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SAVANNAH / HILTON HEAD INTERNATIONAL AIRPORT

CONSTRUCTION PLANS FOR

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS



SAC PROJECT NO. - 30596 AECOM PROJECT NO. - 60611019 MARCH, 2021

BID DOCUMENTS

MARCH, 2021

DATE DESCRIPTION BY AUTH
MAR. 2021 BID DOCUMENTS APD RWP





Tel: 813.286.1711



PM: RWP	COLIT
DWG. BY: APD	SOUT
CHK. BY: SGH	DR/
DSG. BY: APD	עום ן
SCALE: AS NOTED	SHEET TITLE

PROJECT NO.

60611019

SOUTHEAST QUADRANT STORM
DRAINAGE IMPROVEMENTS
EET TITLE SHEET NO.

COVER SHEET

G1.00

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		SUMMARY OF QUANTITIES		
NUM.	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
1	P-101-5.1	PAVEMENT DEMOLITION (CONCRETE, ASPHALT)	1	LS
2	P-101-5.2	MISC DEMOLITION	1	LS
3	P-101-5.3	DRAINAGE DEMOLITION	1	LS
4	C-105-2.1	MOBILIZATION	1	LS
5	GDOT 104	MOT	1	LS
6	P-151-4.1	LIGHT CLEARING AND GRUBBING (FOR INDIVIDUAL TREES)	1	AC
7	P-151-4.2	HEAVY CLEARING AND GRUBBING	14.5	AC
8	P-152-4.1	EXCAVATION AND EMBANKMENT	222,359	CY
9	P-102-5.1	SEDIMENT BARRIER - NON-SENSITIVE AREAS (Sd1-NS)	10,500	LF
10	P-102-5.2	SEDIMENT BARRIER - SENSITIVE AREAS (Sd1-S)	9,000	LF
11	P-102-5.3	INLET SEDIMENT TRAP - FILTER FABRIC WITH SUPPORTING FRAME (Sd2-F)	17	EA
12	P-102-5.4	ROCK FILETER DAM (Rd)	350	LF
13	P-102-5.5	CONSTRUCTION EXIT (Co)	3	EA
14	P-102-5.6	DISTURBED AREA STABILIZATION WITH MULCHING ONLY (Ds1)	113,000	SY
15	P-102-5.7	DUST CONTROL ON DISTURBED AREAS (Du)	113,000	SY
16	P-102-5.8	STORM DRAIN OUTLET PROTECTION (St)	93	TNS
17	P-102-5.9	FLOATING SURFACE SKIMMER (Sk)	2	EA
	1000-1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1,000	SY
18		G.A.N.G. FITNESS TRACK MODIFICATIONS		
19	1000-2	OPENCUT PAVEMENT REPLACEMENT AREA 1	1	LS
20	1000-3	OPENCUT PAVEMENT REPLACEMENT AREA 2	1	LS
21	1000-4	OPENCUT PAVEMENT REPLACEMENT AREA 3	1	LS
22	1000-5	OPENCUT PAVEMENT REPLACEMENT AREA 4	1	LS
23	1000-6	OPENCUT PAVEMENT REPLACEMENT AREA 5	1	LS
24	1000-7	OPENCUT PAVEMENT REPLACEMENT AREA 6	1	LS
25	1000-8	OPENCUT PAVEMENT REPLACEMENT AREA 7	1	LS
26	1000-9	OPENCUT PAVEMENT REPLACEMENT AREA 8	1	LS
27	1000-10	OPENCUT PAVEMENT REPLACEMENT AREA 9	1	LS
28	F-162-5.1	8' TYPE E GALVANIZED CHAIN LINK FENCE WITH GALVANIZED POSTS, NO. 7 GAUGE TOP AND BOTTOM TENSION WIRE, AND 3 STRANDS OF GALVANIZED BARBED WIRE ON TYPE 1 EXTENSION ARMS, INSTALLED IN TURF OR PAVEMENT	4,650	LF
29	F-162-5.2	6' TYPE E GALVANIZED CHAIN LINK FENCE WITH GALVANIZED POSTS, NO. 7 GAUGE TOP AND BOTTOM TENSION WIRE, AND 3 STRANDS OF GALVANIZED BARBED WIRE ON TYPE 1 EXTENSION ARMS, INSTALLED IN TURF OR PAVEMENT	400	LF
30	F-162-5.3	REMOVAL OF EXISTING CHAIN LINK FENCE WITH BARBED WIRE	3,985	LF
31	F-162-5.4	TEMPORARY CHAIN-LINK FENCE, 6' HIGH WITH 3 STRANDS BARBED WIRE	4,600	LF
32	F-162-5.5	RE-INSTALL A.O.A. 6' HIGH WITH 3 STRANDS BARBED WIRE 16' SWING GATE @ BOB HARMON RD. AND CORPORATE RD.	1	EA
33	F-162-5,6	G.A.N.G. 8' TYPE E GALVANIZED CHAIN LINK FENCE WITH GALVANIZED POSTS, NO. 7 GAUGE TOP AND BOTTOM TENSION WIRE, AND 3 STRANDS OF GALVANIZED BARBED WIRE ON TYPE 1 EXTENSION ARMS, INSTALLED IN TURF OR PAVEMENT - WITH DEADMAN ANCHORS AND CABLE REINFORCEMENT	190	LF
34	F-162-5.7	G.A.N.G. NEW 16' SWING GATE, DOUBLE LEAF, WITH DEADMAN ANCHORS AND CABLE REINFORCEMENT	1	EA
35	F-162-5.8	NEW RESTRICTED AREA SIGNS FOR NEW FENCE	15	EA
36	D-701-5.1	15" RCP, CLASS III	8	LF
37	D-701-5.2	18" RCP, CLASS III	96	LF
38	D-701-5.3	24" RCP, CLASS III	226	LF
39	D-701-5.4	30" RCP, CLASS III	396	LF
40	D-701-5.5	36" RCP, CLASS III	16	LF
41	D-701-5.6	42" RCP, CLASS III	8	LF
42	D-701-5.7	48" RCP, CLASS III	2,916	LF
43	D-701-5.8	54" RCP, CLASS III	480	LF
44	D-701-5.9	60" RCP, CLASS III	1,268	LF
45	D-701-5.10	14" X 23" ERCP, CLASS IV	56	LF
	D-701-5.11	38" X 60" ERCP, CLASS IV	1,360	LF

NUM.	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT
47	D-701-5.12	CONCRETE COLLAR PIPE CONNECTION, 15" RCP, CLASS III	1	EA
48	D-701-5.13	CONCRETE COLLAR PIPE CONNECTION, 18" RCP, CLASS III	1	EA
49	D-701-5.14	CONCRETE COLLAR PIPE CONNECTION, 24" RCP, CLASS III	2	EA
50	D-701-5.15	CONCRETE COLLAR PIPE CONNECTION, 36" RCP, CLASS III	2	EA
51	D-701-5.16	CONCRETE COLLAR PIPE CONNECTION, 42" RCP, CLASS III	1	EA
52	D-701-5.17	CONCRETE COLLAR PIPE CONNECTION, 48" RCP, CLASS III	2	EA
53	D-751-5.1	STRUCTURE SD01	1	EA
54	D-751-5.1A	STRUCTURE SD01A (INCLUDING SECURITY BAR GRATES)	1	EA
55	D-751-5.2	STRUCTURE SD02A	1	EA.
56	D-751-5.2A	STRUCTURE SD02C (INLCUDING SECURITY BAR GRATES)	1	EA
57	D-751-5.3	STRUCTURE SD02B	1	EA.
58	D-751-5.3A	STRUCTURE SD02D (INCLUDING SECURITY BAR GRATES)	1	EA
59	D-751-5.4	STRUCTURE SD03	1	EA.
60	D-751-5.5	STRUCTURE SD04	1	EA.
61	D-751-5.6	STRUCTURE SD10	1	EA.
62	D-751-5.7	STRUCTURE SD11	1	EA.
63	D-751-5.8	STRUCTURE SD12	1	EA.
64	D-751-5.9	STRUCTURE SD12A	1	EA.
65	D-751-5.10	STRUCTURE SD13	1	EA.
66	D-751-5.11	STRUCTURE SD14	1	EA.
67	D-751-5.12	STRUCTURE SD15	1	EA.
68	D-751-5.13	STRUCTURE SD16	1	EA.
69	D-751-5.14	STRUCTURE SD17	1	EA.
70	D-751-5.15	STRUCTURE SD18	1	EA.
71	D-751-5.16	STRUCTURE SD19	1	EA.
72	D-751-5.17	STRUCTURE SD20	1	EA.
73	D-751-5.18	STRUCTURE SD21	1	EA.
74	D-751-5.19	STRUCTURE SD22	1	EA.
75	D-751-5.20	STRUCTURE SD23	1	EA.
76	D-751-5.21	STRUCTURE SD23A	1	EA.
77	D-751-5.22	STRUCTURE SD24	1	EA.
78	D-751-5.23	STRUCTURE SD25	1	EA.
79	D-751-5.24	STRUCTURE SD25A	1	EA.
80	D-751-5.25	STRUCTURE SD25B	1	EA.
81	D-751-5.26	STRUCTURE SD26	1	EA.
82	D-751-5.27	STRUCTURE SD27	1	EA.
83	D-751-5.28	STRUCTURE SD28	1 1	EA.
	D-751-5.29	STRUCTURE SD29 STRUCTURE SD31	1	
85	D-751-5.30 D-751-5.31		1	EA.
86	D-751-5.31 D-751-5.32	STRUCTURE SD32 STRUCTURE SD34	1	
87				EA.
88	D-751-5.33	STRUCTURE SD35	1	EA.
89 90	D-751-5.34	STRUCTURE SD35A STRUCTURE SD36	1	EA.
90	D-751-5.35 D-751-5.36	STRUCTURE SD37	1 1	EA.
92	D-751-5.37	STRUCTURE SD40	1 1	EA.
93	D-751-5.38	STRUCTURE SD40A STRUCTURE SD41	1	EA.
94	D-751-5.39			EA.
95	D-751-5.40	STRUCTURE SD42	1	EA.
96	D-751-5.41	STRUCTURE SD43		EA.
97	D-751-5.42	STRUCTURE SD44	1	EA.
98	D-751-5.43	STRUCTURE SD45	1	EA.
99	D-751-5.44	STRUCTURE SD50	1	EA.
100	D-751-5.45	STRUCTURE SD51	1 4 400	EA.
101	D-751-5.46	FABRIFORM REVETMENT	4,400	SY
102	T-901-5.1	HYDROSEEDING	10	AC
103	T-904-5.1	BERMUDA SODDING	63,000	SY

SUMMARY OF QUANTITIES					
NUM.	ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	
104	SUC-1	UTILITY CROSSING 2 - 8" WATER	1	EA	
105	SUC-2	UTILITY CROSSING 3 - 8" WATER	1	EA	
106	SUC-3	UTILITY CROSSING 5 - 8" SANITARY	1	EA	
107	SUC-4	UTILITY CROSSING 6 - 8" SANITARY	1	EA	
108	SUC-5	UTILITY CROSSING 7 - 8" SANITARY	1	EA	
109	SUC-6	UTILITY CROSSING 8 - 8" WATER	1	EA	
110	SUC-7	UTILITY CROSSING 9 - 8" WATER	1	EA	
111	SUC-8	UTILITY CROSSING 11 - 8" WATER	1	EA	
112	SUC-9	UTILITY CROSSING 12 - 8" WATER	1	EA	
113	SUC-10	UTILITY CROSSING 14 - 24" WATER (RELOCATION)	1	EA	
114	SUC-11	UTILITY CROSSING 16 - 8" WATER	1	EA	
115	SUC-12	UTILITY CROSSING 17 - 8" WATER	1	EA	
116	SUC-13	UTILITY CROSSING 18 - 8" WATER	1	EA	
117	SUC-14	UTILITY CROSSING 25 - 6" WATER	1	EA	
118	SUC-15	UTILITY CROSSING 26 - 6" SANITARY FM	1	EA	
119	SUC-16	UTILITY CROSSING 30 - 30" WATER (RELOCATION)	1	EA	
120	SUC-17	UTILITY CROSSING 33 - 8" WATER	1	EA	
121	SUC-18	UTILITY CROSSING 34 - 8" WATER	1	EA	
122	SUC-19	UTILITY CROSSING 41 - 20" SANITARY FM	1	EA	
123	SUC-20	UTILITY CROSSING 42 - 20" SANITARY FM	1	EA	
124	DUC-1	UTILITY CROSSING 1 - UC	1	EA	
125	DUC-2	UTILITY CROSSING 4 - UC	1	EA	
126	DUC-3	UTILITY CROSSING 10 - UC	1	EA	
127	DUC-4	UTILITY CROSSING 13 - UC	1	EA	
128	DUC-5	UTILITY CROSSING 15 - UKN	1	EA	
129	DUC-6	UTILITY CROSSING 19 - GAS	1	EA	
130	DUC-7	UTILITY CROSSING 20 - UC	1	EA	
131	DUC-8	UTILITY CROSSING 21 - UC	1	EA	
132	DUC-9	UTILITY CROSSING 22 - GAS	1	EA	
133	DUC-10	UTILITY CROSSING 23 - UC	1	EA	
134	DUC-11	UTILITY CROSSING 24 - UC	1	EA	
135	DUC-12	UTILITY CROSSING 27 - UKN	1	EA	
136	DUC-13	UTILITY CROSSING 28 - UE	1	EA	
137	DUC-14	UTILITY CROSSING 29 - UC	1	EA	
138	DUC-15	UTILITY CROSSING 31 - GAS	1	EA	
139	DUC-16	UTILITY CROSSING 32 - UE	1	EA	
140	DUC-17	UTILITY CROSSING 35 - UC	1	EA	
141	DUC-18	UTILITY CROSSING 36 - UC	1	EA	
142	DUC-19	UTILITY CROSSING 37 - UC	1	EA	
143	DUC-20	UTILITY CROSSING 38 - UE	1	EA	
144	DUC-21	UTILITY CROSSING 39 - UC	1	EA	
145	DUC-22	POWER POLE RELOCATION	7	EA	
146	A-1	GATE SECURITY GUARD ALLOWANCE	1	AL	

NOTES:

THE DESIGN DRAWINGS REFLECT INSTALLATION OF RCP.
HDPE N-12 PIPE WITH PROPER BEDDING MAY BE USED AT
THE CONTRACTOR'S OPTION FOR ROUND PIPE IN ALL AREAS
EXCLUDING UNDER DAVIDSON DRIVE.

DATE	DESCRIPTION	BY	AUTH	Γ
MAR. 2021	BID DOCUMENTS	APD	RWP	
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AECOM Technical Services, Inc. 7650 W. Courtney Campbell Causeway Tampa, FL 33607-1462 Tel: 813.286.1711 Savannah 400 Airways Avenue Savannah, Georgia 31408

	PM:	RWP
VANNAH	DWG. BY:	APD
TON HEAD	CHK. BY:	RWP
	DSG. BY:	APD
KNATTONAL	SCALE:	AS NOTE
n / Hilton Head International Airport	PROJECT	NO.
400 Airways Avenue	60	0611019

	RWP	
BY:	APD	
BY:	RWP	
BY:	APD	
:	AS NOTED	SHEE

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

ET TITLE

SUMMARY OF PROJECT QUANTITIES

SHEET NO. G1.01

1		2		3	4		5		
				INDEX OF DRAWING	<u>3S</u>				
	G1.00	COVER SHEET	C4.30 [DRAINAGE STRUCTURE AND PIPE DATA SCHEDULE (1)	C5.81	EROSION AND SEDIMENT CONTROL	DETAILS (1)	SUPPLEMENTAL DRAWINGS	
	G1.01	SUMMARY OF PROJECT QUANTITIES	C4.31	DRAINAGE STRUCTURE AND PIPE DATA SCHEDULE (2)	C5.82	EROSION AND SEDIMENT CONTROL	DETAILS (2)	0.104	0.110.110.1
	G1.02	INDEX OF DRAWINGS		DRAINAGE STRUCTURE AND PIPE DATA SCHEDULE (3)	C5.83	EROSION AND SEDIMENT CONTROL	` '	SV.01 SUPPLEMENTAL S SV.02 SUPPLEMENTAL S	
	G1.03	GENERAL CONTRACT NOTES AND SAFETY AND		DRAINAGE STRUCTURE AND PIPE DATA SCHEDULE (4)	C5.84	EROSION AND SEDIMENT CONTROL	` '	SV.03 SUPPLEMENTAL S	
		SECURITY REQUIREMENTS	C4.34 [DRAINAGE STRUCTURE AND PIPE DATA SCHEDULE (5)	C5.85	EROSION AND SEDIMENT CONTROL	DETAILS (5)	SV.04 SUPPLEMENTAL S	
	G1.04	CONTRACT LAYOUT PLAN	C4.35 N	MANHOLE OR INLET PIPE DETAIL (1)	C6.01	FENCING PLAN (1)		SV.05 SUPPLEMENTAL S	
	G2.01	OVERALL PHASING PLAN AND NOTES		MANHOLE OR INLET PIPE DETAIL (2)	C6.02	FENCING PLAN (2)		SV.06 SUPPLEMENTAL S SV.07 SUPPLEMENTAL S	
D	G2.02	PHASING PLAN (1)	C4.37 N	MANHOLE OR INLET PIPE DETAIL (3)	C6.03	FENCING PLAN (3)		SV.08 SUPPLEMENTAL S	
	G2.03	PHASING PLAN (2)	C4.38 N	MANHOLE OR INLET PIPE DETAIL (4)	C6.04	FENCING PLAN (4)		SV.09 SUPPLEMENTAL S	
	G3.01	SAFETY DETAILS	04.44	DDAINIAGE DETAILS (1)	C6.05	FENCING DETAILS A.O.A. (1)		SV.10 SUPPLEMENTAL S	
				DRAINAGE DETAILS (1) DRAINAGE DETAILS (2)	C6.06 C6.07	FENCING DETAILS A.O.A. (2) FENCING DETAILS A.O.A. (3)		SV.11 SUPPLEMENTAL S	SURVET
	G4.01	HORIZONTAL AND VERTICAL CONTROL PLAN	O+.+2 L	MAINAGE BETAILS (2)	C6.07	FENCING DETAILS A.U.A. (3) FENCING DETAILS G.A.N.G. UFC (1)			
	G4.02	HORIZONTAL AND VERTICAL CONTROL DATA TABLES		STORM DRAIN MANHOLE WITH WEIR STRUCTURE SD10	C6.09	FENCING DETAILS G.A.N.G. UFC (2)			
	G5.01	WASTE MATERIAL LOCATION PLAN		STORM DRAIN MANHOLE WITH WEIR STRUCTURE SD25	C6.10	FENCING DETAILS G.A.N.G. UFC (3)			
			04.47	STORM DRAIN MANHOLE WITH WEIR STRUCTURE SD27	C6.11	FENCING DETAILS G.A.N.G. UFC (4)			
	C1.01	NEW STORM DRAIN POND NO. 2 WETLAND IDENTIFICATION PLAN	C4.51 S	STORM DRAIN CONTROL STRUCTURE SD01		FENCING DETAILS G.A.N.G. UFC (5)			
-	C1.02 C1.03	TREE CLEARING — DEMOLITION PLAN (1) TREE CLEARING — DEMOLITION PLAN (2)	C4.52 S	STORM DRAIN CONTROL STRUCTURE SD02A & SD02B	C6.13	FENCING DETAILS GANG LIFE (7)			
	C1.04	TEMPORARY FENCING PLAN (1)	C5.00 ER	ROSION AND SEDIMENT CONTROL CHECKLIST	C6.14 C6.15	FENCING DETAILS G.A.N.G. UFC (7) FENCING DETAILS G.A.N.G. UFC (8)			
	C1.05	TEMPORARY FENCING PLAN (2)		ROSION AND SEDIMENT CONTROL CHECKLIST	00.10	TENONIO DETAILS C.A.IV.C. OF C.			
1		· ·		ROSION AND SEDIMENT CONTROL NOTES (1)	C7.01	EXISTING UTILITIES & RELOCATION			
1	C1.21	TYPICAL SECTIONS AND PAVEMENT REPLACEMENT DETAILS (1)		ROSION AND SEDIMENT CONTROL NOTES (3)	C7.02	EXISTING UTILITIES & RELOCATION			
1	C1.22	CONCRETE PAYING DETAILS (1)		ROSION AND SEDIMENT CONTROL NOTES (4)	C7.03 C7.04	EXISTING UTILITIES & RELOCATION EXISTING UTILITIES & RELOCATION			
1	C1.23 C1.24	CONCRETE PAVING DETAILS (2) CONCRETE PAVING DETAILS (3)		OILS SERIES DELINEATION PLAN AMPLING PLAN	C7.05	EXISTING UTILITIES & RELOCATION			
1	01.24	SOMETICE I AVINO DETAILS (S)		AMPLING PLAN XISTING DRAINAGE BASINS	C7.06	EXISTING UTILITIES & RELOCATION			
	C2.00	EXISTING CONDITIONS & DEMOLITION KEY PLAN		ROPOSED DRAINAGE BASINS	C7.07 C7.08	EXISTING UTILITIES & RELOCATION EXISTING UTILITIES & RELOCATION			
C	C2.01	EXISTING CONDITIONS & DEMOLITION NOTES		ROSION AND SEDIMENT CONTROL KEY PLAN &	C7.09	EXISTING UTILITIES & RELOCATION			
	C2.11	EXISTING CONDITIONS & DEMOLITION PLAN (1)	N(OTES	C7.10	EXISTING UTILITIES & RELOCATION			
	C2.11	1.1	C5.21 F/	ROSION CONTROL PLAN INITIAL PHASE (1)	C7.11	EXISTING UTILITIES & RELOCATION	PLAN		
	C2.13	EXISTING CONDITIONS & DEMOLITION PLAN (3)		ROSION CONTROL PLAN INITIAL PHASE (2)	C7.12	UTILITY PROFILES (1) UTILITY PROFILES (2)			
	C2.14	EXISTING CONDITIONS & DEMOLITION PLAN (4)	C5.23 EF	ROSION CONTROL PLAN INITIAL PHASE (3)	C7.13 C7.14	UTILITY PROFILES (2)			
	C2.15	EXISTING CONDITIONS & DEMOLITION PLAN (5)		ROSION CONTROL PLAN INITIAL PHASE (4)	C7.15	UTILITY DETAILS			
	C2.16	· /		ROSION CONTROL PLAN INITIAL PHASE (5)					
	C2.17 C2.18	EXISTING CONDITIONS & DEMOLITION PLAN (7) EXISTING CONDITIONS & DEMOLITION PLAN (8)		ROSION CONTROL PLAN INITIAL PHASE (6) ROSION CONTROL PLAN INITIAL PHASE (7)	X1.00	MASTER CROSS SECTION PLAN	TIONIC (1)		
	C2.19	EXISTING CONDITIONS & DEMOLITION PLAN (9)		ROSION CONTROL PLAN INITIAL PHASE (8)	X1.01 X1.02	G.A.N.G. POND NO. 1 CROSS SECTION. G.A.N.G. POND NO. 1 CROSS SECTION.	` '		
	C2.20	EXISTING CONDITIONS & DEMOLITION PLAN (10)		ROSION CONTROL PLAN INITIAL PHASE (9)	X1.02 X1.03	G.A.N.G. POND NO. 1 CROSS SEC	` '		
	C2.21	EXISTING CONDITIONS & DEMOLITION PLAN (11)		ROSION CONTROL PLAN INITIAL PHASE (10)	X1.04	G.A.N.G. POND NO. 1 CROSS SECT			
	C3.00	NEW STORM SEWER PLAN & PROFILE KEY PLAN	C5.31 ER	ROSION CONTROL PLAN INITIAL PHASE (11)	X1.05	G.A.N.G. POND NO. 1 CROSS SEC	()		
	C3.00	NEW STORM SEWER PLAN & PROFILE PLAN (1) SD10 TO SD15) C5.41 FI	ROSION CONTROL PLAN INTERMEDIATE PHASE (1)	X1.06	G.A.N.G. POND NO. 1 CROSS SEC	` '		
	C3.02	NEW STORM SEWER PLAN & PROFILE PLAN (2) SD15 TO SD22		ROSION CONTROL PLAN INTERMEDIATE PHASE (2)	X1.07 X1.08	G.A.N.G. POND NO. 1 CROSS SEC	• •		
	C3.03	NEW STORM SEWER PLAN & PROFILE PLAN (3) SD22 TO SD25		ROSION CONTROL PLAN INTERMEDIATE PHASE (3)	X1.00	G.A.N.G. POND NO. 1 CROSS SEC	10113 (0)		
	C3.04	NEW STORM SEWER PLAN & PROFILE PLAN (4) SD25 TO SD29		ROSION CONTROL PLAN INTERMEDIATE PHASE (4)	X2.01	WET DETENTION POND NO. 2 CRO	SS SECTIONS (1)		
	C3.05	NEW STORM SEWER PLAN & PROFILE PLAN (5) SD03 TO SD04		ROSION CONTROL PLAN INTERMEDIATE PHASE (5)	X2.02	WET DETENTION POND NO. 2 CRO	SS SECTIONS (2)		
В	C3.06 C3.07	NEW STORM SEWER PLAN & PROFILE PLAN (6) SD45 TO SD42 NEW STORM SEWER PLAN & PROFILE PLAN (7) SD42 TO SD40	00.10 2.	ROSION CONTROL PLAN INTERMEDIATE PHASE (6)	X2.03	WET DETENTION POND NO. 2 CRO	• • •		
	C3.07	NEW STORM SEWER FEAT & FROMEE FEAT (1) 3042 TO 3040		ROSION CONTROL PLAN INTERMEDIATE PHASE (7) ROSION CONTROL PLAN INTERMEDIATE PHASE (8)	X2.04	WET DETENTION POND NO. 2 CRO	` '		
	C4.00	GRADING AND DRAINAGE KEY PLAN		ROSION CONTROL PLAN INTERMEDIATE PHASE (9)	X2.05 X2.06	WET DETENTION POND NO. 2 CROS WET DETENTION POND NO. 2 CROS	` '		
	C4.01	GRADING AND DRAINAGE NOTES		ROSION CONTROL PLAN INTERMEDIATE PHASE (10)	X2.00 X2.07	WET DETENTION FOND NO. 2 CROS	, , ,		
	C4.02	GEOMETRIC CONTROL — G.A.N.G. FITNESS TRACK & WET DET. POND NO. 1	C5.51 ER	ROSION CONTROL PLAN INTERMEDIATE PHASE (11)	X2.08	WET DETENTION POND NO. 2 CRO	• •		
1	C4.03	GEOMETRIC CONTROL — WET DETENTION POND NO. 2	25.5	DOGICH CONTROL DIVING THE THE THE TANK	X2.09	WET DETENTION POND NO. 2 CRO	SS SECTIONS (9)		
1	C4.04	GEOMETRIC CONTROL - PROJECT ALIGNMENTS (1)		ROSION CONTROL PLAN FINAL PHASE (1) ROSION CONTROL PLAN FINAL PHASE (2)	X2.10	WET DETENTION POND NO. 2 CRO	` '		
1	C4.05	GEOMETRIC CONTROL – PROJECT ALIGNMENTS (2)		ROSION CONTROL PLAN FINAL PHASE (2) ROSION CONTROL PLAN FINAL PHASE (3)	X2.11	WET DETENTION POND NO. 2 CRO	` '		
1	C4.06 C4.07	GEOMETRIC CONTROL — PROJECT ALIGNMENTS (3) GEOMETRIC CONTROL — PROJECT ALIGNMENTS (4)		ROSION CONTROL PLAN FINAL PHASE (4)	X2.12 X2.13	WET DETENTION POND NO. 2 CROS WET DETENTION POND NO. 2 CROS	` '		
7	04.07	SESMETTIO CONTINUE - FILOUROT ALIGNMENTS (4)		ROSION CONTROL PLAN FINAL PHASE (5)	X2.13 X2.14	WET DETENTION FOND NO. 2 CROS	` ,		
1	C4.11	GRADING AND DRAINAGE PLAN (1)		ROSION CONTROL PLAN FINAL PHASE (6)	X2.15	WET DETENTION POND NO. 2 CROS	` '		
1	C4.12	GRADING AND DRAINAGE PLAN (2)		ROSION CONTROL PLAN FINAL PHASE (7)	X2.16	WET DETENTION POND NO. 2 CRO	SS SECTIONS (16)		
1	C4.13	GRADING AND DRAINAGE PLAN (3)		ROSION CONTROL PLAN FINAL PHASE (8) ROSION CONTROL PLAN FINAL PHASE (9)	X2.17	WET DETENTION POND NO. 2 CRO	` '		
1	C4.14	GRADING AND DRAINAGE PLAN (4)		ROSION CONTROL PLAN FINAL PHASE (9) ROSION CONTROL PLAN FINAL PHASE (10)	X2.18	WET DETENTION POND NO. 2 CRO	` '		
1	C4.15 C4.16	GRADING AND DRAINAGE PLAN (5) GRADING AND DRAINAGE PLAN (6)		ROSION CONTROL PLAN FINAL PHASE (11)	X2.19 X2.20	WET DETENTION POND NO. 2 CROS WET DETENTION POND NO. 2 CROS	` '		
1	C4.17	GRADING AND DRAINAGE PLAN (7)		` '	X2.20 X2.21	WET DETENTION FOND NO. 2 CROS	` '		
	C4.18	GRADING AND DRAINAGE PLAN (8)			X2.22	WET DETENTION POND NO. 2 CRO	` '		
A	C4.19	GRADING AND DRAINAGE PLAN (9)			X2.23	WET DETENTION POND NO. 2 CRO	SS SECTIONS (23)		
`` 	C4.20	GRADING AND DRAINAGE PLAN (10)							
1	C4.21	GRADING AND DRAINAGE PLAN (11)				T -	•		
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- ALL CONTRACTOR VEHICLES THAT ARE REQUIRED TO CROSS ACTIVE RUNWAYS AND TAXIWAYS OR RUNWAY PROTECTION ZONES SHALL DO SO UNDER THE DIRECT CONTROL OF A FLAGMAN WHO IS IN DIRECT (TWO-WAY) RADIO COMMUNICATION WITH THE GROUND CONTROLLER OF THE AIR TRAFFIC CONTROL TOWER, ON GROUND CONTROL FREQUENCY 121.9. THE FLAGMAN AND RADIO OPERATOR SHALL BE TRAINED AND INSTRUCTED BY THE AIRPORT MANAGEMENT IN THE REGULATIONS GOVERNING OPERATIONS ON THE AOA. THE FLAG AND RADIO OPERATOR SHALL REMAIN WITH HIS VEHICLE AT ALL TIMES, FLAGMAN AND TWO-WAY RADIO SHALL BE FURNISHED BY THE CONTRACTOR. CONTRACTOR VEHICLES THAT ARE REQUIRED TO CROSS ACTIVE TAXIWAYS OR APRONS CAN DO SO UNDER THE DIRECT CONTROL OF A FLAGMAN (WITHOUT RADIO CONTROL) WHO IS TRAINED AND INSTRUCTED BY THE AIRPORT MANAGEMENT IN REGULATIONS GOVERNING OPERATIONS ON THE AOA. ALL AIRCRAFT TRAFFIC ON RUNWAYS, TAXIWAYS AND APRONS SHALL HAVE PRIORITY OVER CONTRACTOR'S TRAFFIC.
- NO RUNWAY, TAXIWAY, APRON OR AIRPORT ROADWAY SHALL BE CLOSED WITHOUT WRITTEN APPROVAL OF THE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT OPERATIONS TRANSMITTED BY THE RESIDENT ENGINEER, TO ENABLE NECESSARY "NOTICES TO AIRMEN" (NOTAM) OR ADVISORIES TO AIRPORT SERVICE OR TENANTS. A MINIMUM OF 48 HOURS NOTICE OF REQUESTED CLOSING SHALL BE DIRECTED TO THE RESIDENT ENGINEER, WHO WILL COORDINATE THE REQUEST WITH SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT
- ANY CONSTRUCTION ACTIVITY WITHIN 200' OF AN ACTIVE RUNWAY EDGE OR 100' FROM AN ACTIVE TAXIWAY EDGE OR OPEN EXCAVATIONS IN EXCESS OF 3-INCHES DEEP WITHIN THE ABOVE AREAS, WILL REQUIRE CLOSURE OF THE AFFECTED RUNWAY OR UNLESS OTHERWISE APPROVED BY SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT OPERATIONS. CLOSURE REQUIRES THE SAME PROVISIONS AS PARAGRAPH 4 ABOVE.
- PROHIBITED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS HAVE BEEN TAKEN AND THE PROCEDURE APPROVED BY THE COUNTY. THE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT. AND THE AIRPORT FIRE DEPARTMENT
- STOCKPILE MATERIAL SHOULD BE CONSTRAINED IN A MANNER TO PRECLUDE MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS.
- OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL LOCATED IN THE AGA SHALL BE PROMINENTLY MARKED WITH FLAGS AND LIGHTED BY APPROVED LIGHT UNITS DURING HOURS OF
- DEBRIS WASTE AND LOOSE MATERIAL CAPABLE OF CAUSING DEBRIS WASTE AND LOOSE MATERIAL CAPABLE OF CAUSING
 DAMAGE TO AIRCRAFT LANDING GEAR AND PROPELLERS OR BEING
 INGESTED IN JET ENGINES SHALL NOT BE ALLOWED ON ACTIVE
 AIRCRAFT MOVEMENT AREAS. IF THESE MATERIAL ARE OBSERVED TO BE ON ACTIVE AIRCRAFT MOVEMENT AREAS. THEY SHALL BE REMOVED IMMEDIATELY AND/OR CONTINUOUSLY DURING
- RESIDENT ENGINEER WILL ARRANGE WITH SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT OPERATIONS FOR INSPECTION PRIOR OPENING FOR AIRCRAFT USE ANY RUNWAY OR TAXIWAY THAT S BEEN CLOSED FOR WORK, ON OR ADJACENT THERETO, OR THAT HAS BEEN USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR.
- 11. THE CONTRACTOR'S SECURITY OFFICER (C.S.O.) WILL BE THE CONTRACTOR'S SECURITY OFFICER (C.S.O.) WILL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS. PRIOR TO THE COMMENCEMENT OF THE WORK, THE C.S.O. SHALL PROVIDE THE RESIDENT ENGINEER AN OUTLINE OF A PROPOSED ACCIDENT AND FIRE PROTECTION PLAN FOR ALL WORK CONTEMPLATED UNDER THE CONTRACT AND CONDUCT AT LEAST ONE SAFETY MEETING EACH MONTH FOR EACH SHIFT AND REQUIRE THE ATTENDANCE OF ALL SUPERVISORS AT SUCH MEETINGS. COPIES OF THE MINUTES OF SAFETY MEETING SHALL BE KEPT ON FILE IN THE CONTRACTOR'S FIELD OFFICE AND AVAILABLE UPON DEMAND BY THE RESIDENT

SECURITY

- GENERAL INTENT: THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE AIRPORT SECURITY PLAN AND WITH THE SECURITY REQUIREMENTS SPECIFIED HEREIN. THE CONTRACTOR SHALL DESIGNATE TO THE RESIDENT ENGINEER IN WRITING, THE NAME OF HI "CONTRACTOR SECURITY OFFICER" (C.S.O.). THE C.S.O. SHALL REPRESENT THE CONTRACTOR ON THE SECURITY REQUIREMENTS FOR
- CONSTRUCTION SECURITY COMMITTEE: THE COMMITTEE SHALL BE ESTABLISHED CONCURRENT WITH THE LIFE OF THIS CONTRACT TO MONITOR, COORDINATE AND ADOPT NEW SECURITY PROVISIONS, IF REQUIRED, ON ALL MATTERS OF AIRPORT SECURITY RELATING TO THIS CONTRACT, MEETINGS SHALL BE SCHEDULED BY THE AIRPORT RESIDENT ENGINEER. COMMITTEE MEMBERSHIP SHALL INCLUDE THE "CONTRACTOR SECURITY OFFICER," RESIDENT ENGINEER, CONTRACTOR'S SUPERINTENDENT AND ONE REPRESENTATIVE EACH FROM SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT OPERATIONS, FAA-SECURITY DIVISION, GEORGIA DEPARTMENT OF TRANSPORTATION AND FAA AIR TRAFFIC CONTROL TOWER IN THE EVENT THAT SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT MAY REVISE AND/OR MODIFY THE GENERAL REQUIREMENTS IN ORDER TO MAINTAIN THE SAFETY AND SECURITY OF OPERATIONS ON THE AIRPORT, THE CONTRACTOR SHALL COOPERATE IN IMPLEMENTING ANY NECESSARY CHANGES IN THE WORK AND SHALL NOT BE ENTITLED TO MAKE ANY CLAIM FOR EXTRA COMPENSATION. IN ADDITION, THE CONTRACTOR IS ADVISED THAT CERTAIN RULES AND RESTRICTIONS, AS CONTAINED IN FAA CIRCULAR 150/5370-2G AND AUGMENTED BY THESE PLANS AND SPECIFICATIONS, WILL APPLY TO THE WORK.
- CONTRACTOR PERSONNEL SECURITY ORIENTATION: THE CONTRACTOR SECURITY OFFICER SHALL BE RESPONSIBLE FOR BRIEFING ALL CONTRACTOR PERSONNEL ON THESE REQUIREMENTS FROM TIME TO TIME, AND OTHER SECURITY PROVISIONS ADOPTED BY THE CONSTRUCTION SECURITY COMMITTEE ALL NEW CONTRACTOR EMPLOYEES SHALL BE BRIEFED ON THESE REQUIREMENTS PRIOR TO WORKING IN THE CONSTRUCTION AREA. <u>ALL CONTRACTOR EMPLOYEES</u> ON SITE SHALL HAVE A GOVERNMENT ISSUED PHOTO IDENTIFICATION.
 THE CONTRACTOR SHALL UTILIZE THE U.S. DEPARTMENT OF HOMELAND
 SECURITY'S E-VERIFY SYSTEM TO VERIFY THE EMPLOYMENT ELIGIBILITY OF ALL PERSONS EMPLOYED BY THE CONTRACTOR DURING THE PROJECT DURATION.
- ACCESS TO THE SITE: CONTRACTOR'S ACCESS TO THE SITE SHALL BE AS SHOWN ON THE PLANS. NO OTHER ACCESS POINTS SHALL BE ALLOWED UNLESS APPROVED BY THE RESIDENT ENGINEER. ALL CONTRACTOR TRAFFIC AUTHORIZED TO ENTER THE SITE SHALL BE EXPERIENCED IN THE ROUTE OR GUIDED BY CONTRACTOR PERSONNEL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL TO AND FROM THE VARIOUS CONSTRUCTION AREAS ON THE SITE. SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT WILL CONTROL ACCESS AT THE GATE. A CONTRACTOR'S FLAG MAN OR TRAFFIC CONTROL PERSON SHALL MONITOR AND COORDINATE ALL CONTRACTOR TRAFFIC AT THE ACCESS GATE WITH SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT SECURITY. THE CONTRACTOR SHALL NOT PERMIT ANY UNAUTHORIZED CONSTRUCTION PERSONNEL OR TRAFFIC ON THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR IMMEDIATE CLEAN UP OF ANY DEBRIS DEPOSITED ALONG THE ACCESS ROUTE AS A RESULT OF HIS CONSTRUCTION TRAFFIC. DIRECTIONAL SIGNING AT THE ACCESS GATE AND ALONG THE DELIVERY ROUTE TO THE STORAGE PLANT SITE OR WORK SITE SHALL BE AS DIRECTED BY THE RESIDENT ENGINEER.
- MATERIAL DELIVERY TO THE SITE: ALL CONTRACTOR'S MATERIAL ORDERS FOR DELIVERY TO THE WORK SITE WILL USE AS A DELIVERY ADDRESS THE STREET NAME ASSIGNED TO THE ACCESS POINT AT THE CONTRACTOR'S STORAGE SITE AT THE AIRPORT. THE NAME "SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT" SHALL NOT BE DELIVERY TRUCKS FROM ENTERING INTO THE TERMINAL COMPLEX, OR TAKING SHORT CUTS THROUGH THE PERIMETER GATES AND ENTERING INTO AIRCRAFT OPERATIONS AREAS INADVERTENTLY.
- CONSTRUCTION AREA LIMITS: THE LIMITS OF CONSTRUCTION, MATERIAL STORAGE AREAS, PLANT SITE, EQUIPMENT STORAGE AREA, PARKING AREA AND OTHER AREAS DEFINED AS REQUIRED FOR THE CONTRACTORS EXCLUSIVE USE DURING CONSTRUCTION SHALL BE MARKED BY THE CONTRACTOR. THE CONTRACTOR SHALL ERECT AND MAINTAIN AROUND THE PERIMETER OF THESE AREAS SUITARLE FENCING, MARKING AND/OR WARNING DEVICES VISIBLE FOR DAY/NIGHT USE. TEMPORARY BARRÍCADES. FLAGGING AND FLASHING WARNING LIGHT WILL BE REQUIRED AT CRITICAL ACCESS POINTS, TYPE OF MARKING AND WARNING DEVICES SHALL BE APPROVED SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT OPERATIONS.
- IDENTIFICATION VEHICLES OPERATING INSIDE THE SECURED AIRPORTS OPERATIONS AREA: THE CONTRACTOR, THROUGH THE CONTRACTOR SECURITY OFFICER, SHALL ESTABLISH AND MAINTAIN A LIST OF SECURITY OFFICER, SHALL ESTABLISH AND MAINTAIN A LIST OF CONTRACTORS AND SUBCONTRACTOR VEHICLES AUTHORIZED TO OPERATE ON THE SITE AND SHALL ISSUE A PERMIT TO EACH VEHICLE TO BE MADE AVAILABLE UPON DEMAND BY THE RESIDENT ENGINEER OR ANY AIRPORT SECURITY OFFICER. VEHICLES DELIVERING MATERIALS
 TO THE CONSTRUCTION SITE SHALL PICK UP A TEMPORARY PASS AT
 THE ACCESS GATE. VEHICLE PERMITS SHALL BE ASSIGNED IN A MANNER TO ASSURE POSITIVE IDENTIFICATION OF THE UNIT AT ALL TIMES. IN LIEU OF ISSUING INDIVIDUAL VEHICLE PERMITS THE C.S.O. CAN REQUIRE EACH VEHICLE TO DISPLAY A LARGE COMPANY SIGN ON BOTH SIDES OF VEHICLE AND PROVIDE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT SECURITY AND OPERATIONS WITH A CURRENT LIST OF COMPANIES AUTHORIZED TO ENTER AND CONDUCT WORK ON THE AIRPORT, CONTRACTOR EMPLOYEE PERSONAL VEHICLES SHALL BE RESTRICTED TO THE CONTRACTOR'S STAGING AREA AND ARE NOT ALLOWED ON THE AIRFIELD AT ANY TIME.

GENERAL

- 1. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT PLANS AND SPECIFICATIONS AND ANY RULES, REGULATIONS, STANDARDS OR SPECIFICATIONS REFERENCED THEREIN. THE PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT, THE FEDERAL AVIATION ADMINISTRATION (FAA) AND OTHER GOVERNING AGENCIES.
- 2. LIQUIDATED DAMAGES, AS STATED IN THE SPECIFICATIONS AND IN THE CONTRACT AGREEMENT, SHALL APPLY TO THIS PROJECT.
- CONSTRUCTION WILL OCCUR WITHIN THE AIR OPERATIONS AREA (AOA). THIS IS CONTRACTOR SHALL MEET ALL REQUIREMENTS FOR ENTERING AND OPERATING IN THIS AREA AT ALL TIMES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH ALL REQUIREMENTS FOR ENTERING AND OPERATING IN THE AOA, FURTHER, IT WILL REMAIN THE CONTRACTOR'S RESPONSIBILITY TO KEEP ADVISED OF ANY CHANGES IN THESE REQUIREMENTS AND TO ADHERE CURRENT REGULATIONS.
- BECAUSE THE CONSTRUCTION IS ON OR NEAR ACTIVE RUNWAY, TAXILANES AND APRONS, ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN A MANNER ACCEPTABLE TO THE OWNER AND THE FEDERAL AVIATION ADMINISTRATION (FAA) TO PROVIDE ACCEPTABLE LEVELS OF SAFETY FOR ALL AIRPORT
- EACH CONTRACTOR INVOLVED SHALL ASSUME ALL LIABILITY, FINANCIAL OR OTHERWISE, IN CONNECTION WITH THEIR CONTRACT AND SHALL PROTECT AND SAVE HARMLESS THE OWNER FROM ANY AND ALL DAMAGES OR CLAIMS THAT MAY ARISE BECAUSE OF INCONVENIENCES, DELAYS, OR LOSS EXPERIENCED BY THEM BECAUSE OF THE PRESENCE AND OPERATIONS OF HIS SUB-CONTRACTORS WORKING WITHIN THE LIMITS OF THE SAME PROJECT

CONTRACTOR REQUIREMENTS

- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED FOR THE PERFORMANCE OF THIS CONTRACT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PAY ALL PERMIT FEES. COSTS FOR PERMITS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- THE CONTRACTOR MUST OBTAIN PROPER PERMITS FOR DELIVERY OF MATERIALS AND EQUIPMENT TO THE SITE. ANY DAMAGE TO OFF-SITE ROADS SHALL BE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT THE CONTRACTOR'S SOLE EXPENSE
- ALL CONTRACTOR'S VEHICLES AND TRAFFIC (UNLESS OTHERWISE AUTHORIZED SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES
- THE CONTRACTOR SHALL CONTROL DUST FROM OPERATIONS TO A LEVEL ACCEPTABLE TO THE AIRPORT AND ENGINEER AT ALL TIMES. THE CONTRACTOR SHALL HAVE AVAILABLE VACUUM BROOMS, WATERING TRUCKS AND OTHER EQUIPMENT NECESSARY TO CONTROL DUST AND DEBRIS AT ALL TIMES. AL METHODS FOR CONTROLLING DUST AND DEBRIS SHALL BE SUBJECT TO TI AIRPORT'S APPROVAL. DUST AND DEBRIS CONTROL SHALL BE STRICTLY MONITORED DUE TO ITS IMPACT ON AIRCRAFT SAFETY. FAILURE TO PROPERLY CONTROL DUST AND DEBRIS OR TO RESPOND TO ANY REQUESTS TO DO SO WILL RESULT IN CONSTRUCTION ACTIVITIES BEING STOPPED.
- THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS THAT ARE PERTINENT TO THIS WORK.
- ALL CONSTRUCTION ACTIVITY WITHIN A SAFETY AREA WILL REQUIRE THE CLOSURE OF A TAXIMAY, TAXILANE, APRON OR A DESIGNATED AREA. TH CONTRACTOR SHALL REQUEST, THROUGH THE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT PROJECT MANAGER, THE CLOSURE OF THE REQUIRED PORTION OF PAVEMENT. THIS REQUEST SHALL INCLUDE THE TIMES REQUESTED AND THE CONTRACTOR'S PROPOSED DETAILED SCHEDULE OF OPERATIONS WITHIN THE AREA. THE CONTRACTOR IS ADVISED THAT THERE MAY BE CONSTRUCTION AND AIRFIELD MAINTENANCE THAT MAY REQUIRE TAXILANE, OR APRON CLOSURES. THEREFORE: CLOSE COORDINATION BY THE CONTRACTOR WITH THE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT PROJECT MANAGER IS
- BEFORE RECEIVING A NOTICE TO PROCEED, THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH A DETAILED CRITICAL PATH METHOD SCHEDULE OF WORK FOR EACH PHASE OF CONSTRUCTION INCLUDING THE VARIOUS REQUIRED PAVEMENT CLOSURES
- ALL ELEMENTS OF THE CONSTRUCTION SHALL BE DONE IN SUCH A MANNER THAT, AT THE END OF THE CLOSURE PERIOD, THE AREA WILL BE IN A CONDITION SUITABLE FOR AIRPORT OPERATIONS, SUBJECT TO AIRPORT AND

COORDINATION AND OPERATIONS

- THE CONTRACTOR SHALL ACQUAINT HIS SUPERVISORS AND EMPLOYEES TO THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO THIS AIRPORT. HE SHALL CONDUCT HIS CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES AS NOTED AND/OR SHOWN ON THE PLANS AND THE SAFETY AND SECURITY REQUIREMENTS DETAILED IN THE SPECIFICATIONS.
- THE CONTRACTOR SHALL CONDUCT WEEKLY COORDINATION MEETINGS TO THE CONTRACTOR SHALL CONDUCT WERK! COORDINATION MEETINGS DISCUSS WORK AREAS, SCHEDULING, SAFETY, ETC. WITH THE ENGINEER, THE AIRPORT, FAA, AND OTHER APPROPRIATE OFFICIALS. MINUTES FROM THE WEEKLY MEETINGS SHALL BE PREPARED BY THE CONTRACTOR AND COPIES RIBUTED TO ALL APPROPRIATE INDIVIDUALS.
- CONSTRUCTION AND MAINTENANCE OPERATIONS BY OTHERS MAY OCCUR CONCURRENTLY AND AT TIMES IN THE VICINITY OF CONSTRUCTION
 ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL COORDINATE HIS
 OPERATIONS AND COOPERATE WITH MAINTENANCE CREWS AND OTHER CONTRACTORS WORKING ON THE AIRPORT. COORDINATION WITH APPROPRIATE GOVERNMENT AND UTILITY AGENCIES IS ALSO REQUIRED.

GENERAL CONTRACT NOTES

MATERIALS AND EQUIPMENT

- 1. ALL MATERIALS AND EQUIPMENT, WHEN NOT IN USE, SHALL BE PLACED IN APPROVED AREAS WHERE THEY WILL NOT CONSTITUTE A HAZARD TO AIRCRAFT OPERATIONS. ALL EQUIPMENT SHALL BE STORED IN A LOWERED CONFIGURATION WHEN NOT IN USE. THE APPROVED STORAGE AREA FOR EQUIPMENT AND MATERIALS IS THE CONTRACTOR'S STAGING AREA. ANY OTHER AREAS TO BE USED FOR STORAGE MUST BE APPROVED BY THE AIRPORT'S PROJECT MANAGER, FOUIPMENT AND STOCKPILED MATERIAL BE CONSTRAINED IN A MANNER TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT JET BLAST OR WIND CONDITIONS.
- 2. ALL EXCESS EXCAVATED MATERIAL UNSUITABLE MATERIAL AND CONSTRUCTION DEBRIS SHALL BE PROMPTLY DISPOSED OF PROPERTY UNLESS DIRECTED OTHERWISE BY THE AIRPORT OF OFF AIRPORT
- 3. ALL CONTRACTOR'S MATERIAL ORDERS FOR DELIVERY TO THE WORK SITE WILL USE A DELIVERY ADDRESS. THE DELIVERY ADDRESS SHALL BE ESTABLISHED AT THE PRE-CONSTRUCTION CONFERENCE.

CONSTRUCTION LAYOUT

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT. EXISTING AND PROPOSED GRADES ARE SHOWN ON THE DRAWINGS. EXISTING GRADES SHOWN ARE BELIEVED TO BE ACCURATE, BUT THE AIRPORT OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR THE ACCURACY OF THESE GRADES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING PRIOR TO CONSTRUCTION OF ANY DISCREPANCIES WITH THE ELEVATIONS GIVEN ON THE DRAWINGS. FAILURE TO NOTIFY THE ENGINEER SHALL RESULT IN A WAIVER OF THE CONTRACTOR'S RIGHT FOR A CHANGE ORDER, ALL ELEVATIONS ARE BASED UPON THE STATE PLANE
- 2. THE VERTICAL CONTROL ON THIS PROJECT IS TIED TO BENCH MARKS LOCATED ON THE AIRPORT. ALL EXISTING SURVEY MONUMENTS SHALL BE PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION. ALL MONUMENTS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESET BY A REGISTERED SURVEYOR AT THE CONTRACTOR'S EXPENSE.

EXISTING UTILITY & NAVIGATIONAL FACILITIES

- 1. BEFORE ANY WORK IS STARTED ON ANY PHASE OF THIS PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT, REPRESENTATIVES OF THE CONTRACTOR AND THE AIRPORT SHALL MAKE AN INSPECTION OF THE EXISTING STORM SEWERS, CATCH BASINS, MANHOLES, ELECTRICAL MANHOLES, HANDHOLES, DUCT BANKS, WHICH ARE TO REMAIN IN SERVICE OR WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION WILL BE KEPT BY THE AIRPORT. THE CONTRACTOR SHALL PROVIDE TO THE AIRPORT A VIDEO TAPE OR DIGITAL PICTURES OF SURFACE AND SEWER CONDITIONS PROJECT AREA BEFORE START OF WORK AND UPON COMPLETION OF THE PROJECT.
- 2. ALL EXISTING FACILITIES, INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES, SHALL BE PROTECTED, MAINTAINED, AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGES IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS SOLE EXPENSE TO THE SATISFACTION OF THE ENGINEER.

CONTRACTOR ACCESS & STORAGE AREAS

- 1. THE CONTRACTOR'S ACCESS POINTS TO THE SITE SHALL BE AS SHOWN ON THE CONTRACT LAYOUT AND PHASING PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL VEHICLES AND PERSONNEL WHO ENTER THROUGH THESE GATES. GATES SHALL BE LOCKED WHEN NOT IN USE.
- 2. AREAS WILL BE MADE AVAILABLE FOR THE CONTRACTOR'S MOBILIZATION AND STAGING AS SHOWN ON THE **CONTRACT LAYOUT AND PHASING PLANS.** THESE AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE PROJECT AT THE CONTRACTOR'S EXPENSE. ON—SITE EMPLOYEE PARKING SHALL BE ADDRESSED AT THE PRE-CONSTRUCTION CONFERENCE

HAUL ROUTES

- 1. LOCATION OF HAUL ROUTES AND STAGING AREAS ON THE AIRPORT SITE SHALL BE AS SHOWN ON THE CONTRACT LAYOUT AND PHASING PLANS. IT SHALL BE BE AS SHOWN ON THE CONTRACT LAYOUT AND PHASING PLANS. IT SHALL E THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE. ON-SITE HAUL ROUTES AND STAGING AREAS SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE AT THE CONTRACTOR'S EXPENSE. THE BEFORE AND AFTER CONDITION OF ON—SITE HAUL ROUTES AND STAGING AREAS SHALL BE JOINTLY INSPECTED AND DOCUMENTED BY THE CONTRACTOR, AIRPORT BE JOINLY INSPECIED AND DOCUMENTED BY THE CONTRACTOR, AIRPORT, AND/OR ENGINEER. THE CONTRACTOR SHALL PROVIDE A VIDEO TAPE OR DIGITAL PICTURES OF ALL ON-SITE HAUL ROUTES AND STAGING AREAS BEFORE START OF WORK AND UPON COMPLETION. FENCING, DRAINAGE, SEDIMENT CONTROL, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY THE AIRPORT PRIOR TO THE WORK. ALL ON—SITE ACCESS ROADS TO AIRPORT FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES
- 2. USE OF UNAUTHORIZED HAUL ROUTES WILL NOT BE ACCEPTABLE. THE CONTRACTOR SHALL ONLY USE THE HAUL ROUTES APPROVED BY THE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT PROJECT MANAGER. THE HAUL TRUCKS MUST BE COVERED AT ALL TIMES. THE CONTRACTOR SHALL
 CONTINUOUSLY CLEAN THE HAUL ROUTE WITH A POWER VACUUM DURING ALL
 PERIODS WHEN HAULING. FAILURE TO MAINTAIN THE HAUL ROUTE IN AN ACCEPTABLE MANNER WILL RESULT IN SUSPENSION OF WORK. IN THE EVENT THAT ANY FOREIGN OBJECT, SPILLAGE, DEBRIS OR DUST BUILDS UP AS A RESULT OF HAULING, THE CONTRACTOR SHALL BE REQUIRED TO IMMEDIATELY CLEAN AND REMOVE THE MATERIAL.

UNDERGROUND UTILITIES

- 1. THE LOCATION OF THE UNDERGROUND UTILITIES AND FAA CABLES SHOWN ON THE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE BELIEVED TO BE THE BEST INFORMATION AT THE TIME OF PLAN PREPARATION. NO GUARANTEE IS MADE AS TO THEIR ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UNDERGROUND UTILITIES IN THE WORK AREA PRIOR TO CONSTRUCTION. ANY UNDERGROUND UTILITIES LOCATED WHICH DO NOT APPEAR ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. ANY DAMAGE TO UTILITIES, CAUSED BY THE CONTRACTOR'S SOLE CONTRACTOR, SHALL BE REPAIRED AT THE CONTRACTOR'S SOLE
- 2. INTERRUPTION TO EXISTING AIRFIELD LIGHTING SYSTEMS NOT INCLUDED IN THIS PROJECT SHALL NOT BE PERMITTED. ALL AIRFIELD ELECTRICAL CIRCUITS AFFECTED BY THIS PROJECT SHALL BE PROTECTED AND MAINTAINED DURING OPERATIONAL PERIODS BY THE CONTRACTOR. THE CONTRACTOR AT HIS EXPENSE SHALL IMMEDIATELY REPAIR, WITH IDENTICAL MATERIAL AND BY SKILLED WORKMEN, ANY UNDERGROUND CABLES SERVING FAA NAVAIDS, WEATHER BUREAU UNDERGROUND CABLES SERVING FAA NAVAIDS, WEATHER BUREAU AND/OR OTHER AIRPORT FACILITIES, WHICH ARE DAMAGED BY HIS WORKMEN, EQUIPMENT OR WORK. PRIOR WRITTEN APPROVAL OF THE FAA MUST BE OBTAINED FOR THE MATERIALS, WORKMEN, TIME OF DAY OR NIGHT, METHOD OF REPAIRS AND FOR ANY TEMPORARY OR PERMANENT REPAIRS THE CONTRACTOR PROPOSES TO MAKE TO ANY FAA NAVAIDS AND FACILITIES DAMAGED BY THE CONTRACTOR. LIKE APPROVAL MUST BE OBTAINED FROM THE AIRPORT'S PROJECT MANAGER OR FROM THE REPRESENTATIVE DESIGNATED BY THE AIRPORT MANAGEMENT FOR ANY REPAIRS THE CONTRACTOR PROPOSES TO MAKE TO ANY OTHER AIRPORT FACILITIES AND CABLES DAMAGED BY THE CONTRACTOR. SUCH REPAIRS MUST BE STARTED IMMEDIATELY AND CONTINUED UNTIL COMPLETE. ANY FAA CABLE AND OR CONDUIT DAMAGED MUST BE REPLACED FROM FIXTURE TO FIXTURE IN ACCORDANCE WITH FAA REQUIREMENTS AND IN THE PRESENCE OF AN FAA REPRESENTATIVE. THE OWNER MAY ELECT TO HAVE ANY REPAIR PERFORMED BY OTHERS BUT THE CONTRACTOR SHALL STILL BE RESPONSIBLE FOR PAYING THE INCURRED COSTS.

SUPERVISION

- 1. THE PRIME CONTRACTOR SHALL HAVE AT ALL TIMES ON SITE, WHILE WORK IS IN PROGRESS, A JOB SUPERINTENDENT/FOREMAN. THIS PERSON SHALL BE FAMILIAR WITH ALL TYPES OF CONSTRUCTION BEING PERFORMED AND SHALL BE THE SAME PERSON EACH DAY THROUGHOUT THE PROJECT. THE SUPERINTENDENT/FOREMAN SHALL HAVE THE RESPONSIBILITY OF COORDINATING EACH DAYS WORK WITH THE AIRPORT OR AUTHORIZED REPRESENTATIVE AND SHALL HAVE AUTHORITY TO SCHEDULE AND ADJUST ALL WORKERS, PRIME AND SUB-CONTRACTORS, TO ACCOMMODATE AIRPORT OPERATION AS DIRECTED BY THE AIRPORT PERSONNEL OR AUTHORIZED REPRESENTATIVE
- 2. ALL PERSONNEL SHALL CLEAR THE CONSTRUCTION AREA ONCE WORK HAS STOPPED FOR THE DAY OR EVENING. ALL MECHANICS NEEDING ACCESS TO THE AOA DURING DAYS, EVENINGS AND WEEKENDS TO WORK ON CONSTRUCTION EQUIPMENT SHALL BE ESCORTED AND HAVE THEIR VEHICLES IDENTIFIED WITH THE CONTRACTOR'S NAME AND APPROPRIATE LIGHTING.

CONTRACTOR'S VEHICLES

- 1. ALL CONTRACTORS VEHICLES SHALL BE IN GOOD WORKING ORDER.
 ALL CONTRACTOR VEHICLES SHALL BE ESCORTED WHILE INSIDE THE
 A.O.A THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ESCORTS WITH THE AIRPORT'S PROJECT MANAGER.
- 2. ALL CONTRACTOR VEHICLES/EQUIPMENT THAT ARE AUTHORIZED TO OPERATE ON THE AIRPORTS A.O.A. SHALL DISPLAY IN FULL VIEW ABOVE THE VEHICLE/EQUIPMENT A 3'x3' (MIN.) ORANGE AND WHITE CHECKER BOARD FLAG (DAY OPERATIONS). EACH CHECKER BOARD COLOR BEING ONE SQUARE FOOT. ANY VEHICLE OPERATING ON THE A.O.A. SHALL ALSO BE EQUIPPED WITH A FLASHING AMBER (YELLOW) DOME TYPE LIGHT, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL AND FEDERAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES (DAY OR NIGHT

CONTACT INFORMATION:

SAVANNAH AIRPORT COMMISSION AIRPORT PROJECT MANAGER: MARK DENMARK - 912-964-0514

FRANCISCO ORELLANA, GS-12 GaENVIRONMENTAL PROGRAM MANAGER 165AW/CEIE W: 912-966-8336 C: 912-856-8164

MARIA K. ZINGG TECHNICAL OPERATIONS COLUMBIA DISTRICT SAVANNAH SSC MANAGER 0: 912-964-3160 C: 912-210-3105

CALL BEFORE YOU DIG - UTILITIES PROTECTION CENTER

GEORGIA LAW MANDATES THAT BEFORE BEGINNING ANY MECHANIZED DIGGING OR EXCAVATION WORK, YOU MUST CONTACT GEORGIA 811 BY CALLING 811 OR -800-282-7411 AT LEAST 48 HOURS BUT NO MORE THAN 10 WORKING DAYS IN

ADVANCE TO HAVE UTILITY LINES MARKED

DESCRIPTION APD RWE





AECOM Technical Services Inc. 7650 W. Courtney Campbell Causeway Tampa, FL 33607-1462 Tel: 813 286 1711



Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

PM:	RWP
DWG. BY:	APD
CHK. BY:	EJF
DSG. BY:	SGH
SCALE:	AS NOTED

60611019

MARCH

PROJECT NO

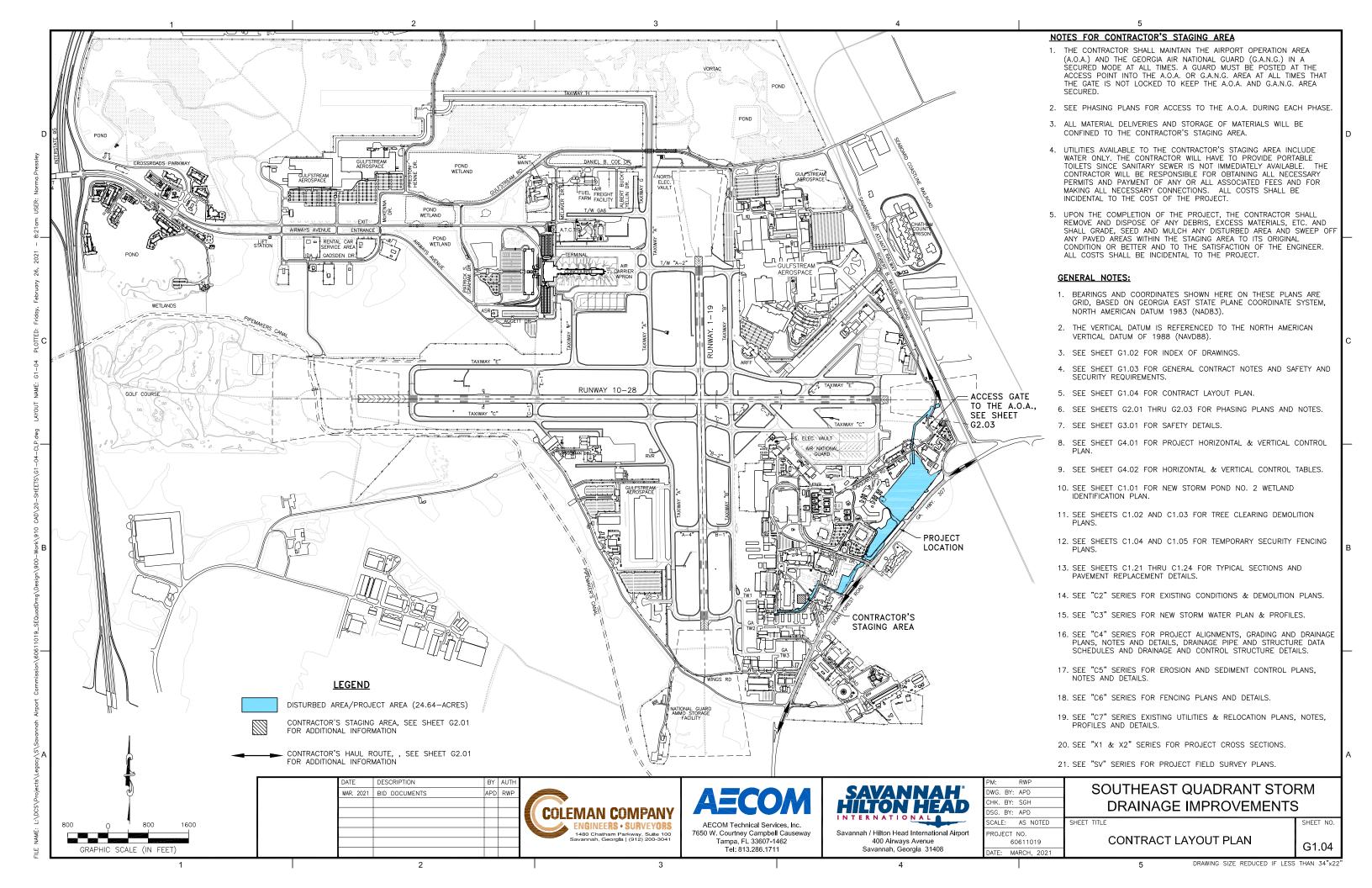
SHEET TITLE

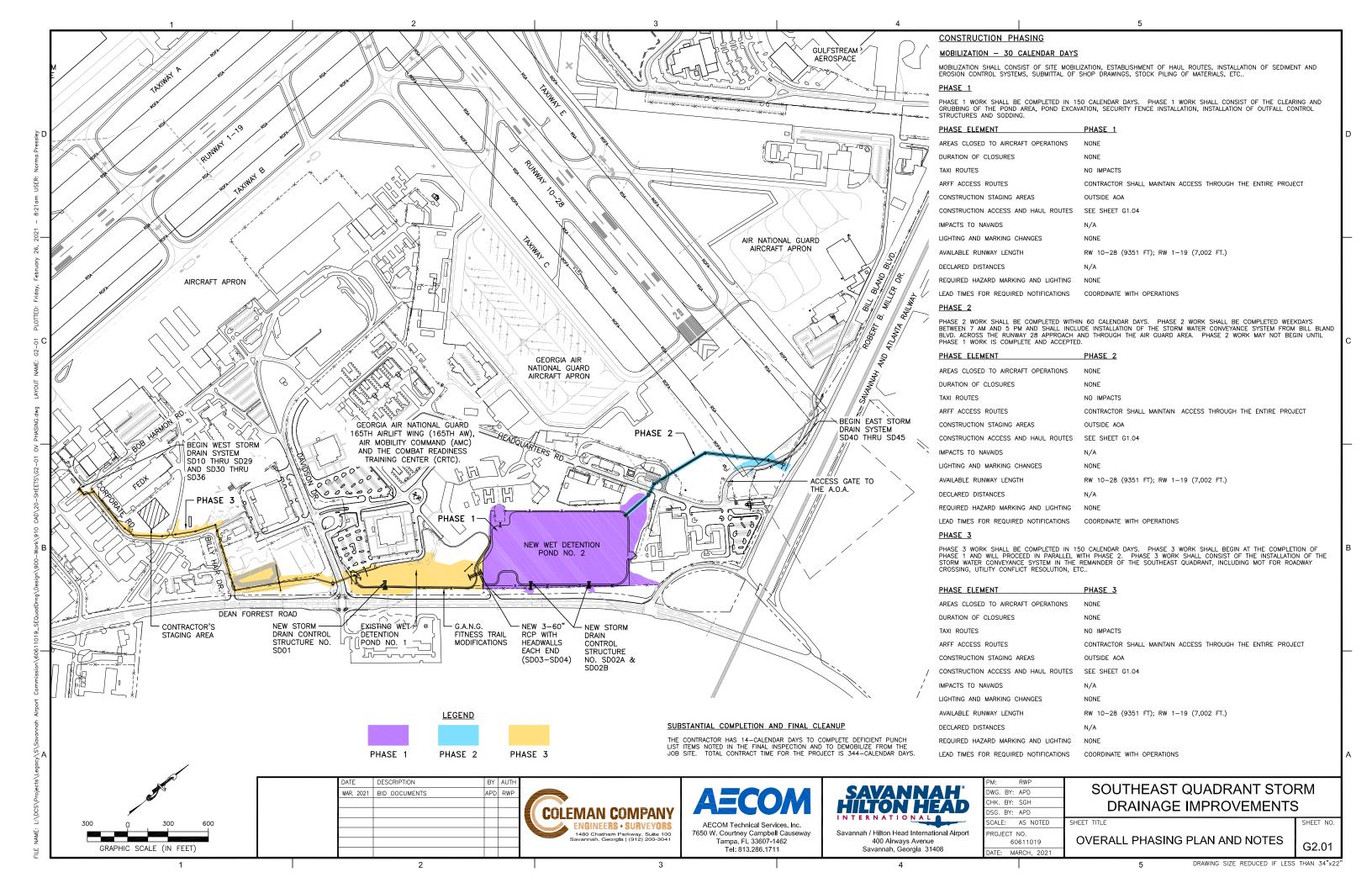
DRAINAGE IMPROVEMENTS

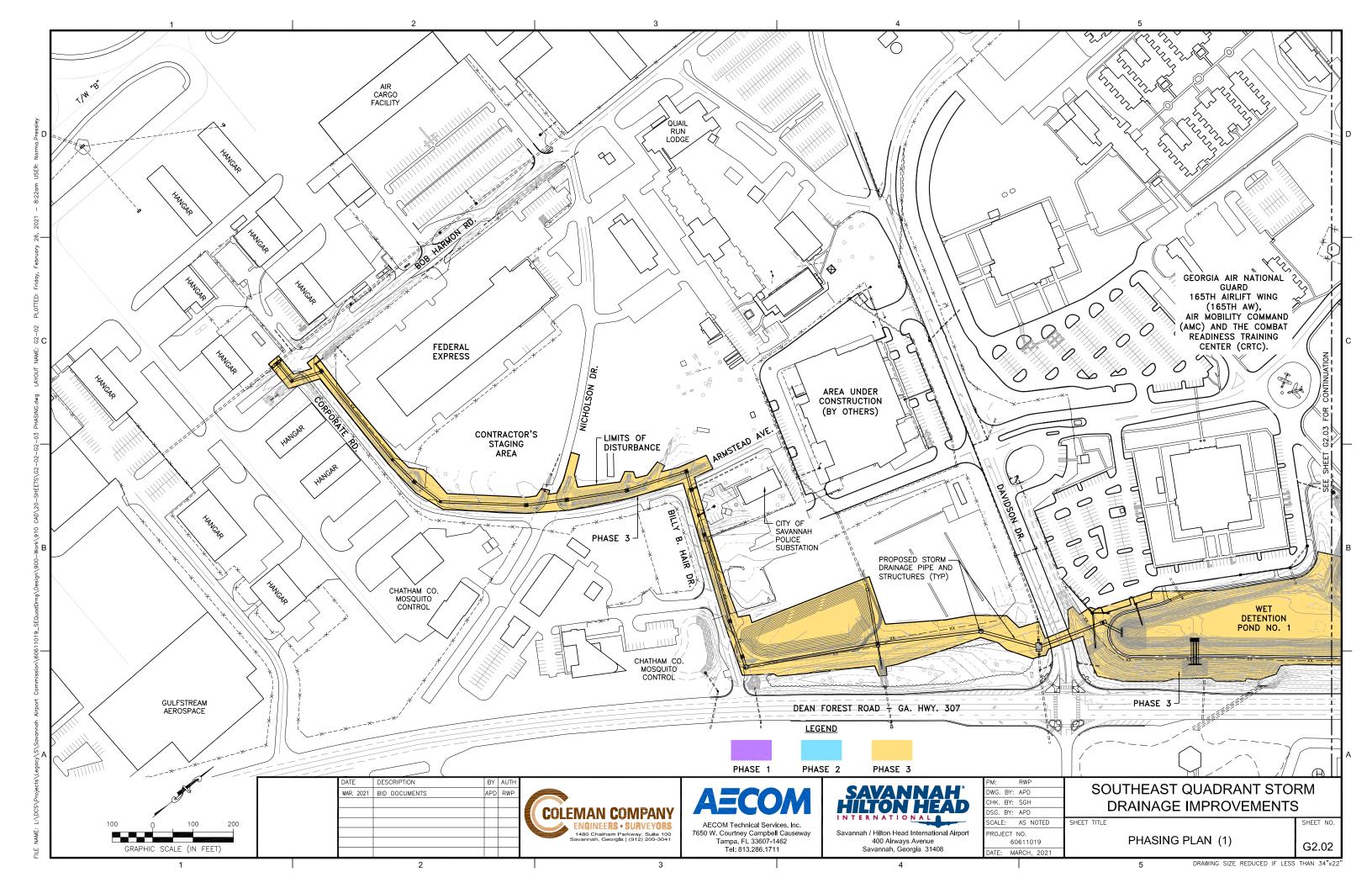
SOUTHEAST QUADRANT STORM

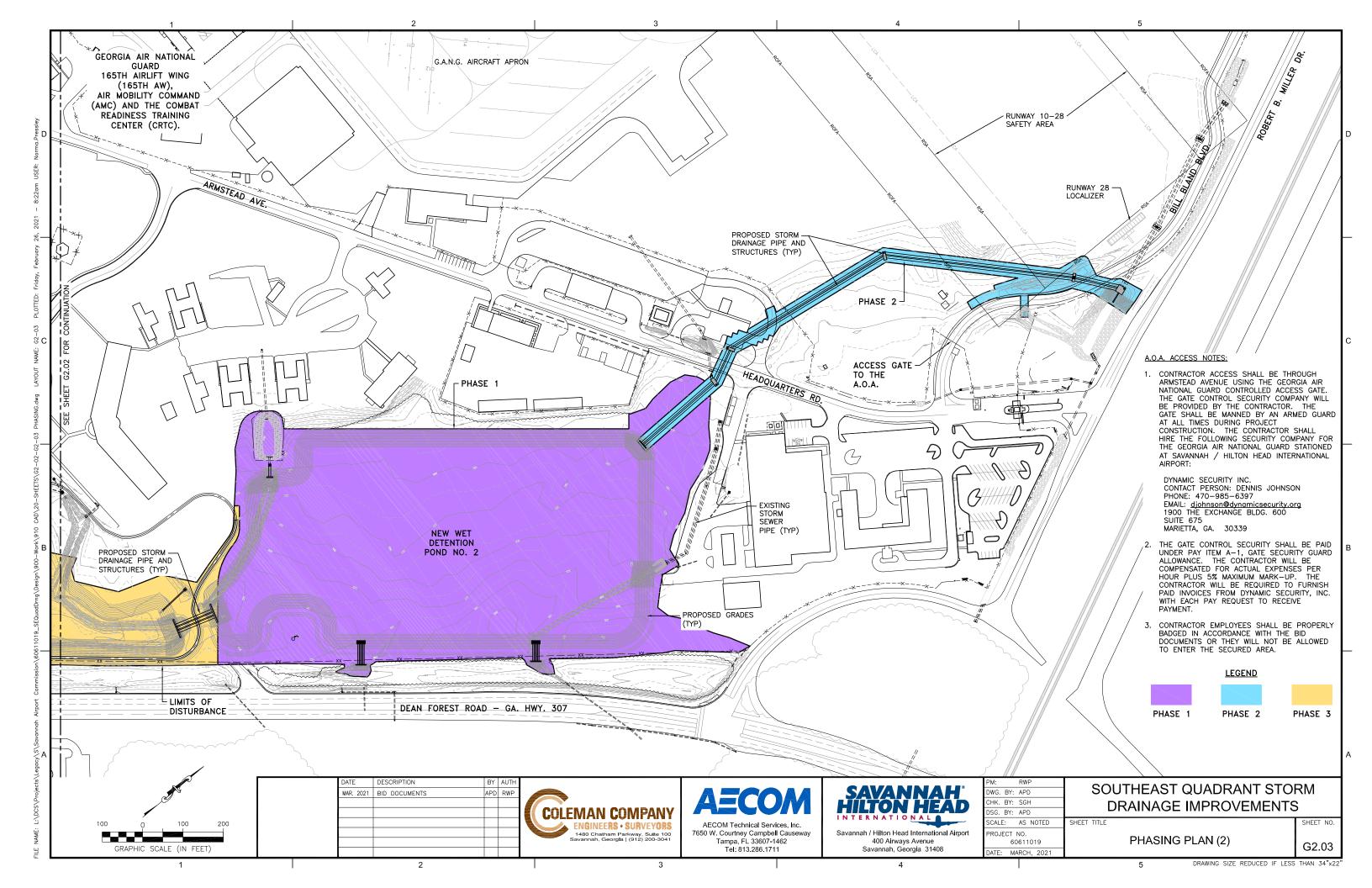
GENERAL CONTRACT NOTES AND SAFETY & SECURITY REQUIREMENTS

SHEET NO. G1.03









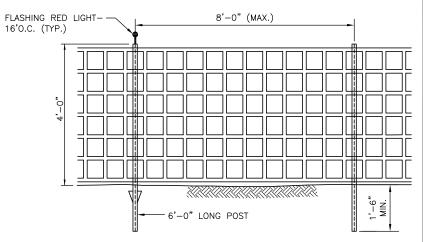
NOTE:

THE CONTRACTOR SHALL PROVIDE AT LEAST 10' OF TRAVEL LANE IN EACH DIRECTION FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION, ESPECIALLY DURING CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE OPEN CUT OF PAVEMENT AT ROADWAYS TO REMOVE EXISTING PIPE AND/OR INSTALL PROPOSED STORM SEWER PIPE AT THE LOCATIONS SHOWN ON THE TABLE BELOW.

Roadways With Open Curs Requiring MOT			
Roadway Name	Plan Sheets		
Bob Harmon Rd.	C2.11, C3.01 & C4.11		
Corporate Rd.	C2.11, C3.01 & C4.11		
Armstead Ave. near Nicholson Dr.	C2.12, C3.02 & C4.12		
Armstead Ave. near Billy B. Hair Dr	C2.12, C3.02 & C4.12		
Davidson Dr.	C2.14, C3.04 & C4.14		
Headquarters Rd.	C2.19, C2.20, C3.06, C4.19 & C4.20		
Bi I Bland B vd.	C2.21, C3.07 & C4.21		

NOTES:

1. SEE SHEET C5.81 FOR CONSTRUCTION EXIT DETAIL, SECTIONS AND NOTES.

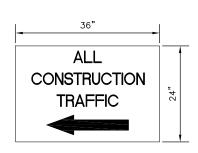


NOTE:

CONTRACTOR SHALL INSTALL ORANGE CONSTRUCTION FENCE AROUND THE STAGING AREA. FENCE SHALL BE TENSAR POLYGRID SF OR APPROVED EQUAL. LINE POST SPACING SHALL BE A MAXIMUM OF 8'-0'. FENCE SHALL BE FASTENED TO POLES WITH 5 PLASTIC TIES.

VISUAL CONSTRUCTION BARRIER DETAIL

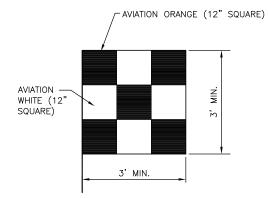
N.T.S.



CONSTRUCTION TRAFFIC SIGN

CONSTRUCTION TRAFFIC SIGN NOTES:

- SIGN BACKGROUND IS TO BE WHITE. SIGN LETTERING IS TO BE BLACK, MINIMUM HEIGHT OF 3", AND BE A BOLD LETTERING STYLE SIMILAR TO DETAIL SHOWN ON THIS SHEET.
- SIGN IS TO BE LOCATED HIGH ENOUGH TO ALLOW EASY VIEWING FROM ALL CONSTRUCTION VEHICLES ENTERING THE CONSTRUCTION SITE.
- 3. SIGN PLACEMENT SHALL BE AS DIRECTED BY THE RESIDENT ENGINEER.
- 4. ALL CONSTRUCTION TRAFFIC SIGNAGE SHALL BE INCLUDED AND CONSIDERED INCIDENTAL TO THE PROJECT.



CONSTRUCTION SAFETY FLAG

CONSTRUCTION SAFETY FLAG NOTES:

SAFETY FLAG SHALL BE PROMINENTLY
 DISPLAYED ON ALL CONSTRUCTION
 FOLUMENT

DATE	DESCRIPTION	BY	AUTH
MAR. 2021	BID DOCUMENTS	APD	RWP





Tampa, FL 33607-1462

Tel: 813.286.1711



Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

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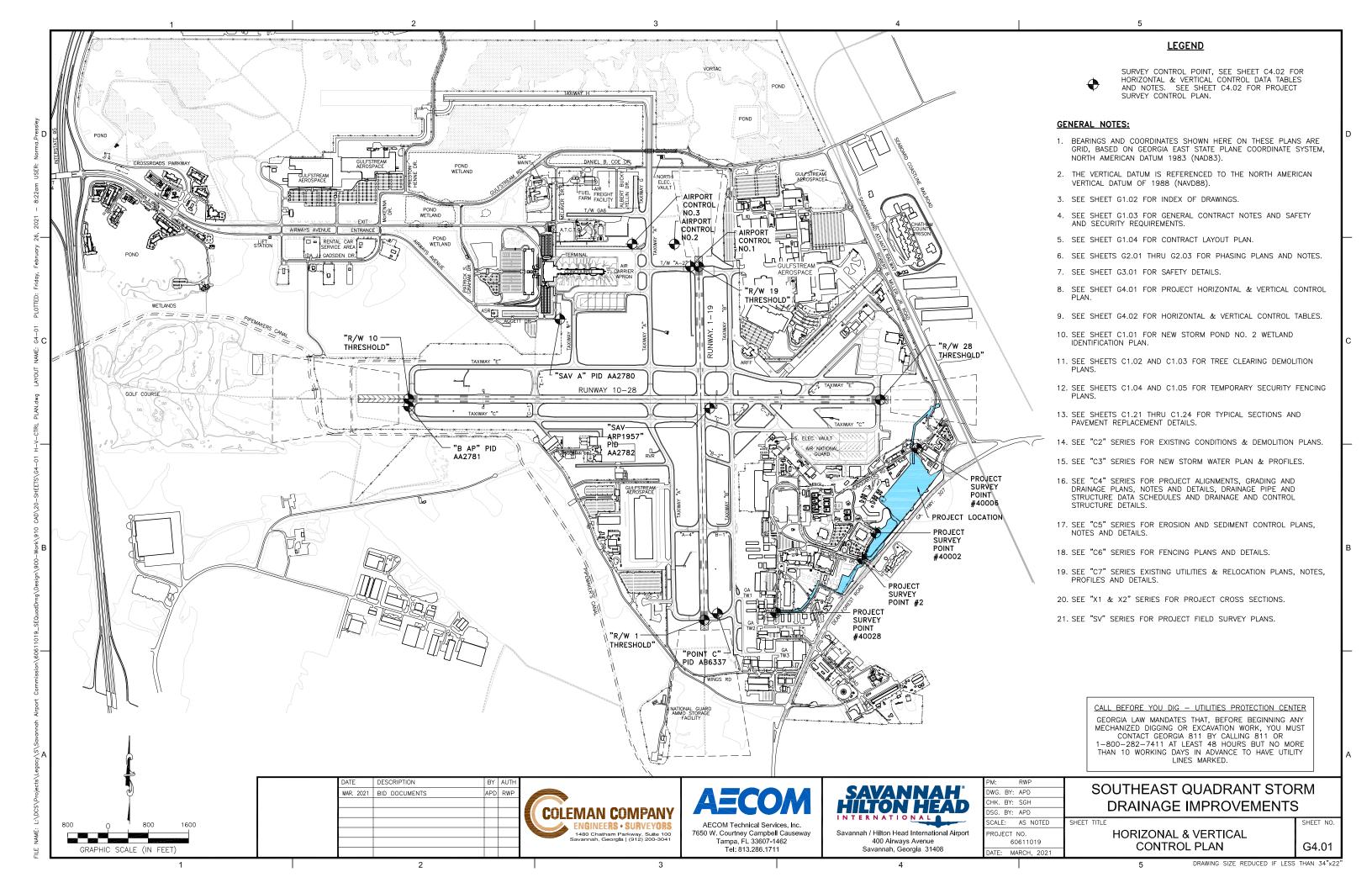
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SHEET TITLE

SOUTHEAST QUADRANT STORM
DRAINAGE IMPROVEMENTS

SAFETY DETAILS

SHEET NO. **G3.01**



	SURVEY CONTROL DATA														
1 01111	NGS GEODETIC			STATE PLANE GRID COORDINATES		PORT GRID DINATES						SURVEY CLASS		DESCRIPTION	
DESIGNATION	LATITUDE	LONGITUDE	NORTHING	EASTING	NORTHING	EASTING	(NAVD88)	(NGVD29)		FACTOR	, ,	,	HORIZONTAL	VERTICAL	
RUNWAY THRESHOLD DATA															
10	32-07-43.5133	081-13-07.6513	775543.47560	949588.33927	49999.9028	20011.6098	16.9	(17.82)	0.99999861	0.999997801	00-30-14.88317	_	_	_	RUNWAY THRESHOLD - END OF FULL STRENGTH PAVEMENT
28	32-07-42.5082	081-11-18.9212	775525.43716	958939.15689	50000.0597	29362.4448	46.3	(47.22)	1.000004995	1.00000278	00-31-12.71076	_	_	_	RUNWAY THRESHOLD - END OF FULL STRENGTH PAVEMENT
19	32-08-08.9374	081-12-00.4981	778163.99820	955339.90468	52631.5814	25758.0793	41.8	(42.72)	1.000002513	1.000000514	00-30-50.97227	-	-	-	RUNWAY THRESHOLD - END OF FULL STRENGTH PAVEMENT
1	32-06-59.6540	081-11-59.9692	771163.03621	955448.20535	45630.8428	25879.9651	29.3	(30.22)	1.000002588	1.000001186	00-30-50.26371	_	_	_	RUNWAY THRESHOLD - END OF FULL STRENGTH PAVEMENT
FAA/NGS PACS & SACS															
POINT "C" PID# AB6337	32-07-00.89146	081-11-56.92292	771290.44000	955709.07000	45758.75000	26140.57460	28	(28.92)	1.00000277	1.00000632	00-30-51.9	-	THIRD	FOURTH CLASS 1	PUNCH HOLE IN NW CORNER OF SQUARE CONCRETE BASE FOR AN ELECTRICAL SYSTEM
"SAV A" PID# AA2780	32-07-58.89314	081-12-32.63949	777124.30000	952585.25000	48413.41000	23008.55460	19.9	(20.82)	1.00000663	1.00000455	00-30-33.7	PAC	В	FIRST CLASS 1	NGS/NOAA IRON ROD WITH METAL SLEEVE & COVER
SAV "ARP1957" PID# AA2782	32-07-41.15362	081-11-58.25592	775358.06000	955557.91000	49826.07000	25981.59460	45.3	46.18	1.00000266	1.00000537	00-30-51.8	SAC	FIRST	FIFTH CLASS 1	STANDARD DISC STAMPED "ARP 1957" SET IN 6" STOVEPIPE IN CONCRETE
SAV STA "B AP" PID# AA2781	32-07-42.02900	081-13-07.66596	775393.47000	949588.40000	49849.99000	20012.04600	14.5	(15.42)	0.9999861	1.00000279	00-30-14.9	SAC	FIRST	FIFTH CLASS 1	STANDARD NGS/NOAA DISK SET IN DRILL HOLE IN CONCRETE AT THE SOUTH END OF THRESHOLD BAR OF RUNWAY 10

NOTE:

"()" INDICATES CALCULATED NGVD29 ELEVATION

ADDITIONAL PROJECT SURVEY CONTROL DATA							
POINT DESIGNATION	STATE PLA COORD		ELEVATION (NAVD88)	DESCRIPTION			
DESIGNATION	NORTHING	EASTING	(NAVDOO)				
AIRPORT CONTROL NO. 1	778168.6868	955173.9874	39.70	MAG NAIL AND DISK			
AIRPORT CONTROL NO. 2	778612.1163	954855.9558	30.43	IRON ROD NO CAP			
AIRPORT CONTROL NO. 3	778613.3816	954019.6306	15.78	X-MARK IN HEADWALL			

 SEE SHEET G1.04, CONTRACT LAYOUT PLAN, FOR LOCATION OF OVERALL SAVANNAH / HILTON HEAD INTERNATIONAL AIRPORT HORIZONTAL & VERTICAL CONTROL POINTS.

PROJECT SURVEY CONTROL DATA								
POINT DESIGNATION	STATE PLA COORDINATE		ELEVATION (NAVD88)	DESCRIPTION				
DESIGNATION	NORTHING	EASTING	(INAVDOO)					
PROJECT CONTROL #40028	771307.30	956865.47	27.61'	MAG NAL IN ASPHALT (INTERSECTION OF BOB HARMON RD. & CORPORATE RD.)				
PROJECT CONTROL #2	772370.53	958576.79	17.13'	1" IRON PIPE WITHIN DAVIDSON DR.				
PROJECT CONTROL #40006	774563.09	959665.72	23.13'	MAG NAIL IN ASPHALT				
PROJECT CONTROL #40002	772887.11	958844.41	18.81	MAG NAIL IN ASPHALT				

1. INFORMATION PROVIDED BY COLEMAN COMPANY, INC. SEE SHEET G4.01 FOR LOCATION OF THESE PROJECT SURVEY CONTROL POINTS.

SURVEY CONTROL NOTES:

- 1. PROJECT LOCATED IN SAVANNAH, GEORGIA GEORGIA EAST (1001) ZONE.
- HORIZONTAL DATUM: BEARINGS AND COORDINATES AS SHOWN ARE GRID, BASED ON GEORGIA EAST STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD83).
- 3. APPROXIMATE CONVERSION OF VERTICAL DATUMS:

TO CONVERT ELEVATIONS GIVEN IN NAVD 88 VALUES TO NGVD 29 VALUES: ADD 0.92' TO NAVD 88 VALUES.

TO CONVERT ELEVATIONS GIVEN IN NGVD 29 VALUES TO NAVD 88 VALUES: SUBTRACT 0.92' FROM NGVD 29 VALUES.

- 4. RUNWAY THRESHOLD DATA BASED ON NGS/NOAA OBSTACLE DATA SURVEYS FOR THE FAA ON FEB. 07, 2006, AVAILABLE IN UDDF FORMAT @ http://www.ngs.noaa.gov/AERO/uddf/SOUTHERN/GEORGIA/SAV__06D.F77
- 5. PACS & SACS DATA BASED ON NGS DATA SHEETS, DATED FEB. 21, 2007, FOR DESCRIBED MONUMENTS, WHICH ARE AVAILABLE

 (B) HTTP://www.ngs.noaa.gov
 PACS = PRIMARY AIRPORT CONTROL STATION
 SACS = SECONDARY AIRPORT CONTROL STATION

PROJECT EXISTING SURVEY NOTE:

- TOPOGRAPHICAL SURVEY PERFORMED FOR THIS PROJECT BY COLEMAN COMPANY, INC, IN AUG./SEPT./OCT. 2019. THE SURVEY WILL BE PROVIDED TO THE SELECTED CONTRACTOR.
- 2. SEE SHEET G4.01 FOR SURVEY CONTROL POINTS SET BY COLEMAN COMPANY, INC. WITHIN THE PROJECT AREA.

