



CLIENT

CIVIL ENGINEER

LANDSCAPE ARCHITECT

SURVEYOR

ARCHITECT

PHOTOMETRIC LIGHTING

TRAFFIC

LAND PLANNING

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NOT TO SCALE

SECTION: 12 TOWNSHIP: 46 RANGE: 42

PROJECT
4652 133RD ROAD S
DELRAY BEACH, FL

Sheet Number		Sheet Title
C0.00		COVER SHEET
1 OF 4		BOUNDARY, TOPOGRAPHIC AND TREE SURVEY
2 OF 4		BOUNDARY, TOPOGRAPHIC AND TREE SURVEY
3 OF 4		BOUNDARY, TOPOGRAPHIC AND TREE SURVEY
4 OF 4		BOUNDARY, TOPOGRAPHIC AND TREE SURVEY
C1.00		SITE PLAN
C1.10		SITE DETAILS
C1.11		SITE DETAILS
C1.12		BASKETBALL COURT DETAILS
L1.00		TREE DISPOSITION PLAN
L1.01		TREE DISPOSITION PLAN
L1.02		TREE DISPOSITION PLAN
L2.00		LANDSCAPE PLAN
L2.01		LANDSCAPE PLAN
L2.10		LANDSCAPE DETAILS
L2.11		LANDSCAPE NOTES
L3.00		HARDSCAPE PLAN
L3.01		HARDSCAPE DETAILS
L4.00		IRRIGATION PLAN
L4.01		IRRIGATION PLAN
L4.10		IRRIGATION DETAILS
L4.11		IRRIGATION NOTES
L4.12		IRRIGATION NOTES
C2.00		GENERAL NOTES
C2.01		GENERAL NOTES
C2.10		KEY SHEET
C3.00		MARKING AND STRIPING PLAN
C3.01		MARKING AND STRIPING PLAN
C4.00		PRELIMINARY PAVING, GRADING, AND DRAINAGE PLAN
C4.01		PRELIMINARY PAVING, GRADING, AND DRAINAGE PLAN
C4.10		PAVING, GRADING AND DRAINAGE DETAILS
C4.11		PAVING, GRADING AND DRAINAGE DETAILS
C4.12		PAVING, GRADING AND DRAINAGE DETAILS
C5.00		PRELIMINARY UTILITY PLAN
C5.01		PRELIMINARY UTILITY PLAN
C5.10		UTILITY DETAILS
C5.11		UTILITY DETAILS
C5.12		UTILITY DETAILS
C5.13		UTILITY DETAILS
C6.00		COMPOSITE UTILITY PLAN
C6.01		COMPOSITE UTILITY PLAN
C7.00		PHOTOMETRIC PLAN
C7.01		PHOTOMETRIC PLAN
C7.02		PHOTOMETRIC LIGHTING COVERAGE
C7.10		PHOTOMETRIC DETAILS
C7.11		PHOTOMETRIC DETAILS
C8.00		DEMOLITION AND EROSION CONTROL PLAN
C8.10		EROSION & SEDIMENT CONTROL DETAILS
A-0		COVER SHEET DESIGN
A-1		BUILDING PLAN 1ST FLOOR
A-2		BUILDING PLAN 2ND FLOOR
A-3		BUILDING ROOF PLAN
A-4		EXTERIOR ELEVATIONS
A-5		EXTERIOR ELEVATIONS
A-6		FLOOR PLANS UNIT "A"
A-7		FLOOR PLANS UNIT "B"
A-8		CLUBHOUSE FLOOR PLAN
A-9		CLUBHOUSE ROOF PLAN
A-10		CLUBHOUSE ELEVATIONS
A-11		STREET ELEVATION & EXTERIOR DETAILS
A-12		EXTERIOR RENDERING
A-13		EXTERIOR RENDERING
A-14		EXTERIOR RENDERING
A-15		EXTERIOR RENDERING

PLANS ARE IN NAVD 1988 DATUM
CONVERSION EQUATION IS BELOW:
(NAVD 1988) + 1.5' = (NGVD 1929)

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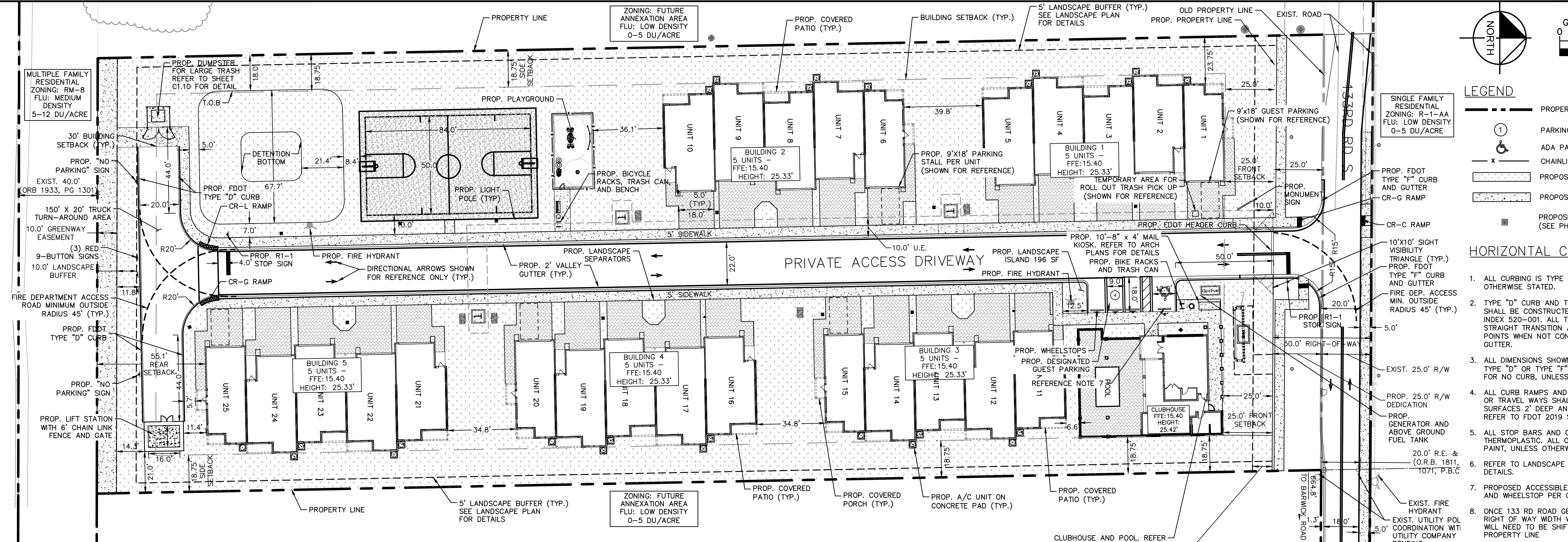
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THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

	SHEET NUMBER C0.00	<div>DELRAY TOWNHOMES PREPARED FOR OCEAN RIDGE RENTALS DELRAY BEACH FLORIDA</div>	<div>COVER SHEET</div>	KHA PROJECT 1407260000 DATE: JUNE, 2023 SCALE AS SHOWN DESIGNED BY YXY DRAWN BY TVC CHECKED BY JAW	LICENSED PROFESSIONAL JASON A. WEBBER, P.E. FLORIDA LICENSE NUMBER 73962 DATE: -- -- -- <div>Kimley»Horn</div> <div>© 2023 KIMLEY-HORN AND ASSOCIATES, INC. 1615 S CONGRESS AVE., SUITE 201, DELRAY BEACH, FL 33445 KIMLEY-HORN & ASSOCIATES, INC. REGISTRY NO. 35106 WWW.KIMLEY-HORN.COM</div>	A CITY OF DELRAY BEACH CHANGES A CITY OF DELRAY BEACH CHANGES A CITY OF DELRAY BEACH CHANGES A CITY OF DELRAY BEACH CHANGES	03/13/2023 JWD 09/26/2022 MLR 04/08/2021 TVC 02/02/2021 TVC	No.	REVISIONS	DATE	TVC
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Plotted By: Damore, John Sheet Set: DELRAY TOWNHOMES Layout: SITE PLAN Date: June 29, 2023 02:02:58pm K:\VBCD Civil\140726000 - Delray Townhomes\CADD\PlanSheets\04.00 HORIZONTAL CONTROL PLAN.dwg L.W.D. LATERAL CANAL L-31

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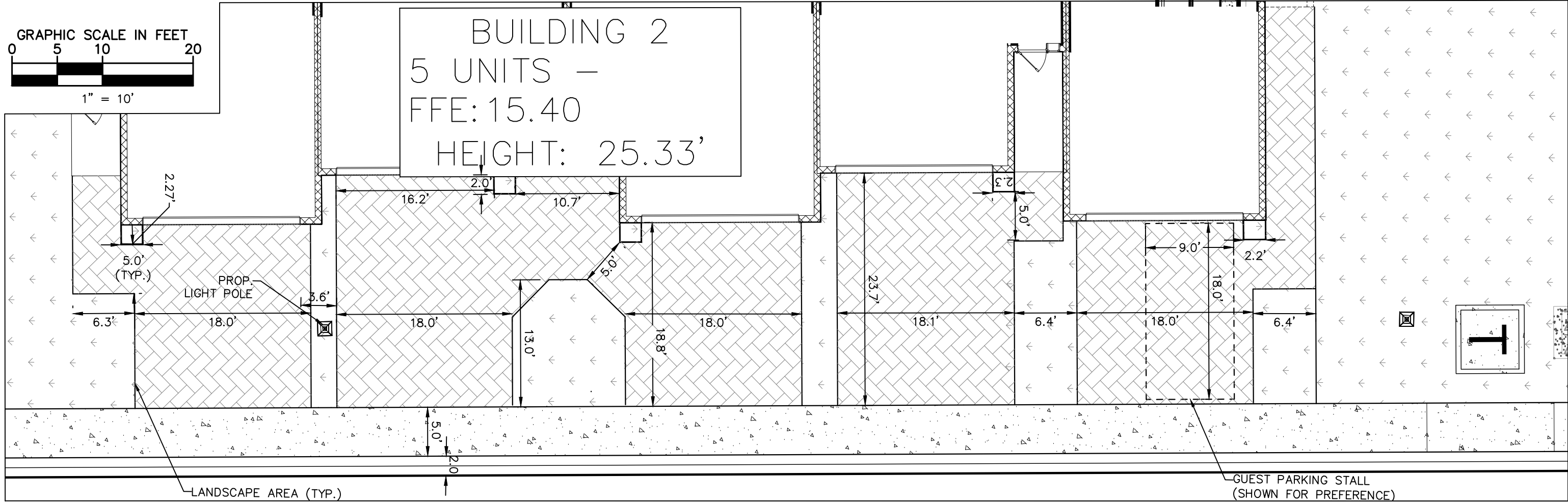
LEGEND

- PROPERTY LINE
- PARKING STALL COUNT
- ADA PARKING STALL
- CHAINLINK FENCE
- PROPOSED OPEN SPACE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED LIGHT POLES (SEE PHOTOMETRIC PLANS FOR DETAILS)

HORIZONTAL CONTROL NOTES

- ALL CURBING IS TYPE "D" OR TYPE "F" UNLESS OTHERWISE STATED.
- TYPE "D" CURB AND TYPE "F" CURB AND GUTTER SHALL BE CONSTRUCTED PER FDOT STANDARD PLANS INDEX 520-001. ALL TYPE "D" CURB SHALL HAVE A 3' STRAIGHT TRANSITION AT THE BEGINNING AND ENDING POINTS WHEN NOT CONNECTING TO TYPE "F" CURB AND GUTTER.
- ALL DIMENSIONS SHOWN ARE TO FACE OF CURB FOR TYPE "D" OR TYPE "F" CURB OR EDGE OF PAVEMENT FOR NO CURB, UNLESS OTHERWISE NOTED.
- ALL CURB RAMP AND SIDEWALKS ENTERING PARKING OR TRAVEL WAYS SHALL HAVE DETECTABLE WARNING SURFACES 2' DEEP AND THE WIDTH OF THE SIDEWALK. REFER TO FDOT 2019 STANDARD PLANS INDEX 522-022.
- ALL STOP BARS AND CROSSWALKS SHALL BE THERMOPLASTIC. ALL OTHER PAVEMENT MARKINGS ARE PAINT, UNLESS OTHERWISE NOTED.
- REFER TO LANDSCAPE PLANS FOR PLANTING AND DETAILS.
- PROPOSED ACCESSIBLE PARKING STALL WITH SIGNAGE AND WHEELSTOP PER CITY DETAILS RT 4.2 A+B
- ONCE 133 RD ROAD GETS DEVELOPED TO ITS MAX RIGHT OF WAY WIDTH WITH THE PROPOSED STOP BAR WILL NEED TO BE SHIFTED TO BE 4 FT BEHIND THE PROPERTY LINE

PARCEL INFORMATION				
PROJECT NAME	DELRAY TOWNHOMES			
ADDRESS	4652 133rd ROAD SOUTH, DELRAY BEACH, FL 33445			
PBC FOLIO #	12-42-46-12-00-000-3200			
ZONING DESIGNATION	RM-8 (MEDIUM DENSITY RESIDENTIAL)			
FUTURE LAND USE DESIGNATION	MD (MULTIPLE FAMILY RESIDENTIAL)			
PROPOSED DENSITY	25 UNITS/3.17 ACRES = 7.89 UNITS/ACRE			
LAND AREA GROSS	138,230 SF (3.173 ACRES)			
PROP. RIGHT-OF-WAY DEDICATION	5,542 SF (0.127 ACRES)			
LAND AREA NET	132,689 SF (3.046 ACRES)			
FEMA FLOOD CODE	X			
PROJECT AREAS				
	EXISTING:		PROPOSED:	
TOTAL AREA (SF)	132,689	100.0%	132,689	100.0%
IMPERVIOUS TOTAL (SF)	2,217	1.7%	80,298	60.5%
PAVEMENT	0	0.0%	47,675	35.9%
BUILDING	2,217	1.7%	32,623	24.6%
PERVIOUS (SF)	130,472	98.3%	52,391	39.5%
USABLE OPEN SPACE*(SF)	132,689	100.0%	75,041	56.6%
REQUIRED PARKING				
	RATIO:			STALLS
REQUIRED	2 STALLS PER UNIT			50
GUEST PARKING	0.5 STALL PER UNIT (FOR FIRST 20 UNITS)			10
GUEST PARKING	0.3 PER UNIT (FOR UNITS 20 - 50)			2
TOTAL REQUIRED				62
PROVIDED PARKING				
	RATIO:			STALLS
GARAGE PARKING	1 STALLS PER UNIT (1 CAR GARAGE)			25
DRIVEWAY	2 STALL PER UNIT			50
CLUB HOUSE PARKING	N/A			3
ADA PARKING	9 REQ. GUEST SPACES - 1 ADA PARKING SPACE REQ.			1
PARKING PROVIDED				79
BUILDING INFORMATION				
TYPE OF UNIT:	NUMBER OF UNITS:		HEIGHT: (MAX 35')	SIZE: (SF)
2 BEDROOM (MIN. 900 SF)	5		25'-4" (25.33)	1,291
3 BEDROOM (MIN. 1,250 SF)	20		25'-4" (25.33)	1,690
LOT SIZE				
	CODE REQUIREMENT:		PROVIDED:	
LOT SIZE	8,000 SF MINIMUM		132,689 SF	
LOT WIDTH	60' MINIMUM		221.6'	
LOT DEPTH	100' MINIMUM		599.3'	
LOT COVERAGE	40% MAXIMUM		24.6%	
USABLE OPEN SPACE	25% MINIMUM		56.6%	
BUILDING SETBACKS PER 4.4.6(F)				
	REQUIRED:		PROVIDED:	
FRONT	25'		25.0'	
SIDE*	18.75' (25% addition)		18.75'	
SIDE*	18.75' (25% addition)		18.75'	
REAR	30'		55.1'	
*25% INCREASE DUE TO ADJACENT RESIDENTIAL ZONING DISTRICT HAS A LOWER DENSITY				



TYPICAL BUILDING AND DRIVEWAY DIMENSIONS

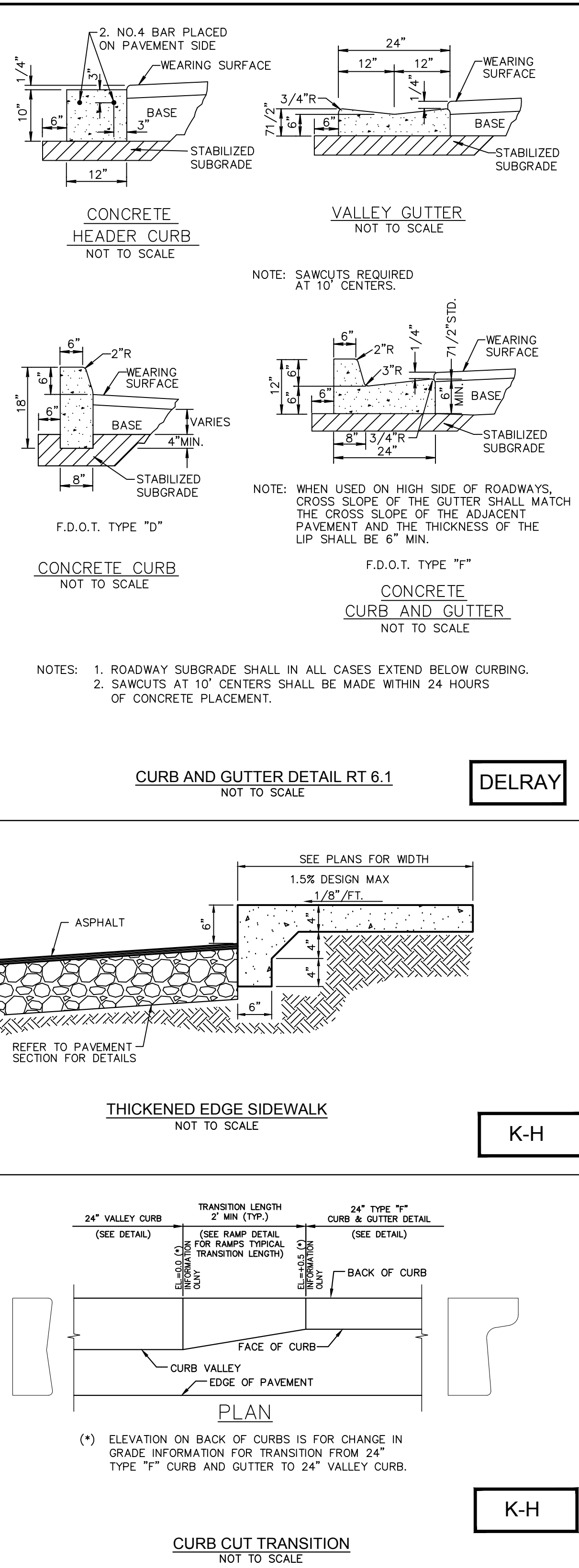
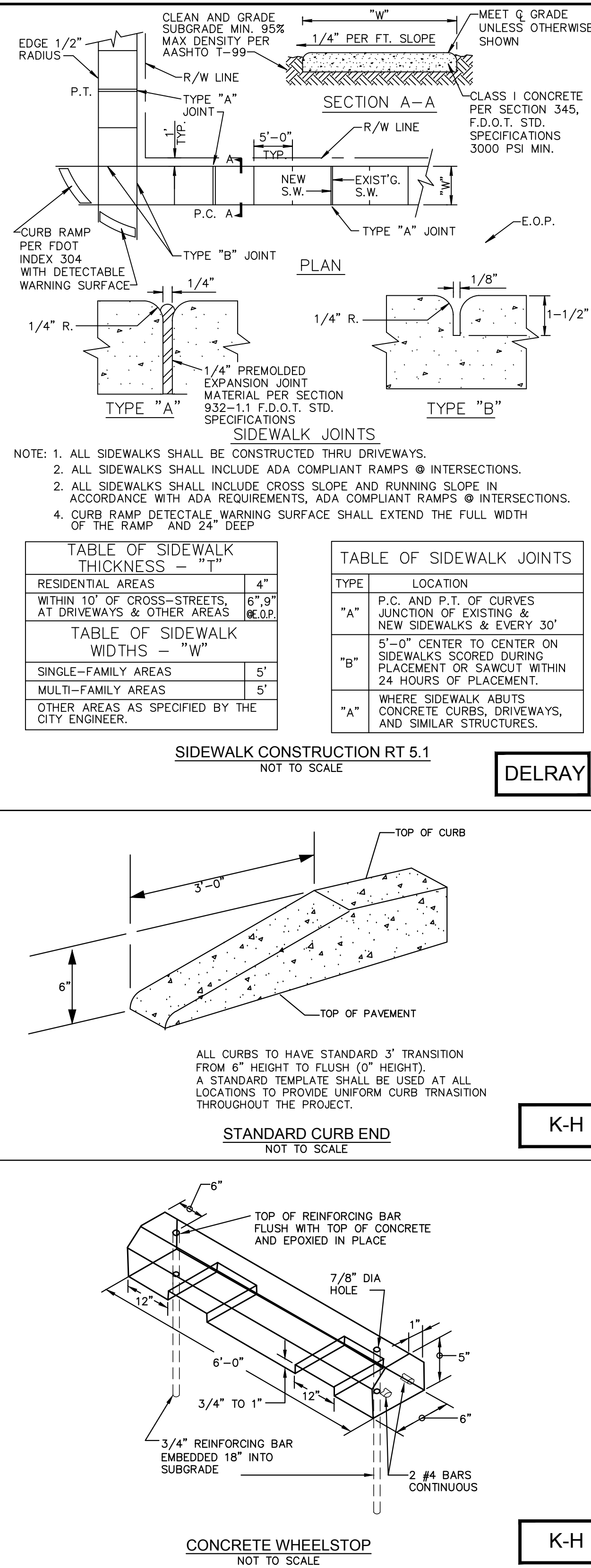
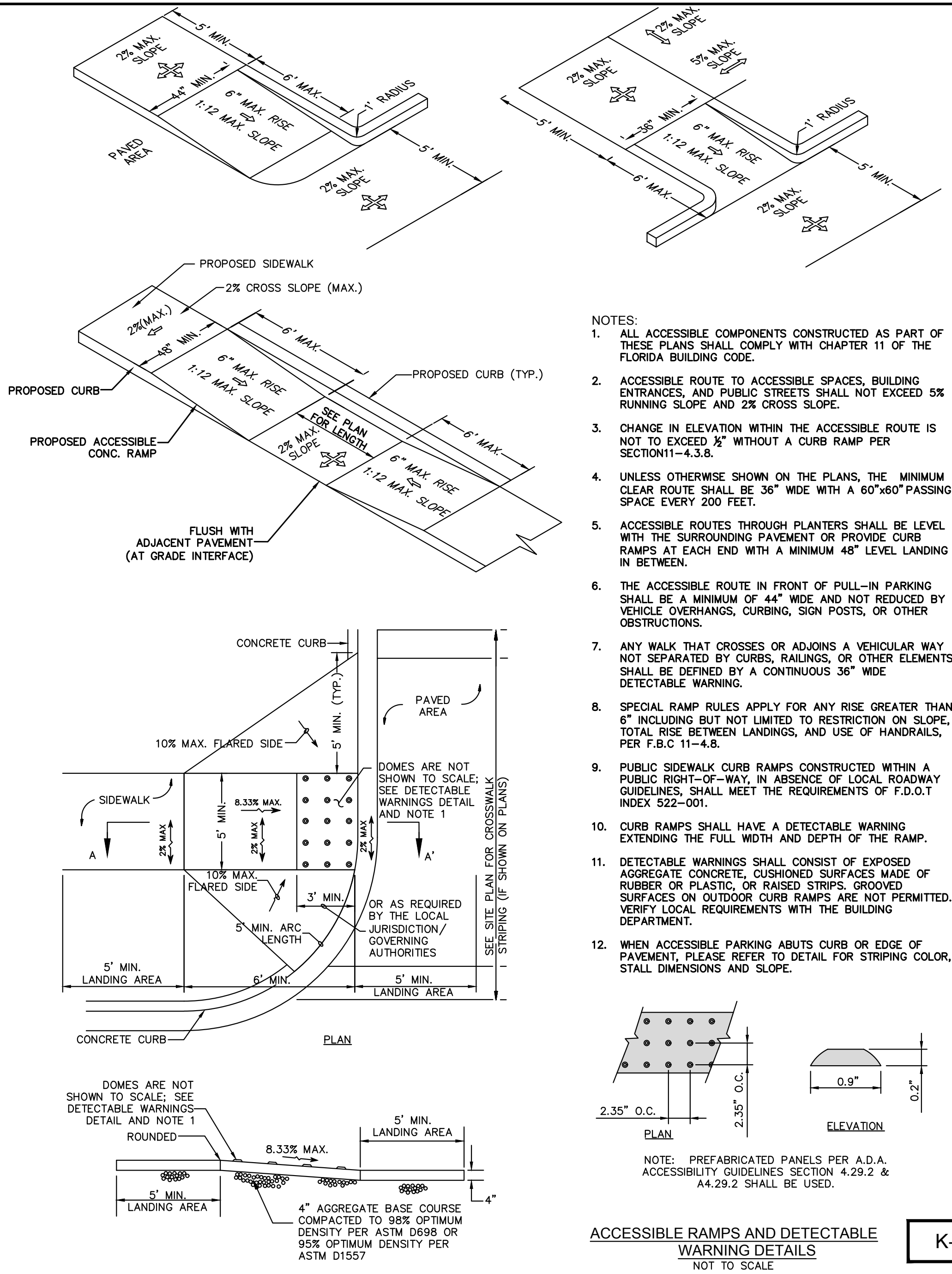
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KHA PROJECT 140726000	DATE JUNE 2023	SCALE AS SHOWN	DESIGNED BY YXY	DRAWN BY TVC	CHECKED BY JAW	DATE ---	REVISIONS No.	CITY OF DELRAY BEACH CHANGES 03/13/2023 JVD	CITY OF DELRAY BEACH CHANGES 09/26/2022 MCR	CITY OF DELRAY BEACH CHANGES 04/06/2021 TVC	CITY OF DELRAY BEACH CHANGES 02/02/2021 TVC	DATE BY											
SITING PLAN								CITY OF DELRAY BEACH CHANGES 03/13/2023 JVD				DATE BY											
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Plotted By: Damore, John Sheet Set: DELRAY TOWNHOMES Layout: C2.01 GENERAL NOTES June 29, 2023 02:03:52pm K:\BCD_GWIN\140726000 -- Delray Townhomes\CADD\PlanSheets\C1.00 GENERAL NOTES.dwg This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

WATER AND SEWER UTILITY NOTES

1. ALL CONSTRUCTION SHALL MEET OR EXCEED THE LOCAL WATER AND SEWER REQUIREMENTS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE SPECIFICATIONS AND DETAILS FROM THE LOCAL AGENCY.

2. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, MANHOLES, GRAVITY SEWER LINES, FORCE MAIN, DOMESTIC WATER, RECLAIMED WATER, AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

3. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE HE COMMENCES ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.

4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.

5. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING OF ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

6. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.

7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.

8. UNDERGROUND LINES SHALL BE AS-BUILT BY A STATE OF FLORIDA PROFESSIONAL LAND SURVEYOR BEFORE BACK FILLING.

9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, ENGINEER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.

10. ALL SANITARY MANHOLE TOPS ARE TO READ "SANITARY".

11. ALL PIPES AND CONNECTIONS ARE TO BE RESTRAINED IN ACCORDANCE WITH THE DETAILS OR JURISDICTIONAL AGENCY REQUIREMENTS, WHICHEVER IS MOST STRINGENT.

12. ALL WATER DISTRIBUTION SYSTEM MATERIALS (INCLUDING SERVICES) AND INSTALLATION SHALL CONFORM TO THE SPECIFICATIONS OF THE LOCAL WATER PROVIDER AS PROVIDED IN THEIR STANDARD SPECIFICATIONS MANUAL AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN SPECIFICATION MANUALS PRIOR TO BIDDING THE PROJECT.

13. ALL POTABLE WATER PIPE AND PIPE FITTINGS INSTALLED UNDER THIS PROJECT WILL BE COLOR CODED OR MARKED IN ACCORDANCE WITH F.A.C. 62-555.320(21)(b)3, USING BLUE AS THE PREDOMINANT COLOR. (UNDERGROUND PLASTIC PIPE WILL BE SOLID-WALL BLUE PIPE WILL HAVE A CO-EXTRUDED BLUE EXTERNAL SKIN, OR WILL BE WHITE OR BLACK WITH BLUE STRIPES INCORPORATED INTO, OR APPLIED TO, THE PIPE WALL. PIPE STRIPED DURING THE MANUFACTURING OF THE PIPE WILL HAVE CONTINUOUS STRIPES THAT RUN PARALLEL TO THE AXIS OF THE PIPE, THAT ARE LOCATED AT NO GREATER THAN 90-DEGREE INTERVALS AROUND THE PIPE, AND THAT WILL REMAIN INTACT DURING AND AFTER INSTALLATION OF THE PIPE. IF TAPE OR PAINT IS USED TO STRIPE PIPE DURING AND AFTER INSTALLATION OF THE PIPE, THE TAPE OR PAINT WILL BE APPLIED IN A CONTINUOUS LINE THAT RUNS PARALLEL TO THE AXIS OF THE PIPE AND THAT IS LOCATED ALONG THE TOP OF THE PIPE; FOR PIPE WITH AN INTERNAL DIAMETER OR 24" OR GREATER, TAPE OR PAINT WILL BE APPLIED IN CONTINUOUS LINES ALONG EACH SIDE OF THE PIPE AS WELL AS ALONG THE TOP OF THE PIPE. ABOVEGROUND PIPE WILL BE PAINTED BLUE OR WILL BE COLOR CODED OR MARKED LIKE UNDERGROUND PIPE.

14. ALL FORCE MAINS AND WATER MAINS ARE DESIGNED FOR A MINIMUM WORKING PRESSURE OF 150 PSI, HAVE COMPRESSION TYPE BELL JOINTS AND BE EITHER ANSI/AWWA C-151/A21.51-02 DUCTILE IRON PIPE (D.I.P.), CLASS 50 FOR 6" DIAMETER PIPE AND LARGER AND CLASS 51 IF PIPE DIAMETER IS SMALLER THAN 6" OR ANSI/AWWA C-900-97, PVC PIPE WITH A MAXIMUM SDR OF 18. ALL D.I.P. WATER MAINS SHALL BE CEMENT LINED AND SEAL COATED IN ACCORDANCE WITH ANSI/AWWA STANDARDS. ALL D.I.P. FORCE MAINS SHALL BE COATED OUTSIDE WITH A BITUMINOUS COATING APPROXIMATELY ONE MIL THICK IN ACCORDANCE WITH ANSI 21.51-8. CEMENT MORTAR LININGS ARE NOT APPROPRIATE FOR THIS APPLICATION. ALL D.I.P. FORCE MAINS AND GRAVITY SEWER MAINS SHALL BE COATED INSIDE WITH POLYBOND VIRGIN POLYETHYLENE COMPLYING WITH A.S.T.M. DESIGNATION D 1248 AND HAVE A MINIMUM "N" VALUE OF 0.012. SEE PROJECT SPECIFICATIONS MANUAL FOR MORE DETAILS. OR PROTECTOR 401 CEREMIC EPOXY. ALL D.I.P. PIPE SHALL BE LAID WITH A MINIMUM OF 30" CLEAR COVER. ALL PVC PIPE SHALL BE LAID WITH A MINIMUM OF 36" CLEAR COVER.

15. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT WILL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER, STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER; A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER (OR A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY-TYPE SANITARY SEWER IF THE BOTTOM OF THE WATER MAIN WILL BE LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER); A HORIZONTAL DISTANCE OF AT LEAST SIX FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.

16. NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES ABOVE THE OTHER PIPELINE OR AT LEAST 12 INCHES BELOW THE OTHER PIPELINE; NEW OR RELOCATED, UNDERGROUND WATER MAINS INCLUDED IN THIS PROJECT THAT WILL CROSS ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER WILL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OTHER PIPELINE.

17. THE WATER SYSTEM SHALL BE CLEANED OF DEBRIS, FLUSHED AND TESTED FOR A PERIOD OF NOT LESS THAN 2 HOURS AT 150 PSI WITH AN ALLOWABLE LEAKAGE NOT TO EXCEED THE ALLOWABLE GAL/HR IN ACCORDANCE WITH THE ANSI/AWWA C-600-05 STANDARD SECTION 4.2.2.

(EQUATION L = $\frac{SD\sqrt{P}}{148,000}$)

L = ALLOWABLE LEAKAGE, GALLONS/HOUR

S = LENGTH OF PIPE TESTED, FEET

D = NOMINAL DIAMETER, INCHES

P = AVERAGE TEST PRESSURE, LB/IN GUAGE

18. AFTER THE PRESSURE TEST, THE SYSTEM SHALL BE DISINFECTED. DISINFECTION SHALL BE IN ACCORDANCE W/ANSI/AWWA C651-05 STD. BACTERIOLOGICAL TESTS SHALL BE TAKEN TWO (2) CONSECUTIVE DAYS, AT LEAST 24 HOURS APART AND SHALL BE AT LEAST ONE SAMPLE PER 1,200 FEET OF MAIN IN THE SYSTEM. THE SAMPLE SHALL HAVE A HETEROTROPHIC PLATE COUNT (HPC) LESS THAN 500 CFU/ML AND SHALL BE FREE OF COLIFORM BACTERIA.

19. AT THE TIME OF BACTERIOLOGICAL SAMPLING, CHLORINE RESIDUAL DETERMINATION SHALL BE MADE TO INSURE THAT CHLORINE CONCENTRATION IN THE MAIN IS NO HIGHER THAN THAT GENERALLY IN THE SYSTEM (4.0 MG/L FREE OR 4.0 MG/L COMBINED MAXIMUM), OR LESS THAN 0.2 MG/L FREE OR 0.6 MG/L COMBINED. THE RESULT SHALL BE REPORTED ALONG WITH THE BACTERIOLOGICAL TEST RESULTS. ALL TESTING SHALL BE COORDINATED AND PAID FOR BY THE CONTRACTOR.

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GENERAL NOTES

DELRAY
TOWNHOMES
PREPARED FOR
OCEAN RIDGE RENTALS
FLORIDA
DELRAY BEACH

SHEET NUMBER
C2.01

KHA PROJECT
140726000
DATE
JUNE 2023
SCALE
AS SHOWN
DESIGNED BY
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DRAWN BY
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DATE
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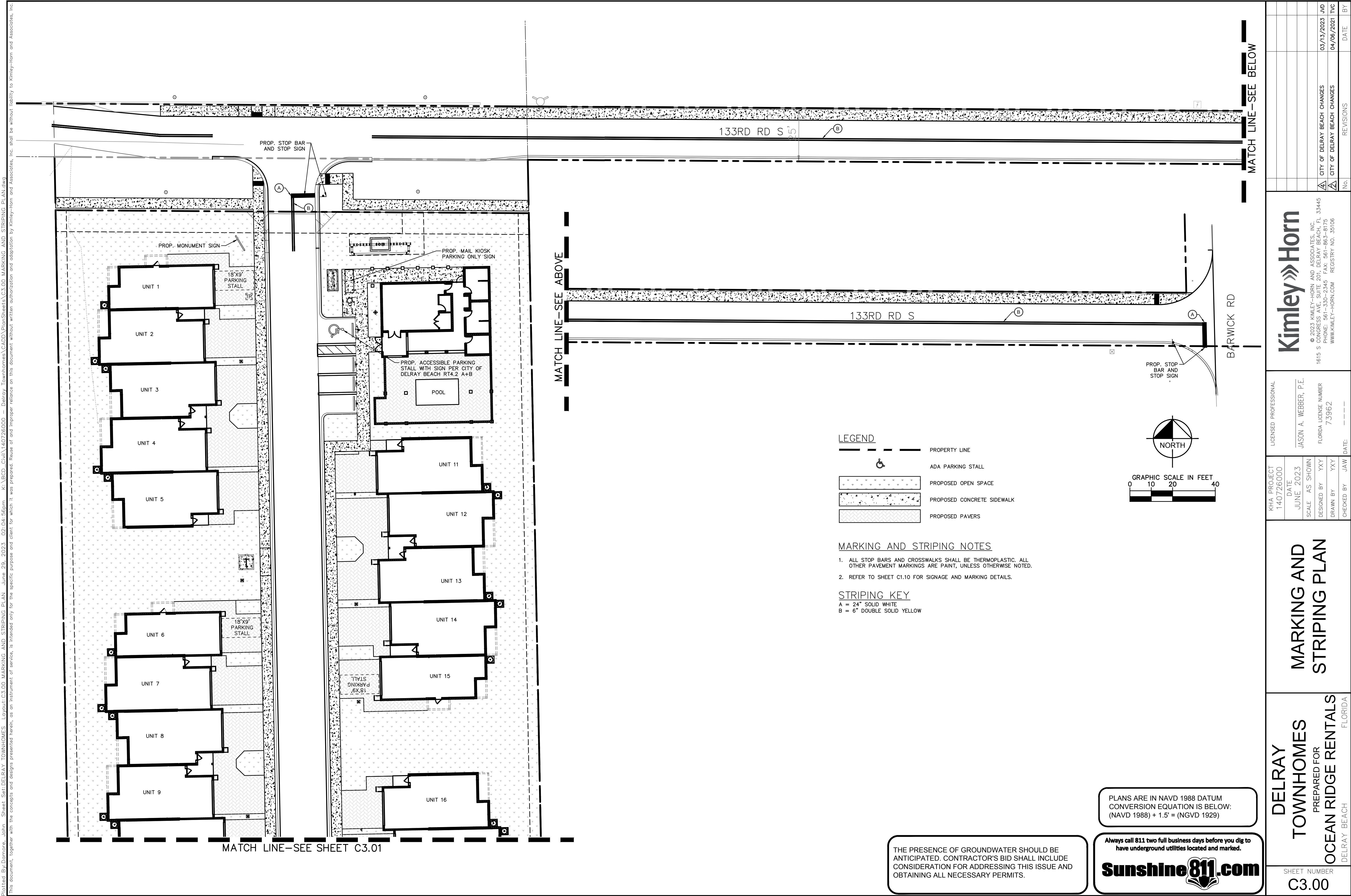
LICENSED PROFESSIONAL

JASON A. WEBBER, P.E.
FLORIDA LICENSE NUMBER
73962

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MATCH LINE—SEE SHEET C3.00

UNIT 10

UNIT 17

UNIT 18

UNIT 19

UNIT 20

UNIT 21

UNIT 22

UNIT 23

UNIT 24

UNIT 25

PARKING STALL

PARKING STALL

PROP. STOP BAR AND STOP SIGN

PROP. "NO PARKING" SIGN

PROP. "NO PARKING" SIGN

PROPERTY LINE

ADA PARKING STALL

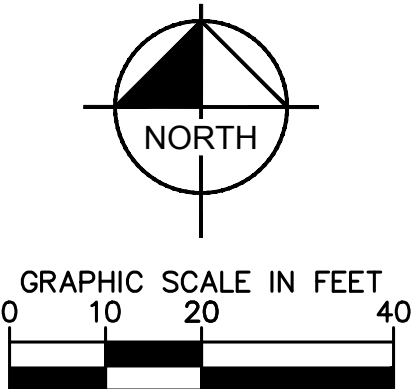
PROPOSED OPEN SPACE

PROPOSED CONCRETE SIDEWALK

PROPOSED PAVERS

1. ALL STOP BARS AND CROSSWALKS SHALL BE THERMOPLASTIC. ALL OTHER PAVEMENT MARKINGS ARE PAINT, UNLESS OTHERWISE NOTED.
2. REFER TO SHEET C1.10 FOR SIGNAGE AND MARKING DETAILS.

A = 24" SOLID WHITE
B = 6" DOUBLE SOLID YELLOW



THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

PLANS ARE IN NAVD 1988 DATUM
CONVERSION EQUATION IS BELOW:
(NAVD 1988) + 1.5' = (NGVD 1929)

Always call 811 two full business days before you dig to have underground utilities located and marked.

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DELRAY
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DELRAY BEACH
FLORIDA

MARKING AND STRIPING PLAN

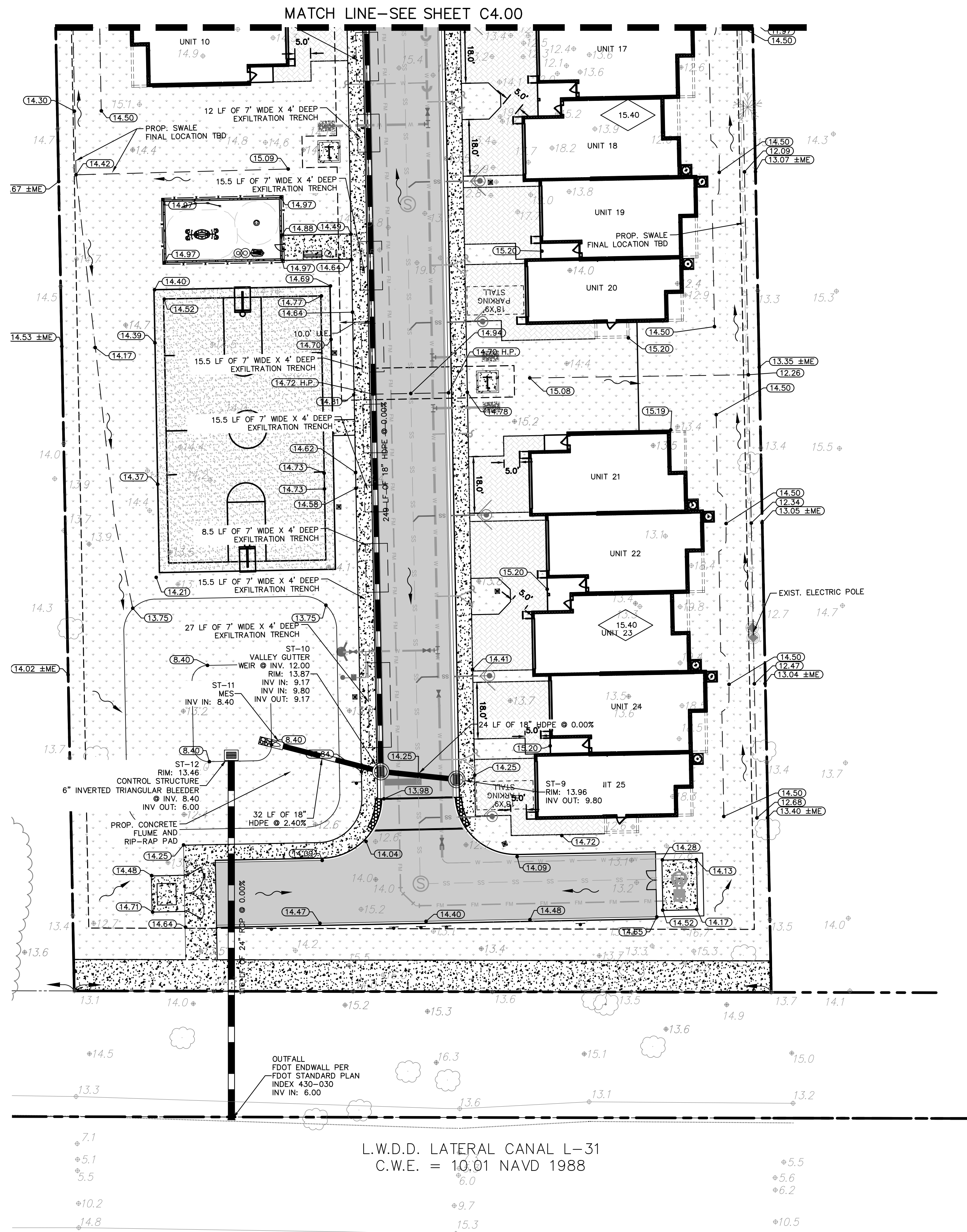
KHA PROJECT 140726000	DATE JUNE 2023	SCALE AS SHOWN	DESIGNED BY YXY	DRAWN BY YXY	CHECKED BY JAW	LICENSED PROFESSIONAL 140726000
JASON A. WEBBER, P.E.						FLORIDA LICENSE NUMBER 73962
DATE: --- --						

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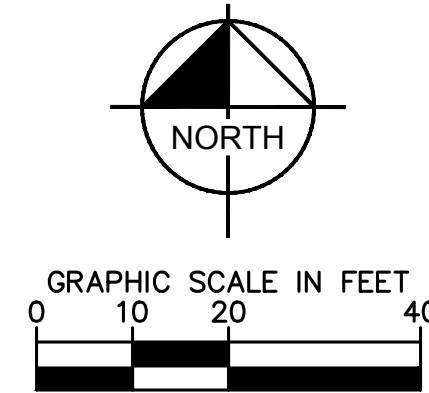
No.	REVISIONS	DATE	BY
④	CITY OF DELRAY BEACH CHANGES	03/13 /2023	JD
④	CITY OF DELRAY BEACH CHANGES	04/06/2021	TVC

Plotted By: Danmore, John Sheet Set: DELRAY TOWNHOMES - Layout: C4.01 PGD PLAN Date: June 29, 2023 02:05:40pm K:\BDCD_CWA\140726000 - Delray Townhomes\CADD\PlanSheets\C4.00 PAVING GRADING DRAINAGE PLAN.dwg
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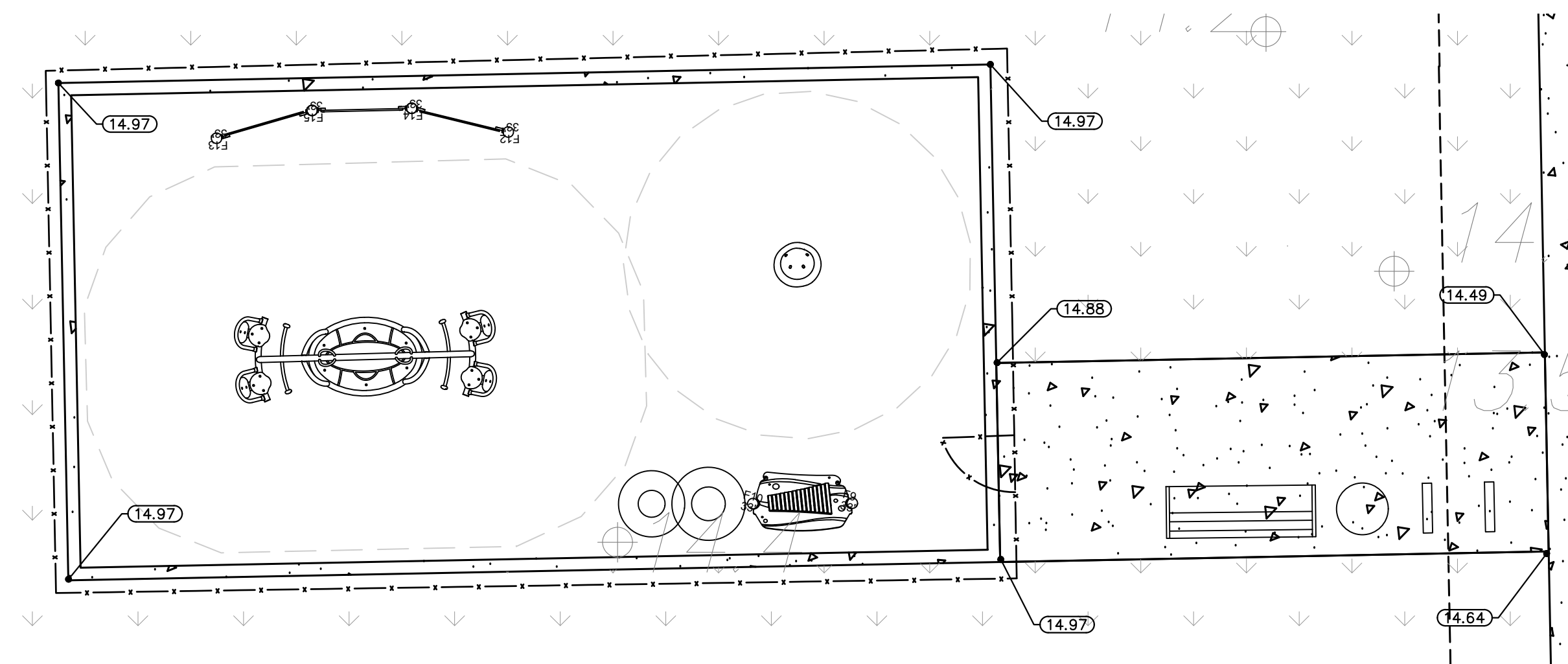
LEGEND

	PROPERTY LINE
	EXISTING DRAINAGE
	PROPOSED DRAINAGE
	SANITARY SEWER
	WATER MAIN
	PROPOSED ASPHALT (SEE DETAIL ON SHEET C5.11)
	PROPOSED CONCRETE SIDEWALK
	PROPOSED HEAVY DUTY CONCRETE
	FLOW ARROW
	PROPOSED MANHOLE
	PROPOSED INLET
	BUILDING FINISH FLOOR ELEVATION

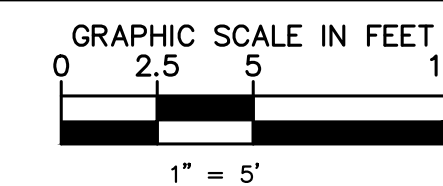


PAVING, GRADING, AND DRAINAGE NOTES:

- DRAINAGE STRUCTURES SHALL BE CONSTRUCTED USING U.S. PRECAST (USP), U.S. FOUNDRY (USF), OR FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD (FDOT) PRODUCTS AS SPECIFIED OR APPROVED EQUAL.
- ALL STORM STRUCTURES SHALL HAVE A MINIMUM 18" SUMP.
- ALL STORM PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) OR HIGH PERFORMANCE (HP) HIGH DENSITY POLYETHYLENE (HDPE) PIPE UNLESS OTHERWISE NOTED. ANY INSERTA-TEES MAY BE REPLACED WITH HDPE TEES IF HDPE IS USED.
- ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURES UNLESS OTHERWISE NOTED.
- THE CROSS SLOPE ON ADA ACCESSIBLE ROUTES SHALL NOT EXCEED 1.75%. THE LONGITUDINAL SLOPE ON ADA ACCESSIBLE ROUTES (NOT INCLUDING RAMPS) SHALL NOT EXCEED 4.50%. THE LONGITUDINAL SLOPE FOR RAMPS SHALL NOT EXCEED 12:1.
- PROPOSED ELEVATIONS IN ALL PERVIOUS AREAS REPRESENT FINISHED TOP OF SOD/GRASS OR ANY OTHER LANDSCAPING MATERIAL.
- CONTRACTOR SHALL PROVIDE ALL FITTINGS, COUPLINGS, OR ADAPTERS NECESSARY TO CONNECT TO THE BUILDING PLUMBING AND TO CONNECT ROOF LEADERS TO THE MAIN STORM LINES.
- CONTRACTOR SHALL SUPPORT AND PROTECT ALL EXISTING AND PROPOSED UTILITIES WHEN CONSTRUCTING NEW DRAINAGE STRUCTURES AND PIPES.
- ALL CATCH BASINS AND DRAINAGE COLLECTION STRUCTURES SHALL BE DESIGNED WITH A 18" VERTICAL SUMP FROM THE INVERT ELEVATION (OR BOTTOM OF BAFFLE) TO THE BOTTOM OF THE STRUCTURE. IN ADDITION, A TWELVE INCH (12") DIAMETER OPEN SUMP, FILLED WITH WASHED GRADE ROCK, NO LARGER THAN ONE AND ONE HALF INCHES 1 1/2" SHALL BE PLACED IN THE BASE OF THE STRUCTURE.
- ANY TREES OR SHRUBS PLACED WITHIN WATER, SEWER OR DRAINAGE EASEMENTS SHALL CONFORM TO THE CITY OF DELRAY BEACH STANDARD DETAILS; LD 1.1 & LD 1.2.
- TOP OF LANDSCAPED OR SODDED AREA AGAINST BUILDING SHALL BE MIN. 4" BELOW FINISH FLOOR ELEVATION AND AGAINST SIDEWALK SHALL BE MIN. 2" BELOW FINISH GRADE.



