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COUNCIL MEMBERS AT-LARGE
JULIAN RAMIREZ
WILLIE DAVIS
TWILA CARTER
LETITIA PLUMMER
SALLIE ALCORN

PLANS FOR CONSTRUCTION

OF

REHABILITATION OF TAXIWAYS SA & SB

AT

GEORGE BUSH INTERCONTINENTAL AIRPORT

PROJECT NO. 0646A
TIP NO. 23-134-IAH
BSG NO. BSG-2023-160-IAH
CIP NO. A-0515
AIP NO. 3-48-0111-XXX-XX

PREPARED BY

GARVER, LLC
IN ASSOCIATION WITH
JACOBS ENGINEERING GROUP, INC * BURNS & MCDONNELL ENGINEERING CO., INC * HT&J, LLC * RODS, INC. * CP&Y, INC * HVJ ASSOCIATES, INC. * LANDTECH * PGA ENGINEERS, INC. * RDM INTERNATIONAL, INC.

11/02/2023

ISSUE FOR BID (IFB)

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

COVER SHEET

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
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DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. G01.01

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REVISIONS

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GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

INDEX OF SHEETS I

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1'
DATE:	11/02/2023

STATE OF TEXAS
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PROJECT NO. 0646A
A.I.P. NO. XXXX
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H.A.S. NO. 20C0646A
SHEET NO. G01.02

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E02.06	ELECTRICAL DEMOLITION PLAN VI
E02.07	ELECTRICAL DEMOLITION PLAN VII
E02.08	ELECTRICAL DEMOLITION PLAN VIII
E02.09	ELECTRICAL DEMOLITION PLAN IX
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E03.04	ELECTRICAL INSTALLATION PLAN IV
E03.05	ELECTRICAL INSTALLATION PLAN V
E03.06	ELECTRICAL INSTALLATION PLAN VI
E03.07	ELECTRICAL INSTALLATION PLAN VII
E03.08	ELECTRICAL INSTALLATION PLAN VIII
E03.08A	ELECTRICAL INSTALLATION PLAN VIII (ADDITIVE ALTERNATE 1)
E03.09	ELECTRICAL INSTALLATION PLAN IX
E03.09A	ELECTRICAL INSTALLATION PLAN IX (ADDITIVE ALTERNATE 1)
E03.10	ELECTRICAL INSTALLATION PLAN X
E03.10A	ELECTRICAL INSTALLATION PLAN X (ADDITIVE ALTERNATE 1)
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E04.06	ELECTRICAL DETAILS VI
E04.07	ELECTRICAL DETAILS VII
E04.08	ELECTRICAL DETAILS VIII
E04.09	ELECTRICAL DETAILS IX
E04.10	ELECTRICAL DETAILS X
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X02.01–X02.65	SB CROSS SECTIONS
X03.01–X03.07	SC CROSS SECTIONS
X04.01–X04.05	SF CROSS SECTIONS
X05.01–X05.02	SG CROSS SECTIONS
X06.01–X06.02	SH CROSS SECTIONS
X07.01–X07.02	SJ CROSS SECTIONS
X08.01–X08.04	SK CROSS SECTIONS
X09.01–X09.03	SH HIGH-SPEED CROSS SECTIONS (ADDITIVE ALTERNATE 1)
X10.01–X10.03	SJ HIGH-SPEED CROSS SECTIONS (ADDITIVE ALTERNATE 1)

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

INDEX OF SHEETS II

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1"
DATE:	11/02/2023

STATE OF TEXAS
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Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
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C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G01.03

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BASE BID

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
	01210	Cash Allowances	LS	1
1	01555-1.04A	Traffic Control and Regulation, Excluding Flagmen	LS	1
2	01555-1.04B	Flagmen	LS	1
3	SS-130-4.1	Trench and Excavation Safety Systems	LF	85
4	SS-300-5.1	Lockout/Tagout and Constant Current Regulator Calibration Procedures	LS	1
5	SS-300-5.2	Removal/Repair of Broken Bolt, in Place	EA	235
6	SS-300-5.3	Retrofit Ground Lug to Existing Can, Installed	EA	235
7	SS-301-5.1	Existing Base Mounted Edge Light, Removed	EA	495
8	SS-301-5.2	Existing In-Pavement Centerline Light, Removed	EA	456
9	SS-301-5.3	Existing Base Mounted Guidance Sign, Removed	EA	28
10	SS-301-5.4	Existing Base Mounted Edge Light, Removed, Base Top Section, Removed	EA	50
11	SS-301-5.5	Existing In-Pavement Centerline Light, Removed, Base Top Section, Removed	EA	754
12	SS-301-5.6	Existing L-852G Runway Guard Light, Relocated on New Base	EA	5
13	SS-301-5.7	Abandoned Sign Foundation, Demolished	EA	2
14	SS-301-5.8	Existing Electrical Conduit, 1-Way 2"C, Cleared	LF	10,000
15	SS-301-5.9	Existing Electrical Conduit, 1-Way 4"C, Cleared	LF	10,000
16	SS-305-5.1	Directional Boring, 16-Way 2"C Polyethylene Conduits	LF	1,350
17	SS-310-5.1	Temporary Airfield Lighting	LS	1
18	SS-310-5.2	Mobile Photometric Testing	LS	1
19	SS-310-5.3	Temporary Airfield Lighting (Additive Alternate 1)	LS	1
20	SS-310-5.4	Spare L-861T(L) Taxiway Edge Light, Delivered to Airport	EA	54
21	SS-310-5.5	Spare L-852C(L), Green/Green Lens, Taxiway Centerline Light, Delivered to Airport	EA	54
22	SS-310-5.6	Spare L-852C(L), Yellow/Obscured Lens, Taxiway Centerline Light, Delivered to Airport	EA	12
23	SS-310-5.7	Spare L-852D(L) Green/Green Lens Taxiway Centerline Light, Delivered to Airport	EA	65
24	SS-310-5.8	Spare L-852D(L) Green/Yellow Lens Taxiway Centerline Light, Delivered to Airport	EA	1
25	SS-310-5.9	Spare L-852D(L) Yellow/Yellow Lens Taxiway Centerline Light, Delivered to Airport	EA	10
26	SS-310-5.10	Spare L-852G(L) Runway Guard Light, Delivered to Airport	EA	13
27	SS-310-5.11	Spare L-858(L) Sign Components Package, Delivered to Airport	EA	3
28	C-100-14.1	Contractor Quality Control Program (CQCP)	LS	1
29	C-102-5.1a	Filter Dam Type II	LF	70
30	C-102-5.1b	Reinforced Silt Fence	LF	25,320
31	C-105-6.1	Mobilization	LS	1
32	P-101-5.1	Asphalt Milling (1" and Variable Depth)	SY	63,730
33	P-101-5.2	Asphalt Milling (2" and Variable Depth)	SY	204,600
34	P-101-5.3	Asphalt Milling (5" and Variable Depth)	SY	45,370
35	P-101-5.5	Concrete Pavement Removal (12"-15" Depth)	SY	550
36	P-101-5.6	Remove and Dispose 24" CMP	LF	660
37	P-101-5.7	Concrete Slope Paving Removal and Disposal	SY	9,680
38	P-101-5.8	Concrete Headwall Removal	EA	10
39	P-101-5.9	Asphalt Crack Repair	LF	140,000
40	P-152-4.1	Unclassified Excavation	CY	72,240
41	P-209-5.1	6" Crushed Aggregate Base Course	SY	2,880
42	P-209-5.2	15" Crushed Aggregate Base Course	SY	76,570
43	P-209-5.3	Aggregate Base Course (Slope Stabilization)	CY	1,410
44	P-209-5.4	Separation Geotextile (Slope Stabilization)	SY	16,910
45	P-209-5.5	Geogrid (Slope Stabilization)	SY	2,750
46	P-307-7.1	6" Cement Treated Permeable Base	CY	320
47	P-401-8.1	Bituminous Surface Course (PG 76-22)	TON	46,530
48	P-403-8.1	Bituminous Base Course (PG 76-22)	TON	42,570

BASE BID (CONT'D)

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
49	P-501-8.1	10" Portland Cement Concrete Pavement	SY	390
50	P-501-8.2	12"-15" Portland Cement Concrete Pavement	SY	530
51	P-501-8.4	Concrete Pavement Partial Depth Repair	SF	2,000
52	P-501-8.5	Concrete Pavement Crack Repair	LF	3,000
53	P-610-6.1	Concrete Slope Paving	SY	15,650
54	P-610-6.2	Modify Curb Opening	EA	65
55	P-610-6.3	Concrete Pilot Channel	SY	12,070
56	P-610-6.4	Interceptor Structure	SY	310
57	P-620-5.1a	Taxiway Pavement Marking with Reflective Beads (Yellow)	SF	86,210
58	P-620-5.1b	Taxiway Pavement Marking with Reflective Beads (Black)	SF	111,220
59	P-620-5.1c	Thermoplastic Surface Painted Runway Direction Signs	EA	14
60	P-620-5.1d	Thermoplastic Surface Painted Apron Control Marking Signs	EA	2
61	P-620-5.1e	Surface Preparation	SF	197,430
62	P-620-5.1f	Temporary Taxiway Pavement Markings (Yellow)	SF	14,200
63	P-620-5.1g	Temporary Taxiway Pavement Markings (Black)	SF	24,400
64	P-620-5.1h	Temporary Taxiway Pavement Markings Removal	SF	4,700
65	P-620-5.1i	Removal of Existing Pavement Marking	SF	1,500
66	D-701-5.1	Install 6'x5' RCB (Class V) Open Cut, Complete in Place	LF	70
67	D-701-5.2	Install 7'x5' RCB (Class V) Open Cut, Complete in Place	LF	70
68	D-701-5.3	Install 8'x4' RCB (Class V) Open Cut, Complete in Place	LF	160
69	D-701-5.4	Install 10'x7' RCB (Class V) Open Cut, Complete in Place	LF	30
70	D-701-5.5	Install 24" CMP Open Cut, Complete in Place	LF	2,280
71	D-752-5.1	Install Wingwall, Complete in Place	CY	1,190
72	T-901-5.1	Hydroseeding	AC	25.0
73	T-904-5.1	Sodding	SY	46,570
74	L-108-5.1	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in Trench, Duct Bank or Conduit	LF	177,400
75	L-108-5.2	No. 6 AWG, Solid, Bare Copper Counterpoise Wire, Installed in Trench, Above the Duct Bank or Conduit, Including Connections/Terminations	LF	3,000
76	L-110-5.1	Flowable Fill Encased Electrical Conduit, 1W-2"C	LF	1,900
77	L-110-5.2	Non-Encased Electrical Conduit, 1W-2"C	LF	150
78	L-110-5.3	Concrete Encased Electrical Conduit, 1W-2"C	LF	1,150
79	L-110-5.4	Concrete Encased Electrical Conduit, 1W-2"C with Saw Kerf Pavement Repair	LF	450
80	L-110-5.5	Non-Encased Electrical Duct Bank, 16W-2"C	LF	225
81	L-110-5.6	Non-Encased Electrical Duct Bank, 2W-2"C	LF	280
82	L-110-5.7	Flowable Filll Encased Electrical Duct Bank, 2W-2"C	LF	650
83	L-115-5.1	Existing Electrical Junction Structure/Manhole Adjusted to New Grade	EA	64
84	L-115-5.2	4'x4'x4' Aircraft-Rated Handhole, Installed	EA	4
85	L-115-5.3	L-868 Blank Cover with Spacers, Installed	EA	5
86	L-125-5.1	L-852C/D(L) Taxiway Centerline Light, Installed on Adjusted Light Base	EA	754
87	L-125-5.2	L-852C/D(L) Taxiway Centerline Light, Installed on Existing Light Base	EA	442
88	L-125-5.3	L-861T(L) Base Mounted Taxiway Edge Light, Installed on Adjusted Light Base	EA	407
89	L-125-5.4	L-861T(L) Base Mounted Taxiway Edge Light, Installed on Existing Light Base	EA	88
90	L-125-5.5	L-858(L) Base Mounted Guidance Sign, Installed	EA	28
91	L-125-5.6	L-852C/D(L) Taxiway Centerline Light, Installed on New Light Base	EA	38
92	L-125-5.7	L-852G(L) In-Pavement Runway Guard Light, Installed	EA	62
93	L-125-5.8	L-861T(L) Base Mounted Taxiway Edge Light, Installed on New Base in Existing Pavement	EA	18
94	L-125-5.9	L-861T(L) Base Mounted Taxiway Edge Light, Installed on New Base in New Pavement	EA	23
95	L-125-5.10	L-852C/D(L) Taxiway Centerline Light, Installed on New Base in Existing Pavement	EA	18
96	L-125-5.11	Update Sign Legend	EA	1
97	L-125-5.12	L-852C/D(L) Taxiway Centerline Light, Installed on New Base in Existing Pavement with Mill and Overlay	EA	18
98	02378-4.1	Riprap Gradation No. 1, including Topsoil	TON	240

ADDITIVE ALTERNATE #1

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
1	SS-305-5.1	Directional Boring, 16-Way 2"C Polyethylene Conduits	LF	1,300
2	P-152-4.1	Unclassified Excavation	CY	7,470
3	P-101-5.1	Asphalt Milling (1" and Variable Depth)	SY	(3,410)
4	P-101-5.4	Full-Depth Asphalt Shoulder Removal	SY	4,700
5	P-209-5.1	6" Crushed Aggregate Base Course	SY	12,410
6	P-209-5.2	15" Crushed Aggregate Base Course	SY	2,200
7	P-304-8.1	6" Cement-Treated Base Course	SY	12,050
8	P-403-8.1	Bituminous Base Course (PG 76-22)	TON	410
9	P-501-8.3	18" Portland Cement Concrete Pavement	SY	10,560
10	P-620-5.1a	Taxiway Pavement Marking with Reflective Beads (Yellow)	SF	1,690
11	P-620-5.1b	Taxiway Pavement Marking with Reflective Beads (Black)	SF	2,180
12	P-620-5.1c	Thermoplastic Surface Painted Runway Direction Signs	EA	4
13	T-901-5.1	Hydroseeding	AC	(1.0)
14	T-904-5.1	Sodding	SY	200
15	L-108-5.1	No. 8 AWG, 5 kV, L-824, Type C Cable, Installed in Trench, Duct Bank or Conduit	LF	25,000
16	L-108-5.2	No. 6 AWG, Solid, Bare Copper Counterpoise Wire, Installed in Trench, Above the Duct Bank or Conduit, Including Connections/Terminations	LF	16,300
17	L-110-5.1	Flowable Fill Encased Electrical Conduit, 1W-2"C	LF	1,700
18	L-110-5.3	Concrete Encased Electrical Conduit, 1W-2"C	LF	1,100
19	L-110-5.4	Concrete Encased Electrical Conduit, 1W-2"C with Saw Kerf Pavement Repair	LF	525
20	L-110-5.5	Non-Encased Electrical Duct Bank, 16W-2"C	LF	320
21	L-110-5.6	Non-Encased Electrical Duct Bank, 2W-2"C	LF	160
22	L-110-5.7	Flowable Filll Encased Electrical Duct Bank, 2W-2"C	LF	700
23	L-115-5.2	4'x4'x4' Aircraft-Rated Handhole, Installed	EA	3
24	L-125-5.2	L-852C/D(L) Taxiway Centerline Light, Installed on Existing Light Base	EA	9
25	L-125-5.3	L-861T(L) Base Mounted Taxiway Edge Light, Installed on Adjusted Light Base	EA	(23)
26	L-125-5.4	L-861T(L) Base Mounted Taxiway Edge Light, Installed on Existing Light Base	EA	(8)
27	L-125-5.5	L-858(L) Base Mounted Guidance Sign, Installed	EA	2
28	L-125-5.6	L-852C/D(L) Taxiway Centerline Light, Installed on New Light Base	EA	14
29	L-125-5.7	L-852G(L) In-Pavement Runway Guard Light, Installed	EA	31
30	L-125-5.8	L-861T(L) Base Mounted Taxiway Edge Light, Installed on New Base in Existing Pavement	EA	15
31	L-125-5.9	L-861T(L) Base Mounted Taxiway Edge Light, Installed on New Base in New Pavement	EA	22
32	L-125-5.10	L-852C/D(L) Taxiway Centerline Light, Installed on New Base in Existing Pavement	EA	41

ADDITIVE ALTERNATE #2

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
1	P-401-8.1	Bituminous Surface Course (PG 76-22)	TON	(9,727)
2	P-401-8.2	Bituminous Surface Course (PG 82-22)	TON	9,727
3	P-403-8.1	Bituminous Base Course (PG 76-22)	TON	(4,067)
4	P-403-8.2	Bituminous Base Course (PG 82-22)	TON	4,067

ADDITIVE ALTERNATE #3

ITEM NO.	SPEC. NO.	DESCRIPTION	UNIT	ESTIMATED QUANTITY
1	01555-1.04A	Traffic Control and Regulation, Excluding Flagmen	LS	1
2	01555-1.04B	Flagmen	LS	1
3	SS-300-5.1	Lockout/Tagout and Constant Current Regulator Calibration Procedures	LS	1
4	C-100-14.1	Contractor Quality Control Program (CQCP)	LS	1
5	C-105-6.1	Mobilization	LS	1
6	P-101-5.2	Asphalt Milling (2" and Variable Depth)	SY	565
7	P-101-5.10	Concrete Pavement Removal (14"-20" Depth)	SY	445
8	P-401-8.1	Bituminous Surface Course (PG 76-22)	TON	145
9	P-501-8.4	Concrete Pavement Partial Depth Repair	SF	500
10	P-501-8.5	Concrete Pavement Crack Repair	LF	500
11	P-501-8.6	Concrete Pavement Crack Repair (Epoxy Injection)	LF	400
12	P-501-8.7	14"-20" Portland Cement Concrete Pavement	SY	445
13	P-501-8.8	Concrete Joint Seal Repair	LF	5,000
14	P-620-5.1a	Taxiway Pavement Marking with Reflective Beads (Yellow)	SF	2,000
15	P-620-5.1b	Taxiway Pavement Marking with Reflective Beads (Black)	SF	2,000
16	P-620-5.1f	Temporary Taxiway Pavement Markings (Yellow)	SF	2,115
17	P-620-5.1g	Temporary Taxiway Pavement Markings (Black)	SF	2,115
18	P-620-5.1h	Temporary Taxiway Pavement Markings Removal	SF	4,230
19	SS-310-5.3	Temporary Airfield Lighting (Additive Alternate 3)	LS	1

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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SUMMARY OF QUANTITIES

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1"
DATE:	11/02/2023

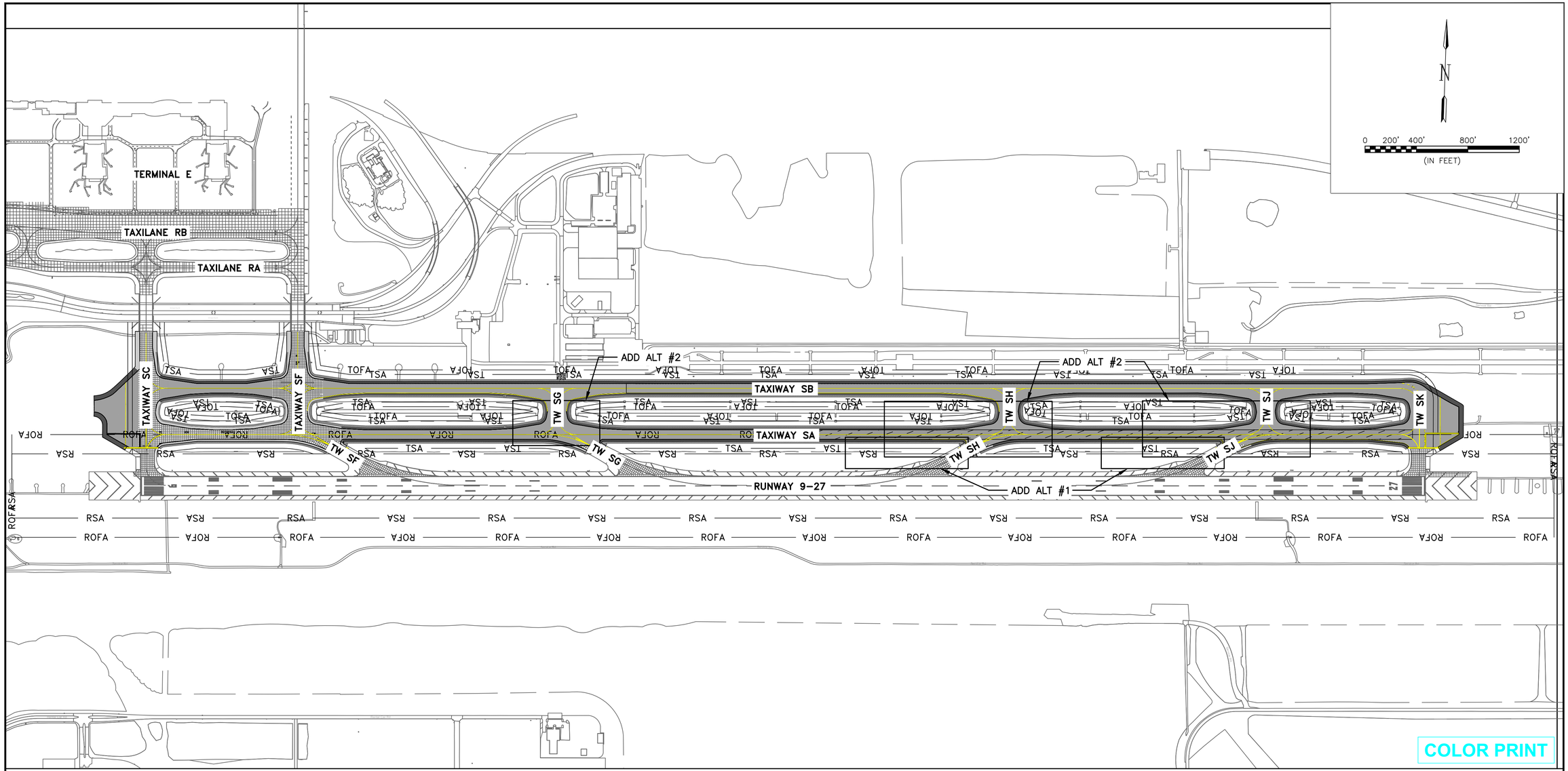
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A
A.I.P. NO.
XXXX
C.I.P. NO.
A-0515
H.A.S. NO.
20C0646A
SHEET NO.

G01.04



COLOR PRINT

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- PROPOSED FULL DEPTH CONCRETE SECTION
- — RSA — RUNWAY SAFETY AREA
- — ROFA — RUNWAY OBJECT FREE AREA
- — TSA — TAXIWAY SAFETY AREA
- — TOFA — TAXIWAY OBJECT FREE AREA

NOTES:

1. THE CONTRACTOR ACCESS AND HAUL ROUTE SHALL BE AS LAID OUT IN THE OVERALL PHASING PLAN (SEE SHEET G02.04)
2. THE CONTRACTOR MUST ADHERE TO THE GENERAL CONTRACT, SAFETY, & SECURITY NOTES ON SHEETS G02.01–G02.02.
3. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS. ALL EXISTING UTILITIES MAY NOT BE SHOWN ON THE PLANS, AND THE LOCATION OF THE UTILITIES SHOWN MAY VARY FROM THE LOCATION SHOWN ON THE PLANS. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT AIRPORT MAINTENANCE AND LOCAL UTILITY TO MAKE ARRANGEMENTS FOR THE LOCATION OF THE UTILITY ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.

ITEMS OF WORK

BASE BID:

1. 2" VARIABLE MILL AND 3" VARIABLE OVERLAY OF THE EXISTING ASPHALT TAXIWAY PAVEMENT.
2. 5" VARIABLE MILL AND 6" VARIABLE OVERLAY OF THE EXISTING ASPHALT TAXIWAY PAVEMENT.
3. 1" MILL AND 2" OVERLAY OF THE EXISTING ASPHALT SHOULDER PAVEMENT.
4. FULL DEPTH ASPHALT CONSTRUCTION FOR ASPHALT SHOULDER WIDENING.
5. CONCRETE PANEL REPLACEMENT OF IDENTIFIED TAXIWAY SLABS.
6. CONCRETE CRACKS AND PARTIAL DEPTH REPAIRS AS IDENTIFIED/MARKED BY CONTRACTOR AND APPROVED/DIRECTED BY THE RPR.
7. REPLACEMENT OF TAXIWAY EDGE AND CENTERLINE LIGHTS.
8. REPLACEMENT OF ELECTRICAL CABLES.
9. INSTALLATION OF NEW AIRFIELD GUIDANCE SIGNS.
10. DRAINAGE IMPROVEMENTS TO ACCOMMODATE WIDENED SHOULDERS.

ADDITIVE ALTERNATE #1:

1. CONSTRUCTION OF FULL DEPTH CONCRETE PAVEMENT AND SHOULDERS FOR FILLET EXPANSION.
2. INSTALLATION OF TAXIWAY EDGE AND CENTERLINE LIGHTS.
3. REPLACEMENT OF TAXIWAY EDGE AND CENTERLINE LIGHTS.
4. REPLACEMENT OF ELECTRICAL CABLES.

ITEMS OF WORK (CONT'D)

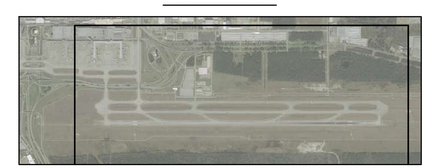
ADDITIVE ALTERNATE #2:

1. REPLACE PG 76–22 HMAC WITH PG 82–22 HMAC IN SELECTED AREAS.

ADDITIVE ALTERNATE #3:

1. CONCRETE PANEL REPLACEMENT OF IDENTIFIED TAXIWAY SLABS.
2. CONCRETE CRACKS AND PARTIAL DEPTH REPAIRS AS IDENTIFIED/MARKED BY CONTRACTOR AND APPROVED/DIRECTED BY THE RPR.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

PROJECT SITE PLAN

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 400'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G01.05

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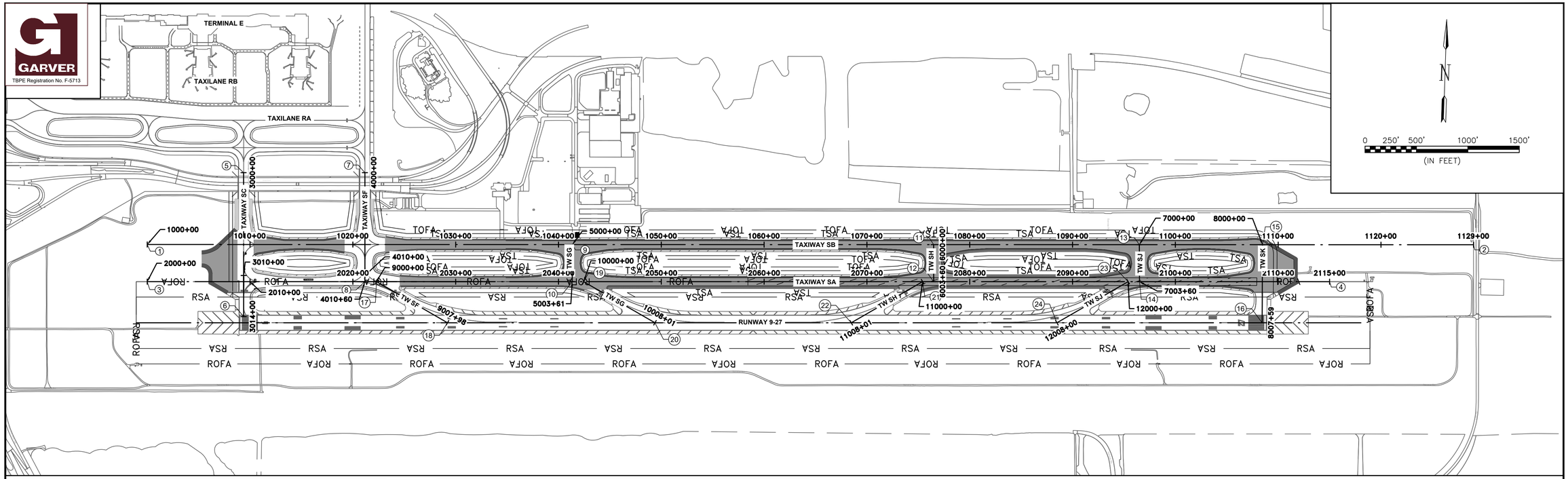
GARVER
TBPE Registration No. F-5713



SURVEY CONTROL POINTS				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	13923328.67'	3133101.90'	84.41'	CH*3/8"IRw/LANDTECH CAP
2	13923415.60'	3133466.60'	84.13'	CH*3/8"IRw/LANDTECH CAP
3	13923433.58'	3133966.22'	84.73'	CH*3/8"IRw/LANDTECH CAP
4	13923451.23'	3134466.37'	83.92'	CH*3/8"IRw/LANDTECH CAP
5	13923475.24'	3134968.23'	82.91'	CH*3/8"IRw/LANDTECH CAP
6	13923489.72'	3135468.52'	82.10'	CH*3/8"IRw/LANDTECH CAP
7	13923506.73'	3135968.19'	82.51'	CH*3/8"IRw/LANDTECH CAP
8	13923525.36'	3136467.29'	81.49'	CH*3/8"IRw/LANDTECH CAP
9	13923543.12'	3136967.54'	82.56'	CH*3/8"IRw/LANDTECH CAP
10	13923550.58'	3137467.40'	81.29'	CH*3/8"IRw/LANDTECH CAP
11	13923576.03'	3137965.80'	83.21'	CH*3/8"IRw/LANDTECH CAP
12	13923590.67'	3138465.44'	82.51'	CH*3/8"IRw/LANDTECH CAP
13	13923611.68'	3138966.18'	83.03'	CH*3/8"IRw/LANDTECH CAP
14	13923630.78'	3139465.88'	82.55'	CH*3/8"IRw/LANDTECH CAP
15	13923643.31'	3139965.77'	81.85'	CH*3/8"IRw/LANDTECH CAP
16	13923659.23'	3140465.75'	81.66'	CH*3/8"IRw/LANDTECH CAP
17	13923675.56'	3140966.03'	81.78'	CH*3/8"IRw/LANDTECH CAP
18	13923218.47'	3138819.43'	81.97'	CH*3/8"IRw/LANDTECH CAP
19	13923198.31'	3138217.69'	81.79'	CH*3/8"IRw/LANDTECH CAP
20	13923180.67'	3137634.87'	82.11'	CH*3/8"IRw/LANDTECH CAP
21	13923166.13'	3137135.17'	82.11'	CH*3/8"IRw/LANDTECH CAP
22	13923147.32'	3136634.41'	82.40'	CH*3/8"IRw/LANDTECH CAP
23	13923130.31'	3136141.78'	82.44'	CH*3/8"IRw/LANDTECH CAP
24	13923120.60'	3135697.59'	82.67'	CH*3/8"IRw/LANDTECH CAP
25	13923099.72'	3135097.52'	83.10'	CH*3/8"IRw/LANDTECH CAP
26	13923079.60'	3134497.42'	83.84'	CH*3/8"IRw/LANDTECH CAP
27	13923059.85'	3133896.60'	84.16'	CH*3/8"IRw/LANDTECH CAP
28	13923040.66'	3133296.01'	84.82'	CH*3/8"IRw/LANDTECH CAP
29	13923021.07'	3132695.72'	85.11'	CH*3/8"IRw/LANDTECH CAP
30	13923006.97'	3132182.13'	85.91'	CH*3/8"IRw/LANDTECH CAP
31	13922994.21'	3131672.93'	85.75'	CH*3/8"IRw/LANDTECH CAP
32	13922972.08'	3131173.15'	85.91'	CH*3/8"IRw/LANDTECH CAP
33	13922956.34'	3130674.48'	86.62'	CH*3/8"IRw/LANDTECH CAP
34	13922911.12'	3130173.72'	87.00'	CH*3/8"IRw/LANDTECH CAP

SURVEY CONTROL POINTS				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
651	13924483.01'	3126841.46'	0.00'	T*651 V-N-CONC
652	13924624.80'	3126806.75'	0.00'	T*652 V-N-CONC
10001	13923895.16'	3133023.70'	84.86'	CHK*CHK 1
11002	13925257.85'	3128137.24'	88.42'	CHK*CHK 2
52734	13922006.15'	3139208.00'	79.88'	CMON
53233	13913096.49'	3129766.26'	81.03'	MON*NGS ZHU B
57815	13922713.25'	3126982.39'	88.11'	CMON
58014	13922171.79'	3141115.76'	78.71'	CMON

*POINTS NOT SHOWN WITHIN PLAN VIEWPORT.

ALIGNMENT BASELINE POINTS					
POINT NO.	DESCRIPTION	BASELINE	STATION	NORTHING	EASTING
1	BEGIN	TAXIWAY SB	1000+00	13922992.23	3128264.38
2	END	TAXIWAY SB	1129+00	13923405.49	3141158.03
3	BEGIN	TAXIWAY SA	2000+00	13922631.34	3128275.91
4	END	TAXIWAY SA	2115+00	13923001.28	3139769.96
5	BEGIN	TAXIWAY SC	3000+00	13923720.98	3129178.48
6	END	TAXIWAY SC	3014+00	13922322.04	3129224.59
7	BEGIN	TAXIWAY SF	4000+00	13923758.96	3130357.73
8	END	TAXIWAY SF	4010+60	13922699.44	3130391.96
9	BEGIN	TAXIWAY SG	5000+00	13923124.70	3132397.32
10	END	TAXIWAY SG	5003+61	13922764.31	3132407.44
11	BEGIN	TAXIWAY SH	6000+00	13923237.27	3135909.47
12	END	TAXIWAY SH	6003+60	13922877.42	3135921.77
13	BEGIN	TAXIWAY SJ	7000+00	13923301.36	3137909.11
14	END	TAXIWAY SJ	7003+60	13922941.81	3137922.22
15	BEGIN	TAXIWAY SK	8000+00	13923339.73	3139106.32
16	END	TAXIWAY SK	8007+59	13922580.77	3139127.52
17	BEGIN	TAXIWAY SF	9000+00	13922703.06	3130504.31
18	END	TAXIWAY SF	9007+98	13922325.63	3131207.90
19	BEGIN	TAXIWAY SG	10000+00	13922767.89	3132518.51
20	END	TAXIWAY SG	10008+01	13922390.61	3133224.88
21	BEGIN	TAXIWAY SH	11000+00	13922873.94	3135813.77
22	END	TAXIWAY SH	11008+01	13922452.07	3135132.73
23	BEGIN	TAXIWAY SJ	12000+00	13922938.25	3137811.73
24	END	TAXIWAY SJ	12008+00	13922516.49	3137132.28

NOTES:

1. HORIZONTAL AND VERTICAL CONTROL ESTABLISHED ARE BASED ON THE FAA PACS SACS AIRPORT CONTROL MONUMENTS. PRIMARY AIRPORT CONTROL STATION (PACS): NATIONAL GEODETIC SURVEY (NGS) MONUMENT "ZHU B" (NGS P.I.D. NO. AA3146) WAS HELD FOR HORIZONTAL AND VERTICAL CONTROL.
2. BASIS FOR BEARINGS SHOWN HEREON IS THE TEXAS STATE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983 (NAD83), SOUTH ZONE NO. 4202, BY GPS. SURVEY CONDUCTED BY LANDTECH ON MARCH OF 2020.
3. TO CONVERT CONTROL POINTS FROM GRID TO SURFACE USE THE SCALE FACTOR OF 1.000076389151857.
4. CONTRACTOR SHALL PROTECT PACS AND SACS CONTROL POINTS. ANY DAMAGE TO THESE CONTROL POINTS SHALL BE PREPARED AT NO COST TO THE OWNER.
5. PROPOSED TAXIWAY GEOMETRY WAS RETRIEVED FROM THE FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR: 150/5300-13B, TABLE 4-1, 4-2, AND J-7 (TDG 5).
6. ALL PROPOSED SHOULDERS FOR TAXIWAY SA, TAXIWAY SB AND CONNECTOR TAXIWAYS ARE SHOWN AT 30-FT WIDTHS.

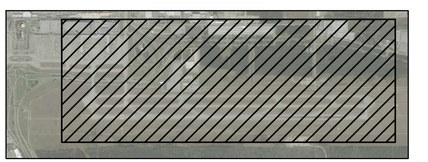
LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- (#) BASELINE POINT

CAUTION: UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS. HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THE ACTUAL LOCATIONS OF THE UTILITIES MAY VARY FROM THE LOCATIONS SHOWN. PRIOR TO BEGINNING OF ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES INVOLVED AND MAKE ARRANGEMENTS FOR THE LOCATION OF THE UTILITIES ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.

ACCORDING TO THE TEXAS STATE LAW, THE UNDERGROUND FACILITIES DAMAGE PREVENTION AND SAFETY ACT, REQUIRES NOTIFICATION THROUGH THE TEXAS ONE-CALL SYSTEM CENTER 14 TO 48 DAYS PRIOR TO EXCAVATING USING MECHANIZED EQUIPMENT OR EXPLOSIVES (EXCEPT IN THE CASE OF AN EMERGENCY). THE ONE-CALL SYSTEM PHONE NUMBER IS 1-800-245-4545. THE CONTRACTOR IS ADVISED THAT THERE IS A SEVERE PENALTY FOR NOT MAKING THIS CALL. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE TEXAS ONE-CALL SYSTEM; THEREFORE, THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE-CALL SYSTEM.

KEYMAP



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TBPE Registration No. F-845

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SURVEY CONTROL PLAN

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	LMW
CHECK BY:	JF
SCALE:	1" = 500'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G01.06

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GARVER
TBPE Registration No. F-5713

AIRPORT SAFETY REQUIREMENTS

1. THE CONTRACTOR SHALL ACQUAINT HIS SUPERVISORS AND EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO THIS ACTIVE AIR CARRIER AIRPORT AND SHALL CONDUCT THE CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES ON SAFETY AND SECURITY AS SPECIFIED HEREIN.

2. ALL CONTRACTOR VEHICLES THAT ARE AUTHORIZED TO OPERATE ON THE AIRPORT IN THE ACTIVE AIRPORT OPERATIONS AREA (AOA) SHALL DISPLAY IN FULL VIEW A FLASHING YELLOW BEACON, AND ABOVE THE VEHICLE, A 3' X 3' OR LARGER, ORANGE AND WHITE CHECKERBOARD FLAG, EACH CHECKERBOARD COLOR BEING 1–FOOT SQUARE, (SEE FAA AC 150/5210–5D) AND ESCORTED UNDER THE CONTROL OF AN AUTHORIZED CONTRACTOR ESCORT. CONTRACTOR VEHCILES OPERATING ON ACTIVE PAVEMENTS IN THE MOVEMENT AREA SHALL BE UNDER THE CONTROL OF A GEORGE BUSH INTERCONTINENTAL (IAH) AIRPORT OPERATIONS ESCORT. CONTRACTOR SHALL COORDINATE A MINIMUM OF 48 HOURS IN ADVANCE TO REQUEST AN IAH AIRPORT OPERATIONS ESCORT. ANY VEHICLE OPERATING IN THE ACTIVE AOA DURING THE HOURS OF DARKNESS SHALL BE EQUIPPED WITH A FLASHING YELLOW BEACON, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. ALL EQUIPMENT REQUIRED TO REMAIN WITHIN THE AOA DURING THE PERFORMANCE OF THIS CONTRACT SHALL BE EQUIPPED WITH YELLOW BEACONS.

3. ALL AOA CONSTRUCTION VEHICLES SHALL BE OPERATED BY A BADGED EMPLOYEE WITH DRIVING PRIVILEGES OR BE ESCORTED BY A VEHICLE OPERATED BY A BADGED EMPLOYEE WITH DRIVING AND ESCORT PRIVILEGES WHEN ENTERING THE AOA. ALL CONTRACTOR VEHICLES THAT ARE REQUIRED TO OPERATE ON OR ACROSS ACTIVE RUNWAYS, TAXIWAYS, TAXILANES, APRONS, CRITICAL NAVAIDS AREAS, AND RUNWAY APPROACH/DEPARTURE OR PROTECTION ZONES, SHALL DO SO UNDER THE DIRECT CONTROL OF AN IAH AIRPORT OPERATIONS ESCORT VEHICLE. WHILE IT IS PREFERRED THAT EACH CONSTRUCTION VEHICLE HAVE ITS OWN CONTRACTOR–PROVIDED ESCORT, A MAXIMUM OF 3 VEHICLES PER ESCORT AND 2 18–WHEEL TRUCKS PER ESCORT WILL BE ALLOWED. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO ESCORTS FOR ALL HAULING ACTIVITIES; A LEAD ESCORT NECESSARY TO MEET THE MINIMUM ESCORTING REQUIREMENTS AND A TRAILING ESCORT REQUIRED FOR MONITORING POTENTIAL FOD AT ALL TIMES. ALL VEHICLES AND OPERATORS SHALL BE APPROVED BY IAH AIRPORT. ALL VEHICLES SHALL BE MARKED AND LIGHTED AS DESCRIBED IN PARAGRAPH NO. 2 IN AIRPORT SAFETY REQUIREMENTS. ANYONE DRIVING ON ACTIVE MOVEMENT AREAS SHALL BE REQUIRED TO COMPLETE ENHANCED DRIVER TRAINING FROM IAH AIRSIDE OPERATIONS.

4. NO RUNWAY, TAXIWAY, TAXILANE, APRON, OR AIRPORT VEHICLE SERVICE ROAD (VSR) SHALL BE CLOSED WITHOUT WRITTEN APPROVAL OF IAH AIRPORT OPERATIONS THROUGH THE HOUSTON AIRPORT SYSTEM (HAS) PROJECT MANAGER. TO ENABLE NECESSARY "NOTICES TO AIRMEN" (NOTAMS) OR ADVISORIES TO AIRPORT OPERATORS OR TENANTS, A MINIMUM OF 72 HOURS WRITTEN NOTICE REQUESTING CLOSURE SHALL BE DIRECTED TO IAH AIRPORT OPERATIONS. PLEASE NOTE THAT RUNWAY CLOSURES SHALL BE MINIMIZED.

5. ANY CONSTRUCTION ACTIVITY WITHIN 250 FEET OF AN ACTIVE RUNWAY CENTERLINE OR 142.5 FEET (OR 135 FEET AS NOTED ON THE PLANS), AN ACTIVE TAXIWAY CENTERLINE, OR OPEN EXCAVATIONS IN EXCESS OF THREE INCHES DEEP AND SLOPES GREATER THAN 5% WITHIN THE ABOVE AREAS, WILL REQUIRE CLOSURE OF THE AFFECTED RUNWAY, TAXIWAY OR TAXILANE, UNLESS OTHERWISE APPROVED BY IAH AIRPORT OPERATIONS THROUGH THE HAS PROJECT MANAGER. CLOSURE REQUIRES THE SAME PROVISIONS AS PARAGRAPH NO. 4 IN AIRPORT SAFETY REQUIREMENTS.

6. DEBRIS, WASTE, AND LOOSE MATERIAL CAPABLE OF CAUSING DAMAGE TO AIRCRAFT LANDING GEARS, PROPELLERS, OR BEING INGESTED INTO JET ENGINES, SHALL NOT BE ALLOWED IN THE AOA. IF THESE MATERIALS ARE OBSERVED TO BE IN THE AOA, THEY SHALL BE REMOVED IMMEDIATELY AND/OR CONTINUOUSLY BY THE CONTRACTOR DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 2 VACUUM TRUCKS AT ALL TIMES DURING THIS CONTRACT AND SHALL PROVIDE A VACUUM TRUCK BEHIND ALL HAULING OPERATIONS TO AND FROM THE INDIVIDUAL WORK AREAS AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE A VACUUM TRUCK AT ALL ACTIVE CROSSINGS USING CONTRACTOR FLAGGERS AS WELL AS AN ADDITIONAL BACKUP VACUUM TRUCK.

7. THE CONTRACTOR WILL ARRANGE WITH IAH AIRPORT OPERATIONS THROUGH THE HAS PROJECT MANAGER FOR INSPECTION PRIOR TO REOPENING FOR AIRCRAFT USE OF ANY RUNWAY, TAXIWAY OR TAXILANE THAT HAS BEEN CLOSED FOR CONSTRUCTION, ON OR ADJACENT THERETO, OR THAT HAS BEEN USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR. THE CONTRACTOR SHALL PERFORM PRE– AND POST–INSPECTIONS ON A DAILY BASIS AND PROVIDE A WRITTEN CHECKLIST TO THE HAS CONSTRUCTION MANAGER AND IAH AIRPORT OPERATIONS DOCUMENTING FOD INSPECTION AND CLEAN–UP, SECURITY, SAFETY AND OBJECT FREE AREA INSPECTIONS, AND SIGNAGE, LIGHTING, BARRICADE PLACEMENT AND OPERATIONS, AND VERIFY ALL BARRICADES ARE SECURED FROM MOVEMENT, THROUGHOUT THE DURATION OF THIS CONTRACT. ANY UNSAFE CONDITIONS SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR IN ACCORDANCE WITH THE CONTRACT.

8. THE CONTRACTOR IS DIRECTED TO COMPLY WITH AND ACQUAINT THEIR EMPLOYEES WITH THE FOLLOWING SAFETY GUIDELINES, RELATED MATERIALS, AND FAA ADVISORY CIRCULARS:

   • 150/5200–18C, OR LATEST EDITION, "AIRPORT SAFETY – SELF INSPECTION"
   • 150/5210–5D, OR LATEST EDITION, "PAINTING, MARKING & LIGHTING OF VEHICLES USED ON AN AIRPORT"
   • 150/5370–2G, OR LATEST EDITION, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION"

   THESE DOCUMENTS AND RELATED REQUIREMENTS ARE REFERENCED THROUGHOUT THE CONTRACT SPECIFICATIONS.

9. THE CONTRACTOR IS HEREBY INFORMED THAT THERE ARE INSTALLED ON THE AIRPORT FAA NAVAIDS, NATIONAL WEATHER SERVICE FACILITIES; AIRFIELD LIGHTING SYSTEMS; ELECTRIC CABLES AND CONTROLS RELATING TO SUCH NAVAIDS AND FACILITIES. SUCH NAVAIDS, NATIONAL WEATHER SERVICE AND OTHER FACILITIES, AND ELECTRIC CABLES MUST BE FULLY PROTECTED DURING THE ENTIRE CONSTRUCTION CONTRACT. WORK UNDER THIS CONTRACT CAN BE ACCOMPLISHED IN THE VICINITY OF THESE FACILITIES AND CABLES ONLY AT APPROVED PERIODS OF TIME.

10. APPROVAL IS SUBJECT TO WITHDRAWAL AT ANY TIME BECAUSE OF CHANGE IN THE WEATHER, EMERGENCY CONDITIONS ON THE EXISTING AIRFIELD AREAS, ANTICIPATION OF EMERGENCY CONDITIONS, AND FOR ANY OTHER REASON DETERMINED BY IAH AIRPORT OPERATIONS ACTING UNDER THE ORDERS AND INSTRUCTIONS OF THE OWNER AND THE DESIGNATED FAA REPRESENTATIVE. ANY INSTRUCTIONS TO THE CONTRACTOR TO CLEAR ANY GIVEN AREA, AT ANY TIME, BY IAH AIRPORT OPERATIONS, THE OWNER OR THE FAA CONTROL TOWER (BY RADIO OR OTHER MEANS) SHALL BE IMMEDIATELY EXECUTED. CONSTRUCTION WORK WILL COMMENCE IN THE CLEARED AREA ONLY WHEN ADDITIONAL INSTRUCTIONS ARE ISSUED BY THE OWNER.

11. POWER AND CONTROL CABLES LEADING TO AND FROM ANY FAA NAVAIDS, NATIONAL WEATHER SERVICE AND OTHER FACILITIES, WILL BE MARKED IN THE FIELD BY THE LOCAL FAA AIRWAY FACILITIES SECTOR PERSONNEL BEFORE ANY WORK IN THEIR GENERAL VICINITY IS STARTED BY THE CONTRACTOR. THEREAFTER, THROUGH THE ENTIRE TIME OF THIS CONSTRUCTION CONTRACT, THE CONTRACTOR SHALL NOT ALLOW ANY CONSTRUCTION EQUIPMENT TO CROSS THESE CABLES WITHOUT FIRST PROTECTING THE CABLE WITH STEEL PLATES, OR SIMILAR STRUCTURAL DEVICES, EXTENDING THREE (3') FEET ON EITHER SIDE OF THE MARKED CABLE ROUTE. ALL EXCAVATION WITHIN THREE (3') FEET OF EXISTING CABLES SHALL BE ACCOMPLISHED BY NON–INTRUSIVE EXCAVATION ONLY. HAS COMMUNICATION REPAIRS REQUIRE THE APPROVAL OF BILL MATULONIS.

12. THE CONTRACTOR SHALL PROTECT FAA NAVAID, NATIONAL WEATHER SERVICE AND OTHER FACILITIES, AND CABLES AT ALL TIMES. ANY UNDERGROUND UTILITIES DISCOVERED DURING CONSTRUCTION NOT SHOWN ON THE PLANS SHALL BE REPORTED TO HAS PROJECT MANAGER AND IAH AIRPORT OPERATIONS IMMEDIATELY.

13. THE CONTRACTOR SHALL IMMEDIATELY REPAIR AT THEIR OWN EXPENSE, WITH IDENTICAL MATERIAL BY SKILLED EMPLOYEES, ANY UNDERGROUND CABLES SERVING FAA NAVAIDS, NATIONAL WEATHER SERVICE AND OTHER AIRPORT FACILITIES, WHICH ARE DAMAGED BY THEIR EMPLOYEES, EQUIPMENT, OR CONSTRUCTION ACTIVITIES. PRIOR APPROVAL OF THE FAA MUST BE OBTAINED FOR THE MATERIALS, EMPLOYEES, TIME OF DAY OR NIGHT, METHOD OF REPAIRS, AND FOR ANY TEMPORARY OR PERMANENT REPAIRS THE CONTRACTOR PROPOSES TO MAKE TO ANY FAA NAVAID OR FACILITIES DAMAGED BY THE CONTRACTOR. PRIOR APPROVAL OF THE ENGINEER MUST BE OBTAINED FOR THE MATERIALS, EMPLOYEES, TIME OF DAY OR NIGHT, AND FOR THE METHOD OF REPAIRS FOR ANY TEMPORARY OR PERMANENT REPAIRS THE CONTRACTOR PROPOSES TO MAKE TO ANY OTHER AIRPORT FACILITIES AND CABLES DAMAGED BY THE CONTRACTOR. SHOULD THE REPAIR REQUIRE SPLICING, IT SHALL BE SPLICED AT THE DISCRETION OF THE LOCAL FAA AIRWAY FACILITIES SECTOR MANAGER AS TO WHO SHALL PERFORM THE WORK. WHERE THE FAA PERFORMS THE WORK, IT SHALL BE AT THE CONTRACTOR'S EXPENSE. NO WORK SHALL BE BACKFILLED OR COVERED PRIOR TO APPROVAL BY THE FAA AIRWAY FACILITIES SECTOR MANAGER AND/OR HAS PROJECT MANAGER FOR IAH OWNED FACILITIES.

14. CONSTRUCTION DURING THE PROJECT MAY BE HALTED AT ANY TIME BY THE OWNER, AND/OR IAH AIRPORT OPERATIONS IF IT IS DETERMINED TO BE IN THE BEST INTEREST OF AIRPORT OPERATIONS SAFETY OR SECURITY. THE CONTRACTOR MAY BE DIRECTED TO REMOVE EQUIPMENT AND/OR EVACUATE THE SITE IN ORDER TO ENABLE AIRCRAFT OPERATIONS FOR COMMERCIAL OR GENERAL AVIATION. NECESSARY EXTENSIONS IN CONTRACT TIME WILL BE GRANTED OR A STOP WORK ORDER WILL BE ISSUED DUE TO THESE DELAYS. HOWEVER, THERE WILL BE NO ADJUSTMENTS IN CONTRACT PRICE DUE TO THESE DELAYS. IN ADDITION TO THE ABOVE, THE FOLLOWING SPECIAL REQUIREMENTS WILL APPLY FOR ALL CONSTRUCTION PHASES:

   A. A PRE–ACTIVITY MEETING SHALL BE HELD PRIOR TO THE START OF ANY PHASE, OR WHEN DEVIATIONS OR CHANGES FROM THE CONTRACT DOCUMENTS OCCUR, AND A DAILY SAFETY MEETING SHALL BE HELD PRIOR TO AND AT THE COMPLETION OF EACH WORK PERIOD, BETWEEN IAH AIRPORT OPERATIONS AND THE CONTRACTOR'S SUPERINTENDENT TO DISCUSS REQUIREMENTS FOR THE NEXT PHASE, WORK SHIFT OR WORK AREA. ANY WORK OR OPERATION, EITHER NEW OR OUT OF THE ORDINARY, SHALL REQUIRE A SAFETY/PRE–ACTIVITY MEETING.

   B. THE CONTRACTOR SHALL INCORPORATE A SAFETY PLAN SPECIFIC TO DAYTIME AND NIGHTTIME CONSTRUCTION OPERATIONS IN THE SAFETY PLAN COMPLIANCE DOCUMENT (SPCD), AS WELL AS A CONTINGENCY PLAN TO ADDRESS CASES OF ABNORMAL FAILURES OR UNEXPECTED SITUATIONS USING APPENDIX D OF AC 150/5370–2G AS A GUIDE.

   C. TRUCK HAUL ROUTES ON THE AIRFIELD SHALL BE DELINEATED WITH LIGHTED BARRICADES, SIGNAGE, OR OTHER MEANS APPROVED BY THE ENGINEER, HAS PROJECT MANAGER, AND IAH AIRPORT OPERATIONS TO CLEARLY MARK THE ROUTES TO THE WORK SITE. THE CONTRACTOR SHALL PARTICIPATE IN AN ENHANCED MOVEMENT AREA DRIVER TRAINING COURSE ADMINISTERED BY IAH AIRPORT OPERATIONS AND SHALL CONTINUOUSLY BRIEF ALL CONTRACTOR EMPLOYEES, SUPPLIERS, AND SUBCONTRACTORS ON THE HAUL ROUTES TO BE UTILZIED, BOTH PRIMARY AND ALTERNATE ROUTES, THROUGHOUT THE DURATION OF THIS CONTRACT.

15. THE CONTRACTOR SHALL ALSO SUBMIT A DESTRUCTIVE/INCLEMENT WEATHER PLAN TO SET FORTH GENERAL GUIDANCE AND INFORMATION FOR THE CONTRACTOR TO COORDINATE PREPAREDNESS PLANS WHEN DESTRUCTIVE/INCLEMENT WEATHER THREATENS THE GEORGE BUSH INTERCONTINENTAL AIRPORT ENVIRONMENT.

16. ALL COMMUNICATION WITH THE AIRPORT TRAFFIC CONTROL TOWER OR OTHER ELEMENTS OF THE AIRPORT SHALL BE THROUGH IAH AIRPORT OPERATIONS.

17. THE CONTRACTOR SHALL INSTALL ALL REQUIRED BARRICADES AT DESIGNATED PLAN LOCATIONS, HAVE ALL ACCESS GATES GUARDED AND LOCKABLE, AND HAVE ALL EQUIPMENT EITHER FLAGGED AND FITTED WITH FLASHING YELLOW DOME–TYPE LIGHTS ON TOP OF THE VEHICLES, AS REQUIRED FOR DAYTIME AND NIGHTTIME CONSTRUCTION ACTIVITIES. ALL OF THESE ITEMS SHALL BE INTEGRATED AS A PART OF THE SPCD. THE CONTRACTOR SHALL INSTALL THE COMPONENTS OF THE SPCD AT THE APPROPRIATE TIMES AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INSPECT EVERY ASPECT OF THE SPCD ON AT LEAST A DAILY BASIS AND ENSURE ALL COMPONENTS ARE FUNCTIONING PROPERLY. IAH AIRPORT OPERATIONS SHALL ALSO INSPECT THE SYSTEM DAILY AND IF ANY DEFICIENCIES ARE NOTED, THE CONTRACTOR SHALL IMMEDIATELY TAKE STEPS TO CORRECT ANY AND ALL DEFICIENCIES. THE CONTRACTOR SHALL VISUALLY CHECK BARRICADE FLASHING LIGHTS ON A DAILY BASIS, 60 MINUTES BEFORE SUNSET FOR PROPER OPERATIONS. CONTRACTOR SHALL IMMEDIATELY REPLACE LIGHTS, BATTERIES, AND LAMPS AS DEEMED NECESSARY BY THE CONTRACTOR OR IAH AIRPORT OPERATIONS. THE SYSTEM ELEMENTS TO BE INSPECTED AND DEFICIENCIES NOTED ARE AS FOLLOWS:

   • BARRICADES SHALL BE ESTABLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, SECURED FROM MOVEMENT AND FILLED WITH WATER. ALL FLASHING WARNING LIGHTS SHALL BE OPERATING PROPERLY.
   • ALL CONTRACTOR PERSONNEL AND EQUIPMENT ACCESS GATES STAFFED AND SECURITY PROCEDURES IN PLACE.
   • ALL EQUIPMENT OUTFITTED WITH FLASHING YELLOW DOME–TYPE LIGHTS, MARKINGS AND FLAGGING.
   • CONTRACTOR USE OF AUTHORIZED AIRPORT ACCESS GATES CHECKED.

   ANY OF THE ABOVE SAFETY AND SECURITY ITEMS FOUND TO BE DEFICIENT AT THE BEGINNING OF THE DAY BY IAH AIRPORT OPERATIONS STAFF WILL RESULT IN THAT DAY'S PRORATED SAFETY AND SECURITY BID ITEM LOST AND BEING DEDUCTED PERMANENTLY FROM THE CONTRACTOR'S EARNINGS. THE CONTRACTOR SHALL ENSURE ALL SAFETY AND SECURITY ITEMS ARE IN PROPER WORKING ORDER EACH DAY DUE TO THE HEIGHTENED SECURITY STATUS OF THE AIRPORT AND THE CONSIDERABLE LIABILITY ASSOCIATED WITH THE SAFETY AND SECURITY ELEMENTS REQUIRED FOR THE WORK.

18. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE THE SAFETY OF OPERATING AIRCRAFT AS WELL AS THEIR OWN EQUIPMENT AND PERSONNEL. SPECIAL CONSIDERATIONS SHOULD BE GIVEN TO FLIGHT SCHEDULES AND MISCELLANEOUS AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL OBEY ALL INSTRUCTIONS AS TO ROUTES TO BE TAKEN BY EQUIPMENT TRAVELING WITHIN THE AIRPORT OPERATIONS AREA AND KEEP SUCH VEHICLES AND EQUIPMENT MARKED WITH THE SPECIFIED AIRPORT SAFETY FLAGS, MARKINGS, AND FLASHING YELLOW BEACONS. THE CONTRACTOR SHALL MAKE HIS OWN ESTIMATE OF ALL DIFFICULTIES TO BE ENCOUNTERED. EQUIPMENT NOT ACTUALLY IN OPERATION SHALL BE KEPT CLEAR OF ALL AIRCRAFT OPERATING AREAS. PERSONNEL SHALL NOT ENTER AREAS OF THE AIRPORT WHERE AIRCRAFT ARE OPERATING WITHOUT SPECIFIC PERMISSION. ALL EQUIPMENT SHALL REMAIN CLEAR OF ALL ACTIVE SAFETY AND OBJECT FREE AREAS.

19. THE CONTRACTOR SHALL TAKE ALL STEPS TO PROTECT THE EXISTING RUNWAY, TAXIWAY AND TAXILANE LIGHTS, UNDERGROUND CABLES AS WELL AS ALL COMMERCIAL AND AIRPORT UTILITIES DURING CONSTRUCTION IN ORDER TO ENSURE CONTINUOUS OPERATION OF LIGHTS, NAVAIDS AND UTILITY SERVICES AT ALL TIMES.

20. MATERIALS STORED OR STOCKPILED ON THE AIRPORT SHALL BE SO PLACED AND THE WORK SHALL, AT ALL TIMES, BE SO CONDUCTED AS TO CAUSE NO GREATER OBSTRUCTION TO THE AIR AND GROUND TRAFFIC THAN IS CONSIDERED NECESSARY BY THE ENGINEER. STOCKPILED MATERIALS SHALL NOT BE STOCKPILED WITHIN THE RUNWAY SAFETY AREA (RSA), OBSTACLE FREE ZONE (OFZ) OR OBJECT FREE AREA (OFA) OF ANY OPERATIONAL RUNWAY, TAXIWAY OR TAXILANE. STOCKPILING MATERIAL OF ANY HEIGHT WITHIN THE AIRCRAFT OPERATIONS AREA (AOA) REQUIRES A 7460–1. IF APPROVED, STOCKPILED MATERIAL MUST BE PROPERLY MARKED AND LIGHTED AND PROTECTED FROM DISLODGEMENT BY WIND, JET BLAST, PROP WASH, OR OTHER FORCES.

21. THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL NECESSARY BARRICADES, SIGNS, AND CAUTION LIGHTS FOR THE PROTECTION OF THE WORK AND THE SAFETY OF THE TRAVELING PUBLIC FOR BOTH VEHICULAR AND AIR TRAFFIC IN ACCORDANCE WITH THE SPECIFICATIONS (AC 150/5370–2G, OR LATEST EDITION) AND THE CSPP.

22. CLOSED RUNWAYS, TAXIWAYS OR TAXILANES SHALL BE BARRICADED OFF AT ALL INTERSECTIONS WITH ACTIVE RUNWAYS, TAXIWAYS OR TAXILANES. THE CONTRACTOR SHALL HAVE PERSONNEL ON CALL 24 HOURS PER DAY FOR EMERGENCY MAINTENANCE OF AIRPORT HAZARD LIGHTING AND BARRICADES.

23. IAH AIRPORT OPERATIONS AND THE HOUSTON AIRPORT SYSTEM (HAS) SHALL, AT ALL TIMES, HAVE COMPLETE JURISDICTION OVER THE SAFETY OF ALL AIRCRAFT OPERATIONS DURING THE WORK. WHEREVER THE SAFETY OF AIR TRAFFIC IS CONCERNED, THE DECISIONS OF THE AIRPORT DIRECTOR, OR DESIGNATED REPRESENTATIVE, SHALL BE FINAL AS TO METHODS, PROCEDURES AND MEASURES USED.

24. FOR ANY RESTRICTIONS TO AIRCRAFT OPERATIONS, HAS SHALL GIVE PROPER NOTICE TO THE NEAREST FAA FLIGHT SERVICE STATION PRIOR TO THE START OF WORK, AND FOR ANY SUBSEQUENT CHANGES NEEDED IN THE NOTAM WHICH MAY BE ISSUED DURING THE PERIOD OF WORK.

25. THE CONTRACTOR SHALL CONTACT THE FAA TECHNICAL OPERATIONS, TO PROVIDE FIELD LOCATIONS OF EXISTING FACILITY CABLES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NON–INTRUSIVE EXCAVATION TO LOCATE FAA CABLING, AND PROTECTION OF THOSE CABLES THROUGHOUT THE PROJECT.

26. UNDER NO CIRCUMSTANCES WILL THERE BE ANY MOVEMENT OF CONTRACTOR VEHICLES AND/OR EQUIPMENT ACROSS ANY ACTIVE AIRFIELD PAVEMENTS AT ANY TIME UNLESS UNDER ESCORT BY IAH AIRPORT OPERATIONS. FLAGGERS SHALL BE REQUIRED AT ALL ACTIVE TAXIWAY/TAXILANE CROSSINGS UNLESS THE TAXIWAY/TAXILANE IS CLOSED. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO CROSS ANY RUNWAY WITHOUT PRIOR APPROVAL AND UNDER ESCORT OF IAH AIRPORT OPERATIONS.

27. ALL PERSONNEL OPERATING A VEHICLE WITHIN THE AOA SHALL OBTAIN ALL NECESSARY SIDA, RAMP, NON–MOVEMENT AND MOVEMENT AIRFIELD DRIVER TRAINING AS REQUIRED BY IAH AIRPORT OPERATIONS PERSONNEL. CONTRACTOR WILL BE ISSUED SPECIFIC GATE ACCESS AND HAUL ROUTE CARDS IDENTIFYING THE APPROVED ACCESS LOCATIONS AND HAUL ROUTES.

28. THE CONTRACTOR SHALL CONFINE HIS PERSONNEL, EQUIPMENT, OPERATIONS AND TRAVEL TO THE AREA WITHIN THE DEFINED WORK LIMITS SHOWN ON THE PLANS. ALL EQUIPMENT NOT NECESSARY FOR OPERATION DURING NON–WORKING HOURS SHALL BE RELOCATED TO THE STORGAGE AND STAGING AREA.

29. THE CONTRACTOR SHALL INFORM ALL CONSTRUCTION PERSONNEL AS TO THE PROPER ROUTES, SPEEDS AND PROCEDURES FOR TRANSPORTING EQUIPMENT AND MATERIALS TO THE CONSTRUCTION SITE; AND ALL RESTRICTIONS TO MOVEMENT OF EQUIPMENT OR PERSONNEL WITHIN THE AIR OPERATIONS AREA. ALL PERSONNEL SHALL BE ADVISED OF ANY CHANGES IN AIRPORT OPERATIONS ON A DAILY BASIS, AND MORE OFTEN IF NECESSARY, THAT MAY FURTHER RESTRICT THEIR MOVEMENT.

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HOUSTON AIRPORTS

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GENERAL CONTRACT, SAFETY, & SECURITY NOTES I

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	N/A
DATE:	08/09/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.01

GARVER
TBPE Registration No. F-5713

AIRPORT SAFETY REQUIREMENTS (CONT.)

30. ACCESS OR HAUL ROUTES SHALL BE EXISTING ROADWAYS TO THE EXTENT THAT THEY ARE AVAILABLE. THE CONTRACTOR SHALL CORRECT ANY DAMAGE TO THE ROADS USED AND SHALL RESTORE THOSE ROADS TO THE SAME OR BETTER CONDITION AS THEY EXISTED PRIOR TO THE START OF WORK. THE CONTRACTOR MAY ESTABLISH ADDITIONAL HAUL OR ACCESS ROUTES AT HIS OWN EXPENSE AND RESPONSIBILITY IF APPROVED BY THE OWNER. UPON COMPLETION OF THE WORK, ANY ADDITIONAL ROADS SHALL EITHER BE LEFT OR GRADED AS DIRECTED SO THAT THEY DO NOT IMPEDE EXISTING DRAINAGE OR ACCESS ROUTES. CONTRACTOR SHALL BE REQUIRED TO PROVIDE, INSTALL, AND MAINTAIN ALL TEMPOARY ROADS, INCLUDING USE OF CRANE MATS, DURING ALL PHASES OF CONSTRUCITON AT NO ADDITIONAL COST TO THE OWNER. TEMPORARY HAUL ROADS, INCLUDING CRANE MATS, SHALL BE CONSIDERED INCIDENTIAL TO THE CONTRACT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.

31. MEASURES SHALL BE ADOPTED TO PREVENT POTENTIAL POLLUTANTS FROM ENTERING ANY DRAINAGE SYSTEM OR WATERWAY. MATERIALS AND DEBRIS SHALL NOT BE STORED IN THE WORK AREA IN A MANNER THAT WOULD ALLOW THEM TO ENTER THE DRAINAGE SYSTEM AS A RESULT OF SPILLAGE, NATURAL RUNOFF OR FLOODING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMMEDIATELY NOTIFY THE OWNER SHOULD THERE BE A SPILLAGE OF MATERIAL WHICH MIGHT CONTAMINATE THE DRAINAGE SYSTEM. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE AND CLEAN UP SUCH SPILLAGE IN A MANNER ACCEPTABLE TO THE OWNER, IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAWS. MATERIAL SHALL BE SECURED SO THAT IT WILL NOT BE BLOWN BY THE WIND OR JET BLAST ONTO THE AIRFIELD SURFACES.

32. SPECIAL ATTENTION TO DUST CONTROL WILL BE REQUIRED WHEN EARTHWORK OR HAULING OPERATIONS ARE IN PROGRESS OR WHEN JET BLAST, WIND OR WEATHER CONDITIONS CAUSE EXCESSIVE BLOWING OF DUST. IN THIS REGARD, THE CONTRACTOR SHALL APPLY WATER OR CALCIUM CHLORIDE SOLUTION TO THE AFFECTED SITES AS DIRECTED. 2 WORKING WATER TRUCKS WITH THE PROPER DISTRIBUTOR MUST BE ON SITE AT ALL TIMES, ONE FOR BACK UP INCASE THE FIRST ONE BREAKS OR NEEDS EXTRA SUPPORT.

33. AS REQUIRED DURING ALL CONSTRUCTION ACTIVITIES AND PRIOR TO RE-OPENING AFTER USE AS A HAUL ROUTE AT THE COMPLETION OF A WORK PERIOD, ANY TAXIWAY, TAXILANE, VEHICLE SERVICE ROAD (VSR) OR APRON WHICH HAS BEEN USED BY THE CONTRACTOR, SHALL BE CLEANED BY VACUUM SWEEPER TRUCK OR OTHER ACCEPTABLE METHODS APPROVED BY THE OWNER. ANY ACTIVE TAXIWAY, TAXILANE, APRON OR VSR USED AS A HAUL ROUTE SHALL BE CLEANED CONTINUOUSLY THROUGHOUT THE WORK PERIOD AND IMMEDIATELY FOLLOWING CONTRUCTION TRAFFIC CROSSINGS OR USE OF ANY PORTION OF AN ACTIVE PAVEMENT SURFACE. ANY CLOSED TAXIWAY, TAXILANE, APRON OR VSR USED AS A HAUL ROUTE SHALL BE CLEANED PRIOR TO RE-OPENING TO AIR TRAFFIC. ALL EQUIPMENT SHALL BE STORED OR MOVED TO THE CONTRACTOR'S STAGING AREAS. CONTRACTOR SHALL MAINTAIN A MINIMUM OF TWO FULLY FUNCTIONING VACUUM SWEEPER TRUCKS ON SITE AT ALL TIMES.

34. VEHICLES WITHIN THE AOA SHALL BE VISIBLY IDENTIFIABLE AS CONTRACTOR VEHICLES WHICH HAVE BEEN PROPERLY CLEARED FOR ENTRY (LOGO AND FLAGS/LIGHTS ON AUTHORIZED EQUIPMENT AND VEHICLES). VEHICLE LOGOS SHALL BE VISIBLE WITHIN 200' RANGE.

35. CONSTRUCTION EQUIPMENT SHALL HAVE A MAXIMUM HEIGHT OF 12 FEET. ALL CONSTRUCTION EQUIPMENT AND STOCKPILES REQUIRE THE SUBMISSION OF A 7460.

36. WHEN CONSTRUCTION PERSONNEL OR EQUIPMENT ARE REQUIRED TO BE WITHIN 250' OF A RUNWAY CENTERLINE DUE TO ASSOCIATED CONSTRUCTION OPERATIONS, CONTRACTOR SHALL REQUEST TO IAH AIRPORT OPERATIONS THAT THE RUNWAY BE CLOSED TO ALL AIRCRAFT OPERATIONS.

37. THE CONTRACTOR SHALL PLAN THE WORK SO AS TO MINIMIZE THE EXTENT AND TIME OF AIRFIELD PAVEMENT CLOSURES. AREAS REQUIRING MINIMAL WORK SHALL BE COMPLETED AND RESTORED TO OPERATING STATUS AS SOON AS PRACTICAL WITHIN EACH PHASE OF WORK.

38. THE CONTRACTOR SHALL SUBMIT THE SPCD, AS REQUIRED IN THE PROJECT SPECIFICATIONS, TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION COMMENCING.

39. CONSTRUCTION OVERNIGHT EQUIPMENT AREA: CONTRACTOR MAY STORE CONSTRUCTION EQUIPMENT ON AIRPORT PROPERTY AT THE END OF EACH DAY. NO EQUIPMENT OR MATERIAL WILL BE ALLOWED TO REMAIN WITHIN THE AOA (NOT IN OFA WHEN RUNWAY, TAXIWAY OR TAXILANE IS OPEN) WHEN WORK IS NOT BEING PERFORMED UNLESS EXPLICITLY REQUESTED IN ADVANCE BY THE CONTRACTOR NECESSARY FOR THE COMPLETION OF WORK AND APPROVED BY IAH AIRPORT OPERATIONS. THE CONTRACTOR SHALL MAKE MODIFICATIONS WITHIN THE OVERNIGHT STAGING AREA WHEN DEEMED NECESSARY BY IAH AIRPORT OPERATIONS OR HAS PERSONNEL. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESTORE AND RE-VEGETATE ALL OVERNIGHT STAGING AREAS TO ORIGINAL CONDITION. REFER TO THE WRITTEN CSPP FOR ADDITIONAL REQUIREMENTS AND RESTRICTIONS AS IT RELATES TO SITE RESTORATION AND RE-VEGETATION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OVERALL PERFORMANCE OF THE WORK ASSOCIATED WITH THE PROJECT.

40. THE CONTRACTOR SHALL NOTIFY AIRPORT OPERATIONS SO THAT THEY MAY ADVISE AIRPORT RESCUE AND FIRE FIGHTING (ARFF) PERSONNEL SEVENTY-TWO (72) HOURS IN ADVANCE OF WATERLINES OR FIRE HYDRANTS THAT MUST BE DEACTIVATED AND/OR IF EMERGENCY ACCESS ROUTES MUST BE TEMPORARILY REROUTED OR BLOCKED.

41. ALL CONSTRUCTION PERSONNEL SHALL ATTEND A DAILY SAFETY BRIEFING PRIOR TO COMMENCING WORK FOR THE DAY. THESE MEETINGS SHALL BE MADE OPEN TO THE ENGINEER, OWNER, OWNER'S REPRESENTATIVE, IAH AIRPORT OPERATIONS, AND ANY OTHER GOVERNING AUTHORITY THAT WOULD LIKE TO ATTEND. THERE WILL ALSO BE A MANDATORY WEEKLY CONSTRUCTION MEETING WITH HAS PROJECT MANAGER, IAH AIRPORT OPERATIONS, THE ENGINEER AND OTHER STAKEHOLDERS THAT MUST BE ATTENDED BY THE CONTRACTOR'S SENIOR FIELD STAFF, INCLUDING BUT NOT LIMITED TO SUPERINTENDENT(S) AND TEAM LEADERS. THE DATE AND TIME OF THE WEEKLY CONSTRUCTION MEETING WILL BE ESTABLISHED PRIOR TO THE START OF WORK AT THE PROJECT PRE-CONSTRUCTION CONFERENCE.

42. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SHEETING, SHORING, AND BRACING IS DONE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS AND REQUIREMENTS. SHEETING, SHORING, AND BRACING IS CONSIDERED TO BE AN INCIDENTAL PART OF THE WORK AND NO SEPARATE PAYMENT WILL BE ALLOWED, EXCEPT AS PROVIDED IN THE PROJECT MANUAL AND TECHNICAL SPECIFICATIONS.

43. INSPECTIONS BY IAH AIRPORT OPERATIONS – PRIOR TO REOPENING FOR AIRCRAFT USE AND THE DEPARTURE OF THE CONTRACTOR'S WORK CREWS, THE OWNER'S AUTHORIZED REPRESENTATIVE WILL ARRANGE FOR A DAILY INSPECTION BY IAH AIRPORT OPERATIONS OF ANY RUNWAY / TAXIWAY / TAXILANE SAFETY OR OBJECT FREE AREA, OR APRON THAT HAS BEEN CLOSED FOR WORK, OR THAT HAS BEEN USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR. THESE AREAS MUST COMPLY WITH THE SAFETY REQUIREMENTS OR IFR OPERATIONS, DEFINED BY FEDERAL AVIATION REGULATIONS PART 139, AND INTERPRETED BY THE DESIGNATED OPERATION'S INSPECTOR, BEFORE PERMISSION FOR THE CONTRACTOR'S WORK CREWS TO DEPART WILL BE GRANTED. CONTRACTOR MUST REMAIN ON SITE UNTIL IAH AIRPORT OPERATIONS COMPLETES AN AIRFIELD LIGHTING INSPECTION. ELECTRICAL VAULTS MUST BE RETURNED TO SERVICE NO LESS THAN 1.5 HOURS BEFORE SUNSET. CONTRACTOR CANNOT LEAVE SITE UNTIL AN AIRFIELD SAFETY AND LIGHT CHECK IS COMPLETED WITH IAH AIRPORT OPERATIONS.

44. STOCKPILE EROSION AND DUST CONTROL – STOCKPILED MATERIAL AND OPEN EXCAVATIONS SHALL BE TREATED IN SUCH A MANNER AS TO PREVENT MOVEMENT RESULTING FROM AIRCRAFT BLAST OR WIND CONDITIONS IN EXCESS OF 10 KNOTS. STOCKPILED MATERIALS SHALL NOT BE PERMITTED WITHIN THE MOVEMENT AREA.

45. ALL UNSUITABLE MATERIALS AND EXCESS EARTHWORK EXCAVATION SHALL BE DISPOSED OF OFFSITE ACCORDING TO LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. THE CONTRACTOR SHALL PROVIDE THE AIRPORT AND THE ENGINEER WITH DOCUMENTATION OF THE QUANTITY, LOCATION OF THE DISPOSAL SITE AND DOCUMENTATION OF CITY OR LOCAL GOVERNMENT ACCEPTANCE OF THOSE MATERIALS.

46. PRIOR TO COMMENCING WORK IN ANY AREA OF THE AOA, THE CONTRACTOR SHALL SUBMIT A WORK AUTHORIZATION NOTICE (WAN) TO IAH AIRPORT OPERATIONS FOR APPROVAL AT LEAST 72 HOURS IN ADVANCE. NO WORK IN A NEW AREA SHALL BE PERMITTED WITHOUT AN APPROVED WAN. IF PROPOSED WORK INCLUDES EXTENDED MOVEMENT AREA CLOSURES, ADDITIONAL ADVANCE NOTIFICATION TIME MAY BE REQUIRED. WANS WILL BE PRESENTED TO STAKEHOLDERS BY THE HAS PROJECT MANAGER ON TUESDAYS.

47. THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO EXISTING SERVICE ROADS AND OTHER PAVEMENTS CAUSED BY CONSTRUCTION OPERATIONS. THE CONDITION OF EXISTING PAVEMENTS SHALL BE PHOTOGRAPHICALLY DOCUMENTED BY THE CONTRACTOR IN THE PRESENCE OF THE HAS REPRESENTATIVE PRIOR TO USAGE. IF DAMAGE OCCURS TO PAVEMENTS DURING THE COURSE OF THE PROJECT, IT WILL BE ASSUMED TO HAVE BEEN CAUSED BY THE CONTRACTOR'S CONSTRUCTION OPERATIONS. CRACKED CONCRETE PANELS WILL BE ENTIRELY REPLACED TO EXISTING JOINT LINES AND DAMAGED ASPHALT WILL BE REPAIRED WITH PLANT HOT MIX ASPHALTIC CONCRETE. FAILED BASE COURSE SHALL BE REMOVED, REPLACED, AND RECOMPACTED TO THE SATISFACTION OF HAS.

48. NO WORK SHALL BE CONDUCTED ON TAXIWAY SA DURING SMGCS CONDITIONS WITH THE EXCEPTION OF MINOR WORK THAT CAN BE ACCOMPLISHED WITH LIGHT MACHINERY. ANY WORK DURING SMGCS CONDITIONS MUST BE COORDINATED AND APPROVED WITH IAH OPERATIONS.

SECURITY REQUIREMENTS

1. GENERAL INTENT: IT IS INTENDED THAT THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE AIRPORT SECURITY PLAN AND WITH SECURITY REQUIREMENTS SPECIFIED HEREIN BY THE HOUSTON AIRPORT SYSTEM (HAS)/IAH AIRPORT OPERATIONS. THE CONTRACTOR SHALL DESIGNATE TO THE HAS PROJECT MANAGER, ENGINEER, HAS SECURITY AND IAH AIRPORT OPERATIONS, IN WRITING, THE NAME OF THEIR "CONTRACTOR SECURITY AND SAFETY OFFICER (CSSO)". THE CSSO SHALL REPRESENT THE CONTRACTOR ON THE SAFETY AND SECURITY REQUIREMENTS FOR THE CONTRACT.

2. CONTRACTOR PERSONNEL SECURITY ORIENTATION: THE CSSO SHALL BE RESPONSIBLE FOR BRIEFING ALL CONTRACTOR PERSONNEL ON SAFETY AND SECURITY REQUIREMENTS. ALL NEW CONTRACTOR EMPLOYEES SHALL BE BRIEFED ON SAFETY AND SECURITY REQUIREMENTS PRIOR TO ENTERING THE AOA AND WORKING IN THE CONSTRUCTION AREA. THE AIRPORT SHALL BRIEF AND/OR TRAIN CONSTRUCTION RELATED VEHICLE EQUIPMENT DRIVERS ON OPERATIONS WITHIN AN AIRPORT/AIRCRAFT ENVIRONMENT. HAS OPERATIONS (AIRSIDE/LANDSIDE) WILL PROVIDE PRINTED MATERIAL TO EACH VEHICLE OPERATOR THAT DEPICTS HAUL ROUTES, PROHIBITED MOVEMENT AREAS, AND DESCRIBES THE CONSEQUENCES FOR NON-COMPLIANCE WITH ESTABLISHED PROCEDURES. THE AIRPORT HAS IMPLEMENTED A ZERO TOLERANCE APPROACH TO DRIVING, SAFETY AND SECURITY VIOLATIONS.

3. 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 IAH AIRPORT OPERATIONS AND HAS SECURITY. ALL CONTRACTOR TRAFFIC AUTHORIZED TO ENTER THE SITE SHALL BE EXPERIENCED IN THE ROUTE AND ESCORTED OR GUIDED BY IAH AIRPORT OPERATIONS IN ACTIVE MOVEMENT AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL TO AND FROM THE VARIOUS CONSTRUCTION AREAS ON THE SITE, AND FOR THE OPERATION AND SECURITY OF THE ACCESS GATE TO THE SITE, A CONTRACTOR'S GATE GUARD OR TRAFFIC CONTROL PERSON SHALL MONITOR AND COORDINATE All CONTRACTOR TRAFFIC AT THE ACCESS GATE WITH SECURITY. THE CONTRACTOR SHALL NOT PERMIT ANY UNAUTHORIZED CONSTRUCTION PERSONNEL OR TRAFFIC ON THE SITE. ACCESS GATES TO THE SITE SHALL BE LOCKED AND SECURED AT ALL TIMES WHEN NOT ATTENDED BY THE CONTRACTOR. IF THE CONTRACTOR CHOOSES TO LEAVE ANY ACCESS GATE OPEN, IT SHALL BE ATTENDED BY CONTRACTOR PERSONNEL WHO ARE FAMILIAR WITH AND TRAINED IN THE REQUIREMENTS OF THE AIRPORT OPERATIONS SECURITY PROGRAM. THE CONTRACTOR IS RESPONSIBLE FOR THE IMMEDIATE CLEANUP OF ANY DEBRIS DEPOSITED ALONG THE ACCESS ROUTE AS A RESULT OF HIS CONSTRUCTION TRAFFIC. DIRECTIONAL SIGNING FROM THE ACCESS GATE ALONG THE DELIVERY ROUTE TO THE STORAGE AREA, PLANT SITE OR WORK SITE SHALL BE INCLUDED IN THE SPCD AND APPROVED BY IAH AIRPORT OPERATIONS.

4. MATERIALS 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 STAGING AREA PROVIDED AS SHOWN IN THE PROJECT PLANS. THE NAME "GEORGE BUSH INTERCONTINENTAL AIRPORT" SHALL NOT BE USED IN THE DELIVERY ADDRESS AT ANY TIME. THIS WILL PRECLUDE DELIVERY TRUCKS FROM ENTERING INTO THE TERMINAL COMPLEX, OR TAKING SHORT CUTS THROUGH THE PERIMETER GATES AND INADVERTENTLY ENTERING INTO AIRCRAFT OPERATIONS AREAS.

5. 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 CONTRACTOR'S EXCLUSIVE USE DURING CONSTRUCTION SHALL BE MARKED BY THE CONTRACTOR. THE CONTRACTOR SHALL ERECT AND MAINTAIN AROUND THE PERIMETER OF THESE AREAS SUITABLE FENCING, MARKING AND/OR WARNING DEVICES VISIBLE FOR DAY/NIGHT USE. TEMPORARY BARRICADES, FLAGGING AND FLASHING WARNING LIGHTS WILL BE REQUIRED AT CRITICAL ACCESS POINTS. THE TYPE OF MARKING AND WARNING DEVICES SHALL BE APPROVED BY IAH AIRPORT OPERATIONS.

6. IDENTIFICATION – PERSONNEL: ALL CONTRACTOR EMPLOYEES, SUBCONTRACTORS, AGENTS, VENDORS, INVITEES, ETC., REQUIRING ACCESS TO THE CONSTRUCTION SITE SHALL, IN ACCORDANCE WITH THE AIRPORT SECURITY PLAN, CSPP AND SPCD, BE REQUIRED TO DISPLAY AIRPORT ISSUED IDENTIFICATION OR BE UNDER AIRPORT-APPROVED AND BADGED ESCORT PERSONNEL. THESE BADGES WILL BE IDENTIFIED NUMERICALLY AND ISSUED TO INDIVIDUAL EMPLOYEES WITH A PERMANENT RECORD MAINTAINED ON EACH INDIVIDUAL TO WHOM A BADGE IS ISSUED. IN ADDITION, A $55 NON-REFUNDABLE PROCESSING FEE WILL BE REQUIRED FOR EACH BADGE. THIS FEE MUST BE PAID BEFORE A BADGE IS ISSUED. NO BADGE WILL BE ISSUED TO ANY PERSON UNTIL A REVIEW OF THE REQUIRED PAPERWORK BY AIRPORT SECURITY AND ALL REQUIREMENTS ARE MET. PAPERWORK SHALL BE SUBMITTED A MINIMUM OF 24 HOURS BEFORE ISSUANCE OF A BADGE. THE CONTRACTOR IS RESPONSIBLE FOR PERSONNEL ATTENDING TRAINING AND COMPLETING SECURITY BADGE APPLICATIONS, WHICH WILL INCLUDE AIR/GROUND RADIO, TAXIWAY/TAXILANE, AND AIRPORT FAMILIARIZATION. ESTIMATED TIME FOR COMPLETION IS TWO (2) HOURS. FLAGGERS MUST BE BADGED AND MUST HAVE SUCCESSFULLY COMPLETED ENHANCED AIRPORT MOVEMENT/NON-MOVEMENT AREA TRAINING INSTRUCTED BY IAH AIRPORT OPERATIONS, IN ADDITION TO THE REGULAR BADGE AND MOVEMENT TRAINING, PRIOR TO PERFORMING IN THAT CAPACITY ON AIRPORT PROPERTY. AT THE COMPLETION OF THE CONTRACT ALL BADGES SHALL BE RETURNED TO THE AIRPORT. A CHARGE OF $50 PER BADGE WILL BE ASSESSED FOR ALL UNRETURNED BADGES. GATE GUARDS AND ESCORTS SHALL BE CONSIDERED UNDER THE FLAGGER CLASSIFICATION AND SHALL BE SUBJECT TO THE SAME REQUIREMENTS AS FLAGGERS.

7. FINES: PAYMENT OF ALL FINES ASSESSED TO GEORGE BUSH INTERCONTINENTAL AIRPORT, DUE TO VIOLATIONS BY THE CONTRACTOR OF FAA/TSA SECURITY OR SAFETY REQUIREMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DEDUCTED FROM MONIES DUE THE CONTRACTOR.

   A. IF THE RESTRICTED AREA GATE IS FOUND TO BE OPEN OR UNLOCKED AND UNATTENDED, LAW ENFORCEMENT AND/OR TRANSPORTATION SECURITY ADMINISTRATION MAY ISSUE THE CONTRACTOR A CITATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COURT COSTS AND IMPOSED FINES. IN ADDITION, A CHARGE OF UP TO $10,000.00 MAY BE LEVIED BY THE HOUSTON AIRPORT SYSTEM AND/OR TRANSPORTATION SECURITY ADMINISTRATION FOR EACH VIOLATION SO DOCUMENTED AND UPON THE REQUEST FOR FINAL PAYMENT THE TOTAL OF ANY SUCH CHARGES WILL BE DEDUCTED FROM MONIES DUE THE CONTRACTOR.

   B. IN THE EVENT THE CONTRACTOR DEVIATES FROM THE IDENTIFIED CONSTRUCTION LIMITS AND/OR DESIGNATED HAUL ROUTES ONTO AN ACTIVE RUNWAY, TAXIWAY OR TAXILANE, THE CONTRACTOR WILL BE FINED $1,000 PER OCCURRENCE WHICH WILL BE DEDUCTED FROM THE FINAL CONTRACT AMOUNT DUE THE CONTRACTOR. IN ADDITION TO FINES, A NOTICE OF VIOLATION (NOV) MAY BE ISSUED, WHICH MAY INCLUDE SUSPENSION OF WORK OR TERMINATION, DEPENDING ON THE LEVEL OF VIOLATION COMMITTED (SEE CSPP IN PROJECT MANUAL FOR MORE DETAIL).

8. A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION OR BORINGS, THE CONTRACTOR SHALL CONTACT TEXAS ONE CALL (811) AND HAS IT (281-233-1900) TO VERIFY ALL UNDERGROUND CABLE LOCATIONS IN THE VICINITY OF THE PROPOSED WORK:

CABLE OWNER	CONTACT PERSON	PHONE NUMBER
FEDERAL AVIATION ADMINISTRATION	ALAN NUNEZ	(281) 784-7641
HOUSTON AIRPORT SYSTEM (HAS)	BILL ZRIOKA	(281) 233-1364
HAS ELECTRICAL AND MAINTENANCE	JASON STEEN	(281) 233-1900
TECHNOLOGY INFRASTRUCTURE	BILL MATULONIS	(281) 233-1798

9. REQUIREMENTS FOR CLOSING TAXIWAYS/TAXILANES: WHEN CONSTRUCTION PERSONNEL OR EQUIPMENT ARE WITHIN 142.5 FEET FROM ANY ACTIVE TAXIWAY CENTERLINE, THOSE AREAS WILL BE CLOSED TO ALL AIRCRAFT OPERATIONS UNLESS OTHERWISE INDICATED IN THE PHASING PLAN SHEETS OR AS APPROVED BY IAH AIRPORT OPERATIONS. DURING THE TIME ANY TAXIWAY/TAXILANE OR PORTION THEREOF IS CLOSED, ITS ASSOCIATED LIGHTS SHALL BE DE-ENERGIZED, JUMPERED OUT OR AN ALTERNATIVE, AND IAH AIRPORT OPERATIONS APPROVED, LIGHT BLACKOUT METHOD EMPLOYED, INCLUDING PVC EDGE LIGHT MASKS, SIGN LEGEND PANEL COVERS, AND TEMPORARY REMOVAL/BLACKOUT OF CENTERLINE MARKINGS. THE ENTRANCES TO CLOSED TAXIWAYS/TAXILANES SHALL BE BARRICADED WITH LOW PROFILE BARRICADES TO PREVENT AIRCRAFT FROM ENTERING UNUSABLE OR HAZARDOUS OPERATIONAL AREAS.

10. RESPONSIBILITY FOR TEMPORARY LIGHTING AND MARKING: THE CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING AND MAINTAINING THE NECESSARY BARRICADES AND HAZARD LIGHTING AS REQUIRED BY THE SPECIFICATIONS TO MARK CONSTRUCTION AREAS, HAZARDS. ETC. REFLECTIVE ORANGE AND WHITE STRIPED PLASTIC LOW-PROFILE WATER-FILLED BARRICADES WITH ATTACHED FLASHING RED LIGHTS FOR NIGHT USE ARE THE PREFERRED TYPE OF BARRICADE FOR USE ON THE AIRPORT. CONTRACTOR SHALL MAINTAIN BARRICADES FULL OF WATER TO PREVENT DISPLACEMENT BY JET BLAST AND IMMEDIATELY REPLACE ANY BARRICADE THAT LEAKS OR LIGHTS NOT ILLUMINATED.

11. CONSTRUCTION ACTIVITY IN THE VICINITY OF NAVIGATIONAL AIDS: 72 HOURS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE AND/OR CONSTRUCTION START, THE CONTRACTOR SHALL CONTACT THE HAS PROJECT MANAGER TO COORDINATE WITH THE LOCAL FAA AIRWAY FACILITIES MANAGER. THEIR REPRESENTATIVE WILL MEET WITH THE CONTRACTOR TO IDENTIFY FAA FACILITIES AND FAA CABLES.

ELECTRICAL PHASING NOTES:

1. PRIOR TO PERFORMING WORK, CONTRACTOR TO LOCK OUT/TAG OUT APPROPRIATE CONSTANT CURRENT REGULATOR IN SOUTH VAULT. COORDINATE WORK WITH AIRFIELD ELECTRICAL MAINTENANCE DEPARTMENT.

2. LIGHTING CIRCUITS AND SIGNAGE SHALL BE OPERATIONAL FOR OPEN TAXIWAY PAVEMENTS, UNLESS NOTED OTHERWISE. WHERE TAXIWAY SECTIONS ARE CLOSED, TAXIWAY CENTERLINE LIGHTS SHALL BE EXTINGUISHED. MAINTAIN CIRCUIT INTEGRITY OF CIRCUITS AT ALL TIMES.

3. TEMPORARY WIRING SHALL BE INSTALL IN 2" PVC CONDUIT AND SECURED TO THE PAVEMENT SURFACE. IF CABLE IS LOCATED IN VEHICLE TRAFFIC AREAS, RIGID GALVANIZED STEEL CONDUIT SHALL BE USED.

4. WHERE TAXIWAY EDGE LIGHTS ARE TO BE DE-ENERGIZED DURING A PHASE OF CONSTRUCTION, THE CONTRACTOR MAY COVER TAXIWAY EDGE LIGHTS WITH PVC EDGE LIGHT MASK OR REMOVE THE FIXTURE AND TRANSFORMER, RECONNECT CABLES TO MAINTAIN CIRCUIT CONTINUITY, AND INSTALL COVER PLATE.

5. PRIOR TO REMOVING A FIXTURE, CONTRACTOR SHALL RECORD FIXTURE NUMBER AND COLOR ORIENTATION. ALL FIXTURES SHALL BE REINSTALLED AT THE SAME LOCATION AT THE COMPLETION OF EACH PHASE. CONTRACTOR SHALL NOTE ANY DEFICIENCIES PRIOR TO REMOVAL. DEFICIENCY LIST SHALL BE REVIEWED BY HAS ELECTRICAL MAINTENANCE DEPT. PRIOR TO FIXTURE REMOVAL. CONTRACTOR SHALL REPAIR FIXTURES UPON REINSTALLATION AT THEIR EXPENSE IF DEFICIENCY WAS NOT DOCUMENTED.

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HOUSTON AIRPORTS

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GENERAL CONTRACT, SAFETY, & SECURITY NOTES II

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	N/A
DATE:	04/28/2023

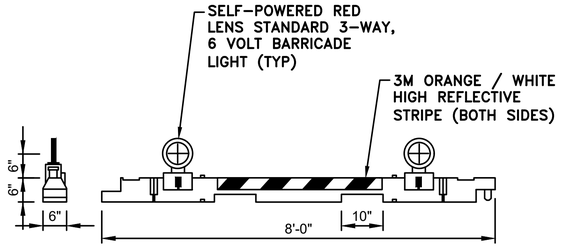
STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.02

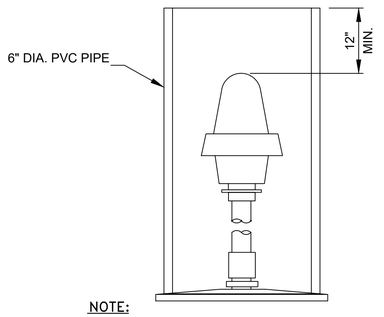
GARVER
TBPE Registration No. F-5713



NOTES:

1. BARRICADES SEPARATING THE CONSTRUCTION AREA FROM THE EXISTING PAVEMENT SHALL BE CONTINUOUSLY CONNECTED END-TO-END WITH NO SPACING BETWEEN THEM. A 20 FOOT OPENING SHALL BE PROVIDED FOR IAH AIRPORT OPERATIONS AND ARFF ACCESS. CONTRACTOR SHALL COORDINATE LOCATION OF OPENING WITH THE HAS PROJECT MANAGER, IAH AIRPORT OPERATIONS, AND ARFF PRIOR TO EACH INDIVIDUAL PHASE OF WORK.
2. ALL LINES OF BARRICADES SHALL BE TERMINATED WITH BARRICADES ANGLED AT 45° AWAY FROM AIRFIELD PAVEMENT.
3. BARRICADES SHALL NOT BE PLACED FURTHER THAN THREE FEET ONTO PAVEMENT FROM EXCAVATION EXCEPT AS SHOWN ON THE PLAN.
4. BARRICADE STRIPING SHALL BE ORANGE AND WHITE CONFORMING TO FAA AC 150/5370-2G (OR LATEST EDITION) OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.
5. THE REQUIRED LIGHTS MUST BE RED AND FLASHING. INTENSITIES AND LUMINANCE MUST BE AT LEAST FIVE CANDELAS EFFECTIVE INTENSITY AND FLASH AT A RATE OF FROM 55 TO 160 FLASHES PER MINUTE.
6. LIGHTS MUST BE OPERATED BETWEEN SUNSET AND SUNRISE AND DURING PERIODS OF LOW VISIBILITY WHENEVER THE AIRPORT IS OPEN FOR OPERATIONS.
7. ALL BARRICADES SHALL BE FILLED WITH WATER UNLESS OTHERWISE DIRECTED BY IAH AIRPORT OPERATIONS.
8. CONTRACTOR SHALL PEFORM DAILY INSPECTIONS BEFORE THE START OF EACH WORK SHIFT AND AT THE COMPLETION OF EACH WORK PERIOD. CONTRACTOR SHALL PROVIDE A WRITTEN CHECKLIST DOCUMENTING THE INSPECTION, ANY DEFICIENCIES, AND CONFIRMATION ALL DEFICIENCIES HAVE BEEN ADDRESSED.

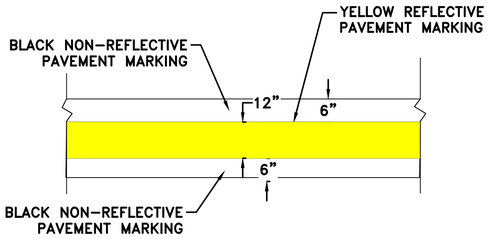
1 G02.03 LOW-PROFILE BARRICADE DETAIL
SCALE: NONE



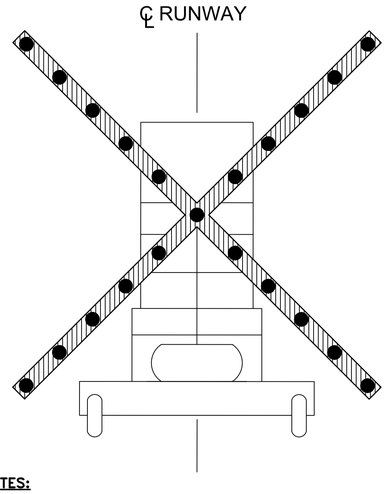
NOTE:

IF A COVERED TAXIWAY LIGHT IS PART OF AN ACTIVE TAXIWAY, IT SHALL BE COVERED WITH BLUE REFLECTIVE MATERIAL.

2 G02.03 PVC EDGE LIGHT MASK
SCALE: NONE



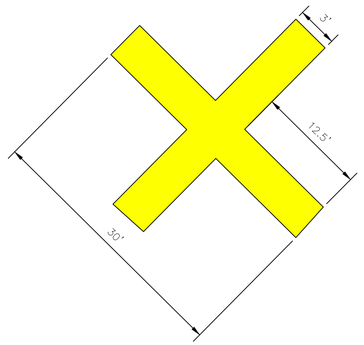
3 G02.03 TEMPORARY TAXIWAY CENTERLINE MARKING
SCALE: NONE



NOTES:

1. RUNWAY CLOSURE MARKERS SHALL BE LIGHTED AND SHALL BE IN COMPLIANCE WITH FAA AC 150/345-55A.
2. LIGHTED RUNWAY CLOSURE MARKER SHALL CONSIST OF LIGHT ASSEMBLY, TRAILER, ENGINE AND GENERATOR.
3. CONTRACTOR SHALL PLACE ONE LIGHTED RUNWAY CLOSURE MARKER AT EACH END OF RUNWAY (OVER RUNWAY DESIGNATION NUMERALS) DURING RUNWAY CLOSURE.
4. THE CONTRACTOR SHALL REMOVE THE MARKERS WHEN DIRECTED BY THE AIRPORT'S REPRESENTATIVE AND PRIOR TO RE-OPENING THE RUNWAY TO TRAFFIC.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, MAINTAINING, REPAIRING AND REFUELING RUNWAY CLOSURE MARKERS, TRAILER AND GENERATOR AS NECESSARY FOR THE DURATION OF THE PROJECT.

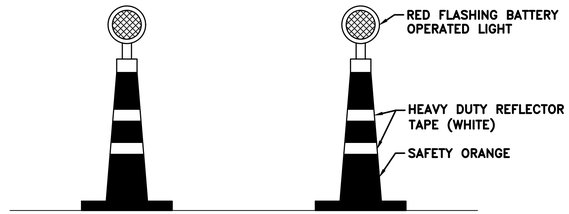
4 G02.03 ELEVATED LIGHTED RUNWAY CLOSURE X
SCALE: NONE



NOTES:

1. CONSTRUCT CLOSED TAXIWAY MARKING USING NON-REFLECTIVE YELLOW HEAVY DUTY VINYL OR APPROVED ALTERNATE.
2. PLACE MARKINGS ON TAXIWAY AS SHOWN ON THE PLANS.
3. PLACE SANDBAGS ON MARKINGS AS REQUIRED TO HOLD MARKINGS IN PLACE.

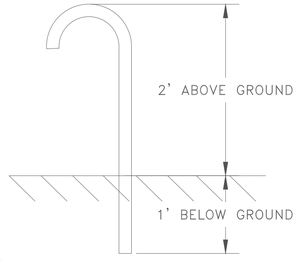
5 G02.03 TAXIWAY CLOSURE MARKER
SCALE: NONE



NOTES:

1. CONES SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE OAR. CONES SHALL BE PLACED WITH A MAXIMUM CENTER-TO-CENTER SPACING OF 10 FEET.
2. LIGHTS MUST BE OPERATED BETWEEN SUNSET AND SUNRISE AND DURING PERIODS OF LOW VISIBILITY WHENEVER THE AIRPORT IS OPEN FOR OPERATIONS.
3. CONTRACTOR SHALL CONSTANTLY MONITOR TRAFFIC CONES TO ENSURE THEY ARE UPRIGHT. SANDBAGS ARE NOT PERMITTED ON THE AIRFIELD. CONTRACTOR SHALL PROVIDE MEANS AND METHODS TO PREVENT MOVEMENT FROM WIND AND JETBLAST

6 G02.03 TRAFFIC CONES
SCALE: NONE



NOTES:

1. SHAPE AND SIZE OF MARKERS MAY BE CHANGED WITH THE APPROVAL OF THE HAS PROJECT MANAGER. MARKERS MUST MEET THE OBJECTIVE OF DELINEATING THE BOUNDARY OF THE WORK AREA.

7 G02.03 'CANDY CANE' MARKER
SCALE: NONE

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

CONTRACT, SAFETY, & SECURITY
GENERAL DETAILS I

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.03

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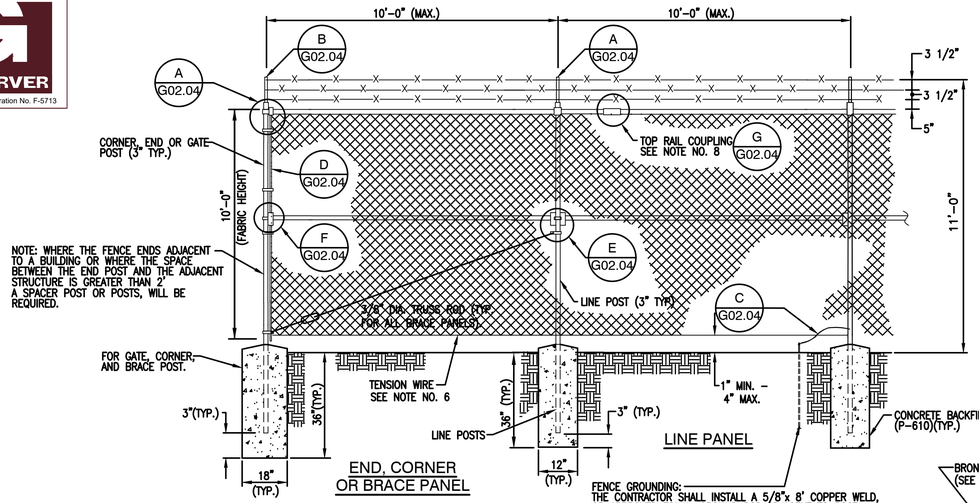
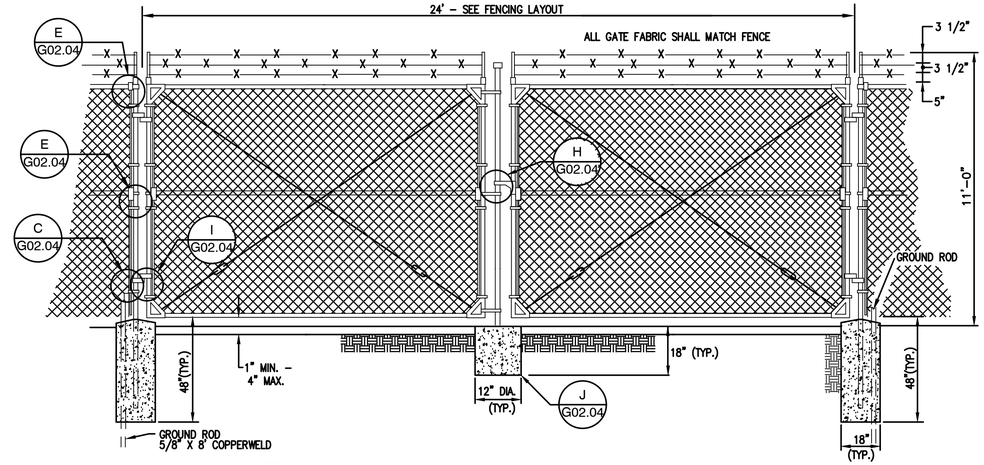
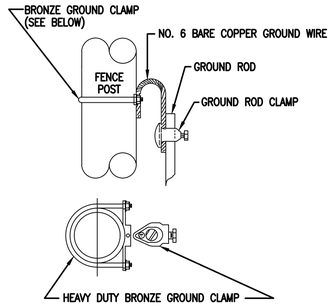
TBPE Registration No. F-5713



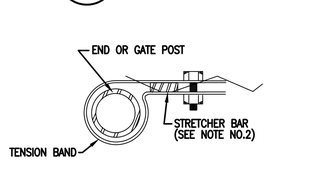
1 G02.04 TYPICAL CHAIN LINK FENCE DETAIL
SCALE: NONE



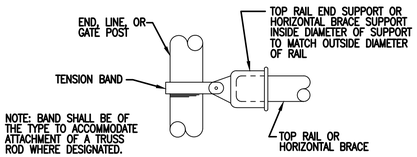
2 G02.04 TYPICAL DOUBLE SWING GATE DETAIL
SCALE: NONE



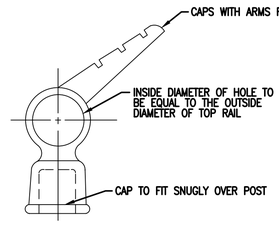
C G02.04 GATE GROUND STRAP CONNECTION
NOT TO SCALE



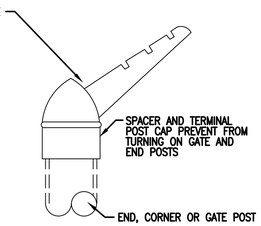
D G02.04 TENSION BAND AND STRETCHER BAR
NOT TO SCALE



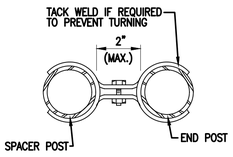
E G02.04 TOP RAIL END OR HORIZONTAL BRACE SUPPORT
NOT TO SCALE



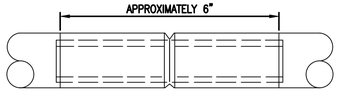
A G02.04 LINE POST CAP AND TOP RAIL SUPPORT
NOT TO SCALE



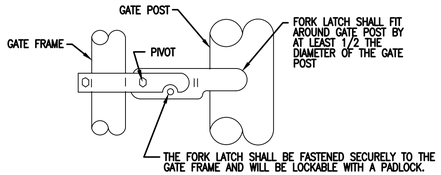
B G02.04 SPACER AND TERMINAL POST CAP
NOT TO SCALE



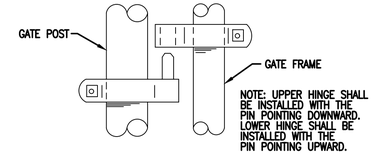
F G02.04 SPACER POST DETAIL
NOT TO SCALE



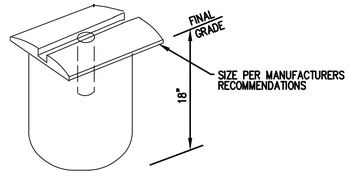
G G02.04 TOP RAIL COUPLING
NOT TO SCALE
NOTE: PROVIDE EXPANSION COUPLING EVERY SIXTH ONE



H G02.04 FORK LOCK FOR SWING GATE
NOT TO SCALE



I G02.04 TYPICAL HINGE ASSEMBLY
NOT TO SCALE



J G02.04 CENTER POST DETAIL
NOT TO SCALE

NOTES

1. THE CONTRACTOR SHALL PROVIDE AND INSTALL CHAIN LINK FENCE FABRIC AND ALL TYPES OF GATES COMPLETE, INCLUDING ALL ERECTION, ACCESSORIES, FITTINGS, AND FASTENERS.
2. STRETCHER BARS WILL BE THE FULL HEIGHT OF THE FABRIC WITH A MINIMUM CROSS SECTION OF 1/4" X 3/4". STRETCHER BARS WILL BE USED ON EACH GATE AND AT CORNER, PULL, GATE, AND END POSTS. TENSION BANDS FOR SECURING STRETCHER BARS TO POSTS WILL BE SPACED 14" ON CENTERS OR LESS
3. TIE WIRES (9 GA. GALVANIZED) WILL BE USED TO FASTEN THE CHAIN LINK FABRIC SECURELY TO (A) THE TOP RAIL ON FENCES AND GATES, (B) LINE POSTS, (C) HORIZONTAL BRACES AND (D) THE BOTTOM RAIL ON ALL GATES. WIRE SHALL BE GIVEN AT LEAST TWO TWISTS.
4. DIAGONAL TRUSS RODS WILL BE 3/8" DIAMETER GALVANIZED STEEL RODS EQUIPPED WITH A TURN BUCKLE OR EQUIVALENT ADJUSTMENT DEVICE. TRUSS RODS REQUIRED FOR EACH CORNER AND END POST. TRUSS RODS SHALL HAVE THREADED ENDS OR APPROVED EQUAL.
5. ALL STEEL MATERIAL TO BE GALVANIZED BY THE HOT DIP PROCESS.
6. TENSION WIRE NO.7 GA. GALVANIZED COILED SPRING WIRE ATTACHED WITH GALVANIZED FASTENERS.
7. CHAIN LINK FABRIC WILL BE INSTALLED ON THE LINE POST AWAY FROM THE APRON AREAS, TAXIWAY, OR RUNWAYS.
8. TOP RAIL COUPLINGS WILL BE INSTALLED WHERE NECESSARY TO CONTINUE TOP RAIL ENTIRE LENGTH OF FENCE. EVERY SIXTH COUPLING WILL BE EQUIPPED WITH EXPANSION SPRINGS.
9. BARBED WIRE ARMS SHALL BE INTEGRAL WITH A POST TOP WEATHER CAP OR SHALL HAVE A HOLE FOR PASSAGE OF TOP RAIL.
10. BARBED WIRE ARMS SHALL BE CAPABLE OF WITHSTANDING WITHOUT FAILURE, 250 LBS. DOWNWARD PULL AT OUTERMOST END OF ARM.
11. BRACE PANELS SHALL BE INSTALLED IN LONG STRAIGHT FENCE LINES TO PREVENT STRETCHING DISTANCES IN EXCESS OF 500 FEET.
12. THE CONTRACTOR SHALL PROVIDE MATERIALS SUBMITTALS FOR THE ENGINEERS APPROVAL PRIOR TO ORDERING.
13. THE CHAIN LINK FABRIC SHALL BE WOVEN WITH A 9 GAUGE STEEL WIRE IN A 2 INCH (50 MM) MESH FABRIC, IN ACCORDANCE WITH ASTM F 668.

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GENERAL CONTRACT, SAFETY, & SECURITY
DETAILS II

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.04

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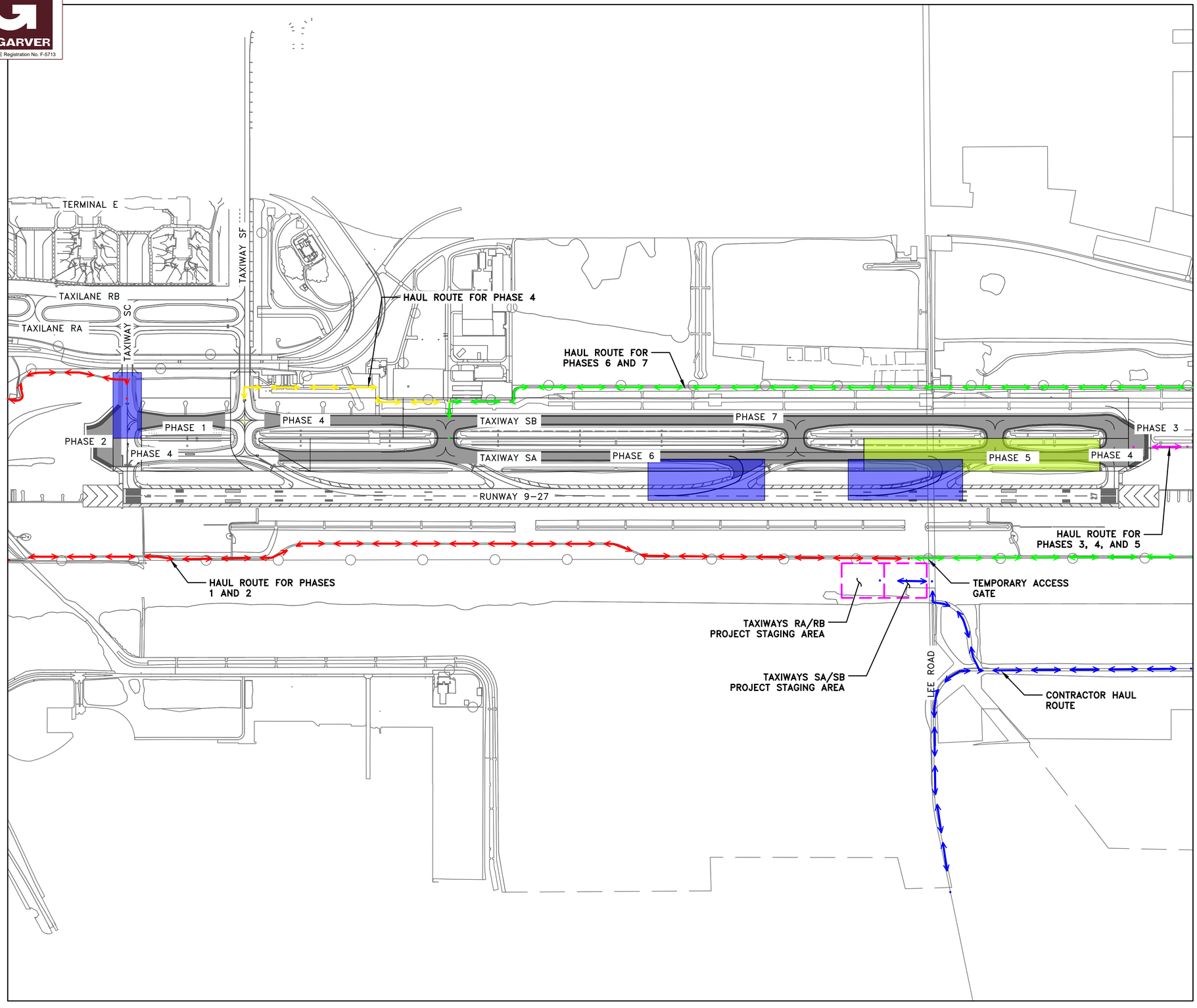
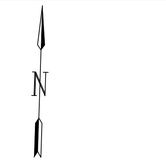
TBPE Registration No. F-5713





NOTES:

1. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
2. CONTRACTOR SHALL HAVE A SWEEPER TRUCK ON STANDBY AT ALL ACTIVE TAXIWAY CROSSINGS.
3. WORK ON PHASES 2 AND 4 REQUIRES CLOSURE OF RUNWAY 9–27. WHEN THIS OCCURS, ALL PAVEMENT SOUTH OF TAXILANE RA SHALL BE CLOSED, AND BARRICADES SHALL BE PLACED OUTSIDE THE OBJECT FREE AREA OF TAXILANE RA INDICATING THE CLOSURE OF THE TAXIWAYS SC AND SF BRIDGES.
4. THE PURPOSE OF THE PHASE ORDER NUMBERING IS TO PROVIDE THE CONTRACTOR A BASIC IDEA OF HOW THE PROJECT SHALL PROCEED. PHASING ORDER CAN BE CHANGED AT THE DIRECTION OF HAS OR AT THE REQUEST OF THE CONTRACTOR WITH THE APPROVAL OF HAS.
5. CONTRACTOR SHALL INSTALL, MAINTAIN, AND AT THE CONCLUSION OF CONSTRUCTION OPERATIONS REMOVE THE TEMPORARY ACCESS GATE. COST FOR THE GATE IS INCLUDED IN MOBILIZATION.
6. ANY CHANGES TO THE PHASING OR THE CSPP WILL REQUIRE FAA APPROVAL.

LEGEND

- PHASING WORK AREA
- CONSTRUCTION STAGING AREA
- HAUL ROUTE

CONSTRUCTION PHASE DURATION

PHASE	DURATION	WORK HOURS
1	30	24 / 7
2	14	10PM–6AM
3	14	10PM–6AM
4	90	24 / 7
5	30	24 / 7
6	60	24 / 7
7	60	24 / 7

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

OVERALL PHASING PLAN

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1"=500'
DATE:	04/28/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **G02.05**

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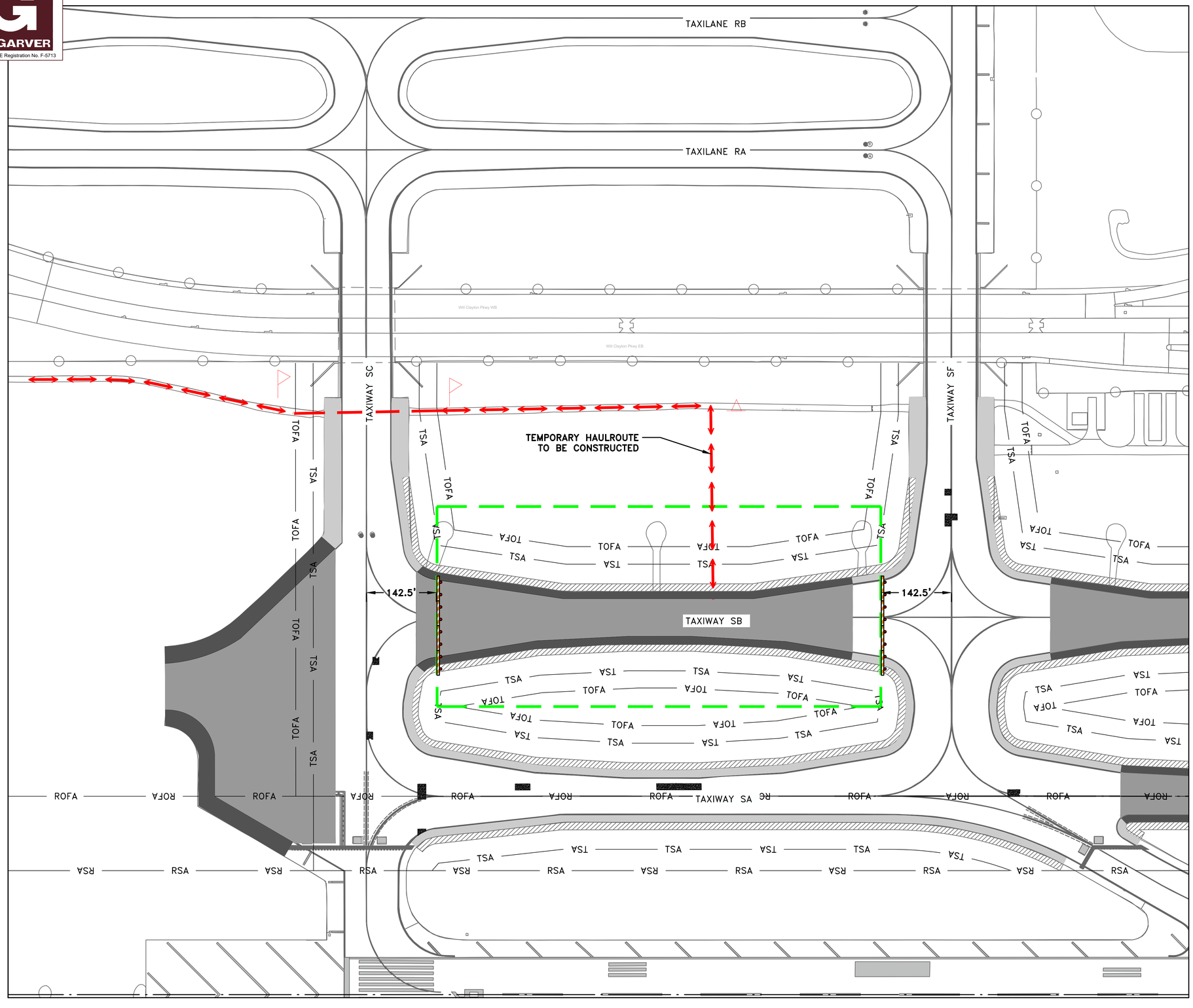
TBPE Registration No. F-5713



0 50' 100' 200' 300'
(IN FEET)

N

NOTES:

1. WORK HOURS SHALL BE 24/7.
2. CLOSURES: TAXIWAY SB SHALL BE CLOSED BETWEEN TAXIWAYS SF AND SC.
3. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
4. ANY SEEDING USED ON THE AIRFIELD MUST BE APPROVE BY THE AIRPORT QUALIFIED AIRFIELD WILDLIFE BIOLOGIST.
5. "CANDY CANE" MARKERS SHALL BE USED TO DELINEATE THE EXTENTS OF THE WORK AREA AS WELL AS THE UNPAVED HAUL ROUTE.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA
- HAUL ROUTE ON ACTIVE TAXIWAY
- HAUL ROUTE
- FLAGGER
- TRAFFIC CONES FOR HAUL ROUTE DELINEATION

PHASE IMPACTS

TAXIWAY SB	CLOSED BETWEEN TAXIWAY SC AND TAXIWAY SF

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 1

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	10/20/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.06

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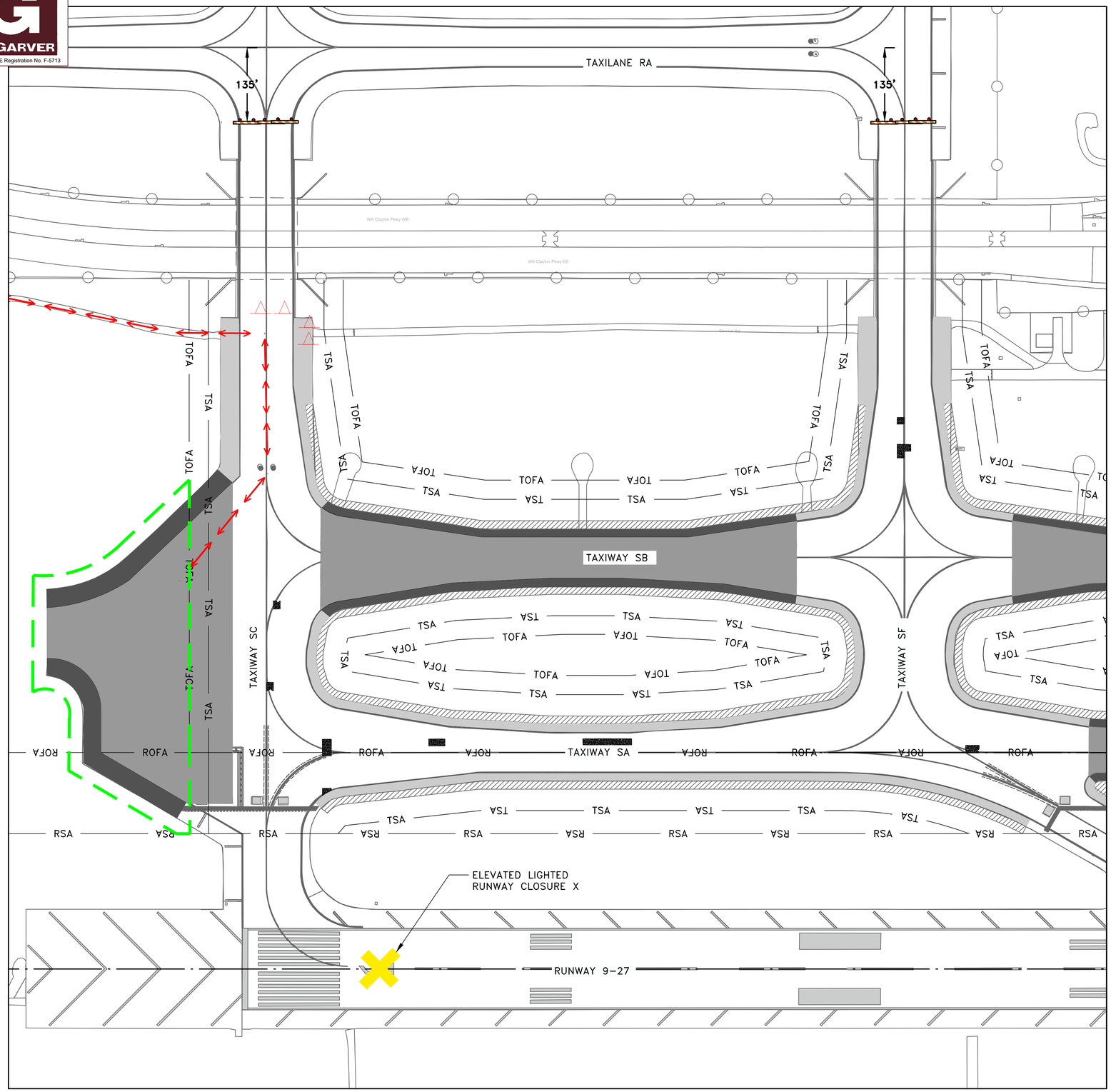

N

0 25' 50' 100' 150'
(IN FEET)

NOTES:

1. WORK HOURS SHALL BE THE NIGHTTIME WORK HOURS OF 10:00PM TO 6:00AM OR AS DIRECTED BY HAS AIRSIDE OPERATIONS AND THE HAS PROJECT MANAGER.
2. RUNWAY 9–27 AND ALL TAXIWAYS SOUTH OF TAXILANE RA SHALL BE CLOSED DURING NIGHTTIME WORK HOURS. CONTRACTOR SHALL REOPEN ALL PAVEMENT FOR NORMAL AIRCRAFT OPERATIONS AT THE COMPLETION OF EACH WORK PERIOD.
3. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
4. REQUIREMENTS TO REOPEN: THE PHASING AREA WILL REOPEN AFTER EACH WORK PERIOD IN ORDER TO SERVICE AIR TRAFFIC THROUGH THE DAY. ALL BARRICADES MUST BE REMOVED; ALL FOD MUST BE REMOVED; ALL DROP OFFS EXCEEDING 3 INCHES AND ALL GRADES IN EXCESS OF 5% MUST BE CORRECTED WITHIN WORK AREA.
5. REFER TO G02.09 FOR BARRICADE AND LIGHTED RUNWAY CLOSURE SIGN POSITIONING DURING RUNWAY CLOSURE.
6. IN THE INTEREST OF EFFICIENCY, THE CONTRACTOR IS ALLOWED TO USE REFLECTIVE TRAFFIC CONES IN THE PLACE OF BARRICADES FOR NIGHTTIME CLOSURES.
7. A NOTAM MUST BE ISSUED FOR THE MISSING ILS MARKING UNTIL IT CAN BE REMARKED.
8. CONTRACTOR SHALL PLAN FOR A 2 HOUR CLEAN UP AFTER EACH WORK PERIOD IN ORDER TO ACCOMMODATE INSPECTION FROM IAH AIRPORT OPERATIONS AND ENSURE COMPLIANCE WITH FAA STANDARDS FOR THE REOPENING OF TAXIWAYS AND RUNWAYS BY 6:00 AM.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- LOW–PROFILE BARRICADE
- PHASING WORK AREA
- HAUL ROUTE ON ACTIVE TAXIWAY
- HAUL ROUTE
- FLAGGER
- TRAFFIC CONES FOR HAUL ROUTE DELINEATION

PHASE IMPACTS

RUNWAY 9–27	CLOSED DURING NIGHTTIME WORK HOURS
ALL TAXIWAY PAVEMENT SOUTH OF TAXILANE RA	CLOSED DURING NIGHTTIME WORK HOURS

HOUSTON AIRPORTS

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 2

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	04/28/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.07

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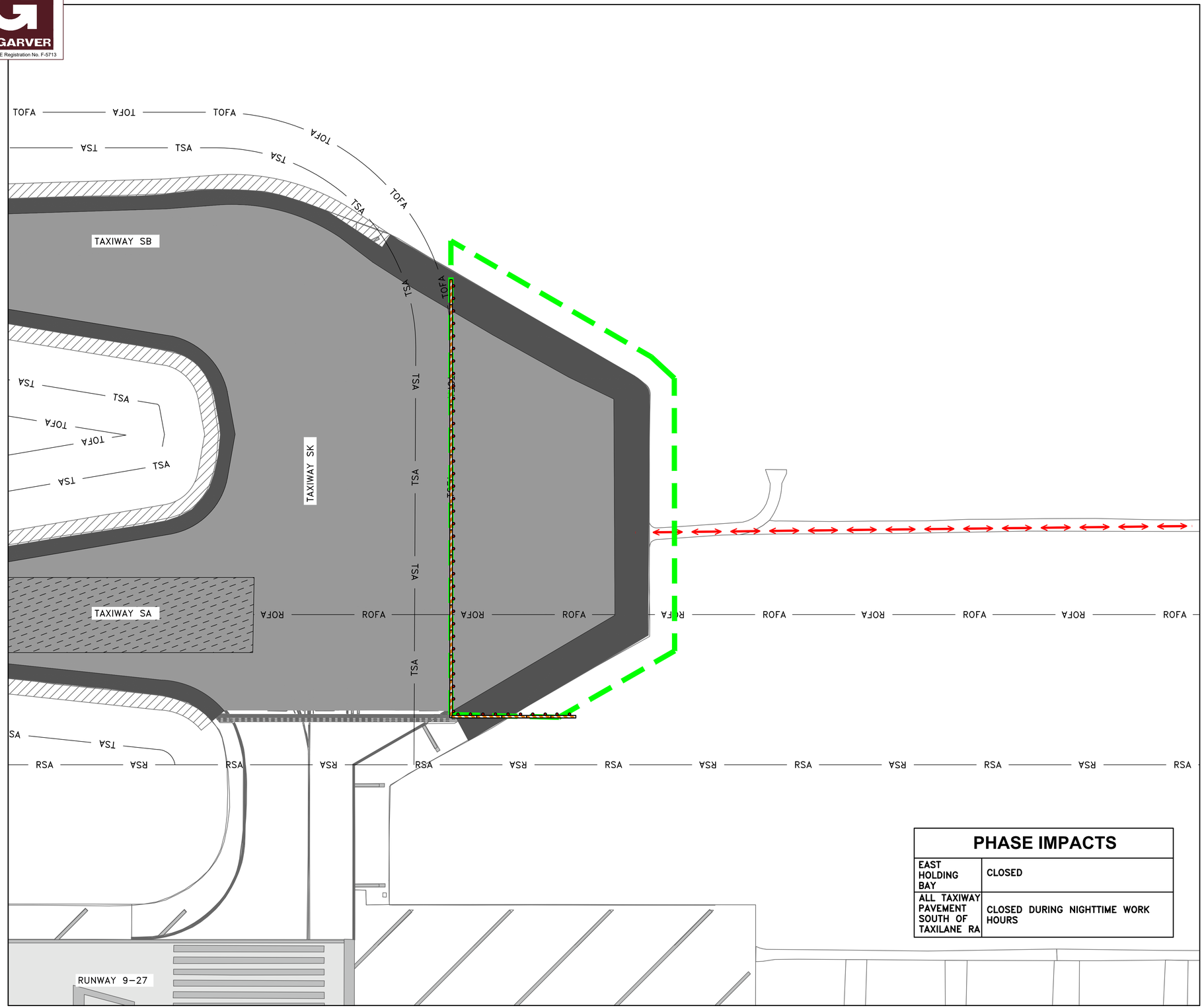

N

0 25' 50' 100' 150'

(IN FEET)

NOTES:

1. WORK HOURS SHALL BE THE NIGHTTIME WORK HOURS OF 10:00PM TO 6:00AM. WORK AREA SHALL REMAIN CLOSED 24/7.
2. RUNWAY 9–27 AND ALL TAXIWAYS SOUTH OF TAXILANE RA SHALL BE CLOSED DURING NIGHTTIME WORK HOURS.
3. REFER TO G02.09 FOR BARRICADE AND LIGHTED RUNWAY CLOSURE SIGN POSITIONING DURING RUNWAY CLOSURE.
4. TAXIWAYS SA, SB, AND SK SHALL REMAIN OPEN DURING PHASE 3 DAYTIME HOURS.
5. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
6. PHASE 3 CONTAINS AN ILS CRITICAL AREA. CONTRACTOR SHALL HAVE A CONTINGENCY PLAN IN THE EVENT THE AIRPORT ENTERS ILS OPERATIONS. NO EQUIPMENT SHALL BE STORED IN THE PHASE AREA.
7. "CANDY CANE" MARKERS SHALL BE USED TO DELINEATE THE EXTENTS OF THE WORK AREA.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- LOW–PROFILE BARRICADE
- PHASING WORK AREA
- HAUL ROUTE ON ACTIVE TAXIWAY
- HAUL ROUTE
- FLAGGER
- TRAFFIC CONES FOR HAUL ROUTE DELINEATION

PHASE IMPACTS

EAST HOLDING BAY	CLOSED
ALL TAXIWAY PAVEMENT SOUTH OF TAXILANE RA	CLOSED DURING NIGHTTIME WORK HOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

Jacobs
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5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
+1–832–351–6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F–2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 3

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 50'
DATE:	10/20/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.08

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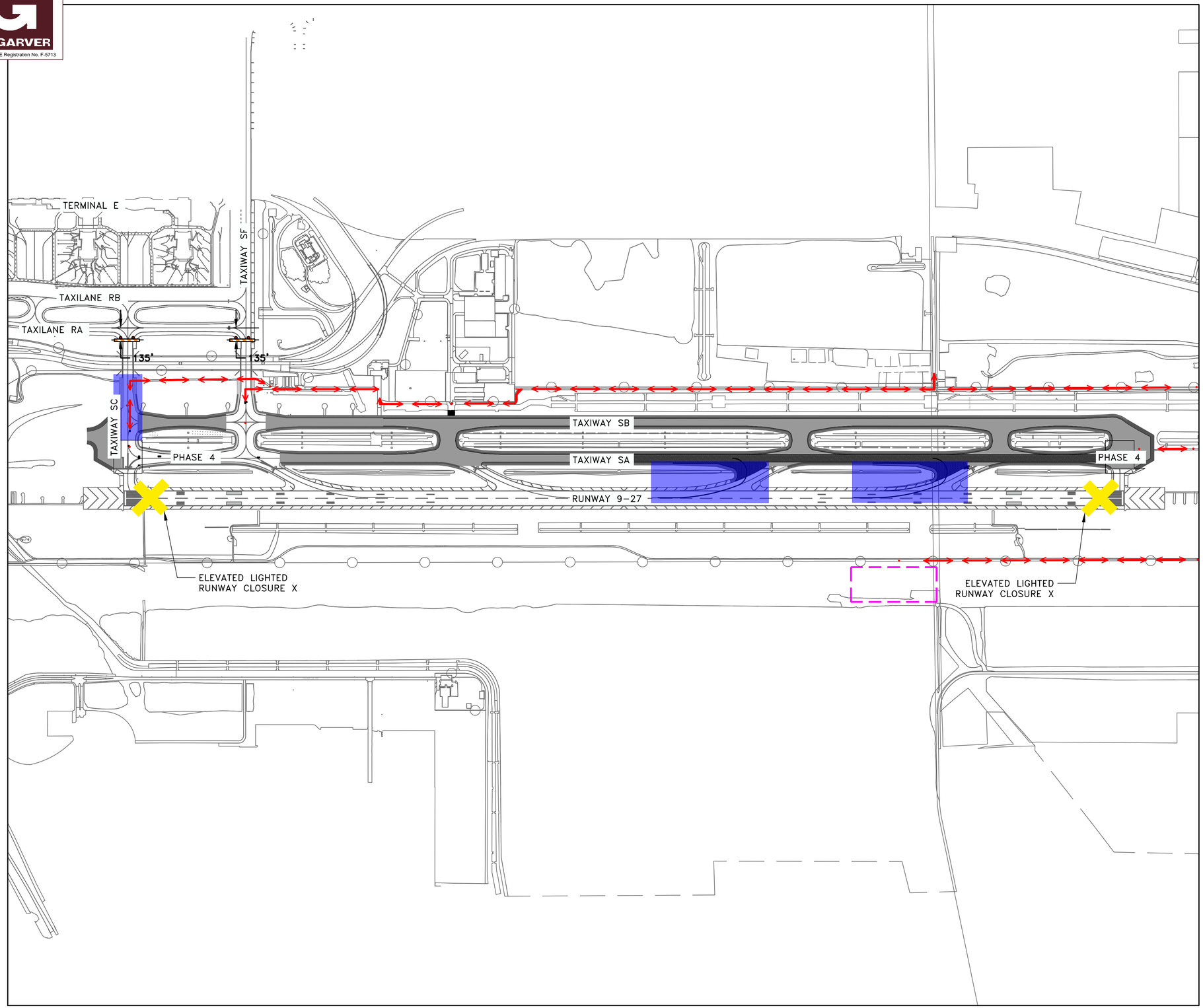
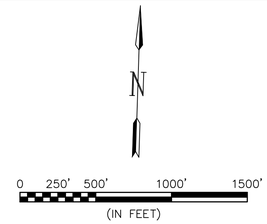
GARVER
TBPE Registration No. F-5713





NOTES:

1. WORK ON PHASE 4 REQUIRES CLOSURE OF RUNWAY 9–27. WHEN THIS OCCURS, ALL PAVEMENT SOUTH OF TAXILANE RA SHALL BE CLOSED, AND BARRICADES SHALL BE PLACED OUTSIDE THE OBJECT FREE AREA OF TAXILANE RA INDICATING THE CLOSURE OF THE TAXIWAYS SC AND SF BRIDGES.

LEGEND

- PHASING WORK AREA
- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CONSTRUCTION STAGING AREA
- HAUL ROUTE
- LOW PROFILE BARRICADES
- ELEVATED LIGHTED RUNWAY CLOSURE X

PHASE IMPACTS

RUNWAY 9–27	CLOSED
ALL TAXIWAY PAVEMENT SOUTH OF TAXILANE RA	CLOSED

HOUSTON AIRPORTS

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5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
+1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 4

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1"=500'
DATE:	04/28/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.09

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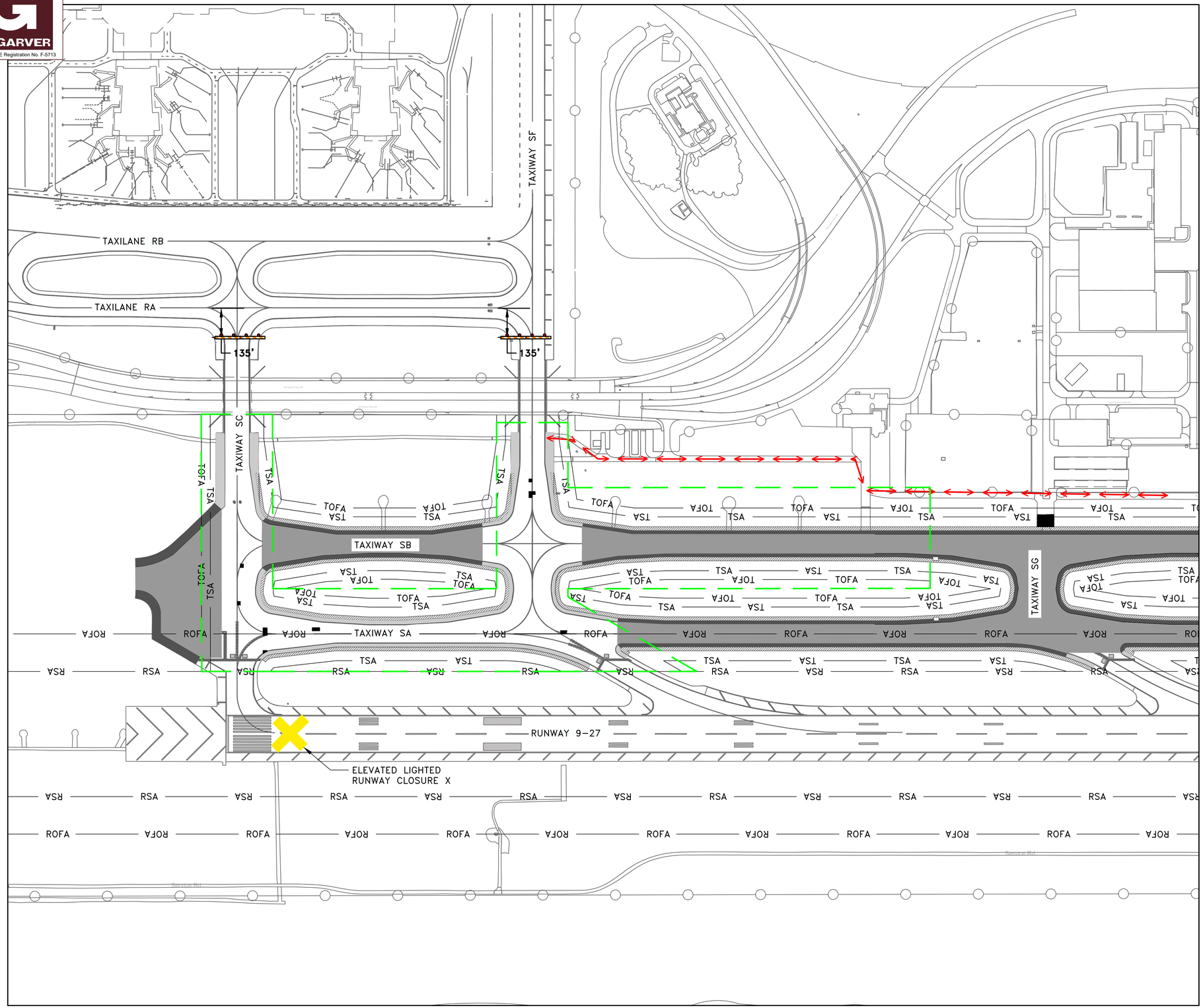
GARVER
TBPE Registration No. F-5713



N

0 100' 200' 400' 600'
(IN FEET)

NOTES:

1. WORK HOURS SHALL BE 24/7.
2. RUNWAY 9–27 AND ALL TAXIWAYS SOUTH OF TAXILANE RA SHALL BE CLOSED TO AIR TRAFFIC DURING THE DURATION OF THE PHASE. BARRICADES SHALL BE PLACED ON TAXIWAYS SF AND SC OUTSIDE OF THE TAXLINAE RA OBJECT FREE AREA.
3. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- LOW–PROFILE BARRICADE
- PHASING WORK AREA
- HAUL ROUTE ON ACTIVE TAXIWAY
- HAUL ROUTE
- FLAGGER
- TRAFFIC CONES FOR HAUL ROUTE DELINEATION

PHASE IMPACTS

RUNWAY 9–27	CLOSED
ALL TAXIWAY PAVEMENT SOUTH OF TAXILANE RA	CLOSED

HOUSTON AIRPORTS

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5995 ROGERDALE ROAD
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+1-832-351-8000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 4 (CONT'D)

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 200'
DATE:	04/28/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.10

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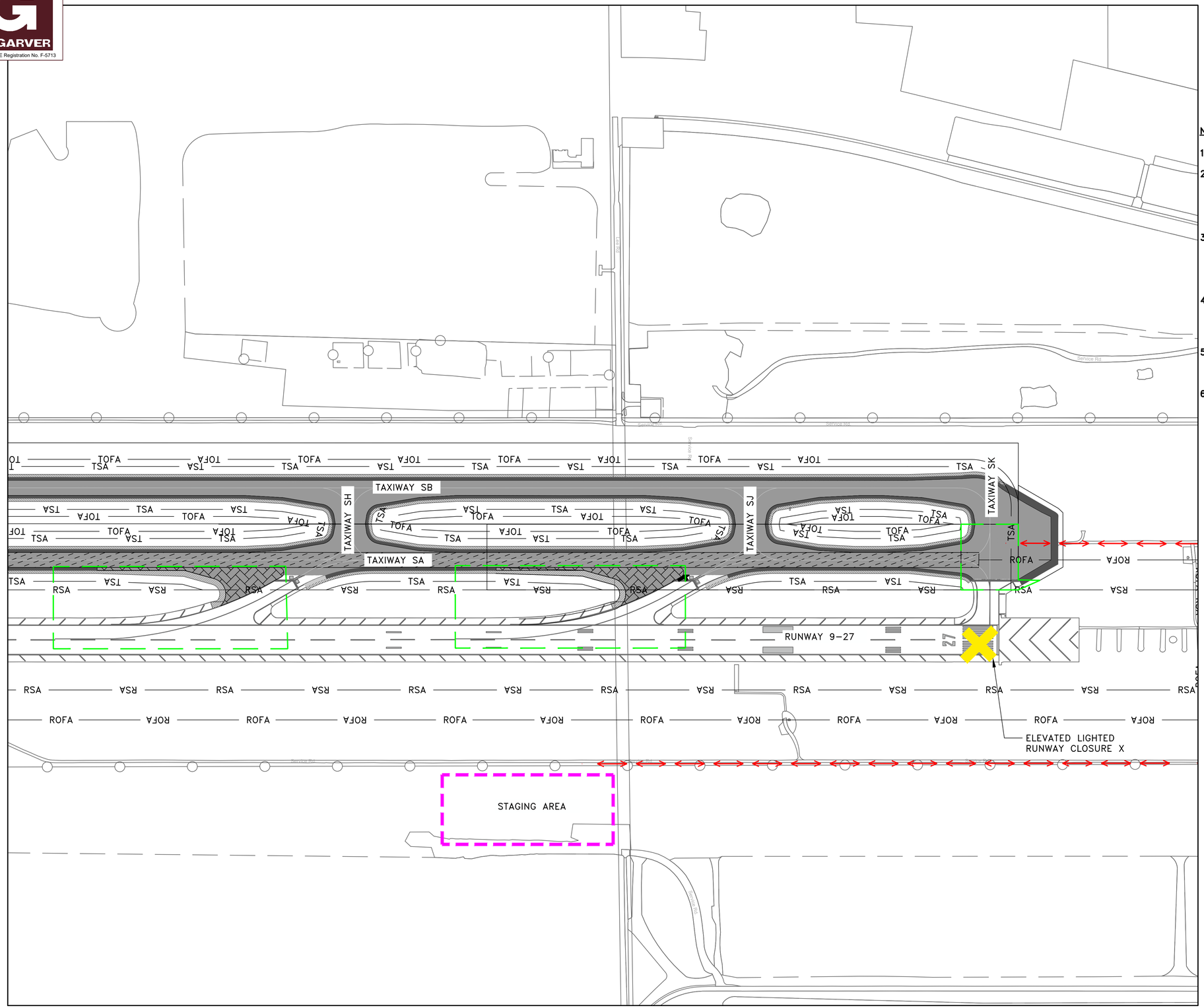
TBPE Registration No. F-5713



N

0 125' 250' 500' 750'
(IN FEET)

NOTES:

1. WORK HOURS SHALL BE 24/7.
2. RUNWAY 9-27 AND ALL TAXIWAYS SOUTH OF TAXILANE RA SHALL BE CLOSED TO AIR TRAFFIC DURING THE DURATION OF THE PHASE. BARRICADES SHALL BE PLACED ON TAXIWAYS SF AND SC OUTSIDE OF THE TAXLINAE RA OBJECT FREE AREA.
3. CONTRACTOR IS ALLOWED (BUT NOT REQUIRED) TO CONTINUE THE CONSTRUCTION OF NEW PAVEMENT AND SHOULDER FOR TAXIWAYS SH AND SJ NEW TURN RADII BEYOND THE PHASE 4 BOUNDARIES ONCE WORK WITHIN PHASE 4 BOUNDARIES IS COMPLETED.
4. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
5. MARKINGS FOR NEW HIGH SPEED TURNING RADII PAVEMENT FOR TAXIWAYS SH AND SJ SHALL NOT BE MARKED UNTIL THE CONCLUSION OF PHASE 6.
6. LIGHTING FOR NEW HIGH SPEED TURNING RADII FOR TAXIWAYS SH AND SJ SHALL NOT BE ENERGIZED UNTIL THE CONCLUSION OF PHASE 6.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA
- HAUL ROUTE ON ACTIVE TAXIWAY
- HAUL ROUTE
- FLAGGER
- TRAFFIC CONES FOR HAUL ROUTE DELINEATION
- CONSTRUCTION STAGING AREA

PHASE IMPACTS

RUNWAY 9-27	CLOSED
ALL TAXIWAY PAVEMENT SOUTH OF TAXILANE RA	CLOSED

HOUSTON AIRPORTS

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HOUSTON, TEXAS 77072
+1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 4 (CONT'D)

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1 = 250
DATE:	04/28/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.11

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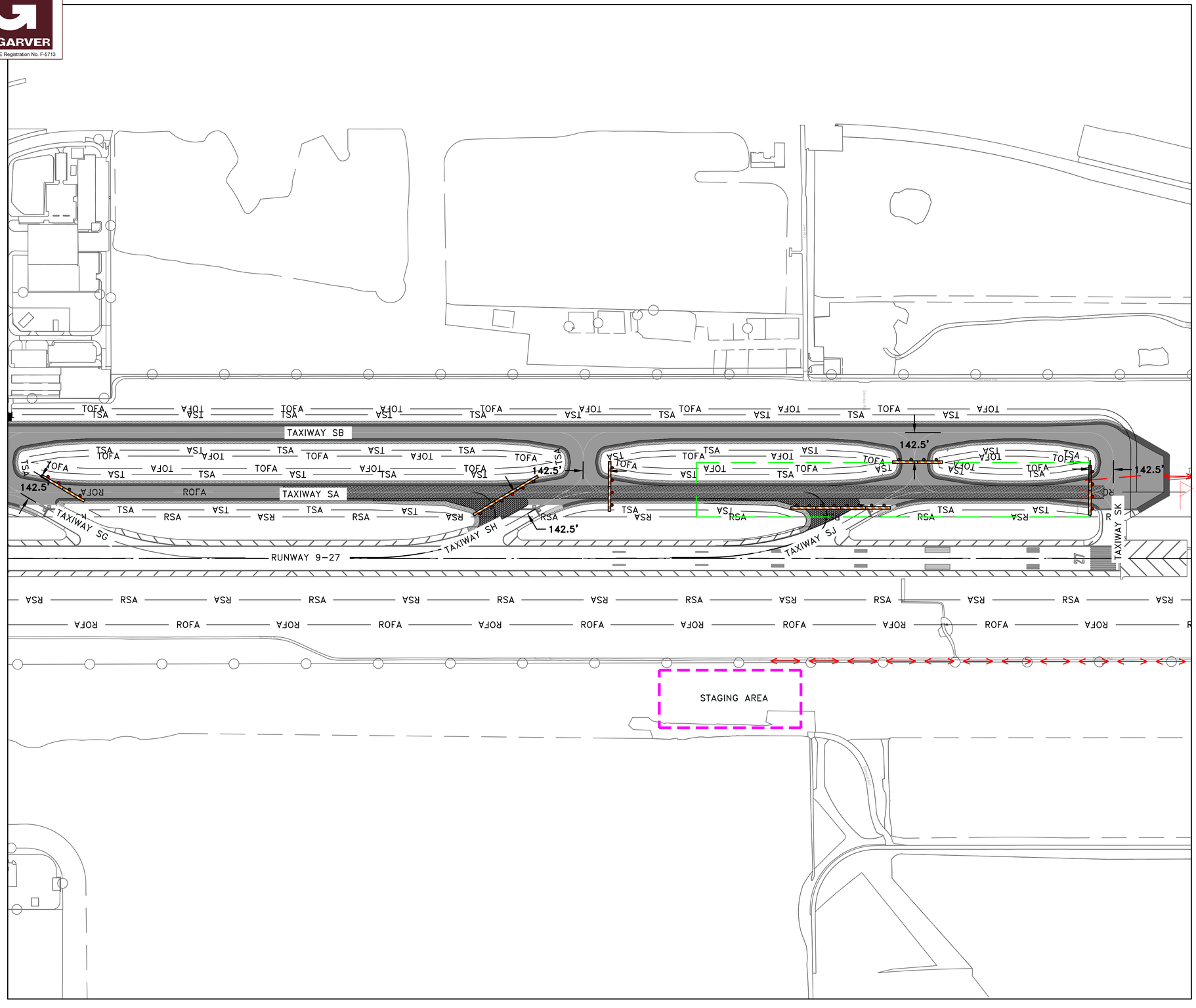

N

0 150' 300' 600' 900'

(IN FEET)

NOTES:

1. WORK HOURS SHALL BE 24/7.
2. CLOSURES: TAXIWAY SA SHALL BE CLOSED BETWEEN TAXIWAYS SH AND SK. TAXIWAY SJ SHALL BE CLOSED.
3. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
4. "CANDY CANE" MARKERS SHALL BE USED TO DELINEATE THE EXTENTS OF THE WORK AREA.
5. CONTRACTOR SHALL REPAIR ANY DAMAGED TO PAVEMENT CAUSED BY CONSTRUCTION OR HAULING ACTIVITY.
5. MARKINGS FOR NEW HIGH SPEED TURNING RADII PAVEMENT FOR TAXIWAYS SH AND SJ SHALL NOT BE MARKED UNTIL THE CONCLUSION OF PHASE 6.
6. LIGHTING FOR NEW HIGH SPEED TURNING RADII FOR TAXIWAYS SH AND SJ SHALL NOT BE ENERGIZED UNTIL THE CONCLUSION OF PHASE 6.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA
- HAUL ROUTE ON ACTIVE TAXIWAY
- HAUL ROUTE
- FLAGGER
- TRAFFIC CONES FOR HAUL ROUTE DELINEATION
- CONSTRUCTION STAGING AREA

PHASE IMPACTS

TAXIWAY SA	CLOSED BETWEEN TAXIWAY SH AND TAXIWAY SK AND BETWEEN TAXIWAY SG AND TAXIWAY SH
TAXIWAY SJ	CLOSED

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 5

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1=300
DATE:	04/28/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **G02.12**

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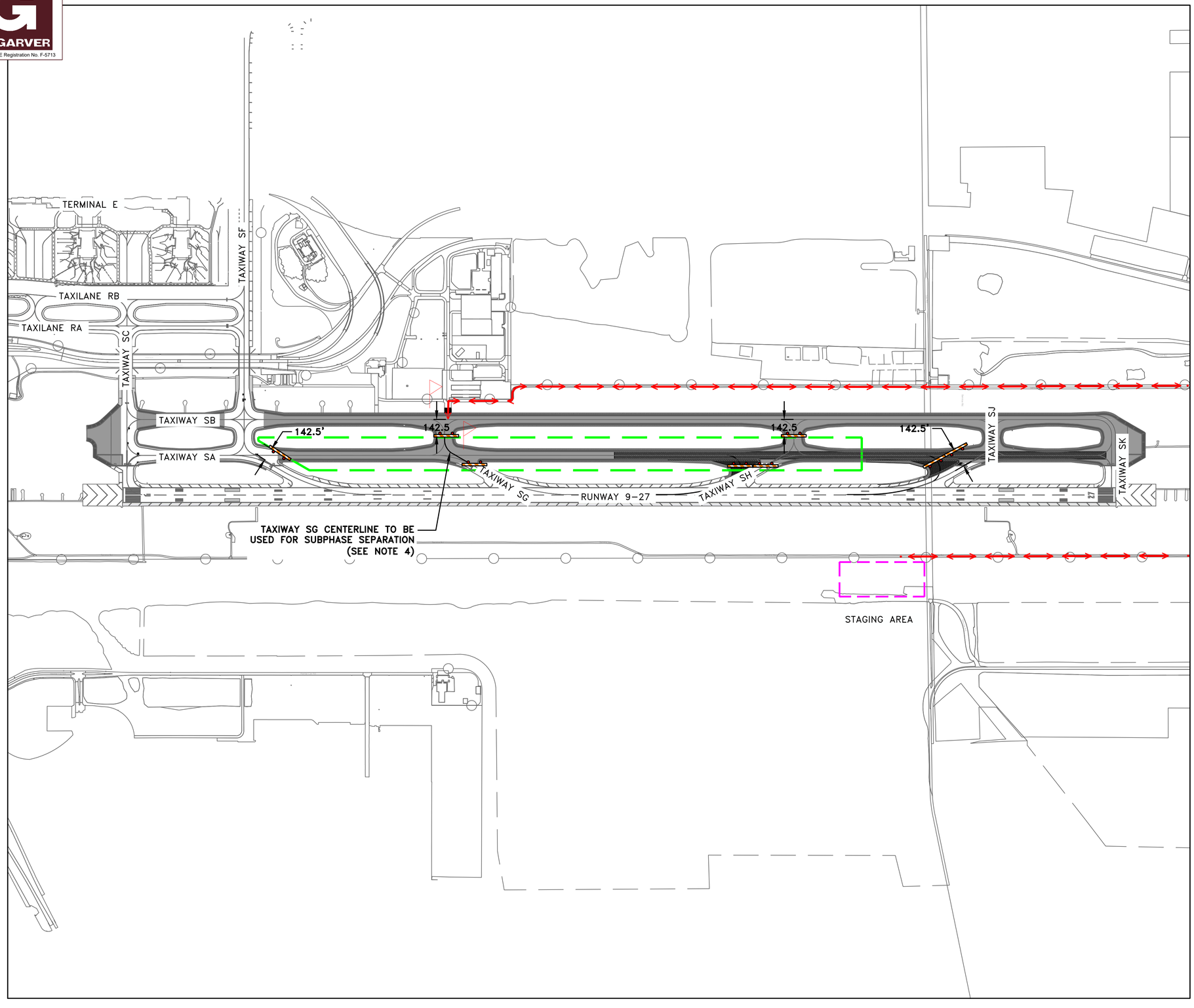

0 250' 500' 1000' 1500'
(IN FEET)

NOTES:

1. WORK HOURS SHALL BE 24/7.
2. CLOSURES: TAXIWAY SB SHALL BE CLOSED EAST OF TAXIWAY SF.
3. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
4. AIRPORT RESCUE AND FIRE FIGHTING (ARFF) REQUIRES 24/7 ACCESS TO RUNWAY 9-27 BY WAY OF TAXIWAY SG. CONTRACTOR MUST ENSURE THAT AN 18' WIDE LANE IS ALWAYS OPEN ON TAXIWAY SG. TO ACCOMPLISH THIS, THE PHASE SHALL BE DIVIDED INTO 2 SUBPHASES WITH THE CENTERLINE OF TAXIWAY SG ACTING AS A DIVIDER.
5. "CANDY CANE" MARKERS SHALL BE USED TO DELINEATE THE EXTENTS OF THE WORK AREA.
6. CONTRACTOR SHALL REPAIR ANY DAMAGED TO PAVEMENT CAUSED BY CONSTRUCTION OR HAULING ACTIVITY.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA
- HAUL ROUTE ON ACTIVE TAXIWAY
- HAUL ROUTE
- FLAGGER
- TRAFFIC CONES FOR HAUL ROUTE DELINEATION
- CONSTRUCTION STAGING AREA

PHASE IMPACTS

TAXIWAY SA	CLOSED BETWEEN TAXIWAY SF AND TAXIWAY SJ
TAXIWAY SG AND SH	CLOSED

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

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HOUSTON, TEXAS 77072
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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 6

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1"=500'
DATE:	04/28/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. G02.13

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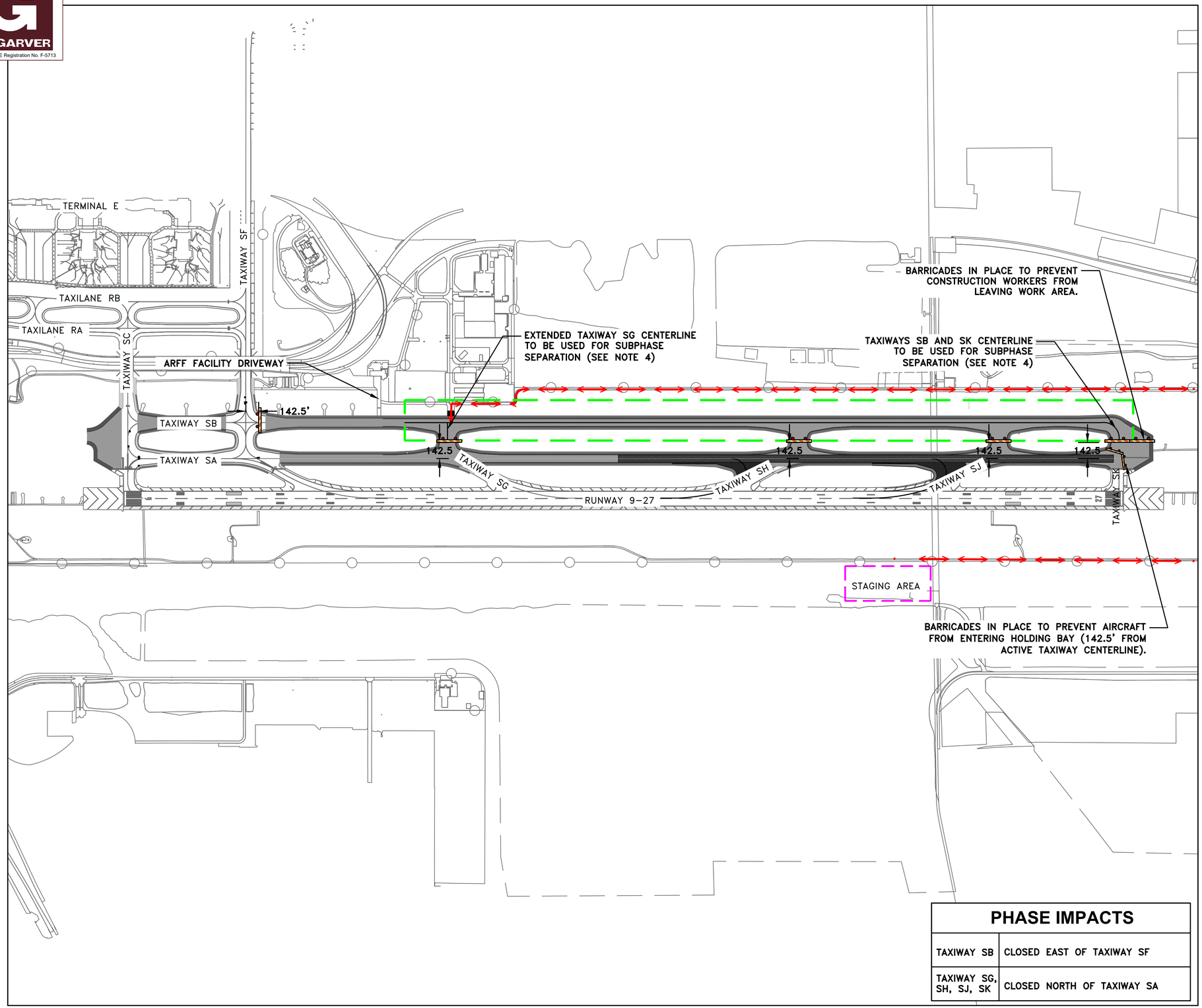

PHASE IMPACTS

TAXIWAY SB	CLOSED EAST OF TAXIWAY SF
TAXIWAY SG, SH, SJ, SK	CLOSED NORTH OF TAXIWAY SA

N

0 250' 500' 1000' 1500'

(IN FEET)

NOTES:

1. WORK HOURS SHALL BE 24/7.
2. CLOSURES: TAXIWAY SB SHALL BE CLOSED EAST OF TAXIWAY SF. TAXIWAYS SG, SH, SJ AND SK SHALL BE CLOSED NORTH OF TAXIWAY SA.
3. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
4. AIRPORT RESCUE AND FIRE FIGHTING (ARFF) REQUIRES 24/7 ACCESS TO RUNWAY 9-27 BY WAY OF TAXIWAY SG AND TAXIWAYS SB AND SK. CONTRACTOR MUST ENSURE THAT AN 18' WIDE LANE IS ALWAYS OPEN ON TAXIWAY SG AND TAXIWAYS SB AND SK. TO ACCOMPLISH THIS, THE PHASE SHALL BE DIVIDED INTO 3 SUBPHASES. SUBPHASE 1 SHALL INCLUDE THE WORK NORTH AND EAST OF THE TAXIWAYS SB AND SK CENTERLINE. SUBPHASE 2 SHALL INCLUDE THE WORK SOUTH OF TAXIWAY SB CENTERLINE AND WEST OF TAXIWAY SG CENTERLINE. SUPHASE 3 SHALL INCLUDE THE WORK EAST OF TAXIWAY SB CENTERLINE AND SOUTH AND WEST OF TAXIWAYS SB AND SK CENTERLINE.
5. "CANDY CANE" MARKERS SHALL BE USED TO DELINEATE THE EXTENTS OF THE WORK AREA.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA
- HAUL ROUTE ON ACTIVE TAXIWAY
- HAUL ROUTE
- FLAGGER
- TRAFFIC CONES FOR HAUL ROUTE DELINEATION
- CONSTRUCTION STAGING AREA

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

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HOUSTON, TEXAS 77072
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WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PHASING PLAN - PHASE 7

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1"=500'
DATE:	04/28/2023

STATE OF TEXAS
DANIEL C. TOMPKINS
127450
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G02.14

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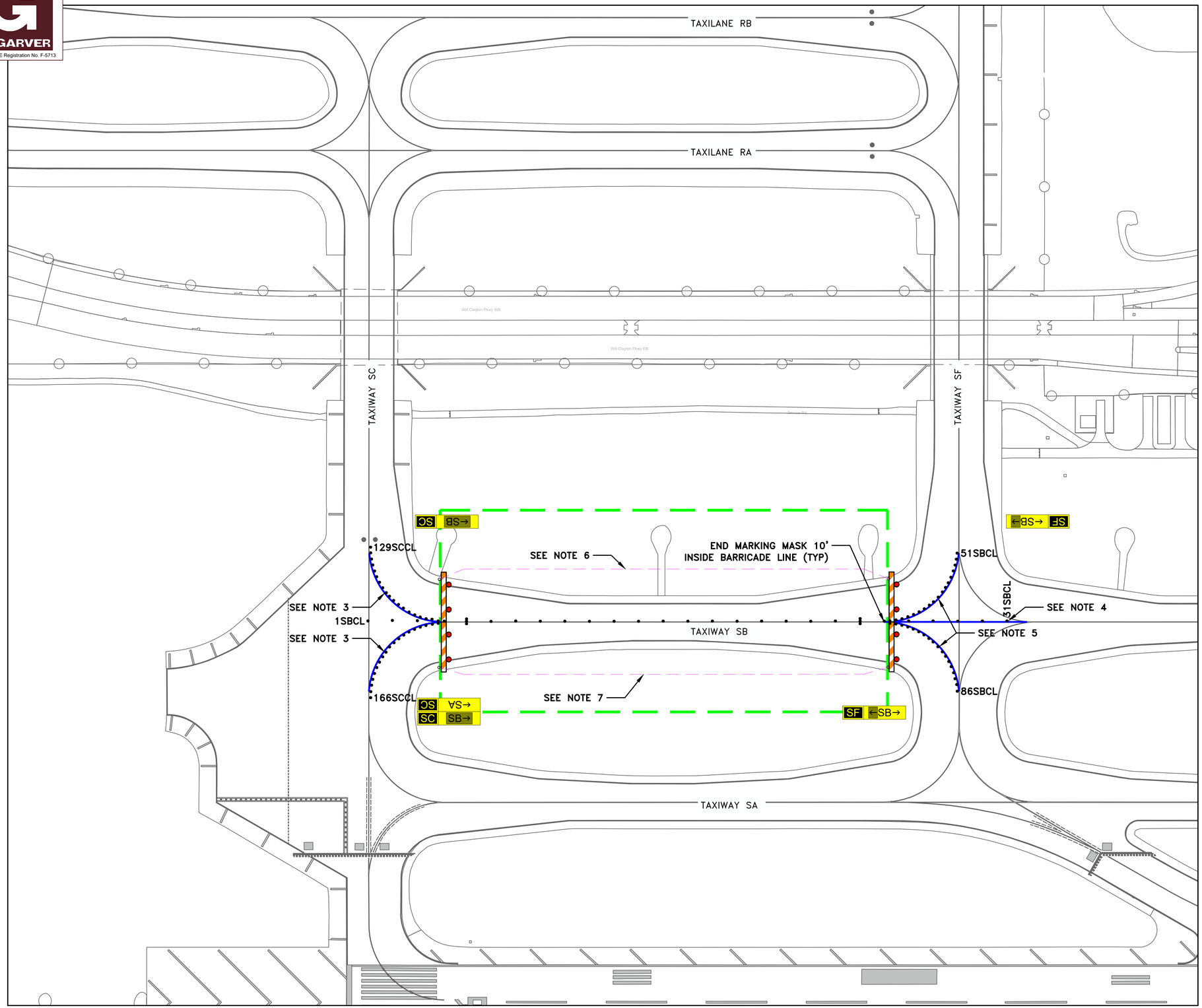
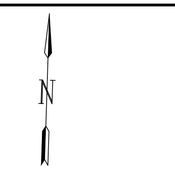
GARVER
TBPE Registration No. F-5713





NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. ALL CENTERLINES IDENTIFIED TO BE MASKED SHALL BE COVERED WITH NON-RETROREFLECTIVE BLACK PAINT. ALL MARKINGS TO BE MASKED SHALL BE SURVEYED AND PLACED BACK AT THE ORIGINAL LOCATION AT THE END OF THE PHASE, UNLESS NOTED OTHERWISE.
3. DISCONNECT TAXIWAY SC CENTERLINE LIGHTS AND TRANSFORMERS 129SCCL THROUGH 166SCCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
4. DISCONNECT TAXIWAY SB CENTERLINE LIGHT 31SBCL AND BYPASS REMAINING CIRCUIT TO THE WEST IN BASE CAN 31SBCL. MAINTAIN CIRCUIT INTEGRITY TO THE EAST.
5. DISCONNECT TAXIWAY SB CENTERLINE LIGHTS AND TRANSFORMERS 51SBCL THROUGH 86SBCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
6. FURNISH AND INSTALL 1-SB, 2-SC, 1-9/27 SIGN WEST L-824 CABLES BEWTEEN 128SC AND 22SB TO BYPASS TAXIWAY SB EDGE CIRCUIT BETWEEN TAXIWAYS SC AND SF, WHILE MAINTAINING CIRCUITS SC AND 9/27 SIGN WEST OUTSIDE THE CLOSURE AREA.
7. FURNISH AND INSTALL 1-SB L-824 CABLE BETWEEN 1SC AND 35SB TO BYPASS TAXIWAY SB EDGE CIRCUIT BETWEEN TAXIWAYS SC AND SF.

LEGEND

- PHASING WORK AREA
- LOW-PROFILE BARRICADE
- MASK TAXIWAY CENTERLINE MARKING (SEE NOTE 2)
- EXISTING TAXIWAY CENTERLINE LIGHT (SEE NOTES)
- EXISTING TAXIWAY EDGE LIGHTS
- COVER GUIDANCE SIGN INFORMATION AS INDICATED WITH HEAVY BLACK PLASTIC SIGN COVER
- TEMPORARY CABLING

HOUSTON AIRPORTS

Jacobs
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WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 1

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **G03.01**

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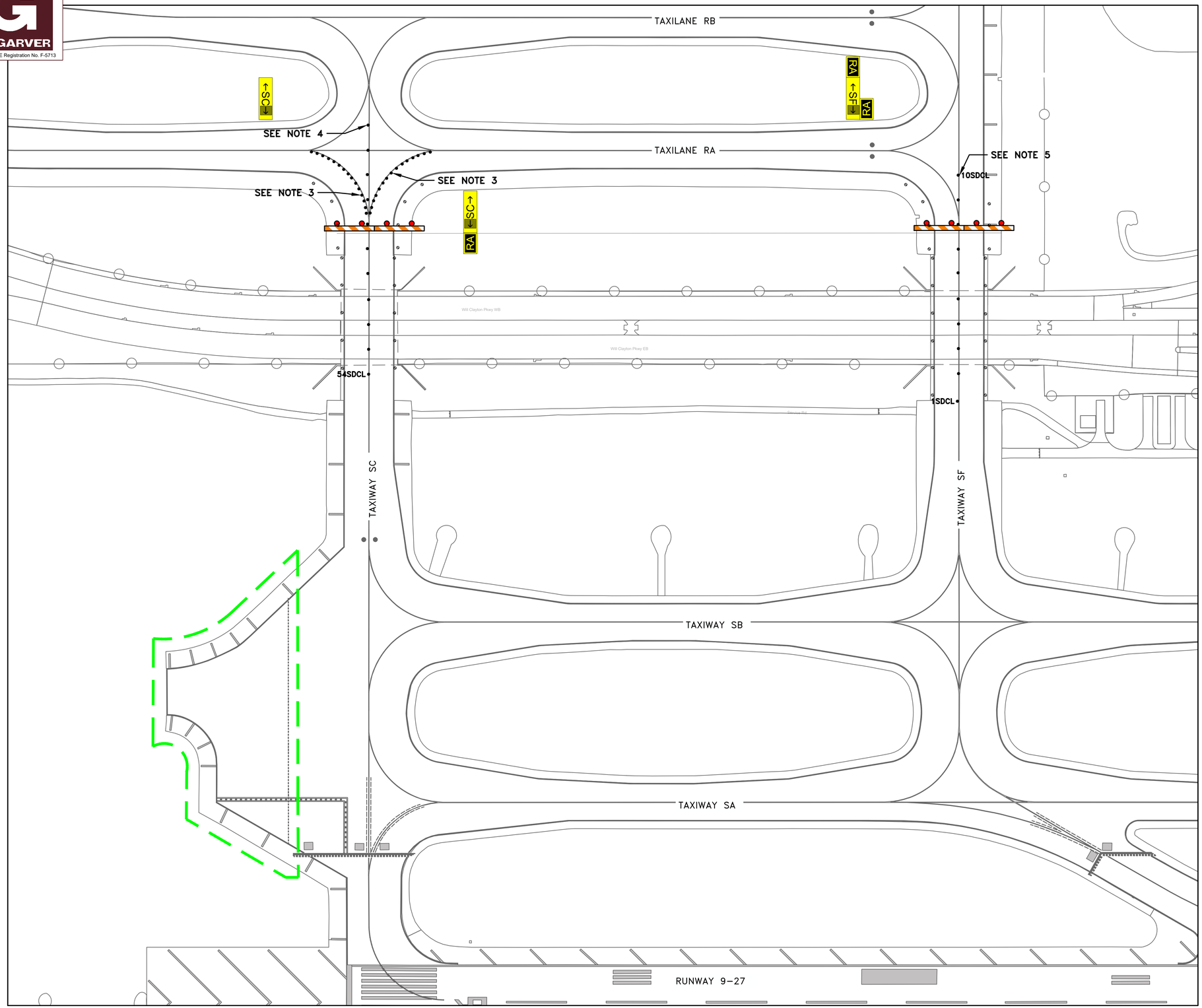

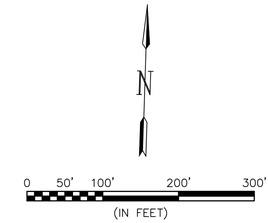

NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. CONTRACTOR SHALL LOCK-OUT/TAG-OUT THE FOLLOWING CIRCUITS IN THE SOUTH VAULT EACH NIGHT PRIOR TO STARTING WORK: GUARD LT, SA, SB, SC, SK, SACL, SBCL, SCCL, SFG, SHJ, SFGHJ, 9-27, 9-27 CL, 9-27 TDZ, 9-27 SIGN WEST, AND 9-27 SIGN EAST. EACH MORNING BY 6:00AM THE CIRCUITS SHALL BE OPERATIONAL, SIGN AND TAXIWAY EDGE LIGHT COVERS REMOVED.
3. DISCONNECT TAXIWAY SC CENTERLINE LIGHTS AND TRANSFORMERS IN THIS AREA – CIRCUIT SD. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
4. DISCONNECT INDICATED TAXIWAY SC CENTERLINE LIGHT AND BYPASS REMAINING CIRCUIT TO THE SOUTH IN INDICATED BASE CAN. MAINTAIN CIRCUIT INTEGRITY TO THE NORTH AND ALONG TAXIWAYS RA/RB.
5. DISCONNECT TAXIWAY SF CENTERLINE LIGHT 10SDCL AND BYPASS REMAINING CIRCUIT TO THE SOUTH IN BASE CAN 10SDCL. MAINTAIN CIRCUIT INTEGRITY TO THE NORTH.
6. SIGN COVERS SHALL BE REMOVED, TAXIWAY CENTERLINE LIGHTS SHALL BE REPOWERD, AND TAXIWAY EDGE LIGHT MASKS SHALL BE REMOVED AFTER EACH WORK PERIOD TO ACCOMMODATE TAXIWAYS REOPENING.

LEGEND

- PHASING WORK AREA
- LOW-PROFILE BARRICADE
- EXISTING TAXIWAY CENTERLINE LIGHT (SEE NOTES)
- COVER TAXIWAY EDGE LIGHTS WITH PVC MASK
- COVER GUIDANCE SIGN INFORMATION AS INDICATED WITH HEAVY BLACK PLASTIC SIGN COVER

GARVER
TBPE Registration No. F-5713

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASES 2 & 3

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G03.02

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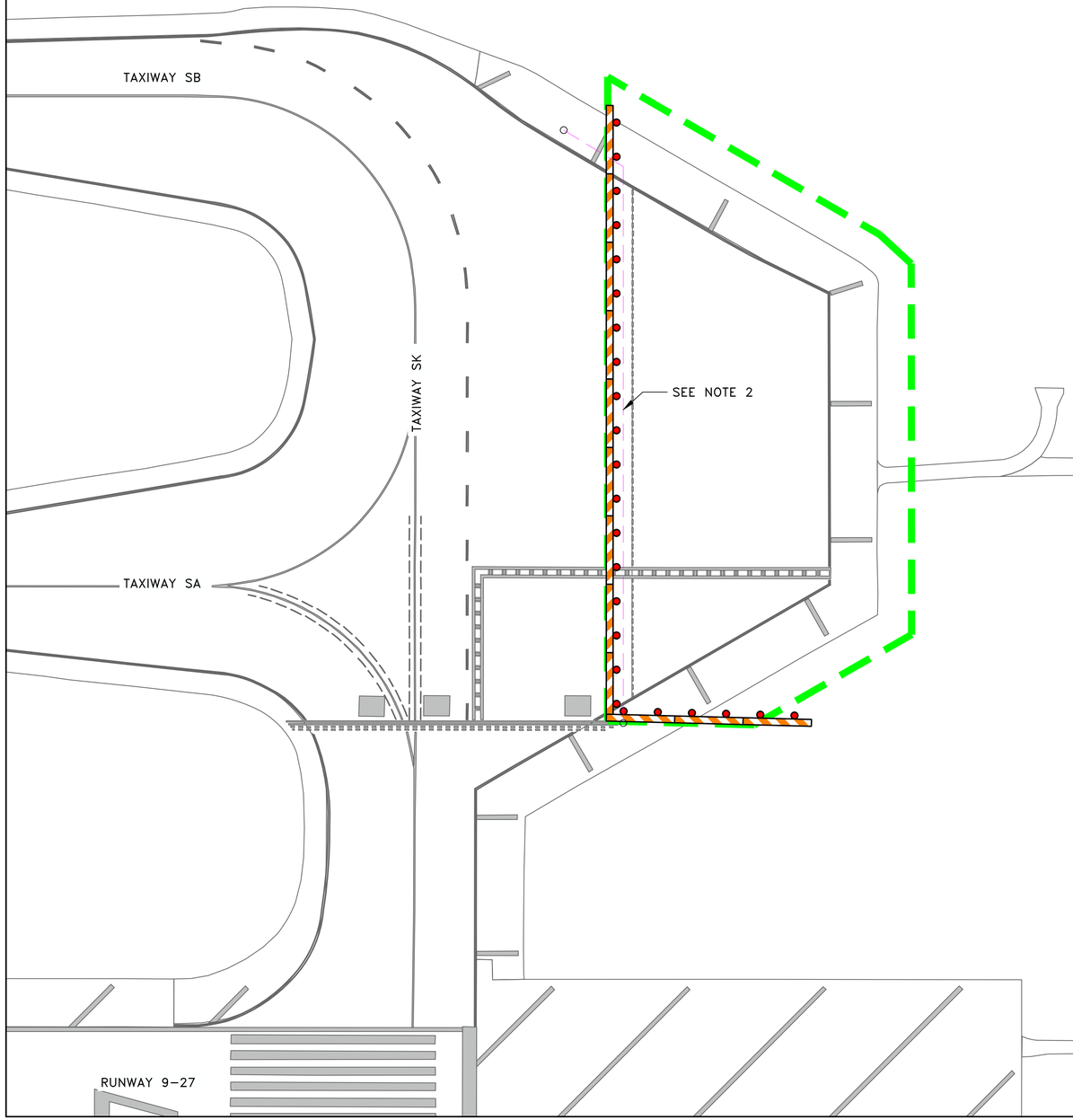
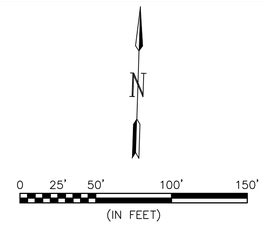
GARVER
TBPE Registration No. F-5713





NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. FURNISH AND INSTALL 1–SB L–824 CABLE BETWEEN 52SK AND PULLCAN NEAR SIGN S1–SK TO BYPASS TAXIWAY SB EDGE CIRCUIT.

LEGEND

- PHASING WORK AREA
- LOW–PROFILE BARRICADE
- EXISTING TAXIWAY EDGE LIGHTS OR PULL CAN
- TEMPORARY CABLING

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TEXAS P.E. FIRM F–2966

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 3

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
G03.03

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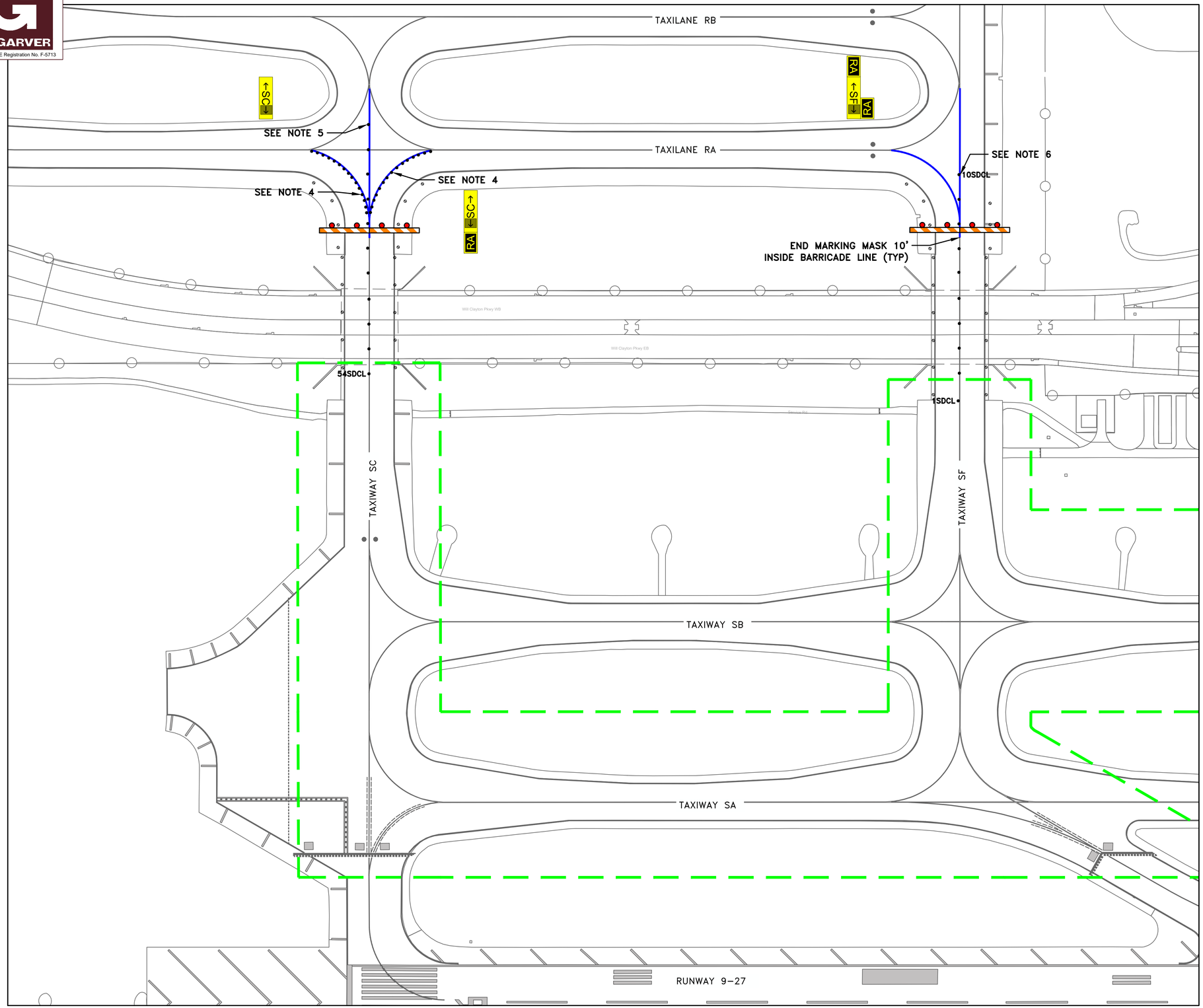

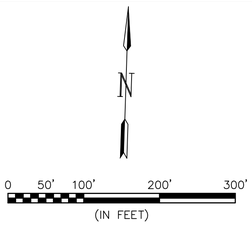

NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. ALL CENTERLINES IDENTIFIED TO BE MASKED SHALL BE COVERED WITH NON-RETROREFLECTIVE BLACK PAINT. ALL MARKINGS TO BE MASKED SHALL BE SURVEYED AND PLACED BACK AT THE ORIGINAL LOCATION AT THE END OF THE PHASE, UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL LOCK-OUT/TAG-OUT THE FOLLOWING CIRCUITS IN THE SOUTH VAULT: GUARD LT, SA, SB, SC, SK, SACL, SBCL, SCCL, SFG, SHJ, SFGHJ, 9-27, 9-27 CL, 9-27 TDZ, 9-27 SIGN WEST, AND 9-27 SIGN EAST. AT THE COMPLETION OF PHASES 4, 7, OR 11 THE CIRCUITS SHALL BE RE-ENERGIZED.
4. DISCONNECT TAXIWAY SC CENTERLINE LIGHTS AND TRANSFORMERS IN THIS AREA - CIRCUIT SD. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
5. DISCONNECT INDICATED TAXIWAY SC CENTERLINE LIGHT AND BYPASS REMAINING CIRCUIT TO THE SOUTH IN INDICATED BASE CAN. MAINTAIN CIRCUIT INTEGRITY TO THE NORTH AND ALONG TAXIWAYS RA/RB.
6. DISCONNECT TAXIWAY SF CENTERLINE LIGHT 10SDCL AND BYPASS REMAINING CIRCUIT TO THE SOUTH IN BASE CAN 10SDCL. MAINTAIN CIRCUIT INTEGRITY TO THE NORTH.

LEGEND

- PHASING WORK AREA
- LOW-PROFILE BARRICADE
- MASK TAXIWAY CENTERLINE MARKING (SEE NOTE 2)
- EXISTING TAXIWAY CENTERLINE LIGHT (SEE NOTES)
- COVER TAXIWAY EDGE LIGHTS WITH PVC MASK
- COVER GUIDANCE SIGN INFORMATION AS INDICATED WITH HEAVY BLACK PLASTIC SIGN COVER

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 4

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G03.04

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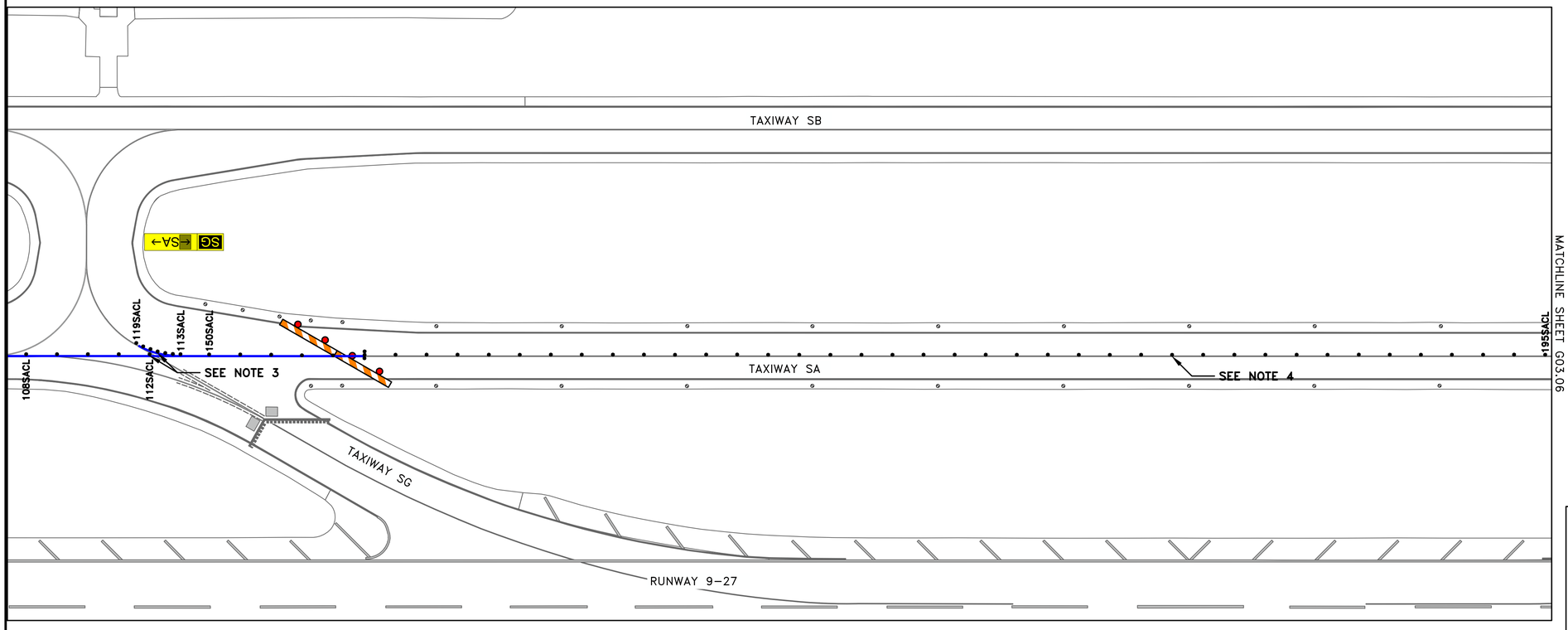

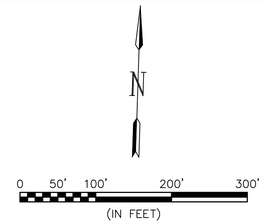

NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. ALL CENTERLINES IDENTIFIED TO BE MASKED SHALL BE COVERED WITH NON-RETROREFLECTIVE BLACK PAINT. ALL MARKINGS TO BE MASKED OR REMOVED SHALL BE SURVEYED AND PLACED BACK AT THE ORIGINAL LOCATION AT THE END OF THE PHASE, UNLESS NOTED OTHERWISE.
3. DISCONNECT TAXIWAY SA/SG CENTERLINE LIGHTS AND TRANSFORMERS 108SACL THROUGH 119SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
4. DISCONNECT TAXIWAY SA CENTERLINE LIGHTS AND TRANSFORMERS 150SACL THROUGH 195SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.

