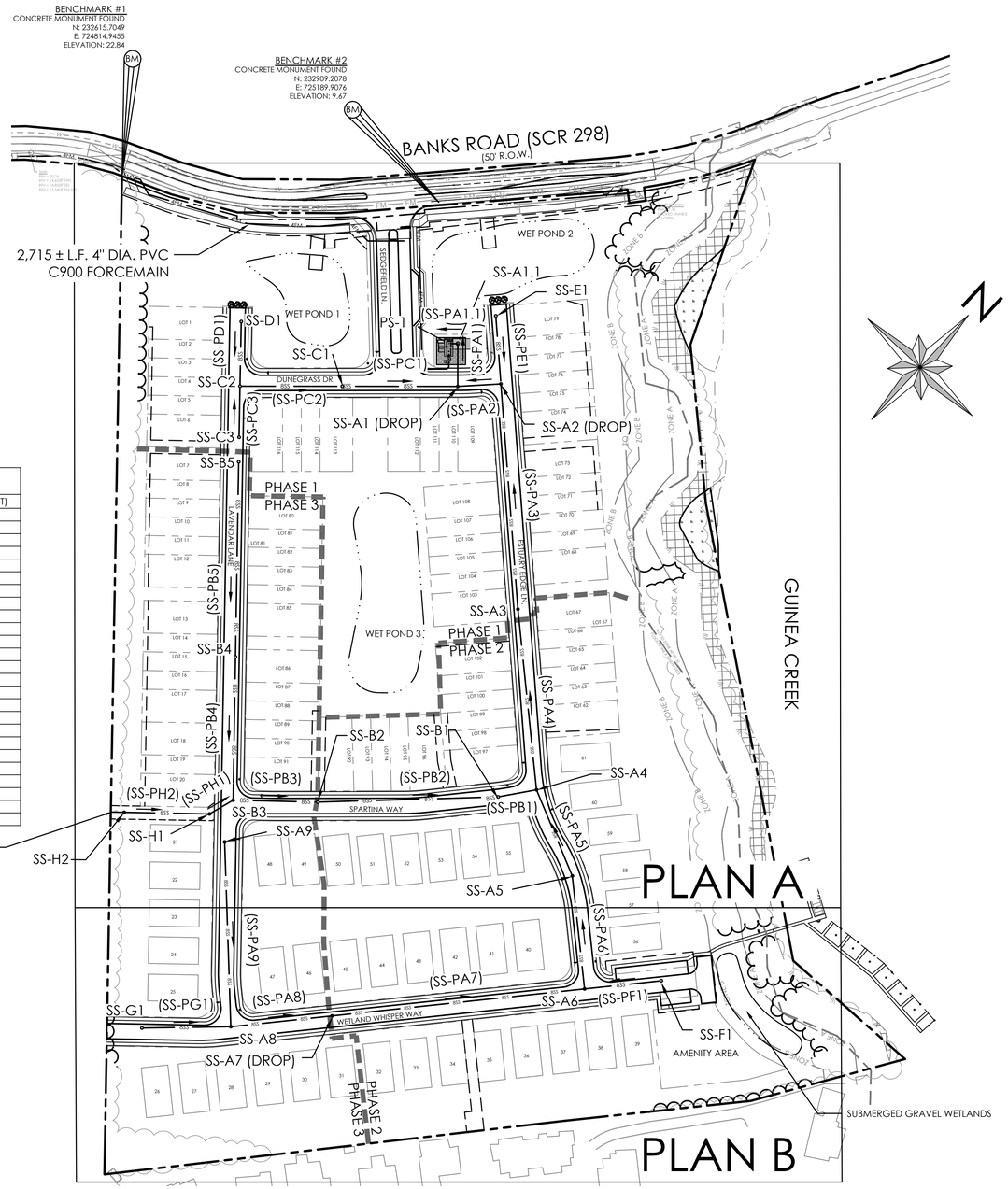
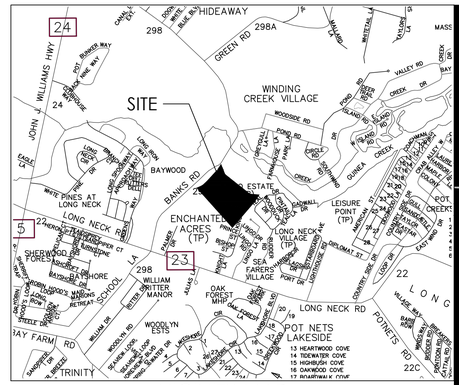
SANITARY SEWER STRUCTURE CHART				
NAME	RIM ELEV(FT)	INVERT-IN ELEV(FT) (1)	INVERT-IN ELEV(FT) (2)	INVERT-OUT ELEV(FT)
PS-1	11.90	-1.73	-	6.40 (FM)
SS-A1.1	11.67	-1.64	-	-1.69
SS-A1 (DROP)	10.22	4.00	-1.40	-1.45
SS-A2 (DROP)	10.73	4.05	-1.16	-1.21
SS-A3	10.78	-0.09	-	-0.14
SS-A4	12.59	0.77	0.77	0.72
SS-A5	10.31	1.25	-	1.20
SS-A6	11.29	1.81	1.81	1.76
SS-A7 (DROP)	15.41	8.98	-	2.95
SS-A8	16.81	9.49	9.49	9.44
SS-A9	16.09	-	-	10.59
SS-B1	12.15	1.00	-	0.95
SS-B2	15.45	1.86	-	1.81
SS-B3	16.41	4.66	4.66	4.61
SS-B4	14.80	5.35	-	5.30
SS-B5	17.47	-	-	6.52
SS-C1	15.94	10.96	-	10.91
SS-C2	18.34	11.55	11.55	11.50
SS-C3	17.73	-	-	12.73
SS-D1	19.61	-	-	14.61
SS-E1	9.58	-	-	4.46
SS-F1	9.54	-	-	4.54
SS-G1	16.23	-	-	11.23
SS-H1	16.70	4.83	-	4.78
SS-H2	15.42	5.26	-	5.21
SS-TCO-H3	15.83	-	-	5.31

SANITARY SEWER PIPE TABLE						
NAME	SIZE (IN)	MATERIAL	LENGTH (FT)	SLOPE (%)	UP INVERT (FT)	DOWN INVERT (FT)
SS-PA1.1	10"	PVC - SDR 26	13.37'	0.30	-1.69	-1.73
SS-PA1	8"	PVC - SDR 26	64.00'	0.30	-1.45	-1.64
SS-PA2	8"	PVC - SDR 35	64.62'	0.30	-1.21	-1.40
SS-PA3	8"	PVC - SDR 35	338.08'	0.30	-0.14	-1.16
SS-PA4	8"	PVC - SDR 35	271.68'	0.30	0.72	-0.09
SS-PA5	8"	PVC - SDR 35	139.61'	0.31	1.20	0.77
SS-PA6	8"	PVC - SDR 35	170.08'	0.30	1.76	1.25
SS-PA7	8"	PVC - SDR 26	380.00'	0.30	2.95	1.81
SS-PA8	8"	PVC - SDR 35	152.24'	0.30	9.44	8.98
SS-PA9	8"	PVC - SDR 35	276.70'	0.40	10.59	9.49
SS-PB1	8"	PVC - SDR 26	58.46'	0.30	0.95	0.77
SS-PB2	8"	PVC - SDR 26	270.43'	0.30	1.81	1.00
SS-PB3	8"	PVC - SDR 26	126.56'	2.17	4.61	1.86
SS-PB4	8"	PVC - SDR 35	214.35'	0.30	5.30	4.66
SS-PB5	8"	PVC - SDR 35	292.02'	0.40	6.52	5.35
SS-PC1	8"	PVC - SDR 35	172.74'	4.00	10.91	4.00
SS-PC2	8"	PVC - SDR 35	152.99'	0.36	11.50	10.96
SS-PC3	8"	PVC - SDR 35	76.44'	1.54	12.73	11.55
SS-PD1	8"	PVC - SDR 35	96.68'	3.17	14.61	11.55
SS-PE1	8"	PVC - SDR 35	102.04'	0.40	4.46	4.05
SS-PF1	8"	PVC - SDR 35	115.41'	2.37	4.54	1.81
SS-PG1	8"	PVC - SDR 35	133.00'	1.31	11.23	9.49
SS-PH1	8"	PVC - SDR 35	40.84'	0.30	4.78	4.66
SS-PH2	8"	PVC - SDR 35	127.69'	0.30	5.21	4.83
SS-PH3	8"	PVC - SDR 35	18.00'	0.30	5.31	5.26





VICINITY MAP
SCALE: 1"=2000'

SITE DATA:

OWNER/DEVELOPER: RUDDER ROAD LLC
4750 OWINGS MILLS BLVD.
OWINGS MILLS, MD 21117
CONTACT: JON HOFFMAN

ENGINEER/
LAND PLANNER: SOLUTIONS IPEM, LLC
303 NORTH BEDFORD STREET
GEORGETOWN, DE 19947
PHONE: 302.297.9215
CONTACT: JIM ERIKSEN, P.E.

TM 234-23.00-276.00, 276.01 & 277 (3 EXISTING LOTS)
TOTAL AREA = 32.89 ± AC.

- EXISTING ZONING: MR
- PROPOSED USE: RESIDENTIAL SUBDIVISION
  TOWNHOMES = 75
  SINGLE FAMILY CONDOS = 41
  TOTAL UNITS = 116
- BOUNDARY AND TOPOGRAPHY AS SHOWN HEREON ARE AS PROVIDED BY SOLUTIONS IPEM, LLC
- WATER SUPPLY:
  TIDEWATER UTILITIES, INC.
- SANITARY SEWER:
  SUSSEX COUNTY
- PROPERTY IS PARTIALLY LOCATED WITHIN FLOOD ZONE AE (SPECIAL FLOOD HAZARD AREA) BASE FLOOD ELEVATIONS 6, PER FIRM MAP NUMBER 10005C0343K, MAP REVISED 3/16/2015

SEWER PLAN SHEETS

19 - SANITARY SEWER INDEX
20 - SANITARY SEWER PLAN A
21 - SANITARY SEWER PLAN B
23 - SANITARY SEWER PROFILE 1
24 - SANITARY SEWER PROFILE 2
26 - SANITARY SEWER DETAILS 1
27 - SANITARY SEWER DETAILS 2
28 - PUMP STATION PLAN
29 - PUMP STATION DETAILS 1
30 - PUMP STATION DETAILS 2
58 - PROJECT DEVELOPMENT PHASING PLAN

PUMP STATION DESIGN FLOW

Community	Homes	Amenities	Total EDUs
Creekside	116	1	117

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100ft.

NOTES:
1. ALL GRAVITY-FED SANITARY SEWER PIPES WITH A DEPTH LESS THAN 12' SHALL BE SDR-35. ALL GRAVITY-FED SANITARY SEWER PIPES WITH A DEPTH GREATER THAN 12' SHALL BE SDR-26.
2. ALL FITTINGS FOR GRAVITY-FED SANITARY SEWER PIPES SHALL BE SDR-26.
3. THE TOTAL NUMBER OF LATERALS ASSOCIATED WITH THESE PLANS IS 117 (INCLUDING CLUBHOUSE).
4. SEE SHEET 58 FOR PHASING PLAN.

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Date 09/29/2026

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4	8/12/2026	REVISIONS PER TUI COMMENTS
5	9/11/2026	REVISIONS PER TUI & SFMO COMMENTS
6	9/29/2026	REVISIONS PER SCE COMMENTS

SANITARY SEWER INDEX

for

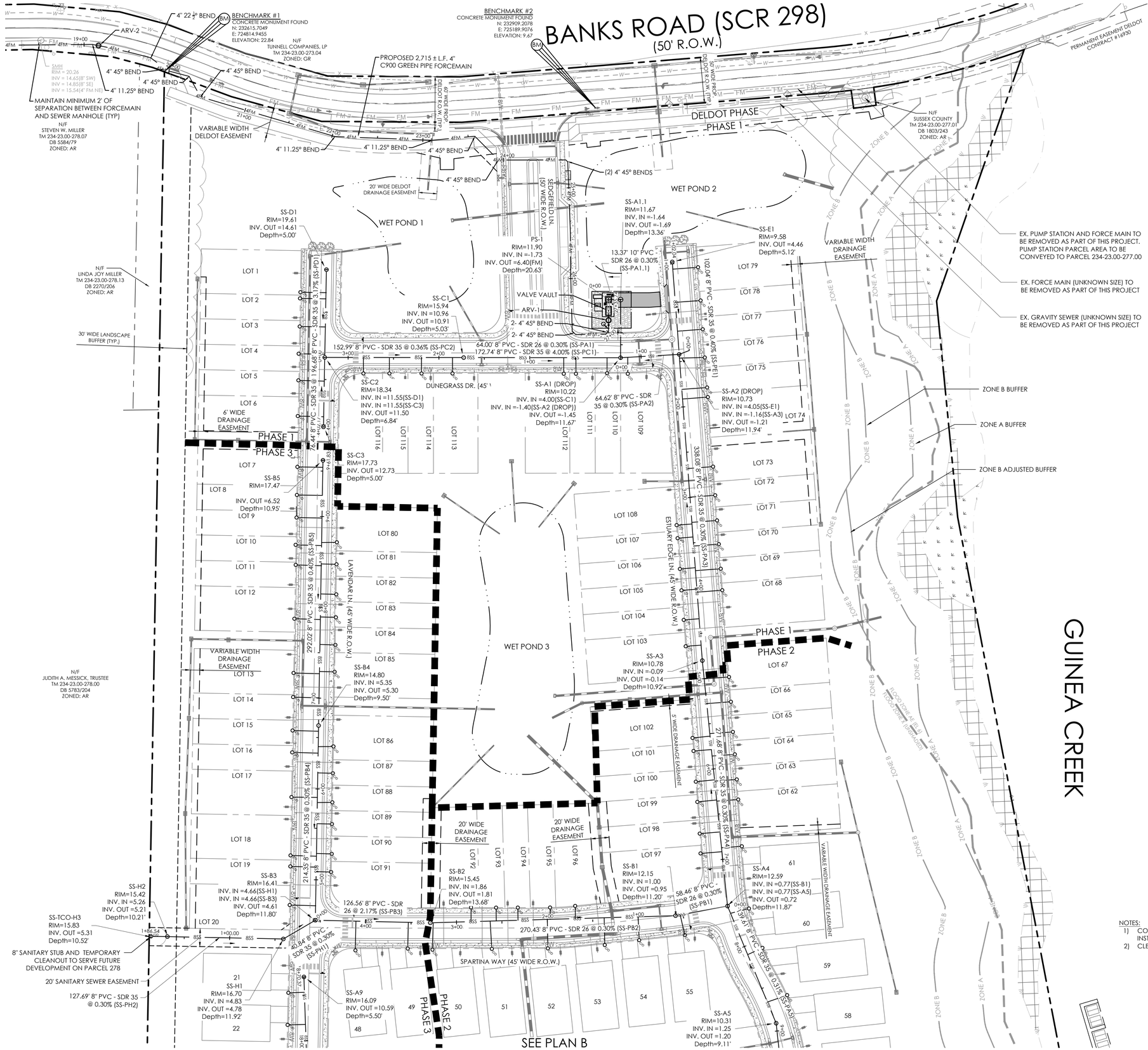
CREEKSIDE

INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date:	08-20-2025
Job Number:	G22091
Scale:	AS NOTED
Drawn By:	PJM
Designed By:	PJM
Approved By:	JRE

