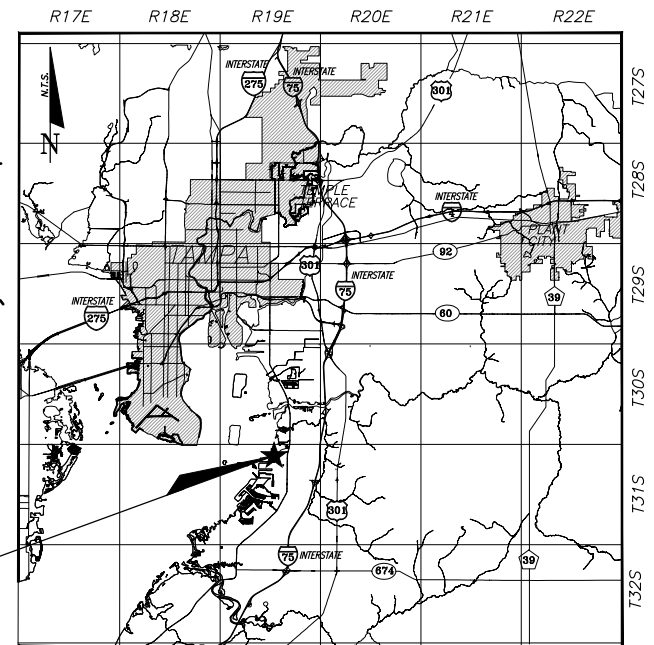


# HILLSBOROUGH COUNTY CONSERVATION & ENVIRONMENTAL LANDS MANAGEMENT



## PLANS FOR PROPOSED KRACKER AVENUE HABITAT IMPROVEMENTS SECTION 2 & 3 T31S R19E W.O. PW-ES-2015-0007



VICINITY MAP  
N.T.S.

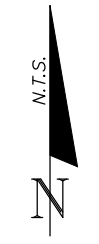
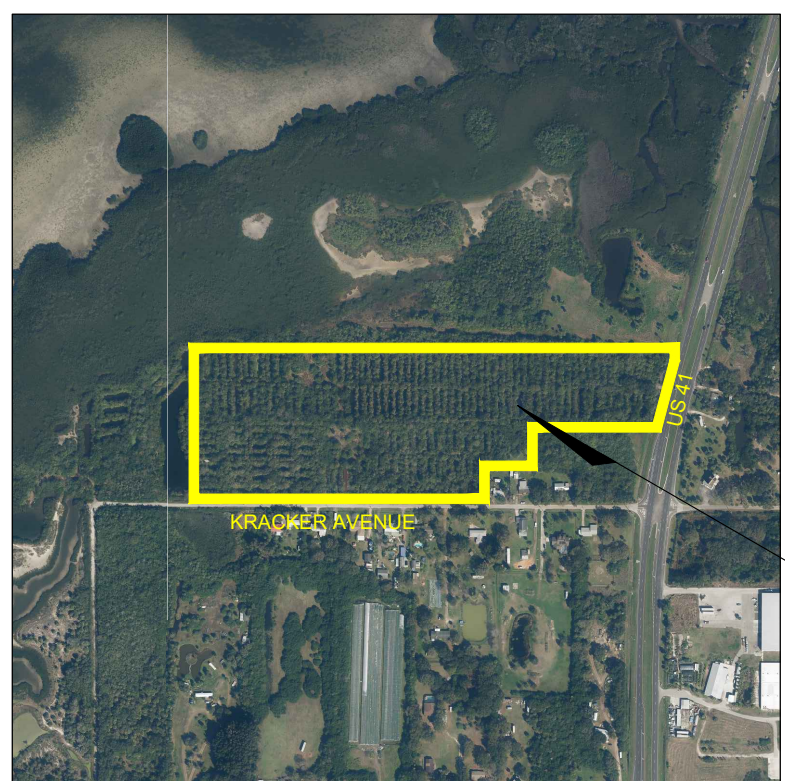
Project Location

### FINAL DRAWINGS

#### INDEX OF PLANS

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2	GENERAL NOTES
3-4	PLAN
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24	EROSION CONTROL DETAILS

SECTIONS 2 & 3, TOWNSHIP 31 S., RANGE 19 E.



PROJECT AREA

#### THE BOARD OF COUNTY COMMISSIONERS

- |                          |              |
|--------------------------|--------------|
| LESLEY "LES" MILLER, JR. | CHAIR        |
| PAT KEMP                 | VICE CHAIR   |
| STACY WHITE              | CHAPLAIN     |
| SANDRA L. MURMAN         | COMMISSIONER |
| VICTOR D. CRIST          | COMMISSIONER |
| KEN HAGAN                | COMMISSIONER |
| AL HIGGINBOTHAM          | COMMISSIONER |

PLANS PREPARED BY:



7650 West Courtney Campbell Cswy • Suite 700 • Tampa, Florida 33607  
Ph: (813) 286-1711 Fax: (813) 286-6587  
Florida Engineering Number: 000002

ENGINEER OF RECORD:

RUSSELL WARREN PRATT, JR., P.E.  
FL. P.E. License Number 54580

PROJECT LENGTH IS BASED ON C OF CONSTRUCTION

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY	N/A	N/A
BRIDGES	N/A	N/A
NET LENGTH OF PROJECT	N/A	N/A
EXCEPTIONS (LAMBRIGHT DITCH)	N/A	N/A
GROSS LENGTH OF PROJECT	N/A	N/A

KEY SHEET REVISIONS	
DATE	DESCRIPTION

PROJECT LENGTH BASED ON C/L CONSTRUCTION.  
C.I.P. PROJECT COORDINATOR/MANAGER: MARY BARNWELL

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY  
HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST  
BE CONSIDERED WHEN OBTAINING SCALED DATA.

**CONSTRUCTION NOTES**

1. LOCATION, ELEVATION, AND DIMENSIONS OF THE EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE AT TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES AFFECTING HIS WORK AND SHALL COMPLY WITH ALL STATE, COUNTY, AND LOCAL ORDINANCES AND OBTAIN ALL NECESSARY WORK PERMITS THAT MAY BE REQUIRED PRIOR TO CONSTRUCTION. ALL CONFLICTS MUST BE IDENTIFIED AND RESOLVED AT THAT TIME WITH REPRESENTATIVES OF THE COUNTY AND OTHER UTILITIES PRESENT.
3. UTILITIES TO BE ADJUSTED BY UTILITY OWNERS. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COORDINATION.
4. THE CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT THE RELOCATION OF THE EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION. CONTACT SUNSHINE STATE ONE UTILITIES NOTIFICATION CENTER AT 1-800-432-4770.
5. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE HILLSBOROUGH COUNTY LAND DEVELOPMENT CODE REGARDING TREE REMOVAL, SITE CLEARING AND LAND ALTERATION REGULATIONS.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF ALL APPLICABLE PERMITS ISSUED BY ENVIRONMENTAL PERMITTING AND REGULATORY AGENCIES PERTAINING TO THIS SITE. THIS INCLUDES, BUT MAY NOT BE LIMITED TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP), AND U.S. ARMY CORPS OF ENGINEERS (ACOE). ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF PERMITS AND/OR APPROVALS. COPIES OF PERMITS WILL BE AVAILABLE FROM SWFWMD, AND SHALL BE POSTED OR MAINTAINED ON-SITE AT ALL TIMES BY THE CONTRACTOR AS REQUIRED BY PERMITS CONDITIONS.
7. UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS AND SPECIFICATIONS, ANY AND ALL MATERIAL REMAINING AS A RESULT OF DEMOLITION OPERATIONS SHALL BE DISPOSED OF PROPERLY BY THE CONTRACTOR OFF-SITE. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
8. THE COUNTY OR COUNTY CONTRACTOR SHALL IDENTIFY BENCH MARKS AND COORDINATE CONTROL POINTS FOR THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE STAKEOUT OF THE PROJECT, ELECTRICAL, TELEPHONE, LINE, GRADE, SLOPE STAKING, MAINTENANCE OF STAKING, AND ANY RE-STAKING THAT MAY BE REQUIRED TO COMPLETE THE PROJECT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. ANY AND ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR APPLICABLE ITEMS. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THIS WORK.
9. OVERALL CLEAN UP SHALL BE ACCOMPLISHED BY THE CONTRACTOR IN ACCORDANCE WITH COUNTY STANDARDS OR AS DIRECTED BY THE ENGINEER. ANY AND ALL EXPENSES INCURRED FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPLICABLE LINE ITEMS.
10. ANY DAMAGE TO STATE, COUNTY, OR LOCAL ROADS CAUSED BY THE CONTRACTOR'S HAULING OR EXCAVATION EQUIPMENT SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
11. ANY U.S.C. AND G.S. MONUMENT WITHIN LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE, THE CONTRACTOR SHOULD NOTIFY. GEODETIC INFORMATION CENTER  
ATTN.: MARK MAINTENANCE CENTER  
ATTN.: N/CG-162  
6001 EXECUTIVE BLVD.  
ROCKVILLE, MARYLAND 20852  
(201)443-8319
12. THE CONTRACTOR(S) PERFORMING TRENCH EXCAVATION ON THIS CONTRACT, SHALL COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S (OSHA) TRENCH EXCAVATION SAFETY STANDARDS, 29 C.F.R., S.1926.650, SUBPART P, INCLUDING ALL SUBSEQUENT REVISIONS OR UPDATES TO THE STANDARDS AS ADOPTED BY THE DEPARTMENT OF LABOR AND EMPLOYMENT SECURITY (DLES).
13. UNLESS OTHERWISE SPECIFIED IN THE PLANS, EXISTING SOD, DISTURBED BY CONSTRUCTION, SHALL BE REPLACED IN KIND (OR BETTER, AS APPROVED BY THE DISTRICT ENGINEER.)
14. MATERIALS AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION USING ENGLISH SYSTEM.

15. ELEVATIONS SHOWN ON THE PLANS REFERENCE: NORTH AMERICAN VERTICAL DATUM OF 1988 (N.A.V.D.-1988)  
  
HORIZONTAL DATUM IS: WEST FLORIDA NAD 83 (2007)
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL EXCESS MATERIAL AND THE PROPER DISPOSAL OF THE SAME.
17. THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL BARRIERS AS DICTATED BY ACTUAL SITE CONDITIONS AND AS SHOWN ON THE PLANS. THEIR LOCATIONS WILL BE ADJUSTED TO REFLECT PROJECT PHASING REQUIREMENTS AND THEY WILL BE REMOVED WHEN NO LONGER REQUIRED. IF AREA DISTURBED IS 1 ACRE OR GREATER, CONTRACTOR SHALL PREPARE AND SUBMIT A NOTICE OF INTENT FOR COVERAGE UNDER THE FDEP NPDES CONSTRUCTION GENERIC PERMIT AND COMPLY WITH ALL PROVISIONS OF THAT PERMIT INCLUDING PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PER FDEP GUIDANCE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE EXISTING DRAINAGE SYSTEM WITHIN THE LIMITS OF THE PROJECT AREA, FOR THE DURATION OF THE PROJECT. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
19. THE CONTRACTOR IS TO "PROTECT IN PLACE" THE FACILITIES THAT ARE NOT TO BE RELOCATED AND/OR REMOVED, BUT ARE TO REMAIN IN PLACE.
20. ALL REMAINING FISH PONDS WITHIN THE PROJECT AREA SHALL BE PROPERLY FILLED AND COMPACTED WITH CLEAN SUITABLE MATERIAL FREE OF ANY ORGANIC MATERIAL.
21. BACKFILL SHALL BE PLACED IN 12" LAYERS, TO THE FULL WIDTH OF THE REMAINING FISH PONDS AND UP TO THE EXISTING TOP OF BANK, AND SHALL BE COMPACTED TO 95% A.A.S.H.T.O. T-180 BY ROLLING, OR BY A METHOD ACCEPTABLE TO THE ENGINEER
22. THE CONTRACTOR SHALL REMOVE ALL EXISTING BRANCHES, STICKS, LOGS AND DEBRIS WITHIN THE REMAINING FISH PONDS PRIOR TO FILLING.
23. UNSUITABLE MATERIAL CONTAINING TREE STUMPS, BRANCHES, STONES AND OTHER DEBRIS SHALL BE TRANSPORTED OFF-SITE AND DISPOSED OF BY THE CONTRACTOR. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
24. ALL PROPOSED ELEVATIONS AND CONTOURS REFERENCE FINAL GRADES AFTER SODDING, SEEDING, OR RIP-RAP COVER.
25. THE CONTRACTOR SHALL NOT ENTER UPON, OR IN ANY WAY ALTER THE WETLAND PRESERVE AREAS THAT MAY BE ONSITE, EXCEPT AS SPECIFIED ON THE PLANS OR FOR THE AUGMENTATION PLANTINGS AND NON-NATIVE PLANT CONTROL. ALL WORK PERFORMED IN THE VICINITY OF OPEN WATERS AND OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINES RESULTING FROM VIOLATION OF PERMIT CONDITIONS.

5. CONTRACTOR'S STOCKPILE AND STAGING AREAS SHALL NOT RESULT IN ADVERSE IMPACTS TO EXISTING OR PROPOSED RESTORATION AREAS. STOCKPILE AREAS SHALL HAVE EROSION PROTECTION TO PREVENT SEDIMENT TRANSPORT INTO WETLAND AREAS. STOCKPILE AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.
6. SEED AND MULCH ALL DISTURBED AREAS UNLESS OTHERWISE NOTED ON PLANS. FOR ADDITIONAL REQUIREMENTS, SEE TECHNICAL SPECIFICATIONS.
7. PRIOR TO INITIATING THE CONSTRUCTION ACTIVITIES:  
A. THE CONTRACTOR MUST PROVIDE STAKED SILT SCREEN AROUND THE PROJECT AREA. THE STAKED SILT SCREEN MUST BE INSTALLED STRICTLY AS PER FDOT STANDARD INDEX 102.
8. DURING CONSTRUCTION:  
A. CHECK SILT SCREEN AND TURBIDITY BARRIER DAILY AND AFTER A RAINFALL.  
B. REINSTALL THE SILT SCREEN AND TURBIDITY BARRIER AS REQUIRED.

**SAFETY NOTES**

1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, THE CONTRACTOR SHALL COMPLY WITH THE COUNTY, STATE, AND FEDERAL REGULATIONS. THE CONTRACTOR OR THEIR REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF TRAVELING PUBLIC AND SAFETY OF ITS PERSONNEL. LABOR SAFETY REGULATIONS SHALL BE AS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE THE DEPARTMENT OF LABOR.
2. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF THE STATE OF FLORIDA MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS SHALL BE FOLLOWED IN THE DESIGN APPLICATION INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKERS FROM HAZARDS WITHIN THE PROJECT LIMITS.
3. ALL TRAFFIC CONTROL MARKINGS, FLAGGERS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.
4. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OF ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

**SURVEY NOTES**

1. THE EXISTING TOPOGRAPHIC INFORMATION DEPICTED IN THIS SET OF CONSTRUCTION DRAWINGS REPRESENTS THE BEST AVAILABLE INFORMATION FOR THIS PROJECT. A SPECIFIC PURPOSE SURVEY FOR KRACKER AVENUE FISH FARM (THOMAS TRACT SURVEY) WAS PROVIDED ON 12/21/2014 AND FOR THE KRACKER AVENUE DITCH ALIGNMENT FROM PROJECT CORNER TO DISCHARGE POINT INTO BAY ON ON 8/15/2017 BY SURVTECH SOLUTIONS, INC.

