

# SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2

Prepared For:  
**VK AVALON GROVES, LLC**  
 14025 RIVEREDGE DRIVE, SUITE 175  
 TAMPA, FLORIDA 33637  
 PHONE: (813) 615-1244

5904-A Hampton Oaks Parkway  
 Tampa, Florida 33610  
 Office: 813-253-5311  
 Fax: 813-464-7629

www.HeidtDesign.com



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Engineering Business Certificate of Authorization No. 28782  
 Landscape Architecture Certificate of Authorization No. LC26000405

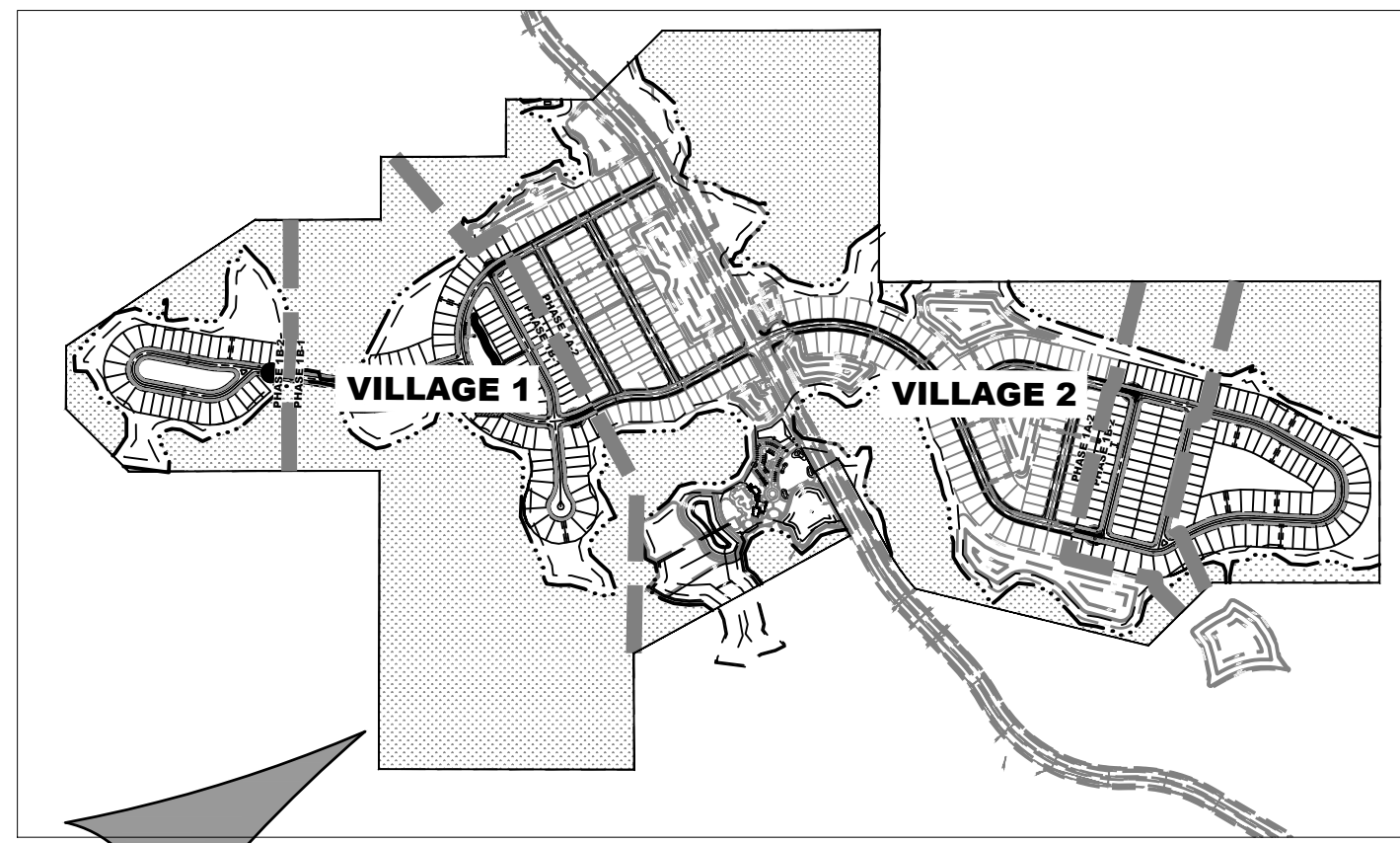
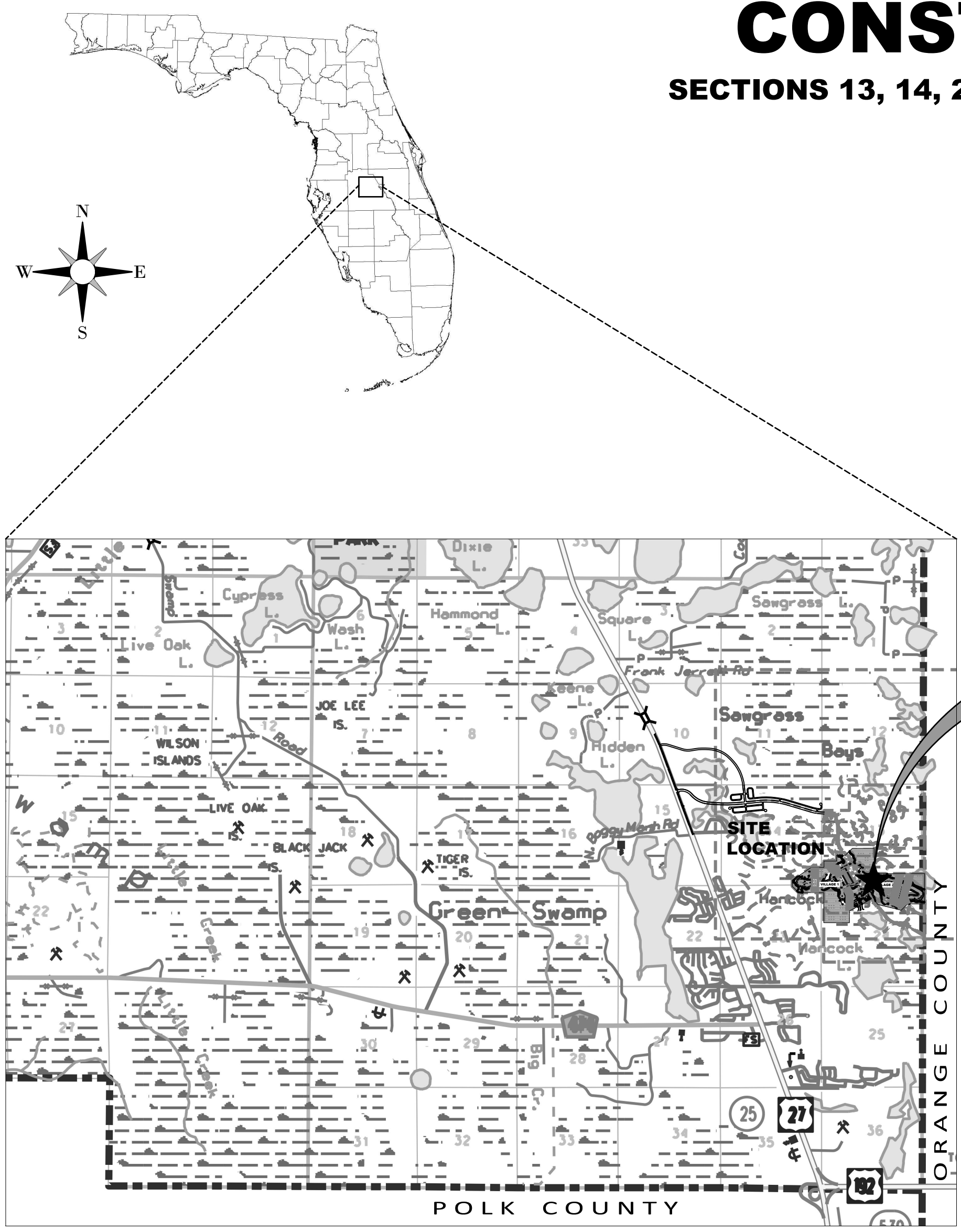
## CONSTRUCTION PLAN

SECTIONS 13, 14, 23 & 24 TOWNSHIP 24 SOUTH, RANGE 26 EAST  
 LAKE COUNTY, FLORIDA

CALL 48 HOURS BEFORE YOU DIG



1-800-432-4770



**SITE MAP (NOT TO SCALE)**

**LEGAL DESCRIPTION**

**SERENOA VILLAGES 1 & 2 CONSTRUCTION PLANS**

**Village 1 Phase 1B-1**

DESCRIPTION: A parcel of land lying in Sections 13, 14, 23 and 24, Township 24 South, Range 26 South, Lake County, Florida, and being more particularly described as follows:

COMMENCE at the Southwest corner of said Section 13, run thence along the West boundary of the Southwest 1/4 of said Section 13, N.00°18'46"E., a distance of 994.41 feet to the POINT OF BEGINNING; thence continue along said West boundary, N.00°18'46"E., a distance of 331.47 feet; thence N.89°56'56"E., a distance of 69.15 feet; thence S.40°13'25"E., a distance of 641.72 feet; thence Northeasterly, 122.69 feet along the arc of a non-tangent curve to the right having a radius of 600.00 feet and a central angle of 11°42'58" (chord bearing N.55°38'04"E., 122.48 feet); thence N.61°29'31"E., a distance of 48.89 feet; thence S.28°30'29"E., a distance of 125.00 feet; thence S.15°09'55"E., a distance of 51.39 feet; thence S.28°30'29"E., a distance of 850.00 feet; thence S.31°02'22"E., a distance of 50.05 feet; thence S.28°30'29"E., a distance of 455.87 feet; thence S.01°02'29"W., a distance of 871.87 feet; thence S.00°00'00"E., a distance of 614.90 feet; thence N.89°51'14"W., a distance of 1346.15 feet to a point on the West boundary of the Northwest 1/4 of the aforesaid Section 24; thence along said West boundary, N.00°08'57"E., a distance of 1573.38 feet; thence S.89°53'02"W., a distance of 477.23 feet; thence N.00°06'24"W., a distance of 468.57 feet; thence N.08°07'28"E., a distance of 70.00 feet; thence N.00°05'24"W., a distance of 787.94 feet; thence N.89°54'10"E., a distance of 475.74 feet to the POINT OF BEGINNING.

Containing 93.020 acres, more or less.

**Village 1 Phase 1B-2**

DESCRIPTION: A parcel of land lying in Sections 14 and 23, Township 24 South, Range 26 South, Lake County, Florida, and being more particularly described as follows:

COMMENCE at the Southwest corner of said Section 13, run thence along the West boundary of the Southwest 1/4 of said Section 13, N.00°18'46"E., a distance of 994.41 feet; thence S.89°54'10"W., a distance of 475.74 feet to the POINT OF BEGINNING; thence S.00°05'24"E., a distance of 787.94 feet; thence S.08°07'28"W., a distance of 70.00 feet; thence S.00°06'24"E., a distance of 468.57 feet; thence S.89°53'02"W., a distance of 849.90 feet; thence N.44°59'03"W., a distance of 467.78 feet; thence N.00°27'27"E., a distance of 331.70 feet; thence N.56°18'41"E., a distance of 1198.26 feet; thence N.89°54'10"E., a distance of 187.68 feet to the POINT OF BEGINNING.

Containing 27.165 acres, more or less.

**Village 2 Phase 1B-1.**

DESCRIPTION: A parcel of land lying in Sections 13 and 24, Township 24 South, Range 26 East, Lake County, Florida, and being more particularly described as follows:

BEGIN at the Southwest corner of said Section 13, thence along the East boundary of the Northeast 1/4 of the aforesaid Section 24, S.00°02'26"W., a distance of 922.83 feet; thence N.89°52'33"W., a distance of 890.48 feet; thence S.45°31'35"W., a distance of 231.06 feet; thence N.44°28'25"W., a distance of 187.24 feet; thence N.05°32'29"W., a distance of 52.72 feet; thence Westerly, 82.76 feet along the arc of a non-tangent curve to the right having a radius of 297.13 feet and a central angle of 15°57'29" (chord bearing N.82°05'15"W., 82.49 feet); thence N.76°14'27"W., a distance of 396.30 feet; thence N.13°45'33"E., a distance of 125.00 feet; thence N.22°24'36"E., a distance of 50.58 feet; thence N.13°45'33"E., a distance of 741.00 feet; thence N.43°39'47"E., a distance of 32.30 feet; thence N.13°45'33"E., a distance of 150.72 feet; thence N.13°45'33"E., a distance of 410.92 feet; thence S.89°58'57"E., a distance of 1270.08 feet; thence S.00°11'52"W., a distance of 665.32 feet to the POINT OF BEGINNING.

Containing 53.481 acres, more or less.

**OWNER/DEVELOPER:**

VK AVALON GROVES, LLC  
 14025 RIVEREDGE DRIVE  
 SUITE 175  
 TAMPA, FLORIDA 33637  
 ATTN: GREG MEATH  
 V.P. LAND DEVELOPMENT  
 (813) 615-1244

**GEOTECHNICAL ENGINEER:**

FAULKNER ENGINEERING SERVICES, INC.  
 DAVID W. FAULKNER, P.E.  
 2734 CAUSEWAY CENTER DRIVE  
 TAMPA, FLORIDA 33619  
 (813) 621-8168

**CIVIL ENGINEER:**

HEIDT DESIGN, LLC  
 VICTOR E. BARBOSA, P.E.  
 5904-A HAMPTON OAKS PARKWAY  
 TAMPA, FLORIDA 33610  
 (813) 253-5311

**SURVEYOR:**

AMERICAN SURVEYING & MAPPING  
 DAVID DeFILIPPO  
 3191 MAGUIRE BOULEVARD  
 SUITE 200  
 ORLANDO, FLORIDA 32803  
 (407) 426-7979

GEOPOINT SURVEYING, INC.  
 DAVID WILLIAMS, P.S.M.  
 1403 E. 5TH AVENUE  
 TAMPA, FLORIDA 33605  
 (813) 248-8888  
 DAVIDW@GEOPINTSURVEY.COM

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NOTE: PER LDF CH. 6.06.01F, SOIL REMOVAL OFFSITE SHALL NOT EXCEED 200% OF THE MINIMUM STORMWATER RETENTION/DETENTION VOLUME REQUIRED.

SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2

VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
2	10/20/2017	COUNTY, SJRWMD, & UTILITIES INC. REVISIONS
1	08/29/2017	REVIEW SUBMITTAL
PLAN REVISIONS		

NO.	DATE	DESCRIPTION
PLAN REVISIONS		

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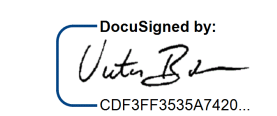


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 Transportation Engineering  
 Ecological Services • Landscape Architecture

ELEVATIONS BASED ON:  
 NORTH AMERICAN VERTICAL DATUM 1988  
 CONVERSION: NAVD 88 TO NGVD 29 = +0.86

ADDRESS CONTROL NUMBER	
WATER COMMITMENT	
SEWER COMMITMENT	
SJRWMD	
WATER DEP	
SEWER DEP	
FOLIO	
PERMIT / FILE NUMBERS	

FLORIDA PROFESSIONAL ENGINEER

Designed by:  
  
 CDFF3535A7420.  
 12/13/2017 | 2:24 PM EST

This item has been electronically signed and sealed by Victor E. Barbosa, PE, using a Digital Signature. Printed copies of this document are not considered signed and sealed and must be verified on any electronic copies.

**VICTOR E. BARBOSA**  
 DATE: \_\_\_\_\_  
 REGISTRATION NO. 58548

FILE:	COVER
PROJECT NO:	KLP-AG-1010
GRADING & DRAINAGE	
DESIGN BY:	FRANCIS WIGGINS
DRAWN BY:	WIGGINS
UTILITIES	
DESIGN BY:	FRANCIS WIGGINS
DRAWN BY:	WIGGINS
COVER	
<b>C-100</b>	



Table with 6 columns and 6 rows. Column 1: GENERAL PROJECT DATA; Column 2: LIMITS OF DISTURBANCE; Column 3: DOWATERING; Column 4: FORCE MAIN; Column 5: OWNER/OPERATOR; Column 6: MATERIALS. Each cell contains detailed technical specifications for project construction, safety, and environmental control.

HEIDT DESIGN logo and contact information for HEIDT DESIGN - Civil Engineering, Planning & GIS, Transportation Engineering, Environmental Engineering, and Landscape Architecture.

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SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 GENERAL NOTES VK AVALON GROVES, LLC

Table with 3 columns: DATE, DESCRIPTION. Row 1: 08/27/2017, REVIEW SUBMITTAL.

Table with 3 columns: DATE, DESCRIPTION. Row 1: 08/27/2017, REVIEW SUBMITTAL.

PROJECT NO: KLP-AG-1010. FILE: GNOTES. DESIGN BY: FRANCIS. DRAWN BY: WIGGINS. VICTOR E. BARBOSA DATE: REGISTRATION NO. 68548.

Victor E. Barbosa, PE. This item has been electronically signed and sealed by Victor E. Barbosa, PE. using a Digital Signature. Printed copies of this document are not considered signed and sealed and must be verified on any electronic copies.

C-102

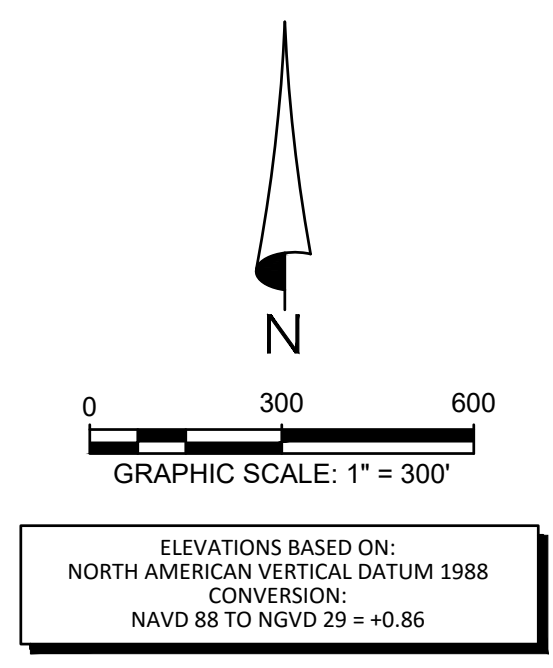
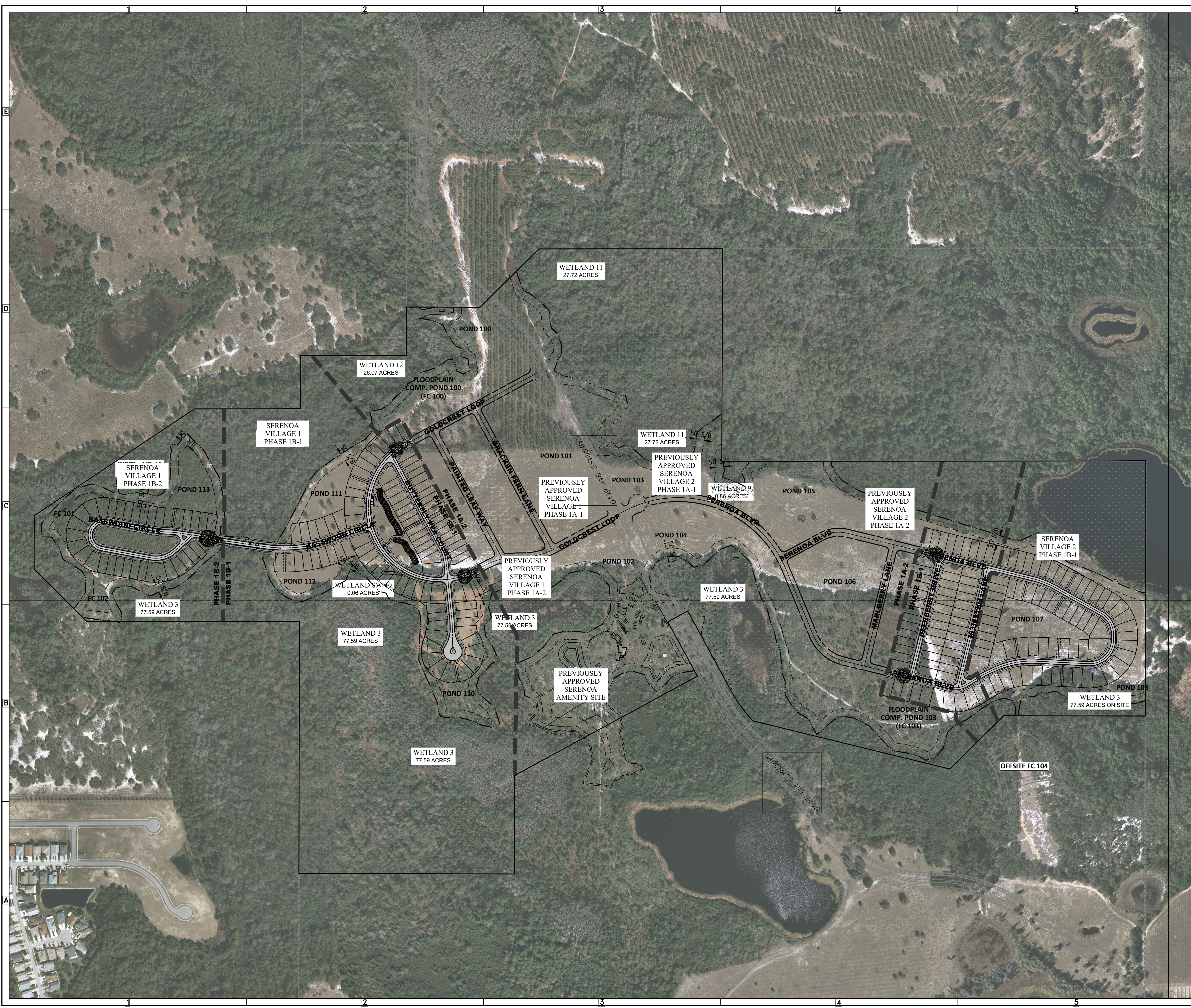
RAVALON GROVES/PHASE I/ENGINEERING - SURVIMONOTES DWG-C-102 2017/10/19 7:39 PM ERIC FRANCIS

Grid with columns 1-6 and rows A-E. Content includes sections for RECLAIMED WATER INFRASTRUCTURE SYSTEMS, AS-BUILT DRAWINGS, WATER SERVICES, and AVALON GROVES PUD - Min. Open Space Requirements.

Project information and metadata including HEIDT DESIGN logo, contact info (5904-A Hampton Oaks Pkwy, Tampa, Florida 33610), project name (SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2), and drawing title (GENERAL NOTES).

Vertical text on the right side containing project name, drawing title, registration information (VICTOR E. BARBOSA, REGISTRATION NO. 65848), and copyright notice (© COPYRIGHT 2017, HEIDT DESIGN, LLC).

C-103



**GENERAL LEGEND**

	PROPERTY LINE
	PHASE LINE
	WETLAND LINE
	WETLAND CONS. AREA SETBACK (WCAS) (50')

NOTE:  
 THIS EXHIBIT WAS PREPARED FOR ILLUSTRATIVE PURPOSES ONLY. THE LATEST AVAILABLE DIGITAL AERIAL FILES HAVE BEEN USED HOWEVER THIS MAY NOT ACCURATELY DEPICT CURRENT SITE CONDITIONS. ADDITIONAL ENGINEERING, ENVIRONMENTAL REVIEWS, FIELD SURVEYING AND DATA COLLECTION ARE NECESSARY TO CORRECTLY PORTRAY ACTUAL SITE CONDITIONS. THIS EXHIBIT IS SUBJECT TO CHANGE WITHOUT NOTICE BASED ON THE ABOVE.

DATE OF PHOTO: 2014

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Engineering Business Certificate of Authorization No. 28752  
 Landscape Architecture Certificate of Authorization No. LC26000405

**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2**  
**AERIAL SITE PLAN**

PREPARED FOR:  
**VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	08/27/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
 FILE: ASP  
 DESIGN BY: FRANCIS  
 DRAWN BY: WIGGINS

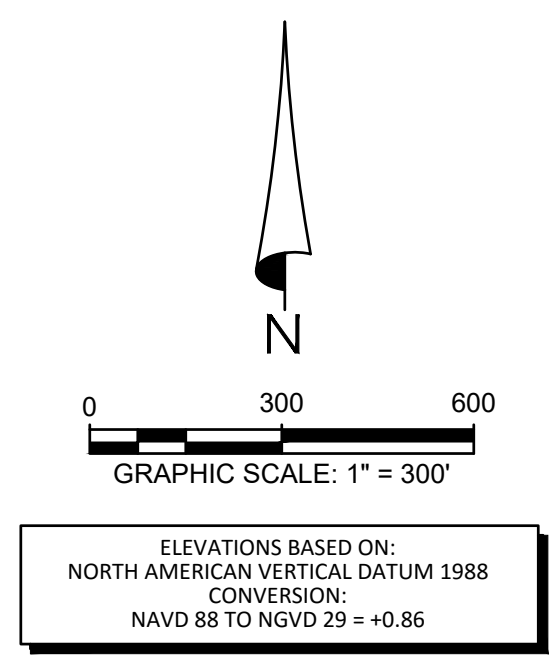
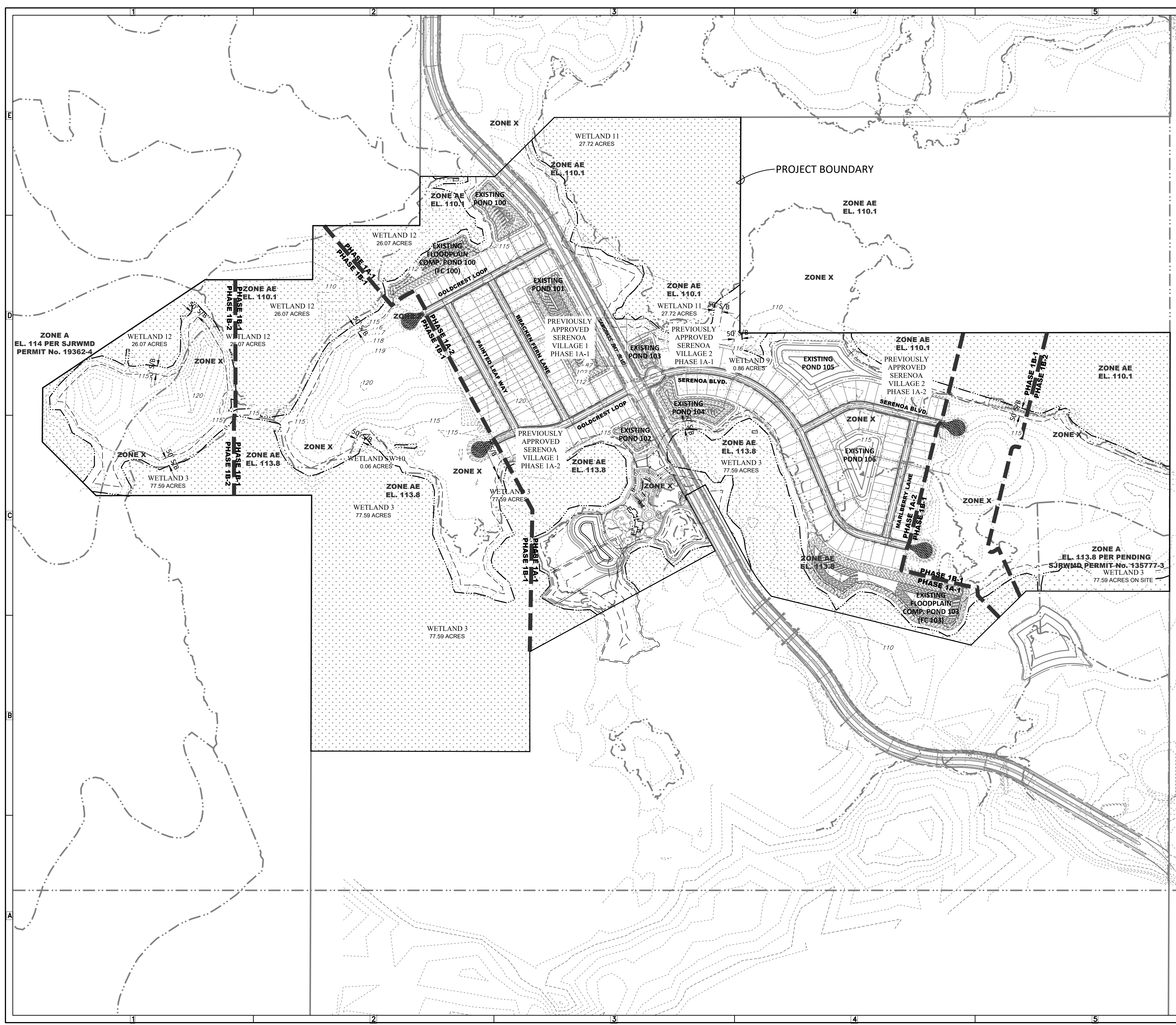
FLORIDA PROFESSIONAL ENGINEER

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**VICTOR E. BARBOSA**  
 DATE: \_\_\_\_\_  
 REGISTRATION NO. 58548

**C-104**

NOTE:  
 FOR SAWGRASS BAY BOULEVARD REFER TO MADDEN MOORHEAD & STOKES, INC. PLANS



THIS PROJECT LIES WITHIN FLOOD ZONE "A", "AE" & "X" ACCORDING TO FLOOD INSURANCE RATE MAPS FOR LAKE COUNTY, FLORIDA, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) - FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 12069C0675E DATED DECEMBER 18, 2012 AND ISSUED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

**GENERAL LEGEND**

	PROPERTY LINE
	PHASE LINE
	WETLAND LINE
	WETLAND CONS. AREA SETBACK (WCAS) (50')
	FEMA FLOOD LINE
	CONTOUR

**NOTE:**  
FOR SAWGRASS BAY BOULEVARD REFER TO MADDEN MOORHEAD & STOKES, INC. PLANS

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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2 EXISTING SITE CONDITIONS**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	02/27/2017	REVIEW SUBMITTAL

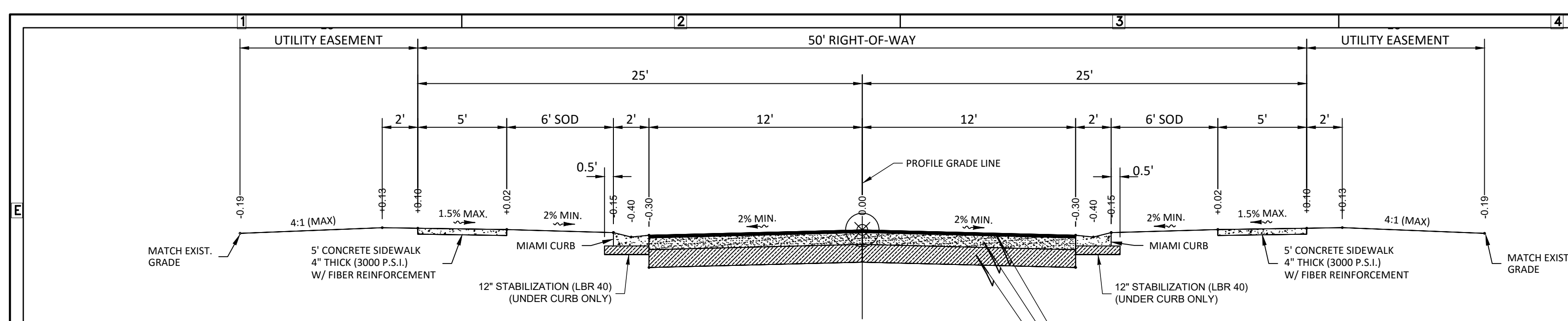
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FILE: EX\_SITE  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

**FLORIDA PROFESSIONAL ENGINEER**

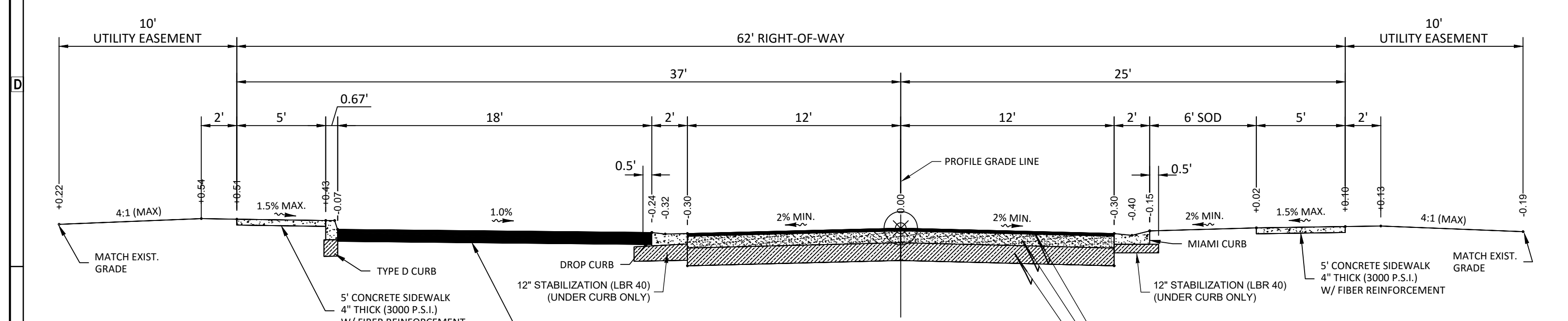
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**VICTOR E. BARBOSA**  
DATE: \_\_\_\_\_  
REGISTRATION NO. 58548

**C-105**



**LOCAL TWO-WAY ROAD  
50' RIGHT-OF-WAY  
DESIGN SPEED 30 M.P.H. (MAX.)**  
SCALE: 1" = 5'



**LOCAL TWO-WAY ROAD  
50' RIGHT-OF-WAY  
DESIGN SPEED 30 M.P.H. (MAX.)**  
SCALE: 1" = 5'

**PAVEMENT CONSTRUCTION NOTES:**

- SUBGRADE**  
THE FOLLOWING ARE MINIMUM STANDARDS FOR THE STABILIZED SUBGRADE:  
**WIDTH** - THE SUBGRADE SHALL BE TWO (2) FEET WIDER THAN THE BASE COURSE (ONE (1) FOOT EACH SIDE) AND IN THE CASE OF CURB AND GUTTER SHALL EXTEND SIX (6) INCHES BEHIND THE CURB.  
**DEPTH** - THE SUBGRADE SHALL HAVE A MINIMUM DEPTH OF 12-INCHES.  
**COMPACTION** - THE SUBGRADE SHALL BE COMPACTED TO 98% DENSITY HAVING A MINIMUM LBR 40.  
**CARE OF SUBGRADE** - TRUCKS WILL BE ALLOWED ON FINISHED SUBGRADE TO DUMP BASE COURSE, BUT CONTRACTOR WILL BE REQUIRED TO LEVEL OUT RUTS. IN THE EVENT THE TRUCKS CAUSE TOO MUCH DAMAGE TO THE SUBGRADE, THE COUNTY MANAGER OR DESIGNEE MAY REQUIRE DUMPING, SPREADING, AND HAULING ON THE BASE COURSE.
- SHOULDERS**  
THE FOLLOWING ARE MINIMUM STANDARDS FOR SHOULDERS:  
**WIDTH** - SHOULDERS SHALL BE EIGHT FEET WIDE. A REDUCTION IN THE WIDTH REQUIREMENT MAY BE ALLOWED IF APPROVED BY THE COUNTY MANAGER OR DESIGNEE.  
**DEPTH** - SHOULDERS SHALL HAVE A MINIMUM DEPTH OF SIX INCHES.  
**COMPACTION** - SHOULDERS SHALL BE COMPACTED TO 95% COMPACTION LBR 40.  
**GRADING** - SHOULDERS SHALL BE GRADED WITH A MINIMUM CROSS-SLOPE OF 1/4 INCH/FOOT.
- BASE COURSE**  
THE FOLLOWING ARE MINIMUM STANDARDS FOR THE BASE COURSE:  
**MATERIAL** - OCALA LIMEROCK ARE ACCEPTABLE MATERIAL TYPES FOR THE ROAD BASE. OTHER MATERIALS MAY BE USED IF APPROVED BY THE COUNTY MANAGER OR DESIGNEE.  
**WIDTH** - ALL BASES SHALL BE ONE (1) FOOT WIDER (SIX (6) INCHES EACH SIDE) THAN THE FINISHED SURFACE.  
**DEPTH** - THE BASE SHALL HAVE A MINIMUM DEPTH OF SIX INCHES. HEAVY DUTY ROADS SHALL HAVE A BASE WITH A MINIMUM DEPTH OF EIGHT INCHES PLACED IN TWO LIFTS.  
**COMPACTION** - LIMEROCK BASE SHALL BE COMPACTED TO A MINIMUM 98% DENSITY AS DETERMINED BY ASSHTO T-180. LBR 100  
**STRENGTH** - SOIL CEMENT BASE SHALL HAVE A SEVEN DAY DESIGN COMPRESSIVE STRENGTH OF AT LEAST 300 PSI.  
**GRADING** - THE BASE SHALL BE GRADED AND ROLLED TO CONFORM TO THE GRADE AND CROSS-SLOPE OF THE FINISHED ROADWAY.  
**PRIME COAT** - PRIME COAT SHALL BE APPLIED TO ALL BASE COURSES, AND SAND SEALED.
- WEARING SURFACE**  
THE FOLLOWING ARE MINIMUM STANDARDS FOR PAVEMENT WEARING SURFACE:  
**MATERIAL** - SP 9.5 ASPHALTIC CONCRETE SHALL BE USED FOR THE ROAD WEARING SURFACE. OTHER ASPHALT TYPES MAY BE USED IF REQUIRED BY THE COUNTY MANAGER OR DESIGNEE.  
**DEPTH** - ROADS SHALL HAVE A MINIMUM 1 1/4 INCH DEPTH OF WEARING SURFACE. THE MINIMUM DEPTH MAY BE INCREASED IF REQUIRED BY THE COUNTY MANAGER OR DESIGNEE.  
**HEAVY DUTY ROADS** - HEAVY DUTY SHALL HAVE A WEARING SURFACE CONSISTING OF MINIMUM OF TWO INCHES OF SP 12.5 ASPHALTIC CONCRETE OVERLAYED WITH A ONE INCH FRICTION COURSE. THE TYPE OF MATERIAL TO BE USED FOR THE FRICTION COURSE SHALL BE DETERMINED BY THE COUNTY MANAGER OR DESIGNEE.  
**GRADING** - ROAD SURFACES SHALL BE GRADED WITH A MINIMUM CROSS-SLOPE OF 1/4 INCH/FOOT.
- CURB AND GUTTER**  
THE WIDTH OF CURB AND GUTTER SHALL BE A MINIMUM OF TWENTY-FOUR (24) INCHES AND SHALL BE EITHER FLORIDA DEPARTMENT OF TRANSPORTATION TYPE F (STANDARD CURB AND GUTTER) OR MIAMI TYPE, DEPENDING UPON THE FLOW TO BE HANDLED. FDOT TYPE D (SIMPLE VERTICAL CURBING) WILL NOT BE ACCEPTABLE. FDOT TYPE A (MOUNTABLE MEDIAN CURB) MAY BE USED AROUND MEDIAN DIVIDERS ON THE HIGH SIDE OF PAVEMENT. THERE SHALL BE A STABILIZED SUBGRADE BENEATH ALL CURB AND GUTTER.  
NO WATER VALVE BOXES, METERS, PORTIONS OF MANHOLES, OR OTHER APPURTENANCES OF ANY KIND RELATING TO ANY UNDERGROUND UTILITIES SHALL BE LOCATED IN ANY PORTION OF A CURB AND GUTTER SECTION.  
THE CURB AND GUTTER FLOW LINE GRADES SHALL RUN PARALLEL TO THE ROAD CENTERLINE GRADE. THE MINIMUM ALLOWABLE FLOW LINE GRADE OF CURBS AND GUTTERS SHALL BE 0.30%, EXCEPT IN INTERSECTIONS WHERE FLATTER GRADES SHALL BE ALLOWABLE.  
JOINTS SHALL BE SAWED (UNLESS AN ALTERNATE METHOD IS USED) AT INTERVALS OF TEN (10) FEET, EXCEPT WHERE SHORTER INTERVALS ARE REQUIRED FOR CLOSURES, BUT, IN NO CASE, LESS THAN FOUR (4) FEET. JOINTS SHALL BE CUT ON THE SAME DAY THAT THE CURB AND GUTTER IS POURED.  
ALL CROSS-STREET VALLEY GUTTERS SHALL BE CONSTRUCTED OF CONCRETE.
- DECORATIVE PAVEMENT**  
THE USE OF DECORATIVE PAVEMENT SHALL BE SUBJECT TO THE APPROVAL

OF THE COUNTY MANAGER OR DESIGNEE. THE COUNTY SHALL NOT ASSUME THE MAINTENANCE OF DECORATIVE PAVEMENT SECTIONS. MAINTENANCE SHALL BE THE RESPONSIBILITY OF A HOMEOWNERS ASSOCIATION OR OTHER ACCEPTABLE ENTITY.

**BOMANITE PAVEMENT** - BOMANITE PAVEMENTS SHALL MEET THE REQUIREMENTS FOR CONCRETE PAVEMENT IN THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE DEVELOPER SHALL SUBMIT TO THE COUNTY, FOR APPROVAL, MANUFACTURER'S LITERATURE AND TECHNICAL SPECIFICATIONS REGARDING THE STRUCTURAL STRENGTH, SKID RESISTANCE AND SUBGRADE REQUIREMENTS.