Sheet No.: 19

File Name: G22091-SEWER INDEX



NOTES:
1) CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES AT CONNECTIONS PRIOR TO INSTALLATION
2) CLEANOUTS SHOULD NOT BE LOCATED IN DRIVEWAYS WHEN FEASIBLE.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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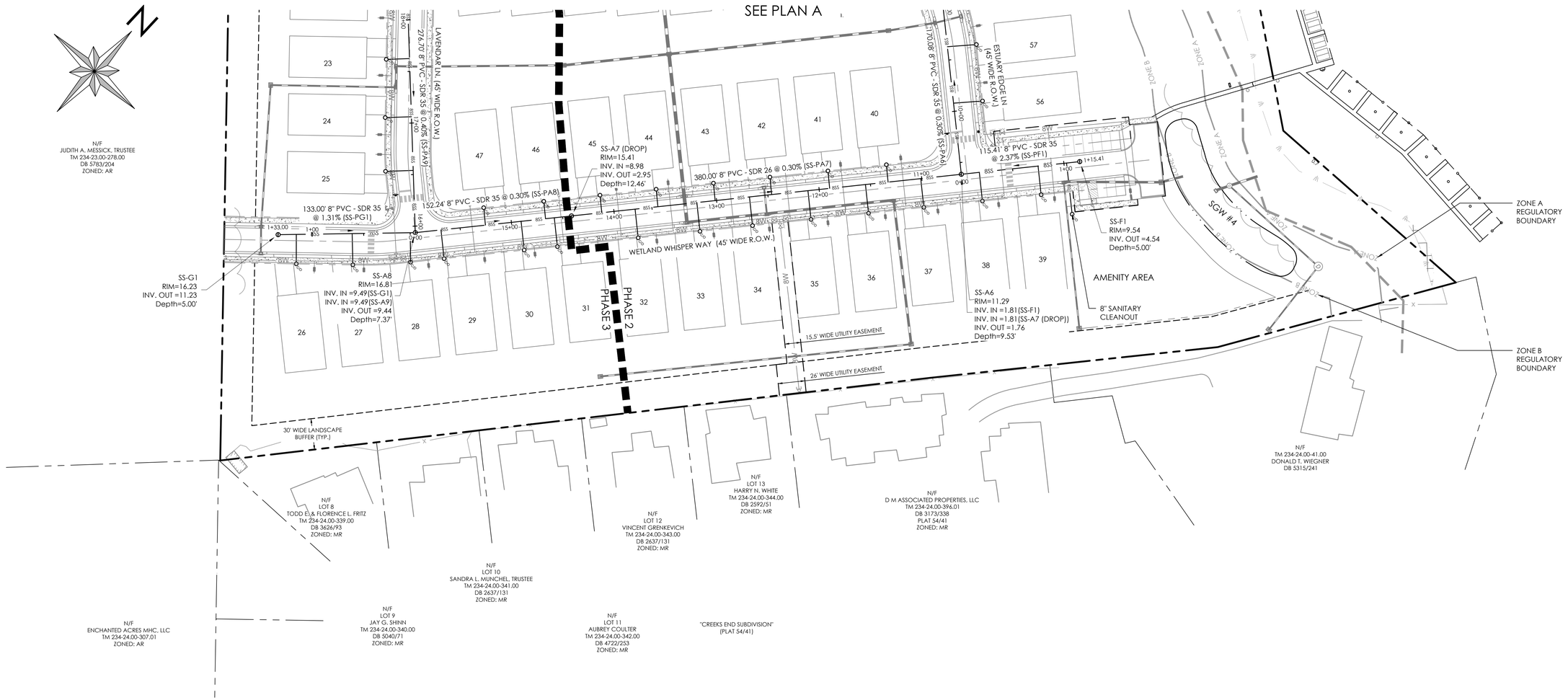
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3	7/31/2026	REVISIONS PER SCE COMMENTS
4	8/12/2026	REVISIONS PER TUI COMMENTS
5	9/11/2026	REVISIONS PER TUI & SFMO COMMENTS
6	9/29/2026	REVISIONS PER SCE COMMENTS

SANITARY SEWER PLAN A
for
CREEKSIDE
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date:	08-20-2025
Job Number:	G22091
Scale:	AS NOTED
Drawn By:	PJM
Designed By:	PJM
Approved By:	JRE

Sheet No.: 20

File Name: G22091-SEWER PLANS



NOTES:
1) CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES AT CONNECTIONS PRIOR TO INSTALLATION
2) CLEANOUTS SHOULD NOT BE LOCATED IN DRIVEWAYS

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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5	9/11/2026	REVISIONS PER TUI & SFMO COMMENTS
6	9/29/2026	REVISIONS PER SCE COMMENTS

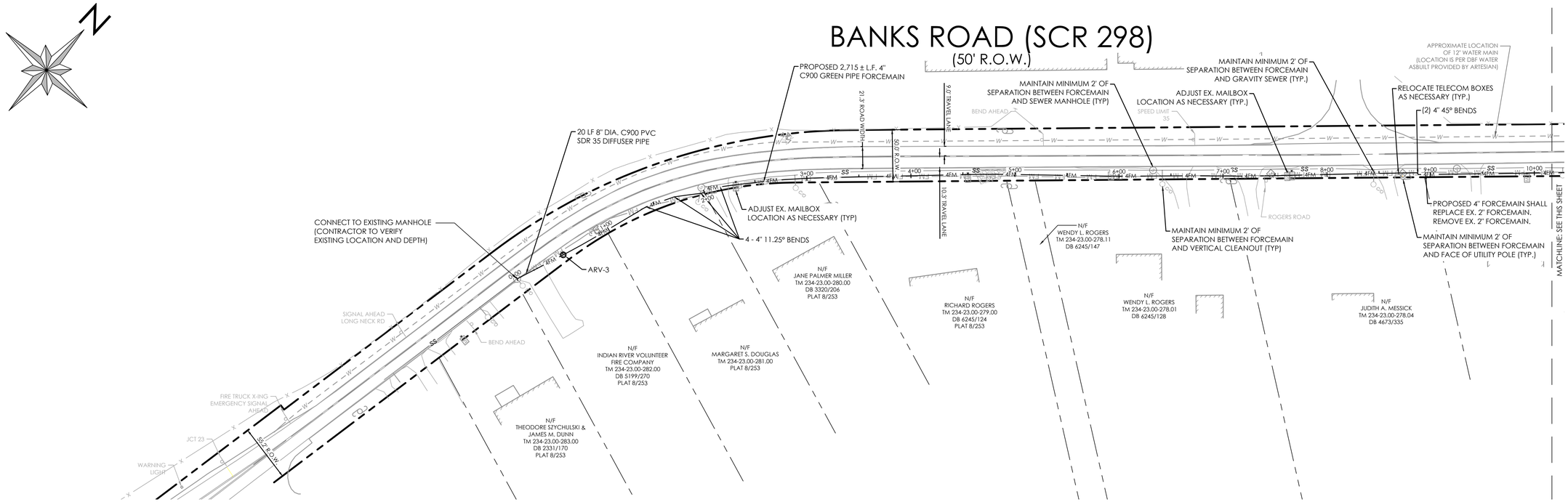
SANITARY SEWER PLAN B
for
CREEKSIDE
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date:	08-20-2025
Job Number:	G22091
Scale:	AS NOTED
Drawn By:	PJM
Designed By:	PJM
Approved By:	JRE

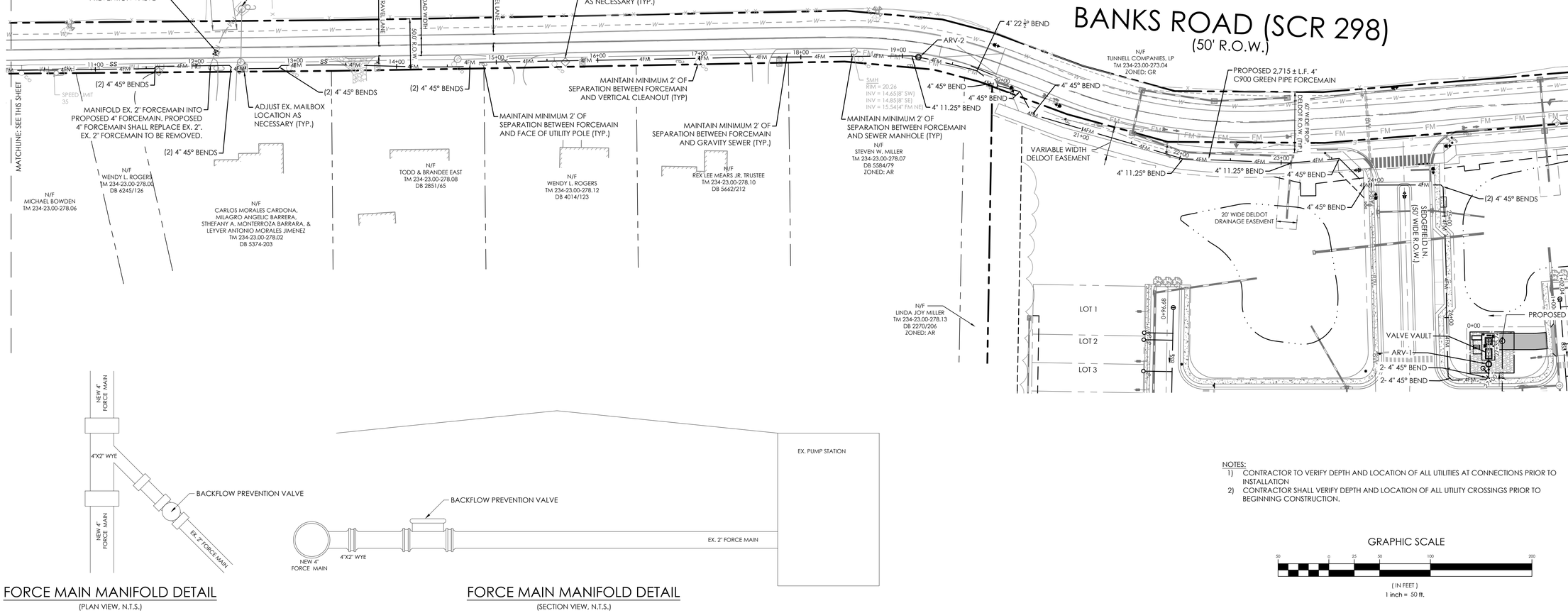
Sheet No.: 21

File Name: G22091-SEWER PLANS

BANKS ROAD (SCR 298)
(50' R.O.W.)



BANKS ROAD (SCR 298)
(50' R.O.W.)



FORCE MAIN MANIFOLD DETAIL
(PLAN VIEW, N.T.S.)

FORCE MAIN MANIFOLD DETAIL
(SECTION VIEW, N.T.S.)