**EROSION CONTROL NOTES**

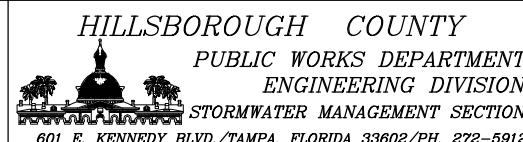
1. THE CONTRACTOR SHALL PROVIDE ROUTINE MAINTENANCE OF PERMANENT AND TEMPORARY EROSION CONTROL FEATURES UNTIL THE PROJECT IS COMPLETED AND ALL BARED SOILS ARE STABILIZED.
2. ALL PRACTICABLE AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO CONTROL AND PREVENT EROSION AND TRANSPORT OF SEDIMENT MATERIAL TO ON AND OFF-SITE WETLANDS AND OPEN WATER AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RESTORATION EFFORTS THAT MAY BE REQUIRED.
3. THE CONTRACTOR SHALL PREPARE A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THIS PROJECT AND PROVIDE THE HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION (EPC) WITH A COPY OF THE SWPPP AND SHALL KEEP A COPY ON THE CONSTRUCTION SITE. THE CONTRACTOR SHALL APPLY AND PAY ALL PERMITTING FEES ON BEHALF OF THE COUNTY FOR THE NPDES PERMIT WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) FOR THIS PROJECT. THIS INCLUDES SENDING A COPY OF THE "NOTICE OF INTENT" (NOI) SIGNED BY A REPRESENTATIVE OF THE COUNTY TO THE FDEP IN TALLAHASSEE, FLORIDA
4. THE CONTRACTOR SHALL CONTROL ALL FUGITIVE DUST ORIGINATING ON THIS PROJECT BY WATERING OR OTHER METHODS AS APPROVED BY THE ENGINEER, AS REQUIRED.

PLOTTED April 29, 2020 5:20 PM PLOTTED BY: PRATT, RUSSELL WARREN PLOTTED AT: C:\PROJECTS\HILLSBOROUGH\CD\10444702\_KRACKER\CD\DRAWINGS\2\_GENERAL\_NOTES.DWG

REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED



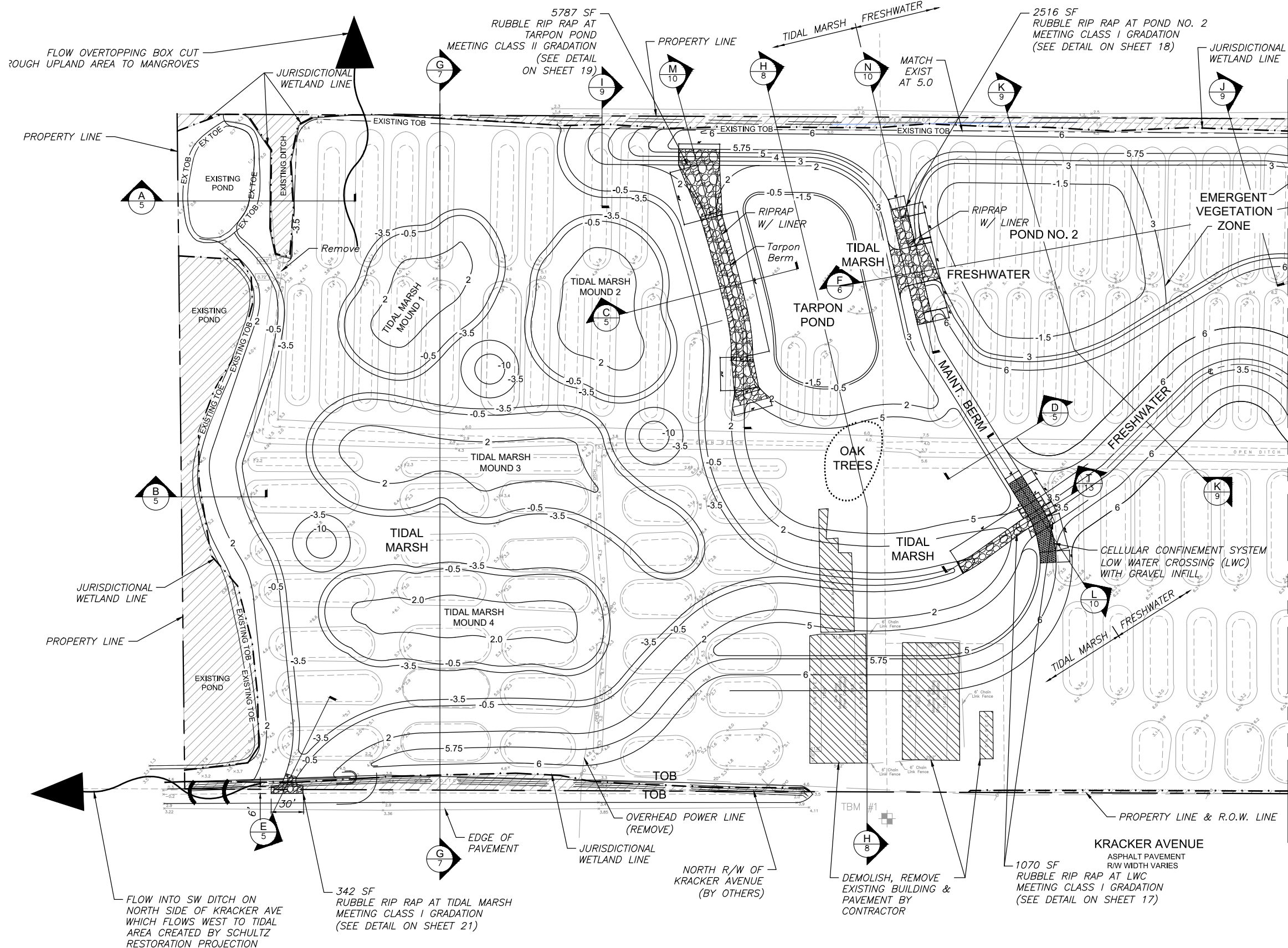
RUSSELL WARREN PRATT, JR., P.E.  
FL. P.E. LICENSE NO. 54580



	NAME	DATE
DESIGNED BY:	RWP	7/19
DRAWN BY:	JRS	7/19
CHECKED BY:	RWP	7/19
SCALE:	AS SHOWN	
FILE NAME:	2 GENERAL NOTES	

<b>KRACKER AVENUE HABITAT IMPROVEMENTS</b>	C.I.P. NO. <b>PW-ES-2015-0007</b>
<b>GENERAL NOTES</b>	SHEET NO. <b>2 OF 24</b>





**LEGEND**

6.3 x	EXISTING ELEVATIONS
---	EXIST. TOP OF BANK
---	EXIST. TOP OF BERM
---	EXIST. TOE OF SLOPE
6	PROPOSED CONTOUR
---	WETLAND LINE
---	PROPERTY LINE
[Hatched Box]	JURISDICTIONAL WETLAND AREA
[Concrete Box]	EXIST. STRUCTURE
[Hatched Box]	DEMOLITION AREA
[Rubble Box]	RUBBLE RIPRAP W/ LINER

PLOTTED April 29, 2020, 5:21 PM PLOTTED BY: PRATT, RUSS  
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REVISIONS			
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**AECOM**

7650 West Courtney Campbell Cswy • Suite 700 • Tampa, Florida 33607  
 Ph: (813) 286-1711 Fax: (813) 286-6587  
 Florida Engineering Number: 000002

RUSSELL WARREN PRATT, JR., P.E.  
 FL. P.E. LICENSE NO. 54580

**HILLSBOROUGH COUNTY**  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION

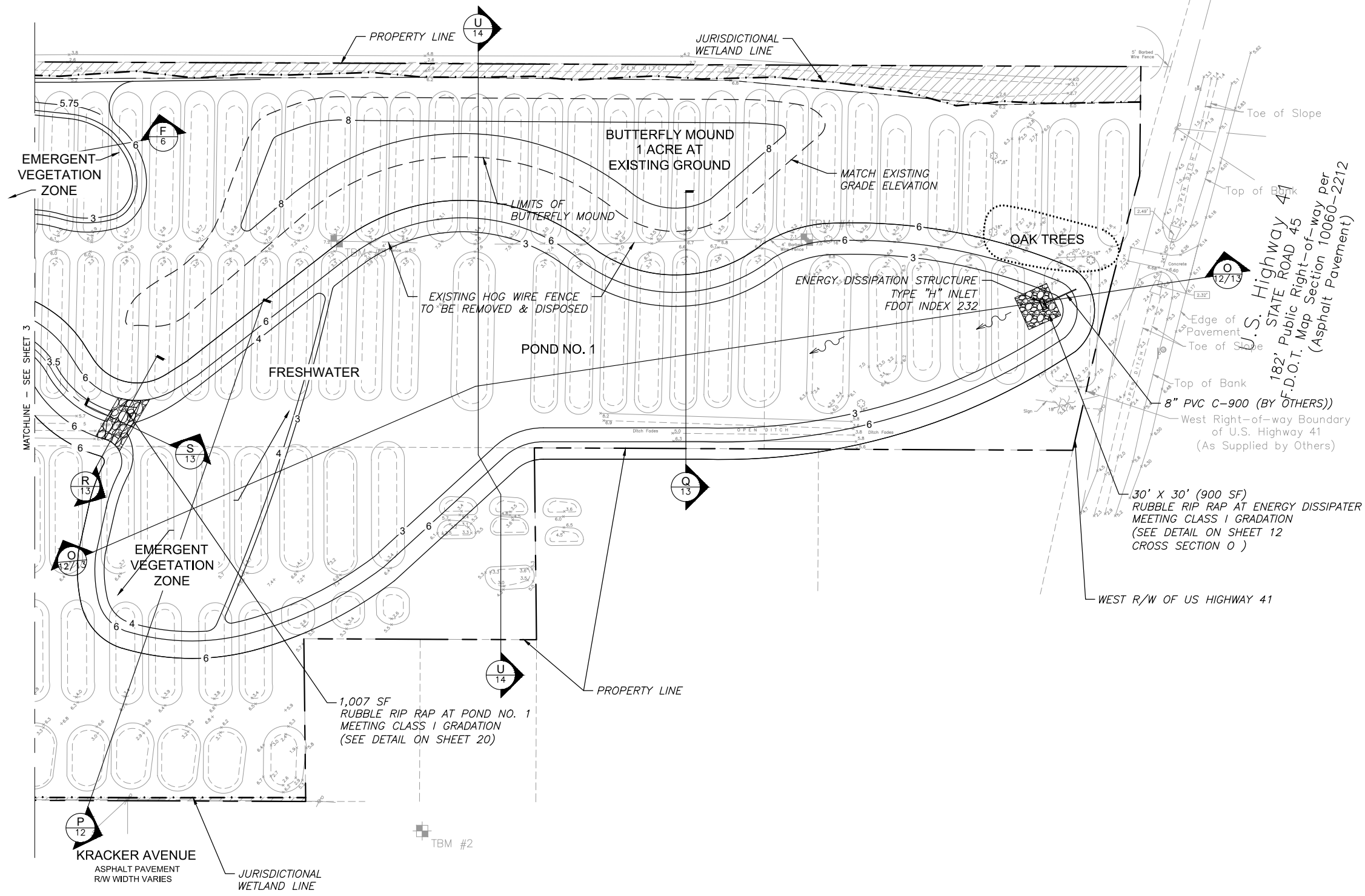
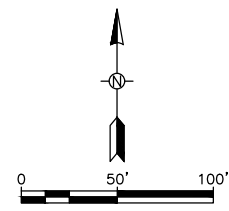
601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

NAME	DATE
DESIGNED BY: RWP	7/19
DRAWN BY: JRS	7/19
CHECKED BY: RWP	7/19
SCALE: AS SHOWN	
FILE NAME: 3 PLAN & PROFILE	

**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

**PLAN (1)**

C.I.P. NO. PW-ES-2015-0007  
 SHEET NO. 3 OF 24



**LEGEND**

6.3 x	EXISTING ELEVATIONS
---	EXIST. TOP OF BANK
---	EXIST. TOP OF BERM
---	EXIST. TOE OF SLOPE
6	PROPOSED CONTOUR
- . - . - .	WETLAND LINE
---	PROPERTY LINE
	JURISDICTIONAL WETLAND AREA
	EXIST. STRUCTURE
	DEMOLITION AREA
	RUBBLE RIPRAP W/ LINER

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HILLSBOROUGH COUNTY  
 PUBLIC WORKS DEPARTMENT  
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 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

NAME	DATE
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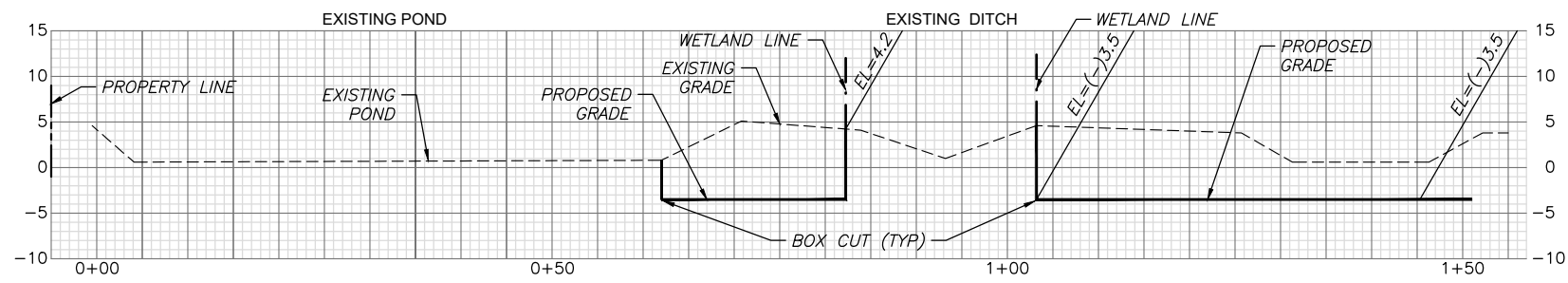
**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

**PLAN (2)**

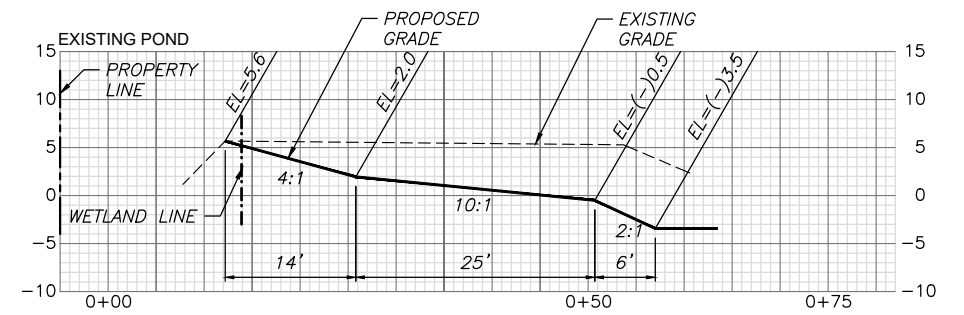
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**PW-ES-2015-0007**

