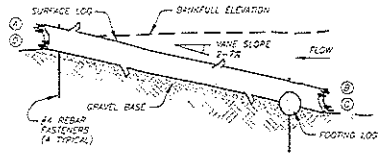
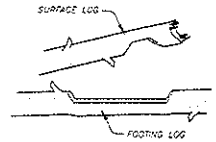
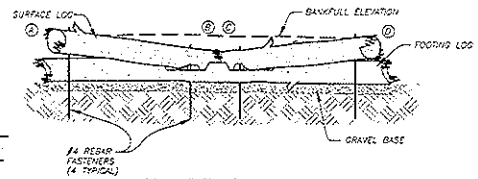


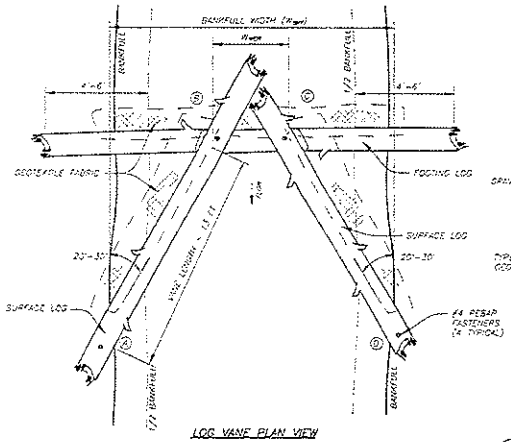
LOG VANE LONGITUDINAL PROFILE



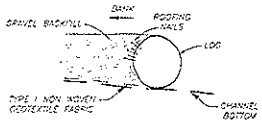
LOG NOTCHING DETAIL



LOG VANE FRONT ELEVATION



LOG VANE PLAN VIEW

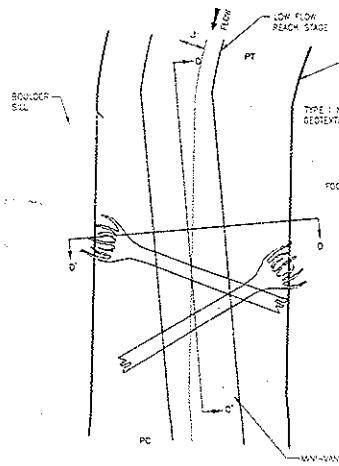


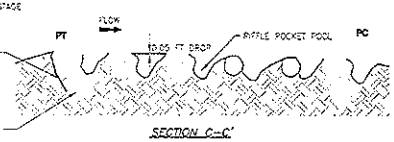
LOG CROSS SECTION

NOTES FOR LOG VANE INSTALLATION:

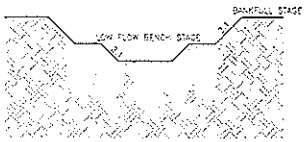
1. LOG CROSS VANE SHALL BE CONSTRUCTED USING SOLID STRAIGHT HARDWOOD LOGS FREE OF ROT AND DISEASE WITH A MINIMUM DIAMETER OF 12 INCHES
2. CONSTRUCT THE BANKFULL CHANNEL TO THE LINES AND GRADES DEPICTED ON THE PLAN AND PROFILE SHEETS, INCLUDING CHANNEL SUBSTRATE
3. EXCAVATE A TRENCH ALONG THE VANES DEEP ENOUGH TO PLACE GRAVEL BASE SURFACE AND FOOTING LOGS
4. PLACE A MINIMUM OF 3 INCHES OF GRAVEL IN THE BOTTOM OF THE TRENCH TO PROVIDE A LEVEL BASE FOR PLACEMENT OF LOGS
5. PRIOR TO PLACEMENT OF LOGS, NOTCHES SHALL BE CUT TO 1/2 DIAMETER OF BOTH SURFACE AND FOOTING LOGS AT THE POINT WHERE THE LOGS SHALL INTERSECT FOR SECURE PLACEMENT. SEE LOG NOTCHING AND FRONT ELEVATION VIEW DETAILS
6. PLACE LOGS AND GEOTEXTILE FABRIC AS SHOWN. THE LOGS SHALL BE BURIED 4 TO 6 FEET IN THE BANK AND/OR BED. THE LOG INVERT SHALL MATCH CHANNEL INVERT AND THE LOGS SHALL TIE-IN TO THE BANK AT ONE-HALF OF THE BANKFULL DEPTH
7. NO. 4 REBAR, A MINIMUM OF 36 INCHES IN LENGTH, SHALL BE INSTALLED WHERE SHOWN ON VANE PLAN THROUGH SURFACE AND FOOTING LOGS TO FASTEN LOG VANE IN PLACE
8. ATTACH GEOTEXTILE FABRIC TO LOG VANE WITH 2 INCH GALVANIZED ROOFING NAILS 6 INCHES ON CENTER
9. PLACE A MINIMUM OF 3 INCHES OF GRAVEL AND EXISTING CHANNEL MATERIAL OVER GEOTEXTILE FABRIC
10. SHAPE AND FINISH THE CHANNEL CROSS SECTION TO PROVIDE A SMOOTH TRANSITION THROUGH THE STRUCTURE
11. INSTALL EROSION CONTROL FABRIC AND LIVE STAKES AS SHOWN ON RESPECTIVE DETAILS