LEGEND

- PHASING WORK AREA
- LOW-PROFILE BARRICADE
- MASK TAXIWAY CENTERLINE MARKING (SEE NOTE 2)
- MASK ENHANCED TAXIWAY CENTERLINE MARKING
- TAXIWAY MARKING REMOVAL FOR HIGH SPEED EXIT
- PAINTED TAXIWAY CLOSURE MARKING
- EXISTING TAXIWAY CENTERLINE LIGHT (SEE NOTES)
- COVER TAXIWAY EDGE LIGHTS WITH PVC MASK
- COVER GUIDANCE SIGN INFORMATION AS INDICATED WITH HEAVY BLACK PLASTIC SIGN COVER
- TEMPORARY CABLING

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 5

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G03.05

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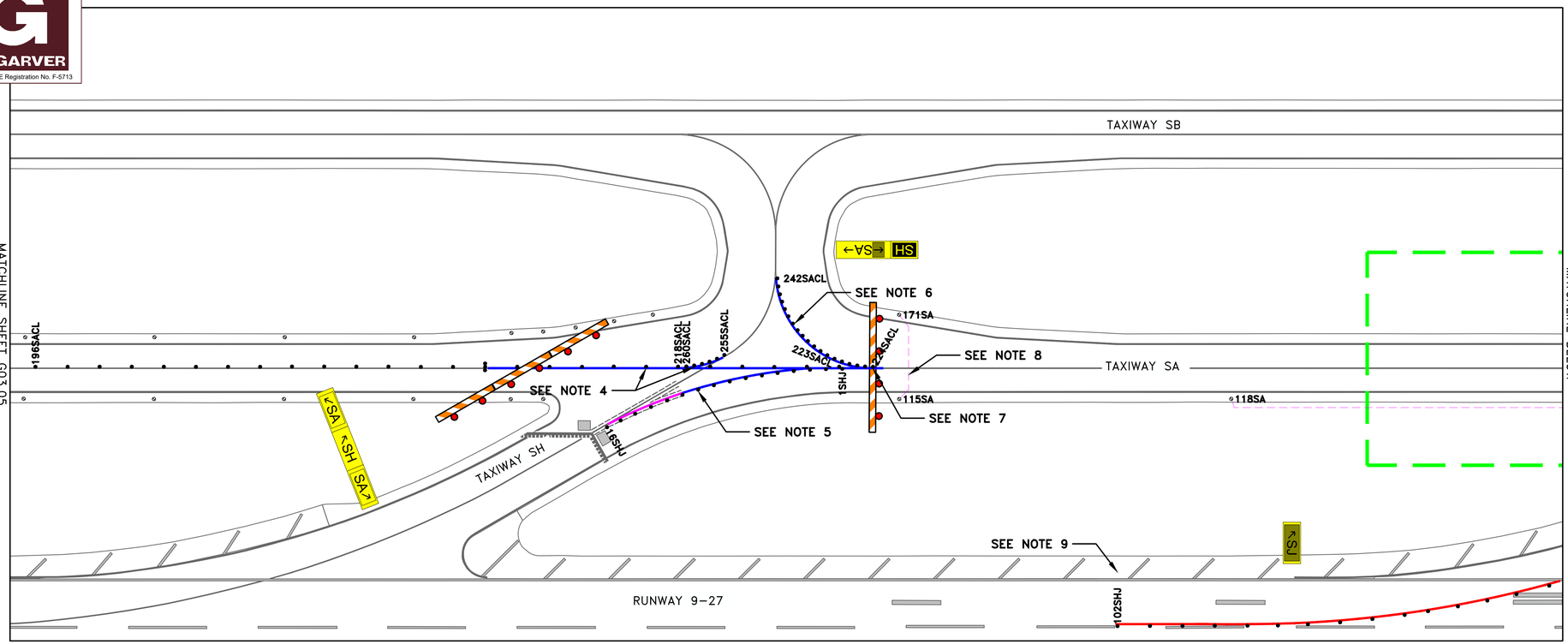

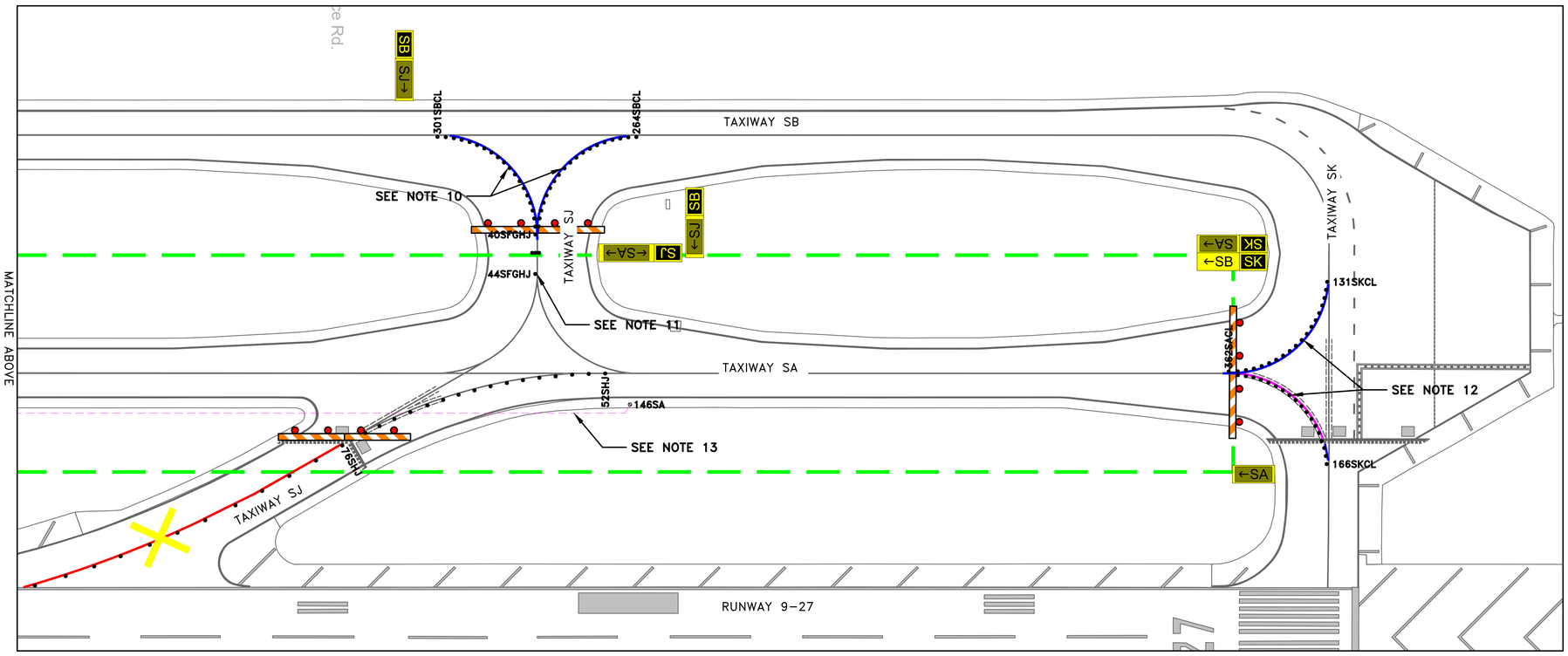

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(IN FEET)

NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. FOR MARKING AND ELECTRICAL PHASING LEGEND, SEE SHEET G03.05.
3. ALL CENTERLINES IDENTIFIED TO BE MASKED SHALL BE COVERED WITH NON-RETROREFLECTIVE BLACK PAINT. ALL MARKINGS TO BE MASKED OR REMOVED SHALL BE SURVEYED AND PLACED BACK AT THE ORIGINAL LOCATION AT THE END OF THE PHASE, UNLESS NOTED OTHERWISE.
4. DISCONNECT TAXIWAY SA/SH CENTERLINE LIGHTS AND TRANSFORMERS 196SACL THROUGH 223SACL AND 255SACL THROUGH 260SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
5. DISCONNECT TAXIWAY SH CENTERLINE LIGHTS AND TRANSFORMERS 1SHJ THROUGH 16SHJ. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
6. DISCONNECT TAXIWAY SA CENTERLINE LIGHTS AND TRANSFORMERS 219SACL THROUGH 224SACL AND 224SACL THROUGH 242SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
7. DISCONNECT TAXIWAY SA CENTERLINE LIGHT 224SACL AND BYPASS REMAINING CIRCUIT TO THE EAST IN BASE CAN 224SACL. MAINTAIN CIRCUIT INTEGRITY WEST OF TAXIWAY SA CENTERLINE LIGHT 219SACL.
8. FURNISH AND INSTALL 1-SA L-824 CABLE BETWEEN 171SA AND 115SA TO BYPASS TAXIWAY SA EDGE CIRCUIT TO THE EAST.
9. DISCONNECT TAXIWAY SHJ CENTERLINE LIGHTS ALONG TAXIWAY SJ AT JUNCTION STRUCTURE IN RUNWAY SHOULDER (52SHJ THROUGH 102SHJ). MAINTAIN CIRCUIT INTEGRITY ALONG TAXIWAY SH.
10. DISCONNECT TAXIWAY SB CENTERLINE LIGHTS AND TRANSFORMERS 264SBCL THROUGH 301SBCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
11. DISCONNECT TAXIWAY SFGHJ CENTERLINE LIGHTS AND TRANSFORMERS 40SFGHJ THROUGH 44SFGHJ. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
12. DISCONNECT TAXIWAY SK CENTERLINE LIGHTS AND TRANSFORMERS 131SKCL THROUGH 166SKCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
13. FURNISH AND INSTALL 1-9/27 SIGNS EAST AND 2-S GUARDS L-824 CABLES BETWEEN 118SA AND 146SA TO MAINTAIN GUIDANCE SIGN AND GUARD LIGHT CIRCUITS TO THE EAST.

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 5 (CONT'D)

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
G03.06

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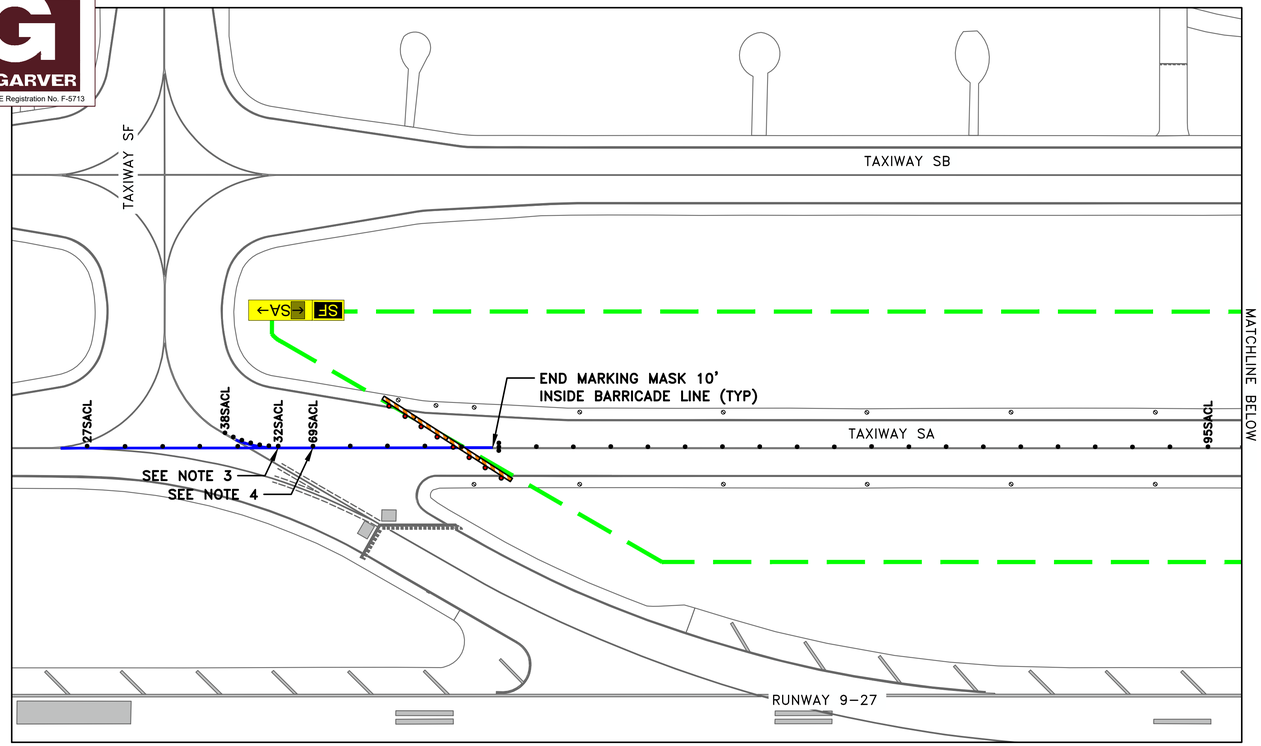
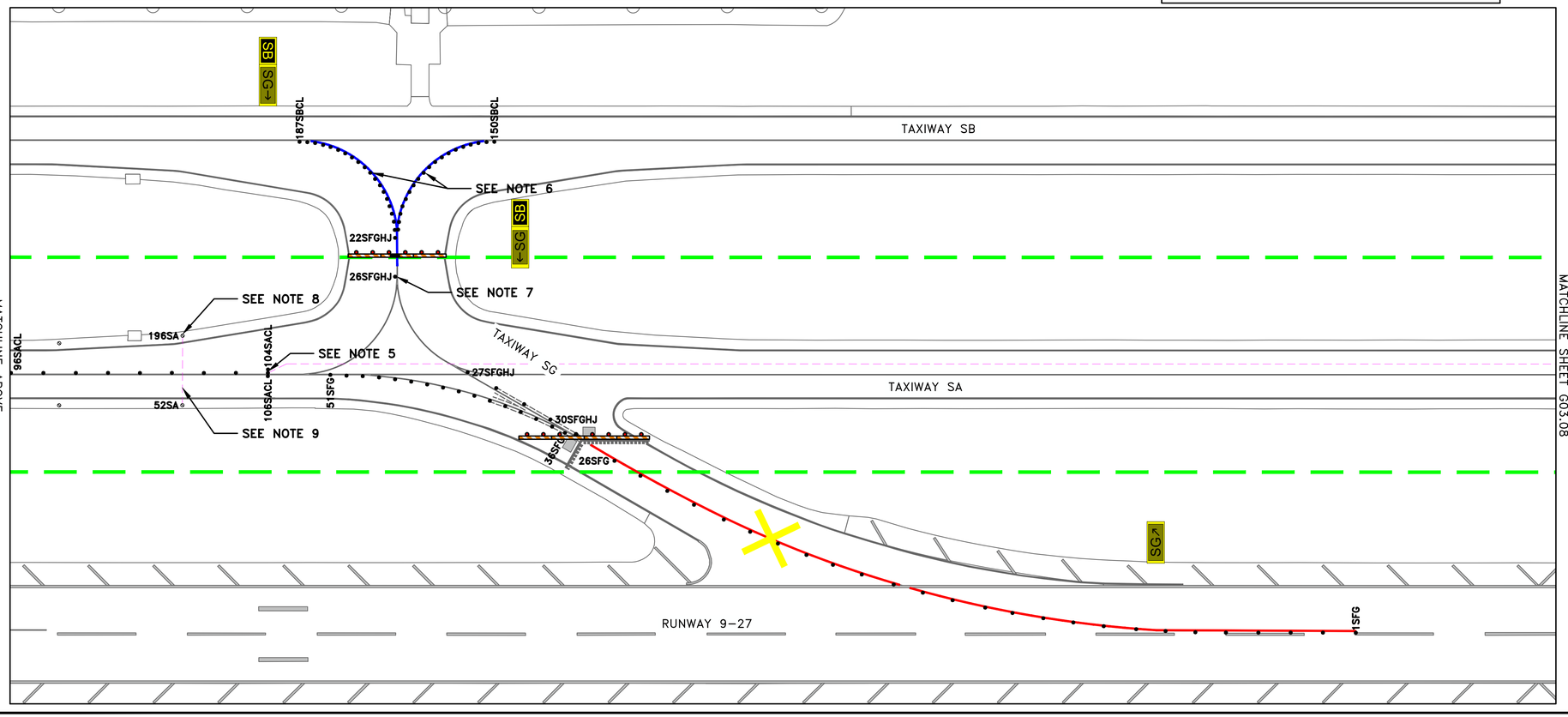
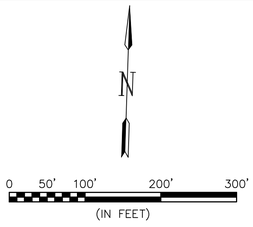
TBPE Registration No. F-5713







LEGEND

- PHASING WORK AREA
- LOW–PROFILE BARRICADE
- MASK TAXIWAY CENTERLINE MARKING (SEE NOTE 2)
- TAXIWAY MARKING REMOVAL FOR HIGH SPEED EXIT
- PAINTED TAXIWAY CLOSURE MARKING
- EXISTING TAXIWAY CENTERLINE LIGHT (SEE NOTES)
- COVER TAXIWAY EDGE LIGHTS WITH PVC MASK
- COVER GUIDANCE SIGN INFORMATION AS INDICATED WITH HEAVY BLACK PLASTIC SIGN COVER
- TEMPORARY CABLING

NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. ALL CENTERLINES IDENTIFIED TO BE MASKED SHALL BE COVERED WITH NON–RETROREFLECTIVE BLACK PAINT. ALL MARKINGS TO BE MASKED OR REMOVED SHALL BE SURVEYED AND PLACED BACK AT THE ORIGINAL LOCATION AT THE END OF THE PHASE, UNLESS NOTED OTHERWISE.
3. DISCONNECT TAXIWAY SA CENTERLINE LIGHTS AND TRANSFORMERS 27SACL THROUGH 32SACL AND 32SACL THROUGH 38SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
4. DISCONNECT SA CENTERLNE LIGHTS AND TRANSFORMERS 69SACL THROUGH 106SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTERGRITY AND REINSTALL CENTERLINE LIGHTS.
5. FURNISH AND INSTALL 2–SACL L–824 CABLES BETWEEN 105SACL AND 292SACL.
6. DISCONNECT TAXIWAY SB CENTERLINE LIGHTS AND TRANSFORMERS 150SBCL THROUGH 187SBCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
7. DISCONNECT TAXIWAY SFGHJ CENTERLINE LIGHTS AND TRANSFORMERS 22SFGHJ THROUGH 30SFGHJ. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
8. BYPASS TAXIWAY SFG CENTERLINE LIGHTS ALONG TAXIWAY SG AT TAXIWAY EDGE LIGHT 196SA (1SFG THROUGH 26SFG AMD 36SFG THROUGH 51SFG). MAINTAIN CIRCUIT INTEGRITY ALONG TAXIWAY SF.
9. FURNISH AND INSTALL 2–SA L–824 CABLES BETWEEN 196SA AND 52SA TO BYPASS TAXIWAY SA EDGE CIRCUIT TO THE EAST.

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JACOBS ENGINEERING GROUP INC.
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HOUSTON, TEXAS 77072
+1–832–351–8000
WWW.JACOBS.COM
TEXAS P.E. FIRM F–2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 6

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G03.07

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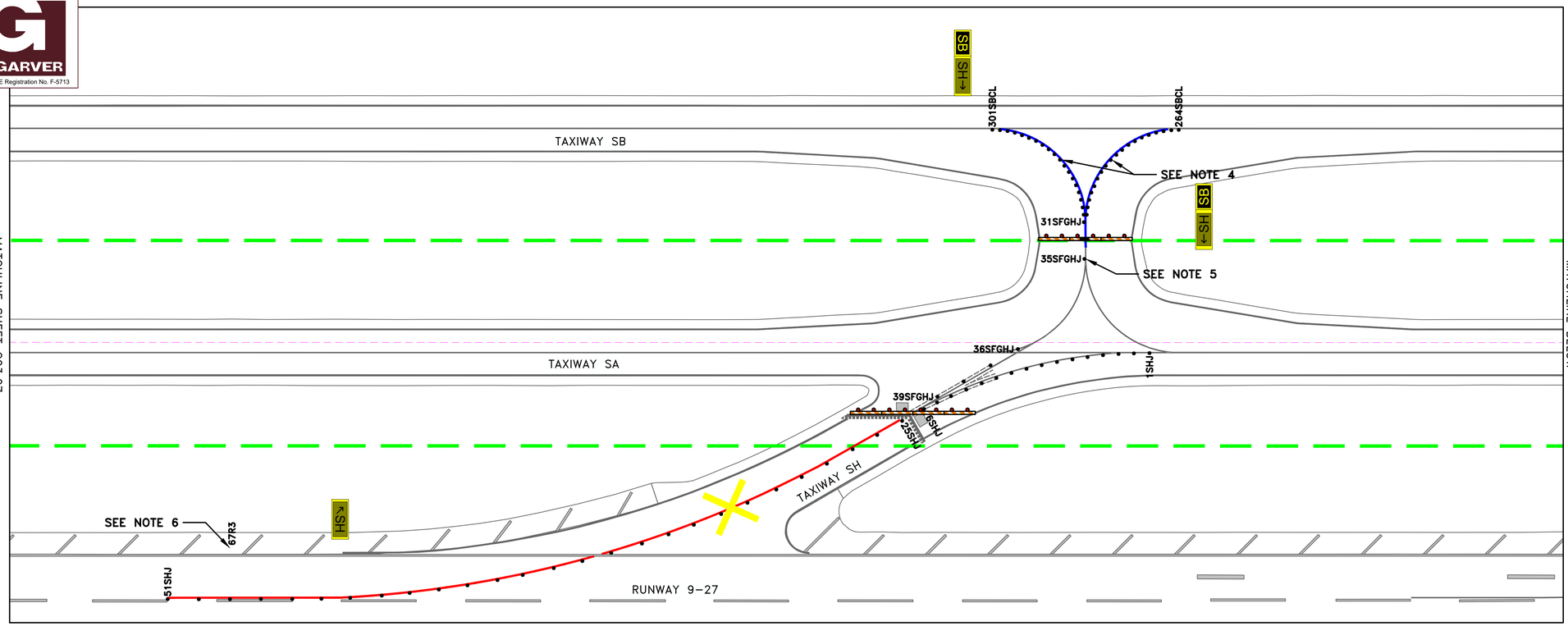

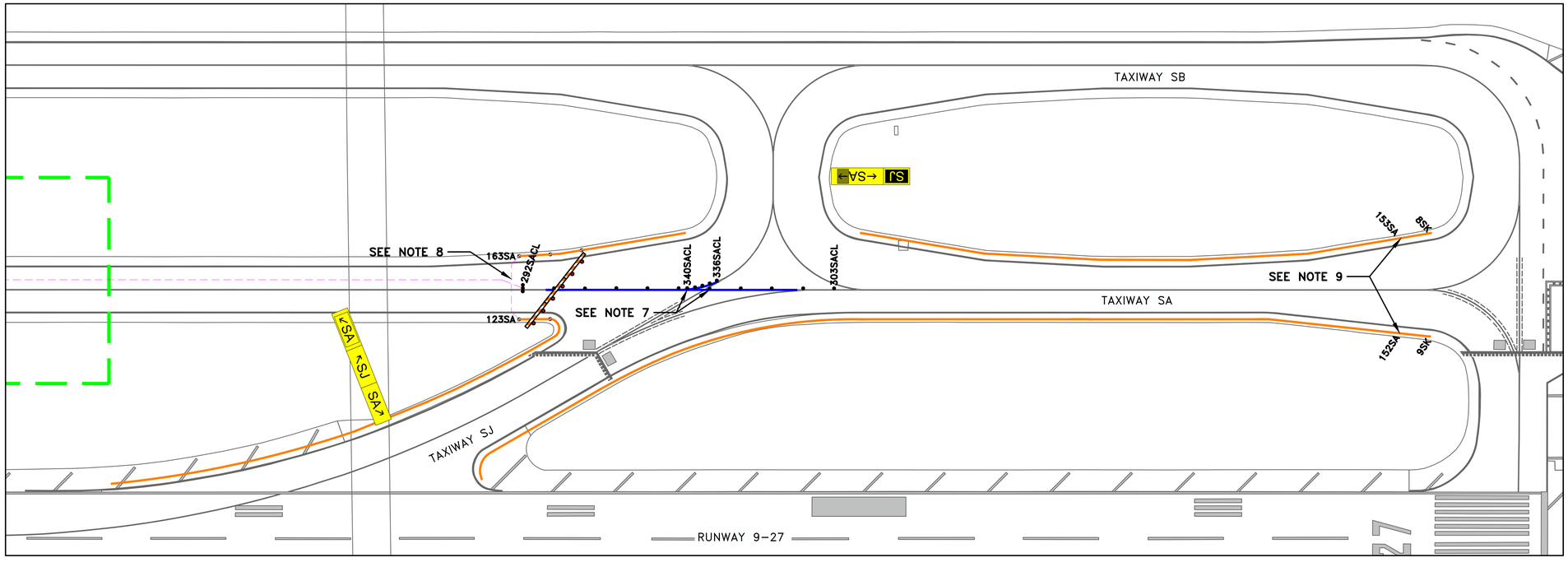

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(IN FEET)

NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. FOR MARKING AND ELECTRICAL PHASING LEGEND, SEE SHEET G03.07.
3. ALL CENTERLINES IDENTIFIED TO BE MASKED SHALL BE COVERED WITH NON-RETROREFLECTIVE BLACK PAINT. ALL MARKINGS TO BE MASKED OR REMOVED SHALL BE SURVEYED AND PLACED BACK AT THE ORIGINAL LOCATION AT THE END OF THE PHASE, UNLESS NOTED OTHERWISE.
4. DISCONNECT TAXIWAY SB CENTERLINE LIGHTS AND TRANSFORMERS 264SBCL THROUGH 301SBCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
5. DISCONNECT TAXIWAY SFGHJ CENTERLINE LIGHTS AND TRANSFORMERS 31SFGHJ THROUGH 36SFGHJ. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
6. DISCONNECT TAXIWAY SHJ CENTERLINE LIGHTS ALONG TAXIWAY SH AT RUNWAY EDGE LIGHT 67R3 (1SHJ THROUGH 16SHJ AND 25SHJ THROUGH 51SHJ). MAINTAIN CIRCUIT INTEGRITY ALONG TAXIWAY SJ.
7. DISCONNECT TAXIWAY SA CENTERLINE LIGHTS AND TRANSFORMERS 336SACL THROUGH 340SACL AND 292SACL THROUGH 303SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
8. FURNISH AND INSTALL 1-SA L-824 CABLES BETWEEN 123SA TO 163SA TO BYPASS TAXIWAY SA EDGE CIRCUIT TO THE WEST. THIS WILL COMPLETE THE MODIFIED SB CIRCUIT ILLUMINATING TAXIWAY SA BETWEEN TAXIWAYS SJ AND SK, AS WELL AS, TAXIWAY SJ. SEE NOTE 10.
9. CONNECT 153SA TO 8SK AND 152SA TO 9SK TO EXTEND CIRCUIT SB TO THE WEST TO LIGHTS 163SA AND 123SA. THIS WILL ILLUMINATE TAXIWAY SA ALONG TAXIWAY SA BETWEEN TAXIWAYS SJ AND SK, AS WELL AS, TAXIWAY SJ. INDICATED BY: ———

GARVER
TBPE Registration No. F-5713

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TEXAS P.E. FIRM F-2966

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 6 (CONT'D)

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **G03.08**

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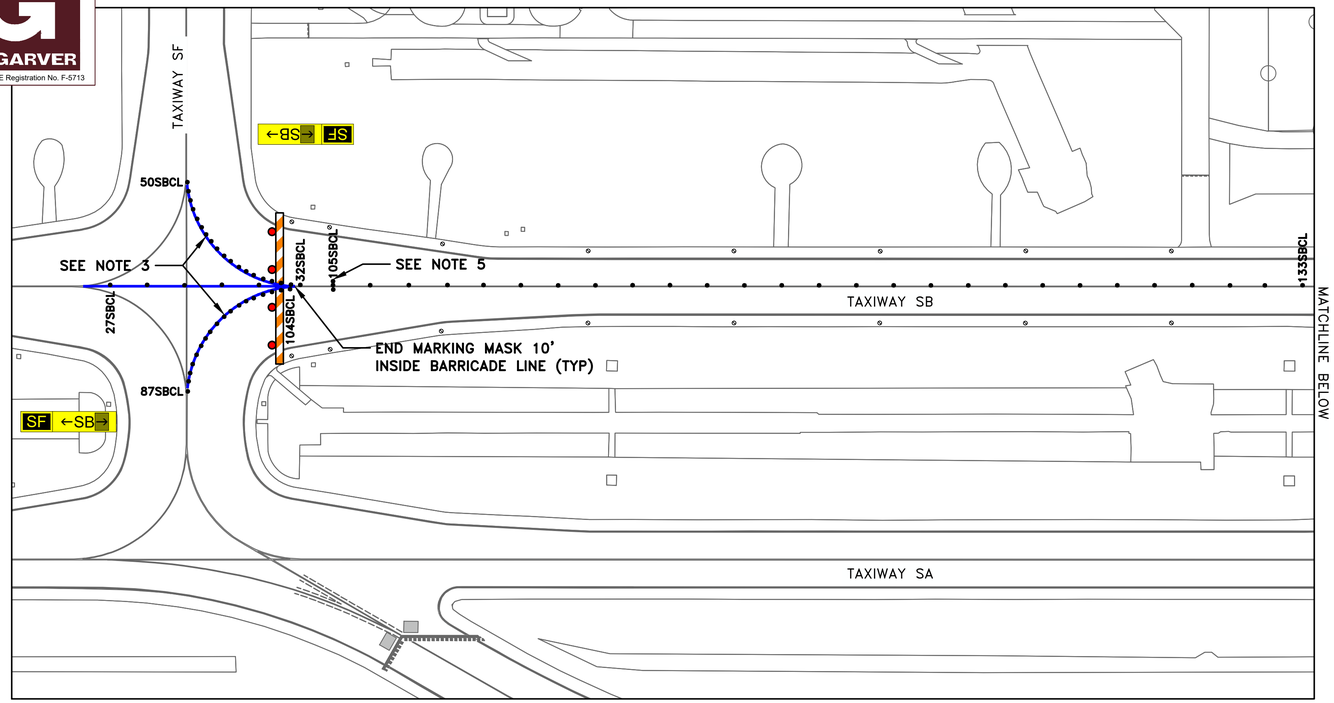
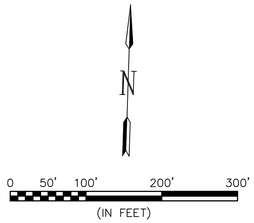
GARVER
TBPE Registration No. F-5713



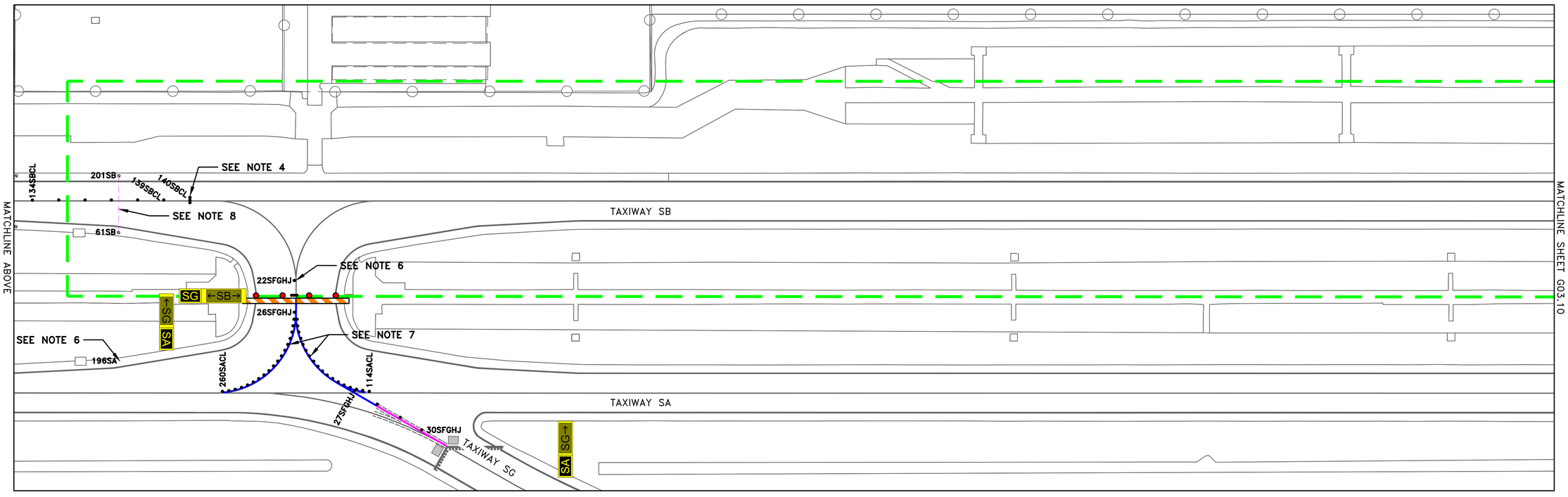


LEGEND

- PHASING WORK AREA
- LOW-PROFILE BARRICADE
- MASK TAXIWAY CENTERLINE MARKING (SEE NOTE 2)
- MASK ENHANCED TAXIWAY CENTERLINE MARKING
- PAINTED TAXIWAY CLOSURE MARKING
- EXISTING TAXIWAY CENTERLINE LIGHT (SEE NOTES)
- COVER TAXIWAY EDGE LIGHTS WITH PVC MASK
- COVER GUIDANCE SIGN INFORMATION AS INDICATED WITH HEAVY BLACK PLASTIC SIGN COVER
- TEMPORARY CABLING

NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. ALL CENTERLINES IDENTIFIED TO BE MASKED SHALL BE COVERED WITH NON-RETROREFLECTIVE BLACK PAINT. ALL MARKINGS TO BE MASKED OR REMOVED SHALL BE SURVEYED AND PLACED BACK AT THE ORIGINAL LOCATION AT THE END OF THE PHASE, UNLESS NOTED OTHERWISE.
3. DISCONNECT TAXIWAY SB CENTERLINE LIGHTS AND TRANSFORMERS 32SBCL THROUGH 50SBCL AND 87SBCL THROUGH 104SBCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
4. DISCONNECT TAXIWAY SB CENTERLINE LIGHT 140SBCL AND BYPASS REMAINING CIRCUIT TO THE EAST IN BASE CAN 140SBCL. MAINTAIN CIRCUIT INTEGRITY TO THE WEST.
5. DISCONNECT SB CENTERLINE LIGHTS AND TRANSFORMERS 27SBCL THROUGH 32SBCL AND 105SBCL THROUGH 139SBCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
6. BYPASS TAXIWAY SFG CENTERLINE LIGHTS ALONG TAXIWAYS SG, SH, AND SJ AT TAXIWAY EDGE LIGHT 196SA (22SFG THROUGH 48SFG). MAINTAIN CIRCUIT INTEGRITY ALONG TAXIWAY SF.
7. DISCONNECT TAXIWAY SA CENTERLINE LIGHTS AND TRANSFORMERS 114SACL THROUGH 260SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
8. FURNISH AND INSTALL 1-SB L-824 CABLES BETWEEN 201SB AND 61SB TO BYPASS TAXIWAY SB EDGE CIRCUIT TO THE EAST.



HOUSTON AIRPORTS

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TEXAS P.E. FIRM F-2966

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 7

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G03.09

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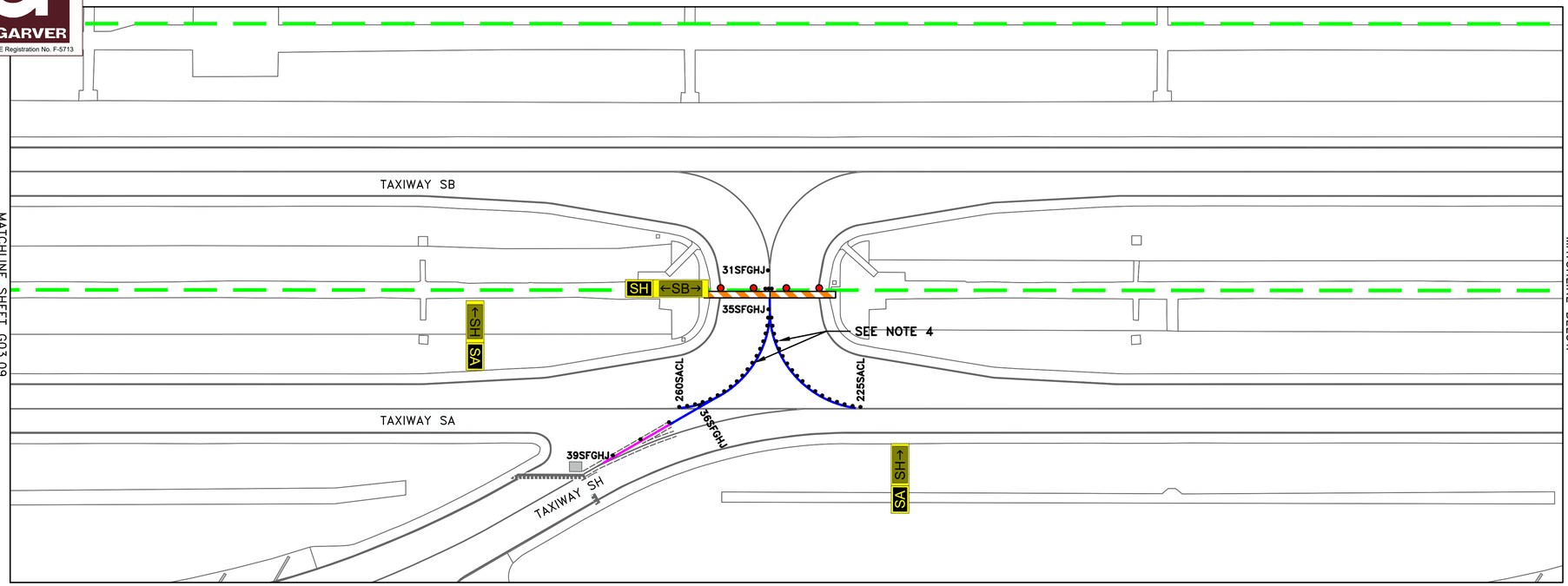

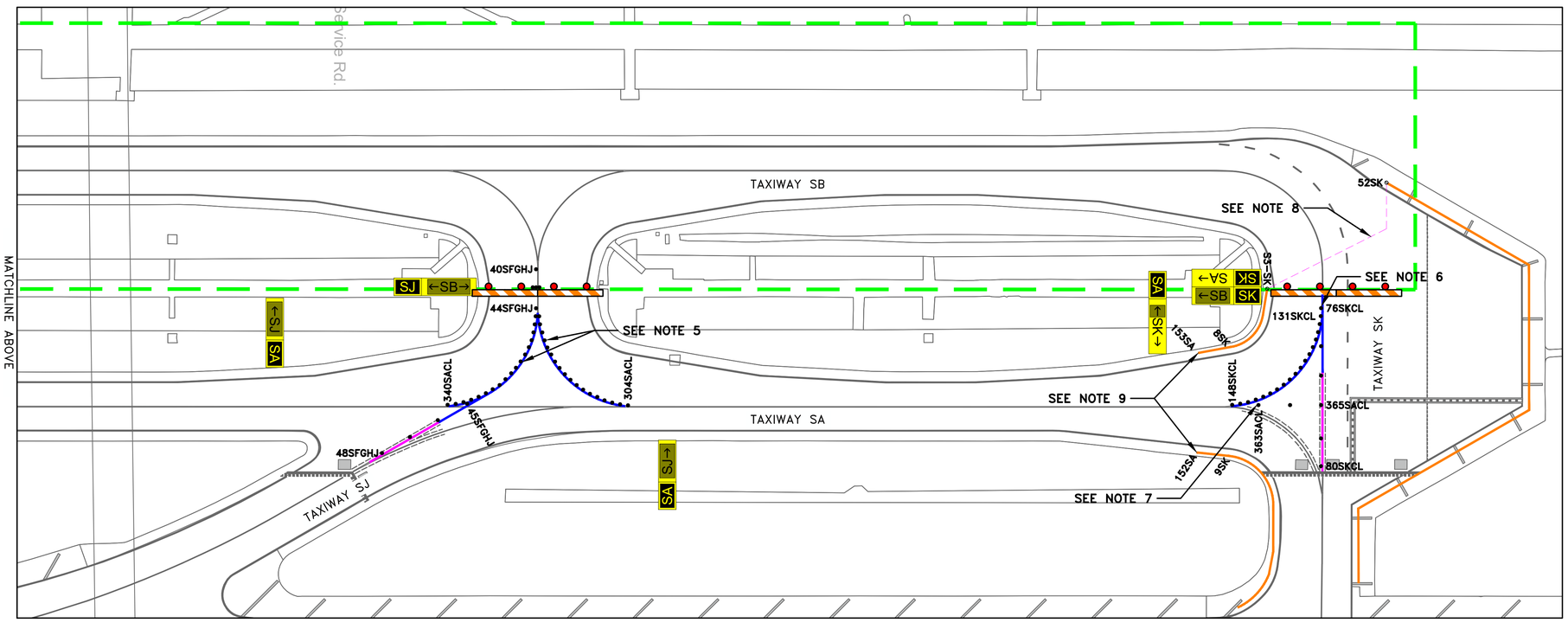

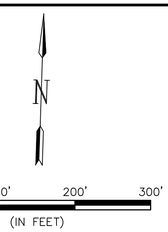

NOTES:

1. FOR GENERAL AIRFIELD ELECTRICAL PHASING NOTES, SEE SHEET G02.02.
2. FOR MARKING AND ELECTRICAL PHASING LEGEND, SEE SHEET G03.09.
3. ALL CENTERLINES IDENTIFIED TO BE MASKED SHALL BE COVERED WITH NON-RETROREFLECTIVE BLACK PAINT. ALL MARKINGS TO BE MASKED OR REMOVED SHALL BE SURVEYED AND PLACED BACK AT THE ORIGINAL LOCATION AT THE END OF THE PHASE, UNLESS NOTED OTHERWISE.
4. DISCONNECT TAXIWAY SA CENTERLINE LIGHTS AND TRANSFORMERS 225SACL THROUGH 260SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
5. DISCONNECT TAXIWAY SA CENTERLINE LIGHTS AND TRANSFORMERS 304SACL THROUGH 340SACL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
6. DISCONNECT TAXIWAY SK CENTERLINE LIGHTS AND TRANSFORMERS 76SKCL THROUGH 80SKCL AND 131SKCL THROUGH 148SKCL. RECONNECT CABLES IN BASE CAN TO MAINTAIN CIRCUIT INTEGRITY AND REINSTALL CENTERLINE LIGHTS.
7. DISCONNECT TAXIWAY SA CENTERLINE LIGHT 363SACL AND BYPASS REMAINING CIRCUIT TO THE EAST IN BASE CAN 363SACL. MAINTAIN CIRCUIT INTEGRITY TO THE WEST.
8. FURNISH AND INSTALL 1-SA L-824 CABLES BETWEEN SIGN S3-SK AND LIGHT 52SK TO BYPASS TAXIWAY SK EDGE CIRCUIT TO THE WEST. THIS WILL COMPLETE THE MODIFIED SA CIRCUIT ILLUMINATING TAXIWAY SK BETWEEN RUNWAY 27 AND TAXIWAY SB. SEE NOTE 9.
9. CONNECT 153SA TO 8SK AND 152SA TO 9SK TO EXTEND CIRCUIT SB TO THE EAST TO SIGN S3-SK AND LIGHT 52SK. THIS WILL ILLUMINATE TAXIWAY SK BETWEEN RUNWAY 27 AND TAXIWAY SB. INDICATED BY: ——

GARVER
TBPE Registration No. F-5713

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TEXAS P.E. FIRM F-2966

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TEMPORARY MARKING, SIGNAGE AND LIGHTING PLAN - PHASE 7 (CONT'D)

PROJECT MGR:	DT
DESIGNER:	TM
DRAWN BY:	TM
CHECK BY:	DT
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G03.10

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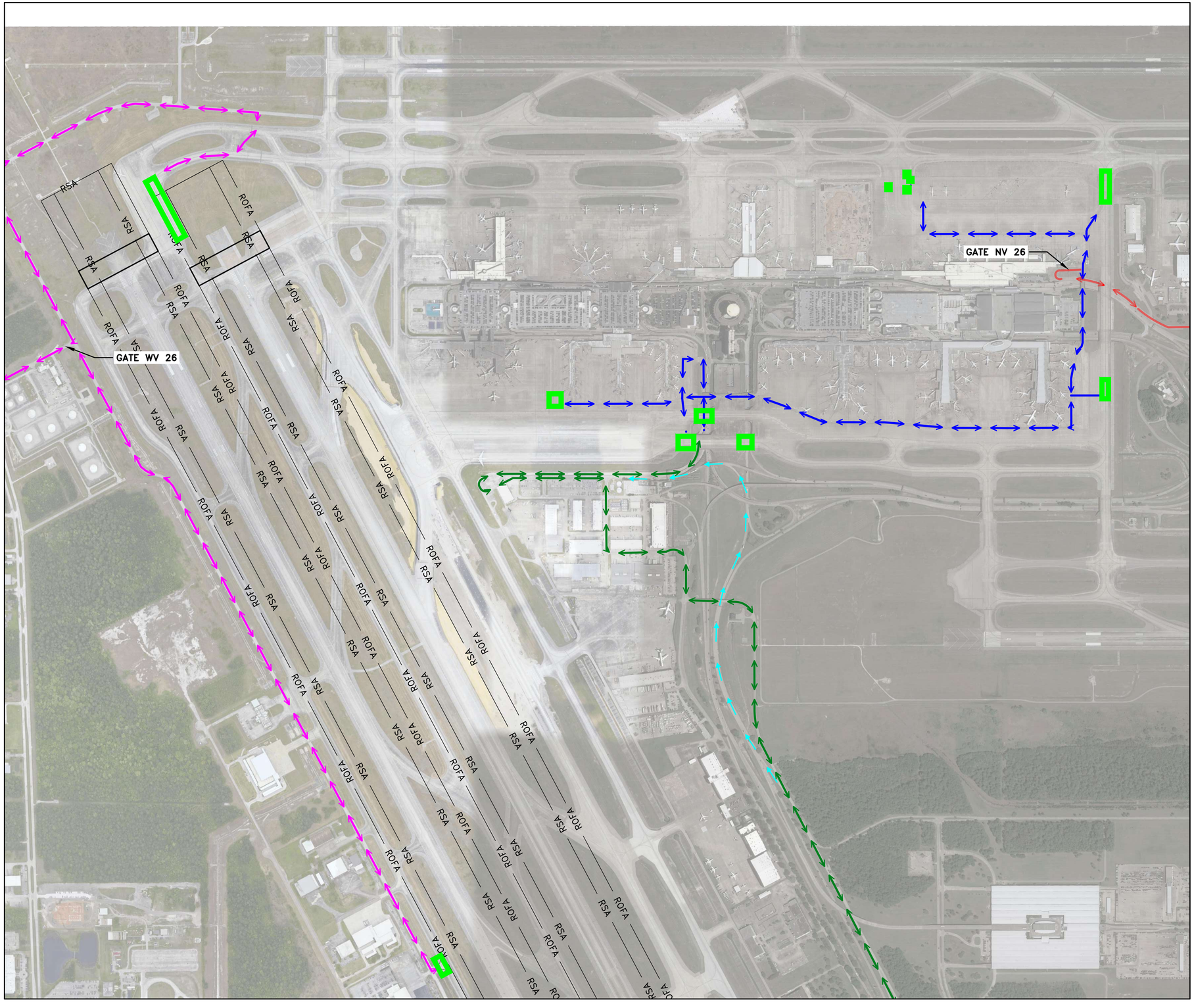


N

0 250' 500' 1000' 1500'

(IN FEET)

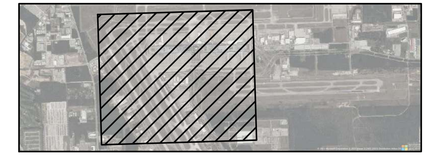
LEGEND

- CONTRACTOR HAUL ROUTES
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA

NOTES:

1. WORK HOURS SHALL BE THE NIGHTTIME WORK HOURS OF 10:00PM TO 6:00AM OR AS DIRECTED BY THE AIRPORT. CONTRACTOR MAY PERFORM THIS WORK DURING ANY OF THE PHASES IDENTIFIED ON SHEET G02.05 WITH AIRPORT APPROVAL. NO ADDITIONAL CONTRACT TIME SHALL BE AWARDED FOR ADDITIVE ALTERNATE WORK.
2. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
3. REQUIREMENTS TO REOPEN: THE PHASING AREA WILL REOPEN AFTER EACH WORK PERIOD IN ORDER TO SERVICE AIR TRAFFIC THROUGH THE DAY. ALL BARRICADES MUST BE REMOVED; ALL FOD MUST BE REMOVED; ALL DROP OFFS EXCEEDING 3 INCHES AND ALL GRADES IN EXCESS OF 5% MUST BE CORRECTED WITHIN WORK AREA. EXISTING MARKINGS MUST BE REINSTALLED.
4. CONTRACTOR SHALL PLAN FOR A 2 HOUR CLEAN UP AFTER EACH WORK PERIOD IN ORDER TO ACCOMMODATE INSPECTION FOM IAH AIRPORT OPERATIONS AND ENSURE COMPLIANCE WITH FAA STANDARDS FOR THE REOPENING OF TAXIWAYS BY 6:00AM.
5. CONSTRUCTION LIMITS AREA APPROXIMATE AND WILL BE CONFIRMED WITH RPR AND/OR HAS PROJECT MANAGER PRIOR TO STARTING ANY WORK.
6. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, HAND HOLES, AIRFIELD EQUIPMENT, DRAINAGE STRUCTURES, AND BUILDINGS NOT SHOWN FOR DEMOLITION. ANY DAMAGE AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
7. CONTRACTOR SHALL MAINTAIN VSR ACCESS THROUGH WORK AREA FOR DURATION OF WORK. IF WORK IS NEEDED WITHIN THE VSR, CONTRACTOR WILL PROVIDE TEMPORARY VSR THROUGH WORK AREA.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 3 PHASING PLAN - OVERALL HAUL ROUTES

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 500'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G04.00

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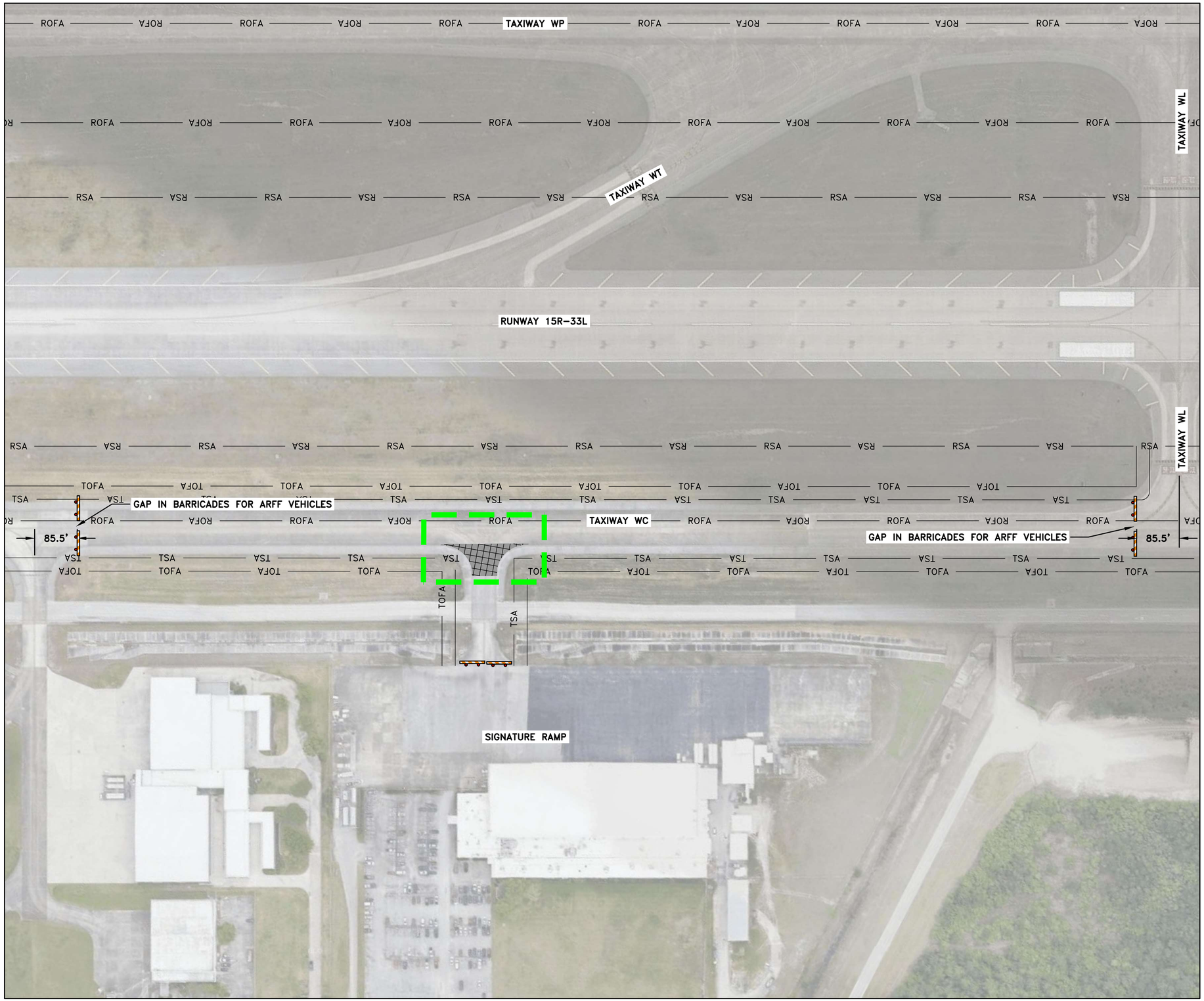

0 50' 100' 200' 300'

(IN FEET)

LEGEND

- PROPOSED 2" ASPHALT MILL & OVERLAY
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- LOW–PROFILE BARRICADE
- PHASING WORK AREA

NOTES:

1. WORK HOURS SHALL BE THE NIGHTTIME WORK HOURS OF 10:00PM TO 6:00AM OR AS DIRECTED BY THE AIRPORT. CONTRACTOR MAY PERFORM THIS WORK DURING ANY OF THE PHASES IDENTIFIED ON SHEET G02.05 WITH AIRPORT APPROVAL. NO ADDITIONAL CONTRACT TIME SHALL BE AWARDED FOR ADDITIVE ALTERNATE WORK.
2. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
3. REQUIREMENTS TO REOPEN: THE PHASING AREA WILL REOPEN AFTER EACH WORK PERIOD IN ORDER TO SERVICE AIR TRAFFIC THROUGH THE DAY. ALL BARRICADES MUST BE REMOVED; ALL FOD MUST BE REMOVED; ALL DROP OFFS EXCEEDING 3 INCHES AND ALL GRADES IN EXCESS OF 5% MUST BE CORRECTED WITHIN WORK AREA. EXISTING MARKINGS MUST BE REINSTALLED.
4. CONTRACTOR SHALL PLAN FOR A 2 HOUR CLEAN UP AFTER EACH WORK PERIOD IN ORDER TO ACCOMMODATE INSPECTION FOM IAH AIRPORT OPERATIONS AND ENSURE COMPLIANCE WITH FAA STANDARDS FOR THE REOPENING OF TAXIWAYS BY 6:00AM.
5. CONSTRUCTION LIMITS AREA APPROXIMATE AND WILL BE CONFIRMED WITH RPR AND/OR HAS PROJECT MANAGER PRIOR TO STARTING ANY WORK.
6. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, HAND HOLES, AIRFIELD EQUIPMENT, DRAINAGE STRUCTURES, AND BUILDINGS NOT SHOWN FOR DEMOLITION. ANY DAMAGE AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
7. CONTRACTOR SHALL MAINTAIN A CLEAR ROUTE THROUGH WORK AREA FOR ARFF VEHICLE RESPONSE.

KEYMAP

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 3 PHASING PLAN - PAVEMENT REHAB 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G04.01

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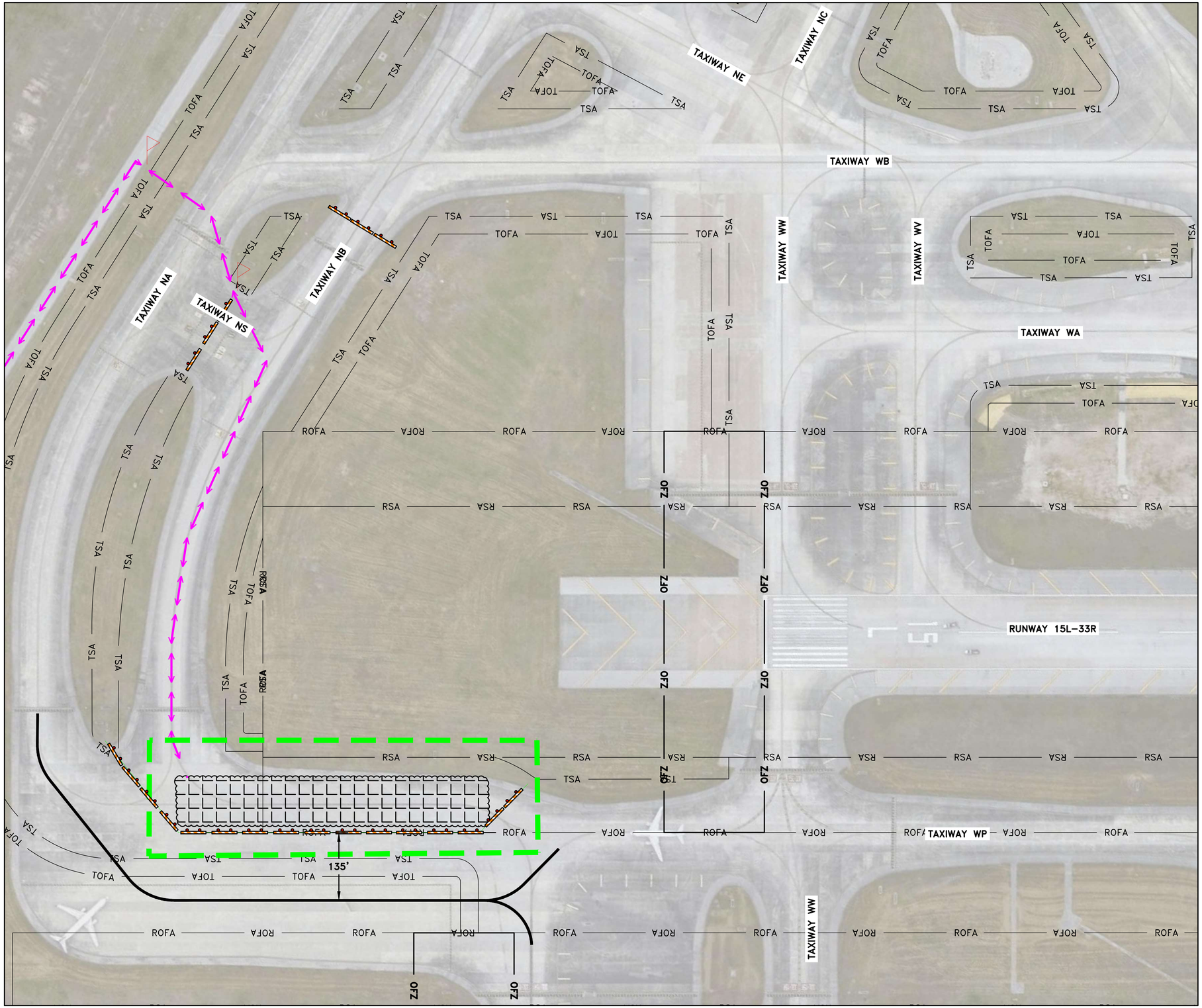

0 50' 100' 200' 300'
(IN FEET)

LEGEND

- PROPOSED CRACK, PATCH, AND PANEL REPAIR AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA
- TEMPORARY TAXILANE CENTERLINE
- TEMPORARY TAXILANE OFA LIMIT
- FLAGGER

NOTES:

1. WORK HOURS SHALL BE THE NIGHTTIME WORK HOURS OF 10:00PM TO 6:00AM OR AS DIRECTED BY THE AIRPORT. CONTRACTOR MAY PERFORM THIS WORK DURING ANY OF THE PHASES IDENTIFIED ON SHEET G02.05 WITH AIRPORT APPROVAL. NO ADDITIONAL CONTRACT TIME SHALL BE AWARDED FOR ADDITIVE ALTERNATE WORK.
2. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
3. REQUIREMENTS TO REOPEN: THE PHASING AREA WILL REOPEN AFTER EACH WORK PERIOD IN ORDER TO SERVICE AIR TRAFFIC THROUGH THE DAY. ALL BARRICADES MUST BE REMOVED; ALL FOD MUST BE REMOVED; ALL DROP OFFS EXCEEDING 3 INCHES AND ALL GRADES IN EXCESS OF 5% MUST BE CORRECTED WITHIN WORK AREA. EXISTING MARKINGS MUST BE REINSTALLED.
4. CONTRACTOR SHALL PLAN FOR A 2 HOUR CLEAN UP AFTER EACH WORK PERIOD IN ORDER TO ACCOMMODATE INSPECTION FOM IAH AIRPORT OPERATIONS AND ENSURE COMPLIANCE WITH FAA STANDARDS FOR THE REOPENING OF TAXIWAYS BY 6:00AM.
5. CONSTRUCTION LIMITS AREA APPROXIMATE AND WILL BE CONFIRMED WITH RPR AND/OR HAS PROJECT MANAGER PRIOR TO STARTING ANY WORK.
6. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, HAND HOLES, AIRFIELD EQUIPMENT, DRAINAGE STRUCTURES, AND BUILDINGS NOT SHOWN FOR DEMOLITION. ANY DAMAGE AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
7. CONTRACTOR SHALL MAINTAIN A CLEAR ROUTE THROUGH WORK AREA FOR ARFF VEHICLE RESPONSE.

KEYMAP

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 3 PHASING PLAN - PAVEMENT REHAB 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G04.02

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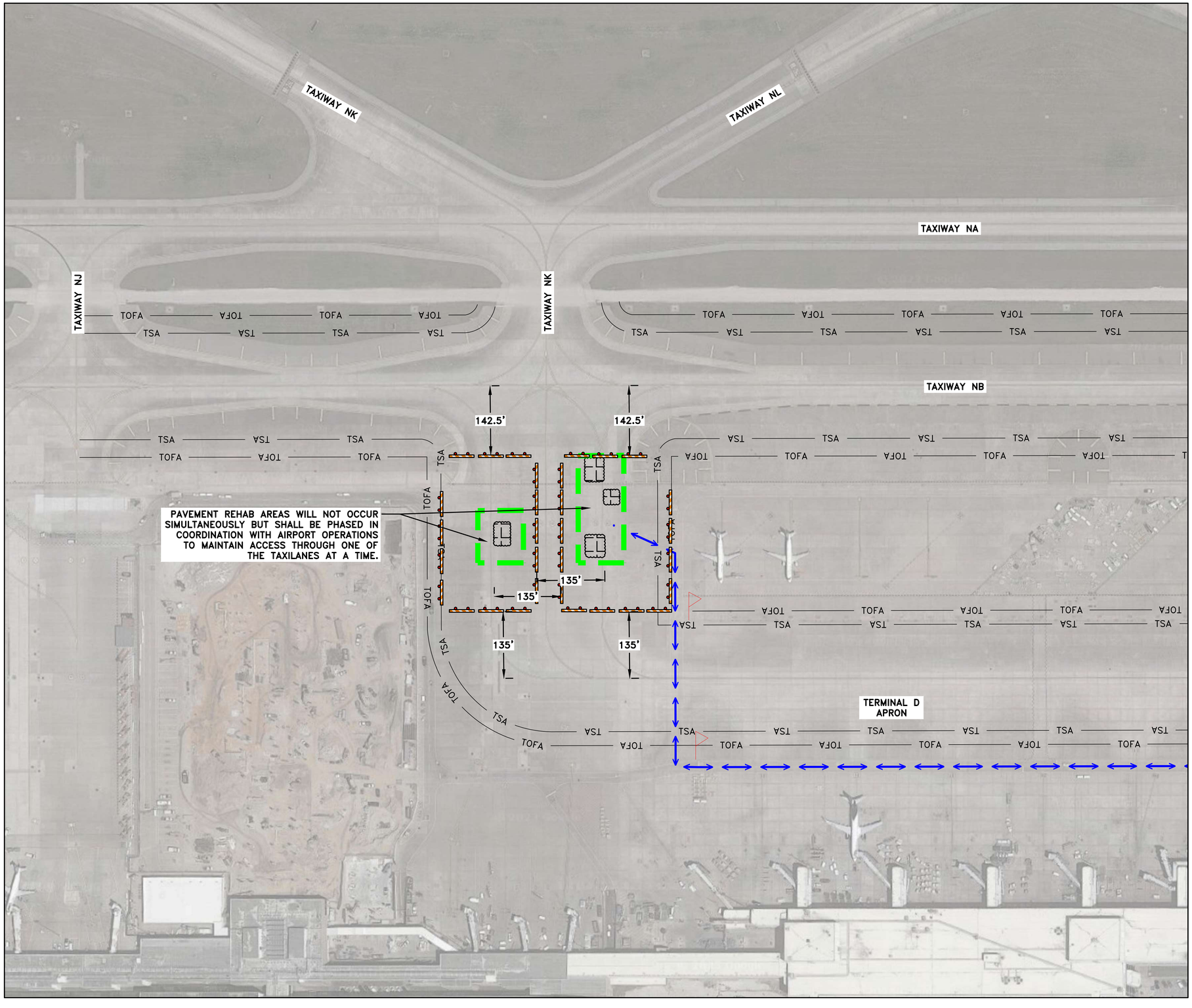
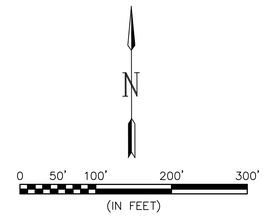




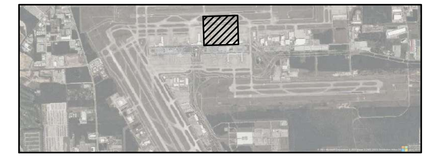
LEGEND

- PROPOSED CRACK, PATCH, AND PANEL REPAIR AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA

NOTES:

1. WORK HOURS SHALL BE THE NIGHTTIME WORK HOURS OF 10:00PM TO 6:00AM OR AS DIRECTED BY THE AIRPORT. CONTRACTOR MAY PERFORM THIS WORK DURING ANY OF THE PHASES IDENTIFIED ON SHEET G02.05 WITH AIRPORT APPROVAL. NO ADDITIONAL CONTRACT TIME SHALL BE AWARDED FOR ADDITIVE ALTERNATE WORK.
2. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
3. REQUIREMENTS TO REOPEN: THE PHASING AREA WILL REOPEN AFTER EACH WORK PERIOD IN ORDER TO SERVICE AIR TRAFFIC THROUGH THE DAY. ALL BARRICADES MUST BE REMOVED; ALL FOD MUST BE REMOVED; ALL DROP OFFS EXCEEDING 3 INCHES AND ALL GRADES IN EXCESS OF 5% MUST BE CORRECTED WITHIN WORK AREA. EXISTING MARKINGS MUST BE REINSTALLED.
4. CONTRACTOR SHALL PLAN FOR A 2 HOUR CLEAN UP AFTER EACH WORK PERIOD IN ORDER TO ACCOMMODATE INSPECTION FOM IAH AIRPORT OPERATIONS AND ENSURE COMPLIANCE WITH FAA STANDARDS FOR THE REOPENING OF TAXIWAYS BY 6:00AM.
5. CONSTRUCTION LIMITS AREA APPROXIMATE AND WILL BE CONFIRMED WITH RPR AND/OR HAS PROJECT MANAGER PRIOR TO STARTING ANY WORK.
6. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, HAND HOLES, AIRFIELD EQUIPMENT, DRAINAGE STRUCTURES, AND BUILDINGS NOT SHOWN FOR DEMOLITION. ANY DAMAGE AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
7. CONTRACTOR SHALL MAINTAIN A CLEAR ROUTE THROUGH WORK AREA FOR ARFF VEHICLE RESPONSE.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 3 PHASING PLAN - PAVEMENT REHAB 3

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. G04.03

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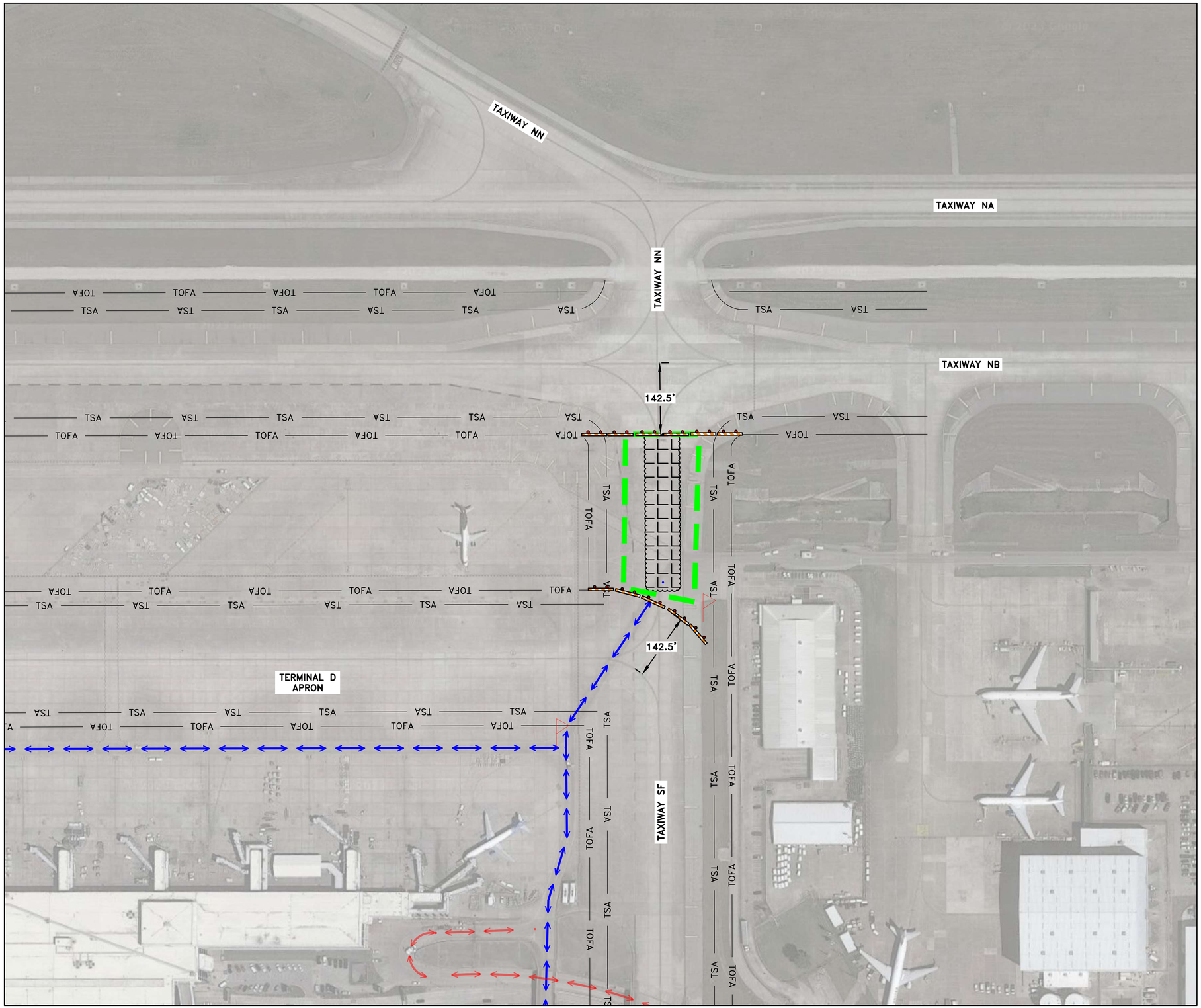

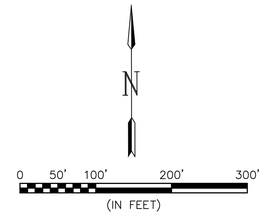

LEGEND

- PROPOSED CRACK, PATCH, AND PANEL REPAIR AREA
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- LOW-PROFILE BARRICADE
- PHASING WORK AREA

NOTES:

1. WORK HOURS SHALL BE THE NIGHTTIME WORK HOURS OF 10:00PM TO 6:00AM OR AS DIRECTED BY THE AIRPORT. CONTRACTOR MAY PERFORM THIS WORK DURING ANY OF THE PHASES IDENTIFIED ON SHEET G02.05 WITH AIRPORT APPROVAL. NO ADDITIONAL CONTRACT TIME SHALL BE AWARDED FOR ADDITIVE ALTERNATE WORK.
2. CONTRACTOR SHALL USE EXTREME CAUTION WHILE MOVING ON ACTIVE TAXIWAYS AND SHALL ONLY USE APPROVED HAUL ROUTES FOR TRANSPORTATION PURPOSES.
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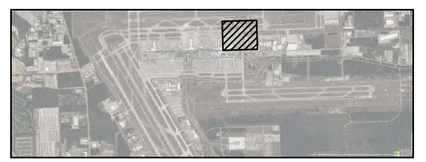
7. CONTRACTOR SHALL MAINTAIN A CLEAR ROUTE THROUGH WORK AREA FOR ARFF VEHICLE RESPONSE.

KEYMAP



HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 3 PHASING PLAN - PAVEMENT REHAB 4

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G04.04

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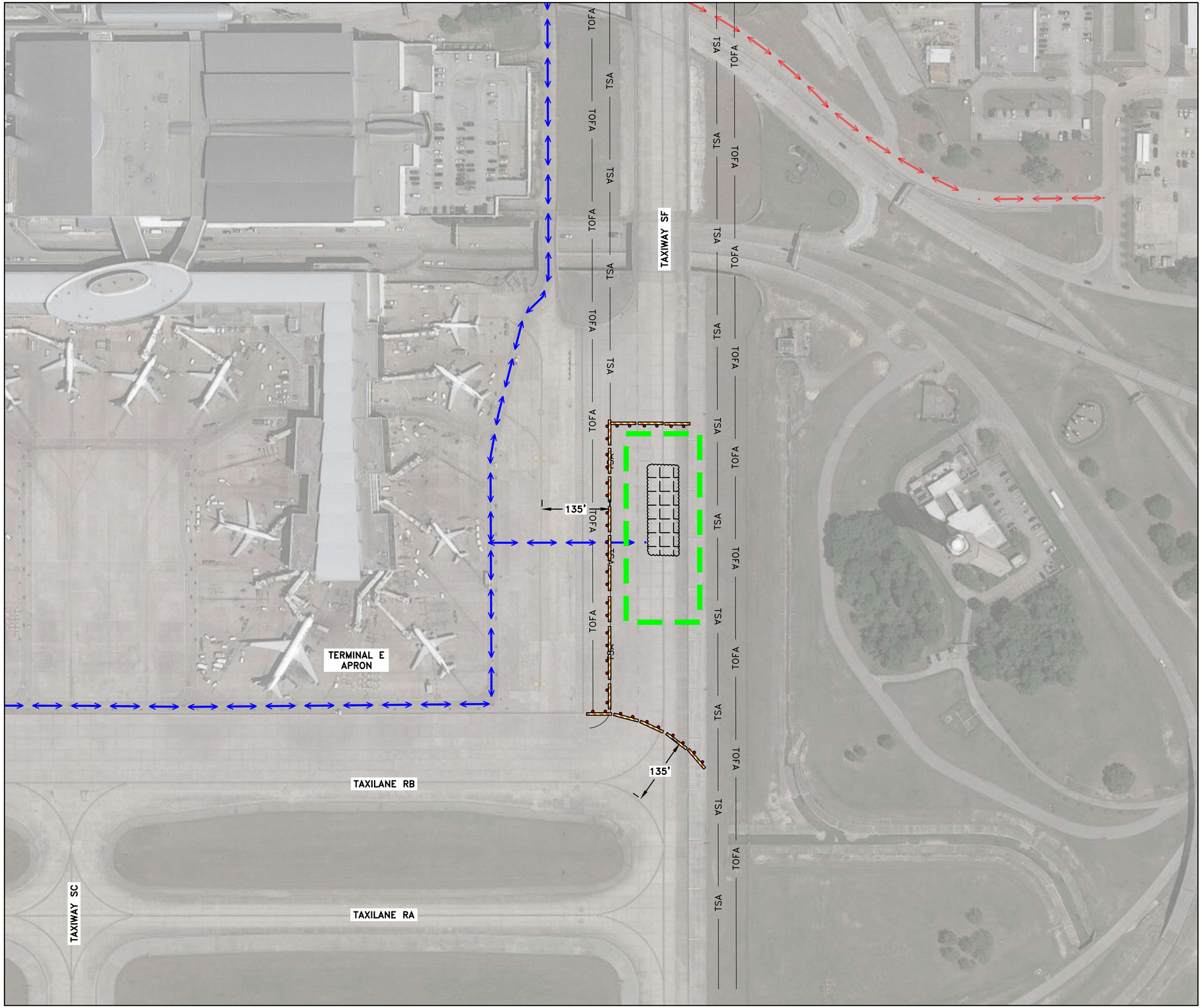

N

0 50' 100' 200' 300'

(IN FEET)

LEGEND

	PROPOSED CRACK, PATCH, AND PANEL REPAIR AREA
— RSA —	RUNWAY SAFETY AREA
– ROFA –	RUNWAY OBJECT FREE AREA
— TSA —	TAXIWAY SAFETY AREA
– TOFA –	TAXIWAY OBJECT FREE AREA
	LOW–PROFILE BARRICADE
	PHASING WORK AREA

NOTES:

1. WORK HOURS SHALL BE THE NIGHTTIME WORK HOURS OF 10:00PM TO 6:00AM OR AS DIRECTED BY THE AIRPORT. CONTRACTOR MAY PERFORM THIS WORK DURING ANY OF THE PHASES IDENTIFIED ON SHEET G02.05 WITH AIRPORT APPROVAL. NO ADDITIONAL CONTRACT TIME SHALL BE AWARDED FOR ADDITIVE ALTERNATE WORK.
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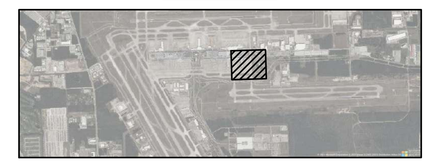
KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADD. 1	07/06/23	JEF

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 3 PHASING PLAN - PAVEMENT REHAB 5

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 100'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G04.05

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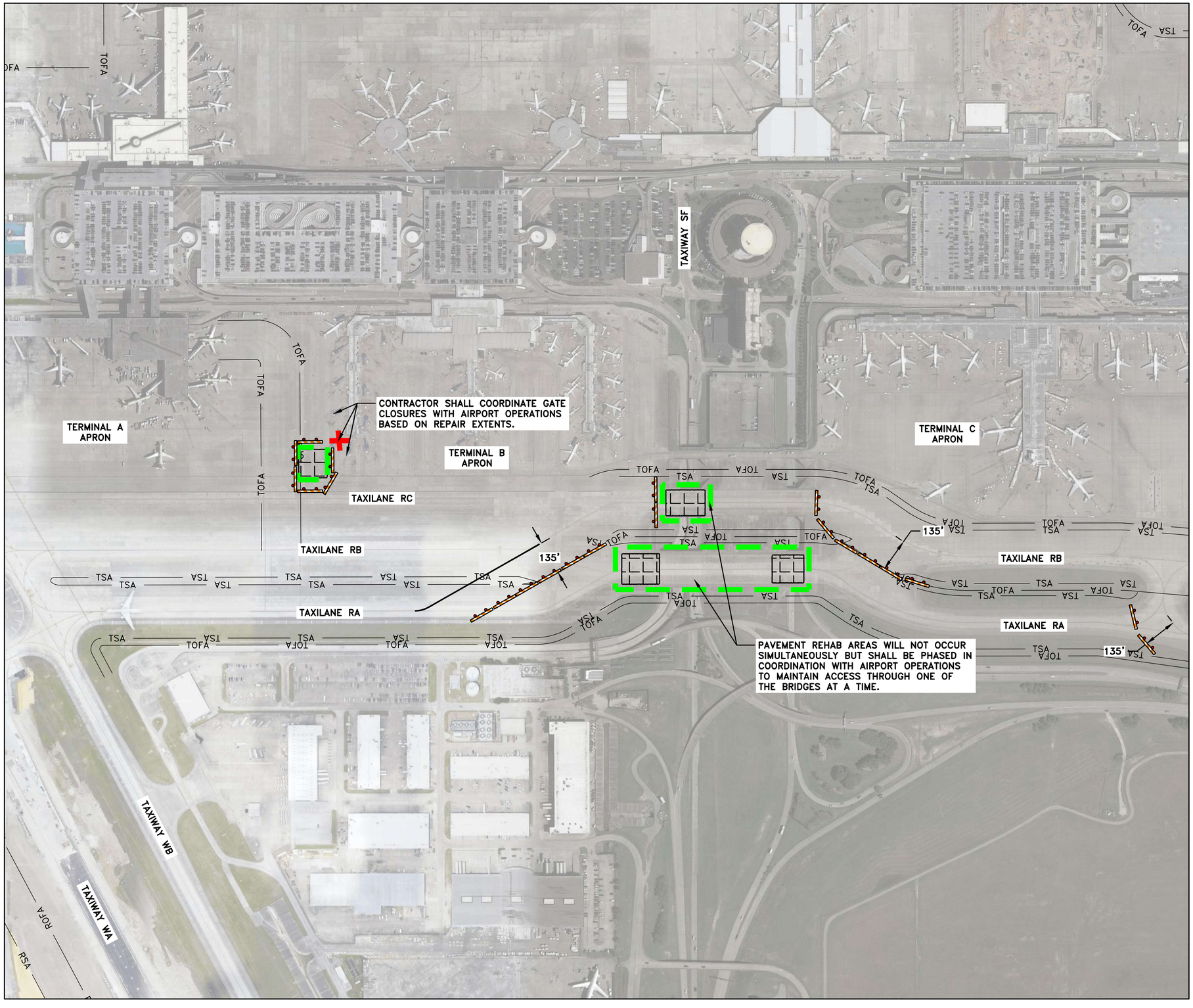

N

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(IN FEET)

LEGEND

	PROPOSED CRACK, PATCH, AND PANEL REPAIR AREA
— RSA —	RUNWAY SAFETY AREA
— ROFA —	RUNWAY OBJECT FREE AREA
— TSA —	TAXIWAY SAFETY AREA
— TOFA —	TAXIWAY OBJECT FREE AREA
	LOW-PROFILE BARRICADE
	PHASING WORK AREA
	GATE CLOSURE

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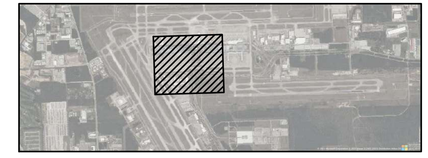
7. CONTRACTOR SHALL MAINTAIN VSR ACCESS THROUGH WORK AREA FOR DURATION OF WORK. IF WORK IS NEEDED WITHIN THE VSR, CONTRACTOR WILL PROVIDE TEMPORARY VSR THROUGH WORK AREA.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1	ADD. 1	07/06/23	JEF

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 3 PHASING PLAN - PAVEMENT REHAB 6

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 200'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	G04.06

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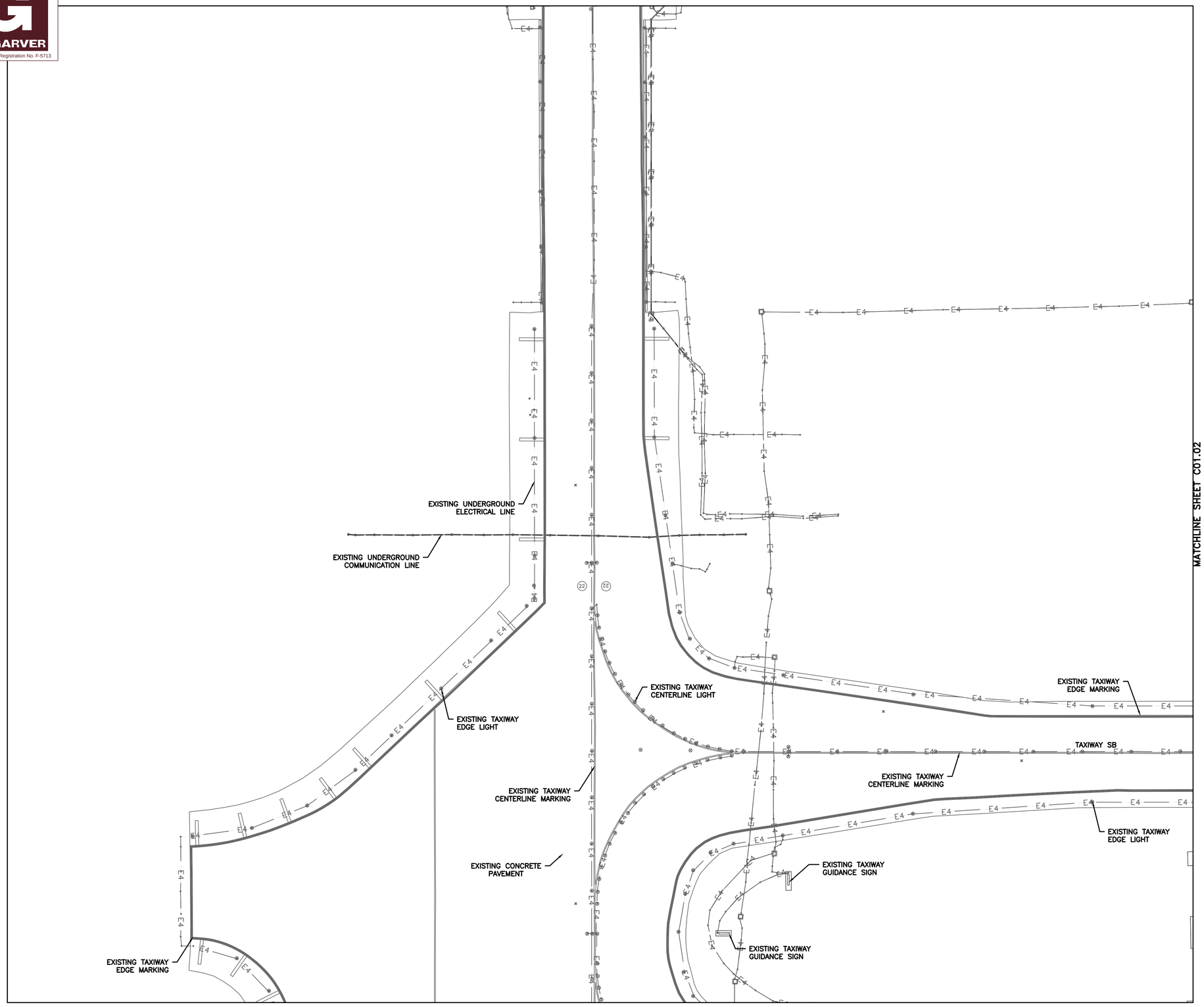
GARVER
TBPE Registration No. F-5713



N

0 25' 50' 100' 150'
(IN FEET)

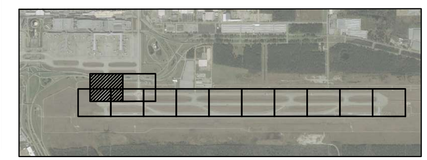
LEGEND

- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) — HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) — HOUSTON AIRPORT COMM SYSTEM (LVL B)
- T2 — FAA ADMINISTRATION (LVL D)
- (W1) — CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) — CITY OF HOUSTON WATER (LVL D)
- FAA ADMINISTRATION COMMUNICATION MANHOLE
- B-1 / C-1 — BORING/CORING LOCATION

NOTES:

1. EXISTING UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE LOCATED FROM AVAILABLE SURFACE INFORMATION, MAPS, PLANS, AND OTHER RECORDS. THE LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE AND ARE BASED ON THE INFORMATION AVAILABLE AT THE TIME. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXACT LOCATION, DEPTH AND CONDITION OF ALL UTILITIES AND AIRPORT FACILITIES DURING CONSTRUCTION. ANY CONFLICTING UTILITY INFORMATION SHALL BE REPORTED TO THE ENGINEER FOR ASSESSMENT.
2. THE CONTRACTOR SHALL PERFORM THE WORK IN SUCH A MANNER AS NOT TO DAMAGE THE EXISTING UTILITIES. ANY DAMAGE TO UTILITIES ARISING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IMMEDIATELY AND AT NO COST TO THE OWNER.

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS			
NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS I

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.01

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GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C01.01

EXISTING TAXIWAY CENTERLINE LIGHT
EXISTING UNDERGROUND ELECTRICAL LINE
EXISTING UNDERGROUND COMMUNICATION LINE
TAXILANE SF
EXISTING TAXIWAY EDGE LIGHT
EXISTING TAXIWAY EDGE MARKING
TAXIWAY SB
EXISTING TAXIWAY CENTERLINE MARKING
EXISTING CONCRETE PAVEMENT
EXISTING 24" CMP
EXISTING 24" CMP
EXISTING 2-36" RCP
EXISTING TAXIWAY GUIDANCE SIGN
EXISTING TAXIWAY GUIDANCE SIGN
EXISTING 24" CMP
EXISTING 24" CMP

N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) — HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) — HOUSTON AIRPORT COMM SYSTEM (LVL B)
- T2 — FAA ADMINISTRATION (LVL D)
- (W1) — CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) — CITY OF HOUSTON WATER (LVL D)
- FAA ADMINISTRATION COMMUNICATION MANHOLE
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NOTES:

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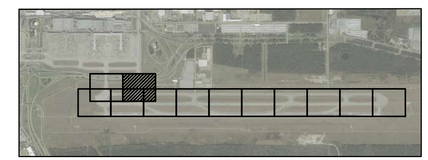
KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS II

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.02

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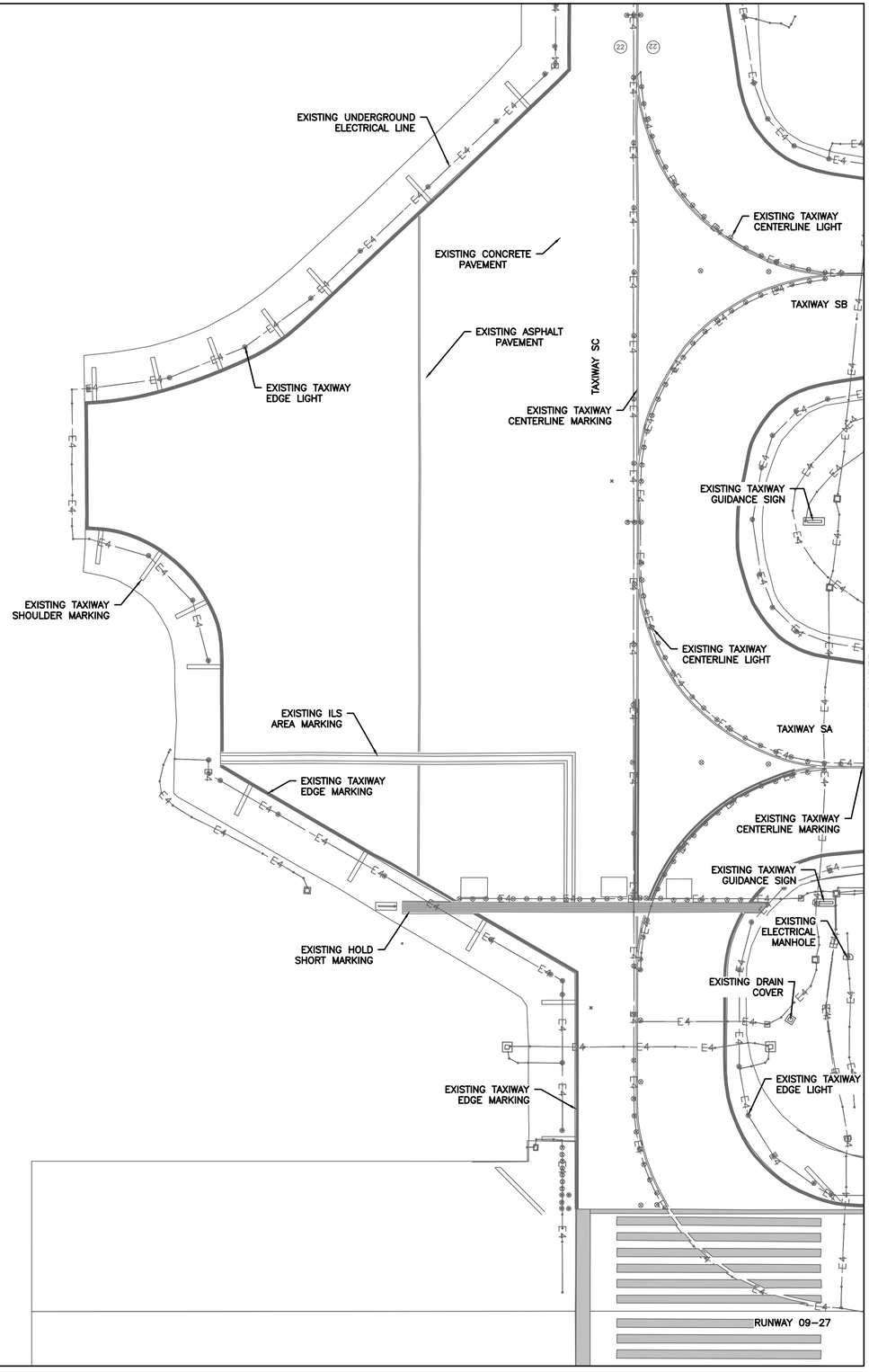
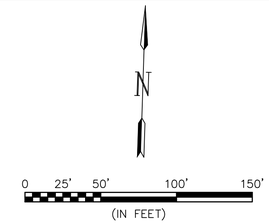
GARVER
TBPE Registration No. F-5713





LEGEND

	EXISTING DRAINAGE CONDUITS
	EXISTING GRATE INLET
(E2)	HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
(E3)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
E4	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
(E4)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
(T1)	HOUSTON AIRPORT COMM SYSTEM (LVL B)
T2	FAA ADMINISTRATION (LVL D)
(W1)	CITY OF HOUSTON COLD WATER RETURN (LVL D)
(W2)	CITY OF HOUSTON WATER (LVL D)
	FAA ADMINISTRATION COMMUNICATION MANHOLE
B-1 C-1	BORING/CORING LOCATION

NOTES:

1. EXISTING UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE LOCATED FROM AVAILABLE SURFACE INFORMATION, MAPS, PLANS, AND OTHER RECORDS. THE LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE AND ARE BASED ON THE INFORMATION AVAILABLE AT THE TIME. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXACT LOCATION, DEPTH AND CONDITION OF ALL UTILITIES AND AIRPORT FACILITIES DURING CONSTRUCTION. ANY CONFLICTING UTILITY INFORMATION SHALL BE REPORTED TO THE ENGINEER FOR ASSESSMENT.
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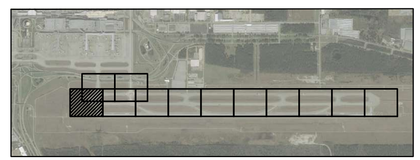
KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS III

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.03

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GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C01.02

MATCHLINE SHEET C01.03

MATCHLINE SHEET C01.05

EXISTING UNDERGROUND ELECTRICAL LINE

EXISTING TAXIWAY EDGE MARKING

EXISTING CONCRETE PAVEMENT

EXISTING TAXIWAY CENTERLINE LIGHT

TAXIWAY SB

EXISTING TAXIWAY CENTERLINE MARKING

EXISTING 24" CMP

EXISTING TAXIWAY GUIDANCE SIGN

TAXIWAY SF

EXISTING 24" CMP

EXISTING 2-36" RCP

EXISTING UNDERGROUND ELECTRICAL LINE

EXISTING STORM MANHOLE

TAXIWAY SA

EXISTING TAXIWAY CENTERLINE MARKING

EXISTING TAXIWAY EDGE LIGHT

EXISTING UNDERGROUND ELECTRICAL LINE

RUNWAY 09-27

N

0 25' 50' 100' 150'

(IN FEET)

LEGEND

- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- T2 FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- FAA ADMINISTRATION COMMUNICATION MANHOLE
- B-1 / C-1 BORING/CORING LOCATION

NOTES:

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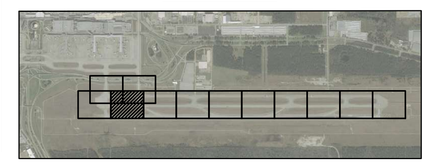

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS IV

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.04

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GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C01.04

MATCHLINE SHEET C01.06

EXISTING 3–10X7 BOX

EXISTING UNDERGROUND ELECTRICAL LINE

EXISTING TAXIWAY EDGE MARKING

EXISTING TAXIWAY CENTERLINE LIGHT

EXISTING TAXIWAY CENTERLINE MARKING

TAXIWAY SB

EXISTING ASPHALT PAVEMENT

EXISTING TAXIWAY GUIDANCE SIGN

EXISTING 24" CMP

EXISTING 24" CMP

EXISTING 2–42" RCP

EXISTING ASPHALT PAVEMENT

EXISTING UNDERGROUND ELECTRICAL LINE

EXISTING TAXIWAY CENTERLINE MARKING

TAXIWAY SA

EXISTING CONCRETE PAVEMENT

EXISTING ELECTRICAL MANHOLE

EXISTING UNDERGROUND ELECTRICAL LINE

EXISTING TAXIWAY EDGE LIGHT

EXISTING HOLD SHORT MARKING

EXISTING TAXIWAY GUIDANCE SIGN

TAXIWAY SF

EXISTING 8" PIPE

EXISTING DRAIN COVER

EXISTING TAXIWAY EDGE MARKING

EXISTING TAXIWAY SHOULDER MARKING

EXISTING TAXIWAY GUIDANCE SIGN

EXISTING TAXIWAY GUIDANCE SIGN

EXISTING TAXIWAY CENTERLINE MARKING

RUNWAY 09–27

N

0 25' 50' 100' 150'

(IN FEET)

LEGEND

	EXISTING DRAINAGE CONDUITS
	EXISTING GRATE INLET
(E2)	HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
(E3)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
E4	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
(E4)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
(T1)	HOUSTON AIRPORT COMM SYSTEM (LVL B)
T2	FAA ADMINISTRATION (LVL D)
(W1)	CITY OF HOUSTON COLD WATER RETURN (LVL D)
(W2)	CITY OF HOUSTON WATER (LVL D)
	FAA ADMINISTRATION COMMUNICATION MANHOLE
B–1 C–1	BORING/CORING LOCATION

NOTES:

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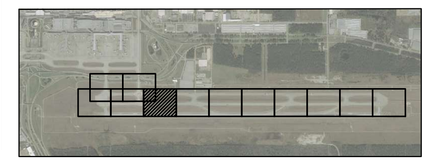
KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS V

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.05

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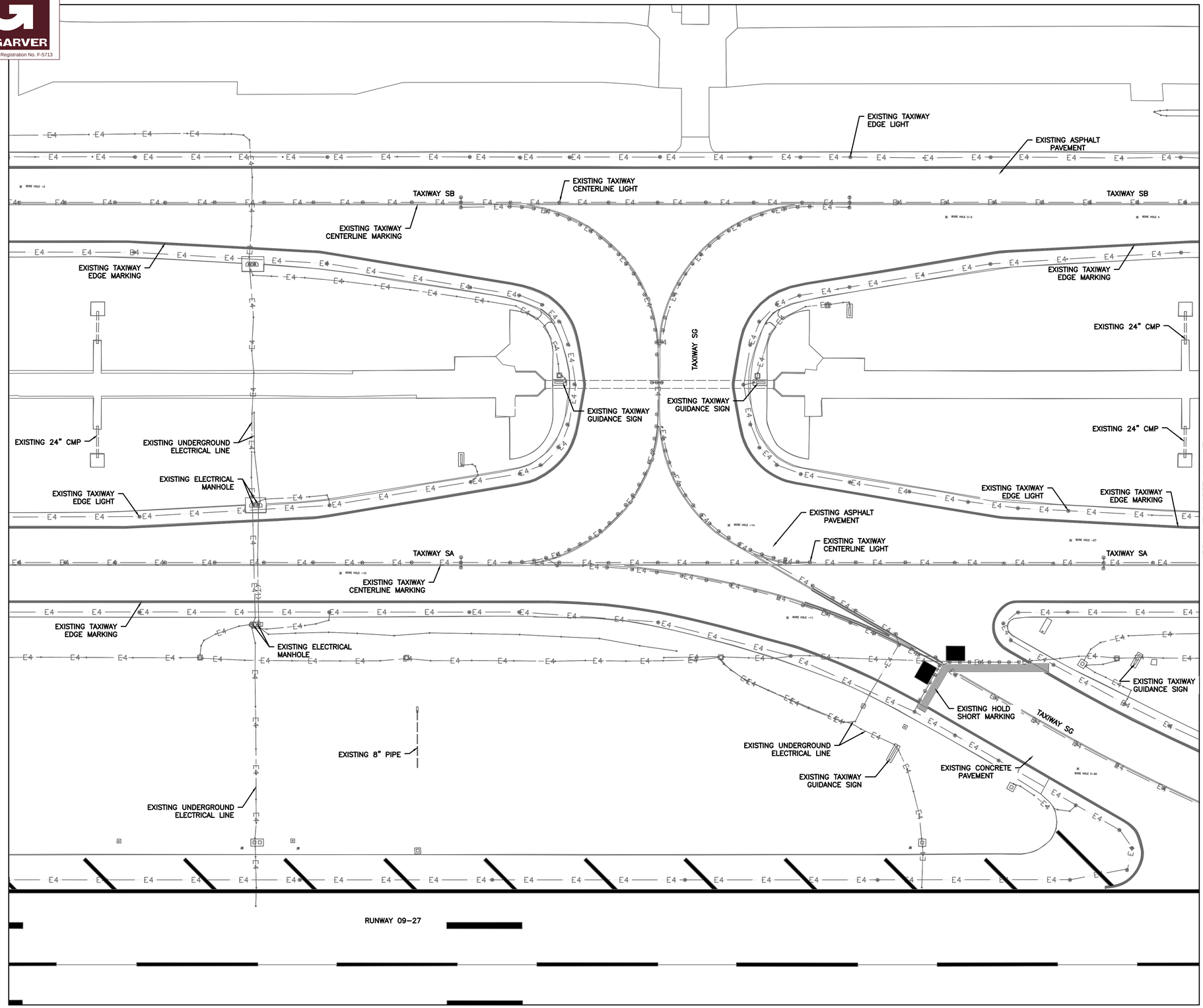
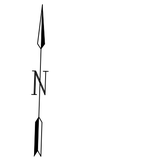
GARVER
TBPE Registration No. F-5713





LEGEND

- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) — HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) — HOUSTON AIRPORT COMM SYSTEM (LVL B)
- T2 — FAA ADMINISTRATION (LVL D)
- (W1) — CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) — CITY OF HOUSTON WATER (LVL D)
- FAA ADMINISTRATION COMMUNICATION MANHOLE
- B-1 / C-1 — BORING/CORING LOCATION

NOTES:

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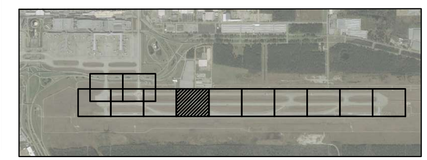

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS VI

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.06

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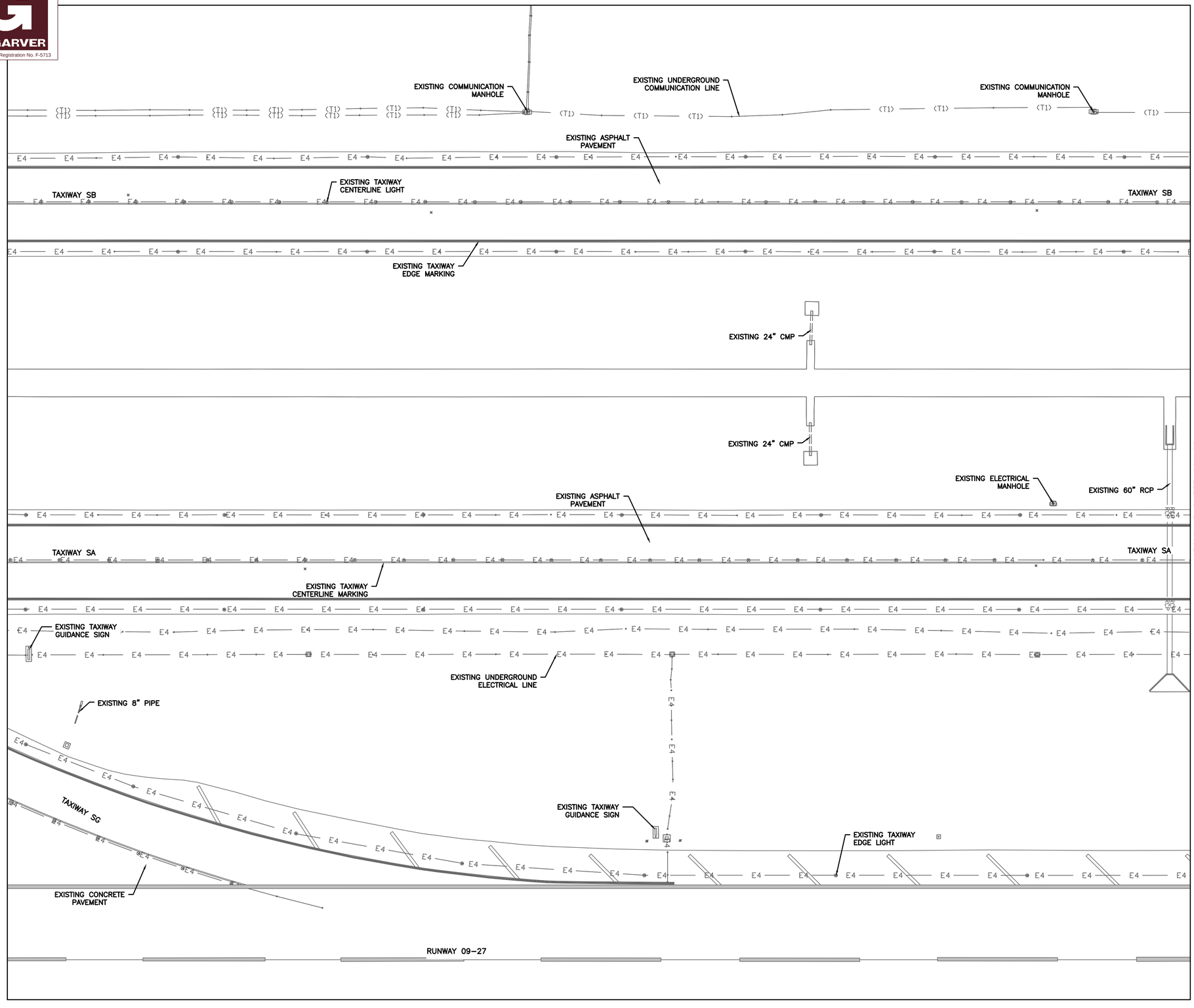
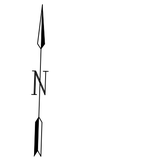
TBPE Registration No. F-5713





LEGEND

- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) — HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) — HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) — HOUSTON AIRPORT COMM SYSTEM (LVL B)
- T2 — FAA ADMINISTRATION (LVL D)
- (W1) — CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) — CITY OF HOUSTON WATER (LVL D)
- FAA ADMINISTRATION COMMUNICATION MANHOLE
- B-1, C-1 — BORING/CORING LOCATION

NOTES:

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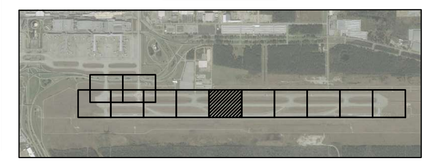

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS VII

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.07

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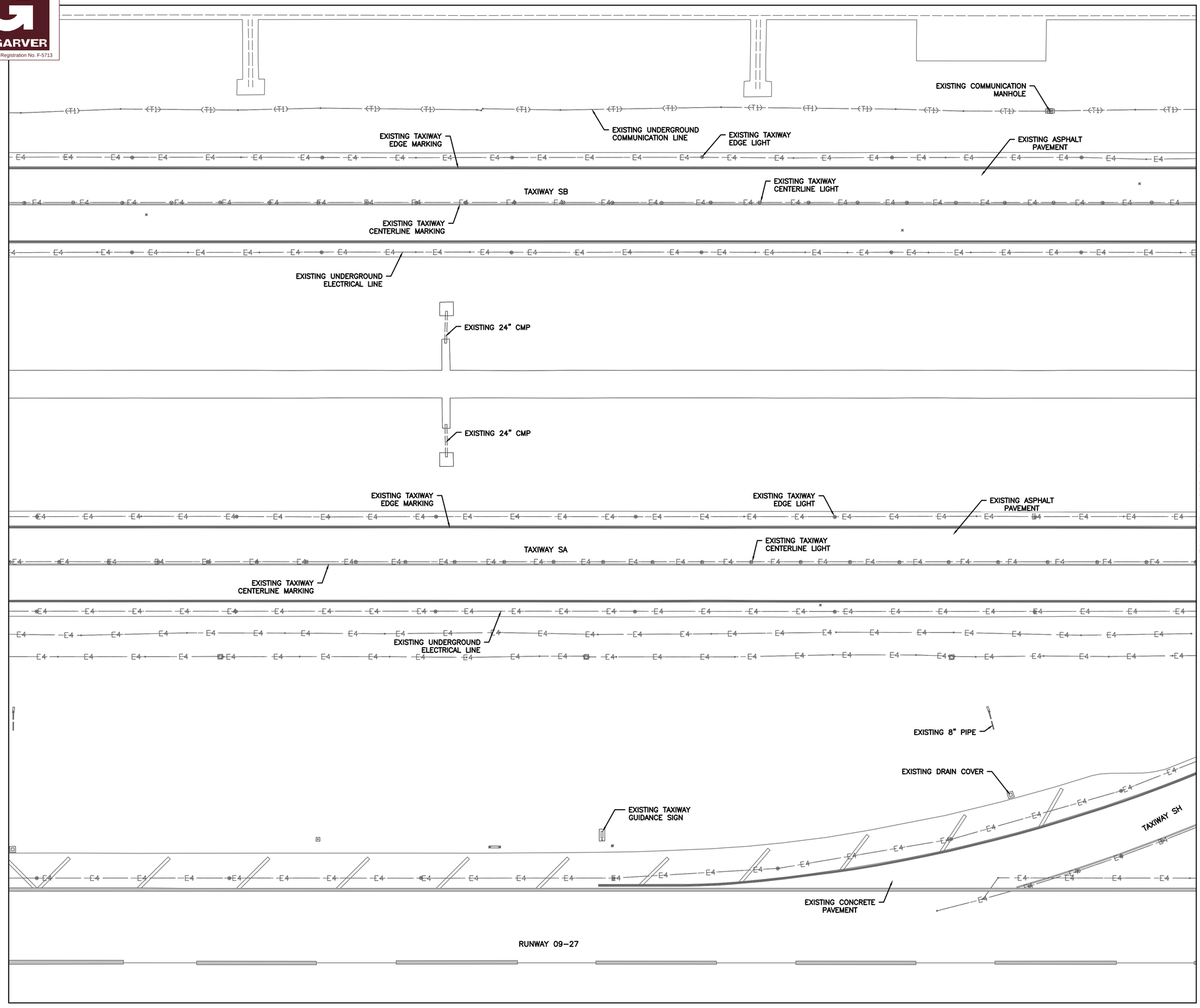
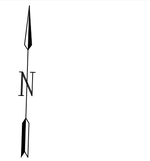
TBPE Registration No. F-5713





LEGEND

- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- T2 FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- FAA ADMINISTRATION COMMUNICATION MANHOLE
- B-1, C-1 BORING/CORING LOCATION

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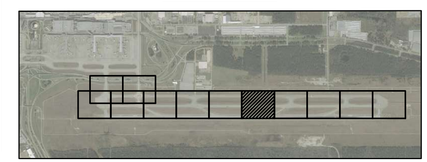

HOUSTON AIRPORTS
CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS VIII

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.08

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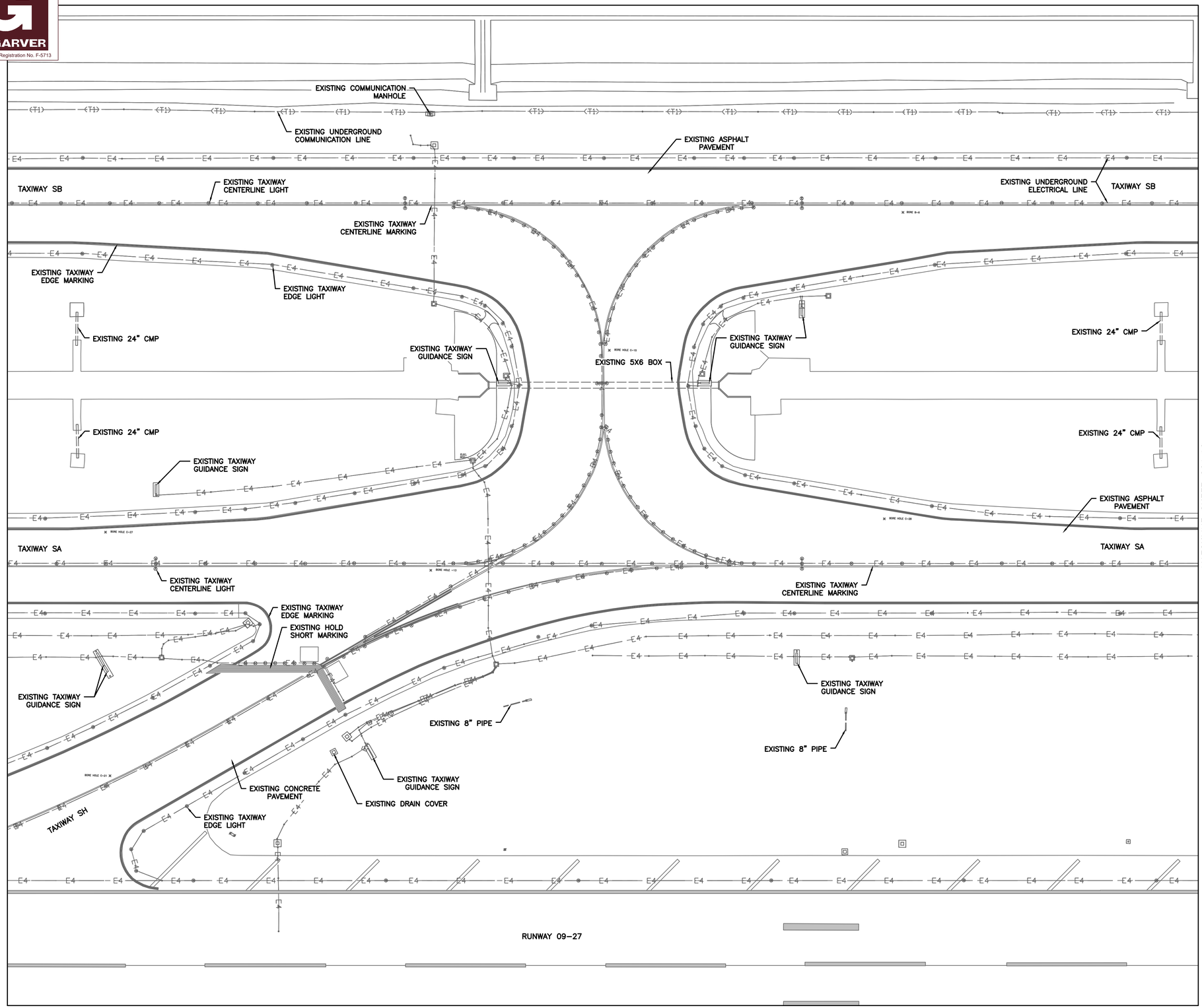
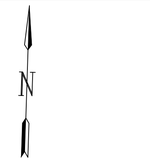
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C01.08

MATCHLINE SHEET C01.10



LEGEND

	EXISTING DRAINAGE CONDUITS
	EXISTING GRATE INLET
(E2)	HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
(E3)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
E4	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
(E4)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
(T1)	HOUSTON AIRPORT COMM SYSTEM (LVL B)
T2	FAA ADMINISTRATION (LVL D)
(W1)	CITY OF HOUSTON COLD WATER RETURN (LVL D)
(W2)	CITY OF HOUSTON WATER (LVL D)
	FAA ADMINISTRATION COMMUNICATION MANHOLE
B-1 C-1	BORING/CORING LOCATION

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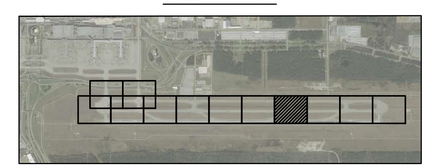
KEYMAP



HOUSTON AIRPORTS

CP&Y
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS IX

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.09

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PLOT DATE: 11/8/2019 3:32:47 PM

GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C01.09

EXISTING GAS LINE
EXISTING COMMUNICATION MANHOLE
EXISTING COMMUNICATION MANHOLE
EXISTING ELECTRICAL MANHOLE
EXISTING UNDERGROUND COMMUNICATION LINE
EXISTING TAXIWAY EDGE MARKING
EXISTING ASPHALT PAVEMENT
EXISTING ASPHALT PAVEMENT
EXISTING UNDERGROUND ELECTRICAL LINE
TAXIWAY SB
TAXIWAY SB
EXISTING TAXIWAY CENTERLINE MARKING
EXISTING TAXIWAY CENTERLINE LIGHT
EXISTING TAXIWAY EDGE LIGHT
EXISTING ELECTRICAL MANHOLE
EXISTING 24" CMP
EXISTING 24" CMP
EXISTING TAXIWAY GUIDANCE SIGN
EXISTING 2-42" RCP
EXISTING ASPHALT PAVEMENT
EXISTING ELECTRICAL MANHOLE
EXISTING TAXIWAY CENTERLINE LIGHT
TAXIWAY SA
TAXIWAY SA
EXISTING ELECTRICAL MANHOLE
EXISTING TAXIWAY CENTERLINE MARKING
EXISTING TAXIWAY EDGE MARKING
EXISTING TAXIWAY EDGE LIGHT
EXISTING TAXIWAY GUIDANCE SIGN
EXISTING HOLD SHORT MARKING
EXISTING 8" PIPE
EXISTING DRAIN COVER
TAXIWAY SJ
EXISTING TAXIWAY GUIDANCE SIGN
EXISTING TAXIWAY GUIDANCE SIGN
EXISTING CONCRETE PAVEMENT
RUNWAY 09-27

MATCHLINE SHEET C01.09

N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

	EXISTING DRAINAGE CONDUITS
	EXISTING GRATE INLET
(E2)	HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
(E3)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
E4	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
(E4)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
(T1)	HOUSTON AIRPORT COMM SYSTEM (LVL B)
T2	FAA ADMINISTRATION (LVL D)
(W1)	CITY OF HOUSTON COLD WATER RETURN (LVL D)
(W2)	CITY OF HOUSTON WATER (LVL D)
	FAA ADMINISTRATION COMMUNICATION MANHOLE
B-1 C-1	BORING/CORING LOCATION

NOTES:

1. EXISTING UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE LOCATED FROM AVAILABLE SURFACE INFORMATION, MAPS, PLANS, AND OTHER RECORDS. THE LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE AND ARE BASED ON THE INFORMATION AVAILABLE AT THE TIME. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXACT LOCATION, DEPTH AND CONDITION OF ALL UTILITIES AND AIRPORT FACILITIES DURING CONSTRUCTION. ANY CONFLICTING UTILITY INFORMATION SHALL BE REPORTED TO THE ENGINEER FOR ASSESSMENT.
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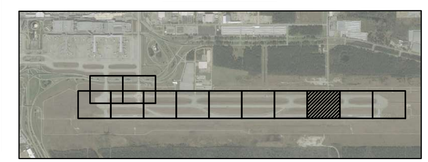
KEYMAP



HOUSTON AIRPORTS

CP&Y
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS X

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.10

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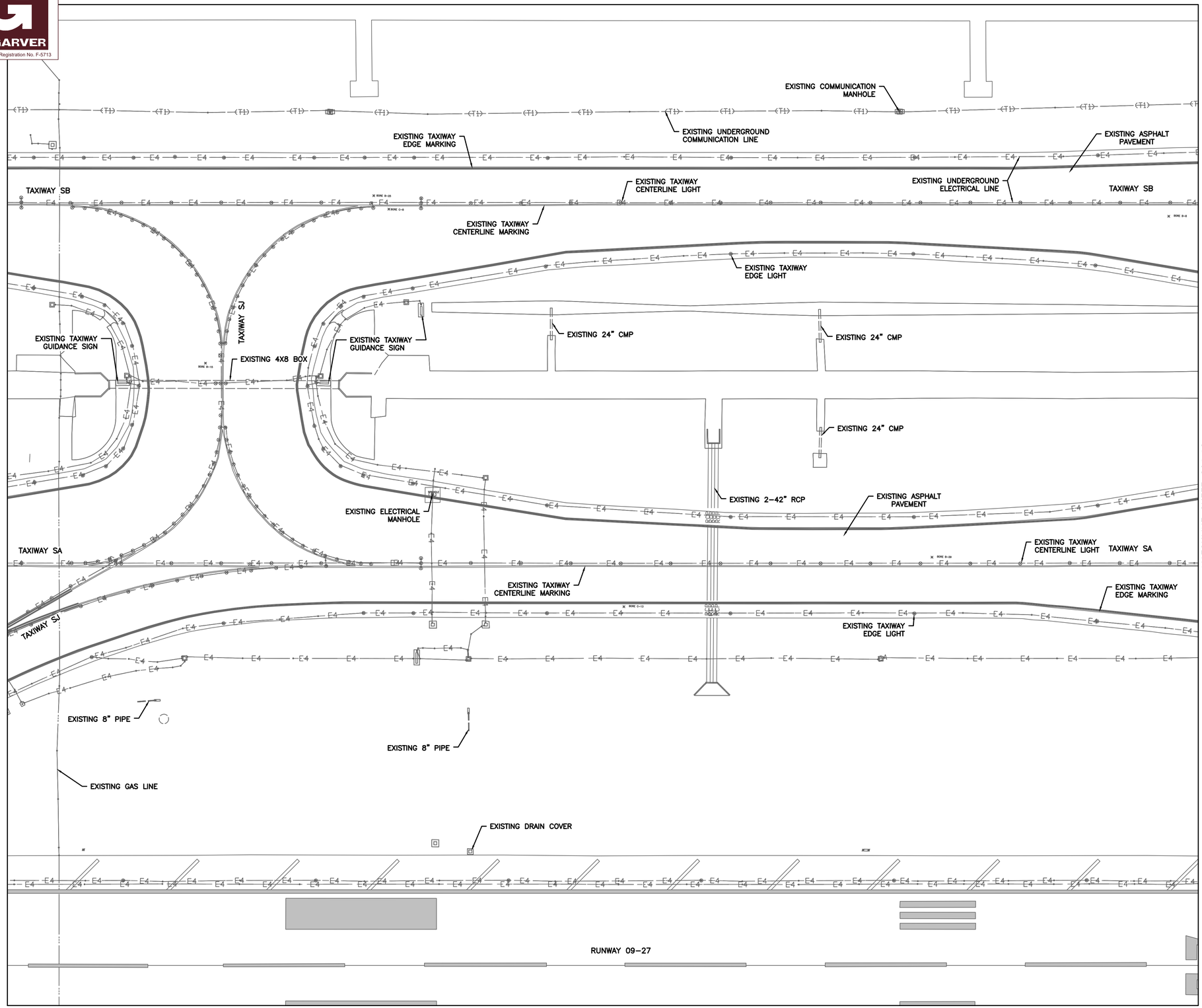
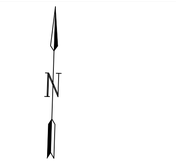
GARVER
TBPE Registration No. F-5713





LEGEND

	EXISTING DRAINAGE CONDUITS
	EXISTING GRATE INLET
(E2)	HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
(E3)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
E4	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
(E4)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
(T1)	HOUSTON AIRPORT COMM SYSTEM (LVL B)
T2	FAA ADMINISTRATION (LVL D)
(W1)	CITY OF HOUSTON COLD WATER RETURN (LVL D)
(W2)	CITY OF HOUSTON WATER (LVL D)
	FAA ADMINISTRATION COMMUNICATION MANHOLE
B-1 C-1	BORING/CORING LOCATION

NOTES:

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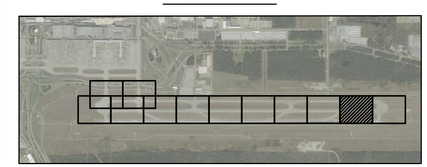

HOUSTON AIRPORTS

CP&Y
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS XI

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.11

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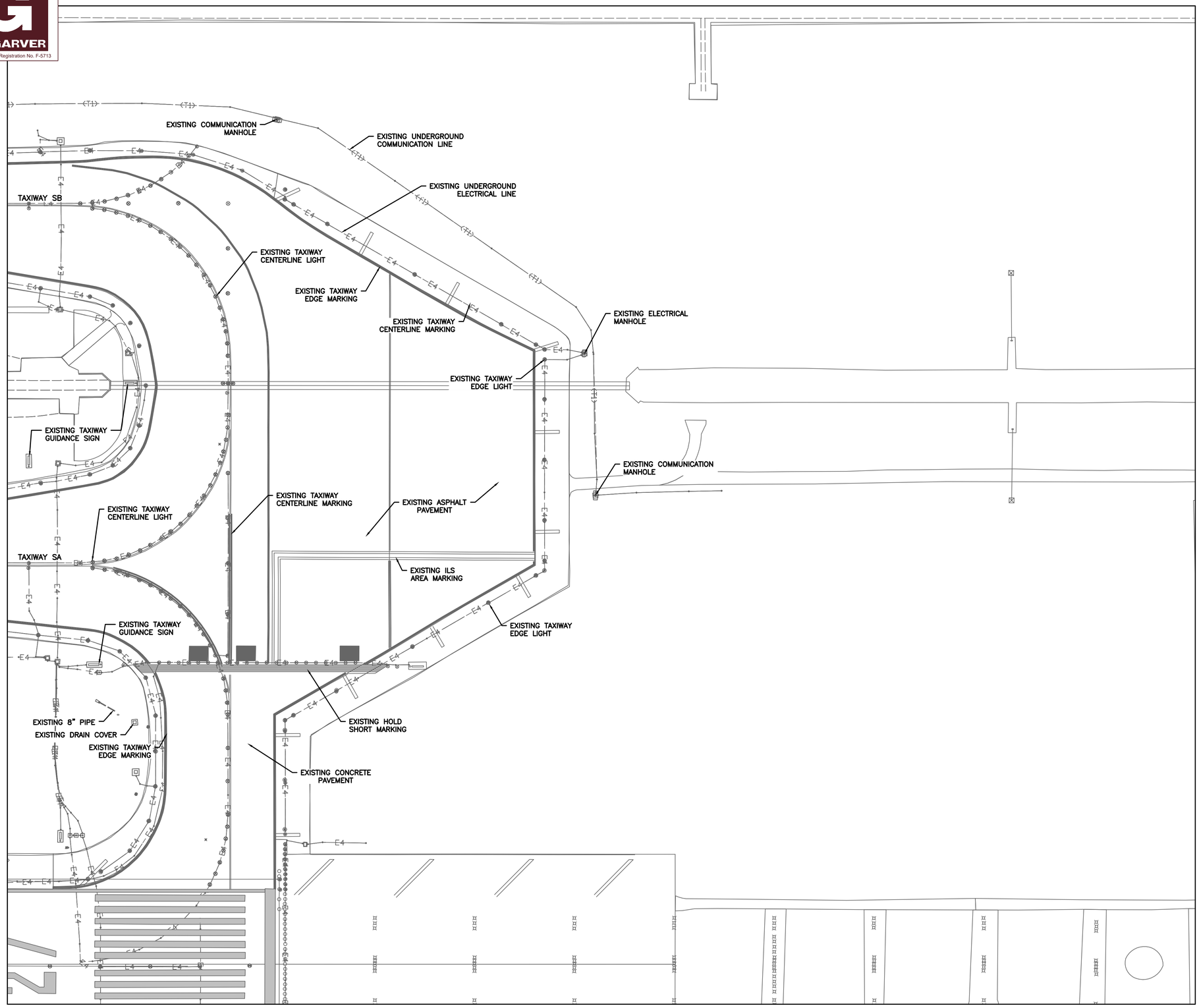
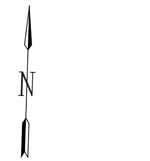
GARVER
TBPE Registration No. F-5713





LEGEND

	EXISTING DRAINAGE CONDUITS
	EXISTING GRATE INLET
(E2)	HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
(E3)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
E4	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
(E4)	HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
(T1)	HOUSTON AIRPORT COMM SYSTEM (LVL B)
T2	FAA ADMINISTRATION (LVL D)
(W1)	CITY OF HOUSTON COLD WATER RETURN (LVL D)
(W2)	CITY OF HOUSTON WATER (LVL D)
	FAA ADMINISTRATION COMMUNICATION MANHOLE
B-1 C-1	BORING/CORING LOCATION

NOTES:

1. EXISTING UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE LOCATED FROM AVAILABLE SURFACE INFORMATION, MAPS, PLANS, AND OTHER RECORDS. THE LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE AND ARE BASED ON THE INFORMATION AVAILABLE AT THE TIME. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXACT LOCATION, DEPTH AND CONDITION OF ALL UTILITIES AND AIRPORT FACILITIES DURING CONSTRUCTION. ANY CONFLICTING UTILITY INFORMATION SHALL BE REPORTED TO THE ENGINEER FOR ASSESSMENT.
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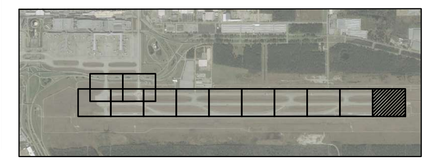
KEYMAP



HOUSTON AIRPORTS

CP&Y
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

EXISTING CONDITIONS XII

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C01.12

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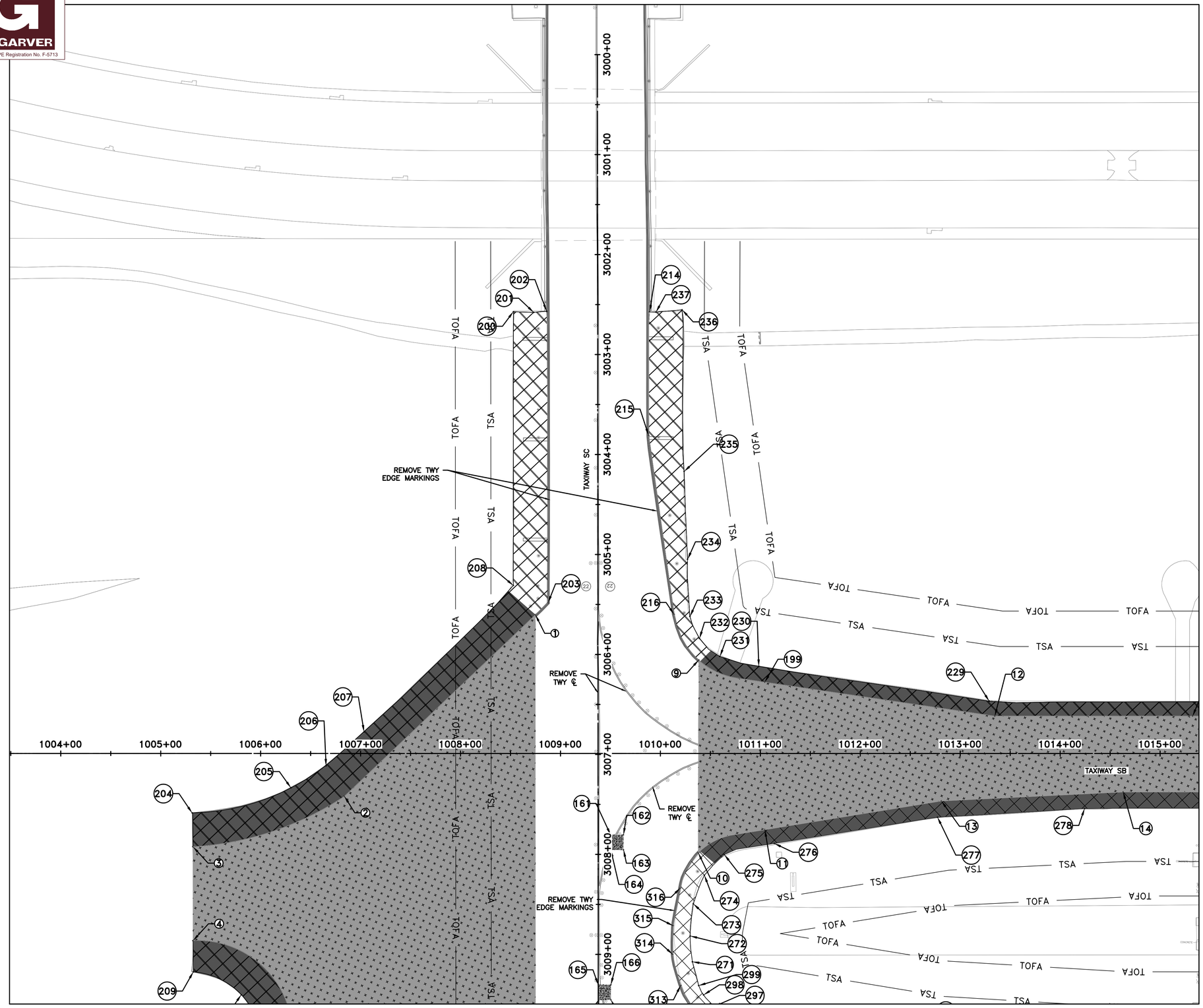
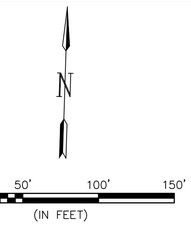
TBPE Registration No. F-5713



MATCHLINE SHEET C02.02



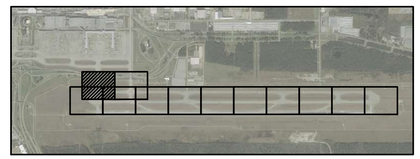
LEGEND

- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL STEP THE REMOVAL OF EACH LAYER TO PREVENT UNDERMINING OF THE ADJACENT SLABS THAT ARE TO REMAIN IN PLACE. DAMAGES THAT OCCURS TO EXISTING PAVMENT TO REMAIN BY THE CONTRACTOR'S MEANS AND METHODS SHALL BE REPAIRED BY REMOVING AND REPLACING ENTIRE PANEL AT NO ADDITIONAL COST TO THE OWNER.
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN I

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.01

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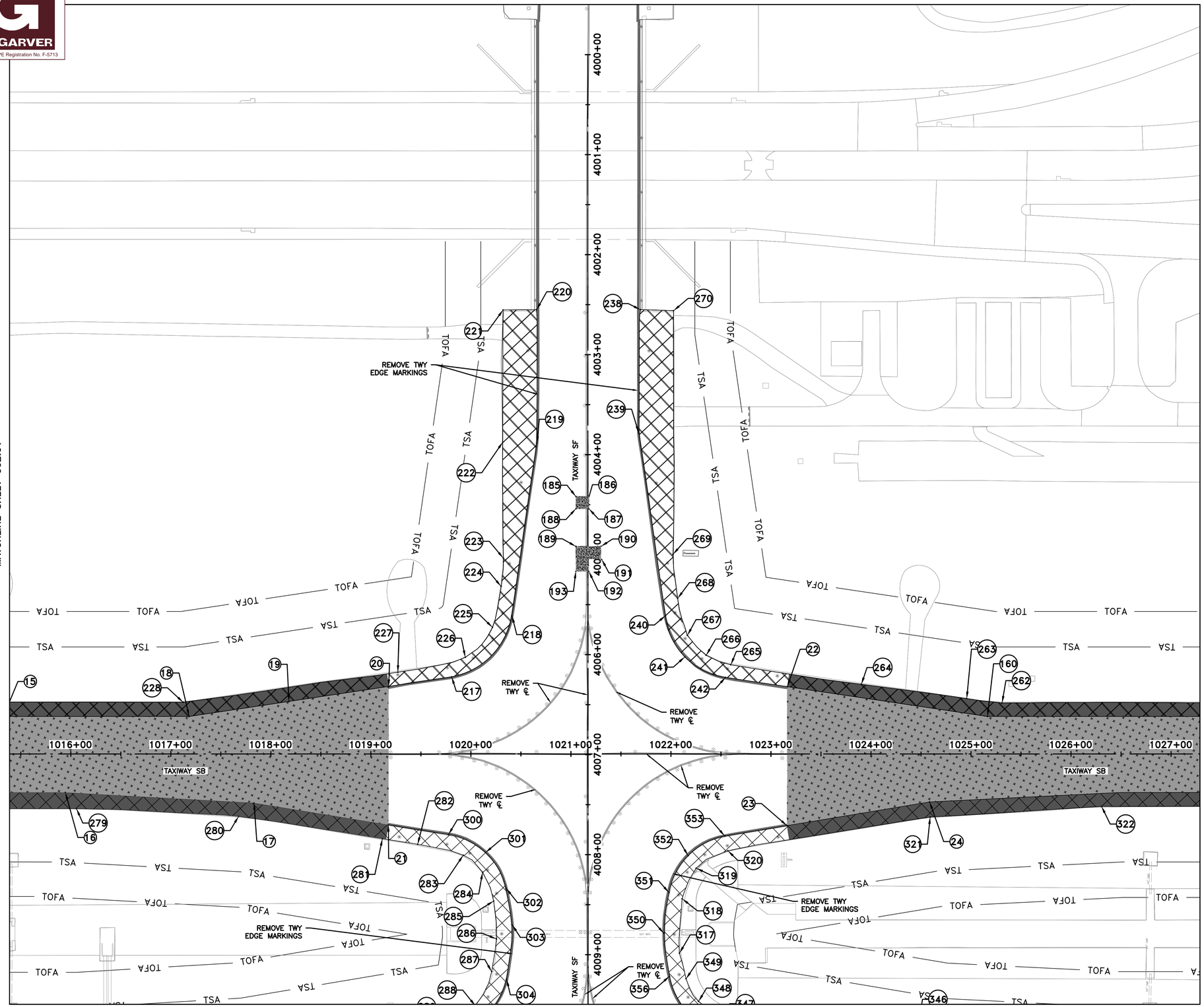
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C02.01

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N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
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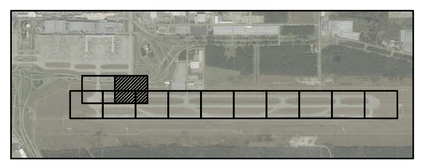
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

DEMOLITION PLAN II

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

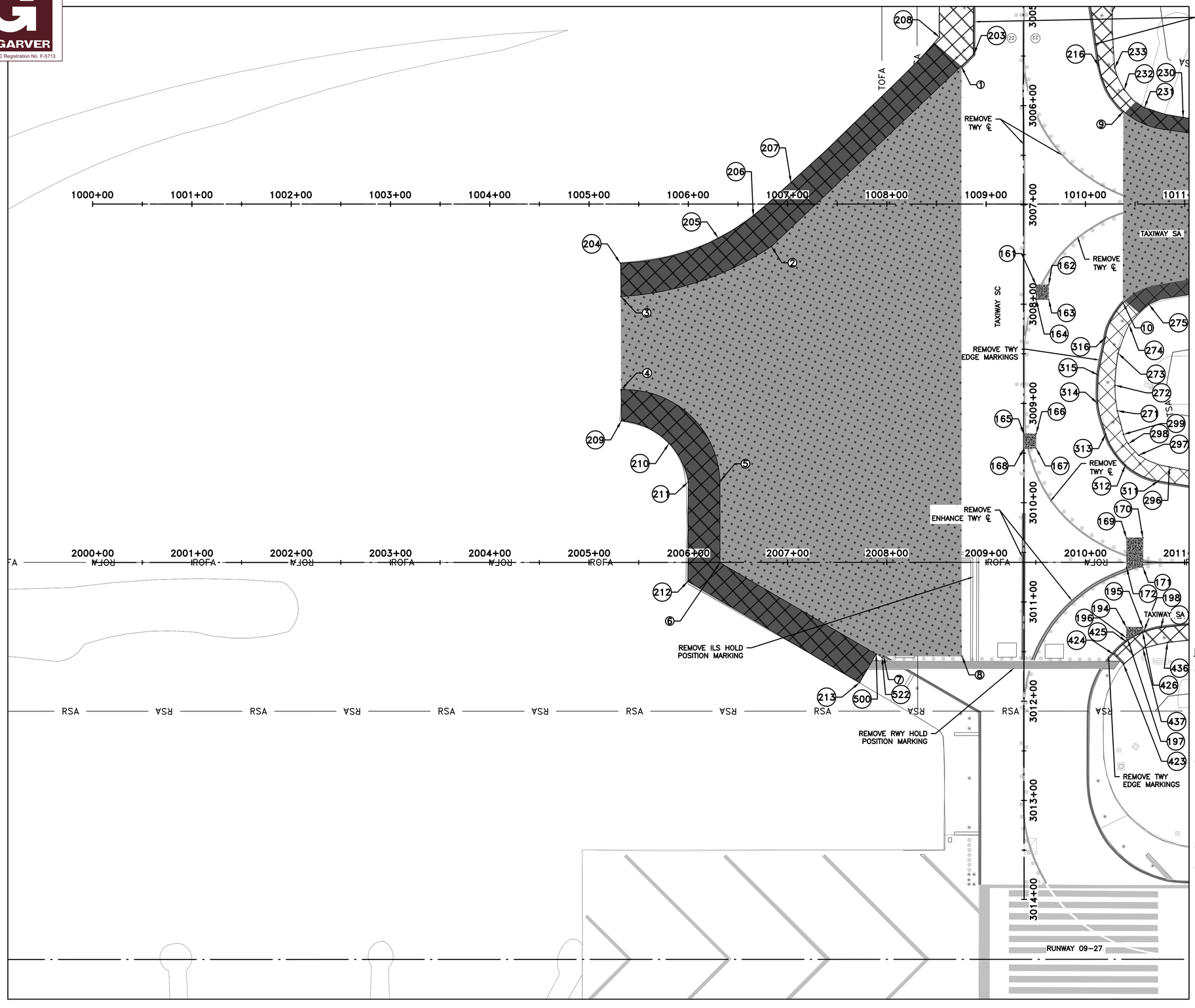
Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.02



N

0 25' 50' 100' 150'

(IN FEET)

LEGEND

- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

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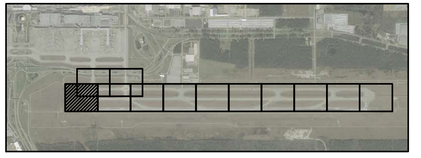
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

DEMOLITION PLAN III

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

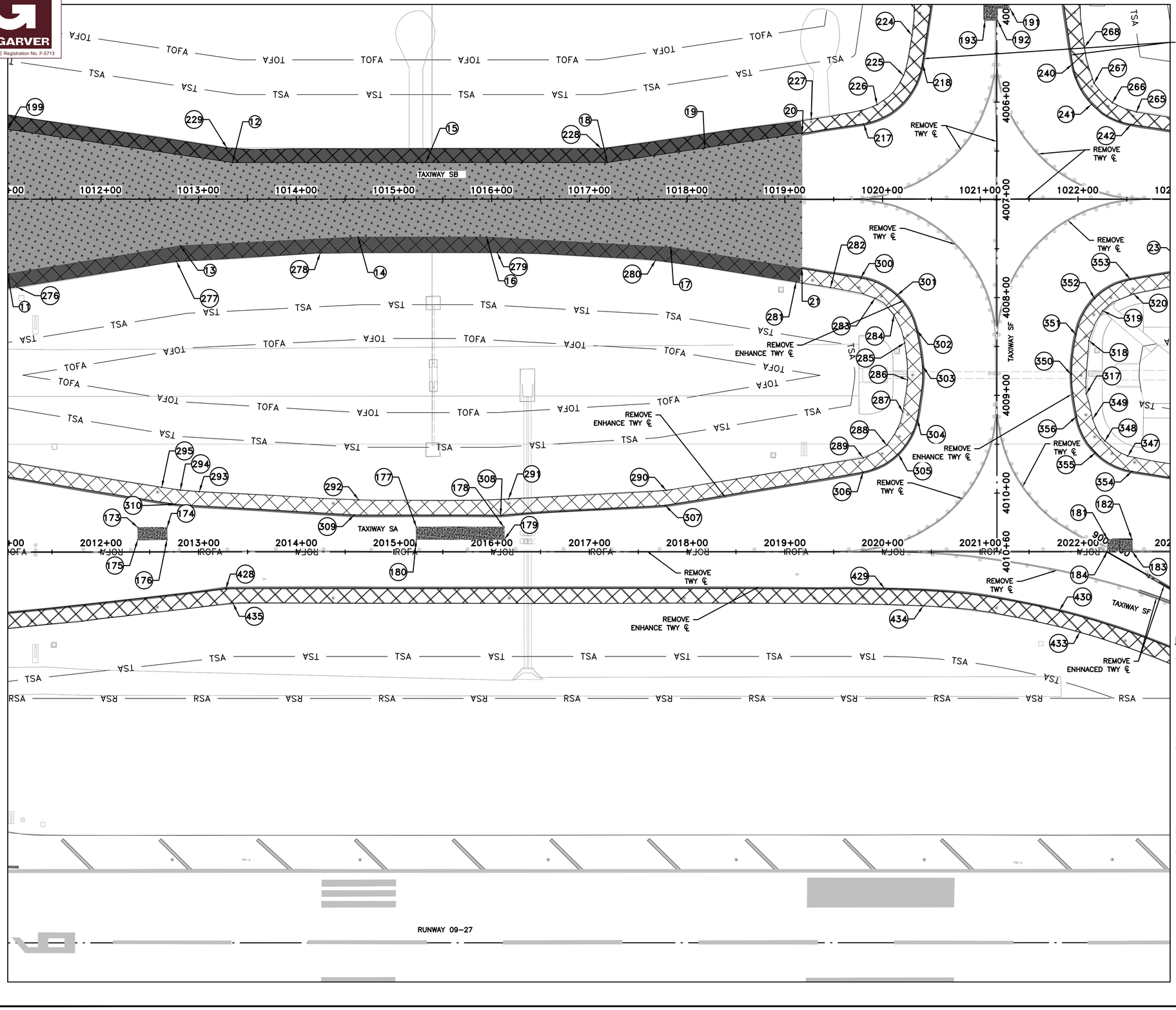
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. C02.03

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\04 - Demolition\Sheet Files\0646C02.03.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

GARVER
TBPE Registration No. F-5713



N

0 25' 50' 100' 150'
(IN FEET)

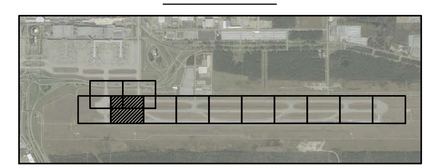
LEGEND

- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL STEP THE REMOVAL OF EACH LAYER TO PREVENT UNDERMINING OF THE ADJACENT SLABS THAT ARE TO REMAIN IN PLACE. DAMAGES THAT OCCURS TO EXISTING PAVMENT TO REMAIN BY THE CONTRACTOR'S MEANS AND METHODS SHALL BE REPAIRED BY REMOVING AND REPLACING ENTIRE PANEL AT NO ADDITIONAL COST TO THE OWNER.
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

DEMOLITION PLAN IV

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.04

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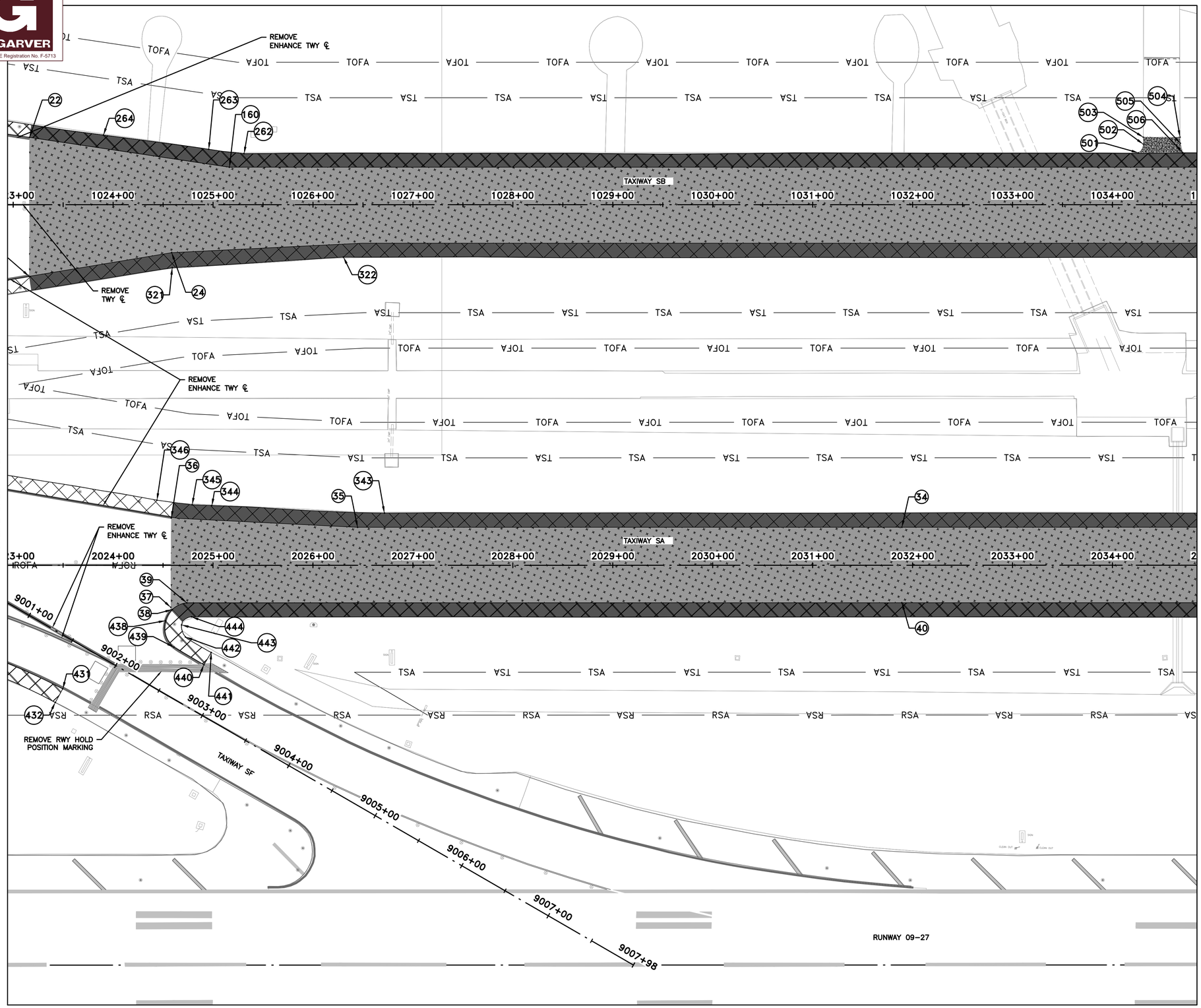
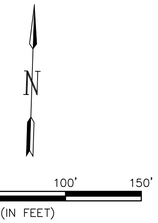
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C02.04

MATCHLINE SHEET C02.06



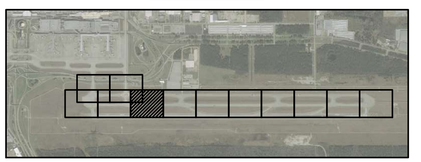
LEGEND

- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR SHALL STEP THE REMOVAL OF EACH LAYER TO PREVENT UNDERMINING OF THE ADJACENT SLABS THAT ARE TO REMAIN IN PLACE. DAMAGES THAT OCCURS TO EXISTING PAVMENT TO REMAIN BY THE CONTRACTOR'S MEANS AND METHODS SHALL BE REPAIRED BY REMOVING AND REPLACING ENTIRE PANEL AT NO ADDITIONAL COST TO THE OWNER.
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

DEMOLITION PLAN V

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.05

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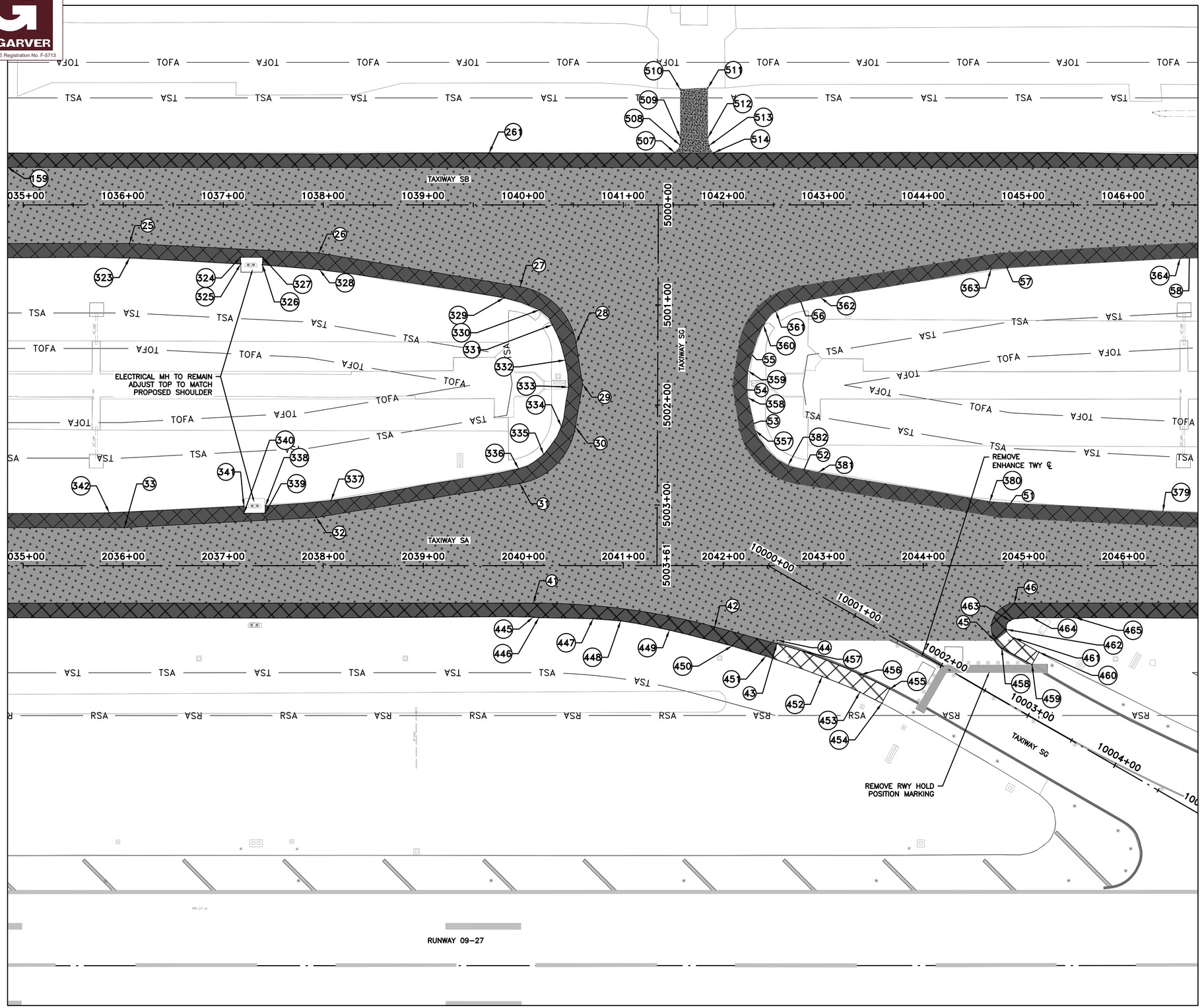
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C02.05

MATCHLINE SHEET C02.07

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
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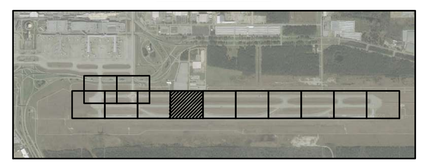
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

DEMOLITION PLAN VI

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.06

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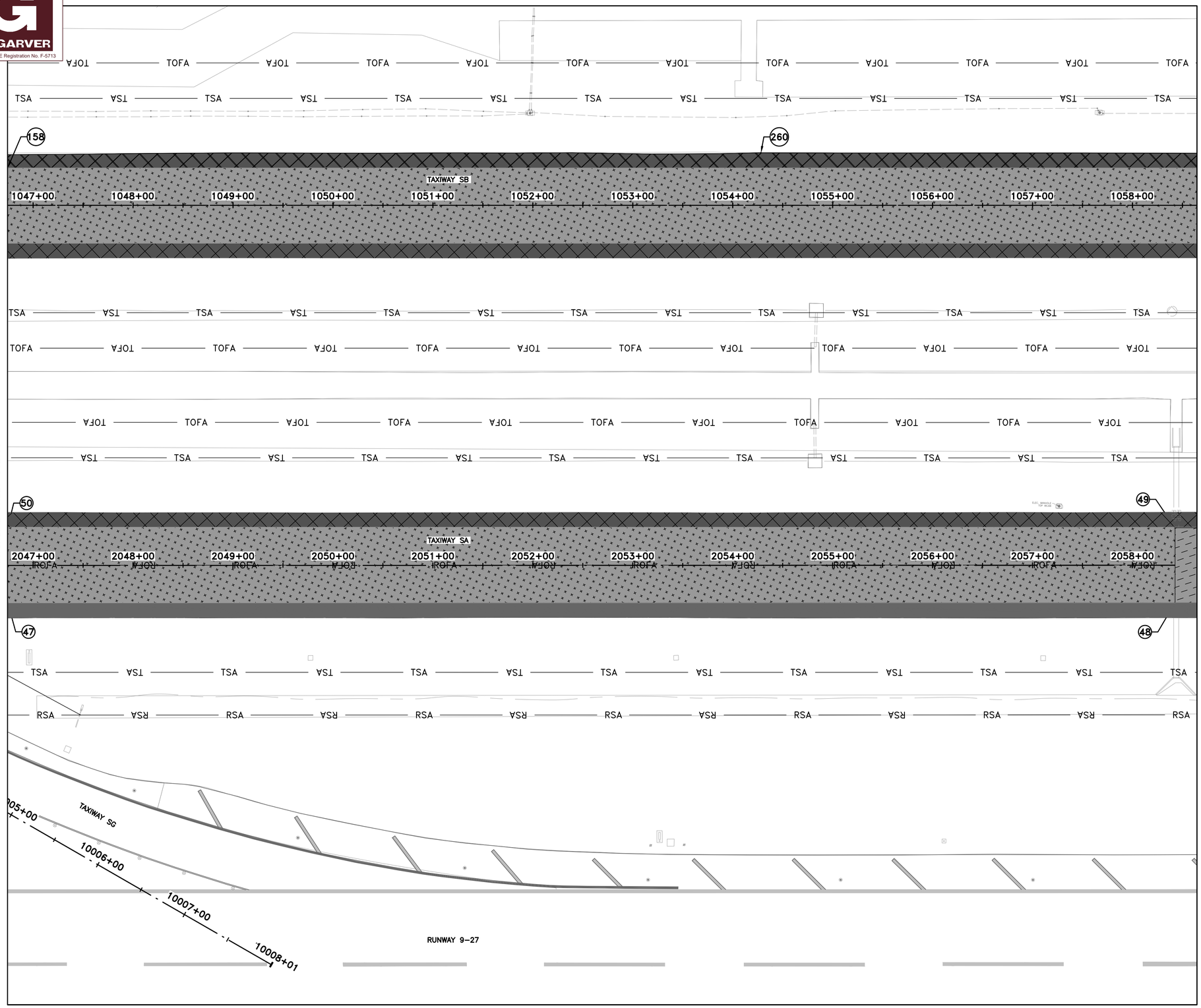
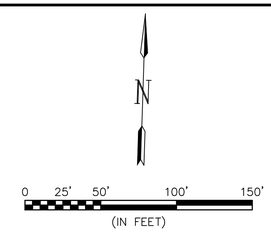
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C02.06

MATCHLINE SHEET C02.08



LEGEND

- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
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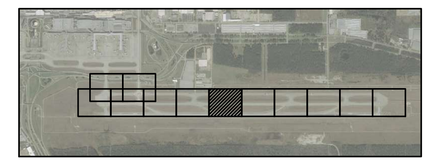
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN VII

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.07

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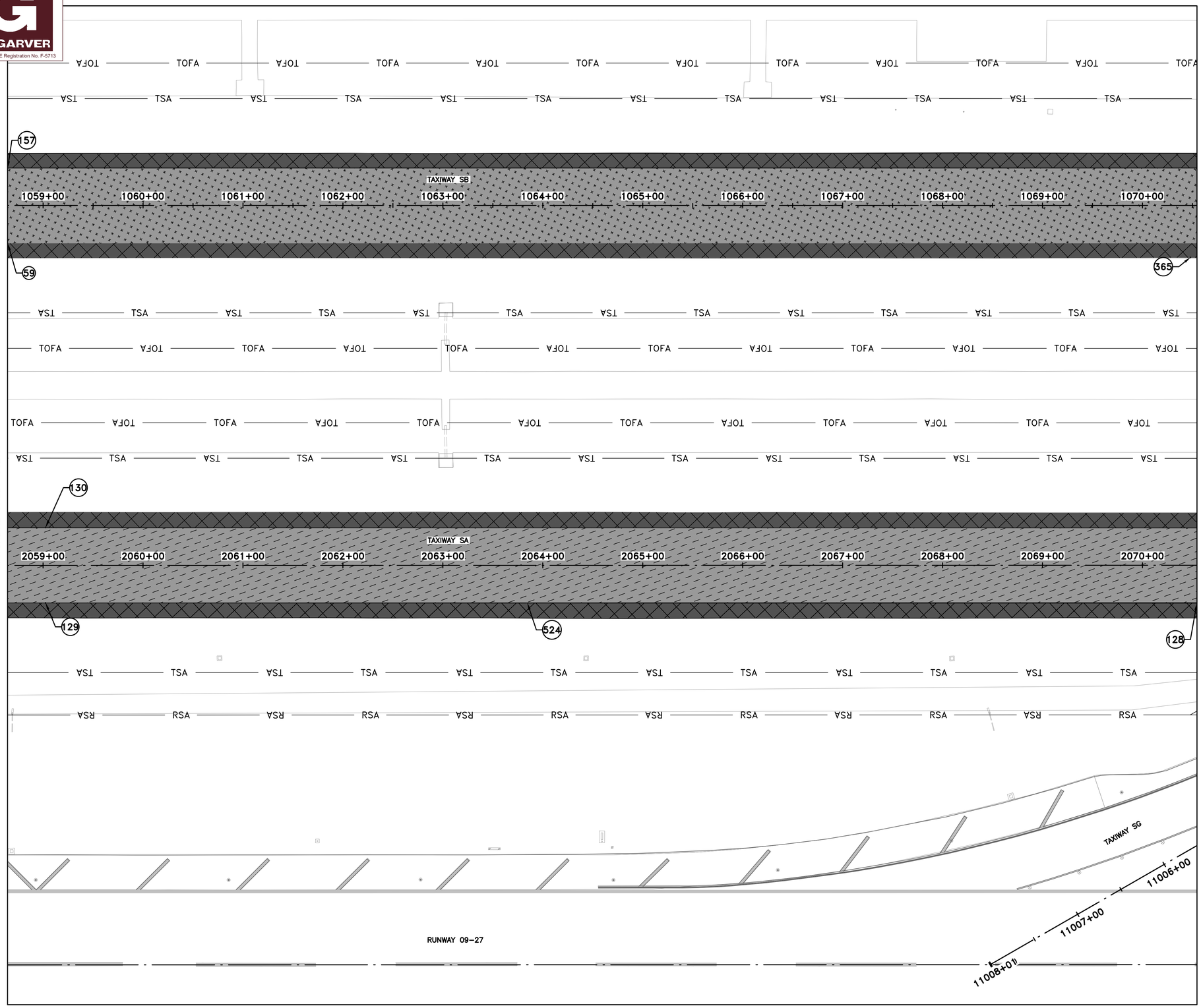
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C02.07

MATCHLINE SHEET C02.09

N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- FULL DEPTH ASPHALT SHOULDER PAVEMENT REMOVAL
- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
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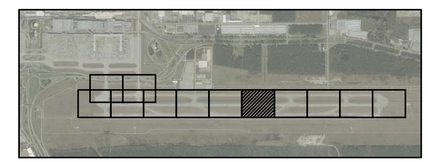
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN VIII

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.08

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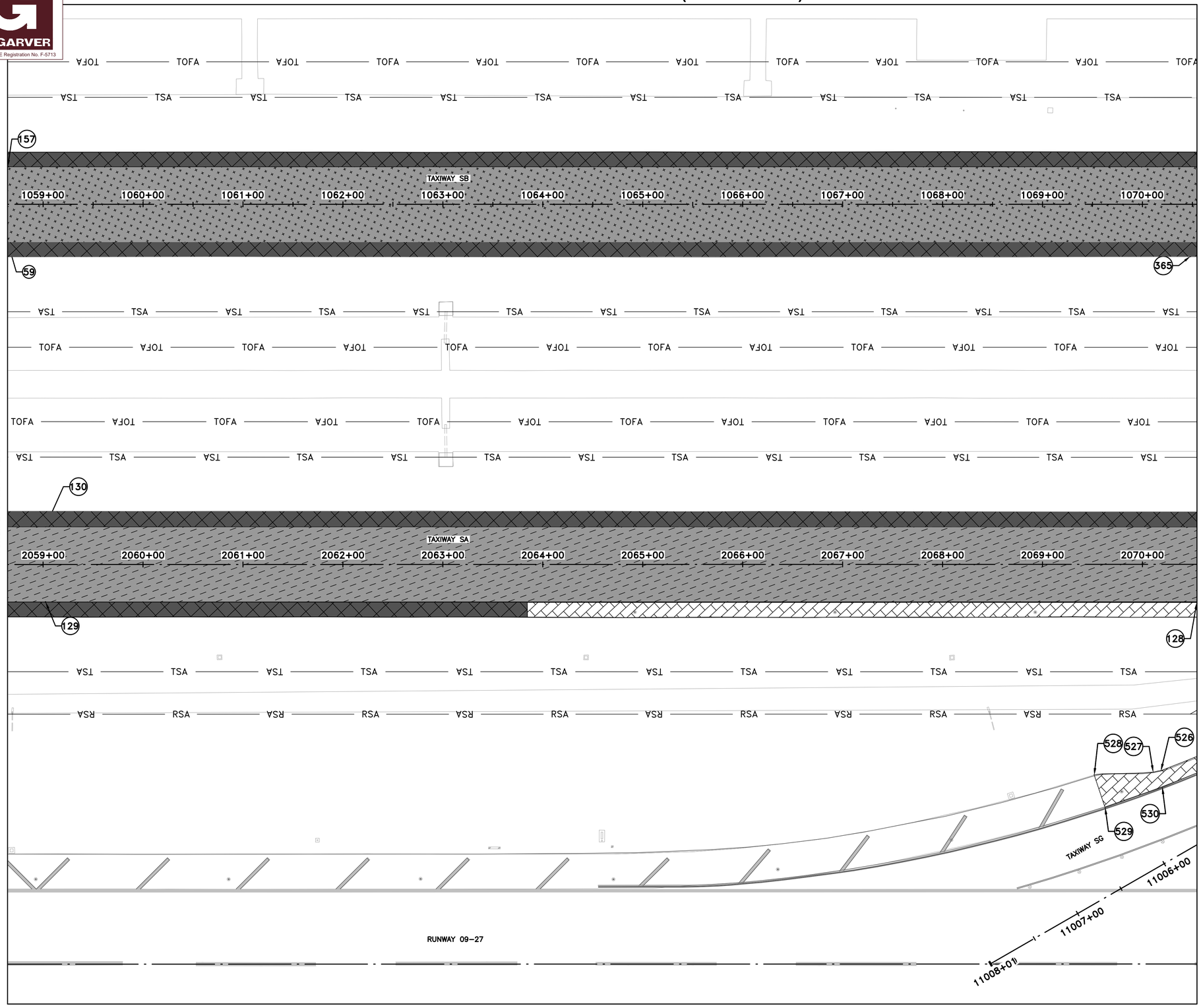
ADDITIVE ALTERNATE 1 (IF AWARDED)



MATCHLINE SHEET C02.07

MATCHLINE SHEET C02.09

N

0 25' 50' 100' 150'

(IN FEET)

LEGEND

- FULL DEPTH ASPHALT SHOULDER PAVEMENT REMOVAL
- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
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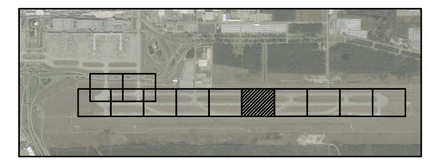
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN VIII
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.08A

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PLOT DATE: 11/8/2019 3:32:47 PM

GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C02.08

TAXIWAY SB
TAXIWAY SA
TAXIWAY SH
TAXIWAY SH
1071+00 1072+00 1073+00 1074+00 1075+00 1076+00 6000+00 1077+00 1078+00 1079+00 1080+00 1081+00 1082+00
2071+00 2072+00 2073+00 2074+00 2075+00 11000+00 2076+00 6003+00 2077+00 2078+00 2079+00 2080+00 2081+00 2082+00
6001+00
6002+00
6003+60
11001+00
11002+00
11003+00
11004+00
11005+00
TOFA TSA RSA
REMOVE ENHANCE TWY ℄
REMOVE RWY HOLD POSITION MARKING
RUNWAY 09–27

MATCHLINE SHEET C02.10

N
0 25' 50' 100' 150'
(IN FEET)

LEGEND

- FULL DEPTH ASPHALT SHOULDER PAVEMENT REMOVAL
- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
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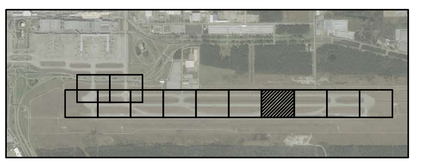
3. SEE ELECTRICAL DEMOLITION PLANS FOR AIRFIELD LIGHTING AND SIGNAGE DEMOLITION.
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

DEMOLITION PLAN IX

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.09

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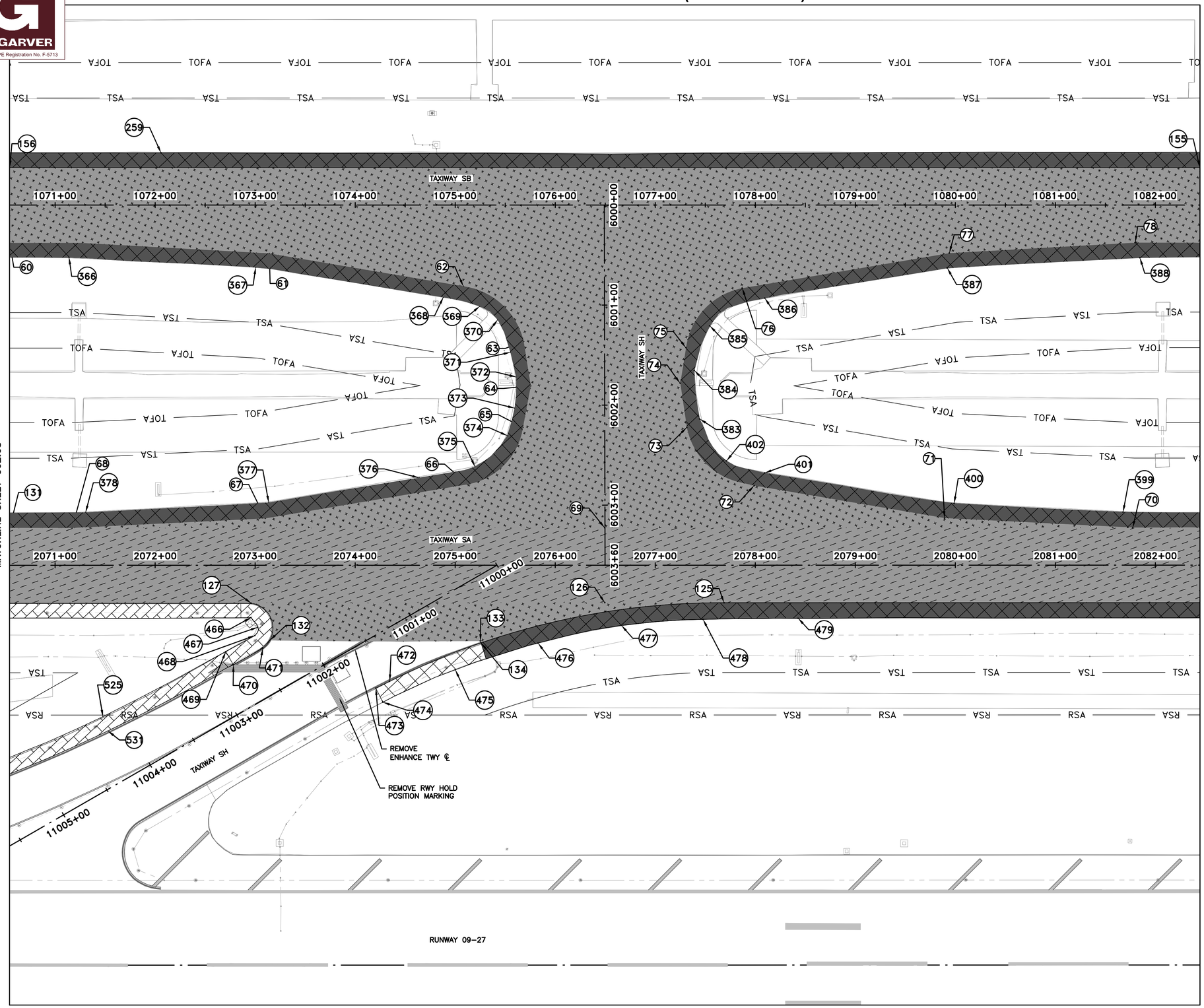
ADDITIVE ALTERNATE 1 (IF AWARDED)

GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C02.08

MATCHLINE SHEET C02.10

N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- FULL DEPTH ASPHALT SHOULDER PAVEMENT REMOVAL
- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
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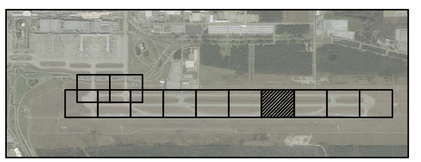
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN IX
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.09A

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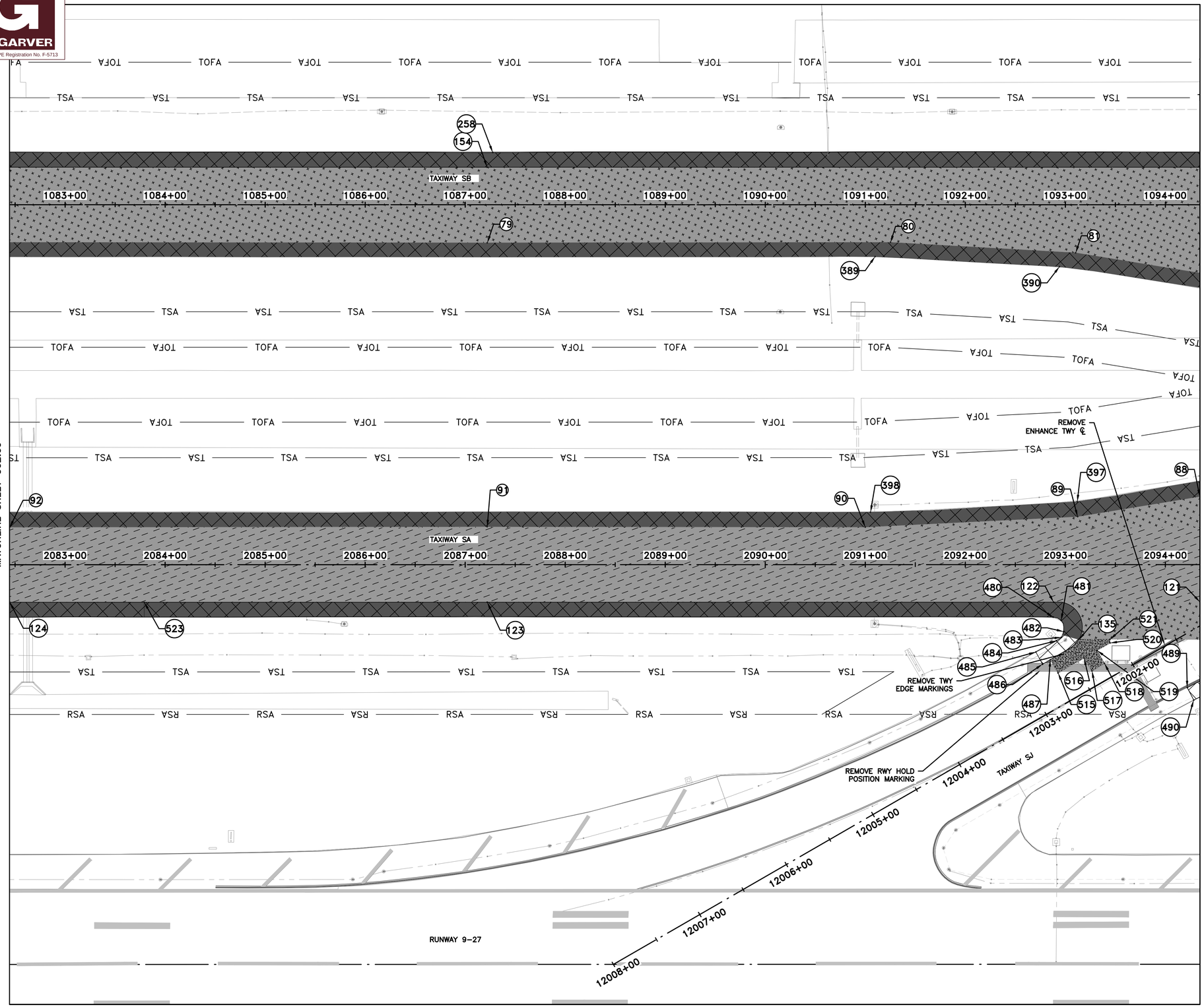
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C02.09

MATCHLINE SHEET C02.11

N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- FULL DEPTH ASPHALT SHOULDER PAVEMENT REMOVAL
- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

1. EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE LOCATION BASED ON HISTORICAL INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND VERIFICATION OF ALL UTILITIES PRIOR TO BEGINNING DEMOLITION. THE CONTRACTOR SHALL PAY FOR REPAIR OF ALL DAMAGED UTILITIES AT NO ADDITIONAL COST TO THE OWNER.
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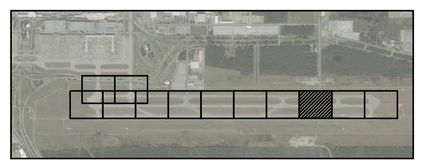
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN X

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.10

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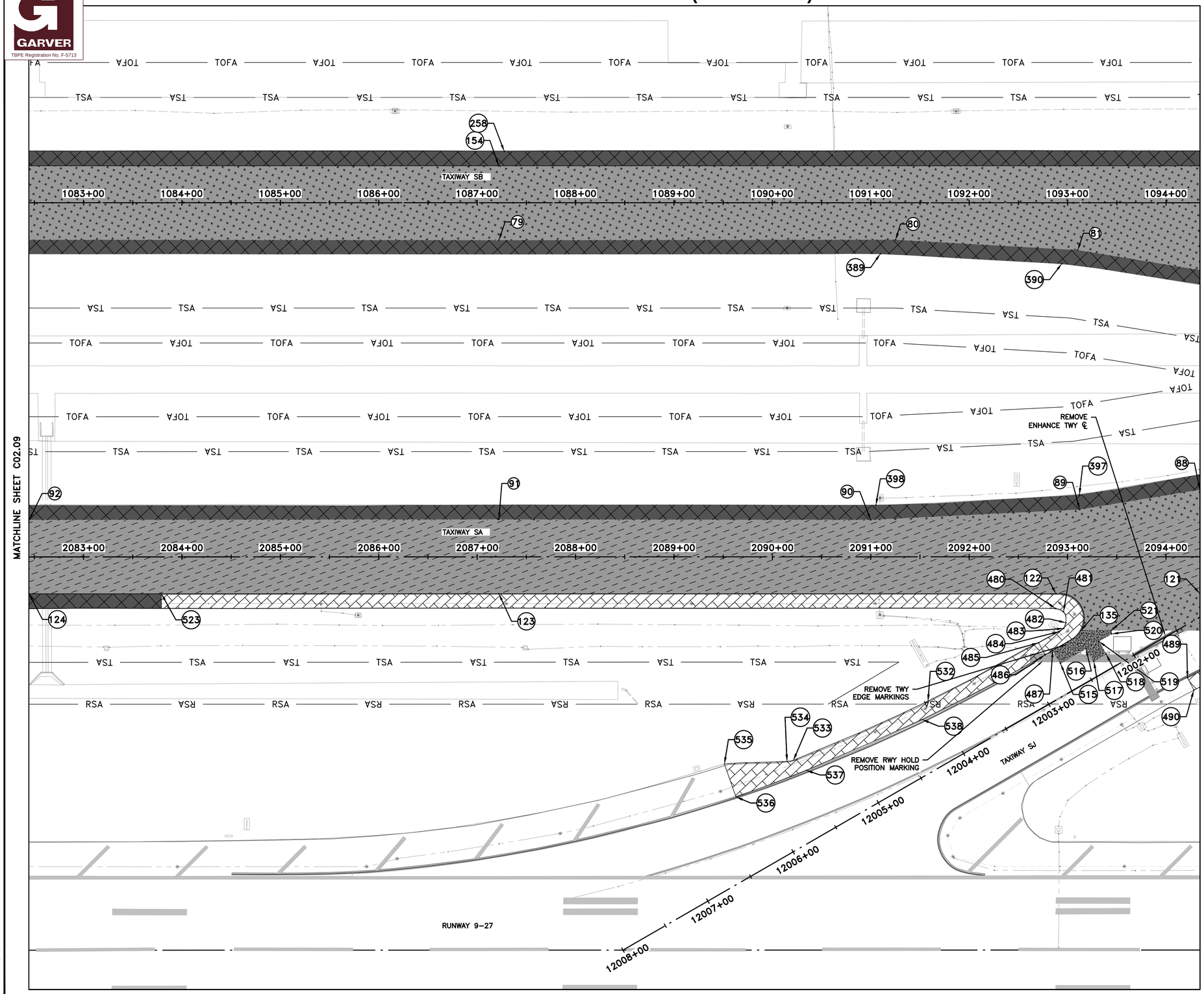

MATCHLINE SHEET C02.09

MATCHLINE SHEET C02.11

N

0 25' 50' 100' 150'

(IN FEET)

LEGEND

- FULL DEPTH ASPHALT SHOULDER PAVEMENT REMOVAL
- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

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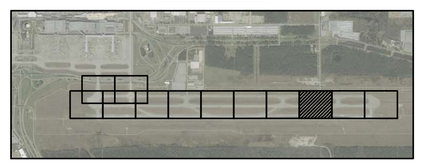
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN X
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.10A

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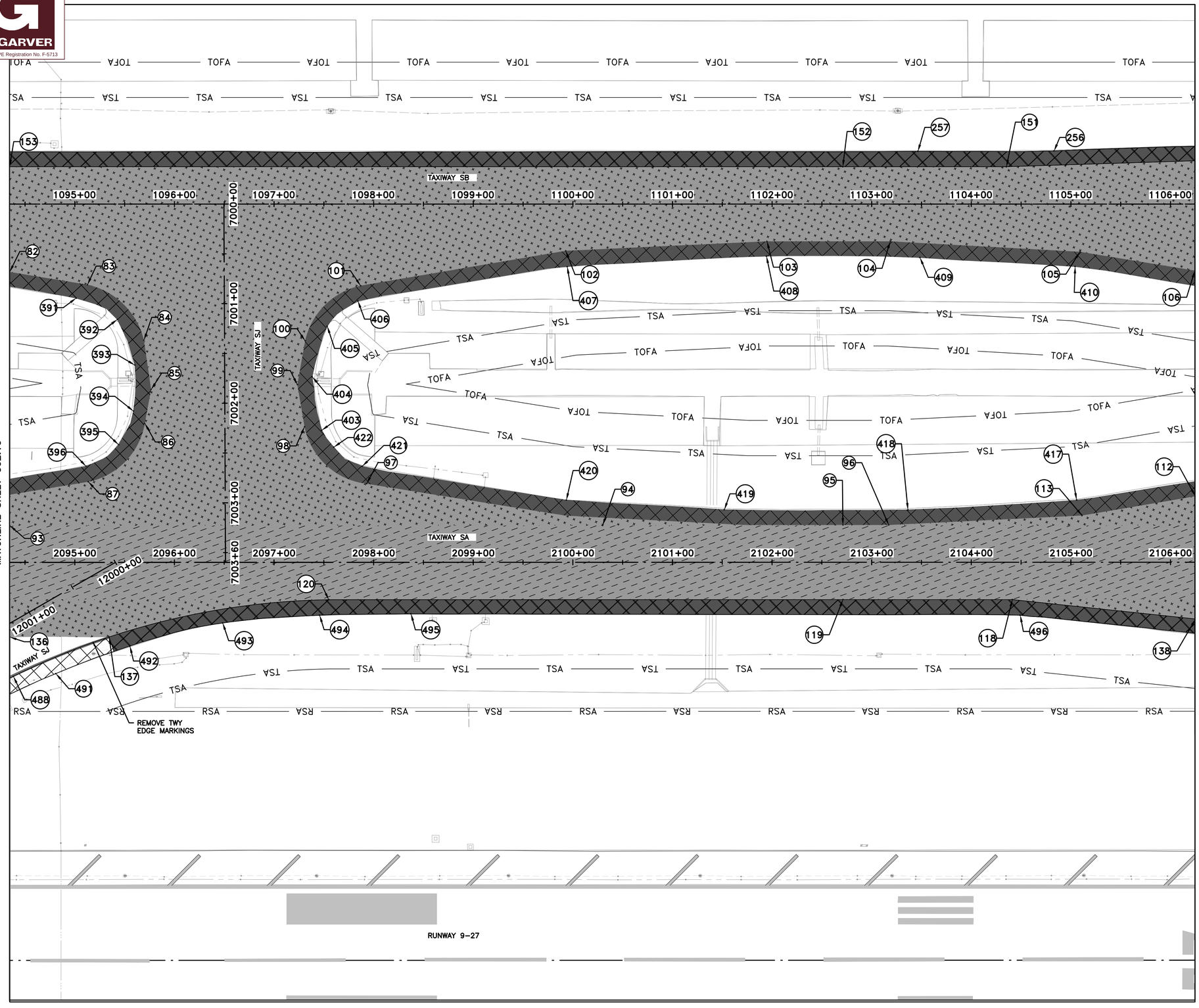
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C02.10

MATCHLINE SHEET C02.12

N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- FULL DEPTH ASPHALT SHOULDER PAVEMENT REMOVAL
- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
- (E2) HOUSTON AIRPORT SYSTEM ELECTRICAL ABANDONED (LVL D)
- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

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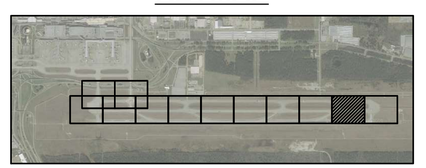
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN XI

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.11

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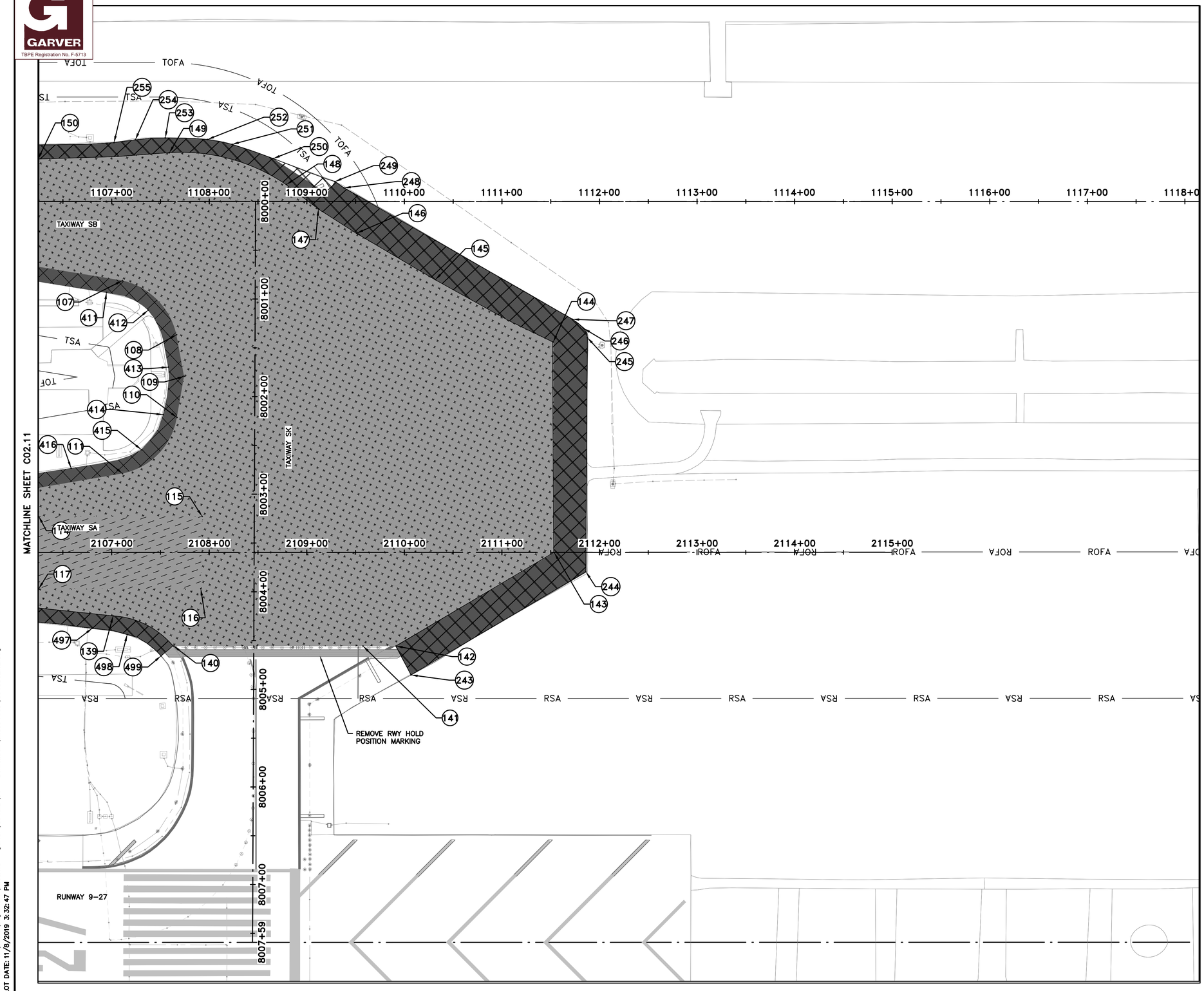
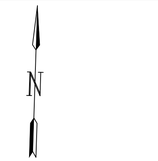
GARVER
TBPE Registration No. F-5713





LEGEND

- 2" & VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- 2" & VARIABLE ASPHALT SHOULDER PAVEMENT MILL
- 1" ASPHALT SHOULDER PAVEMENT MILL
- 5" VARIABLE ASPHALT TAXIWAY PAVEMENT MILL
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING DRAINAGE CONDUITS
- EXISTING GRATE INLET
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- (E3) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- E4 HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL B)
- (E4) HOUSTON AIRPORT SYSTEM ELECTRICAL (LVL D)
- (T1) HOUSTON AIRPORT COMM SYSTEM (LVL B)
- (T2) FAA ADMINISTRATION (LVL D)
- (W1) CITY OF HOUSTON COLD WATER RETURN (LVL D)
- (W2) CITY OF HOUSTON WATER (LVL D)
- 428 DEMOLITION POINT

NOTES:

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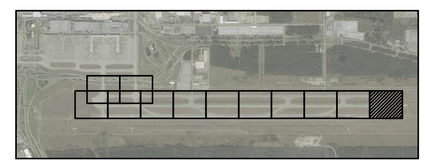
4. SEE SHEETS C2.13,C2.14 AND C2.15 FOR DEMOLITION POINT TABLES

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION PLAN XII

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C02.12

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PLOT DATE: 11/8/2019 3:32:47 PM

GARVER
TBPE Registration No. F-5713

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
1	TAXIWAY SB	1008+74.82	138.82' L
2	TAXIWAY SB	1006+83.65	42.80' R
3	TAXIWAY SC	3007+91.92	405.50' R
4	TAXIWAY SC	3008+85.91	405.50' R
5	TAXIWAY SA	2006+31.91	81.62' L
6	TAXIWAY SA	2006+31.98	0.36' R
7	TAXIWAY SA	2007+96.62	94.47' R
8	TAXIWAY SA	2008+75.67	94.59' R
9	TAXIWAY SB	1010+38.40	93.47' L
10	TAXIWAY SB	1010+37.82	99.39' R
11	TAXIWAY SB	1011+04.45	76.24' R
12	TAXIWAY SB	1013+34.57	37.50' L
13	TAXIWAY SB	1012+81.10	47.50' R
14	TAXIWAY SB	1014+62.98	38.50' R
15	TAXIWAY SB	1015+32.51	37.50' L
16	TAXIWAY SB	1015+94.51	38.50' R
17	TAXIWAY SB	1017+83.11	49.00' R
18	TAXIWAY SB	1017+18.38	37.50' L
19	TAXIWAY SB	1018+18.14	52.53' L
20	TAXIWAY SB	1019+17.91	67.56' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
21	TAXIWAY SB	1019+17.41	70.82' R
22	TAXIWAY SB	1023+16.34	67.30' L
23	TAXIWAY SB	1023+16.05	71.66' R
24	TAXIWAY SB	1024+58.54	48.00' R
25	TAXIWAY SB	1036+06.17	38.50' R
26	TAXIWAY SB	1037+95.45	48.00' R
27	TAXIWAY SB	1039+96.74	81.70' R
28	TAXIWAY SG	5001+38.02	81.75' R
29	TAXIWAY SG	5001+79.69	75.00' R
30	TAXIWAY SG	5002+22.35	82.16' R
31	TAXIWAY SA	2039+96.42	82.00' L
32	TAXIWAY SA	2037+92.83	48.00' L
33	TAXIWAY SA	2036+01.16	38.00' L
34	TAXIWAY SA	2031+89.24	38.00' L
35	TAXIWAY SA	2026+44.73	38.00' L
36	TAXIWAY SA	2024+58.28	47.35' L
37	TAXIWAY SA	2024+57.77	41.95' R
38	TAXIWAY SA	2024+59.26	44.27' R
39	TAXIWAY SA	2024+73.83	37.50' R
40	TAXIWAY SA	2031+89.23	37.50' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
41	TAXIWAY SA	2040+09.93	37.50' R
42	TAXIWAY SA	2041+91.30	61.17' R
43	TAXIWAY SA	2042+53.65	78.04' R
44	TAXIWAY SA	2042+54.03	74.76' R
45	TAXIWAY SA	2044+71.55	75.22' R
46	TAXIWAY SA	2044+90.89	37.50' R
47	TAXIWAY SA	2046+74.54	37.50' R
48	TAXIWAY SA	2058+42.68	37.49' R
49	TAXIWAY SA	2058+42.64	37.64' L
50	TAXIWAY SA	2046+74.54	38.25' L
51	TAXIWAY SA	2044+76.64	48.00' L
52	TAXIWAY SA	2042+74.52	81.58' L
53	TAXIWAY SG	5002+23.69	82.00' L
54	TAXIWAY SG	5001+80.57	74.75' L
55	TAXIWAY SG	5001+36.28	81.50' L
56	TAXIWAY SB	1042+72.05	81.84' R
57	TAXIWAY SB	1044+76.99	48.00' R
58	TAXIWAY SB	1046+66.16	38.00' R
59	TAXIWAY SB	1058+64.46	38.00' R
60	TAXIWAY SB	1070+54.46	38.00' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
61	TAXIWAY SB	1073+14.06	48.50' R
62	TAXIWAY SB	1075+08.20	81.34' R
63	TAXIWAY SH	6001+36.24	81.00' R
64	TAXIWAY SH	6001+80.64	74.00' R
65	TAXIWAY SH	6002+22.09	81.92' R
66	TAXIWAY SA	2075+12.30	81.00' L
67	TAXIWAY SA	2073+10.11	47.00' L
68	TAXIWAY SA	2071+17.03	37.46' L
69	TAXIWAY SA	2076+49.53	37.38' L
70	TAXIWAY SA	2081+77.32	37.50' L
71	TAXIWAY SA	2079+89.32	47.00' L
72	TAXIWAY SA	2077+98.90	79.50' L
73	TAXIWAY SH	6002+22.56	82.00' L
74	TAXIWAY SH	6001+78.30	75.50' L
75	TAXIWAY SH	6001+42.75	81.34' L
76	TAXIWAY SB	1077+86.86	83.00' R
77	TAXIWAY SB	1079+93.91	48.00' R
78	TAXIWAY SB	1081+79.60	37.50' R
79	TAXIWAY SB	1087+21.96	38.00' R
80	TAXIWAY SB	1091+25.13	37.50' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
81	TAXIWAY SB	1093+10.25	48.00' R
82	TAXIWAY SB	1094+34.48	68.26' R
83	TAXIWAY SB	1095+12.57	81.00' R
84	TAXIWAY SJ	7001+36.37	81.00' R
85	TAXIWAY SJ	7001+85.84	74.00' R
86	TAXIWAY SJ	7002+19.83	80.51' R
87	TAXIWAY SA	2095+13.48	81.00' L
88	TAXIWAY SA	2094+34.56	68.05' L
89	TAXIWAY SA	2093+12.35	48.00' L
90	TAXIWAY SA	2091+00.00	37.50' L
91	TAXIWAY SA	2087+21.98	38.00' L
92	TAXIWAY SA	2082+44.56	37.29' L
93	TAXIWAY SA	2094+34.56	37.12' L
94	TAXIWAY SA	2100+29.86	37.03' L
95	TAXIWAY SA	2102+71.19	37.50' L
96	TAXIWAY SA	2103+17.18	37.50' L
97	TAXIWAY SA	2097+92.90	79.03' L
98	TAXIWAY SJ	7002+23.96	80.00' L
99	TAXIWAY SJ	7001+81.64	73.00' L
100	TAXIWAY SJ	7001+37.60	81.00' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
101	TAXIWAY SB	1097+87.00	82.00' R
102	TAXIWAY SB	1099+92.77	47.00' R
103	TAXIWAY SB	1101+94.81	37.50' R
104	TAXIWAY SB	1103+18.72	37.50' R
105	TAXIWAY SB	1105+09.08	48.00' R
106	TAXIWAY SB	1106+24.48	66.91' R
107	TAXIWAY SB	1107+11.00	81.14' R
108	TAXIWAY SK	8001+36.93	80.42' R
109	TAXIWAY SK	8001+79.56	72.42' R
110	TAXIWAY SK	8002+21.67	79.64' R
111	TAXIWAY SK	8002+79.35	135.31' R
112	TAXIWAY SA	2106+25.15	66.20' L
113	TAXIWAY SA	2105+11.22	47.00' L
114	TAXIWAY SA	2106+25.15	36.94' L
115	TAXIWAY SA	2107+92.81	36.92' L
116	TAXIWAY SA	2107+91.42	37.17' R
117	TAXIWAY SA	2106+25.15	37.18' R
118	TAXIWAY SA	2104+41.32	37.50' R
119	TAXIWAY SA	2102+71.23	37.50' R
120	TAXIWAY SA	2097+55.06	37.50' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
121	TAXIWAY SA	2094+34.56	37.26' R
122	TAXIWAY SA	2092+88.29	37.50' R
123	TAXIWAY SA	2087+21.97	37.50' R
124	TAXIWAY SA	2082+44.56	37.33' R
125	TAXIWAY SA	2077+68.86	37.50' R
126	TAXIWAY SA	2076+49.56	37.37' R
127	TAXIWAY SA	2072+96.21	38.00' R
128	TAXIWAY SA	2070+54.55	37.91' R
129	TAXIWAY SA	2059+02.39	37.50' R
130	TAXIWAY SA	2059+02.40	38.00' L
131	TAXIWAY SA	2070+54.55	37.50' L
132	TAXIWAY SA	2073+14.58	74.99' R
133	TAXIWAY SA	2075+25.07	75.74' R
134	TAXIWAY SA	2075+25.74	77.54' R
135	TAXIWAY SA	2093+13.56	74.86' R
136	TAXIWAY SA	2094+34.60	74.94' R
137	TAXIWAY SA	2095+34.37	74.93' R
138	TAXIWAY SA	2106+25.15	57.11' R
139	TAXIWAY SA	2107+01.58	65.14' R
140	TAXIWAY SA	2107+63.44	95.90' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
141	TAXIWAY SA	2109+57.59	95.97' R
142	TAXIWAY SA	2109+91.37	95.98' R
143	TAXIWAY SA	2111+53.65	0.36' R
144	TAXIWAY SK	8001+42.81	305.58' L
145	TAXIWAY SB	1110+31.77	80.15' R
146	TAXIWAY SB	1109+50.97	32.55' R
147	TAXIWAY SB	1109+12.07	7.62' R
148	TAXIWAY SB	1108+79.09	17.36' L
149	TAXIWAY SB	1107+59.02	49.86' L
150	TAXIWAY SB	1106+24.47	43.40' L
151	TAXIWAY SB	1104+35.24	37.50' L
152	TAXIWAY SB	1102+70.91	37.50' L
153	TAXIWAY SB	1094+34.46	37.50' L
154	TAXIWAY SB	1087+21.96	37.50' L
155	TAXIWAY SB	1082+44.46	37.50' L
156	TAXIWAY SB	1070+54.45	37.50' L
157	TAXIWAY SB	1058+64.45	37.44' L
158	TAXIWAY SB	1046+74.44	37.50' L
159	TAXIWAY SB	1034+84.44	37.50' L
160	TAXIWAY SB	1025+16.40	37.50' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
161	TAXIWAY SC	3007+80.44	12.54' L
162	TAXIWAY SC	3007+80.50	25.23' L
163	TAXIWAY SC	3007+95.45	25.25' L
164	TAXIWAY SC	3007+95.42	12.59' L
165	TAXIWAY SC	3009+30.42	0.10' L
166	TAXIWAY SC	3009+30.42	12.53' L
167	TAXIWAY SC	3009+45.35	12.48' L
168	TAXIWAY SC	3009+45.77	0.15' L
169	TAXIWAY SA	2010+41.46	24.64' L
170	TAXIWAY SA	2010+57.95	24.66' L
171	TAXIWAY SA	2010+57.95	5.30' R
172	TAXIWAY SA	2010+41.45	5.32' R
173	TAXIWAY SA	2012+37.79	25.10' L
174	TAXIWAY SA	2012+67.66	25.17' L
175	TAXIWAY SA	2012+37.82	12.50' L
176	TAXIWAY SA	2012+67.72	12.57' L
177	TAXIWAY SA	2015+23.00	25.23' L
178	TAXIWAY SA	2016+12.64	25.27' L
179	TAXIWAY SA	2016+12.77	12.51' L
180	TAXIWAY SA	2015+22.92	12.52' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
181	TAXIWAY SA	2022+30.39	12.80' L
182	TAXIWAY SA	2022+55.42	12.82' L
183	TAXIWAY SA	2022+55.42	0.22' L
184	TAXIWAY SA	2022+30.35	0.28' L
185	TAXIWAY SF	4004+41.78	11.94' R
186	TAXIWAY SF	4004+41.83	0.97' L
187	TAXIWAY SF	4004+54.14	0.95' L
188	TAXIWAY SF	4004+54.09	11.93' R
189	TAXIWAY SF	4004+91.70	11.97' R
190	TAXIWAY SF	4004+91.66	13.06' L
191	TAXIWAY SF	4005+04.91	13.75' L
192	TAXIWAY SF	4005+16.77	0.84' L
193	TAXIWAY SF	4005+16.73	11.96' R
194	TAXIWAY SA	2010+41.44	65.41' R
195	TAXIWAY SA	2010+57.77	65.34' R
196	TAXIWAY SA	2010+41.44	76.19' R
197	TAXIWAY SA	2010+42.53	77.43' R
198	TAXIWAY SA	2010+58.91	69.01' R
199	TAXIWAY SB	1011+04.42	71.48' L
200	TAXIWAY SC	3002+57.12	84.27' R

