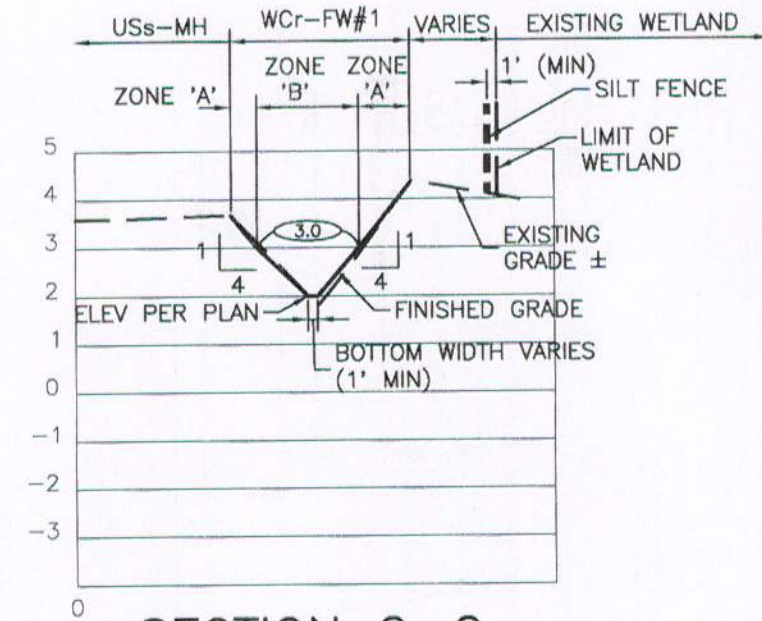
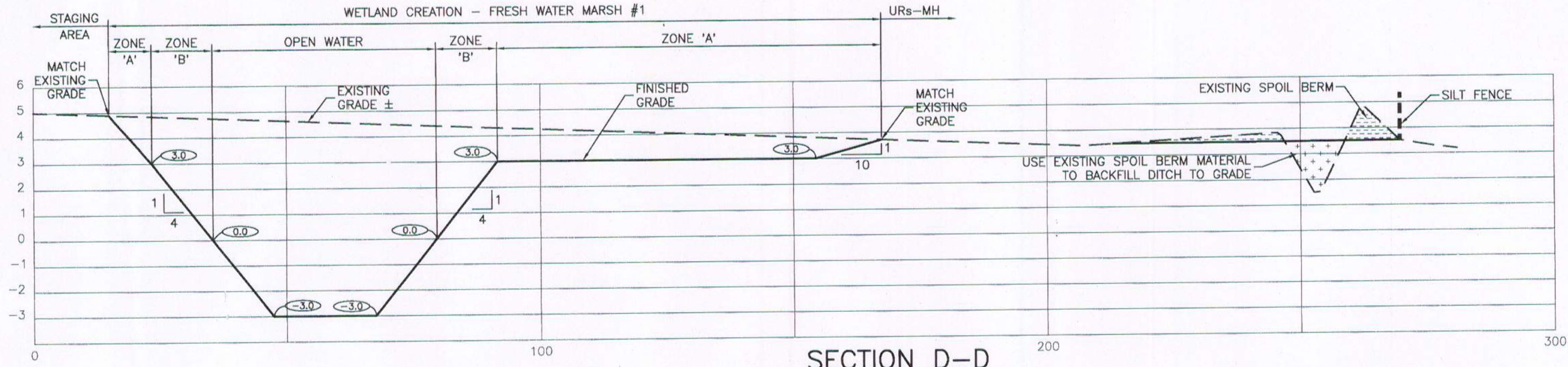


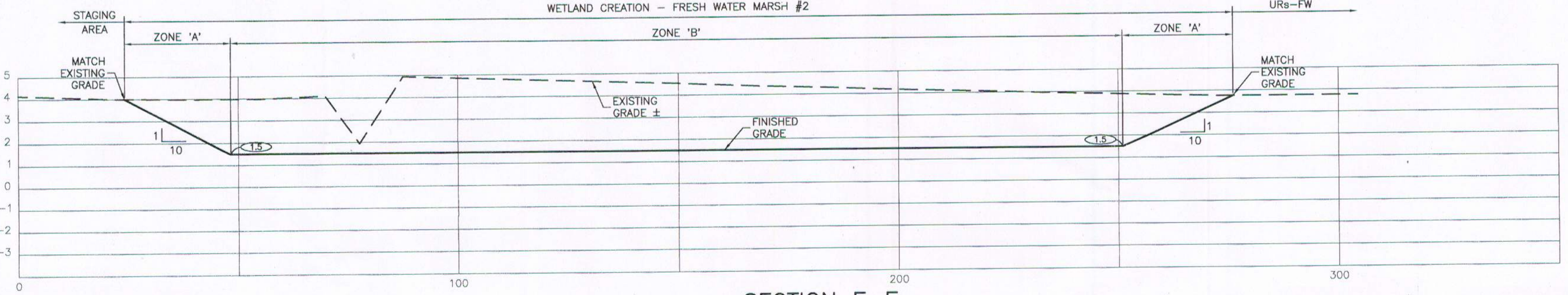
SECTION A-A
1"=20' (HORZ.)
1"=4' (VERT.)



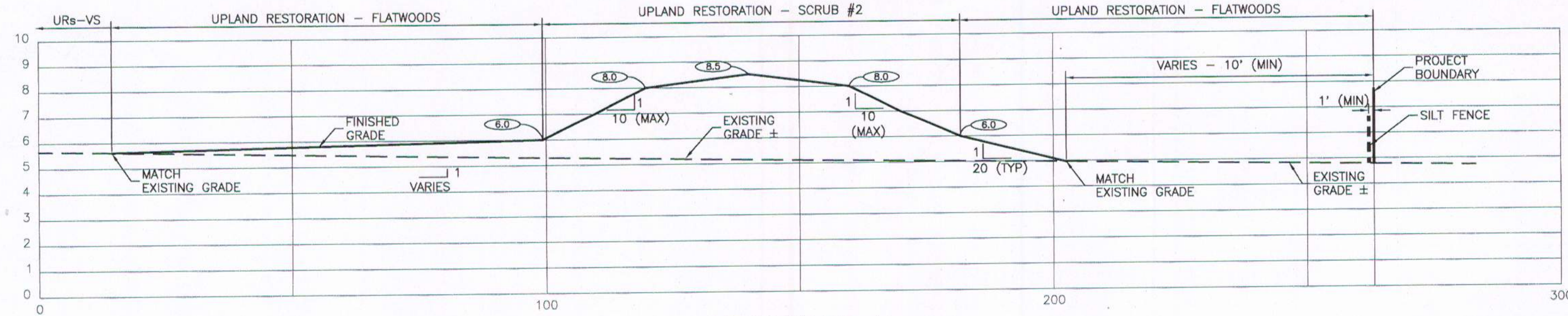
SECTION C-C
N.T.S.



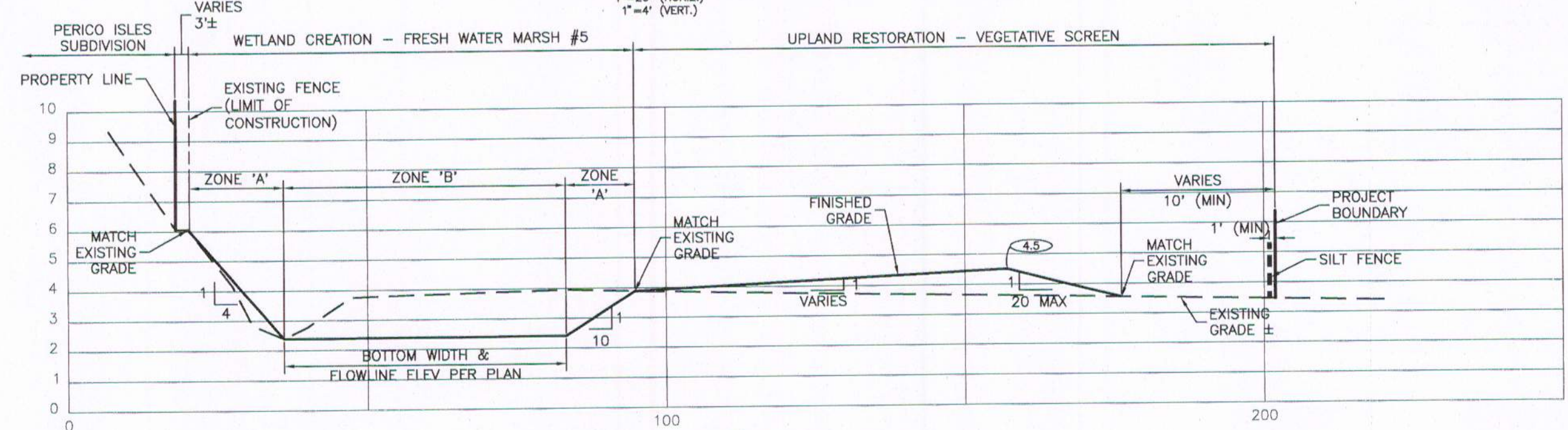
SECTION D-D
1"=20' (HORZ.)
1"=4' (VERT.)



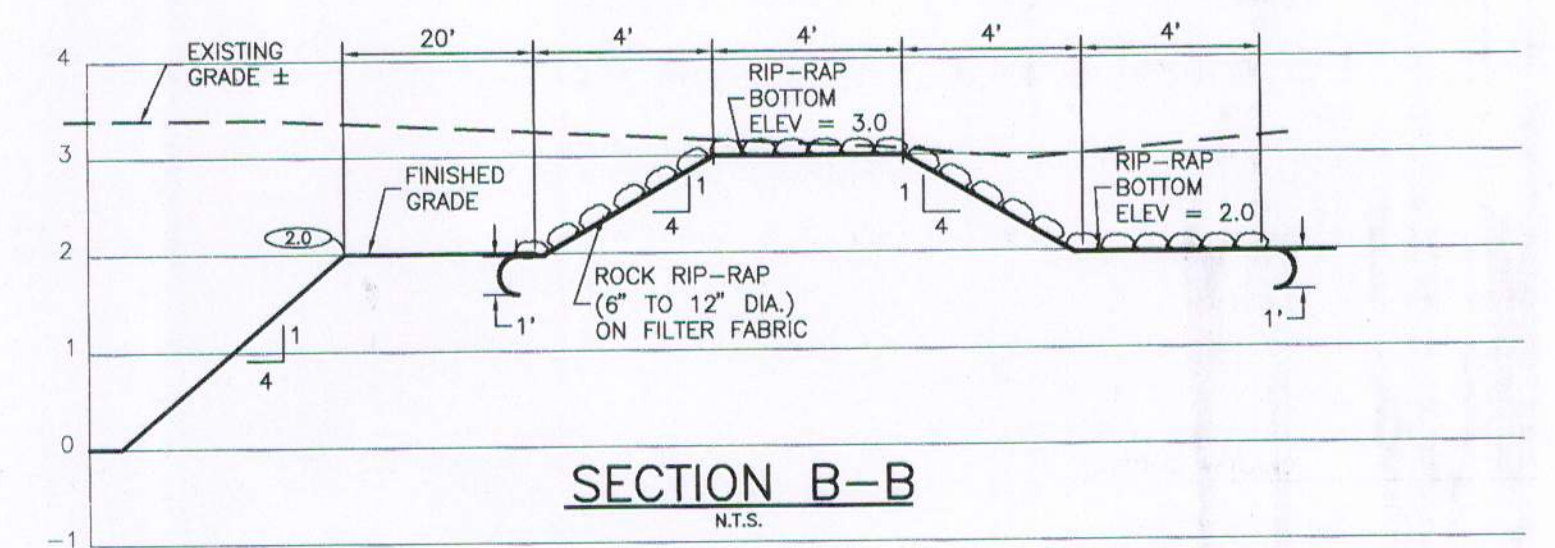
SECTION F-F
1"=20' (HORZ.)
1"=4' (VERT.)



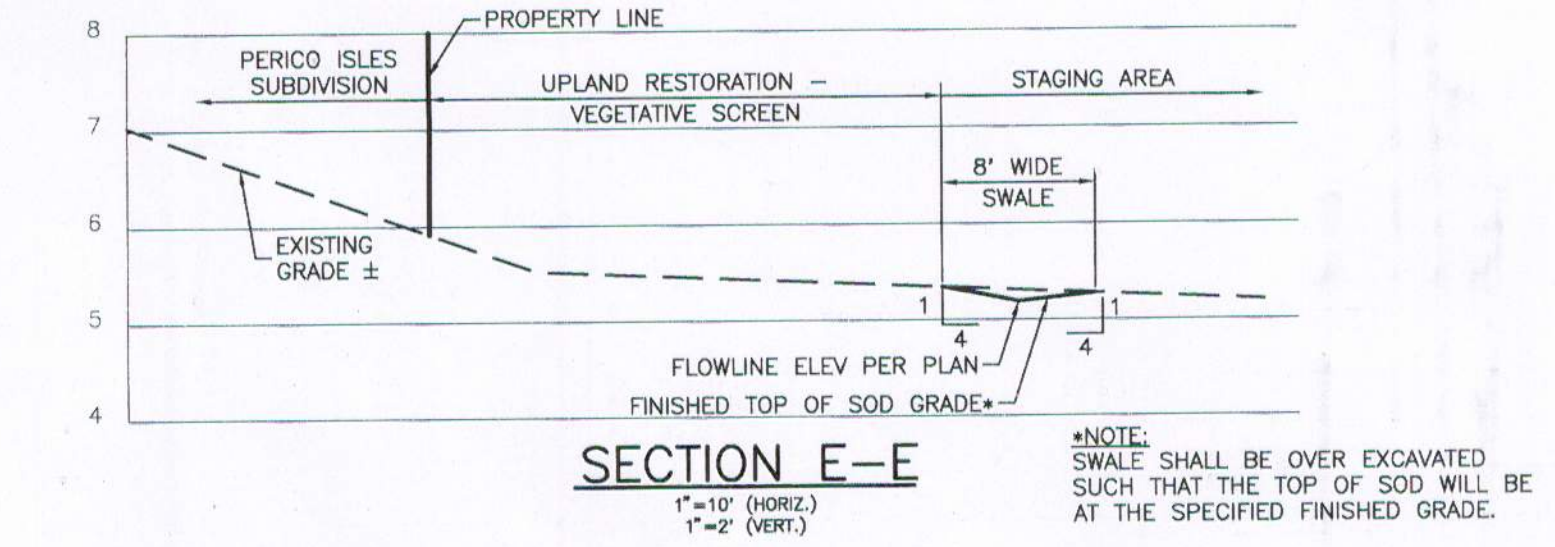
SECTION H-H
1"=20' (HORZ.)
1"=4' (VERT.)



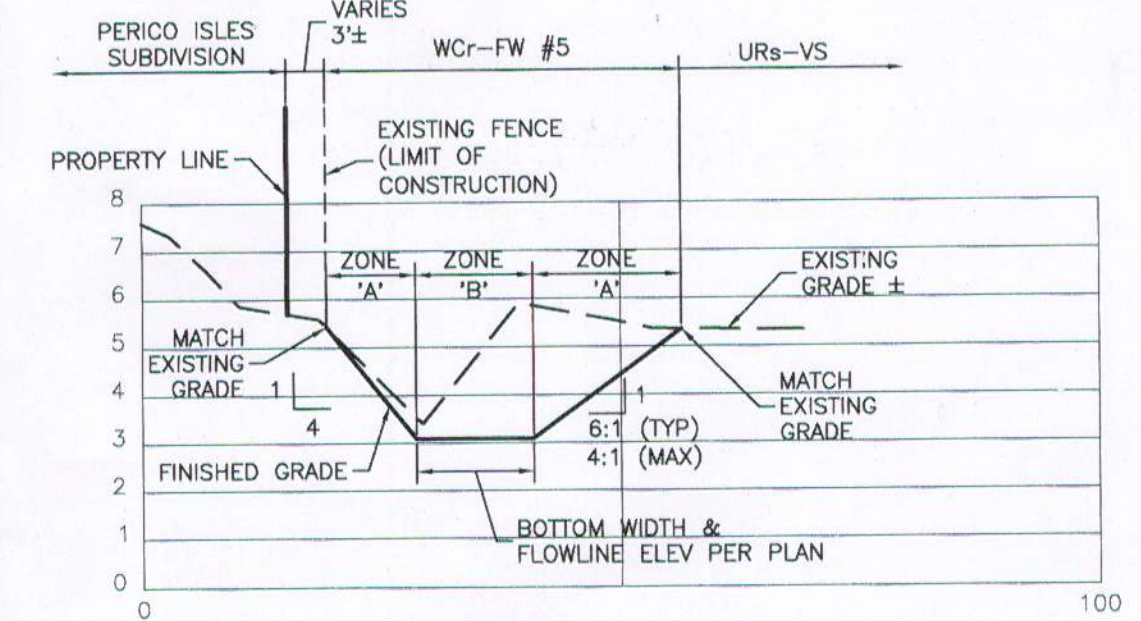
SECTION J-J
1"=20' (HORZ.)
1"=4' (VERT.)



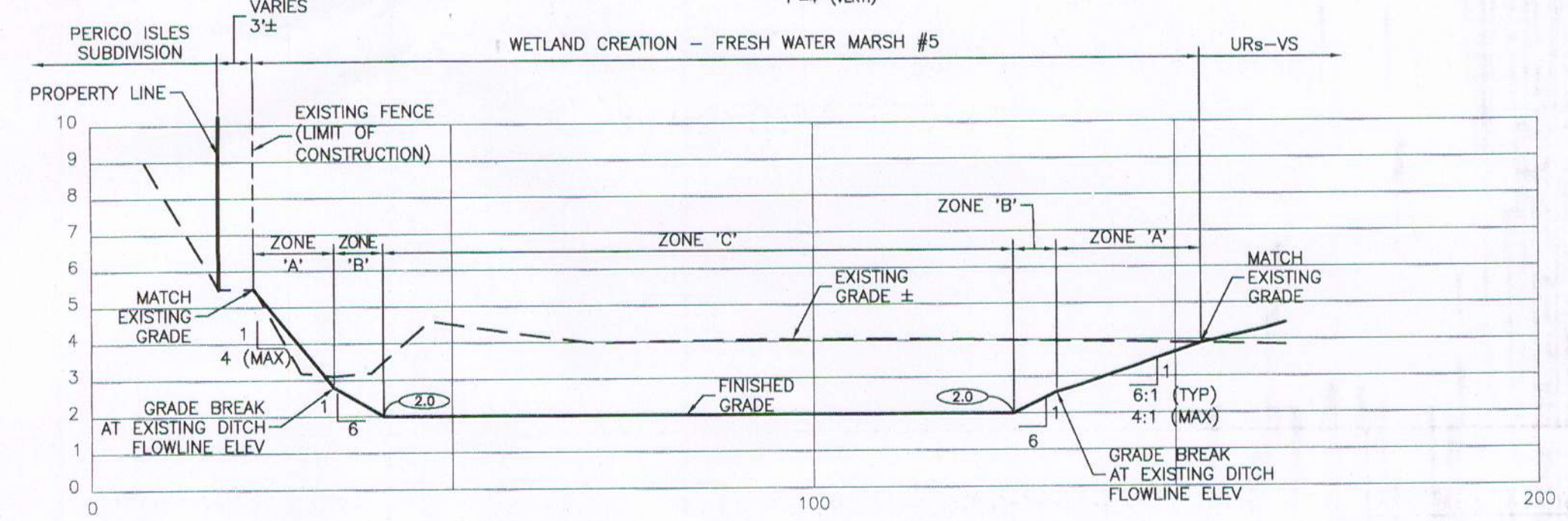
SECTION B-B
N.T.S.