1 DETAIL – LOG CROSS VANE
1:1 SCALE: NOT TO SCALE





SECTION C–C'



SECTION D–D'

2 DETAIL – ROCK AND ROLL RIFFLE
1:1 SCALE: NOT TO SCALE

NOTES:

1. PLACE TYPE I NON-WOVEN GEOTEXTILE FABRIC ON THE UPSTREAM SIDE OF THE MOST UPSTREAM BOULDER SILL IN THE CONSTRUCTED RIFFLE
2. BOULDERS SHALL BE USED TO ANCHOR ALL LOGS
3. THERE SHALL BE NO MORE THAN TWO CONSECUTIVE LOGS USED IN ANY CONSTRUCTED RIFFLE
4. THE CENTERLINE OF THE LOW-FLOW CHANNEL SHALL BE OFFSET FROM THE DESIGN CENTERLINE BY 3 FT TOWARD THE OUTSIDE OF THE MEANDER BEND AT BOTH THE PT AND THE PC
5. THE BASE WIDTH OF THE LOW-FLOW CHANNEL SHALL BE 4.0 FT
6. THE TOP WIDTH OF THE LOW-FLOW CHANNEL SHALL BE 7.5 FT WITH 2:1 SIDE SLOPES WITH NO COIR MATTING
7. THE VERTICAL MINI-VANE ANGLE SHALL BE 10–12%
8. THE HORIZONTAL MINI-VANE ANGLE SHALL BE 60°–70°
9. THE MINI-VANE SPACING SHALL BE 4–6 FT
10. THE DESIGN ELEVATION IS AT THE CENTERLINE OF THE LOW-FLOW CHANNEL. 0.05 FT DROP OVER EACH VANE

Stantec

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Legend

Notes

Revision	By	Appd	YY.MM.DD

Issued	By	Appd	YY.MM.DD

File Name	Dwn	Chkd	Dsgn	YY.MM.DD

Permit-Seal

Client/Project
OAK PARK CONSERVANCY DISTRICT

RIVERSIDE DITCH DRAINAGE IMPROVEMENT PROJECT
Jeffersonville, Clark County, Indiana

Title
DETAILS

Project No.	Scale	
175640011	AS NOTED	
Drawing No.	Sheet	Revision
	11 of 19	0

ZONE 1 = ON OR BELOW BANKFULL BENCH (0.41 acre)				
Common Name	Species Name	Wetland Indicator Status	Relative Frequency (%)	Total # Plantings
LIVE STAKES				
Silky Dogwood	Cornus amomum	FACW	33	1323
Elderberry	Sambucus canadensis	FACW-	33	1323
Buttonbush	Cephalanthus occidentalis	OBL	33	1323
		TOTAL	100	3969

*Planting rate based on two live stakes per square yard. 9680 live stakes per 1 acre.