DATE	DESCRIPTION	BY	AUTH	Γ
MAR. 2021	BID DOCUMENTS	APD	RWP	l
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Savannah / Hilton Head International Airport
400 Airways Avenue
Savannah, Georgia 31408

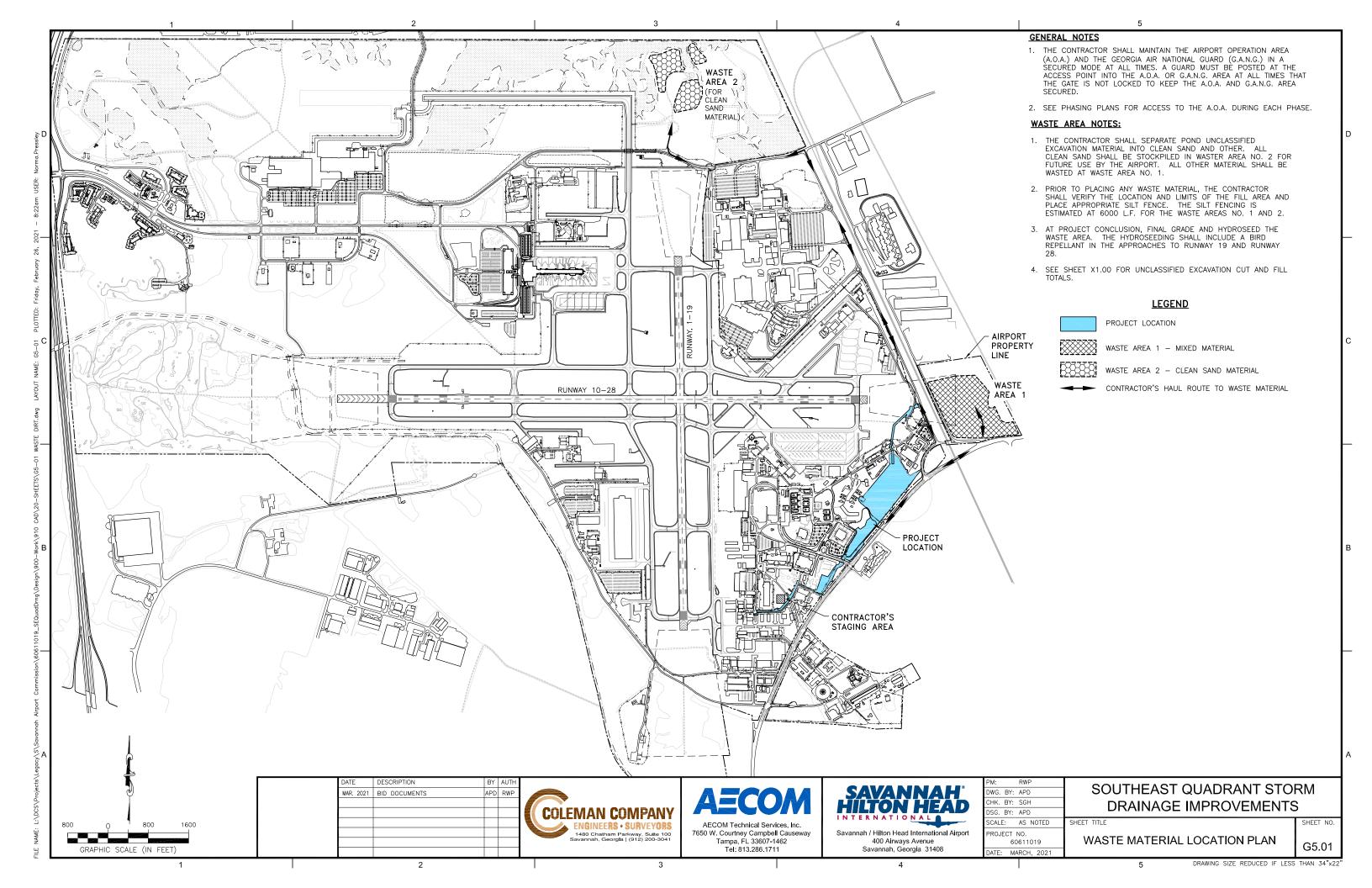
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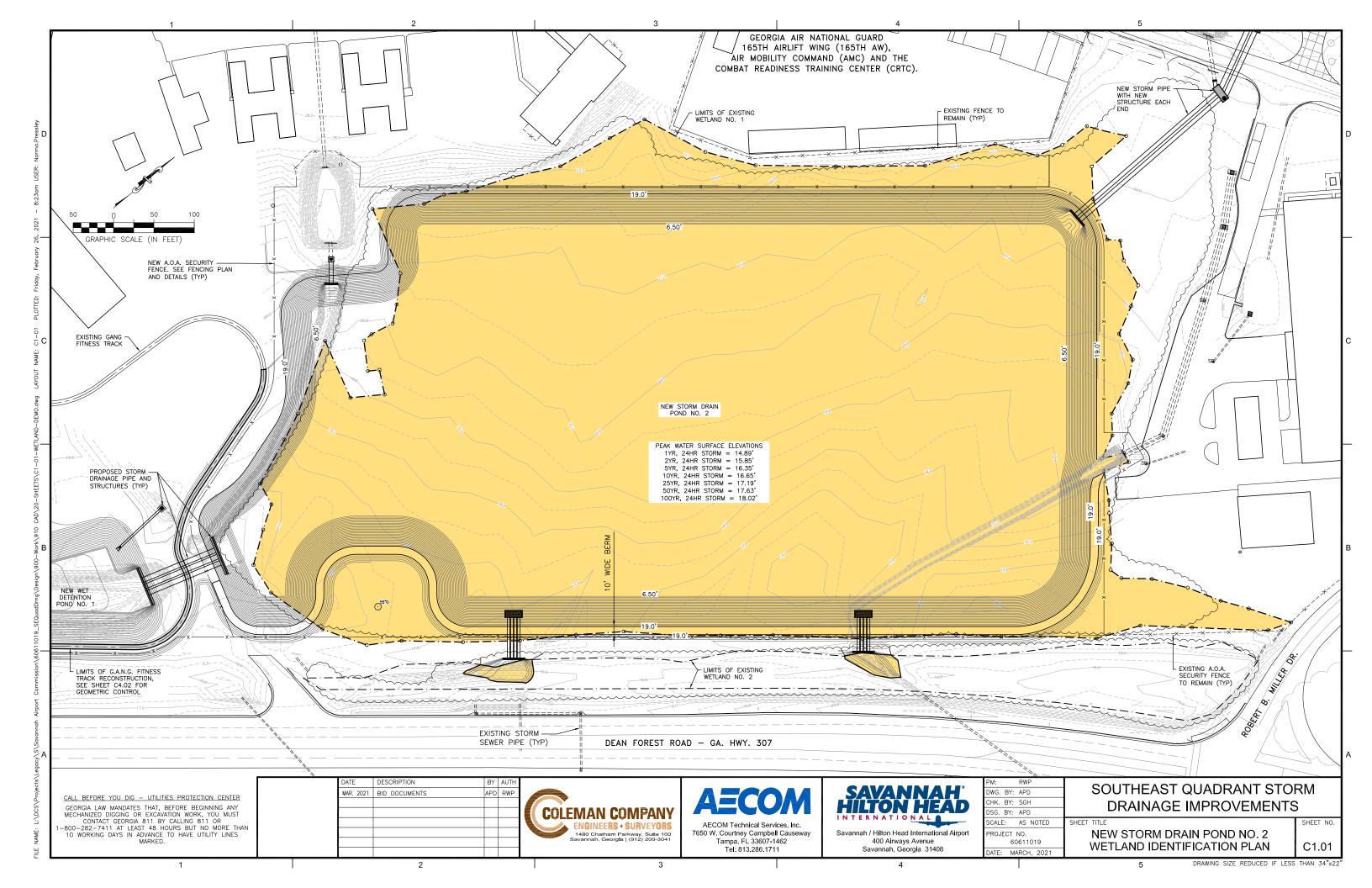
PROJECT NO. 60611019

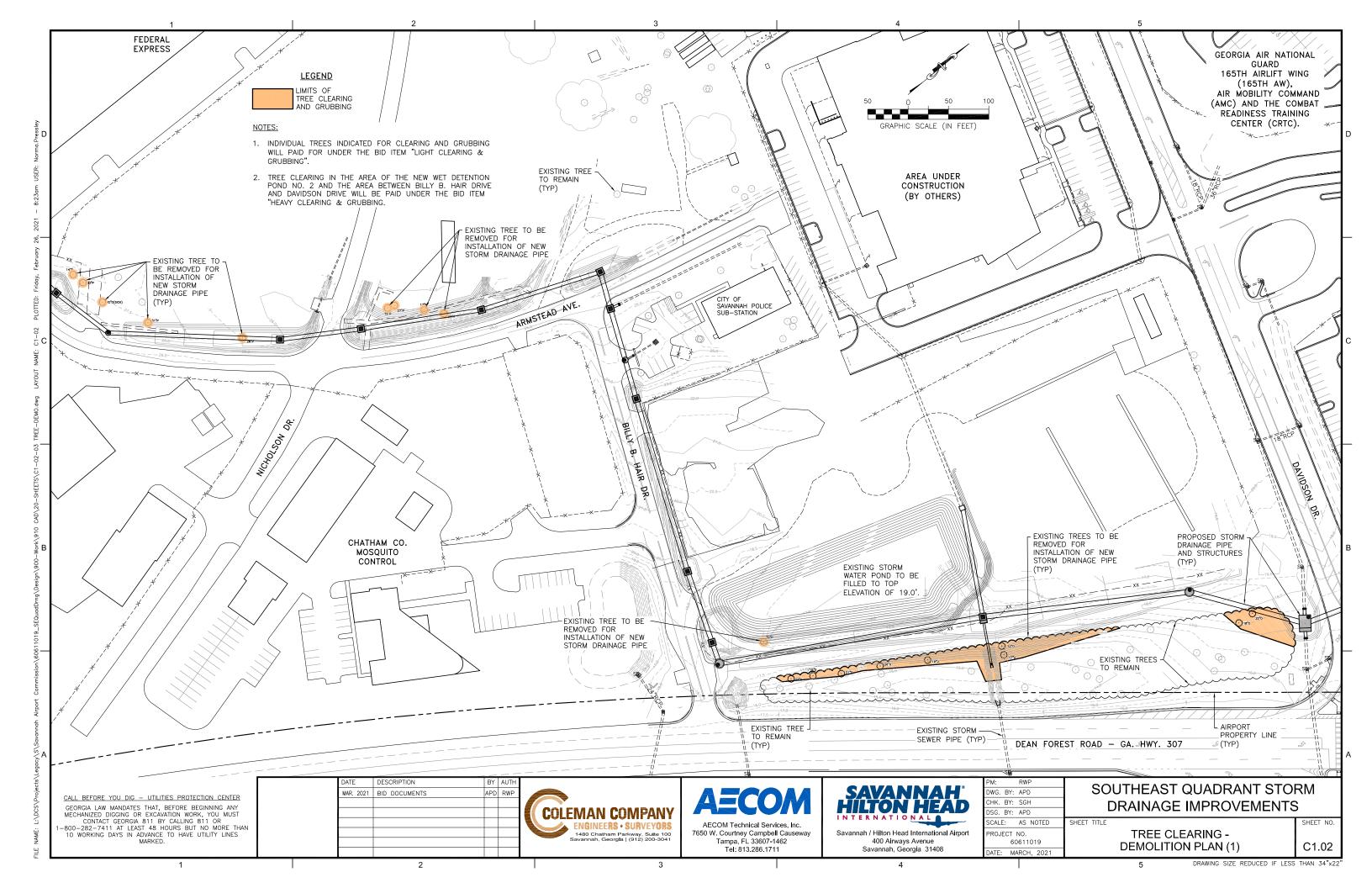
SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS SHEET TITLE SHEET

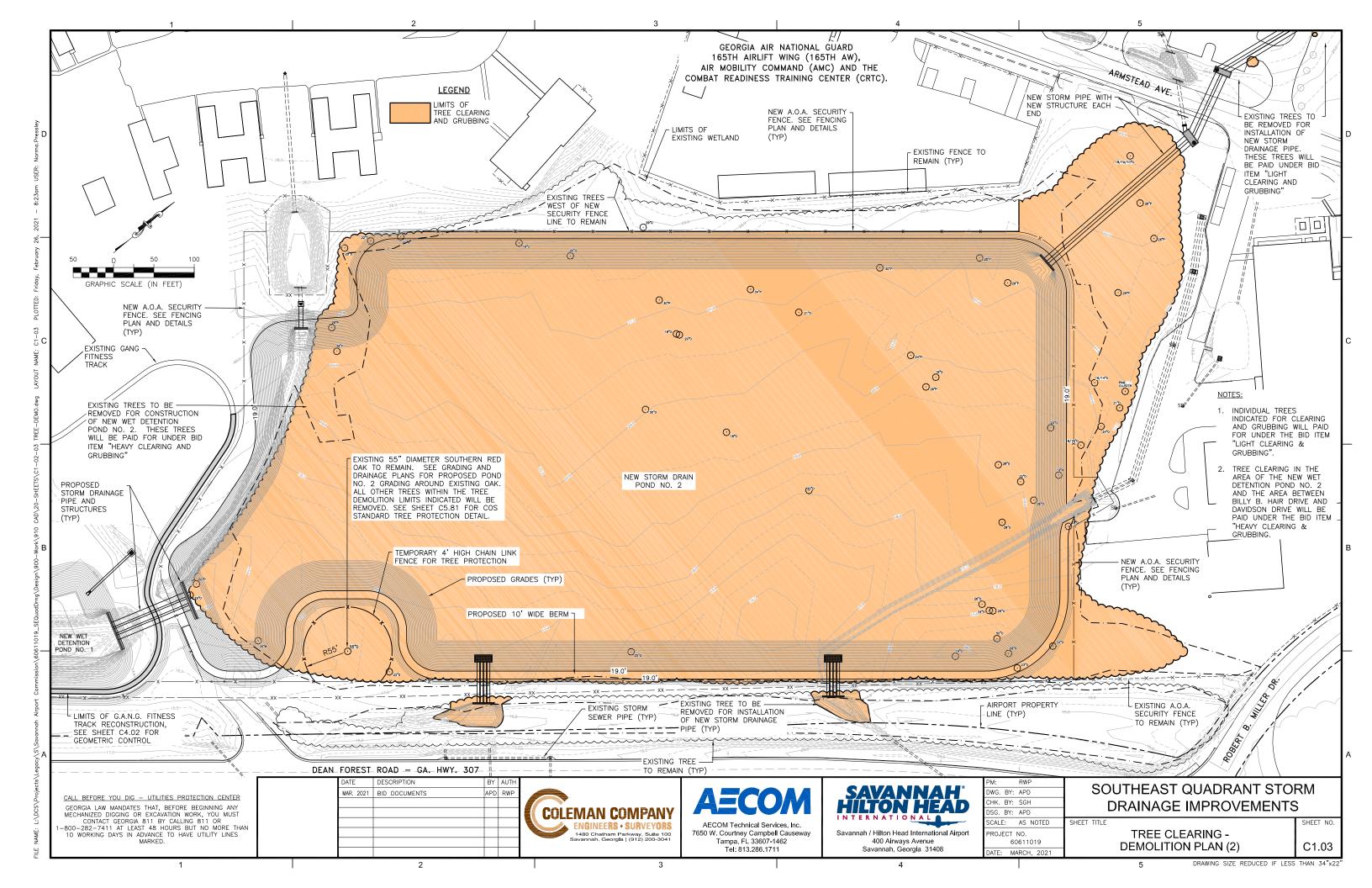
HORIZON & VERTICAL CONTROL DATA TABLES

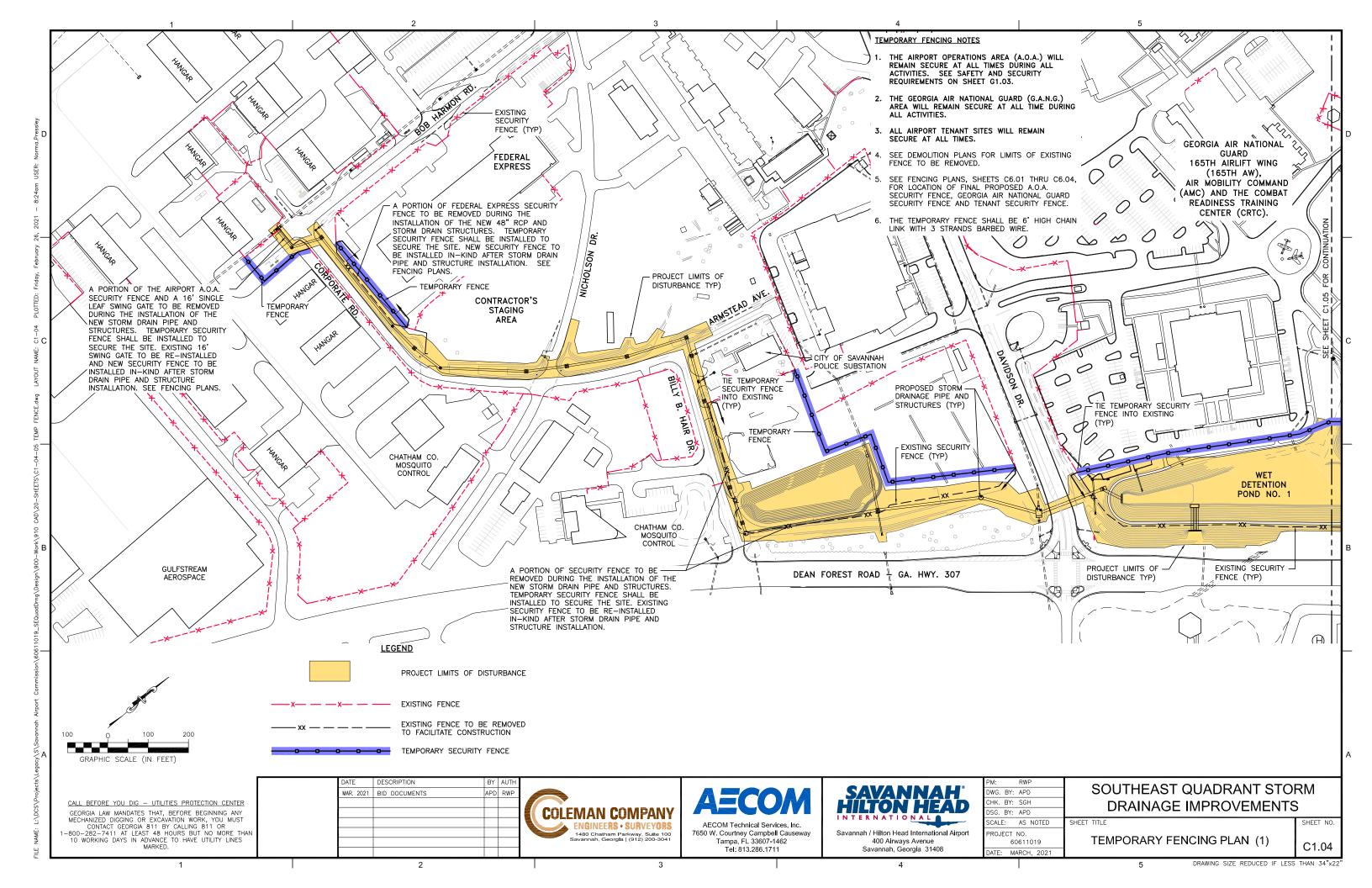
SHEET NO. **G4.02**

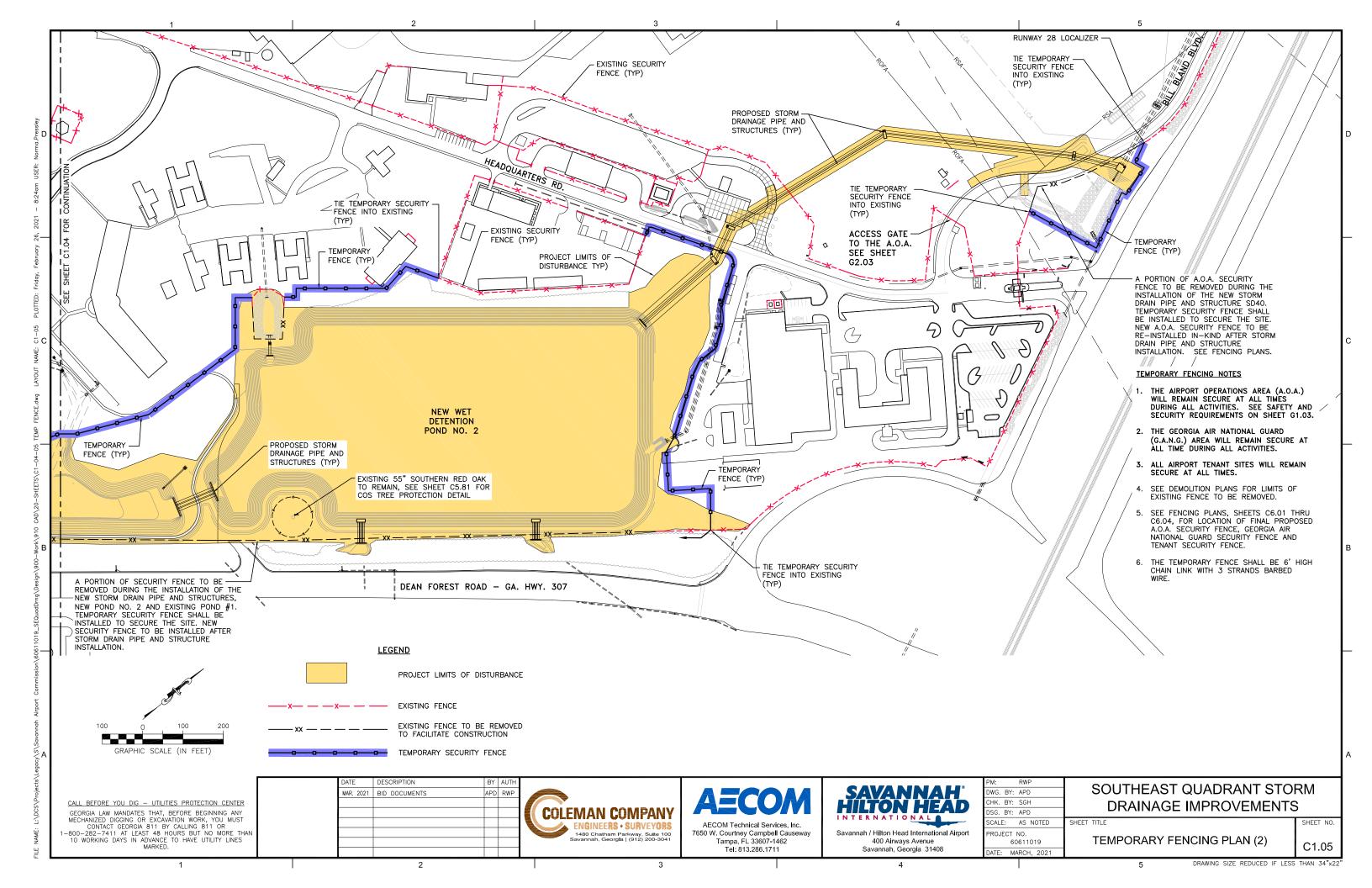












- (2) TACK COAT
- 3 3" BITUMINOUS BINDER; 2-1½" "12.5 MM SUPERPAVE" OR 1-3" "19MM SUPERPAVE"
- (4) PRIME COAT
- 5 9" G.D.O.T. 310 CRUSHED AGGREGATE BASE
- 6 P-152 COMPACTED SUBGRADE

G.D.O.T. TYPE "12.5MM SUPERPAVE" ASPHALTIC CONCRETE	1 1/2"	<u> </u>
G.D.O.T. TYPE "12.5MM OR 19 MM SUPERPAVE" BITUMINOUS BINDER (2-1½" LIFTS OR 1-3" LIFT)		
GDOT 310 CRUSHED AGGREGATE BASE	. "o	MODIFIED OR (MIN.)
P-152 COMPACTED SUBGRADE	*	100% N

COMPACTION SCHEDULE FOR ROADWAY PAVEMENT

EXISTING GRADE (TYP)

* ALL FILL MATERIAL SHALL BE COMPACTED TO 100% MODIFIED PROCTOR. THE UPPER 12" OF EXISTING SUBGRADE SHALL BE COMPACTED TO 100% MODIFIED PROCTOR PRIOR TO PLACEMENT OF AGGREGATE BASE.

G.A.N.G. ROADWAYS BITUMINOUS ROADWAY PAVEMENT SECTION

- 1) 1½" SURFACE COURSE "12.5MM SUPERPAVE"
- 2 TACK COAT
- 3 2" BITUMINOUS BINDER; 1 2" LIFT "19MM SUPERPAVE"
- 4) PRIME COAT
- (5) 9" G.D.O.T. 310 CRUSHED AGGREGATE BASE
- 6 P-152 COMPACTED SUBGRADE

G.D.O.T. TYPE "12.5MM SUPERPAVE" ASPHALTIC CONCRETE	1 1/2"	<u>.</u>
G.D.O.T. TYPE "19MM SUPERPAVE" BITÙMINDÙS BINDÈR (1 – 2" LIFT)	2"	
GDOT 310 CRUSHED AGGREGATE BASE	.6	MODIFIED OR (MIN.)
P-152 COMPACTED SUBGRADE	*	100% MC PROCTOR

COMPACTION SCHEDULE FOR ROADWAY PAVEMENT

VARIES

BILL BLAND BLVD

HEADQUARTERS RD. (ARMSTEAD AVE)

SHLDR TRAVELWAY TRAVELWAY SHLDR

VARIES

ROADWAY REPLACEMENT - TYPICAL SECTION

DAVIDSON DRIVE

12' TRAVELWAY TRAVELWAY SHLDR SHLDR **PROPOSED** GRADE (TYP) - EXISTING GRADE (TYP)

ROADWAY Q

GENERAL NOTES

SECTION AND MATERIALS.

AREAS 1 THRU 8.

1. ALL DISTURBED AND GRADED AREAS TO BE SODDED.

INCIDENTAL TO BID ITEM UNCLASSIFIED EXCAVATION.

FOR A FINAL TRACK DISTANCE MEASURE OF 1/2 MILE.

4. THE G.A.N.G. FITNESS TRACK SHALL MATCH EXISTING PAVEMENT

5. SEE SHEET C2.20 AND C4.20 FOR THE LIMITS OF THE G.A.N.G. FUEL FACILITY ROADWAY CONCRETE REMOVAL AND REPLACEMENT FOR THE INSTALLATION OF THE NEW STORM DRAIN SYSTEM. 6. SEE SHEETS C2.11 THRU C2.21 FOR EXISTING CONDITIONS AND DEMOLITION PLANS AND SHEETS C4.11 THRU C4.21 FOR GRADING

2. THE STRIPPING OF THE SOIL FOR PAVEMENT CONSTRUCTION IS

3. SEE SHEET C4.02 FOR THE LIMITS OF THE G.A.N.G. FITNESS TRACK

RE-ALIGNMENT AND RECONSTRUCTION. THE FITNESS TRACK MUST BE BUILT AT THE ALIGNMENT BEARINGS AND DISTANCES INDICATED

AND DRAINAGE PLANS FOR ASPHALT OPEN CUT AND REPLACEMENT

BOB HARMON ROAD CORPORATE ROAD ARMSTEAD AVENUE BILLY B. HAIR DRIVE



Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

WG. BY: APD HK. BY: EJF SG. BY: RWP CALE: AS NOTED

ROJECT NO

60611019

APPLICABLE.

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

TYPICAL SECTIONS AND PAVEMENT REPLACEMENT DETAILS (1)

2" PLEXITRAC RUBBER SURFACE

12.5 MM SUPERPAVE

1.5" ASPHALTIC CONCRETE

PRIME COAT

DRY DENSITY

SPECIFICATION)

4" COMPACTED GRANITE AGGREGATE

12" COMPACTED SUB-BASE AT 98% MAXIMUM DRY DENSITY (AS PER

BASE COURSE AT 100% MAXIMUM

(COLOR TO MATCH EXISTING)

NOTE:
AFTER ASPHALTIC CONCRETE HAS COOLED AND HARDENED, APPLY 2" PLEXITRAC RUBBER SURFACE (COLOR TO MATCH EXISTING). THE LIMITS OF TRACK MODIFICATION WILL BE RAISED TO ELEVATION 19'.

G.A.N.G. FITNESS TRACK PAVEMENT SECTION

OPEN CUT PAVEMENT AND REPLACEMENT IDENTIFICATION

AREA 1 — LOCATED AT BOB HARMON RD. AND A.O.A. SECURITY FENCE BETWEEN NEW STRUCTURES SD10 AND SD11. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT DEMOLITION, PAVEMENT SECTION REPLACEMENT, ROADWAY MARKINGS AND

STRUCTURES SD11 AND SD12. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT

STRUCTURES SD16 AND SD17. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT DEMOLITION, PAVEMENT SECTION REPLACEMENT, ROADWAY MARKINGS AND RAISED

AREA 4 — LOCATED AT ARMSTEAD AVE. AT INTERSECTION OF BILLY B. HAIR BETWEEN NEW STRUCTURES SD19 AND SD20. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT DEMOLITION, PAVEMENT SECTION REPLACEMENT, ROADWAY MARKINGS AND

AREA 5 - LOCATED AT BILLY B. HAIR DR. AND SAVANNAH POLICE SUB-STATION ENTRANCE DRIVE AT NEW STRUCTURE SD21. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT DEMOLITION, PAVEMENT SECTION REPLACEMENT, ROADWAY MARKINGS AND

AREA 6 - LOCATED AT DAVIDSON DRIVE BETWEEN NEW STRUCTURES SD27 AND

SD28. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT DEMOLITION, PAVEMENT SECTION REPLACEMENT, CURB & GUTTER REPLACEMENT, ROADWAY MARKINGS AND

<u>AREA 7</u> — LOCATED AT G.A.N.G. HEADQUARTERS RD. (ARMSTEAD AVE.) BETWEEN NEW STRUCTURES SD44 AND SD43. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT DEMOLITION, PAVEMENT SECTION REPLACEMENT, CONCRETE SIDEWALK PAVEMENT

AREA 8 - LOCATED AT G.A.N.G. BILL BAND BLVD. BETWEEN NEW STRUCTURE SD41 TO SD40. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT DEMOLITION, PAVEMENT SECTION REPLACEMENT, CONCRETE SIDEWALK REPLACEMENT, ROADWAY

 $\underline{\mathsf{AREA}}\ 9$ — LOCATED AT THE G.A.N.G. FUEL TRUCK ACCESS DRIVE BETWEEN NEW STRUCTURES SD43 AND SD42. BID ITEM FOR THIS AREA INCLUDES ALL PAVEMENT DEMOLITION, PAVEMENT SECTION REPLACEMENT, ROADWAY MARKINGS.

REPLACEMENT, ROADWAY MARKINGS AND RAISED REFLECTIVE MARKERS IF

DEMOLITION, PAVEMENT SECTION REPLACEMENT, ROADWAY MARKINGS AND RAISED REFLECTIVE MARKERS IF APPLICABLE.

AREA 2 - LOCATED AT BOB HARMON RD. & CORPORATE RD. BETWEEN NEW

AREA 3 — LOCATED AT NICHOLSON DR. AND CORPORATE RD. BETWEEN NEW

RAISED REFLECTIVE MARKERS IF APPLICABLE.

REFLECTIVE MARKERS IF APPLICABLE.

RAISED REFLECTIVE MARKERS IF APPLICABLE.

RAISED REFLECTIVE MARKERS IF APPLICABLE.

ROADWAY REPLACEMENT - TYPICAL SECTION

G.A.N.G. HEADQUARTERS RD (ARMSTEAD AVE) BILL BLAND BLVD. DESCRIPTION

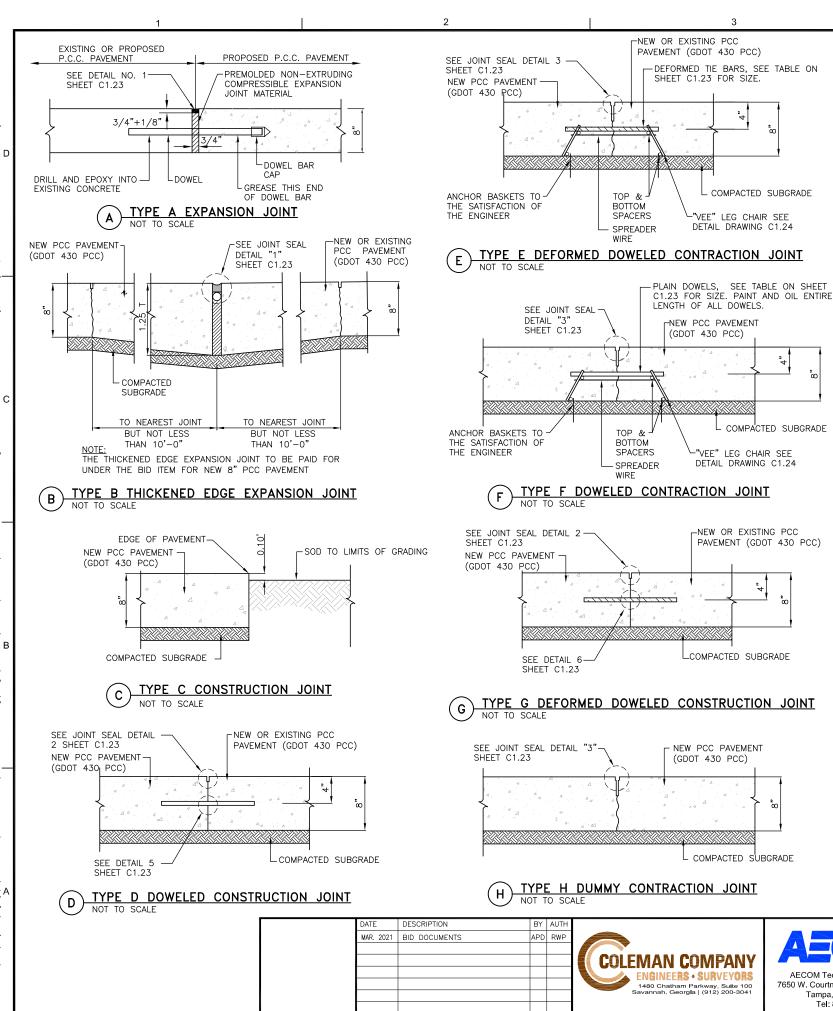
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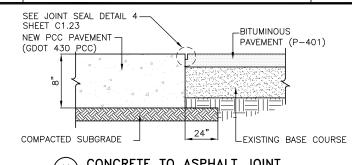
COLEMAN COMPANY 1480 Chatham Parkway, Suite 100 avannah, Georgla | (912) 200-3041

Tel: 813.286.1711

AECOM Technical Services Inc. 7650 W. Courtney Campbell Causeway Tampa, FL 33607-1462

MARKINGS AND RAISED REFLECTIVE MARKERS IF APPLICABLE.





CONCRETE TO ASPHALT JOINT NOT TO SCALE

G.A.N.G. CONCRETE PAVEMENT RECONSTRUCTION NOTES:

- 1. CONTRACTOR SHALL PROVIDE HIS PROPOSED PAVING PLAN AND JOINT LAYOUT PLAN FOR THE ENGINEER'S APPROVAL PRIOR TO CONSTRUCTION IN THE G.A.N.G. FUEL TRUCK STAGING AREA.
- 2. THE ACCESS TO THE FUEL TRUCK STAGING AREA SHALL BE
- 3. SEE SHEET C1.23 AND C1.24 FOR ADDITIONAL CONCRETE JOINT DETAILS AND NOTES.
- EXISTING CABLES, DUCTS, UNDERGROUND UTILITIES AND ASSOCIATED APPURTENANCES ARE DEPICTED SCHEMATICALLY AND REPRESENT THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION AND ARE NOT INTENDED TO REPRESENT NUMBER OR LOCATION OF THE CABLES, DUCTS, UNDERGROUND UTILITIES AND APPURTENANCES AND ARE INTENDED FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD INCLUDING DEPTH OF ALL CABLES, DUCTS, UNDERGROUND UTILITIES AND SHALL TAKE THE NECESSARY MEASURES TO PROTECT THEM. DAMAGE TO EXISTING CABLES, DUCTS, UNDERGROUND UTILITIES OR APPURTENANCES SHALL BE REPAIRED IMMEDIATELY TO SATISFACTION OF THE ENGINEER AND OWNER. ALL COSTS OF REPAIR SHALL BE BORNE BY THE CONTRACTOR.
- CAUTION SHALL BE USED WHEN REMOVING EXISTING PCC PAVEMENT PANELS SO DAMAGE TO ADJACENT PCC DOES NOT OCCUR. THE CONTRACTOR SHALL SUBMIT A PROPOSED PLAN FOR PCC PAVEMENT REMOVAL IN ALL AREAS, CONSISTENT WITH THESE GENERAL REQUIREMENTS, TO THE ENGINEER, FOR REVIEW DURING THE SHOP DRAWING REVIEW PERIOD, ANY DAMAGE TO ADJACENT PCC PAVEMENT SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. SHOULD UNDERMINING OCCUR, CONTRACTOR SHALL REPLACE IN KIND TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE UNIT COST OF THE BID ITEM FOR REPLACEMENT AREA NO. 9.
- 6. LIMITS OF SAW CUTTING SHALL BE MARKED BY CONTRACTOR WITH PAINT, CHALK, OR OTHER MATERIAL CLEARLY DESIGNATING LIMITS OF
- 7. ALL SPALLS, CRACKS OR PAVEMENT DISTRESSES THAT ARE CAUSED BY THE CONTRACTORS WORK SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- 8. DURING CONCRETE DEMOLITION THE CONTRACTOR SHALL USE EXTREME CAUTION TO LIMIT THE AMOUNT OF DUST AND DEBRIS TO WITHIN THE DESIGNATED WORK AREA. AIRCRAFT WILL BE OPERATING IN AREA CLOSE TO WHERE WORK IS TAKING PLACE AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE NO AIRCRAFT ARE
- 9. FINISHED GRADES ON REPLACEMENT CONCRETE PANELS SHALL BE ESTABLISHED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. FINAL GRADE ELEVATIONS SHALL CLOSELY MATCH EXISTING GRADES AND PROVIDE POSITIVE DRAINAGE.
- 10. THE COST OF JOINT SEALING NEW CONCRETE SHALL BE INCLUDED IN THE SQUARE YARD COST OF THE CONCRETE.
- 11. EXACT LIMITS OF CONCRETE SLAB REPLACEMENT SHALL BE AGREED UPON PRIOR TO COMMENCEMENT OF CONSTRUCTION TO VERIFY THE WORK WILL BE COMPLETED WITHIN THE PROJECT BUDGET.
- 12. EDGES OF SLAB SHALL BE PAINTED WITH AN APPROVED CURING MATERIAL BEFORE MAKING ADJACENT POUR. A TRANSVERSE CONSTRUCTION JOINT SHALL BE INSTALLED WHEN PAVING OPERATIONS ARE INTERRUPTED FOR MORE THAN 30 MINUTES EXCEPT AT EXPANSION JOINTS OR AT END OF SLABS. IF THE INTERRUPTION IS NOT AT A PLANNED JOINT, THE CONCRETE SHALL BE REMOVED BACK TO THE PREVIOUSLY INSTALLED JOINT.
- 13. ALL CONSTRUCTION JOINTS THAT ARE NOT OPEN AND FREE OF AGGREGATE TO THE FULL WIDTH AND DEPTH SHALL BE CLEANED BY SAWING FULL WIDTH AND DEPTH.
- 14. DOWEL BAR INSTALLATION DEVICE (WIRE CAGE OR BASKET) AND METHOD OF ANCHORING INTO POSITION SHALL BE APPROVED BY THE
- 15. ALL TYPE 1 REINFORCED PANELS ARE TO BE CONSTRUCTED WITH (X 6- W2.9 X W2.9 WELDED WIRE FABRIC OR NO. 3 DEFORMED BARS AT 12" X 12" ON CENTER. COST IS INCIDENTAL TO REPLACEMENT AREA NO. 9. SEE REINFORCEMENT DETAIL ON THIS DRAWING. ALL REINFORCING STEEL SHALL BE SUPPORTED BY CHAIRS PRIOR TO CONCRETE PLACEMENT.



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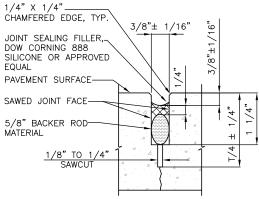
SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

SHEET TITLE

CONCRETE PAVING DETAILS (1)

SHEET NO.

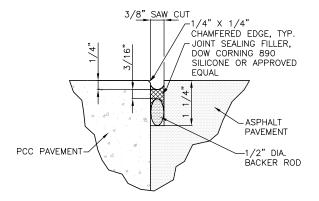
EXPANSION JOINT SEAL DETAIL



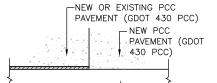
CONTRACTION JOINT SEAL DETAIL NOT TO SCALE

1/4" X 1/4"-CHAMFERÉD EDGE, 3/8"± 1/16" JOINT SEALING FILLER, DOW CORNING 888 SILICONE OR APPROVED **EQUAL** PAVEMENT SURFACE SAWED JOINT FACE-5/8" BACKER ROD-MATERIAL

CONSTRUCTION JOINT SEAL DETAIL



TYPE X PCC TO ASPHALT JOINT SEAL **DETAIL** NOT TO SCALE



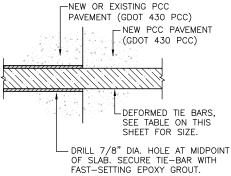
- 1. SEE TABLE 1 "DIMENSIONS AND SPACING OF STEEL DOWELS" THIS
- 2. SEE TABLE 2 "DIMENSIONS AND SPACING OF TIE BARS" THIS SHEET.

-DRILL 1 1/4" DIA. HOLE AT MIDPOINT OF SLAB. SECURE DOWEL WITH FAST-SETTING FPOXY GROUT.

PLAIN DOWELS, SEE TABLE ON THIS

SHEET FOR SIZE. PAINT ENTIRE LENGTH AND OIL UN-GROUTED PORTION

DOWEL DETAIL



TIE-BAR DETAIL NOT TO SCALE

DIMENSION AND SPACING OF STEEL DOWELS SLAB THICKNESS (T) DIAMETER (d) LENGTH (L) SPACING 6" - 4" 3/4" 12" O.C. MAX. 7.5" – 12' 12" O.C. MAX. 12.5" - 16" 20" 15" O.C. MAX. 16.5" - 20" 1 1/2" 20" 18" O.C. MAX. 20.5" - 24" 18" O.C. MAX.

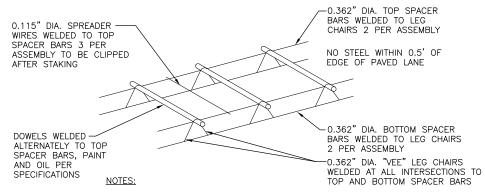
- 1. ALL DOWELS SHALL BE INSTALLED IN ACCORDANCE TO FAA ADVISORY CIRCULAR AC 150/5320/6F OR THE LATEST VERSION.
- 2. ALL DOWELS PLACED TO BE PARALLEL TO TOP OF PAVEMENT
- 3. ALL DOWELS PLACED TO HAVE 50% OF LENGTH ALONG JOINT LINES.
- 4. ALL DOWELS SHALL BE EPOXY COATED.

TABLE 1 - DIMENSIONS AND SPACING OF STEEL DOWELS

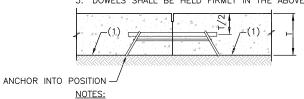
DIMENSION ANI	D SPACING OF	DEFORMED	DOWELS
SLAB THICKNESS (T)	SIZE	LENGTH (L)	SPACING
6" OR LESS	NO. 4	20"	36" O.C. MAX.
6" OR GREATER	NO. 5	30"	30" O.C. MAX.

1. ALL TIE BARS SHALL BE INSTALLED IN ACCORDANCE TO FAA ADVISORY CIRCULAR AC 150/5320/6F OR THE LATEST VERSION.

TABLE 2 - DIMENSIONS AND SPACING OF TIE BARS



- 1. BASKET MUST BE FIRMLY ATTACHED TO EXISTING OR NEW BASE.
- 2. ALL WIRE SIZES SHOWN ARE MINIMUM SIZE.
- 3. DOWELS SHALL BE HELD FIRMLY IN THE ABOVE WELDED ASSEMBLY.



1. T IS EQUAL TO 8".

TYPICAL DOWEL AND TIE BAR BASKET DETAIL NOT TO SCALE

DATE	DESCRIPTION	BY	AUTH	
MAR. 2021	BID DOCUMENTS	APD	RWP	١.
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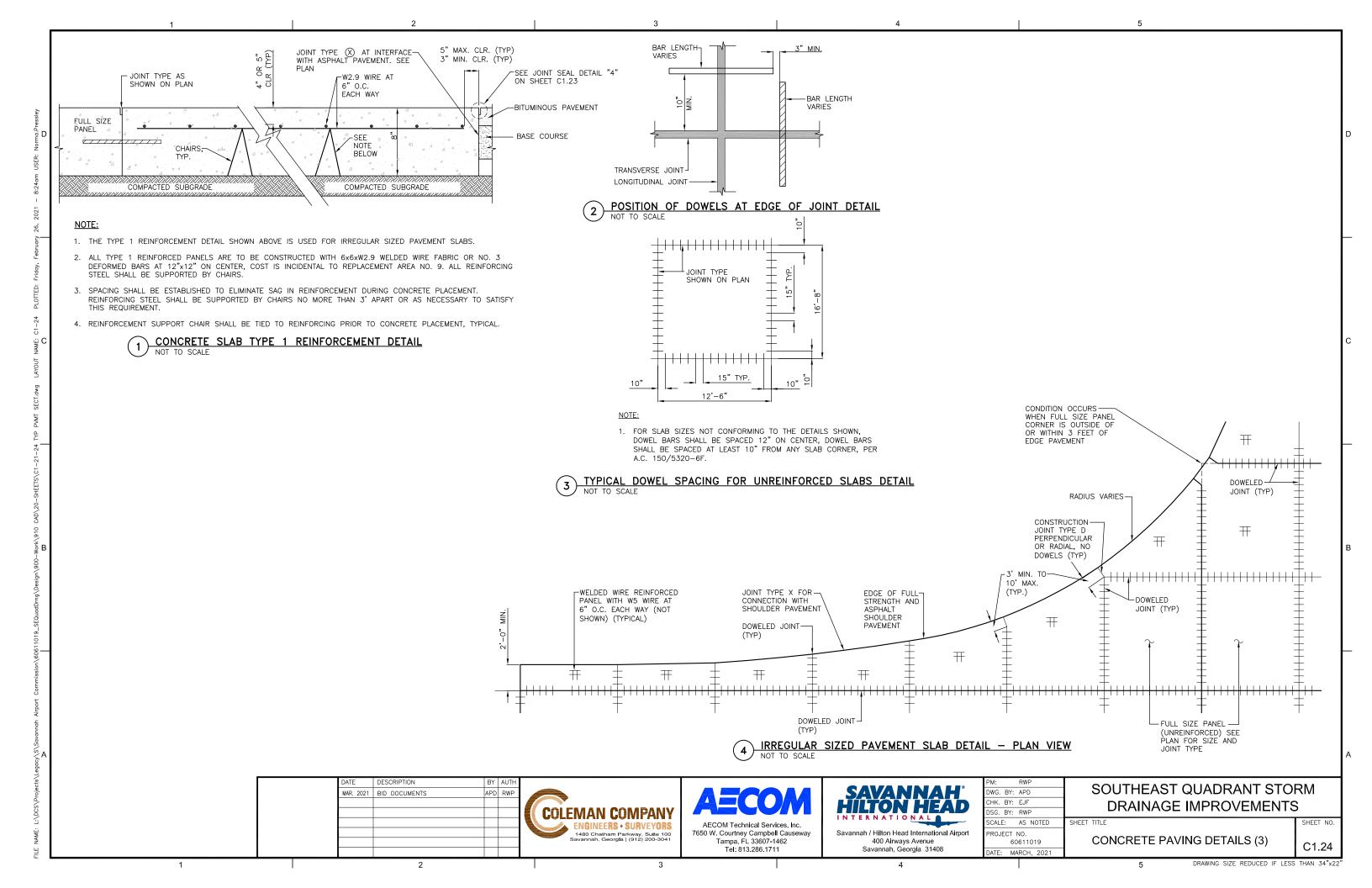
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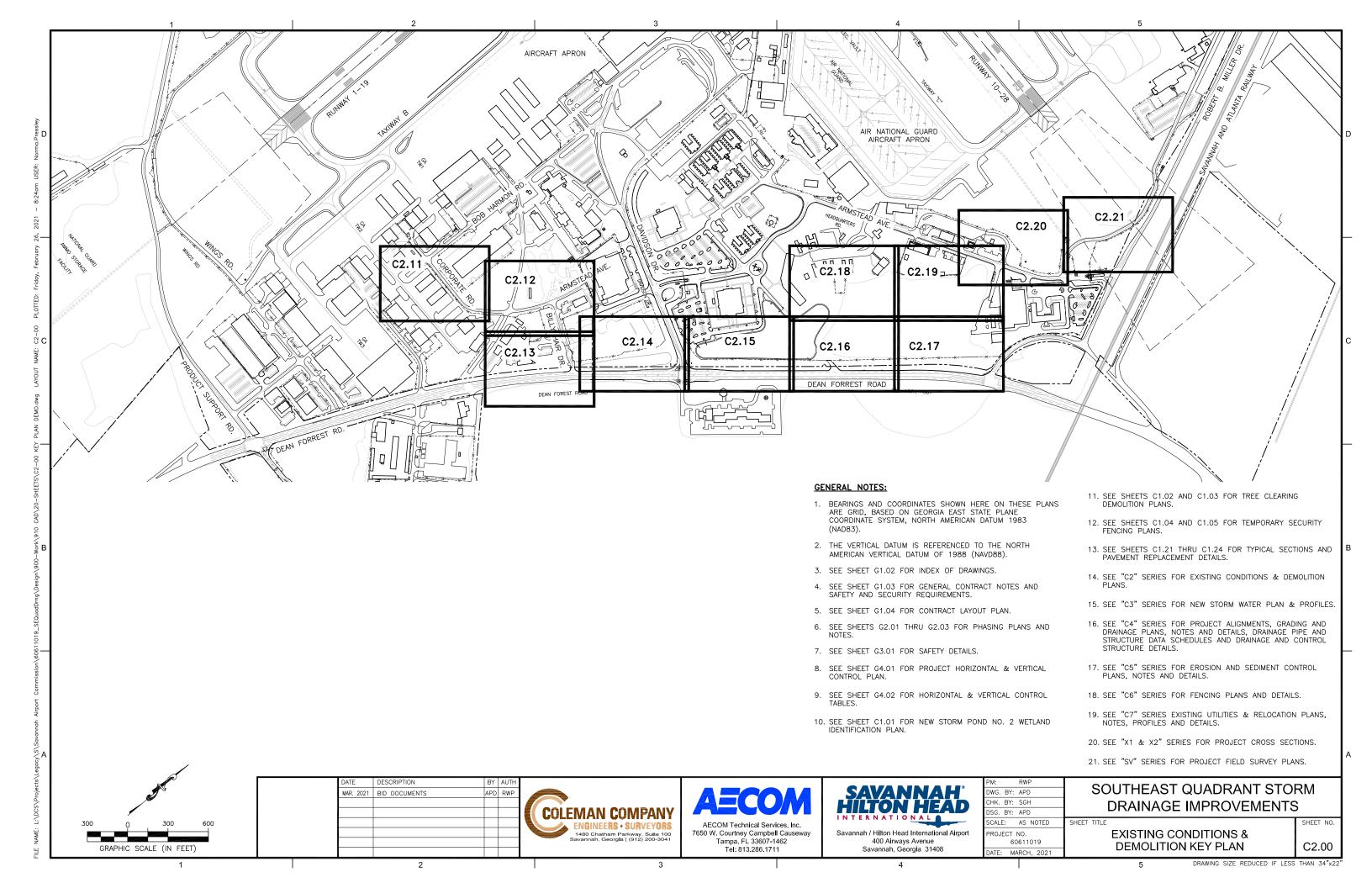
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SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

SHEET TITLE **CONCRETE PAVING DETAILS (2)**

SHEET NO.





GENERAL NOTES:

- BEARINGS AND COORDINATES SHOWN HERE ON THESE PLANS ARE GRID, BASED ON GEORGIA EAST STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD83).
- 2. THE VERTICAL DATUM IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 3. SEE SHEET G1.02 FOR INDEX OF DRAWINGS.
- 4. SEE SHEET G1.03 FOR GENERAL CONTRACT NOTES AND SAFETY AND SECURITY REQUIREMENTS.
- 5. SEE SHEET G1.04 FOR CONTRACT LAYOUT PLAN.
- 6. SEE SHEETS G2.01 THRU G2.03 FOR PHASING PLANS AND NOTES.
- 7. SEE SHEET G3.01 FOR SAFETY DETAILS.
- 8. SEE SHEET G4.01 FOR PROJECT HORIZONTAL & VERTICAL CONTROL PLAN.
- 9. SEE SHEET G4.02 FOR HORIZONTAL & VERTICAL
- 10. SEE SHEET C1.01 FOR NEW STORM POND NO. 2 WETLAND IDENTIFICATION PLAN.
- 11. SEE SHEETS C1.02 AND C1.03 FOR TREE CLEARING
- 12. SEE SHEETS C1.04 AND C1.05 FOR TEMPORARY SECURITY FENCING PLANS.
- 13. SEE SHEETS C1.21 THRU C1.24 FOR TYPICAL SECTIONS AND PAVEMENT REPLACEMENT DETAILS.
- 14. SEE "C2" SERIES FOR EXISTING CONDITIONS &
- 15. SEE "C3" SERIES FOR NEW STORM WATER PLAN &
- 16. SEE "C4" SERIES FOR PROJECT ALIGNMENTS, GRADING AND DRAINAGE PLANS, NOTES AND DETAILS, DRAINAGE PIPE AND STRUCTURE DATA SCHEDULES AND DRAINAGE AND CONTROL STRUCTURE DETAILS.
- 17. SEE "C5" SERIES FOR EROSION AND SEDIMENT CONTROL PLANS, NOTES AND DETAILS.
- 18. SEE "C6" SERIES FOR FENCING PLANS AND DETAILS.
- 19. SEE "C7" SERIES EXISTING UTILITIES & RELOCATION PLANS, NOTES, PROFILES AND DETAILS.
- 20. SEE "X1 & X2" SERIES FOR PROJECT CROSS
- 21. SEE "SV" SERIES FOR PROJECT FIELD SURVEY PLANS.

CALL BEFORE YOU DIG - UTILITIES PROTECTION CENTER

GEORGIA LAW MANDATES THAT, BEFORE BEGINNING ANY MECHANIZED DIGGING OR EXCAVATION WORK, YOU MUST CONTACT GEORGIA 811 BY CALLING 811 OR 1-800-282-7411 AT LEAST 72 HOURS BUT NO MORE THAN 10 WORKING DAYS IN ADVANCE TO HAVE UTILITY

UTILITY NOTES:

- CONTRACTOR SHALL WORK CLOSELY WITH THE UTILITY COMPANIES, CITY OF SAVANNAH, CHATHAM COUNTY AND THE AIRPORT STAFF AND RESIDENT ENGINEER IN THE AREA OF EXISTING UTILITIES TO REMAIN AND UTILITIES WHICH ARE TO BE RELOCATED, LOWERED, RAISED, ETC TO ENSURE THAT ALL UTILITIES; EXISTING TO REMAIN OR RELOCATED, HAVE THE APPROPRIATE DEPTH, SEPARATION AND ENCASEMENT. THESE UTILITIES ARE SHOWN WITH THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE ROUTING OF THE EXISTING UTILITIES IS APPROXIMATE AND SHOWN SCHEMATICALLY AND EXISTING UTILITIES IS APPROXIMATE AND SHOWN SCHEMATICALLY AND MUST BE FIELD VERIFIED. THE CONTRACTOR IS SPECIFICALLY WARNED AGAINST SCALING LOCATIONS OF ANY UNDERGROUND UTILITIES INDICATED IN THESE PLANS. THE CONTRACTOR WILL USE ELECTRONIC DETECTION DEVICES AND CAREFUL HAND EXCAVATION TO LOCATE ANY UNDERGROUND UTILITIES WHICH ARE CRITICAL FOR SAFE CONSTRUCTION OPERATIONS. CONTRACTOR SHALL "POTHOLE" THE EXISTING UTILITIES TO DETERMINE THE LOCATION, DEPTH AND SEPARATION OF EACH UTILITY LOCATED UNDER THE PROPOSED PAVEMENT. THE CONTRACTOR SHALL SUBMIT TO THE OWNER AND RESIDENT ENGINEER DETAILED FIELD LOCATIONS FOR EXISTING AND PROPOSED UTILITIES THAT ARE PLANNED UNDER PROPOSED
- 2. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL FIRST COORDINATE WITH ALL UTILITY COMPANIES AND THE AIRPORT STAFF TO LOCATE ALL EXISTING FAA, UNDERGROUND ELECTRICAL, OVERHEAD ELECTRICAL, NATURAL GAS, SANITARY SEWER, CATV, FIBER OPTICS AND COMMUNICATIONS, WATER AND OTHER UTILITIES AND FEATURES (WHETHER OR NOT SHOWN ON THESE PLAN) AFFECTING HIS WORK.
- 3. SEE EXISTING UTILITIES AND RELOCATION PLANS FOR ALL RELOCATIONS AND/OR MODIFICATIONS TO EXISTING UTILITIES IN ORDER TO FACILITATE THE INSTALLATION OF THE NEW STORM DRAIN
- 4. IF ANY FEATURE(S) MUST BE REMOVED IN ORDER TO FACILITATE CONSTRUCTION, THE CONTRACTOR SHALL REPLACE THE FEATURE(S) TO THE SAME OR BETTER CONDITION THAT IT WAS BEFORE REMOVAL
- 5. FIELD CONDITIONS MAY NECESSITATE SLIGHT ALIGNMENT AND GRADE DEVIATION OF THE PROPOSED UTILITIES TO AVOID OBSTACLES. AS ORDERED BY THE RESIDENT ENGINEER.

WETLAND NOTES:

- THE CONTRACTOR SHALL NOT ENTER UPON IN ANY WAY OR ALTER THE EXISTING WETLAND AREAS THAT ARE ON SITE EXCEPT AS DIRECTED BY THESE PLANS OR THE ENGINEER. ALL WORK IN THE VICINITY OF OPEN WATER AND/OR WETLANDS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS FOR THE SITE. CONTRACTOR WILL BE RESPONSIBLE AND SHALL PAY, AT NO COST TO SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT, ANY FINE RESULTING FROM THE CONTRACTORS VIOLATION OF PERMIT CONDITIONS OR LOCAL. STATE, OR FEDERAL RULE, STATUE, OR LAW.
- 2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF ALL APPLICABLE PERMITS ISSUED BY ENVIRONMENTAL PERMITTING AND REGULATORY AGENCIES TO THIS SITE. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF PERMITS AND/OR APPROVALS. COPIES OF THE PERMITS WILL BE AVAILABLE FROM SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT, AND SHALL BE POSTED OR MAINTAINED ON-SITE AS REQUIRED BY PERMIT CONDITIONS.
- 3. THE CONTRACTOR SHALL ESTABLISH HIS INTERNAL HAUL ROUTES IN A MANNER THAT SHALL NOT DISTURB ANY EXISTING WETLAND AREAS TO
- MITIGATION CREDITS MUST BE PURCHASED BY THE SAVANNAH AIRPORT COMMISSION PRIOR TO DESTROYING EXISTING WETLANDS. THE AIRPORT WILL PROVIDE THE CONTRACTOR WITH SEPARATE NOTICE-TO-PROCEED ON WETLAND WORK IN THE FUTURE AVIATION DEVELOPMENT AREAS DURING ON-GOING CONSTRUCTION. THE CONTRACTOR IS HERE-BY ALERTED THAT THIS MAY REQUIRE SEPARATE MOBILIZATION OF EQUIPMENT AND PERSONNEL AND THAT NO ADDITIONAL PAYMENT WILL BE MADE IF ADDITIONAL MOBILIZATION IS REQUIRED.

TREE CLEARING NOTES:

- 1. SEE SHEET C1.02 AND C1.03 TREE DEMOLITION PLANS FOR LIMITS OF CLEARING AND GRUBBING
- 2. PRIOR TO BEGINNING ANY CLEARING, THE CONTRACTOR SHALL PLACE RIBBONS AROUND TRUNKS OF THE TREES AT SUFFICIENT INTERVALS TO CLEARLY DEFINE THE LIMITS OF CLEARING AS SHOWN ON THE THESE LIMITS SHALL BE JOINTLY INSPECTED BY THE CONTRACTOR AND ENGINEER BEFORE CLEARING BEGINS.
- THE CONTRACTOR MAY ELECT TO CONDUCT TRANSVERSE SURVEY OF THE AREAS TO BE CLEARED FUR MEASUREMENT OF THE PURPOSES. SURVEY NOTES AND CALCULATIONS SHALL BE PURPOSES. SURVEY NOTES AND CALCULATIONS SHALL BE PURPOSED TO ANY CLEARING. IF SURVEY IS NOT PROVIDED BY THE CONTRACTOR THEN THE PLAN QUANTITIES SHALL GOVERN.
- 4. TREE CLEARING AND GRUBBING SHALL BE PERFORMED WITHIN THE ENTIRE LIMITS OF PROPOSED PROJECT GRADING. ADDITIONAL CLEARING, OUTSIDE THE LIMITS OF PROJECT GRADING AS SHOWN, IS REQUIRED TO REMOVE OBVIOUS REMNANT CLUSTERS OF TREES AND PROVIDE SUFFICIENT WORKING SPACE FOR EQUIPMENT TO CONSTRUCT THE GRADES SHOWN. ADDITIONALLY, 10' TO 15' OF TREE CLEARING SHALL BE PERFORMED OUTSIDE OF PROPOSED FENCE AREAS WHICH, IN SOME CASES, IS OUTSIDE OF THE LIMITS OF PROPOSED GRADING. THE EXACT LIMITS OF CLEARING SHALL BE COORDINATED WITH THE GRADING AND DRAINAGE PLANS.
- CONTRACTOR SHALL TAKE EXTREME CARE TO MINIMIZE THE ENCROACHMENT (I.E., WITH EQUIPMENT, PERSONNEL, EARTH, CLEARED TREES, ETC.) INTO EXISTING STREAMS, STREAM BANKS AND WETLANDS WHICH ARE TO REMAIN UNDISTURBED FOR THIS PROJECT.
- 6. REFER TO SPECIFICATION P-151 FOR CLEARING AND GRUBBING
- 7. ALL CLEARING AND GRUBBING DEBRIS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY. COST OF REMOVAL AND DISPOSAL OFF AIRPORT PROPERTY SHALL BE INCLUDED IN BID ITEM "HEAVY CLEARING & GRUBBING".
- 8. MULCHING OR "SMOKELESS BURNING" OF THE TREES SCHEDULED FOR REMOVAL SHALL BE DONE ON AIRPORT PROPERTY. AREAS WHERE THE TREE MULCHING OR BURNING SHALL TAKE PLACE SHALI BE DESIGNATED BY THE ENGINEER IN THE FIELD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY BURN PERMITS REQUIRED BY STATE OR LOCAL AGENCIES.

GRADING AND DRAINAGE GENERAL NOTES:

- THE CONTRACTOR SHALL WILL FOLLOW ALL SPECIFICATIONS AND GUIDELINES AS ESTABLISHED IN THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD INDEX AND SPECIFICATIONS.
- 2. ALL STORM DRAIN OR UTILITY INSTALLATIONS BY OPEN CUT ACROSS EXISTING PAVEMENT WILL BE CONSTRUCTED AS INDICATED IN GDOT STANDARD INDEX NO. 1401.
- 3. ALL NEW GDOT INLETS WILL BE CONSTRUCTED AS INDICATED IN GDOT STANDARD INDEX 1019A AND 1019B.
- 4. ALL NEW GDOT HEADWALLS WILL BE CONSTRUCTED AS INDICATED IN THE GDOT STANDARD INDEX NO. 1001-B.
- 5. ALL RIPRAP OUTLET PROTECTION SHALL BE CONSTRUCTED AS INDICATED IN THE GRADING AND DRAINAGE PLANS USING FABRIFORM REVETMENT AND IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (GSWCC), 2016
- 6. ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE ACCORDING TO THE LATEST MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (GSWCC).

DEMOLITION NOTES:

- PAY ITEMS HAVE BEEN ESTABLISHED AND DESIGNATED FOR SPECIFIC ITEMS OF REMOVAL AND DEMOLITION AND ARE INDICATED ON THE BID SCHEDULE. ALL ITEMS IDENTIFIED FOR REMOVAL BY THE CONTRACTOR ON THESE DRAWINGS FOR WHICH A PAY ITEM HAS NOT BEEN IDENTIFIED SHALL BE INCLUDED IN THE LUMP SUM ITEM FOR "MISCELLANEOUS DEMOLITION", PER SPECIFICATION SECTION P-101.
- 2. ALL ASPHALT OR CONCRETE PAVEMENT REMOVED BY THE CONTRACTOR UNDER THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR OFF—SITE IN A LEGAL MANNER, AT THE EXPENSE OF THE CONTRACTOR.
- 3. PAVEMENT REMOVAL AND REPLACEMENT SHALL BE MEASURED AND PAID FOR ON THE BASIS OF THE ACCEPTED AREAS NOTED IN THE DRAWINGS.
- 4. DEMOLITION OF ALL INLETS, MANHOLES, CONCRETE GUTTERS, RIP-RAP, STORM SEWER PIPE, AND ANY OTHER STORM SEWER ITEM BEING REMOVED AND/OR DISPOSED OF SHALL BE INCIDENTAL TO ITEM P-101-5.3, DRAINAGE DEMOLITION.
- 5. THE CONTRACTOR SHALL VERIFY LOCATION AND MARK ALL EXISTING UTILITIES PRIOR TO ANY DEMOLITION, TO INSURE THAT ONLY THE UTILITIES AND FEATURES MARKED FOR DEMOLITION ARE REMOVED AND OTHER UTILITIES AND FEATURES ARE NOT DISTURBED. ANY UTILITIES DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT HIS EXPENSE.
- 6. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL FIRST COORDINATE WITH ALL UTILITY COMPANIES AND THE AIRPORT STAFF TO LOCATE ALL EXISTING FAA, UNDERGROUND ELECTRICAL, OVERHEAD ELECTRICAL, NATURAL GAS, SANITARY SEWER, CATV, FIBER OPTICS AND COMMUNICATIONS, WATER AND OTHER UTILITIES AND FEATURES (WHETHER OR NOT SHOWN ON
- 7. THE OWNER WILL PROVIDE AN ADDRESS AND LOCATION FOR DELIVERY OF ANY SALVAGEABLE ITEM TO BE DELIVERED TO HIM BY THE CONTRACTOR. FOR BID PURPOSES ASSUME DELIVERY TO BE THE SAVANNAH AIRPORT MAINTENANCE FACILITY.
- 8. ALL ITEMS CONSIDERED SALVAGEABLE WILL BE DELIVERED TO SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT AT A LOCATION DESIGNATED BY THE OWNER. FOR BID PURPOSES ASSUME DELIVERY TO BE THE SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT MAINTENANCE
- 9. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION.
- THE CONTRACTOR SHALL REMOVE ALL EXISTING, DEACTIVATED AND DECOMMISSIONED UNDERGROUND UTILITIES WITHIN THE EARTHWORK EXCAVATION LIMITS OF THIS PROJECT.
- 11. THE A.O.A. (AIRPORT OPERATIONS AREA) SHALL REMAIN SECURE AT ALL TIMES.
- 12. THE G.A.N.G. (GEORGIA AIR NATIONAL GUARD) PROPERTY SHALL REMAIN SECURE AT ALL TIMES.
- 13. EXACT LIMITS OF FENCE REMOVAL SHALL BE COORDINATED WITH THE PROPOSED FENCE INSTALLATION PLAN AND SHALL BE VERIFIED IN THE FIELD WITH THE ENGINEER.
- 14. EXISTING CONCRETE FENCE POST FOUNDATIONS SHALL BE REMOVED AS PART OF THE FENCE REMOVAL. CONTRACTOR SHALL DELIVER ALL USABLE FENCE, POSTS, EQUIPMENT, ETC. TO AN ON-AIRPORT LOCATION DESIGNATED BY THE OWNER.
- 15. EXISTING SERVICES SHALL NOT BE REMOVED OR DISRUPTED, UNLESS COORDINATED AND APPROVED BY THE APPROPRIATE UTILITY COMPANY, UNTIL THE NEW OR RELOCATED SERVICE (IF APPLICABLE) HAS BEEN INSTALLED.
- 16. NO DELAY CLAIMS OR ANY OTHER CLAIMS BY THE CONTRACTOR WILL BE CONSIDERED RELATING TO THE REMOVAL AND INSTALLATION OF UTILITIES BY THE UTILITY COMPANIES.
- 17. ALL UTILITY DEMOLITION ACTIVITIES SHALL BE COORDINATED WITH THE UTILITY COMPANIES.
- 18. <u>EXISTING STORM PIPE TO BE PLUGGED:</u> THE CONTRACTOR SHALL REMOVE ALL EXISTING STORM PIPE INDICATED TO BE PLUGGED TO ONE FOOT FROM THE EDGE OF THE EXISTING ROADWAY PAVEMENT AND THEN PLUG THE EXISTING PIPE TO REMAIN USING GROUT. THE COST OF PLUGGING THE STORM PIPE OPENING IS INCIDENTAL TO THE COST OF REMOVING THE STORM
- 19. EXISTING STORM PIPE TO BE REMOVED TO EXISTING STRUCTURE TO REMAIN: THE CONTRACTOR SHALL REMOVE THE EXISTING PIPE INDICATED TO THE EXISTING STRUCTURE TO REMAIN AND THEN PLUG THE STRUCTURE OPENING USING BRICK. THE COST OF PLUGGING THE STRUCTURE OPENING IS INCIDENTAL TO THE COST OF REMOVING THE STORM PIPE.
- 20. THE COST OF OPEN CUT EXISTING PAVEMENT REMOVAL AND REPLACEMENT FOR INSTALLATION OF THE STORM PIPE IS BEING BID AS INDIVIDUAL AREAS AS INDICATED IN THE CONSTRUCTION DOCUMENTS. THE LUMP SUM COST OF EACH AREA WILL INCLUDE ALL ITEMS REQUIRED TO CONSTRUCT THE NEW ROADWAY PAVEMENT TO IT'S ORIGINAL CONDITION, WHICH INCLUDES BUT IS NOT LIMITED TO, THE NEW ROADWAY PAVEMENT SECTION, ROADWAY MARKINGS, CURB & GUTTER (IF APPLICABLE), ADJACENT SIDEWALK SECTION (IF APPLICABLE,, RAISED REFLECTIVE MARKERS, ETC.

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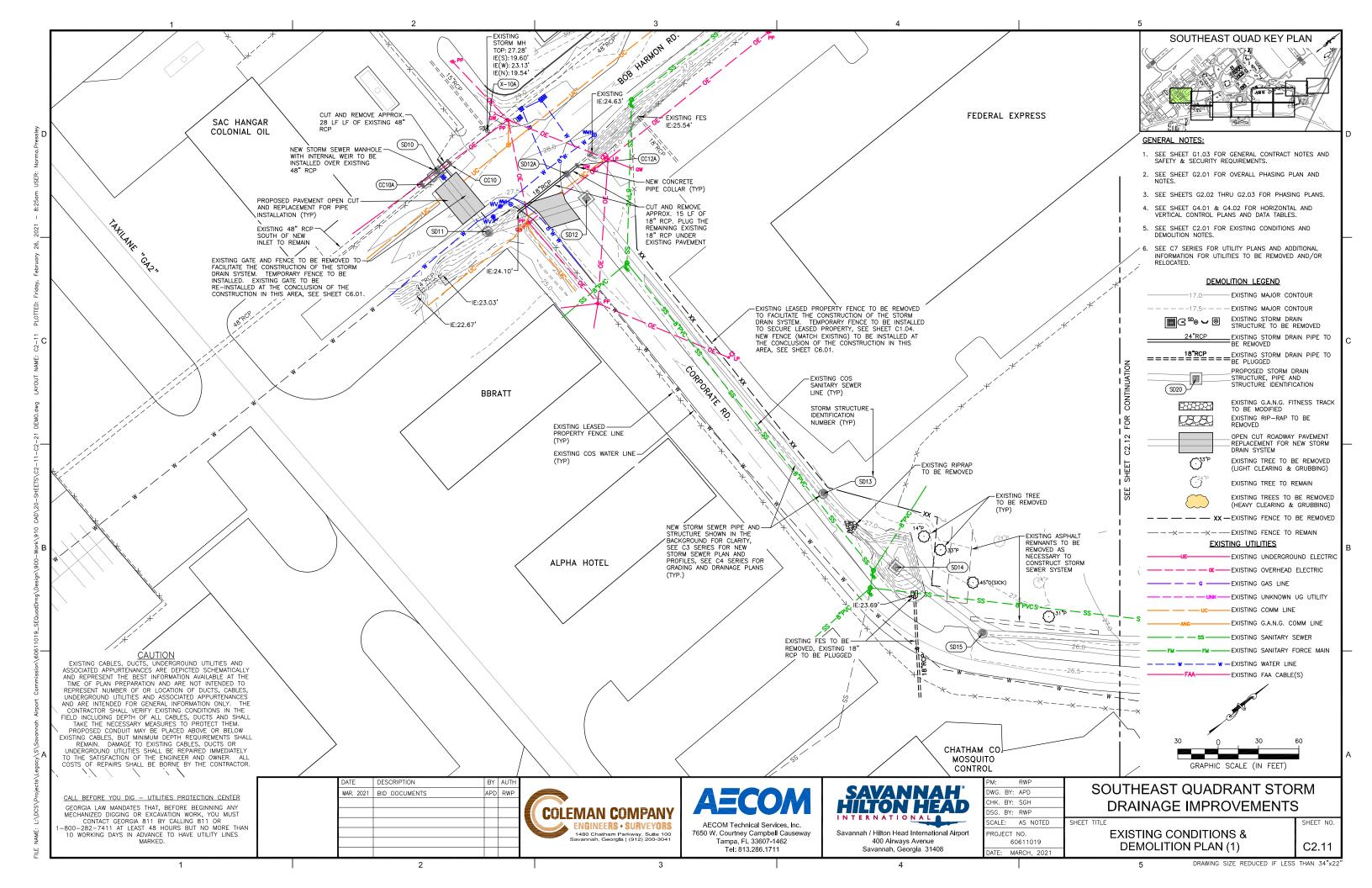
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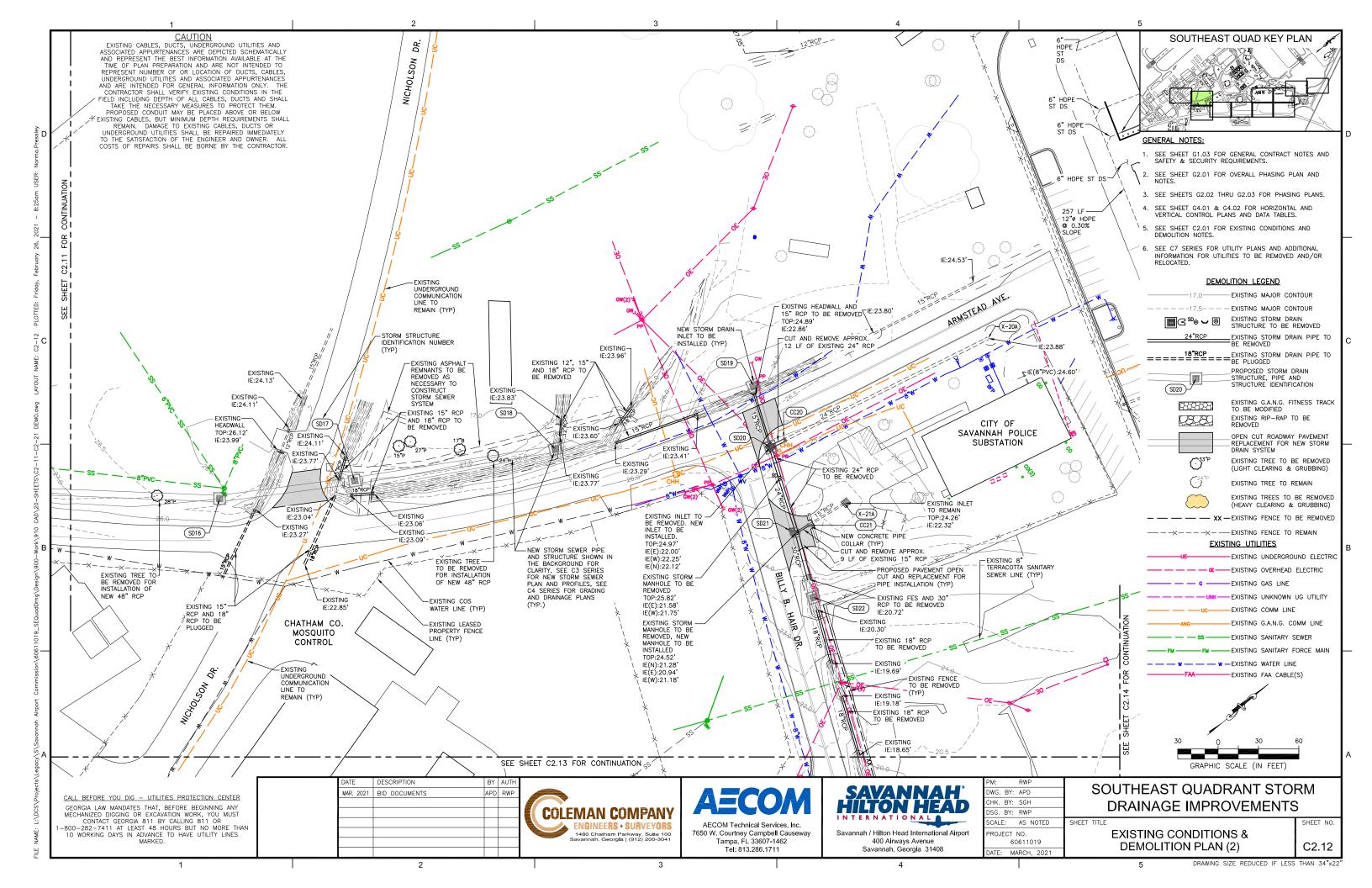
SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

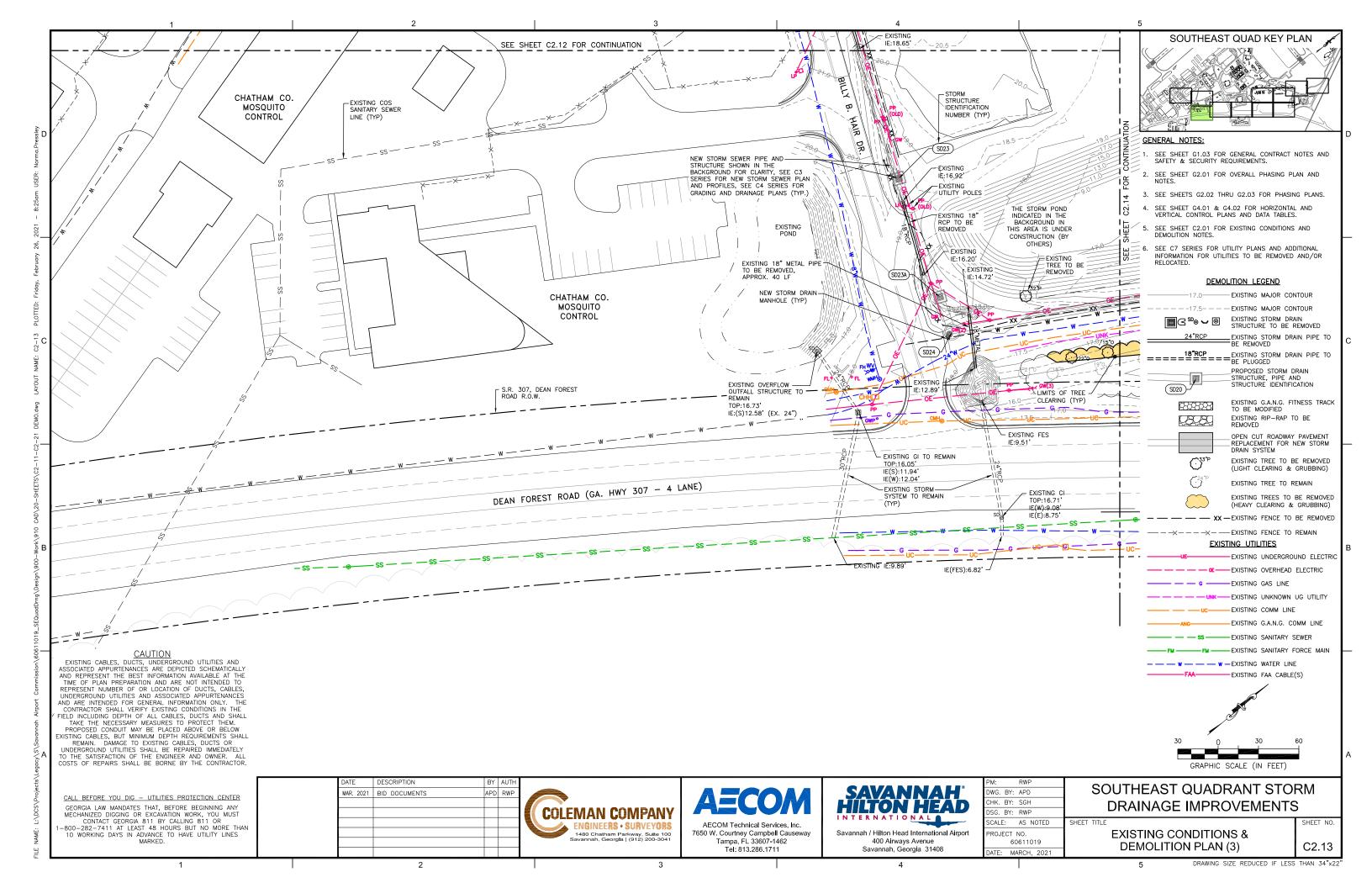
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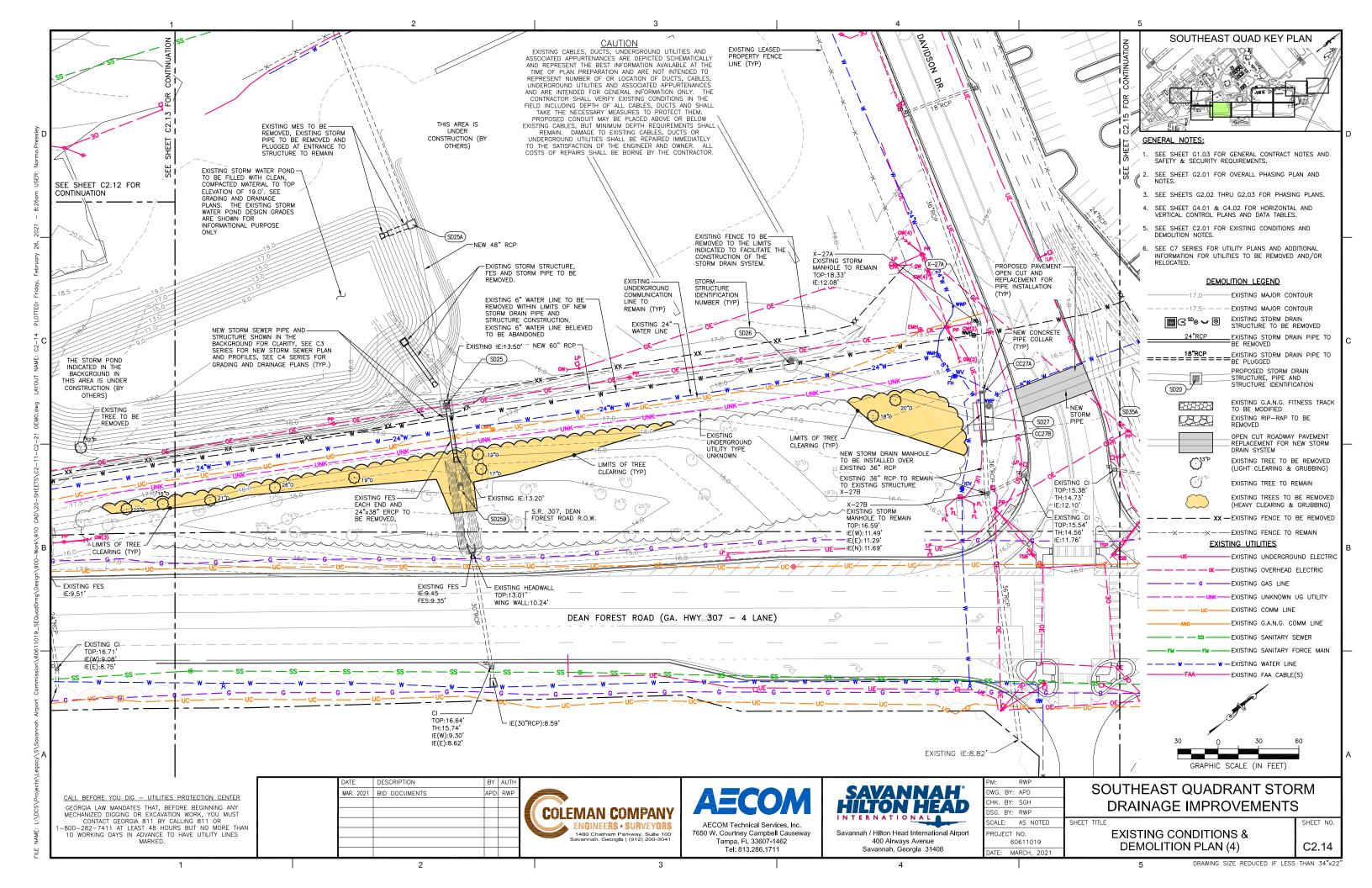
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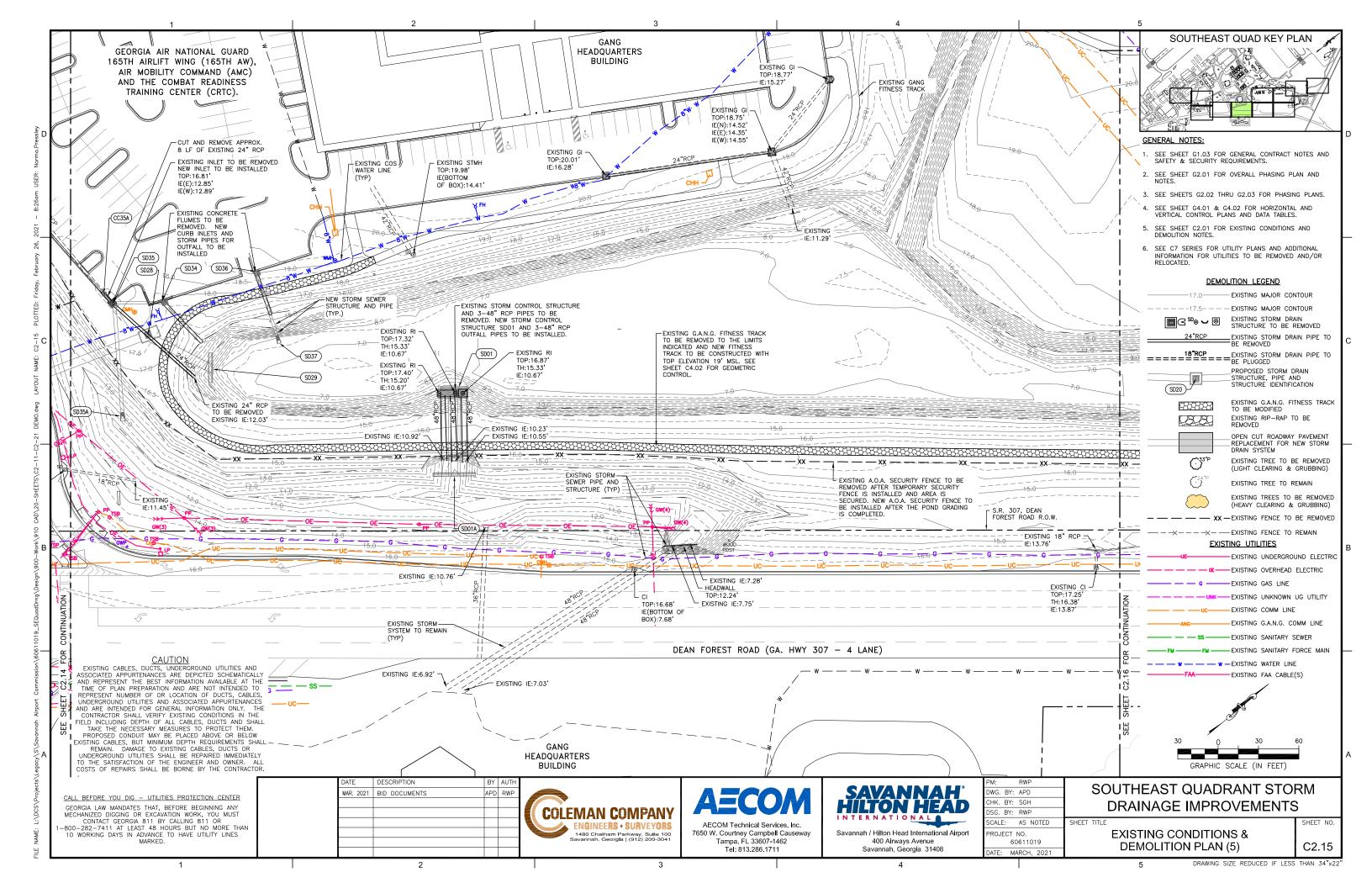
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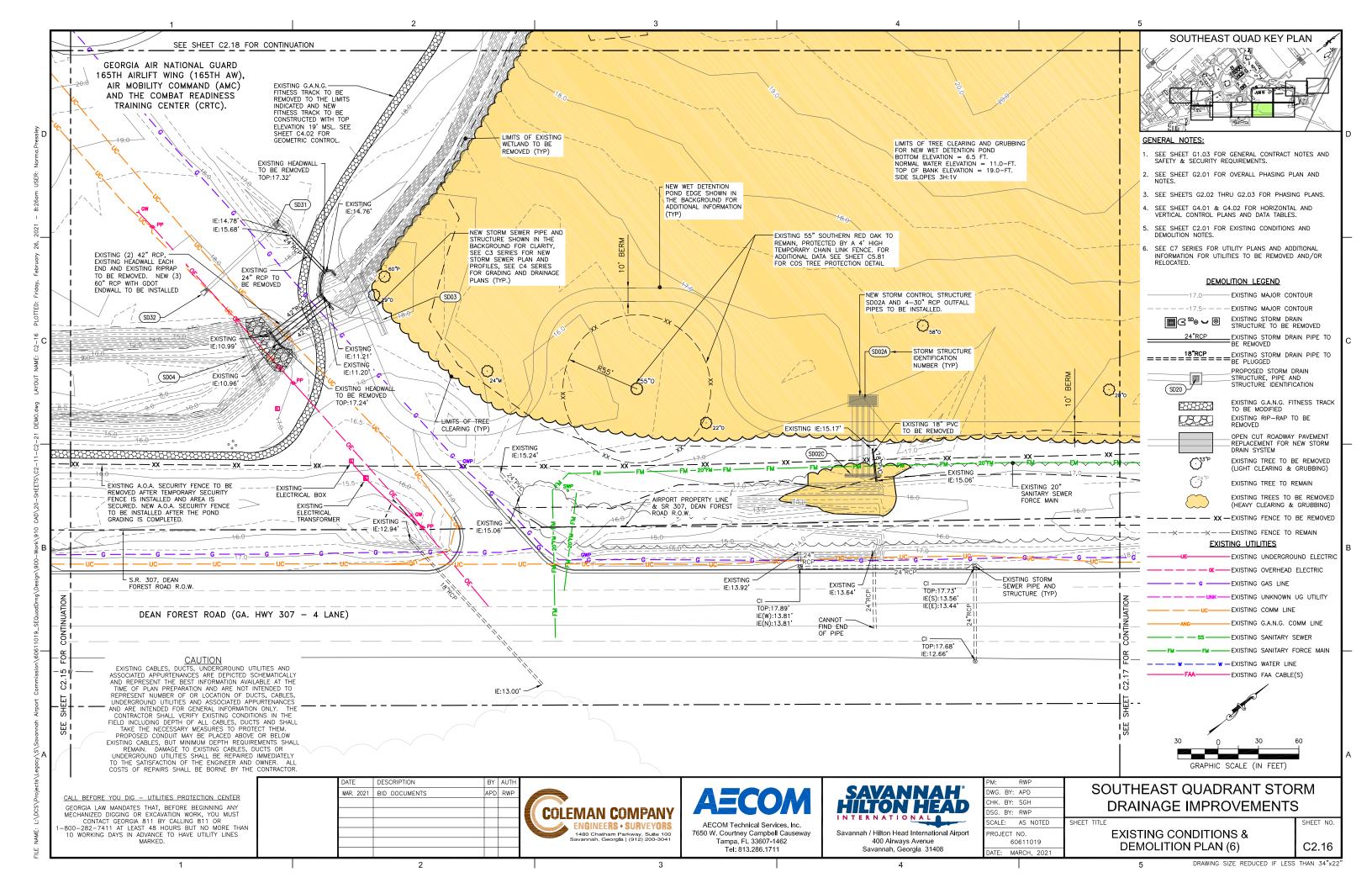


