BOARD OF COUNTY COMMISSIONERS
ESCAMBIA COUNTY, FLORIDA
PUBLIC WORKS BUREAU
ENGINEERING DIVISION

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PLANS PROPOSED FOR

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

ENG FLOOD 612-11

FOR BIDDING PURPOSES ONLY

AUGUST 2016

TASK ORDER: 02-03.79.46.13. ENG

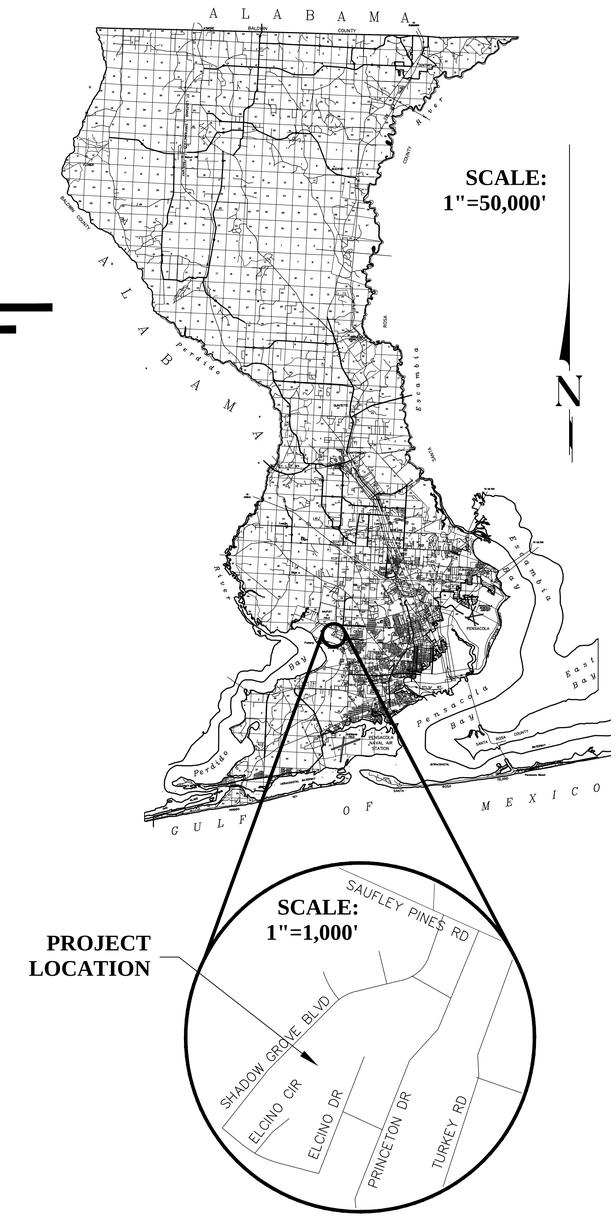
THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE LATEST ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS.

ANY REFERENCE TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, DIVISION 1, GENERAL REQUIREMENTS AND COVENANTS, SHALL BE EXCLUDED AND NOT APPLICABLE TO ANY SPECIFICATION REFERRED HEREIN OR OTHERWISE LISTED IN THESE PLANS OR RELATED DOCUMENTS OR THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS.

NO.	DATE	REVISIONS

COMMISSIONERS

DISTRICT ONE	WILSON ROBERTSON, VICE CHAIRMAN
DISTRICT TWO	DOUG UNDERHILL
DISTRICT THREE	LUMON MAY
DISTRICT FOUR	GROVER ROBINSON IV, CHAIRMAN
DISTRICT FIVE	STEVEN BARRY



VICINITY MAP

PROJECT MANAGER: N. CHAUVIN	
SECTION / TOWNSHIP / RANGE: 36 / 2S / 31W	DISTRICT: 1
PROJECT ENGINEER: T. HAMMOND	REG FLA ENG NO: 54574
SIGNATURE:	DATE:

GENERAL NOTES:

1. THE CONTRACTORS SHALL NOTIFY THE COUNTY DESIGN ENGINEER OR DESIGNEE 48 HOURS PRIOR TO CONSTRUCTION.

2. ALL CONDITIONS AND STIPULATIONS OF THE CONSTRUCTION PERMITS AND THE APPROVALS ISSUED BY THE ESCAMBIA COUNTY ENGINEER SHALL BE COMPLIED WITH IN EVERY DETAIL.

3. ALL ROADS DAMAGED BY CONSTRUCTION OPERATIONS ARE TO BE PATCHED OR RECONSTRUCTED AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE.

4. THE CONTRACTOR SHALL TAKE STEPS NECESSARY TO PREVENT EROSION AND ANY OFF SITE SEDIMENT TRANSPORT RESULTING FROM INCREASED RUNOFF DURING CONSTRUCTION BY PROVIDING SILT FENCE AND/OR STAKED HAY BALES AS REQUIRED BY FDOT INDEX 102, THE FLORIDA STORMWATER, EROSION, AND SEDIMENT CONTROL INSPECTOR'S MANUAL, 2000 EDITION, OR AS INDICATED ON THE PLANS. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ASSOCIATED DISTURBED AREAS ARE STABILIZED AS TO REDUCE SEDIMENT RUNOFF, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR DESIGNEE.

5. ANY NECESSARY PERMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. ESCAMBIA COUNTY OR ITS DESIGNEE WILL ASSIST CONTRACTOR WITH REQUIRED PERMITS.

6. THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BIDDING AND/OR CONSTRUCTION.

7. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PRESERVE OR RELOCATE ALL BENCHMARKS (VERTICAL CONTROL) AS NEEDED DURING CONSTRUCTION. ALL PUBLIC OR PRIVATE CORNER MONUMENTATION SHALL BE PROTECTED. IF A PUBLIC OR PRIVATE CORNER MONUMENTATION IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR DESIGNEE IMMEDIATELY. ANY ESCAMBIA COUNTY HARN/GPS NETWORK MONUMENTS OR BUREAU OF SURVEY AND MAPPING GPS NETWORK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE PROTECTED. IF A HARN/GPS NETWORK MONUMENTS OR BUREAU OF SURVEY AND MAPPING GPS NETWORK MONUMENTS ARE DISTURBED OR DESTROYED THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF THE MONUMENTS AND HAVE THE MONUMENTS POSITION DETERMINED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER USING GUIDELINES AS ESTABLISHED BY NATIONAL GEODETIC SURVEY FOR BLUE BOOKING AND APPROVAL.

8. EXISTING DRAINAGE FEATURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.

9. THE CONTRACTOR SHALL MATCH EXISTING CONDITIONS AT THE BEGINNING AND END OF CONSTRUCTION AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE.

10 EXISTING STREETS AND DRIVES SHALL BE MAINTAINED TO LOCAL TRAFFIC AND PROPERTY OWNERS.

11. ALL ROADWAY CONSTRUCTION SHALL COMPLY WITH THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS, LATEST EDITION.

12. ALL MATERIALS, TESTING AND CONSTRUCTION METHODS SHALL CONFORM TO THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS, LATEST EDITION.

13. ANY REFERENCE TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, DIVISION 1, GENERAL REQUIREMENTS AND COVENANTS, SHALL BE EXCLUDED AND NOT APPLICABLE TO ANY SPECIFICATION REFERRED HEREIN OR OTHERWISE LISTED IN THESE PLANS OR RELATED DOCUMENTS OR THE ESCAMBIA COUNTY TECHNICAL SPECIFICATIONS.

14. EXISTING STREET AND ROAD NAME SIGNS ON THE PROJECT SHALL BE KEPT VISIBLE AT ALL TIMES FOR THE FACILITATION OF ACCESS BY EMERGENCY VEHICLES. ALL OTHER EXISTING SIGNS THAT CONFLICT WITH CONSTRUCTION OPERATIONS SHALL BE TAKEN DOWN AND STOCKPILED WITHIN THE R/W LIMITS BY THE CONTRACTOR AS DIRECTED BY THE COUNTY ENGINEER OR DESIGNEE. ANY EXISTING SIGNS THAT ARE TO BE RELOCATED AND ARE DAMAGED BEYOND USE BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.

15. THE CONTRACTOR SHALL MAINTAIN AT LEAST ONE 10' OPEN LANE AT ALL TIMES. NO OPEN EXCAVATION SHALL REMAIN OVER NIGHT. CONTRACTOR SHALL RESTORE ROAD TO TWO LANES OF TRAFFIC AT THE END OF EACH WORK DAY.

16. CONTRACTOR SHALL COMPLY WITH ALL F.D.E.P. AND ARMY CORP. OF ENGINEERS REQUIREMENTS.

17. ONLY ACCESS TO THE ROAD R/W AS SHOWN IS GUARANTEED BY THE COUNTY. PRIVATE R/W REQUIRED BY THE CONTRACTOR TO FACILITATE CONSTRUCTION SHALL BE ACQUIRED BY THE CONTRACTOR WITH NO ADDITIONAL COMPENSATION OR ASSISTANCE FROM THE COUNTY.

18. IN THE EVENT THAT SURVEY MONUMENTATION OR REFERENCE POINTS ARE MISSING OR HAVE BEEN DESTROYED, PLEASE CONTACT:

DANNY R. SWAIN. PLS
ESCAMBIA COUNTY SURVEYOR
3363 WEST PARK PLACE
PENSACOLA, FLORIDA 32505
PH (850) 595-3427

ANDREW STARKEY, P.L.S
MERRILL PARKER SHAW, INC
4928 N. DAVIS HWY
PENSACOLA, FL 32503
PH (850) 478-4923

19. VEGETATION ON R/W AND EASEMENTS SHALL BE RESTORED TO ORIGINAL CONDITION UNLESS OTHERWISE NOTED ON THE PLAN SHEETS. COST OF SAID RESTORATION SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS.

20. GRADED AGGREGATE BASE SHALL BE REQUIRED WHERE THE SEASONAL HIGH GROUND WATER ENCROACHES WITHIN TWO (2) FEET OF THE BOTTOM OF BASE.

21. ALL TREES WITHIN LIMITS OF CONSTRUCTION SHALL BE REMOVED UNLESS OTHERWISE NOTED IN PLANS.

22. ALL COMPACTED FILL SHALL BE PLACED IN 4" LIFTS FOR HAND POWERED TAMPERS AND 8" LIFTS FOR HEAVY EQUIPMENT OPERATED TAMPERS.

23. MAINTENANCE OF TRAFFIC AS PER FDOT INDEX 600.

24. ALL SPEED BUMPS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED TO THE LATEST ESCAMBIA COUNTY DESIGN SPECIFICATIONS. ALL COSTS FOR REPLACEMENT OF SAID SPEED BUMPS SHALL BE INCIDENTAL TO OTHER ITEMS AND NO ADDITIONAL COMPENSATION SHALL BE CONSIDERED.

25. ALL EXISTING MAILBOXES INTERFERING WITH NEW CONSTRUCTION SHALL BE RELOCATED OR REPLACED BY THE CONTRACTOR IN ACCORDANCE WITH POSTAL REQUIREMENTS AND IN ACCORDANCE WITH ESCAMBIA COUNTY TECHNICAL SPECIFICATION, FDOT DESIGN STANDARDS AND UNITED POSTAL REQUIREMENTS. ALL EXISTING BRICK MAILBOXES WITHIN LIMITS OF CONSTRUCTION OR COUNTY RIGHT OF WAY SHALL BE REMOVED AND PLACED ON THE PROPERTY LINE OF THE OWNER. CONTRACTOR SHALL RE-INSTALL EXISTING BRICK MAILBOX WHENEVER POSSIBLE.

26. THE CONTRACTOR SHALL, AT A MINIMUM, MATCH EXISTING SIGNING AND PAVEMENT MARKINGS. ALL SIGNING AND PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST FDOT DESIGN STANDARDS. THE CONTRACTOR SHALL CONTACT THE COUNTY TRAFFIC DEPARTMENT PRIOR TO INSTALLATION OF ANY SIGNING AND PAVEMENT MARKINGS.

27. WHERE UNSUITABLE MATERIAL, AS DEFINED BY THE COUNTY SPECIFICATIONS SECTION 02300, 1.3(I), IS ENCOUNTERED IN THE AREAS PROPOSED FOR PAVING, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY ENGINEER OR DESIGNEE PRIOR TO ANY EXCAVATION.

28. PIPE LENGTHS SHOWN IN THE PLANS DO NOT INCLUDE THE LENGTH OF PIPE THAT MUST BE INSTALLED WITH THE MITERED END SECTION. THEREFORE, ALL PIPES LENGTHS ASSOCIATED WITH MITERED END SECTIONS SHALL BE PAID FOR IN THE UNIT COST OF THE MITERED END SECTION.

29. IF ARCHAEOLOGICAL MATERIAL/PREHISTORIC ARTIFACTS SUCH AS POTTERY OR CERAMICS, STONE TOOLS OR METAL IMPLEMENTS, OR ANY OTHER PHYSICAL REMAINS THAT COULD BE ASSOCIATED WITH NATIVE AMERICAN CULTURES, OR EARLY COLONIAL OR AMERICAN SETTLEMENT ARE ENCOUNTERED AT ANY TIME, THE PROJECT SHOULD CEASE ALL ACTIVITIES INVOLVING SUBSURFACE DISTURBANCE IN THE IMMEDIATE VICINITY OF SUCH DISCOVERIES. THE APPLICANT/RECIPIENT, OR OTHER DESIGNEE, SHOULD CONTACT THE FLORIDA DEPARTMENT OF STATE, DIVISION OF HISTORICAL RESOURCES, THE STATE HISTORIC PRESERVATION OFFICER (SHPO) AND THE DSH/FEMA REGION IV ENVIRONMENTAL OFFICER AND FDEM STATE ENVIRONMENTAL LIAISON OFFICER FOR FURTHER GUIDANCE. PROJECT ACTIVITIES SHOULD NOT RESUME WITHOUT VERBAL AND/OR WRITTEN AUTHORIZATION FROM THE DIVISION OF HISTORICAL RESOURCES.

30. IN THE EVENT THAT UNMARKED HUMAN REMAINS ARE ENCOUNTERED DURING PERMITTED ACTIVITIES, ALL WORK MUST STOP IMMEDIATELY AND THE PROPER AUTHORITIES NOTIFIED IN ACCORDANCE WITH F.S. 872.05.

31. AS DESIGNED, THE PROPOSED MIDDLE POND WILL NOT ATTENUATE THE RUNOFF FROM A 100 YEAR STORM EVENT. THE MIDDLE POND WILL EXCEED ITS BANKS IN A 1 HOUR-50 YEAR STORM, IN A 1 HOUR-100 YEAR STORM AND A 2 HOUR-100 YEAR STORM.

UTILITY NOTES:

1. THE LOCATION SHOWN FOR EXISTING UNDERGROUND UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR AGREES TO BE COMPLETELY RESPONSIBLE FOR ALL DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UTILITIES.

2. UTILITY OWNERS SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION SO THAT THE UTILITY OWNER CAN SPOT VERIFY AND/OR EXPOSE THEIR UTILITIES. KNOWN UTILITIES OWNERS INCLUDE:

SEWER/WATER – EMERALD COAST UTILITY AUTHORITY
MR. BRANDON KNIGHT, P.E
P.O. BOX 15311
PENSACOLA, FL. 32514 PH: (850) 969-3310
BKNIGHT@ECUA.ORG

NATURAL GAS – PENSACOLA ENERGY
MS. DIANE MOORE
1625 ATWOOD DRIVE
PENSACOLA, FL. 32514 PH: (850) 474-5319
DMOORE@CITYOFPENSACOLA.COM

TELEPHONE – AT&T FLORIDA
MR. DON HIERHOLZER
6915 PINE FOREST ROAD
PENSACOLA, FL. 32526 PH: (850) 436-1215
DH0762@ATT.COM

TRAFFIC DEPARTMENT – ESCAMBIA COUNTY PUBLIC WORKS
MRS. JOHNNY COX
3363 WEST PARK PLACE
PENSACOLA, FL. 32505 PH:(850) 595-3404

ELECTRIC – GULF POWER
MR. CHAD SWAILS
5120 DOGWOOD DRIVE
MILTON, FL. 32570 PH: (850) 429-2446
CESWAILS@SOUTHERNCO.COM

CABLE – COX CABLE
MR. TROY YOUNG
3405 MCLEMORE DRIVE
PENSACOLA, FL. 32514 PH: (850) 857-4510
TROY.YOUNG@COX.COM

SUNSHINE STATE ONE-CALL
7200 LAKE ELLENOR DRIVE, SUITE 200
ORLANDO, FL. 32809 PH: (800) 432-4770

3. AT&T FLORIDA WILL COMPLETE ALL WORK DURING THE HOURS OF 7:30 AM – 4:30 PM, MONDAY THRU FRIDAY. NO NIGHT OR WEEKEND WORK.

4. ALL CABLE DAMAGE MUST BE REPORTED TO THE ATT FLORIDA REPAIR SERVICE DEPARTMENT AT 611 FROM A LAND LINE OR 877-737-2478 IF USING A CELL PHONE.

5. ALL LOOP DETECTOR INSTALLATION SHALL BE DONE AS PER FDOT INDEX 17781.

6. CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD TRANSMISSION LINES AND UNDERGROUND UTILITIES.

7. UTILITIES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION. NECESSARY REPAIRS SHALL BE CONSIDERED INCIDENTAL TO OTHER PAY ITEMS AND SHALL BE TO THE SATISFACTION OF UTILITY OWNERS.

LEGEND:

- RIGHT-OF-WAY LINE
- PROPERTY LINE
- EX. CONTOUR LINE
- WOODS LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUNG GAS LINE
- UNDERGROUND SEWER LINE
- OVERHEAD UTILITY LINE
- LANE STRIPING LINE
- SILT FENCE
- TURBIDITY BARRIER
- SAWCUT
- PRPOSED CONTOUR LINE
- ASPHALT PAVING
- NEW ASPHALT
- 9.36 – PROPOSED SPOT ELEVATION
- 9.36 – EXISTING SPOT ELEVATION
- POWER POLE
- GUY WIRE
- TP – TELEPHONE PEDESTAL
- ELEC – ELECTRIC METER
- WATER – WATER VALVE
- WATER – WATER METER
- FIRE HYDRANT
- SPRINKLER HEAD
- MAILBOX
- BRICK MAILBOX
- SIGN
- SANITARY SEWER MANHOLE
- UNDERGROUND UTILITY MARK-OUT BY OTHERS
- SHRUBS OR LANSCAPING
- F.F.E. – FINISH FLOOR ELEVATION
- TBM – TEMPRARY BENCHMARK
- R/W – RIGHT-OF-WAY
- O.R. BOOK – OFFICIAL RECORD BOOK
- I.D.# – IDENTIFICATION NUMBER
- P.V.C. – POLYVINYL CHLORIDE
- C.L.F. – CHAIN LINK FENCE
- W.P.F. – WOOD PRIVACY FENCE
- MEG – MATCH EXISTING GRADE

BID PLANS
PLOT DATE: 08/3/16

PHASE ____ REVIEW	ORIGINATOR (RP)	PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)	DATE
SIGNATURE:	CHECKER (RP)	(Red Pen X-Out to Disagree or Remark)	DATE
	ORIGINATOR (GR)	Correct (Green Highlighter) Change (Red Pen)	DATE
	CHANGE INCORPORATION	(Yellow HighLighter)	DATE
	VERIFICATION, CHECKER (GR)	(Blue Highlighter)	DATE
	REMARK INCORPORATION	(Blue Highlighter)	DATE
	ORIGINATOR VERIFICATION	Correct (Pink Highlighter)	DATE

SHADOW GROVE SUBDIVISION
DRAINAGE IMPROVEMENTS

GENERAL NOTES

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
REG. FLA. ENG. NO. 54574
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE
SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C2

SUMMARY OF CROSSDRAINS / SIDEDRAINS

				BACK		AHEAD				
STATION	-	STATION	SIDE	OFFSET	FLOWLINE	OFFSET	FLOWLINE	PIPE SIZE (IN)	LENGTH (LF)	MES (EA)
10+00 OUTFLOW	-	12+28 OUTFLOW						60 RCP	209	
12+37 OUTFLOW	-	14+69 OUTFLOW						54 RCP	230	
14+69 OUTFLOW	-	16+23 OUTFLOW	RT					48 HDPE	142	
16+30 OUTFLOW			RT					36 RCP	10	
16+85 OUTFLOW			RT					18 CPVC	148	1
18+60 OUTFLOW	-	20+97 OUTFLOW						54 HDPE	243	1
21+03 OUTFLOW	-	21+34 OUTFLOW						42 HDPE	14	
23+43 OUTFLOW	-	23+96 OUTFLOW						36 CPVC	45	2
10+03 INFLOW	-	11+35 INFLOW						30 CPVC	128	
11+35 INFLOW	-	11+75 INFLOW						24 CPVC	38	
11+75 INFLOW	-	12+10 INFLOW						36 RCP	32	
12+10 INFLOW	-	12+97 INFLOW						30 CPVC	85	
	-									
11+/-30 OUTFLOW	-		85' RT					36 RCP	8	
11+/-80 OUTFLOW	-		85' RT					24 RCP	12	
11+/-92 OUTFLOW	-		110' LT					24 RCP	8	
								TOTALS	1352	4

SUMMARY OF CURB AND GUTTER

STATION	-	STATION	SIDE	TYPE	LENGTH (LF)
11+86.02 OUTFLOW	-	14+70.09 OUTFLOW	RT	B	360
				TOTAL	360

SUMMARY OF MAILBOXES

STATION	-	STATION	SIDE	QUANTITY (EA)
14+25 OUTFLOW			RT	1
14+70 OUTFLOW			RT	1
			TOTAL	2

SUMMARY OF RIPRAP / STONE

STATION	-	STATION	SIDE	RIPRAP (SY)	#57 STONE (TON)
10+00 OUTFLOW				35	
10+00 OUTFLOW			RT	20	
16+83 OUTFLOW			RT	5	
18+40 OUTFLOW				20	
23+25 OUTFLOW				20	
24+60 OUTFLOW				5	
			TOTAL	105	0

SUMMARY OF SODDING

STATION	-	STATION	SIDE	LENGTH (LF)	WIDTH (LF)	AREA (SY)
MIDDLE POND						6100
UPPER POND						3800
LOWER POND						3130
10+25 OUTFLOW	-	11+60 OUTFLOW		135	80	1050
11+75 OUTFLOW	-	14+75 OUTFLOW	RT	300	20	660
10+50 INFLOW	-	11+85 INFLOW		135	30	450
12+20 INFLOW	-	13+50 INFLOW		130	40	575
11+/-30 OUTFLOW			85' RT	20	15	33
					TOTAL	15798

SUMMARY OF TURNOUTS

STATION	-	STATION	SIDE	CONCRETE (SY)	ASPHALT (SY)	GRAVEL (SY)	MILLING (SY)
10+53	-	11+62	LT	157			
13+75	-	14+02	RT	35			
14+70			RT	52			
11+35			LT	22			
			TOTAL	266	0	0	0