SHEET NO.  
**4 OF 24**

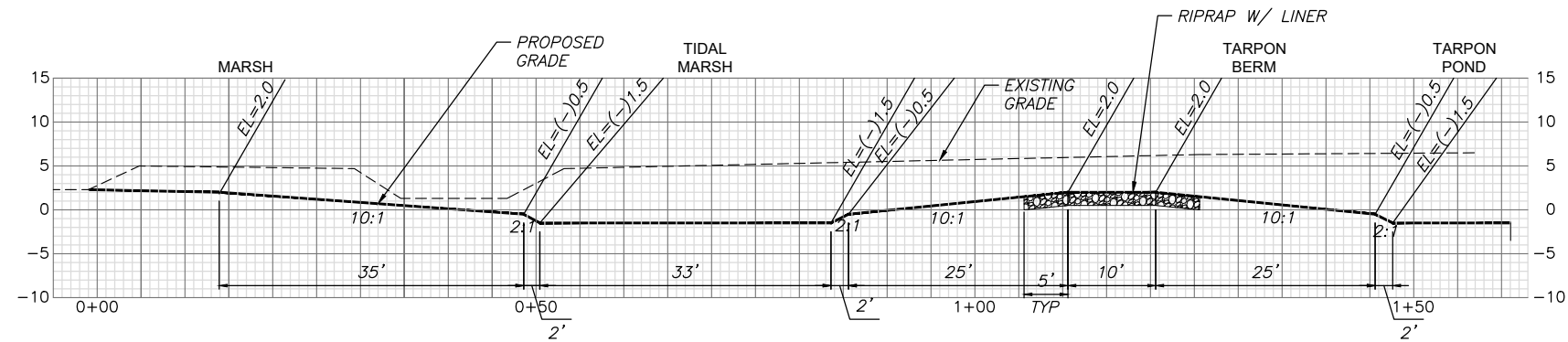




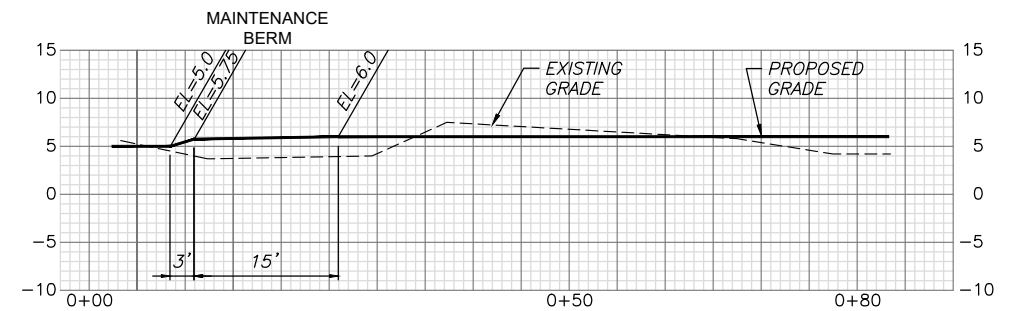
SECTION A



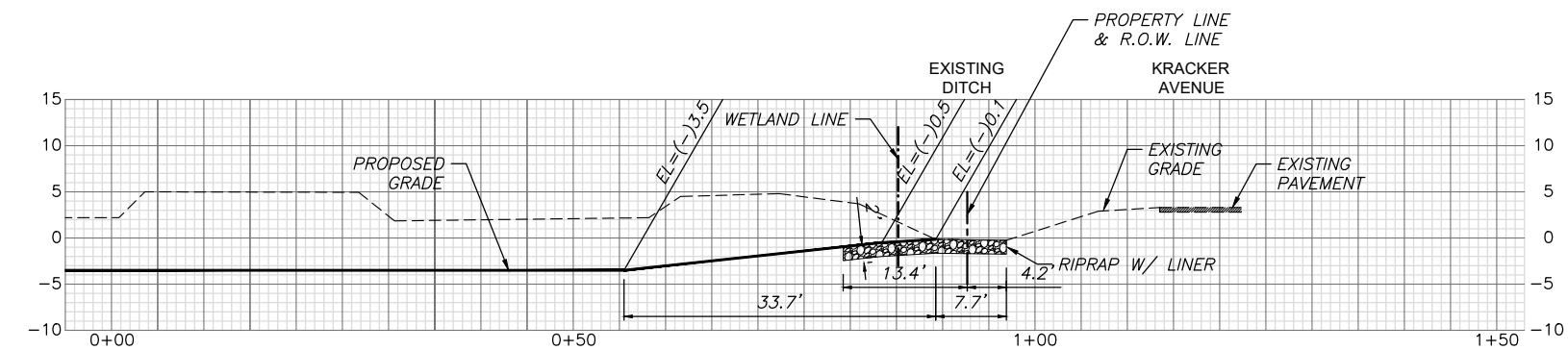
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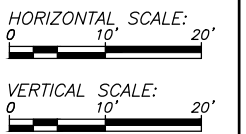
SECTION C



SECTION D



SECTION E



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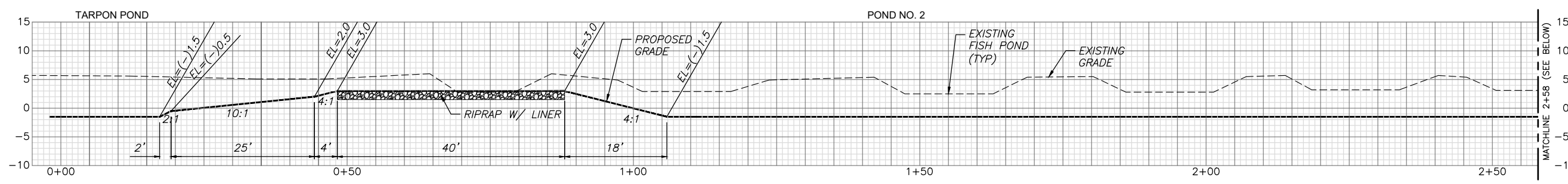
HILLSBOROUGH COUNTY  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

NAME	DATE
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DRAWN BY: JRS	7/19
CHECKED BY: RWP	7/19
SCALE: AS SHOWN	
FILE NAME: 3 PLAN & PROFILE	

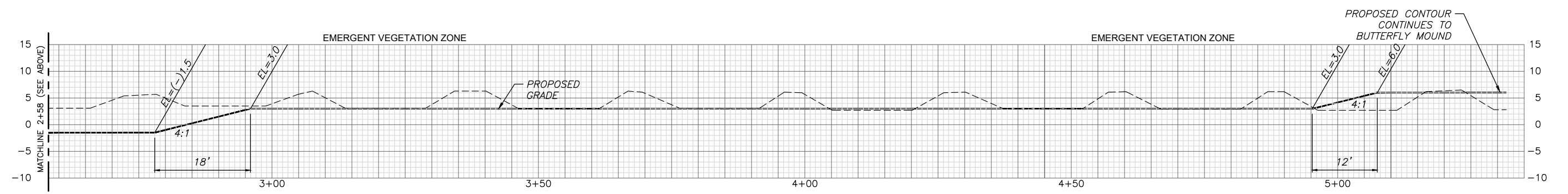
**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

**SECTION (1)**

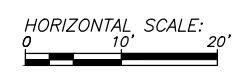
C.I.P. NO.  
**PW-ES-2015-0007**  
 SHEET NO.  
 5 OF 24



SECTION F



SECTION F (cont)



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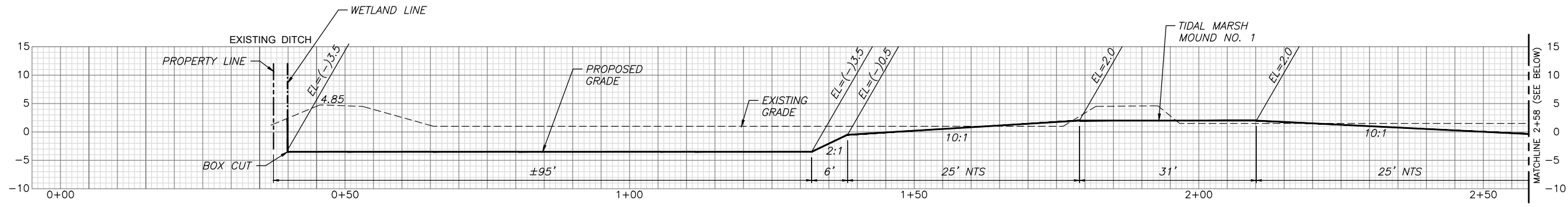
RUSSELL WARREN PRATT, JR., P.E.  
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HILLSBOROUGH COUNTY  
 PUBLIC WORKS DEPARTMENT  
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 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

	NAME	DATE
DESIGNED BY:	RWP	7/19
DRAWN BY:	JRS	7/19
CHECKED BY:	RWP	7/19
SCALE:	AS SHOWN	
FILE NAME:	3 PLAN & PROFILE	

**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**  
**SECTION (2)**

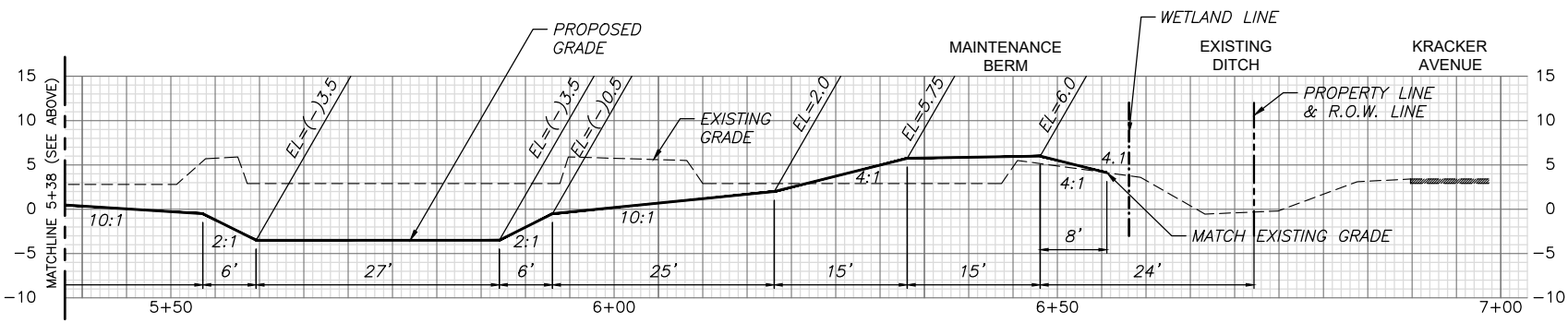
C.I.P. NO.  
**PW-ES-2015-0007**  
 SHEET NO.  
**6 OF 24**



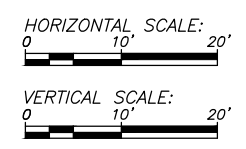
SECTION G



SECTION G (cont 1)



SECTION G (cont 2)



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RUSSELL WARREN PRATT, JR., P.E.  
 FL. P.E. LICENSE NO. 54580

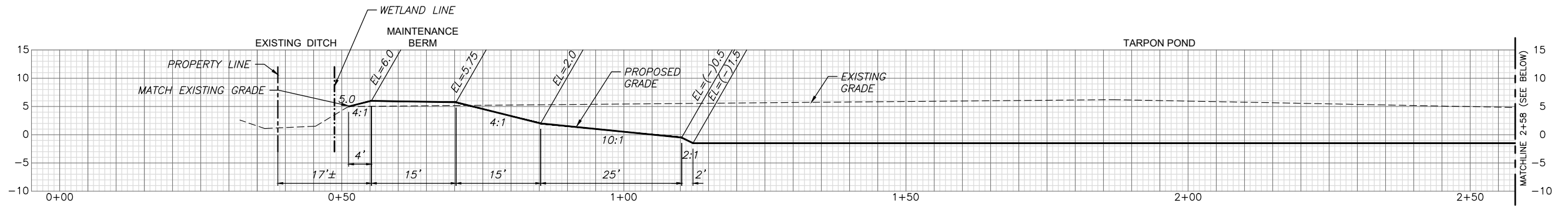
HILLSBOROUGH COUNTY  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

	NAME	DATE
DESIGNED BY:	RWP	7/19
DRAWN BY:	JRS	7/19
CHECKED BY:	RWP	7/19
SCALE:	AS SHOWN	
FILE NAME:	3 PLAN & PROFILE	

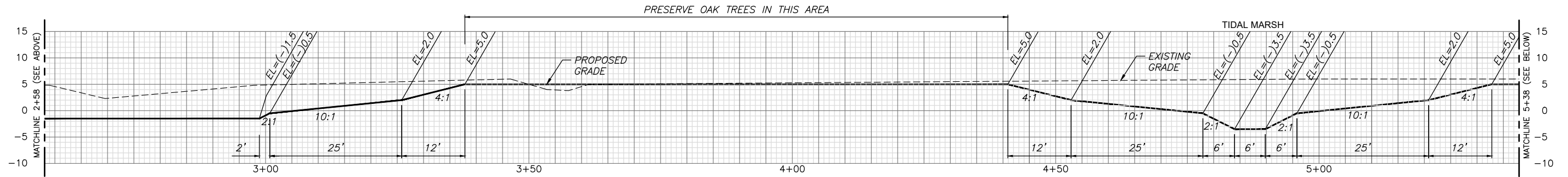
**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**  
**SECTION (3)**

C.I.P. NO. PW-ES-2015-0007
SHEET NO. 7 OF 24

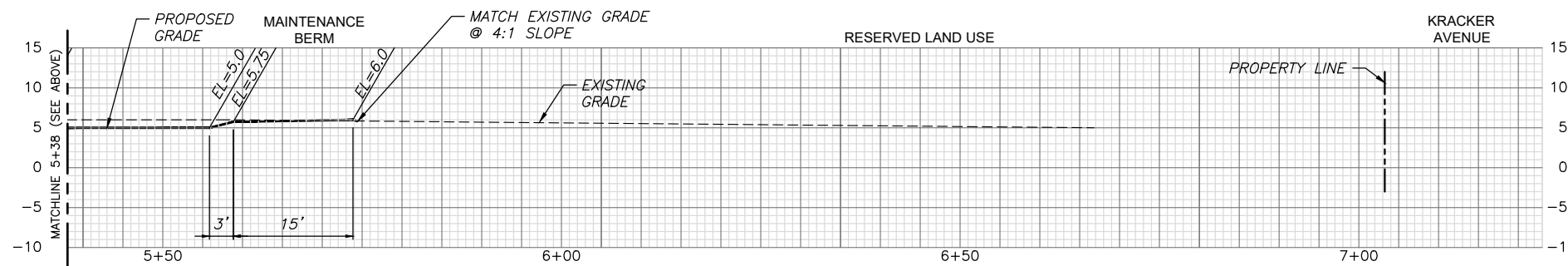




### SECTION H



### SECTION H (cont 1)



### SECTION H (cont 2)

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0 10' 20'

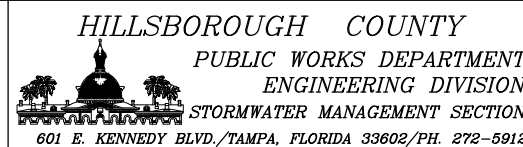
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PLOTTED April 29, 2020 5:22 PM PLOTTED BY: PRATT, RUSSELL WARREN  
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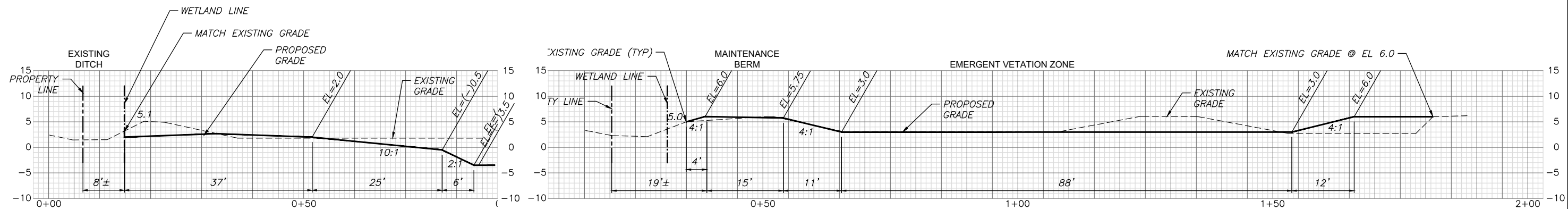


