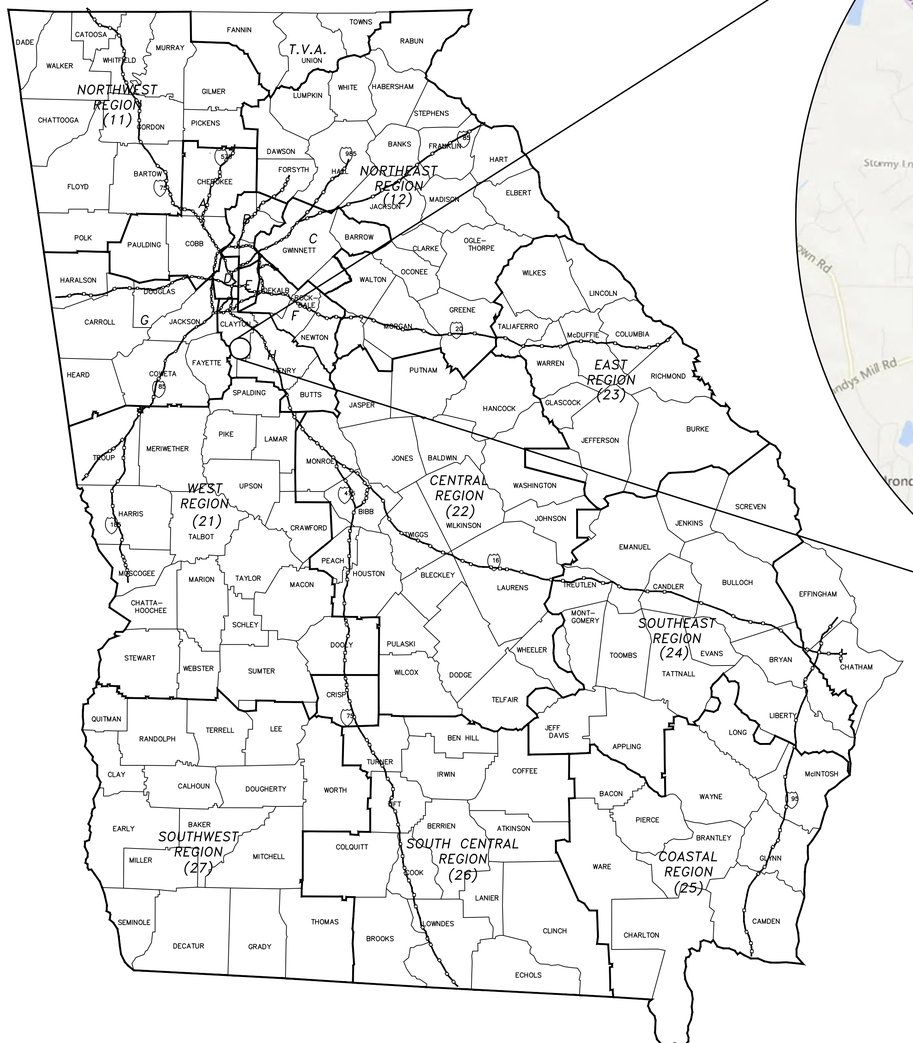
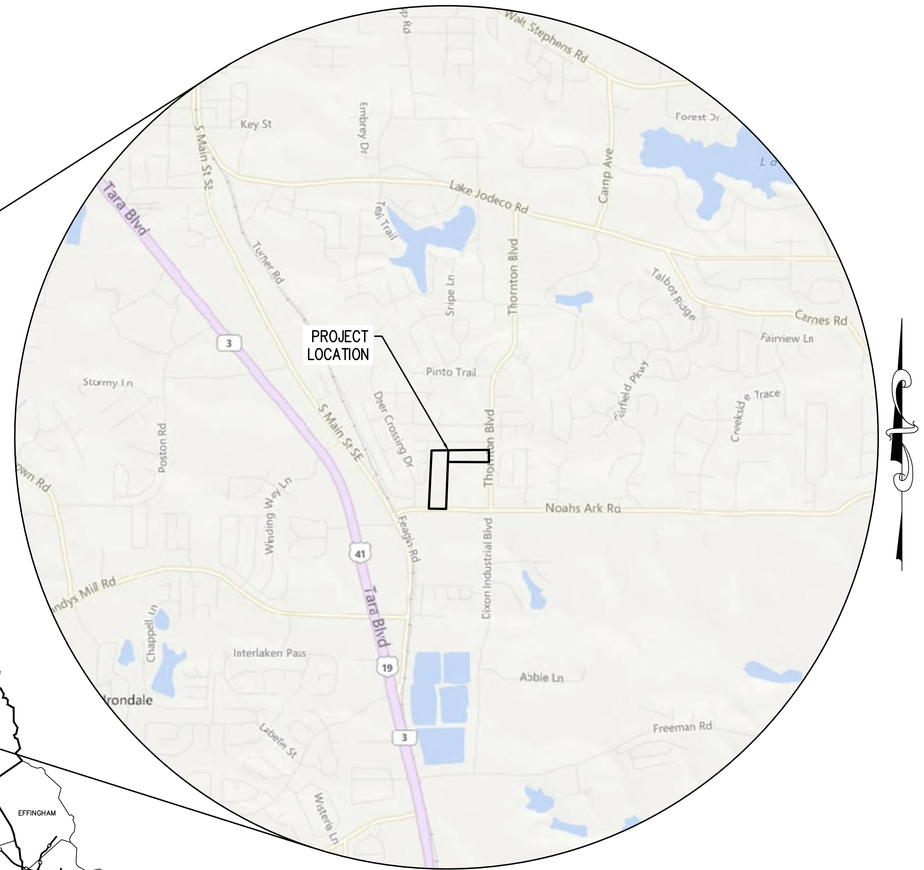
GPC NOAH'S ARK OPERATING HEADQUARTERS - SITE DESIGN
MASTER IMPROVEMENT PLANS

GEORGIA STATE MAP



INTERSTATE HIGHWAY NUMBER



LOCATION MAP - NOT TO SCALE

LATITUDE: 33.493167°
LONGITUDE: −84.335316°

DIRECTIONS:

- FROM ATLANTA −TAKE I−75 SOUTH TO EXIT 235 TO TARA BLVD.
- CONTINUE ON TARA BLVD.
- TURN LEFT ONTO AMERICAN LEGION WAY.
- TURN RIGHT ONTO SOUTH MAIN STREET.
- TURN LEFT ONTO NOAH'S ARK ROAD.
- 1704 NOAH'S ARK ROAD IS LOCATED ON THE LEFT.

GENERAL NOTES:

Project Name: GPC NOAH'S ARK OPERATING HEADQUARTERS
Location: CLAYTON COUNTY
LATITUDE: 33.493167°, LONGITUDE: -84.335316°

A. Project Description:
Construction at the operating headquarters includes parking lot modifications, pavement replacement, installation of sanitary sewer pipe lines. Oil containment will be provided for the site. Storm drainage installation activities will be conducted.

B. Owner Information
Georgia Power Company (GPC)
205 Southfield Parkway
BIN 79600
Forest Park, GA 30297
CONTACT: Burns Wetherington
(404) 506-2533

C. Operator & 24-hour Local Erosion and Sedimentation Control Contact:
Bryan Harris (Georgia Power Company)
(404) 506-4932

D. Total Acreage / Disturbed Acreage
Total Site Area: 12.6 Acres
Total Disturbed Area: 7.50 Acres

TABLE OF CONTENTS

GEORGIA811
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OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
(404) 506-2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
BIN 10041
ATLANTA, GA 30308-3374
CONTACT: BRYAN HARRIS
(404) 506-4932

ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED No. 27118 PROFESSIONAL ENGINEER Mark Van De Water 06/03/2020

AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

COVER

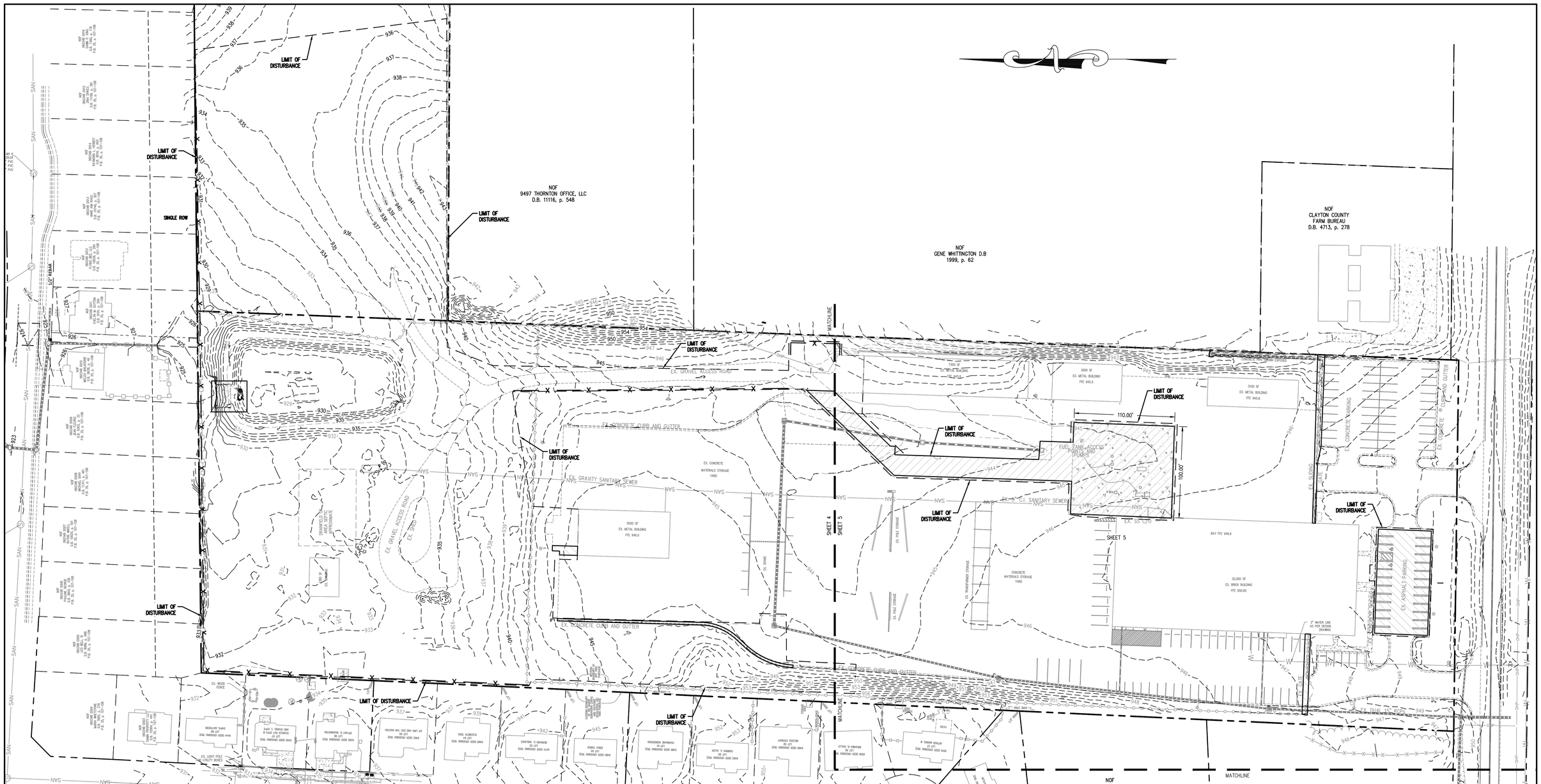
CLAYTON COUNTY, GEORGIA

NO.	DATE	BY	REVISIONS
4	06/3/20	CJW	ADDED DUMPSTER PAD AREA
3	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

DR. MDA	TR.	CH'K CJW/MDV
SCALE NTS		DATE 5/17/2019
DRAWING No.		SHEET No. 1 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 3:50:46 PM, kit, Previous paper size (36.00 x 24.00 Inches), 1:1



DEMOLITION LEGEND

- EX FENCE
- EX CURB AND GUTTER
- EX SANITARY SEWER
- EX STORM
- DEMOLITION REMOVAL AREA
- EX CONCRETE

DEMOLITION NOTES

1. ALL PHASE 1 EROSION CONTROL BMPs MUST BE INSTALLED PRIOR TO DEMOLITION WORK.
2. ALL DEMOLITION DEBRIS MUST BE REMOVED FROM THE SITE. CONTRACTOR SHALL DISPOSE OF DEBRIS PER ALL APPLICABLE STATE AND FEDERAL REGULATIONS.
3. INSTALL TRAFFIC CONTROL DEVICES PER MUTCD (LATEST EDITION) STANDARDS FOR ALL ROADWORK.
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6. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER IF ANY DEMOLITION OR NEW CONSTRUCTION WORK (AS INDICATED ON THE CONSTRUCTION DOCUMENTS) CANNOT BE PERFORMED DUE TO EXISTING FIELD CONDITIONS.

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50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641–1942
LEVEL II CERT. # 6960

REGISTERED No. 27110 PROFESSIONAL ENGINEER
05/03/2020
Mark D Van De Water

50 0 50 100
Scale 1" = 50'

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AEC JOB # 18–4190.20

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APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

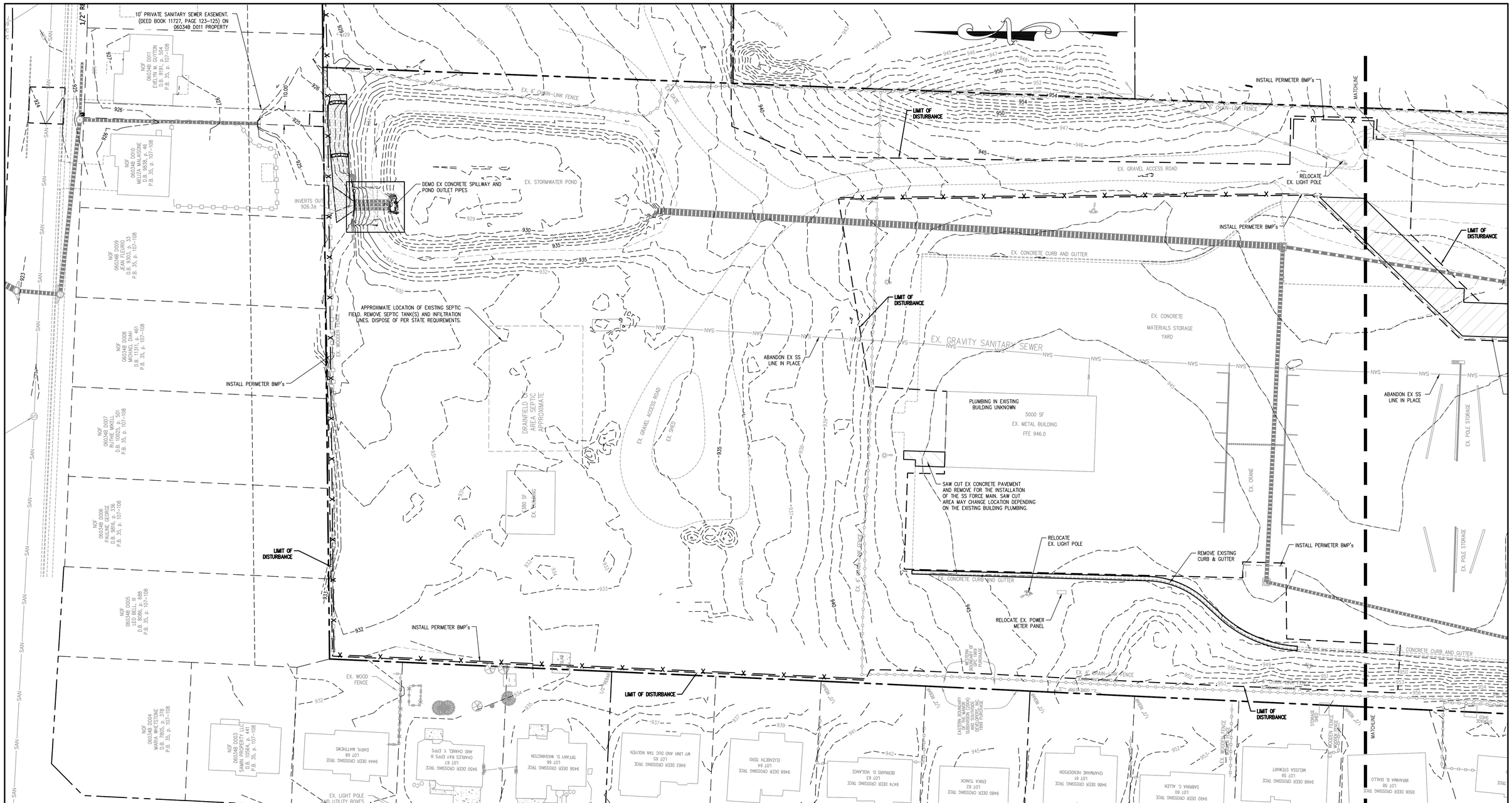
GPC NOAHS ARK OPERATING HEADQUARTERS

OVERALL DEMOLITION PLAN

CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE		DATE
1" = 50'		5/17/2019
DRAWING No.		SHEET No.
		3 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark OHC\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHC C00.dwg, 6/2/2020 5:50:59 PM, kit, Previous paper size (36.00 x 24.00 Inches), 1:1



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LEVEL II CERT. # 6960

REGISTERED 05/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark D Van De Water

30 0 30 60
Scale 1" = 30'

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GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

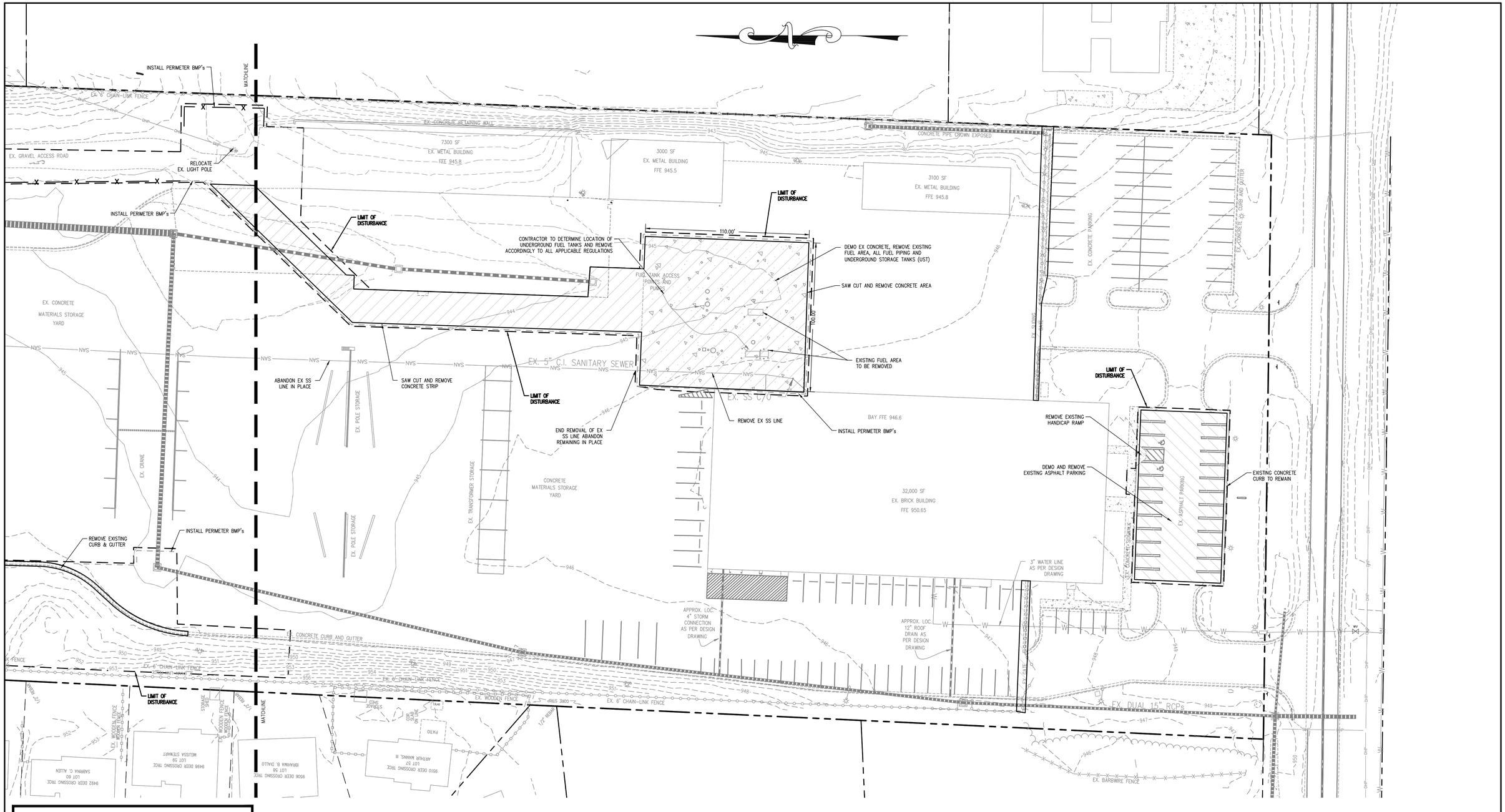
GPC NOAHS ARK OPERATING HEADQUARTERS

SITE DEMOLITION PLAN

CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE 1" = 30'		DATE 5/17/2019
DRAWING No.		SHEET No. 4 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark OH\Q\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OH\Q COD.dwg, 6/2/2020 5:51:08 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1



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ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

REGISTERED 08/03/2020 PROFESSIONAL ENGINEER Mark D Van De Water

30 0 30 60

Scale 1" = 30'

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AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4.0	8/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

SITE DEMOLITION PLAN

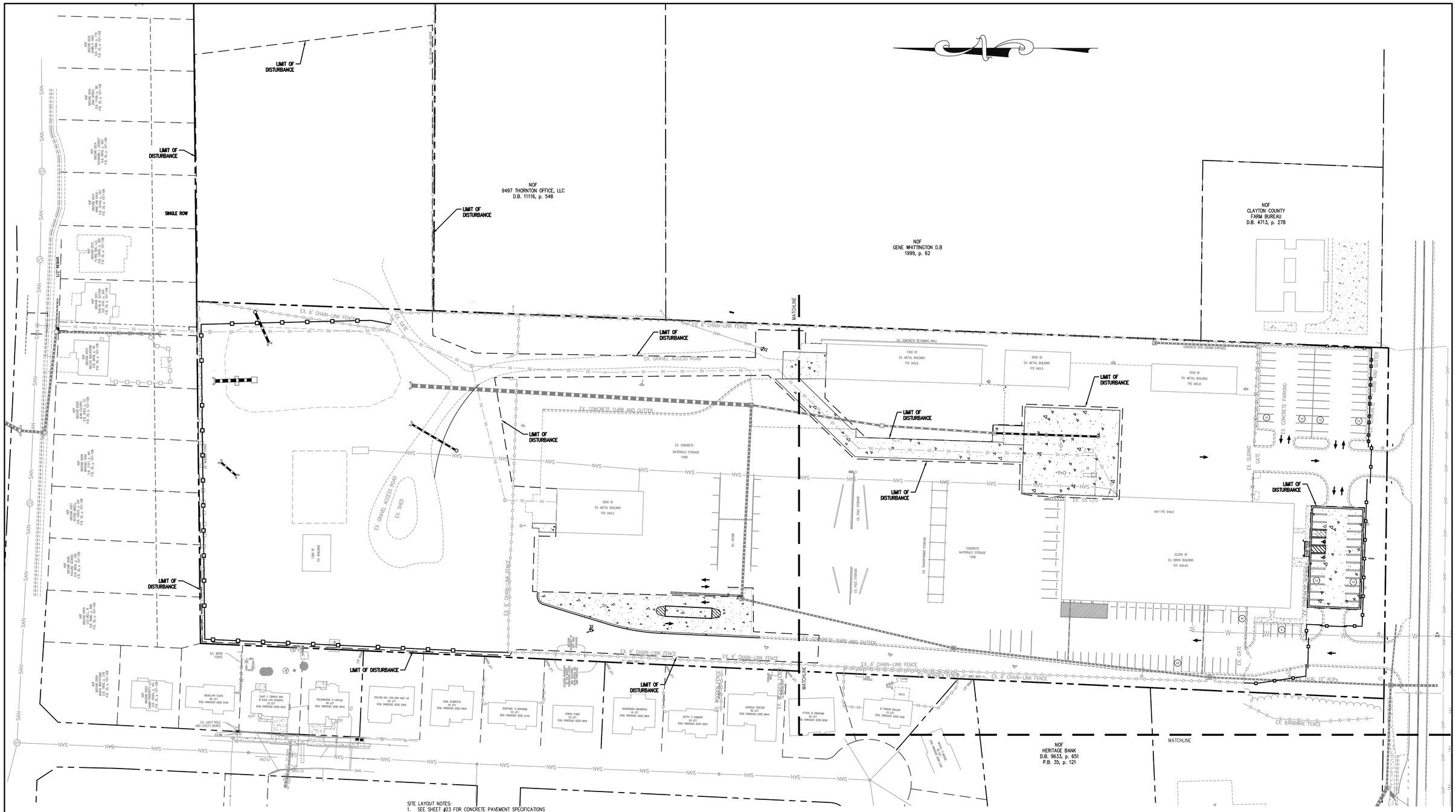
CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV

SCALE 1" = 30' | DATE 5/17/2019

DRAWING No. | SHEET No. 5 OF 30

M:\2018\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ COD.dwg, 6/2/2020 5:51:18 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1


LIMIT OF DISTURBANCE
NOF
9497 THORNTON OFFICE, LLC
D.B. 11116, p. 548
NOF
GENE WHITTINGTON D.B
1999, p. 62
NOF
CLAYTON COUNTY
FARM BUREAU
D.B. 4713, p. 278
NOF
HERITAGE BANK
D.B. 9633, p. 651
P.B. 35, p. 121
MATCHLINE
SINGLE ROW
1/2" REBAR
EX. 6' CHAIN-LINK FENCE
EX. GATE
EX. GRAVEL ACCESS ROAD
EX. CONCRETE CURB AND GUTTER
EX. CONCRETE RETAINING WALL
EX. CONCRETE PARKING
EX. SLIDING GATE
EX. CONCRETE MATERIALS STORAGE YARD
EX. POLE STORAGE
EX. TRANSFORMER STORAGE
EX. SHED
EX. GRAVEL ACCESS ROAD
EX. WOOD FENCE
EX. BARBWIRE FENCE
EX. LIGHT POLE AND UTILITY BOXES
7300 SF EX. METAL BUILDING FFE 945.8
3000 SF EX. METAL BUILDING FFE 945.5
3100 SF EX. METAL BUILDING FFE 945.8
5000 SF EX. METAL BUILDING FFE 946.0
1200 SF EX. BUILDING
32,000 SF EX. BRICK BUILDING FFE 950.65
BAY FFE 946.6
EX. SS 670
EX. 15" RCP
EX. 18" RCP
EX. 24" RCP
EX. 30" RCP
EX. 36" RCP
EX. 42" RCP
EX. 48" RCP
EX. 54" RCP
EX. 60" RCP
EX. 66" RCP
EX. 72" RCP
EX. 78" RCP
EX. 84" RCP
EX. 90" RCP
EX.

EX. MH J
RIM: 925.69
INV IN: 916.17 8" PVC
INV OUT: 916.09 8" PVC

EX. CURB, GUTTER & SIDEWALK TO REMAIN

20' X 20' EXCAVATION AND PAVEMENT PATCH PER CLAYTON COUNTY STANDARD

SSMH: Z1 (DOGHOUSE)
TOP: 924.00 (MATCH EX. GRADE)
INV. IN: 917.00 (Z2)
EX. INV. OUT: 916.56

SEE NOAH'S ARK SEWER SET OF PLANS FOR MORE INFORMATION ON SEWER DESIGN

1/2" REBAR

10' PRIVATE SANITARY SEWER EASEMENT. (DEED BOOK 11727, PAGE 123-125) ON 06034B D011 PROPERTY

NOF 06034B D011 ATLANTA DIVISION D.B. 9911, p. 504 P.B. 35, p. 107-108

NOF 06034B D010 MARY ANN BOONE D.B. 9838, p. 46 P.B. 35, p. 107-108

NOF 06034B D009 JEAN FLEMING D.B. 10553, p. 31 P.B. 35, p. 107-108

NOF 06034B D008 MARY DIAL D.B. 1131, p. 461 P.B. 35, p. 107-108

NOF 06034B D007 BETTIE MAPLE D.B. 10025, p. 501 P.B. 35, p. 107-108

NOF 06034B D006 PAULINE GEORGE D.B. 3815, p. 138 P.B. 35, p. 107-108

NOF 06034B D005 LEO BELL III D.B. 8885, p. 688 P.B. 35, p. 107-108

NOF 06034B D004 MARY MOORE D.B. 7805, p. 378 P.B. 35, p. 107-108

NOF 06034B D003 SAMA PROPERTY LLC D.B. 10564, p. 441 P.B. 35, p. 107-108

EX. MH I
RIM: 924.15
INV IN: 917.73 8" PVC
INV OUT: 917.60 8" PVC

EX. MH H
RIM: 928.52
INV IN: 920.81 8" PVC (S)
INV IN: 921.13 6" PVC (NW)
INV OUT: 920.58 8" PVC

EX. 24" STORM PIPE

EX. 30" STORM PIPE

EX. 8" SANITARY SEWER

200.00 LF 8" DIP

10.00'

JACK AND BORE: 8" DIP SANITARY SEWER LINE IN 16" STEEL CASING. CARRIER PIPE TO HAVE STAINLESS STEEL SPACES 5 FEET FROM END OF PIPE AND 5 FEET ON EITHER SIDE OF BELL JOINT. CASING ENDS TO BE SEALED WITH BRICK AND MORTAR OR APPROVED EQUIVALENT.

PROPOSED 6' CHAINLINK FENCE

EX. WOOD FENCE

25' X 25' BORE PIT

205.86 LF 8" PVC

EX. 6' CHAIN-LINK FENCE

PROPOSED STORM PIPE

SSMH: Z2
TOP: 931.00
INV. IN: 921.20 (Z3)
INV. OUT: 921.00

SEE NOAH'S ARK SANITARY SEWER ONLY SET OF PLANS FOR PROPOSED SANITARY SEWER DESIGN INFORMATION

SSMH: Z3
TOP: 936.00
INV. IN: 929.45 (Z4)
INV. OUT: 929.25

TIE PROPOSED FENCE TO EXISTING FENCE

EX. GATE

IMPROVE EXISTING GRAVEL ACCESS ROAD PER THE ACCESS ROAD DETAIL

105.00 LF 6" PVC

SSMH: Z4
TOP: 940.00
INV. IN: 930.80 (Z5)
INV. IN: 930.80 (3.1)
INV. OUT: 930.50

LIMIT OF DISTURBANCE

SS CO: Z5
TOP: 944.25
INV. IN: 934.00 (Z6)
INV. OUT: 934.00

155.00 LF 6" PVC

200.00 LF 6" PVC

PROPOSED REPAVING WITH CONCRETE (SEE CONCRETE DETAIL)

EX. 6' CHAIN-LINK FENCE

RELOCATED LIGHT POLE.

MATCHLINE

EX. GRAVEL ACCESS ROAD

EX. GATE

EX. 42" STORM PIPE

SS CO: Z6
TOP: 944.00
INV. IN: 936.00 (Z7)
INV. OUT: 936.00

EX. CONCRETE CURB AND GUTTER

SEE NOAH'S ARK SANITARY SEWER ONLY SET OF PLANS FOR PROPOSED SANITARY SEWER DESIGN INFORMATION

IMPROVE EXISTING GRAVEL ACCESS ROAD PER THE ACCESS ROAD DETAIL

INSTALL NEW GRAVEL PER THE ACCESS ROAD DETAIL

PROPOSED STORM PIPE

160.00 LF 6" PVC

LIMIT OF DISTURBANCE

EX. CONCRETE MATERIALS STORAGE YARD

ABANDON EX SS LINE IN PLACE

EX. GRAVITY SANITARY SEWER

SSMH: 3.1
TOP: 940.50
INV. IN: 934.00 (Z3.2)
INV. OUT: 934.00

60.00 LF 6" PVC

BUILDING: Z3.2
SS OUT OF BUILDING
TO BE FIELD LOCATED
ASSUMED INVERT OUT: 940.00

5000 SF
EX. METAL BUILDING
FFE 946.0

EX. GRAVEL ACCESS ROAD

EX. SHED

1380 SF
EX. BUILDING

EX. 6' CHAIN-LINK FENCE

PROPOSED REPAVING WITH CONCRETE (SEE CONCRETE DETAIL)

PROPOSED REPAVING WITH CONCRETE (SEE CONCRETE DETAIL)

DIRECTIONAL ARROW TYPE 1 (SEE DETAIL ON SHEET 20).

5" DOUBLE YELLOW STRIPE

54' X 12' FUEL ISLAND (PLANS PROVIDED BY OTHERS)

TIE TO EXISTING CURB & GUTTER

5" WHITE STRIPING

R250.00'

RELOCATED LIGHT POLE.