SUMMARY OF EARTHWORK

STATION	-	STATION	SIDE	EXCAVATION-CUT (CY)	EXCAVATION-FILL (CY)	ESTABLISH GRADE (SY)	GRADE POND SLOPES (SY)
LOWER POND				1630			1650
MIDDLE POND							2775
UPPER POND							2975
16+20 OUTFLOW		18+50 OUTFLOW		1135			
18+50 OUTFLOW		20+50 OUTFLOW		340			
20+60 OUTFLOW		21+15 OUTFLOW	RT		120		
22+00 OUTFLOW		25+50 OUTFLOW		1360			
10+25 OUTFLOW	-	11+60 OUTFLOW		150		1275	
11+75 OUTFLOW	-	14+75 OUTFLOW	RT			660	
10+50 INFLOW	-	11+85 INFLOW		60	120	450	
12+20 INFLOW	-	13+50 INFLOW				575	
13+05 INFLOW	-	13+50 INFLOW		35			
13+85 INFLOW	-	15+20	LT			360	
			TOTAL	4710	240	3320	7400

SUMMARY OF DEMO WORK

STATION	-	STATION	SIDE	RIP RAP REMOVAL (CY)	GRAVEL REMOVAL (CY)	CONC. DEBRIS REMOVAL (CY)	
10+00 OUTFLOW			LT		10		
16+35 OUTFLOW			RT	5			
16+85 OUTFLOW			RT	3			
17+60 OUTFLOW			RT	2			
19+50 OUTFLOW			LT			4	
20+25 OUTFLOW			LT			4	
21+00 OUTFLOW			LT		20		
22+35 OUTFLOW			LT	3			
23+50 OUTFLOW				3			
24+10 OUTFLOW			RT	1			
24+67 OUTFLOW	-	25+60 OUTFLOW		24			
			TOTAL	41	30	8	

SUMMARY OF MISC. CONCRETE

STATION	-	STATION	SIDE	CY
10+00			RT	5.5
18+43	-	18+53		5.5
23+27	-	23+37		5.5
			TOTAL	11

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

SUMMARY OF PAY ITEMS

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
REG. F.A. ENG. NO. 54574
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE
SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C3

PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP) DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)

ORIGINATOR (QR) DATE
CHECKER (RP) DATE
CHANGE INCORPORATION

VERIFICATION, CHECKER (QR) DATE
REMARK INCORPORATION DATE
ORIGINATOR VERIFICATION DATE

Correct (Green Highlighter) Change (Red Pen)
(Red Pen X-Out to Disagree or Remark)
(Yellow HighLighter)

(Blue Highlighter)
(Blue Highlighter)
Correct (Pink Highlighter)

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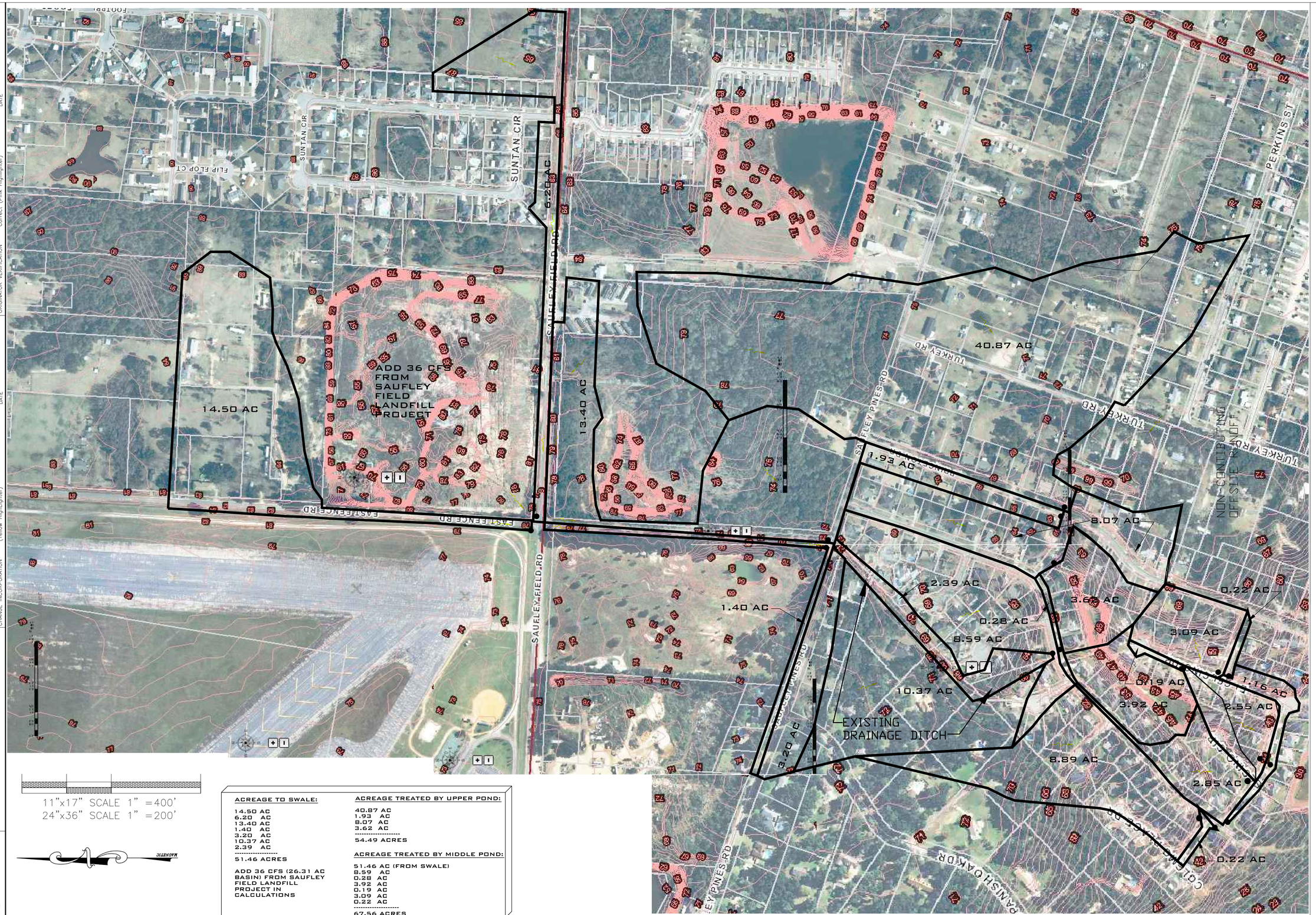
	ORIGINATOR VERIFICATION	Correct (Pink Highlighter)	DATE



11"x17" SCALE 1" =400'
24"x36" SCALE 1" =200'

MAGNETIC

ACREAGE TO SWALE:

14.50 AC
6.20 AC
13.40 AC
1.40 AC
3.20 AC
10.37 AC
2.39 AC

51.46 ACRES

ADD 36 CFS (26.31 AC BASIN) FROM SAUFLEY FIELD LANDFILL PROJECT IN CALCULATIONS

ACREAGE TREATED BY UPPER POND:

40.87 AC
1.93 AC
8.07 AC
3.62 AC

54.49 ACRES

ACREAGE TREATED BY MIDDLE POND:

51.46 AC (FROM SWALE)
8.59 AC
0.28 AC
3.92 AC
0.19 AC
3.09 AC
0.22 AC

67.56 ACRES

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

DRAINAGE MAP

ESCAMBIA COUNTY FLORIDA

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS	DESIGNED BY: T. HAMMOND/R. SIEG	CHECKED BY: T. HAMMOND	REG. P.E. ENG. NO.: 54574
DATE: MARCH 2016	PROJECT MANAGER: N. CHAUVIN	DISTRICT: ONE	SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

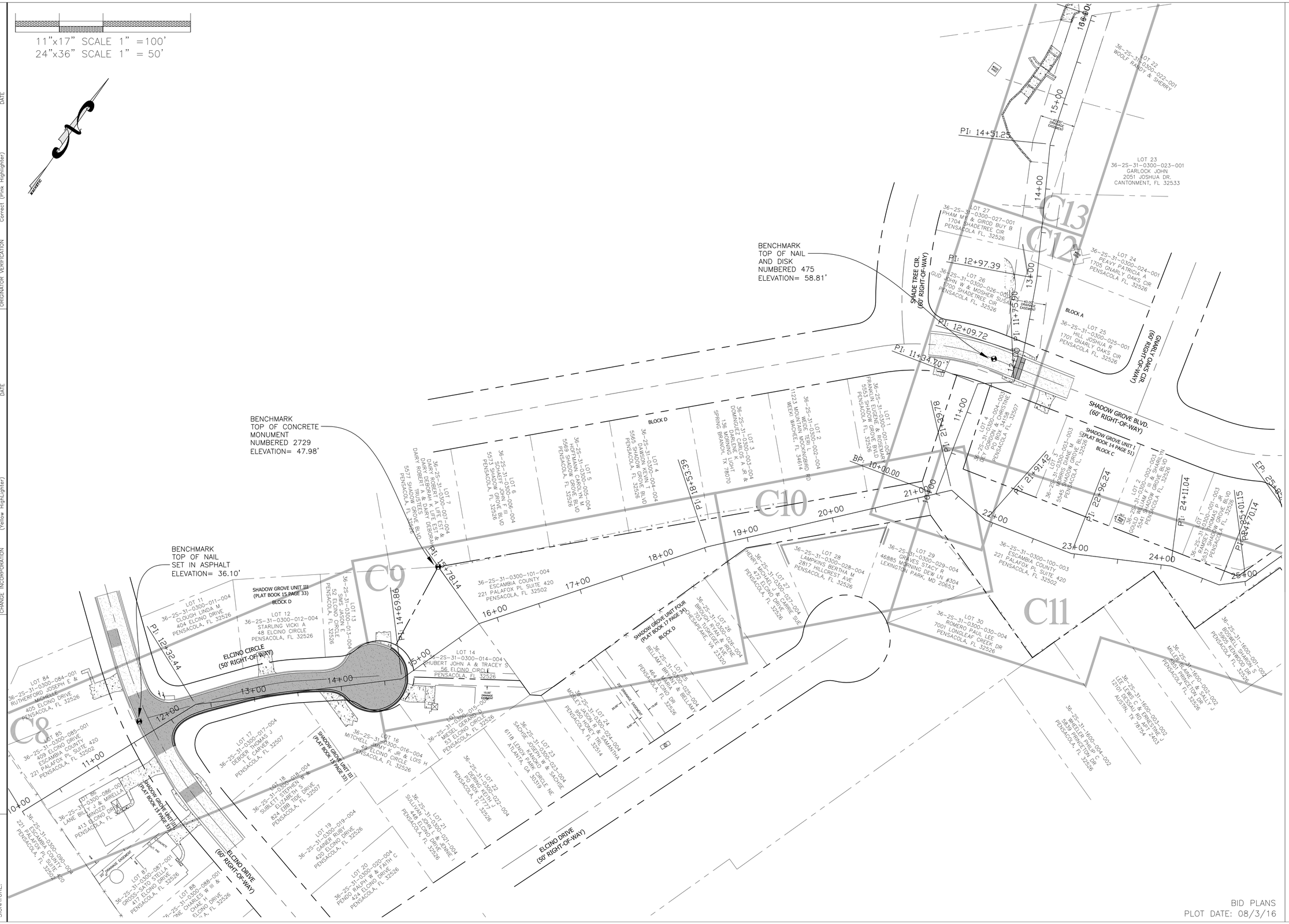
DRAWING NUMBER 14-023

PROJECT NUMBER

SURVEY NUMBER

SHEET C4

11"x17" SCALE 1" =100'
24"x36" SCALE 1" = 50'



BID PLANS
PLOT DATE: 08/3/16

NUMBER	REVISIONS	DATE	APPROVED BY:
1:	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C5

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

PROJECT LAYOUT

ESCAMBIA COUNTY FLORIDA

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

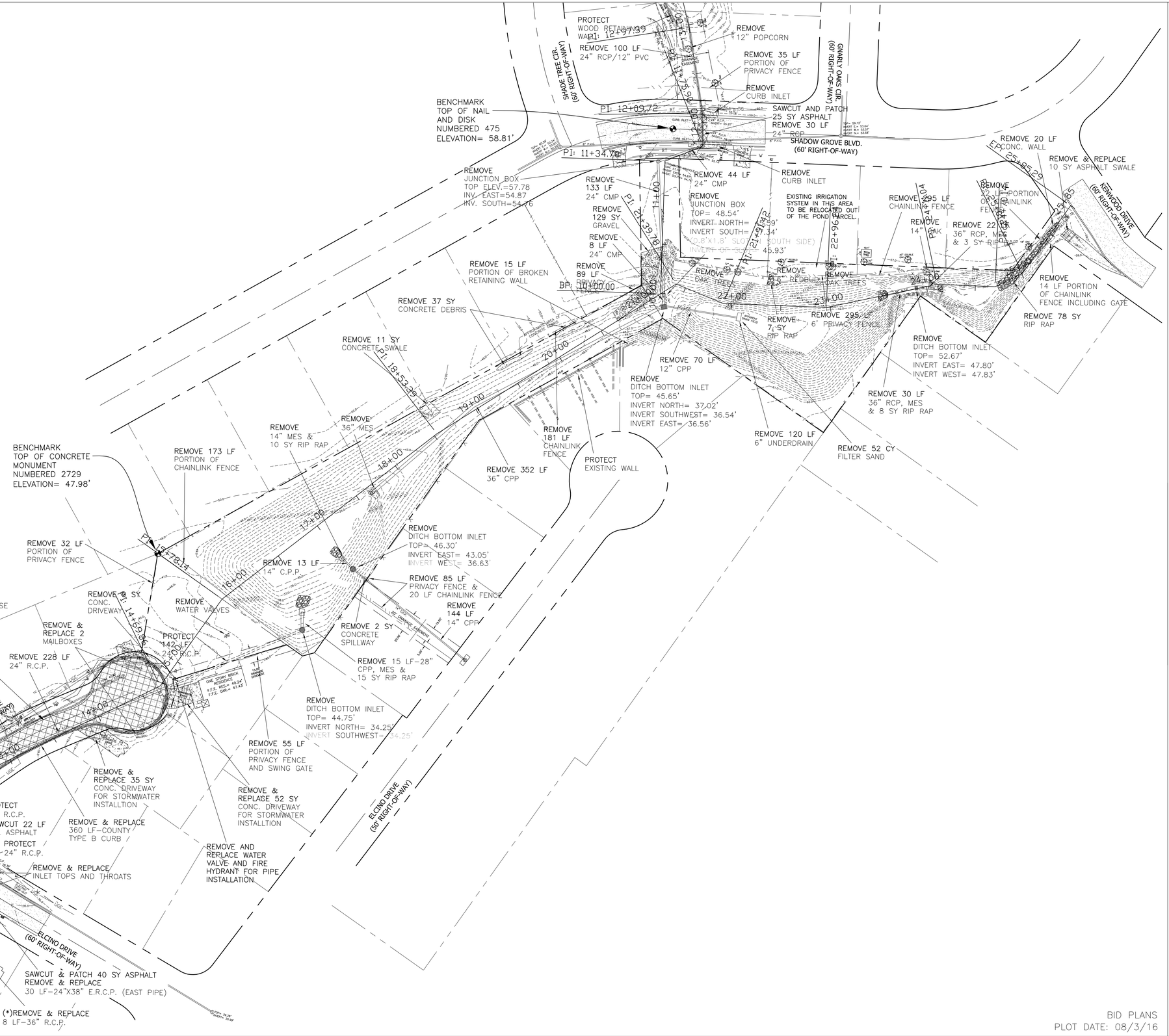
DRAWN BY:	DESIGNED BY:	CHECKED BY:	REG. P.A. ENG. NO.	DATE:
ARS	T. HAMMOND/R. SIEG	T. HAMMOND	54574	
DATE:	PROJECT MANAGER:	DISTRICT:	SIGNATURE:	
MARCH 2016	N. CHAUVIN	ONE		

PHASE	ORIGINATOR (RP)	DATE	VERIFICATION, CHECKER (QR) (Blue Highlighter)	DATE
REVIEW	PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)		REMARK INCORPORATION (Blue Highlighter)	
SIGNATURE:	ORIGINATOR (QR)		ORIGINATOR VERIFICATION Correct (Pink Highlighter)	

Correct (Green Highlighter) Change (Red Pen)
(Red Pen X-Out to Disagree or Remark)
CHANGE INCORPORATION (Yellow Highlighter)

11"x17" SCALE 1" =100'
24"x36" SCALE 1" = 50'

(*) NOTE: CONTRACTOR TO CONTACT ESCAMBIA COUNTY ENGINEERING DIVISION TO CAMERA EXISTING PIPE TO VERIFY SEGMENT WHERE REMOVAL AND REPLACEMENT IS NEEDED.



BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

DEMOLITION PLAN

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DESIGNED BY: T. HAMMOND/R. SIEG	CHECKED BY: T. HAMMOND
DRAWN BY: ARS	RGS. FLA. ENG. NO. 54574
DATE: MARCH 2016	PROJECT MANAGER: N. CHAUVIN
	DISTRICT: ONE
	SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C6

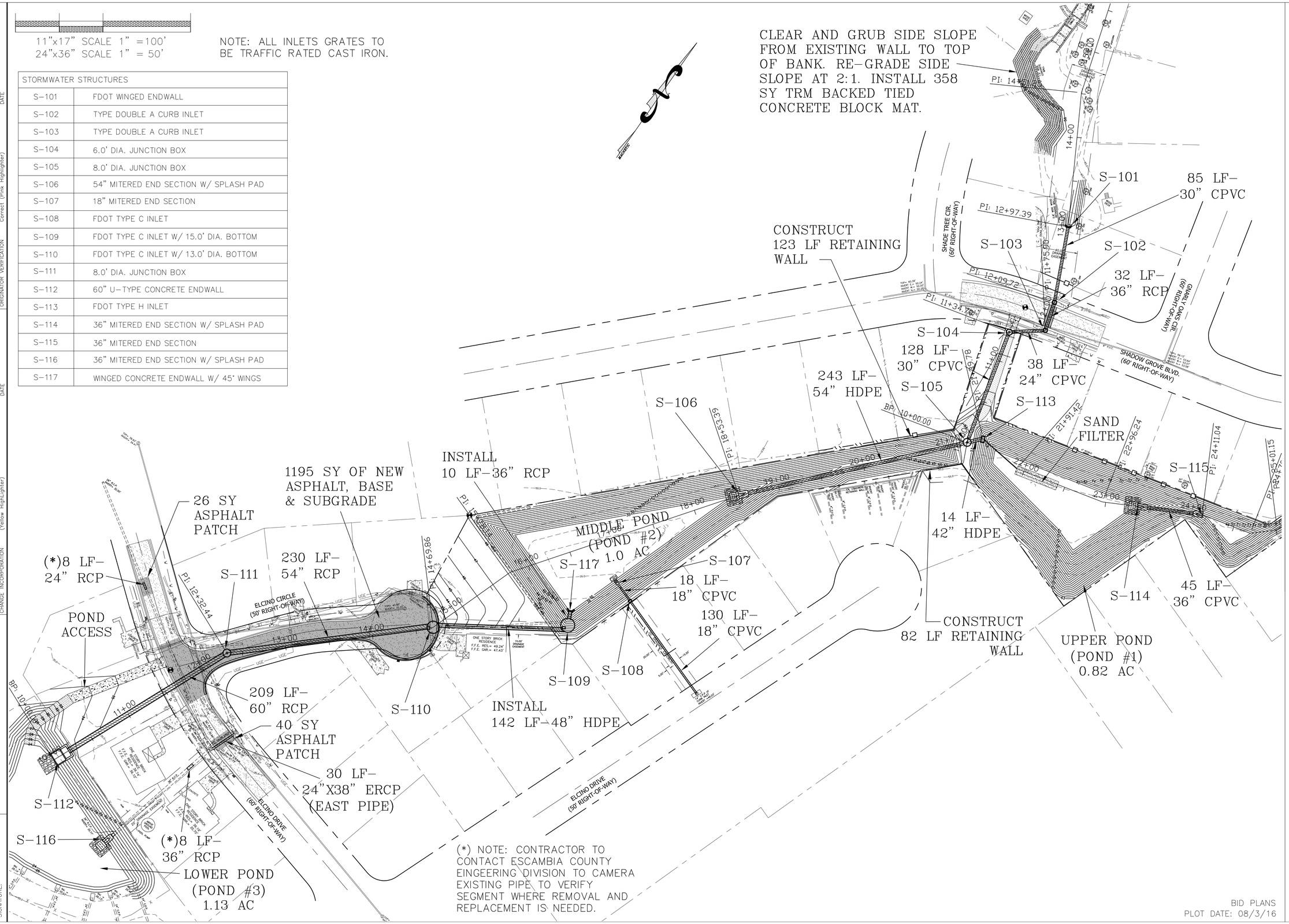
ORIGINATOR (RP)	DATE	VERIFICATION, CHECKER (QR)	(Blue Highlighter) DATE
PRODUCTION, CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)		REMARK INCORPORATION	(Blue Highlighter) DATE
		ORIGINATOR VERIFICATION	Correct (Pink Highlighter) DATE
ORIGINATOR (QR)	Correct (Green Highlighter) Change (Red Pen)		
CHECKER (RP)	(Red Pen X-Out to Disagree or Remark)		
CHANGE INCORPORATION	(Yellow Highlighter)		

PHASE ____ REVIEW
SIGNATURE:

11"x17" SCALE 1" =100'
24"x36" SCALE 1" = 50'

NOTE: ALL INLETS GRATES TO BE TRAFFIC RATED CAST IRON.

STORMWATER STRUCTURES	
S-101	FDOT WINGED ENDWALL
S-102	TYPE DOUBLE A CURB INLET
S-103	TYPE DOUBLE A CURB INLET
S-104	6.0' DIA. JUNCTION BOX
S-105	8.0' DIA. JUNCTION BOX
S-106	54" MITERED END SECTION W/ SPLASH PAD
S-107	18" MITERED END SECTION
S-108	FDOT TYPE C INLET
S-109	FDOT TYPE C INLET W/ 15.0' DIA. BOTTOM
S-110	FDOT TYPE C INLET W/ 13.0' DIA. BOTTOM
S-111	8.0' DIA. JUNCTION BOX
S-112	60" U-TYPE CONCRETE ENDWALL
S-113	FDOT TYPE H INLET
S-114	36" MITERED END SECTION W/ SPLASH PAD
S-115	36" MITERED END SECTION
S-116	36" MITERED END SECTION W/ SPLASH PAD
S-117	WINGED CONCRETE ENDWALL W/ 45° WINGS



(*) NOTE: CONTRACTOR TO CONTACT ESCAMBIA COUNTY EINGEERING DIVISION TO CAMERA EXISTING PIPE TO VERIFY SEGMENT WHERE REMOVAL AND REPLACEMENT IS NEEDED.