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION POINT TABLES I

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C02.13

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\04 - Demolition\Sheet Files\0646002.13.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

GARVER
TBPE Registration No. F-5713

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
201	TAXIWAY SC	3002+57.74	63.94' R
202	TAXIWAY SC	3002+56.71	50.94' R
203	TAXIWAY SC	3005+48.20	50.00' R
204	TAXIWAY SB	1005+31.51	59.38' R
205	TAXIWAY SB	1006+30.38	34.24' R
206	TAXIWAY SB	1006+65.51	12.29' R
207	TAXIWAY SB	1007+03.52	21.64' L
208	TAXIWAY SC	3005+30.84	84.58' R
209	TAXIWAY SC	3009+17.17	405.12' R
210	TAXIWAY SC	3009+40.12	357.21' R
211	TAXIWAY SA	2005+99.97	81.04' L
212	TAXIWAY SA	2005+99.56	19.34' R
213	TAXIWAY SA	2007+72.57	121.12' R
214	TAXIWAY SC	3002+57.42	51.97' L
215	TAXIWAY SC	3003+80.97	51.00' L
216	TAXIWAY SC	3005+59.92	76.26' L
217	TAXIWAY SB	1019+80.60	77.00' L
218	TAXIWAY SF	4005+61.13	76.00' R
219	TAXIWAY SF	4003+88.49	51.00' R
220	TAXIWAY SF	4002+55.03	51.32' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
221	TAXIWAY SF	4002+55.32	84.64' R
222	TAXIWAY SF	4003+87.45	84.99' R
223	TAXIWAY SF	4005+03.35	84.54' R
224	TAXIWAY SF	4005+31.56	86.84' R
225	TAXIWAY SF	4005+72.58	95.41' R
226	TAXIWAY SB	1019+94.50	96.69' L
227	TAXIWAY SB	1019+27.04	81.77' L
228	TAXIWAY SB	1017+12.41	51.68' L
229	TAXIWAY SB	1013+29.02	52.37' L
230	TAXIWAY SB	1010+98.55	87.23' L
231	TAXIWAY SB	1010+59.47	97.14' L
232	TAXIWAY SC	3005+84.06	101.51' L
233	TAXIWAY SC	3005+61.99	92.05' L
234	TAXIWAY SC	3005+04.86	89.67' L
235	TAXIWAY SC	3004+16.97	86.40' L
236	TAXIWAY SC	3002+55.41	84.50' L
237	TAXIWAY SC	3002+57.61	58.28' L
238	TAXIWAY SF	4002+55.03	52.49' L
239	TAXIWAY SF	4003+78.39	51.00' L
240	TAXIWAY SF	4005+61.18	77.50' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
241	TAXIWAY SF	4006+02.32	96.94' L
242	TAXIWAY SB	1022+54.56	76.50' L
243	TAXIWAY SA	2110+06.78	125.59' R
244	TAXIWAY SA	2111+86.04	19.98' R
245	TAXIWAY SB	1111+87.54	139.63' R
246	TAXIWAY SB	1111+83.70	130.09' R
247	TAXIWAY SB	1111+72.30	120.75' R
248	TAXIWAY SB	1109+38.15	13.91' L
249	TAXIWAY SB	1109+28.79	20.30' L
250	TAXIWAY SB	1108+65.53	43.97' L
251	TAXIWAY SB	1108+23.44	58.56' L
252	TAXIWAY SB	1107+98.23	63.47' L
253	TAXIWAY SB	1107+54.90	65.12' L
254	TAXIWAY SB	1107+24.19	63.23' L
255	TAXIWAY SB	1107+02.35	60.30' L
256	TAXIWAY SB	1104+82.98	53.39' L
257	TAXIWAY SB	1103+46.36	52.95' L
258	TAXIWAY SB	1087+27.59	52.21' L
259	TAXIWAY SB	1072+05.89	52.22' L
260	TAXIWAY SB	1054+28.13	52.52' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
261	TAXIWAY SB	1039+65.68	51.88' L
262	TAXIWAY SB	1025+30.98	51.06' L
263	TAXIWAY SB	1024+95.66	55.42' L
264	TAXIWAY SB	1023+90.25	69.68' L
265	TAXIWAY SB	1022+59.75	89.20' L
266	TAXIWAY SF	4006+00.62	118.14' L
267	TAXIWAY SF	4005+80.68	99.39' L
268	TAXIWAY SF	4005+43.70	89.68' L
269	TAXIWAY SF	4004+99.61	85.07' L
270	TAXIWAY SF	4002+56.01	85.71' L
271	TAXIWAY SC	3009+07.47	94.24' L
272	TAXIWAY SC	3008+81.70	92.06' L
273	TAXIWAY SC	3008+49.55	95.18' L
274	TAXIWAY SC	3008+21.03	106.21' L
275	TAXIWAY SB	1010+63.93	101.15' R
276	TAXIWAY SB	1011+13.99	90.00' R
277	TAXIWAY SB	1012+77.24	63.76' R
278	TAXIWAY SB	1014+24.59	55.10' R
279	TAXIWAY SB	1016+05.60	54.84' R
280	TAXIWAY SB	1017+67.85	62.48' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
281	TAXIWAY SB	1019+11.64	84.77' R
282	TAXIWAY SB	1019+46.74	90.34' R
283	TAXIWAY SB	1019+92.41	101.31' R
284	TAXIWAY SF	4008+17.60	105.26' R
285	TAXIWAY SF	4008+46.37	94.30' R
286	TAXIWAY SF	4008+84.21	91.55' R
287	TAXIWAY SF	4009+16.82	96.28' R
288	TAXIWAY SF	4009+50.97	112.60' R
289	TAXIWAY SA	2019+80.33	96.08' L
290	TAXIWAY SA	2017+78.70	62.87' L
291	TAXIWAY SA	2016+17.16	54.02' L
292	TAXIWAY SA	2014+64.02	53.25' L
293	TAXIWAY SA	2013+00.58	61.60' L
294	TAXIWAY SA	2012+81.21	63.25' L
295	TAXIWAY SA	2012+62.22	66.16' L
296	TAXIWAY SA	2010+84.65	95.98' L
297	TAXIWAY SC	3009+52.22	115.82' L
298	TAXIWAY SC	3009+40.62	105.33' L
299	TAXIWAY SC	3009+31.28	100.49' L
300	TAXIWAY SB	1019+77.49	80.58' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
301	TAXIWAY SF	4007+97.83	102.51' R
302	TAXIWAY SF	4008+33.54	82.00' R
303	TAXIWAY SF	4008+70.18	75.96' R
304	TAXIWAY SF	4009+24.66	81.50' R
305	TAXIWAY SF	4009+59.93	101.06' R
306	TAXIWAY SA	2019+80.31	81.50' L
307	TAXIWAY SA	2017+77.46	47.50' L
308	TAXIWAY SA	2016+09.22	37.50' L
309	TAXIWAY SA	2014+59.42	37.75' L
310	TAXIWAY SA	2012+75.98	48.75' L
311	TAXIWAY SA	2010+73.81	82.00' L
312	TAXIWAY SC	3009+62.32	102.50' L
313	TAXIWAY SC	3009+31.19	82.57' L
314	TAXIWAY SC	3008+99.96	74.50' L
315	TAXIWAY SC	3008+71.33	75.00' L
316	TAXIWAY SC	3008+33.83	82.25' L
317	TAXIWAY SF	4008+98.45	91.39' L
318	TAXIWAY SF	4008+44.16	94.11' L
319	TAXIWAY SF	4008+13.56	108.15' L
320	TAXIWAY SF	4007+96.14	139.75' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
321	TAXIWAY SB	1024+59.26	63.09' R
322	TAXIWAY SB	1026+30.38	52.50' R
323	TAXIWAY SB	1036+06.48	52.95' R
324	TAXIWAY SB	1037+17.27	52.36' R
325	TAXIWAY SB	1037+17.63	58.97' R
326	TAXIWAY SB	1037+39.13	59.81' R
327	TAXIWAY SB	1037+39.47	52.43' R
328	TAXIWAY SB	1037+96.18	64.74' R
329	TAXIWAY SB	1039+80.96	92.83' R
330	TAXIWAY SG	5001+05.39	118.54' R
331	TAXIWAY SG	5001+20.29	105.54' R
332	TAXIWAY SG	5001+55.51	92.53' R
333	TAXIWAY SG	5001+82.62	89.19' R
334	TAXIWAY SG	5002+21.70	96.07' R
335	TAXIWAY SG	5002+49.78	113.61' R
336	TAXIWAY SG	5002+64.31	138.53' R
337	TAXIWAY SA	2038+07.80	65.13' L
338	TAXIWAY SA	2037+42.30	59.78' L
339	TAXIWAY SA	2037+41.92	52.55' L
340	TAXIWAY SA	2037+20.73	52.34' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
341	TAXIWAY SA	2037+20.73	59.43' L
342	TAXIWAY SA	2035+86.23	52.82' L
343	TAXIWAY SA	2026+71.58	52.20' L
344	TAXIWAY SA	2024+98.78	59.83' L
345	TAXIWAY SA	2024+79.13	60.60' L
346	TAXIWAY SA	2024+43.88	65.19' L
347	TAXIWAY SA	2022+50.95	97.98' L
348	TAXIWAY SF	4009+46.67	110.46' L
349	TAXIWAY SF	4009+24.07	98.00' L
350	TAXIWAY SF	4008+78.68	76.00' L
351	TAXIWAY SF	4008+37.82	80.97' L
352	TAXIWAY SF	4008+00.98	100.17' L
353	TAXIWAY SF	4007+81.31	136.76' L
354	TAXIWAY SA	2022+55.40	82.32' L
355	TAXIWAY SF	4009+58.80	100.87' L
356	TAXIWAY SF	4009+21.62	81.50' L
357	TAXIWAY SG	5002+25.24	97.70' L
358	TAXIWAY SG	5001+92.37	90.12' L
359	TAXIWAY SG	5001+65.52	90.17' L
360	TAXIWAY SG	5001+19.73	105.44' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
361	TAXIWAY SG	5001+05.86	117.63' L
362	TAXIWAY SB	1042+97.11	92.54' R
363	TAXIWAY SB	1044+67.72	64.27' R
364	TAXIWAY SB	1046+56.75	53.48' R
365	TAXIWAY SB	1070+48.01	52.07' R
366	TAXIWAY SB	1071+13.72	52.37' R
367	TAXIWAY SB	1073+00.66	62.18' R
368	TAXIWAY SB	1074+88.23	92.04' R
369	TAXIWAY SB	1075+24.66	101.17' R
370	TAXIWAY SH	6001+14.35	106.62' R
371	TAXIWAY SH	6001+46.96	93.96' R
372	TAXIWAY SH	6001+71.71	88.25' R
373	TAXIWAY SH	6002+02.85	89.86' R
374	TAXIWAY SH	6002+30.35	97.32' R
375	TAXIWAY SH	6002+61.35	129.69' R
376	TAXIWAY SA	2074+64.10	87.37' L
377	TAXIWAY SA	2073+13.66	62.54' L
378	TAXIWAY SA	2071+30.38	52.65' L
379	TAXIWAY SA	2046+39.43	53.96' L
380	TAXIWAY SA	2044+66.32	64.06' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
381	TAXIWAY SA	2042+94.99	93.17' L
382	TAXIWAY SA	2042+64.66	100.28' L
383	TAXIWAY SH	6002+13.99	94.81' L
384	TAXIWAY SH	6001+65.49	89.59' L
385	TAXIWAY SH	6001+20.97	105.11' L
386	TAXIWAY SB	1078+09.31	93.04' R
387	TAXIWAY SB	1079+91.81	62.99' R
388	TAXIWAY SB	1081+84.35	52.69' R
389	TAXIWAY SB	1091+09.77	51.94' R
390	TAXIWAY SB	1092+94.16	61.94' R
391	TAXIWAY SB	1095+01.38	94.52' R
392	TAXIWAY SJ	7001+15.42	107.48' R
393	TAXIWAY SJ	7001+61.25	90.14' R
394	TAXIWAY SJ	7002+07.42	91.74' R
395	TAXIWAY SJ	7002+41.18	106.71' R
396	TAXIWAY SA	2095+11.40	96.49' L
397	TAXIWAY SA	2093+11.87	62.97' L
398	TAXIWAY SA	2091+05.17	52.46' L
399	TAXIWAY SA	2081+67.66	53.06' L
400	TAXIWAY SA	2079+98.77	61.78' L

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION POINT TABLES II

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. C02.14

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GARVER
TBPE Registration No. F-5713

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
401	TAXIWAY SA	2078+09.30	92.17' L
402	TAXIWAY SH	6002+56.04	121.55' L
403	TAXIWAY SJ	7002+27.59	97.07' L
404	TAXIWAY SJ	7001+73.89	87.80' L
405	TAXIWAY SJ	7001+23.21	103.09' L
406	TAXIWAY SB	1097+84.10	97.39' R
407	TAXIWAY SB	1099+94.27	62.86' R
408	TAXIWAY SB	1101+94.27	52.32' R
409	TAXIWAY SB	1103+48.36	53.70' R
410	TAXIWAY SB	1105+04.15	62.73' R
411	TAXIWAY SB	1106+94.80	93.24' R
412	TAXIWAY SK	8001+11.87	109.56' R
413	TAXIWAY SK	8001+70.16	88.74' R
414	TAXIWAY SK	8002+18.86	93.79' R
415	TAXIWAY SK	8002+54.85	115.95' R
416	TAXIWAY SA	2106+58.54	86.26' L
417	TAXIWAY SA	2105+05.86	62.46' L
418	TAXIWAY SA	2103+36.45	52.66' L
419	TAXIWAY SA	2101+52.02	52.86' L
420	TAXIWAY SA	2099+93.48	62.49' L

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
421	TAXIWAY SA	2097+88.58	96.53' L
422	TAXIWAY SJ	7002+44.56	109.18' L
423	TAXIWAY SA	2010+38.59	103.00' R
424	TAXIWAY SA	2010+28.29	92.50' R
425	TAXIWAY SA	2010+41.32	79.83' R
426	TAXIWAY SA	2010+57.68	70.41' R
427	TAXIWAY SA	2010+76.00	65.75' R
428	TAXIWAY SA	2013+27.72	37.75' R
429	TAXIWAY SA	2020+02.18	37.50' R
430	TAXIWAY SA	2021+80.95	60.03' R
431	TAXIWAY SA	2023+49.57	123.53' R
432	TAXIWAY SA	2023+42.18	137.19' R
433	TAXIWAY SA	2022+02.11	82.26' R
434	TAXIWAY SA	2020+41.90	55.22' R
435	TAXIWAY SA	2013+34.99	52.35' R
436	TAXIWAY SA	2010+82.55	80.79' R
437	TAXIWAY SA	2010+57.98	86.92' R
438	TAXIWAY SA	2024+52.52	55.35' R
439	TAXIWAY SA	2024+60.89	81.86' R
440	TAXIWAY SA	2024+90.97	99.46' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
441	TAXIWAY SA	2024+98.15	87.18' R
442	TAXIWAY SA	2024+72.45	71.71' R
443	TAXIWAY SA	2024+68.60	59.65' R
444	TAXIWAY SA	2024+78.58	51.57' R
445	TAXIWAY SA	2040+10.09	51.48' R
446	TAXIWAY SA	2040+15.66	52.09' R
447	TAXIWAY SA	2040+69.91	53.14' R
448	TAXIWAY SA	2040+97.46	55.19' R
449	TAXIWAY SA	2041+46.25	64.59' R
450	TAXIWAY SA	2042+08.93	80.23' R
451	TAXIWAY SA	2042+42.83	90.32' R
452	TAXIWAY SA	2042+98.90	110.82' R
453	TAXIWAY SA	2043+36.63	126.61' R
454	TAXIWAY SA	2043+58.53	137.69' R
455	TAXIWAY SA	2043+66.20	123.38' R
456	TAXIWAY SA	2043+37.31	109.14' R
457	TAXIWAY SA	2042+80.84	85.98' R
458	TAXIWAY SA	2044+78.27	82.59' R
459	TAXIWAY SA	2045+08.57	99.05' R
460	TAXIWAY SA	2045+15.58	86.67' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
461	TAXIWAY SA	2044+91.07	72.56' R
462	TAXIWAY SA	2044+82.92	63.93' R
463	TAXIWAY SA	2044+86.79	55.08' R
464	TAXIWAY SA	2045+08.45	51.88' R
465	TAXIWAY SA	2045+52.05	52.09' R
466	TAXIWAY SA	2072+95.80	52.33' R
467	TAXIWAY SA	2073+02.58	61.98' R
468	TAXIWAY SA	2072+99.69	70.29' R
469	TAXIWAY SA	2072+70.68	86.35' R
470	TAXIWAY SA	2072+78.16	99.52' R
471	TAXIWAY SA	2073+07.58	82.91' R
472	TAXIWAY SA	2074+34.41	115.98' R
473	TAXIWAY SA	2074+20.59	122.90' R
474	TAXIWAY SA	2074+27.62	136.93' R
475	TAXIWAY SA	2075+00.04	104.52' R
476	TAXIWAY SA	2075+82.72	77.88' R
477	TAXIWAY SA	2076+66.07	60.14' R
478	TAXIWAY SA	2077+47.73	54.19' R
479	TAXIWAY SA	2078+42.78	53.07' R
480	TAXIWAY SA	2092+87.85	52.51' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
481	TAXIWAY SA	2092+95.77	55.74' R
482	TAXIWAY SA	2092+98.26	66.99' R
483	TAXIWAY SA	2092+96.11	72.79' R
484	TAXIWAY SA	2092+91.18	76.13' R
485	TAXIWAY SA	2092+70.50	87.41' R
486	TAXIWAY SA	2092+77.17	99.64' R
487	TAXIWAY SA	2092+85.00	95.09' R
488	TAXIWAY SA	2094+38.27	114.56' R
489	TAXIWAY SA	2094+21.90	123.02' R
490	TAXIWAY SA	2094+28.37	135.51' R
491	TAXIWAY SA	2094+80.86	111.72' R
492	TAXIWAY SA	2095+55.18	84.10' R
493	TAXIWAY SA	2096+48.40	60.96' R
494	TAXIWAY SA	2097+45.66	53.14' R
495	TAXIWAY SA	2098+37.38	51.65' R
496	TAXIWAY SA	2104+49.04	53.21' R
497	TAXIWAY SA	2106+80.28	77.71' R
498	TAXIWAY SA	2107+16.00	84.15' R
499	TAXIWAY SA	2107+50.55	106.15' R
500	TAXIWAY SA	2007+89.32	92.42' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
501	TAXIWAY SB	1034+25.97	51.86' L
502	TAXIWAY SB	1034+30.84	60.58' L
503	TAXIWAY SB	1034+30.85	67.50' L
504	TAXIWAY SB	1034+67.60	67.50' L
505	TAXIWAY SB	1034+67.93	61.36' L
506	TAXIWAY SB	1034+70.17	52.23' L
507	TAXIWAY SB	1041+51.33	52.39' L
508	TAXIWAY SB	1041+56.47	60.07' L
509	TAXIWAY SB	1041+56.97	67.19' L
510	TAXIWAY SB	1041+56.93	115.80' L
511	TAXIWAY SB	1041+84.46	116.96' L
512	TAXIWAY SB	1041+84.49	67.22' L
513	TAXIWAY SB	1041+85.74	59.36' L
514	TAXIWAY SB	1041+90.71	52.29' L
515	TAXIWAY SA	2092+92.72	108.45' R
516	TAXIWAY SA	2093+18.80	93.44' R
517	TAXIWAY SA	2093+26.58	106.33' R
518	TAXIWAY SA	2093+39.04	98.77' R
519	TAXIWAY SA	2093+31.67	85.89' R
520	TAXIWAY SA	2093+44.71	78.35' R

DEMO POINT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
521	TAXIWAY SA	2093+44.56	74.74' R
522	TAXIWAY SA	2007+95.11	95.75' R
523	TAXIWAY SA	2083+79.02	37.50' R
524	TAXIWAY SA	2063+84.47	37.67' R
525	TAXIWAY SA	2071+47.70	151.35' R
526	TAXIWAY SA	2070+18.46	206.41' R
527	TAXIWAY SA	2070+10.85	207.84' R
528	TAXIWAY SA	2069+51.69	210.64' R
529	TAXIWAY SA	2069+62.55	243.09' R
530	TAXIWAY SA	2070+19.98	222.81' R
531	TAXIWAY SA	2071+52.69	165.62' R
532	TAXIWAY SA	2091+58.05	146.65' R
533	TAXIWAY SA	2090+21.23	206.86' R
534	TAXIWAY SA	2090+14.78	207.78' R
535	TAXIWAY SA	2089+51.12	210.48' R
536	TAXIWAY SA	2089+63.01	244.02' R
537	TAXIWAY SA	2090+34.08	216.99' R
538	TAXIWAY SA	2091+52.04	165.32' R

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HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DEMOLITION POINT TABLES III

PROJECT MGR:	WB
DESIGNER:	WB
DRAWN BY:	CB
CHECK BY:	DN
SCALE:	1"=50'
DATE:	11/02/2023

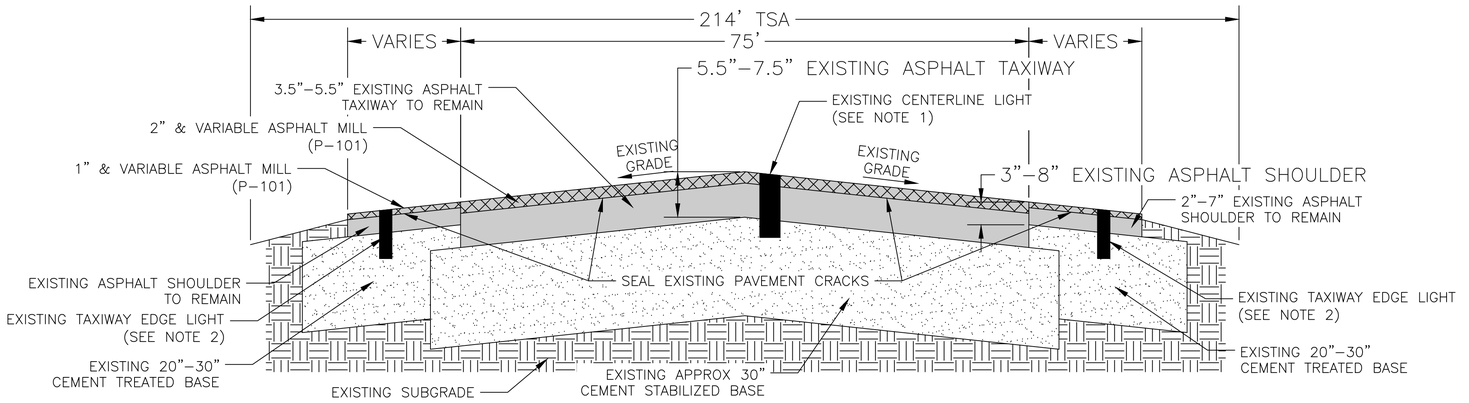
Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

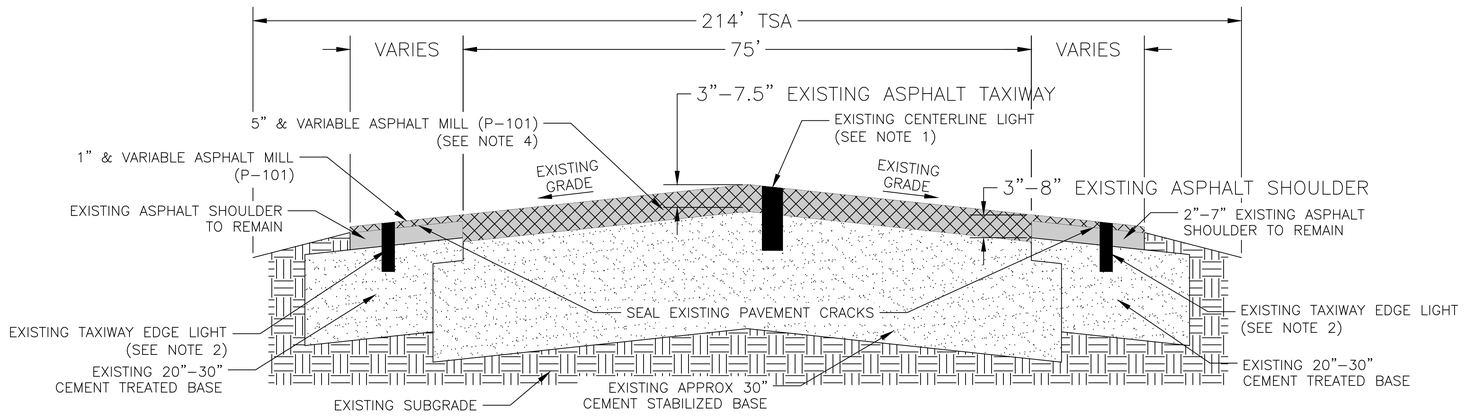
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C02.15



1 C03.01 EXISTING TAXIWAY TYPICAL SECTION A
SCALE: NONE

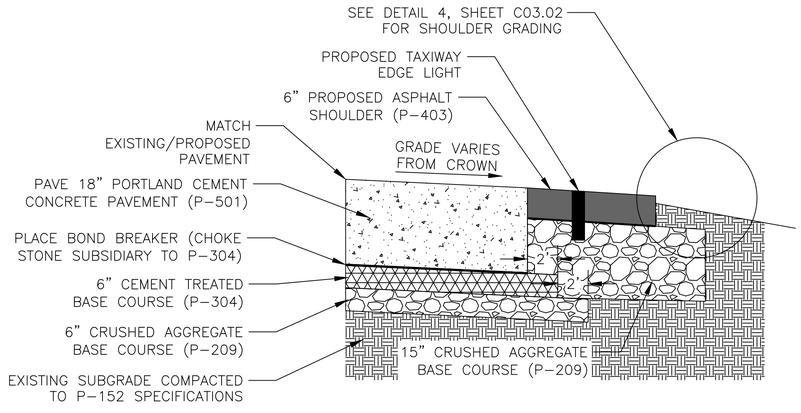


2 C03.01 EXISTING TAXIWAY TYPICAL SECTION B
SCALE: NONE

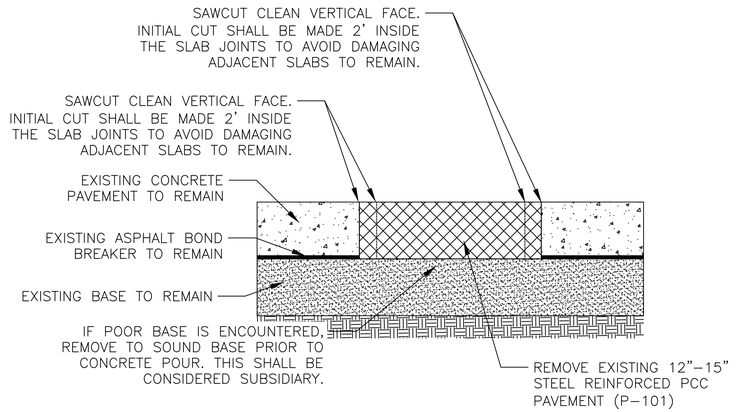
NOTES:
1. EXISTING CENTERLINE LIGHT CAN TOP SECTION TO BE REMOVED PRIOR TO MILLING OPERATIONS. COVER REMAINING BASE WITH MUD CAP TO PRESERVE LIGHT CAN.
2. EXISTING TAXIWAY EDGE LIGHT CAN TOP SECTION TO BE REMOVED PRIOR TO MILLING OPERATIONS. COVER REMAINING BASE WITH MUD CAP TO PRESERVE LIGHT CAN.
3. CONTRACTOR MAY PROPOSE ALTERNATIVE, BUT WILL NOT PROCEED WITHOUT ENGINEER APPROVAL.
4. UNIFORM 5" MILL MAY REMOVE BASE MATERIAL IN SOME SECTIONS WHERE ASPHALT THICKNESS IS LESS THAN 5". THIS BASE MATERIAL REMOVAL WILL BE CONSIDERED SUBSIDIARY TO P–101 ASPHALT REMOVAL PAY ITEM.

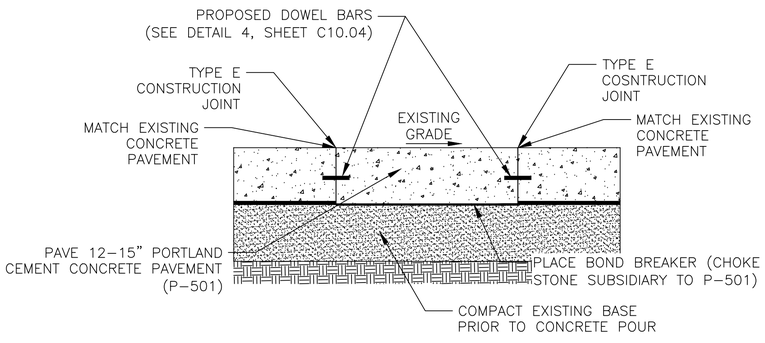
TAXIWAY	BASE BID	ADDITIVE ALTERNATE #2	
	76-22	82-22	76-22
SA	ALL STATIONS	STA 2040+00 to 2044+00 STA 2067+00 to 2080+00 STA 2087+00 to 2100+00	ALL OTHER STATIONS
SB	ALL STATIONS	ALL STATIONS	ALL STATIONS
SG	ALL STATIONS	STA 5001+00 to 5003+61	STA 5000+00 to 5001+00
SH	ALL STATIONS	STA 6001+00 to 6003+60	STA 6000+00 to 6001+00
SJ	ALL STATIONS	STA 7001+00 to 7003+60	STA 7000+00 to 7001+00
SK	ALL STATIONS	ALL STATIONS	ALL STATIONS

TABLE 1: TAXIWAY ASPHALT PG RATING SCHEDULE

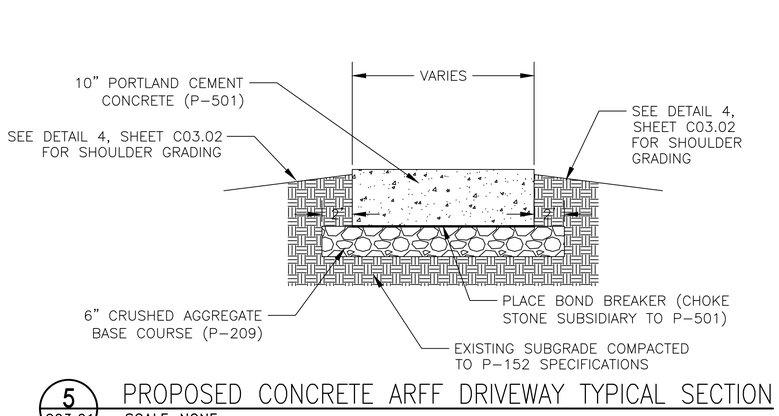


4 C03.01 PROPOSED CONCRETE TAXIWAY TYPICAL SECTION
SCALE: NONE





3 C03.01 PROPOSED CONCRETE SLAB REPLACEMENT TYPICAL SECTION
SCALE: NONE



5 C03.01 PROPOSED CONCRETE ARFF DRIVEWAY TYPICAL SECTION
SCALE: NONE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TYPICAL SECTIONS I

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1"
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C03.01

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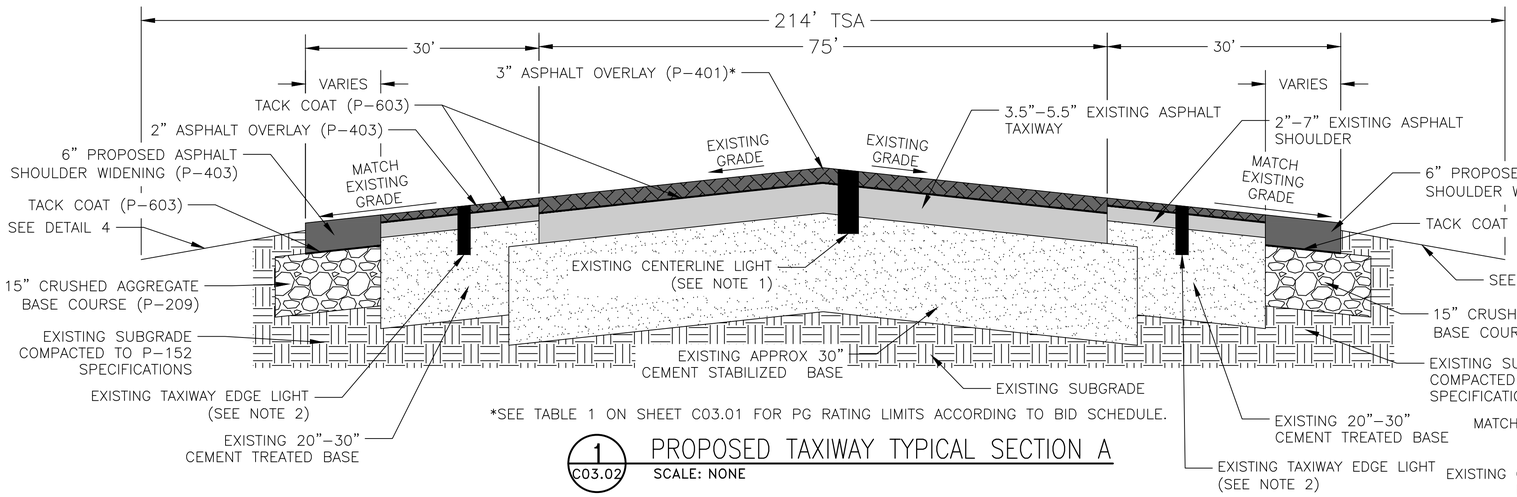
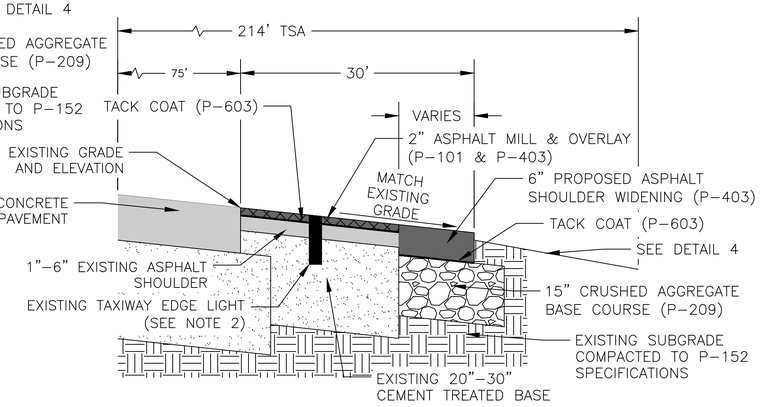


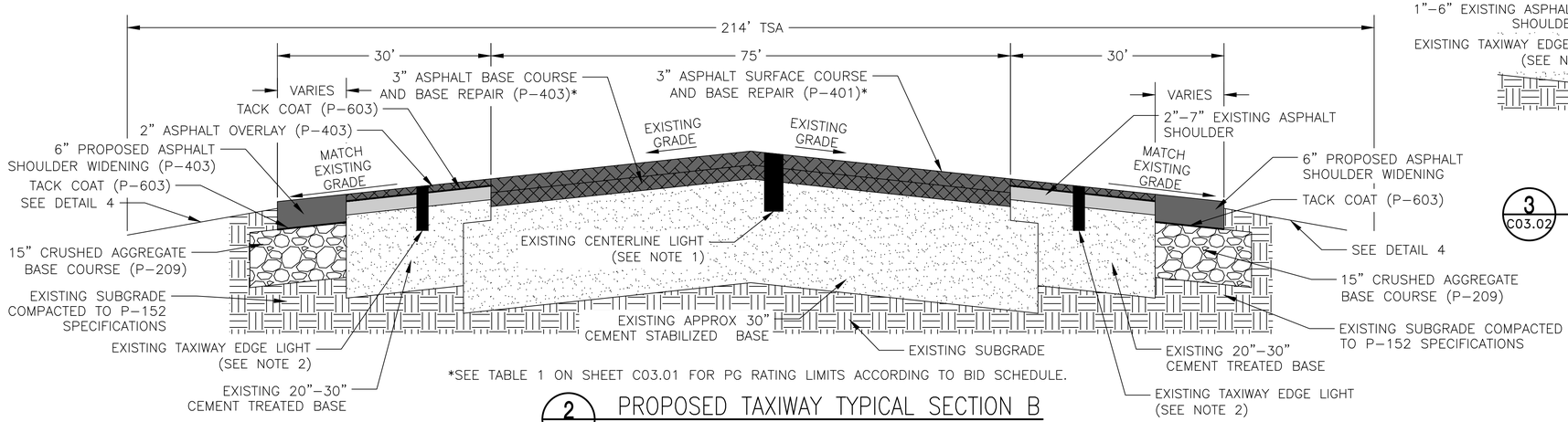
*SEE TABLE 1 ON SHEET C03.01 FOR PG RATING LIMITS ACCORDING TO BID SCHEDULE.

1 C03.02 PROPOSED TAXIWAY TYPICAL SECTION A
SCALE: NONE

NOTES:
1. EXISTING CENTERLINE LIGHT CAN TOP SECTION TO BE REPLACED AFTER PAVING OPERATIONS. ENSURE TOP OF CAN MATCHES PAVEMENT ELEVATION +0" TO -1/16".
2. EXISTING TAXIWAY EDGE LIGHT CAN TOP SECTION TO BE REPLACED AFTER PAVING OPERATIONS. ENSURE TOP OF CAN MATCHES PAVEMENT ELEVATION +0" TO -1/16". SEE ELECTRICAL PLANS AND DETAILS FOR ADDITIONAL NOTES.
3. CONRACTOR WILL PROPOSE MEANS & METHOD, BUT WILL NOT PROCEED WITHOUT ENGINEER APPROVAL.

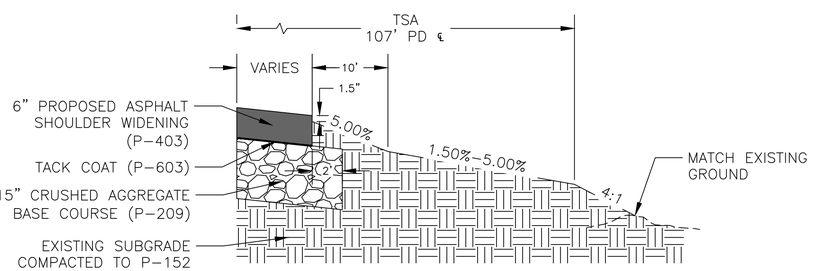


3 C03.02 PCC ADJACENT - FULL DEPTH ASPHALT SHOULDER WIDENING TYPICAL SECTION
SCALE: NONE

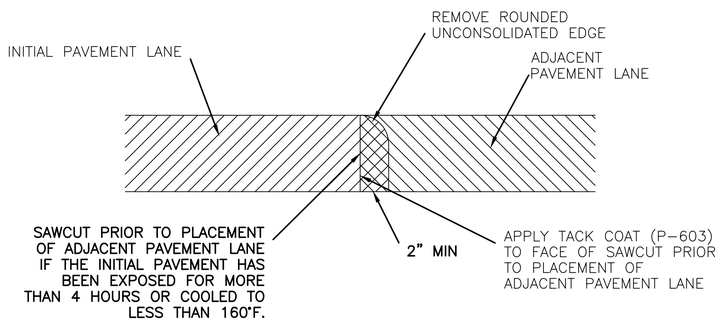


*SEE TABLE 1 ON SHEET C03.01 FOR PG RATING LIMITS ACCORDING TO BID SCHEDULE.

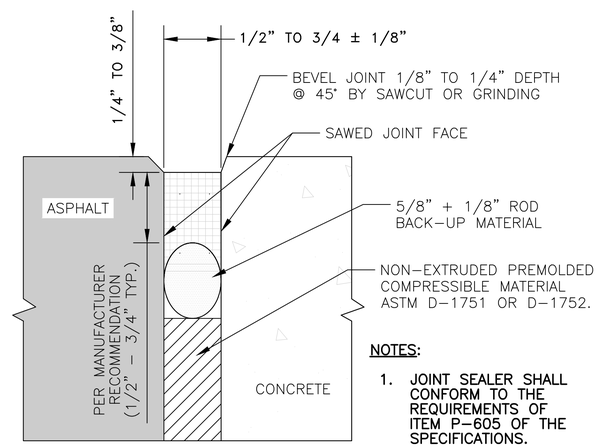
2 C03.02 PROPOSED TAXIWAY TYPICAL SECTION B
SCALE: NONE



4 C03.02 FULL DEPTH ASPHALT SHOULDER WIDENING GRADING DETAIL
SCALE: NONE



5 C03.02 ASPHALT LONGITUDINAL CONSTRUCTION JOINT DETAIL
SCALE: NONE



NOTES:
1. JOINT SEALER SHALL CONFORM TO THE REQUIREMENTS OF ITEM P-605 OF THE SPECIFICATIONS.

6 C03.02 ASPHALT CONCRETE JOINT DETAIL
SCALE: NONE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TYPICAL SECTIONS II

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1"
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C03.02

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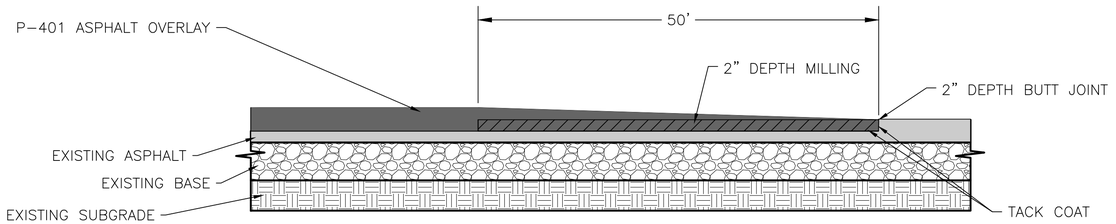
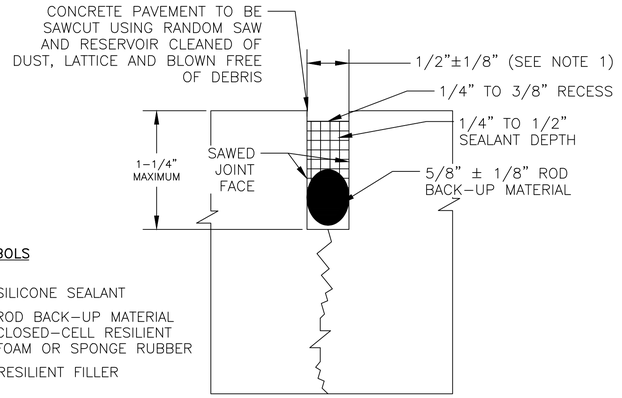


1 C03.03 TRANSITION FROM OVERLAY TO EXISTING PAVEMENT (BUTT JOINT) DETAIL

SCALE: NONE



NOTE:

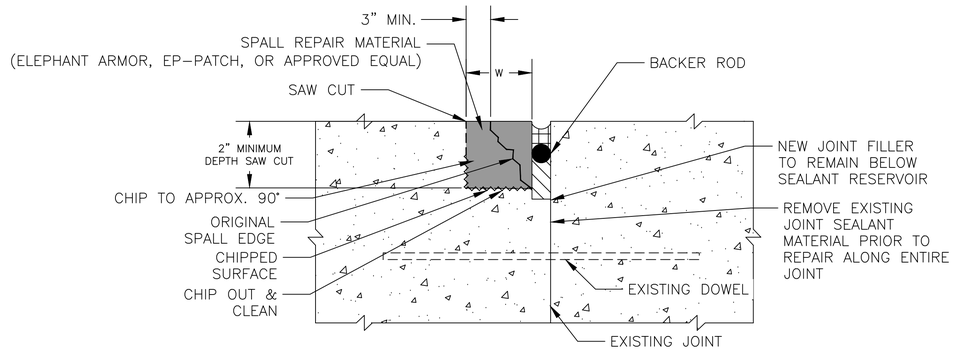
1. RPR SHALL APPROVE BACKER ROD MATERIAL INSTALLATION PRIOR TO PLACING SEALANT.
2. LOCATION OF REPAIR TO BE DETERMINED OR APPROVED BY THE RPR AND CLEARLY MARKED.

PAVEMENT CRACK REPAIR
SEQUENCE OF CONSTRUCTION

1. REMOVE EXISTING SEALANT, DEBRIS, OR LAITANCE FROM THE JOINTS AND CRACKS TO BE REPAIRED BY PLOWING OR USE OF HAND TOOLS (E.G. WIRE BRUSH)
2. IF NECESSARY, RE–SAW THE AFFECTED JOINTS AND CRACKS (MIN. WIDTH ⅜") TO FACILITATE SEALANT ADHESION TO SOUND JOINT FACES.
3. CLEAN THE AFFECTED JOINTS AND CRACKS WITH HIGH–PRESSURE WATER AND ALLOW TO COMPLETELY DRY.
4. IF RECOMMENDED BY THE SEALANT'S MANUFACTURER, INSTALL ROD BACK–UP MATERIAL (P–605) TO ACHIEVE A WIDTH TO DEPTH RATIO OF 2:1 IN THE ABOVE SEALANT RESERVOIR.
5. USING AN AIR COMPRESSOR WITH AND OIL AND WATER TRAP, CLEAN THE JOINTS AND CRACKS OF ALL REMAINING LAITANCE AND OTHER FOREIGN MATERIAL.
6. UNIFORMLY APPLY THE SILICONE SEALANT (P–605) FROM BOTTOM TO TOP ENSURING NO VOIDS OR ENTRAPPED AIR. THE SEALANT MUST BE FILLED TO A DEPTH ¼" TO ⅜" BELOW THE EXISTING PAVEMENT SURFACE.

2 C03.03 PCC PAVEMENT CRACK REPAIR

SCALE: NONE



NOTES:

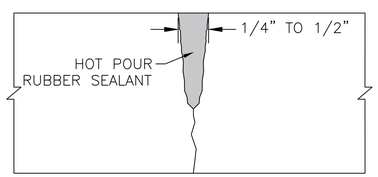
1. THIS REPAIR IS FOR ALL PARTIAL DEPTH FAILURES INCLUDING, JOINT SPALLS, JOINT SPALL PATCHES, AND UTILITY CUTS.
2. "W" INDICATES THE WIDTH OF THE LIMITS OF REPAIR.
3. LOCATION OF REPAIR TO BE DETERMINED AND CLEARLY MARKED BY THE CONTRACTOR AND APPROVED BY EOR (RPR).
4. ALL AREAS TO BE CLEAN OF LOOSE DEBRIS AND DUST PRIOR TO APPLICATION OF ELEPHANT ARMOR, EP–PATCH, OR APPROVED EQUAL, APPLIED PER MANUFACTURER'S RECOMMENDATIONS.
5. INSTALLED REPAIR MATERIAL AT THE EXISTING JOINT AREA SHALL NOT BE ALLOWED TO TOUCH OR BOND TO THE EXISTING CONCRETE.

3 C03.03 PCC PARTIAL DEPTH REPAIR

SCALE: NONE

PARTIAL DEPTH REPAIR
SEQUENCE OF CONSTRUCTION

1. SAW CUT APPROXIMATELY 3" OUTSIDE THE SPALLED PORTION OF THE PCC SLAB TO A MIN 2" DEPTH. WHERE ADJACENT REPAIR AREAS ARE LESS THAN 1.50' APART, COMBINE THEM INTO ONE.
2. USING AN AIR HAMMER OR APPROPRIATE PNEUMATIC TOOLS, BREAK OUT AND REMOVE THE UNSOUND CONCRETE MATERIAL AND 1/2" OF SOUND MATERIAL TO A 2" TOTAL MINIMUM DEPTH.
3. REMOVE THE EXISTING JOINT SEALANT MATERIAL AND CLEAN THE AREA WITH HIGH–PRESSURE WATER AND ALLOW IT TO COMPLETELY DRY.
4. USING PRIME COAT RECOMMENDED BY THE MANUFACTURER OF THE PATCH MATERIAL, CAREFULLY APPLY AND SCRUB (TO AVOID POOLING) PRIME COAT TO THE EXPOSED FACES OF THE CAVITY WITH THE EXCEPTION OF THE JOINT FACE.
5. PLACE A NON–ABOSRBENT BOARD IN THE JOINT GROOVE TO AVOID BONDING THE PATCH AND THE ADJACENT SLAB.
6. FILL THE CAVITY WITH A CONCRETE PATCH (ELEPHANT ARMOR, EP–PATCH, OR APPROVED EQUAL) AS RECOMMENDED BY THE MANUFACTURER AND VIBRATE OR TAMP THE NEW MIXTURE.
7. EDGE, MATCH THE GRADES AND TEXTURE OF THE ADJACENT SLABS, AND PROPERLY CURE THE PATCH.
8. REMOVE THE NON–ABSORBENT BOARD AND FILL THE JOINT WITH RESILIENT FILLER (P–605), BACKER ROD (P–605), AND SILICONE SEALANT (P–605). THE SEALANT MUST BE FILLED TO A DEPTH 1/4" TO 3/8" BELOW THE EXISTING PAVEMENT SURFACE.

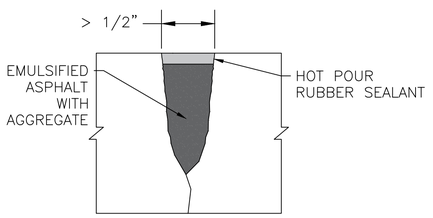


NOTES:

1. THOROUGHLY CLEAN AND BLOW OUT CRACK TO SOUND MATERIAL.
2. HOT LANCE CRACK.
3. FILL WITH HOT POUR RUBBER SEALANT.
5. OVERBAND IS NOT ALLOWED.
6. SPILLAGE OR OVER FILLING CRACKS AND JOINTS SHALL BE IMMEDIATELY CLEANED/REMOVED TO THE SATISFACTION OF THE ENGINEER OR THE CRACK OR JOINT SEAL SHALL BE REMOVED AND REDONE.

4 C03.03 ASPHALT LOW SEVERITY CRACK REPAIR DETAIL (1/4" TO 1/2")

SCALE: NONE



NOTES:

1. THOROUGHLY CLEAN AND BLOW OUT CRACK TO SOUND MATERIAL.
2. HOT LANCE CRACK.
3. FILL WITH EMULSIFIED ASPHALT WITH AGGREGATE UP TO 1/4" FROM THE SURFACE.
4. FILL REMAINING 1/4" WITH HOT POUR RUBBER SEALANT.
5. OVERBAND IS NOT ALLOWED.
6. SPILLAGE OR OVER FILLING CRACKS AND JOINTS SHALL BE IMMEDIATELY CLEANED/REMOVED TO THE SATISFACTION OF THE ENGINEER OR THE CRACK OR JOINT SEAL SHALL BE REMOVED AND REDONE.

5 C03.03 ASPHALT MODERATE SEVERITY CRACK REPAIR DETAIL (1/2" TO 1")

SCALE: NONE

HOUSTON AIRPORTS
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TYPICAL SECTIONS III

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1"
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C03.03

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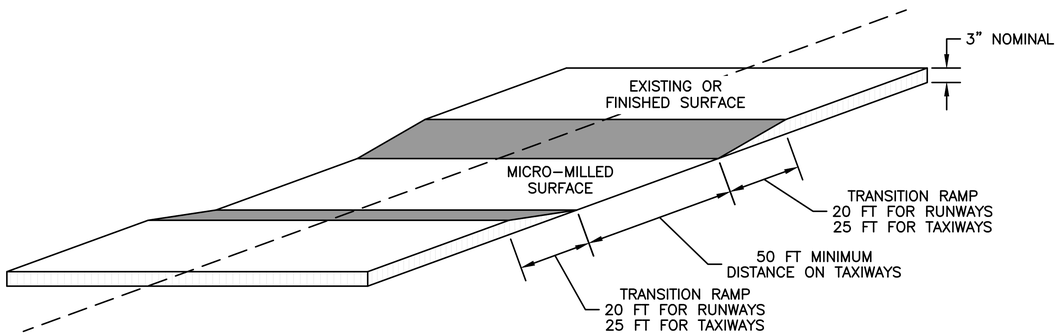
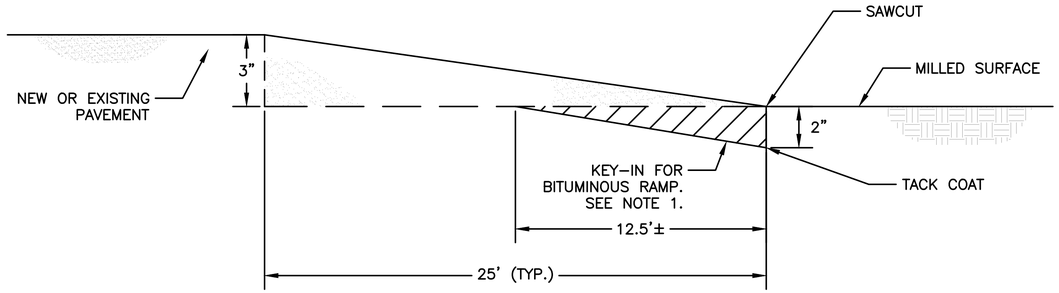


1 C03.04 **TEMPORARY BITUMINOUS TRANSITION RAMPS**
SCALE: NONE



NOTE:
1. KEY–IN REQUIRED WHEN BITUMOUS SURFACE COURSE IS USED FOR RAMP.

2 C03.04 **TAXIWAY PROFILE**
TEMPORARY BITUMINOUS TRANSITION RAMPS
SCALE: NONE

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TYPICAL SECTIONS IV

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1"
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A
A.I.P. NO.
XXXX
C.I.P. NO.
A-0515
H.A.S. NO.
20C0646A
SHEET NO.
C03.04

GARVER
TBPE Registration No. F-5713

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

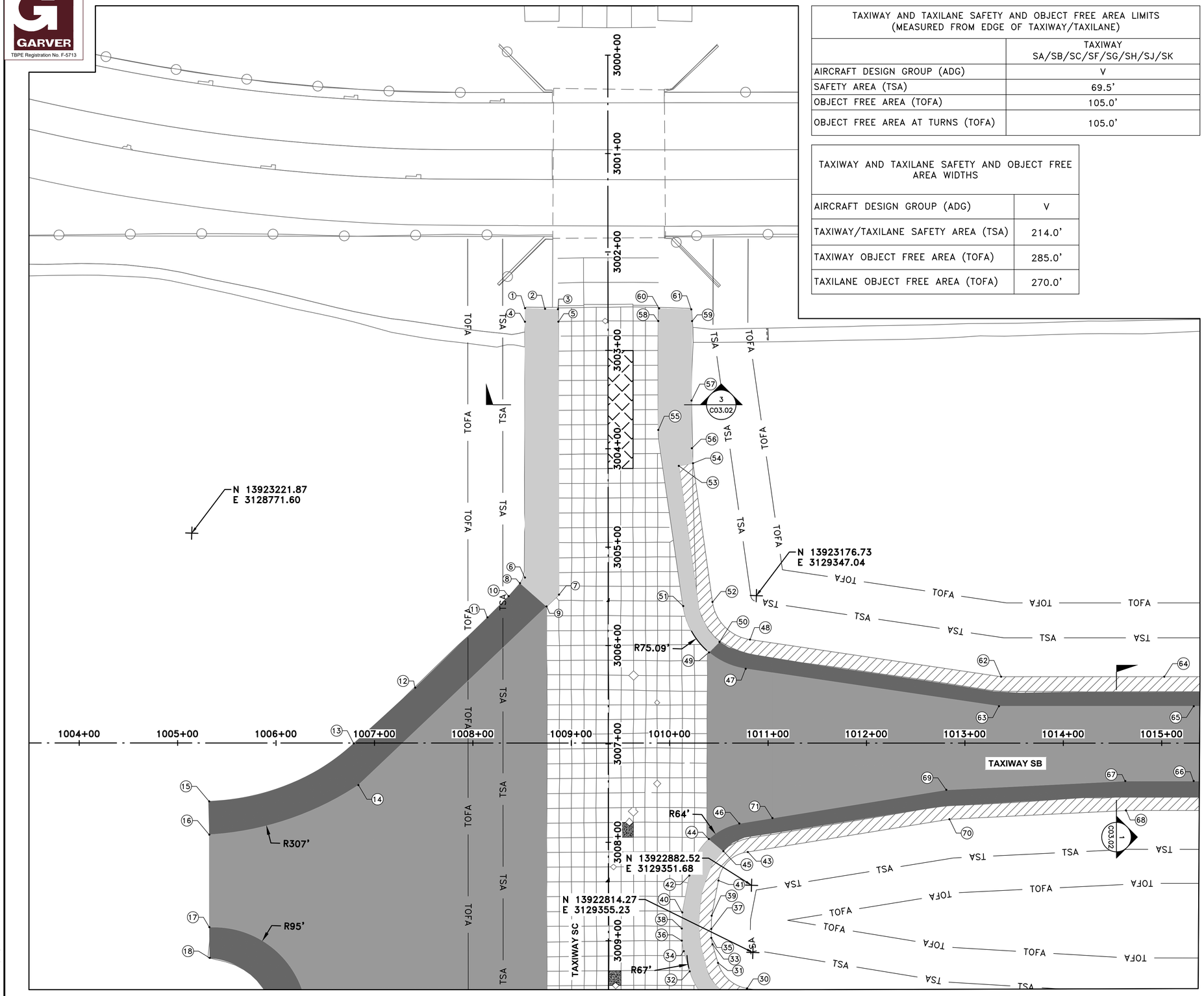
N

0 25' 50' 100' 150'
(IN FEET)

NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
3. MISCELLANEOUS PAVEMENT REPAIR LOCATIONS ARE APPROXIMATE. THE RPR SHALL APPROVE THE ACTUAL REPAIR LOCATIONS PRIOR TO THE WORK.
4. REFER TO TABLE 1 ON SHEET C03.01 FOR TAXIWAY ASPHALT PG RATING SCHEDULE ACCORDING TO BID AWARD.

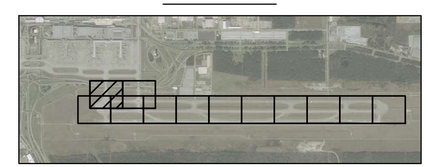
MATCHLINE SHEET C04.02



LEGEND

- PROPOSED CRACK, PATCH, AND PANEL REPAIR AREA (SEE NOTE 3)
- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



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BURNS McDONNELL
1700 West Loop South
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Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN I

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.01

GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C04.01

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

N

0 25' 50' 100' 150'
(IN FEET)

NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
3. MISCELLANEOUS PAVEMENT REPAIR LOCATIONS ARE APPROXIMATE. THE RPR SHALL APPROVE THE ACTUAL REPAIR LOCATIONS PRIOR TO THE WORK.
4. REFER TO TABLE 1 ON SHEET C03.01 FOR TAXIWAY ASPHALT PG RATING SCHEDULE ACCORDING TO BID AWARD.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
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- —TOFA— TAXIWAY OBJECT FREE AREA
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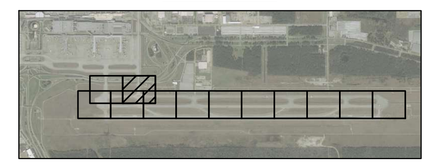
KEYMAP



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(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN II

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.02

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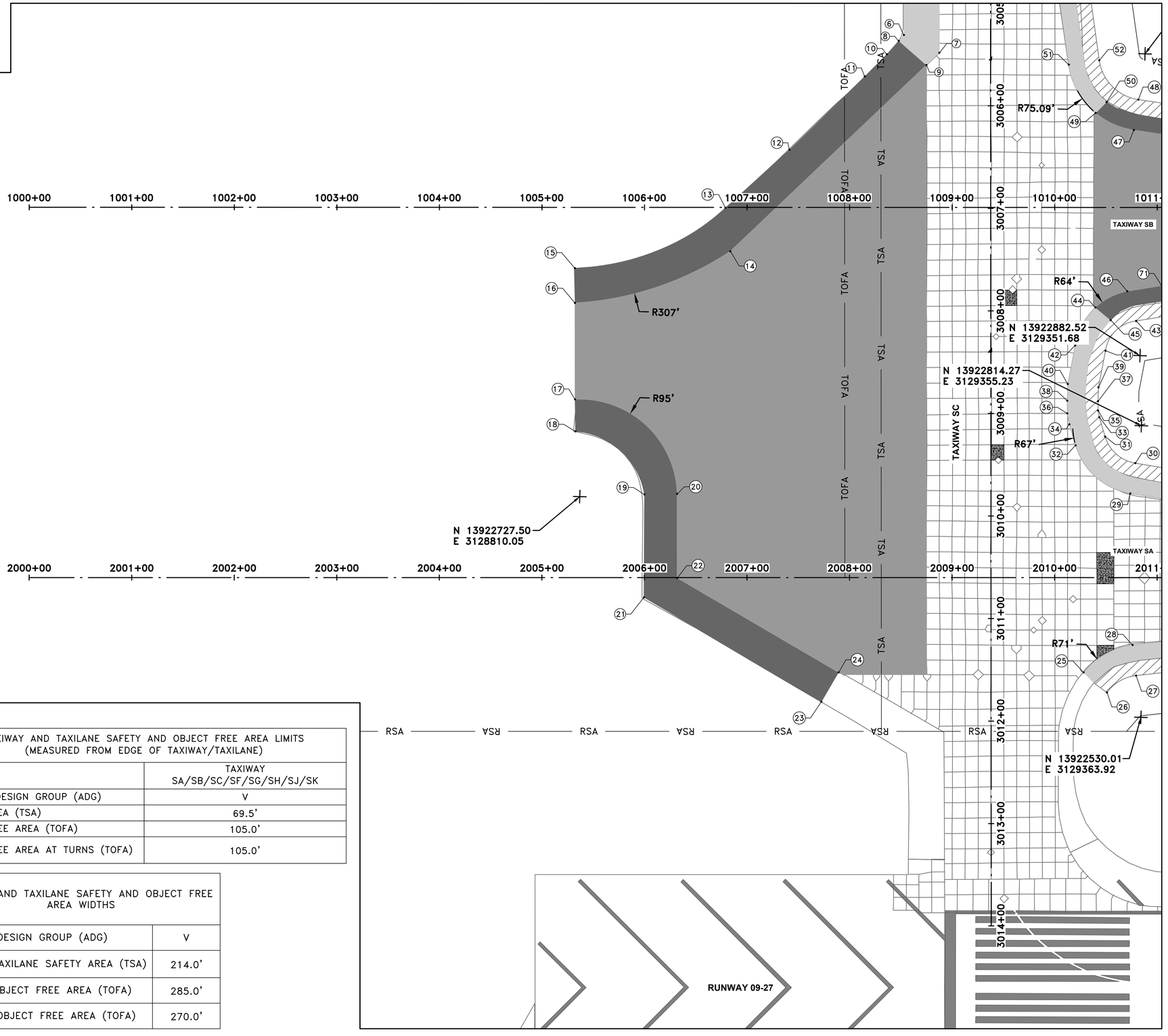
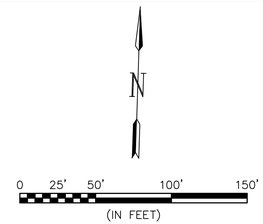
TBPE Registration No. F-5713



MATCHLINE SHEET C04.04



NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
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LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
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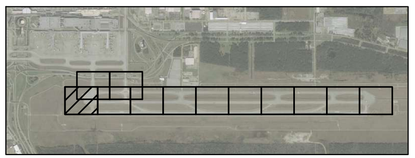
KEYMAP



TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
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TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
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HOUSTON AIRPORTS

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN III

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **C04.03**

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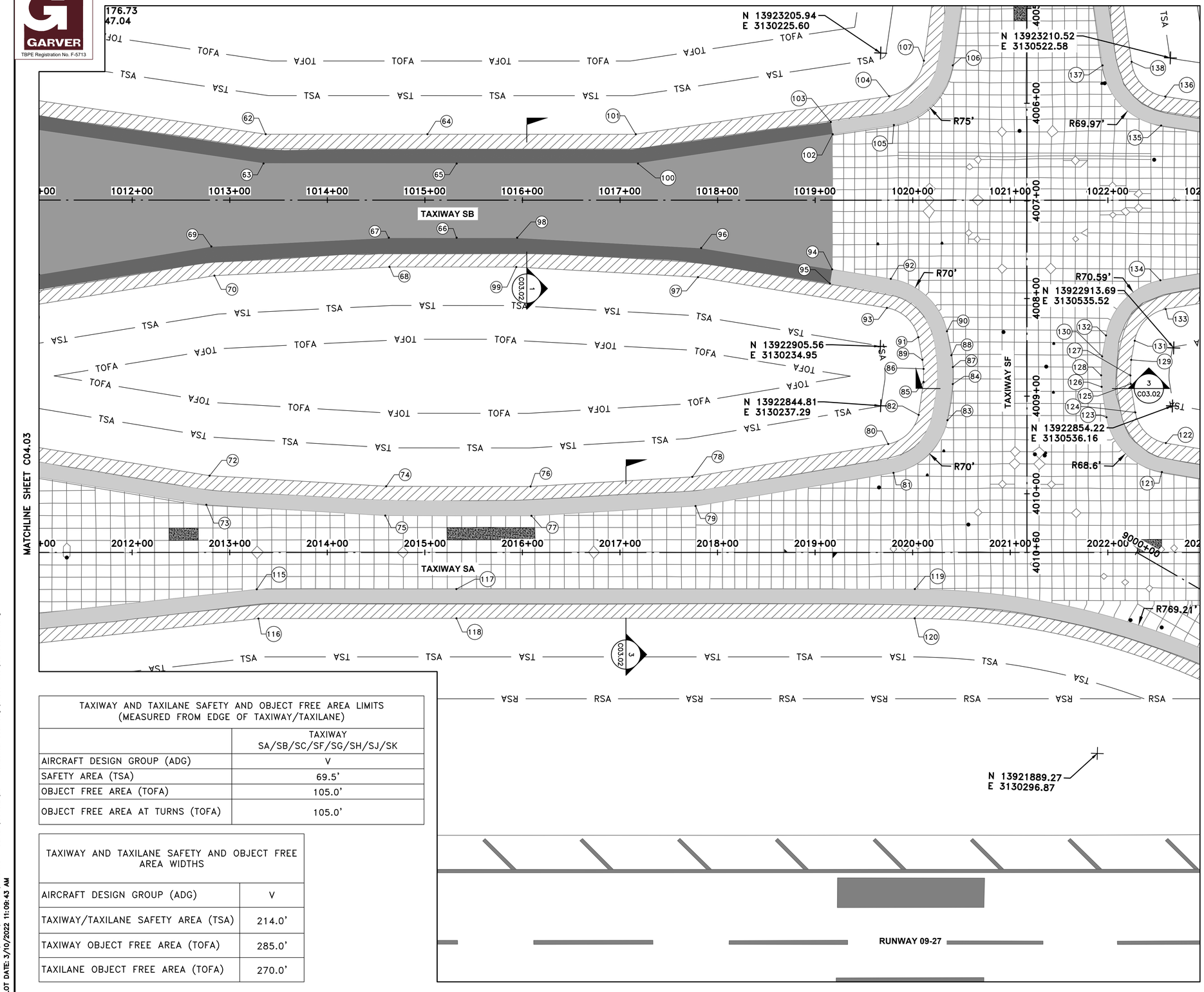
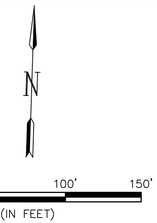
GARVER
TBPE Registration No. F-5713





NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
3. MISCELLANEOUS PAVEMENT REPAIR LOCATIONS ARE APPROXIMATE. THE RPR SHALL APPROVE THE ACTUAL REPAIR LOCATIONS PRIOR TO THE WORK.
4. REFER TO TABLE 1 ON SHEET C03.01 FOR TAXIWAY ASPHALT PG RATING SCHEDULE ACCORDING TO BID AWARD.

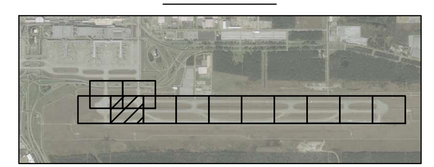
TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN IV

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.04

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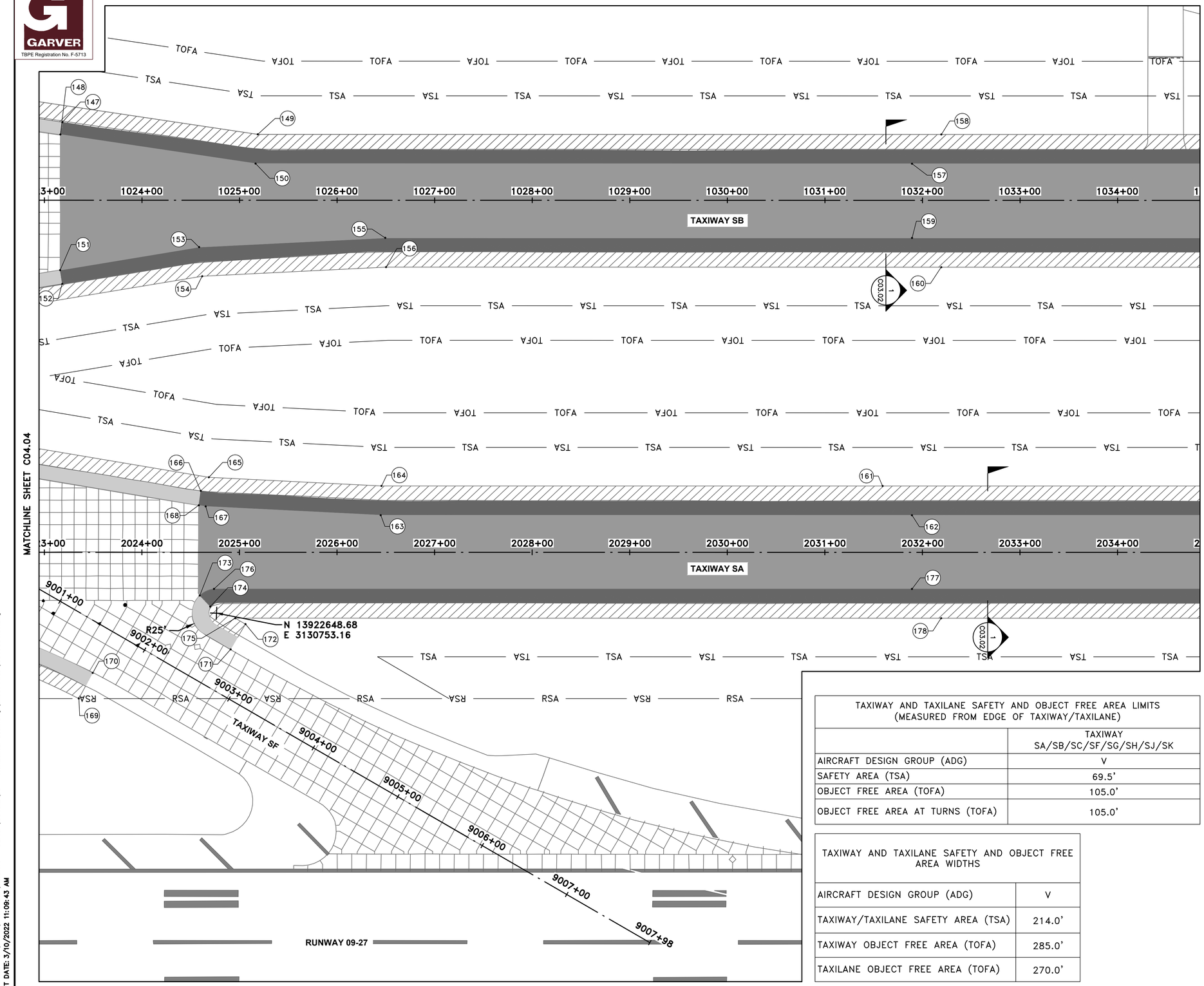
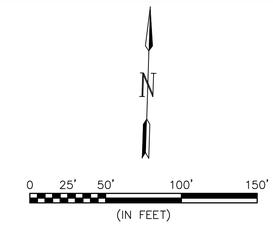
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C04.04

MATCHLINE SHEET C04.06



NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
3. MISCELLANEOUS PAVEMENT REPAIR LOCATIONS ARE APPROXIMATE. THE RPR SHALL APPROVE THE ACTUAL REPAIR LOCATIONS PRIOR TO THE WORK.
4. REFER TO TABLE 1 ON SHEET C03.01 FOR TAXIWAY ASPHALT PG RATING SCHEDULE ACCORDING TO BID AWARD.

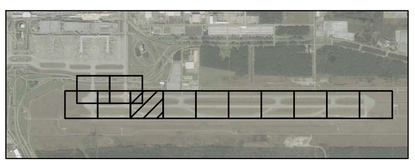
TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN V

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.05

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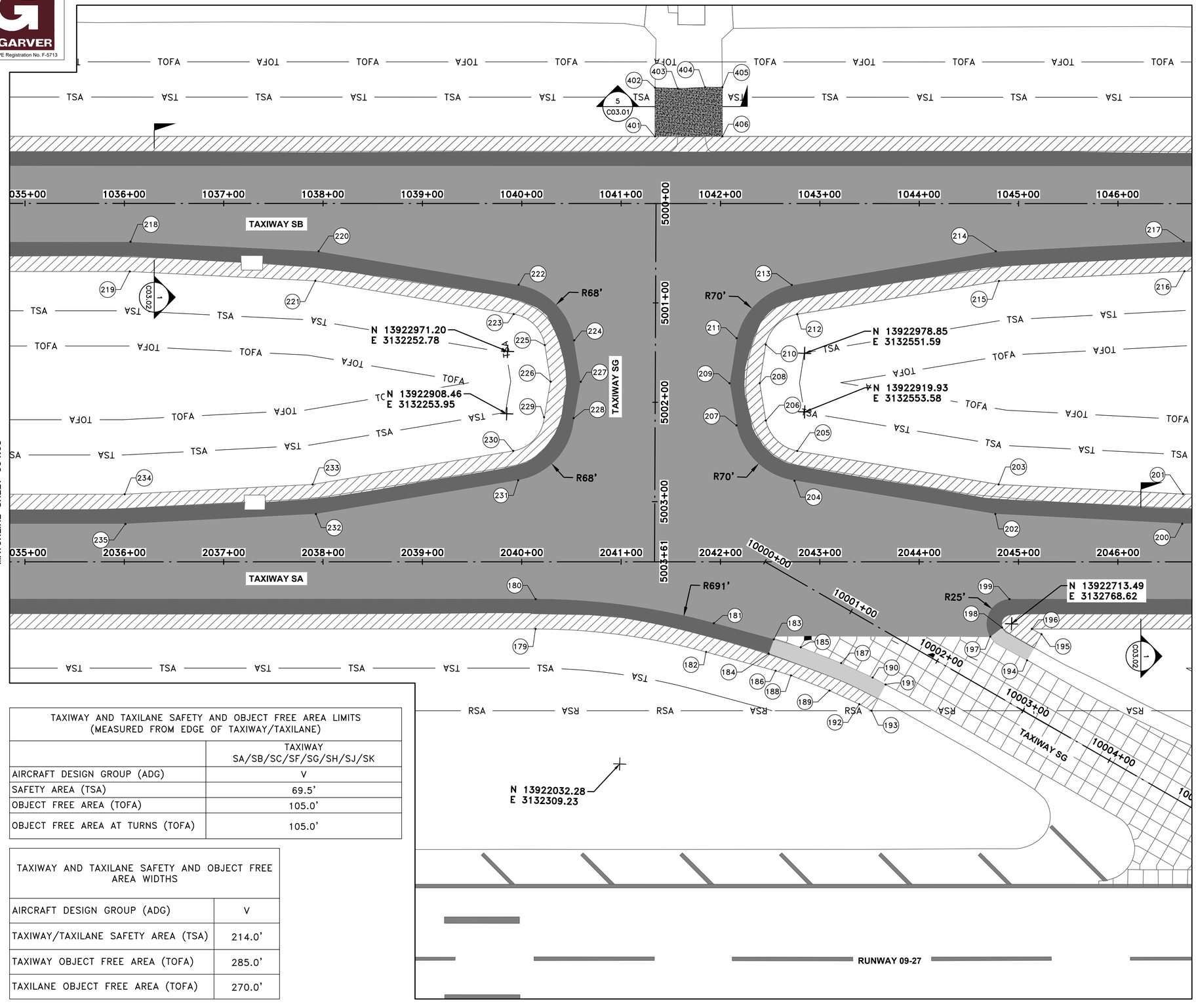
PLOT DATE: 3/10/2022 11:08:43 AM

GARVER
TBPE Registration No. F-5713



TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

0 25' 50' 100' 150'
(IN FEET)

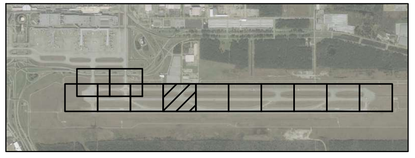
NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
3. MISCELLANEOUS PAVEMENT REPAIR LOCATIONS ARE APPROXIMATE. THE RPR SHALL APPROVE THE ACTUAL REPAIR LOCATIONS PRIOR TO THE WORK.
4. REFER TO TABLE 1 ON SHEET C03.01 FOR TAXIWAY ASPHALT PG RATING SCHEDULE ACCORDING TO BID AWARD.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN VI

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.06

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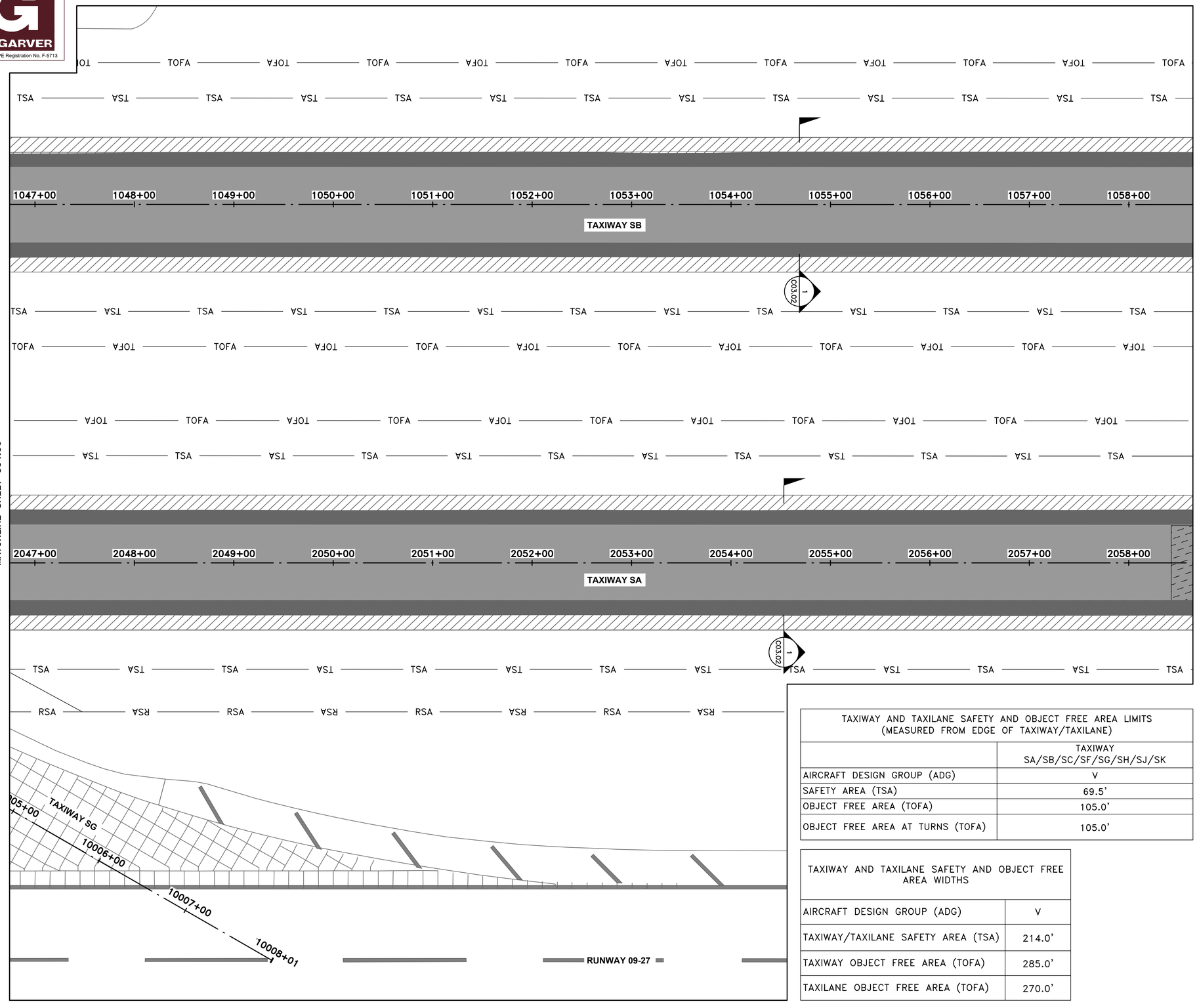

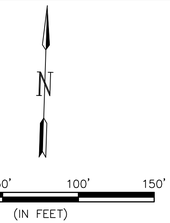

NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
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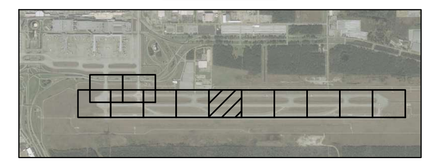
TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN VII

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.07

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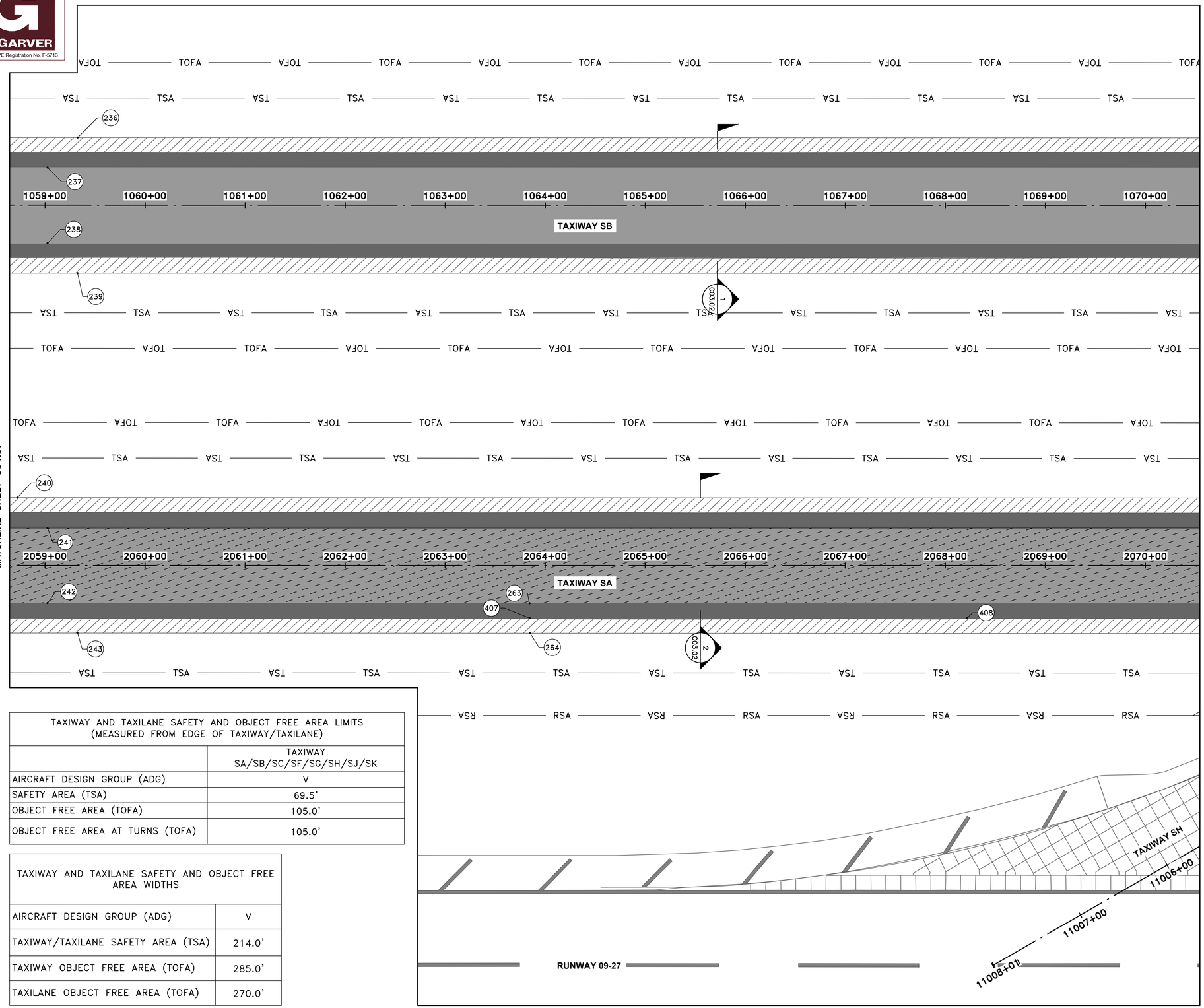

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5’
OBJECT FREE AREA (TOFA)	105.0’
OBJECT FREE AREA AT TURNS (TOFA)	105.0’

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0’
TAXIWAY OBJECT FREE AREA (TOFA)	285.0’
TAXILANE OBJECT FREE AREA (TOFA)	270.0’

N

0 25’ 50’ 100’ 150’

(IN FEET)

NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
3. MISCELLANEOUS PAVEMENT REPAIR LOCATIONS ARE APPROXIMATE. THE RPR SHALL APPROVE THE ACTUAL REPAIR LOCATIONS PRIOR TO THE WORK.
4. REFER TO TABLE 1 ON SHEET C03.01 FOR TAXIWAY ASPHALT PG RATING SCHEDULE ACCORDING TO BID AWARD.

LEGEND

- PROPOSED TAXIWAY MILL (2”) & OVERLAY (3”)
- PROPOSED SHOULDER MILL (1”) & OVERLAY (2”)
- PROPOSED SHOULDER MILL (2”) & OVERLAY (2”)
- PROPOSED TAXIWAY MILL (5”) & OVERLAY (6”)
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
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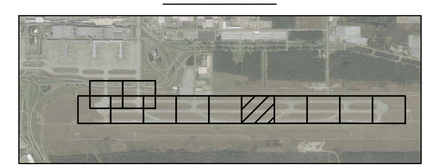
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN VIII

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1” = 50’
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.08

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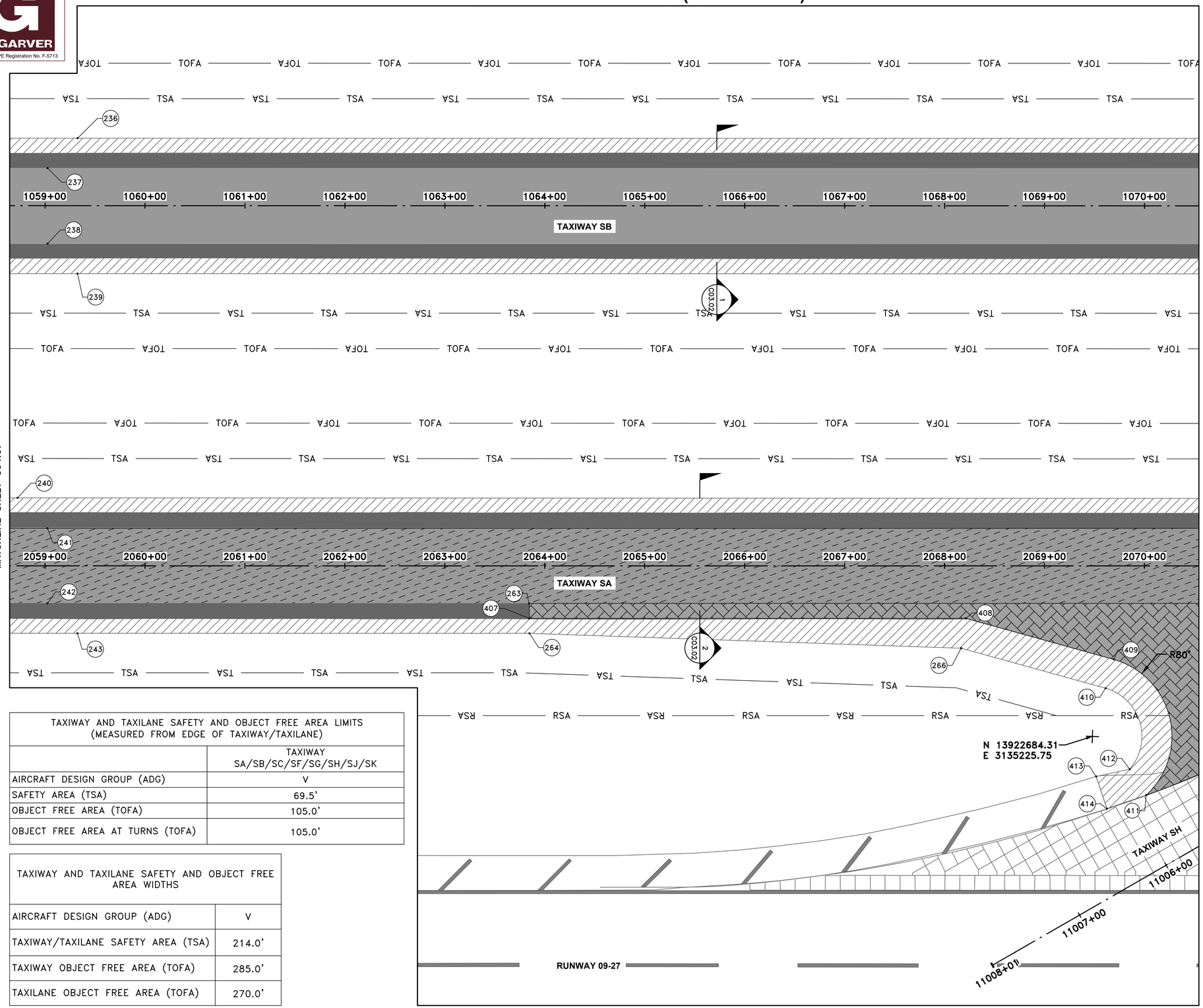
ADDITIVE ALTERNATE 1 (IF AWARDED)



MATCHLINE SHEET C04.07

MATCHLINE SHEET C04.09

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

N

0 25' 50' 100' 150'

(IN FEET)

NOTES:

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2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
3. MISCELLANEOUS PAVEMENT REPAIR LOCATIONS ARE APPROXIMATE. THE RPR SHALL APPROVE THE ACTUAL REPAIR LOCATIONS PRIOR TO THE WORK.
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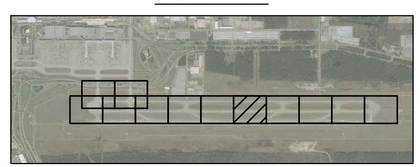
LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN VIII
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.08A

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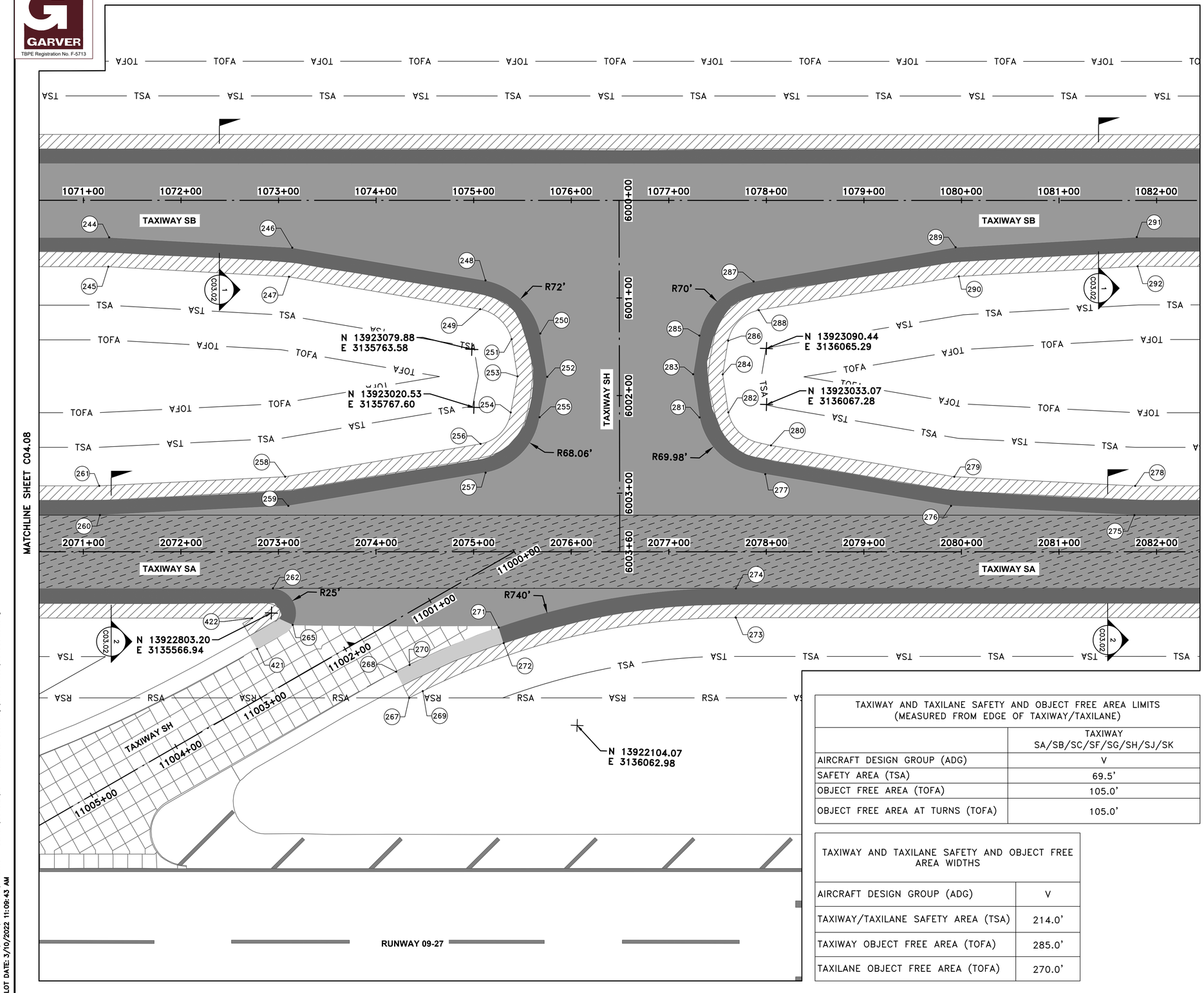
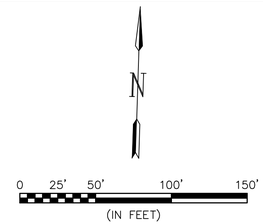
GARVER
TBPE Registration No. F-5713





NOTES:

1. REFER TO SHEET G01.05 FOR HORIZONTAL AND VERTICAL CONTROL INFORMATION.
2. REFER TO SHEET G01.05 FOR DIMENSIONS OF TAXIWAY SAFETY AND OBJECT FREE AREAS.
3. MISCELLANEOUS PAVEMENT REPAIR LOCATIONS ARE APPROXIMATE. THE RPR SHALL APPROVE THE ACTUAL REPAIR LOCATIONS PRIOR TO THE WORK.
4. REFER TO TABLE 1 ON SHEET C03.01 FOR TAXIWAY ASPHALT PG RATING SCHEDULE ACCORDING TO BID AWARD.

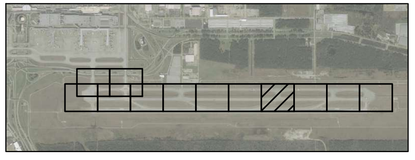
TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN IX

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.09

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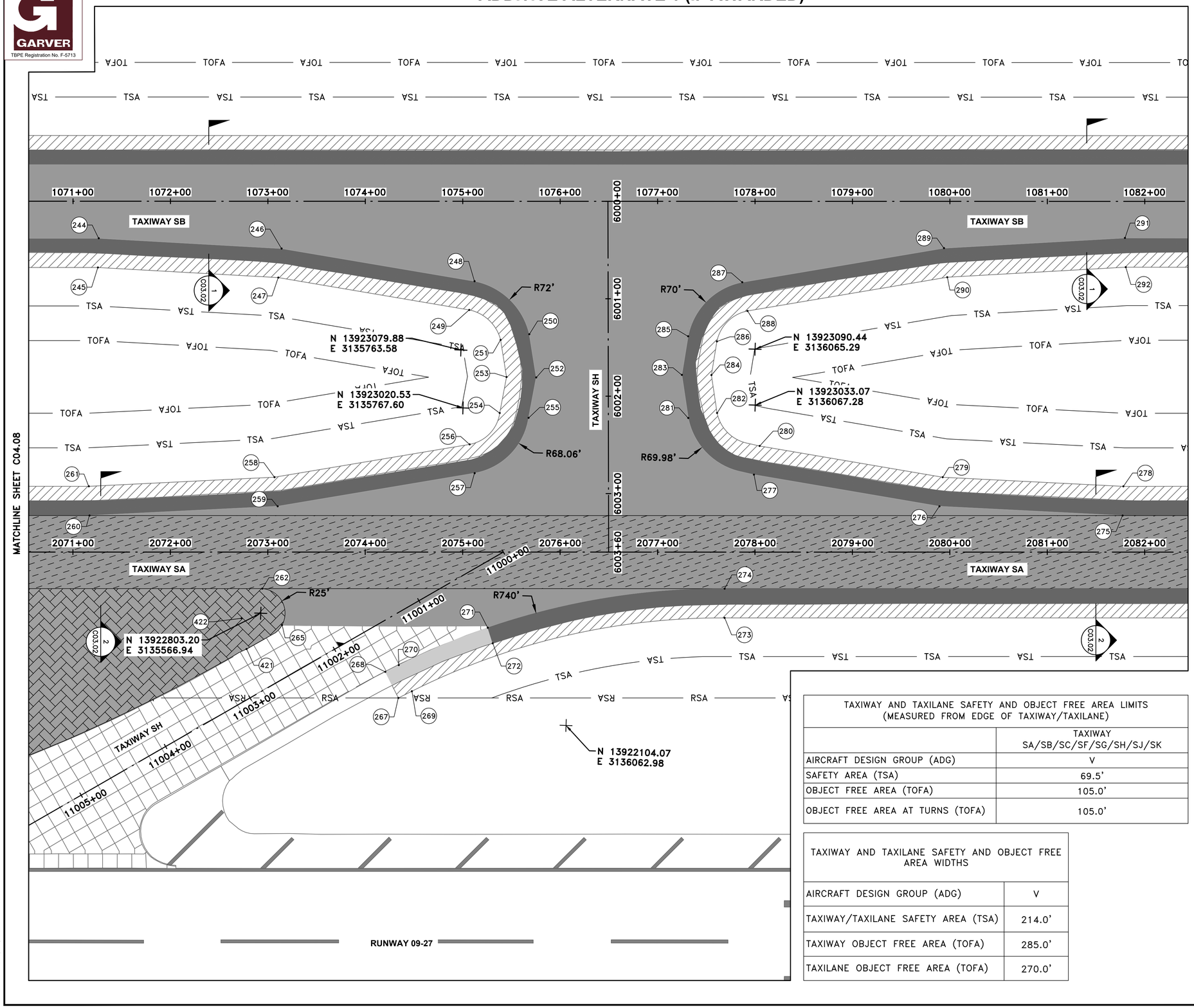

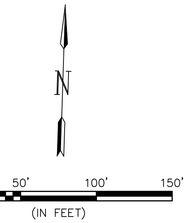

NOTES:

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- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
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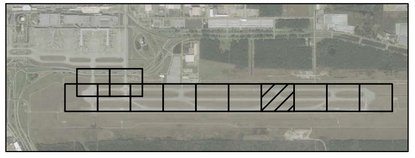
- —RSA— RUNWAY SAFETY AREA

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN IX
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.09A

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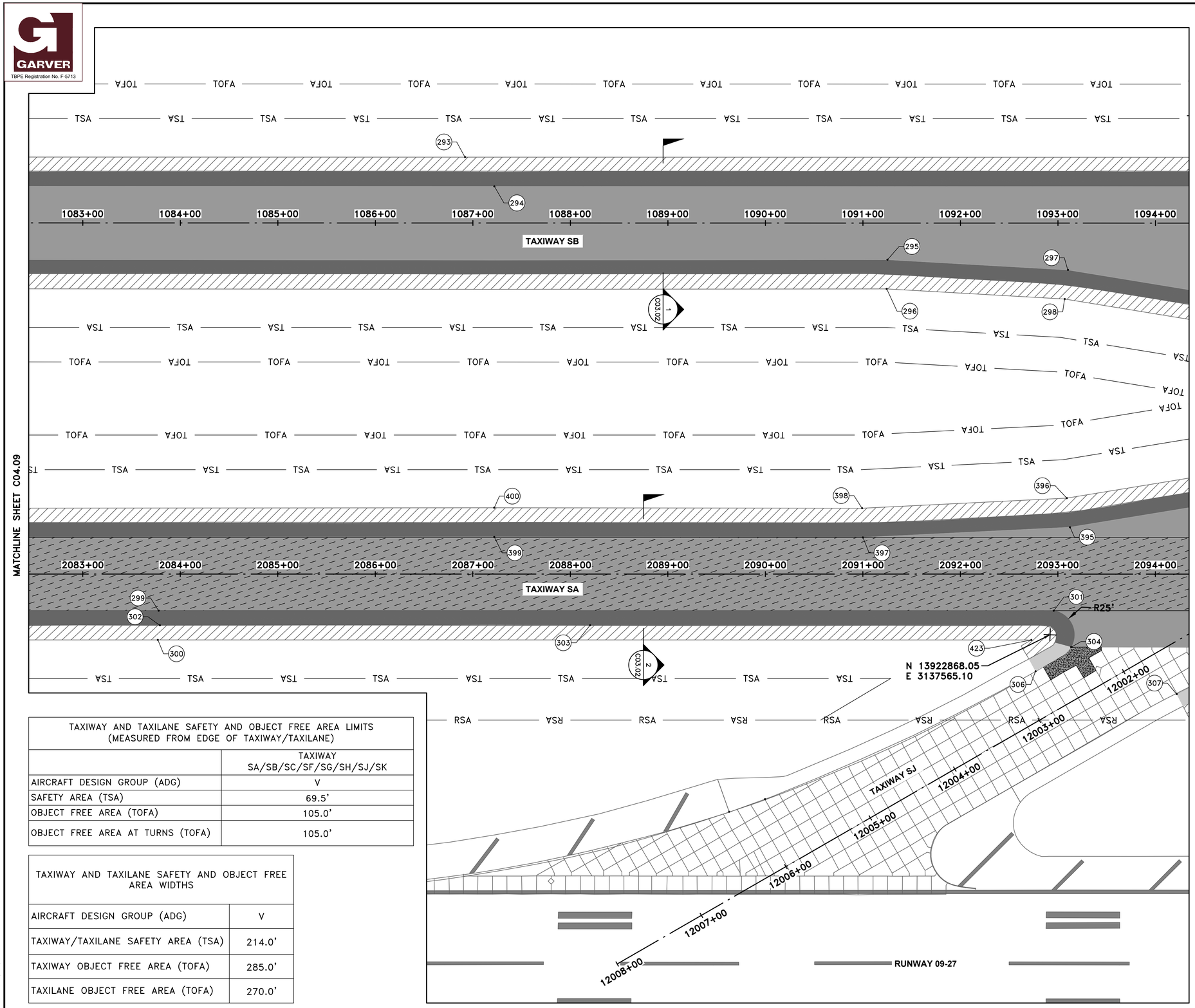
GARVER
TBPE Registration No. F-5713



TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
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TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
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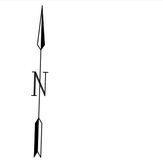

NOTES:

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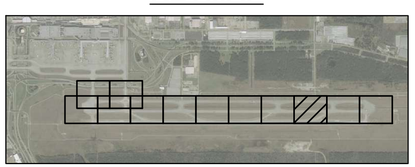
LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN X

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.10

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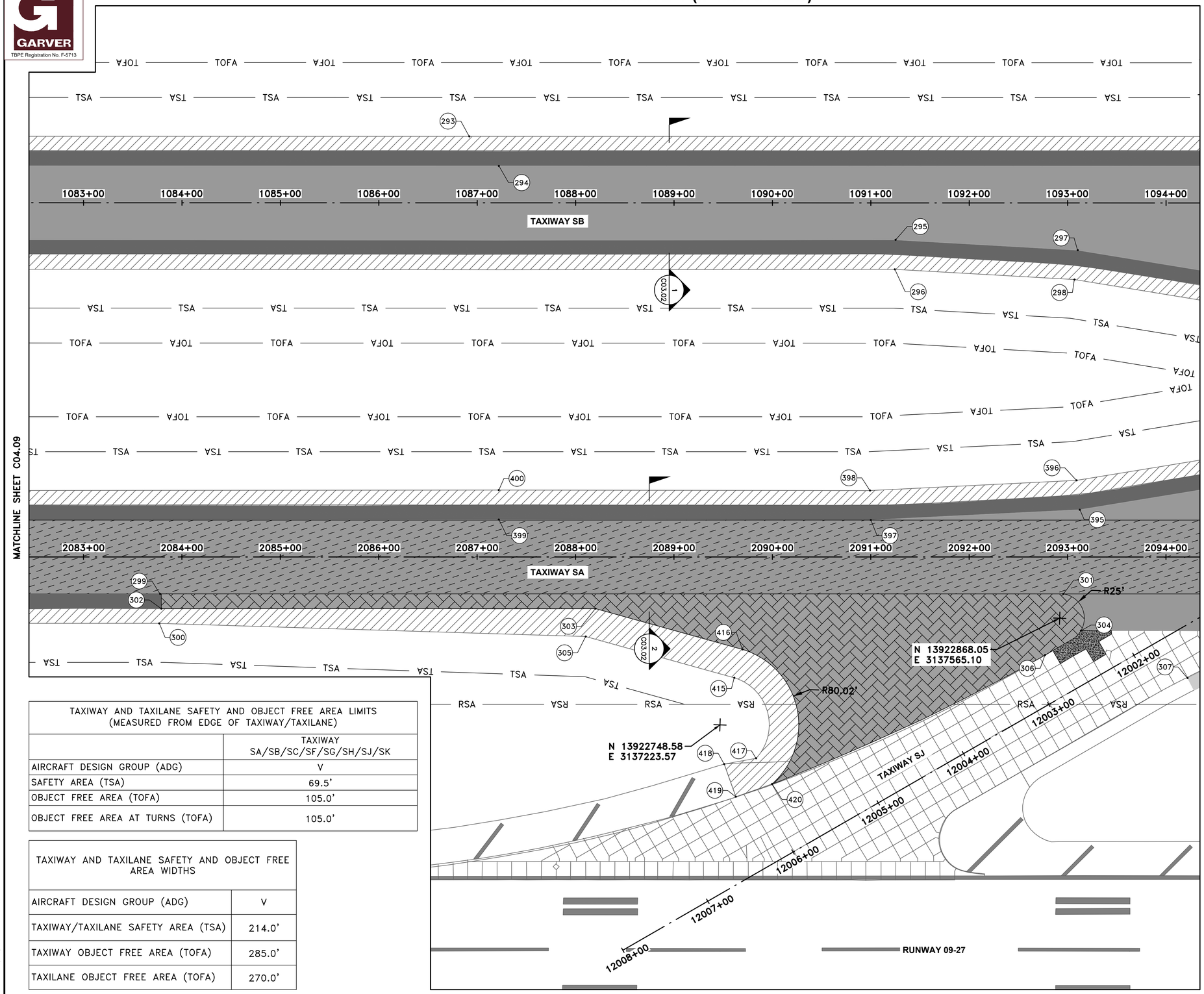
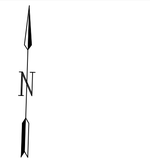


TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
SAFETY AREA (TSA)	69.5'
OBJECT FREE AREA (TOFA)	105.0'
OBJECT FREE AREA AT TURNS (TOFA)	105.0'

TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
AIRCRAFT DESIGN GROUP (ADG)	V
TAXIWAY/TAXILANE SAFETY AREA (TSA)	214.0'
TAXIWAY OBJECT FREE AREA (TOFA)	285.0'
TAXILANE OBJECT FREE AREA (TOFA)	270.0'



NOTES:

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LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
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- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
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- PROPOSED FULL DEPTH CONCRETE SECTION
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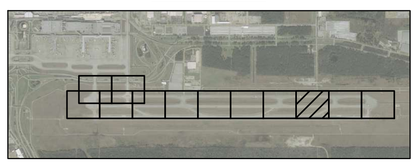
KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN X (ADDITIVE ALTERNATE 1)

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.10A

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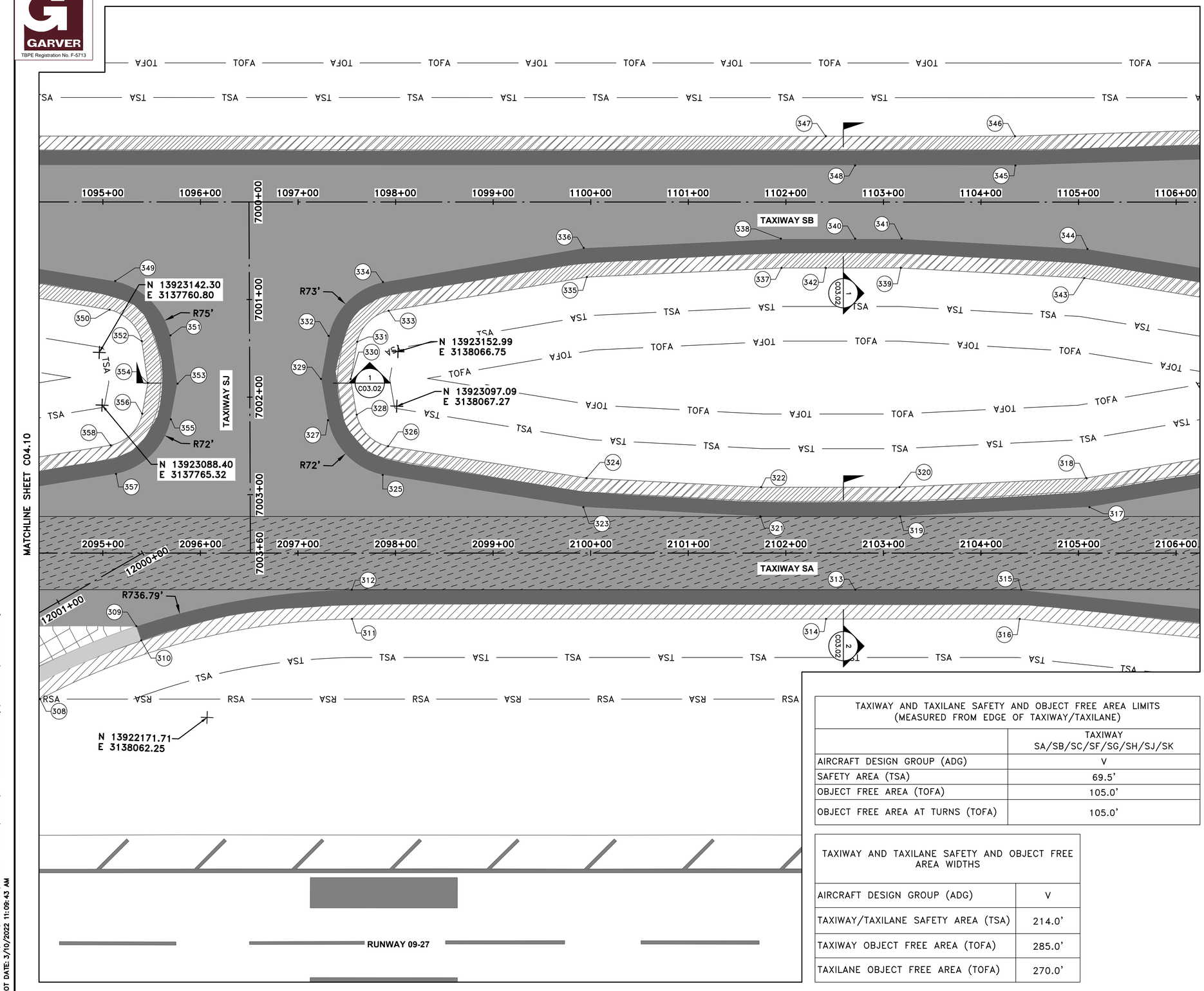

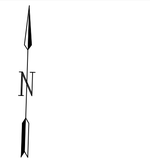

NOTES:

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TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA LIMITS (MEASURED FROM EDGE OF TAXIWAY/TAXILANE)	
	TAXIWAY SA/SB/SC/SF/SG/SH/SJ/SK
AIRCRAFT DESIGN GROUP (ADG)	V
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TAXIWAY AND TAXILANE SAFETY AND OBJECT FREE AREA WIDTHS	
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LEGEND

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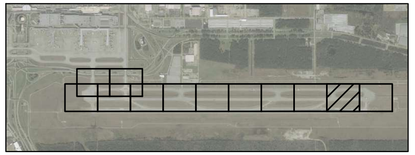
KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN XI

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.11

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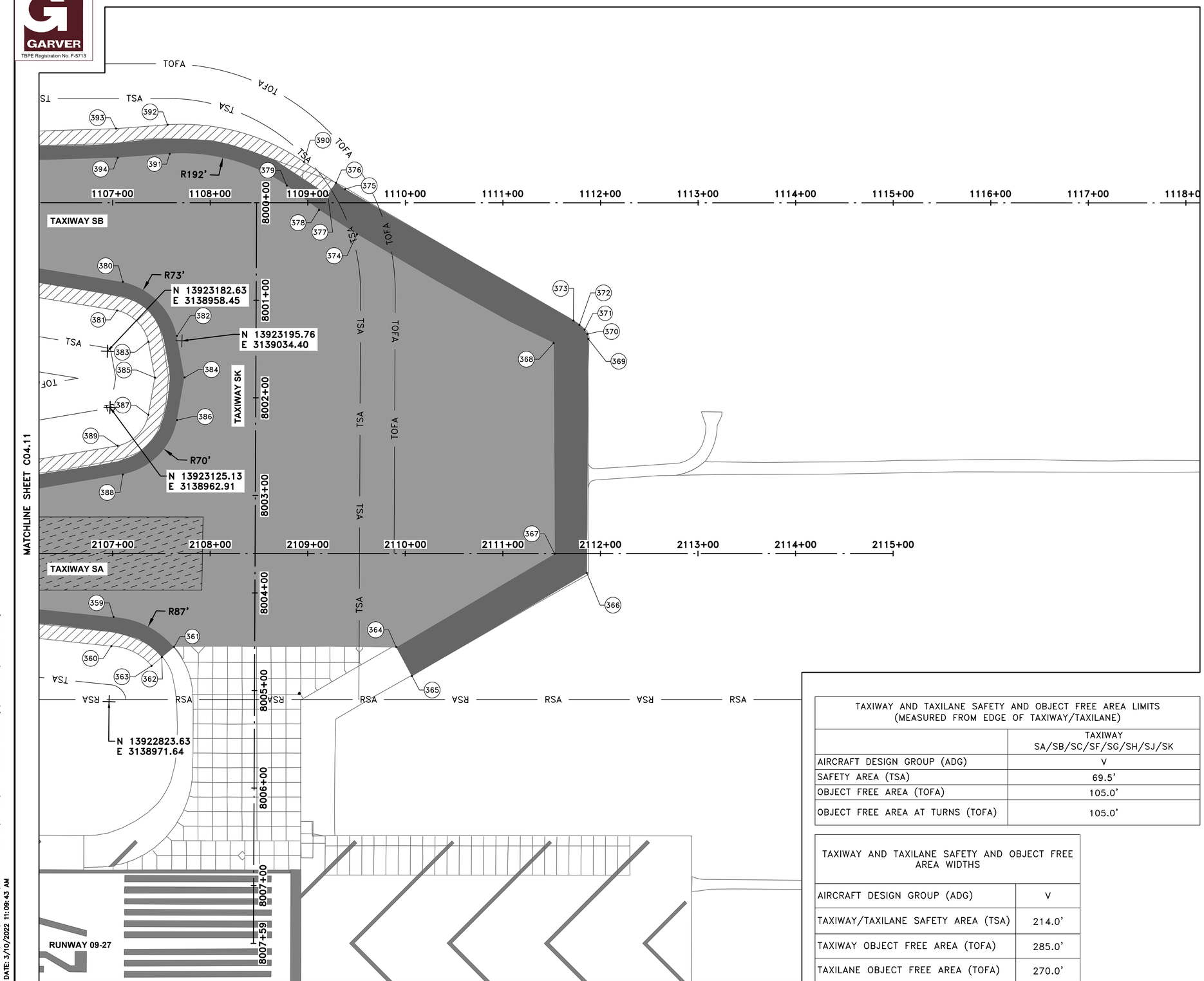
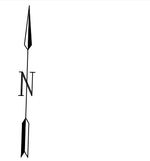
GARVER
TBPE Registration No. F-5713





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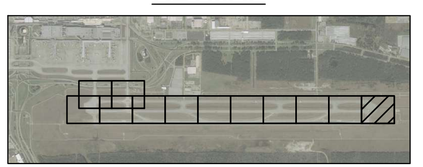
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- CORNER BREAK, JOINT SPALL, AND CORNER SPALL REPAIRS RESPECTIVELY (SEE NOTE 3)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA

KEYMAP



HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY PLAN XII

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.12

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PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713

POINTS ARE ON SHEET C04.01

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
1	Taxiway SB	1008+52.94	441.89' L
2	Taxiway SB	1008+73.27	441.29' L
3	Taxiway SB	1008+86.33	440.91' L
4	Taxiway SB	1008+52.83	428.14' L
5	Taxiway SB	1008+86.81	428.22' L
6	Taxiway SB	1008+52.88	168.17' L
7	Taxiway SB	1008+87.47	150.84' L
8	Taxiway SB	1008+47.87	162.47' L
9	Taxiway SB	1008+74.82	138.82' L
10	Taxiway SB	1008+36.29	149.27' L
11	Taxiway SB	1008+14.77	127.74' L
12	Taxiway SB	1007+41.39	56.24' L
13	Taxiway SB	1006+78.92	0.37' R
14	Taxiway SB	1006+83.65	42.80' R
15	Taxiway SB	1005+32.05	59.32' R
16	Taxiway SB	1005+32.20	93.21' R
17	Taxiway SA	2005+32.34	173.82' L
18	Taxiway SA	2005+32.75	142.56' L
30	Taxiway SA	2010+78.68	111.60' L
31	Taxiway SA	2010+49.19	137.51' L
32	Taxiway SA	2010+20.45	128.92' L
33	Taxiway SA	2010+43.56	156.48' L
34	Taxiway SA	2010+14.36	149.43' L
35	Taxiway SA	2010+42.35	162.94' L
36	Taxiway SA	2010+12.35	160.14' L
37	Taxiway SA	2010+42.34	172.03' L
38	Taxiway SA	2010+12.34	172.47' L
39	Taxiway SB	1010+42.68	175.47' R
40	Taxiway SB	1010+12.77	172.17' R
41	Taxiway SB	1010+49.56	139.72' R

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
42	Taxiway SB	1010+19.98	134.66' R
43	Taxiway SB	1010+79.37	110.71' R
44	Taxiway SB	1010+39.76	97.51' R
45	Taxiway SB	1010+54.56	109.89' R
46	Taxiway SB	1010+70.79	81.71' R
47	Taxiway SB	1010+77.22	75.50' L
48	Taxiway SB	1010+81.56	105.18' L
49	Taxiway SB	1010+39.93	92.15' L
50	Taxiway SB	1010+50.58	102.77' L
51	Taxiway SB	1010+13.74	139.24' L
52	Taxiway SB	1010+43.45	143.43' L
53	Taxiway SB	1010+09.21	281.69' L
54	Taxiway SB	1010+23.62	284.37' L
55	Taxiway SB	1009+88.32	318.16' L
56	Taxiway SB	1010+22.42	299.59' L
57	Taxiway SB	1010+22.08	348.08' L
58	Taxiway SB	1009+88.31	428.88' L
59	Taxiway SB	1010+22.70	428.84' L
60	Taxiway SB	1009+89.18	441.72' L
61	Taxiway SB	1010+21.91	440.73' L
62	Taxiway SB	1013+36.77	67.50' L
63	Taxiway SB	1013+34.57	37.50' L
64	Taxiway SB	1015+02.52	67.50' L
65	Taxiway SB	1015+32.51	37.50' L
66	Taxiway SB	1015+32.48	38.50' R
67	Taxiway SB	1014+62.98	38.50' R
68	Taxiway SB	1014+63.72	68.50' R
69	Taxiway SB	1012+81.10	47.50' R
70	Taxiway SB	1012+84.26	77.38' R
71	Taxiway SB	1011+04.45	76.24' R

POINTS ARE ON SHEET C04.02

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
80	Taxiway SA	2019+74.98	111.03' L
82	Taxiway SA	2020+06.12	140.93' L
83	Taxiway SA	2020+35.63	135.40' L
84	Taxiway SA	2020+41.13	172.47' L
85	Taxiway SA	2020+11.13	174.72' L
86	Taxiway SB	1020+11.10	172.81' R
87	Taxiway SB	1020+41.10	170.92' R
88	Taxiway SB	1020+39.56	158.86' R
89	Taxiway SB	1020+09.90	163.48' R
90	Taxiway SB	1020+35.05	134.29' R
91	Taxiway SB	1020+05.67	140.40' R
92	Taxiway SB	1019+77.49	80.58' R
93	Taxiway SB	1019+73.59	110.34' R
94	Taxiway SB	1019+17.41	70.82' R
95	Taxiway SB	1019+15.11	85.32' R
96	Taxiway SB	1017+83.11	49.00' R
97	Taxiway SB	1017+79.86	78.87' R
98	Taxiway SB	1015+94.51	38.50' R
99	Taxiway SB	1015+93.68	68.50' R
100	Taxiway SB	1017+18.38	37.50' L
101	Taxiway SB	1017+16.13	67.50' L
102	Taxiway SB	1019+17.91	67.56' L
103	Taxiway SB	1019+16.02	80.10' L

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
104	Taxiway SB	1019+75.60	106.58' L
105	Taxiway SB	1019+80.60	77.00' L
106	Taxiway SB	1020+40.98	138.12' L
107	Taxiway SB	1020+11.35	142.85' L
108	Taxiway SB	1020+31.62	283.05' L
109	Taxiway SB	1020+46.01	280.97' L
110	Taxiway SB	1020+65.94	310.77' L
111	Taxiway SB	1020+31.96	434.66' L
112	Taxiway SB	1020+66.19	434.46' L
113	Taxiway SB	1020+32.26	443.94' L
114	Taxiway SB	1020+65.58	444.23' L
122	Taxiway SA	2022+59.44	112.06' L
123	Taxiway SA	2021+98.63	138.46' L
124	Taxiway SA	2022+28.22	143.40' L
125	Taxiway SA	2022+23.52	172.66' L
126	Taxiway SA	2021+93.63	169.63' L
127	Taxiway SB	1022+23.10	179.51' R
128	Taxiway SB	1021+93.06	179.39' R
129	Taxiway SB	1022+23.92	163.51' R
130	Taxiway SB	1021+94.06	160.01' R
131	Taxiway SB	1022+27.53	143.95' R
132	Taxiway SB	1021+98.02	138.52' R
133	Taxiway SB	1022+59.22	111.51' R

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
134	Taxiway SB	1022+53.80	82.00' R
135	Taxiway SB	1022+54.56	76.50' L
136	Taxiway SB	1022+58.77	106.20' L
137	Taxiway SB	1021+94.48	138.11' L
138	Taxiway SB	1022+24.25	141.85' L
139	Taxiway SB	1021+88.45	283.56' L
140	Taxiway SB	1022+03.36	285.73' L
141	Taxiway SB	1022+02.56	316.59' L
142	Taxiway SB	1021+67.93	320.90' L
143	Taxiway SB	1021+68.38	433.90' L
144	Taxiway SB	1022+02.47	433.75' L
145	Taxiway SB	1021+69.40	444.26' L
146	Taxiway SB	1022+02.61	443.29' L
147	Taxiway SB	1023+18.37	79.90' L
148	Taxiway SB	1023+16.34	67.30' L
149	Taxiway SB	1025+18.63	67.50' L
150	Taxiway SB	1025+16.41	37.50' L
151	Taxiway SB	1023+16.05	71.66' R
152	Taxiway SB	1023+18.29	85.72' R
153	Taxiway SB	1024+58.54	48.00' R
154	Taxiway SB	1024+61.76	77.88' R
155	Taxiway SB	1026+49.38	38.50' R
156	Taxiway SB	1026+50.12	68.50' R

POINTS ARE ON SHEET C04.03

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
6	Taxiway SB	1008+52.88	168.17' L
7	Taxiway SB	1008+87.47	150.84' L
8	Taxiway SB	1008+47.87	162.47' L
9	Taxiway SB	1008+74.82	138.82' L
10	Taxiway SB	1008+36.29	149.27' L
11	Taxiway SB	1008+14.77	127.74' L
12	Taxiway SB	1007+41.39	56.24' L
13	Taxiway SB	1006+78.92	0.37' R
14	Taxiway SB	1006+83.65	42.80' R
15	Taxiway SB	1005+32.05	59.32' R
16	Taxiway SB	1005+32.20	93.21' R
17	Taxiway SA	2005+32.34	173.82' L
18	Taxiway SA	2005+32.75	142.56' L
19	Taxiway SA	2005+99.97	81.04' L
20	Taxiway SA	2006+31.91	81.62' L
21	Taxiway SA	2005+99.56	19.34' R
22	Taxiway SA	2006+31.98	0.36' R
23	Taxiway SA	2007+72.57	121.12' R
24	Taxiway SA	2007+89.32	92.42' R
25	Taxiway SA	2010+28.29	92.50' R
26	Taxiway SA	2010+51.07	112.11' R
27	Taxiway SA	2010+79.40	95.56' R
28	Taxiway SA	2010+76.00	65.75' R
29	Taxiway SA	2010+73.81	82.00' L

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
30	Taxiway SA	2010+78.68	111.60' L
31	Taxiway SA	2010+49.19	137.51' L
32	Taxiway SA	2010+20.45	128.92' L
33	Taxiway SA	2010+43.56	156.48' L
34	Taxiway SA	2010+14.36	149.43' L
35	Taxiway SA	2010+42.35	162.94' L
36	Taxiway SA	2010+12.35	160.14' L
37	Taxiway SA	2010+42.34	172.03' L
38	Taxiway SA	2010+12.34	172.47' L
39	Taxiway SB	1010+42.68	175.47' R
40	Taxiway SB	1010+12.77	172.17' R
41	Taxiway SB	1010+49.56	139.72' R
42	Taxiway SB	1010+19.98	134.66' R
43	Taxiway SB	1010+79.37	110.71' R
44	Taxiway SB	1010+39.76	97.51' R
45	Taxiway SB	1010+54.56	109.89' R
46	Taxiway SB	1010+70.79	81.71' R
47	Taxiway SB	1010+77.22	75.50' L
48	Taxiway SB	1010+81.56	105.18' L
49	Taxiway SB	1010+39.93	92.15' L
50	Taxiway SB	1010+50.58	102.77' L
51	Taxiway SB	1010+13.74	139.24' L
52	Taxiway SB	1010+43.45	143.43' L
71	Taxiway SB	1011+04.45	76.24' R

POINTS ARE ON SHEET C04.04

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
62	Taxiway SB	1013+36.77	67.50' L
63	Taxiway SB	1013+34.57	37.50' L
64	Taxiway SB	1015+02.52	67.50' L
65	Taxiway SB	1015+32.51	37.50' L
66	Taxiway SB	1015+32.48	38.50' R
67	Taxiway SB	1014+62.98	38.50' R
68	Taxiway SB	1014+63.72	68.50' R
69	Taxiway SB	1012+81.10	47.50' R
70	Taxiway SB	1012+84.26	77.38' R
72	Taxiway SA	2012+79.32	78.60' L
73	Taxiway SA	2012+75.98	48.75' L
74	Taxiway SA	2014+60.37	67.75' L
75	Taxiway SA	2014+59.42	37.75' L
76	Taxiway SA	2016+08.33	67.50' L
77	Taxiway SA	2016+09.22	37.50' L
78	Taxiway SA	2017+74.08	77.35' L
79	Taxiway SA	2017+77.46	47.50' L
80	Taxiway SA	2019+74.98	111.03' L
81	Taxiway SA	2019+80.31	81.50' L
82	Taxiway SA	2020+06.12	140.93' L
83	Taxiway SA	2020+35.63	135.40' L
84	Taxiway SA	2020+41.13	172.47' L
85	Taxiway SA	2020+11.13	174.72' L
86	Taxiway SB	1020+11.10	172.81' R
87	Taxiway SB	1020+41.10	170.92' R
88	Taxiway SB	1020+39.56	158.86' R
89	Taxiway SB	1020+09.90	163.48' R
90	Taxiway SB	1020+35.05	134.29' R
91	Taxiway SB	1020+05.67	140.40' R
92	Taxiway SB	1019+77.49	80.58' R
93	Taxiway SB	1019+73.59	110.34' R
94	Taxiway SB	1019+17.41	70.82' R
95	Taxiway SB	1019+15.11	85.32' R
96	Taxiway SB	1017+83.11	49.00' R
97	Taxiway SB	1017+79.86	78.87' R
98	Taxiway SB	1015+94.51	38.50' R
99	Taxiway SB	1015+93.68	68.50' R
100	Taxiway SB	1017+18.38	37.50' L
101	Taxiway SB	1017+16.13	67.50' L
102	Taxiway SB	1019+17.91	67.56' L
103	Taxiway SB	1019+16.02	80.10' L
104	Taxiway SB	1019+75.60	106.58' L
105	Taxiway SB	1019+80.60	77.00' L
106	Taxiway SB	1020+40.98	138.12' L
107	Taxiway SB	1020+11.35	142.85' L
115	Taxiway SA	2013+27.72	37.75' R

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
116	Taxiway SA	2013+29.40	67.75' R
117	Taxiway SA	2015+32.34	37.50' R
118	Taxiway SA	2015+32.36	67.50' R
119	Taxiway SA	2020+02.18	37.50' R
120	Taxiway SA	2020+02.06	67.50' R
121	Taxiway SA	2022+55.40	82.32' L
122	Taxiway SA	2022+59.44	112.06' L
123	Taxiway SA	2021+98.63	138.46' L
124	Taxiway SA	2022+28.22	143.40' L
125	Taxiway SA	2022+23.52	172.66' L
126	Taxiway SA	2021+93.63	169.63' L
127	Taxiway SB	1022+23.10	179.51' R
128	Taxiway SB	1021+93.06	179.39' R
129	Taxiway SB	1022+23.92	163.51' R
130	Taxiway SB	1021+94.06	160.01' R
131	Taxiway SB	1022+27.53	143.95' R
132	Taxiway SB	1021+98.02	138.52' R
133	Taxiway SB	1022+59.22	111.51' R
134	Taxiway SB	1022+53.80	82.00' R
135	Taxiway SB	1022+54.56	76.50' L
136	Taxiway SB	1022+58.77	106.20' L
137	Taxiway SB	1021+94.48	138.11' L
138	Taxiway SB	1022+24.25	141.85' L

HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY POINT TABLES I

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **C04.13**

HAS FILE: C:\Users\DAGranato\OneDrive - Garver\0646.2\05 - Horizontal Geometry\Sheet Files\0646C04.13.dwg
PLOT DATE: 3/10/2022 11:08:43 AM

GARVER
TBPE Registration No. F-5713

POINTS ARE ON SHEET C04.05

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
147	Taxiway SB	1023+18.37	79.90' L
148	Taxiway SB	1023+16.34	67.30' L
149	Taxiway SB	1025+18.63	67.50' L
150	Taxiway SB	1025+16.41	37.50' L
151	Taxiway SB	1023+16.05	71.66' R
152	Taxiway SB	1023+18.29	85.72' R
153	Taxiway SB	1024+58.54	48.00' R
154	Taxiway SB	1024+61.76	77.88' R
155	Taxiway SB	1026+49.38	38.50' R
156	Taxiway SB	1026+50.12	68.50' R
157	Taxiway SB	1031+89.22	37.50' L
158	Taxiway SB	1032+19.23	67.50' L
159	Taxiway SB	1031+89.22	38.50' R
160	Taxiway SB	1032+19.22	68.50' R
161	Taxiway SA	2031+59.25	68.00' L
162	Taxiway SA	2031+89.24	38.00' L

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
163	Taxiway SA	2026+44.73	38.00' L
164	Taxiway SA	2026+45.48	68.00' L
165	Taxiway SA	2024+68.60	76.87' L
166	Taxiway SA	2024+60.29	62.96' L
167	Taxiway SA	2024+65.35	47.00' L
168	Taxiway SA	2024+58.29	48.19' L
169	Taxiway SA	2023+35.32	149.89' R
170	Taxiway SA	2023+49.57	123.53' R
171	Taxiway SA	2024+90.97	99.46' R
172	Taxiway SA	2025+06.12	73.56' R
173	Taxiway SA	2024+59.26	44.27' R
174	Taxiway SA	2024+70.02	55.62' R
175	Taxiway SA	2024+95.75	67.50' R
176	Taxiway SA	2024+73.83	37.50' R
177	Taxiway SA	2031+89.23	37.50' R
178	Taxiway SA	2032+19.22	67.50' R

POINTS ARE ON SHEET C04.06

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
179	Taxiway SA	2040+13.94	67.50' R
180	Taxiway SA	2040+13.99	37.50' R
181	Taxiway SA	2041+93.43	61.75' R
182	Taxiway SA	2041+85.57	90.70' R
183	Taxiway SA	2042+53.65	78.04' R
184	Taxiway SA	2042+48.53	92.36' R
185	Taxiway SA	2042+80.84	85.98' R
186	Taxiway SA	2042+55.53	109.62' R
187	Taxiway SA	2043+21.48	101.90' R
188	Taxiway SA	2042+70.98	114.33' R
189	Taxiway SA	2043+09.76	129.52' R
190	Taxiway SA	2043+53.14	116.39' R
191	Taxiway SA	2043+66.20	123.38' R
192	Taxiway SA	2043+39.80	143.27' R
193	Taxiway SA	2043+52.02	149.82' R
194	Taxiway SA	2045+08.57	99.05' R
195	Taxiway SA	2045+23.11	72.80' R
196	Taxiway SA	2045+13.34	67.50' R
197	Taxiway SA	2044+71.55	75.22' R
198	Taxiway SA	2044+83.43	66.12' R
199	Taxiway SA	2044+90.89	37.50' R
200	Taxiway SA	2046+64.78	38.25' L
201	Taxiway SA	2046+65.56	68.25' L
202	Taxiway SA	2044+76.64	48.00' L
203	Taxiway SA	2044+79.88	77.87' L
204	Taxiway SA	2042+74.52	81.58' L
205	Taxiway SA	2042+77.24	111.54' L
206	Taxiway SA	2042+45.71	142.09' L
207	Taxiway SA	2042+16.10	137.24' L
208	Taxiway SB	1042+39.47	180.75' R
209	Taxiway SB	1042+09.09	180.87' R
210	Taxiway SB	1042+45.53	142.05' R
211	Taxiway SB	1042+16.24	135.55' R
212	Taxiway SB	1042+77.21	111.39' R

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
213	Taxiway SB	1042+71.69	81.91' R
214	Taxiway SB	1044+76.99	48.00' R
215	Taxiway SB	1044+80.24	77.87' R
216	Taxiway SB	1046+66.95	68.00' R
217	Taxiway SB	1046+66.16	38.00' R
218	Taxiway SB	1036+06.17	38.50' R
219	Taxiway SB	1036+05.41	68.50' R
220	Taxiway SB	1037+95.45	48.00' R
221	Taxiway SB	1037+92.21	77.88' R
222	Taxiway SB	1039+96.74	81.70' R
223	Taxiway SB	1039+91.82	111.29' R
224	Taxiway SB	1040+52.76	137.69' R
225	Taxiway SB	1040+23.15	142.50' R
226	Taxiway SB	1040+28.94	179.19' R
227	Taxiway SB	1040+59.35	179.39' R
228	Taxiway SA	2040+52.27	144.51' L
229	Taxiway SA	2040+22.48	145.47' L
230	Taxiway SA	2039+91.40	111.58' L
231	Taxiway SA	2039+96.42	82.00' L
232	Taxiway SA	2037+92.83	48.00' L
233	Taxiway SA	2037+89.56	77.87' L
234	Taxiway SA	2036+00.38	68.00' L
235	Taxiway SA	2036+01.16	38.00' L
401	Taxiway SB	1041+34.04	67.50' L
402	Taxiway SB	1041+34.04	116.54' L
403	Taxiway SB	1041+56.93	115.80' L
404	Taxiway SB	1041+84.46	116.96' L
405	Taxiway SB	1042+01.78	116.91' L
406	Taxiway SB	1042+01.78	67.50' L

POINTS ARE ON SHEET C04.08

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
236	Taxiway SB	1059+32.39	67.50' L
237	Taxiway SB	1059+02.39	37.50' L
238	Taxiway SB	1059+02.39	38.00' R
239	Taxiway SB	1059+32.39	68.00' R
240	Taxiway SA	2058+72.41	68.01' L
241	Taxiway SA	2059+02.39	37.50' L
242	Taxiway SA	2059+02.39	37.50' R
243	Taxiway SA	2059+32.38	67.50' R
263	Taxiway SA	2063+84.37	37.67' R
264	Taxiway SA	2063+84.71	67.50' R

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
266	Taxiway SA	2068+16.74	82.36' R
407	Taxiway SA	2063+84.59	52.50' R
408	Taxiway SA	2068+21.32	52.50' R
409	Taxiway SA	2069+69.32	93.52' R
410	Taxiway SA	2069+61.21	122.41' R
411	Taxiway SA	2070+01.92	229.26' R
412	Taxiway SA	2069+85.32	203.33' R
413	Taxiway SA	2069+51.69	210.64' R
414	Taxiway SA	2069+62.46	242.82' R

POINTS ARE ON SHEET C04.09

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
244	Taxiway SB	1071+26.40	38.00' R
245	Taxiway SB	1071+25.56	68.00' R
246	Taxiway SB	1073+14.06	48.50' R
247	Taxiway SB	1073+10.71	78.36' R
248	Taxiway SB	1075+12.11	82.00' R
249	Taxiway SB	1075+06.65	111.50' R
250	Taxiway SB	1075+68.30	136.42' R
251	Taxiway SB	1075+38.87	142.31' R
252	Taxiway SA	2075+75.46	179.27' L
253	Taxiway SA	2075+45.01	179.70' L
254	Taxiway SA	2075+38.03	142.76' L
255	Taxiway SA	2075+67.62	137.80' L
256	Taxiway SA	2075+07.15	110.56' L
257	Taxiway SA	2075+12.30	81.00' L
258	Taxiway SA	2073+06.87	76.88' L
259	Taxiway SA	2073+10.11	47.00' L
260	Taxiway SA	2071+17.04	37.50' L
261	Taxiway SA	2071+16.30	67.50' L
262	Taxiway SA	2072+94.33	37.50' R
265	Taxiway SA	2073+14.59	74.99' R
267	Taxiway SA	2074+34.02	149.73' R
268	Taxiway SA	2074+20.59	122.90' R
269	Taxiway SA	2074+47.86	142.80' R
270	Taxiway SA	2074+34.41	115.98' R
271	Taxiway SA	2075+25.76	77.60' R

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
272	Taxiway SA	2075+30.83	93.64' R
273	Taxiway SA	2077+68.80	67.50' R
274	Taxiway SA	2077+68.86	37.50' R
275	Taxiway SA	2081+77.32	37.50' L
276	Taxiway SA	2079+89.32	47.00' L
277	Taxiway SA	2077+98.90	79.50' L
278	Taxiway SA	2081+78.06	67.50' L
279	Taxiway SA	2079+92.61	76.87' L
280	Taxiway SA	2078+04.75	108.94' L
281	Taxiway SA	2077+31.54	137.66' L
282	Taxiway SA	2077+61.11	142.79' L
283	Taxiway SB	1077+24.89	178.14' R
284	Taxiway SB	1077+55.25	178.33' R
285	Taxiway SB	1077+31.31	138.54' R
286	Taxiway SB	1077+60.84	143.83' R
287	Taxiway SB	1077+86.86	83.00' R
288	Taxiway SB	1077+92.24	112.52' R
289	Taxiway SB	1079+93.91	48.00' R
290	Taxiway SB	1079+97.26	77.86' R
291	Taxiway SB	1081+79.60	37.50' R
292	Taxiway SB	1081+80.44	67.50' R

POINTS ARE ON SHEET C04.10

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
293	Taxiway SB	1086+91.96	67.50' L
294	Taxiway SB	1087+21.96	37.50' L
295	Taxiway SB	1091+25.13	37.50' R
296	Taxiway SB	1091+24.30	67.50' R
297	Taxiway SB	1093+10.25	48.00' R
298	Taxiway SB	1093+06.97	77.86' R
299	Taxiway SA	2083+77.86	37.50' R
300	Taxiway SA	2083+76.94	67.49' R
301	Taxiway SA	2092+95.70	37.50' R
302	Taxiway SA	2083+79.11	52.50' R
303	Taxiway SA	2088+20.31	52.50' R
304	Taxiway SA	2093+13.56	74.86' R
305	Taxiway SA	2088+10.37	80.87' R
306	Taxiway SA	2092+77.17	99.64' R

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
307	Taxiway SA	2094+21.90	123.02' R
395	Taxiway SA	2093+12.35	48.00' L
396	Taxiway SA	2093+09.17	77.88' L
397	Taxiway SA	2091+00.00	37.50' L
398	Taxiway SA	2090+99.28	67.50' L
399	Taxiway SA	2087+21.98	38.00' L
400	Taxiway SA	2087+21.96	68.00' L
415	Taxiway SA	2089+61.40	122.82' R
416	Taxiway SA	2089+69.76	94.00' R
417	Taxiway SA	2089+83.54	204.60' R
418	Taxiway SA	2089+51.12	210.48' R
419	Taxiway SA	2089+62.89	243.69' R
420	Taxiway SA	2089+99.67	230.72' R

POINTS ARE ON SHEET C04.12

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
359	Taxiway SA	2107+01.00	65.00' R
360	Taxiway SA	2106+98.70	94.92' R
361	Taxiway SA	2107+62.86	95.76' R
362	Taxiway SA	2107+50.55	106.15' R
363	Taxiway SA	2107+39.93	115.11' R
364	Taxiway SA	2109+90.78	95.84' R
365	Taxiway SA	2110+06.78	125.59' R
366	Taxiway SA	2111+86.04	19.98' R
367	Taxiway SA	2111+53.07	0.16' R
368	Taxiway SB	1111+51.92	143.86' R
369	Taxiway SB	1111+87.54	139.63' R
370	Taxiway SB	1111+86.65	134.52' R
371	Taxiway SB	1111+83.70	130.09' R
372	Taxiway SB	1111+78.38	125.20' R
373	Taxiway SB	1111+72.30	120.75' R
374	Taxiway SB	1109+50.37	32.40' R
375	Taxiway SB	1109+38.15	13.91' L
376	Taxiway SB	1109+28.79	20.30' L

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
377	Taxiway SB	1109+20.55	7.77' L
378	Taxiway SB	1109+11.48	7.48' R
379	Taxiway SB	1108+78.51	17.50' L
380	Taxiway SB	1107+10.42	81.00' R
381	Taxiway SB	1107+04.65	110.46' R
382	Taxiway SB	1107+65.94	136.46' R
383	Taxiway SB	1107+36.55	142.49' R
384	Taxiway SB	1107+73.77	179.12' R
385	Taxiway SB	1107+43.29	179.24' R
386	Taxiway SA	2107+66.14	136.81' L
387	Taxiway SA	2107+36.63	142.21' L
388	Taxiway SA	2107+10.51	81.00' L
389	Taxiway SA	2107+05.13	110.51' L
390	Taxiway SB	1108+96.00	41.88' L
391	Taxiway SB	1107+58.44	50.00' L
392	Taxiway SB	1107+56.33	79.93' L
393	Taxiway SB	1107+03.47	75.96' L
394	Taxiway SB	1107+05.06	46.00' L

POINTS ARE ON SHEET C04.11

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
308	Taxiway SA	2094+35.68	149.67' R
309	Taxiway SA	2095+34.37	74.93' R
310	Taxiway SA	2095+39.25	89.46' R
311	Taxiway SA	2097+55.30	67.50' R
312	Taxiway SA	2097+55.06	37.50' R
313	Taxiway SA	2102+71.23	37.50' R
314	Taxiway SA	2102+41.25	67.50' R
315	Taxiway SA	2104+41.32	37.50' R
316	Taxiway SA	2104+39.74	67.50' R
317	Taxiway SA	2105+11.22	47.00' L
318	Taxiway SA	2105+07.95	76.88' L
319	Taxiway SA	2103+17.18	37.50' L
320	Taxiway SA	2103+16.45	67.50' L
321	Taxiway SA	2101+73.84	37.50' L
322	Taxiway SA	2101+74.62	67.50' L
323	Taxiway SA	2099+92.51	47.00' L
324	Taxiway SA	2099+95.68	76.88' L
325	Taxiway SA	2097+86.85	80.00' L
326	Taxiway SA	2097+92.32	109.51' L
327	Taxiway SA	2097+30.72	136.17' L
328	Taxiway SA	2097+60.20	141.74' L
329	Taxiway SA	2097+23.54	178.47' L
330	Taxiway SA	2097+53.99	178.35' L
331	Taxiway SB	1097+60.69	143.26' R
332	Taxiway SB	1097+31.29	137.24' R
333	Taxiway SB	1097+92.79	111.45' R

PAVING LAYOUT PLAN LIMITS			
POINT NO.	BASELINE	STATION	OFFSET
334	Taxiway SB	1097+87.00	82.00' R
335	Taxiway SB	1099+96.00	76.88' R
336	Taxiway SB	1099+92.77	47.00' R
337	Taxiway SB	1101+95.52	67.50' R
338	Taxiway SB	1101+94.81	37.50' R
339	Taxiway SB	1103+17.89	67.50' R
340	Taxiway SB	1102+70.96	37.50' R
341	Taxiway SB	1103+18.72	37.50' R
342	Taxiway SB	1102+40.99	67.50' R
343	Taxiway SB	1105+05.82	77.87' R
344	Taxiway SB	1105+09.08	48.00' R
345	Taxiway SB	1104+35.24	37.50' L
346	Taxiway SB	1104+34.77	67.50' L
347	Taxiway SB	1102+40.89	67.50' L
348	Taxiway SB	1102+70.91	37.50' L
349	Taxiway SB	1095+12.57	81.00' R
350	Taxiway SB	1095+06.80	110.46' R
351	Taxiway SB	1095+69.28	136.73' R
352	Taxiway SB	1095+39.82	142.58' R
353	Taxiway SB	1095+76.50	186.17' R
354	Taxiway SB	1095+46.09	185.56' R
355	Taxiway SA	2095+69.72	137.05' L
356	Taxiway SA	2095+40.28	142.87' L
357	Taxiway SA	2095+13.48	81.00' L
358	Taxiway SA	2095+08.00	110.50' L

HOUSTON AIRPORTS

BURNS McDONNELL
1700 West Loop South
Suite 1500
Houston, TX 77027
(713) 622-0227
TBPE Registration No. F-845

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

HORIZONTAL GEOMETRY POINT TABLES II

PROJECT MGR:	JF
DESIGNER:	PAB
DRAWN BY:	PAB
CHECK BY:	JF
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
JASON C FUEHNE
144303
LICENSED
PROFESSIONAL ENGINEER
11/2/23

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C04.14

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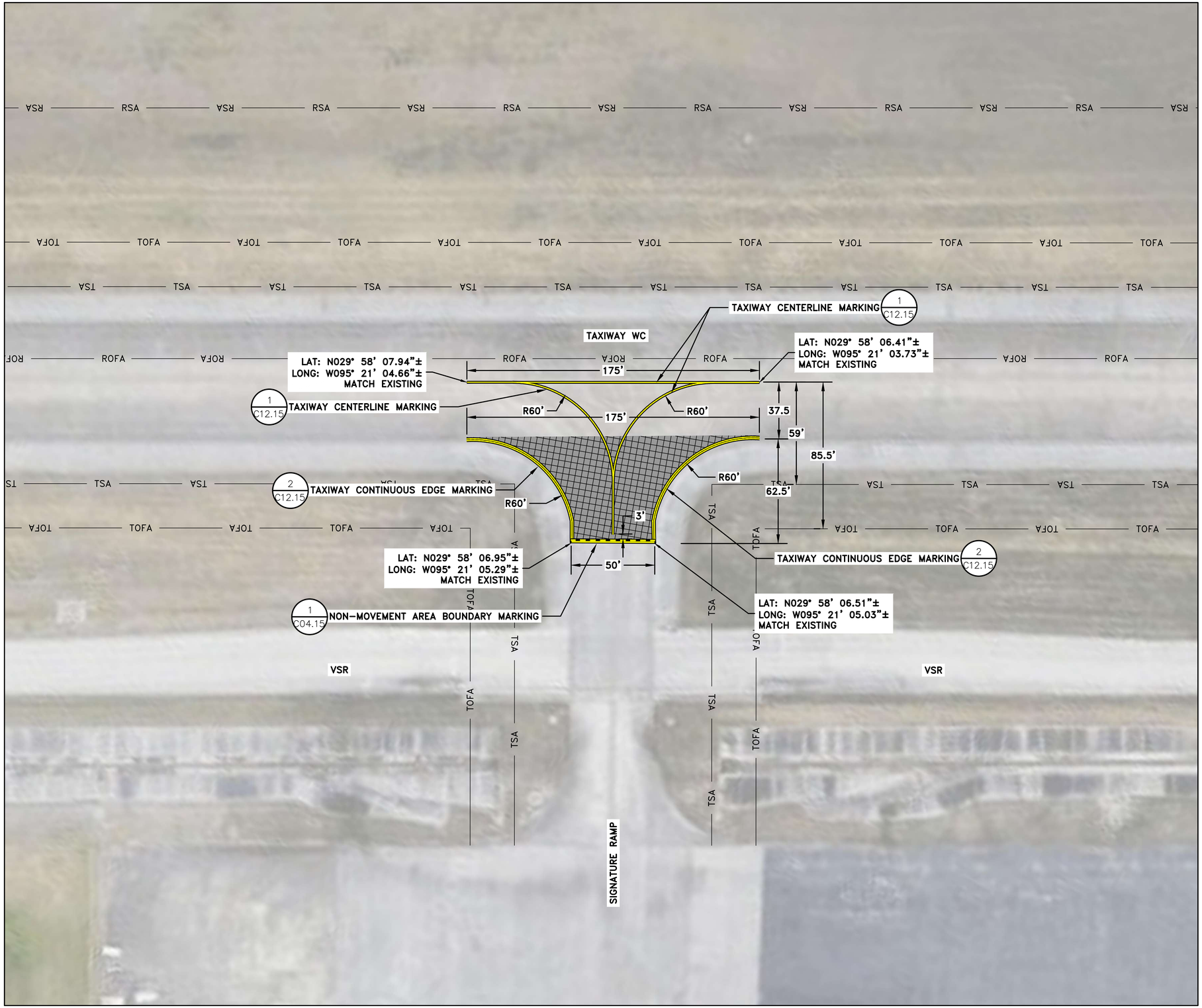

LEGEND

	PROPOSED 2" ASPHALT MILL & OVERLAY
— RSA —	RUNWAY SAFETY AREA
— ROFA —	RUNWAY OBJECT FREE AREA
— TSA —	TAXIWAY SAFETY AREA
— TOFA —	TAXIWAY OBJECT FREE AREA

NOTES:

1. CONSTRUCTION LIMITS AREA APPROXIMATE AND WILL BE CONFIRMED WITH RPR AND/OR HAS PROJECT MANAGER PRIOR TO STARTING ANY WORK.
2. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, HAND HOLES, AIRFIELD EQUIPMENT, DRAINAGE STRUCTURES, AND BUILDINGS NOT SHOWN FOR DEMOLITION. ANY DAMAGE AS A RESULT OF CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
3. WHERE PROPOSED NEW PAVEMENT ABUTS EXISTING PAVEMENT, PROVIDE AN INITIAL CLEAN SAWCUT EDGE 6 INCHES FROM THE PROPOSED EDGE OF NEW PAVEMENT. WHEN PREPARING FOR PLACING PAVEMENT, SAWCUT NEW CLEAN EDGE AT THE PROPOSED EDGE OF PAVEMENT.
4. SEE G04.01 FOR CSPP DETAILS.

NOTES:

1. YELLOW AND BLACK LINES ARE 6" WIDE.
2. YELLOW LINES ARE SEPARATED BY 6" SPACE.

1 / THISREF — NON-MOVEMENT AREA BOUNDARY
SCALE: NONE

KEYMAP

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

SIGNATURE RAMP PAVEMENT REHAB PLAN (ADDITIVE ALTERNATE 3)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 30'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C04.15

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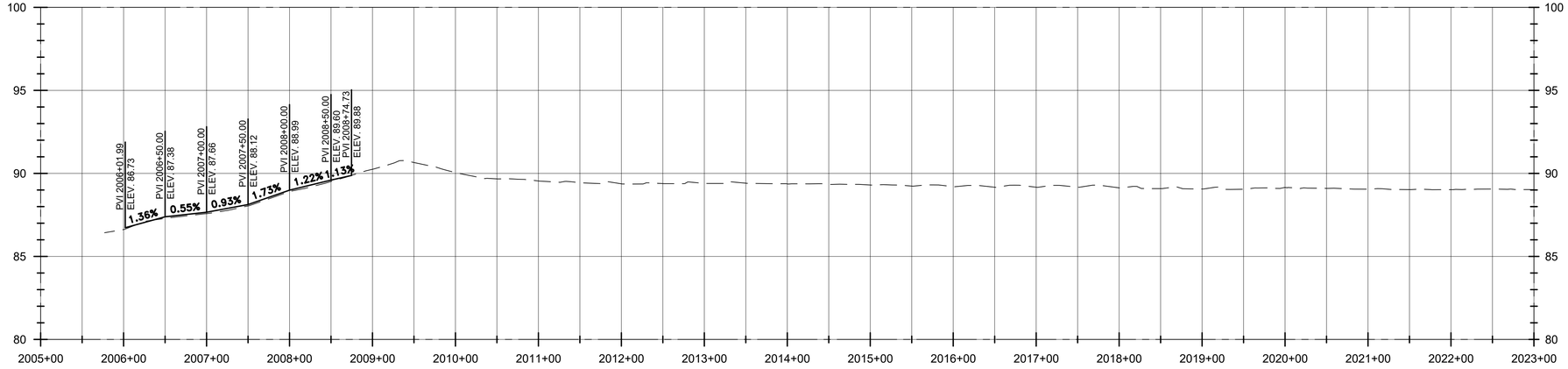

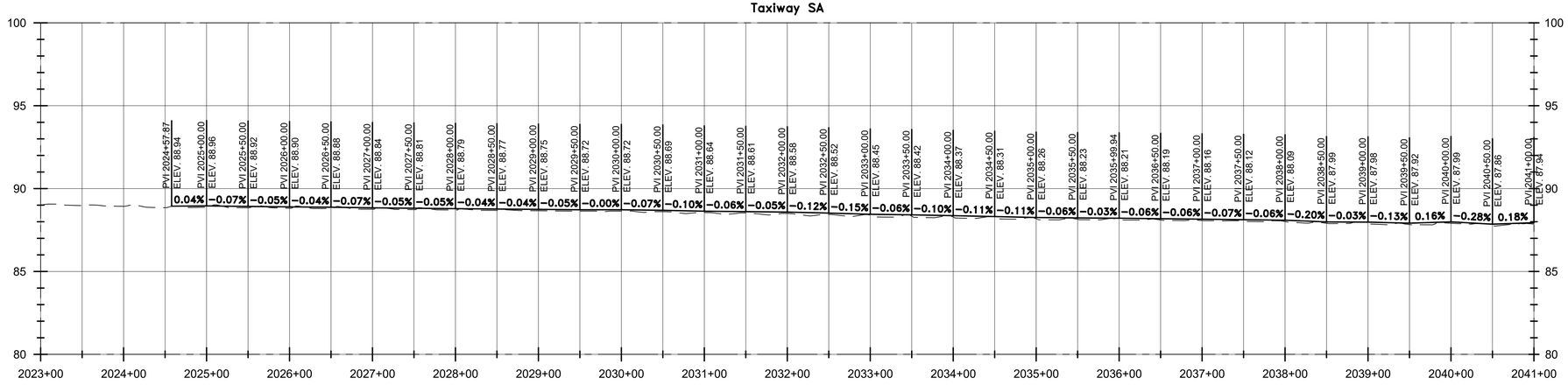

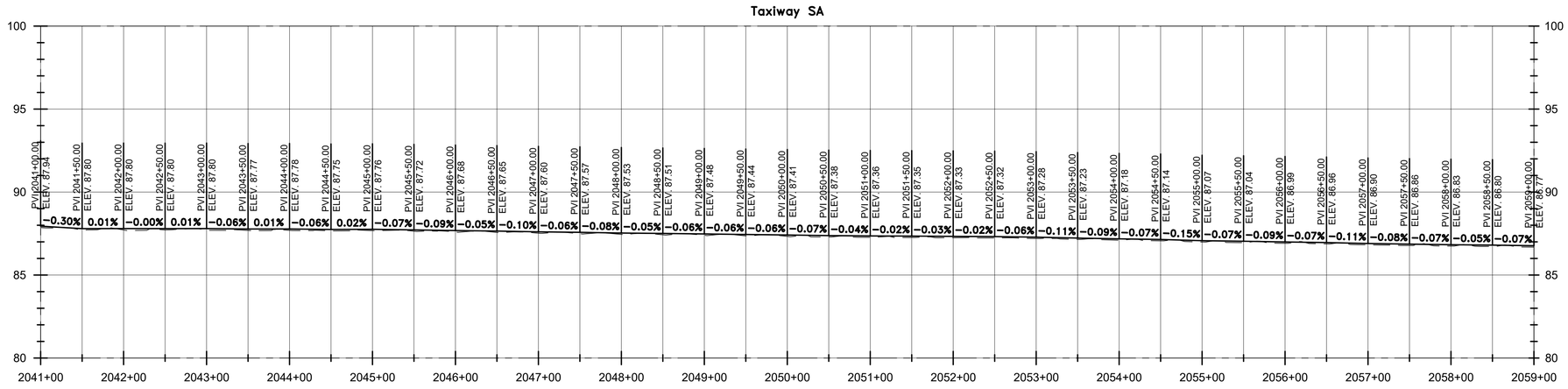

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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PROFILE I

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 80'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

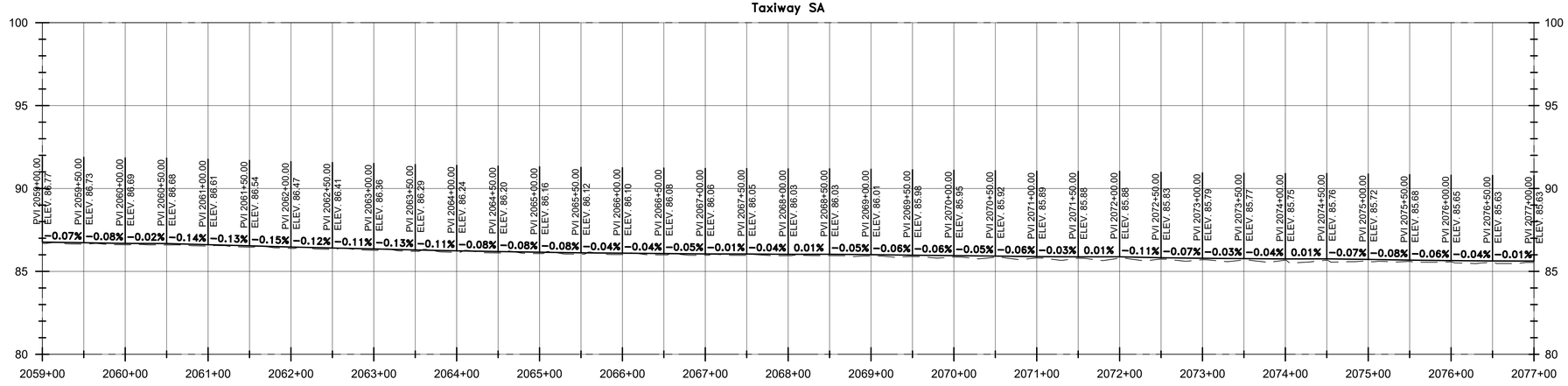
PROJECT NO.
0646A

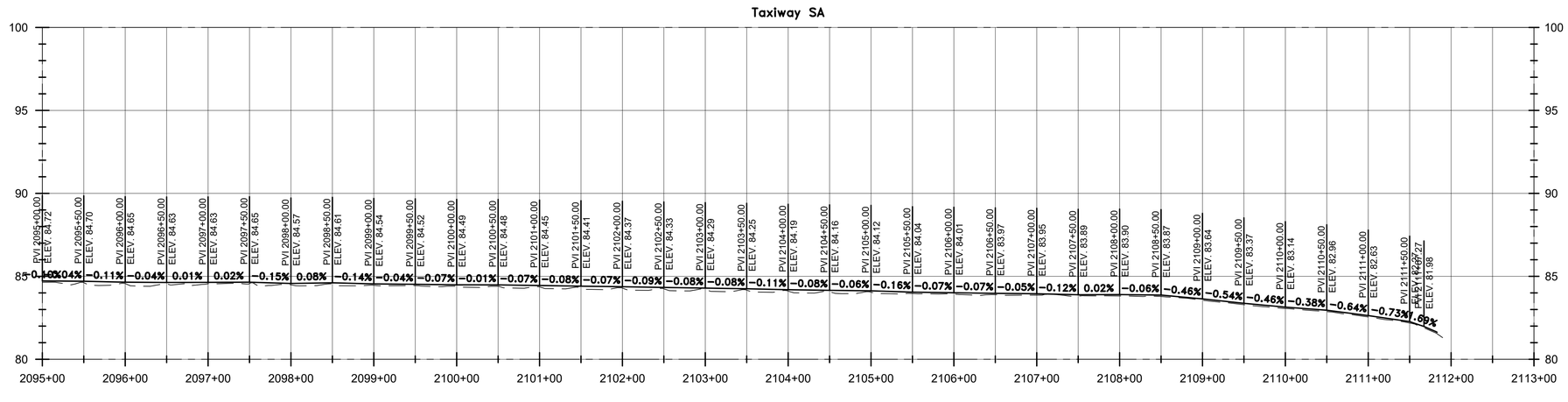
A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
C05.01





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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PROFILE II

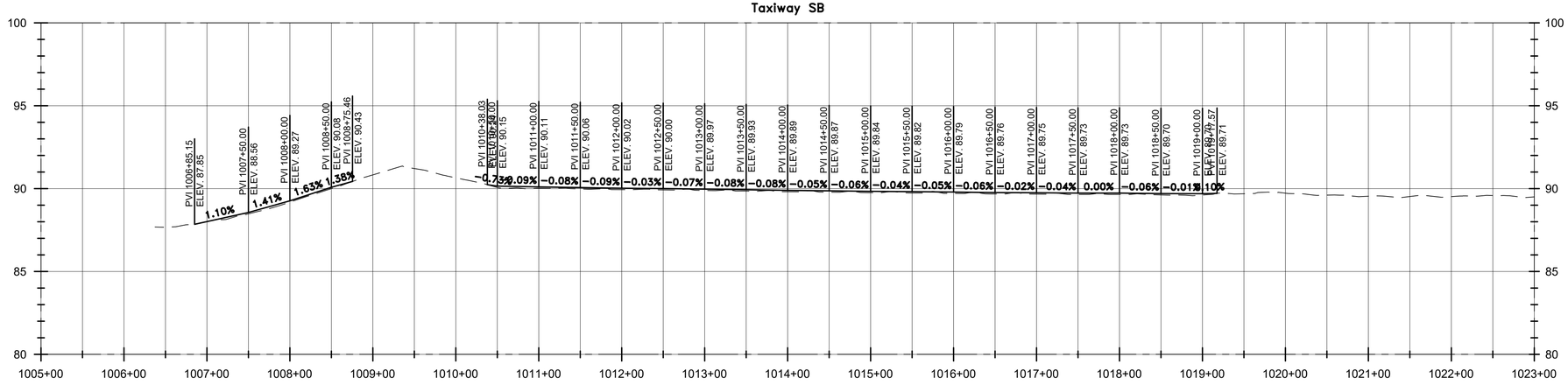
PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 80'
DATE:	11/02/2023

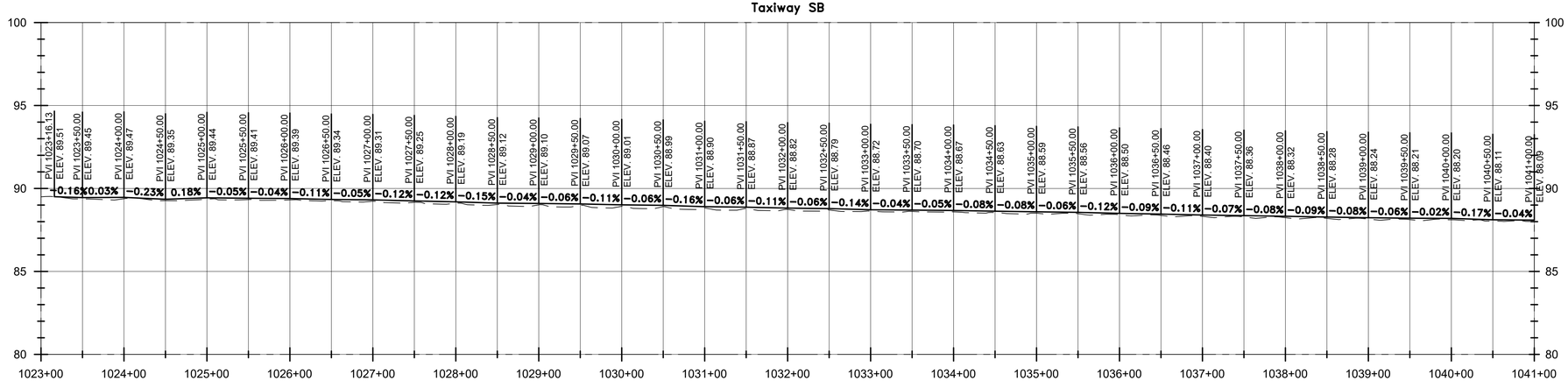
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

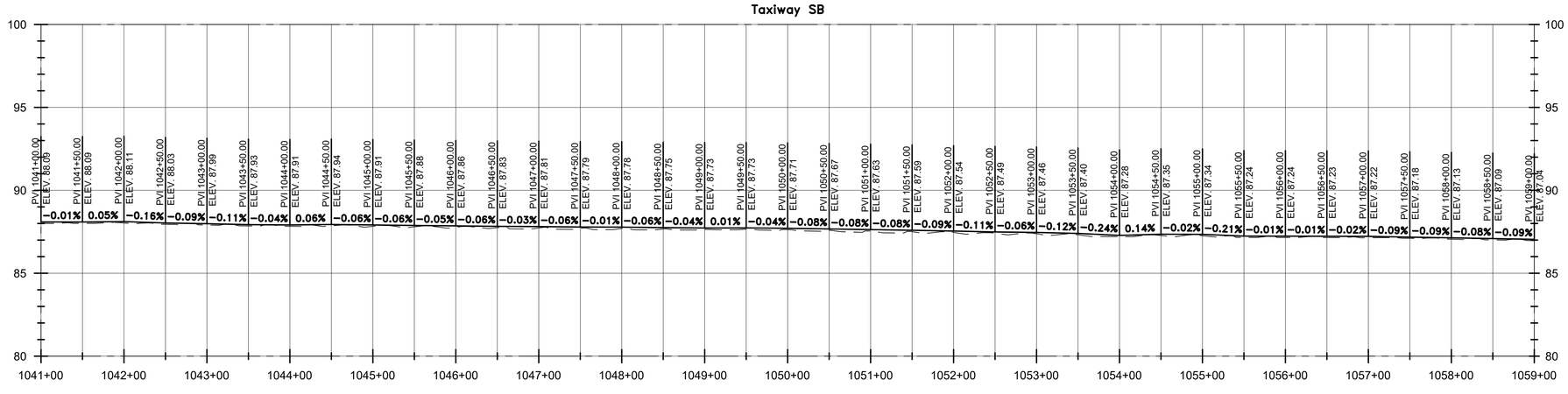
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C05.02







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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PROFILE III

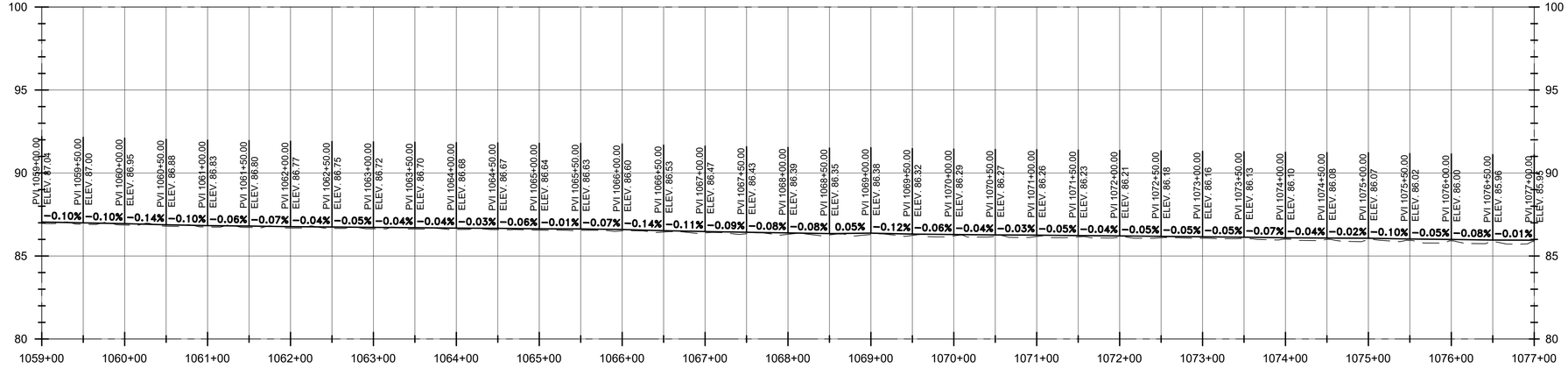
PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 80'
DATE:	11/02/2023

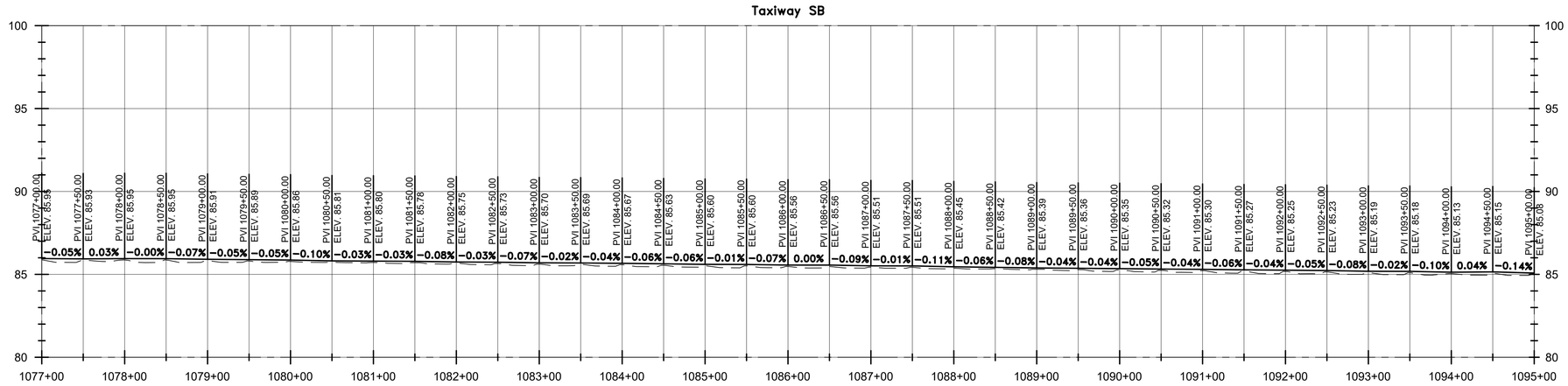
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

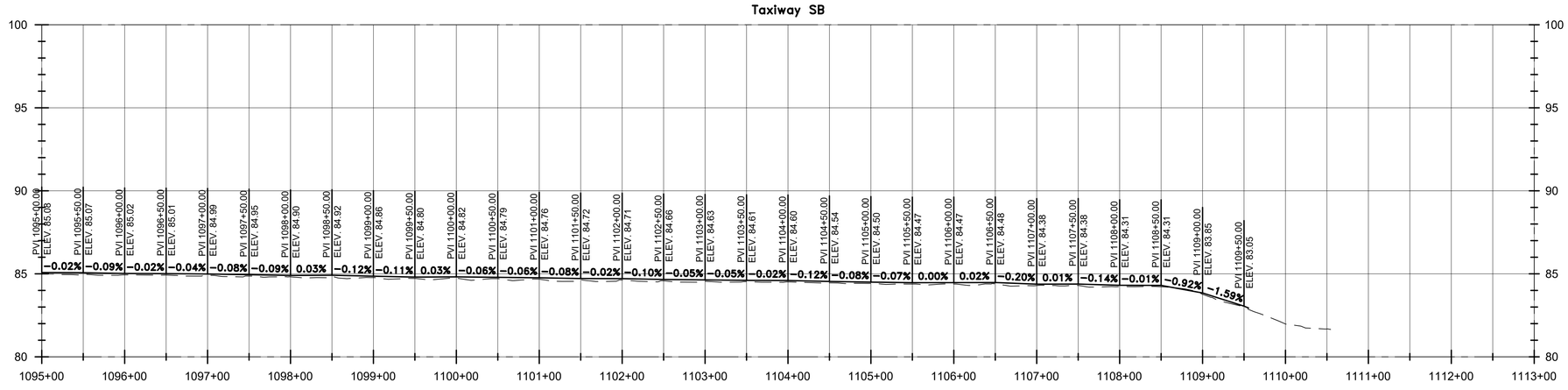
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. C05.03







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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PROFILE IV

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 80'
DATE:	11/02/2023

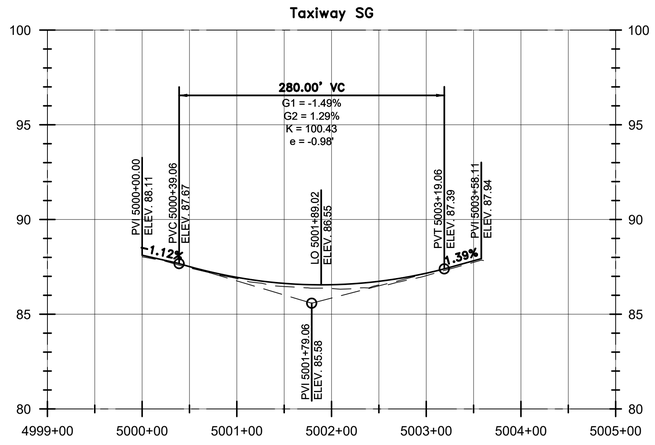
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

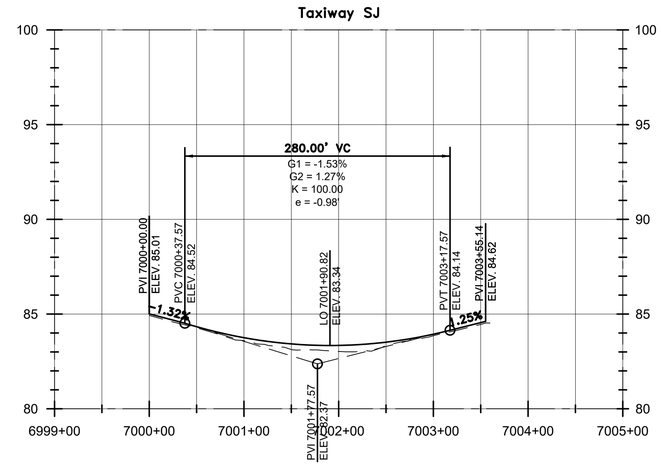
Digitally Signed 11/02/2023

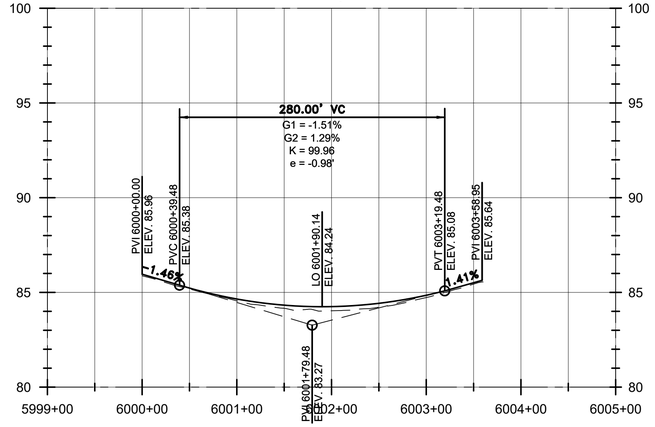
APPROVED BY: JEF

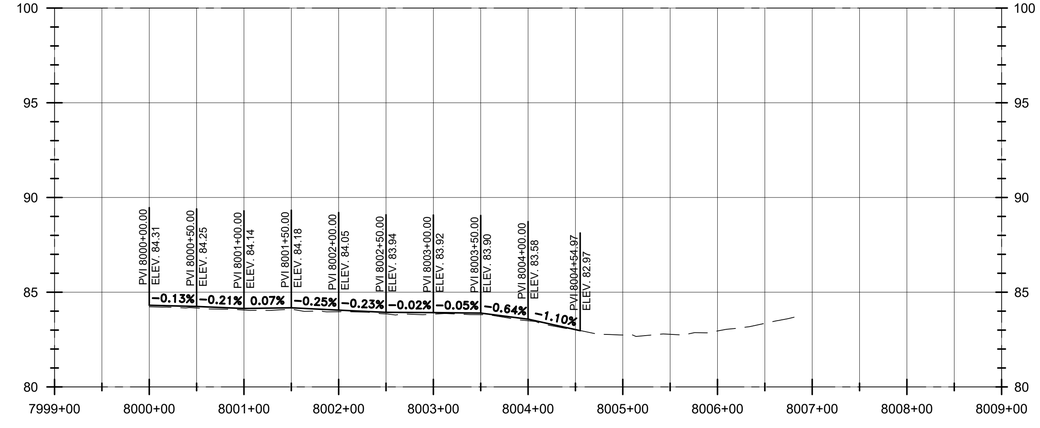
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C05.04









VERTICAL EXAGGERATION = 20

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PLOT DATE: 3/10/2022 11:09:43 AM

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

PROFILE V

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 80'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

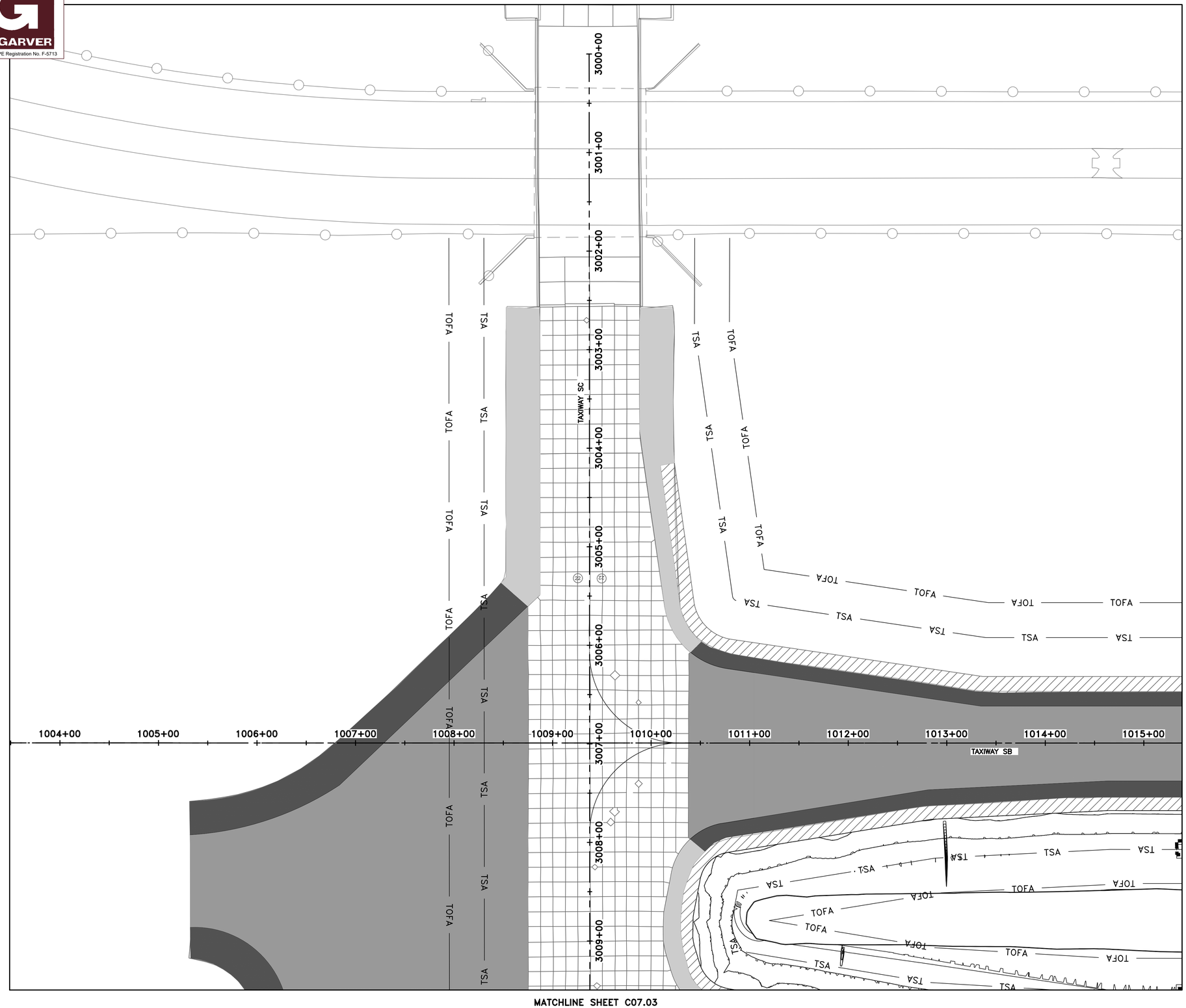
APPROVED BY: JEF

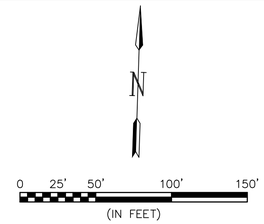
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C05.05

GARVER
TBPE Registration No. F-5713





NOTES:

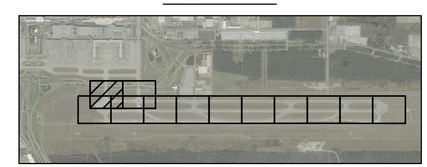
1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

MATCHLINE SHEET C07.02

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.01

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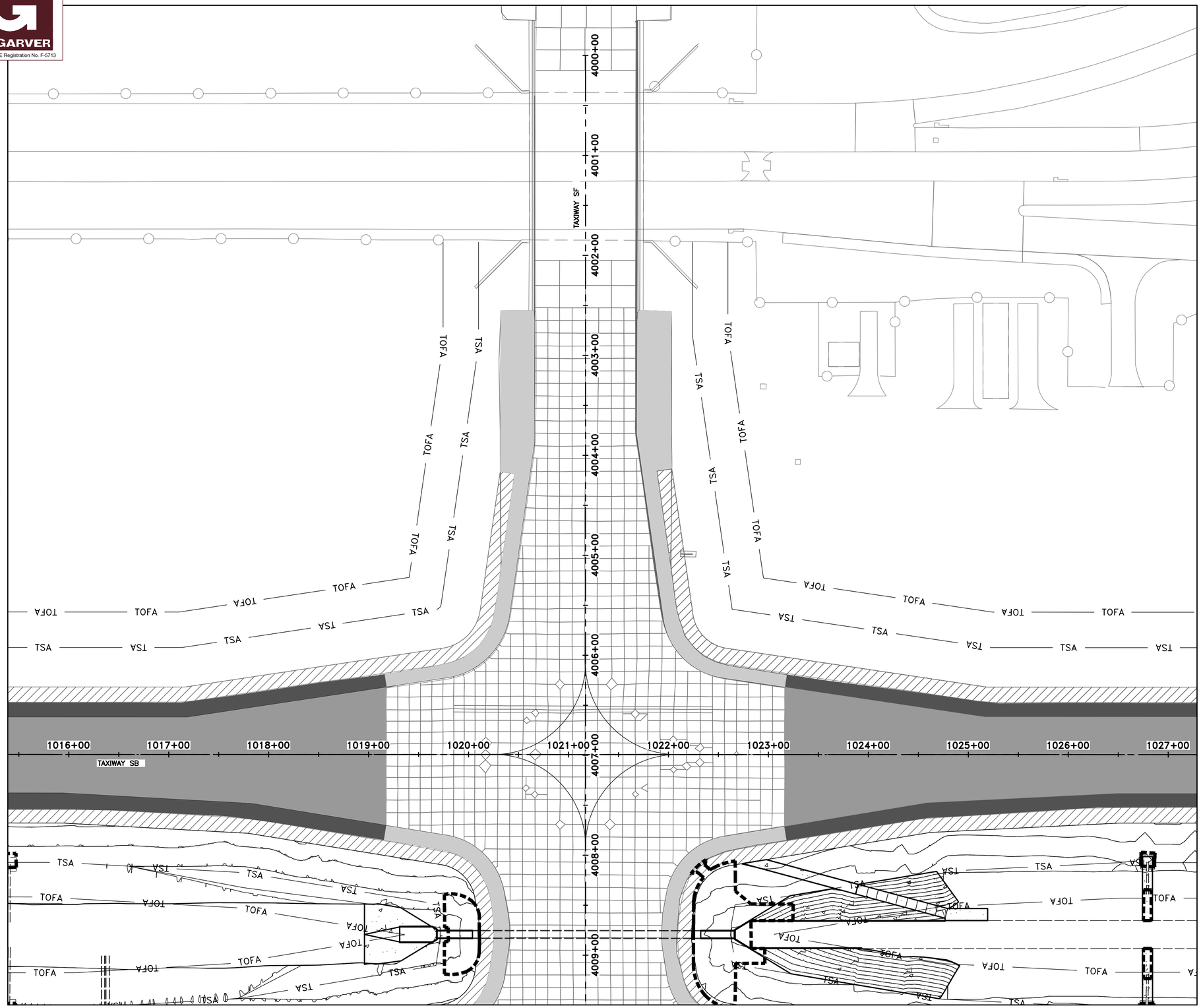
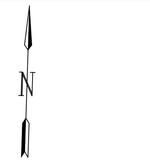
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C07.01

MATCHLINE SHEET C07.04



0 25' 50' 100' 150'
(IN FEET)

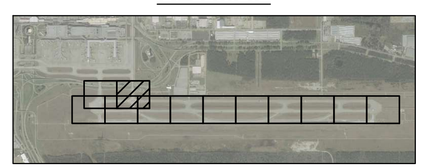
NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.02

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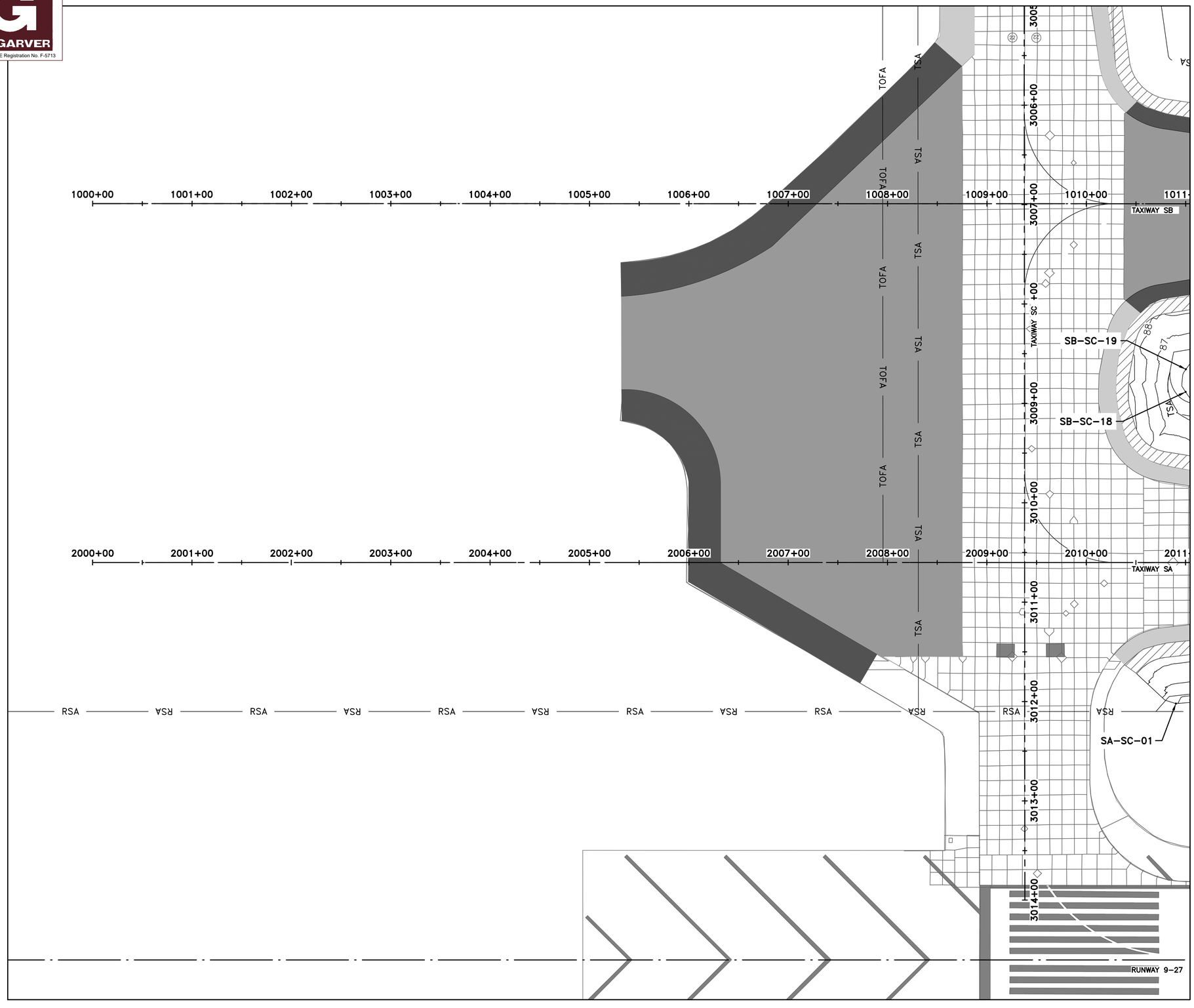
PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C07.01



MATCHLINE SHEET C07.04

N

0 25' 50' 100' 150'
(IN FEET)

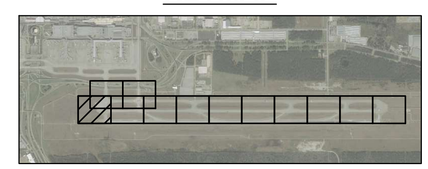
NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN III

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.03

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PLOT DATE: 3/10/2022 11:08:43 AM

GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C07.02

EXIST BACKSLOPE INTERCEPTOR
REMOVE & RELOCATE

EXIST 24" CMP BACKSLOPE DRAIN
TO REMAIN

SB-SC-01
SB-SC-02
SB-SC-03
SB-SC-04
SB-SC-05
SB-SC-06
SB-SC-07
SB-SC-08
SB-SC-09
SB-SC-10
SB-SC-11
SB-SC-12
SB-SC-13
SB-SC-14
SB-SC-15
SB-SC-16
SB-SC-17

PROP CONC SLOPE PAVING

EXIST CONC SLOPE PAVING
TO BE REMOVED

BEGIN 10' MAINT RAMP
STA. 1022+74.17
OFF. 109.03' R

CULVERT 01
EXIST 7X5 RCB

PROP HEADWALL 01

PROP 36 LF 7X5 RCB @ 0.02%

PROP 34 LF 7X5 RCB @ 0.02%

PROP HEADWALL 02

TAXIWAY SB

TAXIWAY SA

TAXIWAY SE

EXIST 24" CMP BACKSLOPE DRAIN
TO REMAIN

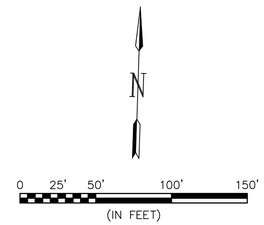
EXIST BACKSLOPE INTERCEPTOR
REMOVE & RELOCATE

SA-SC-02
SA-SC-03
SA-SC-04
SA-SC-05
SA-SC-06
SA-SC-07
SA-SC-08

RUNWAY 9-27

MATCHLINE SHEET C07.03

MATCHLINE SHEET C07.05



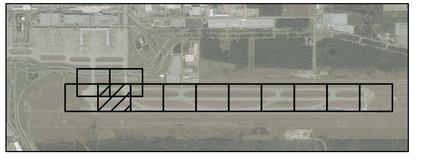
NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN IV