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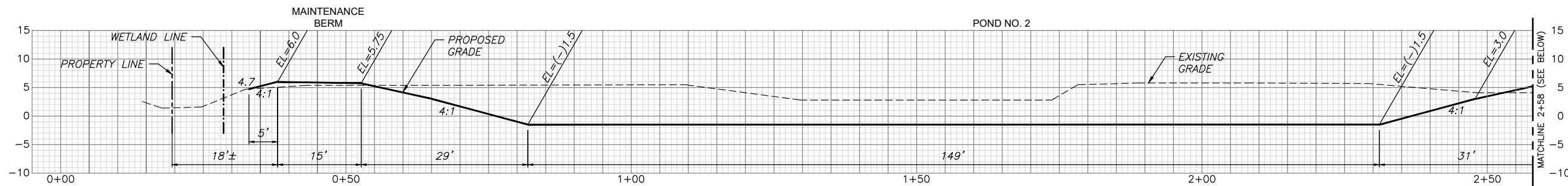
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CHECKED BY: RWP	7/19
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<b>KRACKER AVENUE          HABITAT IMPROVEMENTS</b>	C.I.P. NO. PW-ES-2015-0007
	SHEET NO. 8 OF 24

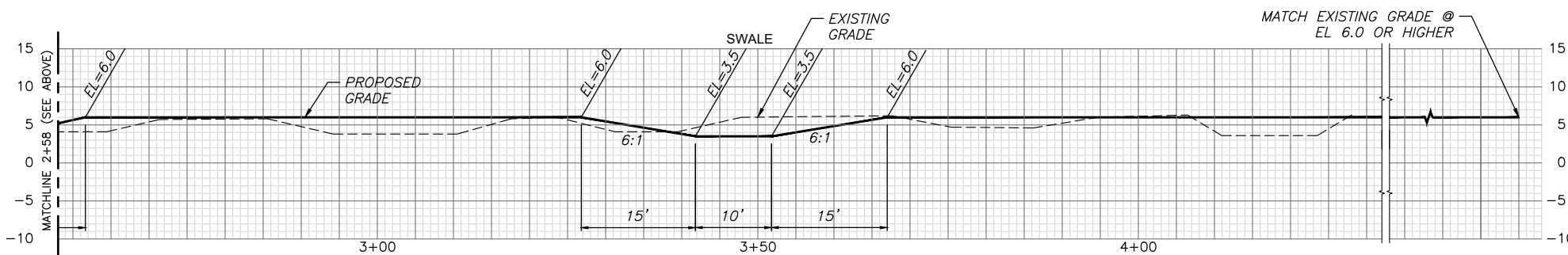


SECTION I

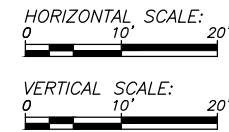
SECTION J



SECTION K



SECTION K (cont)



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**AECOM**  
 7650 West Courtney Campbell Cswy • Suite 700 • Tampa, Florida 33607  
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 Florida Engineering Number: 000002

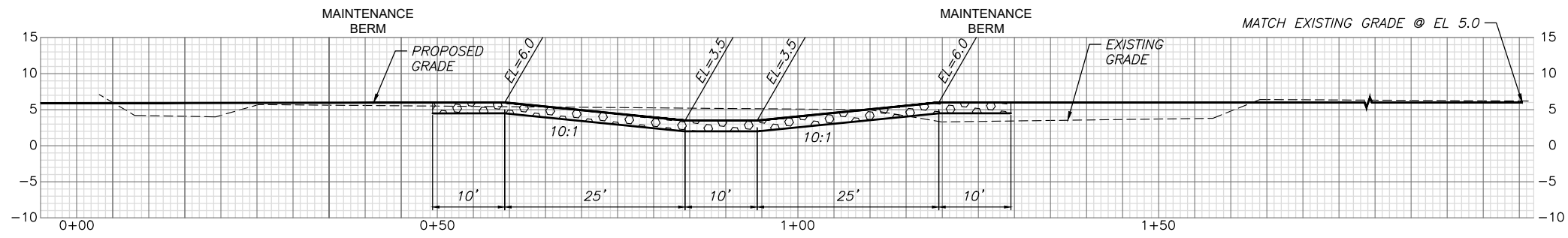
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**HILLSBOROUGH COUNTY**  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

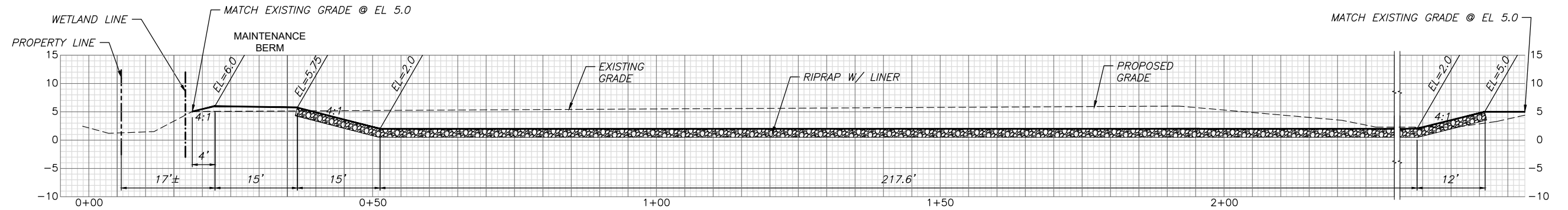
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DRAWN BY:	JRS	7/19
CHECKED BY:	RWP	7/19
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**KRACKER AVENUE**  
**HABITAT IMPROVEMENTS**  
**SECTION (5)**

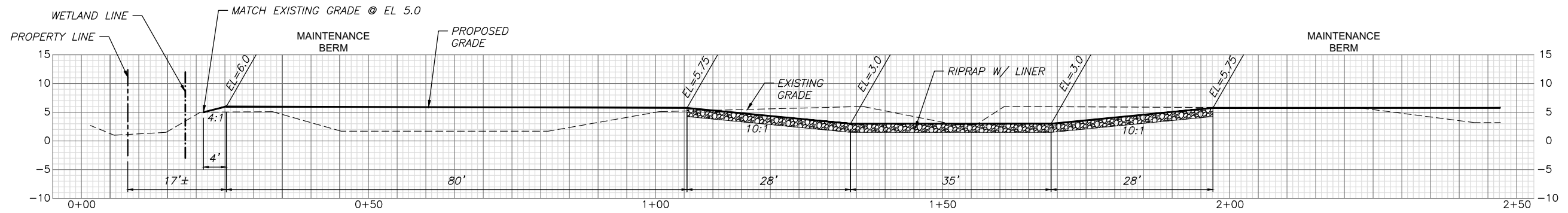
C.I.P. NO.  
**PW-ES-2015-0007**  
 SHEET NO.  
**9 OF 24**



SECTION L



SECTION M



SECTION N

HORIZONTAL SCALE:  
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VERTICAL SCALE:  
0 10' 20'

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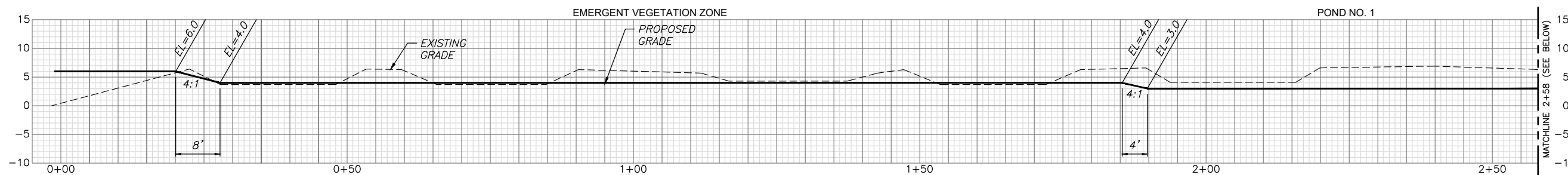
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DRAWN BY: JRS	7/19
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**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

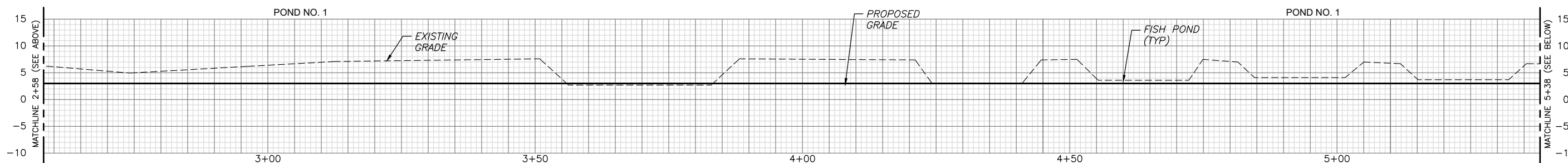
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C.I.P. NO.  
**PW-ES-2015-0007**  
 SHEET NO.  
 10 OF 24

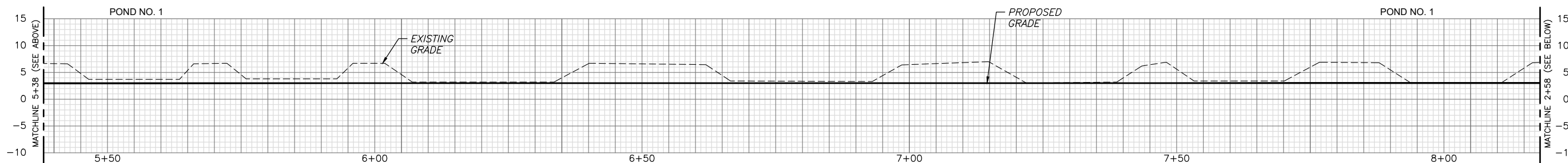




### SECTION O



### SECTION O (cont 1)



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VERTICAL SCALE: 1" = 20'

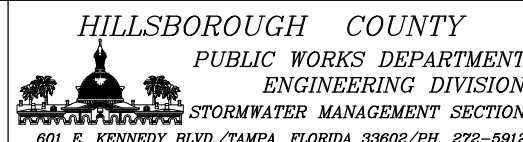
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REVISIONS			
NO.	DATE	DESCRIPTION	APPROVED



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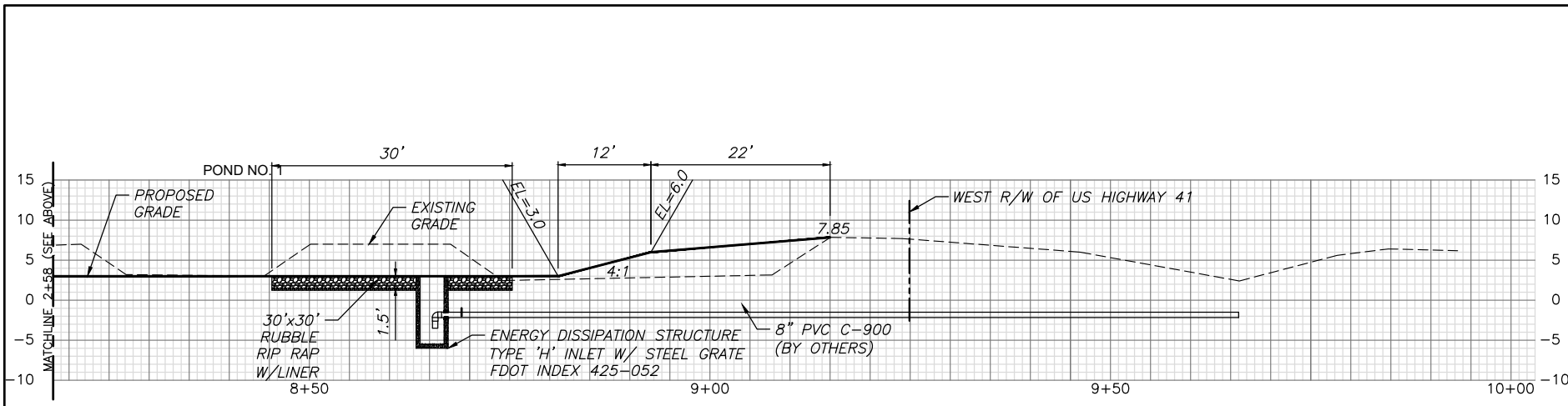
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DRAWN BY: JRS	7/19
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FILE NAME: 3 PLAN & PROFILE	

**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

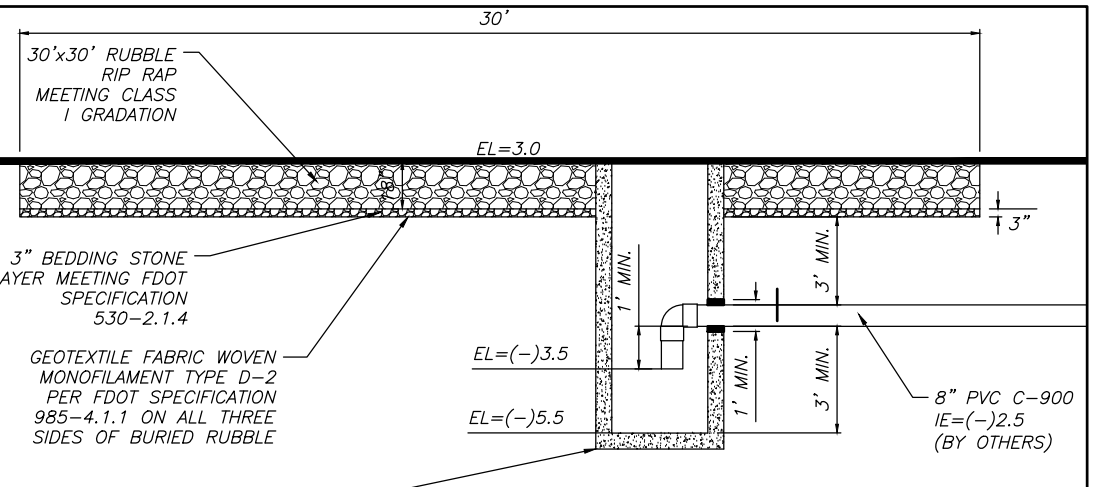
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**PW-ES-2015-0007**

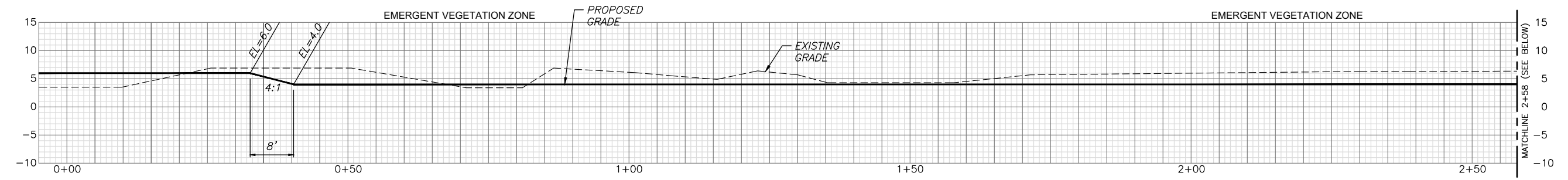
SHEET NO.  
 11 OF 24



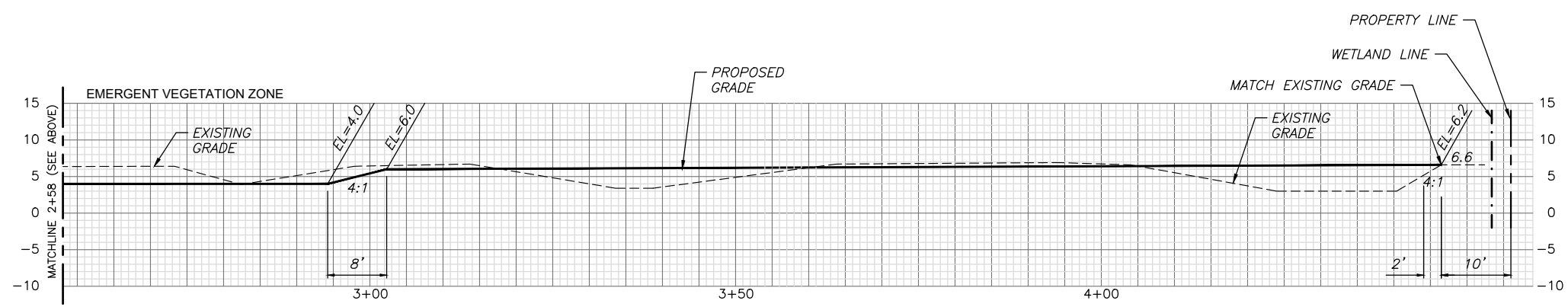
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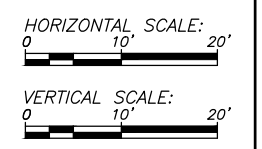
ENERGY DISSIPATION STRUCTURE DETAIL



