliminary and will be modified, as appropriate, as the design progresses.

GENERAL ELECTRIC COMPANY
 HUDSON RIVER PCBs SUPERFUND SITE
PRELIMINARY DESIGN REPORT

**PROCESS FLOW SCHEMATIC
 HYDRAULIC DREDGING - 7 DAYS/WEEK**

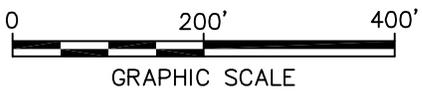
BBL
 BLASLAND, BOUCK & LEE, INC.
 engineers & scientists

**FIGURE
 8-4**



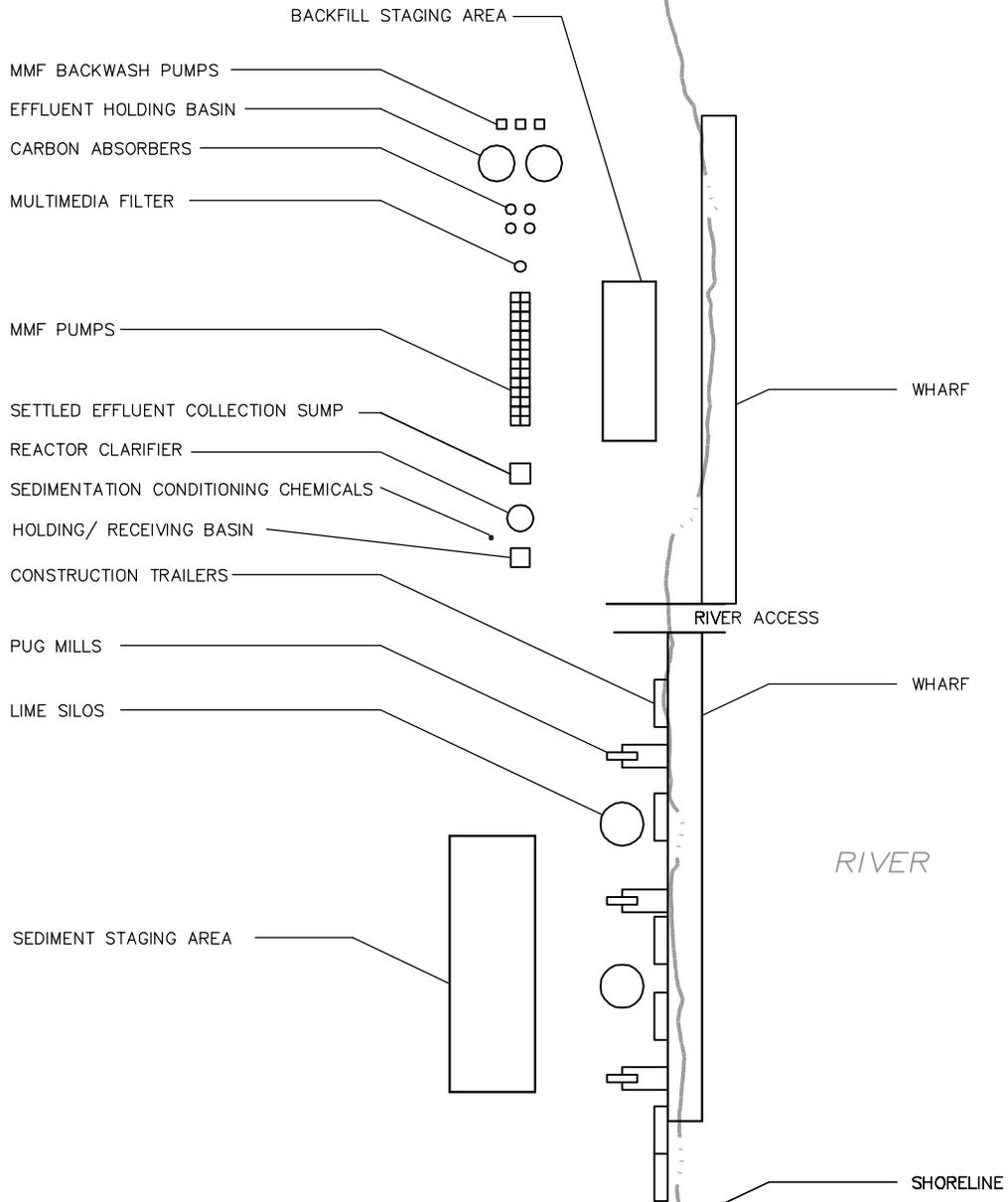
NOTE:

1. DREDGING RATE IS 4000 CY/DAY IN-SITU SEDIMENT.
2. PROCESSED SEDIMENT IS 6600 TONS/DAY.
3. CIVIL AND STRUCTURAL FEATURES ARE NOT SHOWN.
4. UTILITIES ARE NOT SHOWN.



<p>GENERAL ELECTRIC COMPANY HUDSON RIVER PCBS SUPERFUND SITE PRELIMINARY DESIGN REPORT</p>	
<p>GENERIC PROCESSING FACILITY LAYOUT - MECHANICAL DREDGING - 5 DAYS/WEEK</p>	
	<p>FIGURE 8-5</p>

L: ON=*, OFF=REF*
P: PAGESET/PLT-AP
12/22/03 SYR-85-DJP RLP MTK
N/20433007/GENERIC/20433B05.DWG



NOTE:

1. DREDGING RATE IS 3000 CY/DAY IN-SITU SEDIMENT.
2. PROCESSED SEDIMENT IS 4700 TONS/DAY.
3. CIVIL AND STRUCTURAL FEATURES ARE NOT SHOWN.
4. UTILITIES ARE NOT SHOWN.

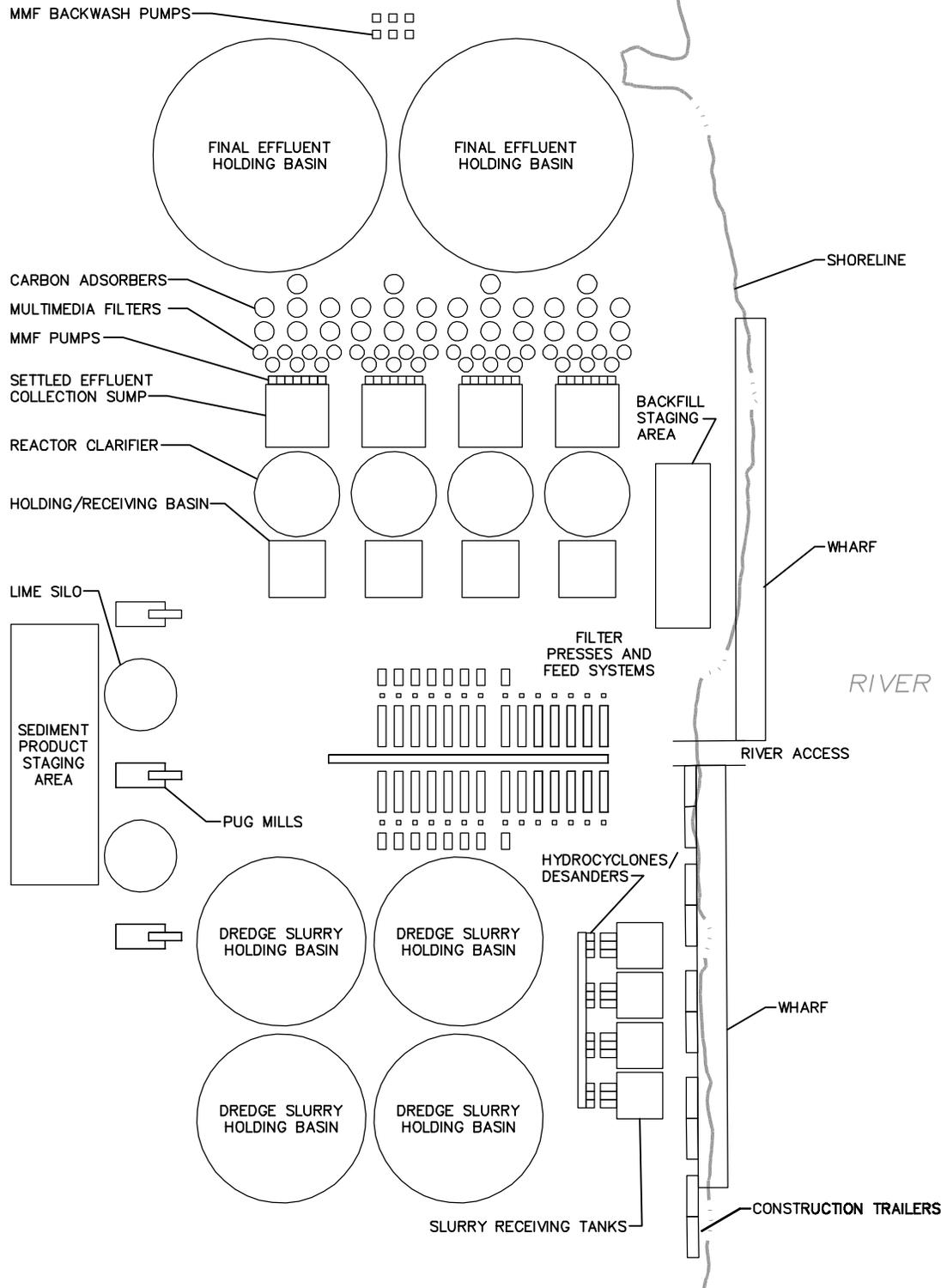


GENERAL ELECTRIC COMPANY
 HUDSON RIVER PCBS SUPERFUND SITE
 PRELIMINARY DESIGN REPORT

**GENERIC PROCESSING FACILITY LAYOUT
 - MECHANICAL DREDGING -
 7 DAYS/WEEK**

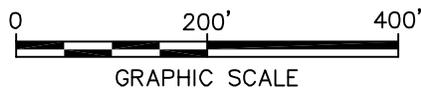


FIGURE
8-6



NOTE:

1. DREDGING RATE IS 4000 CY/DAY IN-SITU SEDIMENT.
2. PROCESSED SEDIMENT IS 6300 TONS/DAY.
3. CIVIL AND STRUCTURAL FEATURES ARE NOT SHOWN.
4. UTILITIES ARE NOT SHOWN.