**PAVING BRICKS** - THE USE OF PAVING BRICKS SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY. THE DEVELOPER SHALL SUBMIT TO THE COUNTY, FOR APPROVAL, MANUFACTURER'S LITERATURE AND TECHNICAL SPECIFICATIONS REGARDING THE STRUCTURAL STRENGTH, SKID RESISTANCE AND SUBGRADE REQUIREMENTS.

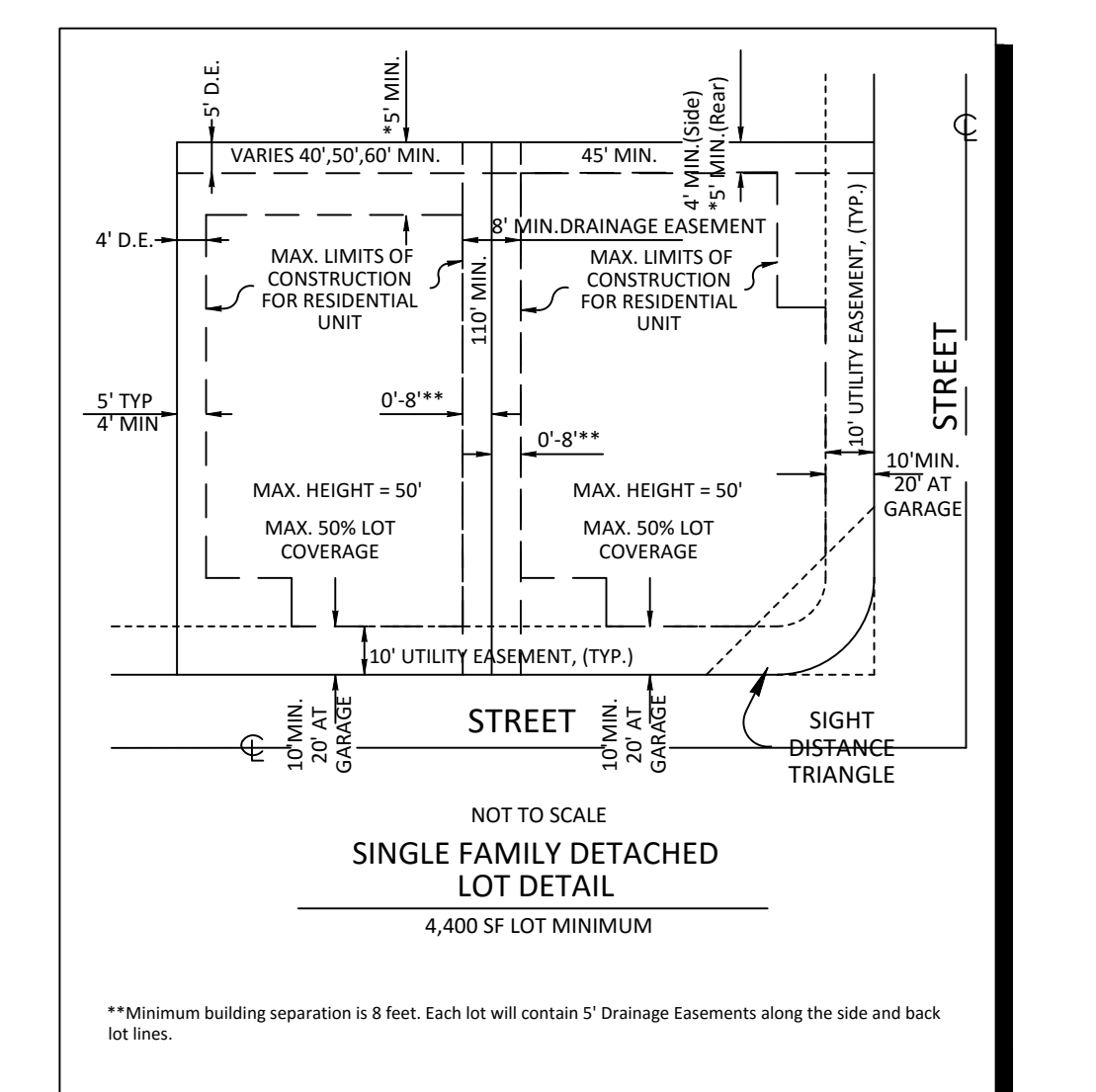
**TESTING**  
TESTING SHALL BE PROVIDED AS PART OF CONSTRUCTION AND SHALL BE AT NO COST TO THE COUNTY. TESTING SHALL BE PERFORMED BY AN INDEPENDENT ENGINEERING TESTING LABORATORY CERTIFIED IN THE STATE OF FLORIDA.

THE FOLLOWING ARE MINIMUM TESTING REQUIREMENTS:  
**SUBGRADE** - TESTING FOR THE SUBGRADE THICKNESS, BEARING VALUE AND DENSITY SHALL BE LOCATED NO MORE THAN FIVE HUNDRED (500) FEET APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT AND ON THE CENTERLINE OF THE ROADWAY. THE COUNTY MAY ALSO REQUIRE ADDITIONAL TEST LOCATIONS AS DIRECTED BY THE COUNTY MANAGER OR DESIGNEE. THERE SHALL BE NO LESS THAN ONE (1) TEST PER ROAD. TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT, AASHTO, OR ASTM STANDARDS. CERTIFIED TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL PRIOR TO PROCEEDING WITH THE BASE COURSE.

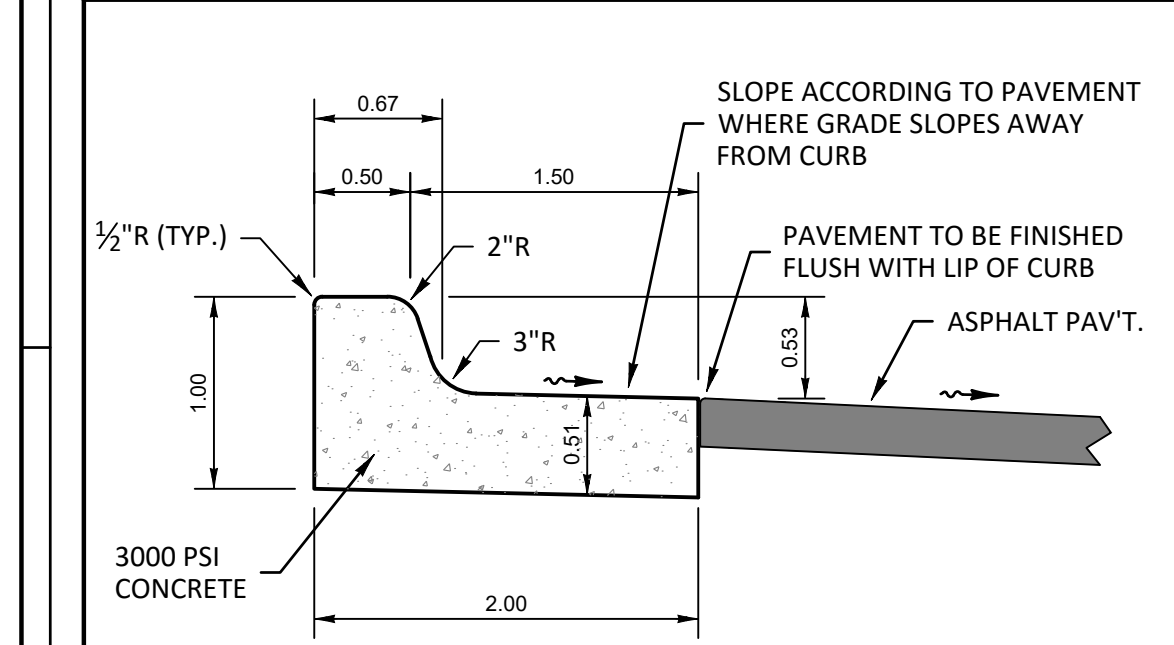
**LIMEROCK BASE** - TESTING FOR THE BASE THICKNESS AND DENSITY SHALL BE LOCATED NO MORE THAN 500-FOOT APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT AND ON THE CENTERLINE OF THE ROADWAY. THE COUNTY MAY ALSO REQUIRE ADDITIONAL TEST LOCATIONS AS DIRECTED BY THE COUNTY MANAGER OR DESIGNEE. THERE SHALL BE NO LESS THAN ONE TEST PER ROAD. TESTING SHALL INCLUDE: TEST CORES TAKEN AFTER SEVEN DAYS TO VERIFY THICKNESS AND TESTING TO VERIFY A MINIMUM SEVEN DAY COMPRESSIVE STRENGTH OF 300 PSI. TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT, AASHTO, OR ASTM STANDARDS. CERTIFIED TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL PRIOR TO PROCEEDING WITH THE WEARING SURFACE.

**SOIL / CEMENT BASE** - TESTING FOR THE BASE THICKNESS AND STRENGTH SHALL BE LOCATED NO MORE THAN 500-FOOT APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT AND ON THE CENTERLINE OF THE ROADWAY. THE COUNTY MAY ALSO REQUIRE ADDITIONAL TEST LOCATIONS AS DIRECTED BY THE COUNTY MANAGER OR DESIGNEE. THERE SHALL BE NO LESS THAN ONE TEST PER ROAD. TESTING SHALL INCLUDE: TEST CORES TAKEN AFTER SEVEN DAYS TO VERIFY THICKNESS AND TESTING TO VERIFY A MINIMUM SEVEN DAY COMPRESSIVE STRENGTH OF 300 PSI. TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT, AASHTO, OR ASTM STANDARDS. CERTIFIED TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL PRIOR TO PROCEEDING WITH THE WEARING SURFACE.

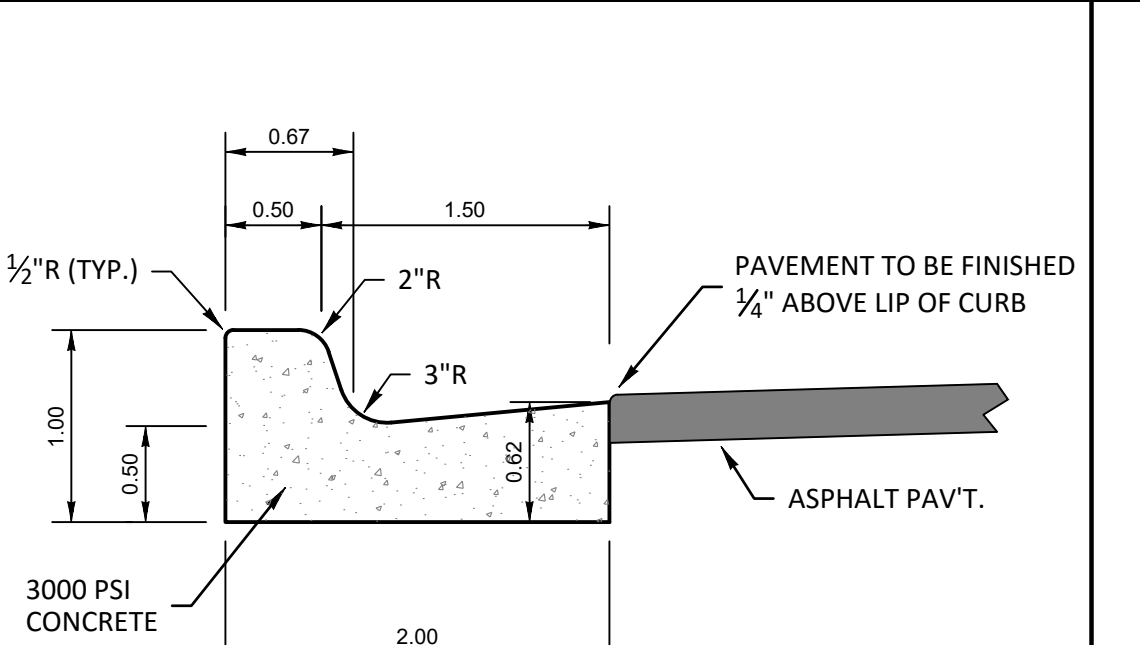
**WEARING SURFACE** - TESTING FOR WEARING SURFACE THICKNESS SHALL BE LOCATED NO MORE THAN 500-FOOT APART AND SHALL BE STAGGERED TO THE LEFT, RIGHT AND ON THE CENTERLINE OF THE ROADWAY. THE COUNTY MAY ALSO REQUIRE ADDITIONAL TEST LOCATIONS AS DIRECTED BY THE COUNTY MANAGER OR DESIGNEE. THERE SHALL BE NO LESS THAN ONE TEST PER ROAD. TESTING SHALL INCLUDE: CERTIFIED DESIGN MIX SUBMITTED FOR APPROVAL PRIOR TO PLACING ASPHALT. EXTRACTIONS TAKEN IN FIELD AT LEAST ONE PER DAY AND CORINGS TO VERIFY THICKNESS. TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE FDOT, AASHTO, OR ASTM STANDARDS. CERTIFIED TEST RESULTS SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL.



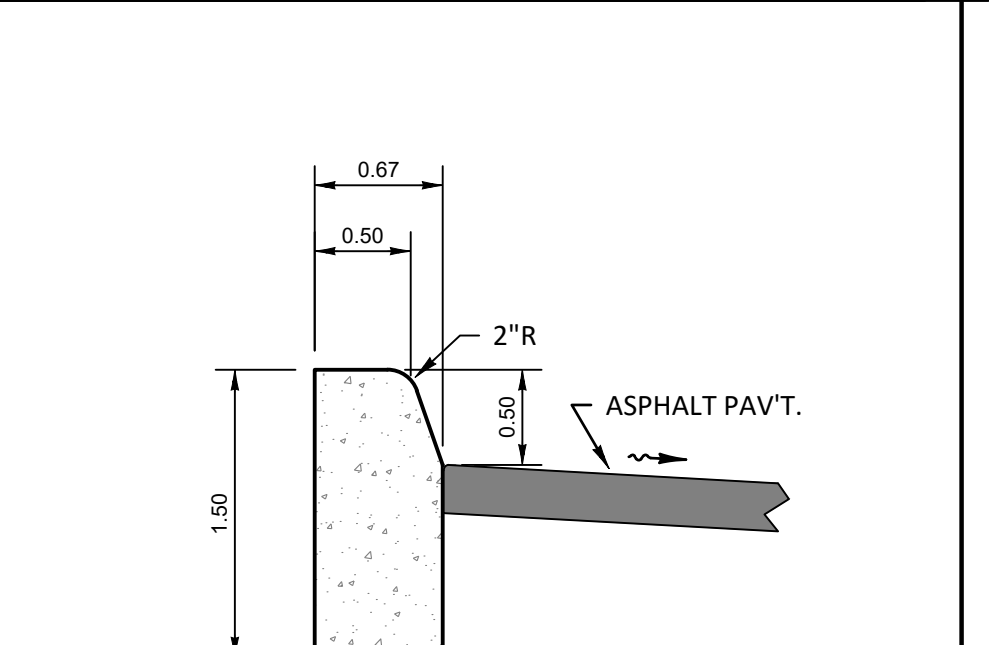
CONTRACTOR MAY PROPOSE ALTERNATE PAVEMENT DESIGNS. CONTRACTOR SHALL SUBMIT ANY PAVEMENT ALTERNATIVES TO ENGINEER FOR APPROVAL PRIOR TO FINAL SUBGRADE PREPARATIONS. ALTERNATIVES WOULD REQUIRE LAKE COUNTY REVIEW AND APPROVAL



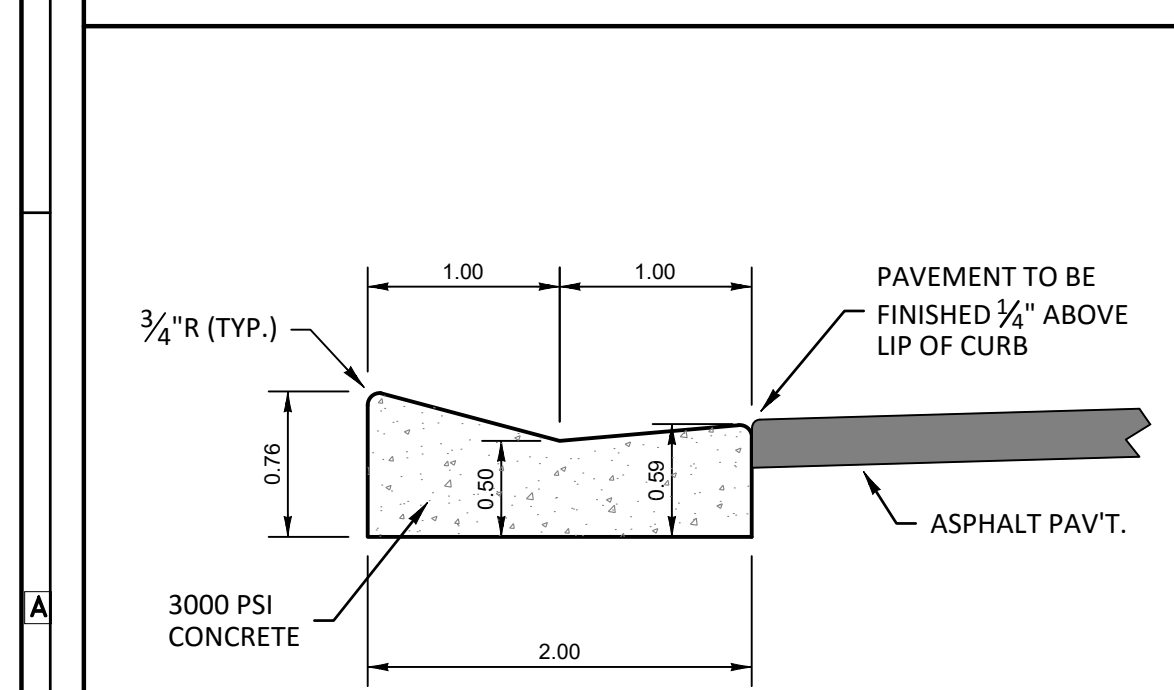
**TYPE "F" CURB & GUTTER  
ROTATED**  
SCALE: 1" = 1"



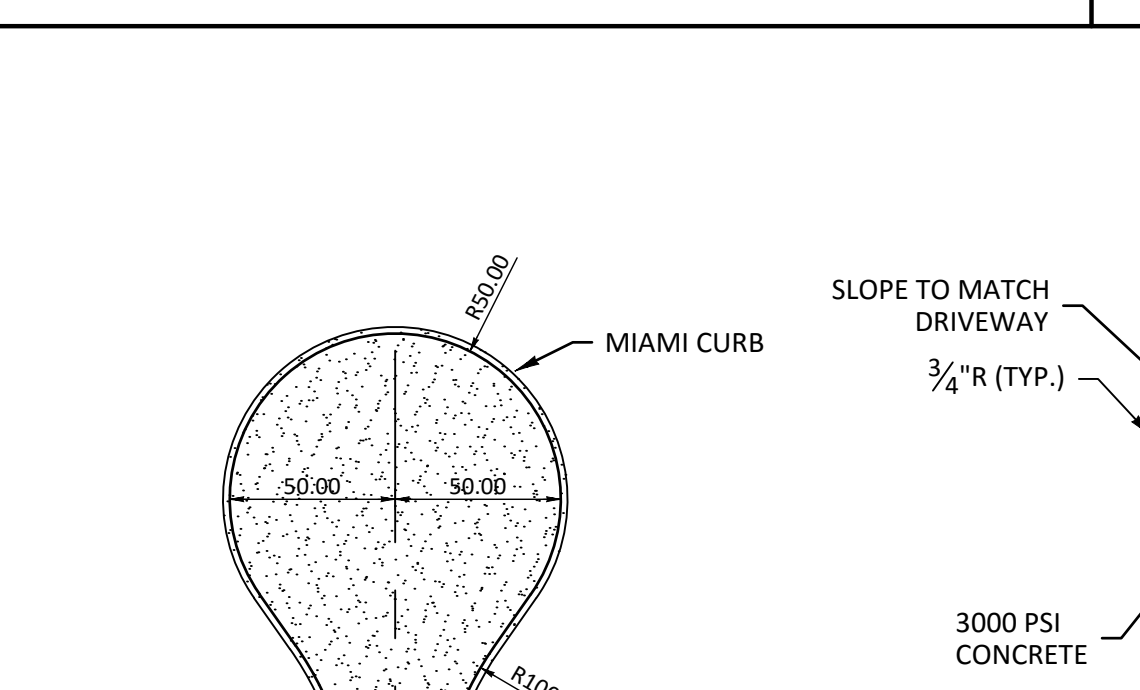
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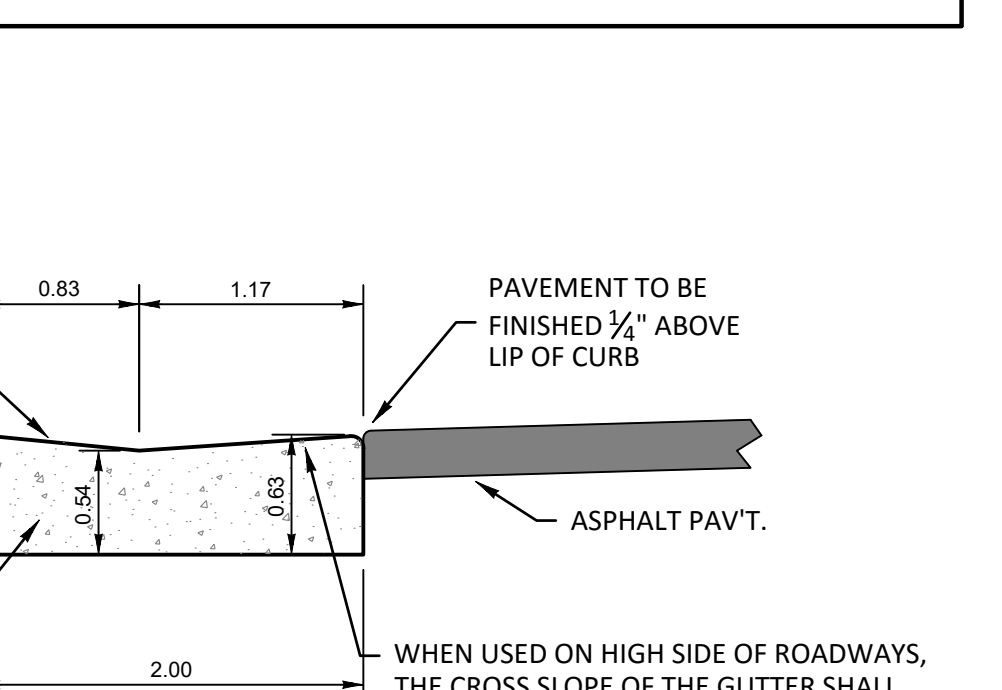
**TYPE "D" CURB**  
SCALE: 1" = 1"



**STANDARD MIAMI CURB**  
SCALE: 1" = 1"



**TEMPORARY TURNAROUND**  
SCALE: NTS



**DROP CURB**  
SCALE: 1" = 1"

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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2**  
TYPICAL ROADWAY SECTIONS

VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	08/29/2017	REVIEW SUBMITTAL
2	09/07/2017	COUNTY COMMENTS
3	02/22/2017	COUNTY COMMENTS

PROJECT NO: KLP-AG-1010  
FILE: RS-LAKECO  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

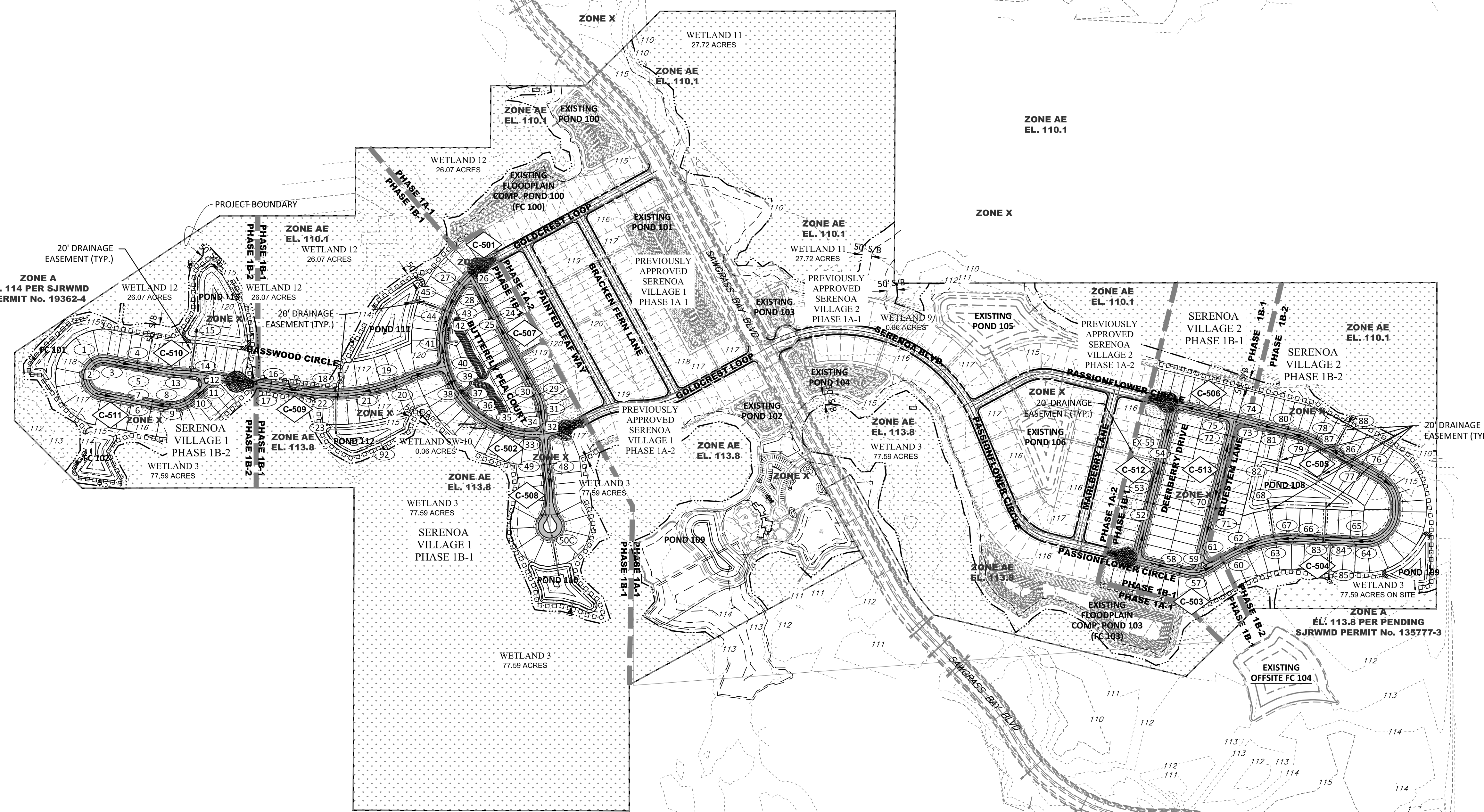
**FLORIDA PROFESSIONAL ENGINEER**

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**VICTOR E. BARBOSA**  
DATE: 02/22/2017  
REGISTRATION NO. 68548

**C-200**

Floodplain Compensation and Encroachment Running Totals Villages 1 & 2				
Phase	Encroachment (ac-ft)	Compensation (ac-ft)	Phase Balance (ac-ft)	Total Balance (ac-ft)
Phase 1A	14.9	20	5.1	5.1
Amenity	2.11	0.28	-1.83	3.27
Phase 1B	11.3	9.2	-2.1	1.17



VILLAGE 1 PHASE 1A-1	
SIZE	TOTAL
30' PRODUCT	19
40' PRODUCT	43
50' PRODUCT	0
<b>TOTAL:</b>	<b>62</b>

VILLAGE 2 PHASE 1A-1	
SIZE	TOTAL
30' PRODUCT	0
40' PRODUCT	0
50' PRODUCT	33
<b>TOTAL:</b>	<b>33</b>

VILLAGE 1 PHASE 1B-1	
SIZE	TOTAL
30' PRODUCT	30
40' PRODUCT	64
50' PRODUCT	0
<b>TOTAL:</b>	<b>94</b>

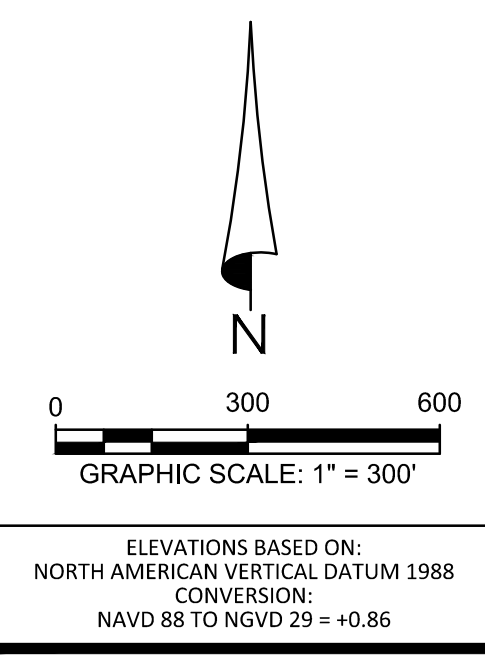
VILLAGE 2 PHASE 1B-1	
SIZE	TOTAL
30' PRODUCT	0
40' PRODUCT	52
50' PRODUCT	10
<b>TOTAL:</b>	<b>62</b>

VILLAGE 1 PHASE 1A-2	
SIZE	TOTAL
30' PRODUCT	34
40' PRODUCT	22
50' PRODUCT	0
<b>TOTAL:</b>	<b>56</b>

VILLAGE 2 PHASE 1A-2	
SIZE	TOTAL
30' PRODUCT	0
40' PRODUCT	38
50' PRODUCT	32
<b>TOTAL:</b>	<b>70</b>

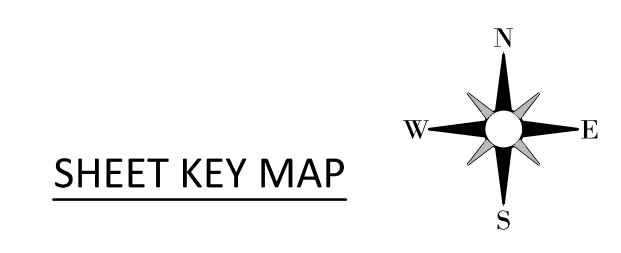
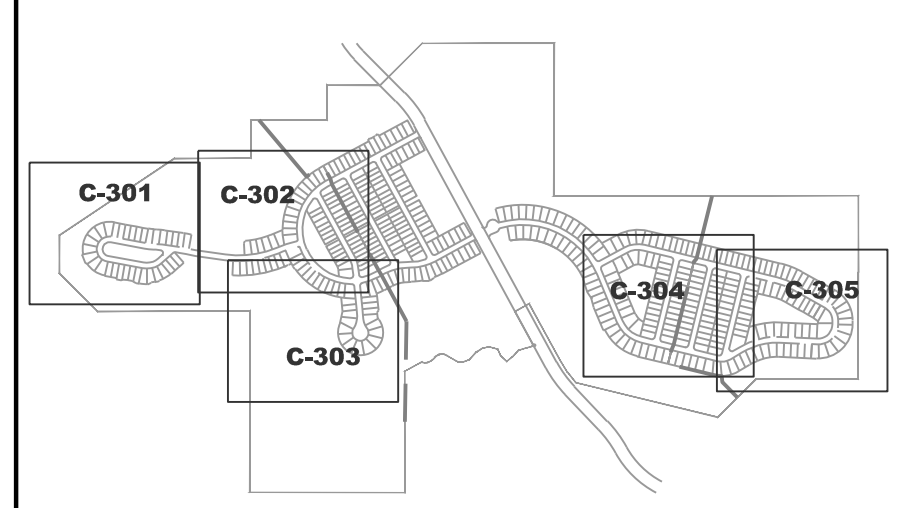
VILLAGE 1 PHASE 1B-2	
SIZE	TOTAL
30' PRODUCT	0
40' PRODUCT	34
50' PRODUCT	0
<b>TOTAL:</b>	<b>34</b>

VILLAGE 2 PHASE 1B-2	
SIZE	TOTAL
30' PRODUCT	0
40' PRODUCT	41
50' PRODUCT	27
<b>TOTAL:</b>	<b>68</b>



- GENERAL LEGEND**
- PROPERTY LINE
  - PHASE LINE
  - WETLAND LINE
  - WETLAND CONS. AREA SETBACK (WCAS) (50')
  - STAKED EROSION CONTROL
  - PLAN & PROFILE SHEET NUMBER
- DRAINAGE LEGEND**
- EXISTING STORM DRAINAGE STRUCTURE & PIPE
  - PROPOSED STORM DRAINAGE STRUCTURE & PIPE
  - DIRECTION OF SURFACE FLOW
  - 15' CONTOUR
  - 15.0' CONTOUR
  - FEMA FLOOD LINE

**LAKE / POND EXCAVATION NOTE:**  
 NO EXCAVATION SHALL EXTEND BELOW THE PERMITTED DESIGN DEPTHS/ELEVATIONS SHOWN ON THE DRAWINGS, UNLESS ADDITIONAL TESTING SUPPORTS OTHERWISE. NO SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL AND/OR NO LIMESTONE MATERIALS SHALL BE EXCAVATED, REGARDLESS IF THESE MATERIALS ARE ENCOUNTERED WITHIN THE PERMITTED EXCAVATION DEPTHS/ELEVATIONS. IF ANY LOWER SEMI-CONFINING UNIT CLAYEY SOIL MATERIAL OR LIMESTONE MATERIALS ARE ENCOUNTERED ABOVE THE PERMITTED DEPTHS/ELEVATIONS, THEN EXCAVATION OPERATIONS SHALL CEASE IN THE GENERAL AREA AND THE ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY. IN THE ABSENCE OF ANY CONFINING OR SEMI-CONFINING UNIT CLAYEY SOILS, A MINIMUM OF FIVE FEET OF UNDISTURBED SOIL MUST REMAIN ABOVE THE UNDERLYING LIMESTONE. IF SUBSEQUENT SUBSURFACE GEOTECHNICAL INVESTIGATIONS SUPPORT EXCAVATION BELOW DESIGN/PERMITTED DEPTHS/ELEVATIONS, THE ADDITIONAL EXCAVATION SHALL NOT BEGIN UNTIL THE ENGINEER OF RECORD HAS RECEIVED VERBAL AND/OR WRITTEN PERMISSION FROM THE APPROPRIATE GOVERNING AGENCY.



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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2 MASTER GRADING & DRAINAGE PLAN**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
 FILE: MGD  
 DESIGN BY: FRANCIS  
 DRAWN BY: WIGGINS

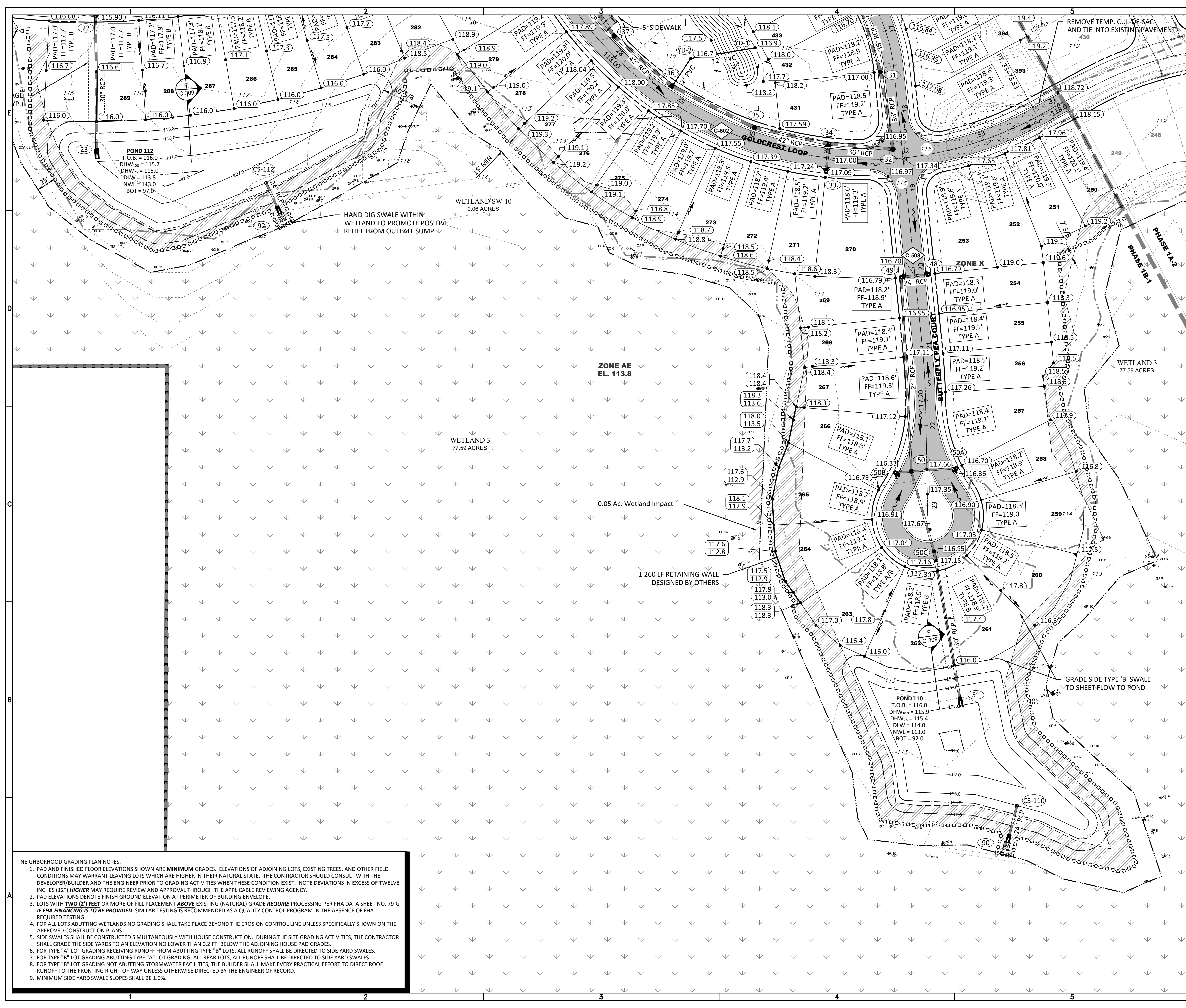
FLORIDA PROFESSIONAL ENGINEER

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**VICTOR E. BARBOSA**  
 DATE: \_\_\_\_\_  
 REGISTRATION NO. 58548

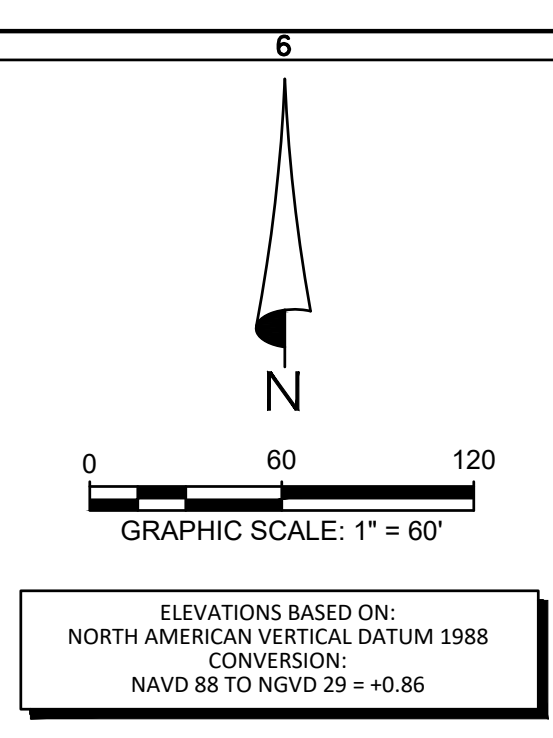
**C-300**



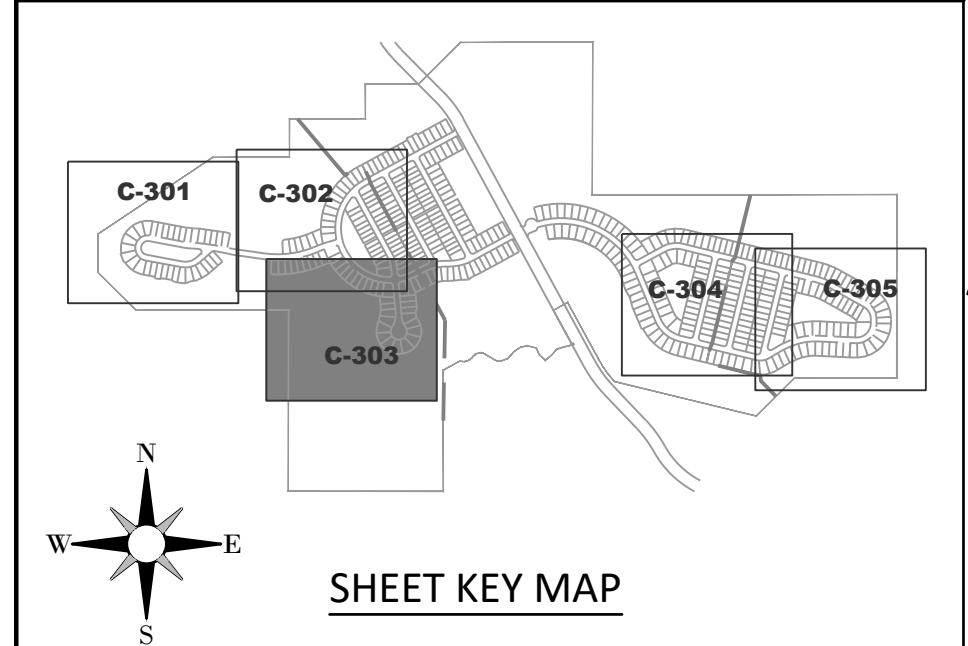
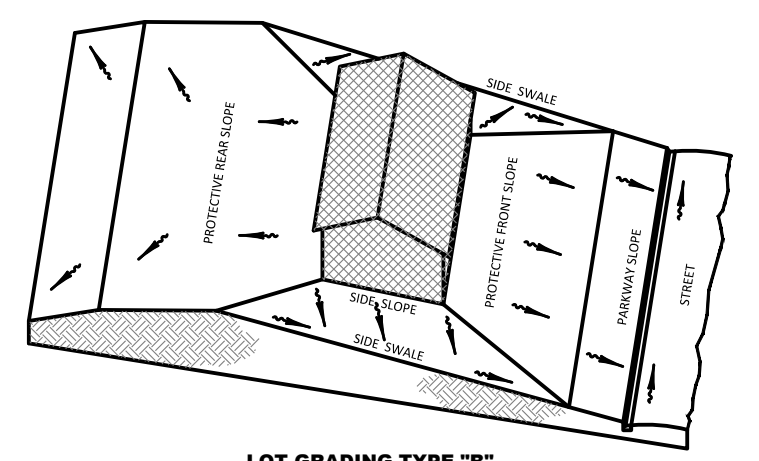
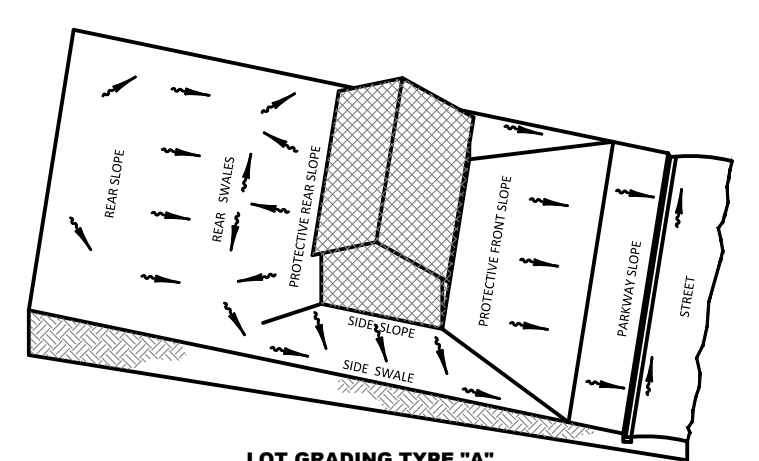


**NEIGHBORHOOD GRADING PLAN NOTES:**

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GROUND ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2) FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FHA DATA SHEET NO. 79-G IF FHA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FHA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ADJUTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.