SECTION P



SECTION P (cont)



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**AECOM**  
 7650 West Courtney Campbell Cswy • Suite 700 • Tampa, Florida 33607  
 Ph: (813) 286-1711 Fax: (813) 286-6587  
 Florida Engineering Number: 000002

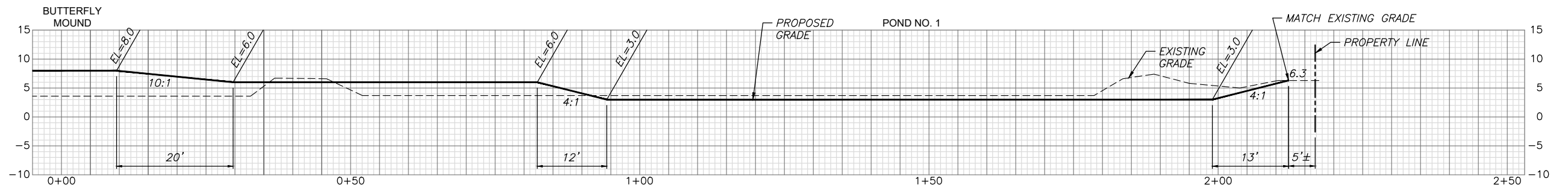
RUSSELL WARREN PRATT, JR., P.E.  
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HILLSBOROUGH COUNTY  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

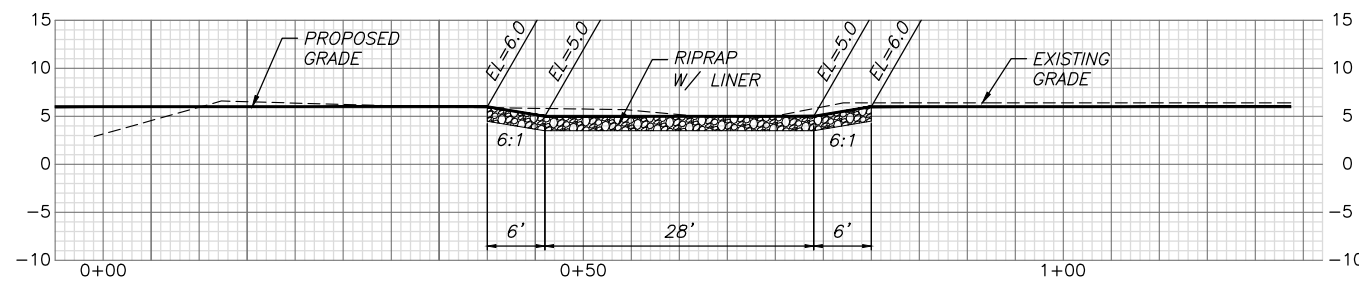
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**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**  
**SECTION (8)**

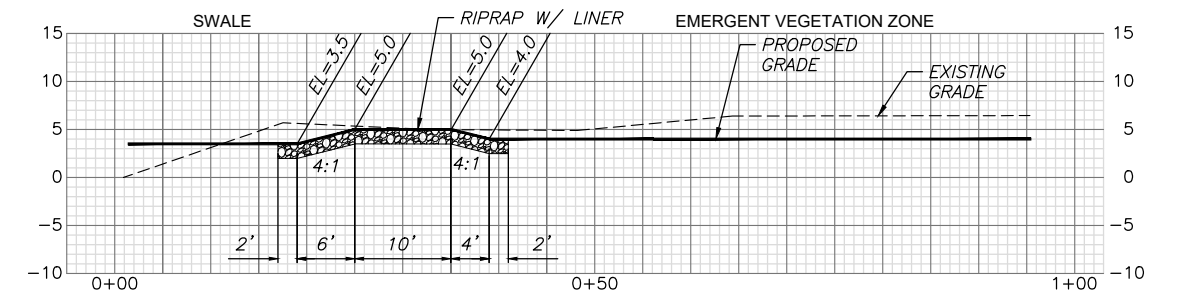
C.I.P. NO.  
**PW-ES-2015-0007**  
 SHEET NO.  
 12 OF 24



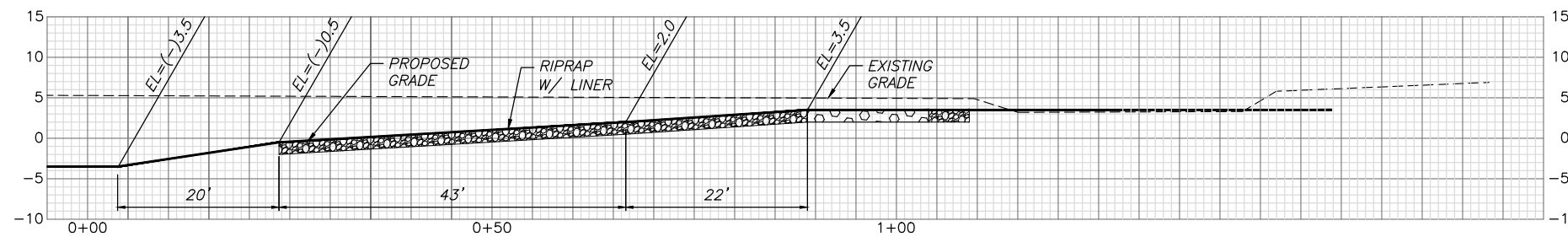
SECTION Q



SECTION R



SECTION S



SECTION T

HORIZONTAL SCALE:  
0 10' 20'

VERTICAL SCALE:  
0 10' 20'

PLOTTED April 29, 2020 5:22 PM PLOTTED BY: PRATT, RUSSELL WARREN  
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 7650 West Courtney Campbell Cswy • Suite 700 • Tampa, Florida 33607  
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 Florida Engineering Number: 000002

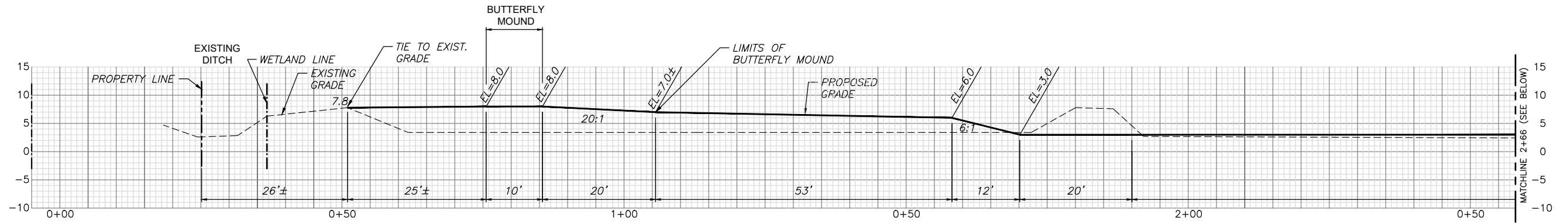
RUSSELL WARREN PRATT, JR., P.E.  
 FL. P.E. LICENSE NO. 54580

HILLSBOROUGH COUNTY  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

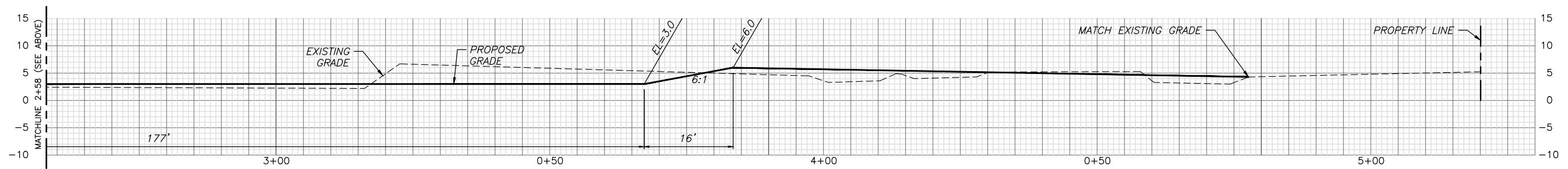
NAME	DATE
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DRAWN BY: JRS	7/19
CHECKED BY: RWP	7/19
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**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**  
**SECTION (9)**  
 C.I.P. NO. PW-ES-2015-0007  
 SHEET NO. 13 OF 24

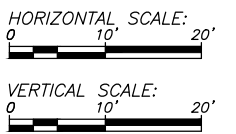




SECTION U



SECTION U (cont 1)




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 Ph: (813) 286-1711 Fax: (813) 286-6587  
 Florida Engineering Number: 000002

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HILLSBOROUGH COUNTY  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

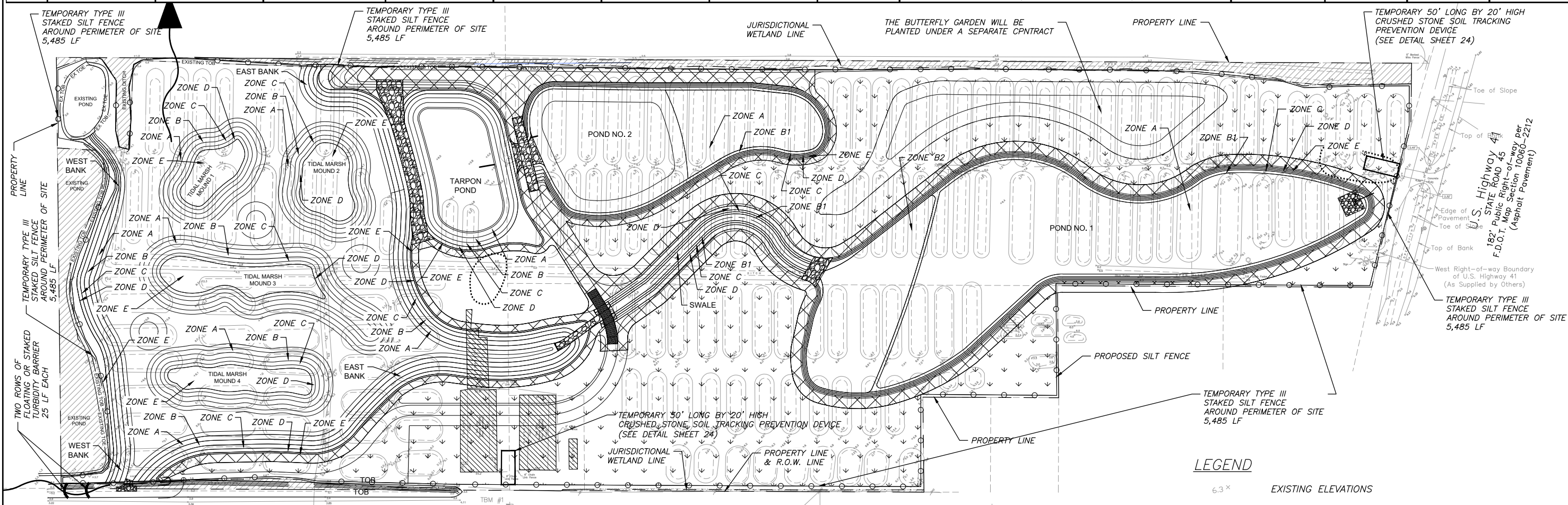
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DRAWN BY:	JRS	7/19
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SCALE:	AS SHOWN	
FILE NAME:	3 PLAN & PROFILE	

**KRACKER AVENUE**  
**HABITAT IMPROVEMENTS**  
  
**SECTION (10)**

C.I.P. NO.  
**PW-ES-2015-0007**  
 SHEET NO.  
 14 OF 24

TIDAL MARSH

ZONE	AREA (SQUARE-FEET)								NAME	PLANTING ELEVATION	PLANT SIZE	PLANT SPACING	PLANT QUANTITIES
	MOUND 1	MOUND 2	MOUND 3	MOUND 4	WEST BANK	EAST BANK	TARPON POND	TOTAL					
A	3015	3180	6038	4223	3335	9752	3780	33323	SMOOTH CORDGRASS (SPARTINA ALTERNIFLORA)	-0.5' TO 0.2'	BR	3 ft o.c.	4,361
B	2707	2872	5730	3915	3313	9791	4087	32415	BLACK NEEDLERUSH (JUNCUS ROEMERIANUS)	0.2' TO 0.9'	BR	3 ft o.c.	4,242
C	2075	2217	4666	3111	2847	8390	3749	27055	MARSH HAY CORDGRASS (SPARTINA PATENS)	0.9' TO 1.5'	BR	3 ft o.c.	3,541
D	1557	1675	3834	2420	2942	6357	4000	22785	SEASHORE PASPALUM VAGINATUM)	1.5' TO 2.0'	BR	3 ft o.c.	2,982
E					3942	2809	1432	8183	SAND CORDGRASS (SPARTINA BAKERI)	2.0' TO 2.5'	BR	3 ft o.c.	1,071



LEGEND

- 6.3' x EXISTING ELEVATIONS
- EXIST. TOP OF BANK
- EXIST. TOP OF BERM
- EXIST. TOE OF SLOPE
- PROPOSED CONTOUR
- PROPERTY LINE
- WETLAND LINE
- [Hatched Box] JURISDICTIONAL WETLAND AREA
- [Concrete Box] EXIST. STRUCTURE
- [Hatched Box] DEMOLITION AREA
- [Riprap Box] RIPRAP W/ LINER
- [Riprap Box] RIPRAP W/ LINER (SMALL)
- [Sod Box] SOD (2.18 - ACRES), 10,538 SQUARE YARDS
- [Seeding Box] SEEDING (6.58- ACRES), 31,852 SQUARE YARDS