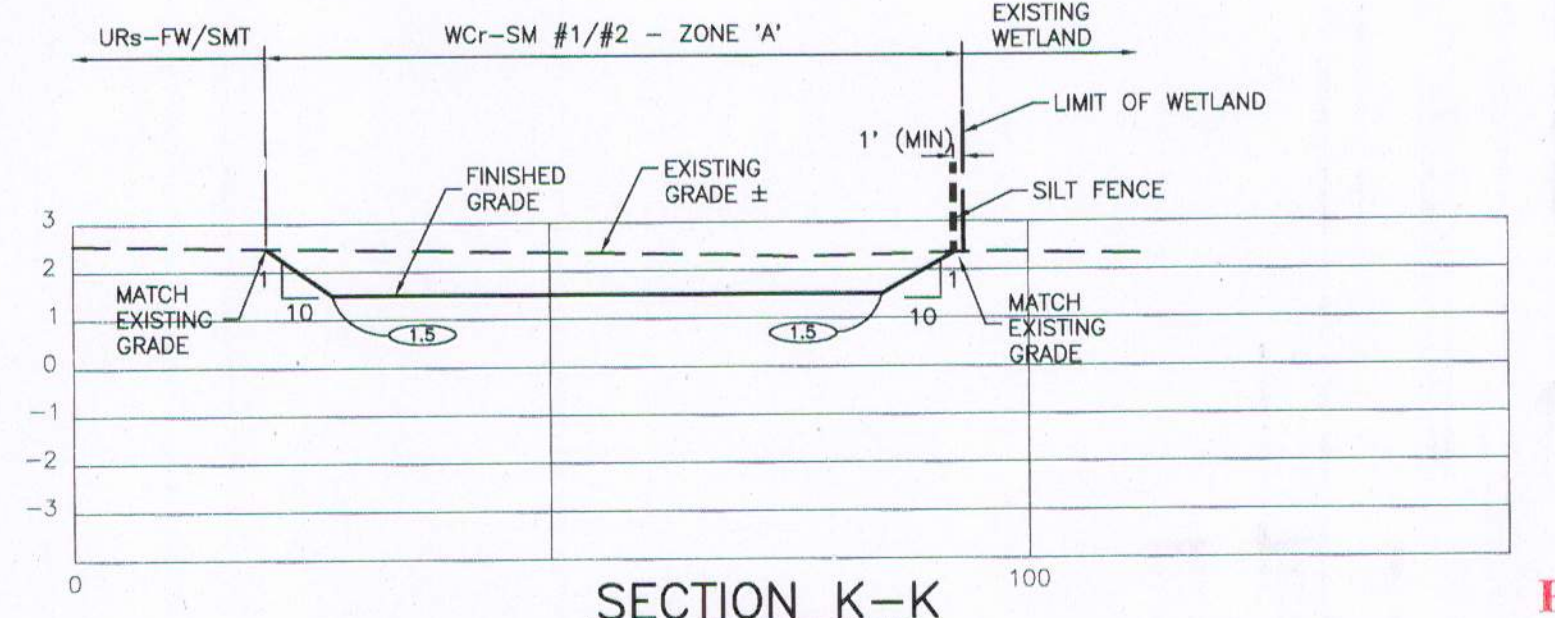
SECTION E-E
1"=10' (HORZ.)
1"=2' (VERT.)



SECTION G-G
1"=20' (HORZ.)
1"=4' (VERT.)



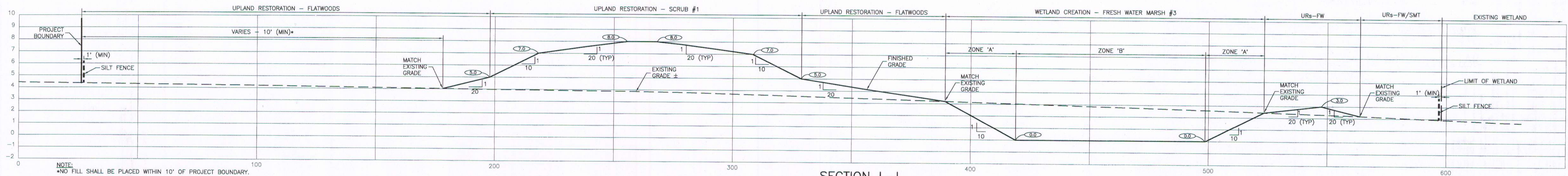
SECTION I-I
1"=20' (HORZ.)
1"=4' (VERT.)



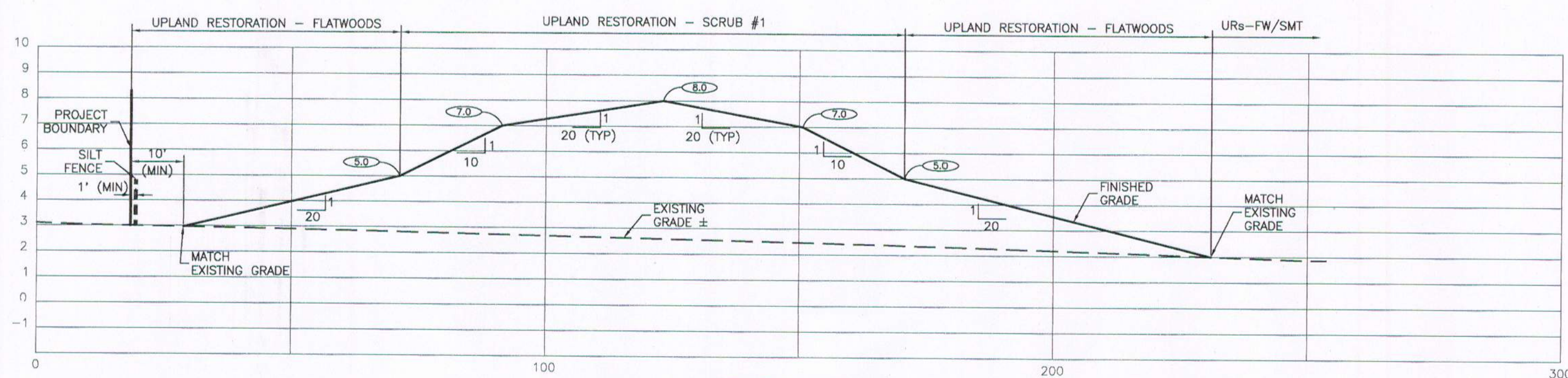
SECTION K-K
1"=20' (HORZ.)
1"=4' (VERT.)

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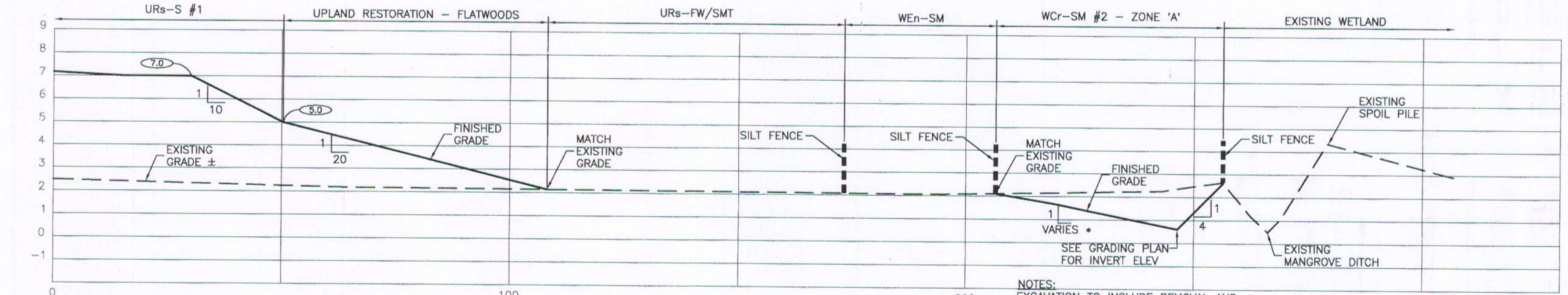
		CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS PROJECT: PERICO PRESERVE RESTORATION	DATE: JUNE 2011 HORIZONTAL SCALE: AS SHOWN VERTICAL SCALE: AS SHOWN SHEET: 22 OF 26 DATE: 26 27 34S 16E	TITLE: DRAINAGE CROSS-SECTIONS PROJECT NUMBER: 215500132 370 SHEET NUMBER: 8 OF 14
B REV SECTION E-E A ADD PLANTING ZONES	11/11/11 ATO/B9520 08/02/11 ATO/B9520	ACTIVITY DESIGNED BY: DRAWN BY: CHECKED BY: CONTRACT ADMIN. BY: WM APPROVED BY:	INITIALS/EMP. NO. DATE ATO/B9520 06/23/11	1777 Tamiami Trail, Suite 200, Port Charlotte, Florida 33981 888.443.4334 • 941.226.0954 • 941.226.1700 Certificate of Authorization #13 • F.L.L.C. # LC0000170 • stantec.com WilsonMiller, Inc. became a wholly-owned subsidiary of Stantec Consulting Services Inc. on July 23, 2010.



SECTION L-L
1"=20' (HORIZ.)
1"=4' (VERT.)

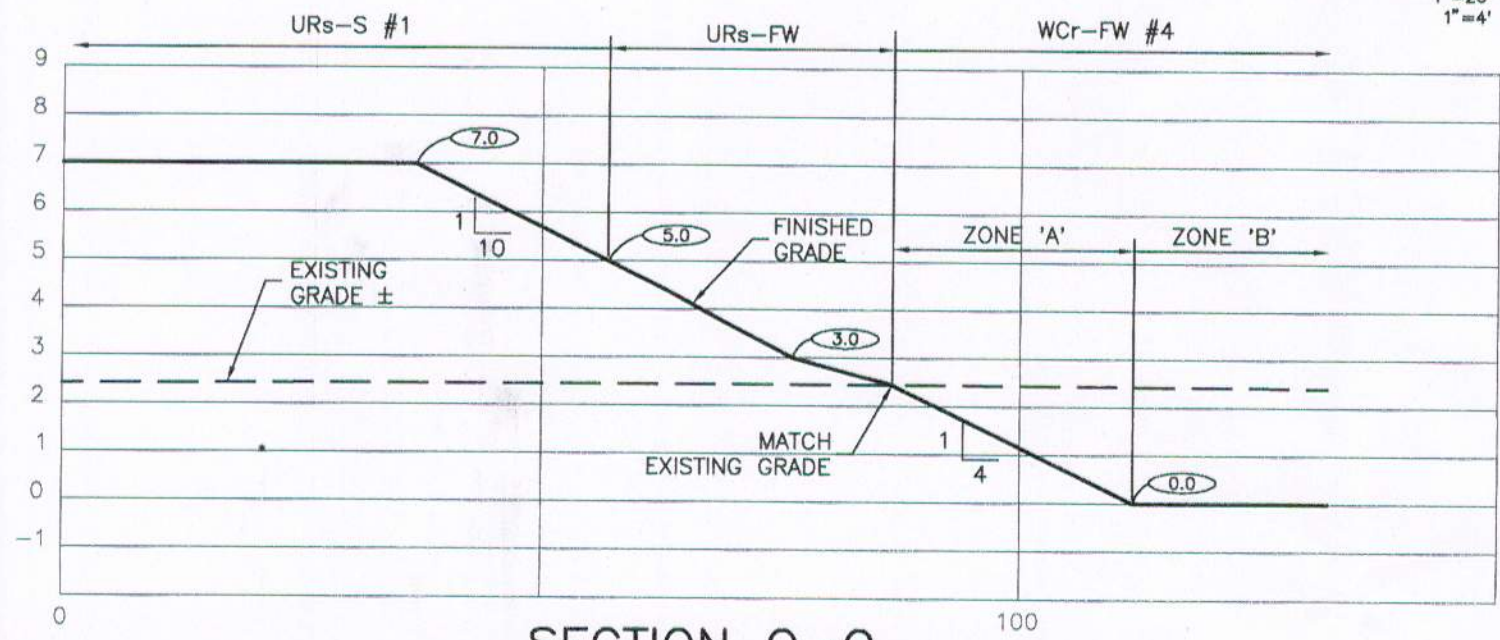


SECTION M-M
1"=20' (HORIZ.)
1"=4' (VERT.)

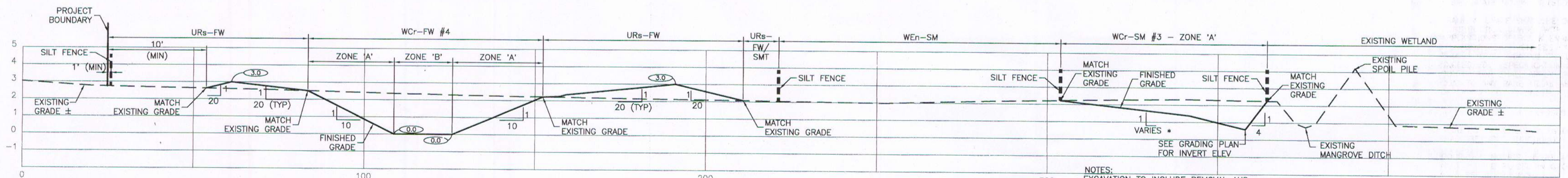


SECTION N-N
1"=20' (HORIZ.)
1"=4' (VERT.)

NOTES:
EXCAVATION TO INCLUDE REMOVAL AND PROPER DISPOSAL OF EXISTING STUMPS.
ALL SLOPES SHALL BE 4:1 (H:V) OR FLATTER.

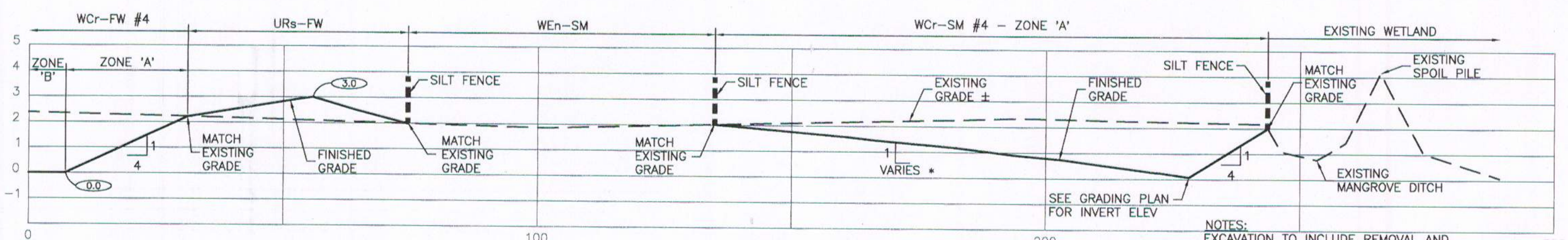


SECTION O-O
1"=20' (HORIZ.)
1"=4' (VERT.)



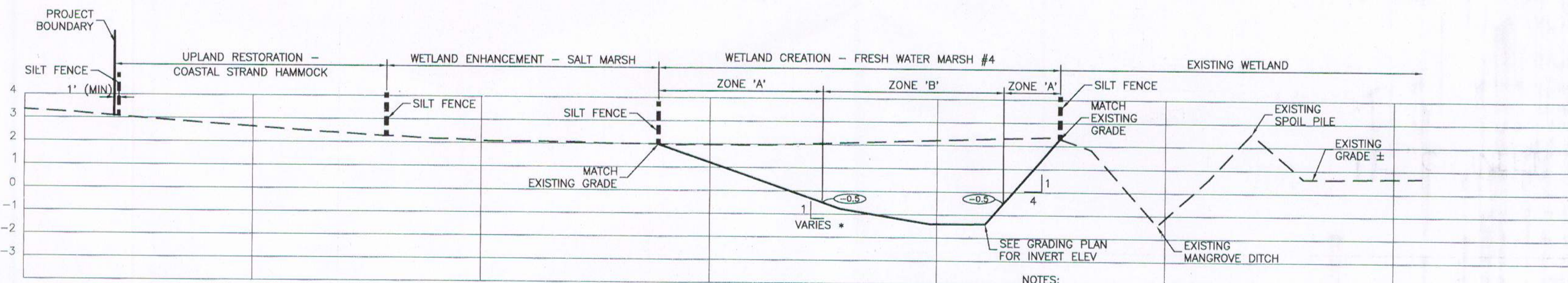
SECTION P-P
1"=20' (HORIZ.)
1"=4' (VERT.)

NOTES:
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ALL SLOPES SHALL BE 4:1 (H:V) OR FLATTER.



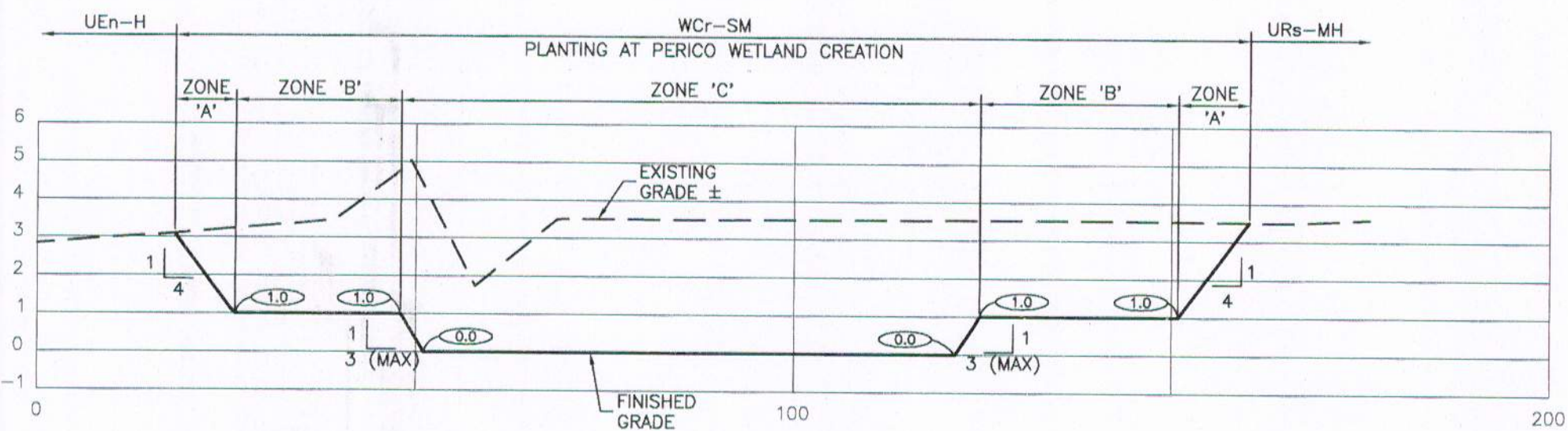
SECTION Q-Q
1"=20' (HORIZ.)
1"=4' (VERT.)

NOTES:
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ALL SLOPES SHALL BE 4:1 (H:V) OR FLATTER.