- GENERAL LEGEND**
- PROPERTY LINE
  - PHASE LINE
  - WETLAND LINE
  - WETLAND CONS. AREA SETBACK (WCAS) (50')
  - STAKED EROSION CONTROL
  - PLAN & PROFILE SHEET NUMBER
- DRAINAGE LEGEND**
- | EXISTING | PROPOSED | DESCRIPTION                       |
|----------|----------|-----------------------------------|
|          |          | STORM DRAINAGE STRUCTURE & PIPE   |
|          |          | STRUCTURE NO.                     |
|          |          | DIRECTION OF SURFACE FLOW         |
|          |          | CONTOUR                           |
|          |          | FEMA FLOOD LINE                   |
|          |          | SPOT ELEVATION GROUND             |
|          |          | SPOT ELEVATION PAVEMENT           |
|          |          | PROFILE GRADE ELEVATION REFERENCE |
|          |          | FINISH FLOOR ELEVATION            |
|          |          | SOIL BORING LOCATION (PONDS)      |
|          |          | EXISTING TREE TO BE PROTECTED     |
|          |          | SECTION ID LABEL                  |
|          |          | SECTION SHEET NUMBER              |
|          |          | WETLAND SETBACK ENCROACHMENT      |
|          |          | WETLAND SETBACK COMPENSATION      |



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Engineering Business Certificate of Authorization No. 28792  
Landscape Architecture Certificate of Authorization No. LC26000405

**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2 GRADING & DRAINAGE PLAN**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
2	10/20/2017	BACK OF LOT GRADE BREAK REVIS
1	02/29/2017	REVIEW SUBMITTAL

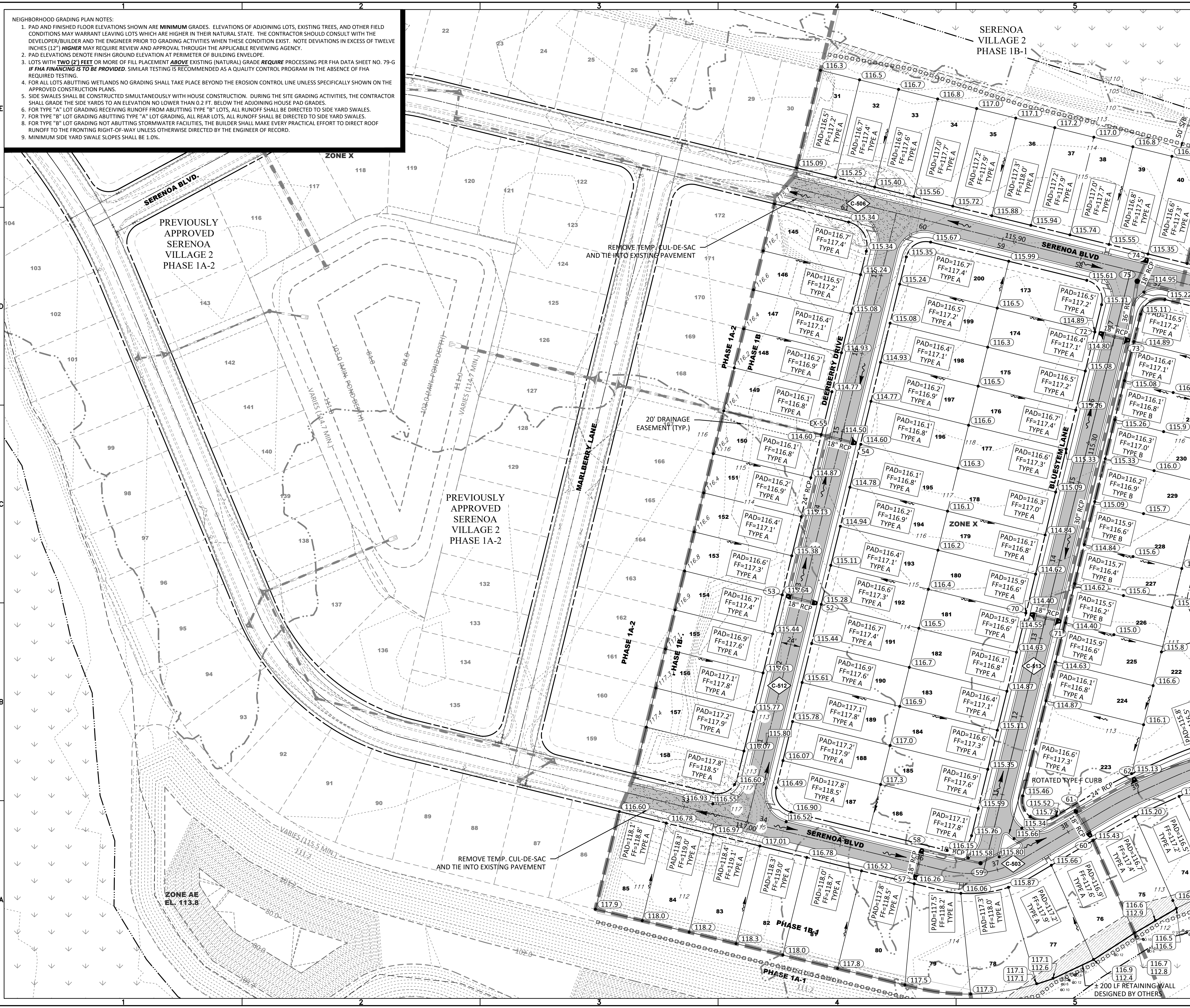
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FILE: GD  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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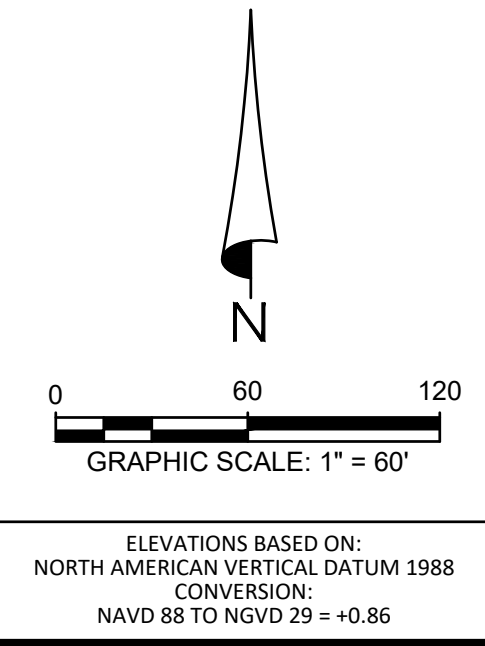
**VICTOR E. BARBOSA**  
DATE: \_\_\_\_\_  
REGISTRATION NO. 65848

**C-303**



**NEIGHBORHOOD GRADING PLAN NOTES:**

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
- PAD ELEVATIONS DENOTE FINISH GRADE ELEVATION AT PERIMETER OF BUILDING ENVELOPE.
- LOTS WITH TWO (2) FEET OR MORE OF FILL PLACEMENT ABOVE EXISTING (NATURAL) GRADE REQUIRE PROCESSING PER FIA DATA SHEET NO. 79-G IF FIA FINANCING IS TO BE PROVIDED. SIMILAR TESTING IS RECOMMENDED AS A QUALITY CONTROL PROGRAM IN THE ABSENCE OF FIA REQUIRED TESTING.
- FOR ALL LOTS ABUTTING WETLANDS NO GRADING SHALL TAKE PLACE BEYOND THE EROSION CONTROL LINE UNLESS SPECIFICALLY SHOWN ON THE APPROVED CONSTRUCTION PLANS.
- SIDE SWALES SHALL BE CONSTRUCTED SIMULTANEOUSLY WITH HOUSE CONSTRUCTION. DURING THE SITE GRADING ACTIVITIES, THE CONTRACTOR SHALL GRADE THE SIDE YARDS TO AN ELEVATION NO LOWER THAN 0.2 FT. BELOW THE ADJOINING HOUSE PAD GRADES.
- FOR TYPE "A" LOT GRADING RECEIVING RUNOFF FROM ABUTTING TYPE "B" LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING ABUTTING TYPE "A" LOT GRADING, ALL REAR LOTS, ALL REAR LOTS, ALL RUNOFF SHALL BE DIRECTED TO SIDE YARD SWALES.
- FOR TYPE "B" LOT GRADING NOT ABUTTING STORMWATER FACILITIES, THE BUILDER SHALL MAKE EVERY PRACTICAL EFFORT TO DIRECT ROOF RUNOFF TO THE FRONTING RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY THE ENGINEER OF RECORD.
- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.

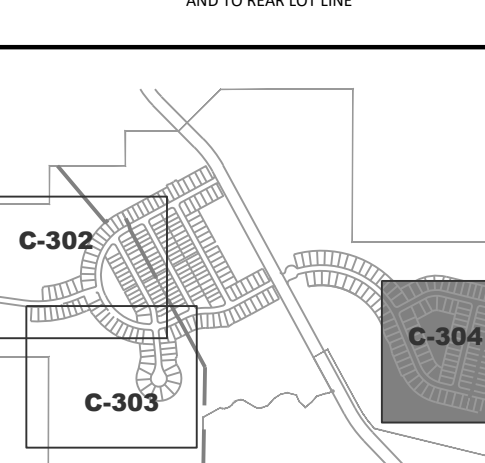
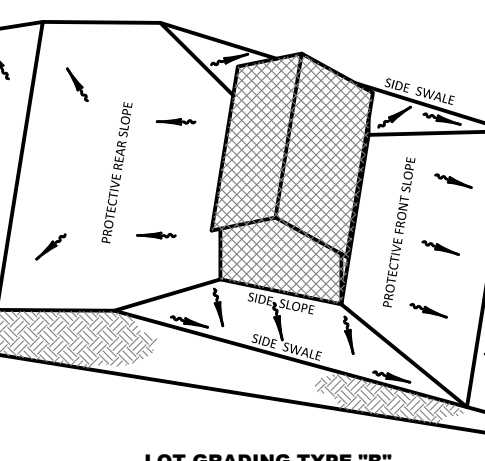
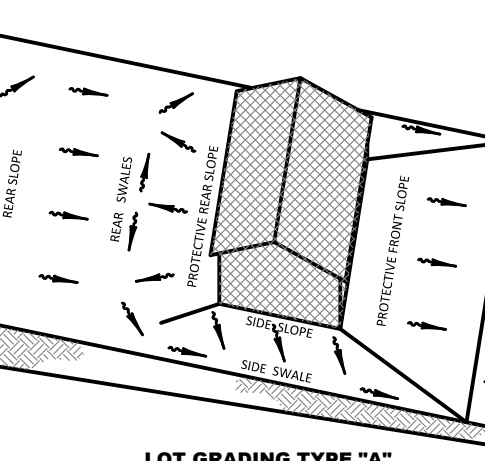


**GENERAL LEGEND**

- PROPERTY LINE
- PHASE LINE
- WETLAND LINE
- WETLAND CONS. AREA SETBACK (WCAS) (50')
- STAKED EROSION CONTROL
- PLAN & PROFILE SHEET NUMBER

**DRAINAGE LEGEND**

- | EXISTING | PROPOSED |  |
|----------|----------|--|
|          |          | STORM DRAINAGE STRUCTURE & PIPE          |
|          |          | STRUCTURE NO.                            |
|          |          | DIRECTION OF SURFACE FLOW                |
|          |          | CONTOUR                                  |
|          |          | FEMA FLOOD LINE                          |
|          |          | SPOT ELEVATION GROUND                    |
|          |          | SPOT ELEVATION PAVEMENT                  |
|          |          | PROFILE GRADE ELEVATION REFERENCE        |
|          |          | FINISH FLOOR ELEVATION                   |
|          |          | SOIL BORING LOCATION (PONDS)             |
|          |          | EXISTING TREE TO BE PROTECTED            |
|          |          | SECTION ID LABEL<br>SECTION SHEET NUMBER |
|          |          | WETLAND SETBACK ENCROACHMENT             |
|          |          | WETLAND SETBACK COMPENSATION             |



**SHEET KEY MAP**

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Engineering Business Certificate of Authorization No. 28792  
Landscape Architecture Certificate of Authorization No. LC26000405

**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 GRADING & DRAINAGE PLAN**

PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
2	10/20/2017	STORM SIZING REVISIONS
1	08/29/2017	REVIEW SUBMITTAL

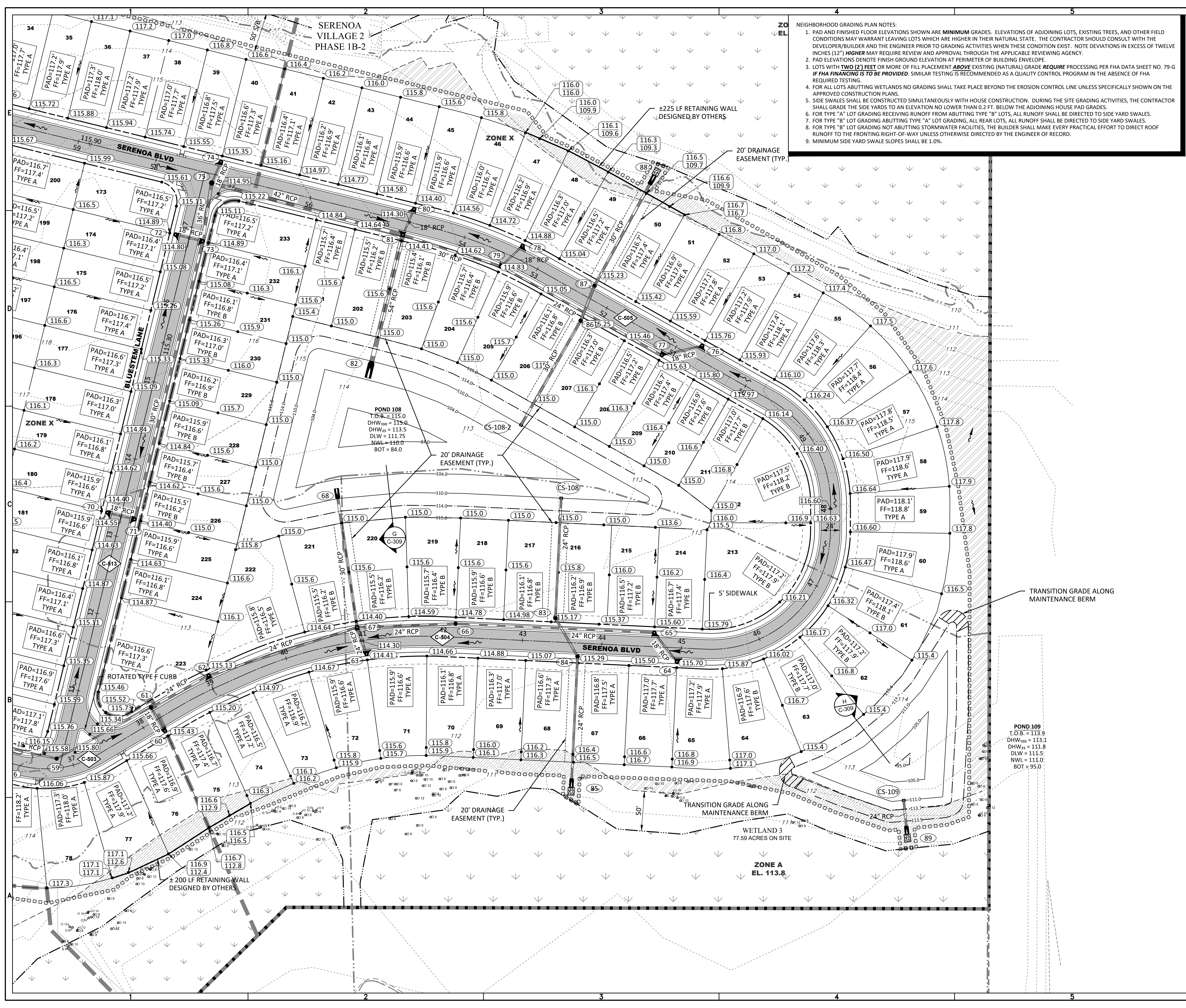
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**VICTOR E. BARBOSA**  
DATE: \_\_\_\_\_  
REGISTRATION NO. 68548

**C-304**



**NEIGHBORHOOD GRADING PLAN NOTES:**

- PAD AND FINISHED FLOOR ELEVATIONS SHOWN ARE MINIMUM GRADES. ELEVATIONS OF ADJOINING LOTS, EXISTING TREES, AND OTHER FIELD CONDITIONS MAY WARRANT LEAVING LOTS WHICH ARE HIGHER IN THEIR NATURAL STATE. THE CONTRACTOR SHOULD CONSULT WITH THE DEVELOPER/BUILDER AND THE ENGINEER PRIOR TO GRADING ACTIVITIES WHEN THESE CONDITIONS EXIST. NOTE DEVIATIONS IN EXCESS OF TWELVE INCHES (12") HIGHER MAY REQUIRE REVIEW AND APPROVAL THROUGH THE APPLICABLE REVIEWING AGENCY.
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- MINIMUM SIDE YARD SWALE SLOPES SHALL BE 1.0%.

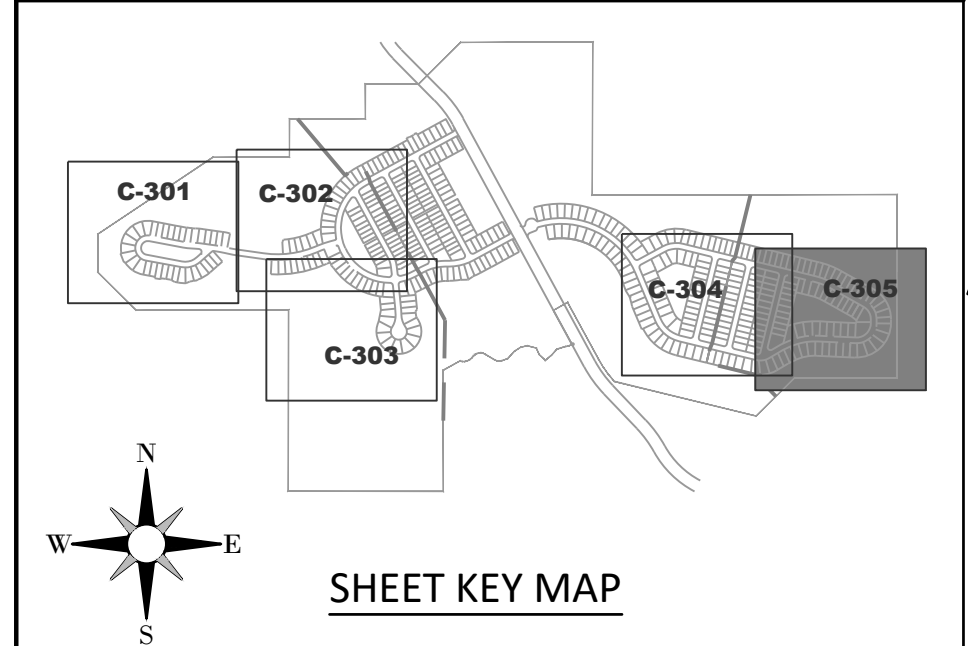
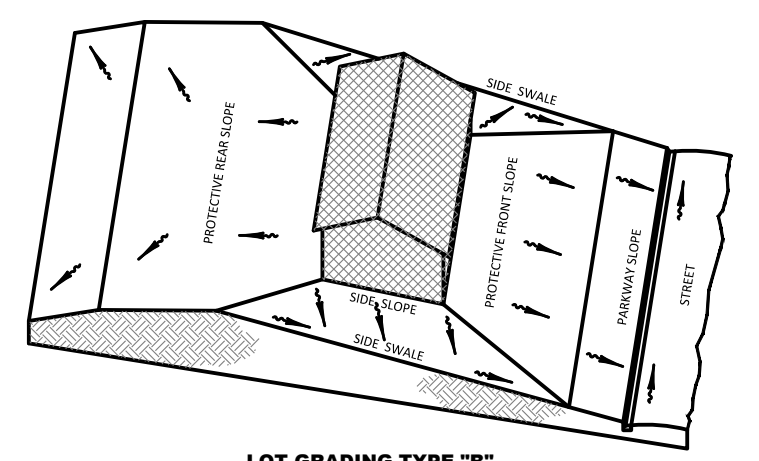
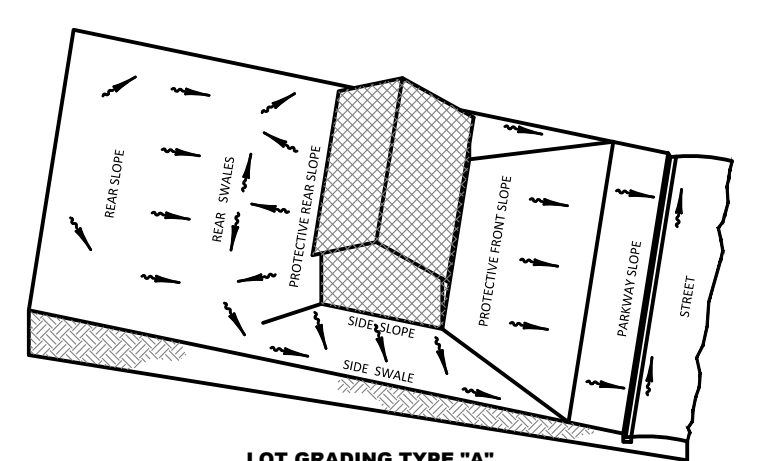
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NORTH AMERICAN VERTICAL DATUM 1988  
CONVERSION:  
NAVD 88 TO NGVD 29 = +0.86

**GENERAL LEGEND**

- PROPERTY LINE
- PHASE LINE
- WETLAND LINE
- WETLAND CONS. AREA SETBACK (WCAS) (50')
- STAKED EROSION CONTROL
- PLAN & PROFILE SHEET NUMBER

**DRAINAGE LEGEND**

- EXISTING PROPOSED
- STORM DRAINAGE STRUCTURE & PIPE
- STRUCTURE NO.
- DIRECTION OF SURFACE FLOW
- CONTOUR
- FEMA FLOOD LINE
- SPOT ELEVATION GROUND
- SPOT ELEVATION PAVEMENT
- PROFILE GRADE ELEVATION REFERENCE
- FINISH FLOOR ELEVATION
- SOIL BORING LOCATION (PONDS)
- EXISTING TREE TO BE PROTECTED
- SECTION ID LABEL
- SECTION SHEET NUMBER
- WETLAND SETBACK ENCROACHMENT
- WETLAND SETBACK COMPENSATION



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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 GRADING & DRAINAGE PLAN**

VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	10/20/2017	STORM SIZES, BACK OF LOT GRADES
2	10/20/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
FILE: GD  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

FLORIDA PROFESSIONAL ENGINEER

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**VICTOR E. BARBOSA**  
DATE: \_\_\_\_\_  
REGISTRATION NO. 65848

**C-305**

REVALON GROVES/PHASE 1/ENGINEERING - SURVIMDGO DWG-C-305-2017/10/25 3:22 PM JOSH DAVILA

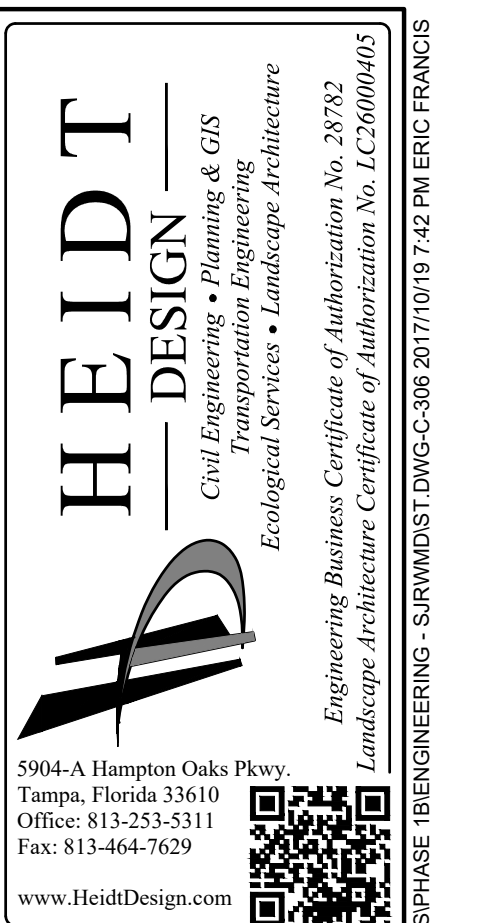
STRUCTURE TABLE			
STR. NO.	STR. TYPE	TOP ELEV.	COMMENTS
EX-55	EXISTING FDOT TYPE 4 CURB INLET	14.55	REPLACE TEMP. TOP WITH CURB INLET
CS-109	TYPE C CONTROL STRUCTURE	113.40	PHASE 1B-1
CS-108	TYPE C CONTROL STRUCTURE	113.80	PHASE 1B-1
CS-108-2	TYPE C CONTROL STRUCTURE	114.30	PHASE 1B-1
CS-113	TYPE C CONTROL STRUCTURE	115.50	PHASE 1B-2
CS-112	TYPE C CONTROL STRUCTURE	115.50	PHASE 1B-1
CS-110	TYPE C CONTROL STRUCTURE	115.50	PHASE 1B-1
CS-111	TYPE C CONTROL STRUCTURE	116.50	PHASE 1B-1
YD-3	YARD DRAIN	116.70	PHASE 1B-1
YD-2	YARD DRAIN	116.70	PHASE 1B-1
YD-1	YARD DRAIN	116.90	PHASE 1B-1
YD-4	YARD DRAIN	117.30	PHASE 1B-1
YD-5	YARD DRAIN	117.70	PHASE 1B-1
1	FDOT TYPE 3 CURB INLET	116.78	PHASE 1B-2
2	FDOT TYPE 3 CURB INLET	116.78	PHASE 1B-2
3	TYPE P MANHOLE 3'-6" DIA.	116.81	PHASE 1B-2
4	FDOT TYPE 4 CURB INLET	116.05	PHASE 1B-2
5	FDOT TYPE 3 CURB INLET	116.05	PHASE 1B-2
6	FDOT TYPE 3 CURB INLET	116.66	PHASE 1B-2
7	FDOT TYPE 3 CURB INLET	116.66	PHASE 1B-2
8	TYPE P MANHOLE 4'-0" DIA.	116.41	PHASE 1B-2
9	FDOT TYPE 3 CURB INLET	115.91	PHASE 1B-2
10	FDOT TYPE 3 CURB INLET	115.91	PHASE 1B-2
11	TYPE J MANHOLE 5'-0" DIA.	116.52	PHASE 1B-2
12	TYPE J MANHOLE 5'-0" DIA.	117.16	PHASE 1B-2
13	FDOT TYPE 3 CURB INLET	117.62	PHASE 1B-2
14	FDOT TYPE 3 CURB INLET	117.62	PHASE 1B-2
15	MES 42" RCP		PHASE 1B-2
16	FDOT TYPE 3 CURB INLET	116.93	PHASE 1B-1
17	FDOT TYPE 3 CURB INLET	116.93	PHASE 1B-1
18	FDOT TYPE 3 CURB INLET	115.85	PHASE 1B-1
19	FDOT TYPE 3 CURB INLET	117.00	PHASE 1B-1
20	FDOT TYPE 3 CURB INLET	117.00	PHASE 1B-1
21	TYPE P MANHOLE 3'-6" DIA.	116.52	PHASE 1B-1
22	FDOT TYPE 3 CURB INLET	115.85	PHASE 1B-1
23	MES 30" RCP		PHASE 1B-1
24	FDOT TYPE 4 CURB INLET	116.75	PHASE 1B-1
25	FDOT TYPE 4 CURB INLET	116.75	PHASE 1B-1
26	TYPE P MANHOLE 4'-0" DIA.	117.30	PHASE 1B-1
27	FDOT TYPE 3 CURB INLET	117.30	PHASE 1B-1

STRUCTURE TABLE			
STR. NO.	STR. TYPE	TOP ELEV.	COMMENTS
28	FDOT TYPE 3 CURB INLET	117.30	PHASE 1B-1
28-A	TYPE J MANHOLE 5'-0" DIA.	117.73	PHASE 1B-1
29	FDOT TYPE 3 CURB INLET	116.75	PHASE 1B-1
30	FDOT TYPE 3 CURB INLET	116.75	PHASE 1B-1
31	TYPE P MANHOLE 4'-0" DIA.	116.84	PHASE 1B-1
32	TYPE J MANHOLE 5'-0" DIA.	117.12	PHASE 1B-1
33	FDOT TYPE 3 CURB INLET	117.05	PHASE 1B-1
34	FDOT TYPE 3 CURB INLET	117.24	PHASE 1B-1
35	TYPE J MANHOLE 5'-0" DIA.	117.57	PHASE 1B-1
36	TYPE J MANHOLE 5'-0" DIA.	117.97	PHASE 1B-1
37	TYPE J MANHOLE 5'-0" DIA.	117.91	PHASE 1B-1
38	FDOT TYPE 4 CURB INLET	117.55	PHASE 1B-1
39	FDOT TYPE 3 CURB INLET	117.55	PHASE 1B-1
40	TYPE J MANHOLE 5'-0" DIA.	118.23	PHASE 1B-1
41	TYPE J MANHOLE 5'-0" DIA.	118.27	PHASE 1B-1
42	TYPE J MANHOLE 5'-0" DIA.	117.92	PHASE 1B-1
43	FDOT TYPE 3 CURB INLET	117.80	PHASE 1B-1
44	FDOT TYPE 3 CURB INLET	117.80	PHASE 1B-1
45	TYPE J MANHOLE 6'-0" DIA.	116.90	PHASE 1B-1
46	MES 60" RCP		PHASE 1B-1
48	FDOT TYPE 3 CURB INLET	116.75	PHASE 1B-1
49	FDOT TYPE 3 CURB INLET	116.75	PHASE 1B-1
50B	FDOT TYPE 3 CURB INLET	116.67	PHASE 1B-1
50A	FDOT TYPE 3 CURB INLET	116.70	PHASE 1B-1
50	TYPE J MANHOLE 5'-0" DIA.	116.81	PHASE 1B-1
50C	TYPE P MANHOLE 3'-6" DIA.	117.25	PHASE 1B-1
51	MES 24" RCP		PHASE 1B-1
52	FDOT TYPE 3 CURB INLET	115.23	PHASE 1B-1
53	FDOT TYPE 3 CURB INLET	115.23	PHASE 1B-1
54	FDOT TYPE 4 CURB INLET	114.55	PHASE 1B-1
57	FDOT TYPE 3 CURB INLET	116.22	PHASE 1B-1
58	FDOT TYPE 3 CURB INLET	116.22	PHASE 1B-1
59	TYPE P MANHOLE 3'-6" DIA.	115.73	PHASE 1B-1
60	FDOT TYPE 3 CURB INLET	115.39	PHASE 1B-1
61	TYPE P MANHOLE 4'-0" DIA.	115.27	PHASE 1B-1
62	FDOT TYPE 3 CURB INLET	115.09	PHASE 1B-1
63	FDOT TYPE 4 CURB INLET	114.36	PHASE 1B-1
64	FDOT TYPE 3 CURB INLET	115.65	PHASE 1B-2
65	FDOT TYPE 3 CURB INLET	115.55	PHASE 1B-2
66	TYPE P MANHOLE 3'-6" DIA.	114.60	PHASE 1B-1

STRUCTURE TABLE			
STR. NO.	STR. TYPE	TOP ELEV.	COMMENTS
67	FDOT TYPE 3 CURB INLET	114.36	PHASE 1B-1
68	MES 30" RCP		PHASE 1B-1
70	FDOT TYPE 4 CURB INLET	114.60	PHASE 1B-1
71	FDOT TYPE 4 CURB INLET	114.60	PHASE 1B-1
72	FDOT TYPE 3 CURB INLET	114.85	PHASE 1B-1
73	FDOT TYPE 3 CURB INLET	114.85	PHASE 1B-1
74	FDOT TYPE 3 CURB INLET	115.32	PHASE 1B-1
75	TYPE J MANHOLE 5'-0" DIA.	115.14	PHASE 1B-1
76	FDOT TYPE 3 CURB INLET	115.72	PHASE 1B-2
77	FDOT TYPE 3 CURB INLET	115.58	PHASE 1B-2
78	FDOT TYPE 3 CURB INLET	114.84	PHASE 1B-2
79	FDOT TYPE 3 CURB INLET	114.79	PHASE 1B-1
80	FDOT TYPE 3 CURB INLET	114.35	PHASE 1B-1
81	FDOT TYPE 3 CURB INLET	114.35	PHASE 1B-1
82	MES 54" RCP		PHASE 1B-1
83	TYPE P MANHOLE 4'-0" DIA.	115.24	PHASE 1B-1
84	TYPE P MANHOLE 4'-0" DIA.	115.10	PHASE 1B-1
85	MES 24" RCP		PHASE 1B-1
86	TYPE P MANHOLE 4'-0" DIA.	115.30	PHASE 1B-1
87	TYPE P MANHOLE 4'-0" DIA.	115.07	PHASE 1B-1
88	MES 30" RCP		PHASE 1B-1
89	MES 24" RCP		PHASE 1B-1
90	MES 24" RCP		PHASE 1B-1
91	MES 30" RCP		PHASE 1B-1
92	MES 24" RCP		PHASE 1B-1
93	MES 24" RCP		PHASE 1B-2
94	MES 15" RCP	112.94	PHASE 1B-1
95	MES 15" RCP	111.63	PHASE 1B-1

**NOTE:**

- ALL INLET AND MANHOLE STRUCTURE BOTTOMS ARE SPECIFIED TYPE 'P' UNLESS OTHERWISE NOTED. REFER TO FDOT DESIGN STANDARDS INDEX #200 & #201.
- ALL FLARED END SECTIONS (FES) ARE SPECIFIED FDOT INDEX #270 UNLESS OTHERWISE NOTED.
- ALL MITERED END SECTIONS (MES) ARE SPECIFIED FDOT INDEX #272 UNLESS OTHERWISE NOTED.