NOT TO SCALE

ZONE	AREA (SQUARE-FEET)				NAME	PLANTING ELEVATION	PLANT SIZE	PLANT SPACING	PLANT QUANTITIES
	SWALE	POND NO. 1	POND NO. 2	TOTAL					
A		99862	19153	119015	SAWGRASS (CLADIUM JAMAICENCE)	3.0'	2-inch	3 ft o.c.	5,192
					SOFTSTEM BULRUSH (SCHOENOPLECTUS TABERNAEMONTANI)		2-inch	3 ft o.c.	5,192
					FRAGRANT WATER LILY (NYMPHAEA ODORATA)		BR	3 ft o.c.	5,192
B1	2210	7282	4210	13702	BLACK NEEDLERUSH (JUNCUS ROEMERIANUS)	3.0' TO 4.0'	BR	3 ft o.c.	598
					SALTMARSH BULRUSH (SCHOENOPLECTUS ROBUSTUS)		2-inch	3 ft o.c.	598
					KNOTTED SPIKERUSH (ELEOCHARIS INTERSTINCTA)		BR	3 ft o.c.	598
B2		28361		28361	SALTMARSH BULRUSH (SCHOENOPLECTUS ROBUSTUS)	4.0'	2-inch	3 ft o.c.	928
					BLACK NEEDLERUSH (JUNCUS ROEMERIANUS)		BR	3 ft o.c.	928
					MARSH HAY CORDGRASS (SPARTINA PATENS)		BR	3 ft o.c.	928
					ARROWHEAD (SAGITTARIA LANCIFOLIA)		BR	3 ft o.c.	928
C	2220	4263	2117	8600	MARSH HAY CORDGRASS (SPARTINA PATENS)	4.0' TO 4.5'	BR	3 ft o.c.	281
					SALTMARSH BULRUSH (SCHOENOPLECTUS ROBUSTUS)		2-inch	3 ft o.c.	281
					BLACK NEEDLERUSH (JUNCUS ROEMERIANUS)		BR	3 ft o.c.	281
					ARROWHEAD (SAGITTARIA LANCIFOLIA)		BR	3 ft o.c.	281
D	4500	3925	2110	10535	MARSH HAY CORDGRASS (SPARTINA PATENS)	4.5' TO 5.0'	BR	3 ft o.c.	460
					SAND CORDGRASS (SPARTINA BAKERI)		BR	3 ft o.c.	460
					BLUEFLAG IRIS (IRIS VIRGINICA)		BR	3 ft o.c.	460
					SAND CORDGRASS (SPARTINA BAKERI)		BR	3 ft o.c.	790

REVISIONS

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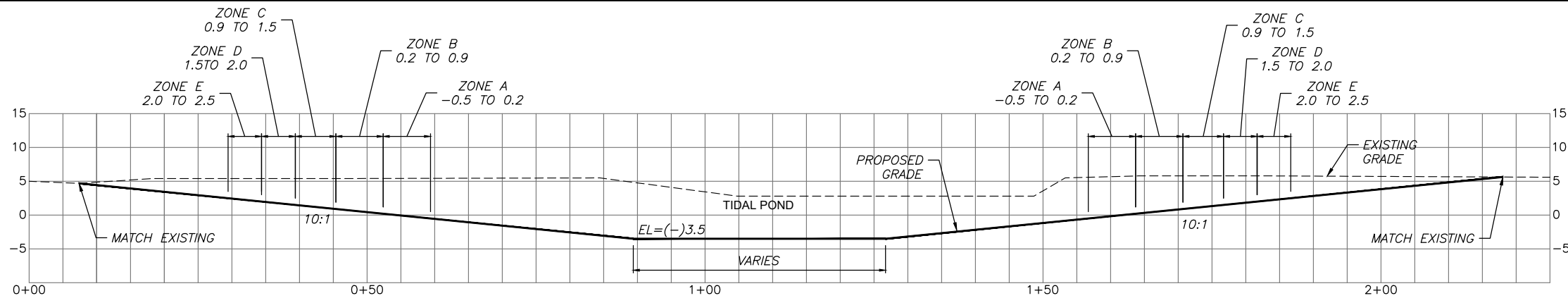
HILLSBOROUGH COUNTY  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
STORMWATER MANAGEMENT SECTION  
601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

NAME	DATE
DESIGNED BY: RWP	7/19
DRAWN BY: JRS	7/19
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SCALE: AS SHOWN	
FILE NAME: 3 PLAN & PROFILE	

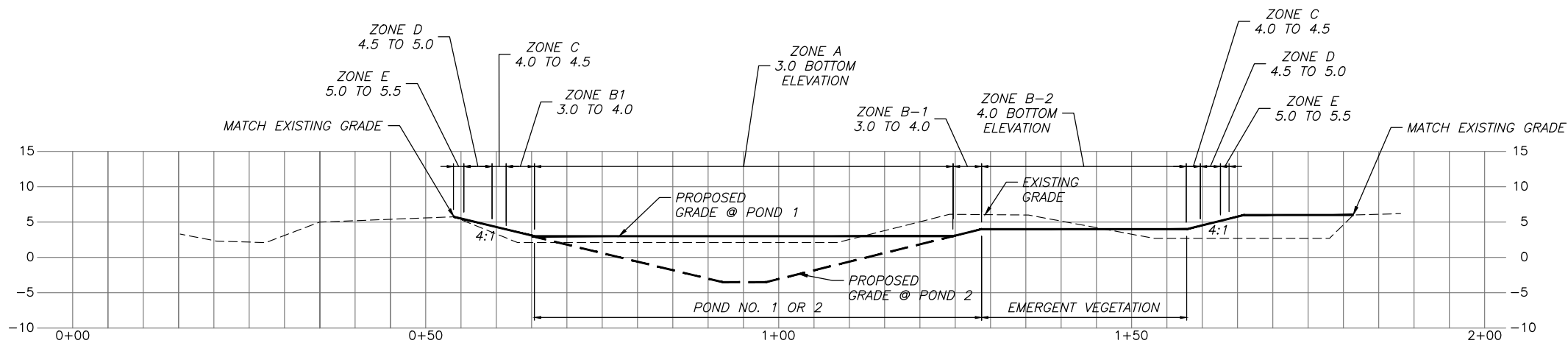
**KRACKER AVENUE  
HABITAT IMPROVEMENTS  
EROSION CONTROL AND PLANTING  
PLAN**

C.I.P. NO.  
**PW-ES-2015-0007**  
SHEET NO.  
15 OF 24

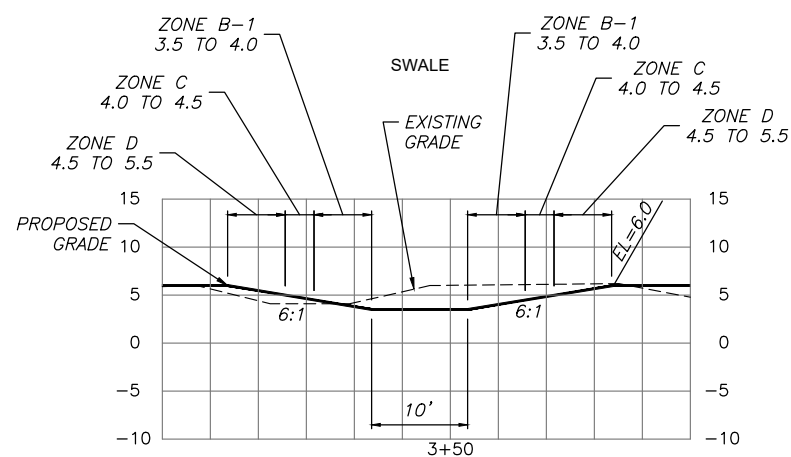
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**TYPICAL PLANTING SECTION FOR TIDAL MARSH AREAS**



**TYPICAL PLANTING SECTION FOR FRESHWATER AREAS**



**TYPICAL SWALE PLANTING SECTION FOR FRESHWATER AREAS**

**LEGEND**

- |   |   |
|---|---|
| <b>TIDAL MARSH</b>  | <b>ZONE A</b> SMOOTH CORDGRASS ( <i>SPARTINA ALTERNIFLORA</i> ) / EL -0.5 TO 0.2  |
|   | <b>ZONE B</b> BLACK NEEDLERUSH ( <i>JUNCUS ROEMERIANUS</i> ) / EL 0.2 TO 0.9  |
|   | <b>ZONE C</b> MARSH HAY CORDGRASS ( <i>SPARTINA PATENS</i> ) / EL 0.9 TO 1.5  |
|   | <b>ZONE D</b> SEASHORE PASPALUM ( <i>PASPALUM VAGINATUM</i> ) / EL 1.5 TO 2.0   |
|   | <b>ZONE E</b> SAND CORDGRASS ( <i>SPARTINA BAKERI</i> ) EL 2.0 TO 2.5   |
| <b>FRESHWATER</b>   | <b>ZONE A</b> SAWGRASS ( <i>CLADIUM JAMAICENCE</i> ) / EL 3.0<br>SOFTSTEM BULRUSH ( <i>SCHOENOPLECTUS TABERNAEMONTANI</i> ) EL 3.0  |
|   | <b>ZONE B-1</b> BLACK NEEDLERUSH ( <i>JUNCUS ROEMERIANUS</i> ) / EL 3.5 TO 4.0<br>GULF COAST SPIKERUSH ( <i>ELEOCHARIS CELLUSLOSA</i> ) / EL 3.5 TO 4.0   |
|   | <b>ZONE B-2</b> SALTMARSH BULRUSH ( <i>SCHOENOPLECTUS ROBUSTUS</i> ) / EL 4.0<br>BLACK NEEDLERUSH ( <i>JUNCUS ROEMERIANUS</i> ) / EL 4.0<br>MARSH HAY CORDGRASS ( <i>SPARTINA PATENS</i> ) / EL 4.0 |
|   | <b>ZONE C</b> MARSH HAY CORDGRASS ( <i>SPARTINA PATENS</i> ) / EL 4.0 TO 4.5<br>SALTMARSH BULRUSH ( <i>SCHOENOPLECTUS ROBUSTUS</i> ) / EL 4.0 TO 4.5  |
|   | <b>ZONE D</b> MARSH HAY CORDGRASS ( <i>SPARTINA PATENS</i> ) / EL 4.5 TO 5.0<br>SAND CORDGRASS ( <i>SPARTINA BAKERI</i> ) / EL 4.5 TO 5.0   |
| <b>ZONE E</b> SAND CORDGRASS ( <i>SPARTINA BAKERI</i> ) / EL 5.0 TO 5.5 |   |

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S:\PROJECTS\14\HILLSBOROUGH\CO\16044\016\_KRACKER\DWG\DRAWINGS\1 PLAN & PROFILE.DWG

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 Florida Engineering Number: 000002

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 FL. P.E. LICENSE NO. 54580

HILLSBOROUGH COUNTY  
 PUBLIC WORKS DEPARTMENT  
 ENGINEERING DIVISION  
 STORMWATER MANAGEMENT SECTION  
 601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

	NAME	DATE
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DRAWN BY:	JRS	7/19
CHECKED BY:	RWP	7/19
SCALE:	AS SHOWN	
FILE NAME:	3 PLAN & PROFILE	

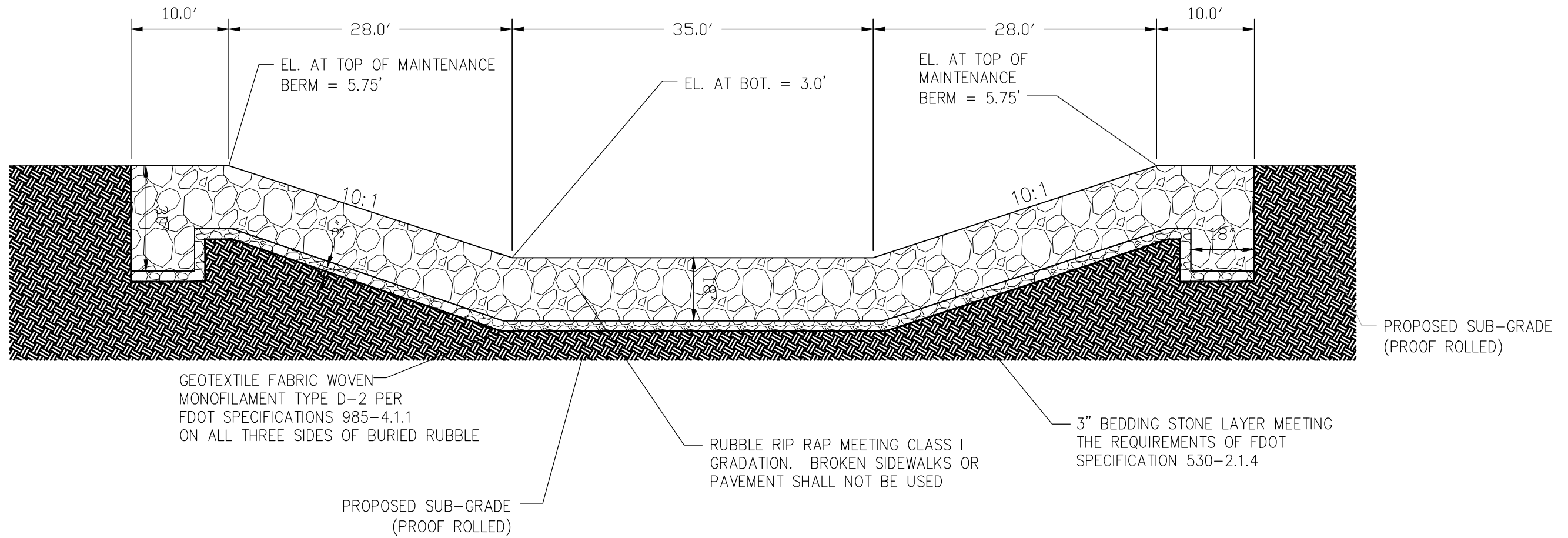
**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

**PLANTING ZONES**

C.I.P. NO. PW-ES-2015-0007
SHEET NO. 16 OF 24

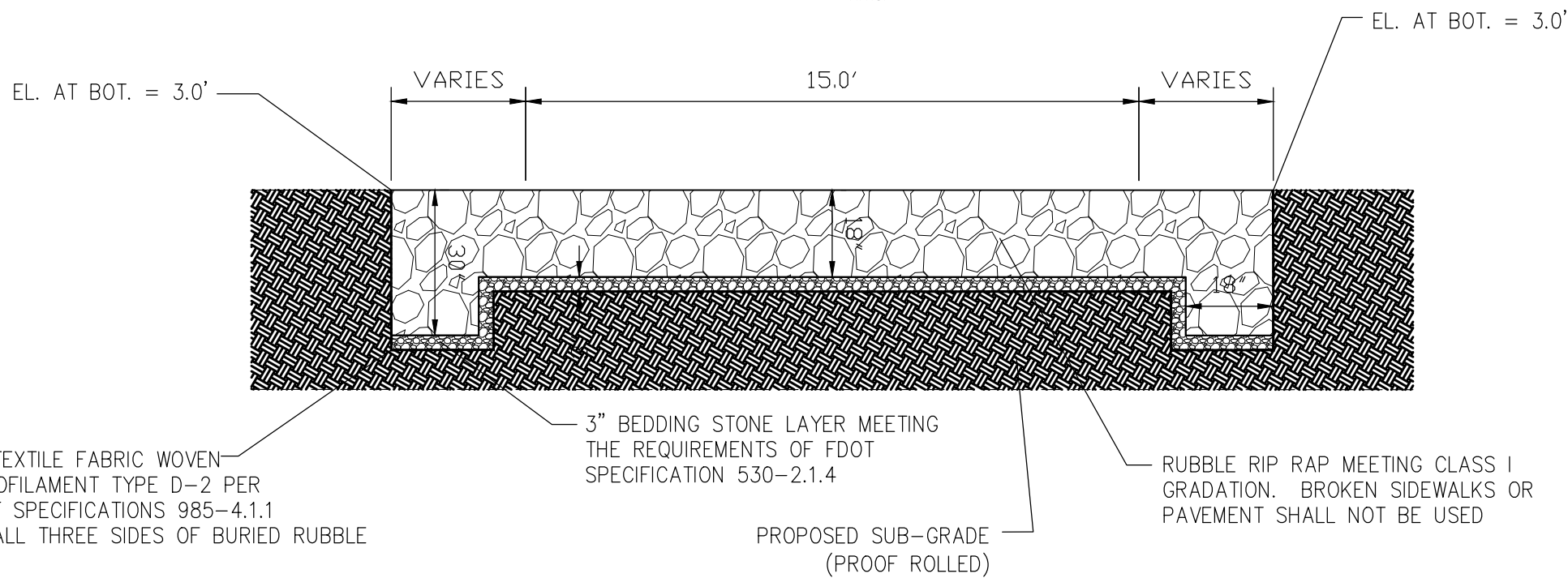






RIP-RAP PROFILE SECTION AT POND NO. 2

N.T.S.