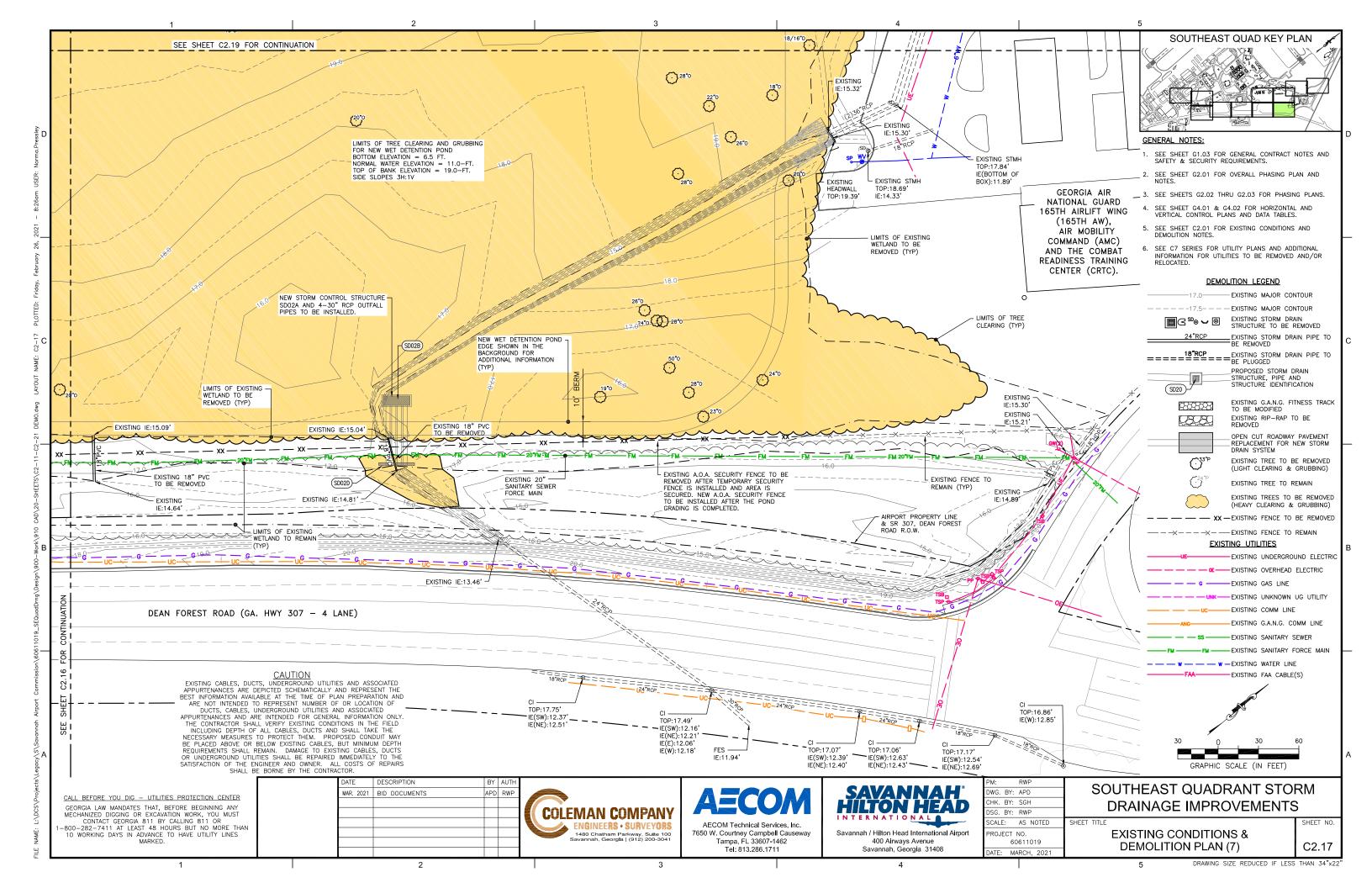


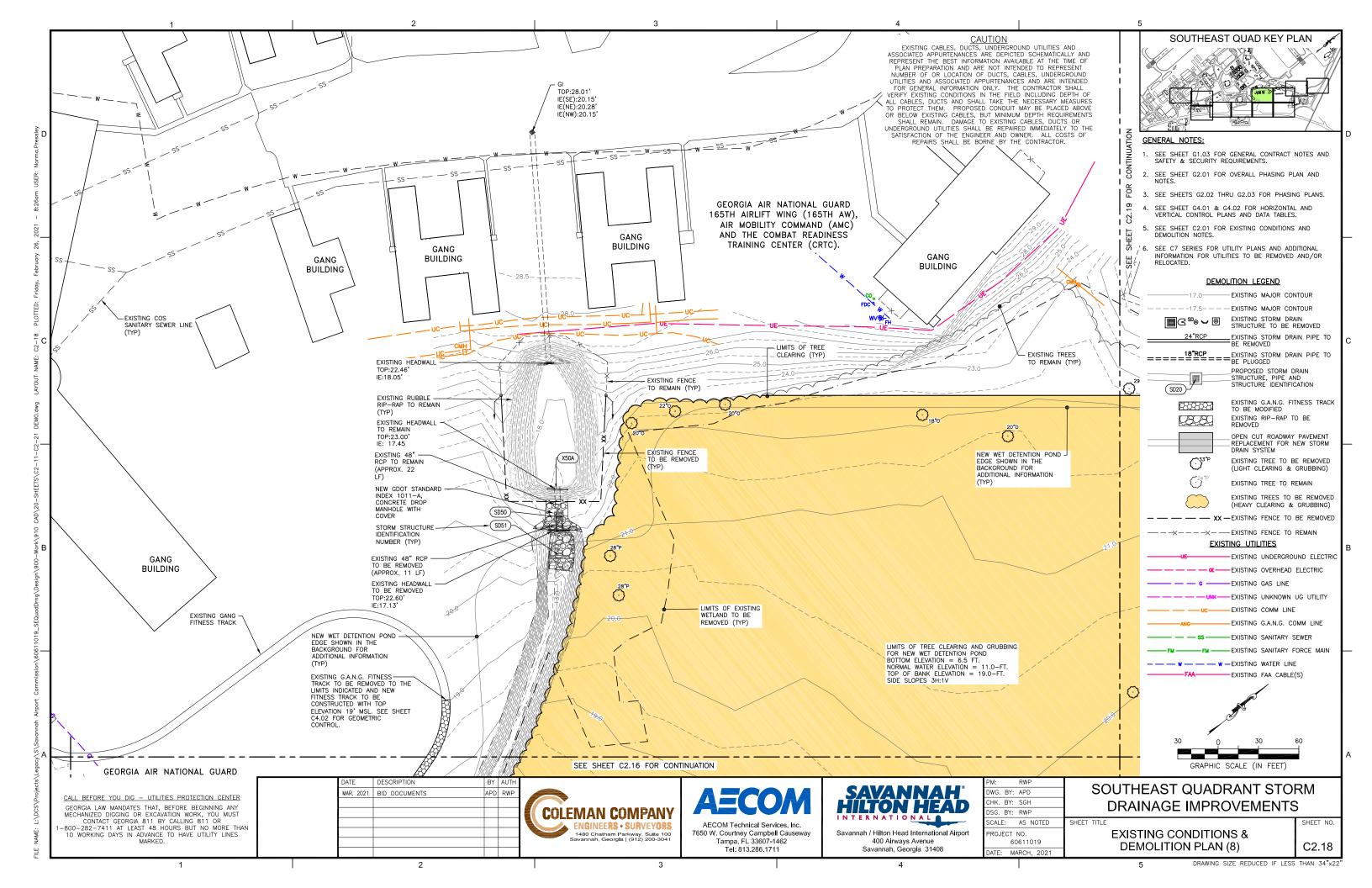


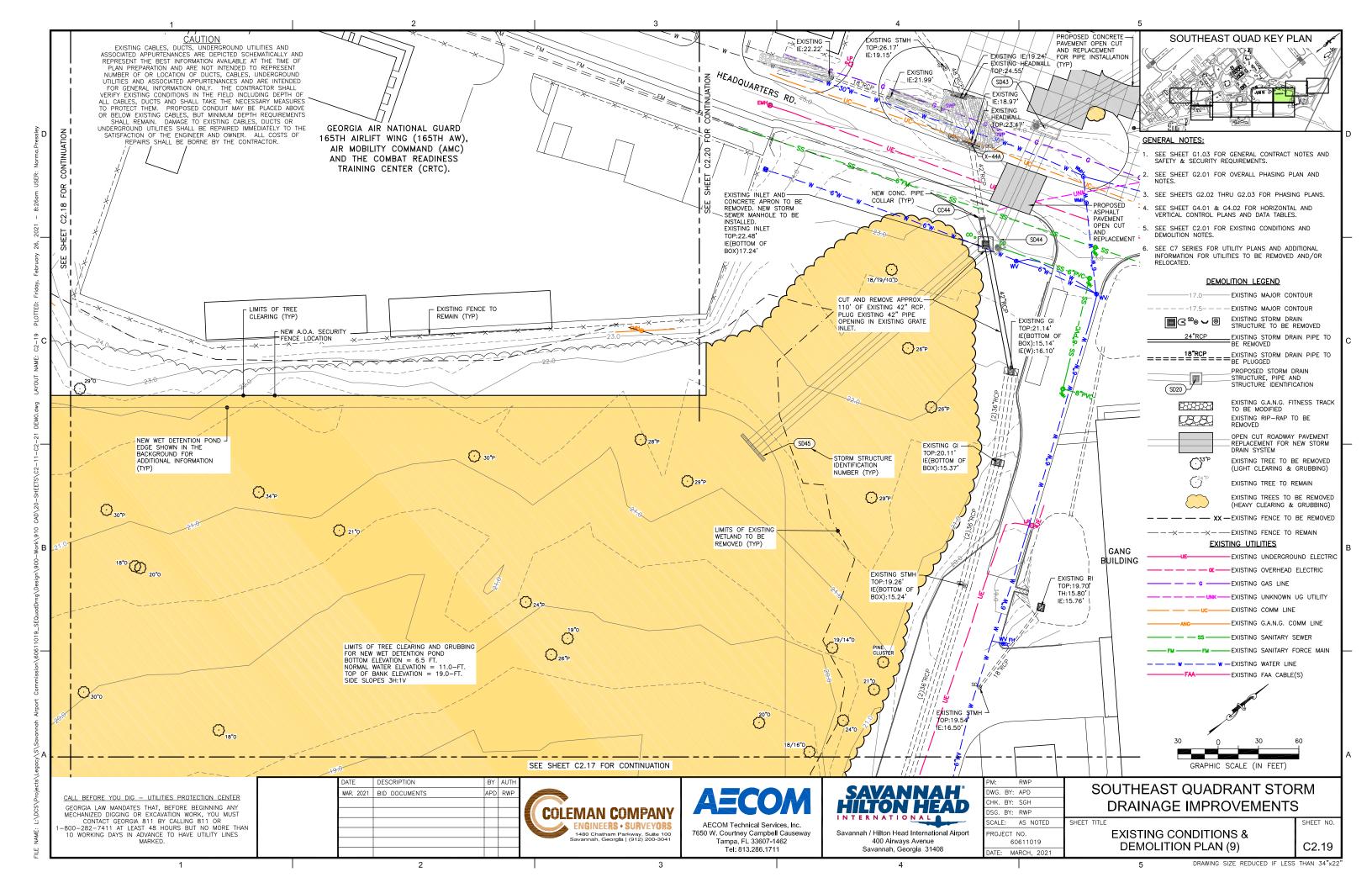


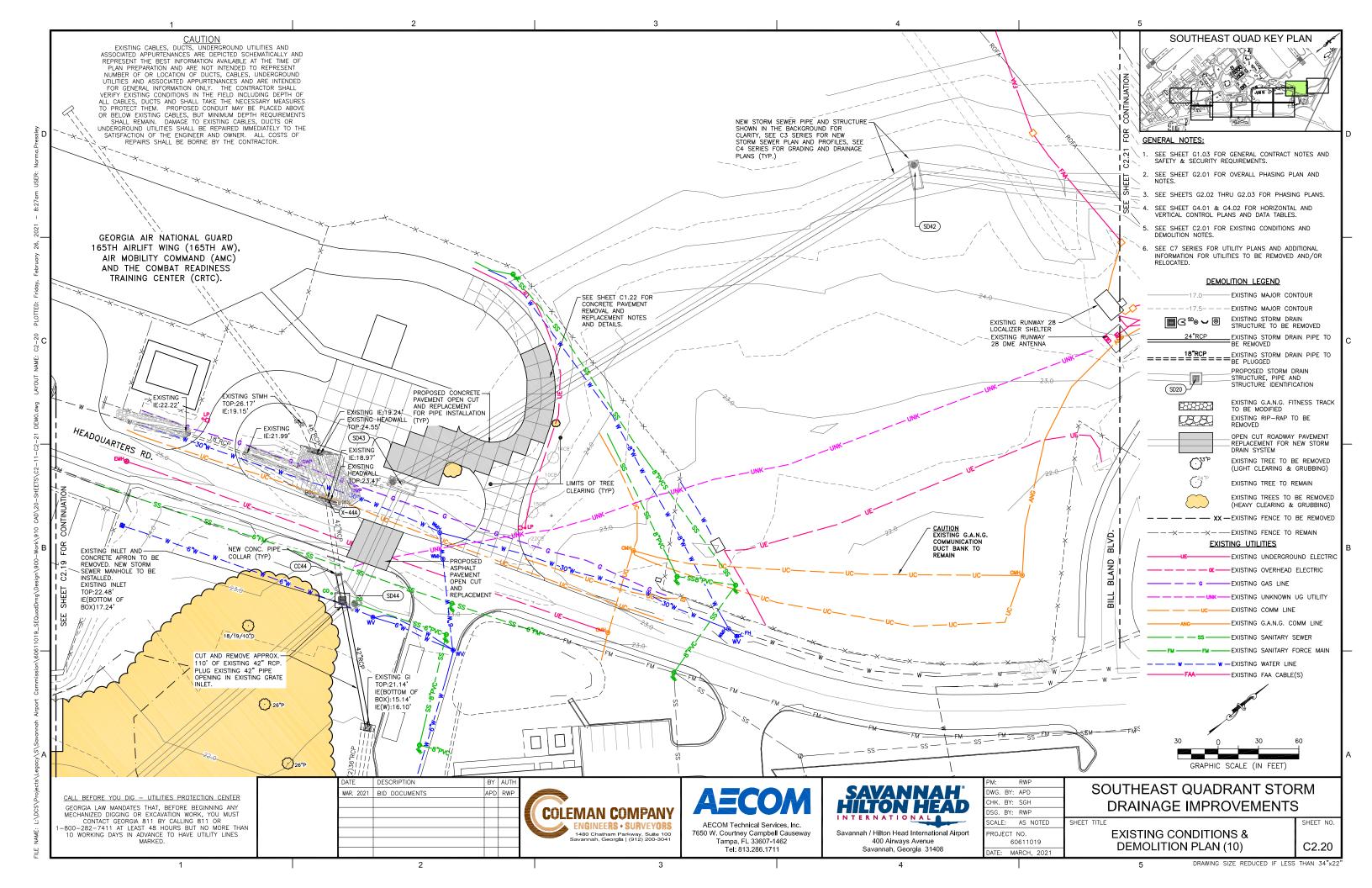


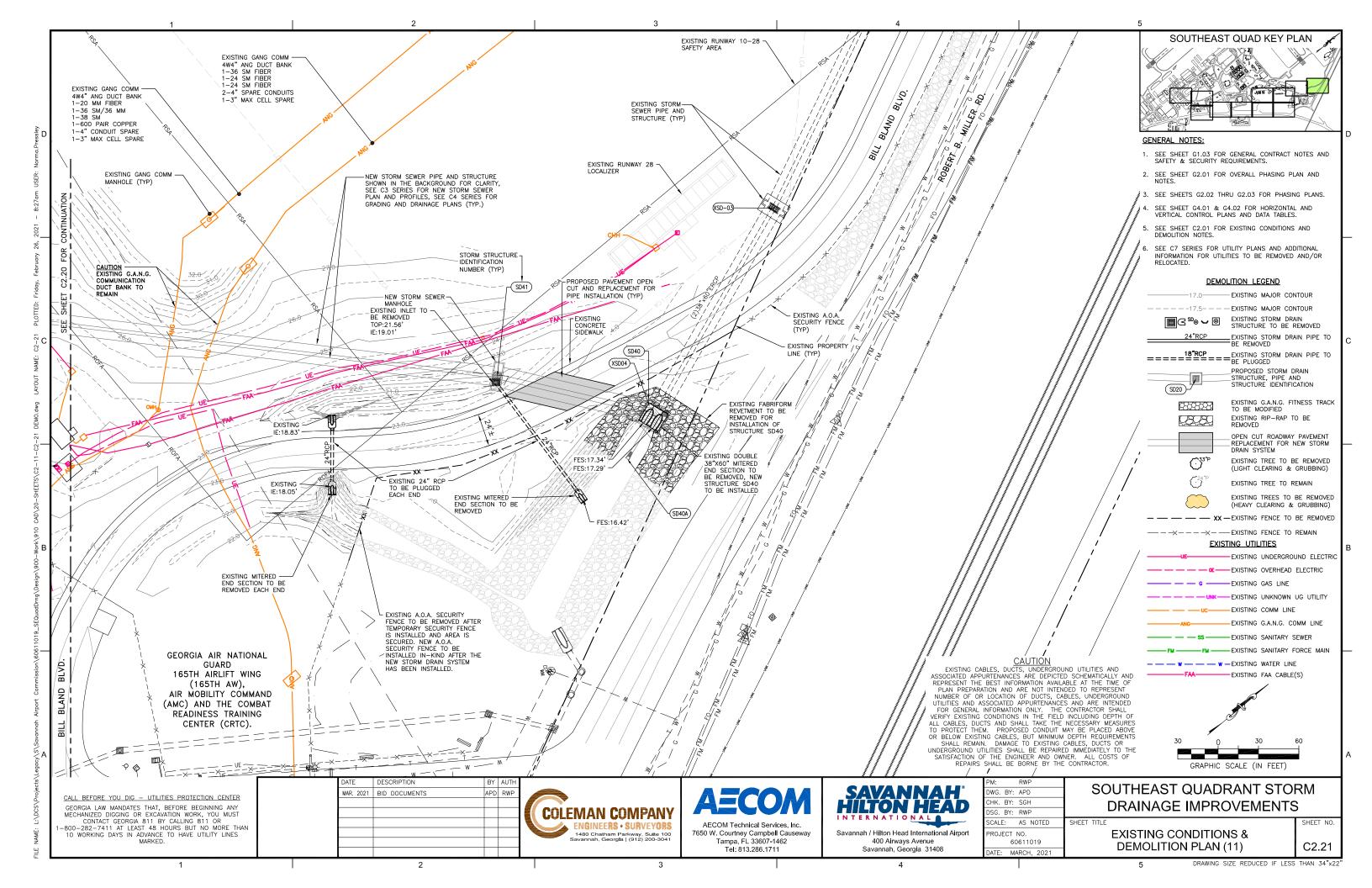


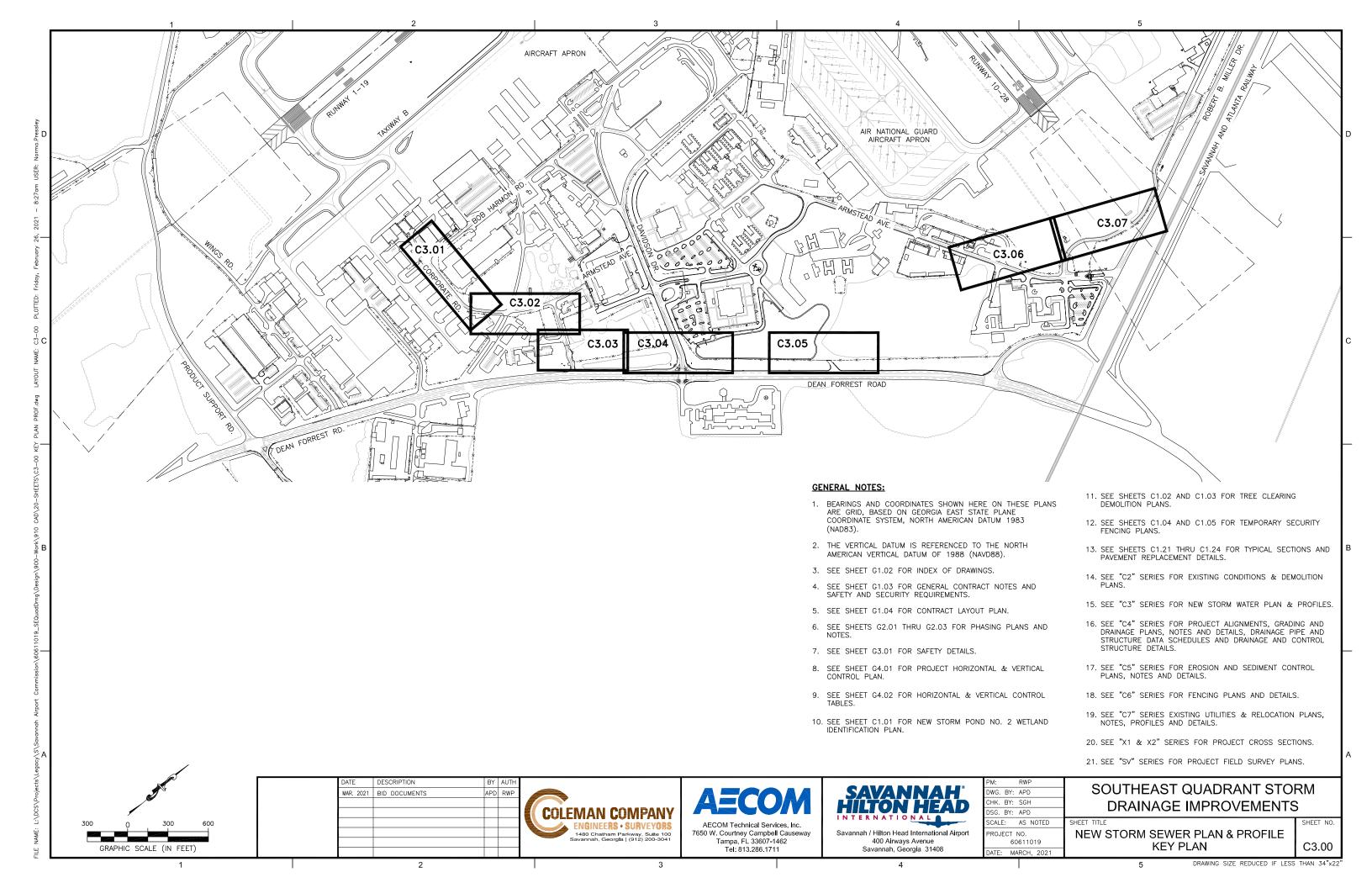


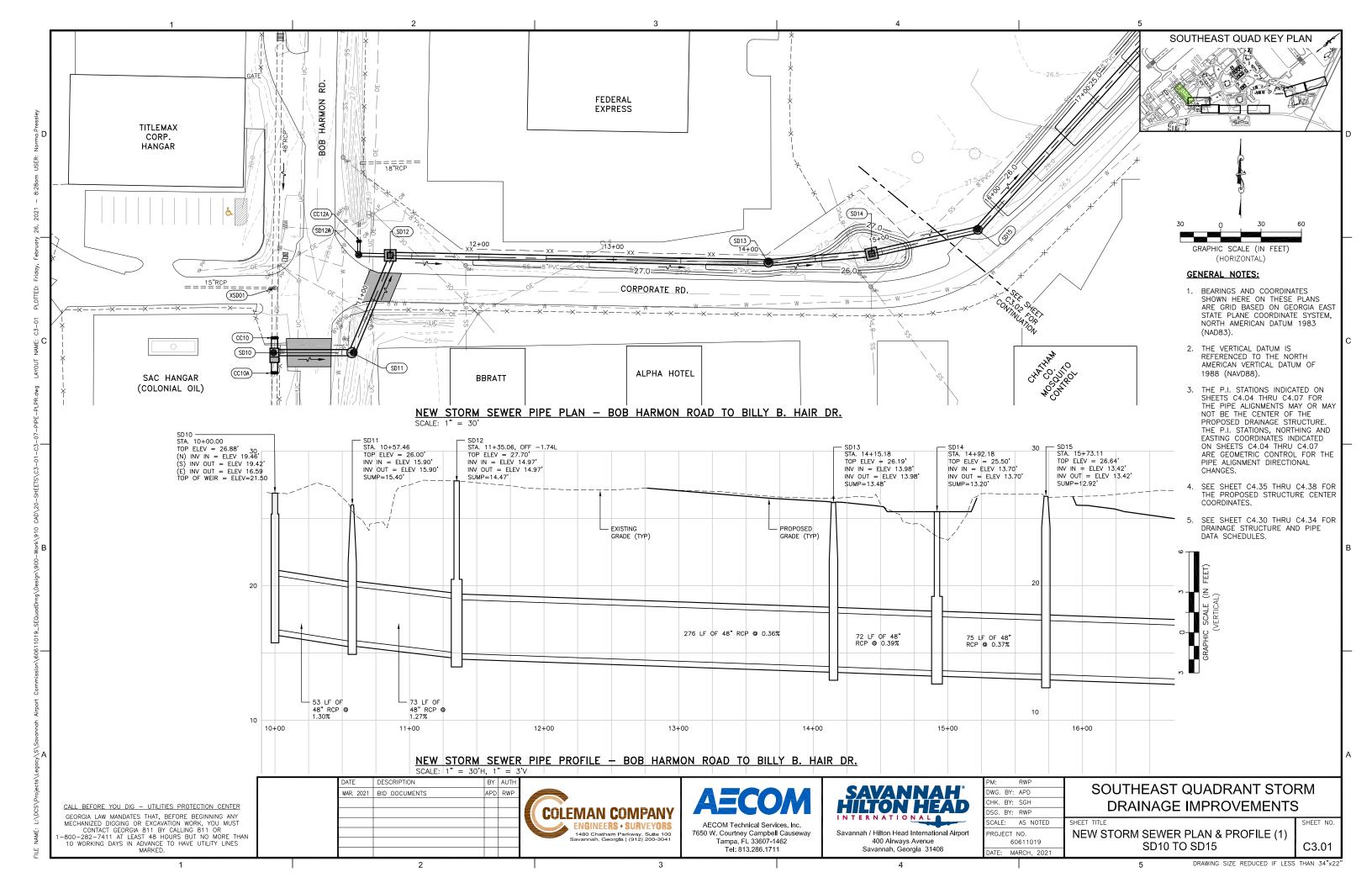


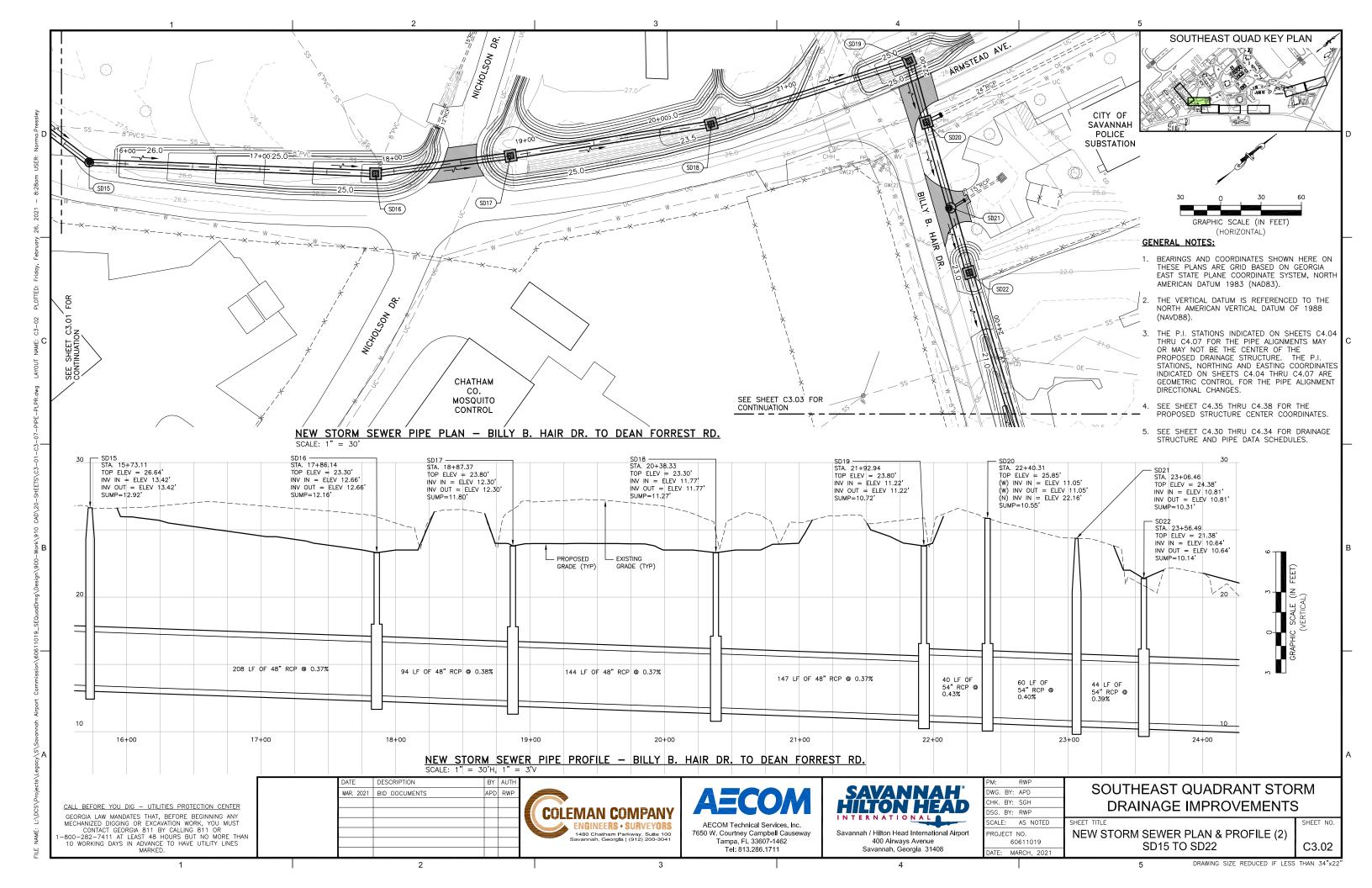


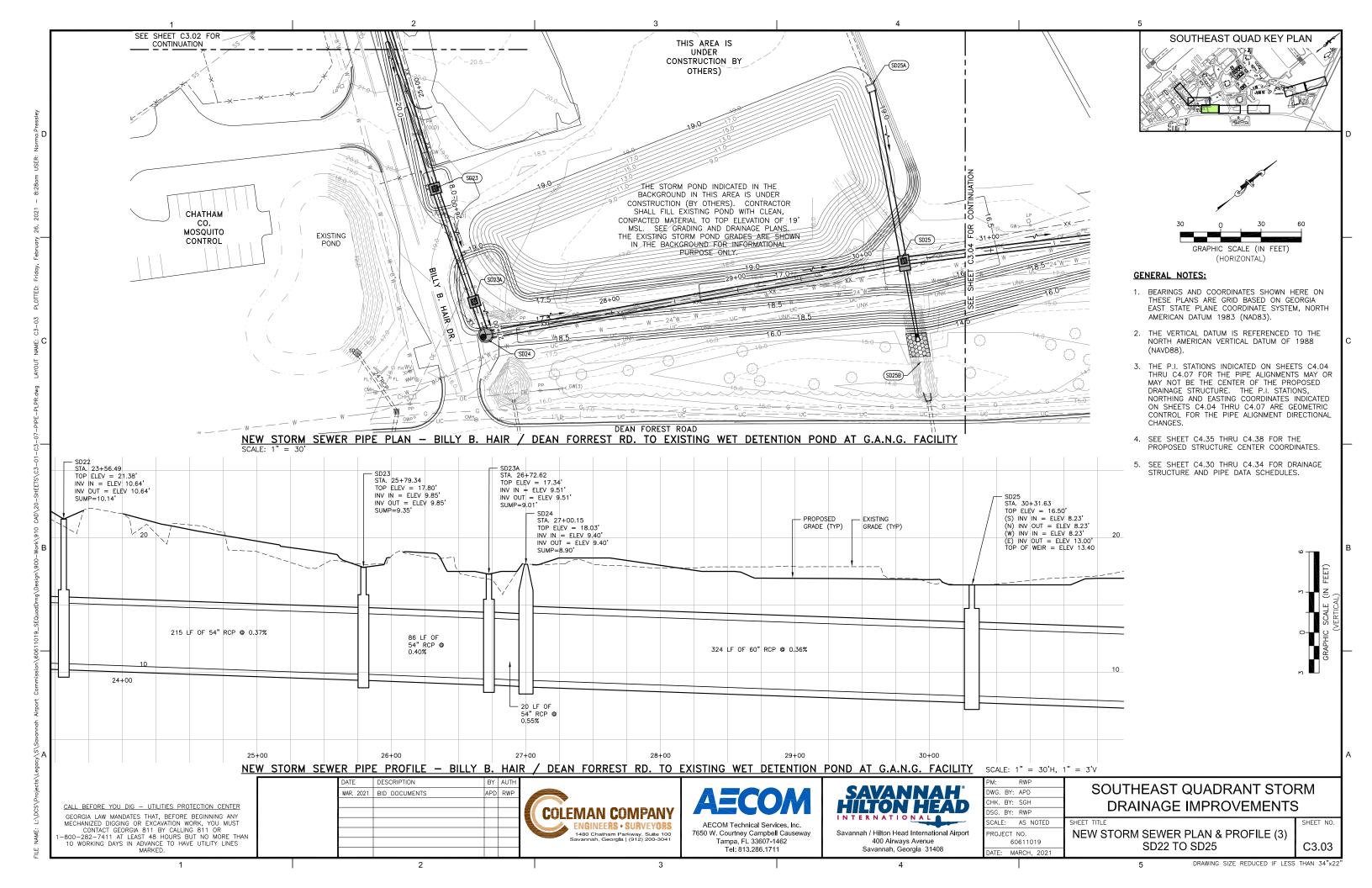


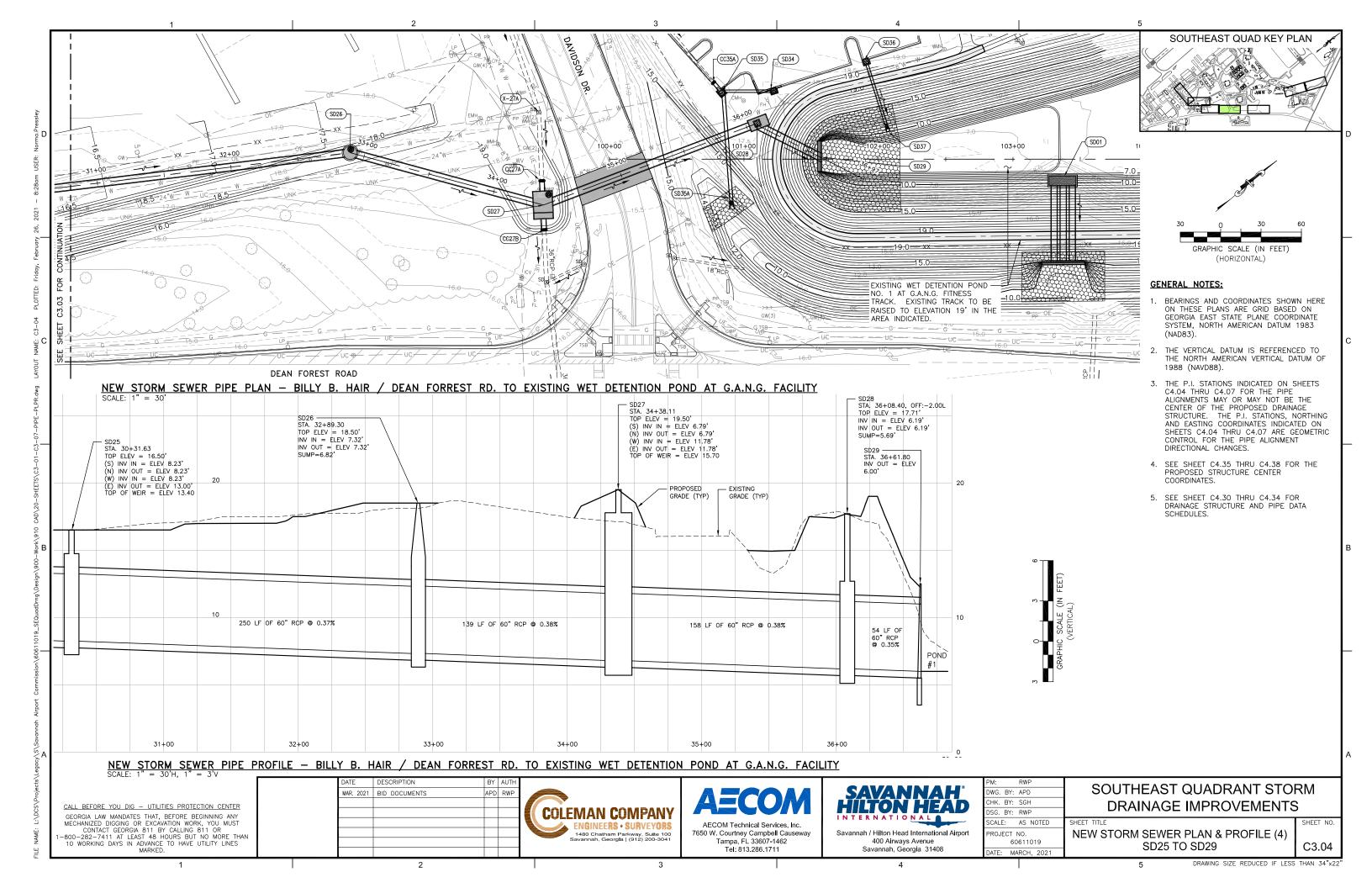


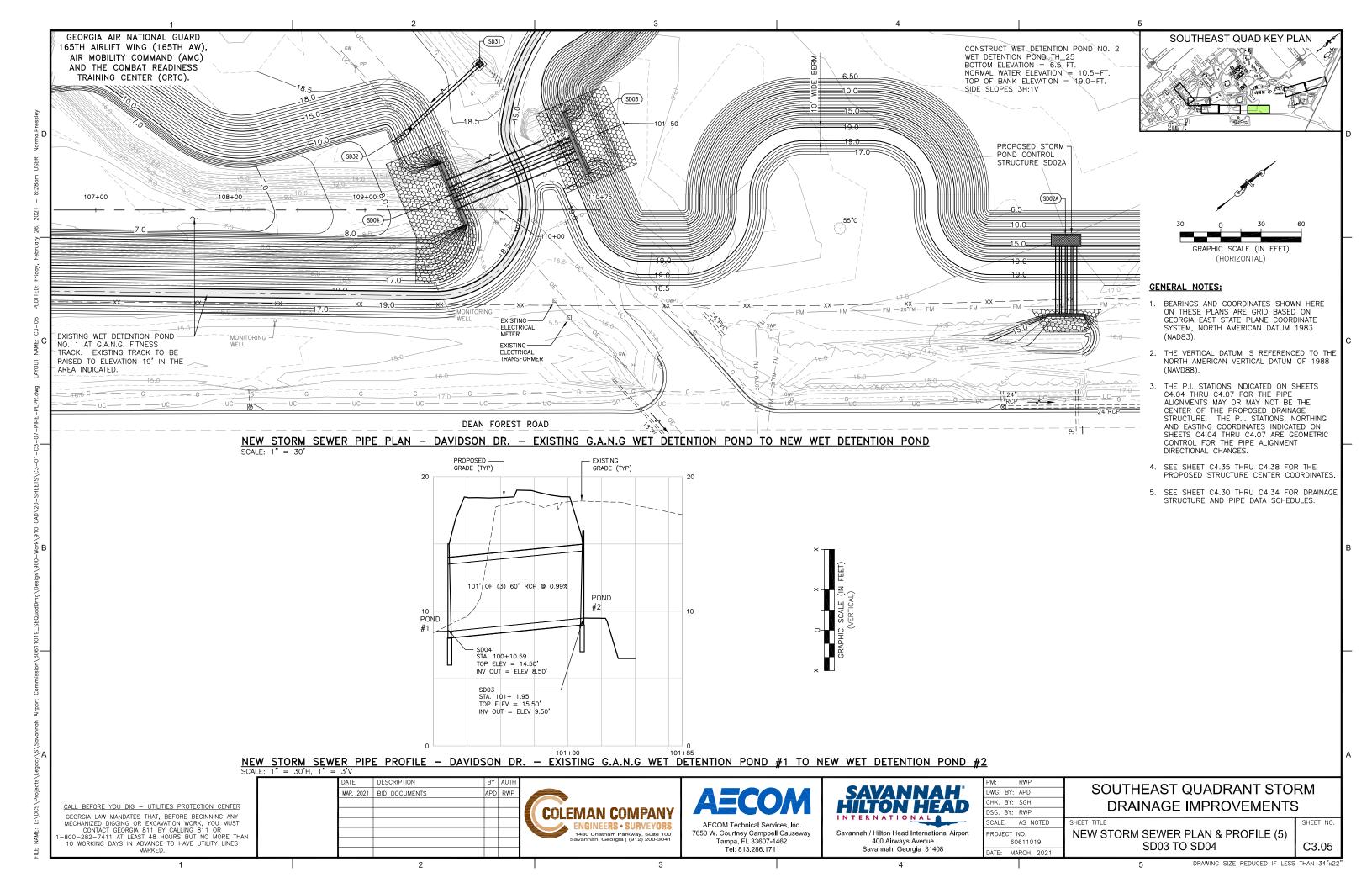


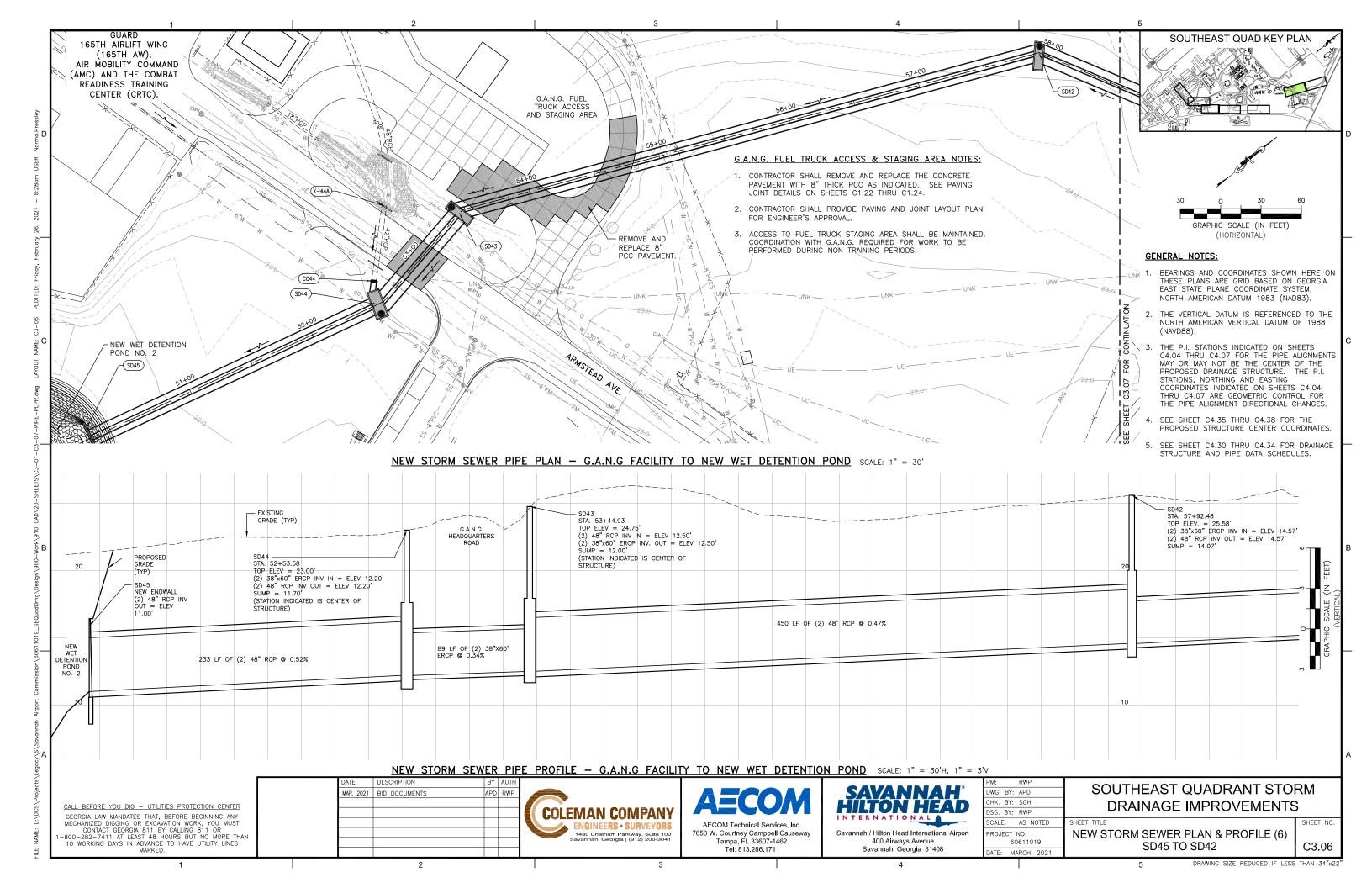


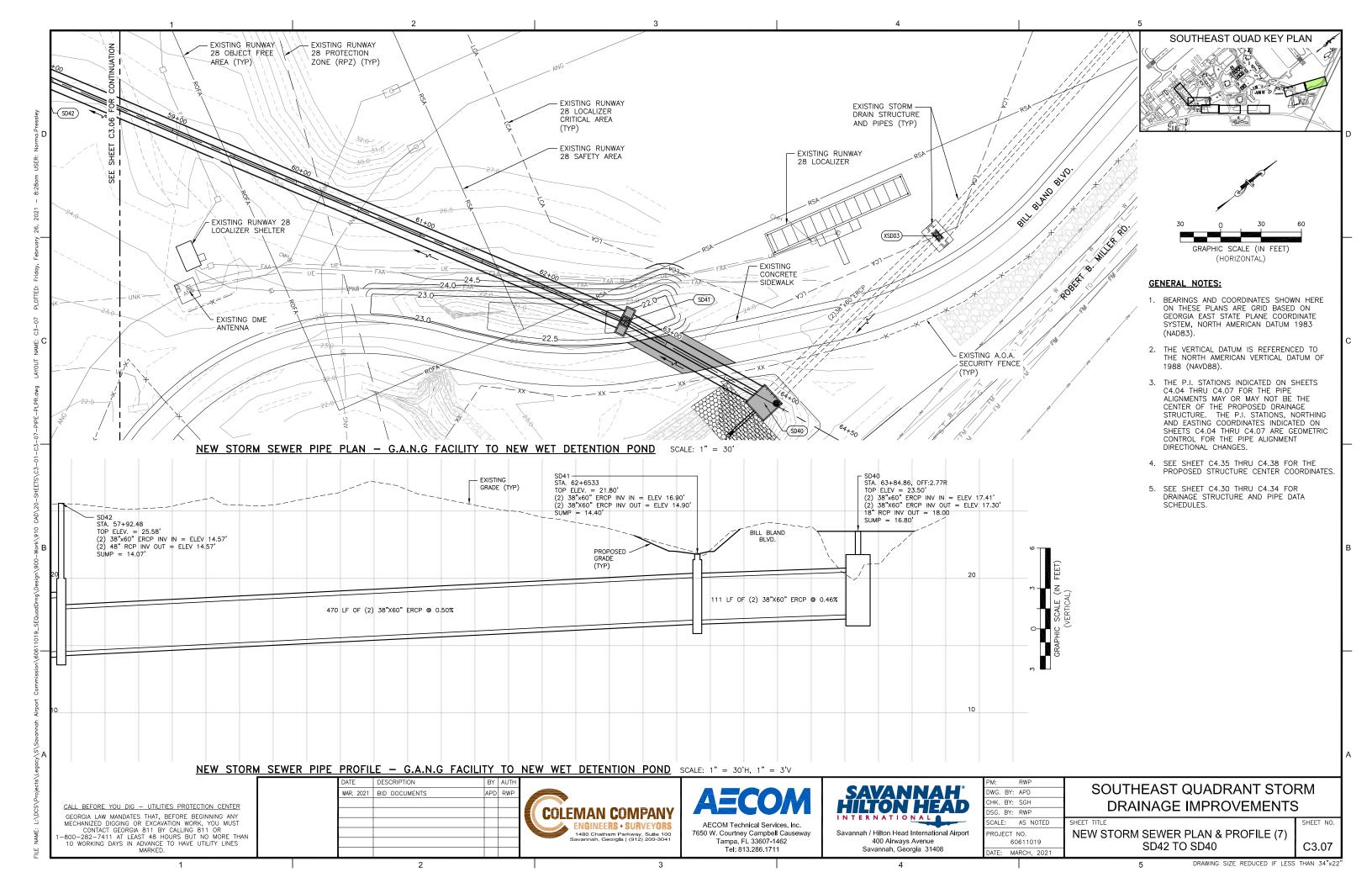


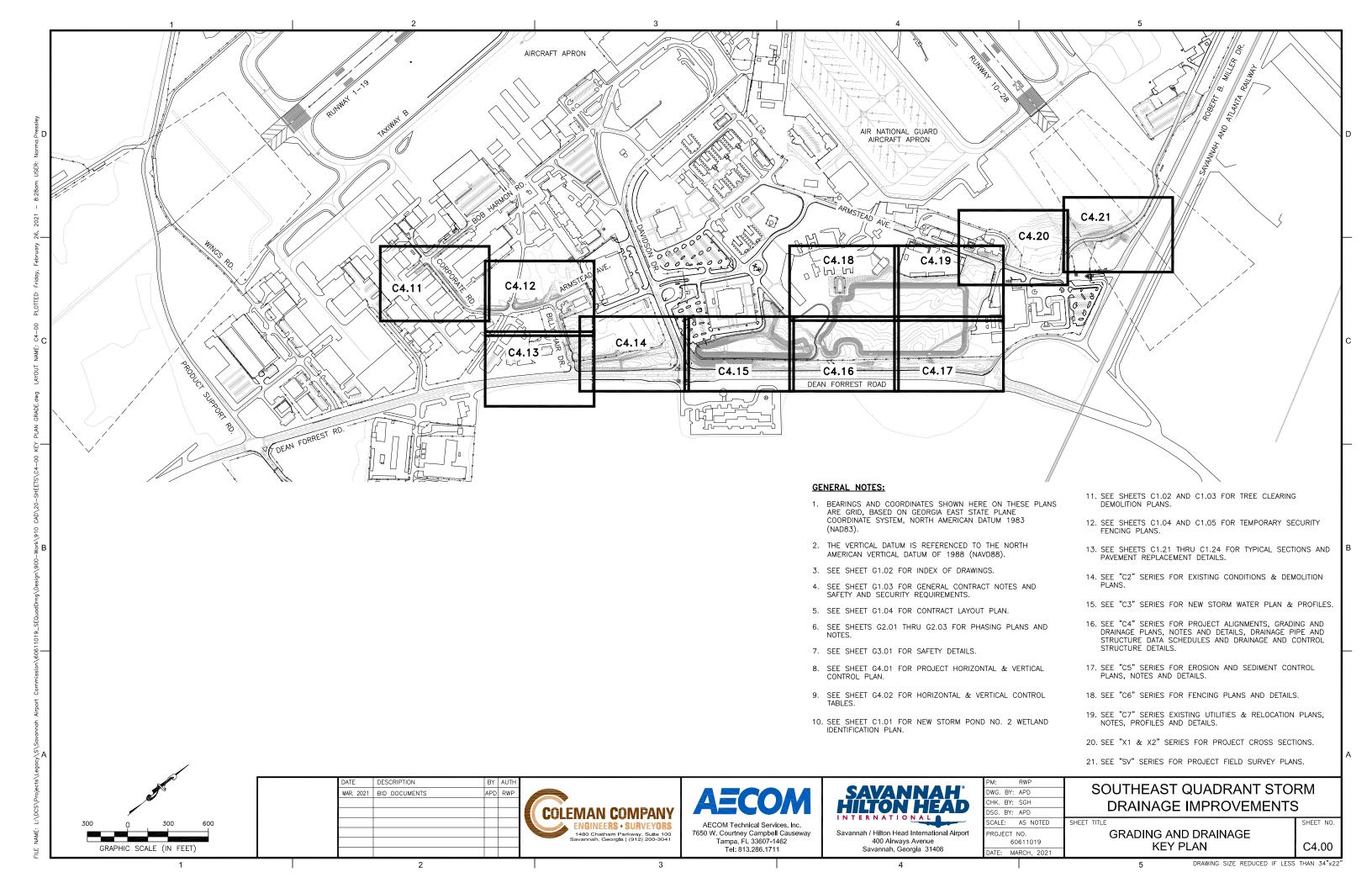












 ALL STORM DRAIN OR UTILITY INSTALLATIONS BY OPEN CUT ACROSS EXISTING PAVEMENT WILL BE CONSTRUCTED IN ACCORDANCE WITH GDOT STANDARD INDEX NO. 1401.

 ALL NEW GDOT INLETS WILL BE CONSTRUCTED IN ACCORDANCE WITH GDOT STANDARD INDEX 1019A AND 1019B.

ALL NEW GDOT HEADWALLS WILL BE CONSTRUCTED IN ACCORDANCE WITH THE GDOT STANDARD INDEX NO. 1001-B.

 ALL RIPRAP OUTLET PROTECTION SHALL BE CONSTRUCTED AS INDICATED IN THE GRADING AND DRAINAGE PLANS USING FABRIFORM REVETMENT AND IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (GSWCC), 2016 EDITION OR

 ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE ACCORDING TO THE LATEST MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (GSWCC).

PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL FIRST COORDINATE WITH ALL UTILITY COMPANIES AND THE AIRPORT STAFF TO LOCATE ALL EXISTING FAA, UNDERGROUND ELECTRICAL, OVERHEAD ELECTRICAL, NATURAL GAS, SANITARY SEWER, CATV, FIBER OPTICS AND COMMUNICATIONS, WATER AND OTHER UTILITIES.

. TEMPORARY SEDIMENTATION BARRIERS WITH APPROPRIATE ANCHORAGE SHALL BE PLACED AROUND EXISTING DRAINAGE INLETS, AROUND ENTRANCES TO ALL STORM DRAINS. STAKED SILT FENCE SHALL BE INSTALLED AT LIMITS INDICATED ON THE EROSION CONTROL DRAWINGS OR AS DIRECTED BY THE ENGINEER.

THE STOCKPILE LOCATIONS OF UNSUITABLE MATERIAL AND EXCESS SUITABLE MATERIAL ARE SHOWN IN THESE PLANS. DETAILED INFORMATION WILL BE PROVIDED TO THE CONTRACTOR REGARDING THE EXACT LOCATION OF PLACEMENT, SLOPE, MAXIMUM HEIGHT, ETC. THE EXCESS SUITABLE MATERIAL WILL NOT REQUIRE COMPACTION OTHER THAN THAT EXERTED BY EARTHMOVING EQUIPMENT.

10. THE CONTRACTOR SHALL KEEP UNSUITABLE MATERIAL SEPARATE FROM SUITABLE MATERIAL WHEN PLACING IN THE RESPECTIVE DISPOSAL AREAS. SUFFICIENT SUITABLE MATERIAL SHALL BE USED TO FILL THE POND INDICATED ON SHEET C4.14 ONCE POSITIVE CONVEYANCE HAS BEEN ESTABLISHED AND AS APPROVED BY THE ENGINEER.

11. ALL TEMPORARY EXCAVATIONS SHOULD FOLLOW OSHA REQUIREMENTS

12. THE CONTRACTOR SHALL NOT ENTER INTO NON-AIRPORT PROPERTY AT ANY TIME DURING THE CONSTRUCTION OF THIS PROJECT WITHOUT PRIOR APPROVAL FROM PROPERTY OWNER AND SAC.

13. SEE EXISTING UTILITIES AND RELOCATION PLANS FOR ALL RELOCATIONS AND/OR MODIFICATIONS TO EXISTING UTILITIES IN ORDER TO FACILITATE THE INSTALLATION OF THE NEW STORM DRAIN SYSTEM.

14. A RIGHT OF WAY PERMIT SHALL BE OBTAINED PRIOR TO PERFORMING CONSTRUCTION ACTIVITY IN THE CITY OF SAVANNAH R.O.W.

15. CONTRACTOR IS REQUIRED TO FOLLOW THE VIDEO TAPING PROCEDURES FOR STORM WATER FACILITIES AS PRESCRIBED IN THE CITY OF SAVANNAH'S DOCUMENT TITLES "NEW CONSTRUCTION TELEVISING PROCEDURE MANUAL" AS PREPARED BY THE WATER AND SEMED DEPARTMENT.

16. 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.

17. 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.

18. ANY DISTURBED AREA LEFT FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH AND TEMPORARY SEEDING.

19. CONTRACTOR SHALL WORK CLOSELY WITH THE UTILITY COMPANIES, CITY OF SAVANNAH, CHATHAM COUNTY AND THE AIRPORT STAFF AND RESIDENT ENGINEER IN THE AREA OF EXISTING UTILITIES TO REMAIN AND UTILITIES WHICH ARE TO BE RELOCATED, LOWERED, RAISED, ETC. TO ENSURE THAT ALL UTILITIES; EXISTING TO REMAIN OR RELOCATED, HAVE THE APPROPRIATE DEPTH, SEPARATION AND ENCASEMENT. THESE UTILITIES ARE SHOWN WITH THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. THE ROUTING OF THE EXISTING UTILITIES IS APPROXIMATE AND SHOWN SCHEMATICALLY AND MUST BE FIELD VERIFIED. THE CONTRACTOR IS SPECIFICALLY WARNED AGAINST SCALING LOCATIONS OF ANY UNDERGROUND UTILITIES INDICATED IN THESE PLANS. THE CONTRACTOR WILL USE ELECTRONIC DETECTION DEVICES AND CAREFUL HAND EXCAVATION TO LOCATE ANY UNDERGROUND UTILITIES WHICH ARE CRITICAL FOR SAFE CONSTRUCTION OPERATIONS.

O. ALL TRENCH EXCAVATION SHALL COMPLY WITH THE GEORGIA TRENCH SAFETY ACT AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS (OSHA) TRENCH EXCAVATION STANDARDS. 29 CFR, S. 11926.650, SUBPART P, INCLUDING ALL SUBSEQUENT REVISIONS OR UPDATES TO THESE STANDARDS AS ADOPTED BY THE DEPARTMENT OF LARGE

21. ALL COSTS ASSOCIATED WITH THE POST—CONSTRUCTION SURVEY SHALL BE INCLUDED IN MOBILIZATION. POST—CONSTRUCTION SURVEY TO BE PERFORMED BY A REGISTERED GEORGIA LAND SURVEYOR. THE SURVEY SHOULD, AS A MINIMUM, INCLUDE TOPOGRAPHIC SURVEY AT 50' GRID, AND INCLUDE SUFFICIENT DATA TO DEFINE SWALE TOP OF BANK, TOE OF SLOPE, POND BOTTOMS, TOP OF BANK, BERM WIDTH, DRAINAGE PIPE AND STRUCTURE DATA, UTILITY PIPE AND STRUCTURE DATA, SHOCK PAD LOCATION, DEPTH AND DIMENSIONS AND ALL OTHER UNDERGROUND UTILITY LOCATIONS AND STRUCTURE DATA. SIGNED AND SEALED SURVEY TO BE SUBMITTED TO THE ENGINEER OF RECORD AT THE CONCLUSION OF THE PROJECT. SUBMITTAL SHOULD INCLUDE HARD COPIES OF THE SURVEY, ALL AUTOCAD FILES, AND ASCII POINT FILE

BEARINGS AND COORDINATES SHOWN HERE ON THESE PLANS ARE GRID, BASED ON GEORGIA EAST STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1007. (NADDRA)

- THE VERTICAL DATUM IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 3. SEE SHEET G1.02 FOR INDEX OF DRAWINGS.
- 4. SEE SHEET G1.03 FOR GENERAL CONTRACT NOTES AND SAFETY AND SECURITY REQUIREMENTS.
- 5. SEE SHEET G1.04 FOR CONTRACT LAYOUT PLAN.
- 6. SEE SHEETS G2.01 THRU G2.03 FOR PHASING PLANS
- 7. SEE SHEET G3.01 FOR SAFETY DETAILS.
- 8. SEE SHEET G4.01 FOR PROJECT HORIZONTAL & VERTICAL CONTROL PLAN.
- SEE SHEET G4.02 FOR HORIZONTAL & VERTICAL CONTROL TABLES.
- 10. SEE SHEET C1.01 FOR NEW STORM POND NO. 2 WETLAND IDENTIFICATION PLAN.
- 11. SEE SHEETS C1.02 AND C1.03 FOR TREE CLEARING DEMOLITION PLANS.
- 12. SEE SHEETS C1.04 AND C1.05 FOR TEMPORARY SECURITY FENCING PLANS.
- 13. SEE SHEETS C1.21 THRU C1.24 FOR TYPICAL SECTIONS AND PAVEMENT REPLACEMENT DETAILS.
- 14. SEE "C2" SERIES FOR EXISTING CONDITIONS & DEMOLITION PLANS.
- 15. SEE "C3" SERIES FOR NEW STORM WATER PLAN & PROFILES.
- 16. SEE "C4" SERIES FOR PROJECT ALIGNMENTS, GRADING AND DRAINAGE PLANS, NOTES AND DETAILS, DRAINAGE PIPE AND STRUCTURE DATA SCHEDULES AND DRAINAGE AND CONTROL STRUCTURE DETAILS.
- 17. SEE "C5" SERIES FOR EROSION AND SEDIMENT CONTROL PLANS. NOTES AND DETAILS.
- 18. SEE "C6" SERIES FOR FENCING PLANS AND DETAILS.
- 19. SEE "C7" SERIES EXISTING UTILITIES & RELOCATION PLANS, NOTES, PROFILES AND DETAILS.
- 20. SEE "X1 & X2" SERIES FOR PROJECT CROSS SECTIONS.
- 21. SEE "SV" SERIES FOR PROJECT FIELD SURVEY PLANS.

GEORGIA LAW MANDATES THAT, BEFORE BEGINNING ANY MECHANIZED DIGGING OR EXCAVATION WORK, YOU MUST CONTACT GEORGIA 811 BY CALLING 811 OR 1-800-282-7411 AT LEAST 72 HOURS BUT NO MORE THAN 10 WORKING DAYS IN ADVANCE TO HAVE UTILITY LINES MARKED.

CALL BEFORE YOU DIG - UTILITIES PROTECTION CENTER

DATE DESCRIPTION BY AUTH
MAR. 2021 BID DOCUMENTS APD RWP





Tel: 813.286.1711



Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

PM:	RWP
DWG. BY:	APD
CHK. BY:	EJF
DSG. BY:	RWP
SCALE:	AS NOTED

60611019

PROJECT NO

SHEET TITLE

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

GRADING AND DRAINAGE NOTES

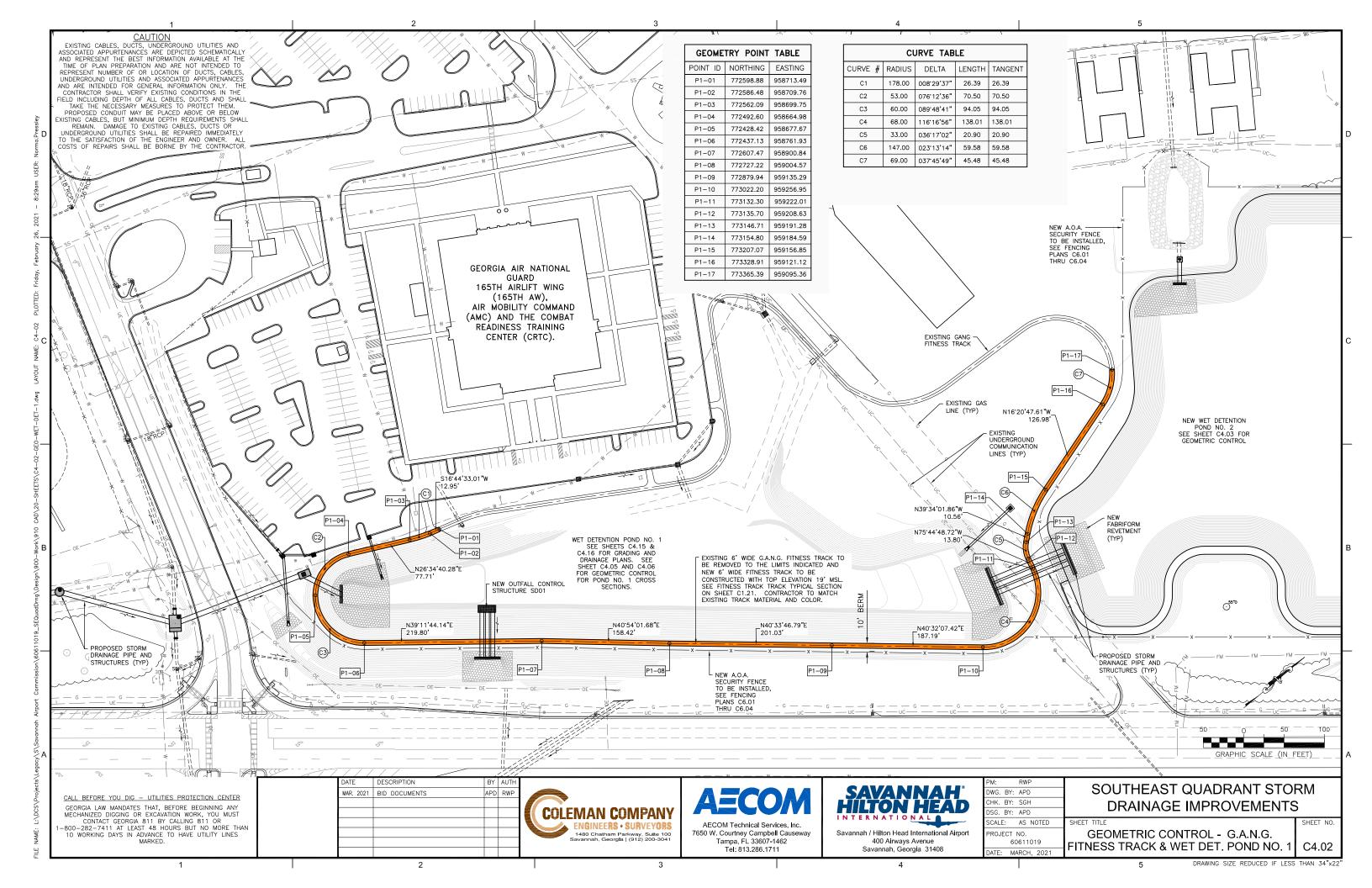
C4.01

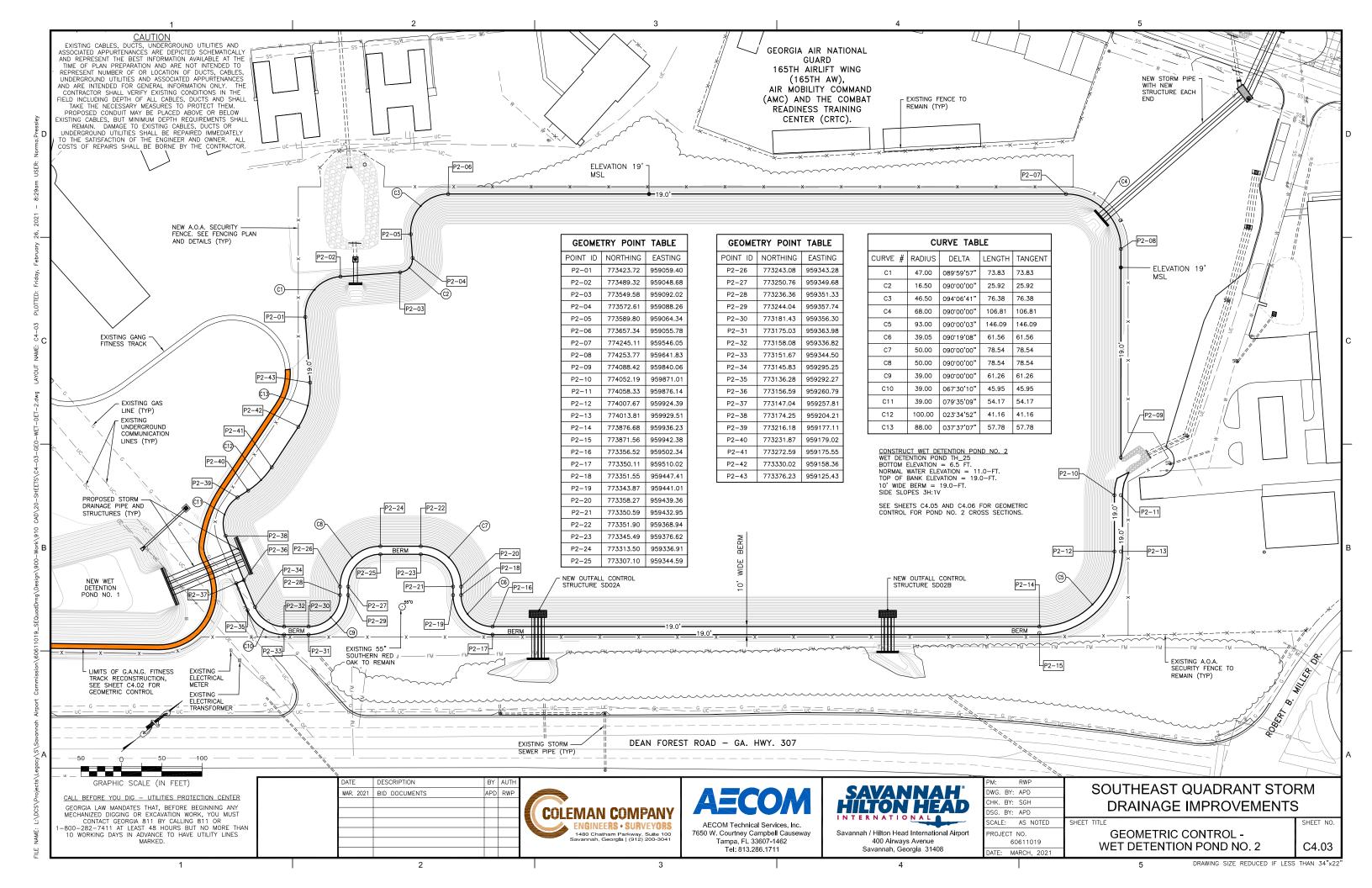
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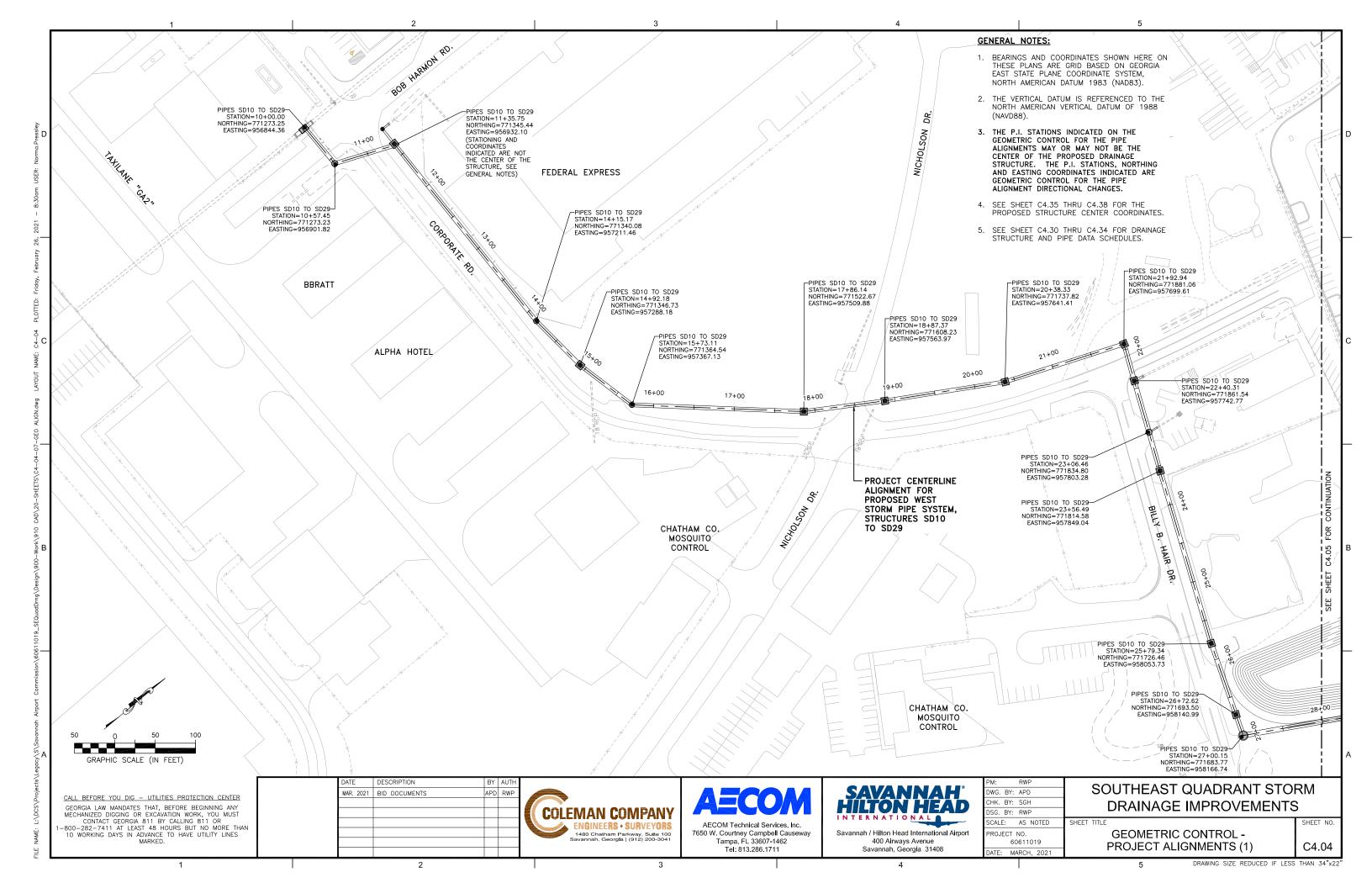
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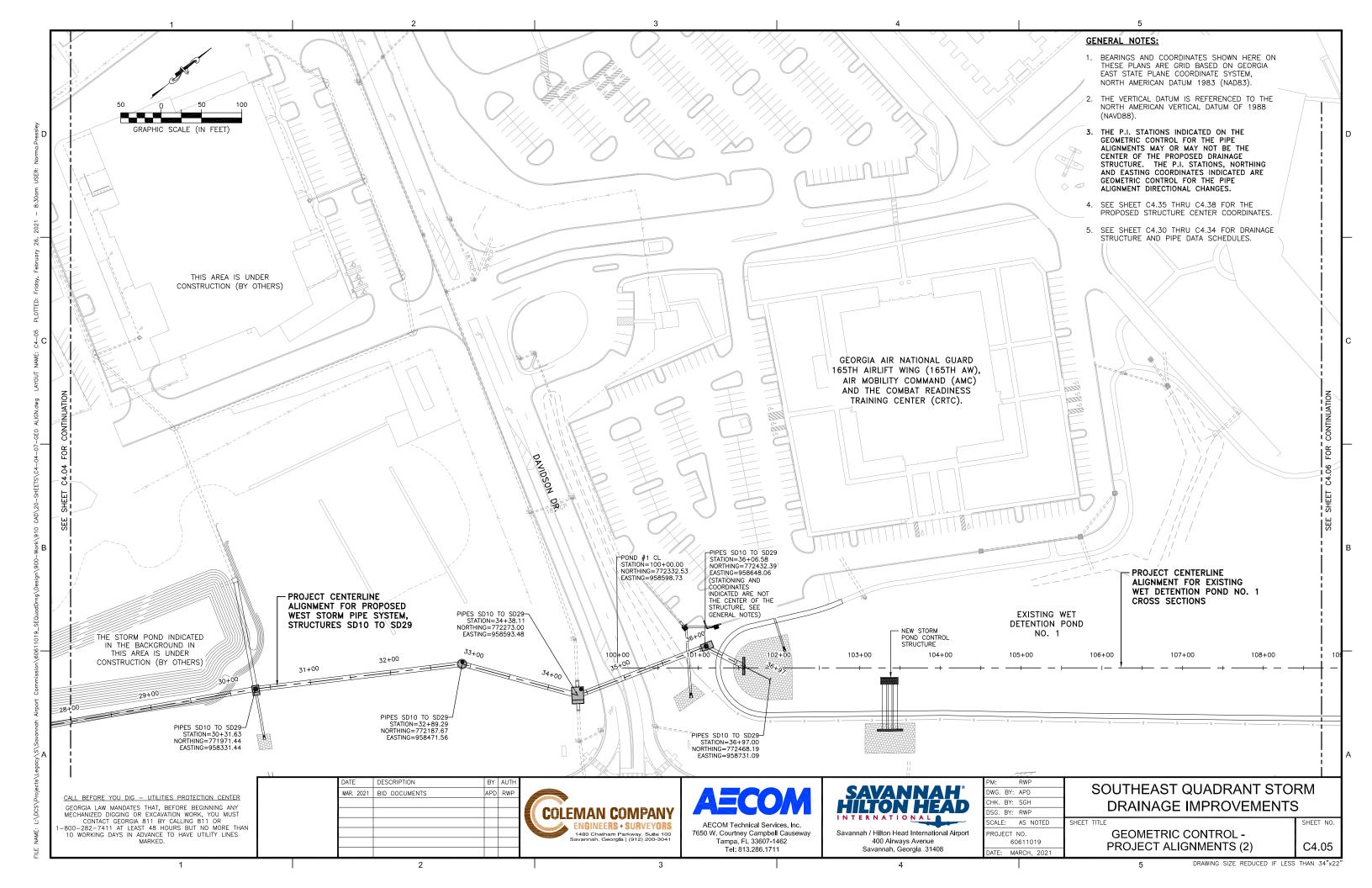
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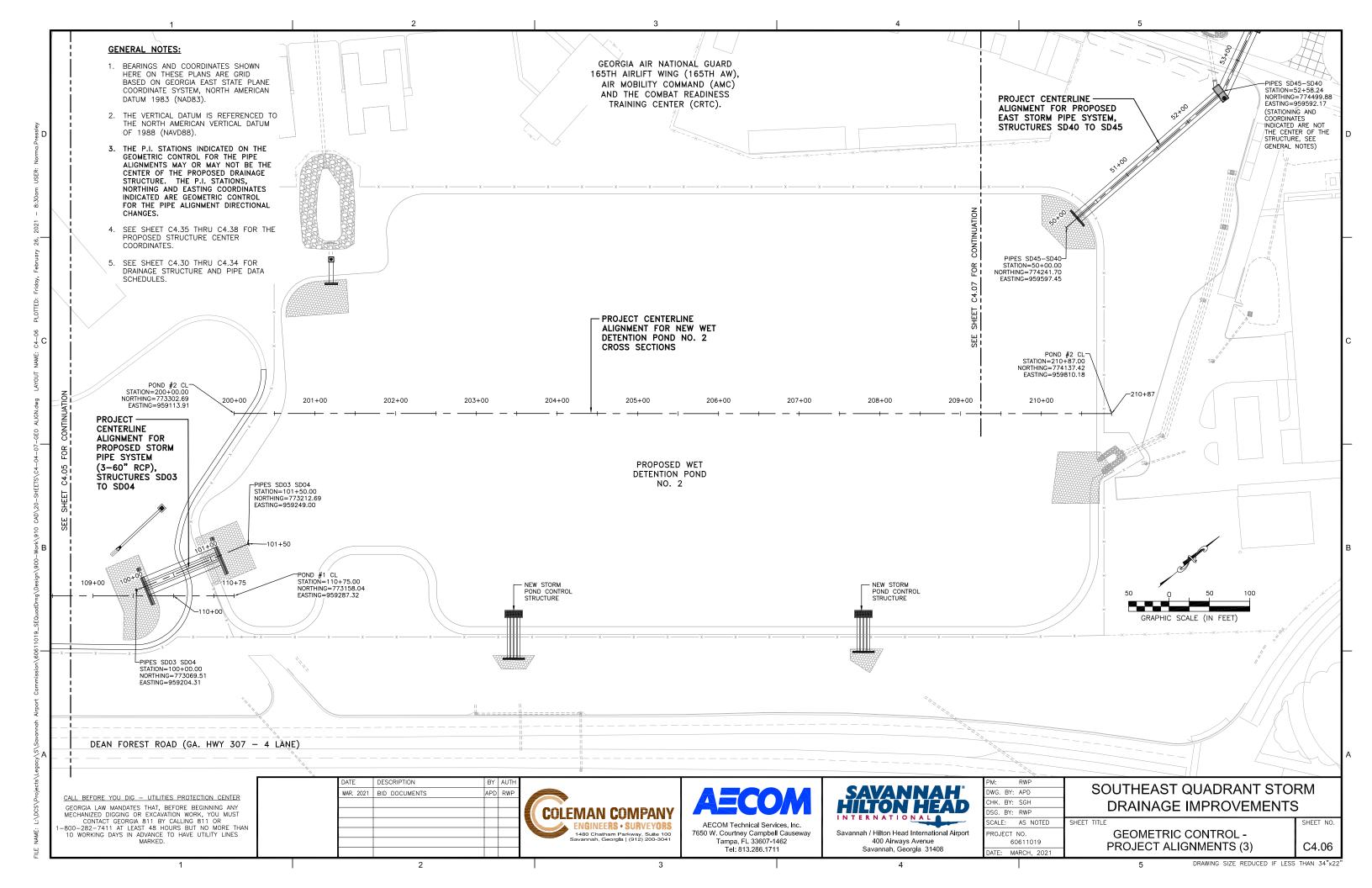
DRAWING SIZE REDUCED IF LESS THAN 34"x22