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

PROPOSED IMPROVEMENT PLAN

ESCAMBIA COUNTY FLORIDA

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS | DESIGNED BY: T. HAMMOND/R. SIEG | CHECKED BY: T. HAMMOND | REG. F.I.A. DIC. NO.: 54574 | DATE: | SIGNATURE:
DATE: MARCH 2016 | PROJECT MANAGER: N. CHAUVIN | DISTRICT: ONE

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C7

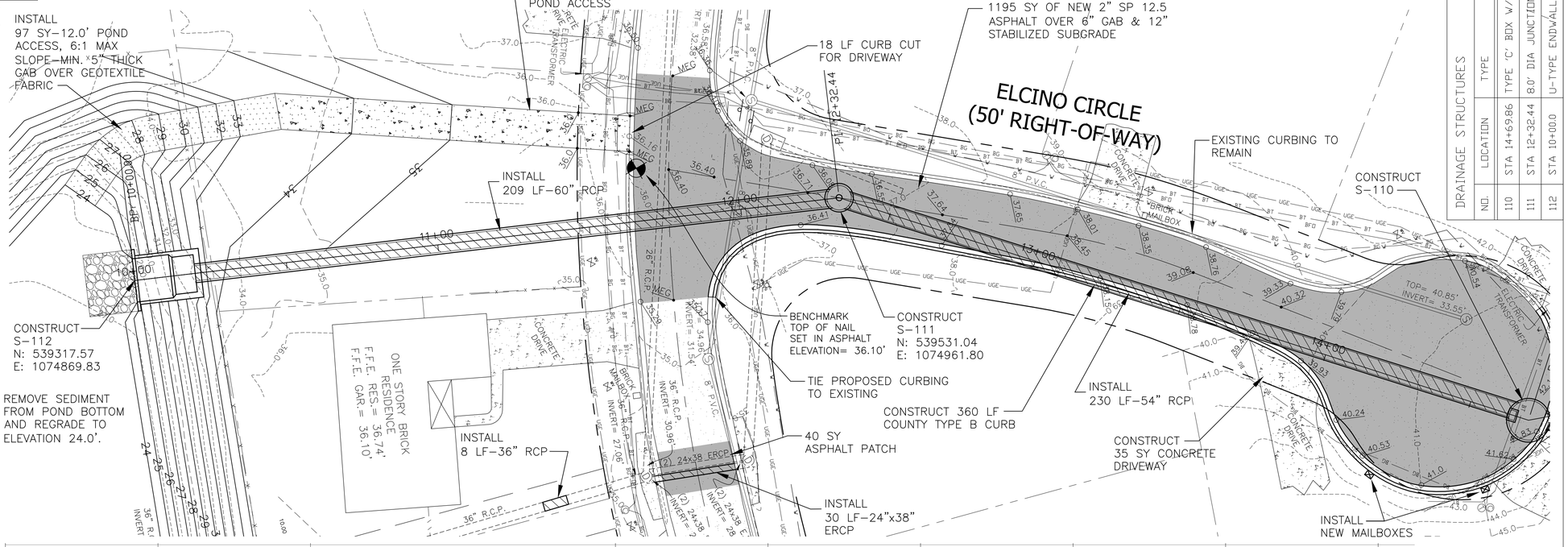
PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP) DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)

ORIGINATOR (QR) Correct (Green Highlighter) Change (Red Pen)
CHECKER (RP) (Red Pen X-Out to Disagree or Remark)
CHANGE INCORPORATION (Yellow Highlighter)

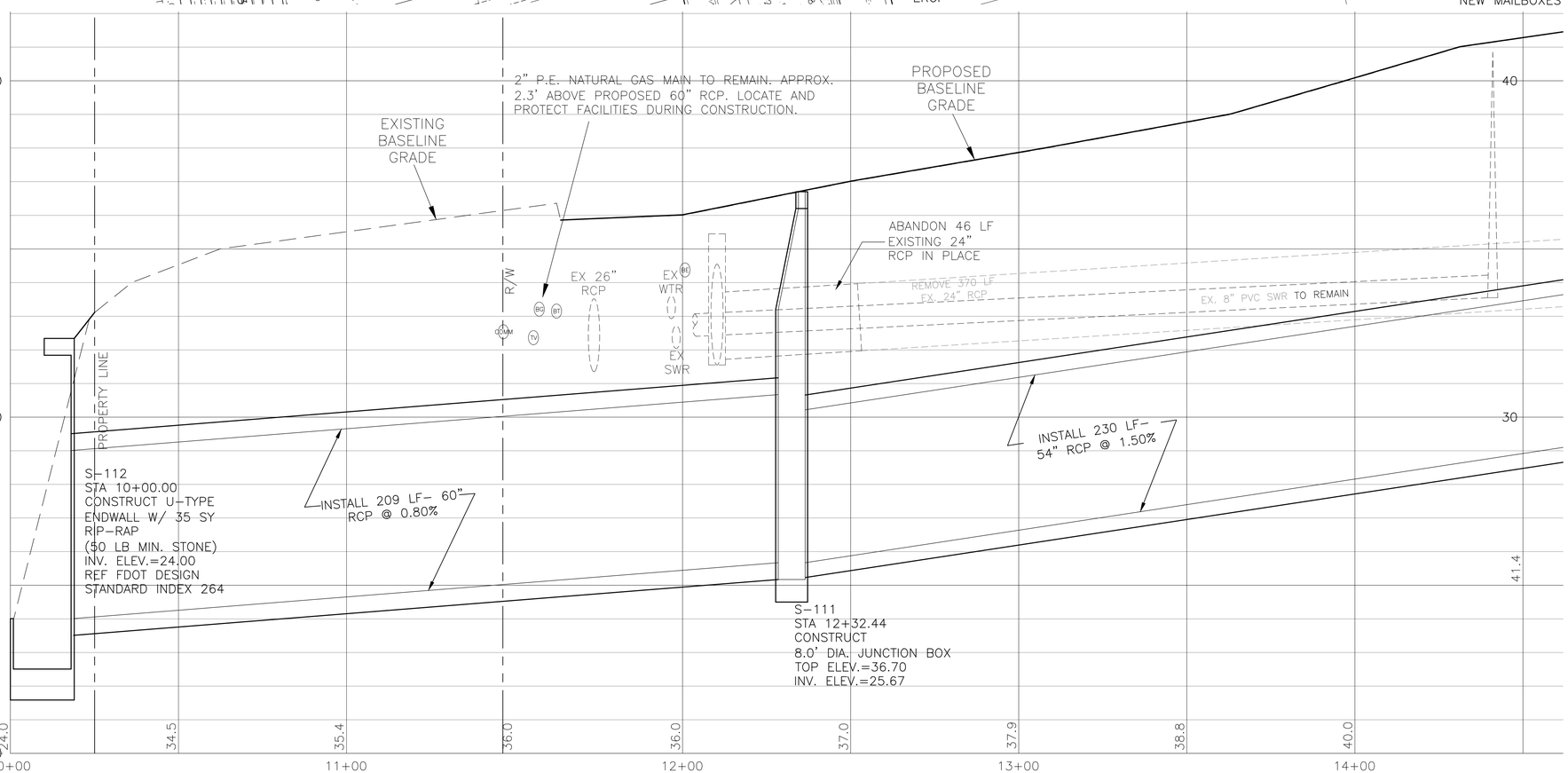
VERIFICATION, CHECKER (QR) (Blue Highlighter) DATE
REMARK INCORPORATION (Blue Highlighter) DATE
ORIGINATOR VERIFICATION Correct (Pink Highlighter) DATE

11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'



DRAINAGE STRUCTURES		
NO.	LOCATION	TYPE
110	STA 14+69.86	TYPE 'C' BOX W/13' BOT
111	STA 12+32.44	8.0' DIA JUNCTION BOX
112	STA 10+00.0	U-TYPE ENDWALL

NOTE: MITERED END SECTIONS TO BE INSTALLED IN ACCORDANCE WITH LATEST FDOT DESIGN STANDARDS INDEX NO. 272 AT 1:2 SLOPE. PIPE LENGTH (F) TO BE RCP AND SHOULD BE INCLUDED UNDER THE UNIT PRICE FOR THE MITERED END SECTION. CONCRETE COLLAR TO BE INSTALLED FOR CPVC/RCP CONNECTIONS.



11"x17" SCALE 1" = 4'
24"x36" SCALE 1" = 2'

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

OUTFLOW SPECIAL PROFILE

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

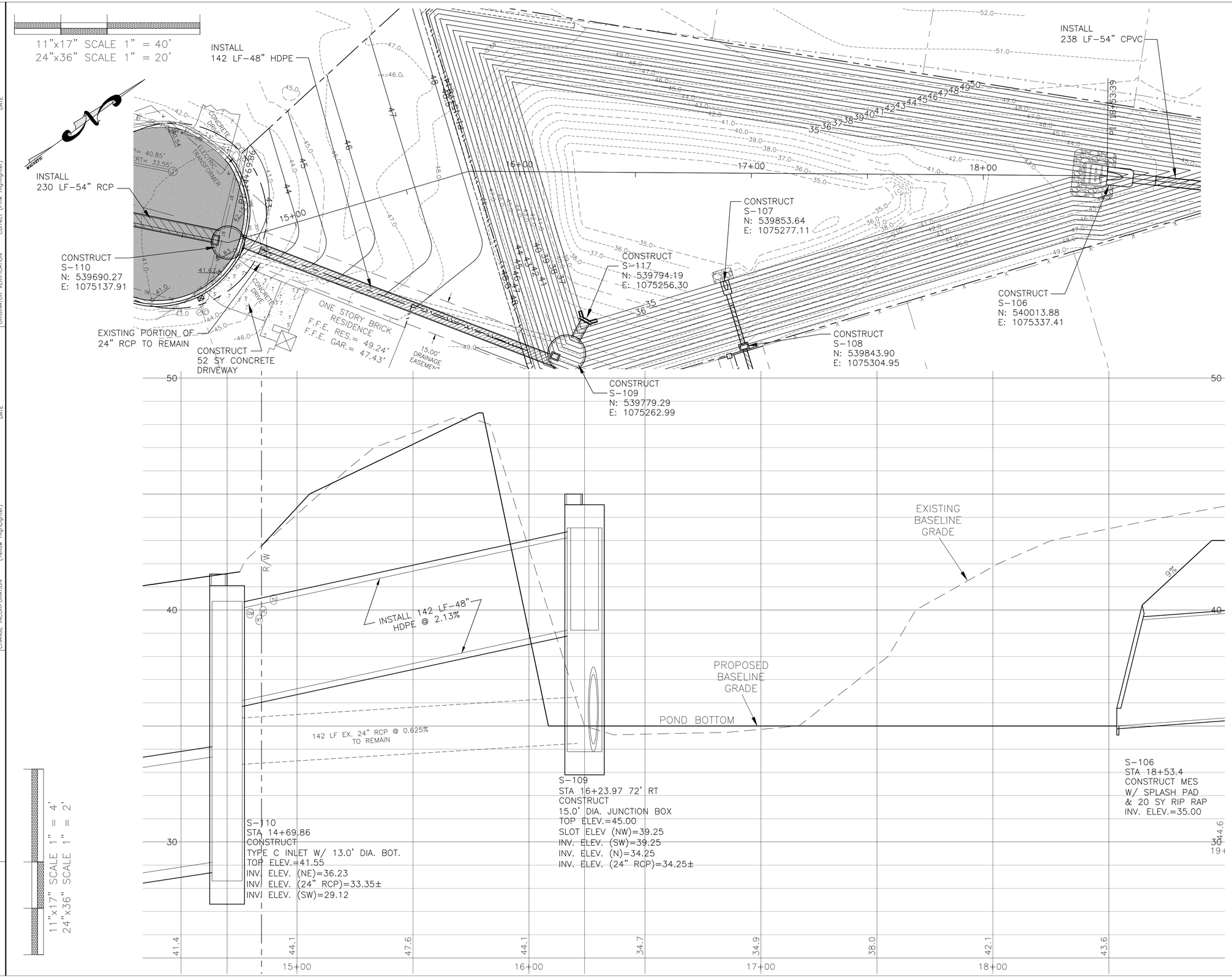
DRAWN BY: ARS	DESIGNED BY: T. HAMMOND/R. SIEG
DATE: MARCH 2016	CHECKED BY: T. HAMMOND
PROJECT MANAGER: N. CHAUVIN	REG. FLA. ENG. NO. 54574
DISTRICT: ONE	DATE:
	SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C8

PHASE ____ REVIEW	ORIGINATOR (RP)	DATE	VERIFICATION, CHECKER (QR)	(Blue Highlighter)	DATE
	PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)		REMARK INCORPORATION	(Blue Highlighter)	DATE
SIGNATURE:			ORIGINATOR VERIFICATION	Correct (Pink Highlighter)	DATE

ORIGINATOR (QR)	Correct (Green Highlighter) Change (Red Pen)
CHECKER (RP)	(Red Pen X-Out to Disagree or Remark)
CHANGE INCORPORATION	(Yellow HighLighter)



DRAINAGE STRUCTURES		
NO.	LOCATION	TYPE
106	STA 18+48.59	MES W/ SPLASH PAD
107	STA 16+83.83, 47' RT	18" MES
109	STA 16+23.97, 72' RT	TYPE 'C' INLET W/ 15' DIA. BOT.
110	STA 14+69.86	TYPE 'C' INLET W/ 13' DIA. BOT.
117	STA 16+28.85, 63' RT	36" WINGED CONC. ENDWALL

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

ALTERNATE A, MIDDLE POND OUTFALL PROFILE

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DATE: MARCH 2016
DESIGNED BY: T. HAMMOND/R. SIEG
PROJECT MANAGER: N. CHAUVIN
CHECKED BY: T. HAMMOND
DISTRICT: ONE
REG. FLA. ENG. NO. 54574
SIGNATURE:
DATE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

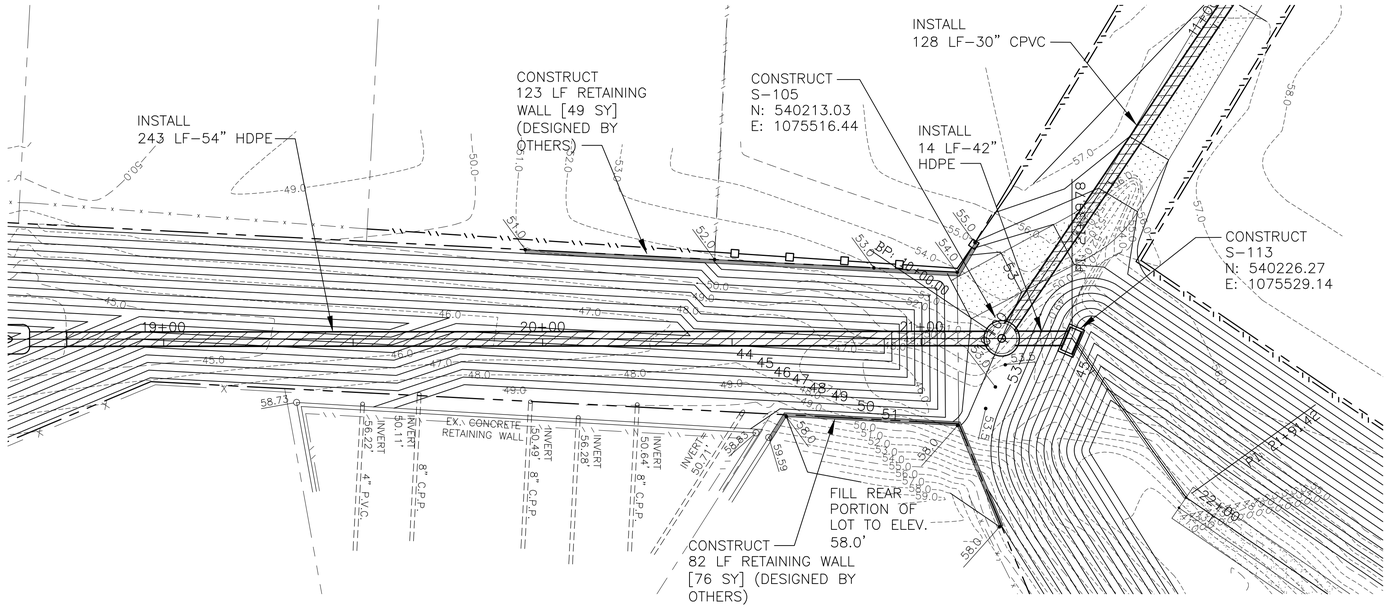
DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C9

BID PLANS
PLOT DATE: 08/3/16

PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP) DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)
ORIGINATOR (QR) Correct (Green Highlighter) Change (Red Pen) DATE
CHECKER (RP) (Red Pen X-Out to Disagree or Remark) DATE
CHANGE INCORPORATION (Yellow Highlighter) DATE
VERIFICATION, CHECKER (QR) (Blue Highlighter) DATE
REMARK INCORPORATION (Blue Highlighter) DATE
ORIGINATOR VERIFICATION Correct (Pink Highlighter) DATE

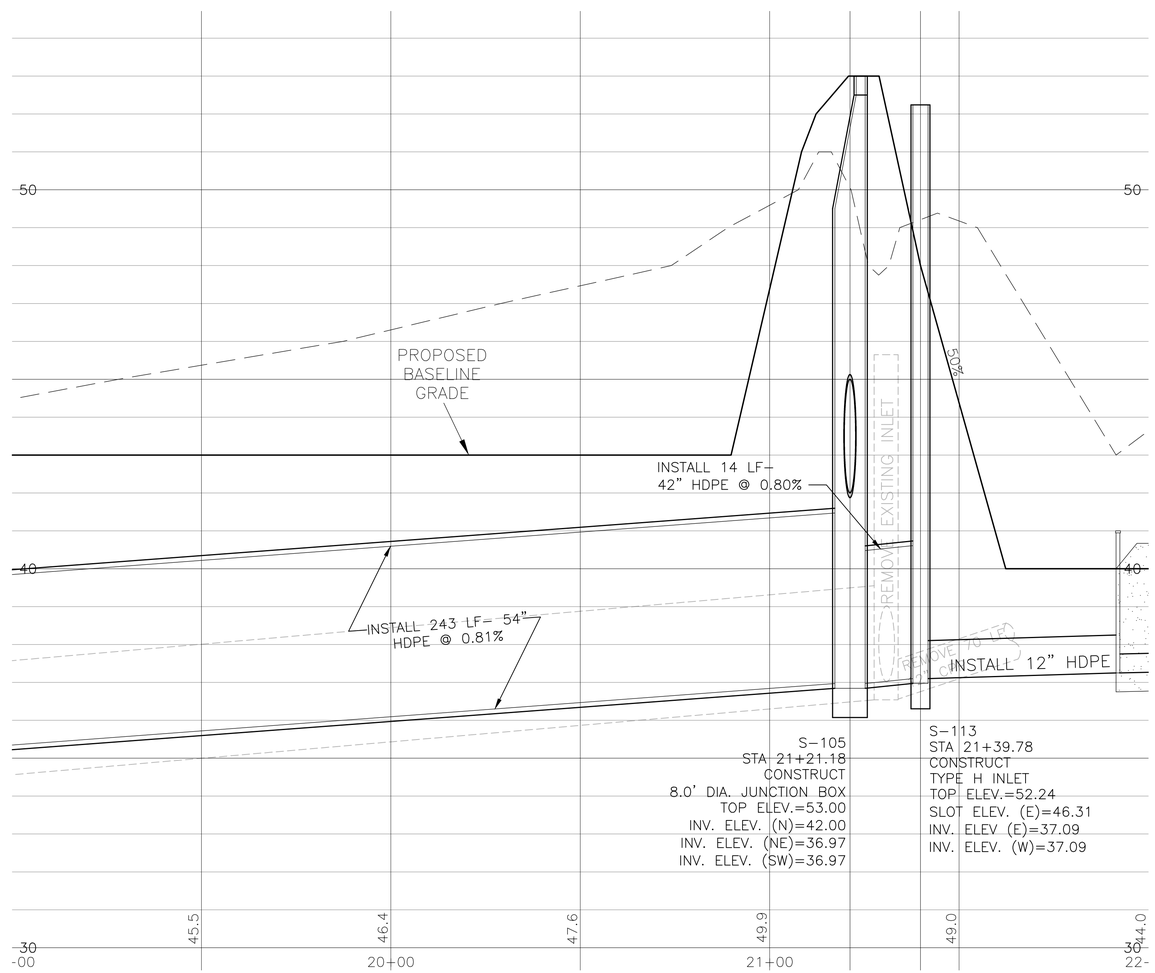
11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'



DRAINAGE STRUCTURES		
NO.	LOCATION	TYPE
105	STA 21+00.00	8.0' DIA JUNCTION BOX
113	STA 21+34.97	TYPE H INLET

NOTE: MITERED END SECTIONS TO BE INSTALLED IN ACCORDANCE WITH LATEST FDOT DESIGN STANDARDS INDEX NO. 272 AT 1:2 SLOPE. PIPE LENGTH (F) TO BE RCP AND SHOULD BE INCLUDED UNDER THE UNIT PRICE FOR THE MITERED END SECTION. CONCRETE COLLAR TO BE INSTALLED FOR CPVC/RCP CONNECTIONS.