RIP-RAP CROSS SECTION AT POND NO. 2

N.T.S.

PLOTTED: April 29, 2020, 5:25 PM PLOTTED BY: PRATT, RUSSELL WARREN, JR. PROJECT: C:\PROJECTS\18\KRACKER\18\_RIP\_RAP(1).DWG

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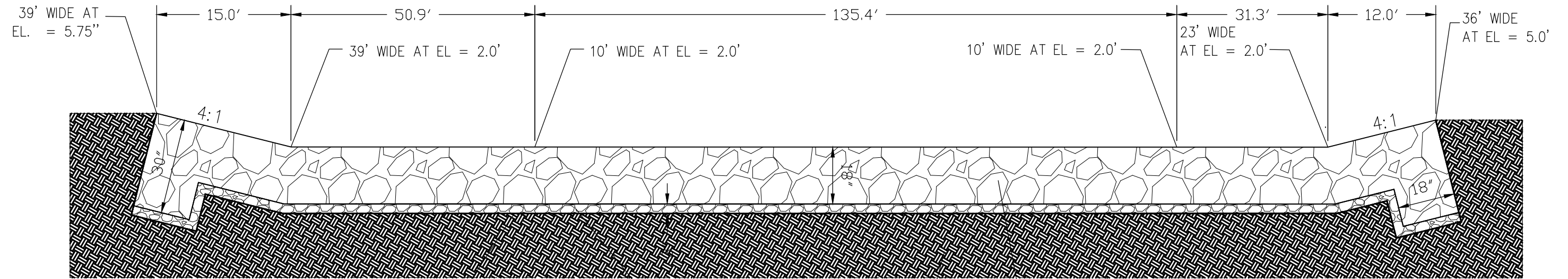
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FILE NAME:	18 RIP RAP(1)	

**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

**RIP RAP AT POND NO. 2**

C.I.P. NO. <b>PW-ES-2015-0007</b>
SHEET NO. <b>18 OF 24</b>



GEOTEXTILE FABRIC WOVEN MONOFILAMENT TYPE D-2 PER FDOT SPECIFICATIONS 985-4.1.1 ON ALL THREE SIDES OF BURIED RUBBLE

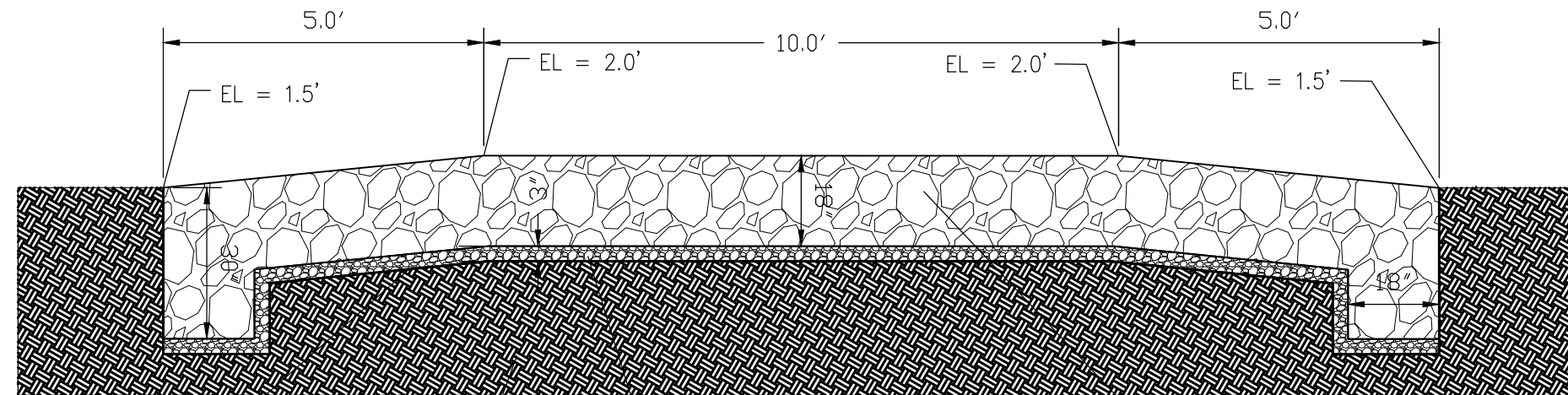
3" BEDDING STONE LAYER MEETING THE REQUIREMENTS OF FDOT SPECIFICATION 530-2.1.4

RUBBLE RIP RAP MEETING CLASS II GRADATION. BROKEN SIDEWALKS OR PAVEMENT SHALL NOT BE USED

PROPOSED SUB-GRADE (PROOF ROLLED)

**RIP-RAP PROFILE SECTION AT TARPON POND**

N.T.S.



GEOTEXTILE FABRIC WOVEN MONOFILAMENT TYPE D-2 PER FDOT SPECIFICATIONS 985-4.1.1 ON ALL THREE SIDES OF BURIED RUBBLE

3" BEDDING STONE LAYER MEETING THE REQUIREMENTS OF FDOT SPECIFICATION 530-2.1.4

RUBBLE RIP RAP MEETING CLASS II GRADATION. BROKEN SIDEWALKS OR PAVEMENT SHALL NOT BE USED

PROPOSED SUB-GRADE (PROOF ROLLED)

**RIP-RAP CROSS SECTION AT TARPON POND**

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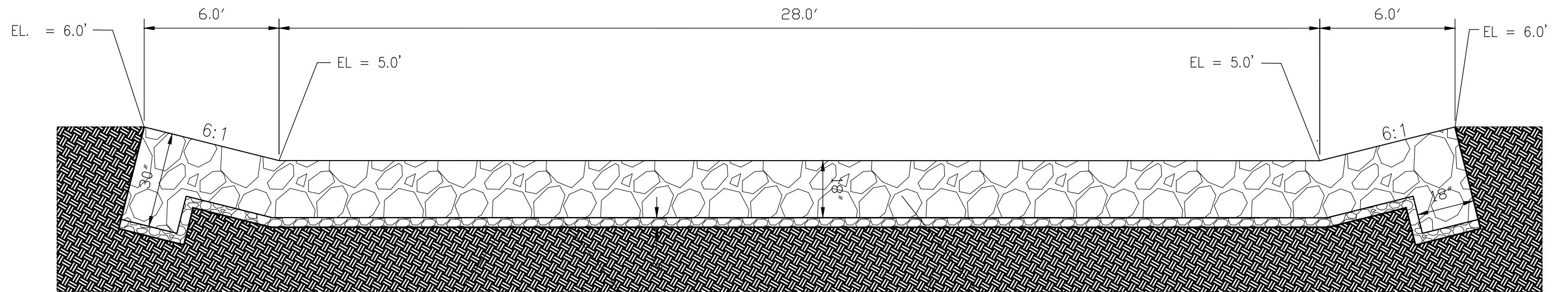
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FILE NAME:	19 RIP RAP(2)	

**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**  
**RIP RAP AT TARPON POND**

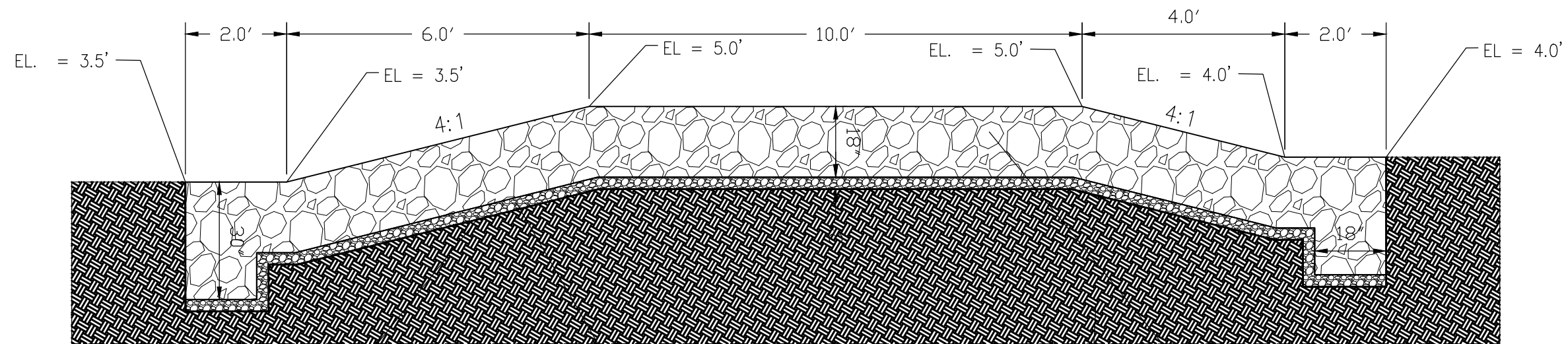
C.I.P. NO.  
**PW-ES-2015-0007**  
 SHEET NO.  
 19 OF 24



GEOTEXTILE FABRIC WOVEN MONOFILAMENT TYPE D-2 PER FDOT SPECIFICATIONS 985-4.1.1 ON ALL THREE SIDES OF BURIED RUBBLE  
 3" BEDDING STONE LAYER MEETING THE REQUIREMENTS OF FDOT SPECIFICATION 530-2.1.4  
 RUBBLE RIP RAP MEETING CLASS I GRADATION. BROKEN SIDEWALKS OR PAVEMENT SHALL NOT BE USED  
 PROPOSED SUB-GRADE (PROOF ROLLED)

**RIP-RAP PROFILE SECTION AT POND NO. 1**

N.T.S.



GEOTEXTILE FABRIC WOVEN MONOFILAMENT TYPE D-2 PER FDOT SPECIFICATIONS 985-4.1.1 ON ALL THREE SIDES OF BURIED RUBBLE  
 3" BEDDING STONE LAYER MEETING THE REQUIREMENTS OF FDOT SPECIFICATION 530-2.1.4  
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 PROPOSED SUB-GRADE (PROOF ROLLED)

**RIP-RAP CROSS SECTION AT POND NO. 1**

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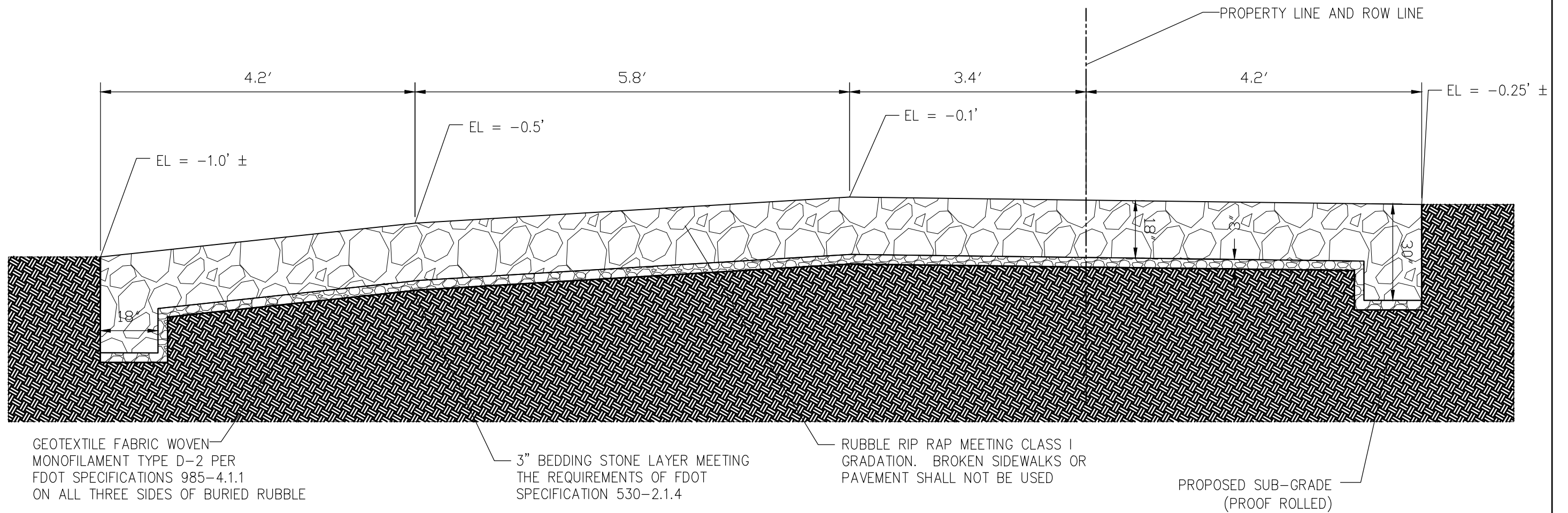
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FILE NAME:	20 RIP RAP(3)	

**KRACKER AVENUE**  
**HABITAT IMPROVEMENTS**  
**RIP RAP AT POND NO. 1**

C.I.P. NO.	PW-ES-2015-0007
SHEET NO.	20 OF 24





GEOTEXTILE FABRIC WOVEN MONOFILAMENT TYPE D-2 PER FDOT SPECIFICATIONS 985-4.1.1 ON ALL THREE SIDES OF BURIED RUBBLE

3" BEDDING STONE LAYER MEETING THE REQUIREMENTS OF FDOT SPECIFICATION 530-2.1.4

RUBBLE RIP RAP MEETING CLASS I GRADATION. BROKEN SIDEWALKS OR PAVEMENT SHALL NOT BE USED

PROPOSED SUB-GRADE (PROOF ROLLED)

RIP-RAP PROFILE SECTION AT TIDAL MARSH

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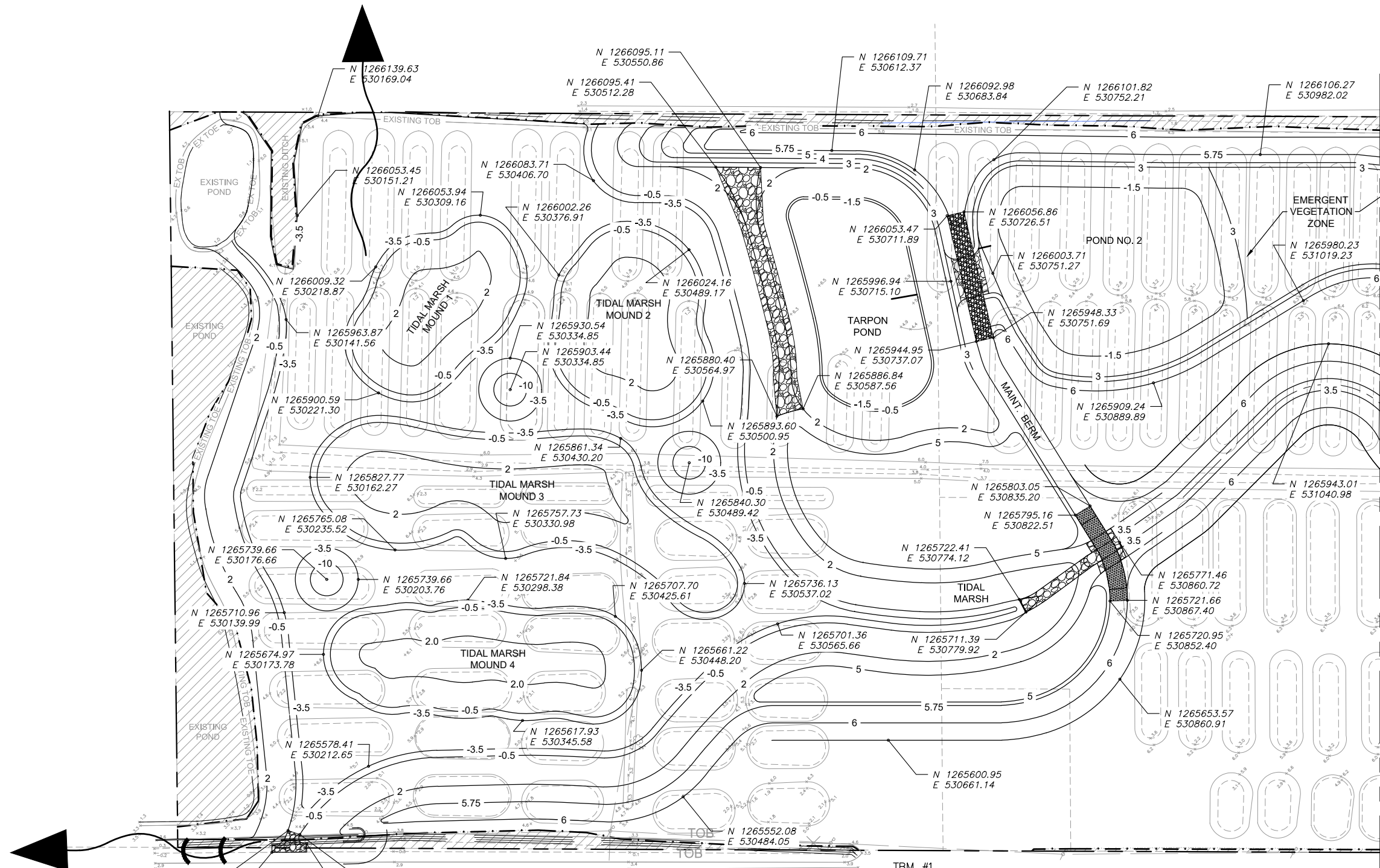
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CHECKED BY:	RWP	7/19
SCALE:	AS SHOWN	
FILE NAME:	21 RIP RAP(4)	