ZONE 2 = ABOVE BANKFULL BENCH (2.18 acre)					
Common Name	Species Name	Wetland Indicator Status	Approx. Spacing	Relative Frequency (%)	Total # Plantings
BARE ROOT SEEDLINGS - SHRUBS					
Black Haw	Viburnum prunifolium	FACU	10 x 10	20	161
Silky Dogwood	Cornus amomum	FACW	10 x 10	20	161
Alternate-leaf Dogwood	Cornus alternifolia	FAC+	10 x 10	10	81
Elderberry	Sambucus canadensis	FACW-	10 x 10	10	81
Spice Bush	Lindera benzoin	FACW-	10 x 10	20	161
Arrowwood Viburnum	Viburnum dentatum	FAC	10 x 10	20	161
			TOTAL	100	806
BARE ROOT SEEDLINGS - TREES					
Flowering Dogwood	Cornus florida	FACU-	13 x 13	10	52
Swamp White Oak	Quercus bicolor	FACW+	13 x 13	10	52
Pin Oak	Quercus palustris	FACW	13 x 13	20	105
Red Oak	Quercus rubra	FACU-	13 x 13	15	79
Green Ash	Fraxinus pennsylvanica	FACW	13 x 13	20	105
Sweetgum	Liquidambar styraciflua	FAC	13 x 13	15	78
Yellow Birch	Betula alleghaniensis	FAC	13 x 13	10	52
			TOTAL	100	523

**Planting rate based on 370 stems per acre for shrubs and 240 stems per acre for trees

NOTE: All shrubs and trees shall be bare root seedlings, minimum 18" tall.
All shrubs and tree species shall be distributed in a random pattern.

SEED MIX (BOTH ZONES - 2.59 acre)			
Common Name	Species Name	Wetland Indicator Status	Ounces of PLS per Acre
PERMANENT GRASSES/SEDGES SEEDING SCHEDULE:			
Bluejoint Grass	Calamagrostis canadensis	OBL	2
Fringed Sedge	Carex crinita	FACW+	4
Common Hop Sedge	Carex lupulina	OBL	8
Bottlebrush Sedge	Carex lurida	OBL	3
Narrow-Leaved Cattail Sedge	Carex squarrosa	OBL	4
Rough-Clustered Sedge	Carex sacrocanoides v. cephalloidea	FAC	3
Common Cattail Sedge	Carex typhina	OBL	4
Brown Fox Sedge	Carex vulpinoidea	OBL	8
Canada Wild Rye	Elymus canadensis	FACU-	16
Virginia Wild Rye	Elymus virginicus	FACW-	24
Fowl Manna Grass	Glyceria striata	OBL	4
Rice Cut Grass	Leersia oryzoides	OBL	4
Dark Green Rush	Scirpus atrovirens	OBL	4
Prairie Cord Grass	Spartina pectinata	OBL	2
		TOTAL	90
PERMANENT FORBS SEEDING SCHEDULE:			
Water Plantain (Various Mix)	Alisma spp.	OBL	6
Great Angelica	Angelica atropurpurea	OBL	2
Bristly Aster	Aster pansicus	FACW	1.5
Flat-Top Aster	Aster umbellatus	FACW	0.5
Nodding Bur Marigold	Bidens cernua	OBL	5
Tall Bell Flower	Campanula americanus	FAC	0.5
Button Bush	Cephalanthus occidentalis	OBL	1
Sneezeweed	Helenium autumnale	FACW+	4
Cow Parsnip	Heracleum lanatum	FACW	1.5
Swamp Rose Mallow	Hibiscus moscheutos	OBL	4
Great Blue Lobelia	Lobelia siphilitica	FACW+	3
Monkey Flower	Mimulus ringens	OBL	2.5
Cut-Leaf Coneflower	Rudbeckia laciniata	FACW+	1.5
Ironstem	Verbesina alternifolia	FACW	4
		TOTAL	37
TEMPORARY COVER:			
Common Oat	Avena sativa	N/I	537
Annual Rye	Lolium multiflorum	FACU	112
		TOTAL	649

NOTE: Seed mix is available as JFNew's Wooded Wetland Establishment Mix

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Client/Project
OAK PARK CONSERVANCY DISTRICT

RIVERSIDE DITCH DRAINAGE IMPROVEMENT PROJECT
Jeffersonville, Clark County, Indiana

Title
PLANTING TABLES AND SEEDING SCHEDULES

Project No. 175640011
Scale AS NOTED

Drawing No.
Sheet 13 of 19
Revision 0