11"x17" SCALE 1" = 4'
24"x36" SCALE 1" = 2'



BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

OUTFLOW SPECIAL PROFILE

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DATE: MARCH 2016
DESIGNED BY: T. HAMMOND/R. SIEG
PROJECT MANAGER: N. CHAUVIN
CHECKED BY: T. HAMMOND
DISTRICT: ONE
REG. FLA. ENG. NO. 54574
SIGNATURE:
DATE:

NUMBER:	REVISIONS	DATE	APPROVED BY:
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

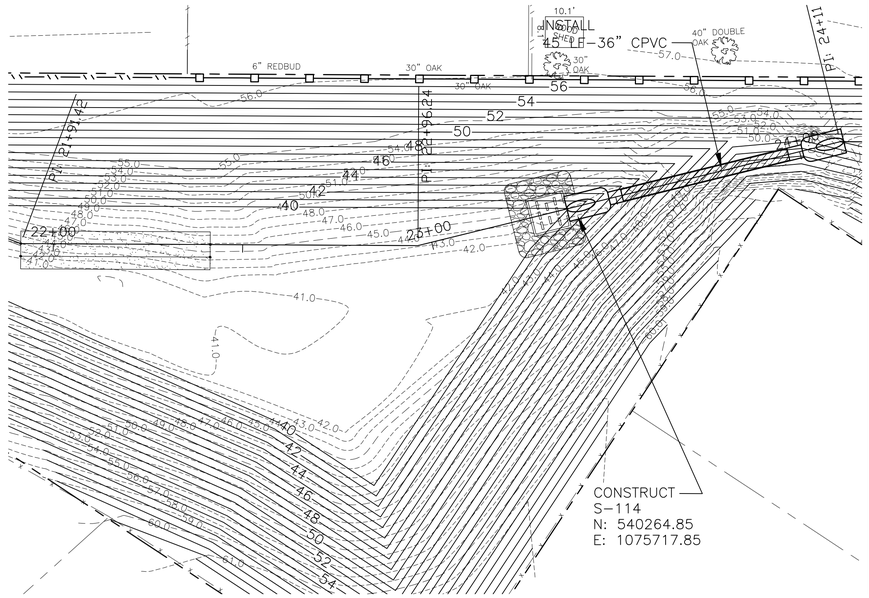
DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C10

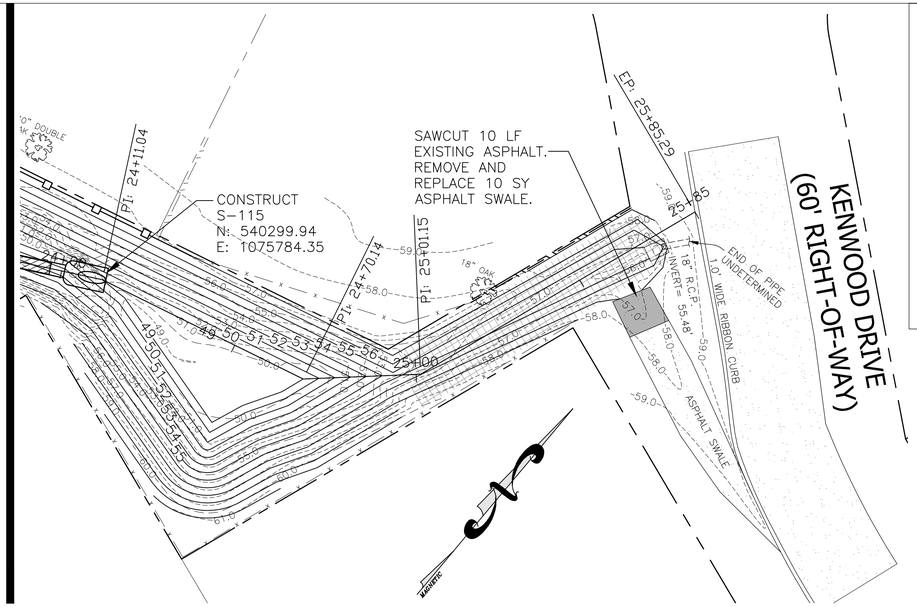
PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP)	DATE	VERIFICATION, CHECKER (QR) (Blue Highlighter)	DATE
PRODUCTION, CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)		REMARK INCORPORATION (Blue Highlighter)	
		ORIGINATOR VERIFICATION Correct (Pink Highlighter)	

ORIGINATOR (QR)	Correct (Green Highlighter) Change (Red Pen)	DATE
CHECKER (RP)	(Red Pen X-Out to Disagree or Remark)	
CHANGE INCORPORATION	(Yellow Highlighter)	

11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'

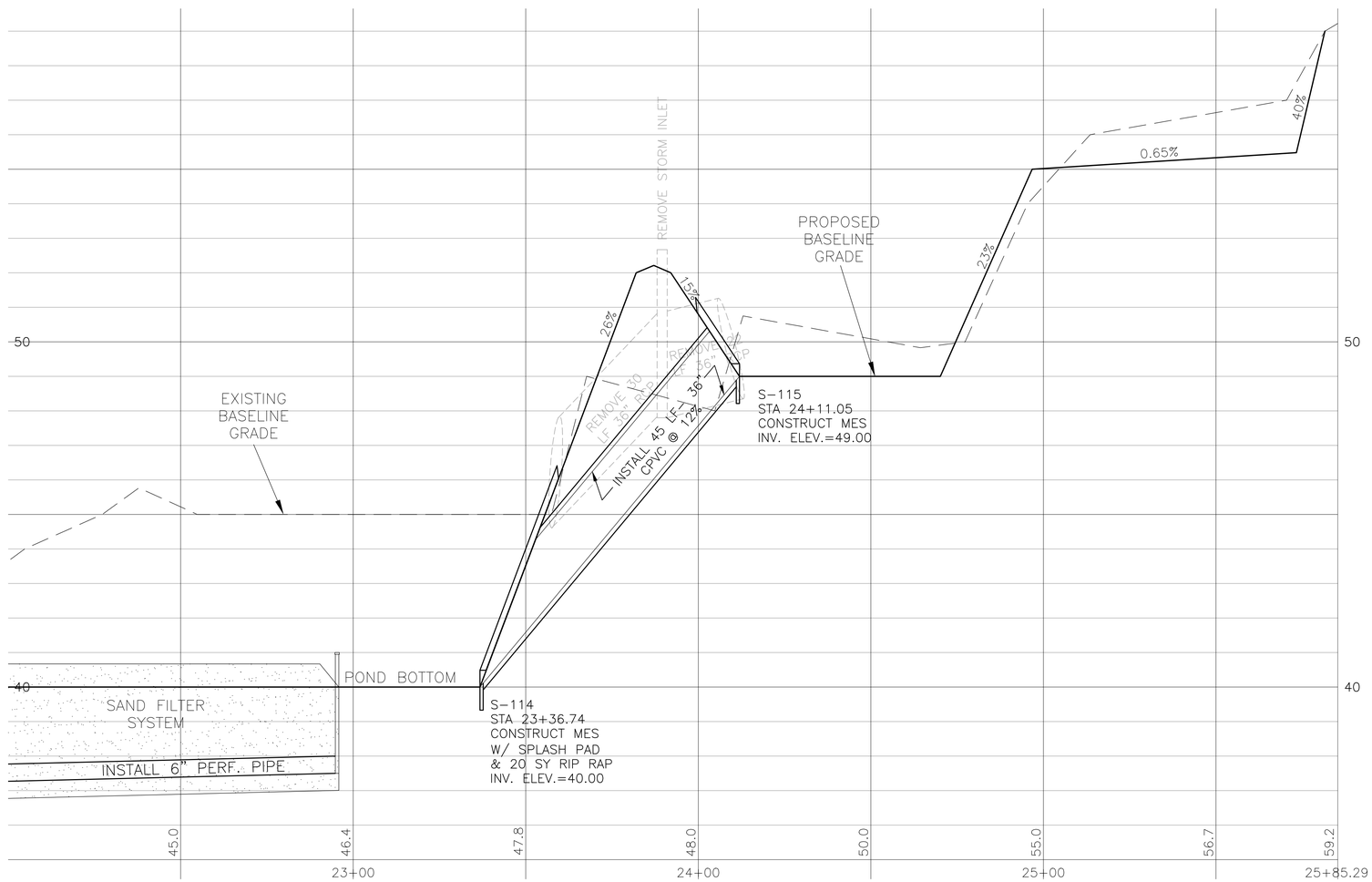




DRAINAGE STRUCTURES		
NO.	LOCATION	TYPE
114	STA 23+31.93	MES W/ SPLASH PAD
115	STA 24+06.24	MITERED END SECTION

NOTE: MITERED END SECTIONS TO BE INSTALLED IN ACCORDANCE WITH LATEST FDOT DESIGN STANDARDS INDEX NO. 272 AT 1:2 SLOPE. PIPE LENGTH (F) TO BE RCP AND SHOULD BE INCLUDED UNDER THE UNIT PRICE FOR THE MITERED END SECTION. CONCRETE COLLAR TO BE INSTALLED FOR CPVC/RCP CONNECTIONS.

11"x17" SCALE 1" = 4'
24"x36" SCALE 1" = 2'



BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

OUTFLOW SPECIAL PROFILE

ESCAMBIA COUNTY FLORIDA

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
REG. FLA. ENG. NO. 54574
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE
SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

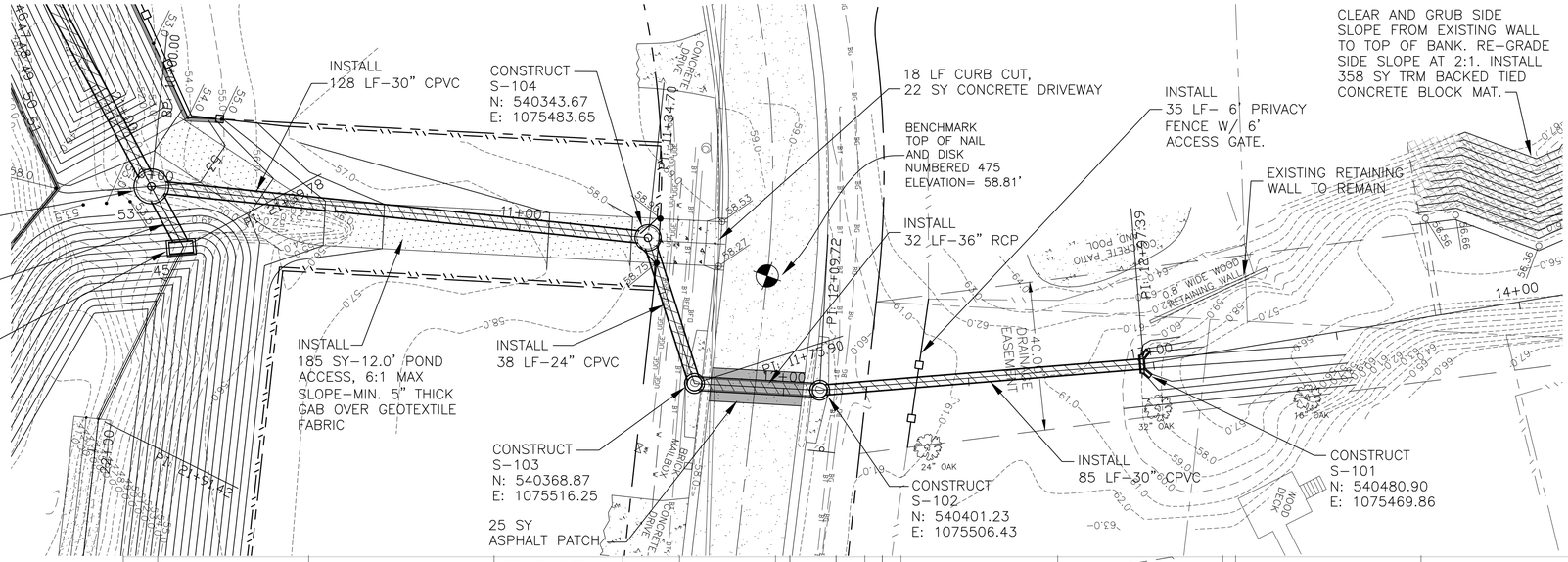
DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C11

PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP)	DATE	VERIFICATION, CHECKER (QR)	(Blue Highlighter)	DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)		REMARK INCORPORATION	(Blue Highlighter)	
		ORIGINATOR VERIFICATION	Correct (Pink Highlighter)	

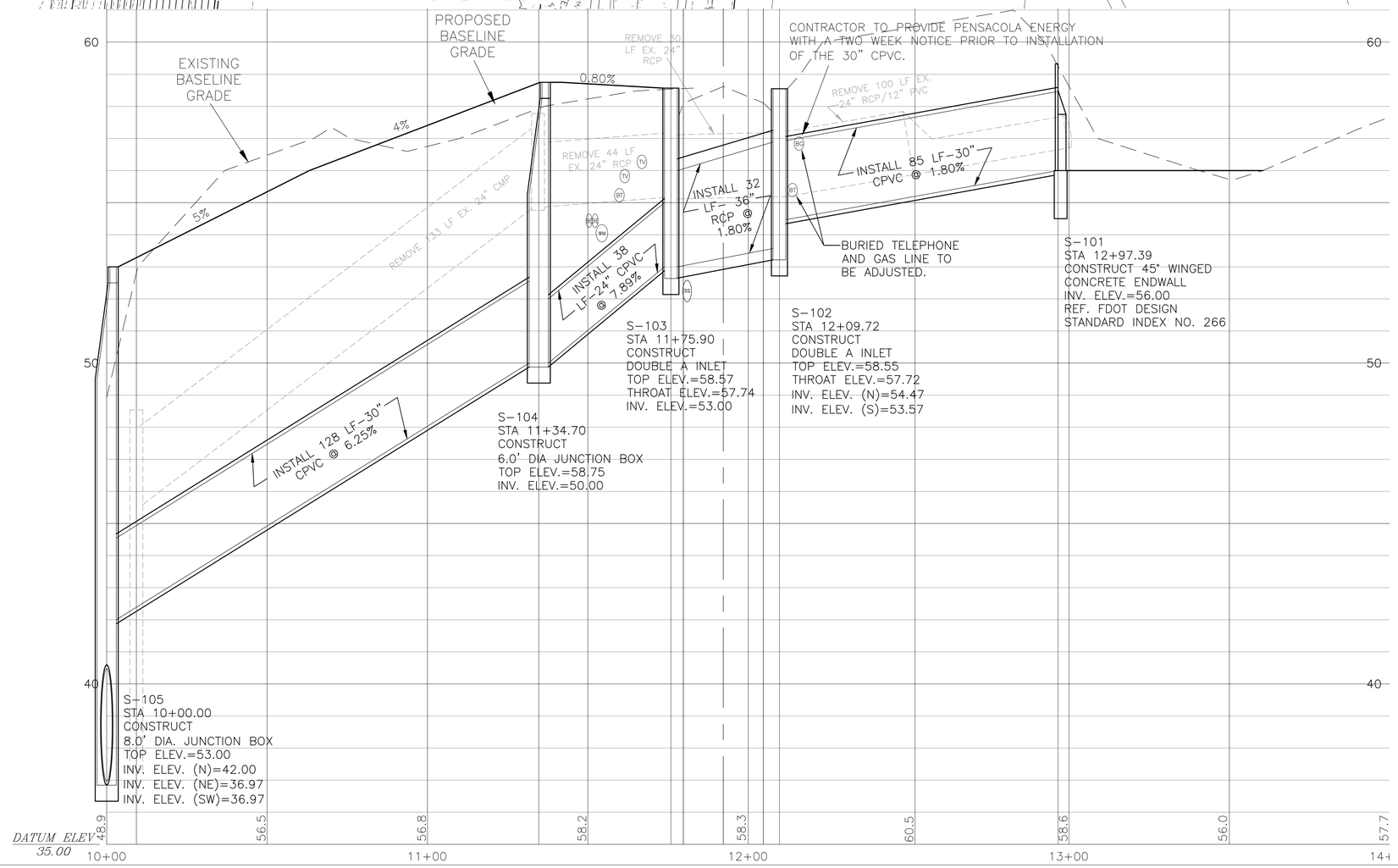
ORIGINATOR (QR)	Correct (Green Highlighter) Change (Red Pen)	DATE
CHECKER (RP)	(Red Pen X-Out to Disagree or Remark)	
CHANGE INCORPORATION	(Yellow HighLighter)	

11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'



DRAINAGE STRUCTURES		
NO.	LOCATION	TYPE
105	STA 10+00.00	8.0' DIA JUNCTION BOX
104	STA 11+44.24	6.0' DIA JUNCTION BOX
103	STA 11+85.45	DOUBLE A INLET
102	STA 12+19.27	DOUBLE A INLET
101	STA 13+06.10	WINGED CONC. ENDWALL

NOTE: WINGWALL TO BE INSTALLED IN ACCORDANCE WITH LATEST FDOT DESIGN STANDARDS INDEX NO. 266. LAST 8' OF PIPE RUN INTO ENDWALL TO BE RCP AND SHOULD BE INCLUDED UNDER THE UNIT PRICE FOR THE WINGED ENDWALL. CONCRETE COLLAR TO BE INSTALLED FOR CPVC/RCP CONNECTIONS.



11"x17" SCALE 1" = 4'
24"x36" SCALE 1" = 2'

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

INFLOW SPECIAL PROFILE

ESCAMBIA COUNTY FLORIDA

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
REG. FLA. ENG. NO. 54574
DATE:
SIGNATURE:
DRAWN BY: ARS
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE
DATE: MARCH 2016

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C12

PHASE ____ REVIEW
SIGNATURE:

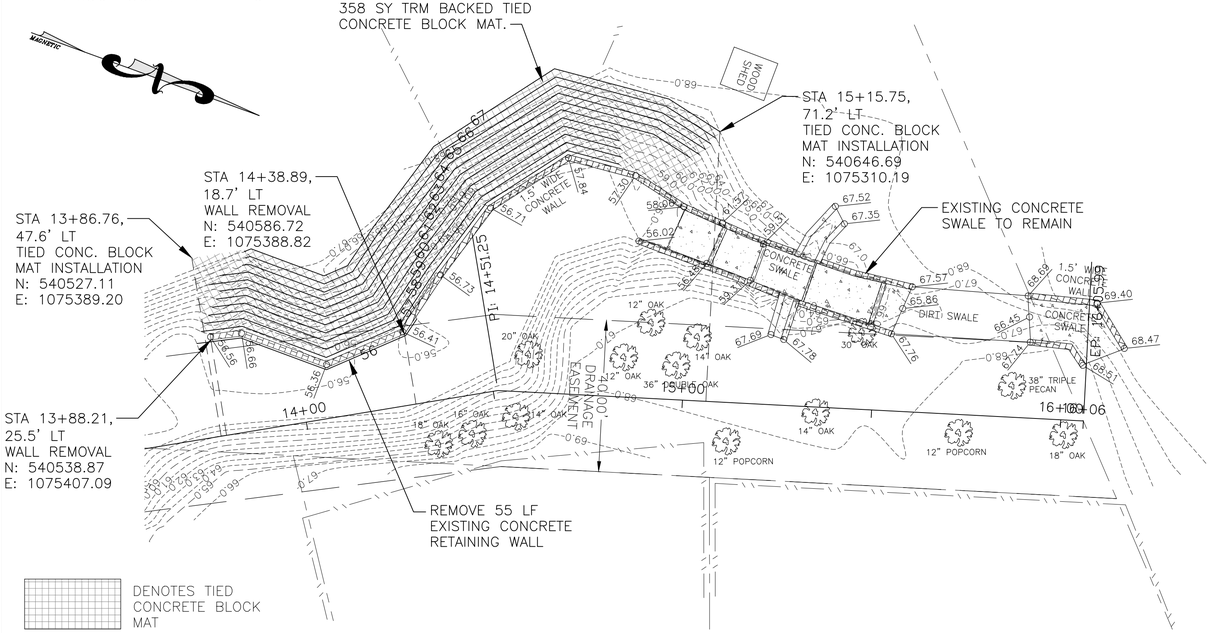
ORIGINATOR (RP) DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)

ORIGINATOR (QR) DATE
CHECKER (RP) (Red Pen X-Out to Disagree or Remark)
CHANGE INCORPORATION (Yellow HighLighter)

VERIFICATION, CHECKER (QR) (Blue Highlighter) DATE
REMARK INCORPORATION (Blue Highlighter) DATE
ORIGINATOR VERIFICATION Correct (Pink Highlighter) DATE

ORIGINATOR (QR) Correct (Green Highlighter) Change (Red Pen)

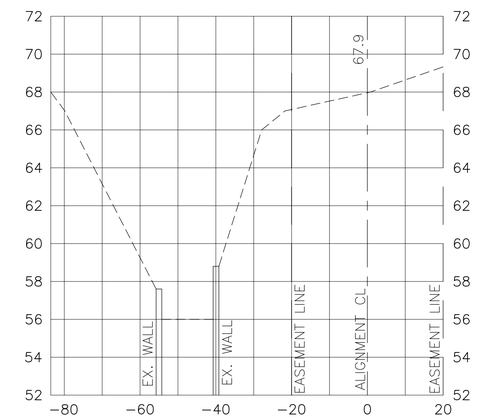
11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'



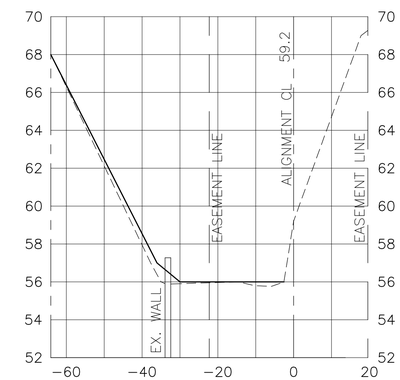
DENOTES TIED CONCRETE BLOCK MAT

11"x17" SCALE 1" = 8'
24"x36" SCALE 1" = 16'

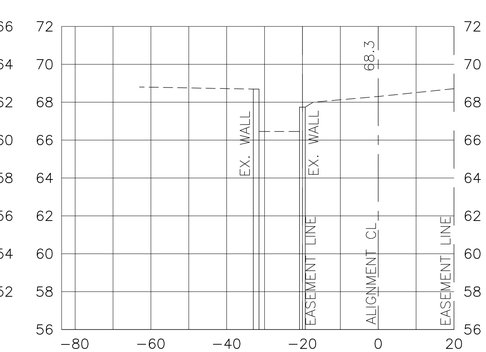
15+00



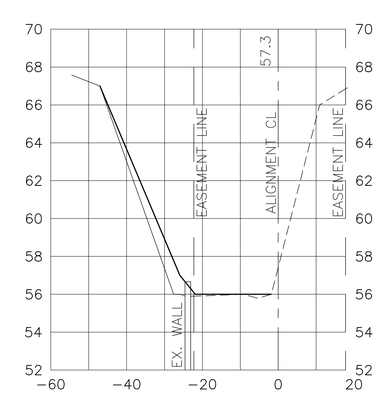
14+50



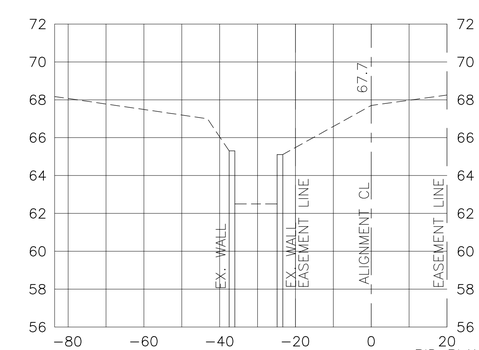
16+00

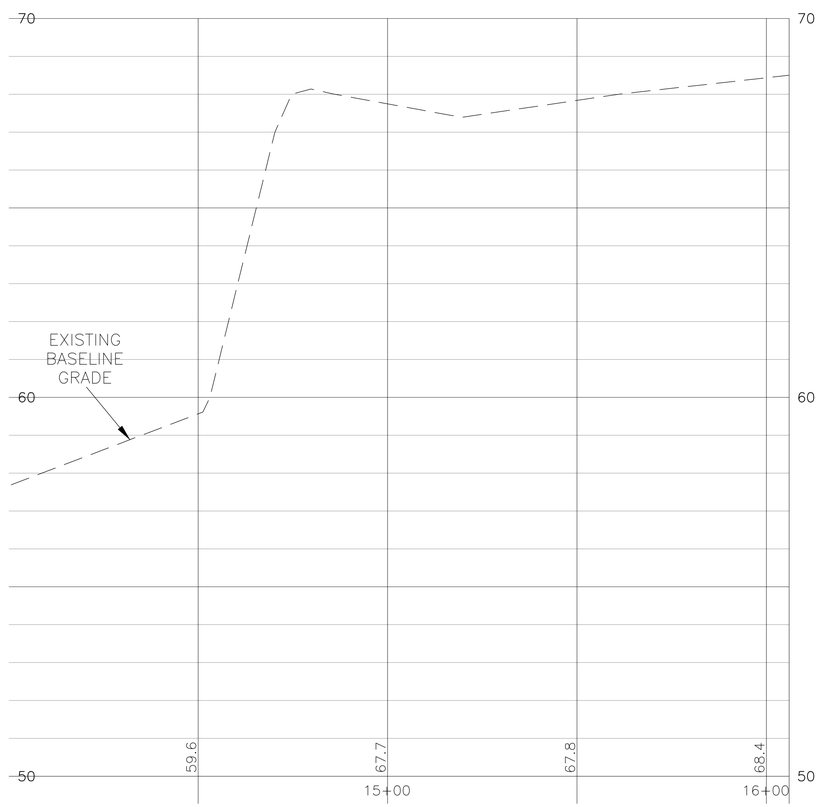


14+00



15+50





11"x17" SCALE 1" = 4'
24"x36" SCALE 1" = 2'