PROPOSED 24" CURB & GUTTER

TIE TO EXISTING CURB & GUTTER

5" WHITE STRIPING

PROPOSED 6' CHAINLINK FENCE

TIE PROPOSED FENCE TO EXISTING

LIMIT OF DISTURBANCE

EX. 6' CHAIN-LINK FENCE

EX. WOOD FENCE

EX. LIGHT POLE AND UTILITY BOXES

EX. WM

EX. GAS

EX. MH G
RIM: 932.82
INV IN: 923.52 8" PVC
INV OUT: 923.42 8" PVC

EX. 24" HDPE

EX. 30" HDPE

FLOW

EX. 6' CHAIN-LINK FENCE

EX. WOODEN FENCE

EX. WOODEN FENCE

EX. CRANE

MATCHLINE

STORAGE SHED

EX. WOODEN FENCE

EX. WOODEN FENCE

EX. 6' CHAIN-LINK FENCE

LIMIT OF DISTURBANCE

EASTERN BOUNDARY OF GPC 1968 SUBDIVISION (1200') (NOW OR FORMERLY) DEVELOPERS, INC. 1999 DOUBLE

WESTERN BOUNDARY OF GPC 1968 SUBDIVISION

9444 DEER CROSSING TRCE LOT 68 DARYL MATTHEWS

9450 DEER CROSSING TRCE LOT 67 CHARLES RAY PIPES III AND CHANEL V. EPPS

9456 DEER CROSSING TRCE LOT 66 TIFFANY D. WASHINGTON

9462 DEER CROSSING TRCE LOT 65 MY LINH AND DUC TAN NGUYEN

9468 DEER CROSSING TRCE LOT 64 ELIZABETH TERO

9474 DEER CROSSING TRCE LOT 63 DEBORAH D. WOLLACE

9480 DEER CROSSING TRCE LOT 62 ERIKA TUMOK

9486 DEER CROSSING TRCE LOT 61 CHARMAINE HENDERSON

9492 DEER CROSSING TRCE LOT 60 SABRINA C. ALLEN

9498 DEER CROSSING TRCE LOT 59 MELISSA STEWART

DEER CROSSING TRCE LOT 58 ADRIANA R. DIALLO

LAYOUT/UTILITY LEGEND

EXISTING WATER LINE	EXISTING CONCRETE
EXISTING STORM SEWER LINE	PROPOSED CONCRETE
EXISTING CURB AND GUTTER	EXISTING LIGHT POLE
EXISTING FENCE	EXISTING WATER VALVE
PROPOSED FENCE	
EXISTING SANITARY SEWER LINE	SSMH SANITARY SEWER MANHOLE
PROPOSED SANITARY SEWER LINE	CO CLEANOUT
PROPOSED SANITARY SEWER FORCE MAIN	WV WATER VALVE
	FM FORCE MAIN

SITE LAYOUT NOTES:
1. SEE SHEET #23 FOR CONCRETE PAVEMENT SPECIFICATIONS
2. ALL PARKING SPACES TO BE A MINIMUM OF 9'x18' WHIT 5" PAINTED WHITE STRIPE.

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06/03/2020
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3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

SITE LAYOUT & UTILITY PLAN

CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE		DATE
1" = 30'		5/17/2019
DRAWING No.		SHEET No.
		7 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Arc OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:51:38 PM, kit, ARCH full bleed D (24.00 x 36.00 inches), 1:1

PROPOSED REPAVING WITH CONCRETE (SEE CONCRETE DETAIL)

MATCHLINE

EX. 6' CHAIN-LINK FENCE

200.00 LF 6" PVC

RELOCATED LIGHT POLE.

EX. GRAVEL ACCESS ROAD

50.0'

30.5'

EX. CONCRETE RETAINING WALL

7300 SF
EX. METAL BUILDING
FFE 945.8

3000 SF
EX. METAL BUILDING
FFE 945.5

3100 SF
EX. METAL BUILDING
FFE 945.8

CONCRETE PIPE CROWN EXPOSED

SS CO: Z6
TOP: 944.00
INV. IN: 936.80 (Z7)
INV. OUT: 936.00

LIMIT OF DISTURBANCE

PROPOSED REPAVING WITH CONCRETE (SEE CONCRETE DETAIL)

SS CO: Z8
TOP: 945.46 (MATCH EX GRADE)
INV. IN: 940.80 (Z9)
INV. OUT: 940.80
(C.O. TOP TO BE IN USF 7635 SS BOX)

LIMIT OF DISTURBANCE

SS CO: Z9
TOP: 946.17 (MATCH EX GRADE)
INV. IN: 941.70 (Z10)
INV. IN: 941.70 (Z9.1)
INV. OUT: 941.70
(C.O. TOP TO BE IN USF 7635 SS BOX)

IMPROVE EXISTING GRAVEL ACCESS ROAD PER THE ACCESS ROAD DETAIL

130.00 LF 6" DIP

EX. CONCRETE MATERIALS STORAGE YARD

ABANDON EX SS LINE IN PLACE

185.00 LF 6" DIP

90.00 LF 6" DIP

45.00 LF 6" DIP

50.97 LF 6" DIP

SS CO: Z7
TOP: 943.26 (MATCH EX GRADE)
INV. IN: 936.65 (Z8)
INV. OUT: 936.65
(C.O. TOP TO BE IN USF 7635 SS BOX)

SS CO: Z10
TOP: 946.21 (MATCH EX GRADE)
INV. OUT: 942.40
(ASSUMED, CONTACT ENGINEER IF INV IS BELOW 942.40)

LIMIT OF DISTURBANCE

SEE NOAH'S ARK SANITARY SEWER ONLY SET OF PLANS FOR PROPOSED SANITARY SEWER DESIGN INFORMATION

EX. SS C.O.

CONNECT TO EXISTING SS PIPE LEAVING THE EXISTING BUILDING

SS CO: Z9.1
TOP: 946.21 (MATCH EX GRADE)
INV. OUT: 942.15
(ASSUMED, CONTACT ENGINEER IF INV IS BELOW 942.15)

EX. POLE STORAGE

EX. TRANSFORMER STORAGE

CONCRETE MATERIALS STORAGE YARD

32,000 SF
EX. BRICK BUILDING
FFE 950.65

EX. CONCRETE PARKING

EX. SLIDING GATE

DIRECTIONAL ARROW TYPE 1 (SEE DETAIL ON SHEET 20).

"DO NOT ENTER" (R5-1) SIGN

PROPOSED FENCE WITH AUTOMATIC SLIDING GATE

"DO NOT ENTER" (R5-1) SIGN

DIRECTIONAL ARROW TYPE 1 (SEE DETAIL ON SHEET 20).

LIMIT OF DISTURBANCE

HANDICAP PARKING SIGNS

PROPOSED STRIPING

SEE HANDICAP RAMP DETAIL

PROPOSED STRIPING (SEE CONCRETE DETAIL SHEET 19).

PROPOSED REPAVING WITH CONCRETE (SEE CONCRETE DETAIL)

EX. CONCRETE SIDEWALK

EX. CRANE

PROPOSED REPAVING WITH CONCRETE (SEE CONCRETE DETAIL)

DIRECTIONAL ARROW TYPE 1 (SEE DETAIL ON SHEET 20).

5" DOUBLE YELLOW STRIPE

54' X 12' FUEL ISLAND (PLANS PROVIDED BY OTHERS)

12.0'

15.1'

19.6'

TIE TO EXISTING CURB & GUTTER

5" WHITE STRIPING

EX. WATER VALVE

EX. WATER METER

EX. WATER VALVE

DIRECTIONAL ARROW TYPE 1 (SEE DETAIL ON SHEET 20).

PROPOSED FENCE WITH AUTOMATIC ARM GATE

MANUAL GATE

"ONE WAY" (R6-1) SIGNS

EX. GATE

EX. CONCRETE CURB AND GUTTER

EX. 6' CHAIN-LINK FENCE

EX. WOODEN FENCE

EX. 6' CHAIN-LINK FENCE

LIMIT OF DISTURBANCE

EX. WOODEN FENCE

EX. 6' CHAIN-LINK FENCE

EX. BARBWIRE FENCE

MATCHLINE

EQUAL 15" RCPs

NOF
HERITAGE BANK
D.B. 9633, p. 651
P.B. 35, p. 121

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
(404) 506-2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
BIN 10041
ATLANTA, GA 30308-3374
CONTACT: BRYAN HARRIS
(404) 506-4932

ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark D Van De Water

SITE LAYOUT NOTES:
1. SEE SHEET #23 FOR CONCRETE PAVEMENT SPECIFICATIONS.
2. ALL PARKING SPACES TO BE A MINIMUM OF 9'x18' WHIT 5" PAINTED WHITE STRIPE.

LAYOUT/UTILITY LEGEND

EXISTING WATER LINE		EXISTING CONCRETE	
EXISTING STORM SEWER LINE		PROPOSED CONCRETE	
EXISTING CURB AND GUTTER		EXISTING LIGHT POLE	
EXISTING FENCE		EXISTING WATER VALVE	
PROPOSED FENCE		SSMH	SANITARY SEWER MANHOLE
EXISTING SANITARY SEWER LINE		CO	CLEANOUT
PROPOSED SANITARY SEWER LINE	SS	WV	WATER VALVE
PROPOSED SANITARY SEWER FORCE MAIN	FM	FM	FORCE MAIN

30 0 30

Scale 1" = 30'

GEORGIA811 Utilities Protection Center, Inc.
Know what's **below.** **Call** before you dig.
Dial 811 or Call 1-800-282-7411

NO.	DATE	BY	REVISIONS
4.	06/3/20	CJW	ADD DUMPSTER PAD AREA
3.	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1.	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

SITE LAYOUT & UTILITY PLAN

CLAYTON COUNTY, GEORGIA

DR.	CH'K
MDA	CJW/MDV
SCALE 1" = 30'	DATE 5/17/2019
DRAWING No.	SHEET No. 8 OF 30

M:\2018\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:51:43 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1

NOF
9497 THORNTON OFFICE, LLC
D.B. 11116, p. 548

NOF
GENE WHITTINGTON D.B
1999, p. 62

NOF
CLAYTON COUNTY
FARM BUREAU
D.B. 4713, p. 278

NOF
HERITAGE BANK
D.B. 9633, p. 651
P.B. 35, p. 121

LIMIT OF DISTURBANCE

SINGLE ROW

MATCHLINE

EX. GRAVEL ACCESS ROAD

EX. CONCRETE CURB AND GUTTER

EX. CONCRETE MATERIALS STORAGE YARD

EX. CONCRETE PARKING

EX. SLIDING GATE

EX. GATE

EX. WOOD FENCE

EX. LIGHT POLE AND UTILITY BOXES

EX. SHED

EX. POLE STORAGE

EX. GRAVEL

EX. WAREHOUSE STORAGE

CONCRETE MATERIALS STORAGE YARD

5000 SF EX. METAL BUILDING FFE 946.0

3300 SF EX. METAL BUILDING FFE 945.8

3000 SF EX. METAL BUILDING FFE 945.5

3100 SF EX. METAL BUILDING FFE 945.8

BAY FFE 946.8

32,000 SF EX. BRICK BUILDING FFE 950.65

LEGEND

- PROPOSED LIMITS OF DISTURBANCE
- PROPERTY/RIGHT-OF-WAY LINE
- PROPOSED STORM PIPE
- EXISTING GRADE
- PROPOSED GRADE
- SPOT GRADE

LEGEND:

JB – JUNCTION BOX
DI – GRATE INLET
PI – PEDESTAL INLET
OCS – OUTLET CONTROL STRUCTURE
HW – HEADWALL
SES – SAFETY END SECTION
RCP – REINFORCED CONCRETE PIPE
HDPE – HIGH DENSITY POLYETHYLENE PIPE

OWNER
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OPERATOR / 24 HOUR CONTACT
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(404) 506-4932

ENGINEER
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50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

REGISTERED 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark D Van De Water

50 0 50 100

Scale 1" = 50'

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AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

OVERALL GRADING & DRAINAGE PLAN

CLAYTON COUNTY, GEORGIA

NO.	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

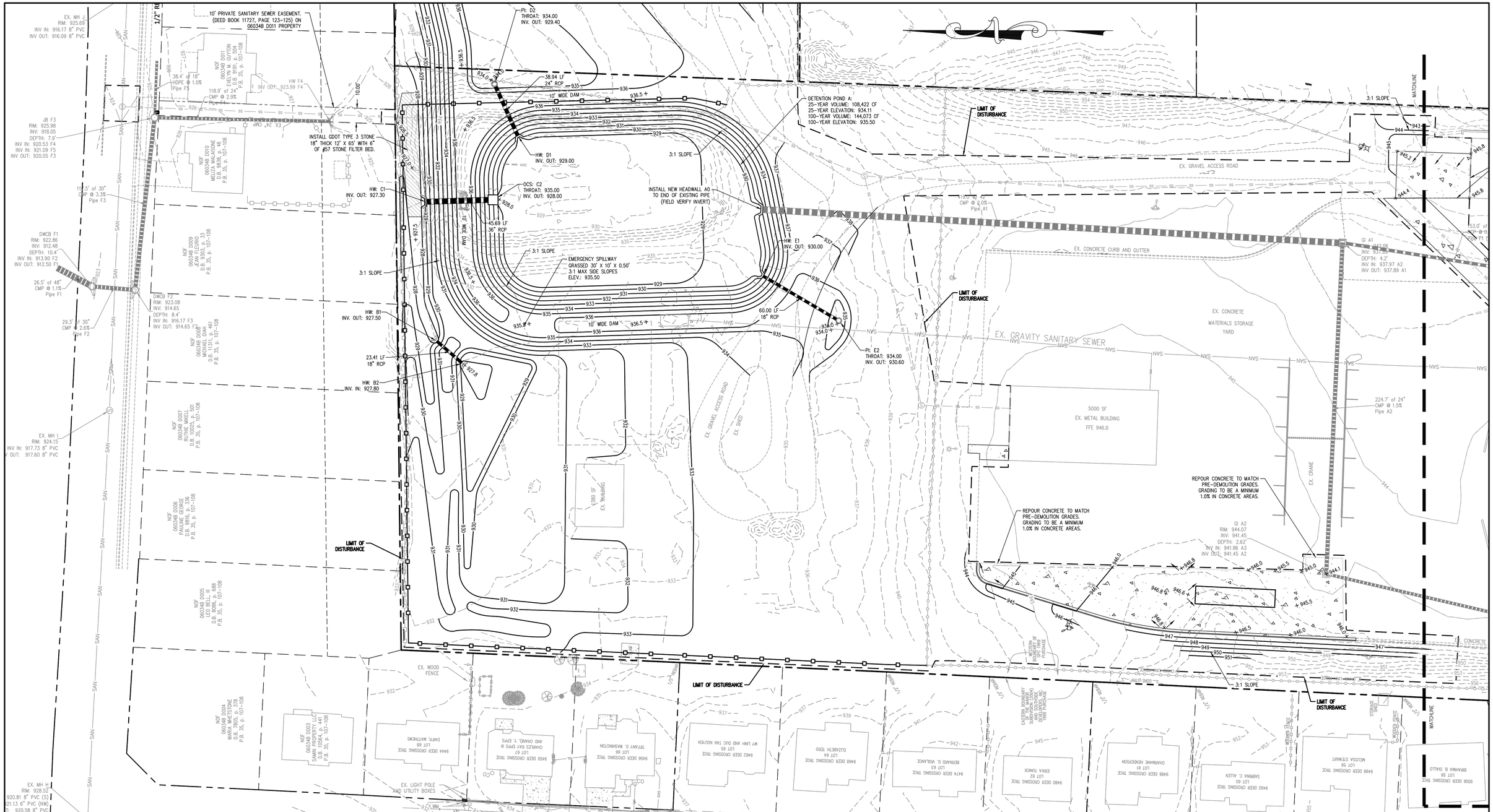
APPROVALS

DR.	TR.	CH'K
MDA		CJW/MDV

SCALE 1" = 50' DATE 5/17/2019

DRAWING No. SHEET No. 9 OF 30

M:\2018\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ COD.dwg, 6/2/2020 5:51:48 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1



LEGEND

- PROPOSED LIMITS OF DISTURBANCE
- PROPERTY/RIGHT-OF-WAY LINE
- PROPOSED STORM PIPE
- EXISTING GRADE
- PROPOSED GRADE
- SPOT GRADE

LEGEND:

JB – JUNCTION BOX
DI – GRATE INLET
PI – PEDESTAL INLET
OCS – OUTLET CONTROL STRUCTURE
HW – HEADWALL
SES – SAFETY END SECTION
RCP – REINFORCED CONCRETE PIPE
HDPE – HIGH DENSITY POLYETHYLENE PIPE

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ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark Van De Water

Scale 1" = 30'

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AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

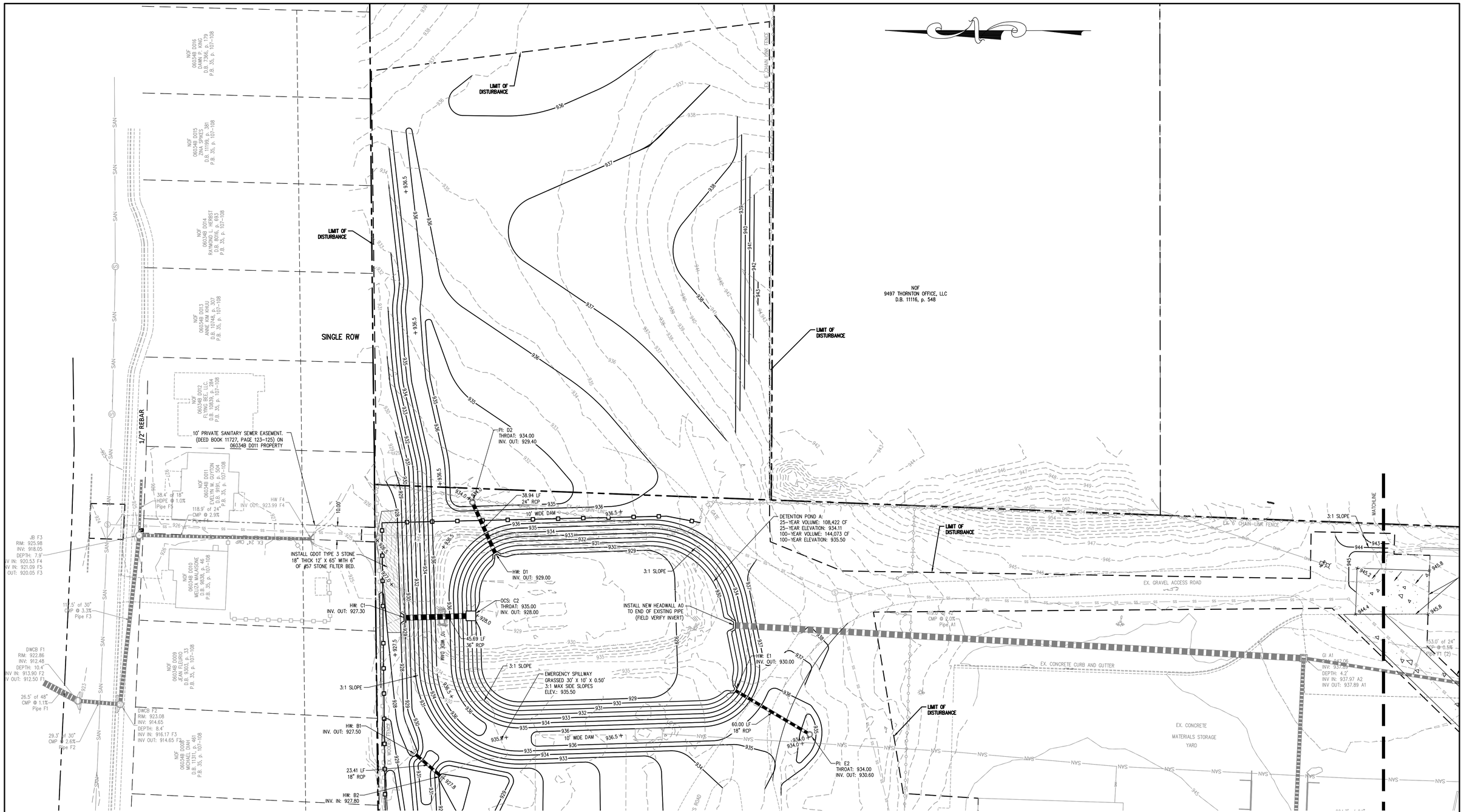
SITE GRADING & DRAINAGE PLAN

CLAYTON COUNTY, GEORGIA

NO.	DATE	BY	REVISIONS
4.	06/3/20	CJW	ADDED DUMPSTER PAD AREA
3.	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1.	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

DR. MDA	TR.	CH'K CJW/MDV
SCALE 1" = 30'		DATE 5/17/2019
DRAWING No.		SHEET No. 10 OF 30



LEGEND

- PROPOSED LIMITS OF DISTURBANCE
- PROPERTY/RIGHT-OF-WAY LINE
- PROPOSED STORM PIPE
- EXISTING GRADE
- PROPOSED GRADE
- SPOT GRADE +

LEGEND:

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SES – SAFETY END SECTION
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ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 06/03/2020 No. 27119 PROFESSIONAL ENGINEER Mark Van De Water

30 0 30 60
Scale 1" = 30'

GEORGIA 811 Utilities Protection Center, Inc.
Know what's **below.** **Call** before you dig.
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NO.	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

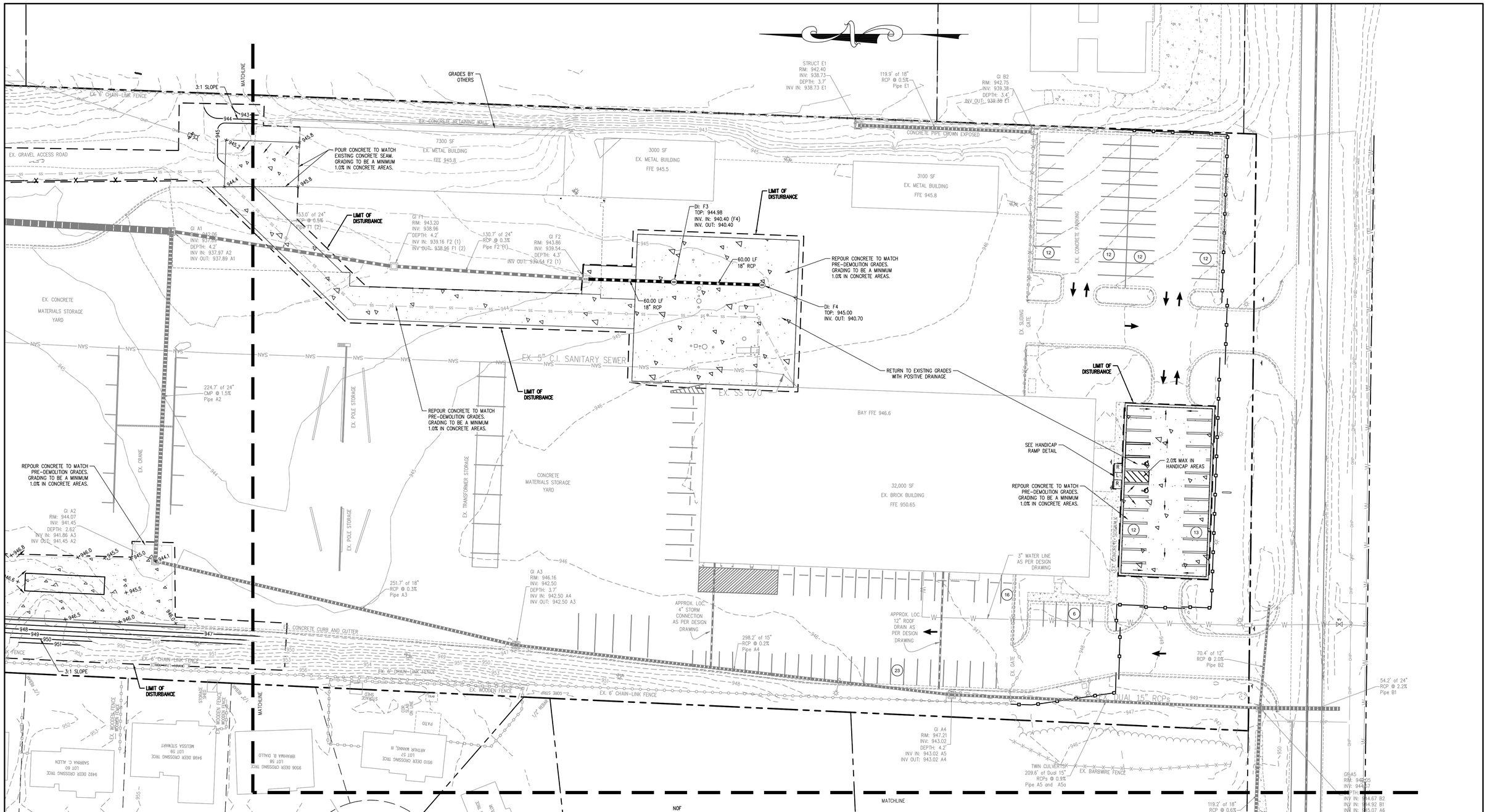
GPC NOAHS ARK OPERATING HEADQUARTERS

SITE GRADING & DRAINAGE PLAN

CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE		DATE
1" = 30'		5/17/2019
DRAWING No.		SHEET No.
		11 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:52:08 PM, kit, ARCH full bleed D (24.00 x 36.00 inches), 1:1



LEGEND

- PROPOSED LIMITS OF DISTURBANCE
- PROPERTY/RIGHT-OF-WAY LINE
- PROPOSED STORM PIPE
- EXISTING GRADE
- PROPOSED GRADE
- SPOT GRADE

LEGEND:

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50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark D Van De Water

30 0 30 60
Scale 1" = 30'

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AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

SITE GRADING & DRAINAGE PLAN

CLAYTON COUNTY, GEORGIA

NO	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

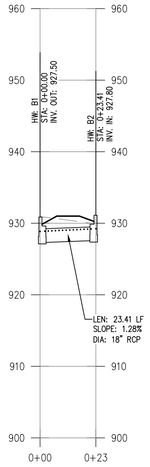
APPROVALS

DR.	TR.	CH'K
MDA		CJW/MDV

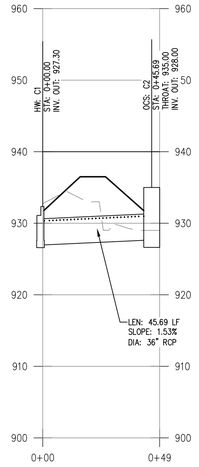
SCALE 1" = 30' | DATE 5/17/2019
DRAWING No. | SHEET No. 12 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ COD.dwg, 6/2/2020 5:52:18 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1

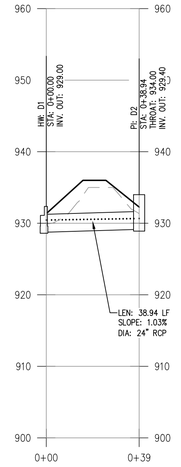
STORM B1–B2



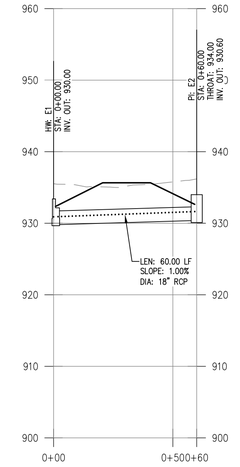
STORM C1–C2



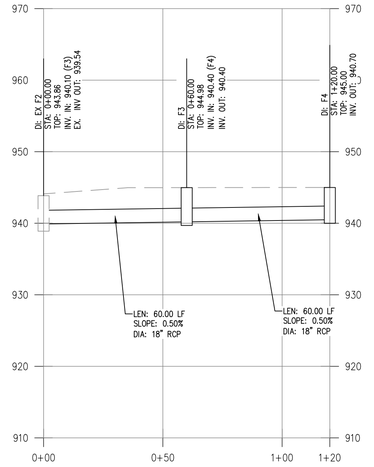
STORM D1–D2



STORM E1–E2



STORM LINE EX–F2 TO F4



LEGEND:

———— – PROPOSED GRADE
— — — — – EXISTING GRADE

DI – DROP INLET
JB – JUNCTION BOX
OCS – OUTLET CONTROL STRUCTURE
HW – HEADWALL
SES – SAFETY END SECTION
HDPE – HIGH DENSITY POLYETHYLENE (PIPE)
RCP – REINFORCED CONCRETE PIPE
DIP – DUCTILE IRON PIPE
FM – FORCE MAIN
STA – STATION

SCALE:
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 10'

25 YEAR PIPE CHART

Line	ToLine	Line Length	Incr.Area	Total Area	Runoff Coeff.	IncrC x A	TotalC x A	InletT ime	Time Conc	RnfallInt	Total Runoff	AdnlFlow	Total Flow	CapacFull	Veloc	Pipe Size	Pipe Slope	Inv ElevDn	Inv ElevUp	HGLDn	HGLUp	Grnd/RimDn	Grnd/RimUp	Line ID
		(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
1	Outfall	23.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.11	11.11	12.88	6.94	18.00	1.28	927.50	927.80	928.77	929.07	930.25	930.55	B2
2	Outfall	45.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.90	85.90	188.78	10.13	42.00	1.53	927.30	928.00	930.18	931.38	930.25	935.00	C2
3	Outfall	38.94	2.15	2.15	0.50	1.08	1.08	5.00	5.00	9.00	9.72	0.00	9.72	18.26	5.41	24.00	1.03	929.00	929.40	930.11	930.36	931.75	934.00	D2
4	Outfall	60.00	0.65	0.65	0.20	0.13	0.13	5.00	5.00	9.00	1.18	0.00	1.18	12.22	3.05	18.00	1.00	930.00	930.60	930.41	931.01	932.97	934.00	E2

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
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ENGINEER
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50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641–1942
LEVEL II CERT. # 6960

06/03/2020
No. 27118
Mark D Van De Water
Mark Van De Water

30 0 30 60
Scale 1" = 30'

GEORGIA811
Utilities Protection Center, Inc.
Know what's **below.**
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AEC JOB # 18–4190.20

NO.	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

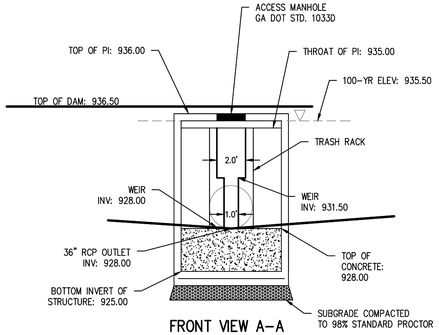
STORM PIPE PROFILES

CLAYTON COUNTY, GEORGIA

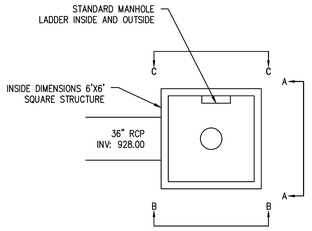
APPROVALS

DR. MDA	TR.	CH'K CJW/MDV
SCALE 1" = 30'		DATE 5/17/2019
DRAWING No.		SHEET No. 13 OF 30

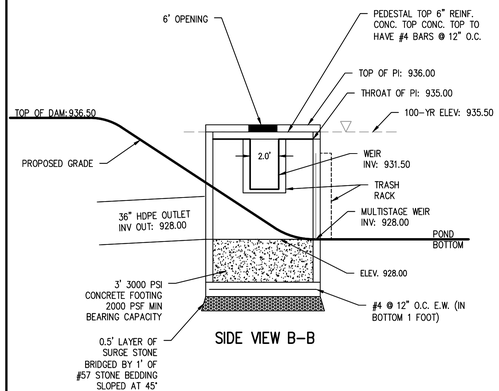
M:\2018 JOBS\18-4190 GPC Noahs Arc OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:52:28 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1



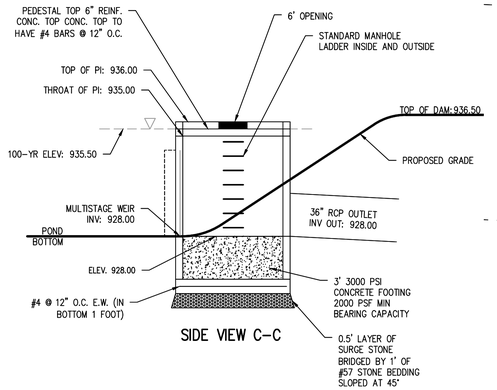
FRONT VIEW A–A



PLAN VIEW

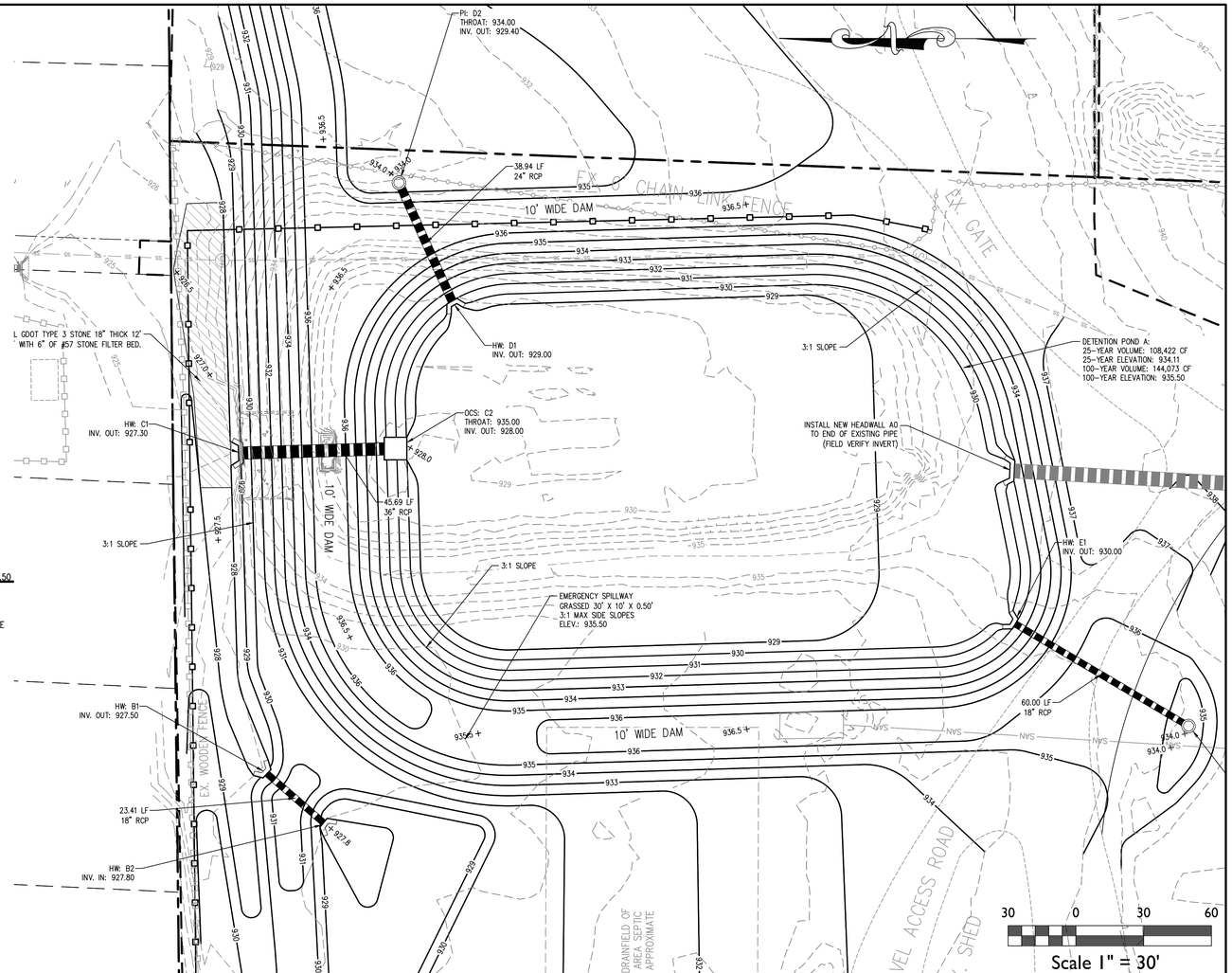


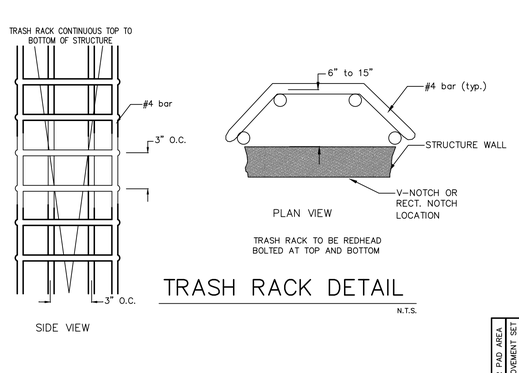
SIDE VIEW B–B



SIDE VIEW C–C

NEW 6' X 6' OUTLET CONTROL STRUCTURE – POND "A"
SCALE: 1" = 5'





TRASH RACK DETAIL
N.T.S.