NOTES:
1) CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES AT CONNECTIONS PRIOR TO INSTALLATION
2) CONTRACTOR SHALL VERIFY DEPTH AND LOCATION OF ALL UTILITY CROSSINGS PRIOR TO BEGINNING CONSTRUCTION.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

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4	8/12/2026	REVISIONS PER TUI COMMENTS
5	9/11/2026	REVISIONS PER TUI & SFMO COMMENTS
6	9/29/2026	REVISIONS PER SCE COMMENTS

FORCE MAIN PLAN

for

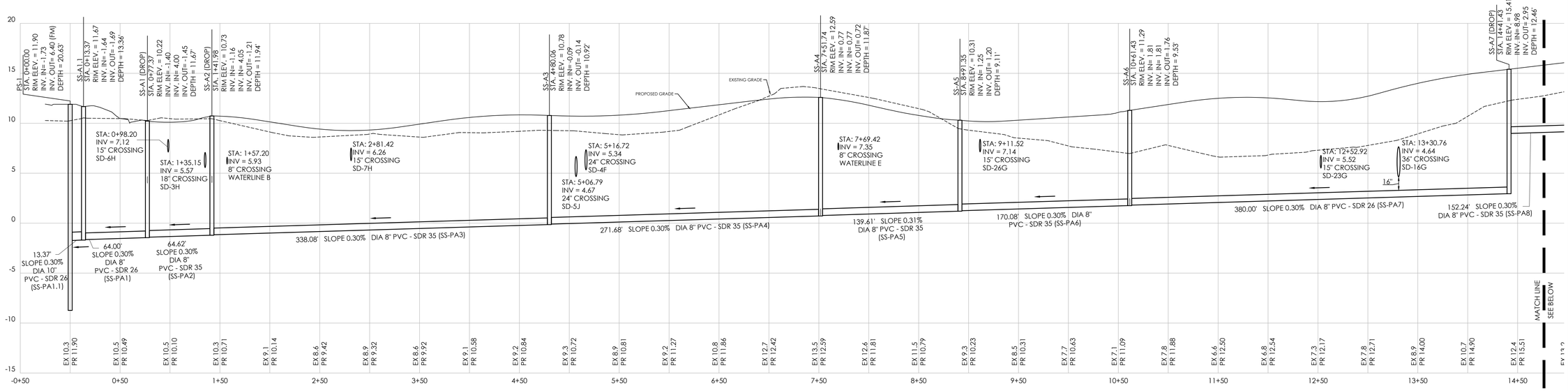
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INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

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Approved By: JRE

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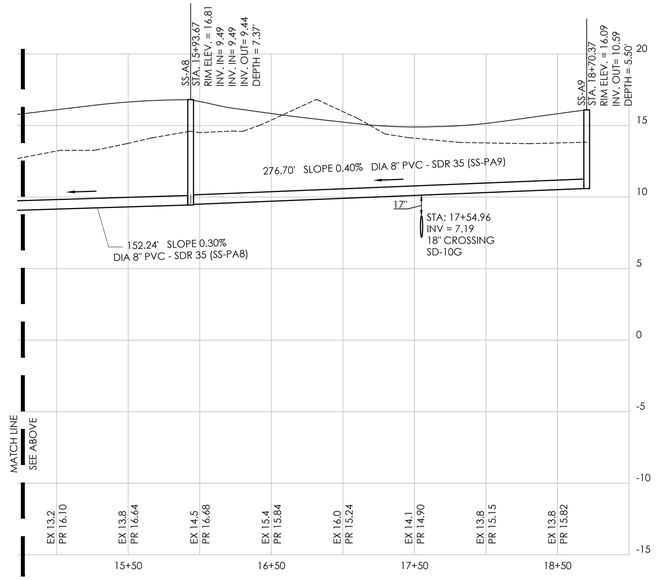
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PS-1 TO SS-A9

HORIZONTAL: 1" = 50'

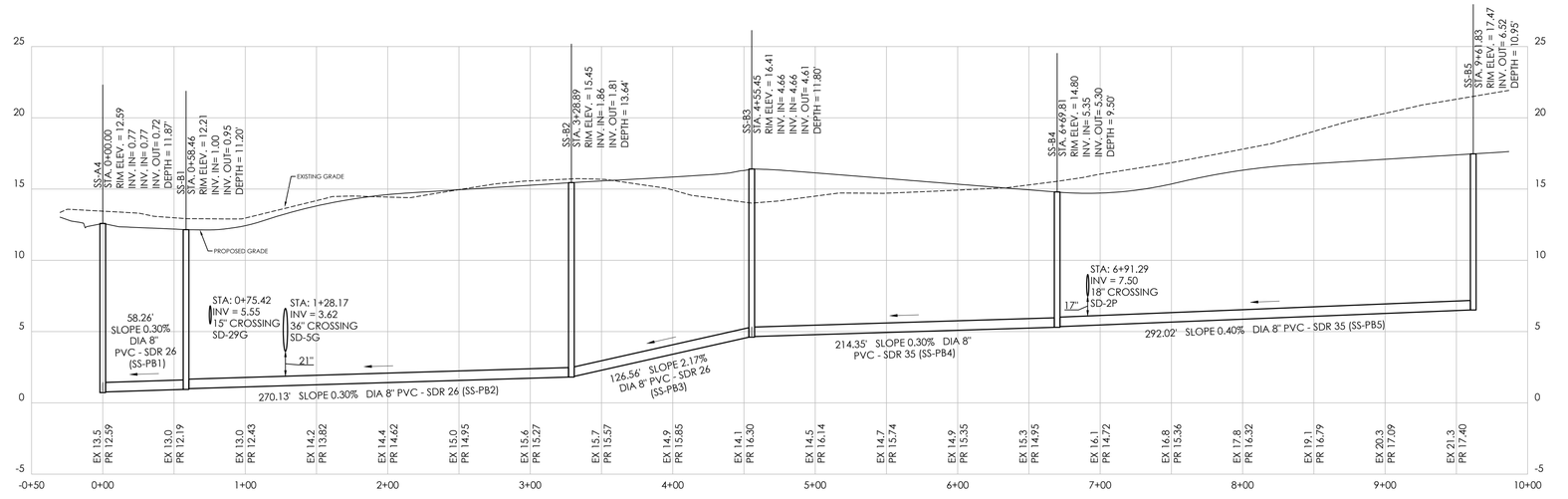
VERTICAL: 1" = 5"



PS-1 TO SS-A9 (CONTINUED)

HORIZONTAL: 1" = 50'

VERTICAL: 1" = 5"



SS-A4 TO SS-B5

HORIZONTAL: 1" = 50'

VERTICAL: 1" = 5"

NOTES:

1. THE SANITARY SEWER SHALL CONFORM TO THE SUSSEX COUNTY STANDARDS AND SPECIFICATIONS FOR SEWER DETAILS.
2. ALL GRAVITY-FED SANITARY SEWER PIPES WITH A DEPTH LESS THAN 12' SHALL BE SDR-35. ALL GRAVITY-FED SANITARY SEWER PIPES WITH A DEPTH GREATER THAN 12' SHALL BE SDR-26.
3. ALL FITTINGS FOR GRAVITY-FED SANITARY SEWER PIPES SHALL BE SDR-26.
4. SEWERS CROSSING WATER MAINS SHALL BE LAID OUT TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18" BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THE CROSSING SHALL BE ARRANGED SO THE SEWER JOINTS WILL BE EQUIDISTANT, AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. CONCRETE ENCASEMENT SHALL BE REQUIRED WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION.

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6	9/29/2026	REVISIONS PER SCE COMMENTS

SANITARY SEWER PROFILE 1

for

CREEKSIDE

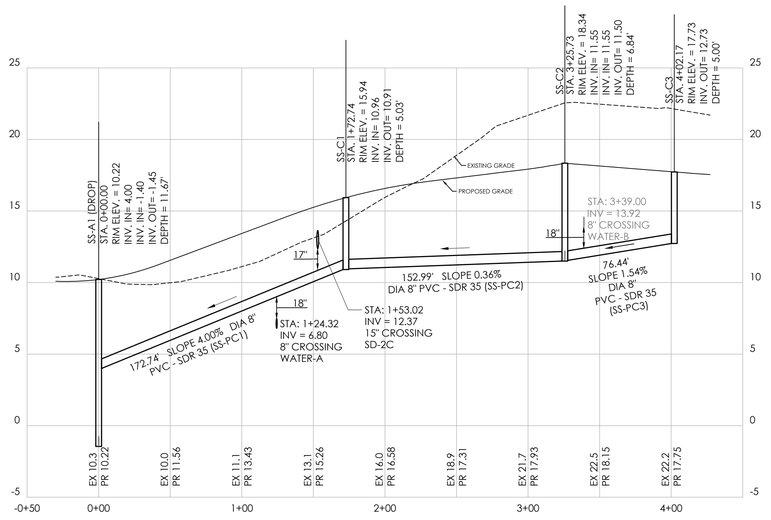
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SUSSEX COUNTY, DELAWARE

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Approved By:	JRE

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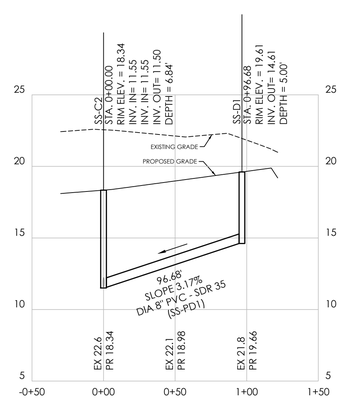
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SS-A1 TO SS-C3

HORIZONTAL: 1" = 50'

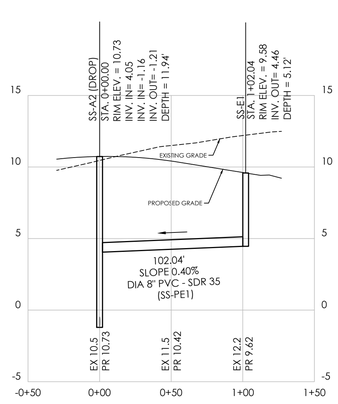
VERTICAL: 1" = 5"



SS-C2 TO SS-D1

HORIZONTAL: 1" = 50'

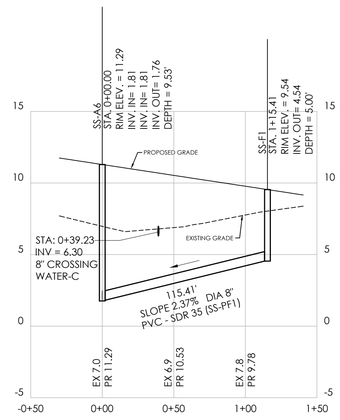
VERTICAL: 1" = 5"



SS-A2 TO SS-E1

HORIZONTAL: 1" = 50'

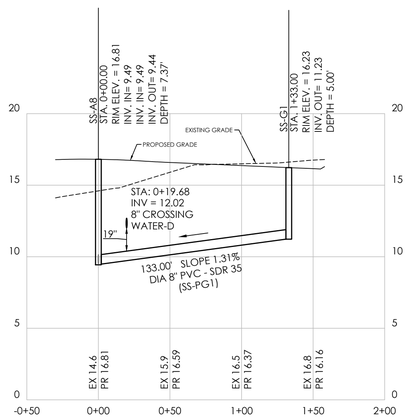
VERTICAL: 1" = 5"



SS-A6 TO SS-F1

HORIZONTAL: 1" = 50'

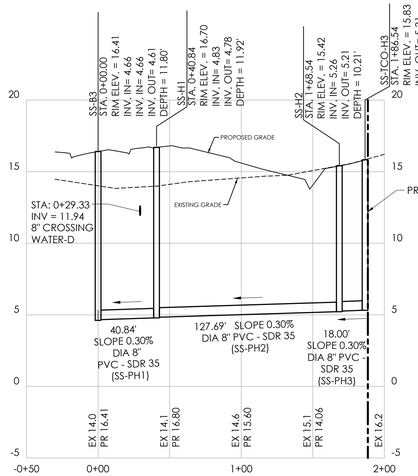
VERTICAL: 1" = 5"



SS-A8 TO SS-G1

HORIZONTAL: 1" = 50'

VERTICAL: 1" = 5"



SS-B3 TO SS-H2

HORIZONTAL: 1" = 50'

VERTICAL: 1" = 5"

NOTES:

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2. ALL GRAVITY-FED SANITARY SEWER PIPES WITH A DEPTH LESS THAN 12' SHALL BE SDR-35. ALL GRAVITY-FED SANITARY SEWER PIPES WITH A DEPTH GREATER THAN 12' SHALL BE SDR-26.
3. ALL FITTINGS FOR GRAVITY-FED SANITARY SEWER PIPES SHALL BE SDR-26.
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3	7/31/2026	REVISIONS PER SCE COMMENTS
4	8/12/2026	REVISIONS PER TUI COMMENTS
5	9/11/2026	REVISIONS PER TUI & SFMO COMMENTS
6	9/29/2026	REVISIONS PER SCE COMMENTS

SANITARY SEWER PROFILE 2

for

CREEKSIDE

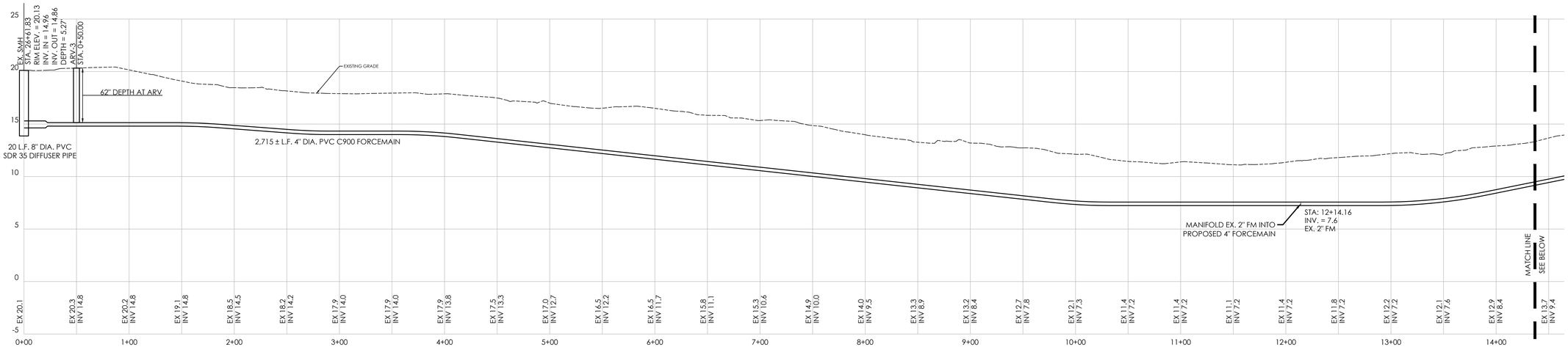
INDIAN RIVER HUNDRED

SUSSEX COUNTY, DELAWARE

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Job Number:	G22091
Scale:	AS NOTED
Drawn By:	PJM
Designed By:	PJM
Approved By:	JRE