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

INFLOW SPECIAL PROFILE

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
REG. FLA. ENG. NO. 54574
DATE:
SIGNATURE:
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C13

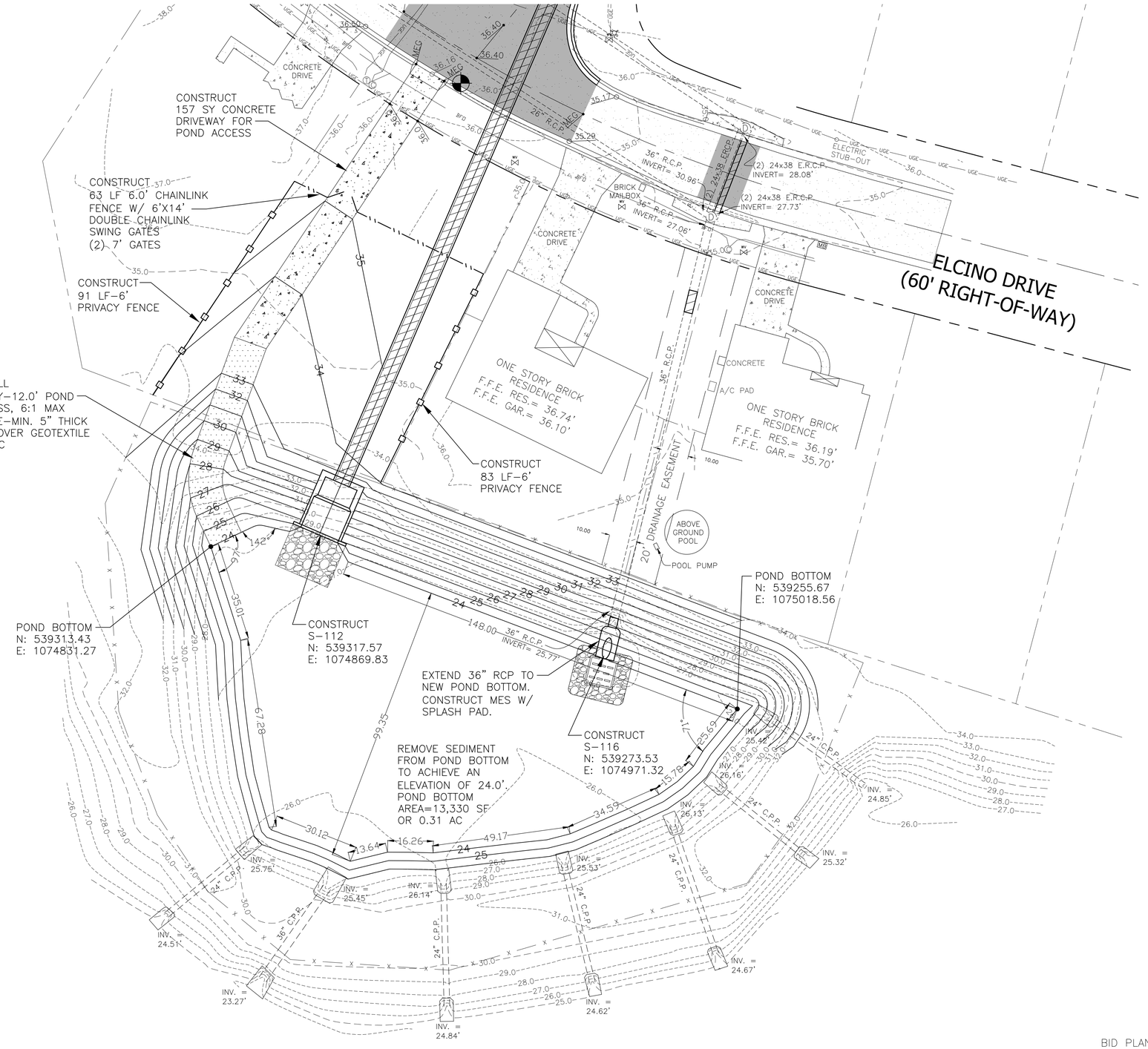
PHASE ____ REVIEW
SIGNATURE:

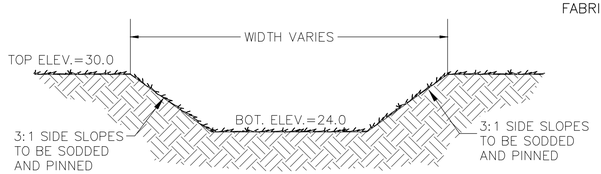
ORIGINATOR (RP) DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)

ORIGINATOR (QR) Correct (Green Highlighter) Change (Red Pen)
CHECKER (RP) (Red Pen X-Out to Disagree or Remark)
CHANGE INCORPORATION (Yellow Highlighter)

VERIFICATION, CHECKER (QR) (Blue Highlighter) DATE
REMARK INCORPORATION (Blue Highlighter) DATE
ORIGINATOR VERIFICATION Correct (Pink Highlighter) DATE

11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'





STORMWATER DETENTION POND
TYPICAL X-SECTION

NOTE: THE ENTIRE BANK SLOPE AND POND BOTTOM SHALL BE STABILIZED IN A MANNER THAT GUARANTEES A HEALTHY GROWTH OF GRASS (FREE FROM NOXIOUS WEEDS) SUCH AS PANGALA, ARGENTINE BAHIA, BERMUDA, CENTIPEDE OR OTHER SUITABLE GRASS.

ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER BY THE CONTRATOR. IF THERE WILL BE TEMPORARY STOCKPILING OF MATERIALS ON THE SITE, THESE AREAS SHOULD CONTAIN EROSION CONTROL BMP'S (e.g. SILT FENCE, HAYBALES, ETC.) AS NECCESSARY.

DETENTION BASIN CONSTRUCTION

1. INITIALLY INSTALL ALL EROSION AND SEDIMENT CONTROL BMP'S AS ILLUSTRATED ON THE SWPPP PLAN PROVIDED AS PART OF THESE PLANS

2. CONSTRUCT THE DETENTION BASIN TO ROUGH GRADE BY UNDER-EXCAVATING THE BASIN BOTTOM AND SIDES BY ABOUT 12 INCHES.

3. AFTER THE DRAINAGE AREA CONTRIBUTING TO THE BASIN HAS BEEN FULLY STABILIZED, THE INTERIOR SIDE SLOPES AND BASIN BOTTOM SHALL BE EXCAVATED TO FINAL DESIGN SPECIFICATIONS. THE EXCESS SOIL AND UNDESIRABLE MATERIAL MUST BE CAREFULLY EXCAVATED AND REMOVED FROM THE POND SO THAT ALL ACCUMULATED SILTS, CLAYS, ORGANICS, AND OTHER FINE SEDIMENT MATERIAL HAS BEEN REMOVED FROM THE POND AREA. THE EXCAVATED MATERIAL SHALL BE DISPOSED OF BEYOND THE LIMITS OF THE DRAINAGE AREA OF THE BASIN.

4. ONCE THE BASIN HAS BEEN EXCAVATED TO FINAL GRADE, THE ENTIRE BASIN BOTTOM MUST BE DEEP RAKED AND LOOSENED FOR OPTIMAL FILTRATION.

5. FINALLY, THE BASIN MUST BE STABILIZED WITH PERMANENT VEGETATIVE COVER.

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

LOWER POND

ESCAMBIA COUNTY FLORIDA

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DESIGNED BY: T. HAMMOND/R. SIEG	RGS. FLA. ENG. NO. 54574
CHECKED BY: T. HAMMOND	DATE:
DRAWN BY: ARS	SIGNATURE:
PROJECT MANAGER: N. CHAUVIN	DISTRICT: ONE
DATE: MARCH 2016	

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

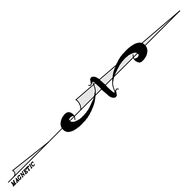
DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C14

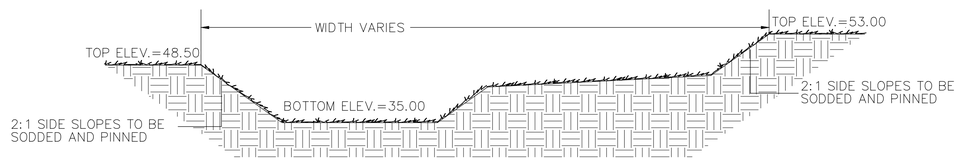
ORIGINATOR (RP)	DATE	VERIFICATION, CHECKER (QR) (Blue Highlighter)	DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)	DATE	REMARK INCORPORATION (Blue Highlighter)	DATE
		ORIGINATOR VERIFICATION Correct (Pink Highlighter)	DATE

ORIGINATOR (QR)	Correct (Green Highlighter) Change (Red Pen)		
CHECKER (RP)	(Red Pen X-Out to Disagree or Remark)		
CHANGE INCORPORATION	(Yellow Highlighter)		

PHASE _____ REVIEW
SIGNATURE:

11"x17" SCALE 1" = 60'
24"x36" SCALE 1" = 30'





STORMWATER DETENTION POND
TYPICAL X-SECTION

NOTE: THE ENTIRE BANK SLOPE AND POND BOTTOM SHALL BE STABILIZED IN A MANNER THAT GUARANTEES A HEALTHY GROWTH OF GRASS (FREE FROM NOXIOUS WEEDS) SUCH AS PANGALA, ARGENTINE BAHIA, BERMUDA, CENTIPEDE OR OTHER SUITABLE GRASS.

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DETENTION BASIN CONSTRUCTION

1. INITIALLY INSTALL ALL EROSION AND SEDIMENT CONTROL BMP'S AS ILLUSTRATED ON THE SWPPP PLAN PROVIDED AS PART OF THESE PLANS (SHEET P10)

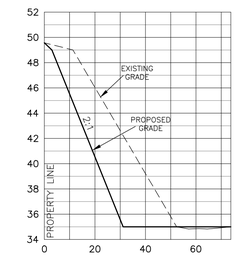
2. CONSTRUCT THE DETENTION BASIN TO ROUGH GRADE BY UNDER-EXCAVATING THE BASIN BOTTOM AND SIDES BY ABOUT 12 INCHES.

3. AFTER THE DRAINAGE AREA CONTRIBUTING TO THE BASIN HAS BEEN FULLY STABILIZED, THE INTERIOR SIDE SLOPES AND BASIN BOTTOM SHALL BE EXCAVATED TO FINAL DESIGN SPECIFICATIONS. THE EXCESS SOIL AND UNDESIRABLE MATERIAL MUST BE CAREFULLY EXCAVATED AND REMOVED FROM THE POND SO THAT ALL ACCUMULATED SILTS, CLAYS, ORGANICS, AND OTHER FINE SEDIMENT MATERIAL HAS BEEN REMOVED FROM THE POND AREA. THE EXCAVATED MATERIAL SHALL BE DISPOSED OF BEYOND THE LIMITS OF THE DRAINAGE AREA OF THE BASIN.

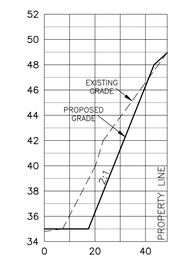
4. ONCE THE BASIN HAS BEEN EXCAVATED TO FINAL GRADE, THE ENTIRE BASIN BOTTOM MUST BE DEEP RAKED AND LOOSENED FOR OPTIMAL FILTRATION.

5. FINALLY, THE BASIN MUST BE STABILIZED WITH PERMANENT VEGETATIVE COVER.

A–A

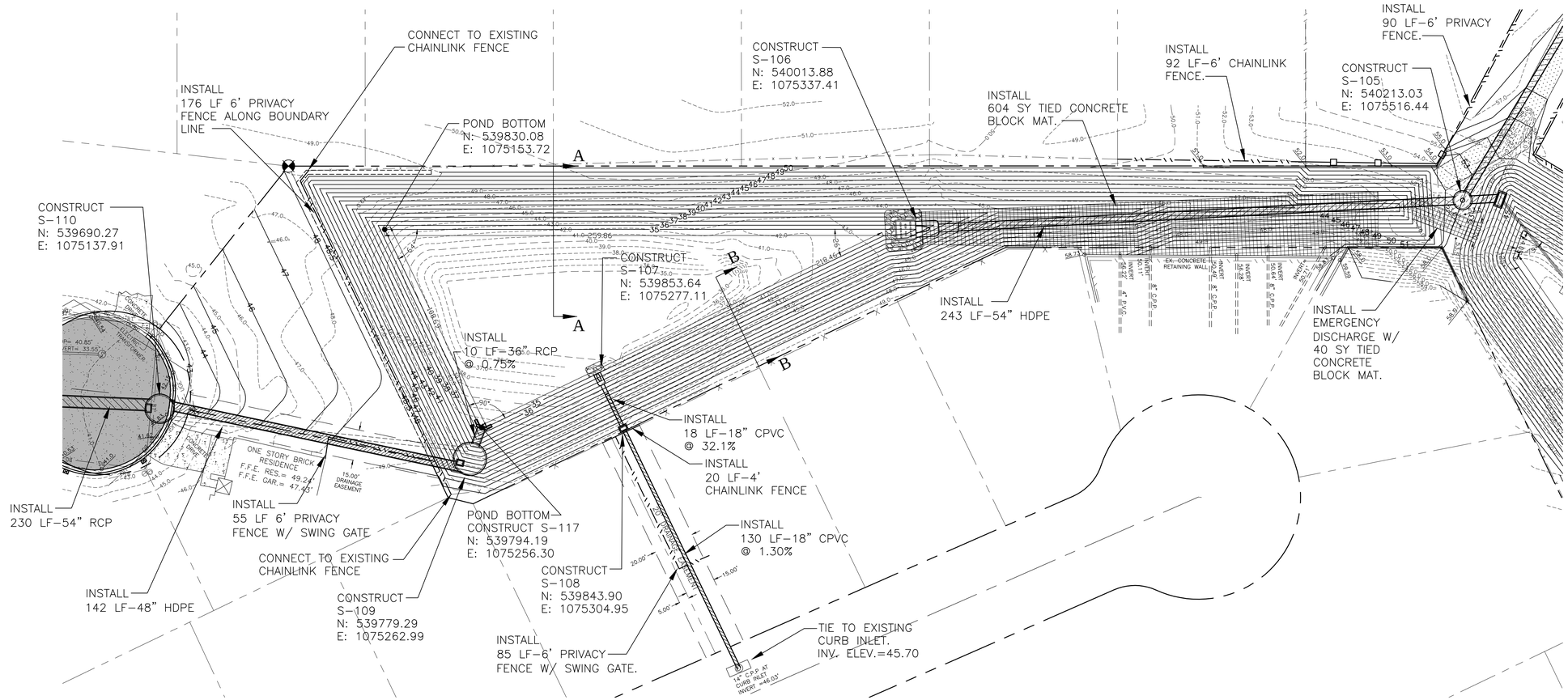


B–B



HORIZONTAL SCALE:
11"x17" SCALE 1" = 60'
24"x36" SCALE 1" = 30'

VERTICAL SCALE:
11"x17" SCALE 1" = 12'
24"x36" SCALE 1" = 6'



BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

MIDDLE POND

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
REG. FLA. ENG. NO. 54574
SIGNATURE:
DATE:
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C15

PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP) DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP) CHECKER (RP) DATE
CHANGE INCORPORATION ORIGINATOR (GR) DATE
ORIGINATOR VERIFICATION VERIFICATION, CHECKER (GR) DATE
Correct (Pink Highlighter) (Blue Highlighter) DATE
Correct (Green Highlighter) Change (Red Pen) (Blue Highlighter) DATE
(Yellow Highlighter) (Red Pen X-Out to Disagree or Remark) REMARK INCORPORATION DATE

TYPICAL DRIVEWAY CONNECTION STANDARDS FOR EXISTING ROADWAY CONDITIONS

NOTES:

1) ALL MATERIALS AND LABOR FOR INSTALLATION WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER/CONTRACTOR.

2) RESIDENTIAL DRIVEWAYS ABUTTING PAVED ROADS SHALL BE 1 – ½" ASPHALT WITH 6" STABILIZED SUB GRADE OR 4" CONCRETE WITH 6" STABILIZED SUB GRADE – 98% COMPACTION (MODIFIED PROCTOR) WITH LBR 40 BETWEEN EDGE OF ROADWAY AND R/W LINE. COMPACTION AND TESTING IF NECESSARY, THIS WILL BE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR.

3) DRIVEWAYS ABUTTING A DIRT ROAD SHALL BE MILLED ASPHALT, GRADED AGGREGATE BASE, OR WASHED CONCRETE (4" IN DEPTH) ON THE COUNTY MAINTAINED PORTION OF DRIVEWAY.

4) IF NECESSARY, REFER TO FDOT INDEX DETAILS AS REFERENCED BELOW.

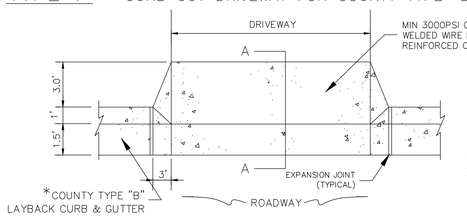
5) RADIUS OR FLARE IS REQUIRED FOR TYPE II OR TYPE III CONNECTIONS. SEE DETAIL.

6) PARKING SPACES WITHIN COUNTY RIGHT-OF-WAY SHALL PROVIDE A MINIMUM OF 2 PARKING SPACES.

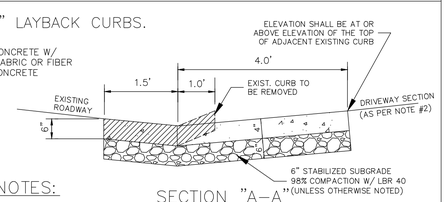
7) TYPICAL DRIVEWAY SECTIONS ARE TO BE 12' WIDE MINIMUM. (4" MIN. RESIDENTIAL DEPTH – 6" MIN. COMMERCIAL DEPTH)

8) DRIVEWAY SLOPE SHALL NOT CREATE OR EXACERBATE VEHICULAR SCRAPING. ATTEMPTS SHALL BE MADE TO CORRECT THIS TYPE OF PROBLEM.

TYPE I CURB CUT DRIVEWAY FOR COUNTY TYPE "B" LAYBACK CURBS.



PLAN VIEW



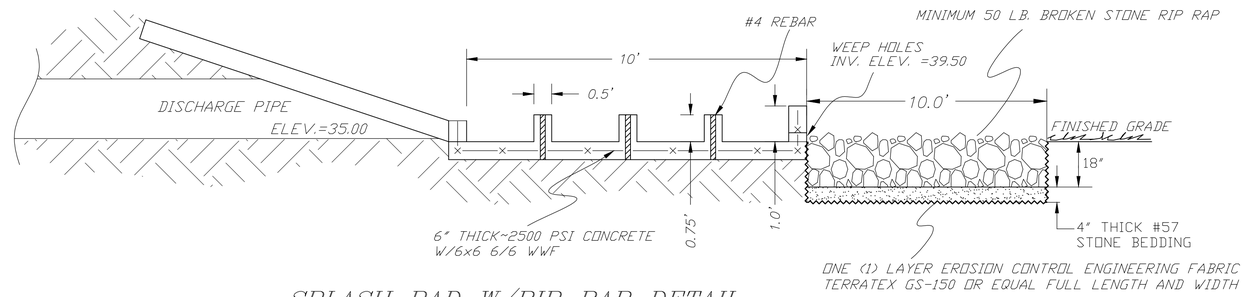
SECTION "A–A"

NOTES:

1.) SEE STANDARD COUNTY CURB DETAILS FOR REFERENCE.

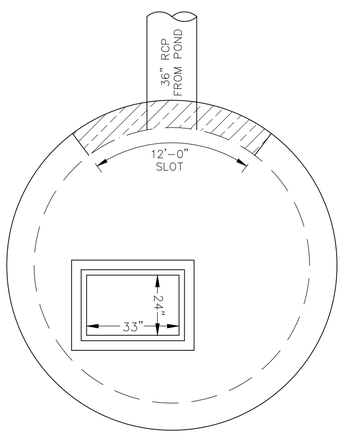
2.) SEE F.D.O.T. INDEX NO. 515 FOR OTHER CONNECTIONS.

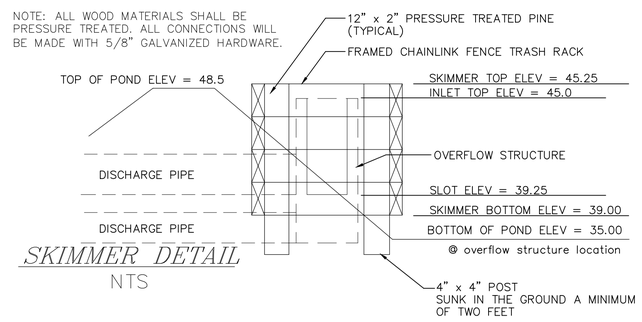
* FOR OTHER TYPE CURBS, DIMENSIONS MAY BE ADJUSTED TO FIT.



SPLASH PAD W/RIP RAP DETAIL

X-SECTION VIEW
NOT TO SCALE

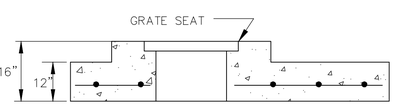


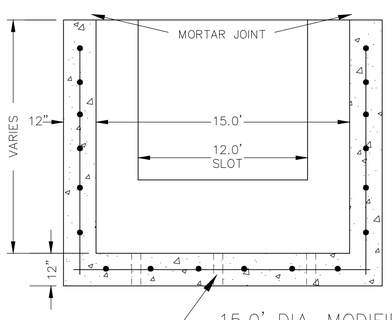


SKIMMER DETAIL

NTS

STRUCTURE S-109





MATERIALS:

CONCRETE: 4000 PSI, TYPE II CEMENT
WALL REINFORCING: PER ASTM C-478 STANDARDS
TOP SLAB REINFORCING: #6 @ 6" C.C.E.W. WITH 2 EA. #6 (4 SIDES) AROUND OPENING*
BOTTOM SLAB REINFORCING: #6 @ 12" C.C.E.W.

NOTE:

* GRADE 40, OR EQUIVALENT WELDED WIRE MESH.