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ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION No. 28782  
LANDSCAPE ARCHITECTURE CERTIFICATE OF AUTHORIZATION No. LC26000405  
RAVALON GROVES/PHASE 1/ENGINEERING - SJRWMDIST DWG-C-306 2017/10/19 142 PM ERIC FRANCIS

SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2  
STORM STRUCTURE DATA

PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
2	10/20/2017	STORM REVISIONS
1	08/29/2017	REVIEW SUBMITTAL

PROJECT NO:	KLP-AG-1010
FILE:	ST
DESIGN BY:	FRANCIS
DRAWN BY:	WIGGINS

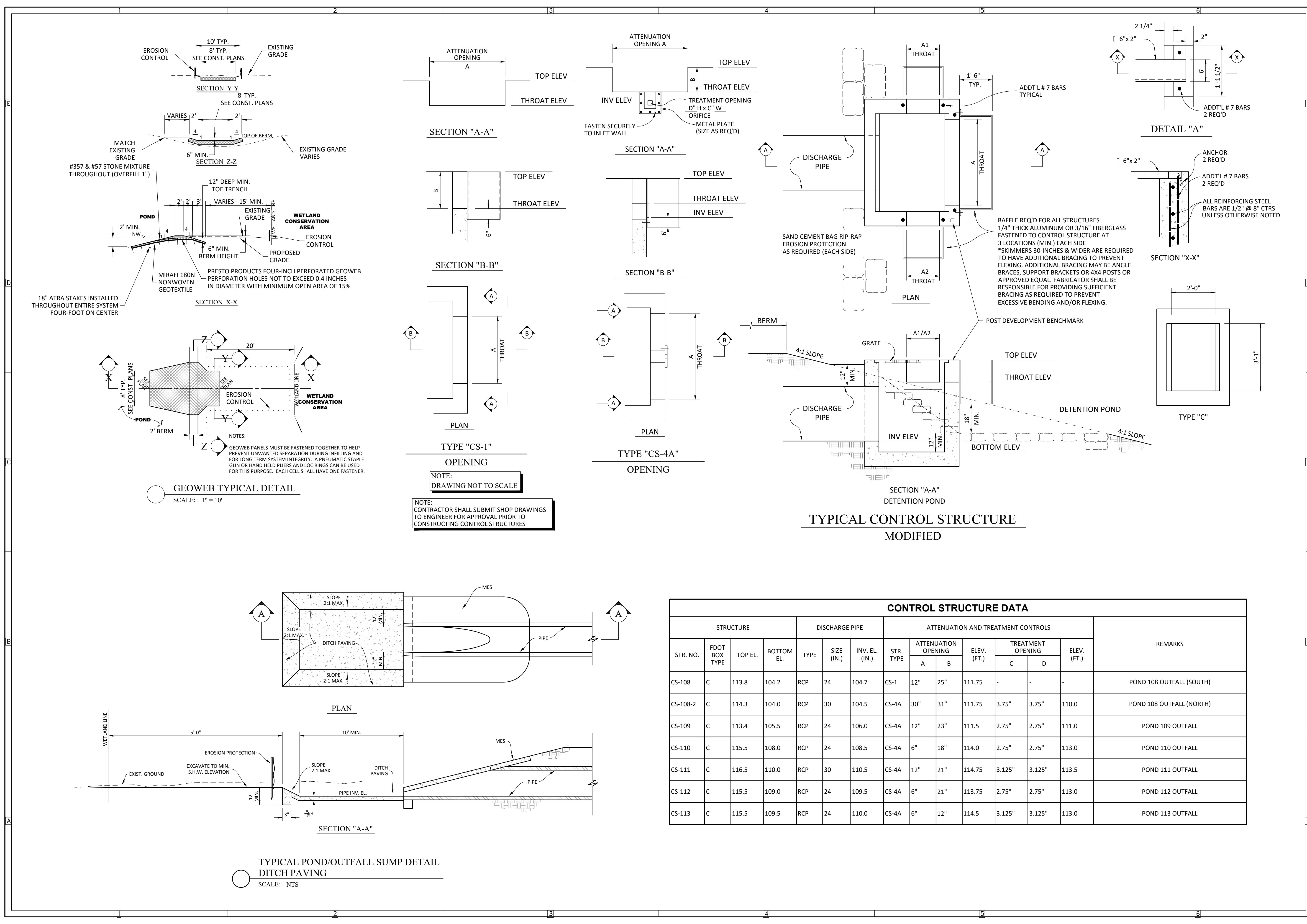
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**VICTOR E. BARBOSA**  
DATE: \_\_\_\_\_  
REGISTRATION NO. 68548

C-306





NOTE:  
 DRAWING NOT TO SCALE

NOTE:  
 CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTING CONTROL STRUCTURES

CONTROL STRUCTURE DATA														
STR. NO.	FDOT BOX TYPE	TOP EL.	BOTTOM EL.	TYPE	SIZE (IN.)	INV. EL. (IN.)	STR. TYPE	ATTENUATION OPENING		TREATMENT OPENING		REMARKS		
								A	B	C	D		ELEV. (FT.)	ELEV. (FT.)
CS-108	C	113.8	104.2	RCP	24	104.7	CS-1	12"	25"	111.75	-	-	-	POND 108 OUTFALL (SOUTH)
CS-108-2	C	114.3	104.0	RCP	30	104.5	CS-4A	30"	31"	111.75	3.75"	3.75"	110.0	POND 108 OUTFALL (NORTH)
CS-109	C	113.4	105.5	RCP	24	106.0	CS-4A	12"	23"	111.5	2.75"	2.75"	111.0	POND 109 OUTFALL
CS-110	C	115.5	108.0	RCP	24	108.5	CS-4A	6"	18"	114.0	2.75"	2.75"	113.0	POND 110 OUTFALL
CS-111	C	116.5	110.0	RCP	30	110.5	CS-4A	12"	21"	114.75	3.125"	3.125"	113.5	POND 111 OUTFALL
CS-112	C	115.5	109.0	RCP	24	109.5	CS-4A	6"	21"	113.75	2.75"	2.75"	113.0	POND 112 OUTFALL
CS-113	C	115.5	109.5	RCP	24	110.0	CS-4A	6"	12"	114.5	3.125"	3.125"	113.0	POND 113 OUTFALL

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Engineering Business Certificate of Authorization No. 28792  
 Landscape Architecture Certificate of Authorization No. LC26000405

RAVALON GROVES PHASE II ENGINEERING - SJRWMDIST DWG-C-308 2017/10/19 142 PM ERIC FRANCIS

**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2**  
**CONTROL STRUCTURE DETAIL**

PREPARED FOR: **VK AVALON GROVES, LLC**

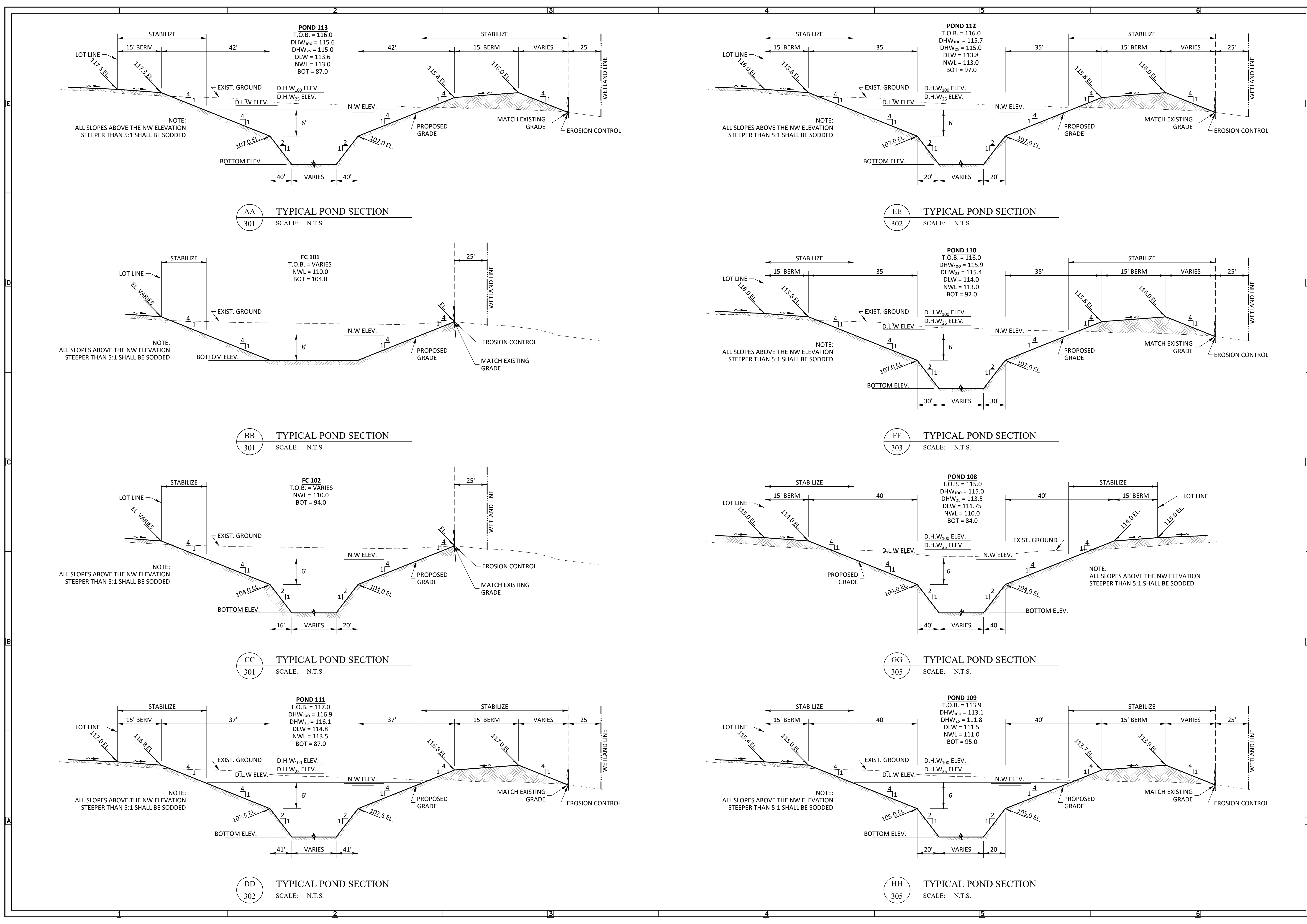
NO.	DATE	DESCRIPTION
2	10/20/2017	WEIR TABLE UPDATES
1	08/29/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
 FILE: ST  
 DESIGN BY: FRANCIS  
 DRAWN BY: WIGGINS

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 DATE: \_\_\_\_\_  
 REGISTRATION NO. 58548

**C-308**



AA TYPICAL POND SECTION  
 301 SCALE: N.T.S.

EE TYPICAL POND SECTION  
 302 SCALE: N.T.S.

BB TYPICAL POND SECTION  
 301 SCALE: N.T.S.

FF TYPICAL POND SECTION  
 303 SCALE: N.T.S.

CC TYPICAL POND SECTION  
 301 SCALE: N.T.S.

GG TYPICAL POND SECTION  
 305 SCALE: N.T.S.

DD TYPICAL POND SECTION  
 302 SCALE: N.T.S.

HH TYPICAL POND SECTION  
 305 SCALE: N.T.S.

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SERENOA  
 VILLAGES 1 & 2 - PHASE IB-1 & IB-2  
 GRADING & DRAINAGE SECTIONS

PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	02/27/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
 FILE: SEC  
 DESIGN BY: FRANCIS  
 DRAWN BY: WIGGINS

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 REGISTRATION NO. 58548

**C-309**

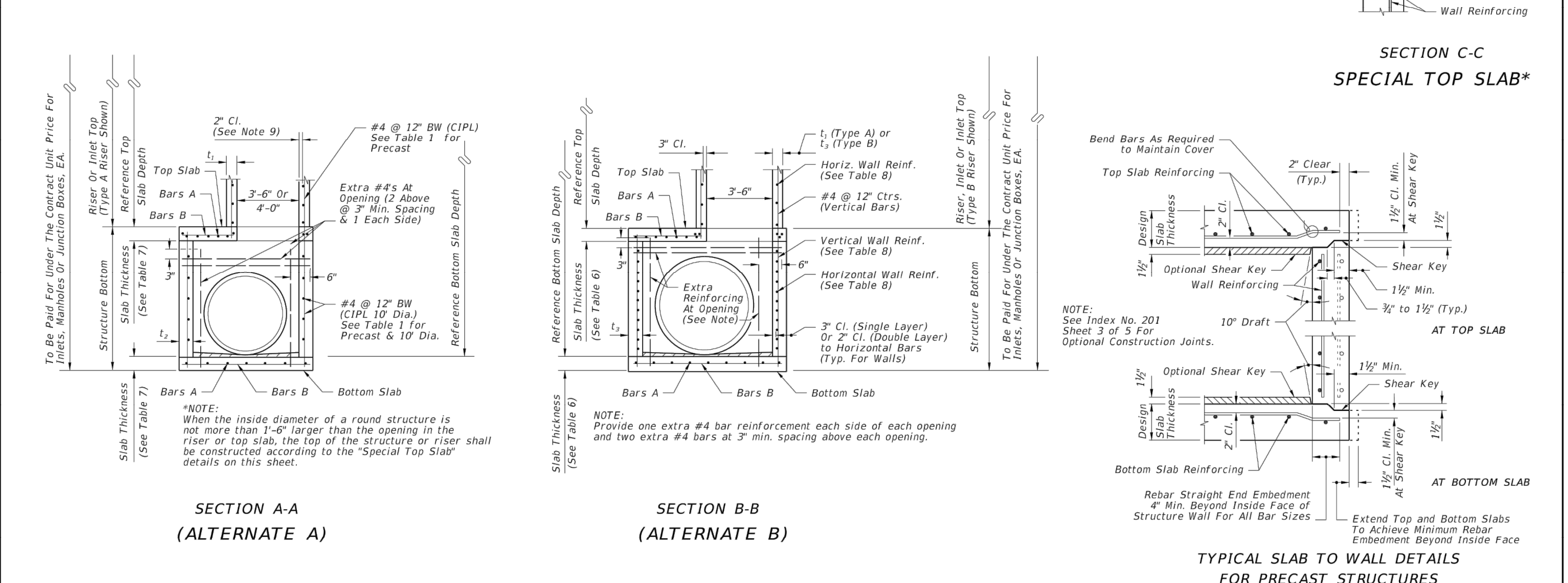
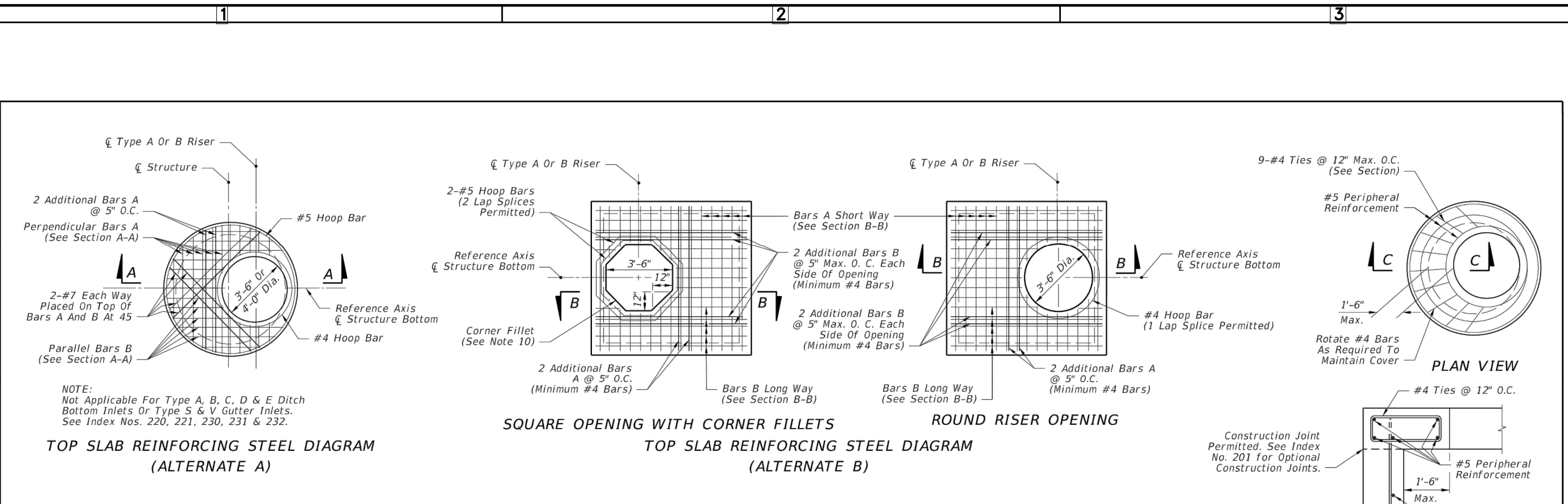


Table with 4 columns: LAST REVISION, DESCRIPTION, FDOT DESIGN STANDARDS, STRUCTURE BOTTOMS TYPE J AND P, INDEX NO. 200, SHEET NO. 1 of 5

TABLE 3-MINIMUM STRUCTURE SIZES FOR SINGLE PIPE CONNECTION PER SIDE. Table with columns for Pipe Size, Rectangular Structure, and Round Structure.

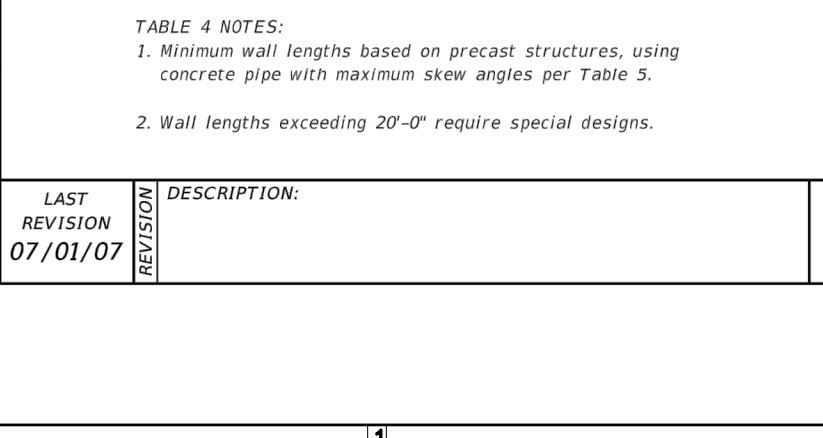
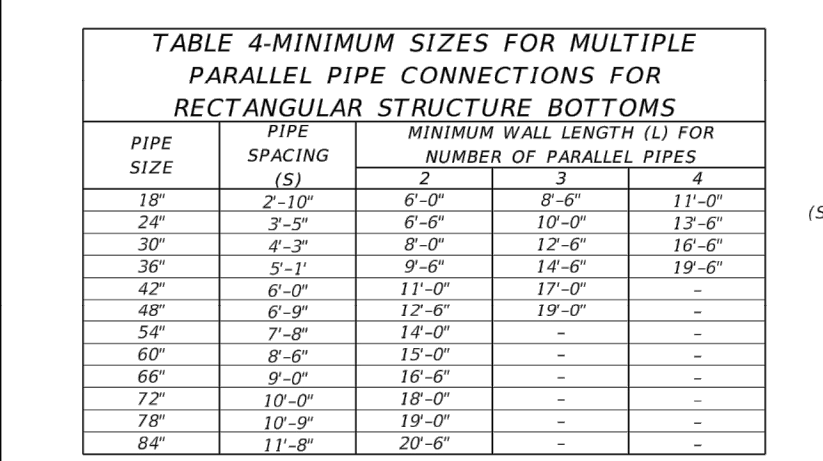
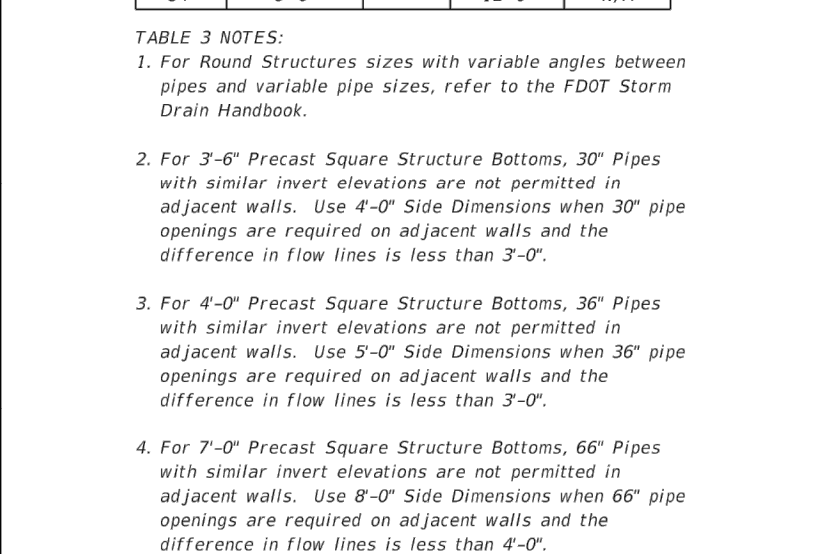
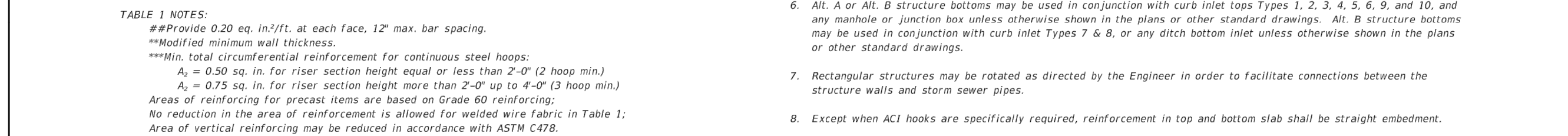


Table with 4 columns: LAST REVISION, DESCRIPTION, FDOT DESIGN STANDARDS, STRUCTURE BOTTOMS TYPE J AND P, INDEX NO. 200, SHEET NO. 3 of 5

ROUND STRUCTURE BOTTOMS (ALTERNATE A) & ROUND RISERS- TABLE 1. Table with columns for Type, Structure/Riser Diameter (ft), Cast-In-Place Items, and Precast Items.



SQUARE & RECTANGULAR STRUCTURES (ALTERNATE B) - TABLE 2. Table with columns for Type, Wall Length (ft), Max. Depth (ft), and Wall Thickness (in).

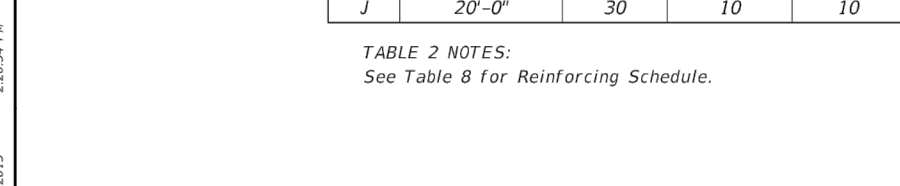


Table with 4 columns: LAST REVISION, DESCRIPTION, FDOT DESIGN STANDARDS, STRUCTURE BOTTOMS TYPE J AND P, INDEX NO. 200, SHEET NO. 2 of 5

TABLE 4-MINIMUM SIZES FOR MULTIPLE PARALLEL PIPE CONNECTIONS FOR RECTANGULAR STRUCTURE BOTTOMS. Table with columns for Pipe Size, Spacing, and Number of Pipes.

TABLE 5 - MAXIMUM PIPE SKEW FOR PRECAST ROUND OPENINGS. Table with columns for Wall Thickness, Pipe Size, and Skew Angle.

SLAB DESIGNS - SQUARE AND RECTANGULAR STRUCTURES (TABLE 6). Table with columns for Short-Way and Long-Way dimensions and schedules.

SLAB DESIGNS - ROUND STRUCTURES (TABLE 7). Table with columns for Short-Way and Long-Way dimensions and schedules.

SLAB AND WALL DESIGN TABLE NOTES. List of 10 notes regarding reinforcement requirements for slabs and walls.

Table with 4 columns: LAST REVISION, DESCRIPTION, FDOT DESIGN STANDARDS, STRUCTURE BOTTOMS TYPE J AND P, INDEX NO. 200, SHEET NO. 4 of 5

GENERAL NOTES. List of 15 notes providing detailed instructions for the structure bottom designs.

HEIDT DESIGN logo and contact information for the design firm.

SERENOA VILLAGES 1 & 2 - PHASE 1B DRAINAGE DETAILS logo and contact information for the engineering firm.

PROJECT NO: KLP-AG-1010, DESIGN BY: FRANCIS, DRAWN BY: WIGGINS, VICTOR E. BARBOSA, DATE: 09/11/2017, REVIEW SUBMITTAL, and FDOT logo.



**WEIGHT OF CASTINGS (lb)**

Frame Type	2" OPENING		3" OPENING		Total
	Frame	Cover (Std.)	Frame	2-Piece Cover	
I*	155	190	220	190	410
II	145	190	255	190	410
III	90	190	180	190	410

\* Includes Type I Adjustable

**DESIGNER NOTE:** Consider using the 2-piece cover where depths exceed 3' and manual entry may be required for cleaning. Clearly note the requirement for a 2-piece cover on the Drainage Structure sheets in the plans.

INDEX NO. 201 SHEET NO. 1 of 5

**SEPARATE RISER SEGMENTS WITH CONSTRUCTION JOINTS OTHER THAN DOWEL JOINT**

**MINIMUM DIMENSIONS FOR BOX AND RISER SEGMENTS**

**OPTIONAL CONSTRUCTION JOINTS**

**REBAR STRAIGHT END EMBEDMENT FOR TOP AND BOTTOM SLABS**

**WALL REINFORCING SPLICE DETAILS**

INDEX NO. 201 SHEET NO. 3 of 5

**MANHOLE TOPS**

**SECTION TYPE 7**

**SECTION TYPE 8**

**NOTES (TOPS)**

**INDEX**

Index Number	Inlet Type	Eye-Bolt	Length Of Chain	Handling & Remarks
217	(MB) 1	1	4'-0"	Slide & Spin
	(MB) 2	2	2 @ 4'-0"	Slide & Spin
	(MB) 3	2	2 @ 4'-0"	Slide & Spin
	(MB) 4	2	2 @ 4'-0"	Slide & Spin
	(MB) 5	2	2 @ 4'-0"	Slide & Spin
218	(BW)	1	3'-8"	Slide Or Slide & Spin
	(BW, RCD)	1	4'-0"	Slide & Spin
220	S	1	4'-0"	Slide & Spin
221	V	1	4'-0"	Slide & Spin
230	A	1	3'-0"	Slide
231	B	1	5'-0"	Slide & Spin
	C	1	2'-6"	Slide & Spin
	D	1	2'-6"	Slide & Spin
	E	2	2 @ 2'-6"	Slide & Spin
232	H	2	2 @ 2'-0"	Flip Ctr. Gate and Slide & Spin Single Free Gate
	F	1	1 or 2 @ 3'-6"	Flip Or Slide & Spin
233	G	1	6'-0"	Slide
	I	1	2'-0"	Lifting Loop
234	J	1	4'-0"	Slide & Spin

**DESIGN NOTES**

**TEMPORARY DRAINS FOR SUBGRADE AND BASE**

INDEX NO. 201 SHEET NO. 2 of 5

**RECTANGULAR SEGMENT WITH PIPE OPENING AT CORNER**

**DETAILS FOR SKEWED PIPES IN RECTANGULAR STRUCTURES**

INDEX NO. 201 SHEET NO. 5 of 5

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**SERENOA VILLAGES I & 2 - PHASE 1B DRAINAGE DETAILS**

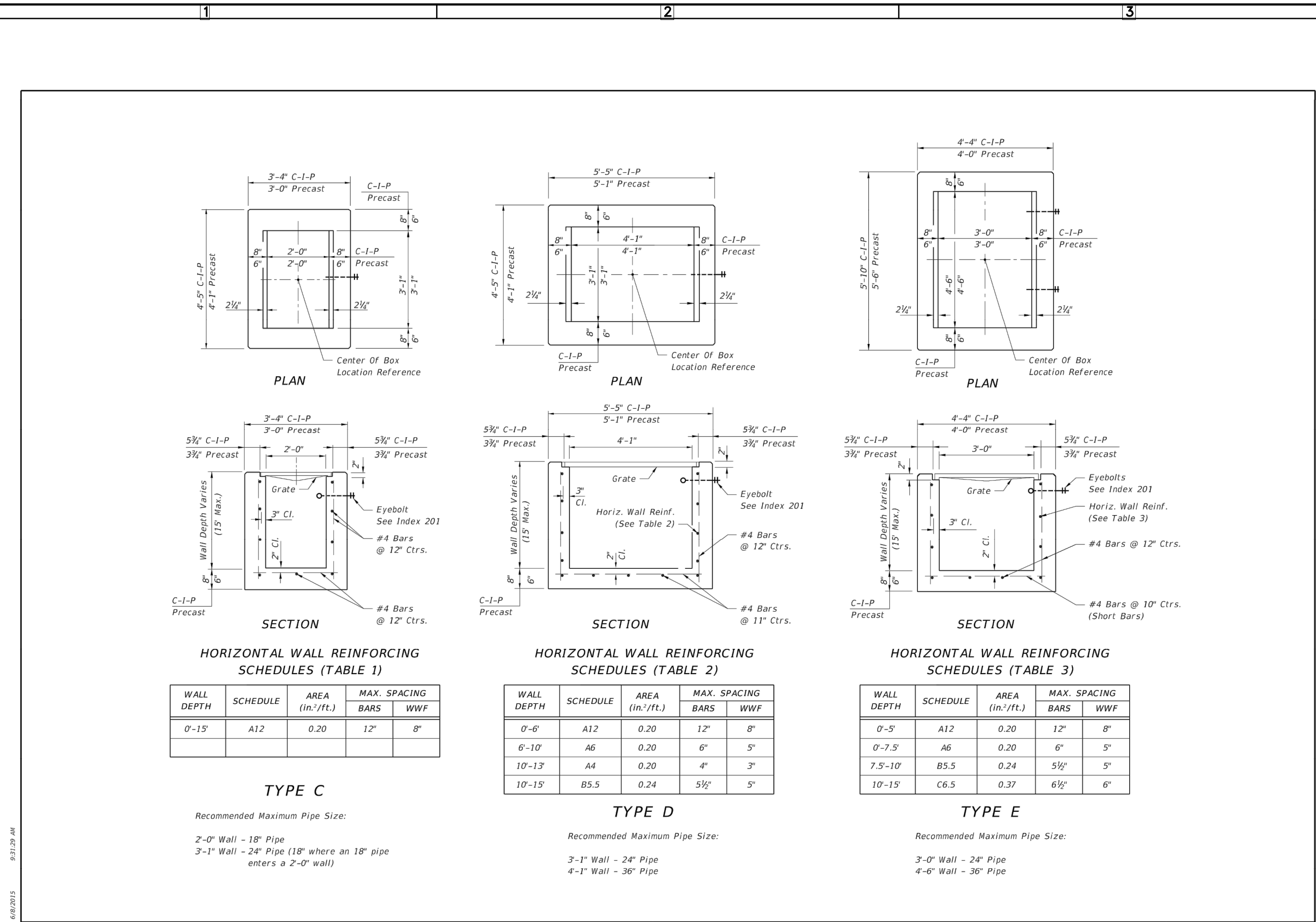
**VK AVALON GROVES, LLC**

PROJECT NO: KLP-AG-1010  
FILE: DD  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS  
FLORIDA PROFESSIONAL ENGINEER

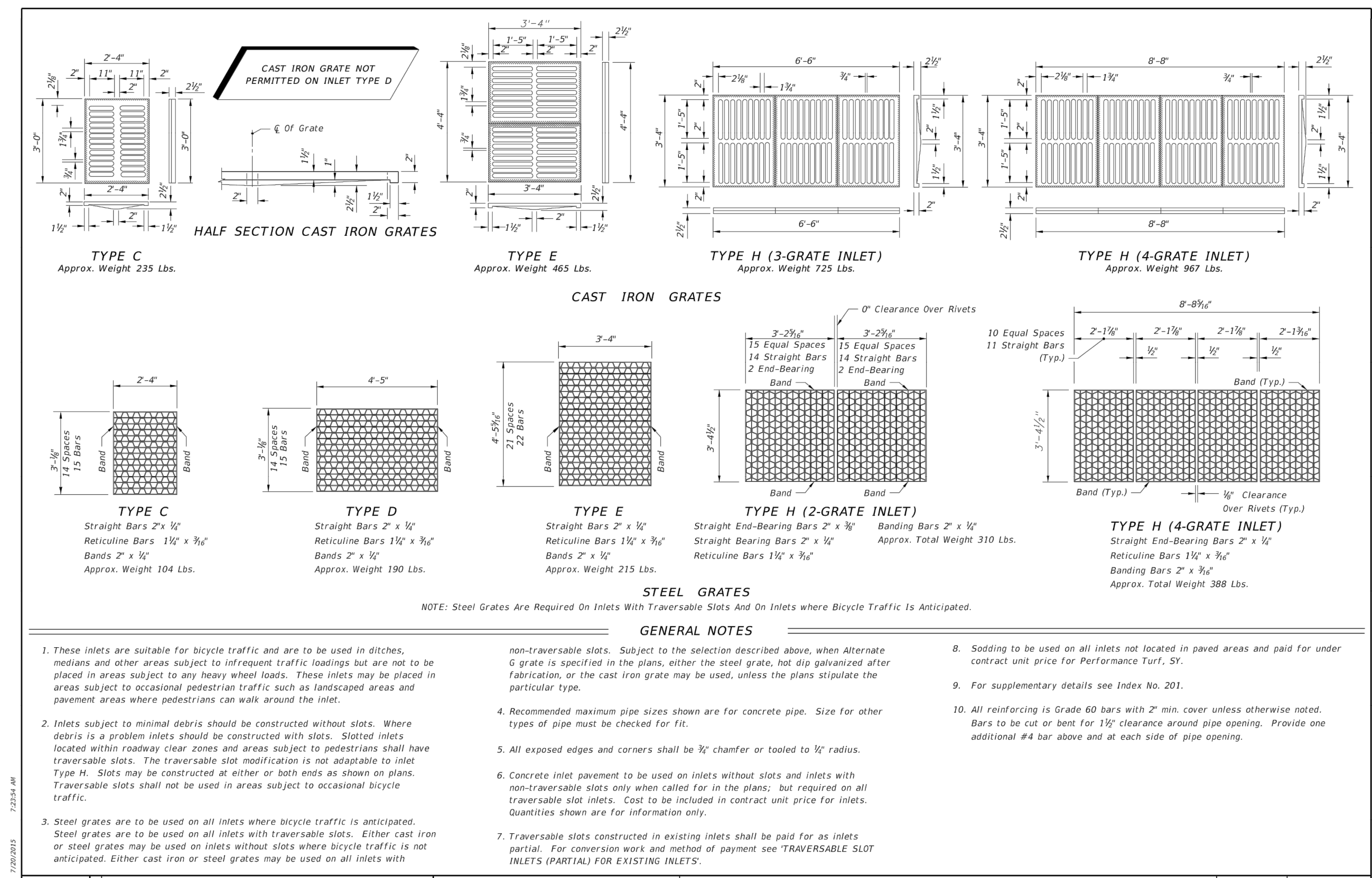
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DATE: 05/12/2017  
REGISTRATION NO. 65848

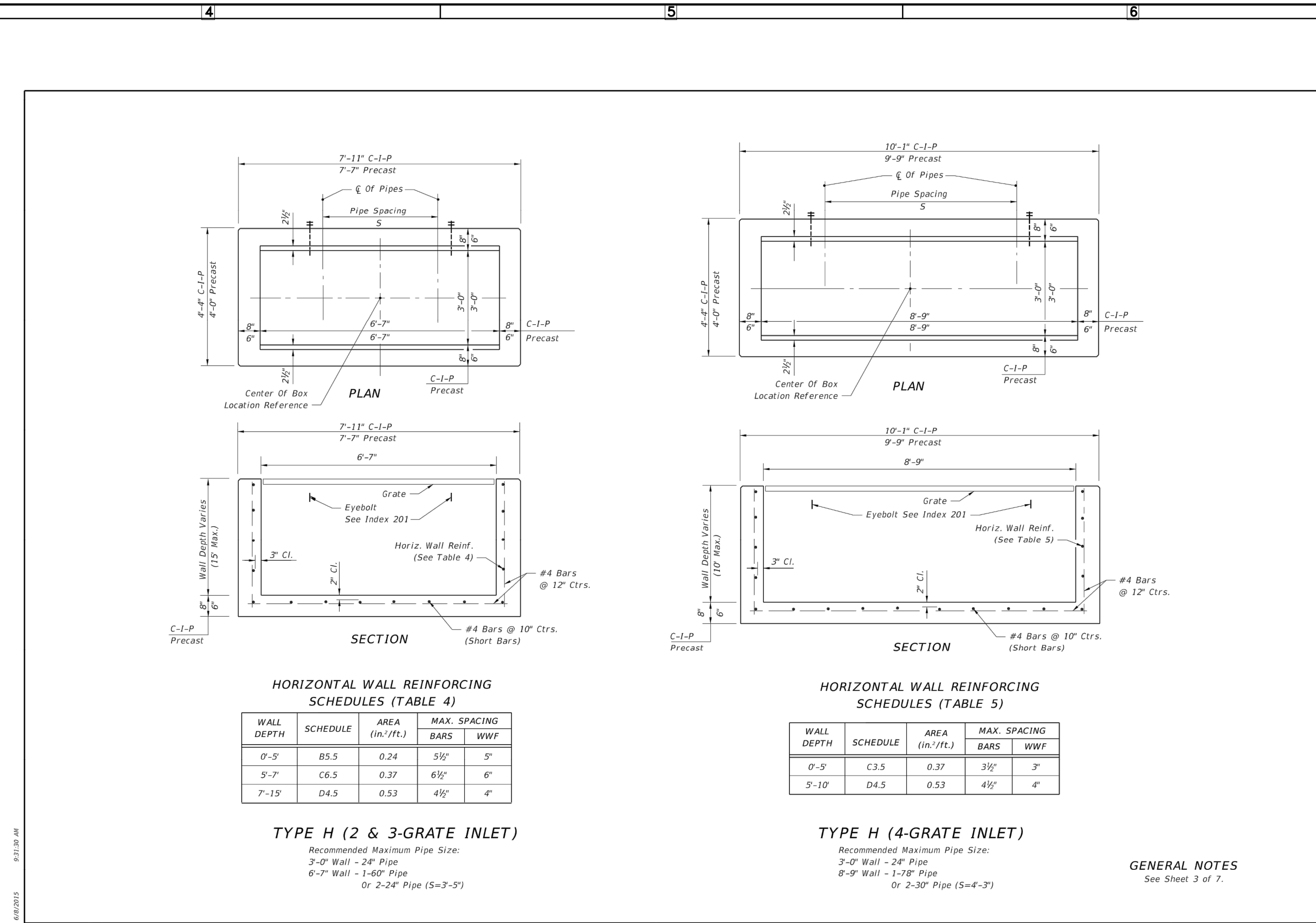
**C-311**



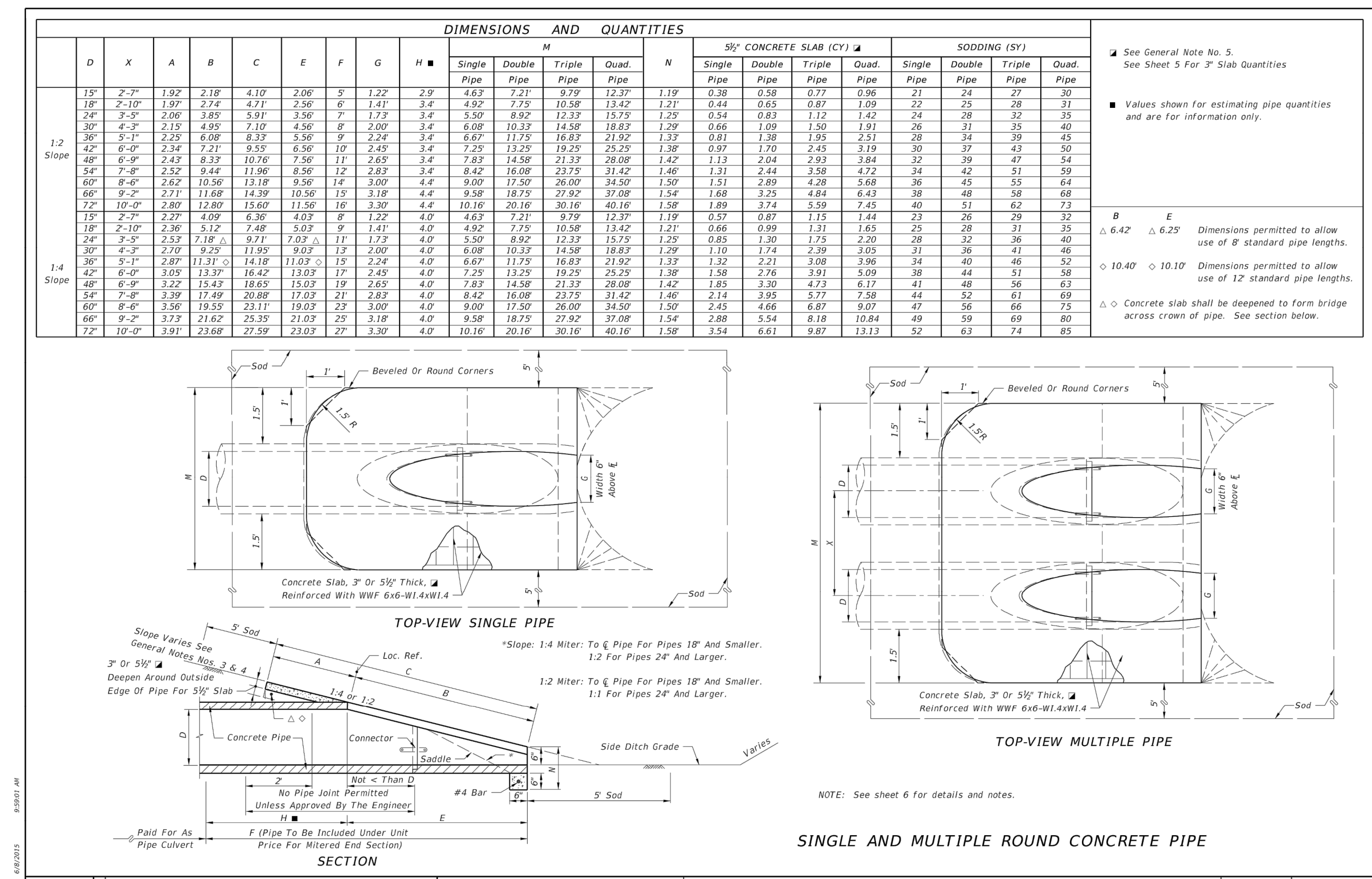
LAST REVISION: 07/01/05	DESCRIPTION: 2016 DESIGN STANDARDS	DITCH BOTTOM INLET TYPES C, D, E AND H	INDEX NO. 232	SHEET NO. 1 of 7
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LAST REVISION: 07/01/10	DESCRIPTION: 2016 DESIGN STANDARDS	DITCH BOTTOM INLET TYPES C, D, E AND H	INDEX NO. 232	SHEET NO. 3 of 7
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LAST REVISION: 07/01/05	DESCRIPTION: 2016 DESIGN STANDARDS	DITCH BOTTOM INLET TYPES C, D, E AND H	INDEX NO. 232	SHEET NO. 2 of 7
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LAST REVISION: 07/01/02	DESCRIPTION: 2016 DESIGN STANDARDS	CROSS DRAIN MITERED END SECTION	INDEX NO. 272	SHEET NO. 1 of 6
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**SERENOA VILLAGES 1 & 2 - PHASE 1B DRAINAGE DETAILS**

VK AVALON GROVES, LLC

PREPARED FOR:

LAST REVISION: 07/01/05	DESCRIPTION: 2016 DESIGN STANDARDS	DITCH BOTTOM INLET TYPES C, D, E AND H	INDEX NO. 232	SHEET NO. 2 of 7
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NO.	DATE	DESCRIPTION
1	05/17/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
FILE: DD  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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LAST REVISION: 07/01/10	DESCRIPTION: 2016 DESIGN STANDARDS	DITCH BOTTOM INLET TYPES C, D, E AND H	INDEX NO. 232	SHEET NO. 3 of 7
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**C-312**

VICTOR E. BARBOSA  
DATE: 05/17/2017  
REGISTRATION NO. 65848

QUANTITIES FOR 3" THICK CONCRETE SLABS (CY)

Table with 4 columns: D, Single Pipe, Double Pipe, Triple Pipe, Quad. Pipe. Rows for 1:2 Slope and 1:4 Slope with pipe diameters from 15" to 72".

Table with 4 columns: D, Single Pipe, Double Pipe, Triple Pipe, Quad. Pipe. Rows for 1:2 Slope and 1:4 Slope with pipe diameters from 15" to 72".

Table with 4 columns: Span, Rise, Single Pipe, Double Pipe, Triple Pipe, Quad. Pipe. Rows for 1:2 Slope and 1:4 Slope with span/rise pairs from 17'-13" to 71'-47".

Table with 4 columns: Rise, Span, Single Pipe, Double Pipe, Triple Pipe, Quad. Pipe. Rows for 1:2 Slope and 1:4 Slope with rise/span pairs from 12'-18" to 58'-91".