BLOW UP A - PLAYGROUND GRADING



THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

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Always call 811 two full business days before you dig to have underground utilities located and marked.

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PRELIMINARY
PAVING, GRADING,
AND DRAINAGE
PLAN

DELRAY
TOWNHOMES
PREPARED FOR
OCEAN RIDGE RENTALS
FLORIDA
DELRAY BEACH

SHEET NUMBER
C4.01

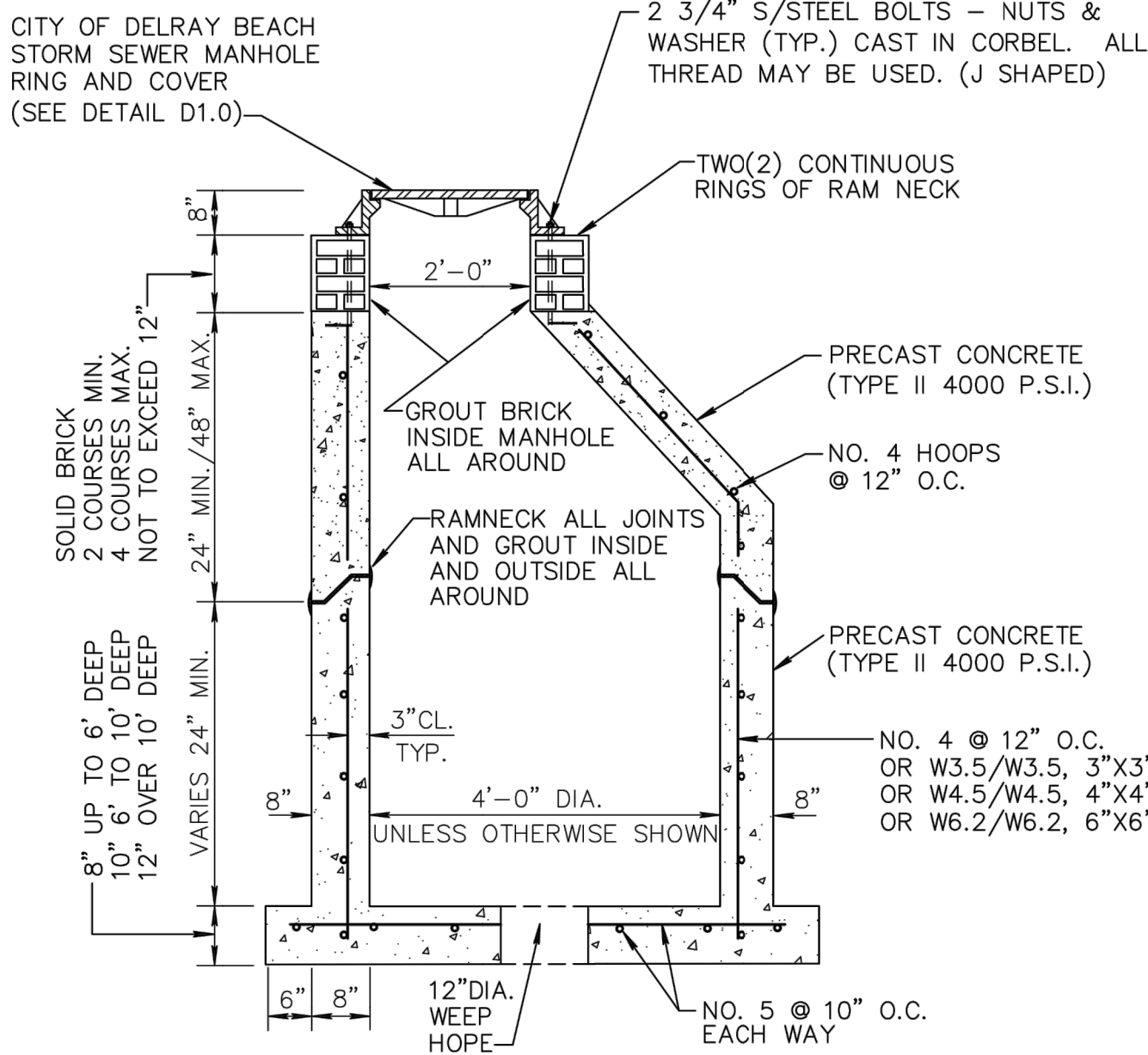
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LICENSED PROFESSIONAL
KHA PROJECT
140726000
DATE
JUNE 2023
SCALE
AS SHOWN
DESIGNED BY
YXY
DRAWN BY
TVC
CHECKED BY
JAW
DATE

NO.	REVISIONS	DATE	BY
1	CITY OF DELRAY BEACH CHANGES	03/13/2023	JVD
2	CITY OF DELRAY BEACH CHANGES	02/02/2021	TVC

Plotted By: Damore, John Sheet Set: DELRAY TOWNHOMES Layout: C5.11 PAVING GRADING AND DRAINAGE DETAILS June 29, 2023 02:05:59pm K:\NBD_Civil\140726000 - Delray Townhomes\CADD\PlanSheets\C5.11 PAVING GRADING DRAINAGE DETAILS.dwg This document, together with the concepts and designs presented herein, is an instrument of service, and is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



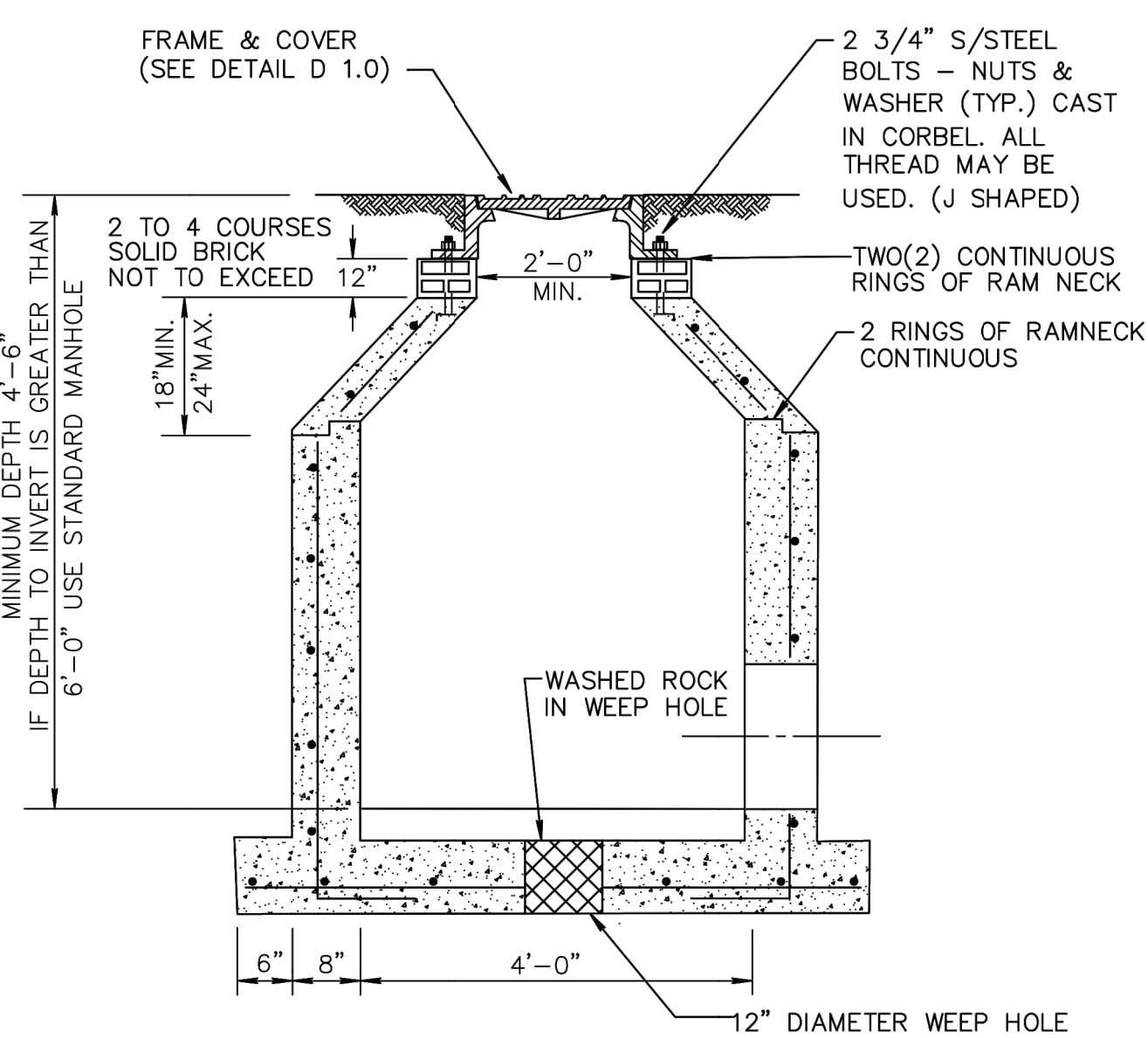
- NOTES:**
- 1. FOR PIPES UP TO 36" R.C.P.
 - 2. 12" DIA. WEEP HOLE REQUIRED ON ALL STRUCTURES WHICH HAVE BOTTOM ELEVATIONS ABOVE THE WATER TABLE. HARDWARE CLOTH SHALL BE PROVIDED ABOVE BEDDING ROCK AND UNDER WEEP HOLE. EXCEPT IN WELL FIELDS.
 - 3. 18" SUMP REQUIRED ON ALL STRUCTURES.
 - 4. IF THE STRUCTURE IS INSTALLED IN WATER TABLE MUST HAVE BEDDING. (SEE DETAIL BEDDING D 4.0)



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
404 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

STORM SEWER MANHOLE

DATE: 09-15-2021
D 2.0



* SEE TYPICAL BACKFILL DETAIL GU 2.0

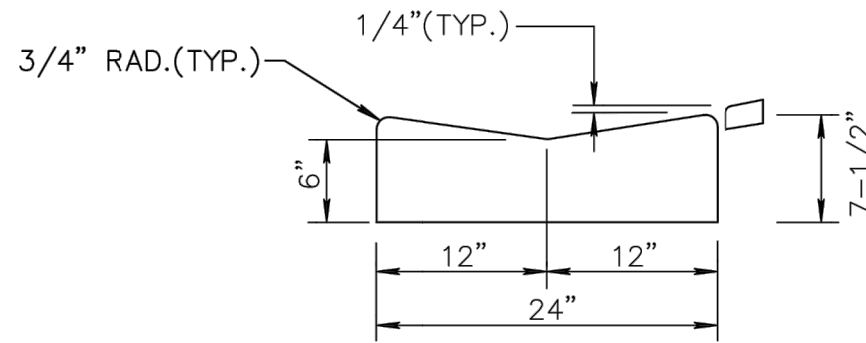
- NOTE:**
- 1. ALL STANDARD MANHOLE NOTES AND DETAILS ARE APPLICABLE. (SEE DETAIL D 2.0)
 - 2. IF THE STRUCTURE IS INSTALLED IN WATER TABLE MUST HAVE BEDDING. (SEE DETAIL BEDDING D 4.0)



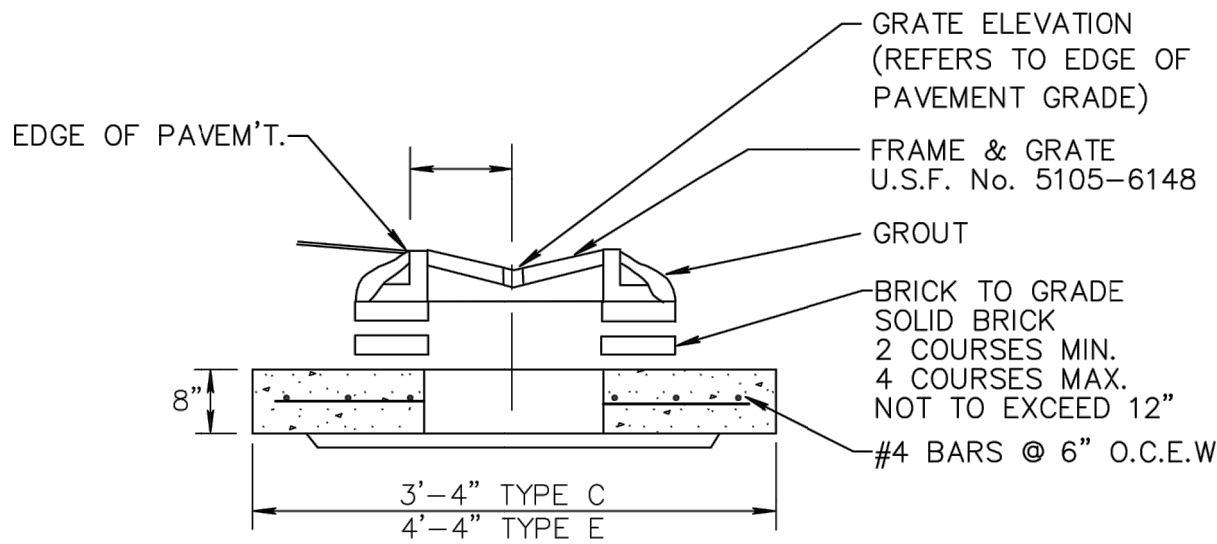
CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
404 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

SHALLOW MANHOLE

DATE: 09-15-2021
D 3.0



2' VALLEY CURB
NOT TO SCALE



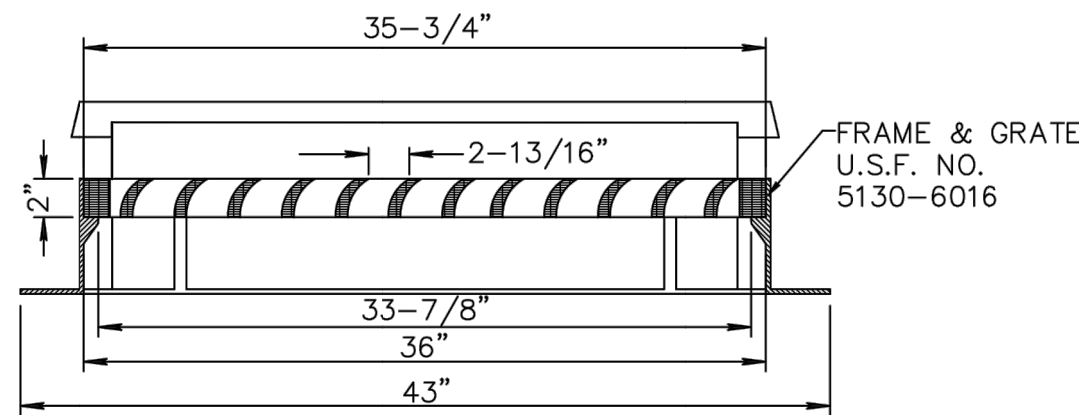
VALLEY GUTTER FRAME & GRATE
NOT TO SCALE



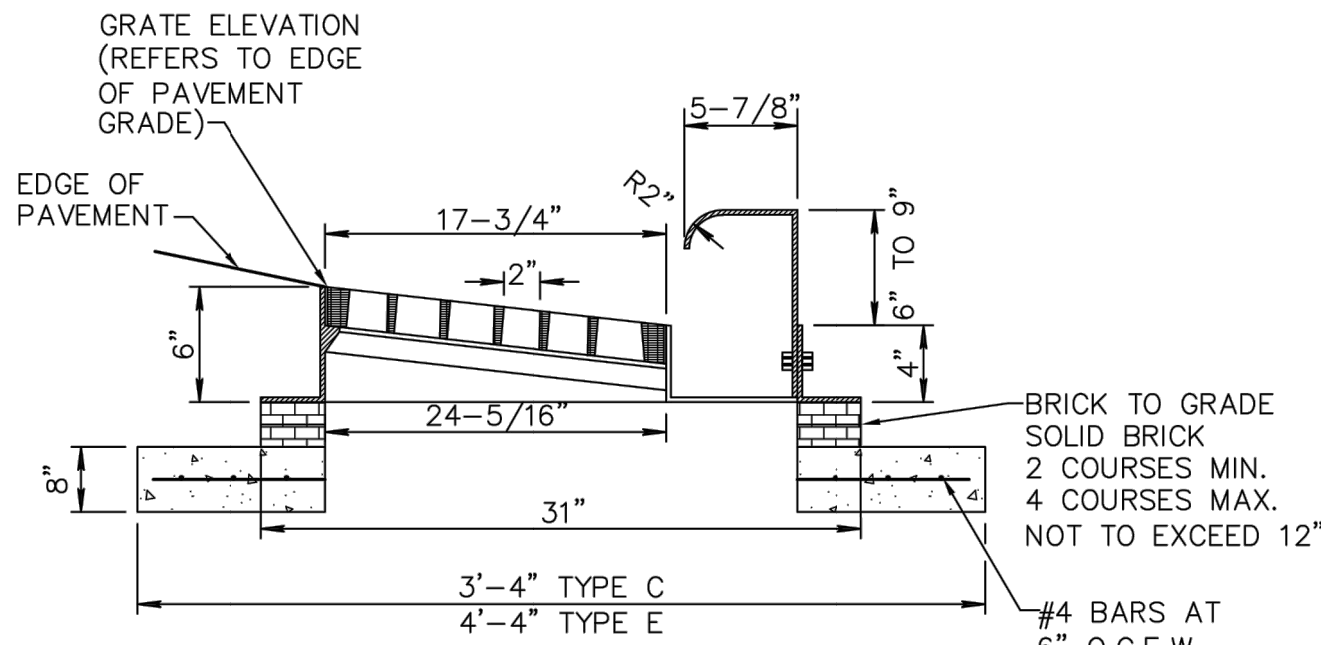
CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
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TYPE C & E INLET
VALLEY GUTTER & GRATE DETAILS

DATE: 09-15-2021
D 5.0



TYPE "F" FRAME & GRATE
NOT TO SCALE



TYPE "F" FRAME & GRATE PROFILE
NOT TO SCALE

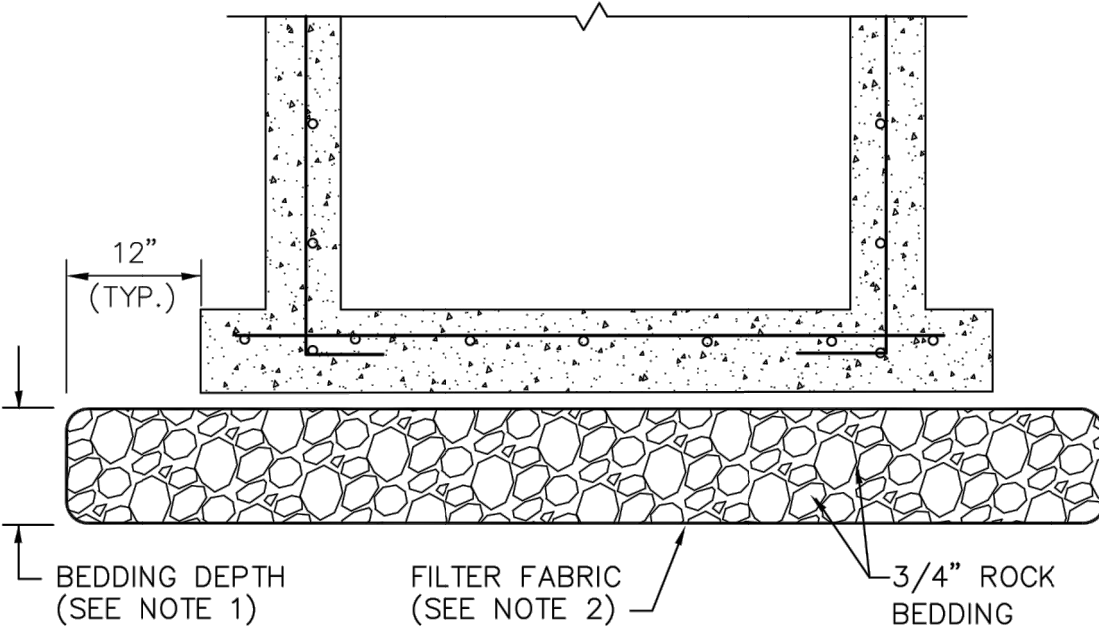
- 1. U.S.F. NO. 6016 GRATE MAY BE INSTALLED WITH VANE SLOTS FOR LEFT OR RIGHT FLOW.



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TYPE C & E INLET
TYPE "F" CURB FRAME & GRATE

DATE: 09-15-2021
D6.0



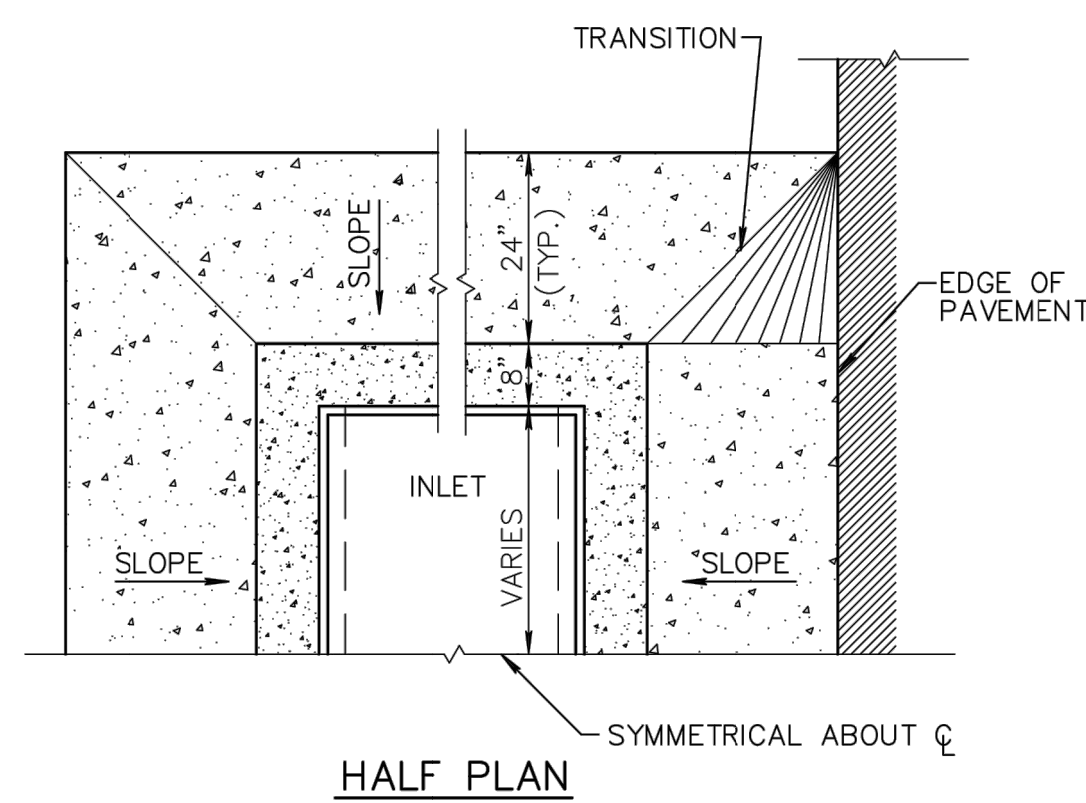
- NOTES:**
- 1. BEDDING DEPTH SHALL BE 10" UNDER DRAINAGE STRUCTURES AND 18" UNDER SANITARY STRUCTURES.
 - 2. ROCK SHALL BE WRAPPED IN FILTER FABRIC THAT MEETS THE REQUIREMENTS OF F.D.O.T. SPECIFICATION SECTION 985.