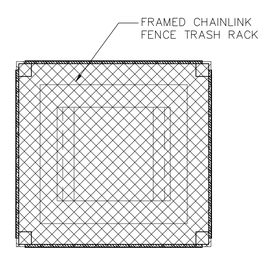
GRATE INFORMATION:

U.S.F. NO.	TYPE	RATING	FLOW AREA (SQ. IN.)
6212	CAST IRON	H-20 TRAFFIC	445

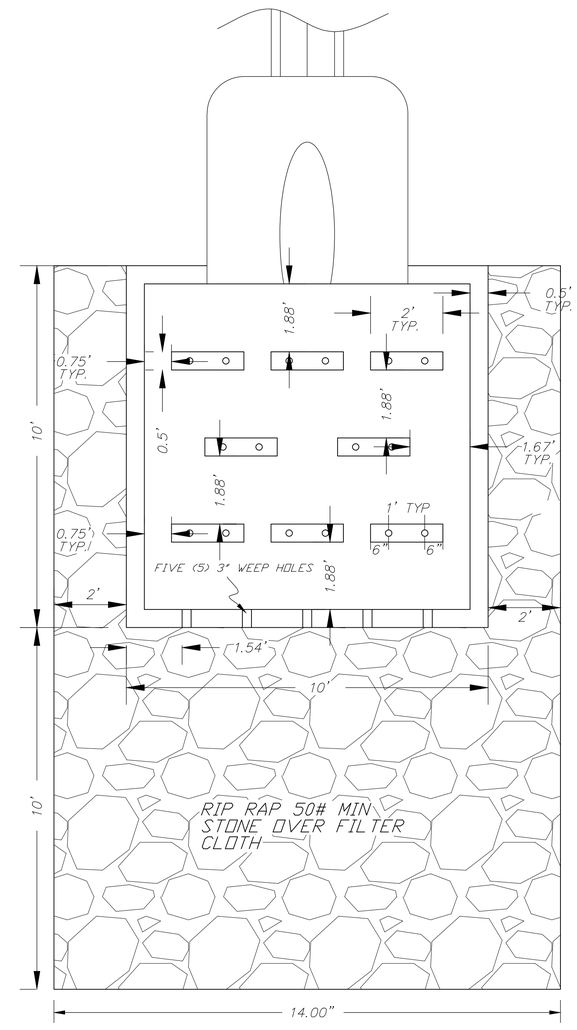
GRATE NOT SHOWN FOR CLARITY.

15.0' DIA. MODIFIED TYPE 'C' INLET

N.T.S



NOTE: TRASH RACK SHALL BE WELDED 1⅝" O.D. GALVANIZED STEEL FRAME WITH 11.5 GAUGE GALVANIZED STEEL CHAIN LINK FENCE FABRIC. ENSURE FABRIC SITS FLUSH ON TOP OF SKIMMER FRAME. SECURE ENTIRE ASSEMBLY TO WOOD SKIMMER WITH STAINLESS STEEL STRAPS.



SPLASH PAD W/RIP RAP DETAIL

PLAN VIEW
NOT TO SCALE

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

MIDDLE POND DETAILS

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
REG. FLA. ENG. NO. 54574
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE
SIGNATURE:
DATE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C16

ORIGINATOR (GR) Correct (Green Highlighter) Change (Red Pen) DATE
CHECKER (RP) (Red Pen X-Out to Disagree or Remark) DATE
CHANGE INCORPORATION (Yellow HighLighter) DATE

ORIGINATOR (RP) DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP) DATE
PHASE ____ REVIEW
SIGNATURE:

VERIFICATION, CHECKER (GR) (Blue Highlighter) DATE
REMARK INCORPORATION (Blue Highlighter) DATE
ORIGINATOR VERIFICATION Correct (Pink Highlighter) DATE

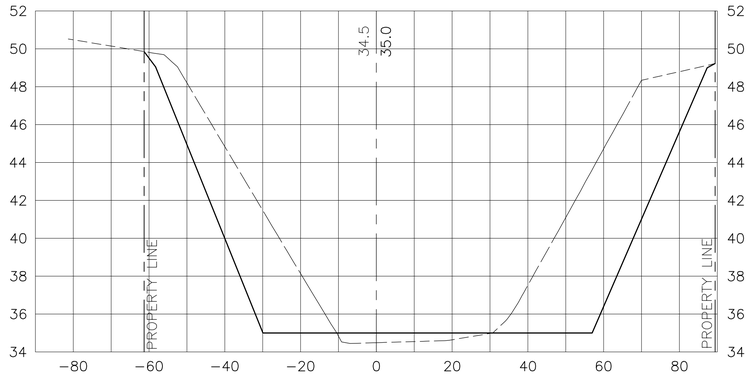
11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'

11"x17" SCALE 1" = 8'
24"x36" SCALE 1" = 16'

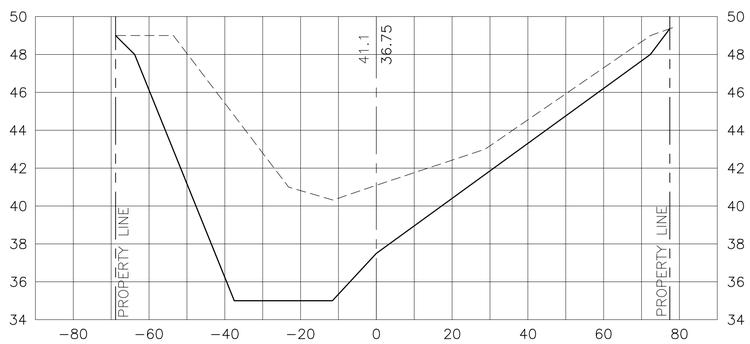
DENOTES EXISTING GRADE

DENOTES PROPOSED GRADE

16+50



16+00



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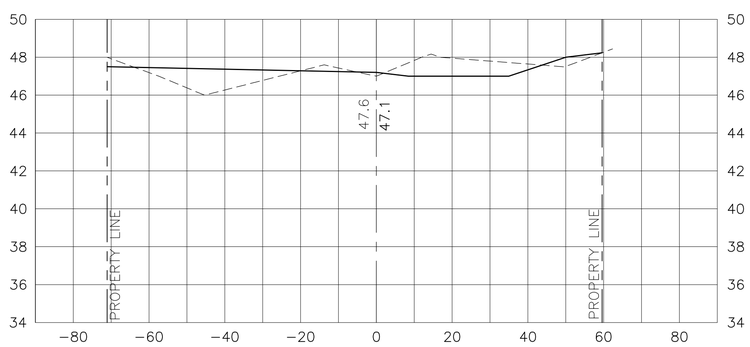

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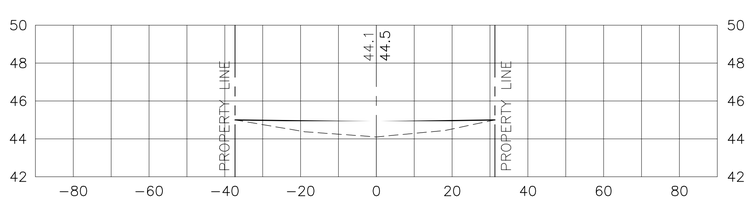

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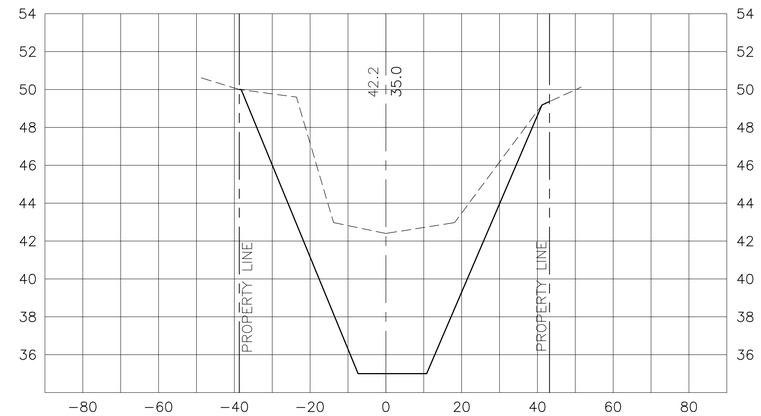

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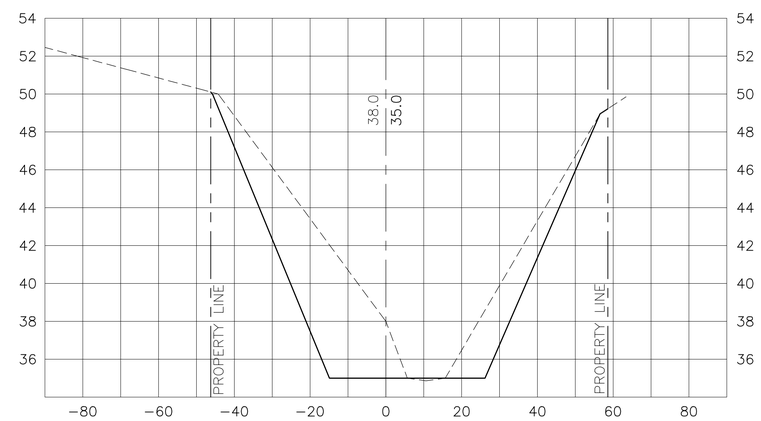

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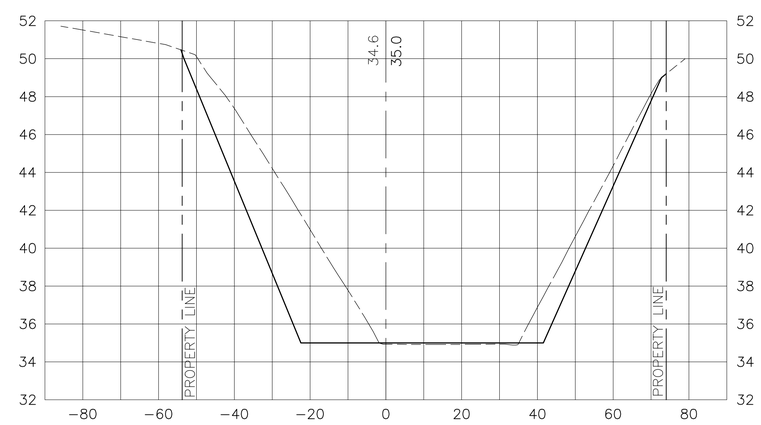

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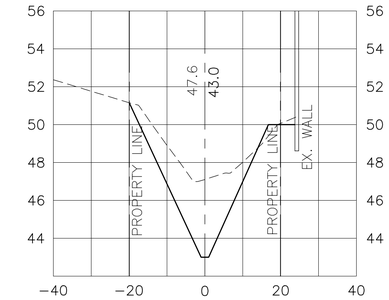

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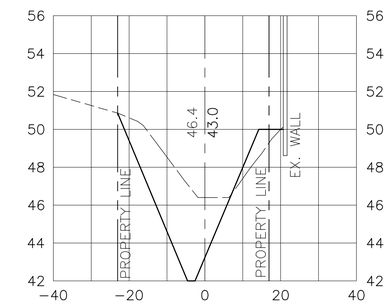

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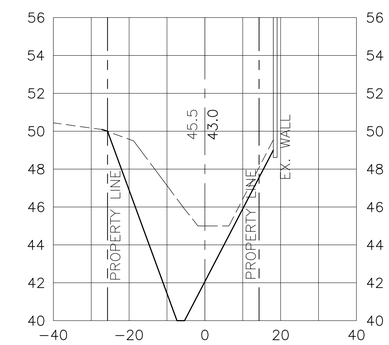

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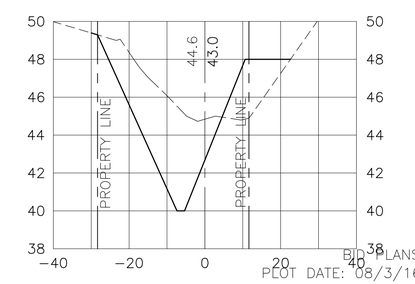

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

MIDDLE POND CROSS SECTIONS

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
RGS. FLA. ENG. NO. 54574
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE
SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C17

PHASE ____ REVIEW	ORIGINATOR (RP)	DATE	VERIFICATION, CHECKER (QR) (Blue Highlighter) DATE
SIGNATURE:	PRODUCTION, CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)		REMARK INCORPORATION (Blue Highlighter)
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	CHANGE INCORPORATION (Yellow Highlighter)		

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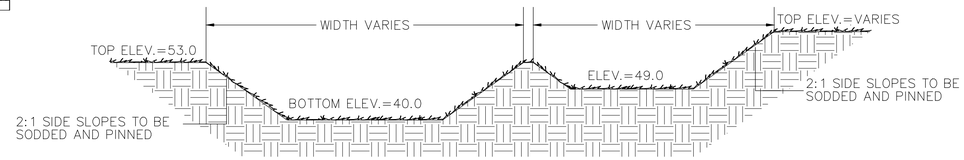


STORMWATER DETENTION POND
TYPICAL X-SECTION

NOTE: THE ENTIRE BANK SLOPE AND POND BOTTOM SHALL BE STABILIZED IN A MANNER THAT GUARANTEES A HEALTHY GROWTH OF GRASS (FREE FROM NOXIOUS WEEDS) SUCH AS PANGALA, ARGENTINE BAHIA, BERMUDA, CENTIPEDE OR OTHER SUITABLE GRASS.

ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER BY THE CONTRATOR. IF THERE WILL BE TEMPORARY STOCKPILING OF MATERIALS ON THE SITE, THESE AREAS SHOULD CONTAIN EROSION CONTROL BMP'S (e.g. SILT FENCE, HAYBALES, ETC.) AS NECCESSARY.

DENOTES TIED CONCRETE BLOCK MAT

STORMWATER BASIN MAINTENANCE REQUIREMENTS

THE DETENTION AREA SHALL BE FERTILIZED AND MOWED WHEN OTHER LANDSCAPED AREAS ARE MAINTAINED AND NOT LESS THAN THREE (3) TIMES PER YEAR.

ANY BARE SPOTS GREATER THAT THREE (3) SQUARE FEET SHALL BE RESODDED.

PERCOLATION PERFORMANCE SHALL BE EVALUATED WITHIN THE POND AT LEAST EVERY THIRD YEAR. IN THE EVENT OF INADEQUATE PERCOLATION, DETENTION AREA BOTTOM MAINTENANCE SHOULD BE PERFORMED AS FOLLOWS:

A. REMOVE 2 TO 3 INCHES OF THE DETENTION AREA BOTTOM MATERIAL AND SCARIFY EXCAVATED BOTTOM.

B. REPLACE EXCAVATED BOTTOM MATERIAL WITH CLEAN SAND MATERIAL TO DESIGN GRADE.

THE STORMWATER SYSTEM SHALL BE INSPECTED PERIODICALLY FOR DEBRIS AND TRASH. TRASH AND DEBRIS SHALL BE REMOVED UPON DISCOVERY.

THE STORMWATER SYSTEM BOTTOM SHALL BE INSPECTED PERIODICALLY FOR SILT ACCUMULATION. ANY IDENTIFIED SILT SHALL BE REMOVED IN ACCORDANCE WITH THE APPROPRIATE REGULATION.

DETENTION BASIN CONSTRUCTION

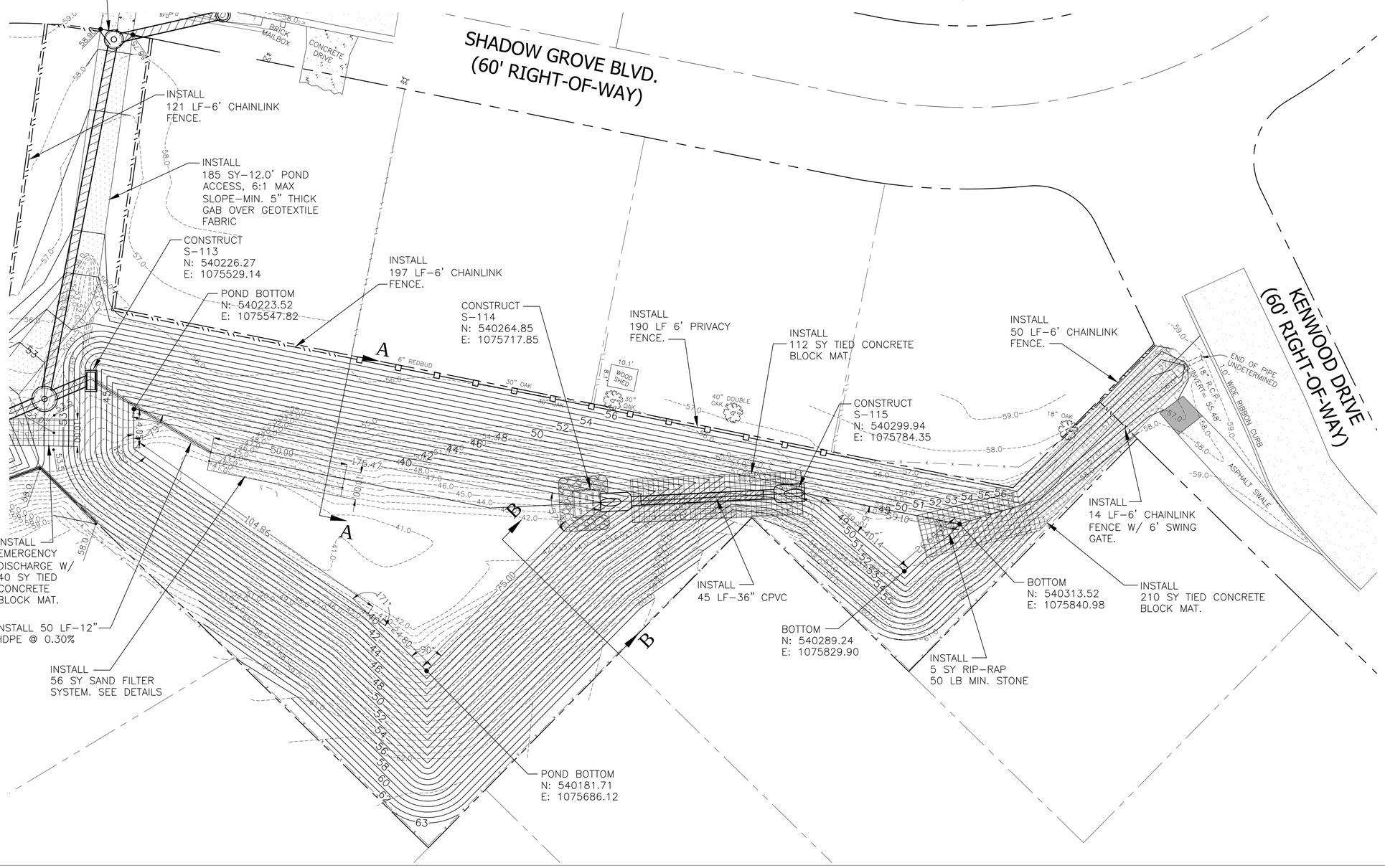
1. INITIALLY INSTALL ALL EROSION AND SEDIMENT CONTROL BMP'S AS ILLUSTRATED ON THE SWPPP PLAN PROVIDED AS PART OF THESE PLANS

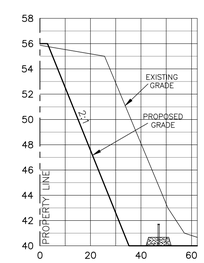
2. CONSTRUCT THE DETENTION BASIN TO ROUGH GRADE BY UNDER-EXCAVATING THE BASIN BOTTOM AND SIDES BY ABOUT 12 INCHES.

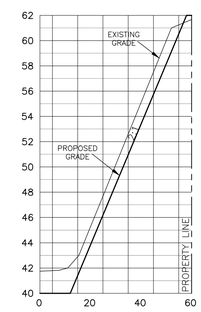
3. AFTER THE DRAINAGE AREA CONTRIBUTING TO THE BASIN HAS BEEN FULLY STABILIZED, THE INTERIOR SIDE SLOPES AND BASIN BOTTOM SHALL BE EXCAVATED TO FINAL DESIGN SPECIFICATIONS. THE EXCESS SOIL AND UNDESIRABLE MATERIAL MUST BE CAREFULLY EXCAVATED AND REMOVED FROM THE POND SO THAT ALL ACCUMULATED SILTS, CLAYS, ORGANICS, AND OTHER FINE SEDIMENT MATERIAL HAS BEEN REMOVED FROM THE POND AREA. THE EXCAVATED MATERIAL SHALL BE DISPOSED OF BEYOND THE LIMITS OF THE DRAINAGE AREA OF THE BASIN.

4. ONCE THE BASIN HAS BEEN EXCAVATED TO FINAL GRADE, THE ENTIRE BASIN BOTTOM MUST BE DEEP RAKED AND LOOSENED FOR OPTIMAL FILTRATION.

5. FINALLY, THE BASIN MUST BE STABILIZED WITH PERMANENT VEGETATIVE COVER.







HORIZONTAL SCALE:
11"x17" SCALE 1" = 60'
24"x36" SCALE 1" = 30'
VERTICAL SCALE:
11"x17" SCALE 1" = 12'
24"x36" SCALE 1" = 6'

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

UPPER POND SPECIAL PROFILE

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS	DESIGNED BY: T. HAMMOND/R. SIEG
DATE: MARCH 2016	CHECKED BY: T. HAMMOND
PROJECT MANAGER: N. CHAUVIN	REG. FLA. ENG. NO. 54574
DISTRICT: ONE	SIGNATURE:

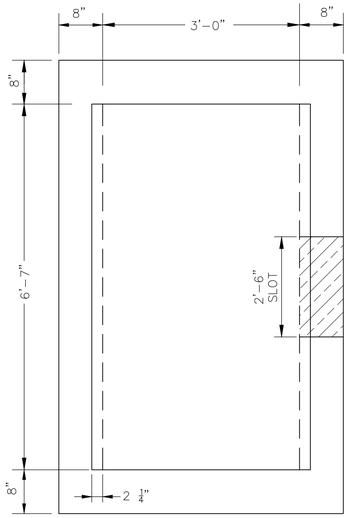
NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

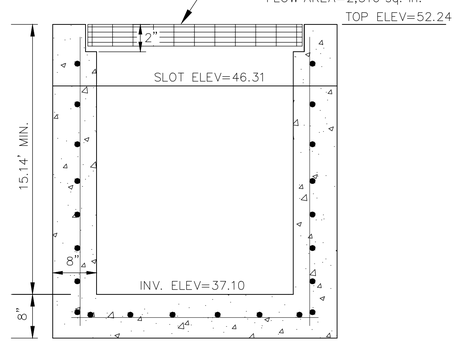
DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C18

PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP)	DATE	VERIFICATION, CHECKER (QR) (Blue Highlighter)	DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)		REMARK INCORPORATION (Blue Highlighter)	
		ORIGINATOR VERIFICATION Correct (Pink Highlighter)	

ORIGINATOR (QR)	Correct (Green Highlighter) Change (Red Pen)	DATE	
CHECKER (RP)	(Red Pen X-Out to Disagree or Remark)	DATE	
CHANGE INCORPORATION	(Yellow HighLighter)	DATE	





FDOT TYPE 'H' OVERFLOW STRUCTURE

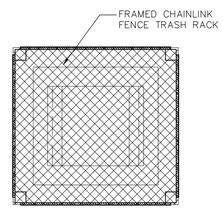
NTS

MATERIALS:

CONCRETE: 4000 PSI, TYPE II CEMENT
WALL REINFORCING: #4 @ 6" O.C. HOR.; #4 @ 12" O.C VERT.
BOTTOM SLAB REINFORCING: #4 @ 10" O.C.E.W. *

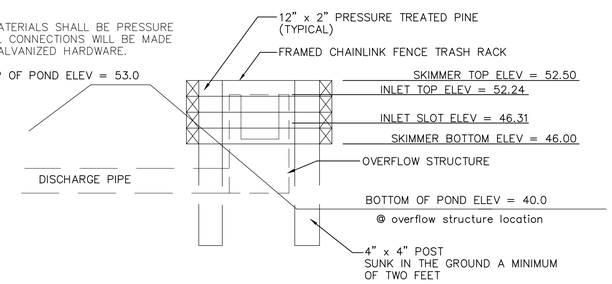
NOTE:

ALL EXPOSED EDGES TO HAVE 3/4" CHAMFER
* GRADE 40, OR EQUIVALENT WELDED WIRE MESH.