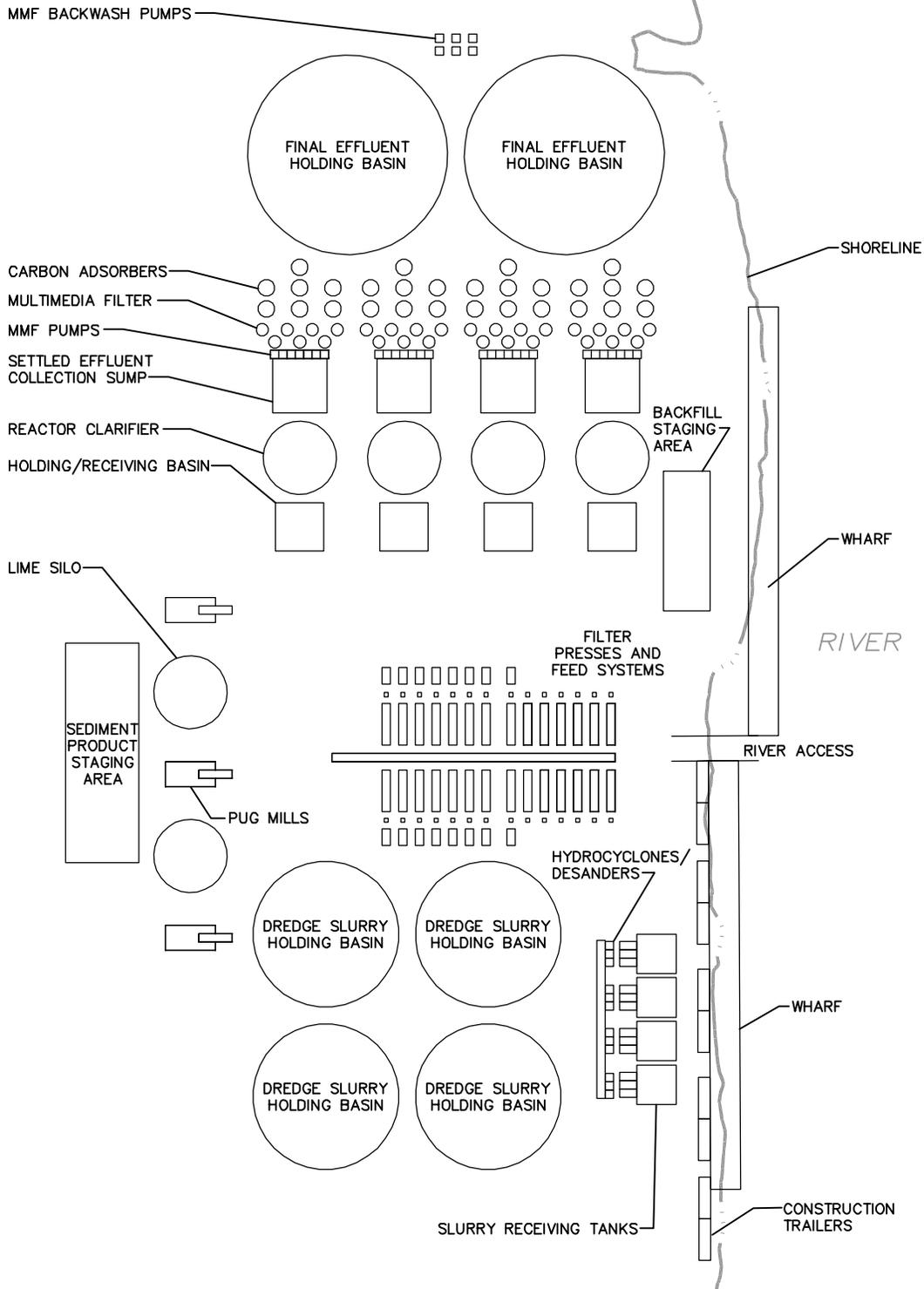
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 12/22/03 SYR-85-DJP MTK
 N/20433007/GENERIC/20433B03.DWG

GENERAL ELECTRIC COMPANY
 HUDSON RIVER PCBs SUPERFUND SITE
 PRELIMINARY DESIGN REPORT

**GENERIC PROCESSING FACILITY LAYOUT
 - HYDRAULIC DREDGING -
 5 DAYS/WEEK**

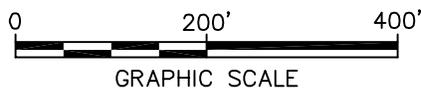


FIGURE
8-7



NOTE:

1. DREDGING RATE IS 3000 CY/DAY IN-SITU SEDIMENT.
2. PROCESSED SEDIMENT IS 4500 TONS/DAY.
3. CIVIL AND STRUCTURAL FEATURES ARE NOT SHOWN.
4. UTILITIES ARE NOT SHOWN.



L: ON=*, OFF=REF*
 P: PACESET/PLT-AP
 12/22/03 SYR-85-DJP MTK
 N/20433007/GENERIC/20433B04.DWG

GENERAL ELECTRIC COMPANY
 HUDSON RIVER PCBs SUPERFUND SITE
 PRELIMINARY DESIGN REPORT

**GENERIC PROCESSING FACILITY LAYOUT
 - HYDRAULIC DREDGING -
 7 DAYS/WEEK**



FIGURE
8-8