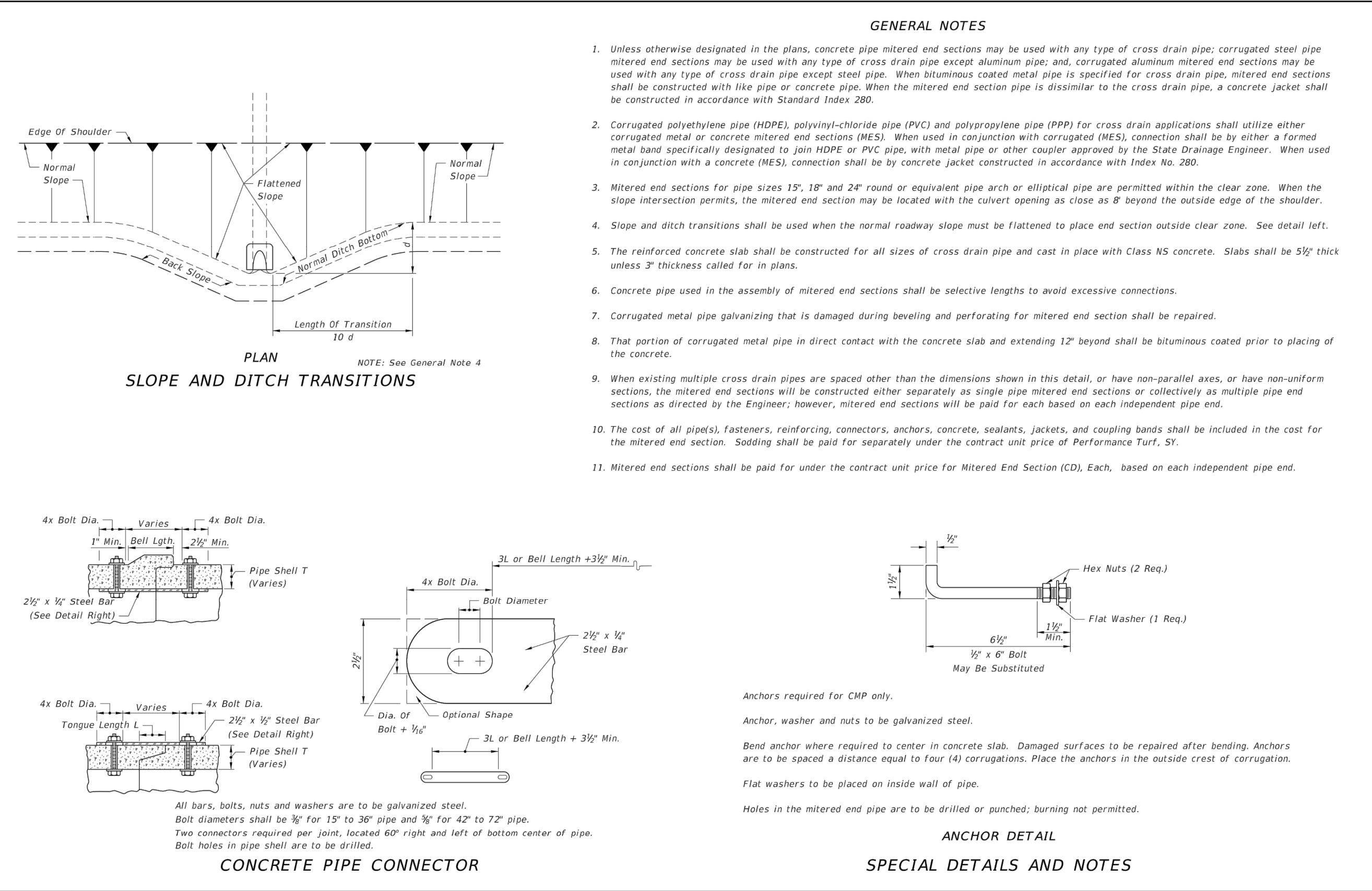


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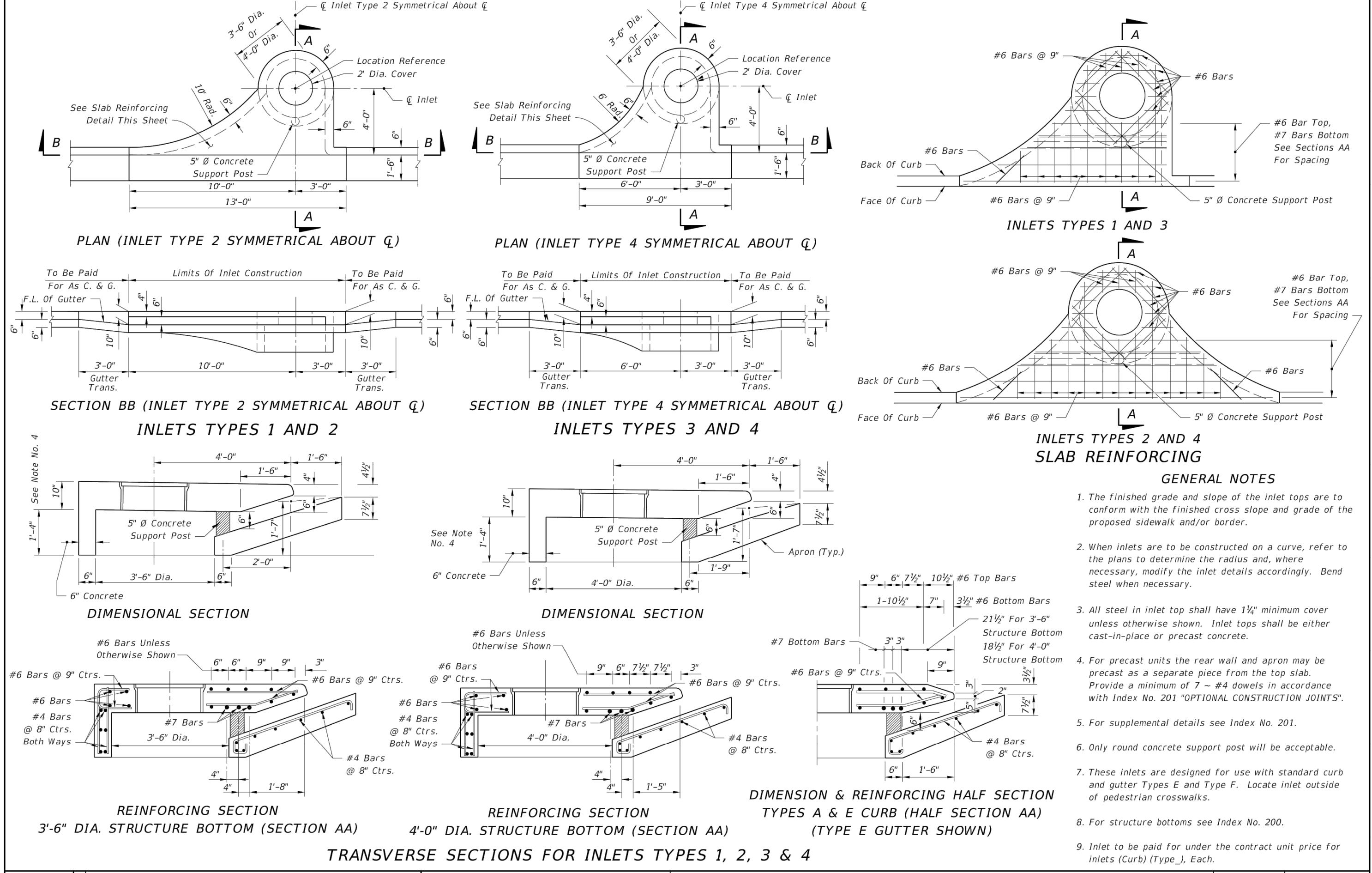


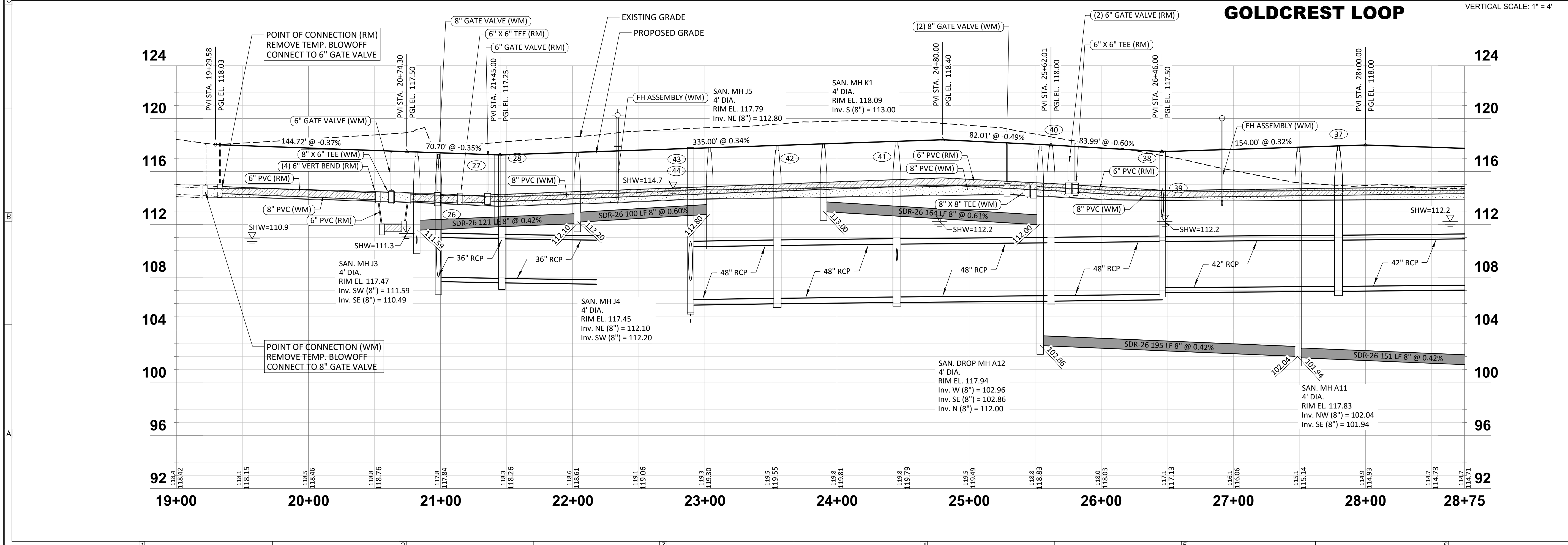
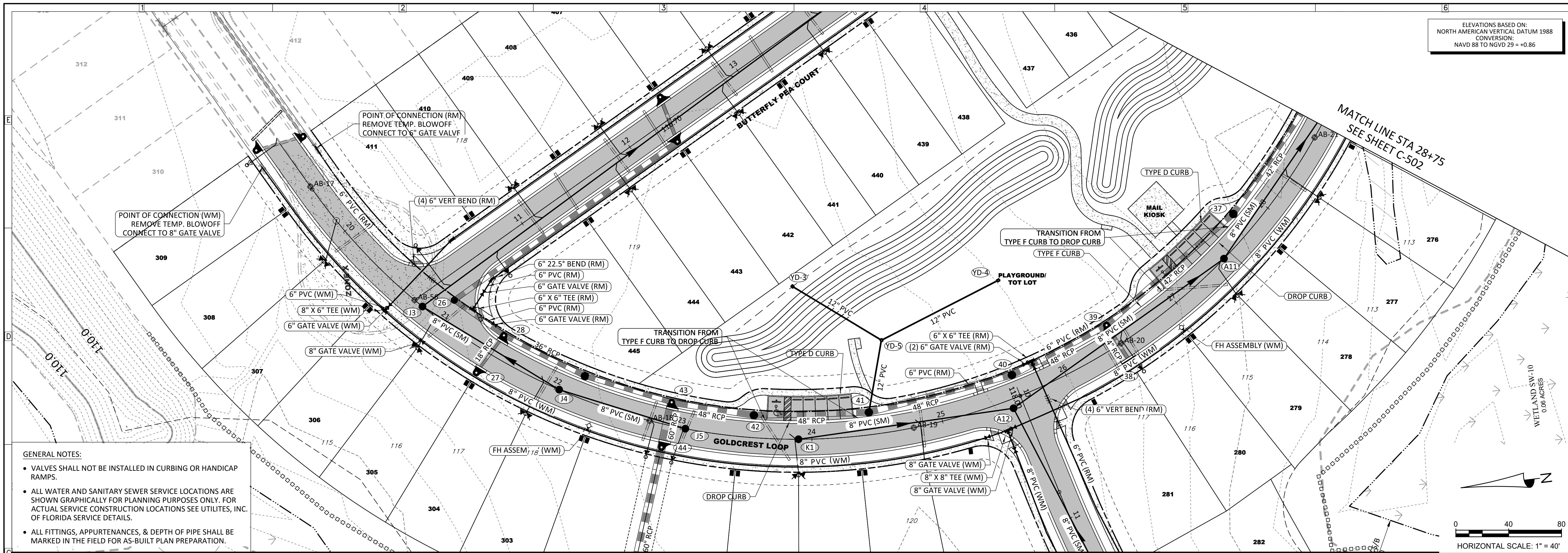
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HEIDT DESIGN logo and contact information: 5904-A Hampton Oaks Pkwy., Tampa, Florida 33610. Includes website and phone number.

SERENOA VILLAGES 1 & 2 - PHASE 1B DRAINAGE DETAILS. Includes 'PREPARED FOR: VK AVALON GROVES, LLC' and 'INDEX NO. 272 SHEET NO. 6 OF 6'.

Table with 4 columns: DATE, DESCRIPTION, REVIEW SUBMITTAL, DATE. Includes '05/12/2017' and 'REVIEW SUBMITTAL'.

PROJECT NO: KLP-AG-1010. DESIGN BY: FRANCIS WIGGINS. DRAWN BY: WIGGINS. Includes 'FLORIDA PROFESSIONAL ENGINEER' and 'VICTOR E. BARBOSA'.



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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2**  
**ROADWAY PLAN & PROFILE**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL

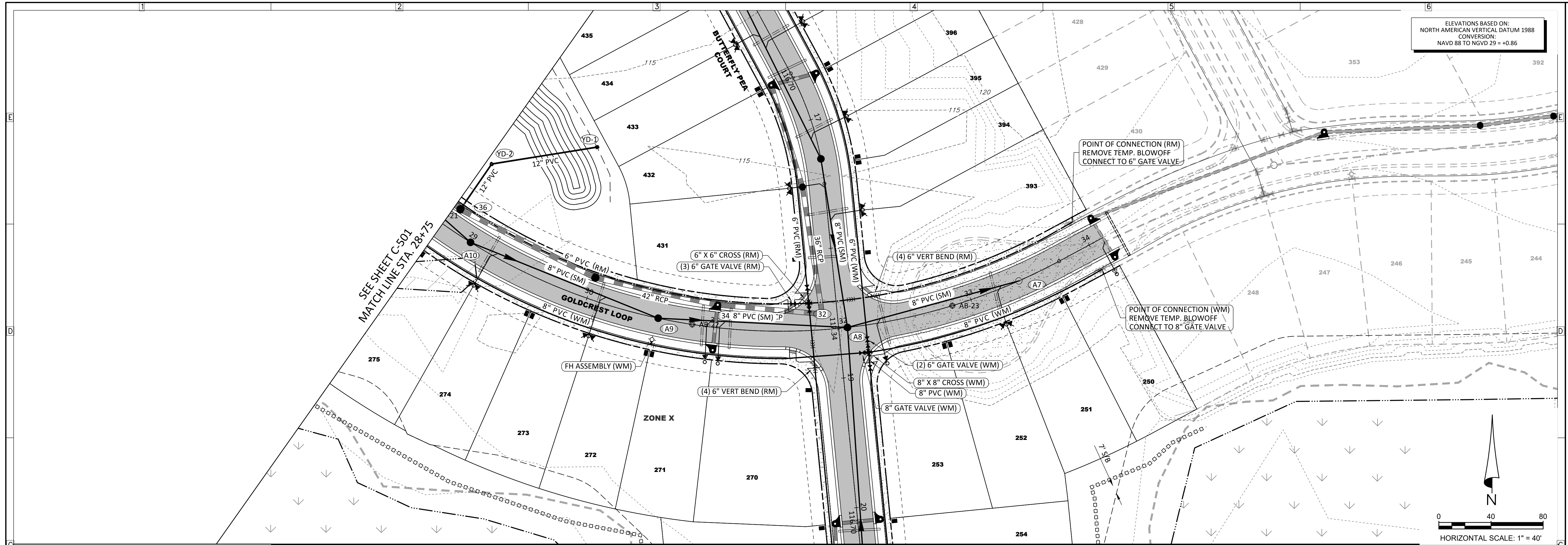
PROJECT NO: KLP-AG-1010  
FILE: RP-01  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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DATE: \_\_\_\_\_  
REGISTRATION NO. 65848

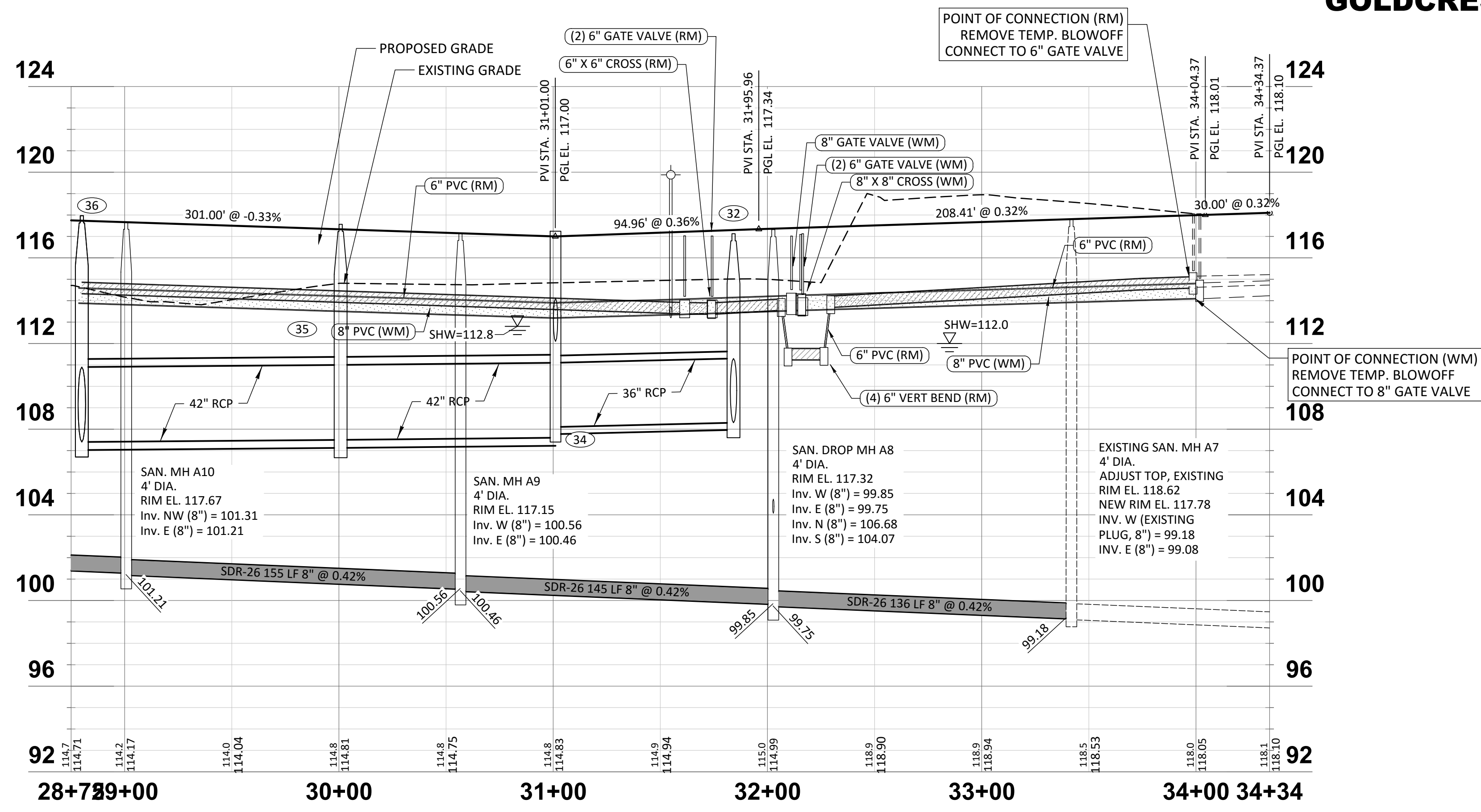
**C-501**



ELEVATIONS BASED ON:  
NORTH AMERICAN VERTICAL DATUM 1988  
CONVERSION:  
NAVD 88 TO NGVD 29 = +0.86

HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
  - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE UTILITIES, INC. OF FLORIDA SERVICE DETAILS.
  - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.



**GOLDCREST LOOP**

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PREPARED FOR:  
**VK AVALON GROVES, LLC**

PROJECT NO.:  
**VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2**

DESIGN BY:  
**ROADWAY PLAN & PROFILE**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL

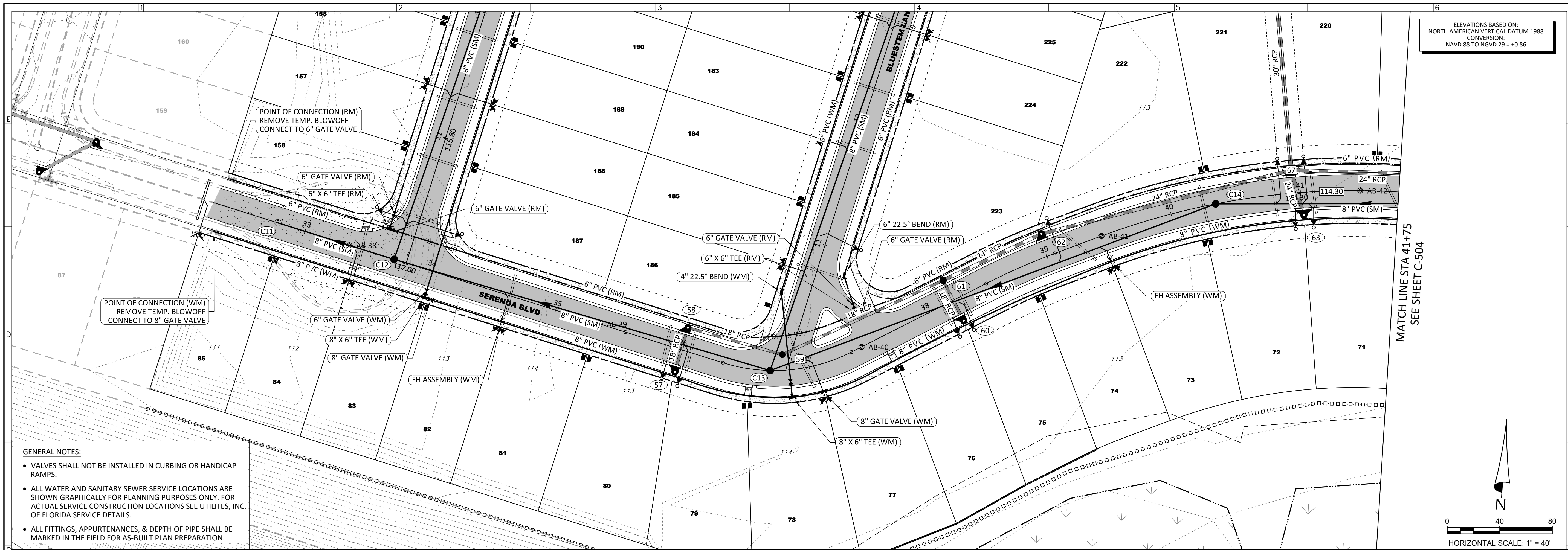
PROJECT NO.: KLP-AG-1010  
FILE: RP-01  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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**C-502**

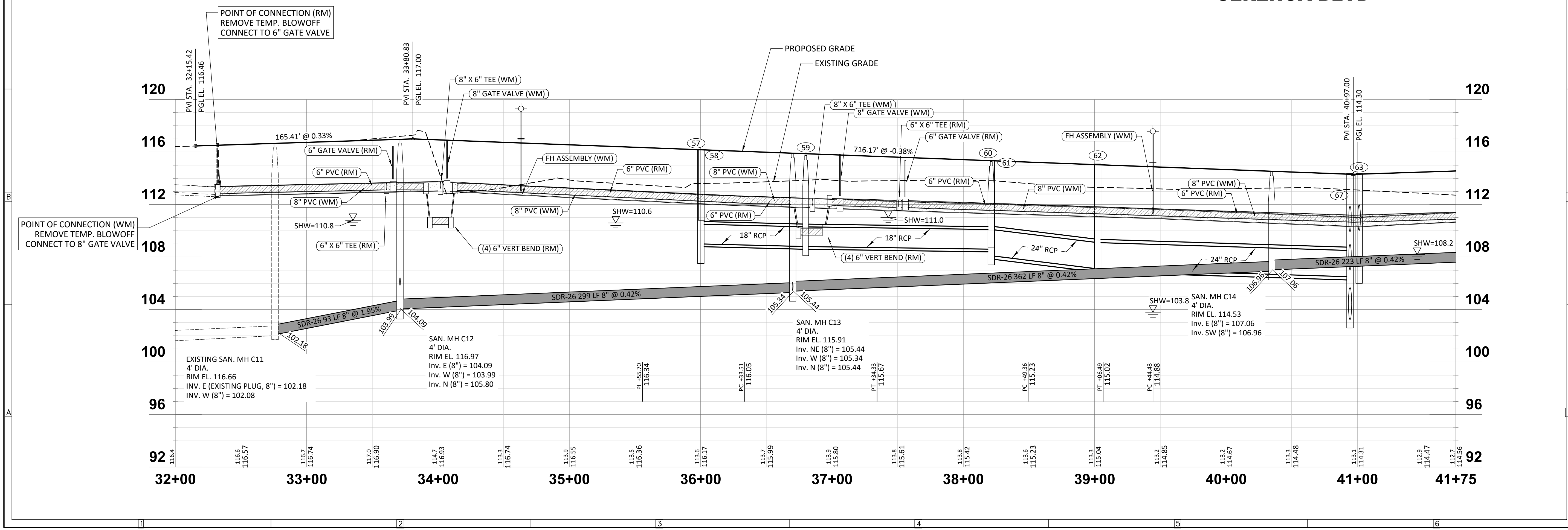


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CONVERSION:  
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HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

**SERENOA BLVD**



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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2**  
ROADWAY PLAN & PROFILE

PREPARED FOR:  
**VK AVALON GROVES, LLC**

DATE	DESCRIPTION
06/29/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
FILE: RP-02  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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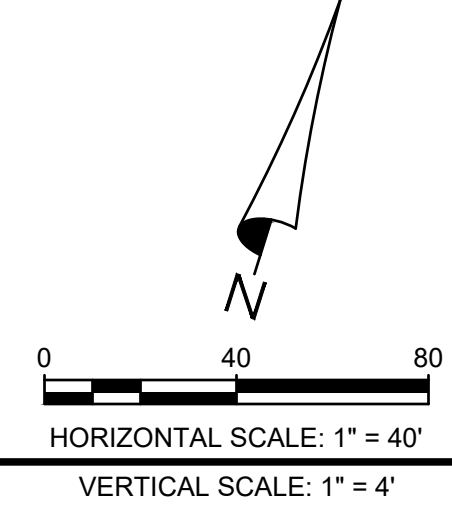
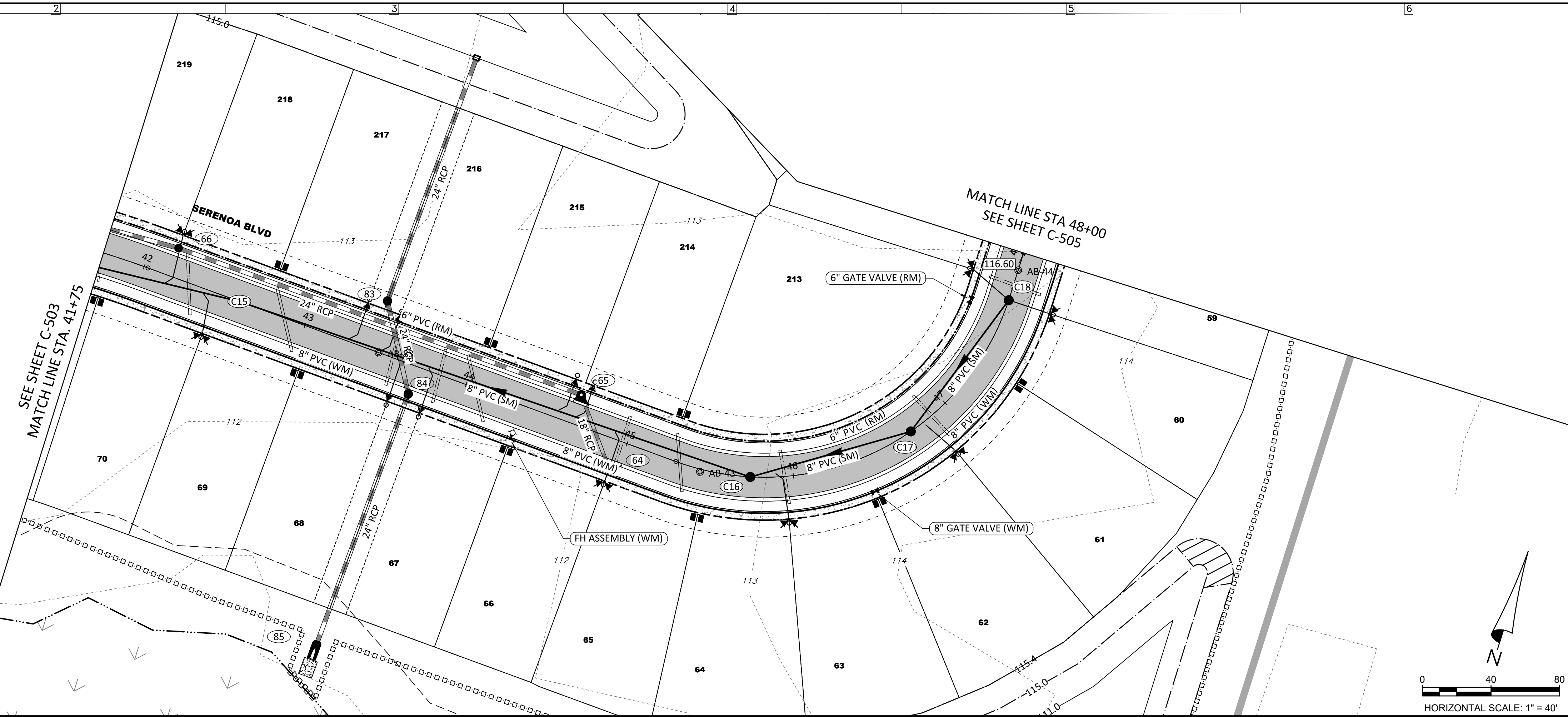
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DATE: \_\_\_\_\_  
REGISTRATION NO. 58548

**C-503**

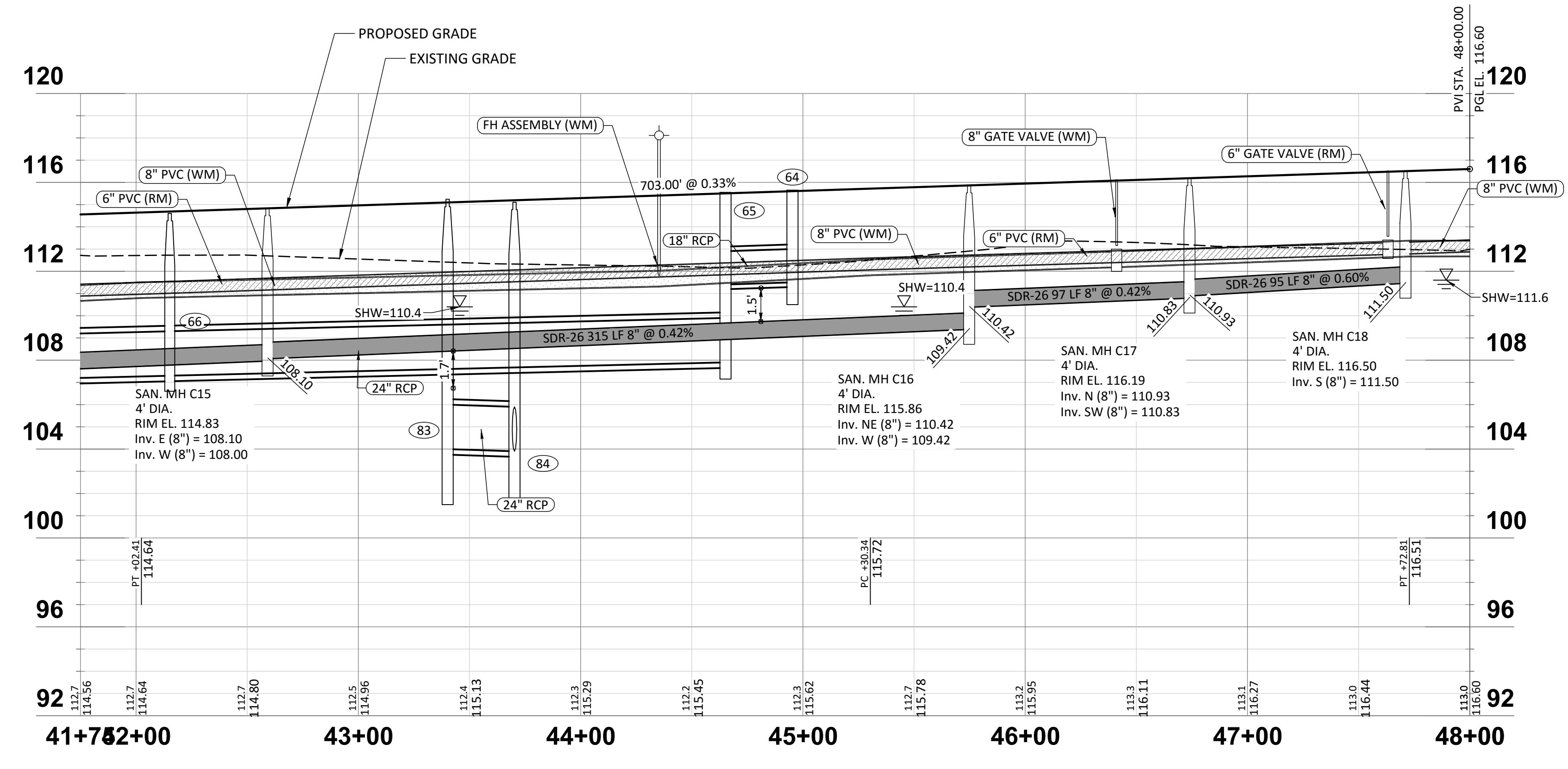
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**SERENOA BLVD**



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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2 ROADWAY PLAN & PROFILE**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
2	10/20/2017	AS-BUILT ELEV. STRUCTURE #3
1	02/29/2017	REVIEW SUBMITTAL

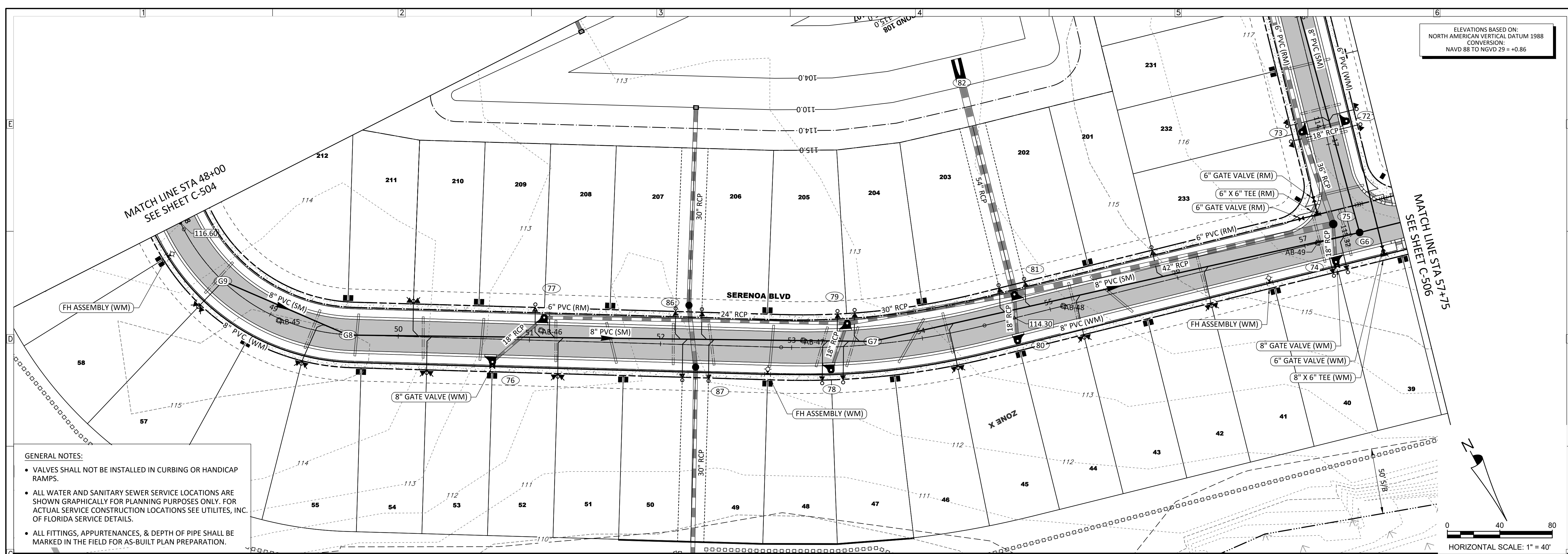
PROJECT NO: KLP-AG-1010  
FILE: RP-02  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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**C-504**



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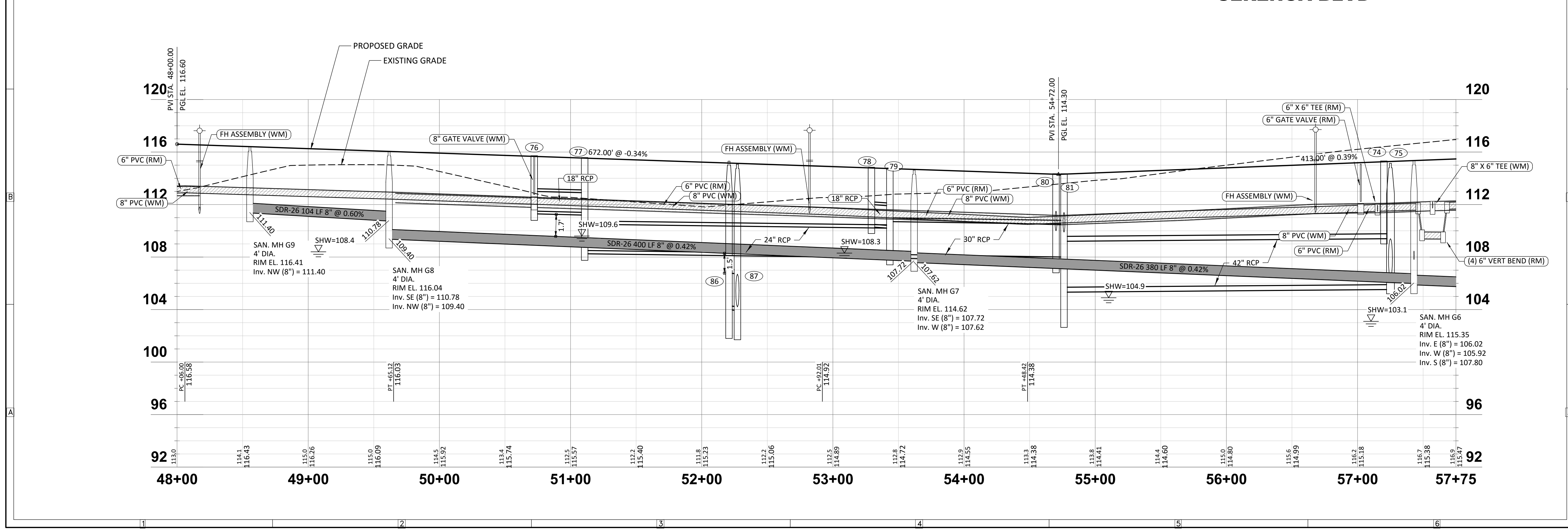
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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2**  
ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**

**SERENOA BLVD**  
HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'



NO.	DATE	DESCRIPTION
1	06/29/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
FILE: RP-02  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

**FLORIDA PROFESSIONAL ENGINEER**

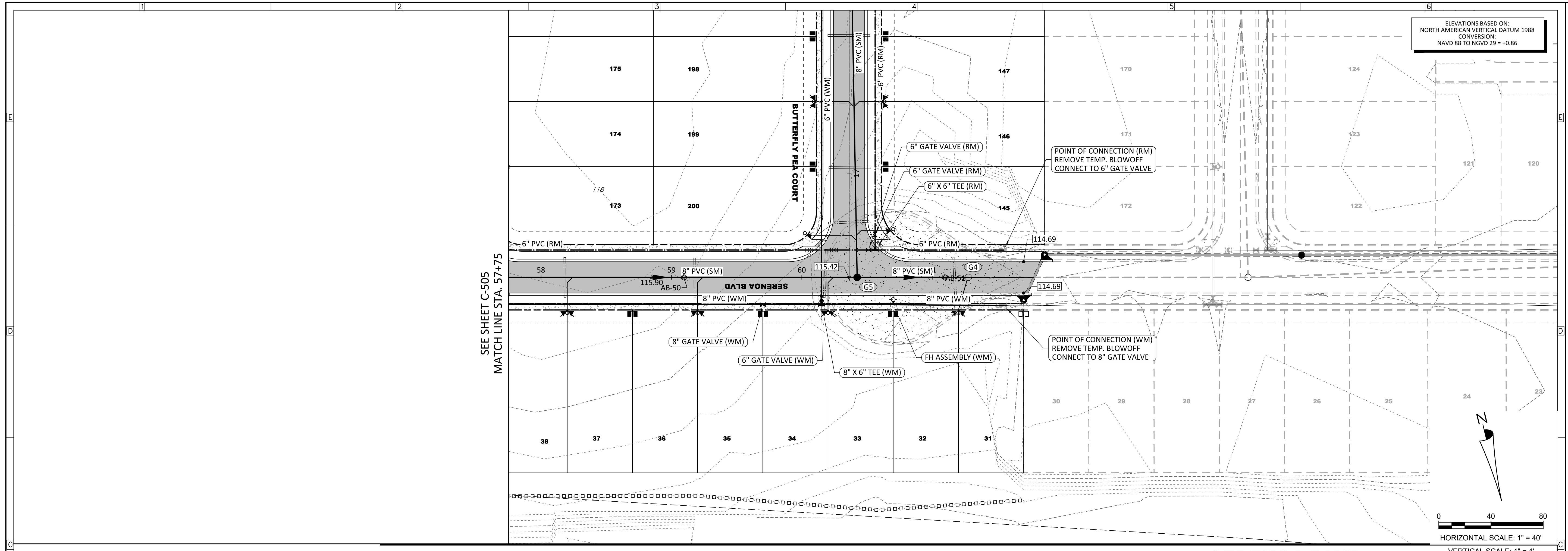
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**C-505**