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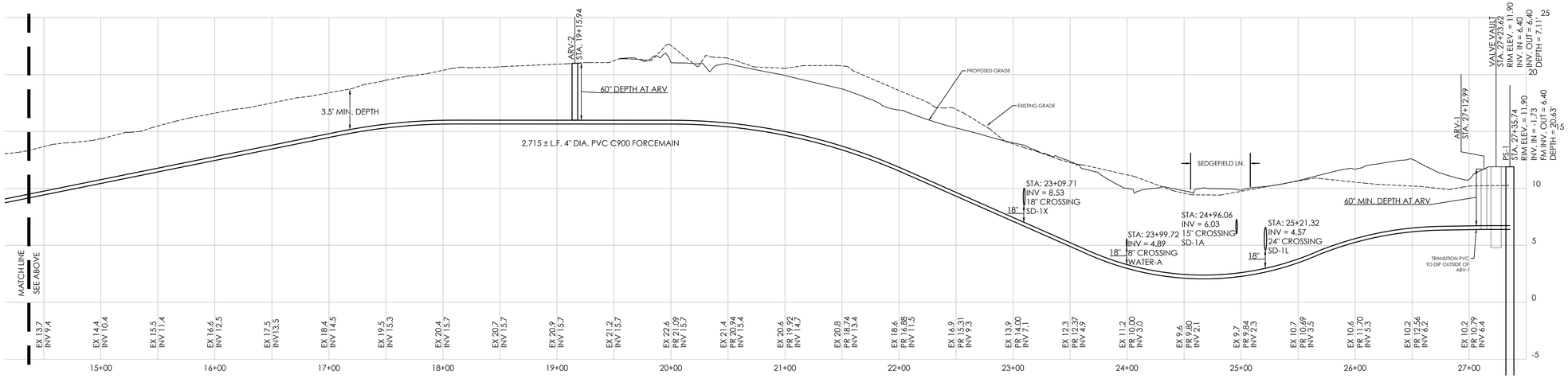
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FORCEMAIN

HORIZONTAL: 1" = 50'

VERTICAL: 1" = 5"



FORCEMAIN (CONT.)

HORIZONTAL: 1" = 50'

VERTICAL: 1" = 5"

NOTES:

1. THE SANITARY SEWER SHALL CONFORM TO THE SUSSEX COUNTY STANDARDS AND SPECIFICATIONS FOR SEWER DETAILS.
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JAMES R. ERIKSEN LICENSE NO. 17668 PROFESSIONAL ENGINEER

Seal

Date 09/29/2026

REVISIONS

NO.	DATE	DESCRIPTION
1	6/02/2026	REVISIONS PER TUI COMMENTS
2	7/16/2026	REVISIONS PER TUI COMMENTS
3	7/31/2026	REVISIONS PER SCE COMMENTS
4	8/12/2026	REVISIONS PER TUI COMMENTS
5	9/11/2026	REVISIONS PER TUI & SFMO COMMENTS
6	9/29/2026	REVISIONS PER SCE COMMENTS

SANITARY SEWER PROFILE 3

for

CREEKSIDE

INDIAN RIVER HUNDRED

SUSSEX COUNTY, DELAWARE

Date: 08-20-2025

Job Number: G22091

Scale: AS NOTED

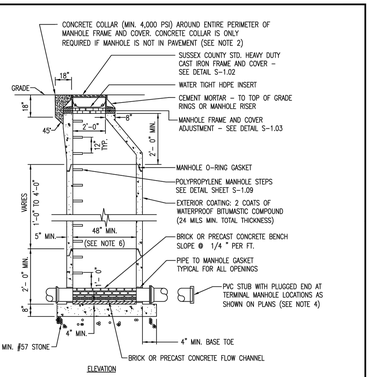
Drawn By: PJM

Designed By: PJM

Approved By: JRE

Sheet No.: 25

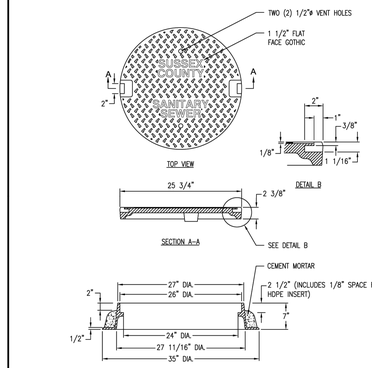
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ELEVATION

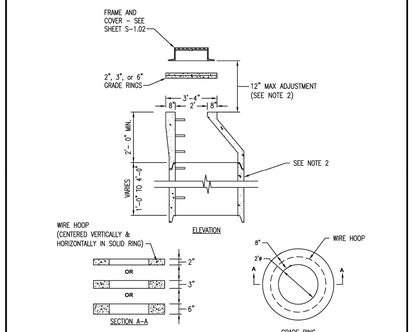
NOTES:
1. PRECAST MANHOLE SHALL MEET THE REQUIREMENTS OF ASTM C-478 WITH MINIMUM 4,000 PSI CONCRETE STRENGTH AND TYPE I/II PORTLAND CEMENT. REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A-185 AND A-615 (REINFORCEMENT NOT SHOWN).
2. FOR MANHOLES LOCATED IN DELDOT ROADWAYS, THE FRAME MANHOLE STACK TRANSITION SHALL BE ORIENTED SUCH THAT FRAME AND COVER IS LOCATED OUTSIDE OF THE WHEEL PATH WHENEVER POSSIBLE. PROVIDE INDIVIDUAL CUT SHEETS FOR ALL MANHOLES INSTALLED WITHIN DELDOT ROADWAYS. DELDOT WILL REQUIRE A CONCRETE COLLAR ON STATE MAINTAINED ROADWAYS – REFER TO CURRENT DELDOT REQUIREMENTS.
3. CONCRETE COLLAR DIMENSIONS ALSO APPLY FOR TERMINAL CLEANOUTS WHEN TERMINAL CLEANOUTS ARE NOT IN PAVED ROADWAYS. ALL CONCRETE SHALL BE POURED AGAINST UNDISTURBED EARTH.
4. COUNTY INSPECTOR WILL DETERMINE STUB LENGTH BASED ON FIELD CONDITIONS.
5. CEMENT MORTAR SHALL BE APPLIED AT ALL JOINTS WITHIN MANHOLE.
6. SEE PLANS & SPECIFICATIONS FOR REQUIREMENTS FOR MANHOLES GREATER THAN 48" IN DIAMETER.

SUSSEX COUNTY ENGINEERING DEPARTMENT	PRECAST CONCRETE MANHOLE	DETAIL S-1.01
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



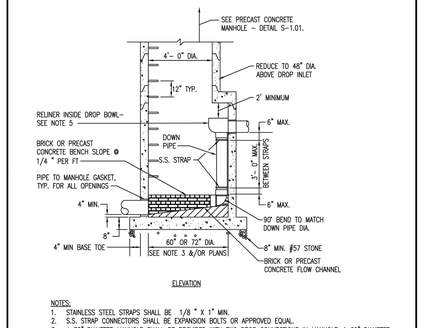
NOTES:
1. SEWER MANHOLE COVERS INSTALLED IN PEDESTRIAN WALKWAY MUST BE ADA COMPLIANT.
2. MANHOLE FRAME AND COVER MUST BE PRODUCED AND FINISHED IN THE UNITED STATES.

SUSSEX COUNTY ENGINEERING DEPARTMENT	MANHOLE FRAME AND COVER	DETAIL S-1.02
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 5/31/2022



NOTES:
1. PRECAST MANHOLE SHALL MEET THE REQUIREMENTS OF ASTM C-478 WITH MINIMUM 4,000 PSI CONCRETE STRENGTH AND TYPE I/II PORTLAND CEMENT.
2. IF ADJUSTMENT HEIGHT EXCEEDS 12", A ONE (1) FOOT RISER INSTALLED BELOW CONE SECTION WILL BE REQUIRED. A MAXIMUM OF THREE (3) GRADE RINGS WILL BE ALLOWED.
3. ALTERNATE MATERIAL GRADE RINGS MAY BE USED FOR MANHOLES LOCATED OUTSIDE OF ROADWAY LIMITS, SUBJECT TO COUNTY APPROVAL.
4. BRICK ADJUSTMENT COURSES PERMITTED, SUBJECT TO DIMENSION REQUIREMENTS NOTED ABOVE.
5. CONCRETE RING SHALL HAVE A DESIGN STRENGTH OF 5000 PSI IN 28 DAYS – DESIGN SHALL MEET REQUIREMENTS OF ASTM C-478

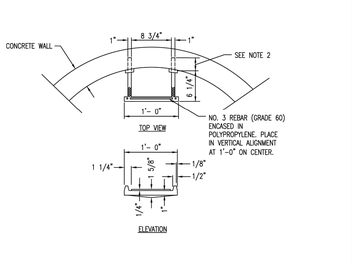
SUSSEX COUNTY ENGINEERING DEPARTMENT	MANHOLE FRAME AND COVER ADJUSTMENT	DETAIL S-1.03
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



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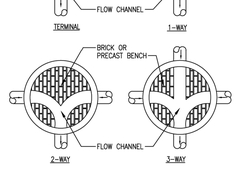
NOTES:
1. STAINLESS STEEL STRAPS SHALL BE 1/8 " X 1" MIN.
2. S.S. STRAP CONNECTORS SHALL BE EXPANSION BOLTS OR APPROVED EQUAL.
3. A 72" DIAMETER MANHOLE SHALL BE PROVIDED WITH TWO DROP CONNECTIONS IN MANHOLE; A 60" DIAMETER MANHOLE SHALL BE PROVIDED WITH A SINGLE DROP.
4. A DROP MANHOLE IS NOT REQUIRED WHEN THE DIFFERENCE IN INVERTS IS LESS THAN 2', FOR DIFFERENCES IN INVERTS LESS THAN 2', PROVIDE A SMOOTH TRANSITION WITHIN THE FLOW CHANNEL.
5. INSTALL A RELINER INSIDE DROP BOWL CONSISTING OF BOWL, HOOD, AND SECURED WITH STAINLESS STEEL FASTENERS, OR APPROVED EQUAL.
6. SIZE OF DOWN PIPE SHALL BE PER MANUFACTURER RECOMMENDATIONS, WITH AN 8" MIN. DIAMETER.

SUSSEX COUNTY ENGINEERING DEPARTMENT	INSIDE DROP MANHOLE	DETAIL S-1.04
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



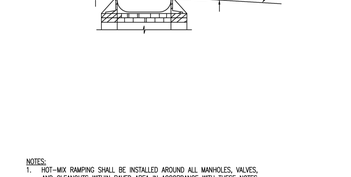
NOTES:
1. STEPS SHALL BE ORIENTED OVER BENCH AND NOT FLOW CHANNEL, BOTTOM STEP SHALL BE 12" MAX. FROM TOP OF BENCH.
2. EMBEDMENT LENGTH OF REBAR SHALL BE SUITABLE FOR 5" MIN. WALL THICKNESS.

SUSSEX COUNTY ENGINEERING DEPARTMENT	MANHOLE STEP	DETAIL S-1.09
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



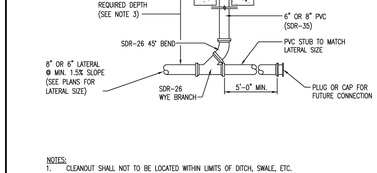
NOTES:
1. PRECAST CONCRETE CHANNELS MAY BE PROVIDED AS AN ALTERNATIVE TO BRICK FLOW CHANNEL AND BENCH.
2. BENCH SHALL BE PROVIDED UP TO PIPE CROWN.

SUSSEX COUNTY ENGINEERING DEPARTMENT	MANHOLE FLOW CHANNEL	DETAIL S-1.10
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



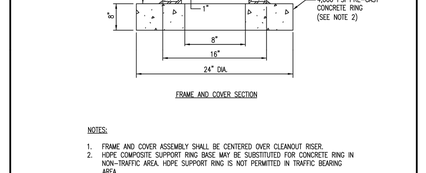
NOTES:
1. HOT–MIX RAMPING SHALL BE INSTALLED AROUND ALL MANHOLES, VALVES, AND CLEANOUTS WITHIN PAVED AREA IN ACCORDANCE WITH THESE NOTES AT THE TIME OF HOT–MIX BASE INSTALLATION.
2. MAXIMUM EXPOSURE OF CASTING PRIOR TO RAMPING SHALL NOT EXCEED 3 INCHES. THIS MAY REQUIRE MULTIPLE HEIGHT ADJUSTMENTS OF THE CASTING DURING PAVEMENT INSTALLATION.
3. MAXIMUM SLOPE OF RAMPING SHALL NOT EXCEED 5 PERCENT.
4. RAMPING MATERIAL SHALL BE MAINTAINED/REPAIRED UNTIL FINAL COURSE OF PAVEMENT IS INSTALLED.
5. RAMPING MATERIAL SHALL BE REMOVED JUST PRIOR TO FINAL PAVEMENT COURSE OVERLAY.
6. IF HOT–MIX RAMPING OCCURS ON A DELDOT MAINTAINED ROADWAY, RAMPING REQUIREMENTS MAY BE DIFFERENT THAN THOSE SHOWN ON THIS DETAIL.