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.04

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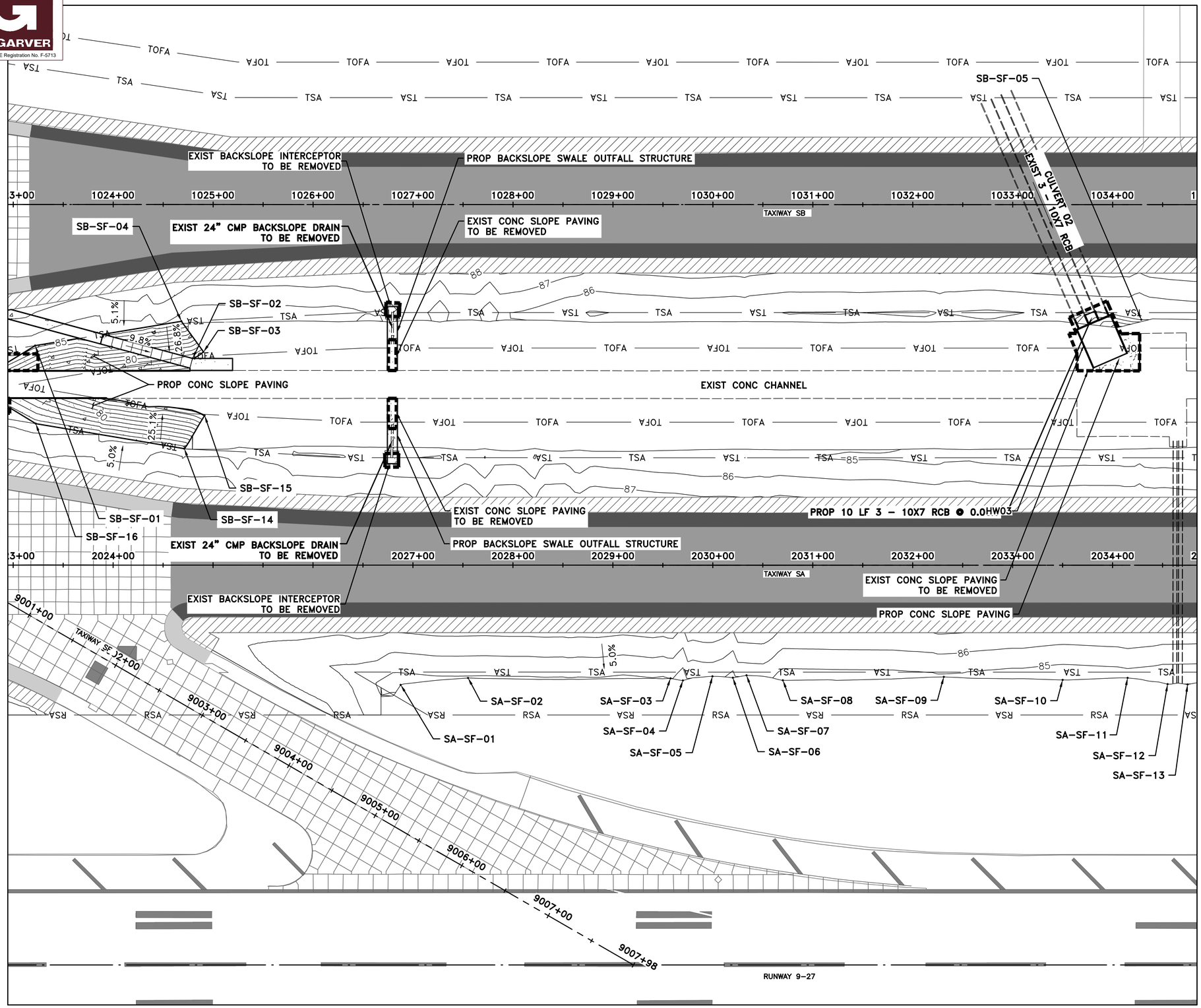
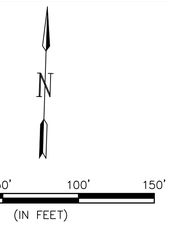
PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713





NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
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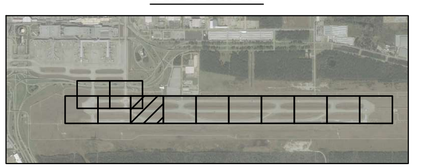
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN V

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.05

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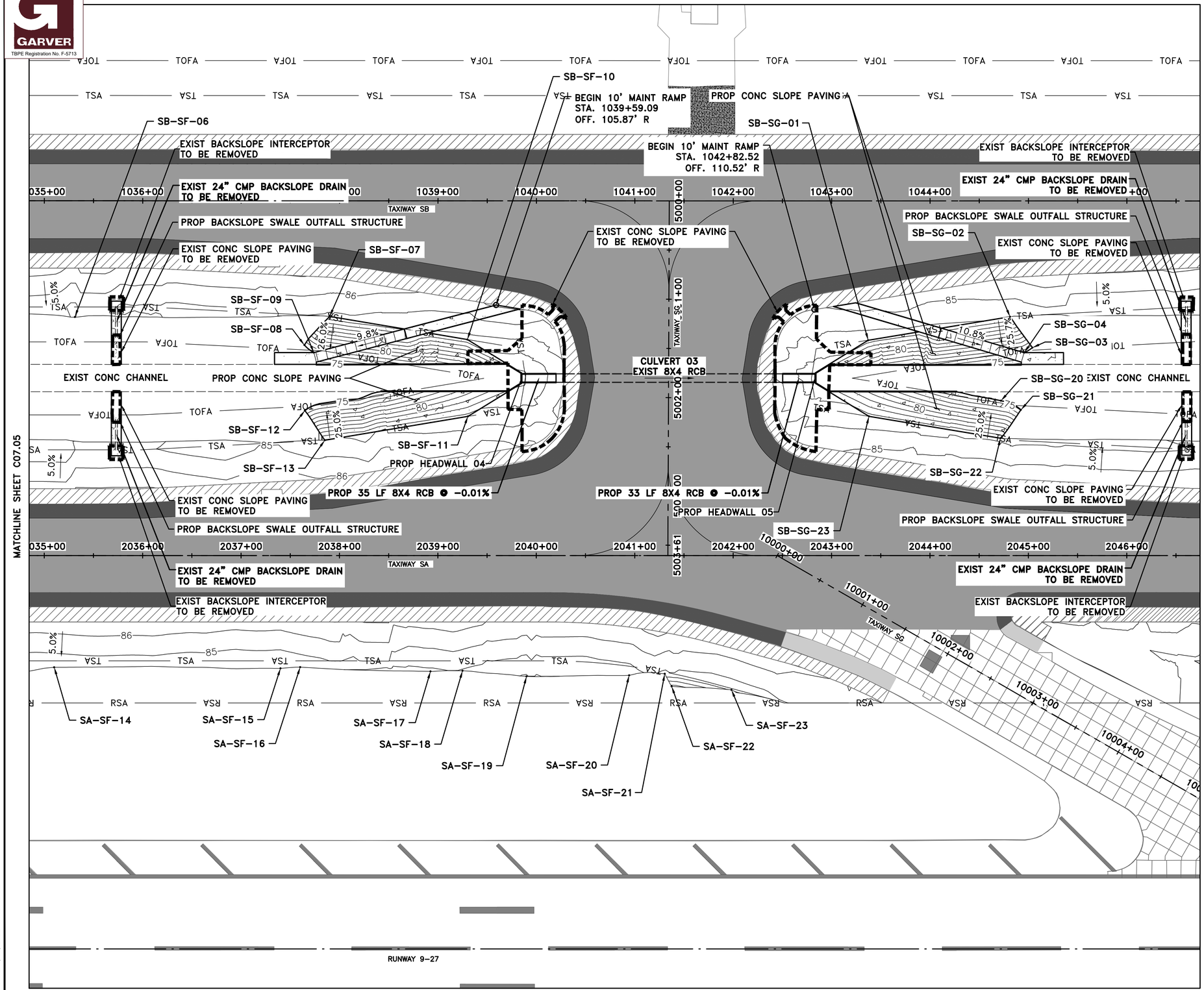
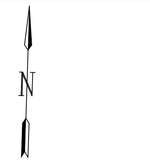
GARVER
TBPE Registration No. F-5713





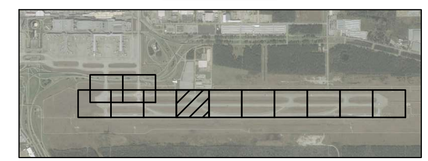
NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN VI

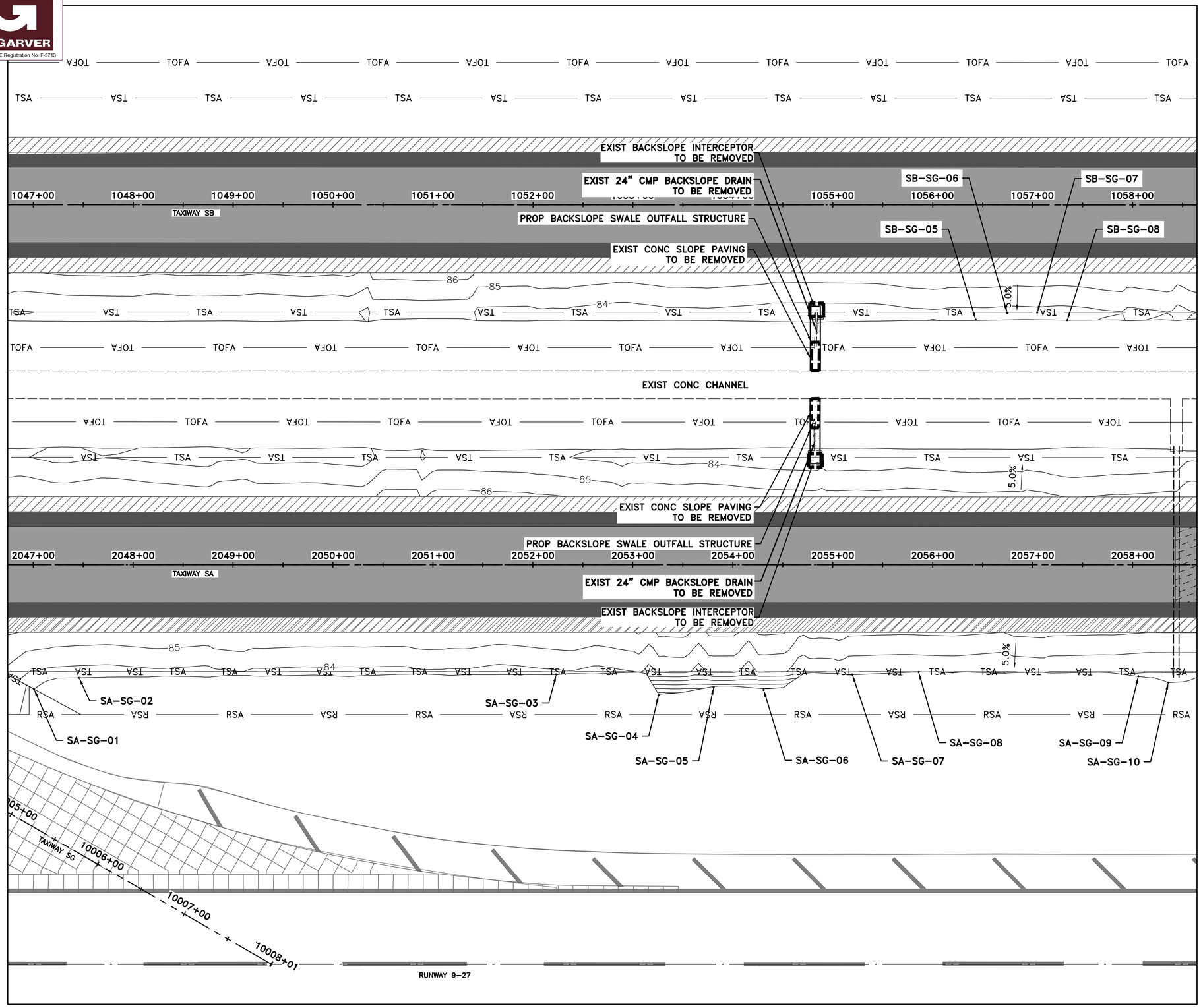
PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.06

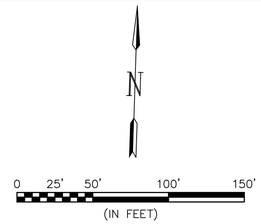
HAS FILE: C:\Users\HowardChang\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\GRADING & DRAINAGE PLAN XII.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C07.06

MATCHLINE SHEET C07.08



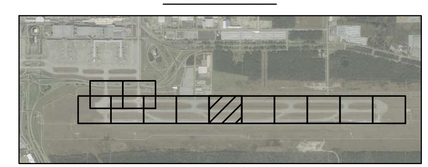
NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN VII

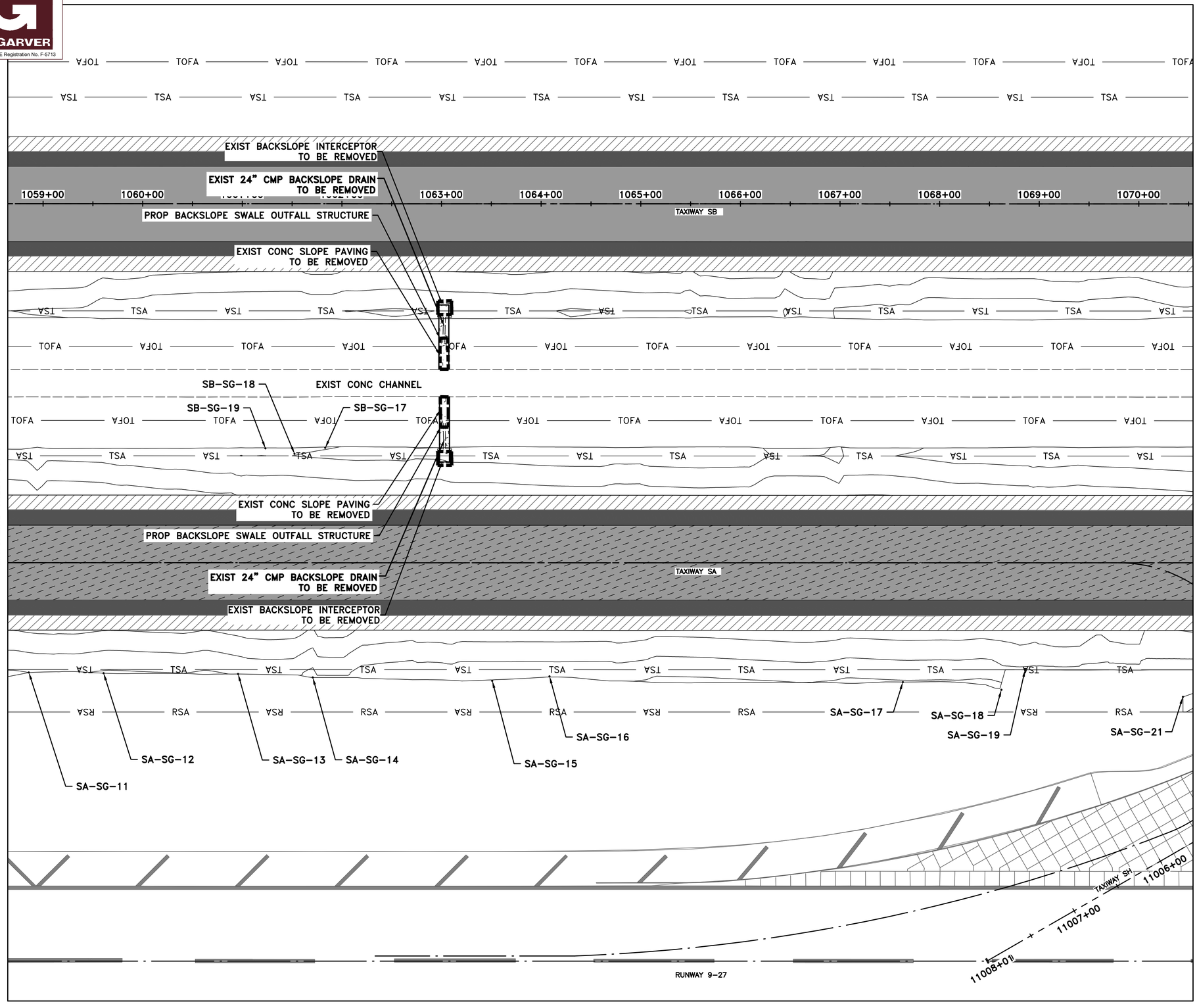
PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.07

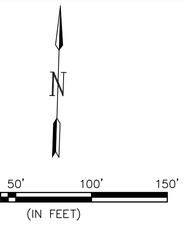
HAS FILE: C:\Users\HowardChang\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\GRADING & DRAINAGE PLAN XII.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C07.07

MATCHLINE SHEET C07.09



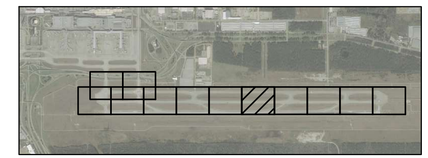
NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN VIII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.08

HAS FILE: C:\Users\HowardChong\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\GRADING & DRAINAGE PLAN XII.dwg
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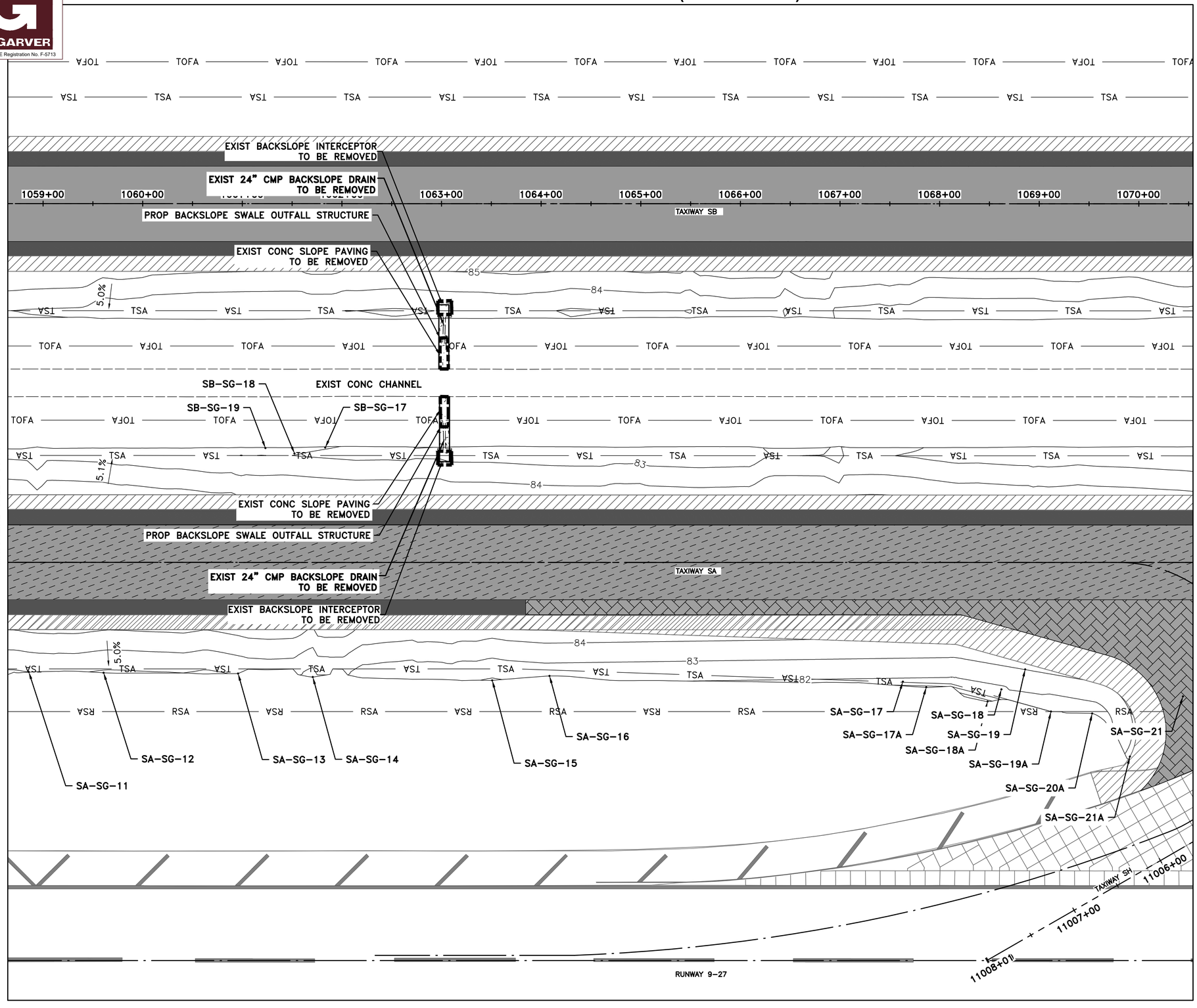
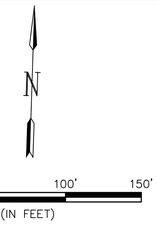
ADDITIVE ALTERNATE 1 (IF AWARDED)





NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
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- —TSA— TAXIWAY SAFETY AREA
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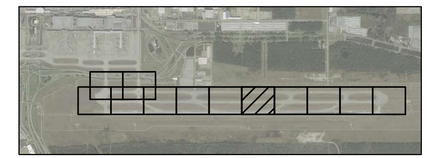
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN VIII (ADDITIVE ALTERNATE 1)

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.08A

HAS FILE: C:\Users\HowardChong\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\GRADING & DRAINAGE PLAN XII.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713

PROP CONC SLOPE PAVING
BEGIN 10' MAINT RAMP
STA. 1074+70.57
OFF. 105.40' R
SB-SH-01
EXIST BACKSLOPE INTERCEPTOR TO BE REMOVED
BEGIN 10' MAINT RAMP
STA. 1077+97.85
OFF. 111.57' R
EXIST BACKSLOPE INTERCEPTOR TO BE REMOVED
EXIST 24" CMP BACKSLOPE DRAIN TO BE REMOVED
EXIST 24" CMP BACKSLOPE DRAIN TO BE REMOVED
1071+00
1074+00
1075+00
1076+00
1077+00
1078+00
1079+00
1082+00
PROP BACKSLOPE SWALE OUTFALL STRUCTURE
TAXIWAY SB
PROP BACKSLOPE SWALE OUTFALL STRUCTURE
EXIST CONC SLOPE PAVING TO BE REMOVED
EXIST CONC SLOPE PAVING TO BE REMOVED
SB-SH-02
EXIST CONC SLOPE PAVING TO BE REMOVED
SB-SG-11
SB-SG-10
SB-SG-09
SB-SH-03
SB-SH-04
SB-SH-17
EXIST CONC CHANNEL
EXIST CONC CHANNEL
CULVERT 04
EXIST 6X5 RCB
TAXIWAY SH
6000+00
6002+00
PROP 34 LF 6X5 RCB @ 0.03%
PROP HEADWALL 06
SB-SG-15
SB-SG-16
SB-SG-12
SB-SG-13
SB-SG-14
PROP 33 LF 6X5 RCB @ 0.03%
PROP HEADWALL 07
SB-SH-16
SB-SH-15
EXIST CONC SLOPE PAVING TO BE REMOVED
PROP BACKSLOPE SWALE OUTFALL STRUCTURE
EXIST 24" CMP BACKSLOPE DRAIN TO BE REMOVED
TAXIWAY SA
SB-SH-18
EXIST 24" CMP BACKSLOPE DRAIN TO BE REMOVED
EXIST BACKSLOPE INTERCEPTOR TO BE REMOVED
PROP CONC SLOPE PAVING
EXIST BACKSLOPE INTERCEPTOR TO BE REMOVED
11001+00
11002+00
11003+00
11004+00
11005+00
TAXIWAY SH
SA-SG-20
SA-SH-01
SA-SH-02
SA-SH-03
SA-SH-04
SA-SH-05
RUNWAY 9-27
MATCHLINE SHEET C07.08
MATCHLINE SHEET C07.10

0 25' 50' 100' 150'
(IN FEET)

NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
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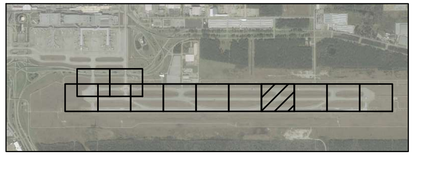
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN IX

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

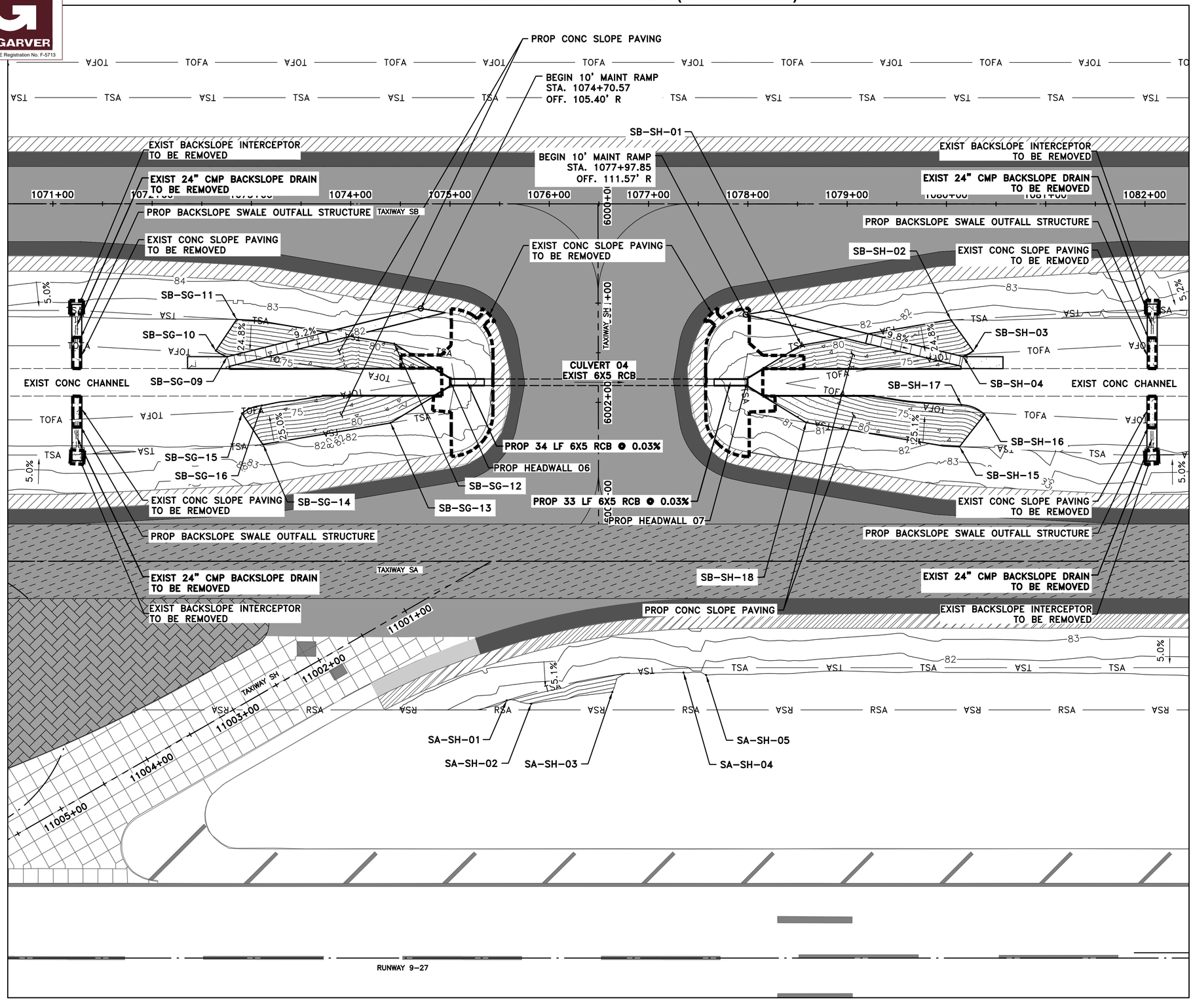
APPROVED BY:	JEF

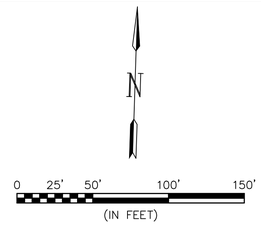
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.09

HAS FILE: C:\Users\HowardChang\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\GRADING & DRAINAGE PLAN XII.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

ADDITIVE ALTERNATE 1 (IF AWARDED)





NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
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- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
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- EXIST STORM SEWER PIPE
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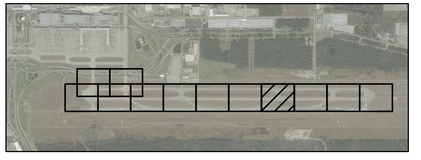
- CONTOURS

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN IX (ADDITIVE ALTERNATE 1)

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

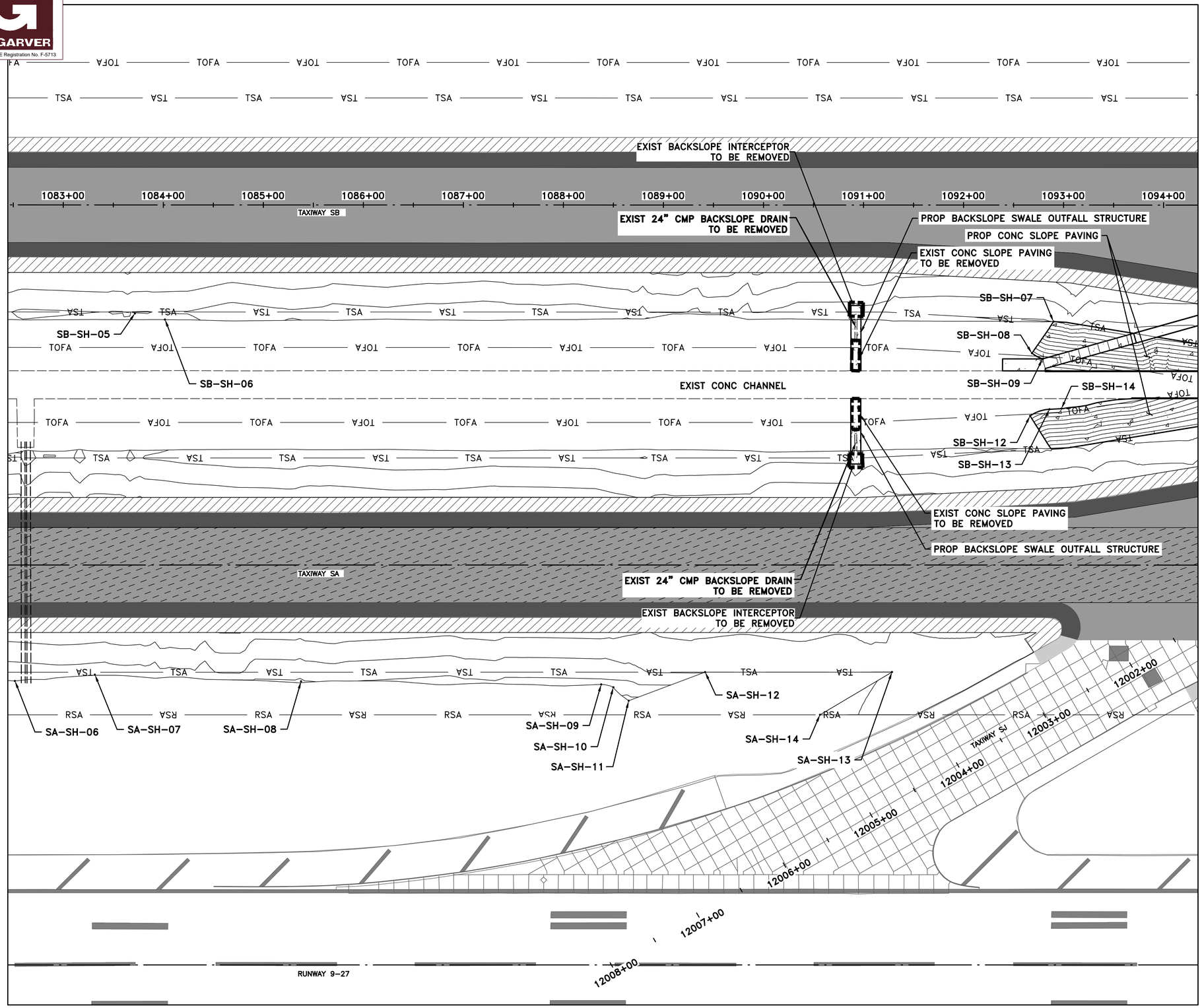
APPROVED BY:	JEF

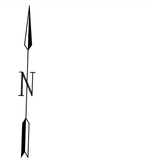
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.09A

HAS FILE: C:\Users\HowardChang\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\GRADING & DRAINAGE PLAN XII.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713





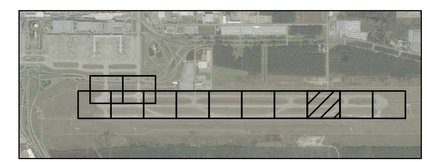
NOTES:

1. SEE GRADING LIMIT TABLES ON SHEET C07.13
2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- PROPOSED FULL DEPTH CONCRETE PANEL REPAIR
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767–0090
TBPE FIRM No. F–14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN X

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.10

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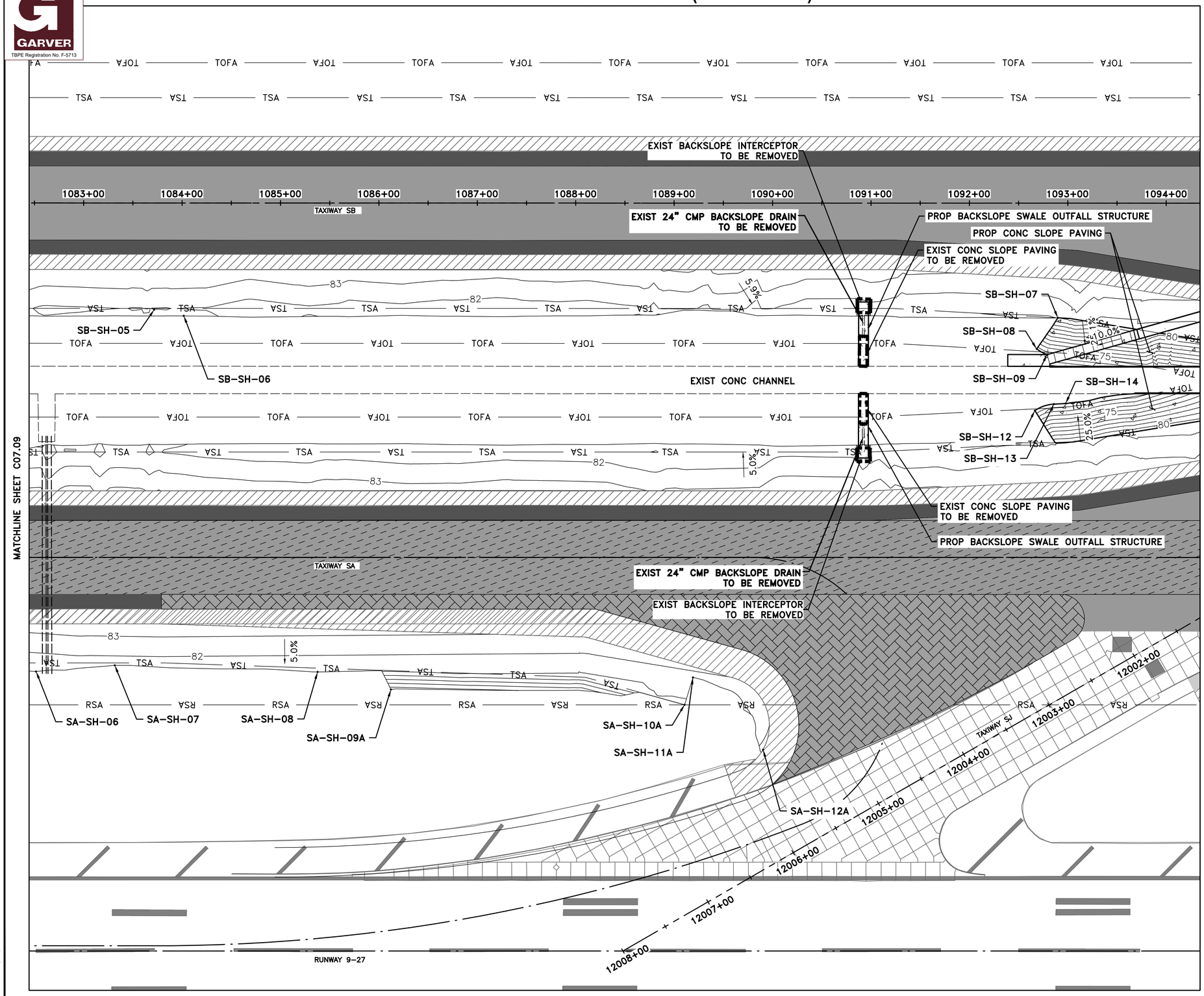
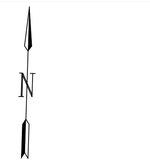
PLOT DATE: 3/10/2022 11:08:43 AM

ADDITIVE ALTERNATE 1 (IF AWARDED)





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2. SEE CULVERT PROFILES AND WINGWALL LIMITS ON SHEETS C07.15 TO C07.24
3. SEE PROP WINGWALL DETAILS ON SHEETS C07.25 AND C07.26
4. SEE PROP BACKSLOPE SWALE OUTFALL STRUCTURE DETAILS ON SHEET C07.28
5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
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- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
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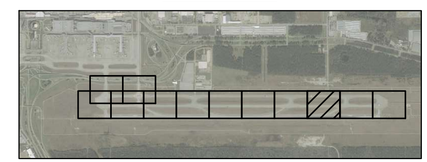
- —ROFA— RUNWAY OBJECT FREE AREA
- REMOVE EXIST CONC SLOPE PAVING
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE X (ADDITIVE ALTERNATE 1)

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.10A

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PLOT DATE: 3/10/2022 11:08:43 AM

GARVER
TBPE Registration No. F-5713

BEGIN 10' MAINT RAMP
STA. 1094+59.61
OFF. 102.76' R

EXIST 24" CMP BACKSLOPE DRAIN
TO BE REMOVED

EXIST 24" CMP BACKSLOPE DRAIN
TO BE REMOVED

1095+00 1096+00 7000+00 1097+00 1098+00 1099+00 1100+00 1101+00 1102+00 1103+00 1104+00 1105+00 1106+00

SB-SH-10

BEGIN 10' MAINT RAMP
STA. 1098+10.36
OFF. 108.46' R

EXIST CONC SLOPE PAVING
TO BE REMOVED

TAXIWAY SB
PROP BACKSLOPE SWALE OUTFALL STRUCTURE

SB-SJ-07

SB-SJ-08

SB-SJ-09

EXIST CONC SLOPE PAVING
TO BE REMOVED

EXIST CONC SLOPE PAVING
TO BE REMOVED

7001+00

SB-SJ-02

SB-SJ-06

SB-SJ-05

SB-SJ-03

SB-SJ-04

CULVERT 05
EXIST 8X4 RCB

SB-SJ-01

EXIST CONC CHANNEL

SB-SJ-10

SB-SJ-11

SB-SJ-16

TAXIWAY SJ 2+00

SB-SJ-18

SB-SJ-15

SB-SJ-19

SB-SJ-14

SB-SJ-17

EXIST CONC SLOPE PAVING
TO BE REMOVED

PROP 34 LF 8X4 RCB @ 0.02%

SB-SH-11

PROP HEADWALL 08

PROP CONC SLOPE PAVING

PROP 32 LF 8X4 RCB @ 0.02%

PROP BACKSLOPE SWALE OUTFALL STRUCTURE

TAXIWAY SA

EXIST 24" CMP BACKSLOPE DRAIN
TO BE REMOVED

PROP HEADWALL 09

SB-SJ-20

EXIST BACKSLOPE INTERCEPTOR
TO BE REMOVED

PROP CONC SLOPE PAVING

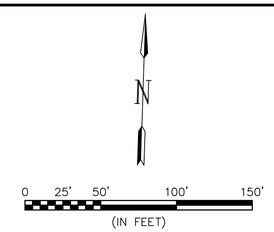
12 TAXIWAY SJ

SA-SJ-01
SA-SJ-02
SA-SJ-03
SA-SJ-04
SA-SJ-05
SA-SJ-06
SA-SJ-07
SA-SJ-08
SA-SJ-09
SA-SJ-10
SA-SJ-11

RUNWAY 9-27

MATCHLINE SHEET C07.10

MATCHLINE SHEET C07.12



NOTES:

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5. SEE PROP CONC SLOPE PAVING DETAIL ON SHEET C07.29
6. SEE DEMOLITION ON SHEETS C02.01 TO C02.12.

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
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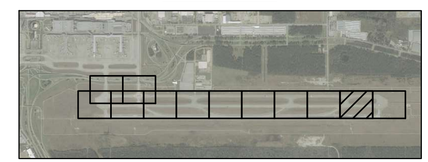

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN XI

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.11

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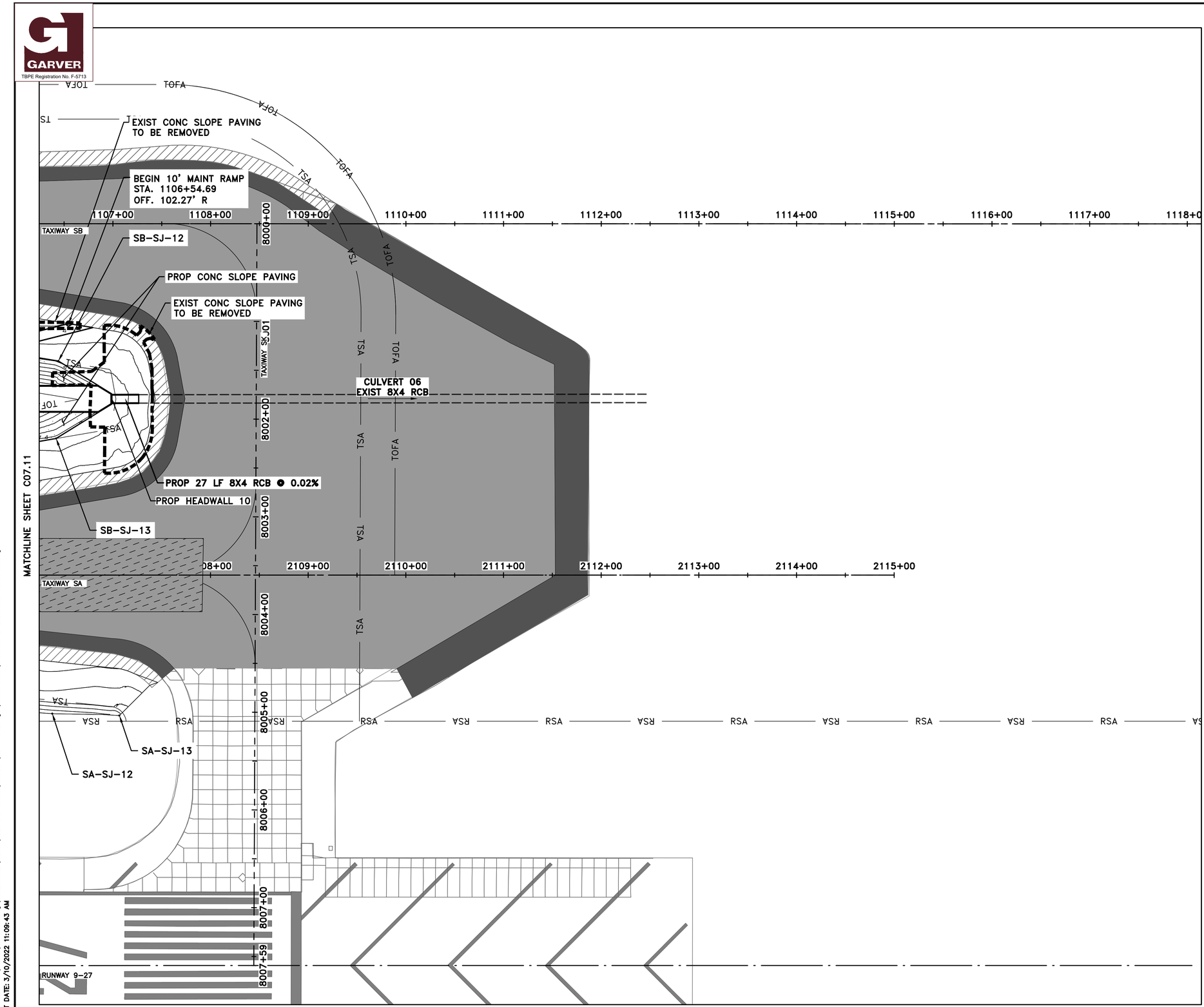

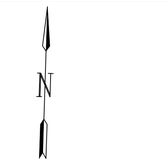

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LEGEND

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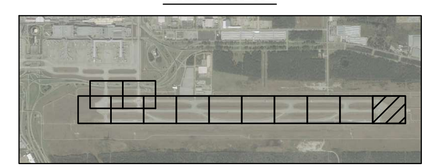

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE PLAN XII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.12

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PLOT DATE: 3/10/2022 11:08:43 AM

GARVER
TBPE Registration No. F-5713

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SB-SC-01	TAXIWAY SB	1011+11.79	158.57' R	86.43
SB-SC-02	TAXIWAY SB	1011+37.48	154.23' R	86.42
SB-SC-03	TAXIWAY SB	1011+58.02	155.97' R	86.51
SB-SC-04	TAXIWAY SB	1015+10.96	147.56' R	86.99
SB-SC-05	TAXIWAY SB	1015+61.74	150.02' R	87.04
SB-SC-06	TAXIWAY SB	1018+95.85	149.54' R	0.00
SB-SC-07	TAXIWAY SB	1019+32.16	153.27' R	85.05
SB-SC-08	TAXIWAY SB	1019+67.96	175.14' R	83.82
SB-SC-09	TAXIWAY SB	1019+67.96	184.80' R	84.60
SB-SC-10	TAXIWAY SB	1019+32.56	206.42' R	84.57
SB-SC-11	TAXIWAY SB	1018+95.63	209.72' R	85.70
SB-SC-12	TAXIWAY SB	1017+55.57	213.89' R	86.60
SB-SC-13	TAXIWAY SB	1014+60.60	209.12' R	86.82
SB-SC-14	TAXIWAY SB	1013+62.86	206.75' R	86.58
SB-SC-15	TAXIWAY SB	1011+61.75	203.55' R	86.07
SB-SC-16	TAXIWAY SB	1011+36.44	204.77' R	85.98
SB-SC-17	TAXIWAY SB	1011+14.52	200.29' R	86.00
SB-SC-18	TAXIWAY SB	1010+99.98	189.39' R	86.17
SB-SC-19	TAXIWAY SB	1011+00.29	166.55' R	86.32

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SB-SF-01	TAXIWAY SB	1023+21.93	141.14' R	0.00
SB-SF-02	TAXIWAY SB	1024+79.40	154.00' R	0.00
SB-SF-03	TAXIWAY SB	1024+90.26	147.49' R	0.00
SB-SF-04	TAXIWAY SB	1024+68.27	116.84' R	0.00
SB-SF-05	TAXIWAY SB	1034+28.69	115.05' R	85.05
SB-SF-06	TAXIWAY SB	1035+31.08	118.10' R	85.09
SB-SF-07	TAXIWAY SB	1037+89.93	117.54' R	84.75
SB-SF-08	TAXIWAY SB	1037+64.29	146.61' R	75.10
SB-SF-09	TAXIWAY SB	1037+73.90	154.26' R	0.00
SB-SF-10	TAXIWAY SB	1039+29.92	140.98' R	0.00
SB-SF-11	TAXIWAY SB	1039+30.52	219.09' R	84.07
SB-SF-12	TAXIWAY SB	1037+64.78	213.26' R	75.05
SB-SF-13	TAXIWAY SB	1037+85.08	243.38' R	0.00
SB-SF-14	TAXIWAY SB	1024+71.11	244.20' R	85.47
SB-SF-15	TAXIWAY SB	1024+91.45	211.07' R	75.83
SB-SF-16	TAXIWAY SB	1023+22.58	219.28' R	0.00

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SB-SG-01	TAXIWAY SB	1043+37.15	141.65' R	0.00
SB-SG-02	TAXIWAY SB	1044+81.35	117.72' R	0.00
SB-SG-03	TAXIWAY SB	1045+04.05	149.12' R	0.00
SB-SG-04	TAXIWAY SB	1044+95.64	154.25' R	0.00
SB-SG-05	TAXIWAY SB	1056+43.02	114.95' R	84.00
SB-SG-06	TAXIWAY SB	1056+74.58	108.27' R	83.65
SB-SG-07	TAXIWAY SB	1057+04.58	107.80' R	83.76
SB-SG-08	TAXIWAY SB	1057+34.58	115.46' R	83.98
SB-SG-09	TAXIWAY SB	1072+75.68	154.03' R	72.39
SB-SG-10	TAXIWAY SB	1072+64.17	147.89' R	72.56
SB-SG-11	TAXIWAY SB	1072+85.28	116.50' R	81.99
SB-SG-12	TAXIWAY SB	1074+43.87	140.94' R	81.58
SB-SG-13	TAXIWAY SB	1074+40.13	220.74' R	81.14
SB-SG-14	TAXIWAY SB	1073+11.64	242.36' R	0.00
SB-SG-15	TAXIWAY SB	1072+90.53	211.18' R	72.51
SB-SG-16	TAXIWAY SB	1073+10.49	203.20' R	72.22
SB-SG-17	TAXIWAY SB	1061+83.29	244.96' R	83.40
SB-SG-18	TAXIWAY SB	1061+52.46	250.94' R	82.78
SB-SG-19	TAXIWAY SB	1061+23.29	245.50' R	83.47
SB-SG-20	TAXIWAY SB	1044+72.07	203.08' R	74.41
SB-SG-21	TAXIWAY SB	1044+92.30	212.40' R	74.87
SB-SG-22	TAXIWAY SB	1044+71.68	241.21' R	0.00
SB-SG-23	TAXIWAY SB	1043+38.03	219.02' R	82.96

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SB-SH-01	TAXIWAY SB	1078+53.86	142.16' R	0.00
SB-SH-02	TAXIWAY SB	1080+04.60	117.01' R	0.00
SB-SH-03	TAXIWAY SB	1080+27.00	148.15' R	71.88
SB-SH-04	TAXIWAY SB	1080+17.05	153.82' R	71.77
SB-SH-05	TAXIWAY SB	1083+71.70	108.40' R	81.86
SB-SH-06	TAXIWAY SB	1084+01.70	114.58' R	82.31
SB-SH-07	TAXIWAY SB	1092+90.01	116.46' R	0.00
SB-SH-08	TAXIWAY SB	1092+68.43	148.05' R	71.45
SB-SH-09	TAXIWAY SB	1092+79.01	153.77' R	71.33
SB-SH-10	TAXIWAY SB	1094+47.90	140.87' R	80.49
SB-SH-11	TAXIWAY SB	1094+42.04	220.10' R	80.27
SB-SH-12	TAXIWAY SB	1092+66.61	210.72' R	71.20
SB-SH-13	TAXIWAY SB	1092+85.95	204.17' R	71.12
SB-SH-14	TAXIWAY SB	1092+97.77	203.56' R	71.12
SB-SH-15	TAXIWAY SB	1080+13.17	244.59' R	82.21
SB-SH-16	TAXIWAY SB	1080+38.49	212.07' R	71.91
SB-SH-17	TAXIWAY SB	1080+15.21	202.40' R	71.67
SB-SH-18	TAXIWAY SB	1078+58.82	220.26' R	81.01

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SB-SJ-01	TAXIWAY SB	1098+52.33	141.39' R	0.00
SB-SJ-02	TAXIWAY SB	1100+33.57	114.66' R	0.00
SB-SJ-03	TAXIWAY SB	1100+59.51	146.86' R	70.84
SB-SJ-04	TAXIWAY SB	1100+49.21	153.57' R	0.00
SB-SJ-05	TAXIWAY SB	1101+02.23	113.74' R	81.40
SB-SJ-06	TAXIWAY SB	1101+35.43	110.06' R	81.35
SB-SJ-07	TAXIWAY SB	1102+83.49	107.71' R	81.12
SB-SJ-08	TAXIWAY SB	1103+30.36	113.86' R	81.42
SB-SJ-09	TAXIWAY SB	1104+65.46	114.59' R	80.99
SB-SJ-10	TAXIWAY SB	1104+36.60	146.35' R	71.15
SB-SJ-11	TAXIWAY SB	1104+48.69	154.15' R	0.00
SB-SJ-12	TAXIWAY SB	1106+44.24	140.58' R	79.87
SB-SJ-13	TAXIWAY SB	1106+41.89	219.85' R	79.71
SB-SJ-14	TAXIWAY SB	1105+04.17	243.37' R	0.00
SB-SJ-15	TAXIWAY SB	1104+81.30	212.28' R	70.70
SB-SJ-16	TAXIWAY SB	1104+98.35	204.57' R	70.55
SB-SJ-17	TAXIWAY SB	1100+00.64	243.58' R	80.52
SB-SJ-18	TAXIWAY SB	1100+18.78	210.66' R	71.05
SB-SJ-19	TAXIWAY SB	1099+97.80	203.39' R	70.75
SB-SJ-20	TAXIWAY SB	1098+57.15	220.66' R	80.15

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE POINT TABLES I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. C07.13

HAS FILE: C:\Users\HowardChang\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\GRADING & DRAINAGE PLAN XII.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SC-01	TAXIWAY SB	1010+90.29	502.93' R	85.30
SA-SC-02	TAXIWAY SB	1012+50.97	496.01' R	80.82
SA-SC-03	TAXIWAY SB	1012+76.48	475.47' R	85.27
SA-SC-04	TAXIWAY SB	1016+58.31	476.27' R	85.53
SA-SC-05	TAXIWAY SB	1020+34.49	474.93' R	85.41
SA-SC-06	TAXIWAY SB	1021+04.14	493.70' R	81.29
SA-SC-07	TAXIWAY SB	1021+61.87	499.43' R	82.45
SA-SC-08	TAXIWAY SB	1021+90.28	498.69' R	84.40

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SJ-01	TAXIWAY SA	2095+67.39	137.62' R	80.06
SA-SJ-02	TAXIWAY SA	2095+82.76	139.71' R	78.52
SA-SJ-03	TAXIWAY SA	2096+53.60	134.66' R	76.31
SA-SJ-04	TAXIWAY SA	2097+10.14	116.02' R	80.28
SA-SJ-05	TAXIWAY SA	2100+67.90	111.31' R	80.66
SA-SJ-06	TAXIWAY SA	2101+27.90	117.89' R	79.72
SA-SJ-07	TAXIWAY SA	2101+92.90	111.91' R	80.33
SA-SJ-08	TAXIWAY SA	2103+77.90	115.35' R	79.89
SA-SJ-09	TAXIWAY SA	2104+85.83	112.28' R	80.42
SA-SJ-10	TAXIWAY SA	2105+28.16	134.56' R	75.86
SA-SJ-11	TAXIWAY SA	2105+83.26	136.49' R	76.67
SA-SJ-12	TAXIWAY SA	2106+38.01	141.82' R	77.12
SA-SJ-13	TAXIWAY SA	2107+06.72	143.78' R	78.50

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SF-01	TAXIWAY SA	2026+87.72	119.78' R	84.39
SA-SF-02	TAXIWAY SA	2027+55.09	112.85' R	84.90
SA-SF-03	TAXIWAY SA	2029+57.76	113.31' R	84.99
SA-SF-04	TAXIWAY SA	2029+70.09	115.41' R	84.36
SA-SF-05	TAXIWAY SA	2029+99.70	111.19' R	85.30
SA-SF-06	TAXIWAY SA	2030+20.09	112.62' R	84.65
SA-SF-07	TAXIWAY SA	2030+33.74	110.24' R	85.38
SA-SF-08	TAXIWAY SA	2030+70.09	115.22' R	84.41
SA-SF-09	TAXIWAY SA	2032+31.22	111.78' R	84.85
SA-SF-10	TAXIWAY SA	2033+50.09	114.82' R	84.22
SA-SF-11	TAXIWAY SA	2034+15.09	112.78' R	84.53
SA-SF-12	TAXIWAY SA	2034+55.09	118.99' R	84.01
SA-SF-13	TAXIWAY SA	2034+75.09	119.33' R	83.98
SA-SF-14	TAXIWAY SA	2035+10.09	113.64' R	84.29
SA-SF-15	TAXIWAY SA	2037+40.09	114.66' R	84.06
SA-SF-16	TAXIWAY SA	2037+60.09	113.44' R	84.35
SA-SF-17	TAXIWAY SA	2038+92.50	117.79' R	83.82
SA-SF-18	TAXIWAY SA	2039+25.09	117.09' R	83.92
SA-SF-19	TAXIWAY SA	2039+90.09	122.83' R	82.91
SA-SF-20	TAXIWAY SA	2040+94.35	121.78' R	83.42
SA-SF-21	TAXIWAY SA	2041+30.54	120.19' R	83.80
SA-SF-22	TAXIWAY SA	2041+37.50	132.97' R	80.71
SA-SF-23	TAXIWAY SA	2041+98.30	136.54' R	83.18

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SG-01	TAXIWAY SA	2047+00.84	124.42' R	83.06
SA-SG-02	TAXIWAY SA	2047+45.84	113.14' R	83.38
SA-SG-03	TAXIWAY SA	2052+23.53	109.83' R	83.76
SA-SG-04	TAXIWAY SA	2053+25.84	130.67' R	78.34
SA-SG-05	TAXIWAY SA	2053+80.84	122.74' R	80.30
SA-SG-06	TAXIWAY SA	2054+30.84	125.18' R	79.64
SA-SG-07	TAXIWAY SA	2055+19.57	109.92' R	83.06
SA-SG-08	TAXIWAY SA	2055+85.84	107.36' R	83.14
SA-SG-09	TAXIWAY SA	2058+05.84	111.66' R	82.84
SA-SG-10	TAXIWAY SA	2058+35.84	117.86' R	82.50
SA-SG-11	TAXIWAY SA	2058+85.76	110.16' R	83.00
SA-SG-12	TAXIWAY SA	2059+60.84	110.85' R	82.87
SA-SG-13	TAXIWAY SA	2060+95.84	111.66' R	163.96
SA-SG-14	TAXIWAY SA	2061+70.84	115.16' R	82.51
SA-SG-15	TAXIWAY SA	2063+50.99	118.52' R	81.88
SA-SG-16	TAXIWAY SA	2064+08.48	114.03' R	82.35
SA-SG-17	TAXIWAY SA	2067+63.30	119.78' R	81.90
SA-SG-18	TAXIWAY SA	2068+62.16	127.53' R	81.54
SA-SG-19	TAXIWAY SA	2068+86.00	107.40' R	82.86
SA-SG-20	TAXIWAY SA	2071+22.74	107.44' R	82.33
SA-SG-21	TAXIWAY SA	2070+44.40	134.61' R	81.60

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SH-01	TAXIWAY SA	2075+57.29	140.18' R	0.00
SA-SH-02	TAXIWAY SA	2075+81.98	143.70' R	78.79
SA-SH-03	TAXIWAY SA	2076+63.63	131.72' R	77.01
SA-SH-04	TAXIWAY SA	2077+35.33	112.19' R	81.69
SA-SH-05	TAXIWAY SA	2077+58.02	114.64' R	81.26
SA-SH-06	TAXIWAY SA	2082+51.72	115.90' R	81.05
SA-SH-07	TAXIWAY SA	2083+31.68	109.68' R	81.52
SA-SH-08	TAXIWAY SA	2085+37.84	116.34' R	81.16
SA-SH-09	TAXIWAY SA	2088+37.91	119.34' R	80.72
SA-SH-10	TAXIWAY SA	2088+50.06	122.20' R	80.49
SA-SH-11	TAXIWAY SA	2088+65.36	135.68' R	79.69
SA-SH-12	TAXIWAY SA	2089+41.72	107.04' R	82.06
SA-SH-13	TAXIWAY SA	2091+28.59	107.00' R	82.10
SA-SH-14	TAXIWAY SA	2090+56.67	149.68' R	0.00

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
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TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE POINT TABLES II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A
A.I.P. NO.
XXXX
C.I.P. NO.
A-0515
H.A.S. NO.
20C0646A
SHEET NO.
C07.14

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PLOT DATE: 3/10/2022 11:09:43 AM

ADDITIVE ALTERNATE 1 (IF AWARDED)

GARVER
TBPE Registration No. F-5713

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SC-01	TAXIWAY SB	1010+90.29	502.93' R	85.30
SA-SC-02	TAXIWAY SB	1012+50.97	496.01' R	80.82
SA-SC-03	TAXIWAY SB	1012+76.48	475.47' R	85.27
SA-SC-04	TAXIWAY SB	1016+58.31	476.27' R	85.53
SA-SC-05	TAXIWAY SB	1020+34.49	474.93' R	85.41
SA-SC-06	TAXIWAY SB	1021+04.14	493.70' R	81.29
SA-SC-07	TAXIWAY SB	1021+61.87	499.43' R	82.45
SA-SC-08	TAXIWAY SB	1021+90.28	498.69' R	84.40

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SJ-01	TAXIWAY SA	2095+67.39	137.62' R	80.06
SA-SJ-02	TAXIWAY SA	2095+82.76	139.71' R	78.52
SA-SJ-03	TAXIWAY SA	2096+53.60	134.66' R	76.31
SA-SJ-04	TAXIWAY SA	2097+10.14	116.02' R	80.28
SA-SJ-05	TAXIWAY SA	2100+67.90	111.31' R	80.66
SA-SJ-06	TAXIWAY SA	2101+27.90	117.89' R	79.72
SA-SJ-07	TAXIWAY SA	2101+92.90	111.91' R	80.33
SA-SJ-08	TAXIWAY SA	2103+77.90	115.35' R	79.89
SA-SJ-09	TAXIWAY SA	2104+85.83	112.28' R	80.42
SA-SJ-10	TAXIWAY SA	2105+28.16	134.56' R	75.86
SA-SJ-11	TAXIWAY SA	2105+83.26	136.49' R	76.67
SA-SJ-12	TAXIWAY SA	2106+38.01	141.82' R	77.12
SA-SJ-13	TAXIWAY SA	2107+06.72	143.78' R	78.50

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SF-01	TAXIWAY SA	2026+87.72	119.78' R	84.39
SA-SF-02	TAXIWAY SA	2027+55.09	112.85' R	84.90
SA-SF-03	TAXIWAY SA	2029+57.76	113.31' R	84.99
SA-SF-04	TAXIWAY SA	2029+70.09	115.41' R	84.36
SA-SF-05	TAXIWAY SA	2029+99.70	111.19' R	85.30
SA-SF-06	TAXIWAY SA	2030+20.09	112.62' R	84.65
SA-SF-07	TAXIWAY SA	2030+33.74	110.24' R	85.38
SA-SF-08	TAXIWAY SA	2030+70.09	115.22' R	84.41
SA-SF-09	TAXIWAY SA	2032+31.22	111.78' R	84.85
SA-SF-10	TAXIWAY SA	2033+50.09	114.82' R	84.22
SA-SF-11	TAXIWAY SA	2034+15.09	112.78' R	84.53
SA-SF-12	TAXIWAY SA	2034+55.09	118.99' R	84.01
SA-SF-13	TAXIWAY SA	2034+75.09	119.33' R	83.98
SA-SF-14	TAXIWAY SA	2035+10.09	113.64' R	84.29
SA-SF-15	TAXIWAY SA	2037+40.09	114.66' R	84.06
SA-SF-16	TAXIWAY SA	2037+60.09	113.44' R	84.35
SA-SF-17	TAXIWAY SA	2038+92.50	117.79' R	83.82
SA-SF-18	TAXIWAY SA	2039+25.09	117.09' R	83.92
SA-SF-19	TAXIWAY SA	2039+90.09	122.83' R	82.91
SA-SF-20	TAXIWAY SA	2040+94.35	121.78' R	83.42
SA-SF-21	TAXIWAY SA	2041+30.54	120.19' R	83.80
SA-SF-22	TAXIWAY SA	2041+37.50	132.97' R	80.71
SA-SF-23	TAXIWAY SA	2041+98.30	136.54' R	83.18

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SG-01	TAXIWAY SA	2047+00.84	124.42' R	83.06
SA-SG-02	TAXIWAY SA	2047+45.84	113.14' R	83.38
SA-SG-03	TAXIWAY SA	2052+23.53	109.83' R	83.76
SA-SG-04	TAXIWAY SA	2053+25.84	130.67' R	78.34
SA-SG-05	TAXIWAY SA	2053+80.84	122.74' R	80.30
SA-SG-06	TAXIWAY SA	2054+30.84	125.18' R	79.64
SA-SG-07	TAXIWAY SA	2055+19.57	109.92' R	83.06
SA-SG-08	TAXIWAY SA	2055+85.84	107.36' R	83.14
SA-SG-09	TAXIWAY SA	2058+05.84	111.66' R	82.84
SA-SG-10	TAXIWAY SA	2058+35.84	117.86' R	82.50
SA-SG-11	TAXIWAY SA	2058+85.76	110.16' R	83.00
SA-SG-12	TAXIWAY SA	2059+60.84	110.85' R	82.87
SA-SG-13	TAXIWAY SA	2060+95.84	111.66' R	163.96
SA-SG-14	TAXIWAY SA	2061+70.84	115.16' R	82.51
SA-SG-15	TAXIWAY SA	2063+50.99	118.52' R	81.88
SA-SG-16	TAXIWAY SA	2064+08.48	114.03' R	82.35
SA-SG-17A	TAXIWAY SA	2067+86.73	125.41' R	80.66
SA-SG-18A	TAXIWAY SA	2068+48.26	139.72' R	79.65
SA-SG-19A	TAXIWAY SA	2069+11.96	149.74' R	81.26
SA-SG-20A	TAXIWAY SA	2069+53.28	151.71' R	81.40
SA-SG-21A	TAXIWAY SA	2069+91.15	195.02' R	0.00

GRADING LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
SA-SH-01	TAXIWAY SA	2075+57.29	140.18' R	0.00
SA-SH-02	TAXIWAY SA	2075+81.98	143.70' R	78.79
SA-SH-03	TAXIWAY SA	2076+63.63	131.72' R	77.01
SA-SH-04	TAXIWAY SA	2077+35.33	112.19' R	81.69
SA-SH-05	TAXIWAY SA	2077+58.02	114.64' R	81.26
SA-SH-06	TAXIWAY SA	2082+51.72	115.90' R	81.05
SA-SH-07	TAXIWAY SA	2083+31.68	109.68' R	81.52
SA-SH-08	TAXIWAY SA	2085+37.84	116.34' R	81.16
SA-SH-09A	TAXIWAY SA	2086+12.35	134.26' R	76.38
SA-SH-10A	TAXIWAY SA	2089+10.73	149.68' R	80.81
SA-SH-11A	TAXIWAY SA	2089+19.26	121.84' R	81.68
SA-SH-12A	TAXIWAY SA	2089+90.43	195.28' R	82.25

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

GRADING & DRAINAGE POINT TABLES II
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C07.14A

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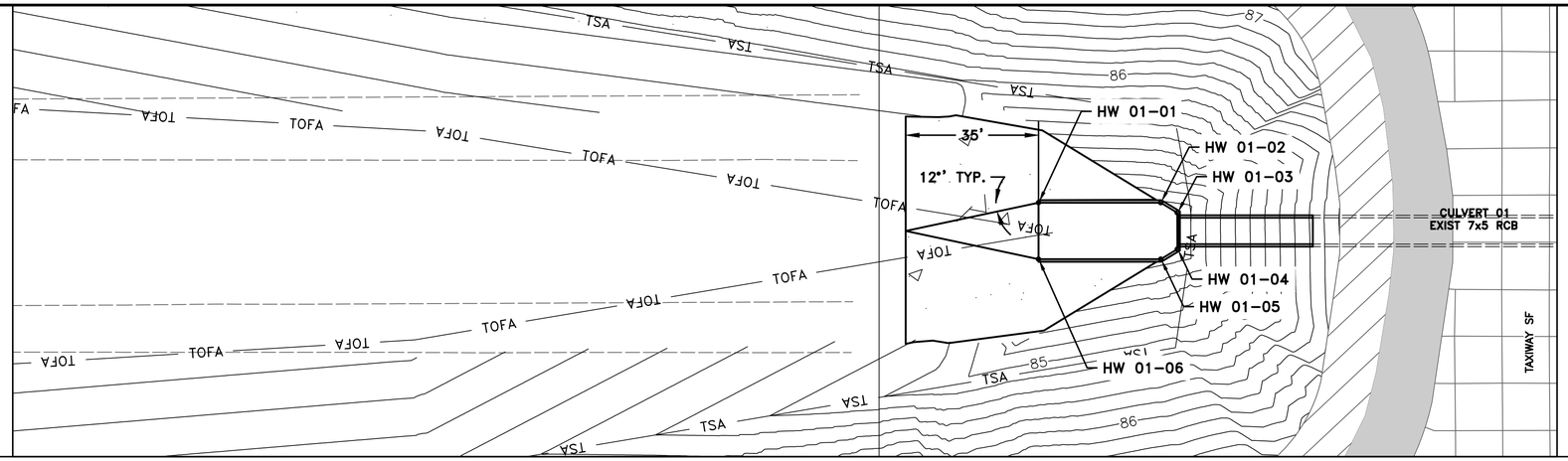
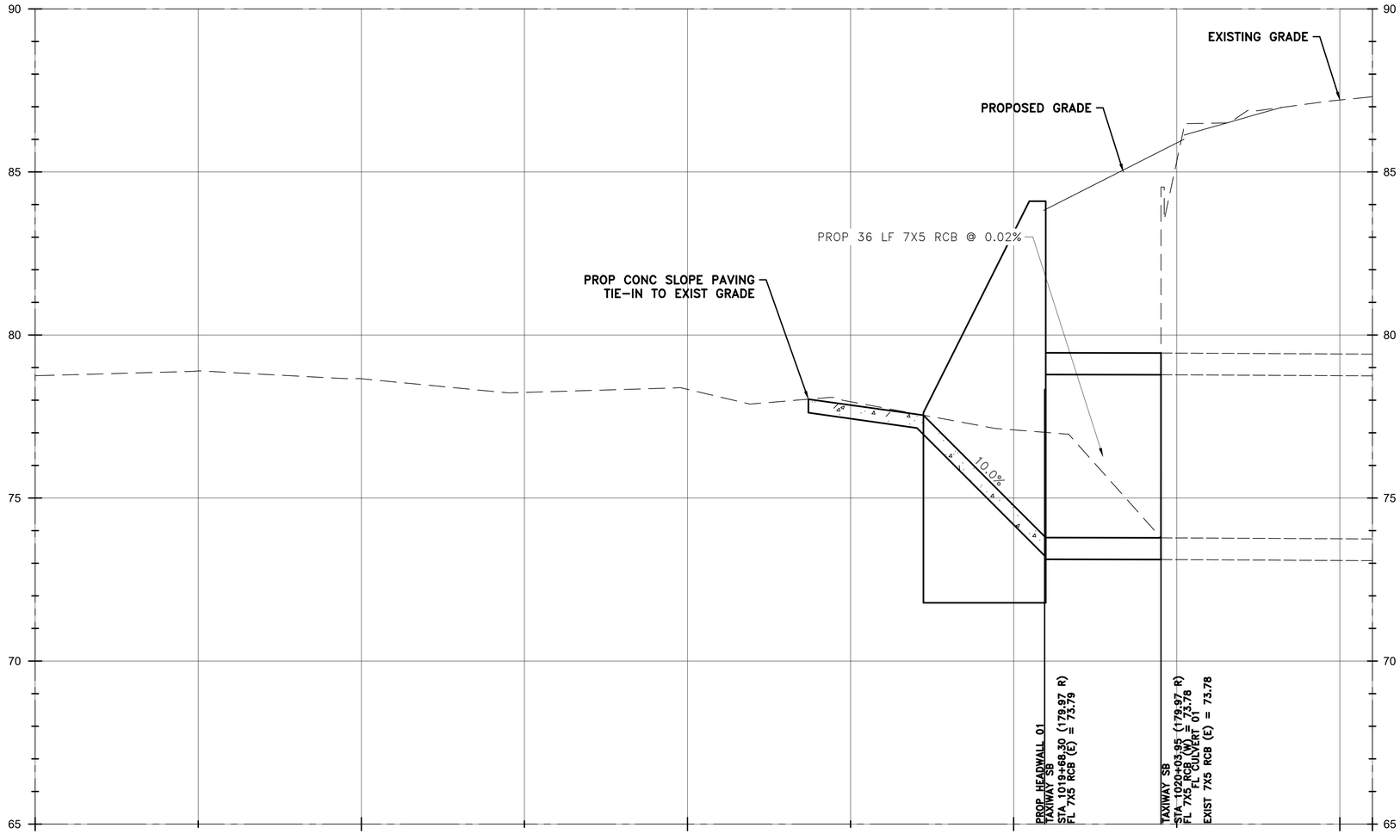
GARVER
TBPE Registration No. F-5713



HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 01-01	TAXIWAY SB	1019+31.13	172.47' R	79.25
HW 01-02	TAXIWAY SB	1019+63.57	172.45' R	84.10
HW 01-03	TAXIWAY SB	1019+67.96	175.14' R	84.10
HW 01-04	TAXIWAY SB	1019+67.96	184.80' R	84.10
HW 01-05	TAXIWAY SB	1019+63.57	187.48' R	84.10
HW 01-06	TAXIWAY SB	1019+31.13	187.47' R	79.25



NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26

LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

HOUSTON AIRPORTS

HT&J LLC
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HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.15

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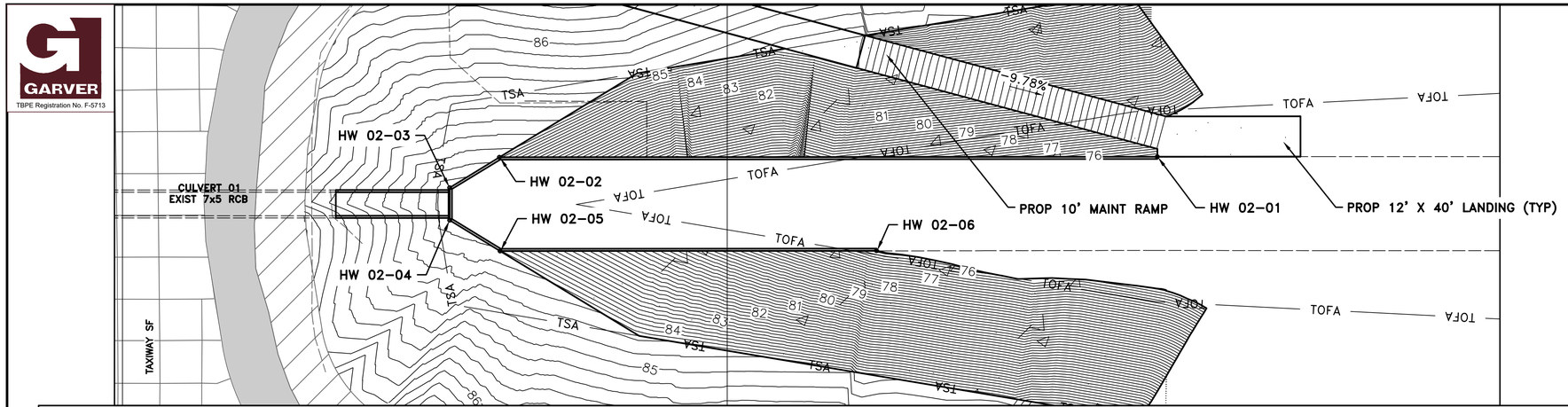
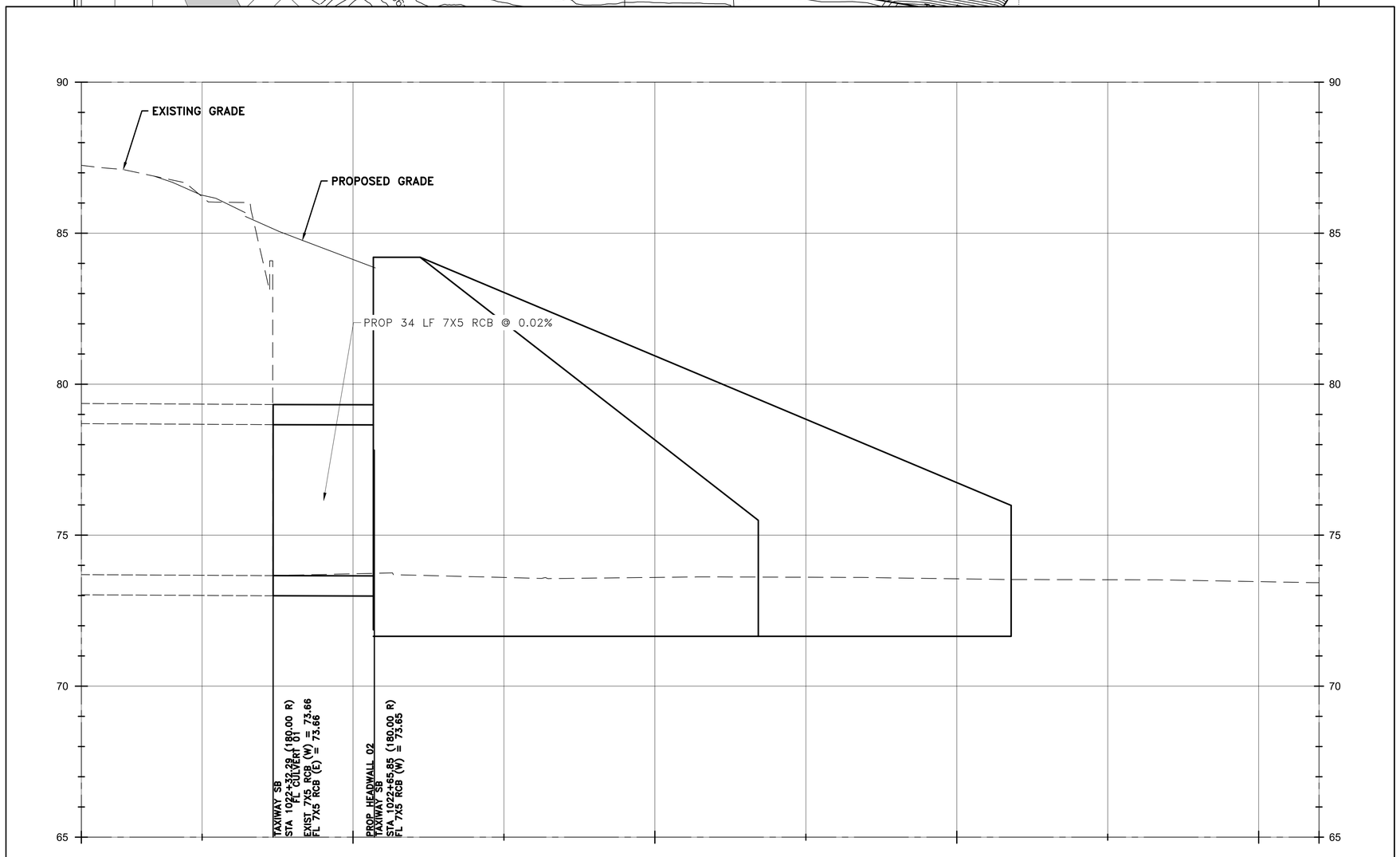


HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 02-01	TAXIWAY SB	1024+76.80	166.00' R	75.98
HW 02-02	TAXIWAY SB	1022+81.00	166.13' R	84.20
HW 02-03	TAXIWAY SB	1022+66.19	175.17' R	84.20
HW 02-04	TAXIWAY SB	1022+66.19	184.84' R	84.20
HW 02-05	TAXIWAY SB	1022+81.18	194.00' R	84.20
HW 02-06	TAXIWAY SB	1023+93.24	193.98' R	75.49



NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26

LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J, LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.16

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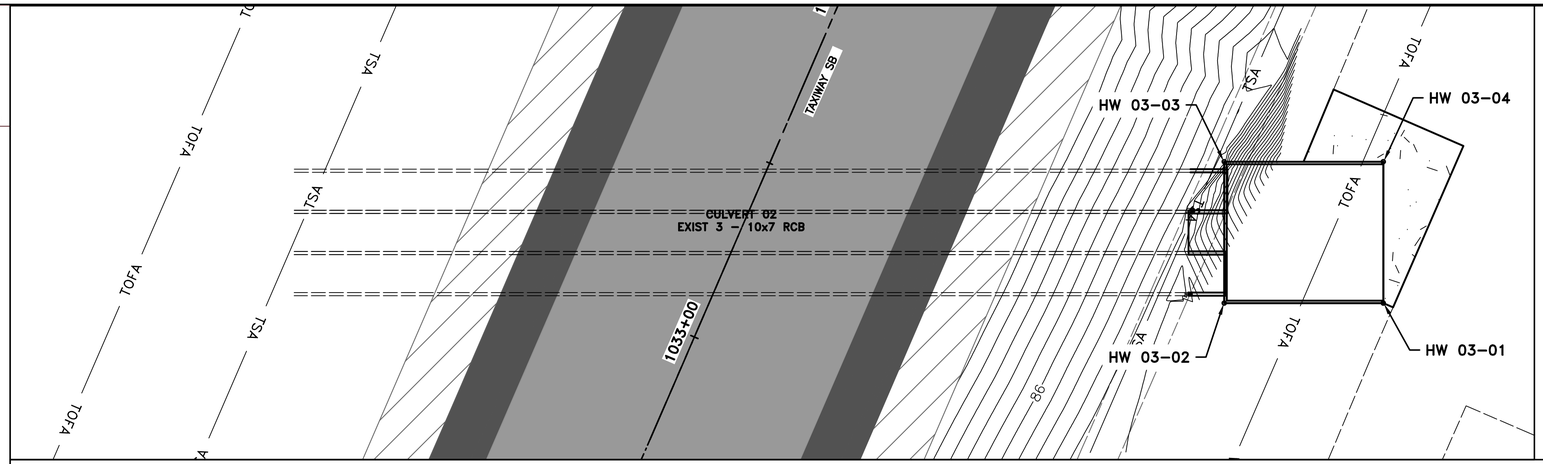

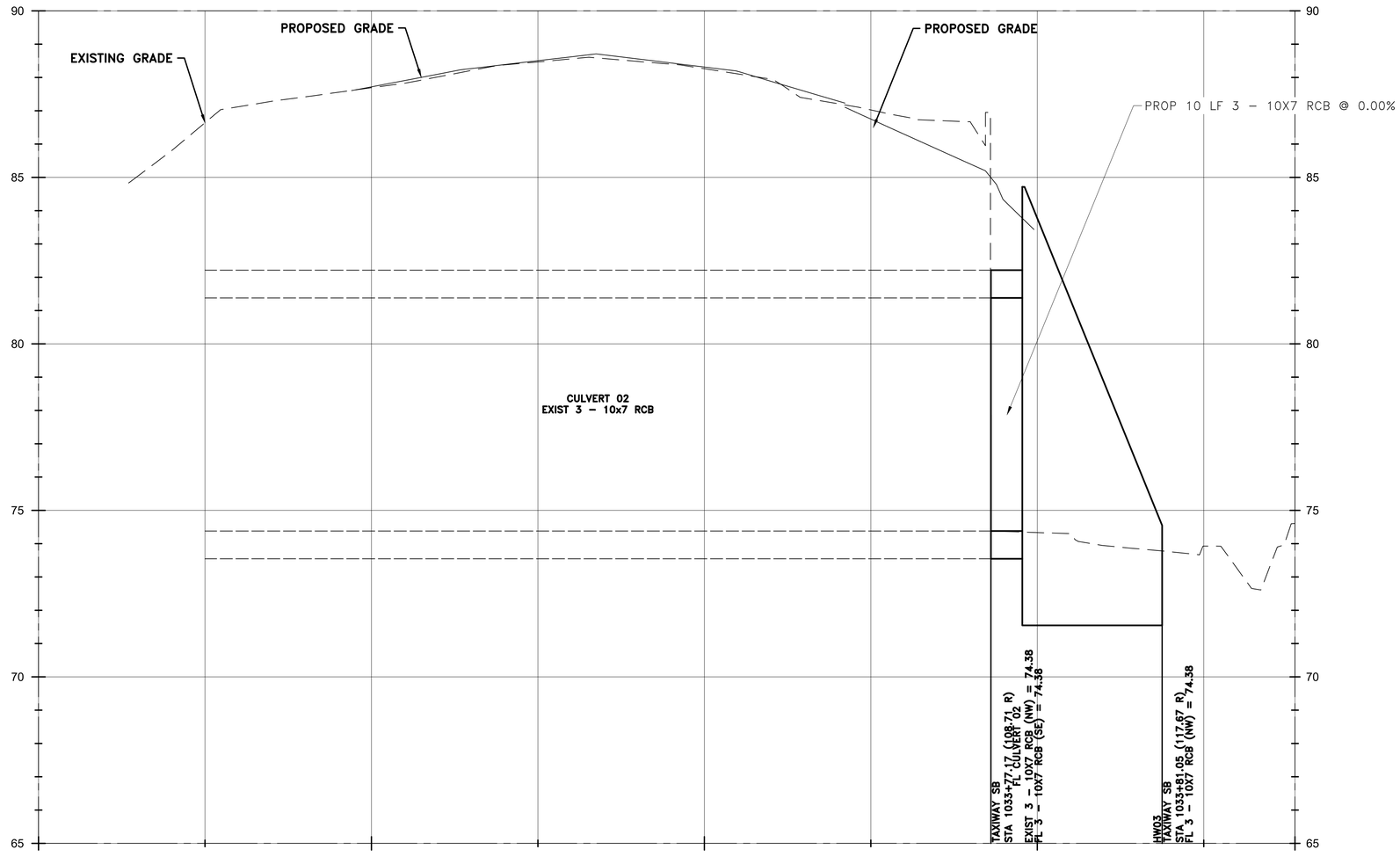

HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 03-01	TAXIWAY SB	1033+80.48	163.32' R	74.55
HW 03-02	TAXIWAY SB	1033+63.79	124.78' R	84.71
HW 03-03	TAXIWAY SB	1033+98.04	109.95' R	84.71
HW 03-04	TAXIWAY SB	1034+14.74	148.49' R	74.55

NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26

LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES III

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.17

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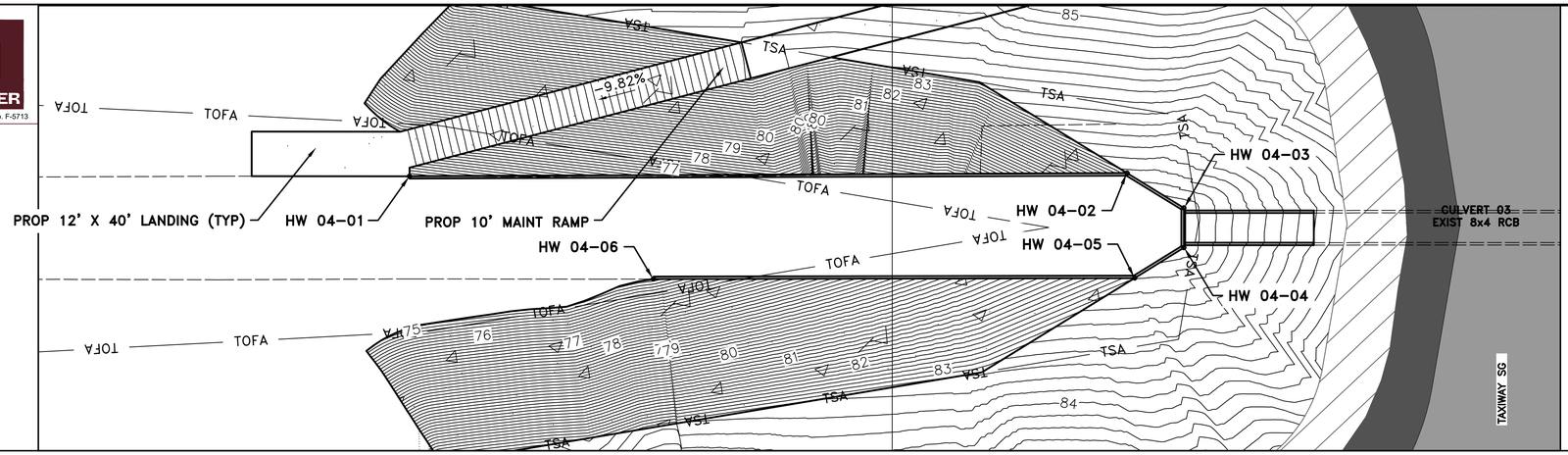

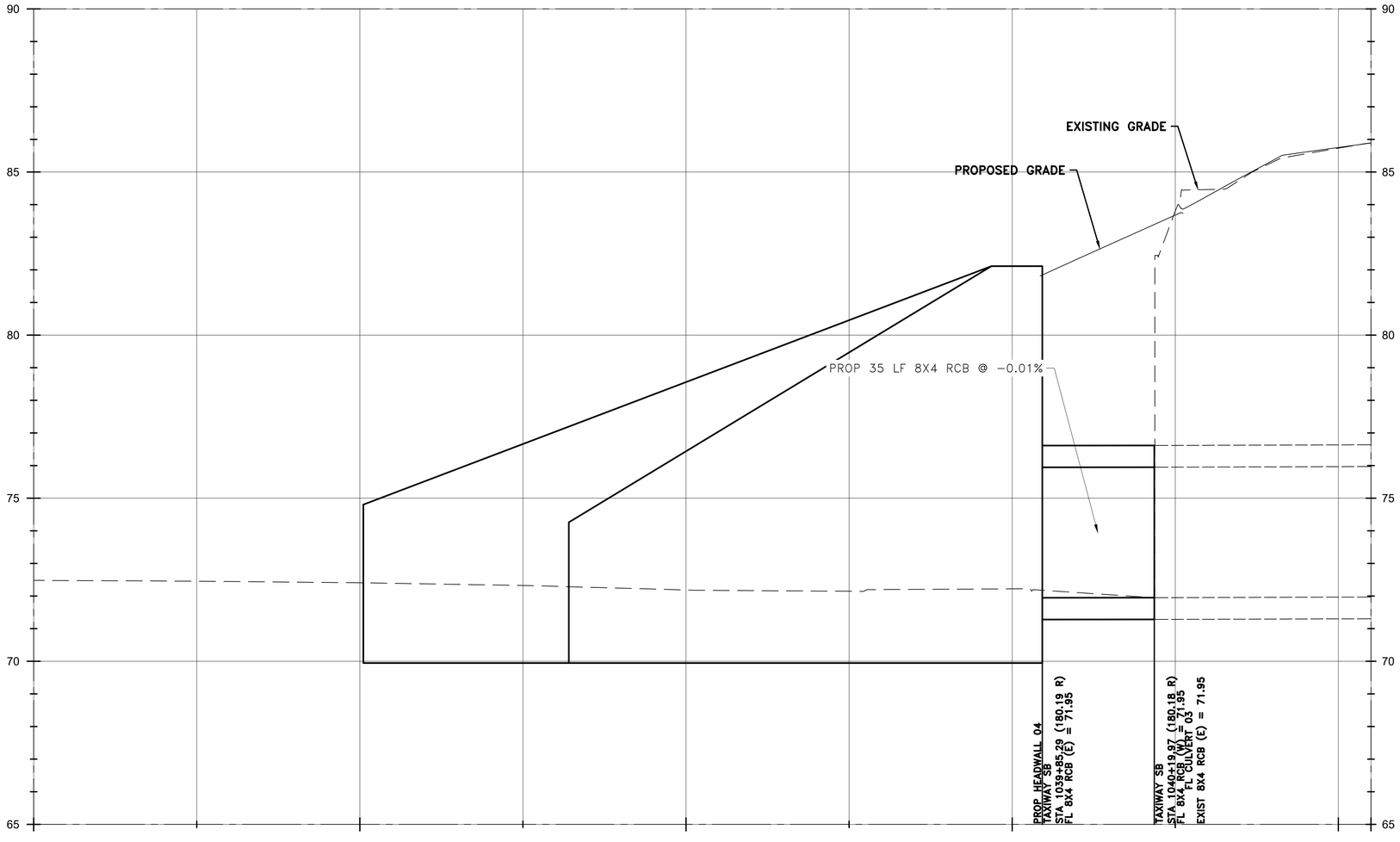

HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 04-01	TAXIWAY SB	1037+76.43	166.27' R	74.80
HW 04-02	TAXIWAY SB	1039+69.70	165.47' R	82.11
HW 04-03	TAXIWAY SB	1039+84.96	174.86' R	82.11
HW 04-04	TAXIWAY SB	1039+84.96	185.52' R	82.11
HW 04-05	TAXIWAY SB	1039+71.75	193.67' R	82.11
HW 04-06	TAXIWAY SB	1038+42.11	193.93' R	74.26

NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26

LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J, LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES IV

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
	DIRECTOR HOUSTON AIRPORT SYSTEM
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.18

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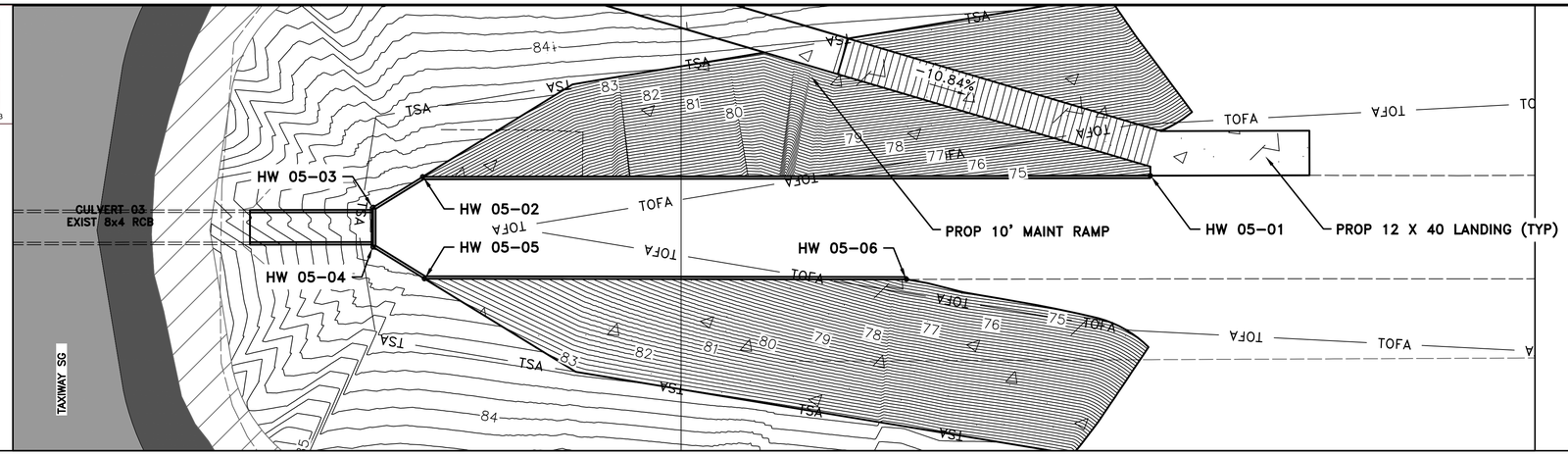

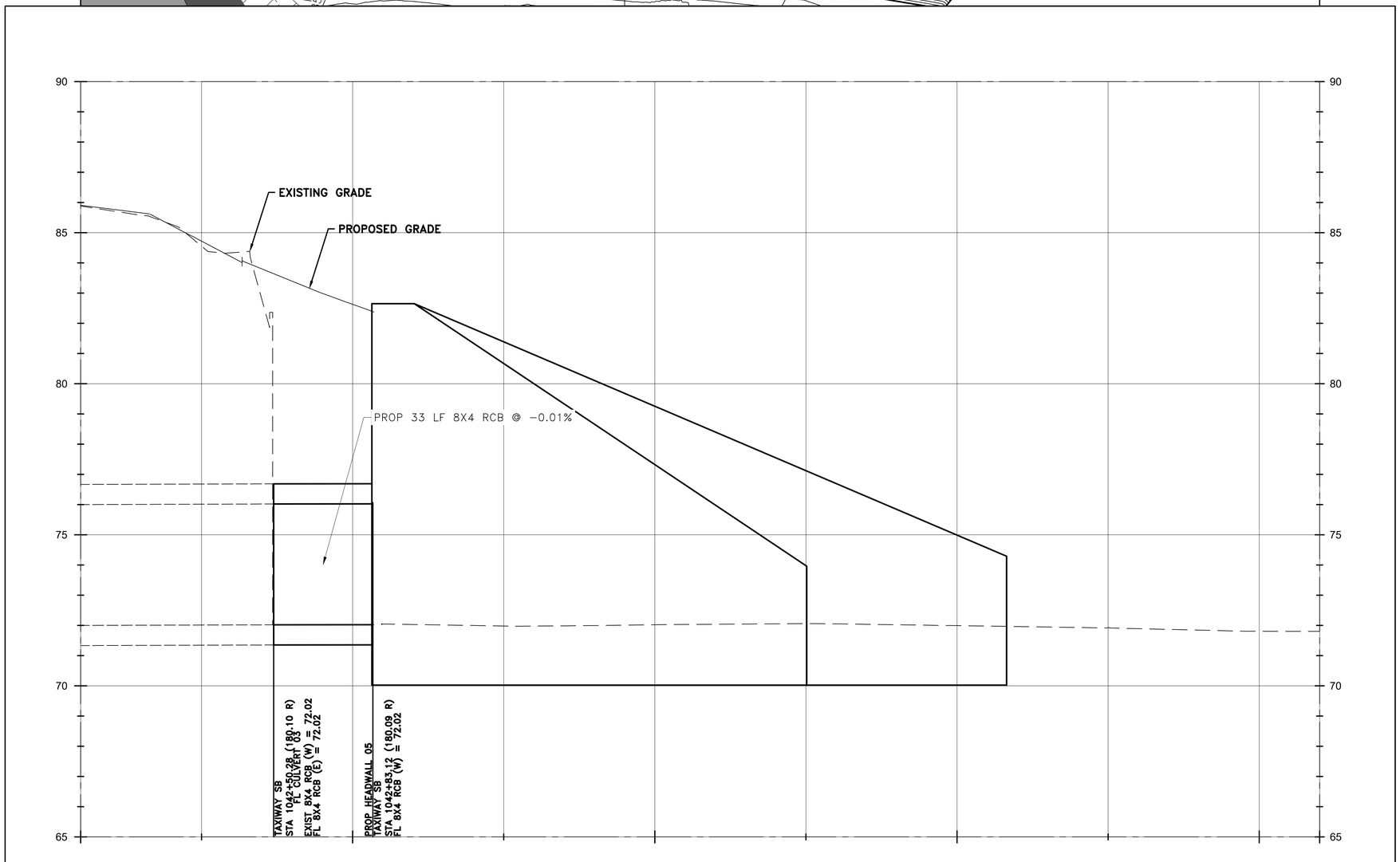

HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 05-01	TAXIWAY SB	1044+92.81	166.25' R	74.29
HW 05-02	TAXIWAY SB	1042+96.81	166.52' R	82.65
HW 05-03	TAXIWAY SB	1042+83.45	174.76' R	82.65
HW 05-04	TAXIWAY SB	1042+83.45	185.42' R	82.65
HW 05-05	TAXIWAY SB	1042+97.28	193.94' R	82.65
HW 05-06	TAXIWAY SB	1044+27.12	194.16' R	73.96

NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26

LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J, LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES V

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.19

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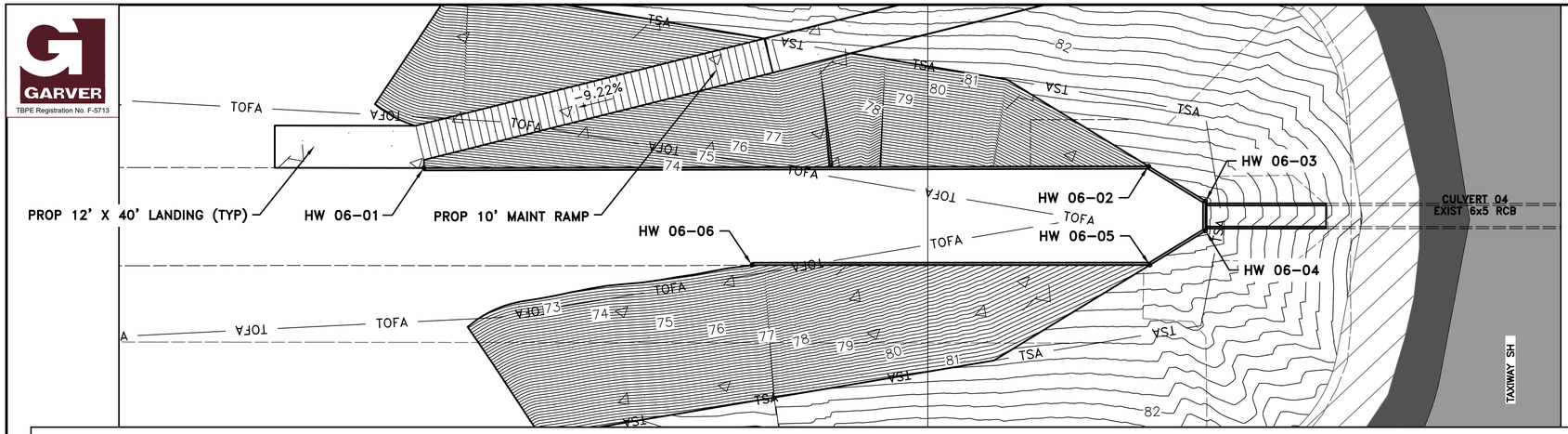
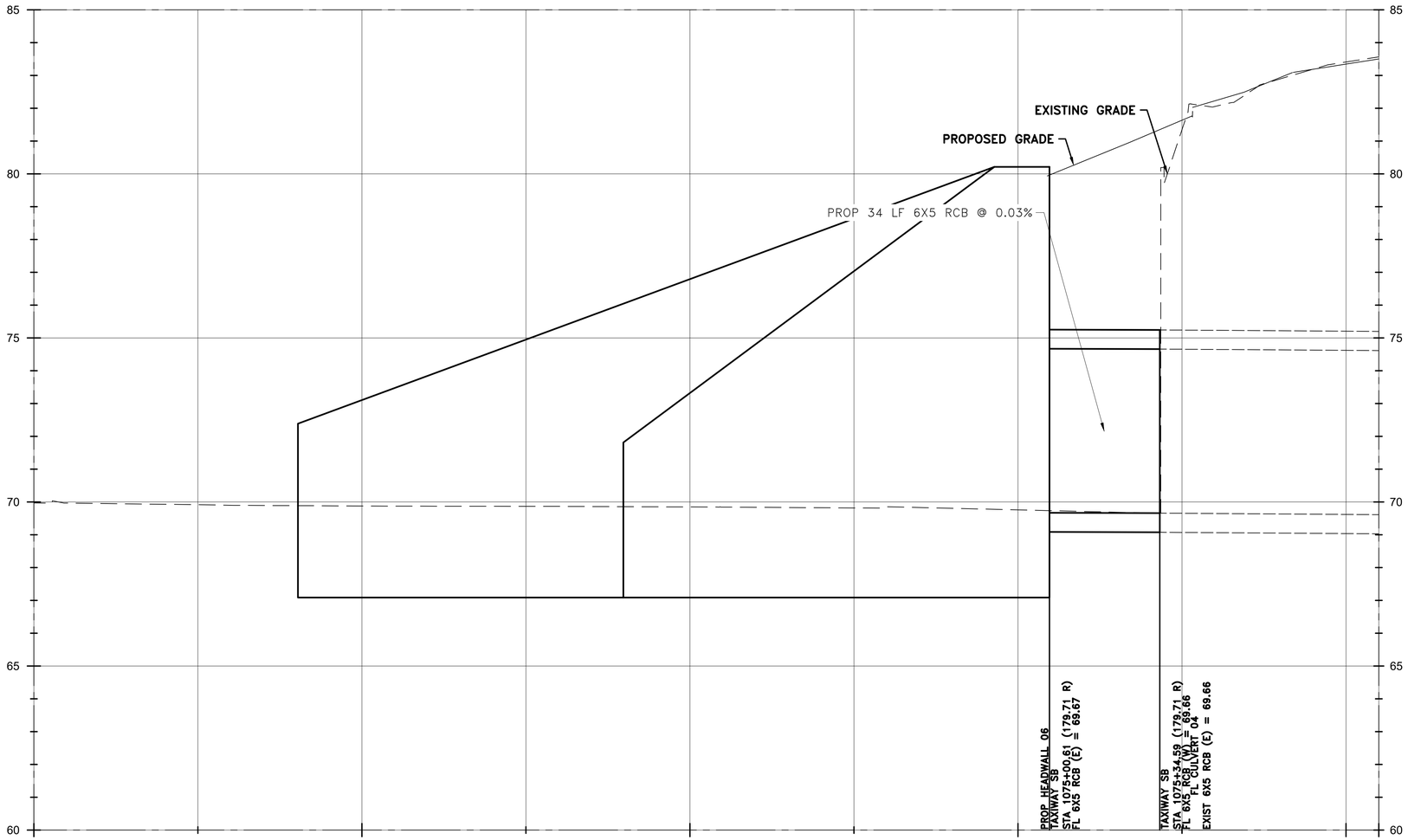


HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 06-01	TAXIWAY SB	1072+78.10	166.04' R	72.39
HW 06-02	TAXIWAY SB	1074+84.15	165.59' R	80.21
HW 06-03	TAXIWAY SB	1075+00.27	175.46' R	80.21
HW 06-04	TAXIWAY SB	1075+00.27	183.96' R	80.21
HW 06-05	TAXIWAY SB	1074+84.52	193.59' R	80.21
HW 06-06	TAXIWAY SB	1073+71.43	193.61' R	71.82

NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26



LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J, LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES VI

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. C07.20

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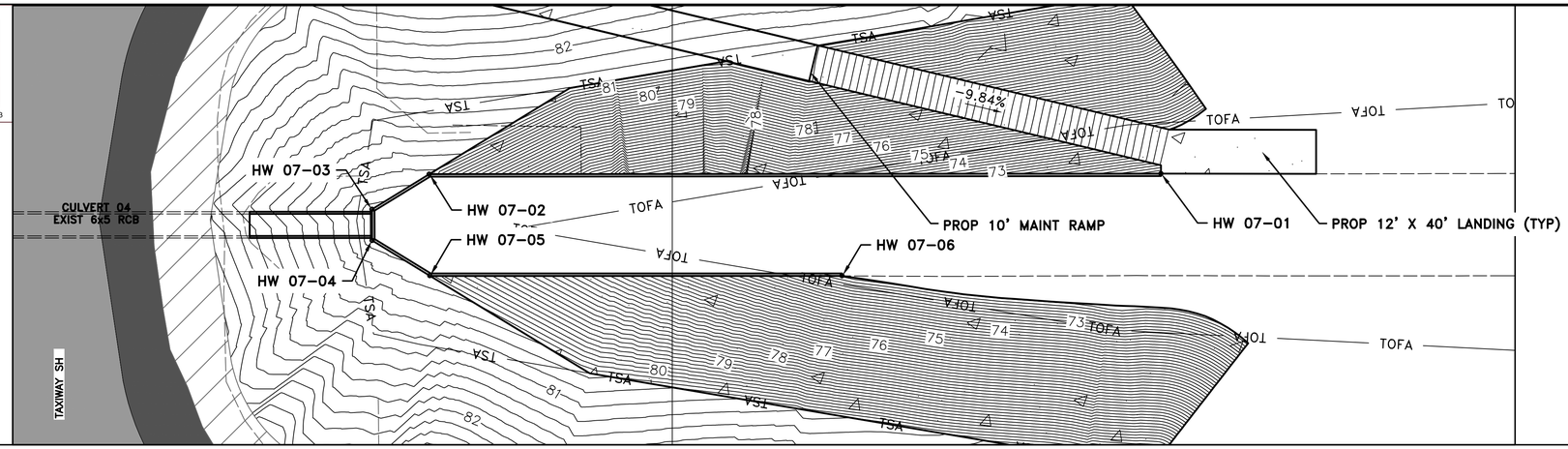

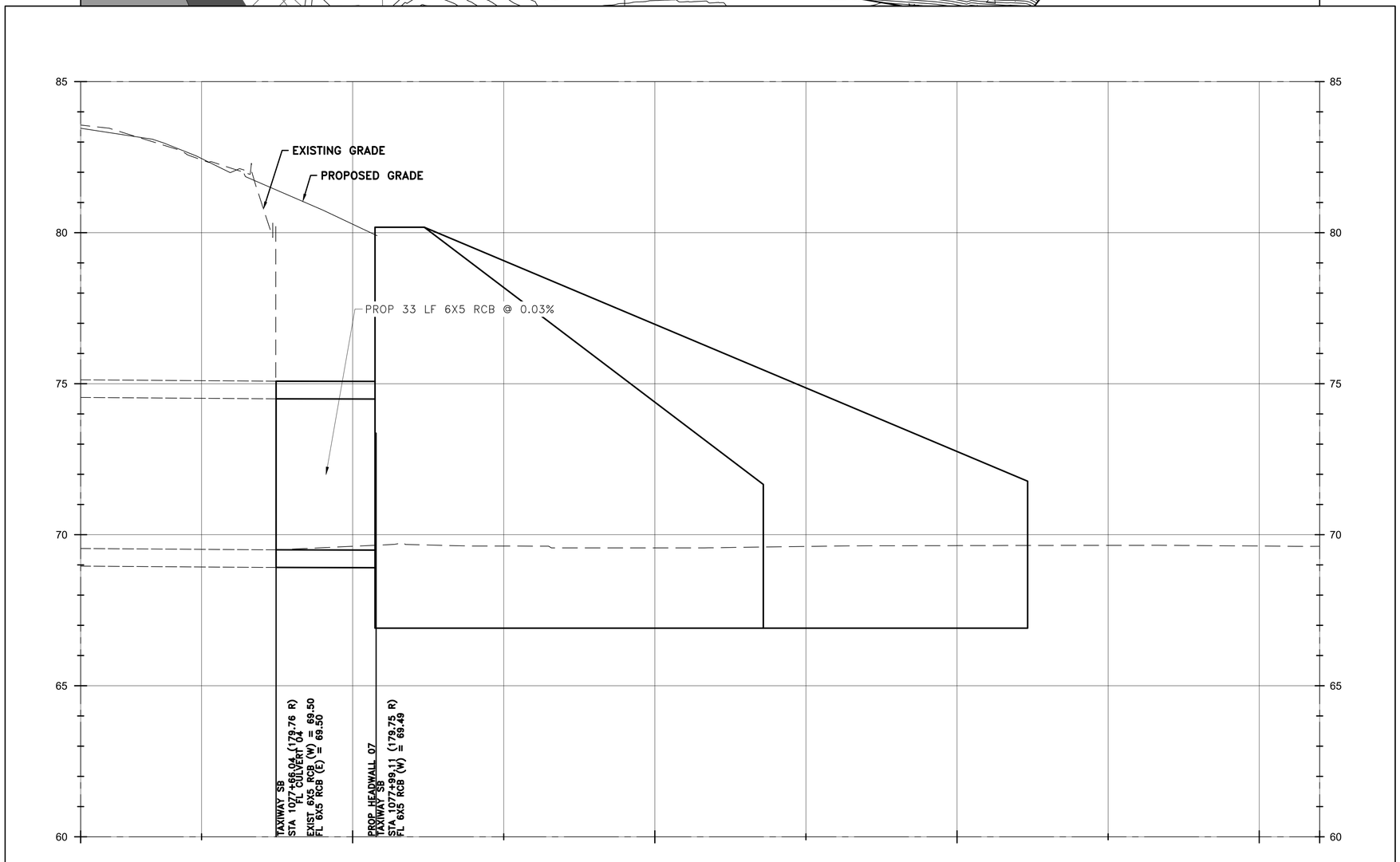

HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 07-01	TAXIWAY SB	1080+14.72	165.81' R	71.77
HW 07-02	TAXIWAY SB	1078+15.04	165.94' R	80.18
HW 07-03	TAXIWAY SB	1077+99.43	175.51' R	80.18
HW 07-04	TAXIWAY SB	1077+99.45	184.00' R	80.18
HW 07-05	TAXIWAY SB	1078+15.21	193.62' R	80.18
HW 07-06	TAXIWAY SB	1079+27.67	193.68' R	71.66

NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26

LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J, LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES VII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
	DIRECTOR HOUSTON AIRPORT SYSTEM
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.21

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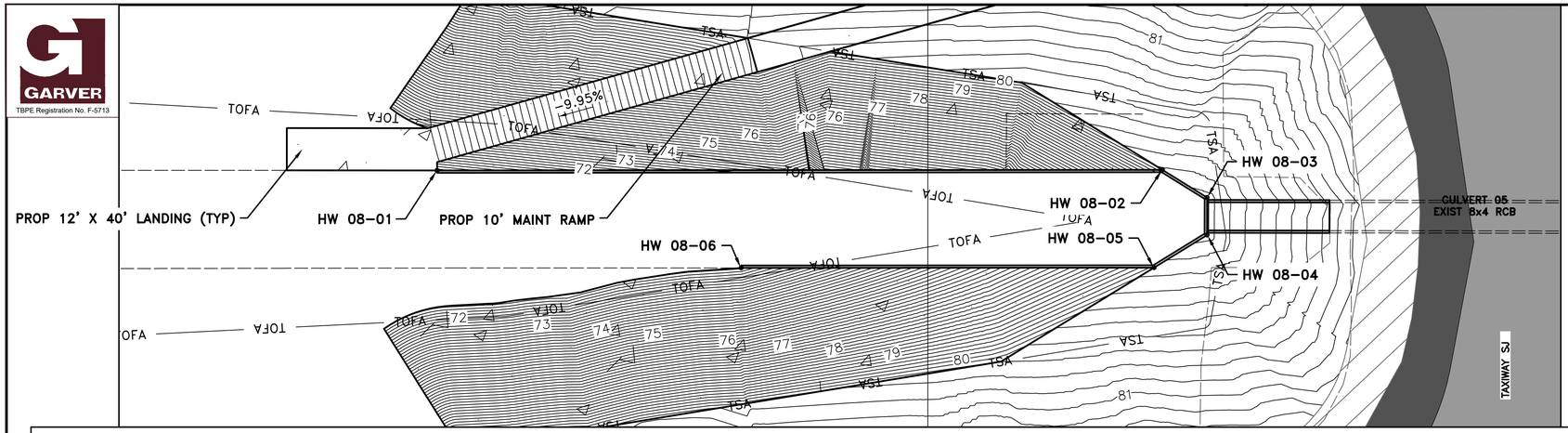

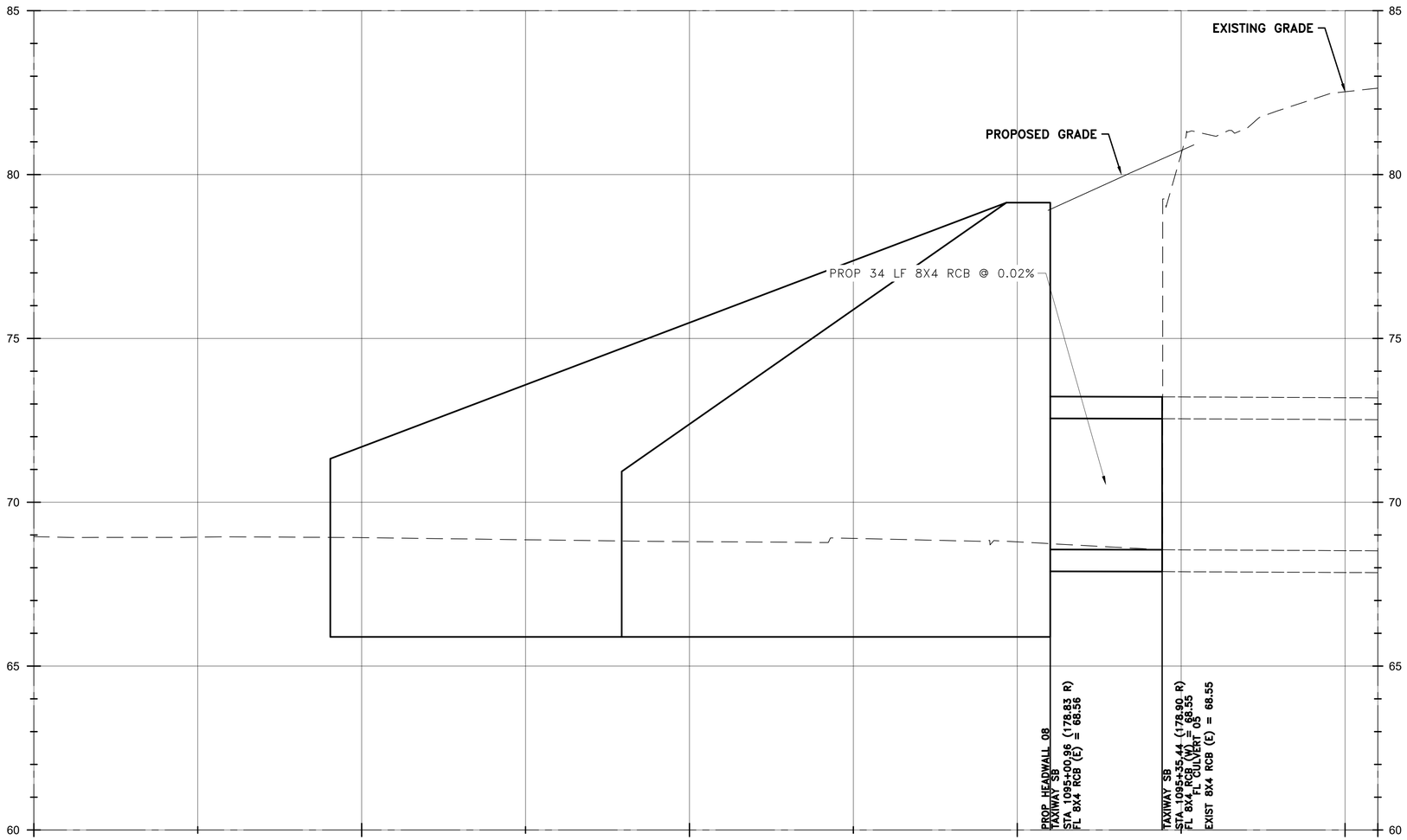

HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 08-01	TAXIWAY SB	1092+81.71	165.77' R	71.33
HW 08-02	TAXIWAY SB	1094+87.95	165.65' R	79.14
HW 08-03	TAXIWAY SB	1095+00.64	173.50' R	79.14
HW 08-04	TAXIWAY SB	1095+00.62	184.15' R	79.14
HW 08-05	TAXIWAY SB	1094+85.55	193.40' R	79.14
HW 08-06	TAXIWAY SB	1093+68.20	193.45' R	70.94

NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26

LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES VIII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.22

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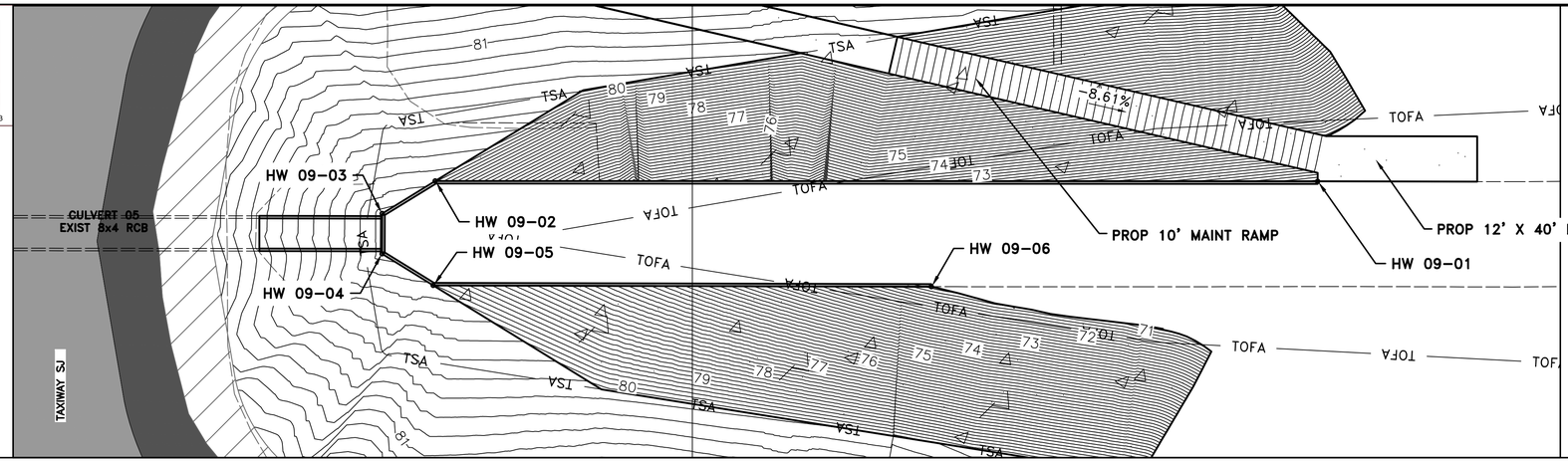
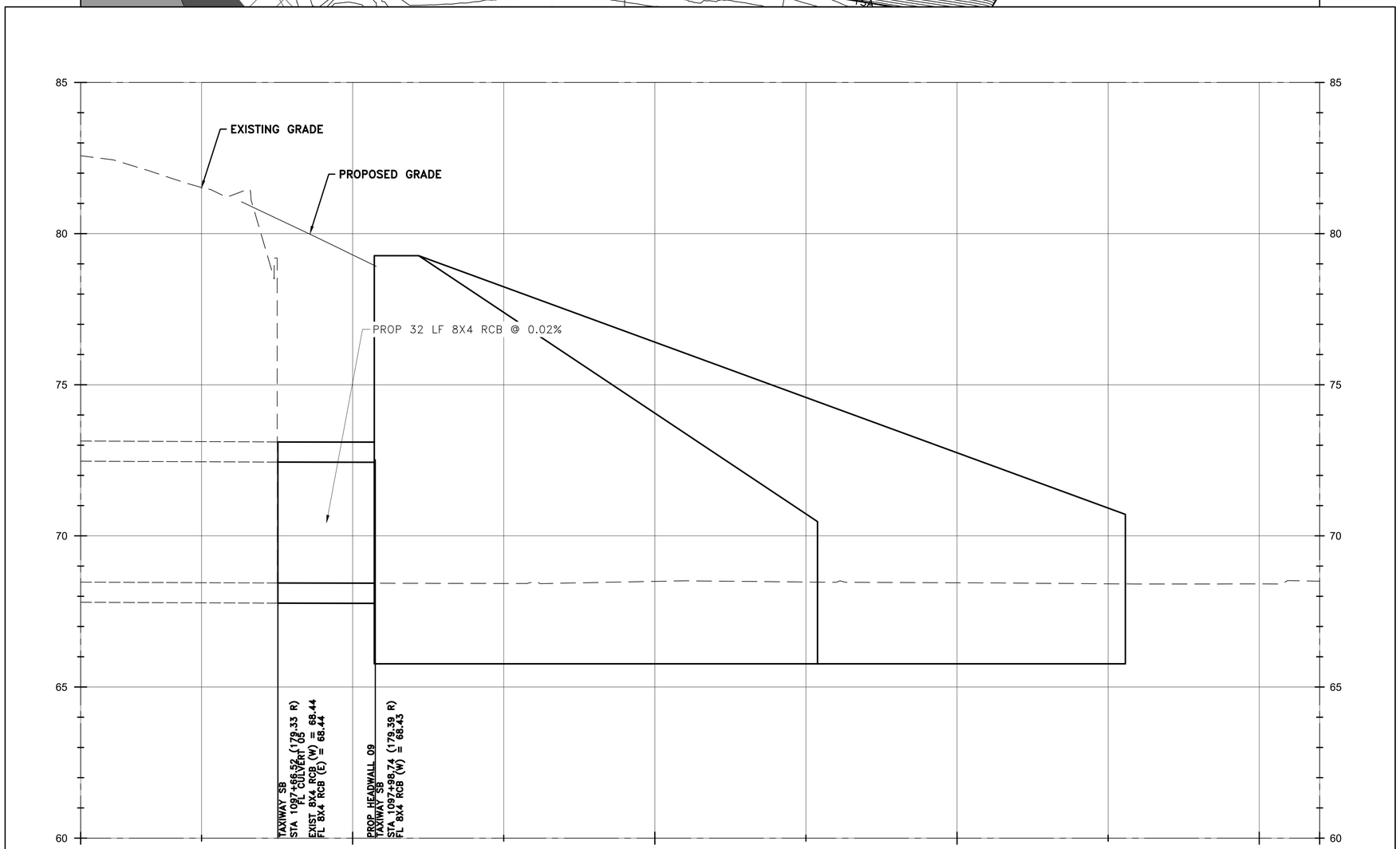


HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 09-01	TAXIWAY SB	1100+46.95	165.57' R	70.71
HW 09-02	TAXIWAY SB	1098+13.13	165.44' R	79.27
HW 09-03	TAXIWAY SB	1097+99.08	174.06' R	79.27
HW 09-04	TAXIWAY SB	1097+99.06	184.72' R	79.27
HW 09-05	TAXIWAY SB	1098+12.59	193.10' R	79.27
HW 09-06	TAXIWAY SB	1099+44.56	193.47' R	70.47

NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26



LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J, LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES IX

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.23

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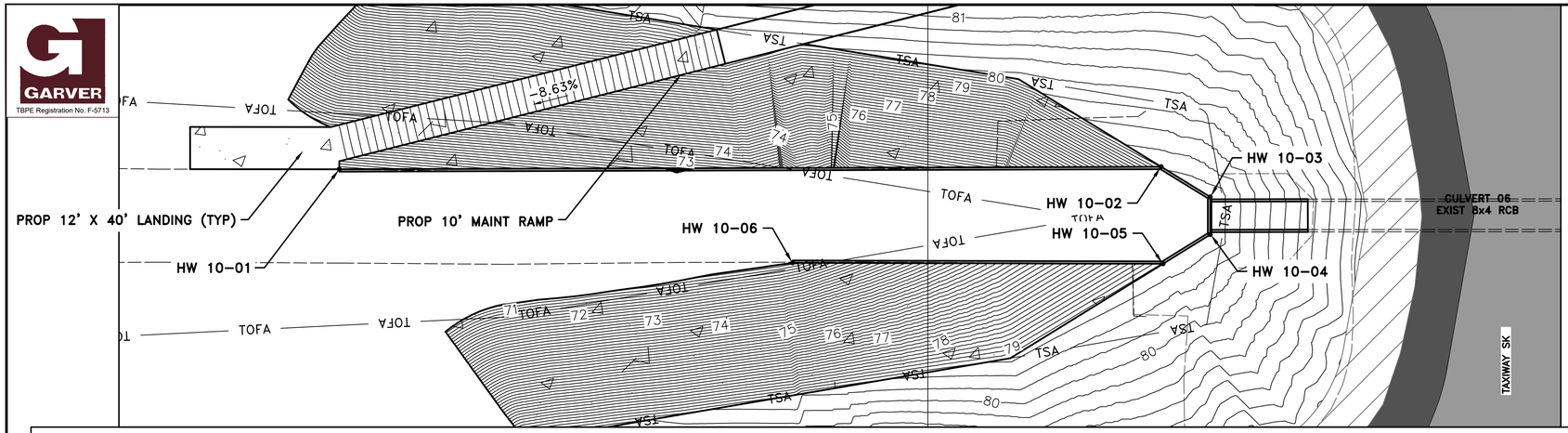

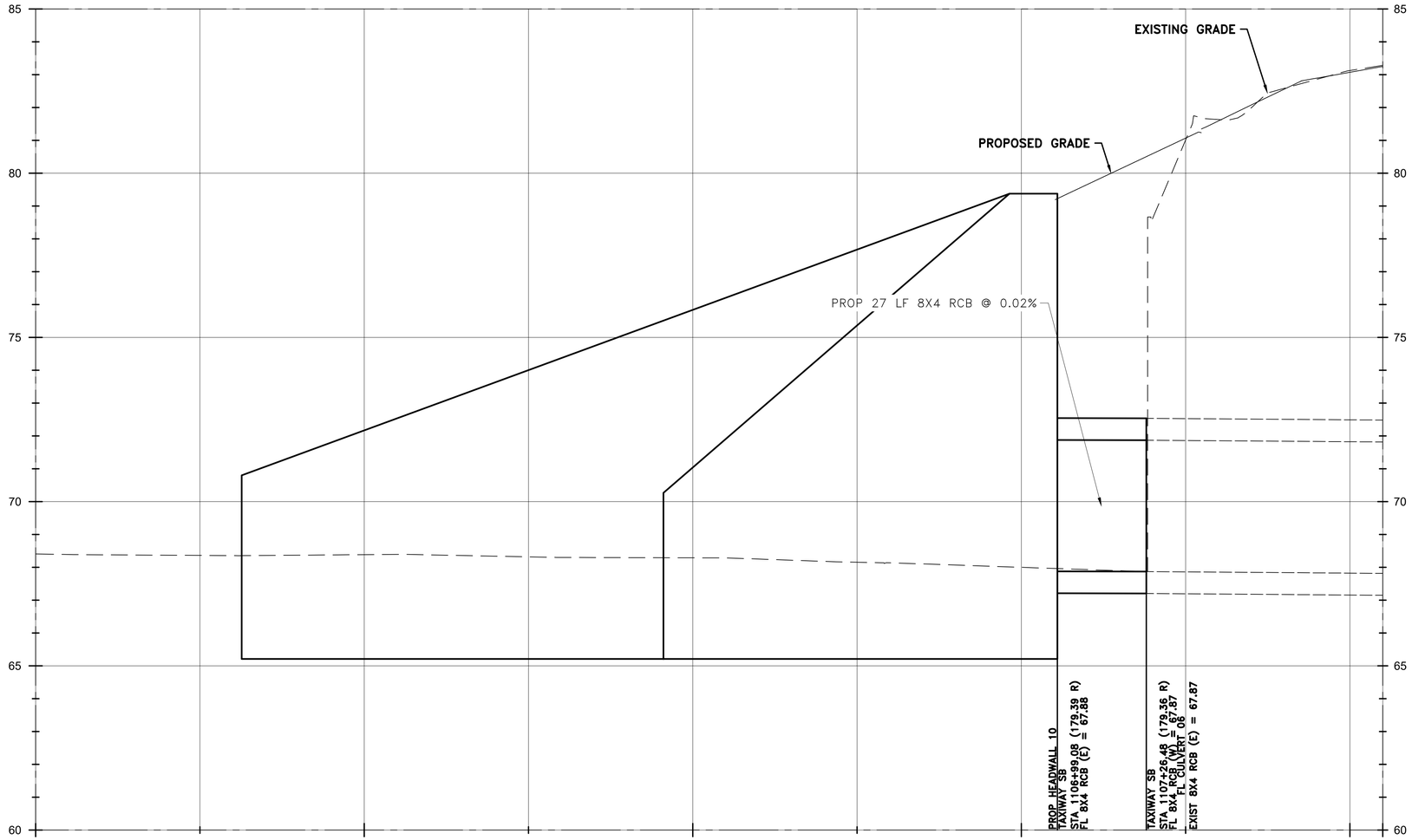

HEADWALL LIMITS

POINT NO.	BASELINE	STATION	OFFSET	ELEVATION
HW 10-01	TAXIWAY SB	1104+51.14	166.16' R	70.80
HW 10-02	TAXIWAY SB	1106+84.81	165.50' R	79.38
HW 10-03	TAXIWAY SB	1106+98.74	174.06' R	79.38
HW 10-04	TAXIWAY SB	1106+98.75	184.73' R	79.38
HW 10-05	TAXIWAY SB	1106+85.32	193.02' R	79.38
HW 10-06	TAXIWAY SB	1105+80.02	192.74' R	70.27

NOTES:

1. SEE HEADWALL DETAIL ON SHEETS C07.25 TO C07.26

LEGEND

- PROPOSED ASPHALT PAVEMENT RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER RECONSTRUCTION
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- PROPOSED CONC SLOPE PAVING
- EXIST STORM SEWER PIPE
- PROP STORM SEWER PIPE
- CONTOURS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE PROFILES X

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1:20H, 1:2V
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.24

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PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713

TABLE OF DIMENSIONS AND REINFORCING STEEL
(Wings for one structure end)

Dimensions					Variable Reinforcing				Estimated ③ Quantities per ft of wing length (2~wings)	
					Bars J1		Bars J2			
Maximum Wingwall Height Hw	W	X	Y	Z	Size	Spa	Size	Spa	Reinf (Lb/Ft)	Conc (CY/Ft)
2'–6"	2'–5"	1'–0"	9"	7"	#4	1'–0"	#4	1'–0"	33.73	0.248
3'–0"	2'–5"	1'–0"	9"	7"	#4	1'–0"	#4	1'–0"	37.07	0.261
3'–6"	2'–5"	1'–0"	9"	7"	#4	1'–0"	#4	1'–0"	37.74	0.273
4'–0"	2'–5"	1'–0"	9"	7"	#4	1'–0"	#4	1'–0"	38.41	0.285
4'–6"	3'–2"	1'–6"	1'–0"	7"	#4	1'–0"	#4	1'–0"	41.75	0.330
5'–0"	3'–2"	1'–6"	1'–0"	7"	#4	1'–0"	#4	1'–0"	45.09	0.343
5'–6"	3'–2"	1'–6"	1'–0"	7"	#4	1'–0"	#4	1'–0"	45.75	0.355
6'–0"	3'–2"	1'–6"	1'–0"	7"	#4	1'–0"	#4	1'–0"	46.42	0.367
7'–0"	3'–8"	1'–9"	1'–3"	7"	#4	1'–0"	#4	1'–0"	52.77	0.414
8'–0"	4'–2"	2'–0"	1'–6"	8"	#5	1'–0"	#4	1'–0"	60.19	0.486
9'–0"	4'–8"	2'–3"	1'–9"	8"	#4	6"	#4	6"	81.49	0.535
10'–0"	5'–2"	2'–6"	2'–0"	8"	#5	6"	#4	6"	97.25	0.584
11'–0"	5'–8"	2'–9"	2'–3"	8"	#6	6"	#5	6"	133.65	0.634
12'–0"	6'–2"	3'–0"	2'–6"	9"	#7	6"	#5	6"	162.29	0.721
13'–0"	6'–8"	3'–3"	2'–9"	11"	#7	6"	#5	6"	178.80	0.856
14'–0"	7'–2"	3'–6"	3'–0"	1'–0"	#8	6"	#5	6"	216.78	0.959
15'–0"	7'–8"	4'–0"	3'–0"	1'–1"	#9	6"	#6	6"	283.06	1.068
16'–0"	8'–2"	4'–6"	3'–0"	1'–3"	#9	6"	#6	6"	297.02	1.234

TABLE OF WINGWALL REINFORCING (2~wings)

Bar	Size	No.	Spa
D	#5	~	1'–0"
E	#4	~	1'–0"
F	#4	~	1'–0"
G	#6	4	~
M	#4	4	~
P	#4	~	1'–0"
R	#5	6	~
V	#4	~	1'–0"

TABLE OF ESTIMATED CULVERT TOEWALL QUANTITIES

Bar	Size	No.	Spa
L	#4	~	1'–6"
Q	#4	1	~
Reinf (Lb/Ft)			2.45
Conc (CY/Ft)			0.037

WING DIMENSION FORMULAS:
(All values are in feet.)

Hw = H + T + C – 0.250'
A = (Hw – 0.333') (SL)
B = (A) tangent (30°)
Lw = (A) ÷ cosine (30°)

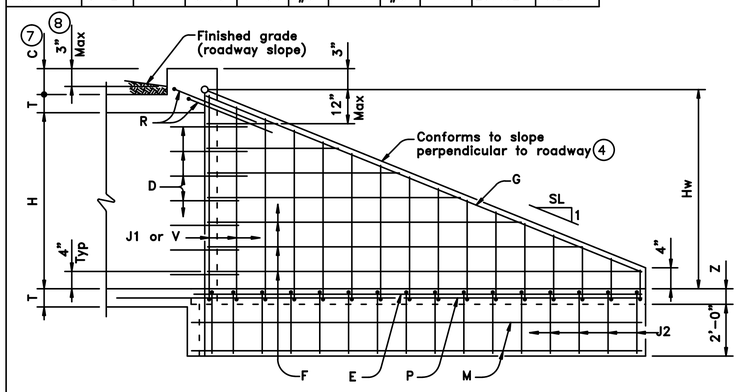
For cast–in–place culverts:
Ltw = (N) (S) + (N + 1) (U)

For precast culverts:
Ltw = (N) (2U + S) + (N – 1) (0.5')

Total wingwall area (two wings ~ SF) = (Hw + 0.333') (Lw)

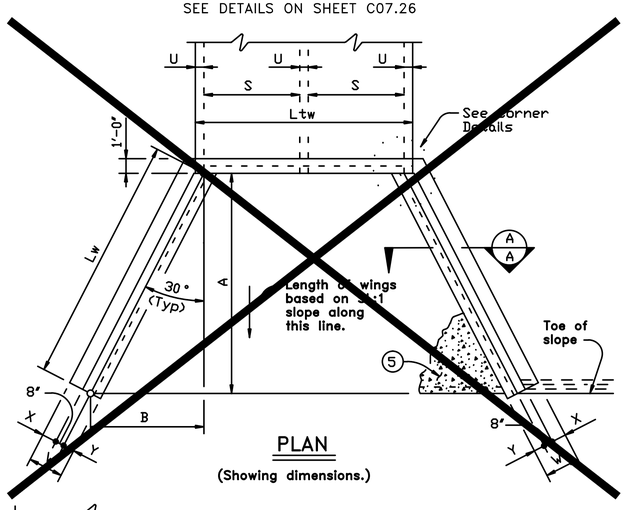
Hw = Height of wingwall
SL:1 = Side slope ratio (horizontal:1 vertical)
Lw = Length of wingwall
Ltw = Culvert toewall length
N = Number of culvert spans

See applicable box culvert standard sheet for H, S, T, and U values.



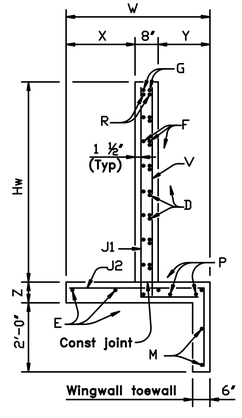
INSIDE ELEVATION

(Showing reinforcing. Culvert and culvert toewall reinforcing not shown for clarity.)

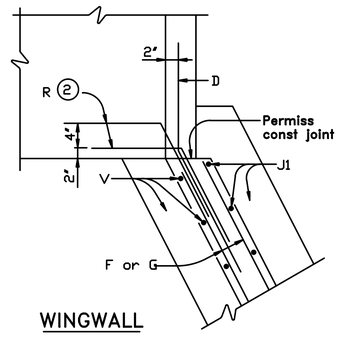


PLAN

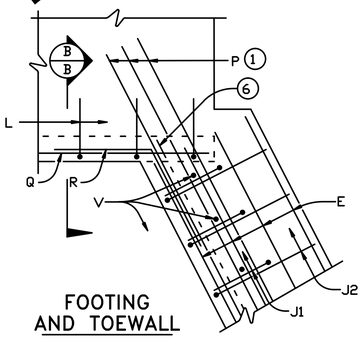
(Showing dimensions.)



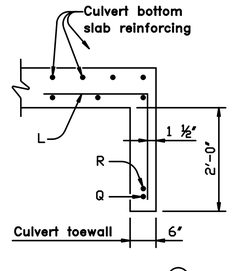
SECTION A–A



WINGWALL



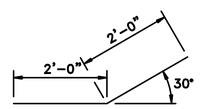
FOOTING AND TOEWALL



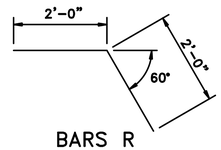
SECTION B–B ⑤

CORNER DETAILS

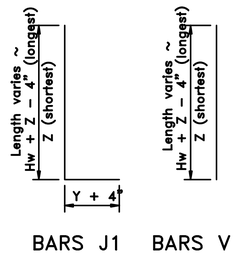
(Culvert and culvert toewall reinforcing not shown for clarity.)



BARS D

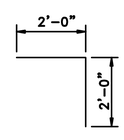


BARS R

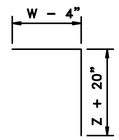


BARS J1

BARS V



BARS L



BARS J2

① Extend Bars P 3'–0" minimum into bottom slab of box culvert.

② Adjust as necessary to maintain 1 1#2" clear cover and 4" minimum between bars.

③ Quantities shown are based on an average wing height for two wings (one structure end). To determine total quantities for two wings, multiply the tabulated values by Lw.

④ Recommended values of side slope are: 2:1, 3:1, 4:1, and 6:1.

⑤ When shown elsewhere on the plans, construct 5" deep concrete riprap. Payment for riprap is as required by Item 432, "Riprap". Unless otherwise shown on the plans or directed by the Engineer, provide a 6" wide by 1'–6" deep reinforced concrete toewall along all edges of the riprap adjacent to natural ground; reinforce the toewall by extending typical riprap reinforcing into the toewall; and extend construction joints or grooved joints oriented in the direction of flow across the full distance of the riprap at intervals of approximately 20'. When such riprap is provided, the culvert toewall shown in SECTION B–B will not be required.

⑥ At Contractor's option, culvert toewall may be ended flush with wingwall toewall. Adjust reinforcing as needed.

⑦ 0" Min to 5'–0" Max. Estimated curb heights are shown elsewhere in the plans. For structures with pedestrian rail or curbs taller than 1'–0, refer to the Extended Curb Details (ECD) standard sheet. For structures with T631 or T631LS bridge rail, refer to the Mounting Details for T631 & T631LS Rails (T631–CM) standard sheet. Refer to the Box Culvert Rail Mounting Details (RAC) standard sheet for structures with bridge rail other than T631 or T631LS.

⑧ For vehicle safety, the following requirements must be met:
- For structures without bridge rail, construct curbs no more than 3" above finished grade.
- For structures with bridge rail, construct curbs flush with finished grade.

Reduce curb heights, if necessary, to meet the above requirements.
No changes will be made in quantities and no additional compensation will be allowed for this work.

MATERIAL NOTES:
Provide Class C concrete (f'c=3,600 psi).
Provide Grade 60 reinforcing steel.
Provide galvanized reinforcing steel if required elsewhere in the plans.
In riprap concrete synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing unless noted otherwise.

GENERAL NOTES:
Designed according to AASHTO LRFD Bridge Design Specifications.
When structure is founded on solid rock, depth of toewalls for culverts and wingwalls may be reduced or eliminated as directed by the Engineer.
See Box Culvert Supplement (BCS) standard sheet for additional dimensions and information.
The quantities for concrete and reinforcing steel resulting from the formulas given on this sheet are for Contractor's information only.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing dimensions are out–to–out of bars.

Texas Department of Transportation — Bridge Division Standard

CONCRETE WINGWALLS WITH FLARED WINGS FOR 0° SKEW BOX CULVERTS

FW–0

FILE: fw-0std-20.dgn	DN: GAF	CK: CAT	DW: TxDOT	CK: TxDOT
©TxDOT February 2020	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767–0090
TBPE FIRM No. F–14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE DETAILS I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.25

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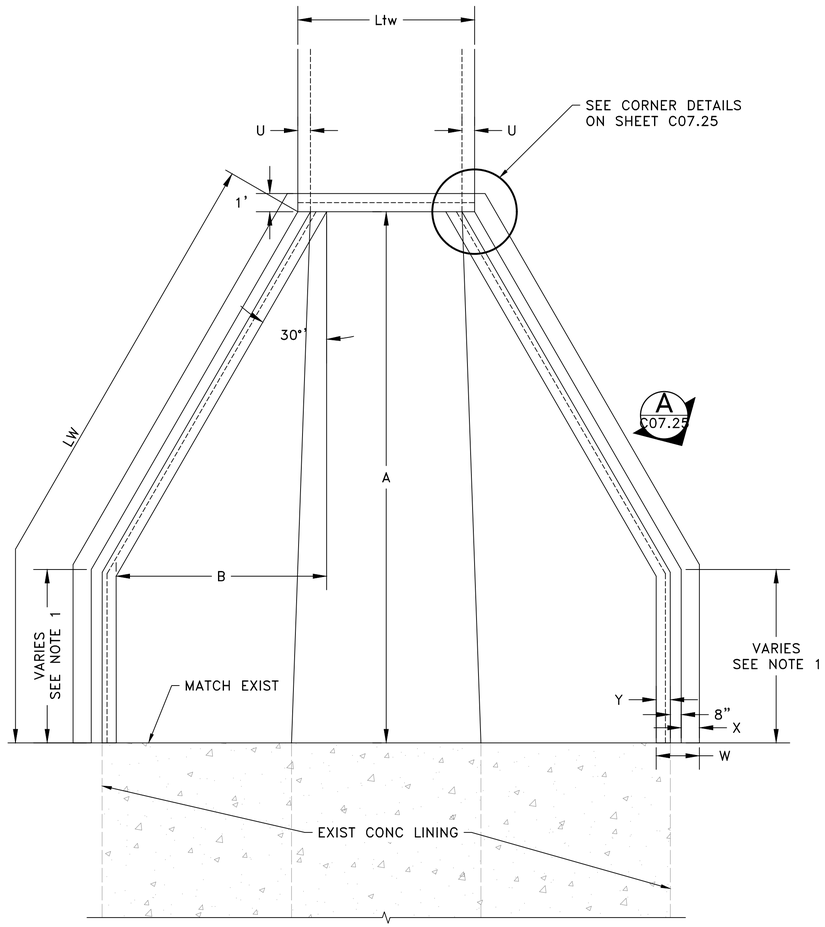
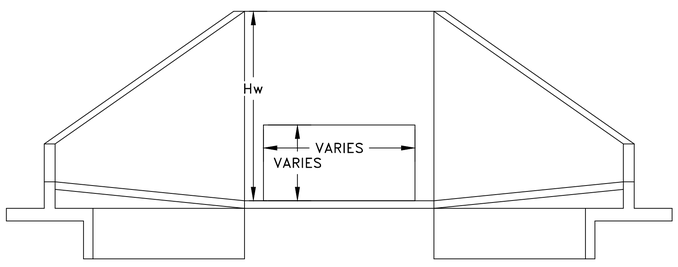
TBPE Registration No. F-5713



1 C07.26 HEADWALL AND WINGWALL DETAIL PLAN

SCALE: NTS

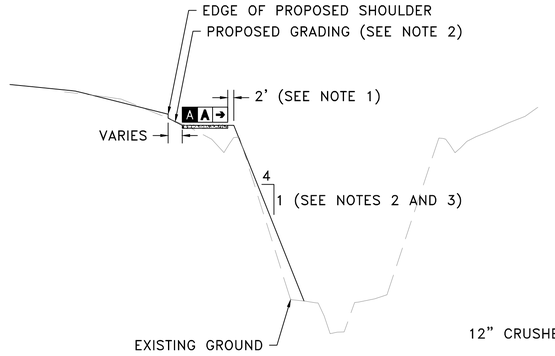


2 C07.26 HEADWALL AND WINGWALL DETAIL ELEVATION

SCALE: NTS

NOTES

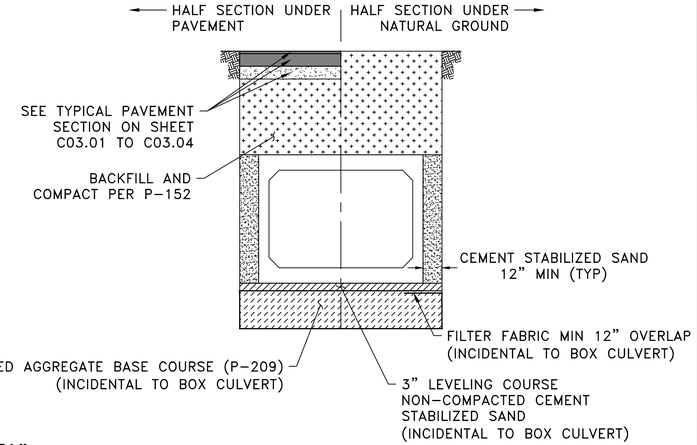
1. SEE WINGWALL LIMITS AND ELEVATIONS ON DRAINAGE PROFILES SHEETS C07.15 TO C07.24



3 C07.26 GRADING AROUND SIGN STRUCTURES DETAIL

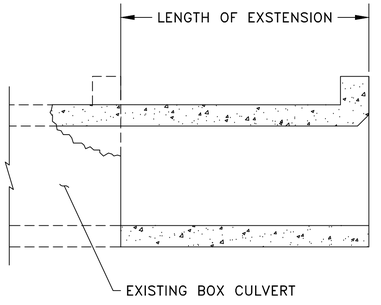
SCALE: NONE

1. MAINTAIN LEVEL GRADE 2-FEET AROUND SIGN BASE
2. IF WITHIN TSA, GRADE 1.5% TO 5% TO TSA
3. IF OUTSIDE OF TSA, GRADE 4:1 AND TIE-IN TO PROPOSED GROUND OR EXISTING GROUND.



4 C07.26 BOX CULVERT BEDDING DETAIL

SCALE: NTS

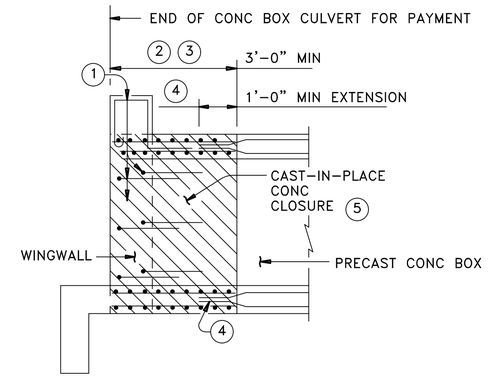


5 C07.26 BOX CULVERT LENGTHENING DETAIL

SCALE: NTS

NOTES

1. BREAK BACK THE TOP SLAB TO PROVIDE A 1'-10" MINIMUM LAP OF THE EXISTING LONGITUDINAL BARS WITH THE LONGITUDINAL BARS IN THE EXTENSION. BREAK BACK WINGS AND APRON AS NECESSARY TO INSTALL THE EXTENSION. CLEAN AND EXTEND THE EXPOSED WINGWALL AND APRON REINFORCING INTO THE EXTENSION.



6 C07.26 WINGWALL CONNECTION

SCALE: NTS

NOTES

1. EXTEND CURB, WINGWALL, OR SAFETY END TREATMENT REINFORCING INTO CONCRETE CLOSURE. BEND OR TRIM, AS NECESSARY, ANY REINFORCING THAT DOES NOT FIT INTO CLOSURE AREA.
2. PROVIDE A 3'-0" MIN CAST-IN-PLACE CONCRETE CLOSURE. BREAK BACK BOXES IN THE FIELD OR CAST BOXES SHORT. PROVIDE BANDS OF REINFORCING IN THE CLOSURE THAT ARE THE SAME SIZE AND SPACING AS IN THE PRECAST BOX SECTION. PROVIDE #4 LONGITUDINAL REINFORCEMENT SPACED AT 12 INCHES MAX WITHIN THE CLOSURE. EXCEPT WHERE SHOWN OTHERWISE, CONSTRUCT THE CAST-IN-PLACE CLOSURE FLUSH WITH THE INSIDE AND OUTSIDE FACES OF THE PRECAST BOX SECTION.
3. FOR MULTIPLE UNIT PLACEMENTS, ADJUST THE LENGTH OF THE CLOSURE FOR THE INTERIOR WALLS AS NECESSARY. PROVIDE A 3'-0" MIN CAST-IN-PLACE CLOSURE IN THE TOP SLAB, BOTTOM SLAB, AND EXTERIOR WALL. SEE SECTION B-B DETAIL WHEN INTERIOR WALLS ARE CAST FULL LENGTH.
4. EXTEND PRECAST BOX REINFORCING A MINIMUM OF 1'-0" INTO CONCRETE CLOSURE (TYP).
5. ANY ADDITIONAL CONCRETE AND REINFORCING REQUIRED FOR THE CLOSURES WILL BE CONSIDERED SUBSIDIARY TO THE BOX CULVERT FOR PAYMENT.

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE DETAILS II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	HSC
CHECK BY:	NRP
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF
	DIRECTOR HOUSTON AIRPORT SYSTEM
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.26

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PLOT DATE: 3/10/2022 11:09:43 AM

HEADWALL	DESCRIPTION OF BOX CULVERT	MAX FILL HEIGHT	APPLICABLE BOX CULVERT STANDARD (3)	APPLICABLE WINGWALL	SKEW ANGLE	SIDE SLOPE OR CHANNEL SLOPE RATIO	T CULVERT TOP SLAB THICKNESS	U CULVERT WALL THICKNESS	C ESTIMATED CURB HEIGHT	HW HEIGHT OF WINGWALL	A CURB TO END OF WINGWALL	B OFFSET OF END OF WINGWALL	LW LENGTH OF LONGEST WINGWALL	LTW CULVERT TOEWALL LENGTH	ATW ANCHOR TOEWALL LENGTH	RIPRAP APRON	CLASS "C" CONC (CURB) (1)	CLASS "C" CONC (WINGWALL) (2)	TOTAL WINGWALL AREA
		(FT)				(SL:1)	(IN)	(IN)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(FT)	(CY)	(CY)	(CY)	(SF)
HW01	7 X 5 RCB	6.2	SCP-7	FW-0 (MODIFIED)	0	4:1	8.0	8.0	4.4	10.3	37.2	2.8	38.3	10.4	N/A	N/A		24.1	534.9
HW02 (NORTH WING)	7 X 5 RCB	5.8	SCP-7	FW-0 (MODIFIED)	0	4:1	8.0	8.0	4.60	10.5	211.0	8.7	213.2	9.7	N/A	N/A		77.5	1445.2
HW02 (SOUTH WING)										10.5	127.4	8.9	129.6					48.4	869.3
HW03	3 – 10 X 7 RCB	3.0	SCP-10	SW-0	0	4:1	10.0	10.0	2.3	10.3	42.0	0.0	42.0	37.3	N/A	N/A		32.8	447.8
HW04 (NORTH WING)	8 X 4 RCB	6.8	SCP-8	FW-0 (MODIFIED)	0	4:1	8.0	8.0	5.2	10.2	208.9	9.2	211.2	10.7	N/A	N/A		76.6	1412.5
HW04 (SOUTH WING)										10.2	143.2	7.9	145.2					53.8	967.1
HW05 (NORTH WING)	8 X 4 RCB	7.0	SCP-8	FW-0 (MODIFIED)	0	4:1	8.0	8.0	5.7	10.6	209.7	7.9	211.7	10.7	N/A	N/A		78.2	1465.2
HW05 (SOUTH WING)										10.6	144.0	8.2	146.1					55.0	999.6
HW06 (NORTH WING)	6 X 5 RCB	6.1	SCP-6	FW-0 (MODIFIED)	0	4:1	7.0	7.0	4.7	10.5	222.5	9.6	225.0	8.5	N/A	N/A		83.6	1624.9
HW06 (SOUTH WING)										10.5	129.2	9.3	131.5					49.4	915.9
HW07 (NORTH WING)	6 X 5 RCB	6.3	SCP-6	FW-0 (MODIFIED)	0	4:1	7.0	7.0	4.9	10.7	215.6	9.3	218.0	8.5	N/A	N/A		79.4	1504.2
HW07 (SOUTH WING)										10.7	128.6	9.4	130.8					49.3	915.4
HW08 (NORTH WING)	8 X 4 RCB	7.3	SCP-8	FW-0 (MODIFIED)	0	4:1	8.0	8.0	5.7	10.6	219.3	7.6	221.2	10.7	N/A	N/A		81.2	1518.4
HW08 (SOUTH WING)										10.6	132.7	9.0	135.0					50.6	902.1
HW09 (NORTH WING)	8 X 4 RCB	7.4	SCP-8	FW-0 (MODIFIED)	0	4:1	8.0	8.0	5.8	10.8	248.2	8.3	250.3	10.7	N/A	N/A		90.8	1692.0
HW09 (SOUTH WING)										10.8	145.9	8.0	147.9					55.6	1008.4
HW10 (NORTH WING)	8 X 4 RCB	8.0	SCP-8	FW-0 (MODIFIED)	0	4:1	8.0	8.0	6.7	11.5	247.9	8.3	250.0	10.7	N/A	N/A		95.0	1853.0
HW10 (SOUTH WING)										11.5	119.1	8.0	121.1					48.4	899.1

NOTES

1. SKEW = 0° ON SW-0, FW-0, SETB-CD, SETB-SW-0 STANDARD SHEETS;
   30° MAXIMUM FOR SAFETY END TREATMENT
2. SL:1 = HORIZONTAL : 1 VERTICAL
   2.1. SIDE SLOPE AT CULVERT FOR FLARED OR STRAIGHT WINGWALLS
   2.2. CHANNEL SLOPE FOR PARALLEL WINGWALLS
   2.3. SLOPE MUST BE 3:1 OR FLATTER FOR SAFETY END TREATMENTS
3. T = BOX CULVERT TOP SLAB THICKNESS. DIMENSION CAN BE FOUND ON APPLICABLE BOX CULVERT STANDARD SHEET
4. U = BOX CULVERT WALL THICKNESS. DIMENSION CAN BE FOUND ON THE APPLICABLE BOX CULVERT STANDARD SHEET
5. C = CURB HEIGHT
6. SEE APPLICABLE WING OR END TREATMENT STANDARD SHEETS FOR CALCULATIONS OF HW, A, B, LW, LTW, ATW, AND TOTAL WINGWALL AREA
7. HW = HEIGHT OF WINGWALL
8. A = DISTANCE FROM FACE OF CURB TO END OF WINGWALL (NOT APPLICABLE TO PARALLEL OR STRAIGHT WINGWALLS)
9. B = OFFSET OF END OF WINGWALL (NOT APPLICABLE TO PARALLEL OR STRAIGHT WINGWALLS)
   B OFFSET IS ALSO OFFSET AT WHICH WINGWALL FLARES BEND AND BECOME PARALLEL WITH EXIST CONC CHANNEL
10. LW = LENGTH OF LONGEST WINGWALL
    LW MEASUREMENT IS ALIGNED WITH, AND INCLUDES WINGWALL BEND
11. LTW = LENGTH OF CULVERT TOEWALL (NOT APPLICABLE WHEN USING RIPRAP APRON)
12. ATW = LENGTH OF ANCHOR TOEWALL (APPLICABLE TO SAFETY END TREATMENT ONLY)

(1) CONCRETE VOLUME SHOWN IS FOR BOX CULVERT CURB ONLY. FOR CURBS USING THE BOX CULVERT RAIL MOUNTING DETAILS (RAC) STANDARD SHEET QUANTITIES MUST BE INCREASED BY A FACTOR OF 2.25. IF CLASS S CONCRETE IS REQUIRED FOR THE TOP SLAB OF THE CULVERT, ALSO PROVIDE CLASS S CONCRETE FOR THE CURB. CURB CONCRETE IS CONSIDERED PART OF THE BOX CULVERT FOR PAYMENT

(2) CONCRETE VOLUME SHOWN IS TOTAL OF WINGS, FOOTINGS, CULVERT TOEWALL (IF ANY), ANCHOR TOEWALLS (IF ANY), AND WINGWALL TOEWALLS. RIPRAP APRONS, CULVERTS, AND CURB QUANTITIES ARE NOT INCLUDED.

(3) REGARDLESS OF THE TYPE OF CULVERT SHOWN ON THIS SHEET, THE CONTRACTOR HAS THE OPTION OF FURNISHING CAST-IN-PLACE OR PRECAST CULVERTS UNLESS OTHERWISE SHOWN ELSEWHERE ON THE PLANS. IF THE CONTRACTOR ELECTS TO PROVIDE CULVERTS OF A DIFFERENT TYPE THAN THOSE SHOWN ON THIS SHEET, IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE THE NECESSARY ADJUSTMENTS TO THE DIMENSIONS AND QUANTITIES SHOWN.

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE DETAILS III

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	HSC
CHECK BY:	NRP
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.27

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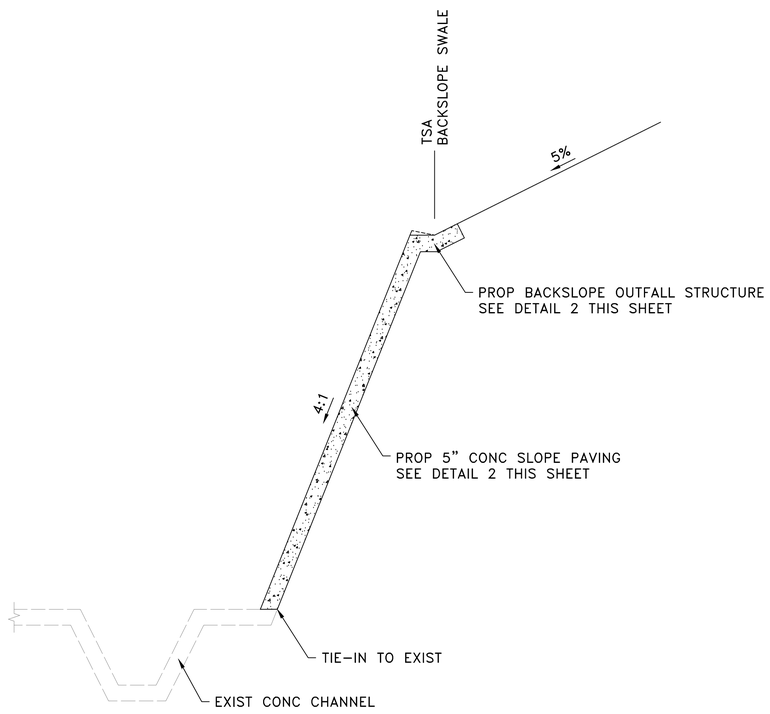
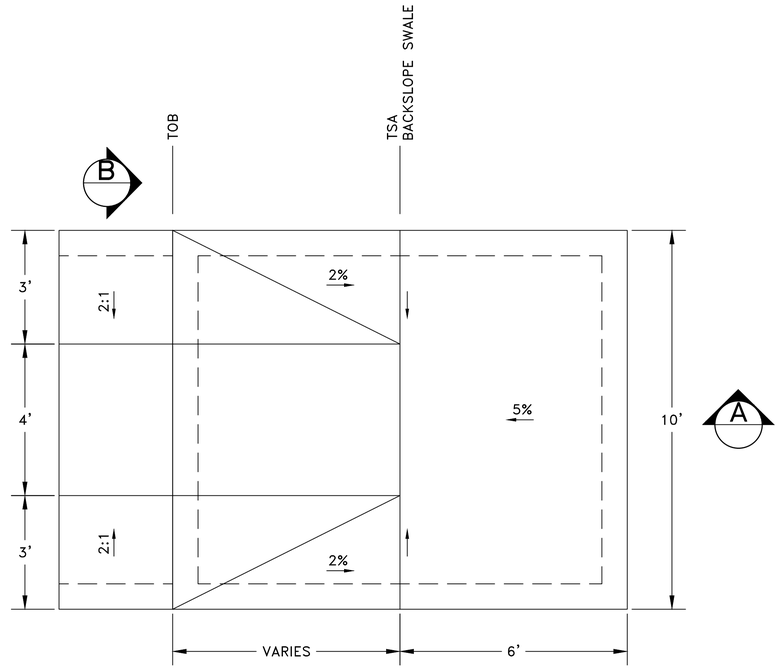
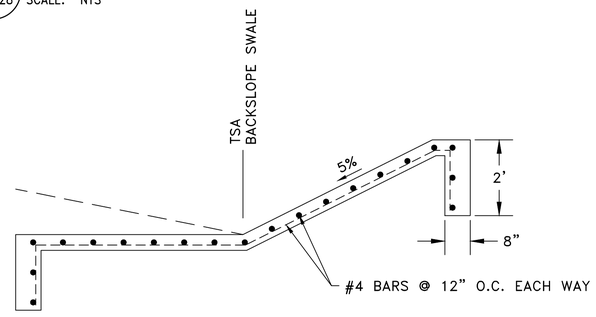


BACKSLOPE SWALE OUTFALL STRUCTURE
1 / C07.28 ELEVATION
SCALE: NTS



BACKSLOPE SWALE OUTFALL STRUCTURE
2 / C07.28 PLAN
SCALE: NTS



A SECTION A
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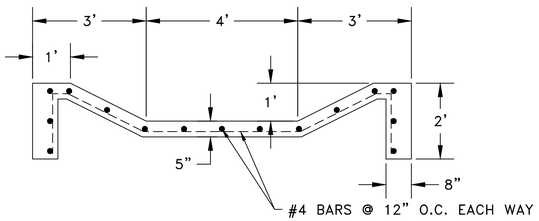

B SECTION B
SCALE: NTS

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TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE DETAILS III

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.28

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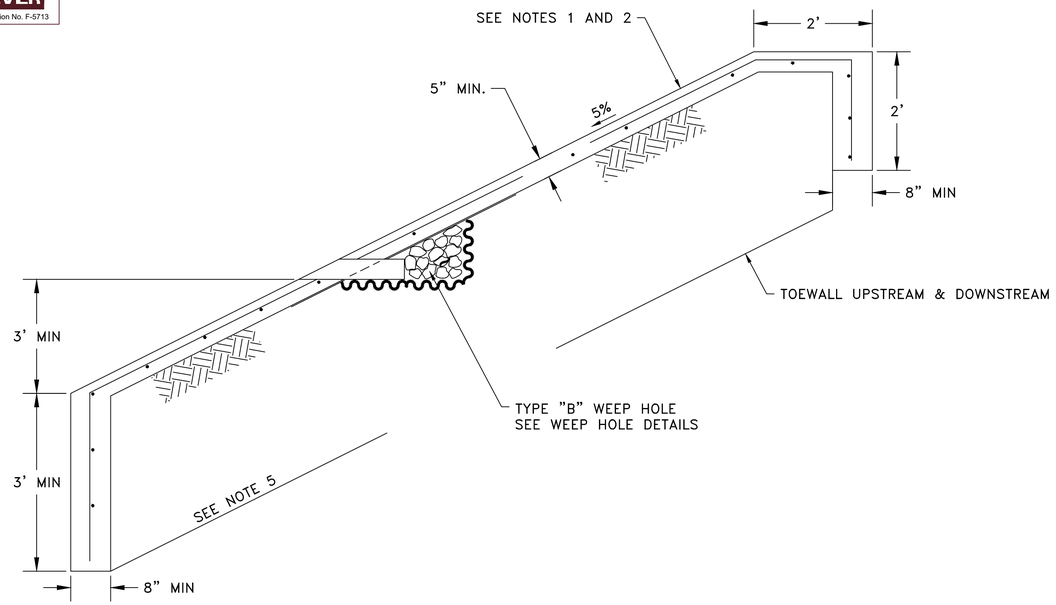
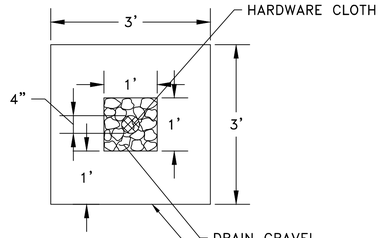


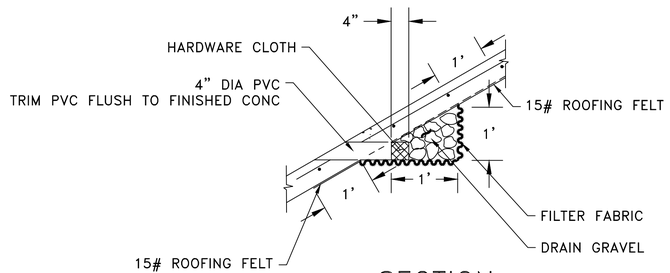
1 C07.29 CONC SLOPE PAVING DETAIL
SCALE: NTS

NOTES:

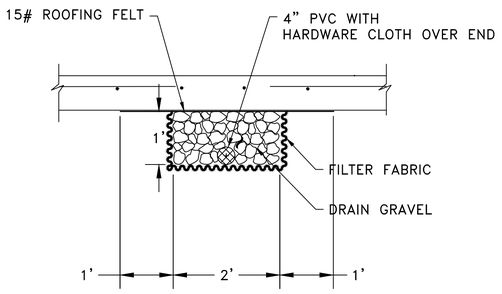
1. STRUCTURAL CONCRETE FOR CONCRETE CHANNEL LINING SHALL BE IN ACCORDANCE WITH SPECIFICATION P-610.
2. EXCAVATION AND BACKFILL FOR CONCRETE CHANNEL LINING SHALL BE IN ACCORDANCE WITH SPECIFICATION P-152.
3. JOINTS:
   - 3.A. PLACE CONSTRUCTION JOINT IN CONCRETE LOW-FLOW, TRAPEZOIDAL BOTTOM SECTIONS AND SLOPES AT 20 FOOT MIN., SPACING CONTINUOUSLY THROUGH CHANNEL LINING.
   - 3.B. PLACE EXPANSION JOINT IN CONCRETE LOW-FLOW, TRAPEZOIDAL BOTTOM SECTIONS, AND SLOPES AT 60 FOOT MAX. SPACING CONTINUOUSLY THROUGH CHANNEL LINING.
4. PROVIDE AND PLACE CEMENT STABILIZED SAND COMPACTED PER P-152.
5. UPSTREAM AND DOWNSTREAM TOE WALL 3 FOOT MIN. DEPTH AT BOTTOM OF SLOPE AND 8 INCHES THICK.
6. MINIMUM #4 BARS (GRADE 60) AT 12 INCHES ON CENTER EACH WAY.



PLAN



SECTION



SECTION

2 C07.29 TYPE "B" WEEP HOLE DETAIL
SCALE: NTS

WEEP HOLE NOTES:

1. MATERIALS
   - 1.A. PIPE: 4 INCH DIA SCH 40 PVC
   - 1.B. DRAIN GRAVEL:

SIEVE SIZE	% FINER
1 IN	100
3/4 IN	70-100
3/8 IN	20-90
NO. 4	0-60
NO. 8	0

   - 1.C. HARDWARE CLOTH:

MIN OPEN	MAX OPEN
1/8 IN	1/4 IN

   - 1.D. FILTER FABRIC: NON-WOVEN GEOTEXTILE

MIN. AOS	SIEVE NO.	100 MIN
MAX AOS	SIEVE NO.	70 MAX
WEIGHT	OZ/SY	6 OZ MIN

2. CUT WEEP HOLE PIPE FLUSH WITH CONCRETE SURFACE

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TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE DETAILS IV

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.29

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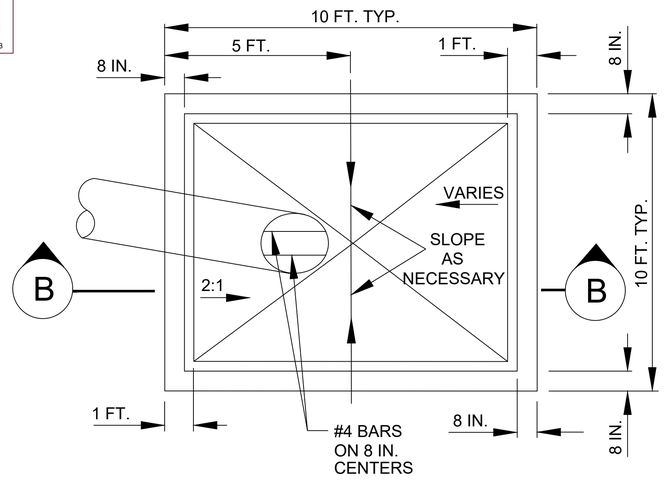

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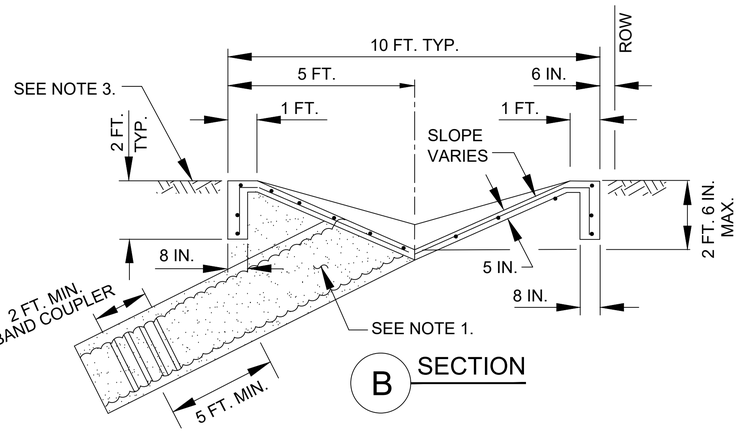
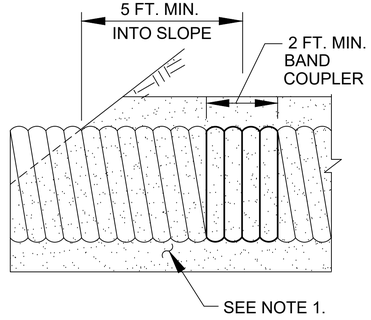
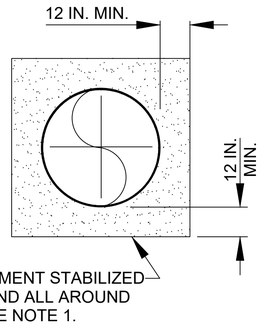


B SECTION

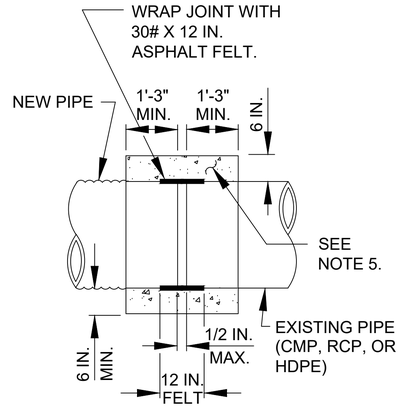
1 / C07.30 TYPICAL BACKSLOPE INTERCEPTOR STRUCTURE
SCALE: NTS

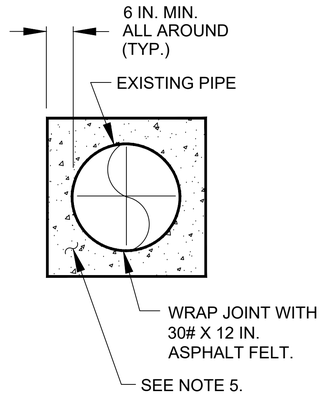


2 / C07.30 CMP BAND COUPLER DETAIL
SCALE: NTS



3 / C07.30 BEDDING CMP DETAIL
SCALE: NTS





4 / C07.30 CONCRETE COLLAR DETAIL
SCALE: NTS

NOTES

1. BACKSLOPE INTERCEPTOR STRUCTURE FOR REMOVING AND RELOCATING EXISTING INTERCEPTORS AND FOR BACKSLOPE SWALES.
2. PROVIDE AND PLACE CEMENT STABILIZED SAND COMPACTED PER P-152.
3. CONCRETE SHALL BE STRUCTURAL CONCRETE IN ACCORDANCE WITH P-610.
4. INTERCEPTOR STRUCTURES:
   - 4.1. ADJUST LENGTH AND WIDTH IN FIELD AS NECESSARY.
   - 4.2. 2-FEET DEEP X 8-INCH WIDE TOE ALL AROUND THE STRUCTURE.
   - 4.3. STEEL REINFORCING-#4 BARS (GRADE 60) AT 12 INCHES ON CENTER EACH WAY.
   - 4.4. ANY INTERCEPTOR OUTFALL PIPE LARGER THAN MAXIMUM SIZE INDICATED REQUIRES A SEPARATE DETAIL.
   - 4.5. MATCH TOP OF CONCRETE WITH NATURAL GROUND.
5. BACKSLOPE SWALE AND INTERCEPTOR STRUCTURE ELEVATIONS AND LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. FINAL ELEVATIONS AND LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
6. STRUCTURAL CONCRETE WITH #4 BARS (GRADE 60) 12 INCH O.C. EACH WAY, 3 ROWS MIN. EACH WAY. - FOR COLLARS ONLY. WAIT A MINIMUM OF 24 HOURS AFTER PLACING CONCRETE TO BACKFILL.

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HT&J LLC
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE DETAILS V

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	HSC
CHECK BY:	NRP
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.30

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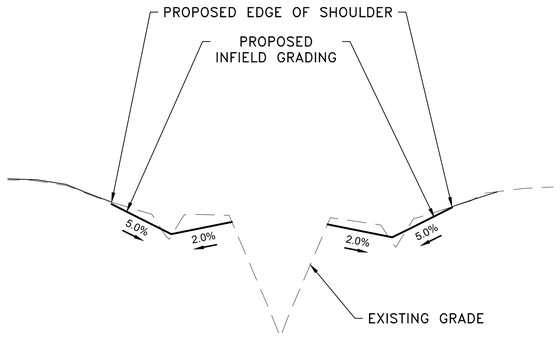
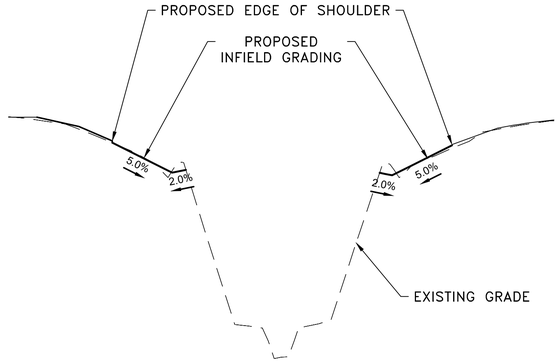


TYPICAL GRADING CROSS SECTION
TWY SC TO TWY SF INFIELD BASIN
1 / C07.31 SCALE: NTS



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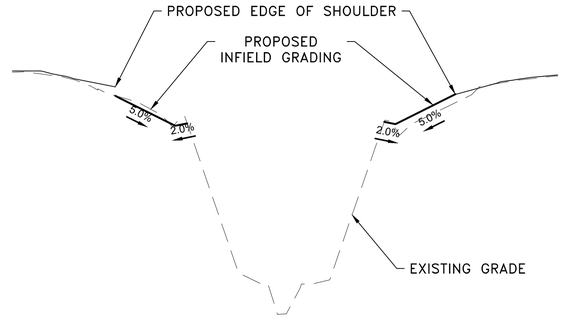
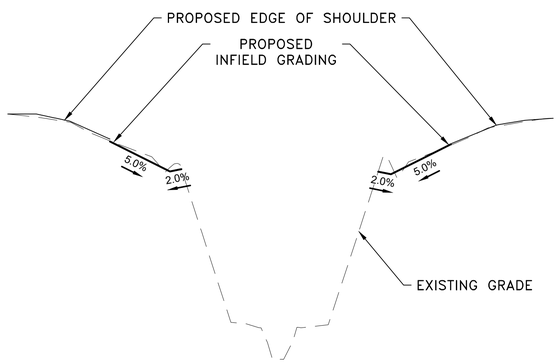
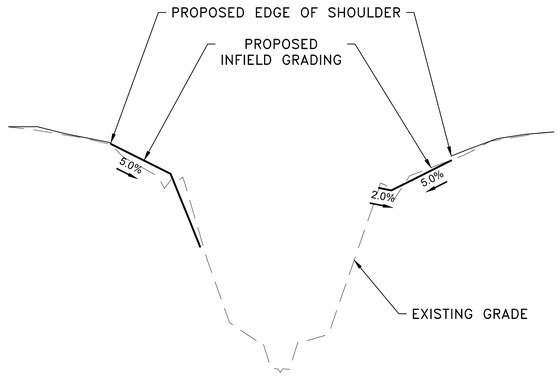
TWY SF TO TWY SG INFIELD BASIN
2 / C07.31 SCALE: NTS



TYPICAL GRADING CROSS SECITON
TWY SG TO TWY SH INFIELD BASIN
3 / C07.31 SCALE: NTS



TYPICAL GRADING CROSS SECTION
TWY SH TO TWY SJ INFIELD BASIN
4 / C07.31 SCALE: NTS



TYPICAL GRADING CROSS SECTION
TWY SJ TO TWY SK INFIELD BASIN
5 / C07.31 SCALE: NTS

INFIELD BASIN AND SHOULDER GRADING NOTES

1. DROP 1.5" FROM EDGE OF SHOULDER PAVEMENT
2. GRADE −5% FOR FIRST 10−FEET
3. GRADE −1.5% TO −5% TO TAXIWAY SAFETY AREA (TSA)
4. DAYLIGHT 2% FOR BACKSLOPE SWALES, OR
5. DAYLIGHT 4:1 TO EXISTING GROUND

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REVISIONS		
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GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE DETAILS VI

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.31

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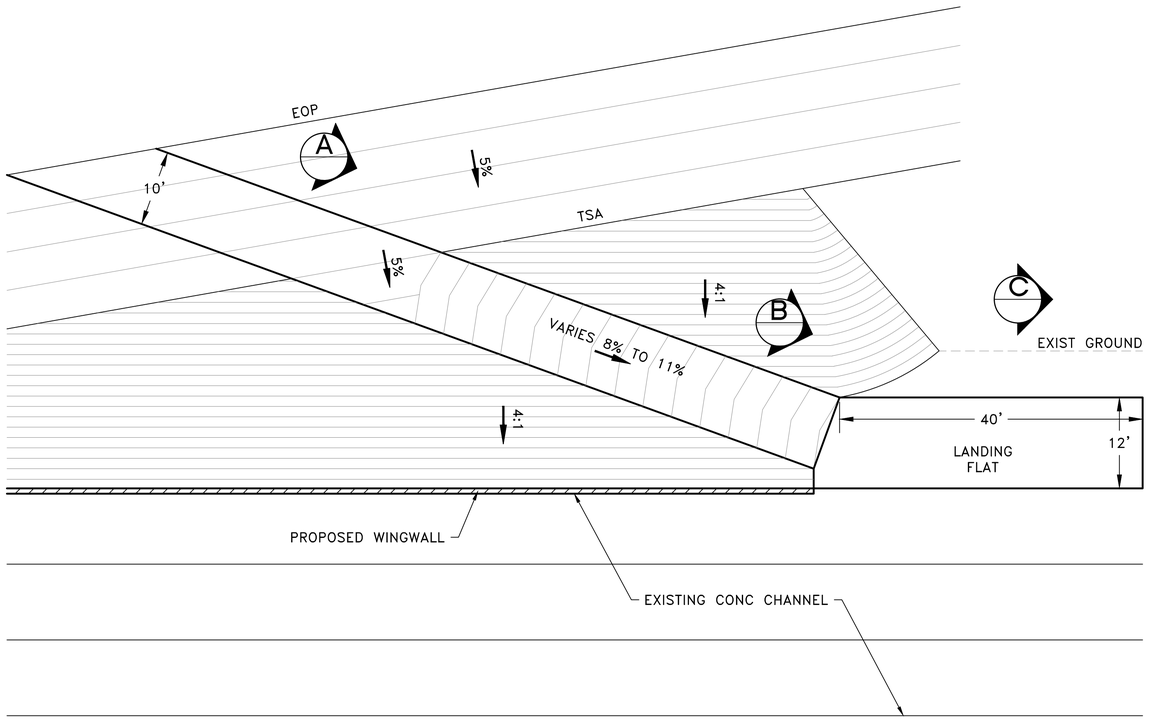
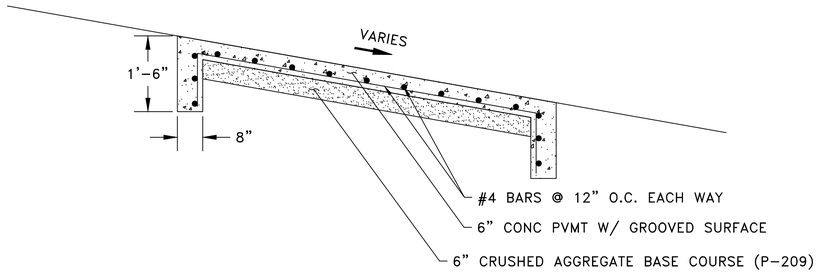


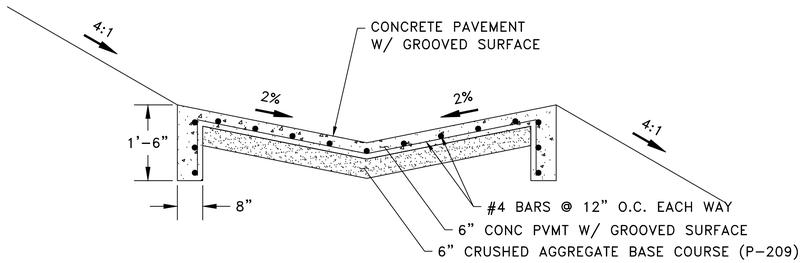
1 C07.32 TYPICAL MAINT RAMP AND LANDING DETAIL
SCALE: NTS

NOTES

1. PROVIDE AND PLACE CRUSHED AGGREGATE BASE COURSE PER P-209.
2. CONCRETE SHALL BE STRUCTURAL CONCRETE IN ACCORDANCE WITH P-610.
3. STRUCTURAL CONCRETE WITH #4 BARS (GRADE 60) 12 INCH O.C. EACH WAY, 3 ROWS MIN. EACH WAY.



A C07.32 SECTION A
SCALE: NTS



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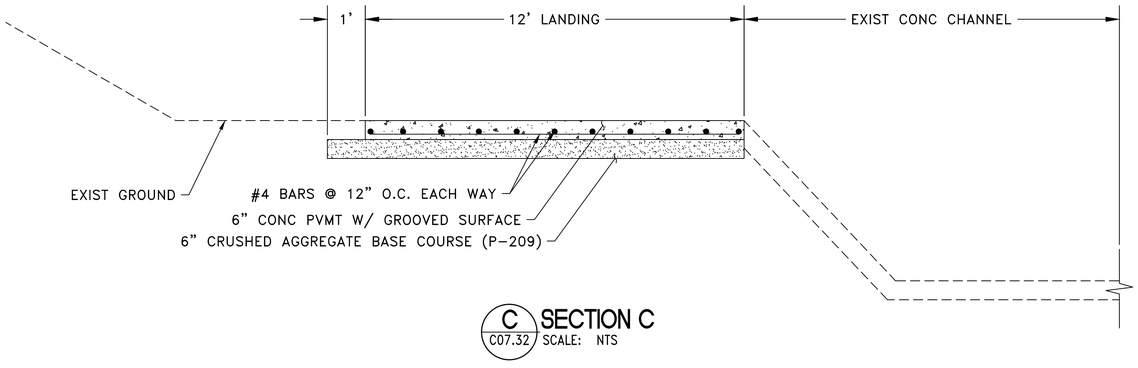
SCALE: NTS



C C07.32 SECTION C
SCALE: NTS

HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

DRAINAGE DETAILS VII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	HSC
CHECK BY:	NRP
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **C07.32**

HAS FILE: C:\Users\HowardChang\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\DRAINAGE DETAILS II.dwg
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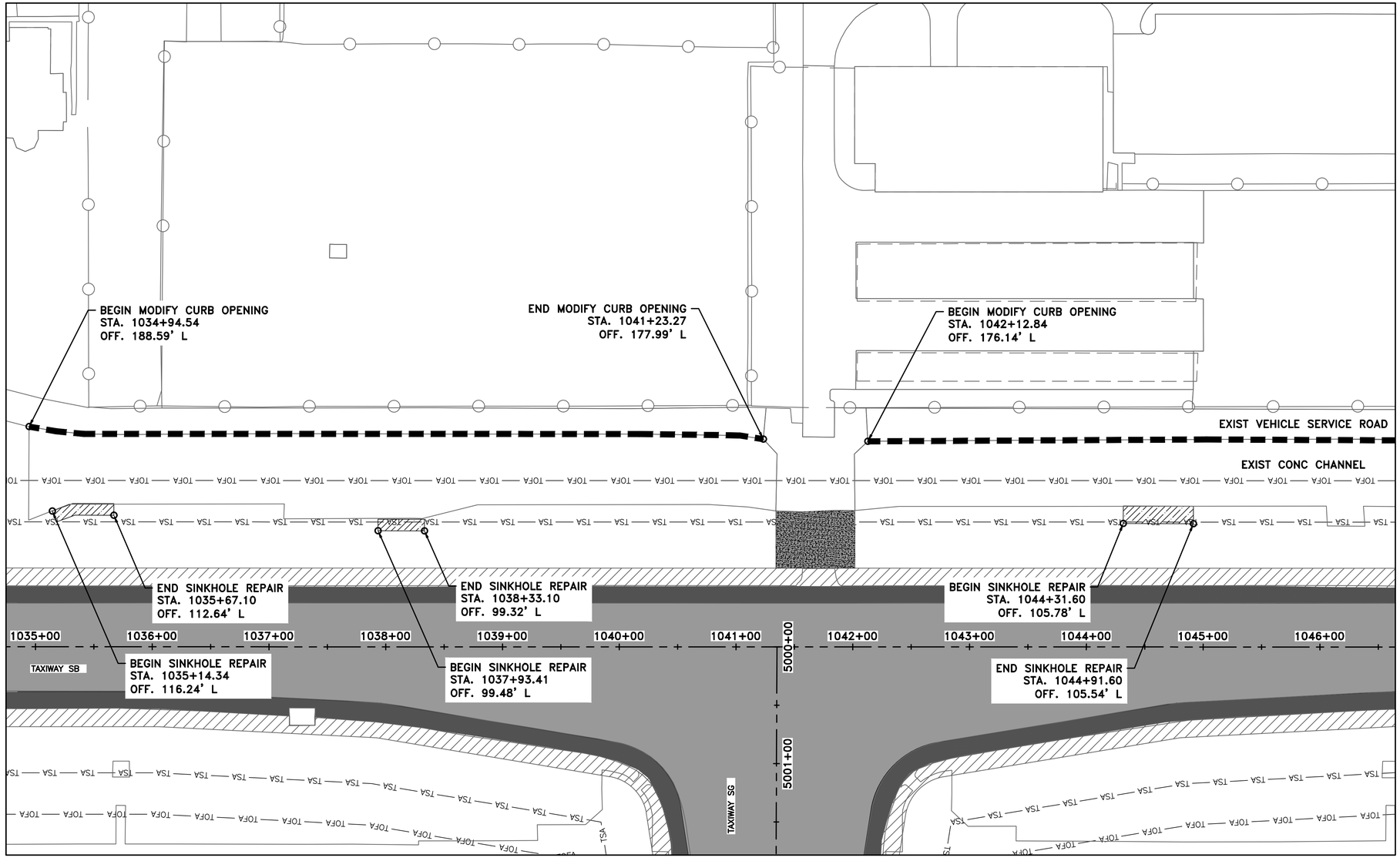
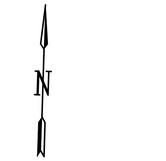


MATCHLINE SHEET C07.34



NOTES:

1. ADDITIONAL SINKHOLE REPAIR LOCATIONS MAY BE IDENTIFIED BY THE RPR AND/OR HAS PERSONNEL AS NECESSARY.
2. SEE SHEET C07.41 AND C07.42 FOR SINKHOLE REPAIR, GEOTEXTILE SLOPE STABILIZATION, AND BACKFILL AND REGRADE DETAILS.
3. SEE DRAFT GEOTEHNICAL REPORT FOR DETAILED SOIL BORING ANALYSES AND LOGS,

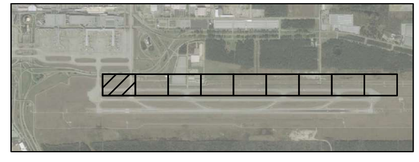
   GEOTECHNICAL INVESTIGATION REHABILITATION OF RA, RB, SA, AND SB - SINKHOLE REPAIRS ALONG DITCH T
   BY HVJ ASSOCIATES, DATED OCTOBER 1, 2020
4. SEE GROUND PENETRATING RADAR REPORT FOR DETAILED GROUND PENETRATING RADAR ANALYSES AND RESULTS,

   GEOPHYSICAL SURVEY REPORT, DRAINAGE DITCH T PILOT CHANNEL BY FUGRO, DATED MAY 5, 2020.

LEGEND

- 1 / C07.41 — SINKHOLE REPAIR
- 1 / C07.42 — GEOTEXTILE FABRIC SLOPE STABILIZATION
- 2 / C07.42 — BACKFILL AND REGRADE
- 2 / C07.41 — MODIFY CURB OPENING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS			
NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE PLAN I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	----
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.33

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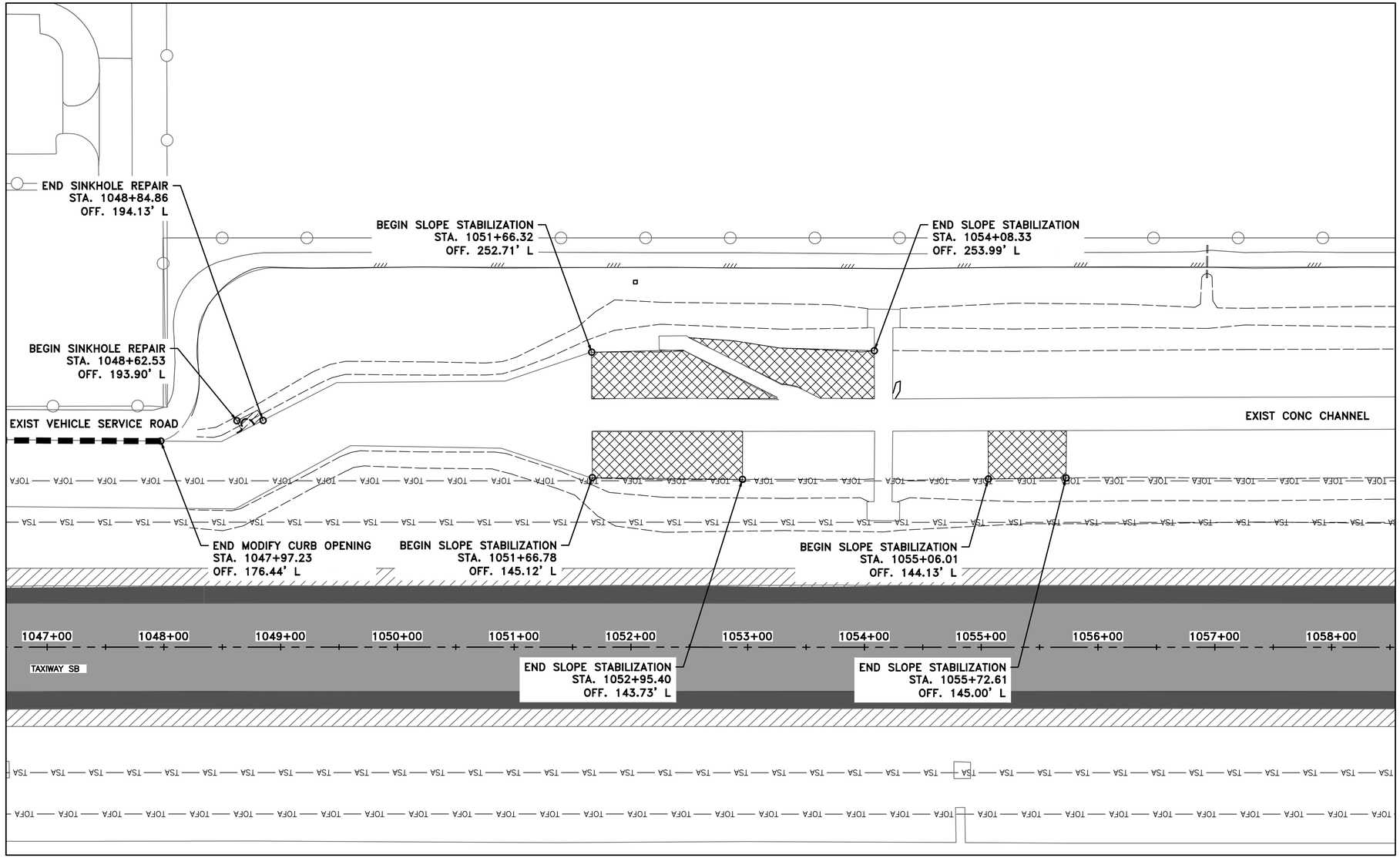
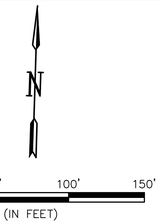




NOTES:

1. ADDITIONAL SINKHOLE REPAIR LOCATIONS MAY BE IDENTIFIED BY THE RPR AND/OR HAS PERSONNEL AS NECESSARY.
2. SEE SHEET C07.41 AND C07.42 FOR SINKHOLE REPAIR, GEOTEXTILE SLOPE STABILIZATION, AND BACKFILL AND REGRADE DETAILS.
3. SEE DRAFT GEOTEHNICAL REPORT FOR DETAILED SOIL BORING ANALYSES AND LOGS,

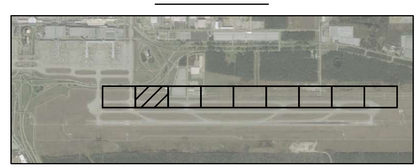
   GEOTECHNICAL INVESTIGATION REHABILITATION OF RA, RB, SA, AND SB - SINKHOLE REPAIRS ALONG DITCH T
   BY HVJ ASSOCIATES, DATED OCTOBER 1, 2020
4. SEE GROUND PENETRATING RADAR REPORT FOR DETAILED GROUND PENETRATING RADAR ANALYSES AND RESULTS,

   GEOPHYSICAL SURVEY REPORT, DRAINAGE DITCH T PILOT CHANNEL BY FUGRO, DATED MAY 5, 2020.