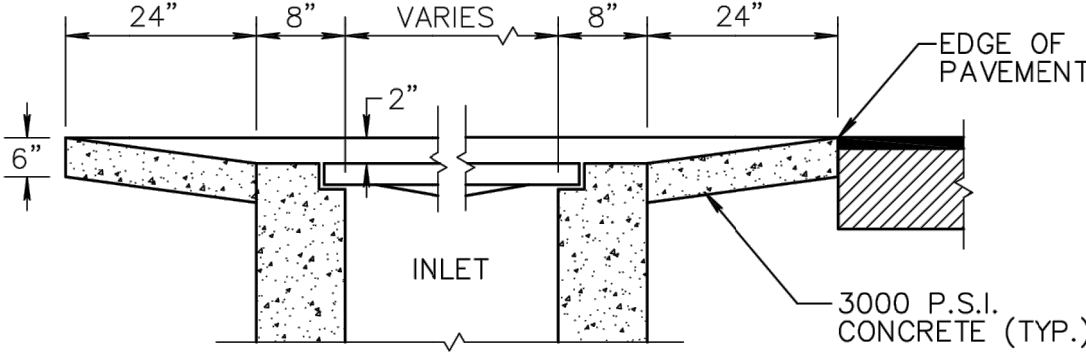
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PUBLIC WORKS DEPARTMENT
404 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

STANDARD BEDDING DETAIL

DATE: 09-15-2021
D 4.0



SECTION



INLET APRON DETAIL

DATE: 09-15-2021
D7.0



CITY of DELRAY BEACH
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DELRAY TOWNHOMES
PREPARED FOR
OCEAN RIDGE RENTALS
FLORIDA
DELRAY BEACH

**PAVING, GRADING
AND DRAINAGE
DETAILS**

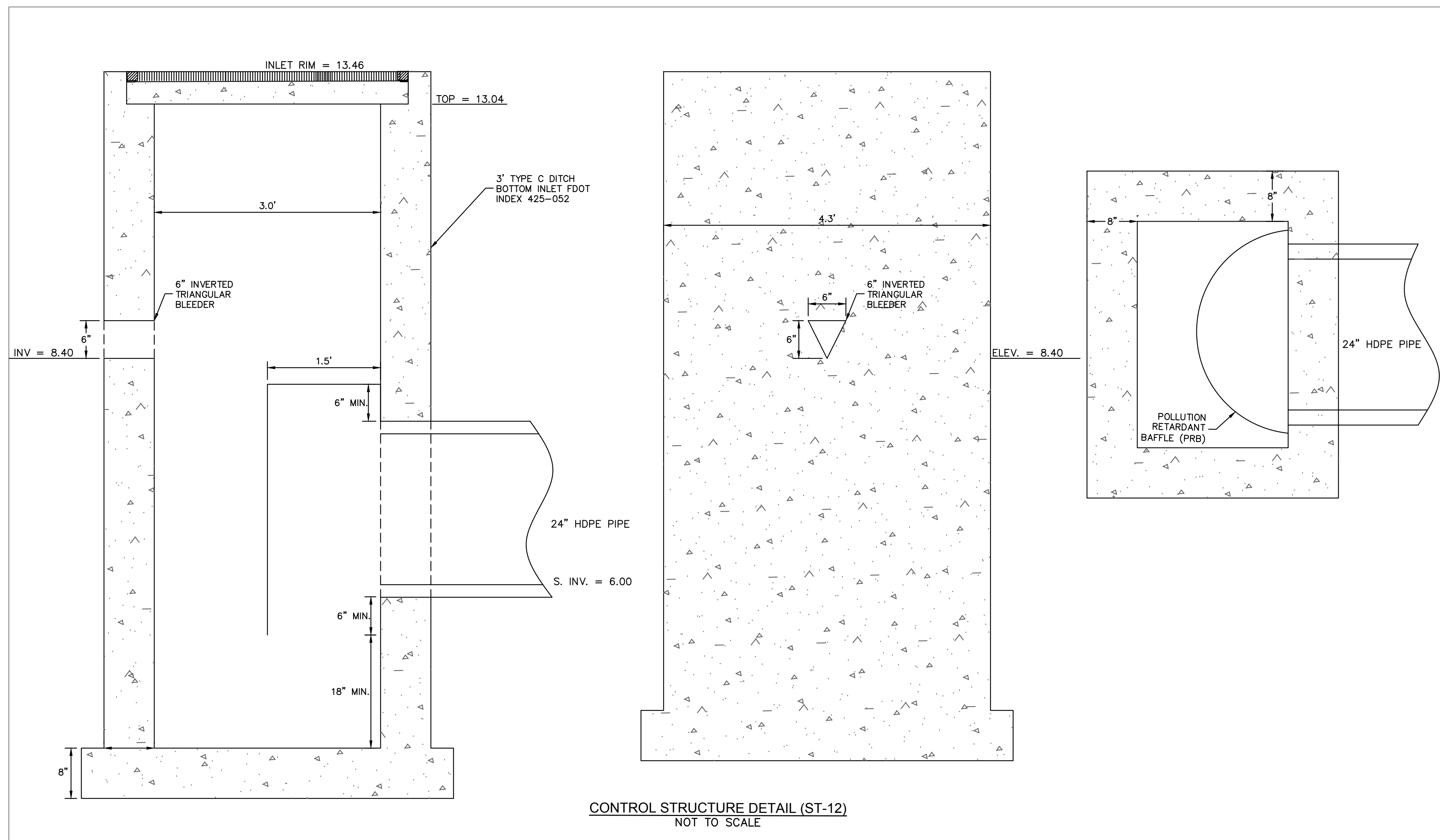
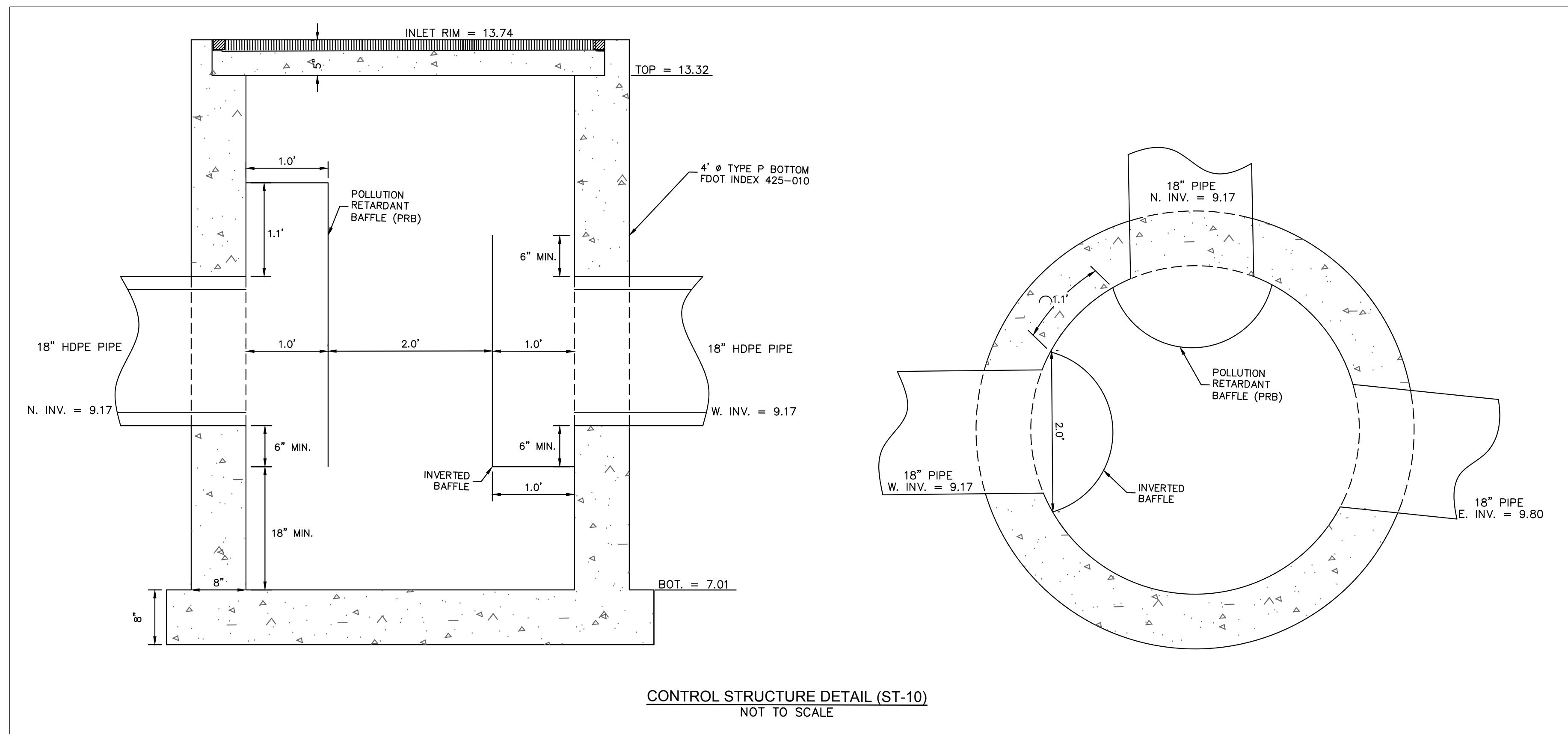
KHA PROJECT
140726000
DATE
JUNE 2023
SCALE
AS SHOWN
DESIGNED BY
YXY
DRAWN BY
TVC
CHECKED BY
JAW
DATE

LICENSED PROFESSIONAL
JASON A. WEBBER, P.E.
FLORIDA LICENSE NUMBER
73962

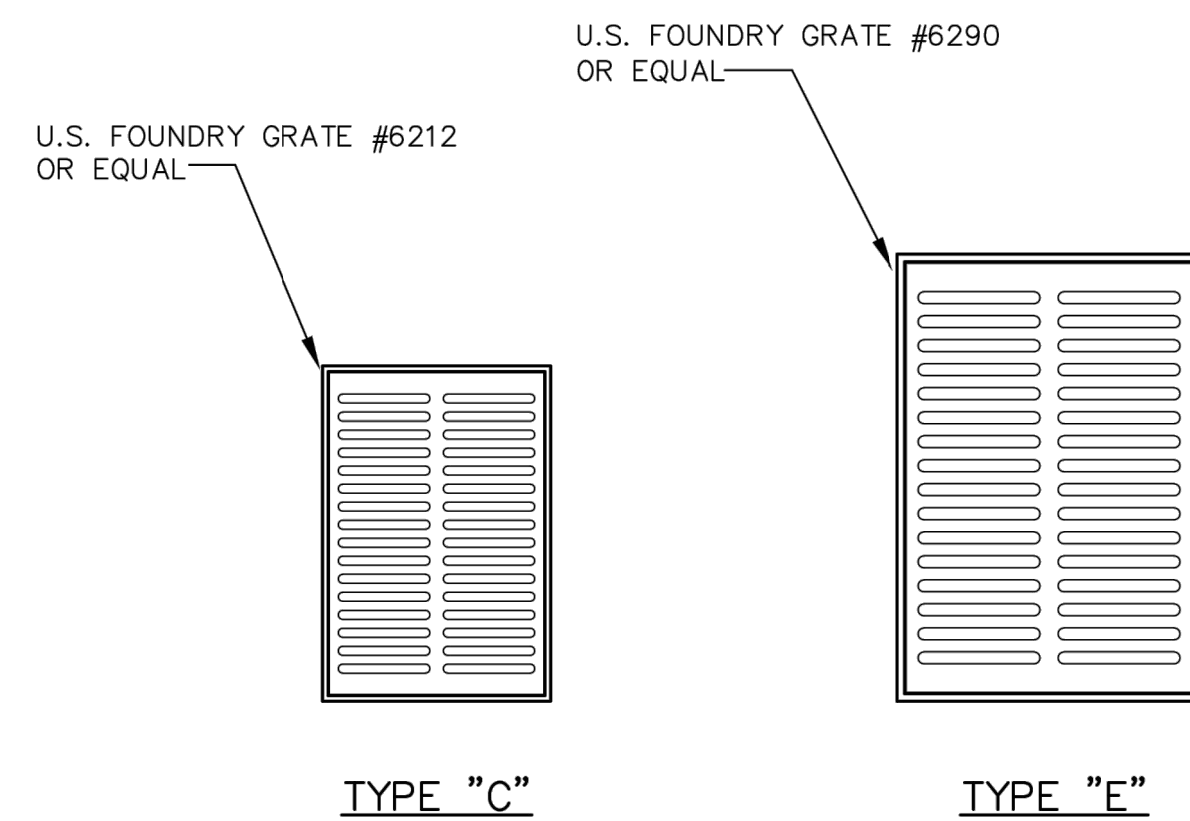
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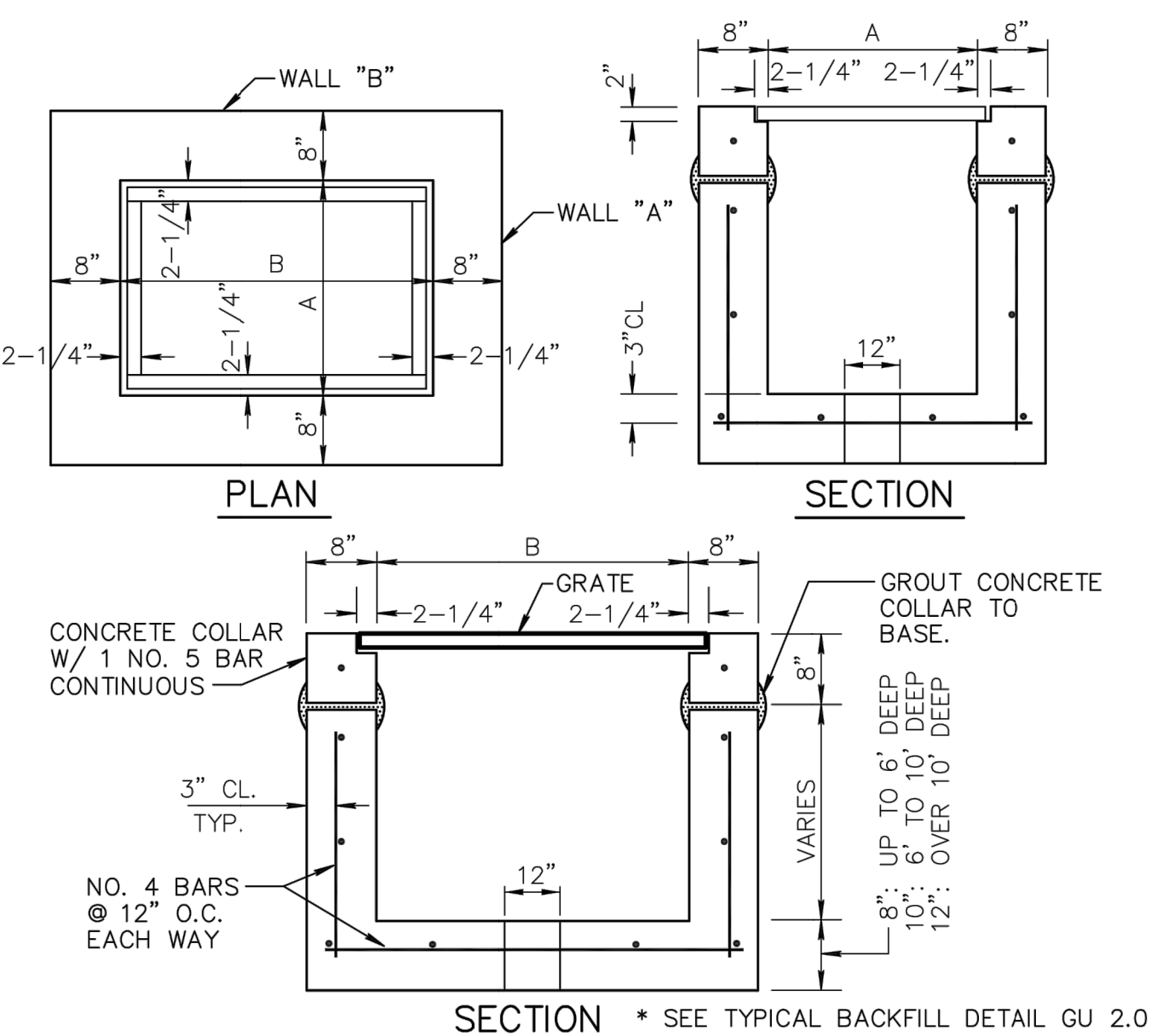
SHEET NUMBER
C4.11



INLET TYPE	DIMENSIONS		GRATE TYPE	MAX. PIPE SIZE	
	A	B		WALL A	WALL B
'C'	2'-0"	3'-1"	U.S. FOUNDRY No. 6212	15" R.C.P.	24" R.C.P.
'E'	3'-0"	4'-5"	U.S. FOUNDRY No. 6290	24" R.C.P.	36" R.C.P.




	CITY of DELRAY BEACH PUBLIC WORKS DEPARTMENT <small>434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444</small>	TYPE C & E INLET GRATE DETAIL	<small>DATE: 09-15-2021</small> D8.0
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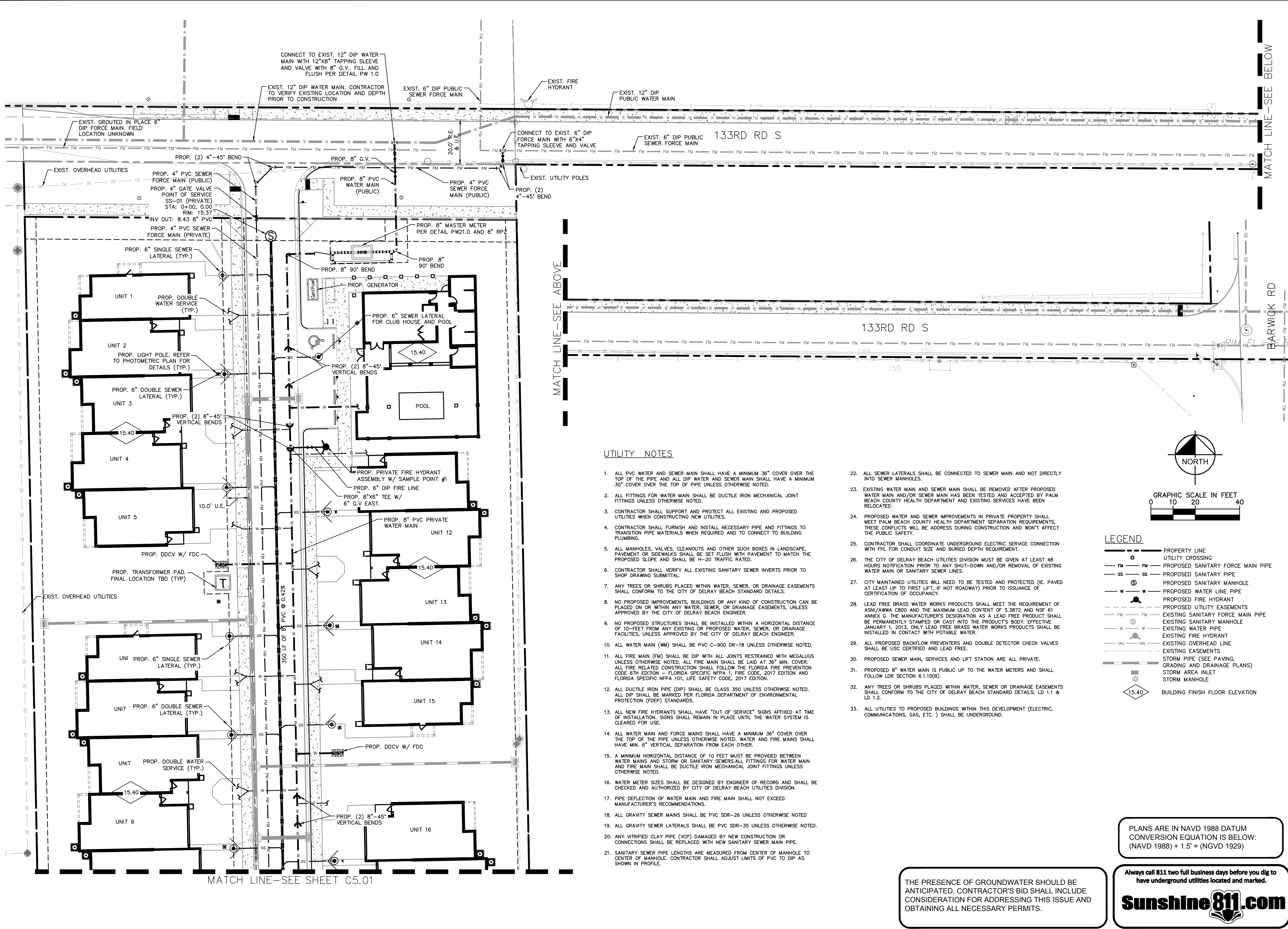


- NOTES:**
1. INLET TO BE PRECAST WITH CLASS "A" 4000 P.S.I. CONCRETE.
 2. ALL EXPOSED CORNERS AND EDGES TO BE CHAMFERED 3/4".
 3. 12" DIAMETER WEEP HOLE REQUIRED ON ALL STRUCTURES WHICH HAVE A FIRM ELEVATION ABOVE THE WATER TABLE EXCEPT IN WELLFIELDS.
 4. 18" SUMP REQUIRED IN ALL DRAINAGE STRUCTURES.
 5. SEE BEDDING DETAIL D 3.0
 6. ALL STRUCTURES TO BE 4 SIDED ANGLE SHOULDERS.

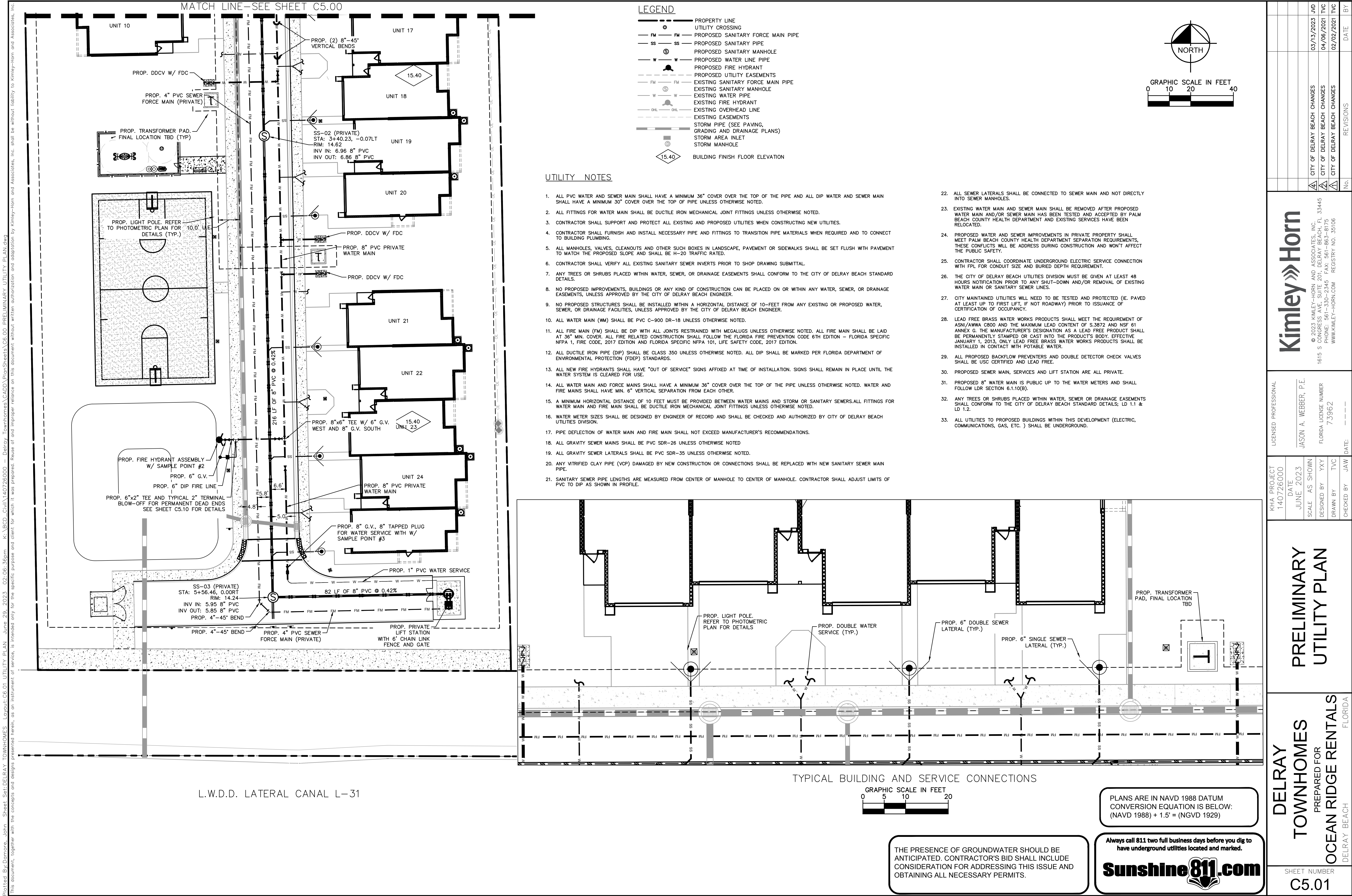
 CITY of DELRAY BEACH PUBLIC WORKS DEPARTMENT 434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444	TYPE C & E INLET DETAIL	DATE: 09-15-2021
		D9.0