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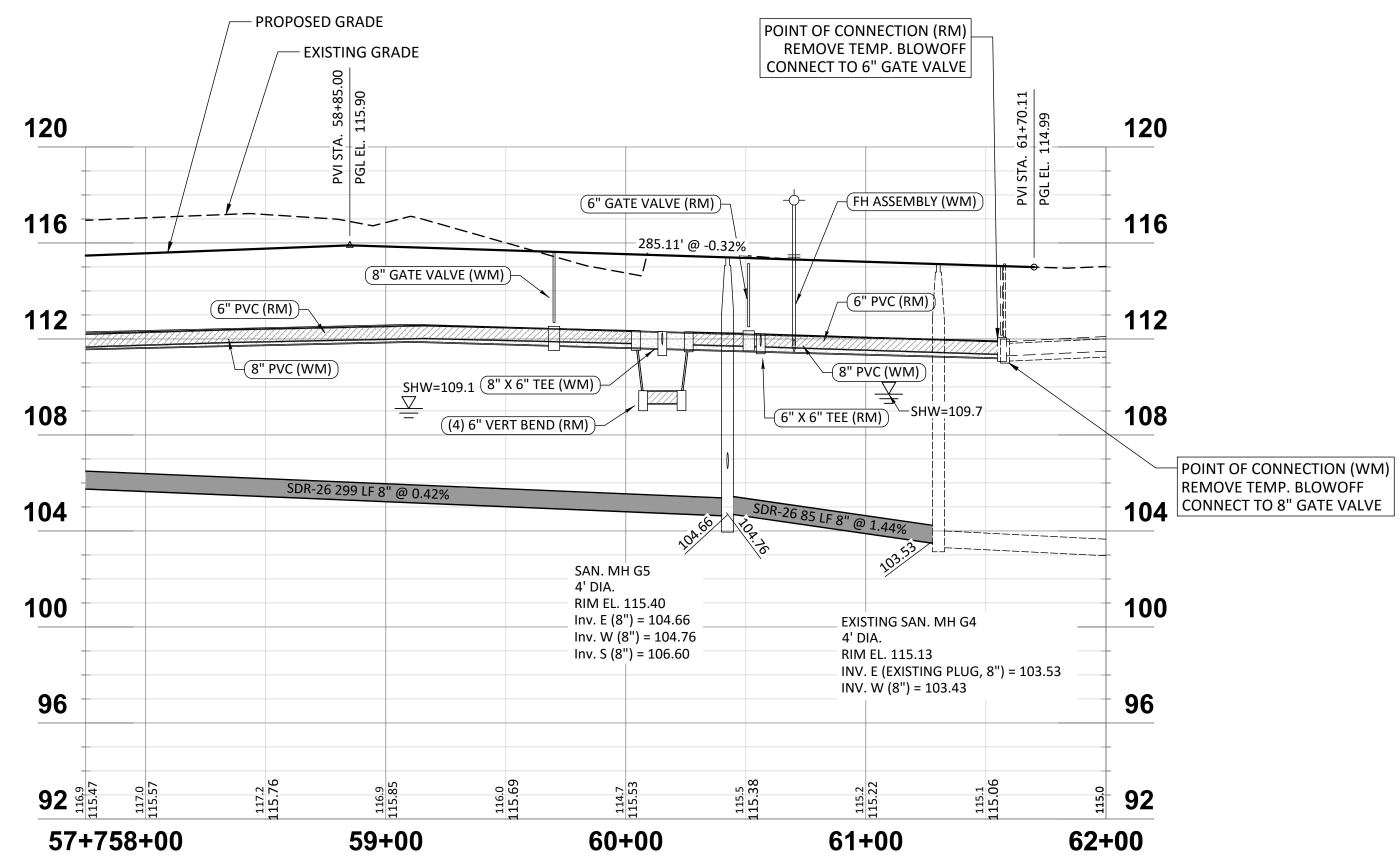
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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2**  
ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**

- GENERAL NOTES:**
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  - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE UTILITES, INC. OF FLORIDA SERVICE DETAILS.
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DATE	DESCRIPTION
02/29/2017	REVIEW SUBMITTAL
1	

PROJECT NO: KLP-AG-1010  
FILE: RP-02  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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**C-506**



**GENERAL NOTES:**

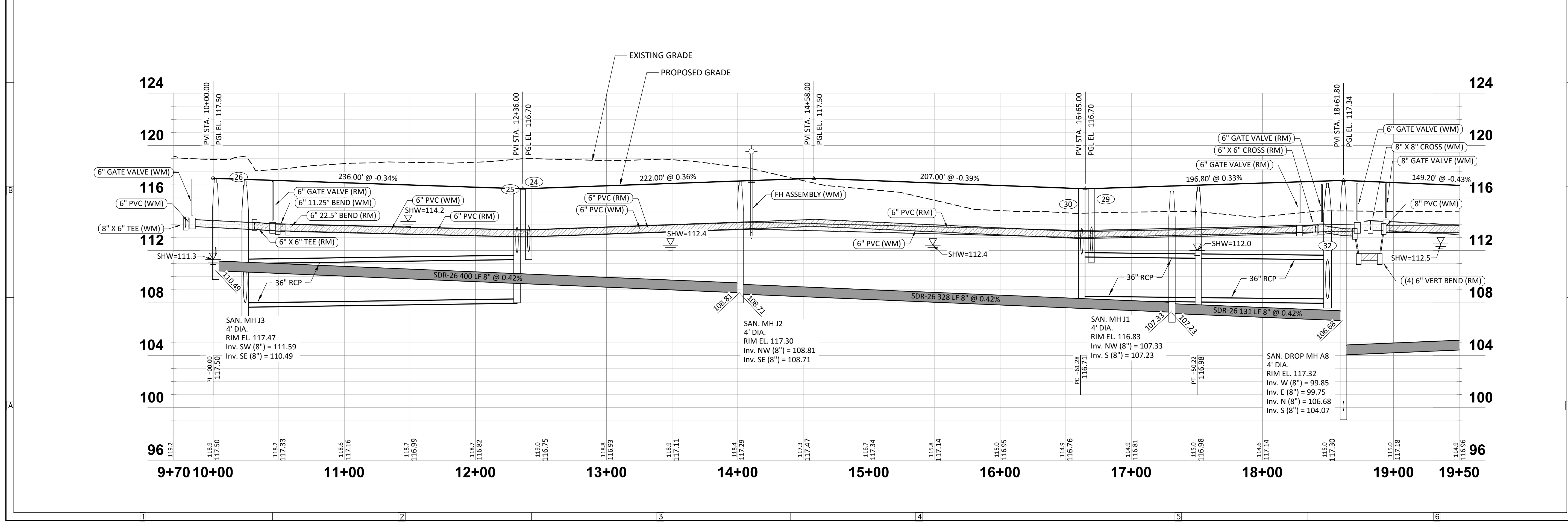
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
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CONVERSION:  
NAVD 88 TO NGVD 29 = +0.86

MATCH LINE STA 19+50  
SEE SHEET C-508

HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

**BUTTERFLY PEA COURT**



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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2**  
ROADWAY PLAN & PROFILE

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
FILE: RP-03  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

FLORIDA PROFESSIONAL ENGINEER

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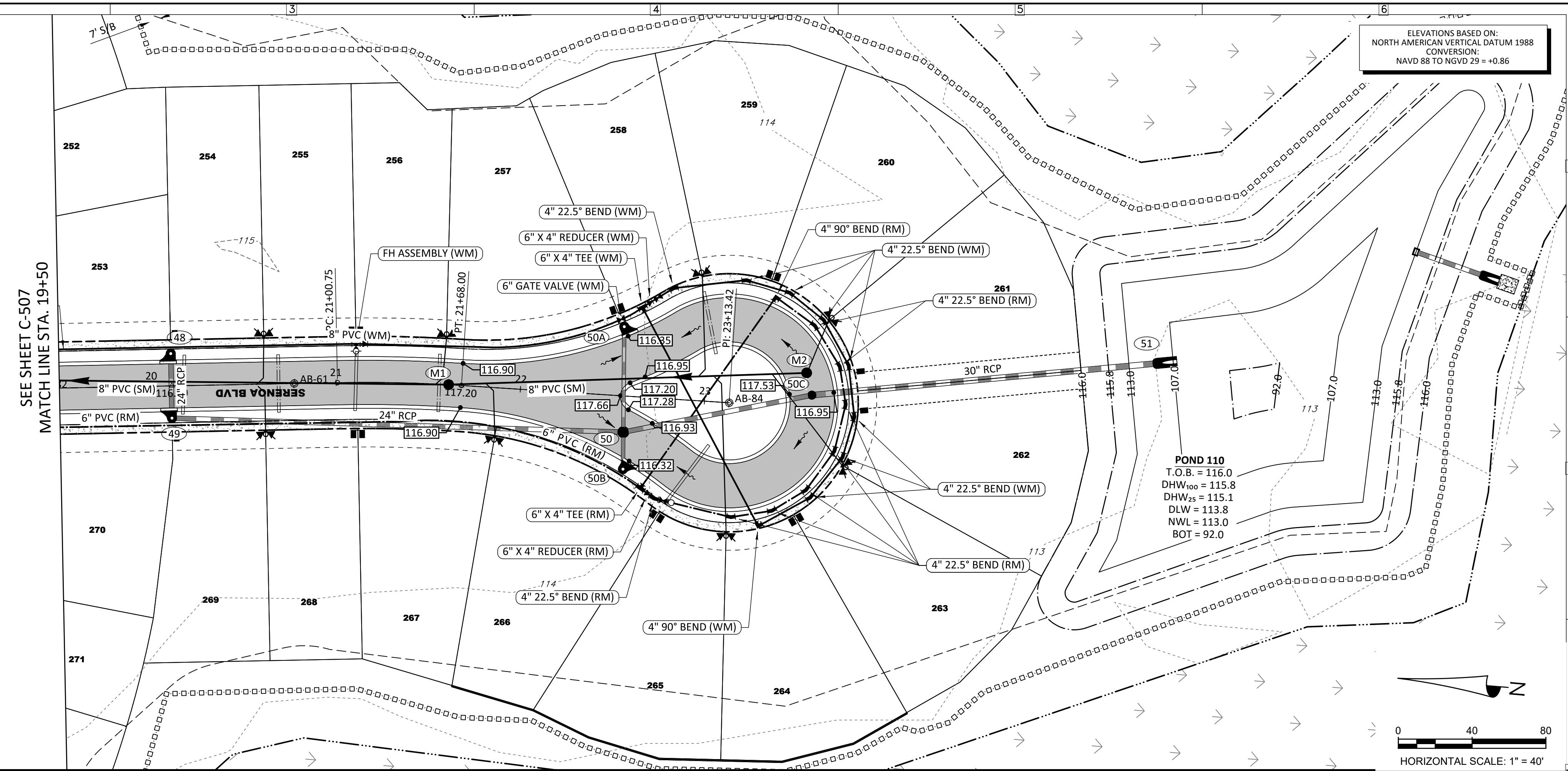
**VICTOR E. BARBOSA**  
DATE: \_\_\_\_\_  
REGISTRATION NO. 65848

**C-507**

ENGINEERING BUSINESS CERTIFICATE OF AUTHORIZATION No. 28792  
 LANDSCAPE ARCHITECTURE CERTIFICATE OF AUTHORIZATION No. LC26000405  
 RIAVALON GROVES/PHASE 1B/ENGINEERING - SURV/MORP-03 DWG-C-507 2017/02/29 1:47 PM ERIC FRANCIS

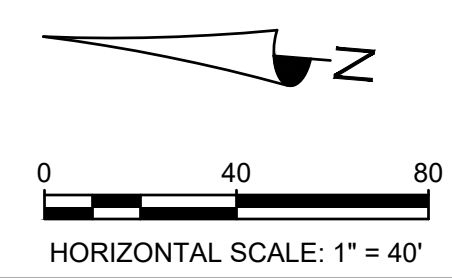
**GENERAL NOTES:**

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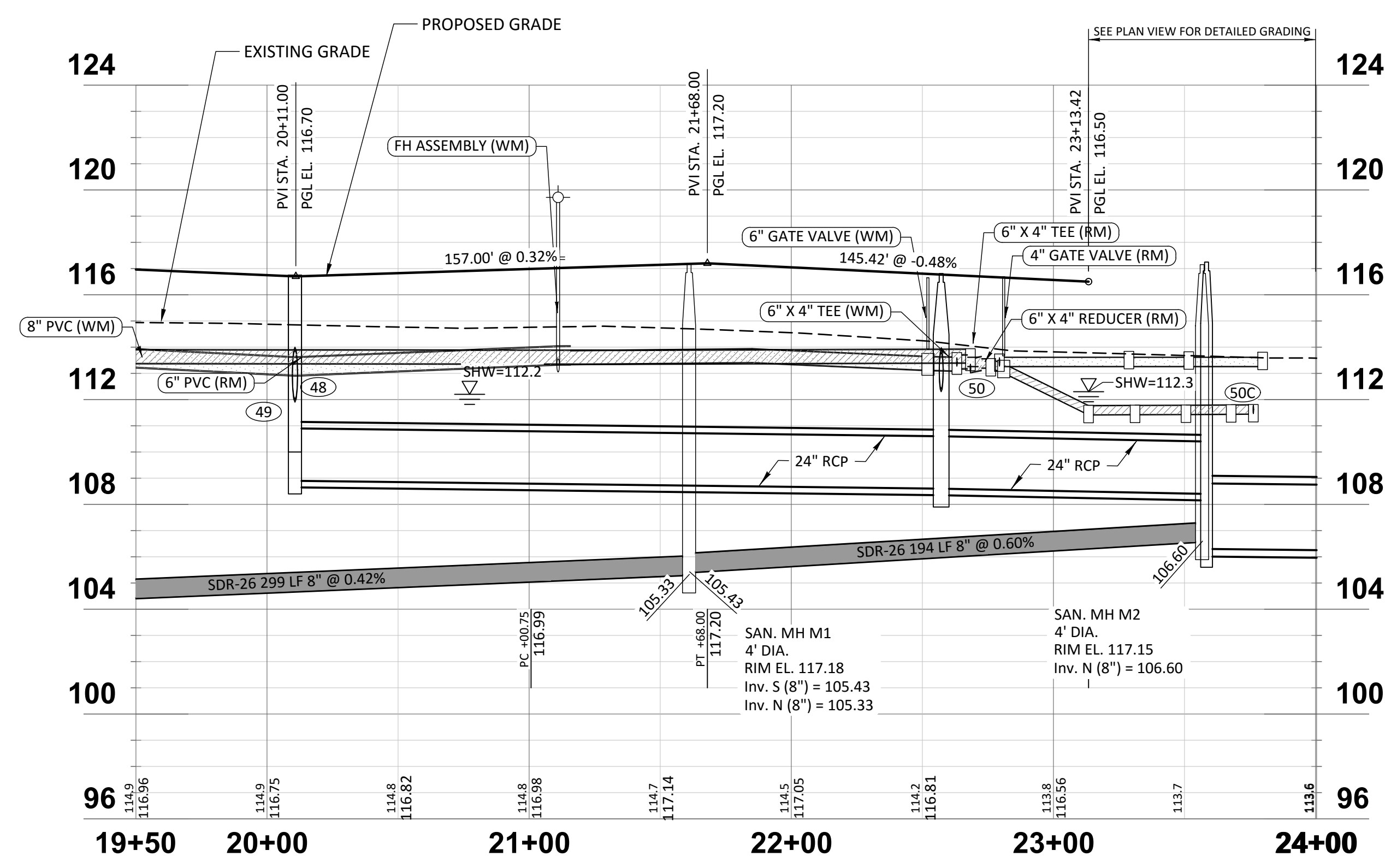


ELEVATIONS BASED ON:  
NORTH AMERICAN VERTICAL DATUM 1988  
CONVERSION:  
NAVD 88 TO NGVD 29 = +0.86

**POND 110**  
T.O.B. = 116.0  
DHW<sub>100</sub> = 115.8  
DHW<sub>25</sub> = 115.1  
DLW = 113.8  
NWL = 113.0  
BOT = 92.0



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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2**  
**ROADWAY PLAN & PROFILE**

PREPARED FOR:  
**VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
2	02/29/2017	STREET NAME CHANGE, WWS SING
1		REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
FILE: RP-03  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

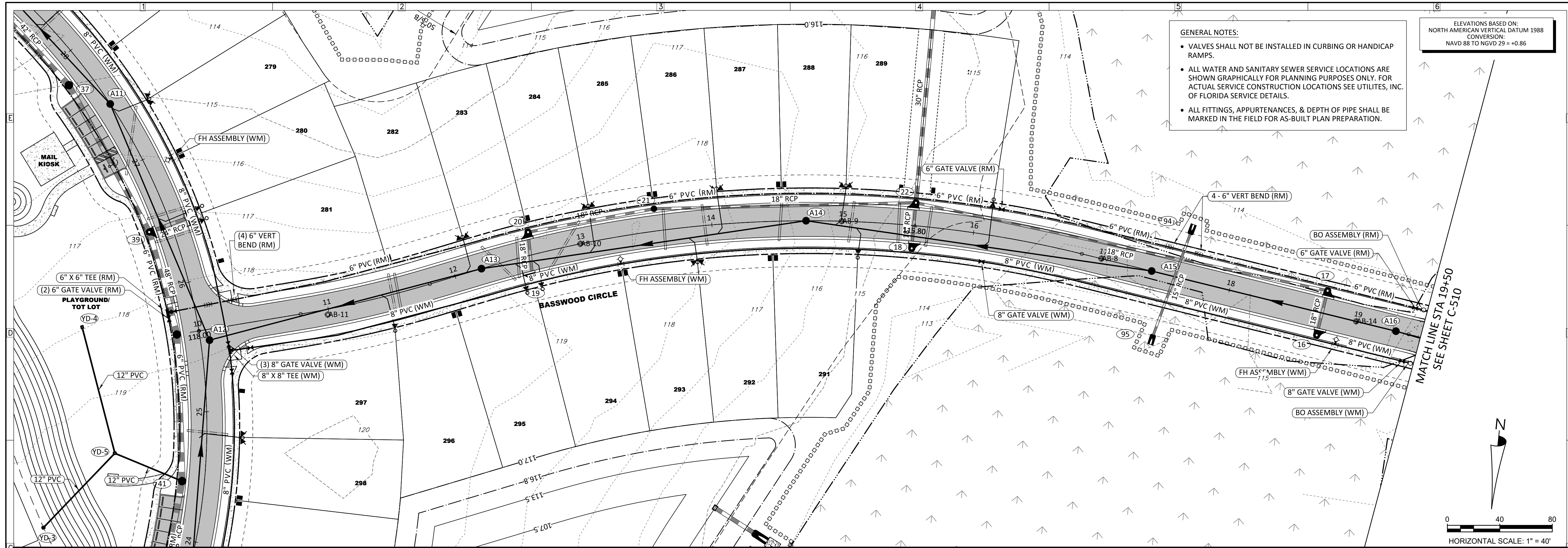
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DATE: \_\_\_\_\_  
REGISTRATION NO. 58548

**C-508**

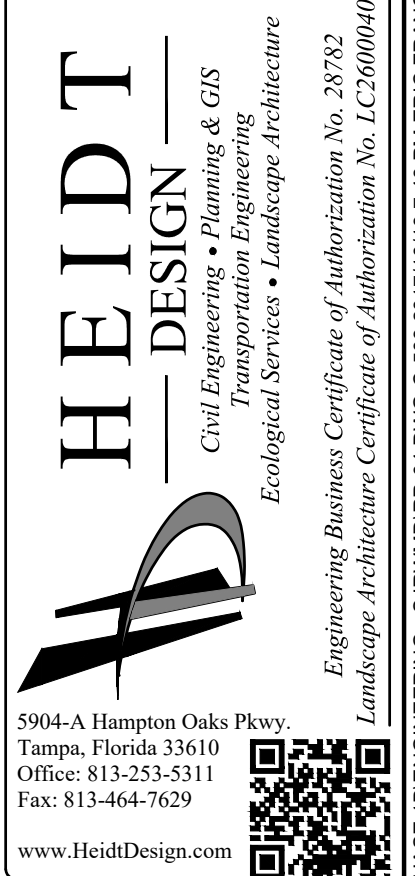
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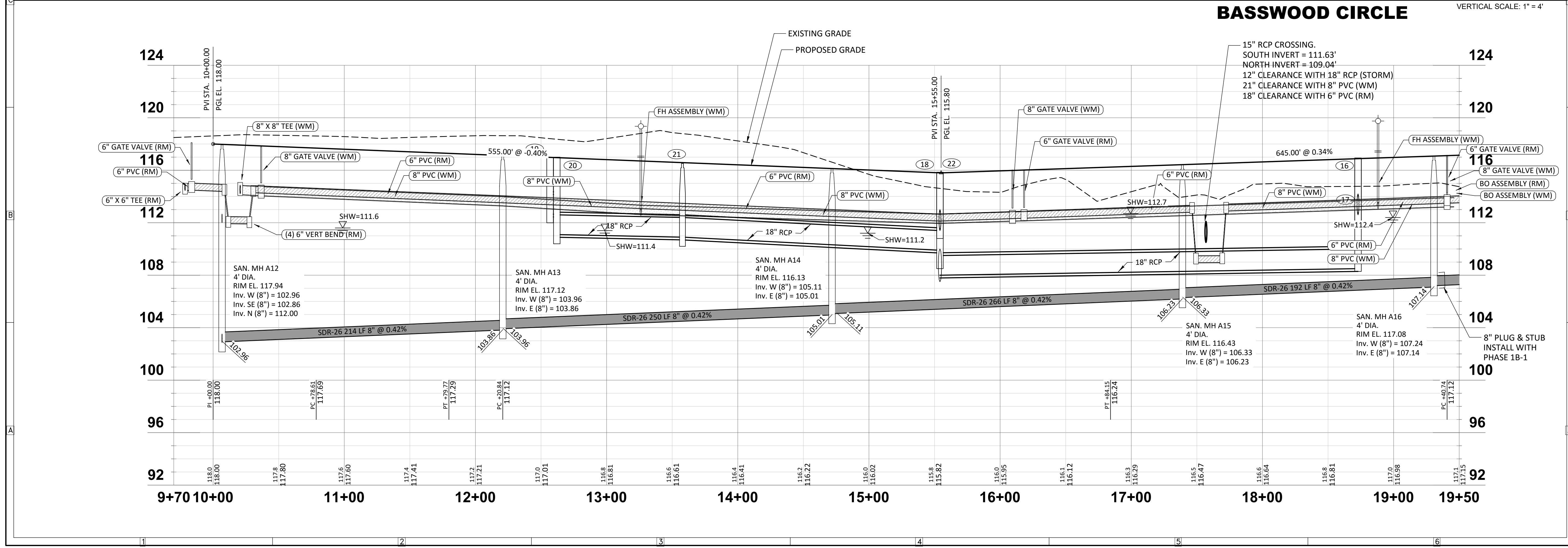
ELEVATIONS BASED ON:  
NORTH AMERICAN VERTICAL DATUM 1988  
CONVERSION:  
NAVD 88 TO NGVD 29 = +0.86



PREPARED FOR:  
**VK AVALON GROVES, LLC**

PROJECT:  
**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2 ROADWAY PLAN & PROFILE**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL
2		ADDED PIPE CROSSING



PROJECT NO: KLP-AG-1010  
FILE: RP-04  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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**C-509**

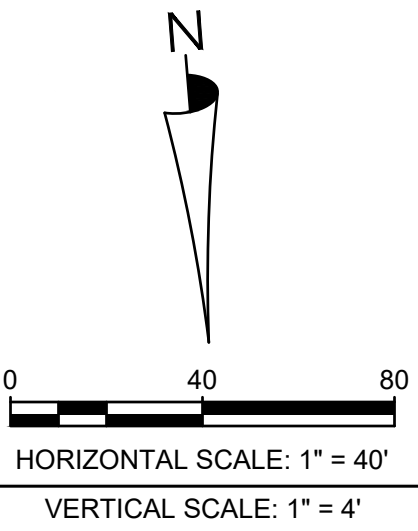
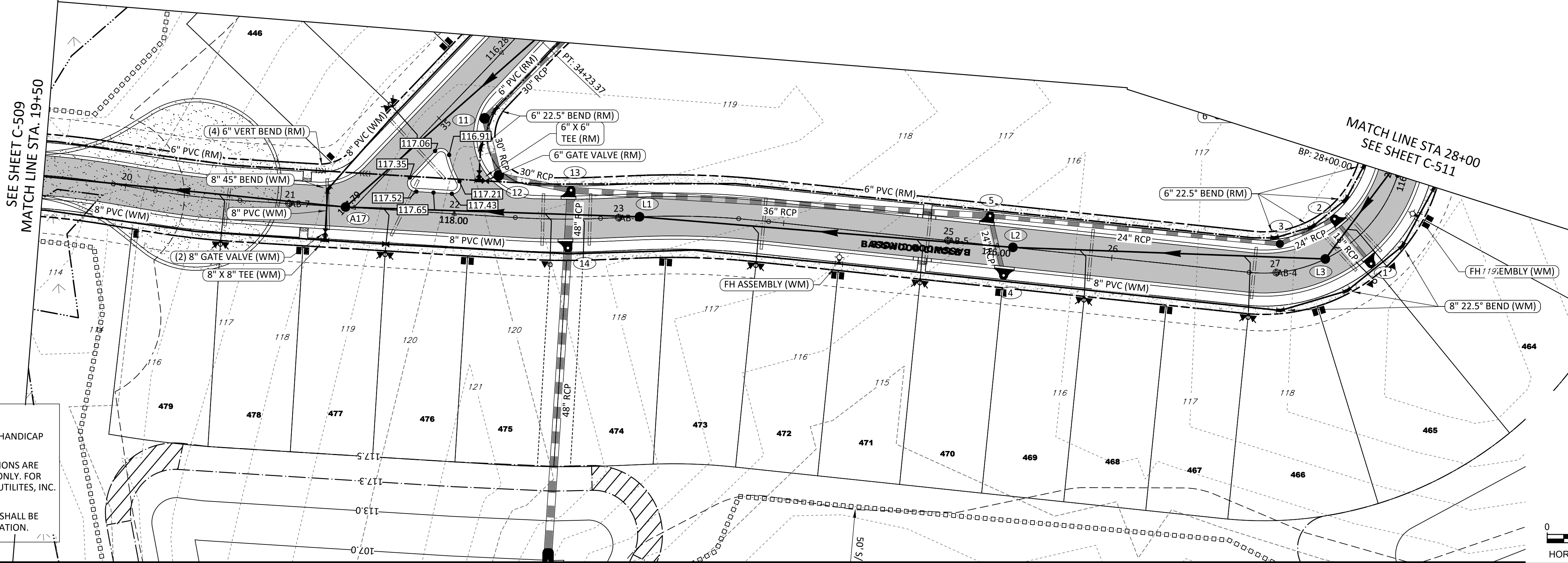
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 LICENSE NO. SB00000000 - SURVEYING - SB00000000 - ARCHITECTURE - SB00000000 - LANDSCAPE ARCHITECTURE  
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CONVERSION:  
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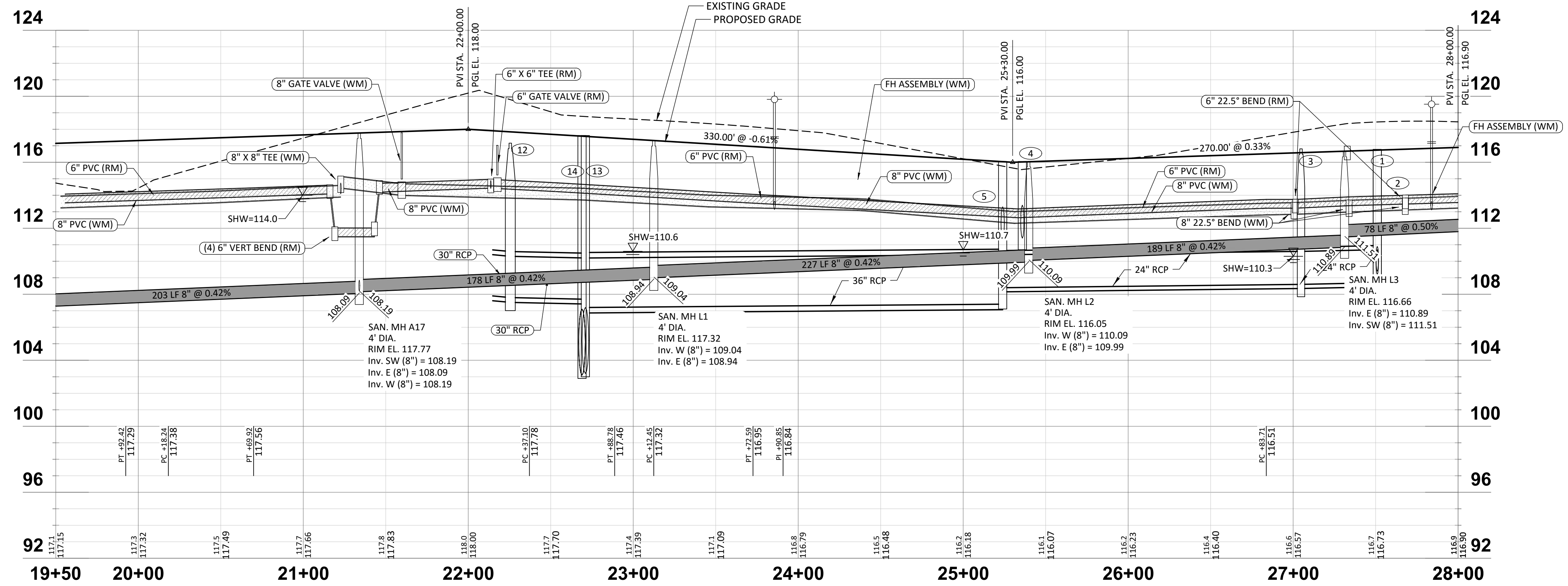
- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
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  - ALL FITTINGS, APPURTENANCES, & DEPTH OF PIPE SHALL BE MARKED IN THE FIELD FOR AS-BUILT PLAN PREPARATION.

SEE SHEET C-509  
MATCH LINE STA. 19+50

MATCH LINE STA 28+00  
SEE SHEET C-511



**BASSWOOD CIRCLE**



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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2**  
ROADWAY PLAN & PROFILE

PREPARED FOR:  
**VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL
2	03/02/2017	AS-BUILT ELEVATION, WM & STORM SEWER

PROJECT NO: KLP-AG-1010  
FILE: RP-04  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

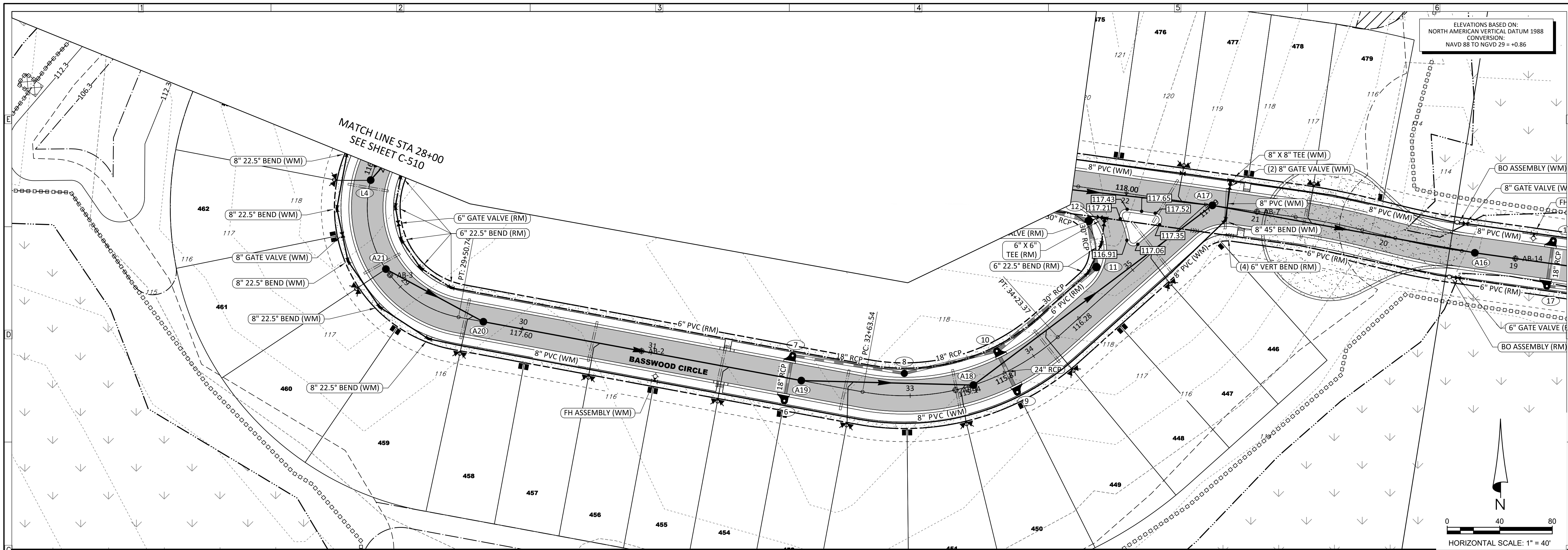
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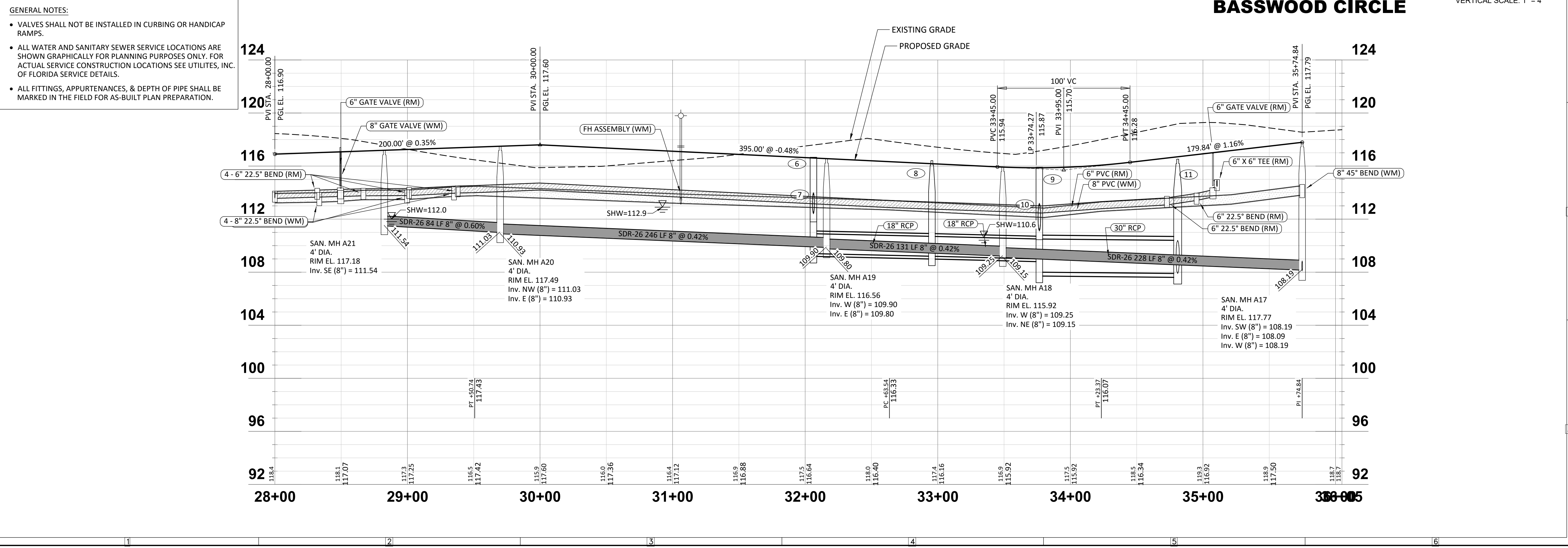
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ELEVATIONS BASED ON:  
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CONVERSION:  
NAVD 88 TO NGVD 29 = +0.86

HORIZONTAL SCALE: 1" = 4'  
VERTICAL SCALE: 1" = 4'

- GENERAL NOTES:**
- VALVES SHALL NOT BE INSTALLED IN CURBING OR HANDICAP RAMPS.
  - ALL WATER AND SANITARY SEWER SERVICE LOCATIONS ARE SHOWN GRAPHICALLY FOR PLANNING PURPOSES ONLY. FOR ACTUAL SERVICE CONSTRUCTION LOCATIONS SEE UTILITIES, INC. OF FLORIDA SERVICE DETAILS.
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PROJECT NO.:  
**VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2**

DRAWN BY:  
**ROADWAY PLAN & PROFILE**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL
2	02/29/2017	REVIEW SUBMITTAL

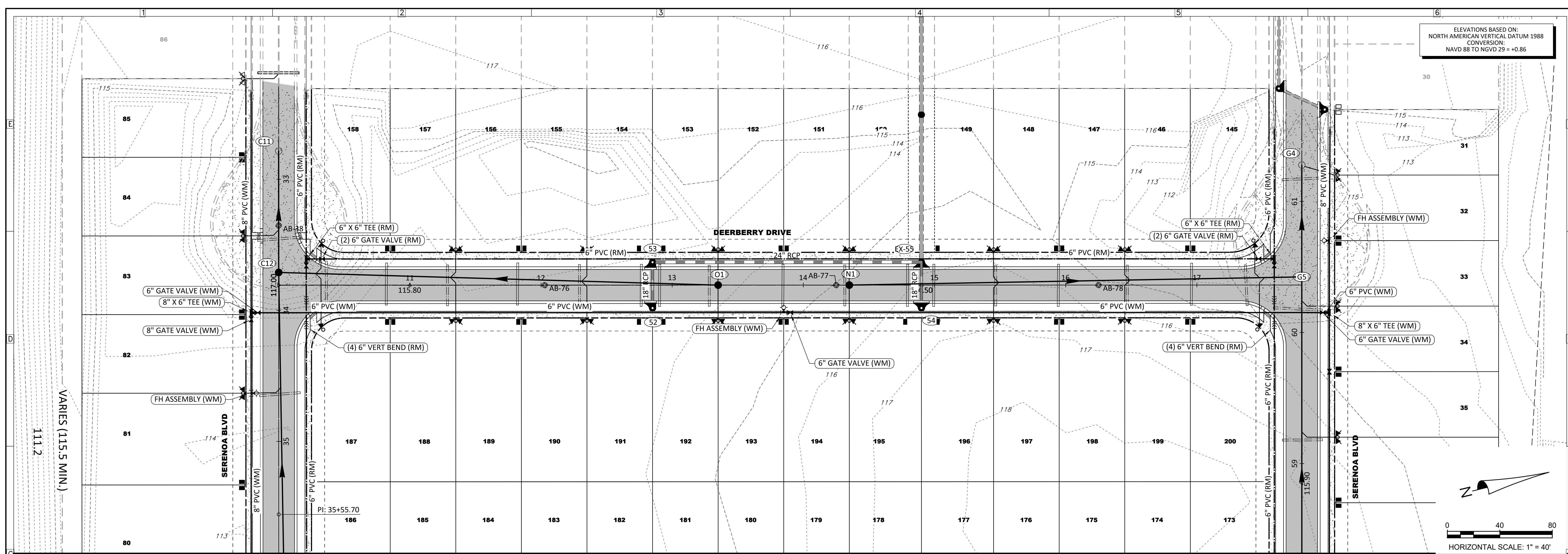
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FILE: RP-04  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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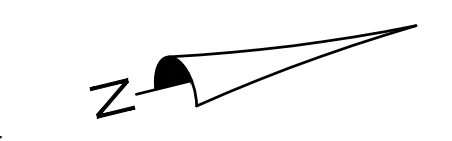
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**C-511**