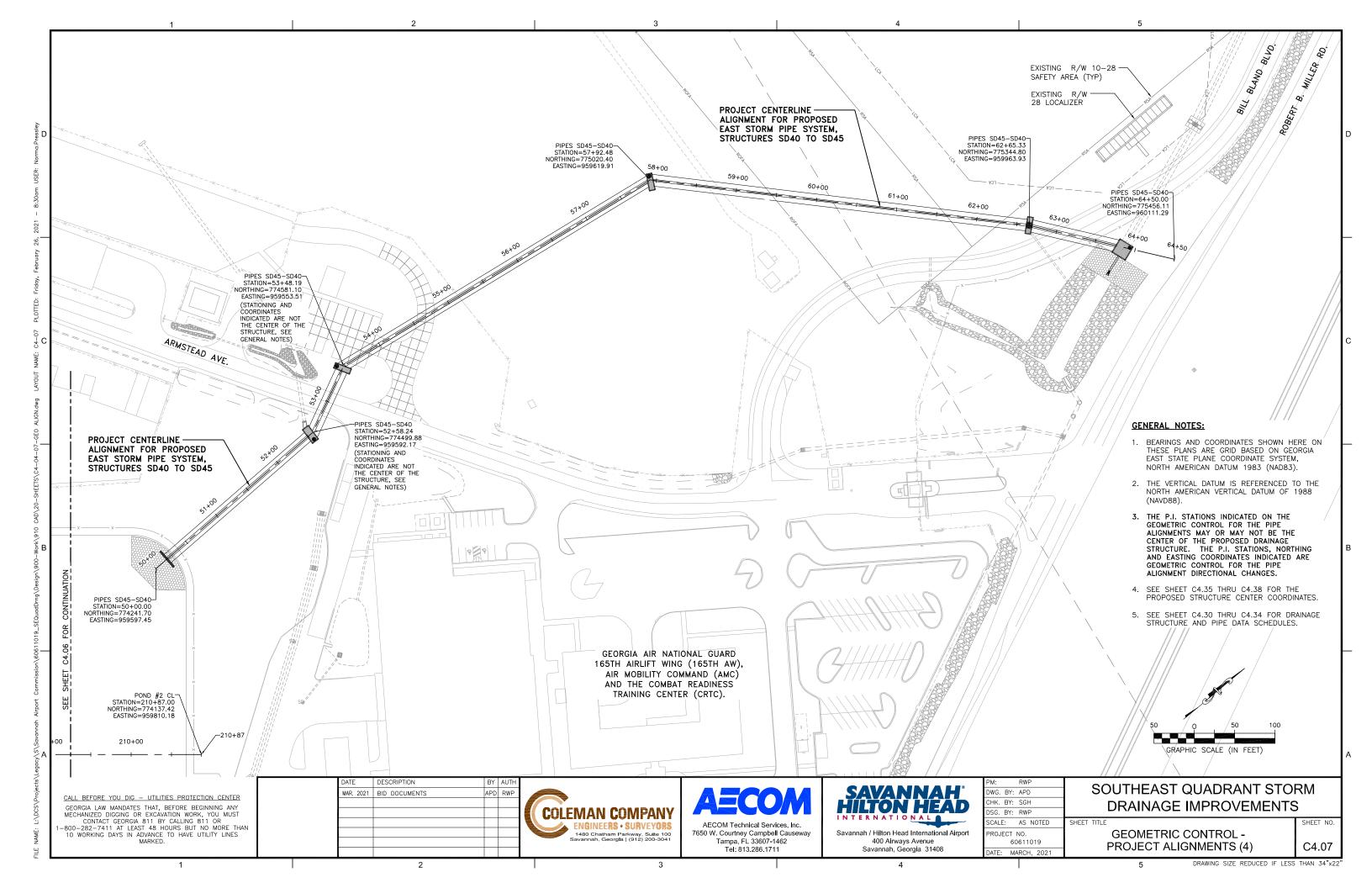


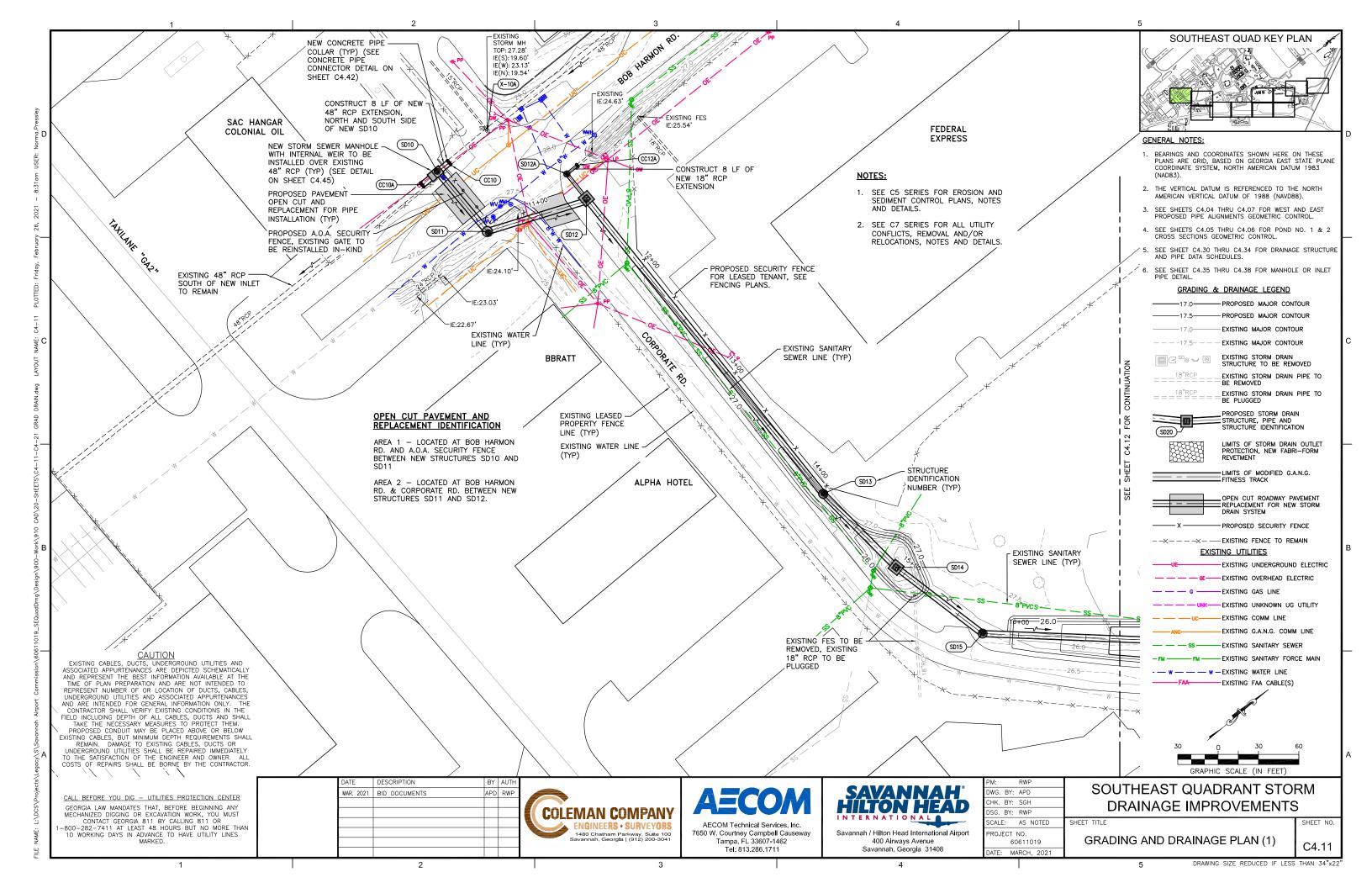


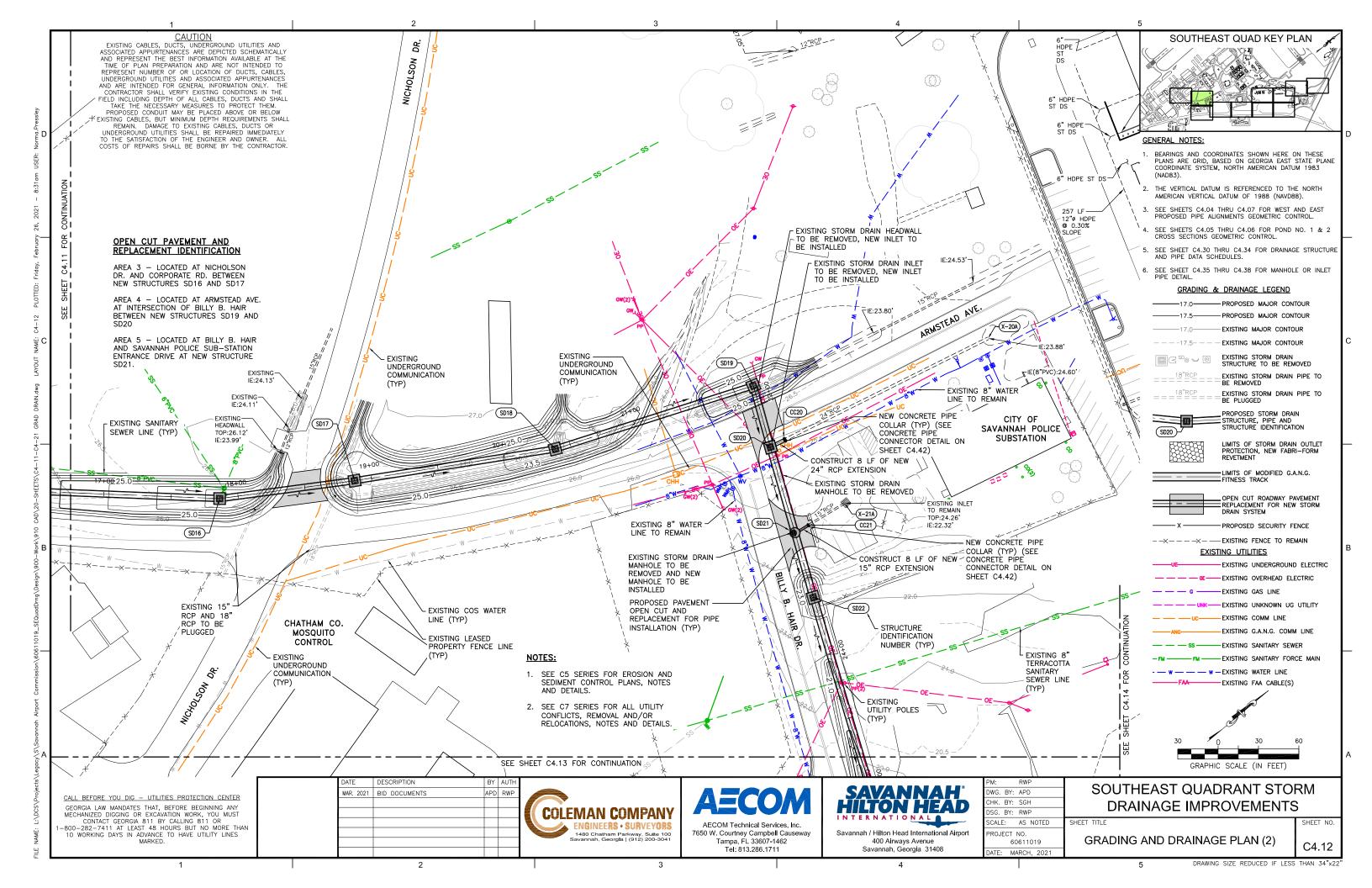


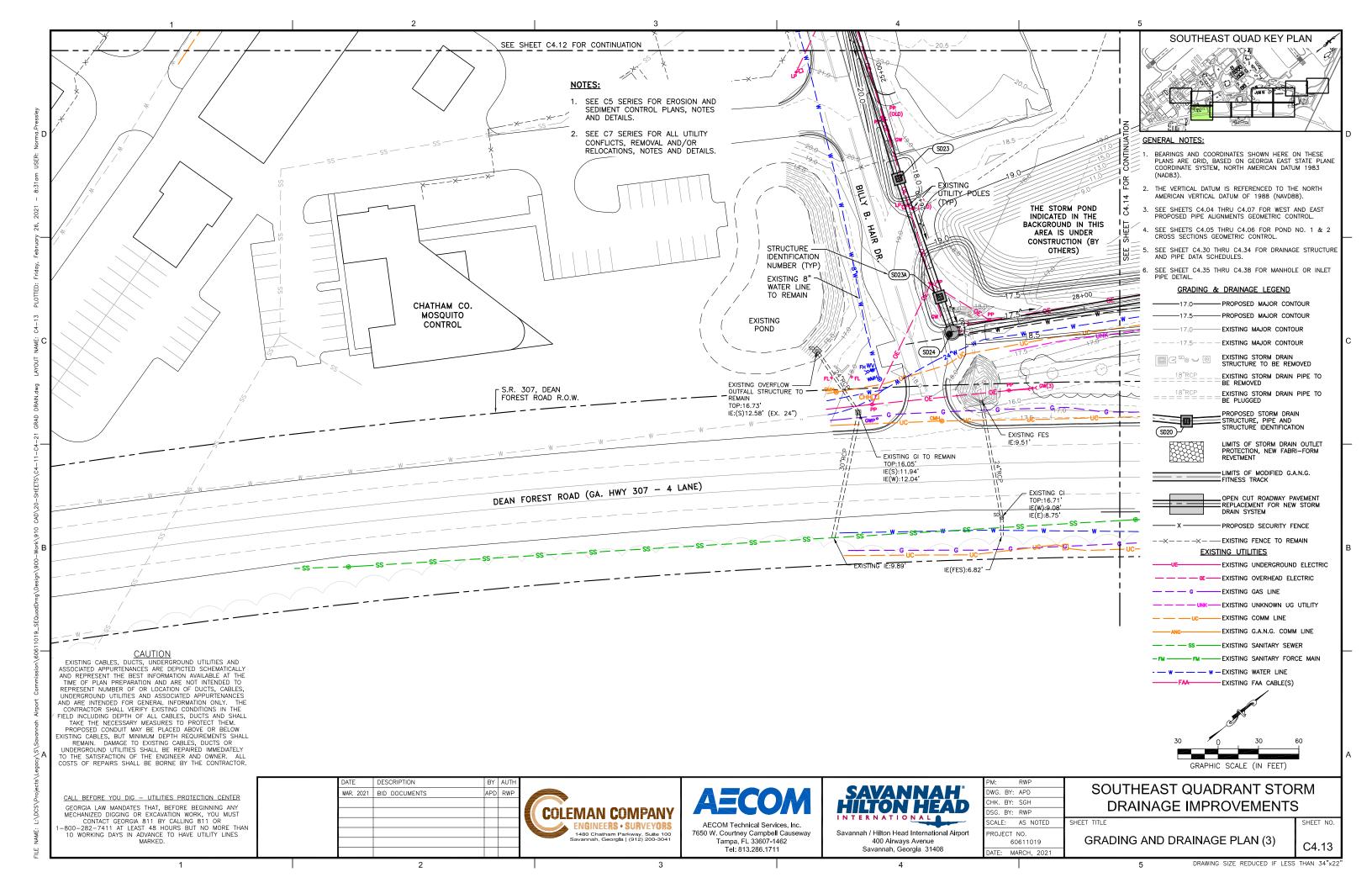


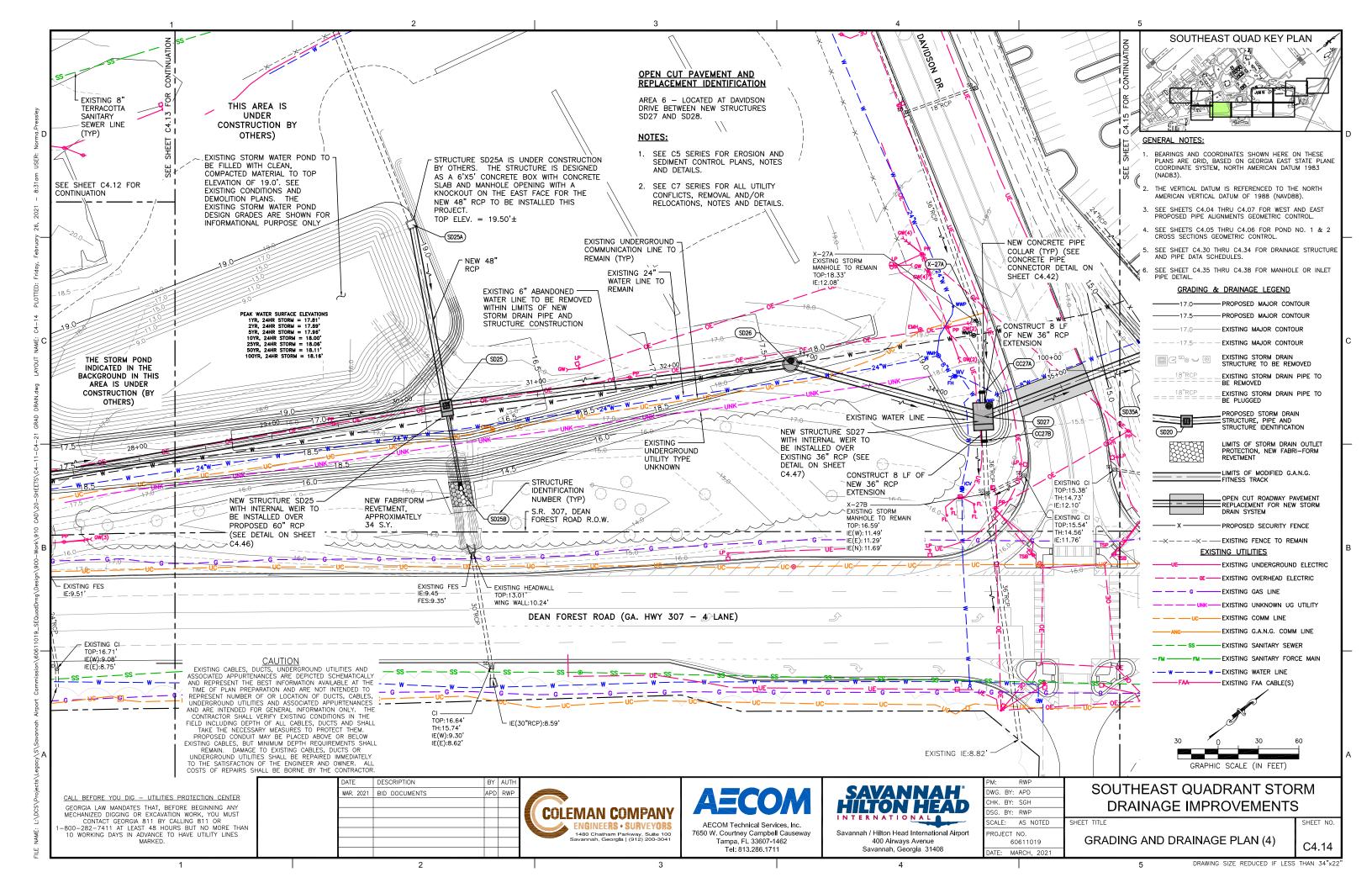


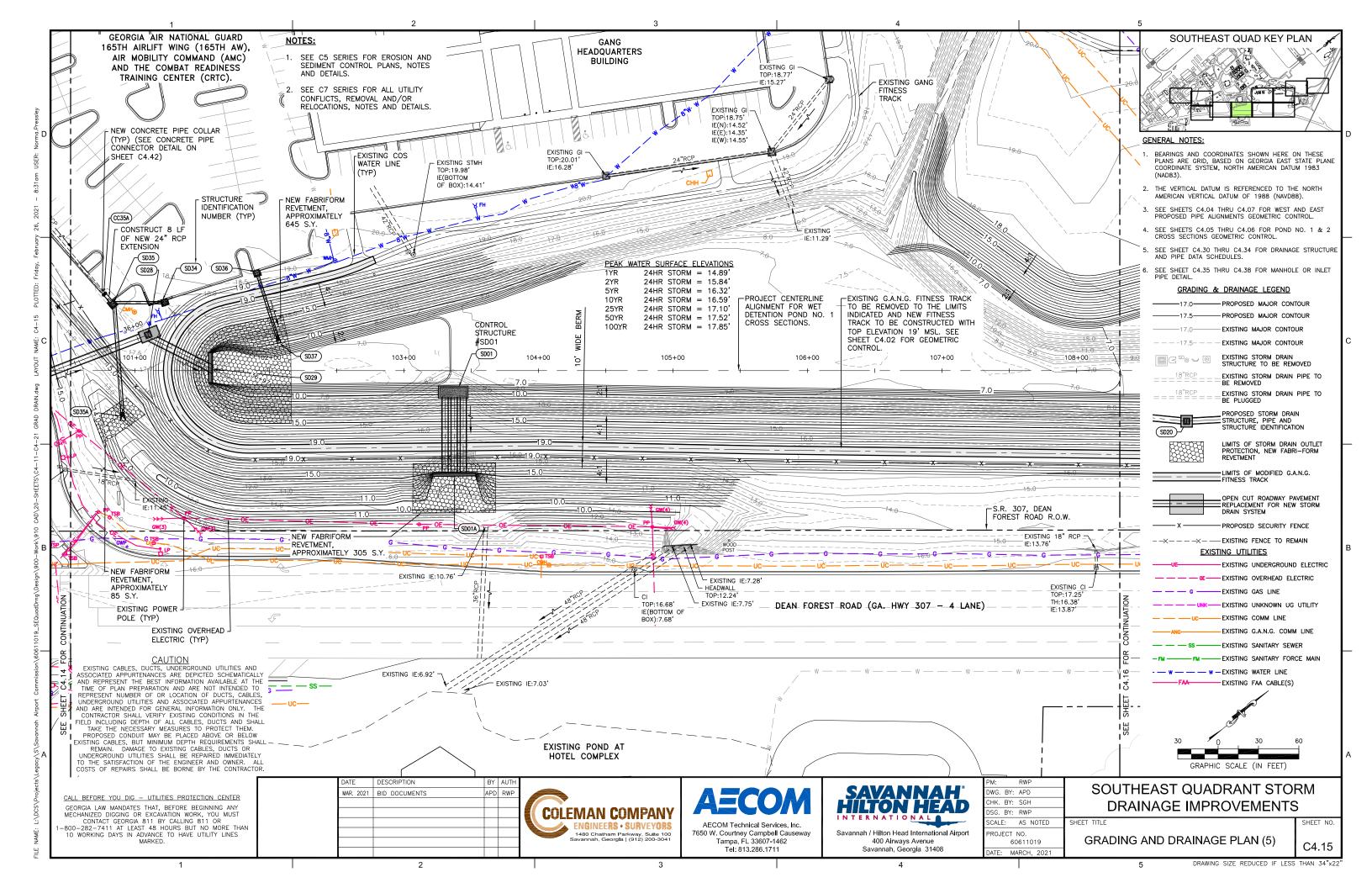


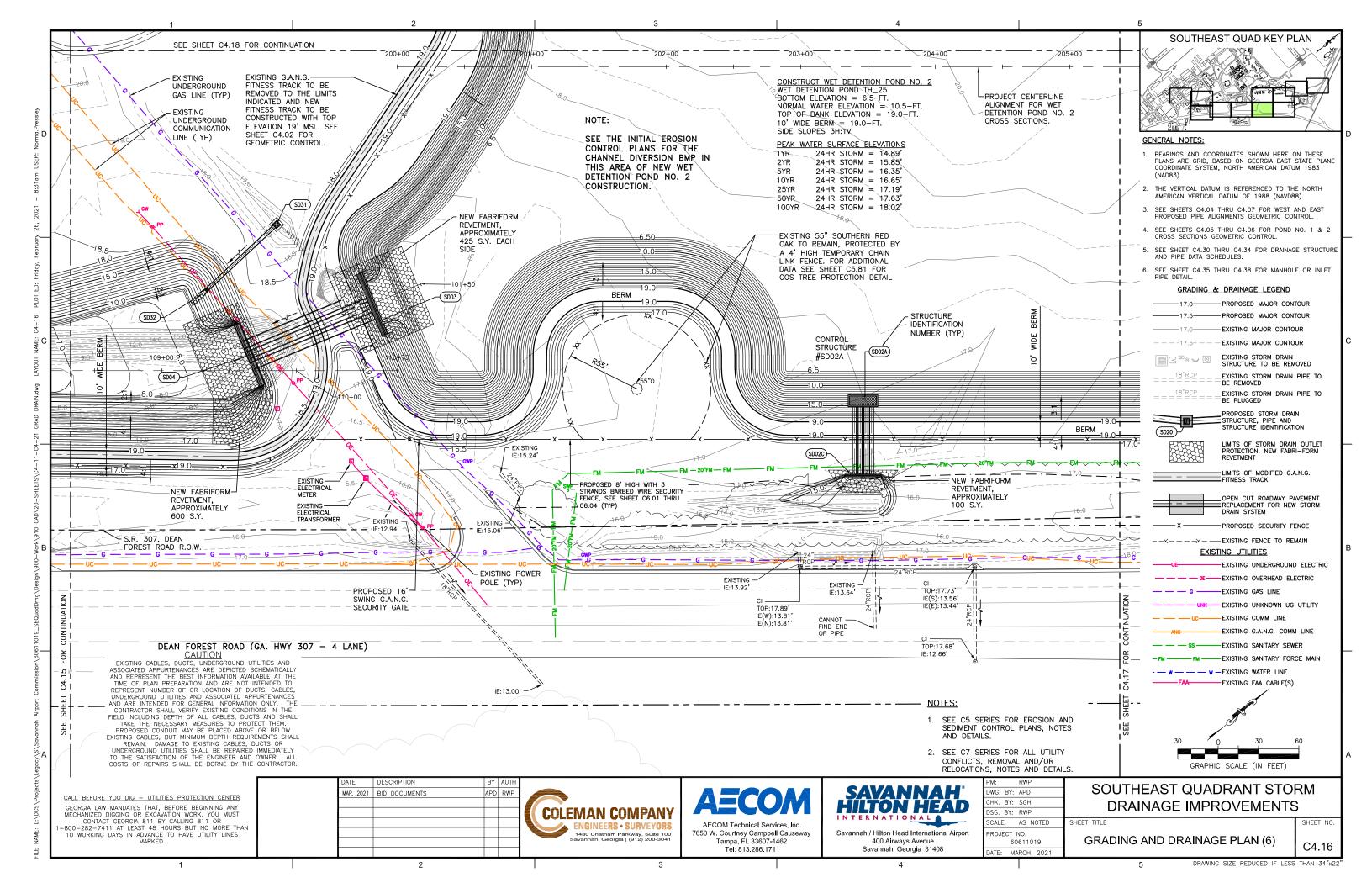


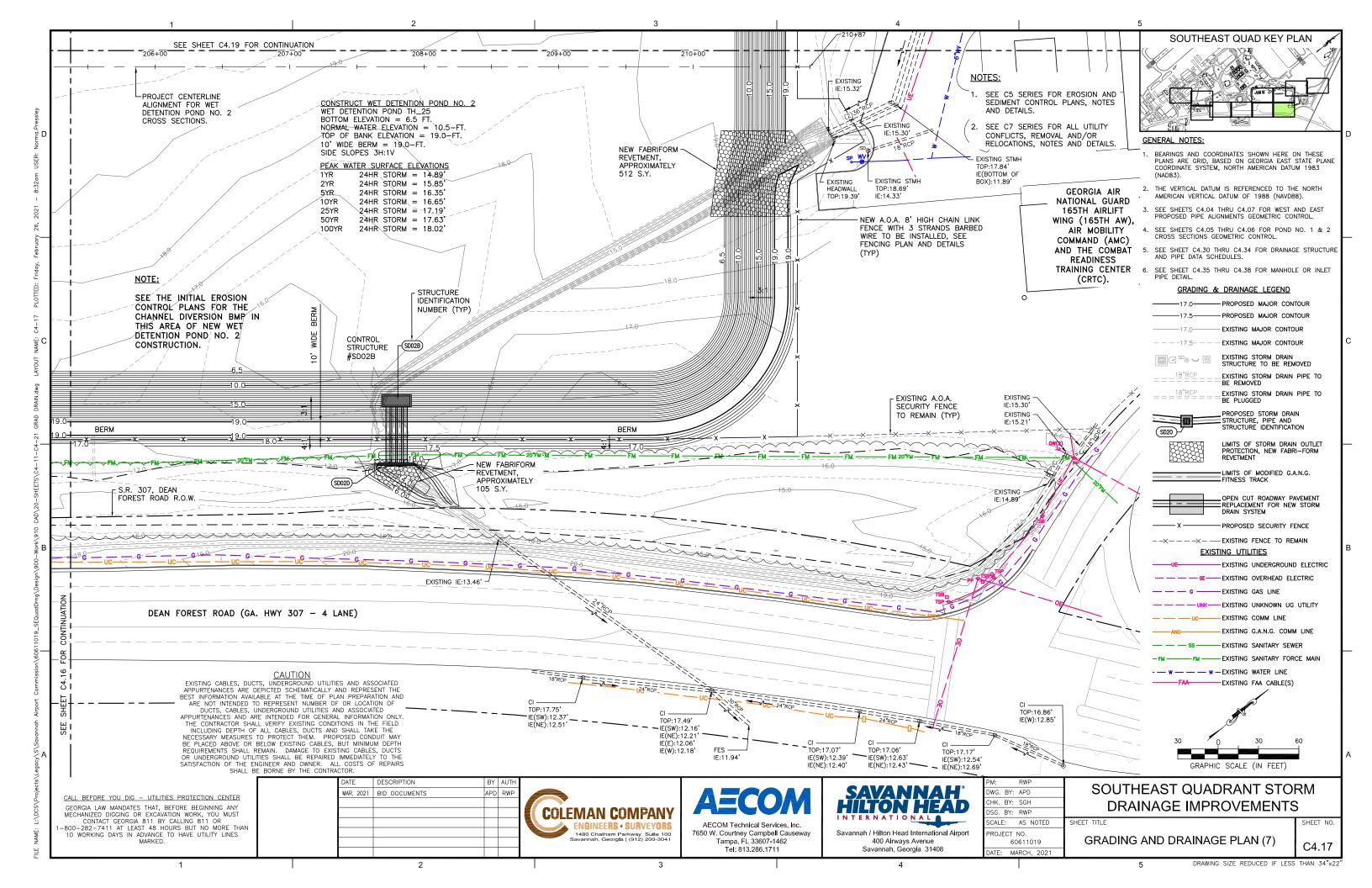


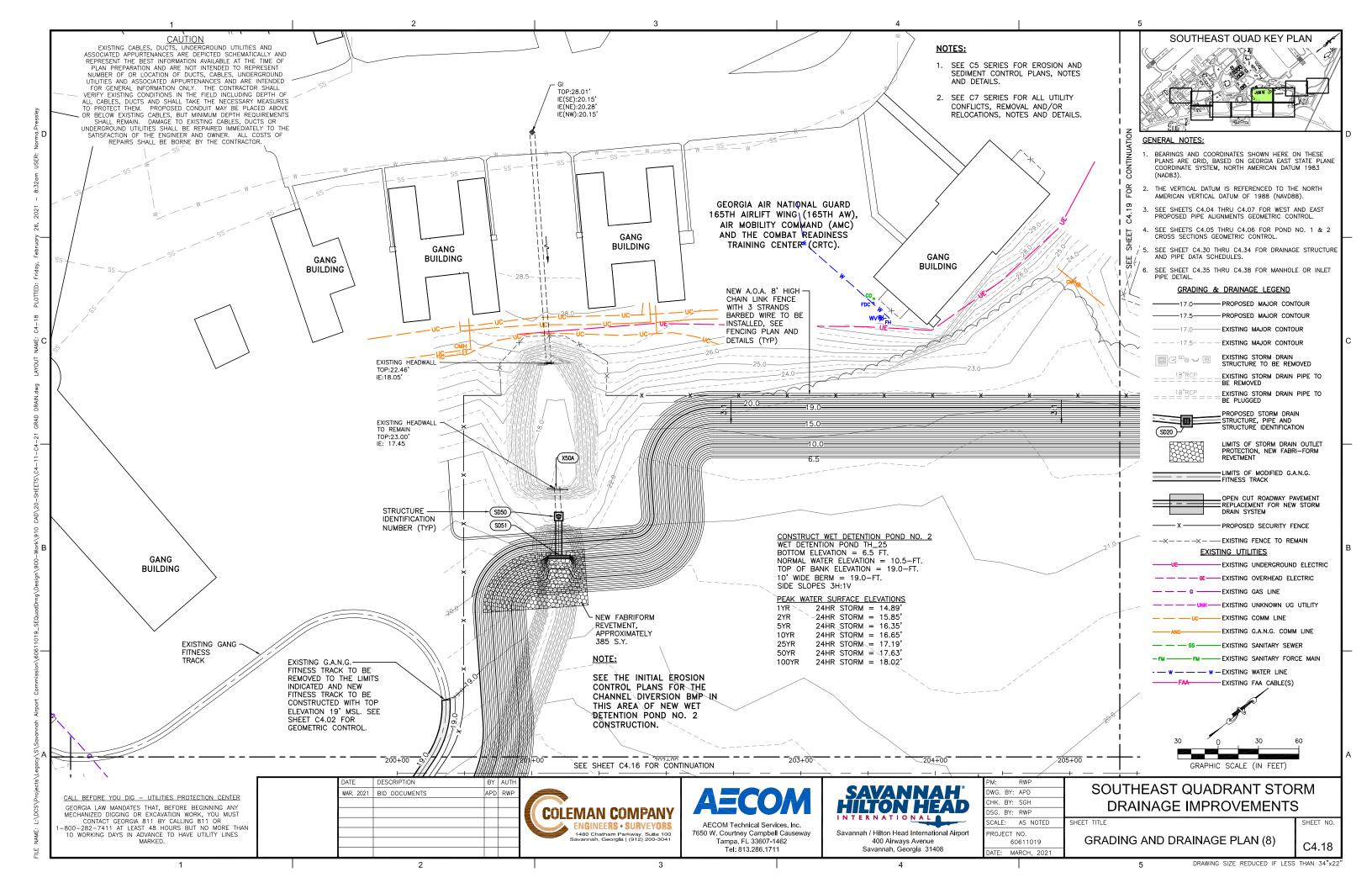


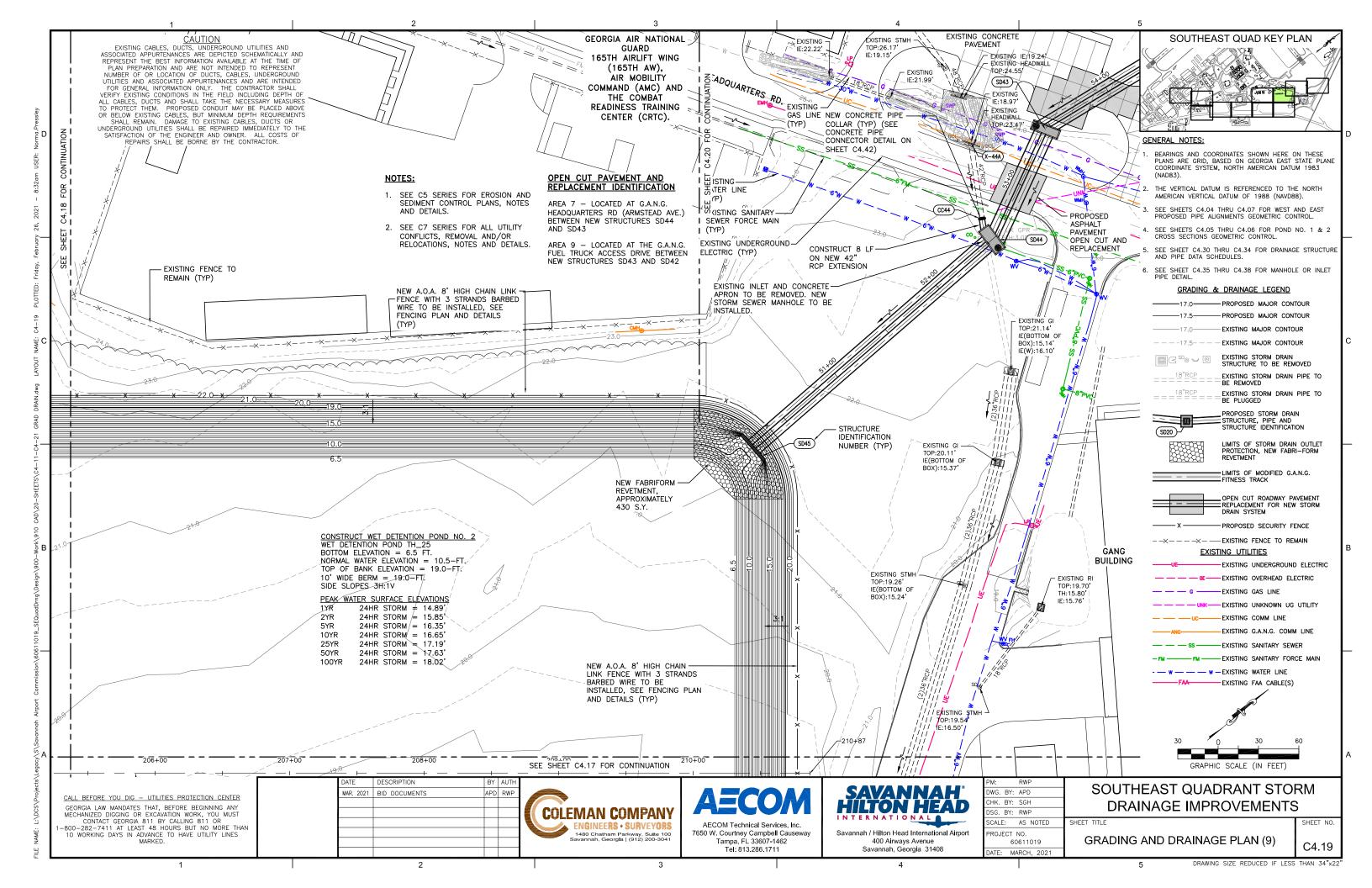


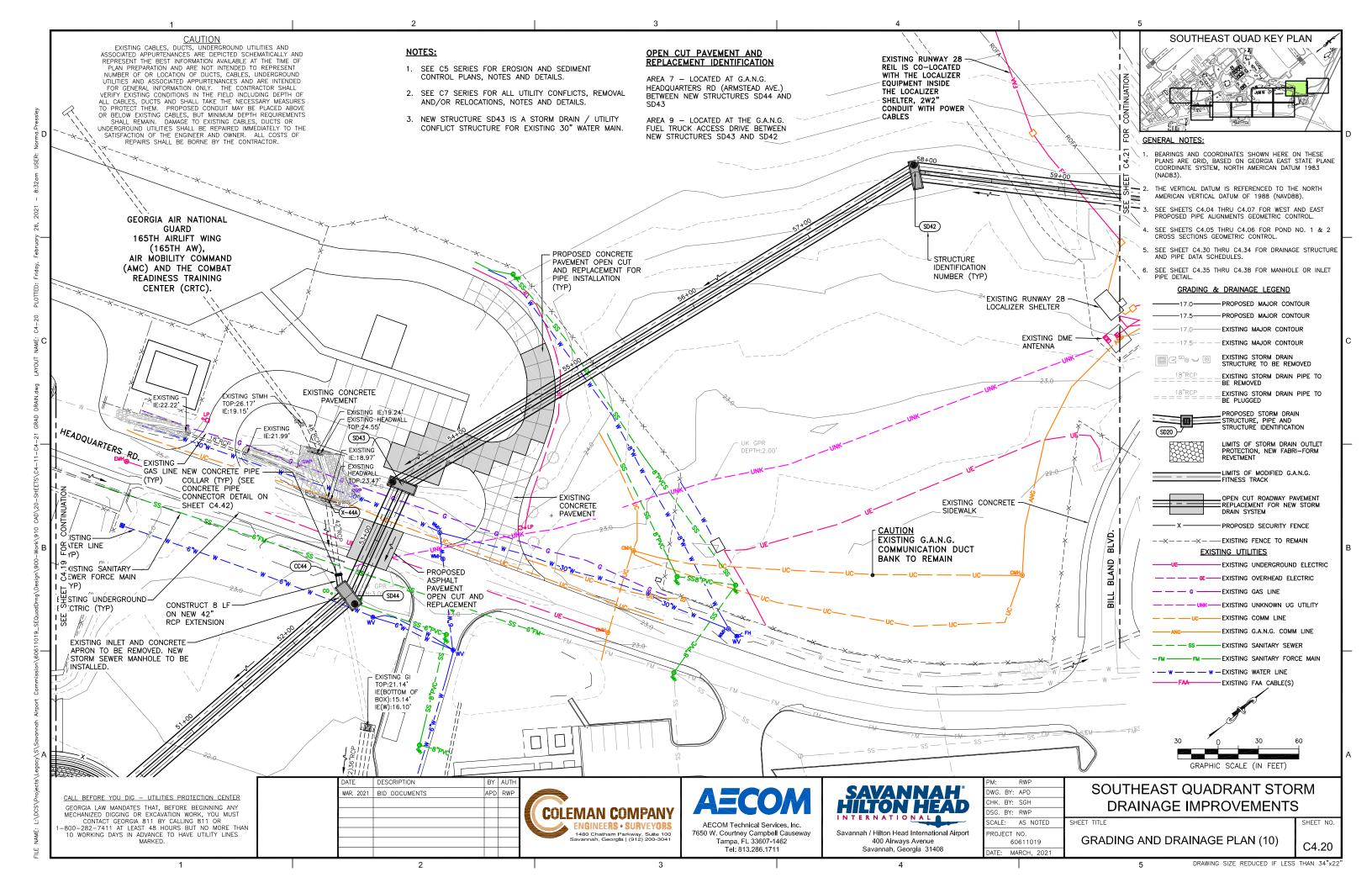


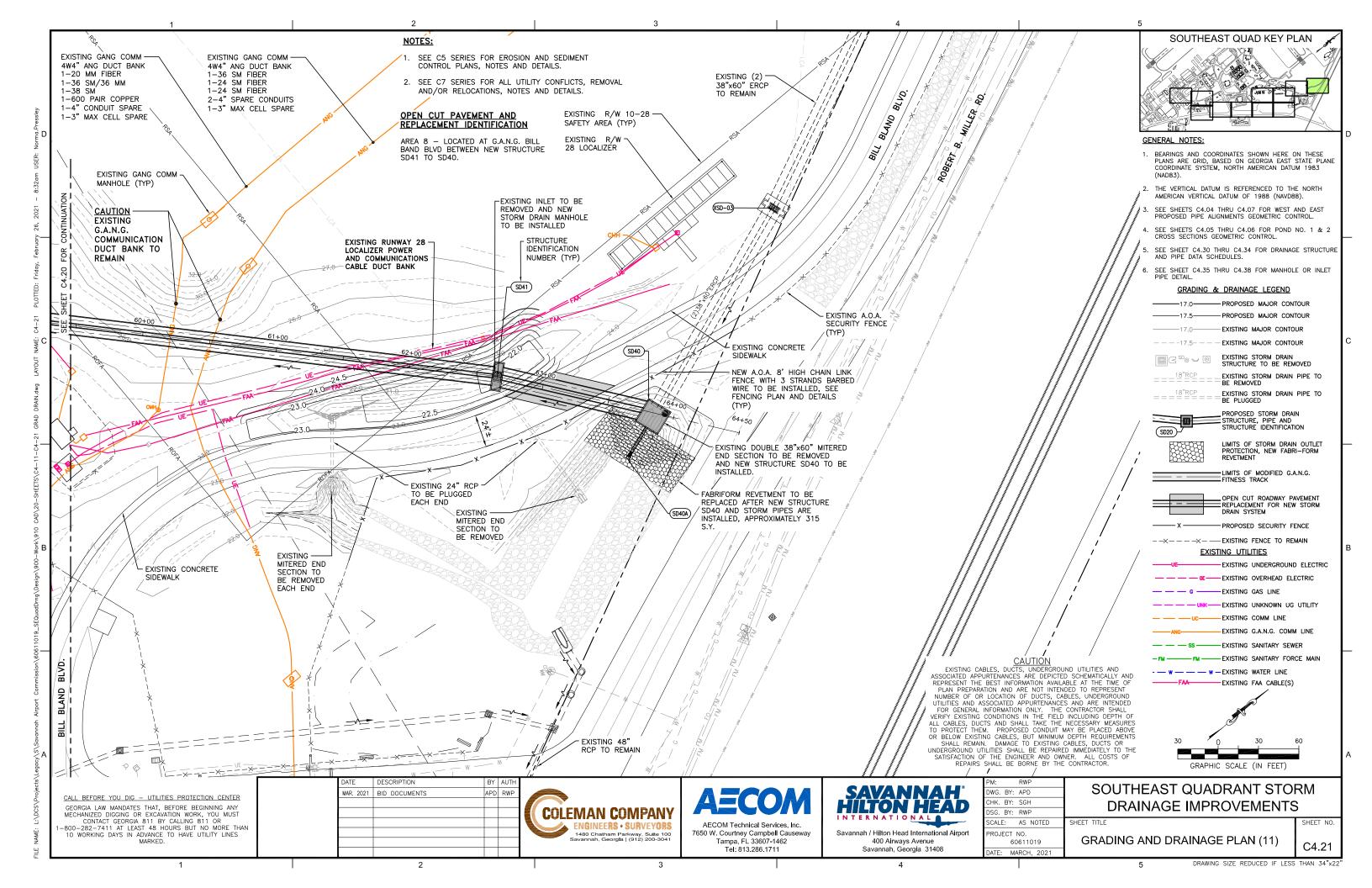












		1		2				D	RAINAGE	STRUCTU	RE AND PIPE SCHEDULE	т		<u> </u>	
	RUCTURE IUMBER	STRUCTURE TYPE	PIPE DIAMETER (IN) & MATERIAL	LENGTH (FT)	PIPE SLOPE (%)	GRATE/RIM TOP ELEV.	INVERT ELEV. NORTH	INVERT ELEV. SOUTH	INVERT ELEV. EAST	INVERT ELEV. WEST	WEIRS	ORIFICES	KNOCKOUT WALL FOR FUTURE DEVELOPMENT	COMMENTS	SHEET LOCATION
	SD01	POND #1 OUTFALL STRUCTURE, NEW 20'-0" x 7'-0" INSIDE DIMENSIONS WITH ALUMINUM BAR GRATING ON TOP, (2) RECTANGULAR WIERS AND (5) 18" DIAMETER ORIFICES FABRIFORM REVETMENT AT OUTFALL	(3) 48" RCP	59	0.51%	17.70				10.30	TOP OF (2) WEIR OPENINGS ELEV.=17.70 BOTTOM OF (4) WEIR OPENINGS ELEV. = 15.60 (1)12"-0" LONG WEST WALL (1) 4"-6" LONG NORTHWALL (1)4"-6" LONG SOUTH WALL	18" DIA. SCH. 40 PVC ORIFICES, ELEV. = 10.50' (6) WEST WALL	-	CONTROL STRUCTURE LOCATED IN EXISTING POND ADJACENT TO GANG FITNESS TRAIL	SEE SHEETS C2.15 & C4.15
	SD01A	NEW GDOT STANDARD INDEX 1001-B, PIPE CULVERT CONCRETE ENDWALL WITH FABRIFORM REVETMENT AND SECURITY BAR GRATES FOR NEW TRIPLE 48" RCP			0.0170				10.00						SEE SHEETS C2.15 & C4.15
	SD02A	POND #2 OUTFALL STRUCTURE A, NEW 20'-0" x 7'-0" INSIDE DIMENSIONS WITH ALUMINUM BAR GRATING ON TOP AND (3) RECTANGULAR WIERS FABRIFORM REVETMENT AT OUTFALL	(4) 30" RCP	54	0.37%	17.70				14.20	TOP OF (3) WEIR OPENINGS ELEV.=17.70 BOTTOM OF (3) WEIR OPENINGS ELEV. = 15.60 (1)18'-0" LONG WEST WALL (1) 5'-6" LONG SOUTH WALL (1) 5'-6" LONG NORTH WALL	-	_	CONTROL STRUCTURE LOCATED IN NEW POND #2 ADJACENT TO HWY 307	SEE SHEETS C2.16 & C4.16
	SD02C	NEW GDOT STANDARD INDEX 1001-B, PIPE CULVERT CONCRETE ENDWALL WITH FABRIFORM REVETMENT AND SECURITY BAR GRATES FOR NEW QUAD 30" RCP		J4	0.37 /6				14.00						SEE SHEETS C2.16 & C4.16
	SD02B	POND #2 OUTFALL STRUCTURE B, NEW 20'-0" x 7'-0" INSIDE DIMENSIONS WITH ALUMINUM BAR GRATING ON TOP AND (3) RECTANGULAR WIERS FABRIFORM REVETMENT AT OUTFALL	(4) 30° RCP	45	0.440/	17.70				14.20	TOP OF (3) WEIR OPENINGS ELEV.=17.70 BOTTOM OF (3) WEIR OPENINGS ELEV.= 15.60 (1)18-0" LONG WEST WALL (1) 5-6" LONG SOUTH WALL (1) 5-6" LONG NORTH WALL	-		CONTROL STRUCTURE LOCATED IN NEW POND #2 ADJACENT TO HWY 307	SEE SHEETS C2.17 & C4.17
	SD02D	NEW GDOT STANDARD INDEX 1001-B, PIPE CULVERT CONCRETE ENDWALL WITH FABRIFORM REVETMENT AND SECURITY BAR GRATES FOR NEW QUAD 30" RCP		45	0.44%				14.00						SEE SHEETS C2.17 & C4.17
	SD03	NEW GDOT STANDARD INDEX 1001-B, PIPE CULVERT CONCRETE ENDWALL AND FABRIFORM REVETMENT FOR NEW TRIPLE 60" RCP		101	0.99%		9.50				-	-	-	PIPES AND STRUCTURES LOCATED BETWEEN THE EXISTING POND AND THE NEW POND	SEE SHEETS C2.16 & C4.16
	SD04	NEW GDOT STANDARD INDEX 1001-B, PIPE CULVERT CONCRETE ENDWALL AND FABRIFORM REVETMENT FOR NEW TRIPLE 60" RCP						8.50			-	-		PIPES AND STRUCTURES LOCATED BETWEEN THE EXISTING POND AND THE NEW POND	SEE SHEETS C2.16 & C4.16
	SD12A	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH 4'-0" ROUND BOTTOM, INSIDE DIMENSION	24" RCP	18	2.72%	27.70	24.49		24.49			-			SEE SHEETS C2.11 & C4.11
	SD12	NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND 8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE DIMENSIONS				27.70				24.00	-	-			SEE SHEETS C2.11 & C4.11
	X-10A	EXISTING STORM DRAIN MANHOLE				27.28		19.60				-		LOCATED AT BOB HARMON RD. AND INTERSECTION OF CORPORATE RD.	SEE SHEETS C2.11 & C4.11
,			EXISTING 48" RCP	48	0.29%						NODE WELD WALL				
	SD10	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH 6'-0" x 6'-0" RECTANGULAR BOTTOM, INSIDE DIMENSION	48" RCP	53	1.30%	26.88	19.46	19.42	16.59		INSIDE WEIR WALL LENGTH = 6-0" INSIDE WEIR WALL TOP ELEV. = 21.50	-	WEST WALL		SEE SHEETS C2.11 & C4.11
	SD11	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH 7'-0" ROUND BOTTOM, INSIDE DIMENSION	48" RCP	73	1.27%	26.00	15.90			15.90		-			SEE SHEETS C2.11 & C4.11
	SD12	NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND 8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE DIMENSIONS	40 NOF	13	1.21 /0	27.70		14.97	14.97	24.00	-	-	NORTH WALL		SEE SHEETS C2.11 & C4.11
		NEW GDOT STANDARD INDEX 1011-A, CONCRETE	48" RCP	276	0.36%										
	SD13	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH 6'-0" ROUND BOTTOM, INSIDE DIMENSION	48" RCP	72	0.39%	26.19			13.98	13.98	-	-	NORTH WALL		SEE SHEETS C2.11 & C4.11
	SD14	NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND 8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE DIMENSIONS				25.50			13.70	13.70	-	-	NORTH WALL		SEE SHEETS C2.11 & C4.11
			48" RCP	75	0.37%										
			DATE DESCRI			AUTH D RWP	OI ERAA	I COREC	ARIV	AE	COM SAVA	NNA! N HEA	PM: RWP DWG. BY: APD CHK. BY: SGH DSG. BY: RWP	SOUTHEAST QUAD DRAINAGE IMPF	
							ENGINI	N COMPA EERS • SURVE atham Parkway, S Georgla (912) 20	YORS uite 100	AECOM Tech 7650 W. Courtney Tampa, F	inical Services, Inc. Campbell Causeway _ 33607-1462 INTERNAT Savannah / Hilton 400 Air	Head International Arways Avenue I, Georgia 31408	SCALE: AS NOTED	SHEET TITLE DRAINAGE STRUCTURE DATA SCHEDULE	SHEET NO.

DRAWING SIZE REDUCED IF LESS THAN 34"x22"

		1		2				Г	3 RAINAGE	STRUCTU	L RE AND PIPE SCH	HEDI II E	4		5	
			T	I	1	ı	INVEDT				TE AND FIFE 301	ILDULL	1			
	STRUCTURE NUMBER	STRUCTURE TYPE	PIPE DIAMETER (IN) & MATERIAL	LENGTH (FT)	PIPE SLOPE (%)	GRATE/RIM TOP ELEV.	INVERT ELEV. NORTH	INVERT ELEV. SOUTH	INVERT ELEV. EAST	INVERT ELEV. WEST	WEIR	RS	ORIFICES	KNOCKOUT WALL FOR FUTURE DEVELOPMENT	COMMENTS	SHEET LOCATION
	SD15	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH				26.64			13.42	13.42	-		-	NORTH WALL		SEE SHEETS C2.11 & C4.11
		6'-0" ROUND BOTTOM, INSIDE DIMENSION	48" RCP	208	0.37%											
		NEW GDOT STANDARD INDEX 1019-A,	10 1101	200	0.0770											
Ы	SD16	4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND 8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE				23.30	12.66	12.66			-		-	WEST WALL		SEE SHEETS C2.12 & C4.12
٦,		DIMENSIONS	401 000	0.4	0.000/											
		NEW GDOT STANDARD INDEX 1019-A,	48" RCP	94	0.38%											
	SD17	4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND 8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE				23.80	12.30	12.30			_		_	WEST WALL		SEE SHEETS C2.12 & C4.12
		DIMENSIONS														
		NEW ODOT STANDARD INDEX 4040 A	48" RCP	144	0.37%											
	SD18	NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND				23.30	11.77	11.77			_		_	WEST WALL		SEE SHEETS C2.12 & C4.12
	02.0	8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE DIMENSIONS				25.55								VIII VIII I		022 6.122.10 02.12 4 0 .112
4			48" RCP	147	0.37%											
	0040	NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND				22.00		44.00	44.00					NODTH AND WEST WALL		055 0115570 00 40 9 04 40
	SD19	8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE DIMENSIONS				23.80		11.22	11.22		-		-	NORTH AND WEST WALL		SEE SHEETS C2.12 & C4.12
		SINIE/NOIONS	54" RCP	40	0.43%											
		NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND														
	SD20	8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE				25.85	22.16		11.05	11.05	-		-	-		SEE SHEETS C2.12 & C4.12
		DIMENSIONS	54" RCP	60	0.40%											
		NEW GDOT STANDARD INDEX 1011-A, CONCRETE	0.7.0.												EXISTING STORM DRAIN MANHOLE TO BE	
C	SD21	MANHOLE WITH COVER, WITH 7'-0" ROUND BOTTOM, INSIDE DIMENSION				24.38			10.81	10.81	-		-	=	REMOVED	SEE SHEETS C2.12 & C4.12
			54" RCP	44	0.39%											
	0.000	NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND				04.00			40.04	40.04				NORTH AND COUTH		055 0115570 00 40 0 04 40
	SD22	8'-0"x8'-0" RECTANGULAR BOTTOM, INSIDE DIMENSIONS				21.38			10.64	10.64	-		-	NORTH AND SOUTH		SEE SHEETS C2.12 & C4.12
		DIMENSIONS	54" RCP	215	0.37%											
		NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND														
	SD23	8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE				17.80			9.85	9.85	-		-	NORTH AND SOUTH		SEE SHEETS C2.13 & C4.13
_		DIMENSIONS	54" RCP	86	0.40%											
		NEW GDOT STANDARD INDEX 1019-A,														
	SD23A	4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND 8'-0" x 8'-0" RECTANGULAR BOTTOM, INSIDE				17.34			9.51	9.51	-		-	NORTH AND SOUTH		SEE SHEETS C2.13 & C4.13
		DIMENSIONS	54" RCP	20	0.55%											
		NEW GDOT STANDARD INDEX 1011-A, CONCRETE	011101	20	0.00%											
	SD24	MANHOLE WITH COVER, WITH 10'-0" ROUND BOTTOM, INSIDE DIMENSION				18.03	9.40			9.40	-		-	EAST WALL		SEE SHEETS C2.13 & C4.13
			60" RCP	324	0.36%											
	ODOS	NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND				40.50	0.00	0.00	40.00	0.00	INSIDE WEI LENGTH =			AMEOT MALL		055 0115570 00 44 0 04 44
В	SD25	8'-0" x 11'-6" RECTANGULAR BOTTOM, INSIDE DIMENSIONS				16.50	8.23	8.23	13.00	8.23	INSIDE WEII TOP ELEV.		-	WEST WALL		SEE SHEETS C2.14 & C4.14
			60" RCP	250	0.36%						101 ===11					
	SD26	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH 10'-0" ROUND				18.50	7.32	7.32			_		_	WEST WALL		SEE SHEETS C2.14 & C4.14
		BOTTOM, INSIDE DIMENSION				10.00	7.02	7.02						WEST WILL		022 6112216 02111 0 01.11
			60" RCP	139	0.38%						INSIDE WEII	D WALL				
	SD27	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH 14' x 20'				19.50	6.79	6.79	11.78	11.78	LENGTH =	: 14'-0"	_	-		SEE SHEETS C2.14 & C4.14
		RECTANGULAR BOTTOM, INSIDE DIMENSION									INSIDE WEII TOP ELEV.	= 15.70				
4		NEW ODOT CTANDARD INDEX 4040 A	60" RCP	158	0.38%											
	SD28	NEW GDOT STANDARD INDEX 1019-A, 4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND				17.71		6.19	6.19		_		_	-		SEE SHEETS C2.15 & C4.15
		8'-0" x 12'-0" RECTANGULAR BOTTOM, INSIDE DIMENSIONS														
			60" RCP	54	0.35%											
	SD29	NEW GDOT STANDARD INDEX 1001-B, PIPE CULVERT CONCRETE ENDWALL AND FABRIFORM REVETMENT						6.00			_		-	-	POND SUMP ELEV.=6.0	SEE SHEETS C2.15 & C4.15
		FOR NEW 60" RCP, SKEWED PIPE														
1																
A																
			<u> </u>						_							
			DATE DESCR			/ AUTH						CAVA	NNAL	PM: RWP DWG. BY: APD	SOUTHEAST QUAD	DRANT STORM
			MAR. ZUZI BID DI	OCCIMENTS				_				JATA	NNAI N HEA	CHK. BY: SGH	DRAINAGE IMPF	
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							🗻 ENGIN	EERS • SURVI	EYORS		nical Services, Inc. Campbell Causeway	Savannah / Hilton I			SHEET TITLE DRAINAGE STRUCTURE	SHEET NO.
							Savannah	amam Farkway, s , Georgla (912) 2	00-3041	Tampa, F	L 33607-1462	400 Air	ways Avenue	60611019	DATA SCHEDULE	
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Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

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SCALE: AS NOTED	Г
PROJECT NO.	ı
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DRAWING SIZE REDUCED IF LESS THAN 34"x22"

	DRAINAGE STRUCTURE AND PIPE SCHEDULE													
STRUCTUR NUMBER	STRUCTURE TYPE	PIPE DIAMETER (IN) & MATERIAL	LENGTH (FT)	PIPE SLOPE (%)	GRATE/RIM TOP ELEV.	INVERT ELEV. NORTH	INVERT ELEV. SOUTH	INVERT ELEV. EAST	INVERT ELEV. WEST	WEIRS	ORIFICES	KNOCKOUT WALL FOR FUTURE DEVELOPMENT	COMMENTS	SHEET LOCATION
	NEW COOT CTANDARD INDEX 4040A DRI TYPE C													
SD31	NEW GDOT STANDARD INDEX 1019A, DBI TYPE C WITH GRATE, 3'-0" x 3'-0" INSIDE DIMENSIONS				15.80		12.60	12.60		-	-			SEE SHEETS C2.16 & C4.16
		24" RCP	68	0.88%										
SD32	NEW GDOT STANDARD INDEX 1120 FOR FLARED END SECTION AND RIP-RAP (GDOT D-55A-B) FOR				_		12.00			_	_			SEE SHEETS C2.16 & C4.16
D	NEW 24" RCP						12.00							0EE 611EE 10 02.10 tt 04.10
	WENT OR OF STANDARD INDEX 40404 PRI TYPE O												EVICENCE CONCERNS TO AND SECURE TO	
SD34	NEW GDOT STANDARD INDEX 1019A, DBI TYPE C WITH GRATE, 3'-6"X3'-6" INSIDE DIMENSIONS, WITH (CURB IN EXISTING PAVEMENT FOR NEW 18" RCP OUT	6"			17.30		13.40			-	-	-	EXISTING CONCRETE FLUME AND 6" CURB TO BE REMOVED AND NEW INLET TO BE INSTALLED IN EXISTING PAVEMENT WITH NEW 6" CURB AND GUTTER	SEE SHEETS C2.15 & C4.15
		18" RCP	36	1.53%										
SD35	NEW GDOT STANDARD INDEX 1019A, DBI TYPE C WITH GRATE, 3'-6" x 3'-6" INSIDE DIMENSIONS, WITH 6" CURB IN EXISTING PAVEMENT FOR NEW 24" RCF OUT	H P			16.81	12.85		12.85	12.85	-	-	-	EXISTING CURB INLET AND 6" CURB TO BE REMOVED AND NEW INLET TO BE INSTALLED IN EXISTING PAVEMENT WITH NEW 6" CURB AND GUTTER	SEE SHEETS C2.15 & C4.15
_		24" RCP	80	0.44%										
SD35A	NEW GDOT STANDARD INDEX 1120 FOR FLARED END SECTION FOR NEW 24" RCP						12.50							
SD36	NEW GDOT STANDARD INDEX 1019A, DBI TYPE C WITH GRATE, 3'-6" x 3'-6" INSIDE DIMENSIONS, WITH 6" CURB IN EXISTING PAVEMENT FOR NEW 18" RCF OUT	H P			18.65				8.49	-	-	-	EXISTING CONCRETE FLUME AND 6" CURB TO BE REMOVED AND NEW INLET TO BE INSTALLED IN EXISTING PAVEMENT WITH NEW 6" CURB AND EXISTING GUTTER	SEE SHEETS C2.15 & C4.15
	NEW GDOT STANDARD INDEX 1120 FOR FLARED	18" RCP	47	1.04%										
SD37	END SECTION AND FABRIFORM REVETMENT FOR NEW 18° RCP				-			8.00		-	-	-		SEE SHEETS C2.15 & C4.15
C	EXISTING 24" RCP FROM NORTH, EXISTING INVERT	т											EXISTING INLET TO BE REMOVED. EXISTING	
X-20A	INDICATED IS UPSTREAM	'			-	23.88				-	-	-	24" RCP FROM THE NORTH TO BE CONNECTED TO NEW INLET SD20	SEE SHEETS C2.12 & C4.12
		EXISTING 24" RCP	179	0.96%									SSINESTED TO NEW INCEL SEE	
	NEW GDOT STANDARD INDEX 1019A, DBI TYPE C													
SD20	WITH GRATE, 5'-0" x 5'-0" INSIDE DIMENSIONS, NEW 48" RCP IN AND OUT, CONNECT EXISTING 24' RCP FROM EAST				25.85	22.16				-	-	-		SEE SHEETS C2.12 & C4.12
	EXISTING 15" RCP FROM NORTH, EXISTING INVERT	T											INVERT OF EXISTING 15" RCP FROM THE	
X-21A	INDICATED IS UPSTREAM	1			24.26	22.32				-	-	-	NORTH	SEE SHEETS C2.12 & C4.12
		EXISTING 15" RCP	42	2.38%										
SD21	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH 7'-0" ROUND BOTTOM, INSIDE DIMENSION				24.38	21.32				-	-	-	EXISTING STORM DRAIN MANHOLE TO BE REMOVED	SEE SHEETS C2.12 & C4.12
X-27A	EXISTING STORM DRAIN MANHOLE, EXISTING 36"				18.33			12.09						SEE SHEETS C2.14 & C4.14
X-2/A	RCP OUT				10.33			12.08		-	-			SEE SHEETS C2.14 & C4.14
		EXISTING 36" RCP	66	0.45%				1		INSIDE WEIR WALL	+			
SD27	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH 14-0" x 20-0" RECTANGULAR BOTTOM, INSIDE DIMENSION				17.11	6.79	6.79	11.78	11.78	LENGTH = 14-0" INSIDE WEIR WALL TOP ELEV. = 15.70	-			SEE SHEETS C2.14 & C4.14
	AREA UNDER CONSTRUCTION, (BY OTHERS)												AREA UNDER CONSTRUCTION, EXISTING	
SD25A	EXISTING 6' x 5' CONCRETE BOX WITH KNOCKOUT FOR NEW 48" RCP OUT ON EAST WALL TO STRUCTURE SD25	48" RCP (W)	132	2.10%	19.50			11.00		-	-	-	STRUCTURE BY OTHERS. CONTRACTOR TO VERIFY ALL INFORMATION PRIOR TO CONSTRUCTION OF NEW 48" RCP	SEE SHEETS C2.14 & C4.14
	NEW GDOT STANDARD INDEX 1019-A,	40 (V)	132	2.1076						INSIDE WEIR WALL	+		+	
SD25	4'-0" x 4'-0" TYPE C DROP INLET WITH GRATE AND 8'-0" x 18'-0" RECTANGULAR BOTTOM, INSIDE DIMENSIONS				16.50	8.23	8.23	13.00	8.23	LENGTH = 4-0" INSIDE WEIR WALL TOP ELEV. = 13.40	-	-		SEE SHEETS C2.14 & C4.14
⅃ ├───	NEW COOT CTANDARD INDEX 4420 FOR ELABER	14" x 23" ERCP	51	0.98%				-			-			
SD25B	NEW GDOT STANDARD INDEX 1120 FOR FLARED END SECTION FOR NEW 24" x 38" ERCP							12.50		-	-	-		SEE SHEETS C2.14 & C4.14
A		DATE DESCR	RIPTION	BY	AUTH							PM: RWP	SOUTHEAST OLIAS	DANT STORM
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AECOM Technical Services, Inc. 7650 W. Courtney Campbell Causeway Tampa, FL 33607-1462 Tel: 813.286.1711

COLEMAN COMPANY
ENGINEERS • SURVEYORS
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Savannah, Georgia | (912) 200-3041

CHK. BY: SGH

DSG. BY: RWP

PROJECT NO. 60611019

Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408 SCALE: AS NOTED

DRAINAGE IMPROVEMENTS

DRAINAGE STRUCTURE AND PIPE

DATA SCHEDULE (3)

SHEET NO.

C4.32

DRAWING SIZE REDUCED IF LESS THAN 34"x22"

Γ		DRAINAGE STRUCTURE AND PIPE SCHEDULE													
	STRUCTURE NUMBER	STRUCTURE TYPE	PIPE DIAMETER (IN) & MATERIAL	LENGTH (FT)	PIPE SLOPE (%)	GRATE/RIM TOP ELEV.	INVERT ELEV. NORTH	INVERT ELEV. SOUTH	INVERT ELEV. EAST	INVERT ELEV. WEST	WEIRS	ORIFICES	KNOCKOUT WALL FOR FUTURE DEVELOPMENT	COMMENTS	SHEET LOCATION
	SD45	NEW GDOT STANDARD INDEX 1001-B, PIPE CULVERT CONCRETE ENDWALL AND FABRIFORM REVETMENT AT NEW WEST DETENTION POND FOR NEW DOUBLE (2) 48" RCP IN NORTH.	г					11.00			-	<u>-</u>			SEE SHEETS C2.19 & C4.19
	SD44	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH RECTANGULAR BOTTOM,	(2) 48" RCP	233	0.52%	23.00	12.20	12.20			-	-	-		SEE SHEETS C2.20 & C4.20
	SD43	8'-0" x 20'-0" INSIDE DIMENSION NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH RECTANGULAR BOTTOM,	(2) 38"x60" ERCP	89	0.34%	24.75	12.50	12.50			<u>-</u>	_	-		SEE SHEETS C2.20 & C4.20
	00.40	6'-0" x 20'-0" INSIDE DIMENSION NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH RECTANGULAR	(2) 48" RCP	450	0.46%	05.50		44.57							
1	SD42	BOTTOM, 6'-0" x 20'-0" INSIDE DIMENSION NEW GDOT STANDARD INDEX 1019-A,	(2) 38"x60" RCP	470	0.50%	25.58	14.57	14.57			-	-	-		SEE SHEETS C2.20 & C4.20
	SD41	6'-0" x 6'-0" INSIDE DIMENSION TYPE C DROP INLET WITH GRATE AND 6'-0" x 20'-0" RECTANGULAR BOTTOM, INSIDE DIMENSION			0.400	21.80	16.90	16.90			-	-	-		SEE SHEETS C2.21 & C4.21
C	SD40	NEW GDOT STANDARD INDEX 1011-A CONCRETE MANHOLE WITH COVER, 18'-0" x 18'-0" INSIDE DIMENSION SQUARE BOTTOM. EXISTING (2) 38" x 60" ERCP IN NORTH AND NEW (2) 38" x 60" ERCP OUT WEST NEW 18" RCP OUT SOUTH	(2) 38"x60" ERCP	111	0.46%	23.50	17.41	18.00		17.30	-	-	-	EXISTING DOUBLE 38"x60" MITERED END SECTION TO BE REMOVED AND NEW STRUCTURE SD40 INSTALLED'	SEE SHEETS C2.21 & C4.21
	SD40A	NEW GDOT STANDARD INDEX 1120 FOR FLARED END SECTION FOR NEW 18" RCP	18" RCP	22	2.27%	-		17.50			-	-			SEE SHEETS C2.21 & C4.21
	X-44A	EXISTING HEADWALL				23.47				18.97	-	-	-	EXISTING HEADWALL TO REMAIN IS LOCATED ON NORTHWEST SIDE OF HEADQUARTERS ROAD. EXISTING INLET AT LOCATION OF NEW STRUCTURE SD44 TO BE REMOVED AND A PORTION OF EXISTING 42" RCP TO BE REMOVED. EXISTING 42" TO BE CONNECTED TO NEW STRUCTURE SD44.	SEE SHEETS C2.20 & C4.20
	SD44	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, WITH RECTANGULAR BOTTOM, 8'-0" x 20'-0" INSIDE DIMENSION	EXISTING 42" RCP	65	1.66%	23.00	12.20	12.20		17.89	-	-	-	CONTRACTOR TO INSTALL A 6" THICK, 18" WIDE CONCRETE APRON AROUND INLET. INVERT INDICATED IS THE EXISTING 42" RCP ENTRANCE INTO NEW STRUCTURE SD44	SEE SHEETS C2.20 & C4.20
1	X50A	EXISTING STROM DRAIN ENDWALL				23.00				17.45					SEE SHEETS C2.19 & C4.19
В	SD50	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, 5'-10" x 5'-10" RECTANGULAR BOTTOM, EXISTING 48" RCP IN NORTHWEST (SD50 DROP MANHOLE - SEE BELOW FOR CONTINUATION)	n	22	0.91%	22.64				17.25		-		EXISTING HEADWALL TO REMAIN IS LOCATED ON NORTHWEST SIDE OF NEW DROP MANHOLE SD50 (INVERT IN)	SEE SHEETS C2.19 & C4.19
	SD50	NEW GDOT STANDARD INDEX 1011-A, CONCRETE MANHOLE WITH COVER, 5'-10" X 5'-10" RECTANGULAR BOTTOM, NEW 48" RCP OUT SOUTHEAST (SD50 DROP MANHOLE - SEE ABOVE)				22.64				11.25		_		NEW DROP MANHOLE SD50 (INVERT OUT)	SEE SHEETS C2.19 & C4.19
$\frac{1}{1}$	SD51	NEW GDOT STANDARD INDEX 1001-B, PIPE CULVERT CONCRETE ENDWALL AND FABRIFORM REVETMENT AT NEW WEST DETENTION POND FOR NEW 48" RCP	г	29	0.86%	16.00				11.00	-	-			SEE SHEETS C2.19 & C4.19
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Savannah / Hilton Head International Airport	
400 Airways Avenue	
Savannah, Georgia 31408	

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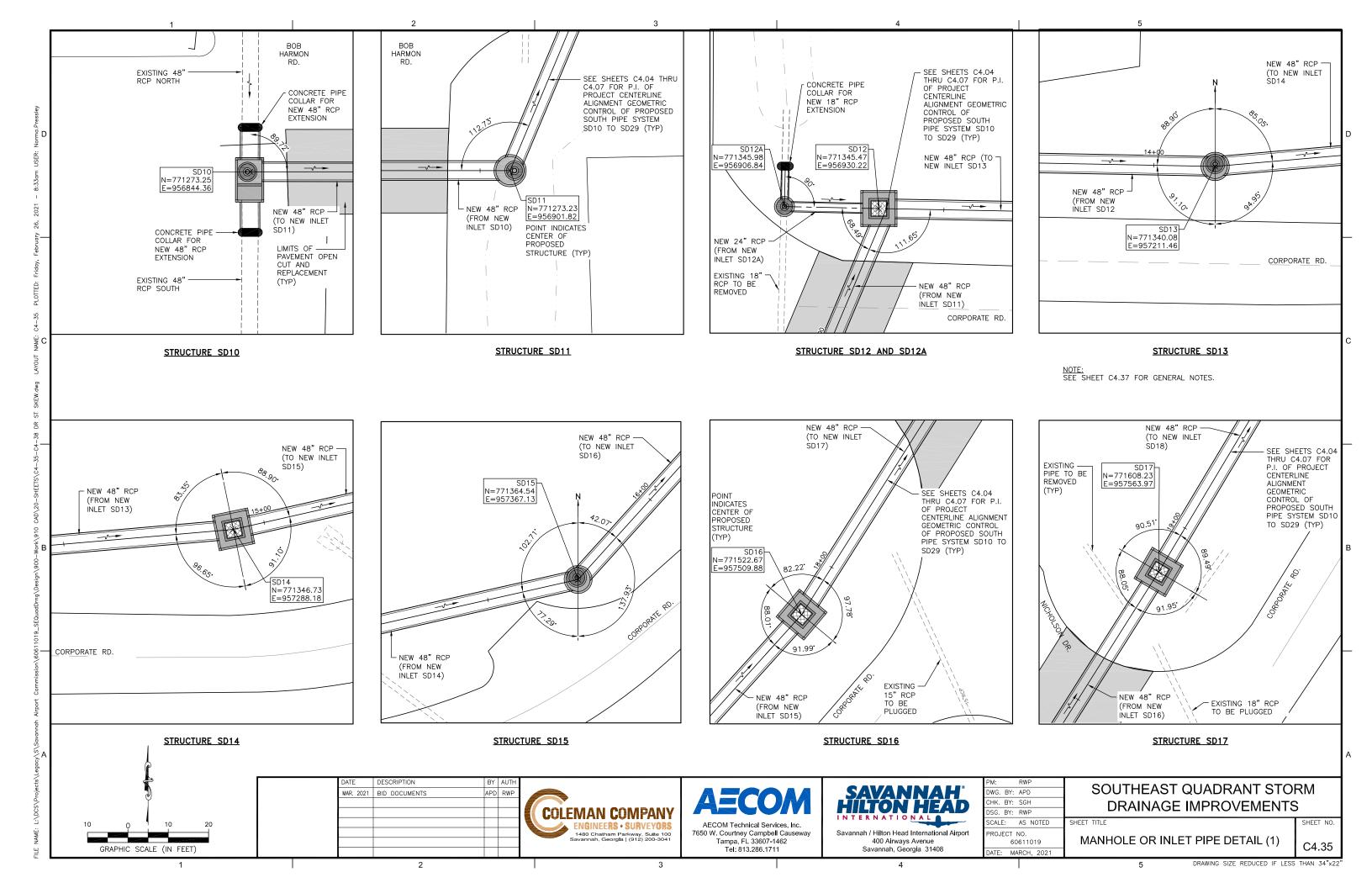
DRAINAGE STRUCTURE AND PIPE DATA SCHEDULE (4)

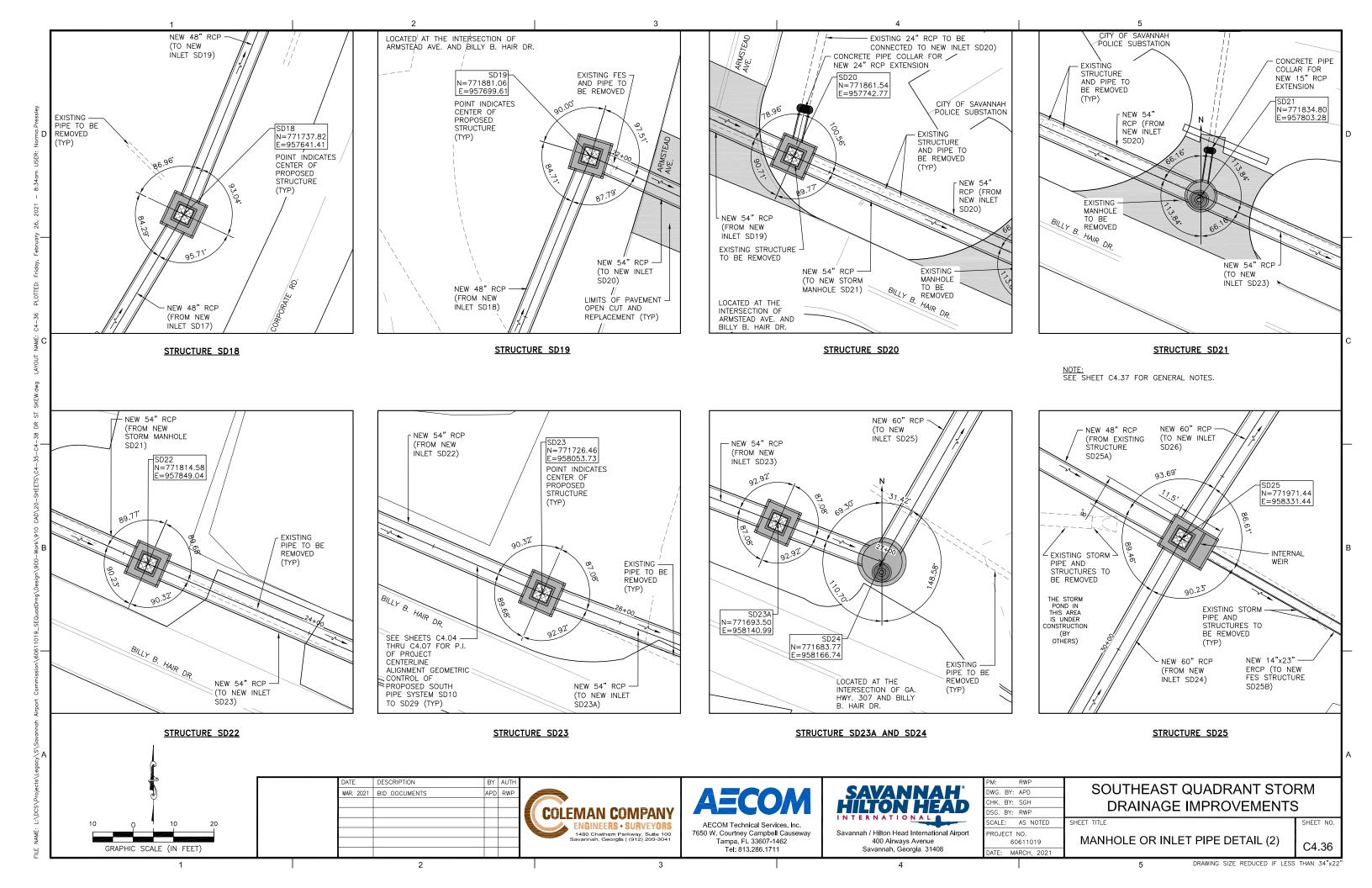
SHEET NO. C4.33

DRAWING SIZE REDUCED IF LESS THAN 34"x22"

DATE: MARCH, 2021

CONCRETE COLLAR PIPE SCHEDULE CONCRETE COLLAR FOR STRUCURE REINFORCED CONCRETE PIPE LENGTH PIPE DIAMETER (IN) & SHEET LOCATION (RCP) EXTENSION TO NEW STORM MATERIAL NUMBER DRAIN STRUCTURE NEW CONCRETE COLLAR FOR NORTH CC10 TO SD10 CONNECTION OF EXISTING 48" RCP TO NEW 48" RCP EXTENSION 48" RCP SEE SHEETS C2.11 & C4.11 NEW CONCRETE COLLAR FOR SOUTH CC10A TO SD10 CONNECTION OF EXISTING 48" RCP TO NEW SEE SHEETS C2.11 & C4.11 48" RCP EXTENSION NEW CONCRETE COLLAR FOR CONNECTION OF EXISTING 18" RCP TO NEW 18" RCP CC12A TO SD12A 18" RCP SEE SHEETS C2.11 & C4.11 EXTENSION NEW CONCRETE COLLAR FOR CONNECTION CC20 TO SD20 OF EXISTING 24" RCP TO NEW 24" RCP EXTENSION 24" RCP SEE SHEETS C2.12 & C4.12 NEW CONCRETE COLLAR FOR CONNECTION CC21 TO SD21 OF EXISTING 15" RCP TO NEW 15" RCP 15" RCP SEE SHEETS C2.12 & C4.12 EXTENSION NEW CONCRETE COLLAR FOR CONNECTION OF EXISTING 36" RCP TO NEW 36" RCP SEE SHEETS C2.14 & C4.14 CC27A TO SD27 36" RCP EXTENSION NEW CONCRETE COLLAR FOR CONNECTION SEE SHEETS C2.14 & C4.14 CC27B TO SD27 OF EXISTING 36" RCP TO NEW 36" RCP EXTENSION 36" RCP NEW CONCRETE COLLAR FOR CONNECTION CC35A TO SD35 OF EXISTING 24" RCP TO NEW 24" RCP 24" RCP SEE SHEETS C2.15 & C4.15 EXTENSION NEW CONCRETE COLLAR FOR CONNECTION OF EXISTING 42" RCP TO NEW 42" RCP CC44 TO SD44 42" RCP SEE SHEETS C2.19 & C4.19 EXTENSION DATE DESCRIPTION SOUTHEAST QUADRANT STORM APD RWP OWG. BY: APD MAR. 2021 BID DOCUMENTS HK. BY: SGH DRAINAGE IMPROVEMENTS **COLEMAN COMPANY** SG. BY: RWP AECOM Technical Services, Inc. SCALE: AS NOTED SHEET NO. **ENGINEERS • SURVEYORS** Savannah / Hilton Head International Airport DRAINAGE STRUCTURE AND PIPE 7650 W. Courtney Campbell Causeway Tampa, FL 33607-1462 PROJECT NO. 60611019 1480 Chatham Parkway, Suite 100 Savannah, Georgia | (912) 200-3041 400 Airways Avenue DATA SCHEDULE (5) C4.34 Tel: 813.286.1711 Savannah, Georgia 31408 DRAWING SIZE REDUCED IF LESS THAN 34"x22"





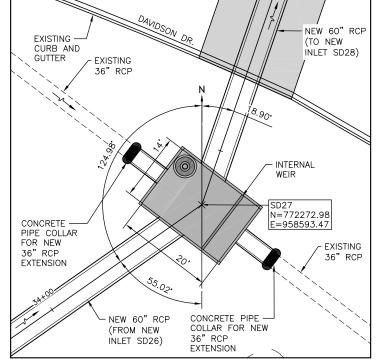
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NEW 60" RCP—
(TO NEW INLET SD27)

SEE SHEETS C4.04 THRU—
C4.07 FOR P.I. OF GUTTER CEXISTING
GUTTER CEXISTING
GUTTER CEXISTING
GUTTER CEXISTING
GUTTER CEXISTING
GEORGIA AIR NATIONAL GUARD PARKING LOT
INLET SD28)

PROJECT CENTERLINE ALIGNMENT GEOMETRIC CONTROL OF PROPOSED SOUTH PIPE SYSTEM SD10 TO SD29 (TYP) N=772187.67 E=958471.56 POINT INDICATES CENTER OF PROPOSED STRUCTURE (TYP) EXISTING 24" WATER MAIN NEW 60" RCP (FROM NEW INLET SD25) EXISTING 24' WATER LINE

STRUCTURE SD26



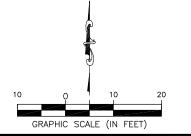
STRUCTURE SD27

A.N.G. POND NO EXISTING 24" RCP TO BE REMOVED SD28 N=772432.39 E=958648.06 NEW 60" -RCP (TO NEW CONCRETE SD35 ENDWALL N=772428.34 SD29 E=958614.37 NEW G.A.N.G — LOCATED AT THE FITNESS TRAIL INTERSECTION OF REALIGNMENT AND DAVIDSON DR. NEW 60" RCP **&** ALIGNMENT FOR CROSS SECTION OF (TO NEW INLET SD28)

STRUCTURE SD28

GENERAL NOTES:

- 1. BEARINGS AND COORDINATES SHOWN HERE ON THESE PLANS ARE GRID BASED ON GEORGIA EAST STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (NAD83).
- 2. THE VERTICAL DATUM IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 3. THE P.I. STATIONS INDICATED ON SHEETS C4.04 THRU C4.07 FOR THE PIPE ALIGNMENTS MAY OR MAY NOT BE THE CENTER OF THE PROPOSED DRAINAGE STRUCTURE. THE P.I. STATIONS, NORTHING AND EASTING COORDINATES INDICATED ON SHEETS C4.04 THRU C4.07 ARE GEOMETRIC CONTROL FOR THE PIPE ALIGNMENT DIRECTIONAL CHANGES.
- 4. SEE SHEETS C4.35 THRU C4.38 FOR THE CENTER POINT OF THE STRUCTURES.
- 5. SEE SHEET C4.30 THRU C4.34 FOR DRAINAGE STRUCTURE AND PIPE DATA SCHEDULES.



DATE DESCRIPTION BY AUTH
MAR. 2021 BID DOCUMENTS APD RWP





Tel: 813.286.1711



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Savannah, Georgia 31408	

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	PROJECT I	NO. 1611019	

ATE: MARCH, 2021

SOUTHEAST QUADRANT STORM
DRAINAGE IMPROVEMENTS

MANHOLE OR INLET PIPE DETAIL (3)

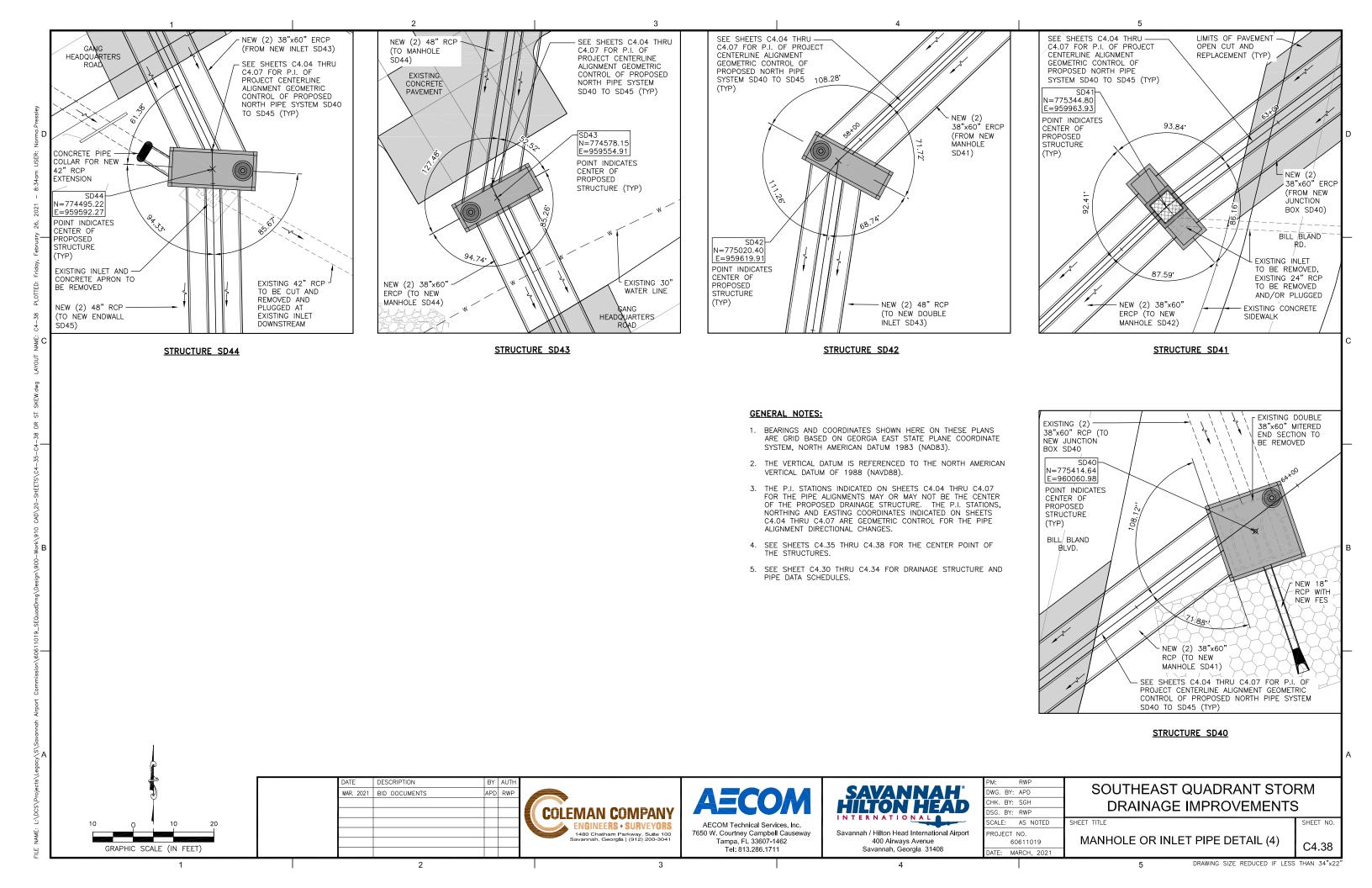
C4.37

SHEET NO.

•

1

DRAWING SIZE REDUCED IF LESS THAN 34"x22"



DRAINAGE STRUCTURE AND PIPE NOTES:

- THE CONTRACTOR SHALL FOLLOW ALL SPECIFICATIONS AND GUIDELINES AS ESTABLISHED IN THE GEORGIA DEPARTMENT OF TRANSPORTATION STANDARD INDEX AND SPECIFICATIONS FOR CONSTRUCTION AND INSTALLATION OF ALL NEW STORM DRAINAGE SYSTEMS.
- ALL STORM DRAIN OR UTILITY INSTALLATIONS BY OPEN CUT ACROSS EXISTING PAVEMENT WILL BE CONSTRUCTED IN ACCORDANCE WITH GDOT STANDARD INDEX NO. 1401.
- 3. ALL NEW GDOT INLETS WILL BE CONSTRUCTED IN ACCORDANCE WITH GDOT STANDARD INDEX 1019A AND 1019B.
- 4. ALL NEW GDOT HEADWALLS WILL BE CONSTRUCTED IN ACCORDANCE WITH THE GDOT STANDARD INDEX NO. 1001-B.
- 5. ALL RIPRAP OUTLET PROTECTION SHALL BE CONSTRUCTED USING FABRI-FORM REVETMENT AS INDICATED IN THE EROSION CONTROL DETAILS AND IN ACCORDANCE WITH THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (GSWCC), 2016 EDITION OR LATER.
- ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE ACCORDING TO THE LATEST MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA (GSWCC).
- 7. PRIOR TO PIPE INSTALLATION, THE CONTRACTOR SHALL FIRST ESTABLISH COMPACTED EMBANKMENT TO A MINIMUM ELEVATION OF 12" ABOVE THE CROWN OF THE EXPOSED PIPE. THE CONTRACTOR SHALL THEN EXCAVATE PIPE TRENCH TO A MINIMUM ELEVATION OF 6" BELOW THE BOTTOM OF THE PIPE, INSTALL PIPE, BEDDING AND AND BACKFILL IN 6" LIFTS TO A MINIMUM OF 12" ABOVE THE CROWN OF THE PIPE. CONTRACTOR SHALL FOLLOW THE GUIDELINES OF GDOT STANDARD INDEX 1030D FOR FILL HEIGHTS OF CONCRETE PIPE
- 8. EXCAVATION IN EXCESS OF 6" SHALL BE BACKFILLED WITH CRUSHED STONE UNLESS DIRECTED OTHERWISE BY THE RESIDENT ENGINEER.
- 9. CONTRACTOR SHALL VERIFY THE LOCATION OF STRUCTURES PRIOR TO INSTALLING FOR FORMING.
- 10. THE REFERENCE POINT FOR INLETS AND MANHOLES SHALL BE THE CENTER OF THE STRUCTURE. THIS CENTER POINT MAY OR MAY NOT BE THE EXTENDED CENTERLINE OF THE NEW PIPES.
- 11. PLACE MINIMUM 12" DEPTH OF CRUSHED STONE AGGREGATE UNDER ALL INLET AND MANHOLE STRUCTURES. AGGREGATE SHALL BE NO. 57 CRUSHED STONE.
- 12. WRAP ALL PIPE JOINTS IN ACCORDANCE WITH DETAIL ON SHEET C4.42.
- 13. PIPE TRENCHING AND BEDDING SHALL BE IN ACCORDANCE WITH DETAIL THIS SHEET, GDOT STANDARD INDEX 1030D.

GRADE LINE OR TOP -OF EMBANKMENT BACKFILL TO BE MECHANICALLY COMPACTED TO THE TOP OF VÀRIÀRI F VARIARI F THE TRENCH OR TO A HEIGHT 12" MIN. 12" MIN. OF MINIMUM COVER ABOVE THE TOP OF THE PIPE' OR WHICHEVER IS GREATER. FOR CONSTRUCTION DETAILS, SEE NOTE FOR NORMAL BACKFILL, 12" MIN. 12" MIN. GDOT DESIGN STANDARDS. FLAT BOTTOM PIPE FOUNDATION BACKFILL MATERIAL TYPE I, WHEN REQUIRED SHALL BE CLASS I OR II SOILS APPROVED FOR USE BY THE ENGINEER. THE MATERIAL TO BE USED WILL BE OBTAINED AS UNCLASSIFIED EXCAVATION OR BORROW FROM LOCATIONS APPROVED BY THE ENGINEER. LIMITS OF STRUCTURE EXCAVATION NOTE: PIPE SHALL BE BEDDED IN A FOUNDATION SHAPED TO FIT THE

TRENCH CONSTRUCTION FOR STORM DRAIN - GDOT 1030D

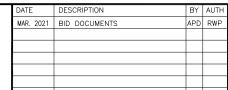
N.T.S.

STORM DRAIN TRENCH CONSTRUCTION NOTES:

LOWER PART OF PIPE EXTERIOR.

- FOR EXCAVATION FOR PIPE—ARCH CULVERTS SUBSTITUTE SPAN AND RISE FOR OUTSIDE DIAMETER OF PIPE IN HORIZONTAL AND VERTICAL DIMENSIONS SPECIFIED IN THIS DETAIL.
- 2. PIPE SHALL BE BEDDED IN A FOUNDATION SHAPED TO FIT THE LOWER PART OF PIPE EXTERIOR.
- 3. BELL HOLES SHALL BE PROVIDED IN BEDDING IF PIPE HAS BELL AND SPIGOT JOINTS.
- 4. TRENCH CONSTRUCTION IS REQUIRED FOR BOTH NORMAL OR IMPERFECT BACKFILL. REFER TO GDOT DESIGN STANDARDS 1030D FOR ADDITIONAL INFORMATION.
- FOR FILL HEIGHT TABLES, SEE SHEET 2 AND 3 OF GDOT DESIGN STANDARDS 1030D.
- 6. ONLY ONE CLASS OR THICKNESS OF PIPE WILL BE SPECIFIED FOR EACH INDIVIDUAL LOCATION. THE CLASS OR THICKNESS WILL BE DETERMINED BY THE MAXIMUM HEIGHT OF FILL.

SHEET TITLE









Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

PM:	RWP
DWG. BY:	APD
CHK. BY:	SGH
DSG. BY:	APD
SCALE:	AS NOTED
PROJECT	NO.

60611019

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

DRAINAGE DETAILS (1)

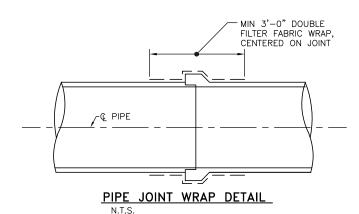
DRAWING SIZE REDUCED IF LESS THAN 34"x22

SHEET NO. **C4.41**

Tel: 813.286.1711 Savannah, Georgia 31408 DATE: MARCH, 20

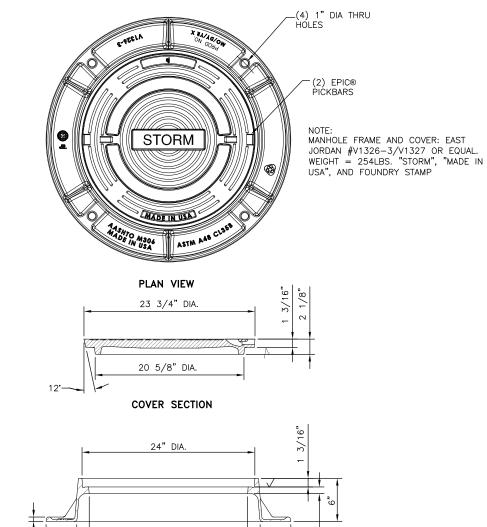
- PRIOR TO INSTALLING THE GALVANIZED BARS.

CONCRETE PIPE CONNECTOR DETAIL



JOINT WRAP NOTES:

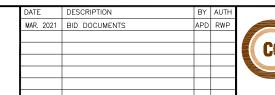
- 1. PROVIDE DOUBLE FILTER FABRIC WRAPS AT ALL STORM WATER PIPE JOINTS, PER CITY OF SAVANNAH STANDARD SPECIFICATION 02400.
- 2. KEEP FILTER FABRIC SNUG TO PIPE AND BELLS.
- 3. PROVIDE MINIMUM 18" FABRIC OVERLAP AT TOP OF PIPE.
- 4. FILTER FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUAL.
- 5. FILTER FABRIC SHALL BE SECURED BY STRAPS OR OTHER METHOD APPROVED BY THE MANUFACTURER.



34" DIA. FRAME SECTION

22" DIA. 25 7/16" DIA.

CITY OF SAVANNAH MANHOLE COVER & FRAME DETAIL







Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

PM:	RWP
DWG. BY:	APD
CHK. BY:	SGH
DSG. BY:	APD
SCALE:	AS NOTED

60611019

PROJECT NO.