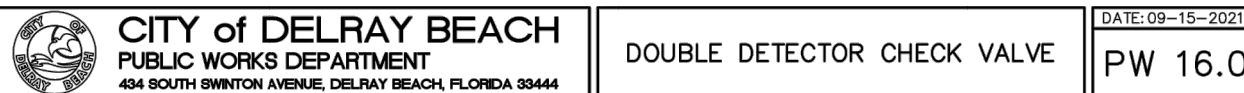
SHEET NUMBER C4.12	DELRAY TOWNHOMES PREPARED FOR OCEAN RIDGE RENTALS DELRAY BEACH FLORIDA	PAVING, GRADING AND DRAINAGE DETAILS		KHA PROJECT 140726000	LICENSED PROFESSIONAL	 © 2023 KIMLEY-HORN AND ASSOCIATES, INC. 1615 S CONGRESS AVE. SUITE 201, DELRAY BEACH, FL 33445 PHONE: 561-330-2345 FAX: 561-863-4175 WWW.KIMLEY-HORN.COM REGISTRY NO. 35106	No.	REVISIONS	DATE	BY
		SCALE AS SHOWN JUNE 2023	DESIGNED BY YXY	DRAWN BY YXY	DATE:					

Plotted By: Damore, John Sheet Set: DELRAY TOWNHOMES Layout: PRELIMINARY UTILITY PLAN Date: 29-June-2023 02:06:27pm K:\NBD-Civil\140726000 - Delray Townhomes\CADD\PlanSheets\C5.00 PRELIMINARY UTILITY PLAN.dwg
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KHA PROJECT 140726000		DATE JUNE 2023		SHEET NUMBER C5.00	
DESIGNED BY JAW		DRAWN BY TVC		CHECKED BY JAW	
LISCENSED PROFESSIONAL JASON A. WEBBER, P.E.		FLORIDA LICENSE NUMBER 73962		DATE ---	
CITY OF DELRAY BEACH CHANGES 03/13/2023 JVD		CITY OF DELRAY BEACH CHANGES 09/26/2022 MCR		CITY OF DELRAY BEACH CHANGES 04/06/2021 TVC	
CITY OF DELRAY BEACH CHANGES 02/02/2021 TVC		REVISIONS		DATE BY	





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PRESSURE PIPE NOTES:

- FOR PIPE SIZES 4"–8" THERE SHALL BE 30" MINIMUM COVER FROM FINISHED GRADE TO TOP OF PIPE. FOR PIPE SIZE 10" AND LARGER THERE SHALL BE 36" MINIMUM COVER.
- DUCTILE IRON PIPE (DIP) FOR FORCE MAINS SHALL BE CLASS 350 WITH 401 EPOXY LINED IN ACCORDANCE WITH AWWA C550.
- DUCTILE IRON PIPE (DIP) FOR WATER MAINS SHALL BE CLASS 350 IN ACCORDANCE WITH AWWA C151 (ANSI A21.51), AND SHALL HAVE AN INTERNAL LINING OF CEMENT MORTAR IN ACCORDANCE WITH AWWA C104/ A21.4.
- C-900 PVC PRESSURE PIPE MAY BE USED IN LIEU OF DIP WATER MAIN WITH METAL TAPE AND WIRE ABOVE THE PIPE.
- ALL FITTINGS FOR FORCE MAIN SHALL BE CLASS 350 DUCTILE IRON WITH MECHANICAL JOINTS AND 401 EPOXY LINING.
- WATER MAIN VALVES 12 INCHES AND SMALLER SHALL BE RESILIENT–SEAL WEDGE GATE VALVES IN ACCORDANCE WITH AWWA C509. WATER MAIN VALVES LARGER THAN 12 INCHES SHALL BE BUTTERFLY VALVES IN ACCORDANCE WITH AWWA C504. SEWAGE FORCE MAIN VALVES SHALL BE RESILIENT–SEAL PLUG VALVES IN ACCORDANCE WITH AWWA C517.
- ALL TRENCHING, PIPE–LAYING, BACKFILL, PRESSURE TESTING, AND DISINFECTION MUST COMPLY WITH CITY AND LOCAL GOVERNMENTAL REGULATIONS AND STANDARDS.
- WATER AND FORCE MAINS SHALL BE PIGGED A MINIMUM OF TWO TIMES, AND ADDITIONALLY, IF REQUIRED BY ENGINEER OF RECORD, AS WELL AS, PRESSURE TESTED FOR A PERIOD OF NOT LESS THAN TWO HOURS AT 150 PSI IN ACCORDANCE WITH ANSI/AWWA C600 LATEST STANDARDS. ALLOWABLE LEAKAGE SHALL BE DETERMINED AS FOLLOWS:
$$L = \frac{SD\sqrt{P}}{148,000}$$

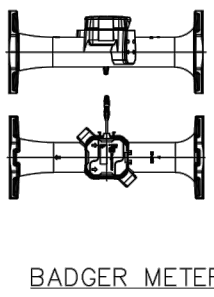
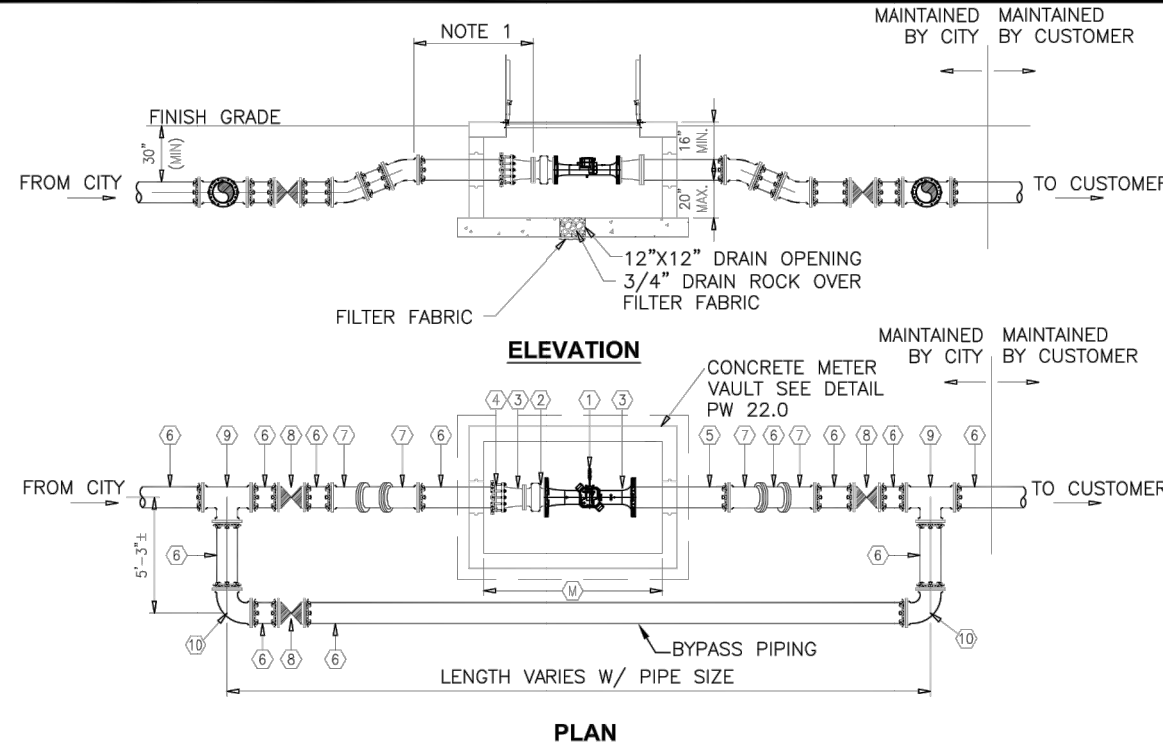
WHERE:
L = ALLOWABLE LEAKAGE (GALLONS PER HOUR)
S = PIPE LENGTH (FEET)
D = NOMINAL DIAMETER OF PIPE (INCHES)
P = AVERAGE TEST PRESSURE (PSI)
- RESTRAINTS SHALL BE PROVIDED AT ALL FITTINGS AS SHOWN ON PP 2.0 AND 2.1
- PRIOR TO ANY TESTING UNDER FUTURE PAVEMENT, ROCK SHALL BE FINISHED & PRIMED OR 1ST LIFT OF ASPHALT PLACED.
- PIG SIZE SHALL BE PIPE DIAMETER PLUS 2" OR NEXT LARGER DIAMETER.
- NO PROPOSED STRUCTURES SHALL BE INSTALLED WITHIN A HORIZONTAL DISTANCE OF 10–FEET FROM ANY EXISTING OR PROPOSED WATER OR FORCE MAINS.
- LINE STOPS SHALL BE INSTALLED A MINIMUM OF 3 PIPE LENGTHS FROM LOCATION OF PIPE REMOVED AND PROVIDE NECESSARY JOINT RESTRAINTS.



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

PRESSURE PIPE NOTES

DATE: 09-15-2021
PP 1.0



- ALL 3 & 4 INCH METERS SHALL BE E-SERIES ULTRASONIC BADGER METERS.
- ALL METERS 6" AND LARGER SHALL BE RECORDALL COMPOUND SERIES METERS FROM BADGER METERS.

MATERIALS AND SIZES (PER METER SIZE)				
(1) METER ASSEMBLY	3	4	6	8
(2) STRAINER ASSEMBLY	3	4	6	6
(3) DI FLOW/IO CONC RED	4X3	6X4	8X6	—
(4) FLANGE ADAPTER	3	4	6	8
(5) DI PIPE, FLG X PE	4	6	8	8
(6) DI PIPE, PE X PE	4	6	8	8
(7) DI MJ 22- 3/4" ELL (REST)	4	6	8	8
(8) RESILIENT SEAT MJ GATE VALVE (REST)	4	6	8	8
(9) DI MJ TEE (REST)	4	6	8	8
(10) DI MJ 90° ELL (REST)	4	6	8	8

NOTES:

- PROVIDE FOUR (4) PIPE DIAMETERS OR STRAIGHT RUN PIPE UPSTREAM OF METER/STRAINER ASSEMBLY.
- (REST) = RESTRAINED JOINT MEGALUG OR EQUAL
- BACKFLOW PREVENTER SHALL BE INSTALLED DOWNSTREAM OF METER.



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

LARGE USER–COMPOUND WATER METER

DATE: 09-15-2021
PW 21.0

MINIMUM LENGTHS OF PIPE (FT) TO BE RESTRAINED

FITTING TYPE	PIPE SIZE							
	4"	6"	8"	10"	12"	16"	20"	24"
90° HORIZ. BEND	14	20	25	30	35	45	54	62
45° HORIZ. BEND	6	8	11	13	15	19	22	26
22.5° HORIZ. BEND	3	4	5	6	7	9	11	12
11.25° HORIZ. BEND	1	2	3	3	4	4	5	6
90° VERT. OFFSET	UPPER BEND	55	79	103	125	147	189	228
	LOWER BEND	22	38	49	59	69	88	106
45° VERT. OFFSET	UPPER BEND	22	32	42	51	60	77	93
	LOWER BEND	10	14	19	23	28	35	43
22.5° VERT. OFFSET	UPPER BEND	7	12	17	21	26	34	42
	LOWER BEND	2	4	6	8	10	14	17
11.25° VERT. OFFSET	UPPER BEND	3	4	6	9	11	15	19
	LOWER BEND	1	1	1	2	3	5	7
PLUG (DEAD END)	32	45	59	70	83	107	129	151
INLINE VALVE	32	45	59	70	83	107	129	151
TEE (BRANCH RESTRAINT)	4" X 6"	23						
	6" X 6"	21	35					
	8" X 6"	18	34	47				
	10" X 6"	16	32	46	58			
	12" X 6"	13	30	44	57	69		
	16" X 6"	7	26	41	55	67	90	
	20" X 6"	1	21	38	52	65	88	109
	24" X 6"	1	16	34	49	62	86	108
REDUCER (LARGER PIPE RESTRAINT)	6" X 6"	23						
	8" X 6"	38	25					
	10" X 6"	57	43	24				
	12" X 6"	72	60	44	41			
	16" X 6"	99	90	78	75	45		
	20" X 6"	123	116	107	105	81	45	
	24" X 6"	146	140	132	131	111	82	45
	24" X 6"	146	140	132	131	111	82	45

RESTRAIN PIPE ONE BELL PAST MINIMUM DISTANCE



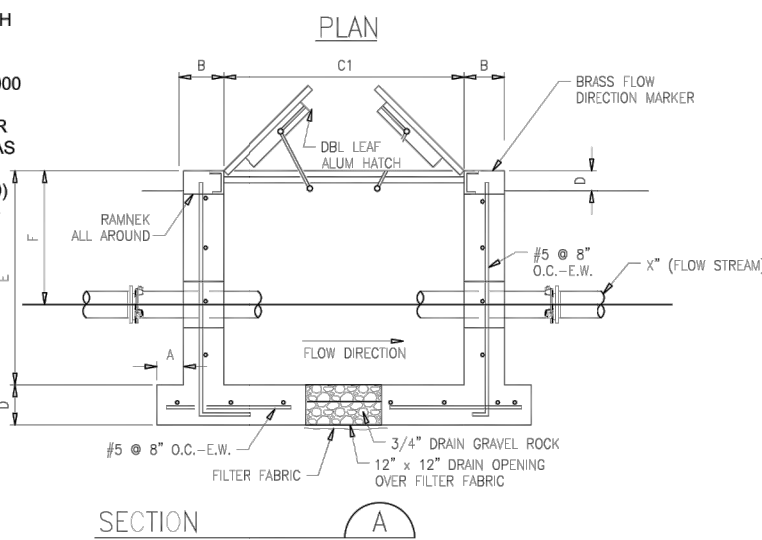
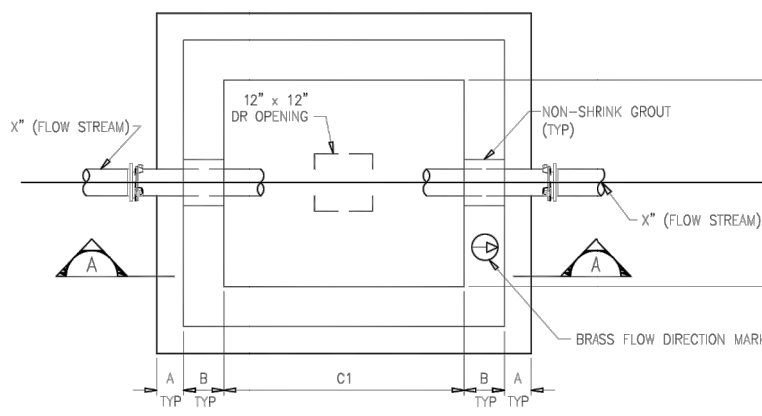
CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

PIPE RESTRAINT TABLE
PRESSURE PIPE
(SHEET 1 OF 2)

DATE: 09-15-2021
PP 2.0

METER SIZE/DETAIL #	DIMENSIONS SCHEDULE									
	PIPING DIMENSIONS					VAULT DIMENSIONS				
	X	A	B	C1	C2	C3	D	E	F	
4" / MW-11	4"	4"	8"	6'-4"	30"	30"	8"	36"	MAX.	16" MIN.
6" / MW-11	6"	4"	8"	7'-4"	30"	30"	8"	36"	MAX.	16" MIN.
8" / MW-11	8"	4"	8"	8'-4"	30"	30"	8"	36"	MAX.	16" MIN.
10" / MW-11	10"	4"	8"	9'-4"	30"	30"	8"	36"	MAX.	16" MIN.
3" / MW-12	4"	4"	8"	5'-4"	18"	30"	8"	36"	MAX.	16" MIN.
4" / MW-12	4"	4"	8"	5'-4"	18"	30"	8"	36"	MAX.	16" MIN.
6" / MW-12	8"	4"	8"	6'-4"	18"	30"	8"	36"	MAX.	16" MIN.
8" / MW-12	8"	4"	8"	6'-4"	18"	30"	8"	36"	MAX.	16" MIN.

- NOTES:
- CONFIRM VAULT DIMENSIONS WITH CITY AND ENGINEER.
 - COMPRESSIVE STRENGTH OF PRECAST CONCRETE SHALL BE 4000 PSI AT 28 DAYS.
 - HATCH SHALL BE CENTERED OVER METER. HATCH SHALL BE AS FOLLOWS:
TRAFFIC RATED = U.S.F. ADH (H-20)
NON TRAFFIC = U.S.F. APH (300)
 - EXTERIOR OF VAULT SHALL BE COATED WITH TWO COATS OF COAL TAR EPoxy, 16 MILS PER COAT.
 - METER NOT SHOWN FOR CLARITY. SEE DETAILS.
 - VAULT SHALL BE CONSTRUCTED PER ASTM C-1176.



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
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CONCRETE METER VAULT

DATE: 09-15-2021
PW 22.0

NOTES:

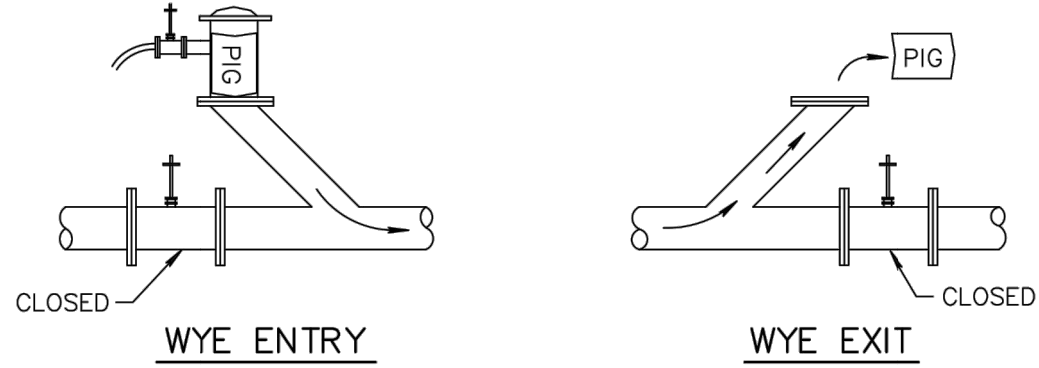
- THE DATA IN THE PREVIOUS TABLE IS BASED UPON THE FOLLOWING INSTALLATION CONDITIONS:
SOIL TYPESAND
TEST PRESSURE150 PSI, 200 PSI FOR PIPES LARGER THAN 24"
DEPTH OF BURY3'
TRENCH TYPE3
SAFETY FACTOR1.5
VERTICAL OFF-SET3'
MINIMUM PIPE LENGTHS ALONG TEE RUN5'
- THE RESTRAINED PIPE LENGTHS APPLY TO DUCTILE IRON PIPE AND PVC PIPE.
- ALL JOINTS BETWEEN UPPER AND LOWER BENDS SHALL BE RESTRAINED.
- RESTRAINED PIPE LENGTHS FOR VALVES APPLY TO PIPE ON BOTH SIDES OF VALVES
- THE PREVIOUS TABLE SHALL SERVE AS A GENERAL DESIGN GUIDE ONLY. IT IS THE ENGINEER OF RECORD'S RESPONSIBILITY TO JUSTIFY AND DOCUMENT ANY DEVIATIONS FROM THE PIPE LENGTHS SPECIFIED IN THE PREVIOUS TABLE.
- SOURCES: EBAA IRON RESTRAINT LENGTH CALCULATION PROGRAM FOR PVC PIPE, RELEASE 3.1 (LATEST EDITION) AND DIPRA RESTRAINT FOR DUCTILE IRON PIPE, RELEASE 3.2 (LATEST EDITION).
- RESTRAINED JOINTS SHALL EXTEND ONE JOINT BEYOND MINIMUM LENGTH REQUIRED.



CITY of DELRAY BEACH
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PIPE RESTRAINT TABLE
PRESSURE PIPE
(SHEET 2 OF 2)

DATE: 09-15-2021
PP 2.1



HINGED CLOSURE

NOTE:

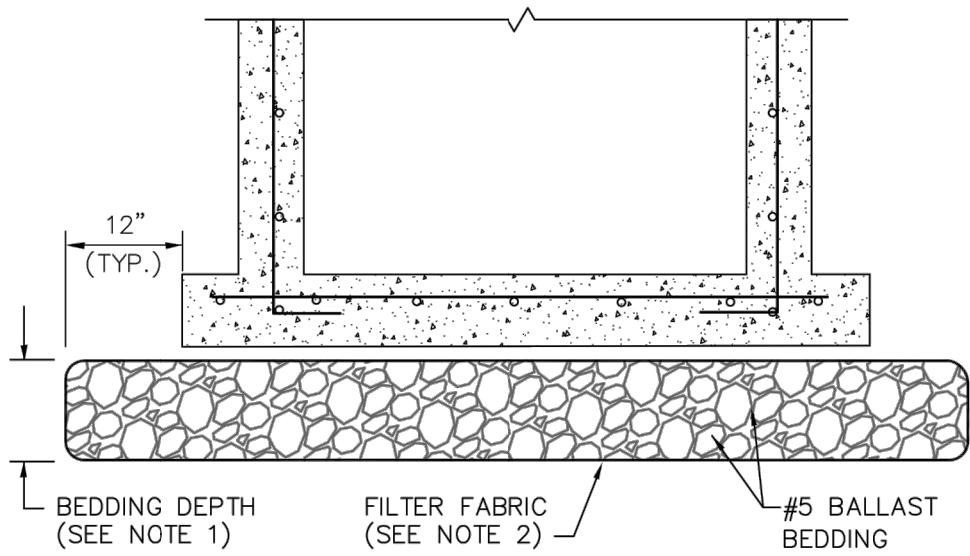
ALL NEWLY INSTALLED PRESSURE PIPE SHALL BE "PIGGED" UNTIL CLEAN AND APPROVED BY ENGINEER DURING THE FILLING AND FLUSHING OPERATION. PIG SIZE SHALL BE PIPE DIAMETER PLUS 2" OR NEXT LARGER DIAMETER.



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PIG LAUNCHER DETAIL

DATE: 09-15-2021
PP 6.0



NOTES:

- BEDDING DEPTH SHALL BE 10" UNDER DRAINAGE STRUCTURES AND 18" UNDER SANITARY STRUCTURES.
- ROCK SHALL BE WRAPPED IN FILTER FABRIC THAT MEETS THE REQUIREMENTS OF F.D.O.T. SPECIFICATION SECTION 985.