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
(404) 506-2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
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ATLANTA, GA 30308-3374
CONTACT: BRYAN HARRIS
(404) 506-4932

ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark D Van De Water

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AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

OUTLET CONTROL STRUCTURE DETAILS

CLAYTON COUNTY, GEORGIA

NO.	DATE	BY	REVISIONS
4.	06/3/20	CJW	ADDED DUMPSTER PAD AREA
3.	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1.	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

DR. MDA	TR.	CH'K CJW/MDV
SCALE VARIES		DATE 5/17/2019
DRAWING No.		SHEET No. 14 OF 30

STAND ALONE EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN (ESPCP)

General Note: All measures outlined in this plan are to be in accordance with the "Manual for Erosion and Sediment Control in Georgia," latest edition and General NPDES Permit GAR 100001.
Project Name: GPC NOAH'S ARK OPERATING HEADQUARTERS
Location: CLAYTON, Georgia
Latitude: 33.493167°
Longitude: -84.335316°
Note: Latitude and longitude are the location of main construction entrance.

I. Narrative, Notes and Other information

A. Project Description and nature of construction activities: Construction at the GPC NOAH'S ARK OPERATING HEADQUARTERS includes parking lot modifications, pavement replacement, installation of sanitary sewer pipe lines. Storm drainage installation activities will be conducted.

B. Owner:
Burns Wetherington (Georgia Power Company)
404-506-2533 (Office)
jbwether@southern.com

Operator / 24 Hour Contact:
Bryan Harris (Georgia Power Company)
404-506-4932 (Office)
bpharris@southern.com

C. Total AREA / Disturbed AREA
Estimated Total Site Area: 12.6 Acres
Total Disturbed Area: 7.50 Acres

D. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.

E. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

F. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

G. THE DESIGN PROFESSIONAL WHO PREPARED THE ES&PC PLAN IS TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS, PERIMETER CONTROL BMPs AND SEDIMENT BASINS IN ACCORDANCE WITH PART IV.A.5. WITHIN SEVEN (7) DAYS AFTER INSTALLATION.

H. AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMPs WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.

I. WASTE MATERIALS SHALL NOT BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT.

J. NON-EXEMPT ACTIVITIES SHALL NOT BE CONDUCTED WITHIN THE 25 OR 50-FOOT UNDISTURBED STREAM BUFFERS AS MEASURED FROM THE POINT OF WRESTED VEGETATION WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

K. Stormwater management runoff coefficient or peak discharge flow of the site prior to and after construction.

Basin	Area (Acres)	Area (mi²)	"CN"	25-Year Runoff (ft³/s)	NTU
Pre Developed Basin A	17.46	0.02728	89	129.19	
Post Developed Basin A **	20.57	0.03214	87	90.86	50
Pre Developed Basin B	0.99	0.00154	76	6.604	
Post Developed Basin B	0.87	0.00136	78	6.087	

**Indicates basin to be sampled

L. Upstream Conditions
Currently, the majority of the upstream property is a combination of heavy industrial areas. The terrain is hilly with some moderate slopes present.

M. Downstream Conditions
Currently, the area immediately downstream is residential area. The project area is within the Rum Creek watershed.

N. Name of Receiving Water: Rum Creek Tributary 1 watershed (See F.I.R.M. Panel 13063C0152F, June 7, 2017)
Receiving water(s) have been assessed according to the Rules & Regulations For Water Quality Control, Chapter 391-Revised June 2011 by the Georgia Department of Natural Resources (DNR) Environmental Protection Division (EPD). Receiving water(s) are not designated as trout streams.

O. Extent of Wetlands Area
0.0 total acres/ no impact (no soil disturbance proposed in delineated wetland areas).

P. Site Map: See Attached

Q. Sampling Point(s)
Stormwater turbidity levels for this project are based upon Appendix B of GAR100001 for waters supporting warm water fisheries. The project has one (1)| outfall sampling point location(s) (see Basin Map on this sheet) which will be collected to measure for turbidity. Turbidity Levels shall not exceed 50 NTU based on a site basin size of 20.57 acres and a surface drainage area of 0.032 square miles.

R. Site Soil Conditions
The following table describes existing site soil characteristics. Soils information taken from the U.S. Department of Agriculture Natural Resources Conservation Service soil survey map for CLAYTON, Georgia. Refer to Soils Map on this sheet for more information.

Soil Symbol	Soil Description	Erodibility, K Factor (Whole Soil)	Available Water Capacity (Permeability, cm/cm)	Hydrologic Soil Group	Surface Texture	pH
AmB	Appling sandy loam, 2 to 6 percent slopes	0.24	0.15	B	Sandy loam	5.1
AsC	Ashlar sandy loam, 2 to 10 percent slopes	0.28	0.10	B	Sandy loam	5.1
AtE	Ashlar sandy loam, very rocky, 10 to 25 percent slopes	0.28	0.10	B	Sandy loam	5.1
CeB	Cecil sandy loam, 2 to 6 percent slopes	0.37	0.12	B	Sandy loam	5.1
PaC	Pacolet sandy loam, 6 to 10 percent slopes	0.24	0.12	B	Sandy loam	5.3
To	Toccoa sandy loam, 0 to 2 percent slopes, occasionally flooded	0.43	0.11	A	Sandy loam	5.8

S. Critical Areas
1. All slopes over 3:1 slope shall have erosion control matting.
2. All Wetland and Stream Buffer Areas shall have erosion control BMPs applied per the ESPCP.

U. Impaired Stream Segment
The site does not discharge into, or within one mile upstream of and within the same watershed as, any portion of a biota (Bio-F/Bio-M) impaired stream segment per Georgia's most current 305(b)/303(d) list. Therefore, no impaired stream BMPs are required.

V. Stream Buffer Encroachment
This project does not encroach on one or more state stream buffers. Therefore, a stream buffer variance is not required.

II. Pollution Controls

A. Cut and Fill
1. Operations shall be kept to a minimum, phase if possible.
2. Shall not endanger adjoining properties.
3. Fills shall not encroach upon natural watercourses. Channels shall be constructed in a manner so as to not adversely affect other property owners.
4. Minimize damage from surface water to the cut face of excavations or the sloping surfaces of fills.

B. State Water Banks
1. Non-exempt activities shall not be conducted within twenty-five (25) feet of the banks of any State waters, as measured from the point where vegetation has been wrested by normal stream flow or wave action, except when approved by the Director for alternate buffer requirements or through necessary variances and permits.
2. Non-exempt activities shall not be conducted within fifty (50) horizontal feet, as measured from the point where vegetation has been wrested by normal stream flow or wave action, of the banks of any State waters classified as "trout stream" flow unless approved by the Director for alternate buffer requirements or through necessary variances and permits.

C. Stabilization Practices
1. Vehicle areas - Fill in rill eroded areas when found.
2. Temporary Mulching - When an area will be left open more than 14 days with no construction.
3. Sod stabilization - Used in higher velocity channel flows.
4. Permanent vegetation - This is to be established once final grade is achieved.
5. Surface roughening: Texturing of soil surfaces to reduce sheet flow and improve surface water impoundment.
6. Sediment Basins - Shall be inspected to insure stable side slopes.

D. Structural Controls to be Used
1. Construction Exit, Construction Road Stabilization, Type C Silt Fence, Excavated Sediment Traps, Inlet Sediment Traps, Temporary Sediment Pond, Diversions, Retaining Walls, Retrofitted Detention Pond, Storm Outlet Protection, Surface Roughening, and Topsoiling.

E. Vegetative Controls to be Used
1. Disturbed Area Stabilization including the use of Tackifiers and Binders, Mulch, Temporary Grassing, Permanent Grassing, Sodding, Permanent Vegetation, Dust Control, Anionic Polyacylimide, and Erosion Control Matting and Blankets.

F. Stormwater Management Report - Master Hydrology Study by AEC, Inc., last dated 4/14/2020.

G. Phasing of Project
1. Permittee shall follow the phased Sediment and Erosion Control Plans while working with the site's unique topography and soil types to prevent erosion and water pollution. Notify the Design Professional at once if the design fails to perform or needs to be modified for any BMPs with a hydraulic component.
2. No project may exceed 50 acres of disturbance at one time unless previously approved by EPD.

H. Other Controls
1. Waste Disposal: Locate waste collection areas away from streets, gutters, watercourses, and storm drains. Waste collection areas, such as dumpsters are often best located near construction site entrances to minimize traffic on disturbed soils. All trash and construction debris from the site will be hauled to an approved landfill. No construction waste material will be buried on-site. All personnel will receive instructions regarding the correct procedure for waste disposal. Notices describing these practices will be posted in the construction office. The site superintendent will be responsible for seeing that these procedures are followed. Employee waste and other loose materials will be collected so as to prevent the release of "floatables" during runoff events.
   a. Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit.
2. Off-Site Vehicle Tracking: A stabilized construction entrance will be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site will be swept and scraped regularly to remove any excess mud, dirt, or rock tracked from the construction area. A source of fresh water for washing sediment from trucks, especially during periods of wet weather, may be provided in order to minimize the amount of street sweeping and scraping required. Any wastewater resulting from this operation will be directed into a sediment trap. Refer to the Tire Wash Detail.
3. **Additional Regulations: All permittees shall ensure and demonstrate that their Plan is in compliance with applicable State and local waste disposal, sanitary sewer, septic, and petroleum storage system regulations.**
4. Dust Control: During grading operations, periodically apply moisture spray to large areas for dust control. Anionic PAM may also be used in accordance with State and EPA guidelines and manufacturer's specifications.
5. Concrete Washdown: Best management practices shall be employed for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of vehicles. Remove all excess concrete using squeegee or similar tool and place all excess concrete in a form, box, holder or designated washout area where it may be removed when it is hardened. Clean all finishing tools in the wash out area. Use the minimum amount of water to wash the chute, finishing tools and any other equipment. Dispose of small amounts of excess dry concrete, grout and mortar properly. Never bury waste material where it can leach into groundwater and contaminate drinking water sources.
6. Hazardous Waste: No hazardous waste is expected to be generated or encountered in this project. In the event that hazardous waste is encountered, all hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. The site superintendent will be responsible for seeing that these practices are followed.
7. Liquid Waste and Non-Storm Water Discharges: Non-Storm Water Discharges from fire hydrant flushing; potable water sources including water line flushing; irrigation drainage; air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains may be discharged onsite only if they are not contaminated with process materials or pollutants. Care shall be taken to discharge so that erosion and or damage to adjacent property does not occur due to the discharge. All other liquid wastes shall be collected and transported off-site and disposed of properly. If an undocumented spring or stream is encountered before or during construction, work shall cease within 100 feet of the water source and the design professional shall be contacted immediately. **The discharge of wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials may not be released.**
8. Sanitary Waste: All workers, throughout the life of the project will provide portable sanitary units, for use. A licensed sanitary waste management contractor will regularly collect all sanitary waste from the portable units.
9. Grading Equipment: Grading Equipment shall cross flowing streams by the means of bridges or culverts, except when such methods are not feasible, provided in any case that such crossings should be kept to a minimum.
10. Dewatering Trenches and Excavations: The discharge of pollutants from dewatering trenches will be minimized and are prohibited unless managed by appropriate controls. Some controls include: (a) divert surface water away from trenches with dams, channels, sumps, flumes, and temporary diversions; (b) avoid pumping directly onto slopes which could erode the slopes; (c) pump directly into wooded buffers, if available; (d) use oil/water separator if discharge water becomes contaminated with oil, grease, or chemical products; (e) use stable channels with grass-lined slopes, limiting velocities as necessary to prevent erosion via check dams or other methods.

III. Materials and Safety

Note: This section is provided for informational purposes only. All Material Safety and Spill Prevention Control Contingency (SPCC) plans are to be in accordance with policies and procedures already in place.

A. Significant Materials Expected at Site Inventory:
- Lime - Concrete mix - Steel reinforcing bars and related materials - HDPE Pipe
- Lumber - Paints - Diesel fuel and lubricating oils - Ductile iron pipe
- Fertilizers - Steel pipe - Reinforced concrete pipe

B. Spill Prevention and Response Procedures
Spill prevention and response includes "Good Housekeeping" as well as specific practices for certain products and established procedures for responding to spills which do occur.

C. Practices for Products, "Good Housekeeping"
1. Materials - An effort will be made to store only enough material required to do the job.
2. Storage - All materials stored on-site will be stored in a neat, orderly manner in their appropriate containers and stored in a covered area. If storage in a covered area is not possible the materials will be covered with polyethylene or polypropylene sheeting to protect them from the elements.
3. Mixing - Substances will not be mixed with one another unless recommended by the manufacturer.
4. Labeling - Products will be kept in their original containers with the original manufacturer's label affixed to each container.
5. Disposal - Whenever possible, all of a product will be used before disposing of the container. Manufacturer recommendation for proper use and disposal will be followed.
6. Inspections - The site superintendent will inspect the site regularly to ensure proper use and disposal of materials on-site.
7. Spoil materials - Any excavated earth that will not be used for fill material and all demolished pavement will be hauled off site immediately and disposed of properly.

D. Specific Product Practices
1. Petroleum Products - All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. If petroleum products will be present at the site, they will be stored in tightly sealed containers, which are clearly labeled. If fuel is stored onsite, a fuel storage area shall be provided. See Fuel Storage Detail. Any asphalt substances used on-site will be applied according to the manufacturer recommendations.
2. Concrete Trucks - Concrete trucks must washout in a designated area. Refer to Concrete Truck Washout Detail.
3. Vehicle/Equipment Washing - Soaps or solvents used in washing must be collected and may not be discharged.
4. Construction Materials - Wastewater from construction materials may not be discharged.
5. Paints - All containers will be tightly sealed and stored when not required for use. Excess paint will not be poured into the storm sewer system but will be properly disposed of according to manufacturer instructions or State and local regulations.
6. Fertilizers - Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. The fertilizer will be stored in a covered area and any partially used bags will be transferred to a sealable plastic bin to avoid spills.

E. Spill Control and Response Practices
The owner or the site superintendent will designate a spill prevention and response team. In addition, the following practices will be followed for spill cleanup:
1. Information - Manufacturers recommended methods for spill cleanup will be clearly posted, and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
2. Equipment - Materials and equipment necessary for spill cleanup will be present on the site at all times. Equipment and materials will include but not be limited to brooms, shovels, rags, gloves, goggles, absorbent materials (sand, sawdust, etc.) and plastic or metal trash containers specifically for this purpose. The materials and equipment necessary for spill cleanup will be dependent upon the nature and quantity of the material stored on-site.
3. Response - Care shall be taken to prevent and contain any petroleum spills. In the event of a spill, appropriate remediation measures shall be immediately undertaken. Those measures shall include removal of the contaminated soil, replacement of said soil, placing of petroleum tanks on above ground pad with surrounding berms to provide secondary containment to prevent leakage into any storm water system.
4. Safety - The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
5. Reporting - Spills of toxic of hazardous material (if present on site) will be reported to the appropriate state or local government agency, regardless of the size.
6. Record keeping - The spill prevention plan will be modified to include measures to prevent this type of spill from reoccurring as will as improved methods for cleaning up future spills should they occur. A description of each spill, what caused it, and the cleanup measures used will be maintained with the plan. **Any spill over 25 gallons must be reported to the Spill Response Center. Contact the National Response Center 24-hour spill reporting hotline at (800) 424-8802, the Region 4 (Southeast) 24-hour spill reporting number at (404) 562-8700 OR Georgia's Environmental Agency at (404) 657-5947.**

IV. NPDES Information

The following information shall comply with the NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT TO DISCHARGE STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY INTO THE WATERS OF THE STATE OF GEORGIA. Specifically, the NPDES General Permit No. GAR 100001, Authorization To Discharge Under The National Pollutant Discharge Elimination System Storm Water Discharges Associated With Construction Activity For Stand Alone Construction Projects, further referred to as the general permit or the permit. A full copy of the permit is available online at www.epd.georgia.gov.

Deadlines for Notification (to be filed by primary permittee)
Owners or Operators or both who intend to obtain coverage under this general permit for storm water discharges from a construction site (where construction activities begin after issuance of this permit), shall submit a Notice of Intent (NOI) in accordance with the requirements of this Part at least fourteen (14) days prior to the commencement of construction activities.

See General Permit No. 100001 for further deadlines and exemptions

The Notice of Intent Shall be Submitted by the following procedure (to be filed by primary permittee)
NOIs are to be submitted online through the EPD's GEOS system to the appropriate EPD District Office according to the schedule in Appendix A of this permit and to the Local Issuing Authority in jurisdictions authorized to issue a Land Disturbance Activity permit for the permittee's construction site pursuant to O.C.G.A. 12-7-1, et seq. If an electronic submittal service is provided by EPD then the NOi may be submitted electronically; if required, a paper copy must also be submitted by return receipt certified mail or similar service. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated alternative location from commencement of construction until such time as a Notice of Termination (NOT) is submitted in accordance with Part VI.

Applicable Fees (to be paid by primary permittee)
Any applicable fees shall be submitted by the primary permittee in accordance with Rules and Regulations for Water Quality Control (Rules) promulgated by the Board of Natural Resources. By submitting an NOI for coverage under this permit the primary permittee agrees to pay any fees required, now or in the future, by such Rules authorized under O.C.G.A. Section 12-5-23(a)(5)(A), which allows the Board of Natural Resources to establish a fee system. Fees may be assessed on land disturbing activity proposed to occur on or after the effective date of this permit and shall be paid in accordance with such Rules.

Plans (to be completed by primary permittee)
Keeping Plans Current: The primary permittee(s) shall amend their Plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on BMPs with a hydraulic component (i.e., those BMPs where the design is based upon rainfall intensity, duration and return frequency of storms) or if the Plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified under Part IV.D.3. of this permit. Amendments to the Plan must be certified by a design professional as provided in this permit.

Inspections (to be completed by primary permittee)
(A) Permittee requirements.
(1). Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect:
(a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment; and
(b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking. These inspections must be conducted until a Notice of Termination is submitted.
(2). Measure rainfall once every 24 hours except any non-working Saturday, non-working Sunday and non-working Federal holiday until a Notice of Termination is submitted. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.
(3). Certified personnel (provided by the primary permittee) shall inspect the following at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 PM on any Friday or on any non- working Saturday, non-working Sunday or any non-working Federal holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first):
(a) disturbed areas of the primary permittee's construction site;
(b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and
(c) structural control measures. Erosion and sediment control measures identified in the Plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with Part IV.D.4.a.(4). These inspections must be conducted until a Notice of Termination is submitted.

(Continued on next sheet)

Warm Water (Supporting Warm Water Fisheries)

Surface Water Drainage Area, square miles

Site Size, acres	0-4.99	5-9.99	10-24.99	25-49.99	50-99.99	100-249.99
1.00-10	75	150	200	400	750	750
10.01-25	50	100	100	200	300	500
25.01-50	50	50	100	100	200	300

OWNER
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241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
(404) 506-2533

OPERATOR / 24 HOUR CONTACT
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CONTACT: BRYAN HARRIS
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ENGINEER
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ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

REGISTERED 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark Van De Water M.D Van De Water

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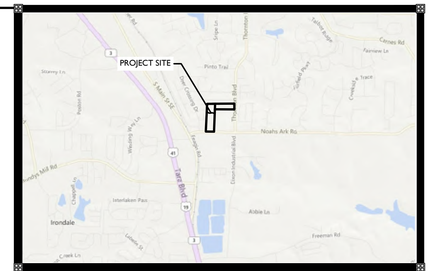
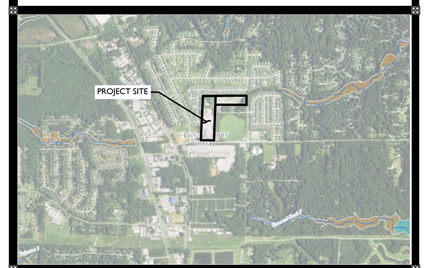


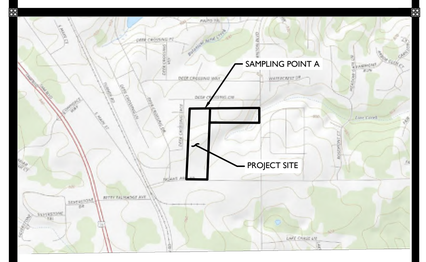
LOCATION MAP
N.T.S.

SOILS MAP
N.T.S.



FEMA MAP
N.T.S.

The survey indicates that this property does not lie within a flood hazard zone as identified on F.I.R.M. Community Panel No.'s 13063C0152F for CLAYTON, Georgia - dated June 7, 2017 as published by the Federal Emergency Management Agency - Federal Hazard Insurance Administration



BASIN MAP
N.T.S.

AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

EROSION, SEDIMENTATION, & POLLUTION CONTROL NOTES

CLAYTON COUNTY, GEORGIA

NO.	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

DR. MDA	TR.	CH'K CJW/MDV
SCALE NTS		DATE 5/17/2019
DRAWING No.		SHEET No. 15 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark OH\Q\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:52:48 PM, kt, ARCH full bleed D (24.00 x 36.00 Inches), 1:1

STAND ALONE EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN (ESPCP)

General Note: All measures outlined in this plan are to be in accordance with the "Manual for Erosion and Sediment Control in Georgia," latest edition.
Project Name: GPC NOAH'S ARK OPERATING HEADQUARTERS
Location: CLAYTON, Georgia
Latitude: 33.493167°
Longitude: -84.335316°
Note: latitude and longitude are location of main construction entrance.

IV. NPDES INFORMATION (Continued from Sheet 15)

(4). Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a Notice of Termination is submitted to EPD) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s) . Erosion and sediment control measures identified in the Plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s).

(5). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plan, the Plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.

(6). A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial, intermediate or final), major observations relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan, and actions taken in accordance with Part IV.D.4.a.(5). of the permit shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the Plan. Where the report does not identify any incidents, the inspection report shall contain a statement that the best management practices are in compliance with the Erosion, Sedimentation and Pollution Control Plan. The report shall be signed in accordance with Part V.G.2.of this permit.

Maintenance
A description of procedures to ensure the timely maintenance of vegetation, erosion and sediment control measures and other protective measures identified in the site plan in good and effective operating condition.

Stormwater Sampling Shall be Conducted (to be completed by primary permittee)
Permit GAR100001 requires the monitoring of nephelometric turbidity in receiving water(s) or outfalls in accordance with permit GAR100001. The sampling requirements shall not apply to any land disturbance associated with the construction of single-family homes which are not part of a subdivision or planned common development unless five (5) acres or more will be disturbed.

The Following Sample Methods are Permitted
All sampling shall be collected by "grab samples" and the analysis of these samples must be conducted in accordance with methodology and test procedures established by 40 CFR Part 136 (unless other test procedures have been approved); the guidance document titled "NPDES Storm Water Sampling Guidance Document, EPA 833-B-92-001" and guidance documents that may be prepared by the EPD.

(1). Sample containers should be labeled prior to collecting the samples.
(2). Samples should be well mixed before transferring to a secondary container.
(3). Large mouth, well cleaned and rinsed glass or plastic jars should be used for collecting samples. The jars should be cleaned thoroughly to avoid contamination.
(4). Manual, automatic or rising stage sampling may be utilized. Samples required by this permit should be analyzed immediately, but in no case later than 48 hours after collection. However, samples from automatic samplers must be collected no later than the next business day after their accumulation, unless flow through automated analysis is utilized. If automatic sampling is utilized and the automatic sampler is not activated during the qualifying event, the permittee must utilize manual sampling or rising stage sampling during the next qualifying event. Dilution of samples is not required. Samples may be analyzed directly with a properly calibrated turbidimeter. Samples are not required to be cooled.
(5). Sampling and analysis of the receiving water(s) or outfalls beyond the minimum frequency stated in this permit must be reported to EPD as specified in Part IV.E of the permit.

Stormwater Sampling Points
Stormwater sampling shall be conducted at the points as indicated within this ESPCP.

Sampling Frequency (to be completed by primary permittee)
(1). The primary permittee must sample in accordance with the Plan at least once for each rainfall event described below. For a qualifying event, the permittee shall sample at the beginning of any storm water discharge to a monitored receiving water and/or from a monitored outfall location within forty-five (45) minutes or as soon as possible.
(2). However , where manual and automatic sampling are impossible (as defined in this permit), or are beyond the permittee's control, the permittee shall take samples as soon as possible, but in no case more than twelve (12) hours after the beginning of the storm water discharge.
(3). Sampling by the permittee shall occur for the following qualifying events:
(a). For each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit. after clearing and grubbing operations have been completed, but prior to completion of mass grading operations, in the drainage area of the location selected as the representative sampling location;
(b). In addition to (a) above, for each area of the site that discharges to a receiving water or from an outfall, the first rain event that reaches or exceeds 0.5 inch with a storm water discharge that occurs during normal business hours as defined in this permit either 90 days after the first sampling event or after all mass grading operations have been completed, but prior to submittal of a NOT, in the drainage area of the location selected as the representative sampling location, whichever comes first;
(c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs in any area of the site that discharges to a receiving water or from an outfall are not properly designed, installed and maintained, corrective action shall be defined and implemented within two (2) business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are properly designed, installed and maintained;
(d). Where sampling pursuant to (a), (b) or (c) above is required but not possible (or not required because there was no discharge), the permittee, in accordance with Part IV.D.4.a.(6) , must include a written justification in the inspection report of why sampling was not performed. Providing this justification does not relieve the permittee of any subsequent sampling obligations under (a), (b) or (c) above; and
(e). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b) . Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

*Note that the Permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for sampling at any time of the day or week.

Reporting (to be completed by Owner or Operator or both)
1. The applicable permittees are required to submit the sampling results to the EPD at the address shown in Part 11.C. by the fifteenth (15th) day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with this permit. Sampling results shall be in a clearly legible format. Upon written notification, EPD may require the applicable permittee to submit the sampling results on a more frequent basis. Sampling and analysis of any storm water discharge(s) or the receiving water(s) beyond the minimum frequency stated in this permit must be reported in a similar manner to the EPD. The sampling reports must be signed in accordance with Part V .G.2. Sampling reports must be submitted to EPD until such time as a NOT is submitted in accordance with Part VI.
2. All sampling reports shall include the following information:
   a. The rainfall amount, date, exact place and time of sampling or measurements;
   b. The name(s) of the certified personnel who performed the sampling and measurements;
   c. The date(s) analyses were performed;
   d. The time(s) analyses were initiated;
   e. The name(s) of the certified personnel who performed the analyses;
   f. References and written procedures, when available, for the analytical techniques or methods used;
   g. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes , etc., used to determine these results;
   h. Results which exceed 1,000 NTU shall be reported as "exceeds 1,000 NTU;" and
   i. Certification statement that sampling was conducted as per the Plan.

3. All written correspondence required by this permit shall be submitted by return receipt certified mail (or similar service) to the appropriate District Office of the EPD according to the schedule in Appendix A of this permit. The permittee shall retain a copy of the proof of submittal at the construction site or the proof of submittal shall be readily available at a designated location from commencement of construction until such time as a NOT is submitted in accordance with Part VI. If an electronic submittal is provided by EPD then the written correspondence may be submitted electronically; if required, a paper copy must also be submitted by return receipt certified mail or similar service.

Retention of Records (to be completed by Owner or Operator or both)
1. The primary permittee shall retain the following records at the construction site or the records shall be readily available at a designated alternate location from commencement of construction until such time as a NOT is submitted in accordance with Part VI:
   a. A copy of all Notices of Intent submitted to EPD;
   b. A copy of the Erosion, Sedimentation and Pollution Control Plan required by this permit;
   c. The design professional's report of the results of the inspection conducted in accordance with Part IV.A.5. of this permit;
   d. A copy of all sampling information, results, and reports required by this permit;
   e. A copy of all inspection reports generated in accordance with Part IV.D.4.a. of this permit;
   f. A copy of all violation summaries and violation summary reports generated in accordance with Part 111.D.2. of this permit; and
   g. Daily rainfall information collected in accordance with Part IV.D.4.a.(2). of this permit.
2. Copies of all Notices of Intent, Notices of Termination, inspection reports, sampling reports (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), or other reports requested by the EPD, Erosion, Sedimentation and Pollution Control Plans, records of all data used to complete the Notice of Intent to be covered by this permit and all other records required by this permit shall be retained by the permittee who either produced or used it for a period of at least three years from the date that the NOT is submitted in accordance with Part VI of this permit. These records must be maintained at the permittee's primary place of business or at a designated alternative location once the construction activity has ceased at the permitted site. This period may be extended by request of the EPD at any time upon written notification to the permittee.

Notice of Termination Eligibility
1. For construction activities, by the permittee where the entire stand alone development has undergone final stabilization, all storm water discharges associated with construction activity that are authorized by this permit have ceased, the site is in compliance with this permit and all temporary BMPs have been removed. For construction activities where the primary permittee has elected to submit NOIs for separate phases of the stand alone development, the phase or phases of the stand alone development on the NOT shall correspond to the phase or phases on the NOI.
2. By the Owner or Operator when the Owner or Operator of the site changes. Where storm water discharges will continue after the identity of the Owner or Operator changes, the permittee must, prior to filing the Notice of Termination, notify any subsequent Owner or Operator of the permitted site as to the requirements of this permit.

The Notice of Termination Shall be Submitted by the following procedure (to be completed primary permittee)
All Notices of Termination will be submitted to the EPD via the online GEOS system to the appropriate EPD District Office according to the schedule in Appendix A of this permit and to the Local Issuing Authority in jurisdictions authorized to issue a Land Disturbance Activity permit for the permittee's construction site pursuant to O.C.G.A. 12-7-1, et seq. If an electronic submittal service is provided by the EPD then the Notice of Termination may be submitted electronically; if required, a paper copy must also be submitted by return receipt certified mail or similar service.

V. Certifications

Design Professional's Certifications

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan (ESPCP) provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the State Soil and Water Conservation Commission as of January 1st of the year in which the land-disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the storm water outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the Georgia NPDES Permit No. GAR 100001 and that the ESPCP was prepared in accordance with Part IV of that permit."

"I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision."

Design Professional's Signature: _____ **Date:** 4/14/20 .