LEGEND

- 1 / C07.41 — SINKHOLE REPAIR
- 1 / C07.42 — GEOTEXTILE FABRIC SLOPE STABILIZATION
- 2 / C07.42 — BACKFILL AND REGRADE
- 2 / C07.41 — MODIFY CURB OPENING

KEYMAP



HOUSTON AIRPORTS

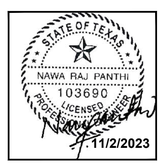
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE PLAN II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023



APPROVED BY:	----
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.34

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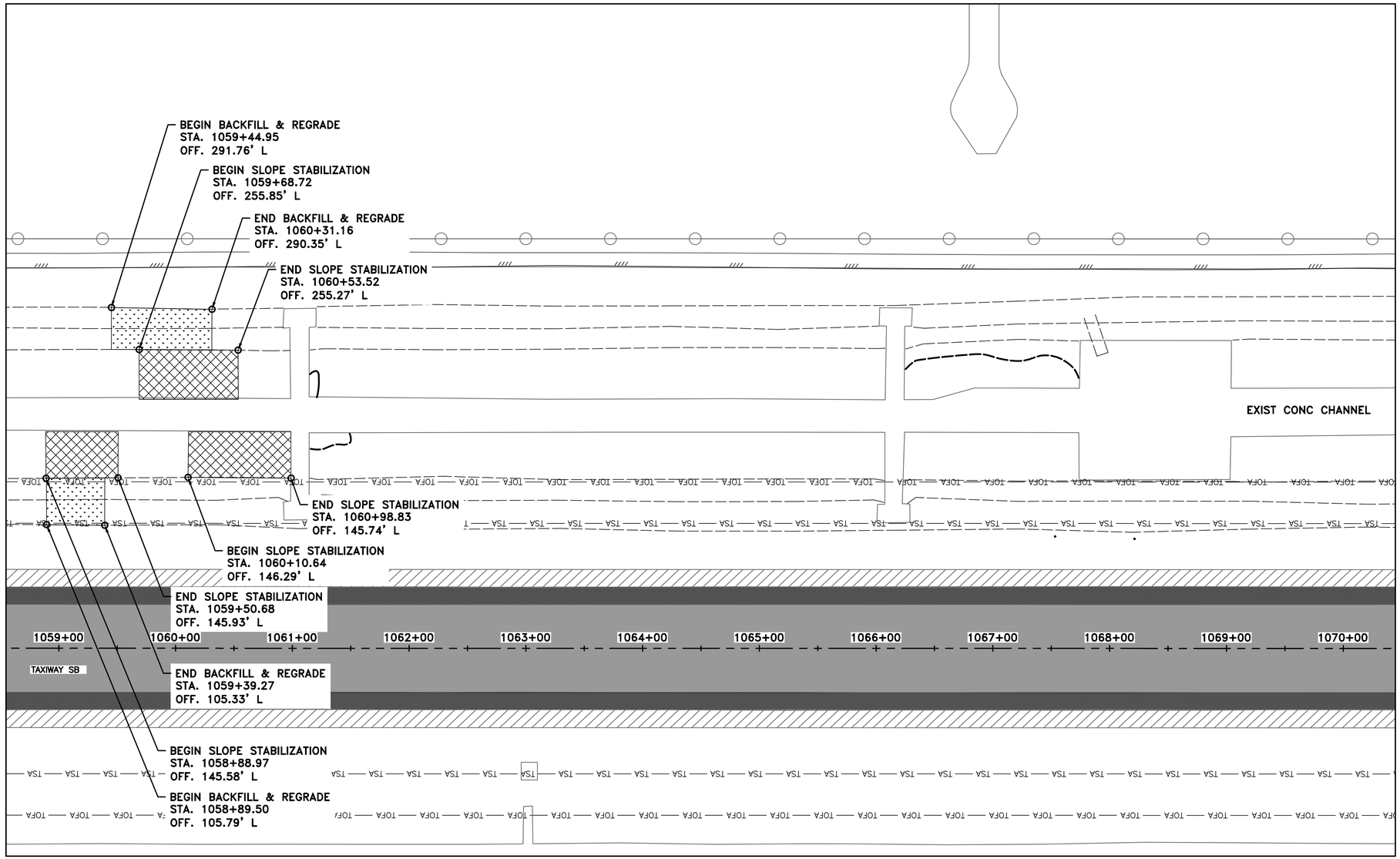
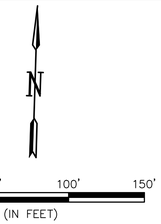




NOTES:

1. ADDITIONAL SINKHOLE REPAIR LOCATIONS MAY BE IDENTIFIED BY THE RPR AND/OR HAS PERSONNEL AS NECESSARY.
2. SEE SHEET C07.41 AND C07.42 FOR SINKHOLE REPAIR, GEOTEXTILE SLOPE STABILIZATION, AND BACKFILL AND REGRADE DETAILS.
3. SEE DRAFT GEOTEHNICAL REPORT FOR DETAILED SOIL BORING ANALYSES AND LOGS,

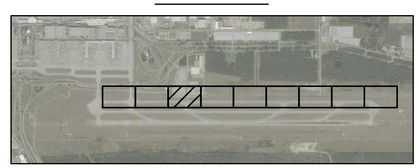
   GEOTECHNICAL INVESTIGATION REHABILITATION OF RA, RB, SA, AND SB - SINKHOLE REPAIRS ALONG DITCH T
   BY HVJ ASSOCIATES, DATED OCTOBER 1, 2020
4. SEE GROUND PENETRATING RADAR REPORT FOR DETAILED GROUND PENETRATING RADAR ANALYSES AND RESULTS,

   GEOPHYSICAL SURVEY REPORT, DRAINAGE DITCH T PILOT CHANNEL BY FUGRO, DATED MAY 5, 2020.

LEGEND

- SINKHOLE REPAIR — 1 / C07.41
- GEOTEXTILE FABRIC SLOPE STABILIZATION — 1 / C07.42
- BACKFILL AND REGRADE — 2 / C07.42
- MODIFY CURB OPENING — 2 / C07.41

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE PLAN III

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	----
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.35

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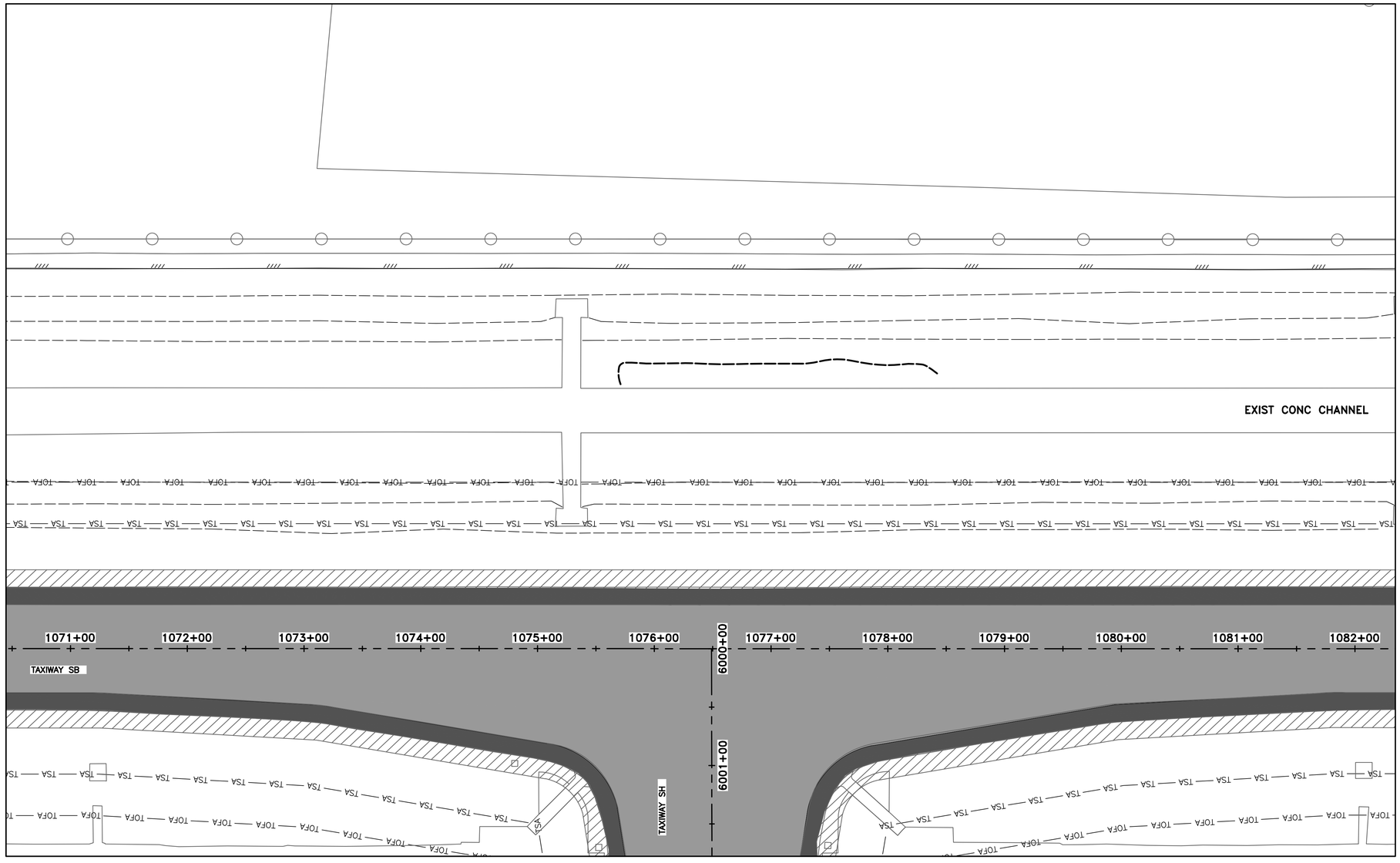
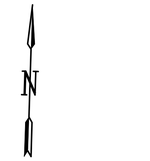




0 25' 50' 100' 150'

(IN FEET)

NOTES:

1. ADDITIONAL SINKHOLE REPAIR LOCATIONS MAY BE IDENTIFIED BY THE RPR AND/OR HAS PERSONNEL AS NECESSARY.
2. SEE SHEET C07.41 AND C07.42 FOR SINKHOLE REPAIR, GEOTEXTILE SLOPE STABILIZATION, AND BACKFILL AND REGRADE DETAILS.
3. SEE DRAFT GEOTEHNICAL REPORT FOR DETAILED SOIL BORING ANALYSES AND LOGS,

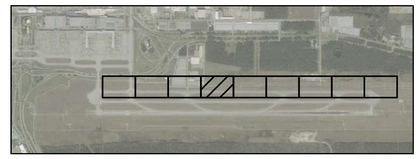
   GEOTECHNICAL INVESTIGATION REHABILITATION OF RA, RB, SA, AND SB - SINKHOLE REPAIRS ALONG DITCH T
   BY HVJ ASSOCIATES, DATED OCTOBER 1, 2020
4. SEE GROUND PENETRATING RADAR REPORT FOR DETAILED GROUND PENETRATING RADAR ANALYSES AND RESULTS,

   GEOPHYSICAL SURVEY REPORT, DRAINAGE DITCH T PILOT CHANNEL BY FUGRO, DATED MAY 5, 2020.

LEGEND

- SINKHOLE REPAIR — 1 / C07.41
- GEOTEXTILE FABRIC SLOPE STABILIZATION — 1 / C07.42
- BACKFILL AND REGRADE — 2 / C07.42
- MODIFY CURB OPENING — 2 / C07.41

KEYMAP



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HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS			
NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE PLAN IV

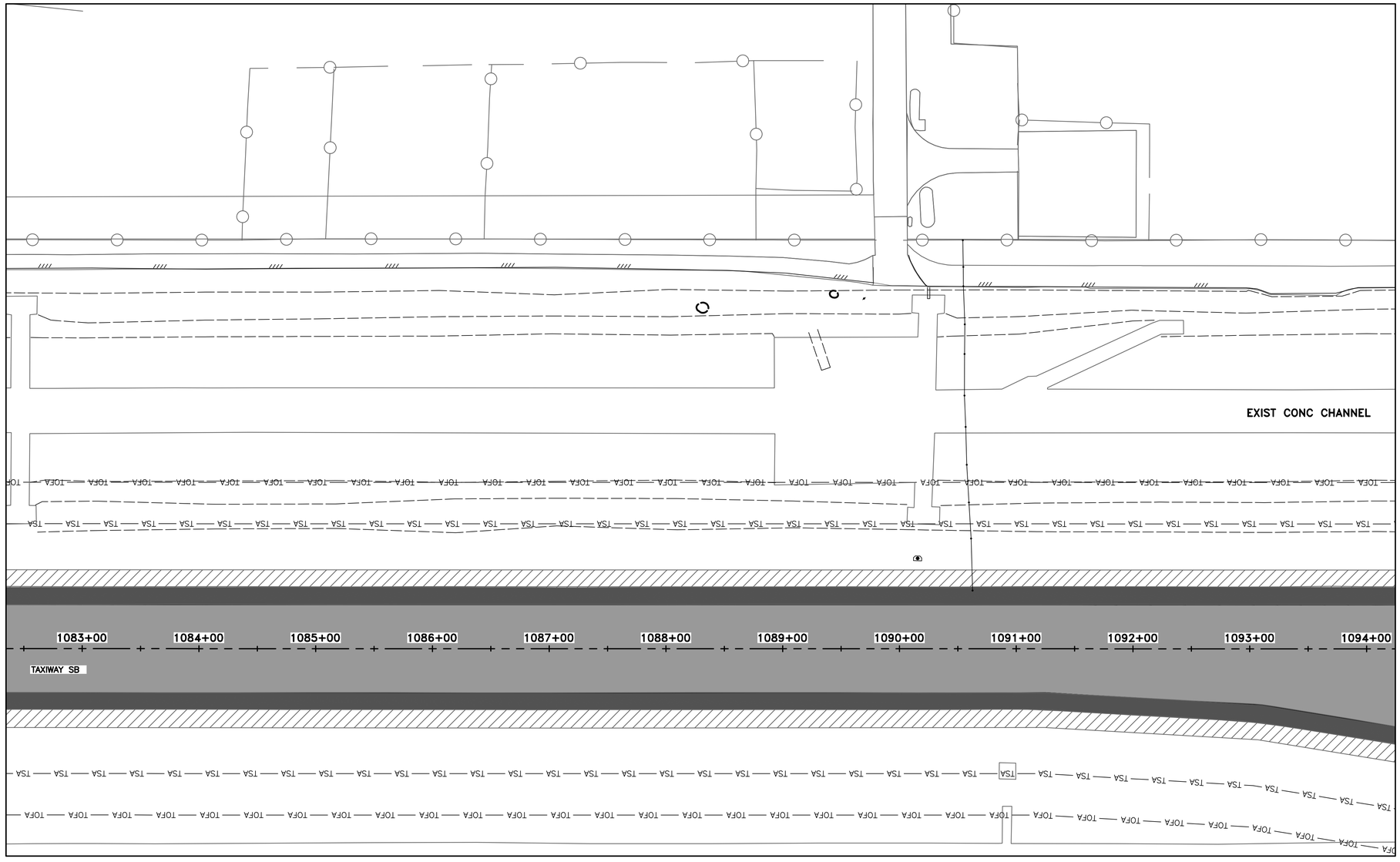
PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

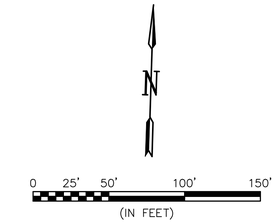
STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: ----

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.36





NOTES:

1. ADDITIONAL SINKHOLE REPAIR LOCATIONS MAY BE IDENTIFIED BY THE RPR AND/OR HAS PERSONNEL AS NECESSARY.
2. SEE SHEET C07.41 AND C07.42 FOR SINKHOLE REPAIR, GEOTEXTILE SLOPE STABILIZATION, AND BACKFILL AND REGRADE DETAILS.
3. SEE DRAFT GEOTEHNICAL REPORT FOR DETAILED SOIL BORING ANALYSES AND LOGS,

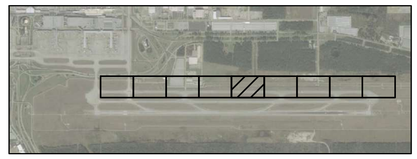
   GEOTECHNICAL INVESTIGATION REHABILITATION OF RA, RB, SA, AND SB - SINKHOLE REPAIRS ALONG DITCH T
   BY HVJ ASSOCIATES, DATED OCTOBER 1, 2020
4. SEE GROUND PENETRATING RADAR REPORT FOR DETAILED GROUND PENETRATING RADAR ANALYSES AND RESULTS,

   GEOPHYSICAL SURVEY REPORT, DRAINAGE DITCH T PILOT CHANNEL BY FUGRO, DATED MAY 5, 2020.

LEGEND

- SINKHOLE REPAIR — 1 / C07.41
- GEOTEXTILE FABRIC SLOPE STABILIZATION — 1 / C07.42
- BACKFILL AND REGRADE — 2 / C07.42
- MODIFY CURB OPENING — 2 / C07.41

KEYMAP



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HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE PLAN V

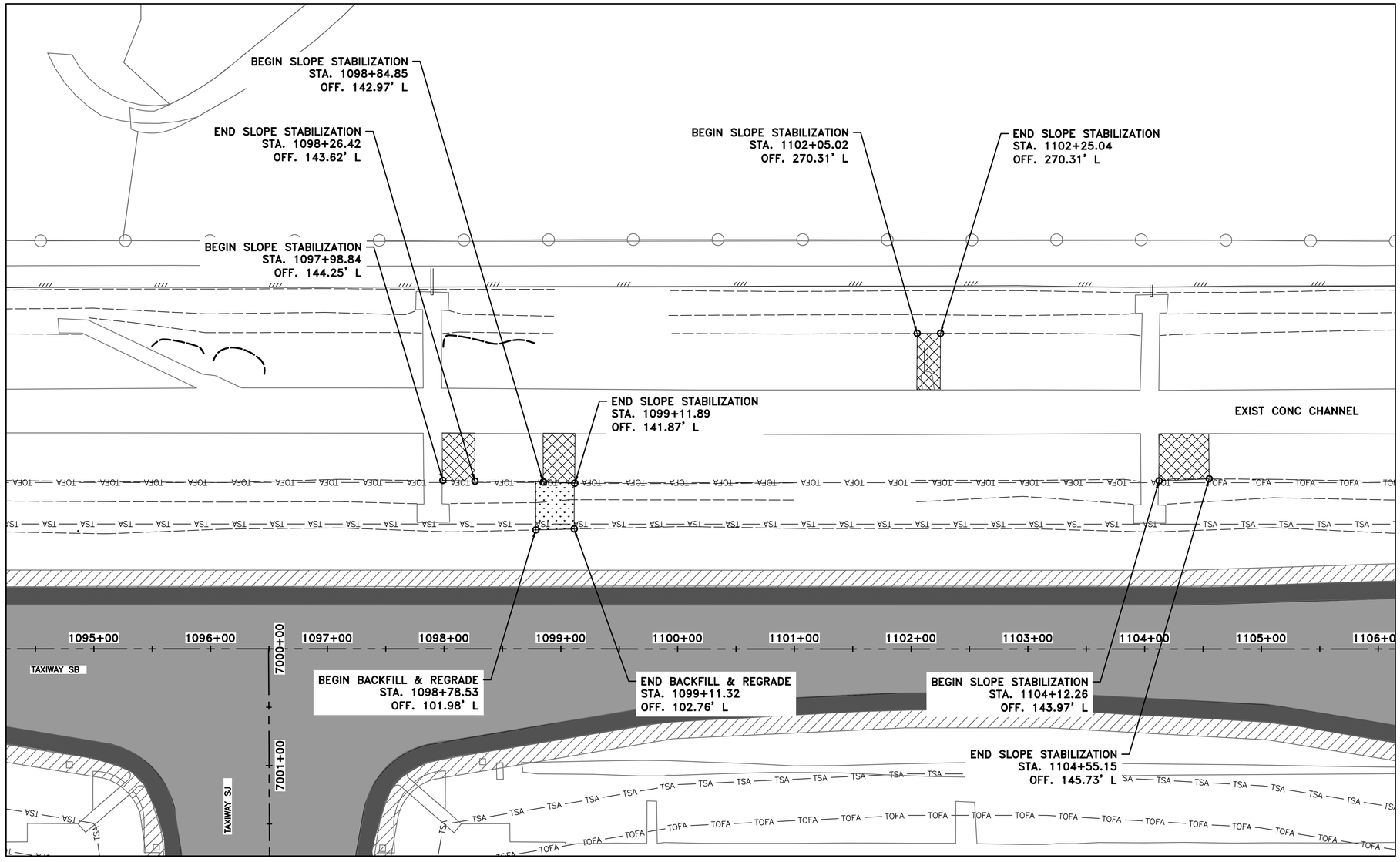
PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

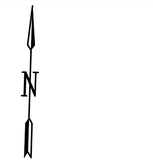
STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: ----

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.37





0 25' 50' 100' 150'

(IN FEET)

NOTES:

1. ADDITIONAL SINKHOLE REPAIR LOCATIONS MAY BE IDENTIFIED BY THE RPR AND/OR HAS PERSONNEL AS NECESSARY.
2. SEE SHEET C07.41 AND C07.42 FOR SINKHOLE REPAIR, GEOTEXTILE SLOPE STABILIZATION, AND BACKFILL AND REGRADE DETAILS.
3. SEE DRAFT GEOTEHNICAL REPORT FOR DETAILED SOIL BORING ANALYSES AND LOGS,

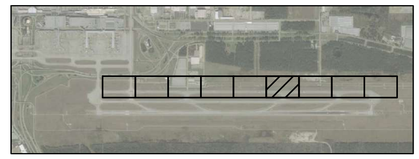
   GEOTECHNICAL INVESTIGATION REHABILITATION OF RA, RB, SA, AND SB - SINKHOLE REPAIRS ALONG DITCH T
   BY HVJ ASSOCIATES, DATED OCTOBER 1, 2020
4. SEE GROUND PENETRATING RADAR REPORT FOR DETAILED GROUND PENETRATING RADAR ANALYSES AND RESULTS,

   GEOPHYSICAL SURVEY REPORT, DRAINAGE DITCH T PILOT CHANNEL BY FUGRO, DATED MAY 5, 2020.

LEGEND

- SINKHOLE REPAIR — 1 / C07.41
- GEOTEXTILE FABRIC SLOPE STABILIZATION — 1 / C07.42
- BACKFILL AND REGRADE — 2 / C07.42
- MODIFY CURB OPENING — 2 / C07.41

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE PLAN VI

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	----
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.38

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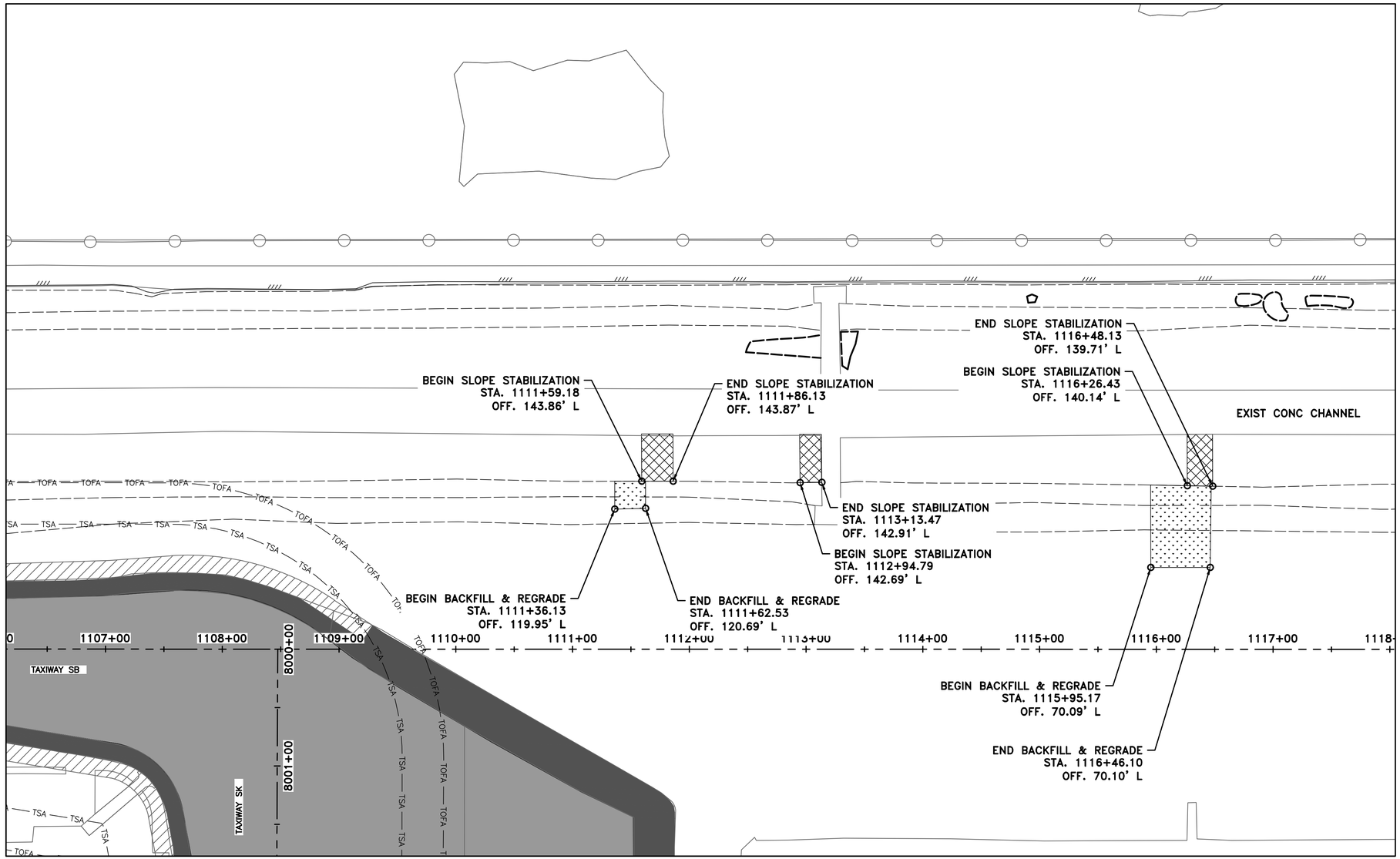
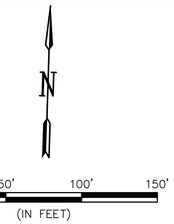




NOTES:

1. ADDITIONAL SINKHOLE REPAIR LOCATIONS MAY BE IDENTIFIED BY THE RPR AND/OR HAS PERSONNEL AS NECESSARY.
2. SEE SHEET C07.41 AND C07.42 FOR SINKHOLE REPAIR, GEOTEXTILE SLOPE STABILIZATION, AND BACKFILL AND REGRADE DETAILS.
3. SEE DRAFT GEOTEHNICAL REPORT FOR DETAILED SOIL BORING ANALYSES AND LOGS,

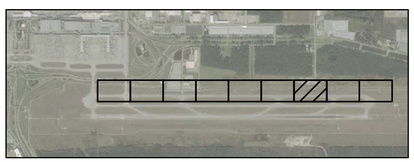
   GEOTECHNICAL INVESTIGATION REHABILITATION OF RA, RB, SA, AND SB - SINKHOLE REPAIRS ALONG DITCH T
   BY HVJ ASSOCIATES, DATED OCTOBER 1, 2020
4. SEE GROUND PENETRATING RADAR REPORT FOR DETAILED GROUND PENETRATING RADAR ANALYSES AND RESULTS,

   GEOPHYSICAL SURVEY REPORT, DRAINAGE DITCH T PILOT CHANNEL BY FUGRO, DATED MAY 5, 2020.

LEGEND

- 1 / C07.41 — SINKHOLE REPAIR
- 1 / C07.42 — GEOTEXTILE FABRIC SLOPE STABILIZATION
- 2 / C07.42 — BACKFILL AND REGRADE
- 2 / C07.41 — MODIFY CURB OPENING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS			
NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE PLAN VII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: ----

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.39

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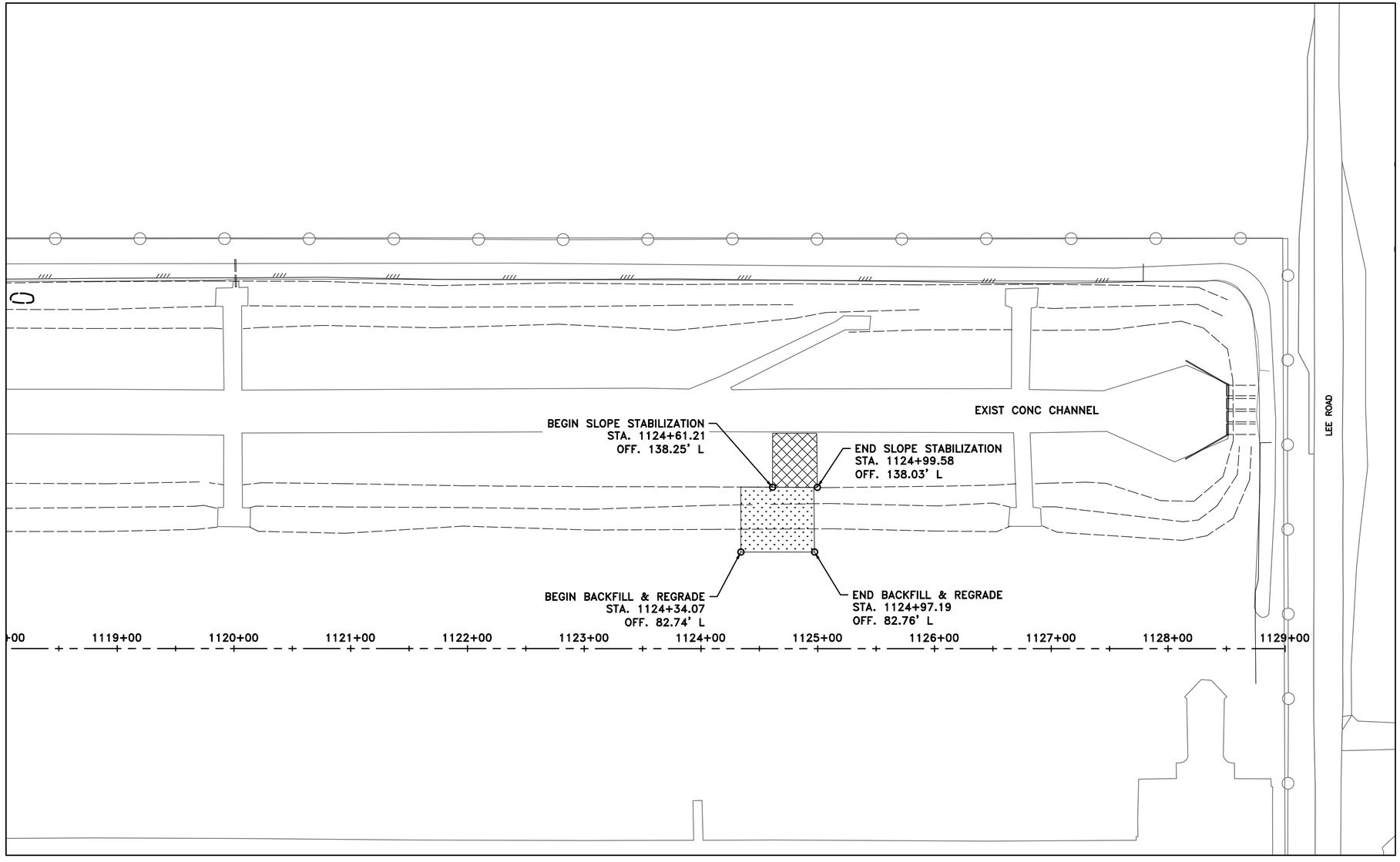
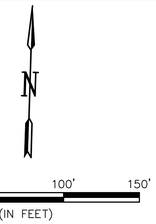




NOTES:

1. ADDITIONAL SINKHOLE REPAIR LOCATIONS MAY BE IDENTIFIED BY THE RPR AND/OR HAS PERSONNEL AS NECESSARY.
2. SEE SHEET C07.41 AND C07.42 FOR SINKHOLE REPAIR, GEOTEXTILE SLOPE STABILIZATION, AND BACKFILL AND REGRADE DETAILS.
3. SEE DRAFT GEOTEHNICAL REPORT FOR DETAILED SOIL BORING ANALYSES AND LOGS,

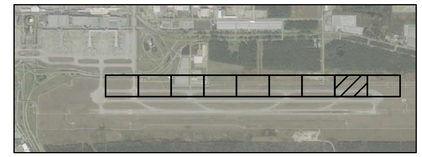
   GEOTECHNICAL INVESTIGATION REHABILITATION OF RA, RB, SA, AND SB - SINKHOLE REPAIRS ALONG DITCH T
   BY HVJ ASSOCIATES, DATED OCTOBER 1, 2020
4. SEE GROUND PENETRATING RADAR REPORT FOR DETAILED GROUND PENETRATING RADAR ANALYSES AND RESULTS,

   GEOPHYSICAL SURVEY REPORT, DRAINAGE DITCH T PILOT CHANNEL BY FUGRO, DATED MAY 5, 2020.

LEGEND

- 1 / C07.41 — SINKHOLE REPAIR
- 1 / C07.42 — GEOTEXTILE FABRIC SLOPE STABILIZATION
- 2 / C07.42 — BACKFILL AND REGRADE
- 2 / C07.41 — MODIFY CURB OPENING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS			
NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE PLAN VIII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY: -----

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.40

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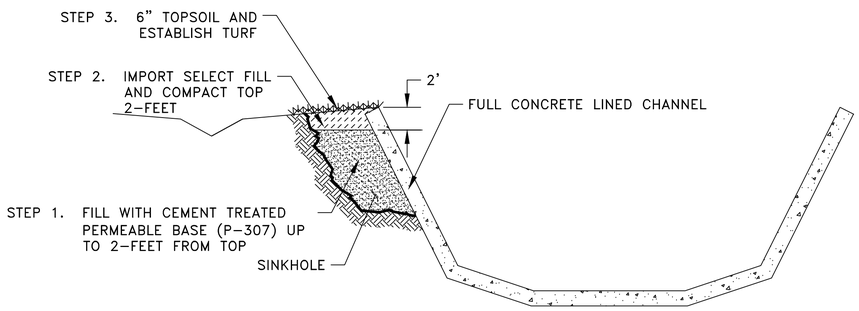
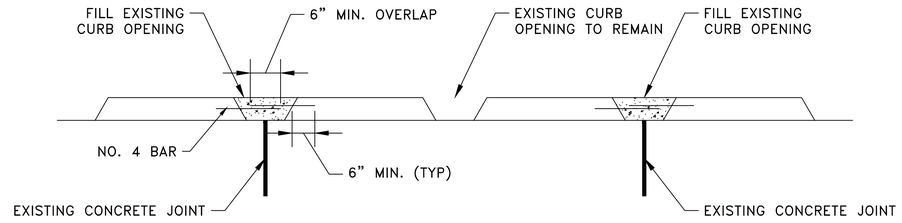
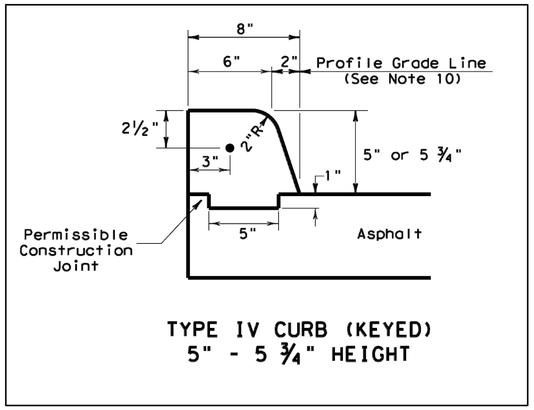
GARVER
TBPE Registration No. F-5713



1 C07.41 SINKHOLE REPAIR DETAIL
SCALE: NTS



2 C07.41 MODIFY CURB OPENING DETAIL
SCALE: NTS



NOTES

1. CONC SHALL BE CLASS A
2. REINFORCING BARS SHALL BE NO. 4
3. PROVIDE 6" MIN SPLICE OVERLAP
4. PROVIDE 6" MIN EMBEDMENT INTO EXIST CONC CURBS. REINFORCING BAR MAY BE DRILLED AND GROUTED IN PLACE

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE DETAILS I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	HSC
CHECK BY:	NRP
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.41

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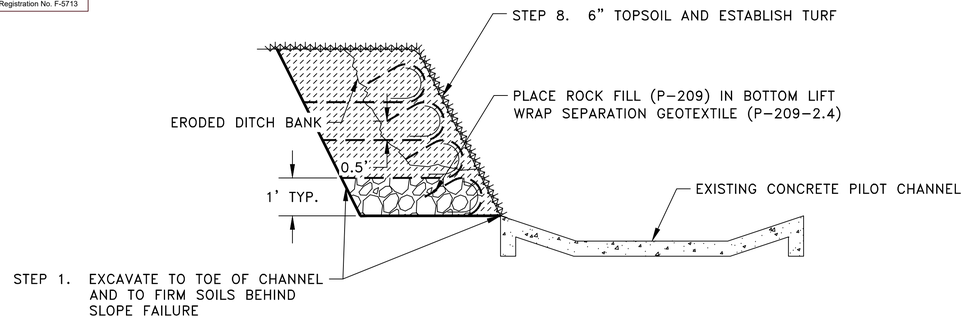
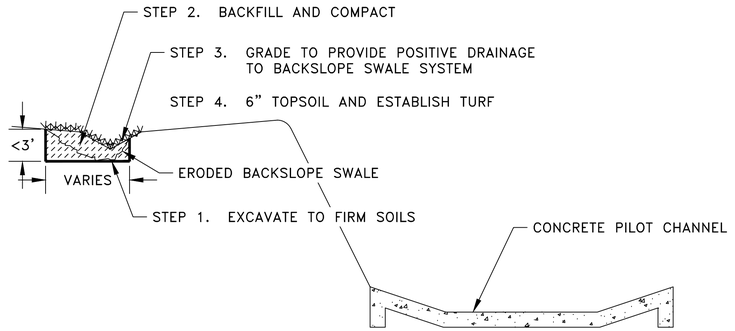
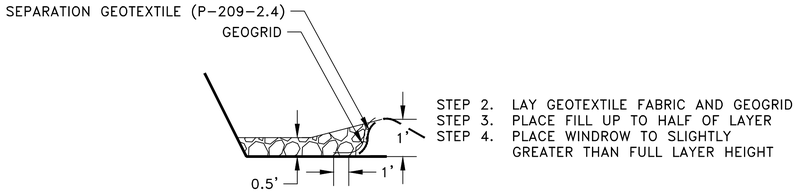
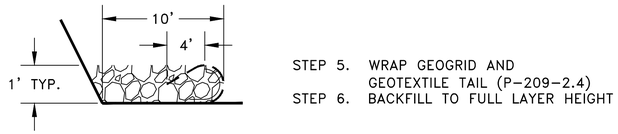
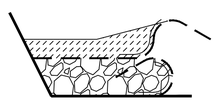
GARVER
TBPE Registration No. F-5713



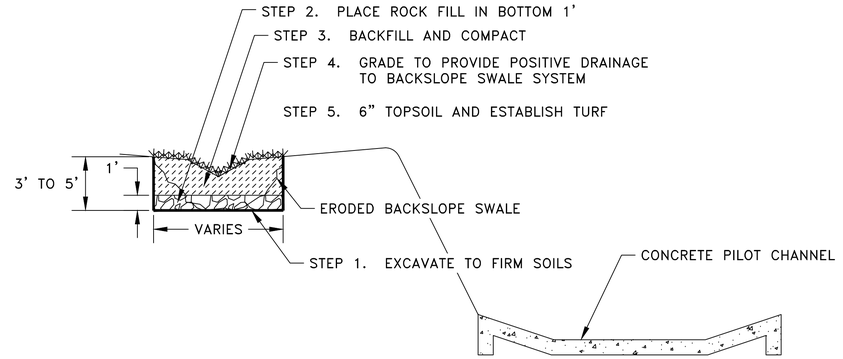




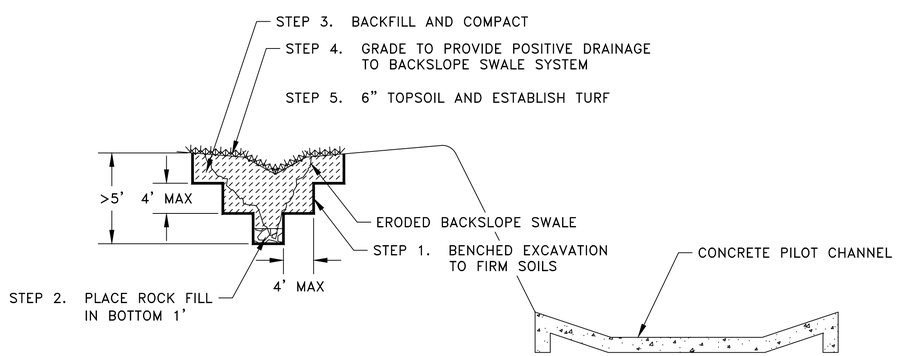




MEDIUM SINKHOLES 3' TO 5' DEPTH



LARGE SINKHOLES >5' DEPTH



1 C07.42 SLOPE STABILIZATION REPAIR DETAIL
SCALE: NTS

2 C07.42 BACKFILL AND REGRADE DETAIL
SCALE: NTS

HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SINKHOLE DETAILS II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	HSC
CHECK BY:	NRP
SCALE:	N/A
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.42

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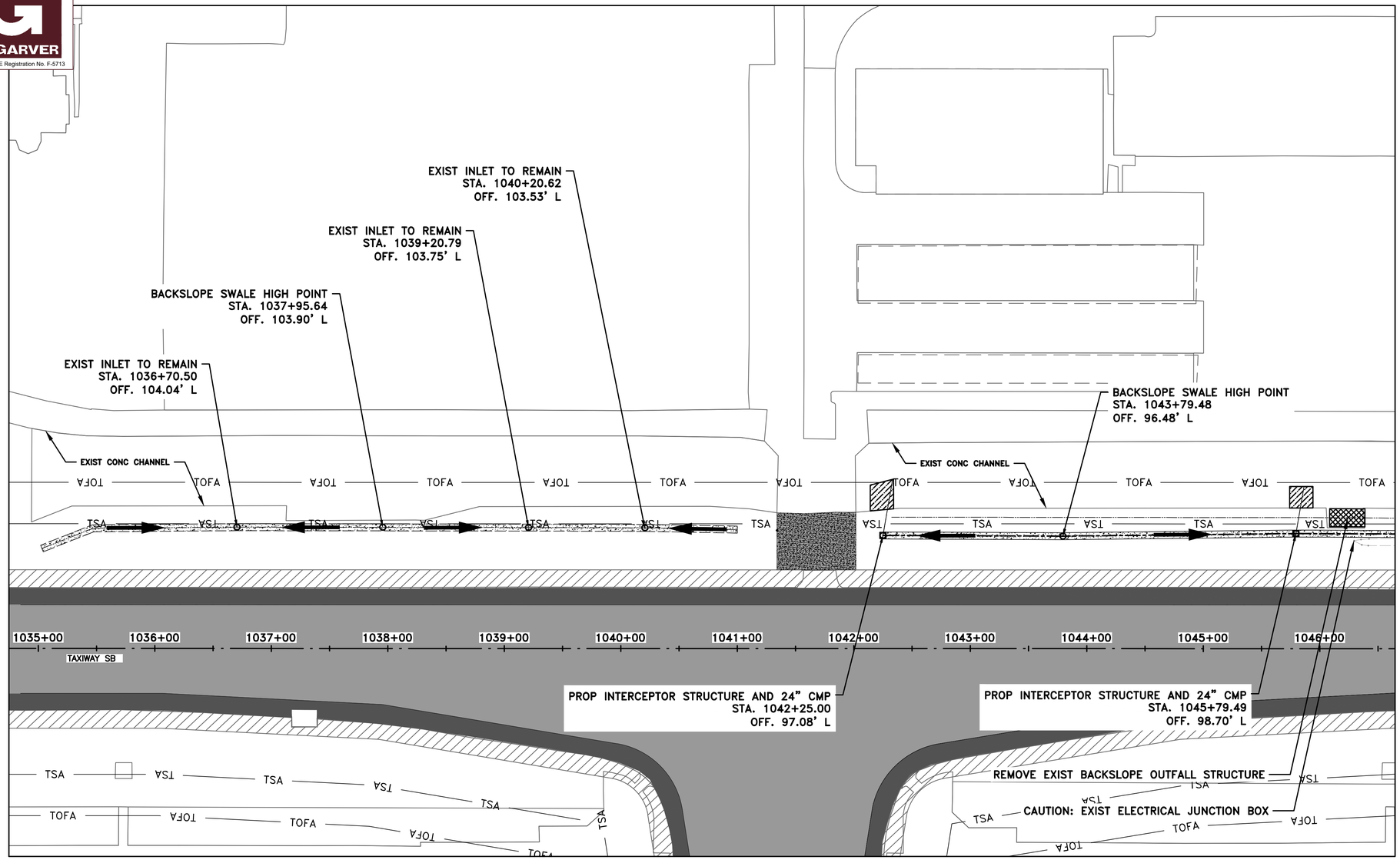
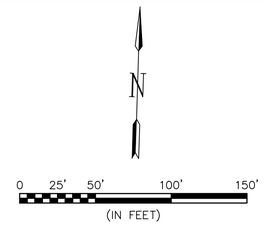
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C07.44



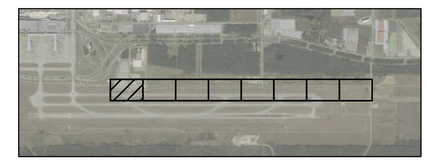
NOTES:

1. SEE SHEET C07.51 AND ###### FOR BACKSLOPE SWALE DETAILS.

LEGEND

- PROPOSED INTERCEPTOR
- PROPOSED INTERCEPTOR OUTFALL
- PROPOSED CONCRETE PILOT CHANNEL
- DEMOLISH EXISTING BACKSLOPE OUTFALL STRUCTURE
- REMOVE & REPLACE EXISTING CONCRETE PANEL
- FLOW DIRECTION
- EXISTING BACKSLOPE SWALE CENTER
- PROPOSED BACKSLOPE SWALE CENTER

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE PLAN I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.43

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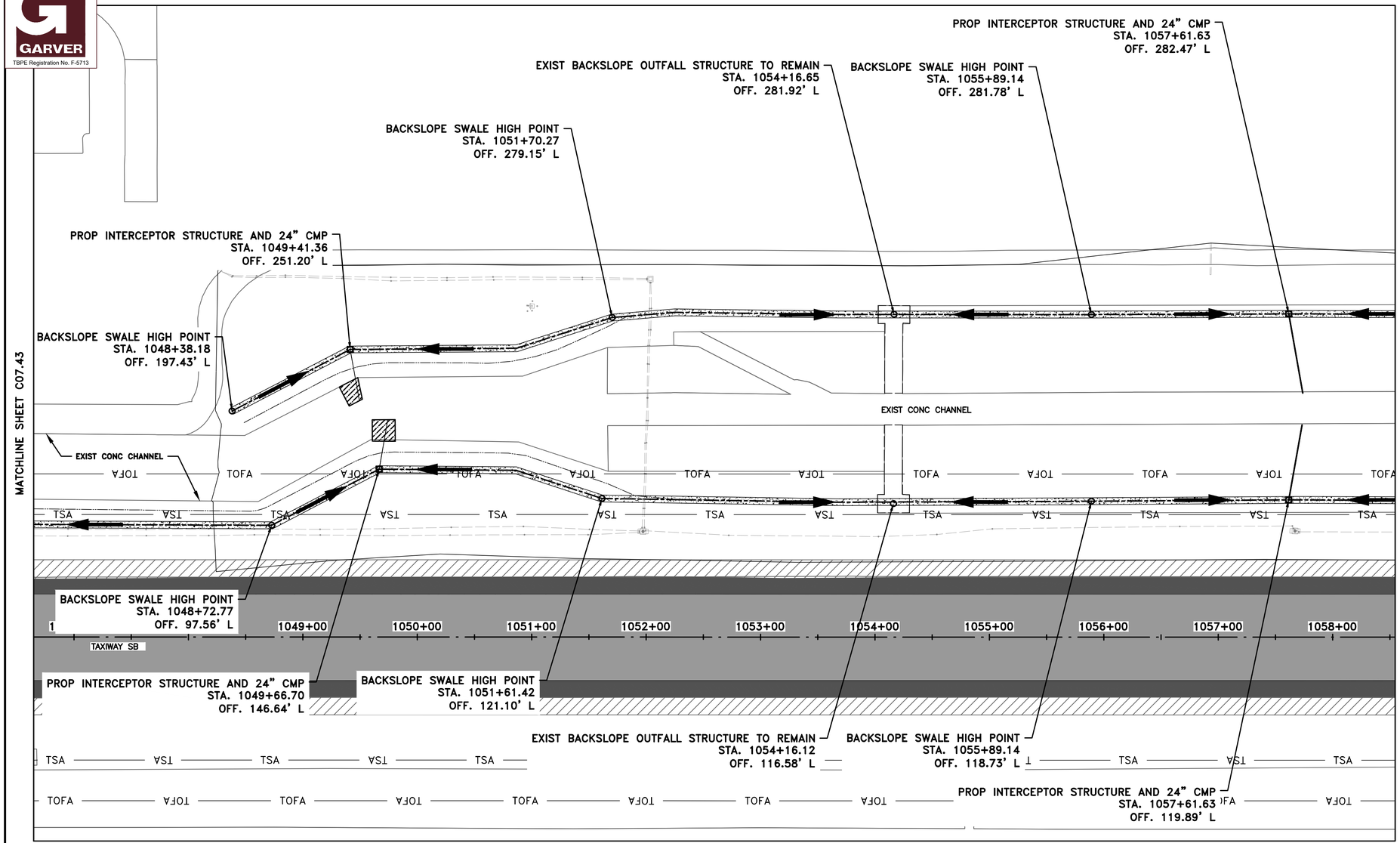
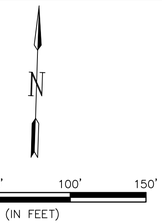
GARVER
TBPE Registration No. F-5713





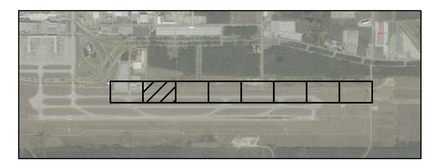
NOTES:

1. SEE SHEET C07.51 AND ###### FOR BACKSLOPE SWALE DETAILS.

LEGEND

- PROPOSED INTERCEPTOR
- PROPOSED INTERCEPTOR OUTFALL
- PROPOSED CONCRETE PILOT CHANNEL
- DEMOLISH EXISTING BACKSLOPE OUTFALL STRUCTURE
- REMOVE & REPLACE EXISTING CONCRETE PANEL
- FLOW DIRECTION
- EXISTING BACKSLOPE SWALE CENTER
- PROPOSED BACKSLOPE SWALE CENTER

KEYMAP



HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE PLAN II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.44

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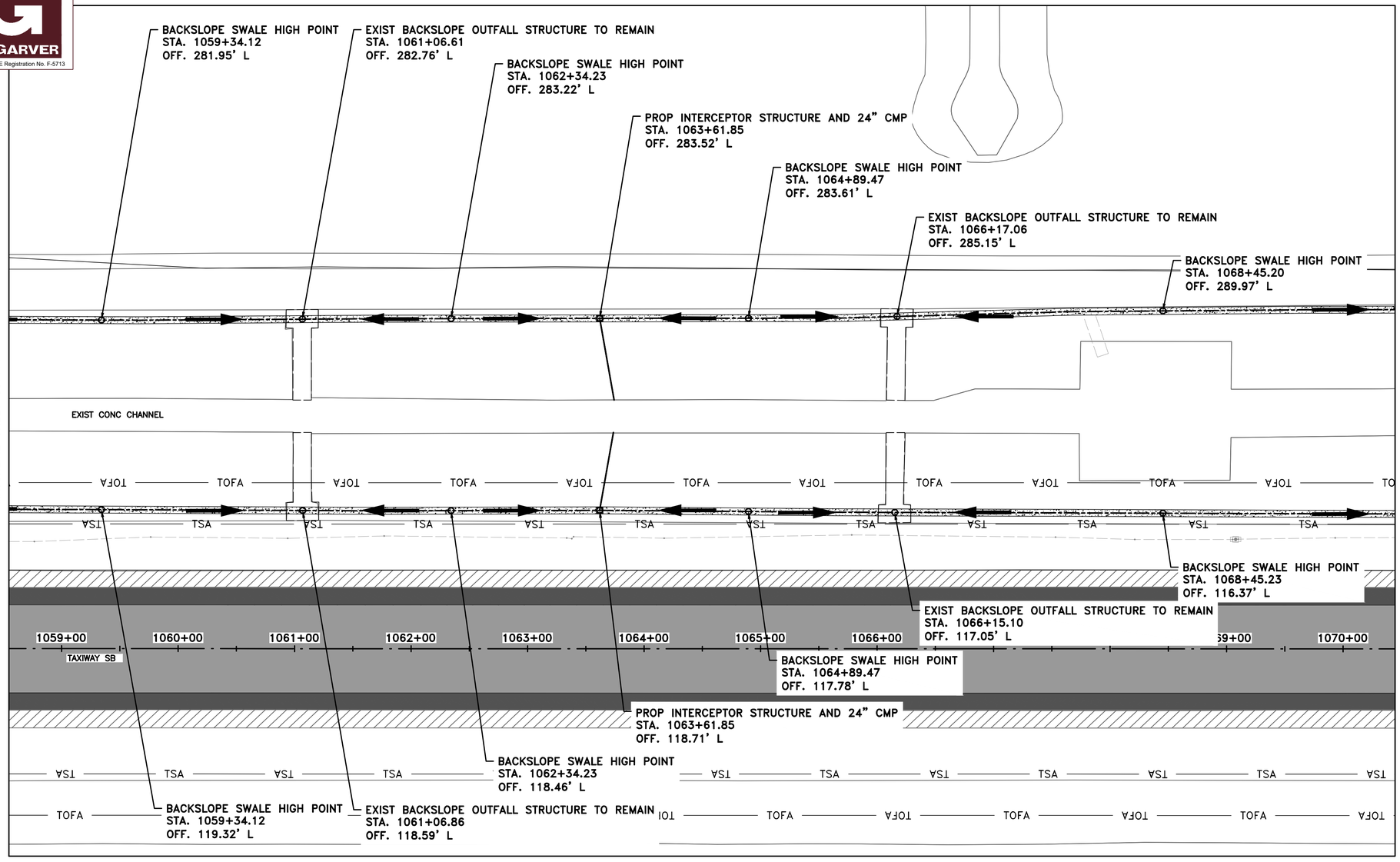
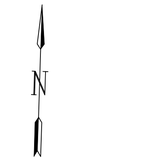
GARVER
TBPE Registration No. F-5713





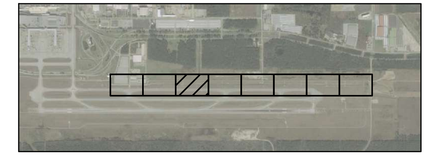
NOTES:

1. SEE SHEET C07.51 AND ###### FOR BACKSLOPE SWALE DETAILS.

LEGEND

- PROPOSED INTERCEPTOR
- PROPOSED INTERCEPTOR OUTFALL
- PROPOSED CONCRETE PILOT CHANNEL
- DEMOLISH EXISTING BACKSLOPE OUTFALL STRUCTURE
- REMOVE & REPLACE EXISTING CONCRETE PANEL
- FLOW DIRECTION
- EXISTING BACKSLOPE SWALE CENTER
- PROPOSED BACKSLOPE SWALE CENTER

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE PLAN III

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.45

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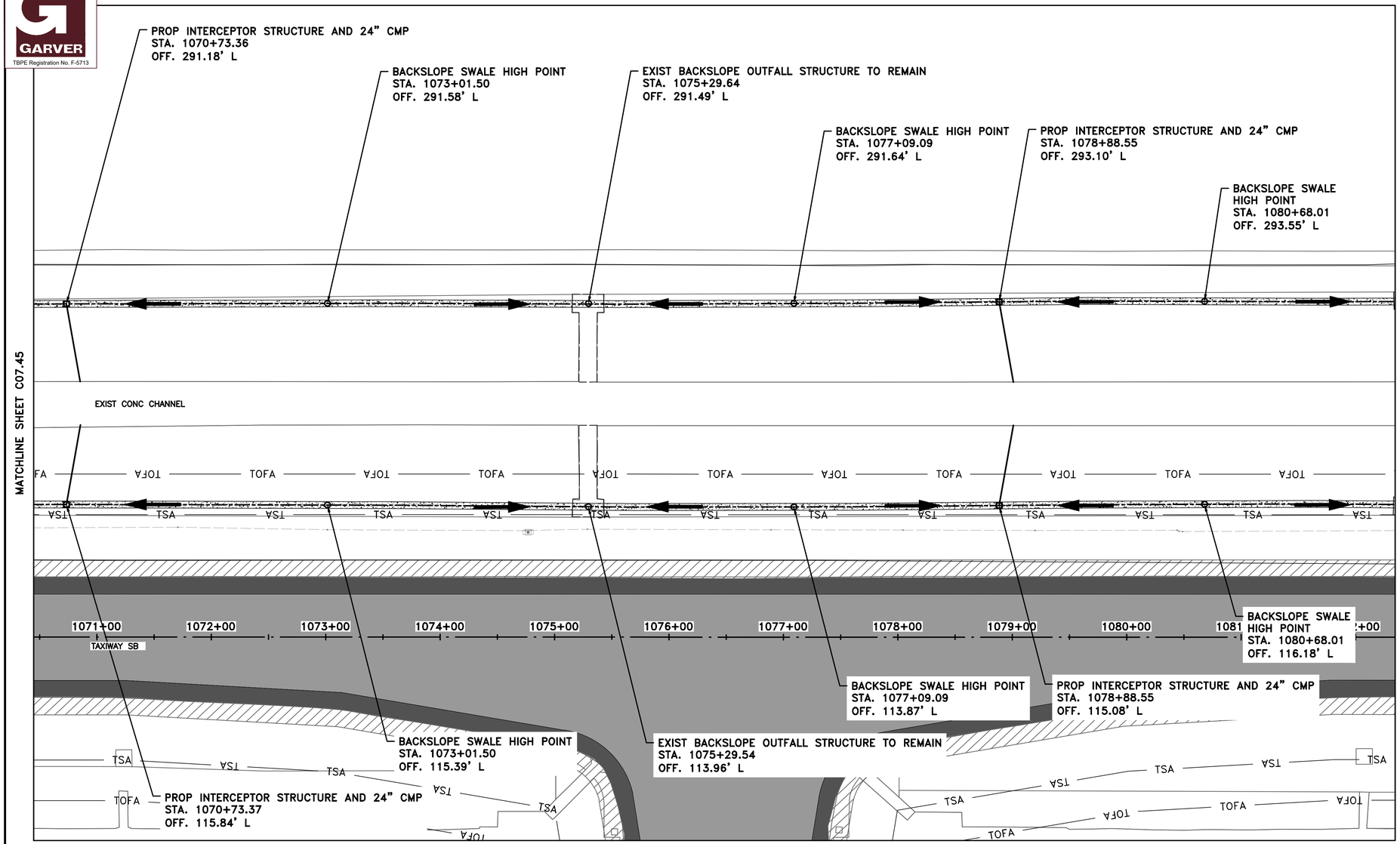
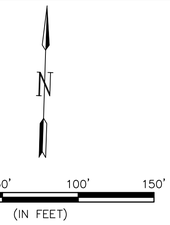
GARVER
TBPE Registration No. F-5713





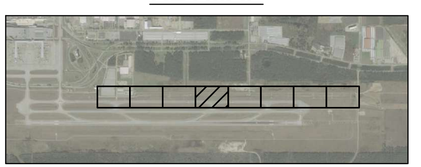
NOTES:

1. SEE SHEET C07.51 AND ###### FOR BACKSLOPE SWALE DETAILS.

LEGEND

- PROPOSED INTERCEPTOR
- PROPOSED INTERCEPTOR OUTFALL
- PROPOSED CONCRETE PILOT CHANNEL
- DEMOLISH EXISTING BACKSLOPE OUTFALL STRUCTURE
- REMOVE & REPLACE EXISTING CONCRETE PANEL
- FLOW DIRECTION
- EXISTING BACKSLOPE SWALE CENTER
- PROPOSED BACKSLOPE SWALE CENTER

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE PLAN IV

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.46

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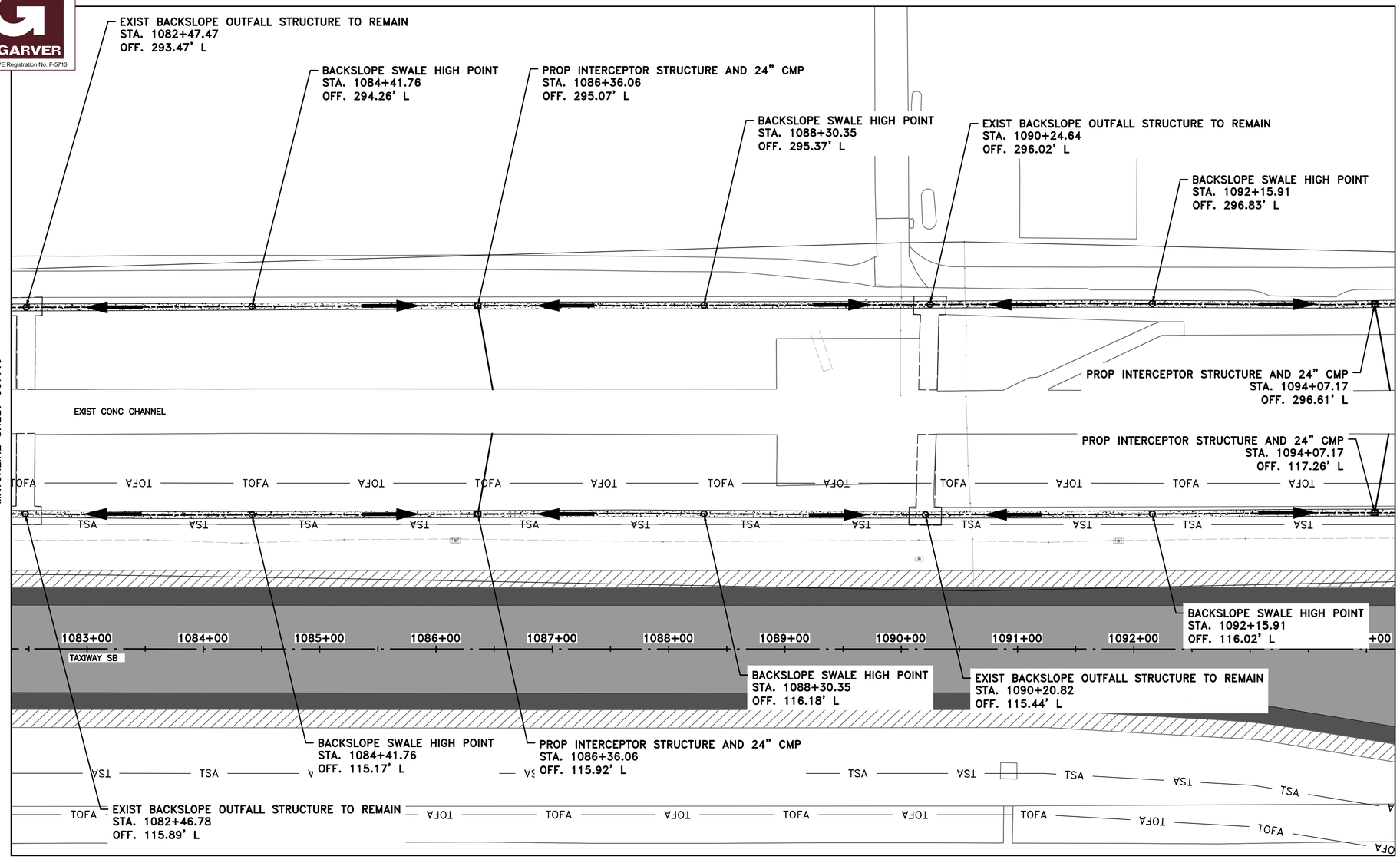
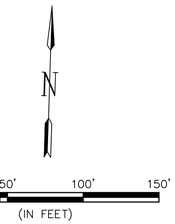
GARVER
TBPE Registration No. F-5713





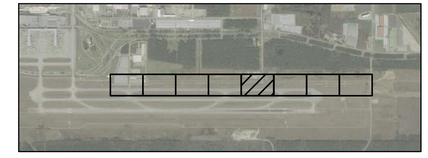
NOTES:

1. SEE SHEET C07.51 AND ###### FOR BACKSLOPE SWALE DETAILS.

LEGEND

- PROPOSED INTERCEPTOR
- PROPOSED INTERCEPTOR OUTFALL
- PROPOSED CONCRETE PILOT CHANNEL
- DEMOLISH EXISTING BACKSLOPE OUTFALL STRUCTURE
- REMOVE & REPLACE EXISTING CONCRETE PANEL
- FLOW DIRECTION
- EXISTING BACKSLOPE SWALE CENTER
- PROPOSED BACKSLOPE SWALE CENTER

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE PLAN V

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.47

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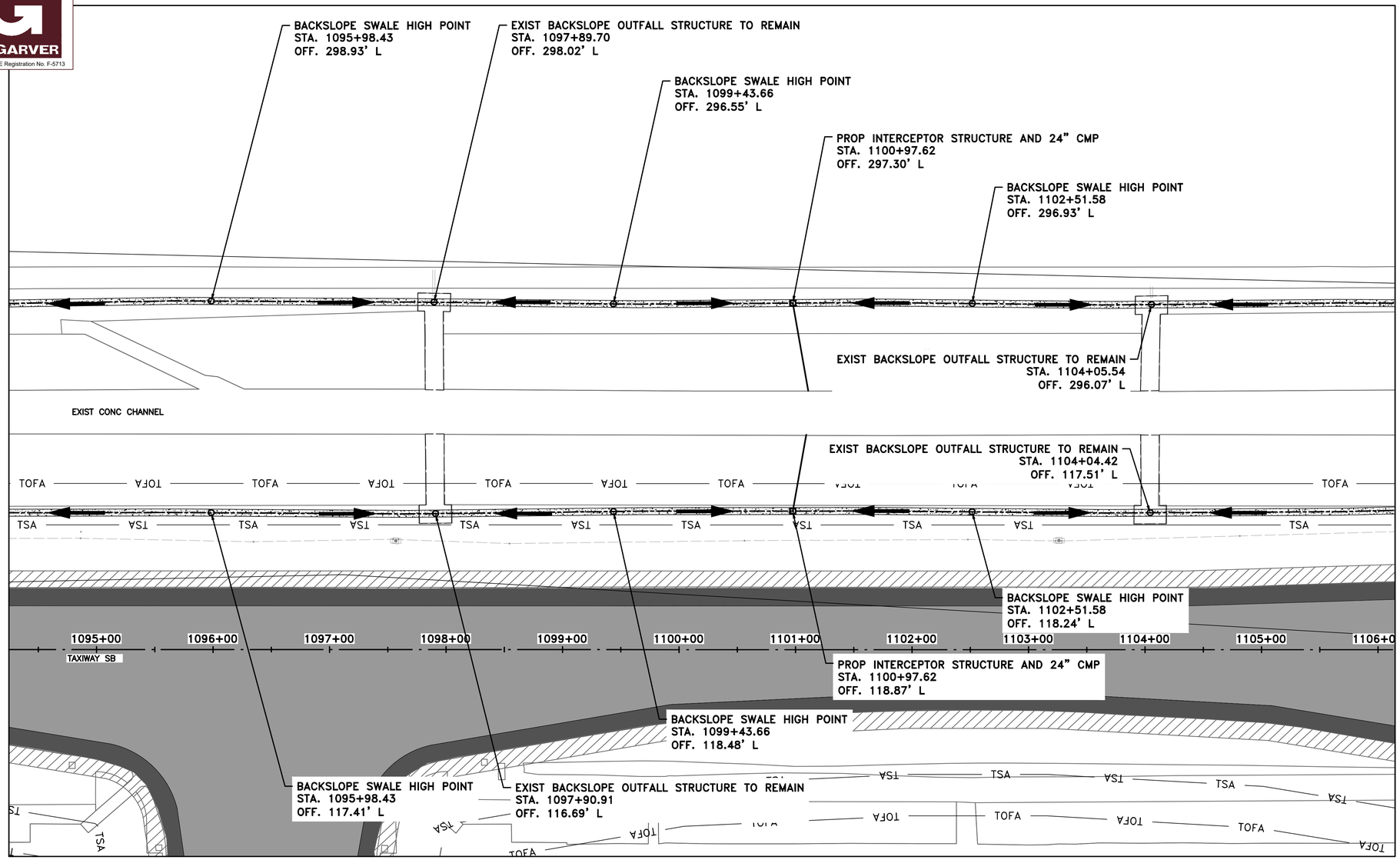
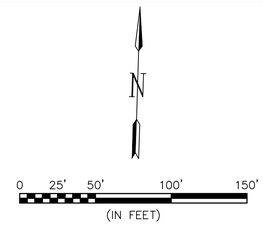
PLOT DATE: 3/10/2022 11:08:43 AM

GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C07.47

MATCHLINE SHEET C07.49



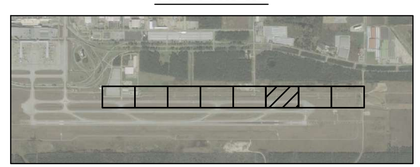
NOTES:

1. SEE SHEET C07.51 AND ###### FOR BACKSLOPE SWALE DETAILS.

LEGEND

- PROPOSED INTERCEPTOR
- PROPOSED INTERCEPTOR OUTFALL
- PROPOSED CONCRETE PILOT CHANNEL
- DEMOLISH EXISTING BACKSLOPE OUTFALL STRUCTURE
- REMOVE & REPLACE EXISTING CONCRETE PANEL
- FLOW DIRECTION
- EXISTING BACKSLOPE SWALE CENTER
- PROPOSED BACKSLOPE SWALE CENTER

KEYMAP



HOUSTON AIRPORTS

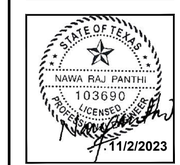
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE PLAN VI

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023



APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.48

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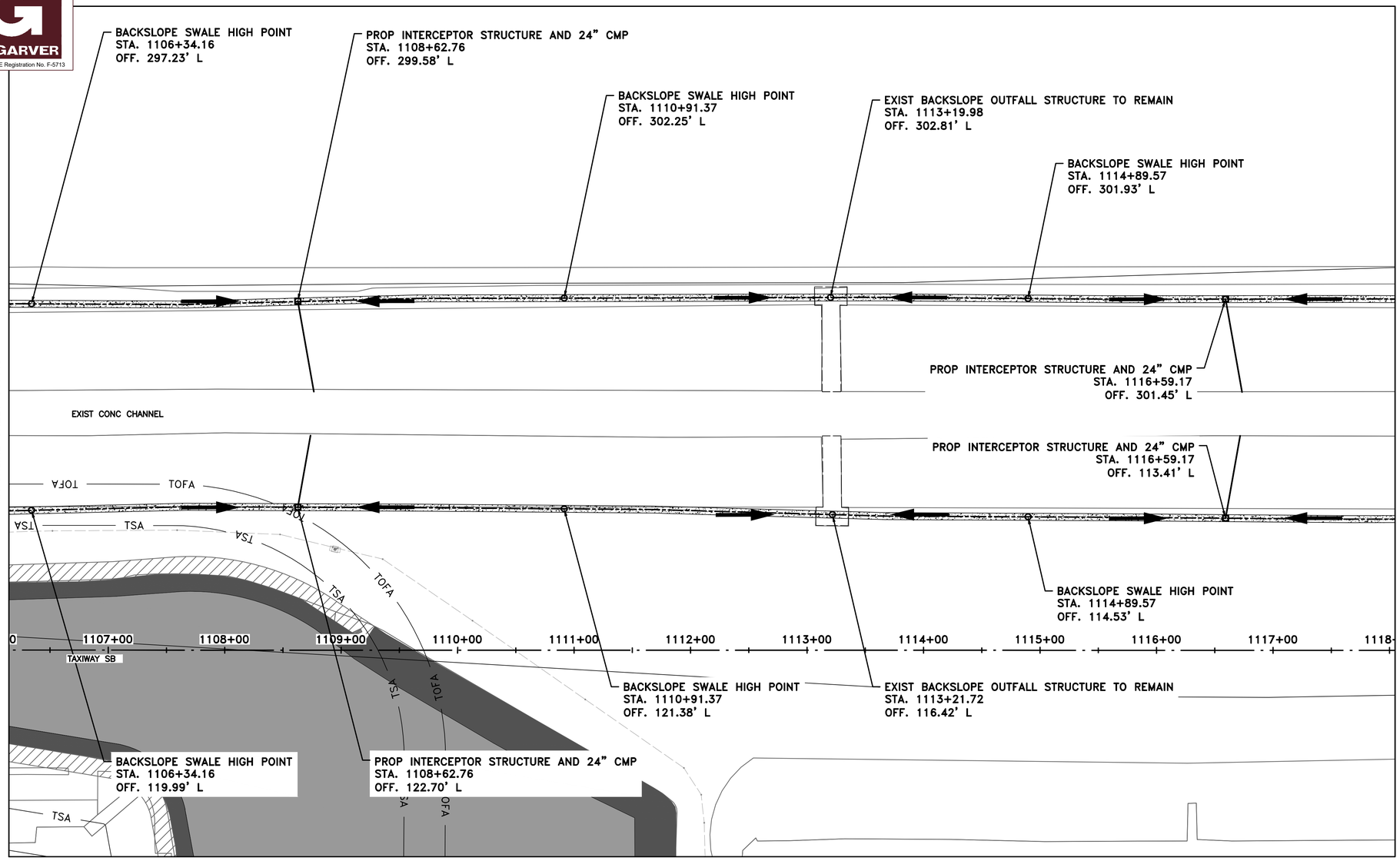
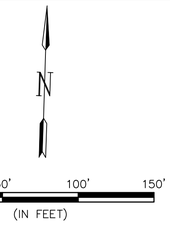
GARVER
TBPE Registration No. F-5713





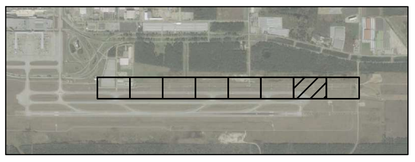
NOTES:

1. SEE SHEET C07.51 AND ###### FOR BACKSLOPE SWALE DETAILS.

LEGEND

- PROPOSED INTERCEPTOR
- PROPOSED INTERCEPTOR OUTFALL
- PROPOSED CONCRETE PILOT CHANNEL
- DEMOLISH EXISTING BACKSLOPE OUTFALL STRUCTURE
- REMOVE & REPLACE EXISTING CONCRETE PANEL
- FLOW DIRECTION
- EXISTING BACKSLOPE SWALE CENTER
- PROPOSED BACKSLOPE SWALE CENTER

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE PLAN VII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.49

HAS FILE: C:\Users\HowardChang\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\BACKSLOPE SWALES.dwg
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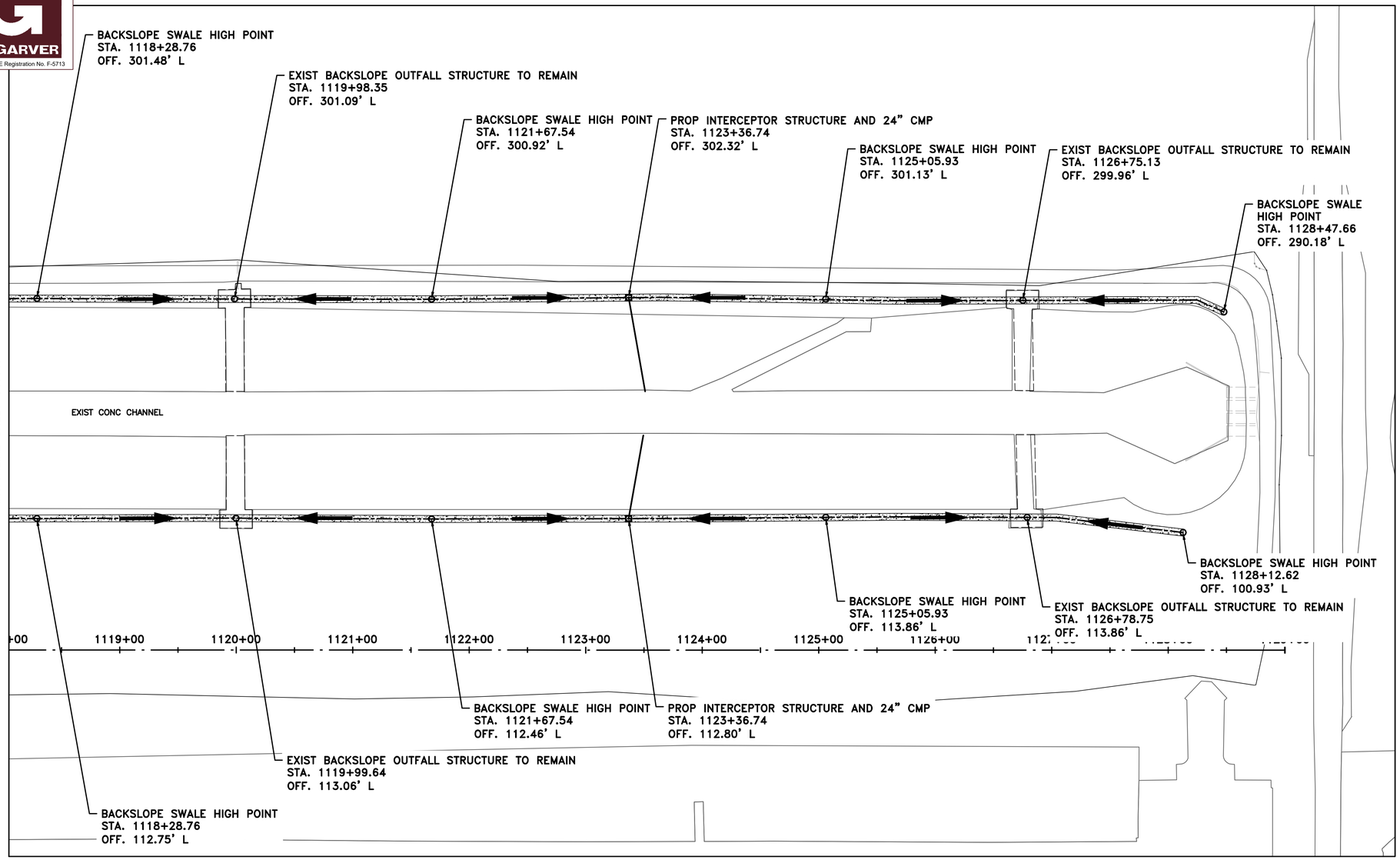
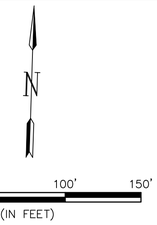
GARVER
TBPE Registration No. F-5713





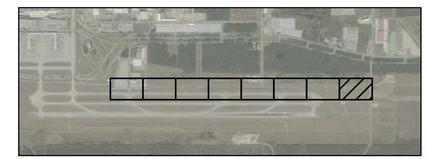
NOTES:

1. SEE SHEET C07.51 AND ###### FOR BACKSLOPE SWALE DETAILS.

LEGEND

- PROPOSED INTERCEPTOR
- PROPOSED INTERCEPTOR OUTFALL
- PROPOSED CONCRETE PILOT CHANNEL
- DEMOLISH EXISTING BACKSLOPE OUTFALL STRUCTURE
- REMOVE & REPLACE EXISTING CONCRETE PANEL
- FLOW DIRECTION
- EXISTING BACKSLOPE SWALE CENTER
- PROPOSED BACKSLOPE SWALE CENTER

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE PLAN VIII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.50

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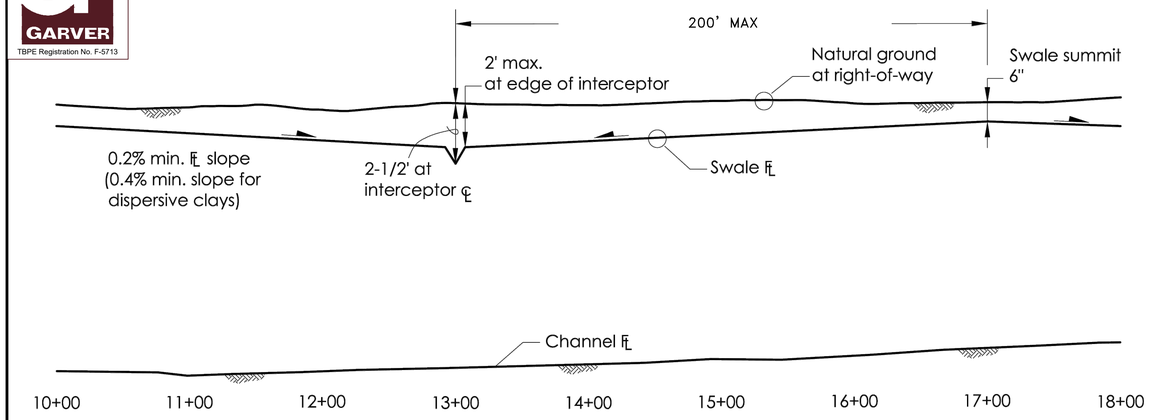
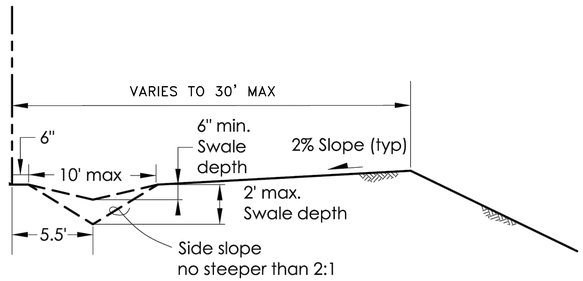
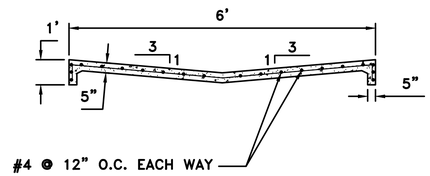


BACKSLOPE SWALE PROFILE



BACKSLOPE SWALE SECTION

1 C07.51 TYPICAL BACKSLOPE SWALE PROFILE AND SECTION
SCALE: NTS



2 C07.51 6' CONCRETE PILOT CHANNEL DETAIL
SCALE: NTS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE DETAILS I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.51

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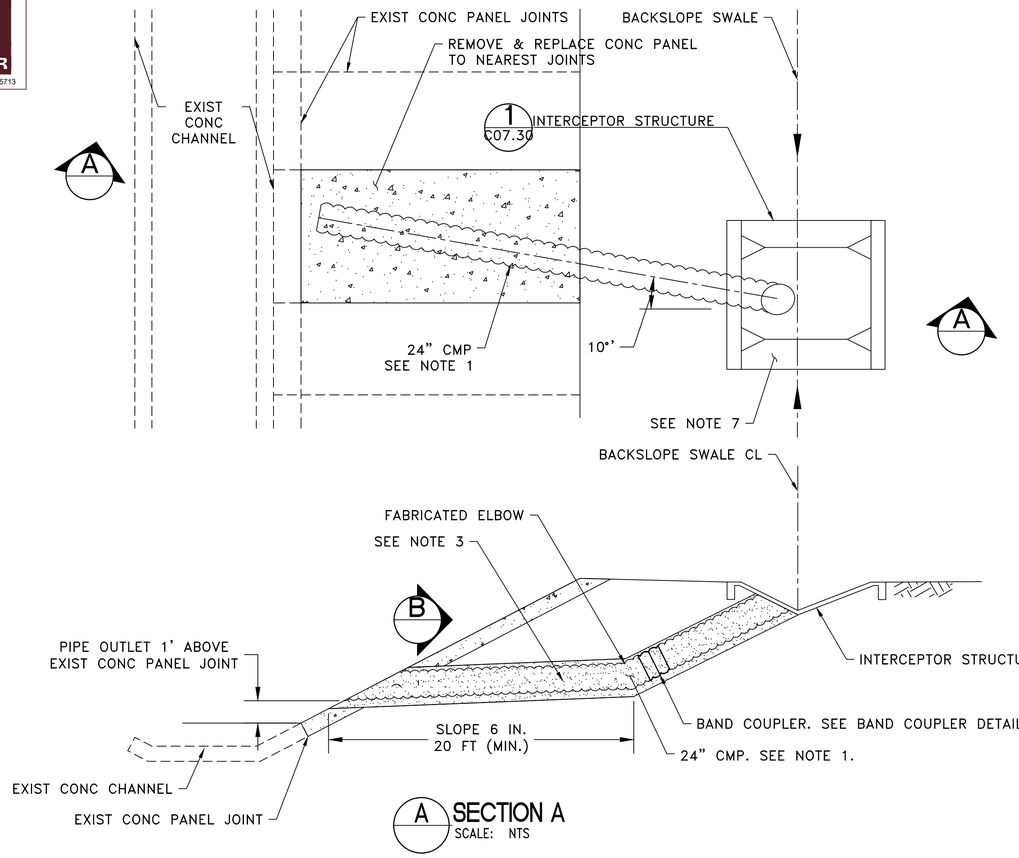
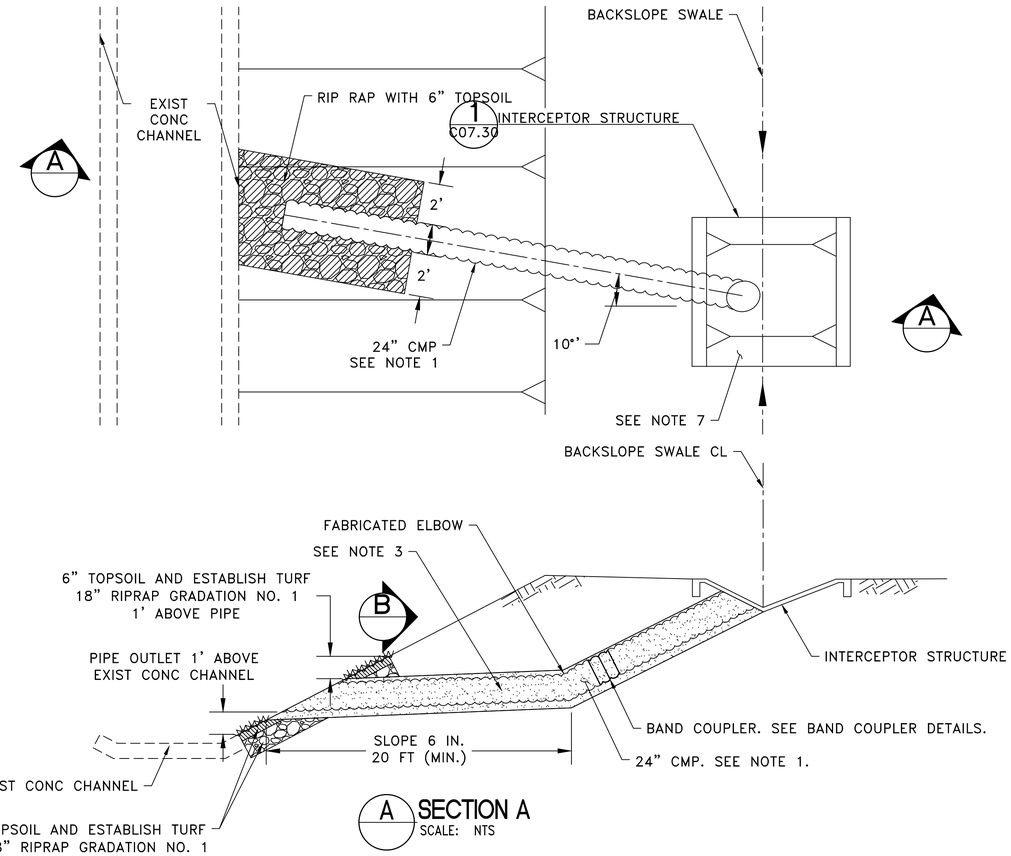


A SECTION A
SCALE: NTS

TYPICAL INTERCEPTOR OUTFALL STRUCTURE LAYOUT ON CONC LINED CHANNELS

1 C07.52 SCALE: NTS



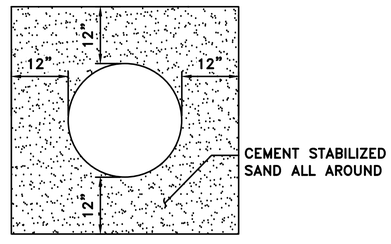
A SECTION A
SCALE: NTS

TYPICAL INTERCEPTOR OUTFALL STRUCTURE LAYOUT ON GRASS LINED CHANNELS

2 C07.52 SCALE: NTS

NOTES

1. SEE SHEET C07.30 FOR BACKSLOPE INTERCEPTOR STRUCTURE DETAIL
2. INTERCEPTOR OUTFALL PIPES SHALL BE CMP IN ACCORDANCE WITH SPECIFICATION D-701. USE 16 GAGE (0.064 IN. THICKNESS) STEEL.
3. PROVIDE AND PLACE CEMENT STABILIZED SAND COMPACTED PER P-152.
4. EXCAVATION, FILL AND BACKFILL FOR INTERCEPTOR OUTFALLS SHALL BE IN ACCORDANCE WITH SPECIFICATION P-152
5. CONCRETE SHALL BE STRUCTURAL CONCRETE IN ACCORDANCE WITH SPECIFICATION P-610
6. INTERCEPTOR STRUCTURES:
   - 6.1. ADJUST LENGTH AND WIDTH IN FIELD AS NECESSARY.
   - 6.2. 2-FEET DEEP X 8-INCH WIDE TOE ALL AROUND THE STRUCTURE.
   - 6.3. STEEL REINFORCING-#4 BARS (GRADE 60) AT 12 INCHES ON CENTER EACH WAY.
   - 6.4. MATCH TOP OF CONCRETE WITH CONC PILOT CHANNEL.
7. BACKSLOPE SWALE AND INTERCEPTOR STRUCTURE ELEVATIONS AND LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. FINAL ELEVATIONS AND LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.



B SECTION B
SCALE: NTS

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

BACKSLOPE SWALE DETAILS II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

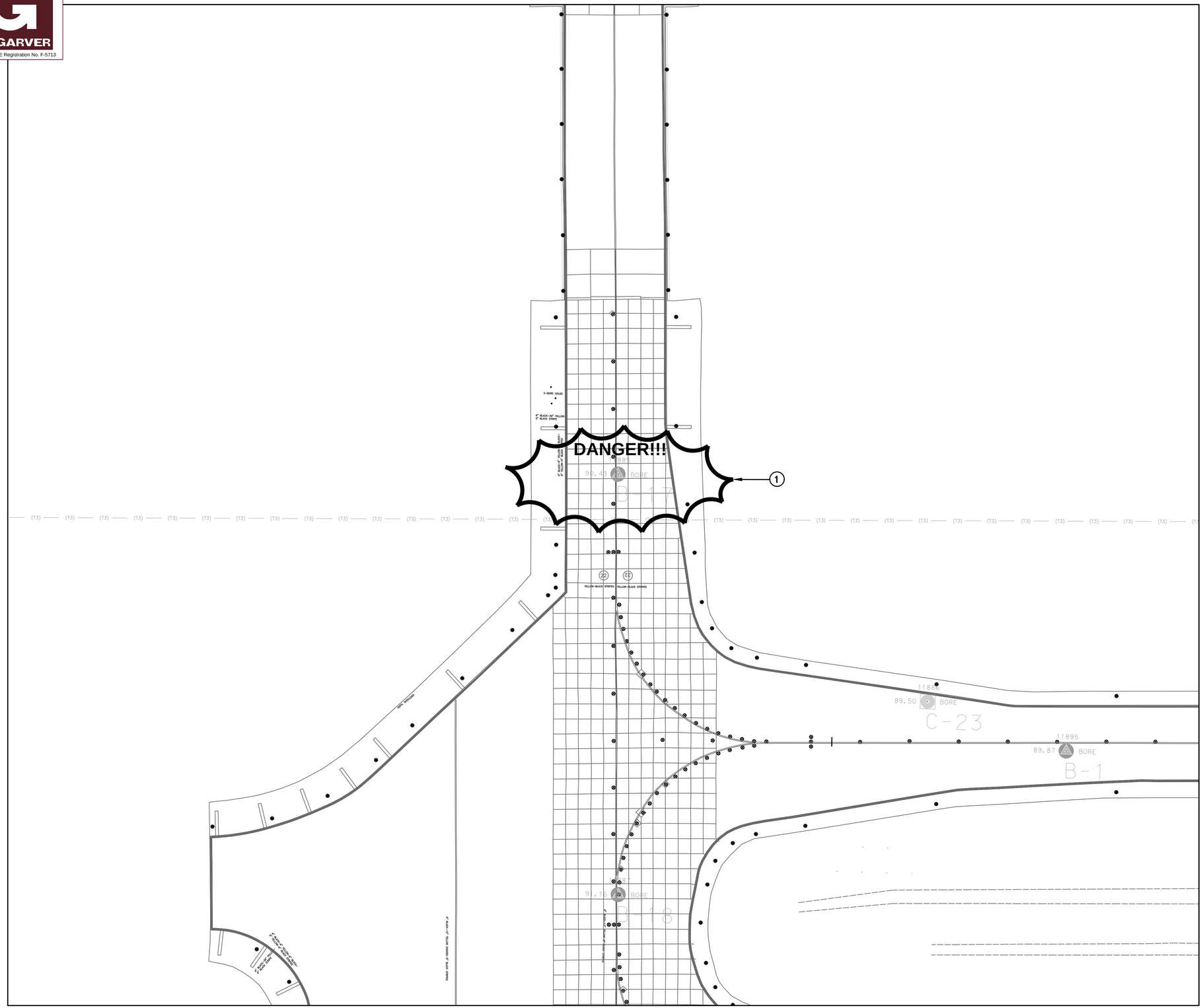
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C07.52

HAS FILE: C:\Users\HowardChang\Documents_CAD\4001 IAH SASB\0646.2\09 - Drainage\Sheet Files\BACKSLOPE SWALE DETAILS.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C-08.03



N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

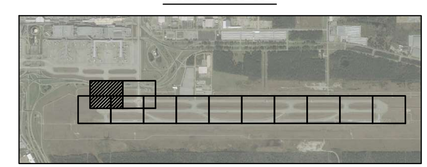
GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   - A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   - B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   - C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEY NOTES:

(1) CAUTION. LOCATION OF POTENTIAL CONSTRUCTION IMPACT. BORE LOCATION AS DRAWN IS ACCEPTABLE. IF THIS LOCATION CHANGES, IT MAY NOT BE WITHIN 10' OF THE (T3) DUCT BANK.

KEYMAP



HOUSTON AIRPORTS

PGA ENGINEERS, INC
3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN I

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED
PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.01

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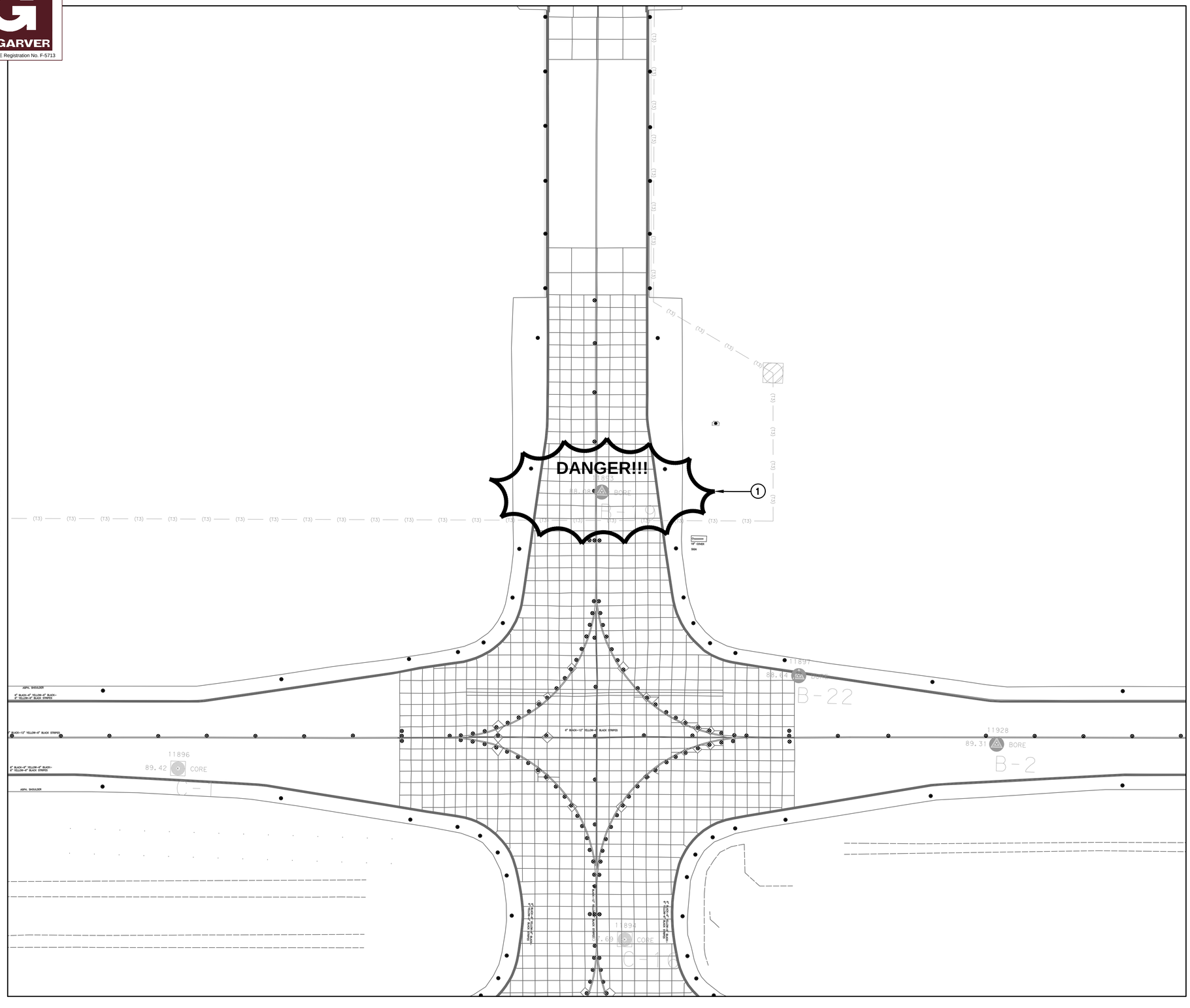
GARVER
TBPE Registration No. F-5713



N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

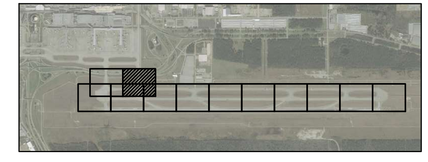
GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEY NOTES:

(1) CAUTION. LOCATION OF POTENTIAL CONSTRUCTION IMPACT. BORE LOCATION AS DRAWN IS ACCEPTABLE. IF THIS LOCATION CHANGES, IT MAY NOT BE WITHIN 10' OF THE (T3) DUCT BANK.

KEYMAP



HOUSTON AIRPORTS

PGA ENGINEERS, INC
3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN II

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED
PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	
	0646A
A.I.P. NO.	
	XXXX
C.I.P. NO.	
	A-0515
H.A.S. NO.	
	20C0646A
SHEET NO.	

C08.02

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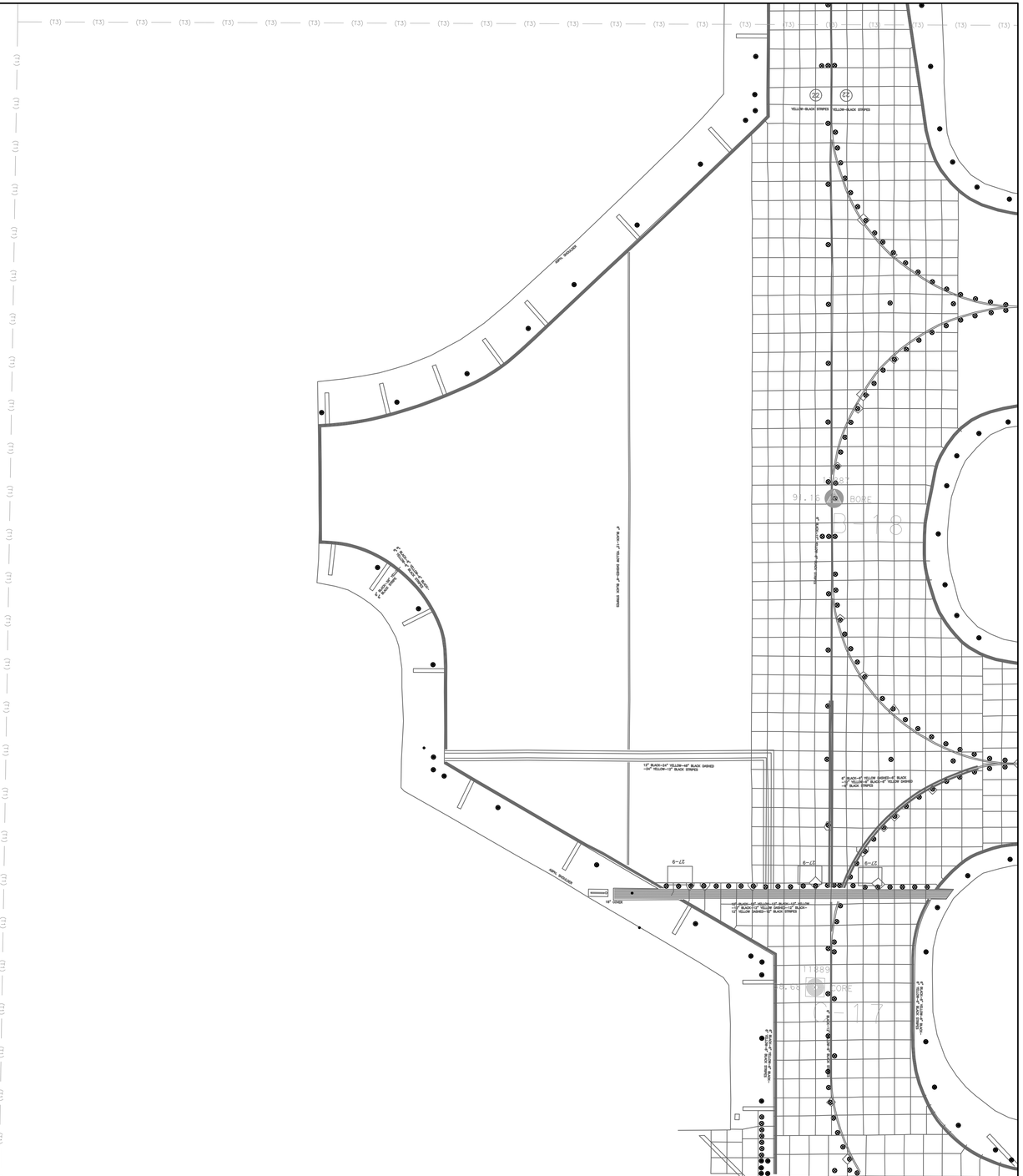
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C-08.03

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N

0 25' 50' 100' 150'
(IN FEET)

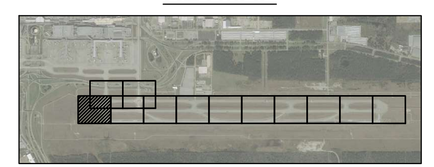
LEGEND

- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEYMAP



HOUSTON AIRPORTS

PGA ENGINEERS, INC
3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN III

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

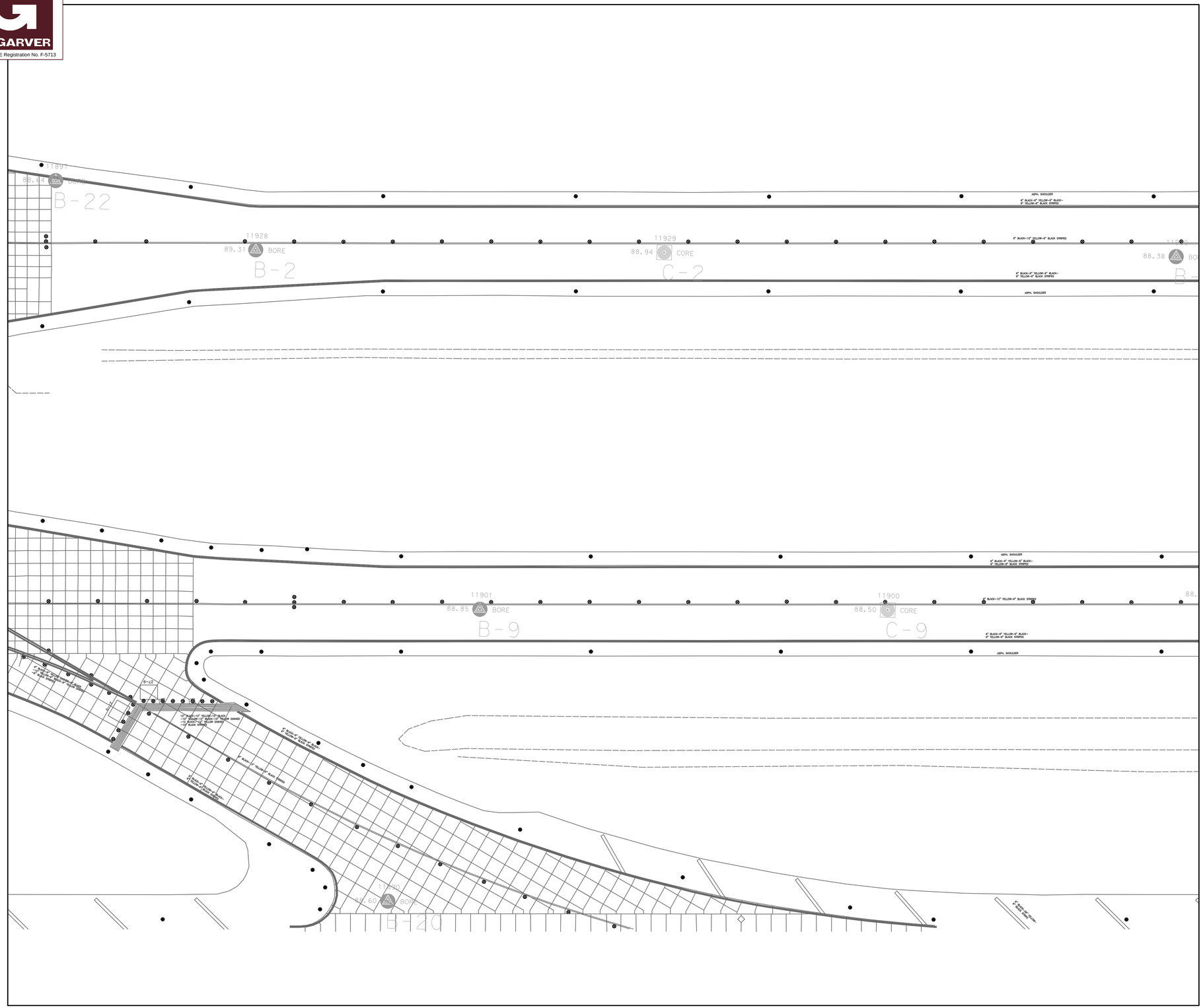
STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED
PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.03

GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C-08.03

N

0 25' 50' 100' 150'
(IN FEET)

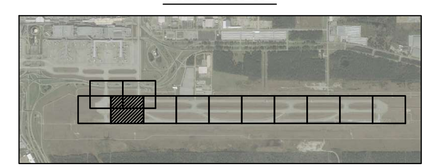
LEGEND

- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   - A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   - B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   - C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEYMAP



HOUSTON AIRPORTS

PGA
ENGINEERS, INC
3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN IV

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED
PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.04

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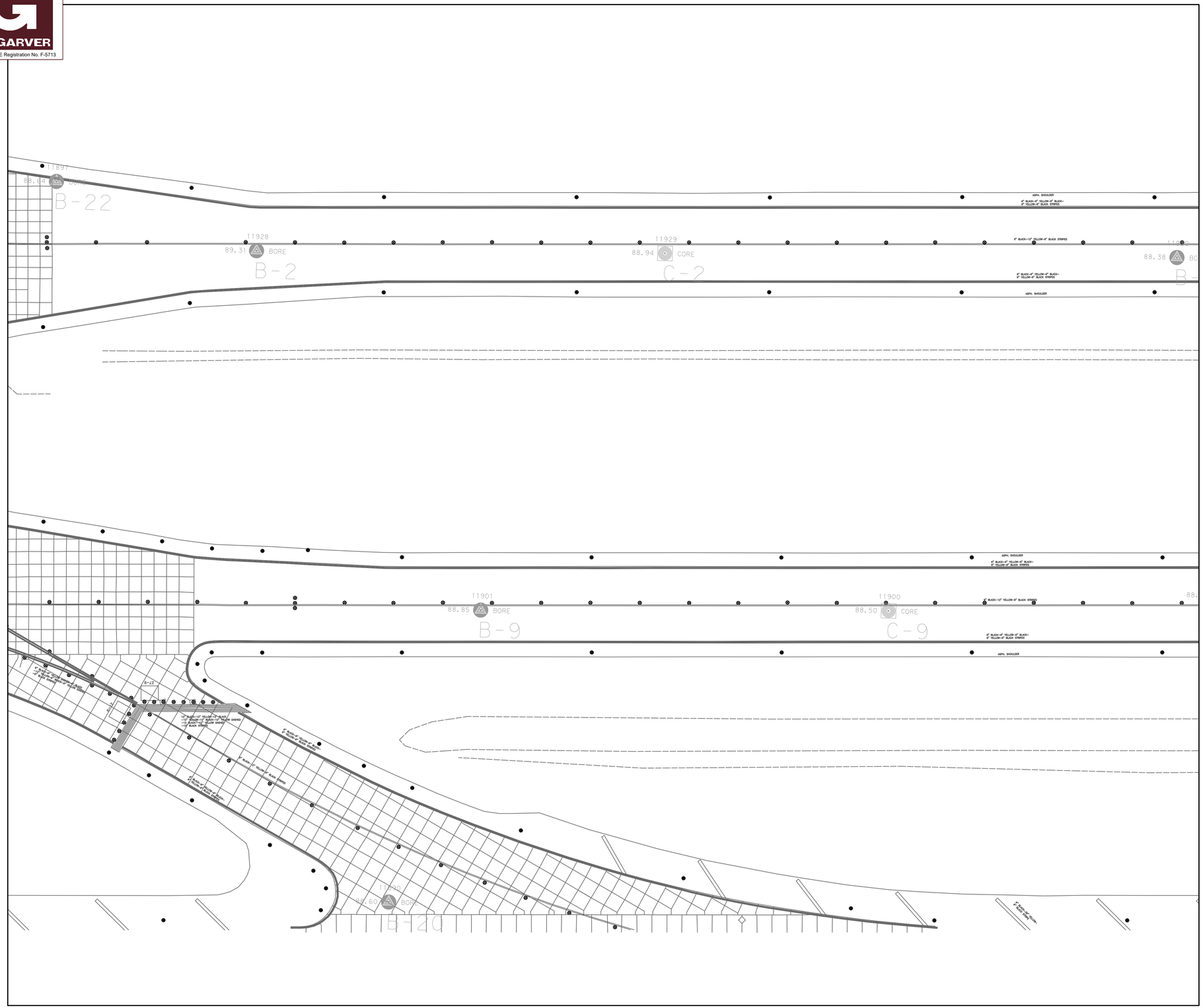
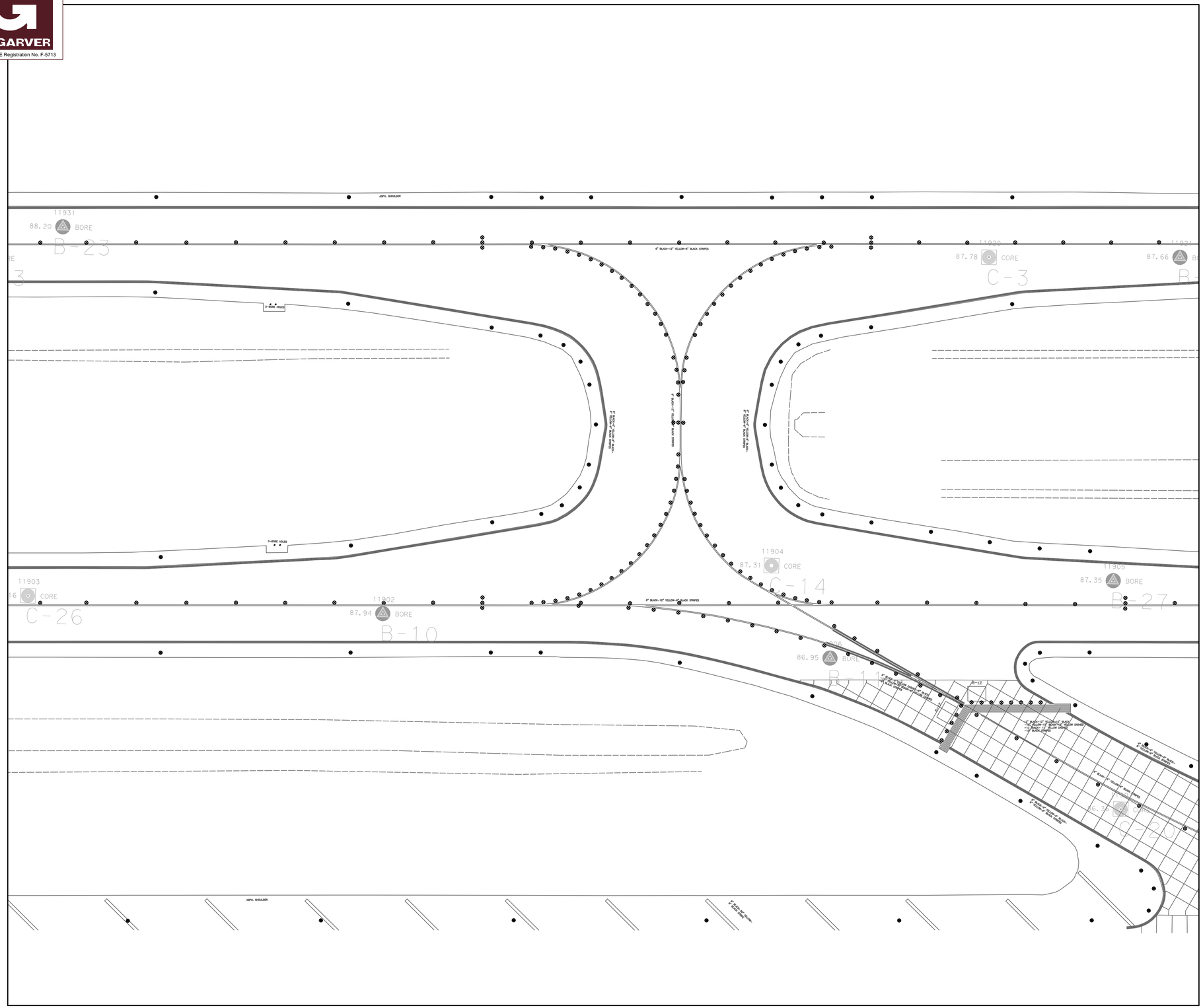
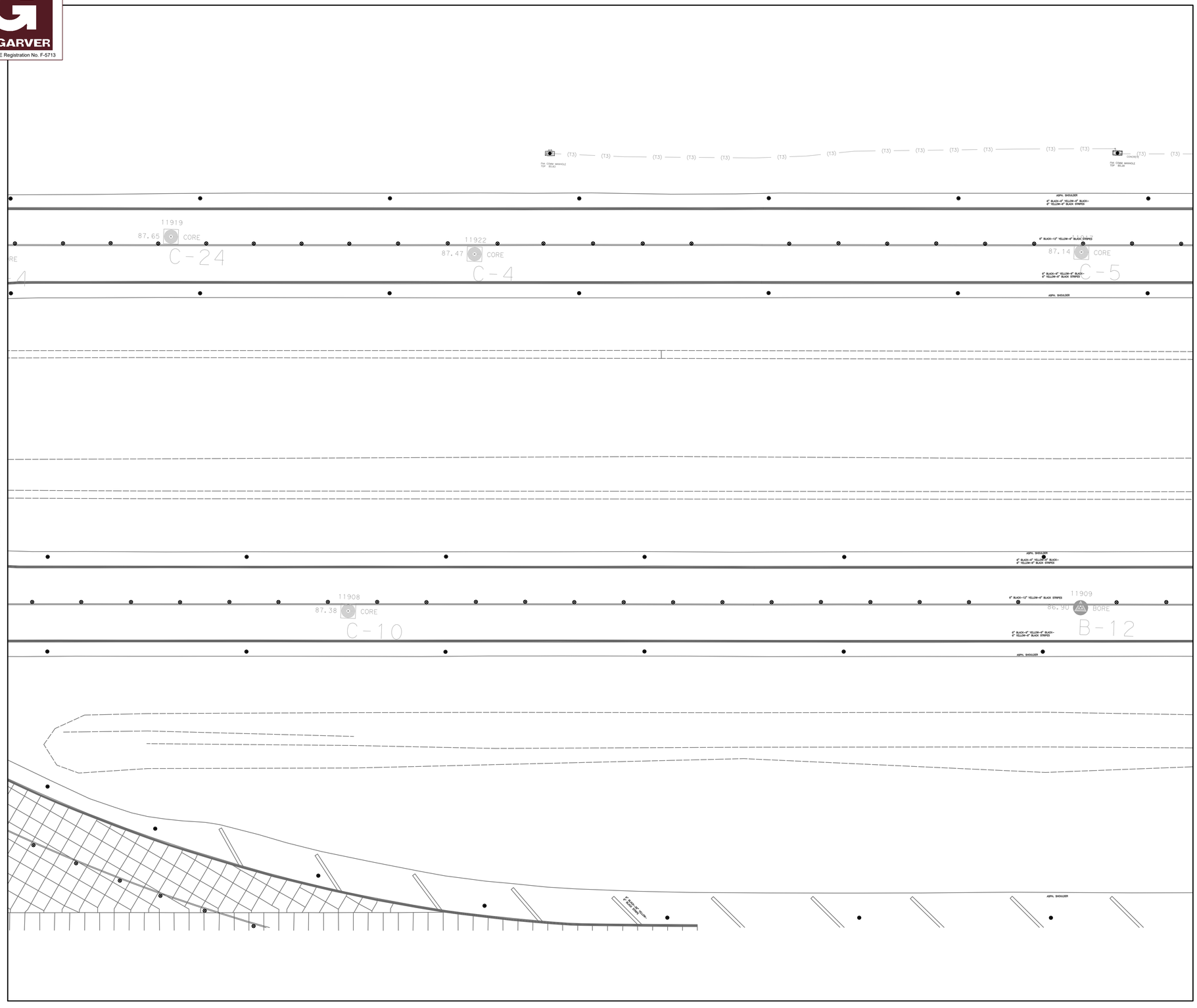
TBPE Registration No. F-5713


11897
88.64 BORE
B-22
11928
89.31 BORE
B-2
11929
88.94 CORE
C-2
88.38 BO
B-
11901
88.85 BORE
B-9
11900
88.50 CORE
C-9
11930
88.60 BORE
B-20
ASPH. SHOULDER
6" BLACK-4" YELLOW-4" BLACK-
6" YELLOW-4" BLACK STRIPES
6" BLACK-12" YELLOW-4" BLACK STRIPES
12" BLACK-12" YELLOW-12" BLACK-
12" BLACK-12" BLACK-12" YELLOW STRIPES
12" BLACK-12" BLACK STRIPES
6" BLACK-4" YELLOW-4" BLACK-
6" YELLOW-4

GARVER
TBPE Registration No. F-5713


MATCHLINE SHEET C-08.03
11931
88.20 BORE
B-23
C-3
87.78 CORE
87.66
11926
11904
87.31 CORE
C-14
11905
87.35 BORE
B-27
11903
CORE
C-26
11902
87.94 BORE
B-10
86.95 BORE
B-11
C-20
ASPH. SHOULDER
3-BORE HOLES
4" BLACK-12" YELLOW-4" BLACK STRIPES
4" BLACK-4" YELLOW-4" BLACK STRIPES
4" BLACK-12" YELLOW-4" BLACK STRIPES
4" BLACK-4" YELLOW-4" BLACK STRIPES
4" BLACK-12" YELLOW-4" BLACK STRIPES
4" BLACK-4" YELLOW-4" BLACK STRIPES
4" BLACK-12" YELLOW-4" BLACK STRIPES
4" BLACK-4" YELLOW-4" BLACK STRIPES
4" BLACK-12" YELLOW-4" BLACK STRIPES
4" BLACK-4

GARVER
TBPE Registration No. F-5713



N

0 25' 50' 100' 150'
(IN FEET)

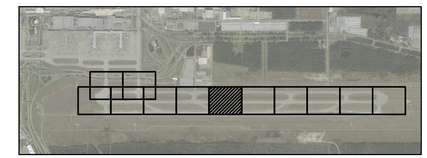
LEGEND

- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEYMAP



HOUSTON AIRPORTS

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3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN VII

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED
PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.07

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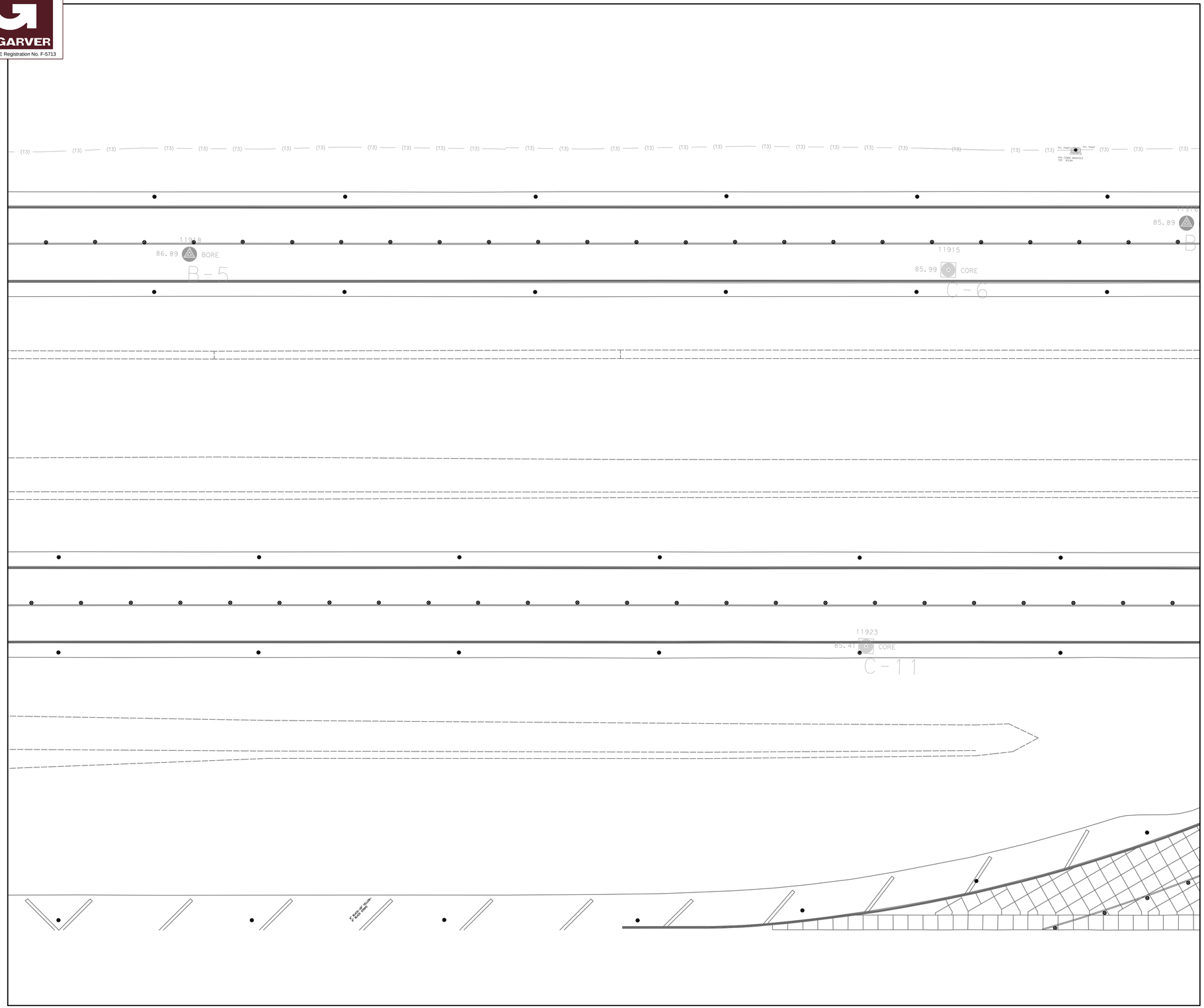
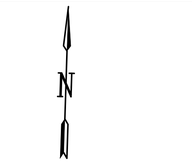
GARVER
TBPE Registration No. F-5713





0 25' 50' 100' 150'

(IN FEET)

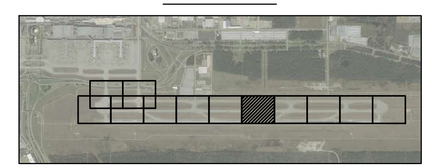
LEGEND

- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   - A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   - B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   - C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEYMAP



HOUSTON AIRPORTS

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3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN VIII

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED
PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.08

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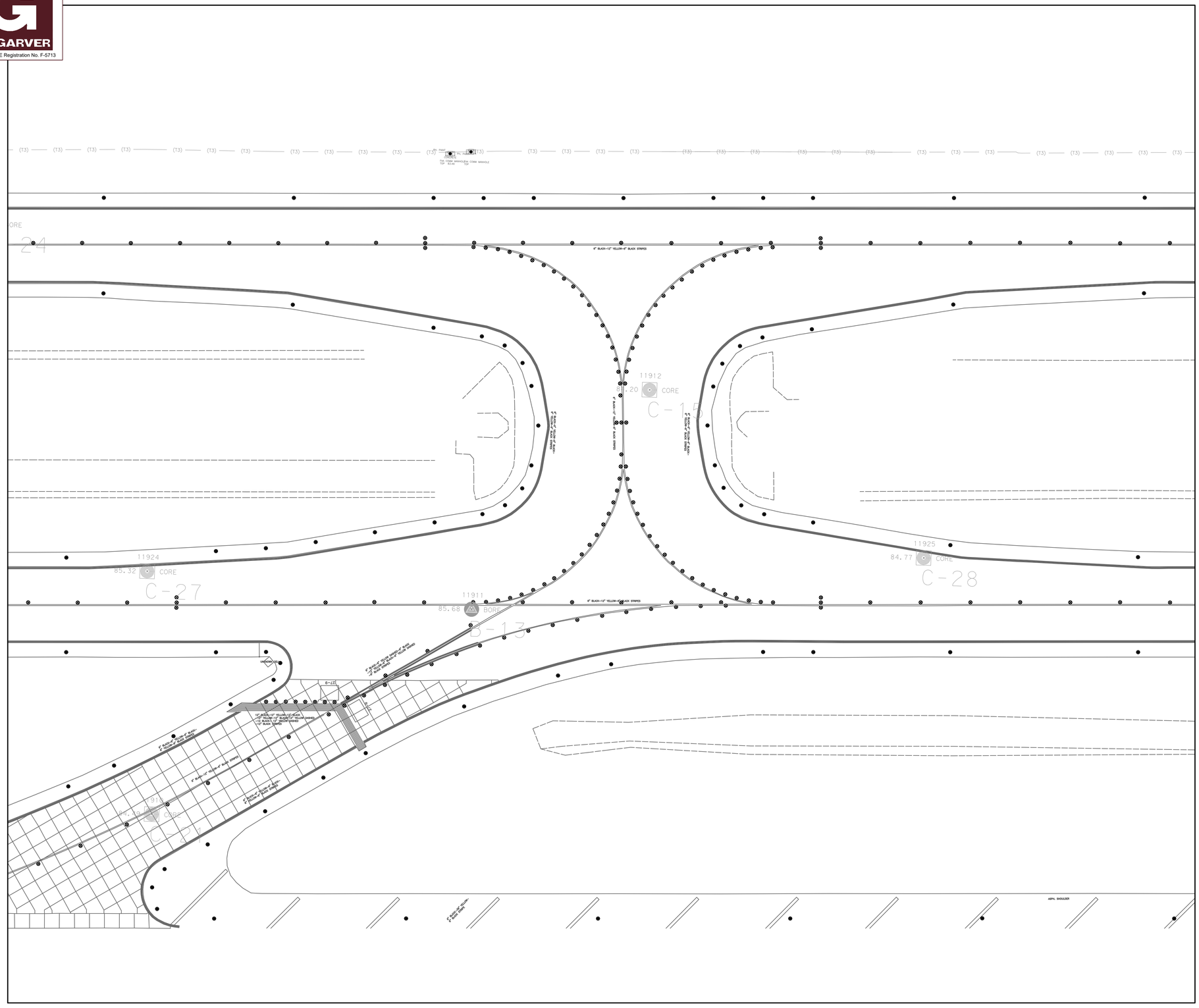


N

0 25' 50' 100' 150'
(IN FEET)

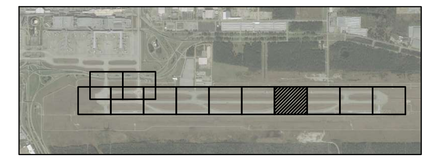
LEGEND

- TELECOM DUCT BANK (EXISTING)
- FAA DUCT BANK (EXISTING)
- COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   - A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   - B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   - C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEYMAP



HOUSTON AIRPORTS

PGA ENGINEERS, INC
3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN IX

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED
PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.09

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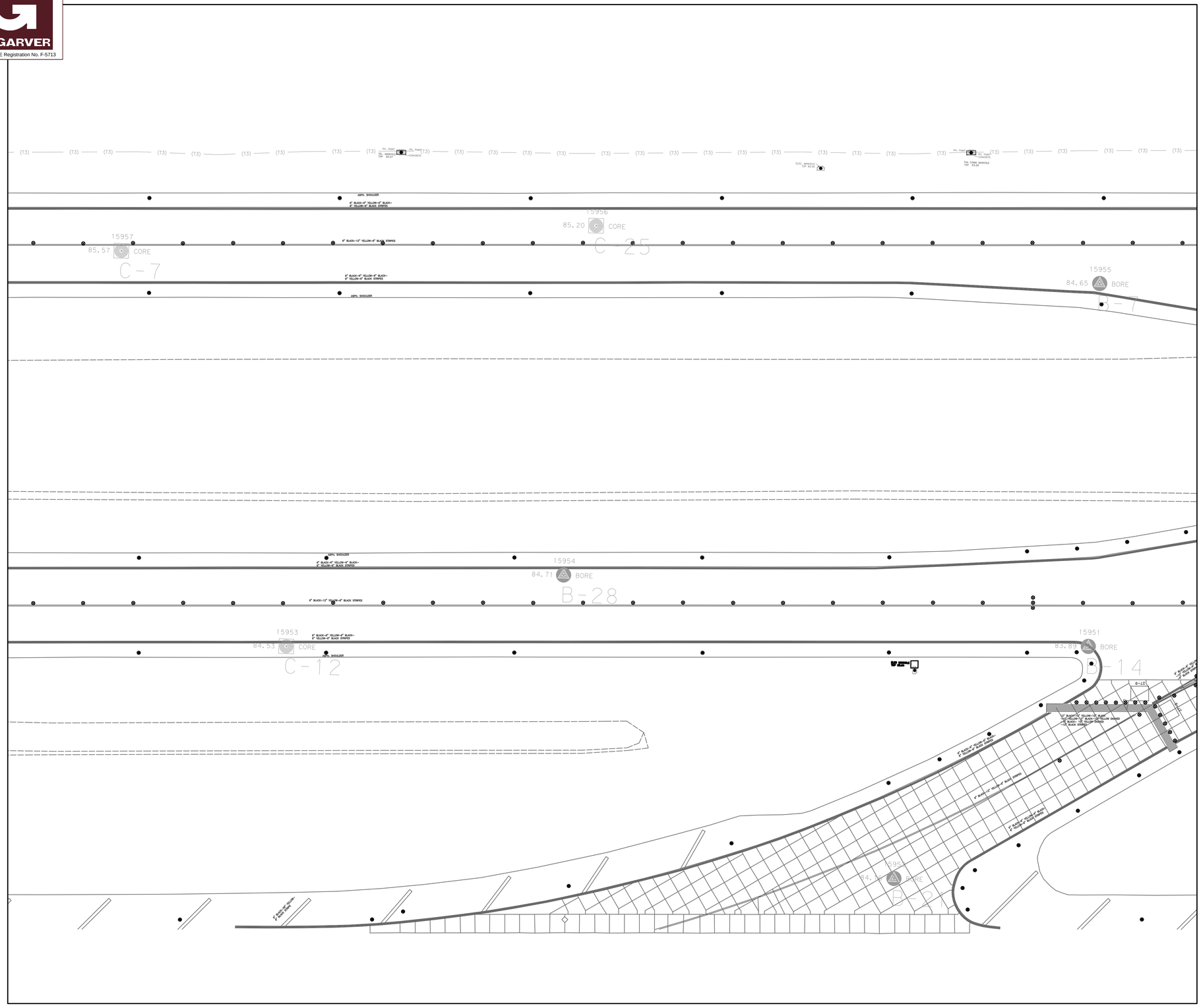
GARVER
TBPE Registration No. F-5713



N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

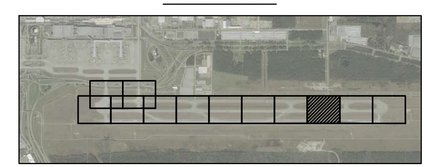
- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   - A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   - B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   - C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

1

KEYMAP



HOUSTON AIRPORTS

PGA ENGINEERS, INC
3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN X

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.10

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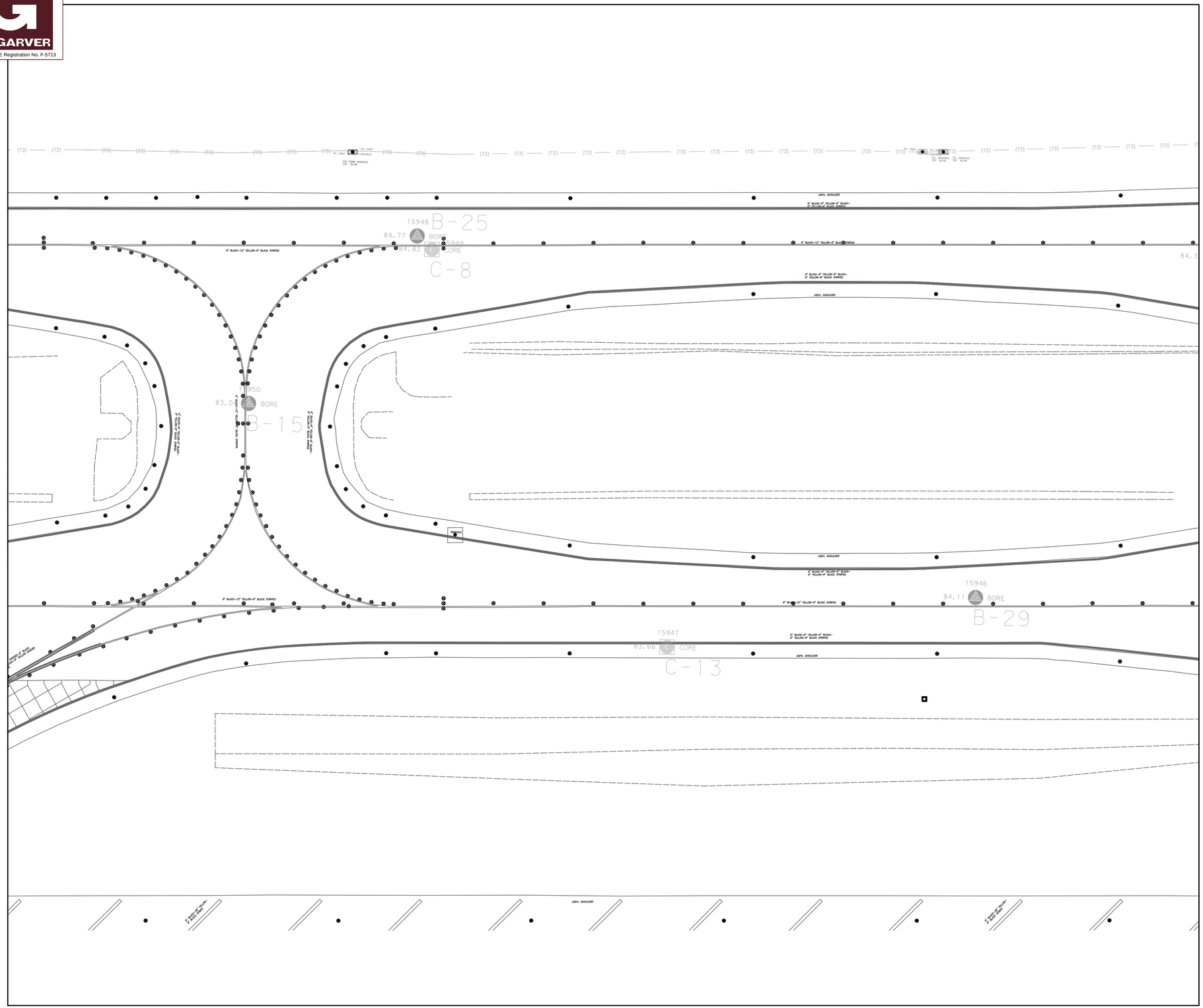
GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C-08.03



0 25' 50' 100' 150'
(IN FEET)

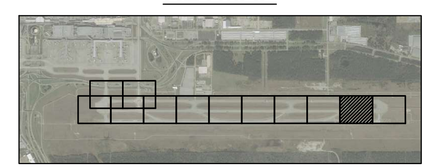
LEGEND

- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   - A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   - B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   - C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEYMAP



HOUSTON AIRPORTS

PGA ENGINEERS, INC
3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN XI

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED
PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.11

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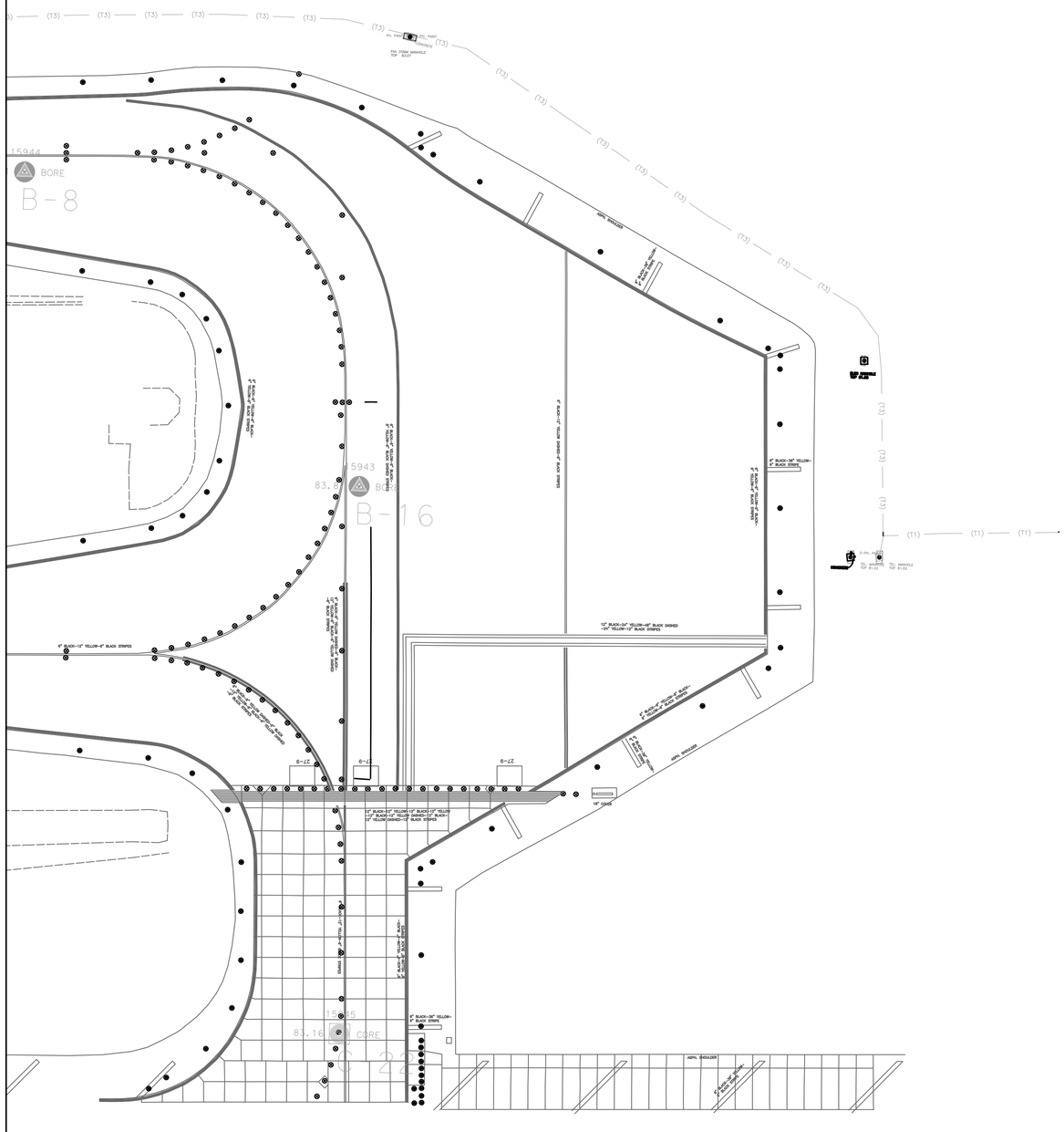
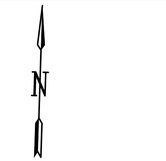
GARVER
TBPE Registration No. F-5713





0 25' 50' 100' 150'
(IN FEET)

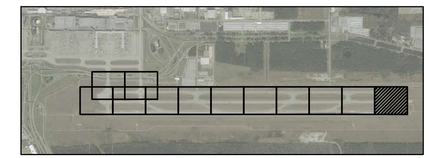
LEGEND

- (T1) (T1) TELECOM DUCT BANK (EXISTING)
- (T2) (T2) FAA DUCT BANK (EXISTING)
- (T3) (T3) COMBINED TEL/FAA (EXISTING)
- MANHOLE (EXISTING)
- HAND HOLE (EXISTING)
- FAA MANHOLE (EXISTING)
- PROPOSED CORE LOCATION
- PROPOSED BORE LOCATION

GENERAL NOTES:

1. NO NEW TELECOMMUNICATIONS SCOPE ON THIS SHEET.
2. BORING AND CORE LOCATIONS SHOW ON THIS SHEET FOR REFERENCE ONLY AND TO CONFIRM CLEARANCE OF HAS/FAA TELECOMMUNICATION DUCT-BANKS.
3. CIVIL NOTES FOR REFERENCE ONLY ON THIS SHEET. REFER TO CIVIL DRAWINGS FOR MORE INFORMATION.
   - A. ALL BORINGS TO BE DRILLED TO A MINIMUM OF 10 FEET BELOW THE EXISTING SURFACE.
   - B. ALL PAVEMENT CORES TO BE DRILLED TO THE TOP OF THE STABILIZED SUB-GRADE.
   - C. THE LOCATIONS OF THE BORINGS AND CORES ARE APPROXIMATELY 10 FEET FROM THE UTILITIES SHOWN ON THIS SHEET. FIELD VERIFY.

KEYMAP



HOUSTON AIRPORTS

PGA ENGINEERS, INC
3838 N Sam Houston Pkwy E, Ste. 550
Houston, TX 77032
346.570.2418
pgaengineers.com
TBPE FIRM #12493

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

TELECOMMUNICATIONS PLAN XII

PROJECT MGR:	JEF
DESIGNER:	PGA
DRAWN BY:	AC
CHECK BY:	JG
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JOHN GRUENWALD
100039
LICENSED PROFESSIONAL ENGINEER
11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C08.12

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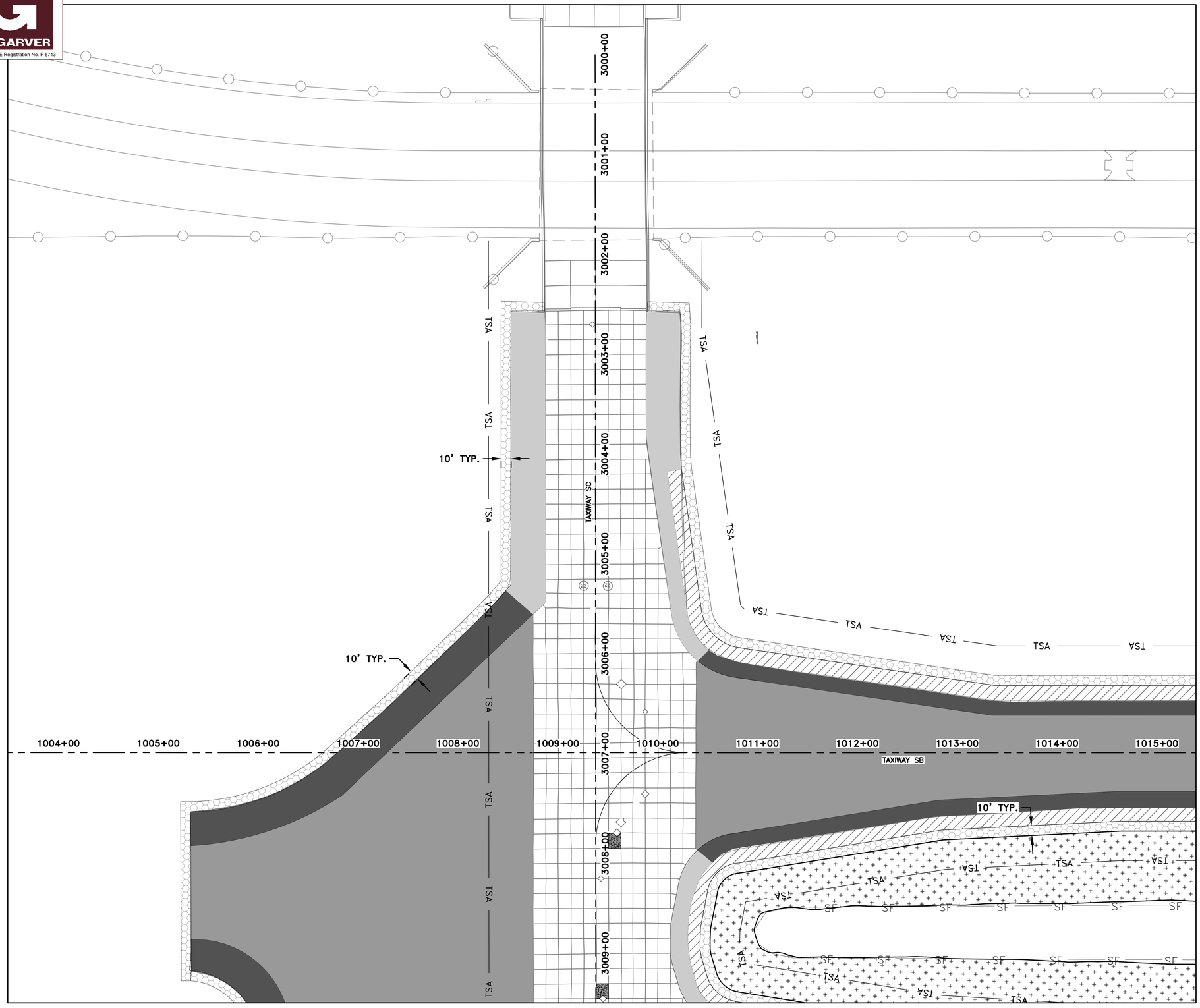
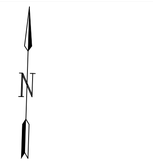
GARVER
TBPE Registration No. F-5713





NOTES:

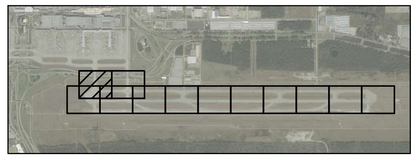
1. SEE SWPPP DETAILS ON SHEET C09.13

MATCHLINE SHEET C09.02

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN I

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.01

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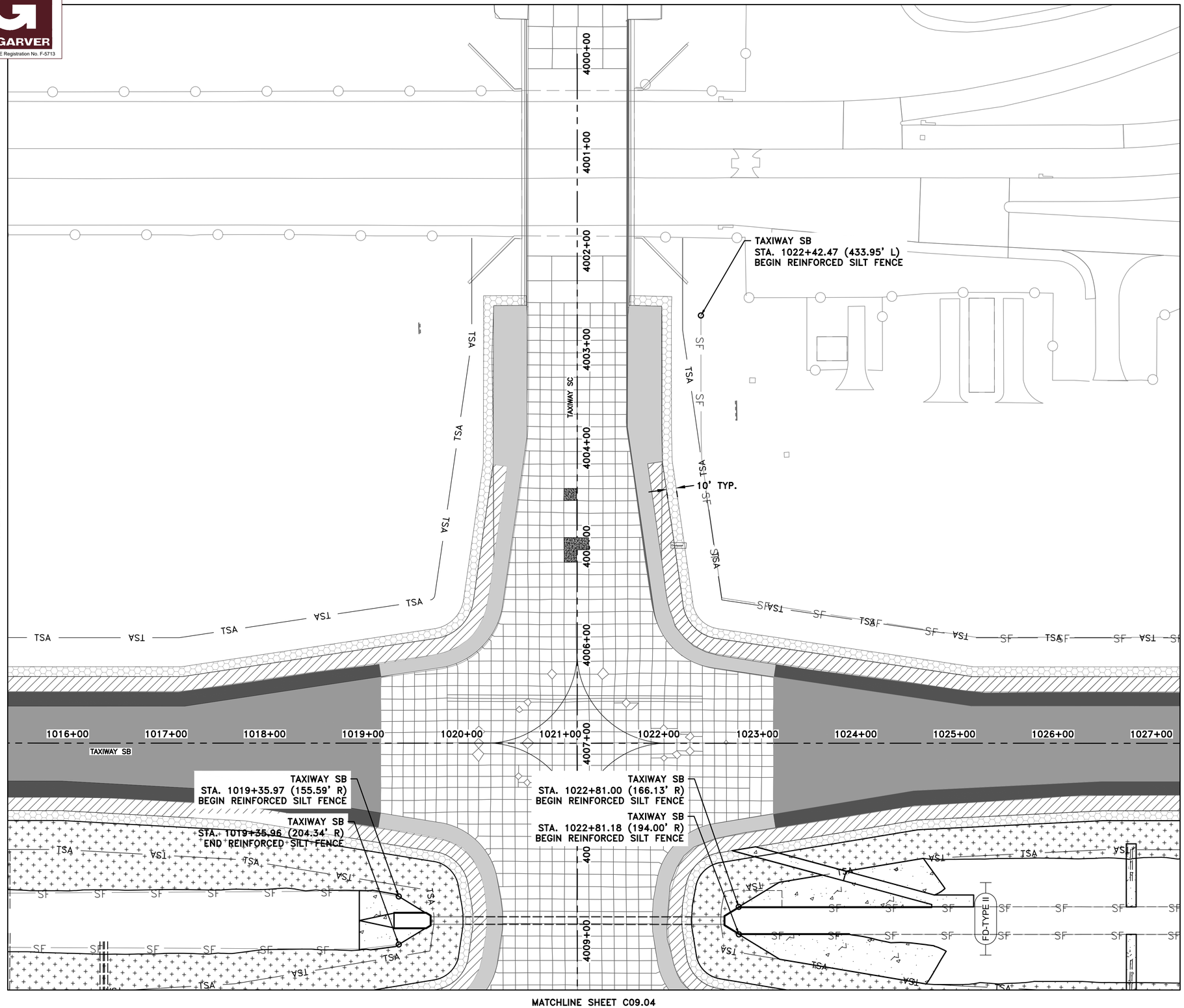
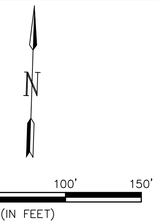
GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C09.01



MATCHLINE SHEET C09.04



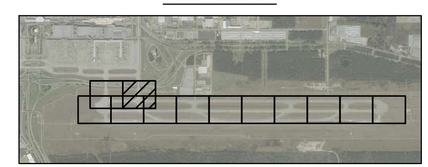
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN II

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.02

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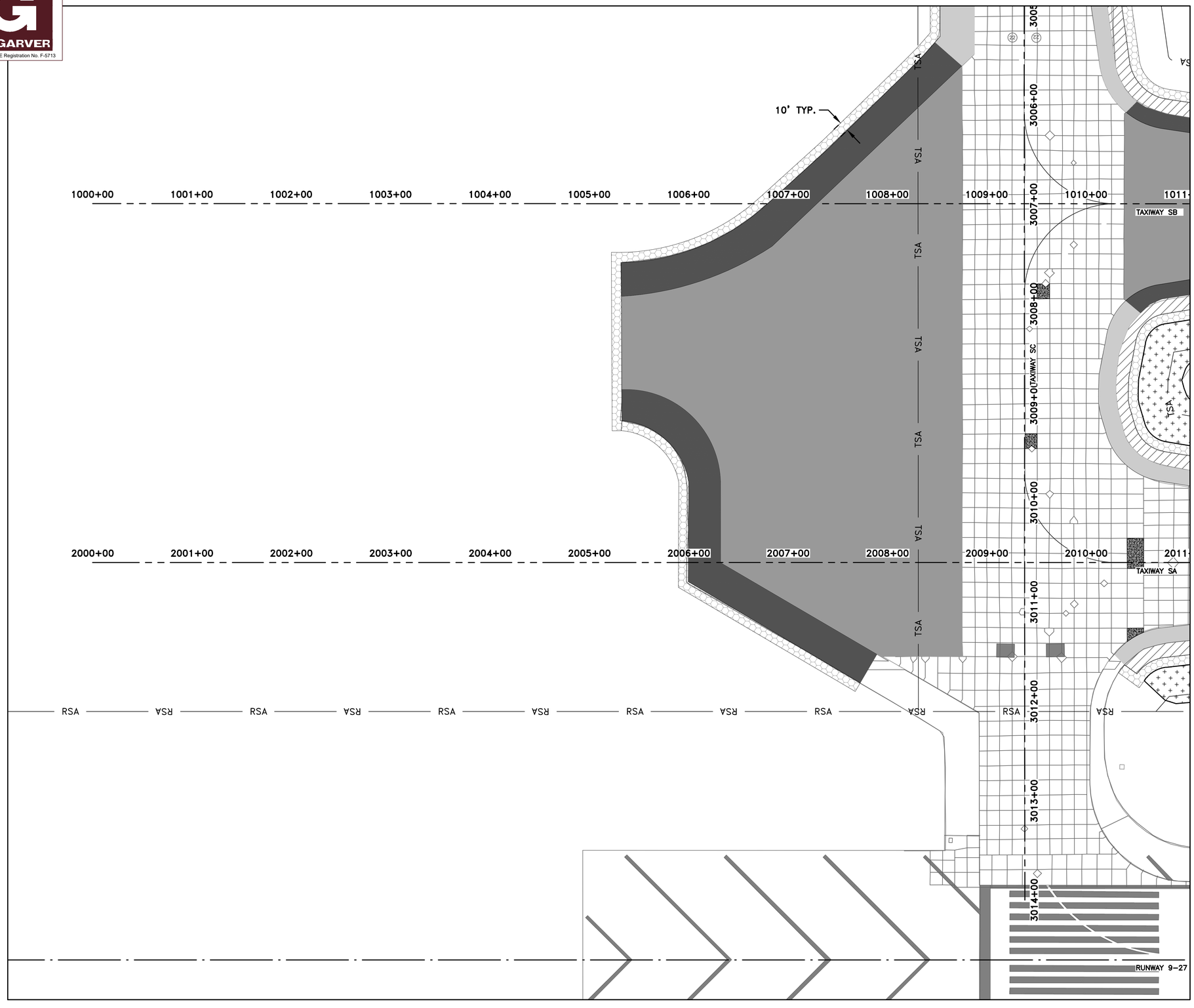
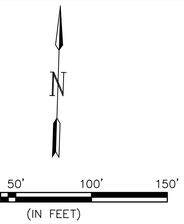
GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C09.01



MATCHLINE SHEET C09.04



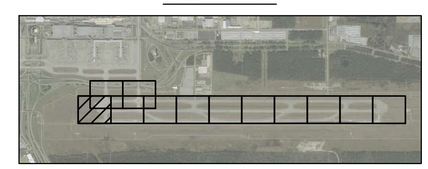
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767–0090
TBPE FIRM No. F–14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN III

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.03

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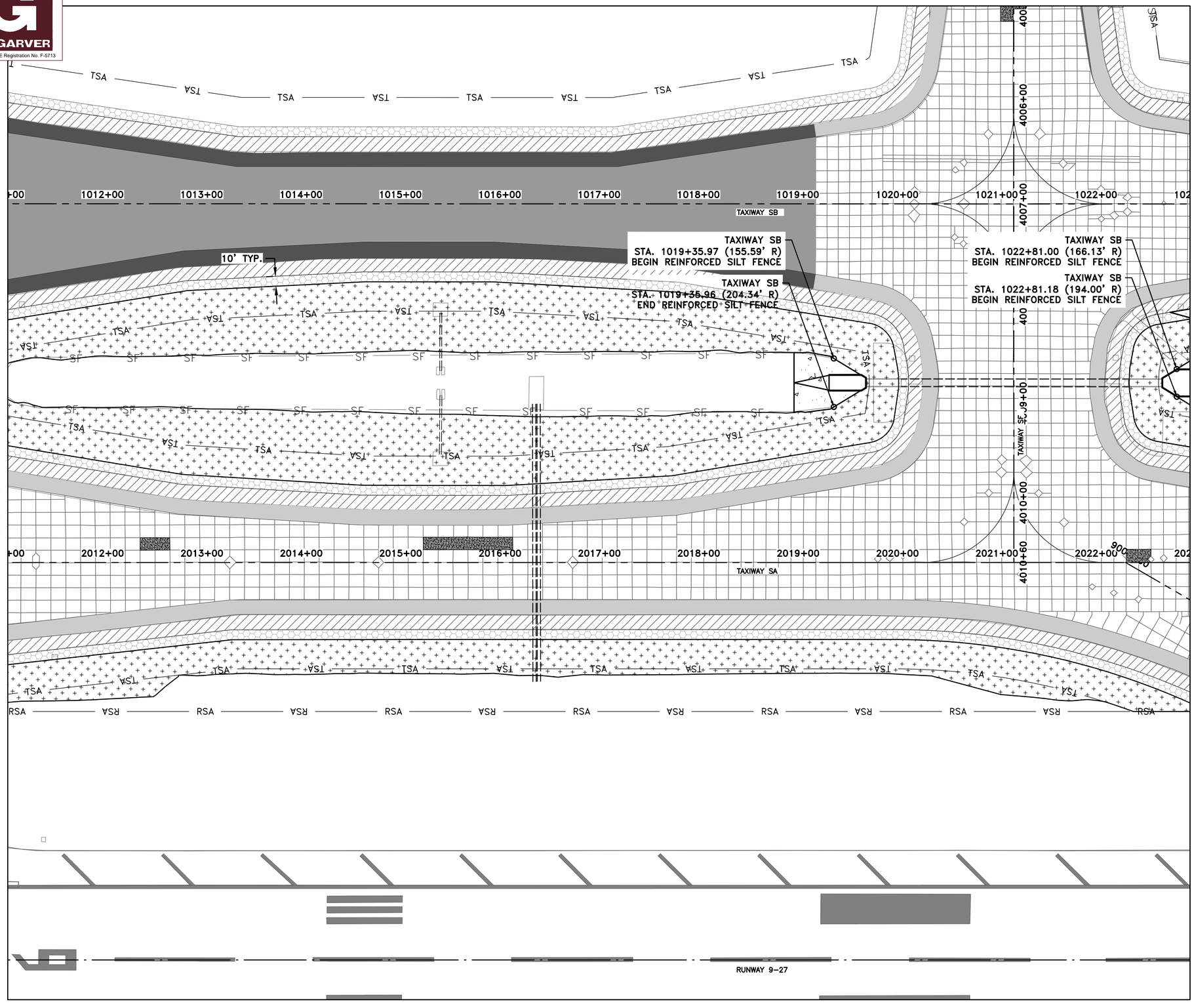
GARVER
TBPE Registration No. F-5713

MATCHLINE SHEET C09.02

MATCHLINE SHEET C09.03

MATCHLINE SHEET C09.05



N

0 25' 50' 100' 150'
(IN FEET)

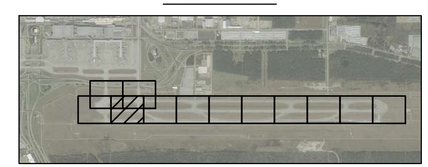
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN IV

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.04

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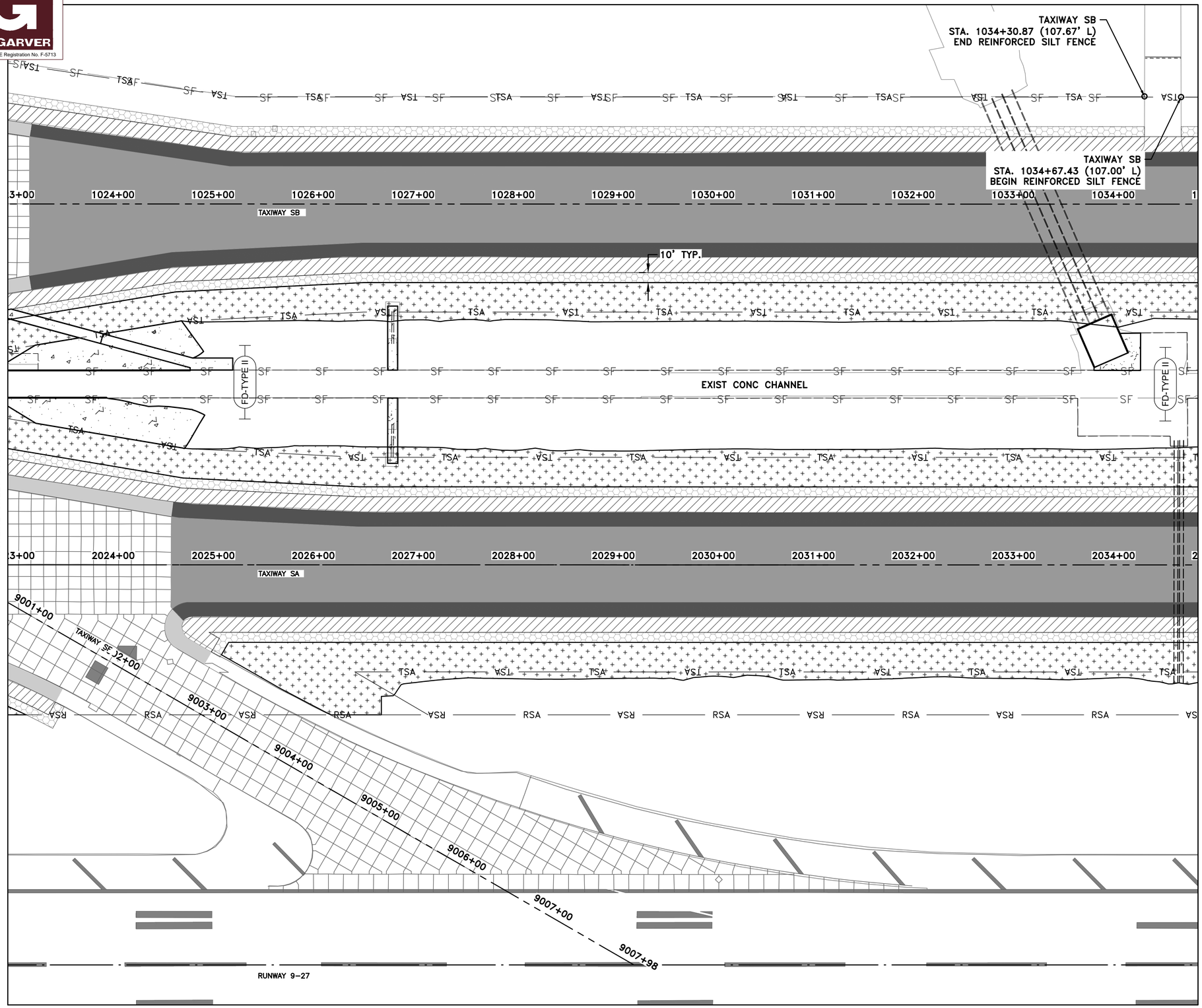
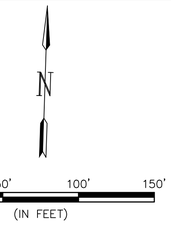
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C09.04

MATCHLINE SHEET C09.06



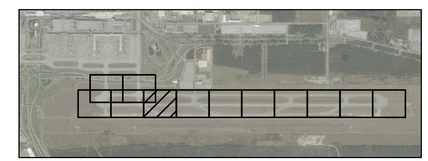
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

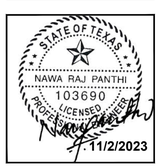
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN V

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023



APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.05

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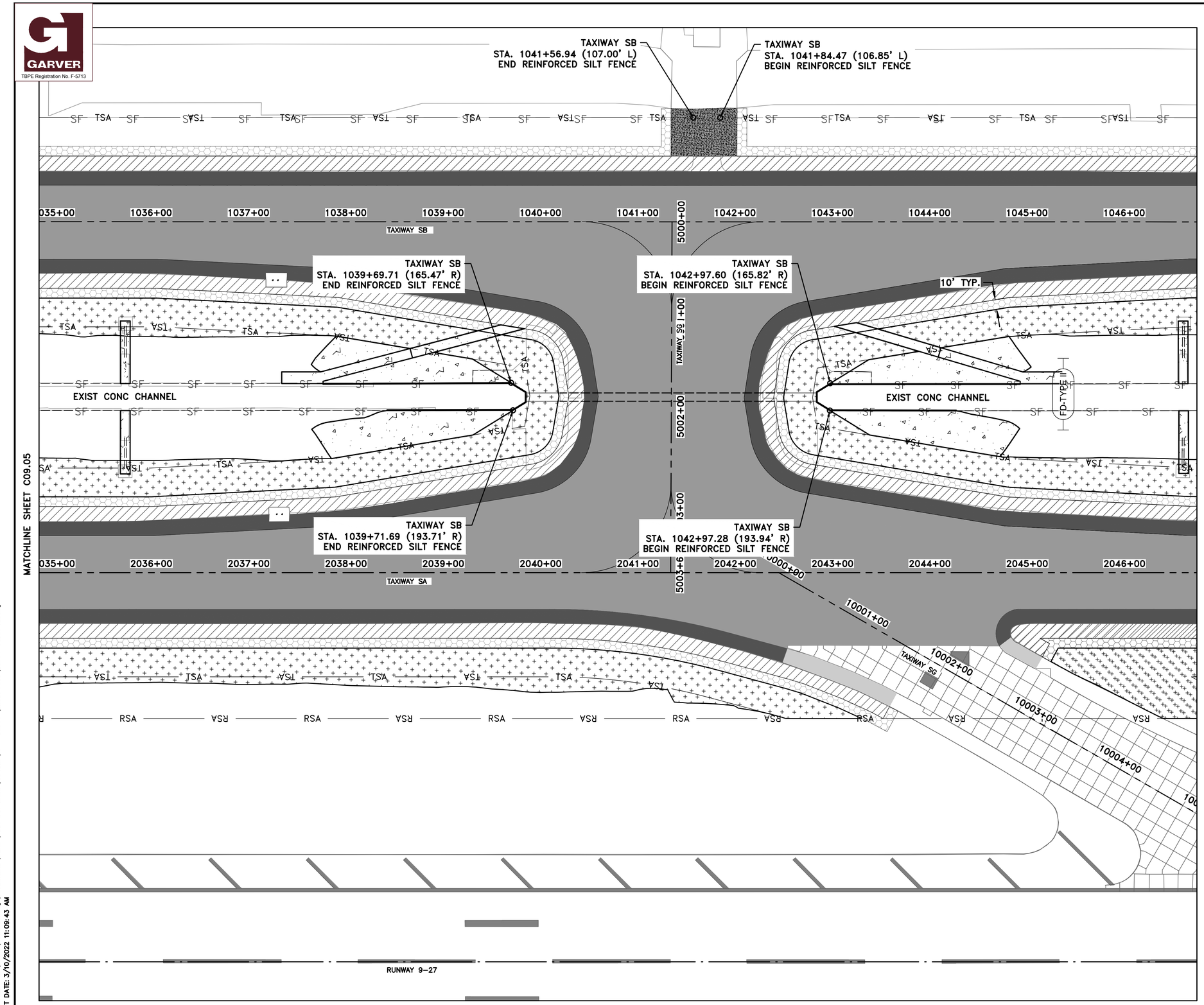


0 25' 50' 100' 150'
(IN FEET)

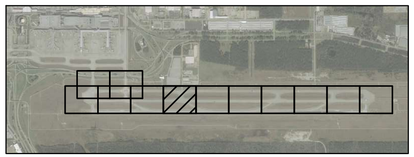
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

	PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
	PROPOSED ASPHALT SHOULDER MILL & OVERLAY
	PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
	PROPOSED FULL DEPTH CONCRETE SECTION
	EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
—TSA—	TAXIWAY SAFETY AREA
—TOFA—	TAXIWAY OBJECT FREE AREA
—RSA—	RUNWAY SAFETY AREA
—ROFA—	RUNWAY OBJECT FREE AREA
SF	1 C09.13 REINFORCED SILT FENCE
	2 C09.13 PROPOSED SODDING
FD-TYPE II	3 C09.13 FILTER DAM TYPE II
	PROPOSED HYDROSEEDING
	PROPOSED CONCRETE SLOPE PAVING

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN VI

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.06

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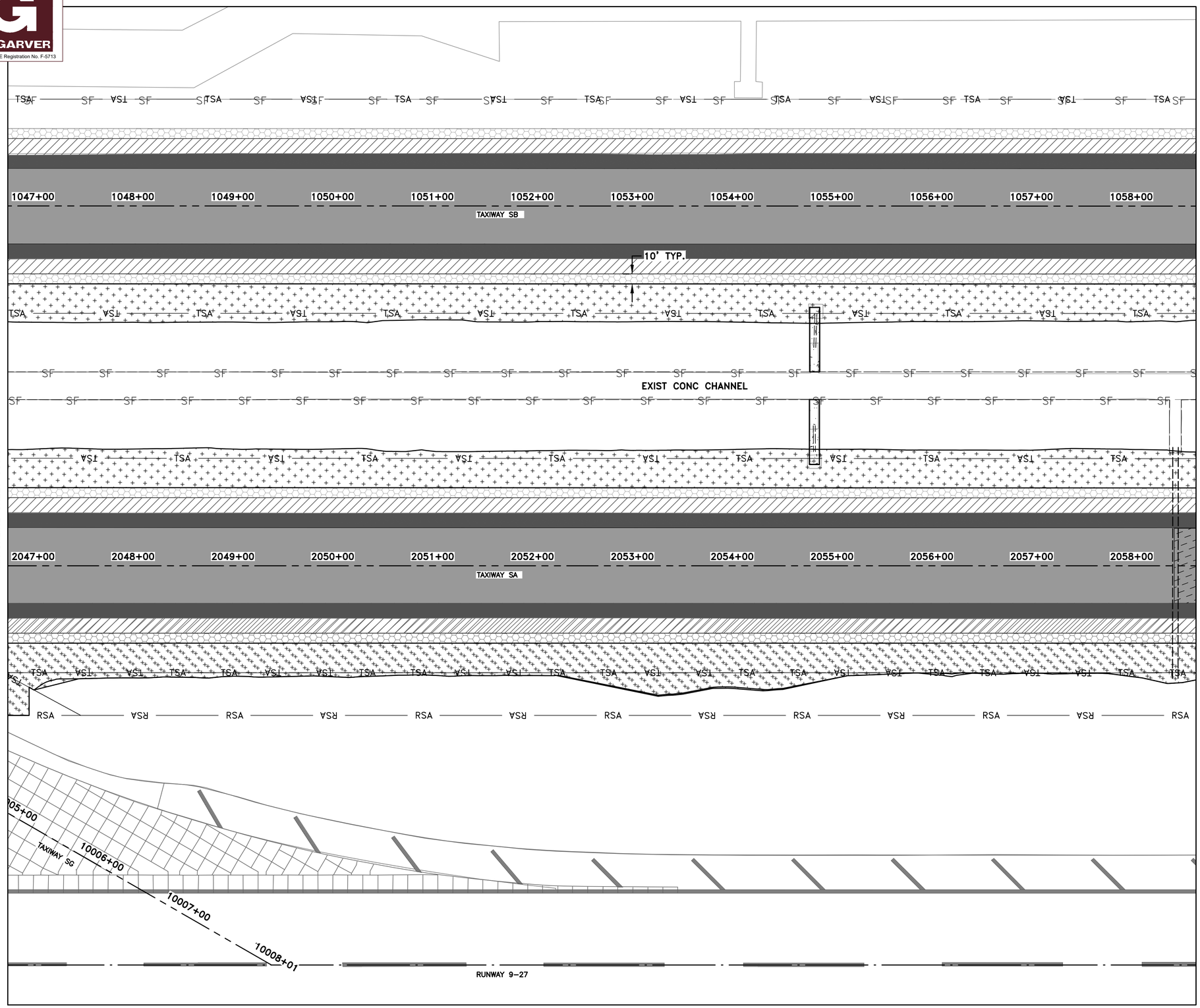
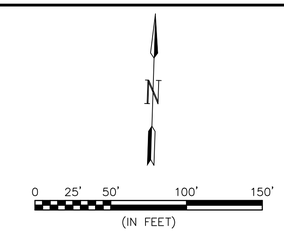
GARVER
TBPE Registration No. F-5713





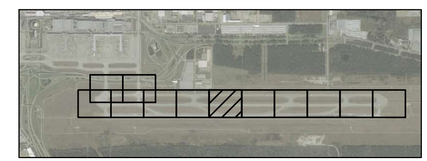
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 / C09.13 — REINFORCED SILT FENCE
- 2 / C09.13 — PROPOSED SODDING
- FD-TYPE II — 3 / C09.13 — FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN VII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.07

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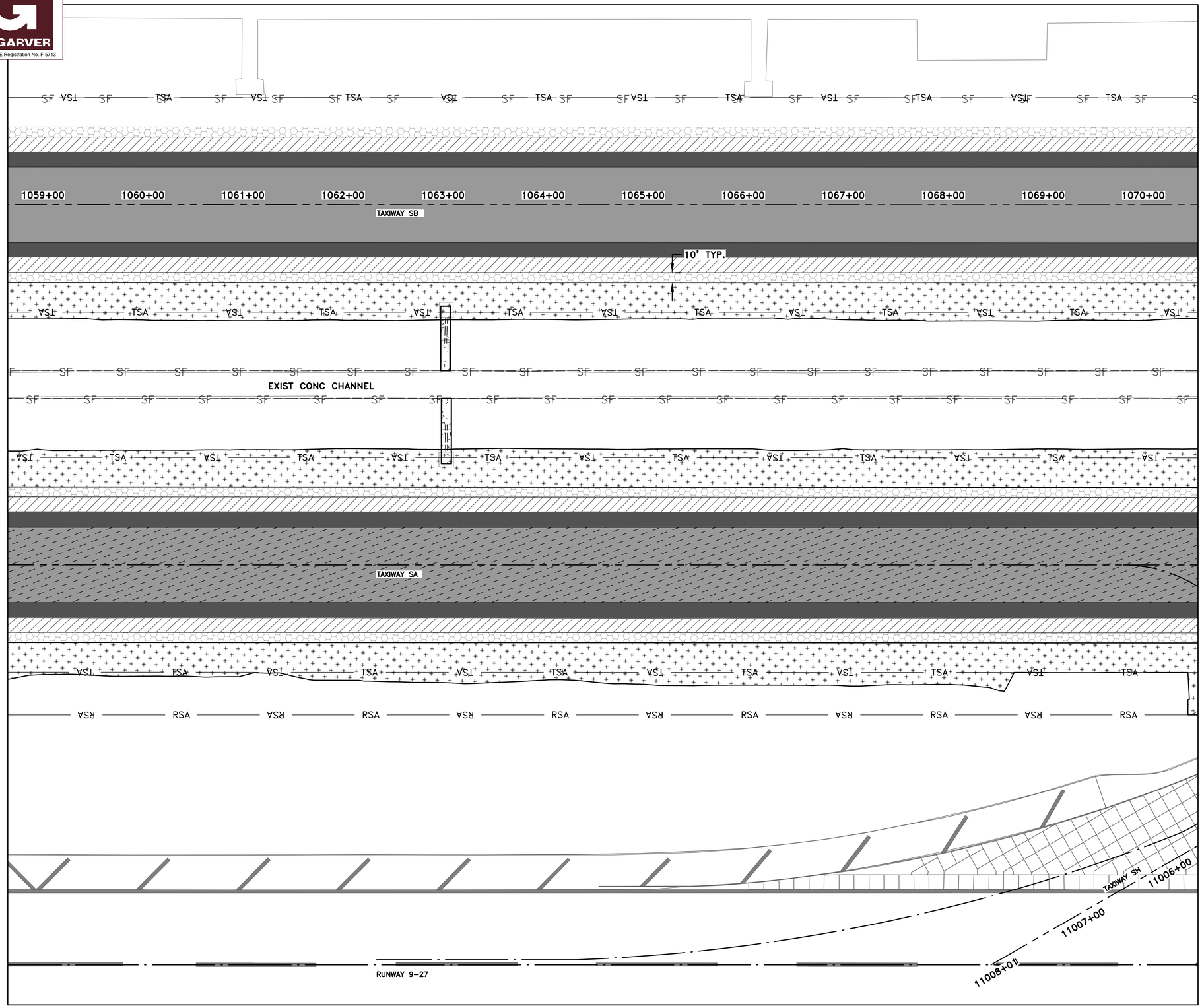
GARVER
TBPE Registration No. F-5713



N

0 25' 50' 100' 150'
(IN FEET)

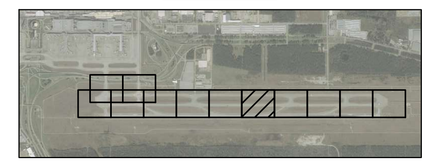
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767–0090
TBPE FIRM No. F–14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN VIII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.08

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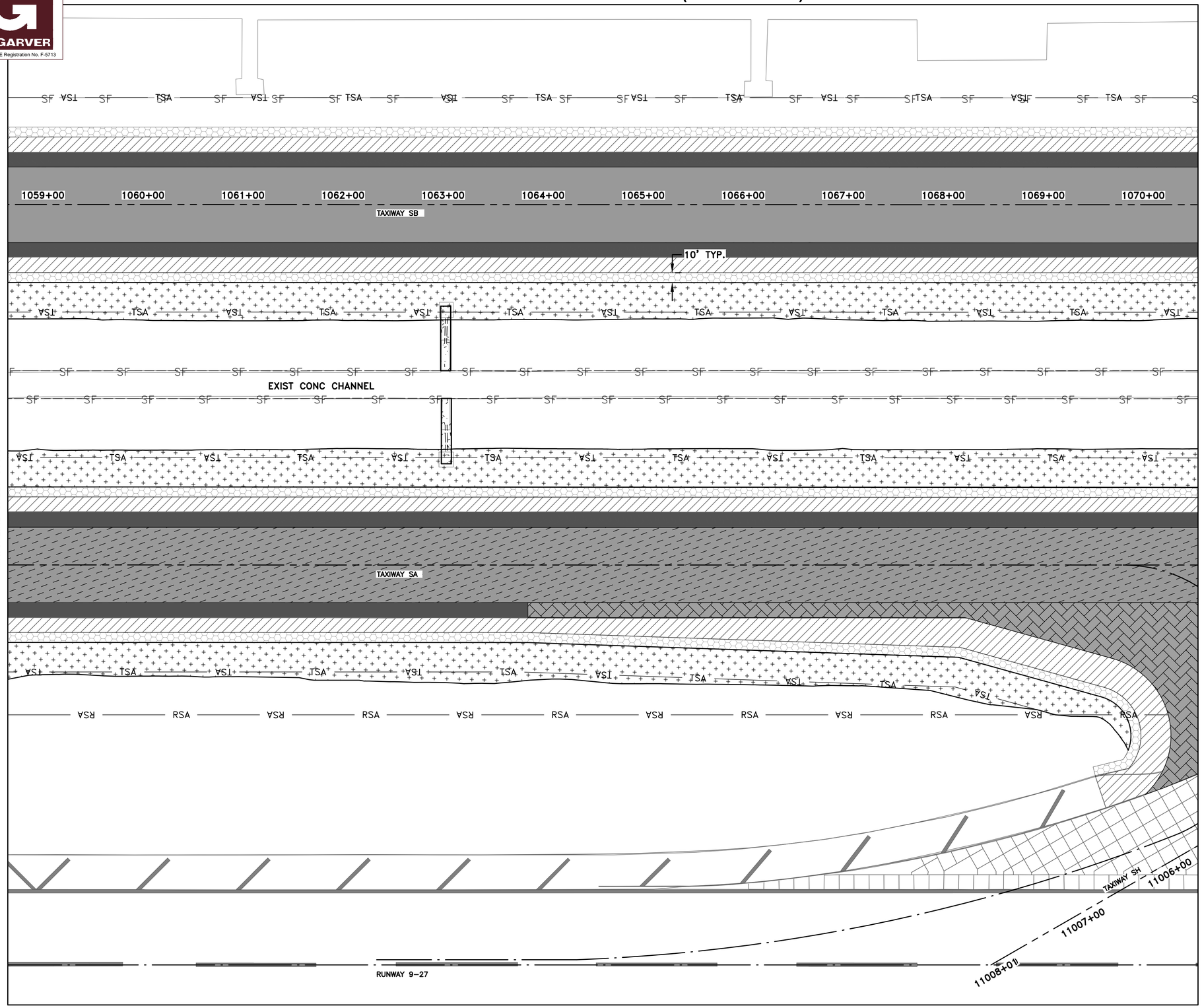


MATCHLINE SHEET C09.07

MATCHLINE SHEET C09.09

0 25' 50' 100' 150'
(IN FEET)

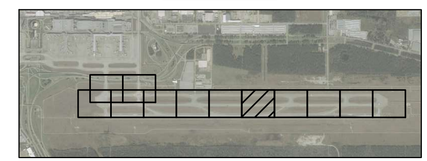
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767–0090
TBPE FIRM No. F–14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN VIII (ADDITIVE ALTERNATE 1)

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.08A

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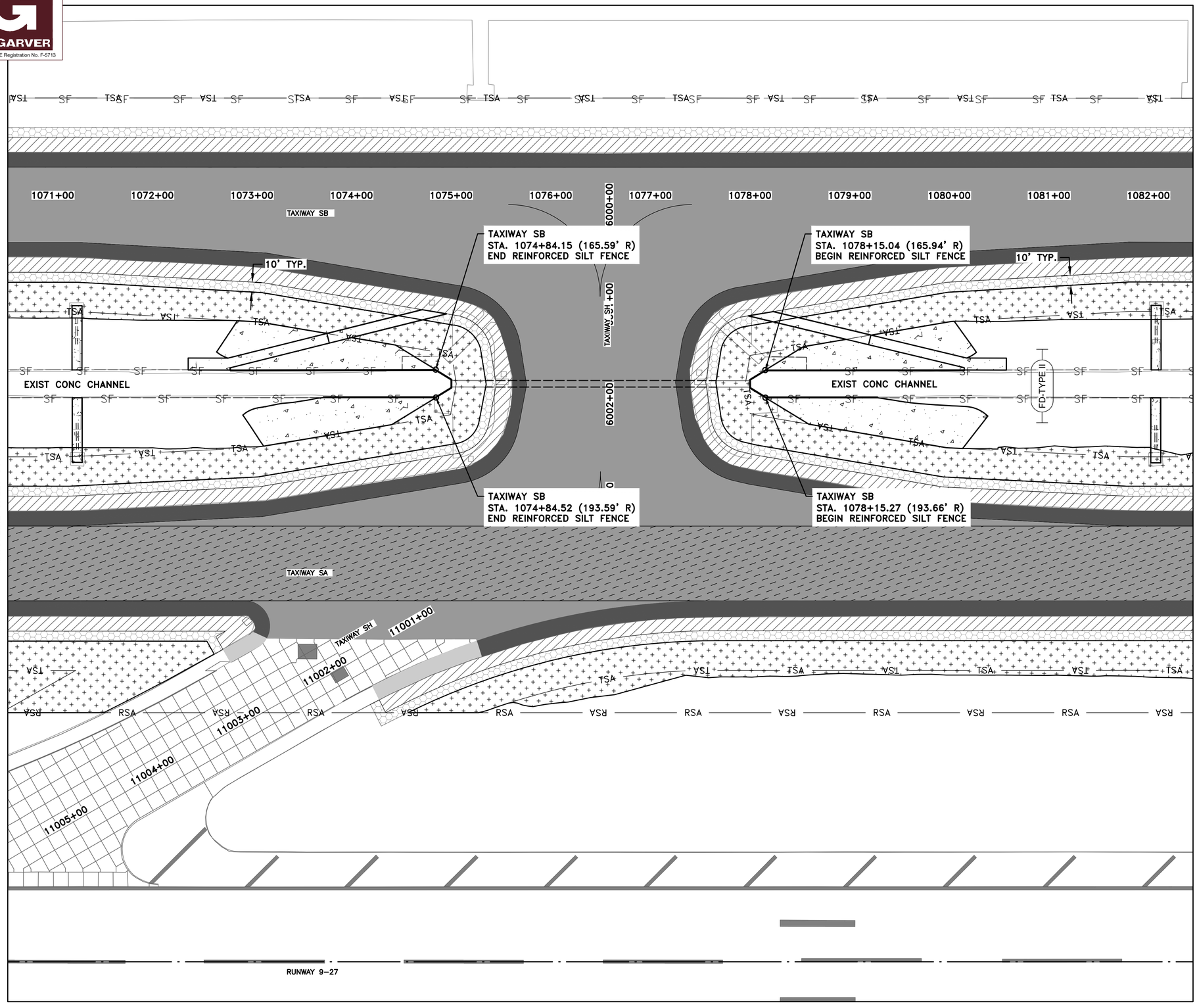
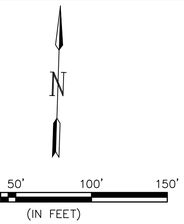
GARVER
TBPE Registration No. F-5713





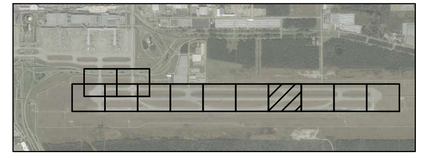
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS
HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN IX

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.09

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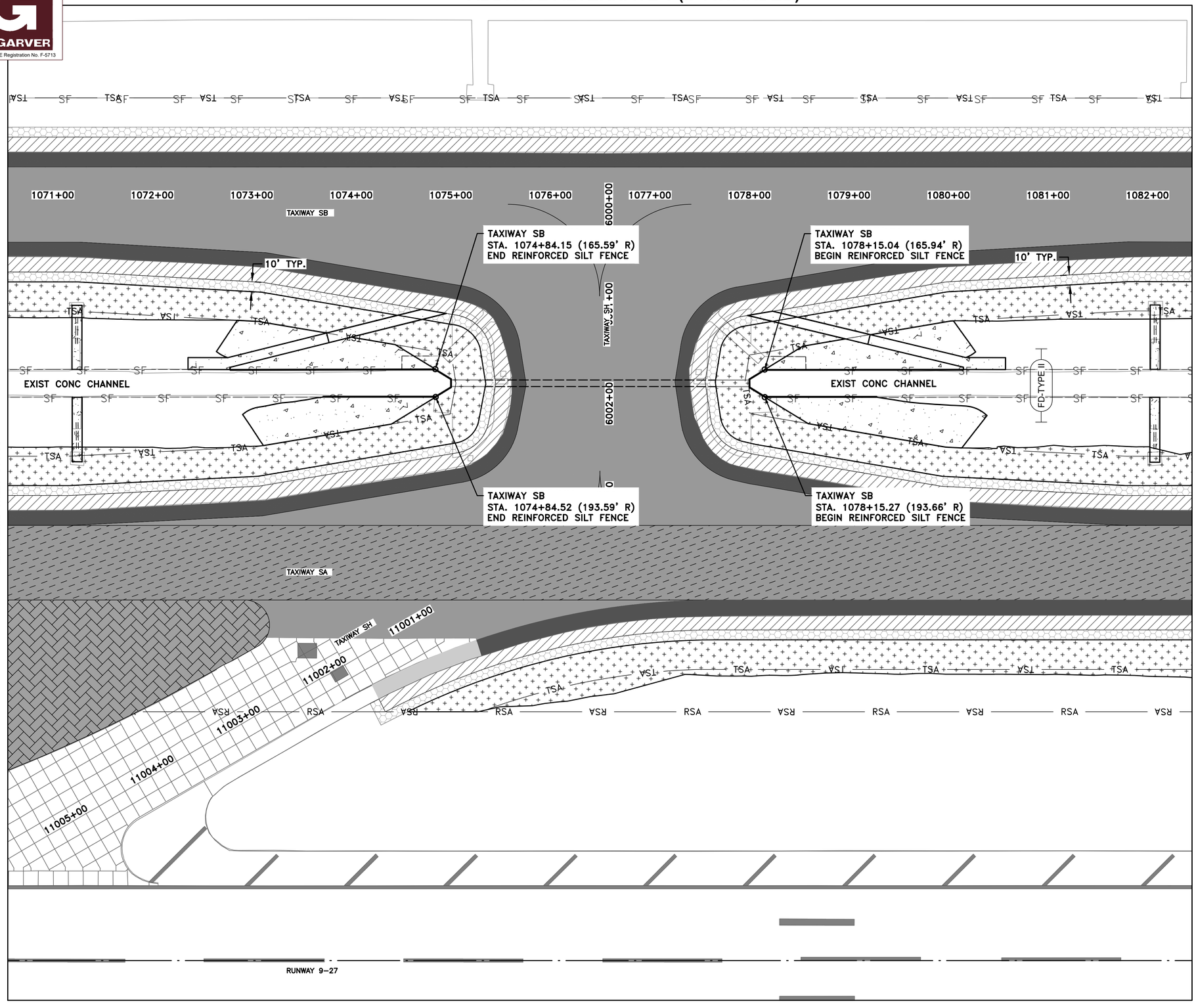
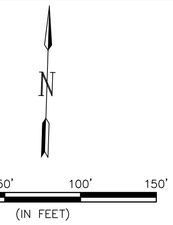




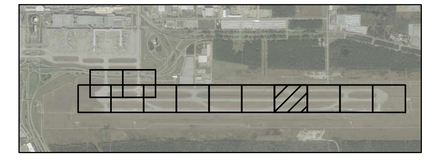
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN IX (ADDITIVE ALTERNATE 1)

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.09A

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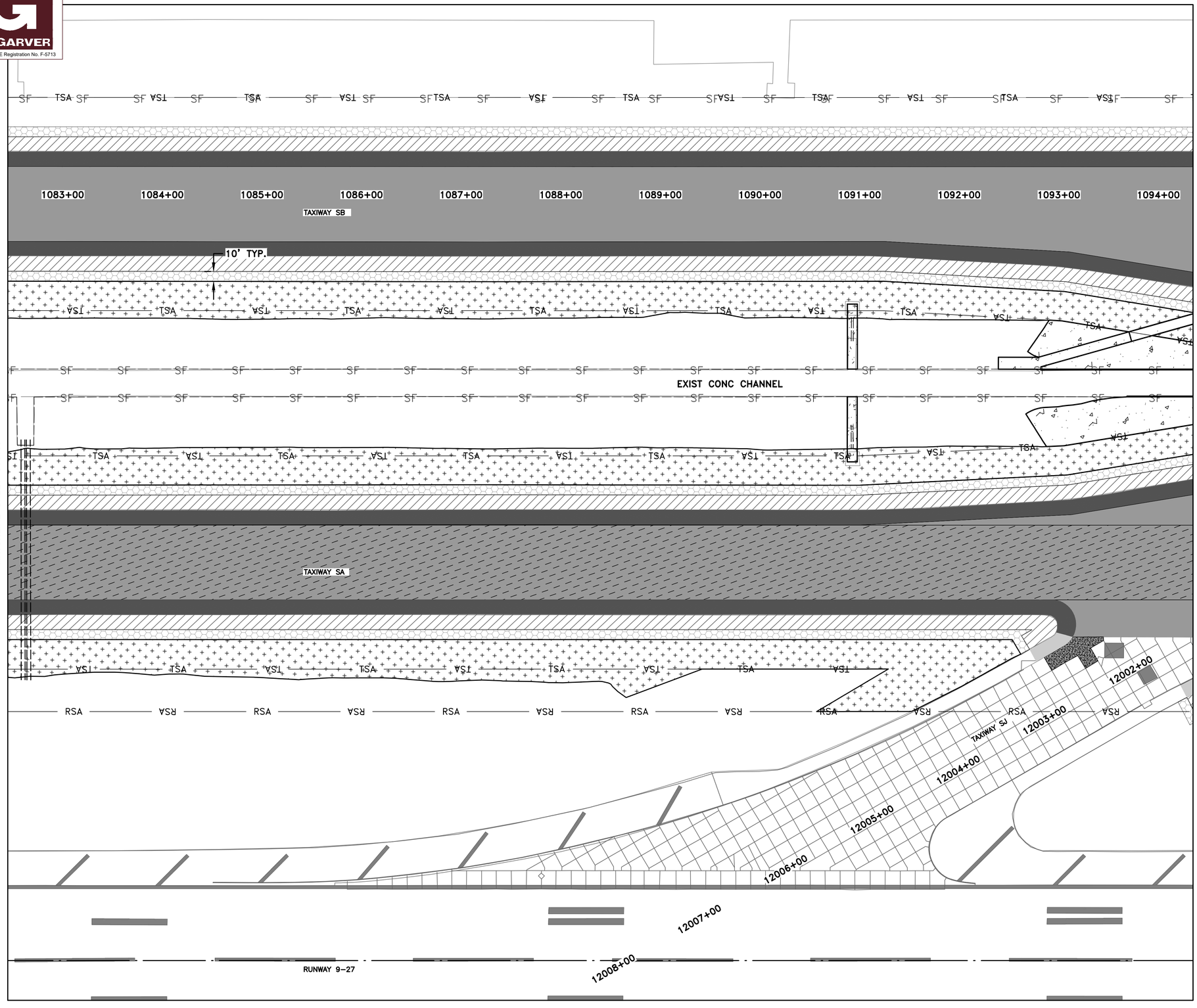
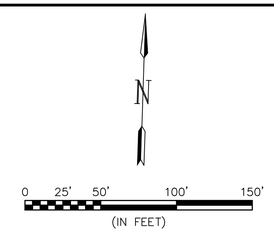
GARVER
TBPE Registration No. F-5713





NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
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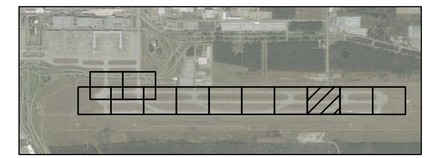
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN X

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.10

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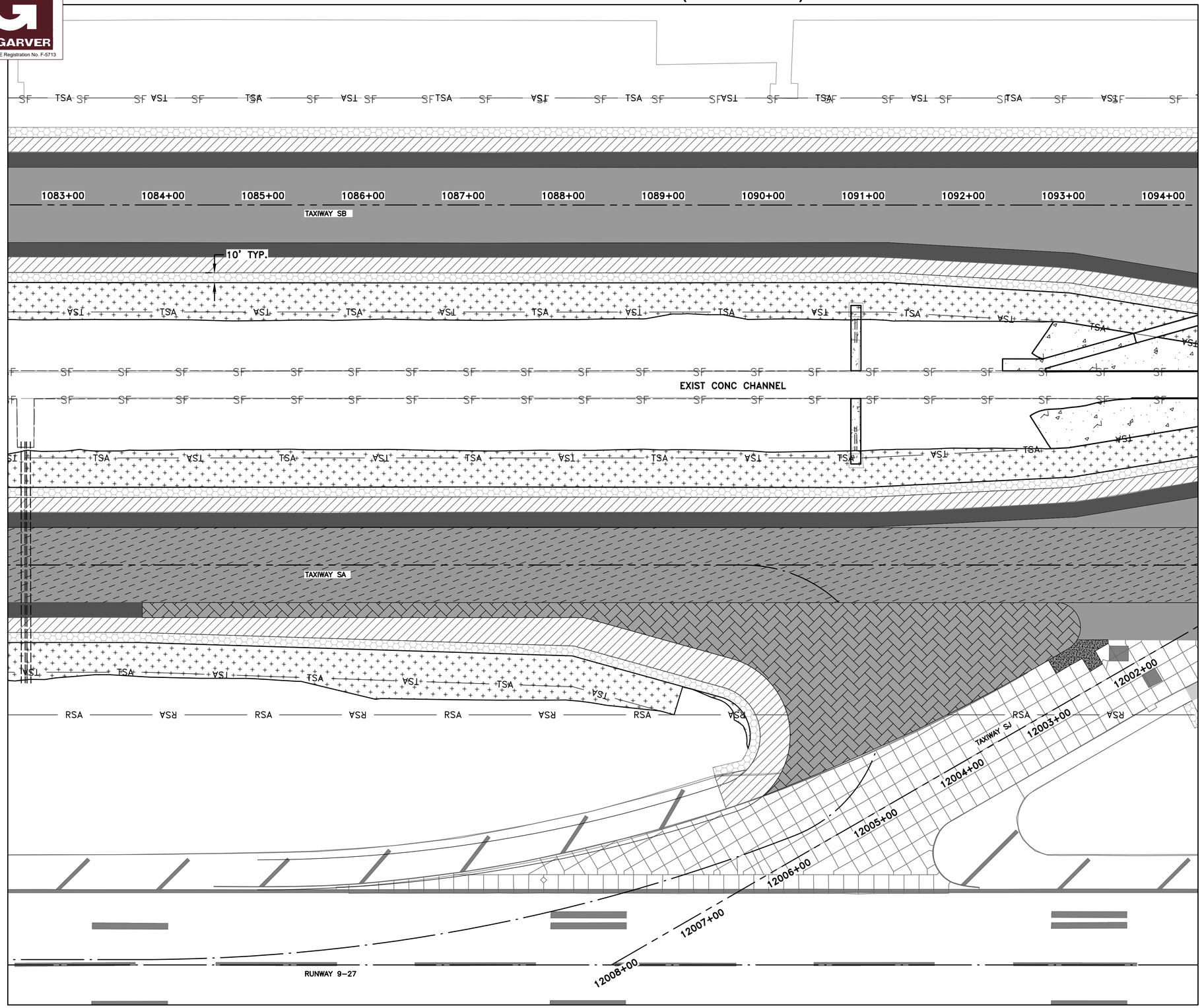

MATCHLINE SHEET C09.09

MATCHLINE SHEET C09.11

0 25' 50' 100' 150'
(IN FEET)

NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
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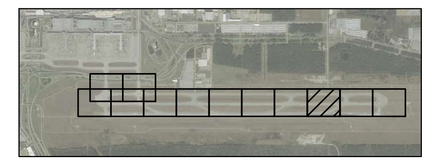
- 2 / C09.13 PROPOSED SODDING
- FD-TYPE II — 3 / C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN X (ADDITIVE ALTERNATE 1)

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.10A

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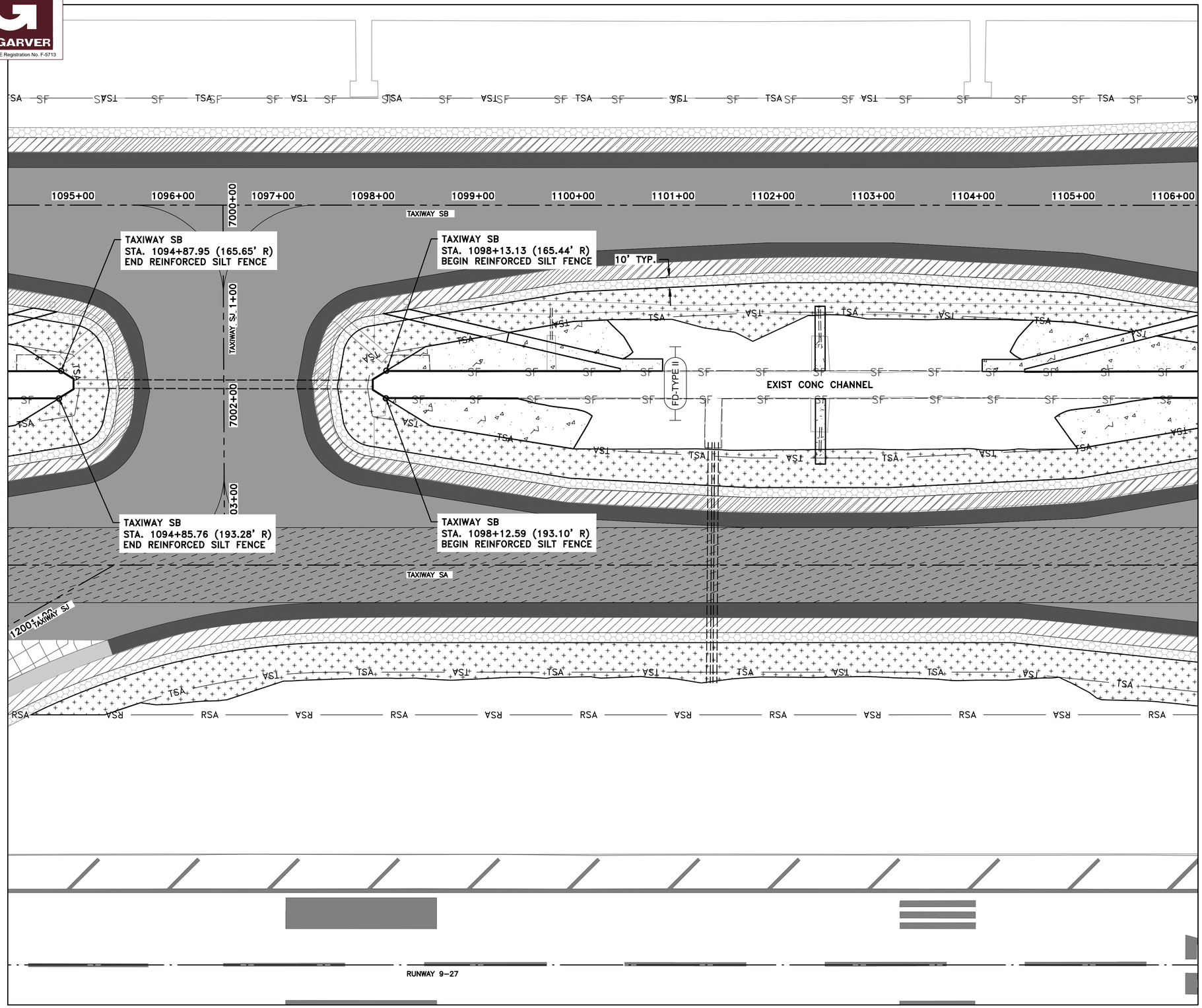
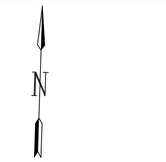
TBPE Registration No. F-5713





NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
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- —TOFA— TAXIWAY OBJECT FREE AREA
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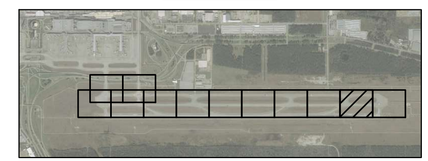
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN XI

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.11

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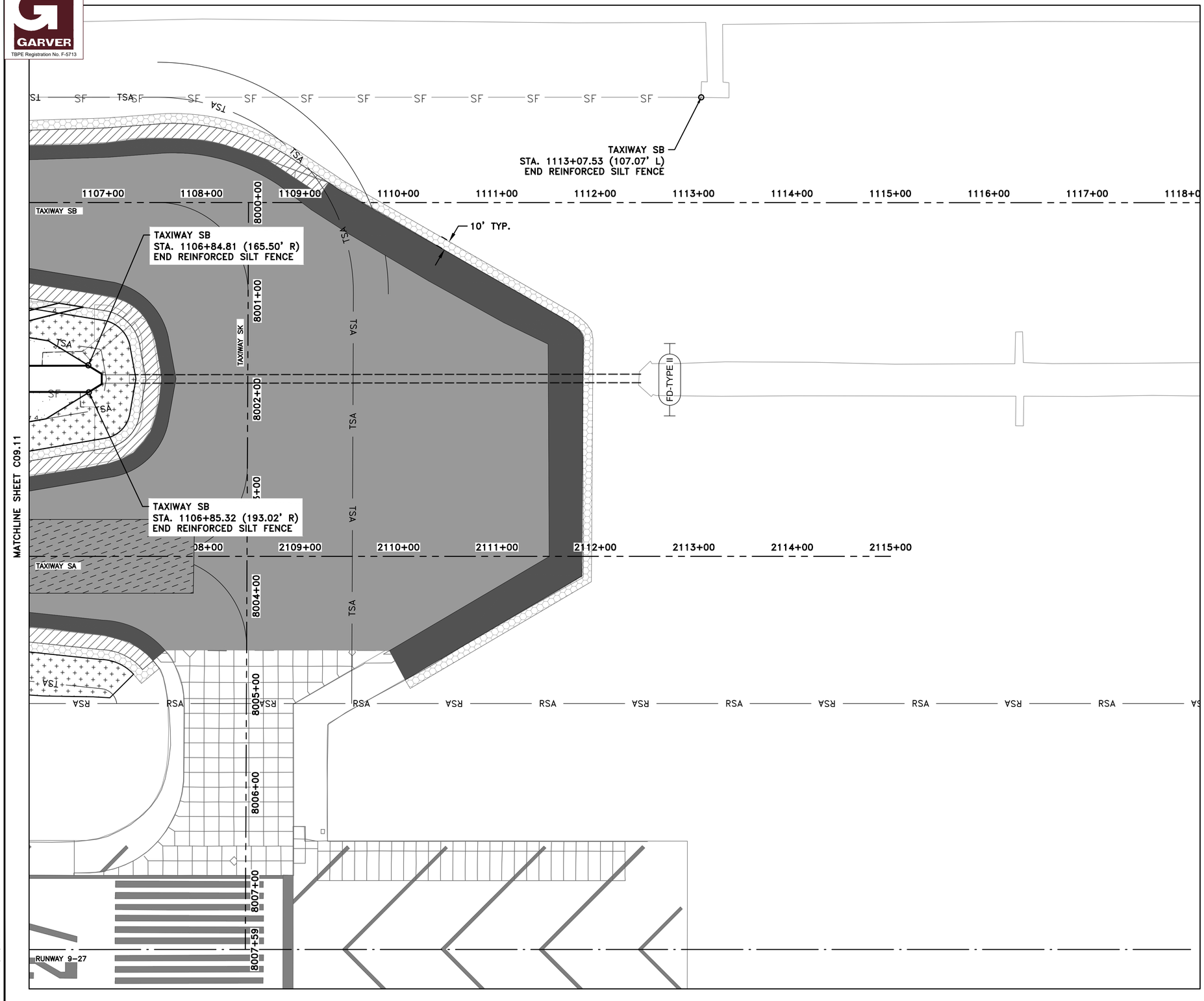
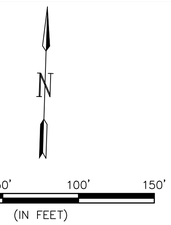
GARVER
TBPE Registration No. F-5713





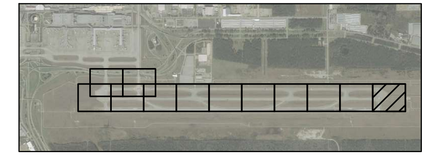
NOTES:

1. SEE SWPPP DETAILS ON SHEET C09.13

LEGEND

- PROPOSED ASPHALT PAVEMENT MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED FULL DEPTH ASPHALT SHOULDER WIDENING
- PROPOSED FULL DEPTH CONCRETE SECTION
- EXISTING PAVEMENT TO REMAIN (DO NOT DISTURB)
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- SF — 1 C09.13 REINFORCED SILT FENCE
- 2 C09.13 PROPOSED SODDING
- FD-TYPE II — 3 C09.13 FILTER DAM TYPE II
- PROPOSED HYDROSEEDING
- PROPOSED CONCRETE SLOPE PAVING

KEYMAP



HOUSTON AIRPORTS

HT&J LLC
10351 STELLA LINK RD
HOUSTON, TEXAS 77025
(832) 767-0090
TBPE FIRM No. F-14087

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP PLAN XII

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	1" = 50'
DATE:	11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.12

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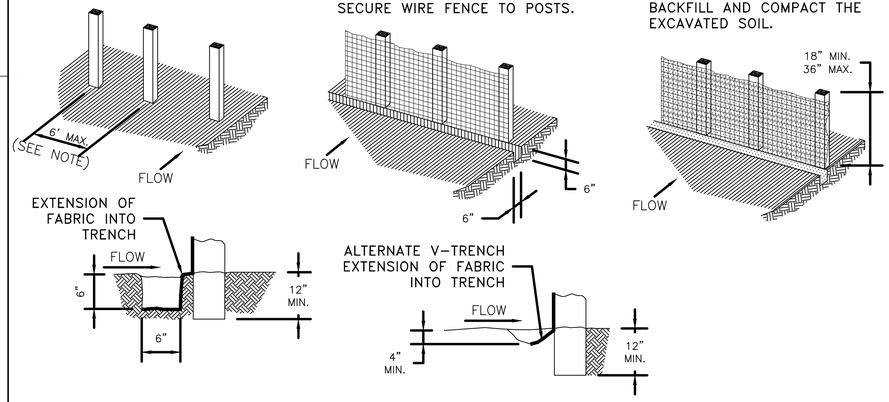
PLOT DATE: 3/10/2022 11:08:43 AM

GARVER
TBPE Registration No. F-5713

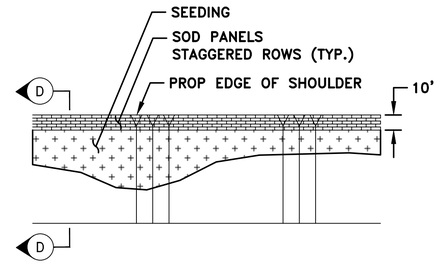
1. SET POSTS AT REQUIRED SPACING
2. EXCAVATE A 6"x6" TRENCH UPSLOPE ALONG THE LINE OF POSTS AND SECURE WIRE FENCE TO POSTS.
3. ATTACH FILTER FABRIC TO POSTS AND EXTEND IT INTO THE TRENCH. BACKFILL AND COMPACT THE EXCAVATED SOIL.