NOTE: TRASH RACK SHALL BE WELDED 1⅝" O.D. GALVANIZED STEEL FRAME WITH 11.5 GAUGE GALVANIZED STEEL CHAIN LINK FENCE FABRIC. ENSURE FABRIC SITS FLUSH ON TOP OF SKIMMER FRAME. SECURE ENTIRE ASSEMBLY TO WOOD SKIMMER WITH STAINLESS STEEL STRAPS.

NOTE: ALL WOOD MATERIALS SHALL BE PRESSURE TREATED. ALL CONNECTIONS WILL BE MADE WITH 5/8" GALVANIZED HARDWARE.



STRUCTURE S-113

SKIMMER DETAIL

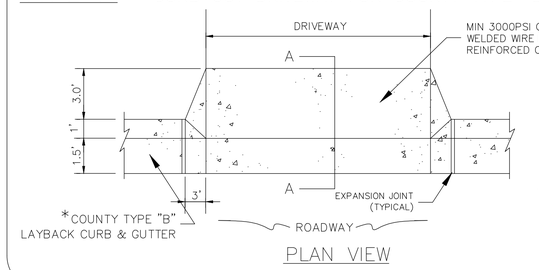
NTS

TYPICAL DRIVEWAY CONNECTION STANDARDS FOR EXISTING ROADWAY CONDITIONS

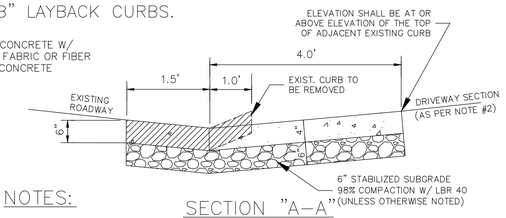
NOTES:

1) ALL MATERIALS AND LABOR FOR INSTALLATION WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER/CONTRACTOR.
2) RESIDENTIAL DRIVEWAYS ABUTTING PAVED ROADS SHALL BE 1 – ½" ASPHALT WITH 6" STABILIZED SUB GRADE OR 4" CONCRETE WITH 6" STABILIZED SUB GRADE – 98% COMPACTION (MODIFIED PROCTOR) WITH LBR 40 BETWEEN EDGE OF ROADWAY AND R/W LINE. COMPACTION AND TESTING IF NECESSARY, THIS WILL BE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR.
3) DRIVEWAYS ABUTTING A DIRT ROAD SHALL BE MILLED ASPHALT, GRADED AGGREGATE BASE, OR WASHED CONCRETE (4" IN DEPTH) ON THE COUNTY MAINTAINED PORTION OF DRIVEWAY.
4) IF NECESSARY, REFER TO FDOT INDEX DETAILS AS REFERENCED BELOW.
5) RADIUS OR FLARE IS REQUIRED FOR TYPE II OR TYPE III CONNECTIONS. SEE DETAIL.
6) PARKING SPACES WITHIN COUNTY RIGHT-OF-WAY SHALL PROVIDE A MINIMUM OF 2 PARKING SPACES.
7) TYPICAL DRIVEWAY SECTIONS ARE TO BE 12' WIDE MINIMUM. (4" MIN. RESIDENTIAL DEPTH – 6" MIN. COMMERCIAL DEPTH)
8) DRIVEWAY SLOPE SHALL NOT CREATE OR EXACERBATE VEHICULAR SCRAPING. ATTEMPTS SHALL BE MADE TO CORRECT THIS TYPE OF PROBLEM.

TYPE I CURB CUT DRIVEWAY FOR COUNTY TYPE "B" LAYBACK CURBS.



PLAN VIEW



NOTES:

1.) SEE STANDARD COUNTY CURB DETAILS FOR REFERENCE.
2.) SEE F.D.O.T. INDEX NO. 515 FOR OTHER CONNECTIONS.

* FOR OTHER TYPE CURBS, DIMENSIONS MAY BE ADJUSTED TO FIT.

SECTION "A-A"

SAND FILTER SYSTEM MAINTENANCE

PERIODIC CLEANING OF FILTER SYSTEM BY MEANS OF PRESSURE BACK-WASHING SHALL BE EXPECTED. ROUTINE INSPECTIONS DETAILING THE CONDITIONS OF THE SYSTEM AND INTERIOR OF THE FILTER PIPES SHALL DETERMINE WHEN BACK-WASHING BECOMES NECESSARY.

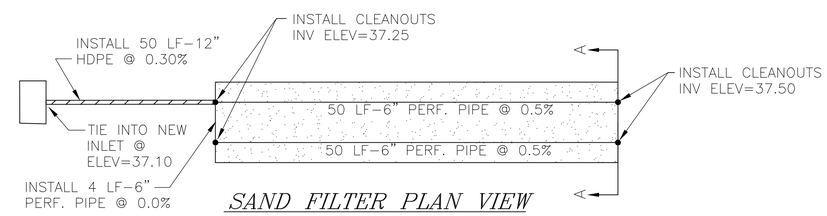
REPLACEMENT OF THE SAND FILTER SYSTEM SHALL BE EXPECTED TO ASSURE OF THE SYSTEM'S FUNCTIONALITY. AGAIN, ROUTINE INSPECTIONS DETAILING THE CONDITIONS AND FUNCTIONALITY OF THE SYSTEM SHALL DETERMINE IF AND WHEN A FULL REPLACEMENT BECOMES NECESSARY.

BENDS INSTALLED AS PART OF THE OUTLET PIPING IN SYSTEM ARE TO BE INSPECTED PERIODICALLY TO ASSURE OF ADEQUATE FUNCTIONING.

PERCOLATION PERFORMANCE SHALL BE EVALUATED WITHIN THE POND AT LEAST EVERY THIRD YEAR. IN THE EVENT OF INADEQUATE PERCOLATION, MAINTENANCE SHALL BE PERFORMED ON THE SAND FILTER SYSTEM BY EXERCISING THE FOLLOWING PROCEDURES:

A. INSPECT FILTER SYSTEM TOP FOR 'BLINDING' SEDIMENTS SUCH AS CLAY AND REMOVE ACCORDINGLY. REPLACE REMOVED MATERIAL WITH CLEAN FILTER MEDIA THAT ADHERES TO THE ORIGINALLY APPROVED PLANS/DESIGN.

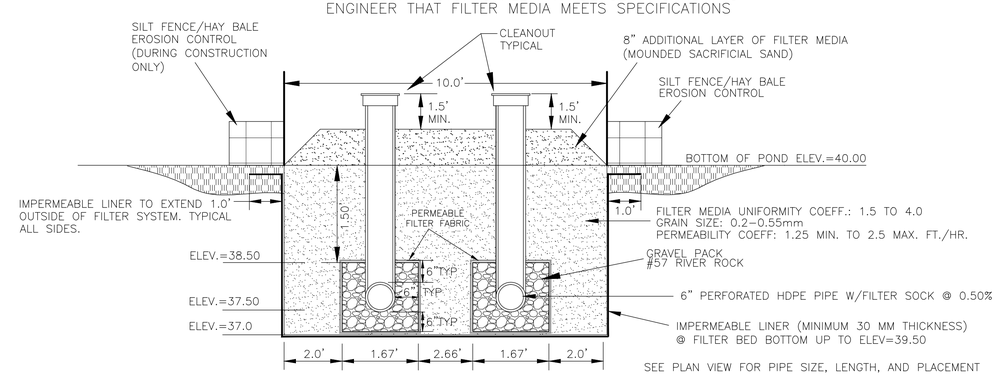
B. PRESSURE BACKWASH THE INSTALLED PIPING TO ASSURE OF FULL FUNCTIONALITY.



SAND FILTER PLAN VIEW

NOT TO SCALE

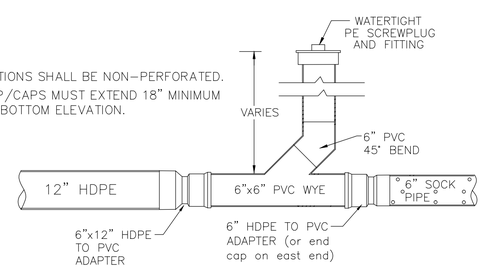
NOTE: CONTRACTOR SHALL PROVIDE CERTIFICATION TO ENGINEER THAT FILTER MEDIA MEETS SPECIFICATIONS



SAND FILTER X-SECTION (A-A)

NOT TO SCALE

NOTE 1: VERTICAL PORTIONS SHALL BE NON-PERFORATED.
NOTE 2: CLEANOUT TOP/CAPS MUST EXTEND 18" MINIMUM ABOVE POND BOTTOM ELEVATION.



6" SAND FILTER CLEAN OUT DETAIL

N.T.S.

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION
DRAINAGE IMPROVEMENTS

UPPER POND DETAILS

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS
DESIGNED BY: T. HAMMOND/R. SIEG
CHECKED BY: T. HAMMOND
REG. FLA. ENG. NO. 54574
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE
SIGNATURE:

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C19

PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP)	PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)	DATE	VERIFICATION, CHECKER (QR) (Blue Highlighter)
ORIGINATOR (QR)	CHECKER (RP)	CHANGE INCORPORATION	Correct (Green Highlighter) Change (Red Pen)
			(Red Pen X-Out to Disagree or Remark)
			(Yellow Highlighter)

DATE	REMARK INCORPORATION (Blue Highlighter)	DATE	
	ORIGINATOR VERIFICATION Correct (Pink Highlighter)	DATE	

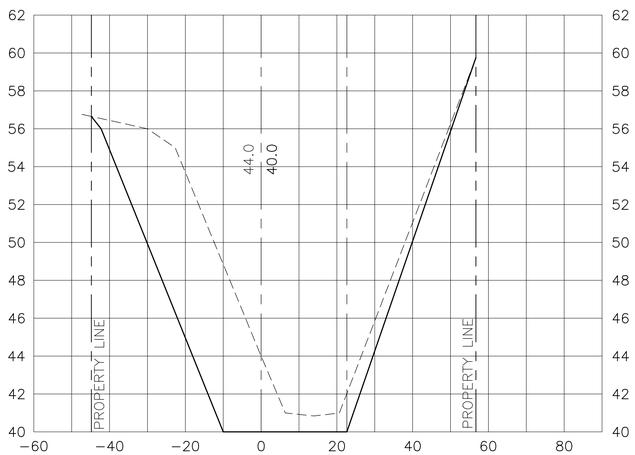
11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'

11"x17" SCALE 1" = 8'
24"x36" SCALE 1" = 16'

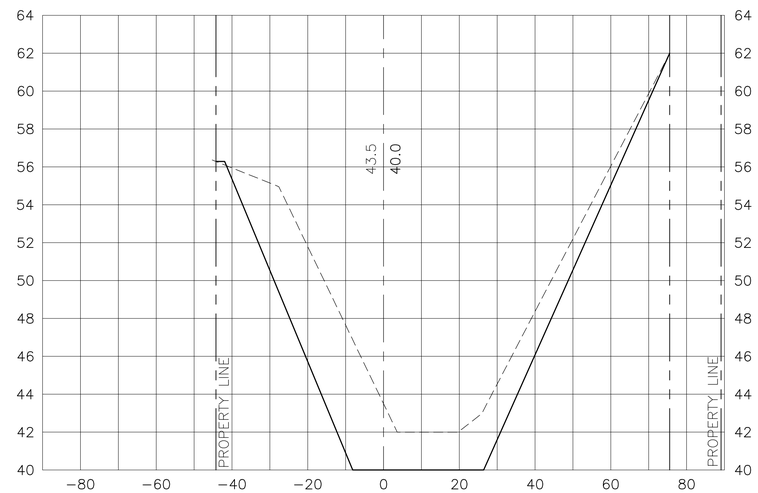
DENOTES EXISTING GRADE

DENOTES PROPOSED GRADE

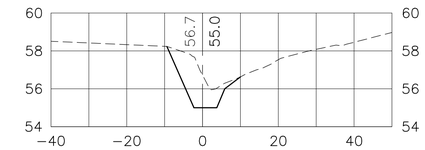
22+00



23+00



25+50



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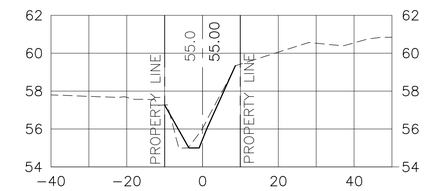

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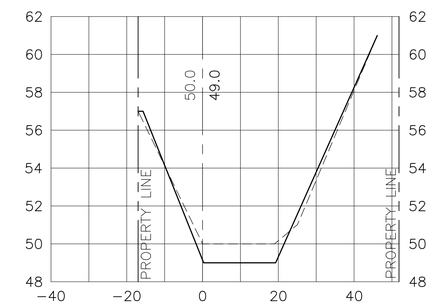

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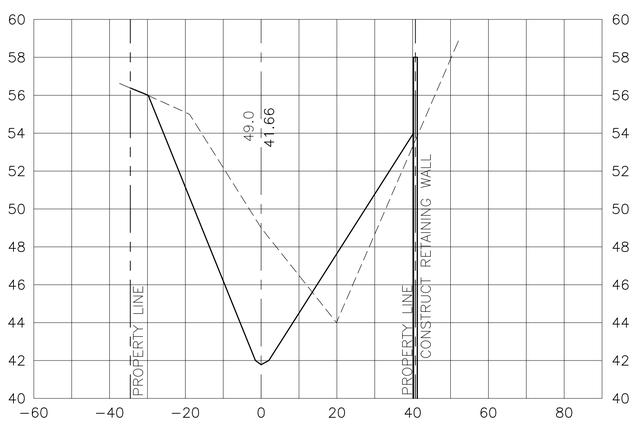

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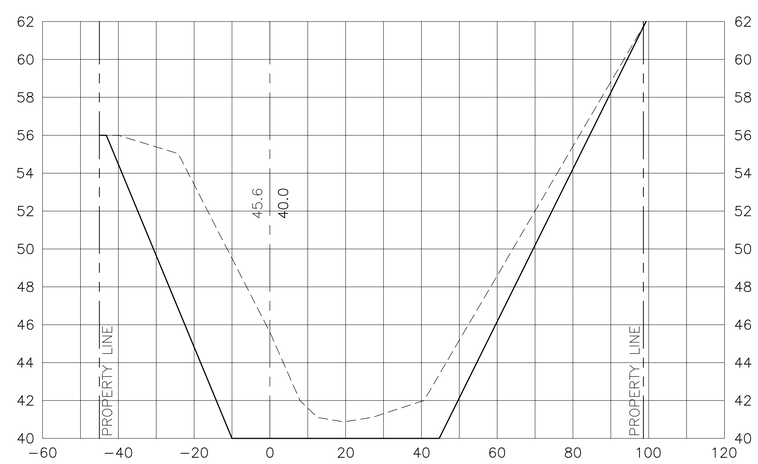

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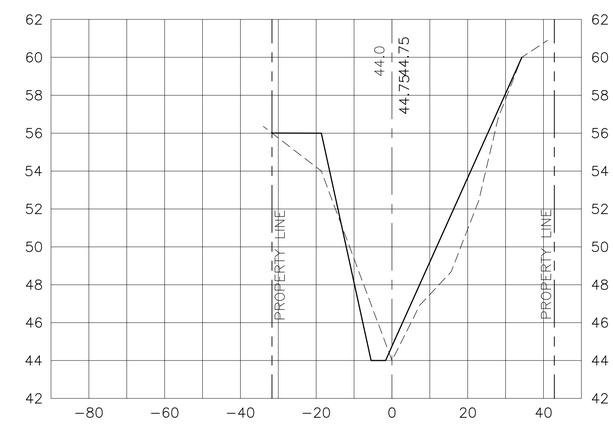


BID PLANS
PLOT DATE: 08/3/16

ORIGINATOR (GR)	Correct (Green Highlighter) Change (Red Pen)	VERIFICATION, CHECKER (GR)	(Blue Highlighter)
CHECKER (RP)	(Red Pen X-Out to Disagree or Remark)	REMARK INCORPORATION	(Blue Highlighter)
CHANGE INCORPORATION	(Yellow HighLighter)	ORIGINATOR VERIFICATION	Correct (Pink Highlighter)

ORIGINATOR (RP)	DATE	ORIGINATOR (GR)	DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)	DATE	CHECKER (RP)	DATE
		CHANGE INCORPORATION	DATE

PHASE ____ REVIEW

SIGNATURE:

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

UPPER POND CROSS SECTIONS

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS	DESIGNED BY: T. HAMMOND/R. SIEG
DATE: MARCH 2016	CHECKED BY: T. HAMMOND
PROJECT MANAGER: N. CHAUVIN	DISTRICT: ONE
REG. FLA. ENG. NO. 54574	DATE:
SIGNATURE:	

NUMBER	REVISIONS	DATE	APPROVED BY
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023

PROJECT NUMBER

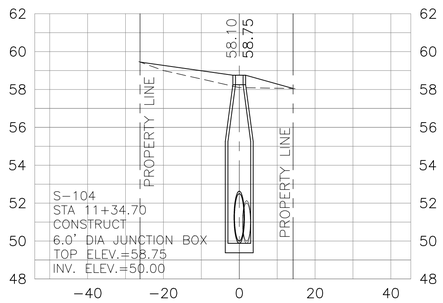
SURVEY NUMBER

SHEET C20

11"x17" SCALE 1" = 40'
24"x36" SCALE 1" = 20'

11"x17" SCALE 1" = 8'
24"x36" SCALE 1" = 16'

11+34.70 S-104



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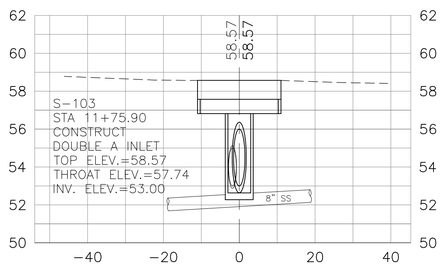

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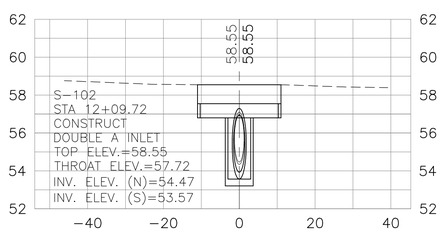

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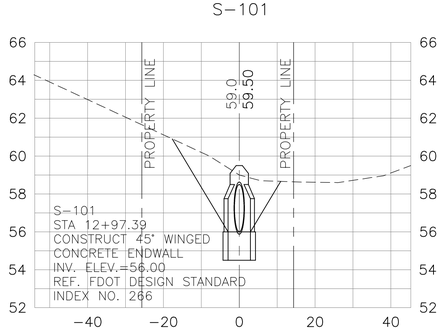
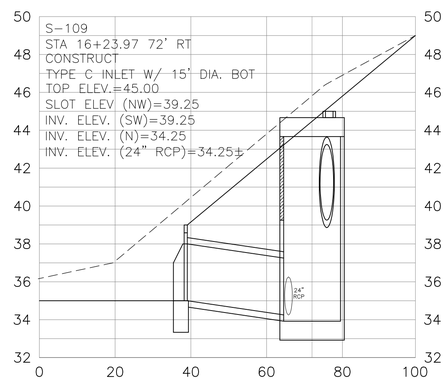


S-109 & S-118



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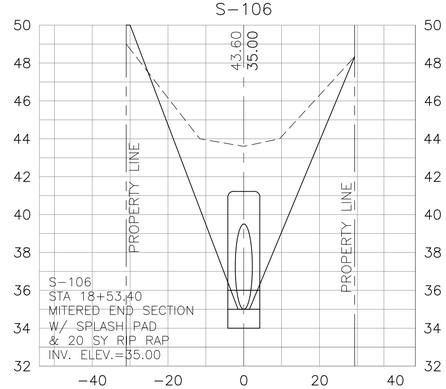

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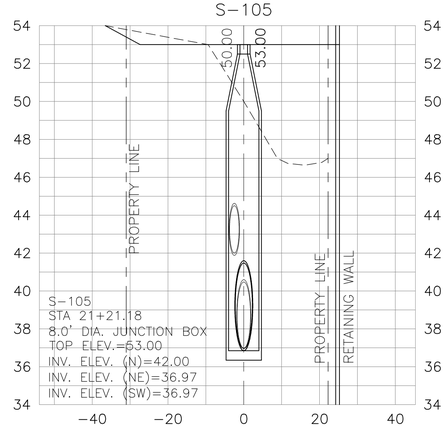
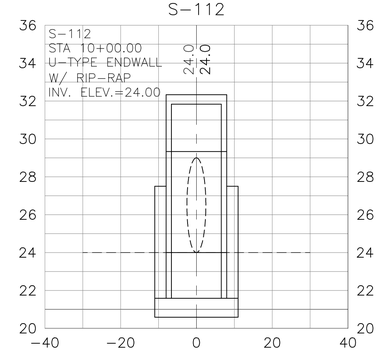


10+00 S-112



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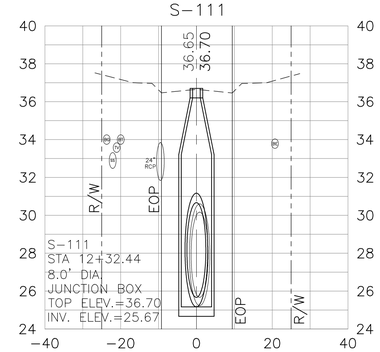

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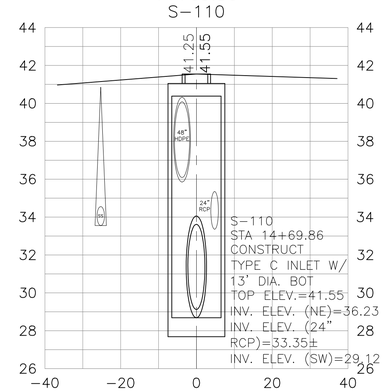
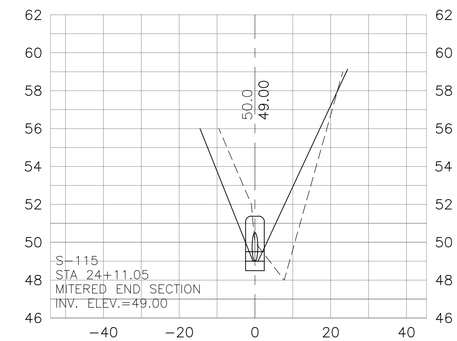