SUSSEX COUNTY ENGINEERING DEPARTMENT	HOT-MIX RAMPING AT MANHOLE	DETAIL S-1.13
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021



NOTES:
1. CLEANOUT SHALL NOT TO BE LOCATED WITHIN LIMITS OF DITCH, SWALE, ETC.
2. MAINTAIN 10' MIN. SEPARATION BETWEEN SEWER AND WATER LINES.
3. MINIMUM DEPTH OF SEWER LATERAL AT ANY POINT INCLUDING UNDER DITCHES, SWALES, ETC. SHALL BE 30 INCHES. NOMINAL DEPTH SHALL BE AS NOTED ABOVE.
4. SIZE OF PVC LATERAL STUB TO MATCH LATERAL SIZE.
5. PROVIDE BETWEEN 3" AND 6" OF CLEARANCE BETWEEN CLEANOUT COVER AND CLEANOUT TOP.
6. ALL CLEANOUT DEPTHS LABELED AS CRITICAL DEPTH LATERALS SHALL BE INSTALLED PER CONFIGURATION ON DETAIL S–2.05.
7. METALLIC DETECTABLE REINFORCED UNDERGROUND MARKING TAPE TO BE PLACED WITHIN ENTIRE LIMITS OF SEWER LATERAL TRENCH – REFER TO DETAIL S–3.01 FOR CONFIGURATION.

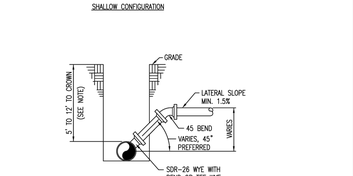
SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER LATERAL CLEANOUT	DETAIL S-2.01
APPROVED: SUSSEX COUNTY ENGINEER		LAST REVISED: 10/11/2023



FRAME AND COVER SECTION

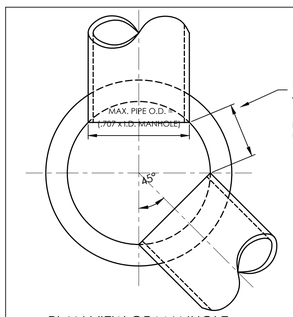
NOTES:
1. FRAME AND COVER ASSEMBLY SHALL BE CENTERED OVER CLEANOUT RISER.
2. HDPE COMPOSITE SUPPORT RING BASE MAY BE SUBSTITUTED FOR CONCRETE RING IN NON–TRAFFIC AREA. HDPE SUPPORT RING IS NOT PERMITTED IN TRAFFIC BEARING AREA.
3. CLEANOUT FRAME AND COVER SHALL BE INSTALLED BY UTILITY CONTRACTOR PRIOR TO SUBSTANTIAL COMPLETION INSPECTION FOR DEVELOPMENT PROJECTS.
4. MATERIAL FOR FRAME AND COVER SHALL BE HEAVY DUTY GRAY IRON CL35B MEETING THE REQUIREMENTS OF ASTM A48.
5. CLEANOUT COVER SHALL HAVE A RAISED DIAMOND PATTERN WITH A 2" MIN. RAISED "S" IMPRINTED IN SHARP FACE GOTHIC AT CENTER OF COVER. A SINGLE 1" MIN. WIDE PICKHOLE SHALL BE PROVIDED AT EDGE.
6. SEWER CLEANOUT COVERS LOCATED WITHIN A PEDESTRIAN WALKWAY MUST BE ADA COMPLIANT.
7. REFER TO CURRENT DELDOT REQUIREMENTS FOR INSTALLATIONS WITHIN DELDOT RIGHT–OF–WAY.

SUSSEX COUNTY ENGINEERING DEPARTMENT	6" SEWER LATERAL CLEANOUT FRAME AND COVER	DETAIL S-2.02
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 5/31/2022



NOTE:
LATERALS SHOWN ON THE PLANS AS CRITICAL DEPTH LATERALS WILL BE INSTALLED IN THE SAME FASHION AS SHALLOW LATERALS REGARDLESS OF THE TRENCH DEPTH. FOR MAINS GREATER THAN 12' TO CROWN SEE RISER DETAIL S–2.06.

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER LATERAL CONNECTIONS	DETAIL S-2.05
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 10/5/2022



PLAN VIEW OF MANHOLE

MANHOLE SIZE & WALL THICKNESS	4' I.D. 5" WALL	5' I.D. 6" WALL	6' I.D. 7" WALL	7' I.D. 8" WALL	8' I.D. 9" WALL
MAX. PIPE O.D. STRAIGHT THRU TO 45° DEFLECTION	30" O.D.	42" O.D.	51" O.D.	59" O.D.	73½" O.D.
MAX. PIPE O.D. 90° DEFLECTION	23" O.D.	32" O.D.	38" O.D.	44" O.D.	50" O.D.

MANHOLE SIZING DETAIL
N.T.S.

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Date 09/29/2026

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6	9/29/2026	REVISIONS PER SCE COMMENTS

SANITARY SEWER DETAILS 1
for
CREEKSIDE
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date:	08-20-2025
Job Number:	G22091
Scale:	AS NOTED
Drawn By:	PJM
Designed By:	PJM
Approved By:	JRE

Sheet No.: 26

File Name: G22091-SEWER DETAILS

NOTES:
1. THIS DETAIL APPLIES TO BOTH GRAVITY AND FORCE MAIN SEWER INSTALLATIONS.
2. #57 STONE IS REQUIRED FOR BEDDING MATERIAL AND INITIAL BACKFILL TO 12" ABOVE THE PIPE CROWN FOR ALL SEWER INSTALLATIONS 12' DEEP AND GREATER. FOR INSTALLATIONS LESS THAN 12' DEEP, INITIAL BACKFILL MATERIAL REQUIREMENTS MAY BE MODIFIED BASED ON FIELD CONDITIONS, AS APPROVED BY THE COUNTY. ABOVE INITIAL BACKFILL MATERIAL MEETING THE REQUIREMENTS OF TYPE F BORROW PER DELDOT'S SPECIFICATIONS SHALL BE USED.
3. FOR INSTALLATION WITHIN LIMITS OF DELDOT ROADWAY AND/OR RIGHT-OF-WAY, TRENCH CONFIGURATIONS AND BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH CURRENT DELDOT REQUIREMENTS.

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER TRENCH	DETAIL S-3.01
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021

NOTES:
1. CONCRETE COLLAR NOT SHOWN FOR CLARITY. FOR CONCRETE COLLAR REQUIREMENTS, REFER TO DETAIL S-1.01.
2. ROUTE DETECTION WIRE OUTSIDE OF ARV AND PROVIDE TONING WIRE VALVE BOX ADJACENT TO ARV STRUCTURE. SEE DETAIL S-4.07.
3. DUCTILE IRON FLANGE TEE WILL BE FORCE MAIN SIZE x 4" TEE.
4. HINGED FRAME AND COVER SHALL BE PER EAST JORDAN IRON WORKS PRODUCT NO. 00148064L01, OR APPROVED EQUAL.

FORCE MAIN DIA.	ARV	TAP FLANGE
≤ 16"	2"	4"x2"
> 16"	3"	4"x3"

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER FORCE MAIN AIR RELEASE VALVE	DETAIL S-4.01
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 05/31/2022

SUSSEX COUNTY ENGINEERING DEPARTMENT	AIR RELEASE VALVE ASSEMBLY	DETAIL S-4.02
APPROVED: SUSSEX COUNTY ENGINEER		LAST REVISED: 12/15/2025

NOTES:
1. IF TONING WIRE BOX IS LOCATED WITHIN PAVEMENT, CONCRETE COLLAR IS NOT REQUIRED. SEE ALSO NOTE 2 ON DETAIL S-1.01 REGARDING LOCATION WITHIN DELDOT ROADWAY.
2. LID MUST BE ADA COMPLIANT IF LOCATED WITHIN A PEDESTRIAN WALKWAY.

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER FORCE MAIN TONING WIRE BOX	DETAIL S-4.07
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021

FRAME AND COVER SECTION

NOTES:
1. FRAME AND COVER ASSEMBLY SHALL BE CENTERED OVER THE CLEANOUT RISER.
2. HDPE COMPOSITE SUPPORT RING BASE MAY BE SUBSTITUTED FOR CONCRETE RING IN NON-TRAFFIC AREA. HDPE SUPPORT RING IS NOT PERMITTED IN TRAFFIC BEARING AREA.
3. CLEANOUT FRAME AND COVER SHALL BE INSTALLED BY UTILITY CONTRACTOR PRIOR TO SUBSTANTIAL COMPLETION INSPECTION FOR DEVELOPMENT PROJECTS.
4. MATERIAL FOR FRAME AND COVER SHALL BE HEAVY DUTY GRAY IRON CL35B MEETING THE REQUIREMENTS OF ASTM A48.
5. CLEANOUT COVER SHALL HAVE A RAISED DIAMOND PATTERN WITH A 2" MIN. RAISED "S" IMPRINTED IN SHARP FACE GOTHIC AT CENTER OF COVER. A SINGLE 1" MIN. WIDE PICKHOLE SHALL BE PROVIDED AT EDGE.
6. SEWER CLEANOUT COVERS LOCATED WITHIN A PEDESTRIAN WALKWAY MUST BE ADA COMPLIANT.
7. REFER TO CURRENT DELDOT REQUIREMENTS FOR INSTALLATIONS WITHIN DELDOT RIGHT-OF-WAY.

SUSSEX COUNTY ENGINEERING DEPARTMENT	8" SEWER LATERAL CLEANOUT FRAME AND COVER	DETAIL S-2.03
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 5/31/2022

NOTES:
1. LATERAL RISER DETAIL APPLIES TO BOTH 6 AND 8-INCH LATERALS. SIZE OF REQUIRED ADAPTERS, LATERALS, BENDS, CASING PIPES AND SHOES SHALL BE COORDINATED WITH THE REQUIRED LATERAL SIZE.
2. THE RISER CONFIGURATION SHOWN ABOVE REFLECTS THE DEEP SEWER RISER KIT AS MANUFACTURED BY THE HARRINGTON COMPANY (HARCO). AN ALTERNATE ALL-PLASTIC VERTICAL RISER KIT AS MANUFACTURED BY NORTH AMERICAN PIPE CORPORATION (NAPCO) MAY BE USED AS A SUBSTITUTE.

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER LATERAL RISER	DETAIL S-2.06
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 10/5/2022

NOTES:
1. DEEP LATERAL CLEANOUT DETAIL APPLIES TO BOTH 6" AND 8" LATERALS.
2. A MINIMUM OF 3" CLEARANCE SHALL BE PROVIDED BETWEEN CLEANOUT COVER AND CLEANOUT TOP.
3. MINIMUM CLEARANCE IS 18" TO WATER MAIN, AND 12" TO ALL OTHER UTILITIES.

SUSSEX COUNTY ENGINEERING DEPARTMENT	DEEP SEWER LATERAL CLEANOUT	DETAIL S-2.04
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021

NOTES:
1. PROVIDE BETWEEN 3" AND 6" OF CLEARANCE BETWEEN CLEANOUT COVER AND CLEANOUT TOP.
2. STONE BEDDING SHALL BE PLACED AROUND 90° BEND PER DETAIL S-2.09 FOR ALL DEPTHS.
3. SEE DETAIL S-1.01 FOR CONCRETE COLLAR REQUIREMENTS.

SUSSEX COUNTY ENGINEERING DEPARTMENT	SEWER TERMINAL CLEANOUT	DETAIL S-2.07
APPROVED: SUSSEX COUNTY ENGINEER		DATE ISSUED: 12/30/2021

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SANITARY SEWER DETAILS 2

for

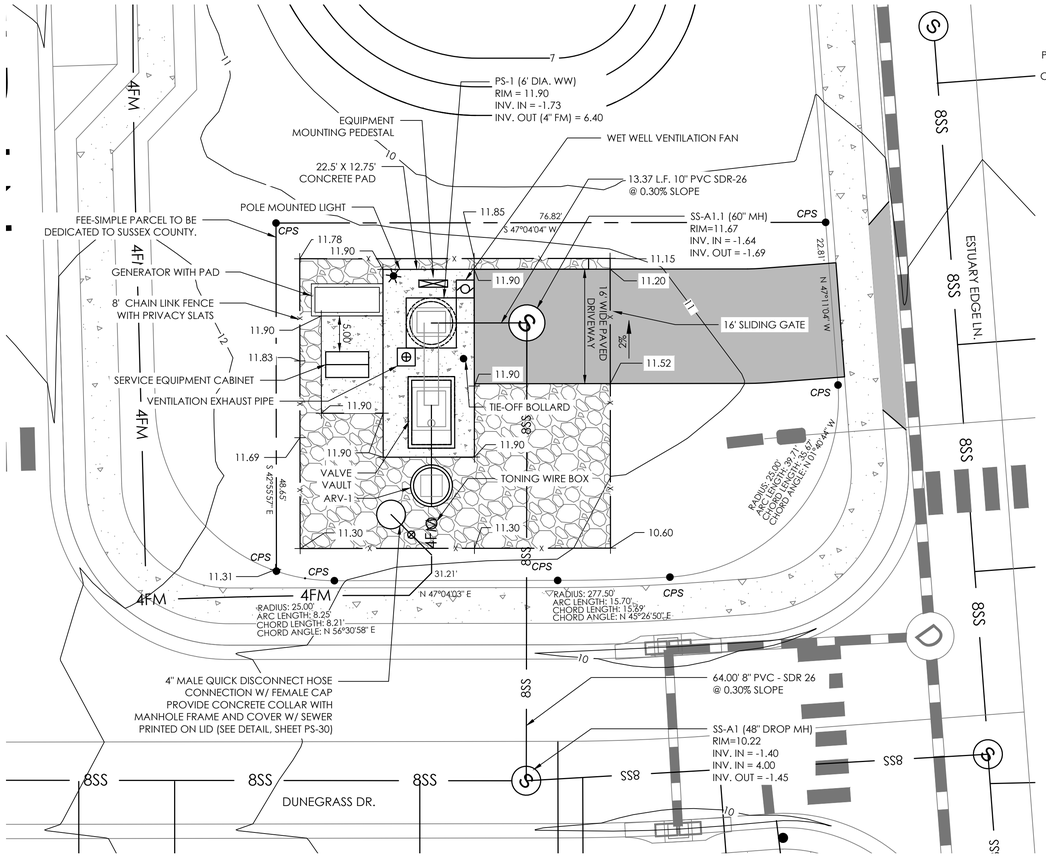
CREEKSIDE

INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date:	08-20-2025
Job Number:	G22091
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Drawn By:	PJM
Designed By:	PJM
Approved By:	JRE

Sheet No.: 27

File Name: G22091-SEWER DETAILS



HATCH LEGEND

PAVEMENT

CONCRETE

GRAVEL

SITE PLAN - PUMP STATION

SCALE: 1" = 10'

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

DESIGN FLOW

The pump station will serve 117 EDUs (See Pump Station Calculations, hereon)

COLLECTION SYSTEM

The collection system will consist of 8" & 10" PVC SDR-26 and 8" & 10" diameter PVC SDR-35 and associated manholes. All sewer materials and installation shall be per Sussex County Design Standards.