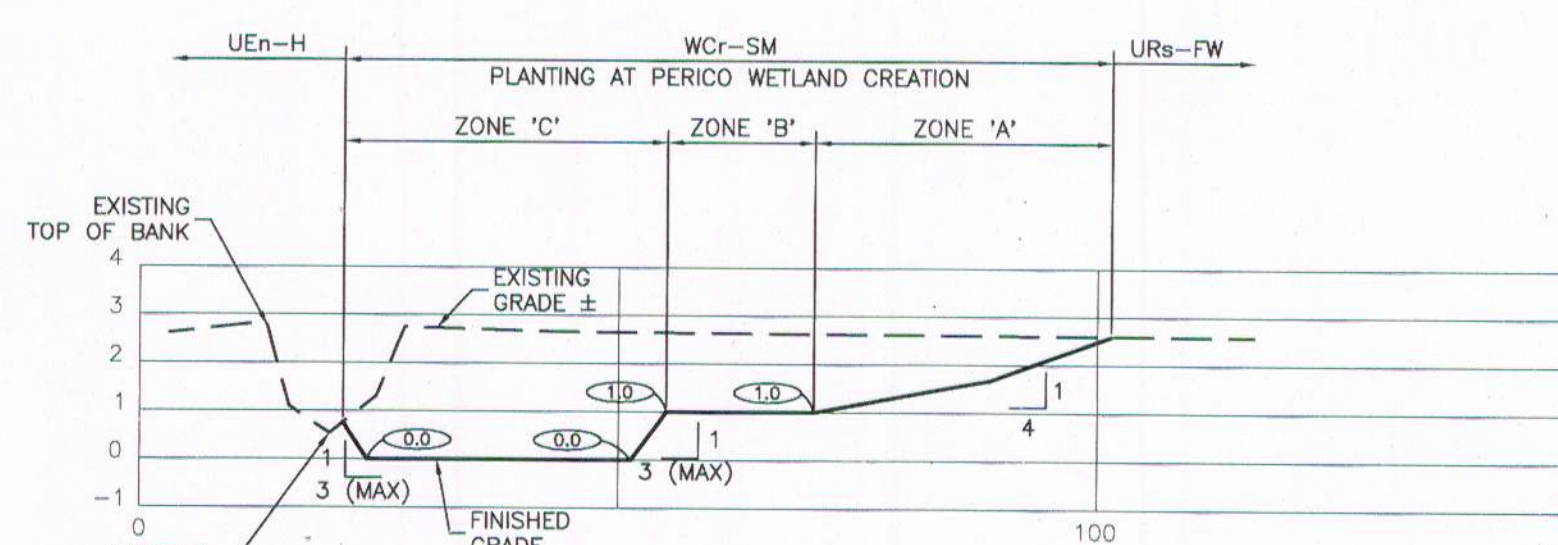


SECTION T-T
1"=20' (HORIZ.)
1"=4' (VERT.)

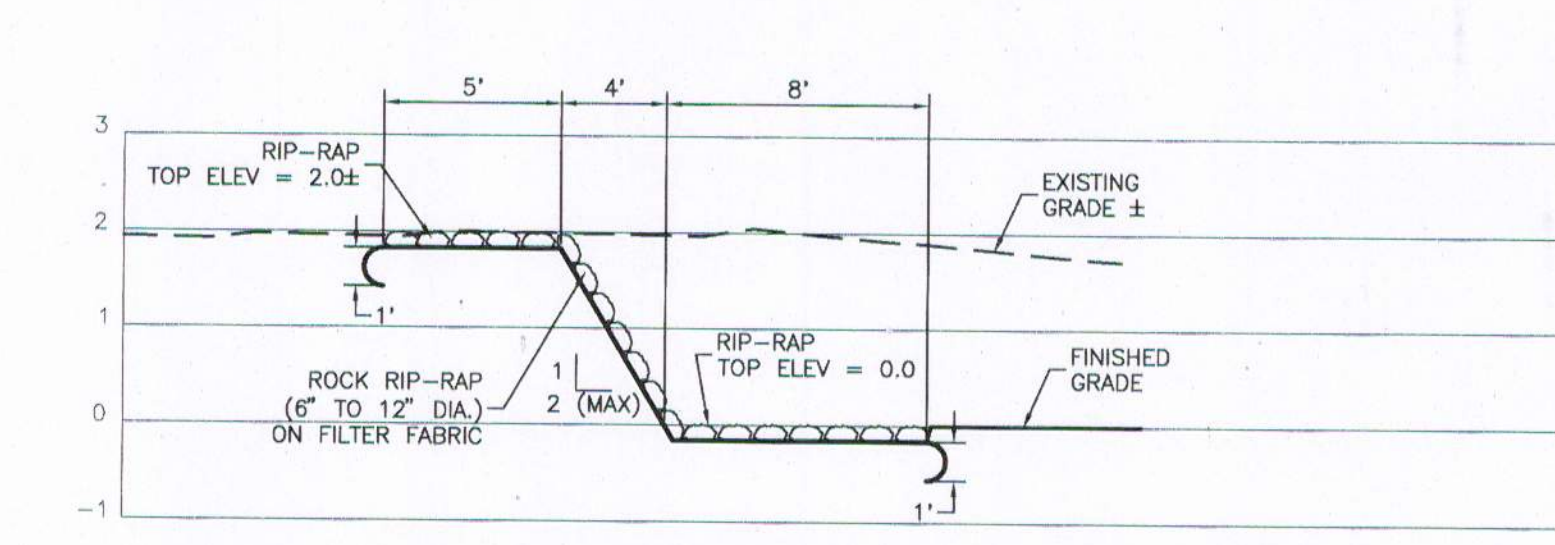
NOTES:
EXCAVATION TO INCLUDE REMOVAL AND PROPER DISPOSAL OF EXISTING STUMPS.
ALL SLOPES SHALL BE 4:1 (H:V) OR FLATTER.



SECTION U-U
1"=20' (HORIZ.)
1"=4' (VERT.)



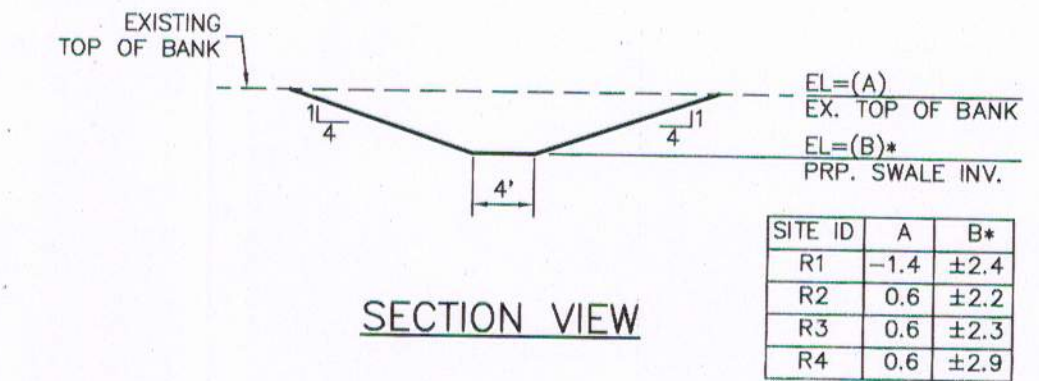
SECTION V-V
1"=20' (HORIZ.)
1"=4' (VERT.)



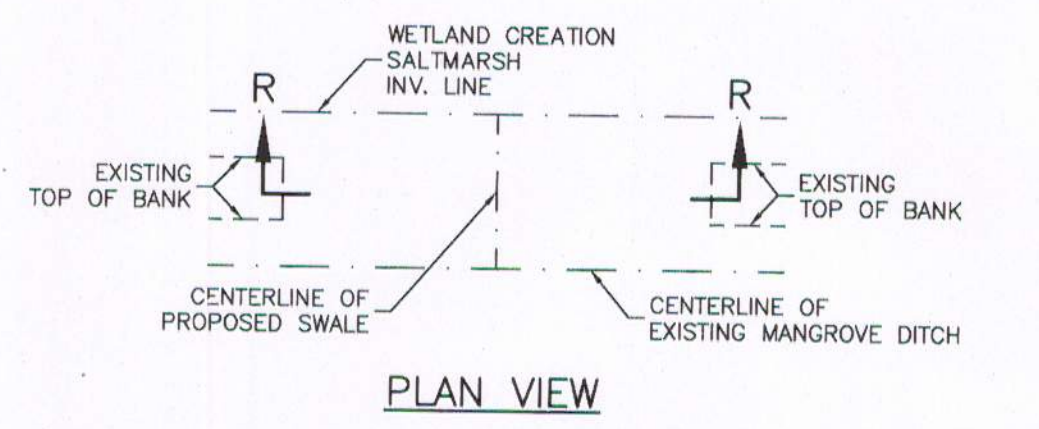
SECTION W-W
N.T.S.

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B ADD SECTIONS U, V & W A ADD PLANTING ZONES, SECTION T-T		10/12/11 ATO/B9520 08/02/11 ATO/B9520	ACTIVITY DESIGNED BY: DRAWN BY: CHECKED BY: CONTRACT ADMIN. BY: WM APPROVED BY:	INITIALS/EMP. NO. DATE ATO/B9520 06/23/11	WilsonMiller & Stantec <small>1777 Fairbanks Blvd., Suite 200, Fort Charlotte, Florida 33948 800.843.4330 • 4141 260.855 • 4141 255.1750 Certificate of Authorization #43 • FL Lic. # LC-0000170 • stantec.com</small> WilsonMiller, Inc. became a wholly-owned subsidiary of Stantec Consulting Services Inc. on July 23, 2010	CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS PROJECT: PERICO PRESERVE RESTORATION	DATE: JUNE 2011 HORIZONTAL SCALE: AS SHOWN VERTICAL SCALE: AS SHOWN SHEET: 282 OF 345 16E	TITLE: DRAINAGE CROSS-SECTIONS CROSS REFERENCE FILE NO.: PROJECT NUMBER: 215500132 370 SHEET NUMBER: 9 OF 14	
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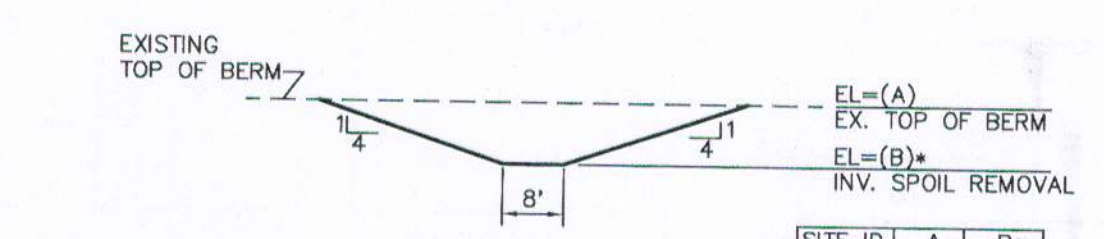
SECTION VIEW



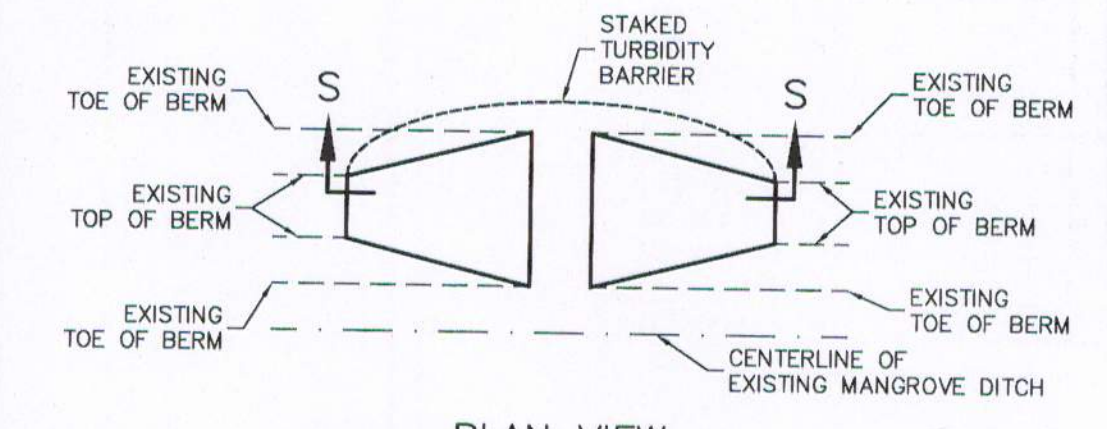
PLAN VIEW

NOTES: * INVERT OF PROPOSED SWALE TO MATCH INVERT OF EXISTING MANGROVE DITCH. LOCATION FOR SPOIL REMOVAL SITE TO BE FIELD LOCATED BY PROJECT ECOLOGIST. ELEVATIONS SHOWN IN TABLE ARE APPROXIMATE AND WILL NEED TO BE FIELD VERIFIED.

TYPICAL WCr-SM TO EXISTING DITCH
SPOIL REMOVAL DETAIL
SECTION R-R
N.T.S.



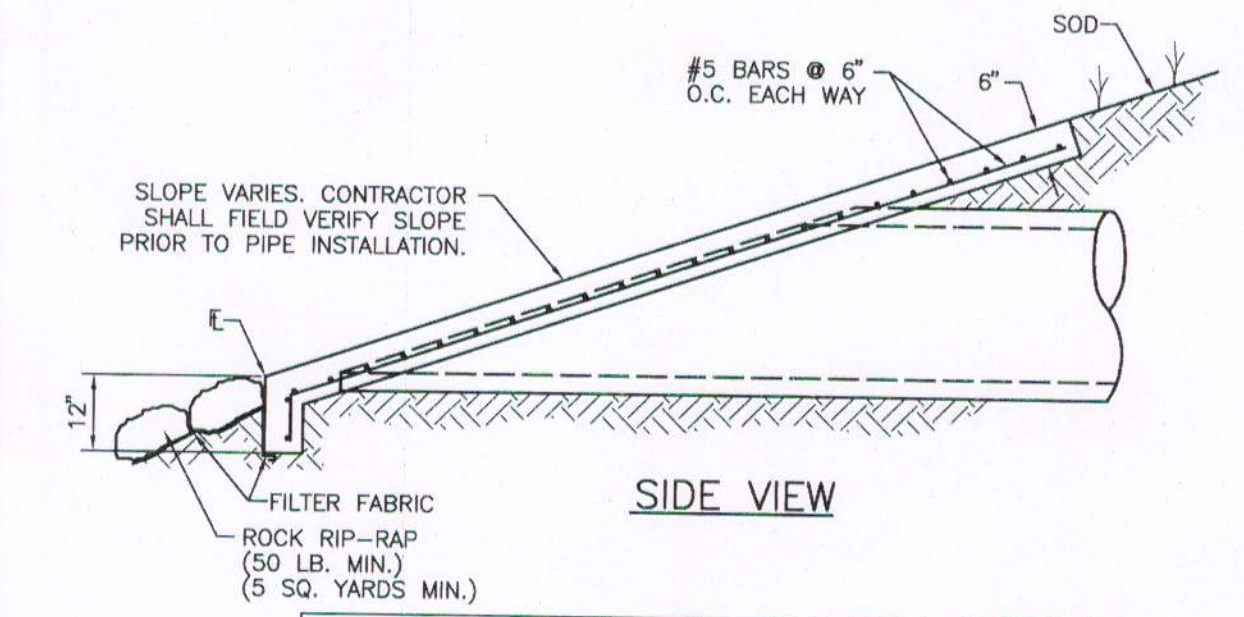
SECTION VIEW



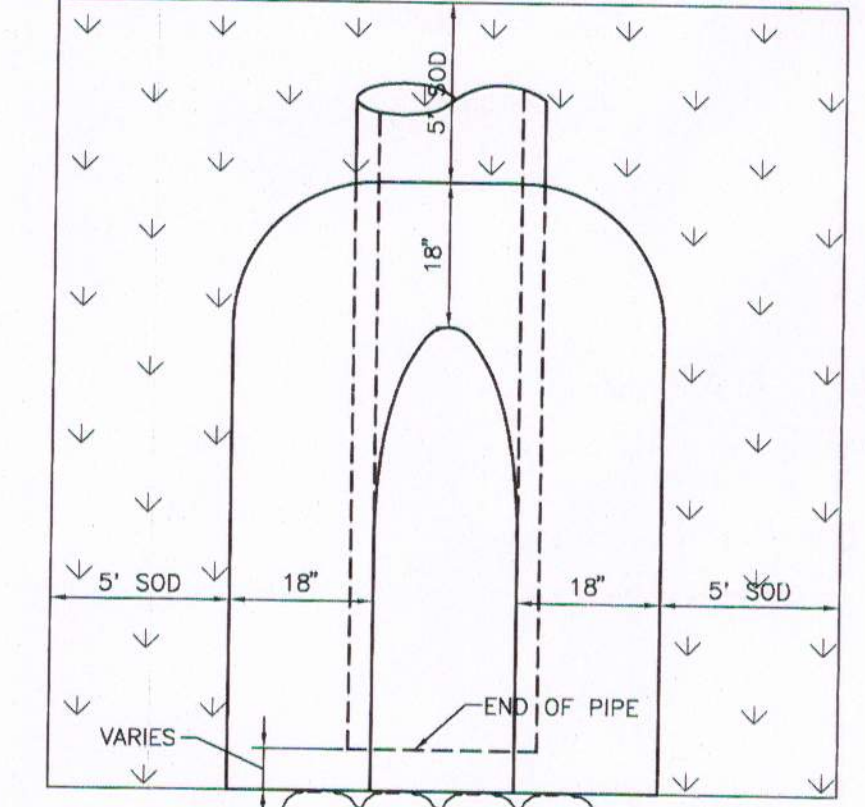
PLAN VIEW

NOTES: * ADJACENT EXISTING WETLAND APPROXIMATE NATURAL GROUND ELEVATION. LOCATION FOR SPOIL REMOVAL SITE TO BE FIELD LOCATED BY PROJECT ECOLOGIST. ELEVATIONS SHOWN IN TABLE ARE APPROXIMATE AND WILL NEED TO BE FIELD VERIFIED.

TYPICAL SPOIL BERM REMOVAL DETAIL
SECTION S-S
N.T.S.