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

STANDARD BEDDING DETAIL

DATE: 09-15-2021
WW 11.0

DELRAY TOWNHOMES
PREPARED FOR
OCEAN RIDGE RENTALS
FLORIDA

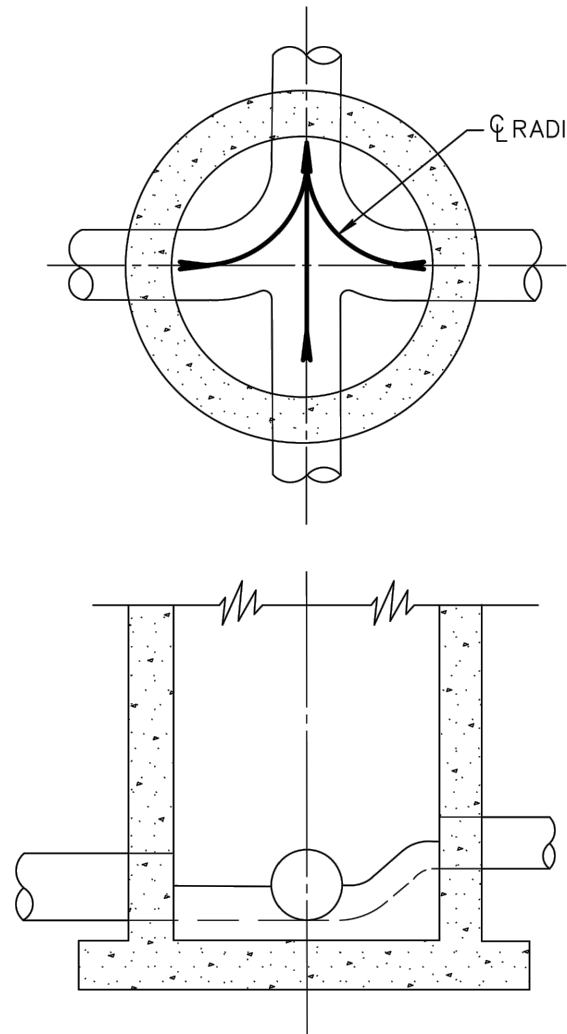
UTILITY DETAILS

LICENSED PROFESSIONAL
KVA PROJECT
140726000
DATE
JUNE 2023
SCALE
AS SHOWN
DESIGNED BY
YXY
DRAWN BY
TVC
CHECKED BY
JAW
DATE

Kimley»Horn
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1815 S. UNIVERSITY AVENUE, SUITE 33445
ORLANDO, FLORIDA 32817
PHONE: 561-330-2345 FAX: 561-863-8175
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

No.	REVISIONS		DATE	BY
1			09/26/2022	MLR
CITY OF DELRAY BEACH CHANGES				

Plotted By: Damore, John Sheet Set: DELRAY TOWNHOMES Layout: C5.20 WATER UTILITY DETAILS (2) June 29, 2023 02:07:01pm K:\BCD\Civil\140726000 - Delray Townhomes\CADD\PlanSheets\C5.20 WATER UTILITY DETAILS.dwg
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NOTES:

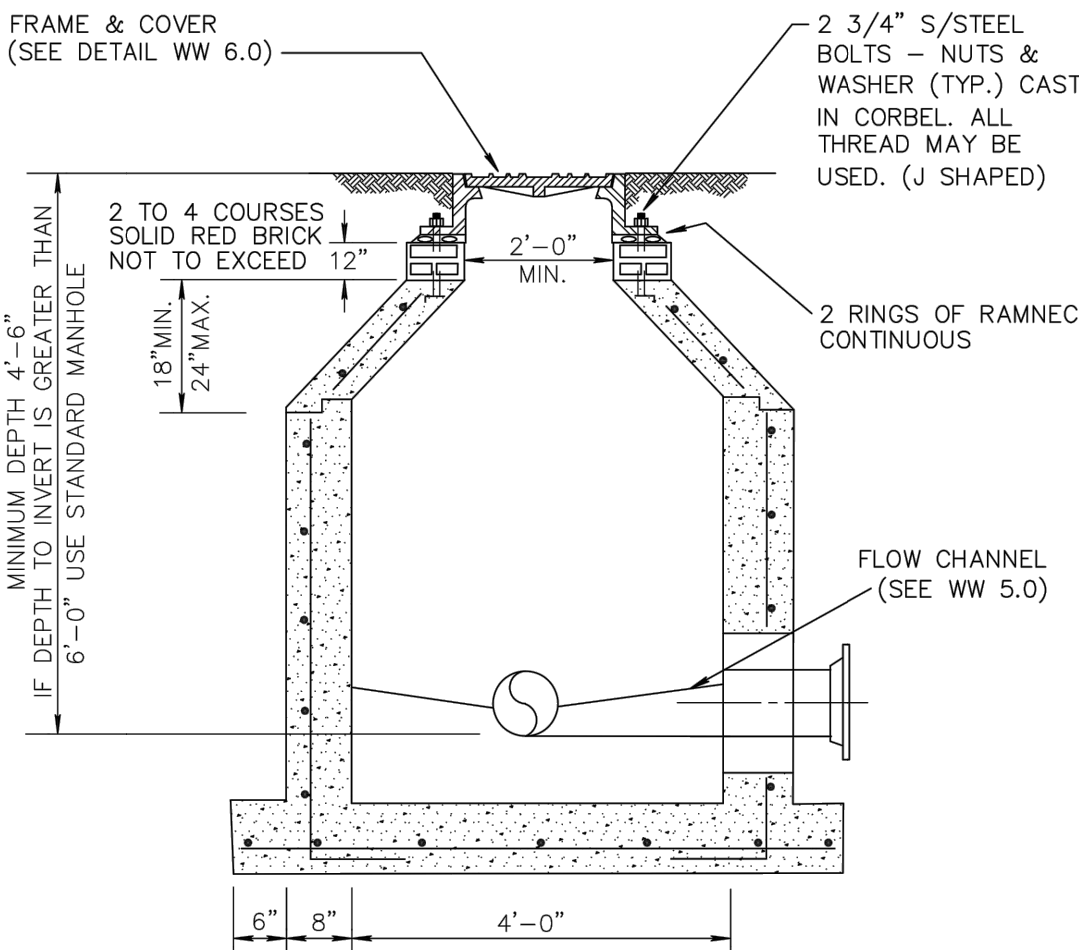
1. ALL INVERT CHANNELS ARE TO BE CONSTRUCTED FOR SMOOTH FLOW WITHOUT OBSTRUCTION OR TURBULENCE.
2. PROPERLY SHAPED SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS TO PROVIDE FOR SMOOTH FLOWS.
3. SERVICE LATERALS SHALL NOT ENTER MANHOLES.
4. 2500 PSI CONCRETE ONLY PERMITTED AS FLOW CHANNEL BUILDUP.
5. NO DOG HOUSE MANHOLE ALLOWED.



CITY of DELRAY BEACH
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INVERT FLOW CHANNELS

DATE: 09-15-2021
WW 5.0



NOTE:

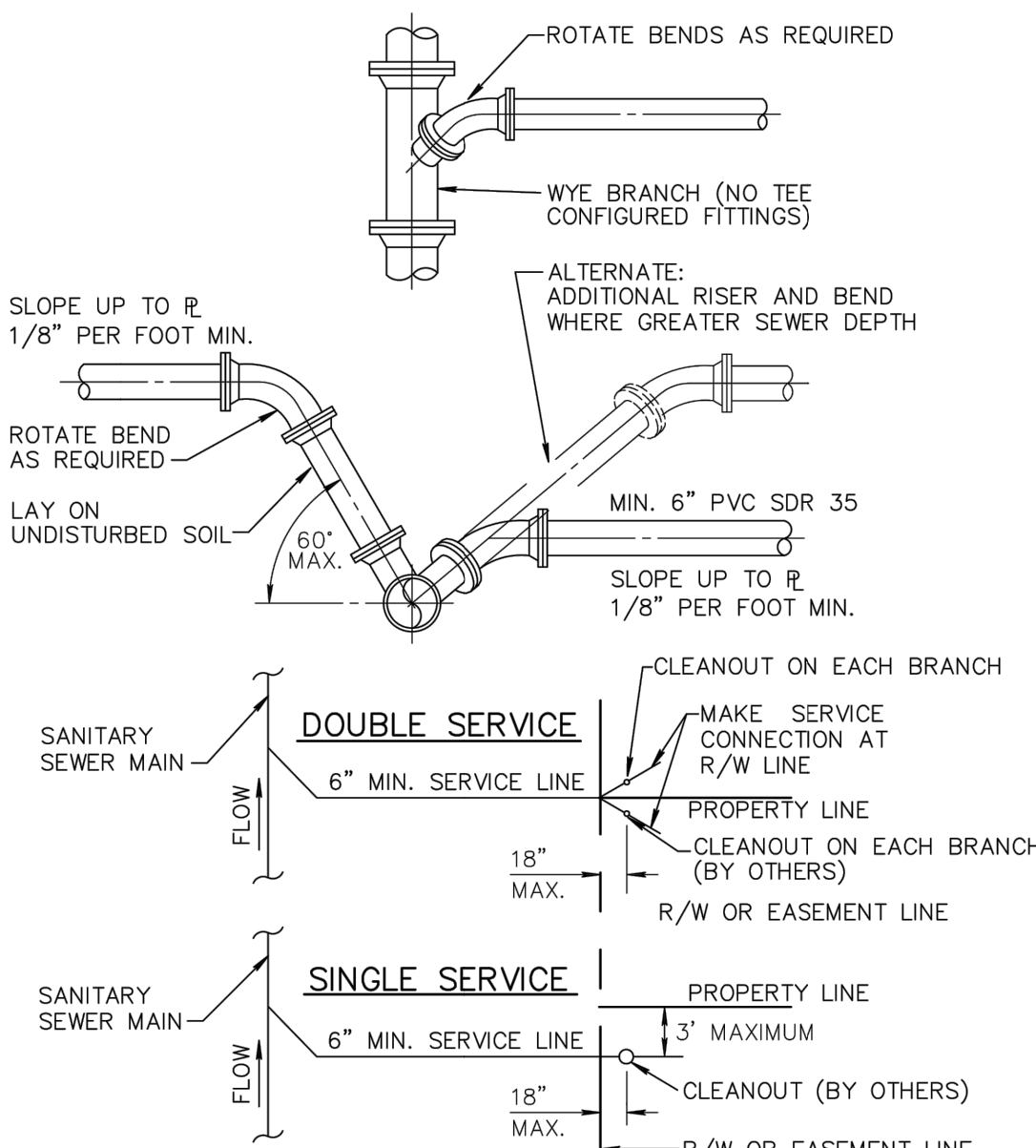
ALL STANDARD MANHOLE NOTES AND DETAILS ARE APPLICABLE (DETAIL WW 2.0).



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
404 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444

SHALLOW MANHOLE DETAIL

DATE: 09-15-2021
WW 3.0



NOTE:

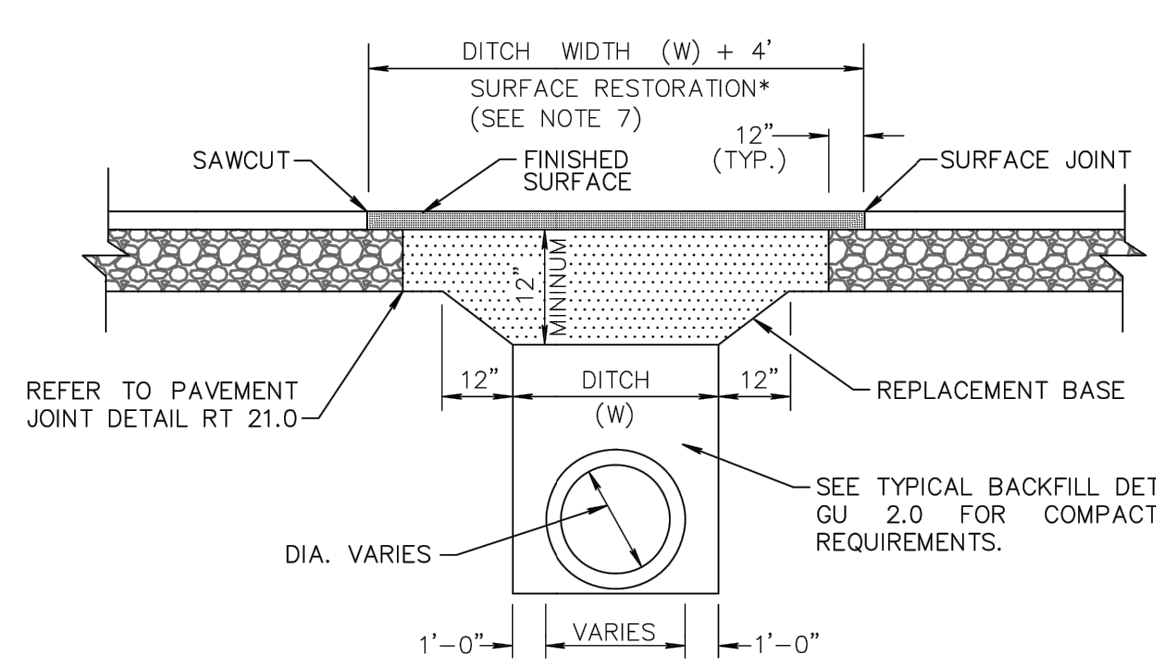
1. SERVICE LATERALS SHALL TERMINATE INSIDE PROPERTY LINE A DEPTH OF 3 FEET AND MARKED WITH A 2" X 4" TREATED STAKE.
2. CLEANOUT INSTALLATION SHALL BE PROPERTY OWNERS RESPONSIBILITY AND SHALL BE INSTALLED BY LICENSED PLUMBER.
3. SEE DETAIL PW 2.0 FOR SEPARATION REQUIREMENTS.



CITY of DELRAY BEACH
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SEWER SERVICE CONNECTION

DATE: 09-15-2021
WW 8.0



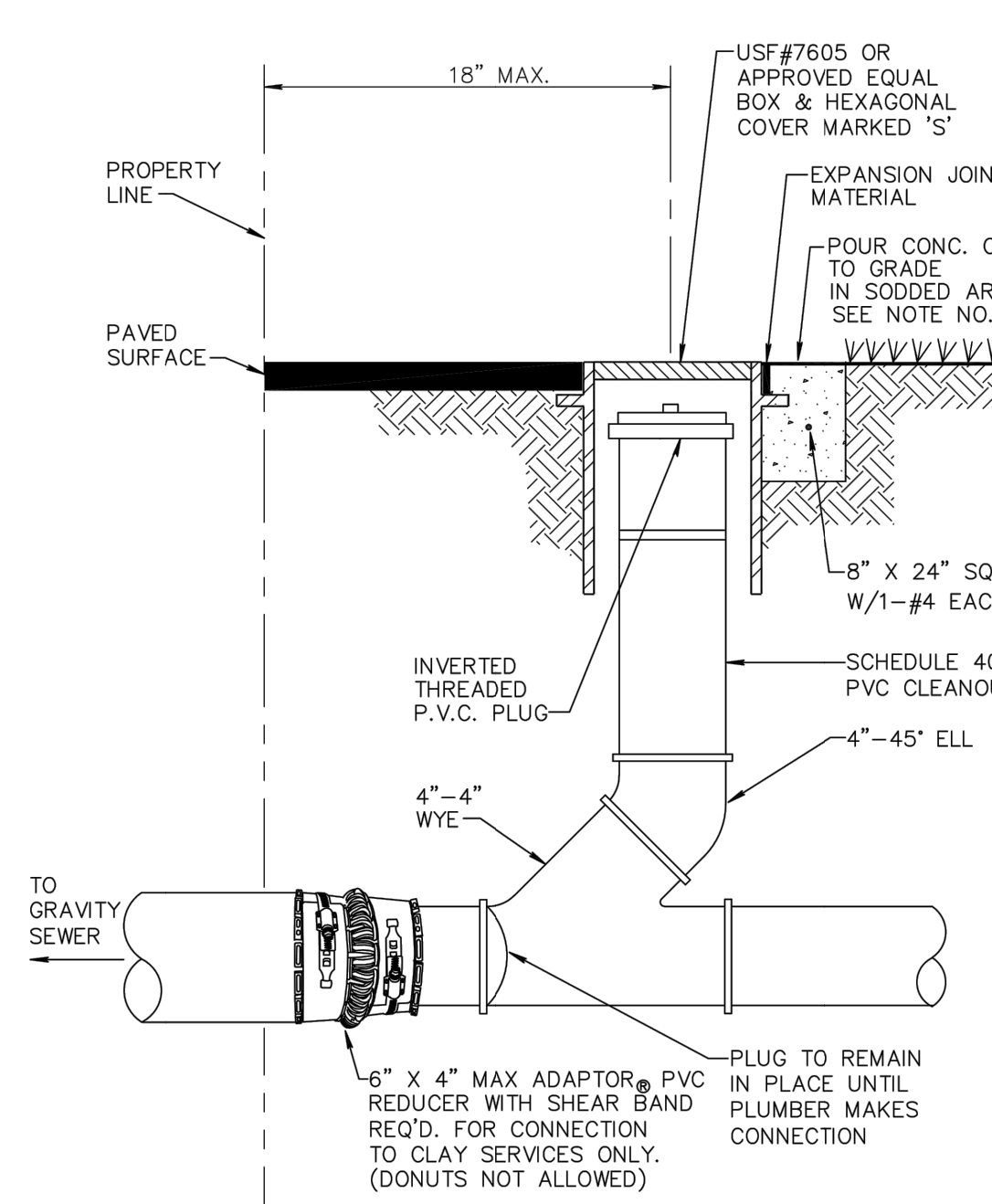
1. REPLACEMENT BASE TO BE AT MIN. 12" THICK.
- 2a. BASE MATERIAL SHALL BE PLACED IN TWO LIFTS AND EACH LIFT COMPACTED TO 98% MAXIMUM DENSITY PER AASHTO T-180 (MAX. LIFT THICKNESS = 6").
- 2b. 24" EXCAVATABLE FLOWABLE FILL, MIN. 100 P.S.I. MAY BE USED IN LIEU OF 12" BASE.
3. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED.
4. ALL DISTURBED PAVEMENT MARKINGS SHALL BE RESTORED IN ACCORDANCE WITH CITY STANDARDS.
5. SURFACE MATERIAL SHALL BE S-III ASPHALTIC CONCRETE (THICKNESS SHOULD BE TWICE THE THICKNESS OF THE ADJACENT EXISTING ASPHALT).
6. ANY PAVEMENT CUTS SHALL BE COLD PATCHED AT END OF EACH WORKING DAY TO FACILITATE UNHINDERED TRAFFIC FLOW.
7. ROADWAYS SHALL BE MILLED AND RESURFACED 50' IN EACH DIRECTION AT TIME OF PAVEMENT REPAIR. THE SURFACE RESTORATION SHALL EXTEND 50' IN EACH DIRECTION.



CITY of DELRAY BEACH
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CARRIER PIPE SUPPORTS

DATE: 09-15-2021
GU 1.0



NOTE:

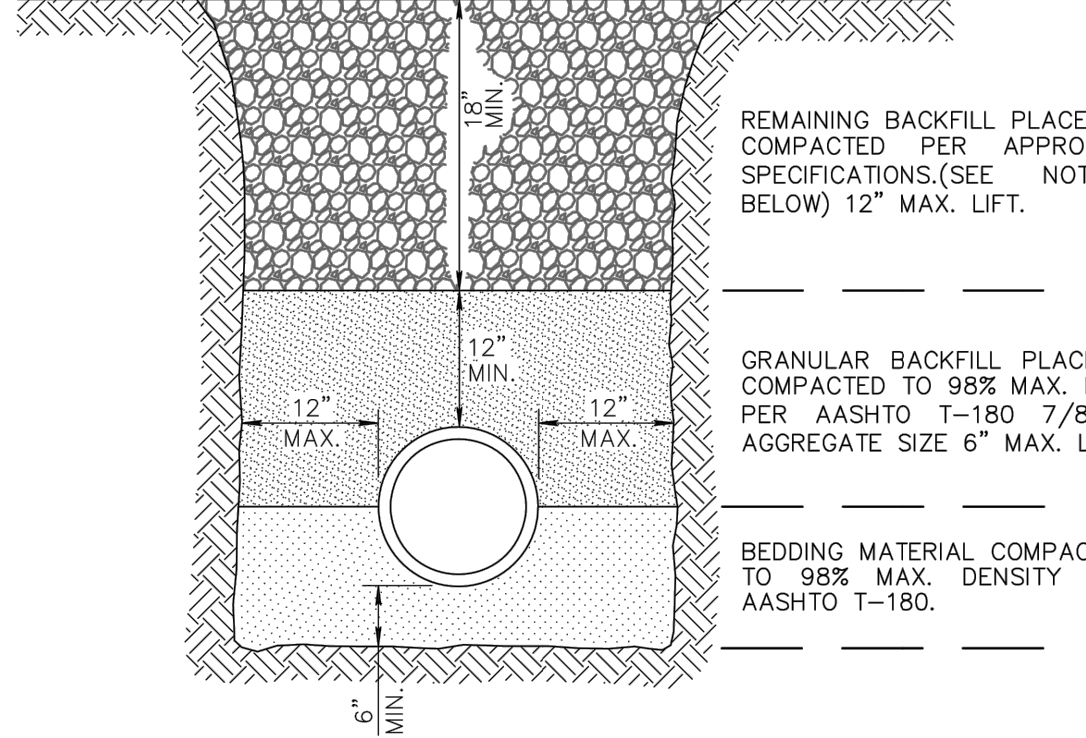
1. INVERTED BRASS CAP SHALL BE USED IN GRASS AREAS IN LIEU OF CASTING AND CONE COLLAR.
2. MINIMUM DEPTH OF SERVICE LATERAL SHALL BE 3 FEET.



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
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TYPICAL RESIDENTIAL CLEANOUT

DATE: 09-15-2021
WW 9.0



NOTES:

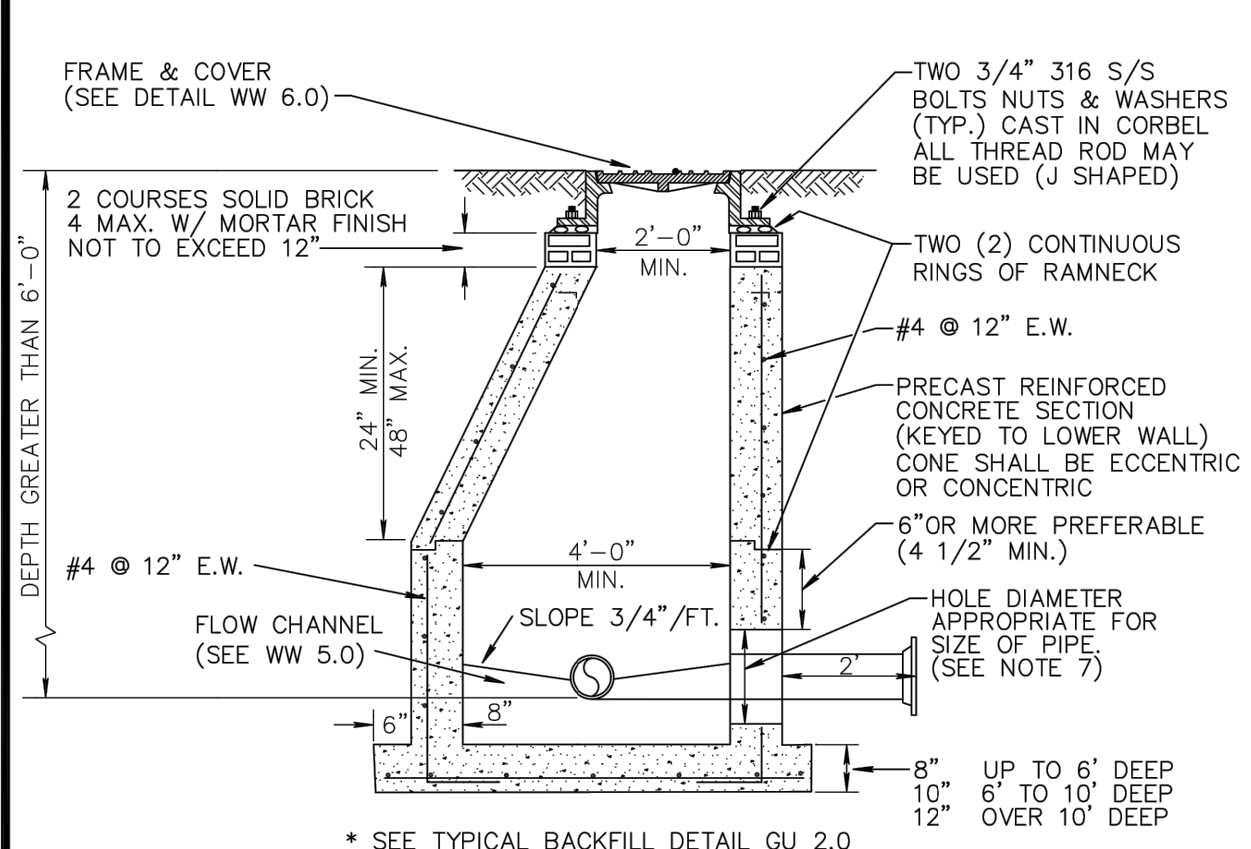
1. UNSUITABLE IN-SITU MATERIALS SUCH AS MUCK, DEBRIS AND LARGE ROCKS SHALL BE REMOVED OFF SITE AND DISPOSED IN A PROPER LANDFILL; BEDDING MATERIAL AND BACKFILL CONSISTING OF WASHED AND GRADED LIMEROCK 3/8" - 7/8" SIZING.
2. THE PIPE AND/OR STRUCTURE SHALL BE FULLY SUPPORTED FOR ITS ENTIRE LENGTH WITH APPROPRIATE COMPACTION UNDER THE PIPE HAUNCHES.
3. THE PIPE AND/OR STRUCTURE SHALL BE PLACED IN A DRY TRENCH.
4. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL SUCH AS LARGE ROCK, MUCK, AND DEBRIS.
5. COMPACT BACKFILL TO 98% DENSITY UNDER PAVEMENT AND TO 95% DENSITY ELSEWHERE (AASHTO T-180)
6. COMPACTION AND DENSITY TESTS SHALL BE COMPLETED DURING BACKFILL OPERATIONS, CONTRACTORS NOT FOLLOWING THIS PROCEDURE, FOR WHATEVER REASONS, SHALL BE REQUIRED TO RE-EXCAVATE THE AREA IN QUESTION, DOWN TO THE BEDDING MATERIAL, THEN BACKFILL FOLLOWING THE ABOVE PROCEDURES.