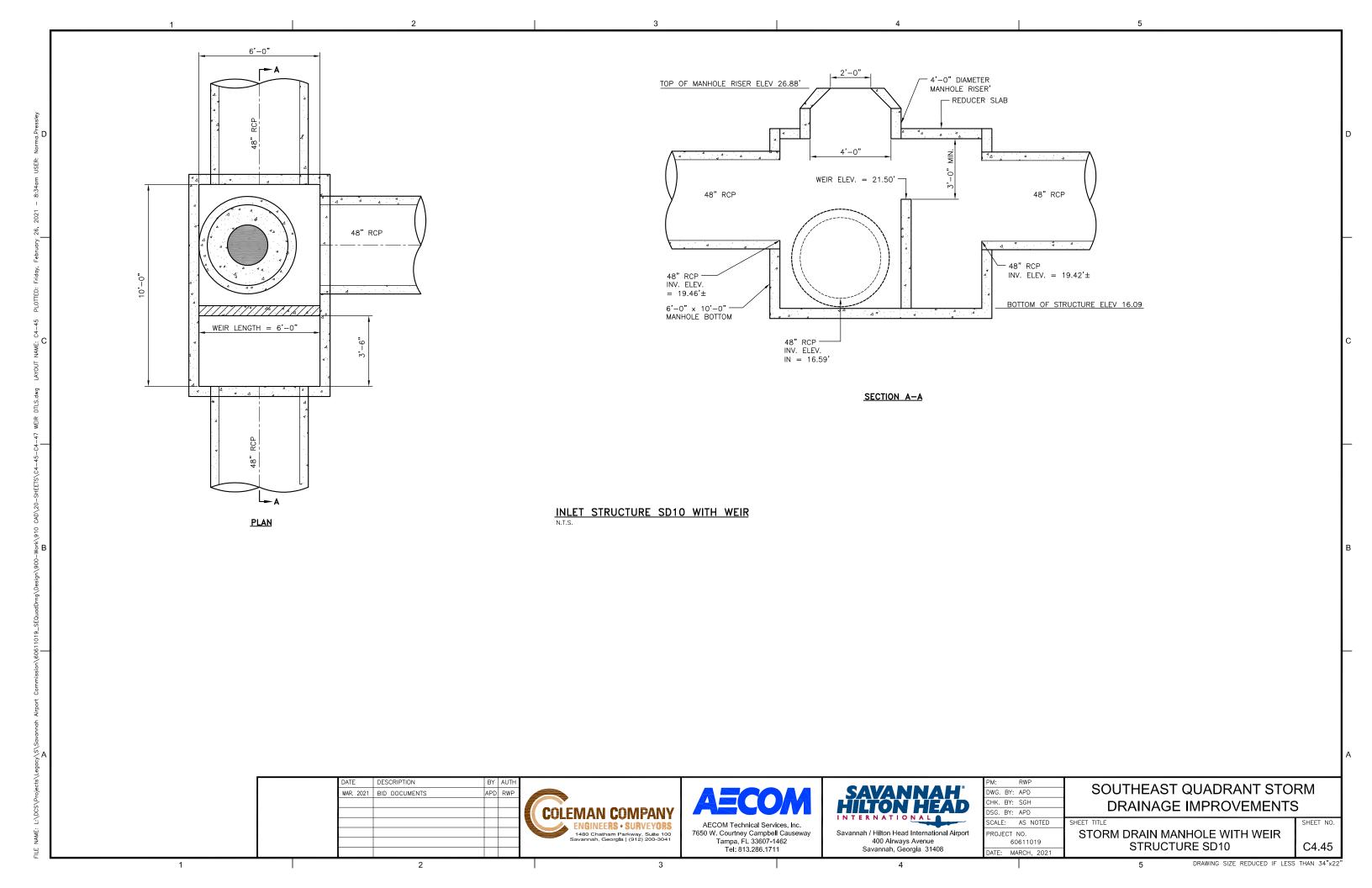
SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

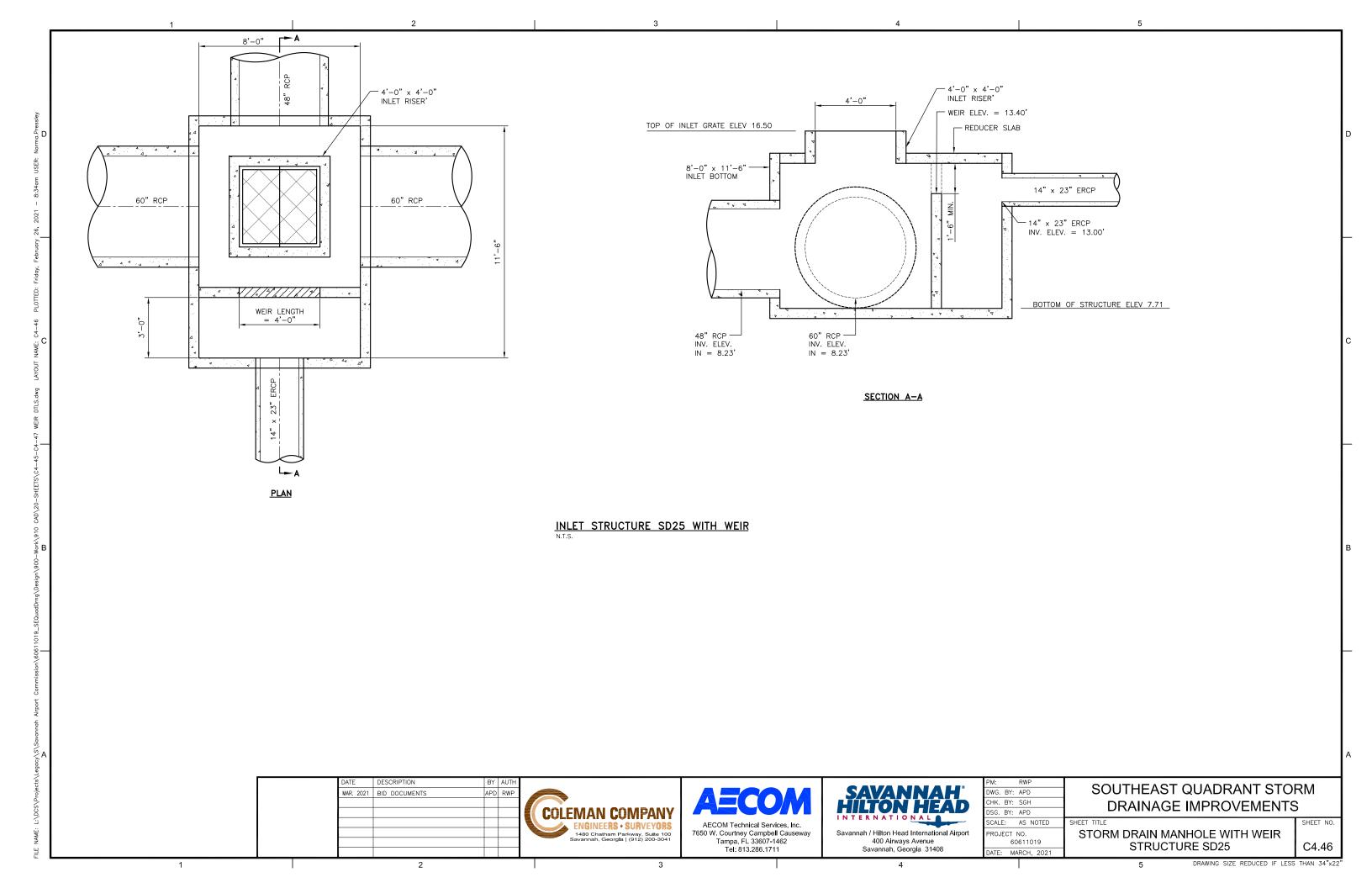
SHEET TITLE

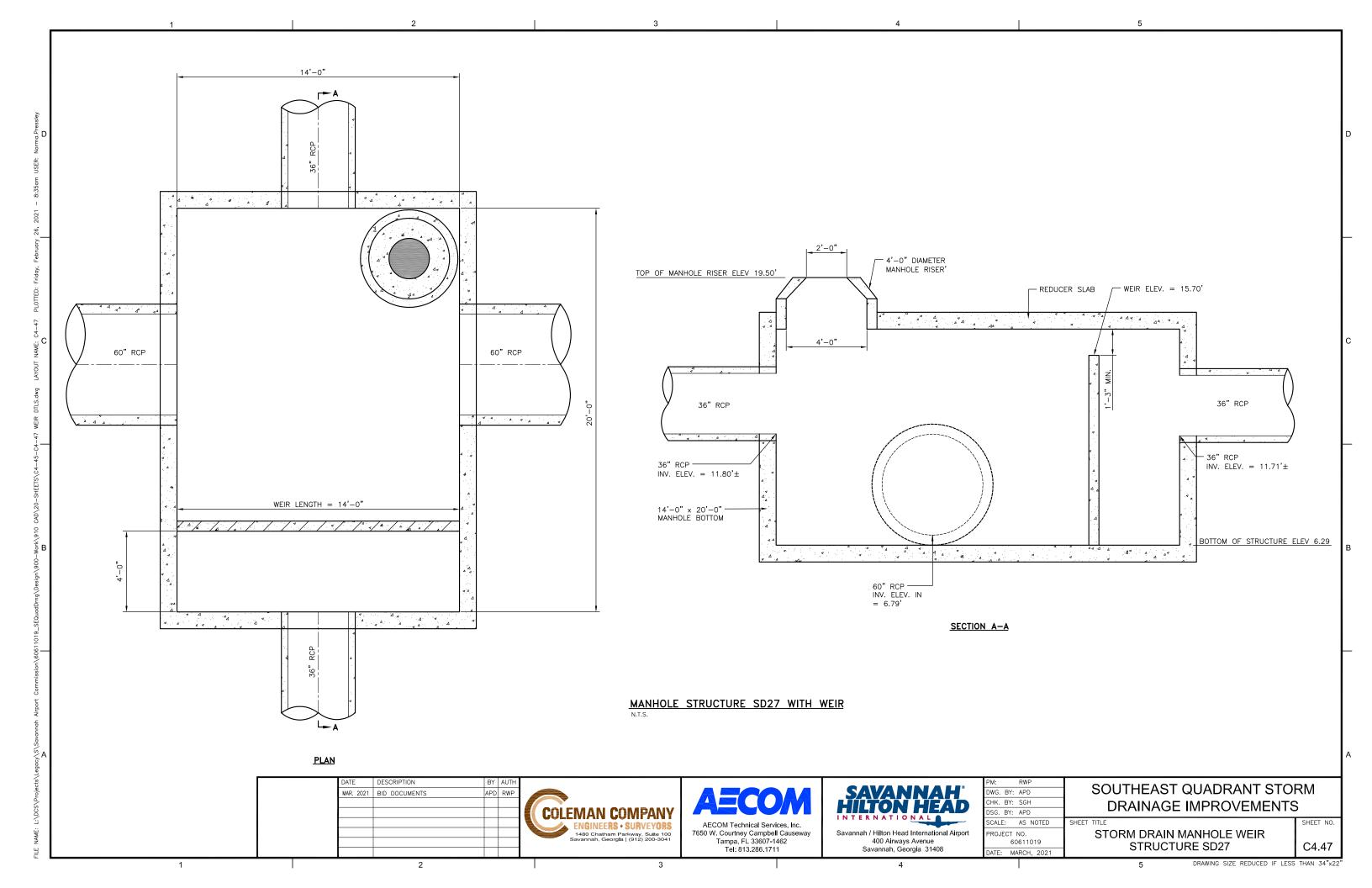
DRAINAGE DETAILS (2)

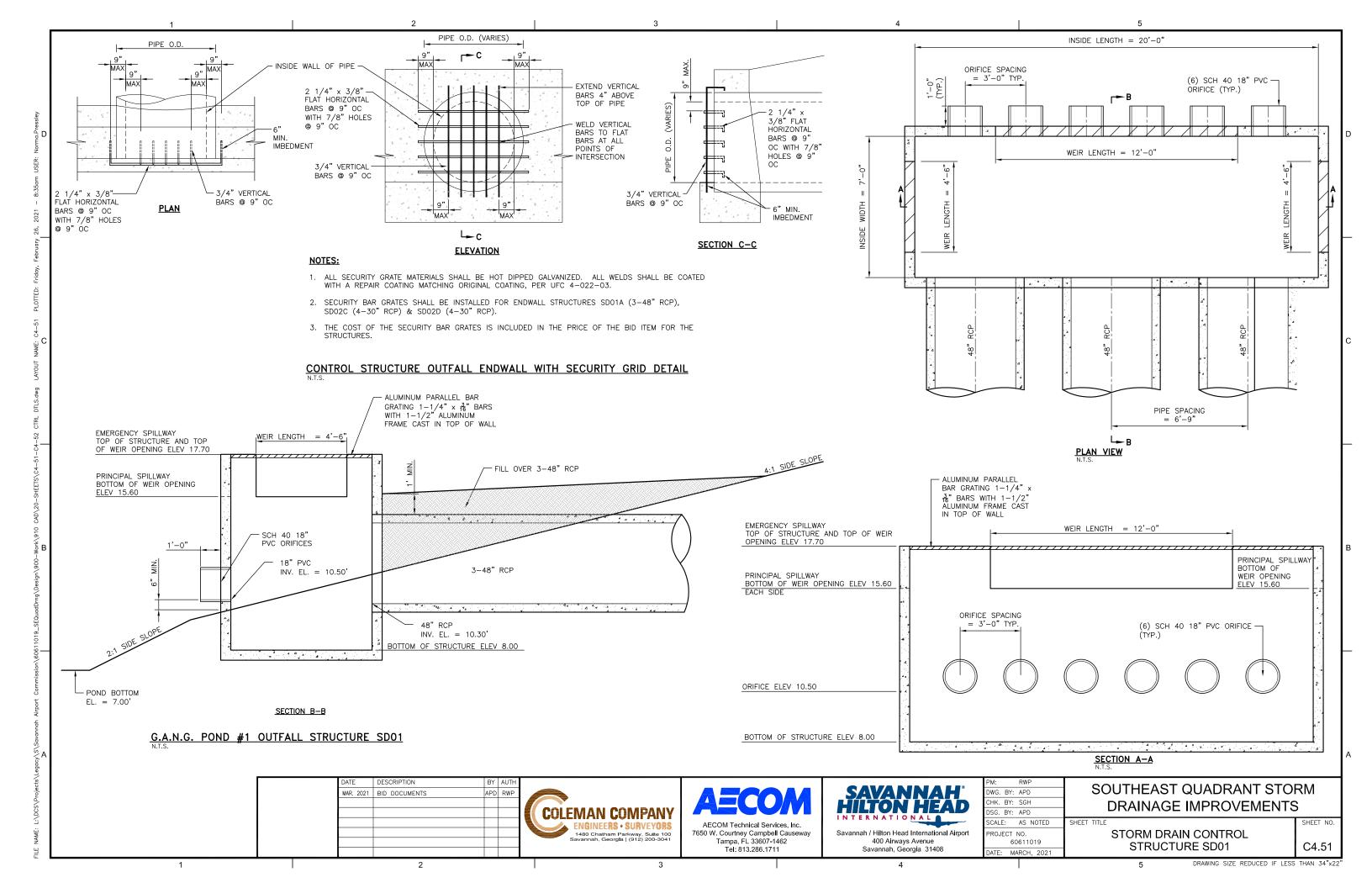
SHEET NO.

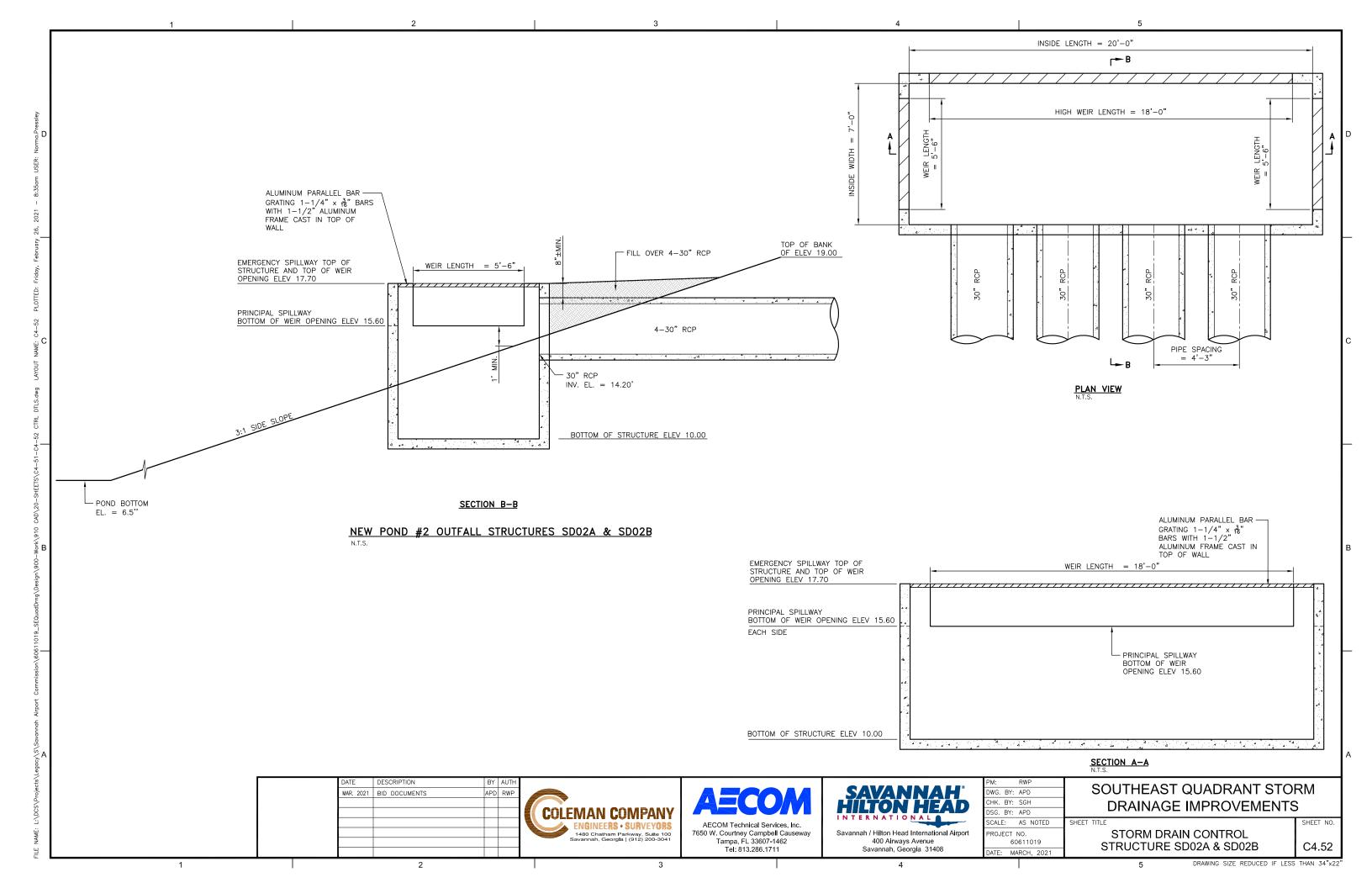
DRAWING SIZE REDUCED IF LESS THAN 34"x22'











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Savannah, Georgia 31408

CALE: AS NOTED ROJECT NO 60611019

SHEET TITLE

EROSION AND SEDIMENT CONTROL CHECKLIST

DRAWING SIZE REDUCED IF LESS THAN 34"x22

C5.00

SHEET NO.

. THE TOTAL ACREAGE OF THE PROJECT AREA IS 25.8 ACRES WHICH IS THE SAME AS THE TOTAL DISTURBED AREA OF 25.8 ACRES.

THE PROJECT AREA IS LOCATED WITHIN THE PROPERTY BOUNDARIES OF THE SAVANNAH HILTON HEAD INTERNATIONAL AIRPORT AND CAN BE ACCESSED THROUGH THREE PROPOSED TEMPORARY CONSTRUCTION EXITS. THE LOCATIONS OF THE CONSTRUCTION EXITS AND THEIR RESPECTIVE LATITUDE AND LONGITUDE COORDINATES ARE SHOWN ON SHEETS C5.22, C5.26 & C5.31 FOR THE INITIAL PHASE, SHEETS C5.42, C5.46 & C5.51 FOR THE INTERMEDIATE PHASE AND SHEETS C5.62, C5.66 & C5.71 FOR THE FINAL PHASE.

1. THE PRESENCE OF ON-SITE WETLANDS HAS BEEN INVESTIGATED AND IT WAS DETERMINED THAT THERE IS A FORESTED WETLAND ENCOMPASSING 13.39-ACRES IDENTIFIED AS WETLAND NO. 1 AND A FORESTED WETLAND ENCOMPASSING APPROXIMATELY 1.25 -ACRES IDENTIFIED AS WETLAND NO. 2 THAT ARE LOCATED WITHIN THE AREA TO BE DISTURBED. ALL STATE WATERS LOCATED ON AND WITHIN 200 FEET OF THE PROJECT SITE HAVE BEEN IDENTIFIED AND WILL BE PROTECTED BY ASSOCIATED STATE AND COUNTY PROTECTION REGULATIONS AND BUFFERS.

THE RECEIVING WATERS OF THIS PROJECT IS — PIPE MAKERS CANAL. PIPE MAKERS CANAL IS LOCATED APPROXIMATELY 1—MILE EAST OF THE PROJECT AREA, SUPPORTS WARM. WATER FISHERIES AND IS AN IMPAIRED STREAM WHERE FECAL COLIFORM IS THE POLLUTANT CAUSING THE IMPAIRMENT. THE PROJECT SITE DISCHARGES INTO SR 307 STORM SEWER SYSTEM THAT IS PART OF A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) OPERATED BY THE CITY OF SAVANNAH, GA UNDER THE PERMIT NO. GASOOO205 THAT ULTIMATELY DISCHARGES INTO THE PIPE MAKERS CANAL. A TMOL HAS NOT BEEN FINALIZED FOR THIS SEGMENT OF OF PIPE MAKERS CANAL. NO OTHER ADJACENT STREAMS, LAKES, RESIDENTIAL AREAS, WETLANDS, ETC. WILL BE AFFECTED OTHER THAN THE TWO FORESTED WETLANDS IDENTIFIED AS WETLAND NO.1 AND WETLAND NO. 2.

5. THE MOST EFFICIENT METHOD OF DUST CONTROL FOR THE SITE SHALL BE DETERMINED EXPERIMENTALLY AND MAY CONSIST OF TEMPORARY MEASURES SUCH AS MULCHES, VEGETATIVE COVER, SPRAY—ON ADHESIVES, TILLAGE, IRRIGATION, BARRIERS AND/OR THE APPLICATION OF CALCIUM CHLORIDE. LIKEWISE, IF THE ACTION OF THE VEHICLE TRAVELING OVER THE GRAVEL CONSTRUCTION EXIT PAD DOES NOT SUFFICIENTLY REMOVE THE MUD FROM VEHICLE TIRES, THE TIRES SHOULD BE WASHED PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS—OF—WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND PROVISIONS THAT INTERCEPT THE SEDIMENT—LADEN RUNOFF AND DIRECT IT INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

7. WASHOUT OF THE DRUM OF A CONCRETE TRUCK AT THE CONSTRUCTION SITE IS PROHIBITED. CONCRETE WASHOOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES WILL ONLY BE ALLOWED IN A DESIGNATED AREA PROVIDED FOR THIS PURPOSE, AS APPROVED BY THE AIRPORT AUTHORITY. THE FOLLOWING BEST MANAGEMENT PRACTICES WILL BE FOLLOWED:

(1) CONTAIN ALL WASH WATER ON SOIL, IN A BOWL SHAPED AREA CREATED IN THE DESIGNATED WASH AREA TO PREVENT THE WASH WATER FROM FLOWING FROM THE WASHOUT AREA;

(2) USE THE MINIMUM AMOUNT OF WATER TO WASH DOWN THE TOOLS, CONCRETE MIXER CHUTES, HOPPERS AND THE REAR OF VEHICLES;

(3) REMOVE ANY CONCRETE SEDIMENT FROM THE AREA SURROUNDING THE WASHOUT AREA BEFORE IT HARDENS; AND

(4) REMOVE ALL CONCRETE RESIDUE FROM THE DESIGNATED AREA ONCE IT HAS HARDENED.

3. SPILL CLEANUP AND CONTROL PRACTICES:

LOCAL, STATE AND MANUFACTURER'S RECOMMEND 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 DISTORAGE ANDES, ANDES, ARGS, 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 NATIONAL CENTER (NRC) WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-8802. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER (MPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-802. FOR SPILLS OF AN UNKNOWN AMOUNT, THE NATIONAL CENTER IMPACTS, THE GEORGIA EPD WILL BE CONTACTED WITHIN 24 HOURS AT 1-800-424-802. FOR SPILLS GREATER THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, THE SPILL WILL BE CONTACTED WITHIN 24 HOURS. FOR SPILLS LESS THAN 25 GALLONS AND NO SURFACE WATER IMPACTS, 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 320 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 A LICENSED PROFESSIONAL.

9. SEE NARRATIVE ON SHEET C4.24 FOR SITE DESCRIPTION.

10. ALL POLLUTANTS FROM WASTE DISPOSAL PRACTICES, SOIL ADDITIVES, REMEDIATION OF SPILLS AND LEAKS OF PETROLEUM PRODUCTS, CONCRETE TRUCK WASHOUT, ETC., SHOULD ANY OF THESE OCCUR, WILL BE CONTROLLED BY THE IMPLEMENTATION OF APPROPRIATE BEAST MANAGEMENT PRACTICES. THE SITE WILL BE IN COMPLIANCE WITH ALL APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS.

PRODUCT SPECIFIC PRACTICES

PETROLEUM BASED PRODUCTS — CONTAINERS FOR PRODUCTS SUCH AS FUELS, LUBRICANTS AND TARS WILL BE INSPECTED DAILY FOR LEAKS AND SPILLS. THIS INCLUDES ONSITE VEHICLE AND MACHINERY, DAILY INSPECTIONS AND REGULAR PREVENTATIVE MAINTENANCE OF SUCH EQUIPMENT. EQUIPMENT MAINTENANCE AREAS WILL BE LOCATED AWAY FROM STATE WATER, NATURAL DRAINS AND STORMMATER DRAINAGE INLETS. IN ADDITION, TEMPORARY FUELING TANKS SHALL HAVE A SECONDARY CONTAINMENT LINER TO PREVENT/MINIMIZE SITE CONTAINMENTON. DISCHARGE OF OILS, FUELS AND LUBRICANTS IS PROPHIBITED. PROPER DISPOSAL METHODS WILL INCLUDE COLLECTION IN A SUITABLE CONTAINER AND DISPOSAL AS REQUIRED BY LOCAL AND STATE REGULATIONS.

PAINTS/FINISHERS/SOLVENTS — ALL PRODUCTS WILL BE STORED IN TIGHTLY SEALED ORIGINAL CONTAINERS WHEN NOT IN USE. EXCESS PRODUCTS WILL NOT BE DISCHARGED TO THE STORMWATER COLLECTION SYSTEM. EXCESS PRODUCT MATERIALS USED WITH THESE PRODUCTS AND PRODUCT CONTAINERS WILL BE DISPOSED OF ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. CONCRETE TRUCK WASHING — NO CONCRETE TRUCKS WILL BE ALLOWED TO WASH OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH

WATER ONSITE.

FERTILIZER/HERBICIDES - THESE PRODUCTS WILL BE APPLIED AT RATES THAT DO NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS OR ABOVE THE GUIDELINES SET FORTH IN THE CROP ESTABLISHMENT OR IN THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN

GEORGIA. ANY STORAGE OF THESE MATERIALS WILL BE UNDER ROOF IN SEALED CONTAINERS.

BUILDING MATERIALS — NO BUILDING OR CONSTRUCTION MATERIALS WILL BE BURIED OR DISPOSED OF ONSITE. ALL SUCH MATERIAL WILL BE DISPOSED OF IN PROPER WASTE DISPOSAL PROCEDURES.

DESIGN PROFESSIONAL'S CERTIFICATIONS

II. I CERTIFY UNDER PENALTY OF IAW 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 & GSWCC CERTIFICATION NO.: GSWCC CERT. NO. 0000063833

2. I CERTIFY THAT THE PERMITTEE'S EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN 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 GEORGIA SOIL AND WATER CONSERVATION COMMISSION AS OF JANUARY 1 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 GENERAL NPDES PERMIT NO. GAR 100001.

DESIGN PROFESSIONAL'S SIGNATURE & GSWCC CERTIFICATION NO.: ________GSWCC CERT. NO. 0000063833_

PERMITEE'S CERTIFICATION

13. 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 CERTIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRTY 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.

SIGNED BY PRIMARY PERMITTEE: ______

NAME: MR. MARK DENMARK, E-MAIL: MDENMARK@FLYSAV.COM
COMPANY: HILTON HEAD INTERNATIONAL AIRPORT, CITY OF SAVANNAH

ADDRESS: 400 AIRWAYS AVENUE.

CITY/ST/ZIP: SAVANNAH, GA 31408

14. A HYDROLOGY STUDY ACCOMPANIES THESE ES&PC DRAWINGS AND FORMS PART OF THE PLANS.

15. 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 WITHOUT FIRST ACQUIRING THE NECESSARY VARIANCES AND PERMITS.

16. THE PRIMARY PERMITTEE MUST RETAIN THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION, SEDIMENTATION AND POLLUTION CONTROL PLAN, EXCEPT WHEN THE PERMITTEE HAS REQUESTED IN WRITING AND EPD HAS AGREED TO AN ALTERNATE DESIGN PROFESSIONAL, TO INSPECT THE INSTALLATION OF THE INITIAL SEDIMENT STORAGE REQUIREMENTS AND PERIMETER CONTROL BMPS WHICH THE DESIGN PROFESSIONAL DESIGNED WITHIN SEVEN (7) DAYS AFTER INSTALLATION. THE DESIGN PROFESSIONAL SHALL DETERMINE IF THESE BMPS HAVE BEEN INSTALLED AND ARE BEING MAINTAINED AS DESIGNED. THE DESIGN PROFESSIONAL SHALL REPORT THE RESULTS OF THE INSPECTION TO THE PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITTEE WITHIN SEVEN (7) DAYS AND THE PERMITTEE WIST CORRECT ALL DEFICIENCIES WITHIN TWO (2) BUSINESS DAYS OF RECEIPT OF THE INSPECTION REPORT FROM THE DESIGN PROFESSIONAL UNLESS WEATHER RELATED SITE CONDITIONS ARE SUCH THAT ADDITIONAL TIME IS REQUIRED.

17. THE PRIMARY PERMITTEE, AS APPLICABLE, SHALL AMEND THEIR PLANS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON BMPS WITH A HYDRAULIC COMPONENT. AMENDMENTS TO THE PLANS MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL. ALL REVISIONS OR AMENDMENTS SHALL BE SUBMITTED TO THE LOCAL ISSUING AUTHORITY FOR REVIEW.

18. NO WASTE MATERIALS, INCLUDING BUT NOT LIMITED TO WASTE BUILDING MATERIALS, CONSTRUCTION AND DEMOLITION DEBRIS, CONCRETE WASHOUT OR EXCAVATED SEDIMENT, SHALL BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT

19. HAZARDOUS WASTES:

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL, STATE AND/OR FEDERAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS. THE JOB SITE SUPERINTENDENT, WHO WILL ALSO BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED, WILL INSTRUCT SITE PERSONNEL IN THESE PRACTICES. MATERIAL SAFETY DATA SHEETS (MSDS;S) FOR EACH SUBSTANCE WITH HAZARDOUS PROPERTIES THAT IS USED ON THE JOB SITE WILL BE OBTAINED AND USED FOR THE PROPER MANAGEMENT OF POTENTIAL WASTES THAT MAY RESULT FROM THESE PRODUCTS. AN MSDS WILL BE MAINTAINED IN THE ESPCP FILE AT THE JOB SITE CONSTRUCTION TRAILER OFFICE. EACH EMPLOYEE WHO MUST HANDLE A SUBSTANCE WITH HAZARDOUS PROPERTIES WILL BE INSTRUCTED ON THE USE OF MSDS SHEETS AND THE SPECIFIC INFORMATION IN THE APPLICABLE MSDS FOR THE PRODUCT HE/SHE IS USING, PARTICULARLY PERCAPPING SPILL CONTROL TECHNIQUES

THE CONTRACTOR WILL IMPLEMENT THE SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN FOUND WITHIN THIS ESPCP AND WILL TRAIN ALL PERSONNEL IN THE PROPER CLEANUP AND HANDLING OF SPILLED MATERIALS. NO SPILLED HAZARDOUS MATERIAL OR HAZARDOUS WASTES WILL BE ALLOWED TO COME IN CONTACT WITH STORMWATER DISCHARGES. IF SUCH CONTAINED COURS, THE STORMWATER DISCHARGE WILL BE CONTAINED ON SITE UNTIL APPROPRIATE MEASURES IN COMPLIANCE WITH STATE AND FEDERAL REGULATIONS ARE TAKEN TO DISPOSE OF SUCH CONTAMINATED STORMWATER. IT SHALL BE THE RESPONSIBILITY OF THE JOB SITE SUPERINTENDENT TO PROPERLY TRAIN ALL PERSONNEL IN THE USE OF THE SPCC PLAN

SANITARY WASTES:

A MINIMUM OF ONE PORTABLE SANITARY UNIT WILL BE PROVIDED TO EVERY TEN (10) WORKERS ON THE SITE. ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A WINIMUM OF ONE TIME PER WEEK BY A LICENSED PORTABLE FACILITY PROVIDER IN COMPLETE COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

ALL SANITARY WASTE UNITS WILL BE LOCATED IN AN AREA WHERE THE LIKELIHOOD OF THE UNIT CONTRIBUTING TO STORMWATER DISCHARGE IS NEGLIGIBLE. ADDITIONAL CONTAINMENT BMP'S MUST BE IMPLEMENTED, SUCH AS GRAVEL BAGS OR SPECIALLY DESIGNED PLASTIC SKID CONTAINERS AROUND THE BASE TO PREVENT WASTES FROM CONTRIBUTING TO STORM WATER DISCHARGES. THE LOCATION OF WASTE UNITS MUST BE IDENTIFIED ON THE EROSION CONTROL PLAN GRADING PHASE BY THE CONTRACTOR ONCE THE LOCATIONS HAVE BEEN DETERMINED.

SANITARY SEWER WILL BE PROVIDED BY MUNICIPAL AUTHORITY AT THE COMPLETION OF THE PROJECT.

20. INSPECTIONS:

(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 AND RECORD 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.

(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 SEDIING OF TARGET PERRINIALS 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 PLANS 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 INCIDENT, THE INSPECTION REPORT SHALL CONTAIN A STATEMENT THAT THE BEST MANAGEMENT PRACTICES ARE IN COMPLIANCE WITH THE RESOSION, SEDIMENTATION AND POLLUTION CONTROL PLAN. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART V.G.2. OF THIS PERMIT.

POTENTIAL POLLUTION SOURCES AND BMPS TO REDUCE POLLUTANTS

1. THE POTENTIAL POLLUTION SOURCES ARE SEDIMENT FROM DISTURBED SOILS TEMPORARILY UNPROTECTED WITH VEGETATION.

2. THE VEGETATIVE AND STRUCTURAL BEST MANAGEMENT PRACTICES (BMPs) TO REDUCE THE POLLUTANTS FROM THE DISTURBED AREAS ARE LISTED BELOW UNDER THE HEADING SPECIFIED EROSION, SEDIMENTITON AND POLLUTION CONTROL BMPs

SPECIFIED EROSION, SEDIMENTATION AND POLLUTION CONTROL BMPs

1. THE FOLLOWING STRUCTURAL AND VEGETATIVE BMPs ARE SPECIFIED FOR IMPLEMENTATION DURING THE INITIAL PHASE AS SHOWN ON SHEETS C5.21 THROUGH C5.31 AND DURING THE INTERMEDIATE PHASE AS SHOWN ON SHEETS C5.41 THROUGH C5.51.

(1) Co CONSTRUCTION EXIT

(2) Rd ROCK FILTER DAM

(3) RETROFITTED DETENTION POND WITH SKIMMER (POND NO. 1 AND POND NO. 2)

(4) Sd1-NS SEDIMENT BARRIER (NON-SENSITIVE AREAS)

(5) Sd1-S SEDIMENT BARRIER (SENSITIVE AREAS)

(6) Sd2-F INLET SEDIMENT TRAP (FILTER FABRIC WITH SUPPORTING FRAME)

(7) Sk FLOATING SURFACE SKIMMER

(8) St STORM DRAIN OUTLET PROTECTION

(9) Ds1 DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

(10) Du DUST CONTROL ON DISTURBED AREAS

2. THE FOLLOWING STRUCTURAL AND VEGETATIVE BMPs ARE SPECIFIED FOR IMPLEMENTATION DURING THE FINAL PHASE AS SHOWN ON SHEETS C5.61 THROUGH C5.71.

(1) Co CONSTRUCTION EXIT

(2) Rd ROCK FILTER DAM

(3) RETROFITTED DETENTION POND WITH SKIMMER (POND NO. 1 AND POND NO. 2)

(4) Sd1-NS SEDIMENT BARRIER (NON-SENSITIVE AREAS)

(5) Sd1-S SEDIMENT BARRIER (SENSITIVE AREAS)

(6) Sd2-F INLET SEDIMENT TRAP (FILTER FABRIC WITH SUPPORTING FRAME)

(7) Sk FLOATING SURFACE SKIMMER

(8) PERMANENT FABRIC FORM REVETMENT

(9) Ds4 DISTURBED AREA STABILIZATION WITH SODDING (PERMANENT GROUND COVER)

(10) Du DUST CONTROL ON DISTURBED AREAS

3. THE FOLLOWING PERMANENT STRUCTURAL AND VEGETATIVE BMPs ARE SPECIFIED TO BE INSTALLED DURING THE INITIAL, INTERMEDIATE AND FINAL CONSTRUCTION PHASES THAT WILL REMAIN AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED.

(1) WET STORMWATER DETENTION PONDS NO. 1 AND NO. 2 THAT FUNCTIONED AS RETROFITTED DETENTION PONDS WITH SKIMMER DURING THE INITIAL, INTERMEDIATE AND FINAL CONSTRUCTION PHASES

(2) STORMWATER DISCHARGE CONTROL STRUCTURE SD01 FOR WET DETENTION POND NO. 1 AND STORMWATER DISCHARGE CONTROL STRUCTURES SD02A AND SD02B FOR WET DETENTION POND NO. 2.

(3) PERMANENT FABRIC FORM REVETMENT

(4) PERMANENT SOD Ds4 DISTURBED AREA STABILIZATION WITH SODDING (PERMANENT GROUND COVER)

DATE	DESCRIPTION	Bĭ	AUTH	
MAR. 2021	BID DOCUMENTS	APD	RWP	
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PM:	RWP
DWG. BY:	APD
CHK. BY:	SGH
DSG. BY:	RWP
SCALE:	AS NOTED
PROJECT	NO.

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ATE: MARCH

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

EROSION AND SEDIMENT CONTROL NOTES (1)

C5.01

•

2

1

5

DRAWING SIZE REDUCED IF LESS THAN 34"x22

- (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 PERMITTER SHALL SAMPLE AT THE BEGINNING OF ANY STORM WATER DISCHARGE TO A MONITORED RECEIVING WATER AND/OR FROM A MONITORED OUTFALL LOCATION WITHIN IN 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 ALL 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 SAMPLING
- (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 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.

22. REPORTING

(1)THE APPLICABLE PERMITTEES ARE REQUIRED TO SUBMIT THE SAMPLING RESULTS TO THE EPD AT THE ADDRESS SHOWN IN PART II.C. BY THE FIFTEENTH DAY OF THE MONTH FOLLOWING THE REPORTING PERIOD. REPORTING PERIODS ARE MONTHS DURING WHICH SAMPLES ARE TAKEN IN ACCORDANCE WITH THIS PERMIT. SAHLIBE 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 USING THE ELECTRONIC SUBMITTAL SERVICE PROVIDED BY EPD. SAMPLING REPORTS MUST BE SUBMITTED 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, ÉTC., USED TO DETERMINE THESE RESULTS;
- (H) RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 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 APPLICABLE PERMITTES 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
- 23. RETENTION OF RECORDS
- 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 III.D.2 OF THIS PERMIT: AND
- (G) DAILY RAINFALL INFORMATION COLLECTED IN ACCORDANCE WITH PART IV.D.4.A.(2) OF THIS PERMIT.
- 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. FROSION 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 ONCE THE CONSTRUCTION ACTIVITY HAS CEASED AT T HE PERMITTED SITE. THIS PERIOD MAY BE EXTENDED BY REQUEST OF THE EPD AT ANY TIME UPON WRITTEN NOTIFICATION TO THE PERMITTEE.

24. SAMPLING REQUIREMENTS

THIS PERMIT REQUIRES THE MONITORING OF NEPHELOMETRIC TURBIDITY IN RECEIVING WATER(S) OR OUTFALLS IN ACCORDANCE WITH THIS PERMIT. THIS SECTION IS APPLICABLE TO PRIMARY PERMITTEES WITH A TOTAL PLANNED DISTURBANCE EQUAL TO OR GREATER THAN ONE (1) ACRE AND TERTIARY PERMITTEES WITH A TOTAL PLANNED DISTURBANCE EQUAL TO OR GREATER THAN FIVE (5) ACRES. THIS SECTION IS NOT APPLICABLE TO SECONDARY PERMITTEES. THE FOLLOWING PROCEDURES CONSTITUTE EPD'S GUIDELINES FOR SAMPLING TURBIDITY.

A.SAMPLING REQUIREMENTS SHALL INCLUDE THE FOLLOWING:

- (1)A USGS TOPOGRAPHIC MAP, A TOPOGRAPHIC MAP OR A DRAWING (REFERRED TO AS A TOPOGRAPHIC MAP) THAT IS A SCALE EQUAL TO OR MORE DETAILED THAN A 1:24000 MAP SHOWING THE LOCATION OF THE SITE OR THE COMMON
- (A) THE LOCATION OF ALL PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES AS SHOWN ON A USGS TOPOGRAPHIC MAP, AND ALL OTHER PERENNIAL AND INTERMITTENT STREAMS AND OTHER WATER BODIES LOCATED DURING MANDATORY FIELD VERIFICATION, INTO WHICH THE STORM WATER IS DISCHARGED AND
- (B) THE RECEIVING WATER AND/OR OUTFALL SAMPLING LOCATIONS. WHEN THE PERMITTEE HAS CHOSEN TO USE A USGS TOPOGRAPHIC MAP AND THE RECEIVING WATER(S) IS NOT SHOWN ON THE USGS TOPOGRAPHIC MAP, THE LOCATION OF THE RECEIVING WATER(S) MUST BE HAND-DRAWN ON THE USGS TOPOGRAPHIC MAP FROM WHERE THE STORM WATER(S) ENTERS THE RECEIVING WATER(S) TO THE POINT WHERE THE RECEIVING WATER(S) COMBINES WITH THE FIRST BLUE LINE STREAM SHOWN ON THE USGS TOPOGRAPHIC MAP;
- (2)THE ANALYTICAL METHOD USED TO COLLECT AND ANALYZE THE SAMPLES INCLUDING QUALITY CONTROL/QUALITY ASSURANCE PROCEDURES. THIS NARRATIVE MUST INCLUDE PRECISE SAMPLING METHODOLOGY FOR EACH SAMPLING LOCATION:
- (3) WHEN THE PERMITTEE HAS DETERMINED THAT SOME OR ALL OUTFALLS WILL BE MONITORED, A RATIONALE MUST BE INCLUDED FOR THE NTU LIMITS(S) SELECTED FROM APPENDIX B. THIS RATIONALE MUST INCLUDE THE SIZE OF THE CONSTRUCTION SITE, THE CALCULATION OF THE SIZE OF THE SURFACE WATER DRAINAGE AREA, AND THE TYPE OF RECEIVING WATER(S) (I.E., TROUT STREAM OR SUPPORTING WARM WATER FISHERIES); AND
- (4) ANY ADDITIONAL INFORMATION EPD DETERMINES NECESSARY TO BE PART OF THE PLAN. EPD WILL PROVIDE WRITTEN NOTICE TO THE PERMITTEE OF THE INFORMATION NECESSARY AND THE TIME LINE FOR SUBMITTAL

- ALL SAMPLING SHALL BE COLLECTED BY "GRAD 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, CLEAN 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, DILUTION OF SAMPLES IS NOT REQUIRED. SAMPLES MAY BE ANALYZED USING A DIRECT READING, 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.

- (1)FOR CONSTRUCTION ACTIVITIES THE PRIMARY PERMITTEE MUST SAMPLE ALL RECEIVING WATER(S), OR ALL OUTFALL(S), OR A COMBINATION OF RECEIVING WATER(S) AND OUTFALL(S). SAMPLES TAKEN FOR THE PURPOSE OF COMPLIANCE WITH THIS PERMIT SHALL BE REPRESENTATIVE OF THE MONITORED ACTIVITY AND REPRESENTATIVE OF THE WATER QUALITY OF THE RECEIVING WATER(S) AND/OR THE STORM WATER OUTFALLS USING THE FOLLOWING MINIMUM GUIDELINES
- (A) THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORM WATER DISCHARGES NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.
- (B) THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORM WATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHEST DOWNSTREAM AT THE SITE)
 BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE
 APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.
- (C) IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORM WATER OUTFALL CHANNEL(S).
- (D) CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORM WATER CHANNEL.
- (E) THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM.
- (F) THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS.
- (G) PERMITTEES DO NOT HAVE TO SAMPLE SHEETFLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT. FOR PURPOSES OF THIS SECTION, STABILIZED SHALL MEAN, FOR UNPAYED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES AND AREAS LOCATED OUTSIDE. THE WASTE DISPOSAL LIMITS OF A LANDFILL CELL THAT HAS BEEN CERTIFIED BY EPD FOR WASTE DISPOSAL, 100% OF THE SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER, OR EQUIVALENT PERMANENT STABILIZATION MEASURES (SUCH AS THE USE OF RIP RAP), CABIONS, PERMANENT MULCHES OR GEOTEXTILES) HAVE BEEN USED. PERMANENT VEGETATION SHALL CONSIST OF: PLANTED TREES, SHRUBS, PERENNIAL VINES; A CROP OF PERENNIAL VEGETATION APPROPRIATE FOR THE TIME OF YEAR AND REGION; OR A CROP OF ANNUAL VEGETATION AND A SEEDING OF TARGET CROP PERENNIALS APPROPRIATE FOR THE REGION. FINAL STABILIZATION APPLIES TO EACH PHASE OF CONSTRUCTION.
- (H) ALL SAMPLING PURSUANT TO THIS PERMIT MUST BE DONE IN SUCH A WAY (INCLUDING GENERALLY ACCEPTED SAMPLING METHODS, LOCATIONS, TIMING, AND FREQUENCY) AS TO ACCURATELY REFLECT WHETHER STORM WATER RUNOFF FROM THE CONSTRUCTION SITE IS IN COMPLIANCE WITH THE STANDARD SET FORTH IN PARTS III.D.3. OR III.D.4., WHICHEVER IS
- 25. THE ALLOWABLE INCREASE IN TURBIDITY BETWEEN THE DOWNSTREAM AND UPSTREAM SAMPLING POINTS IN THE RECEIVING WATERS, WHICH ARE CLASSIFIED AS WARM WATER, FOR THIS PROJECT IS 25 NTU.

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- 26. 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.
- 27. 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.
- 28. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL CONFORM WITH THE GUIDELINES OF THE "MANUAL FOR EROSION
- 30. ACCORDING TO FLOOD INSURANCE RATE MAP 13277C0109E DATED SEPTEMBER 29, 2010, THE PROPERTY IS LOCATED IN FLOOD ZONE X WHICH IS AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- EROSION CONTROL AND TREE PROTECTION MEASURES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY AND MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
- 32. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY FIELD INSPECTOR
- 33 FOR BUILDING MATERIALS BUILDING PRODUCTS CONSTRUCTION WASTES TRASH LANDSCAPE MATERIALS FERTILIZERS PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTES AND OTHER MATERIALS PRESENT ON SITE PROVIDE COVER (E.G. PLASTIC SHEETING, TEMPORARY ROOFS) TO MINIMIZE THE EXPOSURE OF THESE PRODUCTS TO PRECIPITATION AND TO STORMMATER, OR A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THESE AREAS. ACCEPTABLE PRACTICES INCLUDE BUT ARE NOT LIMITED TO PRE-FABRICATED STORAGE BINS, TRAILERS, SITE BUILT STORAGE SHEDS, SECURELY FASTENED TARPS COMPRESSED OR IMPERMEABLE MATERIAL AND OTHER WEATHER PROOF STORAGE COMPARTMENT THAT

SAMPLING POINT FOR NTU LIMITS (WATM WATER SUPPORTING WARM WATER FISHERIES)						
SAMPLING POINTS SEE SHEET C5.06 FOR LOCATIONS	SURFACE WATER DRAINAGE AREA TO PIPE MAKERS CANAL (SQ. MI.)	PROJECT SITE DISTURBED AREA (ac)	NTU LIMIT			
SL-1, SL-2, SL-3, SL-4, SL-5, SL-6, & SL-7	0.18	25.8	50			

NOTE: NTU LIMIT BASED ON VALUES IN APPENDIX B OF GENERAL PERMIT NO. GAR100001

DATE	DESCRIPTION	BY	AUTH	
MAR. 2021	BID DOCUMENTS	APD	RWP	





HILTON HEAD
Savannah / Hilton Head International Airport
400 Airways Avenue

Savannah, Georgia 31408

PM:	RWP	
DWG. BY:	APD	
CHK. BY:	SGH	
DSG. BY:	RWP	
SCALE:	AS NOTED	SHEE
PROJECT I		

60611019

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

EROSION AND SEDIMENT CONTROL NOTES (2)

DRAWING SIZE REDUCED IF LESS THAN 34"x22

THIS PLAN HAS BEEN PREPARED TO MEET THE REQUIREMENTS UNDER THE STATE OF GEORGIA, DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENTAL PROTECTION DIVISION (EPD), GENERAL PERMIT NO. GAR100003 FOR AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES), STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FOR COMMON DEVELOPMENTS.

MANAGEMENT PRACTICES AND PERMIT VIOLATIONS (PART III.D):

- BEST MANAGEMENT PRACTICES ARE REQUIRED FOR ALL CONSTRUCTION ACTIVITIES AND MUST BE IMPLEMENTED IN ACCORDANCE WITH THE DESIGN SPECIFICATIONS CONTAINED IN THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" TO PREVENT OR REDUCE THE POLLUTION OF WATERS OF GEORGIA. PROPER DESIGN, INSTALLATION, AND MAINTENANCE OF BMP'S SHALL CONSTITUTE A COMPLETE DEFENSE TO ANY ACTION BY THE DIRECTOR OR TO ANY OTHER ALLEGATION OF NONCOMPLIANCE WITH PART III.D.3 AND PART III.D.4.
- 2. FAILURE TO PROPERLY DESIGN, INSTALL, OR MAINTAIN BMP'S SHALL CONSTITUTE A VIOLATION OF THE PERMIT. ROUTINE INSPECTIONS SHALL NOT BE CONSIDERED A VIOLATION. IF DURING THE COURSE OF THE PERMITTEE'S ROUTINE INSPECTIONS BMP FAILURES ARE OBSERVED WHICH HAVE RESULTED IN SEDIMENT DEPOSITION INTO WATERS OF THE STATE, THE PERMITTEE SHALL CORRECT THE BMP FAILURES AND SHALL SUBMIT A SUMMARY OF THE VIOLATIONS TO EPD IN ACCORDANCE WITH PART V.A.2 OF THE PERMIT.
- A DISCHARGE OF STORMWATER RUNOFF FROM DISTURBED AREAS WHERE BMP'S HAVE NOT BEEN PROPERLY DESIGNED, INSTALLED, AND MAINTAINED SHALL CONSTITUTE A SEPARATE VIOLATION FOR EACH DAY ON WHICH SUCH DISCHARGE RESULTS IN THE TURBIDITY OF RECEIVING WATER(S) BEING INCREASED BY MORE THAN TEN (10) NEPHELOMETRIC TURBIDITY UNITS FOR WATERS CLASSIFIED AS TROUT STREAMS OR MORE THAN TWENTY-FIVE (25) NEPHELOMETRIC TURBIDITY UNITS FOR WATERS SUPPORTING WARM WATER FISHERIES, REGARDLESS OF A PERMITTEE'S CERTIFICATION UNDER PART II.B.1.J AND PART II.B.3.J.

AUTHORIZED DISCHARGES (PART I.C.)

- ALL DISCHARGES OF STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY THAT WILL RESULT IN LAND DISTURBANCE EQUAL TO OR GREATER THAN ONE ACRE. PART I.C.1.A.
- 2. ALL DISCHARGES COVERED BY THIS PERMIT SHALL BE COMPOSED ENTIRELY OF STORM WATER EXCEPT AS PROVIDED IN PART I.C.2 AND PART III.A.2 OF THE PERMIT. PART III.A.1.
- 3. AUTHORIZED MIXED STORM WATER DISCHARGES: PART I.C.2.
 - A. THE INDUSTRIAL SOURCE OR ACTIVITY OTHER THAN CONSTRUCTION IS LOCATED ON THE SAME SITE AS THE CONSTRUCTION ACTIVITY AND IS AN INTEGRAL PART OF THE CONSTRUCTION ACTIVITY:
 - B. THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES ARE OCCURRING ARE IN COMPLIANCE WITH THE TERMS OF THE PERMIT;
 - C. STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE AREAS OF THE SITE WHERE INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION ARE OCCURRING ARE COVERED BY A DIFFERENT NPDES GENERAL PERMIT OR INDIVIDUAL PERMIT AUTHORIZING SUCH DISCHARGES AND THE DISCHARGES ARE IN COMPLIANCE WITH A DIFFERENT NPDES
- 4. THE FOLLOWING NON-STORM WATER DISCHARGES MAY BE AUTHORIZED BY THIS PERMIT PROVIDED THE NON-STORM WATER COMPONENT OF THE DISCHARGE IS EXPLICITLY IN THE PLAN AND IS IN COMPLIANCE WITH PART IV.D.7: PART III.A.2.
 - FIRE FIGHTING ACTIVITIES:
 - FIRE HYDRANT FLUSHING
 - POTABLE WATER SOURCES INCLUDING WATER LINE FLUSHING;
 - IRRIGATION DRAINING;
 - AIR CONDITIONING CONDENSATE;
 - SPRINGS;
 - G. UNCONTAMINATED GROUND WATER: AND
 - H. FOUNDATION OR FOOTING DRAINS WHERE THE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS OR POLLUTANTS.

LIMITATION ON COVERAGE PART I.C.3

THE FOLLOWING STORM WATER DISCHARGES FROM CONSTRUCTION SITES ARE NOT AUTHORIZED BY THIS PERMIT:

- STORM WATER DISCHARGES ASSOCIATED WITH AN INDUSTRIAL ACTIVITY THAT ORIGINATE FROM THE SITE AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS UNDERGONE FINAL STABILIZATION;
- B. DISCHARGES THAT ARE MIXED WITH SOURCES OF NON-STORM WATER OTHER THAN DISCHARGES WHICH ARE IDENTIFIED IN PART III.A.2 OF THIS PERMIT AND WHICH ARE IN COMPLIANCE WITH PART IV.D.7. (NON-STORM WATER DISCHARGES) OF
- C. STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY THAT ARE SUBJECT TO AN EXISTING NPDES INDIVIDUAL OR GENERAL PERMIT. SUCH DISCHARGES MAY BE AUTHORIZED UNDER THIS PERMIT AFTER AN EXISTING PERMIT EXPIRES PROVIDED THE EXISTING PERMIT DID NOT ESTABLISH NUMERIC LIMITATIONS FOR SUCH DISCHARGES: AND
- D. STORM WATER DISCHARGES FROM CONSTRUCTION SITES THAT THE DIRECTOR (EPD) HAS DETERMINED TO BE OR MAY REASONABLY BE EXPECTED TO BE CONTRIBUTING TO A VIOLATION OF A WATER QUALITY STANDARD.

COMPLIANCE WITH WATER QUALITY PART I.C.4

NO DISCHARGES AUTHORIZED BY THIS PERMIT SHALL CAUSE VIOLATIONS OF GEORGIA'S IN-STREAM WATER QUALITY STANDARDS AS PROVIDED BY THE RULES AND REGULATIONS FOR WATER QUALITY CONTROL, CHAPTER 391-3-6-.03.

EROSION AND SEDIMENT CONTROL INITIAL PHASE NOTES

- 1. PRIOR TO LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH THE AREA SITE DEVELOPMENT INSPECTOR.
- 2. THE CONTRACTOR SHALL OBSERVE THE PROJECT SEQUENCE SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF IT'S NATURAL COVER IS EXPOSED ONLY IN SMALL QUANTITIES.
- 3. THE OWNER AGREES TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD
- 4. NO STAGING AREAS, MATERIAL STORAGE, CONCRETE WASH OUT AREAS, OR DEBRIS BURNING AND BURIAL HOLES SHALL BE LOCATED WITHIN 500 FEET OF DESIGNATED TREE PROTECTION AREA.
- 5. A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT
- 6. PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, LIMITS OF LAND DISTURBANCE SHALL CLEARLY AND ACCURATELY BE DEMARCATED WITH STAKES, RIBBONS OR OTHER APPROPRIATE MEANS, AND SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY. NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE LIMITS INDICATED ON THE APPROVED PLANS.
- 7. PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE OR ONTO ANY PUBLIC ROADWAY.
- 8. THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY:
 - a. THE CONSTRUCTION EXIT SHALL BE PLACED AS SHOWN ON THE PLANS.
 - b. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION EXIT, ALL PERIMETER EROSION CONTROL AND STORMWATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE CLEARING PHASE EROSION CONTROL PLAN.
 - c. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITY.
- 10. WITHIN SEVEN (7) DAYS AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES, THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURES, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE PROJECT PROFESSIONAL DURING THE SITE INSPECTION.
- 11. AFTER APPROVAL OF INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES.
- 12. NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE WITHOUT WRITTEN PERMISSION BY THE OWNER AND/OR THE ENGINEER OF RECORD.
- 13. ALL SILT-FENCES MUST MEET THE REQUIREMENTS OF SECTION 171-TEMPORARY SILT FENCE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATIONS, 1983 EDITION.
- 14. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.
- 15. SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
- 16. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
- 17. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE PROPER FUNCTIONING.
- 18. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE SITE UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED PLANS.

EROSION AND SEDIMENT CONTROL INTERIM PHASE NOTES

- 1. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPED OF IT'S NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES, AND THEREFORE LIMITED DURATIONS, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED.
- 2. EARTHWORK OPERATIONS IN THE VICINITY OF STREAM BUFFERS SHALL BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.
- 3. EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION AND ALTER THE LOCATION OF EROSION CONTROL DEVICES ACCORDINGLY. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.
- 4. THE CONTRACTOR SHALL ESTABLISH BARRIERS AT THE TOP OF ALL SLOPES UNDER CONSTRUCTION. CUT AND FILL SLOPES SHALL NOT EXCEED 3:1.
- 5. STORM DRAIN OUTLET PROTECTION SHALL BE PLACED AT ALL OUTLET HEADWALLS AS SOON AS THE HEADWALL IS CONSTRUCTED.
- 6. ALL GRADED AREAS SHALL BE APPLIED WITH SOD AS SOON AS FINAL GRADE IS ACHIEVED.
- 7. MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITH 7 DAYS OF LAND DISTURBANCE. ALL DISTURBED AREAS LEFT MULCHED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.
- 8. SEDIMENT AND EROSION CONTROL MEASURES MUST BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED
- 9. CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- 10. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACK OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM A VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.
- 11. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES, WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

EROSION AND SEDIMENT CONTROL FINAL PHASE NOTES

- 1. ALL ROADWAY SHOULDERS SHOULD BE SODDED AS SOON AS FINAL GRADE IS ACHIEVED.
- 2. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.
- 3. FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.
- 4. UPON COMPLETION OF THE PROJECT AND RECEIPT OF THE CERTIFICATE OF COMPLETION, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED OTHERWISE ON PLANS.

DATE	DESCRIPTION	BY	AUTH	
MAR. 2021	BID DOCUMENTS	APD	RWP	
				【 COLEMAN COMPANY
				ENGINEERS · SURVEYORS
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PROJECT	NO.

60611019

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

SHEET TITLE **EROSION AND SEDIMENT** CONTROL NOTES (3)

DRAWING SIZE REDUCED IF LESS THAN 34"x22

THE PROJECT IMPACTS THE ACTIVE AIRPORT OPERATIONS AREA. TO MAINTAIN THE SAFETY AND SECURITY OF THE AIRFIELD AND MAINTAIN ACTIVE TRAFFIC BETWEEN THE GEORGIA AIR NATIONAL GUARD FACILITIES, THE PROJECT REQUIRED SEVERAL PHASES OF WORK WHICH CANNOT BE COMPLETED CONCURRENTLY.

3. <u>IN SUMMARY:</u>

PHASE 1 -CLEARING, GRUBBING AND TREE CLEARING FOR CONSTRUCTION OF NEW WET DETENTION POND.

GRADING IMPROVEMENTS AT G.A.N.G. WET DETENTION POND INSTALLATION NEW STORM SEWER PIPE FROM BOB HARMON RD. TO EXISTING G.A.N.G WET DETENTION POND, INSTALLATION OF NEW STORM SEWER PIPE BETWEEN EXISTING G.A.N.G. WET DETENTION POND TO NEW WET DETENTION POND, AND INSTALLATION OF NEW STORM SEWER PIPE FROM G.A.N.G. FACILITY TO NEW WET DETENTION POND.

CRITICAL AREAS ON SITE: WETLANDS

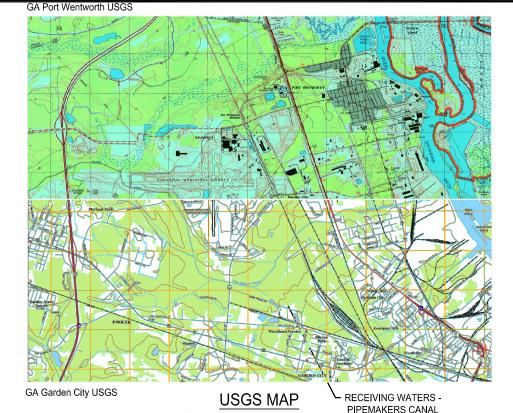
THE PROJECT AREA IS WITHIN ZONE X AS SHOWN ON THE LATEST FLOOD INSURANCE RATE MAPS (FIRMS) COMMUNITY PANEL NOS. 13051C0040G AND 13051C0045F PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) ON AUGUST 5, 2013 AND SEPTEMBER 26, 2008, RESPECTIVELY. ZONE X IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN".

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

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 CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.

7. ANY DISTURBED AREA LEFT FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH AND TEMPORARY SEEDING.

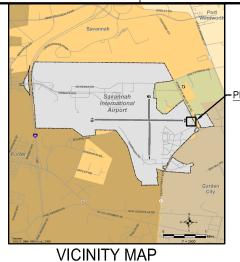
AMENDMENTS/REVISIONS TO THE ES&PC PLAN WHICH HAVE A SIGNIFICANT EFFECT ON BMP'S WITH A HYDRAULIC COMPONENT MUST BE CERTIFIED BY THE DESIGN PROFESSIONAL.



24 HOUR CONTACT

ASSISTANT DIRECTOR OF ENGINEERING SAVANNAH AIRPORT COMMISSION SAVANNAH HILTON HEAD INTERNATIONAL

400 AIRWAYS AVENUE SAVANNAH, GEORGIA 31408 OFFICE PHONE: 912-964-0514 EXT. 3308 MOBILE PHONE: 912-313-2828 E-MAIL:MDENMARK@FLYSAV.COM



South PROJECT AREA Georgi

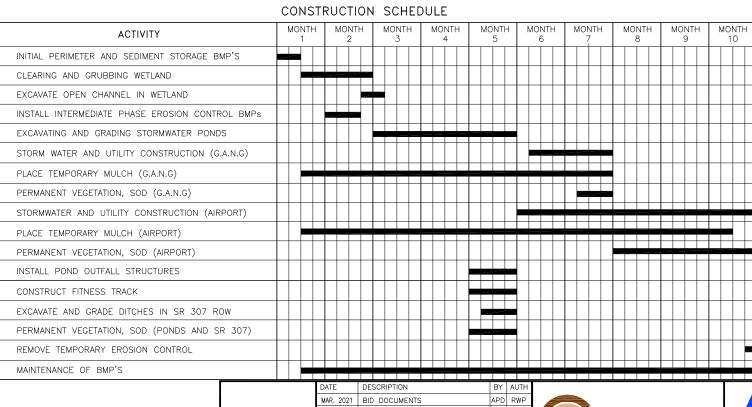
LOCATION MAP

GEORGIA

UNIFORM CODING SYSTEM

FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES GEORGIA SOIL AND WATER CONSERVATION

	COMMISSION VEGETATIVE AND STRUCTURAL PRACTICES					
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION	SHEET REF.	
Co	CONSTRUCTION EXIT		(LABEL)	A CRUSHED STONE PAD LOCATED AT THE CONSTRUCTION SITE EXIT TO PROVIDE A PLACE FOR REMOVING MUD FROM TIRES THEREBY PROTECTING PUBLIC STREETS.	C5.81	
Rd	ROCK FILTER DAM			A PERMANENT OR TEMPORARY STONE FILTER DAM INSTALLED ACROSS SMALL STREAMS OR DRAINAGEWAYS.	C5.82	
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.	C5.81	
Sd2	INLET SEDIMENT TRAP	*	(INDICATE TYPE)	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.	5.82	
St	STORMDRAIN OUTLET PROTECTION		SI)	A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.	5.82	
Ds1	DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)	V V V V	Ds1	ESTABLISHING TEMPORARY PROTECTION FOR DISTURBED AREAS WHERE SEEDLINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDING COVER.	C5.83	
Ds4	DISTURBED AREA STABILIZATION (SODDING)		Ds4	A PERMANENT VEGETATIVE COVER USING SODS ON HIGHLY ERODABLE OR CRITICALLY ERODED LANDS.	C5.83	
Du	DUST CONTROL ON DISTURBED AREAS		Du	CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITE, ROADWAYS AND SIMILAR SITES.	C5.83	
Sk	FLOATING SURFACE SKIMMER		Sk) (LABEL)	A BUOYANT DEVICE THAT RELEASES/DRAINS WATER FROM THE SURFACE OF SEDIMENT PONDS, TRAPS, OR BASINS AT A CONTROLLED RATE OF FLOW.	C5.85	



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DWG. BY:	APD					
CHK. BY:	SGH					
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SCALE:	AS NOTED	S				
PROJECT	NO.					
60611019						

MARCH, 2021

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

EROSION AND SEDIMENT CONTROL NOTES (4)

C5.04

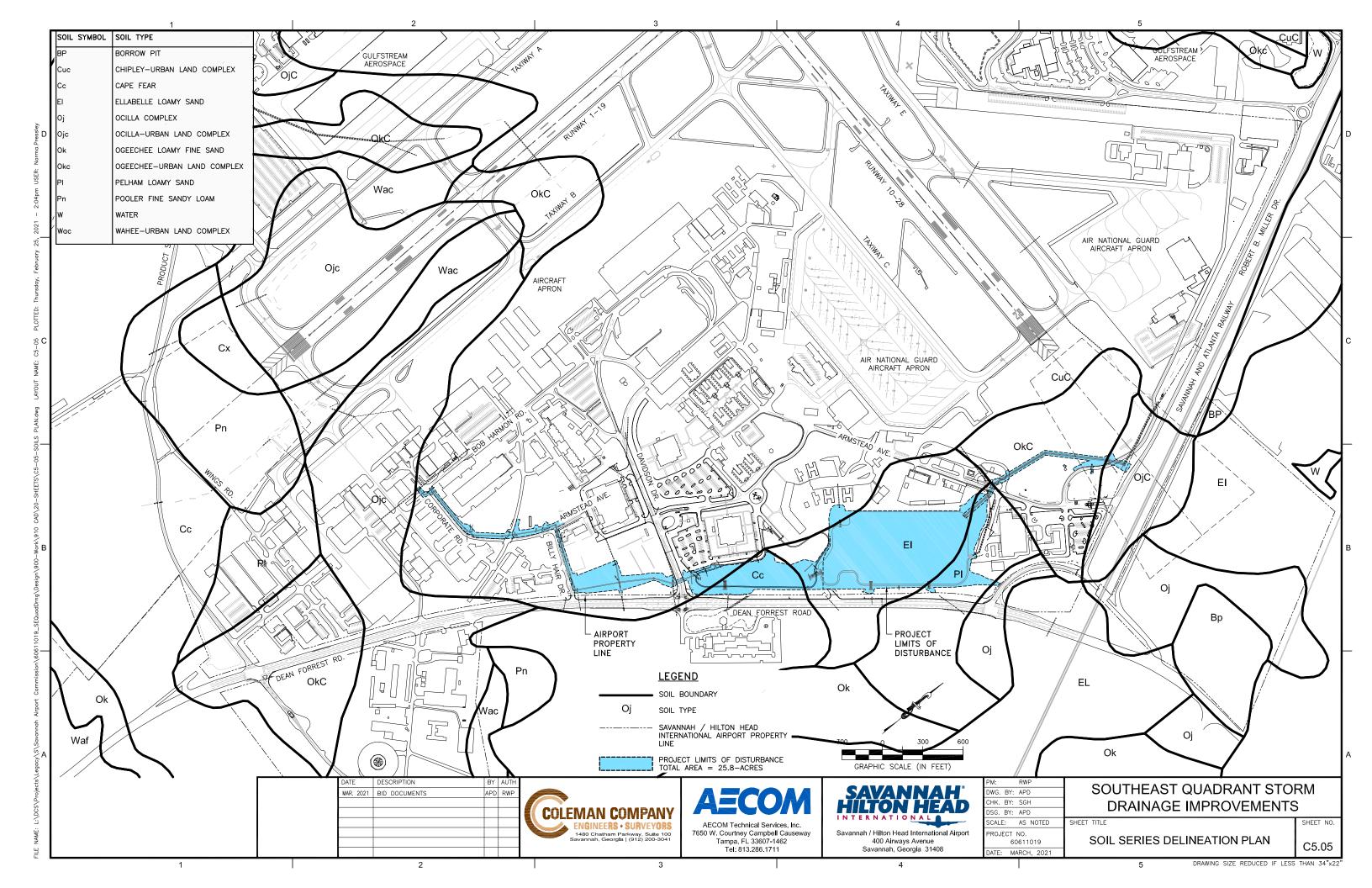
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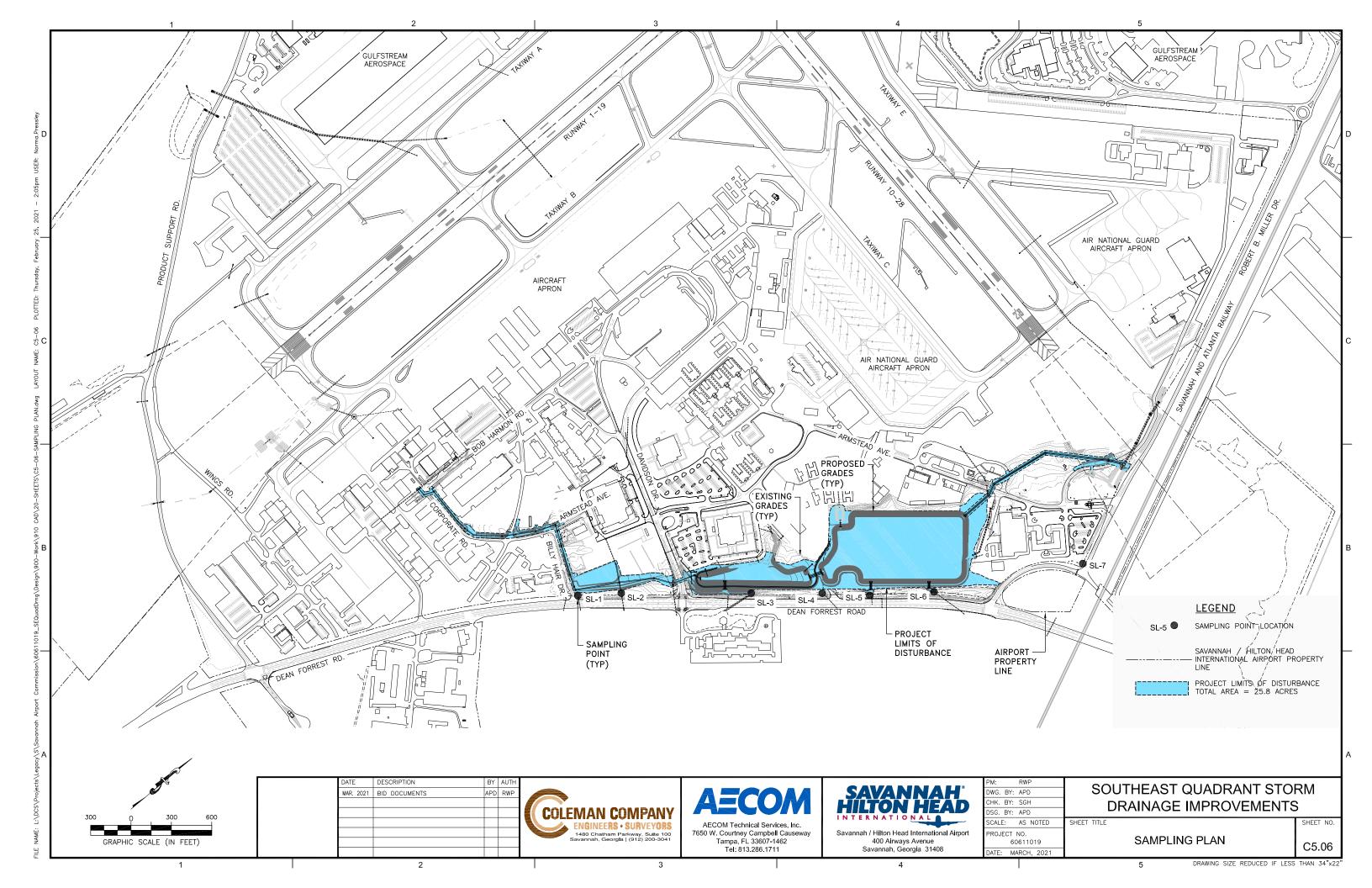
COLEMAN COMPANY

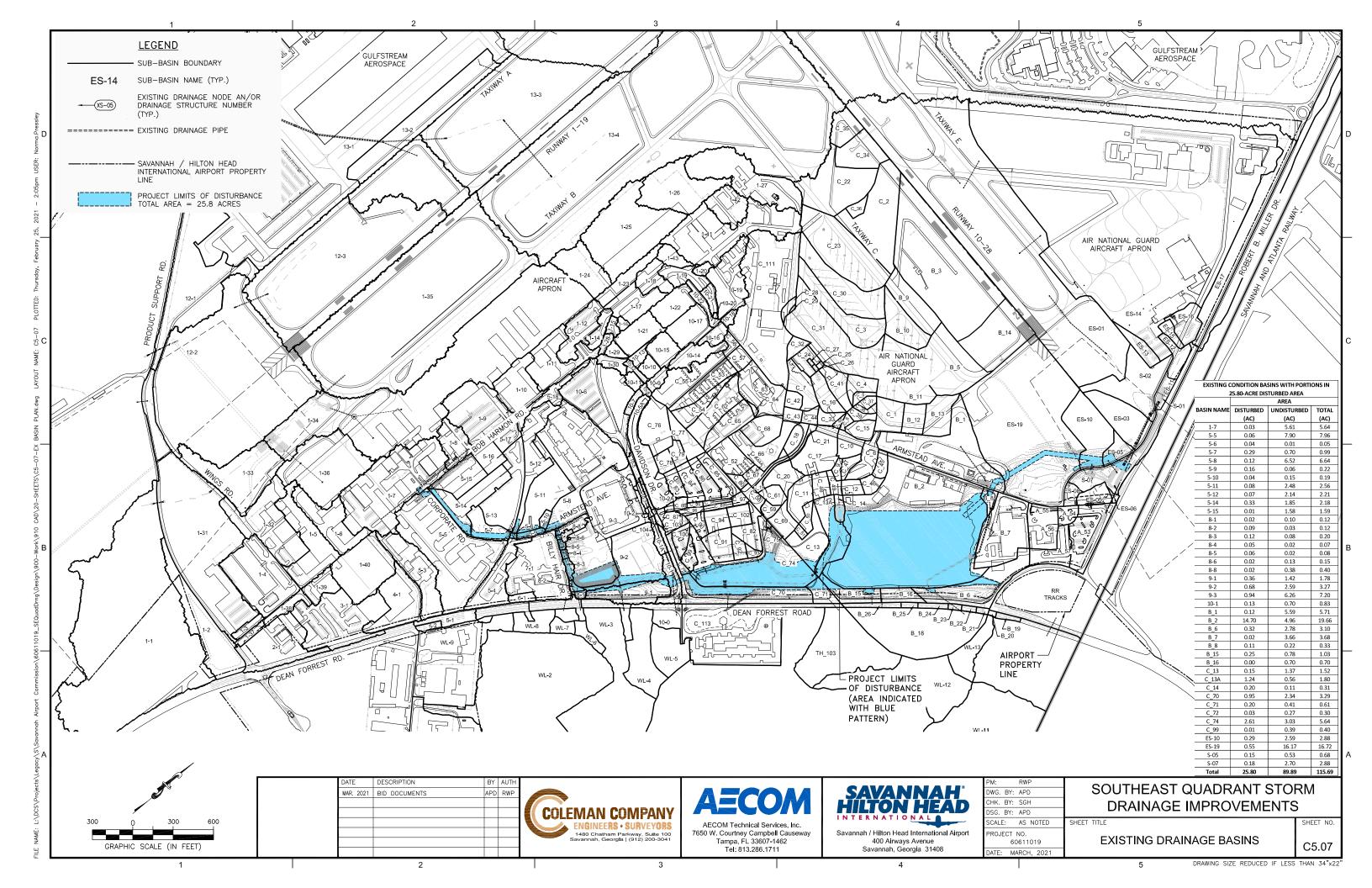
NGINEERS • SURVEYORS

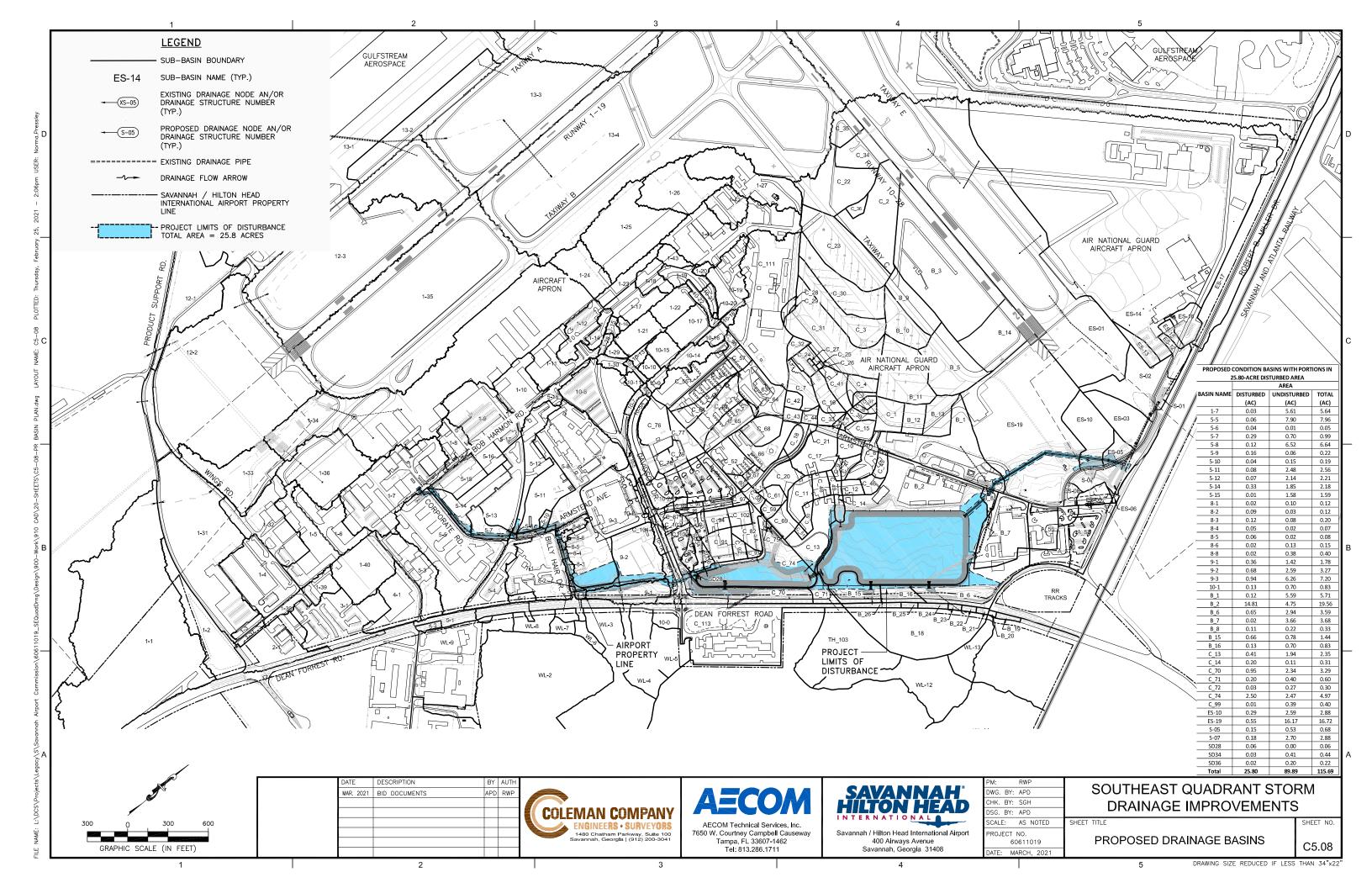
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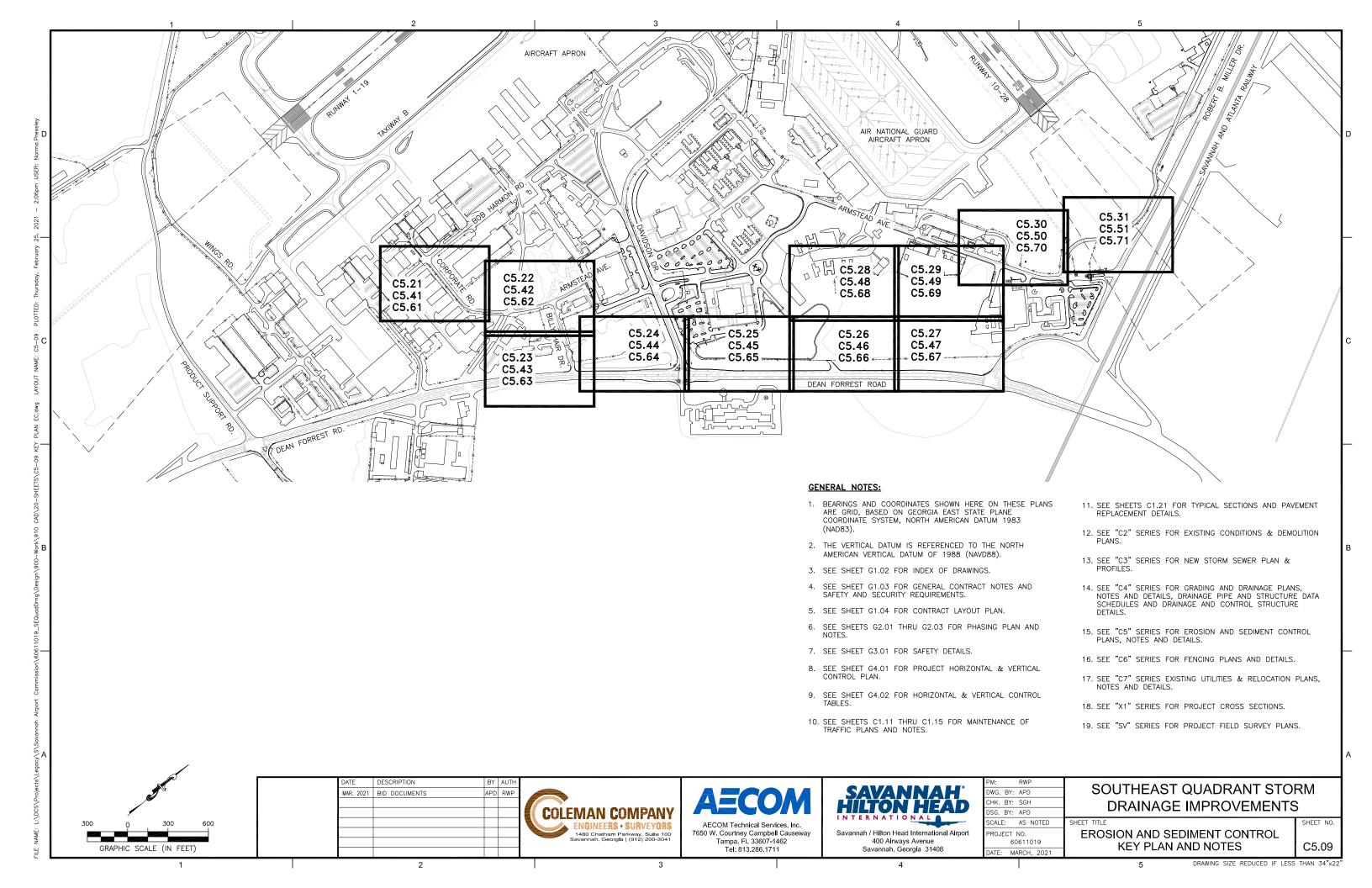
DRAWING SIZE REDUCED IF LESS THAN 34"x22'