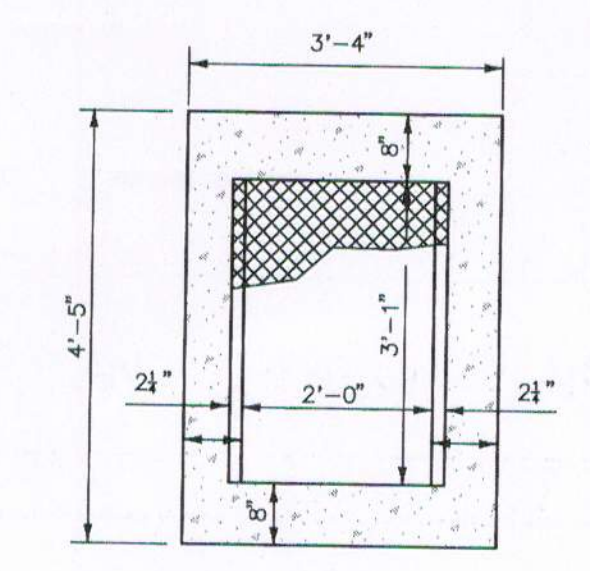
SIDE VIEW



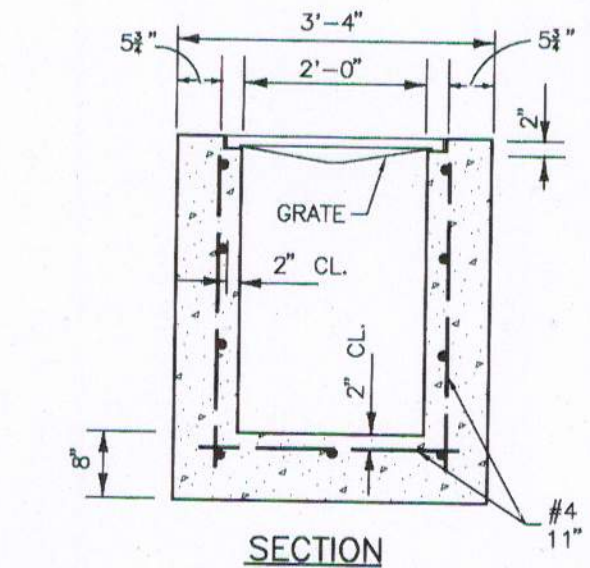
PLAN VIEW

- NOTES:
- CONCRETE SHALL BE 3000 P.S.I. @ 28 DAYS
 - CHAMFER ALL EXPOSED EDGES 3/4".
 - RIP-RAP SHALL BE SUPPLIED AND CONSTRUCTED AS DEFINED IN THE F.D.O.T. SPECIFICATIONS SEC. 530, "RIP-RAP", SPECIFICALLY SEC. 530-3.1 OR SEC. 530-3.3 "CONSTRUCTION METHODS" 5 SY. RIP-RAP AND FILTER CLOTH TO BE INCLUDED IN THE UNIT PRICE OF THE MITERED END SECTION. IF ADDITIONAL RIP-RAP (> 5 SY.) IS REQUIRED AND DIRECTED, IT SHALL BE PAID FOR ON A PER YARD BASIS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
 - FILTER FABRIC SHALL BE SUPPLIED AND CONSTRUCTED AS DEFINED IN THE F.D.O.T. SPECIFICATIONS SEC. 514, PLASTIC FILTER FABRIC, SPECIFICALLY SEC. 514-3.4 RIPRAP, INCLUDED IN UNIT COST OF MITERED END SECTION.

MITERED END SECTION
S-D022 N.T.S.



PLAN



SECTION

- NOTES
- INLET SHALL HAVE 3" DIA. HOLE AT THE BOTTOM OF THE BOX CLEAR OF THE PIPE CONSTRUCTION, TO BE PLUGGED WHEN CONCRETE INVERT FORMED.
 - U.S.F. GRATE NO. 6606 (STEEL)
 - FRAME & GRATE SHALL BE OF STEEL CONSTRUCTION COATED WITH 2 APPLICATIONS OF BLACK ENAMEL, 4.0 MILS DRY FILM THICKNESS EACH COAT, 8 MILS TOTAL COATING SHALL MEET OR EXCEED FDOT SPECIFICATION 971-8. CONTRACTOR SHALL APPLY ONE FIELD COAT TO ANY BARE AREAS AS DETERMINED BY ENGINEER.
 - 3/4" CHAMFER ALL EXPOSED EDGES.
 - 3000 PSI CONCRETE @ 28 DAYS SHALL BE USED THROUGHOUT.
 - POURED CONCRETE INVERT AFTER INLET & PIPE PLACED IN GROUND, 3000 PSI @ 28 DAYS.
 - REINFORCING STEEL SHALL BE INTERMEDIATE GRADE BILLET WITH DEFORMATIONS, CONFORMING TO ASTM A-615-76A. ALL STEEL SHALL BE 2" CLEAR UNLESS OTHERWISE NOTED.

F.D.O.T. TYPE "C" INLET
(SEE FDOT INDEX 232) N.T.S.

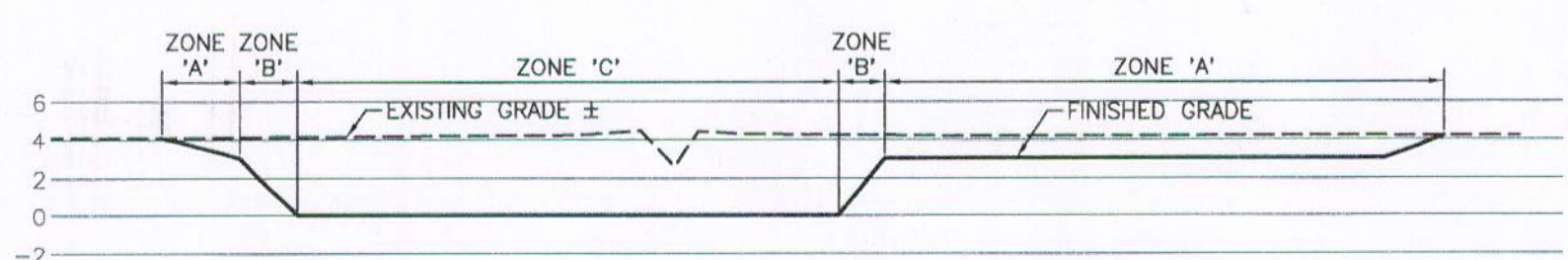
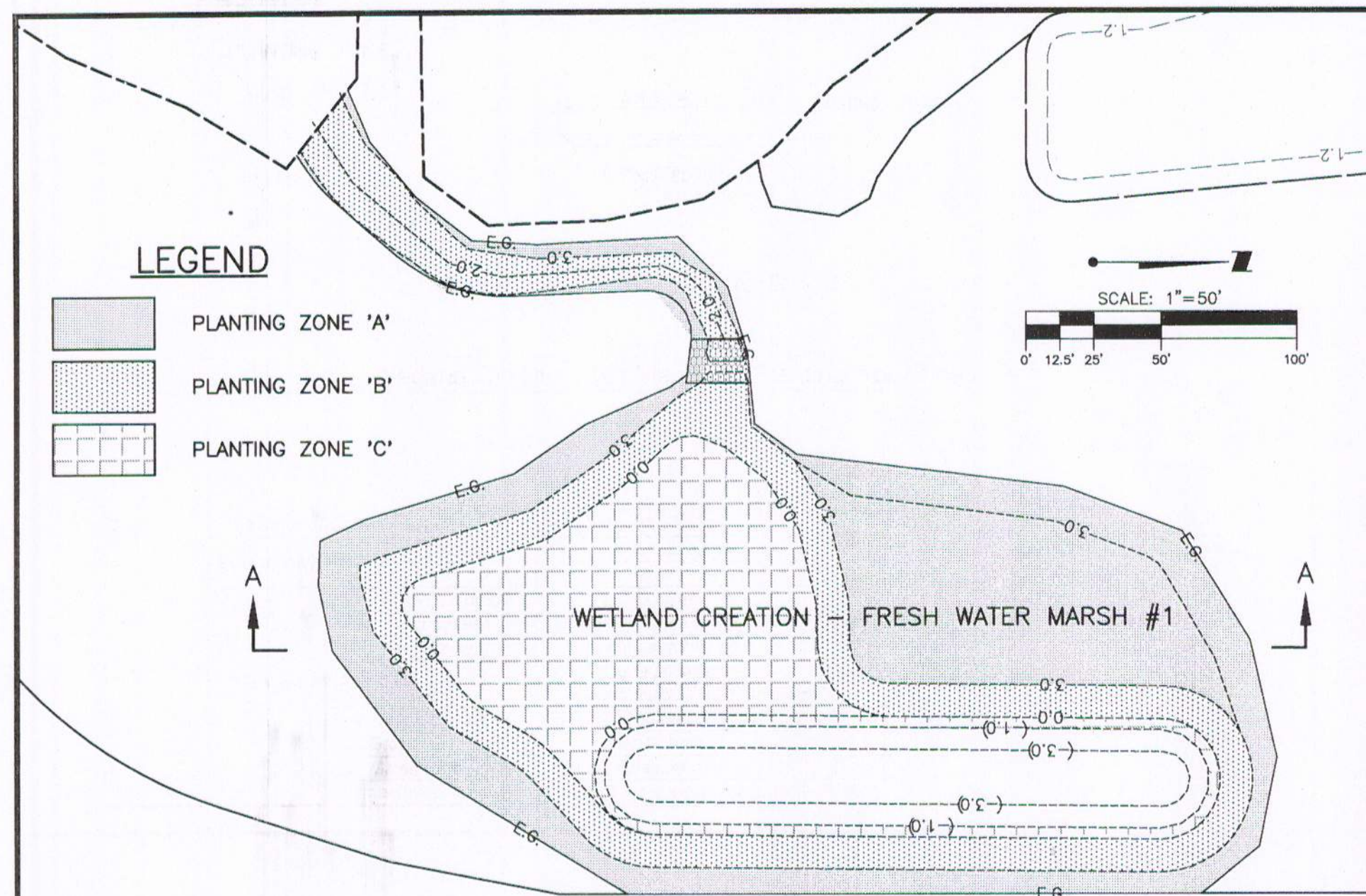
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REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	ACTIVITY	INITIALS/EMP. NO.	DATE
					DESIGNED BY:		
					DRAWN BY:	ATO/89520	06/23/11
					CHECKED BY:		
					CONTRACT ADMIN. BY:		
					WM APPROVED BY:		

WilsonMiller Stantec
1777 Tamiami Trail, Suite 205, Port Charlotte, Florida 33948
888.443.4338 • 941.250.0650 • 1.841.250.1792
Certificate of Authorization #14 • P.L. Lic. #12-0000170 • stantec.com
WilsonMiller, Inc. became a wholly-owned subsidiary of Stantec Consulting Services Inc. on July 23, 2010

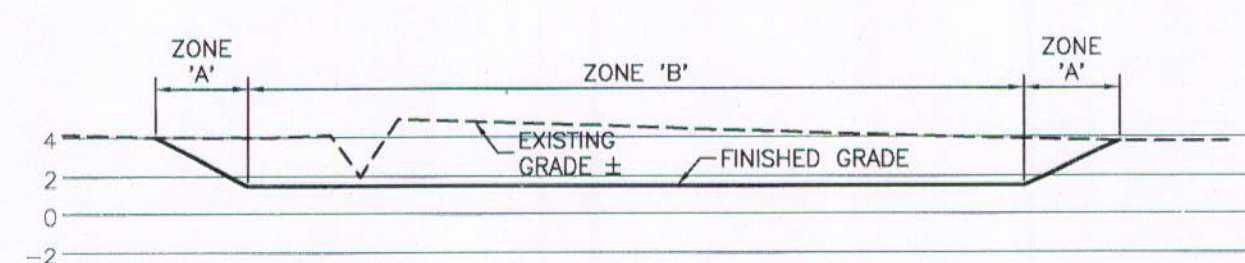
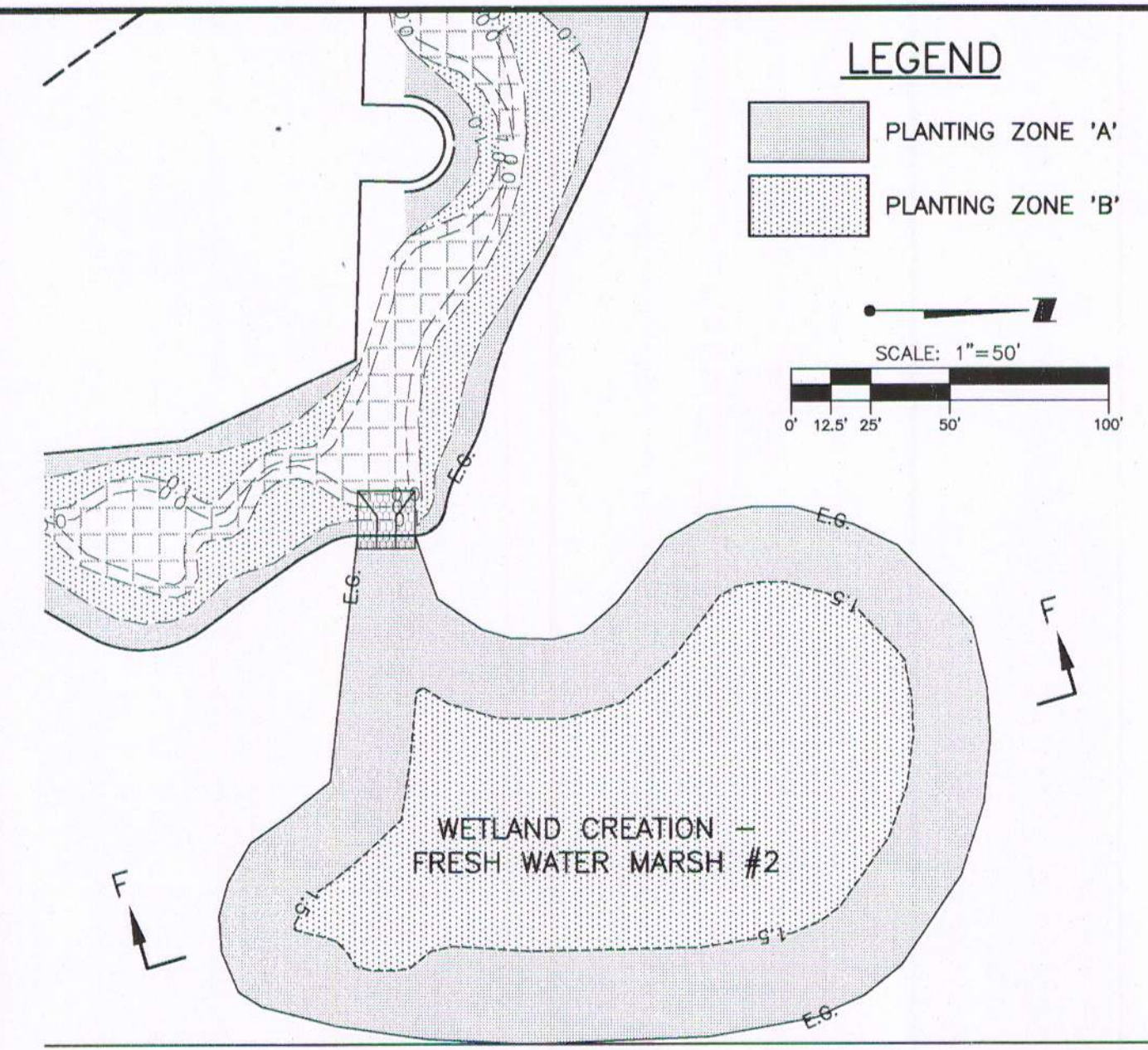
CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS
PROJECT: PERICO PRESERVE RESTORATION
DATE: JUNE 2011
HORIZONTAL SCALE: AS SHOWN
VERTICAL SCALE: AS SHOWN
SEC: TWP - RGE: 2637 34S 16E

TITLE: CONSTRUCTION DETAILS
PROJECT NUMBER: 215500132 320
CROSS REFERENCE FILE NO.:
INDEX NUMBER: D-215500132-010
SHEET NUMBER: 10 OF 14



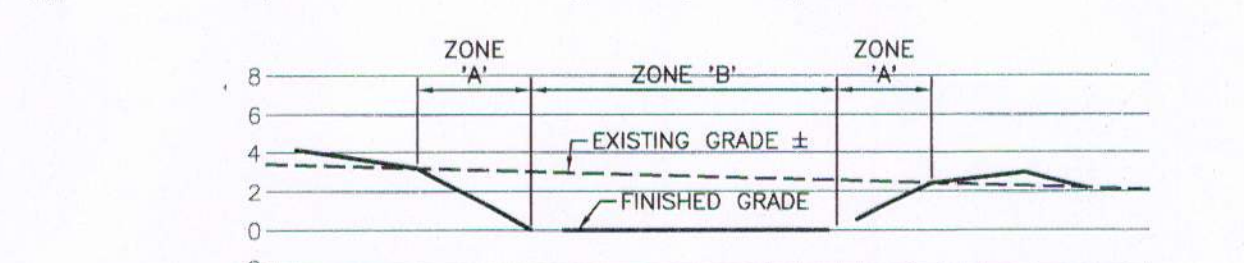
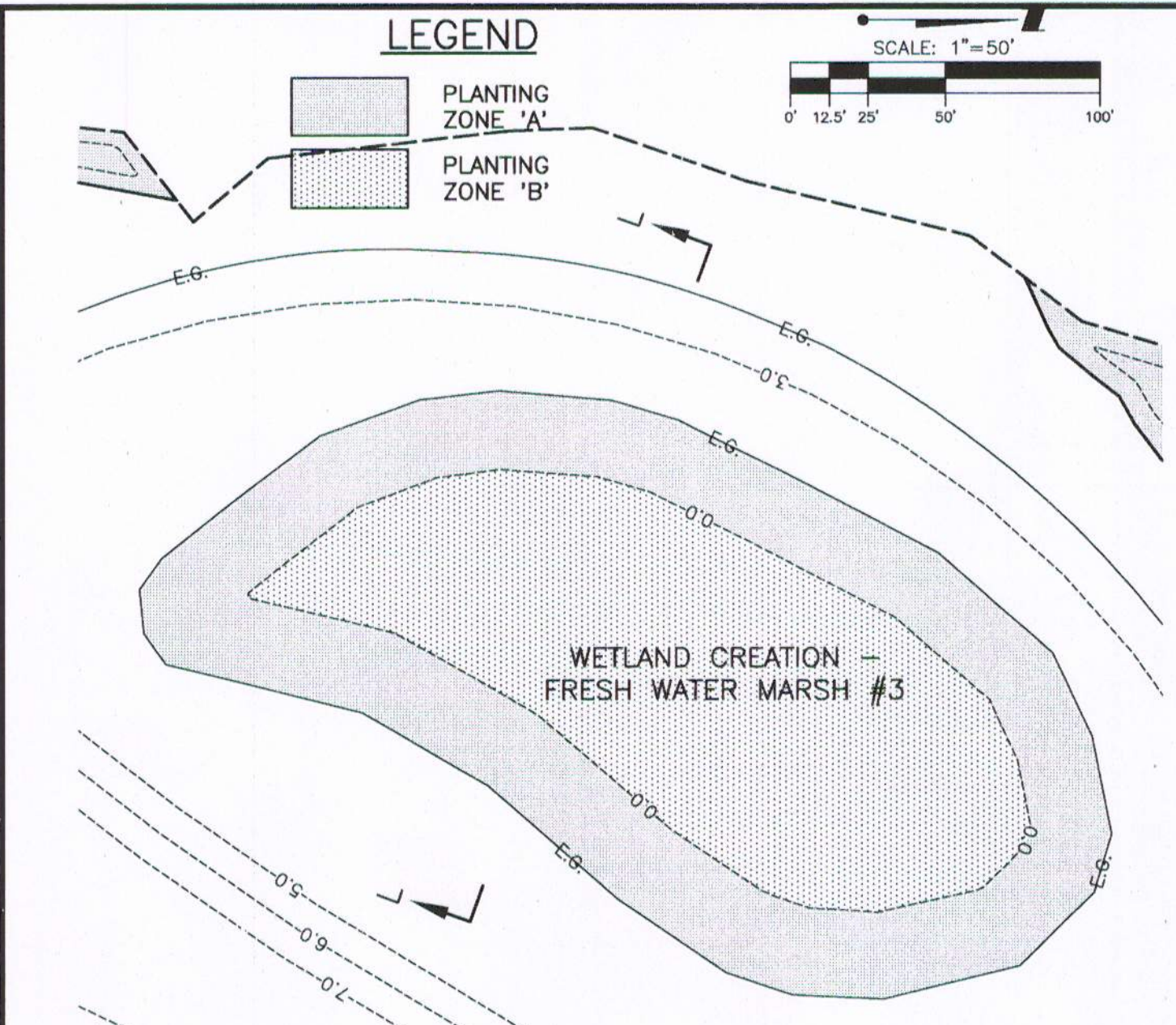
SECTION A-A
1"=50' (HORIZ.)
1"=10' (VERT.)