Design Professional's GWSCC Level II Certification Number.: 6960 **Expiration Date:** 3/15/21 .

OWNER	ENGINEER	
GEORGIA POWER COMPANY 241 RALPH McGILL BOULEVARD NE BIN 10221 ATLANTA, GA 30308 CONTACT: BURNS WETHERINGTON (404) 506-2533	**AEC, INC.** 50 WARM SPRINGS CIRCLE ROSWELL, GEORGIA 30075 CONTACT: MARK VAN DE WATER (770) 641-1942 LEVEL II CERT.# 6960	GEORGIA REGISTERED 06/03/2020 No.27118 PROFESSIONAL ENGINEER Mark D Van De Water

Primary Permitee

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Primary Permitee Signature: _____ **Date:** _____ .

BMP'S FOR THE REMEDIATION OF ALL PETROLEUM SPILLS AND LEAKS

SOIL CLEANUP AND CONTROL PRACTICES:

- LOCAL, STATE AND MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND PROCEDURES WILL BE MADE AVAILABLE TO SITE PERSONNEL.
- MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREAS. TYPICAL MATERIALS AND EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO, BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, CAT LITTER SAND, SAWDUST AND PROPERLY LABELED PLASTIC AND METAL WASTE CONTAINERS.
- SPILL PREVENTION PRACTICES AND PROCEDURES WILL BE REVIEWED AFTER A SPILL AND ADJUSTED AS NECESSARY TO PREVENT FUTURE SPILLS.
- ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY. ALL SPILLS WILL BE REPORTED AS REQUIRED BY LOCAL, STATE, AND FEDERAL REGULATIONS.
- FOR SPILLS THAT IMPACT SURFACE WATER (LEAVE A SHEEN ON SURFACE WATER), THE NATIONAL RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
- FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATION RESPONSE CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802.
- FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE GEORGIA E.P.D. WILL BE CONTACTED WITHIN 24 HOURS. 800-241-4113.
- FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS OCCUR, THE SPILL WILL BE CLEANED UP AND LOCAL AGENCIES WILL BE CONTACTED AS REQUIRED.

THE CONTRACTOR SHALL NOTIFY THE LICENSED PROFESSIONAL WHO PREPARED THIS PLAN IF MORE THAN 1320 GALLONS OF PETROLEUM IS STORED ONSITE (THIS INCLUDES CAPACITIES OF EQUIPMENT) OR IF ANY ONE PIECE OF EQUIPMENT HAS A CAPACITY GREATER THAN 660 GALLONS. THE CONTRACTOR WILL NEED A SPILL PREVENTION CONTAINMENT AND COUNTERMEASURES PLAN PREPARED BY THAT LICENSED PROFESSIONAL.

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
STAND ALONE CONSTRUCTION PROJECTS
SWCD: _____

Project Name: GPC Noah's Ark OHQ **Address:** 1704 Noah's Ark Road
City/County: Jonesboro / Clayton County **Date on Plans:** April 14, 2020
Name & email of person filling out checklist: Mark VanDeWater mdv@aecatl.com

TO BE SHOWN ON ES&PC PLAN

Plan Page #	Included Y/N		
15	Y	1	The applicable Erosion, Sedimentation and Pollution Control Plan Checklist established by the Commission as of January 1 of the year in which the land-disturbing activity was permitted. (The completed Checklist must be submitted with the ES&PC Plan or the Plan will not be reviewed)
ALL	Y	2	Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and Level II number must be on each sheet pertaining to ES&PC plan or the Plan will not be reviewed)
N/A	N	3	Limit of disturbance shall be no greater than 50 acres at any one time without prior written authorization from the EPD District Office. If EPD approves the request to disturb 50 acres or more at any one time, the Plan must include at least 4 of the BMPs listed in Appendix 1 of this checklist. * (A copy of the written approval by EPD must be attached to the plan for the Plan to be reviewed.)
ALL	Y	4	The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls.
15-16	Y	5	Provide the name, address, **email address**, and phone number of primary permittee.
15-16	Y	6	Note total and disturbed acreage of the project or phase under construction.
15-16	Y	7	Provide the GPS location of the construction exit for the site. Give the Latitude and Longitude in decimal degrees.
ALL	Y	8	Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions.
15	Y	9	Description of the nature of construction activity.
15	Y	10	Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary.
15	Y	11	Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be effected.
15	Y	12	Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on **Part IV page 19** of the permit.
15	Y	13	Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on **Part IV page 19** of the permit. *
15	Y	14	Clearly note this statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days after installation." in accordance with **Part IV.A.5 page 25** of the permit. *
15	Y	15	Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits."
N/A	N	16	Provide a description of any buffer encroachments and indicate whether a buffer variance is required.
15	Y	17	Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional." *
15	Y	18	Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a Section 404 permit." *
15	Y	19	Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities."
15	Y	20	Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source."
15	Y	21	Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding."
N/A	N	22	Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Impaired Stream Segment must comply with Part III .C. of the permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment. *
N/A	N	23	If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan. *
15	Y	24	BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited. *
15	Y	25	Provide BMPs for the remediation of all petroleum spills and leaks.
15	Y	26	Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed. *
15-16	Y	27	Description of practices to provide cover for building materials and building products on site. *
15-16	Y	28	Description of the practices that will be used to reduce the pollutants in storm water discharges. *
15-16	Y	29	Description and short or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization).
15	Y	30	Provide complete requirements of inspections and record keeping by the primary permittee. *
15	Y	31	Provide complete requirements of sampling frequency and reporting of sampling results. *
15	Y	32	Provide complete details for retention of records as per Part IV.F. of the permit. *
15	Y	33	Description of analytical methods to be used to collect and analyze the samples from each location. *
15	Y	34	Appendix B rationale for NTU values at all outfall sampling points where applicable. *
15	Y	35	Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged. *
15	Y	36	A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the Plan may combine all of the BMPs into a single phase. *
17-19	Y	37	Graphic scale and North arrow.
17-19	Y	38	Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following:
N/A	N	39	Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org.
N/A	N	40	Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition. *
17-19	Y	41	Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to state waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact.
17-19	Y	42	Delineation of on-site wetlands and all state waters located on and within 200 feet of the project site.
REPORT	Y	43	Delineation and acreage of contributing drainage basins on the project site.
REPORT	Y	44	Provide hydrology study and maps of drainage basins for both the pre- and post-developed conditions. *
REPORT	Y	45	An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed.
17-19	Y	46	Storm drain pipe and swirl velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points.
15	Y	47	Soil series for the project site and their delineation.
17-19	Y	48	The limits of disturbance for each phase of construction.
17-19	Y	49	Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the Plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual included for structural BMPs and all calculations used by the storage design professional to obtain the required sediment when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the Plan.
17-19	Y	50	Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend.
25-30	Y	51	Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia.
25-30	Y	52	Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of the year that seeding will take place and for the appropriate geographic region of Georgia.

Map Scale	Ground Slope	Contour Intervals, ft
1 inch = 100ft or larger scale	Flat 0 - 2%	0.5 or 1
	Rolling 2 - 8%	1 or 2
	Steep 8% +	2,5 or 10

* If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream, the * checklist items would be N/A.

Effective January 1, 2020

SITEWORK CONSTRUCTION SCHEDULE - Start JUNE. 3, 2020

ACTIVITY	MONTH 1	2	3	4	5	6	7	8	9	10	11	12	END OF PROJECT
SEDIMENT CONTROL	X	X	X	X	X	X	X	X	X	X	X	X	X
EROSION CONTROL MAINTENANCE	X	X	X	X	X	X	X	X	X	X	X	X	X
CLEARING & GRUBBING				X	X								
INSTALL SED(POND)	X	X	X										
GRADE SITE					X	X	X	X	X				
FINE GRADING									X	X	X		
PERVIOUS PAVING												X	
PAVING								X	X	X	X		
MULCHING										X	X		
TEMP. GRASSING			X	X	X	X	X	X	X	X	X		
PERM. GRASSING										X	X	X	X
UTILITIES		X	X	X	X	X	X	X	X				
BUILDING		X	X	X	X	X	X	X	X	X	X		
PERMANENT VEGETATION										X	X		X
REMOVE TEMP. BARRIERS											X		X
WATER QUALITY INSTALLATION													
DETENTION UNIT INSTALLATION													

THIS SCHEDULE MAY VARY ACCORDING TO THE CONTRACTOR, HOWEVER THE SEQUENCE OF EVENTS SHOULD NOT BE ALTERED. MORE SPECIFICALLY, THE SEQUENCE OF SEDIMENT AND EROSION CONTROL AND GRASSING SCHEDULES.

GEORGIA 811
Utilities Protection Center, Inc.
Know what's **below.**
Call before you dig.
Dial 811 or Call 1-800-282-7411

NO.	DATE	BY	REVISIONS
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AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

EROSION, SEDIMENTATION, & POLLUTION CONTROL NOTES

CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE NTS		DATE 5/17/2019
DRAWING No.		SHEET No. 16 OF 30

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LIMIT OF DISTURBANCE

NOF
9497 THORNTON OFFICE, LLC
D.B. 11116, p. 548

NOF
GENE WHITTINGTON D.B
1999, p. 62

NOF
CLAYTON COUNTY
FARM BUREAU
D.B. 4713, p. 278

NOF
HERITAGE BANK
D.B. 9633, p. 651
P.B. 35, p. 121

Sd1-S
SINGLE ROW

Ds1 Du

SAMPLING POINT

Rt

GDOT TYPE 3 STONE ROCK OUTLET SPILLWAY

Sd4-C
Sd4 TO BE INSTALLED PRIOR TO ANY GRADING.
DRAINAGE AREA: 1.83 AC
1.83 AC X 67 CY = 122.61 CY OF REQUIRED.
152.00 CY OF STORAGE PROVIDED FROM ELEVATION 928.00 TO 930.00. SEDIMENT SHOULD BE CLEANED OUT AT ELEVATION 929.0.

MATCHLINE

EX. GRAVEL ACCESS ROAD

EX. CONCRETE CURB AND GUTTER

9.0" DIAMETER EROSION EEL OR EQUIVALENT AT EDGE OF PAVEMENT SAW CUT.

Sd2-P

FUEL TANK ACCESS PUMP PAD

EX. CONCRETE W/ CURB AND GUTTER

EX. SLIDING GATE

EX. ASPHALT PARKING

EX. GATE

EX. DUAL 15" RCPs

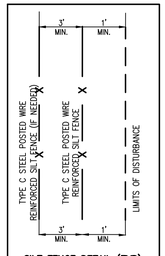
EX. WOOD FENCE

EX. LIGHT POLE UTILITY BOXES

EROSION CONTROL LEGEND

Ds1	MULCH
Ds2	DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)
Du	DUST CONTROL
Co	CONSTRUCTION EXIT
Fr	FILTER RING
Sd1	SILT BARRIER
Sd2	SEDIMENT TRAP TEMPORARY
Cd-S	STONE CHECKDAM
Cd-Hb	HAYBALE CHECKDAM
Ch-2	CHANNEL PROTECTION – RIP RAP
Sk	SKIMMER
St	STORM DRAIN OUTLET PROTECTION
Re	RETAINING WALL
Su	SURFACE ROUGHENING
Ss	SLOPE STABILIZATION (LANDLOK C2 EROSION CONTROL BLANKET OR APPROVED EQUIVALENT)
	SILT BARRIER / EROSION EEL

SEE SHEETS 25-30 FOR EROSION CONTROL NOTES AND DETAILS



SILT FENCE DETAIL (TYP)

GRASS NOTES:
ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING WITH MULCH. CONTRACTOR TO APPLY GRASS & MULCH UNTIL ALL DISTURBED AREAS ARE STABILIZED. THIS MAY REQUIRE MULTIPLE GRASSING APPLICATIONS. SEE GRASSING SCHEDULE AND EROSION CONTROL NOTES ON EROSION CONTROL NOTES & DETAILS ON SHEETS 25-30.

GENERAL SEDIMENT & EROSION CONTROL SCHEDULE:
PHASE/STAGE 1: CLEARING & GRUBBING AND DEMOLITION
-INSTALL PHASE 1 PERIMETER SILT FENCE TYPE "S"
-INSTALL PHASE 1 TEMPORARY SEDIMENT TRAP
-REMOVE EXISTING PAVEMENT IN DESIGNATED AREAS
-CLEARING & GRUBBING
-SPREAD TEMPORARY MULCH WHEN APPLICABLE
-APPLY DUST CONTROL WHEN NECESSARY
-MAINTAIN PHASE 1 BMPs
-INSTALL RETROFIT FILTER RING ON EXISTING OCS

NOTE:
-THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.
-EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE THE EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
-ANY DISTURBED AREA LEFT EXPOSED AND IDOL FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING WITH MULCH.
-NO STREAMSIDE MANAGEMENT ZONES WERE IDENTIFIED BY GEORGIA POWER ENVIRONMENTAL AFFAIRS.

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
(404) 506-2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
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(404) 506-4932

ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 05/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark Van De Water

50 0 50 100
Scale 1" = 50'

GEORGIA811 Utilities Protection Center, Inc.
Know what's below. Call before you dig.
Dial 811 or Call 1-800-282-7411

AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

EROSION CONTROL PLAN – PHASE 1

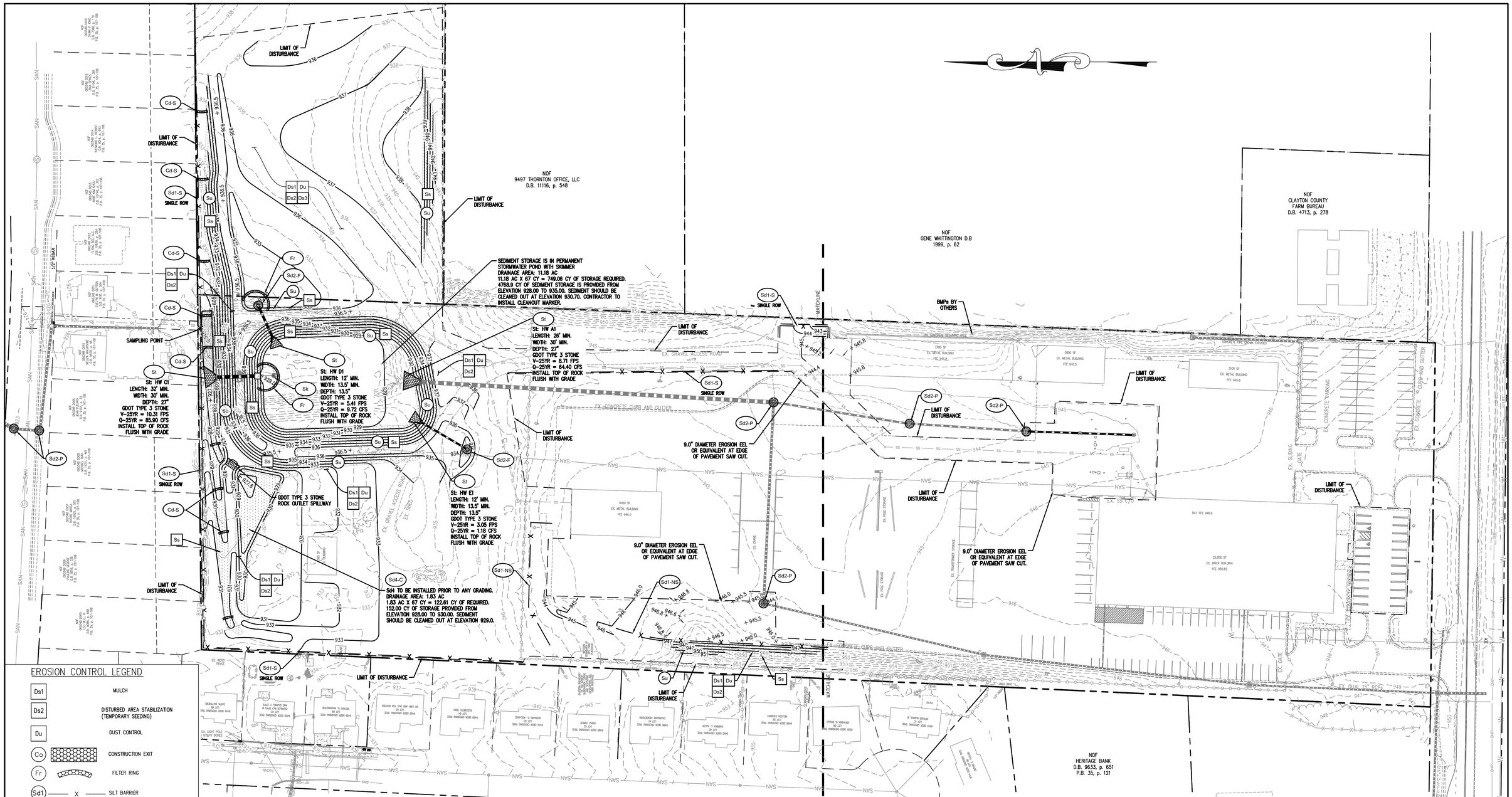
CLAYTON COUNTY, GEORGIA

NO.	DATE	BY	REVISIONS
4	06/3/20	CJW	ADDED DUMPSTER PAD AREA
3	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE 1" = 50'		DATE 5/17/2019
DRAWING No.		SHEET No. 17 OF 30

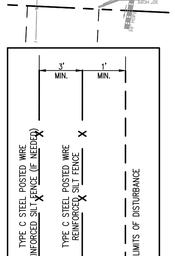
M:\2018\GMS\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:53:03 PM, kt, ARCH full bleed D (24.00 x 36.00 Inches), 1:1



EROSION CONTROL LEGEND

- Ds1 — MULCH
- Ds2 — DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)
- Du — DUST CONTROL
- Co — CONSTRUCTION EXIT
- Fr — FILTER RING
- Sd1 — SILT BARRIER
- Sd2 — SEDIMENT TRAP TEMPORARY
- Cd-S — STONE CHECKDAM
- Cd-Hb — HAYBALE CHECKDAM
- Ch-2 — CHANNEL PROTECTION – RIP RAP
- Sk — SKIMMER
- St — STORM DRAIN OUTLET PROTECTION
- Re — RETAINING WALL
- Su — SURFACE ROUGHENING
- Ss — SLOPE STABILIZATION (LANDLOK C2 EROSION CONTROL BLANKET OR APPROVED EQUIVALENT)
- SILT BARRIER / EROSION EEL

SEE SHEETS 25-30 FOR EROSION CONTROL NOTES AND DETAILS



SILT FENCE DETAIL (TYP)

GRASS NOTES:
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GENERAL SEDIMENT & EROSION CONTROL SCHEDULE:
PHASE/STAGE 2: FINE GRADING & UTILITY INSTALL
- -SITE FINE GRADING
- -INSTALL UNDERGROUND UTILITIES
- -INSTALL INLET SEDIMENT TRAPS
- -MAINTAIN PHASE 1 BMP'S
- -PROVIDE SURFACE ROUGHENING
- -SPREAD TEMPORARY MULCH
- -SPREAD TEMPORARY SEED
- -MAINTAIN PHASE 2 BMPs

NOTE:
-THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.
-EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE THE EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
-ANY DISTURBED AREA LEFT EXPOSED AND IDOL FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING WITH MULCH.
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CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark Van De Water

50 0 50 100
Scale 1" = 50'

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AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

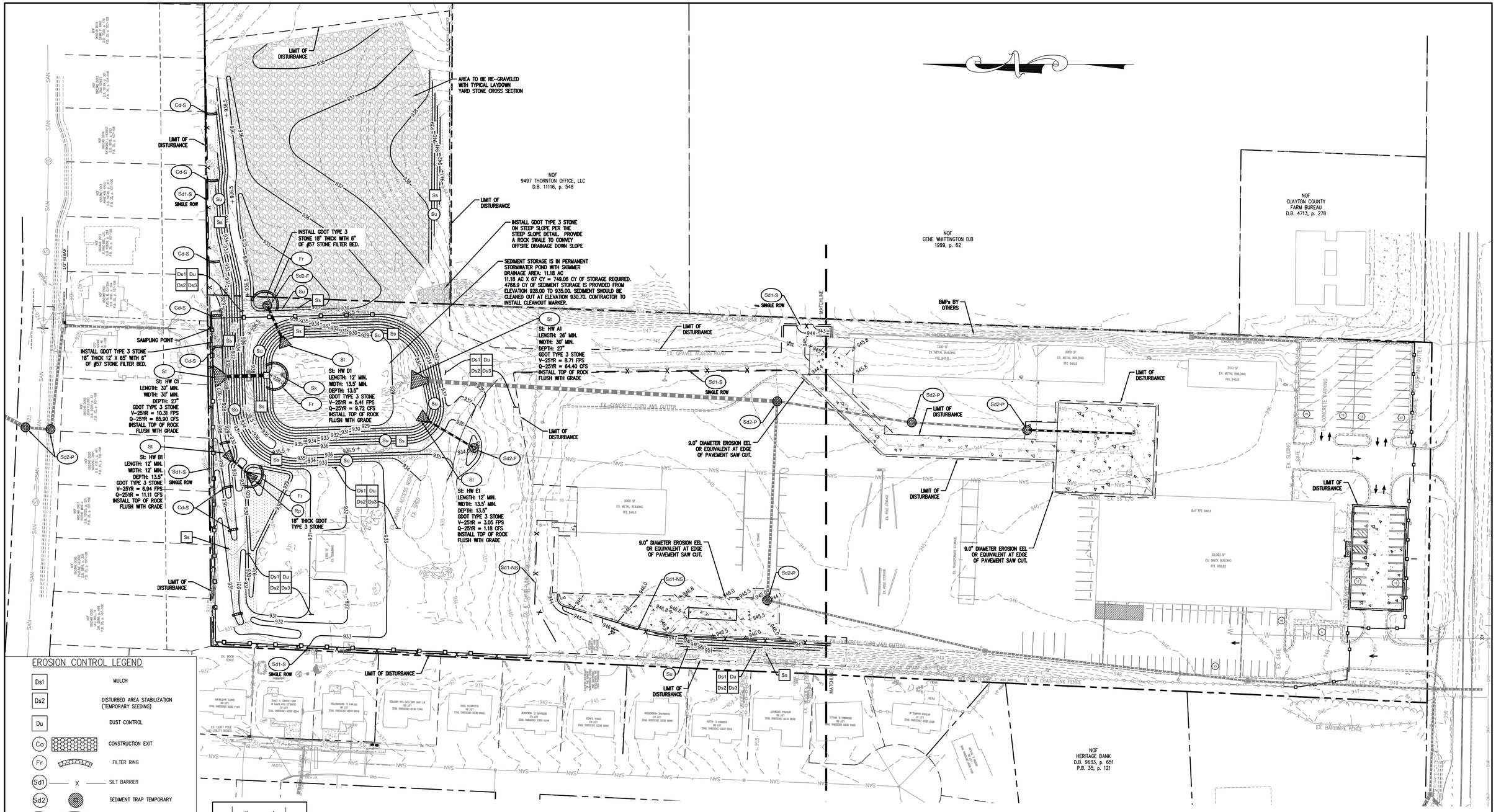
APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT
GPC NOAHS ARK OPERATING HEADQUARTERS
EROSION CONTROL PLAN – PHASE 2
CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV

SCALE 1" = 50' | DATE 5/17/2019
DRAWING No. | SHEET No. 18 OF 30

M:\2018\18-4190 GPC Noahs Ark OH\Q\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:53:13 PM, kt, ARCH full bleed D (24.00 x 36.00 Inches), 1:1



EROSION CONTROL LEGEND

Ds1	MULCH
Ds2	DISTURBED AREA STABILIZATION (TEMPORARY SEEDING)
Du	DUST CONTROL
Co	CONSTRUCTION EXIT
Fr	FILTER RING
Sd1	SILT BARRIER
Sd2	SEDIMENT TRAP TEMPORARY
Cd-S	STONE CHECKDAM
Cd-Hb	HAYBALE CHECKDAM
Ch-2	CHANNEL PROTECTION – RIP RAP
Sk	SKIMMER
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Re	RETAINING WALL
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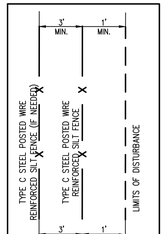
	SILT BARRIER / EROSION EEL

SEE SHEETS 25–30 FOR EROSION CONTROL NOTES AND DETAILS



SILT FENCE DETAIL (TYP)

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GENERAL SEDIMENT & EROSION CONTROL SCHEDULE:
PHASE 3: FINAL GRADING & STABILIZATION

- INSTALL CRUSHER RUN AND ALL OTHER STONE FOR FINAL STABILIZATION
- INSTALL EROSION CONTROL BLANKET ON ANY SLOPES THAT EXCEEDS 10' IN HEIGHT AND 2.5:1 SLOPE OR AS SHOWN ON PLAN.
- APPLY PERMANENT SEEDING
- MAINTAIN RIP–RAP (GDOT TYPE 3 STONE)
- REMOVE ALL PHASES OF BMPs*

*AFTER FINAL STABILIZATION HAS OCCURRED

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ENGINEER
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ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641–1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED No. 27118 PROFESSIONAL ENGINEER Mark Van De Water 06/23/2020

50 0 50 100
Scale 1" = 50'

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NO.	DATE	BY	REVISIONS
4	06/23/20	CJW	ADDED DUMPSTER PAD AREA
3	06/14/20	CJW	MASTER SITE IMPROVEMENT SET
2	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1	08/13/19	MDV	REV. SEWER TIE IN LOCATION

AEC JOB # 18–4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

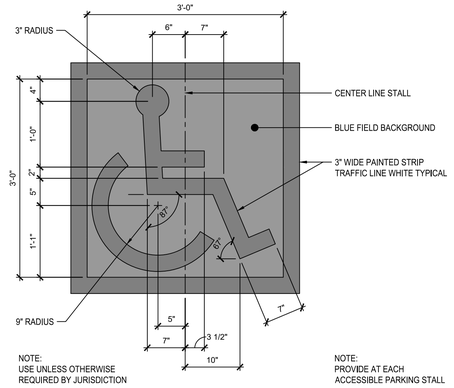
EROSION CONTROL PLAN – PHASE 3

CLAYTON COUNTY, GEORGIA

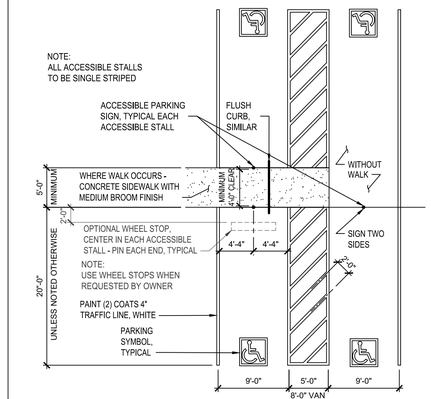
DR.	TR.	CH'K
MDA		CJW/MDV
SCALE		DATE
1" = 50'		5/17/2019
DRAWING No.		SHEET No.
		19 OF 30

APPROVALS

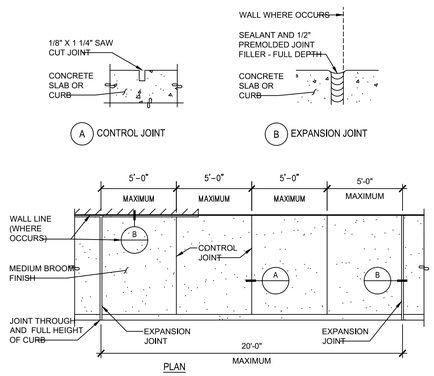
M:\2018 JOBS\18-4190 GPC Noahs Ark OHC\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHC C00.dwg, 6/2/2020 5:53:23 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1



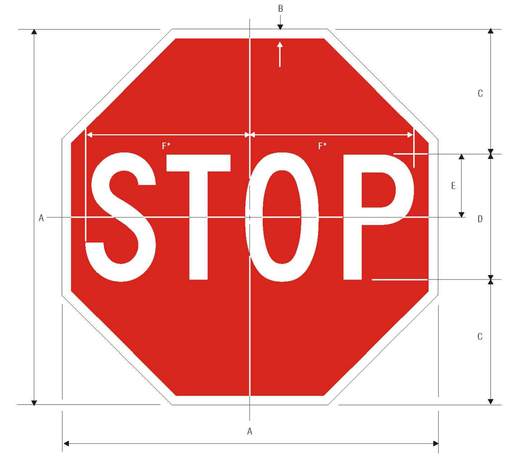
ADA PARKING SYMBOL



ACCESSIBLE PARKING STALLS



ON-SITE WALKS

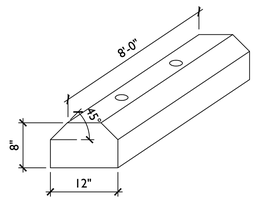


R1-1
STOP
*Reduce spacing 40%

	A	B	C	D	E	F
	18	.375	6	6 C	3	7.75
	24	.625	8	8 C	4	10
C	30	.75	10	10 C	5	12.5
	36	.875	12	12 C	6	15
	48	1.25	16	16 C	8	20

COLORS: LEGEND – WHITE (RETROREFLECTIVE)
BACKGROUND – RED (RETROREFLECTIVE)

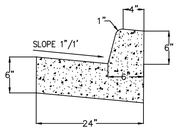
1-1



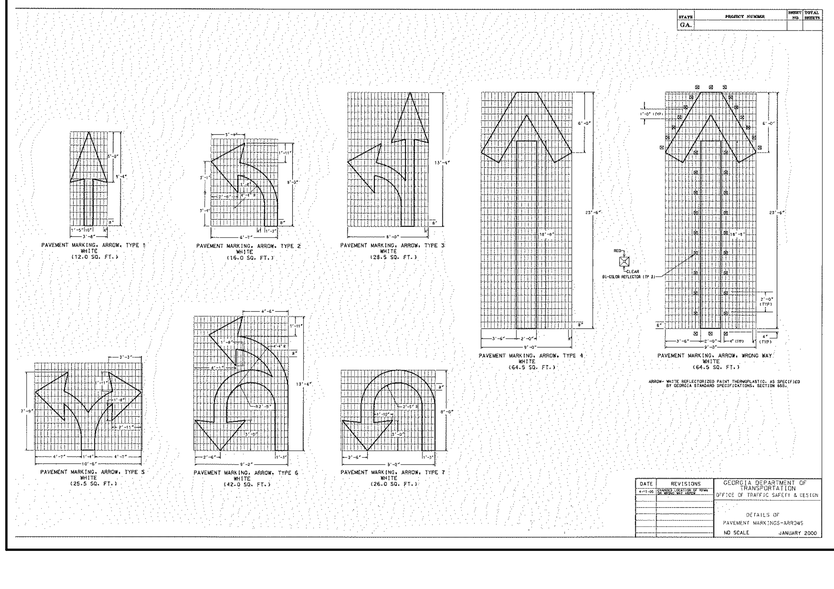
TYPICAL PRECAST CONCRETE WHEEL STOP
NOT TO SCALE

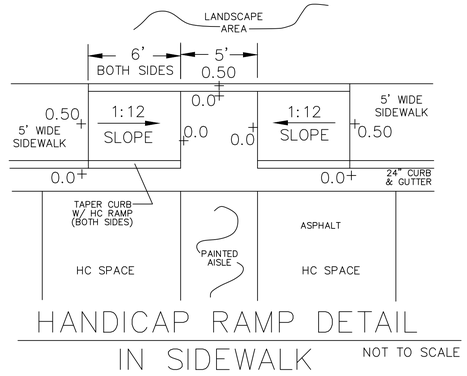
CURB AND GUTTER DETAILS

(N.T.S.)



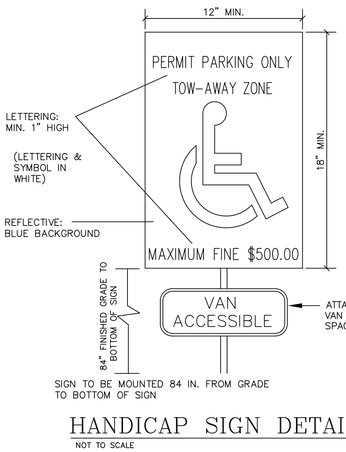
CONTRACTOR MAY INCREASE THE THICKNESS AT THE EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER PARALLEL WITH PAVING OF BASE COURSE BUT THE GUTTER THICKNESS MUST NOT BE LESS 6" AT ANY POINT





HANDICAP RAMP DETAIL IN SIDEWALK

NOT TO SCALE



HANDICAP SIGN DETAIL

NOT TO SCALE

OWNER
GEORGIA POWER COMPANY
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BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
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Mark D Van De Water

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AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4.0	06/3/20	CJW	ADDED DUMPSTER PAD AREA
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APPROVALS

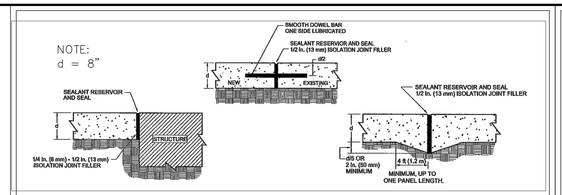
GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

CONSTRUCTION DETAILS

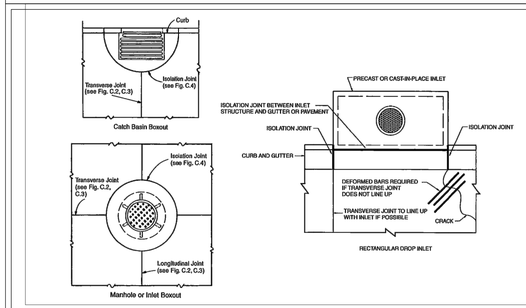
CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 20 OF 30



TYPICAL ISOLATION JOINT DETAIL

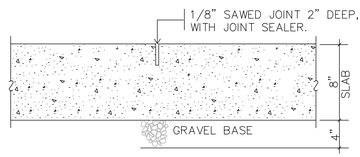
NOT TO SCALE



TYPICAL ISOLATION JOINT AROUND FIXTURES DETAIL

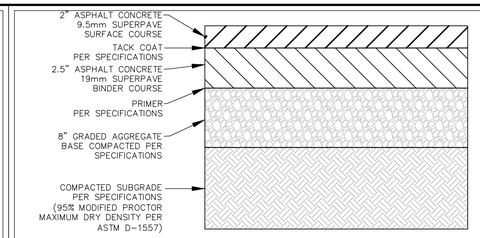
NOT TO SCALE

NOTE:
CONTROL JOINT SPACING SHALL BE 12' O.C. BOTH WAYS.