TRANSMISSION

The new 4" diameter PVC force main will be installed from the proposed pump station to a tie in point at an existing manhole located along Banks Road (SCR 298). The installation of the force main includes a tie-in of an existing 2" force main from Sussex County Pump Station 157 located on Banks Road.

Diameter = 4" PVC

Design Flow = 80 gpm (As provided by Sussex County)

Static Head = 14.96 - (-) 5.73 = 20.69 feet

Creekside Pump Station Calculations

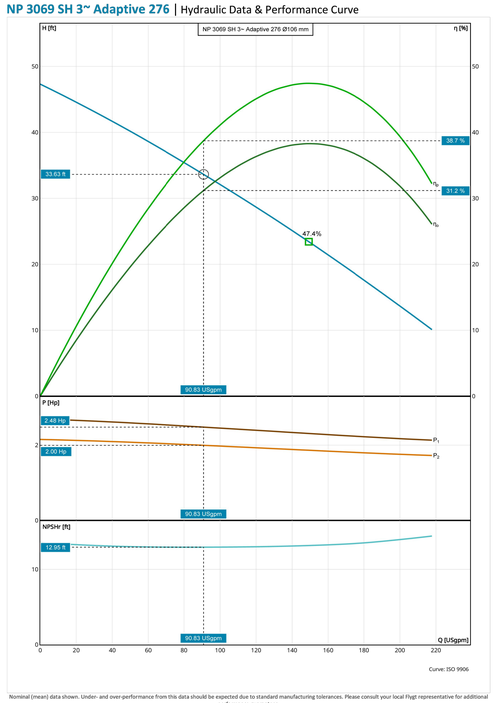
Community / Parcel	Homes	Amenities	Total EDUs
Creekside	116	1	117
			0
Total	116	1	117

Number of EDU's (Including Pool, Recreation, etc.) =	117
Base Flow (250GPD/EDU) =	29250 GPD
	20.31 GPM
Peak Factor (Per Equation) =	2.43
Peak Flow=	71077.5 GPD
	50 GPM
Design Flow=	80 GPM (to utilize 4" forcemain)
Wet Well Volume Required =	120 Gal
Depth (5' Dia) =	0.9 FT
Depth (6' Dia) =	**0.6 FT**
Depth (8' Dia) =	0.4 FT
Depth (10' Dia) =	0.3 FT
Force Main Sizing =	3.62 Inch
Use	4 Inch
Force Main Velocity =	2.04 FPS

xylem Let's Solve Water

FLYGT a xylem brand

NP 3069 SH 3~ Adaptive 276 | Hydraulic Data & Performance Curve



Nominal (mean) data shown. Under- and over-performance from this data should be expected due to standard manufacturing tolerances. Please consult your local Flygt representative for additional performance guarantees.

Project:	Created By:	Created On:	Last Update:
NP 3069 SH 3~ Adaptive 276	Jim Eriksen	9/18/26	-

SYSTEM CURVE

xylem Let's Solve Water

FLYGT a xylem brand

NP 3069 SH 3~ Adaptive 276 | Product Details

Description

N 3069

Wastewater N-Technology Pump With Adaptive N® Impeller

Flygt N-pumps take on the toughest applications and get the job done. Every component is designed and manufactured to deliver sustained high efficiency. Thanks to patented N-technology with its innovative self-cleaning impeller, Flygt N-pumps deliver the highest total efficiency. They lower your energy bill and reduce unplanned maintenance costs. That adds up to total peace of mind – and big savings over the long term. Most solid objects entering the pump will pass through the impeller between the impeller vanes. If an object gets caught on the leading edge of one of the vanes, it will slide along the backswept shape towards the perimeter of the inlet.

Flexible and Modular Design

- This self-cleaning pump features innovative functions that make it the best choice for a broad range of applications. The modular hydraulic design enables you to tailor the hydraulics to meet the requirements of virtually any application. Replaceable wear-ring in two materials, gray iron or Hard-Iron, for different operation conditions
- Hardened gray iron impeller for typical wastewater applications
- Hard-Iron impeller for abrasive and corrosive applications
- Stainless steel impeller for special applications that require duplex stainless steel
- Short shaft overhang reduces shaft deflection and increases seal and bearing life
- Motor designed for submersible use. Heat is concentrated to the stator core for improved cooling properties
- The double mechanical seal system consists of two sets of mechanical shaft seals that work independently to provide double security.
- Griploc mechanical face seal system secures locking to the shaft, no rubber friction, no grub screws and no shaft damage
- Motor cable SUBCAB ® specially developed for submersible use.

Product Features

- Sustained high efficiency
- Hardened cast iron, optional Duplex stainless steel and Hard-Iron impellers
- State-of-the-art wastewater pump with enhanced Adaptive N® hydraulic
- Sustained high efficiency with energy savings up to 25%
- Flexible and modular design
- Robust and reliable

Construction Materials

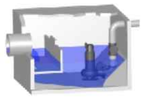
Impeller Material	Volute Material	Stator Cover Material
Grey Cast Iron	Grey Cast Iron	-

Motor

Rated Power 3.8 Hp	Number Of Phases 3	Start Current Ratio 6.32	Motor Issue 10
Motor Denomination 13-10-28B	Rated Motor Speed 3,410 RPM	Insulation Class F	Locked Rotor Code J
Motor Efficiency Class Standard	Rated Voltage 240 V	Approval STD	Max starts per hour 15
Version Code 160	Rated Current 11 A	Total moment of inertia 0.07 ft²lbf	Power Factor 100% 0.78
Frequency 60 Hz	Start Current 67 A	Type of duty S1	Power Factor 75% 0.7
Max P2 (1x) 2.15 Hp	Starting Current, Direct Starting 67 A	Stator Variant 6	Power Factor 50% 0.57
Number Of Poles 2	Starting Current, Star Delta 22.33 A	Motor Module 136	Efficiency 100% 81.6 %
			Efficiency 75% 82.5 %
			Efficiency 50% 81.1 %
			Cooling Jacket -

Project:	Created By:	Created On:	Last Update:
NP 3069 SH 3~ Adaptive 276	Jim Eriksen	9/18/26	-

PUMP SPECIFICATIONS



Fluid Type Water	Static Head 20.69 ft	Layout Wet Installed Submersible Pumps
Total Flow 80 USgpm	Operating Pumps 1	Calculation Model Colebrook-White
Kinematic Viscosity 0.00002 ft²/s	System Type Single Pump	

Type	Pipe Inner Diameter [in]	Length / K Factor	Quantity	Velocity [ft/s]	Pipe Roughness [in]	Headloss [ft]
Individual Discharge Piping / Internal / Ductile iron cement lining / PN 16 / DN 100 (118x4x4 mm) / Used Pipes						
Pipe Length	4.02 in	30 ft	1	2.03 ft/s	0.05 in	0.24 ft
90 Elbow	4.02 in	0.3	2	2.03 ft/s		0.04 ft
Tee Branch	4.02 in	0.8	2	2.03 ft/s		0.1 ft
Check Valve	4.02 in	0.9	1	2.03 ft/s		0.06 ft
Total Head						0.44 ft
Individual Discharge Piping / PVC / PVC / PN 16 / DN 100 (125x9.3 mm) / Used Pipes						
Pipe Length	4.23 in	2,723 ft	1	1.83 ft/s	0.002 in	9.33 ft
45 Elbow	4.23 in	0.15	28	1.83 ft/s		0.22 ft
Outlet	4.23 in	1	1	1.83 ft/s		0.05 ft
Total Head						9.6 ft
Friction Loss Head						10.04 ft
Static Head						20.69 ft
Total Head						30.73 ft

HEAD CALCULATIONS

solutions
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Georgetown, DE 19947
T. 302.297.9215

3003 Merritt Mill Road
Salisbury, MD 21804
T. 410.572.8833

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Seal

Date 09/29/2026

REVISIONS

NO.	DATE	DESCRIPTION
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3	7/31/2026	REVISIONS PER SCE COMMENTS
4	8/12/2026	REVISIONS PER TUI COMMENTS
5	9/11/2026	REVISIONS PER TUI & SFMO COMMENTS
6	9/29/2026	REVISIONS PER SCE COMMENTS

PUMP STATION PLAN

for

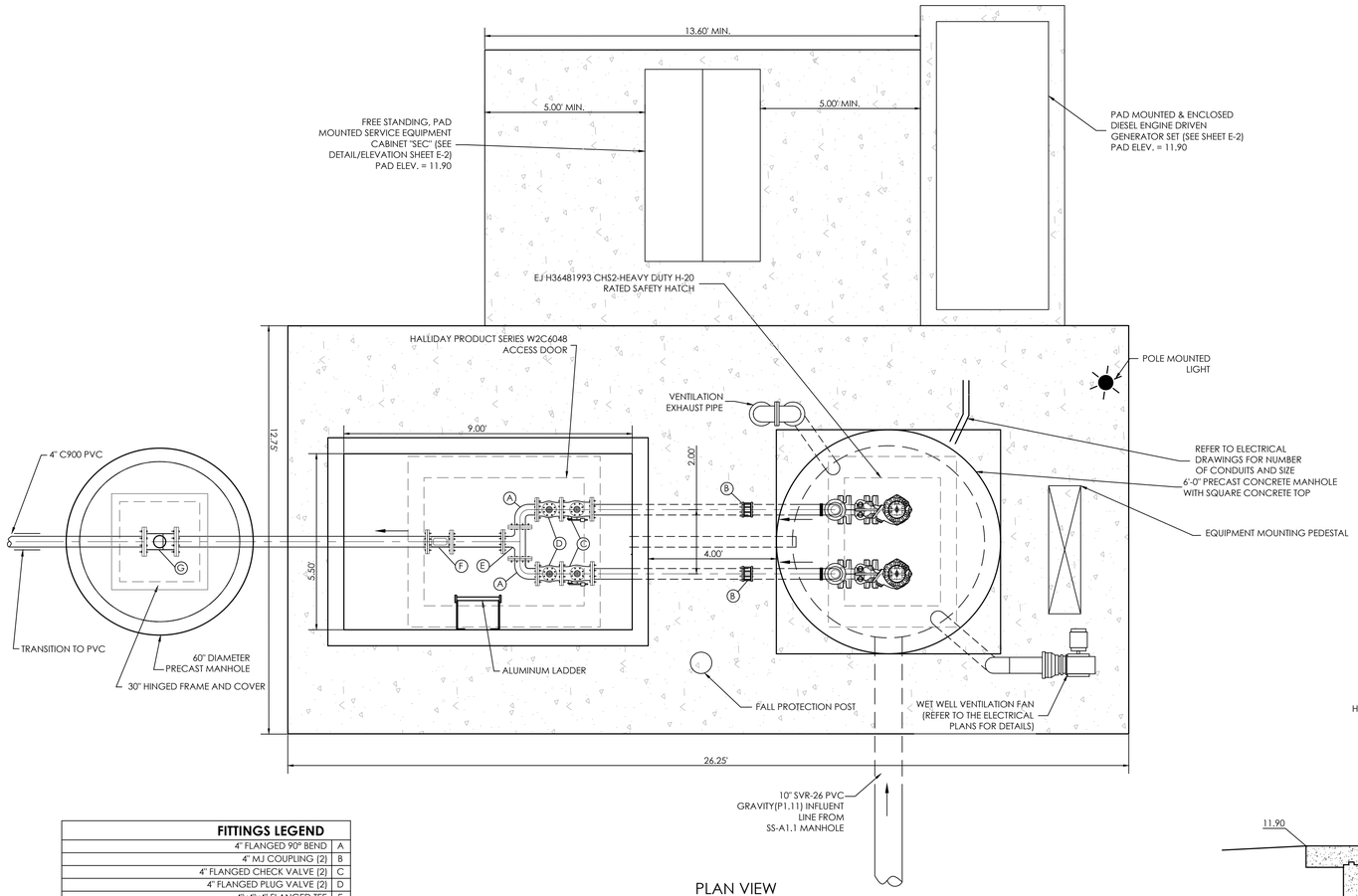
CREEKSIDE

INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date:	Job Number:	Scale:	Drawn By:	Designed By:	Approved By:
08-20-2025	G22091	AS NOTED	PJM	PJM	JRE

Sheet No.: 28

File Name: G22091-PUMP STATION PLAN



PLAN VIEW

SCALE: N.T.S.