Zone	Common Name	Scientific Name	Percentage of Total Area per Species by Zone	Average Spacing (O.C.)	Quantity	Size	
A	Muhlygrass	<i>Muhlenbergia capillaris</i>	30	3	625	LN 2"	
	Sand Cordgrass	<i>Spartina bakeri</i>	20	3	417	BR	
	Blue Flag Iris	<i>Iris virginica</i>	10	3	209	BR	
	Maidencane	<i>Panicum hemitomon</i>	10	3	209	BR	
	Star-rush	<i>Rhynchospora colorata</i>	10	3	209	BR	
	Beak Sedges	<i>Rhynchospora spp.</i>	10	3	209	BR	
	Yellow Canna	<i>Canna flaccida</i>	5	3	105	BR	
	Sawgrass	<i>Cladium jamaicense</i>	5	3	105	LN 2"	
	B	Spike Rush	<i>Eleocharis interstincta</i>	40	3	562	BR
		Soft Rush	<i>Juncus effusus</i>	20	3	281	BR
Pickereeweed		<i>Pontederia cordata</i>	20	3	281	BR	
Arrowhead		<i>Sagittaria lancifolia</i>	20	3	281	BR	
C	Spatterdock	<i>Nuphar lutea</i>	40	5	217	BR	
	White Water Lily	<i>Nymphaea odorata</i>	40	5	217	BR	
	Softstem Bulrush	<i>Schoenoplectus tabernaemontani</i>	20	3	301	BR	



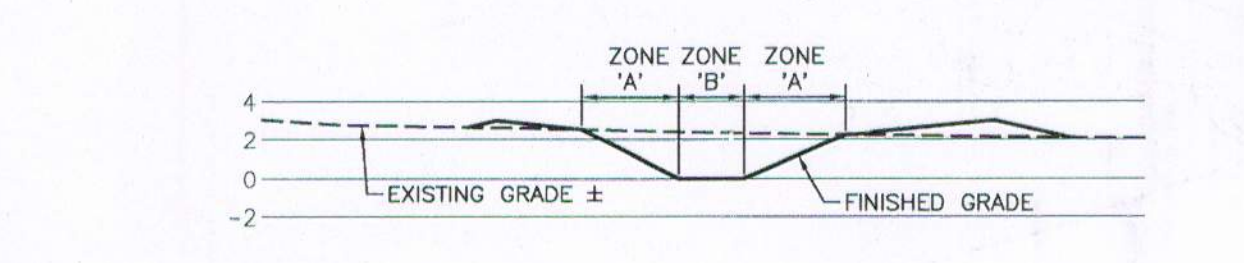
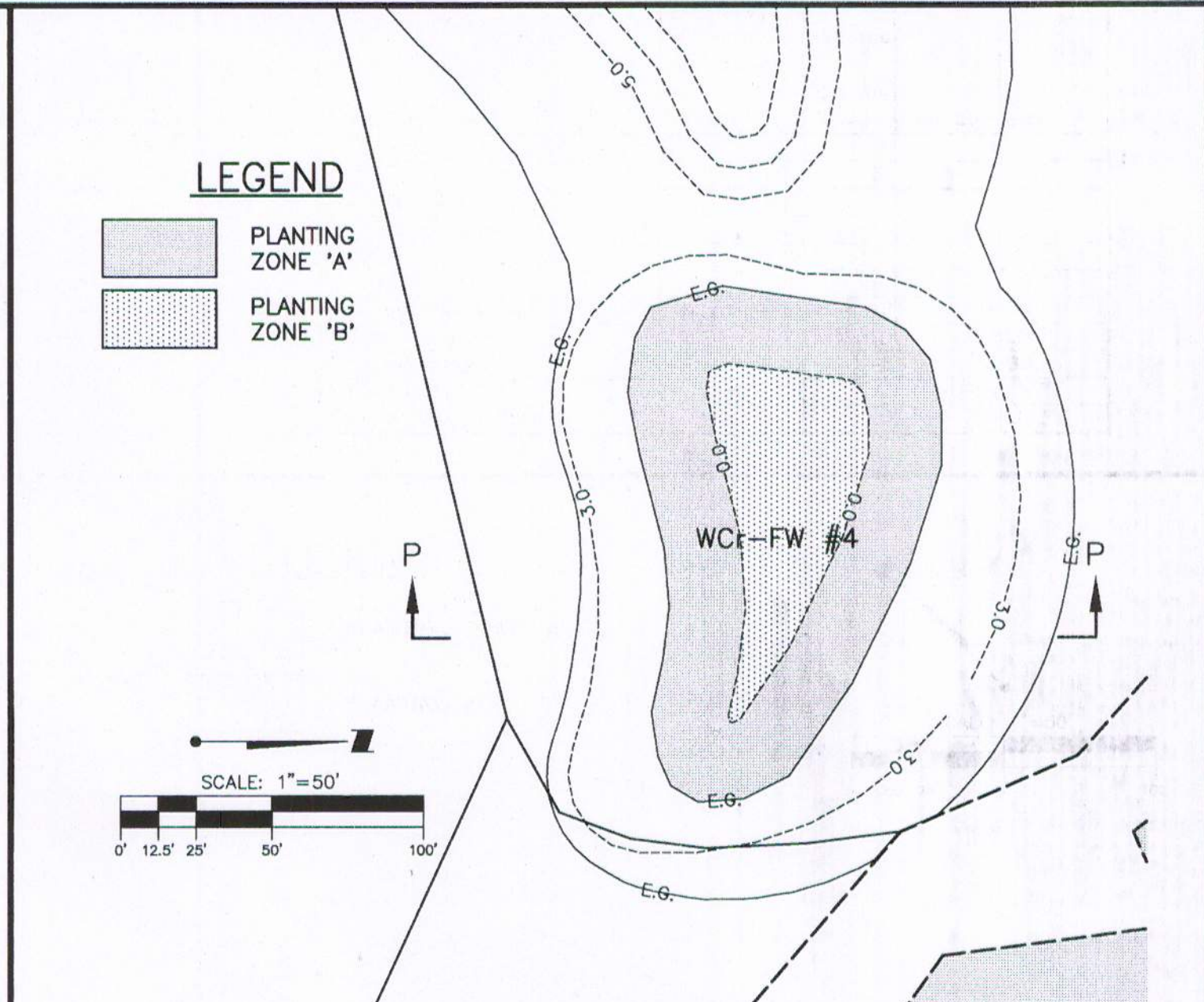
SECTION F-F
1"=50' (HORIZ.)
1"=10' (VERT.)

Zone	Common Name	Scientific Name	Percentage of Total Area per Species by Zone	Average Spacing (O.C.)	Quantity	Size	
A	Muhlygrass	<i>Muhlenbergia capillaris</i>	30	3	523	LN 2"	
	Sand Cordgrass	<i>Spartina bakeri</i>	20	3	349	BR	
	Blue Flag Iris	<i>Iris virginica</i>	10	3	175	BR	
	Maidencane	<i>Panicum hemitomon</i>	10	3	175	BR	
	Star-rush	<i>Rhynchospora colorata</i>	10	3	175	BR	
	Beak Sedges	<i>Rhynchospora spp.</i>	10	3	175	BR	
	Yellow Canna	<i>Canna flaccida</i>	5	3	89	BR	
	Sawgrass	<i>Cladium jamaicense</i>	5	3	89	LN 2"	
	B	Spike Rush	<i>Eleocharis interstincta</i>	20	3	320	BR
		Soft Rush	<i>Juncus effusus</i>	20	3	320	BR
Pickereeweed		<i>Pontederia cordata</i>	20	3	320	BR	
Arrowhead		<i>Sagittaria lancifolia</i>	20	3	320	BR	
	Softstem Bulrush	<i>Schoenoplectus tabernaemontani</i>	10	3	160	BR	
	Alligator Flag	<i>Thalia geniculata</i>	10	3	160	BR	



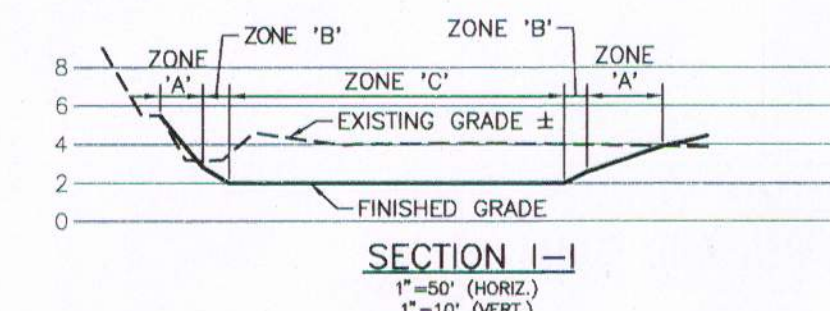
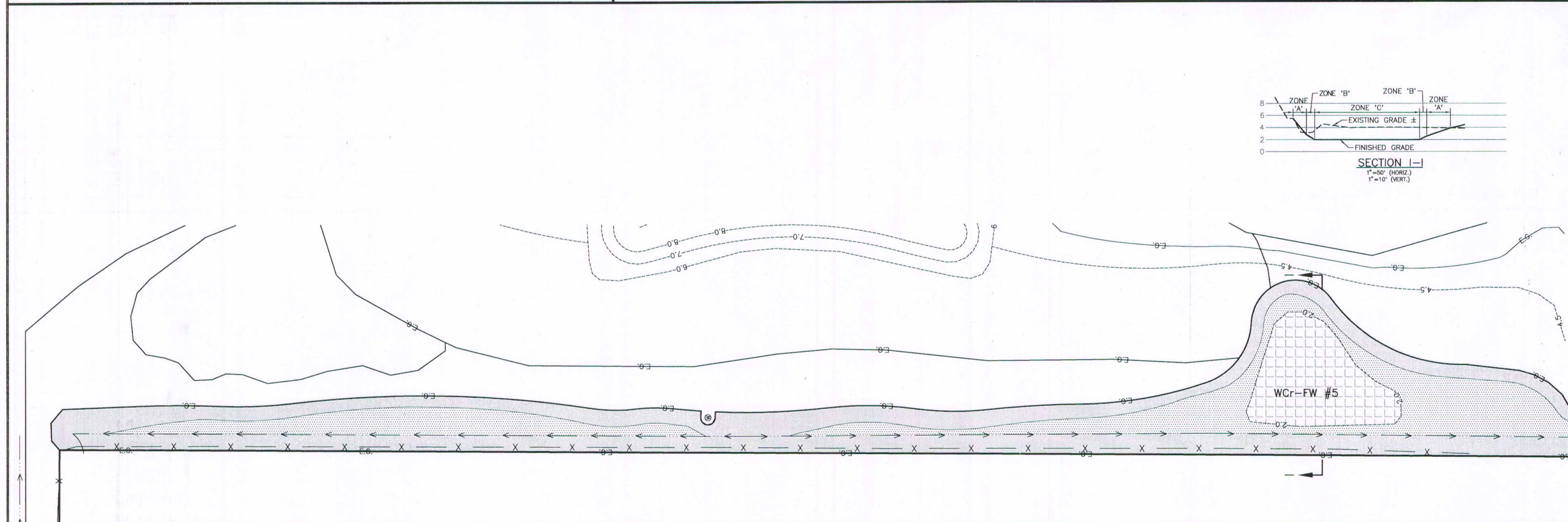
SECTION L-L
1"=50' (HORIZ.)
1"=10' (VERT.)

Zone	Common Name	Scientific Name	Percentage of Total Area per Species by Zone	Average Spacing (O.C.)	Quantity	Size	
A	Muhlygrass	<i>Muhlenbergia capillaris</i>	30	3	610	LN 2"	
	Sand Cordgrass	<i>Spartina bakeri</i>	20	3	407	BR	
	Blue Flag Iris	<i>Iris virginica</i>	10	3	204	BR	
	Maidencane	<i>Panicum hemitomon</i>	10	3	204	BR	
	Star-rush	<i>Rhynchospora colorata</i>	10	3	204	BR	
	Beak Sedges	<i>Rhynchospora spp.</i>	10	3	204	BR	
	Yellow Canna	<i>Canna flaccida</i>	5	3	102	BR	
	Spike Rush	<i>Eleocharis interstincta</i>	20	3	407	BR	
	B	Pickereeweed	<i>Pontederia cordata</i>	20	3	407	BR
		Arrowhead	<i>Sagittaria lancifolia</i>	20	3	407	BR
Softstem Bulrush		<i>Schoenoplectus tabernaemontani</i>	20	3	407	BR	
Soft Rush		<i>Juncus effusus</i>	10	3	204	BR	
	Alligator Flag	<i>Thalia geniculata</i>	10	3	204	BR	



SECTION P-P
1"=50' (HORIZ.)
1"=10' (VERT.)

Zone	Common Name	Scientific Name	Percentage of Total Area per Species by Zone	Average Spacing (O.C.)	Quantity	Size	
A	Muhlygrass	<i>Muhlenbergia capillaris</i>	30	3	305	LN 2"	
	Sand Cordgrass	<i>Spartina bakeri</i>	20	3	204	BR	
	Blue Flag Iris	<i>Iris virginica</i>	10	3	102	BR	
	Maidencane	<i>Panicum hemitomon</i>	10	3	102	BR	
	Star-rush	<i>Rhynchospora colorata</i>	10	3	102	BR	
	Beak Sedges	<i>Rhynchospora spp.</i>	10	3	102	BR	
	Yellow Canna	<i>Canna flaccida</i>	5	3	51	BR	
	Spike Rush	<i>Eleocharis interstincta</i>	20	3	78	BR	
	B	Pickereeweed	<i>Pontederia cordata</i>	20	3	78	BR
		Arrowhead	<i>Sagittaria lancifolia</i>	20	3	78	BR
Softstem Bulrush		<i>Schoenoplectus tabernaemontani</i>	20	3	78	BR	
Soft Rush		<i>Juncus effusus</i>	10	3	39	BR	
	Alligator Flag	<i>Thalia geniculata</i>	10	3	39	BR	

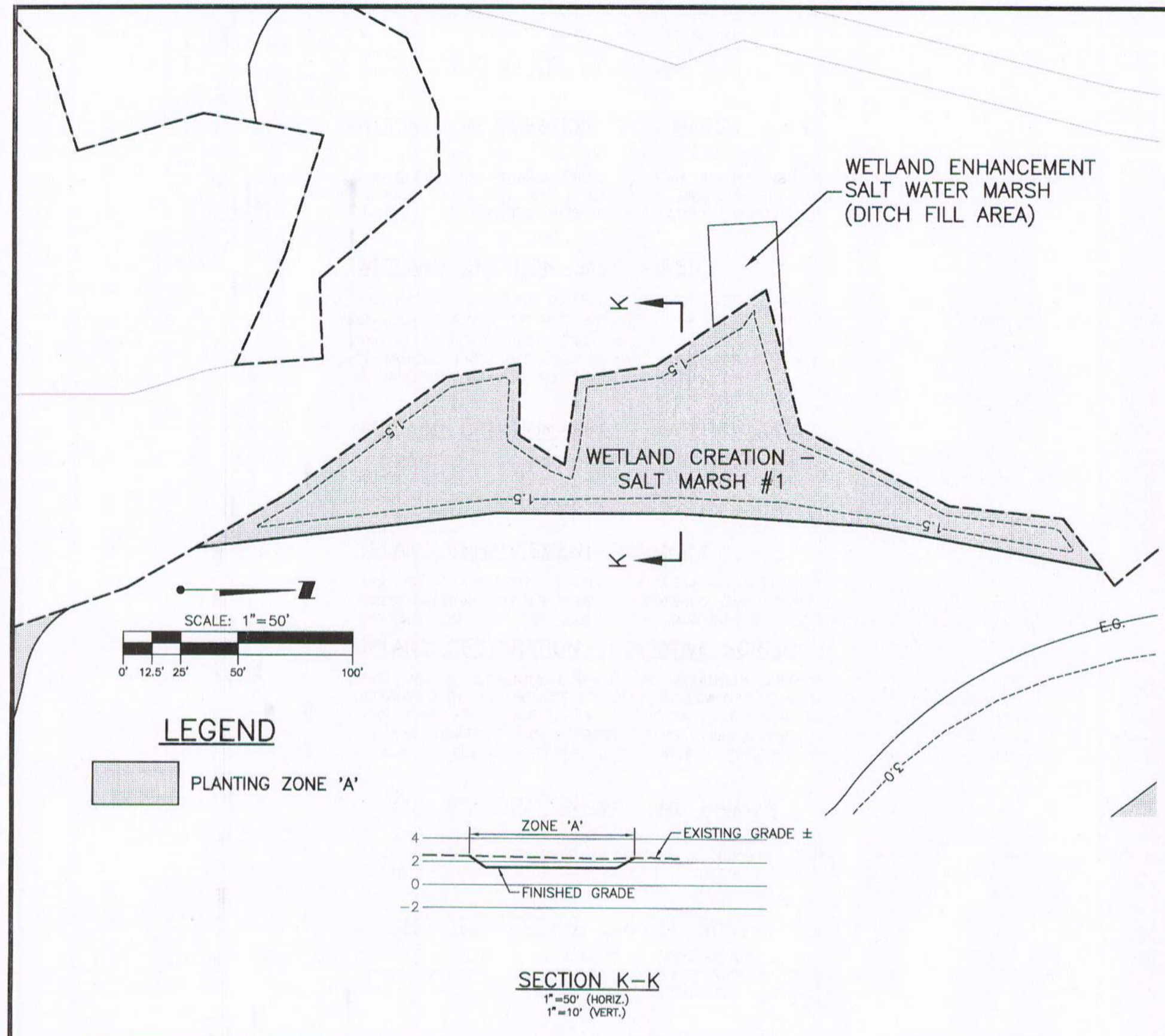


SECTION I-I
1"=50' (HORIZ.)
1"=10' (VERT.)