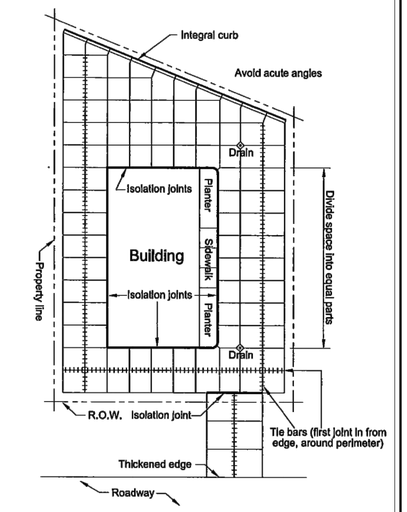
CONTROL JOINT (WITHOUT REBAR) DETAIL

NOT TO SCALE



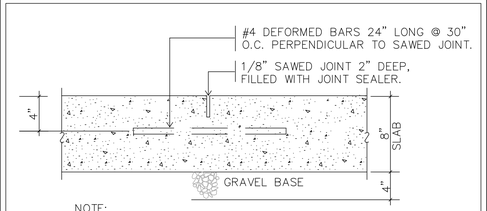
ASPHALTIC CONCRETE PAVEMENT

NOT TO SCALE



TYPICAL JOINT LAYOUT DIAGRAM

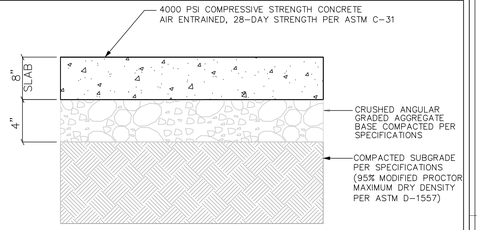
NOT TO SCALE



NOTE:
THIS DETAIL ONLY APPLIES TO THE LONGITUDINAL JOINT IN FROM EDGE OF TRUCK SLAB OR DRIVE, ALONG ENDS AND BOTH SIDES OF DRIVE.

TIED BUTT JOINT DETAIL

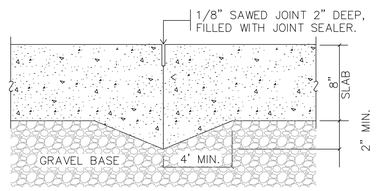
NOT TO SCALE



NON-REINFORCED CONCRETE PAVEMENT

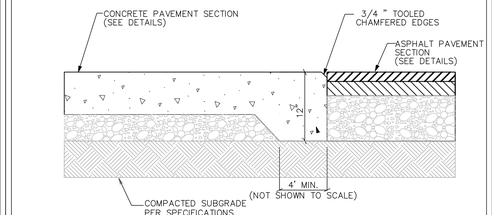
NOT TO SCALE

NOTE:
THIS DETAIL SHALL BE USED FOR ALL NON-CONTINOUS POURS



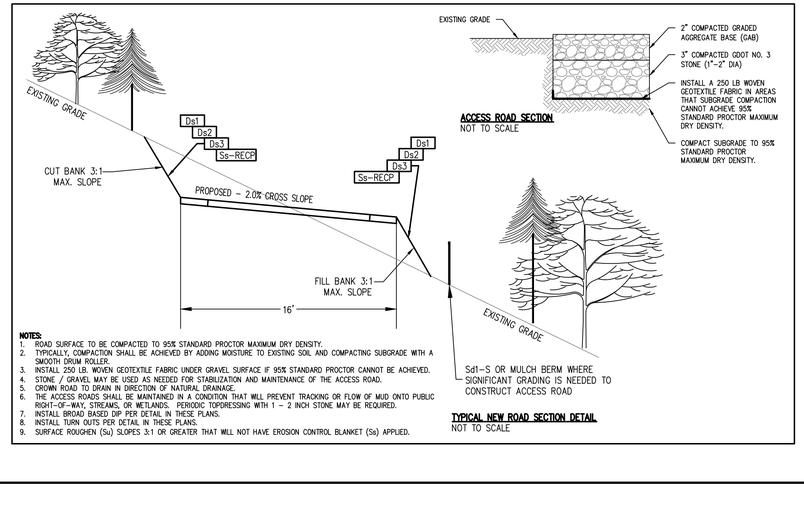
THICKENED EDGE CONSTRUCTION BUTT JOINT DETAIL

NOT TO SCALE



CONCRETE PAVEMENT JOINT @ ASPHALT PAVEMENT

NOT TO SCALE



NOTES:
1. ROAD SURFACE TO BE COMPACTED TO 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.
2. TYPICALLY, COMPACTION SHALL BE ACHIEVED BY ADDING MOISTURE TO EXISTING SOIL AND COMPACTING SUBGRADE WITH A SMOOTH DRUM ROLLER.
3. INSTALL 250 LB. WOVEN GEOTEXTILE FABRIC UNDER GRAVEL SURFACE IF 95% STANDARD PROCTOR CANNOT BE ACHIEVED.
4. STONE / GRAVEL MAY BE USED AS NEEDED FOR STABILIZATION AND MAINTENANCE OF THE ACCESS ROAD.
5. CROWN ROAD TO DRAIN IN DIRECTION OF NATURAL DRAINAGE.
6. THE ACCESS ROADS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY, STREAMS, OR WETLANDS. PERIODIC TOPDRESSING WITH 1 ~ 2 INCH STONE MAY BE REQUIRED.
7. INSTALL BROAD BASED DIP PER DETAIL IN THESE PLANS.
8. INSTALL TURN OUTS PER DETAIL IN THESE PLANS.
9. SURFACE ROUGHEN (Su) SLOPES 3:1 OR GREATER THAT WILL NOT HAVE EROSION CONTROL BLANKET (Sa) APPLIED.

ACCESS ROAD SECTION
NOT TO SCALE

TYPICAL NEW ROAD SECTION DETAIL
NOT TO SCALE

GENERAL NOTES:
1. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL NOTES, DETAILS, AND REQUIREMENTS.
2. REFER TO GEOTECHNICAL ENGINEERING REPORT PREPARED FOR THIS PROJECT.
3. CONCRETE PAVEMENT DESIGN PER ACI STD. 330R-08; CBR=3, MOR=600 PSI, TRAFFIC CATEGORY D, ADTT = 700, 20-YEAR DESIGN LIFE SPAN.
4. CONCRETE CONTRACTION (CONTROL) JOINT SPACING SHALL BE 12' O.C. EACH WAY (TYP.).
5. FOR CONCRETE PAVEMENT, INSTALL TIE BARS ON THE FIRST LONGITUDINAL JOINT FROM THE PAVEMENT EDGE TO KEEP THE OUTSIDE SLAB FROM SEPARATING FROM THE PAVEMENT. TIE BARS ARE NOT REQUIRED AT INTERIOR JOINTS OR OTHER AREAS CONFINED BY SURROUNDING SLABS.
6. FOR CONCRETE PAVEMENT, INSTALL CONSTRUCTION JOINTS FOR NON-CONTINUOUS POURS.
7. FOR CONCRETE PAVEMENT, INSTALL ISOLATION JOINTS AS REQUIRED PER TYPICAL DETAILS.
8. MOISTURE-DENSITY DETERMINATIONS SHOULD BE PERFORMED FOR EACH SOIL TYPE USED, TO PROVIDE DATA NECESSARY FOR QUALITY ASSURANCE TESTING. THE NATURAL MOISTURE CONTENT AT THE TIME OF COMPACTION SHOULD BE WITHIN MOISTURE CONTENT LIMITS, WHICH WILL ALLOW THE REQUIRED COMPACTION TO BE OBTAINED. THE CONTRACTOR SHOULD BE PREPARED TO INCREASE SOIL WATER CONTENT.
9. THE FILL SHOULD BE PLACED IN THIN LIFTS (NOT TO EXCEED 9 INCHES) AND THEN COMPACTED. THE FILL (BOTH STONE AND SOIL) SHOULD BE COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY (ASTM D-698-78). NON STRUCTURAL AREAS SHOULD BE COMPACTED TO AT LEAST 95% OF STANDARD PROCTOR MAXIMUM DRY DENSITY. GEOTECHNICAL EVALUATION SHOULD SUPERCEDE THESE MINIMUM RECOMMENDATIONS.

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LEVEL II CERT. # 6960

GEORGIA REGISTERED No. 27110 PROFESSIONAL ENGINEER
06/03/2020
Mark D Van De Water

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AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4	06/3/20	CJW	ADDED DUMPSTER PAD AREA
3	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT
GPC NOAHS ARK OPERATING HEADQUARTERS
CONSTRUCTION DETAILS
CLAYTON COUNTY, GEORGIA

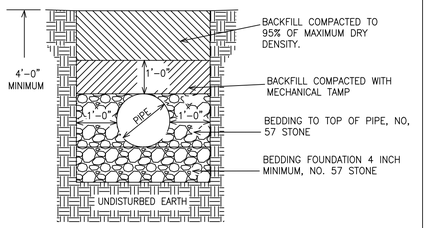
DR.	TR.	CH'K
MDA		CJW/MDV

SCALE

DATE 5/17/2019

DRAWING No.

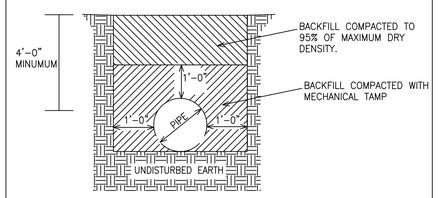
SHEET No. 21 OF 30



NOTES: UNSUITABLE SOILS ENCOUNTERED IN BOTTOM OF EXCAVATED TRENCH SHALL BE EXCAVATED & REPLACED WITH NO. 57 STONE.

ONLY SUITABLE SOIL SHALL BE USED AS BACKFILL.

CLAYTON COUNTY WATER AUTHORITY			
DATE:	12 FEBRUARY 2002	DETAIL TITLE:	DETAIL No.
SCALE:	N.T.S.	TYPICAL P.V.C. SEWER PIPE BEDDING	18.1
DRAWN BY:	SRD		

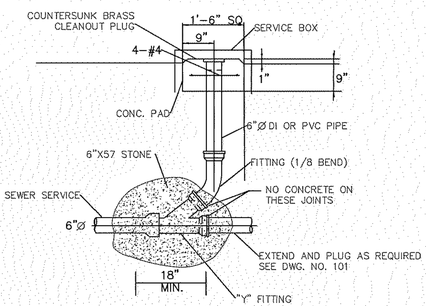


NOTES: UNSUITABLE SOILS ENCOUNTERED IN BOTTOM OF EXCAVATED TRENCH SHALL BE EXCAVATED & REPLACED WITH NO. 57 STONE.

ONLY SUITABLE SOIL SHALL BE USED AS BACKFILL.

CLAYTON COUNTY WATER AUTHORITY			
DATE:	12 FEBRUARY 2002	DETAIL TITLE:	DETAIL No.
SCALE:	N.T.S.	TYPICAL DUCTILE IRON PIPE BEDDING	8.1
DRAWN BY:	SRD		

NOTES:
1. TOP OF SERVICE BOX SHALL BE FLUSH WITH FINAL SURFACE IN SIDEWALKS AND PAVED AREAS.
2. HEAVY DUTY CLEANOUT BOX AND LID ARE REQUIRED IN PAVED AREAS.

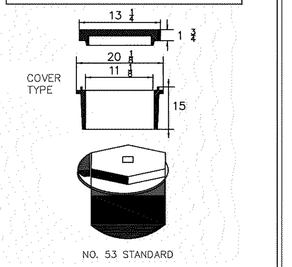


USF 7635 SEWER VALVE BOX AND COVER
N.T.S.

STANDARDS AND SPECIFICATIONS:
1. COVER IS MARKED "S".

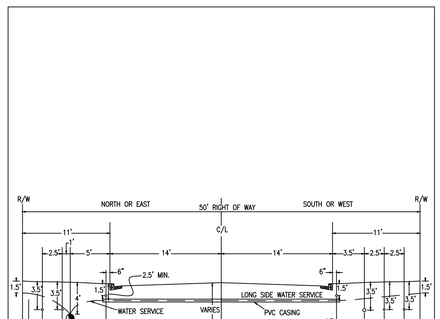
TO ORDER:
1. SPECIFY USF NUMBER AND COVER TYPE.

COVER TYPE	LOAD RATING	COVER WEIGHT	TOTAL WEIGHT
FJ	HEAVY DUTY	55	230



NO. 53 STANDARD

DATE	REVISIONS	DATE	REVISIONS	DRAWING NO.

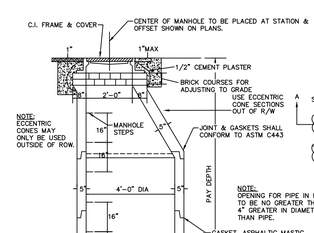


NOTE:
1. ON ALL UNCURBED STREETS, UTILITY LOCATIONS SHALL BE AT THE SAME DISTANCES FROM C/L AS SHOWN ABOVE.

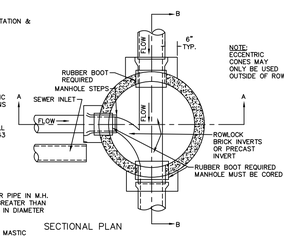
CLAYTON COUNTY WATER AUTHORITY			
DATE:	12 FEBRUARY 2002	DETAIL TITLE:	DETAIL NO.
SCALE:	N.T.S.	UNDERGROUND UTILITIES LOCATIONS	1.1
DRAWN BY:	SRD		

NOTE:
FOR OUTFALL LINES, MANHOLE TOP TO BE 18" TO 24" ABOVE SURROUNDING GROUND SURFACE.

ALL MANHOLES WITHIN TEN FEET OF PUBLIC RIGHT OF WAY SHALL BE TOPPED WITH A HEAVY DUTY TRAFFIC BEARING RING & COVER MOUNTED FLUSH TO EXISTING GRADE. LOADING SPECS. MAY BE REQUIRED FROM THE MANUFACTURER (RING & COVER).**

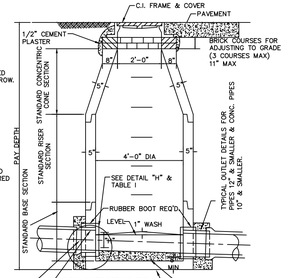


SECTION A–A
N.T.S.

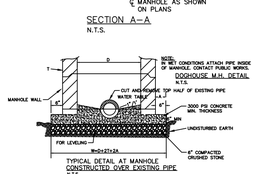


NOTE: ECCENTRIC CONES MAY ONLY BE USED OUTSIDE OF ROW.

SECTIONAL PLAN

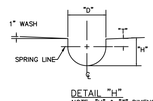


SECTION B–B
N.T.S.



TYPICAL DETAIL AT MANHOLE CONSTRUCTED OVER EXISTING PIPE
N.T.S.

TABLE I		
"D"	"T"	"H"
INSIDE DIA. PIPE	VERTICAL TANGENT	HEIGHT OF WATER TABLE
8"	2 1/2"	6 1/2"
10"	3"	8"
12"	3 1/2"	9 1/2"
15"	4 1/2"	12"
18"	5 1/2"	14 1/2"
21"	6 1/2"	17"
24"	7 1/2"	19 1/2"
27"	8"	21 1/2"
30"	9"	24"
33"	10"	26 1/2"
36"	11"	29"



DETAIL "H"
NOTE: "H" & "T" DIMENSIONS APPLY ONLY AT THE UPSTREAM, INSIDE EDGE OF M.H.
N.T.S.

STANDARD PRECAST 4'–0" DIAMETER MANHOLE
N.T.S.

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AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4.	06/3/20	CJW	ADDED DUMPSTER PAD AREA
3.	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1.	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

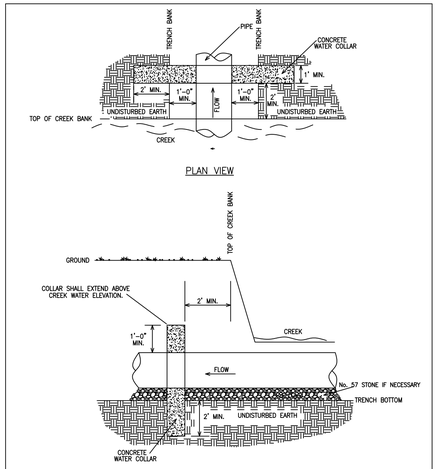
GPC NOAHS ARK OPERATING HEADQUARTERS

UTILITY DETAILS

CLAYTON COUNTY, GEORGIA

DR. MDA	TR.	CH'K CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 22 OF 30

M:\2018\08\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ.dwg, 6/2/2020 5:53:42 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1

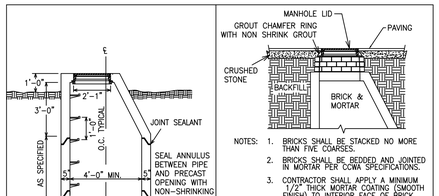


PLAN VIEW

SIDE VIEW

CLAYTON COUNTY WATER AUTHORITY

DATE:	12 FEBRUARY 2002	DETAIL TITLE:	DETAIL NO.
SCALE:	N.T.S.	PIPE COLLAR	20.1
DRAWN BY:	WB		



NOTES:

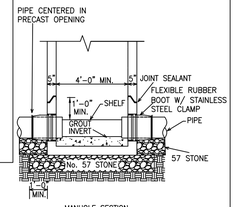
1. SHELF AND INVERT SHALL BE TROWEL FINISHED.
2. WHEN BRICK IS USED AS A FILLER, PROVIDE MINIMUM 1/2 INCH GROUT OVER BRICK.
3. LINE MANHOLE IN ACCORDANCE WITH DIVISION III, SECTION 9 OF THE SPECIFICATIONS.

MANHOLE SECTION

NOTES:

1. BRICKS SHALL BE STACKED NO MORE THAN FIVE COARSES.
2. BRICKS SHALL BE BEDDED AND JOINTED IN MORTAR PER CCWA SPECIFICATIONS.
3. CONTRACTOR SHALL APPLY A MINIMUM 1/2" THICK MORTAR COATING (SMOOTH FINISH) TO INTERIOR FACE OF BRICK.

TYPICAL MANHOLE IN PAVEMENT DETAIL



MANHOLE SECTION

SOLID CAST IRON OR POLYPROPYLENE PLASTIC COATED STEEL 12" WIDE INTEGRALLY CAST IN CONCRETE

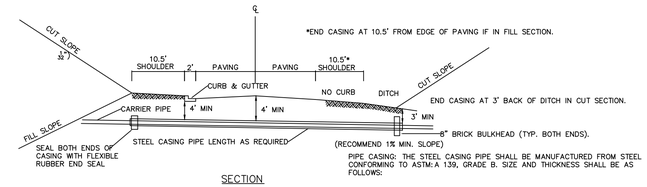
MANHOLE STEP DETAIL
Not to Scale

CLAYTON COUNTY WATER AUTHORITY

DATE:	12 FEBRUARY 2002	DETAIL TITLE:	DETAIL NO.
DATE MODIFIED:	5 JANUARY 2004	MANHOLE SECTIONS	21.1
SCALE:	N.T.S.		
DRAWN BY:	SRD		

UNDER HIGHWAYS

PIPE DIAMETER INCHES (I.D)	CASING DIAMETER INCHES (I.D.) MIN.	WALL THICKNESS INCHES
6	12	0.250
8	16	0.250
10	18	0.250
12	20	0.375
16	24	0.375
18	30	0.375
20	30	0.375
24	36	0.375
30	42	0.375

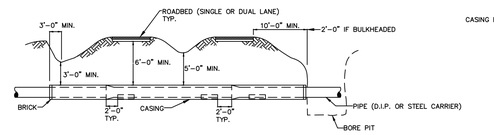


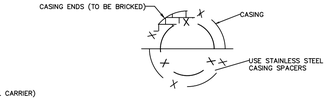
PIPE CASING: THE STEEL CASING PIPE SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM:A 139, GRADE B. SIZE AND THICKNESS SHALL BE AS FOLLOWS:

SECTION
N.T.S.

BORING NOTES:

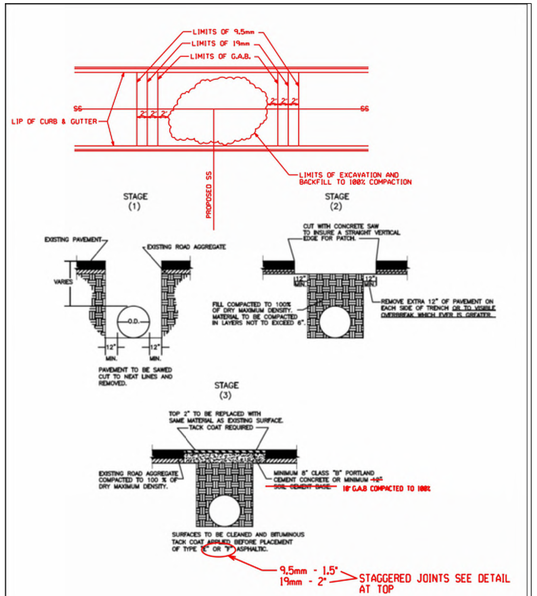
1. CASING TO BE STEEL PIPE (ROUND) WITH 45° BEVELED EDGES
2. ALL CUTS TO BE SQUARED TO END
3. JOIN ALL PIPE WITH DOUBLE BEAD BUTT WELDS
4. AUGER HEAD DIAMETER CANNOT EXCEED DIAMETER OF CASING BY MORE THAN 2"
5. BORING AND CASING SHALL BE INSTALLED SIMULTANEOUSLY
6. ANYTHING 6" OR LARGER REQUIRES BORE AND CASE
7. CASING PIPE SHALL HAVE A PROTECTIVE COATING CONSISTING OF A COAL-TAR PRIMER COAT AND AN APPLICATION OF HOT COAL-TAR ENAMEL 3/32" (± THICK PLUS A BONDED 15 LB. ASBESTOS WRAP
8. PIT TO BE NO CLOSER THAN 4' BEHIND CURB OR EDGE OF PAVEMENT
9. TYPICAL PIT IS 25' LONG BY 20' WIDE
10. CASING SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM:A 139, GRADE B
11. TWO STAINLESS STEEL CASING SPACERS ARE REQUIRED PER JOINT
12. CARRIER PIPE SHALL BE DUCTILE IRON
13. FIELD LOCKING GASKETS REQUIRED INSIDE OF CASING





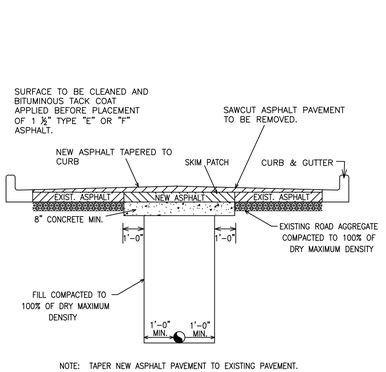
CASING-END VIEW
PIPE ACCESIBLE

STEEL CASING DETAIL



CLAYTON COUNTY WATER AUTHORITY

DATE:	12 FEBRUARY 2002	DETAIL TITLE:	DETAIL No.
SCALE:	N.T.S.	TYPICAL ASPHALT REPLACEMENT	28.1
DRAWN BY:	WWB		



NOTE: TAPER NEW ASPHALT PAVEMENT TO EXISTING PAVEMENT.

CLAYTON COUNTY WATER AUTHORITY

DATE:	12 FEBRUARY 2002	DETAIL TITLE:	DETAIL No.
SCALE:	N.T.S.	TYPICAL ASPHALT TO CURB REPLACEMENT	29.1
DRAWN BY:	WWB		

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AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

UTILITY DETAILS

CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 23 OF 30

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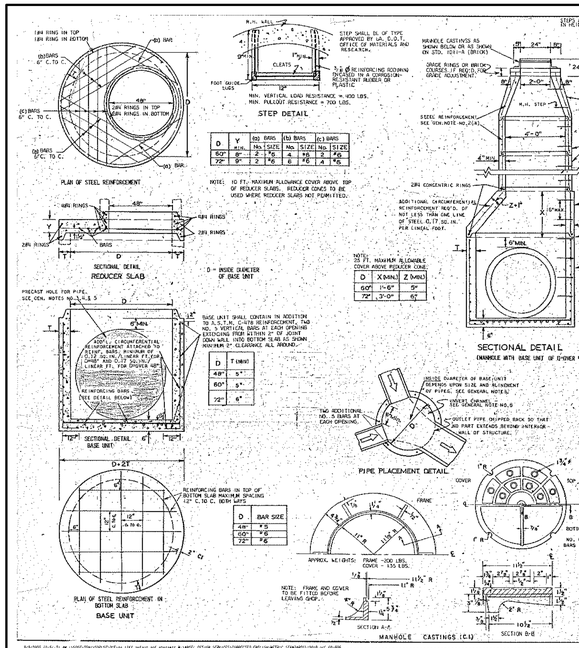
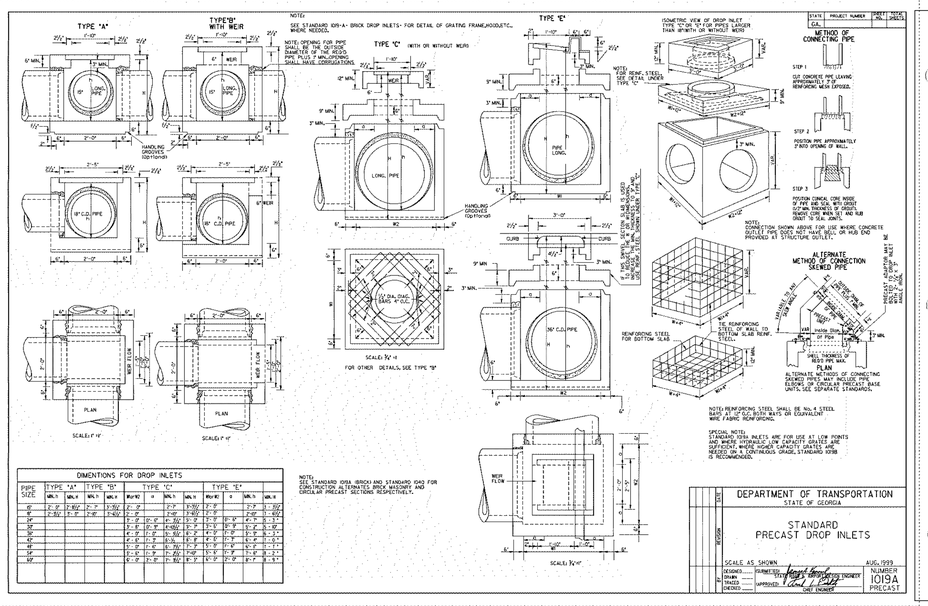
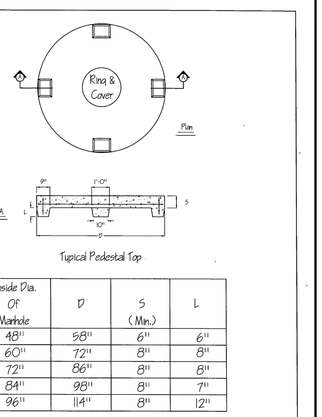






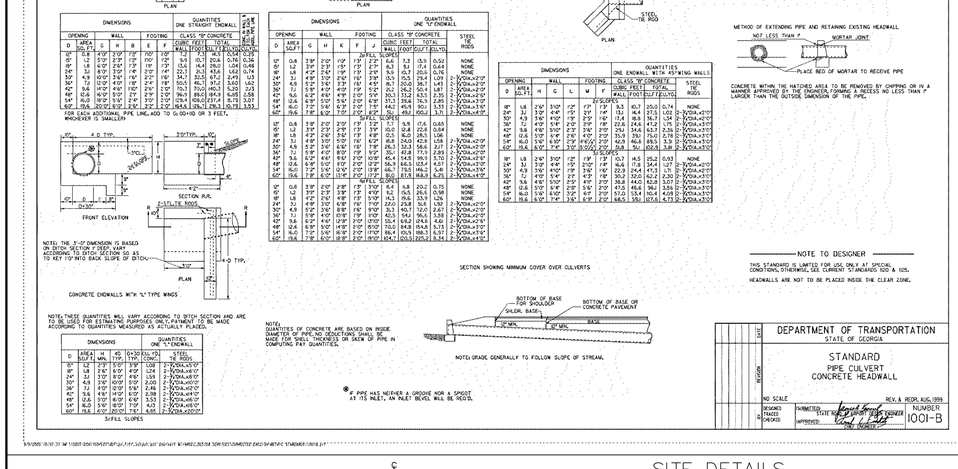
Inside Dia. Of Manhole	D	S (Min.)	L
48"	58"	6"	6"
60"	72"	8"	8"
72"	86"	8"	8"
84"	98"	8"	7"
96"	114"	8"	12"

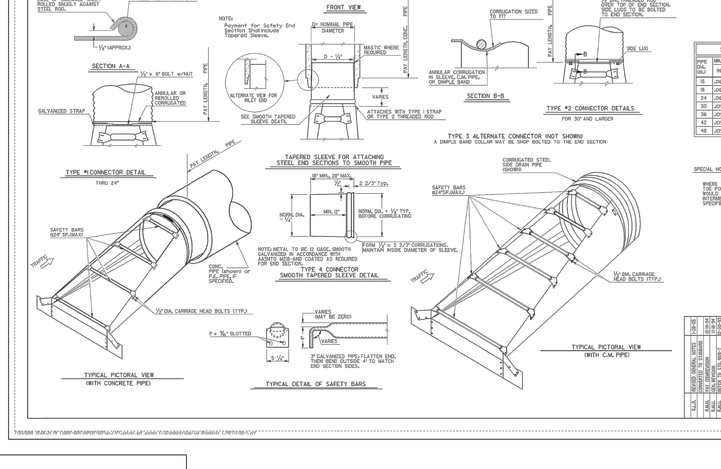
- Meets all the requirements of ASTM C-478.
- 4000 psi compressive strength concrete minimum.

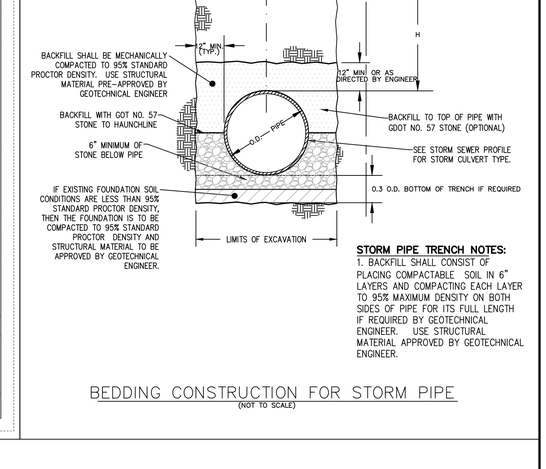
NEWNAN
FOLEY PRODUCTS CO.
WINDER
208 JEFFERSON STREET
NEWNAN, GEORGIA 30263
(770) 251-2296

Precast Concrete
Pedestal Tops

DWG. NO. st-pedestal-tops-sec | DATE 8-17-01 | REV. 09-26-04-DRM
SCALE NTS | DRAWN BY EPD







STORM PIPE TRENCH NOTES:

1. BACKFILL SHALL CONSIST OF PLACING COMPACTABLE SOIL IN 6" LAYERS AND COMPACTING EACH LAYER TO 95% MAXIMUM DENSITY ON BOTH SIDES OF PIPE FOR ITS FULL LENGTH IF REQUIRED BY GEOTECHNICAL ENGINEER. USE STRUCTURAL MATERIAL APPROVED BY GEOTECHNICAL ENGINEER.

BEDDING CONSTRUCTION FOR STORM PIPE
(NOT TO SCALE)

NOTES

1. IMPERVIOUS CORE:
   A. USE CLAY OR OTHER IMPERVIOUS MATERIALS.
   B. PLACE MATERIAL IN 6" LAYERS COMPACTED TO 95% STANDARD PROCTOR..
   C. DEPTH "D" MUST BE TO IMPERVIOUS MATERIAL, OR TO MINIMUM DEPTH EQUAL TO "H".
2. EXCAVATE EMERGENCY SPILLWAYS IN NATURAL GROUND OR PROVIDE CONCRETE SPILLWAY IN FILL AREA.
3. PROVIDE ANTI-SEEP COLLARS.
4. MAXIMUM HEIGHT OF DAM, H, IS 10'.
5. PROVIDE DOCUMENTATION FOR COUNTY APPROVAL TO JUSTIFY ANY VARIANCES FROM THIS DETAIL.