FITTINGS LEGEND	
4" FLANGED 90° BEND	A
4" MJ COUPLING (2)	B
4" FLANGED CHECK VALVE (2)	C
4" FLANGED PLUG VALVE (2)	D
4"x4"x4" FLANGED TEE	E
4" PROLINE PROMAG W 400 ELECTROMAGNETIC FLOW METER	F
AIR RELEASE VALVE	G

SERIES W2C ACCESS DOOR

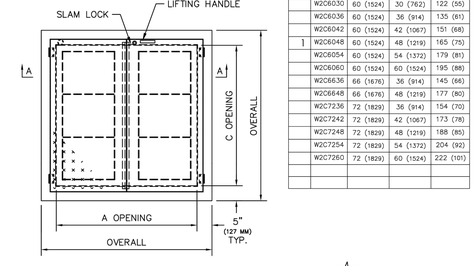
STANDARD FEATURES:

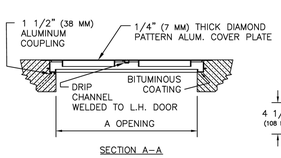
- AUTO-LOCK T-316 STAINLESS STEEL HOLD OPEN ARM WITH RELEASE HANDLE
- T-316 STAINLESS STEEL HINGES AND ATTACHING HARDWARE
- T-316 STAINLESS STEEL SLAM LOCK WITH REMOVABLE KEY
- STAINLESS STEEL COMPRESSION SPRING ASSIST
- BUILT-IN NEOPRENE CUSHION/GASKET
- NON-OZONE DEPLETING BITUMINOUS COATING
- DOUBLE LEAF CONSTRUCTION
- 300 LBS. PER SQ. FT. LOAD RATING (1464 KG. PER SQ. METER LOAD RATING)
- EXTRUDED ALUMINUM CHANNEL FRAME
- RECESSED LIFTING HANDLE
- LIFETIME GUARANTEE

HALLIDAY PRODUCTS

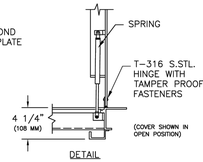
www.HallidayProducts.com
Phone 800-298-1027
Fax 407-298-4534
Sales@HallidayProducts.com

STANDARD SIZES				
QTY.	MODEL NO.	A DIM. INCHES (MM)	C DIM. INCHES (MM)	UNIT WT. LBS. (KG.)
	W2C4242	42 (1067)	42 (1067)	119 (54)
	W2C4842	48 (1219)	42 (1067)	130 (59)
	W2C4848	48 (1219)	48 (1219)	142 (64)
	W2C5442	54 (1372)	42 (1067)	141 (64)
	W2C5448	54 (1372)	48 (1219)	154 (70)
	W2C5454	54 (1372)	54 (1372)	166 (75)
	W2C6030	60 (1524)	30 (762)	122 (55)
	W2C6036	60 (1524)	36 (914)	135 (61)
	W2C6042	60 (1524)	42 (1067)	151 (68)
1	W2C6048	60 (1524)	48 (1219)	165 (75)
	W2C6054	60 (1524)	54 (1372)	179 (81)
	W2C6060	60 (1524)	60 (1524)	195 (88)
	W2C6636	66 (1676)	36 (914)	145 (66)
	W2C6648	66 (1676)	48 (1219)	177 (80)
	W2C7236	72 (1829)	36 (914)	154 (70)
	W2C7242	72 (1829)	42 (1067)	173 (78)
	W2C7248	72 (1829)	48 (1219)	188 (85)
	W2C7254	72 (1829)	54 (1372)	204 (92)
	W2C7260	72 (1829)	60 (1524)	222 (101)





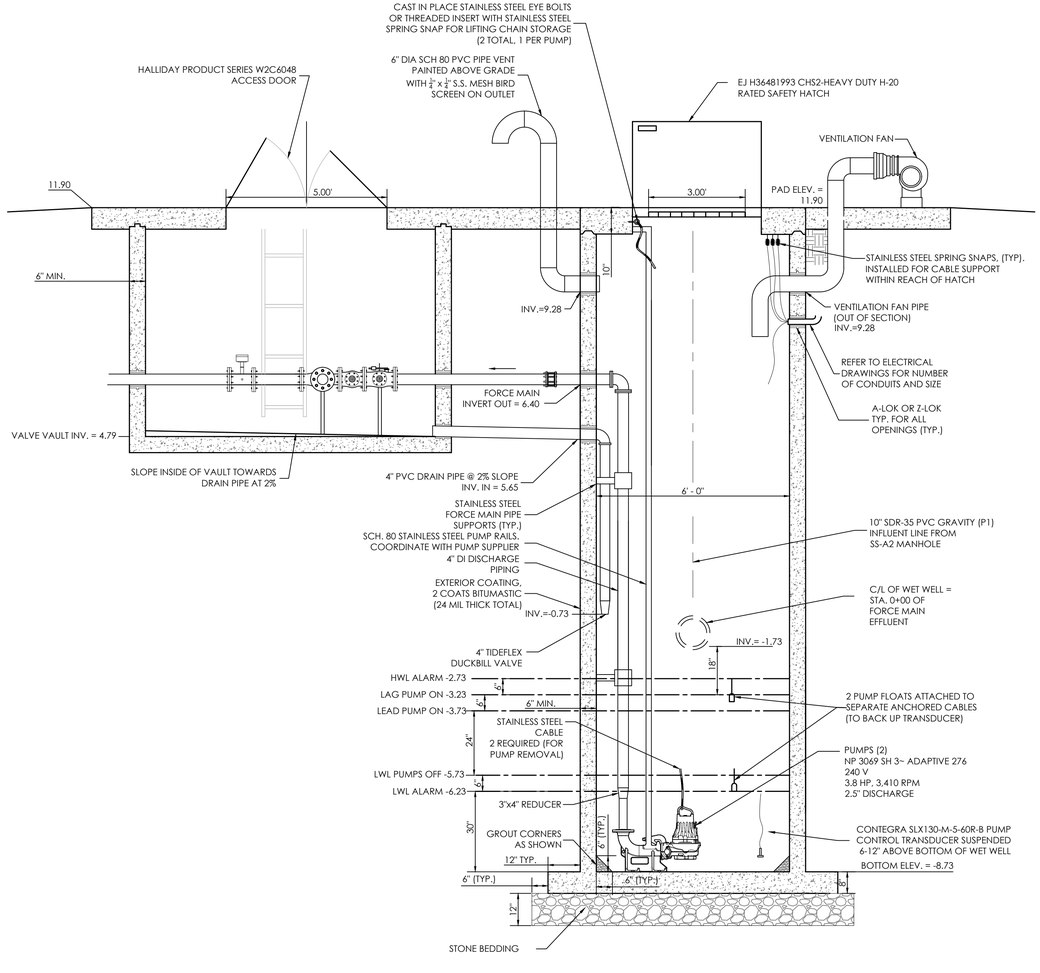
SECTION A-A



DETAIL

HALLIDAY W26048 ACCESS DOOR DETAILS

NOT TO SCALE



ELEVATION VIEW

N.T.S.

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Seal

Date 09/29/2026

REVISIONS		
NO.	DATE	DESCRIPTION
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PUMP STATION DETAILS 1

for

CREEKSIDE

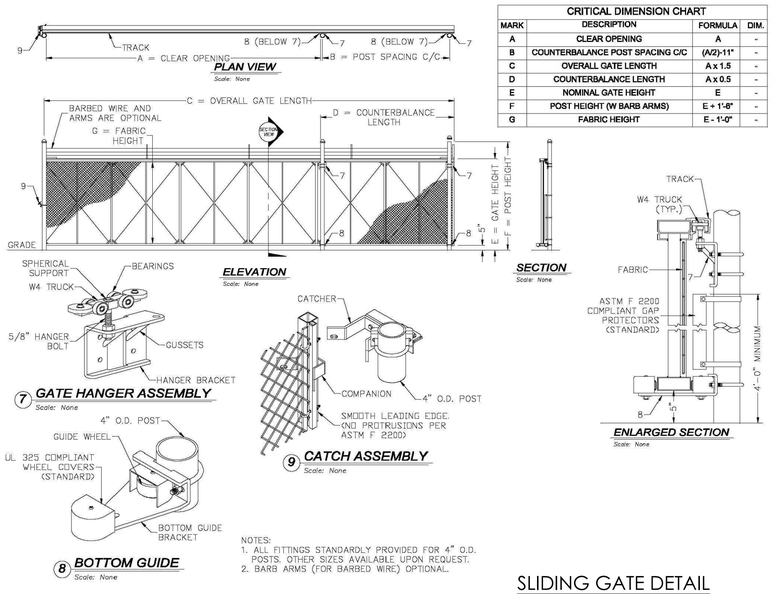
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date:	08-20-2025
Job Number:	G22091
Scale:	AS NOTED
Drawn By:	PJM
Designed By:	PJM
Approved By:	JRE

Sheet No.: 29

File Name: G22091-PUMP STATION PLAN

CRITICAL DIMENSION CHART			
MARK	DESCRIPTION	FORMULA	DIM.
A	CLEAR OPENING	A	-
B	COUNTERBALANCE POST SPACING C/C	(AV2)-11"	-
C	OVERALL GATE LENGTH	A x 1.5	-
D	COUNTERBALANCE LENGTH	A x 0.5	-
E	NOMINAL GATE HEIGHT	E'	-
F	POST HEIGHT (W BARB ARMS)	E + 1'-6"	-
G	FABRIC HEIGHT	E - 1'-0"	-

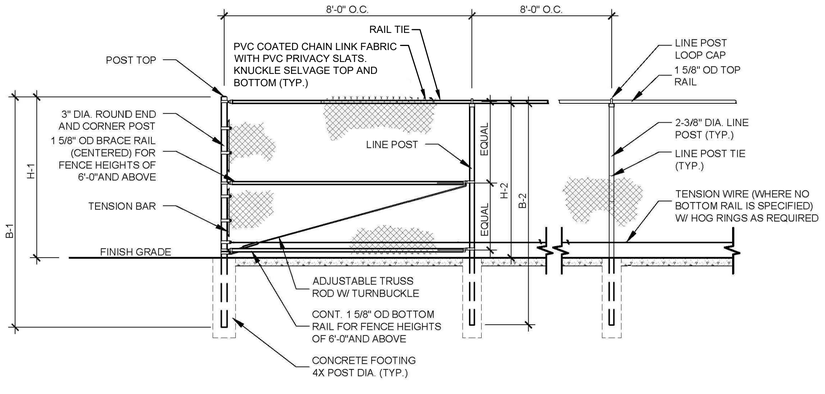


NOTES:
1. ALL FITTINGS STANDARDLY PROVIDED FOR 4" O.D. POSTS. OTHER SIZES AVAILABLE UPON REQUEST.
2. BARB ARMS (FOR BARBED WIRE) OPTIONAL.

SLIDING GATE DETAIL
N.T.S.

POST CAP	TOP & BOTTOM FABRIC DETAIL
DOME	KNUCKLE

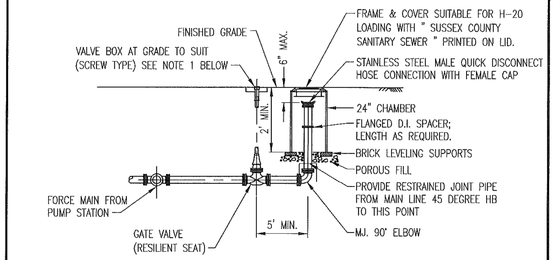
FENCE HEIGHT	END & CORNER POSTS		LINE POSTS	
NOMINAL HEIGHT	B-1 BAR LENGTH	H-1 HEIGHT ABOVE GRADE	B-2 BAR LENGTH	H-2 HEIGHT ABOVE GRADE
4'-0"	7'-0"	4'-0 5/8"	6'-8"	3'-8 7/8"
6'-0"	9'-0"	6'-0 5/8"	8'-8"	5'-8 7/8"
8'-0"	11'-0"	8'-0 5/8"	10'-8"	7'-8 7/8"
10'-0"	13'-0"	10'-0 5/8"	12'-8"	9'-8 7/8"
12'-0"	15'-0"	12'-0 5/8"	14'-8"	11'-8 7/8"



CHAIN LINK FENCE DETAIL
N.T.S.

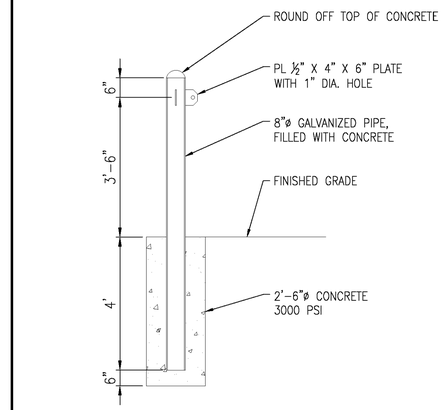


PVC PRIVACY SLAT DETAIL
N.T.S.

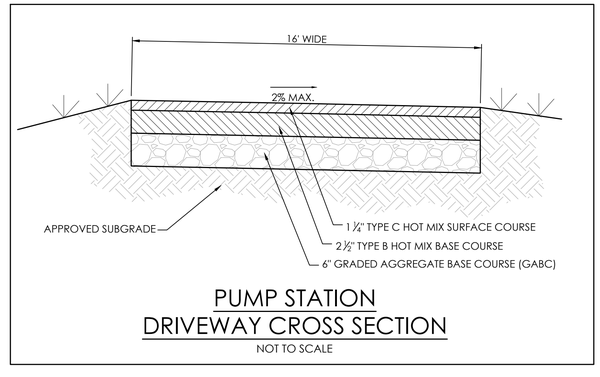


NOTES:
1. BRING TONING WIRE UP TO TOP OF VALVE BOX. SEE DETAIL S-4.10.
2. BYPASS PIPING SIZE SHALL MATCH THE SIZE OF THE PUMP STATION FORCEMAIN.