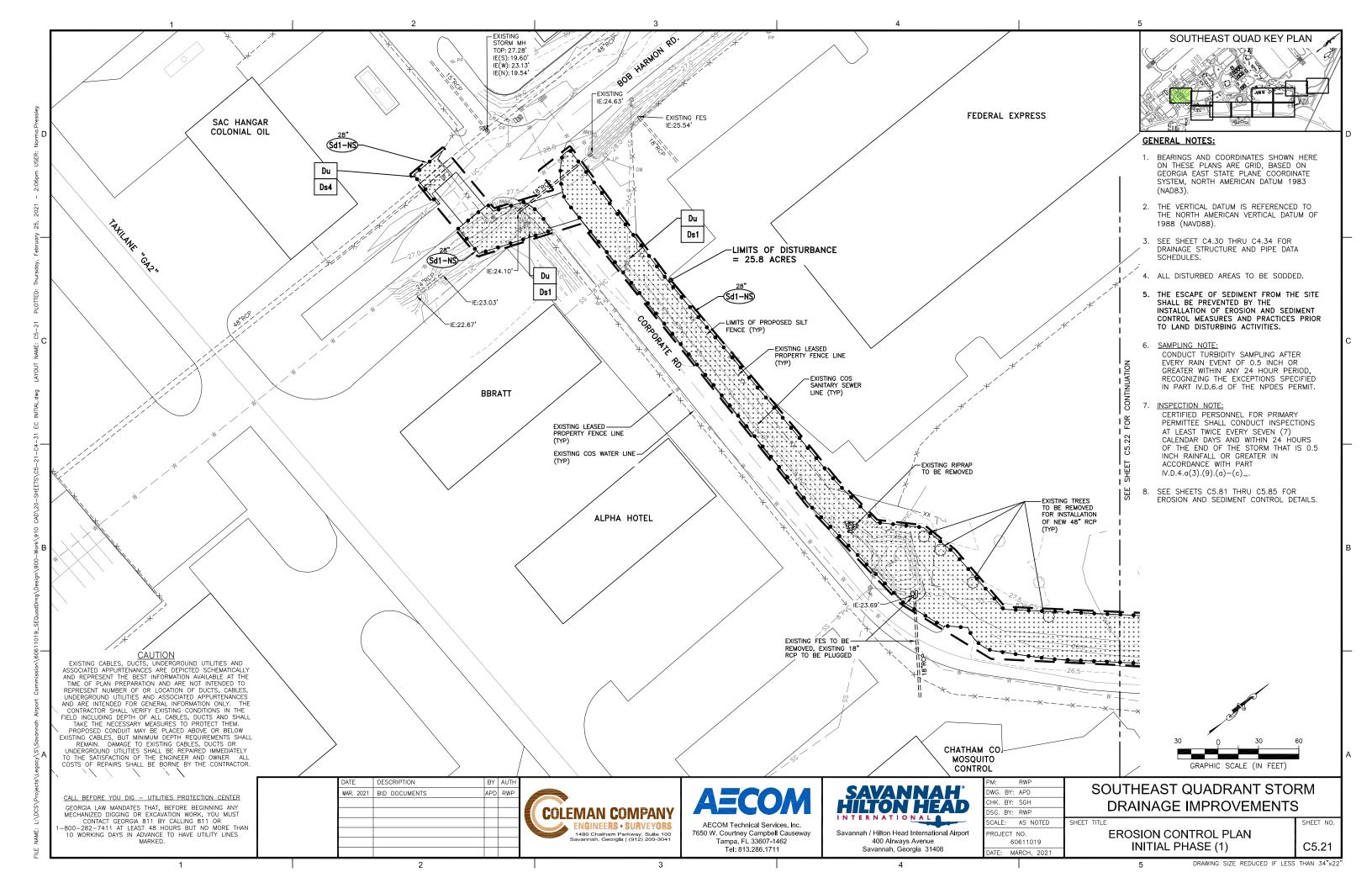


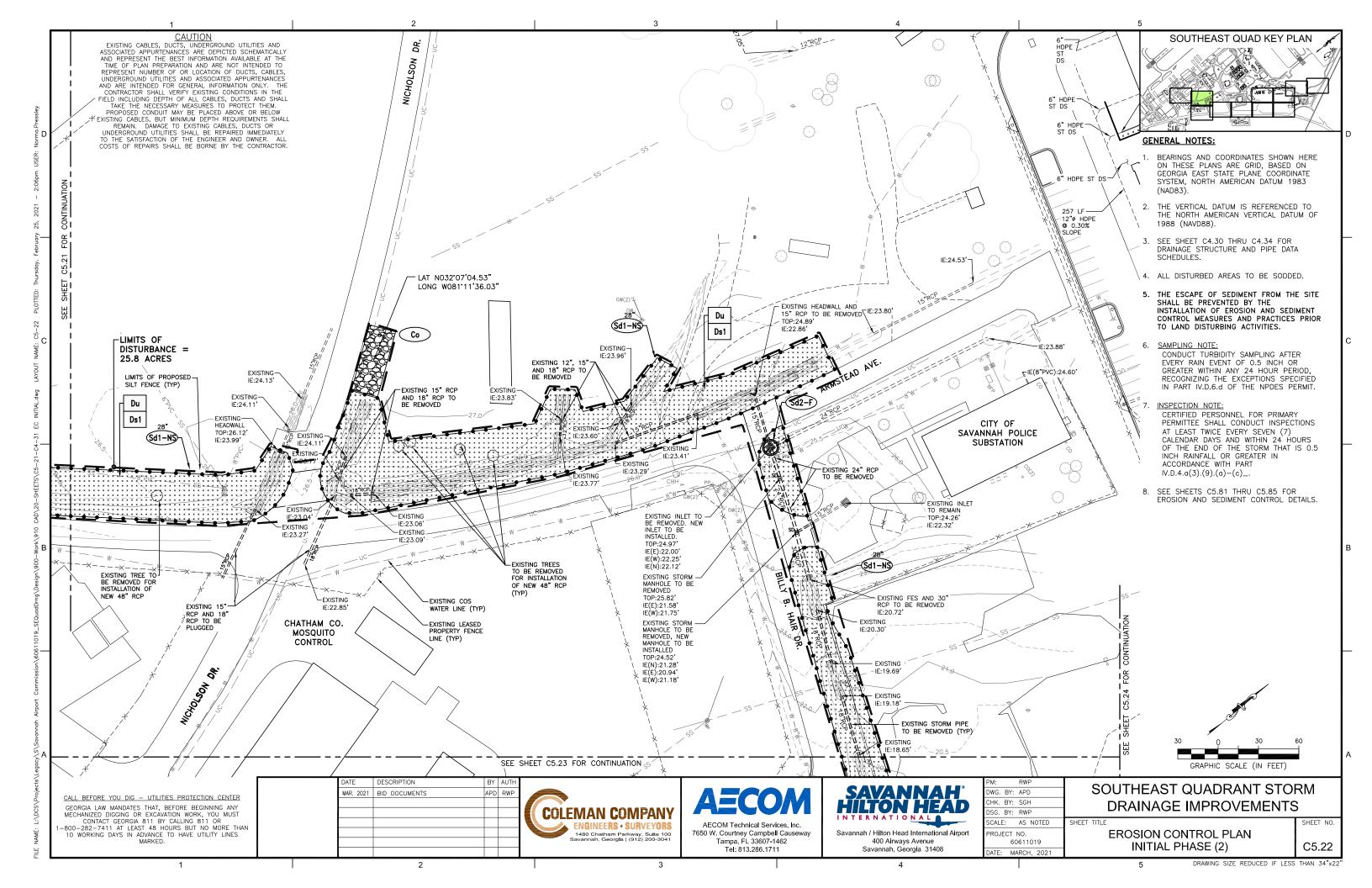


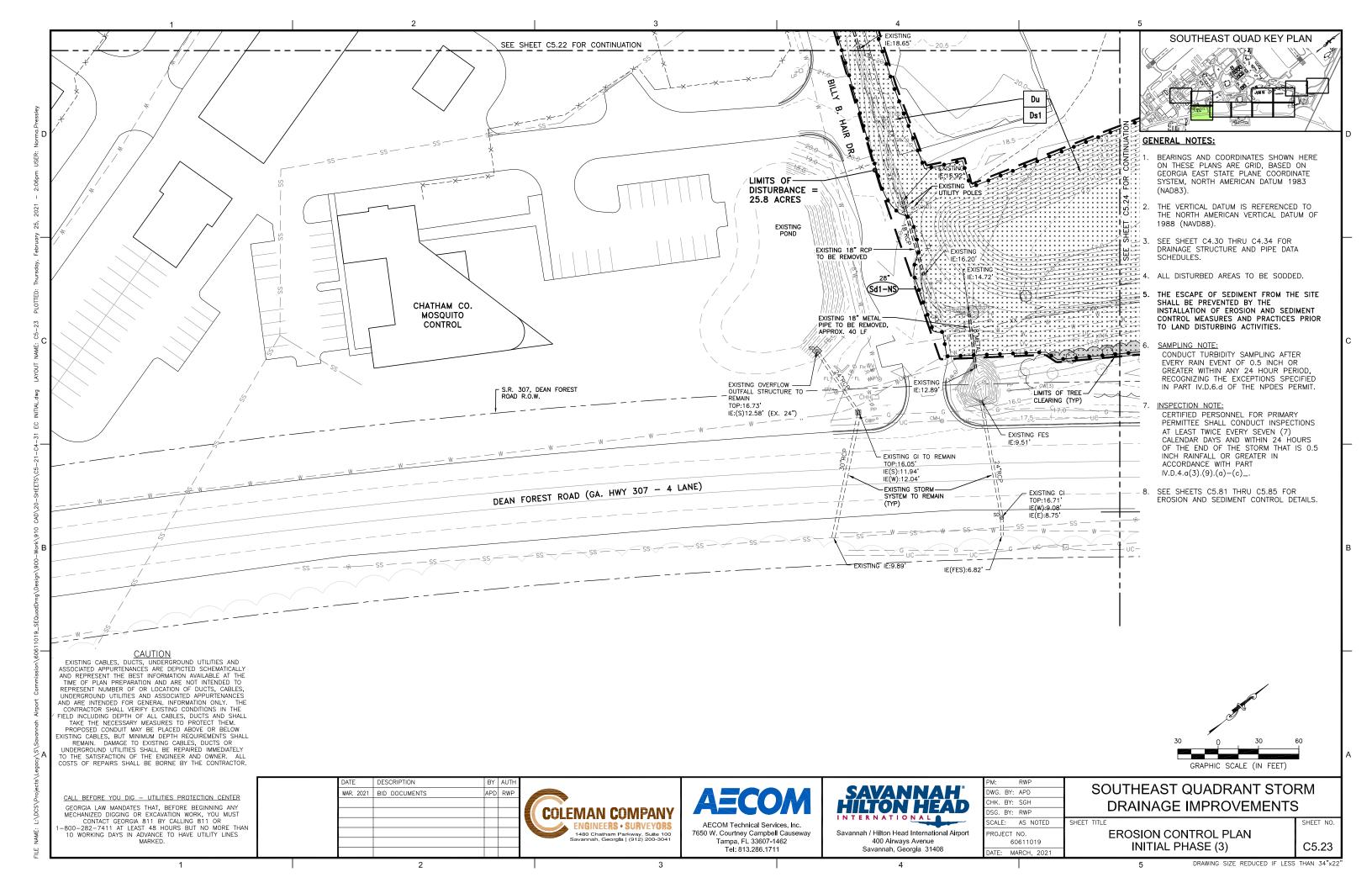


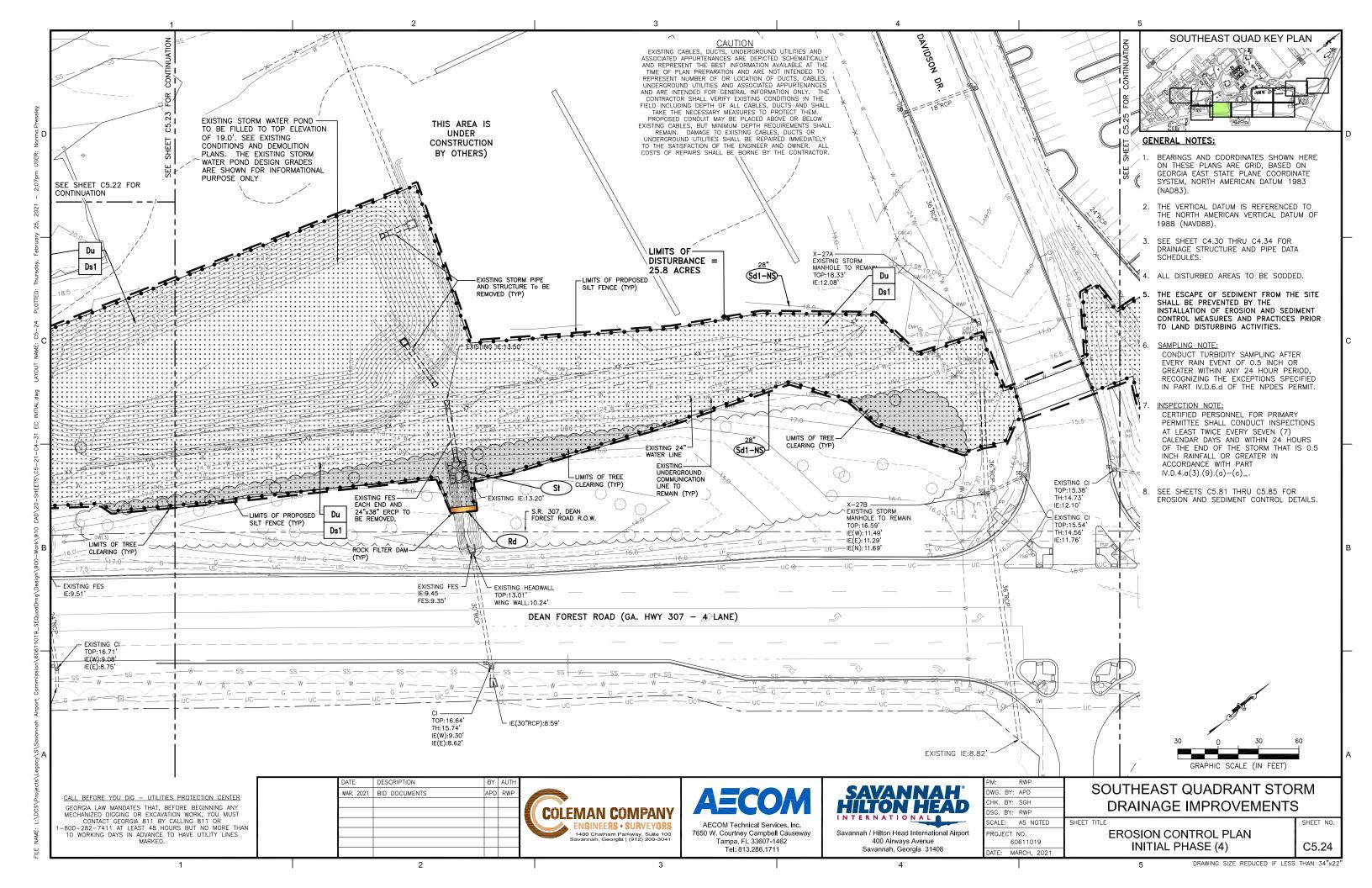


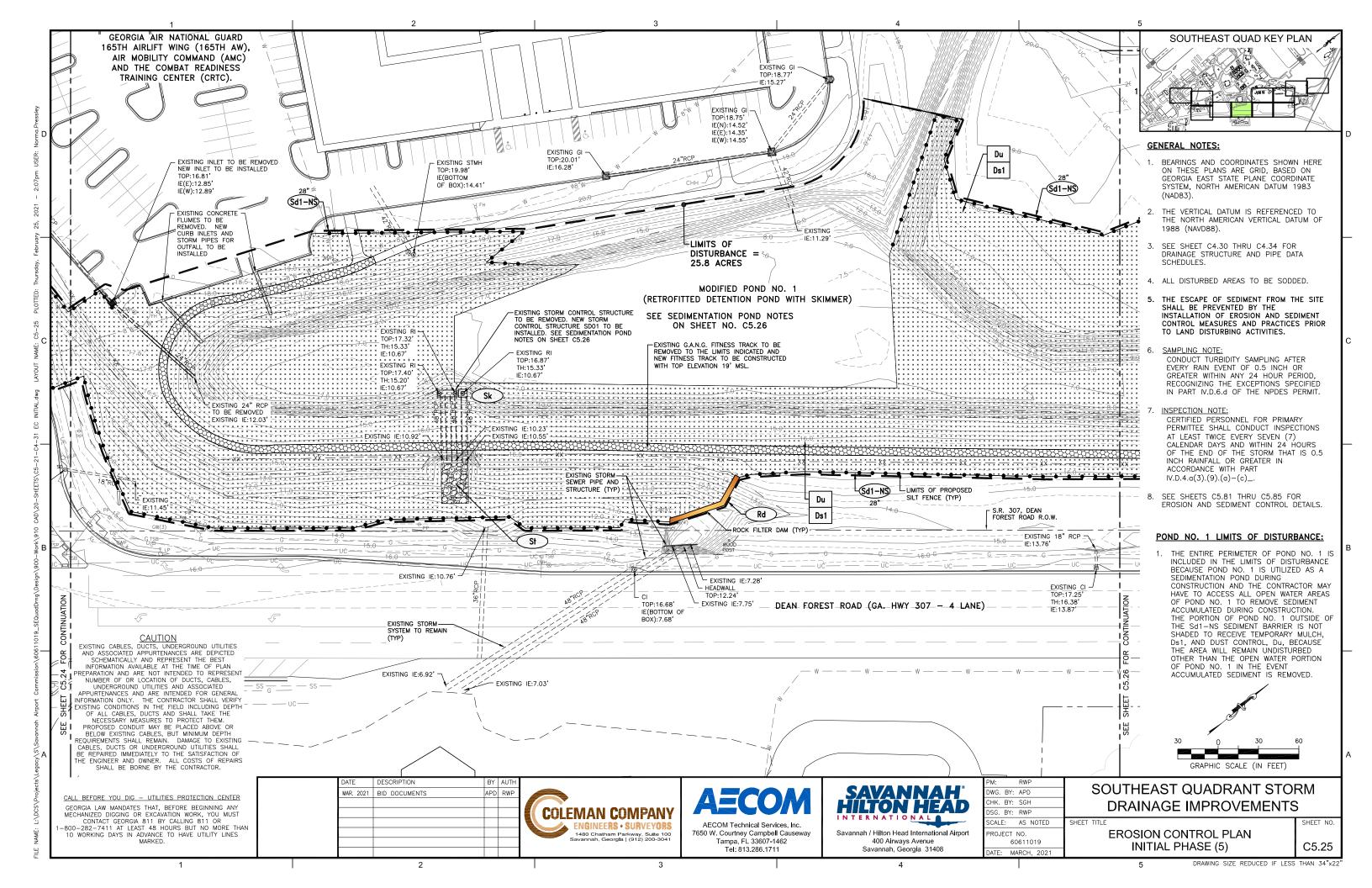


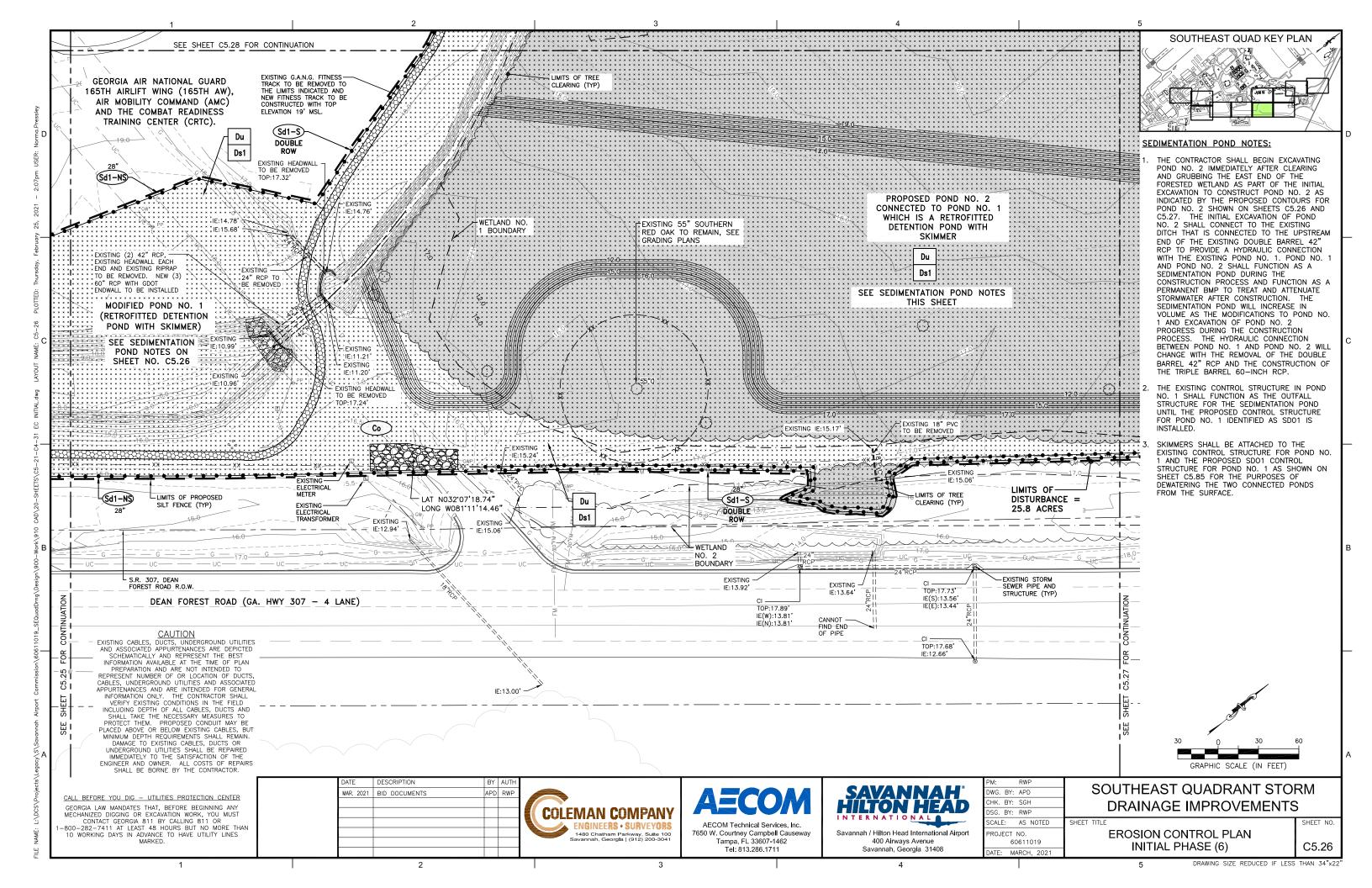


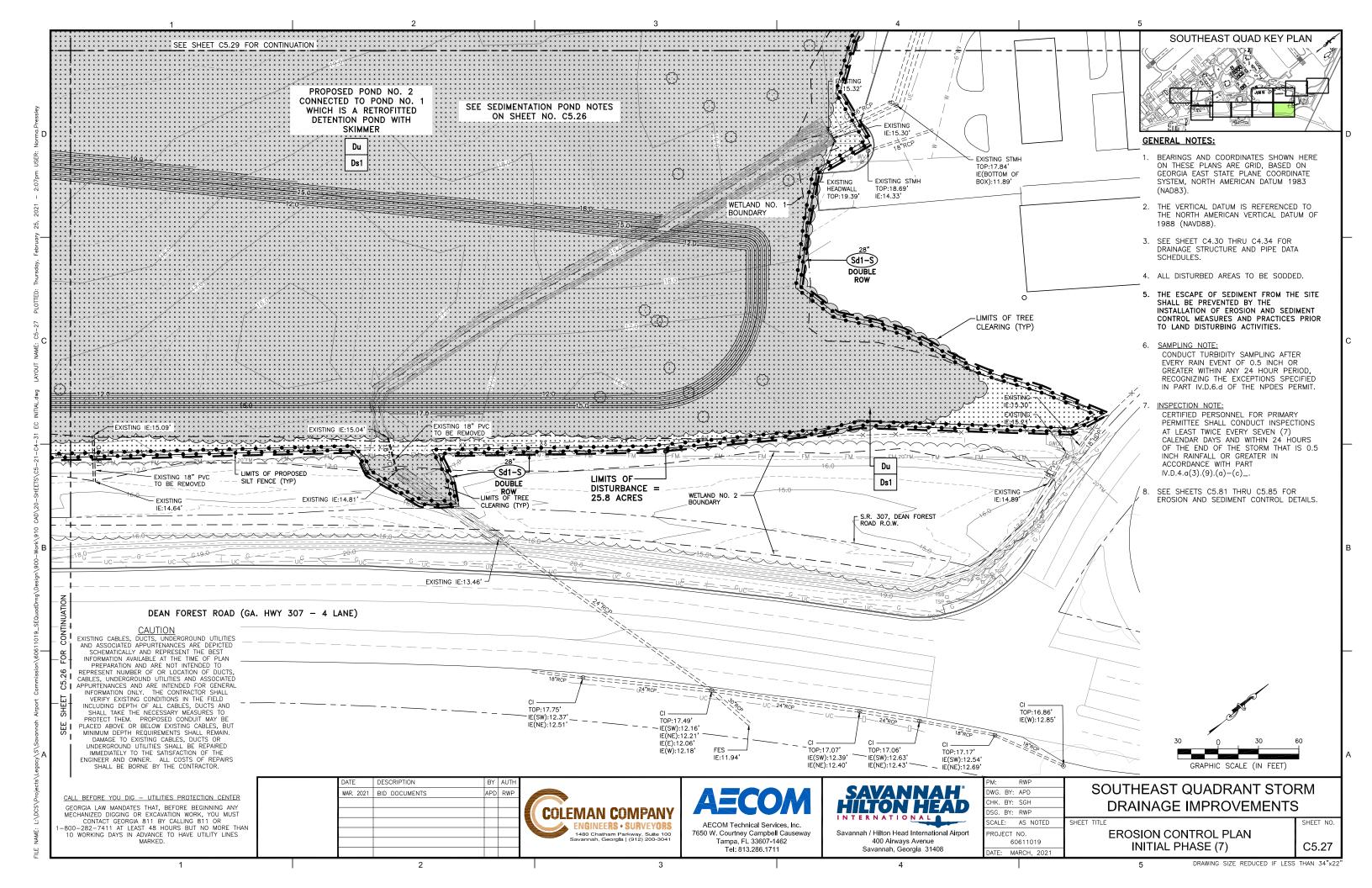


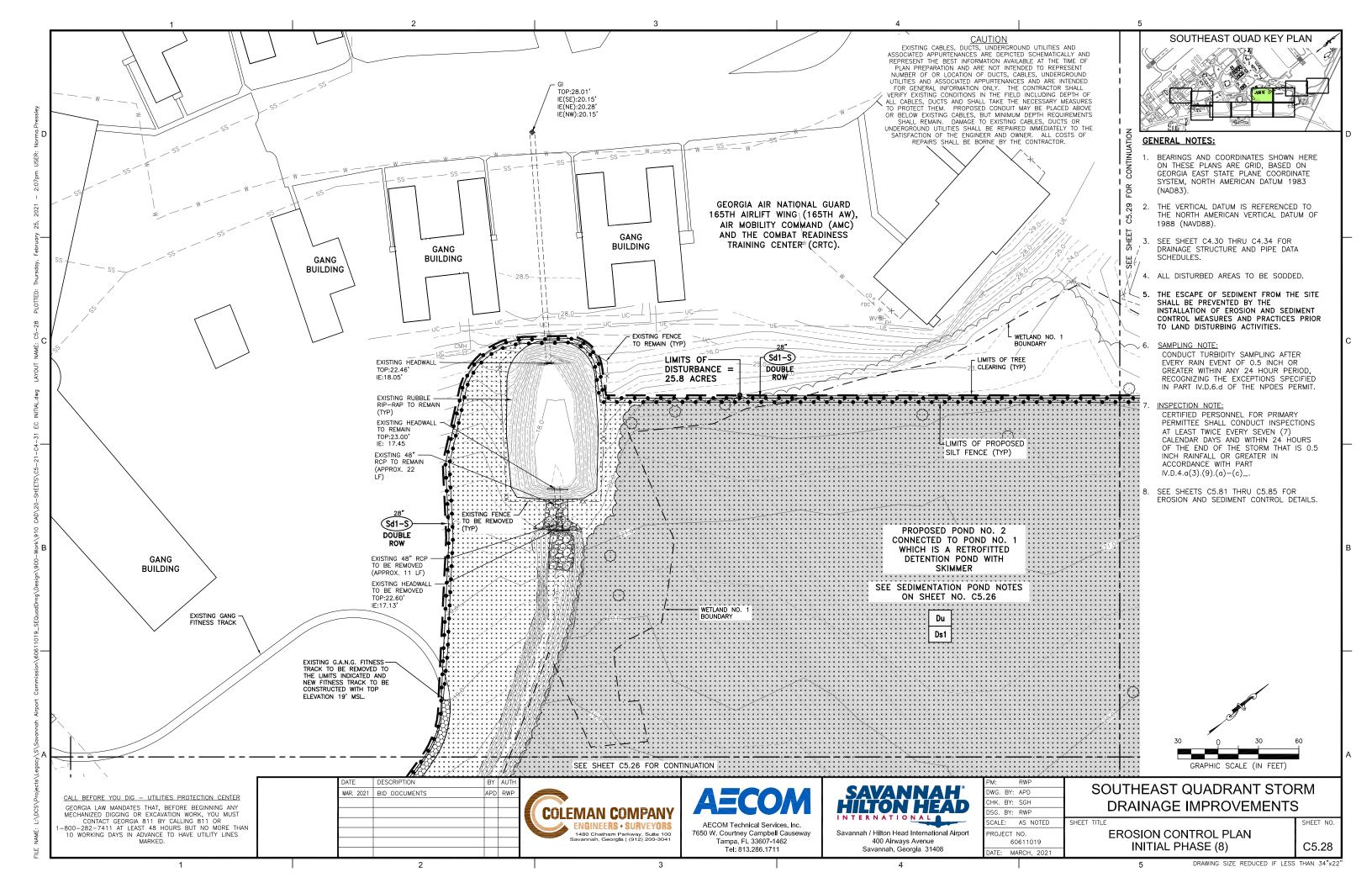


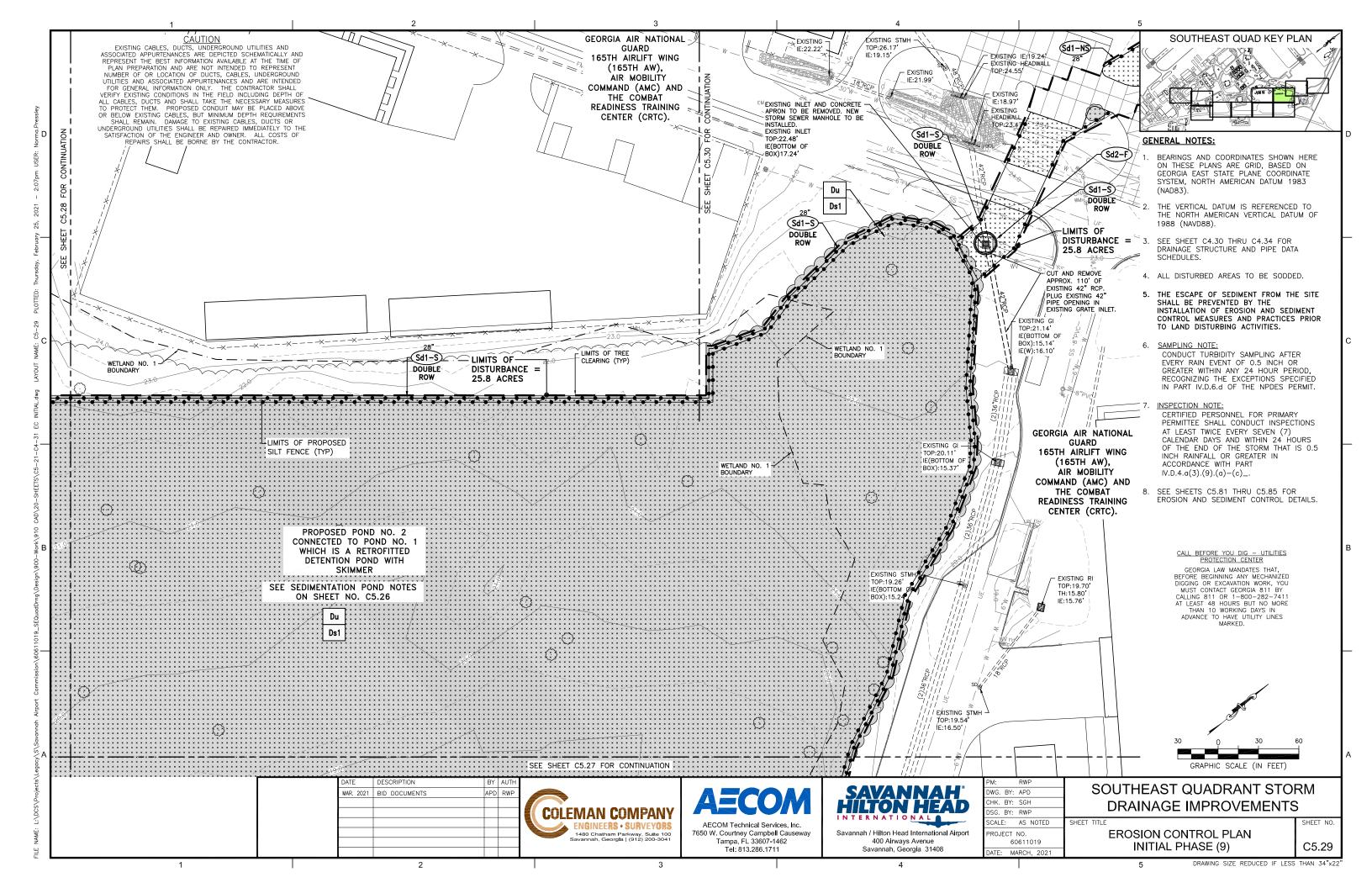


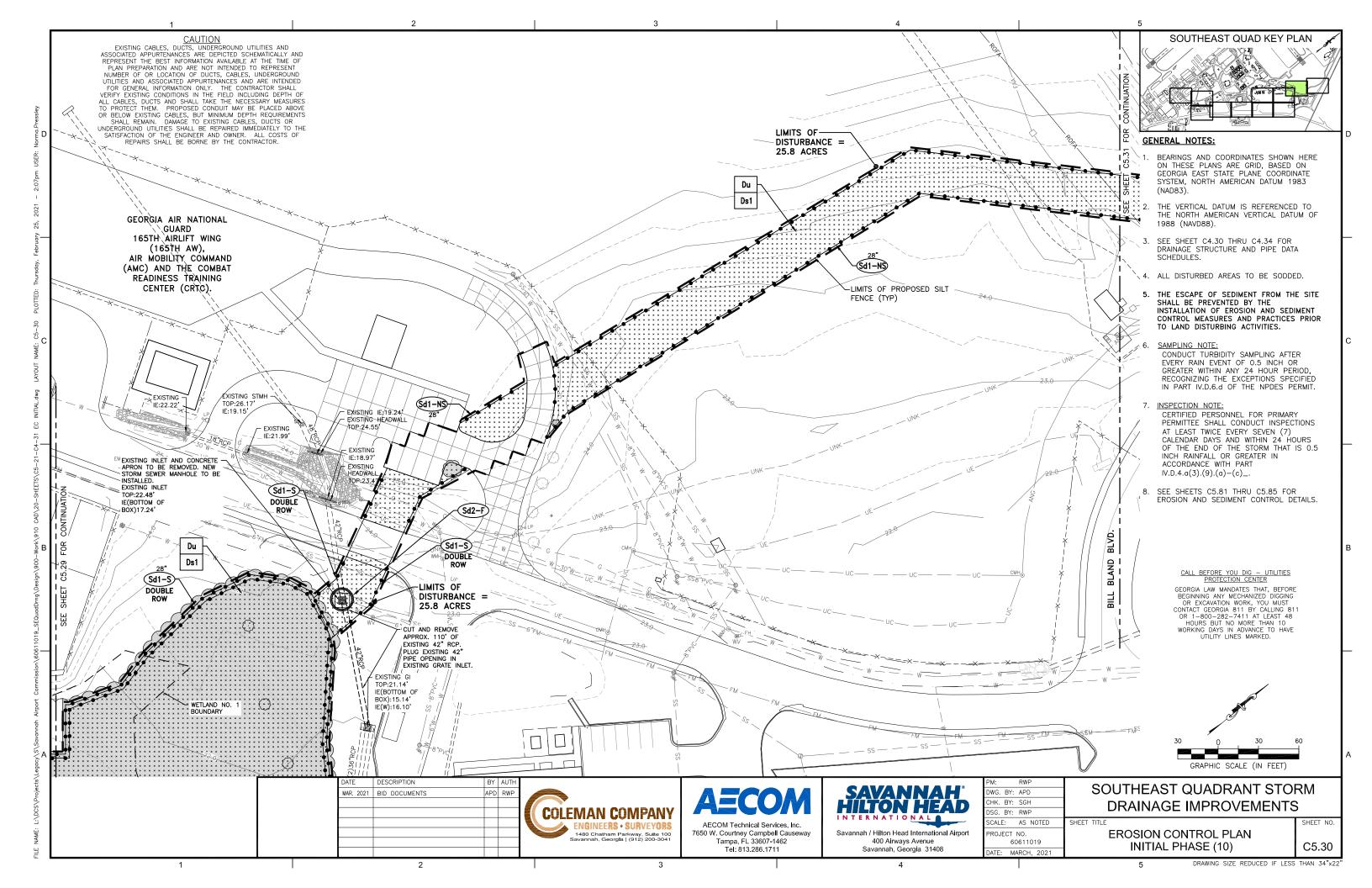


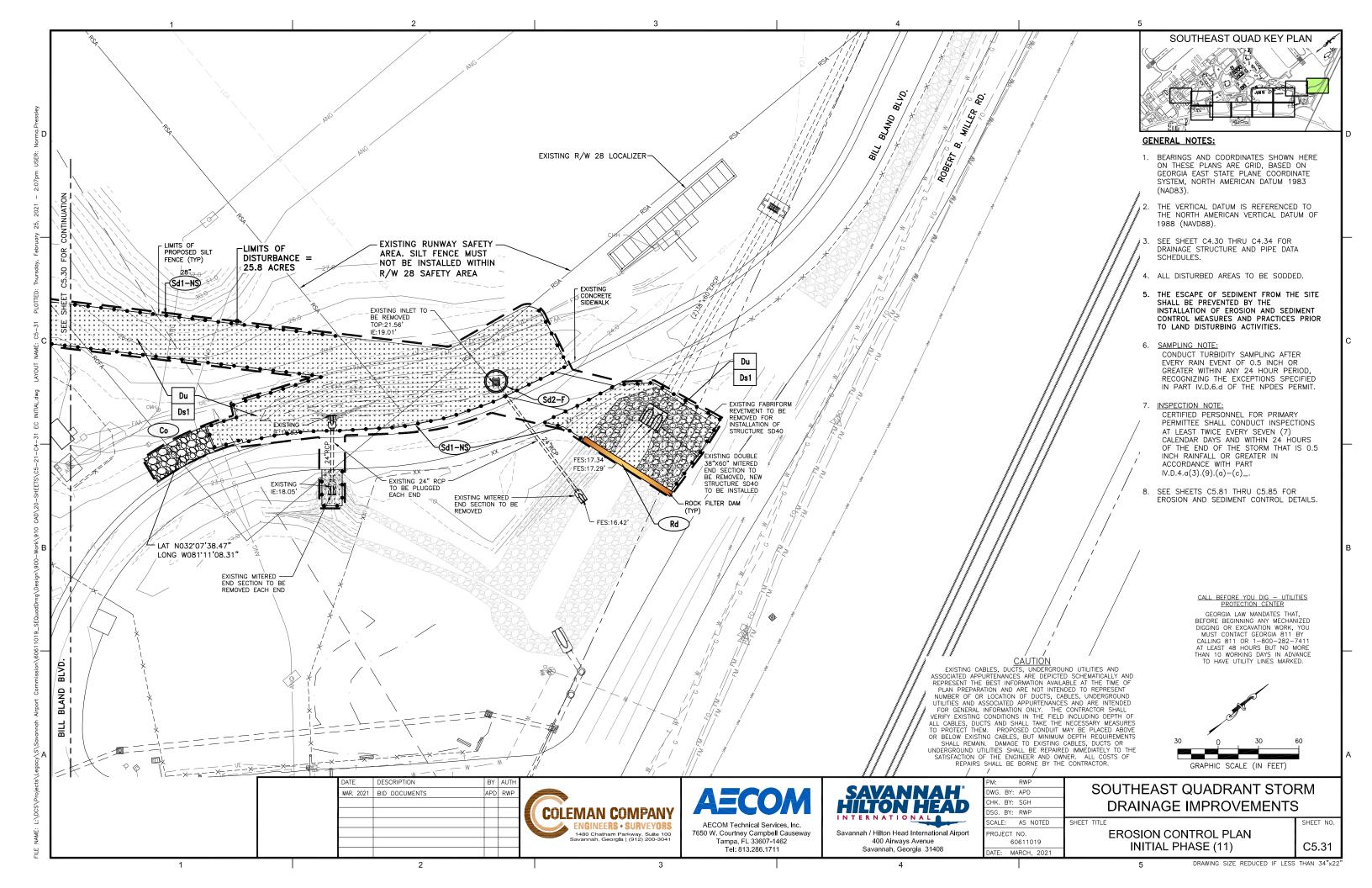


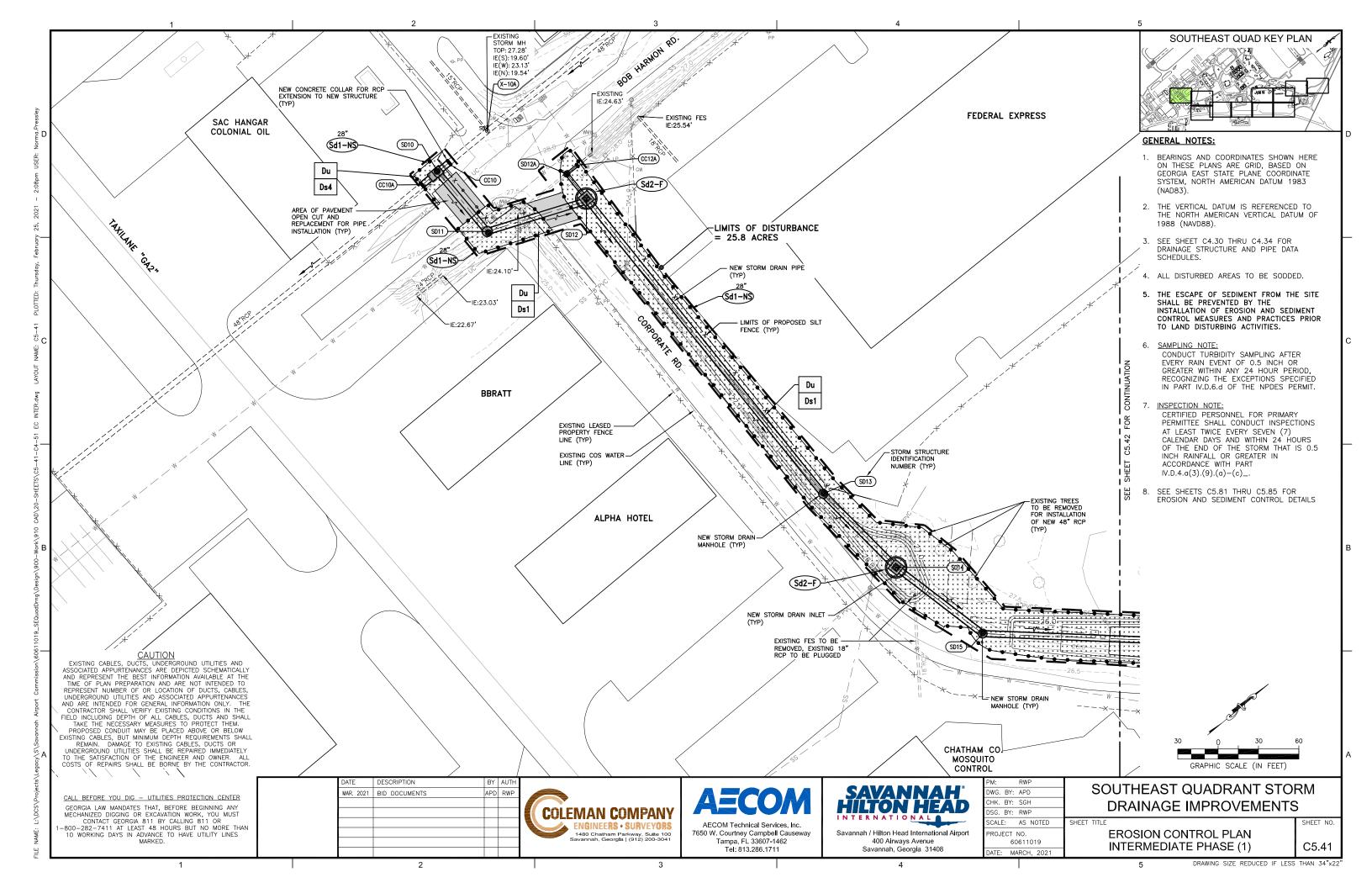


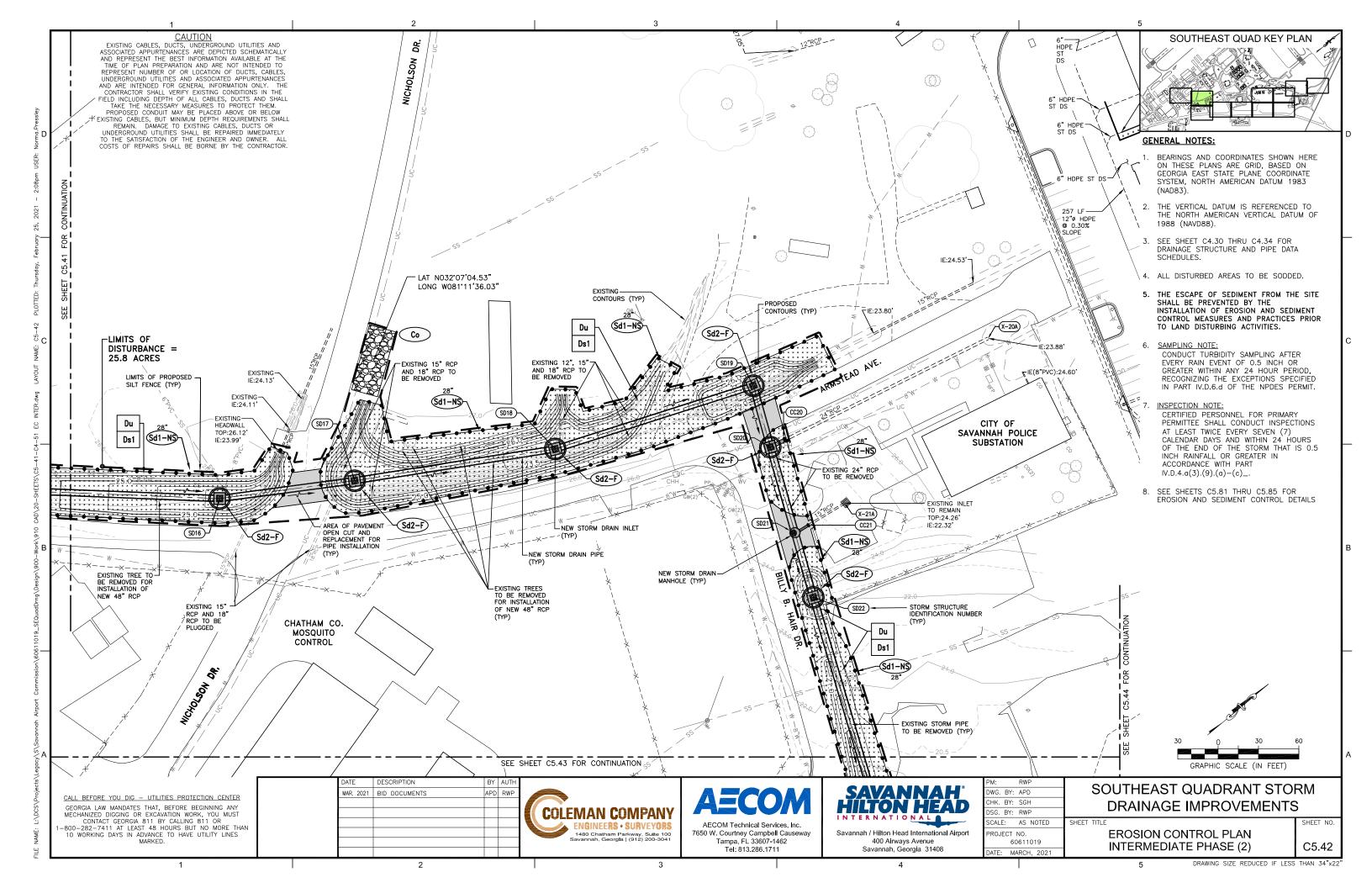


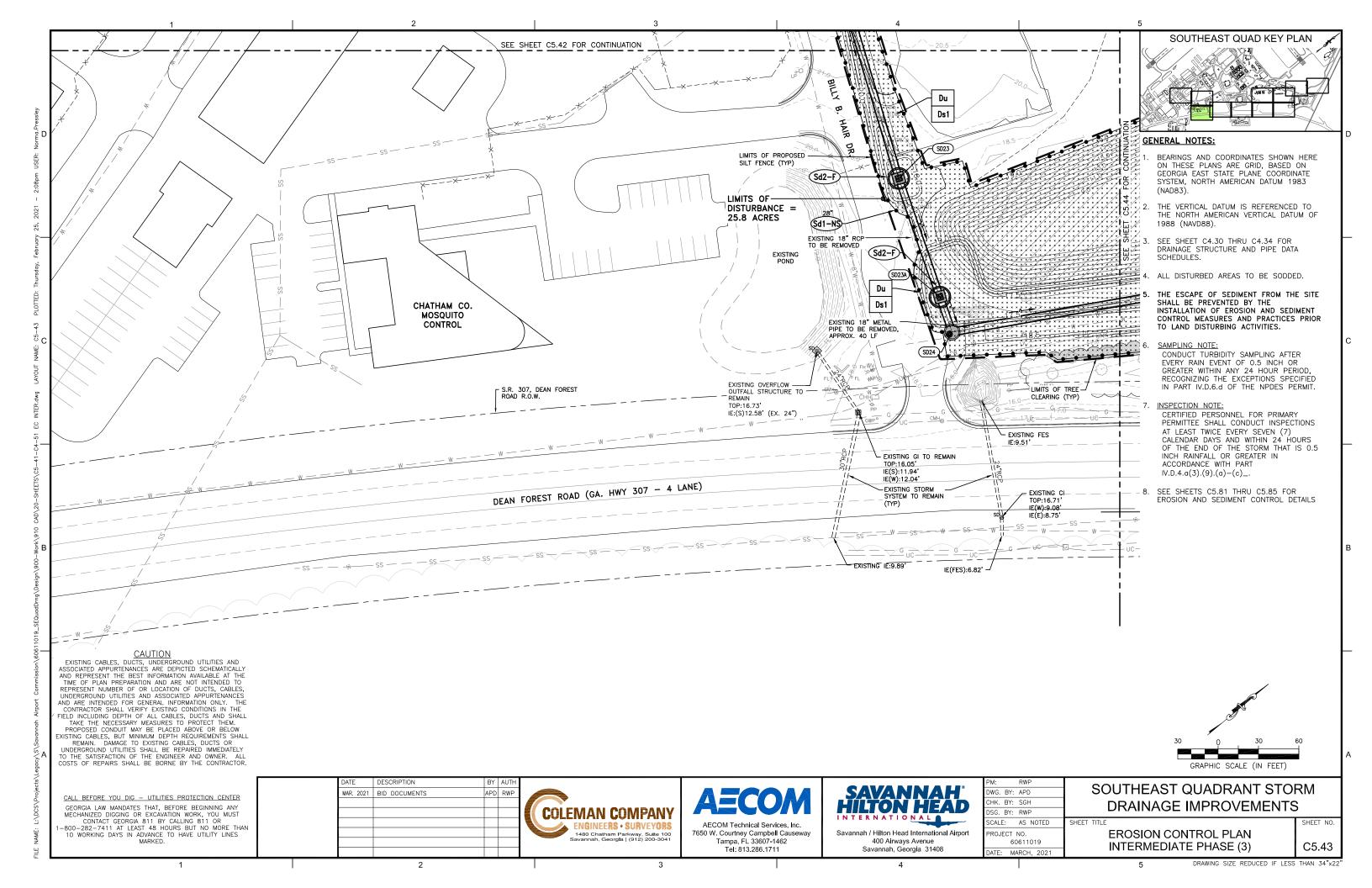


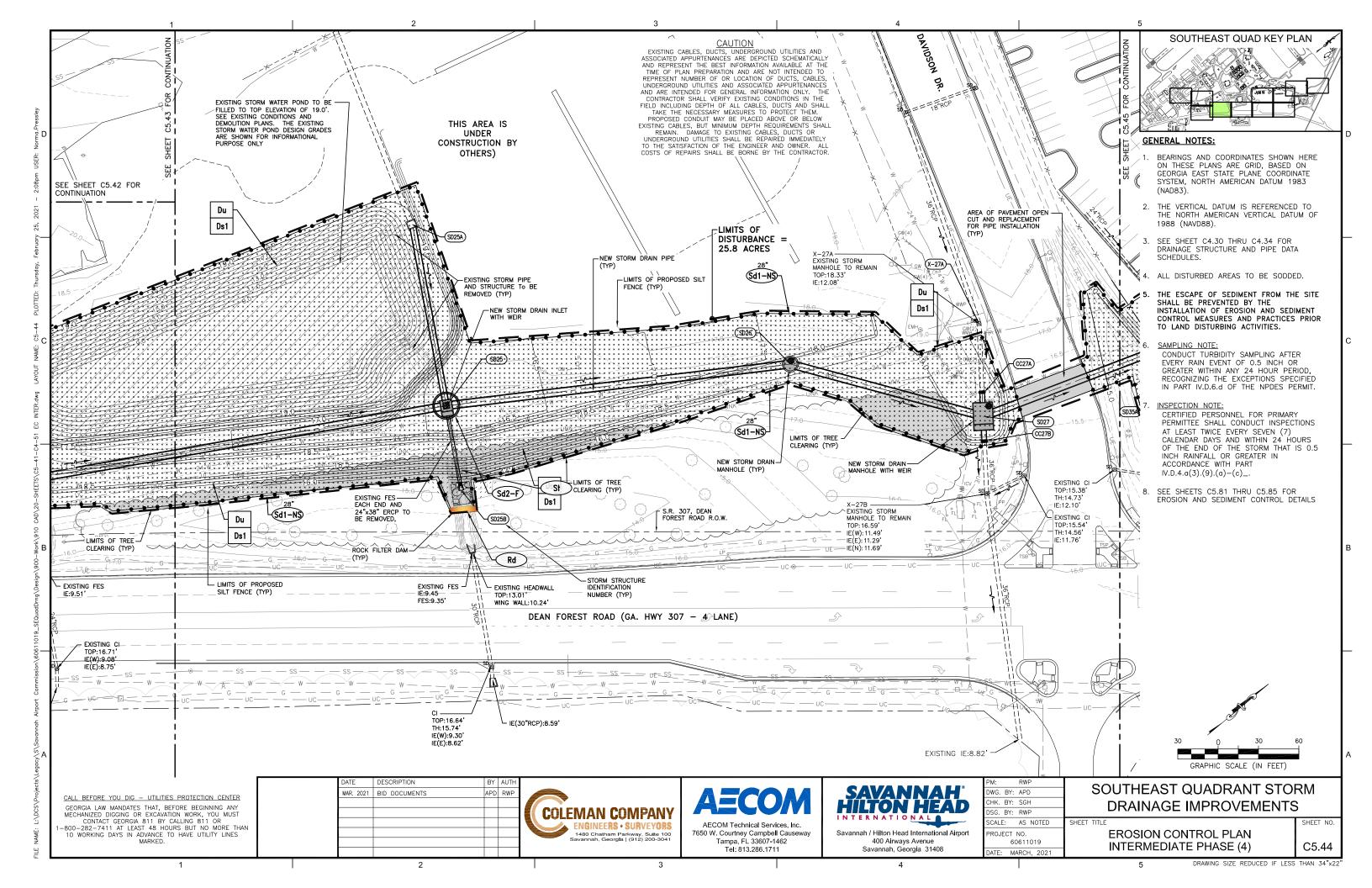


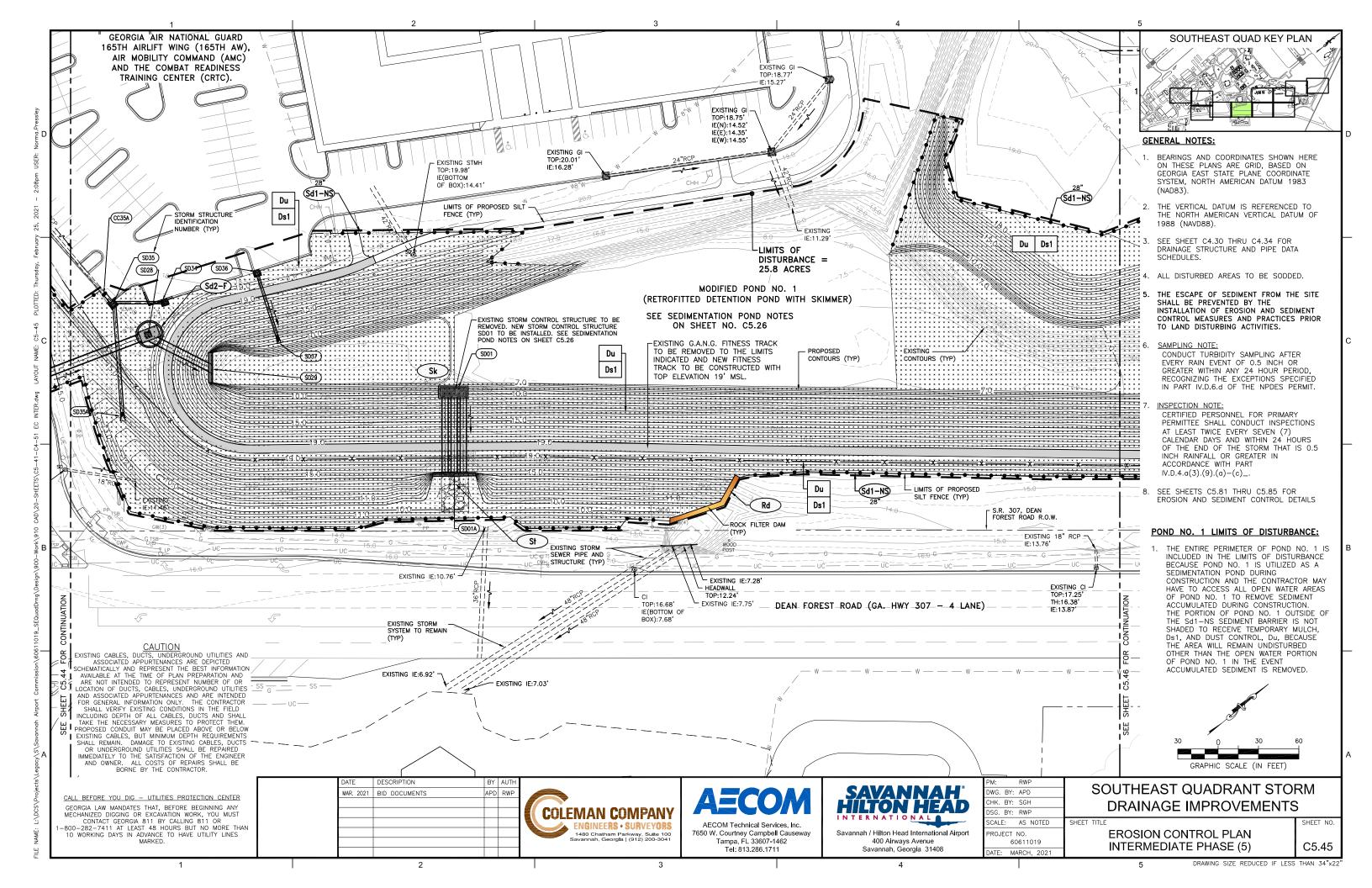


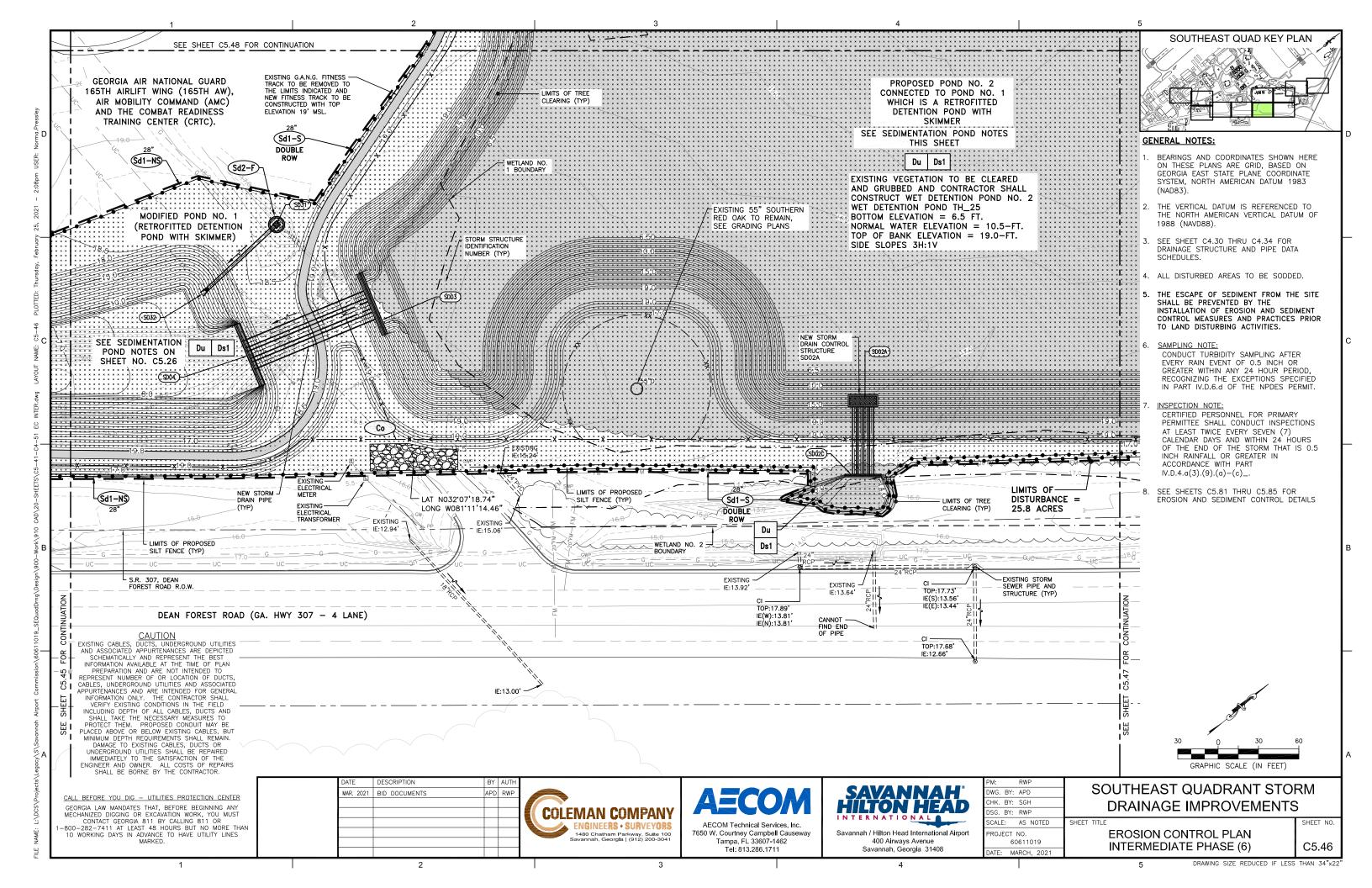


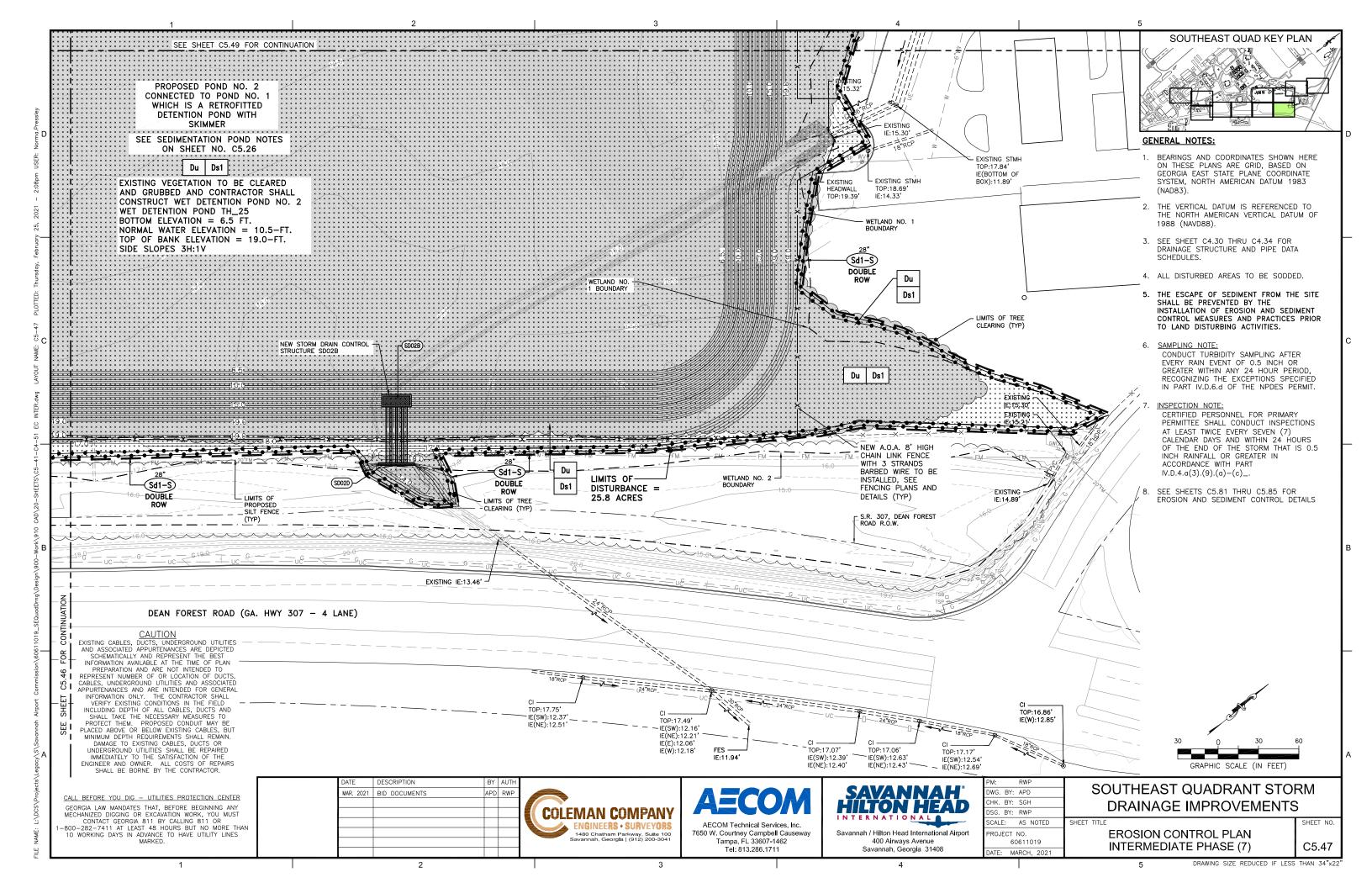


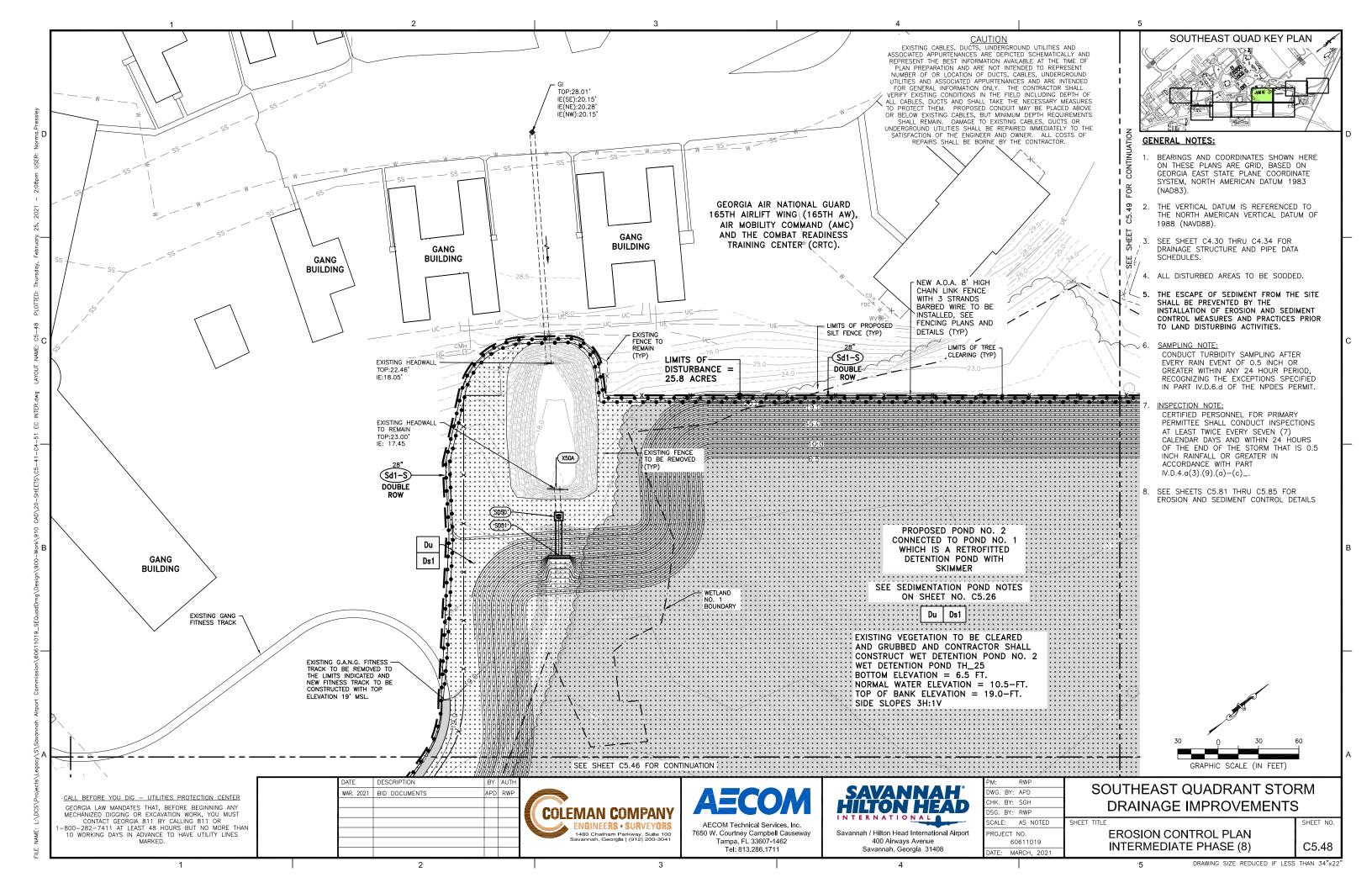


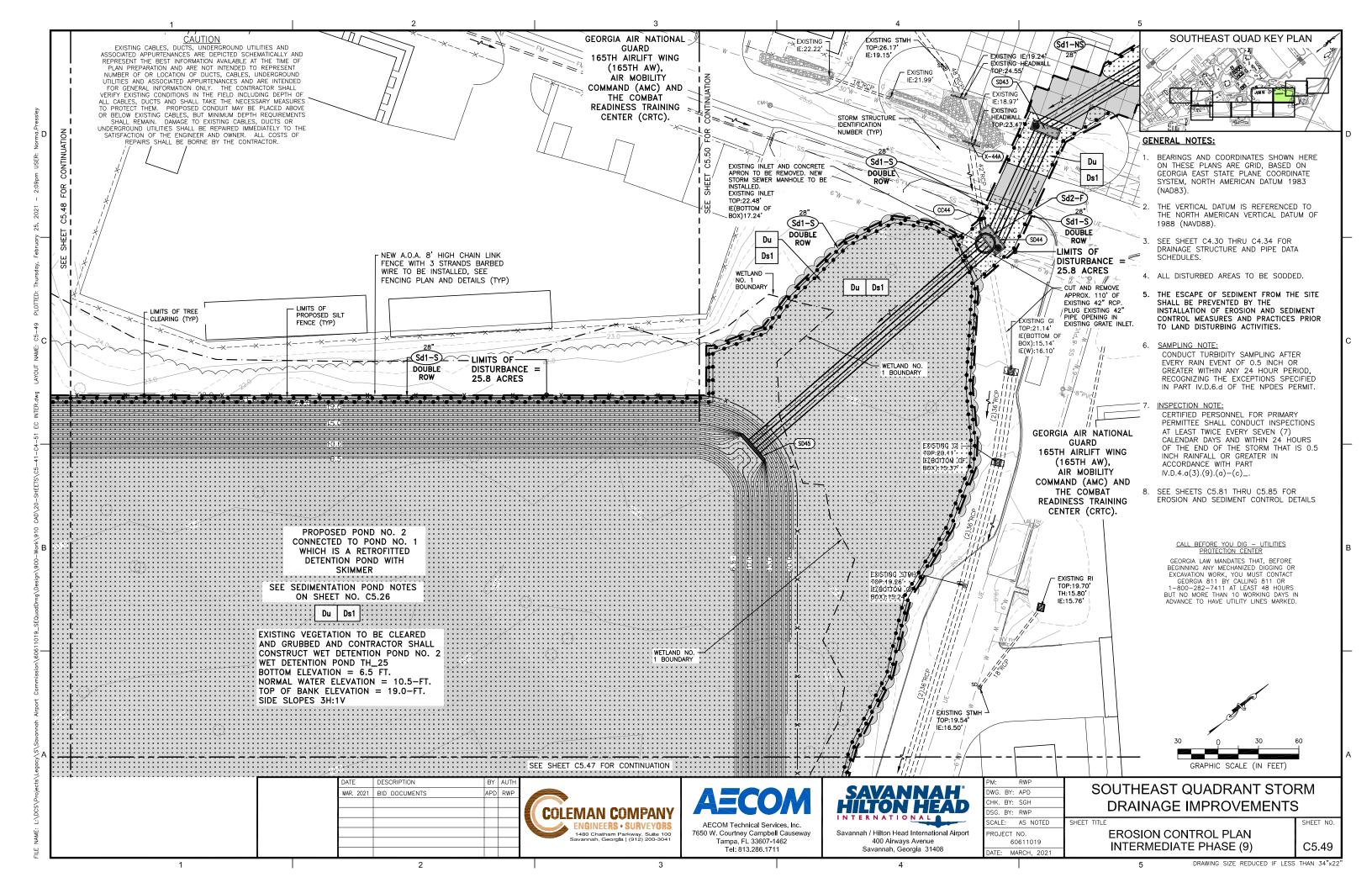


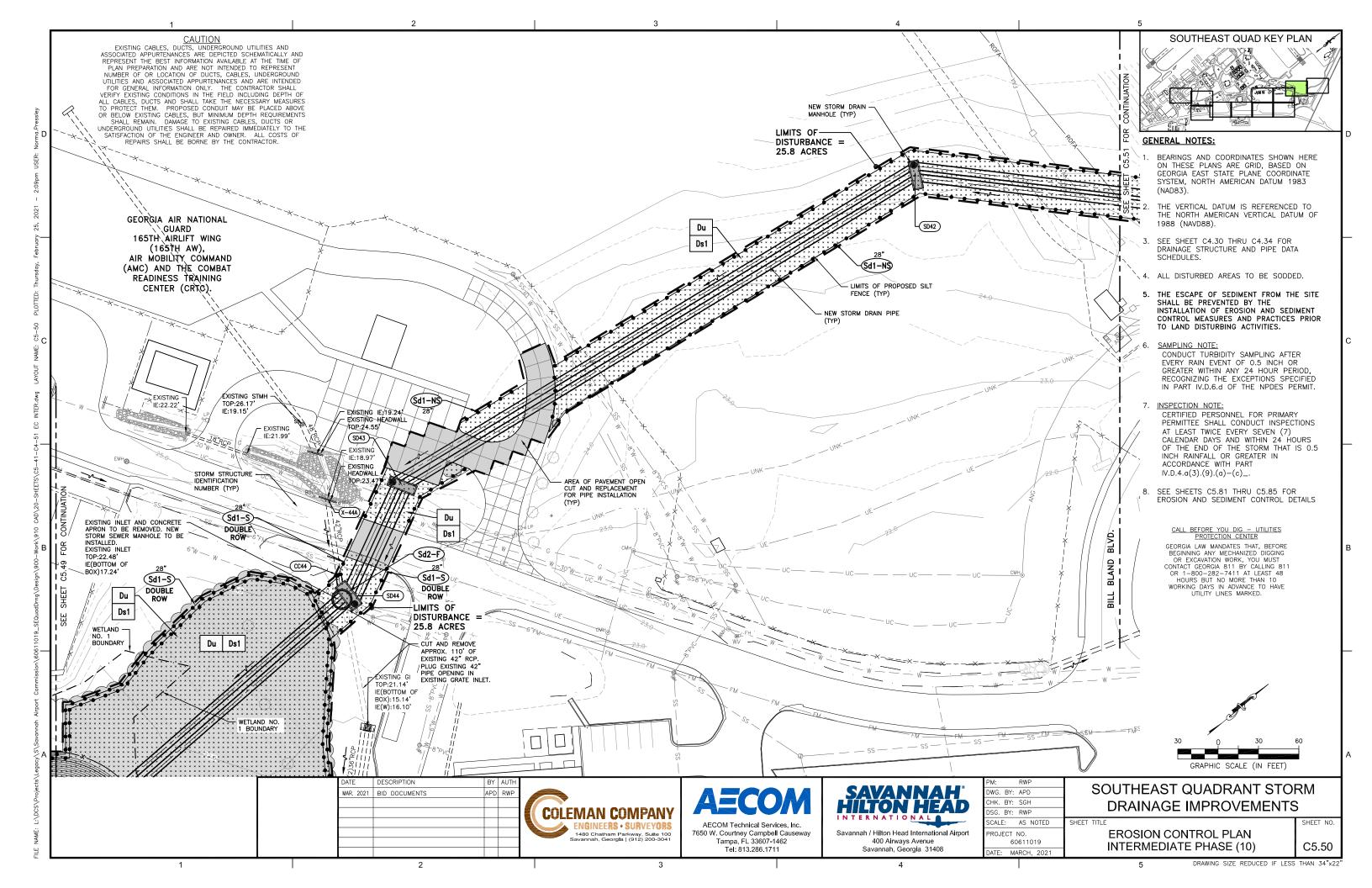


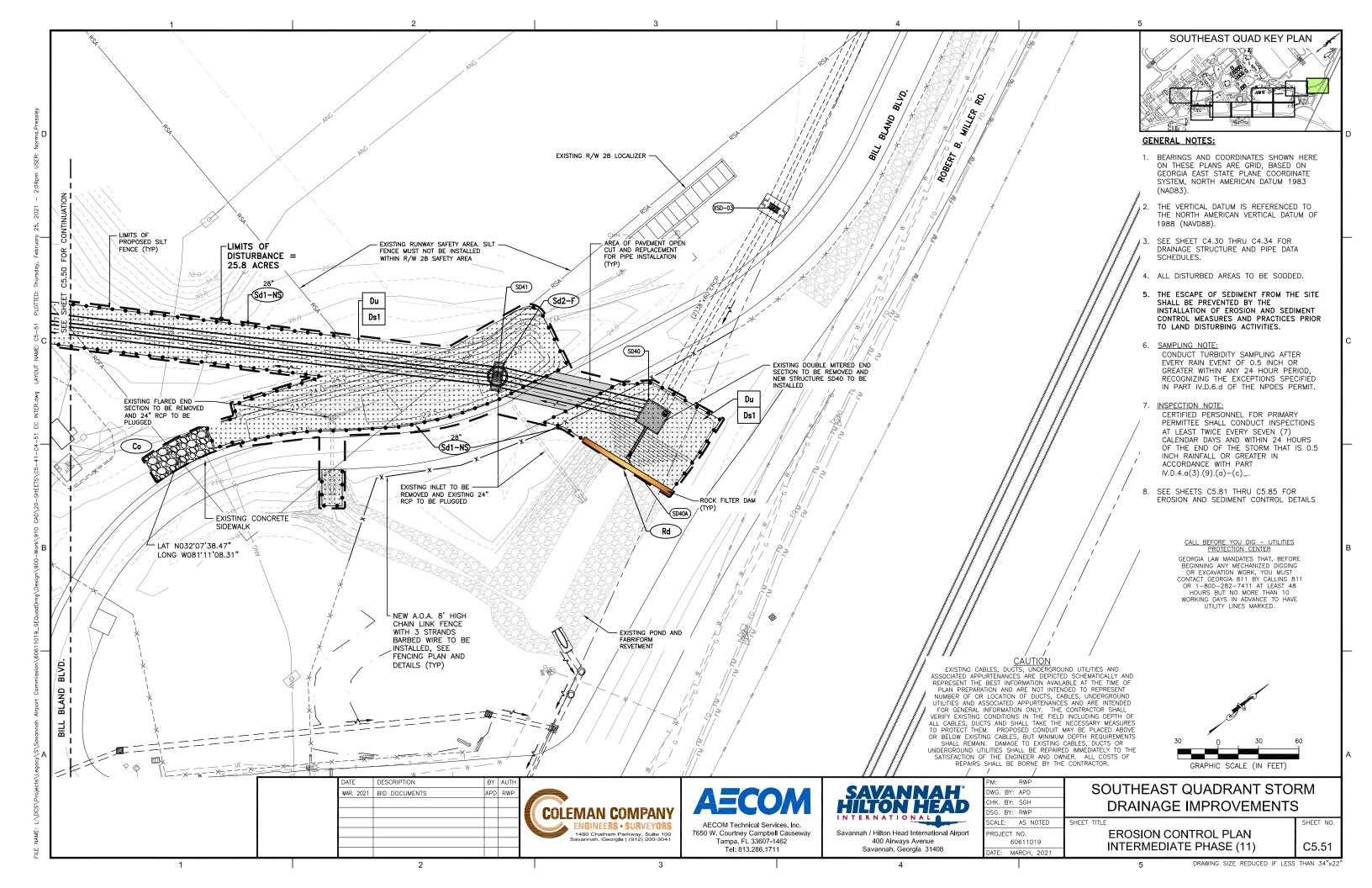


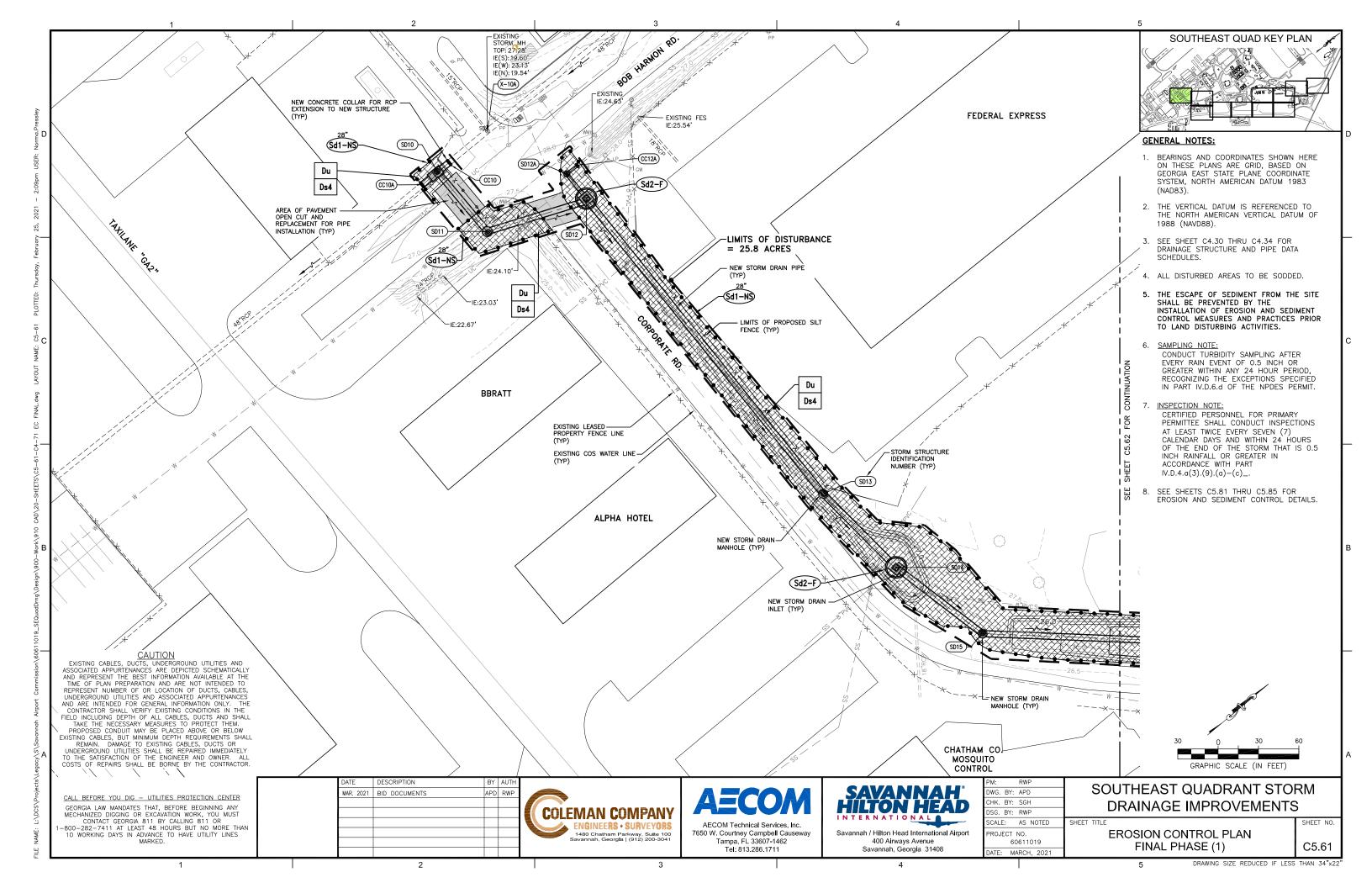


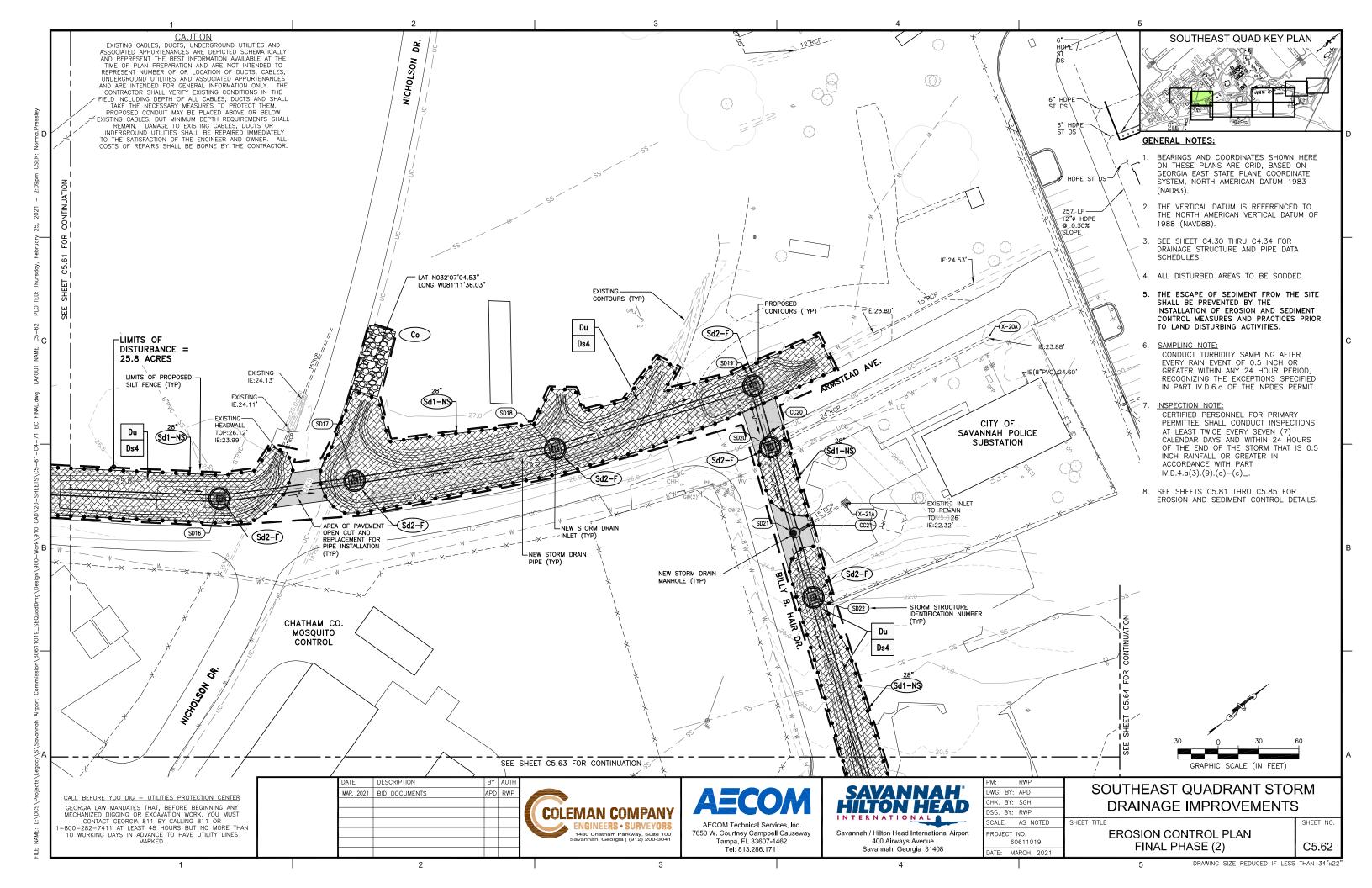


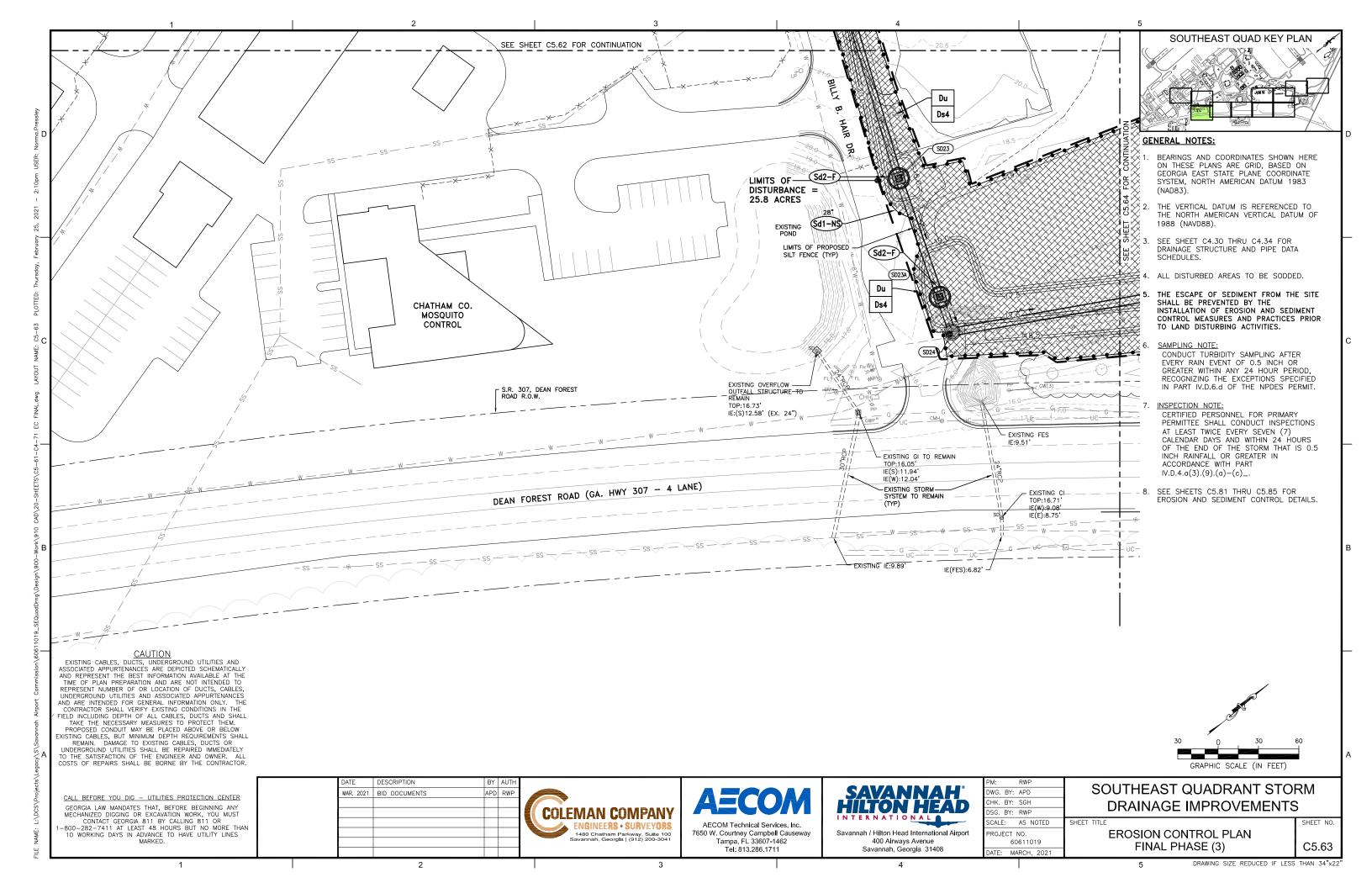


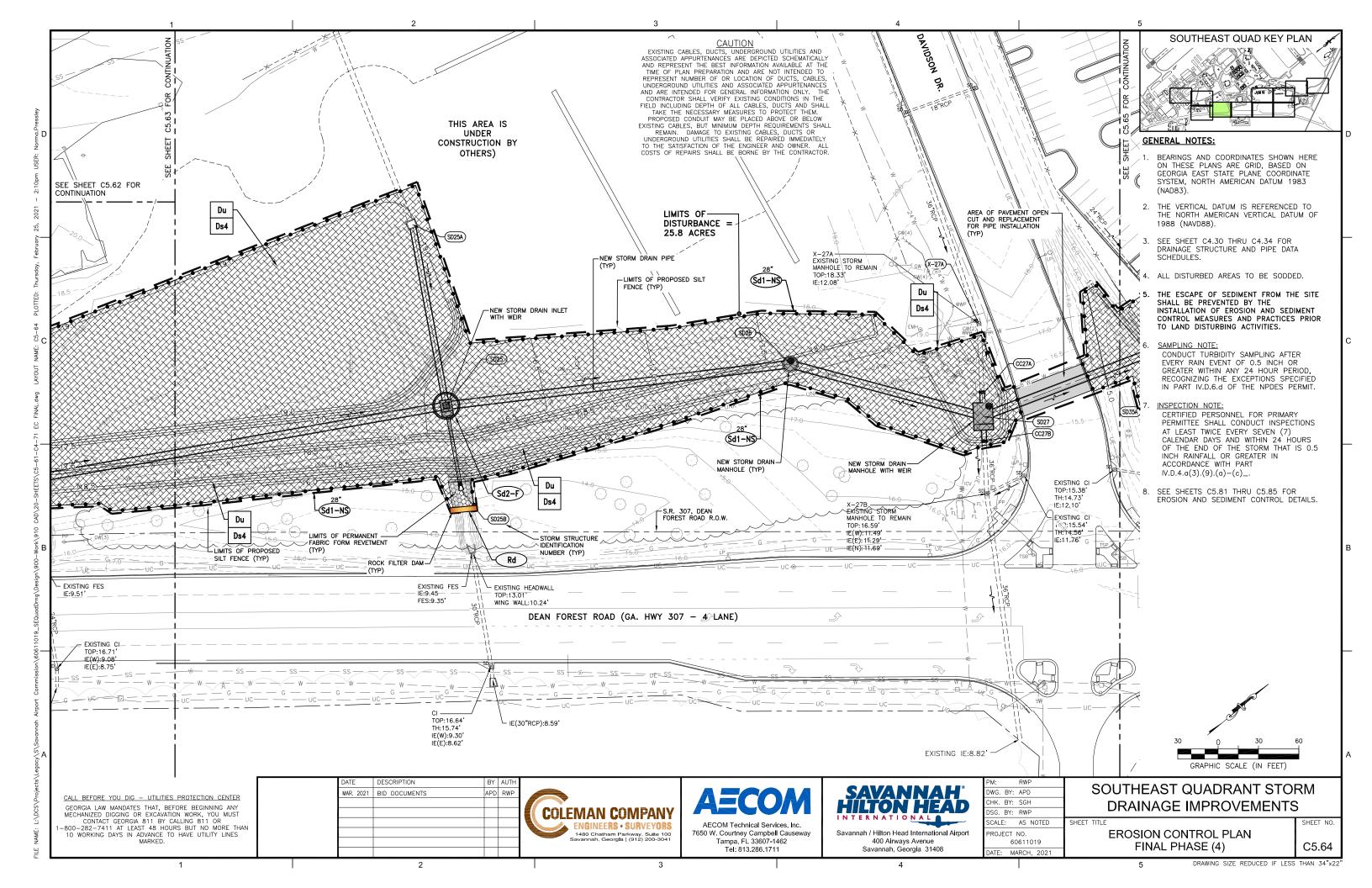


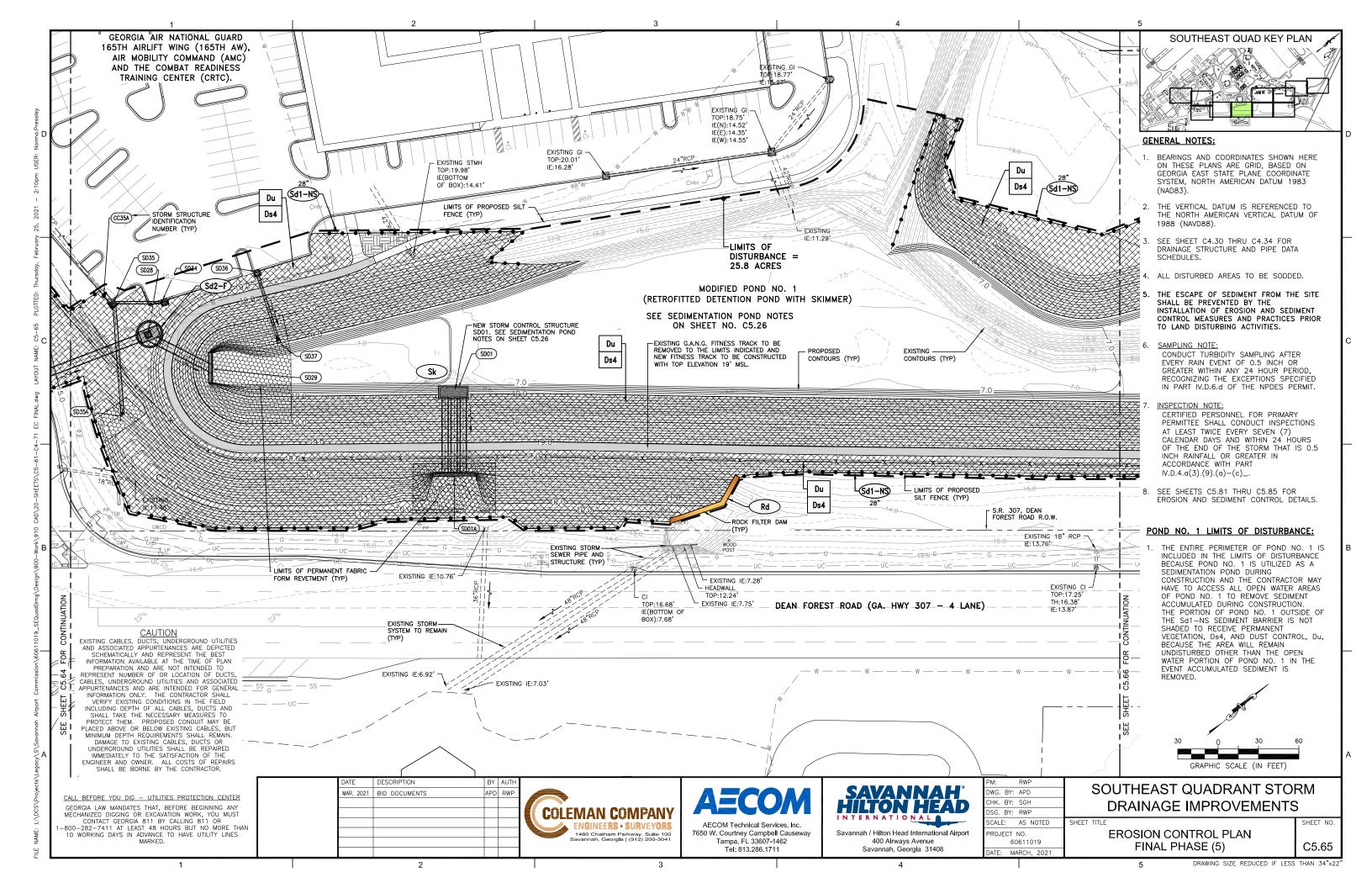


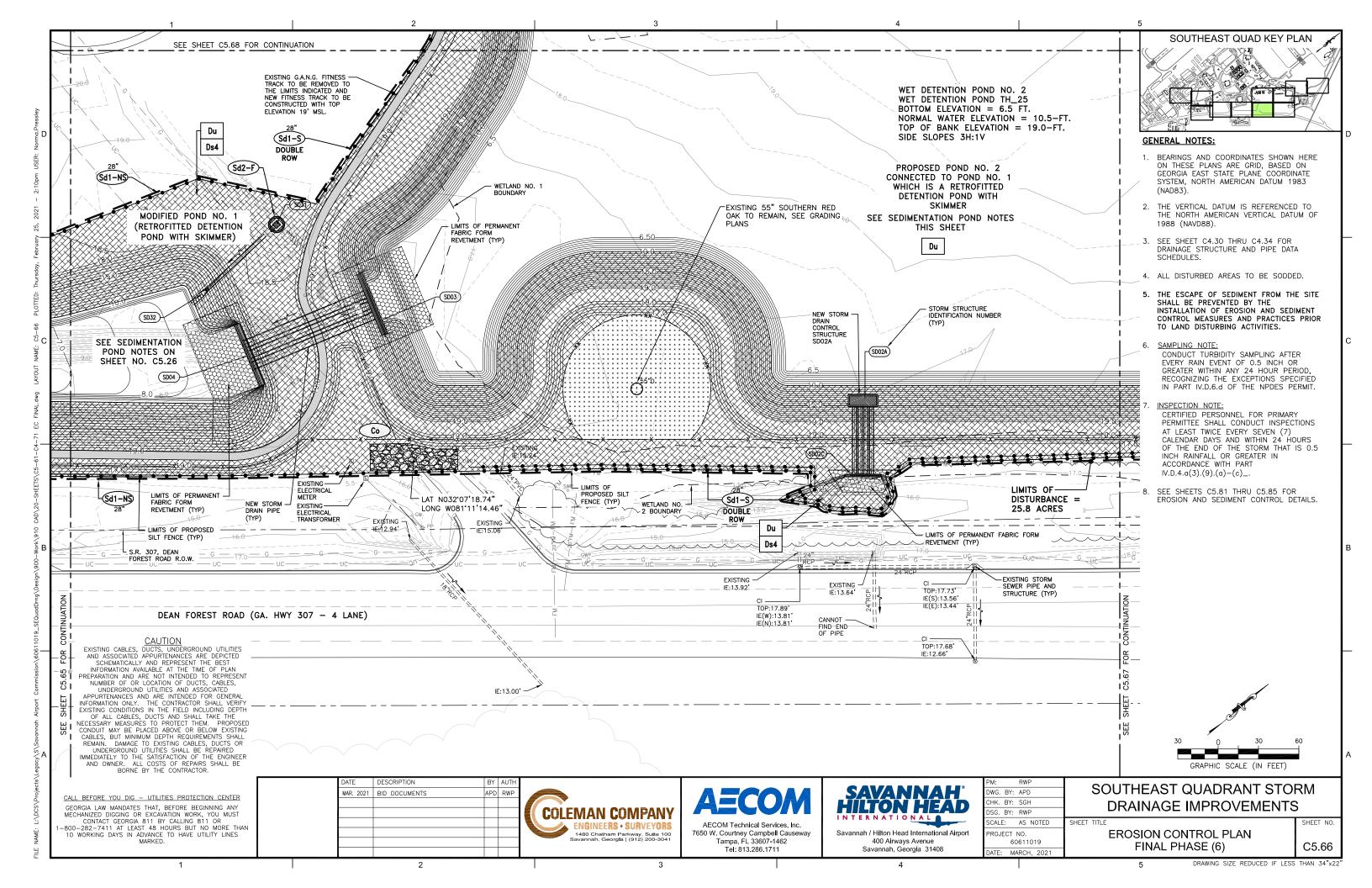


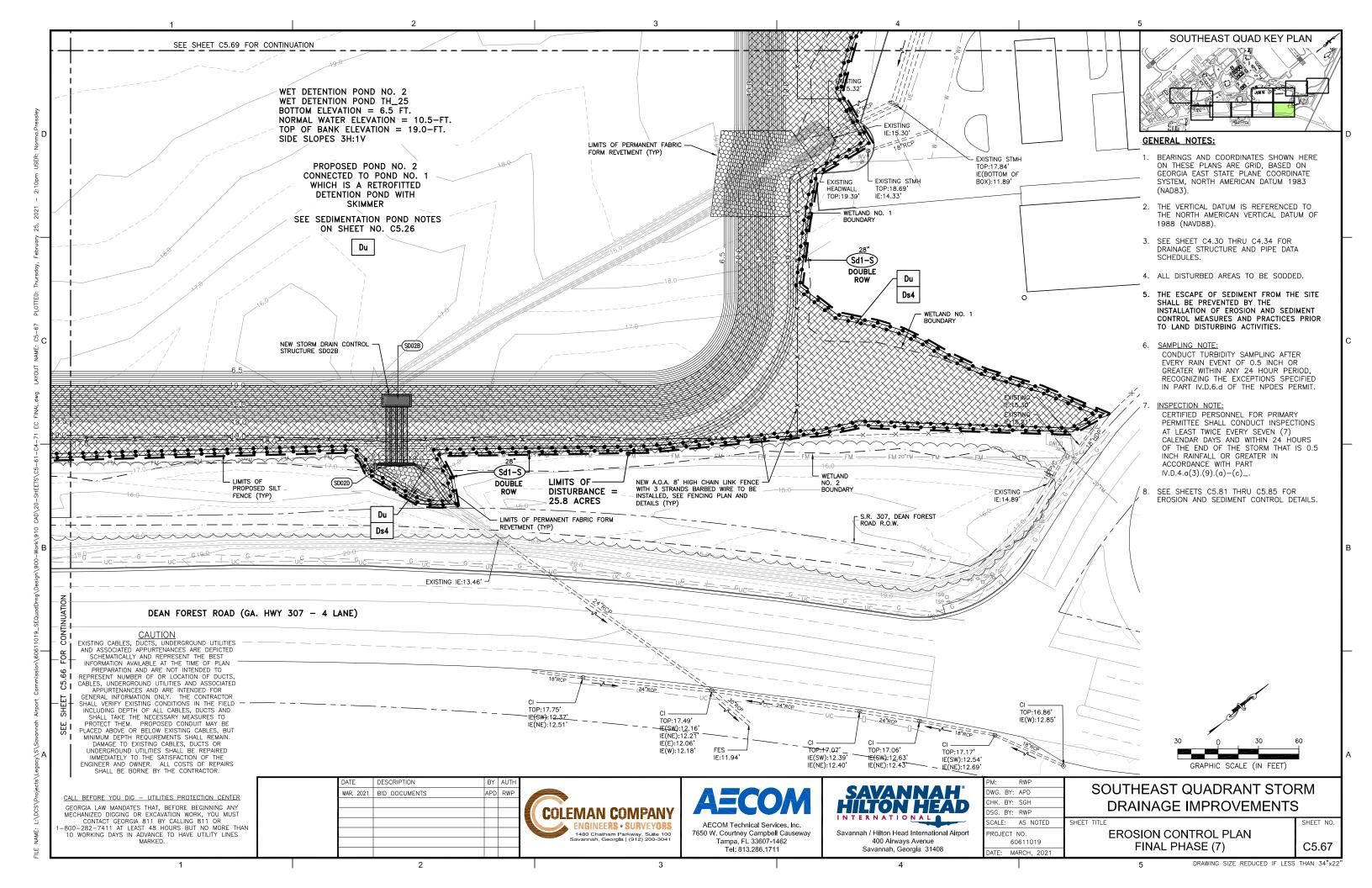


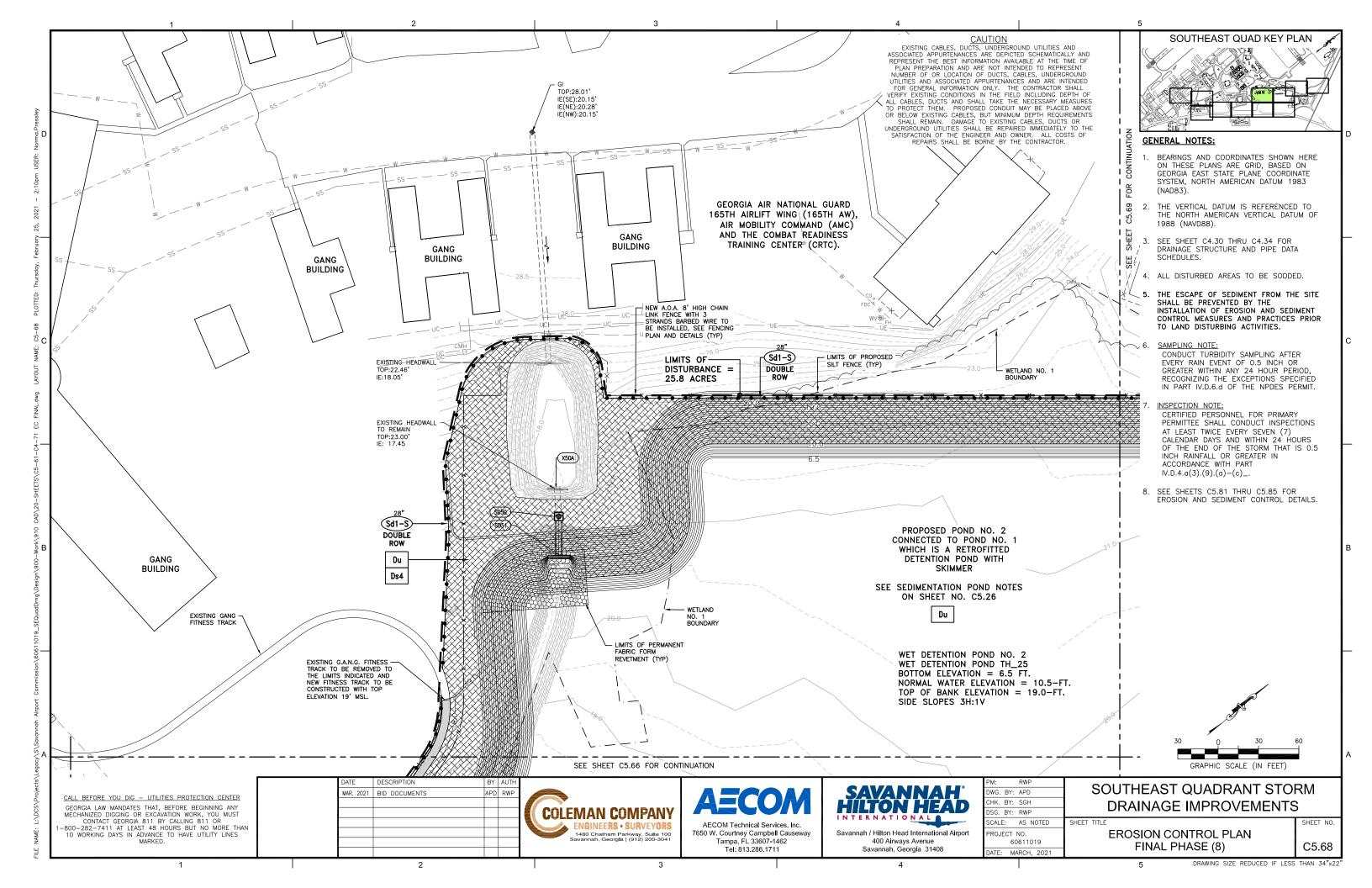


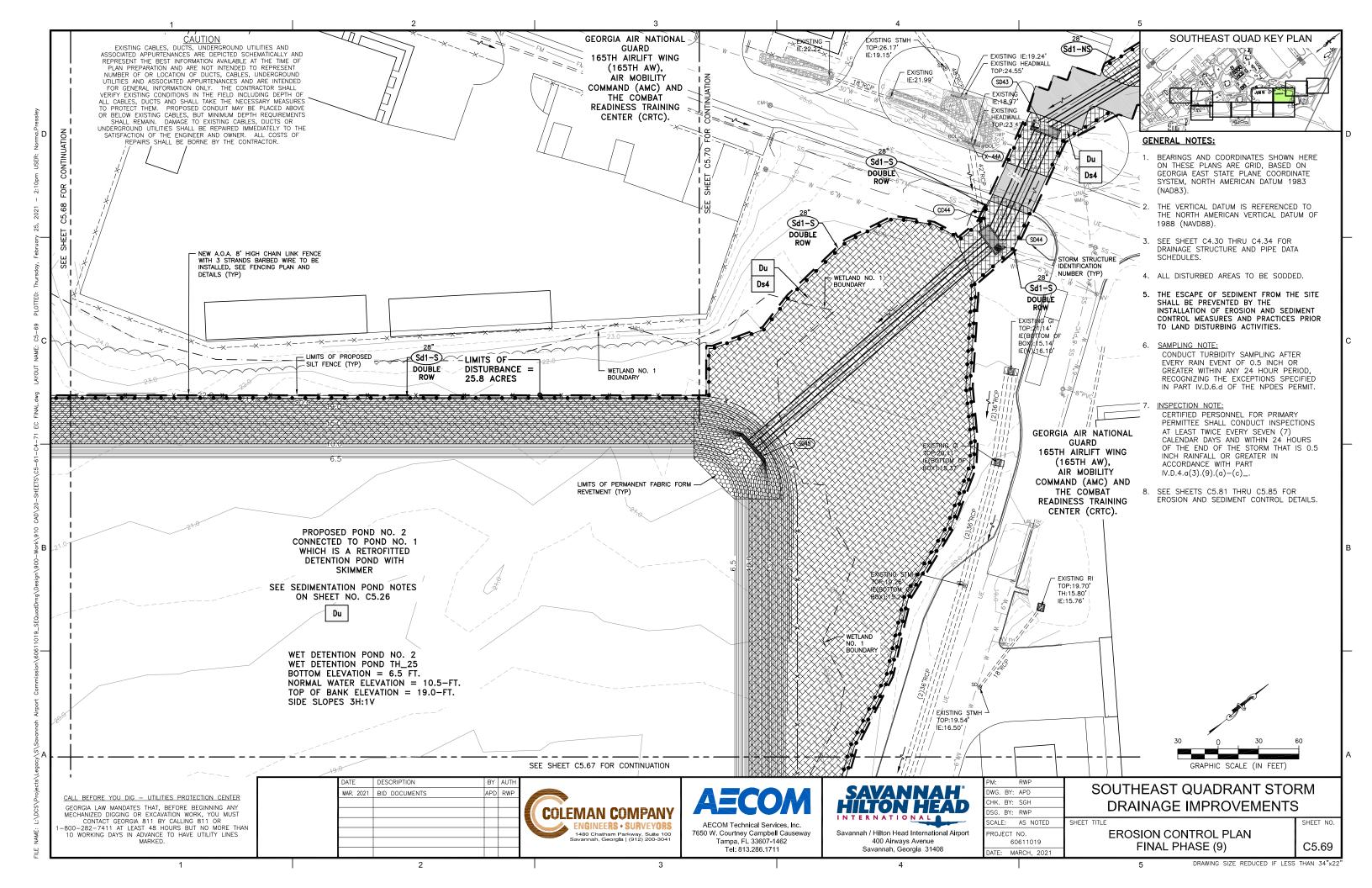


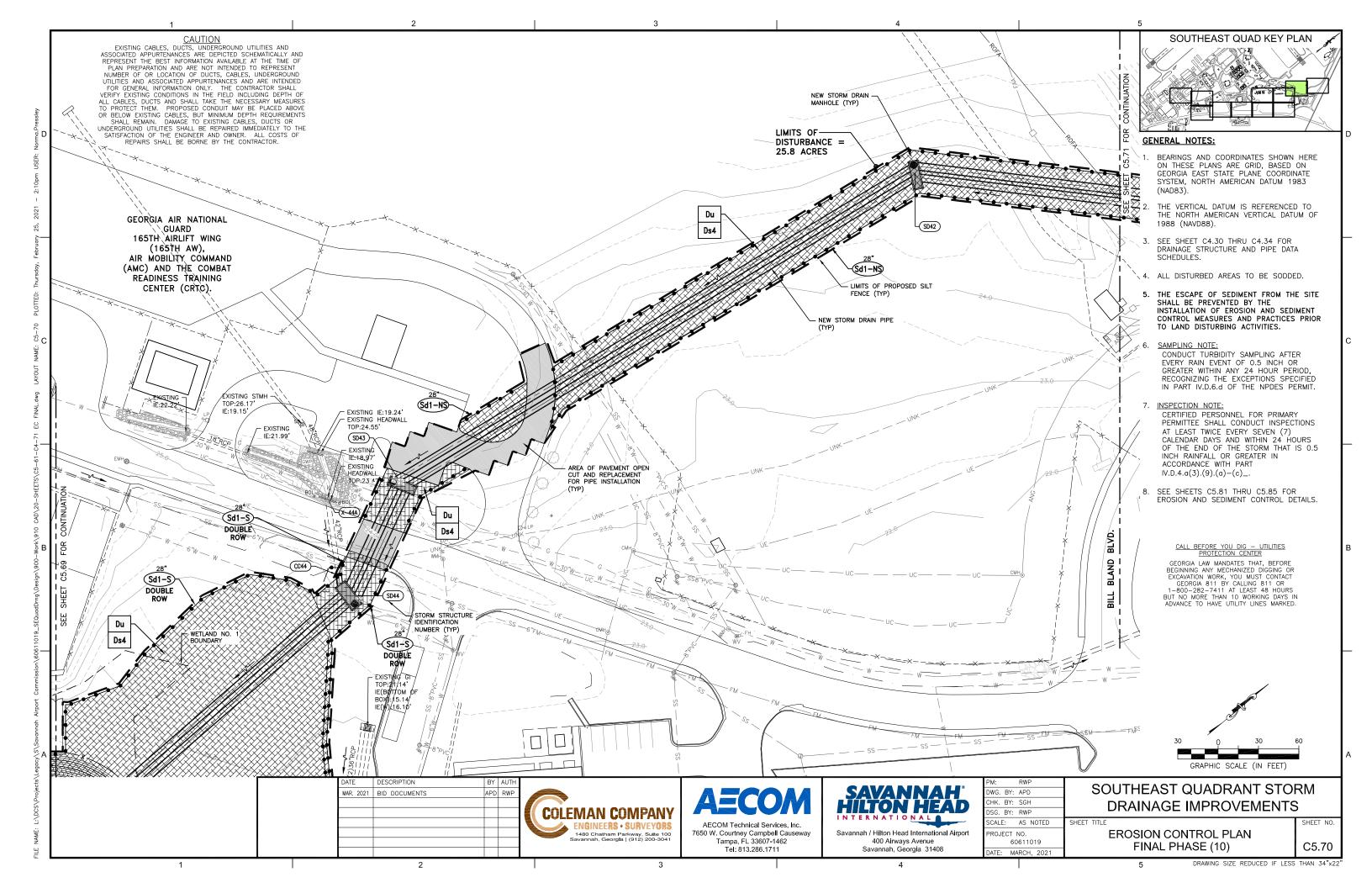


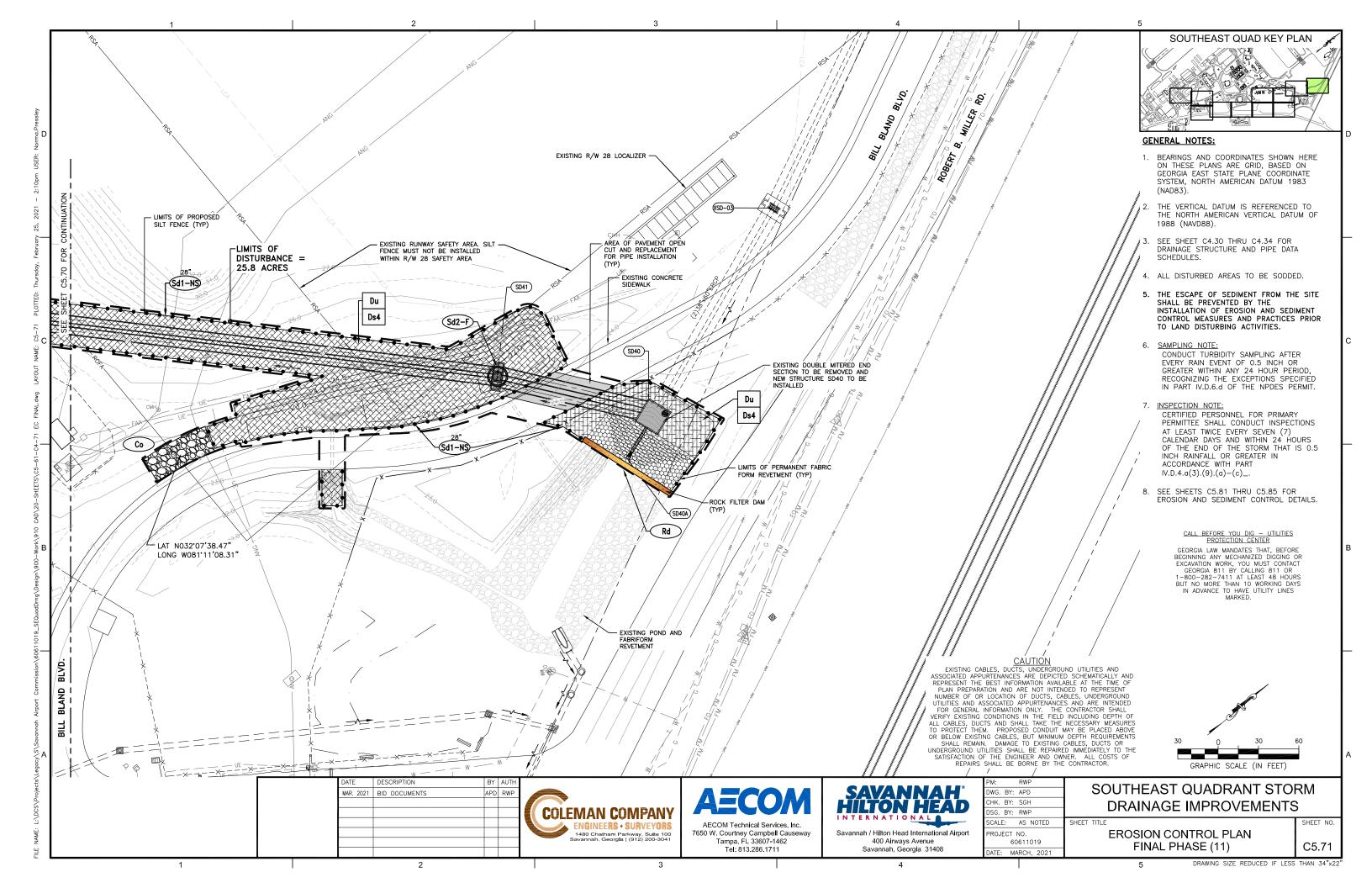


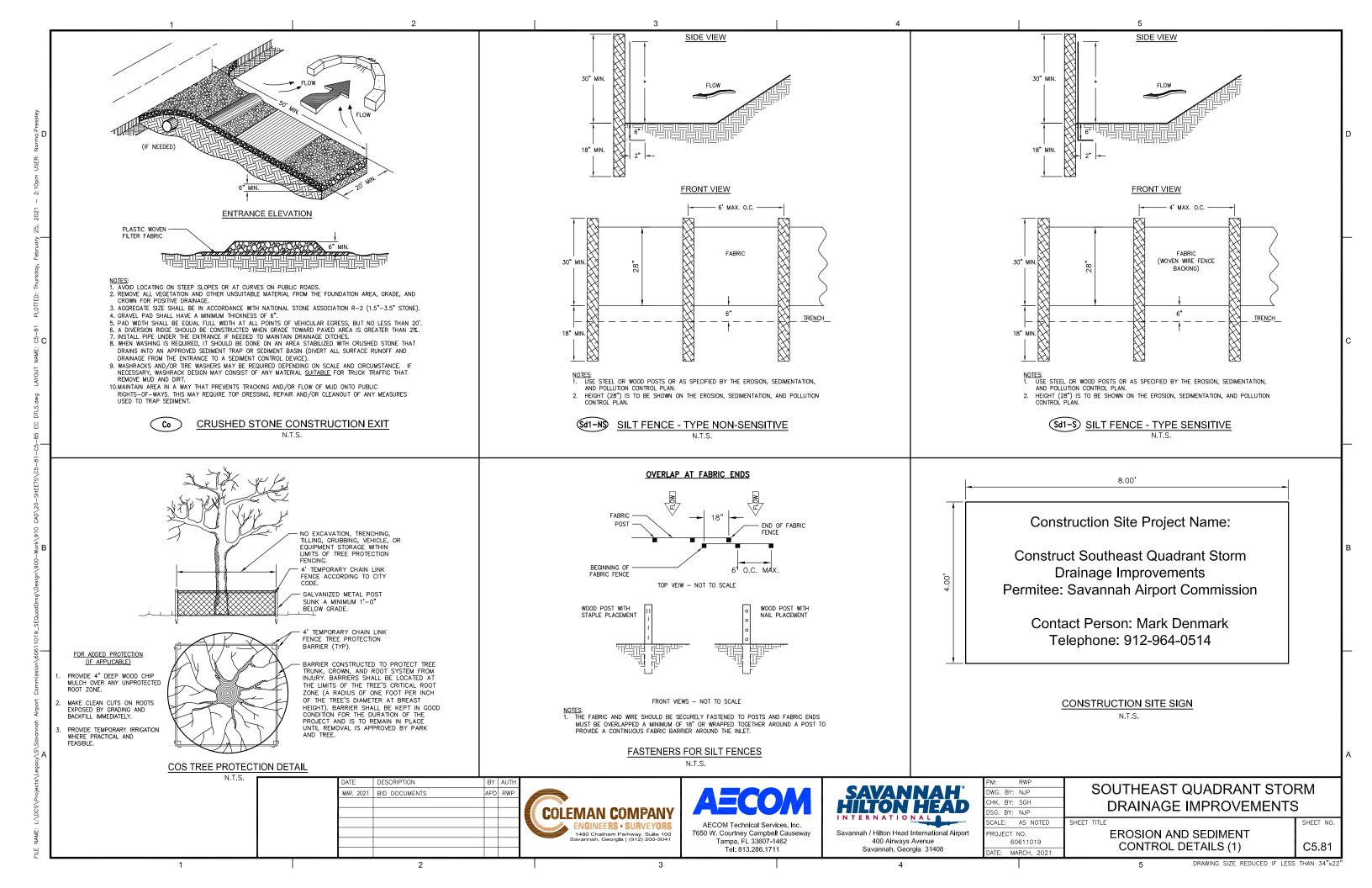






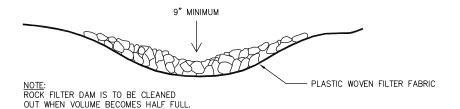


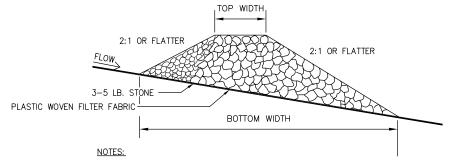




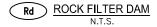
ROCK FILTER DAM SPECIFICATIONS LOCATON STONE SIZE SQUARE OPENING TOP BOTTOM UPSTREAM STORM (INCHES) WIDTH WIDTH DRAINAGE PLAN SHEETS VELOCITY (FT) (FT) STRUCTURE MAX. AVG.(2) MIN. C5.24 (INITIAL PHASE) C5.44 (INTERMEDIATE PHASE) C5.64 (FINAL PHASE) C5.45 (INTERMEDIATE PHASE) 8.00 12 C5.65 (FINAL PHASE) C5.31 (INITIAL PHASE) 12 C5.51 (INTERMEDIATE PHASE) 7.50 C5.71 (FINAL PHASE)

(2) AT LEAST 50% OF THE INDIVIDUAL STONE PARTICLES MUST BE FOUAL OR LARGER THAN THE AVG. SIZE

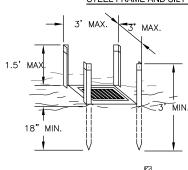




- (1) SEE TABLE ON THIS SHEET FOR ROCK SIZES AS DETERMINED FROM SPECIFICATIONS SET FORTH IN APPENDIX C OF THE GSWCC MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA 2016 EDITION
- (2) SEE TABLE ON THIS SHEET FOR TOP AND BOTTOM WIDTHS



STEEL FRAME AND SILT FENCE INSTALLATION

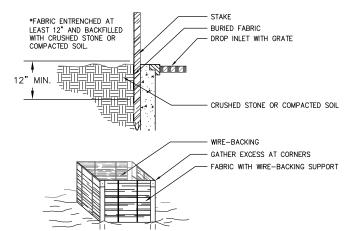


NOTES:

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).
 THE STEEL POSTS SHOULD BE SECURELY DRIVEN
- AT LEAST 18" DEEP.
 THE FABRIC SHOULD BE ENTRENCHED AT LEAST 12" AND THEN BACKFILLED WITH CRUSHED STONE



FABRIC AND SUPPORTING FRAME FOR **INLET PROTECTION**

SOD LAYOUT AND PREPARATION

LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.



<u>BUTTING</u>: ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

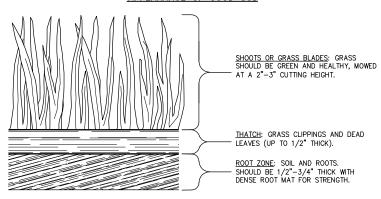
DIRECTIONS FOR INITIAL MAINTENANCE

Step 1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL

 $2\cdot \text{Water to a depth of 4" as needed.}$ water well as soon as the sod is laid.

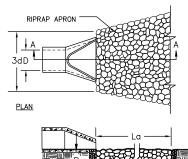
Step 3. MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER

APPEARANCE OF GOOD SOD



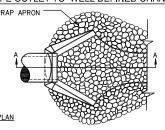
(Ds4) SOD MAINTENANCE AND INSTALLATION

PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL



- La IS THE LENGTH OF THE RIPRAP APRON.
- D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESSHAN 6".
- 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).
- A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.

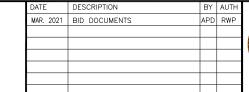
PIPE OUTLET TO WELL DEFINED CHANNEL



Sheet Vo.			25yr, 24hr			Apron Dimensions						
OUTE" >	Initial Phase		Pipe Dia (in)	Flow (cfs)	Velocity (fps)	Tai water Depth (ft.)	Length (La) (ft)	Wicth at feadwall (W.) (ft)	Downstream Width (W ₂) (ft)	Avg. Stone D amater (d ₁₀) ft)	Max Stone Diamater (ft)	Stone Depth (D (ft)
50253	C5.24	C5.44	14" x 23"ERCP	17.46	2.91	0.00	16	- 24	14	0.60	0.90	1.5
SD01A	C5.25	C5.45	(3) 48" RCP	161.82	7.21	5.90	30	20	2.0	0.80	1.20	2.0



SECTION A-A





SECTION A-A



AECOM Technical Services, Inc. 7650 W. Courtney Campbell Causeway Tampa, FL 33607-1462 Tel: 813.286.1711



Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

PM:	RWP
DWG. BY:	NJP
CHK. BY:	SGH
DSG. BY:	NJP
SCALE:	AS NOTED
PROJECT	NO.

60611019

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

SHEET TITLE **EROSION AND SEDMENT** CONTROL DETAILS (2)

SHEET NO. C5.82

DUST CONTROL ON DISTURBED AREAS

Controlling surface and air movement of dust on construction sites, roads, and demolition sites.

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

A TEMPORARY METHODS

Mulches. See standard Ds1 - Disturbed Area Stabilization (With Mulching Only) Synthetic resins may be used instead of asphalt to bind mulch material. Refer to standard Tb—Tackifiers and Binders. 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 Tb—Tackifiers and Binders.

Tillage. This practice is designed to roughen and bring clods to the surface. It is 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 controllina wind erosion.

Calcium Chloride. Apply at rate that will keep surface moist. May need

B. 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.

Topsoiling. This entails covering the surface with less erosive soil material. See standard Tp - Topsoiling.

Stone. Cover surface with crushed stone or coarse gravel. See standard

DUST CONTROL ON DISTURBED AREAS

SEE THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA, 2016 EDITION AND ANY APPLICABLE UPDATES BY THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION FOR ALL FIGURES AND TABLES INDICATED IN THE EROSION CONTROL PLANS IF NOT INDICATED IN THE DETAILS.

DISTURBED AREA STABILIZATION (WITH MULCHING ONLY)

DEFINITION

Applying plant residues or other suitable.

CONDITIONS

Mulch or temporary grassing shall be applied to all exposed areas within 14 days of disturbance. Mulch can be used as a singular erosion control device for up to six months, but is shall be applied at the appropriate depth, depending on the material used, anchored, and have a continuous 90% cover or greater of the soil surface. Maintenance shall be required to maintain appropriate depth and 90% cover. Temporary vegetation may be employed instead of mulch if the area will remain undisturbed for less than six months. If an area will remain undisturbed for greater than six months, permanent vegetative techniques

MULCHING WITHOUT SEEDING

his standard applied to grades or cleared areas where seedings may not have a suitable growing season to produce an erosion retardant cover but can be stabilized with a mulch

- 1. Grade to permit the use of equipment for applying and anchoring mulch.
- 2. Install needed erosion control measures as required such as dikes, diversions, berms, terraces and sediment barriers
- 3. Loosen compact soil to a minimum depth of 3 inches.

Mulchina Materials

Select one of the following materials and apply at the depth indicated:

- 1. Dry straw or hay shall be applied at a depth of 2 to 4 inches providing complete soil coverage. One advantage of this material is easy application
- 2.2Wood waste (chips, sawdust or bark) shall be applied at a depth of 2 to 3 inches. Organic material from the clearing stage of development should remain on site, be chipped, and applied as mulch. This method of mulching can greatly reduce erosion
- 3. Cutback asphalt (slow curing) shall be applied at 1200 gallons per acre (or 1/4 gallon pe
- 4. Polyethylene film shall be secured over banks or stockpiled soil material for temporary protection. This material can be salvaged and reused

Applying Mulch

When mulch is used without seeding, mulch shall be applied to provide full coverage of the exposed area.

- 1. Dry straw or hay mulch and wood chips shall be applied uniformly by hand or by
- 2.1f the area will eventually be covered with perennial vegetation, 20-30 pounds of nitrogen per acre in addition to the normal amount shall be applied to offset the uptake of nitrogen caused by the decomposition of the organic mulches.
- 3. Cutback asphalt shall be applied uniformly. Care should be taken in areas of pedestrian traffic due to problems of "tracking-in" or damage to shoes, clothing, etc.
- 4. Apply polyethylene film on exposed greas.

- 1. Straw or hav mulch can be pressed into the soils with a disk harrow with the disk set straight or with a special "packer disk". Disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disk should be dull enough not to cut the mulch but to press it into the soil leaving much of it an erect position. Straw or hay mulch shall be anchored immediately after application. Straw or hav mulch spread with special blower-type equipment may be anchored with emulsified asphalt (Grade AE-5 or SS-1). The asphalt emulsion shall be sprayed onto the mulch as it is ejected from the machine. Use 100 gallons of emulsified asphalt and 100 gallons of water per ton of mulch. Tackifers and binders can be substituted for emulsified asphalt. Please refer to specification Tb - Tackifers and Binders. Plastic mulch or netting with mesh no larger than one inch by one inch shall be installed according to manufacturer's specifications.
- 2. Netting of the appropriate size shall be used to anchor wood waste. Openings of the netting shall not be larger than the average size of the wood waste chips.
- 3. Polyethylene film shall be anchor trenched at the top as well as incrementally as necessary.

DISTURBED AREA STABILIZATION (WITH Ds1 MULCHING ONLY)

N.T.S.

DEFINITION

A permanent vegetation using sods on highly erodible or critically eroded lands.

CONDITIONS

This application is appropriate for greas which require immediate vegetative covers, drop inlets, grass swales, and waterways with intermittent flow

CONSTRUCTION SPECIFICATIONS INSTALLATION

- Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to soil surfaces only and not frozen surfaces, or gravel type
- Topsoil properly applied will help guarantee stand. Don't use topsoil recently treated with herbicides or soil sterilants.
- Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-6.1. For fall planting of warm season species, half the fertilizer should be applied at planting and the other half in the spring.

Table 6-6.1. Fertilizer Requirements for Soil Surface Application

FERTILIZER TYPE	FERTILIZER RATE (lbs./acre)	FERTILIZER RATE (lbs./sq. ft.)	SEASON
10-10-10	1000	0.025	Fall

- Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 tons per

<u>Installation</u>

- Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod.
- On slopes steeper than 3:1, sod should be anchored with wooden or biodegradable pins or other approved methods.

NTS

- Installed sod should be rolled or tamped to provide good contact between sod and soil.
- Irrigate sod and soil to a depth of 4" immediately after installation.
- Sod should not be cut or spread in extremely wet or dry weather.
- Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks.

DISTURBED AREA STABILIZATION (WITH SODDING)

GRASS TYPE	VARIETIES (lbs./acre)	RESOURCE AREA	GROWING SEASON
Bermudagrass	Common Tifway Tifgreen Tiflawn	M-L,P,C P,C P,C P,C	Warm Weather
Bahiagrass	Pensacola	P,C	Warm Weather
Centipede	-	P,C	Warm Weather
St. Augustine	Common Bitterblue Raleigh	С	Warm Weather
Zoysia	Emerald Meyer	P,C	Warm Weather
Tall Fescue	Kentucky	M-L,P	Cooler Weather

Sod should be cut and installed within 36 hours of digging.

See Figure 6-4.1 for your Resource Area.

Table 6-6.2. Sod Planting Requirements

MAINTENANCE

MATERIALS

available.

- Re-sod areas where an adequate stand of sod is not obtained.
- New sod should be mowed sparingly. Grass height should not be cut less than 2"-3" or as specified.

- Sod selected should be certified. Sod grown in the general area of the project is

- Sod should be machine cut and contain 34" ± 14" of soil, not including shoots or

- Sod should be cut to the desired size within $\pm 5\%$. Torn or uneven pads should be

- Avoid planting when subject to frost heave or hot weather if irrigation is not

- The sod type should be shown on the plans or installed according to Table 6-6.2.

- Apply one ton of agricultural lime as indicated by soil test or every 4-6 years.
- $-% \frac{1}{2}\left(-\right) =-\left(-\right) \left(-\right) =-\left(-\right) \left(-\right)$

Table 6-6.3 Fertilizer Requirements for Sod

TYPES OF SPECIES	PLANTING YEAR	FERTILIZER (N-P-K)	RATE (lbs./acre)	NITROGEN TOP DRESSING RATE (lbs./acre)
Cool	First	6-12-12	1500	50-100
Season	Second	6-12-12	1000	-
Grasses	Maintenance	10-10-10	400	30
Warm	First	6-12-12	1500	50-100
Season	Second	6-12-12	800	50-100
Grasses	Maintenance	10-10-10	400	30

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400 Airways Avenue	
Savannah, Georgia 31408	DATE:

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DWG. BY:	NJP
CHK. BY:	SGH
DSG. BY:	NJP
SCALE:	AS NOTED
PROJECT	NO.
60	611019

MARCH

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS SHEET TITLE SHEET NO.

EROSION AND SEDIMENT CONTROL DETAILS (3)

C5.83

DRAWING SIZE REDUCED IF LESS THAN 34"x22

Tel: 813 286 1711

THE SURFACES TO BE PROTECTED SHALL BE PREPARED AND GRADED TO SUCH AN EXTENT THAT THEY ARE NORMALLY STABLE IN THE ABSENCE OF EROSIVE FORCES. A FABRIC ENVELOPE IN A MAT CONFIGURATION SHALL BE POSITIONED OVER THESE SURFACES AND FILLED WITH A PUMPABLE SAND/CEMENT GROUT IN SUCH A WAY AS TO FORM A STABLE MAT OF SUITABLE WEIGHT AND CONFIGURATION.

THE CONTRACTOR SHALL FURNISH RECORDS OF PAST SUCCESSFUL EXPERIENCE IN PERFORMING THIS TYPE OF WORK. THE CONTRACTOR SHALL SAVE THE OWNER HARMLESS FROM LIABILITY OF ANY KIND ARISING FROM THE USE OF ANY PATENT OF UNPATENTED INVENTION IN THE PERFORMANCE OF THIS WORK.

- FABRIC FORMING MATERIAL SHALL CONSIST OF DOUBLE LAYER OPEN SELVAGE FABRIC JOINT IN A MAT CONFIGURATION. EACH LAYER SHALL EXHIBIT MINIMUM GRAB TENSILE STRENGTH OF NOT LESS THAN 300 LBS./IN. IN BOTH WARP AND FILL DIRECTIONS WHEN TESTED IN ACCORDANCE WITH ASTM D-4632 AND POROSITY OF NOT LESS THAN 100 FT. 3/MIN./S.F. WHEN TESTED IN ACCORDANCE WITH ASTM D-737.
 - 1. UNIMAT FABRIC, SHALL CONSIST OF DOUBLE LAYER FABRIC JOINED TOGETHER BY INTERWOVEN TIES OF UNIFORM LENGTH. HYDROSTATIC UPLIFT RELIEF, WHERE REQUIRED, SHALL BE PROVIDED BY INSERTING PLASTIC WEEP HOLE ASSEMBLIES THROUGH THE MAT AT 60" X 60" CENTERS OR BY SEWING THE TWO LAYERS OF FABRIC TOGETHER IN A CIRCULAR PATTERN. THE LOWER END OF THE WEEP HOLE ASSEMBLY MAY, AT THE ENGINEER'S OPTION, BE COVERED BY FILTER CLOTH AGAINST LOSS OF SOIL FINES.
 - 2. INDIVIDUAL MILL WIDTH PANEL SHALL BE CUT TO SUITABLE LENGTH AND THE TWO LAYERS OF FABRIC SEPARATELY JOINED EDGE TO EDGE BY MEANS OF NYLON OR POLYESTER THREAD. THE TENSILE STRENGTH OF STITCHED JOINTS SHALL BE NOT LESS THAN 100 LBS. PER INCH.
 - 3. FABRIC POROSITY IS ESSENTIAL FOR THE SUCCESSFUL EXECUTION OF THIS WORK. AT THE DIRECTION OF THE ENGINEER, THE CONTRACTOR SHALL DEMONSTRATE THE SUITABILITY OF FABRIC DESIGN BY INJECTING THE PROPOSED GROUT INTO 6" DIAMETER SLEEVES UNDER PRESSURE OF 10 TO 15 PSI WHICH SHALL BE MAINTAINED BY MEANS OF AIR PRESSURE OR A STAND-PIPE FOR 10 MINUTES. THE SLEEVES SHALL BE CONSTRUCTED OF THE SAME FABRIC USED IN THE INDIVIDUAL LAYERS OF FABRIC. 6" X 12" TEST CYLINDERS SHALL BE CUT FROM EACH SPECIMEN AND TESTED IN ACCORDANCE WITH ASTM C-39.
- GROUT SHALL CONSIST OF A MIXTURE OF PORTLAND CEMENT, FINE AGGREGATE AND WATER SO PROPORTIONED AND MIXED AS TO PROVIDE A READILY PUMPABLE SLURRY. ADMIXTURES MAY BE USED AT THE OPTION OF THE CONTRACTOR AND WITH THE APPROVAL OF THE ENGINEER. THE HARDENED GROUT SHALL EXHIBIT A COMPRESSIVE STRENGTH OF 2.000 PSI AT 28 DAYS WHEN SPECIMENS ARE MADE AND TESTED ACCORDING TO THE PROVISIONS OF ASTM C-31 AND C-39.

III. PLACEMENT OF GROUT IN MAT FABRIC

PRIOR TO GROUT INJECTION. THE FABRIC SHALL BE POSITIONED AT ITS DESIGN LOCATION. GROUT SHALL BE INTRODUCED INTO THE SPACE BETWEEN THE LAYERS OF FABRIC. WHERE CONVENIENT, ADJACENT FABRIC PANELS SHALL BE JOINED, BEFORE GROUT INJECTION, BY FIELD SEWING THE TWO LAYERS OF FABRIC SEPARATELY, EDGE TO EDGE, EXCEPT THAT WITH THE APPROVAL OF THE ENGINEER OR WHERE CALLED FOR BY PLANS, ADJACENT PANELS MAY BE LAPPED A MINIMUM OF TWO FEET. IN NO CASE WILL SIMPLE BUTT JOINTS BE APPROVED.

- FABRIC PANELS ARE ASSEMBLED TO ORDER IN ACCORDANCE WITH SHOP DRAWINGS PREPARED BY THE INSTALLER. PREPARE A SKETCH OF EACH DIFFERENT PANEL SIZE THAT WILL BE REQUIRED. INSTRUCTIONS FOR PREPARATION OF FABRIC SHOP DRAWINGS ARE AVAILABLE ON REQUEST. SUPPLIER WILL PREPARE SHOP DRAWINGS FROM TOPOGRAPHIC DATA FURNISHED.
- IN MAKING A PRELIMINARY ESTIMATE OF THE QUANTITY OF FABRIC REQUIRED, ALLOW 20% FOR FABRIC ASSEMBLY CONTRACTION WHICH OCCURS AS A RESULT OF FILLING WITH MORTAR AND FOR SURFACE IRREGULARITIES.

SLOPE PREPARATION -

- 1. FOR THE SAKE OF APPEARANCE, REVETMENTS SHOULD BE PLACED OVER RELATIVELY SMOOTH SURFACES. MINOR IRREGULARITIES ARE TOLERABLE FOR THE FILTER POINT CONFIGURATION, SINCE THEIR EFFECT ON APPEARANCE WILL BE OBSCURED BY THE DEEPLY TEXTURED SURFACE OF THE MAT.