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS MCTHERINGTON
(404) 506-2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
BIN 10041
ATLANTA, GA 30308-3374
CONTACT: BRYAN HARRIS
(404) 506-4932

ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED No. 27118 PROFESSIONAL ENGINEER Mark Van De Water

GEORGIA811 Utilities Protection Center, Inc.
Know what's **below.** **Call** before you dig.
Dial 811 or Call 1-800-282-7411

AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT
GPC NOAHS ARK OPERATING HEADQUARTERS
STORM DETAILS
CLAYTON COUNTY, GEORGIA

NO.	DATE	BY	REVISIONS
4.	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.	7/31/19	CJW	REV. SEWER TIE IN LOCATION
1.	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

DR. MDA	TR.	CH'K CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 24 OF 30

M:\2018\18-4190 GPC Noahs Ark OHQ\Civil\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:53:52 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1

GEORGIA
UNIFORM CODING SYSTEM
FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES
GEORGIA SOIL AND WATER CONSERVATION COMMISSION

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECKDAM			A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.
Ch	CHANNEL STABILIZATION			Improving, constructing or stabilizing an open channel, existing stream, or ditch.
Cx	CONSTRUCTION EXIT			A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.
Cr	CONSTRUCTION ROAD STABILIZATION			A roadway constructed as part of a construction project, including permanent roads, subdivision roads, parking areas and other on-site vehicle transportation routes.
Dc	STREAM DIVERSION CHANNEL			A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.
Di	DIVERSION			An earth channel or dike located above, below, or across a slope to divert runoff. This may be a temporary or permanent structure.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary, and inexpensive.
Dn2	PERMANENT DOWNDRAIN STRUCTURE			A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.
Fr	FILTER RING			A temporary stone barrier constructed at storm drain inlets and pond outlets.
Ga	GABION			Rock filter baskets which are hand-placed into position forming soil stabilizing structures.
Gr	GRADE STABILIZATION STRUCTURE			Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.
Lv	LEVEL SPREADER			A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.
Rd	ROCK FILTER DAM			A permanent or temporary stone filter dam installed across small streams or drainageways.
Re	RETAINING WALL			A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each structure will require special design.
Rt	RETRO FITTING			A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.
Sd1	SEDIMENT BARRIER			A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay, brush, logs and poles, gravel, or a silt fence.
Sd2	INLET SEDIMENT TRAP			An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.
Sd3	TEMPORARY SEDIMENT BASIN			A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.
Sd4	TEMPORARY SEDIMENT TRAP			A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.
Sk	FLOATING SURFACE SKIMMER			A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.
Spb	SEEP BERM			Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes.

STRUCTURAL PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Sr	TEMPORARY STREAM CROSSING			A temporary bridge or culvert-type structure connecting a stream or watercourse to prevent damage by crossing construction equipment.
St	STORMDRAIN OUTLET PROTECTION			A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.
Su	SURFACE ROUGHENING			A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.
Tc	TURBIDITY CURTAIN			A floating or staked barrier installed within the water (It may also be referred to as a floating boom, silt barrier, or silt curtain).
Tp	TOPSOILING			The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities.
Tr	TREE PROTECTION			To protect desirable trees from injury during construction activity.
Wt	VEGETATED WATERWAY OR GRASSED CONVEYANCE CHANNEL			Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.

VEGETATIVE PRACTICES

CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Bf	BUFFER ZONE			Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams.
Cs	COASTAL DUNE STABILIZATION (WITH VEGETATION)		Cs	Planting vegetation on dunes that are denuded, artificially constructed, or re-nourished.
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)		Ds1	Establishing temporary protection for disturbed areas where seedings may not have sufficient time to germinate to produce an adequate retarding cover.
Ds2	DISTURBED AREA STABILIZATION (WITH TEMP. SEEDING)		Ds2	Establishing a temporary vegetative cover with fast growing seedings on disturbed areas.
Ds3	DISTURBED AREA STABILIZATION (WITH PERM. SEEDING)		Ds3	Establishing a permanent vegetative cover such as trees, shrubs, vines, grasses, or legumes on disturbed areas.
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A permanent vegetative cover using sods on highly erodable or critically eroded lands.
Du	DUST CONTROL ON DISTURBED AREAS		Du	Controlling surface and air movement of dust on construction site, roadways and similar sites.
Fl-Cd	FLOCCULANTS AND COAGULANTS		Fl-Cd	Substance formulated to assist in the solids/liquid separation of suspended particles in solution.
Sb	STREAMBANK STABILIZATION (USING PERM. VEGETATION)		Sb	The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.
Ss	SLOPE STABILIZATION		Ss	A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.
Tac	TACKIFIERS AND BINDERS		Tac	Substance used to anchor straw or hay mulch by causing the organic material to bind together.

GaSWCC (Amended – 2013)

1. STRIPPING OF VEGETATION, REGRADING, AND OTHER DEVELOPMENT ACTIVITIES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO MINIMIZE EROSION.
2. CUT AND FILL OPERATIONS SHALL BE KEPT TO A MINIMUM.
3. DEVELOPMENT PLANS MUST CONFORM TO TOPOGRAPHY AND SOIL TYPE, SO AS TO CREATE THE LOWEST PRACTICABLE EROSION POTENTIAL.
4. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED, PROTECTED, AND SUPPLEMENTED.
5. THE DISTURBED AREA AND THE DURATION OF EXPOSURE TO EROSIVE ELEMENTS SHALL BE KEPT TO A PRACTICABLE MINIMUM.
6. DISTURBED SOIL SHALL BE STABILIZED AS QUICKLY AS PRACTICABLE.
7. TEMPORARY VEGETATION OR MULCHING SHALL BE EMPLOYED TO PROTECT EXPOSED CRITICAL AREAS DURING CONSTRUCTION.
8. PERMANENT VEGETATION AND STRUCTURAL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICABLE.
9. TO THE EXTENT NECESSARY, SEDIMENT IN RUN-OFF WATER SHALL BE TRAPPED BY THE USE OF DEBRIS BASINS, SILT TRAPS, OR SIMILAR MEASURES UNTIL THE DISTURBED AREA IS STABILIZED.
10. ADEQUATE PROVISIONS SHALL BE PROVIDED TO MINIMIZE DAMAGE FROM SURFACE WATER TO THE CUT FACE OF EXCAVATIONS OR THE SLOPING SURFACES OF FILLS.
11. CUTS AND FILLS SHALL NOT ENDANGER ADJOINING PROPERTY.
12. FILLS SHALL NOT ENCROACH UPON NATURAL WATERCOURSES OR CONSTRUCTED CHANNELS IN A MANNER SO AS TO ADVERSELY AFFECT OTHER PROPERTY OWNERS.
13. GRADING EQUIPMENT SHALL CROSS FLOWING STREAMS BY THE MEANS OF TEMPORARY BRIDGES OR CULVERTS, EXCEPT WHEN SUCH METHODS ARE NOT FEASIBLE, PROVIDED IN ANY CASE THAT SUCH CROSSINGS SHALL BE KEPT TO A MINIMUM.
14. PROVISIONS SHALL BE PROVIDED FOR TREATMENT OR CONTROL OF ANY SOURCE OF SEDIMENTS AND ADEQUATE SEDIMENTATION CONTROL FACILITIES TO RETAIN SEDIMENTS ON SITE OR PRECLUDE SEDIMENTATION OF ADJACENT WATERS BEYOND THE LEVELS SPECIFIED IN THIS PERMIT.
15. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES SHALL BE INSTALLED IF DEEMED NECESSARY BY ONSITE INSPECTION.
16. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AND PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES DURING PROJECT LIFE THE RESPONSIBILITY OF GEORGIA POWER COMPANY.
17. ADDITIONAL EROSION CONTROL MEASURES WILL BE EMPLOYED WHERE DETERMINED NECESSARY BY ACTUAL SITE CONDITIONS.
18. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE.
19. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT OF WAY. THIS MAY REQUIRE PERIODIC DRESSING WITH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE OR SITE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
20. ALL OPEN SWALES MUST BE GRASSED, AND RIP-RAP MUST BE PLACED AS REQUIRED TO CONTROL EROSION. A MINIMUM OF 4.5 SQUARE YARDS OF 50 POUND STONES SHALL BE PLACED AT ALL DOWNSTREAM HEADWALLS. THE PLACEMENT OF RIP-RAP AT THE DOWNSTREAM HEADWALLS SHALL BE PLACED IMMEDIATELY UPON INSTALLATION OF PIPES AND DRAINAGE DITCHES.
21. IMMEDIATELY AFTER THE ESTABLISHMENT OF THE CONSTRUCTION ENTRANCES/ EXITS, ALL PERIMETER EROSION CONTROL DEVICES AND STORMWATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
22. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
23. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES. EXCEPT AS REQUIRED TO INSTALL THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS AS DESCRIBED IN PART IV.D.3., THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS MUST BE INSTALLED AND IMPLEMENTED PRIOR TO CONDUCTING ANY OTHER CONSTRUCTION ACTIVITIES (E.G., CLEARING, GRUBBING AND GRADING) WITHIN THE CONSTRUCTION SITE OR WHEN APPLICABLE, WITHIN PHASED SUB-PARTS OR SEGMENTS OF THE CONSTRUCTION SITE.
24. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.

DESIGN CRITERIA:
GRADED AREAS WITH SMOOTH, HARD SURFACES GIVE A FALSE IMPRESSION OF 'FINISHED GRADING' AND A JOB WELL DONE. IT IS DIFFICULT TO ESTABLISH VEGETATION ON SUCH SURFACES DUE TO REDUCED WATER INFILTRATION AND THE POTENTIAL FOR EROSION. ROUGH SLOPE SURFACES WITH UNEVEN SOIL AND ROCKS LEFT IN PLACE MAY APPEAR UNATTRACTIVE OR UNFINISHED AT FIRST, BUT ENCOURAGE WATER INFILTRATION, SPEED UP THE ESTABLISHMENT OF VEGETATION, AND DECREASE RUNOFF VELOCITY. ROUGH, LOOSE SOIL SURFACES GIVE LIME, FERTILIZER AND SEED SOME NATURAL COVERAGE. NICHES IN THE SURFACE PROVIDE MICROCLIMATES WHICH GENERALLY PROVIDE A COOLER AND MORE FAVORABLE MOISTURE LEVEL THAN HARD FL AT SURFACES. THIS AIDS SEED GERMINATION.

THERE ARE DIFFERENT METHODS OF ACHIEVING A ROUGHENED SOIL SURFACE ON A SLOPE, AND THE SELECTION OF AN APPROPRIATE METHOD DEPENDS UPON THE TYPE OF SLOPE. ROUGHENING METHODS INCLUDE STAIR-STEP GRADING, GROOVING, AND TRACKING. FACTORS TO BE CONSIDERED IN CHOOSING A METHOD ARE SLOPE STEEPNESS, MOWING REQUIREMENTS, AND WHETHER THE SLOPE IS FORMED BY CUTTING OR FILLING.
1. DISTURBED AREAS WHICH WILL NOT REQUIRE MOWING MAY BE STAIR-STEP GRADED, GROOVED, OR LEFT ROUGH AFTER FILLING.
2. STAIR-STEP GRADING IS PARTICULARLY APPROPRIATE IN SOILS CONTAINING LARGE AMOUNTS OF SOFT ROCK. EACH 'STEP' CATCHES MATERIAL WHICH SLOUGHS FROM ABOVE, AND PROVIDES A LEVEL SITE WHERE VEGETATION CAN BECOME ESTABLISHED.
3. AREAS WHICH WILL BE MOWED (THESE AREAS SHOULD HAVE SLOPES LESS STEEP THAN 3:1) MAY HAVE SMALL FURROWS LEFT BY DISCING, HARROWING, RAKING, OR SEED PLANTING MACHINERY OPERATED ON THE CONTOUR.
4. IT IS IMPORTANT TO AVOID EXCESSIVE COMPACTING OF THE SOIL SURFACE WHEN SCARIFYING. TRACKING WITH BULLDOZER TREADS IS PREFERABLE TO NOT ROUGHENING AT ALL, BUT IS NOT AS EFFECTIVE AS OTHER FORMS OF ROUGHENING, AS THE SOIL SURFACE IS SEVERELY COMPACTED AND RUNOFF IS INCREASED.

CONSTRUCTION SPECIFICATIONS:
CUT SLOPES STEEPER THAN 3:1:
CUT SLOPES WITH A GRADIENT STEEPER THAN 3:1 SHOULD NOT BE MOWED. THEY SHALL BE STAIR-STEP GRADED OR GROOVED.
1. STAIR-STEP GRADING MAY BE CARRIED OUT ON ANY MATERIAL SOFT ENOUGH TO BE RIPPED WITH A BULLDOZER. SLOPES CONSISTING OF SOFT ROCK WITH SOME SUBSOIL ARE PARTICULARLY SUITED TO STAIR-STEP GRADING. THE RATIO OF THE VERTICAL CUT DISTANCE TO THE HORIZONTAL DISTANCE SHALL BE LESS THAN 1:1 AND THE HORIZONTAL PORTION OF THE 'STEP' SHALL SLOPE TOWARD THE VERTICAL WALL. INDIVIDUAL VERTICAL CUTS SHALL NOT BE MORE THAN 30 INCHES ON SOFT SOIL MATERIAL AND NOT MORE THAN 40 INCHES IN ROCKY MATERIALS.
2. GROOVING CONSISTS OF USING MACHINERY TO CREATE A SERIES OF RIDGES AND DEPRESSIONS WHICH RUN PERPENDICULAR TO THE SLOPE (ON THE CONTOUR). GROOVES MAY BE MADE WITH ANY APPROPRIATE IMPLEMENT WHICH CAN BE SAFELY OPERATED ON THE SLOPE AND WHICH WILL NOT CAUSE UNDUE COMPACTION. SUGGESTED IMPLEMENTS INCLUDE DISCS, TILLERS, SPRING HARROWS, AND THE TEETH ON A FRONT-END LOADER BUCKET. SUCH GROOVES SHALL NOT BE LESS THAN 3 INCHES DEEP NOR FURTHER THAN 15 INCHES APART.

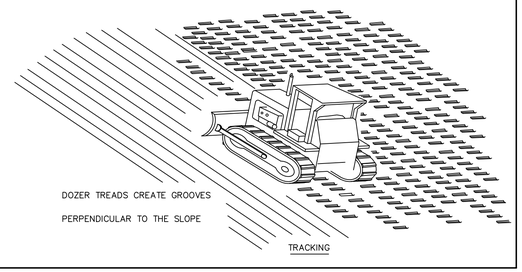
FILL SLOPES STEEPER THAN 3:1:
FILL SLOPES WITH A GRADIENT STEEPER THAN 3:1 SHOULD NOT BE MOWED. THEY SHALL BE GROOVED OR ALLOWED TO REMAIN ROUGH AS THEY ARE CONSTRUCTED. METHOD (1) OR (2) BELOW MAY BE USED.
1. GROOVE ACCORDING TO #2 OF 'CUT SLOPES STEEPER THAN 3:1'.
2. AS LIFTS OF THE FI LL ARE CONSTRUCTED, SOIL AND ROCK MATERIAL MAY BE ALLOWED TO FALL NATURALLY ONTO THE SLOPE SURFACE.

COLLUVIAL MATERIALS (SOIL DEPOSITS AT THE BASE OF SLOPES OR FROM OLD STREAM BEDS) SHALL NOT BE USED IN FILLS AS THEY FLOW WHEN SATURATED.

CUTS, FILLS AND GRADED AREAS WHICH WILL BE MOWED (LESS THAN 3:1):
MOWED SLOPES SHOULD NOT BE STEEPER THAN 3:1. EXCESSIVE ROUGHNESS IS UNDESIRABLE WHERE MOWING IS PLANNED. THESE AREAS MAY BE ROUGHENED WITH SHALLOW GROOVES SUCH AS REMAIN AFTER TILLING, DISCING, HARROWING, RAKING, OR USE OF A MULTIPACKER-SEEDER. THE FINAL PASS OF ANY SUCH TILLAGE IMPLEMENT SHALL BE ON THE CONTOUR (PERPENDICULAR TO THE SLOPE). GROOVES FORMED BY SUCH IMPLEMENTS SHALL BE NOT LESS THAN ONE INCH DEEP AND NOT FURTHER THAN 12 INCHES APART. FILL SLOPES WHICH ARE LEFT ROUGH AS CONSTRUCTED MAY BE SMOOTHED WITH A DRAGLINE OR PICKCHAIN TO FACILITATE MOWING.

ROUGHENING WITH TACKED MACHINERY:
ROUGHENING WITH TRACKED MACHINERY ON CLAYED SOILS IS NOT RECOMMENDED UNLESS NO ALTERNATIVES ARE AVAILABLE. UNDUE COMPACTION OF SURFACE SOIL RESULTS FROM THIS PRACTICE. SANDY SOILS DO NOT COMPACT SEVERELY AND MAY BE TRACKED. IN NO CASE IS TRACKING AS EFFECTIVE AS THE OTHER ROUGHENING METHODS DESCRIBED. WHEN TRACKING IS THE CHOSEN SURFACE ROUGHENING TECHNIQUE, IT SHALL BE DONE BY OPERATING TRACKED MACHINERY UP AND DOWN THE SLOPE TO LEAVE HORIZONTAL DEPRESSIONS IN THE SOIL. AS FEW PASSES OF THE MACHINERY AS POSSIBLE SHOULD BE MADE TO MINIMIZE COMPACTION.

SEEDING:
ROUGHENED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS POSSIBLE TO OBTAIN OPTIMUM SEED GERMINATION AND SEEDING GROWTH. REFER TO SPECIFICATIONS DS1, DS2, DS3, AND DS4 – DISTURBED AREA STABILIZATION (WITH MULCHING ONLY, TEMPORARY SEEDING, PERMANENT VEGETATION, AND SODDING), RESPECTIVELY.



Su SURFACE ROUGHENING
NOT TO SCALE

MATERIALS – HECP (HYDRAULIC EROSION CONTROL PRODUCTS)
HYDRAULIC EROSION CONTROL PRODUCTS SHALL BE PREPACKAGED FROM THE MANUFACTURER. FIELD MIXING OF PERFORMANCE ENHANCING ADDITIVES WILL NOT BE ALLOWED. FIBEROUS COMPONENTS SHOULD BE ALL NATURAL OR BIODEGRADABLE. PRODUCTS SHALL BE DETERMINED TO BE NON-TOXIC IN ACCORDANCE WITH EPA-821-R-02-012.

MATERIALS – RECP (ROLLED EROSION CONTROL PRODUCTS)
BLANKETS SHALL BE NONTOXIC TO VEGETATION, SEED, OR WILDLIFE. PRODUCTS SHALL BE DETERMINED TO BE NON-TOXIC IN ACCORDANCE WITH EPA-821-R-02-012. AT MINIMUM, THE PLASTIC OR BIODEGRADABLE NETTING SHALL BE STITCHED TO THE FIBROUS MATRIX TO MAXIMIZE STRENGTH AND PROVIDE FOR EASE OF HANDLING.

RECPS ARE CATEGORIZED AS FOLLOWS:
A. SHORT-TERM (FUNCTIONAL LONGEVITY 12 MO.)
A.1. PHOTODEGRADABLE – STRAW BLANKETS WITH A TOP AND BOTTOM SIDE PHOTO DEGRADABLE NET. THE MAXIMUM SIZE OF THE MESH SHALL BE OPENINGS OF ½" X ½". THE BLANKET SS 6-122 GSWCC (AMENDED – 2013) SHOULD BE SEWN TOGETHER ON 1.5" CENTERS WITH DEGRADABLE THREAD. MINIMUM THICKNESS SHOULD BE 0.35" AND MINIMUM DENSITY SHOULD BE 0.5 LBS PER SQUARE YARD.
A.2. BIODEGRADABLE – STRAW BLANKET WITH A TOP AND BOTTOM SIDE BIODEGRADABLE JUTE NET. THE TOP SIDE NET SHALL CONSIST OF MACHINE DIRECTION STRANDS THAT ARE TWISTED TOGETHER AND THEN INTERWOVEN WITH CROSS DIRECTION STRANDS (LENO WEAVE). THE BOTTOM NET MAY BE LENO WEAVE OR OTHERWISE TO MEET REQUIREMENTS. THE APPROXIMATE SIZE OF THE MESH SHALL BE OPENINGS OF 0.5" X 1.0". THE BLANKET SHOULD BE SEWN TOGETHER ON 1.5" CENTERS WITH DEGRADABLE THREAD. MINIMUM THICKNESS SHOULD BE 0.25" AND MINIMUM DENSITY SHOULD BE 0.5 LBS PER SQUARE YARD.
B. EXTENDED-TERM (FUNCTIONAL LONGEVITY 24 MO.)
B.1. PHOTODEGRADABLE – BLANKETS THAT CONSIST OF 70% STRAW AND 30% COCONUT WITH A TOP AND BOTTOM SIDE PHOTODEGRADABLE NET. THE TOP NET SHOULD HAVE ULTRAVIOLET ADDITIVES TO DELAY BREAKDOWN. THE MAXIMUM SIZE OF THE MESH SHALL BE OPENINGS OF 0.65" X 0.65". THE BLANKET SHOULD BE SEWN TOGETHER ON 1.5" CENTERS WITH DEGRADABLE THREAD. MINIMUM THICKNESS SHOULD BE 0.35" AND MINIMUM DENSITY SHOULD BE 0.6 LBS PER SQUARE YARD.
B.2. BIODEGRADABLE – BLANKETS THAT CONSIST OF 70% STRAW AND 30% COCONUT WITH A TOP AND BOTTOM SIDE BIODEGRADABLE JUTE NET. THE TOP SIDE NET SHALL CONSIST OF MACHINE DIRECTION STRANDS THAT ARE TWISTED TOGETHER AND THEN INTERWOVEN WITH CROSS DIRECTION STRANDS (LENO WEAVE). THE BOTTOM NET MAY BE LENO WEAVE OR OTHERWISE TO MEET REQUIREMENTS. THE APPROXIMATE SIZE OF THE MESH SHALL BE OPENINGS OF 0.5" X 1.0". THE BLANKET SHOULD BE SEWN TOGETHER ON 1.5" CENTERS WITH DEGRADABLE THREAD. MINIMUM THICKNESS SHOULD BE 0.25" AND MINIMUM DENSITY SHOULD BE 0.65 LBS PER SQUARE YARD.
C. LONG-TERM (FUNCTIONAL LONGEVITY 36 MO.)
C.1. PHOTODEGRADABLE – BLANKETS THAT CONSIST OF 100% COCONUT WITH A TOP AND BOTTOM SIDE PHOTODEGRADABLE NET. EACH NET SHOULD HAVE ULTRAVIOLET ADDITIVES TO DELAY BREAKDOWN. THE MAXIMUM SIZE OF THE MESH SHALL BE OPENINGS OF 0.65" X 0.65". THE BLANKET SHOULD BE SEWN TOGETHER ON 1.5" CENTERS WITH DEGRADABLE THREAD. MINIMUM THICKNESS SHOULD BE 0.3" AND MINIMUM DENSITY SHOULD BE 0.5 LBS PER SQUARE YARD.
C.2. BIODEGRADABLE – BLANKETS THAT CONSIST OF 100% COCONUT WITH A TOP AND BOTTOM SIDE BIODEGRADABLE JUTE NET. THE TOP SIDE NET SHALL CONSIST OF MACHINE DIRECTION STRANDS THAT ARE TWISTED TOGETHER AND THEN INTERWOVEN WITH CROSS DIRECTION STRANDS (LENO WEAVE). THE BOTTOM NET MAY BE LENO WEAVE OR OTHERWISE TO MEET REQUIREMENTS. THE APPROXIMATE SIZE OF THE MESH SHALL BE OPENINGS OF 0.5" X 1.0". THE BLANKET SHOULD BE SEWN TOGETHER ON 1.5" CENTERS WITH DEGRADABLE THREAD. MINIMUM THICKNESS SHOULD BE 0.25" AND MINIMUM DENSITY SHOULD BE 0.5 LBS PER SQUARE YARD.

SITE PREPARATION:
AFTER THE SITE HAS BEEN SHAPED AND GRADED TO THE APPROVED DESIGN, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN ONE INCH IN DIAMETER, AND ANY FOREIGN MATERIAL THAT WILL PREVENT CONTACT OF THE SOIL STABILIZATION MAT WITH THE SOIL SURFACE. SURFACE MUST BE SMOOTH TO ENSURE PROPER CONTACT OF BLANKETS OR MATTING TO THE SOIL TO THE SOIL SURFACE. IF NECESSARY, REDIRECT ANY RUNOFF FROM THE DITCH OR SLOPE DURING INSTALLATION.

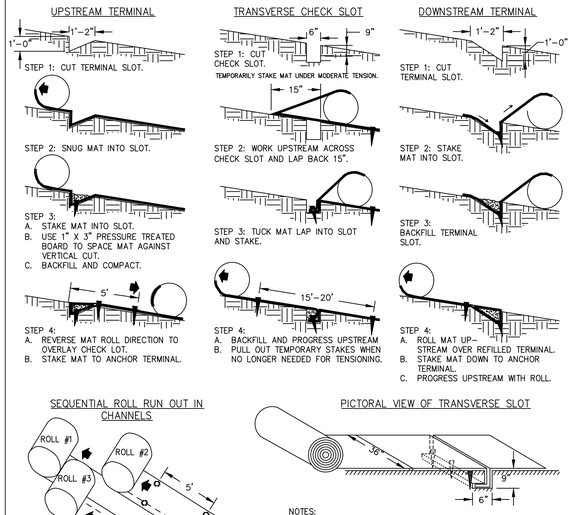
INSTALLATION:
INSTALLATION AND STAPLING OF RECPS AND APPLICATION RATES FOR THE HECPS SHALL CONFORM TO MANUFACTURER'S GUIDELINES FOR APPLICATION. PRODUCTS SHALL HAVE A MAXIMUM C-FACTOR (ASTM D6459) FOR THE FOLLOWING SLOPE GRADE: 3:1 SLOPE OR GREATER (H:V), 0.080 C-FACTOR (MAX.).

MAINTENANCE:
ALL EROSION CONTROL BLANKETS AND MATTING SHOULD BE INSPECTED PERIODICALLY FOLLOWING INSTALLATION, PARTICULARLY AFTER RAINSTORMS TO CHECK FOR EROSION AND UNDERMINING. ANY DISLOCATION OR FAILURE SHOULD BE REPAIRED IMMEDIATELY. IF WASHOUTS OR BREAKAGE OCCURS, REINSTALL THE MATERIAL AFTER REPAIRING DAMAGE TO THE SLOPE OR DITCH. CONTINUE TO MONITOR THESE AREAS UNTIL THEY BECOME PERMANENTLY STABILIZED.

Ss SLOPE STABILIZATION
NOT TO SCALE

TYPICAL INSTALLATION GUIDELINES FOR ROLLED EROSION CONTROL PRODUCTS (RECP)

BLANKET AND MATTING CROSS-SECTIONS



NOTES:
1. START AT DOWNSTREAM TERMINAL AND PROGRESS UPSTREAM.
2. FIRST ROLL IS CENTERED LONGITUDINALLY IN MID-CHANNEL AND PINNED WITH TEMPORARY STAKES TO MAINTAIN ALIGNMENT.
3. SUBSEQUENT ROLLS FOLLOW IN STAGGERED SEQUENCE BEHIND THE FIRST ROLL. USE THE CENTER ROLL FOR ALIGNMENT TO THE CHANNEL CENTER.
4. WORK OUTWARDS FROM THE CHANNEL CENTER TO THE EDGE.
5. USE 3" OVERLAPS AND STAKE AT 5' INTERVALS ALONG THE SEAMS.
6. USE 3' OVERLAPS AND SHINGLE DOWNSTREAM TO CONNECT THE LINING AT THE ROLL ENDS.

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OPERATOR / 24 HOUR CONTACT
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ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
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AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4.	06/3/20	CJW	ADDED DUMPSTER PAD AREA
3.	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1.	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT
GPC NOAHS ARK OPERATING HEADQUARTERS
EROSION CONTROL DETAILS
CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 25 OF 30

M:\2018\08\S18-4190 GPC Noahs Ark OHC\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHC C00.dwg, 6/2/2020 5:54:02 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1

CONDITIONS:

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT.

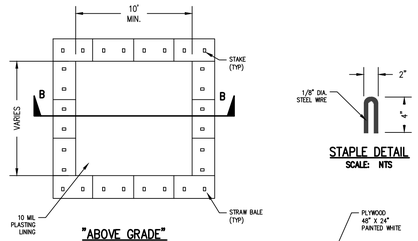
METHOD AND MATERIALS:
TEMPORARY METHODS:

MULCHES. SEE STANDARD (Ds1) – DISTURBED AREA STABILIZATION (WITH MULCHING ONLY. SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT BY BIND MULCH MATERIAL. REFER TO STANDARD (Tac) TACKIFIERS. RESINS SUCH AS CURASOL OR TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
VEGETATIVE COVER: SEE STANDARD (Ds2) – DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING).
SPRAY-ON ADHESIVES: THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS) KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD (Tac) TACKIFIERS.
TILLAGE: THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
IRRIGATION: THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET. REPEAT AS NEEDED.
BARRIERS: SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.
CALCIUM CHLORIDE: APPLY AT A RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT

PERMANENT METHODS:

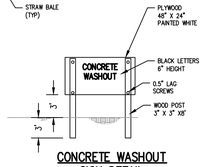
PERMANENT VEGETATION: SEE STANDARD (Ds3) – DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.
TOP SOILING: THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD Tp – TOP SOILING.
STONE: COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD Cr-CONSTRUCTION ROAD STABILIZATION.

Du DUST CONTROL ON DISTURBED AREAS

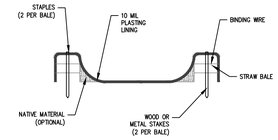


"ABOVE GRADE" WITH STRAW BALES CONCRETE WASHOUT AREA PLAN VIEW
SCALE: NTS

STAPLE DETAIL
SCALE: NTS



CONCRETE WASHOUT SIGN DETAIL
SCALE: NTS



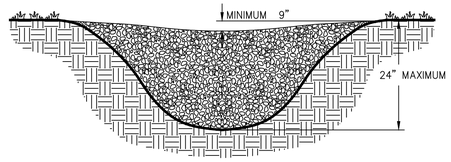
SECTION B-B
SCALE: NTS

NOTES:
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAINS.
4. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.
5. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARD, THE CONCRETE SHOULD BE BROKE UP, REMOVED, AND DISPOSED OF PER THE MUNICIPALITIES REGULATIONS. DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS.
6. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
7. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 4 INCHES FOR ABOVE GRADE FACILITIES AND 12 INCHES FLOW BELOW GRADE FACILITIES.
8. HAYBALES MAY SUBSTITUTE WOOD FRAME (IF ALLOWED BY LOCAL GOVERNMENT AGENCY).
9.

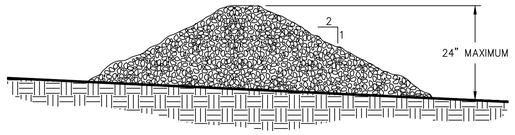
CONCRETE WASHOUT AREA DETAIL
NOT TO SCALE

STONE CHECK DAM

CROSS SECTION

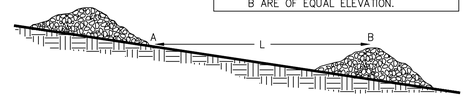


PROFILE VIEW



SPACING BETWEEN CHECK DAMS

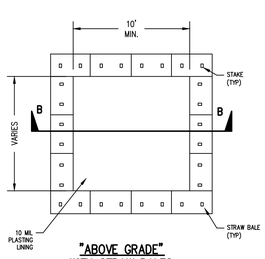
A = THE TOE OF THE UPSTREAM CHECK DAM.
B = TOP OF THE DOWNSTREAM CHECK DAM.
L = THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.



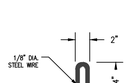
NOTES:
1. CHECK DAMS ARE TO BE USED ONLY IN SMALL OPEN CHANNELS (THEY ARE NOT TO BE USED IN LIVE STREAMS).
2. THE DRAINAGE AREA FOR STONE CHECK DAMS SHALL NOT EXCEED TWO ACRES.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 9 INCHES LOWER THAN THE OUTER EDGES.
4. THE DAM HEIGHT SHOULD BE A MAXIMUM OF 2 FEET FROM CENTER TO RIM EDGE.
5. THE SIDE SLOPES OF THE CHECK DAM SHALL NOT EXCEED A 2:1 SLOPE.
6. GEOTEXTILE SHALL BE USED TO PREVENT THE MITIGATION OF SUBGRADE SOIL PARTICLES INTO THE STONES (REFER TO AASHTO M288-96, SECTION 7.3, TABLE 3).

Cd-S STONE CHECK DAMS
NOT TO SCALE

SECTION B-B
SCALE: NTS



"ABOVE GRADE" WITH STRAW BALES FUELING AREA PLAN VIEW
SCALE: NTS



STAPLE DETAIL
SCALE: NTS

NOTES:
SPECIFIC PRODUCT PRACTICES:
Petroleum Products – All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. If petroleum products will be present at the site, they will be stored in tightly sealed containers, which are clearly labeled and placed in liquid-tight secondary containment equal to at least 110% of the volume of petroleum products being stored. An impermeable membrane shall be used as a liner if an in-ground pit is used as secondary containment for petroleum products.