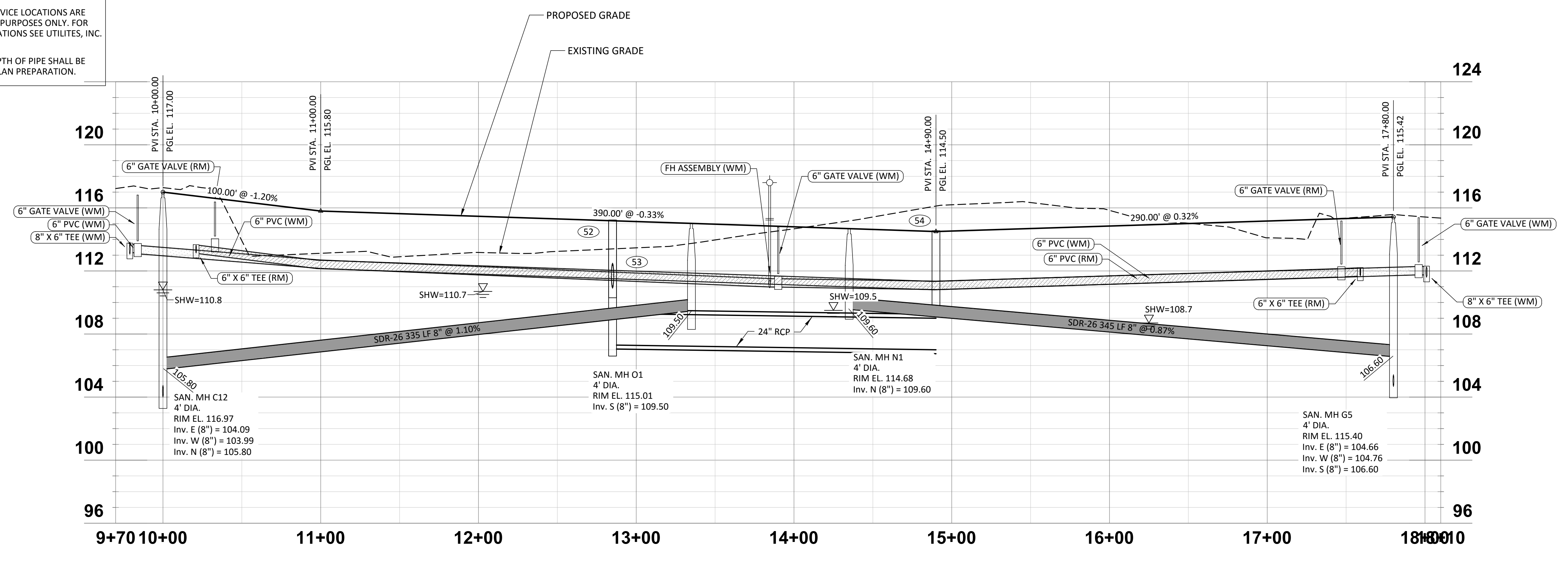


ELEVATIONS BASED ON:  
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CONVERSION:  
NAVD 88 TO NGVD 29 = +0.86



HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

- GENERAL NOTES:**
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SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2  
ROADWAY PLAN & PROFILE

PREPARED FOR: VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL
2	02/29/2017	ADDED WM GATE VALVE

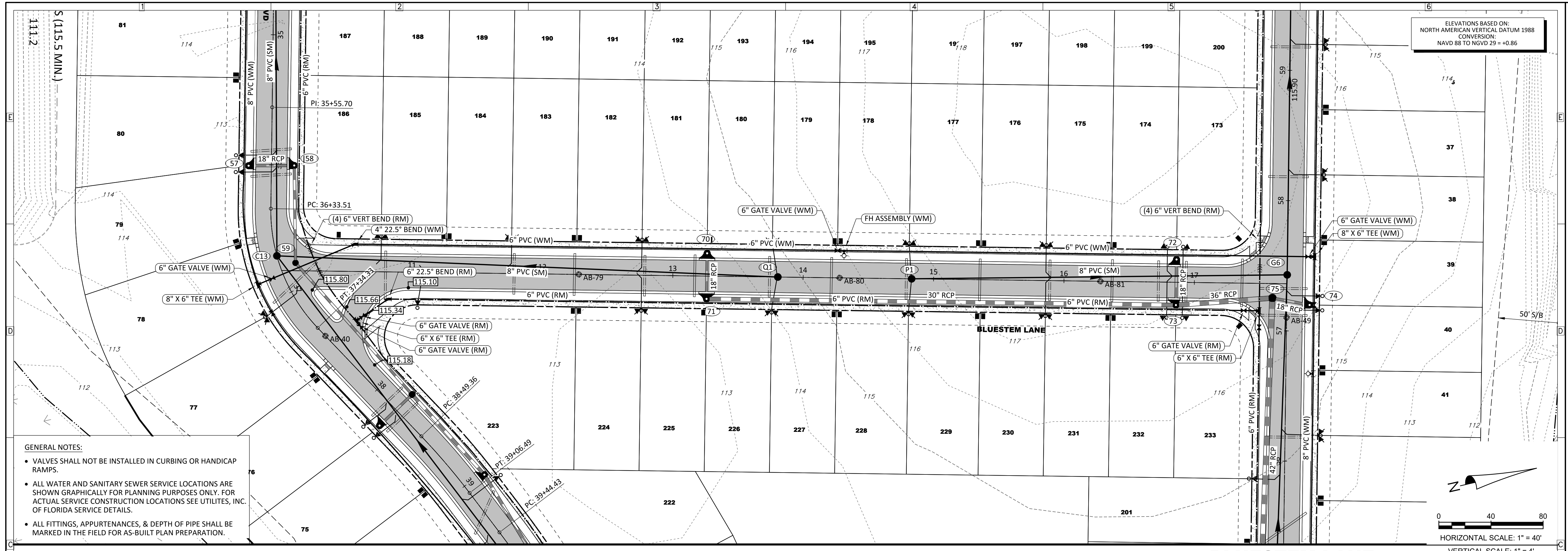
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DESIGN BY: FRANCIS  
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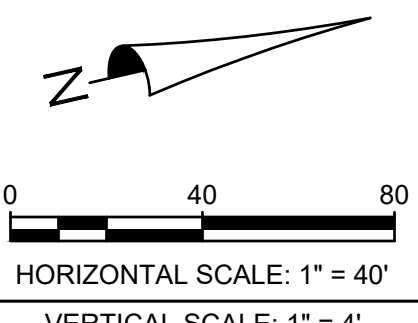
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**GENERAL NOTES:**

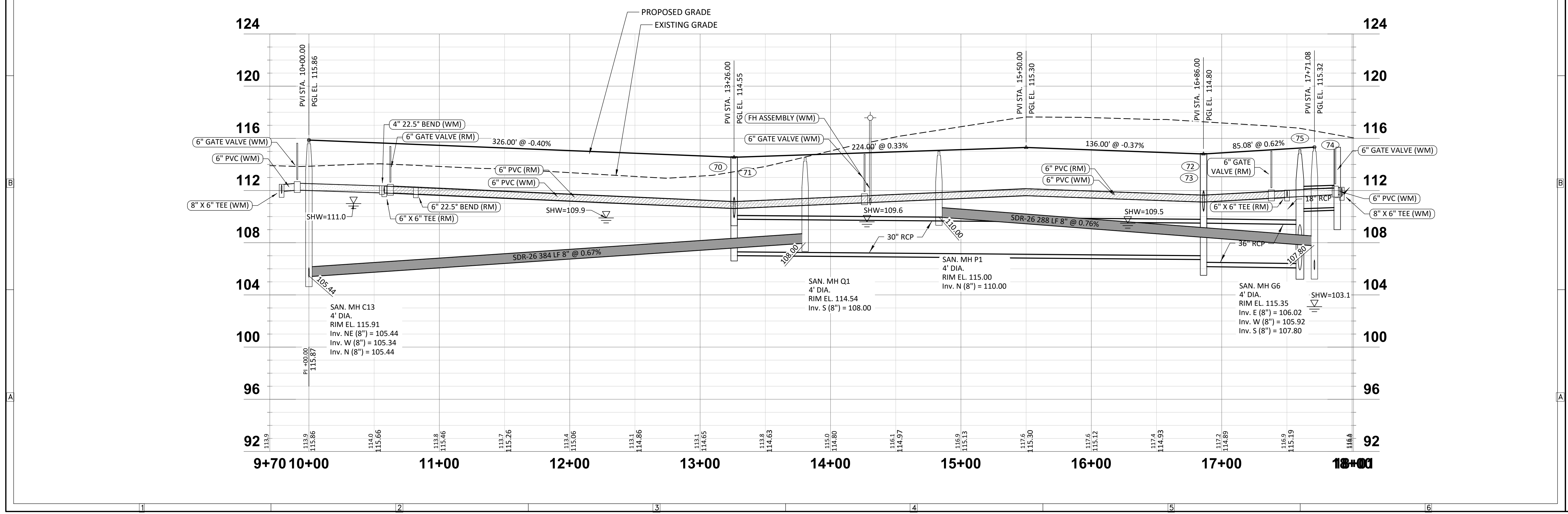
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**BLUESTEM LANE**

HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'



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SERENOA  
VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2  
ROADWAY PLAN & PROFILE

PREPARED FOR:  
VK AVALON GROVES, LLC

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL
2	XXXXXX	ADDED WM GATE VALVE

PROJECT NO: KLP-AG-1010  
FILE: RP-06  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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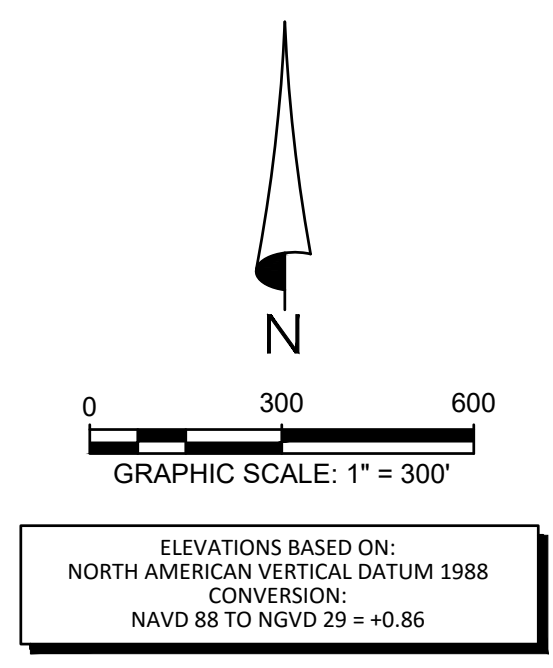
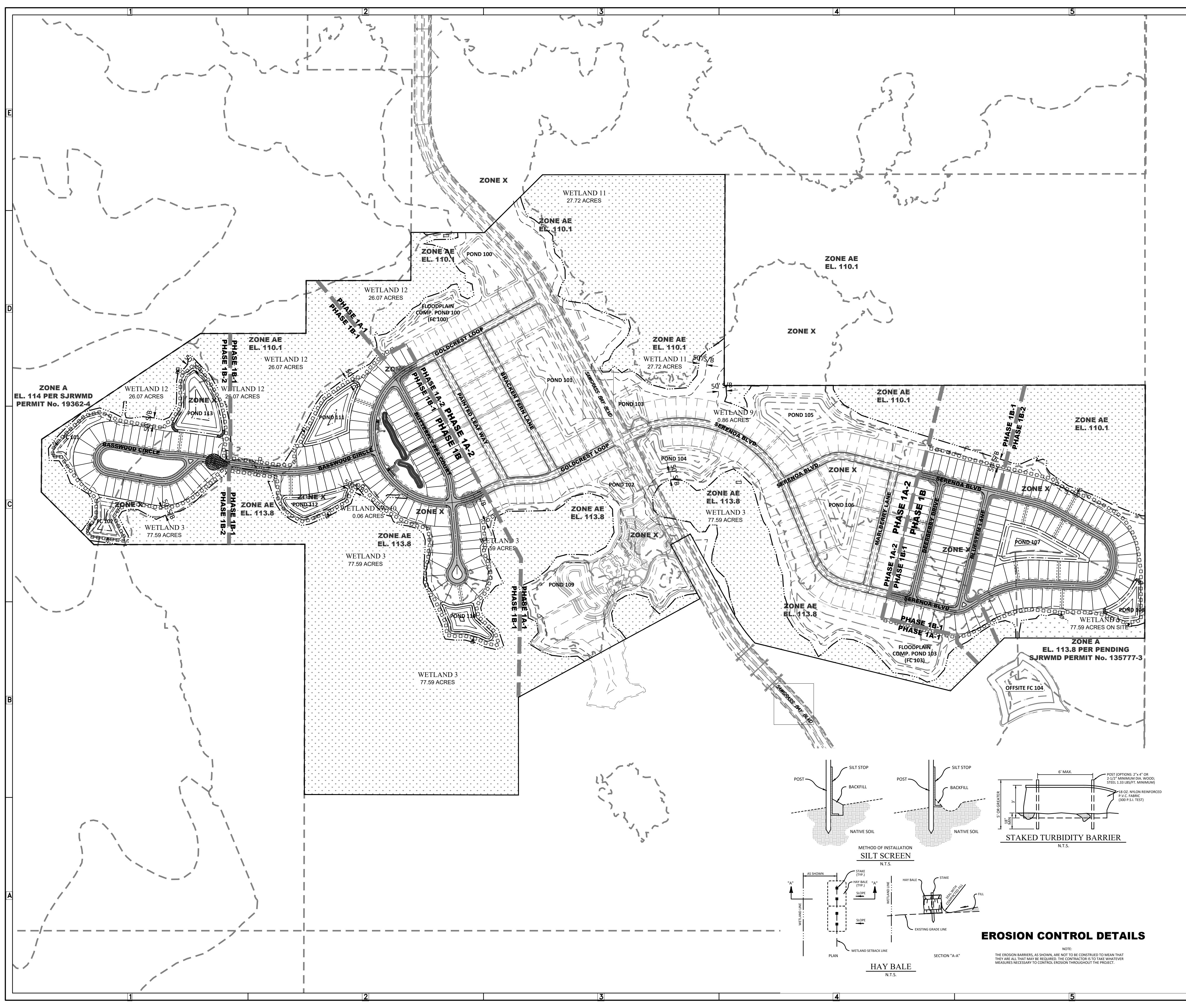
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- GENERAL LEGEND**
- PROPERTY LINE
  - PHASE LINE
  - WETLAND LINE
  - WETLAND CONS. AREA SETBACK (WCAS) (50')
  - STAKED EROSION CONTROL
- NOTE:**
1. PONDS TO BE EXCAVATED PRIOR TO EARTHWORK.
  2. CONTRACTOR TO DIRECT RUNOFF TO PONDS DURING CONSTRUCTION ACTIVITIES.
  3. NOTE DOUBLE ROW SILT FENCE ALONG WETLAND BOUNDARIES.

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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2 CONSTRUCTION SURFACE WATER MANAGEMENT PLAN**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL

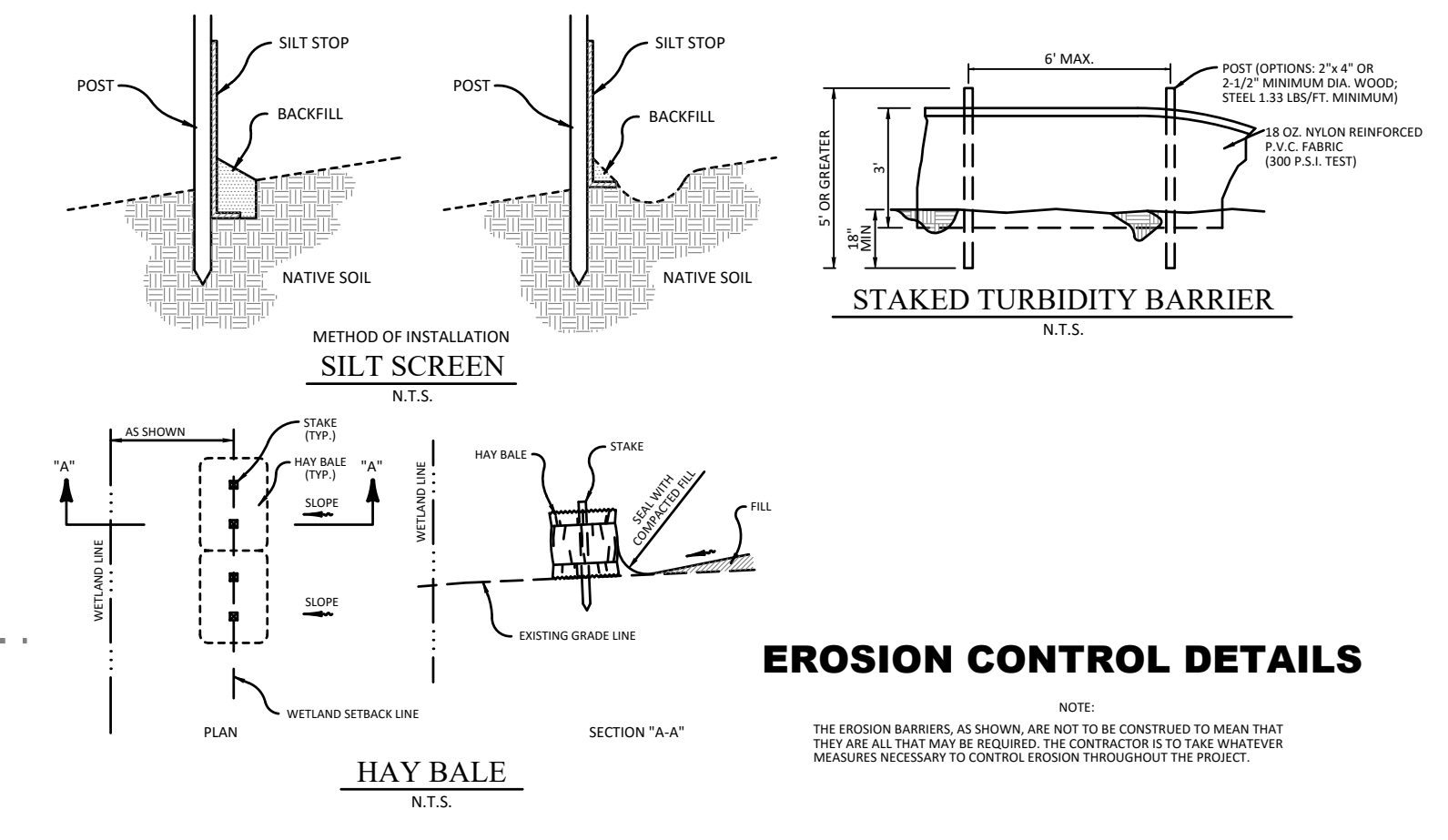
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 DRAWN BY: WIGGINS

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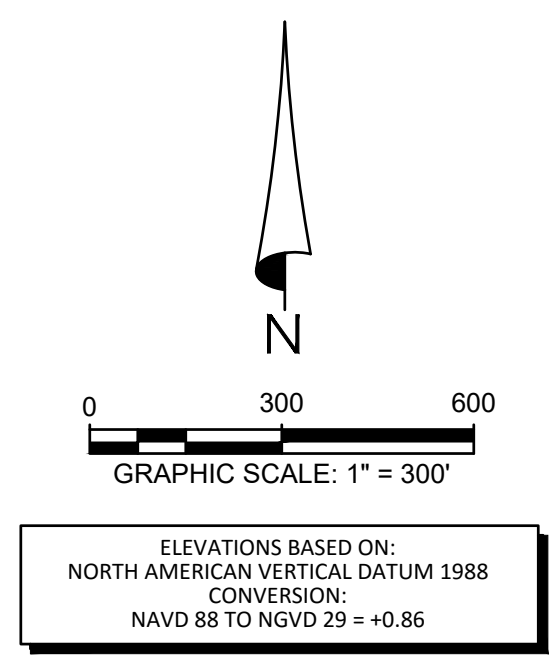
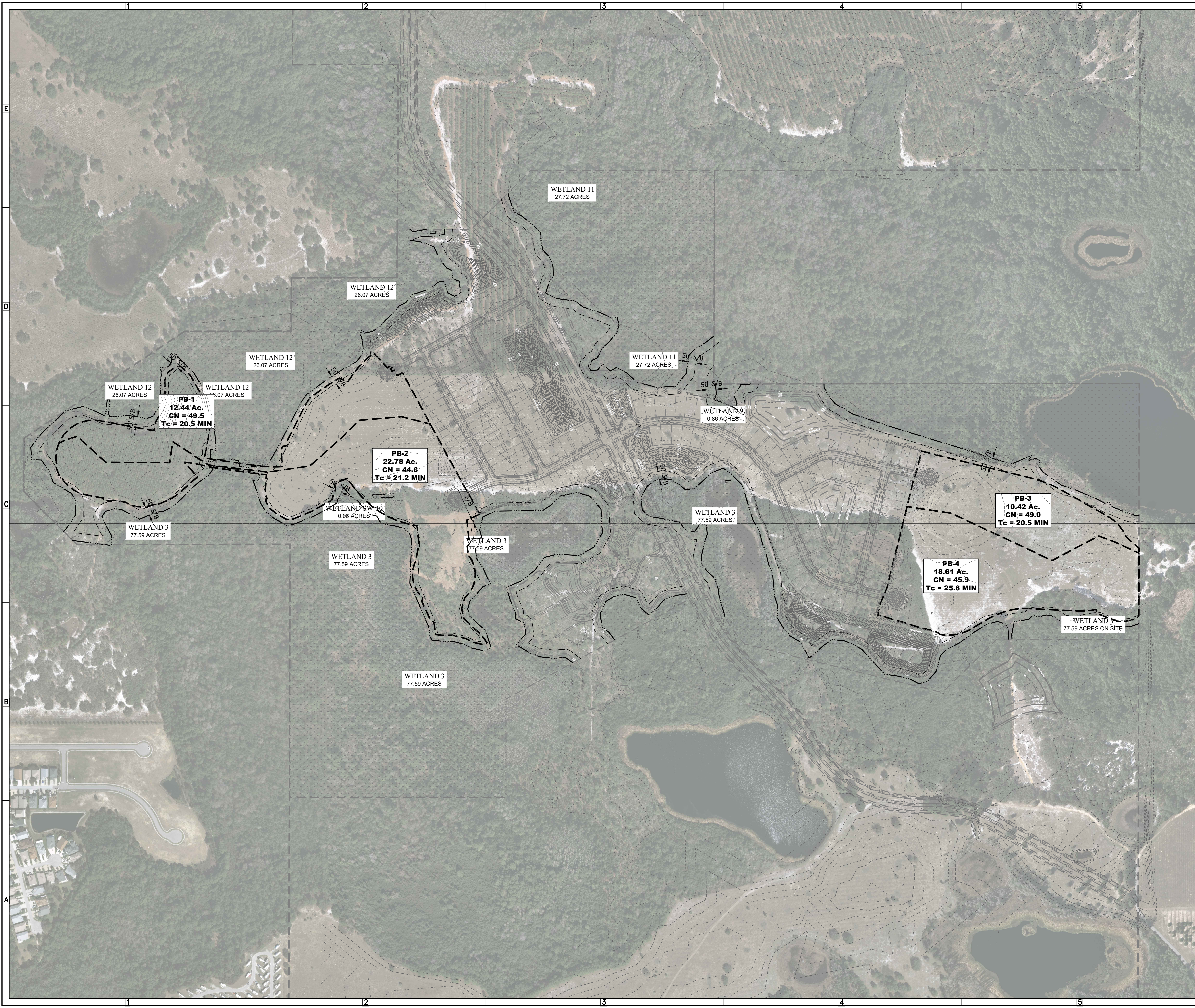
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**C-900**







**DRAINAGE LEGEND**

----- MAJOR DRAINAGE AREA

**0.50 Ac.** MAJOR DRAINAGE ACREAGE

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**SERENOA VILLAGES 1 & 2 - PHASE 1B-1 & 1B-2 PRE-DEVELOPMENT DRAINAGE AREA MAP**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	08/27/2017	REVIEW SUBMITTAL

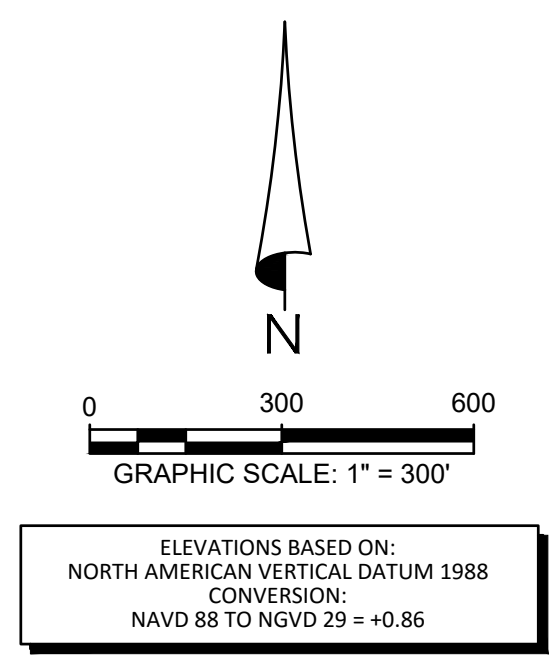
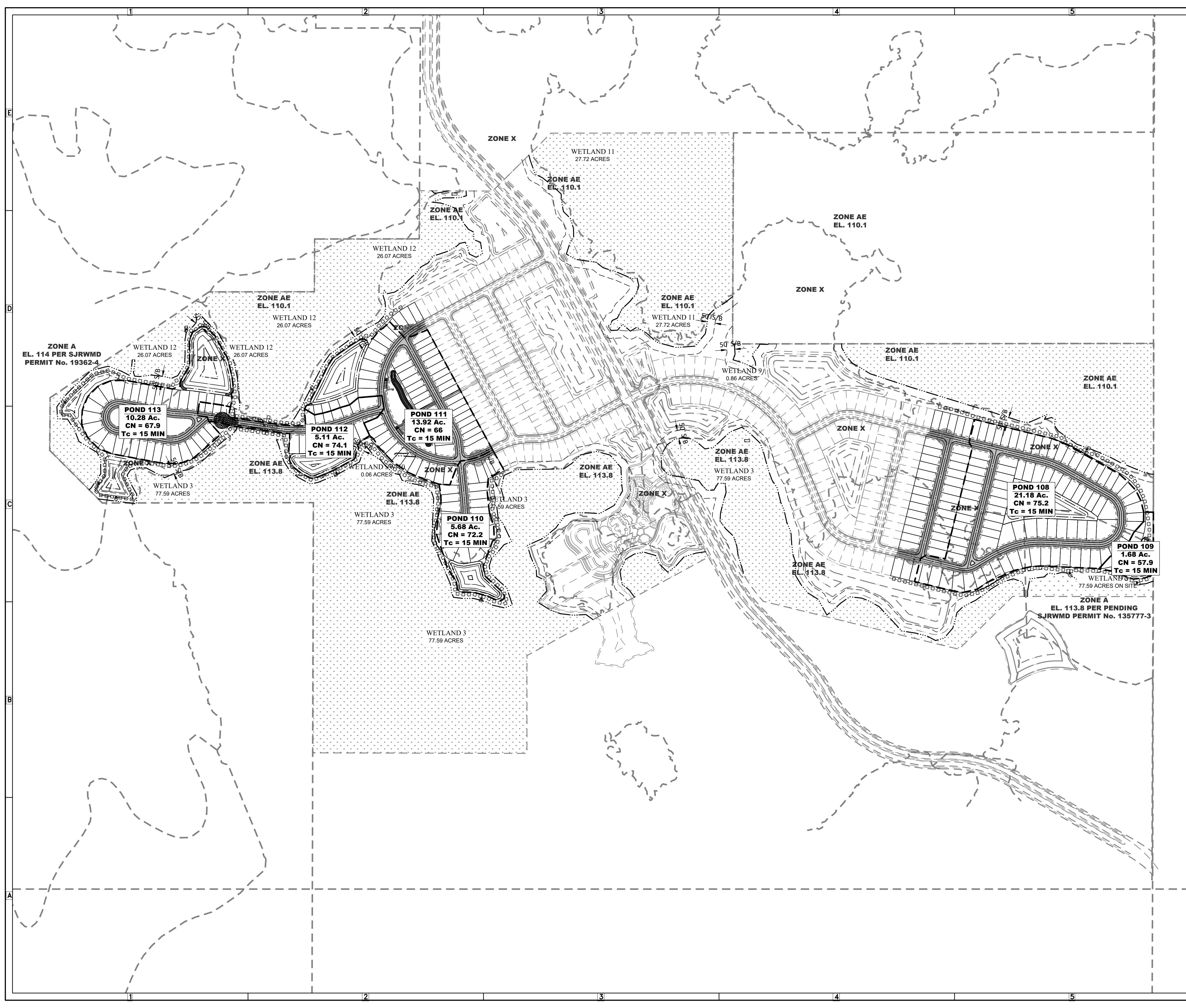
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**C-902**



**DRAINAGE LEGEND**

----- MAJOR DRAINAGE AREA

**0.50 Ac.** MAJOR DRAINAGE ACREAGE

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PREPARED FOR: **VK AVALON GROVES, LLC**

**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 OVERALL POST-DEVELOPMENT DRAINAGE AREA MAP**

NO.	DATE	DESCRIPTION
1	08/27/2017	REVIEW SUBMITTAL

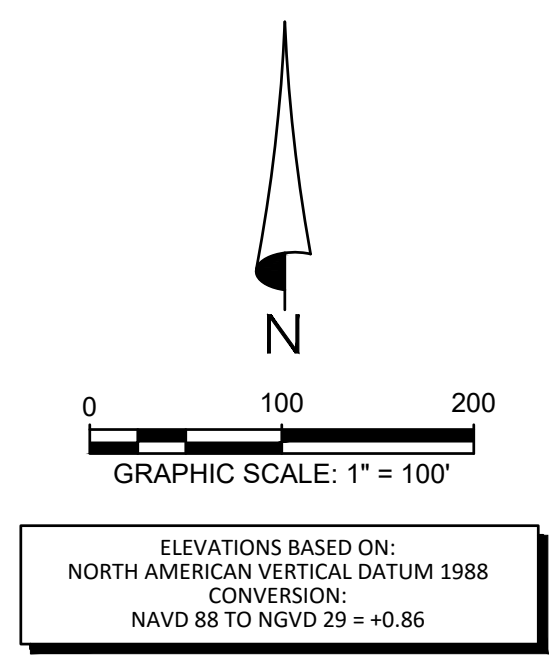
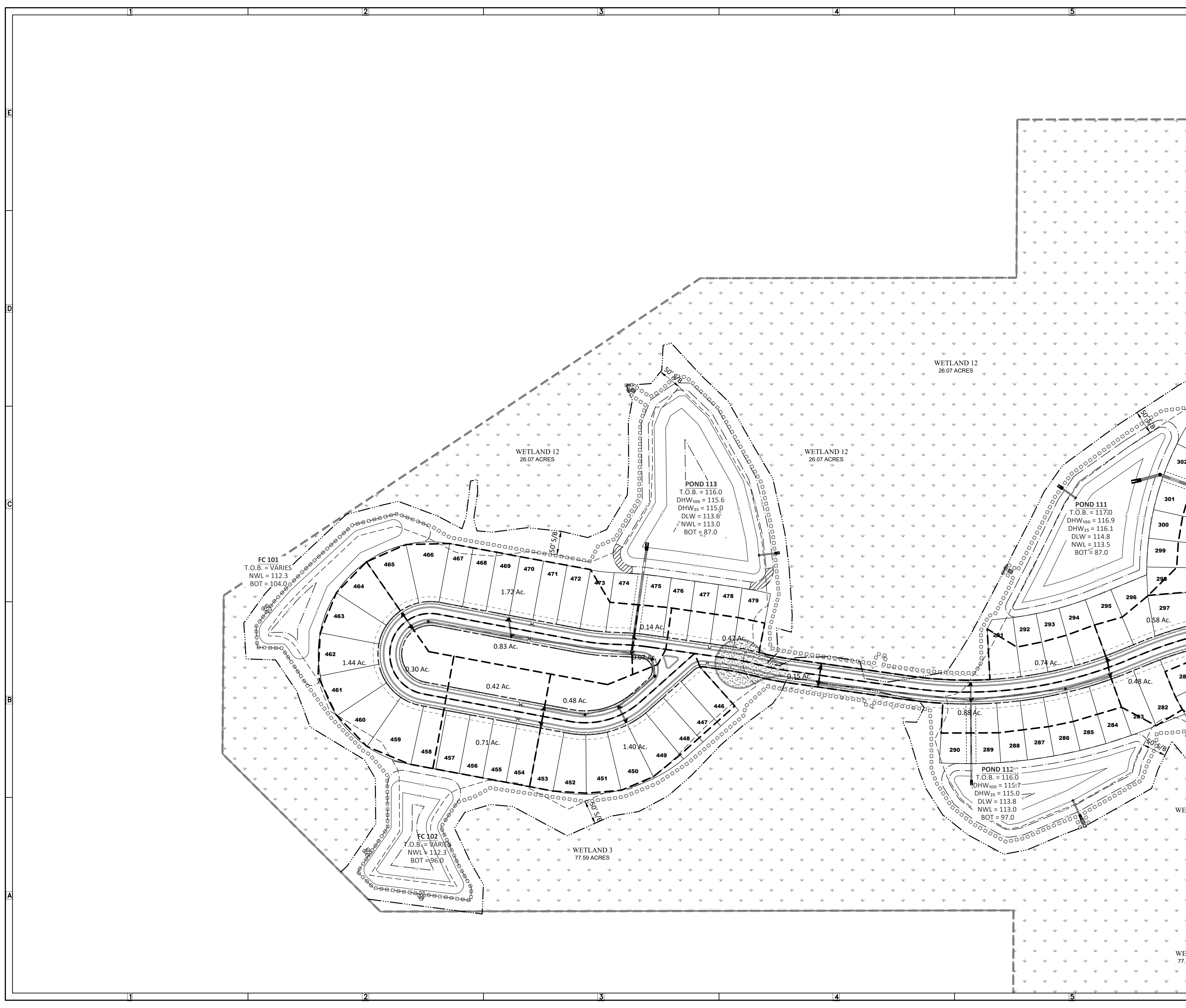
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 FILE: DA-POST  
 DESIGN BY: FRANCIS  
 DRAWN BY: WIGGINS

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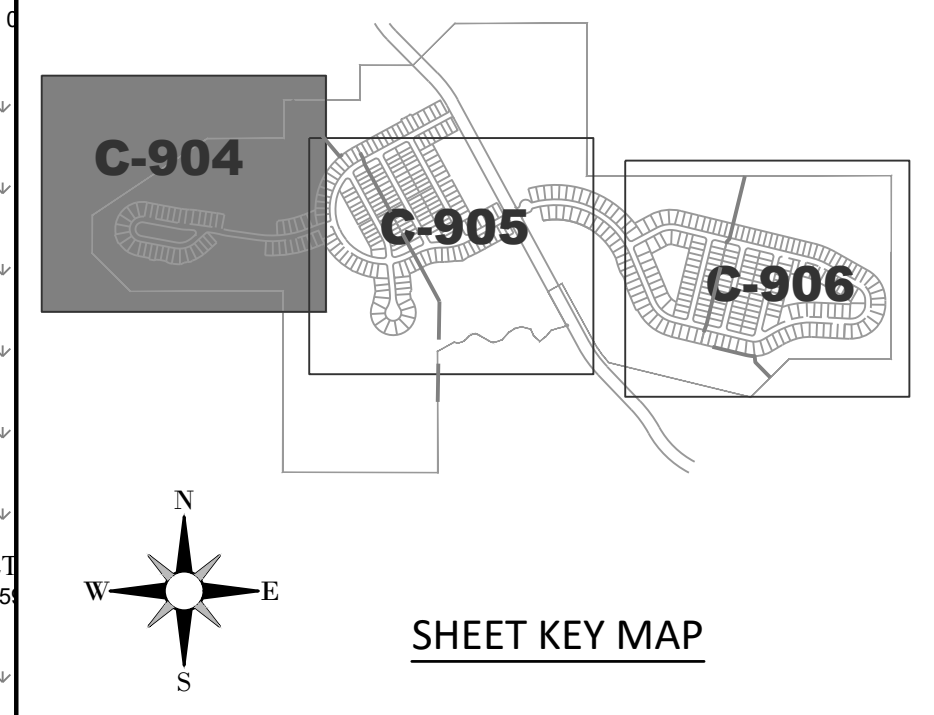
**VICTOR E. BARBOSA**  
 DATE: \_\_\_\_\_  
 REGISTRATION NO. 58548

**C-903**



**DRAINAGE LEGEND**

	CATCH BASIN LIMITS
<b>0.50 Ac.</b>	CATCH BASIN ACERAGE
	STORM STRUCTURE NUMBER



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**SERENOA**  
**VILLAGES 1 & 2 - PHASE IB-1 & IB-2**  
**DRAINAGE SUB-BASIN AREA MAP**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	08/27/2017	REVIEW SUBMITTAL

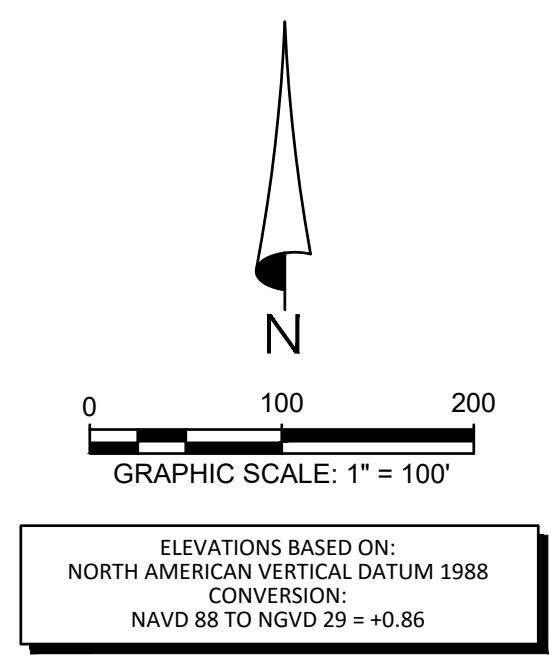
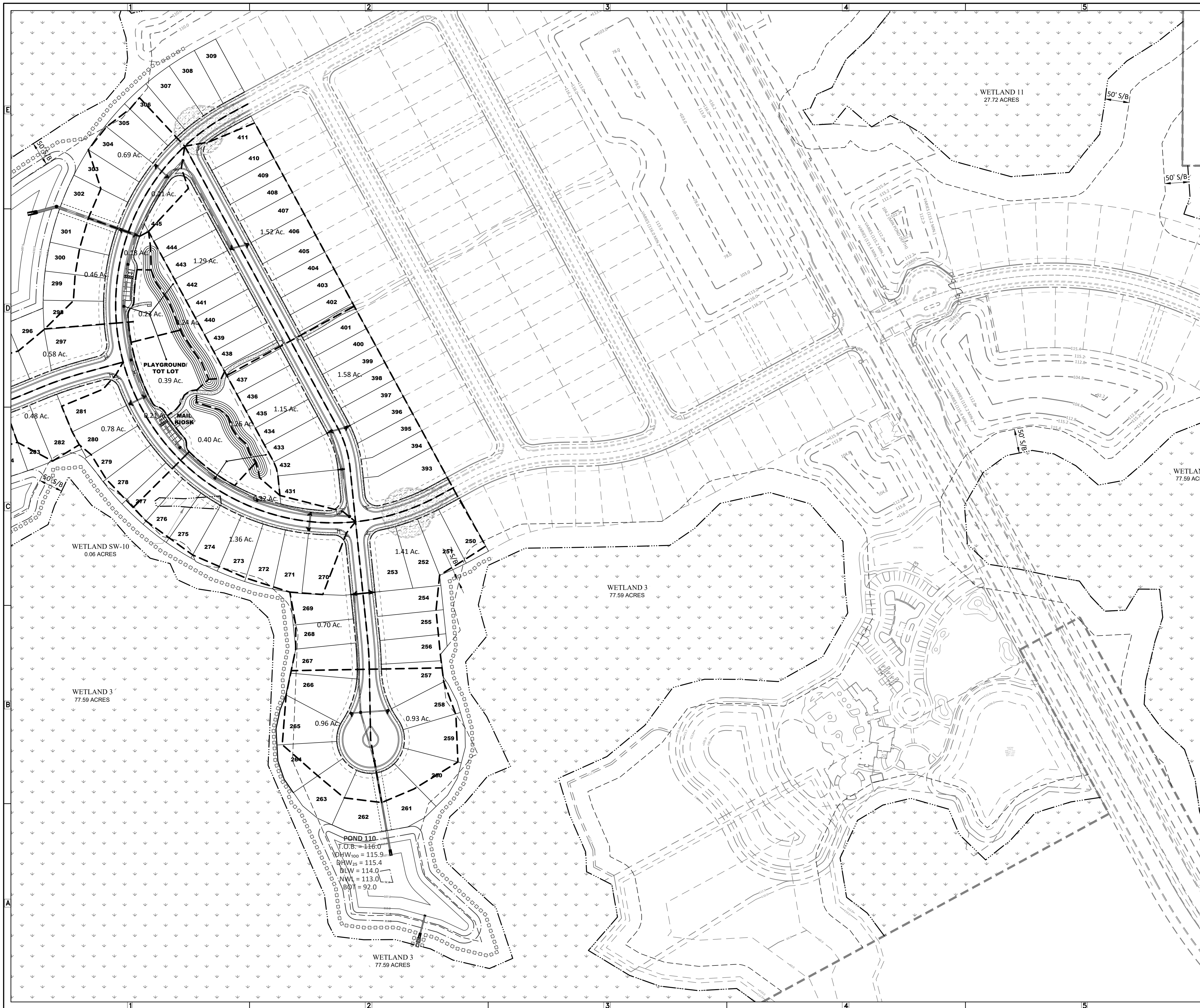
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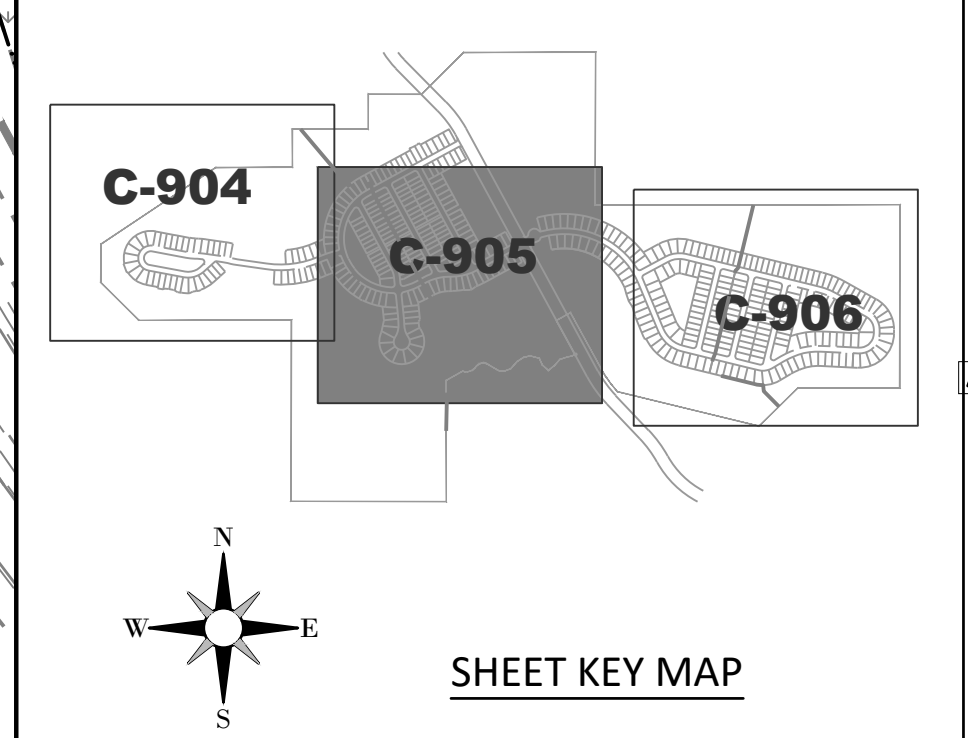
**VICTOR E. BARBOSA**  
 DATE: \_\_\_\_\_  
 REGISTRATION NO. 58548