Zone	Common Name	Scientific Name	Percentage of Total Area per Species by Zone	Average Spacing (O.C.)	Quantity	Size	
A	Muhlygrass	<i>Muhlenbergia capillaris</i>	30	3	1208	LN 2"	
	Sand Cordgrass	<i>Spartina bakeri</i>	30	3	1208	BR	
	Blue Flag Iris	<i>Iris virginica</i>	10	3	402	BR	
	Maidencane	<i>Panicum hemitomon</i>	10	3	402	BR	
	Star-rush	<i>Rhynchospora colorata</i>	10	3	402	BR	
	Yellow Canna	<i>Canna flaccida</i>	5	3	201	BR	
	Sawgrass	<i>Cladium jamaicense</i>	5	3	201	LN 2"	
	B	Spike Rush	<i>Eleocharis interstincta</i>	20	3	494	BR
		Soft Rush	<i>Juncus effusus</i>	20	3	494	BR
		Pickereeweed	<i>Pontederia cordata</i>	20	3	494	BR
Arrowhead		<i>Sagittaria lancifolia</i>	20	3	494	BR	
C	Lizard's Tail	<i>Saururus cernuus</i>	10	3	247	BR	
	Softstem Bulrush	<i>Schoenoplectus tabernaemontani</i>	10	3	247	BR	
	Alligator Flag	<i>Thalia geniculata</i>	40	5	128	BR	
	Spatterdock	<i>Nuphar lutea</i>	30	5	95	BR	
	White Water Lily	<i>Nymphaea odorata</i>	30	5	95	BR	

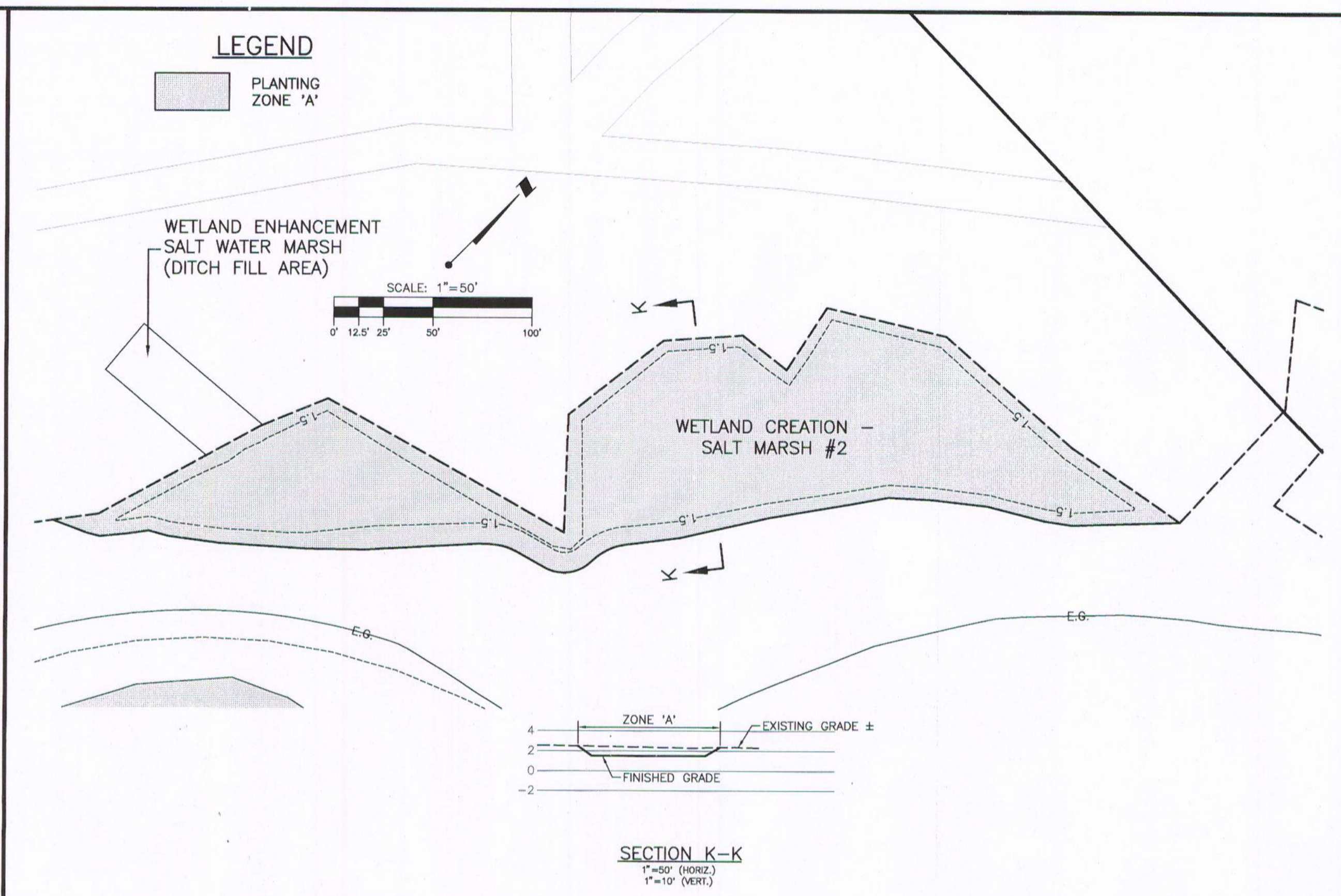
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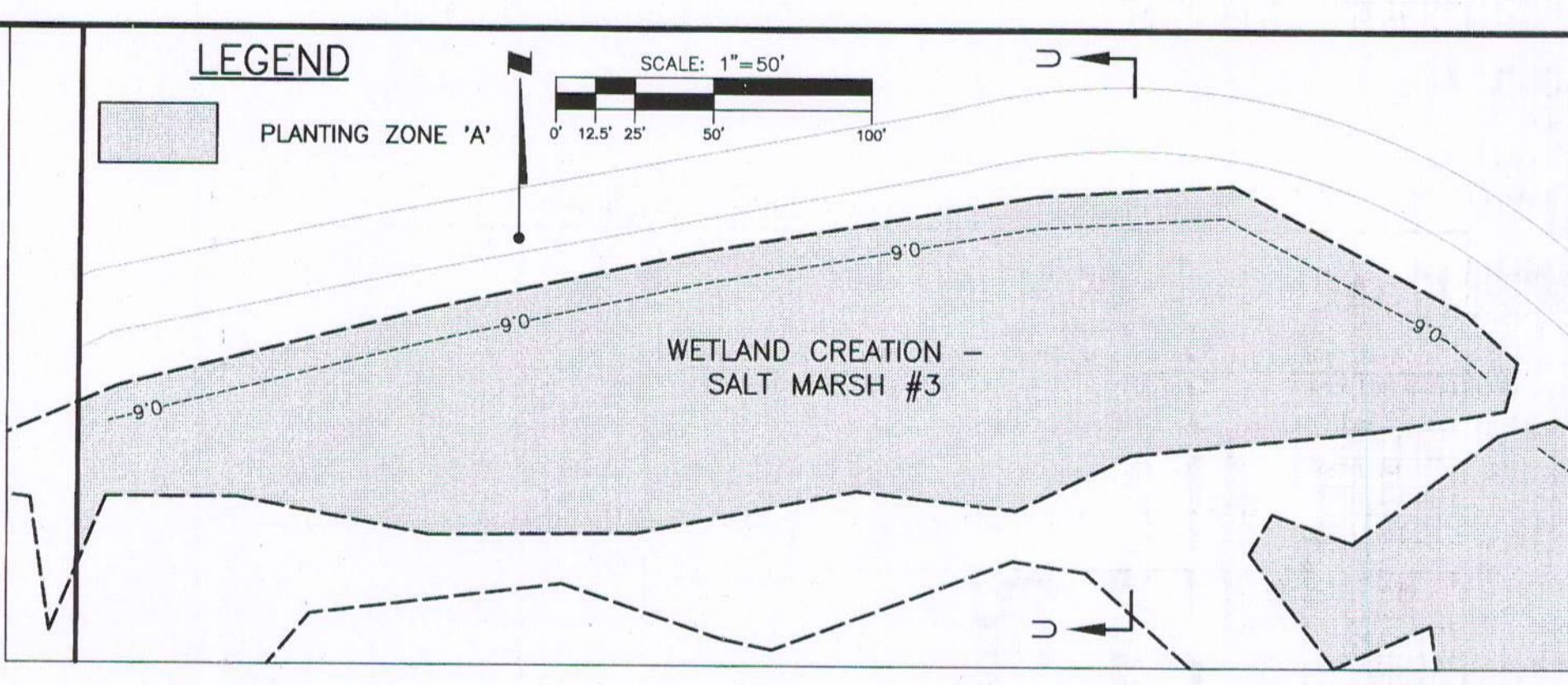
Wetland Creation Salt Marsh #1 Planting Specifications

Zone	Stratum	Common Name	Scientific Name	Percentage of Total Area per Species by Zone and Stratum	Average Spacing (O.C.)	Quantity	Size
A	Subcanopy	Green Buttonwood	<i>Conocarpus erectus</i>	50	30	9	1-Gal
		Christmas Berry	<i>Lycium carolinianum</i>	50	30	9	1-Gal
		Saltmeadow Cordgrass	<i>Spartina patens</i>	15	3	262	LN 2"
	Ground Cover	Seashore Dropseed	<i>Sporobolus virginicus</i>	15	3	175	LN 2"
		Sea Oxeye Daisy	<i>Borrichia frutescens</i>	10	3	175	LN 2"
		Yellowtops	<i>Flaveria linearis</i>	10	3	175	LN 2"
		Scorpion Tail	<i>Heliotropium agiospermum</i>	10	3	175	LN 2"
		Seaside Goldenrod	<i>Solidago sempervirens</i>	10	3	175	LN 2"
		Salt Grass	<i>Distichlis spicata</i>	10	3	175	BR
		Salt Marsh Elder	<i>Iva frutescens</i>	10	3	175	LN 2"
		Saltmarsh Bulrush	<i>Schoenoplectus robustus</i>	10	3	175	LN 2"



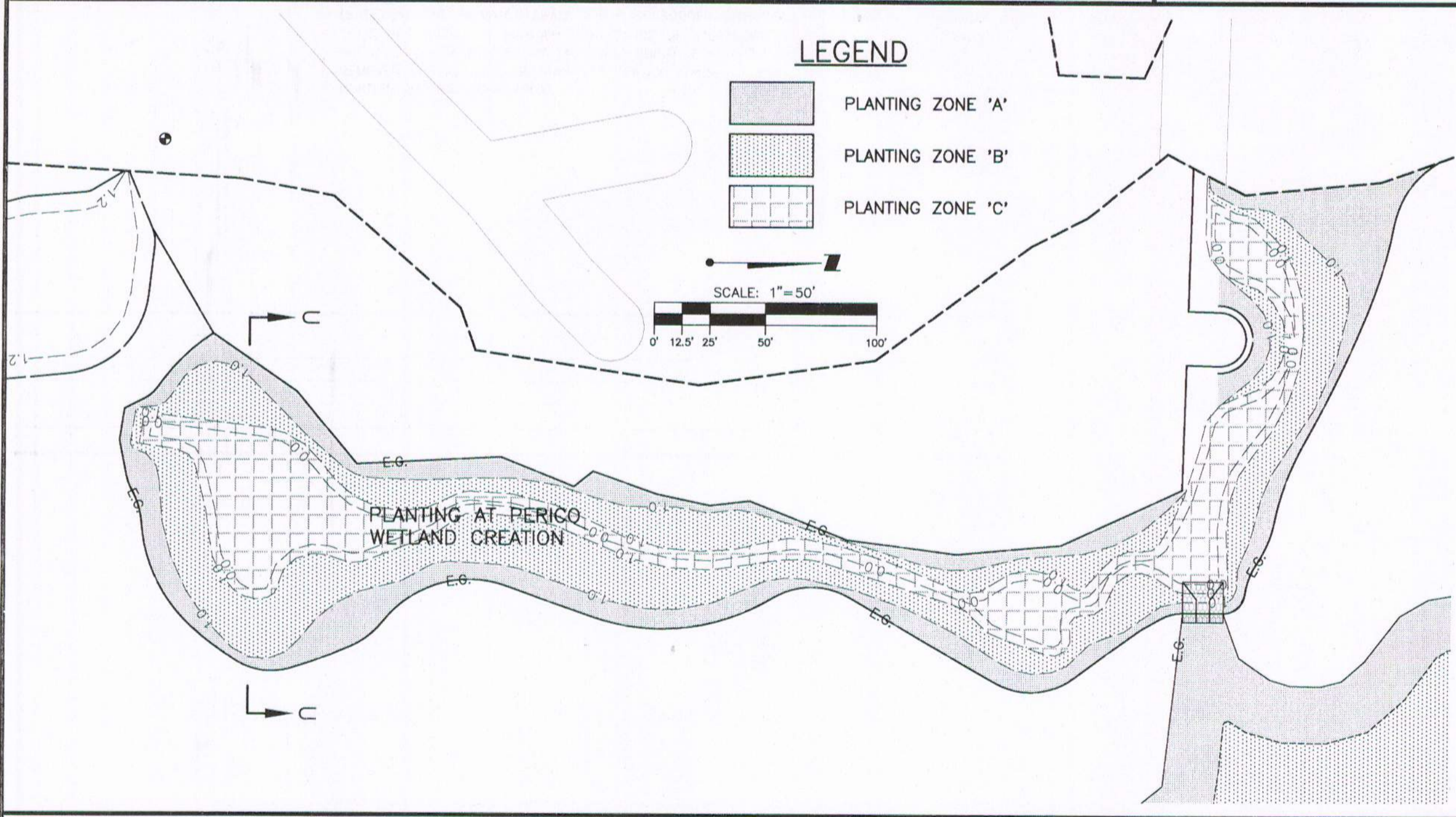
Wetland Creation Salt Marsh #2 Planting Specifications

Zone	Stratum	Common Name	Scientific Name	Percentage of Total Area per Species by Zone and Stratum	Average Spacing (O.C.)	Quantity	Size
A	Subcanopy	Green Buttonwood	<i>Conocarpus erectus</i>	50	30	19	1-Gal
		Christmas Berry	<i>Lycium carolinianum</i>	50	30	19	1-Gal
		Saltmeadow Cordgrass	<i>Spartina patens</i>	15	3	545	LN 2"
	Ground Cover	Seashore Dropseed	<i>Sporobolus virginicus</i>	15	3	545	LN 2"
		Sea Oxeye Daisy	<i>Borrichia frutescens</i>	10	3	363	LN 2"
		Yellowtops	<i>Flaveria linearis</i>	10	3	363	LN 2"
		Scorpion Tail	<i>Heliotropium agiospermum</i>	10	3	363	LN 2"
		Seaside Goldenrod	<i>Solidago sempervirens</i>	10	3	363	LN 2"
		Salt Grass	<i>Distichlis spicata</i>	10	3	363	BR
		Salt Marsh Elder	<i>Iva frutescens</i>	10	3	363	LN 2"
		Saltmarsh Bulrush	<i>Schoenoplectus robustus</i>	10	3	363	LN 2"

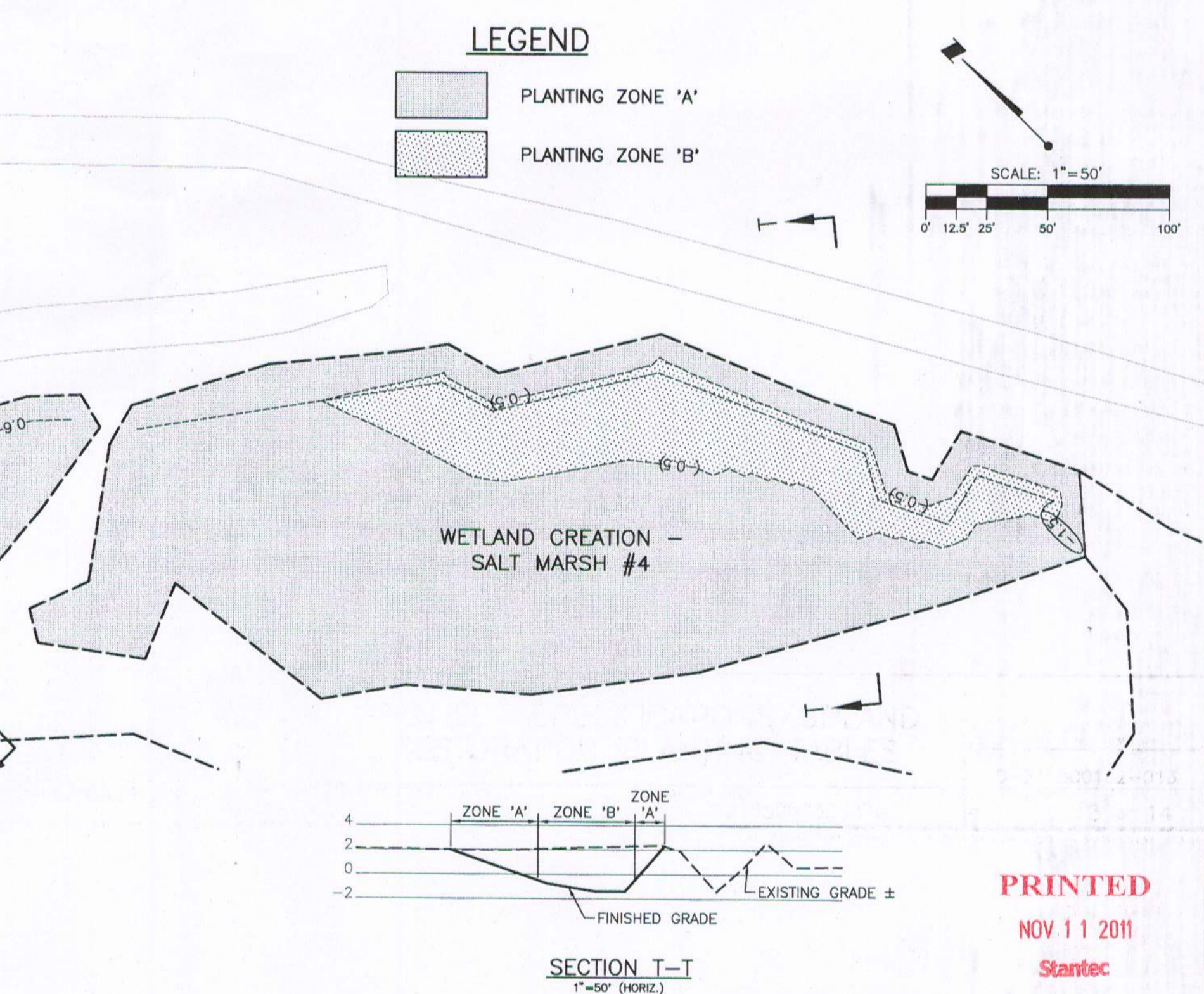


Wetland Creation Salt Marsh #3 Planting Specifications

Zone	Stratum	Common Name	Scientific Name	Percentage of Total Area per Species by Zone and Stratum	Average Spacing (O.C.)	Quantity	Size
A	Subcanopy	Green Buttonwood	<i>Conocarpus erectus</i>	50	30	18	1-Gal
		Christmas Berry	<i>Lycium carolinianum</i>	50	30	18	1-Gal
		Saltmeadow Cordgrass	<i>Spartina patens</i>	15	3	523	LN 2"
	Ground Cover	Seashore Dropseed	<i>Sporobolus virginicus</i>	15	3	523	LN 2"
		Sea Oxeye Daisy	<i>Borrichia frutescens</i>	10	3	348	LN 2"
		Yellowtops	<i>Flaveria linearis</i>	10	3	348	LN 2"
		Scorpion Tail	<i>Heliotropium agiospermum</i>	10	3	348	LN 2"
		Seaside Goldenrod	<i>Solidago sempervirens</i>	10	3	348	LN 2"
		Salt Grass	<i>Distichlis spicata</i>	10	3	348	BR
		Salt Marsh Elder	<i>Iva frutescens</i>	10	3	348	LN 2"
		Saltmarsh Bulrush	<i>Schoenoplectus robustus</i>	10	3	348	LN 2"



NOTE:
PLANTING AT PERICO WETLAND CREATION AREA TO BE PLANTED BY VOLUNTEERS.