- THE UPPER ANCHOR TRENCH IS MOST CONVENIENTLY PLACED AT THE CROWN OF THE SLOPE.
- PLACE FABRIC IMMEDIATELY FOLLOWING GRADING AND SLOPE PREPARATION.
- IF BACKFILLING IS NECESSARY, USE COMPACTED GRANULAR MATERIAL.

FABRIC PLACEMENT -

- POSITION FABRIC LOOSELY ALONG THE BANK BEFORE GROUT INJECTION. STAKE FABRIC AT PREDETERMINED LOCATIONS TO ALLOW FOR FABRIC CONTRACTION. DO NOT APPROXIMATE FABRIC LOCATIONS. MEASURE DIMENSIONS ON THE BANK AND STAKE AT ABOUT 20-FT. CENTERS. SEAMS SHOULD BE GENERALLY PERPENDICULAR TO THE SHORELINE FOR BEST APPEARANCE.
- FABRIC PANELS ARE JOINTED IN THE FIELD WITH A BAG CLOSER (PORTABLE SEWING MACHINE). LAY OUT THE FIRST PANEL AND FOLD BACK THE LEADING EDGE. INVERT THE ADJACENT ABUTTING PANEL. JOIN THE TOP LAYERS OF FABRIC. JOIN THE BOTTOM LAYERS OF FABRIC. FOLD THE JOINTED PANELS
- 3. TO AVOID FIELD SEWING AS MUCH AS POSSIBLE, PREPARE FABRIC ASSEMBLY SKETCHES IN SUCH DETAIL THAT THE GREAT MAJORITY OF THE SEWING CAN BE DONE PRIOR TO DELIVERY.
- PROVIDE EACH JOB WITH A SMALL QUANTITY OF UNCUT, UNASSEMBLED FABRIC FOR SPECIAL FIELD TAILORING.

MORTAR PREPARATION -

- VERY FLUID SAND-CEMENT MORTAR IS USED IN ALL FABRIFORM REVETMENT WORK. AIR CONTENT OF 5 TO 8% WILL IMPROVE PUMP ABILITY OF THE FLUID MORTAR AND FREEZE/THAW RESISTANCE OF HARDENED MORTAR. USE A RETARDING MIXTURE IN HOT WEATHER. SUBSTITUTION OF POZZOLANIC QUALITY FLY ASH FOR UP TO 35% OF THE CEMENT IS PARTICULARLY RECOMMENDED AS AN AID TO PUMPABILITY.
- 2. EXCESS MIXING WATER EXPELLED THROUGH THE PERMEABLE FABRIFORM FABRIC WILL REDUCE THE VOLUME OF 27 CU. FT. OF WET MORTAR TO ABOUT 25 CU. FT. OF HARDENED MORTAR. FOLLOWING ARE TYPICAL MIXED.

RANGE OF QUANTITIES - IN POUNDS PER CU. YD.

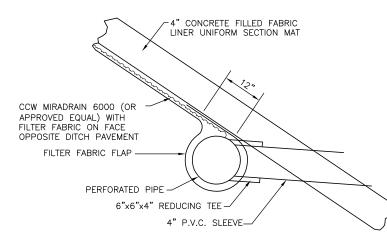
MATERIAL	AS DELIVERED	IN PLACE
CEMENT SAND	750-850 2120-2030	810-910 2300-2170
WATER	540-550	460-470
AIR	AS REQUIRED	5-8%

MORTAR CONSISTENCY SHOULD BE IN THE 9-11 SECOND RANGE THROUGH THE 3 ORIFICE OF THE STANDRD FLOW CONE DESCRIBED IN ASTM C-939-80.

MORTAR PUMPING -

- INSERT THE INJECTION PIPE THROUGH A SMALL SLIT CUT IN THE UPPER LAYER OF FABRIC. WRAP A PIECE OF BURLAP AROUND THE INSERT TO ACT AS A PACKER. USE CARE TO AVOID GROUT SPILLAGE.
- FIRST PUMP THE UPPER EDGE OF THE MAT WHICH HAS BEEN PLACED IN THE ANCHOR TRENCH, FOLLOWED BY INJECTION INTO THE LOWER EDGE, WORKING BACK UP THE SLOPE. AVOID OVER PRESSURING OF THE FABRIC.
- IN FLOWING WATER, PUMP THE UPSTREAM EDGE OF THE MAT FIRST. MAXIMUM ALLOWABLE WATER VELOCITY USING ROUTINE INSTALLATION PROCEDURES.
- DO NOT WALK ON THE MAT FOR ABOUT ONE HOUR AFTER PUMPING OR THE FOOTPRINTS WILL LEAVE INDENTIONS.
- REMOVE BURLAP FROM INSERT HOLES AND SMOOTH MORTAR BY HAND.
- CLEAN UP MORTAR SPILLED BY HAND. DO NOT WASH DOWN MAT WITH
- PUMPING RATE WILL VARY DEPENDING ON SITE CONDITIONS. ON LARGE JOBS, PLACEMENT RATES UP TO 6,000 SQ. FT. PER 8 HOUR SHIFT ARE REGULARLY

- PUMPING CAPACITY SHOULD BE ABOUT 12 CU. YDS. PER HOUR. EQUIPMENT WHICH HAS BEEN SUCCESSFULLY USED INCLUDES THE THOMSEN MODEL 4.5 MAYCO MODEL C-30, MOYNO NO. 6 FRAME OR LARGER, OR SIMILAR EQUIPMENT. USE MINIMUM 2 IN. PIPE OR HOSE FROM THE PUMP TO A WYE FITTING AND TWO $1\!-\!1/2$ IN. HOSES FROM THE WYE TO THE FABRIC.
- FOR FIELD SEWING, FISCHBEIN MACHINES ARE SUGGESTED, EITHER THE ELECTRIC MODEL E OR AIR OPERATED MODEL DR. BOTH MACHINES TALE $\frac{1}{2}$ LB. SPOOLS OF OF NO. 138 BST NYLON THREAD.



WEEP HOLE SYSTEM

Outlet Structure ID	100-Year Velocity (ft/s)	Intermediate Phase Sheets	Final Phase Sheets	
SD25B	3.20	C5.44	C5.64	
SD35A	3.11			
SD01A	7.20	C5.45	C5.65	
SD29	5.46	C3.43		
SD37	1.00			
SD04	2.86			
SD03	2.70	C5.46	C5.66	
SD02C	6.96			
SD02D	6.80			
Existing	2.25	C5.47	C5.67	
Headwall	2.25			
SD51	7.70	C5.48	C5.68	
SD45	9.02	C5.49	C5.69	

SD40

13.18

Locations of Permanent Fabric Form Revetmen

(TYP.) SOD (TYP.) WOVEN UMIMAT (POLYPROPYLENE) MINIMUM 1' WRAP 8 POINT FABRIC FORM OF FILTER FABRIC FLAP ALL FILL MATERIAL SHALL BE - COMPACTED TO 95% MAXIMUM DENSITY AASHTO T-99 METHOD C CCW MIRADRAIN 6000 (OR APPROVED EQUAL) SET GRADE-AS SHOWN PAYMENT WILL NOT BE MADE FOR MATERIAL OVERLAPS SIDEDRAIN 6" PERFORATED PIPE WHEN SPECIFICALLY NOTED ON PLANS (*) COVERAGE PER YD³ OF MORTAR = 73 FT 2 WEEP HOLES AT 8' O.C. **VARIES**

TYPICAL PERMANENT FABRIC FORM REVETMENT DETAIL

APD RWF **COLEMAN COMPANY** 1480 Chatham Parkway, Suite 100 avannah, Georgla | (912) 200-3041

AFCOM Technical Services, Inc. 7650 W. Courtney Campbell Causeway

Tampa, FL 33607-1462

Tel: 813.286.1711

Savannah / Hilton Head International Airport 400 Airways Avenue

Savannah, Georgia 31408

WG. BY: NJP HK. BY: SGH SG. BY: NJP CALE: AS NOTED ROJECT NO

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

SHEET TITLE **EROSION AND SEDIMENT** CONTROL DETAILS (4)

SHEET NO. C5.84

DESCRIPTION

AR. 2021 BID DOCUMENTS

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BORE A HOLE IN THE EXISTING OUTLET STRUCTURE FOR POND NO. 1 WITH AN INVERT ELEVATION OF 10.5-FEET WHERE THE 6" FLEXIBLE HOSE IS ATTACHED USING THE THREADED 6" NIPPLE. USE A STEEL PLATE WITH A HOLE CUT IN IT AND COUPLING WELDED TO IT THAT WILL FIT OVER THE HOLE IN THE CONCRETE AND BOLTED TO THE CONCRETE STRUCTURE WITH SEALANT.

FLOATING SURFACE SKIMMER NOTES:

- 2. WHEN THE EXISTING POND NO. 1 OUTFALL STRUCTURE IS REMOVED AND REPLACED WITH THE PROPOSED POND NO. 1 OUTFALL STRUCTURE IDENTIFIED AS SD01 CONNECT THE 6" FLEXIBLE HOSE TO ONE OF THE OPENINGS IN THE CONCRETE STRUCTURE FOR THE 18-INCH DIAMETER PVC ORIFICES AS DESCRIBED IN NOTE 2. TWO SKIMMERS ARE REQUIRED WHEN POND NO. 2 IS COMPLETE TO DRAW DOWN THE VOLUME WITHIN 72-HOURS.
- 3. 6" PVC BARREL SHALL BE PROVIDED BY THE CONTRACTOR AND SHOULD BE 1.4 TIMES THE DEPTH OF WATER WITH A MINIMUM LENGTH OF 8-FEET SO THE INLET CAN BE PULLED TO THE SIDE FOR MAINTENANCE. IF THE BARREL IS MORE THAN 10-FEET LONG, WEIGHT MAY HAVE TO BE ADDED TO THE INLET TO COUNTER THE INCREASED BUOYANCY.
- 4. ORIFICE/INLET TAPERS DOWN FROM 8" MAXIMUM INLET TO A 6" BARREL AND HOSE. BARREL IS SMALLER TO REDUCE BUOYANCY AND TENDENCY TO LIFT INLET BUT IS SUFFICIENT FOR FLOW THROUGH INLET BECAUSE OF SLOPE. THE MAXIMUM CAPACITY OF THE SKIMMER IS 97,978 CUBIC FEET PER DAY WITH A 8" ORIFICE/INLET AND 6" HEAD. THE 8" ORIFICE/INLET CAN BE REDUCED USING THE PLATE AND CUTTER PROVIDED TO REDUCE THE OUTFLOW RATE.

SKIMMER REQUIREMENTS WITH ONLY EXISTING POND NO.1:

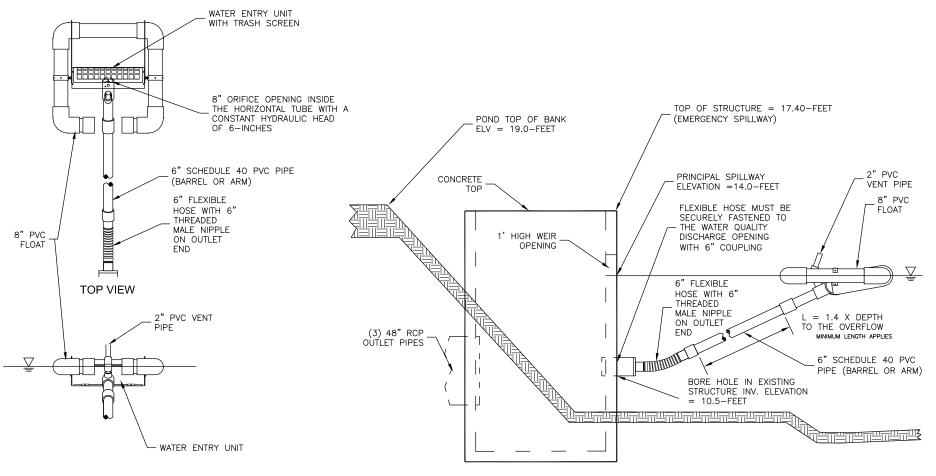
- DRAW DOWN VOLUME IS 270.682 CUBIC-FEET FROM THE WEIR ELEVATION OF 14.0-FEET TO THE INVERT OF THE ORIFICE IN THE EXISTING POND NO. 1 OUTFALL STRUCTURE AT ELEVATION
- 2. THE TIME TO DRAIN THE DRAW DOWN VOLUME OF 270,682 CUBIC FEET IS 72-HOURS.
- 3. ONE SKIMMER WITH AN 8-INCH ORIFICE AND 6-INCHES OF HEAD IS REQUIRED TO DRAW DOWN 270,682 CUBIC FEET IN 72-HOURS.
- 4. SKIMMER MANUFACTURE: J.W. FAIRCLOTH AND SONS, INC.

SKIMMER REQUIREMENTS WITH EXISTING POND NO.1 AND PROPOSED POND NO. 2 COMPLETED:

- 1. DRAW DOWN VOLUME IS 562,891 CUBIC-FEET FROM THE WEIR ELEVATION OF 14.0-FEET IN THE EXISTING POND NO. 1 OUTFALL STRUCTURE TO 1-FOOT BELOW THE WEIR AT ELEVATION 13.0-FEET.
- 2. THE TIME TO DRAIN THE DRAW DOWN VOLUME OF 562,891 CUBIC FEET IS
- 3. TWO SKIMMERS WITH AN 8-INCH ORIFICE AND 6-INCHES OF HEAD IS REQUIRED TO DRAW DOWN 562,891 CUBIC FEET IN 72-HOURS.
- 4. SKIMMER MANUFACTURE: J.W. FAIRCLOTH AND SONS, INC.

<u>SKIMMER REQUIREMENTS WITH PROPOSED POND NO.1 AND</u> PROPOSED POND NO. 2 COMPLETED:

- DRAW DOWN VOLUME IS 573,679 CUBIC-FEET FROM ELEVATION 14.0-FEET TO ELEVATION 13.0-FEET.
- 2. THE TIME TO DRAIN THE DRAW DOWN VOLUME OF 573,679 CUBIC FEET IS 72-HOURS.
- 3. TWO SKIMMERS WITH AN 8-INCH ORIFICE AND 6-INCHES OF HEAD IS REQUIRED TO DRAW DOWN 573,679 CUBIC FEET IN 72-HOURS.
- 4. SKIMMER MANUFACTURE: J.W. FAIRCLOTH AND SONS, INC.



END VIEW

SIDE VIEW

FLOATING SURFACE SKIMMER DISCHARGE SYSTEM CONNECTED TO EXISTING POND NO. 1 REINFORCED CONCRETE OUTLET STRUCTURE

FLOATING SURFACE SKIMMER N.T.S.

DATE	DESCRIPTION	BY	AUTH
MAR. 2021	BID DOCUMENTS	APD	RWP





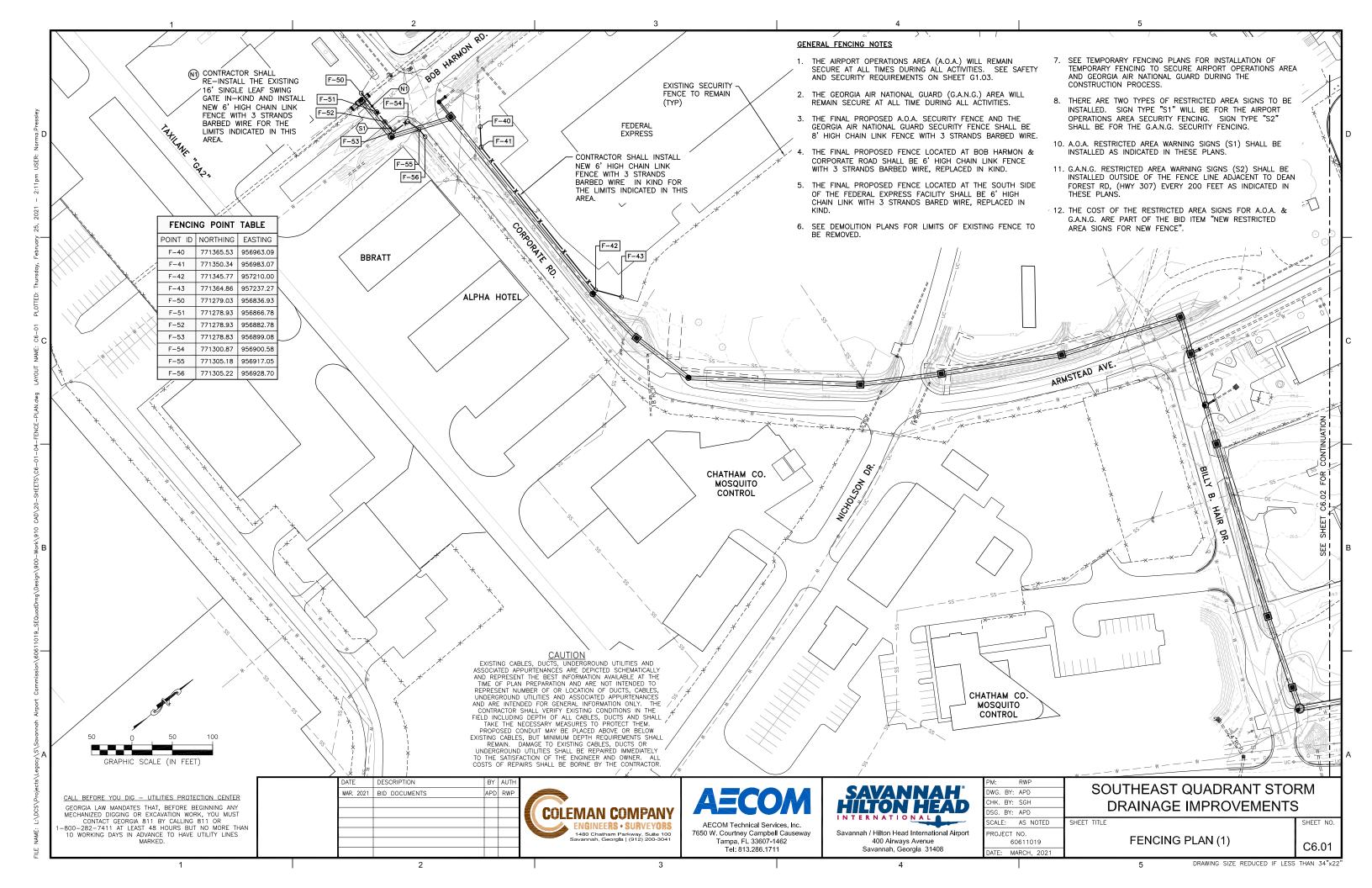
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V. Courtney Campbell Causeway	Savannah / Hilton Head International Airpo
Tampa, FL 33607-1462	400 Airways Avenue
Tel: 813.286.1711	Savannah, Georgia 31408

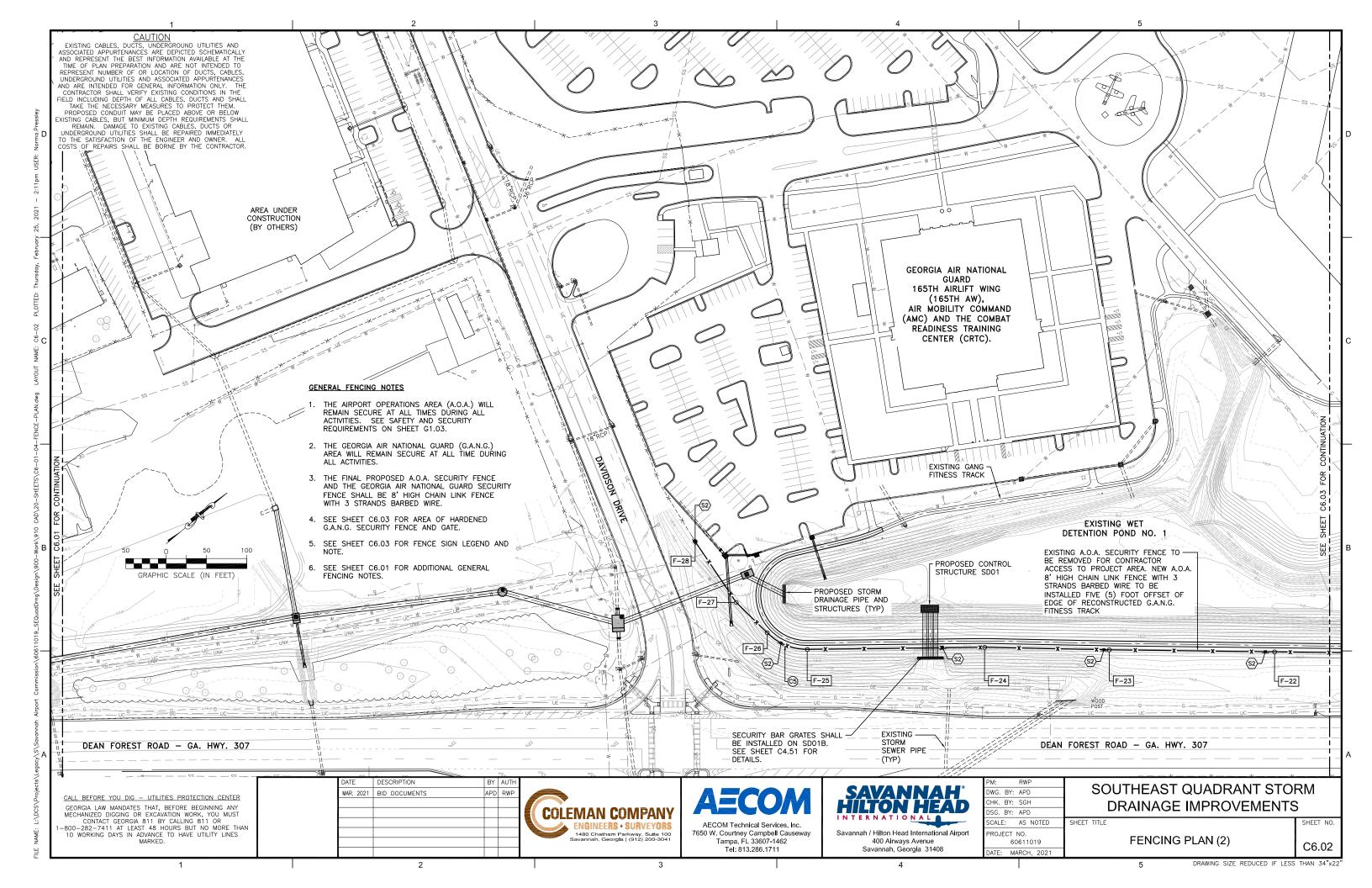
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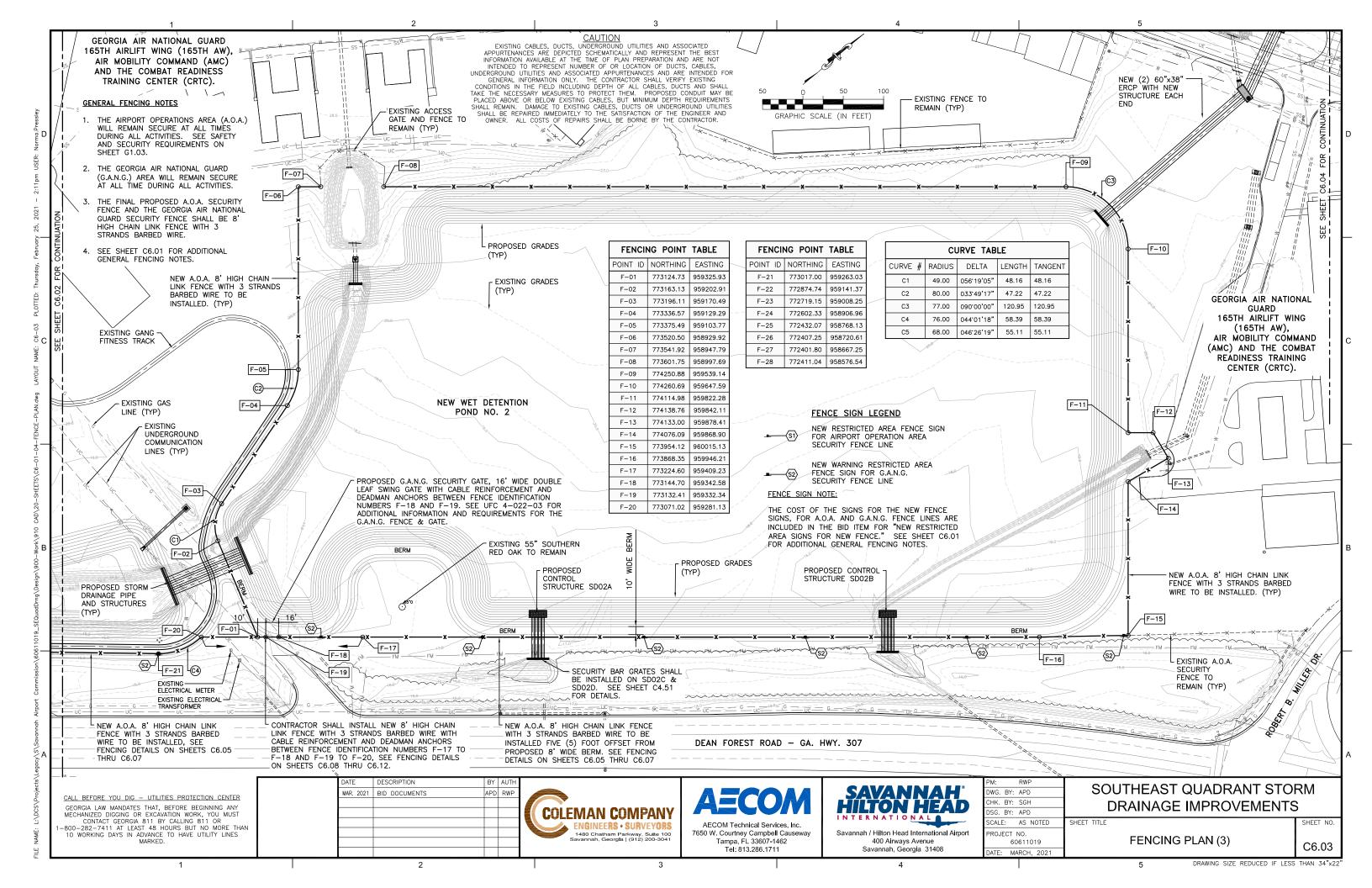
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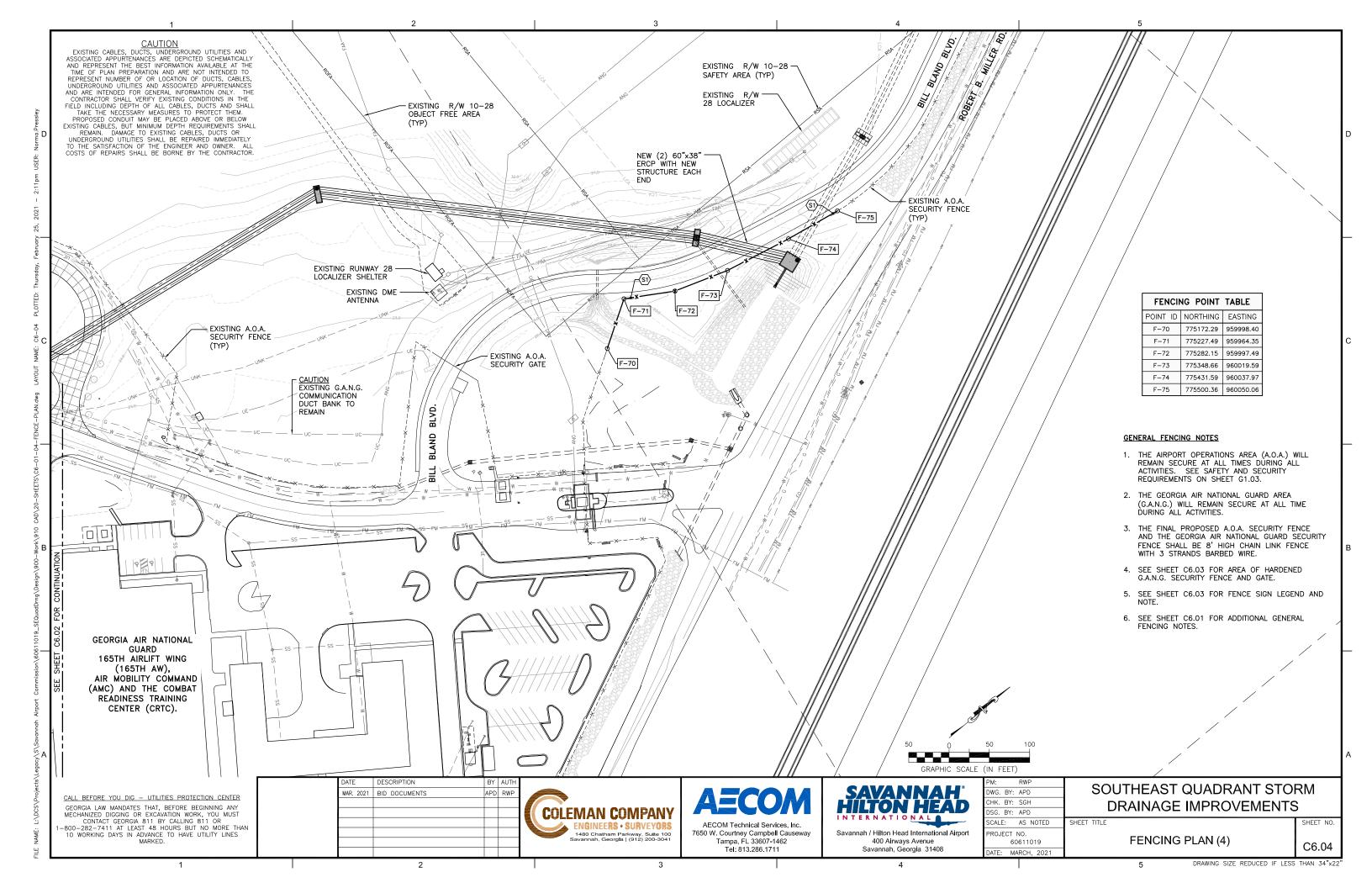
EROSION AND SEDIMENT CONTROL DETAILS (5)

SHEET NO. C5.85









THE FEDERAL SPECIFICATIONS SHOWN SHALL BE INTERPRETED TO MEAN THE LATEST ISSUE OR AMENDMENT OF SUCH SPECIFICATION, IN EFFECT ON THE DATE

FAA SPECIFICATIONS SHOWN ARE FROM THE FEDERAL AVIATION ADMINISTRATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS"

MATERIALS AND CONSTRUCTION METHODS NOT DETAILED HEREON, SHALL BE IN ACCORDANCE WITH THE FAA SPECIFICATION LISTED FOR EACH CLASS OF FENCE, UNLESS OTHERWISE NOTED ON THE CONTRACT PLANS.

GATES ARE MEASURED IN UNITS FOR EACH TYPE AND SIZE INSTALLED

BARBED WIRE

BARBED WIRE SHALL BE ZINC COATED, MEETING REQUIREMENTS OF ASTM A 121, CLASS 3, OR ALUMINUM COATED MEETING REQUIREMENTS OF ASTM A 585, CLASS II. WIRE SHALL BE TWO STRAND TWISTED No. 12-1/2 ASW GAUGE STEEL, WITH FOUR POINT BARBS, No.14 ASW GAUGE MINIMUM 1/2 " MINIMUM LENGTH, SPACED ON APPROXIMATELY 5" CENTERS. TENSION SHALL BE TO SATISFACTION OF THE ENGINEER. NO CRIMPING OR SPLICING SHALL BE USED TO OBTAIN

4 CONCRETE: CONCRETE SHALL BE 28 DAY COMPRESSIVE STRENGTH OF 2,500 PSI COMPLYING WITH ITEM P-610. FOOTING TOPS SHALL BE 1" MINIMUM ABOVE GROUND AT THE POST, AND TROWEL FINISHED TO SLOPE AWAY FROM POST.

OPENINGS UNDER FENCE:
ANY OPENING UNDER FENCES, WHEREIN THE BOTTOM FENCE WIRE IS MORE THAN 4" ABOVE GROUND AND THE TOTAL AREA OF OPENING IS 96 SQ. INCHES OR

OPENINGS LESS THAN 12" HIGH SHALL BE CLOSED BY INSTALLING ONE OR MORE ADDITIONAL LINE POSTS NEAR THE OPENING CENTER AND STRETCHING STRANDS OF BARBED WIRE BETWEEN THE EXTRA POSTS AND ADJACENT LINE POSTS AT 6" MAXIMUM VERTICAL SPACING, VERTICAL STRANDS OF BARBED WIRE SHALL BE INSTALLED AT 12" MAXIMUM HORIZONTAL SPACING AND TIED TO ALL HORIZONTAL STRANDS AND THE FABRIC BOTTOM WIRE. THIS WORK SHALL BE INCIDENTAL TO FENCE INSTALLATION COSTS. OPENINGS 18" OR MORE IN HEIGHT, OPENINGS IN HIGH SECURITY RISK AND HAZARD AREAS, DITCHES, DRAINAGE COURSES, ETC., SHALL BE CLOSED BY METHODS DETAILED ON THE CONTRACT PLANS. PAYMENT FOR CLOSURES DETAILED ON THE PLANS SHALL BE AS NOTED ON THE CONTRACT PLANS.

GROUND RODS, CLASS "E" FENCE ONLY: GROUND RODS SHALL BE INSTALLED AT 400' MAXIMUM INTERVALS, INCIDENTAL TO FENCE COST FACH SECTION OF FENCE SEPARATED BY NON-METALLIC CONNECTORS, BUILDINGS OR OTHER OPENINGS SHALL HAVE A MINIMUM OF ONE GROUND ROD. EACH GATE LEAF FRAME SHALL BE CONNECTED TO THE GATE POST BY A BRAIDED FLEXIBLE COPPER STRAP. EACH GATE POST SHALL BE GROUNDED AS DETAILED. GROUND RODS SHALL BE 3/4" x 10' MIN. SIZE, COPPER CLAD. ALL GROUND RODS TO BE TESTED WITH MAXIMUM RESISTANCE TO GROUND OF 10 OHMS. GROUND CABLE SHALL BE NO. 6 AWG. MIN., BARE STRANDED COPPER WIRE. FOR FENCES GROUNDING SHALL BE AS DETAILED. IF GROUNDING IS REQ'D THROUGH EXISTING RUNWAY/TAXIWAY/APRON PAVEMENT, CONTRACTOR SHALL CORE A 4-INCH HOLE THROUGH THE PAVEMENT AND PLACE REQUIRED GROUND ROD. CONNECTIONS TO FENCE AND RODS SHALL BE MADE WITH SUITABLE NONCORROSIVE METAL CLAMPS, LUG OR CONNECTORS.

FENCE LINE AND ALIGNMENT:

FENCE LINES SHALL BE CLEARED OF ALL OBSTRUCTIONS AND SMOOTH GRADED TO THE GENERAL CONTOUR OF THE ADJACENT GROUND FOR A 2' MIN TO 10' MAX. WIDTH EACH SIDE OF LINE, INCIDENTAL TO FENCE COSTS. STUMPS AND ROOTS NOT INTERFERING WITH FENCE CONSTRUCTION, MAY BE CHIPPED TO

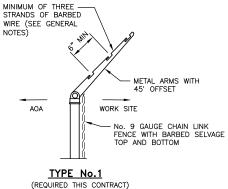
THE FENCE SHALL BE CONSTRUCTED VERTICAL, STRAIGHT AND TRUE TO LINE. THE LONGITUDINAL GRADIENT SHALL PARALLEL THE GENERAL SLOPE OF THE GROUND.

FENCE SIGNAGE

ANY SIGNS MOUNTED ON EXISTING FENCING TO BE REMOVED SHALL BE REMOUNTED ON NEW FENCING MATERIALS AT NO ADDITIONAL COST TO THE OWNER OR ENGINEER. ANY NEW SIGNS TO BE PLACED ON NEW OR EXISTING FENCING MATERIALS SHALL BE DETAILED ON THE PLANS. ALL FURNISHING AND !NSTALLING OF SIGNAGE IS INCIDENTAL TO ITEM F-162.

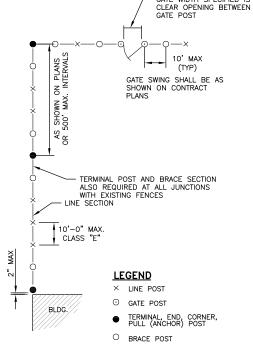
GENERAL FENCE AND GATE NOTES:

- SEE EXISTING CONDITIONS AND DEMOLITION PLANS FOR THE LIMITS OF EXISTING FENCE DEMOLITION AND NEW A.O.A. FENCE REPLACEMENT.
- 2. ALL PROPOSED AIR OPERATIONS AREA (AOA) SECURITY FENCES AND GATES SHOWN ON THE DEMOLITION AND GEOMETRY LAYOUT PLAN (2) ARE 8 FEET HIGH WITH 3 STRANDS OF BARBED WIRE, FAA SPECIFICATION F-162, CLASS E WITH BARBED WIRE.
- 3. ONLY THE FINAL AOA FENCE IS SHOWN ON THE GEOMETRY PLAN. REFER TO EXISTING CONDITIONS & DEMOLITION PLANS AND CONSTRUCTION PHASING PLANS FOR FURTHER DISCUSSION OF TEMPORARY FENCE AND GATES IF APPLICABLE.
- THE LOCATION AND QUANTITIES OF FENCE AND GATES ARE APPROXIMATE AND MAY BE CHANGED TO ACCOMMODATE CONSTRUCTION PHASING IN THIS CONTRACT OR OTHER
- 5. EXISTING FENCE FABRIC, POST AND GATES IN GOOD CONDITION OR NEW MATERIAL PROVIDED BY THE CONTRACTOR, MAY BE USED TO CONSTRUCT TEMPORARY OR FINAL FENCE AND GATES AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. HOWEVER, A CONTINUOUS AOA SECURITY BARRIER SHALL BE MAINTAINED AT ALL TIMES. NEW MATERIALS MAY BE REQUIRED TO CONSTRUCT NEW FENCE LINES BEFORE OLD FENCE LINES ARE REMOVED.
- 6. THE NEW FENCE FOR THIS PROJECT SHALL BE INSTALLED



TYPE No. 1 ARMS SHALL BE INSTALLED ON SIDE AWAY FROM AIRPORT PROPERTY OR AIRCRAFT OPERATIONS AREA.

BARBED WIRE EXTENSION ARMS



GATE WIDTH SPECIFIED IS

TYPICAL FENCE LAYOUT N.T.S. ALL CLASSES

NOTES: CLASS "E" FENCE

- FABRIC: 2"X2" No. 9 GAUGE WIRE MESH WITH GALVANIZED STEEL WIRE PER ASTM A 392, CLASS II.
- SELVAGE RAILS & TENSION WIRES: FENCES SHALL HAVE BARBED SELVAGE AND 7 GAUGE COILED SPRING TENSION WIRES PROVIDED AT BOTTOM, AND TOP RAIL ALONG TOP OF FENCE LINE. BARBED SELVAGE WIRE SHALL EXTEND 1'-0" ABOVE THE TOP RAIL.
- POSTS. USE NO. 6 WIRE CLIPS FOR LINE POSTS AND NO. 9 WIRE CLIPS FOR BRACES, RAILS, AND TENSION WIRES. ALL FASTENERS SPACED 14" MAX. VERTICALLY, 24" MAX HORIZONTALLY.
- COATINGS: ZINC COATING ON POSTS, RAILS, GATE FRAMES AND STEEL FITTINGS SHALL AVERAGE 2.0 OZ./S.F. NO INDIVIDUAL SPECIMEN SHALL HAVE LESS THAN 1.8 OZ./S.F.

COATINGS ON STEEL FABRIC SHALL MEET THE FOLLOWING MINIMUMS: TYPE I (ZINC COATED), 2.0 OZ./S.F., TYPE II (ALUMINUM COATED), 0.40 OZ./S.F.

(5) FENCE HEIGHT: THE FABRIC HEIGHT IS THE NOMINAL FENCE HEIGHT.

CHAIN LINK FENCE MEMBERS DIMENSIONS & WEIGHTS (FED. SPEC. RR-F-00191/3E)						
		STEEL FRAME		ALUMINUM FRAME*		
DESCRIPTION	SECTION	OUTSIDE DIMENSIONS (INCHES)	WEIGHT (LBS./FT.)	THICKNESS (INCHES)	OUTSIDE DIMENSIONS (INCHES)	WEIGHT (LBS./FT.)
TERMINAL,CORNER,BRACE,END. & PULL POSTS FABRIC HEIGHTS 6' & LESS	0 🗆	2.375 2.00x2.00	2.60	0.130	2.351 N/A	1.264 N/A
FABRIC HEIGHTS OVER 6'	0	2.875 2.50x2.50	5.10	0.160	N/A N/A	N/A N/A
ALL HEIGHTS	ROLL FORM	3.5 x 3.5	5.10		N/A	N/A
GATE POSTS GATE LEAF WIDTH 6' AND LESS	0 🗆	2.875 2.50x2.50	5.10	0.160	3.96 N/A	3.15 N/A
GATE LEAF WIDTH OVER 6' THRU 13' GATE LEAF WIDTH OVER 13' THRU 18' GATE LEAF WIDTH OVER 18' THRU 23'	0 0 0	4.00 6.625 8.625		0.226 0.280 0.322	3.96 6.559 8.625	3.15 6.56 9.88
LINE POSTS FABRIC HEIGHTS 6' & LESS FABRIC HEIGHTS OVER 6' ALL HEIGHTS	O O ROLL FORM	1.90 2.375 3.50x3.50	5.10	0.120 0.130	1.90 2.35 N/A	0.94 1.26 N/A
ALL HEIGHTS	Н	2.25x1.70	3.43		2.25x2.00	1.22
RAILS & BRACES	O ROLL FORM	1.660 1.625x1.250	1.35	0.111	1.629 N/A	0.786 N/A

*TO BE USED ONLY IF ALUMINUM ALLOY FABRIC IS SPECIFIED ON THE CONTRACT PLANS

CHAIN LINK FENCE, CLASS E, FAA SPEC. F-162

DESCRIPTION)ATE AR. 2021 BID DOCUMENTS **COLEMAN COMPANY** 1480 Chatham Parkway, Suite 100 avannah, Georgla | (912) 200-3041



Tampa, FL 33607-1462

Tel: 813.286.1711



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CHK. BY:	SGH	
DSG. BY:	APD	
SCALE:	AS NOTED	SHEET TITLE
PROJECT	NO	

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DUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

FENCING DETAILS A.O.A. (1)

C6.05

SHEET NO.

SIGN DETAILS

- SIGNS TO BE ALUMINUM OR GALVANIZED STEEL WITH A MINIMUM THICKNESS OF 0.08".
- 2. REFLECTORIZED PAINT TO BE USED.
- 3. ALL SIGNS TO BE MOUNTED USING 2 BRACKETS.



G.A.N.G. FENCE WARNING SIGN

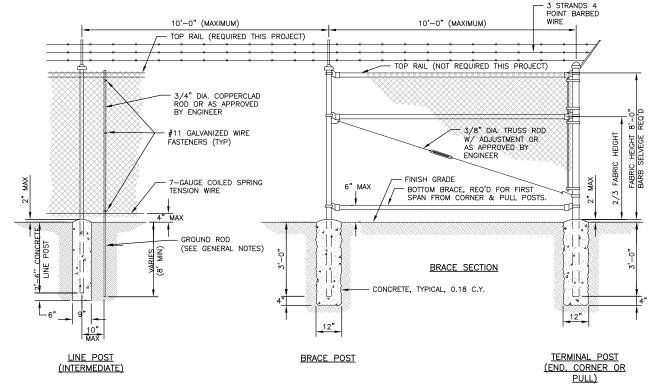
NOTES:

- SIGN COST SHALL BE INCLUDED IN THE BID ITEM FOR "RESTRICTED AREA SIGNS". SIGNS SHALL BE PLACED ALONG THE AIRPORT SECURITY FENCE LINE AT THE DIRECTION OF THE ENGINEER IN THE FILED. SIGNS SHALL BE SPACED A MINIMUM OF 200 FEET APART ALONG THE NEW SECURITY FENCE LINE.
- 2. THE NEW 18"X14" USAF WARNING SIGNS SHALL BE LOCATED AS INDICATED IN THE FENCING PLANS. THESE SIGNS SHALL BE LOCATED BETWEEN HEADQUARTERS ROAD TO DAVIDSON DRIVE AS SHOWN. CONTRACTOR SHALL MATCH EXISTING SIGNS AND ATTACHMENT INSTALLATION.

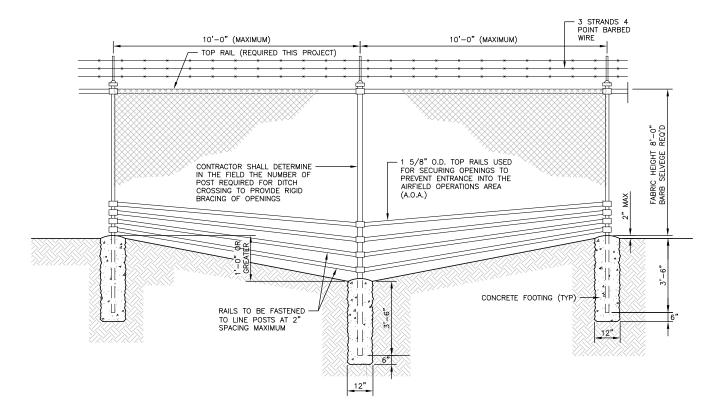
DATE DESCRIPTION

MAR. 2021 BID DOCUMENTS

SIGN DETAILS N.T.S.