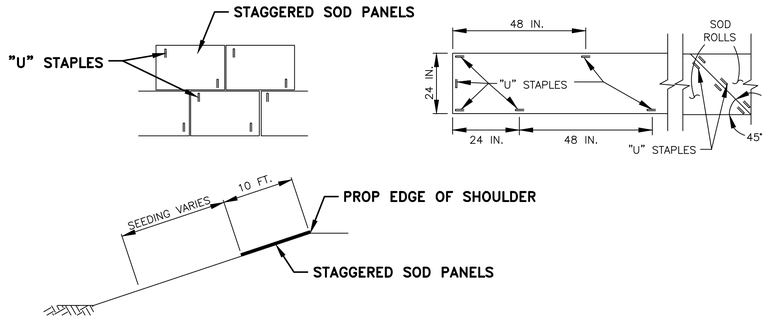
GENERAL NOTES

1. SILT FENCE PER SPECIFICATIONS C-102.
2. SECURELY FASTEN MESH FENCING TO POSTS WITH STAPLES OR TIE WIRES.
3. SECURELY FASTEN FILTER FABRIC TO MESH FENCING.
4. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, OVERLAP 6 INCHES AT A POST, FOLD TOGETHER, AND ATTACH TO A POST.
5. REMOVE SEDIMENT DEPOSITS WHEN SILT REACHES ONE-THIRD OF THE HEIGHT OF THE FENCE IN DEPTH.

1 SILT FENCE DETAIL
C09.13 SCALE: NONE



PLAN

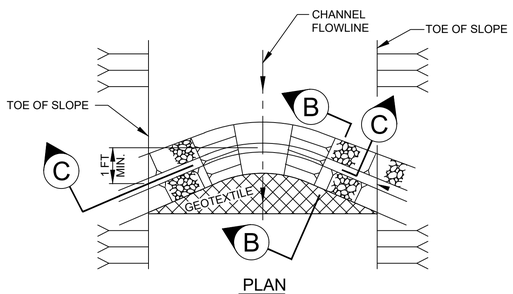


D SECTION

GENERAL NOTES

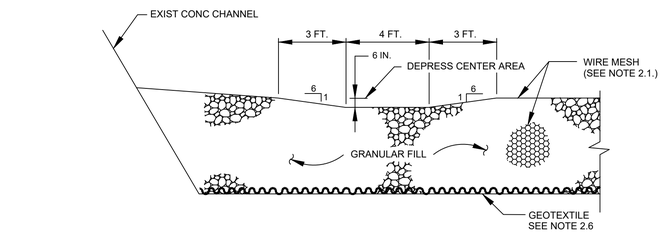
1. SEEDING PER SPECIFICATIONS T-901
2. SODDING PER SPECIFICATIONS T-904
3. FOR SOD ROLLS, 24 INCHES WIDE, PLACE STAPLES ON 48 INCH CENTERS NEAR THE EDGES. STAGGER STAPLES ON OPPOSING SIDES. PLACE ADDITIONAL STAPLES IN CORNERS AT ENDS OF ROLL AND ONE IN MIDDLE AT BOTH ENDS OF ROLL.

2 SODDING DETAIL
C09.13 SCALE: NONE

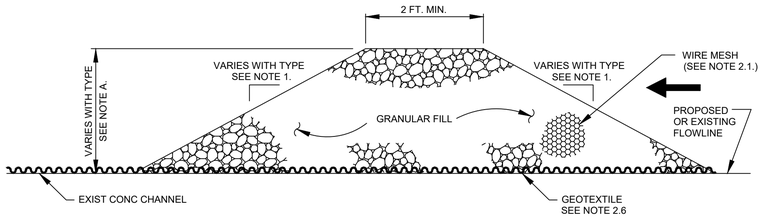


PLAN

3 FILTER DAM DETAIL
C09.13 SCALE: NTS



C SECTION



B SECTION

GENERAL NOTES

1. FILTER DAM TYPE II
   - 1.1. HEIGHT – 18-36 INCHES. MEASURE VERTICALLY FROM EXISTING GROUND TO TOP OF FILTER DAM
   - 1.2. TOP WIDTH – 2 FEET (MINIMUM).
   - 1.3. SLOPES – 2:1 (MAXIMUM).
2. CONSTRUCT FILTER DAMS ACCORDING TO THE FOLLOWING CRITERIA UNLESS SHOWN OTHERWISE ON THE PLANS
   - 2.1. SECURE WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1 INCH DIAMETER HEXAGONAL OPENINGS.
   - 2.2. GRANULAR FILL
     - 2.2.1. PLACE ON MESH TO HEIGHT AND SLOPES SHOWN ON PLANS OR AS SPECIFIED BY THE ENGINEER.
     - 2.2.2. 3-5 INCHES FOR ROCK FILTER DAM TYPE 2. REFER TO GRANULAR FILL IN SPECIFICATION SECTION NO. 02378-RIPRAP AND GRANULAR FILL
   - 2.3. WIRE MESH: FOLD AT UPSTREAM SIDE OVER GRANULAR FILL AND TIGHTLY SECURE TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS.
   - 2.4. IN STREAM: SECURE OR STAKE MESH TO STREAM BED PRIOR TO AGGREGATE PLACEMENT.
   - 2.5. SEE SPECIFICATION SECTION NO. 02364-FILTER DAMS
   - 2.6. GEOTEXTILE

MIN. AOS	SIEVE NO.	120 MIN
MAX. AOS	SIEVE NO.	50 MAX
WEIGHT	OZ/SY	4OZ MIN.

HOUSTON AIRPORTS

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TBPE FIRM No. F-14087

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SWPPP DETAILS

PROJECT MGR:	NRP
DESIGNER:	HSC
DRAWN BY:	KWM
CHECK BY:	NRP
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
NAWA RAJ PANTHI
103690
LICENSED
PROFESSIONAL ENGINEER
11/2/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C09.13

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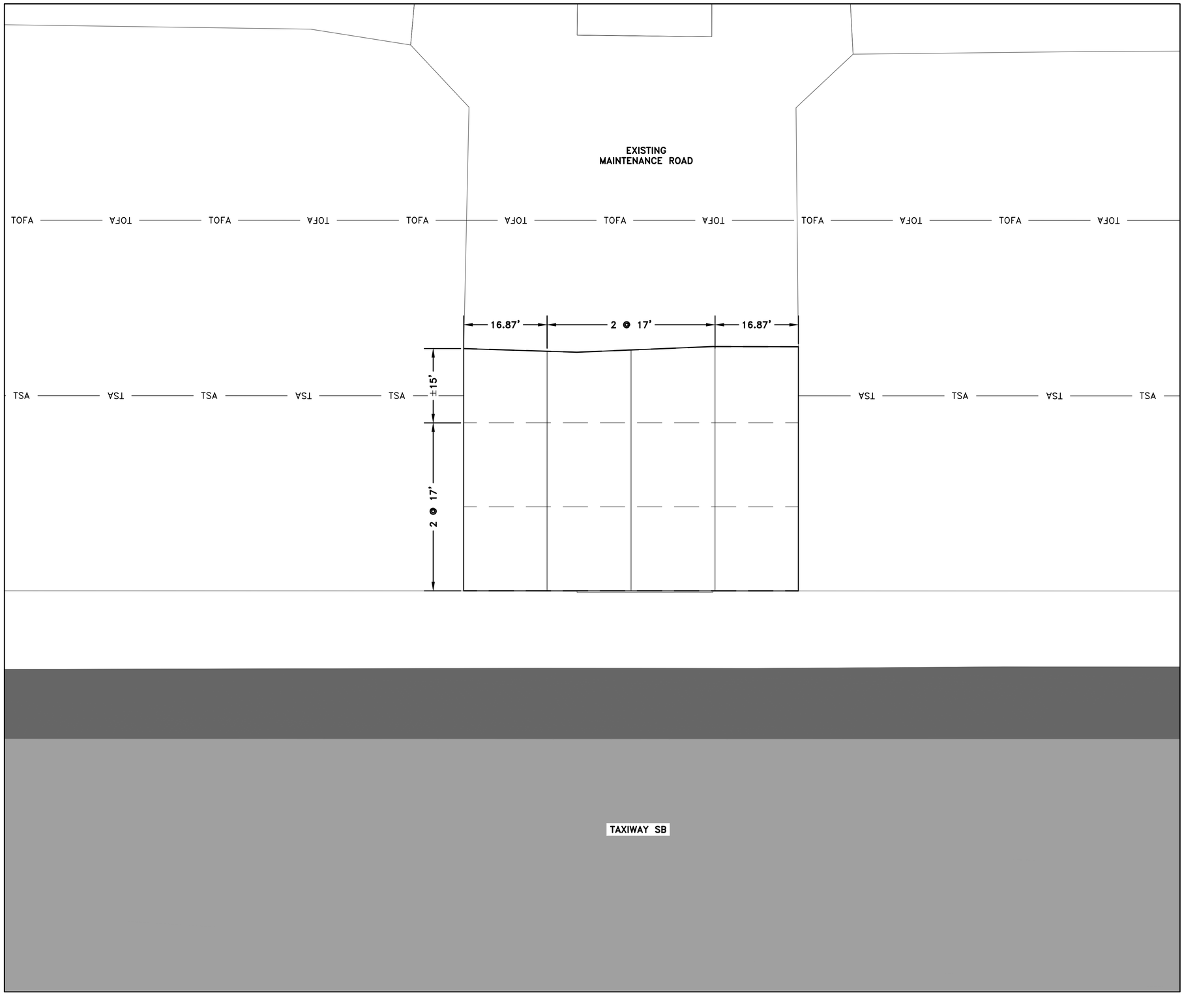

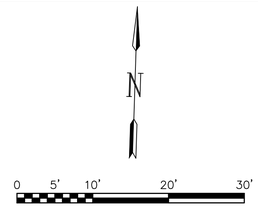

LEGEND

- PROPOSED ASPHALT TAXIWAY MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER CONSTRUCTION
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TYPE "A–1" REINFORCED ISOLATION JOINT
- TYPE "C" DOWELED CONTRACTION JOINT
- TYPE "E" DOWELED CONSTRUCTION JOINT

NOTES:

1. SEE SHEET C10.04 FOR JOINT DETAILS AND ADDITIONAL INFORMATION.
2. ALL SAWCUTS WITHIN 2' OF THE PAVEMENT EDGE SHALL BE CUT PERPENDICULAR TO THE EDGE OF THE PAVEMENT UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. ADJUSTMENTS TO THE TYPES OF JOINTS SHOWN MAY BE MADE BASED ON THE CONTRACTOR'S CONSTRUCTION METHODS. ANY PROPOSED JOINT CHANGES SHALL BE SUBMITTED TO THE ENGINEER APPROVAL A MINIMUM OF 14 DAYS PRIOR TO PAVEMENT CONSTRUCTION.
4. SLABS SHALL BE EVENLY SPACED THROUGHOUT THE SHOWN DIMENSION.

KEYMAP

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ARFF DRIVEWAY JOINT PLAN

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:10
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C10.01

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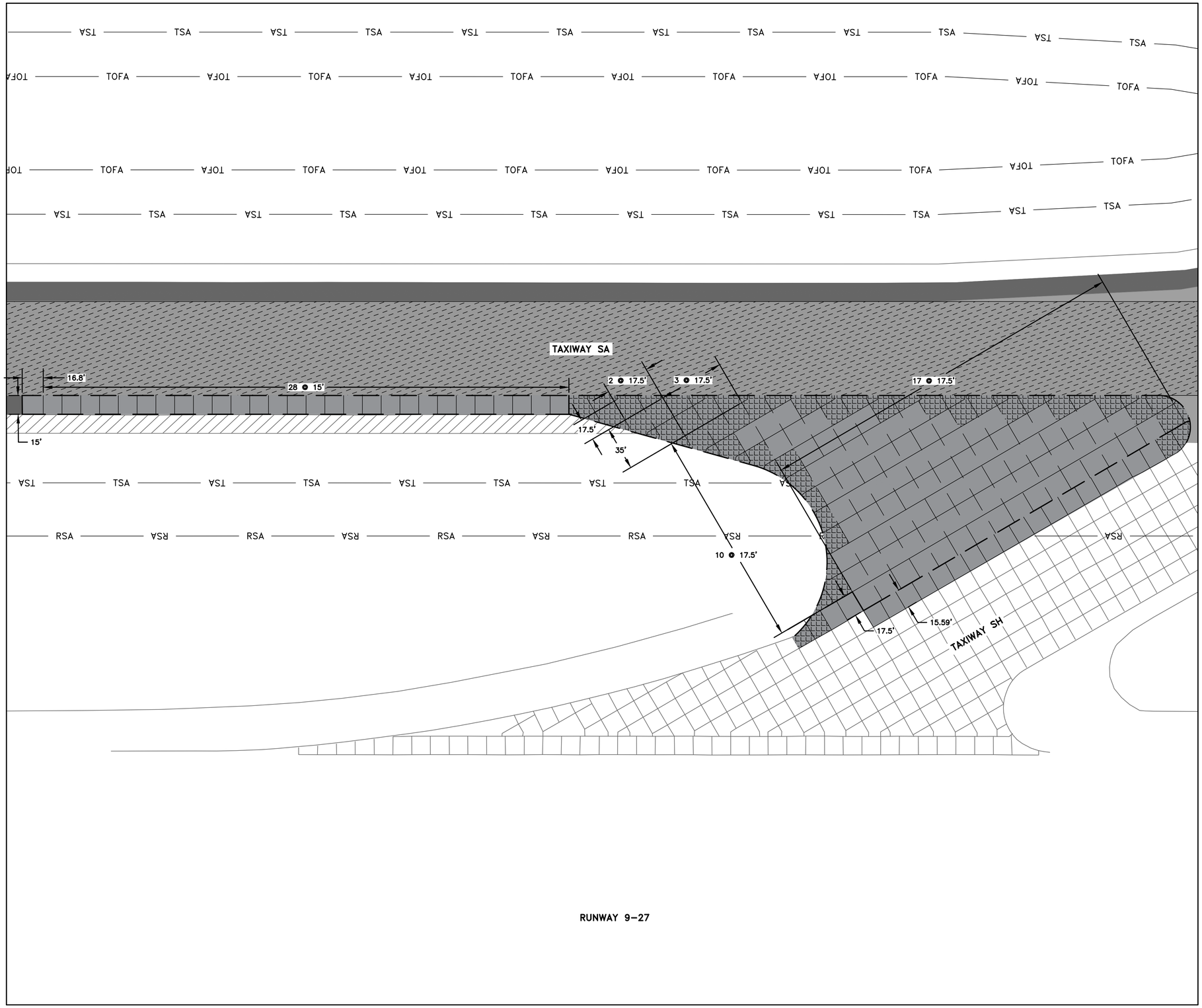
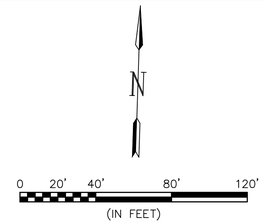


RUNWAY 9–27



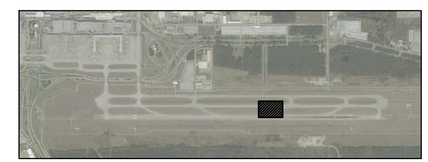
LEGEND

- PROPOSED ASPHALT TAXIWAY MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED DEEP ASPHALT TAXIWAY MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER CONSTRUCTION
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- PROPOSED REINFORCED CONCRETE PANEL
- PROPOSED FULL DEPTH CONCRETE PAVEMENT
- RSA — RUNWAY SAFETY AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TYPE "A–1" REINFORCED ISOLATION JOINT
- TYPE "C" DOWELED CONTRACTION JOINT
- TYPE "E" DOWELED CONSTRUCTION JOINT

NOTES:

1. SEE SHEET C10.01 FOR NOTES.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 1 - JOINT PLAN I

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 40'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C10.02

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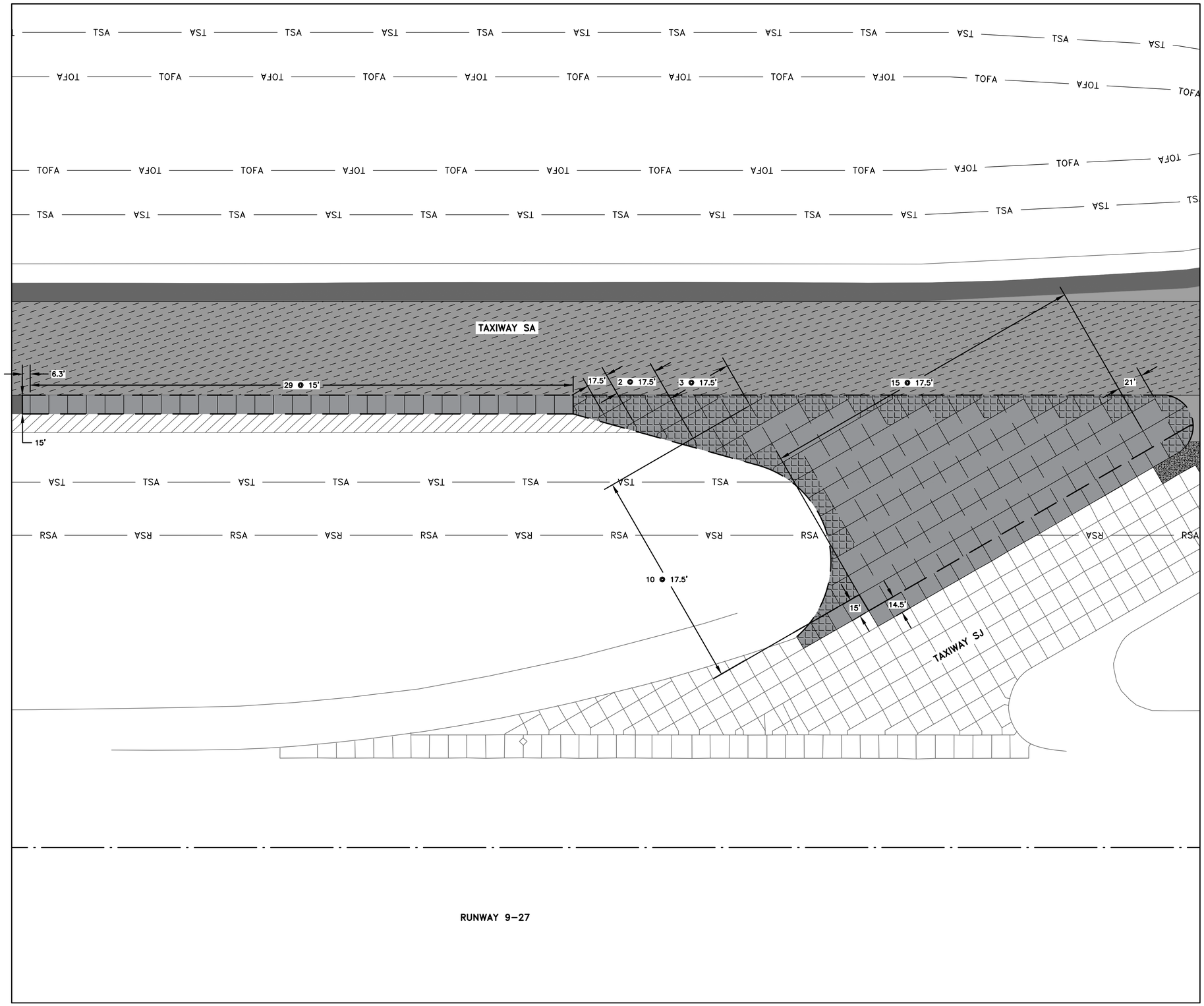

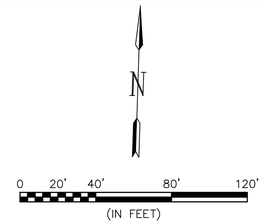

LEGEND

- PROPOSED ASPHALT TAXIWAY MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER MILL & OVERLAY
- PROPOSED DEEP ASPHALT TAXIWAY MILL & OVERLAY
- PROPOSED ASPHALT SHOULDER CONSTRUCTION
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- PROPOSED REINFORCED CONCRETE PANEL
- PROPOSED FULL DEPTH CONCRETE PAVEMENT
- RSA — RUNWAY SAFETY AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA
- TYPE "A–1" REINFORCED ISOLATION JOINT
- TYPE "C" DOWELED CONTRACTION JOINT
- TYPE "E" DOWELED CONSTRUCTION JOINT

NOTES:

1. SEE SHEET C10.01 FOR NOTES.

KEYMAP

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HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ADDITIVE ALTERNATE 1 - JOINT PLAN II

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 40'
DATE:	11/02/2023

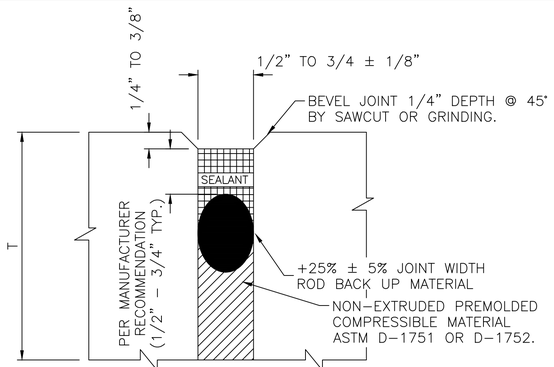
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

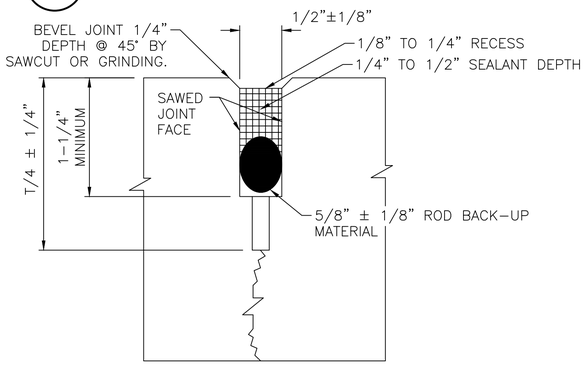
APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

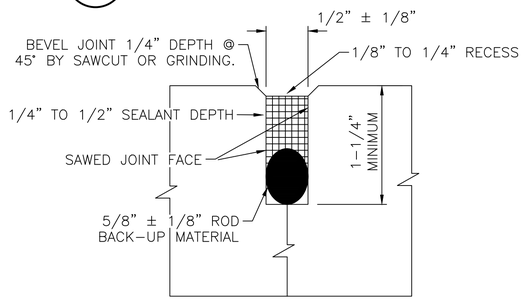
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C10.03



1 C10.04 **DETAIL 1 – ISOLATION JOINTS**
SCALE: NONE



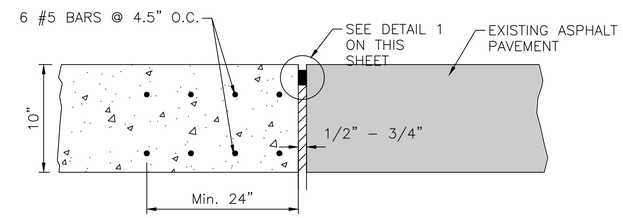
2 C10.04 **DETAIL 2 – CONTRACTION JOINTS**
SCALE: NONE

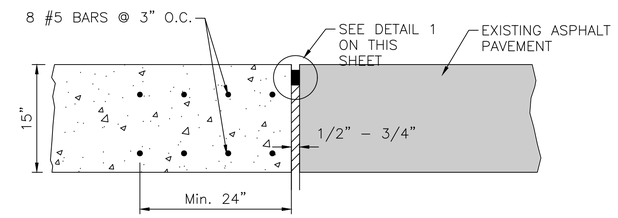


3 C10.04 **DETAIL 3 – CONSTRUCTION JOINTS**
SCALE: NONE

4 C10.04 **DOWEL BAR SPECIFICATIONS**
SCALE: NONE

SLAB THICKNESS	DOWEL DIAMETER	DOWEL LENGTH	DOWEL SPACING
6" TO 7"	3/4"	18"	12"
7.5" TO 12"	1"	18"	12"
12.5" TO 16"	1 1/4"	20"	15"
16.5" TO 20"	1 1/2"	20"	18"
20.5" TO 24"	2"	24"	18"

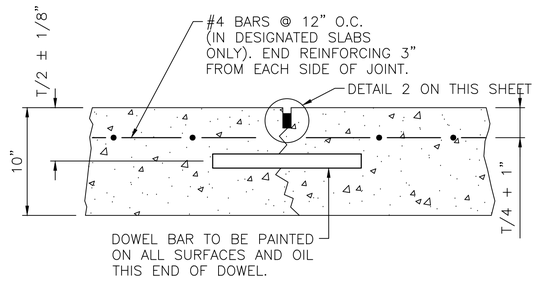




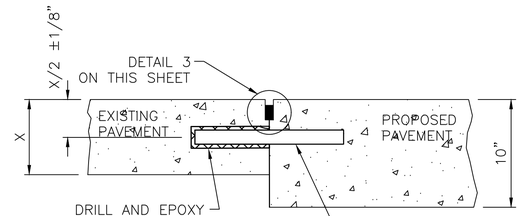
NOTE:

1. REINFORCING STEEL SHALL ONLY BE INSTALLED IN SLABS IDENTIFIED IN THE JOINT LAYOUT PLAN SHEETS.

5 C10.04 **TYPE A–1 REINFORCED ISOLATION JOINT AT EXISTING ASPHALT PAVEMENT**
SCALE: NONE



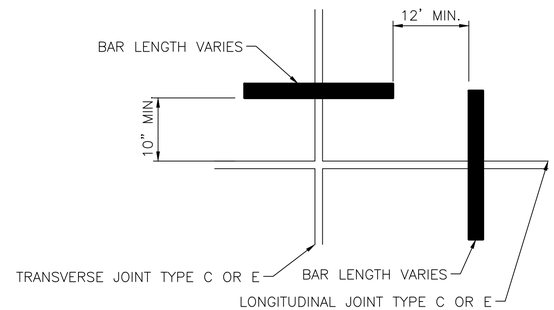
6 C10.04 **TYPE C – DOWELED CONTRACTION JOINT**
SCALE: NONE



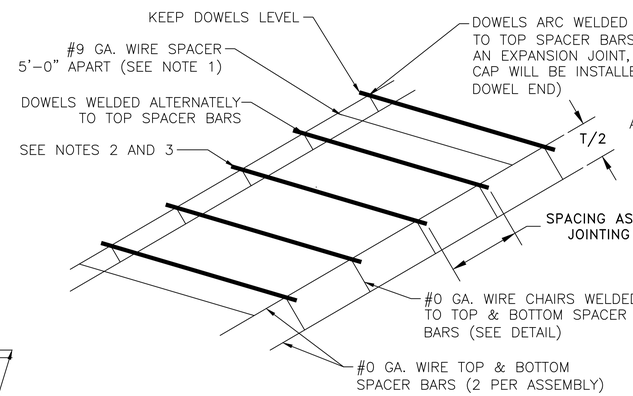
NOTE:

THICKNESS "X" OF EXISTING PAVEMENT IS UNKNOWN.

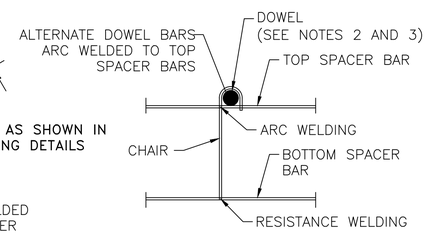
7 C10.04 **TYPE E – DOWELED CONSTRUCTION JOINT AT EXISTING/PROPOSED PAVEMENT**
SCALE: NONE



8 C10.04 **DOWEL BARS AT SLAB CORNERS (PLAN VIEW)**
SCALE: NONE



9 C10.04 **DOWEL BASKET ASSEMBLY DETAIL**
SCALE: NONE



9A C10.04 **TYPICAL ELEVATION**
SCALE: NONE

NOTES:

1. #9 GA. WIRE SPACER BAR ARC WELDED TO THE BOTTOM OF TOP SPACER BAR. (MAY BE MECHANICALLY ATTACHED IN LIEU OF WELDING) 3 REQUIRED PER UNIT. THIS WIRE MUST BE CUT OR REMOVE PRIOR TO PLACING PC CONCRETE.
2. DOWEL BAR DIAMETER, LENGTH, AND SPACING SHALL BE AS SHOWN ON THE DIMENSION TABLE.
3. DOWELS SHALL BE EPOXY COATED FULL LENGTH OF DOWEL. A LUBRICANT BOND BREAKER SHALL BE APPLIED TO THE EPOXY COATED DOWEL IMMEDIATELY PRIOR TO PAVING.

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12141 Wickchester Lane
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

JOINT DETAILS I

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1"
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C10.04

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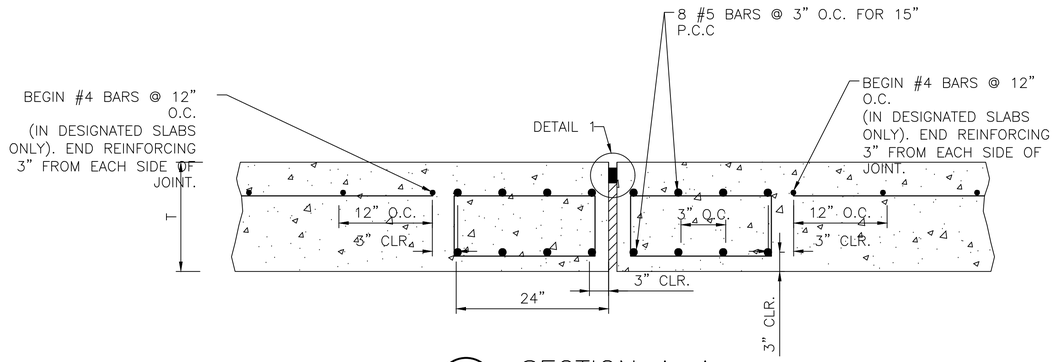
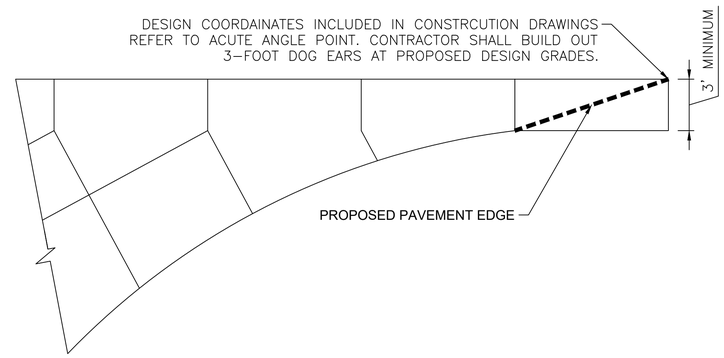


1A C10.05 SECTION A–A
SCALE: NONE



2 C10.05 JOINT FILLET END DETAIL
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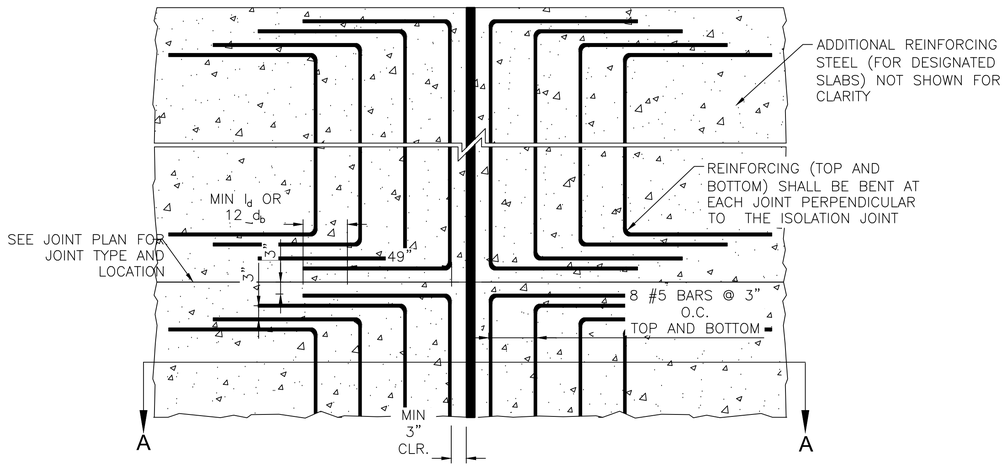
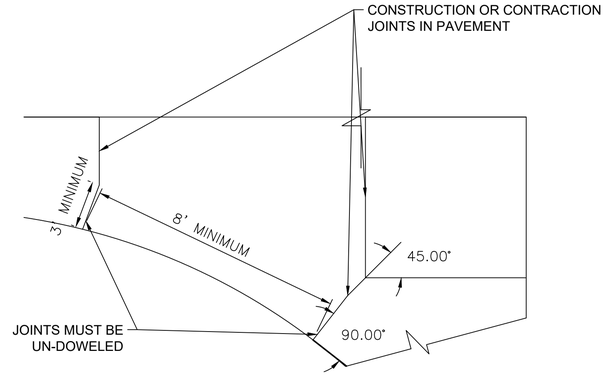
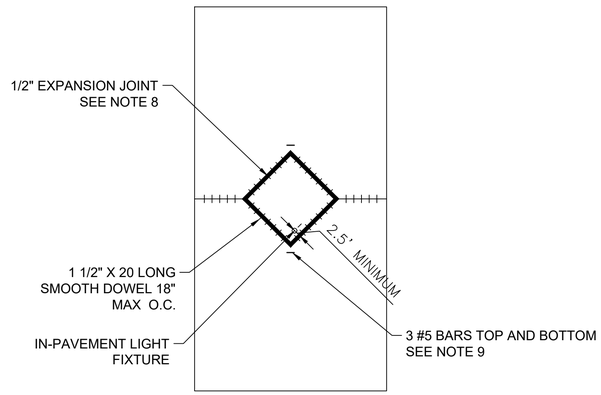


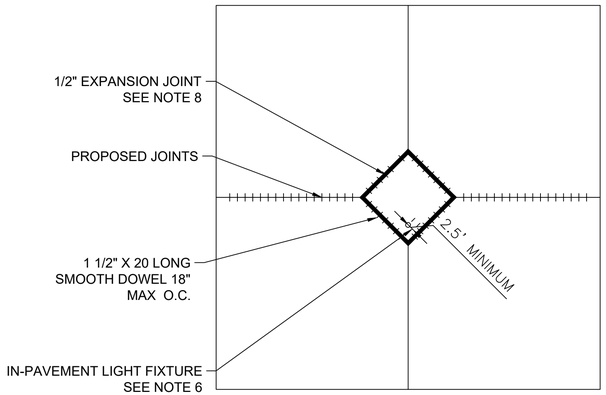
1 C10.05 TYPE A–1 REINFORCED ISOLATION JOINT
SCALE: NONE



3 C10.05 JOINT EDGE DETAIL
SCALE: NONE



4 C10.05 2 PANEL BLOCKOUT (CENTER OF PANEL)
SCALE: NONE



5 C10.05 4 PANEL BLOCKOUT DETAIL
SCALE: NONE

BLOCKOUT NOTES:

1. DRILLING METHOD FOR DOWELS SHALL BE CAPABLE OF MAINTAINING DRILL HOLES PARALLEL TO THE CONCRETE SURFACE AND PERPENDICULAR TO THE JOINT LINE. DRILL HOLES SHALL BE ACCURATELY LAID OUT IN ACCORDANCE WITH SPECIFICATIONS SECTION P-501. DRILL HOLE DIAMETER TO BE OF SUFFICIENT SIZE TO ACCEPT THE TYPE AND SIZE OF DOWEL REQUIRED.
2. AFTER THE DRILLING IS COMPLETE AND PRIOR TO THE INSTALLATION OF DOWELS, THE HOLES SHALL BE THOROUGHLY CLEANED TO REMOVE DRILLING DUST. CONCRETE CHIPS AND ANY MATERIAL DETRIMENTAL TO DEVELOPING BOND.
3. DOWEL CLOSEST TO BLOCKOUT MAY HAVE TO BE ADJUSTED TO MAINTAIN MINIMUM SPACING AS THE BLOCKOUT IS CONSIDERED A JOINT.
4. THE ACTUAL LOCATIONS OF EXISTING DOWELS IN THE FIELD MAY VARY. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IF THE DOWELS VARY FROM THESE PLANS MORE THAN 1/2"
5. DOWELS SHALL BE NO CLOSER THAN 10" TO THE JOINT
6. CONTRACTOR SHALL MAINTAIN A MINIMUM 2.5' CLEARANCE BETWEEN THE CENTER OF LIGHT FIXTURE AND JOINT
7. WHEN A BLOCKOUT IS USED ON A PLANNED CONTRACTION JOINT. THE JOINT WILL BE CHANGED TO A CONSTRUCTION JOINT.
8. PROVIDE A 1/2" PREMOLDED EXPANSION JOINT MATERIAL CONTINUOUS AROUND BLOCKOUT. PROVIDE POURED SEALER FOR TOP 1" SPACE.
9. (3) #5 BARS 30" LONG, TOP AND BOTTOM, CENTERED ON CORNER OF BLOCKOUT AT 4", 8", AND 12" FROM CORNER. TOP BARS SHALL BE 5 1/4" BELOW SURFACE AND BOTTOM BARS SHALL BE 5 1/4" ABOVE BOTTOM OF SLAB

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

JOINT DETAILS II

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 1"
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C10.05

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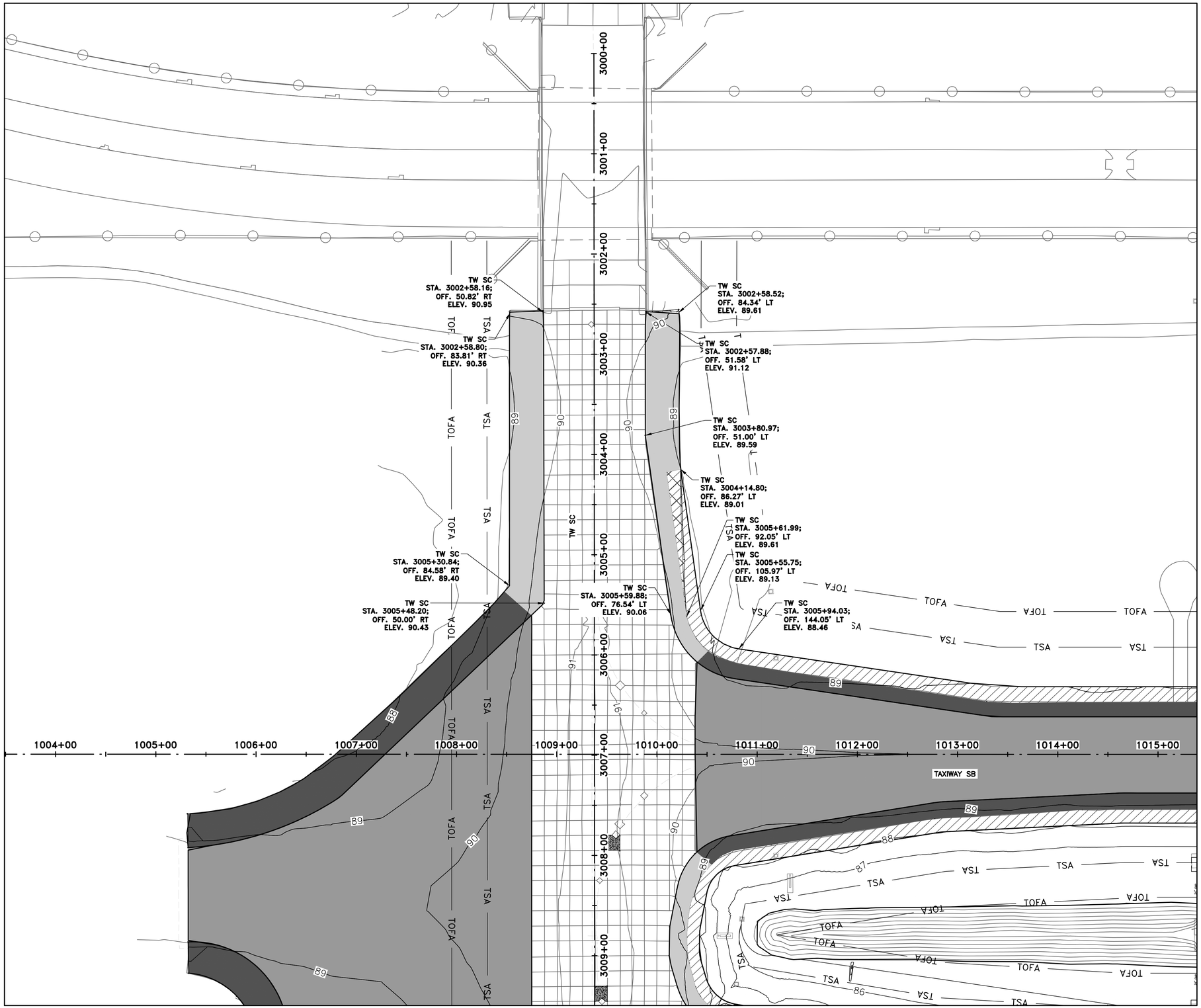


MATCHLINE SHEET C11.02

MATCHLINE SHEET C11.03

N

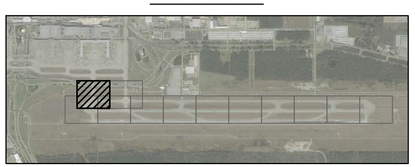
0 25' 50' 100' 150'

(IN FEET)

LEGEND

	PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
	PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
	PROPOSED SHOULDER MILL (1") & OVERLAY (2")
	PROPOSED SHOULDER MILL (2") & OVERLAY (2")
	PROPOSED SHOULDER WIDENING
	PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
— RSA —	RUNWAY SAFETY AREA
– ROFA –	RUNWAY OBJECT FREE AREA
— TSA —	TAXIWAY SAFETY AREA
– TOFA –	TAXIWAY OBJECT FREE AREA

KEYMAP



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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN I

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
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PROFESSIONAL ENGINEER

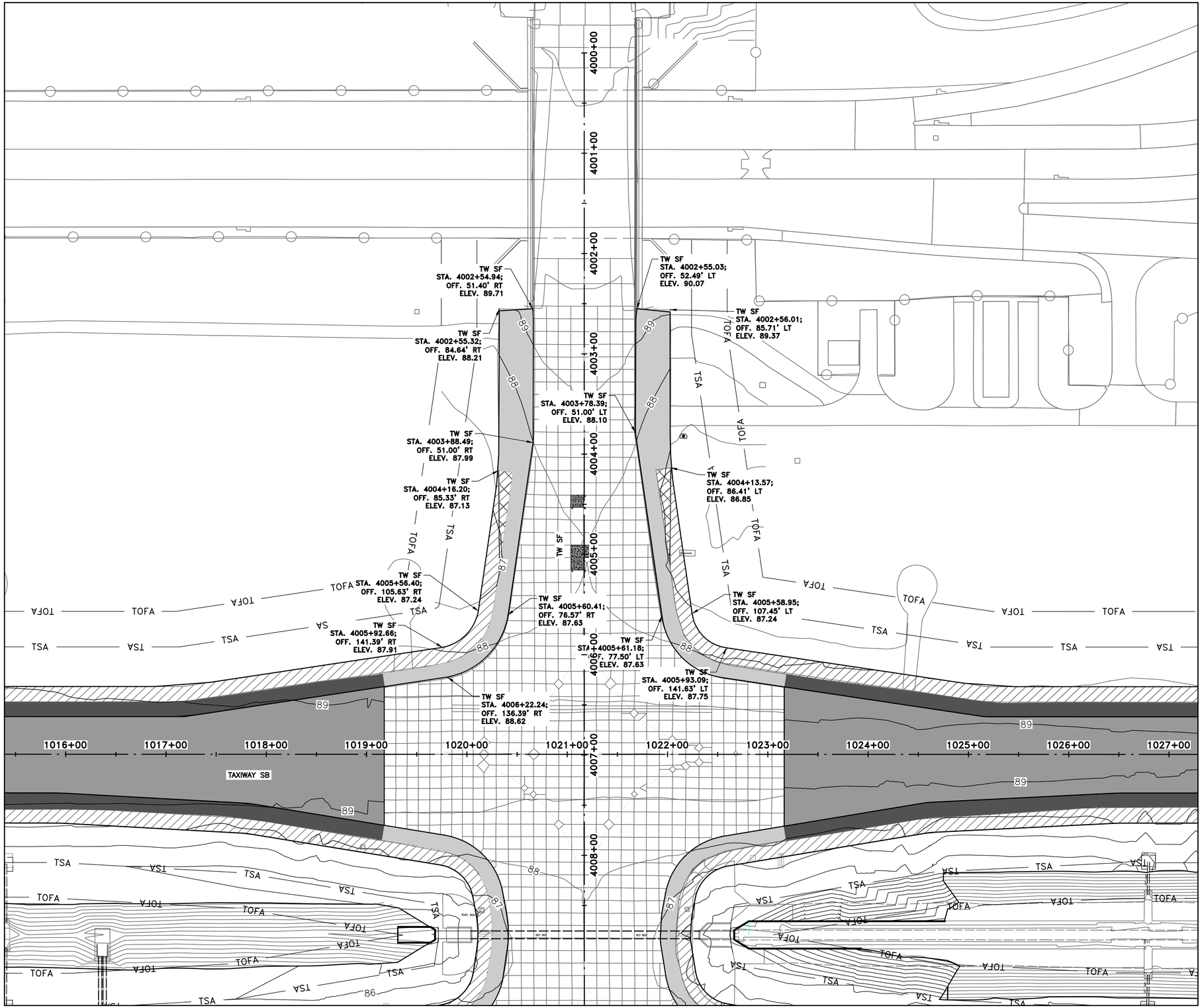
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.01

MATCHLINE SHEET C11.01



MATCHLINE SHEET C11.04

N

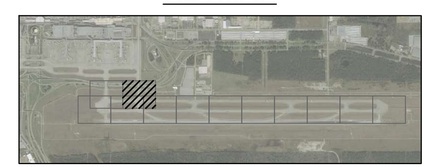
0 25' 50' 100' 150'

(IN FEET)

LEGEND

	PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
	PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
	PROPOSED SHOULDER MILL (1") & OVERLAY (2")
	PROPOSED SHOULDER MILL (2") & OVERLAY (2")
	PROPOSED SHOULDER WIDENING
	PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
— RSA —	RUNWAY SAFETY AREA
– ROFA –	RUNWAY OBJECT FREE AREA
— TSA —	TAXIWAY SAFETY AREA
– TOFA –	TAXIWAY OBJECT FREE AREA

KEYMAP



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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELEVATION PLAN II

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.02

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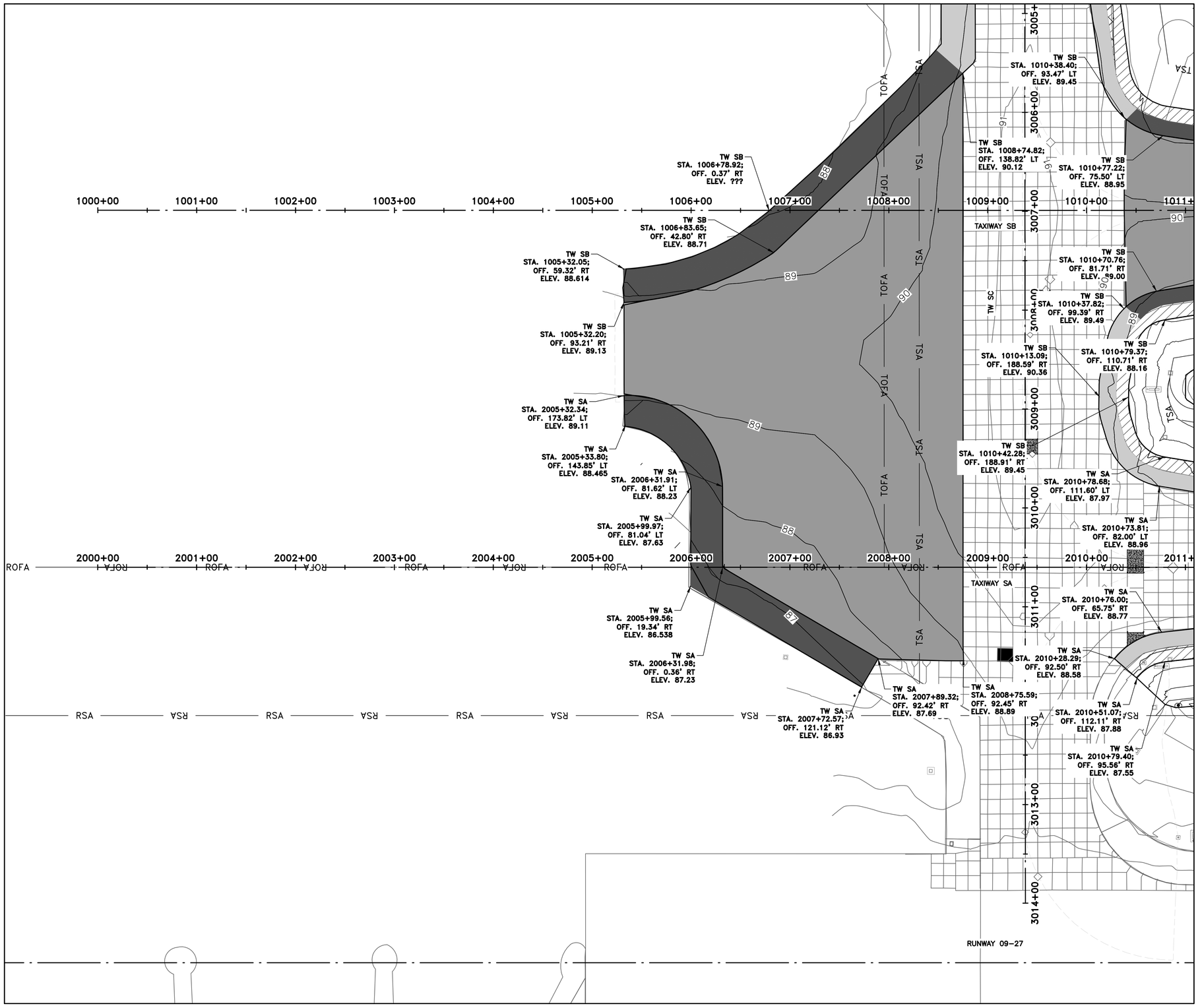
MATCHLINE SHEET C11.01



MATCHLINE SHEET C11.04

N

0 25' 50' 100' 150'

(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- — RSA — RUNWAY SAFETY AREA
- — ROFA — RUNWAY OBJECT FREE AREA
- — TSA — TAXIWAY SAFETY AREA
- — TOFA — TAXIWAY OBJECT FREE AREA

KEYMAP

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PLOT DATE: 3/10/2022 11:09:43 AM

HOUSTON AIRPORTS

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN III

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	Custom
DATE:	11/02/2023

STATE OF TEXAS
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DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C11.03

MATCHLINE SHEET C11.02

MATCHLINE SHEET C11.03

MATCHLINE SHEET C11.05

TW SB STA. 1013+36.77; OFF. 67.50' LT ELEV. 89.11

TW SB STA. 1017+16.13; OFF. 67.50' LT ELEV. 88.70

TW SB STA. 1019+17.91; OFF. 67.56' LT ELEV. 88.78

TW SB STA. 1013+34.57; OFF. 37.50' LT ELEV. 89.61

TW SB STA. 1017+18.38; OFF. 37.50' LT ELEV. 89.28

TW SB STA. 1019+17.41; OFF. 70.82' RT ELEV. 88.80

TW SB STA. 1012+81.10; OFF. 47.50' RT ELEV. 89.30

TW SB STA. 1014+62.98; OFF. 38.50' RT ELEV. 89.51

TW SB STA. 1015+94.51; OFF. 38.50' RT ELEV. 89.38

TW SB STA. 1017+83.11; OFF. 49.00' RT ELEV. 89.08

TW SB STA. 1019+77.49; OFF. 80.58' RT ELEV. 88.58

TW SB STA. 1022+53.80; OFF. 82.00' RT ELEV. 88.31

TW SB STA. 1022+59.22; OFF. 111.51' RT ELEV. 87.12

TW SB STA. 1022+27.53; OFF. 143.95' RT ELEV. 86.40

TW SB STA. 1012+84.26; OFF. 77.38' RT ELEV. 88.15

TW SB STA. 1014+63.72; OFF. 68.50' RT ELEV. 88.29

TW SB STA. 1015+93.68; OFF. 68.50' RT ELEV. 88.28

TW SB STA. 1017+79.86; OFF. 78.87' RT ELEV. 87.81

TW SB STA. 1021+98.02; OFF. 138.52' RT ELEV. 87.34

TW SB STA. 1019+73.59; OFF. 110.34' RT ELEV. 87.79

TW SB STA. 1020+40.17; OFF. 171.37' RT ELEV. 87.06

TW SB STA. 1020+11.10; OFF. 172.81' RT ELEV. 86.12

TW SB STA. 1021+93.57; OFF. 191.16' RT ELEV. 86.83

TW SA STA. 2020+35.63; OFF. 135.40' LT ELEV. 87.01

TW SA STA. 2022+23.52; OFF. 172.66' LT ELEV. 86.14

TW SA STA. 2012+79.32; OFF. 78.60' LT ELEV. 87.72

TW SA STA. 2014+60.37; OFF. 67.75' LT ELEV. 88.03

TW SA STA. 2016+08.33; OFF. 67.50' LT ELEV. 88.17

TW SA STA. 2017+74.08; OFF. 77.35' LT ELEV. 88.11

TW SA STA. 2019+74.98; OFF. 111.03' LT ELEV. 87.24

TW SA STA. 2021+98.63; OFF. 138.46' LT ELEV. 86.76

TW SA STA. 2020+06.12; OFF. 140.93' LT ELEV. 86.40

TW SA STA. 2022+28.22; OFF. 143.40' LT ELEV. 85.65

TW SA STA. 2012+75.98; OFF. 48.75' LT ELEV. 88.73

TW SA STA. 2013+27.72; OFF. 37.75' RT ELEV. 88.96

TW SA STA. 2014+59.42; OFF. 37.75' LT ELEV. 88.99

TW SA STA. 2016+09.22; OFF. 37.50' LT ELEV. 88.89

TW SA STA. 2017+77.46; OFF. 47.50' LT ELEV. 88.67

TW SA STA. 2019+80.31; OFF. 81.50' LT ELEV. 88.08

TW SA STA. 2022+59.44; OFF. 112.06' LT ELEV. 87.08

TW SA STA. 2022+55.40; OFF. 82.32' LT ELEV. 87.89

TW SA STA. 2020+02.18; OFF. 37.50' RT ELEV. 88.60

TW SA STA. 2013+29.40; OFF. 67.75' RT ELEV. 88.22

TW SA STA. 2020+02.06; OFF. 67.50' RT ELEV. 87.96

TAXIWAY SB

TAXIWAY SA

RUNWAY 09–27

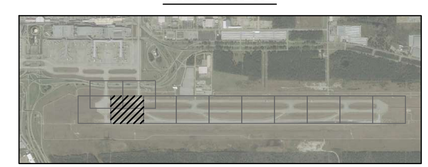
0 25' 50' 100' 150'

(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA

KEYMAP



HOUSTON AIRPORTS

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN IV

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A

A.I.P. NO. XXXX

C.I.P. NO. A-0515

H.A.S. NO. 20C0646A

SHEET NO.

C11.04

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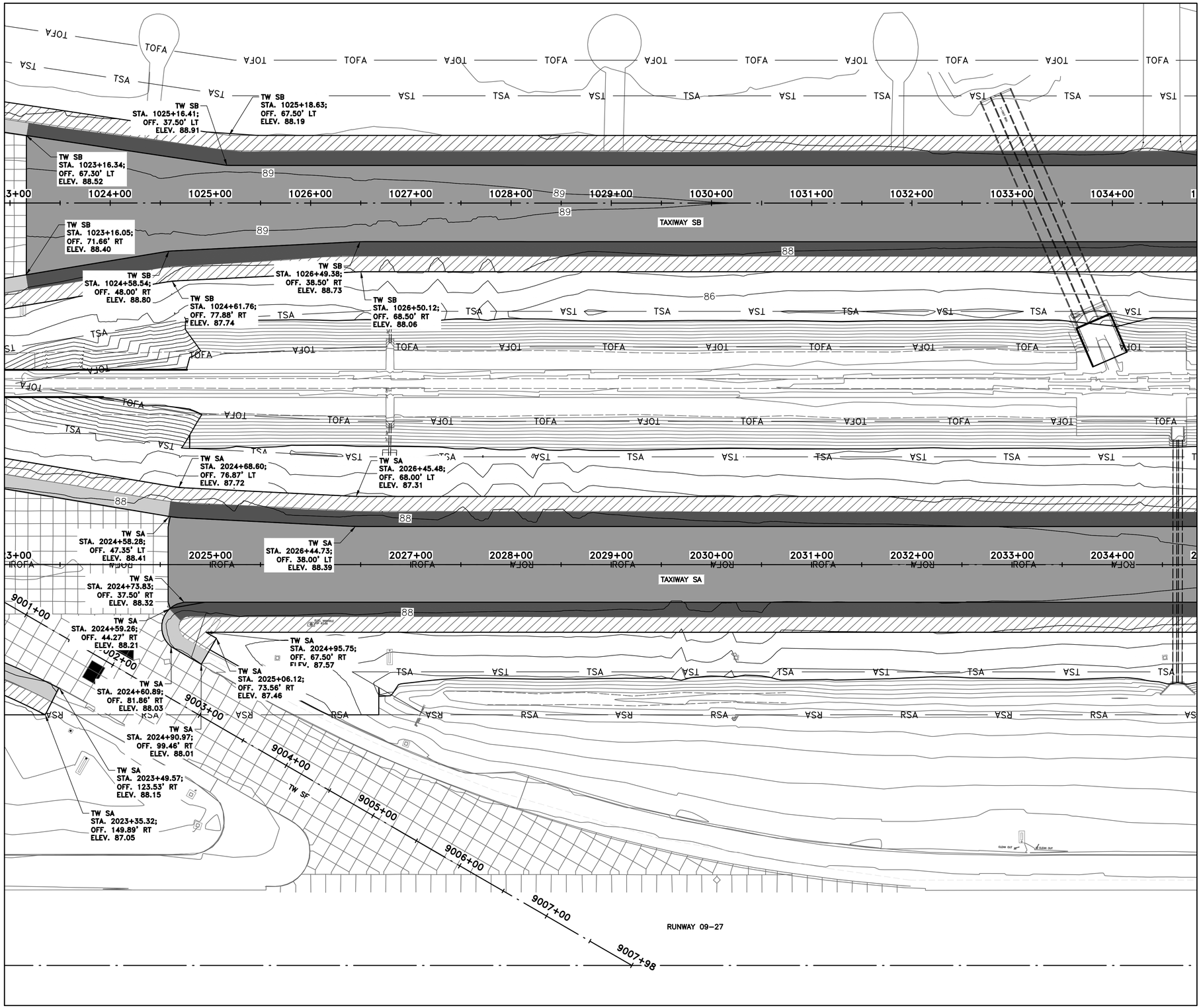

MATCHLINE SHEET C11.04

MATCHLINE SHEET C11.06

N

0 25' 50' 100' 150'

(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
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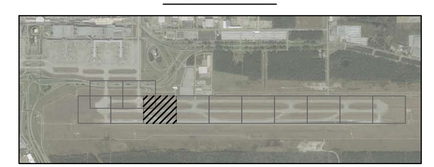
- TOFA — TAXIWAY OBJECT FREE AREA

KEYMAP



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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN V

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.05

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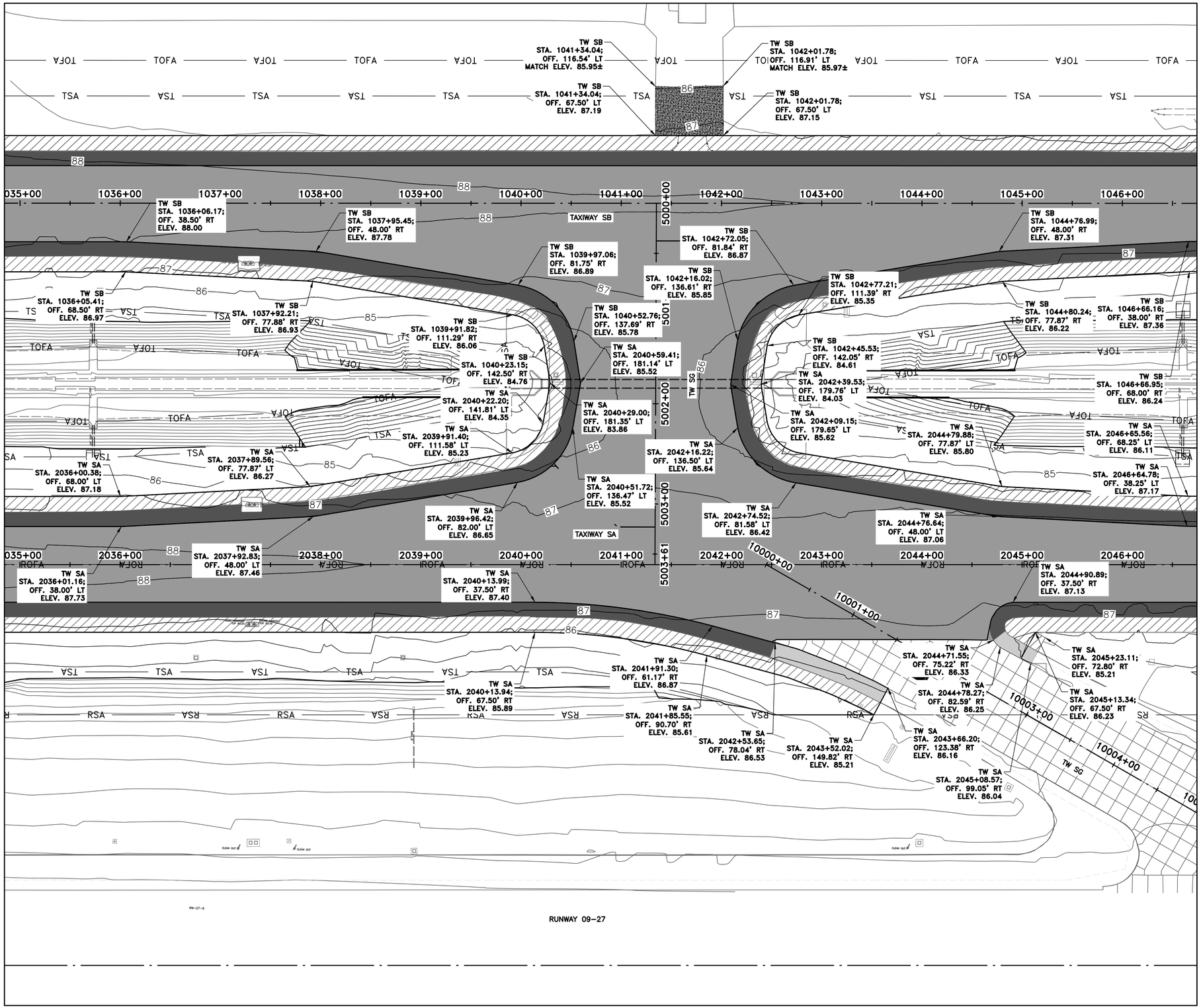


MATCHLINE SHEET C11.05

MATCHLINE SHEET C11.07

N

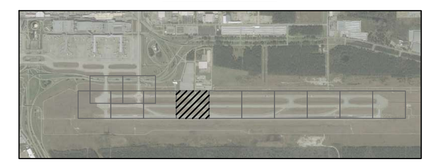
0 25' 50' 100' 150'

(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- — RSA — RUNWAY SAFETY AREA
- – ROFA – RUNWAY OBJECT FREE AREA
- — TSA — TAXIWAY SAFETY AREA
- – TOFA – TAXIWAY OBJECT FREE AREA

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELEVATION PLAN VI

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

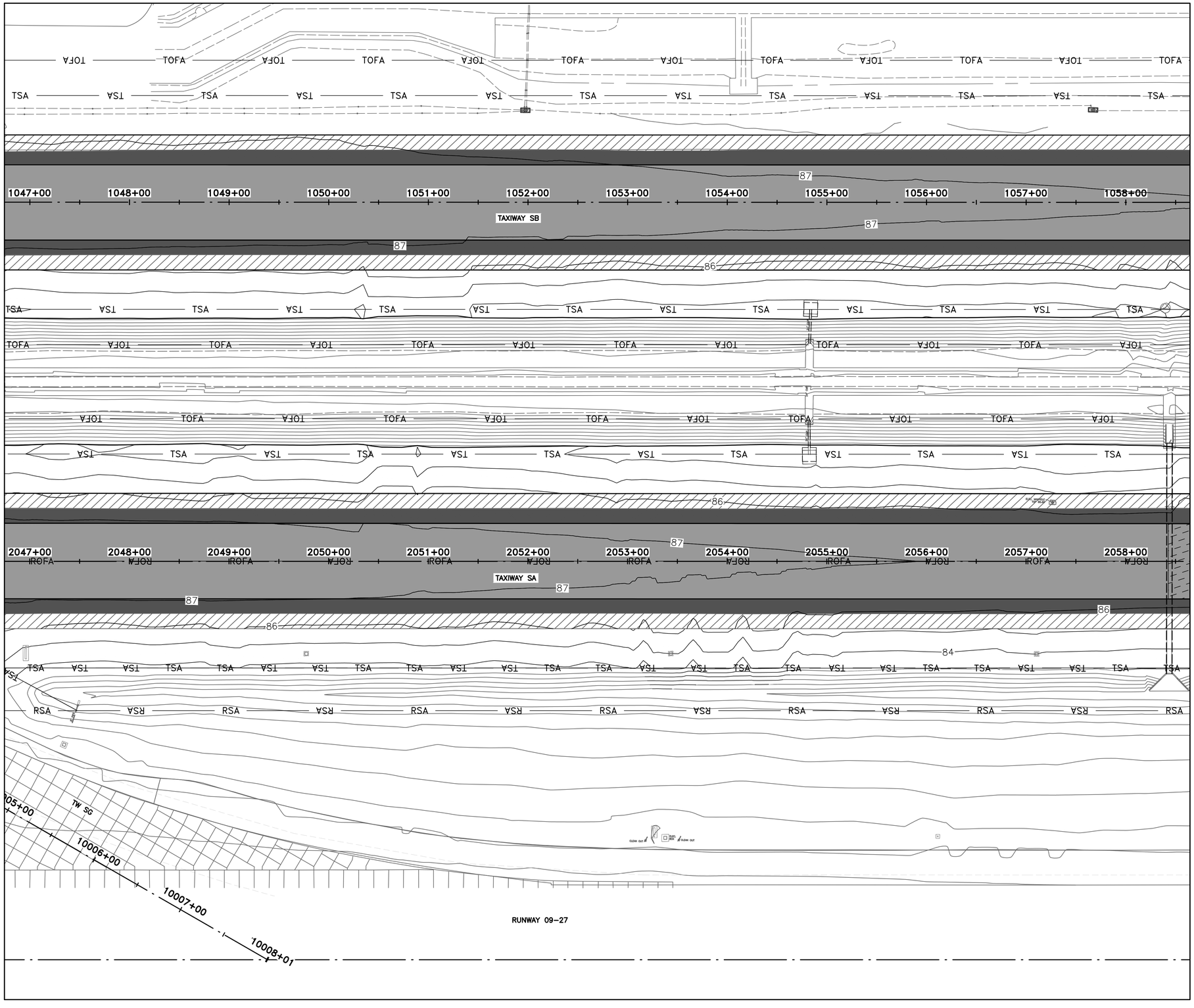
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.06

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\07 - Vertical Geometry\Sheet Files\ELEVATION PLAN XII.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

MATCHLINE SHEET C11.06



MATCHLINE SHEET C11.08

N

0 25' 50' 100' 150'

(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- — RSA — RUNWAY SAFETY AREA
- – ROFA – RUNWAY OBJECT FREE AREA
- — TSA — TAXIWAY SAFETY AREA
- – TOFA – TAXIWAY OBJECT FREE AREA

KEYMAP

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\07 - Vertical Geometry\Sheet Files\ELEVATION PLAN XII.dwg
PLOT DATE: 3/10/2022 11:08:43 AM

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN VII

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A

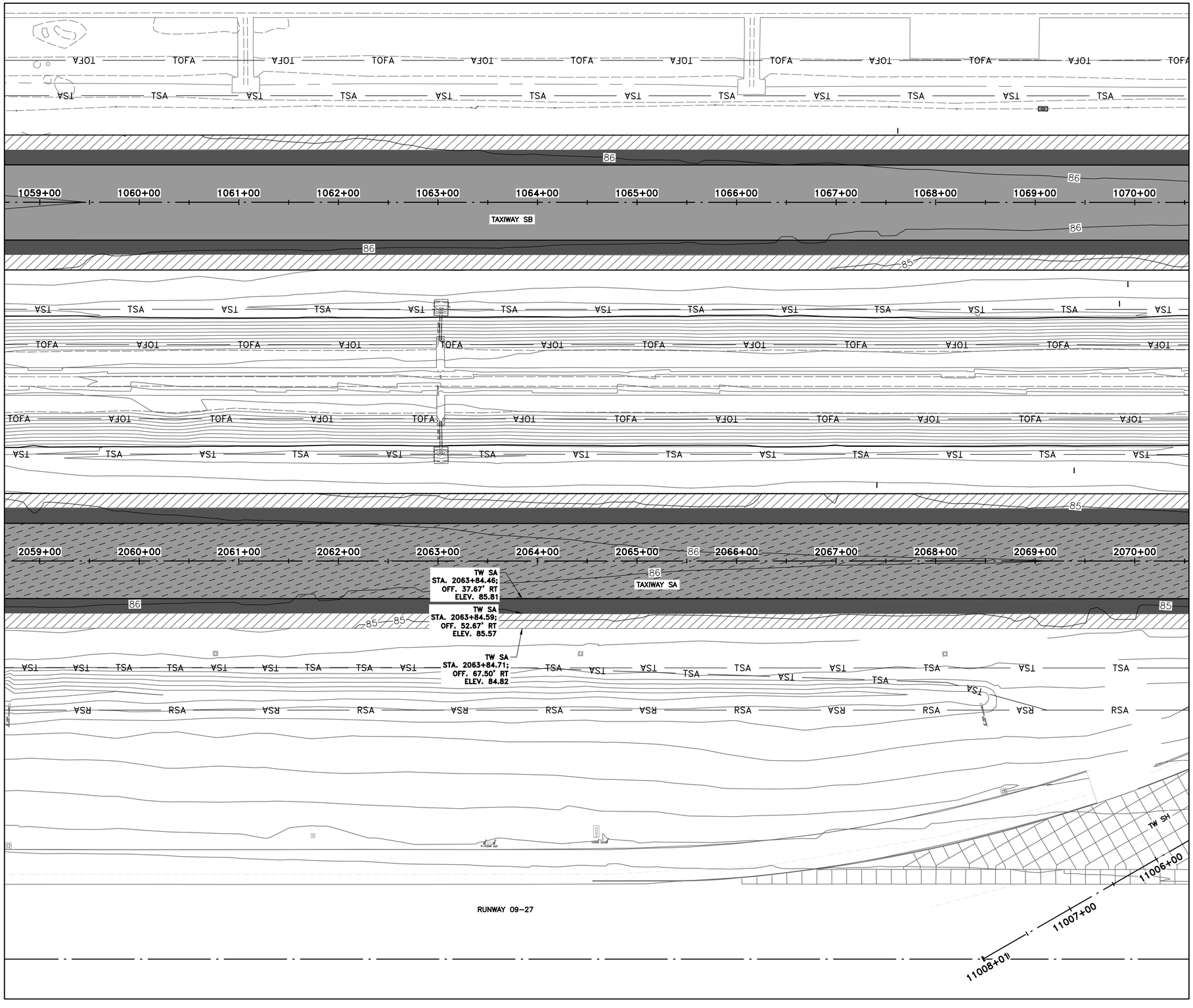
A.I.P. NO. XXXX

C.I.P. NO. A-0515

H.A.S. NO. 20C0646A

SHEET NO.

C11.07



MATCHLINE SHEET C11.07

MATCHLINE SHEET C11.09

N

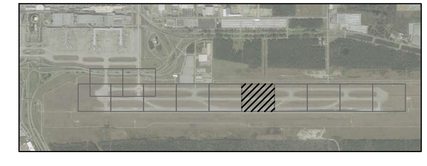
0 25' 50' 100' 150'

(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- PROPOSED FULL DEPTH CONCRETE SECTION
- — RSA — RUNWAY SAFETY AREA
- – ROFA – RUNWAY OBJECT FREE AREA
- — TSA — TAXIWAY SAFETY AREA
- – TOFA – TAXIWAY OBJECT FREE AREA

KEYMAP



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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN VIII

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.08

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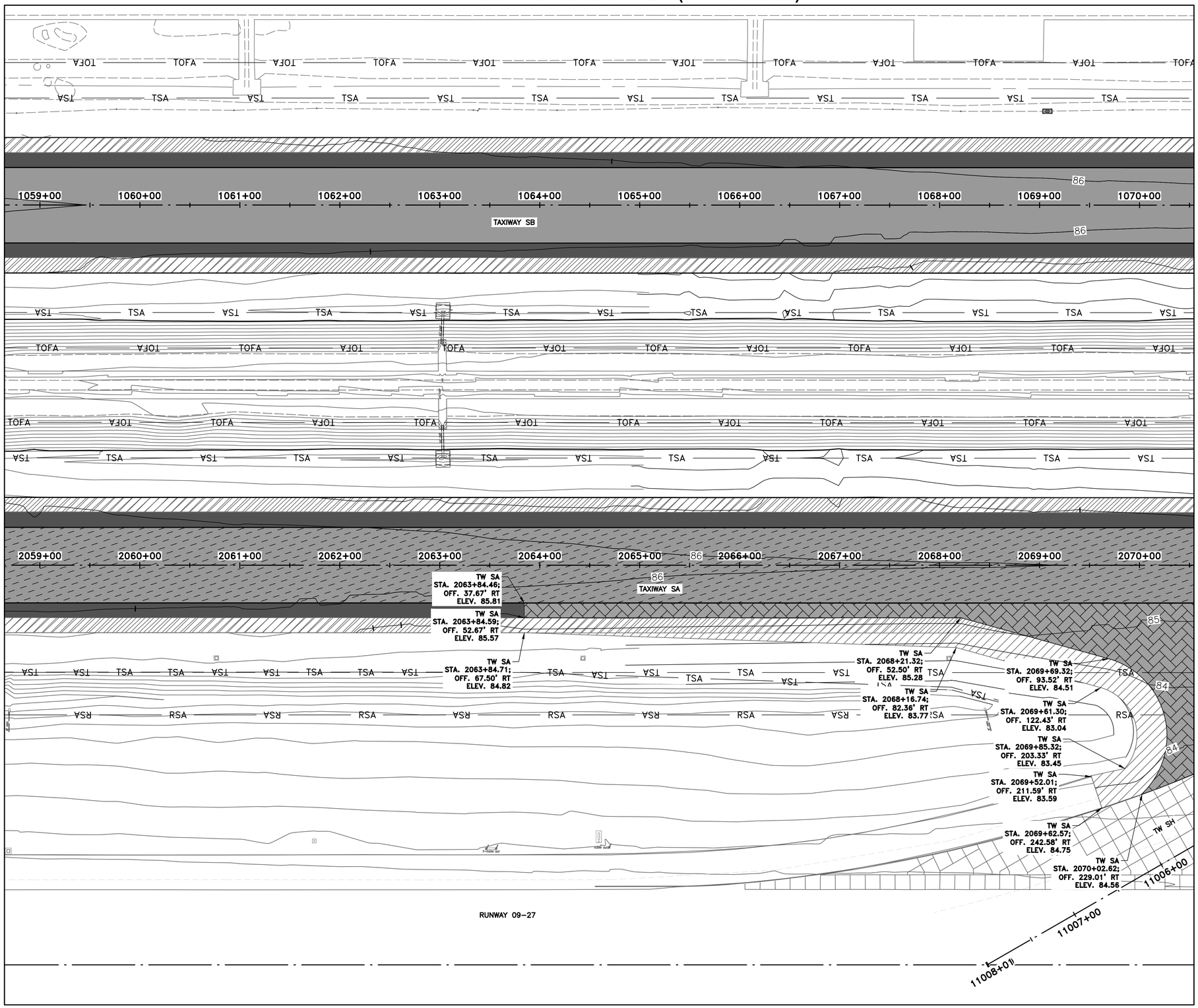
ADDITIVE ALTERNATE 1 (IF AWARDED)



MATCHLINE SHEET C11.07

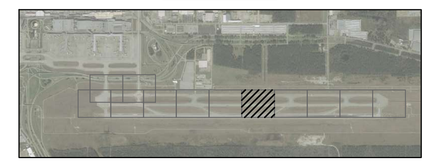
MATCHLINE SHEET C11.09

0 25' 50' 100' 150'
(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- PROPOSED FULL DEPTH CONCRETE SECTION
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA

KEYMAP



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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN VIII
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.08A

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\07 - Vertical Geometry\Sheet Files\ELEVATION PLAN XII.dwg
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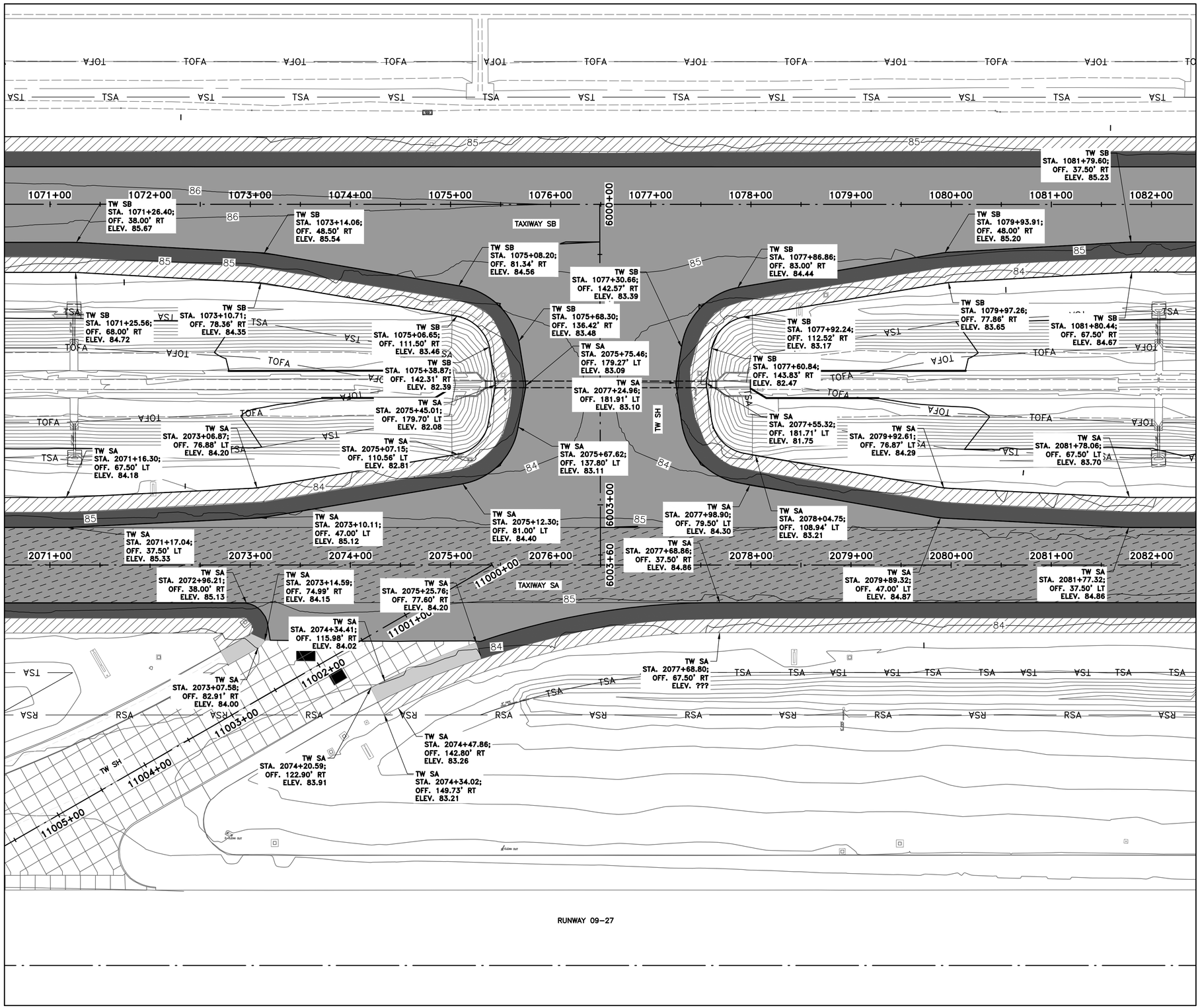
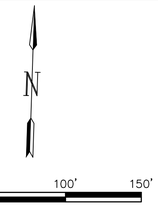


MATCHLINE SHEET C11.08

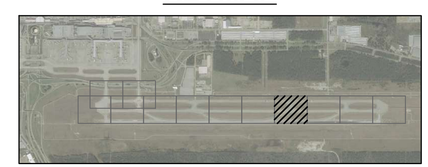
MATCHLINE SHEET C11.10



LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- PROPOSED FULL DEPTH CONCRETE SECTION
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA

KEYMAP



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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN IX

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.09

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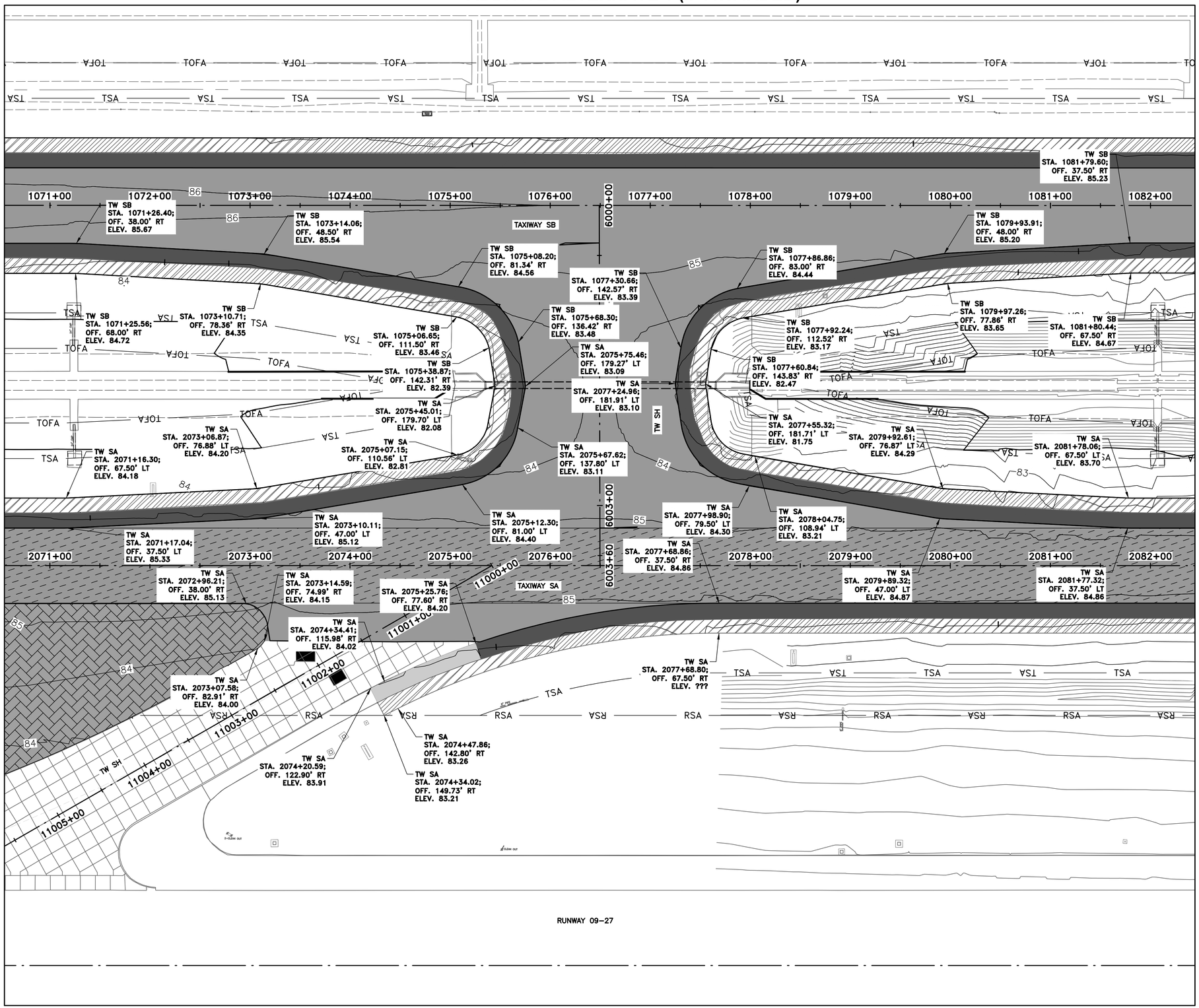
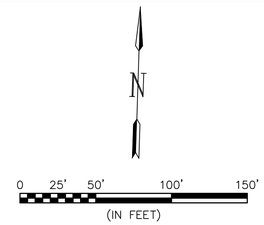
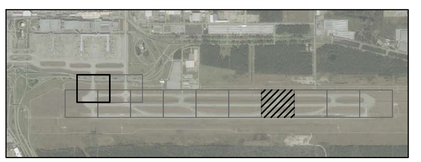




LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- PROPOSED FULL DEPTH CONCRETE SECTION
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA

KEYMAP



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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN IX
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.09A

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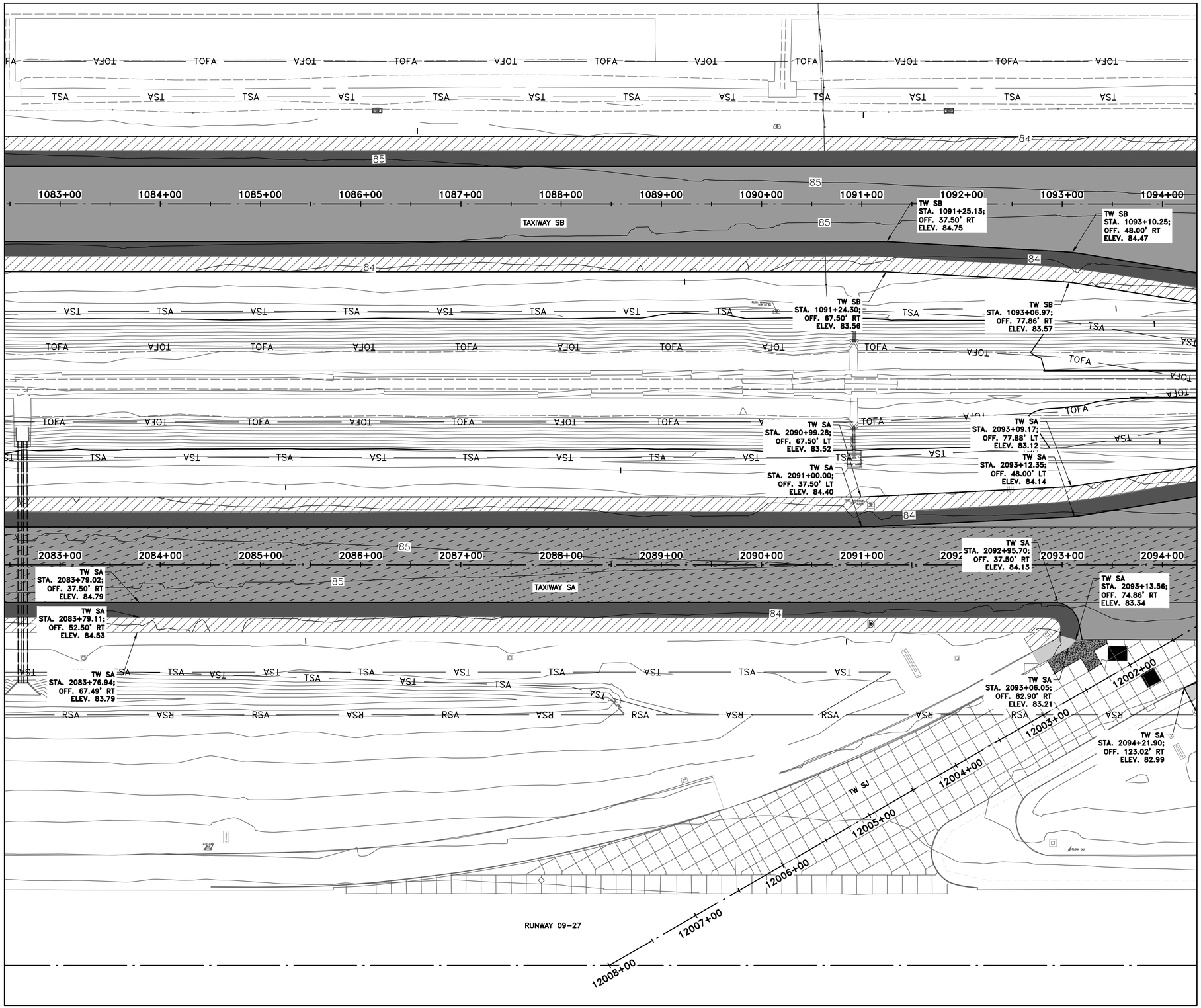
PLOT DATE: 3/10/2022 11:09:43 AM



N

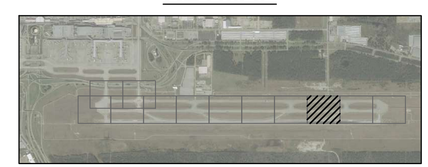
0 25' 50' 100' 150'

(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- PROPOSED FULL DEPTH CONCRETE SECTION
- —RSA— RUNWAY SAFETY AREA
- —ROFA— RUNWAY OBJECT FREE AREA
- —TSA— TAXIWAY SAFETY AREA
- —TOFA— TAXIWAY OBJECT FREE AREA

KEYMAP



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TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN X

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.10

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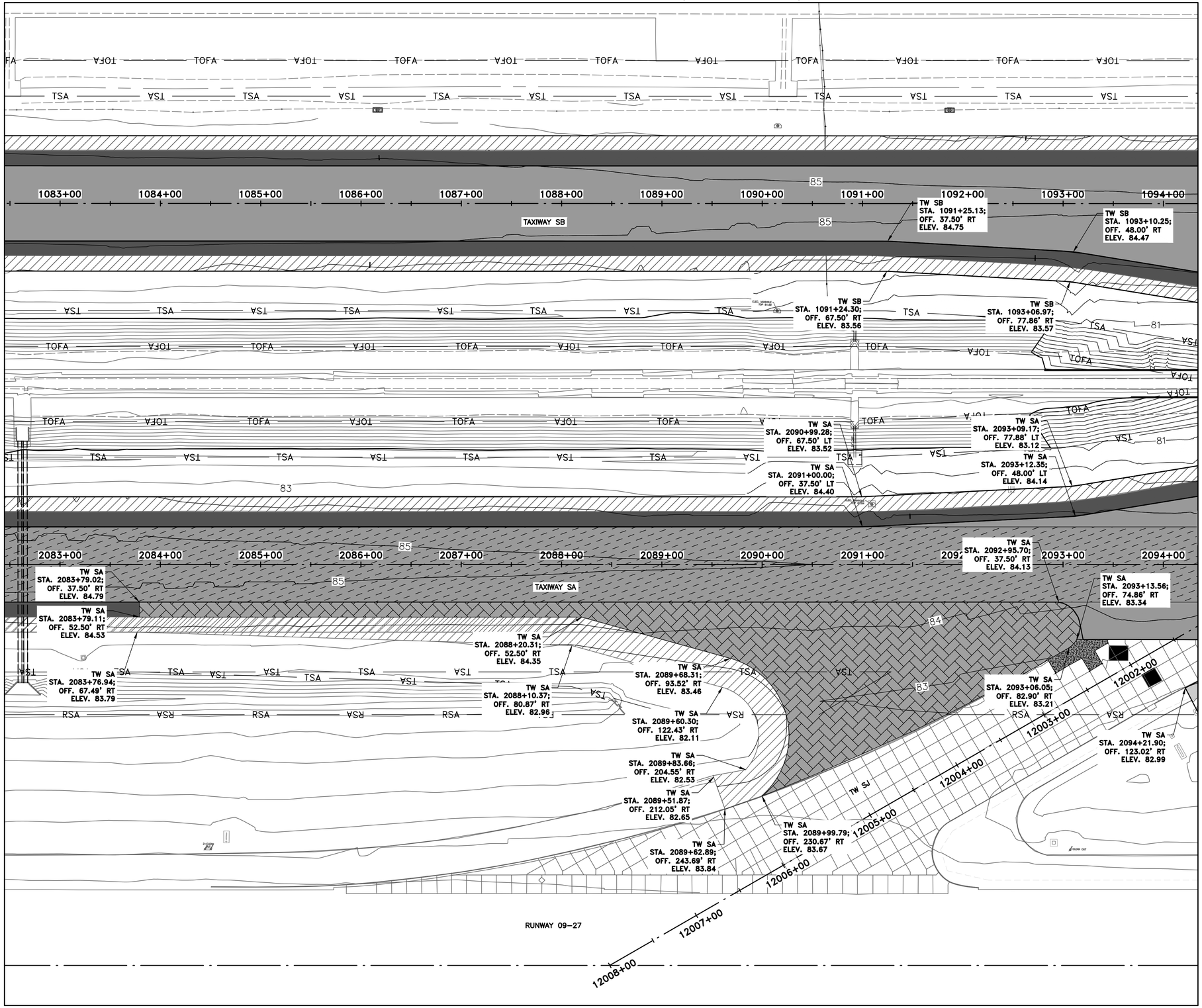
PLOT DATE: 3/10/2022 11:09:43 AM

ADDITIVE ALTERNATE 1 (IF AWARDED)



MATCHLINE SHEET C11.09

MATCHLINE SHEET C11.10

0 25' 50' 100' 150'
(IN FEET)

LEGEND

	PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
	PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
	PROPOSED SHOULDER MILL (1") & OVERLAY (2")
	PROPOSED SHOULDER MILL (2") & OVERLAY (2")
	PROPOSED SHOULDER WIDENING
	PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
	PROPOSED FULL DEPTH CONCRETE SECTION
— RSA —	RUNWAY SAFETY AREA
— ROFA —	RUNWAY OBJECT FREE AREA
— TSA —	TAXIWAY SAFETY AREA
— TOFA —	TAXIWAY OBJECT FREE AREA

KEYMAP

HAS FILE: c:\Users\dogranato\onedrive - garver\0646.2\07 - Vertical Geometry\Sheet Files\ELEVATION PLAN XII.dwg
PLOT DATE: 3/10/2022 11:09:43 AM

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN X
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.10A

MATCHLINE SHEET C11.10

MATCHLINE SHEET C11.12

TW SB STA. 1095+12.57; OFF. 81.00' RT ELEV. 83.73

TW SB STA. 1095+06.80; OFF. 110.46' RT ELEV. 82.37

TW SB STA. 1095+69.28; OFF. 136.73' RT ELEV. 82.41

TW SB STA. 1095+39.82; OFF. 142.58' RT ELEV. 81.55

TW SA STA. 2095+46.15; OFF. 174.24' LT ELEV. 81.08

TW SA STA. 2095+76.56; OFF. 173.63' LT ELEV. 82.20

TW SA STA. 2095+69.72; OFF. 137.05' LT ELEV. 82.24

TW SA STA. 2095+40.28; OFF. 142.87' LT ELEV. 81.05

TW SA STA. 2095+13.48; OFF. 81.00' LT ELEV. 83.34

TW SA STA. 2095+34.37; OFF. 74.93' RT ELEV. 83.27

TW SA STA. 2095+08.00; OFF. 110.50' LT ELEV. 82.05

TW SA STA. 2094+38.27; OFF. 114.56' RT ELEV. 83.05

TW SA STA. 2094+51.84; OFF. 141.31' RT ELEV. 82.24

TW SA STA. 2094+35.68; OFF. 149.67' RT ELEV. 82.34

TW SB STA. 1097+87.00; OFF. 82.00' RT ELEV. 83.57

TW SB STA. 1097+31.29; OFF. 137.24' RT ELEV. 82.45

TW SA STA. 2097+23.54; OFF. 178.47' LT ELEV. 82.17

TW SB STA. 1097+92.79; OFF. 111.45' RT ELEV. 82.23

TW SB STA. 1097+60.69; OFF. 143.26' RT ELEV. 81.61

TW SA STA. 2097+53.99; OFF. 178.35' LT ELEV. 81.25

TW SA STA. 2097+92.32; OFF. 109.51' LT ELEV. 82.23

TW SA STA. 2097+30.72; OFF. 136.17' LT ELEV. 82.42

TW SA STA. 2097+92.90; OFF. 79.03' LT ELEV. 83.53

TW SA STA. 2097+55.06; OFF. 37.50' RT ELEV. 84.08

TW SA STA. 2097+55.30; OFF. 67.50' RT ELEV. 83.00

TW SB STA. 1099+92.77; OFF. 47.00' RT ELEV. 84.11

TW SB STA. 1099+96.00; OFF. 76.88' RT ELEV. 83.30

TW SA STA. 2099+95.71; OFF. 76.76' LT ELEV. 82.65

TW SA STA. 2099+92.51; OFF. 47.00' LT ELEV. 83.87

TW SB STA. 1101+94.81; OFF. 37.50' RT ELEV. 84.19

TW SB STA. 1101+95.52; OFF. 67.50' RT ELEV. 83.59

TW SA STA. 2101+74.62; OFF. 67.50' LT ELEV. 82.75

TW SA STA. 2101+73.84; OFF. 37.50' LT ELEV. 83.86

TW SA STA. 2103+16.45; OFF. 67.50' LT ELEV. 82.71

TW SA STA. 2103+17.18; OFF. 37.50' LT ELEV. 83.77

TW SB STA. 1103+18.72; OFF. 37.50' RT ELEV. 84.06

TW SB STA. 1103+17.89; OFF. 67.50' RT ELEV. 83.42

TW SB STA. 1104+35.24; OFF. 37.50' LT ELEV. 84.02

TW SA STA. 2104+41.32; OFF. 37.50' RT ELEV. 83.65

TW SA STA. 2104+39.74; OFF. 67.50' RT ELEV. 82.46

TW SA STA. 2105+07.95; OFF. 76.88' LT ELEV. 82.46

TW SA STA. 2105+11.22; OFF. 47.00' LT ELEV. 83.50

TW SB STA. 1105+09.08; OFF. 48.00' RT ELEV. 83.81

TW SB STA. 1105+05.82; OFF. 77.87' RT ELEV. 82.98

TAXIWAY SB

TAXIWAY SA

RUNWAY 09–27

1095+00 1096+00 7000+00 1097+00 1098+00 1099+00 1100+00 1101+00 1102+00 1103+00 1104+00 1105+00 1106+00

2095+00 2096+00 12000+00 2097+00 2098+00 2099+00 2100+00 2101+00 2102+00 2103+00 2104+00 2105+00 2106+00

12001+00 7002+00 7003+00 7003+60

TOFA TSA RSA

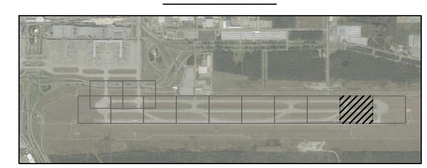
0 25' 50' 100' 150'

(IN FEET)

LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- RSA — RUNWAY SAFETY AREA
- ROFA — RUNWAY OBJECT FREE AREA
- TSA — TAXIWAY SAFETY AREA
- TOFA — TAXIWAY OBJECT FREE AREA

KEYMAP



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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN XI

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

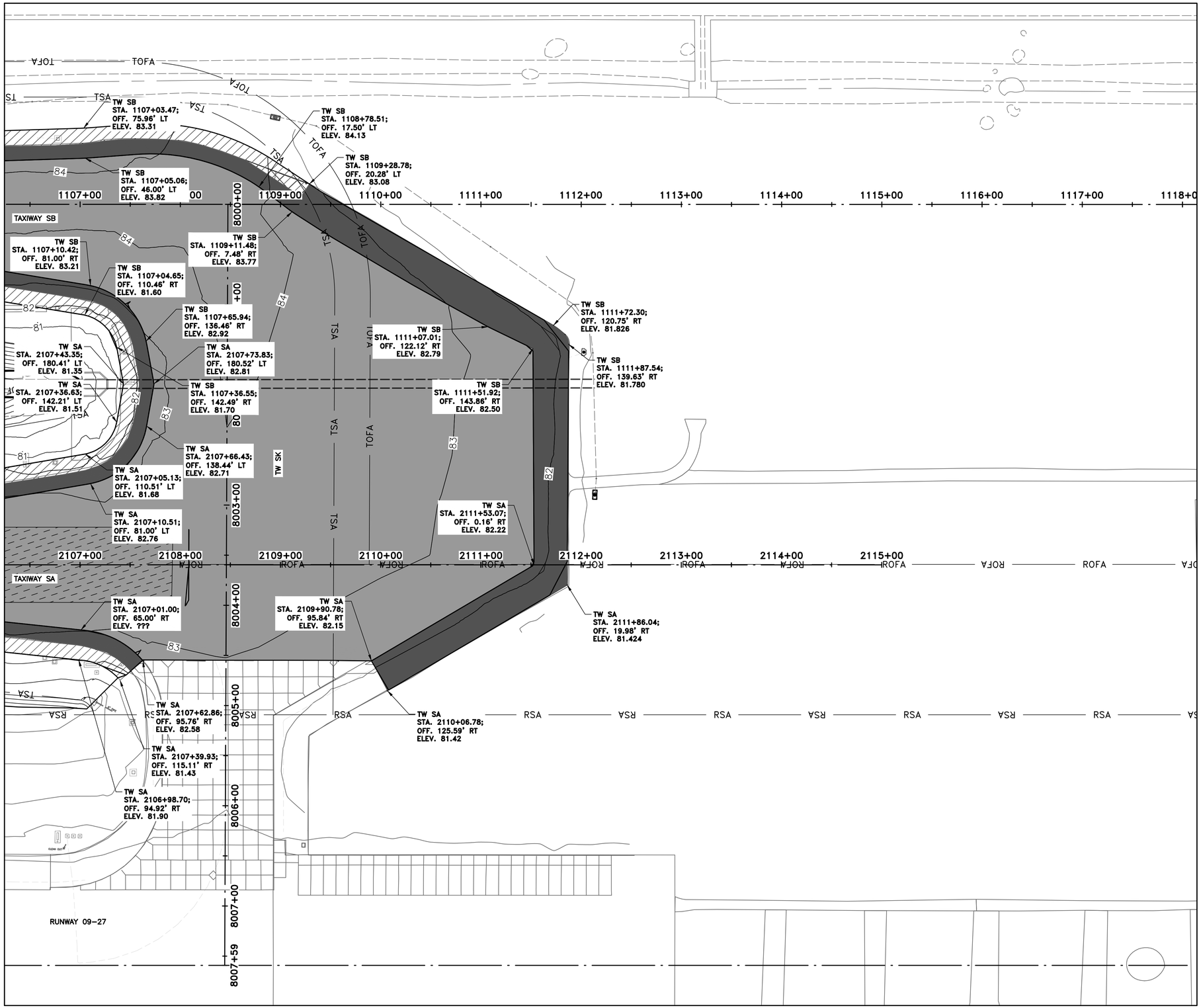
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

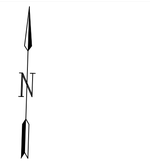
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C11.11





LEGEND

- PROPOSED TAXIWAY MILL (2") & OVERLAY (3")
- PROPOSED TAXIWAY MILL (5") & OVERLAY (6")
- PROPOSED SHOULDER MILL (1") & OVERLAY (2")
- PROPOSED SHOULDER MILL (2") & OVERLAY (2")
- PROPOSED SHOULDER WIDENING
- PROPOSED CONCRETE SLAB REPLACEMENT (12"–15")
- — RSA — RUNWAY SAFETY AREA
- — ROFA — RUNWAY OBJECT FREE AREA
- — TSA — TAXIWAY SAFETY AREA
- — TOFA — TAXIWAY OBJECT FREE AREA

KEYMAP

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELEVATION PLAN XII

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 50'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. C11.12

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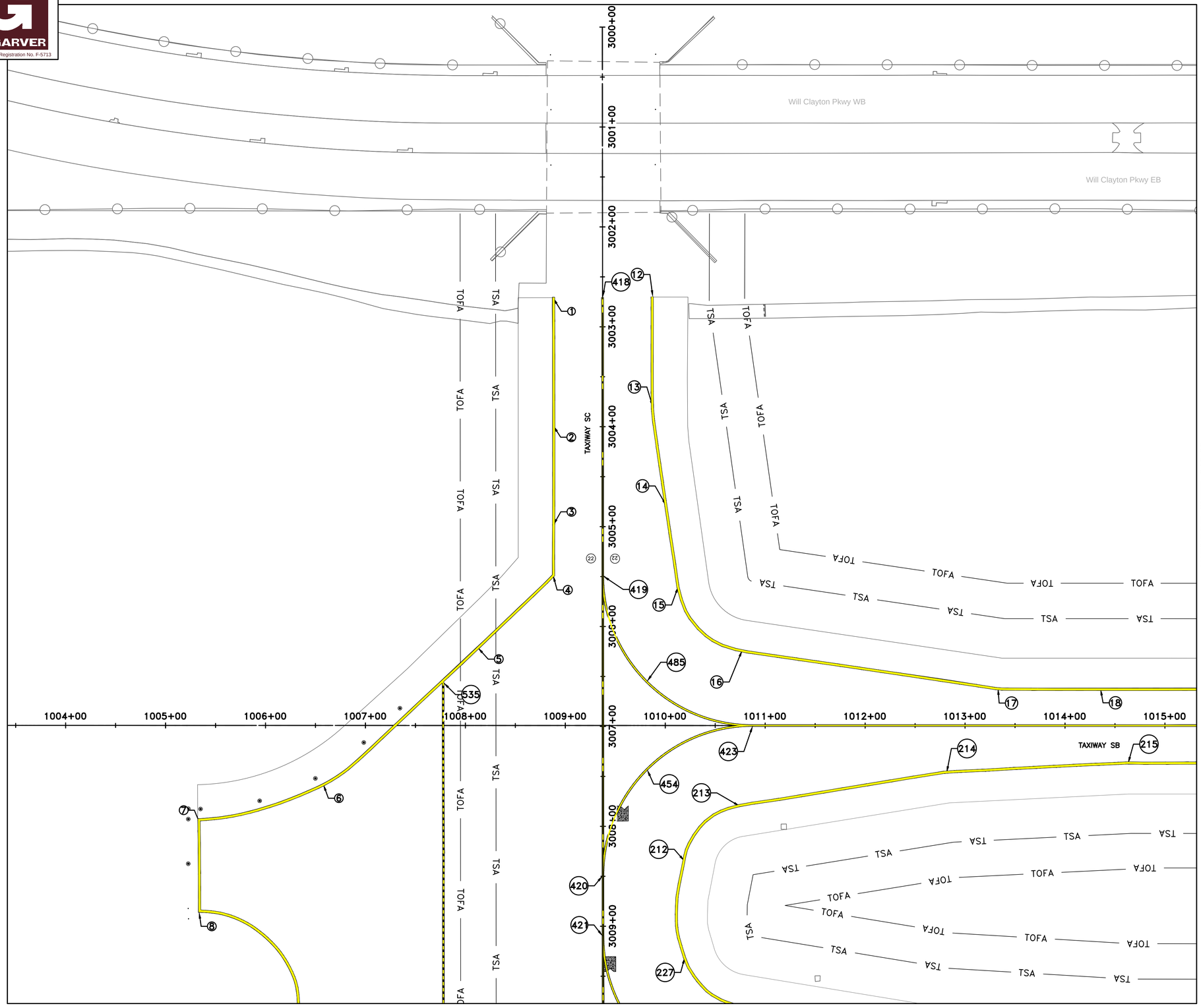
GARVER
TBPE Registration No. F-5713



0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

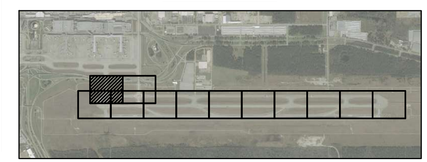
- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
- TAXIWAY EDGE LIGHT
- TSA — RUNWAY SAFETY AREA
- TOFA — RUNWAY OBJECT FREE AREA
- RSA — TAXIWAY SAFETY AREA
- ROFA — TAXIWAY OBJECT FREE AREA
- ILS HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 7
- INTERMEDIATE HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 8
- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

MATCHLINE SHEET C12.02

NOTES:

1. SEE PAVEMENT MARKING DETAIL SHEETS FOR MORE INFORMATION.
2. CONTRACTOR SHALL PROTECT ALL LIGHTS AND SIGNS FROM OVER SPRAY WHEN MARKING THE AIRFIELD. SHOULD ANY OF THE LIGHTS OR SIGNS BE SPRAYED, THE CONTRACTOR SHALL CLEAN THE LIGHT / SIGN TO A CONDITION EQUAL TO OR BETTER THAN PRIOR TO BEING SPRAYED. SHOULD THE LIGHT / SIGN NOT BE ABLE TO BECOME CLEAN, THE LIGHT / SIGN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. CONTRACTOR SHALL PROTECT ALL EXISTING MARKINGS NEAR WORK AREAS. ANY DAMAGE TO MARKING BEYOND MARKING LIMITS SHOWN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONFIRM REQUIREMENTS WITH RPR PRIOR TO REPLACEMENT.
4. REVIEW MARKING STAKEOUT WITH THE RPR PRIOR TO MARKING PAVEMENT.
5. TIE–IN LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL SURVEY EXISTING CONNECTING TAXIWAY CENTERLINES AND EDGE MARKINGS PRIOR TO DEMOLITION. VERIFY THE TIE–IN LOCATIONS WITH THE RPR PRIOR TO INSTALLING PAVEMENT MARKING.
6. AFTER ALL NECESSARY PERMANENT MARKING APPLICATION CONDITIONS HAVE BEEN MET, INCLUDING PAVEMENT CURING WAITING PERIOD, RETURN TO THE APPROPRIATE PAVEMENTS TO FURNISH AND INSTALL PERMANENT MARKING.
7. COORDINATES ON TAXIWAY CENTERLINE ARE AT CENTER OF STRIPE.
8. COORDINATES ON TAXIWAY EDGE MARKING ARE AT OUTSIDE EDGE OF YELLOW STRIPE FURTHERMOST AWAY FROM TAXIWAY CENTERLINE.
9. SEE DETAILS 3 AND 4 ON SHEET C12.15 FOR COORDINATE LOCATION FOR SURFACE MOUNTED DIRECTION SIGNS.
10. SEE FAA AIRPORT CIRCULAR AC150/5340–1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN I

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.01

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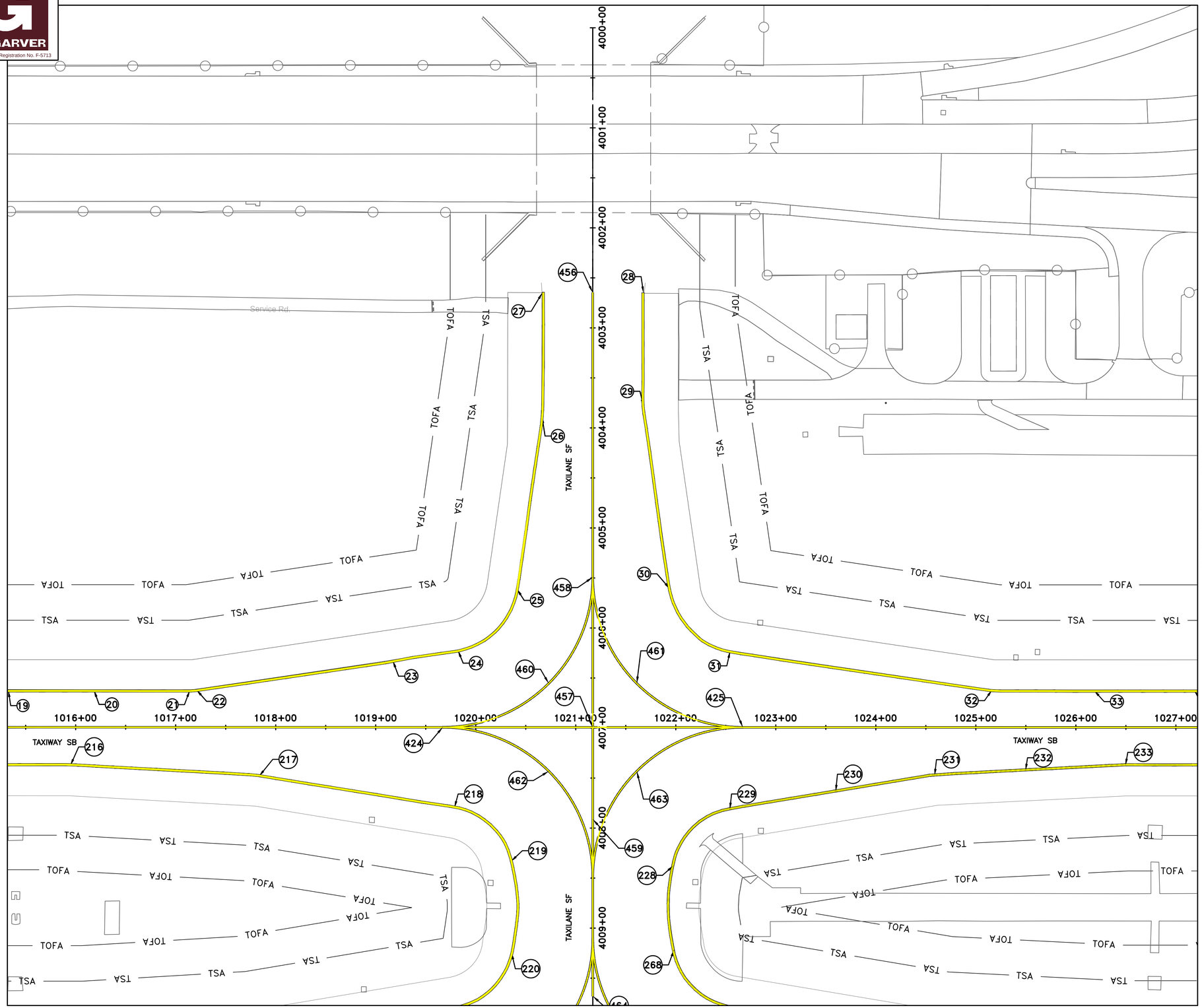
GARVER
TBPE Registration No. F-5713



0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

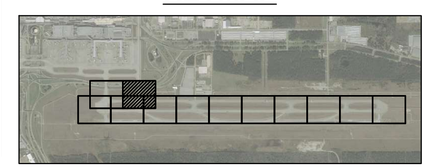
- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
- TAXIWAY EDGE LIGHT
- TSA — RUNWAY SAFETY AREA
- TOFA — RUNWAY OBJECT FREE AREA
- RSA — TAXIWAY SAFETY AREA
- ROFA — TAXIWAY OBJECT FREE AREA
- ILS HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 7
- INTERMEDIATE HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 8
- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

MATCHLINE SHEET C12.02

NOTES:

1. SEE PAVEMENT MARKING DETAIL SHEETS FOR MORE INFORMATION.
2. CONTRACTOR SHALL PROTECT ALL LIGHTS AND SIGNS FROM OVER SPRAY WHEN MARKING THE AIRFIELD. SHOULD ANY OF THE LIGHTS OR SIGNS BE SPRAYED, THE CONTRACTOR SHALL CLEAN THE LIGHT / SIGN TO A CONDITION EQUAL TO OR BETTER THAN PRIOR TO BEING SPRAYED. SHOULD THE LIGHT / SIGN NOT BE ABLE TO BECOME CLEAN, THE LIGHT / SIGN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. CONTRACTOR SHALL PROTECT ALL EXISTING MARKINGS NEAR WORK AREAS. ANY DAMAGE TO MARKING BEYOND MARKING LIMITS SHOWN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONFIRM REQUIREMENTS WITH RPR PRIOR TO REPLACEMENT.
4. REVIEW MARKING STAKEOUT WITH THE RPR PRIOR TO MARKING PAVEMENT.
5. TIE-IN LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL SURVEY EXISTING CONNECTING TAXIWAY CENTERLINES AND EDGE MARKINGS PRIOR TO DEMOLITION. VERIFY THE TIE-IN LOCATIONS WITH THE RPR PRIOR TO INSTALLING PAVEMENT MARKING.
6. AFTER ALL NECESSARY PERMANENT MARKING APPLICATION CONDITIONS HAVE BEEN MET, INCLUDING PAVEMENT CURING WAITING PERIOD, RETURN TO THE APPROPRIATE PAVEMENTS TO FURNISH AND INSTALL PERMANENT MARKING.
7. COORDINATES ON TAXIWAY CENTERLINE ARE AT CENTER OF STRIPE.
8. COORDINATES ON TAXIWAY EDGE MARKING ARE AT OUTSIDE EDGE OF YELLOW STRIPE FURTHERMOST AWAY FROM TAXIWAY CENTERLINE.
9. SEE DETAILS 3 AND 4 ON SHEET C12.15 FOR COORDINATE LOCATION FOR SURFACE MOUNTED DIRECTION SIGNS.
10. SEE FAA AIRPORT CIRCULAR AC150/5340-1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

MARKING PLAN II

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.02

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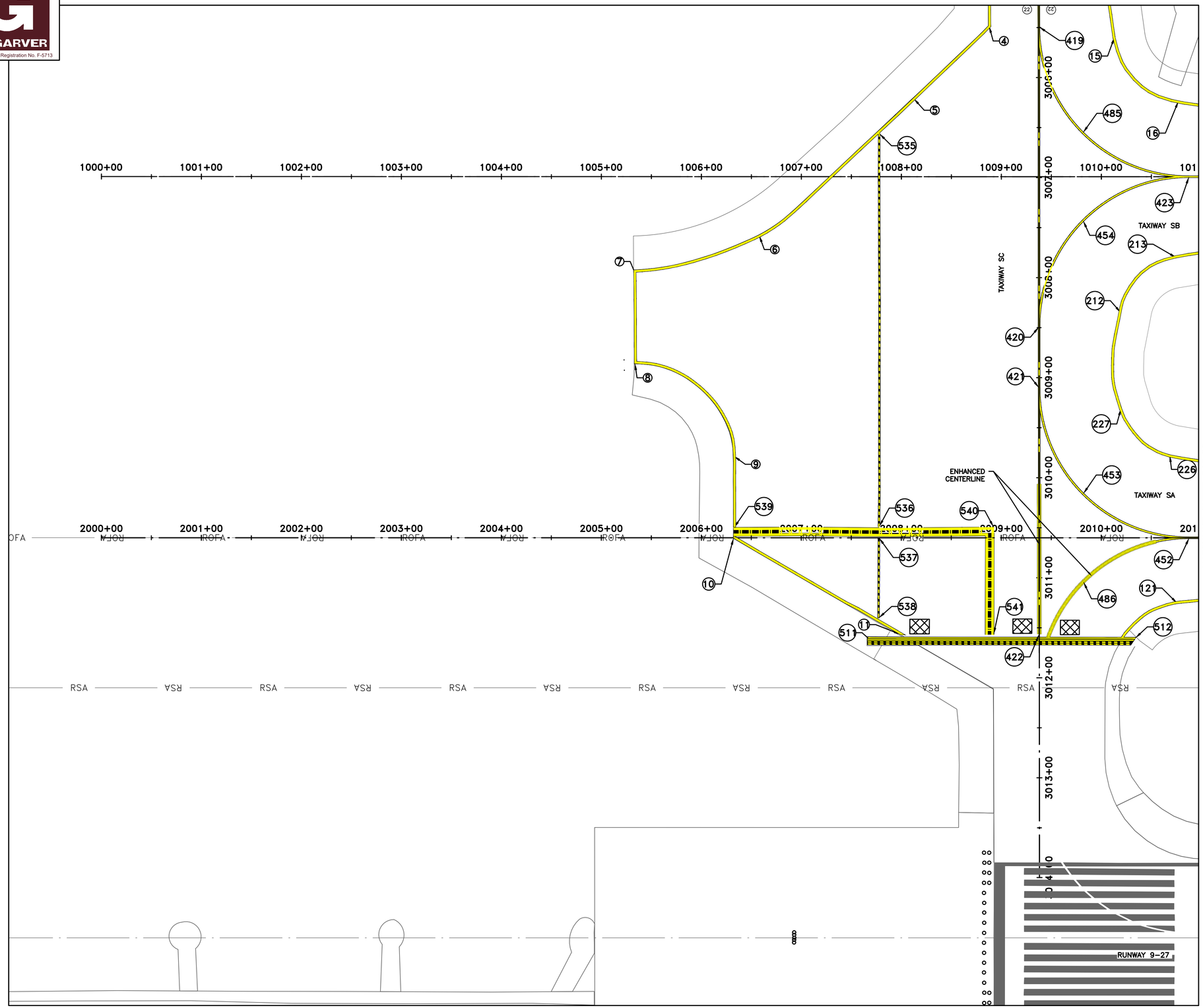
GARVER
TBPE Registration No. F-5713



0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
- TAXIWAY EDGE LIGHT
- TSA — RUNWAY SAFETY AREA
- TOFA — RUNWAY OBJECT FREE AREA
- RSA — TAXIWAY SAFETY AREA
- ROFA — TAXIWAY OBJECT FREE AREA
- ILS HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 7
- INTERMEDIATE HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 8
- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

MATCHLINE SHEET C12.02

NOTES:

1. SEE PAVEMENT MARKING DETAIL SHEETS FOR MORE INFORMATION.
2. CONTRACTOR SHALL PROTECT ALL LIGHTS AND SIGNS FROM OVER SPRAY WHEN MARKING THE AIRFIELD. SHOULD ANY OF THE LIGHTS OR SIGNS BE SPRAYED, THE CONTRACTOR SHALL CLEAN THE LIGHT / SIGN TO A CONDITION EQUAL TO OR BETTER THAN PRIOR TO BEING SPRAYED. SHOULD THE LIGHT / SIGN NOT BE ABLE TO BECOME CLEAN, THE LIGHT / SIGN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
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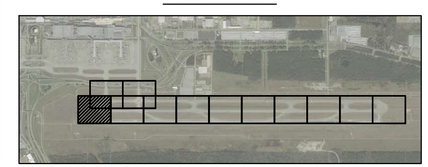
4. REVIEW MARKING STAKEOUT WITH THE RPR PRIOR TO MARKING PAVEMENT.
5. TIE-IN LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL SURVEY EXISTING CONNECTING TAXIWAY CENTERLINES AND EDGE MARKINGS PRIOR TO DEMOLITION. VERIFY THE TIE-IN LOCATIONS WITH THE RPR PRIOR TO INSTALLING PAVEMENT MARKING.
6. AFTER ALL NECESSARY PERMANENT MARKING APPLICATION CONDITIONS HAVE BEEN MET, INCLUDING PAVEMENT CURING WAITING PERIOD, RETURN TO THE APPROPRIATE PAVEMENTS TO FURNISH AND INSTALL PERMANENT MARKING.
7. COORDINATES ON TAXIWAY CENTERLINE ARE AT CENTER OF STRIPE.
8. COORDINATES ON TAXIWAY EDGE MARKING ARE AT OUTSIDE EDGE OF YELLOW STRIPE FURTHERMOST AWAY FROM TAXIWAY CENTERLINE.
9. SEE DETAILS 3 AND 4 ON SHEET C12.15 FOR COORDINATE LOCATION FOR SURFACE MOUNTED DIRECTION SIGNS.
10. SEE FAA AIRPORT CIRCULAR AC150/5340-1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN III

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.03

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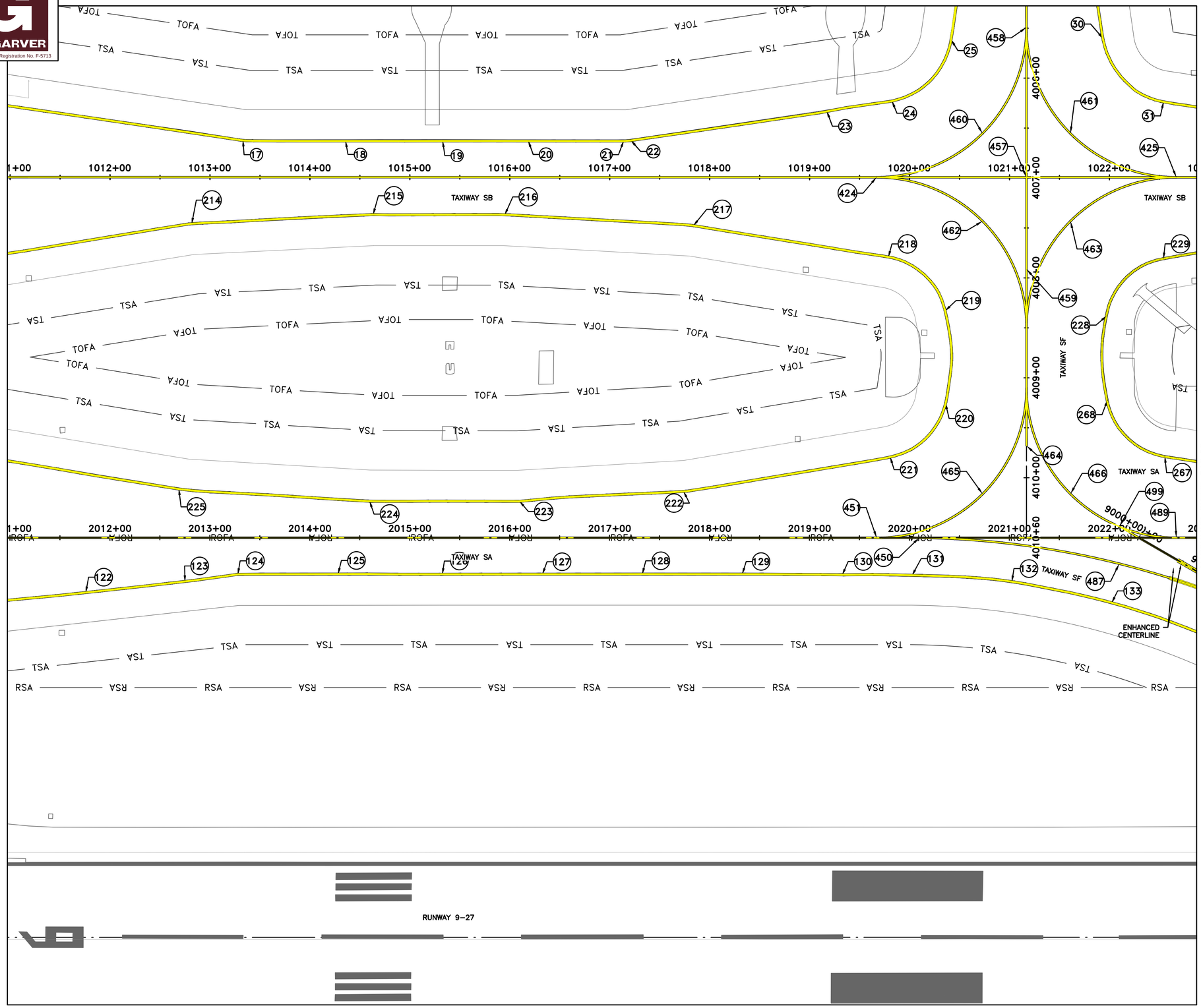

0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
- TAXIWAY EDGE LIGHT
- TSA — RUNWAY SAFETY AREA
- TOFA — RUNWAY OBJECT FREE AREA
- RSA — TAXIWAY SAFETY AREA
- ROFA — TAXIWAY OBJECT FREE AREA
- ILS HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 7
- INTERMEDIATE HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 8
- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

MATCHLINE SHEET C12.02

NOTES:

1. SEE PAVEMENT MARKING DETAIL SHEETS FOR MORE INFORMATION.
2. CONTRACTOR SHALL PROTECT ALL LIGHTS AND SIGNS FROM OVER SPRAY WHEN MARKING THE AIRFIELD. SHOULD ANY OF THE LIGHTS OR SIGNS BE SPRAYED, THE CONTRACTOR SHALL CLEAN THE LIGHT / SIGN TO A CONDITION EQUAL TO OR BETTER THAN PRIOR TO BEING SPRAYED. SHOULD THE LIGHT / SIGN NOT BE ABLE TO BECOME CLEAN, THE LIGHT / SIGN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
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4. REVIEW MARKING STAKEOUT WITH THE RPR PRIOR TO MARKING PAVEMENT.
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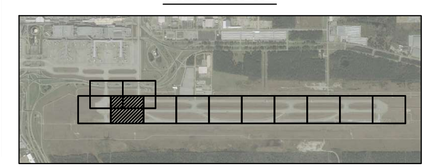
7. COORDINATES ON TAXIWAY CENTERLINE ARE AT CENTER OF STRIPE.
8. COORDINATES ON TAXIWAY EDGE MARKING ARE AT OUTSIDE EDGE OF YELLOW STRIPE FURTHERMOST AWAY FROM TAXIWAY CENTERLINE.
9. SEE DETAILS 3 AND 4 ON SHEET C12.15 FOR COORDINATE LOCATION FOR SURFACE MOUNTED DIRECTION SIGNS.
10. SEE FAA AIRPORT CIRCULAR AC150/5340–1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



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HOUSTON AIRPORTS
CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

MARKING PLAN IV

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

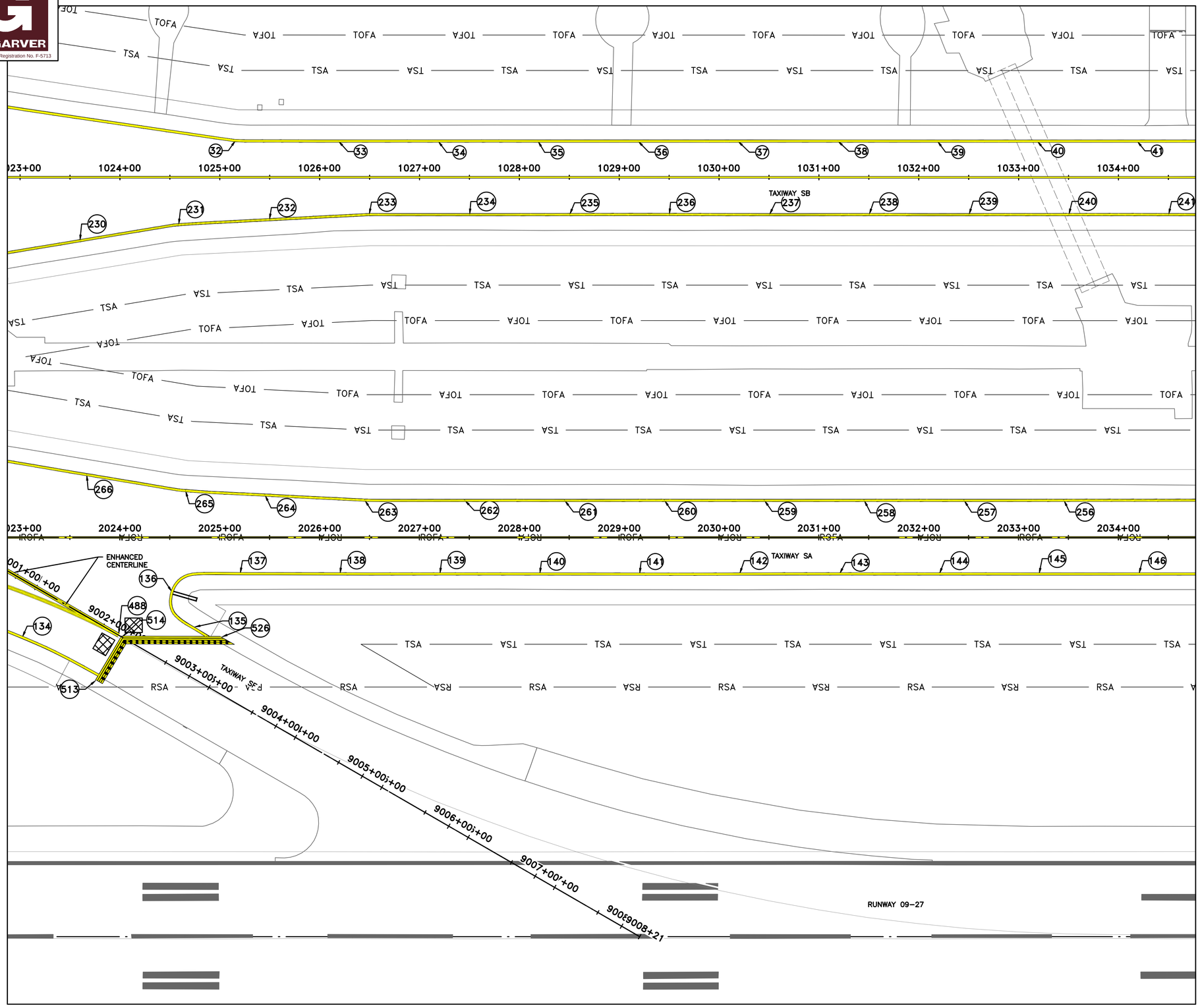
Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.04

GARVER
TBPE Registration No. F-5713



N

0 25' 50' 100' 150'
(IN FEET)

LEGEND

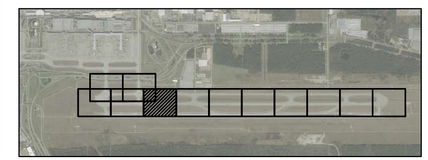
- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
- TAXIWAY EDGE LIGHT
- TSA — RUNWAY SAFETY AREA
- TOFA — RUNWAY OBJECT FREE AREA
- RSA — TAXIWAY SAFETY AREA
- ROFA — TAXIWAY OBJECT FREE AREA
- ILS HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 7
- INTERMEDIATE HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 8
- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

MATCHLINE SHEET C12.02

NOTES:

1. SEE PAVEMENT MARKING DETAIL SHEETS FOR MORE INFORMATION.
2. CONTRACTOR SHALL PROTECT ALL LIGHTS AND SIGNS FROM OVER SPRAY WHEN MARKING THE AIRFIELD. SHOULD ANY OF THE LIGHTS OR SIGNS BE SPRAYED, THE CONTRACTOR SHALL CLEAN THE LIGHT / SIGN TO A CONDITION EQUAL TO OR BETTER THAN PRIOR TO BEING SPRAYED. SHOULD THE LIGHT / SIGN NOT BE ABLE TO BECOME CLEAN, THE LIGHT / SIGN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. CONTRACTOR SHALL PROTECT ALL EXISTING MARKINGS NEAR WORK AREAS. ANY DAMAGE TO MARKING BEYOND MARKING LIMITS SHOWN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. CONFIRM REQUIREMENTS WITH RPR PRIOR TO REPLACEMENT.
4. REVIEW MARKING STAKEOUT WITH THE RPR PRIOR TO MARKING PAVEMENT.
5. TIE–IN LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL SURVEY EXISTING CONNECTING TAXIWAY CENTERLINES AND EDGE MARKINGS PRIOR TO DEMOLITION. VERIFY THE TIE–IN LOCATIONS WITH THE RPR PRIOR TO INSTALLING PAVEMENT MARKING.
6. AFTER ALL NECESSARY PERMANENT MARKING APPLICATION CONDITIONS HAVE BEEN MET, INCLUDING PAVEMENT CURING WAITING PERIOD, RETURN TO THE APPROPRIATE PAVEMENTS TO FURNISH AND INSTALL PERMANENT MARKING.
7. COORDINATES ON TAXIWAY CENTERLINE ARE AT CENTER OF STRIPE.
8. COORDINATES ON TAXIWAY EDGE MARKING ARE AT OUTSIDE EDGE OF YELLOW STRIPE FURTHERMOST AWAY FROM TAXIWAY CENTERLINE.
9. SEE DETAILS 3 AND 4 ON SHEET C12.15 FOR COORDINATE LOCATION FOR SURFACE MOUNTED DIRECTION SIGNS.
10. SEE FAA AIRPORT CIRCULAR AC150/5340–1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN V

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.05

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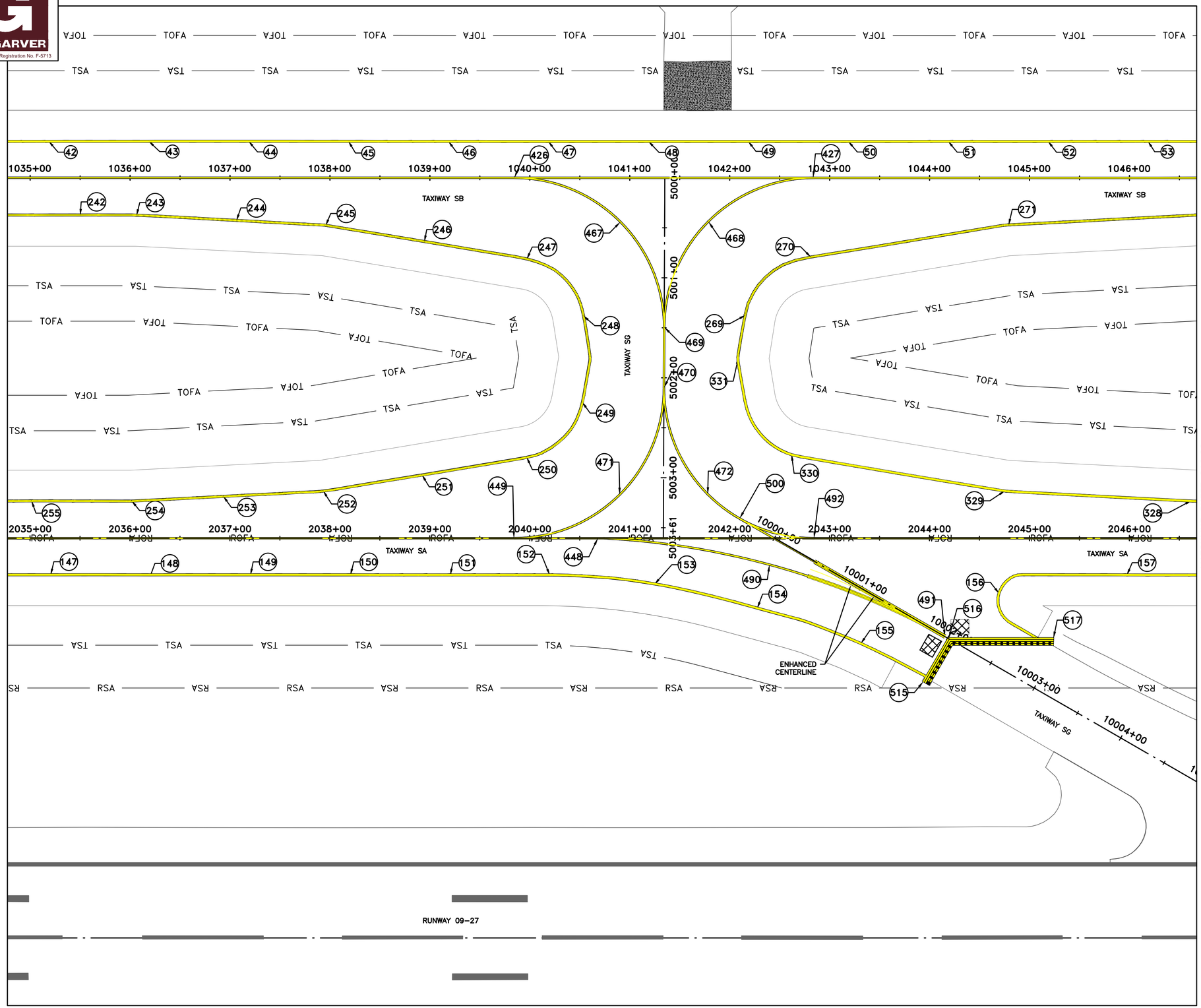
GARVER
TBPE Registration No. F-5713



0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
- TAXIWAY EDGE LIGHT
- TSA — RUNWAY SAFETY AREA
- TOFA — RUNWAY OBJECT FREE AREA
- RSA — TAXIWAY SAFETY AREA
- ROFA — TAXIWAY OBJECT FREE AREA
- ILS HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 7
- INTERMEDIATE HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 8
- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

MATCHLINE SHEET C12.02

NOTES:

1. SEE PAVEMENT MARKING DETAIL SHEETS FOR MORE INFORMATION.
2. CONTRACTOR SHALL PROTECT ALL LIGHTS AND SIGNS FROM OVER SPRAY WHEN MARKING THE AIRFIELD. SHOULD ANY OF THE LIGHTS OR SIGNS BE SPRAYED, THE CONTRACTOR SHALL CLEAN THE LIGHT / SIGN TO A CONDITION EQUAL TO OR BETTER THAN PRIOR TO BEING SPRAYED. SHOULD THE LIGHT / SIGN NOT BE ABLE TO BECOME CLEAN, THE LIGHT / SIGN SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
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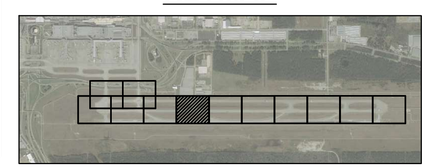
10. SEE FAA AIRPORT CIRCULAR AC150/5340–1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN VI

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.06

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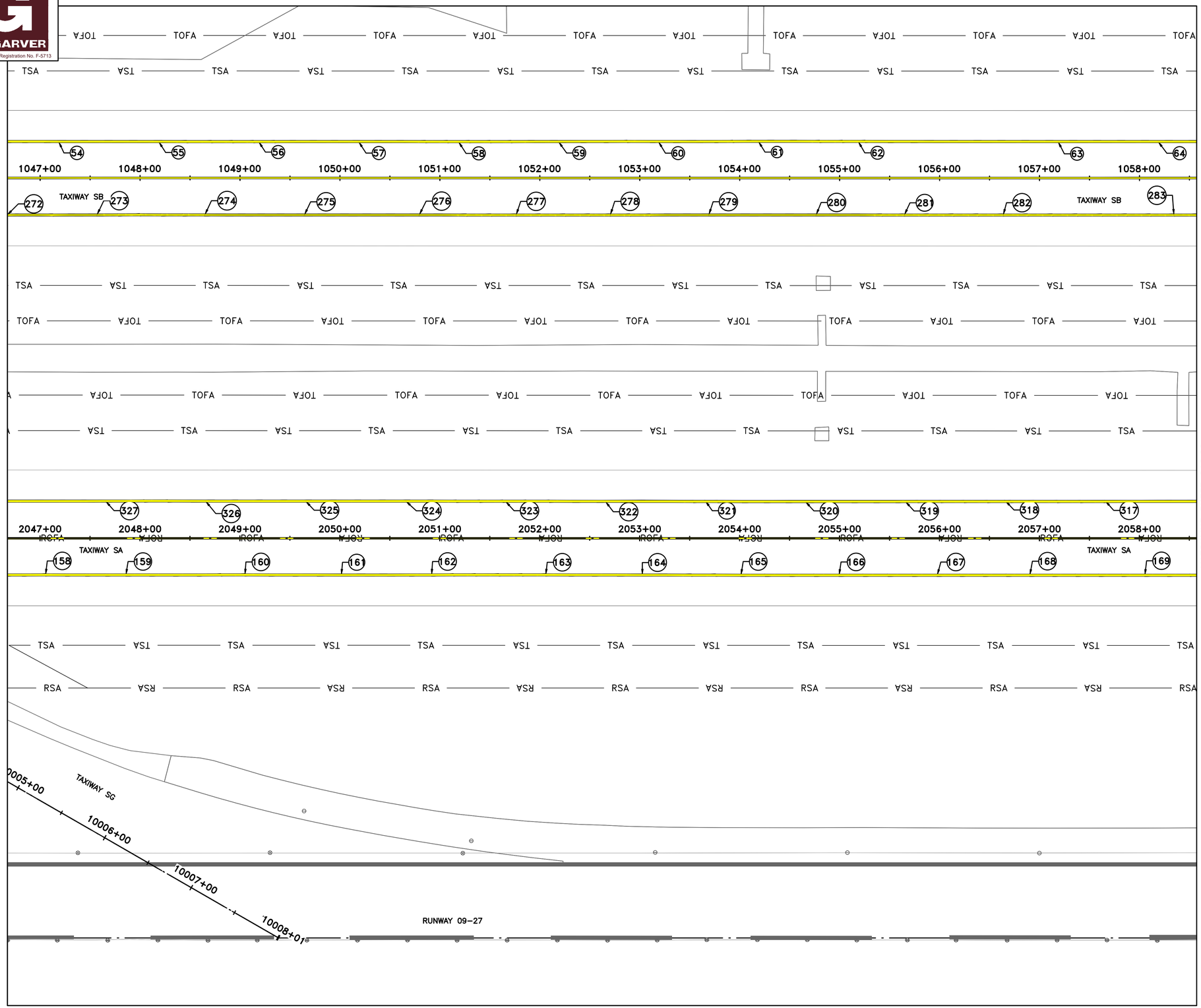
GARVER
TBPE Registration No. F-5713



MATCHLINE SHEET C12.02

0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
- TAXIWAY EDGE LIGHT
- TSA — RUNWAY SAFETY AREA
- TOFA — RUNWAY OBJECT FREE AREA
- RSA — TAXIWAY SAFETY AREA
- ROFA — TAXIWAY OBJECT FREE AREA
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- INTERMEDIATE HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 8
- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

NOTES:

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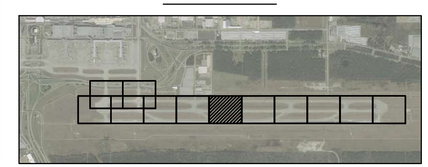
10. SEE FAA AIRPORT CIRCULAR AC150/5340-1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN VII

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **C12.07**

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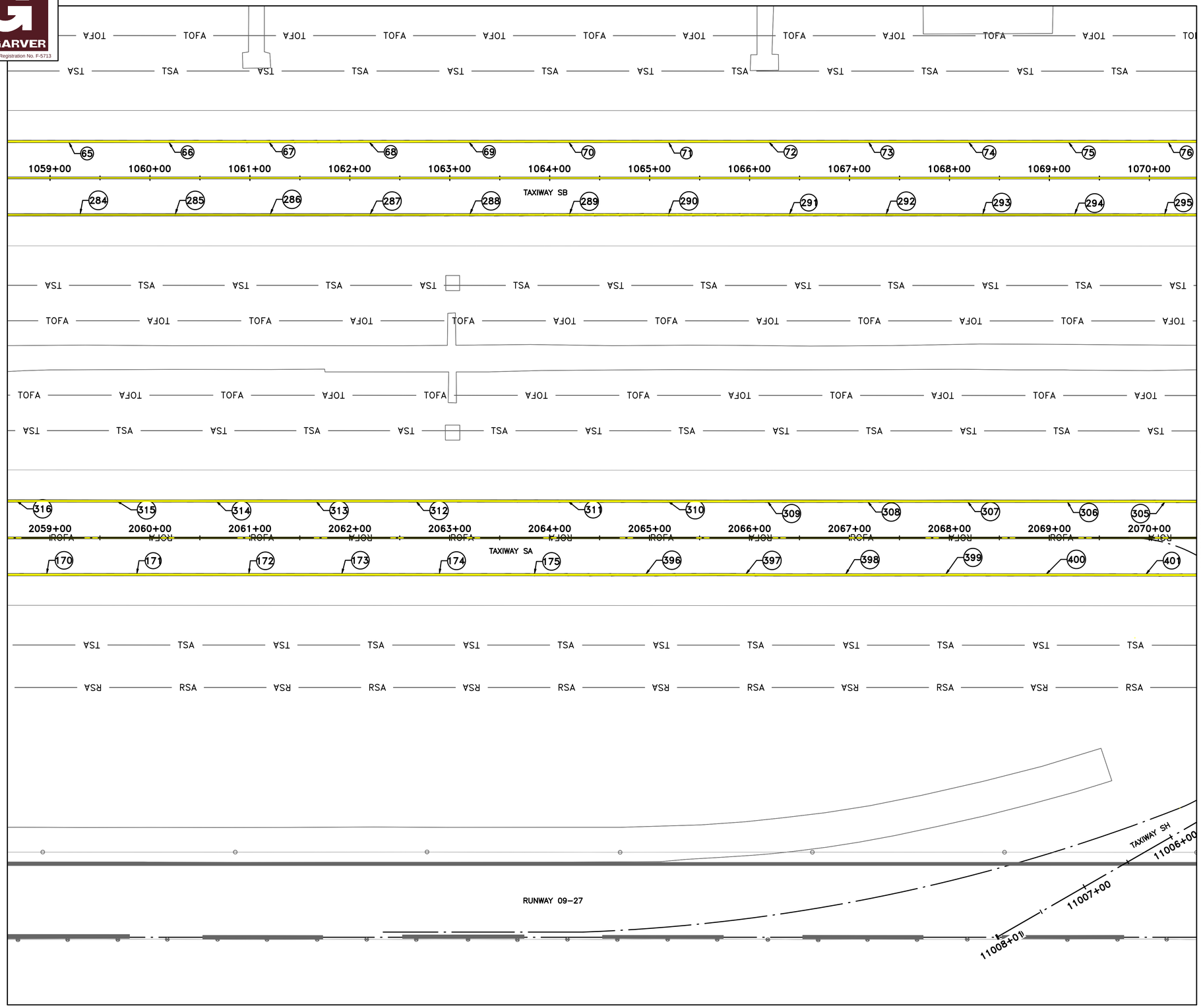

0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
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- ILS HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 7
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- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

MATCHLINE SHEET C12.02

NOTES:

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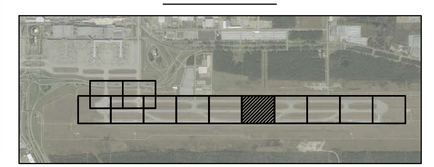
KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN VIII

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.08

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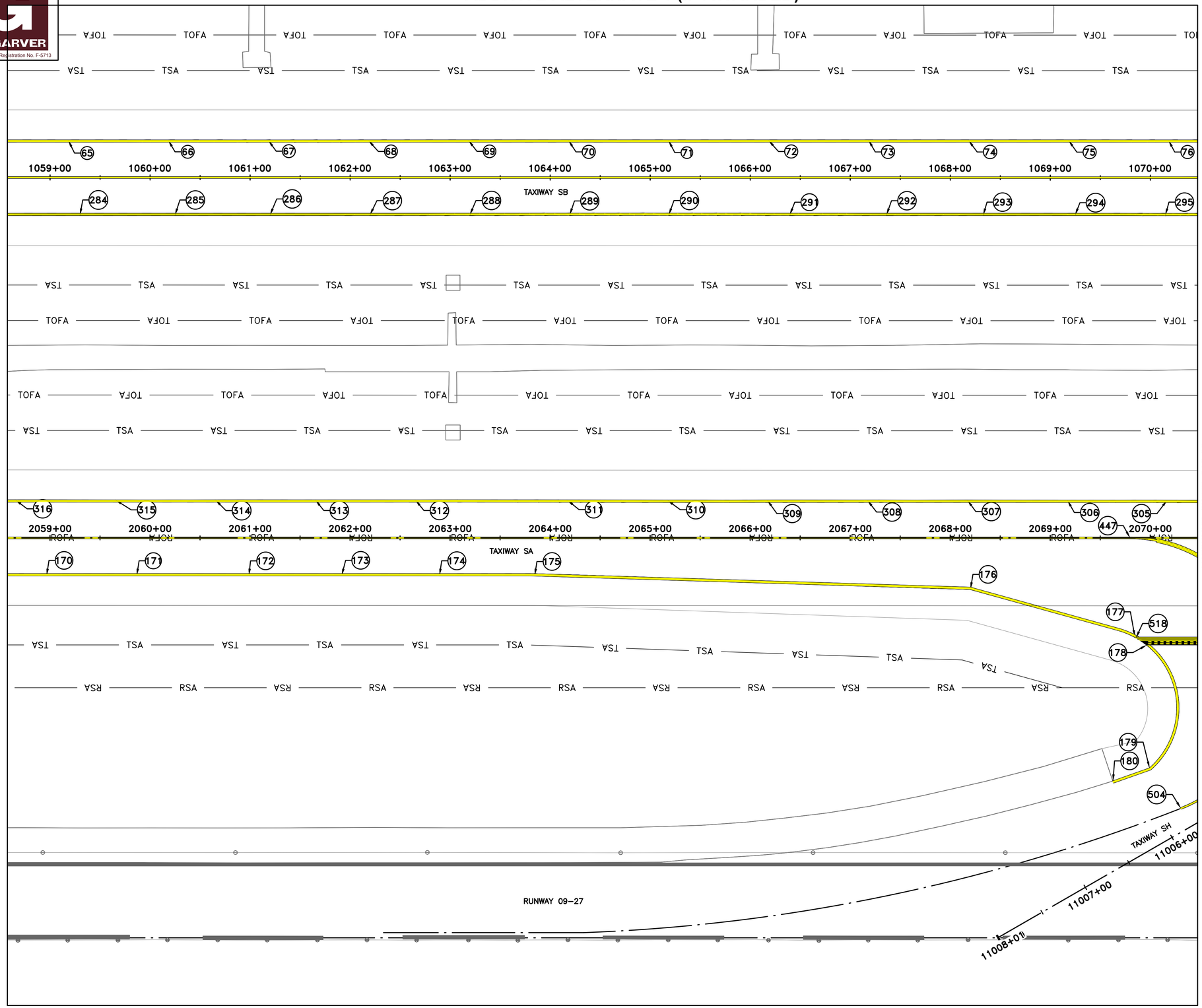
ADDITIVE ALTERNATE 1 (IF AWARDED)



0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
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MATCHLINE SHEET C12.02

NOTES:

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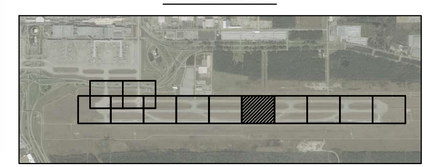
KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

CP&Y an STV Company
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(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN VIII
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C12.08A

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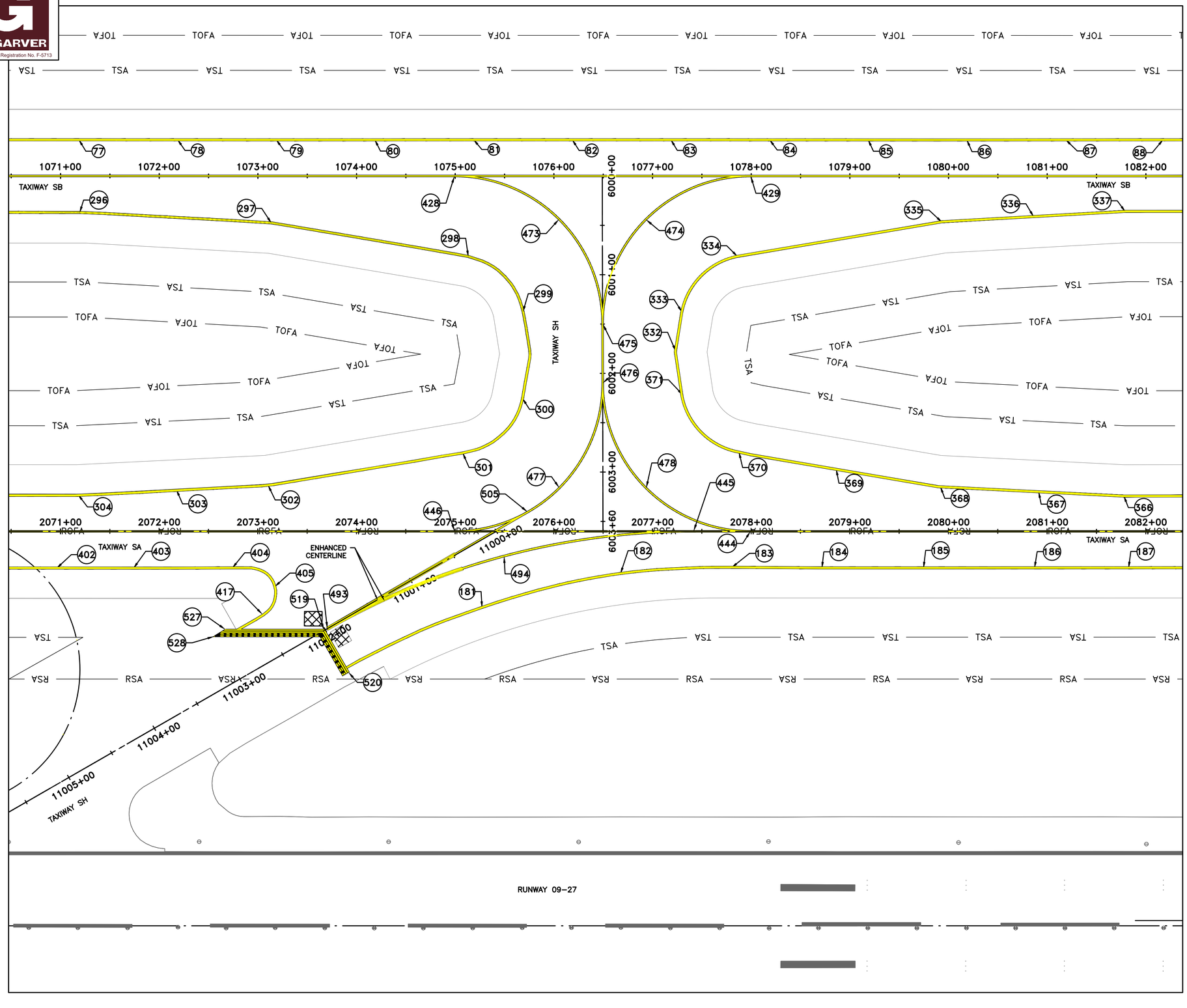

MATCHLINE SHEET C12.02

0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
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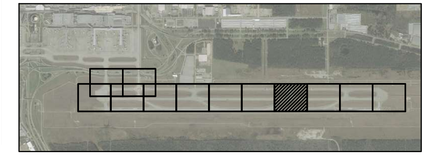
10. SEE FAA AIRPORT CIRCULAR AC150/5340–1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN IX

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.09

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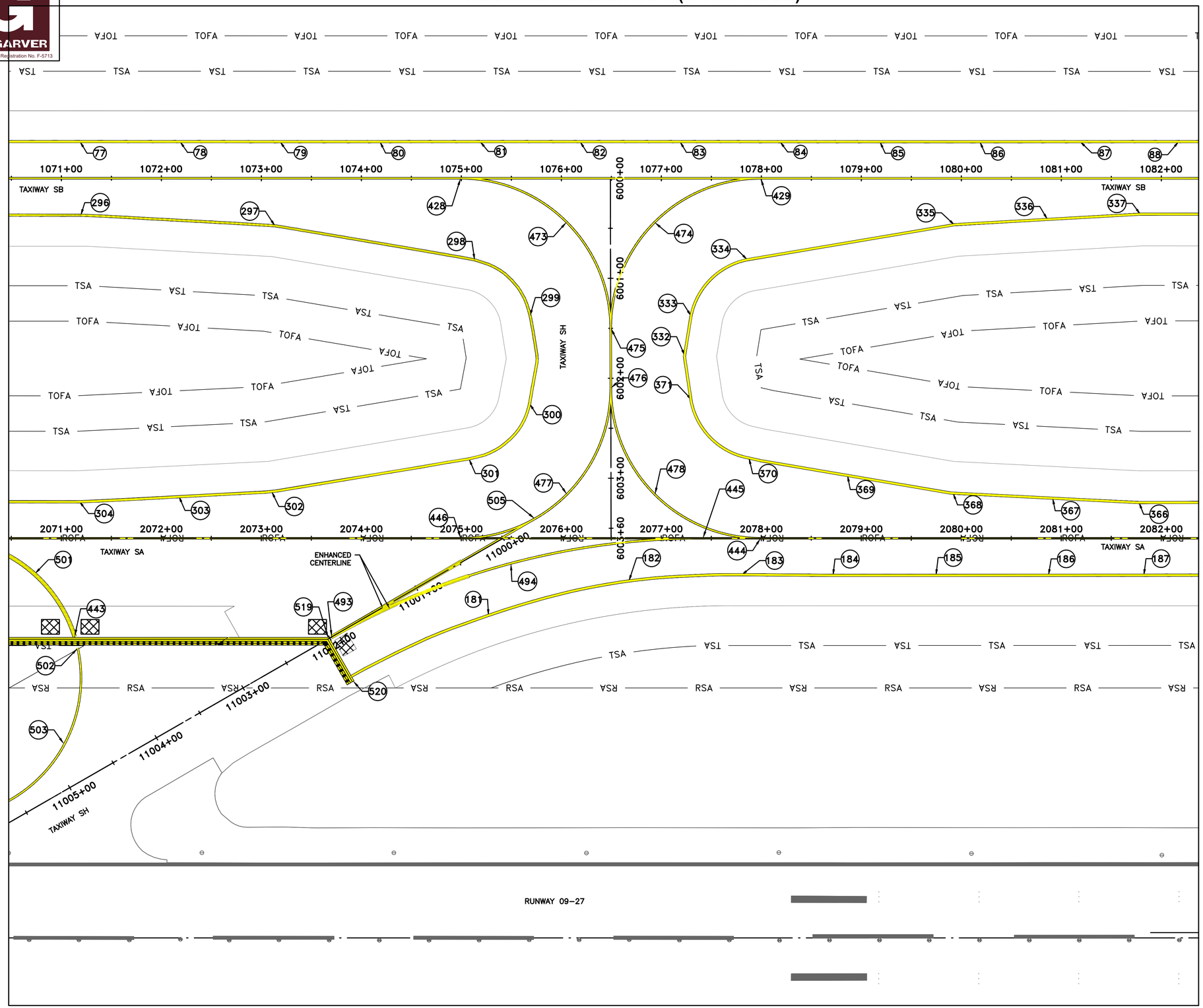
ADDITIVE ALTERNATE 1 (IF AWARDED)



0 25' 50' 100' 150'
(IN FEET)

N

LEGEND

- TAXIWAY SHOULDER EXISTING
- TAXIWAY CENTERLINE MARKINGS EXISTING
- TAXIWAY CENTERLINE MARKINGS PROPOSED, SEE C12.15, DTL 1
- TAXIWAY EDGE MARKINGS PROPOSED, SEE C12.15, DTL 2
- TAXIWAY GUIDANCE SIGN PROPOSED, SEE C12.15, DTL 3
- TAXIWAY GUIDANCE SIGN TO REMAIN
- TAXIWAY CENTERLINE LIGHT
- TAXIWAY EDGE LIGHT
- TSA — RUNWAY SAFETY AREA
- TOFA — RUNWAY OBJECT FREE AREA
- RSA — TAXIWAY SAFETY AREA
- ROFA — TAXIWAY OBJECT FREE AREA
- ILS HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 7
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- TAXIWAY EDGE LINE MARKING PROPOSED, SEE C12.14, DTL 9
- RUNWAY HOLD POSITION MARKING PROPOSED, SEE C12.14, DTL 10
- ENHANCED TAXIWAY CENTERLINE MARKING PROPOSED, SEE C12.14, DTL 6

MATCHLINE SHEET C12.02

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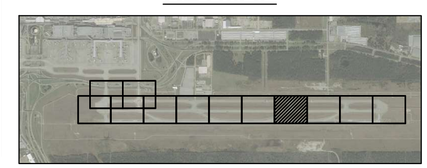

GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN IX
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.09A

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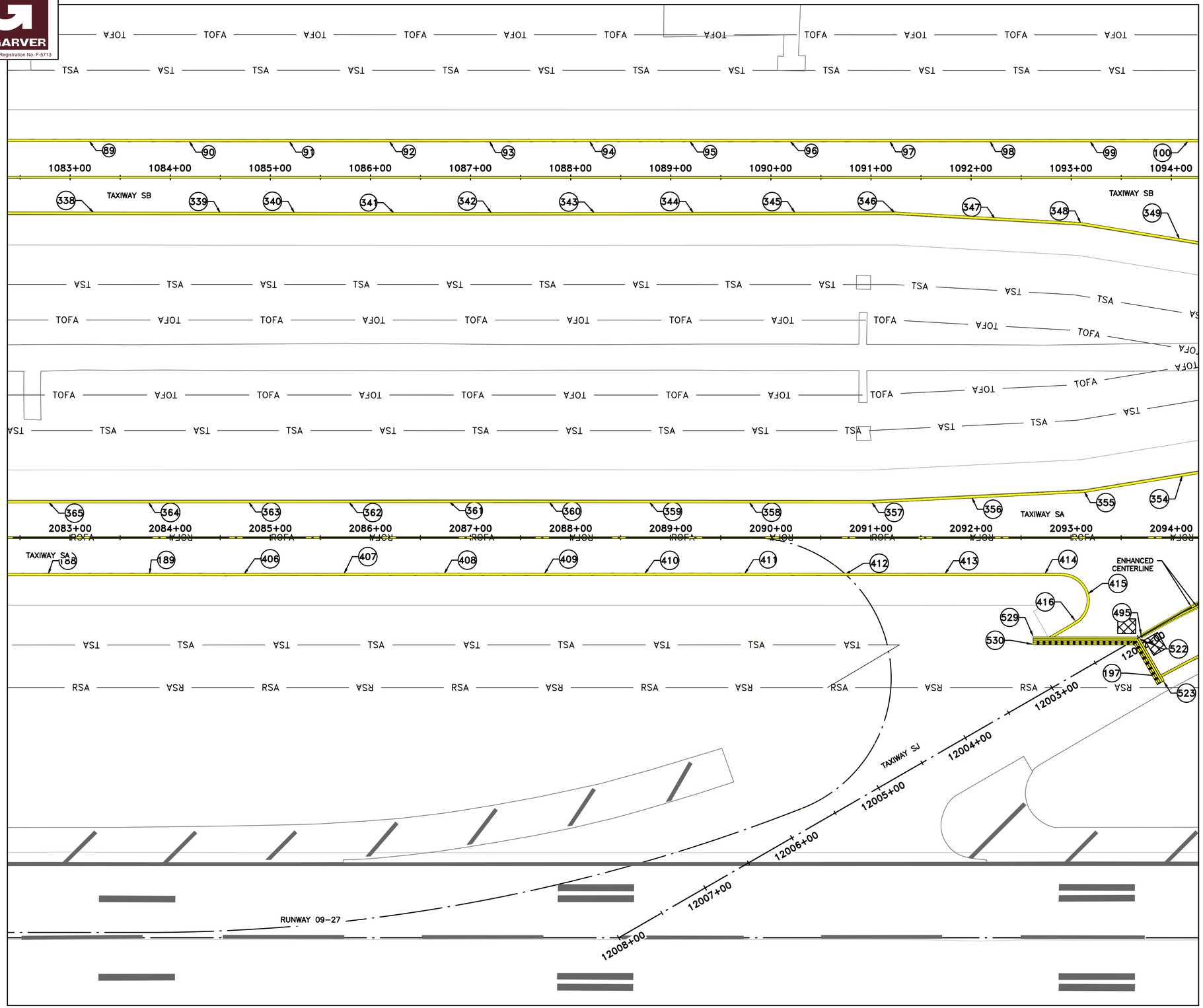

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(IN FEET)

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MATCHLINE SHEET C12.02

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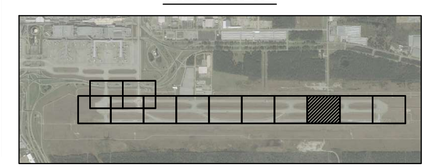

GARVER
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CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN X

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.10

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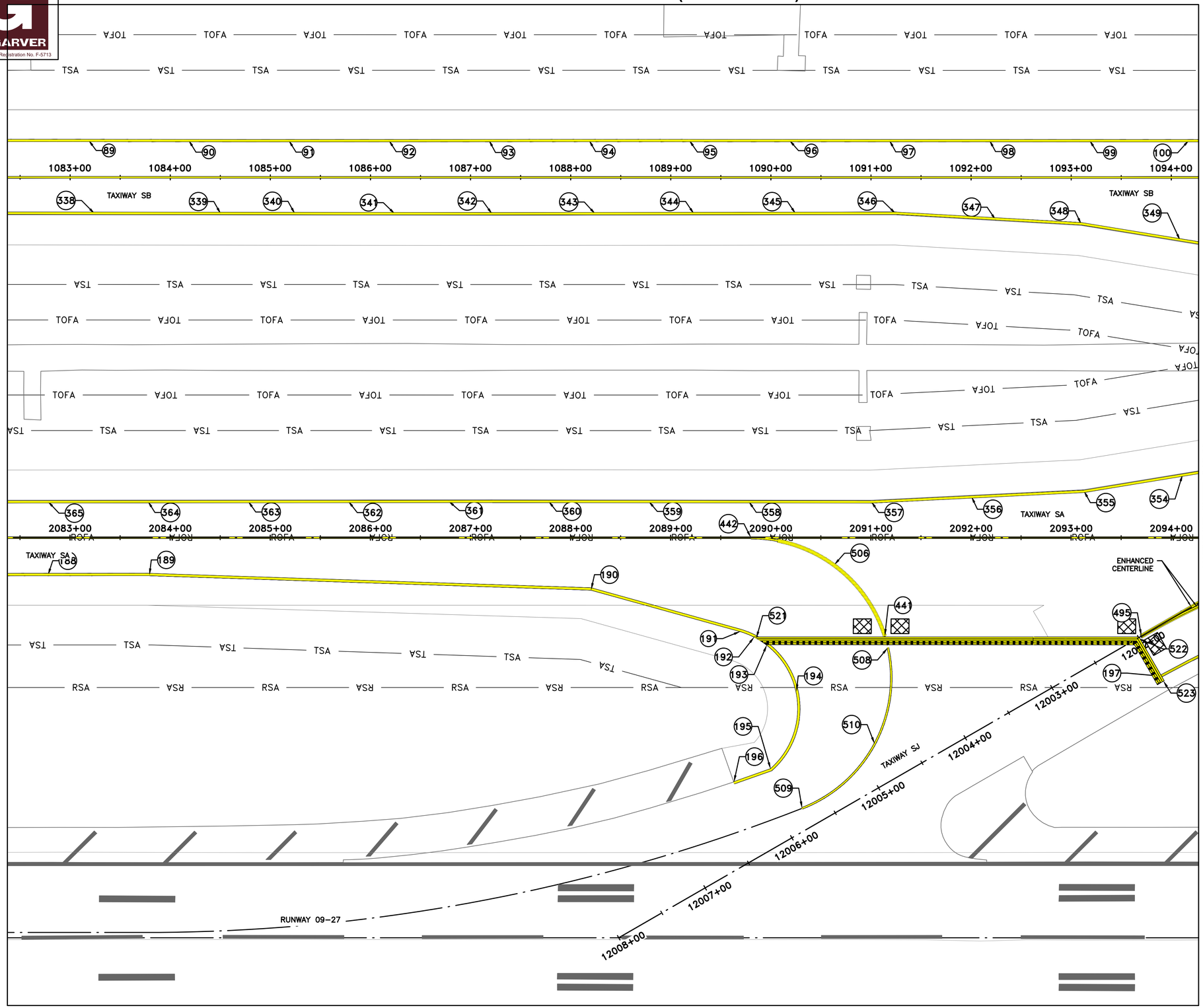
ADDITIVE ALTERNATE 1 (IF AWARDED)



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N

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MATCHLINE SHEET C12.02

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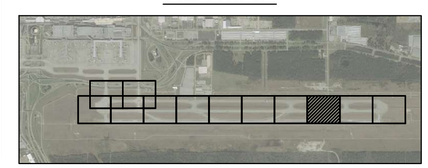

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TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN X
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C13.10A

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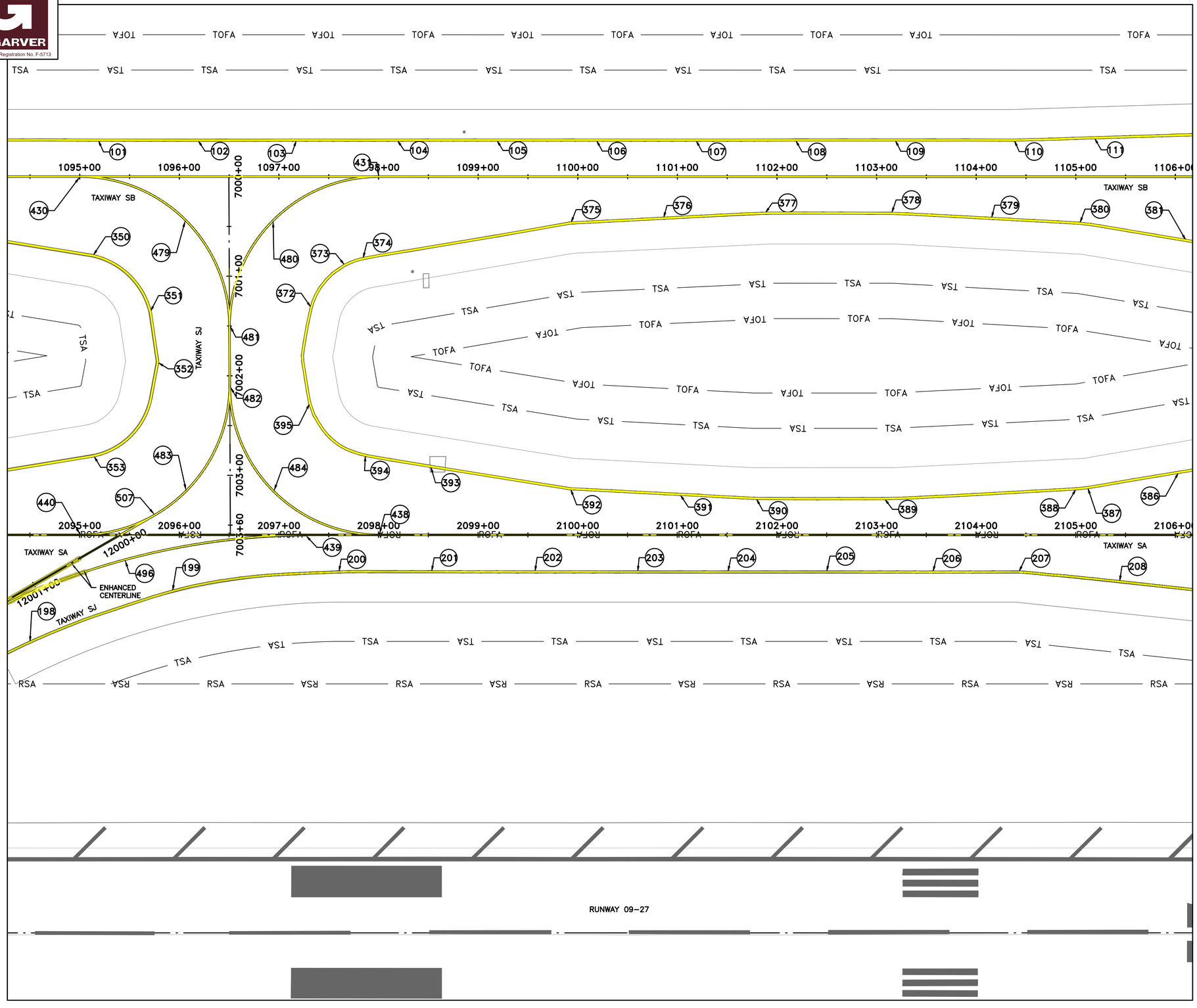

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N

LEGEND

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- TAXIWAY CENTERLINE MARKINGS EXISTING
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MATCHLINE SHEET C12.02

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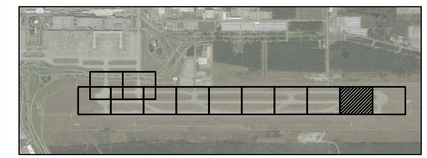

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TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN XI

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023

STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.11

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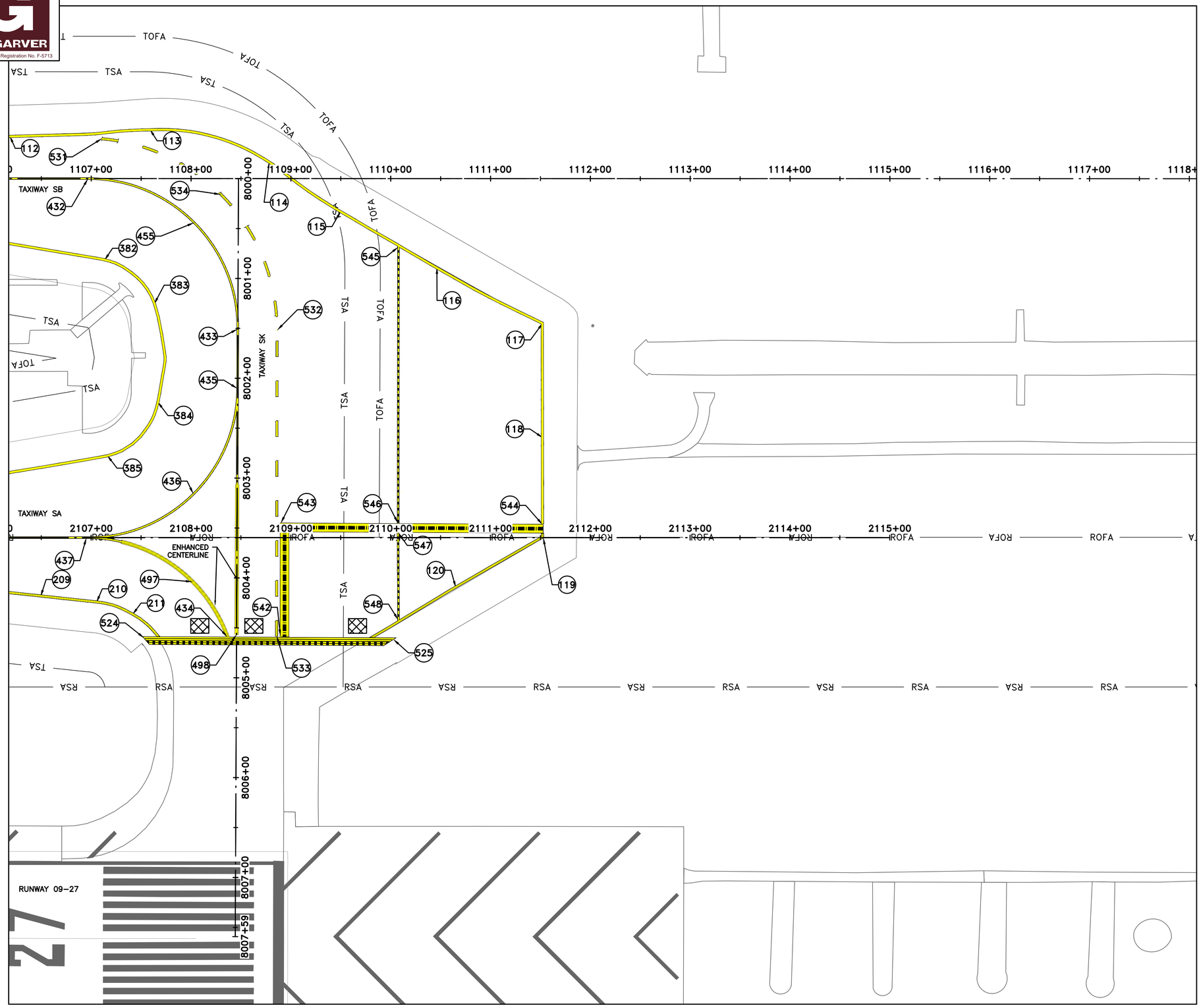

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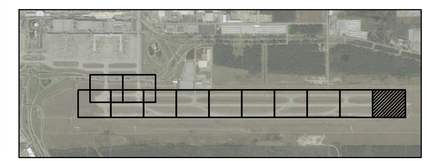
4. REVIEW MARKING STAKEOUT WITH THE RPR PRIOR TO MARKING PAVEMENT.
5. TIE-IN LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL SURVEY EXISTING CONNECTING TAXIWAY CENTERLINES AND EDGE MARKINGS PRIOR TO DEMOLITION. VERIFY THE TIE-IN LOCATIONS WITH THE RPR PRIOR TO INSTALLING PAVEMENT MARKING.
6. AFTER ALL NECESSARY PERMANENT MARKING APPLICATION CONDITIONS HAVE BEEN MET, INCLUDING PAVEMENT CURING WAITING PERIOD, RETURN TO THE APPROPRIATE PAVEMENTS TO FURNISH AND INSTALL PERMANENT MARKING.
7. COORDINATES ON TAXIWAY CENTERLINE ARE AT CENTER OF STRIPE.
8. COORDINATES ON TAXIWAY EDGE MARKING ARE AT OUTSIDE EDGE OF YELLOW STRIPE FURTHERMOST AWAY FROM TAXIWAY CENTERLINE.
9. SEE DETAILS 3 AND 4 ON SHEET C12.15 FOR COORDINATE LOCATION FOR SURFACE MOUNTED DIRECTION SIGNS.
10. SEE FAA AIRPORT CIRCULAR AC150/5340-1M STANDARDS FOR AIRPORT MARKINGS.