Wetland Creation Salt Marsh #4 Planting Specifications

Zone	Stratum	Common Name	Scientific Name	Percentage of Total Area per Species by Zone and Stratum	Average Spacing (O.C.)	Quantity	Size		
A	Subcanopy	Green Buttonwood	<i>Conocarpus erectus</i>	50	30	211	1-Gal		
		Christmas Berry	<i>Lycium carolinianum</i>	50	30	211	1-Gal		
		Saltmeadow Cordgrass	<i>Spartina patens</i>	15	3	603	LN 2"		
	Ground Cover	Seashore Dropseed	<i>Sporobolus virginicus</i>	15	3	603	LN 2"		
		Sea Oxeye Daisy	<i>Borrichia frutescens</i>	10	3	402	LN 2"		
		Yellowtops	<i>Flaveria linearis</i>	10	3	402	LN 2"		
		Scorpion Tail	<i>Heliotropium agiospermum</i>	10	3	402	LN 2"		
		Seaside Goldenrod	<i>Solidago sempervirens</i>	10	3	402	LN 2"		
		Salt Grass	<i>Distichlis spicata</i>	10	3	402	BR		
		Salt Marsh Elder	<i>Iva frutescens</i>	10	3	402	LN 2"		
		Saltmarsh Bulrush	<i>Schoenoplectus robustus</i>	10	3	402	LN 2"		
		B	Ground Cover	Black Needlerush	<i>Juncus roemerianus</i>	30	3	276	BR
				Saltmarsh Cordgrass	<i>Spartina alterniflora</i>	20	3	184	BR

Wetland Enhancement Salt Water Marsh (Ditch Fill Areas)

Zone	Common Name	Scientific Name	Percentage of Total Area per Species by Zone	Average Spacing (O.C.)	Quantity	Size
A	Ditch Fill	Sea Oxeye Daisy	50	3	194	LN 2"
	Areas	Salt Grass	50	3	194	BR

REV	NO.	REVISION	DATE	DESIGNED BY	INITIALS/EMP. NO.	DATE
B		REVISE ZONE C HATCH PATTERN	11/11/11	ATO/89520		06/23/11
A		REVISE PLAN TO INCLUDE PLANTING AT PERICO WETLAND CREATION	10/13/11	ATO/89520		

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CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS
 PROJECT: PERICO PRESERVE RESTORATION
 DATE: AUGUST 2011
 HORIZONTAL SCALE: 1"=50'
 VERTICAL SCALE: N/A
 TITLE: WETLAND CREATION PLANTING PLAN
 PROJECT NUMBER: 215500132 370
 SHEET NUMBER: 12 OF 14

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UPLAND RESTORATION PLANTING TABLES

PERICO PRESERVE RESTORATION WORK AREA DESCRIPTIONS

SPOIL MAINTENANCE (WITHIN EXISTING WETLAND)

THIS WORK AREA IS COMPOSED OF AGRICULTURAL AND MOSQUITO DITCHES AND THEIR ASSOCIATED SPOIL MOUNDS THAT OCCUR WITHIN THE EXISTING ON-SITE WETLAND HABITAT. NUISANCE AND EXOTIC SPECIES SUCH AS AUSTRALIAN PINE TREES (Casuarina spp.), BRAZILIAN PEPPER TREES (Schinus terebinthifolius), CARROTWOOD (Cupaniopsis anacardioides), AND SILK OAK (Grevillea robusta) WERE TREATED WITH HERBICIDES USING A BASAL BARK APPLICATION IN 2010. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC SPECIES. EARTH MOVING PROPOSED IN THIS AREA CONSISTS OF SPOIL CUT THROUGH AREAS S1-S7 (SHEET 10).

EXISTING WETLAND (INCLUDES PORTIONS OF PERICO BAYOU)

THIS WORK AREA IS DOMINATED BY MANGROVE SWAMP WITH SOME AREAS OF SALT MARSH AND SHALLOW OPEN WATERS ASSOCIATED WITH PERICO BAYOU. WORK PROPOSED WITHIN THE EXISTING WETLAND CONSISTS OF SPOIL MAINTENANCE (DESCRIBED ABOVE), SALT MARSH ENHANCEMENT (DESCRIBED BELOW), SALT MARSH RESTORATION (DESCRIBED BELOW), AND THE RIM DITCH SPOIL REMOVAL AREAS R1-R4 (SHEET 10).

TEMPORARY WETLAND IMPACTS WILL OCCUR DURING THE CONSTRUCTION OF SPOIL CUT THROUGH AREAS S1-S7 (SHEET 10). THE EXACT LOCATION OF CUTS WILL BE FIELD DETERMINED BY THE PROJECT ECOLOGIST TO MINIMIZE IMPACTS TO THE EXTENT POSSIBLE. DESTRUCTION OF EXISTING VEGETATION WILL BE MINIMIZED TO THE EXTENT POSSIBLE AND ANY DISTURBED SOIL WILL BE RETURNED TO EXISTING GRADE. TEMPORARY IMPACT AREAS WILL BE REPLANTED WITH APPROPRIATE VEGETATION AS DETERMINED NECESSARY BY THE PROJECT ECOLOGIST. ALL TEMPORARY WETLAND IMPACTS WILL BE SUPERVISED BY THE PROJECT ECOLOGIST.

WETLAND ENHANCEMENT-SALT MARSH

THIS WORK AREA IS COMPRISED OF TWO PORTIONS OF EXISTING HIGH MARSH. THE FIRST PORTION OF EXISTING SALT MARSH TO BE ENHANCED IS LOCATED WITHIN THE MANGROVE SWAMP (SHEET 5) AND CONTAINS SCATTERED AUSTRALIAN PINE TREES THAT WERE TREATED WITH HERBICIDE IN 2010. THIS AREA WILL UNDERGO MAINTENANCE TARGETING NUISANCE AND EXOTIC VEGETATION. NO EARTHMOVING OR USE OF HEAVY EQUIPMENT IS PROPOSED IN THIS AREA.

THE SECOND PORTION OF SALT MARSH TO BE ENHANCED IS LOCATED ADJACENT TO THE NORTHERN EXTENT OF THE EXISTING CONTIGUOUS UPLAND (SHEETS 6 AND 7). THE MAJORITY OF THIS AREA IS AN EXISTING FARM ROAD WHERE PAST ACTIVITIES HAVE RUPTURED AND COMPACTED THE SOIL. THIS AREA WILL UNDERGO MINOR RE-GRADING/SMOOTHING TO REMOVE RUTS FOLLOWED BY VEGETATIVE MAINTENANCE. RE-VEGETATION WILL BE ACCOMPLISHED BY NATURAL RECRUITMENT OF DESIRABLE WETLAND SPECIES. CROSSING WITH HEAVY EQUIPMENT WILL BE NECESSARY TO FACILITATE THE CREATION OF SALT MARSH #3 AND SALT MARSH #4 (SHEETS 6 AND 7). MINOR TEMPORARY WETLAND IMPACTS ASSOCIATED WITH CROSSING POINTS WILL BE FIELD LOCATED BY THE PROJECT ECOLOGIST IN AREAS OF LOW QUALITY VEGETATION AND CONTRACTOR WILL RE-GRADE/SMOOTH CROSSING POINTS POST CONSTRUCTION. CROSSING POINTS WILL BE REPLANTED WITH APPROPRIATE VEGETATION AS DETERMINED NECESSARY BY THE PROJECT ECOLOGIST.

WETLAND RESTORATION-SALT MARSH

THIS AREA CONSISTS OF TWO DITCHES AND ASSOCIATED SPOIL LOCATED WITHIN THE EXISTING HIGH MARSH HABITAT ON THE WEST SIDE OF THE EXISTING CONTIGUOUS UPLAND AREA (SHEET 6). WORK IN THIS AREA CONSISTS OF FILLING THE EXISTING DITCHES THAT GO THROUGH THE SALT MARSH USING THE ADJACENT SPOIL FOR FILL TO MATCH THE GRADE OF THE ADJACENT SALT MARSH. AREAS OF SOIL DISTURBANCE WILL BE REPLANTED. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

WETLAND CREATION-SALT MARSH

THIS AREA IS CURRENTLY DOMINATED BY OPEN PASTURE AND WILL BE CONVERTED TO FOUR SALT MARSH WETLANDS. SALT MARSHES 1 AND 2 (SHEET 6), TO BE LOCATED ALONG THE WEST EXTENT OF THE EXISTING CONTIGUOUS UPLAND AREA, ARE DOMINATED BY OPEN PASTURE. SALT MARSH 3 AND 4 (SHEETS 6 AND 7), TO BE LOCATED ALONG THE NORTH EXTENT OF THE EXISTING CONTIGUOUS UPLAND AREA, ARE DOMINATED BY AUSTRALIAN PINE STUMPS WHICH WILL BE REMOVED FROM THE SITE. THE SALT MARSH CREATION AREAS WILL BE EXCAVATED AND PLANTED WITH APPROPRIATE VEGETATION AND WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

WETLAND CREATION-FRESH WATER MARSH

THIS WORK AREA IS CURRENTLY DOMINATED BY RELATIVELY OPEN PASTURE AND CONSISTS OF FIVE UPLAND AREAS THAT WILL BE CONVERTED TO FRESH WATER MARSH. THESE AREAS WILL BE EXCAVATED AND PLANTED WITH FRESH WATER MARSH VEGETATION. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

UPLAND ENHANCEMENT-HAMMOCK

THIS AREA IS CURRENTLY DOMINATED BY DESIRABLE VEGETATION. NO EARTHWORK IS PROPOSED. NUISANCE AND EXOTIC SPECIES SUCH AS AUSTRALIAN PINE TREES, BRAZILIAN PEPPER TREES, CARROTWOOD, AND STRAWBERRY GUAVA (Psidium cattleianum) WERE TREATED WITH HERBICIDES USING A BASAL BARK APPLICATION IN 2010. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

UPLAND RESTORATION-VEGETATIVE SCREEN

THIS AREA IS CURRENTLY DOMINATED BY RELATIVELY OPEN PASTURE AND WILL BE SEEDED WITH NATIVE GROUND COVER SPECIES WHERE FEASIBLE AS DETERMINED BY THE PROJECT ECOLOGIST, FOLLOWED BY PLANTING OF NURSERY GROWN MATERIAL. TREE SIZE AND PLANTING DENSITY IN THIS AREA IS HIGHER THAN OTHER AREAS WITH THE GOAL OF CREATING A VISUAL BUFFER BETWEEN PERICO PRESERVE AND THE ADJACENT RESIDENTIAL DEVELOPMENT. THIS AREA CONTAINS NUMEROUS SMALL CABBAGE PALMS (Sabal palmetto) AND OTHER DESIRABLE TREES WHICH ARE TO REMAIN. THE ONLY GRADING PROPOSED IN THIS AREA IS THE FILLING OF OTHER SURFACE WATERS. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

UPLAND RESTORATION-MARITIME HAMMOCK

THIS AREA IS CURRENTLY DOMINATED BY OPEN PASTURE. IT WILL BE SEEDED WITH NATIVE GROUND COVER SPECIES WHERE FEASIBLE AS DETERMINED BY THE PROJECT ECOLOGIST, FOLLOWED BY PLANTING OF NURSERY GROWN MATERIAL. THE ONLY GRADING PROPOSED IN THIS AREA IS THE FILLING OF OTHER SURFACE WATERS. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

UPLAND RESTORATION-COASTAL STRAND HAMMOCK

THIS AREA IS CURRENTLY DOMINATED BY OPEN PASTURE. IT WILL BE SEEDED WITH NATIVE GROUND COVER SPECIES WHERE FEASIBLE AS DETERMINED BY THE PROJECT ECOLOGIST, FOLLOWED BY PLANTING OF NURSERY GROWN MATERIAL. THE ONLY GRADING PROPOSED IN THIS AREA IS THE FILLING OF OTHER SURFACE WATERS. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

UPLAND RESTORATION-FLATWOODS/SALT MARSH TRANSITION

THIS AREA IS CURRENTLY DOMINATED BY OPEN PASTURE. IT WILL BE SEEDED WITH NATIVE GROUND COVER SPECIES FOLLOWED BY PLANTING OF NURSERY GROWN MATERIAL. THE ONLY GRADING PROPOSED IN THIS AREA IS THE FILLING OF OTHER SURFACE WATERS. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

UPLAND RESTORATION-FLATWOODS

THIS AREA IS CURRENTLY DOMINATED BY OPEN PASTURE. IT WILL BE SEEDED WITH NATIVE GROUND COVER SPECIES FOLLOWED BY PLANTING OF NURSERY GROWN MATERIAL. SOME OF THIS AREA WILL BE RE-GRADED TO INCREASE ELEVATIONS INCLUDING FILLING OF OTHER SURFACE WATERS. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

UPLAND RESTORATION-SCRUB

THIS AREA IS CURRENTLY DOMINATED BY OPEN PASTURE. IT WILL BE SEEDED WITH NATIVE GROUND COVER SPECIES FOLLOWED BY PLANTING OF NURSERY GROWN MATERIAL. ALL OF THIS AREA WILL BE RE-GRADED TO INCREASE ELEVATIONS INCLUDING FILLING OF OTHER SURFACE WATERS. THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC VEGETATION.

STAGING AREA

THIS AREA IS CURRENTLY DOMINATED BY OPEN PASTURE. SOME OF THIS AREA WILL BE RE-GRADED TO CREATE A DRAINAGE BREAK AND A DRAINAGE SWALE (SHEET 5). THE DRAINAGE SWALE SHALL BE SODDED WITH SEASHORE PASPALUM (Paspalum vaginatum). OTHER SURFACE WATERS WITHIN THIS AREA WILL BE FILLED AND PIPED TO MAINTAIN CONVEYANCE OF STORM WATER (SHEET 5). A CONSTRUCTION ENTRANCE WILL BE INSTALLED IN THIS AREA (SHEET 14). THIS AREA WILL BE MAINTAINED BY TARGETING NUISANCE AND EXOTIC TREES AND SHRUBS ONLY. EXISTING GROUND COVER TO REMAIN. PRIMARY SPECIES TO BE REMOVED IN THIS AREA ARE INDIAN ROSEWOOD (Dalegia sissoo) AND INDIAN LAUREL (Ficus microcarpa) WHICH ARE CONCENTRATED ON THE SOUTHERNMOST PORTION OF THIS WORK AREA.

Upland Restoration Vegetative Screen Planting Specifications table with columns: Stratum, Common Name, Scientific Name, Percentage of Total Area per Species by Stratum, Average Spacing (O.C.), Quantity, Size.

Upland Restoration Pine Flatwoods Planting Specifications table with columns: Stratum, Common Name, Scientific Name, Percentage of Total Area per Species by Stratum, Average Spacing (O.C.), Quantity, Size.

Upland Restoration Flatwoods/Salt Marsh Transition Planting Specifications table with columns: Stratum, Common Name, Scientific Name, Percentage of Total Area per Species by Stratum, Average Spacing (O.C.), Quantity, Size.

Upland Restoration Coastal Strand Hammock Planting Specifications table with columns: Stratum, Common Name, Scientific Name, Percentage of Total Area per Species by Stratum, Average Spacing (O.C.), Quantity, Size.

Upland Restoration Maritime Hammock Planting Specifications table with columns: Stratum, Common Name, Scientific Name, Percentage of Total Area per Species by Stratum, Average Spacing (O.C.), Quantity, Size.

Upland Restoration Scrub Area #1 Planting Specifications table with columns: Stratum, Common Name, Scientific Name, Percentage of Total Area per Species by Stratum, Average Spacing (O.C.), Quantity, Size.

Upland Restoration Scrub Area #2 Planting Specifications table with columns: Stratum, Common Name, Scientific Name, Percentage of Total Area per Species by Stratum, Average Spacing (O.C.), Quantity, Size.

PROJECT REVISIONS table with columns: REVISION NO., DATE, DRAWN BY, CHECKED BY, CONTRACT ADMIN. BY, WM APPROVED BY.

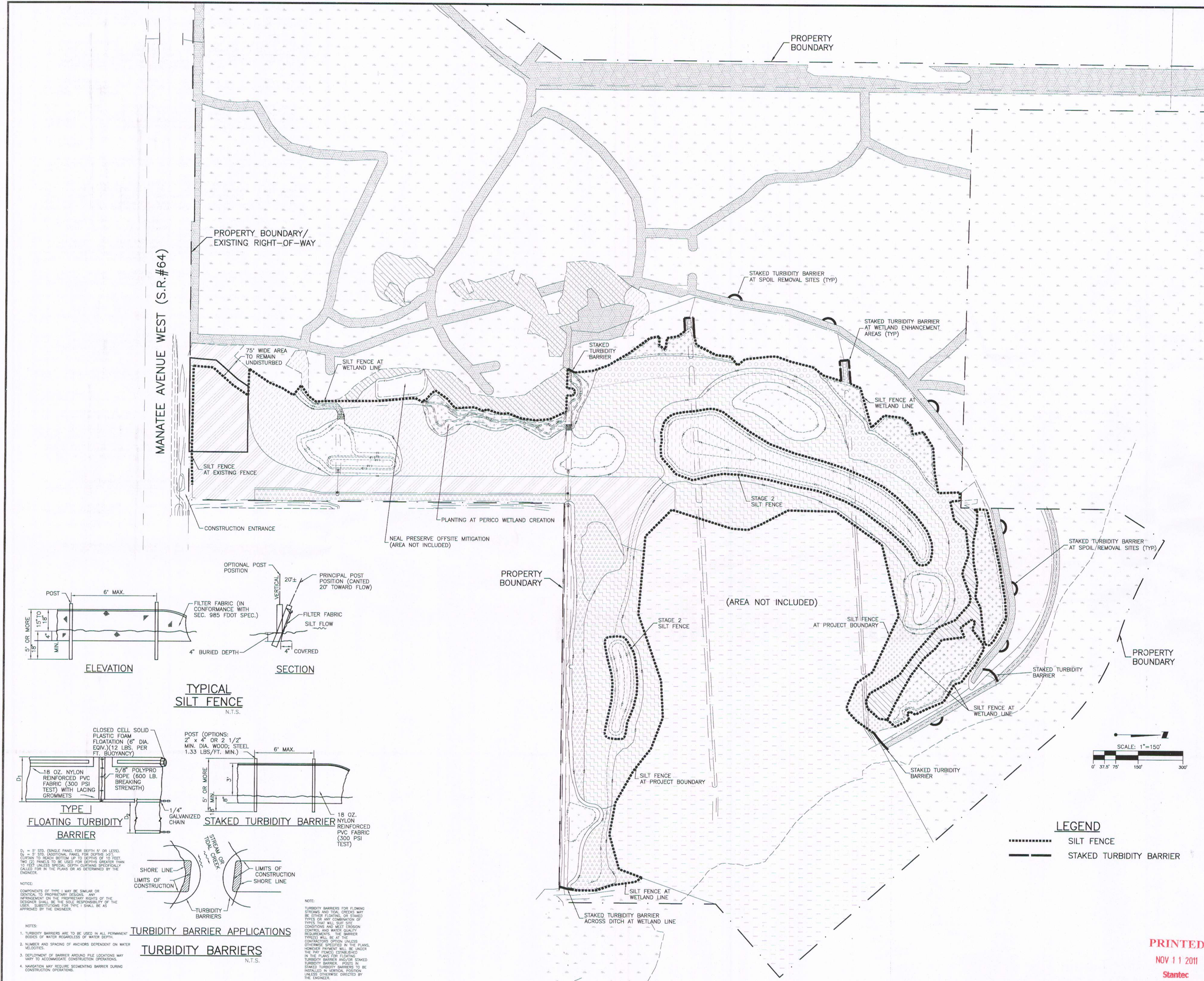
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CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS
PROJECT: PERICO PRESERVE RESTORATION