<b>KRACKER AVENUE HABITAT IMPROVEMENTS</b>	C.I.P. NO. <b>PW-ES-2015-0007</b>
	SHEET NO. <b>21 OF 24</b>



**LEGEND**

6.3'	EXISTING ELEVATIONS
---	EXIST. TOP OF BANK
---	EXIST. TOP OF BERM
---	EXIST. TOE OF SLOPE
6	PROPOSED CONTOUR
---	WETLAND LINE
---	PROPERTY LINE
[Hatched Box]	JURISDICTIONAL WETLAND AREA
[Concrete Box]	EXIST. STRUCTURE
[Hatched Box]	DEMOLITION AREA
[Riprap Box]	RIPRAP W/ LINER (LARGE)
[Riprap Box]	RIPRAP W/ LINER (SMALL)

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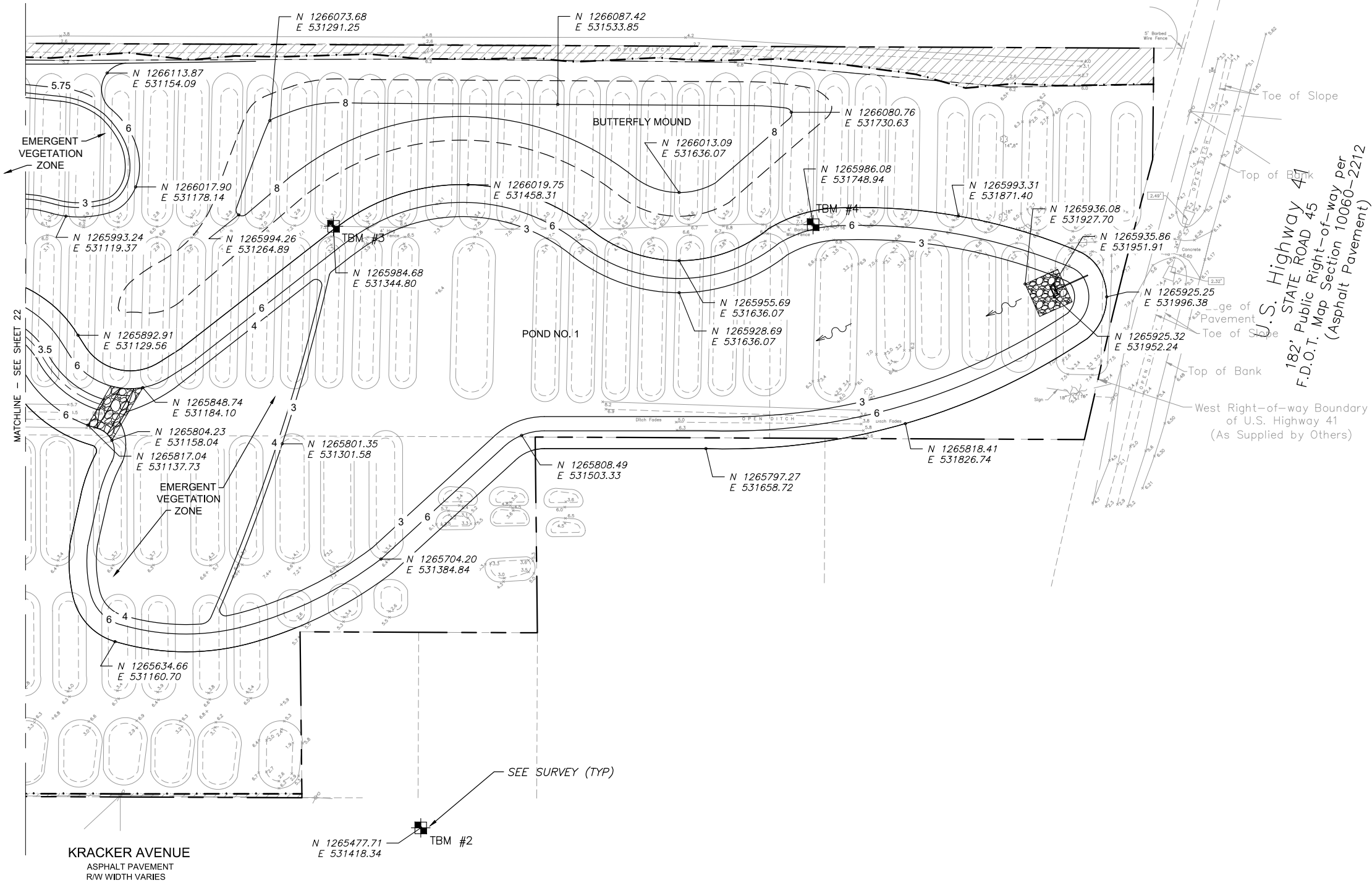
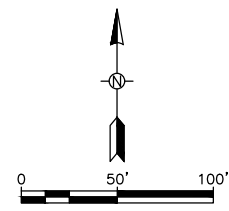
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FILE NAME: 3 PLAN & PROFILE	

**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

**HORIZONTAL CONTROL (1)**

C.I.P. NO. PW-ES-2015-0007  
 SHEET NO. 22 OF 24



**LEGEND**

6.3 x	EXISTING ELEVATIONS
---	EXIST. TOP OF BANK
---	EXIST. TOP OF BERM
---	EXIST. TOE OF SLOPE
6	PROPOSED CONTOUR
- · - · -	WETLAND LINE
---	PROPERTY LINE
[Hatched Box]	JURISDICTIONAL WETLAND AREA
[Concrete Box]	EXIST. STRUCTURE
[Hatched Box]	DEMOLITION AREA
[Riprap Box]	RIPRAP W/ LINER (LARGE)
[Riprap Box]	RIPRAP W/ LINER (SMALL)

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601 E. KENNEDY BLVD./TAMPA, FLORIDA 33602/PH. 272-5912

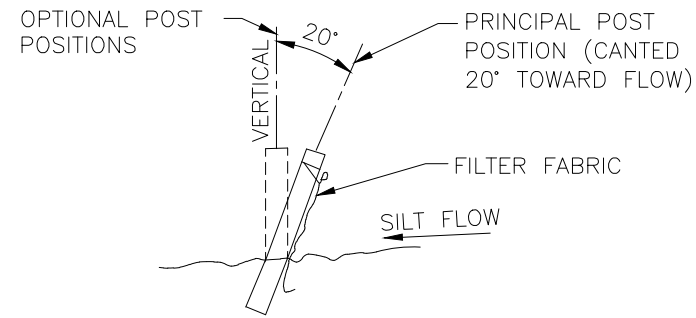
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DESIGNED BY: RWP	7/19
DRAWN BY: JRS	7/19
CHECKED BY: RWP	7/19
SCALE: AS SHOWN	
FILE NAME: 3 PLAN & PROFILE	

**KRACKER AVENUE  
 HABITAT IMPROVEMENTS**

**HORIZONTAL CONTROL (2)**

C.I.P. NO.  
**PW-ES-2015-0007**

SHEET NO.  
 23 OF 24

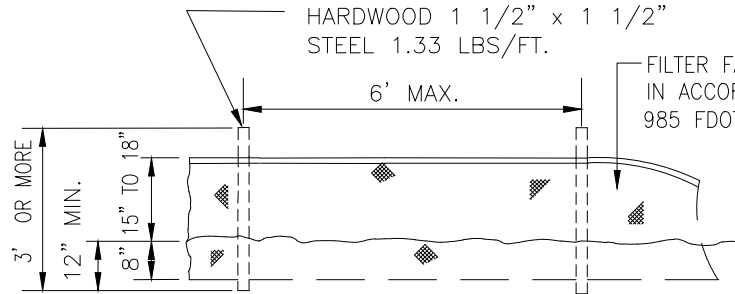


**SECTION**

POST OPTIONS:

- SOFT WOOD 2 1/2" DIA.
- SOFT WOOD 2" x 4"
- HARDWOOD 1 1/2" x 1 1/2"
- STEEL 1.33 LBS/FT.

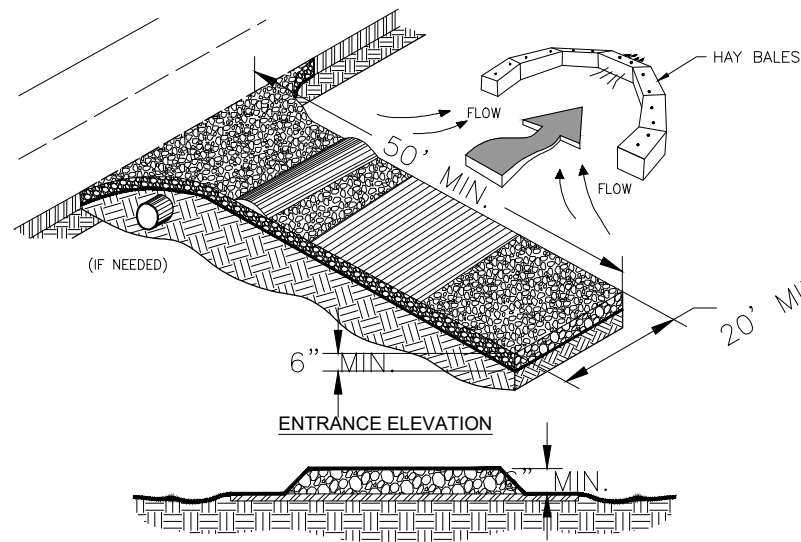
FILTER FABRIC SHALL BE IN ACCORDANCE WITH SEC. 985 FDOT SPEC.



**ELEVATION**

**TYPE III SILT FENCE**

SCALE: NTS

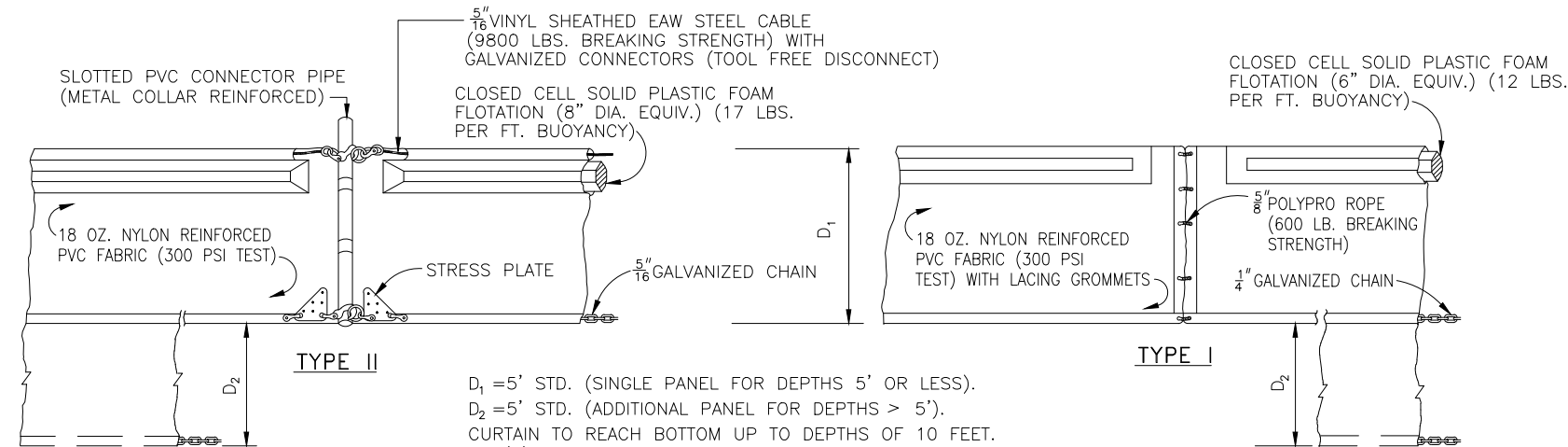


**CRUSHED STONE SOIL TRACKING PREVENTION DEVICE DETAIL**

SCALE: NTS

**NOTES:**

1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON ROADS.
2. GRADE, AND CROWN FOR POSITIVE DRAINAGE.
3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
7. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
8. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIALS SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
9. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PROJECT OR ADJACENT AREAS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

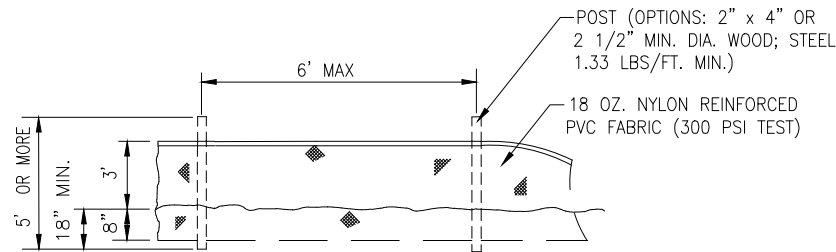


D<sub>1</sub> = 5' STD. (SINGLE PANEL FOR DEPTHS 5' OR LESS).  
 D<sub>2</sub> = 5' STD. (ADDITIONAL PANEL FOR DEPTHS > 5').  
 CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET.  
 TWO(2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALLED FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

**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 CURRENT VELOCITIES.
3. TURBIDITY BARRIERS FOR FLOWING STREAMS SHALL BE ONE FLOATING THAT WILL SUIT SITE CONDITIONS AND MEET EROSION CONTROL AND WATER QUALITY REQUIREMENTS. THE BARRIER TYPE WILL BE AT THE CONTRACTORS OPTION.



**STAKED TURBIDITY BARRIER**

SCALE: NTS

**FLOATING TURBIDITY BARRIER**

SCALE: NTS

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FILE NAME:	24 EROSION CONTROL DETAILS	

<b>KRACKER AVENUE HABITAT IMPROVEMENTS</b>		C.I.P. NO. <b>PW-ES-2015-0007</b>
<b>EROSION CONTROL DETAILS</b>		SHEET NO. <b>24 OF 24</b>