KEYMAP



GARVER
TBPE Registration No. F-5713

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING PLAN XII

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.12

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GARVER
TBPE Registration No. F-5713

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
1	TAXIWAY SC	3002+70.82	49.77' R
2	TAXIWAY SC	3003+98.82	49.62' R
3	TAXIWAY SC	3004+98.82	49.89' R
4	TAXIWAY SC	3005+48.34	49.98' R
5	TAXIWAY SB	1008+12.09	78.18' L
6	TAXIWAY SB	1006+57.63	58.72' R
7	TAXIWAY SB	1005+32.75	93.72' R
8	TAXIWAY SB	1005+33.36	186.60' R
9	TAXIWAY SA	2006+32.39	81.64' L
10	TAXIWAY SA	2006+32.43	0.10' R
11	TAXIWAY SA	2007+99.50	96.65' R
12	TAXIWAY SC	3002+70.25	50.43' L
13	TAXIWAY SC	3003+80.83	50.51' L
14	TAXIWAY SC	3004+79.66	64.06' L
15	TAXIWAY SC	3005+59.66	75.83' L
16	TAXIWAY SB	1010+77.22	75.68' L
17	TAXIWAY SB	1013+32.76	37.61' L
18	TAXIWAY SB	1014+35.36	36.99' L
19	TAXIWAY SB	1015+32.52	37.03' L
20	TAXIWAY SB	1016+18.11	37.05' L

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
21	TAXIWAY SB	1017+14.35	36.99' L
22	TAXIWAY SB	1017+20.61	37.46' L
23	TAXIWAY SB	1019+16.88	66.64' L
24	TAXIWAY SB	1019+82.04	76.91' L
25	TAXIWAY SF	4005+60.95	75.99' R
26	TAXIWAY SF	4003+88.33	50.99' R
27	TAXIWAY SF	4002+64.80	50.21' R
28	TAXIWAY SF	4002+65.39	50.97' L
29	TAXIWAY SF	4003+78.30	51.06' L
30	TAXIWAY SF	4005+61.03	77.36' L
31	TAXIWAY SB	1022+54.50	76.29' L
32	TAXIWAY SB	1025+16.41	37.50' L
33	TAXIWAY SB	1026+17.99	37.00' L
34	TAXIWAY SB	1027+17.89	37.03' L
35	TAXIWAY SB	1028+17.99	37.00' L
36	TAXIWAY SB	1029+17.99	37.00' L
37	TAXIWAY SB	1030+17.99	36.97' L
38	TAXIWAY SB	1031+17.99	37.11' L
39	TAXIWAY SB	1032+17.99	37.05' L
40	TAXIWAY SB	1033+17.99	37.02' L

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
41	TAXIWAY SB	1034+17.99	37.04' L
42	TAXIWAY SB	1035+17.99	37.10' L
43	TAXIWAY SB	1036+17.99	37.21' L
44	TAXIWAY SB	1037+17.99	37.23' L
45	TAXIWAY SB	1038+17.99	37.19' L
46	TAXIWAY SB	1039+17.99	37.11' L
47	TAXIWAY SB	1040+17.99	37.07' L
48	TAXIWAY SB	1041+17.99	37.08' L
49	TAXIWAY SB	1042+17.99	37.10' L
50	TAXIWAY SB	1043+17.99	37.14' L
51	TAXIWAY SB	1044+17.99	37.21' L
52	TAXIWAY SB	1045+17.99	37.18' L
53	TAXIWAY SB	1046+17.99	37.21' L
54	TAXIWAY SB	1047+17.99	37.12' L
55	TAXIWAY SB	1048+17.99	37.07' L
56	TAXIWAY SB	1049+17.99	37.08' L
57	TAXIWAY SB	1050+17.99	37.11' L
58	TAXIWAY SB	1051+17.99	37.10' L
59	TAXIWAY SB	1052+17.99	37.18' L
60	TAXIWAY SB	1053+17.99	37.29' L

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
61	TAXIWAY SB	1054+17.99	37.46' L
62	TAXIWAY SB	1055+17.99	37.35' L
63	TAXIWAY SB	1057+17.99	37.26' L
64	TAXIWAY SB	1058+17.99	37.24' L
65	TAXIWAY SB	1059+17.99	37.22' L
66	TAXIWAY SB	1060+17.99	37.19' L
67	TAXIWAY SB	1061+17.99	37.17' L
68	TAXIWAY SB	1062+17.99	37.21' L
69	TAXIWAY SB	1063+17.99	37.28' L
70	TAXIWAY SB	1064+17.99	37.32' L
71	TAXIWAY SB	1065+17.99	37.32' L
72	TAXIWAY SB	1066+17.99	37.33' L
73	TAXIWAY SB	1067+17.99	37.68' L
74	TAXIWAY SB	1068+17.99	37.36' L
75	TAXIWAY SB	1069+17.99	37.37' L
76	TAXIWAY SB	1070+17.99	37.36' L
77	TAXIWAY SB	1071+17.99	37.36' L
78	TAXIWAY SB	1072+17.99	37.34' L
79	TAXIWAY SB	1073+17.99	37.33' L
80	TAXIWAY SB	1074+17.99	37.34' L

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
81	TAXIWAY SB	1075+17.99	37.39' L
82	TAXIWAY SB	1076+17.99	37.40' L
83	TAXIWAY SB	1077+17.99	37.44' L
84	TAXIWAY SB	1078+17.99	37.39' L
85	TAXIWAY SB	1079+17.99	37.39' L
86	TAXIWAY SB	1080+17.99	37.38' L
87	TAXIWAY SB	1081+17.99	37.45' L
88	TAXIWAY SB	1082+17.99	37.50' L
89	TAXIWAY SB	1083+17.99	37.50' L
90	TAXIWAY SB	1084+17.99	37.44' L
91	TAXIWAY SB	1085+17.99	37.38' L
92	TAXIWAY SB	1086+17.99	37.41' L
93	TAXIWAY SB	1087+17.99	37.50' L
94	TAXIWAY SB	1088+17.99	37.50' L
95	TAXIWAY SB	1089+17.99	37.50' L
96	TAXIWAY SB	1090+17.99	37.54' L
97	TAXIWAY SB	1091+17.99	37.50' L
98	TAXIWAY SB	1092+17.99	37.52' L
99	TAXIWAY SB	1093+17.99	37.49' L
100	TAXIWAY SB	1094+17.99	37.50' L

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
101	TAXIWAY SB	1095+17.99	37.37' L
102	TAXIWAY SB	1096+17.99	37.31' L
103	TAXIWAY SB	1097+17.99	37.41' L
104	TAXIWAY SB	1098+17.99	37.42' L
105	TAXIWAY SB	1099+17.99	37.46' L
106	TAXIWAY SB	1100+17.99	37.48' L
107	TAXIWAY SB	1101+17.99	37.46' L
108	TAXIWAY SB	1102+17.99	37.57' L
109	TAXIWAY SB	1103+17.99	37.61' L
110	TAXIWAY SB	1104+37.64	37.54' L
111	TAXIWAY SB	1105+18.00	39.87' L
112	TAXIWAY SB	1106+18.07	42.94' L
113	TAXIWAY SB	1107+58.45	49.56' L
114	TAXIWAY SB	1108+78.37	17.29' L
115	TAXIWAY SB	1109+50.23	32.47' R
116	TAXIWAY SB	1110+46.20	88.53' R
117	TAXIWAY SB	1111+52.65	144.33' R
118	TAXIWAY SB	1111+52.67	259.61' R
119	TAXIWAY SA	2111+52.81	0.17' L
120	TAXIWAY SA	2110+65.51	50.24' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
121	TAXIWAY SA	2010+76.09	65.50' R
122	TAXIWAY SA	2011+75.49	55.65' R
123	TAXIWAY SA	2012+74.88	44.53' R
124	TAXIWAY SA	2013+27.68	37.44' R
125	TAXIWAY SA	2014+27.93	37.11' R
126	TAXIWAY SA	2015+32.34	37.32' R
127	TAXIWAY SA	2016+32.34	37.23' R
128	TAXIWAY SA	2017+32.34	37.14' R
129	TAXIWAY SA	2018+32.33	37.01' R
130	TAXIWAY SA	2019+32.34	37.82' R
131	TAXIWAY SA	2020+02.18	38.32' R
132	TAXIWAY SA	2021+02.17	44.67' R
133	TAXIWAY SA	2022+01.97	65.76' R
134	TAXIWAY SA	2023+01.88	100.77' R
135	TAXIWAY SA	2024+73.85	89.91' R
136	TAXIWAY SA	2024+52.86	55.27' R
137	TAXIWAY SA	2025+20.31	37.02' R
138	TAXIWAY SA	2026+20.32	37.23' R
139	TAXIWAY SA	2027+20.31	37.28' R
140	TAXIWAY SA	2028+20.31	37.28' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
141	TAXIWAY SA	2029+20.31	37.28' R
142	TAXIWAY SA	2030+20.31	37.28' R
143	TAXIWAY SA	2031+20.31	37.28' R
144	TAXIWAY SA	2032+20.31	37.28' R
145	TAXIWAY SA	2033+20.29	37.33' R
146	TAXIWAY SA	2034+20.31	37.28' R
147	TAXIWAY SA	2035+20.31	37.26' R
148	TAXIWAY SA	2036+20.31	37.25' R
149	TAXIWAY SA	2037+20.31	37.28' R
150	TAXIWAY SA	2038+20.31	37.28' R
151	TAXIWAY SA	2039+20.31	37.28' R
152	TAXIWAY SA	2040+20.31	37.28' R
153	TAXIWAY SA	2041+24.37	46.52' R
154	TAXIWAY SA	2042+27.35	70.62' R
155	TAXIWAY SA	2043+30.85	105.83' R
156	TAXIWAY SA	2044+70.14	55.68' R
157	TAXIWAY SA	2045+97.11	37.37' R
158	TAXIWAY SA	2047+05.27	37.41' R
159	TAXIWAY SA	2047+85.64	37.49' R
160	TAXIWAY SA	2049+04.81	37.38' R

HOUSTON AIRPORTS
CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING POINT TABLES I

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C12.13

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GARVER
TBPE Registration No. F-5713

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
161	TAXIWAY SA	2050+01.23	37.53' R
162	TAXIWAY SA	2050+91.57	37.44' R
163	TAXIWAY SA	2052+05.76	37.40' R
164	TAXIWAY SA	2053+02.45	37.50' R
165	TAXIWAY SA	2054+01.08	37.68' R
166	TAXIWAY SA	2054+99.24	37.69' R
167	TAXIWAY SA	2055+97.40	37.70' R
168	TAXIWAY SA	2056+90.11	37.69' R
169	TAXIWAY SA	2058+05.24	37.66' R
170	TAXIWAY SA	2058+96.43	37.62' R
171	TAXIWAY SA	2059+86.52	37.60' R
172	TAXIWAY SA	2060+98.68	37.57' R
173	TAXIWAY SA	2061+91.46	37.58' R
174	TAXIWAY SA	2062+89.25	37.62' R
175	TAXIWAY SA	2063+84.45	37.65' R
176	TAXIWAY SA	2068+20.12	51.22' R
177	TAXIWAY SA	2069+84.82	99.03' R
178	TAXIWAY SA	2069+96.82	107.03' R
179	TAXIWAY SA	2069+99.49	230.28' R
180	TAXIWAY SA	2069+62.62	243.29' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
181	TAXIWAY SA	2075+27.43	77.82' R
182	TAXIWAY SA	2076+67.30	43.51' R
183	TAXIWAY SA	2077+79.57	37.20' R
184	TAXIWAY SA	2078+71.54	37.83' R
185	TAXIWAY SA	2079+74.49	37.81' R
186	TAXIWAY SA	2080+86.97	37.73' R
187	TAXIWAY SA	2081+82.37	37.67' R
188	TAXIWAY SA	2082+77.76	37.62' R
189	TAXIWAY SA	2083+79.09	37.57' R
190	TAXIWAY SA	2088+20.36	52.14' R
191	TAXIWAY SA	2089+69.89	93.52' R
192	TAXIWAY SA	2089+83.66	99.07' R
193	TAXIWAY SA	2089+96.20	107.07' R
194	TAXIWAY SA	2090+25.47	153.49' R
195	TAXIWAY SA	2089+99.92	231.16' R
196	TAXIWAY SA	2089+63.06	244.16' R
197	TAXIWAY SA	2093+90.91	138.44' R
198	TAXIWAY SA	2094+49.97	108.62' R
199	TAXIWAY SA	2095+93.01	57.31' R
200	TAXIWAY SA	2097+59.94	38.00' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
201	TAXIWAY SA	2098+53.05	37.78' R
202	TAXIWAY SA	2099+56.82	37.90' R
203	TAXIWAY SA	2100+60.00	37.96' R
204	TAXIWAY SA	2101+50.45	38.04' R
205	TAXIWAY SA	2102+49.59	37.99' R
206	TAXIWAY SA	2103+56.24	38.10' R
207	TAXIWAY SA	2104+42.43	37.98' R
208	TAXIWAY SA	2105+43.79	47.65' R
209	TAXIWAY SA	2106+49.18	59.20' R
210	TAXIWAY SA	2107+05.10	65.08' R
211	TAXIWAY SA	2107+41.18	77.25' R
212	TAXIWAY SC	3008+35.12	81.97' L
213	TAXIWAY SB	1010+75.15	81.00' R
214	TAXIWAY SB	1012+81.49	47.51' R
215	TAXIWAY SB	1014+62.96	38.12' R
216	TAXIWAY SB	1015+94.52	38.45' R
217	TAXIWAY SB	1017+83.18	49.08' R
218	TAXIWAY SB	1019+78.54	80.52' R
219	TAXIWAY SF	4008+33.36	81.99' R
220	TAXIWAY SF	4009+24.49	81.47' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
221	TAXIWAY SA	2019+80.35	81.52' L
222	TAXIWAY SA	2017+73.89	47.17' L
223	TAXIWAY SA	2016+09.24	37.16' L
224	TAXIWAY SA	2014+59.40	37.35' L
225	TAXIWAY SA	2012+68.73	49.56' L
226	TAXIWAY SA	2010+68.34	82.57' L
227	TAXIWAY SC	3009+30.87	82.11' L
228	TAXIWAY SF	4008+37.59	80.77' L
229	TAXIWAY SB	1022+53.88	82.21' R
230	TAXIWAY SB	1023+59.75	64.37' R
231	TAXIWAY SB	1024+58.64	48.34' R
232	TAXIWAY SB	1025+49.47	43.26' R
233	TAXIWAY SB	1026+49.37	38.12' R
234	TAXIWAY SB	1027+49.97	38.18' R
235	TAXIWAY SB	1028+49.97	38.07' R
236	TAXIWAY SB	1029+49.97	38.00' R
237	TAXIWAY SB	1030+49.97	38.13' R
238	TAXIWAY SB	1031+49.97	38.04' R
239	TAXIWAY SB	1032+49.98	38.09' R
240	TAXIWAY SB	1033+49.97	38.01' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
241	TAXIWAY SB	1034+49.97	38.01' R
242	TAXIWAY SB	1035+49.97	37.98' R
243	TAXIWAY SB	1036+06.18	38.19' R
244	TAXIWAY SB	1037+06.07	43.42' R
245	TAXIWAY SB	1037+95.39	48.25' R
246	TAXIWAY SB	1038+94.23	64.48' R
247	TAXIWAY SB	1039+96.68	81.87' R
248	TAXIWAY SG	5001+37.81	81.65' R
249	TAXIWAY SG	5002+24.28	82.20' R
250	TAXIWAY SA	2039+96.54	81.66' L
251	TAXIWAY SA	2038+91.75	63.91' L
252	TAXIWAY SA	2037+92.83	48.00' L
253	TAXIWAY SA	2036+92.83	42.60' L
254	TAXIWAY SA	2036+01.18	37.93' L
255	TAXIWAY SA	2035+01.13	38.00' L
256	TAXIWAY SA	2033+44.96	37.93' L
257	TAXIWAY SA	2032+44.93	37.85' L
258	TAXIWAY SA	2031+44.90	37.90' L
259	TAXIWAY SA	2030+44.86	37.83' L
260	TAXIWAY SA	2029+44.83	37.90' L

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
261	TAXIWAY SA	2028+44.80	37.78' L
262	TAXIWAY SA	2027+44.77	37.80' L
263	TAXIWAY SA	2026+44.73	38.00' L
264	TAXIWAY SA	2025+44.89	43.23' L
265	TAXIWAY SA	2024+65.42	47.73' L
266	TAXIWAY SA	2023+66.60	63.70' L
267	TAXIWAY SA	2022+55.32	82.03' L
268	TAXIWAY SF	4009+21.62	81.50' L
269	TAXIWAY SG	5001+36.87	81.81' L
270	TAXIWAY SB	1042+81.86	79.83' R
271	TAXIWAY SB	1044+78.83	47.77' R
272	TAXIWAY SB	1046+66.06	37.94' R
273	TAXIWAY SB	1047+56.35	37.78' R
274	TAXIWAY SB	1048+64.27	37.75' R
275	TAXIWAY SB	1049+63.92	37.78' R
276	TAXIWAY SB	1050+78.80	37.78' R
277	TAXIWAY SB	1051+75.90	37.83' R
278	TAXIWAY SB	1052+70.07	37.82' R
279	TAXIWAY SB	1053+68.62	37.72' R
280	TAXIWAY SB	1054+75.99	37.73' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
281	TAXIWAY SB	1055+64.22	37.74' R
282	TAXIWAY SB	1056+63.33	37.75' R
283	TAXIWAY SB	1058+34.70	37.74' R
284	TAXIWAY SB	1059+29.69	37.72' R
285	TAXIWAY SB	1060+24.67	37.70' R
286	TAXIWAY SB	1061+19.66	37.68' R
287	TAXIWAY SB	1062+19.53	37.62' R
288	TAXIWAY SB	1063+19.40	37.56' R
289	TAXIWAY SB	1064+19.27	37.51' R
290	TAXIWAY SB	1065+18.35	37.47' R
291	TAXIWAY SB	1066+39.26	37.50' R
292	TAXIWAY SB	1067+35.99	37.52' R
293	TAXIWAY SB	1068+32.72	37.55' R
294	TAXIWAY SB	1069+24.56	37.58' R
295	TAXIWAY SB	1070+14.77	37.61' R
296	TAXIWAY SB	1071+19.04	37.73' R
297	TAXIWAY SB	1073+14.18	48.34' R
298	TAXIWAY SB	1075+13.46	82.37' R
299	TAXIWAY SH	6001+38.28	81.05' R
300	TAXIWAY SH	6002+24.58	81.86' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
301	TAXIWAY SA	2075+07.28	80.06' L
302	TAXIWAY SA	2073+09.97	47.36' L
303	TAXIWAY SA	2072+17.06	42.80' L
304	TAXIWAY SA	2071+17.23	37.82' L
305	TAXIWAY SA	2070+17.01	37.72' L
306	TAXIWAY SA	2069+16.98	37.77' L
307	TAXIWAY SA	2068+16.95	37.81' L
308	TAXIWAY SA	2067+16.92	37.85' L
309	TAXIWAY SA	2066+16.89	37.89' L
310	TAXIWAY SA	2065+16.86	37.93' L
311	TAXIWAY SA	2064+16.83	37.97' L
312	TAXIWAY SA	2062+65.09	38.03' L
313	TAXIWAY SA	2061+65.08	38.07' L
314	TAXIWAY SA	2060+65.07	38.12' L
315	TAXIWAY SA	2059+65.06	38.16' L
316	TAXIWAY SA	2058+65.04	38.19' L
317	TAXIWAY SA	2057+65.03	38.21' L
318	TAXIWAY SA	2056+65.02	38.23' L
319	TAXIWAY SA	2055+65.01	37.53' L
320	TAXIWAY SA	2054+64.99	37.47' L

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HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING POINT TABLES II

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C12.14

GARVER
TBPE Registration No. F-5713

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
321	TAXIWAY SA	2053+64.98	38.29' L
322	TAXIWAY SA	2052+64.97	37.71' L
323	TAXIWAY SA	2051+64.95	37.76' L
324	TAXIWAY SA	2050+65.10	37.86' L
325	TAXIWAY SA	2049+64.93	37.85' L
326	TAXIWAY SA	2048+64.85	37.92' L
327	TAXIWAY SA	2047+64.82	37.92' L
328	TAXIWAY SA	2046+62.66	37.94' L
329	TAXIWAY SA	2044+76.19	47.90' L
330	TAXIWAY SA	2042+61.75	84.42' L
331	TAXIWAY SG	5001+79.07	74.59' L
332	TAXIWAY SH	6001+78.29	74.49' L
333	TAXIWAY SB	1077+30.32	138.37' R
334	TAXIWAY SB	1077+86.69	82.02' R
335	TAXIWAY SB	1079+93.94	47.21' R
336	TAXIWAY SB	1080+86.69	41.75' R
337	TAXIWAY SB	1081+79.58	36.50' R
338	TAXIWAY SB	1083+24.82	36.61' R
339	TAXIWAY SB	1084+50.77	36.75' R
340	TAXIWAY SB	1085+24.90	36.82' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
341	TAXIWAY SB	1086+24.93	36.91' R
342	TAXIWAY SB	1087+21.96	37.00' R
343	TAXIWAY SB	1088+25.01	36.87' R
344	TAXIWAY SB	1089+23.56	36.75' R
345	TAXIWAY SB	1090+25.09	36.60' R
346	TAXIWAY SB	1091+25.16	36.50' R
347	TAXIWAY SB	1092+25.02	42.98' R
348	TAXIWAY SB	1093+10.35	47.00' R
349	TAXIWAY SB	1094+09.04	63.10' R
350	TAXIWAY SB	1095+12.76	80.02' R
351	TAXIWAY SJ	7001+36.18	80.02' R
352	TAXIWAY SJ	7001+85.87	72.99' R
353	TAXIWAY SA	2095+13.66	80.02' L
354	TAXIWAY SA	2094+11.55	63.26' L
355	TAXIWAY SA	2093+12.46	47.00' L
356	TAXIWAY SA	2092+00.14	41.45' L
357	TAXIWAY SA	2091+00.00	36.50' L
358	TAXIWAY SA	2089+77.53	36.66' L
359	TAXIWAY SA	2088+77.52	36.79' L
360	TAXIWAY SA	2087+77.51	36.93' L

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
361	TAXIWAY SA	2086+77.50	36.96' L
362	TAXIWAY SA	2085+77.49	36.87' L
363	TAXIWAY SA	2084+77.48	36.78' L
364	TAXIWAY SA	2083+77.39	36.68' L
365	TAXIWAY SA	2082+77.35	36.59' L
366	TAXIWAY SA	2081+77.32	36.50' L
367	TAXIWAY SA	2080+91.06	40.86' L
368	TAXIWAY SA	2079+91.38	45.89' L
369	TAXIWAY SA	2078+85.92	63.63' L
370	TAXIWAY SA	2077+87.33	81.10' L
371	TAXIWAY SH	6002+22.57	81.88' L
372	TAXIWAY SJ	7001+32.63	82.72' L
373	TAXIWAY SB	1097+66.61	89.47' R
374	TAXIWAY SB	1097+83.99	83.16' R
375	TAXIWAY SB	1099+92.69	47.30' R
376	TAXIWAY SB	1100+85.72	42.48' R
377	TAXIWAY SB	1101+87.46	37.48' R
378	TAXIWAY SB	1103+14.65	37.54' R
379	TAXIWAY SB	1104+15.03	42.54' R
380	TAXIWAY SB	1105+03.63	47.45' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
381	TAXIWAY SB	1106+11.12	64.75' R
382	TAXIWAY SB	1107+13.01	82.05' R
383	TAXIWAY SK	8001+26.29	84.18' R
384	TAXIWAY SK	8002+23.64	80.37' R
385	TAXIWAY SA	2107+15.82	82.58' L
386	TAXIWAY SA	2106+03.88	63.66' L
387	TAXIWAY SA	2105+11.68	48.20' L
388	TAXIWAY SA	2105+00.98	47.02' L
389	TAXIWAY SA	2103+07.39	37.12' L
390	TAXIWAY SA	2101+78.67	37.32' L
391	TAXIWAY SA	2101+02.04	41.44' L
392	TAXIWAY SA	2099+92.34	47.08' L
393	TAXIWAY SA	2098+51.98	69.59' L
394	TAXIWAY SA	2097+86.73	80.71' L
395	TAXIWAY SJ	7002+27.06	80.83' L
396	TAXIWAY SA	2064+95.08	37.75' R
397	TAXIWAY SA	2065+95.14	37.65' R
398	TAXIWAY SA	2066+95.19	37.83' R
399	TAXIWAY SA	2067+95.24	37.76' R
400	TAXIWAY SA	2068+95.29	37.78' R

TAXIWAY EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
401	TAXIWAY SA	2069+95.34	37.90' R
402	TAXIWAY SA	2070+95.39	37.97' R
403	TAXIWAY SA	2071+73.50	38.02' R
404	TAXIWAY SA	2072+73.55	37.82' R
405	TAXIWAY SA	2073+16.59	56.50' R
406	TAXIWAY SA	2084+72.86	37.60' R
407	TAXIWAY SA	2085+72.89	37.45' R
408	TAXIWAY SA	2086+72.91	37.38' R

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING POINT TABLES III

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C12.15

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GARVER
TBPE Registration No. F-5713

TAXIWAY CENTERLINE MARKING

POINT	ALIGNMENT	STATION	OFFSET
418	TAXIWAY SC	3002+70.53	0.00’
419	TAXIWAY SC	3005+49.22	0.00’
420	TAXIWAY SC	3008+49.22	0.00’
421	TAXIWAY SC	3009+10.16	0.00’
422	TAXIWAY SC	3011+56.32	0.00’
423	TAXIWAY SB	1010+87.75	0.00’
424	TAXIWAY SB	1019+67.06	0.00’
425	TAXIWAY SB	1022+67.05	0.00’ L
426	TAXIWAY SB	1039+84.46	0.00’
427	TAXIWAY SB	1042+83.34	0.00’ R
428	TAXIWAY SB	1074+99.34	0.00’ L
429	TAXIWAY SB	1077+99.33	0.00’ L
430	TAXIWAY SB	1095+00.34	0.00’ L
431	TAXIWAY SB	1098+00.33	0.00’ R
432	TAXIWAY SB	1106+96.89	0.00’
433	TAXIWAY SK	8001+50.62	0.00’
434	TAXIWAY SK	8004+59.13	8.99’ R
435	TAXIWAY SK	8002+10.28	0.00’
436	TAXIWAY SK	8003+16.11	43.69’ R
437	TAXIWAY SA	2106+95.38	0.02’ R

TAXIWAY CENTERLINE MARKING

POINT	ALIGNMENT	STATION	OFFSET
438	TAXIWAY SA	2098+00.66	0.00’
439	TAXIWAY SA	2097+26.41	0.00’
440	TAXIWAY SA	2095+00.66	0.00’
441	TAXIWAY SA	2091+13.82	98.15’ R
442	TAXIWAY SA	2089+80.30	0.00’
443	TAXIWAY SA	2071+13.28	98.10’ R
444	TAXIWAY SA	2077+99.52	0.00’
445	TAXIWAY SA	2077+41.63	0.00’
446	TAXIWAY SA	2074+99.54	0.02’ R
447	TAXIWAY SA	2069+79.92	0.00’ R
448	TAXIWAY SA	2040+68.29	0.01’ L
449	TAXIWAY SA	2039+84.28	0.00’
450	TAXIWAY SA	2020+09.86	0.01’ R
451	TAXIWAY SA	2019+67.32	0.19’ R
452	TAXIWAY SA	2010+88.09	0.00’
453	TAXIWAY SC	3010+16.18	43.89’ L
454	TAXIWAY SC	3007+43.11	43.98’ L
455	TAXIWAY SK	8000+44.33	44.15’ R
456	TAXIWAY SF	4002+64.59	0.00’
457	TAXIWAY SF	4006+99.28	0.00’

TAXIWAY CENTERLINE MARKING

POINT	ALIGNMENT	STATION	OFFSET
458	TAXIWAY SF	4005+49.31	0.00’
459	TAXIWAY SF	4007+91.25	0.00’
460	TAXIWAY SB	1020+73.06	43.95’ L
461	TAXIWAY SB	1021+60.93	43.92’ L
462	TAXIWAY SF	4007+43.19	43.92’ R
463	TAXIWAY SF	4007+43.24	43.95’ L
464	TAXIWAY SF	4009+68.08	0.00’
465	TAXIWAY SF	4010+16.25	43.87’ R
466	TAXIWAY SF	4010+16.15	43.93’ L
467	TAXIWAY SG	5000+44.32	44.14’ R
468	TAXIWAY SG	5000+43.55	43.72’ L
469	TAXIWAY SG	5001+49.40	0.00’
470	TAXIWAY SG	5002+09.91	0.00’
471	TAXIWAY SG	5003+16.99	43.72’ R
472	TAXIWAY SG	5003+16.20	44.15’ L
473	TAXIWAY SH	6000+43.73	43.82’ R
474	TAXIWAY SH	6000+44.14	44.05’ L
475	TAXIWAY SH	6001+49.68	0.00’
476	TAXIWAY SH	6002+09.78	0.00’
477	TAXIWAY SH	6003+15.94	44.03’ R

TAXIWAY CENTERLINE MARKING

POINT	ALIGNMENT	STATION	OFFSET
478	TAXIWAY SH	6003+16.32	43.83’ L
479	TAXIWAY SJ	7000+43.51	43.70’ R
480	TAXIWAY SJ	7000+44.36	44.17’ L
481	TAXIWAY SJ	7001+49.34	0.00’
482	TAXIWAY SJ	7002+10.43	0.00’
483	TAXIWAY SJ	7003+15.44	44.16’ R
484	TAXIWAY SJ	7003+16.27	43.71’ L
485	TAXIWAY SC	3006+55.24	43.89’ L
486	TAXIWAY SC	3011+04.05	43.98’ L
487	HIGH SPEED TAXIWAY SF	9000+18.65	32.24’ R
488	HIGH SPEED TAXIWAY SF	9002+17.93	0.00’
489	TAXIWAY SA	2022+67.13	0.00’
490	HIGH SPEED TAXIWAY SG	10000+09.12	25.25’ R
491	HIGH SPEED TAXIWAY SG	10001+97.00	0.00’
492	TAXIWAY SA	2042+84.28	0.00’
493	HIGH SPEED TAXIWAY SH	11001+97.77	0.00’ L
494	HIGH SPEED TAXIWAY SH	11000+05.92	25.69’ L
495	HIGH SPEED TAXIWAY SJ	12001+96.79	0.00’
496	HIGH SPEED TAXIWAY SJ	12000+08.57	23.92’ L
497	TAXIWAY SK	8004+03.98	44.18’ R

TAXIWAY CENTERLINE MARKING

POINT	ALIGNMENT	STATION	OFFSET
498	TAXIWAY SK	8004+56.63	0.00’ R
499	TAXIWAY SA	2022+10.05	11.28’ L
500	TAXIWAY SA	2042+09.97	19.70’ L
501	TAXIWAY SA	2070+73.18	35.78’ R
502	HIGH SPEED TAXIWAY SH	11004+23.46	116.93’ R
503	HIGH SPEED TAXIWAY SH	11004+83.13	40.76’ R
504	HIGH SPEED TAXIWAY SH	11005+77.78	20.69’ R
505	TAXIWAY SA	2075+73.53	19.59’ L
506	TAXIWAY SA	2090+63.08	27.40’ R
507	TAXIWAY SA	2095+75.50	20.01’ L
508	HIGH SPEED TAXIWAY SJ	12004+21.98	116.48’ R
509	HIGH SPEED TAXIWAY SJ	12005+76.32	20.42’ R
510	HIGH SPEED TAXIWAY SJ	12004+81.39	39.92’ R

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TBPE REG. NO. F-1741

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING POINT TABLES IV

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C12.16

GARVER
TBPE Registration No. F-5713

RUNWAY HOLD POSITION MARKING

POINT	ALIGNMENT	STATION	OFFSET
511	TAXIWAY SC	3011+60.03	171.62' R
512	TAXIWAY SC	3011+60.53	95.72' L
513	HIGH SPEED TAXIWAY SF	9002+21.41	49.69' R
514	HIGH SPEED TAXIWAY SF	9002+21.93	0.17' L
515	HIGH SPEED TAXIWAY SG	10002+00.89	49.72' R
516	HIGH SPEED TAXIWAY SG	10002+01.07	0.17' L
517	HIGH SPEED TAXIWAY SG	10002+91.83	52.54' L
518	HIGH SPEED TAXIWAY SH	11005+31.87	190.78' R
519	HIGH SPEED TAXIWAY SH	11002+01.27	0.39' R
520	HIGH SPEED TAXIWAY SH	11002+01.30	48.77' L
521	HIGH SPEED TAXIWAY SJ	12005+31.27	190.45' R
522	HIGH SPEED TAXIWAY SJ	12002+00.79	0.32' L
523	HIGH SPEED TAXIWAY SJ	12002+00.37	49.44' L
524	TAXIWAY SK	8004+60.61	92.39' R
525	TAXIWAY SK	8004+60.67	156.82' L
526	HIGH SPEED TAXIWAY SF	9003+07.73	49.42' L
527	HIGH SPEED TAXIWAY SH (1)	11002+87.57	50.74' R
528	HIGH SPEED TAXIWAY SH (1)	11003+00.95	50.37' R
529	HIGH SPEED TAXIWAY SJ (1)	12002+90.70	52.79' R
530	HIGH SPEED TAXIWAY SJ (1)	12002+94.32	46.80' R

TAXIWAY HOLD POSITION MARKING

POINT	ALIGNMENT	STATION	OFFSET
535	TAXIWAY SC	3006+55.90	159.75' R
536	TAXIWAY SC	3010+48.90	160.27' R
537	TAXIWAY SC	3010+59.92	160.35' R
538	TAXIWAY SC	3011+40.17	160.78' R
539	TAXIWAY SC	3010+49.81	305.39' R
540	TAXIWAY SC	3010+49.58	45.42' R
541	TAXIWAY SC	3011+56.74	45.84' R
542	TAXIWAY SK	8004+58.27	44.05' L
543	TAXIWAY SK	8003+45.16	43.66' L
544	TAXIWAY SK	8003+45.33	306.21' L
545	TAXIWAY SK	8000+67.87	160.51' L
546	TAXIWAY SK	8003+44.62	161.43' L
547	TAXIWAY SK	8003+54.01	161.36' L
548	TAXIWAY SK	8004+41.51	162.14' L

TAXIWAY DASHED EDGE MARKING

POINT	ALIGNMENT	STATION	OFFSET
531	TAXIWAY SB	1107+10.90	40.11' L
532	TAXIWAY SK	8001+51.75	39.28' L
533	TAXIWAY SK	8004+57.77	40.12' L
534	TAXIWAY SK	8000+16.00	17.36' R

HOUSTON AIRPORTS

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING POINT TABLES V

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

C12.17

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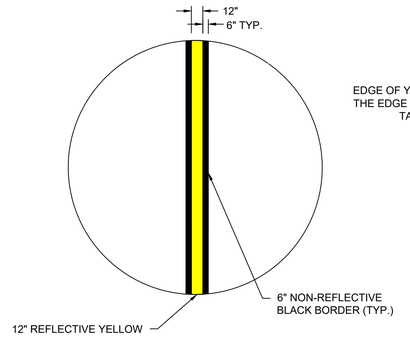
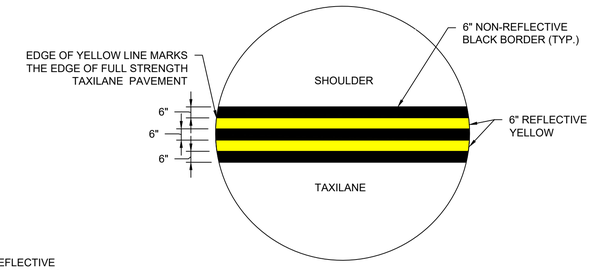
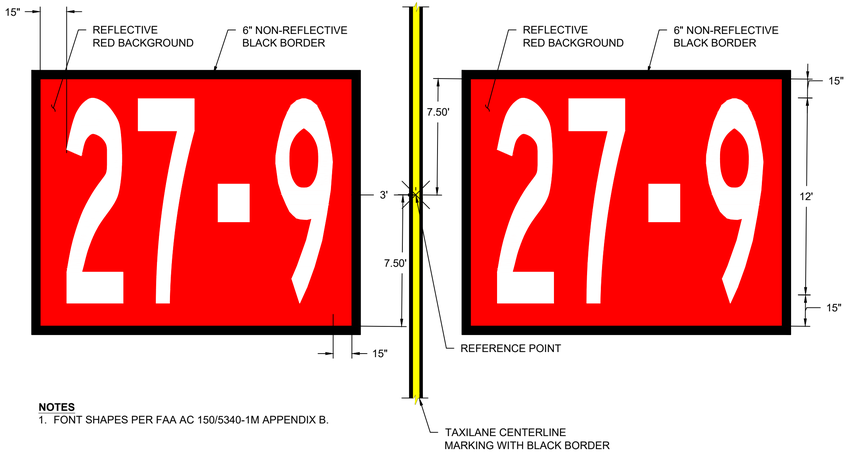
GARVER
TBPE Registration No. F-5713



1 / C12.18 TAXILANE CENTERLINE MARKING
SCALE: N.T.S.

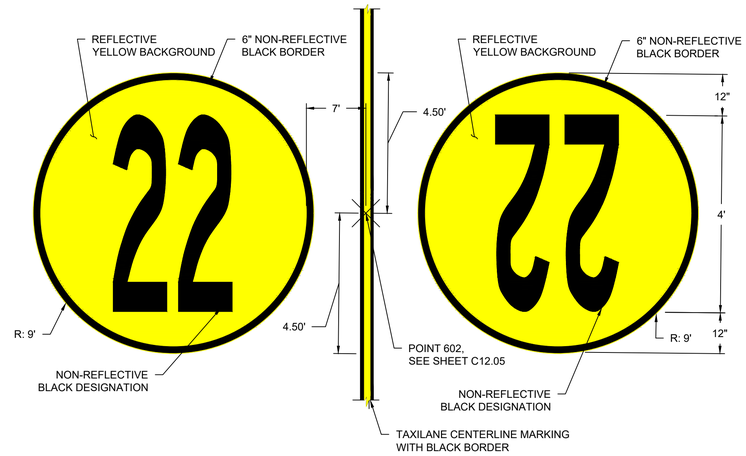


2 / C12.18 CONTINUOUS TAXILANE EDGE MARKING
SCALE: N.T.S.



NOTES
1. FONT SHAPES PER FAA AC 150/5340-1M APPENDIX B.

3 / C12.18 THERMOPLASTIC SURFACE PAINTED RUNWAY HOLD SIGNS
SCALE: N.T.S.



NOTES
1. FONT SHAPES PER FAA AC 150/5340-1M APPENDIX B.

4 / C12.18 THERMOPLASTIC SURFACE PAINTED APRON CONTROL MARKING SIGNS
SCALE: N.T.S.

HOUSTON AIRPORTS
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING DETAILS I

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
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LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.18

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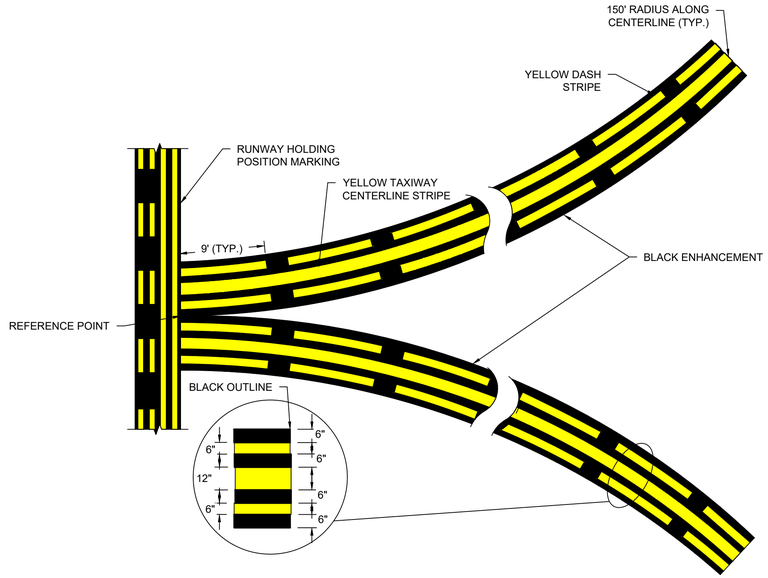
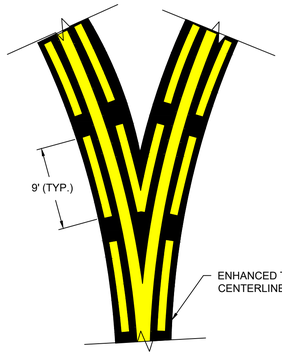
PLOT DATE: 11/8/2019 3:32:47 PM

GARVER
TBPE Registration No. F-5713



6 / C12.19 ENHANCED TAXIWAY CENTERLINE MARKING
SCALE:N.T.S.

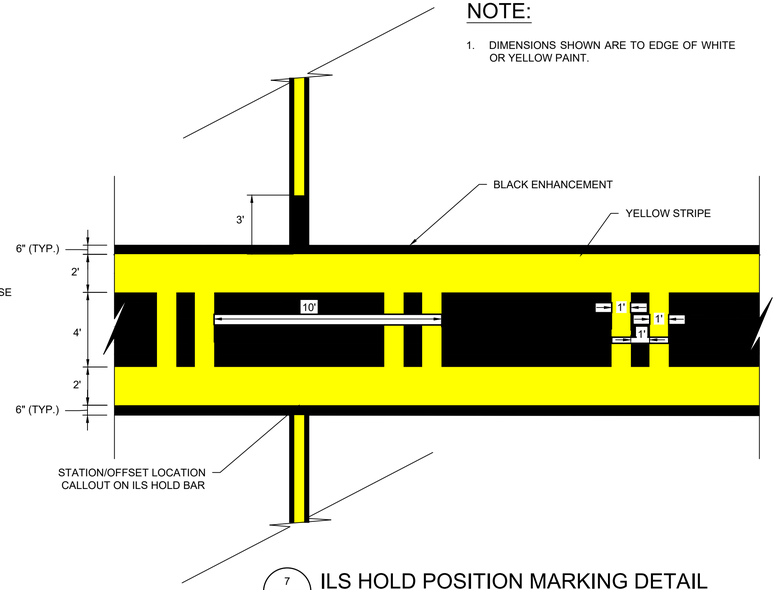


NOTES:

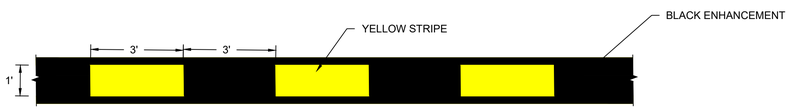
1. THE V-SHAPED INNER DASHES START AND STOP WITH THE OUTSIDE 9-FOOT DASHES. THIS MAY NOT ALWAYS BE THE CASE FOR THE INNER DASHES. IF THE V-SHAPED DASHES ARE LESS THAN 5 FEET THEY MAY BE OMITTED.
2. MEASUREMENTS TAKEN ALONG THE CENTER OF THE CENTERLINE STRIPE.
3. ALL MARKINGS TO COMPLY WITH FAA AC 150/5340-1M.
4. CONTRACTOR SHALL MASK IN-PAVEMENT LIGHTS TO PREVENT PAINT APPLICATION TO THE LIGHTING LENS. MASKING SHALL BE CUT TO COVER ONLY THE LIGHTING FIXTURE AND SHALL NOT COVER ADJACENT PAVEMENT. PRIOR TO OPENING PAVEMENT TO AIRCRAFT OPERATIONS, REMOVE ALL MASKING.

NOTE:

1. DIMENSIONS SHOWN ARE TO EDGE OF WHITE OR YELLOW PAINT.

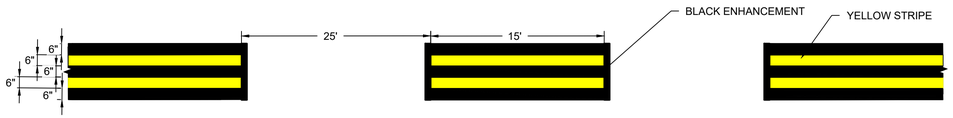


7 / C12.19 ILS HOLD POSITION MARKING DETAIL
SCALE:N.T.S.



8 / C12.19 INTERMDEDIATE HOLDING POSITION MARKING
SCALE:N.T.S.

8 / C12.19 RUNWAY HOLDING POSITION MARKING
SCALE:N.T.S.



9 / C12.19 TAXIWAY EDGE LINE MARKING
SCALE:N.T.S.

HOUSTON AIRPORTS

CP&Y an STV Company
1820 REGAL ROW, SUITE 200
DALLAS, TEXAS 75235
(214) 638-0500
TBPE REG. NO. F-1741

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

MARKING DETAILS II

PROJECT MGR:	WAB
DESIGNER:	WAB
DRAWN BY:	EM
CHECK BY:	JHD
SCALE:	1"=50'
DATE:	11/02/2023

Wade A. Brooks 11/2/2023
STATE OF TEXAS
WADE A. BROOKS
86206
LICENSED
PROFESSIONAL ENGINEER

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	C12.19

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PLOT DATE: 11/8/2019 3:32:47 PM

SYMBOL	ITEM DESCRIPTION
———	NEW EQUIPMENT
- - - -	EXISTING EQUIPMENT
×	EXISTING EQUIPMENT TO BE COMPLETELY DEMOLISHED AND REMOVED, AREA TO BE RESTORED
◉	L-861T TAXIWAY EDGE LIGHT
⊗	L-852C/L-852D TAXIWAY CENTERLINE LIGHT
⊗	L-852C TAXIWAY CLEARANCE BAR LIGHT
●	L-867 / L-868 BASE CAN
01	L-858 GUIDANCE SIGN
4W-4"	ELECTRICAL DUCT, NUMBER AND SIZE OF CONDUITS AS INDICATED
▨	PULL BOX
H	HAND HOLE
M	MANHOLE
⏚ ◉	3/4" x 10' COPPER CLAD STEEL GROUND ROD
———	SERIES LIGHTING CIRCUIT WITH COUNTERPOISE, NUMBER OF HASH MARKS INDICATES NUMBER OF CABLES
AFG	ABOVE FINISHED GRADE
AOA	AIRCRAFT OPERATIONS AREA
OFA	OBJECT FREE AREA
OFZ	OBSTACLE FREE ZONE
RSA	RUNWAY SAFETY AREA
TSA	TAXIWAY SAFETY AREA
PC	POINT OF CURVATURE
PE	POLYETHYLENE CONDUIT
PT	POINT OF TANGENCY
DEB	DIRECT EARTH BURIED
WP	WEATHERPROOF
UON	UNLESS OTHERWISE NOTED
(L)	LED EQUIPMENT WHERE INDICATED

CIRCUIT LEGEND

SACL	TW SA CENTERLINE LIGHTS CIRCUIT
SBCL	TW SB CENTERLINE LIGHTS CIRCUIT
SCE	TW SC EDGE LIGHTS CIRCUIT
SHJ	TW SH CENTERLINE LIGHTS CIRCUIT
SCKCL	TW SC CENTERLINE LIGHTS CIRCUIT
27-TDZ	RUNWAY TOUCHDOWN ZONE LIGHTS CIRCUIT
RGL	RUNWAY GUARD LIGHTS CIRCUIT
9-27CL	RUNWAY TOUCHDOWN ZONE LIGHTS CIRCUIT

CAUTION NOTES:

1. UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS, HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THE ACTUAL LOCATIONS OF THE UTILITIES MAY VARY FROM THE LOCATIONS SHOWN. PRIOR TO BEGINNING ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES INVOLVED AND MAKE ARRANGEMENTS FOR THE LOCATION OF THE UTILITIES ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.
2. TEXAS STATE LAW, THE UNDERGROUND FACILITIES DAMAGE PREVENTION ACT, REQUIRES TWO WORKING DAYS ADVANCE NOTIFICATION THROUGH THE TEXAS ONE-CALL SYSTEM CENTER BEFORE EXCAVATING USING MECHANIZED EQUIPMENT OR EXPLOSIVES (EXCEPT IN THE CASE OF AN EMERGENCY). THE ONE-CALL SYSTEM PHONE NUMBER IS 1-800-245-4545. THE CONTRACTOR IS ADVISED THAT THERE IS A SEVERE PENALTY FOR NOT MAKING THIS CALL. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE TEXAS ONE-CALL SYSTEM; THEREFORE, THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE-CALL SYSTEM.

ELECTRICAL SAFETY NOTES:

1. SERIES CIRCUITS CAN BE DANGEROUS AND / OR FATAL.
2. LOCKOUT / TAGOUT PROCEDURES SHALL BE FOLLOWED.
3. LIGHTING REGULATORS SHALL BE TURNED OFF, LOCKED, AND TAGGED OUT OF SERVICE BEFORE ANY WORK IS DONE ON THE SERIES CIRCUIT.
4. THE ELECTRICAL RESISTANCE AND INSULATION INTEGRITY OF EACH MODIFIED CIRCUIT SHALL BE TESTED BEFORE THE CIRCUIT IS ENERGIZED.

DEMOLITION NOTES:

1. RESTORE THE DEMOLITION WORK AREAS TO MATCH EXISTING CONDITIONS.
2. LOCATE, IDENTIFY, AND PROTECT EXISTING SERVICES PASSING THROUGH DEMOLITION AREAS AND SERVING OTHER AREAS OUTSIDE THE DEMOLITION LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE DEMOLITION LIMITS. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.
3. MAINTAIN AND PROTECT EXISTING SERVICES WHICH TRANSIT THE AREAS AFFECTED BY SELECTIVE DEMOLITION.
4. MAINTAIN CIRCUIT CONTINUITY TO ALL EXISTING SYSTEM EQUIPMENT, DEVICES, ETC., TO REMAIN IN USE WHETHER NOTED ON THE PLANS OR NOT. FIELD VERIFY EXISTING ITEMS TO REMAIN IN USE. WIRING FOR EXISTING DEVICES WHICH MUST BE RE-ROUTED OR WHICH ARE PARTIALLY ABANDONED, SHALL BE RECONNECTED TO SERVICE THE REMAINING DEVICES ON THE CIRCUIT.
5. THE INTENTION OF THE ELECTRICAL DEMOLITION IS TO DISCONNECT AND REMOVE ALL ELECTRICAL WORK MADE VOID BY THE SCOPE OF THE CONSTRUCTION AND ALTERATION. FIELD VERIFY EXACT MATERIAL QUANTITIES REQUIRED TO BE REMOVED.
6. ALL REMOVED MATERIALS, OTHER THAN REMOVED MATERIALS TO BE RELOCATED, OR TURNED OVER TO THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE.
7. COORDINATE ALL DEMOLITION WORK WITH ALL OTHER TRADES.
8. ALL EXISTING ELECTRICAL WORK AND ASSOCIATED RACEWAY AND WIRING WHICH HAS BEEN MADE OBSOLETE BY THE WORK AND / OR IS SHOWN DASHED ON THE ELECTRICAL DEMOLITION DRAWINGS, SHALL BE DISCONNECTED AND REMOVED, UNLESS OTHERWISE NOTED. AN ATTEMPT HAS BEEN MADE TO INDICATE ALL OF THIS WORK, BUT TOTAL ACCURACY IS NOT GUARANTEED.
9. FOR EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED, DEMOLISH ALL EQUIPMENT, DEVICES, CIRCUITS, CONDUITS, BOXES, AND OTHER APPURTENANCES AS REQUIRED FOR A COMPLETE REMOVAL.
10. CUT OFF BOLT PROTRUSIONS, REMOVE ANCHORS, ETC. AT CEILING, FLOOR, OR WALL SURFACES AS REQUIRED. NO SUPPORT ITEMS SHALL BE LEFT IN PLACE.
11. REMOVE, CAP, AND / OR RELOCATE EQUIPMENT, OUTLETS, CONDUIT, WIRE, ETC., WHETHER INDICATED ON THE DRAWINGS OR NOT, AND AS MAY BECOME NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VISIBLY EXAMINE ALL EXISTING AREAS DESIGNATED FOR REMOVAL OR MODIFICATION TO DETERMINE THE CONDUIT AND THE WIRING THAT WILL REQUIRE CAPPING AND / OR REMOVAL. THE CONTRACTOR SHALL BE HELD TO HAVING VISITED THE SITE AND TAKEN ALL EXISTING CONDITIONS INTO CONSIDERATION.
12. IN THE DEMOLITION WORK, REMOVE ALL CABLING ASSOCIATED WITH SYSTEMS BEING REMOVED UNDER THIS PROJECT BACK TO SOURCE. NO CABLE SHALL BE LEFT ABANDONED IN PLACE. REMOVE ALL UNUSED AND EMPTY CONDUIT THAT IS EXPOSED OR WITHIN ACCESSIBLE CEILINGS WHICH IS AFFECTED BY AND IS IN THE AREA OF THE WORK OF THIS CONTRACT.
13. WHERE ELECTRICAL EQUIPMENT, CONDUIT, BOXES, AND SUPPORTING HARDWARE ARE REMOVED, PATCH AND FINISH THE SURFACE (WALL AND CEILING) AS REQUIRED TO MATCH THE EXISTING, UNLESS OTHERWISE NOTED.
14. WHERE BURIED CONDUITS EXTENDING OUT OF A CONCRETE SLAB BECOME ABANDONED, CUT AND GRIND THE CONDUITS OFF FLUSH WITH TOP OF SLAB AND PLUG WITH NON-SHRINK WATERPROOF GROUT FILL.
15. IN WALLS OR FLOORS WHERE A FLUSH DEVICE IS BEING REMOVED, BUT THE WALL OR FLOOR REMAINS OR FOR ANY OUTLET WHICH MUST REMAIN, BUT HAS A DEVICE REMOVED, PROVIDE A BLANK METAL COVER OVER THE OUTLET. MATCH THE COLOR AND MATERIAL OF EXISTING REMAINING COVERS IN THE ROOM OR SPACE.
16. WHERE WORK IS TO BE PERFORMED ABOVE EXISTING ACCESSIBLE CEILINGS, CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING CEILING TIES AND GRID WITHOUT DAMAGE, STORAGE OF EXISTING TILES AND GRID WHILE WORK IS BEING PERFORMED, AND INSTALLATION OF EXISTING GRID AND TILES AFTER WORK IS COMPLETED.
17. WHEN REMOVING AIRFIELD LIGHTING CABLES FROM EXISTING CONDUITS AND A BLOCKAGE IS ENCOUNTERED, THE CONTRACTOR SHALL CLEAR EXISTING CONDUIT BY METHOD SUBJECT TO THE APPROVAL OF THE AIRPORT.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL STAKE THE AIRFIELD LIGHTING SYSTEMS, PRIOR TO INSTALLATION OF ANY TRENCH, CABLE, OR LIGHTING APPARATUS. THE INTENT IS TO STAKE THE INSTALLATION AT THE LOCATIONS INDICATED, NOTING ANY DEVIATION FROM PLAN DIMENSIONS TO THE ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF AN EXPERIENCED AND LICENSED SURVEYOR TO PERFORM THIS WORK.
2. THE ENGINEER WILL PROVIDE ELECTRONIC CADD FILES TO THE CONTRACTOR FOR THIS STAKING WORK. THE CONTRACTOR SHALL STAKE THE ITEMS AND HIS SURVEYOR SHALL PROVIDE A CADD FILE SUBMITTAL BACK TO THE ENGINEER. BASED UPON THIS SUBMITTAL, THE ENGINEER WILL COORDINATE AND PROVIDE DIRECTIONS ON ANY ADJUSTMENTS NECESSARY TO MEET EXISTING FIELD CONDITION REQUIREMENTS AND COMPLY WITH FAA ADVISORY CIRCULAR REQUIREMENTS ON THE LAYOUT AND SPACING OF EQUIPMENT.
3. THE CONTRACTOR AND HIS SURVEYOR SHALL THEN MAKE ANY ELECTRONIC CADD FILE SPACING ADJUSTMENTS AND / OR FIELD STAKING ADJUSTMENTS PRIOR TO INSTALLATION AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL VERIFY EXACT PAVEMENT EDGE DIMENSIONS WITH THIS INITIAL SURVEY WORK.
5. THE CONTRACTOR SHALL FIELD MARK AND IDENTIFY TAXIWAY POINT OF TANGENCY (PT), POINT OF CURVATURE (PC), AND INTERSECTION POINTS (IP) LOCATIONS AS REQUIRED IN ORDER TO PERFORM TAXIWAY EDGE LIGHT SPACING AND SURVEYING WORK.
6. THE EXISTING AND THE PROPOSED LOCATIONS OF LIGHTING CABLES ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING AND IDENTIFYING THE EXISTING LIGHTING CIRCUITS TO DETERMINE THEIR EXACT ROUTING. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING THE LIGHTING SYSTEMS IN A WORKING CONDITION UNTIL THE NEW LIGHTING CIRCUITS HAVE BEEN INSTALLED AND TESTED. THE CONTRACTOR SHALL PROACTIVELY AND EXPEDITIOUSLY ACCOMPLISH THIS CABLE IDENTIFICATION WORK PRIOR TO PERFORMING ANY MODIFICATIONS TO THE LIGHTING CIRCUITS. COORDINATE IDENTIFICATION WORK WITH THE OWNER AND ENGINEER AND MAKE ALL CORRECTIONS, ADDITIONS, ETC. ON THE AS-BUILT DRAWINGS.
7. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL WHILE EXCAVATING IN THE AREA OF LIGHTING CIRCUITS. ANY CABLE OR CONDUIT / DUCT WHICH IS NICKED OR DAMAGED DURING EXCAVATION SHALL BE PROPERLY AND EXPEDITIOUSLY SPLICED OR THE LENGTH OF CABLE AND CONDUIT / DUCT REPLACED. A SPLICE OR CONDUIT / DUCT MARKER SHALL BE INSTALLED AT ALL SPLICE OR OTHER REPAIR LOCATIONS MORE THAN 2' AWAY FROM A LIGHT, SIGN, HANDHOLE, MANHOLE, OR JUNCTION STRUCTURE. ALL REPAIR AND / OR REPLACEMENT WORK AND MATERIALS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.
8. FOR NEW L-824C CABLE INSTALLED ON THIS PROJECT, THE BASIS-OF-DESIGN OUTSIDE DIAMETER THAT WAS USED IS 0.415 INCHES. IF THE CONTRACTOR USES L-824C CABLE WITH A LARGER OUTSIDE DIAMETER, ANY CONDUIT OR DUCT BANK INCREASES IN SIZE NECESSARY TO MAINTAIN CABLE FILL CODE COMPLIANCE SHALL BE INSTALLED AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE ENGINEER. PAYMENT WILL ONLY BE MADE AT THE BASIS-OF-DESIGN CONDUIT OR DUCT BANK PAY ITEM SHOW ON THE PLANS. AS-BUILT DRAWINGS SHALL BE MARKED UP BY THE CONTRACTOR TO IDENTIFY ANY SIZE CHANGES.
9. ALL ELECTRICAL CABLES SHALL BE CLEARLY IDENTIFIED, LABELED, AND TAGGED AT ALL POINTS WHERE THEY ARE AVAILABLE FOR CONNECTIONS OR INSPECTION, INCLUDING, BUT NOT LIMITED TO MANHOLES, HANDHOLES, PULL BOXES, JUNCTION BOXES, AND LIGHT BASES. ANY NEW TAGGING AND LABELING OF THE NEW AND EXISTING CIRCUITS SHALL BE RECORDED, DOCUMENTED, AND HAVE COPIES SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR THEIR RECORDS.
10. THE CONTRACTOR SHALL PERFORM MEGGER TESTS ON EACH EXISTING SERIES CIRCUIT PRIOR TO ANY WORK ON THE ELECTRICAL SYSTEM AND EACH NEW AND EXISTING SERIES CIRCUIT AFTER THE ACCEPTANCE TEST PERIOD. MEGGER TESTING REQUIREMENTS SHALL BE SUBSIDIARY TO AND PAID FOR BY L-108 PAY ITEMS. THE MEGGER EQUIPMENT SHALL BE CALIBRATED AND UP-TO-DATE AND SHALL BE WITNESSED BY HAS ELECTRICAL INSPECTOR, RECORDED, SIGNED, AND DATED BY CONTRACTOR MASTER ELECTRICIAN RESPONSIBLE FOR PULL PERMIT.
11. THE CONTRACTOR SHALL COORDINATE WITH THE ON-SITE ENGINEER FOR OWNER AND ENGINEER WITNESS OF ALL MEGGER TESTING. THE CONTRACTOR SHALL SUBMIT HIS INITIAL MEGGER TEST REPORTS TO THE OWNER AND ENGINEER PRIOR TO ANY WORK ON THE ELECTRICAL SYSTEM. THIS REPORT SHALL BE APPROVED AND SIGNED BY THE OWNER AND ENGINEER PRIOR TO THE CONTRACTOR PROCEEDING WITH HIS WORK.
12. THE CONTRACTOR SHALL CHECK THE LOAD ON EACH EXISTING REGULATOR PRIOR TO ANY WORK ON THE ELECTRICAL SYSTEM AND ON EACH NEW AND EXISTING REGULATOR AFTER THE ACCEPTANCE TEST PERIOD.
13. THE CONTRACTOR SHALL CALIBRATE EACH NEW AND EXISTING REGULATOR FOLLOWING THE PERFORMED WORK.
14. LOCKOUT / TAGOUT AND CONSTANT CURRENT REGULATOR CALIBRATION PROCEDURES SHALL BE PAID FOR BY SS-300 PAY ITEMS UNLESS OTHERWISE NOTED. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A TYPE WRITTEN LOCKOUT/TAGOUT PROCEDURES SUBMIT TO HAS CHIEF INSPECTOR FOR REVIEW. ON THE LOCKOUT/TAGOUT PROCESS, THE CONTRACTOR SHALL NOTIFY THE HAS ELECTRICAL INSPECTOR AND HAS ELECTRICIAN(S) FOR ASSISTANCE AND VERIFICATION. THIS LOTO HAS TO BE COORDINATED TO HAS AND OPS.
15. CONDUITS AND DUCTS UNDER PAVED AREAS SHALL BE CONCRETE ENCASED.
16. CONDUITS AND DUCTS UNDER NON-PAVED AREAS SHALL BE NON-ENCASED, UNLESS OTHERWISE NOTED.
17. DURING CONSTRUCTION, PROTECT ALL EQUIPMENT, DUCTS, CONDUITS, CABLES, ETC. THAT ARE TO REMAIN IN PLACE. WHERE EXISTING ITEMS ARE CUT, BROKEN, OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR PROACTIVELY AND EXPEDITIOUSLY THE ITEMS WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION OR BETTER AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.
18. THE CONTRACTOR SHALL CLEAN THE BOTTOM PIT OF EVERY ELECTRICAL MANHOLE THAT ARE INVOLVED IN THIS PROJECT.

HOUSTON AIRPORTS

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12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL NOTES

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E01.01

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DEMOLITION KEYED NOTES:

101 REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

103 REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

104 REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

105 REMOVE ELECTRICAL HANDHOLE.

106 REMOVE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

107 EXISTING EDGE OR CENTERLINE LIGHT TO REMAIN. (TYP.)

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

111 EXISTING FAA–OWNED RUNWAY STATUS LIGHTS (RWSL) TO REMAIN.

112 DEMOLISH ABANDONED SIGN FOUNDATION.

113 REMOVE EXISTING CONDUCTORS AND ABANDON ELECTRICAL DUCT BANK IN PLACE.

114 REMOVE COVER OF EXISTING BASE MOUNTED JUNCTION STRUCTURE AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

INSTALLATION KEYED NOTES:

201 INSTALL NEW L–861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

202 INSTALL NEW L–852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON EXISTING LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

203 INSTALL NEW L–852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

204 INSTALL NEW L–858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L–861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L–852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L–852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING JUNCTION STRUCTURE TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

209 INSTALL NEW L–852C(L) ON NEW L–868 LIGHT BASE IN FULL DEPTH RECONSTRUCTION AREA.

210 INSTALL NEW L–852D(L) ON NEW L–868 LIGHT BASE IN FULL DEPTH RECONSTRUCTION AREA.

211 REINSTALL EXISTING L–852G ON NEW L–868 LIGHT BASE.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L–824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

213 INSTALL NEW L–861T(L) TAXIWAY EDGE LIGHT ON NEW BASE IN EXISTING ASPHALT PAVEMENT. (TYP).

214 INSTALL NEW L–861T(L) TAXIWAY EDGE LIGHT ON NEW BASE IN NEW PAVEMENT. (TYP).

215 INSTALL NEW L–852D(L) TAXIWAY CENTERLINE LIGHTING IN EXISTING PAVEMENT WITH MILL AND OVERLAY. (TYP.)

216 INSTALL NEW L–852D(L) TAXIWAY CENTERLINE LIGHT IN NEW CONCRETE PAVEMENT. (TYP.)

217 INSTALL NEW L–852D(L) TAXIWAY CENTERLINE LIGHT IN EXISTING CONCRETE PAVEMENT. (TYP.)

218 CONSTRUCT 1–WAY 2"C CONCRETE ENCASED CONDUIT IN EXISTING PAVEMENT VIA SAW KERF.

219 CONSTRUCT 1–WAY 2"C CONCRETE ENCASED CONDUIT IN NEW PAVEMENT.

220 INSTALL NEW L–852G(L) RUNWAY GUARD LIGHT INSTALLED IN NEW PAVEMENT. (TYP.)

221 CONSTRUCT NEW 16–WAY 2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT–RATED HANDHOLE. (TYP.)

223 CONSTRUCT NEW 16–WAY 2" NON–ENCASED DUCT BANK.

224 CONSTRUCT NEW 2–WAY 2"C NON–ENCASED DUCT BANK.

225 CONSTRUCT NEW 2–WAY 2"C FLOWABLE FILL ENCASED DUCT BANK.

226 INSTALL NEW L–868 BLANK COVER AND SPACER RINGS TO BE FLUSH TO PAVEMENT. (TYP.)

227 UPDATE SIGN LEGEND. REFER TO SIGN INDEX.

228 MAINTAIN EXISTING JUNCTION CAN FROM EXISTING SIGN BASE.

229 INSTALL NEW #8 AWG L–824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

GENERAL NOTES:

1. ALL ELECTRICIANS WORKING IN THE AIRFIELD SHALL HAVE A VALID ELECTRICAL LICENSE REGISTERED IN THE STATE OF TEXAS TDLR OFFICE. NO ELECTRICIANS SHALL BE WORKING IN THE AIRFIELD WITHOUT ANY TYPE OF LICENSE(S).
2. THE MASTER ELECTRICIAN SHALL BE RESPONSIBLE AND SUPERVISE THEIR LICENSE PERSONNEL UNDER HIS/HER SUPERVISION, FOR THEIR SAFETY AND WORK PERFORMED IN THE AIRFIELD.
3. THE ELECTRICAL CONTRACTOR SHALL PROVIDE COPIES OF THEIR ELECTRICAL LICENSES AND VALID DRIVER LICENSES, TO BE SUBMITTED AND ATTACHED TO THE BID DOCUMENTS.
4. ALL ELECTRICIANS THAT WORK ON THE CONDUCTOR SPLICING, EXOTHERMIC CONNECTIONS AND TORQUE SHALL HAVE AT LEAST (3) YEARS WORK EXPERIENCE UNLESS CAN PROVIDE SOME TYPE OF CERTIFICATION.
5. THE MASTER ELECTRICIAN SHALL BE AVAILABLE AND CONSTANTLY VISIT AND SUPERVISE THE PROJECT.
6. ON PAYMENT OF MATERIALS – THE ELECTRICAL CONTRACTOR SHALL PROVIDE AN EXHIBITS SHOWING THE LENGTH AND MATERIAL DESCRIPTION USED IN EACH PHASE.
7. ALL EXISTING AND NEW BASE CANS SHALL BE CLEAN INSIDE FREE OF DIRT AND WATER BEFORE INSTALLING THE LED FIXTURES AND ISOLATION TRANSFORMERS. DO NOT INSTALL TRANSFORMERS UNTIL THE LED FIXTURES ARE READY TO BE INSTALLED AND PLACED. APPLY AN APPROVED COMPOUND ON BOLT THREADS AND TORQUE ACCORDINGLY PER MANUFACTURER RECOMMENDATIONS. THE LED LIGHT FIXTURES SHALL BE THE FINAL ITEMS TO BE INSTALLED AFTER THE PAVEMENT SURFACE HAS BEEN CLEANED. THE ELECTRICAL CONTRACTOR SHALL CHECK THE LED FIXTURE LENSES BEFORE ENERGIZING AND TURN–OVER TO AIRFIELD OPERATIONS.
8. ALL GROUND BARE CONDUCTOR CONNECTIONS SHALL BE EXOTHERMIC CADWELD ONLY. ONLY A SINGLE GROUND CONDUCTOR ALLOWED ON A SINGLE GROUND LUG. WRAPPED AROUND A 23M TAPE THOROUGHLY THE GROUND LUG BEFORE CONCRETE PLACEMENT.
9. ALL CONDUCTOR(S), GROUND CONDUCTOR CONNECTIONS AND LED FIXTURES SHALL BE TORQUE PER MANUFACTURER REQUIREMENTS. LED FIXTURES (CENTER AND EDGE LIGHTS) BOLTS ARE TO BE TORQUED, WITNESSED BY HAS INSPECTOR, RECORDED, DOCUMENTED, SIGNED AND DATED BY THE MASTER ELECTRICIAN SUBMITTED TO HAS ELECTRICAL INSPECTOR AND O&M MANUALS.
10. CONSTRUCTION NOTES: ALL CONDUITS SHALL BE RUN STRAIGHT, LEVEL AND UNIFORMITY THROUGHOUT INSTALLATION FROM POINT A TO POINT B.
11. CONSTRUCTION NOTES: ALL LIGHTING INSTALL IN THIS PROJECT SHALL BE LED FIXTURES AND MATCH THE TRANSFORMER PER MANUFACTURER RECOMMENDATIONS.
12. THE CONTRACTOR SHALL TRACE EXISTING CABLING SERVING THE TAXIWAY EDGE, TAXIWAY CENTERLINE, AND SIGN CIRCUITS. THESE CIRCUITS SHALL BE REPLACED IN KIND AND CONFIGURATION WHERE THEY ARE FOUND IN THE TAXIWAY FULL–STRENGTH AND SHOULDER PAVEMENT.
13. ALL CABLE REMOVAL COSTS SHALL BE SUBSIDIARY TO THE #8 AWG L–824C PAY ITEM.
14. WHEN TORQUING THE BOLTS, THE BOLTS SHALL BE SNUG BEFORE APPLYING THE TORQUE WRENCH. ALL TESTING AND TORQUING MUST BE WITNESSED BY HAS CONSTRUCTION MANAGEMENT ELECTRICAL INSPECTOR AND RECORDED.
15. THE CONTRACTOR SHALL DRAIN AND CLEAN EACH EXISTING MANHOLE ENCOUNTERED. THIS ALSO INCLUDES THE INSTALLATION OF HEAVY DUTY NON–METALLIC 3" SINGLE CABLE HOOKS, 2 PER WALL ON EACH WALL OF THE MANHOLE. THE CABLE HOOKS SHALL BE INSTALLED 12" FROM THE TOP OF THE HANDHOLE.

HOUSTON AIRPORTS
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12141 Wickchester Lane
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL KEYED NOTES

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E01.02

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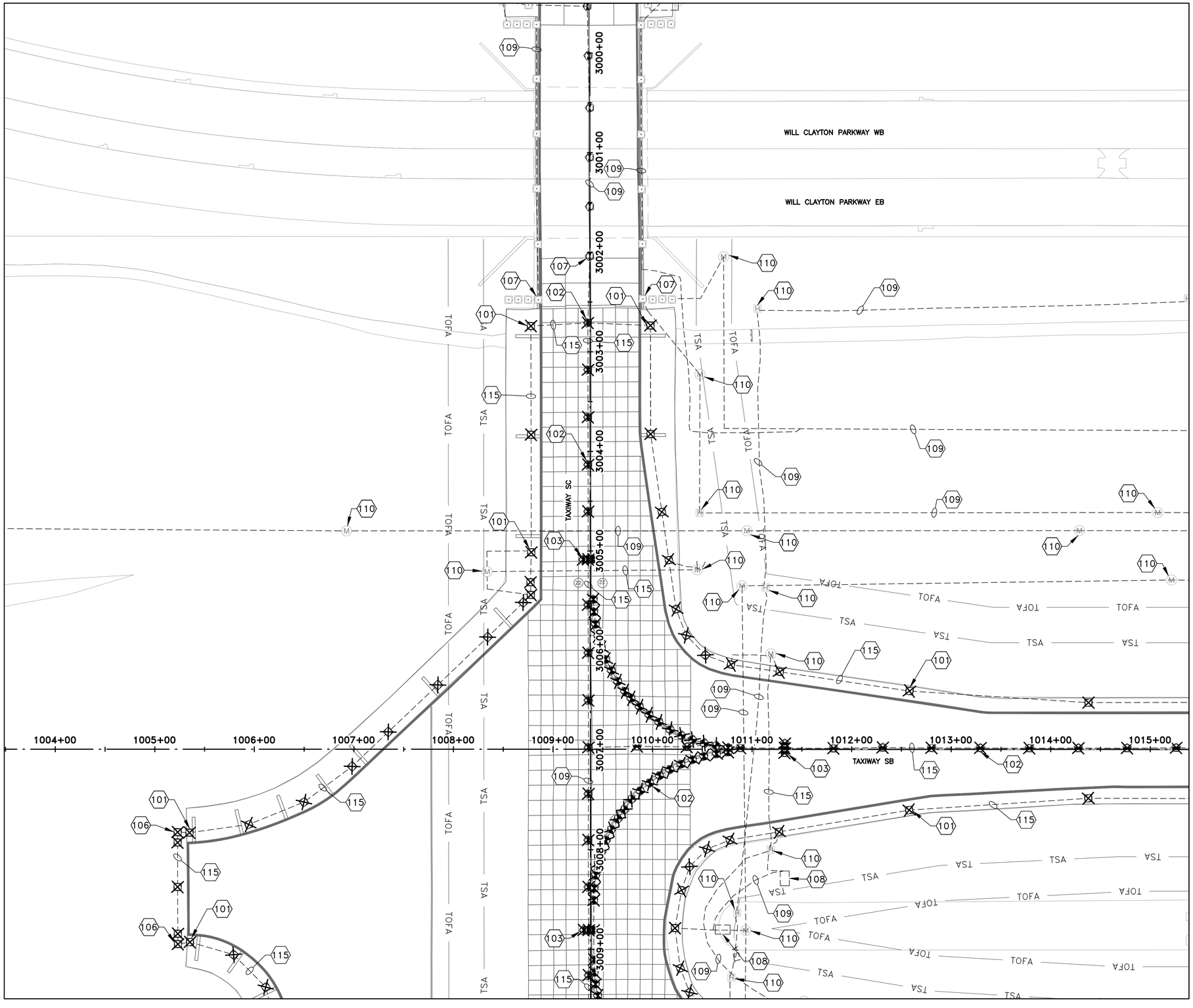

N

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(IN FEET)

DEMOLITION KEYED NOTES:

101 REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

103 REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

106 REMOVE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

107 EXISTING TAXIWAY EDGE OR CENTERLINE LIGHT TO REMAIN. (TYP.)

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

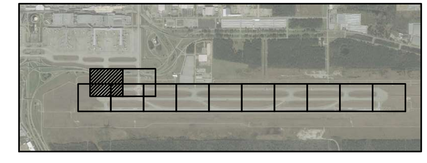
115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

MATCHLINE SHEET E02.02

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



HOUSTON AIRPORTS

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12141 Wickchester Lane
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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN I

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.01

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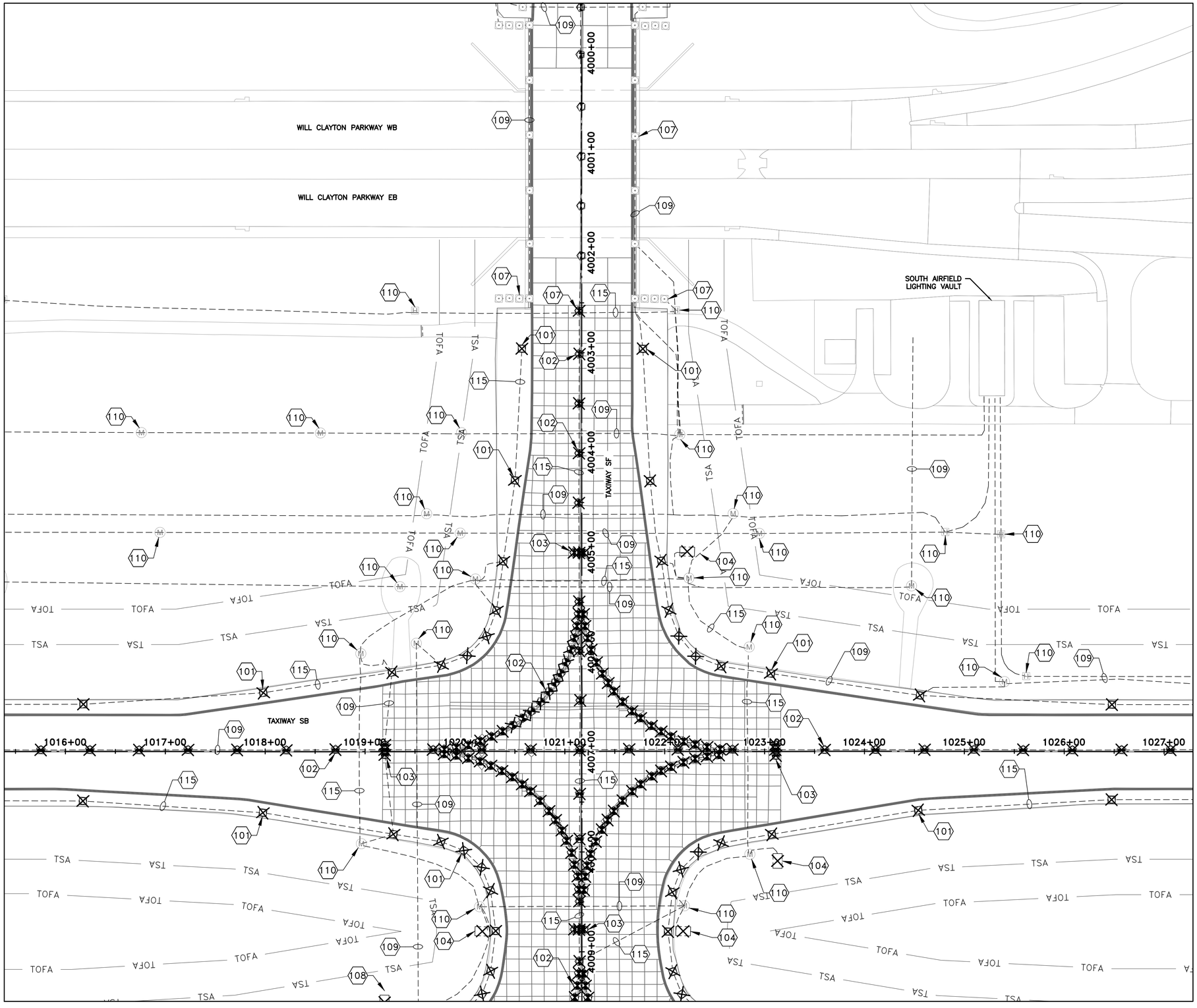

N

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(IN FEET)

DEMOLITION KEYED NOTES:

101 REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

103 REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

104 REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

107 EXISTING TAXIWAY EDGE OR CENTERLINE LIGHT TO REMAIN. (TYP.)

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

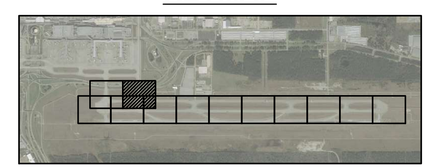
110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



HOUSTON AIRPORTS

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12141 Wickchester Lane
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL DEMOLITION PLAN II

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.02

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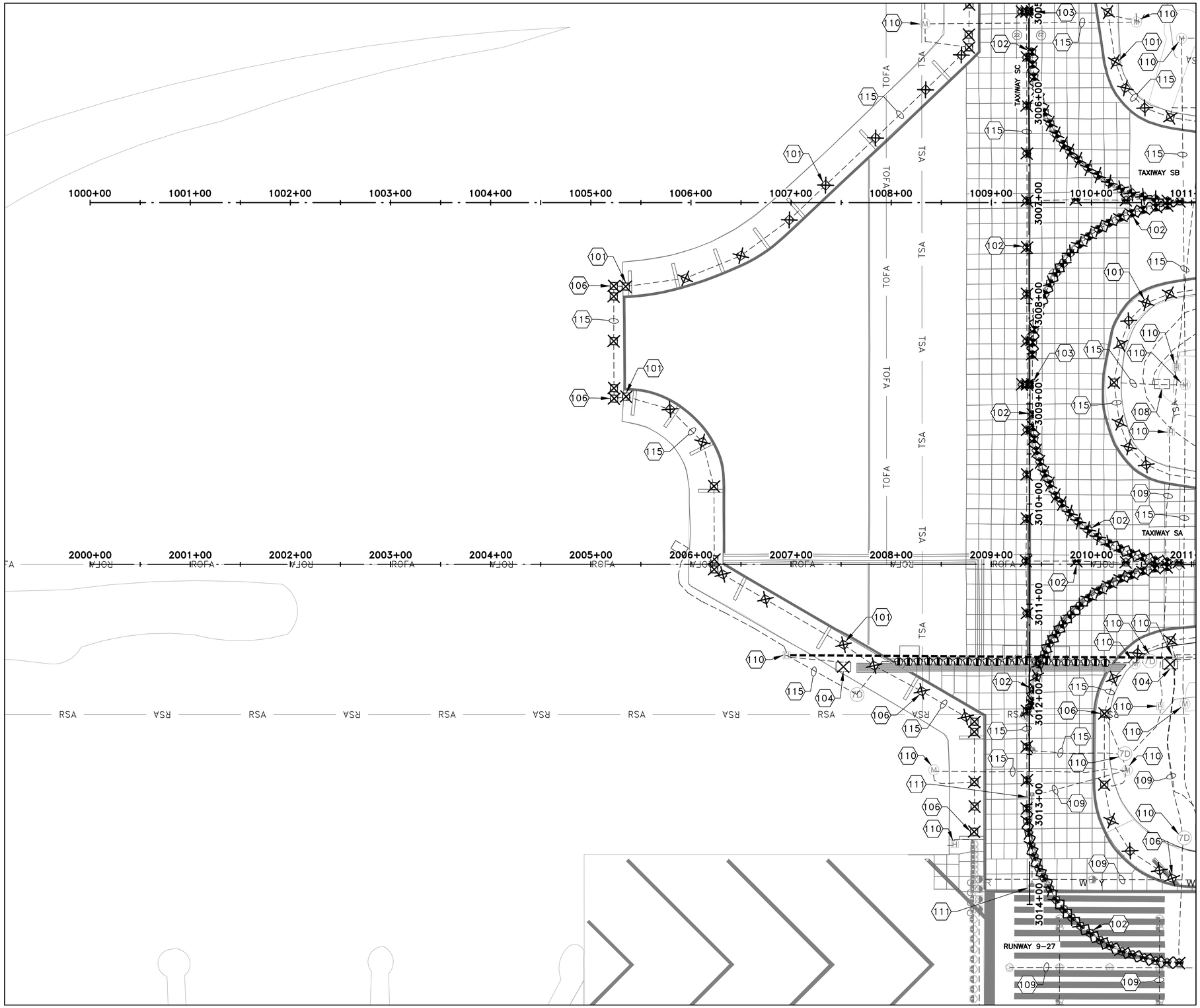

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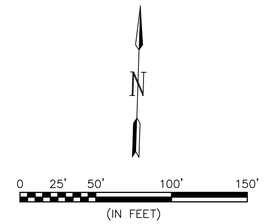

DEMOLITION KEYED NOTES:

101 REMOVE AND STORE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE AND STORE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

103 REMOVE AND STORE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

104 REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

106 REMOVE AND STORE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

111 EXISTING FAA-OWNED RUNWAY STATUS LIGHTS (RWSL) TO REMAIN.

115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

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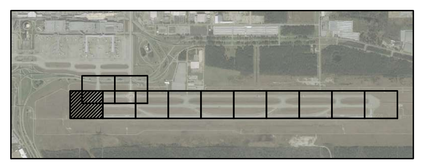

HOUSTON AIRPORTS
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12141 Wickchester Lane
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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN III

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.03

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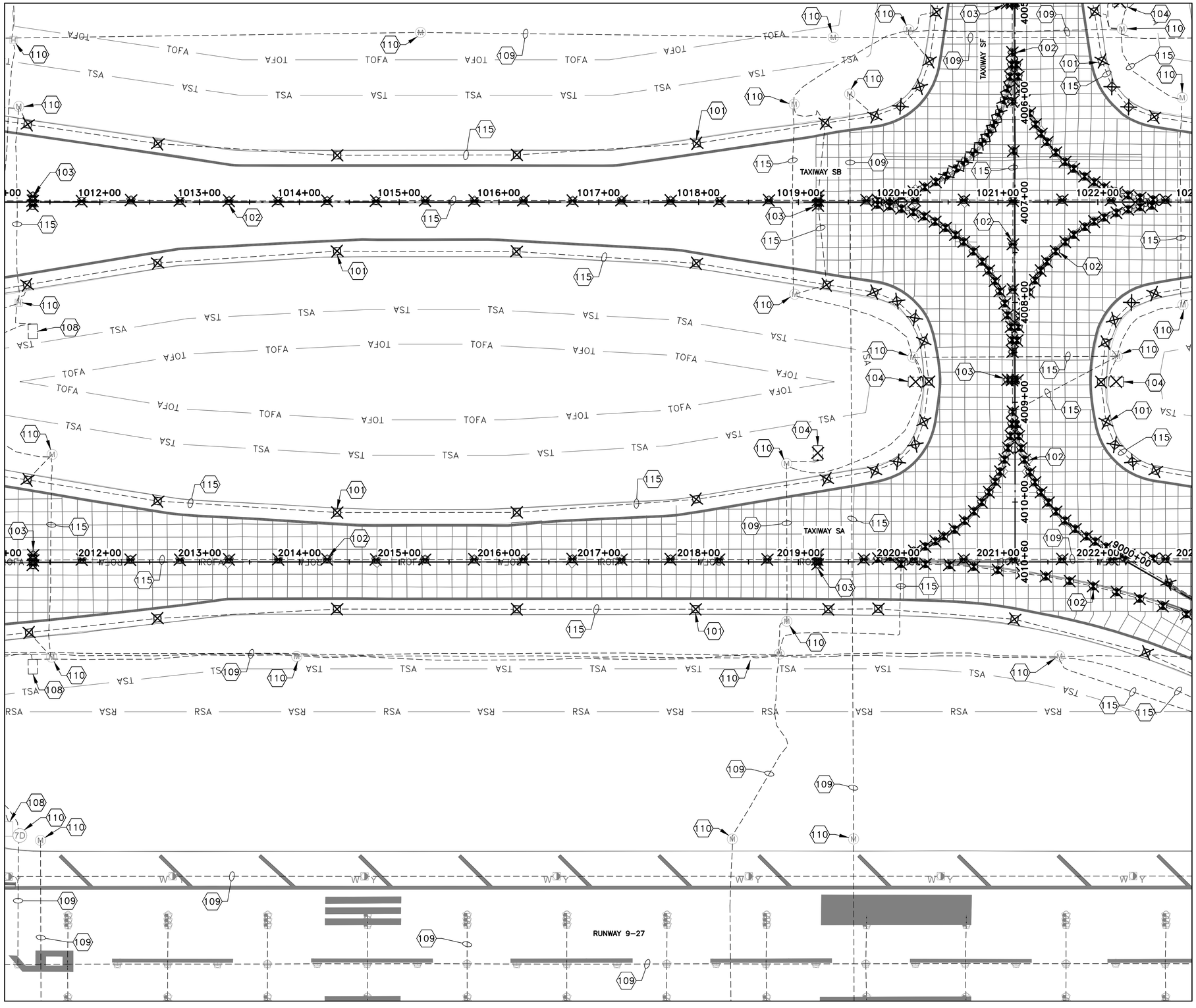


N

0 25' 50' 100' 150'

(IN FEET)

DEMOLITION KEYED NOTES:

(101) REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

(102) REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

(103) REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

(104) REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

(108) EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

(109) EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

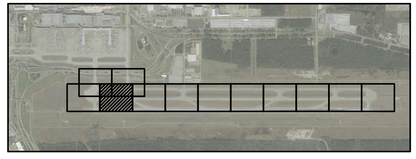
(110) EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

(115) REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



HOUSTON AIRPORTS

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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN IV

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.04

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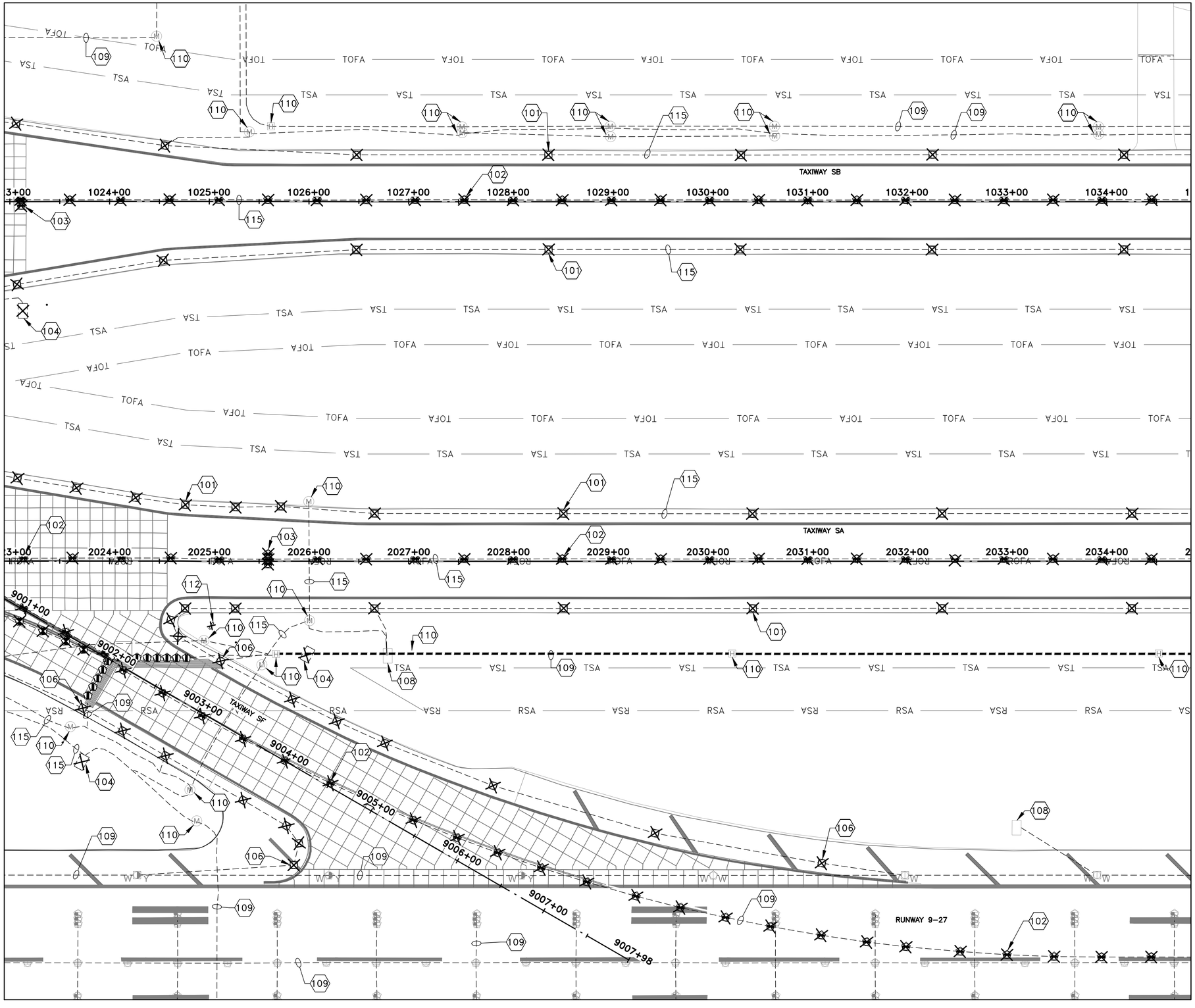

N

0 25' 50' 100' 150'

(IN FEET)

DEMOLITION KEYED NOTES:

(101) REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

(102) REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

(103) REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

(104) REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

(106) REMOVE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

(108) EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

(109) EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

(110) EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

(112) DEMOLISH ABANDONED SIGN FOUNDATION.

(115) REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

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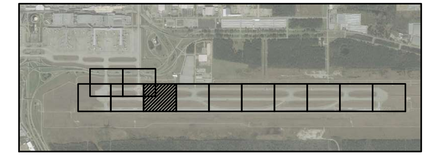

HOUSTON AIRPORTS

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Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN V

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.05

HAS FILE: C:\Users\MCLemay\Garver\AH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL DEMOLITION PLAN V.dwg
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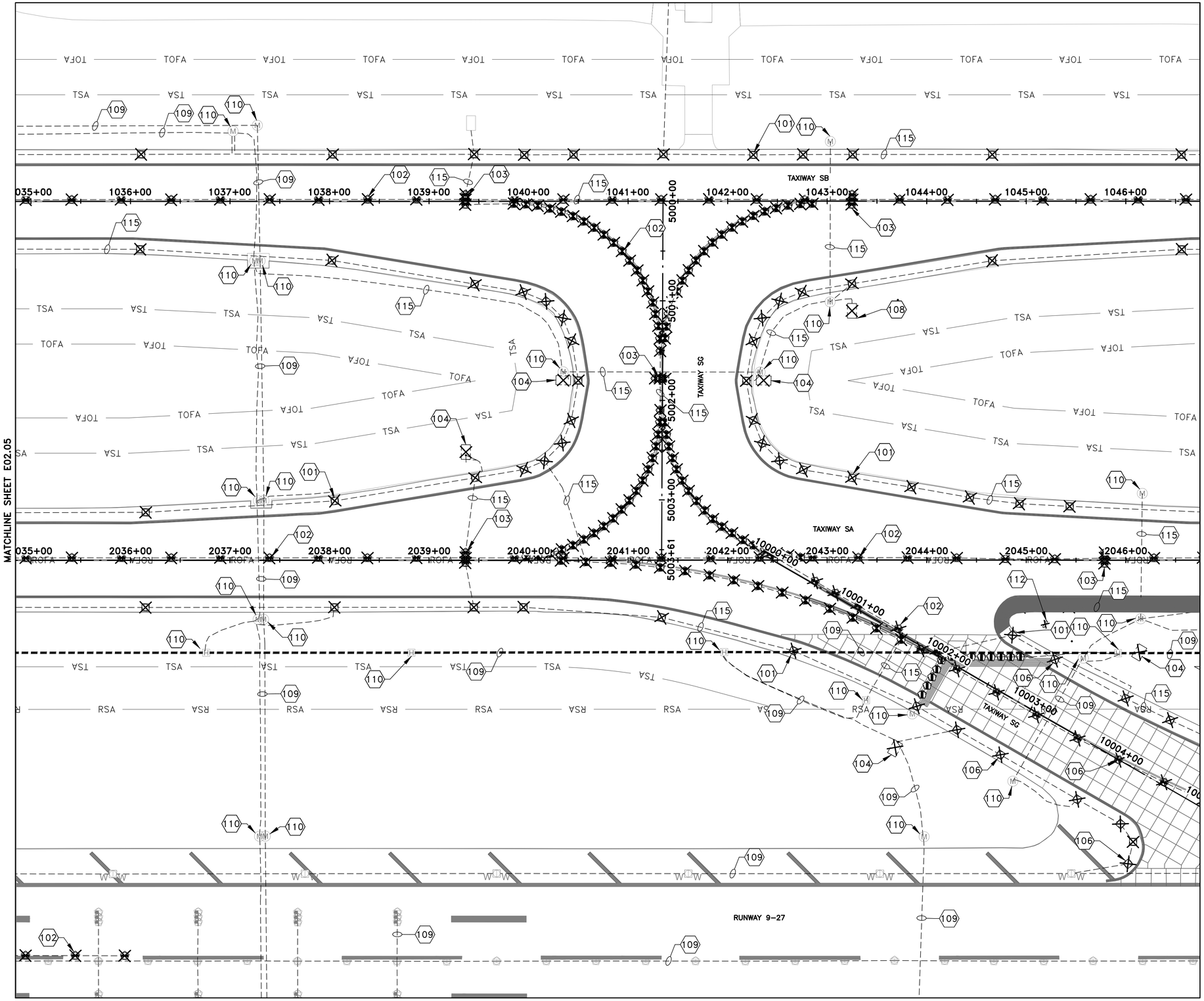


N

0 25' 50' 100' 150'

(IN FEET)

DEMOLITION KEYED NOTES:

101 REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

103 REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

104 REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

106 REMOVE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

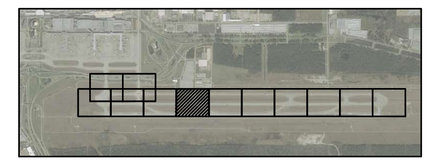
112 DEMOLISH ABANDONED SIGN FOUNDATION.

115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



HOUSTON AIRPORTS

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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN VI

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.06

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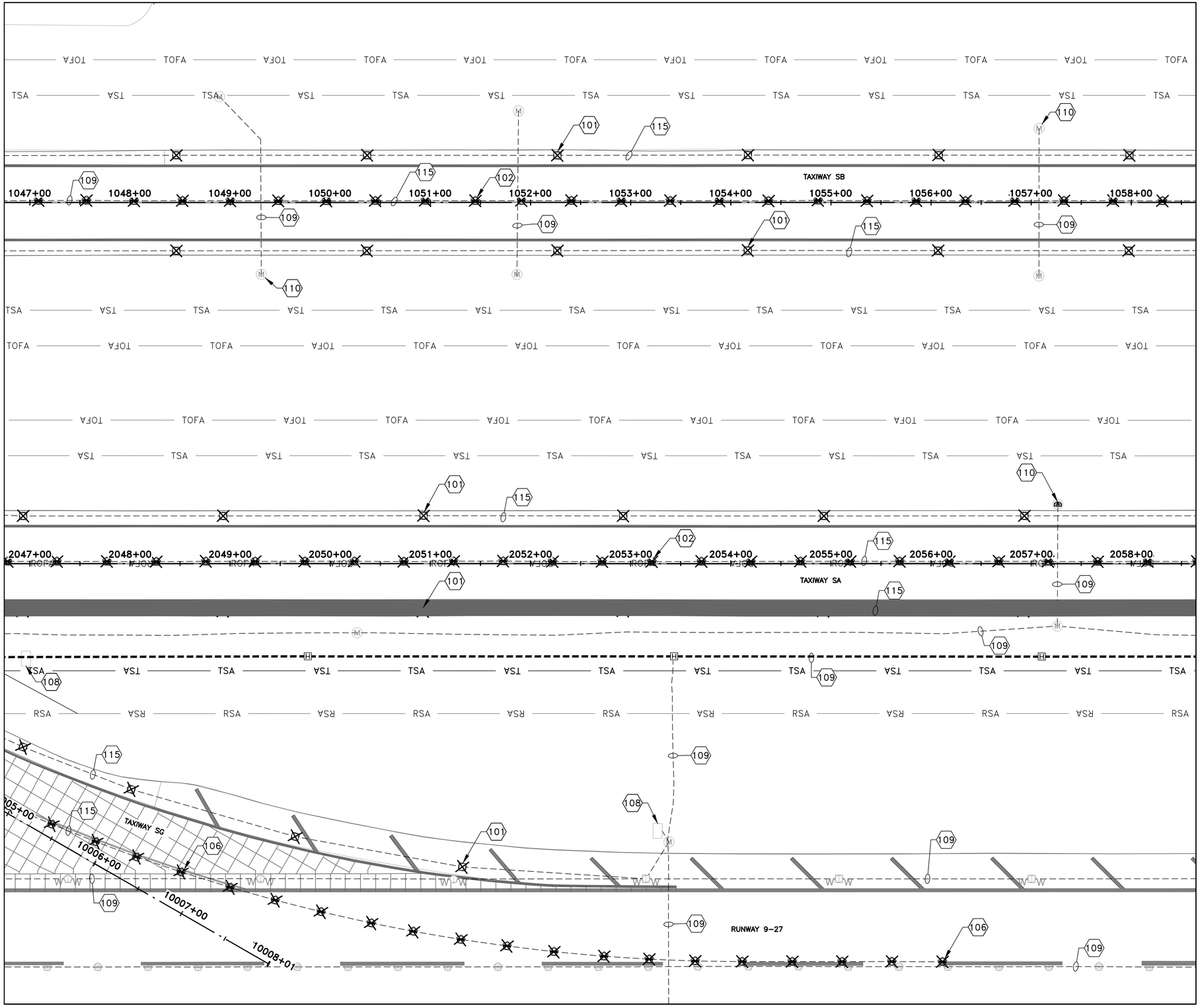
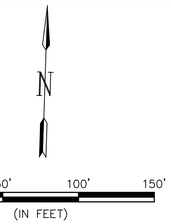




DEMOLITION KEYED NOTES:

101 REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

106 REMOVE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

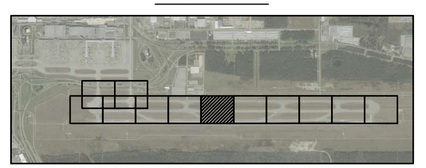
110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN VII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

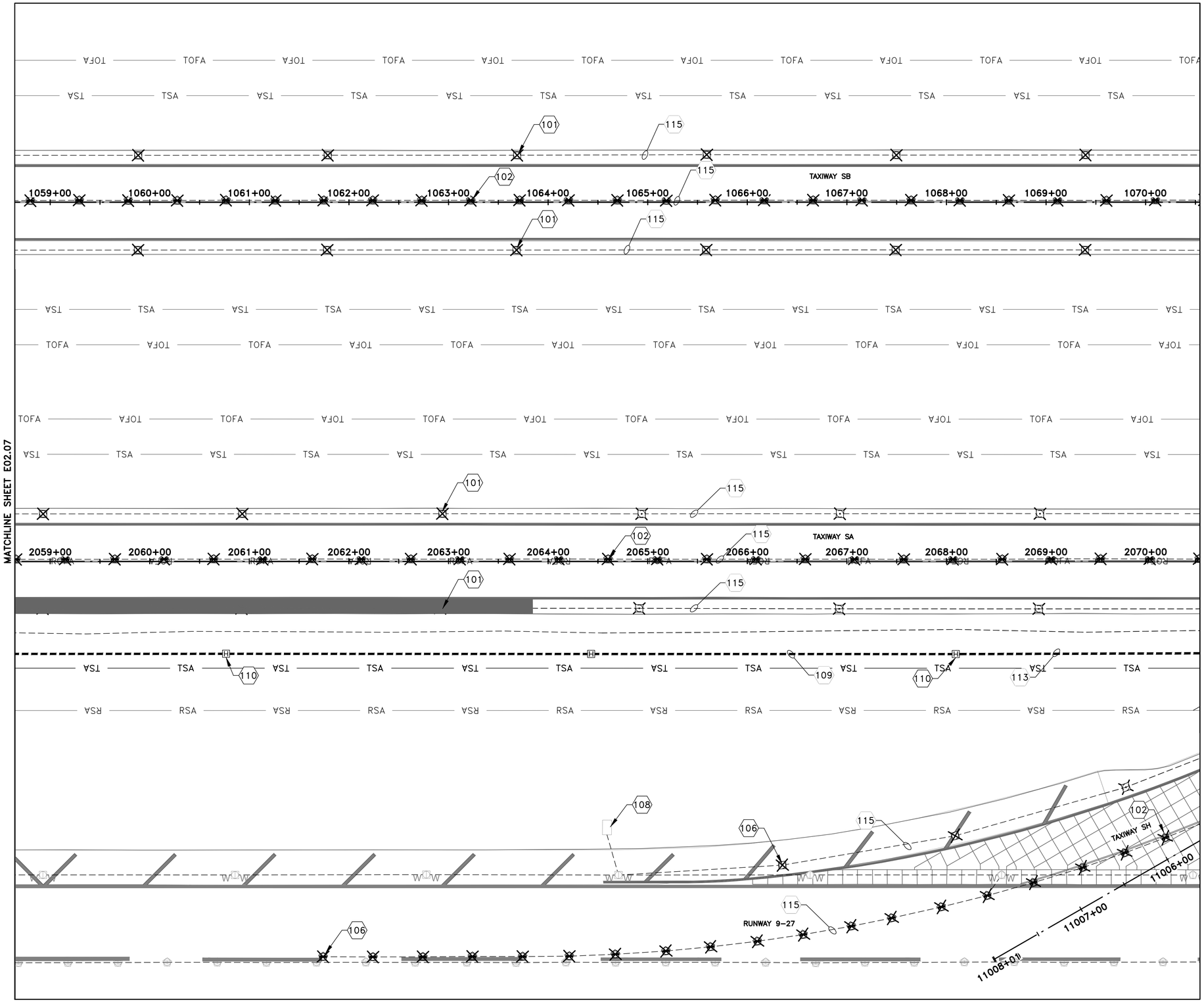
STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.07

HAS FILE: C:\Users\MCLemay\Garver\JAH - TXYS SA SB REHAB - Aviation - 0646.2\14 - Electrical\Sheet Files\ELECTRICAL DEMOLITION PLAN VII.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



MATCHLINE SHEET E02.07

MATCHLINE SHEET E02.09

N

0 25' 50' 100' 150'

(IN FEET)

DEMOLITION KEYED NOTES:

101 REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

106 REMOVE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

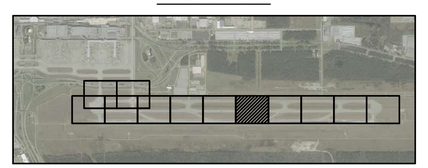
113 REMOVE EXISTING CONDUCTORS AND ABANDON ELECTRICAL DUCT BANK IN PLACE.

115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN VIII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

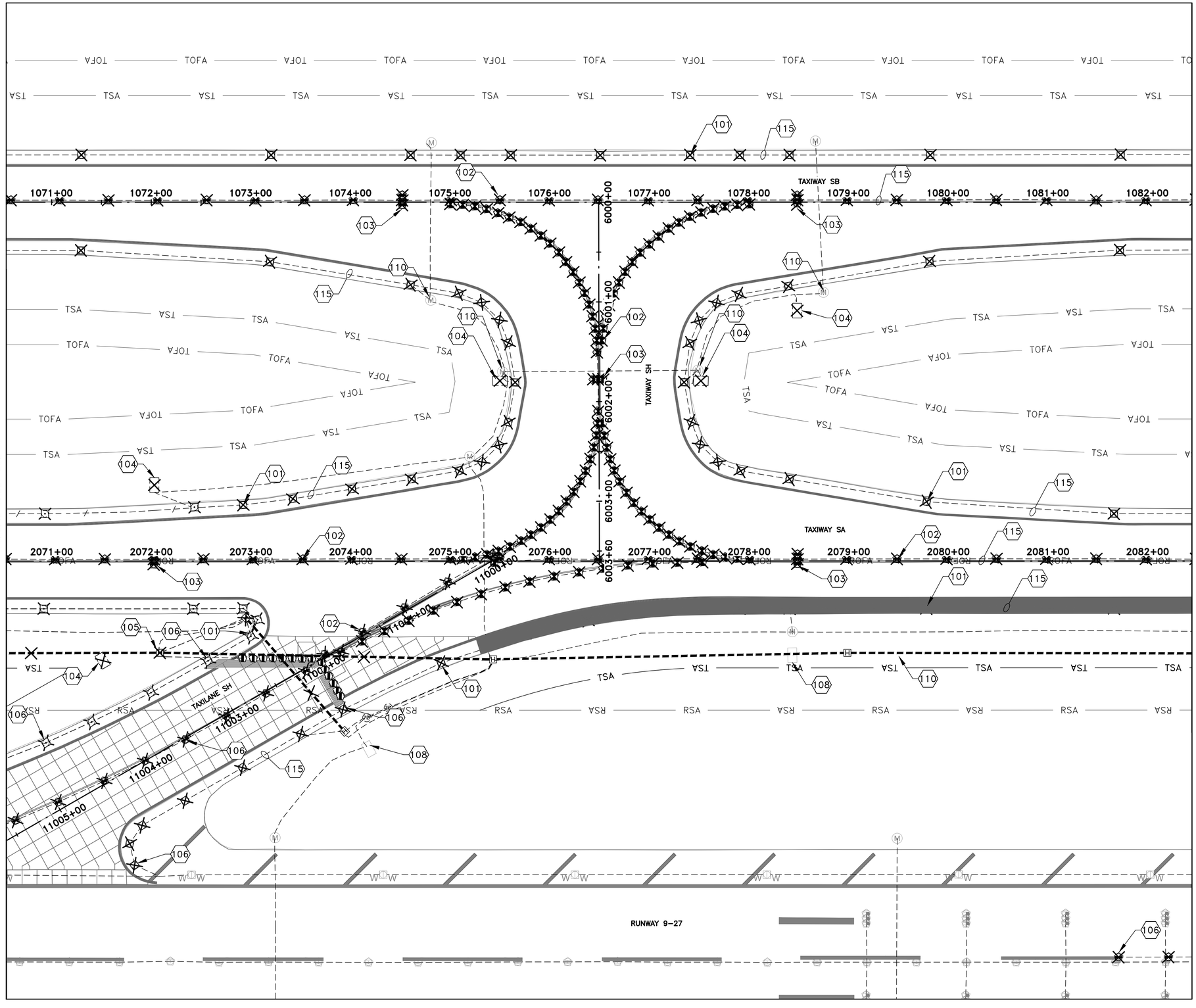
STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.08

HAS FILE: C:\Users\MCLemay\Garver\IAH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL DEMOLITION PLAN VIII.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



N

0 25' 50' 100' 150'

(IN FEET)

DEMOLITION KEYED NOTES:

(101) REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

(102) REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

(103) REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

(104) REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

(105) REMOVE ELECTRICAL HANDHOLE.

(106) REMOVE AND STORE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

(108) EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

(109) EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

(110) EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

(113) REMOVE EXISTING CONDUCTORS AND ABANDON ELECTRICAL DUCT BANK IN PLACE.

(115) REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

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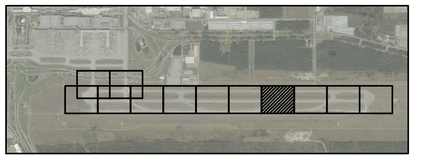

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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL DEMOLITION PLAN IX

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

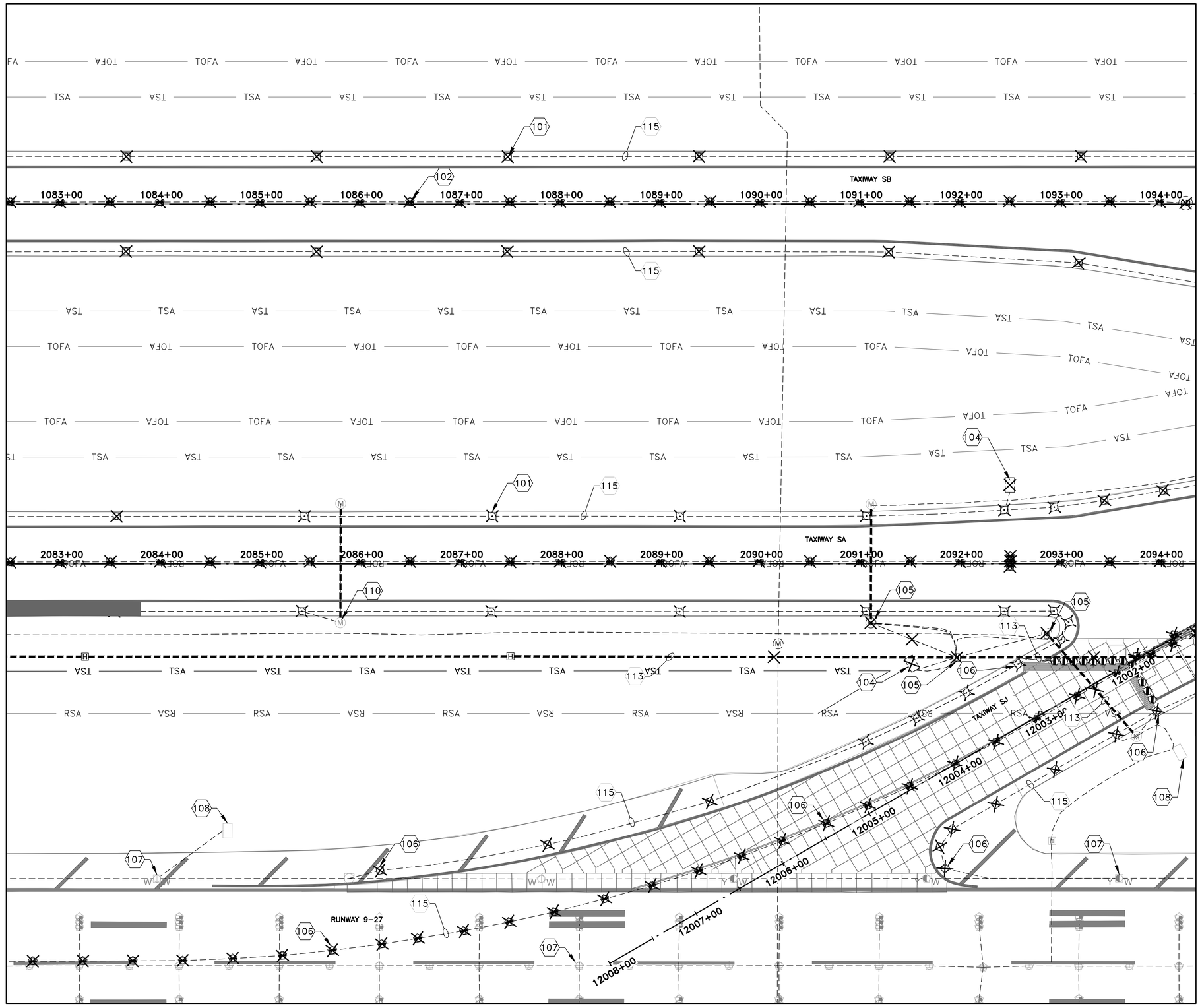
STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

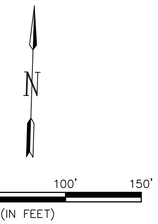
APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.09

HAS FILE: C:\Users\MCLemay\Garver\JAH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL DEMOLITION PLAN IX.dwg
PLOT DATE: 11/8/2019 3:32:47 PM





DEMOLITION KEYED NOTES:

101 REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

104 REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

105 REMOVE ELECTRICAL HANDHOLE.

106 REMOVE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

107 EXISTING EDGE OR CENTERLINE LIGHT TO REMAIN. (TYP.)

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

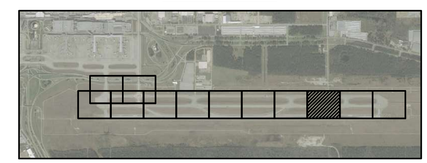
113 REMOVE EXISTING CONDUCTORS AND ABANDON ELECTRICAL DUCT BANK IN PLACE.

115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



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12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN X

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.10

PLOT DATE: 11/8/2019 3:32:47 PM
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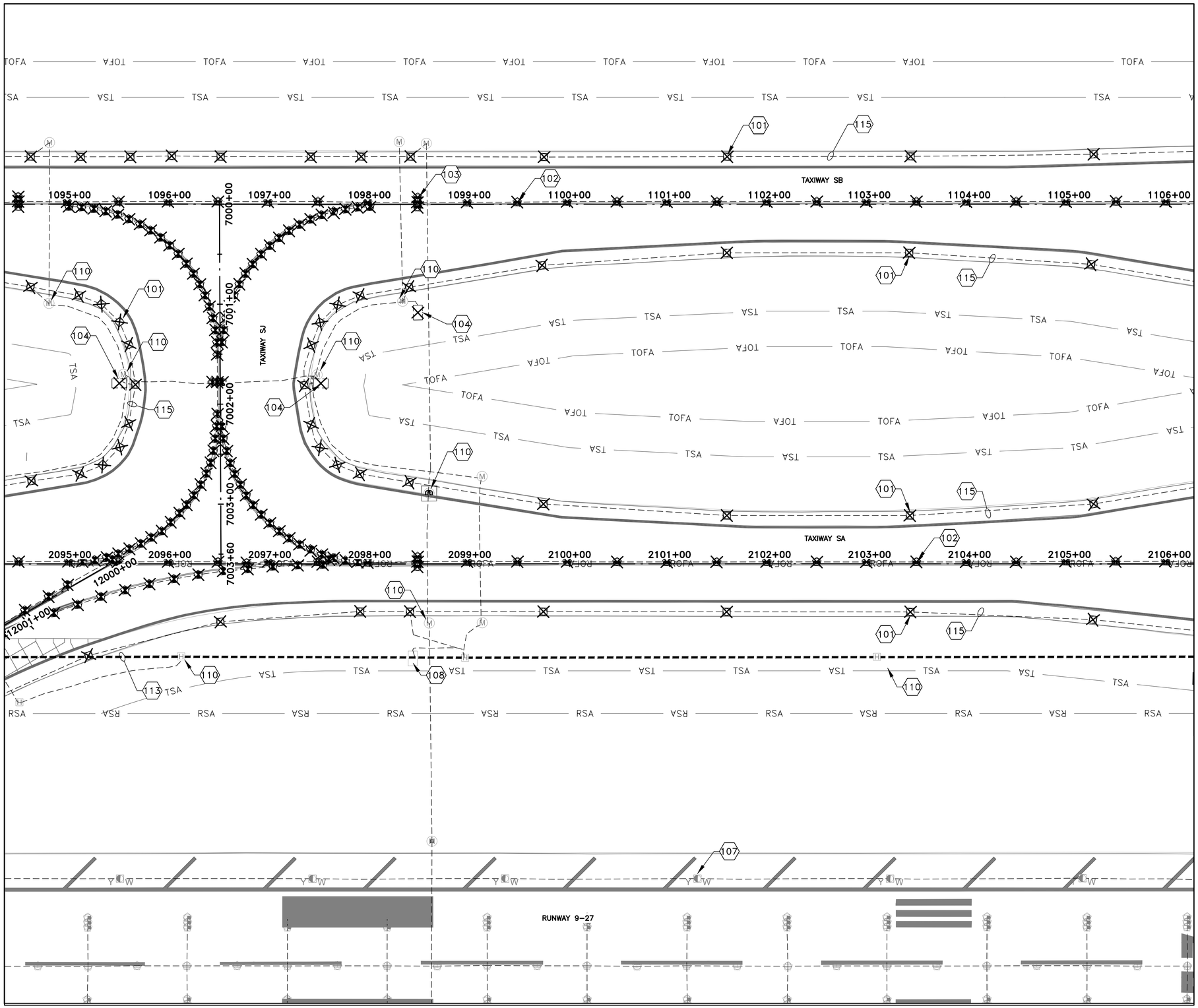
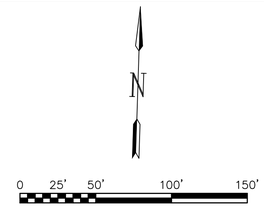




DEMOLITION KEYED NOTES:

(101) REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

(102) REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

(103) REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

(104) REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

(107) EXISTING EDGE OR CENTERLINE LIGHT TO REMAIN. (TYP.)

(108) EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

(109) EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

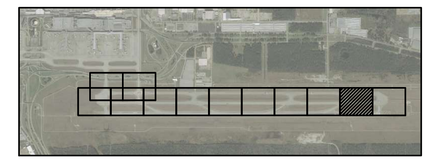
(110) EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

(115) REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



HOUSTON AIRPORTS
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12141 Wickchester Lane
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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DEMOLITION PLAN XI

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.11

HAS FILE: C:\Users\MCLemay\Garver\AH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL DEMOLITION PLAN XI.dwg
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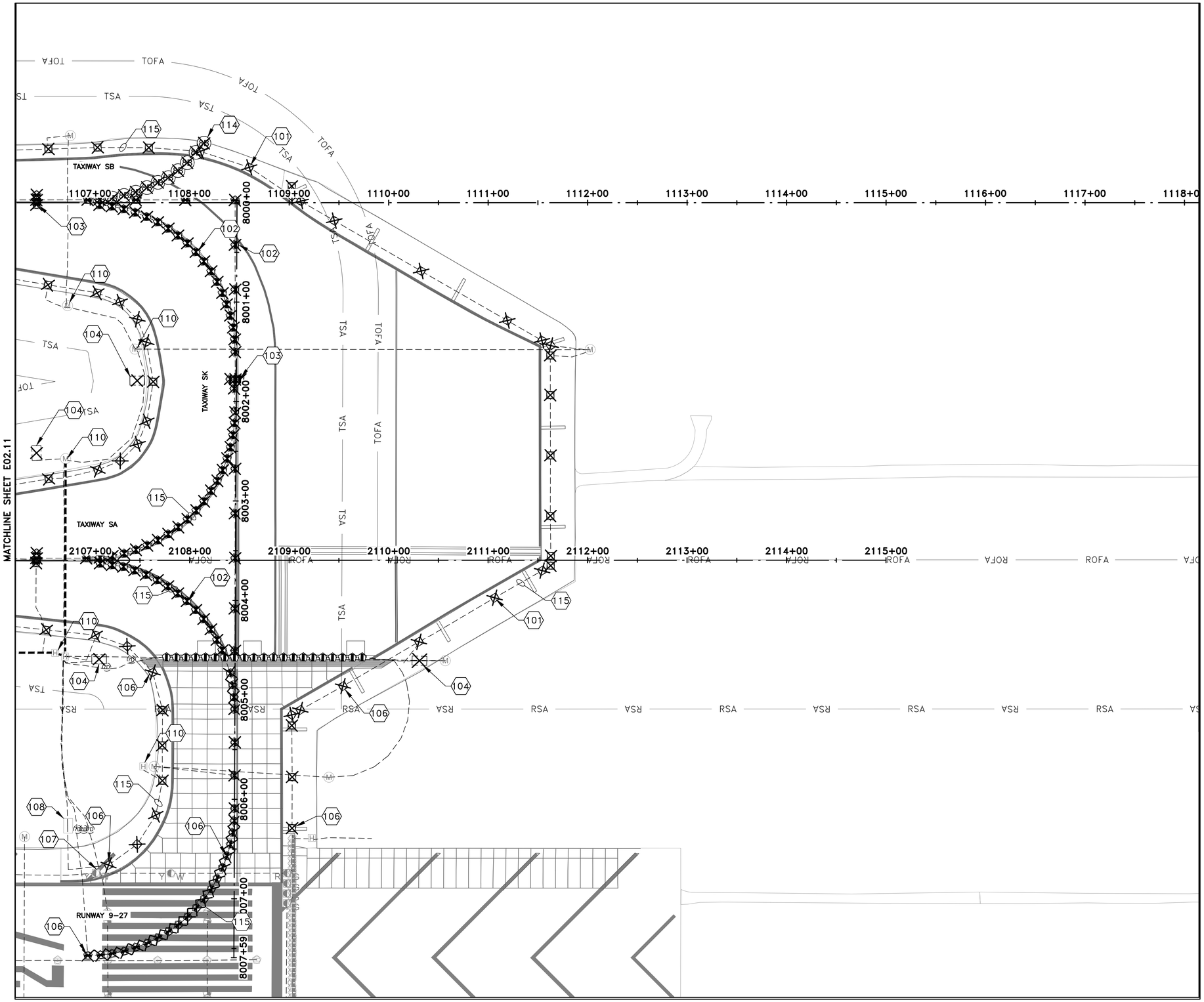
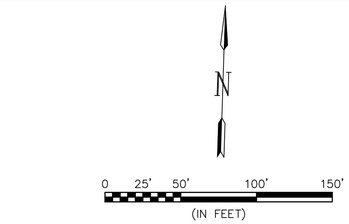




DEMOLITION KEYED NOTES:

101 REMOVE EXISTING BASE MOUNTED TAXIWAY EDGE LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

102 REMOVE EXISTING BASE MOUNTED TAXIWAY CENTERLINE LIGHT AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

103 REMOVE EXISTING BASE MOUNTED CLEARANCE BAR LIGHT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP. OF 3 LIGHTS PER LOCATION)

104 REMOVE EXISTING BASE MOUNTED GUIDANCE SIGN. DEMOLISH FOUNDATION. (TYP.)

106 REMOVE EXISTING BASE MOUNTED LIGHT. BASE TO REMAIN.

107 EXISTING EDGE OR CENTERLINE LIGHT TO REMAIN. (TYP.)

108 EXISTING AIRFIELD GUIDANCE SIGN TO REMAIN. (TYP.)

109 EXISTING AIRFIELD CONDUIT OR DUCT AND CABLE TO REMAIN. (TYP.)

110 EXISTING ELECTRICAL HANDHOLE, MANHOLE, OR PULL BOX TO REMAIN. (TYP.)

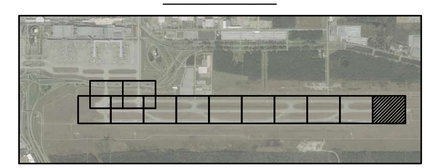
114 REMOVE COVER OF EXISTING BASE MOUNTED JUNCTION STRUCTURE AND DRAIN IF WATER IS PRESENT. BASE TO REMAIN DURING MILL AND OVERLAY CONSTRUCTION. (TYP.)

115 REMOVE CONDUCTORS FROM EXISTING CONDUIT. CONDUIT TO REMAIN. (TYP.)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND DEMOLITION NOTES.
2. SEE SHEET E01.02 FOR DEMOLITION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.

KEYMAP



HOUSTON AIRPORTS

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Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL DEMOLITION PLAN XII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E02.12

HAS FILE: C:\Users\MCLemoy\Garver\IAH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL DEMOLITION PLAN XII.dwg
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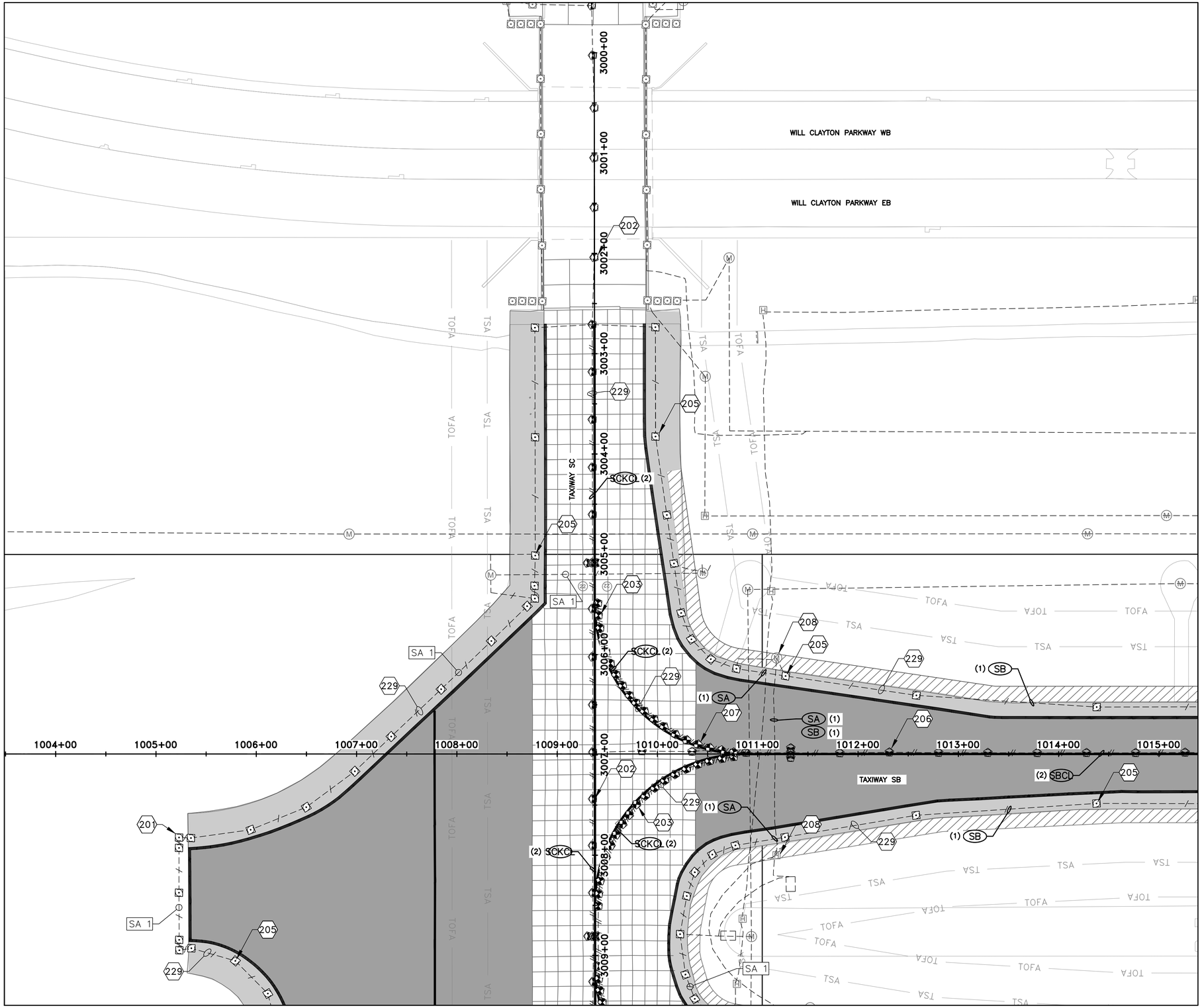


0 25' 50' 100' 150'
(IN FEET)

N

MATCHLINE SHEET E03.02

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

202 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON EXISTING LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

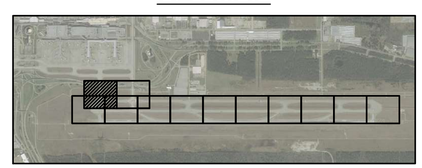
207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING JUNCTION STRUCTURE TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:
1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

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Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL INSTALLATION PLAN I

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.01

HAS FILE: C:\Users\MCLemay\Garver\IAH - TXYS SA SB REHAB - Aviation - 0646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN I.dwg
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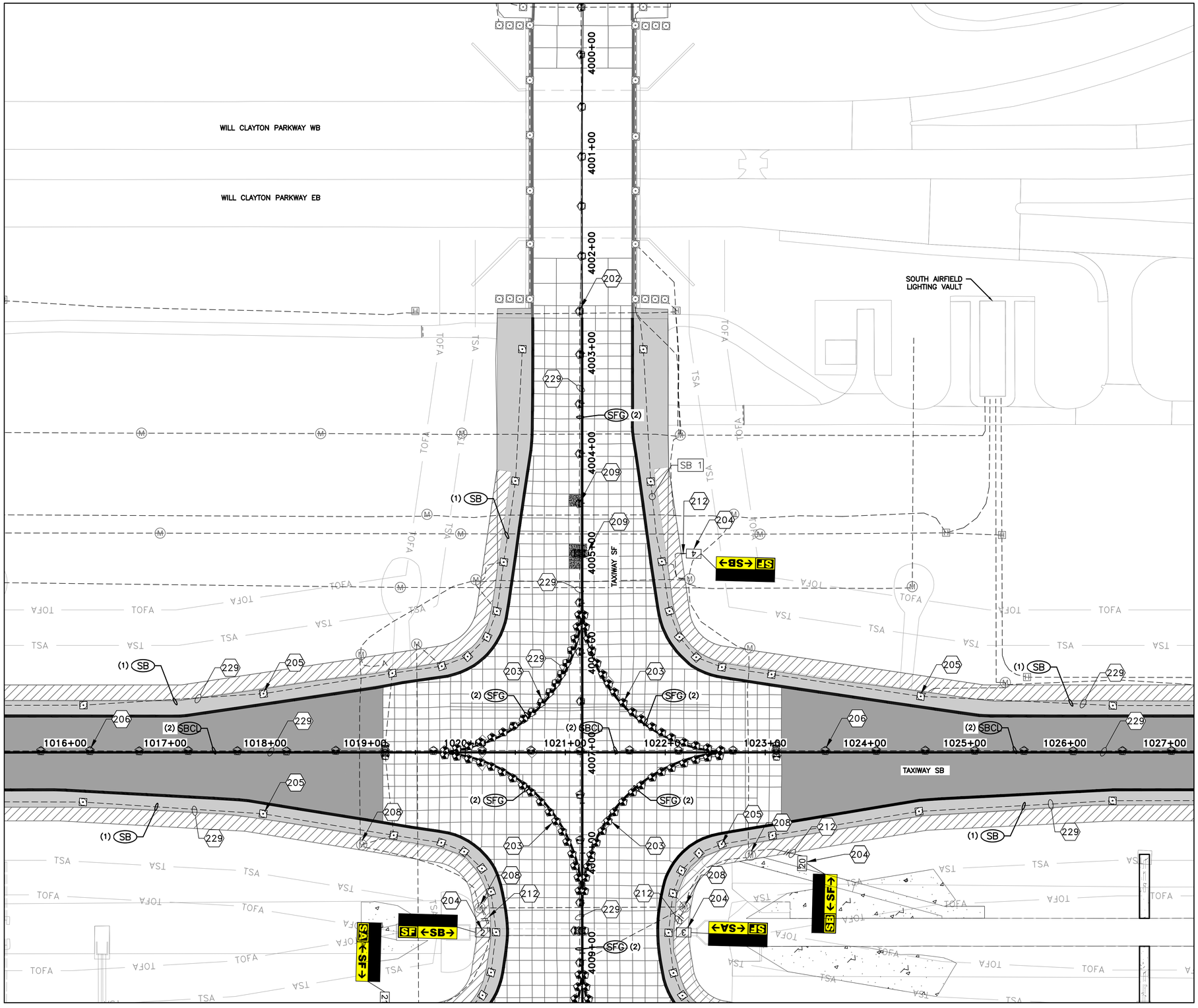


0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

202 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON EXISTING LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

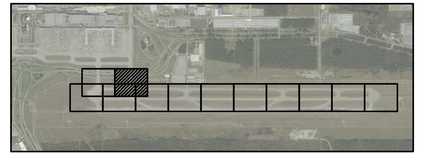
209 INSTALL NEW L-852C(L) ON NEW L-868 LIGHT BASE IN FULL DEPTH RECONSTRUCTION AREA.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:
1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL INSTALLATION PLAN II

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. E03.02

PLOT DATE: 11/8/2019 3:32:47 PM
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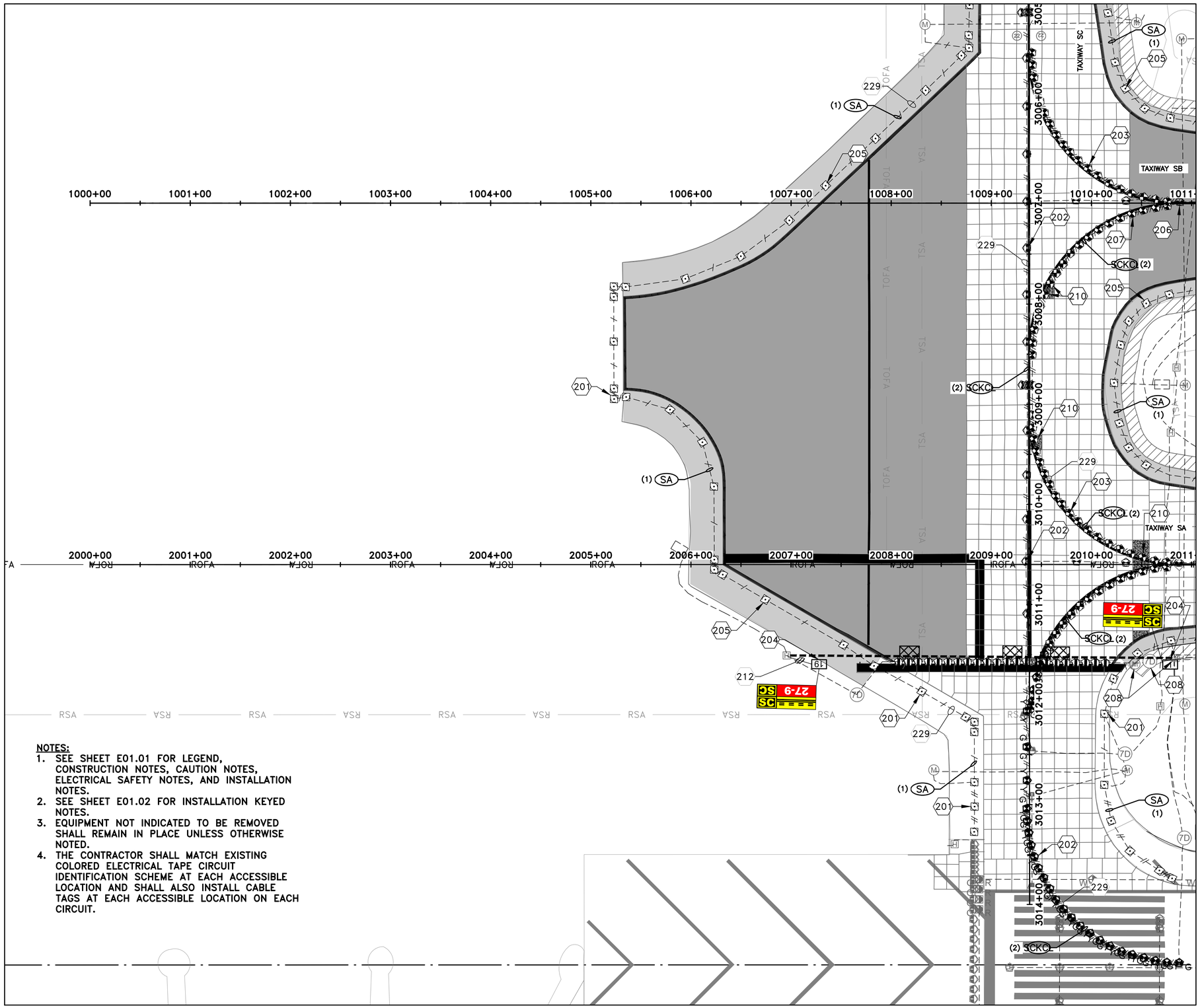


0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

202 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON EXISTING LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING JUNCTION STRUCTURE TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

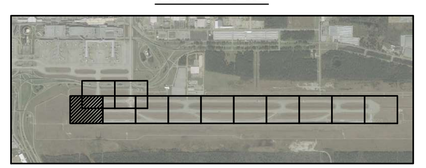
210 INSTALL NEW L-852D(L) ON NEW L-868 LIGHT BASE IN FULL DEPTH RECONSTRUCTION AREA.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:
1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL INSTALLATION PLAN III

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.03

HAS FILE: C:\Users\MCLemay\Garver\IAH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN III.dwg
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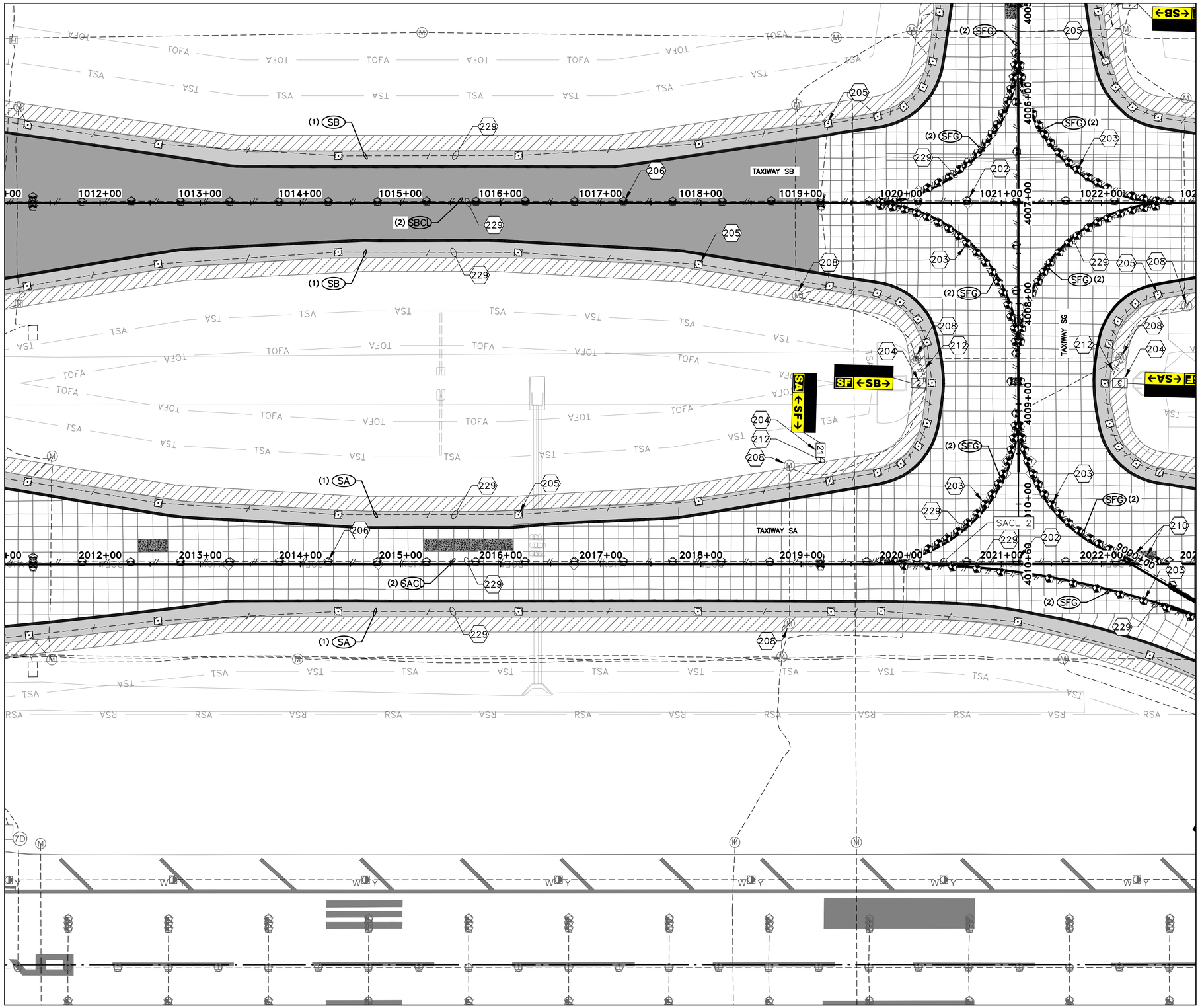


0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

202 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON EXISTING LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

210 INSTALL NEW L-852D(L) ON NEW L-868 LIGHT BASE IN FULL DEPTH RECONSTRUCTION AREA.

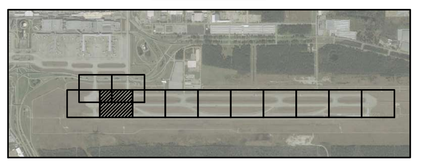
212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL INSTALLATION PLAN IV

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.04

HAS FILE: C:\Users\MCLemay\Garver\IAH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN IV.dwg
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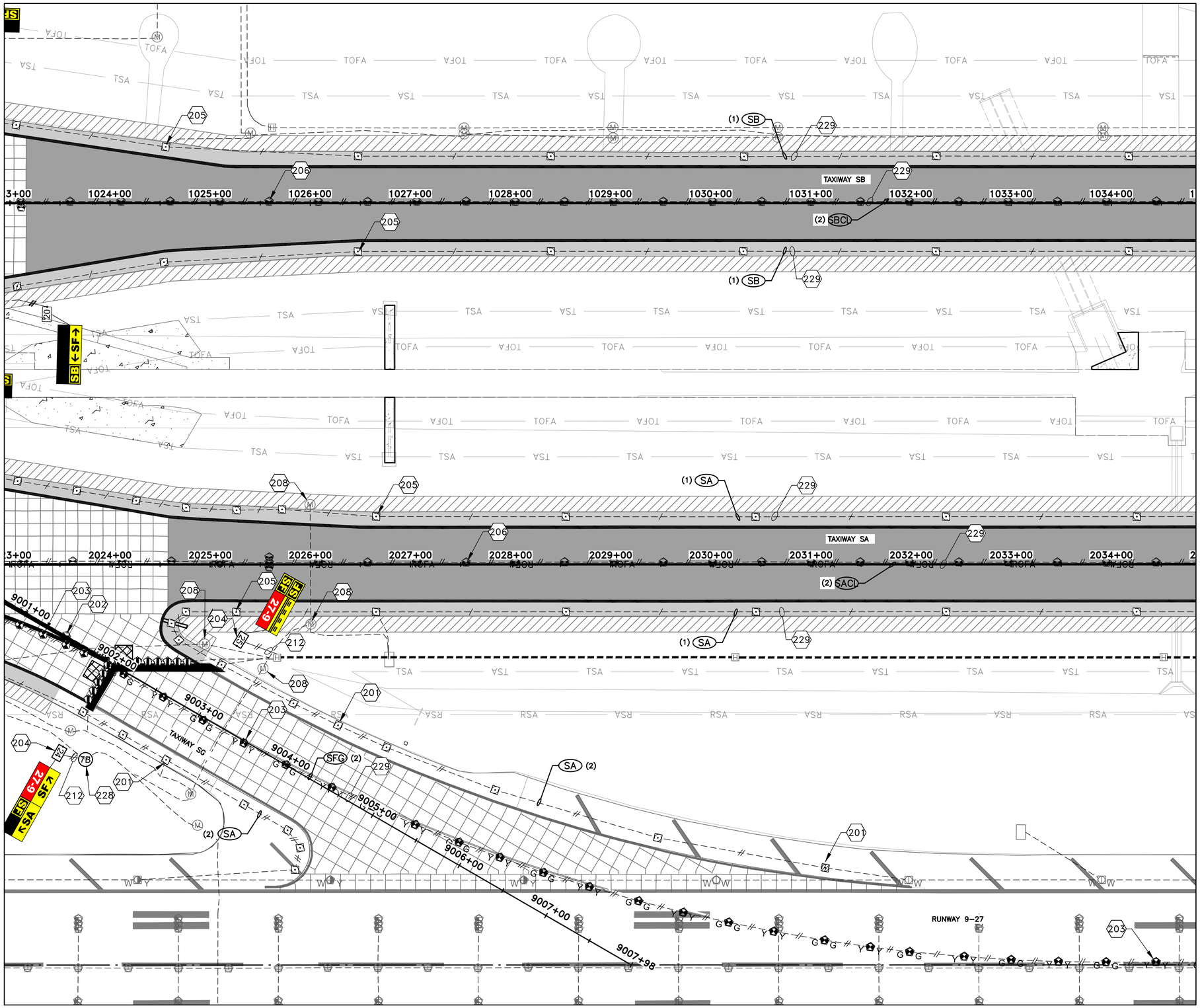


0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

202 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON EXISTING LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING JUNCTION STRUCTURE TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

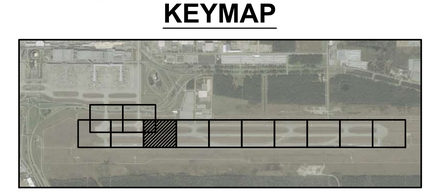
212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

228 MAINTAIN EXISTING JUNCTION CAN FROM EXISTING SIGN BASE.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:
1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

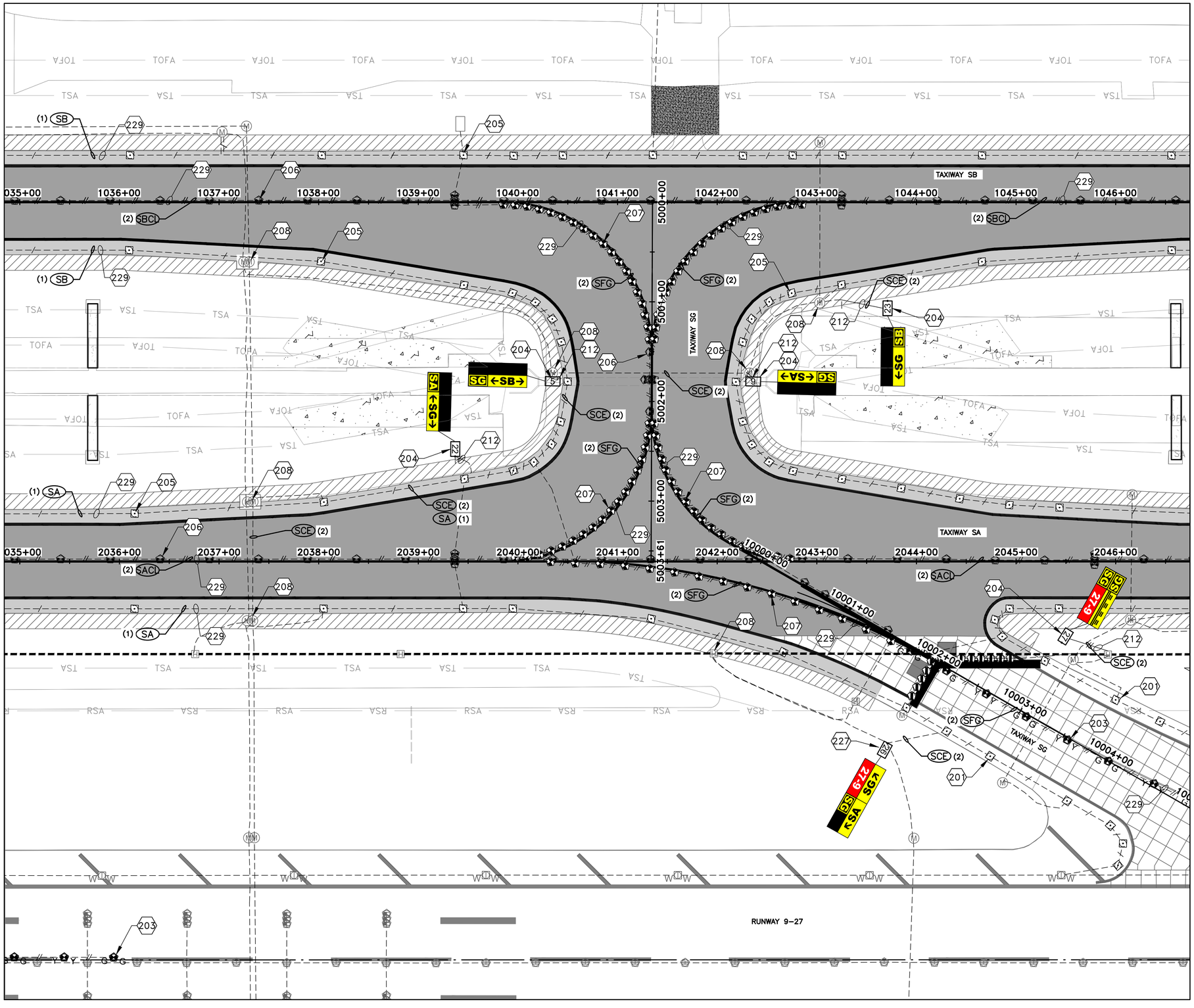
ELECTRICAL INSTALLATION PLAN V

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.05

HAS FILE: C:\Users\MCLemay\Garver\IAH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN V.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

227 UPDATE SIGN LEGEND. REFER TO NEW SIGN INDEX.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:
1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
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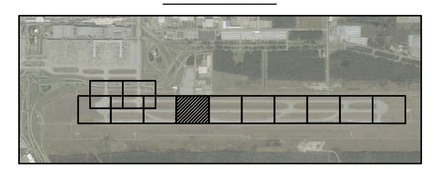
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

GARVER
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Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL INSTALLATION PLAN VI

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. E03.06

HAS FILE: C:\Users\MCLemay\Garver\AH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN VI.dwg
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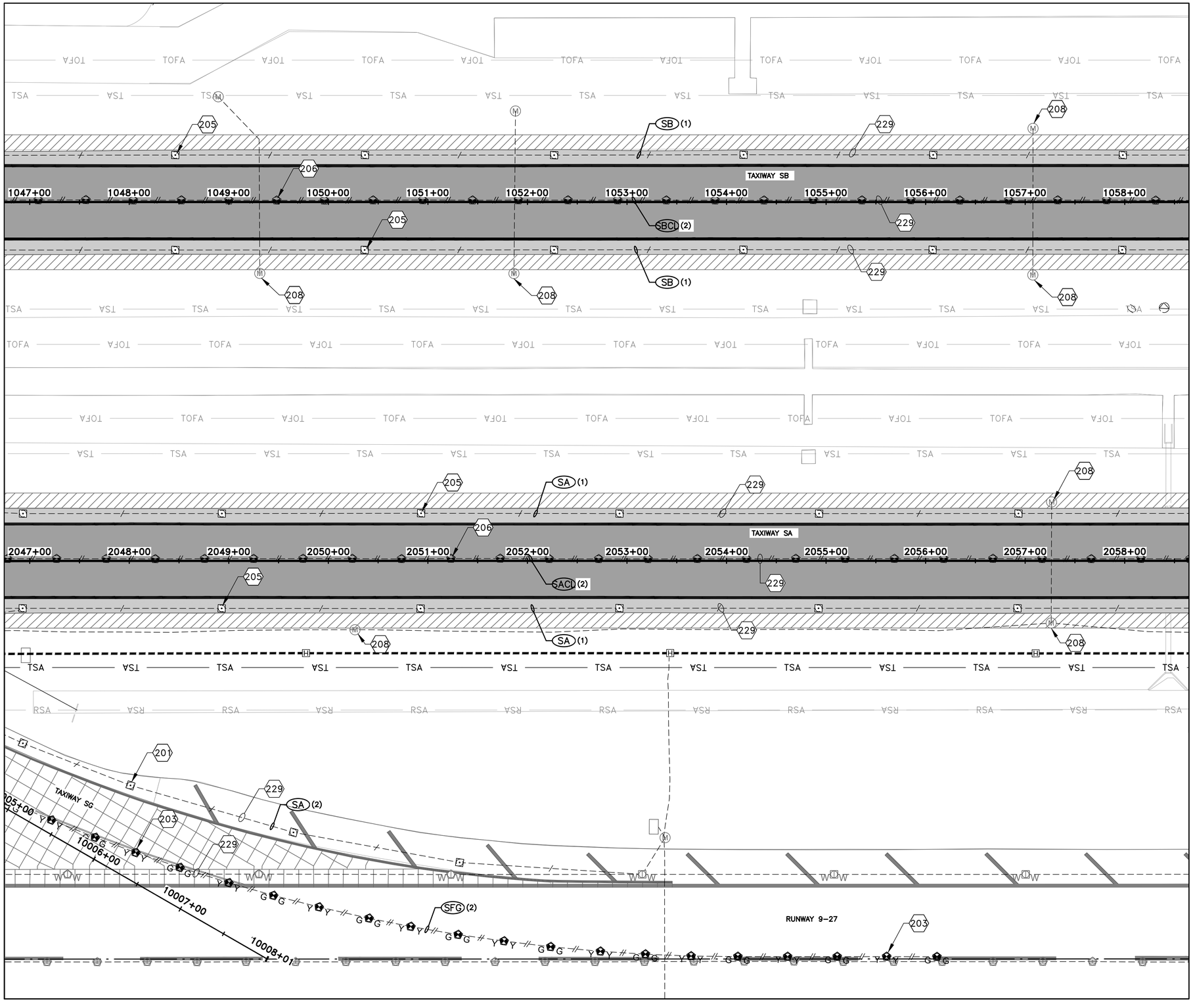


0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

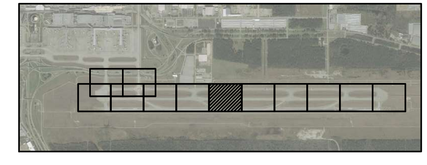
206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:
1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

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Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL INSTALLATION PLAN VII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.07

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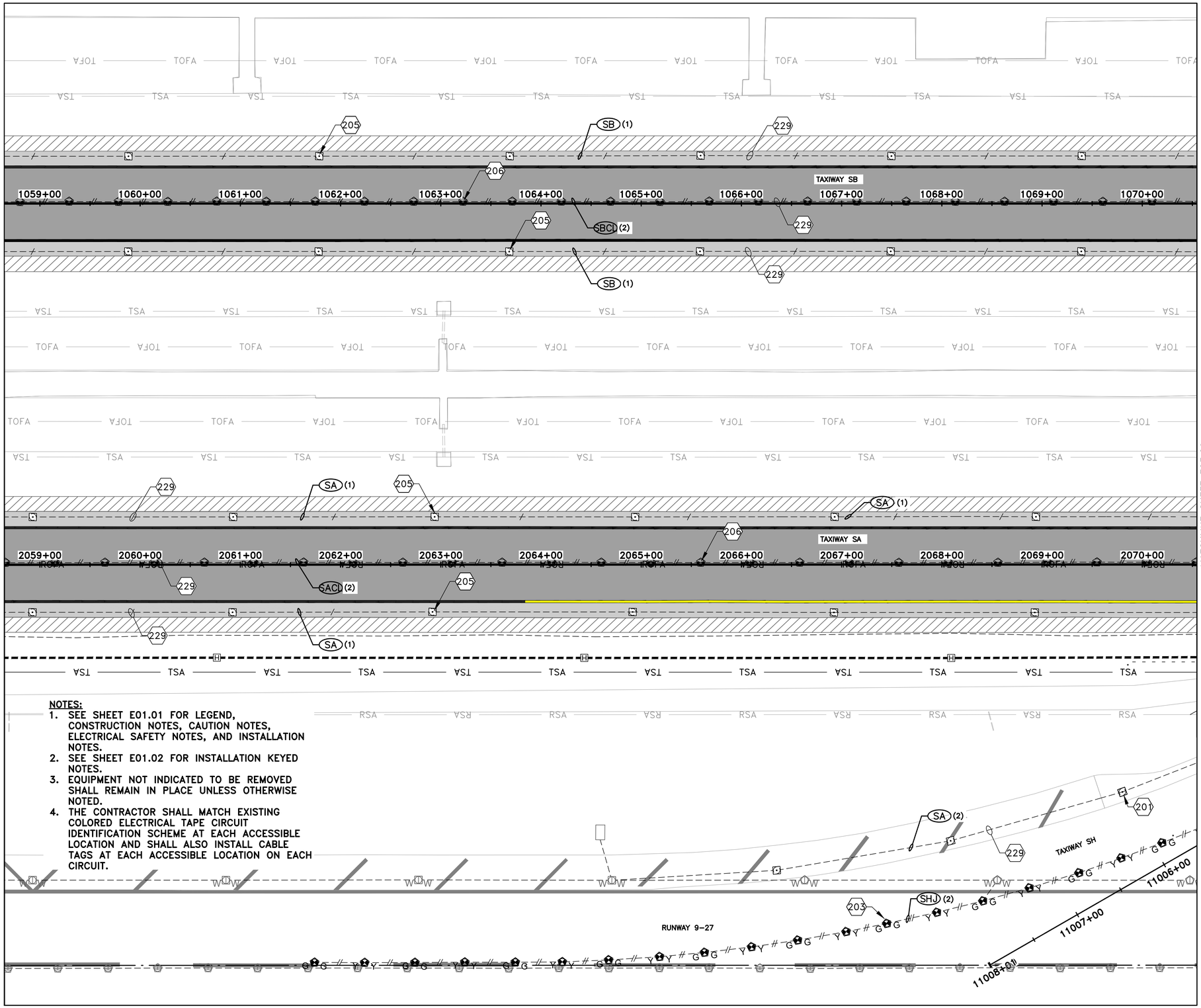


MATCHLINE SHEET E03.07

MATCHLINE SHEET E03.09

0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

213 INSTALL NEW L-861T(L) TAXIWAY EDGE LIGHT ON NEW BASE IN EXISTING ASPHALT PAVEMENT. (TYP).

214 INSTALL NEW L-861T(L) TAXIWAY EDGE LIGHT ON NEW BASE IN NEW PAVEMENT. (TYP).

215 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHTING IN EXISTING PAVEMENT WITH MILL AND OVERLAY. (TYP.)

219 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT.

220 INSTALL NEW L-852G(L) RUNWAY GUARD LIGHT. (TYP.)

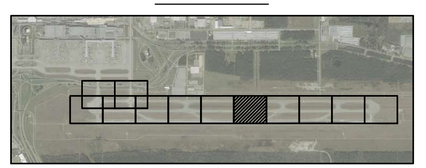
221 CONSTRUCT NEW 16-WAY2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT-RATED HANDHOLE.

223 CONSTRUCT NEW 16-WAY 2" NON-ENCASED DUCT BANK.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL INSTALLATION PLAN VIII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.08

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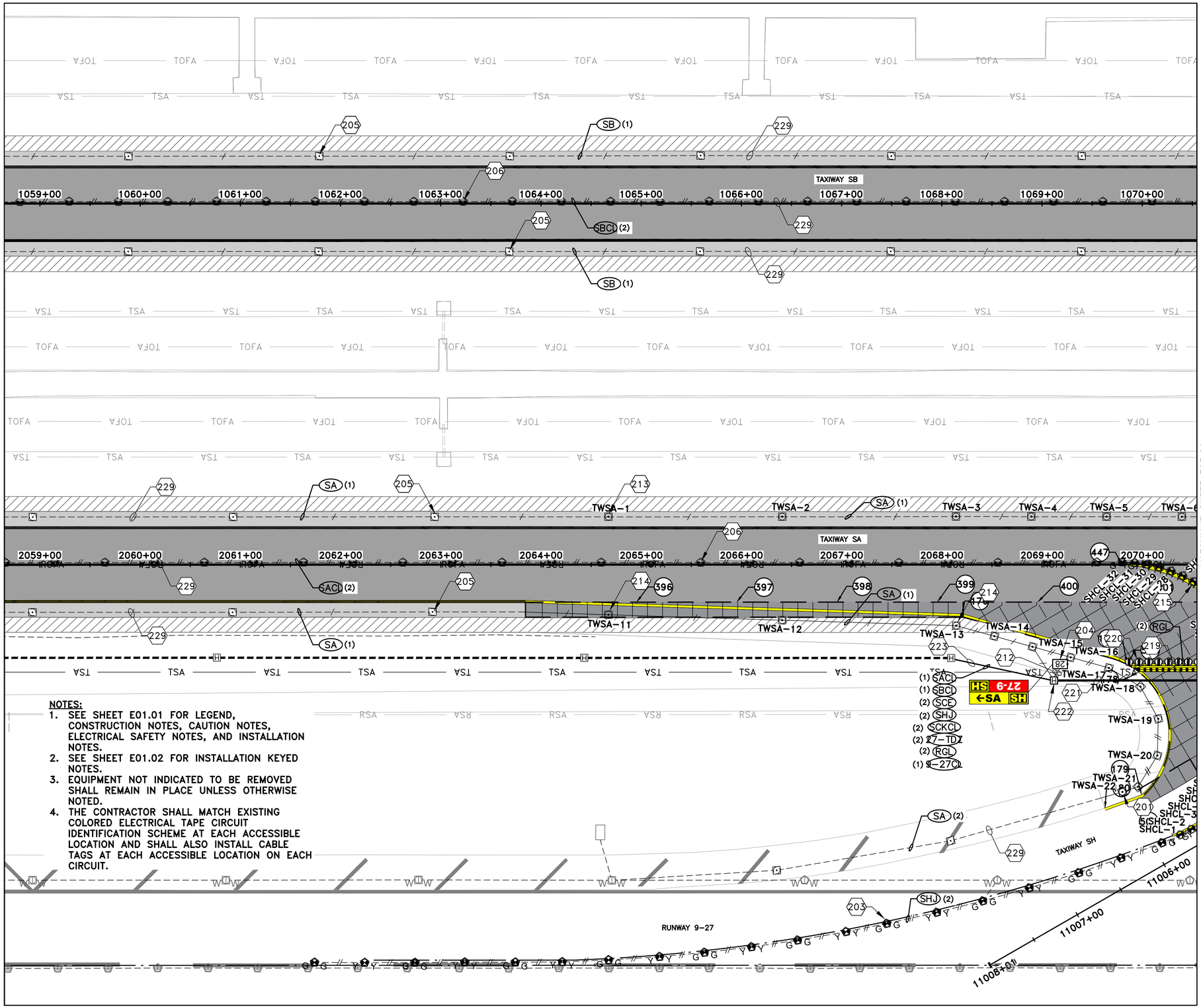
PLOT DATE: 11/8/2019 3:32:47 PM



MATCHLINE SHEET E03.07

MATCHLINE SHEET E03.09

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

213 INSTALL NEW L-861T(L) TAXIWAY EDGE LIGHT ON NEW BASE IN EXISTING ASPHALT PAVEMENT. (TYP).

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215 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHTING IN EXISTING PAVEMENT WITH MILL AND OVERLAY. (TYP.)

219 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT.

220 INSTALL NEW L-852G(L) RUNWAY GUARD LIGHT. (TYP.)

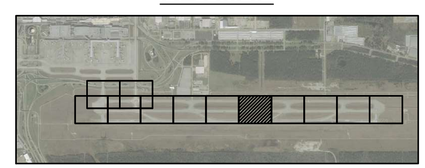
221 CONSTRUCT NEW 16-WAY2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT-RATED HANDHOLE.

223 CONSTRUCT NEW 16-WAY 2" NON-ENCASED DUCT BANK.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL INSTALLATION PLAN VIII (ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.08A

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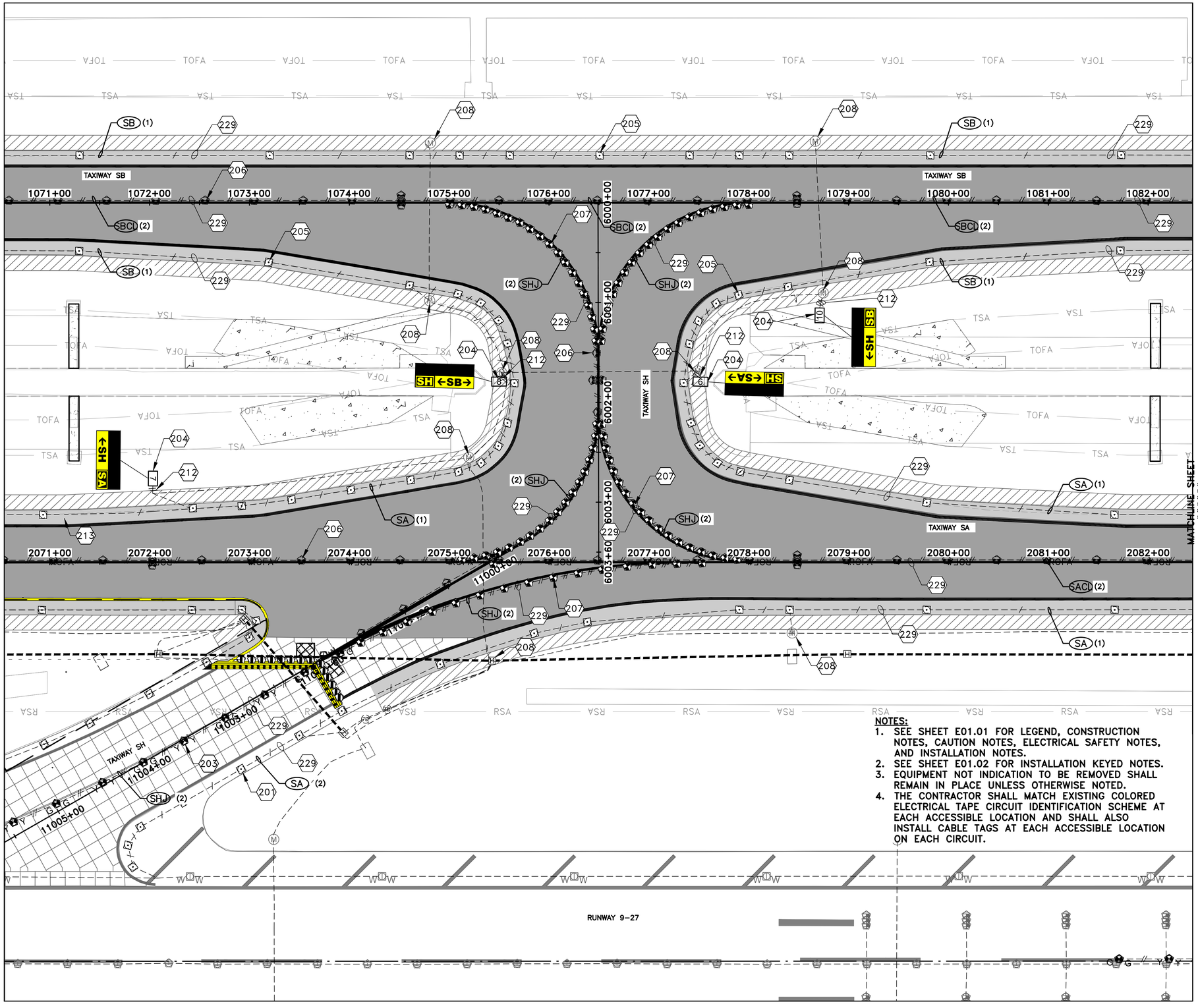
PLOT DATE: 11/8/2019 3:32:47 PM



0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

213 INSTALL NEW L-861T TAXIWAY EDGE LIGHT ON NEW BASE IN EXISTING ASPHALT PAVEMENT. (TYP).

215 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHTING IN EXISTING PAVEMENT WITH MILL AND OVERLAY. (TYP.)

216 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHT IN NEW CONCRETE PAVEMENT. (TYP.)

217 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHT IN EXISTING CONCRETE PAVEMENT. (TYP.)

218 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT IN EXISTING PAVEMENT VIA SAW KERF.

219 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT IN NEW PAVEMENT.

220 INSTALL NEW L-852G(L) RUNWAY GUARD LIGHT INSTALLED IN NEW PAVEMENT. (TYP.)

221 CONSTRUCT NEW 16-WAY 2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT-RATED HANDHOLE. (TYP.)

223 CONSTRUCT NEW 16-WAY 2" NON-ENCASED DUCT BANK.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:
1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
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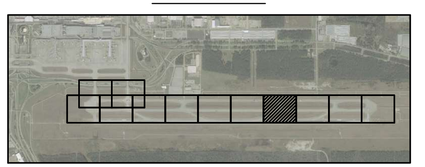
KEYMAP



HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL INSTALLATION PLAN IX

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.09

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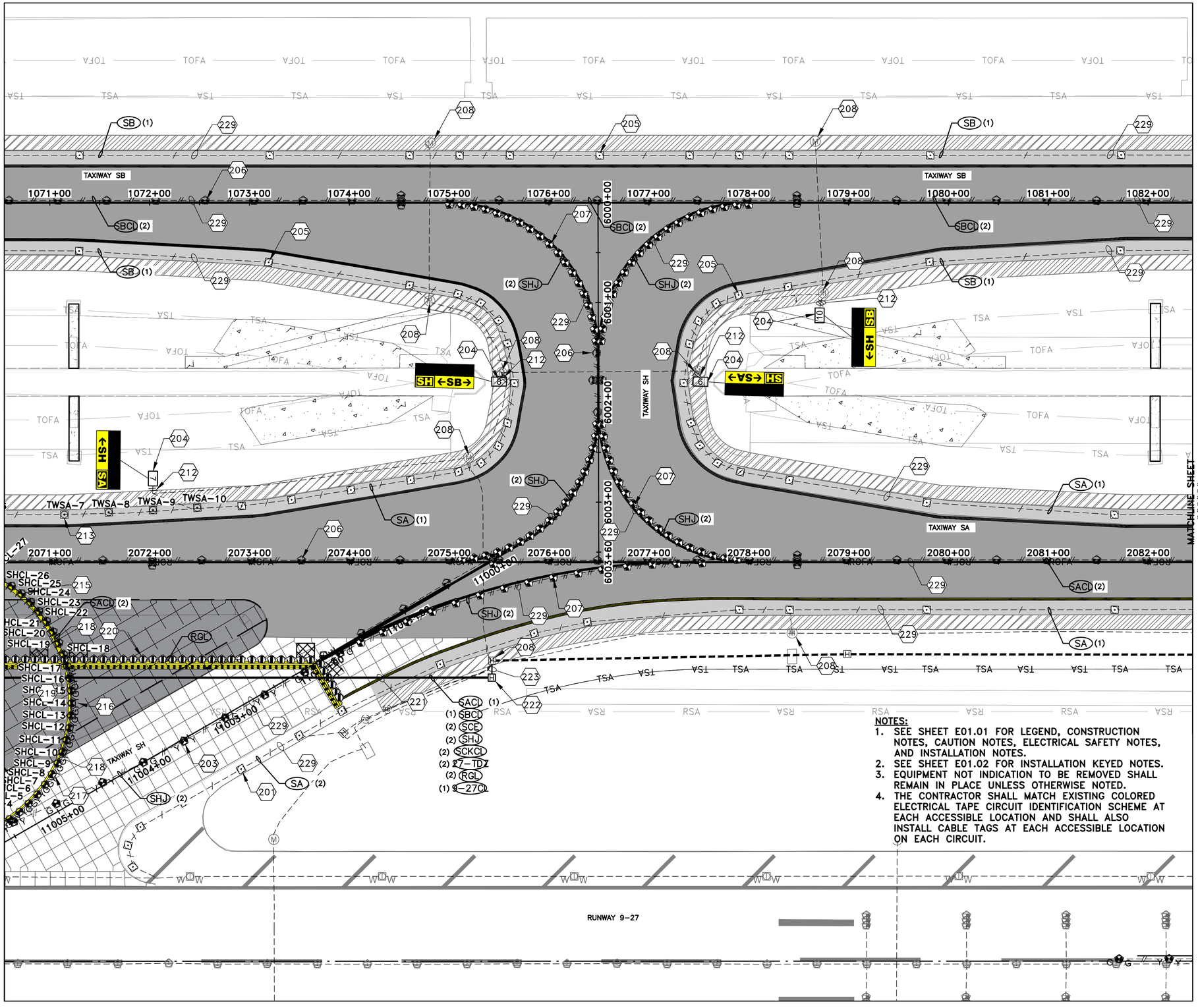

0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

213 INSTALL NEW L-861T TAXIWAY EDGE LIGHT ON NEW BASE IN EXISTING ASPHALT PAVEMENT. (TYP).

215 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHTING IN EXISTING PAVEMENT WITH MILL AND OVERLAY. (TYP.)

216 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHT IN NEW CONCRETE PAVEMENT. (TYP.)

217 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHT IN EXISTING CONCRETE PAVEMENT. (TYP.)

218 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT IN EXISTING PAVEMENT VIA SAW KERF.

219 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT IN NEW PAVEMENT.

220 INSTALL NEW L-852G(L) RUNWAY GUARD LIGHT INSTALLED IN NEW PAVEMENT. (TYP.)

221 CONSTRUCT NEW 16-WAY 2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT-RATED HANDHOLE. (TYP.)

223 CONSTRUCT NEW 16-WAY 2" NON-ENCASED DUCT BANK.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
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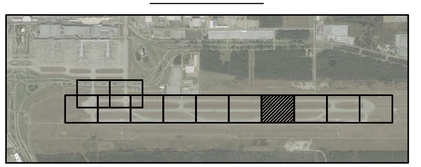
KEYMAP



HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL INSTALLATION PLAN IX
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.09A

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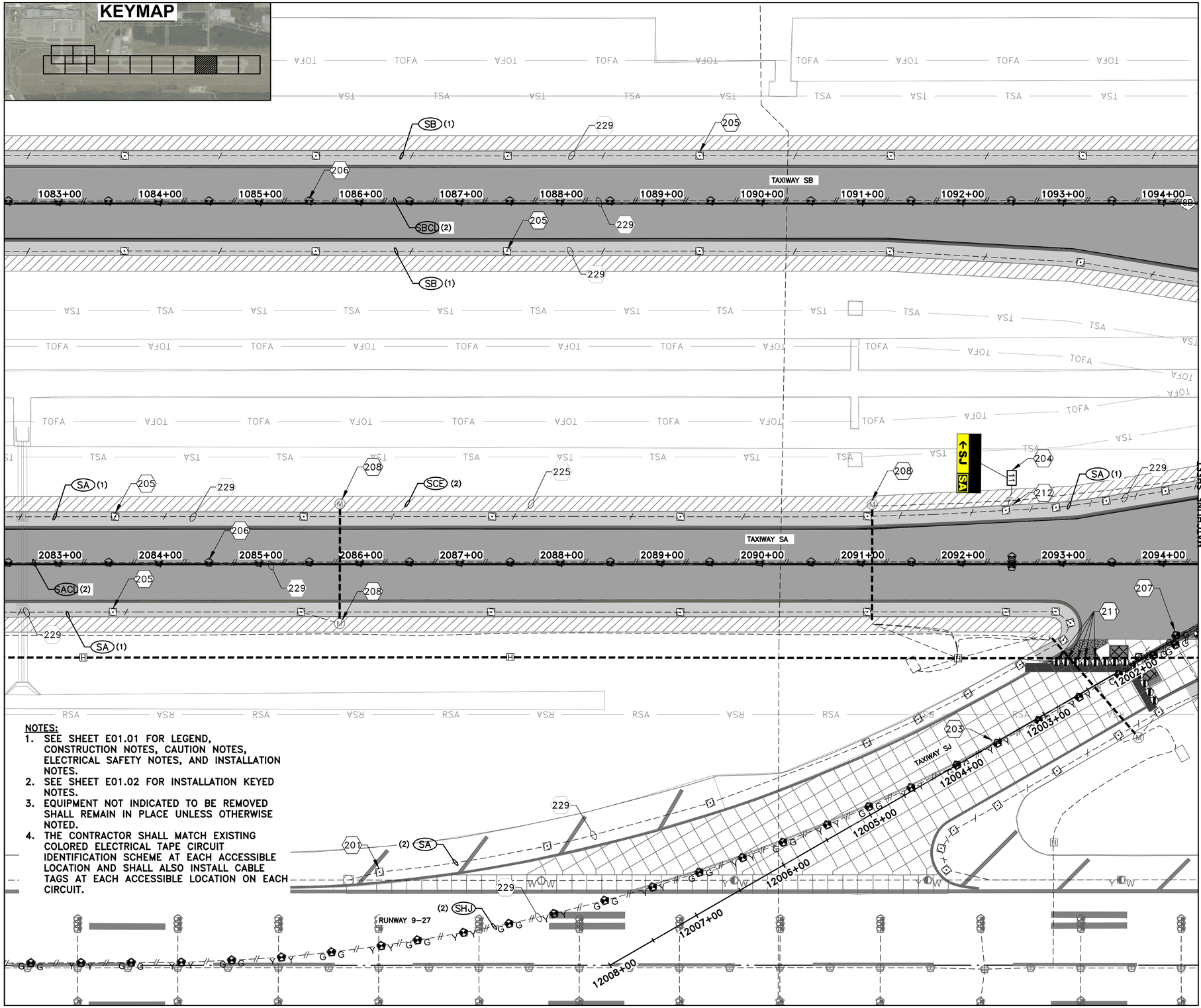
PLOT DATE: 11/8/2019 3:32:47 PM



MATCHLINE SHEET E03.09

MATCHLINE SHEET E03.11A

0 25' 50' 100' 150'
(IN FEET)

N

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
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INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

211 REINSTALL EXISTING L-852G ON NEW L-868 LIGHT BASE.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL 2/C #8 AWG L-824C CABLE TO NEW SIGN TRANFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

213 INSTALL NEW L-861T TAXIWAY EDGE LIGHT ON NEW BASE IN EXISTING ASPHALT PAVEMENT. (TYP).

214 INSTALL NEW L-861T TAXIWAY EDGE LIGHT ON NEW BASE IN NEW PAVEMENT. (TYP).

215 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHTING IN EXISTING PAVEMENT WITH MILL AND OVERLAY. (TYP.)

216 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHT IN NEW CONCRETE PAVEMENT. (TYP.)

217 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHT IN EXISTING CONCRETE PAVEMENT. (TYP.)

218 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT IN EXISTING PAVEMENT VIA SAW KERF.

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220 INSTALL NEW L-852G(L) RUNWAY GUARD LIGHT INSTALLED IN NEW PAVEMENT. (TYP.)

221 CONSTRUCT NEW 16-WAY 2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT-RATED HANDHOLE. (TYP.)

223 CONSTRUCT NEW 16-WAY 2" NON-ENCASED DUCT BANK.

224 CONSTRUCT NEW 2-WAY 2"C NON-ENCASED DUCT BANK.

225 CONSTRUCT NEW 2-WAY 2"C FLOWABLE FILL ENCASED DUCT BANK.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

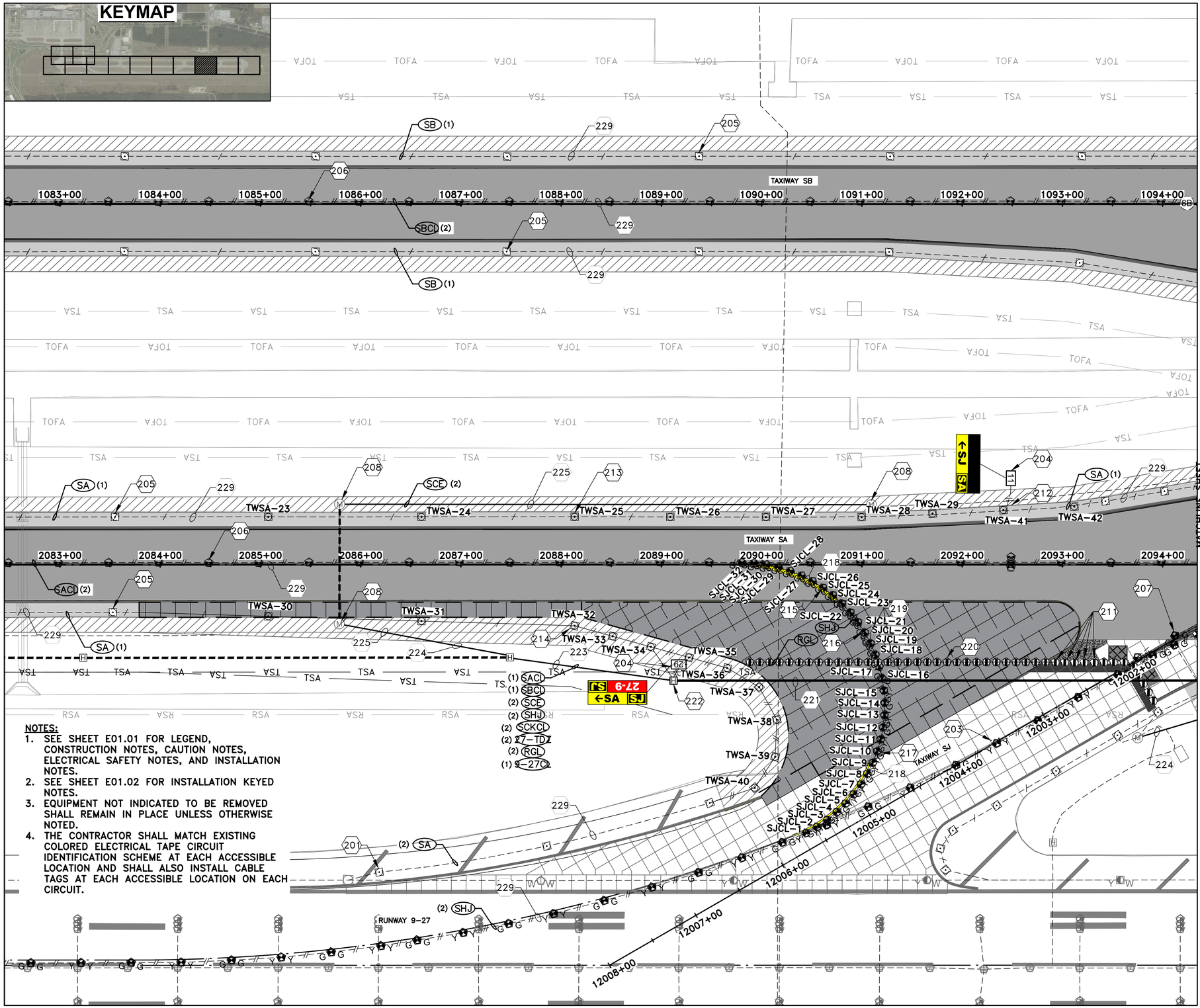
ELECTRICAL INSTALLATION PLAN X

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.10

HAS FILE: C:\Users\MCLemay\Garver\JAH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN X.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
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INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

211 REINSTALL EXISTING L-852G ON NEW L-868 LIGHT BASE.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL 2/C #8 AWG L-824C CABLE TO NEW SIGN TRANFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

213 INSTALL NEW L-861T TAXIWAY EDGE LIGHT ON NEW BASE IN EXISTING ASPHALT PAVEMENT. (TYP).

214 INSTALL NEW L-861T TAXIWAY EDGE LIGHT ON NEW BASE IN NEW PAVEMENT. (TYP).

215 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHTING IN EXISTING PAVEMENT WITH MILL AND OVERLAY. (TYP.)

216 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHT IN NEW CONCRETE PAVEMENT. (TYP.)

217 INSTALL NEW L-852D(L) TAXIWAY CENTERLINE LIGHT IN EXISTING CONCRETE PAVEMENT. (TYP.)

218 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT IN EXISTING PAVEMENT VIA SAW KERF.

219 CONSTRUCT 1-WAY 2"C CONCRETE ENCASED CONDUIT IN NEW PAVEMENT.

220 INSTALL NEW L-852G(L) RUNWAY GUARD LIGHT INSTALLED IN NEW PAVEMENT. (TYP.)

221 CONSTRUCT NEW 16-WAY 2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT-RATED HANDHOLE. (TYP.)

223 CONSTRUCT NEW 16-WAY 2" NON-ENCASED DUCT BANK.

224 CONSTRUCT NEW 2-WAY 2"C NON-ENCASED DUCT BANK.

225 CONSTRUCT NEW 2-WAY 2"C FLOWABLE FILL ENCASED DUCT BANK.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL INSTALLATION PLAN X (ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1"=50'
DATE:	11/02/2023

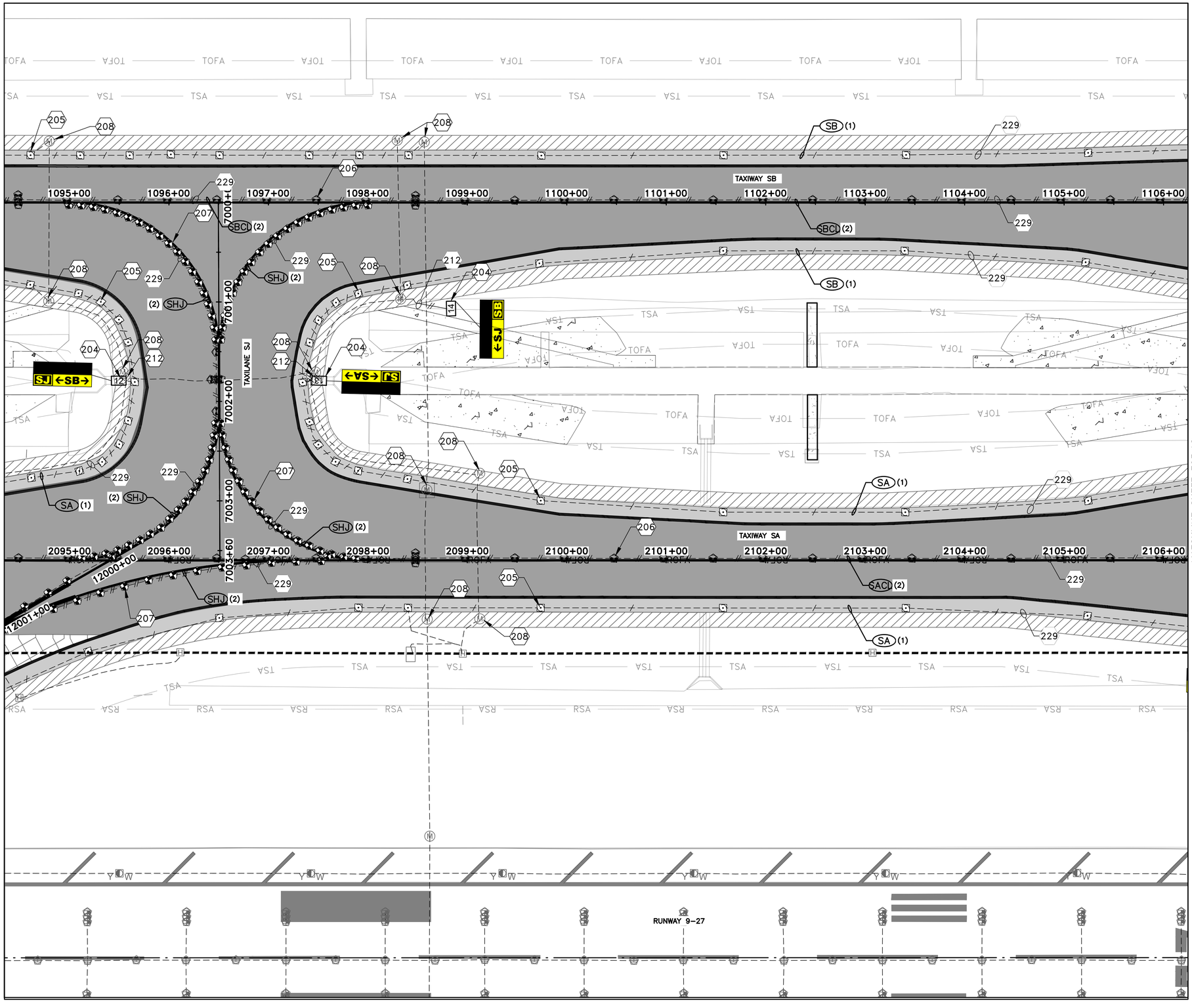
STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.10A

HAS FILE: C:\Users\MCLemay\Garver\JAH - TXYS SA SB REHAB - Aviation - 06646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN X.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

221 CONSTRUCT NEW 16-WAY 2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT-RATED HANDHOLE. (TYP.)

223 CONSTRUCT NEW 16-WAY 2" NON-ENCASED DUCT BANK.

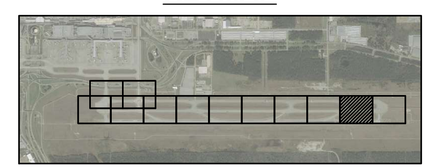
224 CONSTRUCT NEW 2-WAY 2"C NON-ENCASED DUCT BANK.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL INSTALLATION PLAN XI

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.11

HAS FILE: C:\Users\MCLemay\Garver\AH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN XI.dwg
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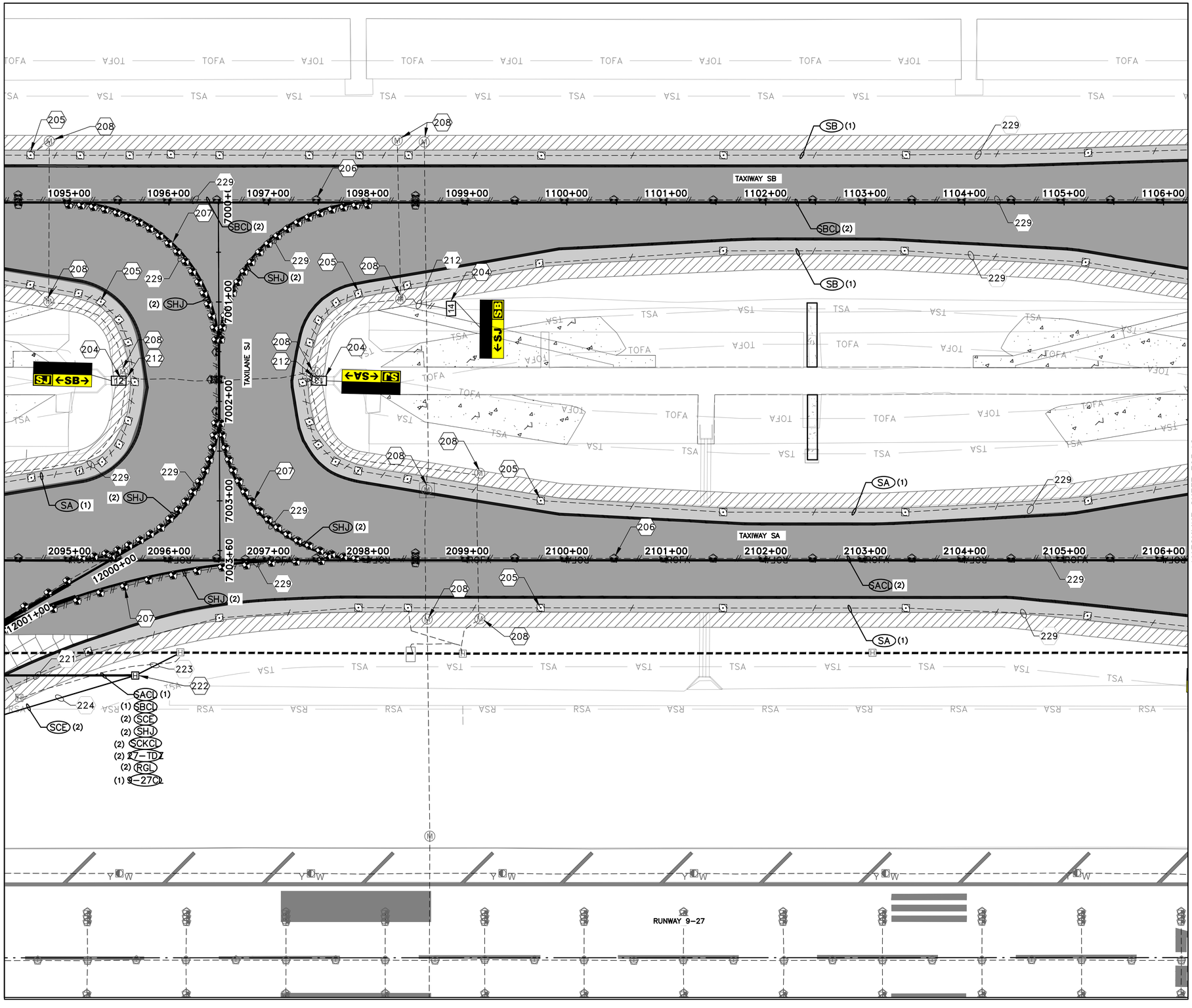


0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

204 INSTALL NEW L-858(L) BASE MOUNTED GUIDANCE SIGN. (TYP.)

205 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON ADJUSTED LIGHT BASE. (TYP.)

206 INSTALL NEW L-852C(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT ON ADJUSTED LIGHT BASE. (TYP. OF STRAIGHT TAXIWAY CENTERLINES IN NEW PAVEMENT.)

207 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON ADJUSTED LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN NEW PAVEMENT.)

208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

221 CONSTRUCT NEW 16-WAY 2" DIRECTIONALLY BORED DUCT BANK WITH CONDUCTORS AS NOTED.

222 INSTALL NEW 4'x4'x4' AIRCRAFT-RATED HANDHOLE. (TYP.)

223 CONSTRUCT NEW 16-WAY 2" NON-ENCASED DUCT BANK.

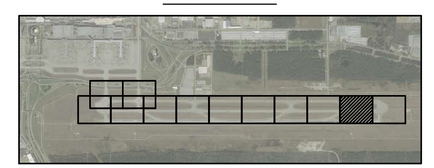
224 CONSTRUCT NEW 2-WAY 2"C NON-ENCASED DUCT BANK.

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:

1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL INSTALLATION PLAN XI
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.11A

HAS FILE: C:\Users\MCLemay\Garver\AH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN XI.dwg
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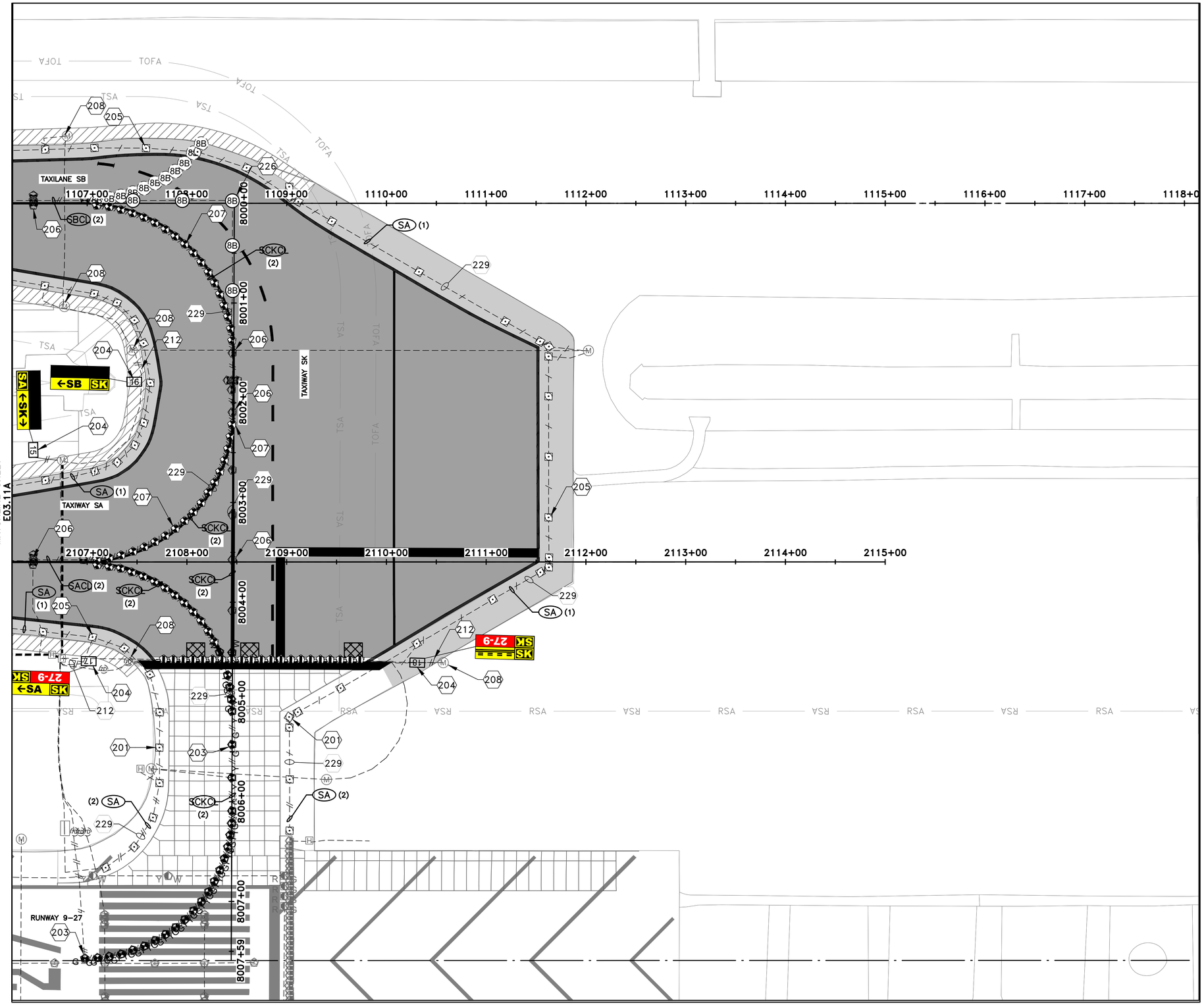

MATCHLINE SHEET E03.11A

0 25' 50' 100' 150'
(IN FEET)

N

INSTALLATION KEYED NOTES:

201 INSTALL NEW L-861T(L) BASE MOUNTED TAXIWAY EDGE LIGHT ON EXISTING LIGHT BASE. (TYP.)

203 INSTALL NEW L-852D(L) BASE MOUNTED TAXIWAY CENTERLINE LIGHT IN FULL STRENGTH PAVEMENT ON EXISTING LIGHT BASE. (TYP. OF CURVED TAXIWAY CENTERLINES IN EXISTING PAVEMENT.)

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208 ADJUST EXISTING PULL BOX TO FINAL GRADE. MAKE ALL NECESSARY CABLE TERMINATIONS.

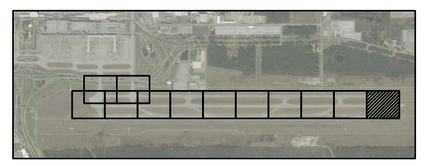
212 EXTEND 2" PVC CONDUIT FROM EXISTING SHOULDER TO NEW SIGN LOCATION. INSTALL TWO #8 AWG L-824C CABLES TO NEW SIGN TRANSFORMER AND SPLICE INTO EXISTING CIRCUIT AT THE NEXT JUNCTION LOCATION.

226 INSTALL NEW L-868 BLANK COVER AND SPACER RINGS TO BE FLUSH TO PAVEMENT. (TYP.)

229 INSTALL NEW #8 AWG L-824C CABLE WITH EXISTING CONDUIT. (NUMBER OF CONDUCTORS INDICATED BY HASH MARKS)

NOTES:
1. SEE SHEET E01.01 FOR LEGEND, CONSTRUCTION NOTES, CAUTION NOTES, ELECTRICAL SAFETY NOTES, AND INSTALLATION NOTES.
2. SEE SHEET E01.02 FOR INSTALLATION KEYED NOTES.
3. EQUIPMENT NOT INDICATED TO BE REMOVED SHALL REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL MATCH EXISTING COLORED ELECTRICAL TAPE CIRCUIT IDENTIFICATION SCHEME AT EACH ACCESSIBLE LOCATION AND SHALL ALSO INSTALL CABLE TAGS AT EACH ACCESSIBLE LOCATION ON EACH CIRCUIT.