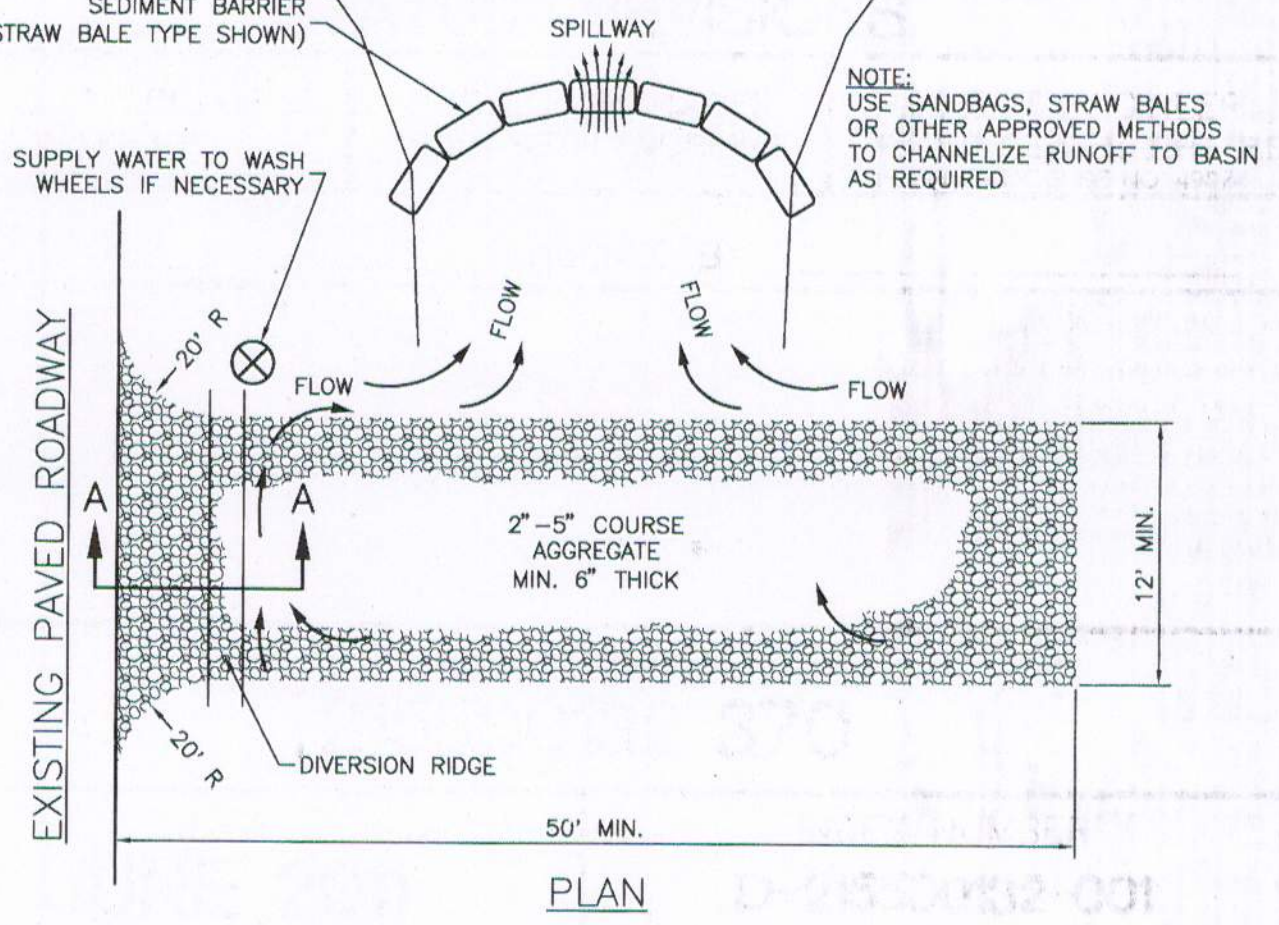
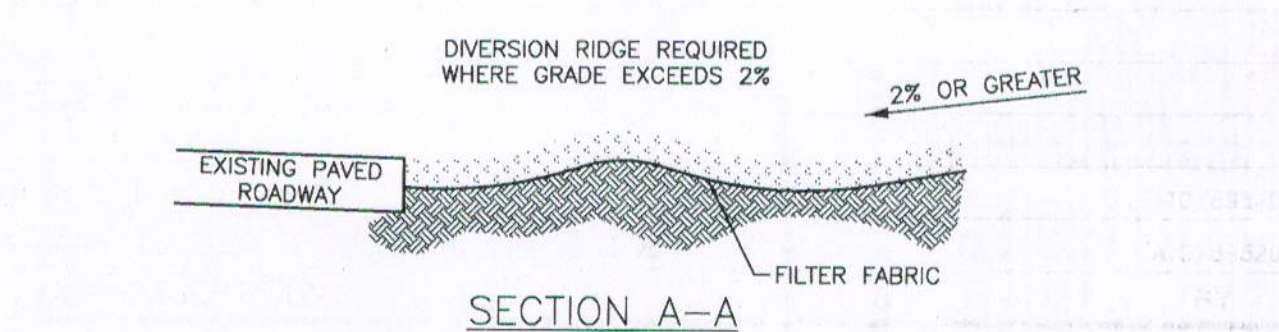
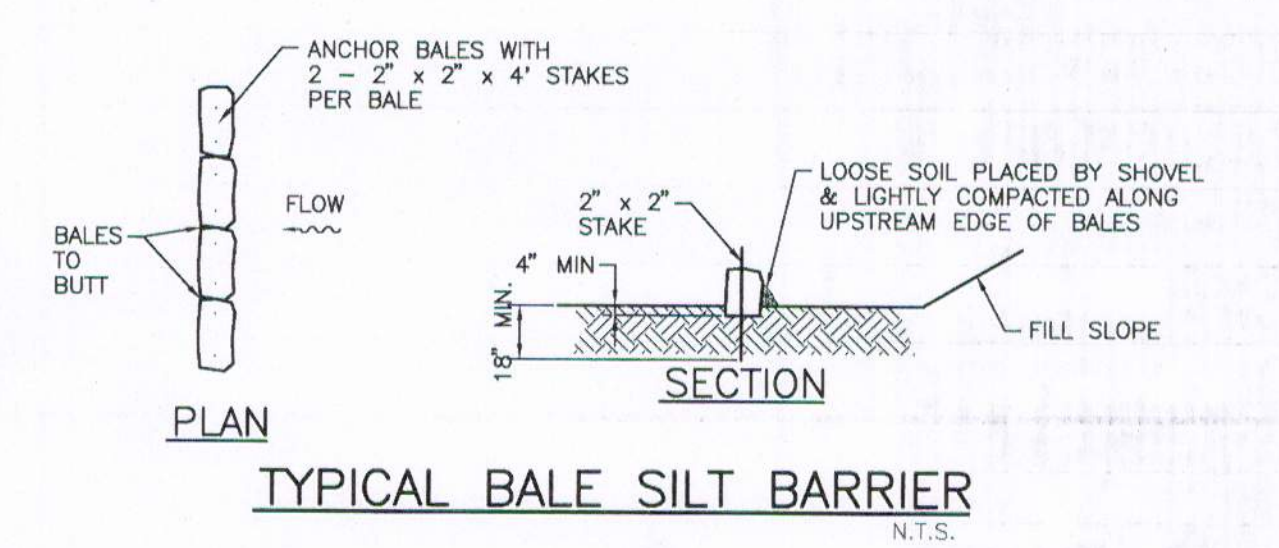
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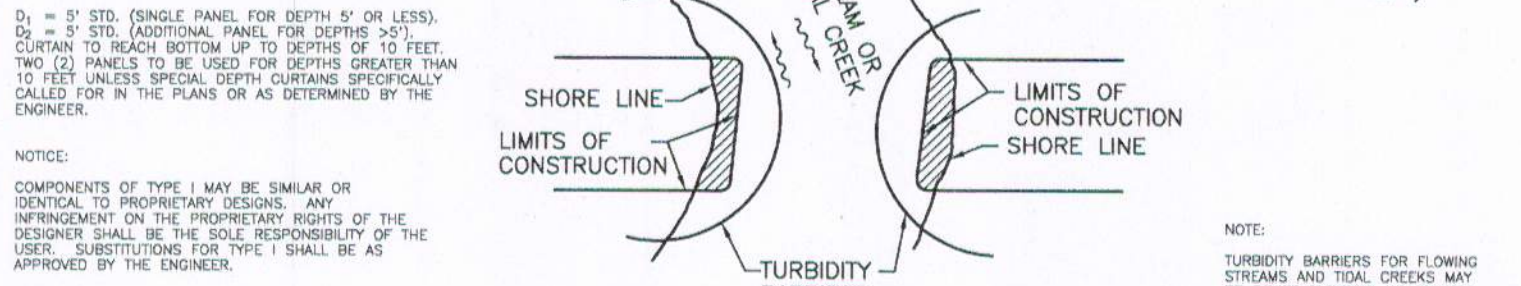
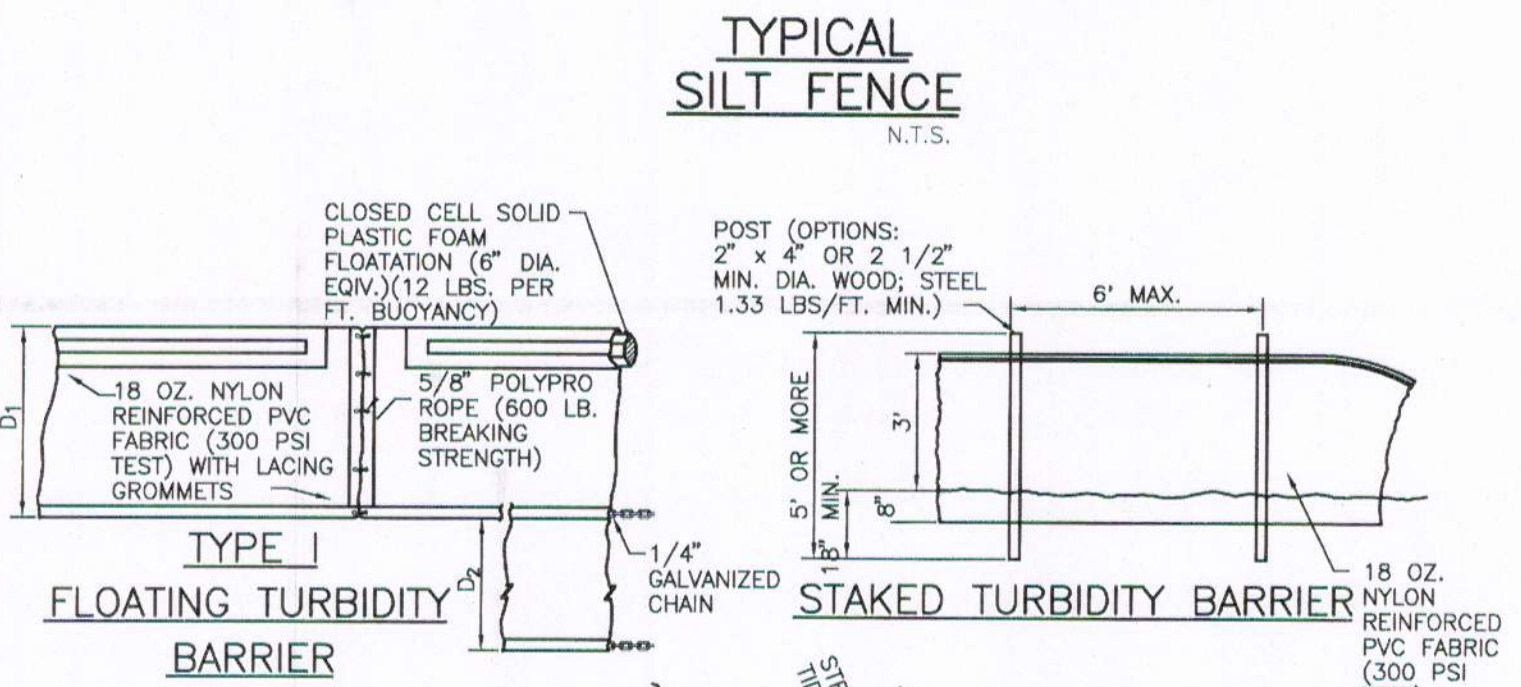
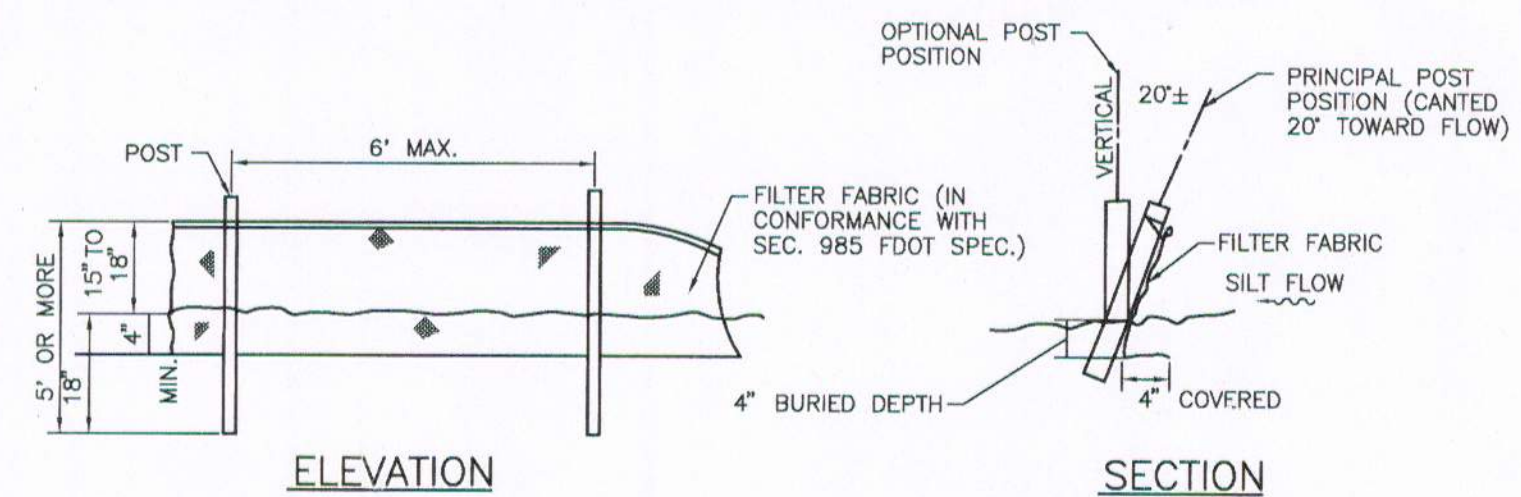
Project specifications table with columns: SHEET NUMBER: 13 of 14



- NOTES:**
1. THE CONTRACTOR SHALL ERECT SILT FENCE, STAKED HAY BALES, STAKED TURBIDITY BARRIERS, AND FLOATING TURBIDITY BARRIERS PRIOR TO COMMENCEMENT OF EXCAVATION/GRADING ACTIVITY.
 2. THE CONTRACTOR SHALL INSTALL SILT FENCE (STAGE 2 SILT FENCE) AROUND THE LIMITS OF THE UPLAND RESTORATION - SCRUB #1 AND UPLAND RESTORATION - SCRUB #2 AREAS UPON COMPLETION OF GRADING OF THE UPLAND FILL AREA.
 3. REQUIRED EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSTALLED AND MAINTAINED AS REQUIRED THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT.
 4. ALL EROSION PROTECTION SHALL BE MAINTAINED BY THE CONTRACTOR IN COMPLIANCE WITH SWFWMD, MANATEE COUNTY, AND NPDES PERMIT REQUIREMENTS THROUGHOUT THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL DEVICES DAILY AND WITHIN 4 HOURS AFTER EACH RAINFALL EVENT OF 0.25 INCHES OR MORE. ALL MAINTENANCE SHALL BE PERFORMED WITHIN 24 HOURS OF INSPECTION.
 5. ALL PRACTICABLE AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIAL TO INLETS, WETLANDS, AND OFFSITE AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED.
 6. THE CONTRACTOR SHALL CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT AND SHALL USE WATER, STRAW MULCH, OR OTHER SUITABLE MATERIAL AS REQUIRED.
 7. THE CONTRACTOR SHALL MAINTAIN TURBIDITY BARRIERS UNTIL COMPLETION AND ACCEPTANCE OF ALL GRADING AND PLANTING.
 8. THE CONTRACTOR SHALL MAINTAIN EROSION AND SEDIMENT CONTROL (TURBIDITY BARRIERS, SILT FENCE, HAY BALES, OR OTHER AS APPROVED) AT ALL GRADDED AREAS AFTER GRADING IS COMPLETE AND UNTIL PLANTING AND GROUND COVER IS ESTABLISHED AS DETERMINED BY THE PROJECT ECOLOGIST.
 9. EROSION AND SEDIMENT CONTROL DEVICES (SILT FENCE, TURBIDITY BARRIERS, ETC.) ARE DEPICTED IN APPROXIMATE LOCATIONS AND SHALL BE ADJUSTED AS NECESSARY AS DIRECTED BY THE PROJECT ECOLOGIST IN ORDER TO AVOID EXISTING NATIVE PLANTS AND PRESERVATION AREAS.
 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL EROSION AND SEDIMENT CONTROL DEVICES.



- NOTE:**
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.



- NOTES:**
1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
 2. NUMBER AND SPACING OF ANCHORS DEPENDENT ON WATER VELOCITIES.
 3. DEPLOYMENT OF BARRIER AND/OR PILE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION OPERATIONS.
 4. NAVIGATION MAY REQUIRE SEGMENTING BARRIER DURING CONSTRUCTION OPERATIONS.

LEGEND

----- SILT FENCE

----- STAKED TURBIDITY BARRIER

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REV	NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	DATE	ACTIVITY	INITIALS/EMP. NO.	DATE
C	ADD	STAGE 2 SILT FENCE AT SCRUB AREAS, ADD NOTE 2 AND RENUMBER NOTES	11/11/11	ATO/89520		06/23/11			
B	REVISED	PLAN TO INCLUDE PLANTING AT PERICO WETLAND CREATION	10/12/11	ATO/89520					
A	REV	SILT FENCE, SHEET NUMBERS; SHOW AREA TO REMAIN UNDISTURBED	08/04/11	ATO/89520					

WilsonMiller Stantec

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WilsonMiller, Inc. became a wholly-owned subsidiary of Stantec Consulting Services Inc. on July 23, 2010

CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS

PROJECT: PERICO PRESERVE RESTORATION

DATE: JUNE 2011

HORIZONTAL SCALE: 1" = 150'

VERTICAL SCALE: N/A

SEC. TRK. RSE: 22, 345 16E

CROSS REFERENCE FILE NO.: PROJECT NUMBER: 215500132 370

TITLE: BEST MANEMENT PRACTICES PLAN AND DETAILS

OWNER/APPLICANT SIGNATURE: _____ DATE: _____

OWNER: _____

TITLE: _____

COMPANY: _____

D-215500132-014

SHEET NUMBER: 14 OF 14