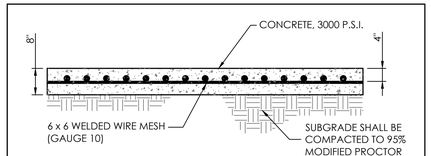
SCALE: N.T.S. REVISED: - REVISED: - REVISED: - APPROVED: SEP. 2018	SUSSEX COUNTY ENGINEERING DEPARTMENT APPROVED:_____ SUSSEX COUNTY ENGINEER	PUMPING STATION EMERGENCY BYPASS CONNECTION: TIERS 1 & 2	DETAIL PS-6



SCALE: N.T.S. REVISED: - REVISED: - REVISED: - APPROVED: SEP. 2018	SUSSEX COUNTY ENGINEERING DEPARTMENT APPROVED:_____ SUSSEX COUNTY ENGINEER	PUMP STATION FALL PROTECTION	DETAIL PS-11

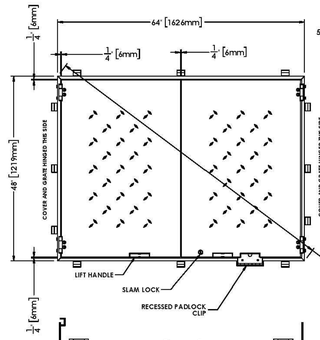


PUMP STATION DRIVEWAY CROSS SECTION
NOT TO SCALE



CONCRETE PAD DETAIL
N.T.S.

CHS2-Heavy Duty H-20 Rated SAFE HATCH®



Style 'CHS2' access hatch, as manufactured by EJ.

Material shall be 6061-t6 aluminum for bars, angles, and extrusions, 1/4" diamond plate shall be 5086 aluminum.

Unit designed heavy duty, for 14,000 lbs +30% impact h-20 wheel loads, over a 10" x 20" contact area. Frame and bearing plate must be cast into and supported by concrete designed for H-20 wheel loads. Unit not suitable for wheel line placement.

Unit supplied with a heavy duty pneu-spring, for ease of operation when opening safety grate. Grate shall be counterbalanced, so one person can easily open the safety grate.

Frame shall be of extruded aluminum. A dovetail groove shall be extruded into the seat of the frame for a 1/8" silicone gasket.

Each hatch shall be equipped with a stainless steel hold open arm. Door shall lock open in the 90 degree position. Hold open arm shall be fastened to the frame with a 1/2" grade 316 stainless steel bolt.

Hinges shall be of heavy duty design. Material shall be grade 316 stainless steel. Each hinge shall have a grade 316 stainless steel, 3/8" diameter hinge pin. Hinge shall be fastened to the channel frame and diamond plate with grade 316 stainless steel bolts and ny-lock nuts.

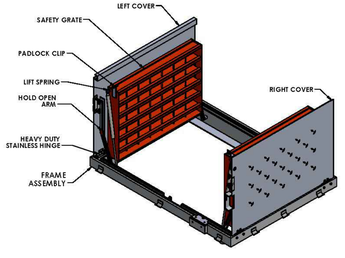
Aluminum shall be supplied with mill finish. Exterior of frame which comes in contact with concrete shall have one coat black primer.

Each hatch shall be equipped with a stainless steel lift handle. Lift handle shall be flush with top of 1/4" diamond plate.

Each "CHS2" style hatch is supplied with a 1-1/2" threaded Drain coupler on underside of channel frame for pipe connection.

Each hatch shall be supplied with a grade 316 stainless steel slam lock, with key way projected by a threaded plug. Plug shall be flush with the top of the 1/4" diamond plate. Slam lock shall be fastened with four grade 316 stainless steel bolts and washers.

Each hatch shall be supplied with an recessed padlock clip (padlock by others).



WARNING Outfitted concrete and steel structures designed for H-20 wheel loads, must be under bearing plates for hatch to support H-20 loading.

Avoid personal injury or equipment damage.

Product Number
H36481993

Design Features
-Materials
Aluminum
-Design Load
Heavy Duty (Not in Driving Lane)
-Open Area
-
-Coating
Mill Finish
-√ Designates Machined Surface

Certification
- NPR16-xxxx
- WT 329 lbs
-
- Country of Origin: USA

Drawing Revision
8/30/2016 Designer: SB
Revised By:

Disclaimer
Weights (lbs/kg), dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

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PUMP STATION DETAILS 2
for
CREEKSIDE
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date: 08-20-2025
Job Number: G22091
Scale: AS NOTED
Drawn By: PJM
Designed By: PJM
Approved By: JRE

Sheet No.: 30

File Name: G22091-PUMP STATION PLAN

PHASES

DELDOT
1.52 ACRES (+/-)

PHASE 1 - 8.91 ACRES (+/-)
TOWNHOME LOTS 1-6, 68-79, 103-116 = 32 LOTS
1,335 ± L.F ROADWAY & PUMP STATION

PHASE 2 - 9.33 ACRES (+/-)
SINGLE FAMILY UNITS 32-45, 50-61 = 26 UNITS
TOWNHOME LOTS 62-67, 92-102 = 17 LOTS
1,237 ± L.F ROADWAY

PHASE 3 - 6.93 ACRES (+/-)
SINGLE FAMILY UNITS 21-31, 46-49 = 15 UNITS
TOWNHOME LOTS 7-20, 80-91 = 26 LOTS
1,549 ± L.F ROADWAY

AMENITY AREA - 0.36 ACRES (+/-)

PHASE 1 STOCKPILE OPERATION
WITHIN PHASE 2'S LOD

PHASE 1 AND 2 STOCKPILE OPERATION
WITHIN PHASE 3

SITE DATA:

- OWNER/DEVELOPER: RUDDER ROAD LLC
  4750 OWINGS MILLS BLVD.
  OWINGS MILLS, MD 21117
  CONTACT: JON HOFFMAN
- ENGINEER/
  LAND PLANNER: SOLUTIONS IPEM, LLC
  303 NORTH BEDFORD STREET
  GEORGETOWN, DE 19947
  PHONE: 302.297.9215
  CONTACT: JIM ERIKSEN, P.E.
- TAX MAP: 234-23.00-276.00, 276.01 & 277
- CONDITIONAL USE: 2449
- SUSSEX COUNTY AGREEMENT #1222
- WATER SUPPLY:
  TIDEWATER UTILITIES
- SANITARY SEWER:
  SUSSEX COUNTY

CREEKSIDE ROAD PHASING

PHASE 1 - 1,334.70 L.F.
SEDGEFIELD LN. - 0+23.53 THRU 2+55.11
DUNEGRASS DR. - 0+00.00 THRU 4+00.86
ESTUARY EDGE LN. - 0+00.00 THRU 4+73.56
LAVENDAR LN. - 0+00.00 THRU 2+28.70

PHASE 2 - 1,237.16 L.F.
ESTUARY EDGE LN. - 4+73.56 THRU 10+44.40
SPARTINA WAY - 1+30.34 THRU 4+61.75
WETLAND WHISPER WAY - 5+65.89 THRU 9+00.80

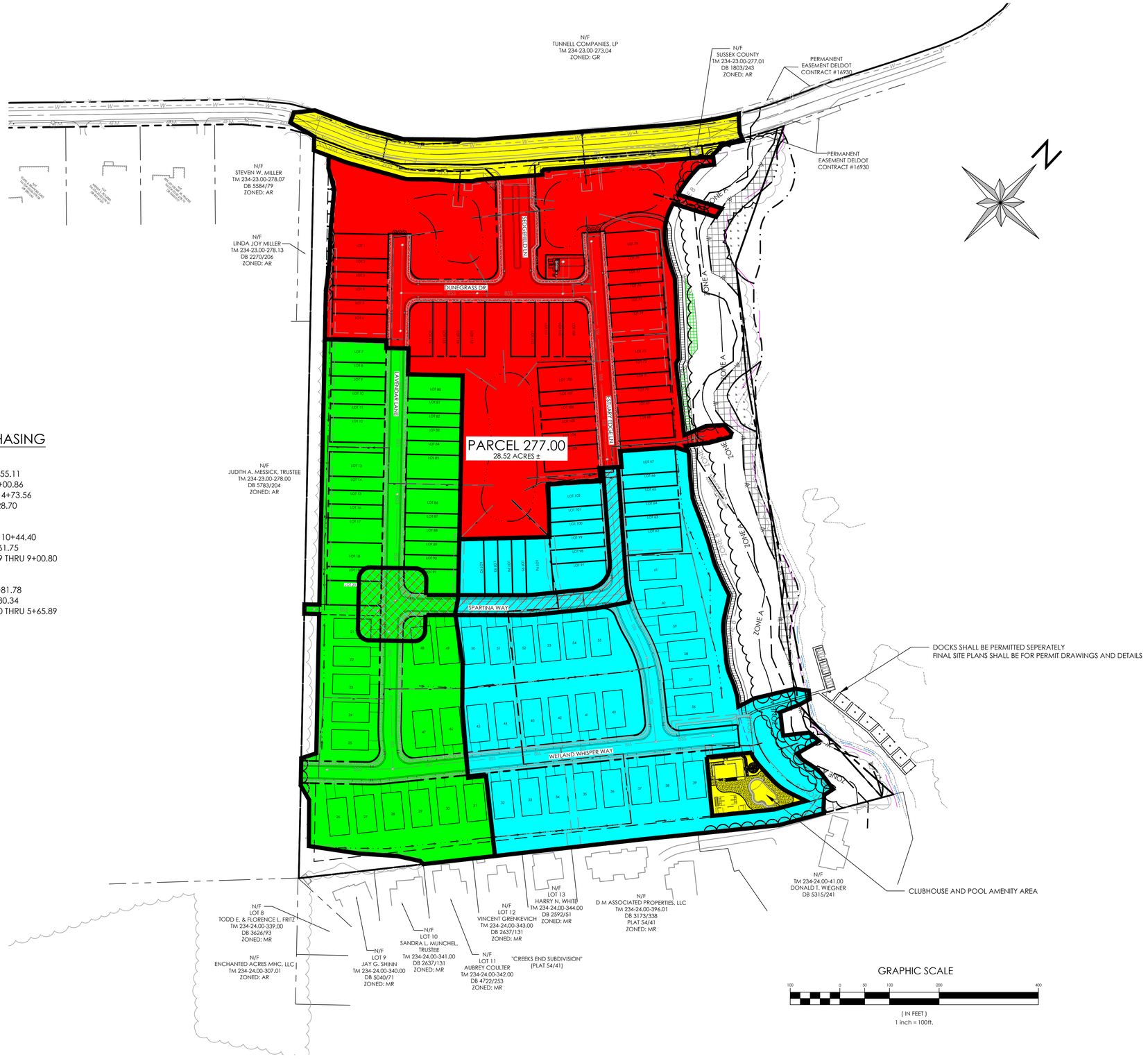
PHASE 3 - 1,549.31 L.F.
LAVENDAR LN. - 2+28.70 THRU 10+81.78
SPARTINA WAY - 0+00.00 THRU 1+30.34
WETLAND WHISPER WAY - 0+00.00 THRU 5+65.89

PHASING NOTES

- PORTIONS OF PHASES WILL OVERLAP WHEN PARTIAL OR TEMPORARY IMPROVEMENTS ARE MADE FOR CONNECTION PURPOSES AND FINAL BUILD OUT IS IN A FUTURE PHASE.
- CONTRACTOR/OWNER/DEVELOPER SHALL ALERT THE ENGINEER IMMEDIATELY IF ISSUES WITH THE PHASING PLAN ARE FOUND IN THE FIELD.
- VARIATIONS FROM THE PHASING PLAN SHALL BE COORDINATED WITH THE ENGINEER AND ALL IMPACTED AGENCIES.
- SCD WRITTEN APPROVAL OF PHASING VARIATIONS AND PLAN REVISIONS IS REQUIRED PRIOR TO IMPLEMENTATION.
- NO MORE THAN 20 ACRES SHALL BE DISTURBED AT ANY TIME.
- MATERIAL EXCAVATED FROM STORMWATER PONDS MAY BE STOCK PILED WITHIN FUTURE PHASES FOR FILL IN THOSE PHASES. NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME.
- PORTIONS OF PHASES MAY HAVE INTERMITTENT PERIODS OF OVERLAP. NO MORE THAN 20 ACRES MAY BE DISTURBED AT ANY TIME.
- PHASING PLAN SUBJECT TO CHANGE, PLEASE REFER TO LATEST RECORDED PHASING PLAN.
- PHASE 1 INCLUDES PUMP STATION AND FORCEMAIN FOR SANITARY SEWER CONNECTION.

SUSSEX COUNTY PLANNING & ZONING CONDITIONS OF APPROVAL (AMENITIES)

C. THE ACTIVE RECREATIONAL AMENITIES FOR THE PROJECT SHALL INCLUDE A SMALL POOL HOUSE WITH A MINIMUM SQUARE FOOTAGE OF 500 SQUARE FEET AND A POOL WITH A MINIMUM WATER SURFACE OF 1,200 SQUARE FEET. THERE SHALL ALSO BE A DOCK WITH BOAT SLIPS AND A KAYAK LAUNCH (SUBJECT TO ALL APPLICABLE DNREC APPROVALS) FOR USE BT RHE RESIDENTS OF THE COMMUNITY. THESE AMENITIES SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 115-194.5 OF THE ZONING CODE.



GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100ft.

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PROJECT DEVELOPMENT PHASING PLAN
for
CREEKSIDE
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

Date:	08-20-2025
Job Number:	G22091
Scale:	AS NOTED
Drawn By:	PJM
Designed By:	JRE
Approved By:	JRE

Sheet No.: 58

File Name:
G22091-COLOR PHASING