



BILL OF MATERIAL - 2 ABUTS.

Bar	No.	Size	Length	Shape
h10	6	# 6	9'-11"	[U-shape]
h11	6	# 6	10'-3"	[U-shape]
h12	2	# 5	7'-8"	[I-shape]
h13	2	# 5	7'-5"	[I-shape]
h14	2	# 5	4'-4"	[I-shape]
h15	2	# 5	4'-1"	[I-shape]
h16	2	# 5	7'-9"	[I-shape]
h17	2	# 5	7'-5"	[I-shape]
h18	6	# 6	11'-4"	[U-shape]
h19	6	# 6	12'-5"	[U-shape]
h20	2	# 5	9'-7"	[I-shape]
h21	2	# 5	8'-7"	[I-shape]
h22	2	# 5	6'-10"	[I-shape]
h23	2	# 5	5'-10"	[I-shape]
h24	2	# 5	9'-8"	[I-shape]
h25	2	# 5	8'-8"	[I-shape]
p10	40	# 6	27'-4"	[I-shape]
s10	102	# 5	9'-7"	[I-shape]
s11	4	# 5	9'-10"	[I-shape]
s12	4	# 5	10'-3"	[I-shape]
u10	12	# 6	12'-4"	[U-shape]
v1	12	# 4	4'-11"	[I-shape]
v2	4	# 4	4'-10"	[I-shape]
v3	8	# 4	4'-8"	[I-shape]
v4	8	# 4	4'-5"	[I-shape]
v5	8	# 4	4'-3"	[I-shape]
v6	4	# 4	4'-0"	[I-shape]
v7	4	# 4	3'-10"	[I-shape]
v8	4	# 4	3'-7"	[I-shape]
v9	4	# 4	3'-5"	[I-shape]
v10	4	# 4	4'-10"	[I-shape]
v11	4	# 4	4'-7"	[I-shape]
v12	4	# 4	4'-2"	[I-shape]
v13	4	# 4	4'-1"	[I-shape]
v14	4	# 4	3'-11"	[I-shape]
v15	4	# 4	3'-9"	[I-shape]
v16	4	# 4	3'-8"	[I-shape]
Concrete Structures	Cu. Yds.		31.6	
Reinforcement Bars	Lbs.		3,790	
Test Pile, Steel HP10x42	Each		2	
Furnish Steel Piles HP10x42	Foot		170	
Driving Piles	Foot		170	
Pile Shoes	Each		12	
Name Plate	Each		1	
Concrete Cut-off Wall	Cu. Yds.		9.5	
Structure Excavation	Cu. Yds.		186	

PILE DATA

Type: Steel HP 10 x 42
 Nominal Required Bearing: 334 kips
 Allowable Resistance Available: 68 kips
 Estimated Length: 17 ft.
 No. Required: 5 \bullet South Abutment
 5 \bullet North Abutment
 Test Piles: 1 \bullet South Abutment
 1 \bullet North Abutment

Note: The Steel H-piles shall be according to AASHTO M270 Grade 50.

DSGN	K.J. Hoffmann				
DR	K.J. Hoffmann				
CHK	J.A. Frauenhoffer				
APVD	J.A. Frauenhoffer	NO.	DATE	REVISION	BY

FRAUENHOFFER
 Frauenhoffer and Associates, P.C. Consulting Engineers
 3002 Crossing Court Champaign, IL 61822 217-351-6268

ABUTMENTS - SHEET 1 OF 2
 COUNTY HIGHWAY 38
 SECTION 02-00248-00-WR
 KANKAKEE COUNTY

SHEET	50
DWG NO.	3104-ebt.dgn
DATE	JUL 2006
PROJ NO.	3104