CHAIN LINK FENCE - CLASS E - F-162 FAA SPEC



FENCE DITCH CROSSING DETAIL

N.T.S

60611019





Tel: 813.286.1711

SAVANNAH*
HILTON HEAD
INTERNATIONAL
Savannah / Hilton Head International Airport

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Savannah / Hilton Head International Airport
400 Airways Avenue
Savannah, Georgia 31408

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SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

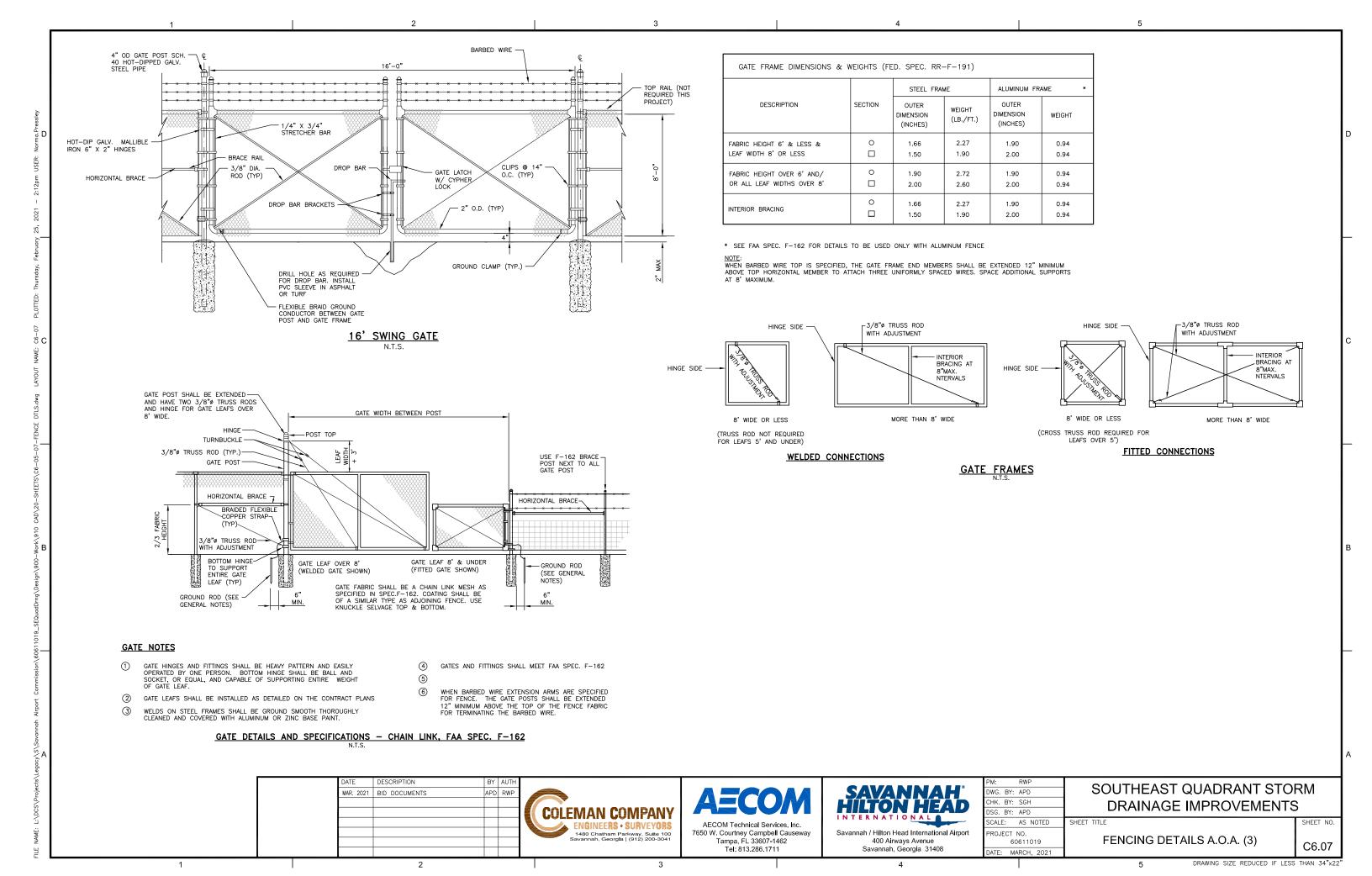
FENCING DETAILS A.O.A. (2)

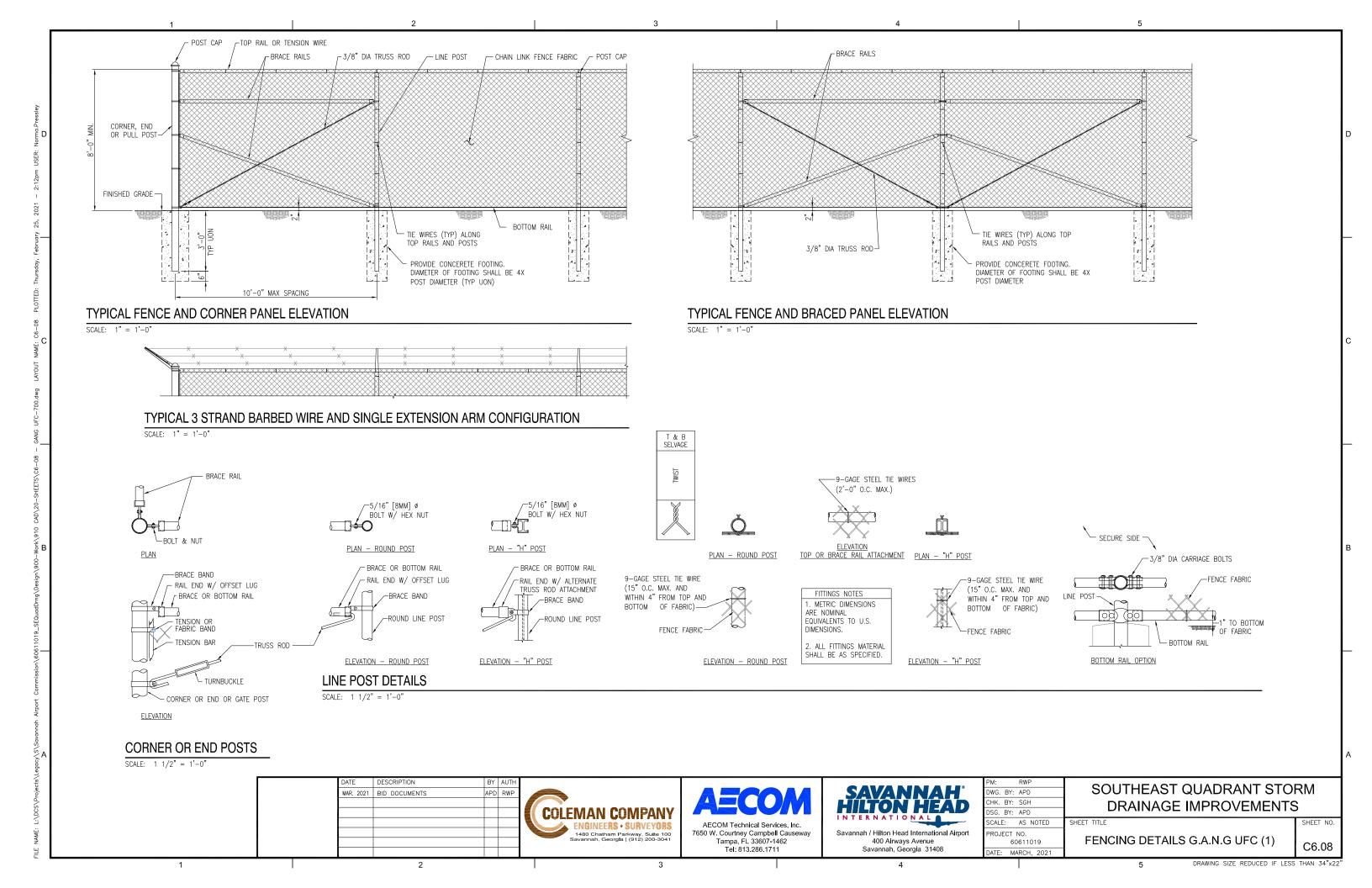
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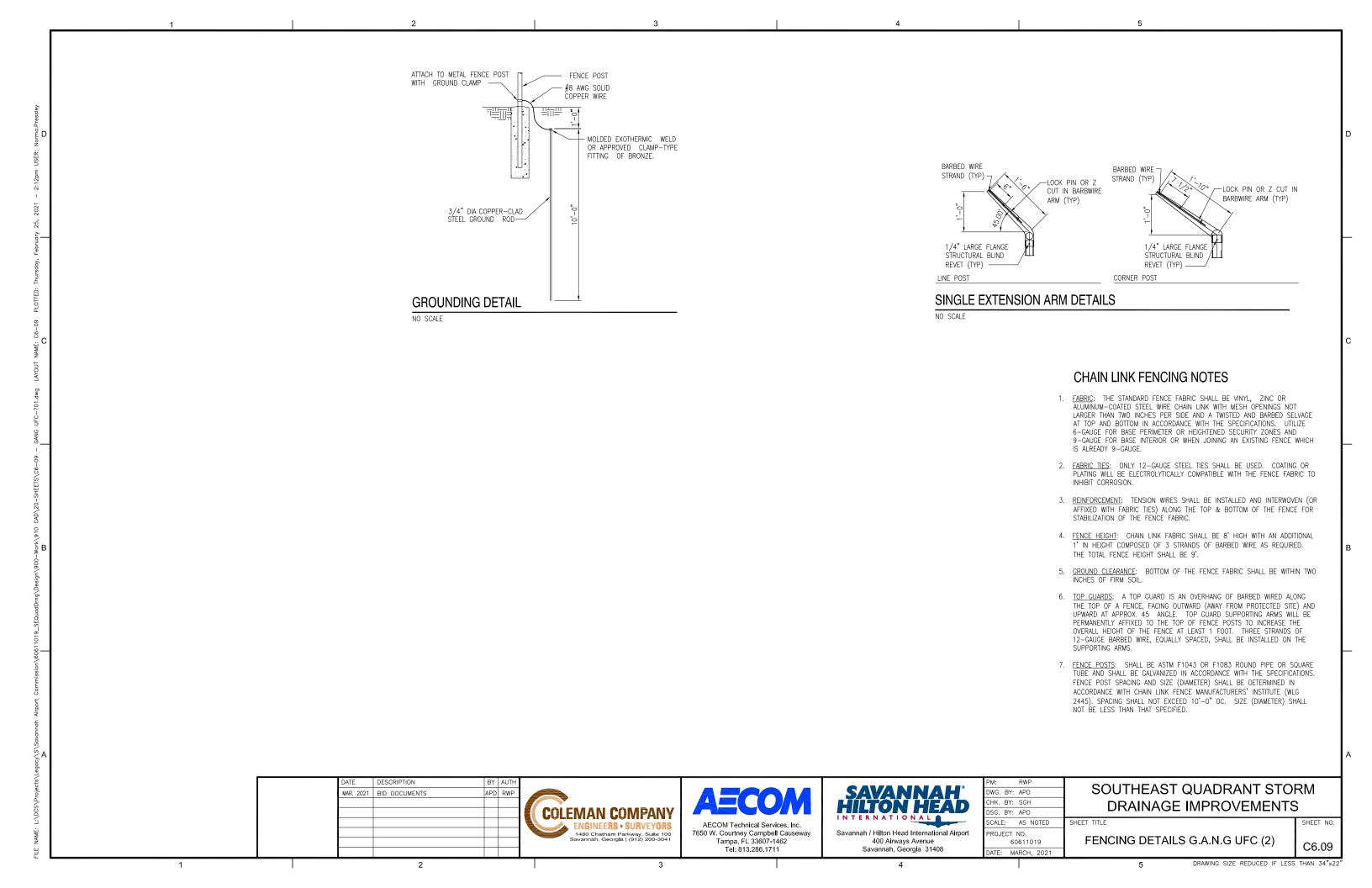
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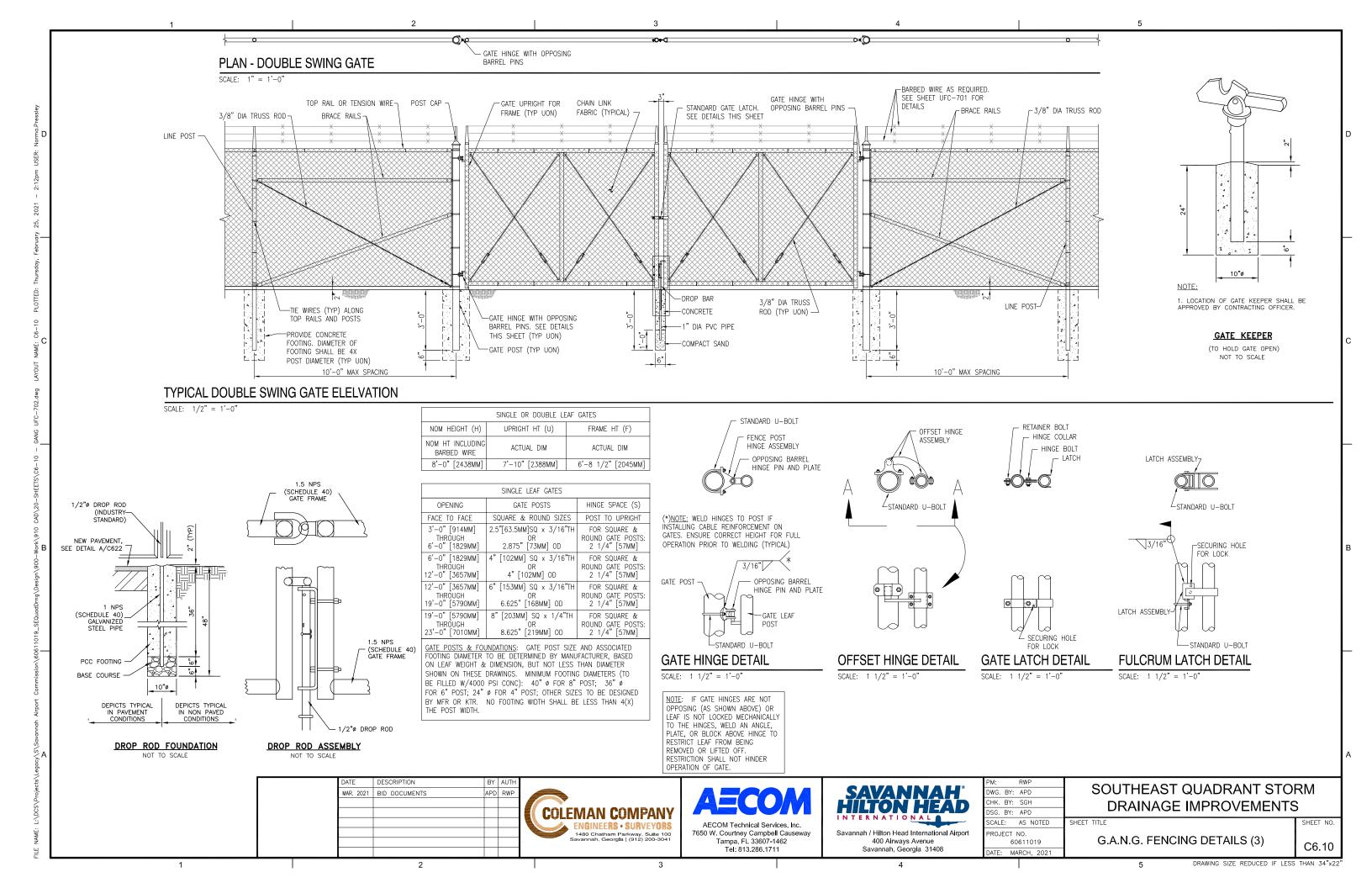
DRAWING SIZE REDUCED IF LESS THAN 34"x22

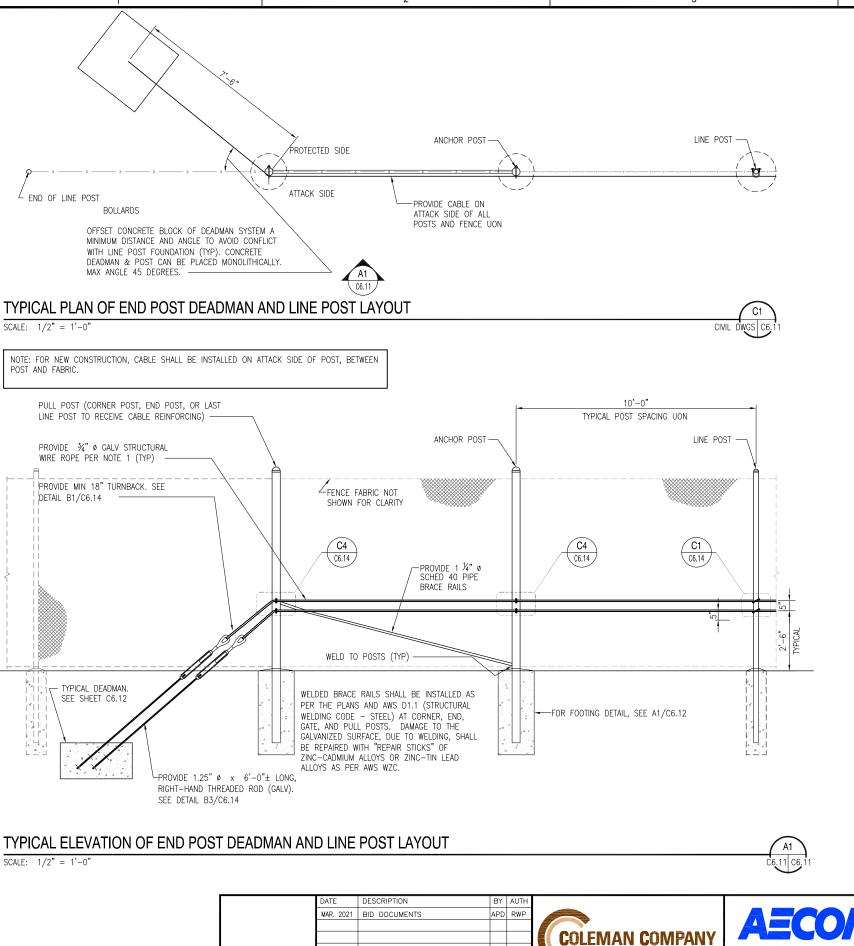
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REINFORCING NOTES

- 1. REINFORCING CABLES SHALL BE U.S. DOMESTIC MINIMUM 3/4" Ø 6x19 CLASS WIRE ROPE, REGULAR LAY, EXTRA IMPROVED PLOW STEEL (EIP), INDEPENDENT WIRE ROPE CORE (IWRC), CONFORMING TO ASTM A1023 AND GALVANIZED IN ACCORDANCE WITH ASTM A475 CLASS A, & HAVE A MINIMUM BREAKING STRENGTH OF 40,000 POUNDS (20 TONS). CABLES WITH A BLACK VINYL COATING, SHALL NOT BE IMPREGNATED.
- 2. CABLES SHALL BE CONTINUOUS FROM DEADMAN TO DEADMAN. NO SPLICES IN CABLE SHALL BE ALLOWED. CABLE BARRIER SHALL BE INSTALLED BETWEEN FENCE POST AND FENCE FABRIC AS PER PLANS. U—BOLTS SHALL BE INSTALLED PERPENDICULAR TO THE LAY OF THE STRANDS OF THE WIRE ROPE AND SHALL BE TIGHTENED AFTER SAG IN CABLE BARRIER HAS BEEN REMOVED. UNLESS INDICATED OTHERWISE, CONCRETE DEADMAN SPACING SHALL BE AT MAXIMUM 200' INTERVALS & TURNING POINTS (EXTERNAL CORNERS).
- 3. WIRE ROPE ENDS SHALL TERMINATE AROUND TURNBUCKLES, GATE POSTS OR EXTRA HEAVY-DUTY WIRE ROPE THIMBLES (AT GATES). THESE TERMINATIONS REQUIRE 18" MINIMUM OF ROPE FOR TURN BACK AND A MINIMUM OF (4)— CLIPS EACH (EQUAL SPACING)
- 4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING MATERIALS.
- DEADMEN SHALL BE INSTALLED ON THE SECURED SIDE (INTERIOR) OF THE FENCE; WHILE CABLES SHALL BE INSTALLED ON THE EXTERIOR SIDE OF POST.
- PROVIDE NECESSARY SLACK IN CABLES (GATES ONLY) TO ALLOW FOR FULL SWING OF ALL GATE LEAVES.
- OFFSET DEADMAN SYSTEMS FROM FENCELINE (PLAN VIEW) TO AVOID CONFLICT WITH FXISTING FENCE POSTS
- 8. ALLOW EPOXY ANCHOR BOLTS (MIN 2 DAYS) & CONCRETE DEADMEN (MIN 7 DAYS)
 TO CURE, PRIOR TO APPLYING LOADS (INSTALLING TURNBUCKLES & STRAIGHTENING
 CARLES)
- ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.1. ALL WELD MATERIAL SHALL BE E70XX ELECTRODES.
- STRUCTURAL STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NINTH EDITION OF THE AISC "MANUAL OF STEEL CONSTRUCTION FOR ALLOWABLE STRESS DESIGN.
- 11. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 AND SHALL HAVE A MINIMUM YIELD STRESS OF 36,000 PSI.
- 12. ALL STRUCTURAL STEEL MEMBERS AND HARDWARE USED IN CABLE ANCHORING SYSTEM SHALL BE HOT-DIPPED GALVANIZED. ANY AREAS WHERE COATING IS DAMAGED OR REMOVED SHALL BE COVERED WITH A ZINC RICH COMPOUND.
- 13. TURNBUCKLES SHALL BE $1\!\!\!/ 2\!\!\!/ x18\!\!\!/ x18\!\!\!/ ,$ TYPE I, GALVANIZED IN ACCORDANCE WITH ASTM F1145.
- 14. WIRE ROPE CLAMPS SHALL BE TYPE I, GALVANIZED, AND CONFORM TO FS FF-C-450.
- 15. ALL THREADED RODS, U-BOLTS, AND BOLTS SHALL CONFORM TO ASTM A307 AND SHALL BE INSTALLED WITH F844 WASHERS AND A563 NUTS. ENTIRE BOLT ASSEMBLY SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- 16. ZINC RICH COMPOUND FOR REPAIRS SHALL BE 95% METALLIC ZINC, BY WEIGHT IN DRIED FILM; INSTALL AT LEAST TWO COATS, 4 MILS MIN TOTAL THICKNESS.
- 17. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 318. CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI. THE MINIMUM CONCRETE COVER SHALL BE 3", UNLESS OTHERWISE NOTED.
- UFC 4-022-03 "SECURITY ENGINEERING: FENCES, GATES AND GUARD FACILITIES"
- "---"
- UFC 4-022-02 "SELECTION AND APPLICATION OF VEHICLE BARRIERS"
- 19. AT CABLE REINFORCING GATES, PROVIDE TWIST-OFF METAL TIES TO SECURE CABLE TO GATE FABRIC @ 24" OC & U-BOLTS TO SECURE TO GATE UPRIGHTS. MODIFY AS NEEDED TO FACILITATE OPERATION OF GATE.

AECOM Technical Services Inc.

Savannah / Hilton Head International Airport
400 Airways Avenue
Savannah, Georgia 31408

DWG. BY: APD
CHK. BY: SGH
DSG. BY: APD
SCALE: AS NOTED
PROJECT NO.
60611019

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

SHEET TITLE

18 DESIGN CRITERIA

FENCING DETAILS G.A.N.G. UFC (4)

C6.11

DRAWING SIZE REDUCED IF LESS THAN 34"x22

SHEET NO.

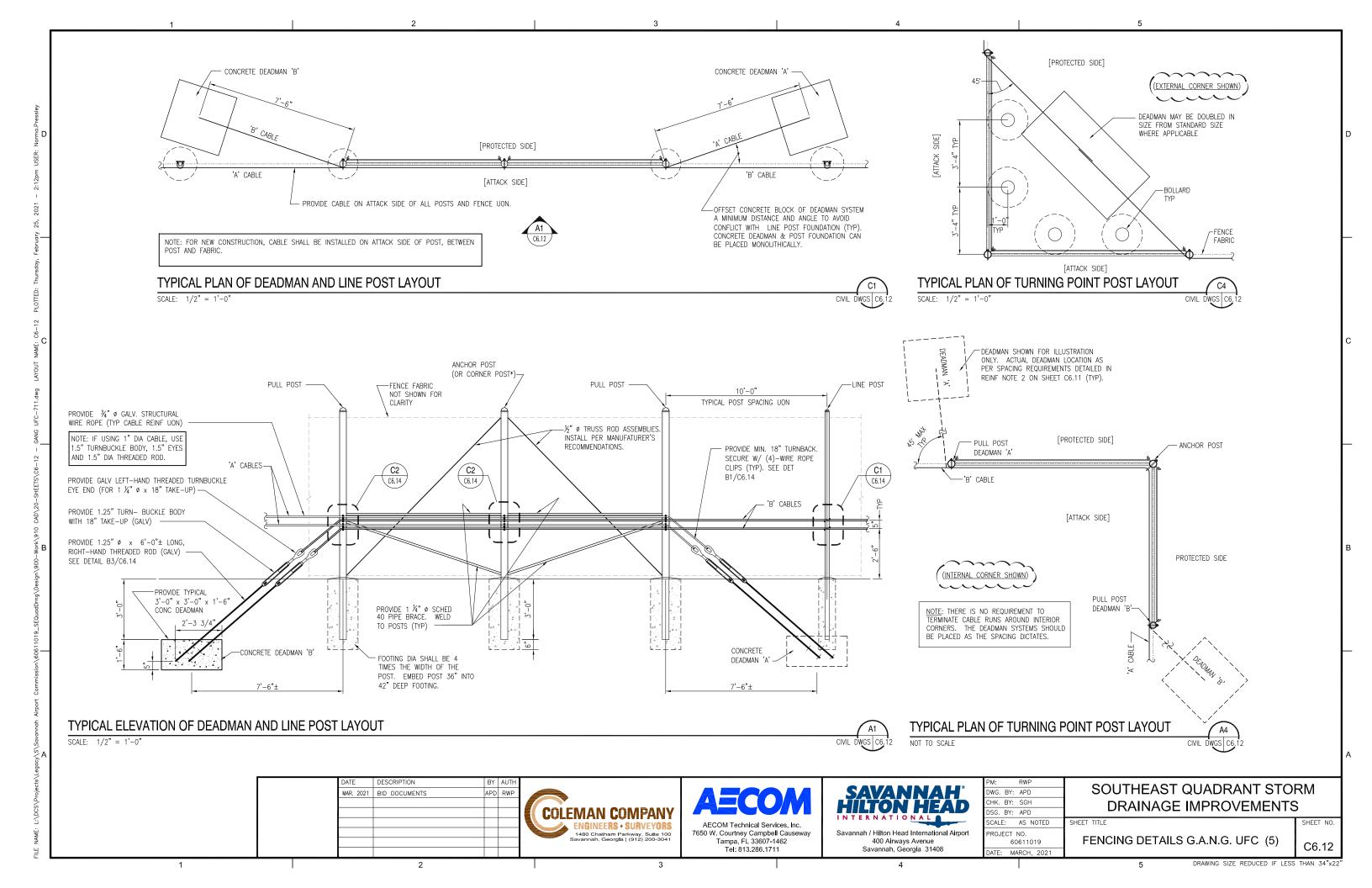
7650 W. Courtney Campbell Causeway

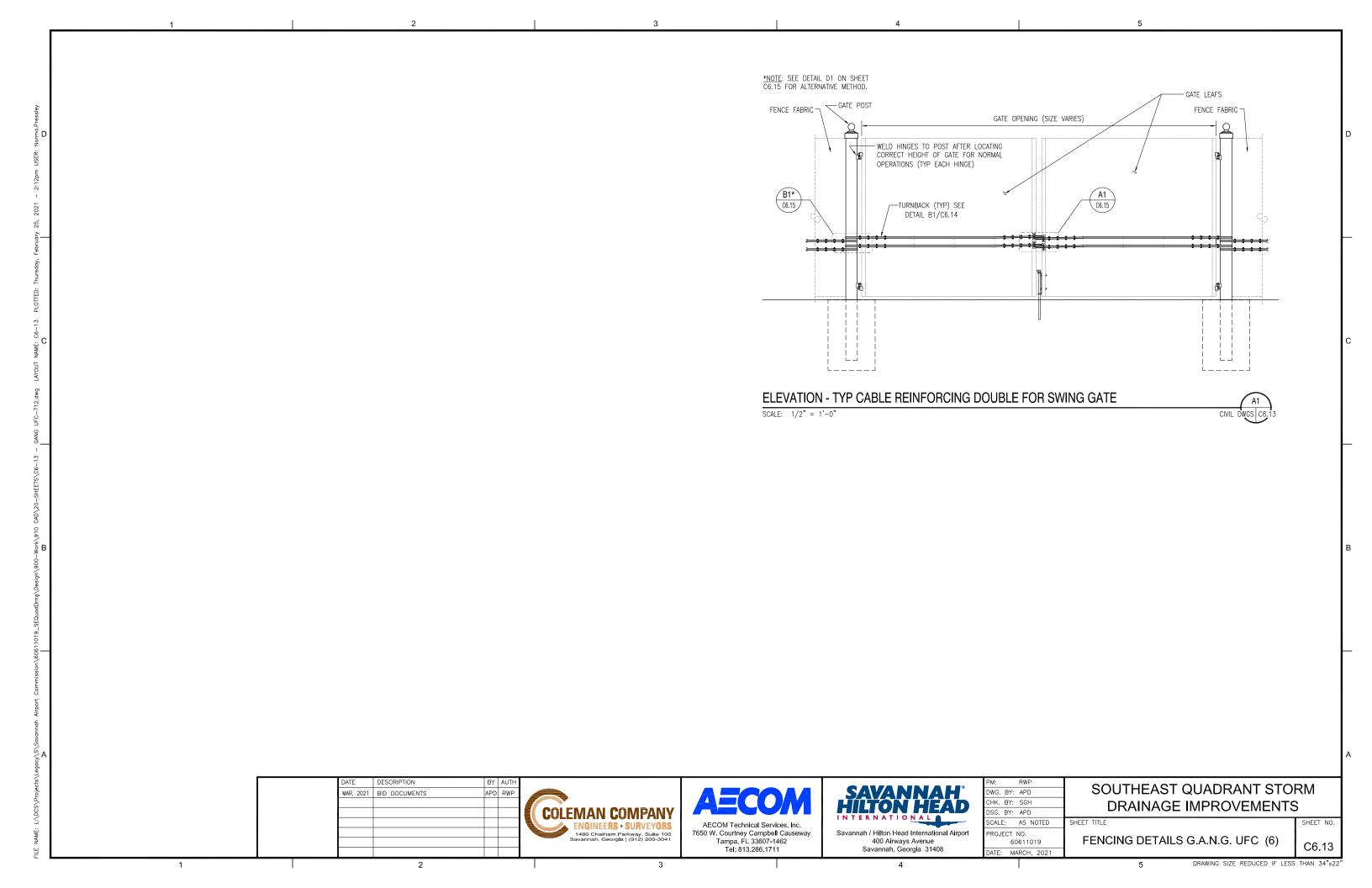
Tampa, FL 33607-1462

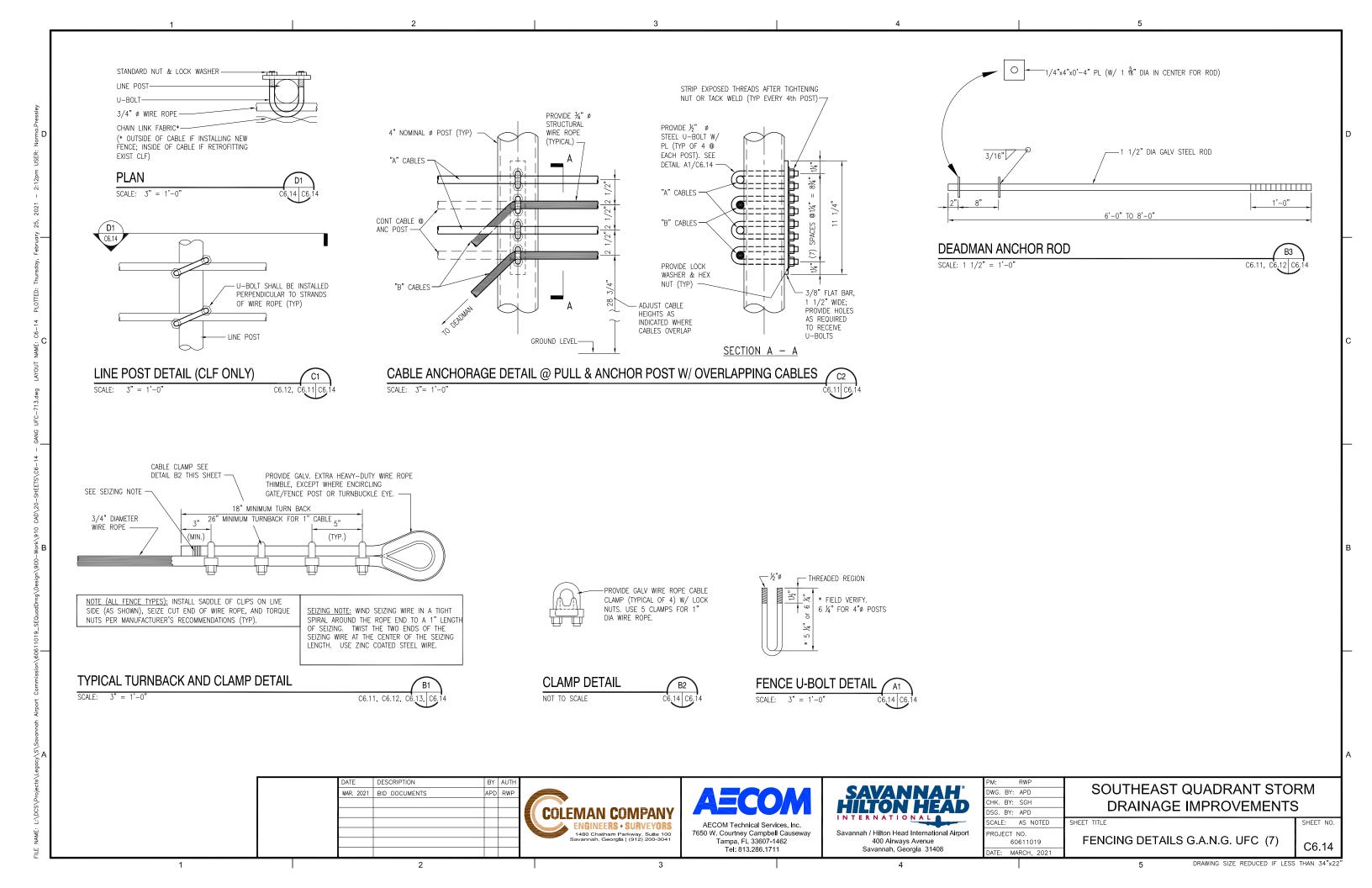
Tel: 813.286.1711

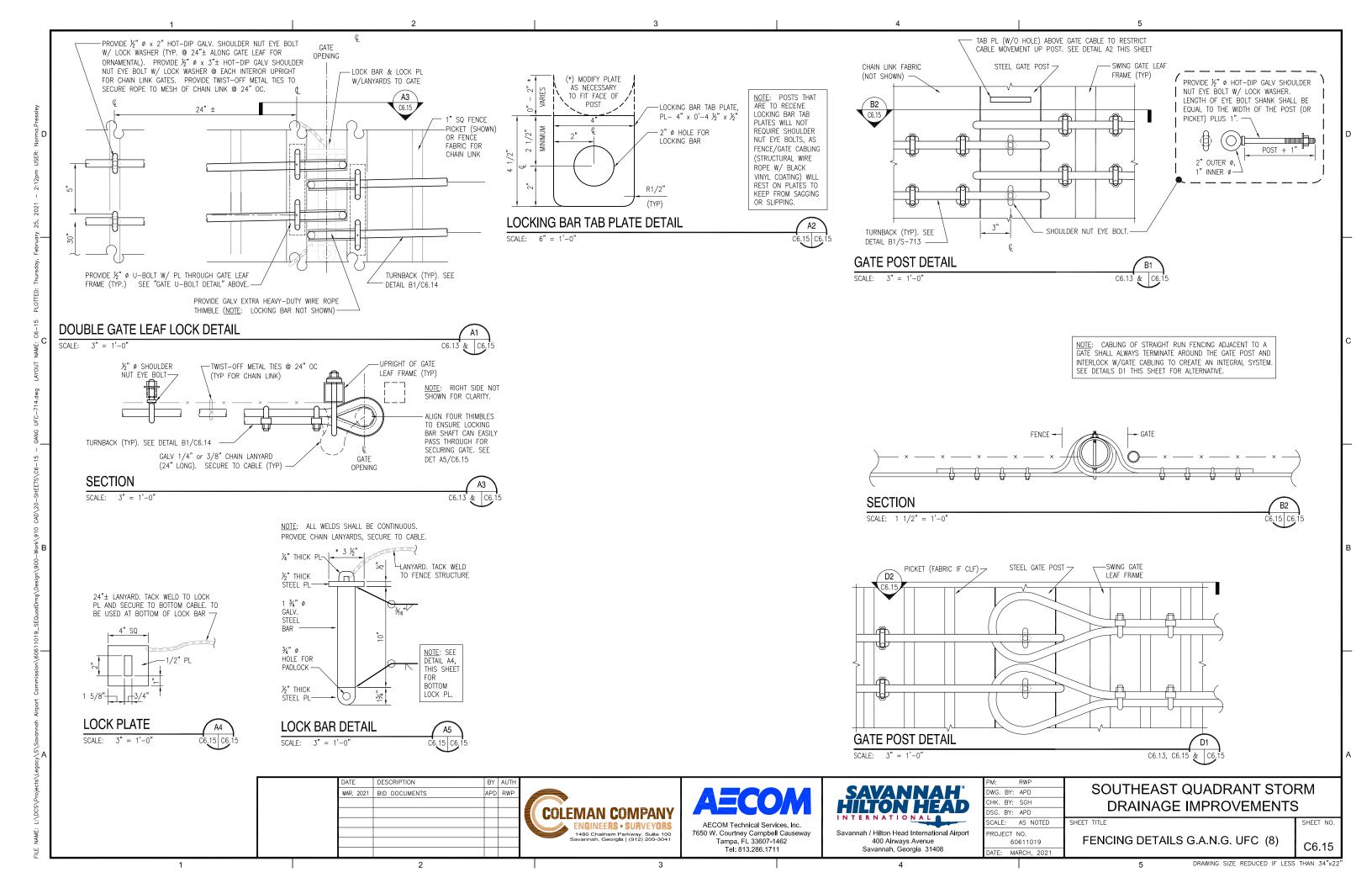
NGINEERS • SURVEYORS

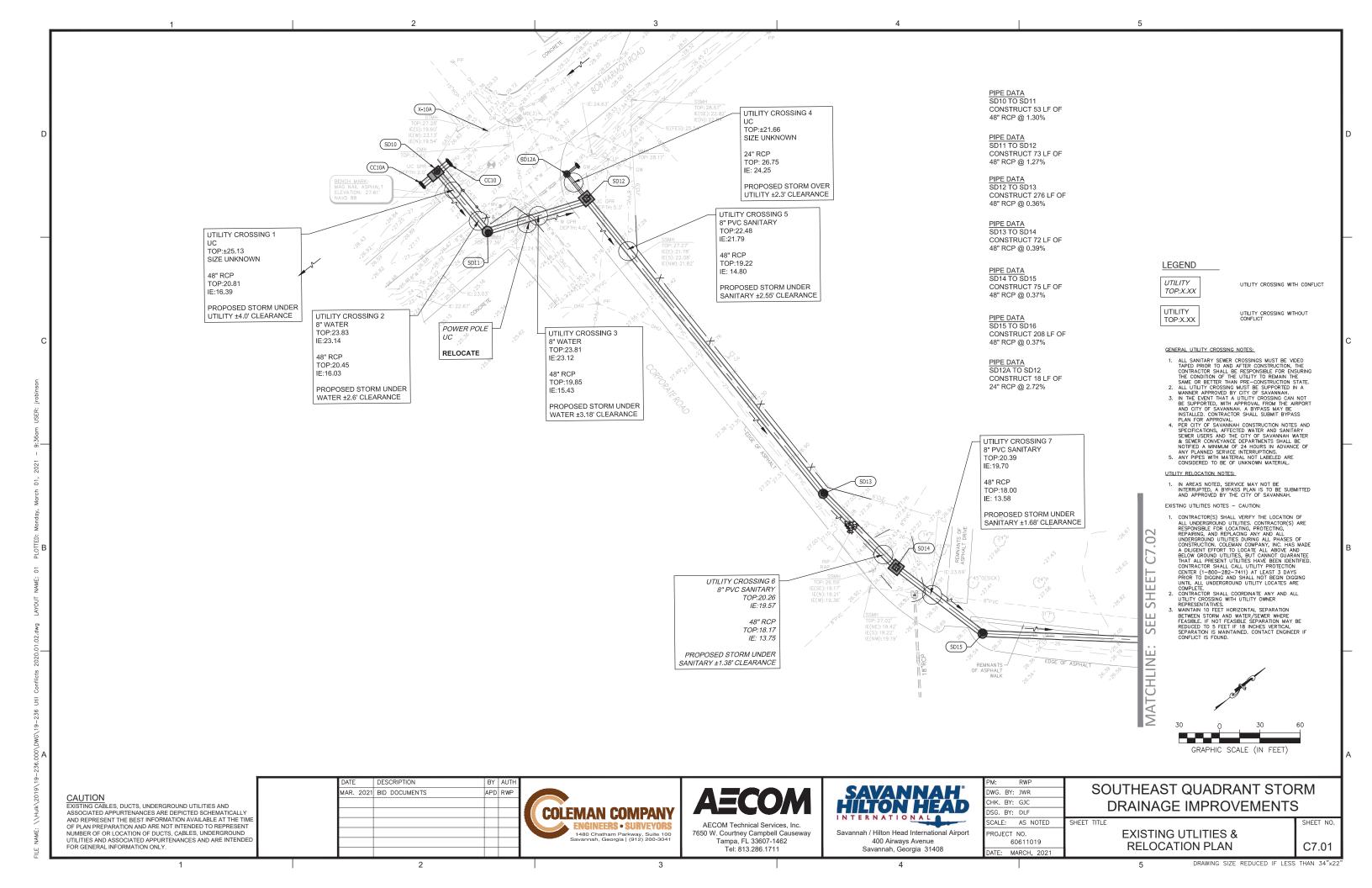
1480 Chatham Parkway, Suite 100 avannah, Georgla | (912) 200-3041

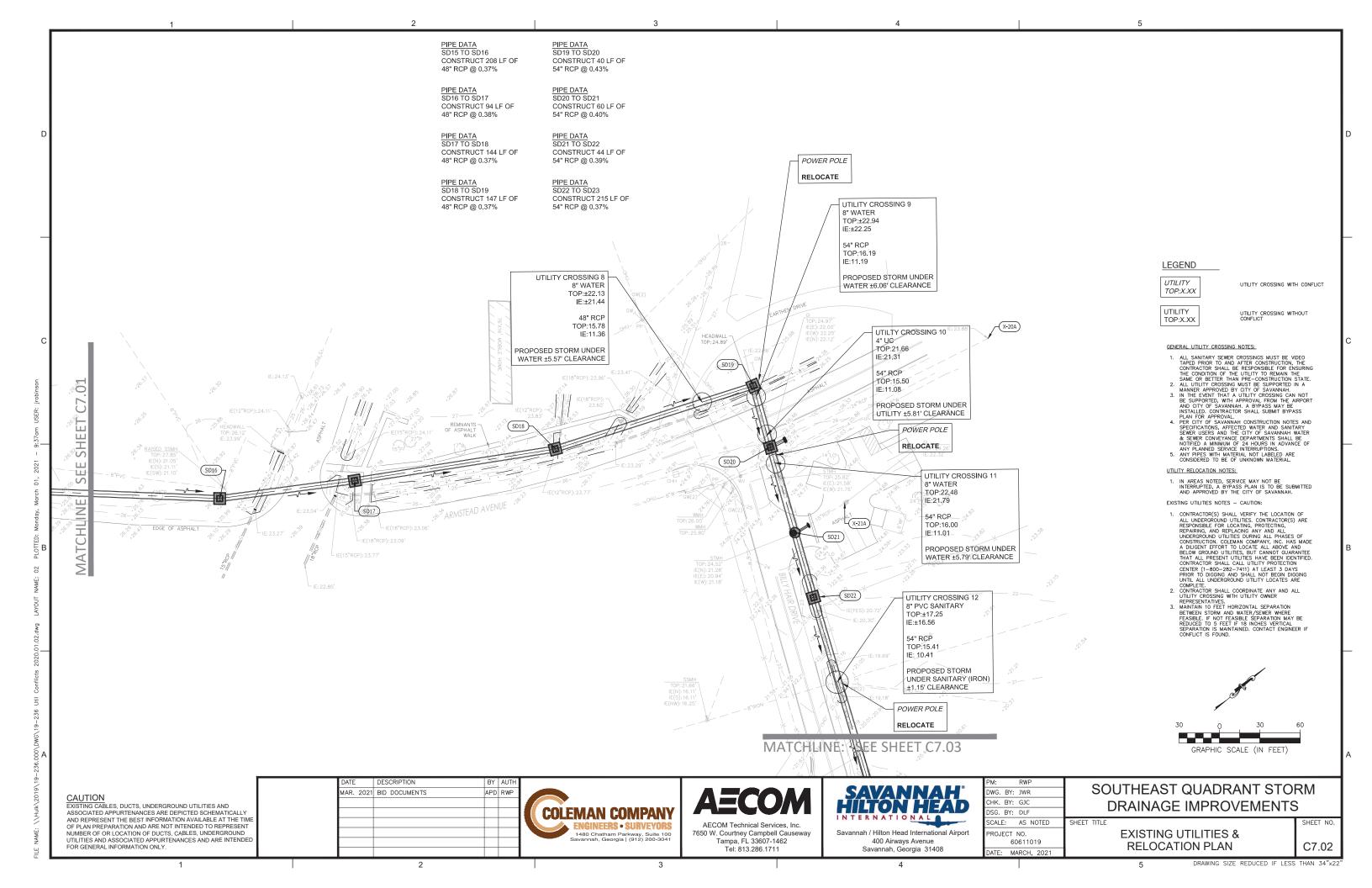


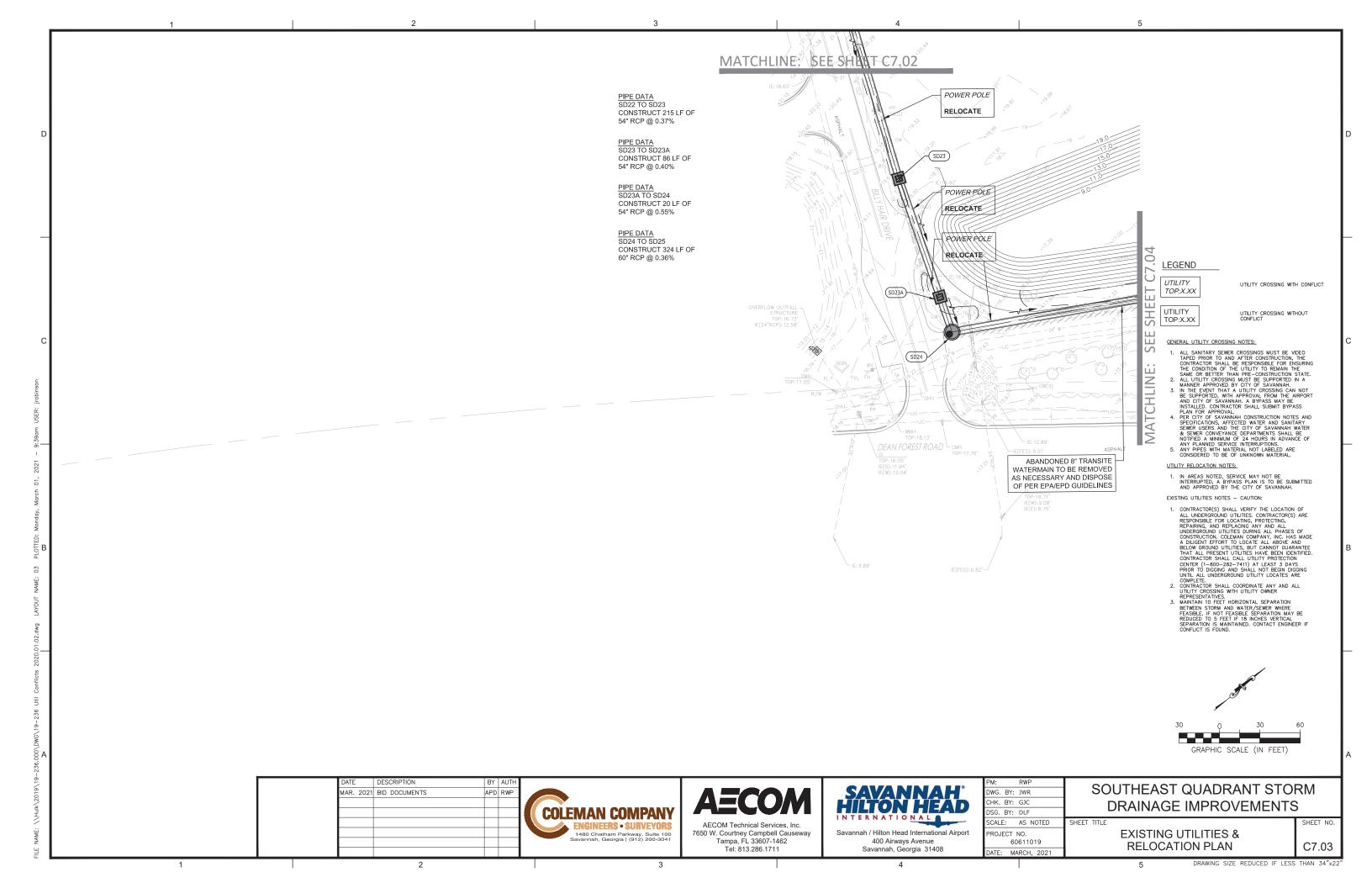


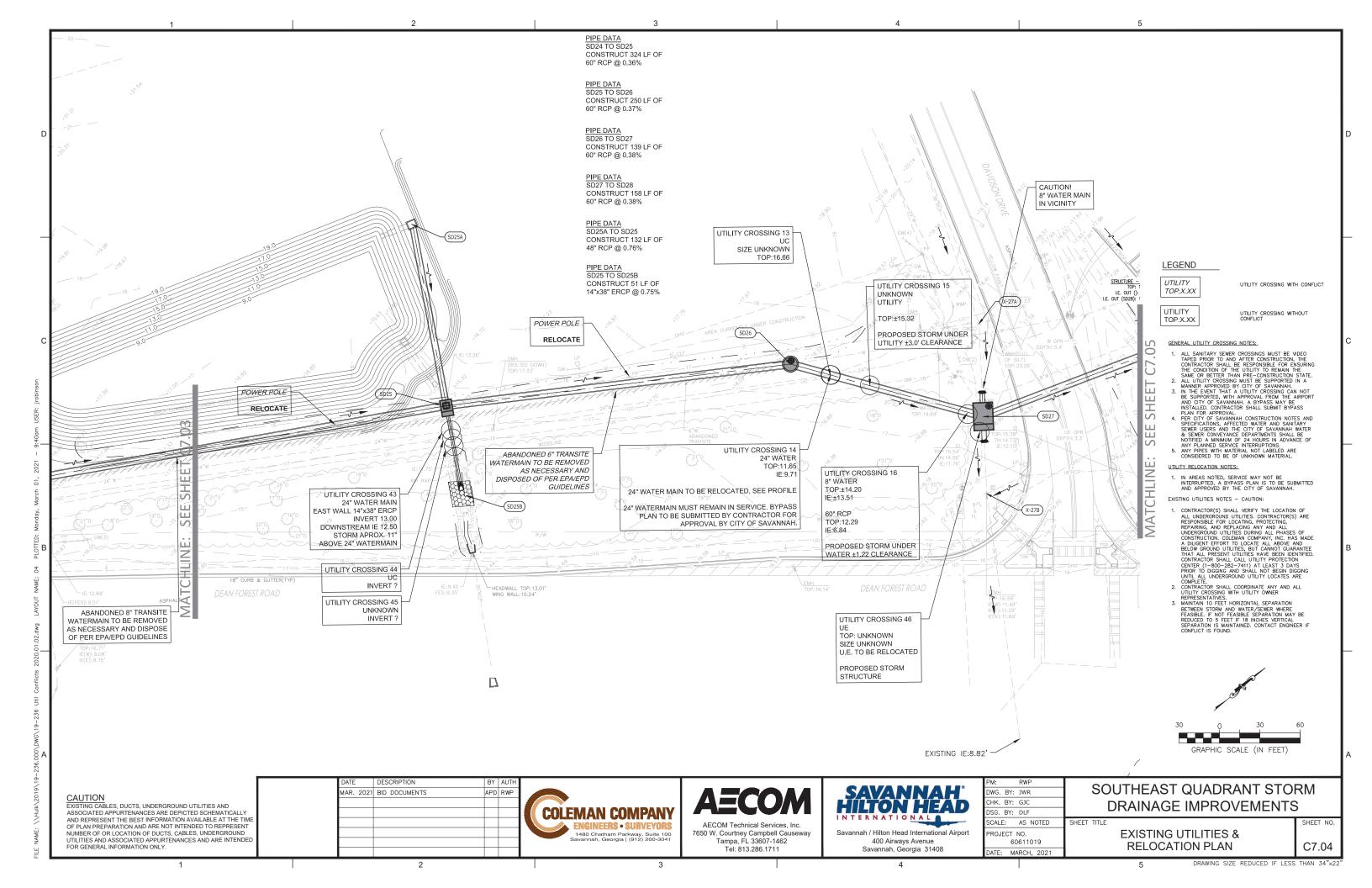


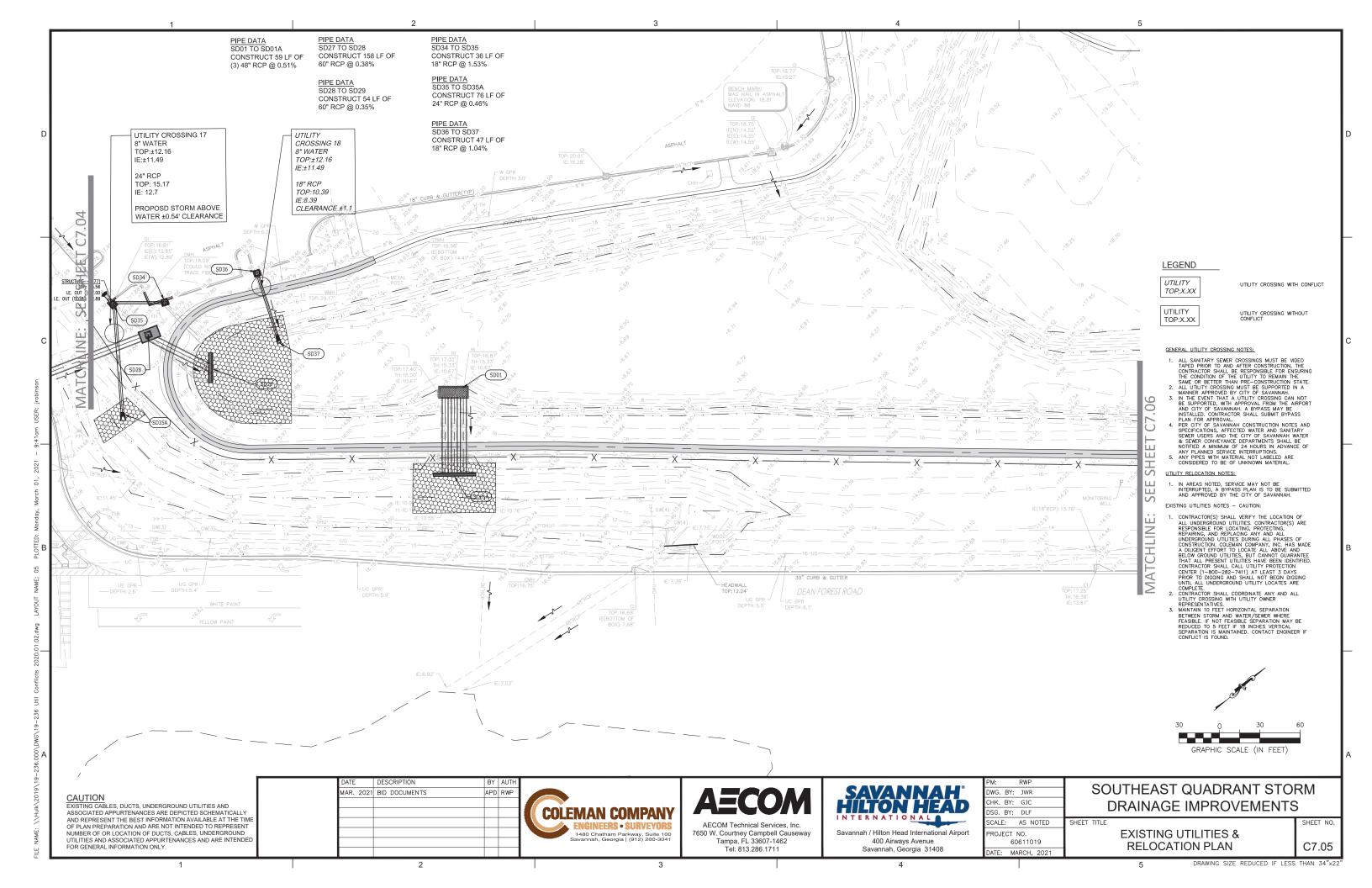


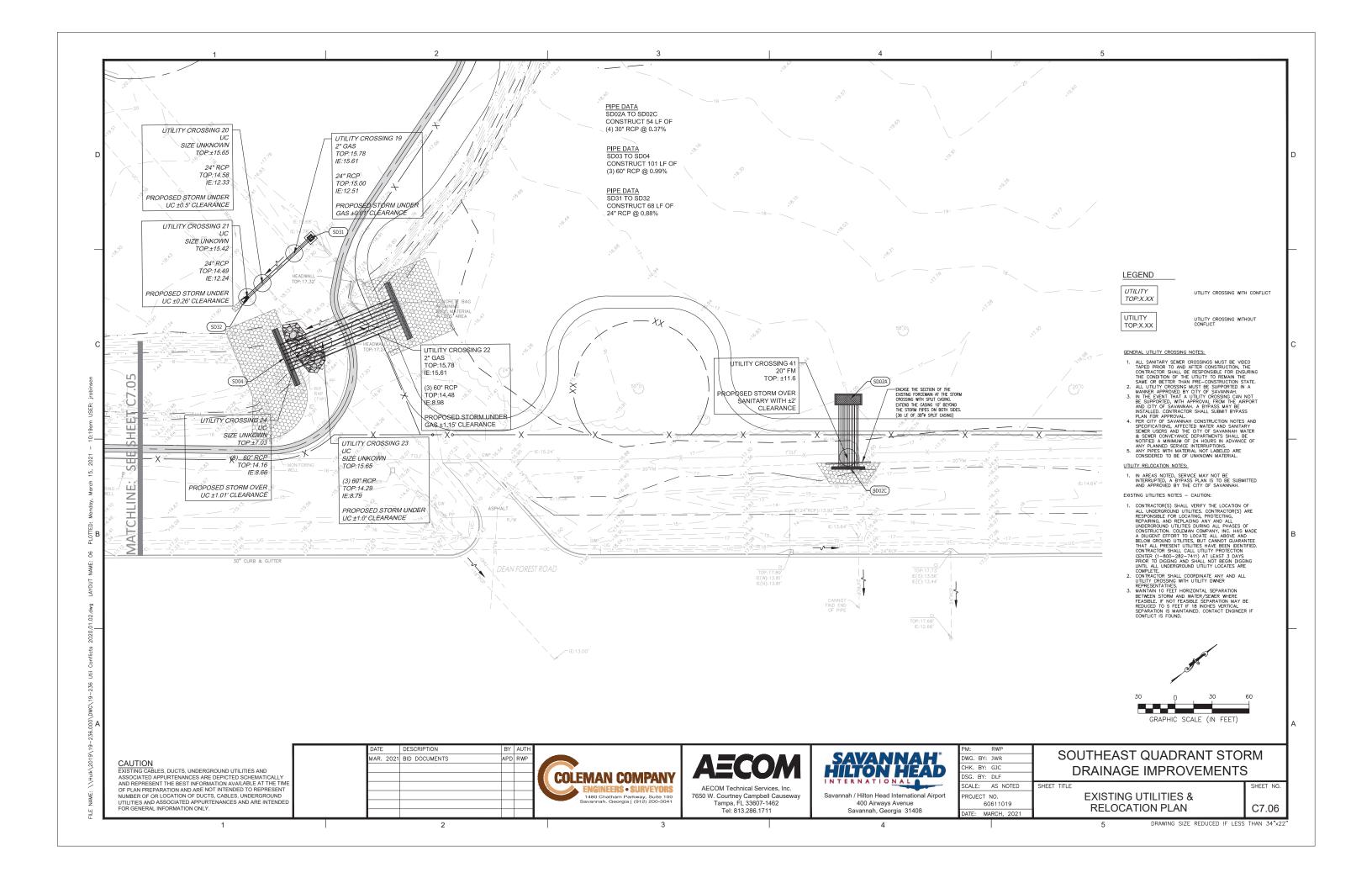


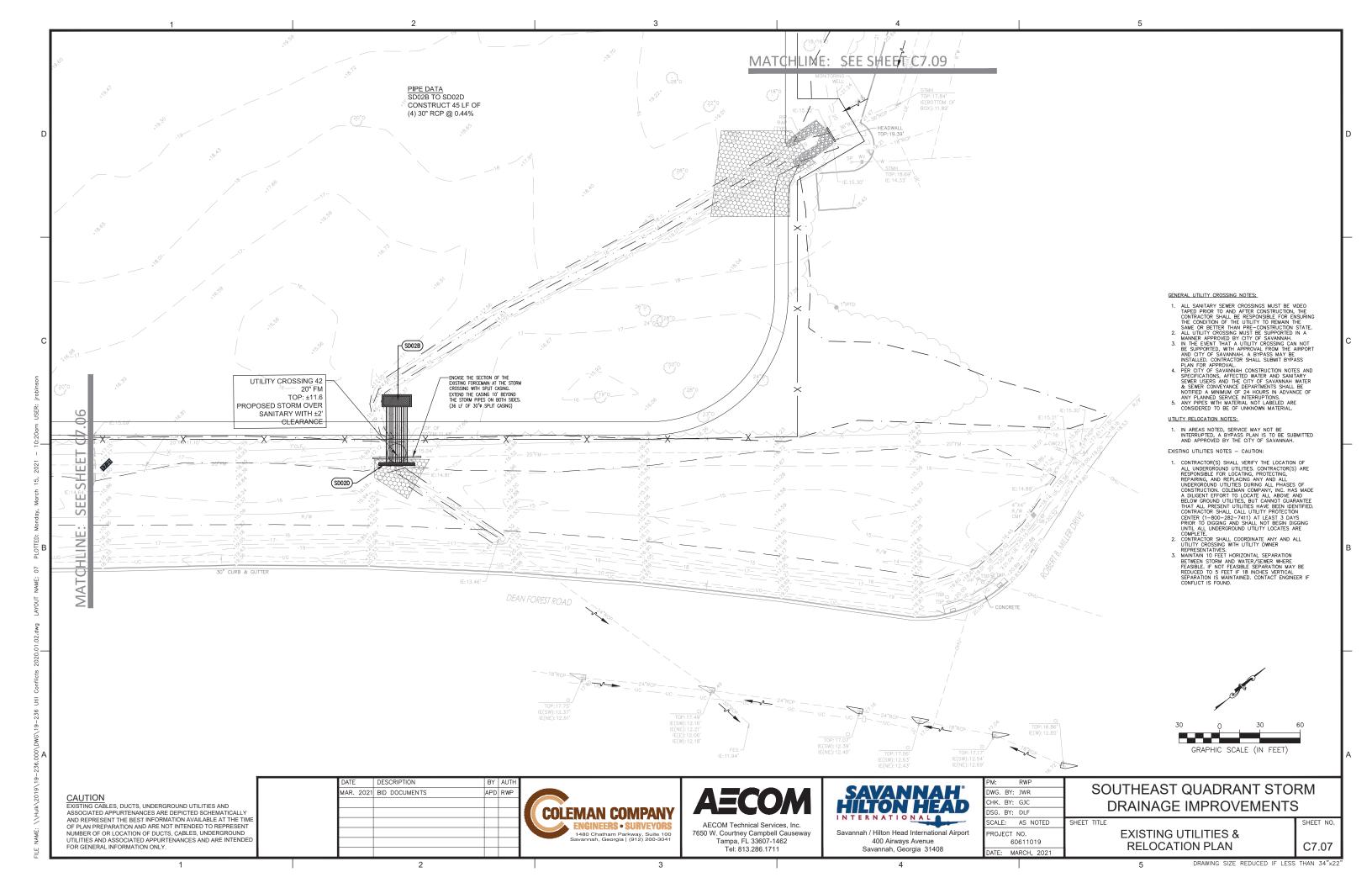


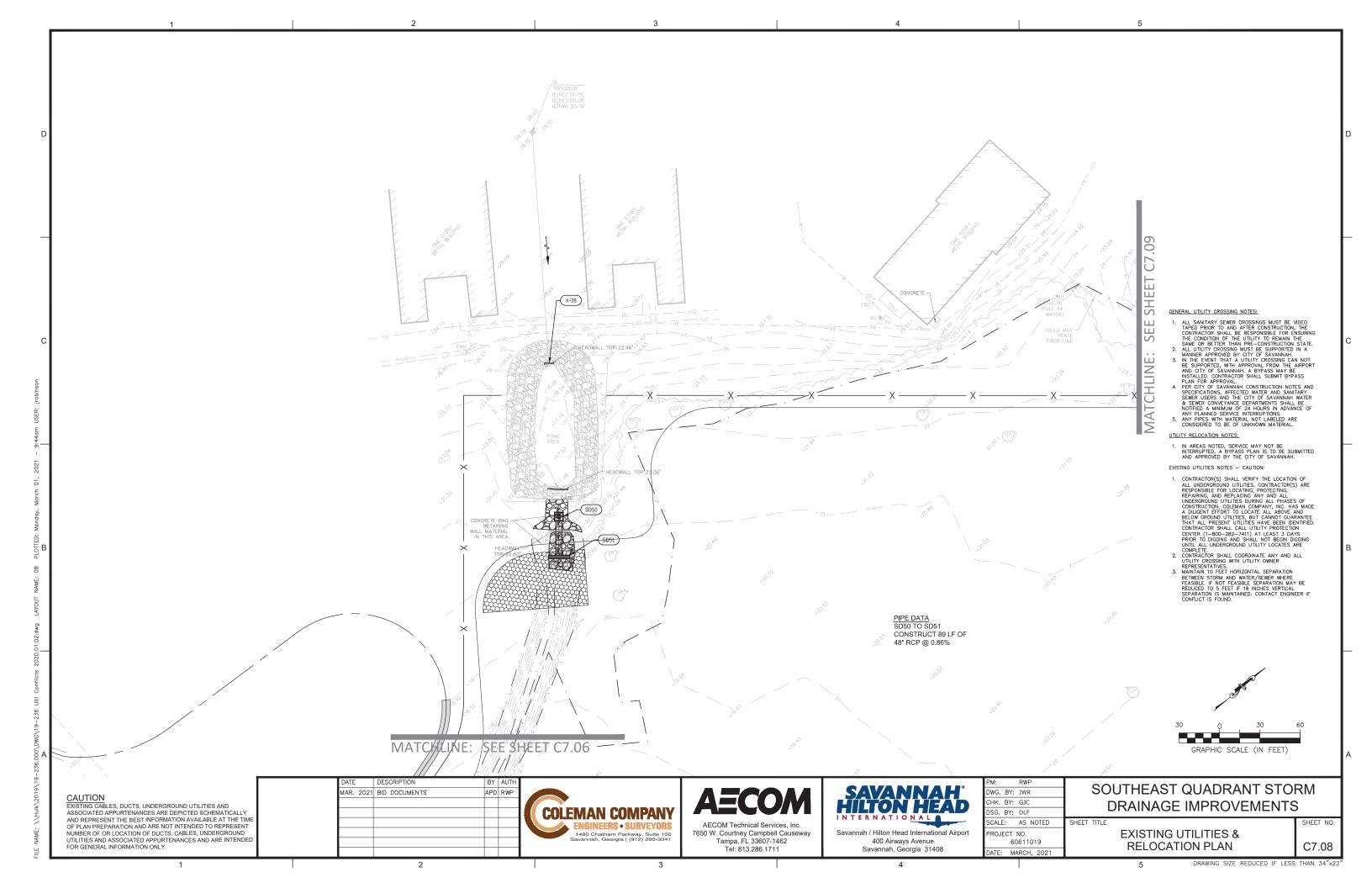


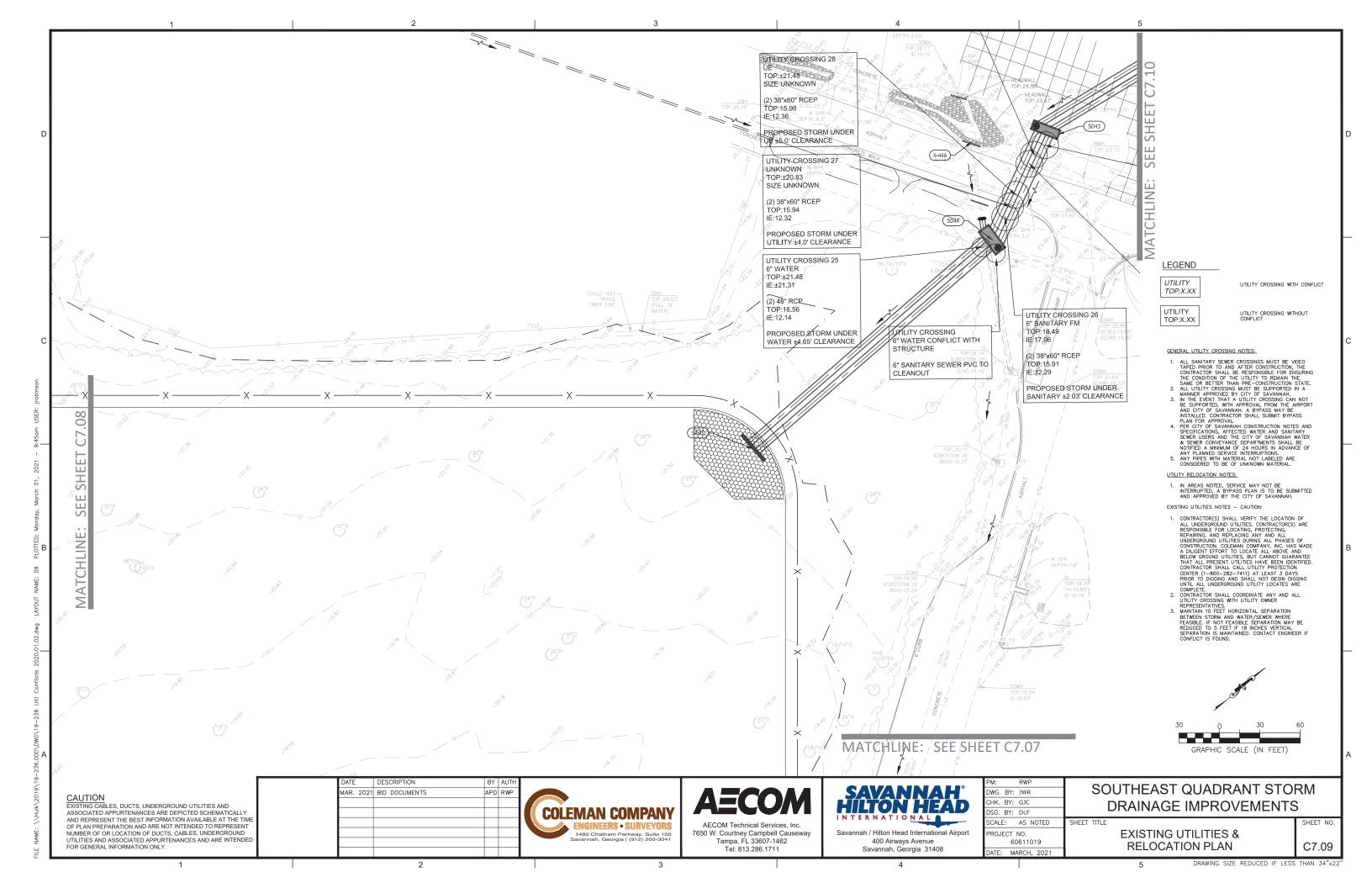


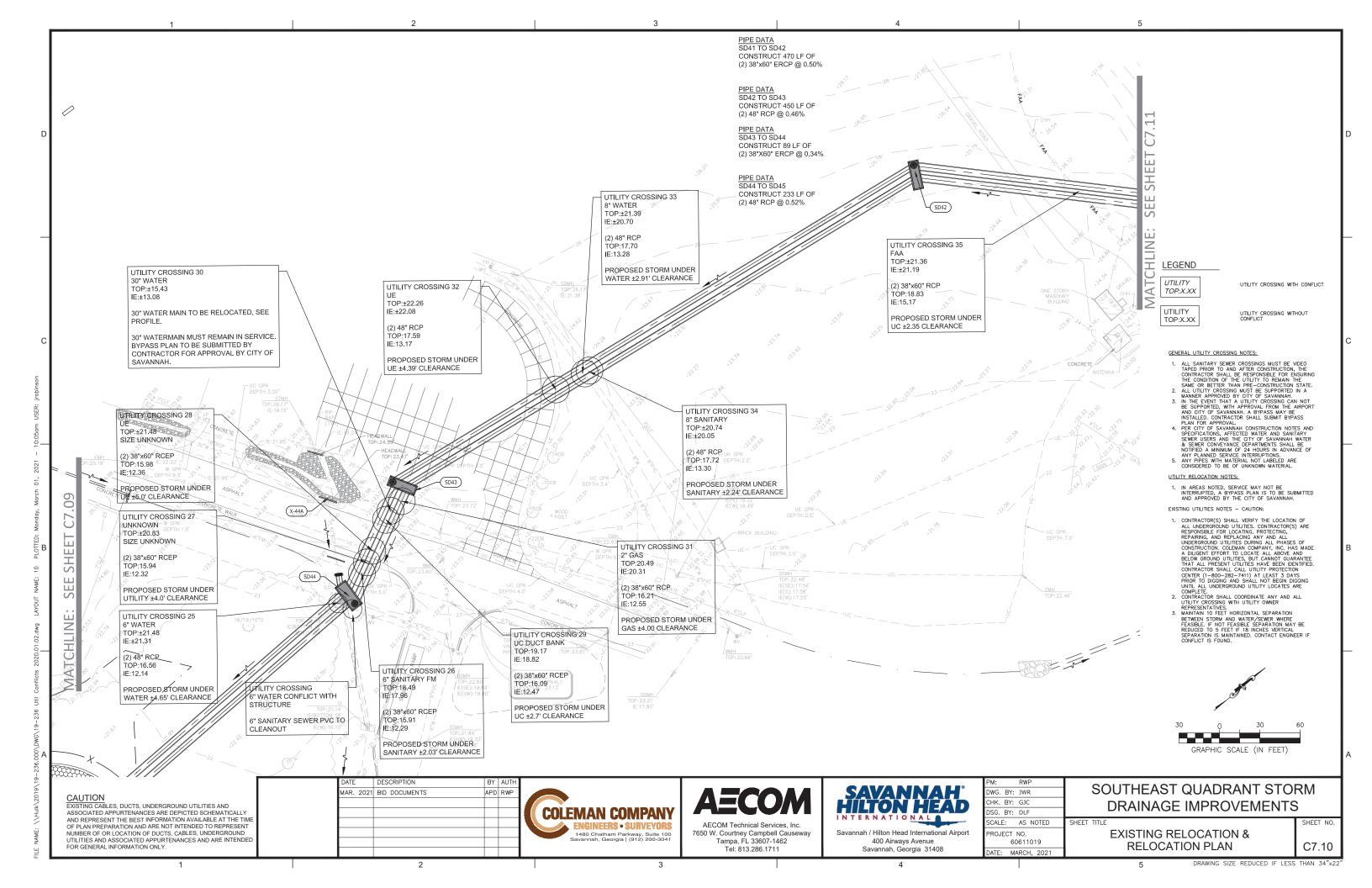


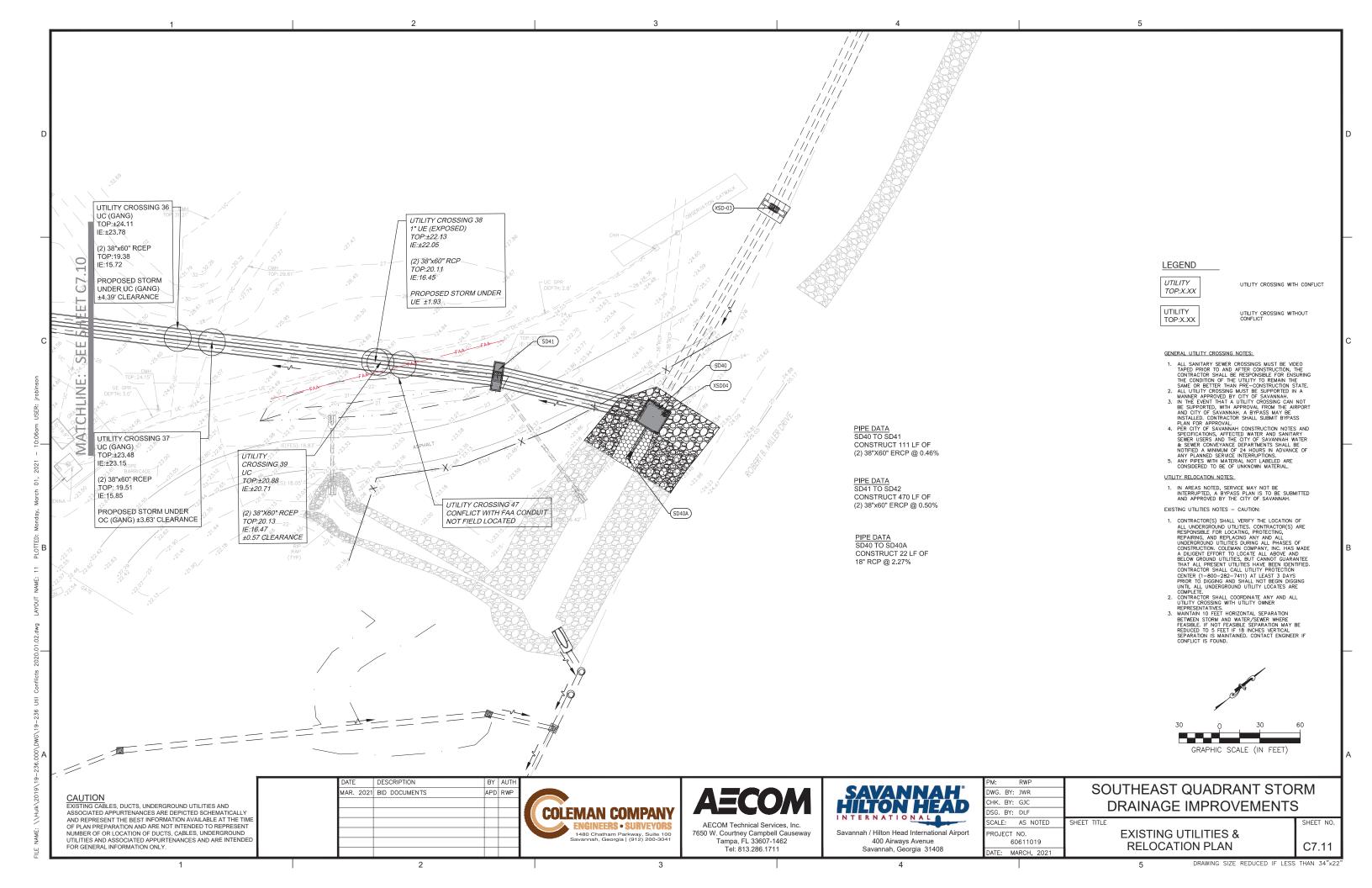


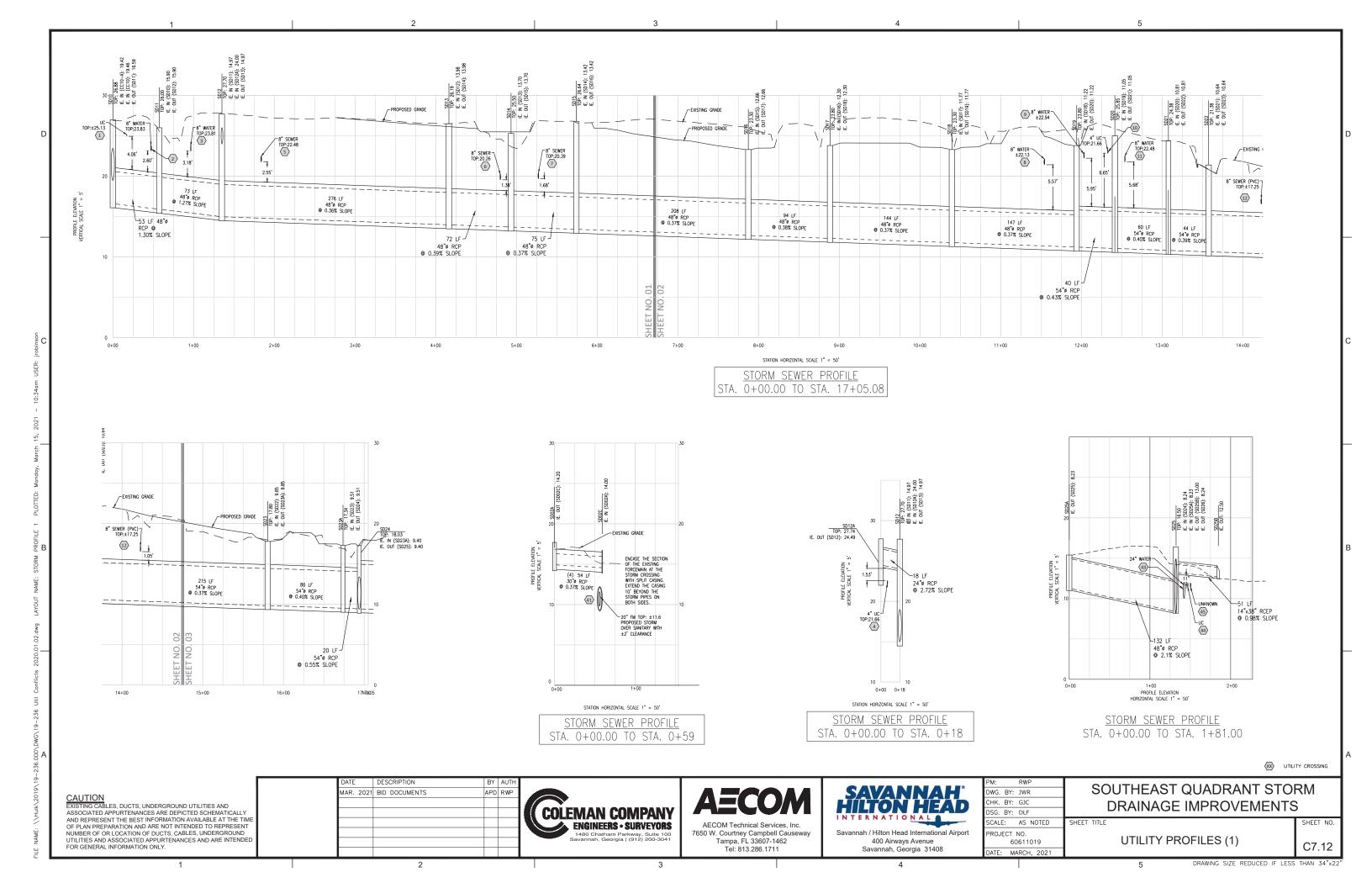


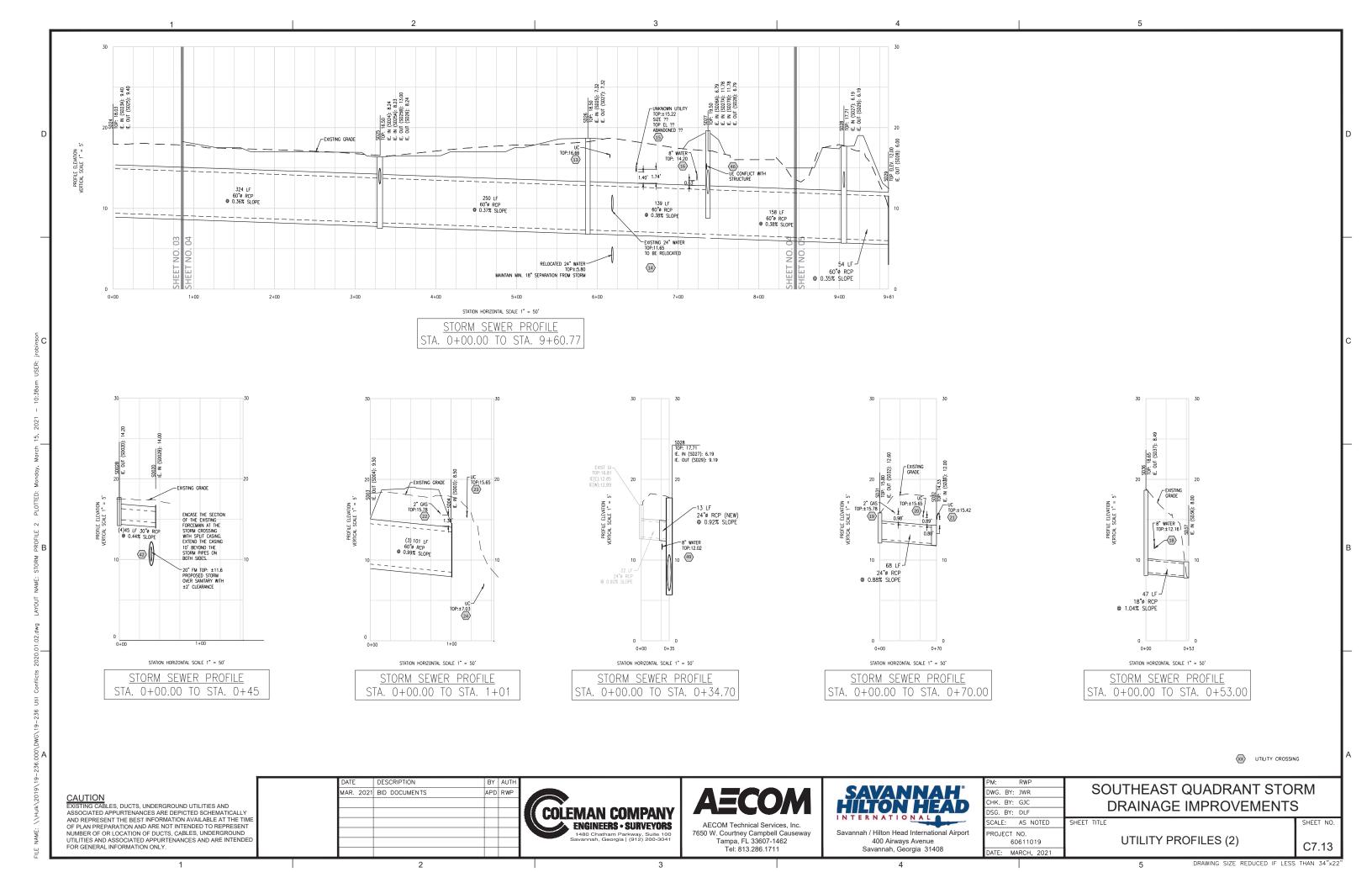


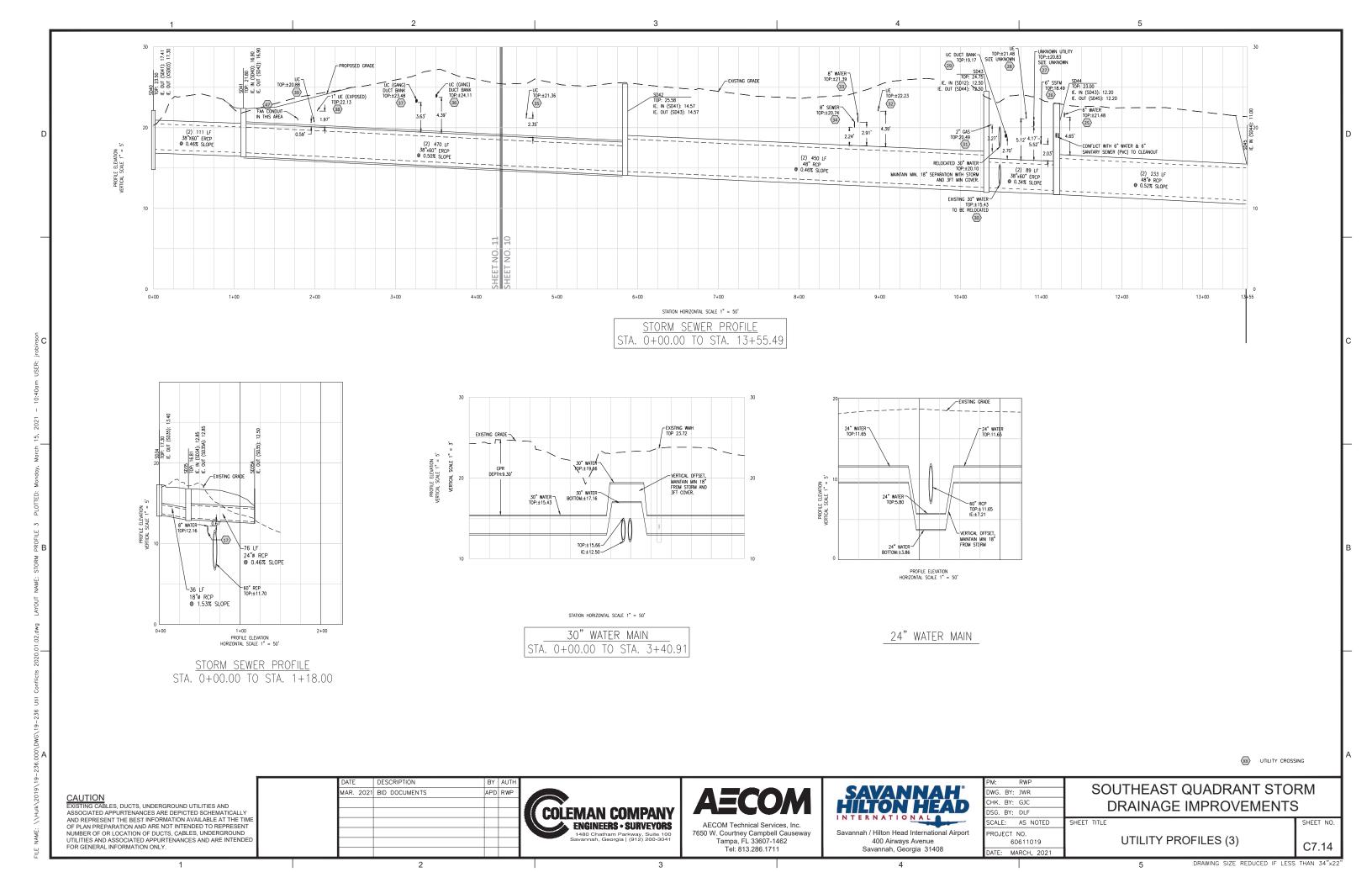


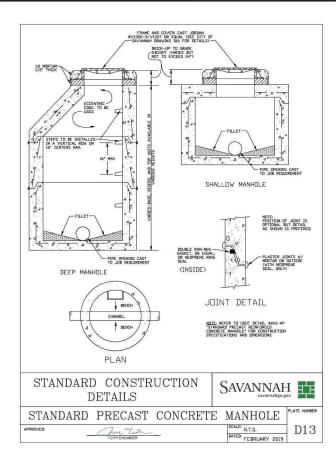


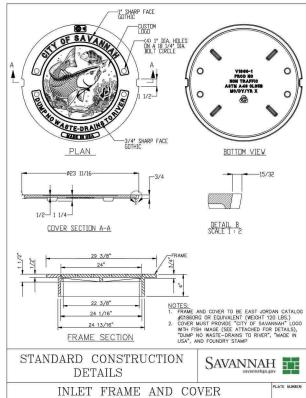


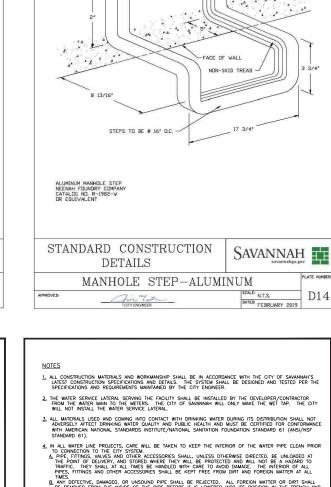














- AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON THE SITE.

- CONTACT THE UTILITIES PROTECTION CENTER (811 IN GEORGIA OR 1-800-282-7411) FOR LOCATION OF CITY SEWER LINES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO DIGGING.
- CONTRACTOR SHALL NOTIFY RESIDENTS A MINIMUM OF 24 HOURS IN ADVANCE OF ANY WORK THAT MAY MIPACT THEM, INCLUDING BUT NOT LIMITED TO: PARKING STALL IMPACT, LOSS OF SERVICE. DRIVEWAY CUTS, REMOVAL/RELOCATION OF FENCES AND MAIL BOXES, SIDEWALK IMPACTS, ETC.

SANITARY SEWER GENERAL NOTES

Savannah S17

STANDARD **&** savannah CONSTRUCTION

LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES
 WHERE LINES CONSIST OF BOTH DUTILE IRON AND PVC WITHIN THE
LINITS OF REQUIRED RESTRAINT, LINITS FOR PVC SHALL APPLY.
 INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN.
 THE PRINCIPARE SHALL PROVIDE AMENDED RESTRAINT LENGTHS IS SITE CONDITIONS DIFFE

VERTICAL BEND RESTRAINT W29

- IPE.

 CLEAN THE INTERIORS OF ALL PIPES BY BRUSHING, SWABBING OR WASHING OUT OF ALL DIRT BEFORE

- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE WATER LINES ARE PLACED WITHIN THE EASEMENTS WITH A MINIMUM 7'-6" AVAILABLE FROM PIPE CENTERLINE TO EASEMENT LINE.
- CONTACT THE UTILITIES PROTECTION CENTER (811 IN GEORGIA OR 1-800-282-7411) FOR LOCATION OF CITY WATER LINES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO DIGGING.
- 11, CONTRACTOR SHALL NOTIFY RESIDENTS A MINIMUM OF 24 HOURS IN ADVANCE OF ANY WORK THAT MAY IMPACT THEM, INCLUDING BUT NOT LIMITED TO: PARKING STALL MAPACT, LOSS OF SERVICE, DRIVEWAY CUTS, REMOVAL/RELOCATION OF FENCES AND MALE BOXES, SIGNALK IMPACTS, ETC.

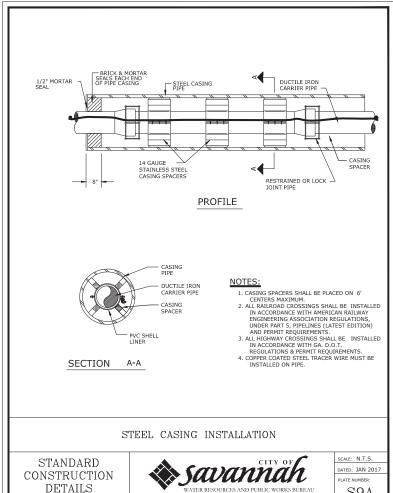
WATER GENERAL NOTES

STANDARD CONSTRUCTION DETAILS



W44

D14



DETAILS



S9A

CAUTION EXISTING CABLES, DUCTS, UNDERGROUND UTILITIES AND ASSOCIATED APPLIETENANCES ARE DEPICTED SCHEMATICALLY AND REPRESENT THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION AND ARE NOT INTENDED TO REPRESENT NUMBER OF OR LOCATION OF DUCTS, CABLES, UNDERGROUND UTILITIES AND ASSOCIATED APPURTENANCES AND ARE INTENDED FOR GENERAL INFORMATION ONLY.

CONSTRUCTION

DATE DESCRIPTION APD RWF



D5



AECOM Technical Services Inc. 7650 W. Courtney Campbell Causeway Tampa, FL 33607-1462 Tel: 813.286.1711



Savannah / Hilton Head International Airport 400 Airways Avenue Savannah, Georgia 31408

PM:		RW	Р
DWG.	BY:	JWI	₹
CHK.	BY:	GJC	2
DSG.	BY:	DLF	:
SCALE:		AS	NOTED

PROJECT NO.

60611019

SOUTHEAST QUADRANT STORM DRAINAGE IMPROVEMENTS

SHEET TITLE

UTILITY DETAILS

SHEET NO. C7.15

DRAWING SIZE REDUCED IF LESS THAN 34"x22