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TYPICAL BACKFILL DETAIL

DATE: 09-15-2021
GU 2.0



NOTES:

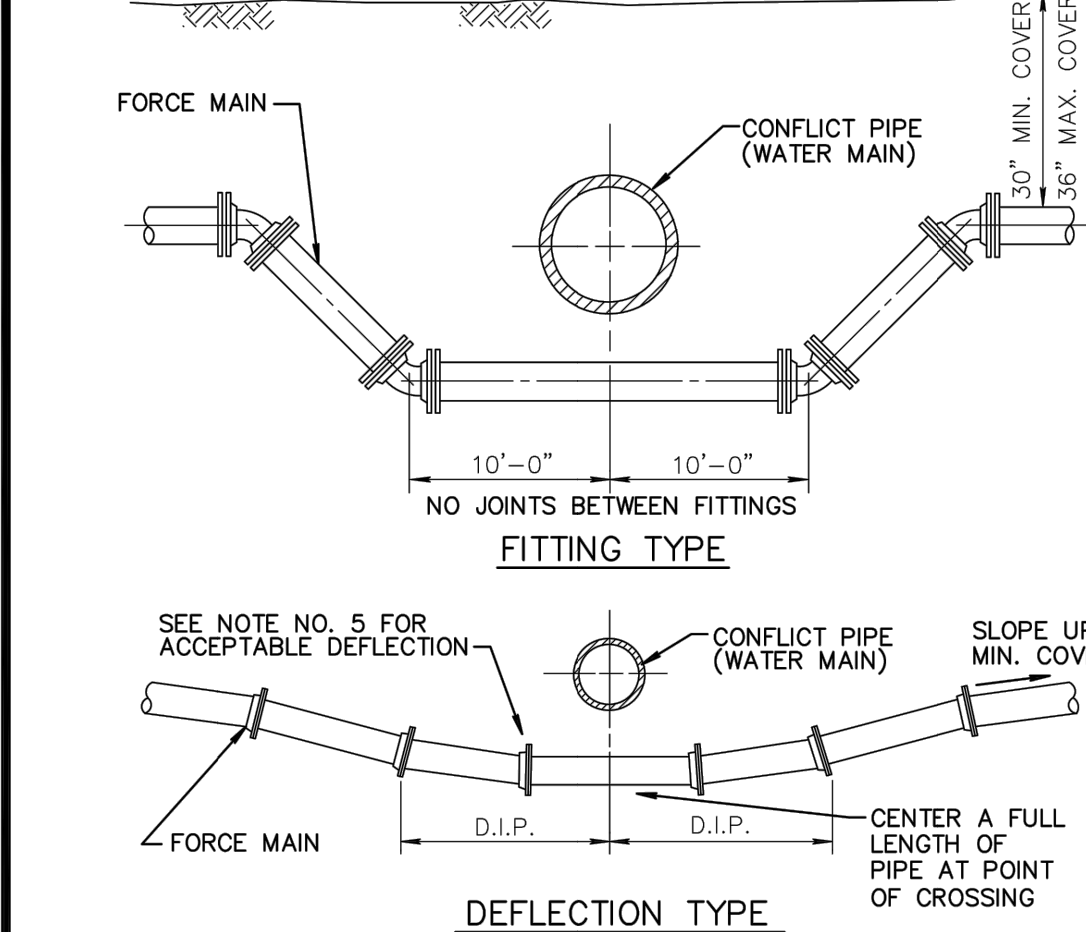
1. PRECAST CONCRETE TYPE II 4000 P.S.I.
2. RAMNECK AT ALL RISER JOINTS WITH GROUT ON INSIDE AND OUTSIDE AT ALL RISER JOINTS.
3. ALL OPENINGS SHALL BE SEALED WITH A WATERPROOF NON-SHRINKING GROUT.
4. FLOW CHANNELS SHALL BE CONSTRUCTED TO DIRECT INFLUENT INTO FLOW STREAM.
5. LIFT HOLES SHALL BE FILLED WITH EXPANDABLE GROUT.
6. ALL PIPE HOLES SHALL BE PRECAST.
7. CAST IN PLACE FLEXIBLE PIPE-TO-MANHOLE CONNECTOR (LOCK JOINT FLEXIBLE SLEEVE ELASTOMER EPDM OR RUBBER GASKET WITH GLASS FIBER REINFORCED NYLON 6/6 INTERNAL EXPANSION RING) INSTALLED PER MANUFACTURER.
8. PAINT MANHOLE INSIDE AND OUTSIDE WITH ONE (1) COAT RED CARBOLINE BITUMASTIC 300M THEN ONE (1) COAT BLACK OR APPROVED EQUAL, TO 8-10 MILS D.F.T./COAT, FIRST COAT RED THEN BLACK.
9. MANHOLE FABRICATION SHALL BE IN ACCORDANCE W/ ASTM C-478, LATEST STANDARD.
10. IF THE STRUCTURE IS INSTALLED IN WATER TABLE MUST HAVE BEDDING. (SEE DETAIL BEDDING WW 11.0)



CITY of DELRAY BEACH
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STANDARD MANHOLE DETAIL

DATE: 09-15-2021
WW 2.0



NOTES:

1. THERE SHALL BE IN ALL CASES A MINIMUM OF 18" VERTICAL SEPARATION BETWEEN WATER MAINS AND FORCE MAINS.
2. WHEREVER POSSIBLE WATER MAINS SHALL PASS OVER FORCE MAINS OR STORM SEWERS.
3. FITTINGS SHALL BE RESTRAINED WITH MECHANICAL JOINT RESTRAINTS.
4. THE DEFLECTION TYPE CROSSING IS PREFERRED.
5. DO NOT EXCEED 75% OF MANUFACTURERS RECOMMENDED MAXIMUM JOINT DEFLECTION.
6. REFER TO TYPICAL RESTRAINING DETAIL PP 2.0 AND 2.1



CITY of DELRAY BEACH
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PRESSURE PIPE CONFLICT TABLE

DATE: 09-15-2021
PP 3.0

DELRAY TOWNHOMES
PREPARED FOR
OCEAN RIDGE RENTALS
FLORIDA
DELRAY BEACH

SHEET NUMBER
C5.13

Kimley»Horn

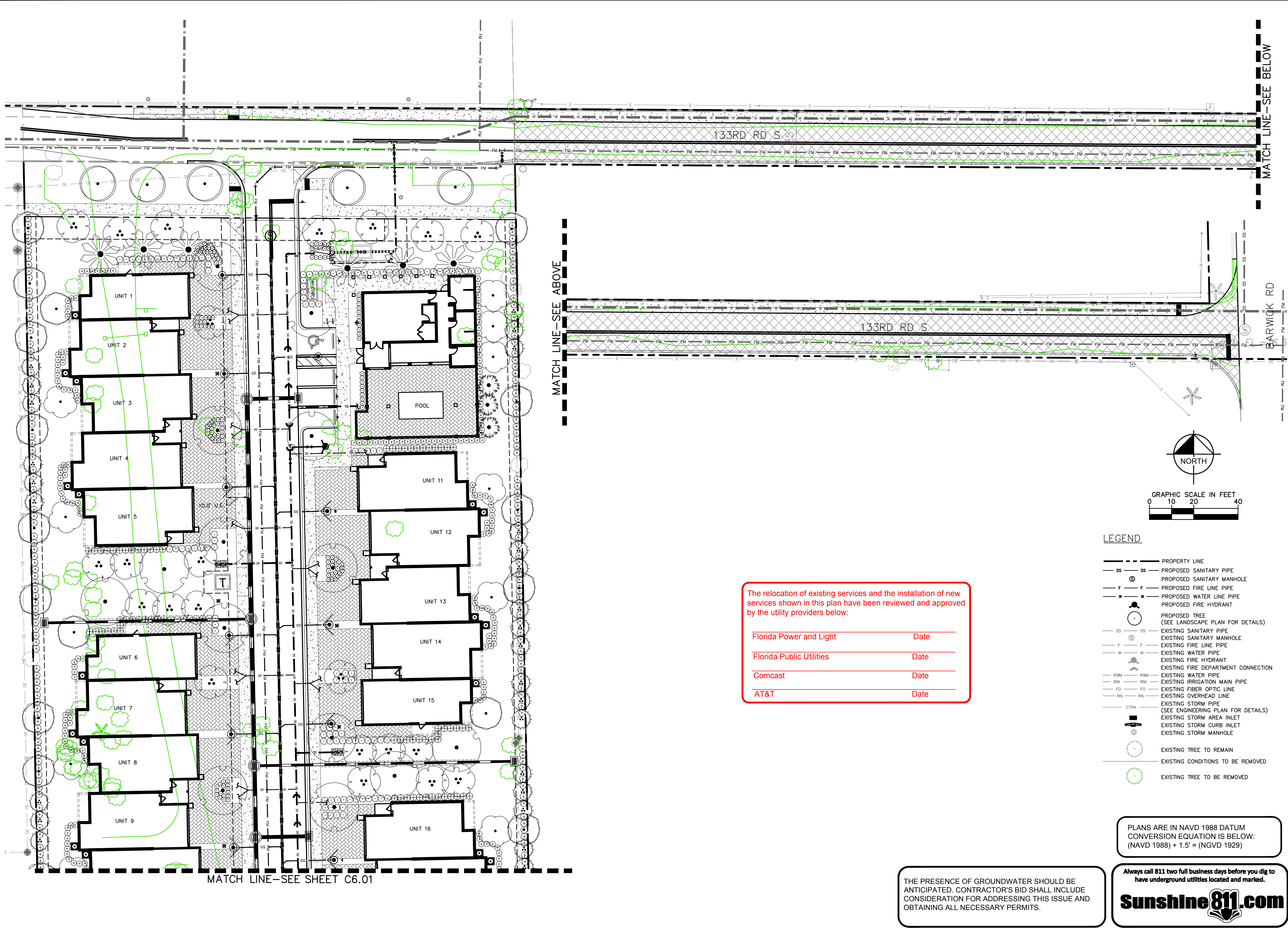
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PHONE: 561-330-2345 FAX: 561-863-8175
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

LICENSED PROFESSIONAL
KHA PROJECT
140726000
DATE
JUNE 2023
SCALE
AS SHOWN
DESIGNED BY
YXY
DRAWN BY
YXY
CHECKED BY
JAW
DATE

UTILITY DETAILS

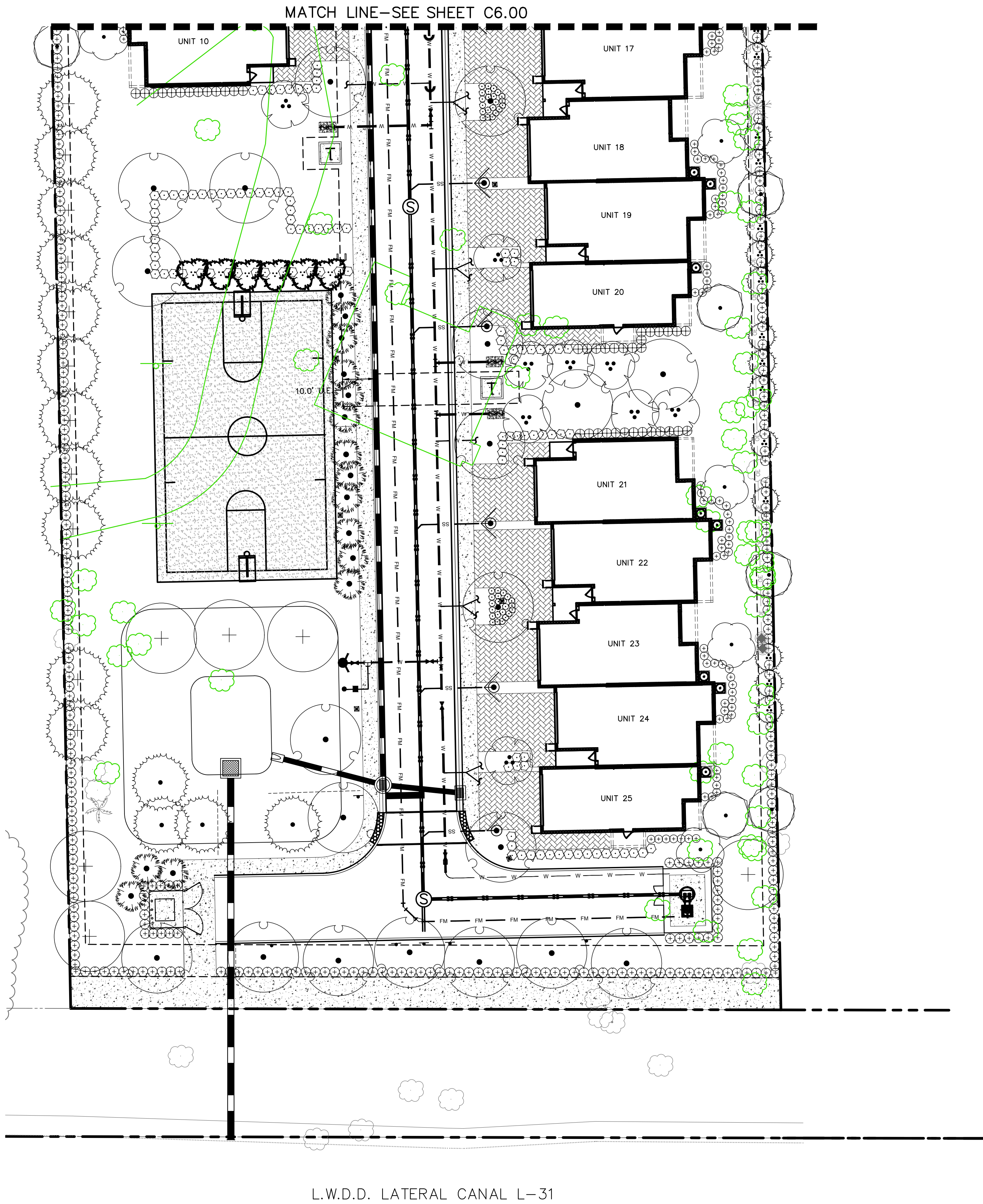
REVISIONS
DATE
BY

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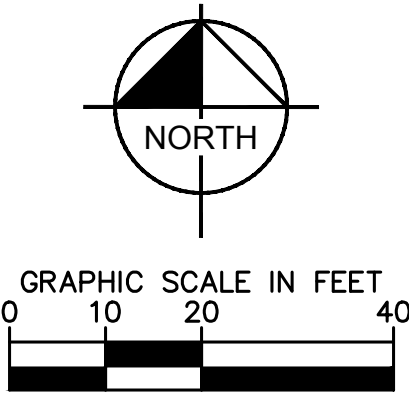
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DATE JUNE 2023	SCALE AS SHOWN	JASON A. WEBBER, P.E.	© 2023 KIMLEY-HORN AND ASSOCIATES, INC. 1815 S. PHONE: 561-330-2345 FAX: 561-863-8175 WWW.KIMLEY-HORN.COM REGISTRY NO. 35106	
DESIGNED BY TVC	DRAWN BY TVC	FLORIDA LICENSE NUMBER 73962		
CHECKED BY JAW	DATE			
COMPOSITE UTILITY PLAN		DELAY TOWNHOMES PREPARED FOR OCEAN RIDGE RENTALS		REVISIONS
FLORIDA		SHEET NUMBER C6.00		DATE BY

Plotted By: Damore, John Sheet Set: DELRAY TOWNHOMES Layout: C6.01 COMPOSITE UTILITY PLAN June 29, 2023 02:07:33pm K:\BCD_Civil\140726000 - Delray Townhomes\CADD\PlanSheets\C6.00 COMPOSITE PLAN.dwg
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LEGEND

- PROPERTY LINE
- PROPOSED SANITARY PIPE
- PROPOSED SANITARY MANHOLE
- PROPOSED FIRE LINE PIPE
- PROPOSED WATER LINE PIPE
- PROPOSED FIRE HYDRANT
- PROPOSED TREE (SEE LANDSCAPE PLAN FOR DETAILS)
- EXISTING SANITARY PIPE
- EXISTING SANITARY MANHOLE
- EXISTING FIRE LINE PIPE
- EXISTING WATER PIPE
- EXISTING FIRE HYDRANT
- EXISTING FIRE DEPARTMENT CONNECTION
- EXISTING WATER PIPE
- EXISTING IRRIGATION MAIN PIPE
- EXISTING FIBER OPTIC LINE
- EXISTING OVERHEAD LINE
- EXISTING STORM PIPE (SEE ENGINEERING PLAN FOR DETAILS)
- EXISTING STORM AREA INLET
- EXISTING STORM CURB INLET
- EXISTING STORM MANHOLE
- EXISTING TREE TO REMAIN
- EXISTING CONDITIONS TO BE REMOVED
- EXISTING TREE TO BE REMOVED



The relocation of existing services and the installation of new services shown in this plan have been reviewed and approved by the utility providers below:

Florida Power and Light _____ Date _____

Florida Public Utilities _____ Date _____

Comcast _____ Date _____

AT&T _____ Date _____

PLANS ARE IN NAVD 1988 DATUM
CONVERSION EQUATION IS BELOW:
(NAVD 1988) + 1.5' = (NGVD 1929)

Always call 811 two full business days before you dig to
have underground utilities located and marked.

Sunshine811.com

THE PRESENCE OF GROUNDWATER SHOULD BE
ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE
CONSIDERATION FOR ADDRESSING THIS ISSUE AND
OBTAINING ALL NECESSARY PERMITS.

COMPOSITE
UTILITY PLAN

DELRAY
TOWNHOMES
PREPARED FOR
OCEAN RIDGE RENTALS
FLORIDA

SHEET NUMBER
C6.01

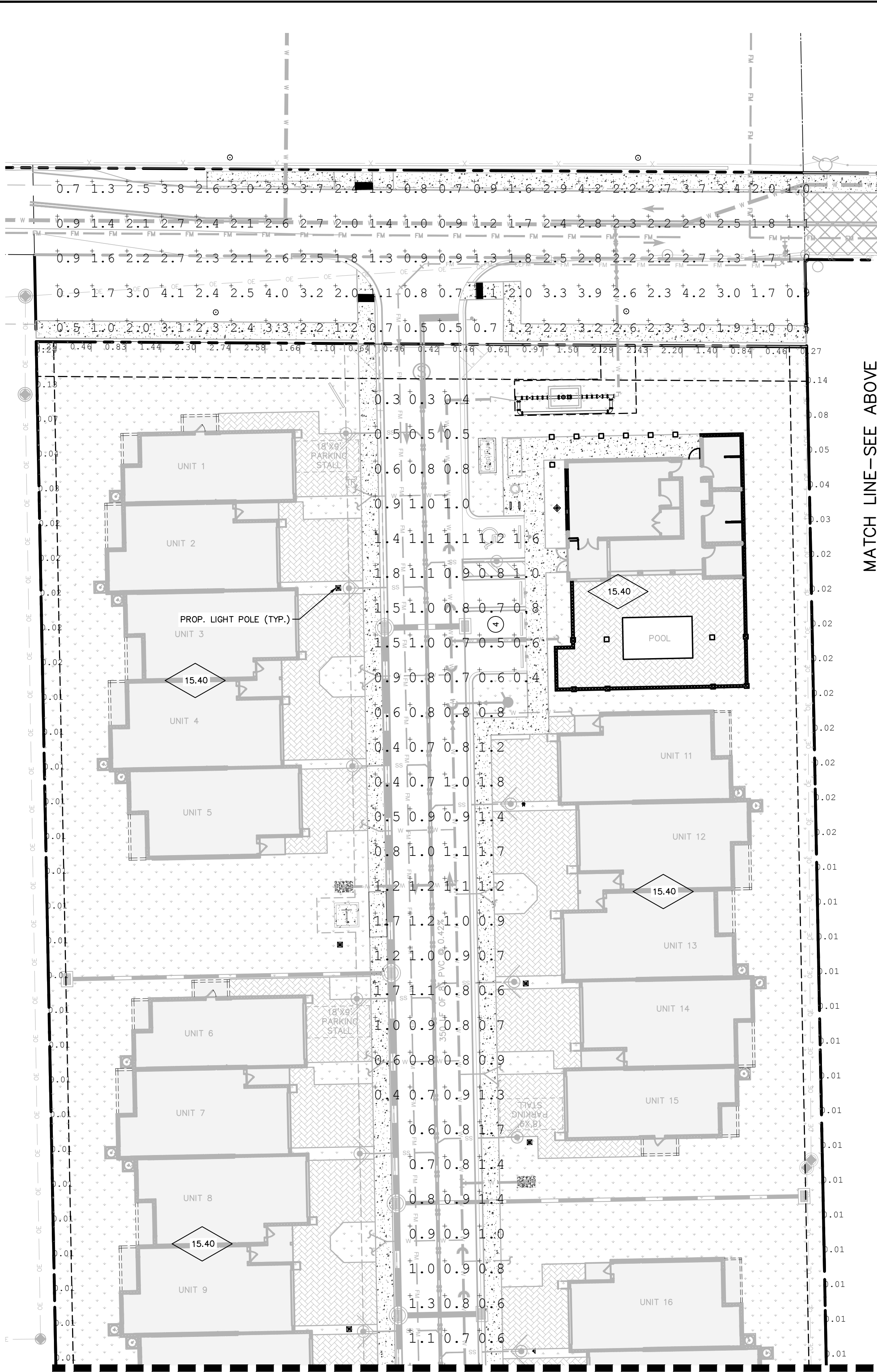
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WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

LICENSED PROFESSIONAL
JASON A. WEBBER, P.E.
DATE JUNE 2023
SCALE AS SHOWN
DESIGNED BY YXY
DRAWN BY TVC
CHECKED BY JAW
DATE

REVISIONS
No. DATE BY

Plotted By: Danmore, John Sheet Set: DELRAY TOWNHOMES Layout: C7.00 PHOTOMETRIC PLAN Date: 28, 2023 02:08:02pm K:\BCD_Civil\140726000 - Delray Townhomes\CADD\PlanSheets\C7.00 PHOTOMETRIC PLAN.dwg
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MATCH LINE—SEE ABOVE

Luminaire Location Summary						
LumNo	Label	X	Y	Z	Orient	Tilt
1	Neri Post Top	945114.7	780511.3	20	136.178	0
2	Neri Post Top	945051.8	780488.3	20	271.879	0
3	Neri Post Top	945105.5	780426.2	20	91.665	0
4	Neri Post Top	945052.3	780385.7	20	270.342	0
5	Neri Post Top	945106.8	780328.8	20	91.707	0
6	Neri Post Top	945054.9	780275.1	20	272.024	0
7	Neri Post Top	945108.8	780217.3	20	92.996	0
8	Neri Post Top	945059.3	780163.0	20	269.456	0
9	Neri Post Top	945110.9	780087.1	20	92.216	0
10	Neri Post Top	945065.6	780053.5	20	271.685	0
11	Neri Post Top	945113.2	780006.9	20	21.776	0
12	Delray	945016.5	780567.6	15.08	89.736	0
13	Delray	945020.6	780612.1	15.08	269.845	0
14	Delray	945134.6	780567.8	15.08	89.736	0
15	Delray	945138.0	780612.0	15.08	269.845	0
16	Neri Post Top	945060.6	780113.9	20	269.456	0

Luminaire Schedule					
Symbol	Qty	Label	Arrangement	LLF	Description
⊙	4	Delray	SINGLE	1.000	DLR-LE095-X2-40-CR3-GR18
⊠	12	Neri Post Top	SINGLE	1.000	XX600L02 ghit

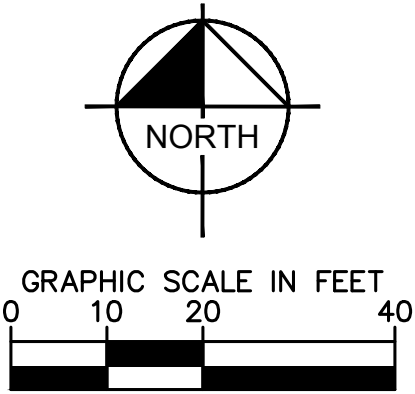
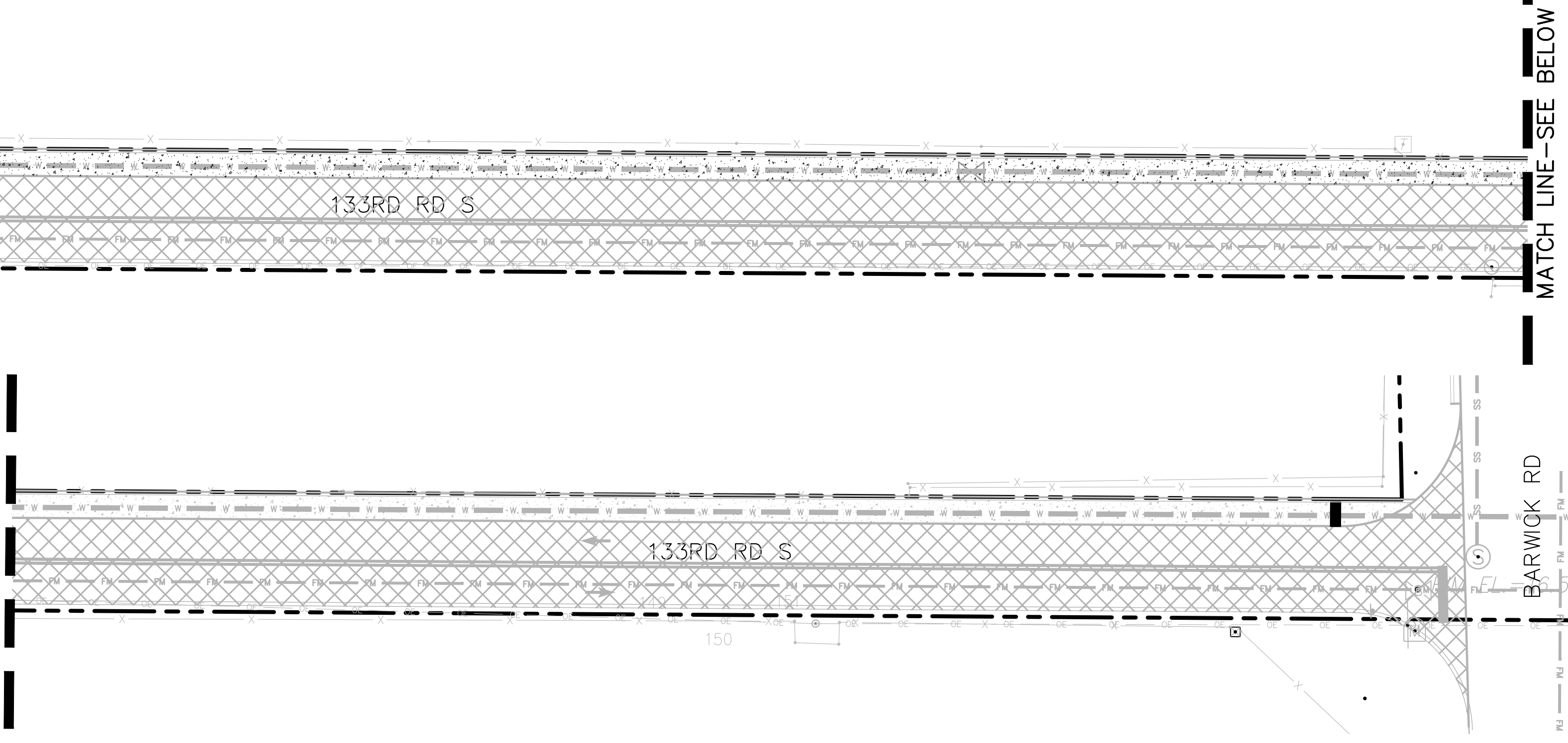
Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	IVRatio
133rd road	Illuminance	Fc	2.05	4.2	0.5	4.10	8.40	N.A.
Basketball Court	Illuminance	Fc	0.31	0.9	0.0	N.A.	N.A.	N.A.
Delray TH Parking area	Illuminance	Fc	1.04	2.3	0.2	5.20	11.50	N.A.
ObtrusiveLight 1 Ill Seg1	Obtrusive - Ill	Fc	N.A.	0.13	0.01	N.A.	N.A.	N.A.
ObtrusiveLight 2 Ill Seg1	Obtrusive - Ill	Fc	N.A.	0.16	0.01	N.A.	N.A.	N.A.
ObtrusiveLight 3 Ill Seg1	Obtrusive - Ill	Fc	N.A.	0.04	0.01	N.A.	N.A.	N.A.
ObtrusiveLight 4 Ill Seg1	Obtrusive - Ill	Fc	N.A.	0.02	0.01	N.A.	N.A.	N.A.
Property line horiz	Illuminance	Fc	N.A.	2.74	0.00	N.A.	N.A.	N.A.
Road 1 Luminaire	Luminance	Cd/Sq.m	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Road 1 Veil Lum	Veiling Luminance	Cd/Sq.m	N.A.	N.A.	N.A.	N.A.	N.A.	0.10

Criteria:
City of Delray Beach lighting criteria:
Max illumination: 4.0 FC
Min illumination: 0.3 FC
Max/Min: 13:1

Lighting control and spillage:
Max Property Line Horizontal and Vertical (@ 6 feet above ground) illumination: 0.25 FC

Florida Green book criteria for 133rd Road South
Avg. 0.6
Avg/min (max): 4:1
Veiling luminance: 0.4:1

MATCH LINE—SEE BELOW



- LEGEND**
- PROPERTY LINE
 - FM — FM — SANITARY FORCE MAIN PIPE
 - W — WATER PIPE
 - W — FIRE HYDRANT
 - OHL — OVERHEAD LINE
 - EASEMENTS
 - STORM PIPE (SEE PAVING, GRADING AND DRAINAGE PLANS)
 - STORM AREA INLET
 - STORM MANHOLE
 - BUILDING FINISH FLOOR ELEVATION

PHOTOMETRICS NOTES:

- PROPERTY LINE HORIZONTAL HAS INACCURATE READINGS DUE TO FRONTAGE LIGHTING. MAXIMUM OF 0.09 FC WITHOUT FRONTAGE LIGHTING.
- THE LIGHT POLE INSTALLATION WITHIN CITY RIGHT OF WAY IS THE RESPONSIBILITY OF THE DELRAY TOWNHOMES CONTRACTOR.