24+11.05 S-115



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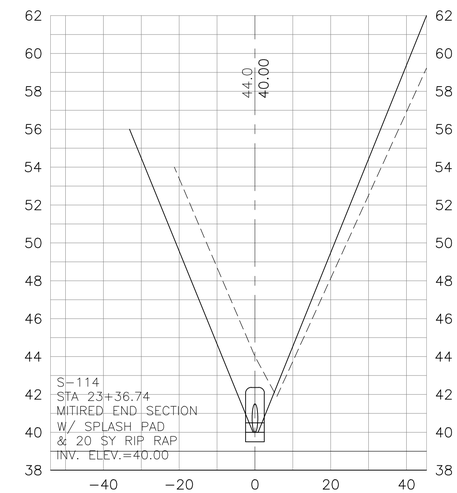

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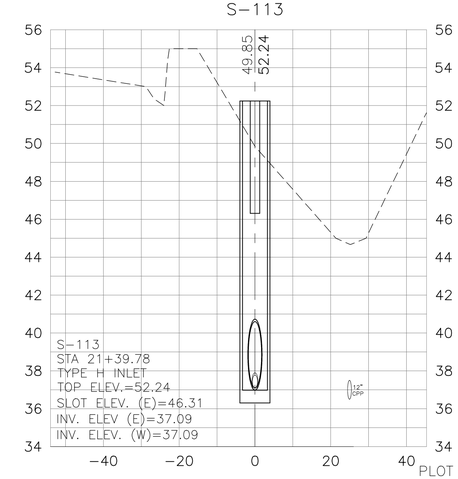

BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

DRAINAGE STRUCTURES

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
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REG. P.A. ENG. NO. 54574
DATE: MARCH 2016
PROJECT MANAGER: N. CHAUVIN
DISTRICT: ONE
SIGNATURE:

NUMBER:	REVISIONS	DATE	APPROVED BY:
1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

DRAWING NUMBER 14-023
PROJECT NUMBER
SURVEY NUMBER
SHEET C21

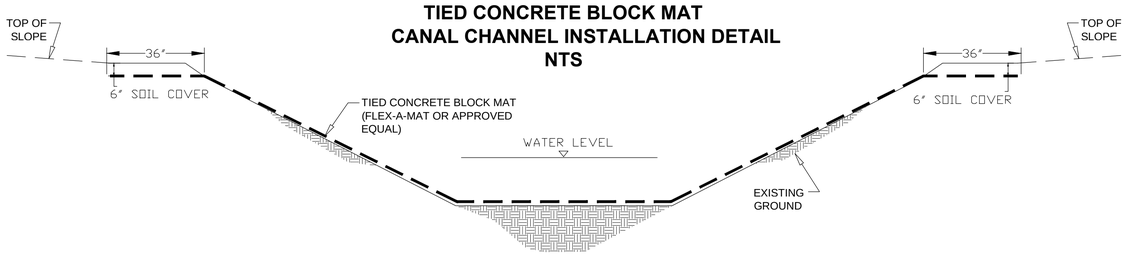
PHASE ____ REVIEW
SIGNATURE:

ORIGINATOR (RP) DATE
PRODUCTION CHECKING COMPLETE, READY FOR SUBMITTAL REVIEW (RP)

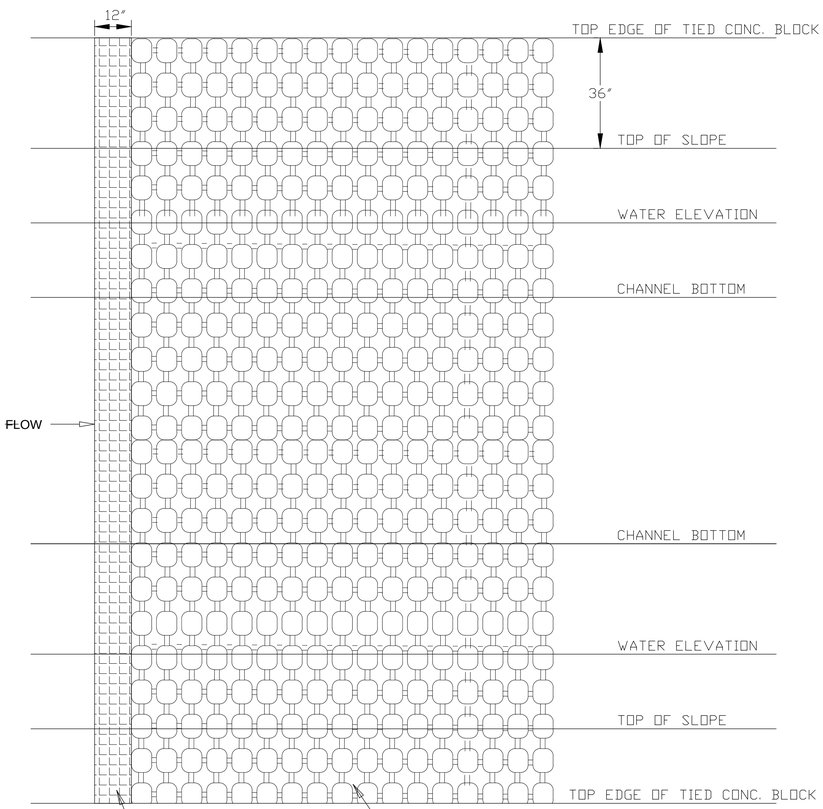
ORIGINATOR (QR) VERIFICATION, CHECKER (QR) (Blue Highlighter)
CHECKER (RP) (Red Pen X-Out to Disagree or Remark) (Blue Highlighter)
CHANGE INCORPORATION (Yellow Highlighter) REMARK INCORPORATION
ORIGINATOR VERIFICATION Correct (Pink Highlighter)

Correct (Green Highlighter) Change (Red Pen)
DATE DATE DATE

TIED CONCRETE BLOCK MAT
CANAL CHANNEL INSTALLATION DETAIL
NTS



ELEVATION VIEW



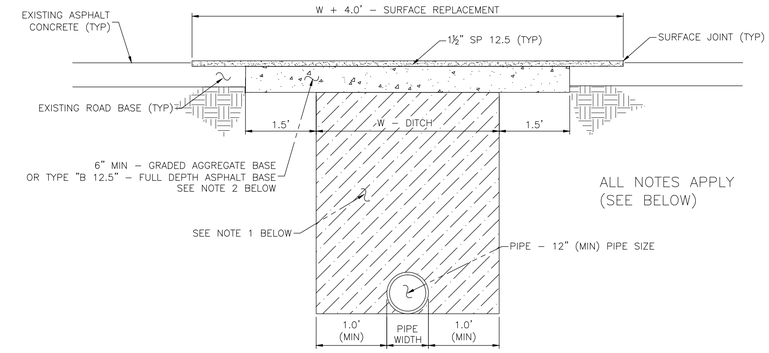
PLAN VIEW

OVERVIEW OF CANAL CHANNEL TIED CONCRETE BLOCK MAT INSTALLATION:

1. ALONG THE CREST OF EACH SIDE SLOPE, EDGE THE TOPSOIL AN AREA 36" IN WIDTH X 6" IN DEPTH AS SHOWN IN FIGURE 1.
2. GRADE AND COMPACT THE AREA OF THE TIED BLOCK MAT PROTECTION AS DIRECTED AND APPROVED BY THE ENGINEER. THE AREA MUST BE CLEARED OF ALL ROCKS, CLODS, OR OTHER OBJECT THAT WOULD NOT ALLOW TIED BLOCK MAT TO HAVE DIRECT CONTACT WITH THE SUBGRADE.
3. PREPARE THE AREA FOR SEEDING BY LOOSENING THE TOP 2 – 3" OF THE SOIL.
4. APPLY SEED DIRECTLY TO THE PREPARED SOIL. USE SEED/FERTILIZER PER PROJECT SPECIFICATIONS.
5. USING AN EXCAVATOR, SET THE TIED BLOCK MAT ROLL IN PROPER POSITION TO BE UNROLLED INTO PLACE. MAKE SURE THE 12" TAIL OF GEOGRID EXTENDS FROM THE UPSTREAM SIDE OF THE TIED BLOCK MAT.
6. START INSTALLATION ON THE DOWNSTREAM END OF THE PROJECT. BEGINNING 36" FROM THE SLOPE OF THE CANAL BANK, TIED BLOCK MAT WILL BE UNROLLED ACROSS THE CANAL AND 36" PAST THE TOP OF THE SIDE SLOPE OF THE OPPOSITE CANAL BANK.
7. PLACE THE NEXT ROLL OF TIED BLOCK MAT SO THAT THE MAT WILL OVERLAP THE PREVIOUS SECTION'S 12" TAIL OF GEOGRID, CREATING AN OVERLAP.
8. AS THE INSTALLATION PROGRESSES, USE EXCAVATOR TO SPREAD THE REMOVED TOPSOIL ONTO THE TIED BLOCK MAT INSTALLED IN THE 36" WIDE X 6" DEEP AREA AT THE TOP OF EITHER CANAL BANK. GRADE IT SO THAT IT IS A SMOOTH TRANSITION TO THE LANDSCAPE.
9. ONCE THE PROJECT HAS REACHED THE UPSTREAM END, EXCAVATE A TRENCH 12" DEEP ACROSS THE AREA WHERE THE INITIAL LEADING EDGE OF TIED BLOCK MAT WILL BE INSTALLED. AFTER THE TIED BLOCK MAT IS INSTALLED, BACKFILL THE TRENCH WITH THE REMOVED SOIL.

SPECIAL TRANSITIONS:
CONSULT MANUFACTURER FOR APPLICATIONS THAT REQUIRE SPECIAL TRANSITIONS TO EXISTING ROCK RIP RAP, CONCRETE OR OTHER REVETMENT SYSTEMS.

NOTE: PENSACOLA BAHIA (OR APPROVED EQUAL) SEED TO BE UTILIZED.



PAVED ROAD (LARGE PATCH) DETAIL

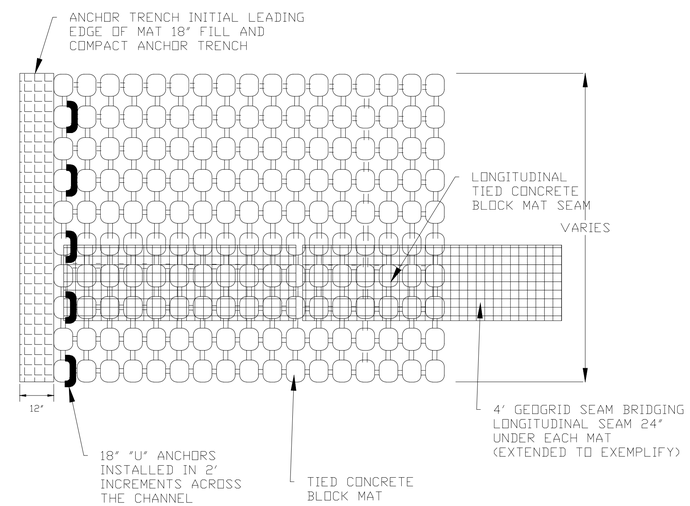
FOR PATCHES 24" WIDE OR GREATER

NOT TO SCALE

NOTES:

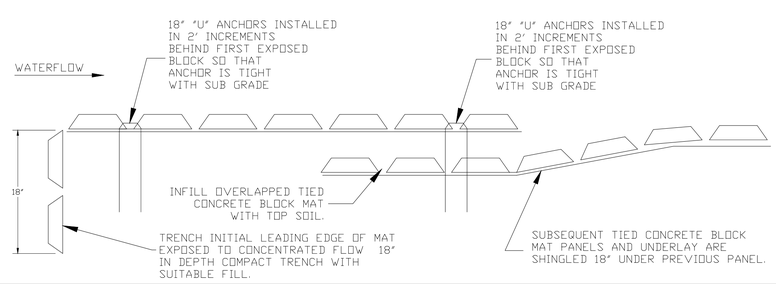
1. DIRT ROAD PATCH WORK SUB BASE MATERIAL SHALL BE PLACED IN NOT MORE THAN 8" LIFTS. EACH LAYER TO BE TAMPED TO A MINIMUM OF 40 LBR.
2. GRADED AGGREGATE BASE SHALL BE COMPACTED TO A MIN LBR 100.
3. ROAD CUTS SHALL BE MECHANICALLY SAW CUT TO FORM A SURFACE PAVEMENT JOINT AND TACK COATED ALONG THE FACE OF CUT JOINTS PRIOR TO ASPHALT PLACEMENT.
4. LONGITUDINAL ROAD CUTS THAT AFFECT ONE TRAVEL LANE SHALL REQUIRE MILLING AND REPAVING OF THE AFFECTED TRAVEL LANE 5.0' BEYOND THE CUT AND PATCHED WITH THE SAME BASE MATERIAL. LONGITUDINAL ROAD CUTS THAT AFFECT BOTH TRAVEL LANES SHALL REQUIRE MILLING AND REPAVING OF THE ENTIRE ROADWAY 5.0' BEYOND THE CUT AND PATCHED WITH THE SAME BASE MATERIAL.

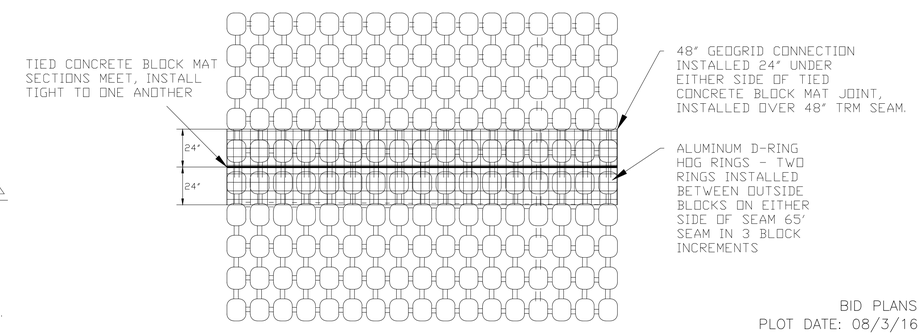
LONGITUDINAL SEAM



PROFILE VIEW
LOGITUDINAL SEAM

PROFILE VIEW
PERPENDICULAR OVERLAPS





BID PLANS
PLOT DATE: 08/3/16

PHASE ____ REVIEW	ORIGINATOR (RP)	DATE	ORIGINATOR (QR)	Correct (Green Highlighter) Change (Red Pen)	VERIFICATION, CHECKER (QR)	(Blue Highlighter)	DATE
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SHADOW GROVE SUBDIVISION
DRAINAGE IMPROVEMENTS

CONSTRUCTION DETAILS

ESCAMBIA COUNTY FLORIDA

HAMMOND ENGINEERING, INC.
FLORIDA AUTHORIZATION NO. 9130
ALABAMA AUTHORIZATION NO. 3277
3802 NORTH 'S' STREET
PENSACOLA, FL 32505
PHONE: (850) 434-2603 FAX: (850) 434-2650

DRAWN BY: ARS	DESIGNED BY: T. HAMMOND/R. SIEG	CHECKED BY: T. HAMMOND	REG. FLA. ENG. NO. 54574	DATE:
DATE: MARCH 2016	PROJECT MANAGER: N. CHAUVIN	DISTRICT: ONE	SIGNATURE:	

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1.	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

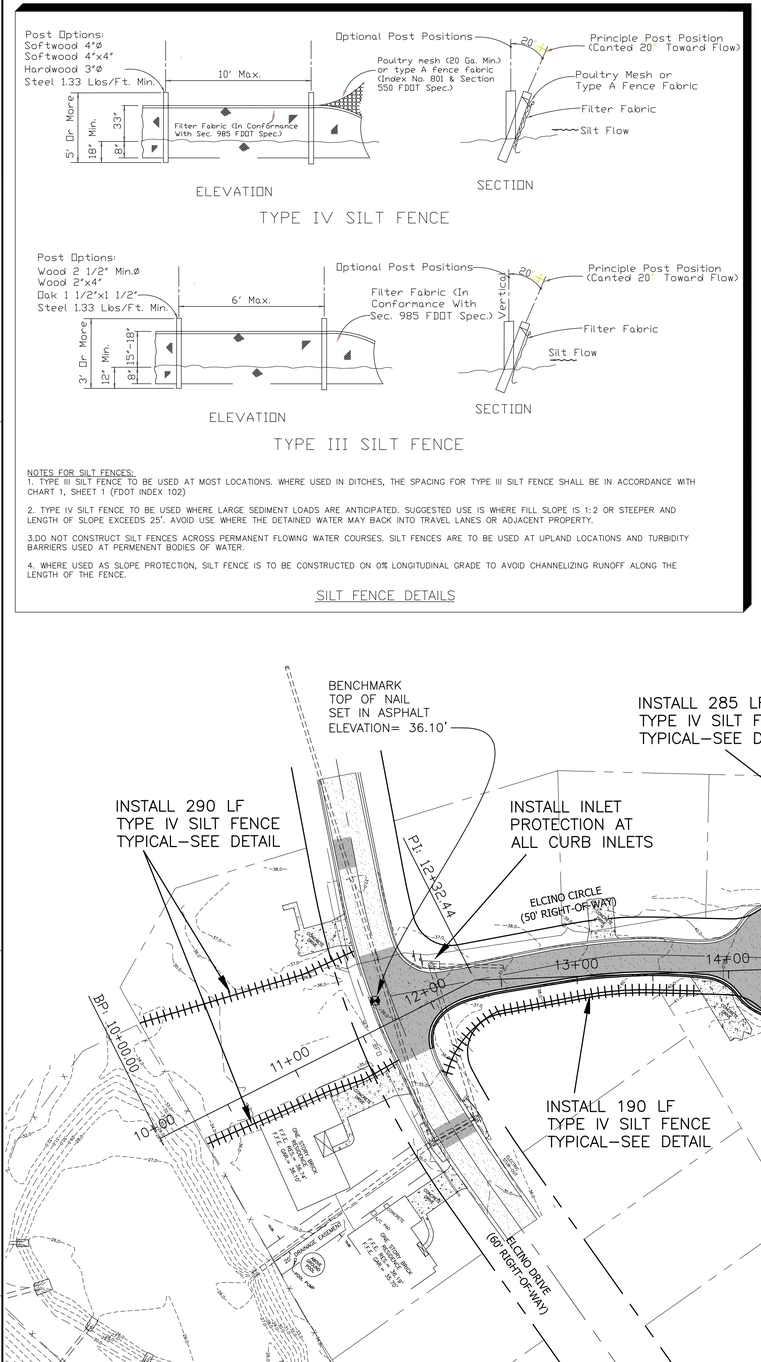
DRAWING NUMBER 14-023

PROJECT NUMBER

SURVEY NUMBER

SHEET C22

11"x17" SCALE 1" =100'
24"x36" SCALE 1" = 50'



NOTES FOR SILT FENCES:

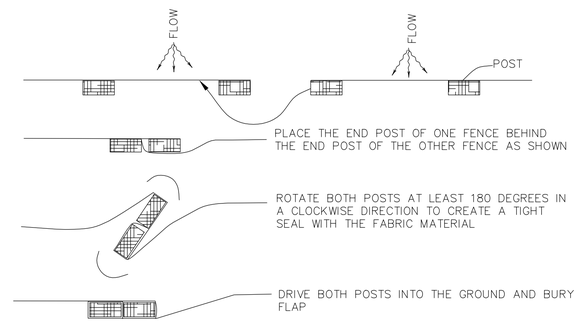
1. TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1, SHEET 1 (FDOT INDEX 102)

2. TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25'. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR ADJACENT PROPERTY.

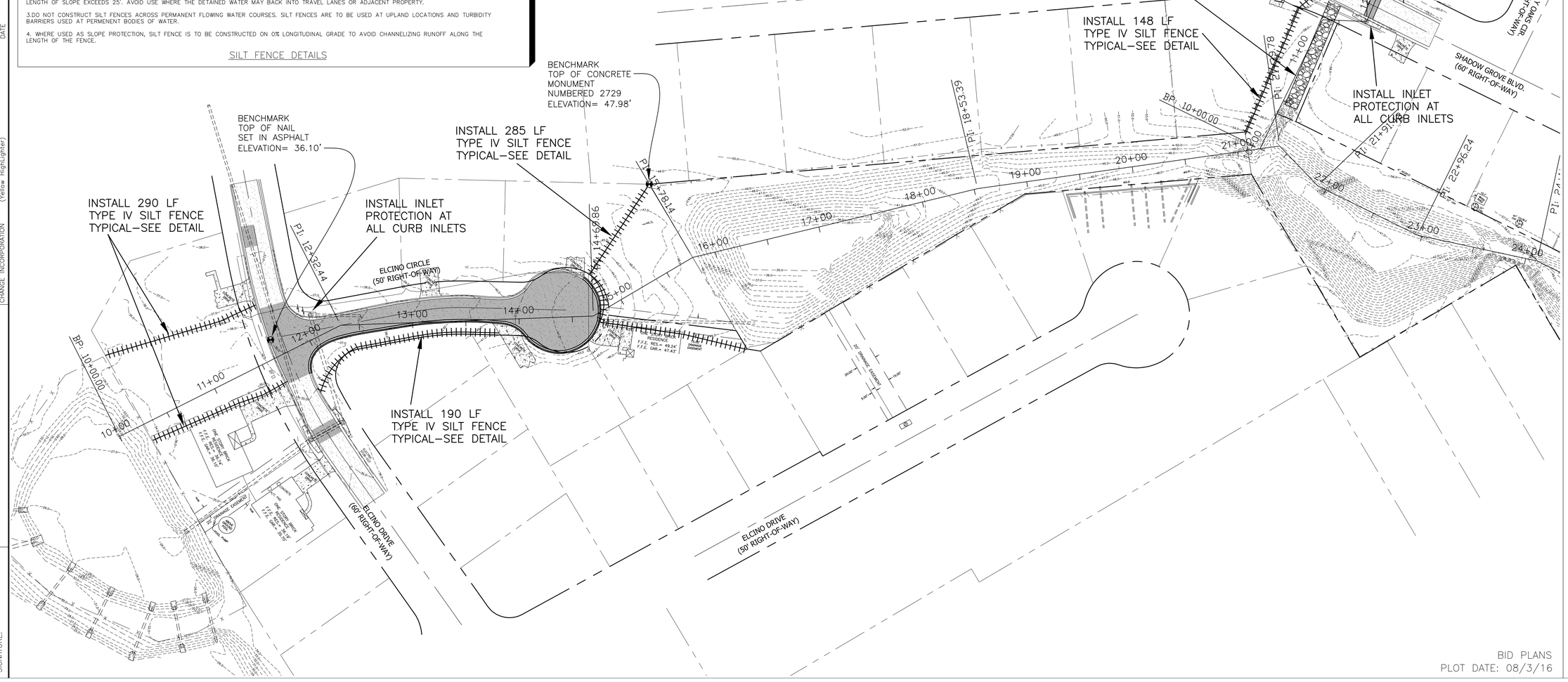
3.DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATER COURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMENENT BODIES OF WATER.

4. WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

SILT FENCE DETAILS



JOINING TWO SILT FENCES
NTS



BID PLANS
PLOT DATE: 08/3/16

SHADOW GROVE SUBDIVISION DRAINAGE IMPROVEMENTS

STORMWATER POLLUTION PREVENTION PLAN

ESCAMBIA COUNTY FLORIDA

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1:	AS PER ESCAMBIA COUNTY COMMENTS	7/12/16	J. JONES

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