SPILL CONTROL AND RESPONSE PRACTICES:
The owner or the site superintendent will designate a spill prevention and response team. In addition, the following practices will be followed for spill cleanup:
1. Information – Manufacturers recommended methods for spill cleanup will be clearly posted, and site personnel will be made aware of the procedures and the location of the information and cleanup supplies (MSDS Sheets).
2. Equipment – Materials and equipment necessary for spill cleanup will be present on the site at all times. Equipment and materials will include but not be limited to brooms, shovels, rags, gloves, goggles, absorbent materials (sand, sawdust, etc.) and plastic or metal trash containers specifically for this purpose. The materials and equipment necessary for spill cleanup will be dependent upon the nature and quantity of the material stored on-site.
3. Response – All spills will be cleaned up immediately upon discovery.
4. Safety – The spill area will be kept well ventilated, and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
5. Reporting – Spills of toxic of hazardous material (If present on site) will be reported to the appropriate state or local government agency, regardless of the size.
6. Record keeping – The spill prevention plan will be modified to include measures to prevent this type of spill from reoccurring as will as improved methods for cleaning up future spills should they occur. A description of each spill, what caused it, and the cleanup measures used will be maintained with the plan.

INSPECTION AND MAINTENANCE:
1. Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas.
2. Train employees and subcontractors in proper fueling and cleanup procedures.
3. Designated fueling areas should be protected from stormwater runon and runoff and should be located at least 50 feet away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
4. Vehicles and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately or problem vehicles or equipment should be removed from the project site.

FUELING AREA DETAIL
SCALE: NTS

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OPERATOR / 24 HOUR CONTACT
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ATLANTA, GA 30308-3374
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ENGINEER
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ROSWELL, GA 30075
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AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

EROSION CONTROL DETAILS

CLAYTON COUNTY, GEORGIA

DR. MDA	TR.	CH'K CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 26 OF 30

Ds1 MULCHING ONLY

MULCHING BY ITSELF MAY BE USED AS TEMPORARY STABILIZATION (MULCHING ONLY) WHEN SEED WILL NOT HAVE A SUITABLE GROWING SEASON. STABILIZATION MAY BE ACCOMPLISHED WITH: STRAW – 2 TONS/ACRE OR HAY–2.5 TONS/ACRE PROVIDED THAT THE APPROPRIATE DEPTH (2–4") IS ACHIEVED. ALL HAY OR STRAW SHALL BE ANCHORED WITH A TACKIFIER (Tb) (EMULSIFIED ASPHALT, GRADE AE–S OR SS–1, AT A RATE OF 100 GAL. OF EMULSIFIED ASPHALT AND 100 GAL. OF WATER PER TON OF MULCH), AND PROVIDED THAT A CONTINUOUS COVERAGE OF 90% OR GREATER OF THE SOIL SURFACE IS MAINTAINED. OTHER ACCEPTABLE MULCHES ARE WOOD WASTE, BARK, OR SAWDUST SPREAD 2–3" DEEP. WHEN MULCH IS USED WITH SEED, FOLLOW THE SPECIFICATIONS FOR TEMPORARY SEEDING (Ds2) OR PERMANENT SEEDING (Ds3).

Ds2 TEMPORARY GRASSING

TEMPORARY GRASSING SHALL CONSIST OF SOWING A QUICK GRASS SUCH AS RYE, BROWN TOP MILLET, OR A GRASS SUITABLE TO THE AREA AND SEASON. MULCH, LIME AND FERTILIZER MAY BE OMITTED UNLESS LOCAL CONDITIONS OR SOIL TESTS INDICATE OTHERWISE. TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION. FOR ADDITIONAL OPTIONS OR IF THE AREA IS EXPECTED TO BE UNDISTURBED FOR LONGER THAN SIX MONTHS, PERMANENT PERENNIAL VEGETATION (Ds3) SHALL BE USED. REFER TO THE COMPANION PLANTING SCHEDULE UNDER PERMANENT GRASSING (Ds3).

Ds2 GRASSING SCHEDULE

(FOR TEMPORARY)

SPECIES	PLS RATE	DATES	LIME
RYEGRASS (ANNUAL)	40 LBS./AC.	8/15 – 4/1	1 TON/ACRE
WEEPING LOVEGRASS (PERENNIAL)	4 LBS./AC.	3/15 – 6/15	1 TON/ACRE
SUDANGRASS	60 LBS./AC.	4/1 – 8/15	1 TON/ACRE

FERTILIZER REQUIREMENTS

	TYPE OF SPECIES	YEAR	ANALYSIS OR EQUI-VALENT N–P–K	RATE	N TOP DRESSING RATE
1.	COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6–12–12 6–12–12 10–10–10	1500 LBS PER ACRE 1000 LBS PER ACRE 400 LBS PER ACRE	50–100 LBS PER ACRE 1– 2– – 30
2.	COOL SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6–12–12 0–10–10 0–10–10	1500 LBS PER ACRE 1000 LBS PER ACRE 400 LBS PER ACRE	0–50 LBS PER ACRE 1– – –
3.	GROUND COVERS	FIRST SECOND MAINTENANCE	10–10–10 10–10–10 10–10–10	1300 LBS PER ACRE 3– 1300 LBS PER ACRE 3– 1100 LBS PER ACRE	– – –
4.	PINE SEEDLINGS	FIRST	20–10–5	ONE 21–GRAM PELLET PER SEEDLING PLACED IN THE CLOSING HOLE	–
5.	SHRUB LESPEDEZA	FIRST MAINTENANCE	0–10–10 0–10–10	700 LBS PER ACRE 700 LBS PER ACRE 4–	– –
6.	TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10–10–10	500 LBS PER ACRE	30 LBS PER ACRE 5–
7.	WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6–12–12 6–12–12 10–10–10	1500 LBS PER ACRE 800 LBS PER ACRE 400 LBS PER ACRE	50–100 LBS PER ACRE 2– 6– 50–100 LBS PER ACRE 2– 30 LBS PER ACRE
8.	WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6–12–12 0–10–10 0–10–10	1500 LBS PER ACRE 800 LBS PER ACRE 400 LBS PER ACRE	50 LBS/ACRE 6–

1– APPLY IN SPRING FOLLOWING SEEDING.
2– APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED.
3– APPLY IN 3 SPLIT APPLICATIONS.
4– APPLY WHEN PLANTS ARE PRUNED.
5– APPLY TO GRASS SPECIES ONLY.
6– APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

Ds1 | Ds2 | Ds3 DISTURBED AREA STABILIZATION

GUIDE SPECIFICATION FOR PERMANENT SEEDING

Section 02936

PERMANENT HYDROSEEDING

PART 1 GENERAL

1.01 SUMMARY

A. This section specifies a seed mix applied to an area requiring sustained vegetation.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions. Include required substrate preparation, list of materials, and application rate.

1.03 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials and products in factory labeled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from weather damage, excessive temperatures, rodents, and construction operations.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. PENNINGTON SEED INC. SEED PRODUCTION – 1280 ATLANTA HWY – MADISON, GA 30650, 800-286-6100 (Fax706-342-8071)

2.02 MATERIALS

A. Mixed sustainable slope seed mixture: Slopemaster by Pennington Seed, Inc applied at a minimum rate of 50lbs (1.15lbs/1000 square feet) of the warm season mixture and 100lbs (2.25lbs/1000 square feet) of the cool season mixture with the following characteristics.

1. Material: Permanent and temporary seed varieties.
2. Minimum: 5% Durana White Clover.
3. Inert Material: Less than 1%.
4. Other Crop Seed: Less than .5%.
5. Weed Seed: Less than 1%.
6. Coating: Inoculated with Germax Seed Treatment (Rhizokote XL and Apron XL) and MYCO Advantage coated.
7. Packaging: 25lb Seatac bags.

GUIDE SPECIFICATION FOR PERMANENT SEEDING

GUIDE SPECIFICATION FOR PERMANENT SEEDING

B. Flexterra HP-FGM (Flexible Growth Medium) Fiber Mulch: Apply according to manufacturer recommendations. This product should be applied at a minimum rate of 3000 lbs per acre (70 lbs/1000 square feet).
C. Soil Sampling: A soil sample should be obtained at a time as close to final grade as possible but at least a week prior to permanent seeding. The soil sample should be obtained by a representative of Pennington Seed, Inc. Contact Dusty Sweat 678-449-6632, 706-752-4287, dsweat@penningtonseed.com to schedule a site visit and soil sample.
D. Fertilizer: A balanced professional grade fertilizer containing UMAXX, UFLEXX, or Nitroform source of Nitrogen should be applied at a rate of 350 lbs per acre (8.0 lbs/1000 square feet) or according to soil sample results.
E. Lime: The soil amendment NeutraLime Dry should be applied hydraulically at a rate of 80 lbs per acre (1.85 lbs/1000 square feet) or according to soil sample results. Additionally, pelletized lime should be applied and incorporated into the soil at a rate of 2000 lbs per acre (46 lbs/100 square feet) during final grade or according to soil sample results.
F. Soil Amendments:
   1. The soil amendment JumpStart should be applied hydraulically at a rate of 1 gallon per acre (0.3 gal/1000 square feet) or according to soil sample results.
   2. The soil amendment BioPrime should be applied hydraulically at a rate of 40 pounds per acre (0.92 lbs/1000 square feet) or according to soil sample results.
G. Equipment: Equipment shall be a hydroseeding machine and shall have a built in mechanical agitation system and operating capacity sufficient to agitate, suspend, and homogeneously mix a hydraulic slurry containing not less than 44lbs or organic mulching amendment plus fertilizer, additives, and solids for each 150 gallons of water.

PART 3 EXECUTION

3.01 SUBSTRATE PREPARATION

A. Examine substrates and conditions where material will be applied. Ensure that an adequate seedbed has been prepared. If no seedbed has been prepared notify project manager and a representative from Pennington Seed, Inc. immediately and begin seedbed preparation by disking, tilling, dozer tracking, aerating, or aerevating seedbed to produce optimal seed to soil contact. Remove rocks, sticks, straw, dead grass, etc. to ensure seedbed is free of debris and will provide an ideal seedbed. Do not

GUIDE SPECIFICATION FOR PERMANENT SEEDING

proceed with installation until unsatisfactory conditions are corrected. Only apply product to geotechnically stable slopes that have been designed and built to divert the water shed away from the face of the slope, therefore eliminating surface flow energy from above from damaging the face slope.
B. All slope gradients should be prepared to agricultural standard recommended by the Department of Agricultural within the state where the work is being performed. Agricultural Lime or pelletized lime should be added during the slope preparation stage and tracked in at the rate recommended according to soil analysis. Apply agricultural lime or pellet lime at a rate of 2000lbs per acre or according to soil test results.
C. Examine related work including irrigation and grading of surface before proceeding with any work and notify the Engineer in writing on conditions which may prevent the proper execution of this work. All grading or tracking on slopes should be performed so that all cleats are running perpendicular to the flow of water down the hill.

3.02 INSTALLATION

A. Strictly comply with manufacturer's installation instructions and recommendations.
B. Mix the seed, soil amendments, and professional fertilizer with a full tank rate of the Flexible Growth Medium and apply along the areas to be vegetated being sure to apply seed and amendments at the specified rates. Slopemaster warm season seed mixture should be applied during the late spring and summer months at a minimum of 50lbs per acre (1.15lbs/1000 square feet). The cool season Slopemaster seed mixture should be applied during the fall and early spring at a minimum of 100lbs per acre (2.25lbs/1000 square feet). If assistance is needed with mixing, applying, or distribution of hydraulic slurry please contact Project Manager and a representative from Pennington Seed, Inc. for additional information.
C. Mix and apply the Flexible Growth Medium at a rate of 50lbs per 150 gallons of water over freshly seeded areas. Hydromulch should be applied in multiple directions so that shadowing does not occur and to insure uniformity of the application. Confirm the loading rates with equipment manufacturers. Do not leave seeded surfaces unprotected, especially if precipitation is imminent.
D. Exercise special care to prevent any of the slurry from being sprayed onto any hardscape areas including concrete walks, fences, walls, buildings, etc. Remove all slurry sprayed onto these surfaces immediately.

3.03 MAINTENANCE

A. Frequent light irrigation will need to be applied to seeded areas if no natural rain events have occurred within one week of hydroseeding. Water should be applied long enough to moisten the soil thoroughly to the

GUIDE SPECIFICATION FOR PERMANENT SEEDING

depth of the slurry mulch taking care not to super saturate or wash away the slurry and seed.
B. After seed germination has occurred and plants are visible the frequency of irrigation should be cut back with heavier application rates still making sure not to super saturate or wash away the slurry and seed.
C. Repair all seed washings and erosion.
D. Future fertilization should occur whenever applicable at the recommended rate based on soil analysis with a low Nitrogen fertilizer.

3.04 CLEANING AND PROTECTION

A. Wash hands after seeding to remove all seed treatment or additive residue that could be remaining.
B. Advise owner or engineer of methods for protection of seeded areas.

END OF SECTION

GPC Soil Stabilization and Vegetation Establishment Material

Standard Material (unless otherwise specified)

Material	Application Rate/Acre	Total Material
Slopemaster Cool Season Seed Mix (lbs)	100	25
Pelletized Lime (lbs)	2000	500
Neutralime (lbs)	80	20
19-19-19 Fertilizer (lbs)	400	100
Jumpstart (Gallons)	2.5	1
BioPrime (lbs)	40	10
Flexterra Hydraulic Mulch* (lbs)	3000	750
*Per Manufacturer Specification, depending on slope gradient		
Flexterra Application Recommendations		
Condition	Max Continuos Slope Length	Application Rate
3:1	75 ft.	3000 lbs.

WARM SEASON

25lb Slopemaster Coastal Summer Mix
20% Unhulled Sahara Bermuda
20% Hulled Mohawk Bermuda
25% Pensacola Bahia
10% Durana Clover
10% Browntop Millet
15% Weeping Lovegrass
Seeding Dates: April 15 - Sept 15
Seeding Rate: 50lbs/acre

Coastal Mixes should be used in any areas south of the Fall Line. (Columbus, Macon, Augusta, and south)

25lb Slopemaster Summer Mix
55% Sahara/Mohawk Bermudagrass
20% Sericea Lespedeza
10% Durana Clover
10% Browntop Millet
5% Weeping Lovegrass
Seeding Dates: April 15 - Sept 1
Seeding Rate: 50lbs/acre

COOL SEASON

25lb Slopemaster Coastal Winter Mix
40% Unhulled Sahara Bermuda
20% Pensacola Bahia
20% Greystone Fescue
10% Rye Grain
10% Durana Clover
Seeding Dates: Sept 15 - April 15
Seeding Rate: 100lbs/acre

25lb Slopemaster Reclaim Winter Mix
65% GreystoneTall Fescue
10% Mohawk Bermuda
10% Unhulled Sahara Bermuda
10% Durana Clover
5% Small Grains
Seeding Dates: Sept 1 - April 15
Seeding Rate: 100lbs/acre

Standard summer and Reclaim winter mix should be used north of the Fall Line in the Piedmont and Mountain regions.

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
(404) 506–2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
BIN 10041
ATLANTA, GA 30308–3374
CONTACT: BRYAN HARRIS
(404) 506–4932

ENGINEER
AEC, INC.
50 WARM SPRING ORCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641–1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 03/2020 No. 27118 PROFESSIONAL ENGINEER Mark Van De Water

GEORGIA811 Utilities Protection Center, Inc.
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Dial 811 or Call 1-800-282-7411

AEC JOB # 18–4190.20

NO.	DATE	BY	REVISIONS
4.	06/3/20	CJW	ADDED DUMPSTER PAD AREA
3.	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1.	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

EROSION CONTROL DETAILS

CLAYTON COUNTY, GEORGIA

DR.	TR.	CH'K
MDA		CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 27 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark CHA\Civil\CONSTRUCTION SET\18-4190 GPC Noahs Ark CHA C00.dwg, 6/2/2020 5:54:12 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1

CONSTRUCTION SPECIFICATIONS

TYPE NS SEDIMENT BARRIER (Sd1–NS)

NONSENSITIVE AREAS
SEDIMENT BARRIERS BEING USED AS TYPE NS SHALL HAVE A SUPPORT SPACING OF NO GREATER THAN 6 FEET. ON CENTER, WITH EACH DRIVEN INTO THE GROUND A MINIMUM OF 18 INCHES. TYPE NS SEDIMENT BARRIERS SHALL HAVE A P–FACTOR NO GREATER THAN 0.045.
SEDIMENT BARRIER TYPES A AND B WILL BE CLASSIFIED AS NON–SENSITIVE.

TYPE S SEDIMENT BARRIER (Sd1–S)

SENSITIVE AREAS
SEDIMENT BARRIERS BEING USED AS TYPE S SHALL HAVE A SUPPORT SPACING OF NO GREATER THAN 4 FEET ON CENTER, WITH EACH DRIVEN INTO THE GROUND 18 INCHES. TYPE S SEDIMENT BARRIERS SHALL HAVE A P–FACTOR NO GREATER THAN 0.030.
SEDIMENT BARRIER TYPE C WILL BE CLASSIFIED AS SENSITIVE.

INSTALLATION

TEMPORARY SEDIMENT BARRIERS SHALL BE INSTALLED ACCORDING TO THE FOLLOWING SPECIFICATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE DESIGN PROFESSIONAL.

ALONG ALL STATE WATERS AND OTHER SENSITIVE AREAS, TWO ROWS OF TYPE S SEDIMENT BARRIERS SHALL BE USED. THE TWO ROWS TYPE S SHOULD BE PLACED A MINIMUM OF 36 INCHES APART.

FOR INSTALLATION OF THE BARRIERS, SEE FIGURES 6–27.1, 6–27.2, 6–27.3 AND 6–27.4, RESPECTIVELY. IT IS IMPORTANT TO REMEMBER THAT NOT ALL SEDIMENT BARRIERS NEED TO BE TRENCHED INTO THE GROUND BUT MOST TALLER SEDIMENT BARRIERS DO.

POST INSTALLATION SHALL START AT THE CENTER OF A LOW POINT (IF APPLICABLE) WITH THE REMAINING POSTS SPACED NO GREATER THAN 6 FEET APART FOR TYPE NS SEDIMENT BARRIERS AND NO GREATER THAN 4 FEET APART FOR TYPE S SEDIMENT BARRIERS. FOR POST SIZE REQUIREMENTS, SEE TABLE 6–27.2. FASTENERS FOR WOOD POSTS ARE LISTED IN TABLE 6–27.3.

FASTENERS FOR SILT FENCE

REFER TO FIGURE 6–27.5 AND TABLES 6–27.2 AND 6–27.3.

MAINTENANCE

SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE–HALF THE ORIGINAL HEIGHT OF THE BARRIER. THIS IS EXTREMELY IMPORTANT WHEN SELECTING BMPS WITH A LOWER PROFILE.

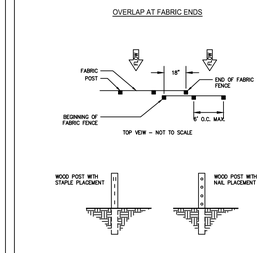
SEDIMENT BARRIERS SHALL BE REPLACED WHENEVER THEY HAVE DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF THE PRODUCT IS REDUCED (APPROXIMATELY SIX MONTHS) OR THE HEIGHT OF THE PRODUCT IS NOT MAINTAINING 80% OF ITS PROPERLY INSTALLED HEIGHT.

TEMPORARY SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATED AT THE BARRIER SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE BARRIER IS REMOVED.

PRODUCTS

ALL ALLOWABLE PRODUCTS MUST BE ON THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S SEDIMENT BARRIERS APPROVED PRODUCTS LIST (APL).

FASTENERS FOR SILT FENCES



SILT FENCE - TYPE NON-SENSITIVE

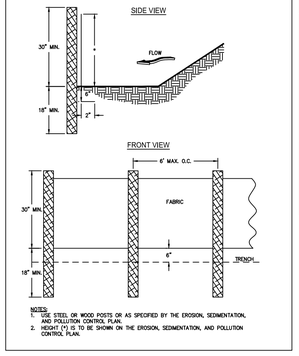


Table 6-27.2 Post Size

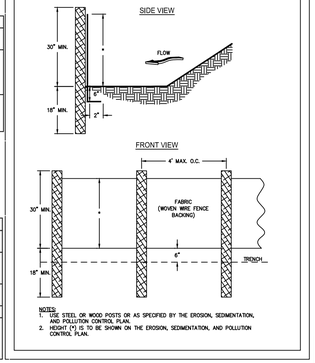
Type	Min Length	Type of Post	Size of Post
NS	4'	Soft wood Oak Steel	3"dia or 2x4 1.5" x1.5" 1.3lb./ft. min
S	4"	Steel Oak	1.3lb./ft. min 2"x2"

Table 6-27.3 Fasteners for Wood Posts

	Guage	Crown	Legs	Staples / Post
Wire Staples	17 min.	3/4" wide	1/2" long	5 min.
	Guage	Length	Button Heads	Nail/ Post
Nails	14 min.	1"	3/4"	4 min.

Note: Filter Fabric may also be attached to the post by wire, chors, and pockets or any other method provided minimum P-factor, as required by GSWCC, is met.

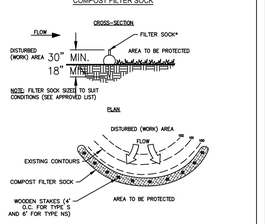
SILT FENCE - TYPE SENSITIVE



(Sd1–NS) (Sd1–S) **SILT FENCE SEDIMENT BARRIER**
NOT TO SCALE

EROSION AND SEDIMENT CONTROL

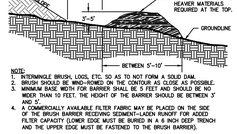
COMPOST FILTER SOCK

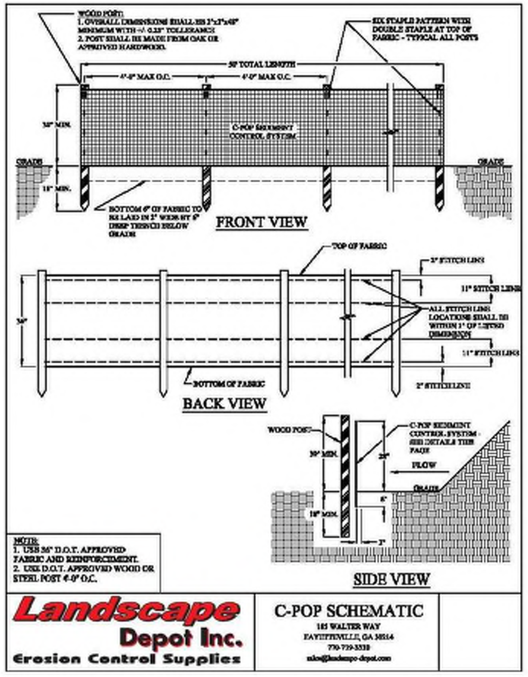


~ ADDITIONAL MEASURES ~

SEDIMENT BARRIERS

BRUSH BARRIER SECTION

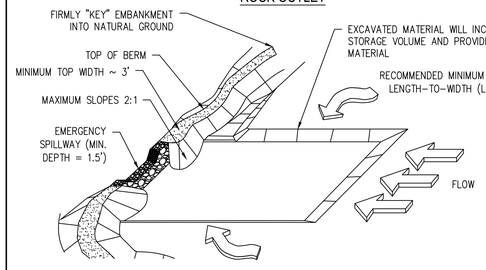




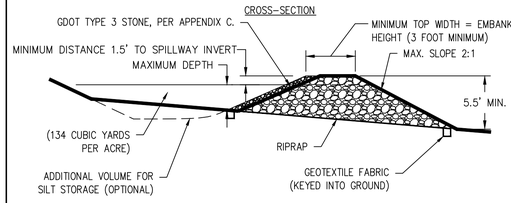
TEMPORARY SEDIMENT TRAP

COURTESY OF CITY OF KNOXVILLE BMP EROSION AND SEDIMENT

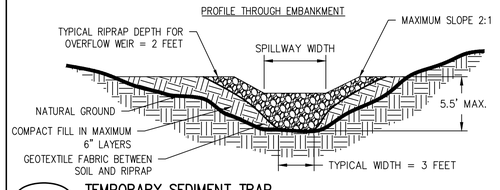
ROCK OUTLET



CROSS–SECTION



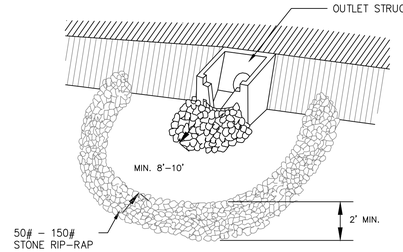
PROFILE THROUGH EMBANKMENT



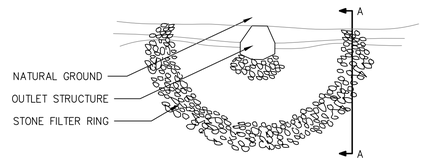
(Sd4–C) **TEMPORARY SEDIMENT TRAP**
NOT TO SCALE

STONE FILTER RING

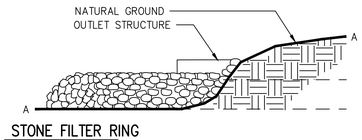
PERSPECTIVE VIEW



PLAN VIEW (NOT TO SCALE)



CROSS SECTION (NOT TO SCALE)



(Fr) **STONE FILTER RING**
NOT TO SCALE

CONDITIONS:
FILTER RINGS SHALL BE USED IN CONJUNCTION WITH OTHER SEDIMENT CONTROL MEASURES. EXCEPT WHERE OTHER PRACTICES DEFINED IN THIS MANUAL ARE NOT APPROPRIATE (SUCH AS INLETS TO CONCRETE FLUMES). THEY CAN BE INSTALLED AT OR AROUND DEVICES SUCH AS INLET SEDIMENT TRAPS, TEMPORARY DOWNDRAIN INLETS, AND DETENTION POND RETROFITS TO PROVIDE ADDITIONAL SEDIMENT FILTERING CAPACITY.

DESIGN CRITERIA:
FORMAL DESIGN IS NOT REQUIRED. THE FOLLOWING STANDARDS SHALL BE USED:

LOCATION:
THE FILTER RING SHALL SURROUND ALL SIDES OF THE STRUCTURE RECEIVING RUNOFF FROM DISTURBED AREAS. IT SHOULD BE PLACED A MINIMUM OF FOUR FEET FROM THE STRUCTURE. THE RING IS NOT INTENDED TO SUBSTANTIALLY IMPOUND WATER, CAUSING FLOODING OR DAMAGE TO ADJACENT AREAS. THE FILTER RING MAY ALSO BE PLACED BELOW STORM DRAINS DISCHARGING INTO DETENTION PONDS, CREATING A CENTRALIZED AREA, OR "FOREBAY", FOR SEDIMENT ACCUMULATION. THIS PROVIDES FOR EASIER, MORE LOCALIZED CLEANOUT OF THE POND. IF UTILIZED ABOVE A RETROFIT STRUCTURE, IT SHOULD BE A MINIMUM OF 8 TO 10 FEET FROM THE RETROFIT.

STONE SIZE
- WHEN UTILIZED AT INLETS WITH DIAMETERS LESS THAN 12 INCHES, THE FILTER RING SHALL BE CONSTRUCTED OF STONE NO SMALLER THAN 3–5 INCHES (15 – 30 IBS.).
- WHEN UTILIZED AT PIPES WITH DIAMETERS GREATER THAN 12 INCHES, THE FILTER RING SHALL BE CONSTRUCTED OF STONE NO SMALLER THAN 10–15 INCHES (50 – 100 LBS.).
- THE LARGER STONE ON THE UPSTREAM SIDE FOR ADDED SEDIMENT FILTERING CAPABILITIES. HOWEVER, THE SMALLER FILTER STONE IS MORE PRONE TO CLOGGING, REQUIRING HIGHER MAINTENANCE.

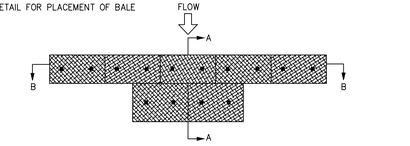
HEIGHT
THE FILTER RING SHALL BE CONSTRUCTED AT A HEIGHT NO LESS THAN TWO FEET FROM GRADE.

CONSTRUCTION SPECIFICATIONS
1. MECHANICAL OR HAND PLACEMENT OF STONE SHALL BE REQUIRED TO UNIFORMLY SURROUND THE STRUCTURE TO BE SUPPLEMENTED. REFER TO APPENDIX C FOR ROCK RIPRAP SPECIFICATIONS.
2. THE FILTER RING MAY BE CONSTRUCTED ON NATURAL GROUND SURFACE, ON AN EXCAVATED SURFACE, OR ON MACHINE–COMPACTED FILL.
3. A COMMON FAILURE OF FILTER RINGS IS CAUSED BY THEIR PLACEMENT TOO CLOSE OR TOO HIGH ABOVE THE STRUCTURE IT IS ENHANCING. WHEN UTILIZED BELOW A STORM DRAIN OUTLET, IT SHALL BE PLACED SUCH THAT IT DOES NOT CREATE A CONDITION CAUSING WATER TO BACK–UP INTO THE STORM DRAIN AND INHIBIT THE FUNCTION OF THE STORM DRAIN SYSTEM.

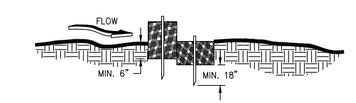
MAINTENANCE
THE FILTER RING MUST BE KEPT CLEAR OF TRASH AND DEBRIS. THIS WILL REQUIRE CONTINUOUS MONITORING AND MAINTENANCE, WHICH INCLUDES SEDIMENT REMOVAL WHEN ONE–HALF FULL. STRUCTURES ARE TEMPORARY AND SHOULD BE REMOVED WHEN THE LAND–DISTURBING PROJECT HAS BEEN STABILIZED.

TYPICAL STRAW BALE CHECK DAM

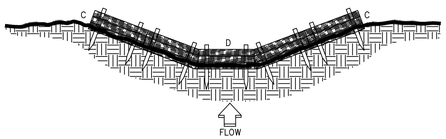
PLAN



SECTION A-A

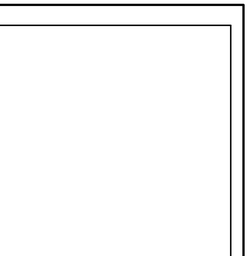


SECTION B-B



NOTES:
1. BALES SHOULD BE BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. REMOVE #4 REBAR AFTER STRAW BALES ARE NO LONGER IN PLACE.
3. POINT C OF SECTION B–B SHOULD ALWAYS BE HIGHER THAN POINT D.

(Cd–Hb) **HAYBALE CHECKDAM**
NOT TO SCALE



SILT FENCE INSTALLATION DETAIL (TYP)

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 27118 — 06/03/2020 — Mark Van De Water — MARK D Van De Water

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
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(404) 506–2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
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ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641–1942
LEVEL II CERT. # 6960

GEORGIA811 Utilities Protection Center, Inc.
Know what's **below.**
Call before you dig.
Dial 811 or Call 1-800-282-7411

AEC JOB # 18–4190.20

NO.	DATE	BY	REVISIONS
4.0	8/3/20	CJW	ADDED DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/21/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

EROSION CONTROL DETAILS

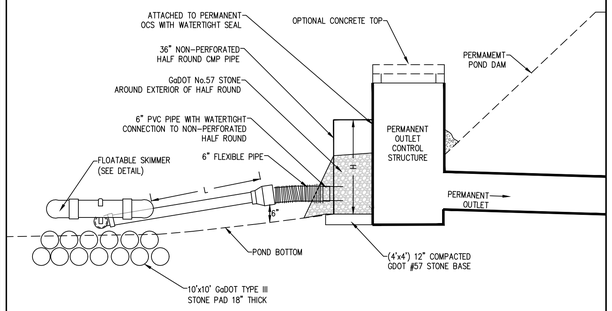
CLAYTON COUNTY, GEORGIA

DR. MDA	TR.	CH'K CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 28 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:54:17 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1

TEMPORARY SURFACE SKIMMER

CROSS-SECTIONAL DETAIL



Sk TEMPORARY SURFACE SKIMMER
NOT TO SCALE

When a FLOATING SURFACE SKIMMER is used, show the following information along with each sediment pond, trap or basin being used on the site:
1. Pond, trap or basin size, length* (top and bottom) width* (top and bottom) and depth =

Permanent Detention Pond
Length: 215' top, 173' bottom
Width: 137' top, 98' bottom
Depth: 6 feet

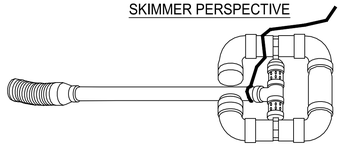
2. Time to Drain (hrs) =	24 hours
3. Skimmer Dimensions (orifice and head size)	5-8" Skimmer size
4. Manufacturer's name	Marlee or other approved by engineer
5. Half Round Height (H)	5'
6. Sediment storage required	749.06 CY
7. Sediment storage provided	4768.90 CY
8. Min. Length (L) = 1.5 x Height of dam	9.0'

NOTE: MARLEE SKIMMER OR APPROVED EQUIVALENT. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF PROPOSED ALTERNATE FOR APPROVAL.

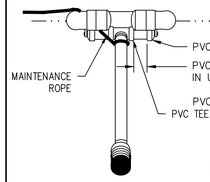
TEMPORARY SURFACE SKIMMER

NOTE:
SKIMMER CONFIGURATION SHOWN IS TYPICAL. THE DESIGNER/ENGINEER MAY SUBMIT AN ALTERNATE SKIMMER DETAIL FOR REVIEW.