**C-904**



**DRAINAGE LEGEND**

	CATCH BASIN LIMITS
<b>0.50 Ac.</b>	CATCH BASIN ACERAGE
	STORM STRUCTURE NUMBER



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**SERENOA**  
**VILLAGES 1 & 2 - PHASE IB-1 & IB-2**  
**DRAINAGE SUB-BASIN AREA MAP**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	08/27/2017	REVIEW SUBMITTAL

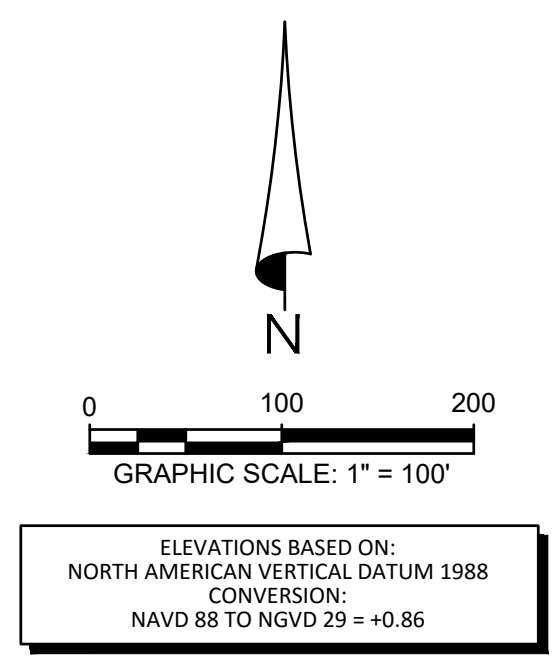
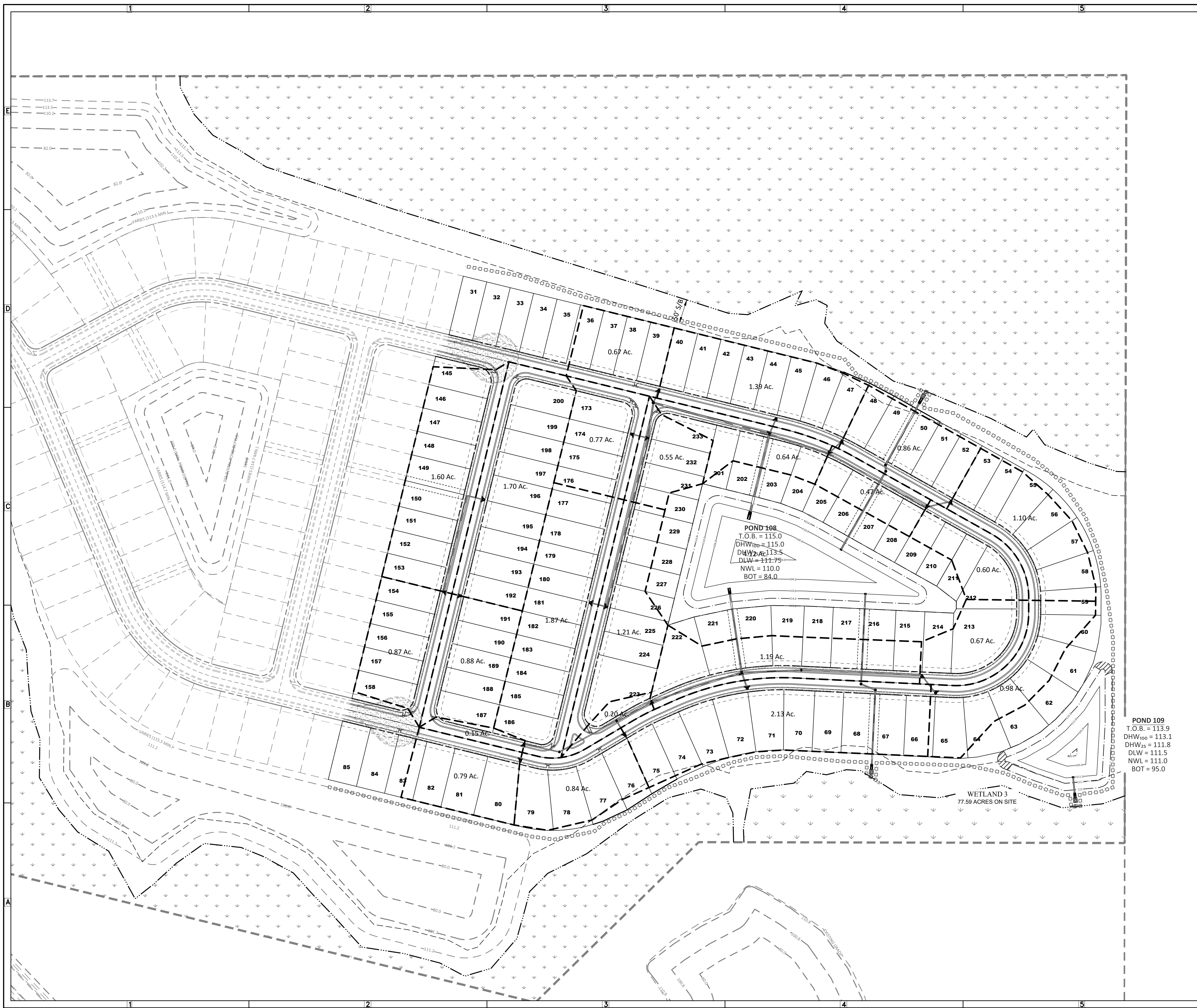
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 FILE: DA-SUB  
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 DRAWN BY: WIGGINS

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**C-905**



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 NORTH AMERICAN VERTICAL DATUM 1988  
**CONVERSION:**  
 NAVD 88 TO NGVD 29 = +0.86

**DRAINAGE LEGEND**

--- CATCH BASIN LIMITS  
 0.50 Ac. CATCH BASIN ACERAGE  
 (1) STORM STRUCTURE NUMBER

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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 DRAINAGE SUB-BASIN AREA MAP**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	06/27/2017	REVIEW SUBMITTAL

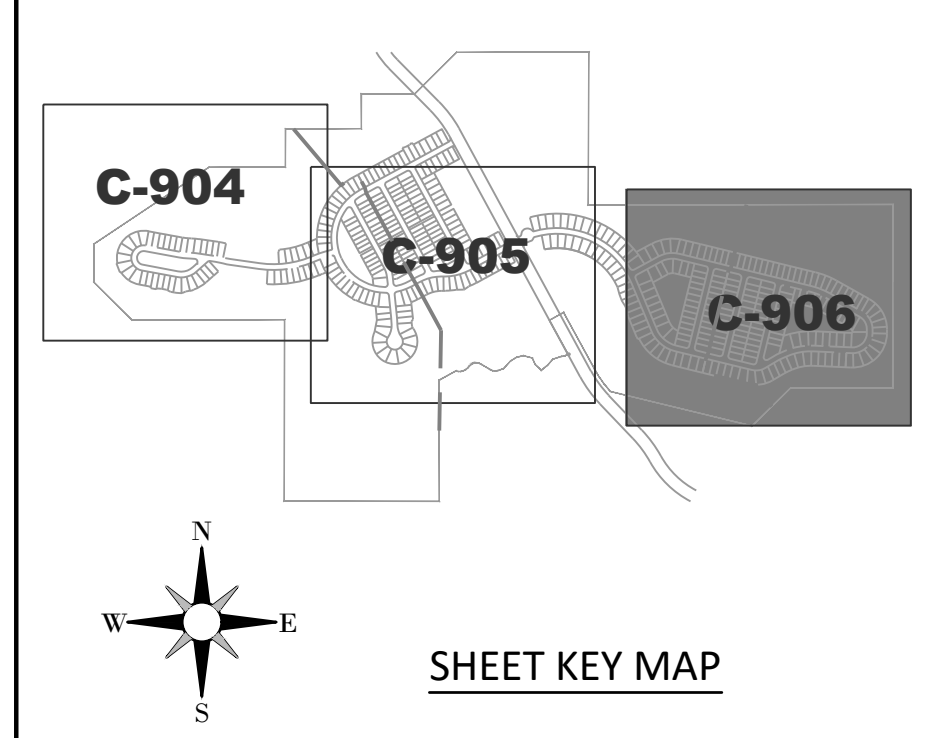
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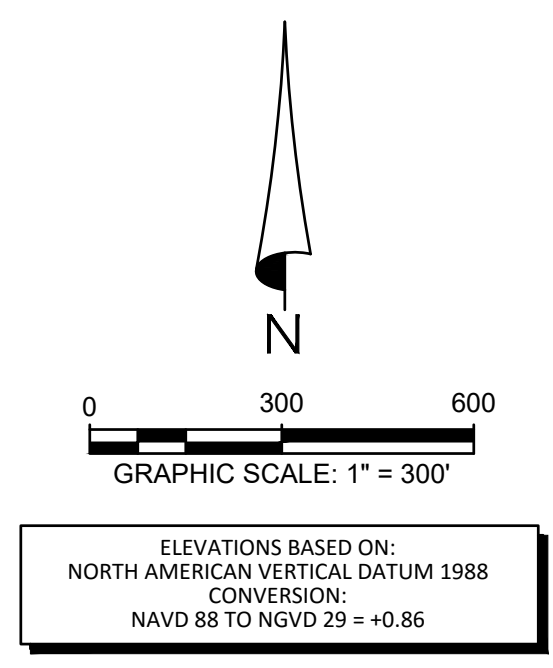
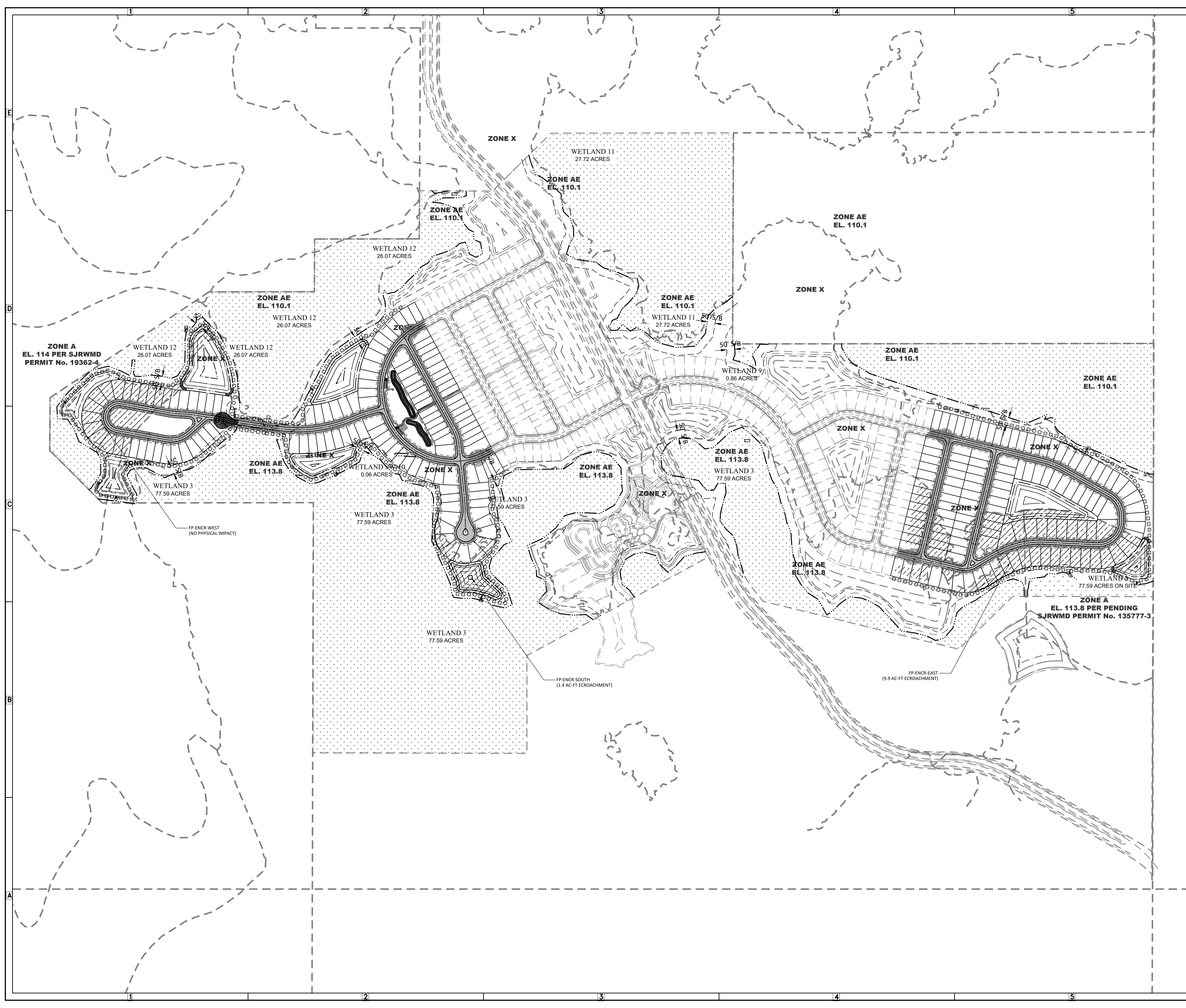
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 REGISTRATION NO. 58548

**C-906**





**LEGEND**

	FEMA FLOOD LINE
	FLOODPLAIN ENCROACHMENT

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 Tampa, Florida 33610  
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Engineering Business Certificate of Authorization No. 28752  
 Landscape Architecture Certificate of Authorization No. LC26000405

**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 FLOODPLAIN IMPACTS**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL

PROJECT NO: KLP-AG-1010  
 FILE: FLOODPLAIN IMPACTS  
 DESIGN BY: FRANCIS  
 DRAWN BY: WIGGINS

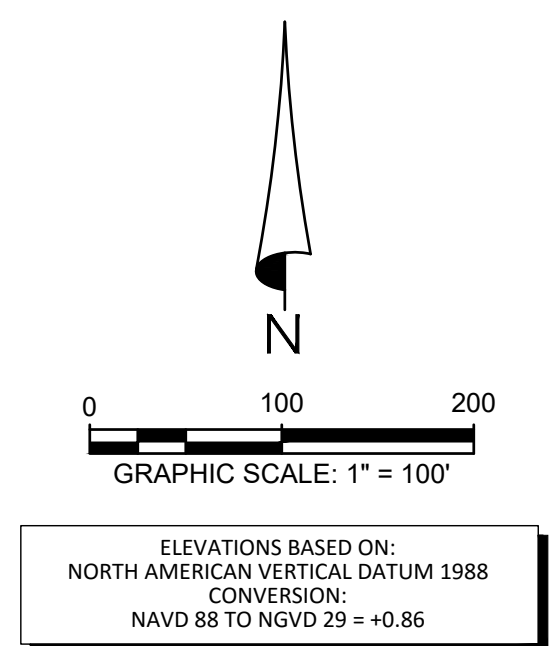
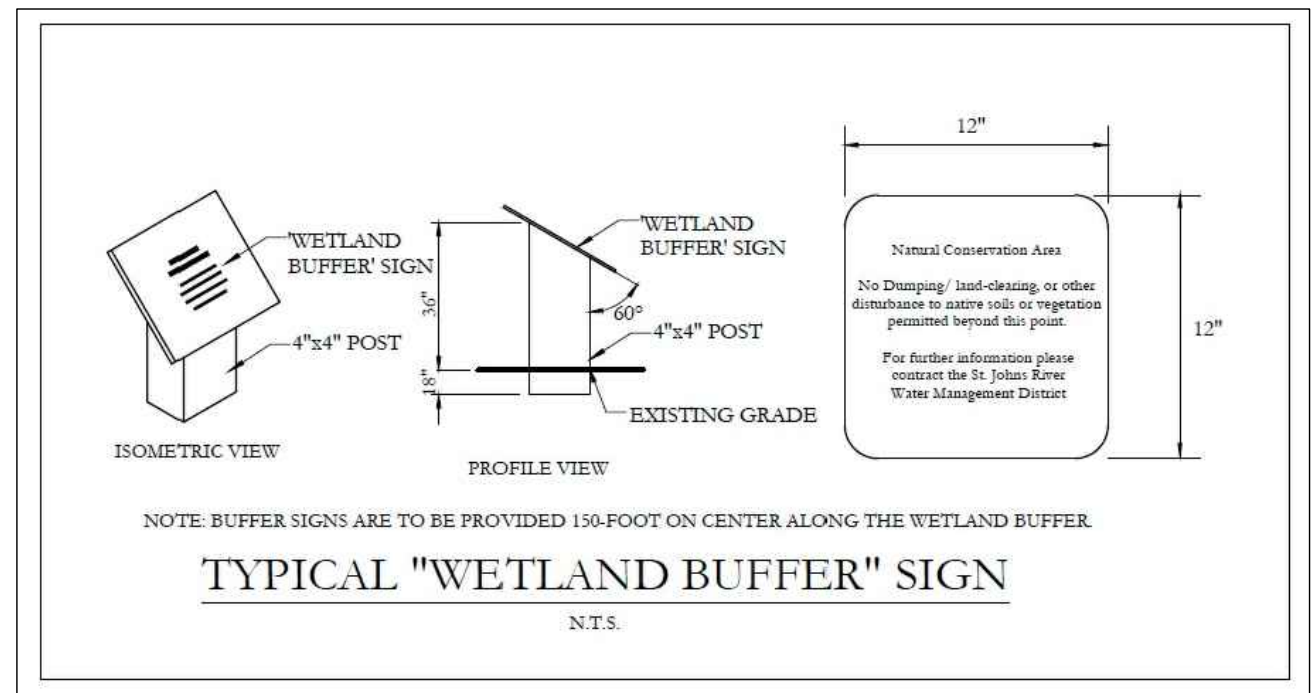
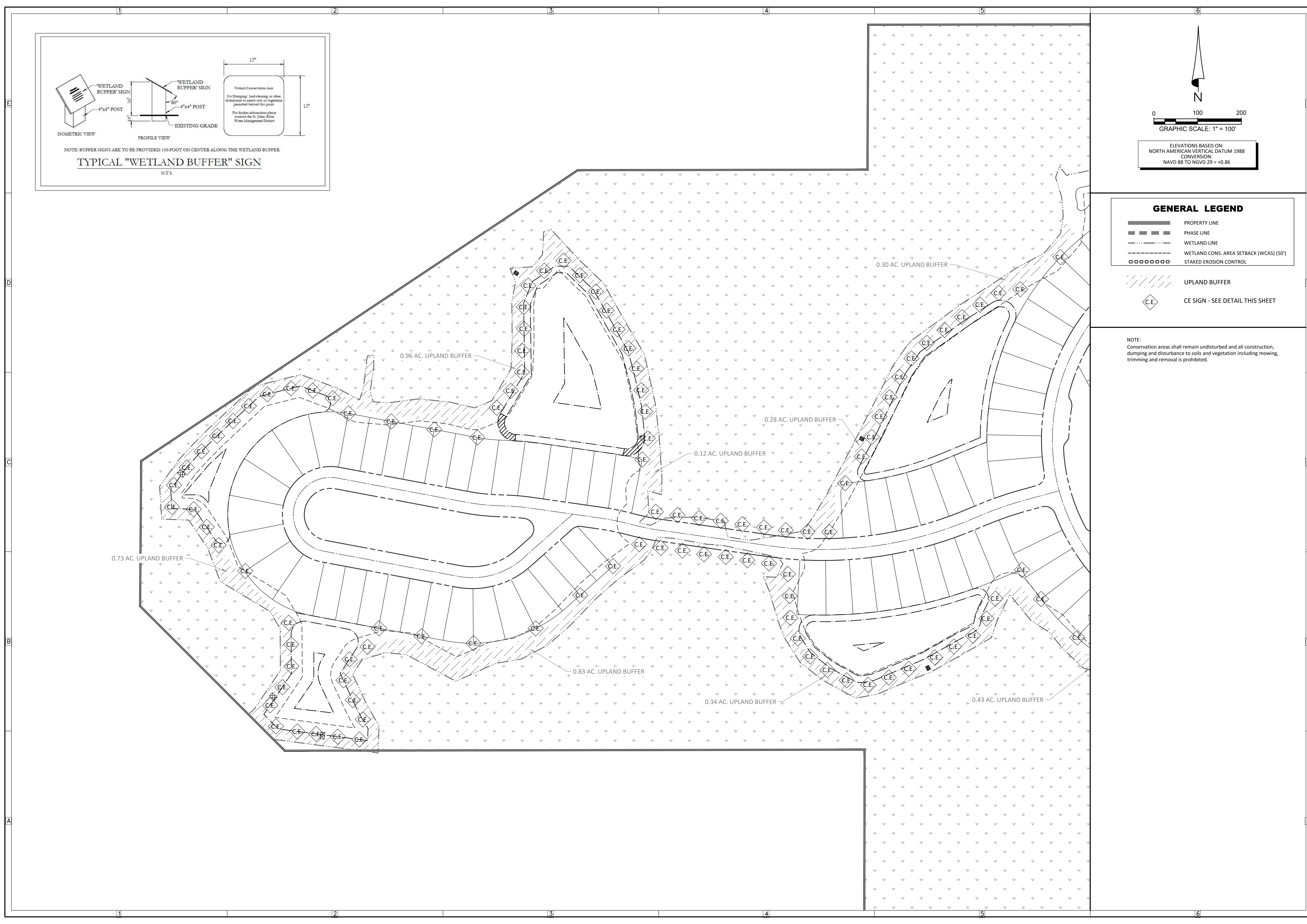
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**VICTOR E. BARBOSA**  
 DATE: \_\_\_\_\_  
 REGISTRATION NO. 58548

**C-907**





**GENERAL LEGEND**

- PROPERTY LINE
- PHASE LINE
- WETLAND LINE
- WETLAND CONS. AREA SETBACK (WCAS) (50')
- STAKED EROSION CONTROL
- UPLAND BUFFER
- CE SIGN - SEE DETAIL THIS SHEET

NOTE:  
Conservation areas shall remain undisturbed and all construction, dumping and disturbance to soils and vegetation including mowing, trimming and removal is prohibited.

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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 UPLAND BUFFER AND C.E. SIGN LOCATIONS**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL

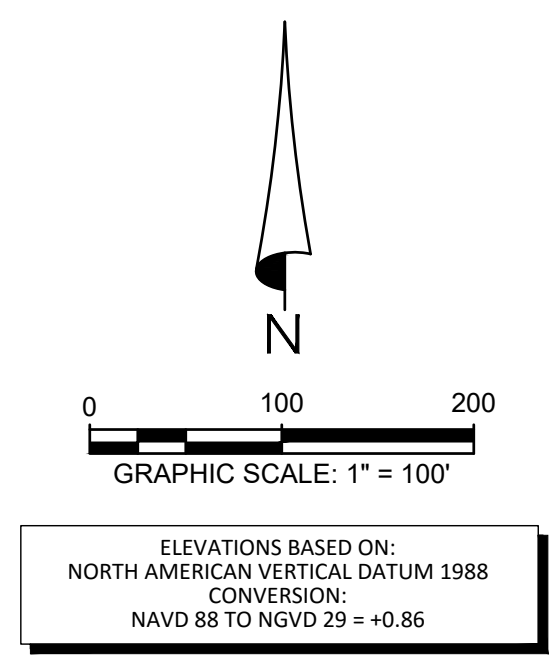
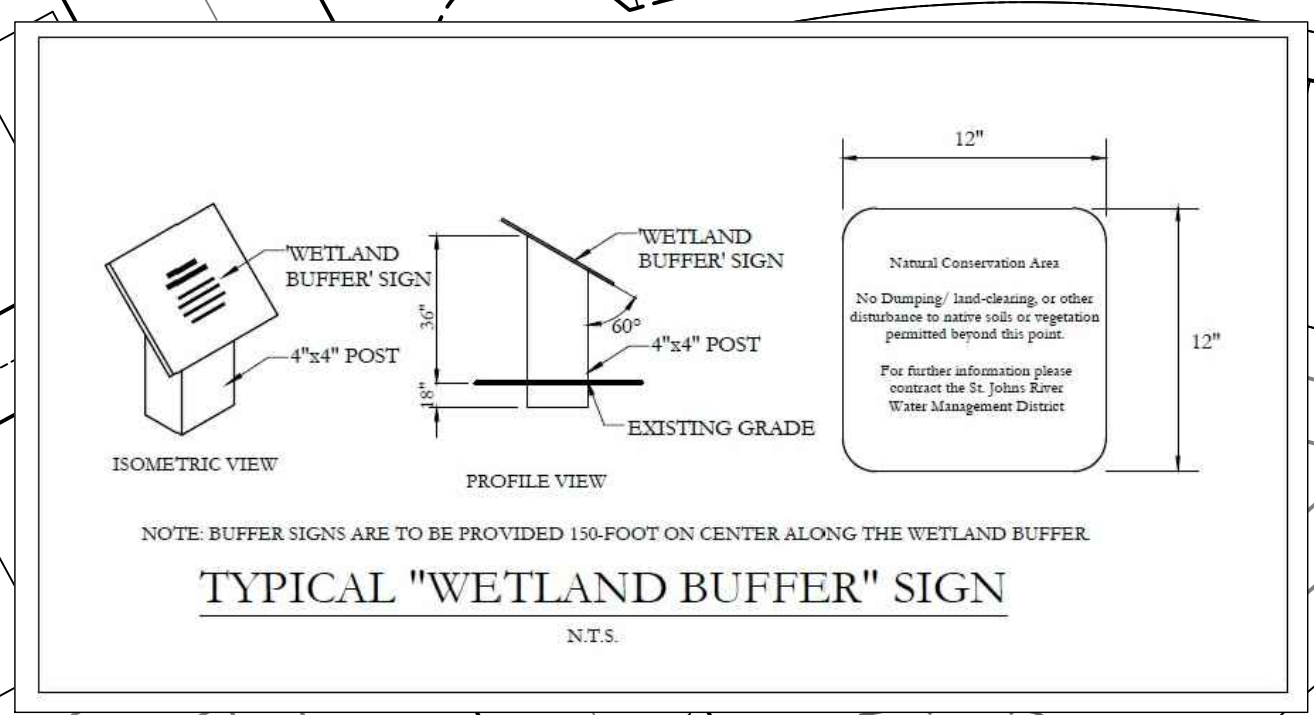
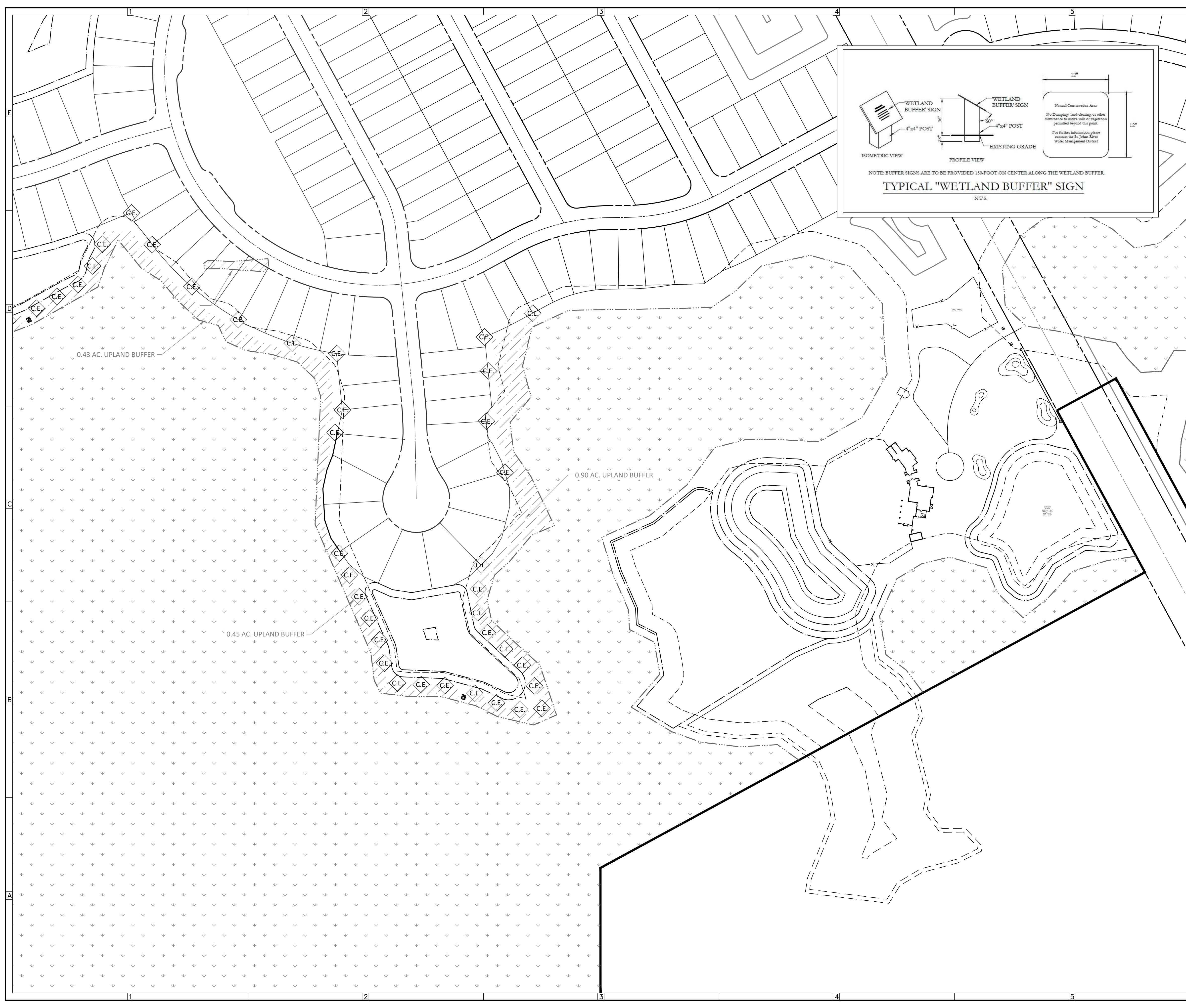
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DRAWN BY: WIGGINS

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**VICTOR E. BARBOSA**  
DATE: \_\_\_\_\_  
REGISTRATION NO. 58548

**C-908**



**GENERAL LEGEND**

	PROPERTY LINE
	PHASE LINE
	WETLAND LINE
	WETLAND CONS. AREA SETBACK (WCAS) (50')
	STAKED EROSION CONTROL
	UPLAND BUFFER
	CE SIGN - SEE DETAIL THIS SHEET

NOTE: Conservation areas shall remain undisturbed and all construction, dumping and disturbance to soils and vegetation including mowing, trimming and removal is prohibited.

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Landscape Architecture Certificate of Authorization No. LC26000015

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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 UPLAND BUFFER AND C.E. SIGN LOCATIONS**

PREPARED FOR: **VK AVALON GROVES, LLC**

RAVALON GROVES PHASE 1B ENGINEERING - SURVIVAL BUFFER DWG-C-909 2017/10/19 7:53 PM ERIC FRANCIS

NO.	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL

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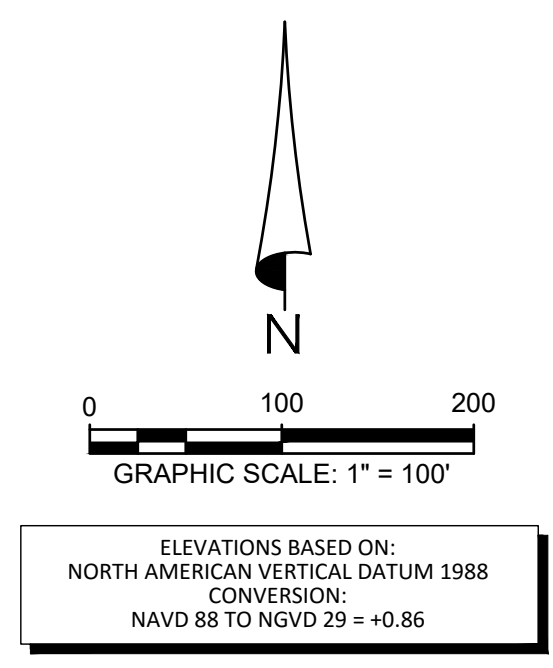
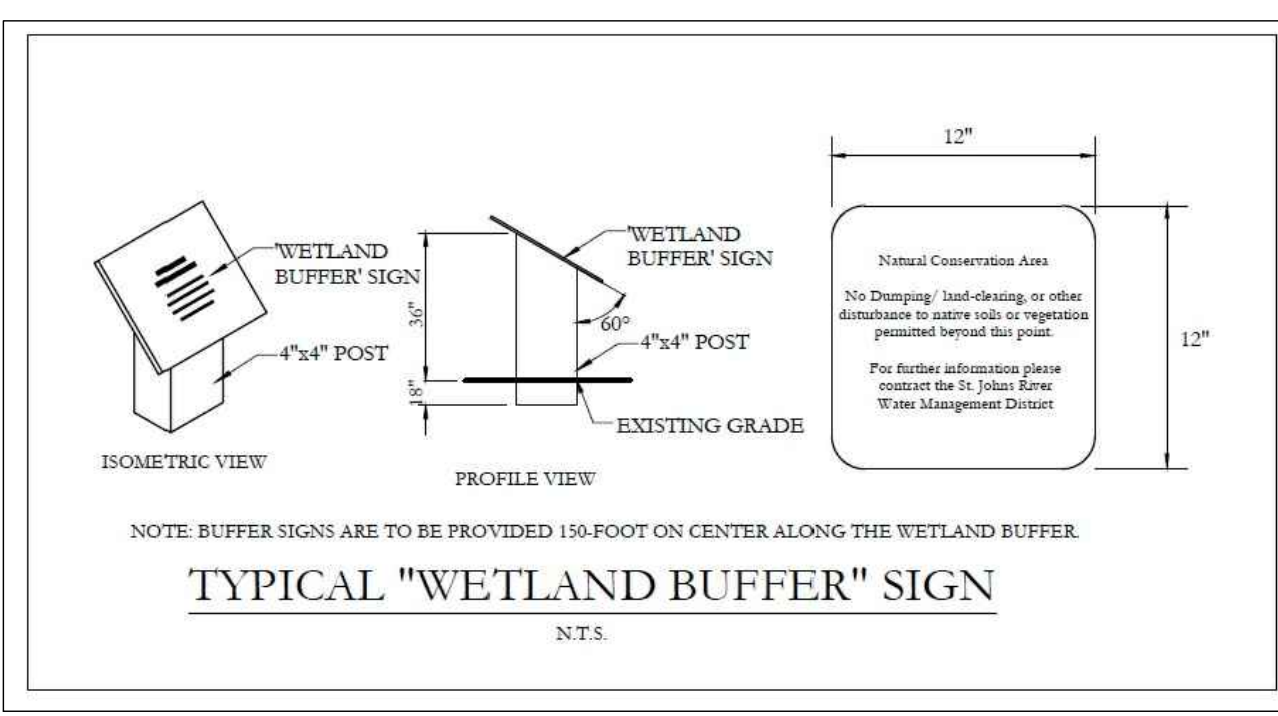
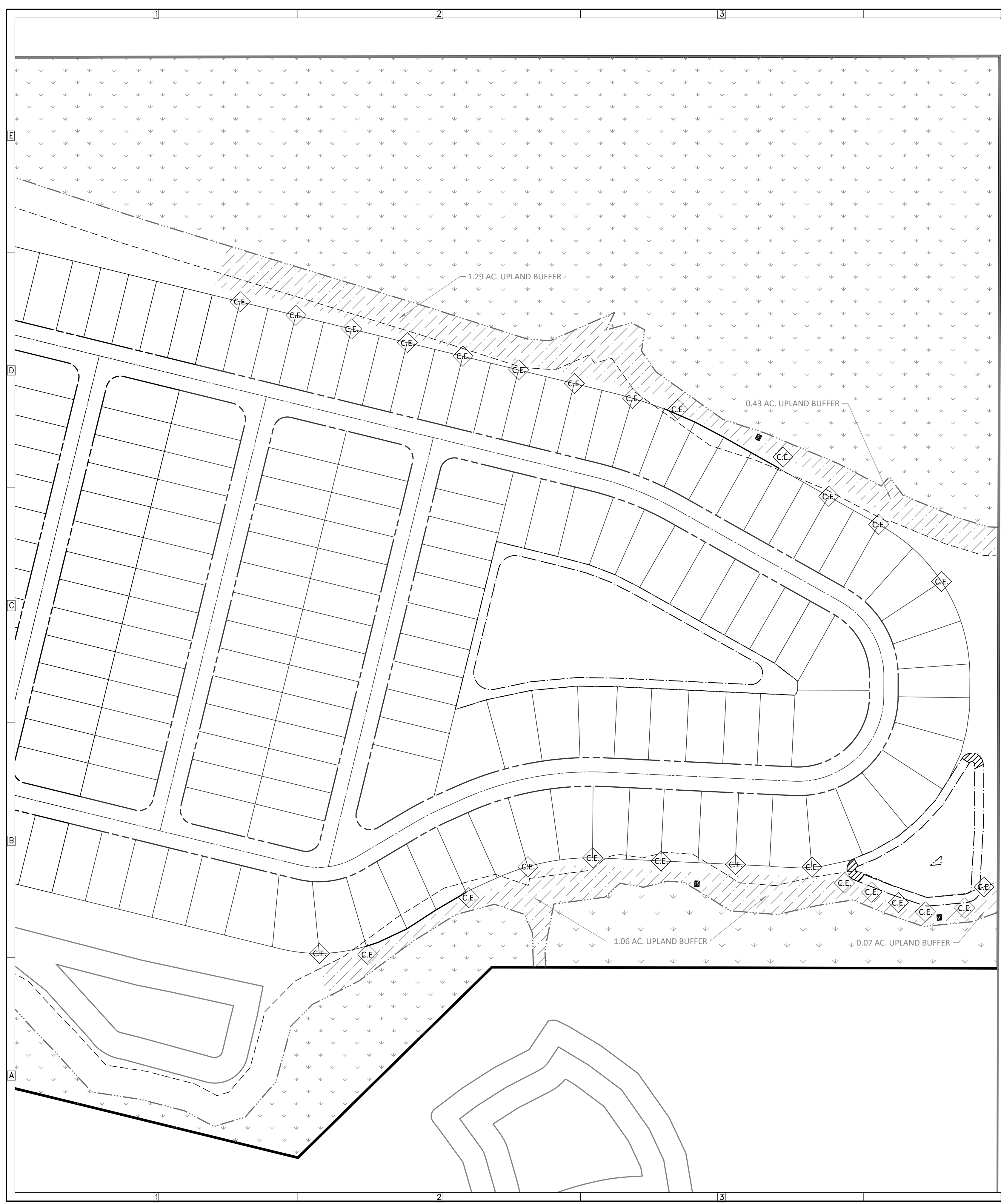
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FILE:	BUFFER
DESIGN BY:	FRANCIS
DRAWN BY:	WIGGINS

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**VICTOR E. BARBOSA**  
DATE: \_\_\_\_\_  
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C-909



**GENERAL LEGEND**

	PROPERTY LINE
	PHASE LINE
	WETLAND LINE
	WETLAND CONS. AREA SETBACK (WCAS) (50')
	STAKED EROSION CONTROL
	UPLAND BUFFER
	C.E. SIGN - SEE DETAIL THIS SHEET

NOTE:  
Conservation areas shall remain undisturbed and all construction, dumping and disturbance to soils and vegetation including mowing, trimming and removal is prohibited.

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**SERENOA VILLAGES 1 & 2 - PHASE IB-1 & IB-2 UPLAND BUFFER AND C.E. SIGN LOCATIONS**

PREPARED FOR: **VK AVALON GROVES, LLC**

NO.	DATE	DESCRIPTION	DATE	DESCRIPTION
1	02/29/2017	REVIEW SUBMITTAL		

PROJECT NO: KLP-AG-1010  
FILE: BUFFER  
DESIGN BY: FRANCIS  
DRAWN BY: WIGGINS

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**C-910**