PLANS ARE IN NAVD 1988 DATUM
CONVERSION EQUATION IS BELOW:
(NAVD 1988) + 1.5' = (NGVD 1929)

Always call 811 two full business days before you dig to have underground utilities located and marked.

Sunshine811.com

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

KHA PROJECT 140726000		LICENSED PROFESSIONAL	JASON A. WEBBER, P.E.		03/13/2023 JWD
DATE JUNE 2023	SCALE AS SHOWN	DESIGNED BY YYY	DRAWN BY XXX	FLORIDA LICENSE NUMBER 73962	04/06/2021 TVC
CHECKED BY JAW		DATE ---	REVISIONS		02/02/2021 TVC
NO.		DATE	BY		

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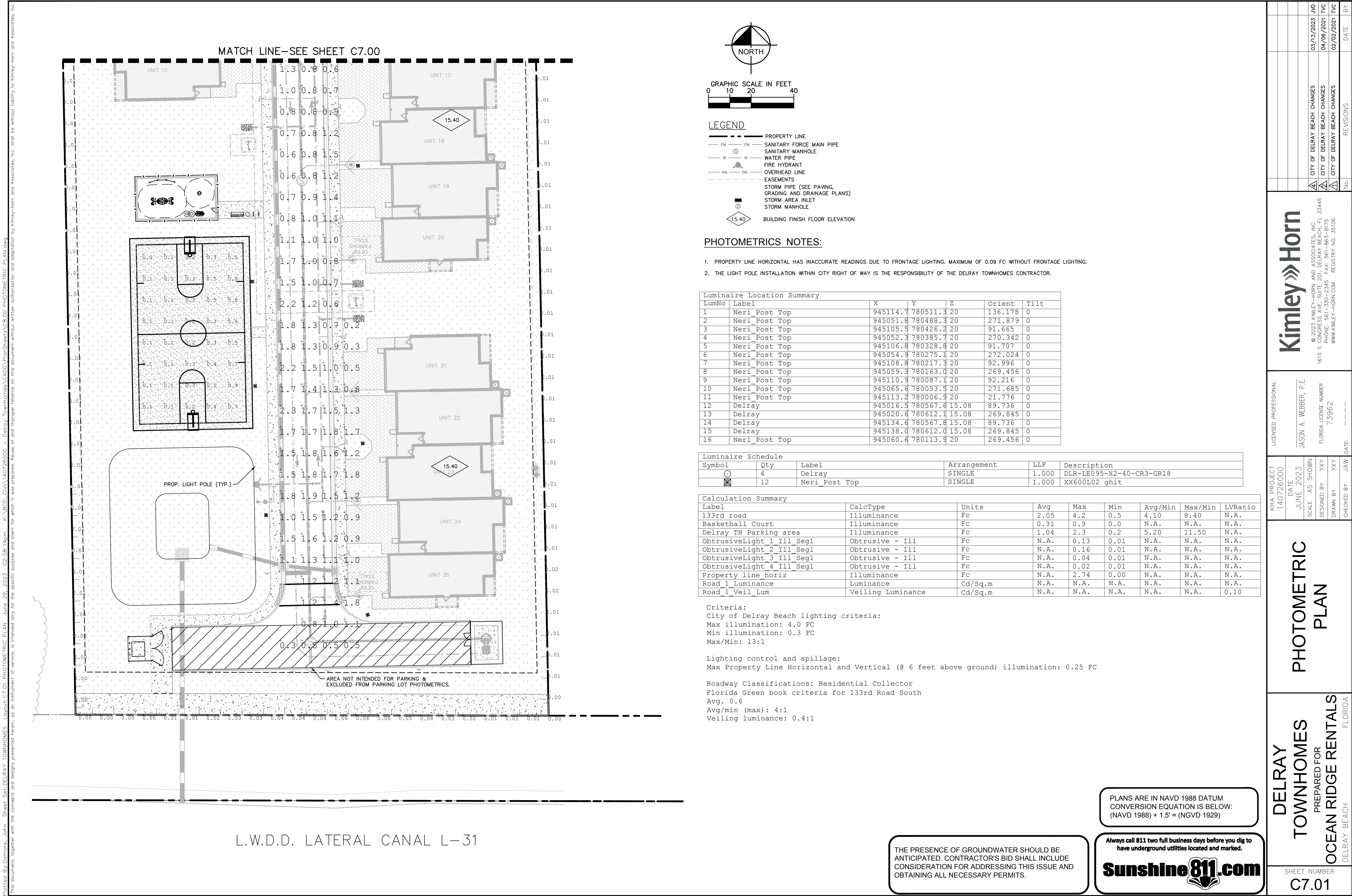
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PHOTOMETRIC PLAN

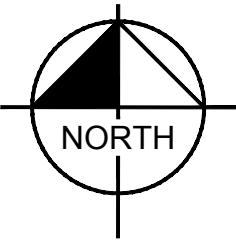
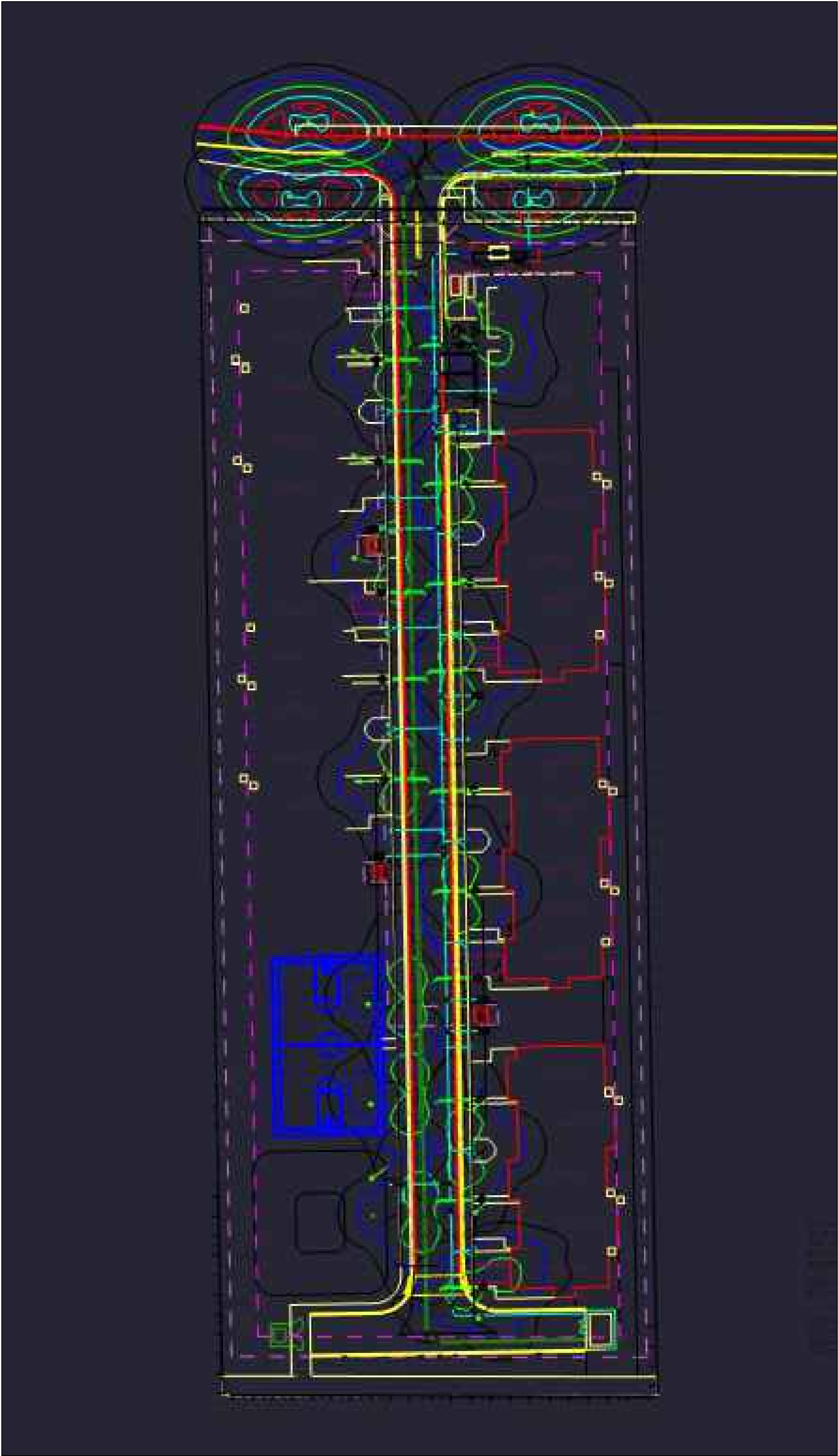
DELRAY TOWNHOMES
PREPARED FOR
OCEAN RIDGE RENTALS

FLORIDA
DELRAY BEACH

SHEET NUMBER
C7.00



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DELRAY
TOWNHOMES
PREPARED FOR
OCEAN RIDGE RENTALS

FLORIDA

PHOTOMETRIC
LIGHTING
COVERAGE

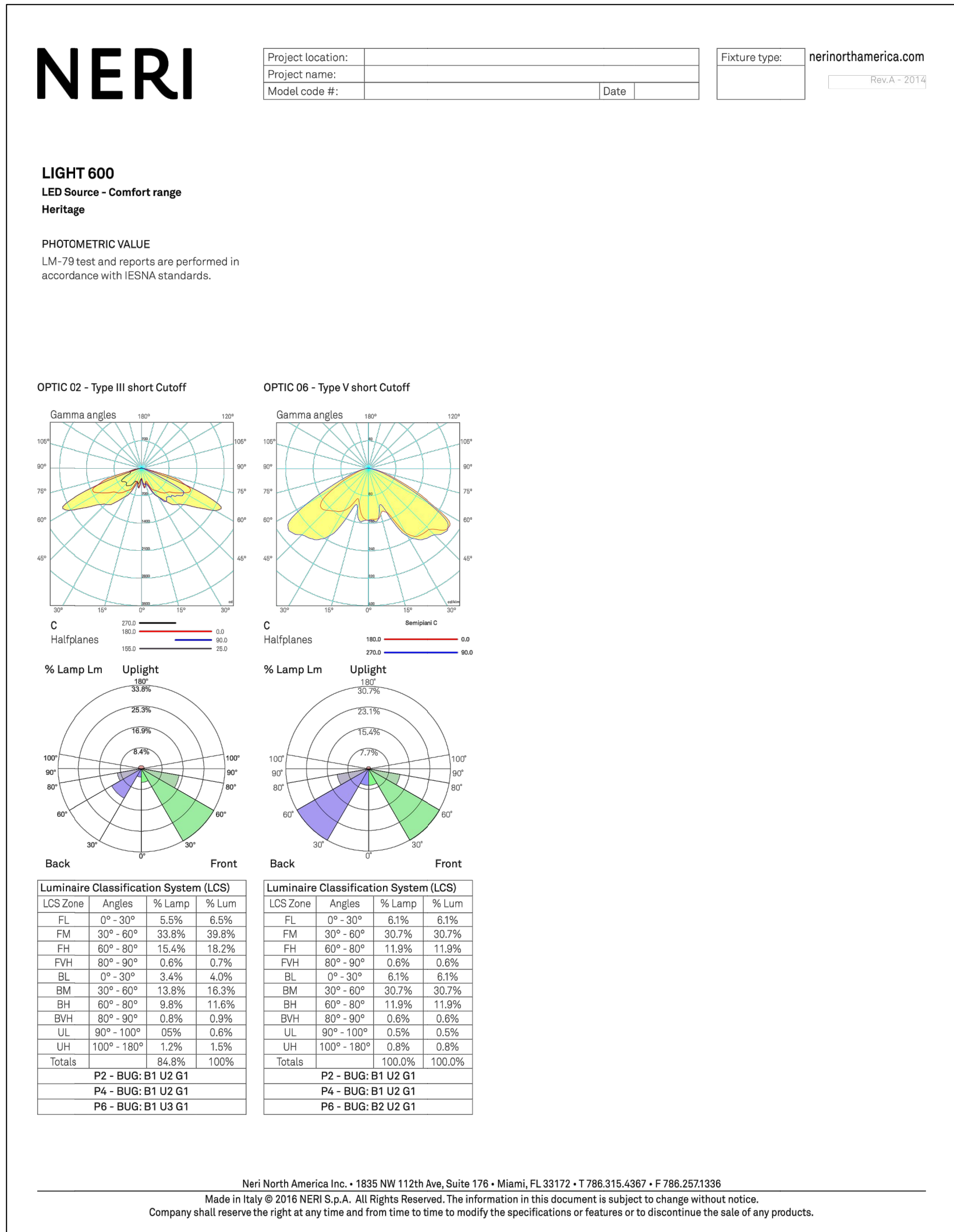
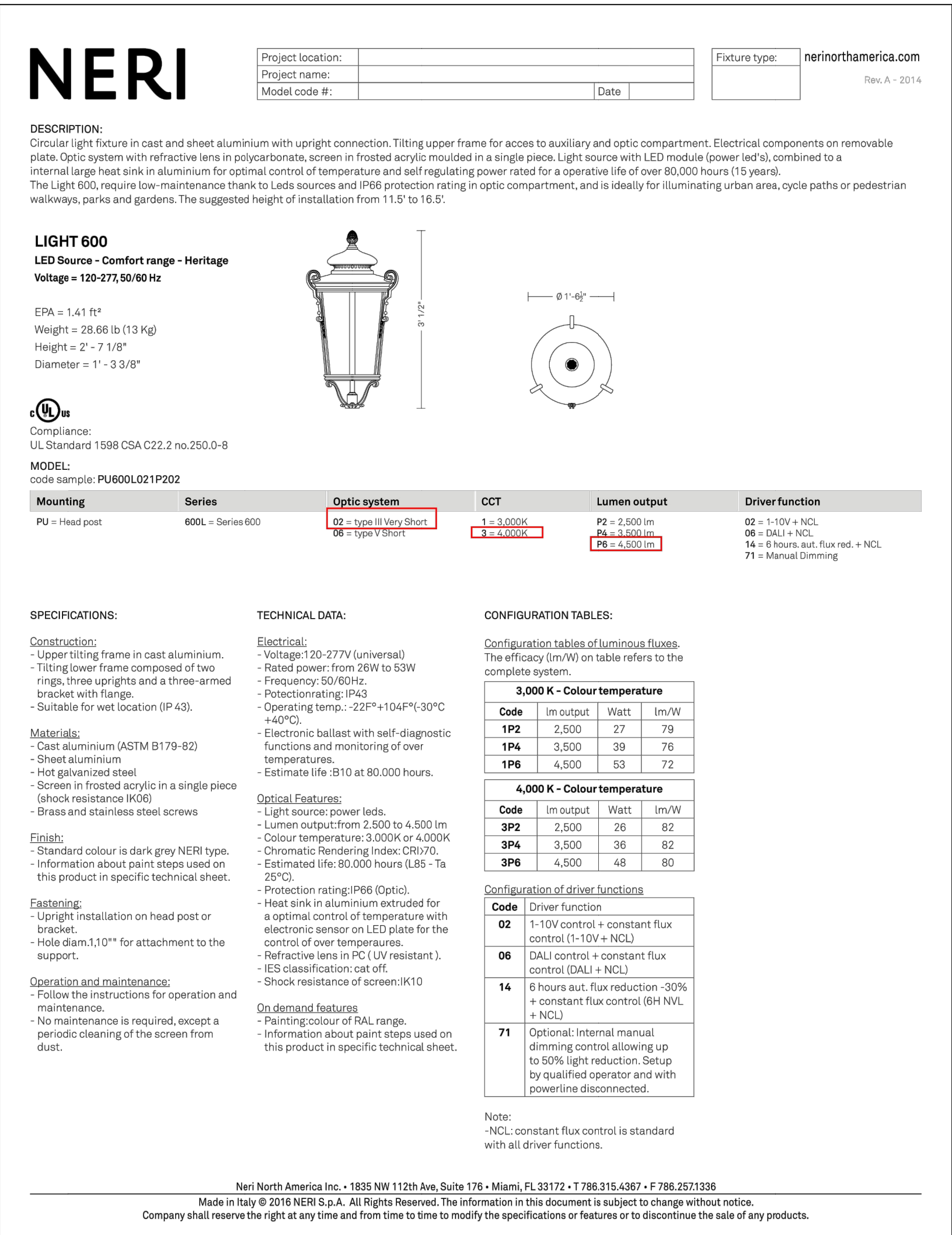
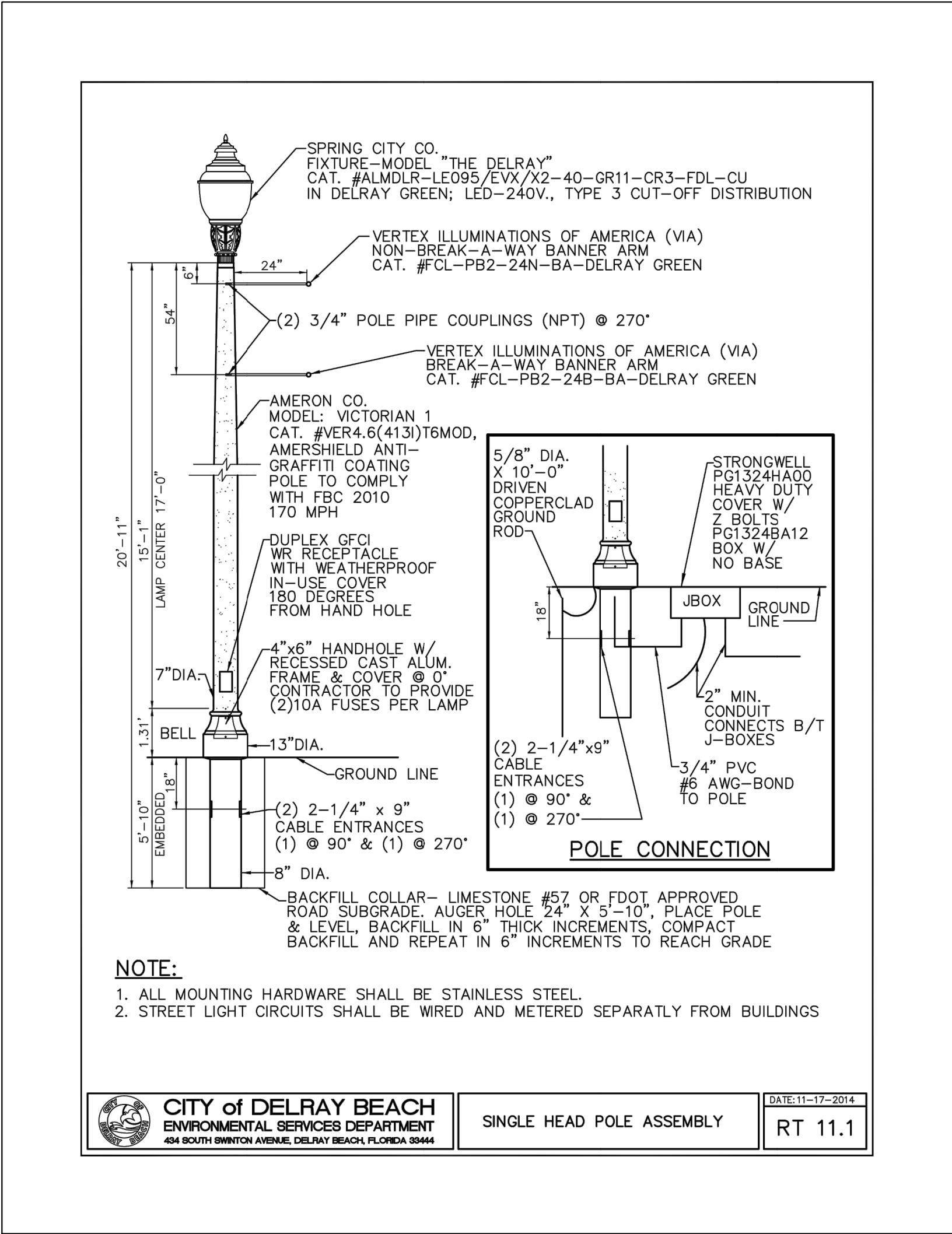
KHA PROJECT
140726000
DATE
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SCALE AS SHOWN
DESIGNED BY YXY
DRAWN BY YXY
CHECKED BY JAW
DATE

LICENSED PROFESSIONAL
JASON A. WEBBER, P.E.
FLORIDA LICENSE NUMBER
73962

Kimley»Horn
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PHOENIX, AZ 85024
PHONE: 561-330-2345 FAX: 561-863-8175
WWW.KIMLEY-HORN.COM REGISTRY NO. 35106

No.	REVISIONS	DATE	BY
1	CITY OF DELRAY BEACH CHANGES	03/13/2023	JWD
2	CITY OF DELRAY BEACH CHANGES	04/06/2021	TVC
3	CITY OF DELRAY BEACH CHANGES	02/02/2021	TVC

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NOTES:

1. FOUNDATION DESIGN TO BE PROVIDED BY OTHERS.
2. CONDUIT LAYOUT AND ELECTRICAL DESIGN TO BE PROVIDED BY OTHERS.
3. POLE SUPPLIER SHALL PROVIDE TENON CONNECTION BETWEEN FIXTURE AND POLE.
4. POLE SUPPLIER SHALL CERTIFY THAT POLE, BASE & FIXTURE MEETS 175 MPH WIND LOAD CRITERIA & SHALL PROVIDE SIGNED & SEALED CALCULATIONS BY A REGISTERED FLORIDA ENGINEER.

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KHA PROJECT 140726000	DATE JUNE 2023	SCALE AS SHOWN	DESIGNED BY YYY	DRAWN BY YYY	CHECKED BY JAW	DATE ---	FLORIDA OCEAN RIDGE RENTALS	PHOTOMETRIC DETAILS	DELAY TOWNHOMES PREPARED FOR	CITY OF DELRAY BEACH CHANGES 04/06/2021 TVC 02/02/2021 TVC	REVISED No.	DATE BY
KIMLEY-HORN & ASSOCIATES, INC. 1815 S PHONE: 561-330-2345 FAX: 561-863-8175 WWW.KIMLEY-HORN.COM REGISTRY NO. 35106										Kimley»Horn		