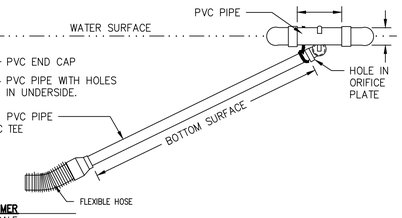
SKIMMER PERSPECTIVE



SKIMMER FRONTAL SECTION VIEW



SKIMMER SIDE SECTION VIEW



Sk FLOATING SURFACE SKIMMER
NOT TO SCALE

NOTE: MARLEE SKIMMER OR APPROVED EQUIVALENT. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF PROPOSED ALTERNATE FOR APPROVAL.

STORM DRAIN OUTLET PROTECTION

DESIGN CRITERIA:

STRUCTURALLY LINED APRONS AT THE OUTLETS OF PIPES AND PAVED CHANNEL SECTIONS SHALL BE DESIGNED ACCORDING TO THE FOLLOWING CRITERIA:

CAPACITY
PEAK STORMFLOW FROM THE 25-YEAR, 24 HOUR FREQUENCY STORM OR THE STORM SPECIFIED IN THE TITLE 12-7-1 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED OR THE DESIGN DISCHARGE OF THE WATER CONVEYANCE STRUCTURE, WHICHEVER IS GREATER.

TAILWATER DEPTH
THE DEPTH OF THE TAILWATER IMMEDIATELY BELOW THE PIPE OUTLET MUST BE DETERMINED FOR THE DESIGN CAPACITY OF THE PIPE. MANNING'S EQUATION MAY BE USED TO DETERMINE TAILWATER DEPTH. IF THE TAILWATER DEPTH IS LESS THAN HALF THE DIAMETER OF THE OUTLET PIPE, IT SHALL BE CLASSIFIED AS A MINIMUM TAILWATER CONDITION. IF THE TAILWATER DEPTH IS GREATER THAN HALF THE PIPE DIAMETER, IT SHALL BE CLASSIFIED AS A MAXIMUM TAILWATER CONDITION. PIPES WHICH OUTLET ONTO FLAT AREAS WITH NO DEFINED CHANNEL MAY BE ASSUMED TO HAVE A MINIMUM TAILWATER CONDITION.

APRON WIDTH
IF THE PIPE DISCHARGES DIRECTLY INTO A WELL-DEFINED CHANNEL, THE APRON SHALL EXTEND ACROSS THE CHANNEL BOTTOM AND UP THE CHANNEL BANKS TO AN ELEVATION ONE FOOT ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS). IF THE PIPE DISCHARGES ONTO A FLAT AREA WITH NO DEFINED CHANNEL, THE WIDTH OF THE APRON SHALL BE DETERMINED AS FOLLOWS:
A. THE UPSTREAM END OF THE APRON, ADJACENT TO THE PIPE, SHALL HAVE A WIDTH THREE TIMES THE DIAMETER OF THE OUTLET PIPE.
B. FOR THE MINIMUM TAILWATER CONDITION, THE DOWNSTREAM END OF THE APRON SHALL HAVE A WIDTH EQUAL TO THE PIPE DIAMETER PLUS THE LENGTH OF THE APRON. REFER TO FIGURE 6-24.1.
C. FOR A MAXIMUM TAILWATER CONDITION, THE DOWN STREAM END SHALL HAVE A WIDTH EQUAL TO THE PIPE DIAMETER PLUS 0.4 TIMES THE LENGTH OF THE APRON. REFER TO FIGURE 6-24.2.

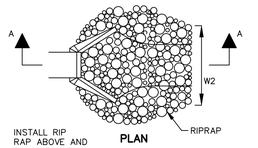
BOTTOM GRADE
THE APRON SHALL BE CONSTRUCTED WITH NO SLOPE ALONG ITS LENGTH (0.0% GRADE). THE INVERT ELEVATION OF THE DOWNSTREAM END OF THE APRON SHALL BE EQUAL TO THE ELEVATION OF THE INVERT OF THE RECEIVING CHANNEL. THERE SHALL BE NO OVERFALL AT THE END OF THE APRON.

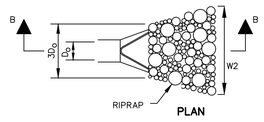
SIDE SLOPE
IF THE PIPE DISCHARGES INTO A WELL-DEFINED CHANNEL, THE SIDE SLOPES OF THE CHANNEL SHALL NOT BE STEEPER THAN 2:1.

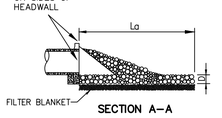
ALIGNMENT
THE APRON SHALL BE LOCATED SO THAT THERE ARE NO BENDS IN THE HORIZONTAL ALIGNMENT.

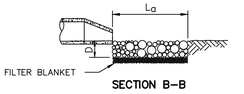
GEOTEXTILE
GEOTEXTILES SHOULD BE USED AS A SEPARATOR BETWEEN THE GRADED STONE, THE SOIL BASE, AND THE ABUTMENTS. THE GEOTEXTILES WILL PREVENT THE MIGRATION OF SOIL PARTICLES FROM THE SUBGRADE INTO THE GRADED STONE. THE GEOTEXTILE SHALL BE SPECIFIED ON ACCORDANCE WITH AASHTO M288-96 SECTION 7.5, PERMANENT EROSION CONTROL RECOMMENDATIONS. THE GEOTEXTILE SHOULD BE PLACED IMMEDIATELY ADJACENT TO THE SUBGRADE WITHOUT ANY VOIDS.

MATERIALS
THE APRON MAY BE LINED WITH RIPRAP, GROUTED RIPRAP, OR CONCRETE. THE MEDIAN SIZED STONE FOR RIPRAP, D50, SHALL BE DETERMINED FROM THE CURVES, FIGURE 6-24.1 AND 6-24.2, ACCORDING TO THE TAILWATER CONDITION. THE GRADATION, QUALITY AND PLACEMENT OF RIPRAP SHALL CONFORM TO APPENDIX C.









PIPE OUTLET TO WELL-DEFINED CHANNEL:

PIPE OUTLET TO FLAT AREA - NO WELL-DEFINED CHANNEL:

DESIGN SPECIFICATIONS TABLE

HW I.D.	D_s (IN.)	Q_{25} (CFS)	V (FPS)	Min Tailwater?	L_s (FT.)	W_1 (FT.)	W_2 (FT.)	d_{50} (IN.)	D (IN.)
A1	42"	64.40	8.71	YES	26	12.0	30.0	12	27.0
B1	18"	11.11	6.94	YES	12	4.5	12.0	6	13.5
C1	42"	85.90	10.31	YES	32	12.0	30.0	12	27.0
D1	24"	9.72	5.41	YES	12	6.0	13.5	9	13.5
E1	18"	1.18	3.05	YES	12	4.5	13.5	6	13.5

CONSTRUCTION SPECIFICATIONS:

1. ENSURE THAT THE SUBGRADE FOR THE FILTER AND RIPRAP FOLLOWS THE REQUIRED LINES AND GRADES SHOWN IN THE PLAN. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO THE DENSITY OF THE SURROUNDING UNDISTURBED MATERIAL. LOW AREAS IN THE SUBGRADE ON UNDISTURBED SOIL MAY ALSO BE FILLED BY INCREASING THE RIPRAP THICKNESS.
2. THE RIPRAP AND GRAVEL FILTER MUST CONFORM TO THE SPECIFIED GRADING LIMITS SHOWN ON THE PLANS.
3. GEOTEXTILE MUST MEET DESIGN REQUIREMENTS AND BE PROPERLY PROTECTED FROM PUNCHING OR TEARING DURING INSTALLATION. REPAIR ANY DAMAGE BY REMOVING THE RIPRAP AND PLACING ANOTHER PIECE OF FILTER FABRIC OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FT. IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER FABRIC.
4. RIPRAP MAY BE PLACED BY EQUIPMENT, BUT TAKE CARE TO AVOID DAMAGING THE FILTER.
5. THE MINIMUM THICKNESS OF THE RIPRAP SHOULD BE 1.5 TIMES THE MAXIMUM STONE DIAMETER.
6. CONSTRUCT THE APRON ON ZERO GRADE WITH NO OVERFALL AT THE END. MAKE THE TOP OF THE RIPRAP AT THE DOWNSTREAM END LEVEL WITH THE RECEIVING AREA OR SLIGHTLY BELOW IT.
7. ENSURE THAT THE APRON IS PROPERLY ALIGNED WITH THE RECEIVING STREAM AND PREFERABLY STRAIGHT THROUGHOUT ITS LENGTH. IF A CURVE IS NEEDED TO FIT SITE CONDITIONS, PLACE IT IN THE UPPER SECTION OF THE APRON.
8. IMMEDIATELY AFTER CONSTRUCTION, STABILIZE ALL DISTURBED AREAS WITH VEGETATION.
9. STONE QUALITY - SELECT STONE FOR RIPRAP FROM FIELD STONE OR QUARRY STONE. THE STONE SHOULD BE HARD, ANGULAR, AND HIGHLY WEATHER-RESISTANT. THE SPECIFIC GRAVITY OF THE INDIVIDUAL STONES SHOULD BE AT LEAST 2.5.
10. FILTER - INSTALL A FILTER TO PREVENT SOIL MOVEMENT THROUGH THE OPENINGS IN THE RIPRAP. THE FILTER SHOULD CONSIST OF A GRADED GRAVEL LAYER OR A SYNTHETIC FILTER CLOTH. SEE APPENDIX C; P. C-1.

MAINTENANCE:

INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

NOTES:

1. LENGTH (La) IS THE RIPRAP LENGTH (AS SHOWN IN THE CHART).
2. DEPTH (D) IS THE RIPRAP DEPTH (1.5 TIMES THE MAXIMUM STONE DIAMETER, OR AS SHOWN ON DRAWINGS BUT NOT LESS THAN 12").
3. INSTALL A 6" MINIMUM DEEP FILTER STONE BLANKET (#57 STONE) OR FILTER FABRIC (AASHTO M288-96 SECTION 7.5) BETWEEN RIPRAP AND SOIL FOUNDATION.
4. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH, OR TO THE TOP OF THE BANK, WHICHEVER IS LESS.
5. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.
6. FOR VELOCITIES UP TO 6.5 FPS, USE GDOT TYPE 3 WITH #57 FILTER BEDDING STONE.
7. FOR VELOCITIES OVER 6.5 FPS, CONSULT TABLE C-1.

TABLE C-1
GRADED RIP-RAP STONE

FLOW VELOCITY	N.S.A. NO.[1]	SIZE INCHES (SQ. OPENING)			FILTER STONE
(FT/SEC.)		MAX.	AVG.[2]	MIN.	N.S.A. NO.[1]
2.5	R-1	1 1/2	3/4	No. 8	FS-1
4.5	R-2	3	1 1/2	1	FS-1
6.5	R-3	6	3	2	FS-2
9.0	R-4	12	6	3	FS-2
11.5	R-5	18	9	5	FS-2
13.0	R-6	24	12	7	FS-3
14.5	R-7	30	15	12	FS-3

TABLE C-2
FILTER BEDDING STONE

N.S.A. NO.[1]	SIZE INCHES (SQ. OPENING)		
	MAX.	AVG.[2]	MIN.[3]
FS-1	3/8	#30 MESH	#100 MESH
FS-2	2	#4	#100 MESH
FS-3	6 1/2	2 1/2	#16

TABLE C-4
FILTER BEDDING STONE

G.D.O.T. NO.[4]	NOMINAL SIZE (INCHES)
3	2" - 1"
4	1 1/2" - 3/4"
5	1" - 1/2"
6	3/4" - 3/8"
57	1" - No. 4

TABLE C-3
GRADED RIP-RAP STONE

G.D.O.T. NO.[4]	SIZE INCHES (SQ. OPENING)			COMMON USES
	MAX.	AVG.[2]	MIN.[3]	
TYPE 3	12	9	5	CREEK BANKS, PIPE OUTLETS
TYPE 1	24	12	7	LAKES, SHORELINES, RIVERS

1. NATIONAL STONE ASSOCIATION
2. AT LEAST 50% OF THE INDIVIDUAL STONE PARTICLES MUST BE EQUAL OR LARGER THAN LISTED SIZE.
3. 85-100% OF THE INDIVIDUAL STONE PARTICLES MAYBE LESS THAN LISTED SIZE.
4. GEORGIA DEPARTMENT OF TRANSPORTATION

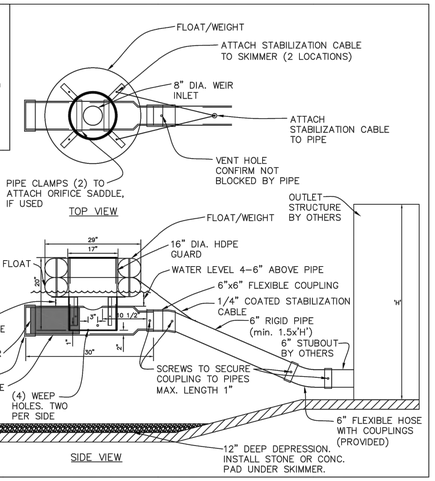
St STORM DRAIN OUTLET PROTECTION
NOT TO SCALE

STANDARD NOTES:

1. Rigid outlet pipe should be 1.5 to 2 times the height of outlet structure (H), (min. 8). If over 14' long weight may need to be added to skimmer.
2. Inlet Orifice size can be reduced with 5" and 6" saddles provided.
3. Minimal assembly required. User provides rigid outlet pipe. All other materials and parts included.
4. Total weight of skimmer ±116.0 lbs.

Water Depth	8" Skimmer with No Saddle		with 6" Orifice Saddle		with 5" Orifice Saddle	
Ft	cfs	cfd	cfs	cfd	cfs	cfd
0.1	0.4007	34,617	0.3062	26,453	0.1665	14,382
0.3	0.4695	40,566	0.3732	32,248	0.2257	19,503
0.5	0.5500	47,516	0.4550	39,314	0.3064	26,473
1.0	0.6440	55,641	0.5549	47,939	0.4156	35,906
1.5	0.7066	61,051	0.6228	53,812	0.4967	42,914
2.0	0.7545	65,190	0.6763	58,432	0.5638	48,710
2.5	0.7940	68,598	0.7209	62,283	0.6219	53,735
3.0	0.8276	71,505	0.7594	65,614	0.6738	58,220
3.5	0.8572	74,066	0.7935	68,559	0.7213	62,321
4.0	0.8838	76,357	0.8243	71,216	0.7648	66,076
Avg (0.5'-4')	0.7522	64,990	0.6759	58,396	0.5705	49,294

FLOW RATES BASED ON THIRD PARTY TESTING. FOR DESIGN PURPOSES ASSUME FLOW RATES REMAIN CONSTANT FOR DEPTHS GREATER THAN 4'.

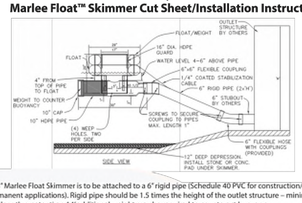


DEVELOPED BY RYMAR WATERWORKS INNOVATIONS, OR/10/18.
VALID UNTIL 12/31/18. CHECK WEBSITE FOR UPDATES.

MODEL 3 5" - 8" Marlee Float Skimmer Detail	RYMAR WATERWORKS INNOVATIONS	WEB PAGE WWW.RYMARWATERWORKS.COM	SCALE N.T.S.	PROPERTY LOCATION ----
		PHONE # 1-855-697-9333	DATE 08/15/18	County, State

RYMAR
WATERWORKS INNOVATIONS

Model #3 | 5", 6" & 8"
Marlee Float™ Skimmer Cut Sheet/Installation Instructions



1. Model 3: 5" - 8" Marlee Float Skimmer is to be attached to a 6" rigid pipe (Schedule 40 PVC for construction/temporary applications or HDPE for permanent applications). Rigid pipe should be 1.5 times the height of the outlet structure - minimum of 8'. For ponds requiring a pipe length greater than 14' additional weight may be required to counteract buoyancy.

2. 6" Rigid pipe to be attached to 6" pipe stubbed out of outlet structure or through dam. Flexible pipe with couplings to attach 6" rigid pipe to 6" PVC or HDPE stub out is provided. If stubout is material other than Schedule 40 PVC or HDPE an alternate coupling may be required.

3. When attaching rigid pipe to skimmer coupling make sure to leave at least 1" space in coupling between pipes to allow for sufficient flexibility.

4. Basin should have a 12" depression (skimmer pit) to effectively drain pond. It is preferable to line bottom of skimmer pit with stone, riprap or concrete. Water may remain in bottom of skimmer pit. It is recommended to slope basin at minimum 1% grade to skimmer pit.

5. Skimmer is shipped fully assembled. Top weight can be removed for ease of installation by removing wing nuts. Take care to replace rubber stoppers, washers and tighten wing nuts securely once installed. User attaches flexible couplings to rigid pipe and stubout from outlet structure. Securely tighten pipe clamps and install two screws (provided) through each connection to minimize twisting.

6. During installation take care to position skimmer in upright position with floats level. Also verify that vent hole in flexible coupling is rotated to top of pipe.

7. 5" and 6"Orifice saddle is provided to convert standard 8" orifice. Center hole in saddle over 8" hole and secure using two pipe clamps provided.

8. Install stabilization kit per separate instructions included with kit.

9. Add maintenance rope. Tie to skimmer and affix to outlet structure or post on bank. Insure sufficient rope so skimmer flotation is not restricted.

10. Flow rates are provided with details. Design engineer to select skimmer size as required to meet local requirements.
For technical support and/or assistance with installation, visit our website at www.rymarwaterworks.com or call 855.697.9333.

803 Roper Creek Drive Greenville, SC 29615
855.697.9333 www.rymarwaterworks.com info@rymarwaterworks.com

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
(404) 506-2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
BIN 10041
ATLANTA, GA 30308-3374
CONTACT: BRYAN HARRIS
(404) 506-4932

ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

GEORGIA REGISTERED 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark Van De Water

GEORGIA811 Utilities Protection Center, Inc.
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Dial 811 or Call 1-800-282-7411

AEC JOB # 18-4190.20

NO.	DATE	BY	REVISIONS
4.0	6/3/20	CJW	ADD DUMPSTER PAD AREA
3.0	4/14/20	CJW	MASTER SITE IMPROVEMENT SET
2.0	1/31/20	CJW	REV. SEWER TIE IN LOCATION
1.0	8/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

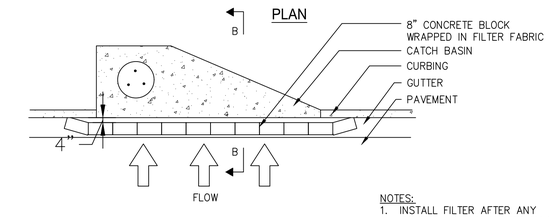
GPC NOAHS ARK OPERATING HEADQUARTERS

EROSION CONTROL DETAILS

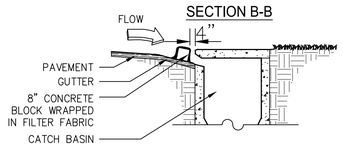
CLAYTON COUNTY, GEORGIA

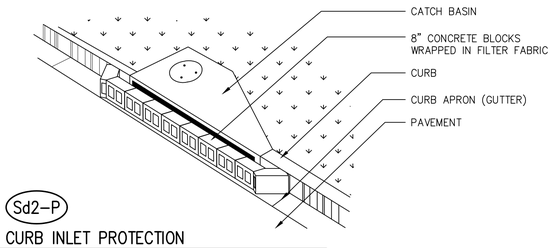
DR. MDA	TR.	CH'K CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 29 OF 30

CURB INLET FILTER "PIGS IN BLANKET"



NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENINGS IN BLOCKS OUTWARD.
4. LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.





Sd2-P

CURB INLET PROTECTION

NOT TO SCALE

DESIGN CRITERIA:

THROUGH TESTING THERE ARE TWO DIFFERENT CATEGORIES (HIGH RETENTION AND HIGH FLOW) SUPPORTED. IN AREAS WHERE BMPS ARE BEING USED ON PAVED SURFACES, OR SAFETY IS A CONCERN, THE POTENTIALLY NEGATIVE EFFECTS OF PONDING SHOULD BE TAKEN INTO ACCOUNT. IN SUCH CASES, A HIGH FLOW BMP IS PREFERRED.

ON UNPAVED AREAS WHERE PONDING WILL NOT CAUSE A SAFETY HAZARD, HIGH RETENTION SHALL BE TAKEN INTO ACCOUNT. IF HIGH RETENTION IS NOT USED IN THIS SITUATION A RATIONALE SHALL BE GIVEN ON THE PLAN AND AN UNPAVED APPLICATION SHOULD APPLY.

ON UNPAVED AREAS INLET SEDIMENT TRAPS SHALL MEET 90% SOIL RETENTION EFFICIENCY WITH A MINIMUM SEEPAGE EFFICIENCY OF 65%.

ON PAVED AREAS OR AREAS WHERE A SAFETY HAZARD IS A SEDIMENT TRAPS SHALL MEET 75% SOIL RETENTION EFFICIENCY WITH A MINIMUM SEEPAGE OF 85%.

SEDIMENT TRAPS MUST BE SELF-DRAINING UNLESS THEY ARE OTHERWISE PROTECTED IN AN APPROVED FASHION THAT WILL NOT PRESENT A SAFETY HAZARD. THE DRAINAGE AREA ENTERING THE INLET SEDIMENT TRAP SHALL BE NO GREATER THAN ONE ACRE.

IF RUNOFF MAY BYPASS THE PROTECTED INLET, A TEMPORARY DIKE SHOULD BE CONSTRUCTED ON THE DOWN SLOPE SIDE OF THE STRUCTURE. ALSO, A STONE FILTER RING MAY BE USED ON THE UP SLOPE SIDE OF THE INLET TO SLOW RUNOFF AND FILTER LARGER SOIL PARTICLES. REFER TO FR-STONE FILTER RING.

CONSTRUCTION SPECIFICATIONS:

AN EXCAVATION MAY BE CREATED AROUND THE INLET SEDIMENT TRAP TO PROVIDE ADDITIONAL SEDIMENT STORAGE. THE TRAP SHALL BE SIZED TO PROVIDE A MINIMUM STORAGE CAPACITY CALCULATED AT THE RATE OF 67 CUBIC YARDS PER ACRE OF DRAINAGE AREA. A MINIMUM DEPTH OF 1.5 FEET FOR SEDIMENT STORAGE SHOULD BE PROVIDED. SIDE SLOPES SHALL NOT BE STEEPER THAN 2:1.

SEDIMENT TRAPS MAY BE CONSTRUCTED ON NATURAL GROUND SURFACE, ON AN EXCAVATED SURFACE, OR ON MACHINE COMPACTED FILL, PROVIDED THEY HAVE A NON-ERODIBLE OUTLET.

FILTER FABRIC WITH SUPPORTING FRAME (Sd2-F)

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPE NO GREATER THAN 5%) AND SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREET OR HIGHWAY MEDIANS. SILT FENCE MATERIAL WITH WIRE REINFORCEMENT AND SUPPORTED BY STEEL POSTS SHOULD BE USED. THE STAKES SHALL BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET A MAXIMUM OF 3 FEET APART, AND SECURELY DRIVEN INTO THE GROUND, APPROXIMATELY 18 INCHES DEEP. THE FABRIC SHALL BE 36 INCHES TALL AND ENTRENCHED 12 INCHES AND BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL. FABRIC AND WIRE SHALL BE SECURELY FASTENED TO THE POSTS, AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18 INCHES OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER AROUND THE INLET.

MAINTENANCE:

THE TRAP SHALL BE INSPECTED DAILY AND AFTER EACH RAIN, AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE HEIGHT OF THE TRAP.

SEDIMENT SHALL BE REMOVED FROM CURB INLET PROTECTION IMMEDIATELY. FOR EXCAVATED INLET SEDIMENT TRAPS, SEDIMENT SHALL BE REMOVED WHEN ONE-HALF OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST TO SEDIMENT ACCUMULATION. SOD INLET PROTECTION SHALL BE MAINTAINED AS SPECIFIED IN DS4 – DISTURBED AREA STABILIZATION (WITH SODDING).

SEDIMENT SHALL NOT BE WASHED INTO THE INLET. IT SHALL BE REMOVED FROM THE SEDIMENT TRAP, DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLET AGAIN.

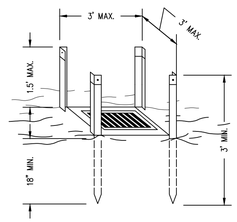
WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, ALL MATERIALS AND ANY SEDIMENT SHALL BE REMOVED, AND EITHER SALVAGED OR DISPOSED OF PROPERLY. THE DISTURBED AREA SHALL BE BROUGHT TO PROPER GRADE, THEN SMOOTHED AND COMPACTED. APPROPRIATELY STABILIZE ALL DISTURBED AREAS AROUND THE INLET.

Sd2 FILTER FABRIC WITH SUPPORTING FRAME

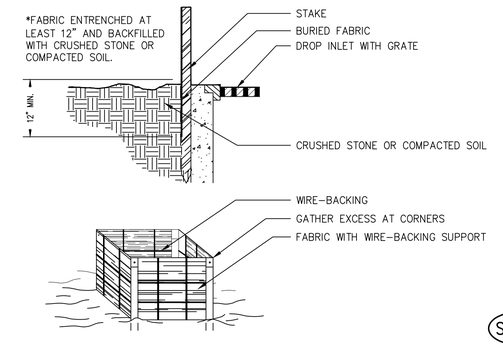
NOT TO SCALE

FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION

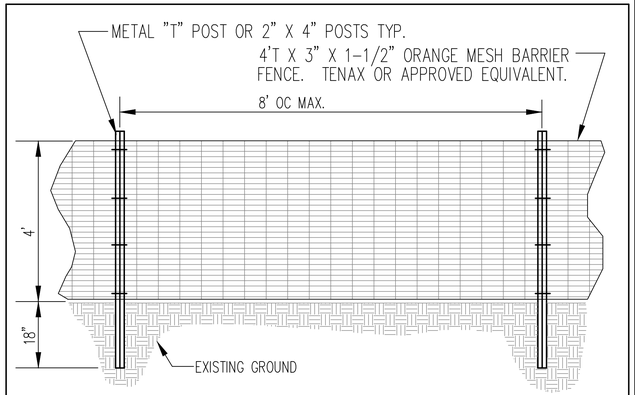
STEEL FRAME AND TYPE C SILT FENCE INSTALLATION



NOTES:
1. DESIGN IS FOR SLOPES NO GREATER THAN 5% (NOT DESIGNED FOR CONCENTRATED FLOWS).
2. THE STEEL POSTS SUPPORTING THE SILT FENCE MATERIAL SHOULD BE SPACED EVENLY AROUND THE PERIMETER OF THE INLET (MAXIMUM OF 3' APART).
3. THE STEEL POSTS SHOULD BE SECURELY DRIVEN AT LEAST 18" DEEP.
4. THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE OR COMPACTED SOIL.

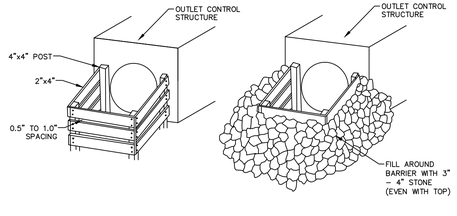


Sd2-F



ORANGE SAFETY FENCE

NOT TO SCALE



MAINTENANCE

RETROFIT STRUCTURES SHALL BE KEPT CLEAR OF TRASH AND DEBRIS. THIS WILL REQUIRE CONTINUOUS MONITORING AND MAINTENANCE, WHICH INCLUDES SEDIMENT REMOVAL WHEN ONE-THIRD OF THE SEDIMENT STORAGE CAPACITY HAS BEEN LOST. **STRUCTURES ARE TEMPORARY AND SHALL BE REMOVED WHEN DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.**

Rt SLOTTED BOARD DAM WITH STONE FILTER

NOT TO SCALE

CONDITIONS

THIS STANDARD APPLIES UNDER THE FOLLOWING CONDITIONS:
1. **SHALL NOT BE USED IN DETENTION BASINS ON LIVE STREAMS** OR IN BASINS WITH A TOTAL CONTRIBUTING DRAINAGE AREA OF 100 ACRES OR MORE.
2. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA IN THE PROJECT.
3. SHALL BE CONSIDERED A TEMPORARY STRUCTURE AND WILL BE REMOVED AS SOON AS PROJECT IS PERMANENTLY STABILIZED. ALL ACCUMULATED SEDIMENT SHALL BE REMOVED, AND THE POND SHALL BE BROUGHT TO FINAL GRADE (IF POSSIBLE), PRIOR TO THE REMOVAL OF THE RETROFIT.

DESIGN CRITERIA

1. THE HEIGHT OF THE RETROFIT SHOULD BE APPROXIMATELY ONE-HALF THE HEIGHT OF THE STORMWATER MANAGEMENT OUTLET STRUCTURE.
2. **THE POND MUST BE CAPABLE OF STORING THE REQUIRED VOLUME OF SEDIMENT IN ADDITION TO THE REQUIRED STORMWATER VOLUME.** THE REQUIRED SEDIMENT STORAGE VOLUME SHALL BE ACHIEVED BY EITHER EXCAVATING THE BASIN OR RAISING THE OUTLET STRUCTURE'S INVERT TO ACHIEVE 67 CUBIC YARDS PER ACRE OF SEDIMENT STORAGE. REMOVE SEDIMENT WHEN ONE-THIRD OF THE SEDIMENT STORAGE CAPACITY, NOT TOTAL POND CAPACITY, IS LOST TO SEDIMENT ACCUMULATION. THIS VOLUME SHALL BE MARKED ON THE RISER OR BY SETTING A MARKED POST NEAR THE RISER.
3. FOR EFFECTIVE TRAPPING EFFICIENCY, THE SEDIMENT DELIVERY INLETS SHOULD BE AT THE UPPER END OF THE BASIN.
4. FOR EFFECTIVE TRAPPING EFFICIENCY, THE LENGTH-WIDTH RATIO OF THE BASIN SHALL BE AT LEAST 2:1. IF THE LENGTH-WIDTH RATIO IS NOT AT LEAST 2:1, THE FLOW LENGTH SHALL BE INCREASED WITH THE USE OF BAFFLES INSTALLED WITHIN THE BASIN.

CONSTRUCTION SPECIFICATIONS

A. CAN BE USED IN DETENTION PONDS WITH DRAINAGE AREAS UP TO 100 ACRES.
B. CAN BE USED WITH OPEN END PIPE OUTLETS, WINGED HEADWALLS, OR CONCRETE WEIR OUTLETS.
C. SHOULD BE INSTALLED WITH MINIMUM SIZE 4 X 4 INCH POSTS.
D. BOARDS SHOULD HAVE 0.5-1.0 INCH SPACE BETWEEN THEM.
E. MINIMUM SIZE 3-4 INCH STONE FILTER SHALL BE INSTALLED AROUND THE UPSTREAM SIDE OF THE BOARD DAM.

ALL DISTURBED AREAS SHALL BE VEGETATED IMMEDIATELY AFTER CONSTRUCTION WITH PERMANENT VEGETATION. REFER TO **Ds3 AND Ds4 – DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) AND DISTURBED AREA STABILIZATION (WITH SODDING) AND Mb – MATTING AND BLANKETS.**

OWNER
GEORGIA POWER COMPANY
241 RALPH McGILL BOULEVARD NE
BIN 10221
ATLANTA, GA 30308
CONTACT: BURNS WETHERINGTON
(404) 506-2533

OPERATOR / 24 HOUR CONTACT
241 RALPH McGILL BOULEVARD NE
BIN 10041
ATLANTA, GA 30308-3374
CONTACT: BRYAN HARRIS
(404) 506-4932

ENGINEER
AEC, INC.
50 WARM SPRING CIRCLE
ROSWELL, GA 30075
CONTACT: MARK VAN DE WATER
(770) 641-1942
LEVEL II CERT. # 6960

REGISTERED GEORGIA 06/03/2020 No. 27118 PROFESSIONAL ENGINEER Mark Van De Water

GEORGIA811 Utilities Protection Center, Inc.
Know what's **below.** **Call** before you dig.
Dial 811 or Call 1-800-282-7411

NO.	DATE	BY	REVISIONS
4	06/3/20	CJW	ADD DUMPSTER PAD AREA
3	04/14/20	CJW	MASTER SITE IMPROVEMENT SET
2	01/31/20	CJW	REV. SEWER TIE IN LOCATION
1	08/13/19	MDV	REV. SEWER TIE IN LOCATION

APPROVALS

AEC JOB # 18-4190.20

GEORGIA POWER CO., ATLANTA, GA.
LAND DEPARTMENT

GPC NOAHS ARK OPERATING HEADQUARTERS

EROSION CONTROL DETAILS

CLAYTON COUNTY, GEORGIA

DR. MDA	TR.	CH'K CJW/MDV
SCALE		DATE 5/17/2019
DRAWING No.		SHEET No. 30 OF 30

M:\2018 JOBS\18-4190 GPC Noahs Ark OHQ\CIVIL\CONSTRUCTION SET\18-4190 GPC Noahs Ark OHQ C00.dwg, 6/2/2020 5:54:27 PM, kit, ARCH full bleed D (24.00 x 36.00 Inches), 1:1