KEYMAP



HOUSTON AIRPORTS

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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL INSTALLATION PLAN XII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	1"=50'
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E03.12

HAS FILE: C:\Users\MCLemay\Garver\AH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL INSTALLATION PLAN XII.dwg
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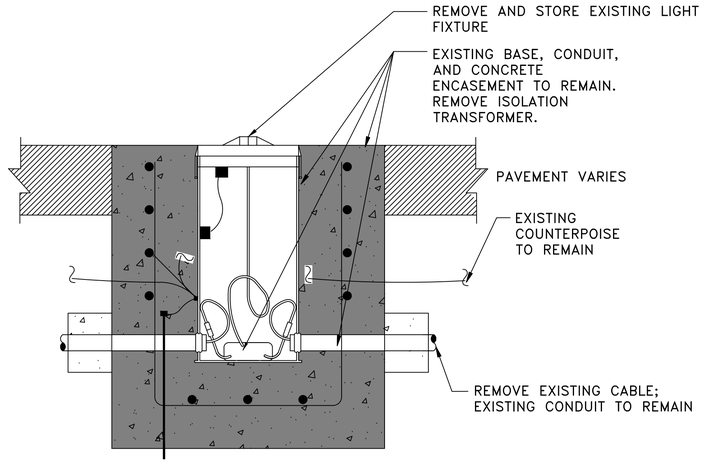
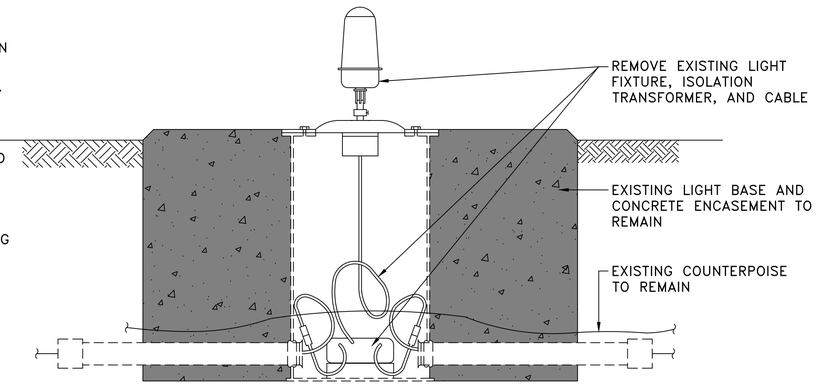


REMOVAL NOTES:

1. THE AIRPORT RESERVES THE RIGHT TO SALVAGE USABLE COMPONENTS.
2. ALL LIGHTING AND DEVICES SHALL BE REMOVED BY THE CONTRACTOR. THE ENGINEER AND AIRPORT WILL REVIEW THE REMOVED EQUIPMENT. ITEMS DESIGNATED AS SALVAGE SHALL THEN BE MOVED AND STORED AS DIRECTED BY AIRPORT.
3. ALL ITEMS THAT ARE NOT TO BE SALVAGED SHALL BE CAREFULLY REMOVED FROM THE AIRPORT AND PROPERLY DISPOSED.
4. FOR FIXTURE REINSTALLATION, REMOVE AND STORE EQUIPMENT. INSTALL NEW STEEL BLANK COVER WITH GASKET AND 6 BOLTS TO PROTECT CAN AND INTERIOR DURING CONSTRUCTION. THEN REINSTALL FIXTURE, BASEPLATE AND NEW EQUIPMENT/APPURTENANCES FOR COMPLETE INSTALLATION.
5. FOR EXISTING LIGHT FIXTURE REINSTALLATIONS, ONLY THE EXISTING LIGHT FIXTURE AND BASE PLATE SHALL BE REUSED. ALL OTHER EQUIPMENT AND APPURTENANCES SHALL BE NEW.
   A. NEVER USE IMPACT WRENCHES/DRILLS WHEN REMOVING OR INSTALLING BOLTS.
7. DETAIL ALSO APPLIES TO ABANDONED INPAVEMENT LIGHT BASES.

1 / E04.01 — BASE MOUNTED IN-PAVEMENT LIGHT REMOVAL
SCALE: NONE



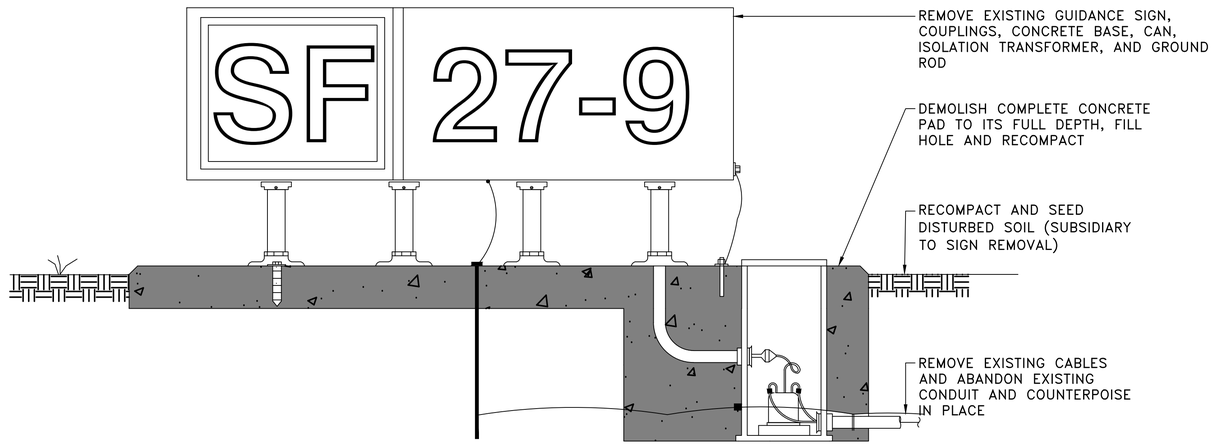
REMOVAL NOTES:

1. THE AIRPORT RESERVES THE RIGHT TO SALVAGE USABLE COMPONENTS.
2. ALL LIGHTING AND DEVICES SHALL BE REMOVED BY THE CONTRACTOR. THE ENGINEER AND AIRPORT WILL REVIEW THE REMOVED EQUIPMENT. ITEMS DESIGNATED AS SALVAGE SHALL THEN BE MOVED AND STORED AS DIRECTED BY AIRPORT.
3. ALL ITEMS THAT ARE NOT TO BE SALVAGED SHALL BE CAREFULLY REMOVED FROM THE AIRPORT AND PROPERLY DISPOSED.

2 / E04.01 — BASE MOUNTED EDGE LIGHT REMOVAL, BASE TO REMAIN
SCALE: NONE

REMOVAL NOTES:

1. THE AIRPORT RESERVES THE RIGHT TO SALVAGE USABLE COMPONENTS.
2. ALL LIGHTING AND DEVICES SHALL BE REMOVED BY THE CONTRACTOR. THE ENGINEER AND AIRPORT WILL REVIEW THE REMOVED EQUIPMENT. ITEMS DESIGNATED AS SALVAGE SHALL THEN BE MOVED AND STORED AS DIRECTED BY AIRPORT.
3. ALL ITEMS THAT ARE NOT TO BE SALVAGED SHALL BE CAREFULLY REMOVED FROM THE AIRPORT AND PROPERLY DISPOSED.



3 / E04.01 — BASE MOUNTED SIGN REMOVAL
SCALE: NONE

HAS FILE: C:\Users\MCLemay\Garver\AH - TXYS SA SB REHAB - Aviation - 10646.2\14 - Electrical\Sheet Files\ELECTRICAL DETAILS I.dwg
PLOT DATE: 3/10/2022 11:08:43 AM

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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS I

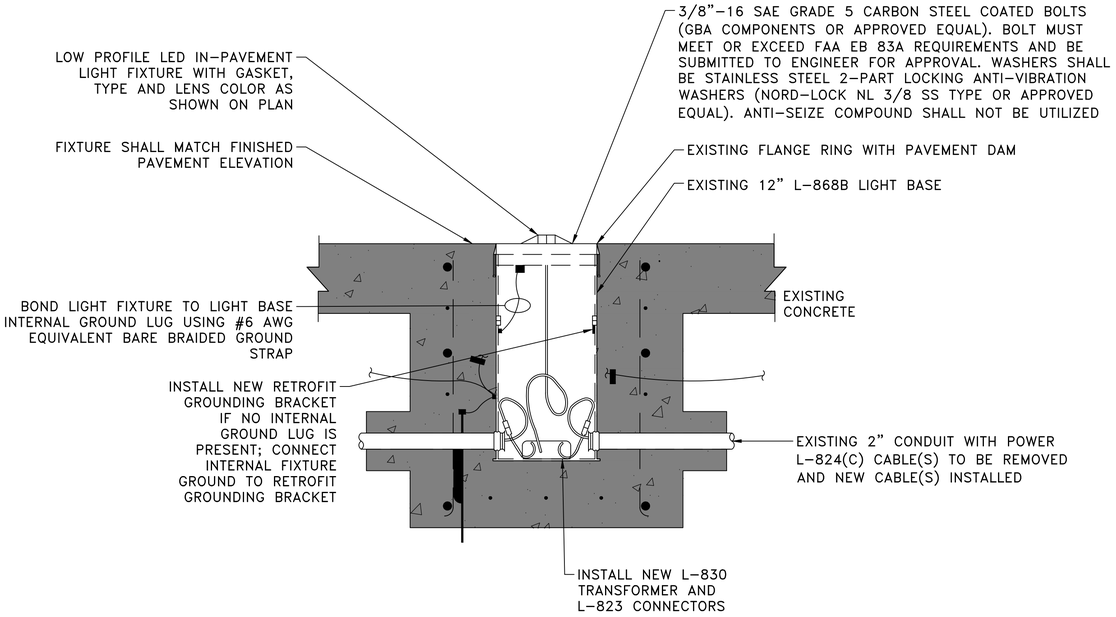
PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

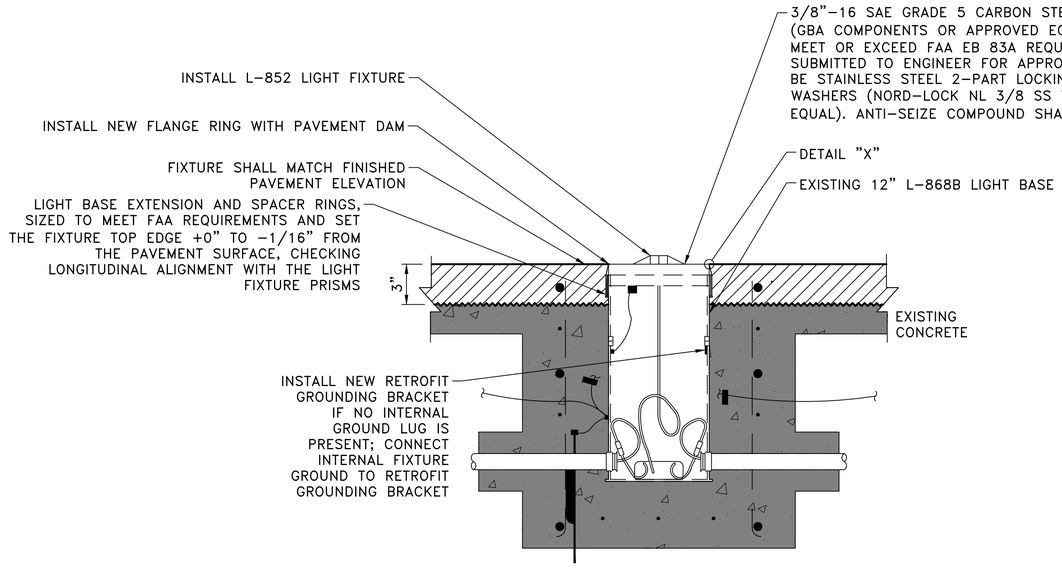
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E04.01



SECTION VIEW
SCALE: NONE

1 E04.02 BASE MOUNTED IN–PAVEMENT LIGHT INSTALLATION – EXISTING BASE

SCALE: NONE



SECTION VIEW
SCALE: NONE

2 E04.02 BASE MOUNTED IN–PAVEMENT LIGHT – PAVEMENT OVERLAY

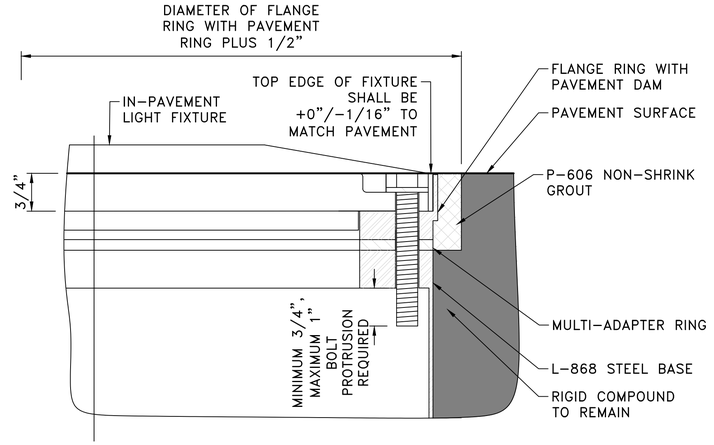
SCALE: NONE

INSTALLATION NOTES:

1. REMOVE AND STORE LIGHT FIXTURE.
2. REMOVE EXISTING FLANGE RING, ANY SPACER RINGS, AND CORE OUT TOP SECTION OF THE CAN AS ASPHALT IS MILLED DOWN. INSTALL BLANK COVER ON BOTTOM SECTION OF THE CAN.
3. PRIOR TO THE ASPHALT OVERLAY, INSTALL NEW TOP SECTION OF CAN WITH MUD PLATE.
4. AFTER ASPHALT OVERLAY, LOCATE CENTER OF CAN VIA MUD PLATE. CORE OUT TOP OF CAN WITH 14" CORE.
5. INSTALLING NEW FLANGE RING AND APPROPRIATE SPACER RINGS TO MATCH TOP OF PAVEMENT ELEVATION.
6. INSTALL SEALANT BETWEEN FLANGE RING AND CONCRETE.
7. AFTER OVERLAY WORK HAS BEEN COMPLETED, REINSTALL EXISTING LIGHT FIXTURE WITH NEW BOLTS.

IN–PAVEMENT NOTES:

1. INSTALL NEW L–823 CONNECTOR KITS WITH HEAT SHRINK AND CABLE TAGS AT ALL LIGHTS.
2. INSTALL IN–PAVEMENT LIGHT FIXTURES WITH NEW APPURTENANCES IN ACCORDANCE WITH FAA GUIDELINES AND MANUFACTURER'S RECOMMENDATIONS FOR A COMPLETE INSTALLATION.
3. SUBMIT FIXTURE AND ACCESSORIES INSTALLATION METHOD SHOP DRAWINGS WITH BOLT TORQUE CALCULATIONS FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK. MINIMUM BOLT TORQUE MUST BE 333 IN–LB ± 10 IN–LBS. TWO WEEKS AFTER INSTALLATION, COORDINATE RUNWAY CLOSURE AND CHECK TORQUE ON ALL FIXTURES.
4. DEMONSTRATE PROPER INSTALLATION LOCATION, ELEVATION, AND ORIENTATION PRIOR TO PAVING WORK.
5. TAKE ALL MEASUREMENTS REQUIRED TO INSTALL NEW FIXTURES IN ACCORDANCE WITH FAA AC AND MANUFACTURER INSTALLATION REQUIREMENTS. ALL WORK MUST BE TO THE SATISFACTION OF THE ENGINEER.
6. UTILIZE A DIGITAL ELECTRONIC TORQUE–ANGLE WRENCH THAT HAS VISUAL AND AUDIBLE WARNINGS SO THAT PRECISE TORQUE AND ROTATION ANGLE CAN BE ACHIEVED. TORQUE BOLTS IN A STAR PATTERN. PROVIDE WRENCH CALIBRATION CERTIFICATE TO ENGINEER PRIOR TO WORK.
7. NEVER USE IMPACT WRENCHES / DRILLS WHEN REMOVING OR INSTALLING BOLTS.
8. A BEVEL SPACER RING OR DIAL–A–BEVEL 2–PIECE SPACER RING MAY BE REQUIRED TO PROPERLY INSTALL FIXTURES ON LIGHT BASES.
9. TO PRESERVE THE LIGHT BASE INTEGRITY AND PROPER BOLT TORQUE, A MAXIMUM OF (3) THREE RINGS MAY BE STACKED TOGETHER TO BRING LIGHT FIXTURES TO THE CORRECT ELEVATION. THIS MAXIMUM LIMIT INCLUDES FLANGE RINGS, SPACER RINGS, AND BEVEL RINGS.
10. THE CONTRACTOR MUST BE RESPONSIBLE TO MEASURE AND DETERMINE THE REQUIRED THICKNESS OF EACH INDIVIDUAL SPACER RING REQUIRED TO PUT THE FIXTURE AT THE CORRECT ELEVATION, AZIMUTH, AND ROTATION PER FAA ADVISORY CIRCULARS.
11. IF IN–PAVEMENT FIXTURE ASSEMBLY OR FAILED PHOTOMETRIC TEST INDICATE AN INCORRECT ELEVATION OR ORIENTATION, THE CONTRACTOR MUST EXPEDITIOUSLY OBTAIN THE CORRECT SPACER RINGS TO CORRECT THE PROBLEM IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER, WHICH WILL INCLUDE A SECOND PHOTOMETRIC TEST. ALL SUCH WORK AND ADDITIONAL TESTING MUST BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.



DETAIL NOTES:

1. INITIALLY, INSTALL AND TIGHTEN DOWN ALL ITEMS FOR PROPER FIT AND ORIENTATION FOR FINAL INSPECTION AND CHECKING THAT THE ASSEMBLY IS WITHIN TOLERANCE. MARK ALL ITEMS CAREFULLY AND THEN DISASSEMBLE. THEN REASSEMBLE AND INSTALL NEW SEALANTS.

3 E04.02 DETAIL 'X'

SCALE: NONE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS II

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E04.02

HAS FILE: C:\Users\MCLemay\Garver\IAH – TXYS SA SB REHAB – Aviation – 10646.2\14 – Electrical\Sheet Files\ELECTRICAL DETAILS II.dwg
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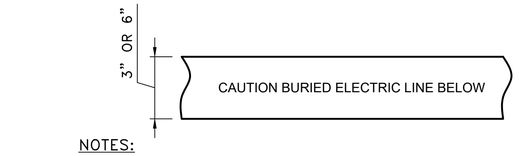
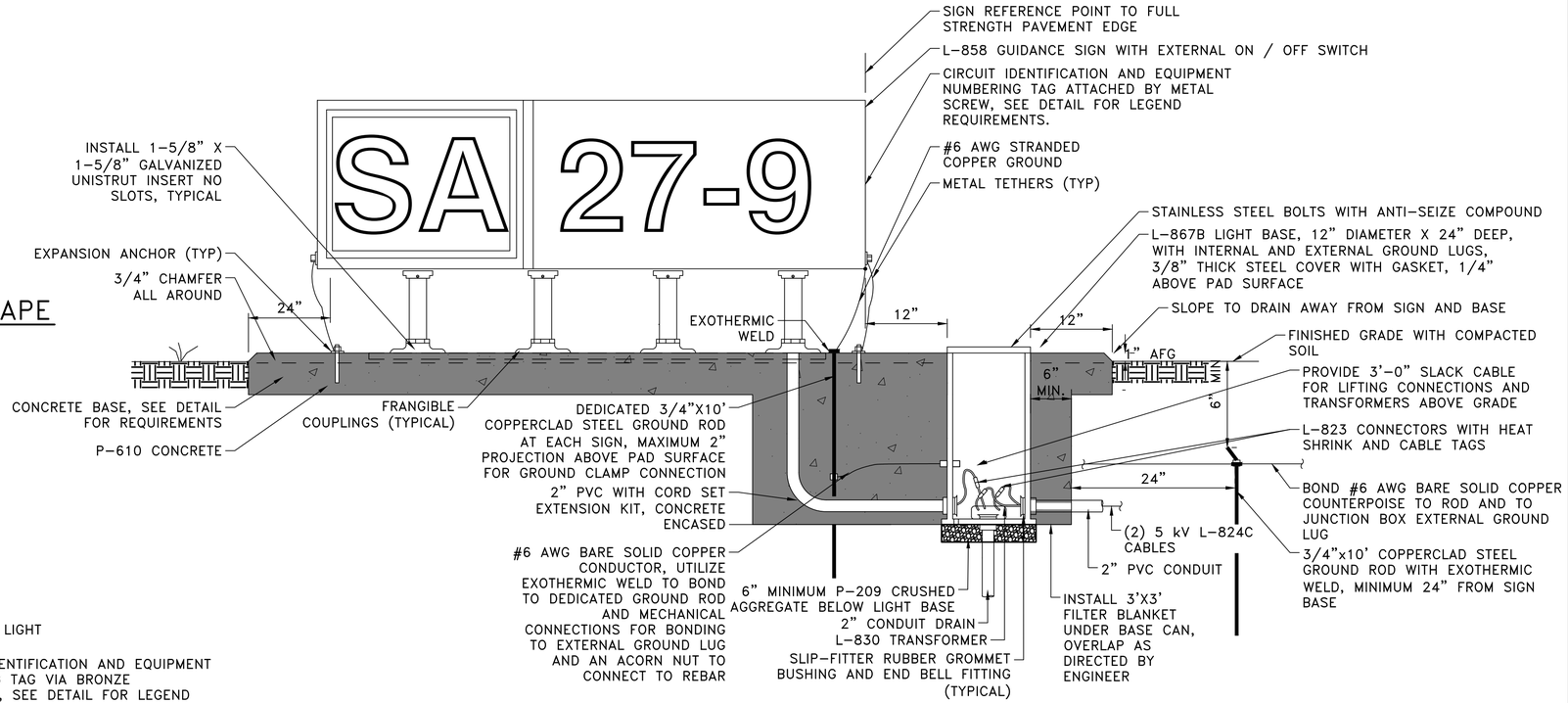


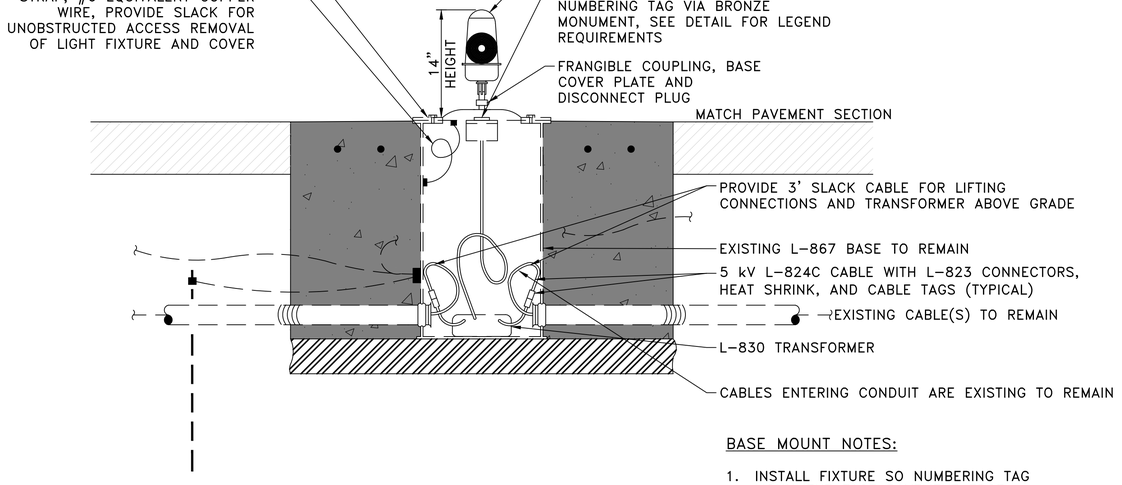
NOTES:

1. POWER MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH RED BACKGROUND AND BLACK LETTERING.
2. TAPE SHALL BE DETECTABLE, DURABLE, HIGHLY VISIBLE, RESISTANT TO ELEMENTS, MEETING AND / OR EXCEEDING ALL INDUSTRY STANDARDS.
3. PROVIDE MULTIPLE AND / OR WIDER TAPES FOR WIDER DUCT BANKS. COORDINATE WITH ENGINEER.

1 E04.03 UNDERGROUND DETECTABLE WARNING TAPE

SCALE: NONE





BASE MOUNT NOTES:

1. INSTALL FIXTURE SO NUMBERING TAG MONUMENT FACE PAVEMENT EDGE.

2 E04.03 BASE MOUNTED IN–PAVEMENT TAXIWAY EDGE LIGHT INSTALLATION – EXISTING BASE

SCALE: NONE

SIGN NOTES:

1. INSTALL SIGN IN ACCORDANCE WITH FAA GUIDELINES AND MANUFACTURER'S RECOMMENDATIONS.
2. INSTALL NEW L–823 CONNECTOR KITS WITH HEAT SHRINK AND CABLE TAGS AT ALL LIGHTS AND GUIDANCE SIGNS.
3. SUBMIT SIGN AND BASE CAN INSTALLATION METHOD SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK.
4. DEMONSTRATE PROPER INSTALLATION LOCATION, ELEVATION, AND ORIENTATION PRIOR TO CONCRETE WORK.
5. COUNTERPOISE SHALL BE BONDED TO LIGHT BASE EXTERNAL GROUND LUG (EQUIPOTENTIAL METHOD LIGHTNING PROTECTION).
6. INSTALL A DEDICATED EQUIPMENT SAFETY GROUND ROD WITH EXOTHERMIC WELD AT EACH SIGN.
7. UTILIZE ONLY EXOTHERMIC WELDS BELOW GRADE.
8. PROVIDE MINIMUM 3'–0" SLACK CABLE FOR EACH CABLE ENTERING LIGHT BASE SO THAT L–823 CONNECTIONS CAN BE LIFTED OUT OF THE BASE ABOVE GRADE.
9. PROVIDE TETHER FOR ALL SIGNS USING 3/16" STAINLESS STEEL AIRCRAFT CABLE AND STAINLESS STEEL HARDWARE. PROVIDE SINGLE MODULE SIGNS WITH ONE TETHER. PROVIDE MULTIPLE MODULE SIGNS WITH A TETHER AT BOTH ENDS.
10. TETHERS AND GROUND BONDING CONDUCTOR SHALL BE SUFFICIENT LENGTH TO ALLOW THE FRANGIBLE COUPLINGS TO OPERATE PROPERLY AND POWER CABLE TO DISCONNECT IF THE SIGN FALLS OVER.
11. RESOD THE DISTURBED AREAS 3'–0" ALL AROUND THE SIGN AND GRADE SOIL TO PROVIDE DRAINAGE AWAY FROM SIGN BASE.
12. FOR SIGN BASES INSTALLED WITHOUT SIGNS, SEAL THE POWER LEG CONDUIT ENTRANCE WATERTIGHT VIA AN APPROVED METHOD THAT CAN BE REMOVED IN THE FUTURE.
13. ALL NEW SIGN SHALL BE INSTALL AND BOLTED TO A UNISTRUT 1–5/8 X 1–5/8 GALVANIZED, NO SLOTS AND EMBEDDED TO THE POURED FOUNDATION.
14. COORDINATE THE SPACING OF THE UNISTRUT IN THE SIGN FOUNDATION WITH THE BOLT CIRCLE DIMENSION OF THE MANUFACTURER OF THE SIGN LEG FLANGE.

3 E04.03 BASE MOUNTED SIGN INSTALLATION

SCALE: NONE

HOUSTON AIRPORTS
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS III

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. E04.03

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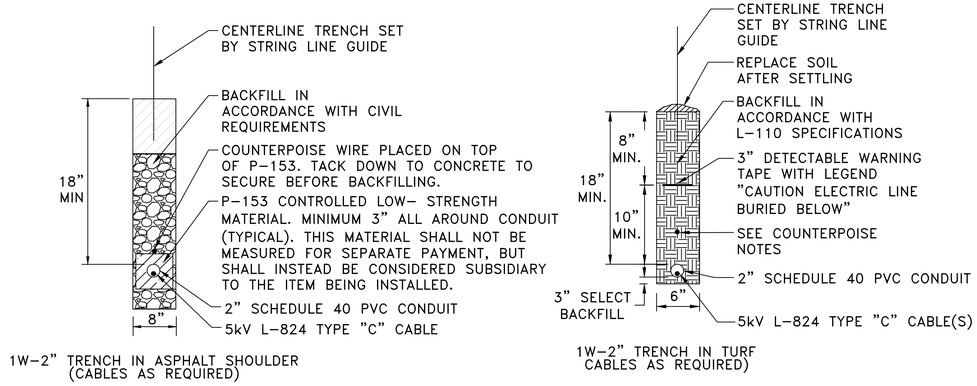
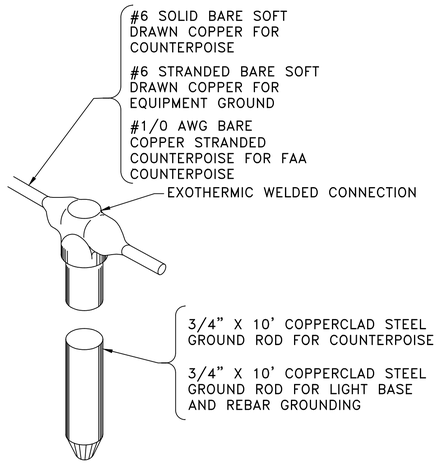


1 TRENCH DETAILS
E04.04 SCALE: NONE

COUNTERPOISE NOTES:

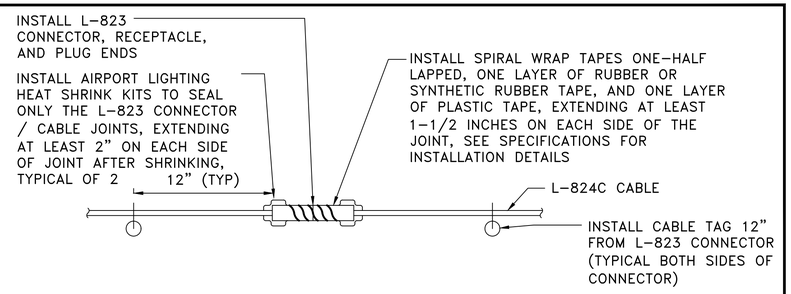
1. COUNTERPOISE GROUND RODS SHALL BE STAINLESS STEEL 3/4" X 10'-0" SIZE, SPACED A MAXIMUM OF 500'-0" APART.
2. CONNECT COUNTERPOISE GROUND RODS AND CONDUCTORS WITH EXOTHERMIC WELDS ONLY.
3. GROUND RODS SHALL BE DRIVEN VERTICALLY FULL DEPTH PLUS 6" COVER MINIMUM.
4. THE COUNTERPOISE SHALL BE INSTALLED 3" MINIMUM ABOVE THE CONDUIT.



2 TYPICAL GROUND ROD CONNECTION
E04.04 SCALE: NONE

GROUND ROD NOTES:

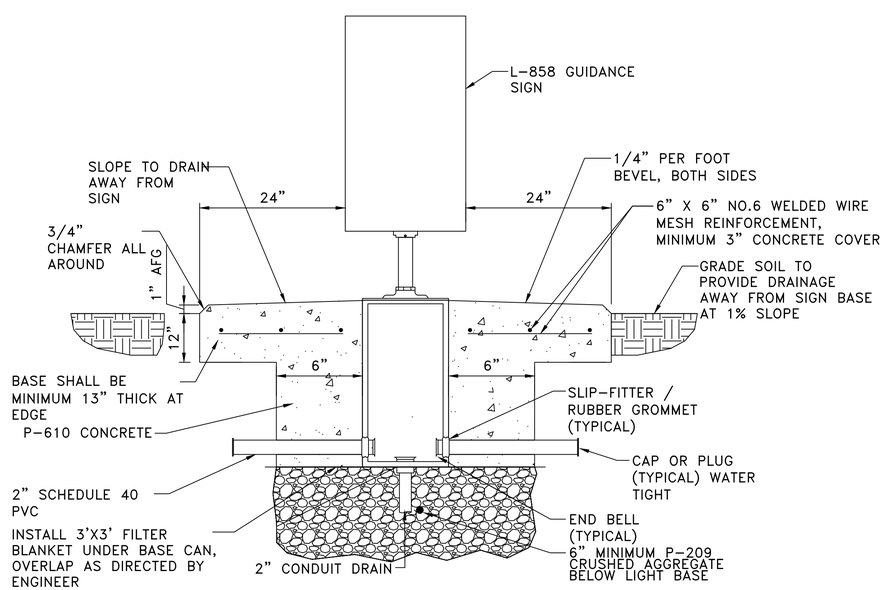
1. GROUND RODS SHALL BE INSTALLED NOT MORE THAN 500 FEET APART FOR COUNTERPOISE AND AS SHOWN ON LAYOUT PLAN SHEETS.
2. ONE GROUND ROD SHALL BE INSTALLED AT EACH LIGHT BASE FOR GROUNDING THE LIGHT BASE AND ASSOCIATED STEEL REINFORCEMENT.



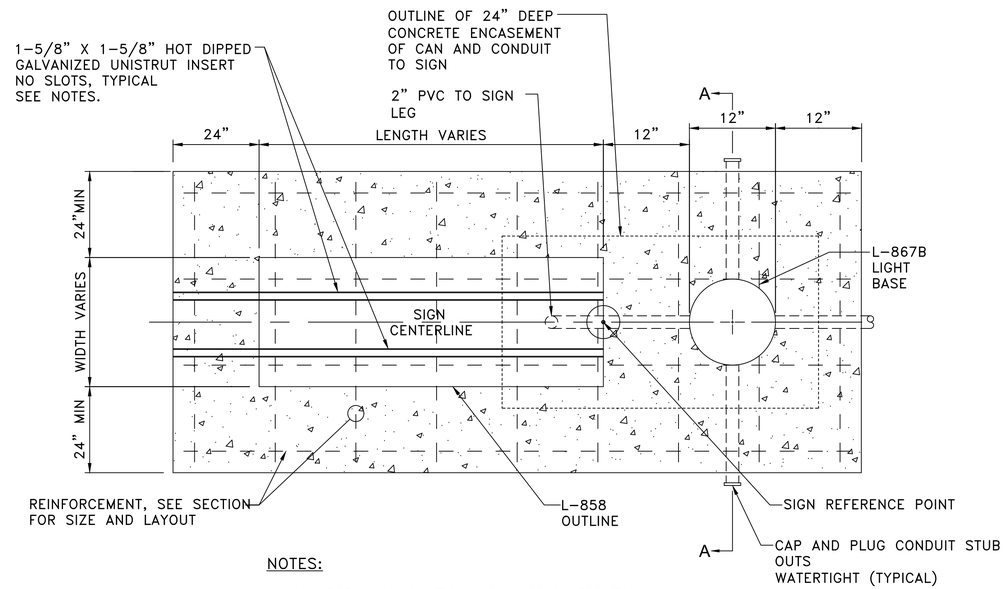
CONNECTOR NOTES:

1. IN-LINE CONNECTIONS OR SPLICES OF UNDERGROUND CABLES WITHIN MANHOLES, HANDHOLES, LIGHT BASES, OR OTHER ACCESSIBLE LOCATIONS SHALL BE MADE USING L-823 CONNECTOR KITS.
2. PROVIDE CABLE IN CONTINUOUS LENGTHS FOR HOME RUNS OR OTHER LONG CABLE RUNS WITHOUT CONNECTIONS, UNLESS AUTHORIZED IN WRITING BY THE ENGINEER OR SHOWN ON THE PLANS.
3. INSTALL 2-PIECE HEAT SHRINK KIT ON PRIMARY CABLE CONNECTORS.
4. DO NOT INSTALL HEAT SHRINK ON SECONDARY CABLE CONNECTORS OF THE ISOLATION TRANSFORMERS.
5. AS AN OPTION, THE CONTRACTOR MAY UTILIZE ENHANCED FAA CERTIFIED L-823 CONNECTOR KITS, SUCH AS THE AMERACE 54 SUPER KIT, OR AN APPROVED EQUAL. THESE KITS DO NOT REQUIRE TAPING OR HEAT SHRINKING. THESE KITS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS. NOTE THAT THE MIXING OF CONNECTOR KITS IS UNACCEPTABLE. THE CONTRACTOR SHALL CLEARLY LIST AND SUBMIT THE CONNECTOR KITS HE PROPOSES TO UTILIZE ON THE PROJECT FOR APPROVAL PRIOR TO ANY FIELD CONSTRUCTION WORK, AND HE SHALL ONLY INSTALL THAT TYPE DURING CONSTRUCTION UNLESS OTHERWISE NOTED BY THE ENGINEER.

3 L-823 CONNECTOR INSTALLATION FOR CAN AND CONDUIT SYSTEM
E04.04 SCALE: NONE



4 SIGN BASE SECTION A-A
E04.04 SCALE: NONE



NOTES:

1. NUMBER AND LOCATION OF INSET UNISTRUTS VARIES ON MANUFACTURER SIZE OF SIGN AND MODULES.

5 SIGN BASE PLAN
E04.04 SCALE: NONE

HOUSTON AIRPORTS
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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS IV

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E04.04

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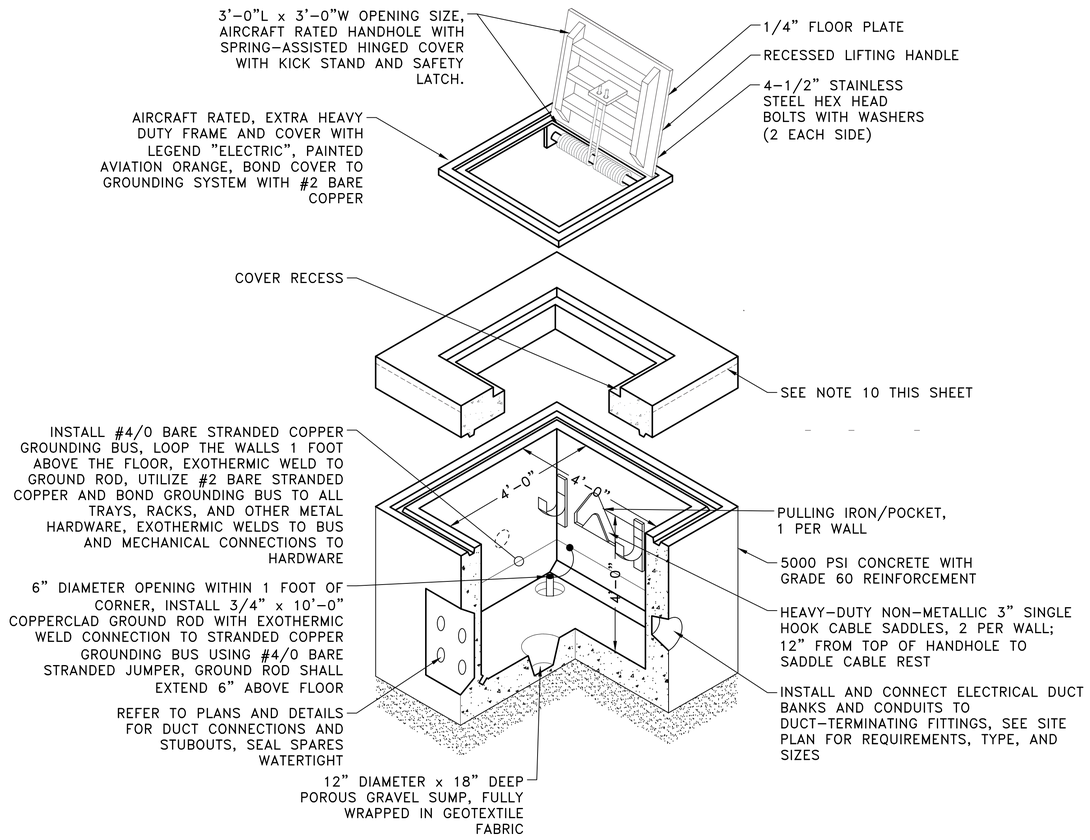
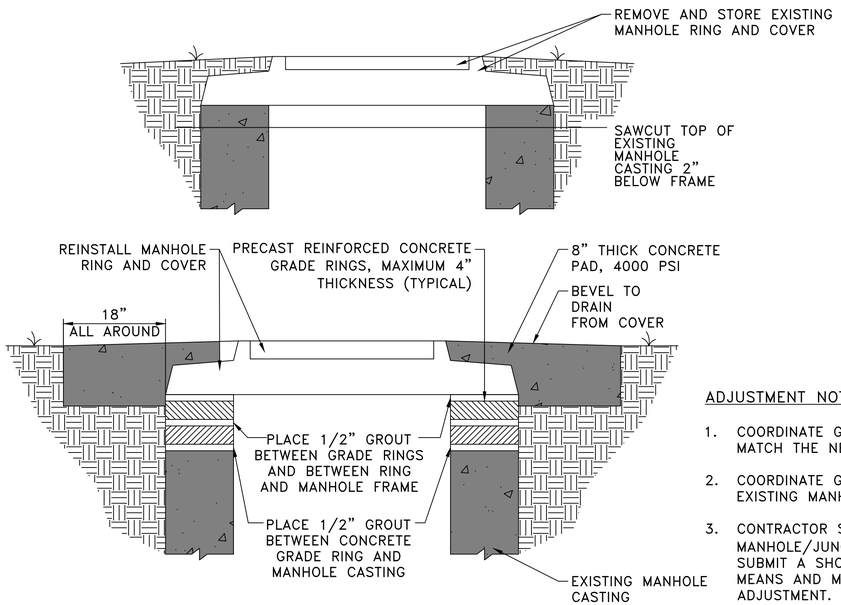


1 E04.05 PREFABRICATED CONCRETE HANDHOLE

SCALE: NONE

HANDHOLE INSTALLATION NOTES:

1. PRECAST AIRCRAFT RATED CONCRETE HANDHOLE AND GALVANIZED STEEL COVER SHALL BE DESIGNED FOR THE FOLLOWING LOADINGS (PER AC 150/5320-6):
   A. HANDHOLE COVERS FOR 100,000 LB. WHEEL LOADS WITH 250 PSI TIRE PRESSURE.
   B. FOR SPANS OF 2 FEET OR LESS IN THE LEAST DIRECTION, A UNIFORM LIVE LOAD OF 250 PSI.
   C. FOR SPANS OF 2 FEET OR GREATER IN THE LEAST DIRECTION, THE DESIGN WILL BE BASED ON THE NUMBER OF WHEELS WHICH WILL FIT THE SPAN. WHEEL LOADS OF 50,000 TO 75,000 LB. SHOULD BE CONSIDERED.
2. ALL CABLE THROUGH HANDHOLE SHALL HAVE SUFFICIENT SLACK SO CABLE AND CONNECTOR CAN BE BROUGHT TO SURFACE FOR SPLICING, PROVIDE MINIMUM 5' SLACK FOR EACH CABLE ENTERING HANDHOLE.
3. EACH CABLE SHALL BE IDENTIFIED WITH WIRE MARKER GIVING CIRCUIT NUMBER.
4. RACK AND SECURE ALL CABLES. MAINTAIN MINIMUM 6" SEPARATION DISTANCE BETWEEN 5kV AND 600V CIRCUITS.
5. TAG LIGHTING CIRCUIT CABLES IN ALL CONCRETE STRUCTURES (TWO REQUIRED PER CABLE).
6. AT ROD OPENING, DRIVE GROUND ROD INTO EARTH LEAVING 6" EXTENDING ABOVE FLOOR. SEAL HOLE WATERTIGHT WITH PORTLAND CEMENT GROUT AROUND ROD.
7. SUBMIT LAYOUT OF EACH HANDHOLE FOR APPROVAL BY ENGINEER, INDICATING ELECTRICAL DUCT, CONDUIT, AND SPARE STUBOUTS.
8. PROVIDE TERMINATORS FOR CONNECTING 2" CONDUITS AND MULTIWAY 2"C DUCT BANKS. CAP CONDUIT AND TERMINATOR SPARES WATERTIGHT.
9. EXCAVATION AND BACKFILL NECESSARY FOR THE CONSTRUCTION OF THE HANDHOLE SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATION REQUIREMENTS.
10. COVER SHALL BE 1" MAXIMUM ABOVE FINISHED GRADE. AREA SURROUNDING HANDHOLE SHALL BE GRADED TO DRAIN AWAY FROM HANDHOLE.
11. BOND AND GROUND COVER AND FRAME TO ROD USING BRAIDED COPPER GROUND STRAP EQUIVALENT AMPACITY TO #2 AWG STRANDED COPPER WIRE.
12. INSTALL PULLING IRONS IN EACH FACE.
13. GRADE THE AREA AROUND THE HANDHOLE 10' IN ALL DIRECTIONS SUCH TO PREVENT WATER AND DIRT ACCUMULATION ACROSS THE TOP OF THE COVER AND ALLOW WATER TO DRAIN AWAY FROM THE HANDHOLE. COORDINATE WITH GRADING PLAN.
14. SOD THE DISTURBED AREAS 5' ALL AROUND THE STRUCTURE.
15. EXTEND ALL SPARE CONDUIT STUBOUTS A MINIMUM OF 12" BEYOND EDGE OF HOUSEKEEPING PAD.
16. PROVIDE MANUFACTURER DRAWINGS AND STRUCTURAL CALCULATIONS FOR ALL CONCRETE ELEMENTS OF HANDHOLES AND FRAMES AND GRATES.



2 E04.05 MANHOLE ELEVATION ADJUSTMENT

SCALE: NONE

ADJUSTMENT NOTES:

1. COORDINATE GRADE RING THICKNESS TO MATCH THE NEW FINAL GRADE.
2. COORDINATE GRADE RING SIZES TO MATCH EXISTING MANHOLE SIZES.
3. CONTRACTOR SHALL INVESTIGATE EACH MANHOLE/JUNCTION STRUCTURE TYPE AND SUBMIT A SHOP DRAWING TO ILLUSTRATE MEANS AND METHODS TO COMPLETE THE ADJUSTMENT.

HOUSTON AIRPORTS
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS V

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E04.05

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PLOT DATE: 3/10/2022 11:09:43 AM

NEW GUIDANCE SIGN INDEX

NO.	SIGN DESC.	SIDE 1	SIDE 2	SIZE	STYLE	CLASS	MODE	ARROW ANGLE
1	LEGEND	SC 27-9	SC	3	3	2	2	90°
	TYPE	L R R	Y Y L					
2	LEGEND	SF ←SB→	* * *	2	3	2	2	270°,90°
	TYPE	L Y Y						
3	LEGEND	←SA→ SF	* * *	2	3	2	2	270°,90°
	TYPE	Y Y L						
4	LEGEND	←SB→ SF	* * *	3	3	2	2	270°,90°
	TYPE	Y Y L						
5	LEGEND	SG ←SB→	* * *	2	3	2	2	270°,90°
	TYPE	L Y Y						
6	LEGEND	←SA→ SG	* * *	2	3	2	2	270°,90°
	TYPE	Y Y L						
7	LEGEND	←SH SA	* * *	3	3	2	2	270°
	TYPE	Y Y L						
8	LEGEND	SH ←SB→	* * *	2	3	2	2	270°,90°
	TYPE	L Y Y						
9	LEGEND	SH ←SA→	* * *	2	3	2	2	270°,90°
	TYPE	L Y Y						
10	LEGEND	←SH SA	* * *	3	3	2	2	270°
	TYPE	Y Y L						
11	LEGEND	←SJ SA	* * *	3	3	2	2	270°
	TYPE	Y Y L						
12	LEGEND	SJ ←SB→	* * *	2	3	2	2	270°,90°
	TYPE	L Y Y						
13	LEGEND	SJ ←SA→	* * *	2	3	2	2	270°,90°
	TYPE	L Y Y						
14	LEGEND	←SJ SA	* * *	3	3	2	2	270°
	TYPE	Y Y L						
15	LEGEND	SA ←SK→	* * *	3	3	2	2	270°,90°
	TYPE	L Y Y						
16	LEGEND	←SB SK	* * *	2	3	2	2	270°
	TYPE	Y Y L						
17	LEGEND	27-9 SK	←SA SK	3	3	2	2	270°
	TYPE	R R L	Y Y L					
18	LEGEND	27-9 SK	←SA SK	3	3	2	2	270°,90°
	TYPE	R R L	Y Y L					
19	LEGEND	27-9 SC	SC	3	3	2	2	270°,90°
	TYPE	R R L	Y Y L					
20	LEGEND	SB ←SF→	* * *	3	3	2	2	N/A
	TYPE	L Y Y						
21	LEGEND	SA ←SF→	* * *	3	3	2	2	270°
	TYPE	L Y Y						
22	LEGEND	SA ←SG→	* * *	3	3	2	2	270°
	TYPE	L Y Y						
23	LEGEND	←SG SB	* * *	2	3	2	2	270°
	TYPE	Y Y L						
24	LEGEND	27-9 SF *	↖SA SF↗	3	3	2	2	270°,90°
	TYPE	R R L *	Y Y Y Y					
25	LEGEND	27-9 SF	SF	3	3	2	2	270°,90°
	TYPE	R R L	Y Y L					
26	LEGEND	27-9 SG *	SG	3	3	2	2	270°,90°
	TYPE	R R L *	Y Y L					
27	LEGEND	27-9 SG	SG	3	3	2	2	270°,90°
	TYPE	R R L	Y Y L					

NEW GUIDANCE SIGN INDEX

NO.	SIGN DESC.	SIDE 1	SIDE 2	SIZE	STYLE	CLASS	MODE	ARROW ANGLE
28	LEGEND	27-9 SH	←SA SH	3	3	2	2	270°,90°
	TYPE	R R L	Y Y L					
29	LEGEND	27-9 SJ	←SA SJ	3	3	2	2	270°,90°
	TYPE	R R L	Y Y L					

GUIDANCE SIGN LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
SIGN-1	TAXIWAY SC	3011+60.07'	-133.176'
SIGN-2	TAXIWAY SF	4008+79.63'	92.267'
SIGN-3	TAXIWAY SF	4008+79.14'	-94.011'
SIGN-4	TAXIWAY SF	4005+00.35'	-104.111'
SIGN-5	TAXIWAY SG	5001+80.36'	92.126'
SIGN-6	TAXIWAY SG	5001+79.40'	-94.441'
SIGN-7	TAXIWAY SA	2072+03.31'	-76.388'
SIGN-8	TAXIWAY SH	6001+78.96'	92.050'
SIGN-9	TAXIWAY SH	6001+79.28'	-94.860'
SIGN-10	TAXIWAY SB	1078+48.64'	109.070'
SIGN-11	TAXIWAY SA	2092+48.47'	-78.725'
SIGN-12	TAXIWAY SJ	7001+78.68'	93.593'
SIGN-13	TAXIWAY SJ	7001+79.37'	-93.227'
SIGN-14	TAXIWAY SB	1098+48.04'	108.484'
SIGN-15	TAXIWAY SA	2106+46.15'	-104.981'
SIGN-16	TAXIWAY SK	8001+79.29'	92.154'
SIGN-17	TAXIWAY SK	8004+60.01'	136.719'
SIGN-18	TAXIWAY SK	8004+59.69'	-177.929'
SIGN-19	TAXIWAY SC	3011+59.51'	202.631'
SIGN-20	TAXIWAY SB	1023+37.17'	103.589'
SIGN-21	TAXIWAY SC	3009+58.83'	-981.508'
SIGN-22	TAXIWAY SA	2039+37.06'	-105.398'
SIGN-23	TAXIWAY SB	1043+71.02'	99.120'
SIGN-24	HIGH SPEED TAXIWAY SF	9001+97.91'	-78.392'
SIGN-25	HIGH SPEED TAXIWAY SF	9002+98.01'	-104.981'
SIGN-26	HIGH SPEED TAXIWAY SG	10002+01.14'	94.878'
SIGN-27	HIGH SPEED TAXIWAY SG	10003+01.55'	-79.614'
SIGN-28	HIGH SPEED TAXIWAY SH	11005+83.72'	221.516'
SIGN-29	HIGH SPEED TAXIWAY SJ	12005+83.43'	221.710'

EDGE LIGHT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
TWSA-1	TAXIWAY SA	2064+67.31	47.73' L
TWSA-2	TAXIWAY SA	2066+40.72	47.82' L
TWSA-3	TAXIWAY SA	2068+14.12	47.90' L
TWSA-4	TAXIWAY SA	2068+89.26	47.84' L
TWSA-5	TAXIWAY SA	2069+64.40	47.78' L
TWSA-6	TAXIWAY SA	2070+39.54	47.62' L
TWSA-7	TAXIWAY SA	2071+14.68	47.85' L
TWSA-8	TAXIWAY SA	2071+59.05	49.92' L
TWSA-9	TAXIWAY SA	2072+03.42	52.19' L
TWSA-10	TAXIWAY SA	2072+47.79	54.46' L
TWSA-11	TAXIWAY SA	2064+67.32	50.06' R
TWSA-12	TAXIWAY SA	2066+40.72	55.50' R
TWSA-13	TAXIWAY SA	2068+14.39	60.96' R
TWSA-14	TAXIWAY SA	2068+52.46	71.51' R
TWSA-15	TAXIWAY SA	2068+90.52	82.06' R
TWSA-16	TAXIWAY SA	2069+28.58	92.61' R
TWSA-17	TAXIWAY SA	2069+66.64	103.16' R
TWSA-18	TAXIWAY SA	2069+98.16	121.85' R
TWSA-19	TAXIWAY SA	2070+15.92	153.90' R
TWSA-20	TAXIWAY SA	2070+15.05	190.54' R
TWSA-21	TAXIWAY SA	2069+95.79	221.71' R
TWSA-22	TAXIWAY SA	2069+80.17	226.88' R
TWSA-23	TAXIWAY SA	2085+07.80	47.71' L
TWSA-24	TAXIWAY SA	2086+80.63	47.75' L
TWSA-25	TAXIWAY SA	2088+13.46	47.75' L
TWSA-26	TAXIWAY SA	2089+08.89	47.63' L
TWSA-27	TAXIWAY SA	2090+04.32	47.59' L
TWSA-28	TAXIWAY SA	2090+99.75	47.37' L
TWSA-29	TAXIWAY SA	2091+70.47	50.87' L
TWSA-30	TAXIWAY SA	2085+07.81	51.52' R

EDGE LIGHT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
TWSA-31	TAXIWAY SA	2086+80.64	56.24' R
TWSA-32	TAXIWAY SA	2088+13.39	60.96' R
TWSA-33	TAXIWAY SA	2088+51.46	71.51' R
TWSA-34	TAXIWAY SA	2088+89.52	82.06' R
TWSA-35	TAXIWAY SA	2089+27.58	92.61' R
TWSA-36	TAXIWAY SA	2089+65.64	103.16' R
TWSA-37	TAXIWAY SA	2089+97.51	122.12' R
TWSA-38	TAXIWAY SA	2090+15.12	154.75' R
TWSA-39	TAXIWAY SA	2090+13.47	191.79' R
TWSA-40	TAXIWAY SA	2089+93.03	222.74' R
TWSA-41	TAXIWAY SA	2092+41.19	54.38' L
TWSA-42	TAXIWAY SA	2093+11.92	57.88' L

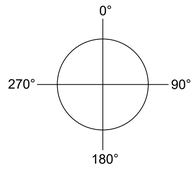
EDGE LIGHT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
SHCL-1	HIGH SPEED TAXIWAY SH	11005+71.12	17.74' R
SHCL-2	HIGH SPEED TAXIWAY SH	11005+58.72	16.98' R
SHCL-3	HIGH SPEED TAXIWAY SH	11005+48.22	17.32' R
SHCL-4	HIGH SPEED TAXIWAY SH	11005+33.80	18.80' R
SHCL-5	HIGH SPEED TAXIWAY SH	11005+21.56	21.33' R
SHCL-6	HIGH SPEED TAXIWAY SH	11005+09.84	24.94' R
SHCL-7	HIGH SPEED TAXIWAY SH	11004+98.06	29.55' R
SHCL-8	HIGH SPEED TAXIWAY SH	11004+86.89	35.21' R
SHCL-9	HIGH SPEED TAXIWAY SH	11004+76.30	41.80' R
SHCL-10	HIGH SPEED TAXIWAY SH	11004+66.46	49.28' R
SHCL-11	HIGH SPEED TAXIWAY SH	11004+57.04	57.63' R
SHCL-12	HIGH SPEED TAXIWAY SH	11004+48.54	66.73' R
SHCL-13	HIGH SPEED TAXIWAY SH	11004+40.89	76.52' R
SHCL-14	HIGH SPEED TAXIWAY SH	11004+34.05	87.06' R
SHCL-15	HIGH SPEED TAXIWAY SH	11004+28.22	98.05' R
SHCL-16	HIGH SPEED TAXIWAY SH	11004+23.36	109.55' R
SHCL-17	HIGH SPEED TAXIWAY SH	11004+19.52	121.46' R
SHCL-18	HIGH SPEED TAXIWAY SH	11004+16.75	133.61' R
SHCL-19	HIGH SPEED TAXIWAY SH	11004+15.05	145.96' R
SHCL-20	HIGH SPEED TAXIWAY SH	11004+14.44	158.42' R
SHCL-21	HIGH SPEED TAXIWAY SH	11004+14.94	170.93' R
SHCL-22	HIGH SPEED TAXIWAY SH	11004+16.52	183.31' R
SHCL-23	HIGH SPEED TAXIWAY SH	11004+19.18	195.50' R
SHCL-24	HIGH SPEED TAXIWAY SH	11004+22.89	207.38' R
SHCL-25	HIGH SPEED TAXIWAY SH	11004+27.64	218.92' R
SHCL-26	HIGH SPEED TAXIWAY SH	11004+33.41	230.04' R
SHCL-27	HIGH SPEED TAXIWAY SH	11004+40.06	240.50' R
SHCL-28	HIGH SPEED TAXIWAY SH	11004+47.59	250.36' R
SHCL-29	HIGH SPEED TAXIWAY SH	11004+56.02	259.57' R
SHCL-30	HIGH SPEED TAXIWAY SH	11004+65.28	268.05' R
SHCL-31	HIGH SPEED TAXIWAY SH	11004+75.34	275.74' R
SHCL-32	HIGH SPEED TAXIWAY SH	11004+85.72	282.53' R

EDGE LIGHT LOCATION

FIXTURE ID	ALIGNMENT	STATION	OFFSET
SJCL-1	HIGH SPEED TAXIWAY SJ	12005+63.67	16.18' R
SJCL-2	HIGH SPEED TAXIWAY SJ	12005+51.37	16.04' R
SJCL-3	HIGH SPEED TAXIWAY SJ	12005+39.12	16.91' R
SJCL-4	HIGH SPEED TAXIWAY SJ	12005+28.97	18.88' R
SJCL-5	HIGH SPEED TAXIWAY SJ	12005+15.05	21.87' R
SJCL-6	HIGH SPEED TAXIWAY SJ	12005+03.44	25.85' R
SJCL-7	HIGH SPEED TAXIWAY SJ	12004+92.19	30.86' R
SJCL-8	HIGH SPEED TAXIWAY SJ	12004+81.39	36.81' R
SJCL-9	HIGH SPEED TAXIWAY SJ	12004+71.22	43.65' R
SJCL-10	HIGH SPEED TAXIWAY SJ	12004+61.64	51.35' R
SJCL-11	HIGH SPEED TAXIWAY SJ	12004+52.75	59.84' R
SJCL-12	HIGH SPEED TAXIWAY SJ	12004+44.64	69.07' R
SJCL-13	HIGH SPEED TAXIWAY SJ	12004+37.36	78.94' R
SJCL-14	HIGH SPEED TAXIWAY SJ	12004+30.93	89.46' R
SJCL-15	HIGH SPEED TAXIWAY SJ	12004+25.46	100.43' R
SJCL-16	HIGH SPEED TAXIWAY SJ	12004+20.95	111.87' R
SJCL-17	HIGH SPEED TAXIWAY SJ	12004+17.49	123.62' R
SJCL-18	HIGH SPEED TAXIWAY SJ	12004+14.95	135.68' R
SJCL-19	HIGH SPEED TAXIWAY SJ	12004+13.51	147.89' R
SJCL-20	HIGH SPEED TAXIWAY SJ	12004+13.13	160.18' R
SJCL-21	HIGH SPEED TAXIWAY SJ	12004+13.81	172.45' R
SJCL-22	HIGH SPEED TAXIWAY SJ	12004+15.55	184.62' R
SJCL-23	HIGH SPEED TAXIWAY SJ	12004+18.33	196.59' R
SJCL-24	HIGH SPEED TAXIWAY SJ	12004+22.13	208.28' R
SJCL-25	HIGH SPEED TAXIWAY SJ	12004+26.90	219.63' R
SJCL-26	HIGH SPEED TAXIWAY SJ	12004+32.66	230.49' R
SJCL-27	HIGH SPEED TAXIWAY SJ	12004+39.34	240.80' R
SJCL-28	HIGH SPEED TAXIWAY SJ	12004+46.87	250.50' R
SJCL-29	HIGH SPEED TAXIWAY SJ	12004+55.19	259.56' R
SJCL-30	HIGH SPEED TAXIWAY SJ	12004+64.28	267.83' R
SJCL-31	HIGH SPEED TAXIWAY SJ	12004+74.18	275.36' R
SJCL-32	HIGH SPEED TAXIWAY SJ	12004+84.45	281.88' R

ARROW ANGLES



LEGEND:

L L-858L LOCATION
Y L-858Y DIRECTION / DESTINATION / BOUNDARY
R L-858R MANDATORY INSTRUCTION
B L-858B DISTANCE REMAINING
* BLANK PANEL

GENERAL NOTES:

1. NUMBER OF SIGN LEGEND LETTERS UNDERNEATH EACH SIGN ON NEW GUIDANCE SIGN INDEX INDICATES APPROXIMATE NUMBER OF MODULES ON DESIGNATED SIGN. SIGNS SHALL BE BID ACCORDING TO MODULES SHOWN ABOVE, IF MANUFACTURER UTILIZES LESS MODULES THAN SHOWN ABOVE, INDICATE ON SUBMITTAL OF SIGN LEGEND AS REQUIRED BY THE SPECIFICATIONS.

1 E04.06 NEW GUIDANCE SIGN INDEX
SCALE: NONE

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAY'S SA & SB

ELECTRICAL DETAILS VI

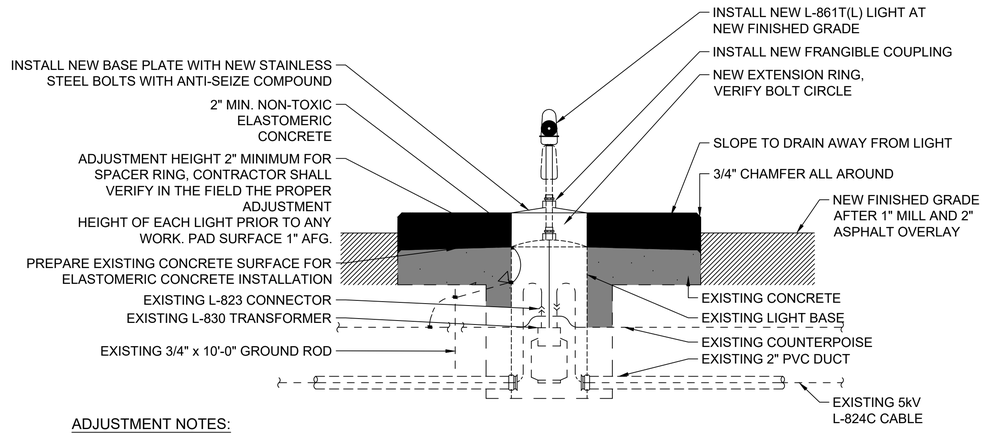
PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. E04.06



ADJUSTMENT NOTES:

1. DOWEL BARS SHALL HAVE 4" MINIMUM EMBEDMENT INTO THE EXISTING BASE.
2. INSTALL DOWEL BARS TO ANCHOR NEW CONCRETE, MINIMUM 6" FROM EDGE OF BASE, AT 12" O.C. MAXIMUM SPACING AROUND PERIMETER.
3. CONTRACTOR TO PROVIDE INSTALLATION SHOP DRAWING FOR CONSTRUCTION MEANS AND METHODS.

2 / E04.07 BASE MOUNTED EDGE LIGHT ADJUSTMENT

SCALE: NONE

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS VII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

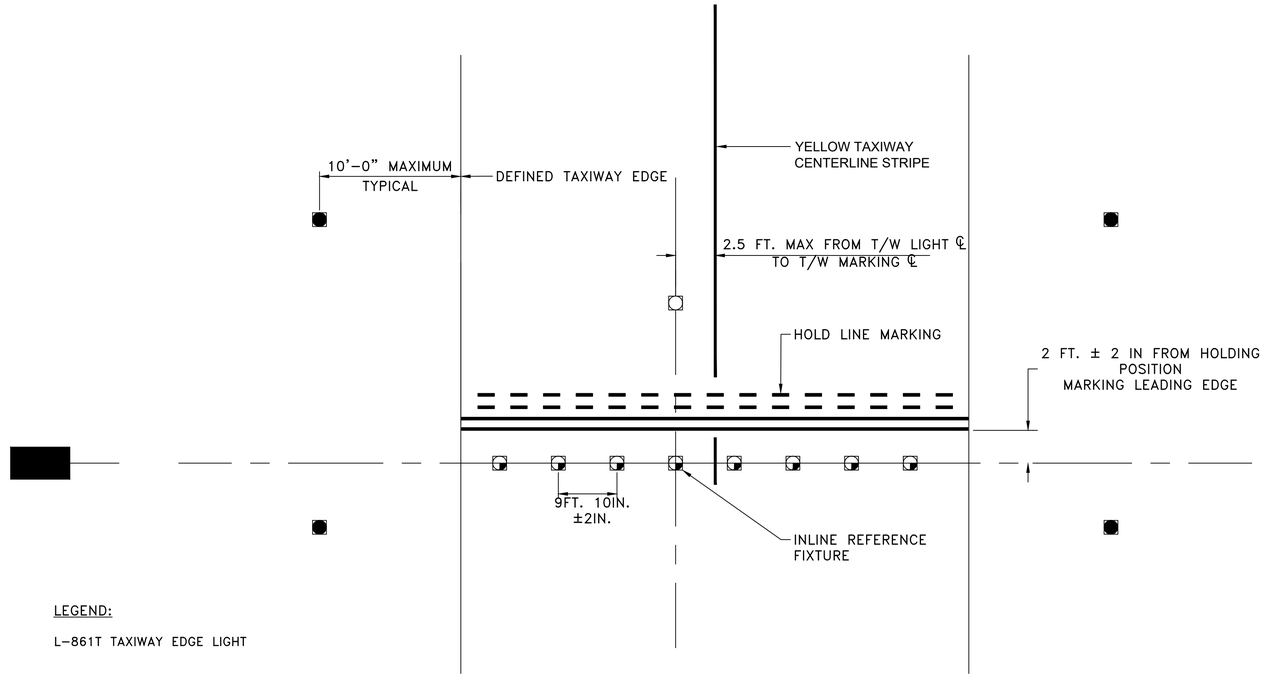
STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A
A.I.P. NO.
XXXX
C.I.P. NO.
A-0515
H.A.S. NO.
20C0646A
SHEET NO.

E04.07



1
E04.08

RUNWAY GUARD LIGHT CONFIGURATION

SCALE: NONE

LEGEND:

- L–861T TAXIWAY EDGE LIGHT
- L–852 TAXIWAY CENTERLINE LIGHT
- L–852G IN–PAVEMENT RUNWAY GUARD LIGHT
- L–858 GUIDANCE SIGN

GUARD LIGHT NOTES:

1. COORDINATE EXACT LIGHT BASE AND CONDUIT DRAINING LOCATIONS WITH ENGINEER PRIOR TO WORK. INSTALL BASES WITH T–CONFIGURED CANS WITH A 2" CONDUIT AWAY FROM PAVEMENT, INCLUDING 45° DOWN ELBOW INTO MINIMUM 1 CUBIC FOOT OPEN GRADED DRAINABLE AGGREGATE. THE TOP OF THE AGGREGATE SHALL BE A MINIMUM OF 3'–0" BELOW GRADE. SEE LAYOUT PLANS FOR EXACT LOCATIONS REQUIRED.
2. INSTALL CABLE TAGS ON CIRCUITS IN EACH BASE MOUNTED LIGHT.
3. SUBMIT FIXTURE AND BASE CAN INSTALLATION METHOD SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO STARTING WORK.
4. DEMONSTRATE PROPER INSTALLATION LOCATION, ELEVATION, AND ORIENTATION PRIOR TO PAVING WORK.
5. ROUTE THE COUNTERPOISE AROUND THE FIXTURE WITH 12" MINIMUM SEPARATION.
6. UTILIZE ONLY EXOTHERMIC WELDS BELOW GRADE.
7. PROVIDE MINIMUM 3'–0" SLACK CABLE FOR EACH CABLE ENTERING THE LIGHT BASE SO THAT L–823 CONNECTORS, ISOLATION TRANSFORMER, AND LIGHT UNIT CAN BE LIFTED OUT OF THE BASE ABOVE GRADE.
8. DEDICATED GROUND ROD SHALL NOT BE BONDED TO SEPARATE COUNTERPOISE SYSTEM.

GENERAL NOTES:

1. THE CONTRACTOR SHALL PROVIDE TESTING, ESCORT, AND TRANSPORTATION TO/FROM THE RGL FIXTURES TO BE TESTED. EACH GROUPING OF LIGHTS AT EACH BAR SHALL BE TESTED 1 BAR AT A TIME. DURING WORK AT EACH BAR, THE TAXIWAY SHALL BE TEMPORARILY CLOSED OFF TO TRAFFIC.
2. THE FIXTURES SHALL BE UNBOLTED BY THE CONTRACTOR BUT REMAIN CONNECTED, TO EXPOSE THE SECONDARY CABLE TO EACH FIXTURE. SET THE TEST BOX AT THE SIDE OF THE TAXIWAY, PLACE THE TEST DEVICES NEAR EACH FIXTURE, AND SECURE THE LOCATION.
3. THE CONTRACTOR WILL THEN SET UP AND START THE TEST. THE CONTRACTOR SHALL CLOSE AND BARRICADE THE TAXIWAY. THE TEST SHALL BE LEFT TO RUN UNATTENDED, FOR UP TO 3 HOURS WITH DATA COLLECTION TAKING PLACE IN A RUGGED BOX LOCATED OUTISDE THE SAFTEY ZONE NEAR THE HOLD POSITION, AT THE SIDE OF THE TAXIWAY.
4. DURING THE TEST IT WILL BE NECCESSARY TO CHECK THE FAILED LAMP/DEVICE REPORTING FUNCTION. THIS WILL REQURE SOMEONE AT THE BAR AND AT THE VAULT TO OBSERVE THE MONITORING OF A LAMP FAILURE. THE FIELD WILL HAVE TO BE IN COMMUNICATION WITH THE TESTOR IN THE VAUL, AND PULL THE LAMP/DEVICE WHEN REQUESTED.
5. AT THE CONCLUSION OF THE TEST, THE CONTRACTOR SHALL PROCEED TO THE HOLD BAR, TO REMOVE THE TEST EQUIPMENT. THE TEST EQUIPMENT WILL THEN BE TRANSPORTED TO THE NEXT BAR TO BE TESTED OR OFF THE AIRFIELD FOR THE DAY. THE FIXTURES SHALL THEN BE BOLTED BACK IN BY THE CONTRACTOR.

CONFIGURATION NOTES:

1. COMPLY WITH AC 150/5340–30 FOR CONFIGURATION, SPACING, LAYOUT, AND INSTALLATION REQUIREMENTS OF LOW VISIBILITY TAXIWAY LIGHTING SYSTEMS.
2. CONTRACTOR SHALL SUBMIT AN ACCURATE SCALED DRAWING THAT SHOWS NEW AND EXISTING LOCATIONS AND SPECIFIC LIGHTING FIXTURE TYPES(LENS COLOR / ANGLE) PRIOR TO ANY WORK.
3. CONTRACTOR SHALL SUBMIT HIS INSTALLATION METHOD AND TECHNIQUE FOR CORRECT PLACEMENT AND ALIGNMENT OF ALL LIGHTS PRIOR TO ANY WORK.
4. CONTRACTOR SHALL REPLACE ALL PAVEMENT MARKINGS REMOVED OR DAMAGED TO MATCH EXISTING OR AS DIRECTED BY THE ENGINEER.
5. AT ENGINEER'S DIRECTION, THE ELEVATED RUNWAY GUARD LIGHT MAY BE MOVED UP TO 10 FEET MAXIMUM AWAY FROM THE RUNWAY TO AVOID UNDESIRABLE SPOTS.
6. L–852 FIXTURES SHALL BE INSTALLED SO THAT THEIR NEAREST EDGE IS APPROXIMATELY 2 FOOT FROM ANY RIGID PAVEMENT JOINT.
7. AIMING OF THE ELEVATED RUNWAY GUARD LIGHTS SHALL BE COORDINATED WITH THE ENGINEER IN THE FIELD DURING CONSTRUCTION IN ORDER TO MEET THE REQUIREMENTS OF FAA AC 150/5340–30.

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REVISIONS

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GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS VIII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E04.08

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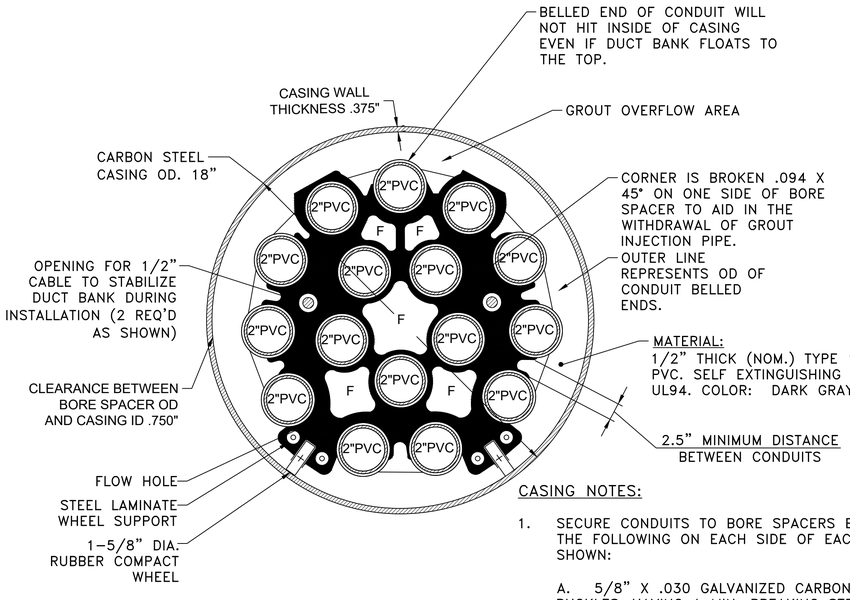


CASING NOTES:

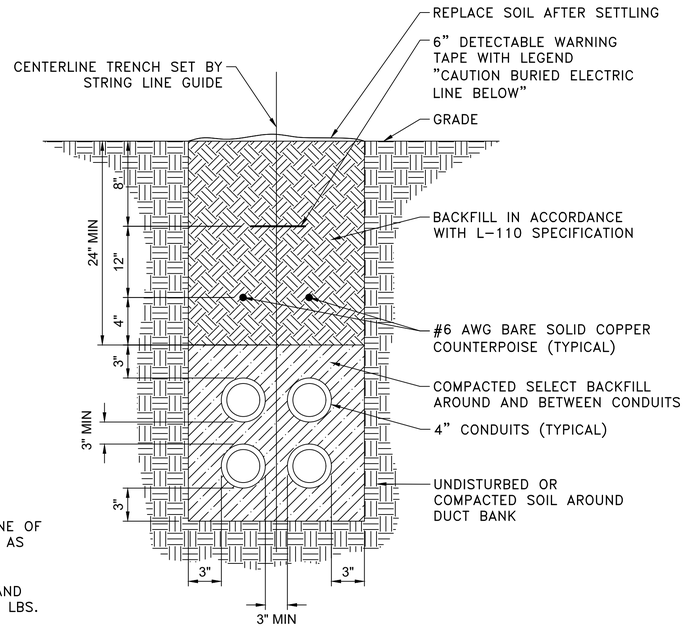
1. SECURE CONDUITS TO BORE SPACERS BY INSTALLING ONE OF THE FOLLOWING ON EACH SIDE OF EACH BORE SPACER AS SHOWN:

   A. 5/8" X .030 GALVANIZED CARBON STEEL BANDS AND BUCKLES HAVING A MIN. BREAKING STRENGTH OF 1405 LBS.

   B. 3/4" WIDE POLYPROPYLENE STRAPPING HAVING A 1400 LB. BREAKING STRENGTH, 7% MAX. STRETCH, AND STEEL SEALS.

2. USE ONE BORE SPACER FOR EVERY 5 FEET OF DUCT BANK.

1 E04.09 CASING TYPE 16-WAY BORING
SCALE: NONE

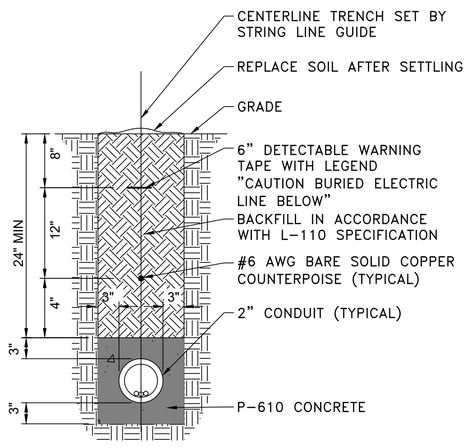


4-WAY

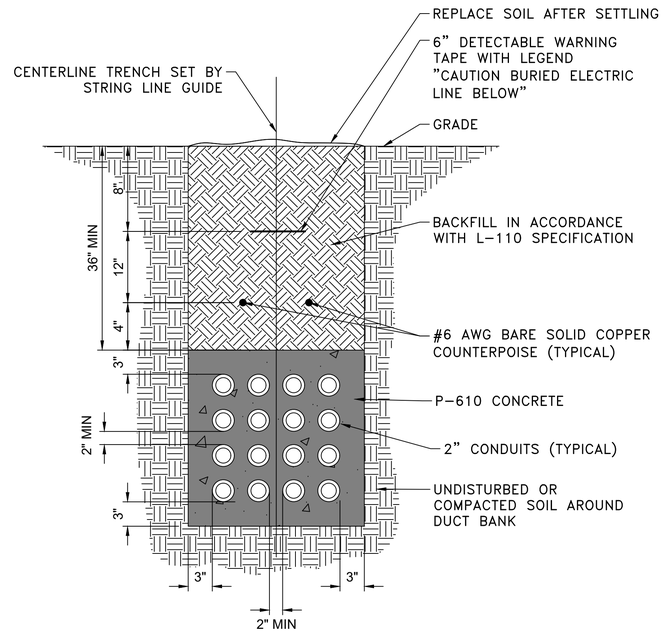
2 E04.09 NON-ENCASED DUCT BANK
SCALE: NONE

NON-ENCASED NOTES:

1. COUNTERPOISE WIRES SHALL BE INSTALLED ABOVE MULTIPLE CONDUITS / DUCT BANKS FOR AIRFIELD LIGHTING CABLES, WITH THE INTENT BEING TO PROVIDE A COMPLETE CONE OF PROTECTION OVER THE AIRFIELD LIGHTING CABLES.
2. INSTALL 3/4" x 10'-0" COPPERCLAD GROUND RODS AT EACH END OF ELECTRICAL DUCT AND BOND COUNTERPOISES USING EXOTHERMIC WELDS.
3. INSTALL CONDUIT SPACERS WITH LOCKING COLLARS AT 5' O.C. SPACING INTERVALS.
4. INSTALL A COUNTERPOISE 4" ABOVE EACH CONDUIT COLUMN.
5. INSTALL DUCT MARKERS IN ACCORDANCE WITH ADVISORY CIRCULAR 150-5340-30 REQUIREMENTS, INCLUDING AT THE END OF DUCT BANKS.
6. SIMILAR FOR OTHER DUCT SIZES.



1-WAY



16-WAY

ENCASED NOTES

1. COUNTERPOISE WIRES SHALL BE INSTALLED ABOVE MULTIPLE CONDUITS / DUCT BANKS FOR AIRFIELD LIGHTING CABLES, WITH THE INTENT BEING TO PROVIDE A COMPLETE CONE OF PROTECTION OVER THE AIRFIELD LIGHTING CABLES.
2. INSTALL 3/4" x 10'-0" COPPERCLAD GROUND RODS AT EACH END OF ELECTRICAL DUCT AND BOND COUNTERPOISES USING EXOTHERMIC WELDS.
3. INSTALL CONDUIT SPACERS WITH LOCKING COLLARS AT 5' O.C. SPACING INTERVALS. INSTALL #4 REINFORCING BARS MINIMUM 6" INTO SOIL TO ANCHOR THE ASSEMBLY PRIOR TO PLACING THE CONCRETE ENCASEMENT.
4. INSTALL A COUNTERPOISE 4" ABOVE EACH CONDUIT COLUMN.
5. INSTALL DUCT MARKERS IN ACCORDANCE WITH ADVISORY CIRCULAR 150/5340-30 REQUIREMENTS, INCLUDING AT THE ENDS OF DUCT BANKS.
6. SIMILAR FOR OTHER DUCT SIZES.

3 E04.09 CONCRETE ENCASED DUCT BANK AND CONDUIT
SCALE: NONE

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS IX

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E04.09

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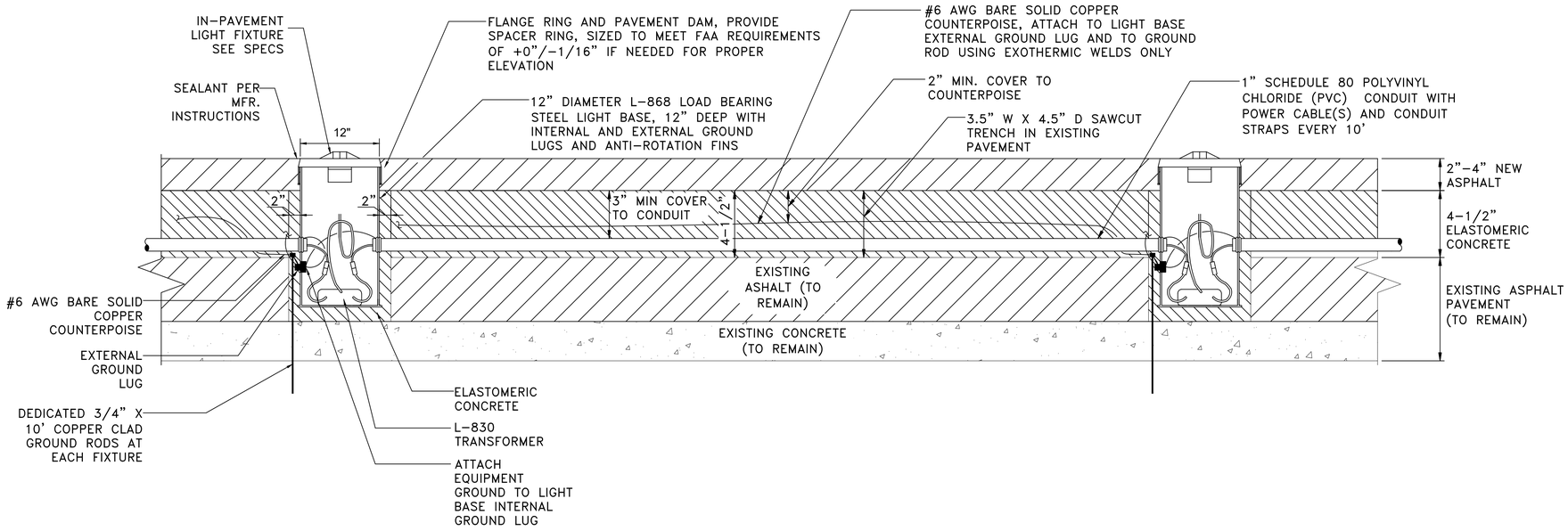
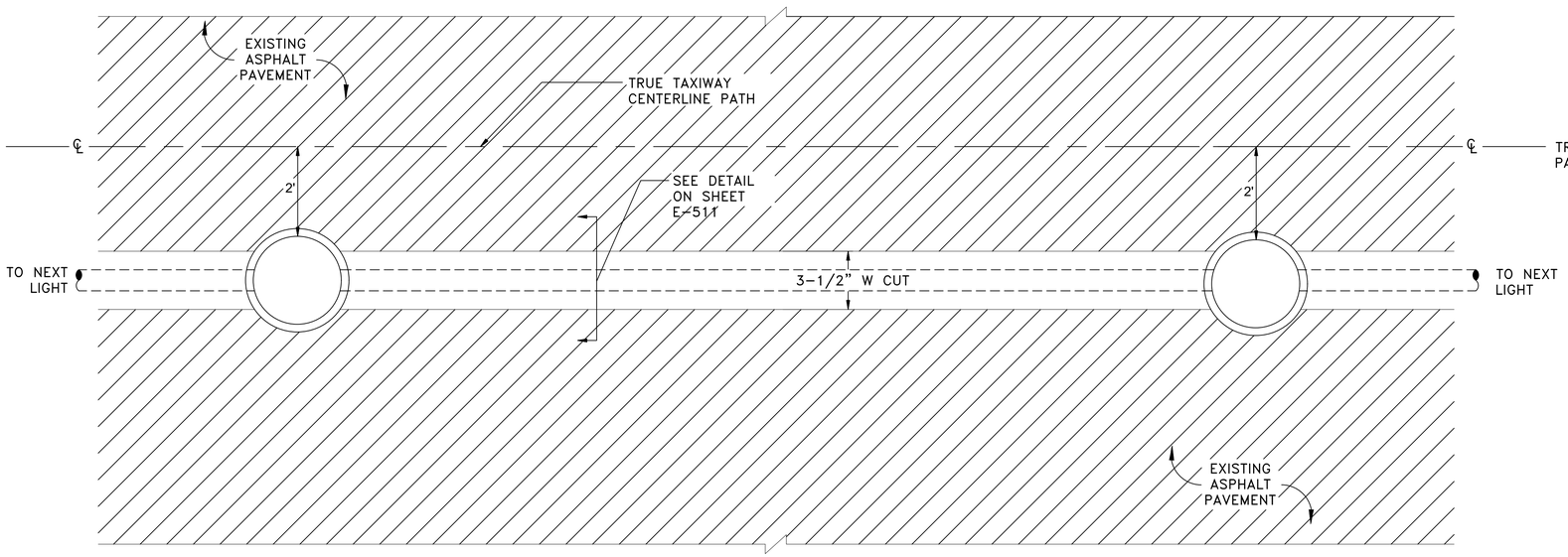


1
E04.10

BASE MOUNTED IN-PAVEMENT LIGHT SECTION DETAIL FOR EXISTING RIGID PAVEMENT (ASPHALT)

SCALE: NONE



2
E04.10

PLAN VIEW (ASPHALT)

SCALE: NONE

CONSTRUCTION NOTES:

1. INSTALL NEW L-823 CONNECTOR KITS WITH HEAT SHRINK AND CABLE TAGS AT ALL LIGHTS AND GUIDANCE SIGNS.
2. ATTACH AND CONNECT COUNTERPOISE SYSTEM AND GROUND RODS USING EXOTHERMIC WELDS ONLY. CONNECT THE COUNTERPOISE TO EACH METAL BASE CAN INSTALLED UNDER RIGID OR FLEXIBLE PAVEMENT. BOND THE COUNTERPOISE TO THE REBAR CAGE AROUND THE FIXTURE BASE.
3. INSTALL IN-PAVEMENT LIGHT FIXTURES IN ACCORDANCE WITH FAA GUIDELINES AND MANUFACTURER'S RECOMMENDATIONS.
4. COORDINATE EXACT LIGHT BASE AND CONDUIT DRAINING LOCATIONS WITH ENGINEER PRIOR TO WORK. SEE LAYOUT PLANS FOR EXACT LOCATIONS REQUIRED.
5. ALL BASE CAN INSTALLATION, TECHNIQUES, METHODS, MATERIALS, ETC., SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK.
6. DEMONSTRATE PROPER INSTALLATION LOCATION, ELEVATION, AND ORIENTATION PRIOR TO PAVING WORK.
7. INSTALL A DEDICATED EQUIPMENT SAFETY GROUND ROD WITH EXOTHERMIC WELD AT EACH LIGHT FIXTURE. THE EQUIPMENT GROUND SHALL BE SECURELY ATTACHED TO EACH FIXTURE BASE.
8. UTILIZE ONLY EXOTHERMIC WELDS BELOW GRADE, UNLESS NOTED OTHERWISE.
9. PROVIDE MINIMUM 3' SLACK CABLE FOR EACH CABLE AND GROUNDING JUMPER ENTERING LIGHT BASE SO THAT L-823 CONNECTIONS AND ISOLATION TRANSFORMER CAN BE LIFTED OUT OF THE BASE ABOVE GRADE.
10. PROVIDE IN-PAVEMENT LIGHT FIXTURE WITH INTERNAL AND EXTERNAL GROUND LUGS.
11. CONTRACTOR HAS OPTION TO CORE DRILL FOR INSTALLING MUD RING.
12. UTILIZE ANTI-SEIZE MATERIAL WHEN INSTALLING BOLTS.
13. CONTRACTOR SHALL SAWCUT THE EXISTING PAVEMENT IN A MANNER AS TO NOT DAMAGE OR SPALL THE ADJACENT PAVEMENT. SPALL REPAIR WILL NOT BE PERMITTED. ADDITIONAL SAWCUTTING WILL NOT BE MEASURED FOR SEPARATE PAYMENT.
14. CONTRACTOR SHALL REPLACE ALL PAVEMENT MARKINGS REMOVED OR DAMAGED TO MATCH EXISTING OR AS DIRECTED BY THE ENGINEER.

SAWKERF NOTES:

1. INSTALL CONDUIT STRAPS ANCHORED TO THE EXISTING ASPHALT EVERY 10 FEET.
2. CLEAN SURFACE OF SAWKERF PRIOR TO APPLICATION OF ELASTOMERIC CONCRETE USING APPROVED METHOD.

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS X

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E04.10

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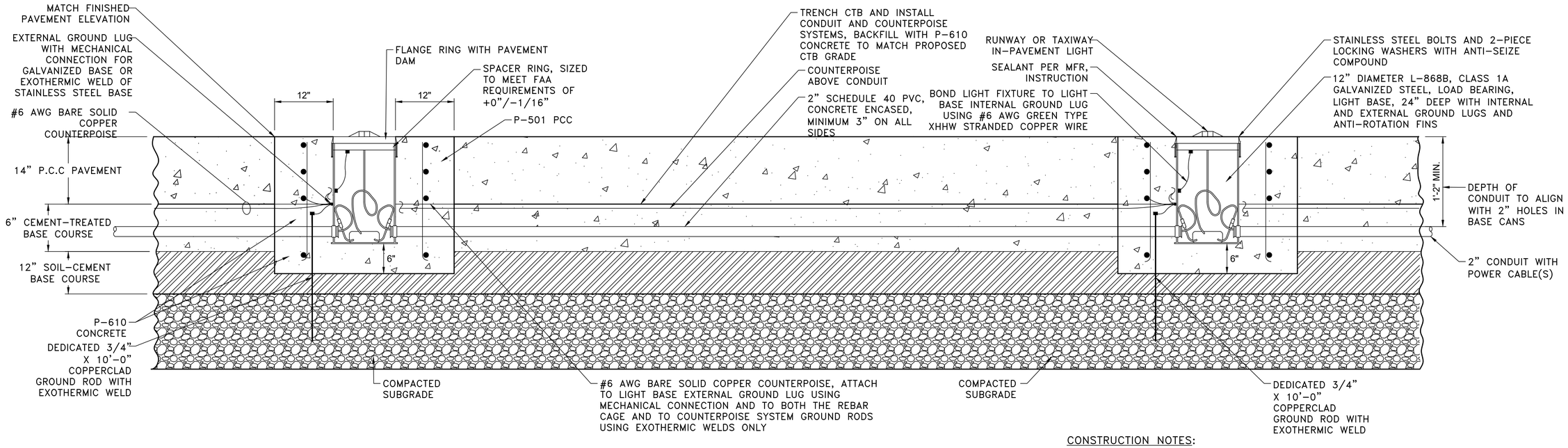
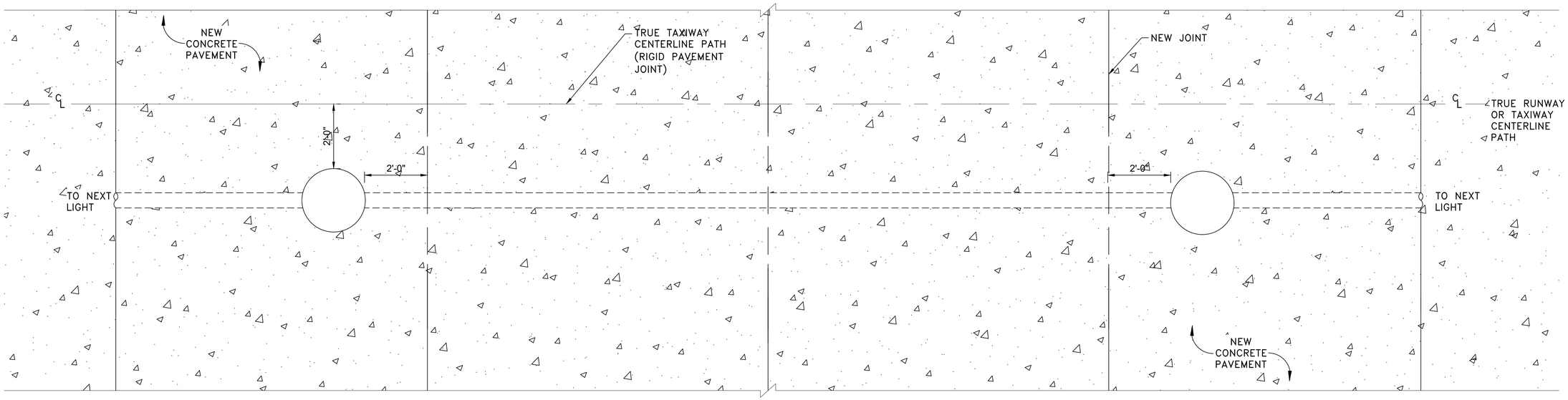


2 / E04.11 — INSTALLATION OF IN-PAVEMENT LIGHTS - CONCRETE INSTALLATION

SCALE: NONE

CONSTRUCTION NOTES:

1. ALL BASE CAN INSTALLATION, TECHNIQUES, METHODS, MATERIALS, ETC., SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK.
2. PROVIDE TEMPORARY LOAD BEARING COVERS TO PROTECT THE BASE FLANGE DURING OVERLAY.



1 / E04.11 — PLAN VIEW

SCALE: NONE

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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS XI

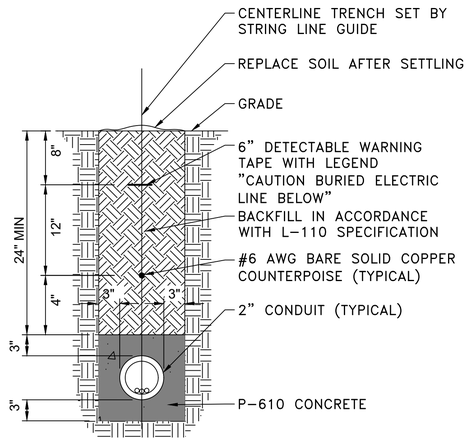
PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	E04.11



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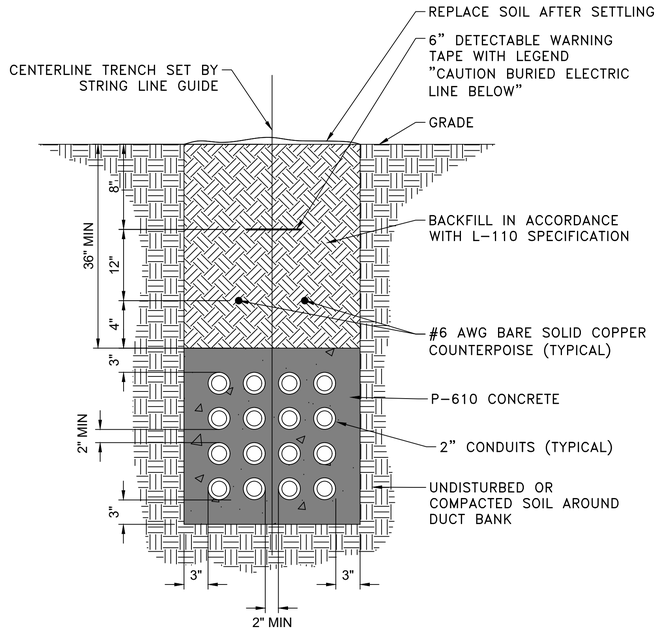


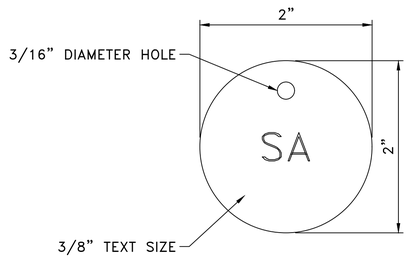
16-WAY

ENCASED NOTES

1. COUNTERPOISE WIRES SHALL BE INSTALLED ABOVE MULTIPLE CONDUITS / DUCT BANKS FOR AIRFIELD LIGHTING CABLES, WITH THE INTENT BEING TO PROVIDE A COMPLETE CONE OF PROTECTION OVER THE AIRFIELD LIGHTING CABLES.
2. INSTALL 3/4" x 10'-0" COPPERCLAD GROUND RODS AT EACH END OF ELECTRICAL DUCT AND BOND COUNTERPOISES USING EXOTHERMIC WELDS.
3. INSTALL CONDUIT SPACERS WITH LOCKING COLLARS AT 5' O.C. SPACING INTERVALS. INSTALL #4 REINFORCING BARS MINIMUM 6" INTO SOIL TO ANCHOR THE ASSEMBLY PRIOR TO PLACING THE CONCRETE ENCASEMENT.
4. INSTALL A COUNTERPOISE 4" ABOVE EACH CONDUIT COLUMN.
5. INSTALL DUCT MARKERS IN ACCORDANCE WITH ADVISORY CIRCULAR 150/5340-30 REQUIREMENTS, INCLUDING AT THE ENDS OF DUCT BANKS.
6. SIMILAR FOR OTHER DUCT SIZES.

1 E04.12 CONCRETE ENCASED DUCT BANK AND CONDUIT

SCALE: NONE



CABLE TAG NOTES:

1. ALL CABLES SHALL BE IDENTIFIED. INSTALL CABLE TAGS IN ALL ACCESSIBLE LOCATIONS INCLUDING JUNCTION BOXES, PULL BOXES, MANHOLES, HANDHOLES, AND LIGHT BASES.
2. INSTALL CABLE TAGS 12" FROM THE L-823 CONNECTORS. IF NO CONNECTORS ARE REQUIRED, INSTALL A CABLE TAG NEAR EACH CABLE ENTRANCE VIA DUCT OR CONDUIT.
3. CABLE IDENTIFICATION TAGS SHALL BE MADE FROM A NON-CORROSIVE STAINLESS STEEL MATERIAL WITH THE CIRCUIT AND / OR LOOP IDENTIFICATION NUMBER STAMPED OR ETCHED ONTO THE TAG.
4. TAGS SHALL BE CIRCULAR IN SHAPE, 2-INCH MINIMUM DIAMETER AND 20 GAUGE NON-CORROSIVE STAINLESS STEEL MATERIAL.
5. SECURE EACH TAG TO THE CABLE USING WEATHER AND ULTRAVIOLET RESISTANT NYLON CABLE TIES.
6. TAG IDENTIFICATION TEXT SHALL BE COORDINATED WITH THE OWNER AND THE ENGINEER DURING SUBMITTALS PRIOR TO THE WORK. NO TAGS SHALL BE STAMPED PRIOR TO APPROVAL OF CIRCUIT NOMENCLATURE BY OWNER AND ENGINEER.

2 E04.12 TYPICAL CABLE TAG

SCALE: NONE

HOUSTON AIRPORTS
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

ELECTRICAL DETAILS XII

PROJECT MGR:	JEF
DESIGNER:	RH
DRAWN BY:	RH
CHECK BY:	MCL
SCALE:	NONE
DATE:	11/02/2023

STATE OF TEXAS
MATTHEW C. LEMAY
112269
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. E04.12

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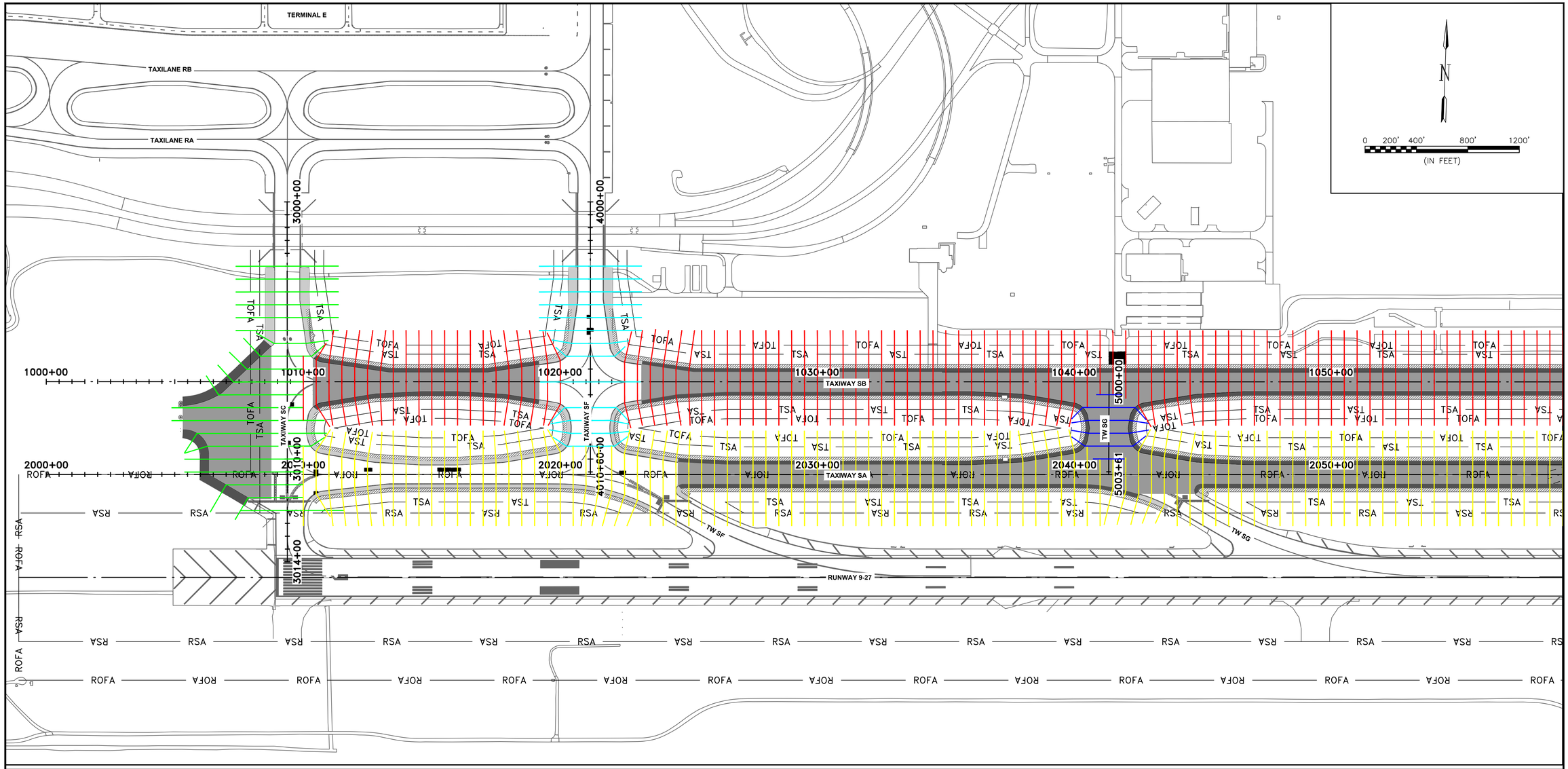


LEGEND

- PROPOSED ASPHALT MILL & OVERLAY
- PROPOSED CONCRETE SLAB RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER CONSTRUCTION
- — RSA — RUNWAY SAFETY AREA
- — ROFA — RUNWAY OBJECT FREE AREA
- — TSA — TAXIWAY SAFETY AREA
- — TOFA — TAXIWAY OBJECT FREE AREA
- TAXIWAY SA CROSS SECTIONS
- TAXIWAY SB CROSS SECTIONS
- TAXIWAY SC CROSS SECTIONS
- TAXIWAY SF CROSS SECTIONS
- TAXIWAY SG CROSS SECTIONS
- TAXIWAY SH CROSS SECTIONS
- TAXIWAY SJ CROSS SECTIONS
- TAXIWAY SK CROSS SECTIONS

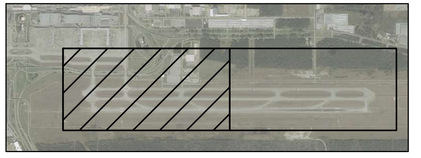
NOTES:

1. CROSS-SECTION LINES ARE APPROXIMATE LOCATION. SEE CROSS-SECTIONS FOR ACCURATE LOCATION.

CAUTION: UNDERGROUND UTILITIES EXIST WITHIN AND ADJACENT TO THE LIMITS OF CONSTRUCTION. AN ATTEMPT HAS BEEN MADE TO LOCATE THESE UTILITIES ON THE PLANS. HOWEVER, ALL EXISTING UTILITIES MAY NOT BE SHOWN AND THE ACTUAL LOCATIONS OF THE UTILITIES MAY VARY FROM THE LOCATIONS SHOWN. PRIOR TO BEGINNING OF ANY TYPE OF EXCAVATION, THE CONTRACTOR SHALL CONTACT THE UTILITIES INVOLVED AND MAKE ARRANGEMENTS FOR THE LOCATION OF THE UTILITIES ON THE GROUND. THE CONTRACTOR SHALL MAINTAIN THE UTILITY LOCATION MARKINGS UNTIL THEY ARE NO LONGER NECESSARY.

ACCORDING TO THE TEXAS STATE LAW, THE UNDERGROUND FACILITIES DAMAGE PREVENTION AND SAFETY ACT, REQUIRES NOTIFICATION THROUGH THE TEXAS ONE-CALL SYSTEM CENTER 14 TO 48 DAYS PRIOR TO EXCAVATING USING MECHANIZED EQUIPMENT OR EXPLOSIVES (EXCEPT IN THE CASE OF AN EMERGENCY). THE ONE-CALL SYSTEM PHONE NUMBER IS 1-800-245-4545. THE CONTRACTOR IS ADVISED THAT THERE IS A SEVERE PENALTY FOR NOT MAKING THIS CALL. NOT ALL UTILITY COMPANIES ARE MEMBERS OF THE TEXAS ONE-CALL SYSTEM; THEREFORE, THE CONTRACTOR IS ADVISED TO CONTACT ALL NON-MEMBER UTILITIES AS WELL AS THE ONE-CALL SYSTEM.

KEYMAP



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GARVER
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Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS			
NO.	DESCRIPTION	DATE	BY

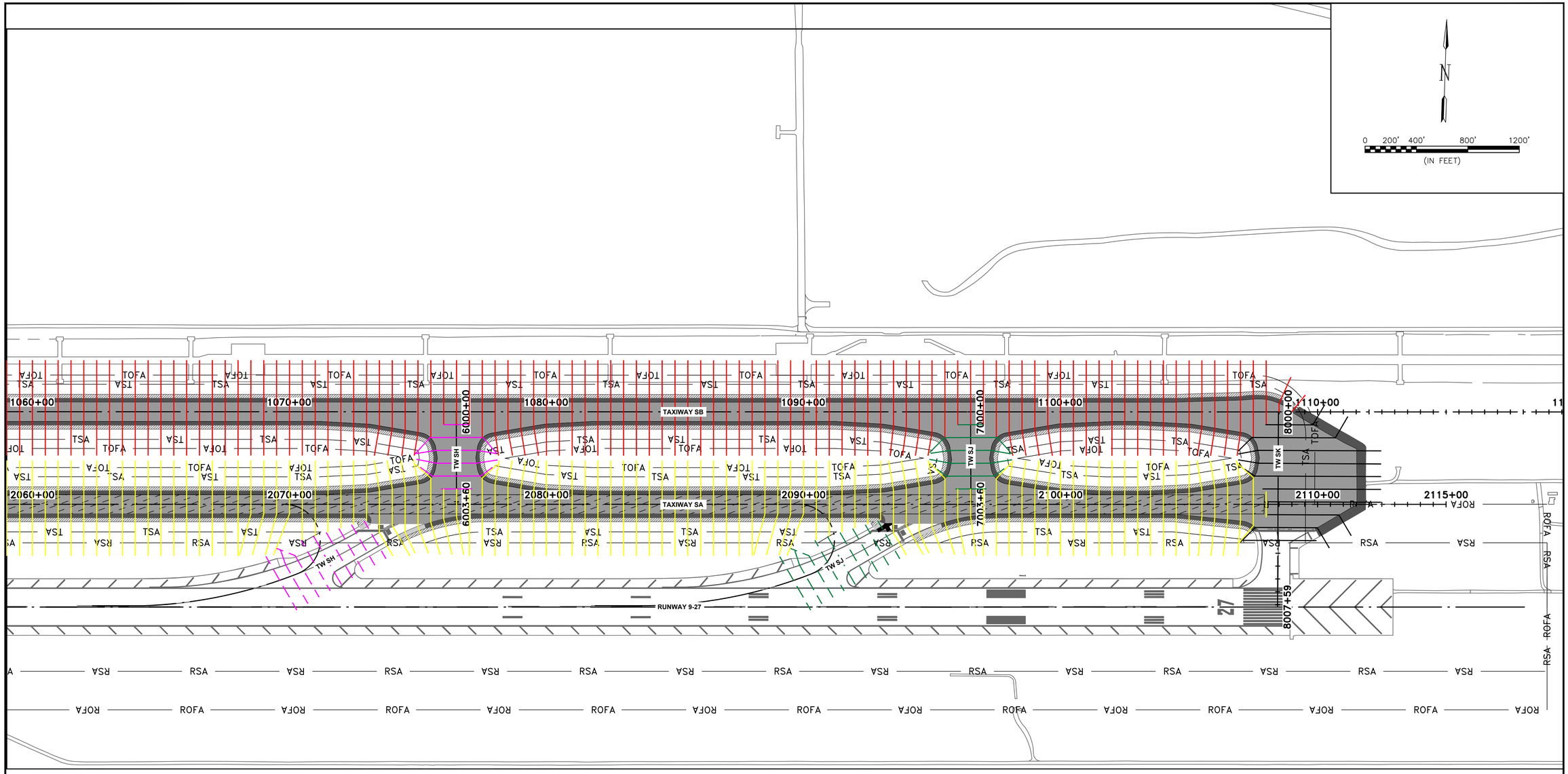
GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

CROSS-SECTION OVERVIEW 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 200'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X00.01



LEGEND

- PROPOSED ASPHALT MILL & OVERLAY
- PROPOSED CONCRETE SLAB RECONSTRUCTION
- PROPOSED ASPHALT SHOULDER CONSTRUCTION
- — RSA — RUNWAY SAFETY AREA
- — ROFA — RUNWAY OBJECT FREE AREA
- — TSA — TAXIWAY SAFETY AREA
- — TOFA — TAXIWAY OBJECT FREE AREA
- TAXIWAY SA CROSS SECTIONS
- TAXIWAY SB CROSS SECTIONS
- TAXIWAY SC CROSS SECTIONS
- TAXIWAY SF CROSS SECTIONS
- TAXIWAY SG CROSS SECTIONS
- TAXIWAY SH CROSS SECTIONS
- TAXIWAY SJ CROSS SECTIONS
- TAXIWAY SK CROSS SECTIONS
- TAXIWAY SH HIGH-SPEED CROSS SECTIONS
- TAXIWAY SJ HIGH-SPEED CROSS SECTIONS

NOTES:

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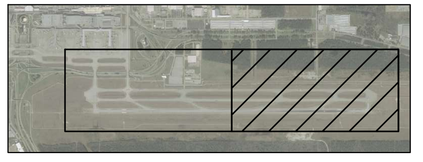
KEYMAP



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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 200
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS		
NO.	DESCRIPTION	DATE BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

CROSS-SECTION OVERVIEW 2

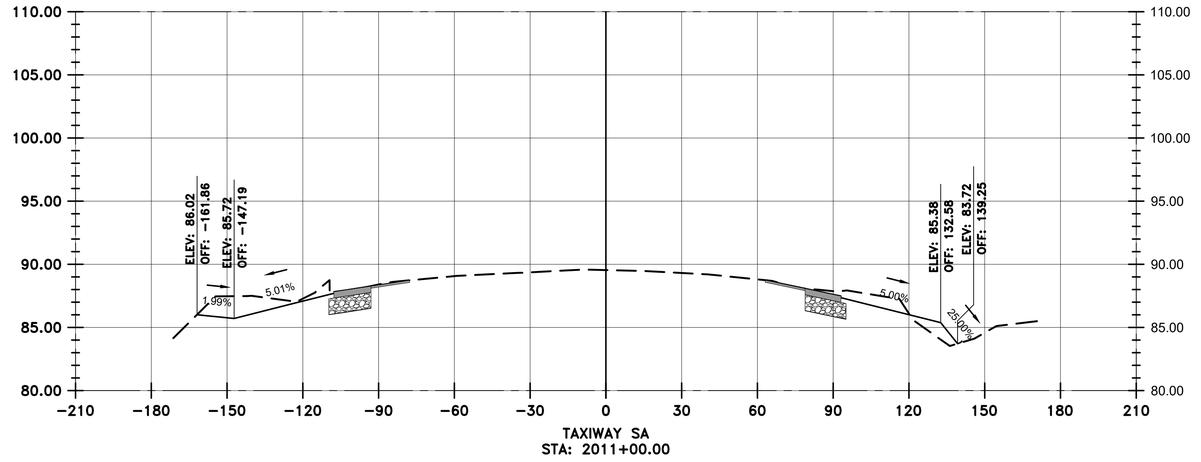
PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1" = 200'
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X00.02



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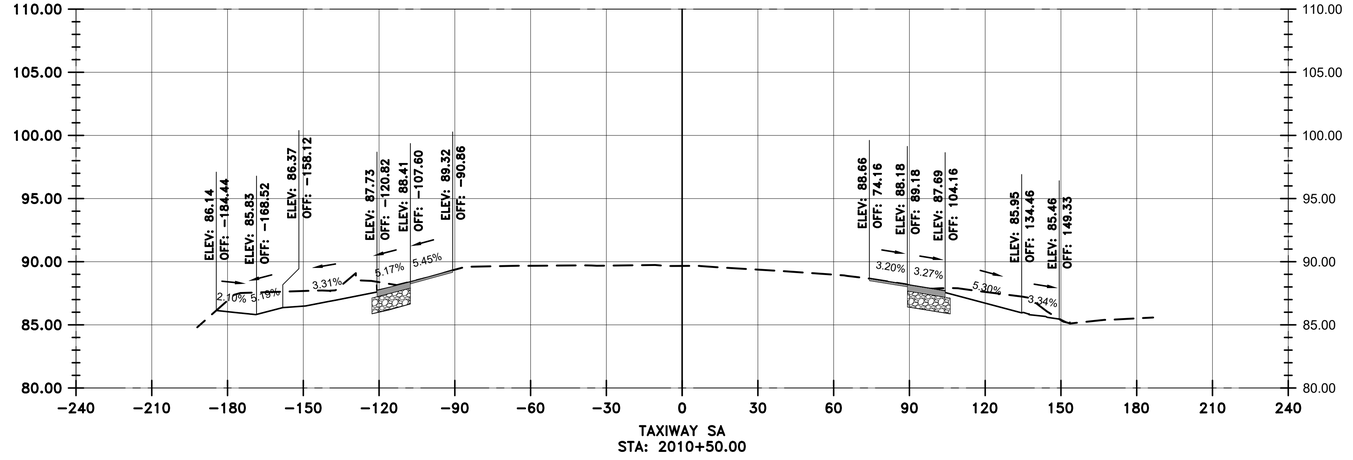

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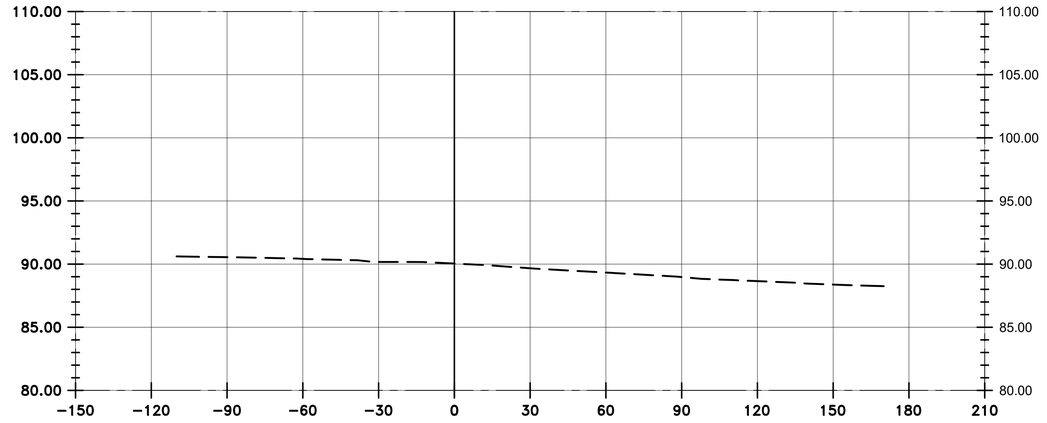

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VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO. **X01.01**

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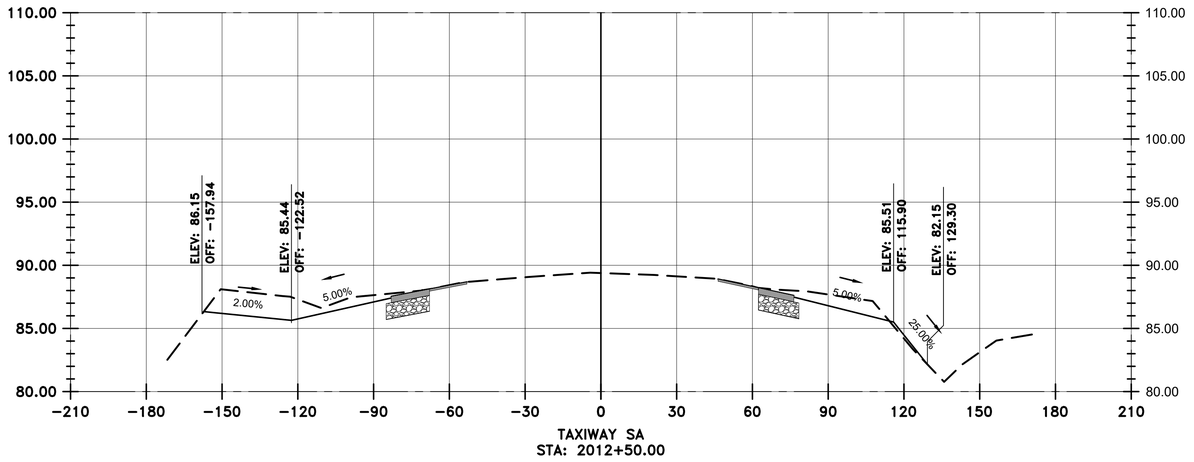

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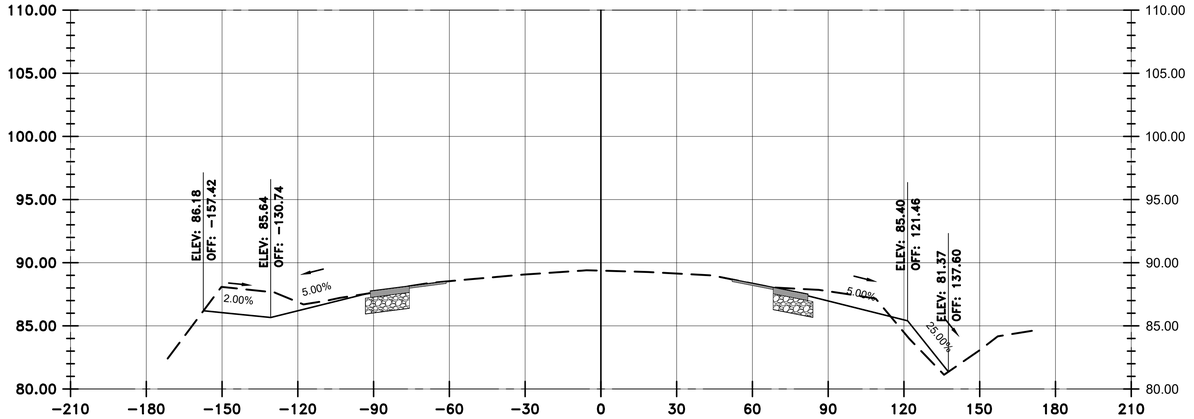

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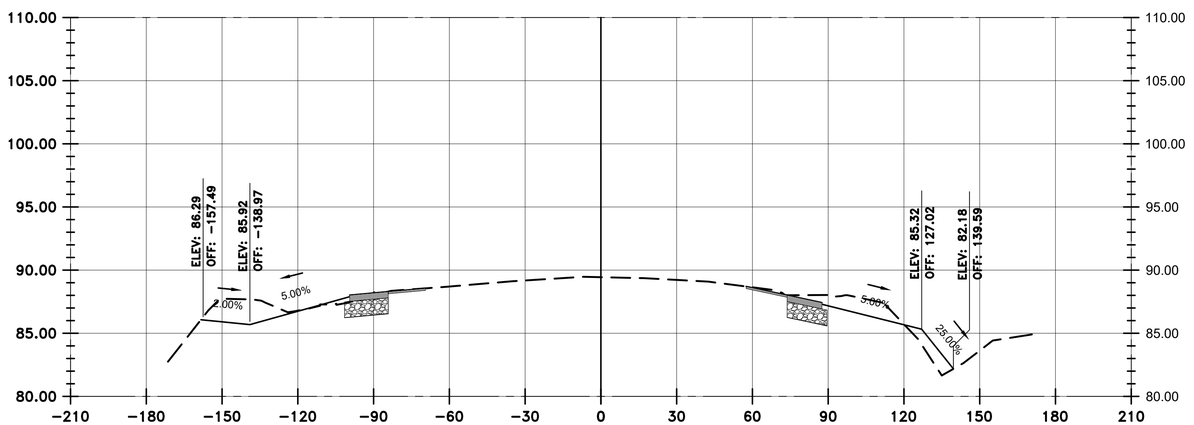

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LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.02

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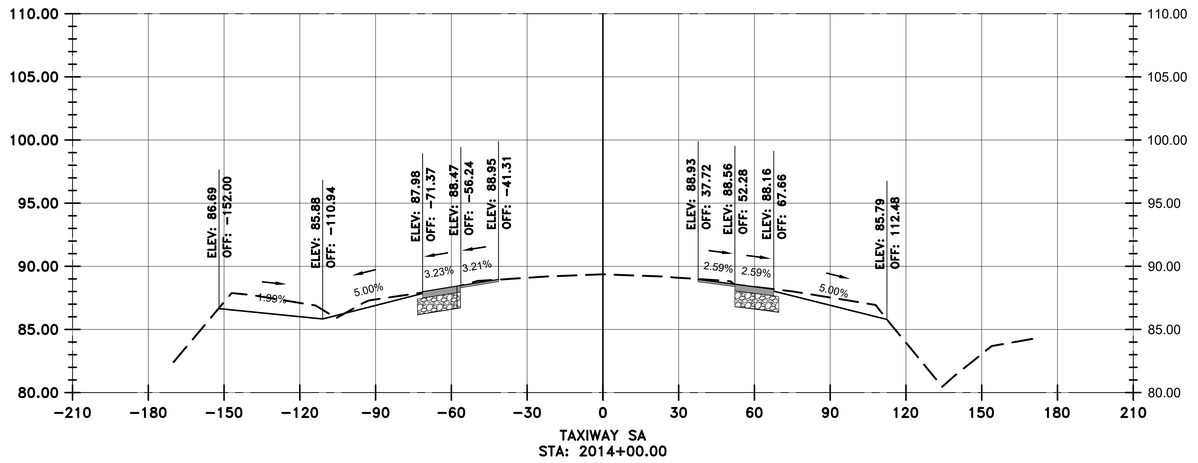

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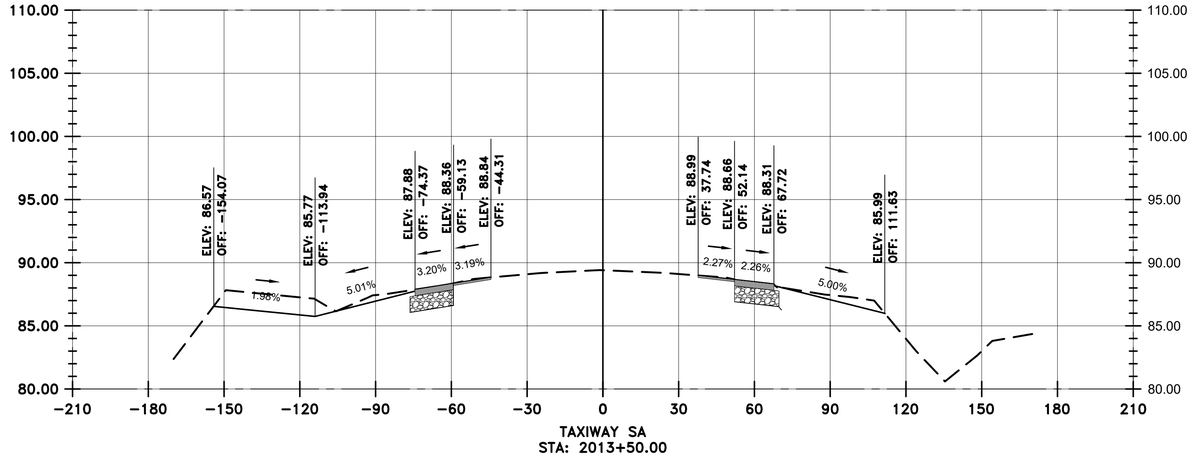

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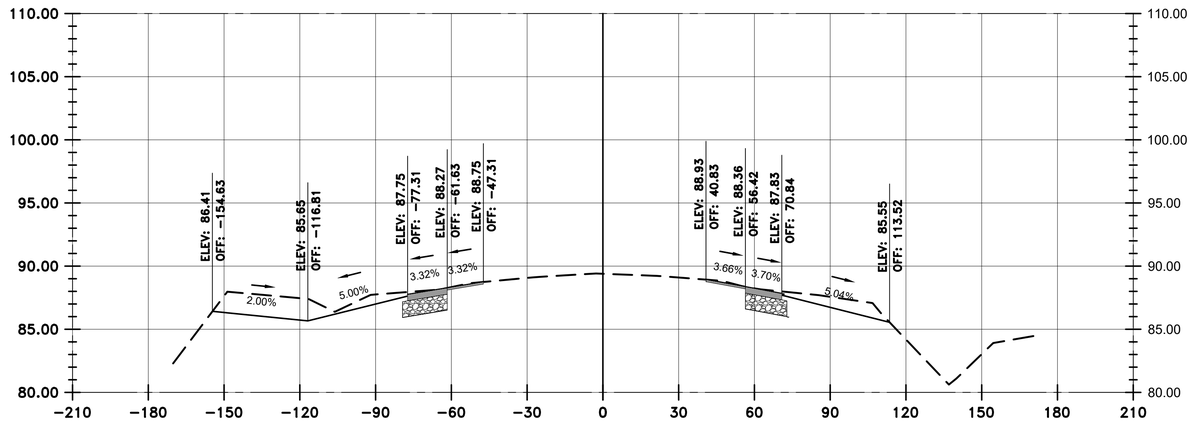

TAXIWAY SA
STA: 2013+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 3

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.03

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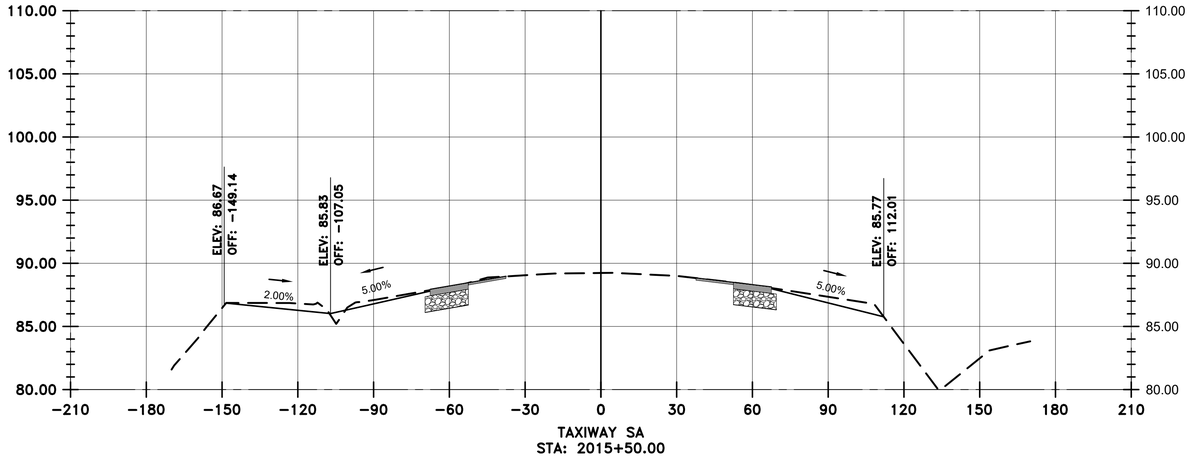

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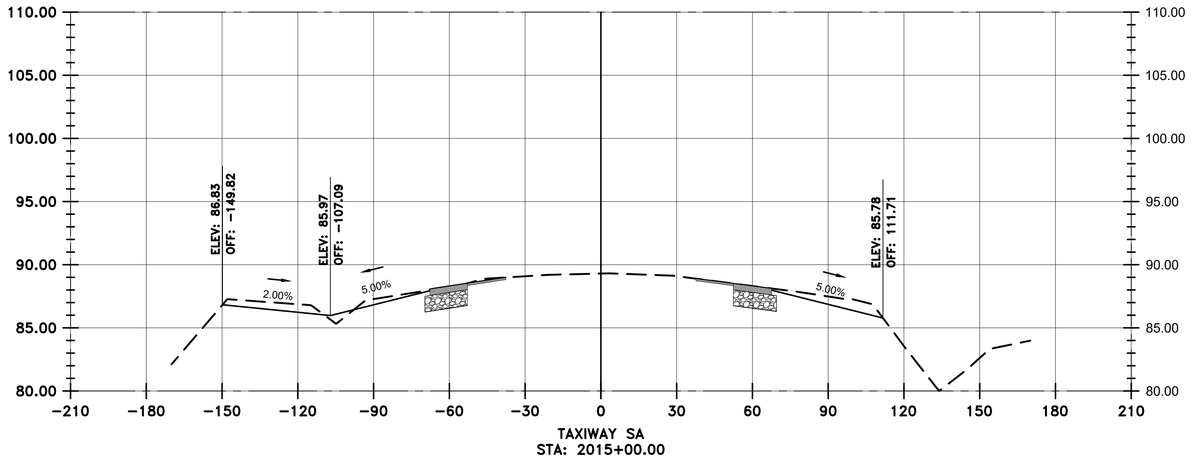

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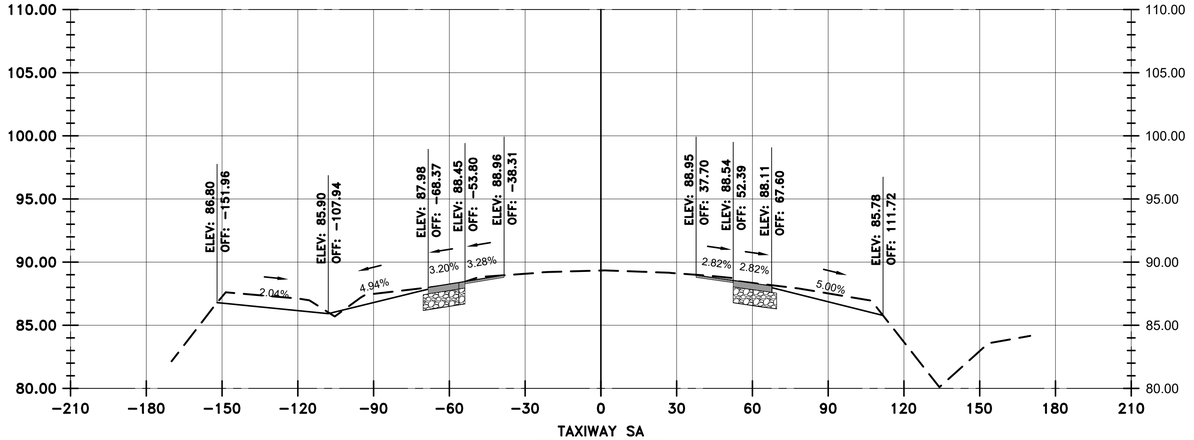

TAXIWAY SA
STA: 2014+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 4

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.04

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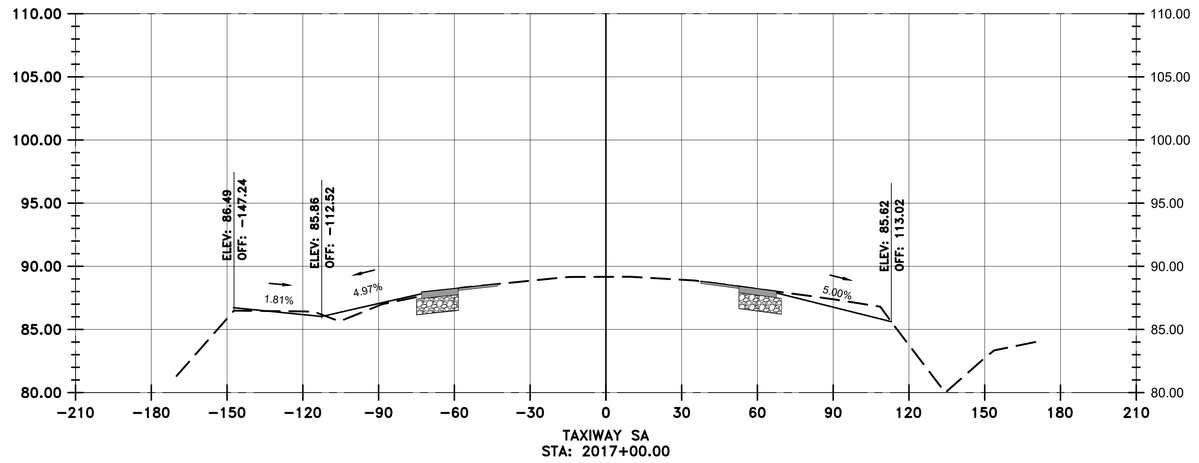

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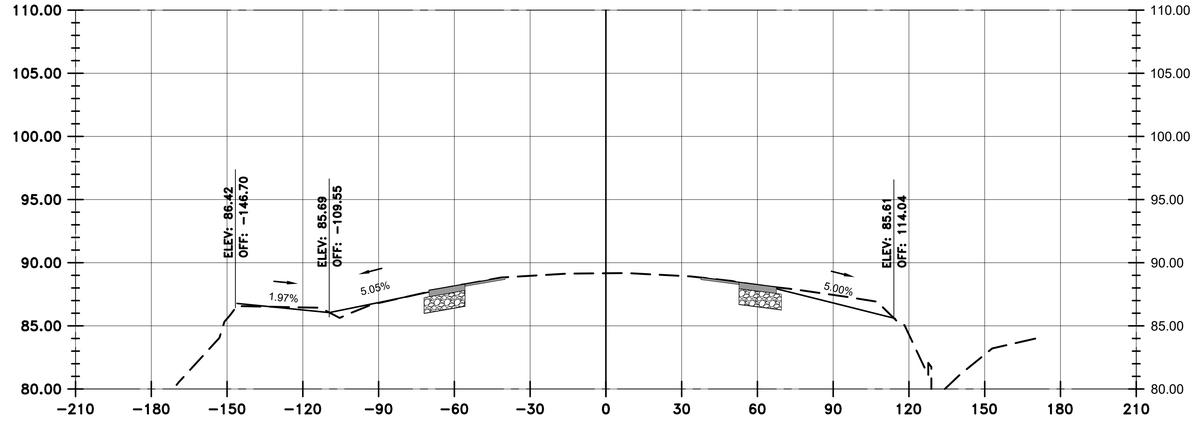

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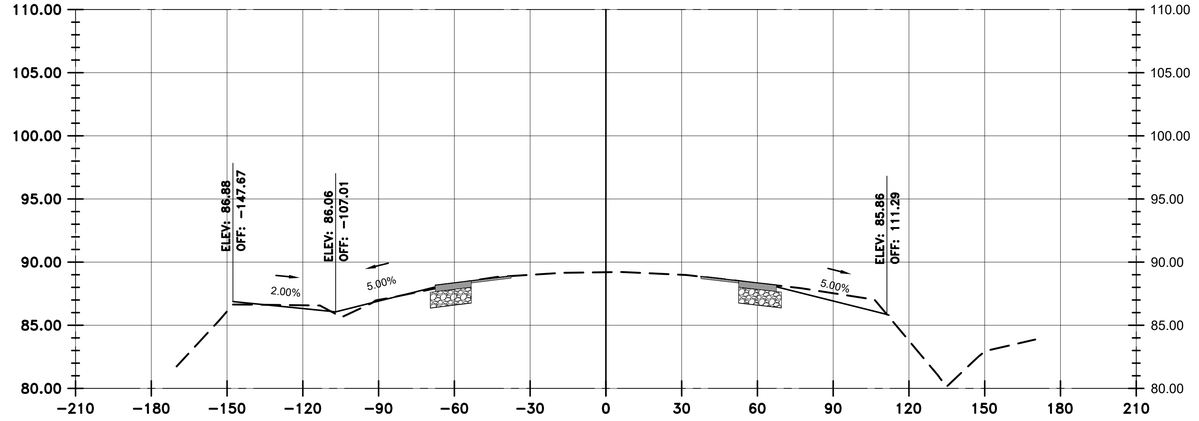

TAXIWAY SA
STA: 2016+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 5

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.05

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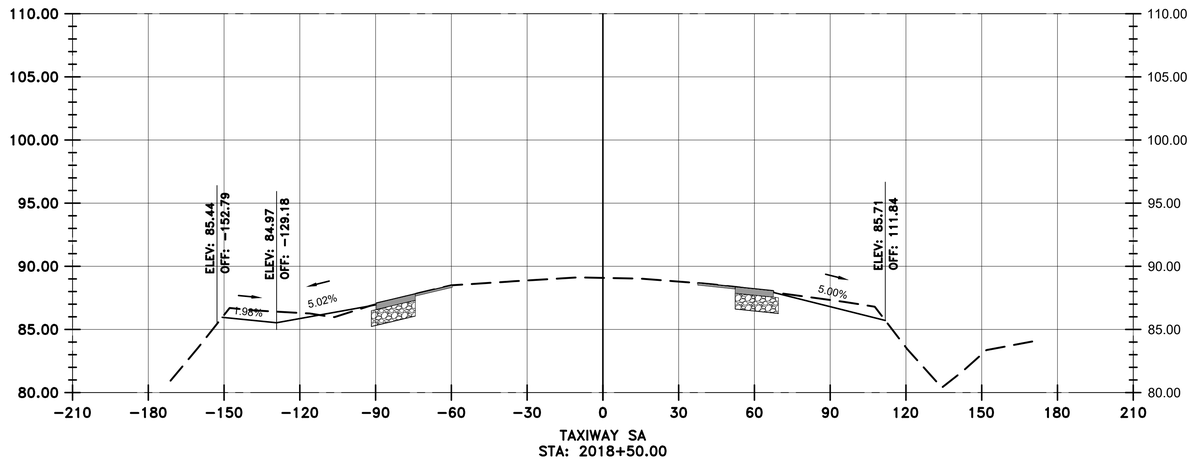

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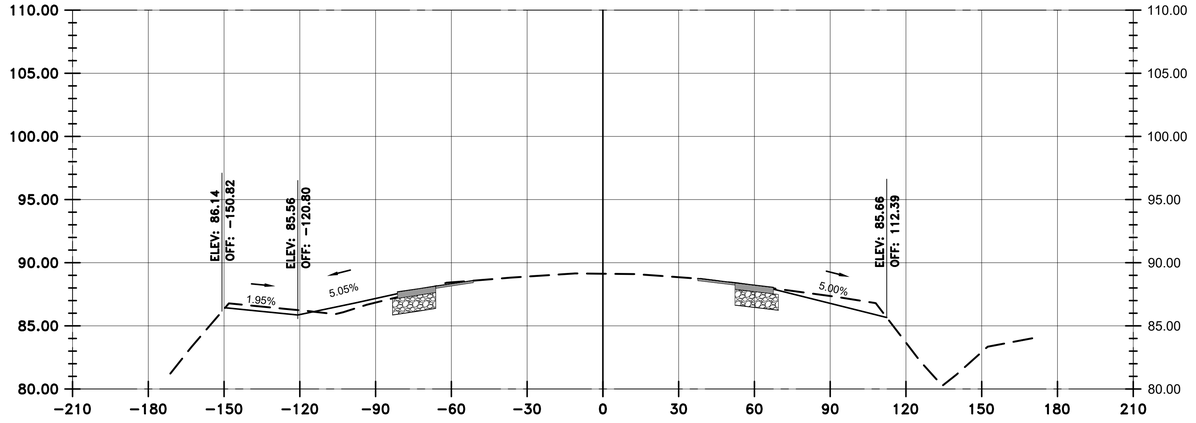

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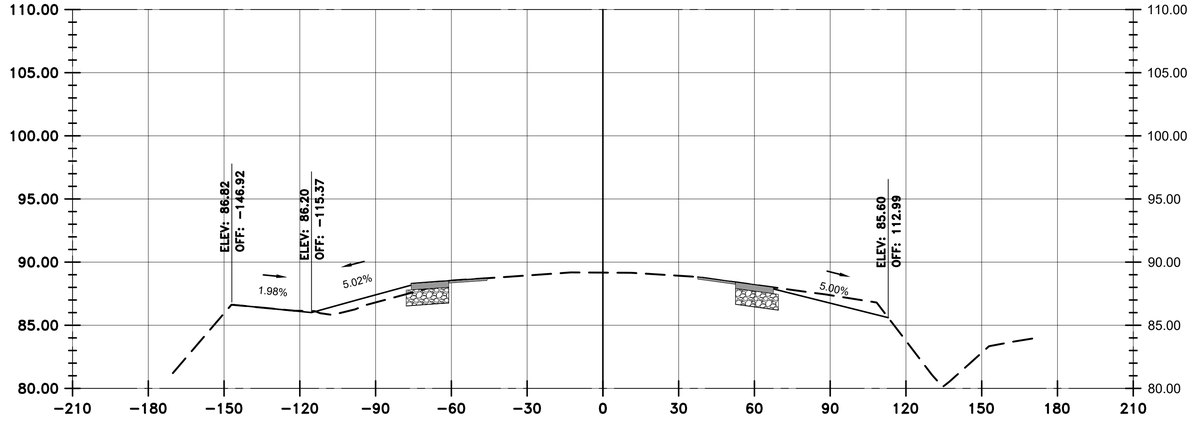

TAXIWAY SA
STA: 2017+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 6

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.06

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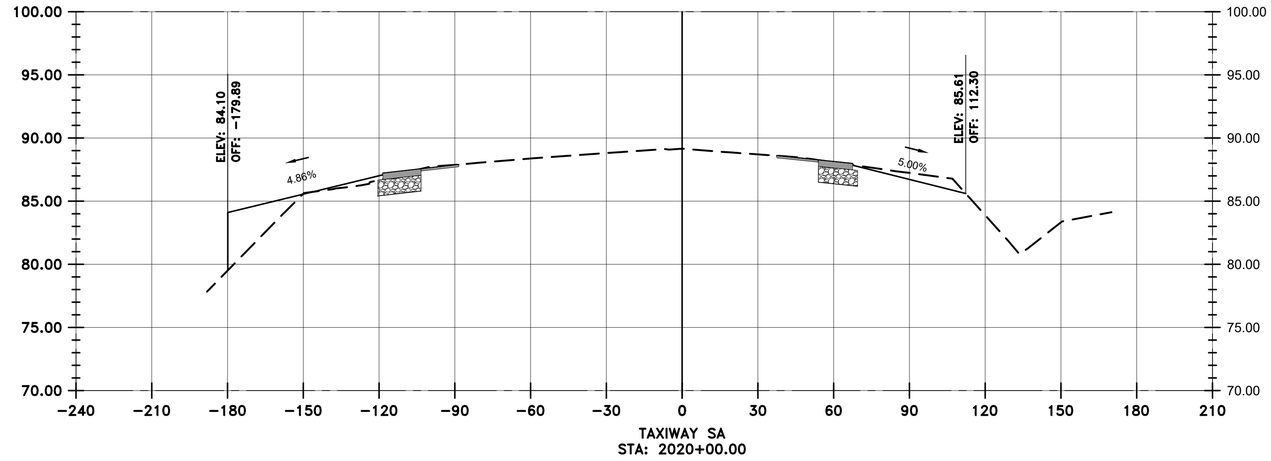

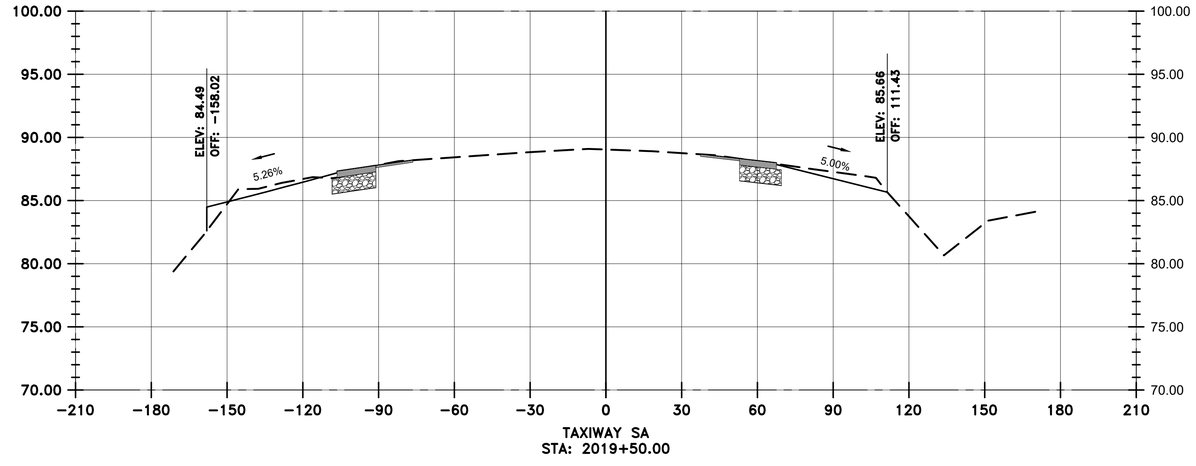

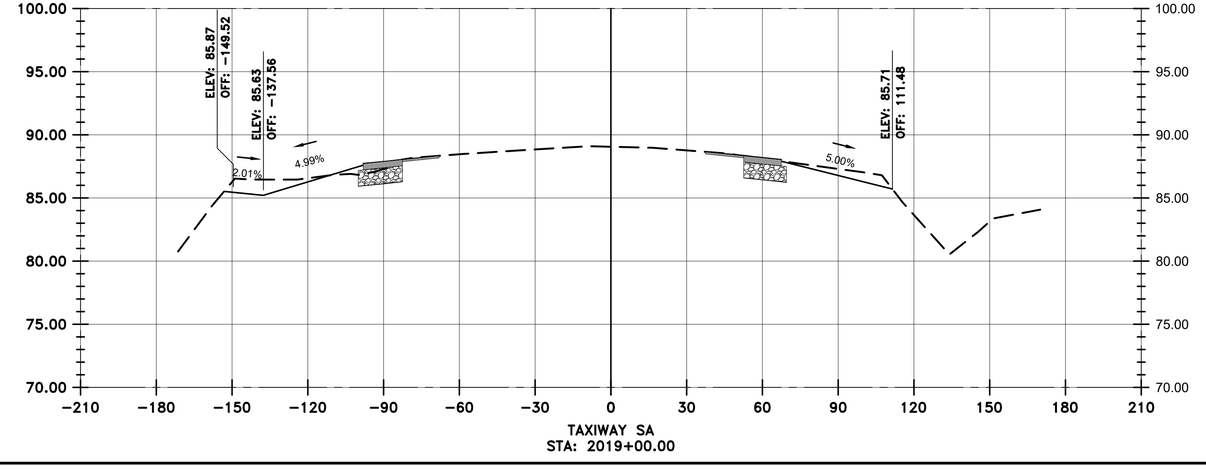

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 7

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.07

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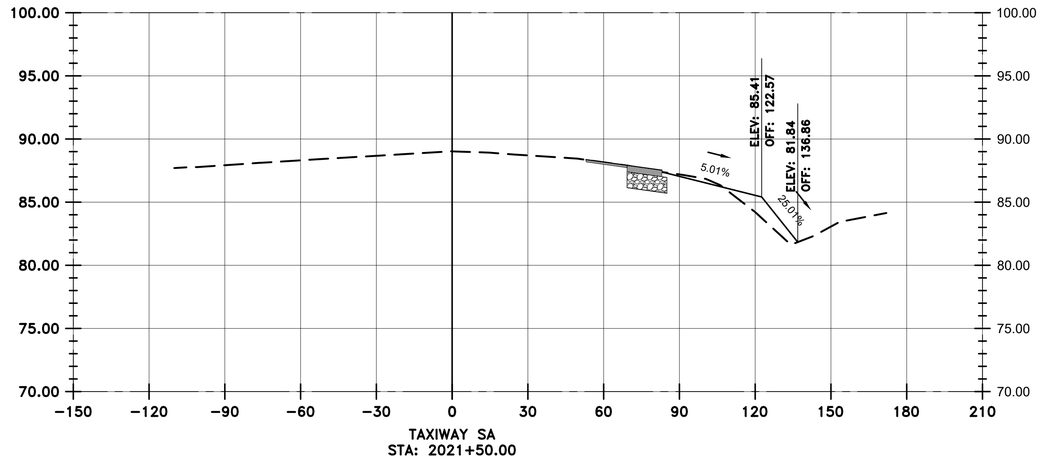

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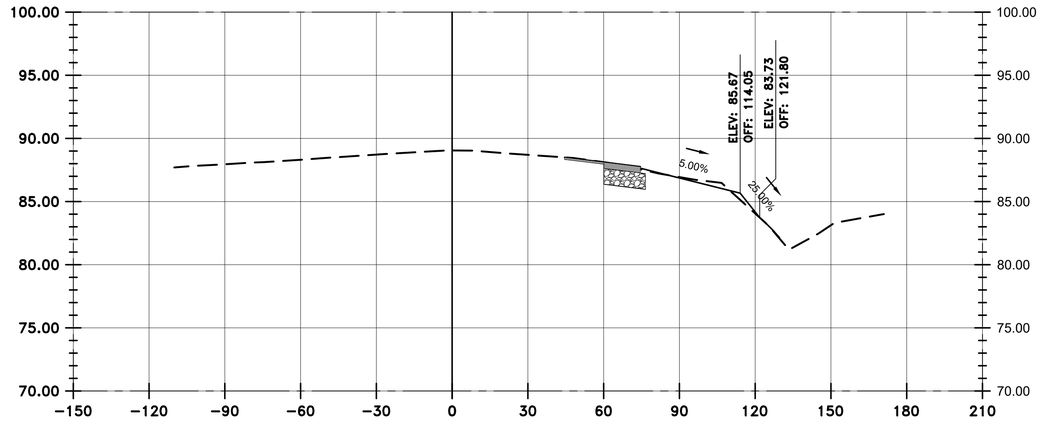
STA: 2021+50.00



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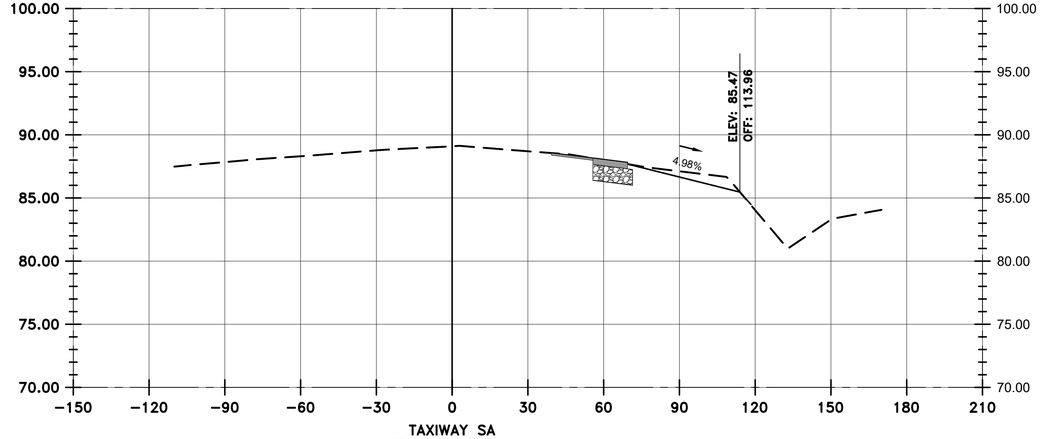

TAXIWAY SA
STA: 2020+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 8

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.08

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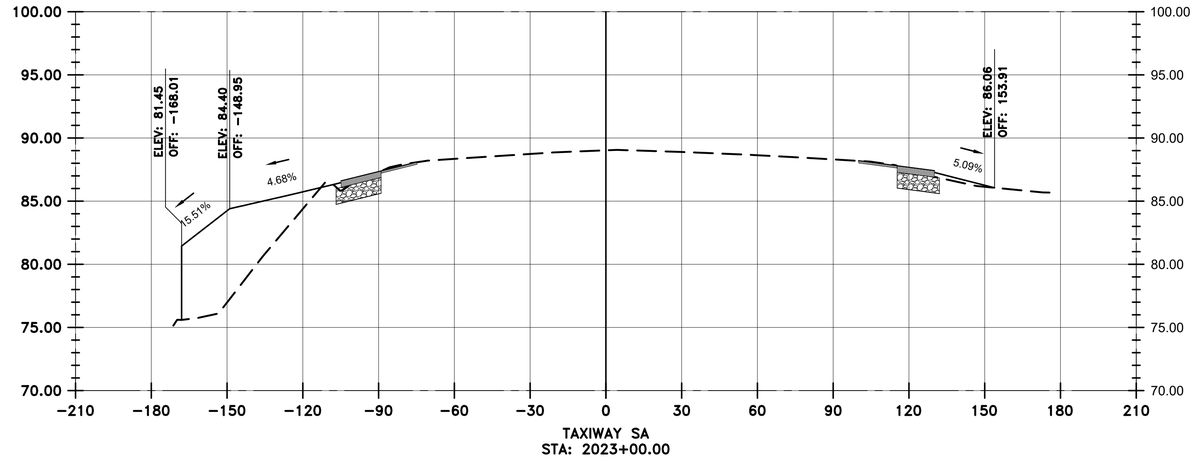

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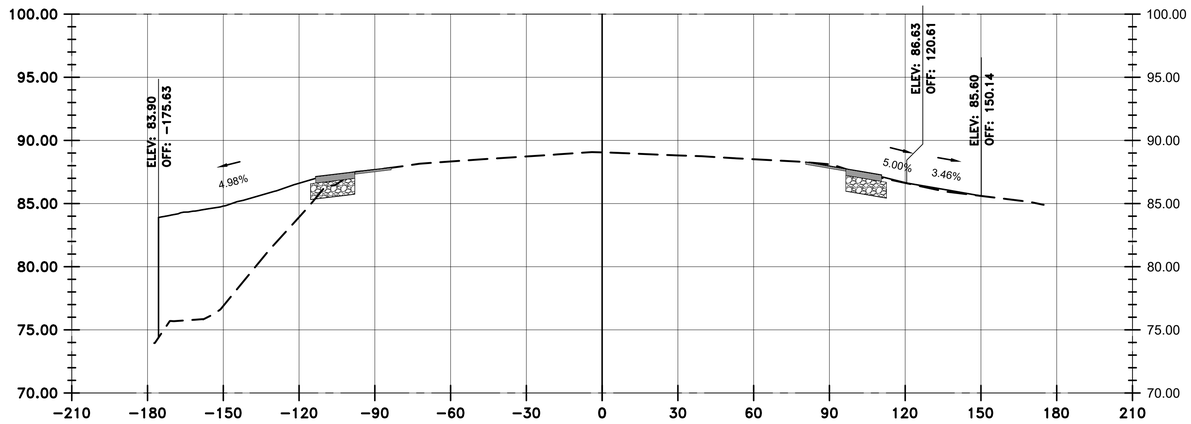

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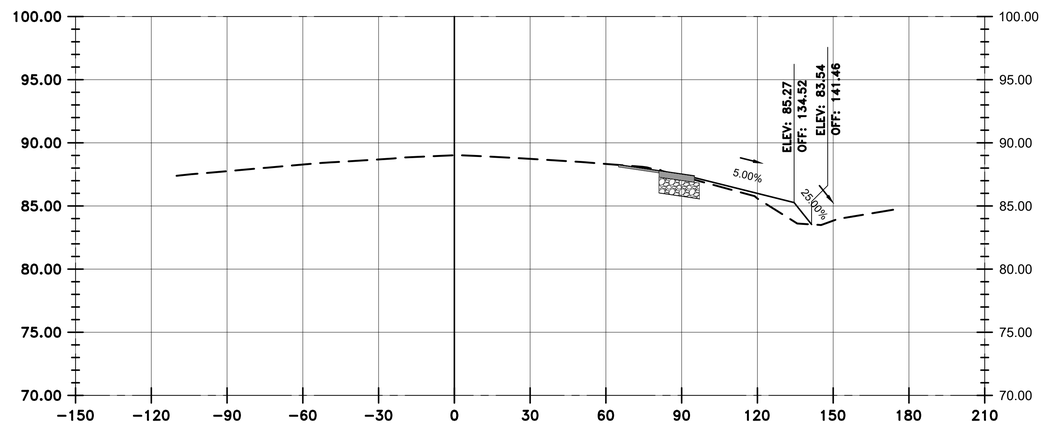

TAXIWAY SA
STA: 2022+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 9

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.09

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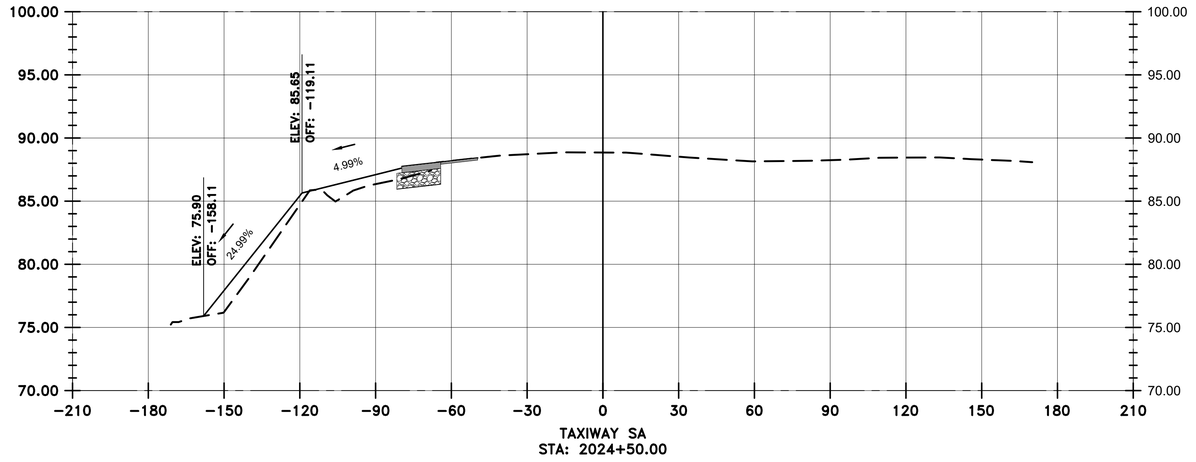

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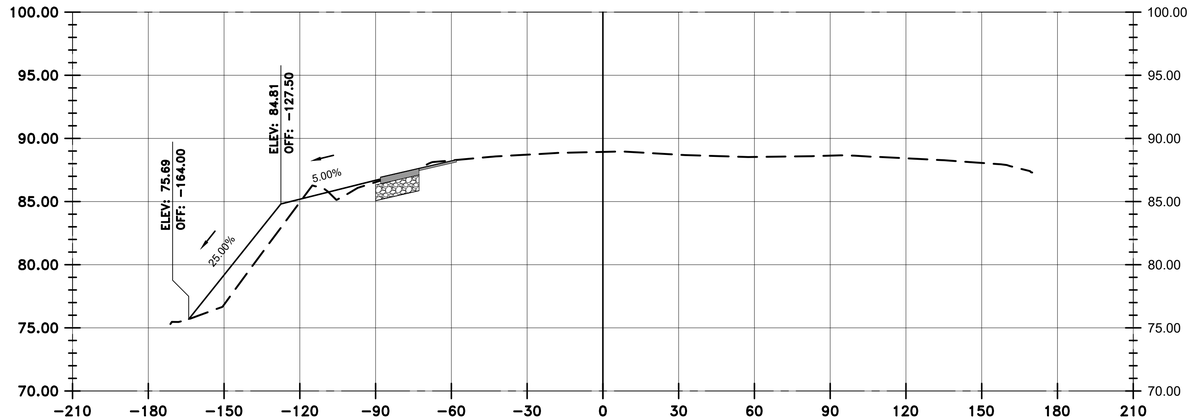

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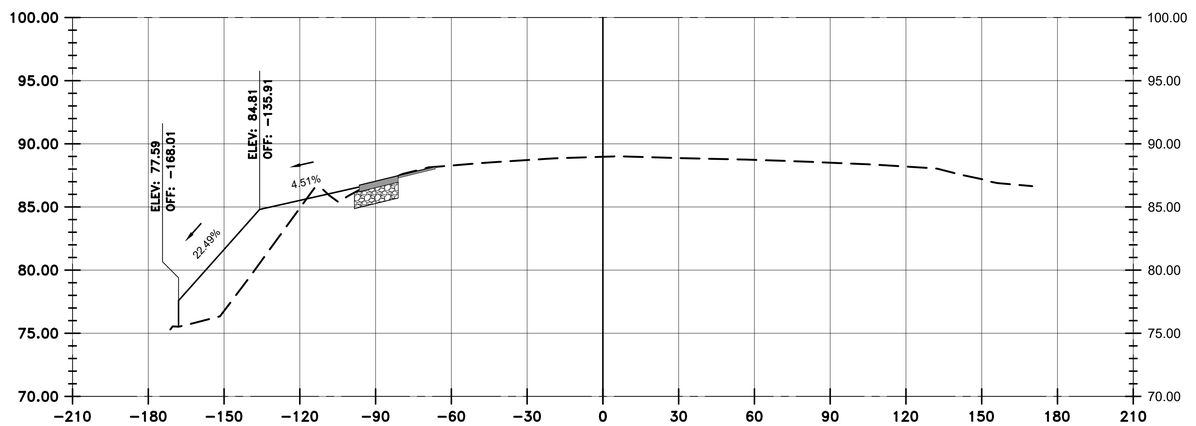

TAXIWAY SA
STA: 2023+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 10

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.10

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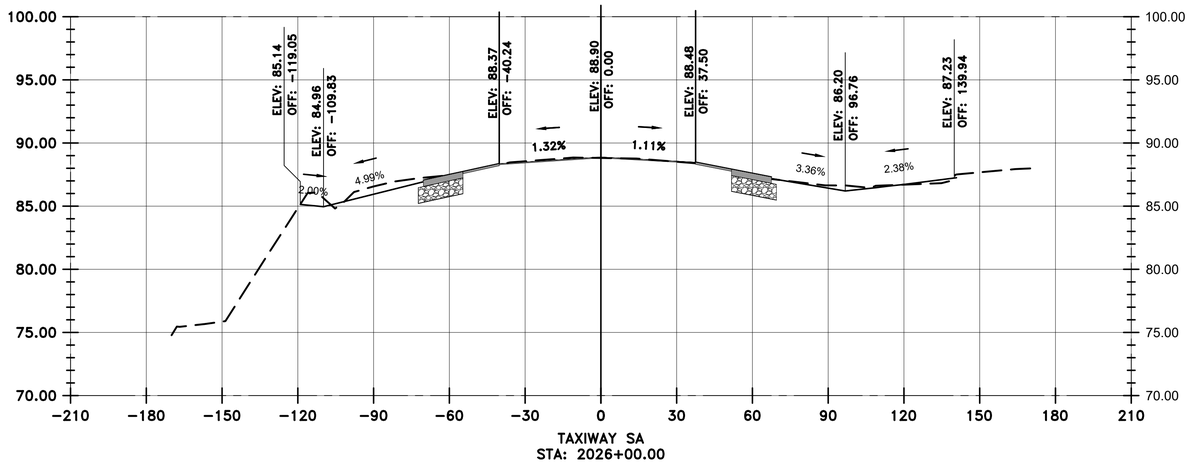

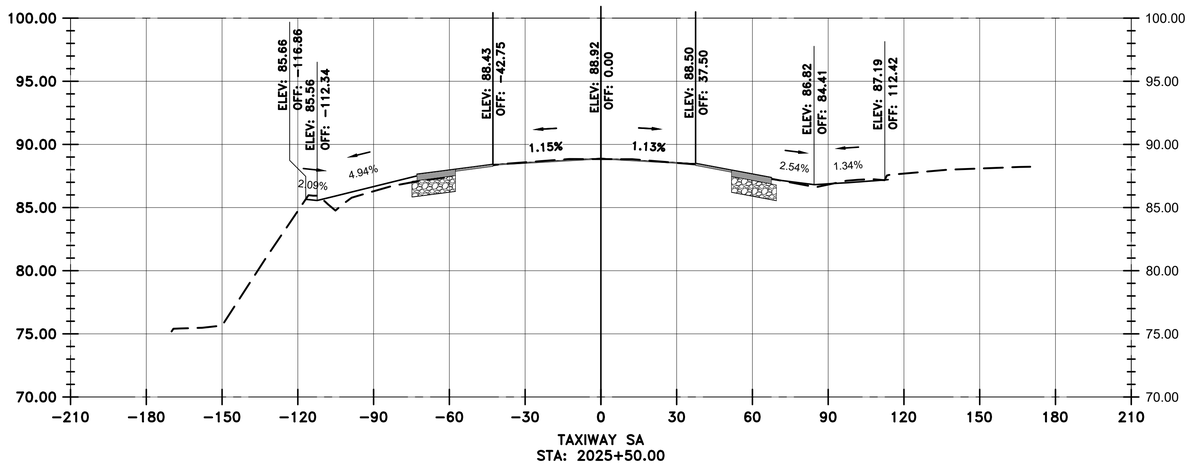

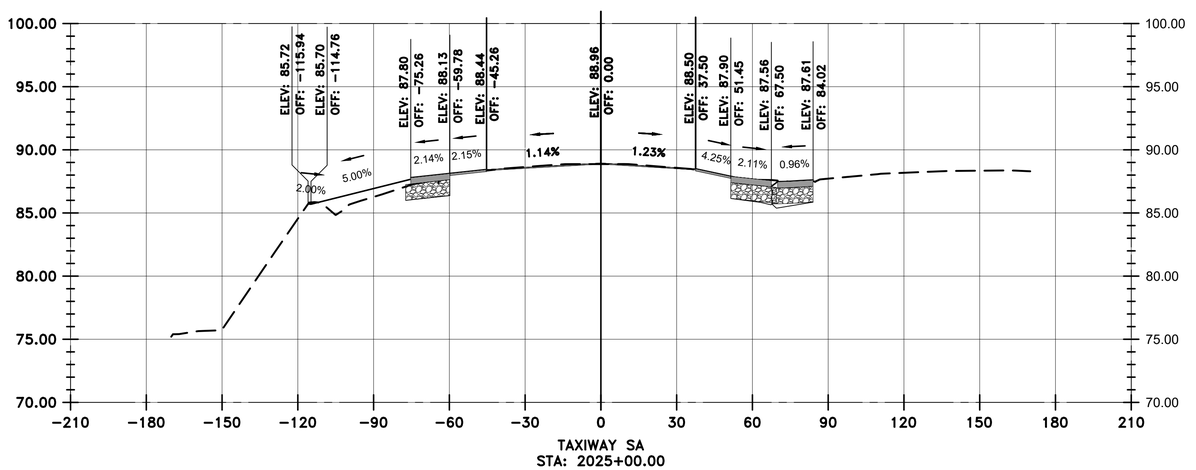

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 11

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.11

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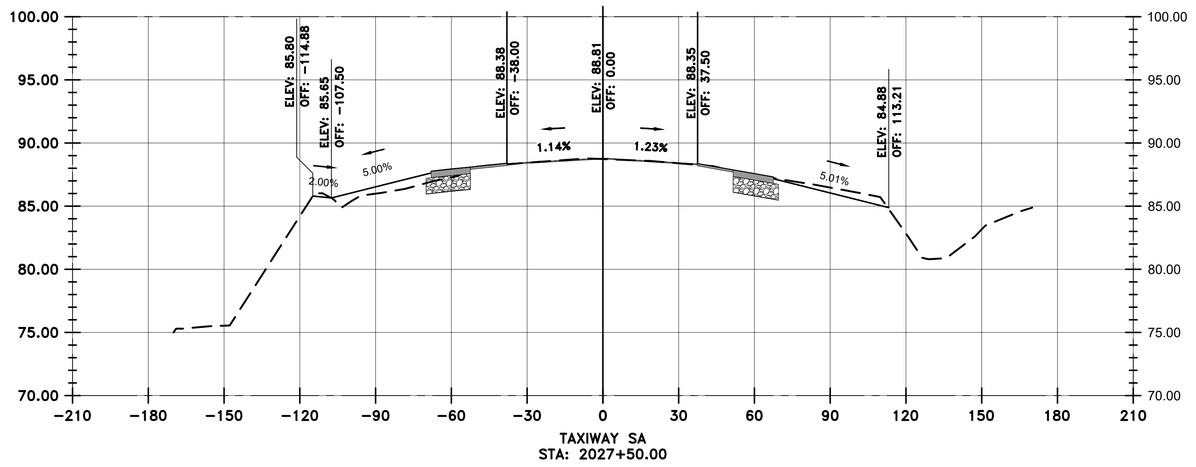

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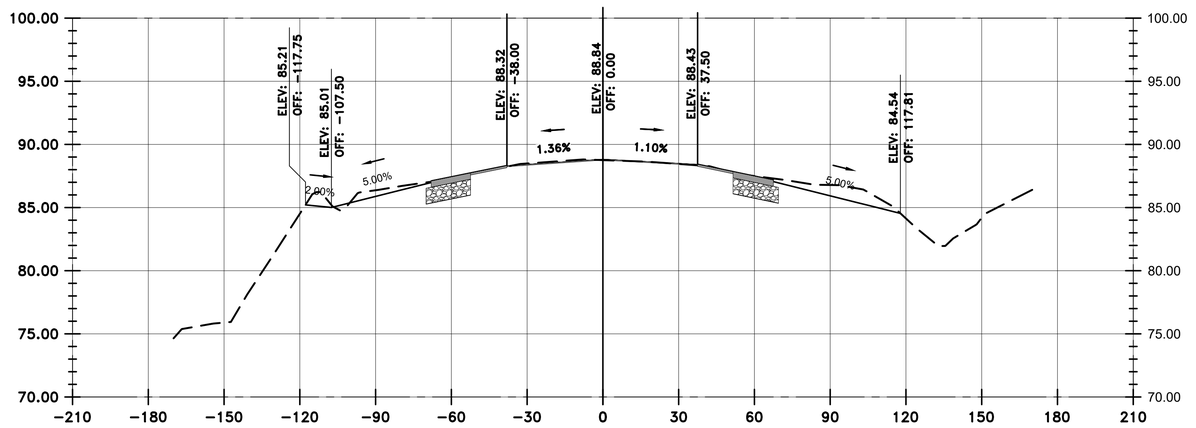
STA: 2027+50.00



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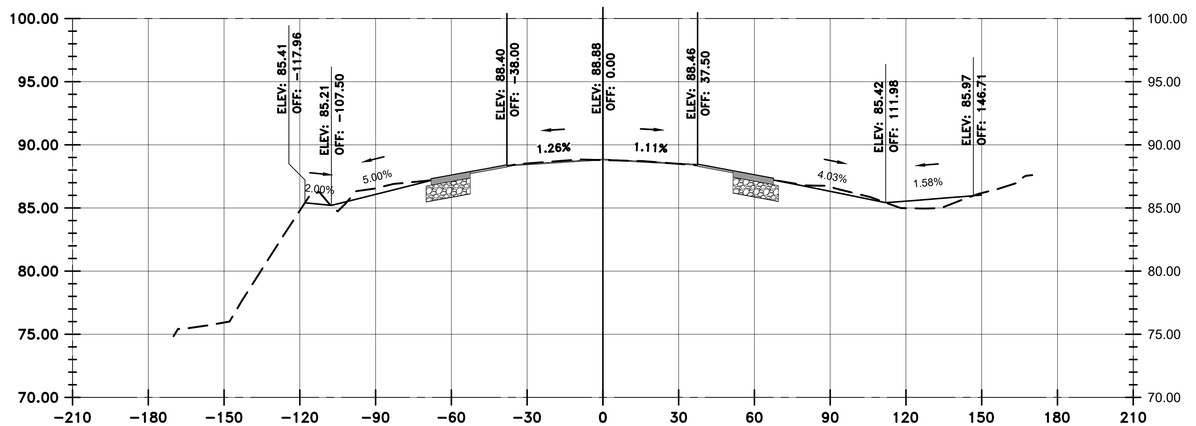

TAXIWAY SA
STA: 2026+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 12

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.12

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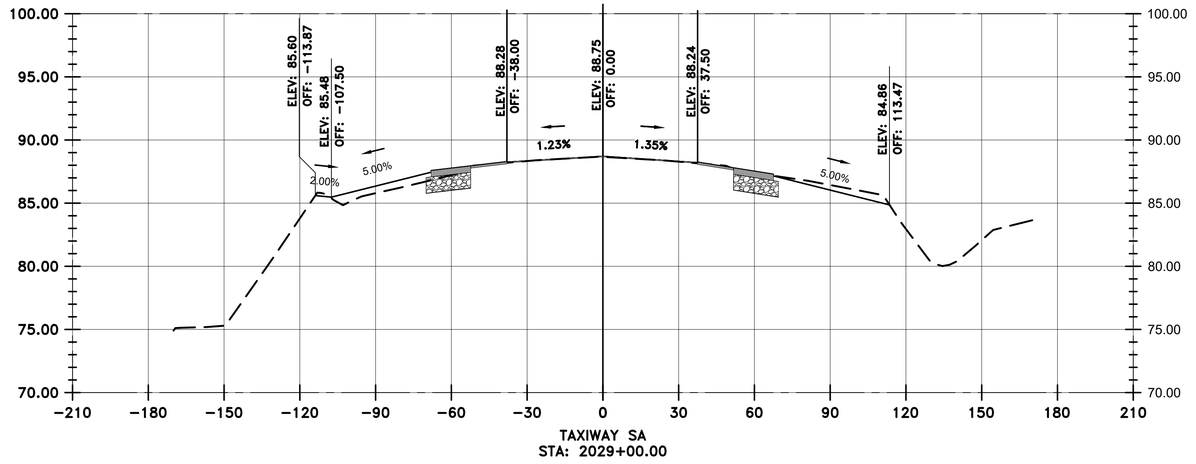
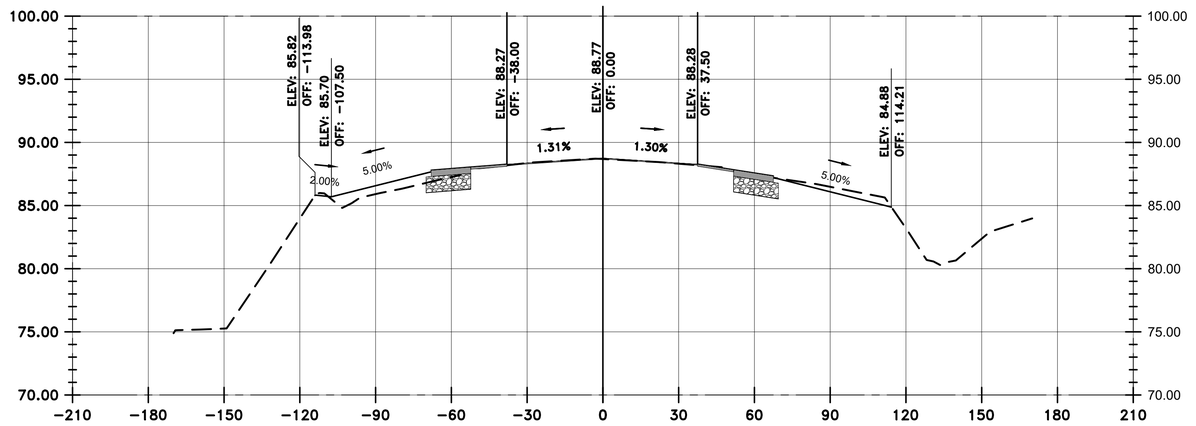


TAXIWAY SA
STA: 2029+00.00



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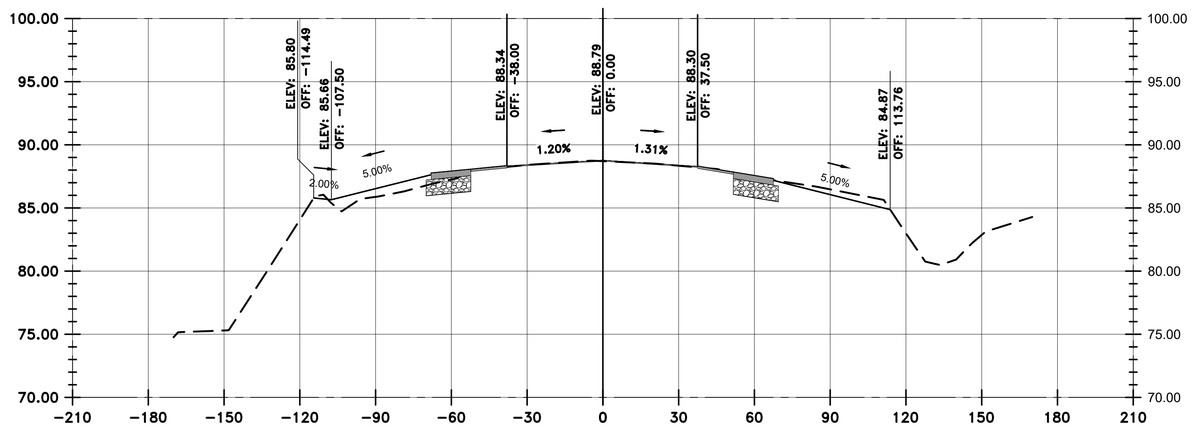

TAXIWAY SA
STA: 2028+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 13

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.13

HAS FILE: c:\Users\dagranato\onedrive - garver\06646.2\06 - Typcial Sections\Model Files\06646CSC.dwg
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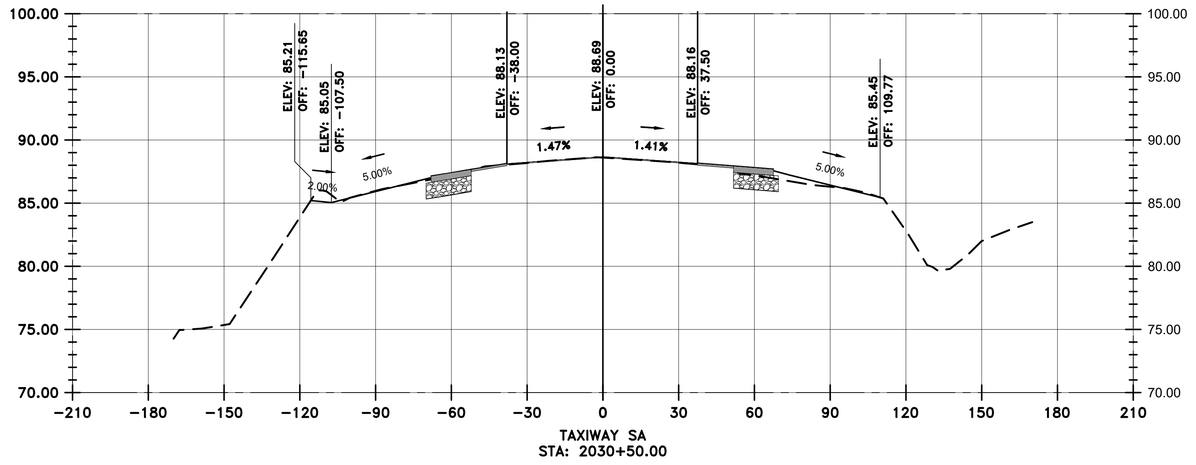

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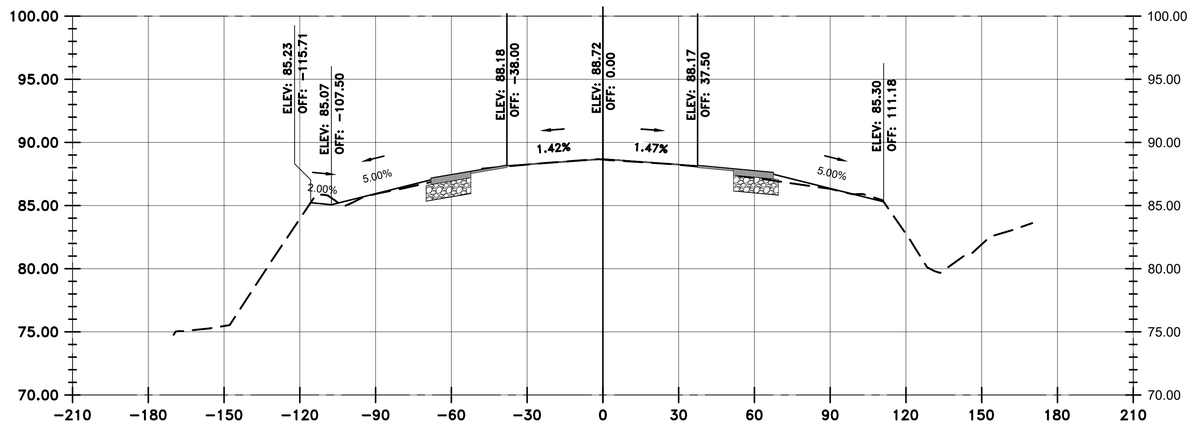

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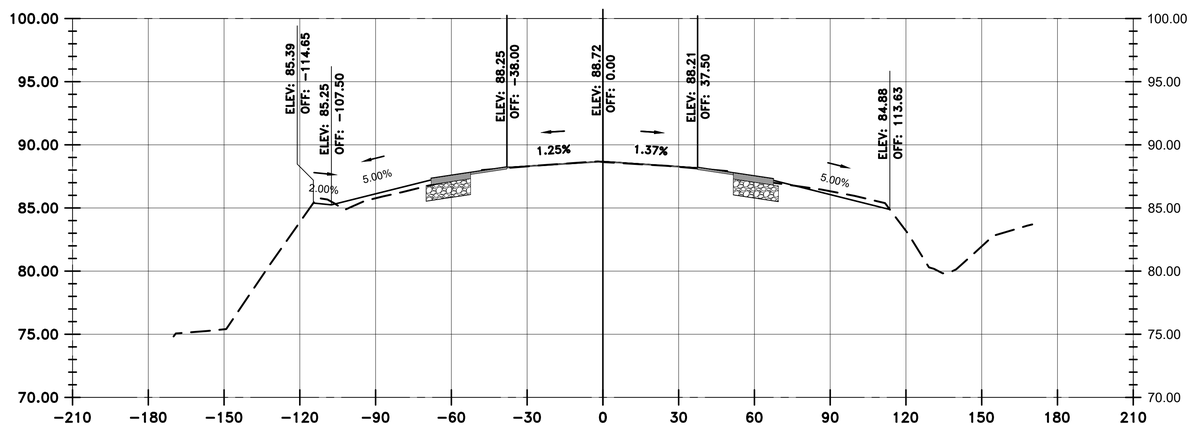

TAXIWAY SA
STA: 2029+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 14

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.14

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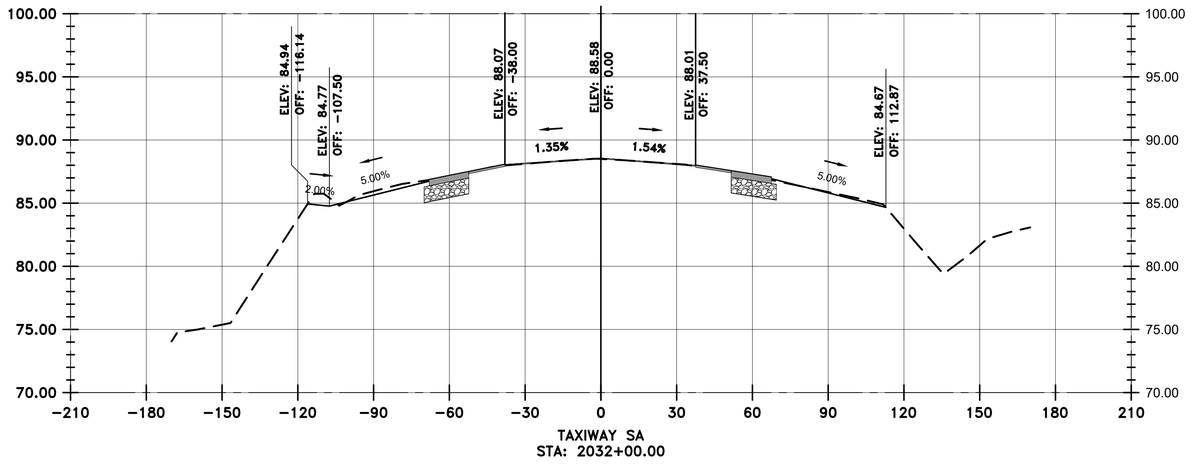

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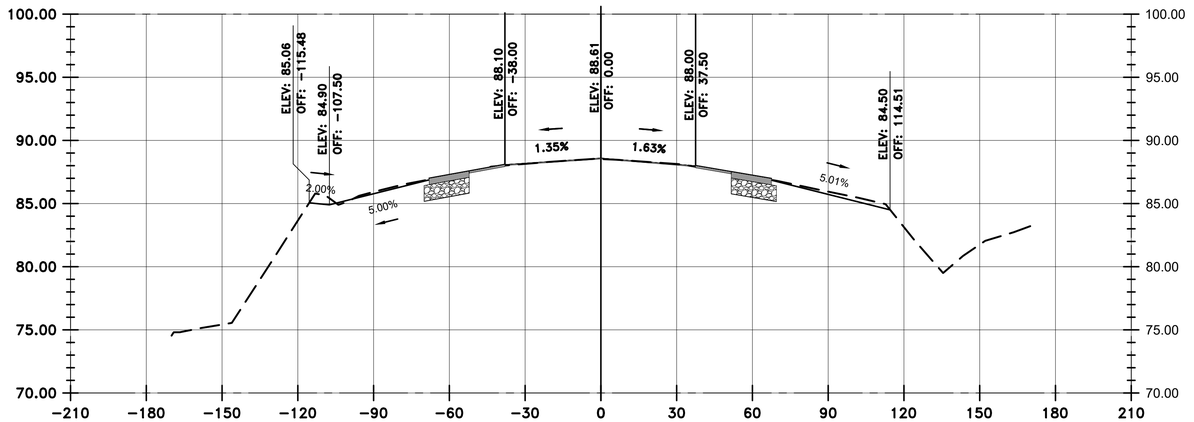

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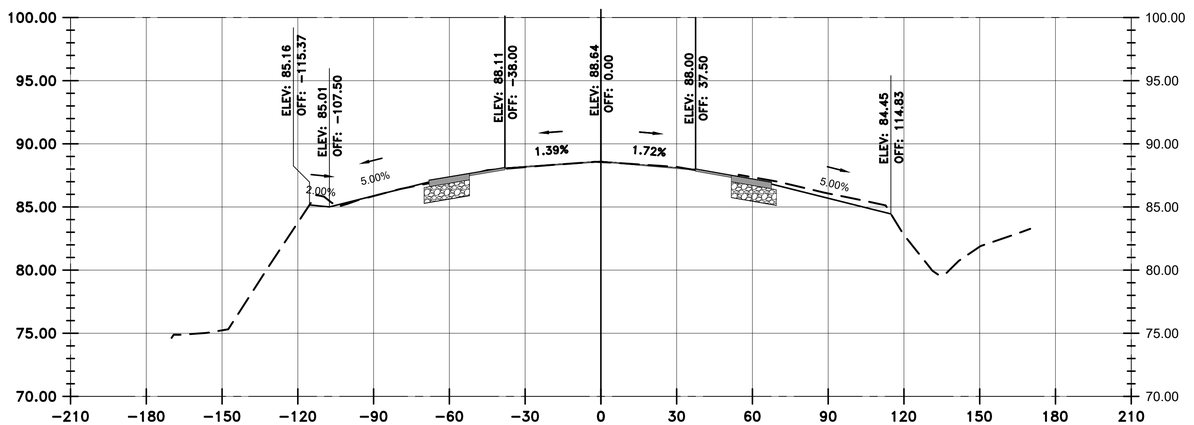

TAXIWAY SA
STA: 2031+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 15

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.15

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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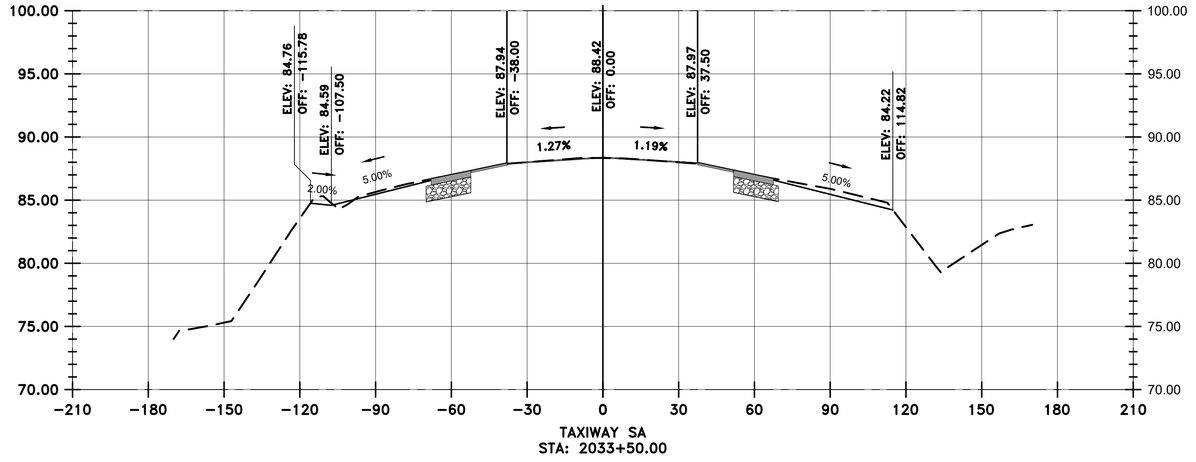

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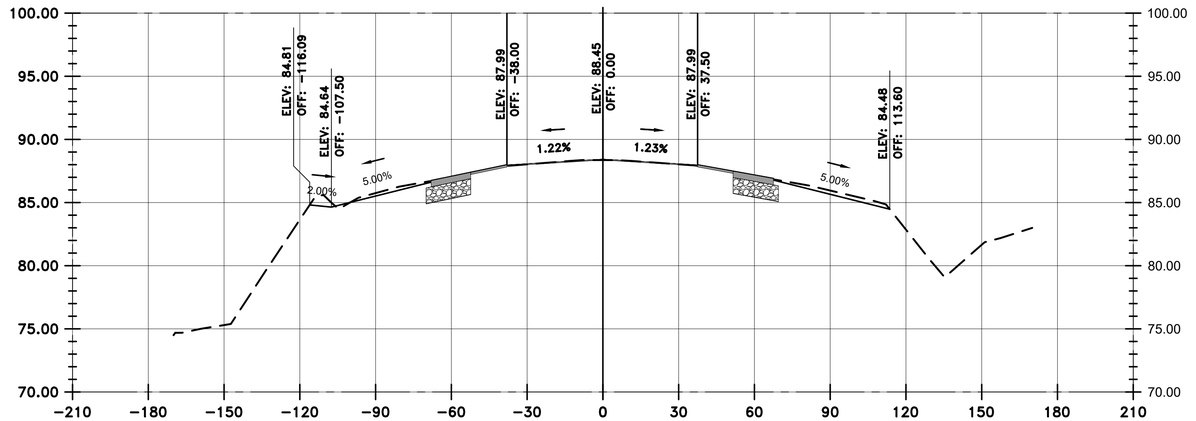

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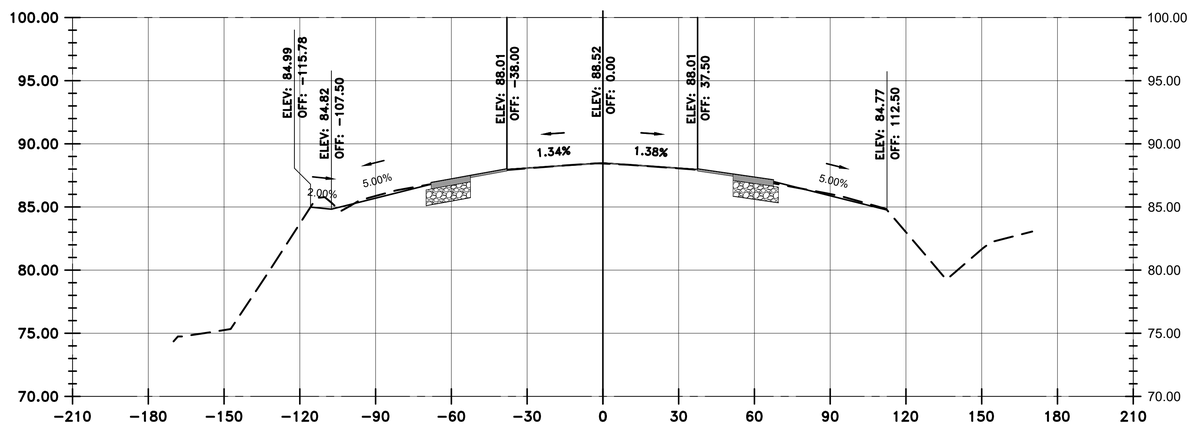

TAXIWAY SA
STA: 2032+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
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Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 16

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.16

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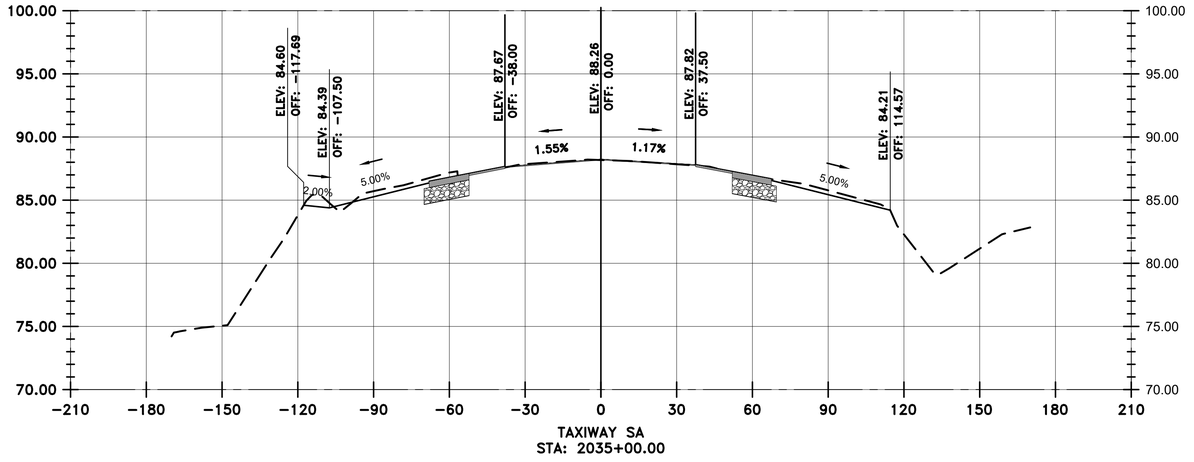

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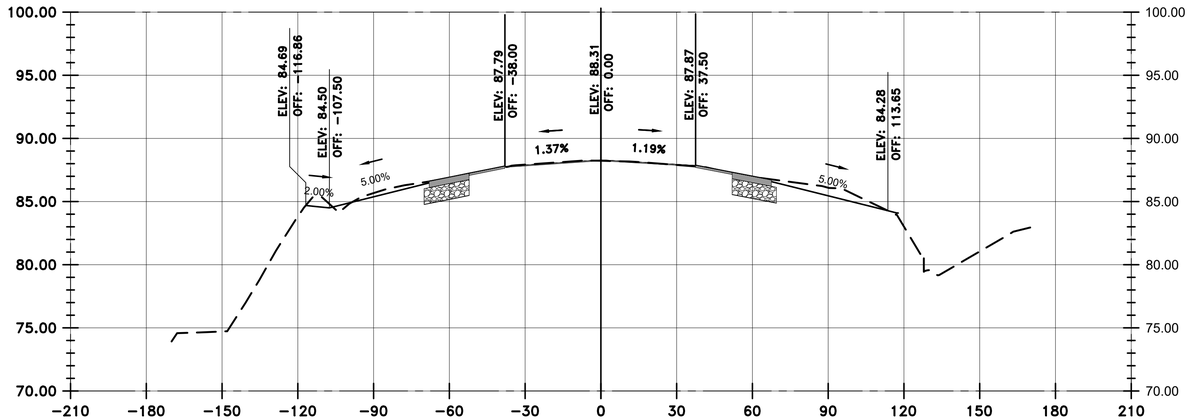

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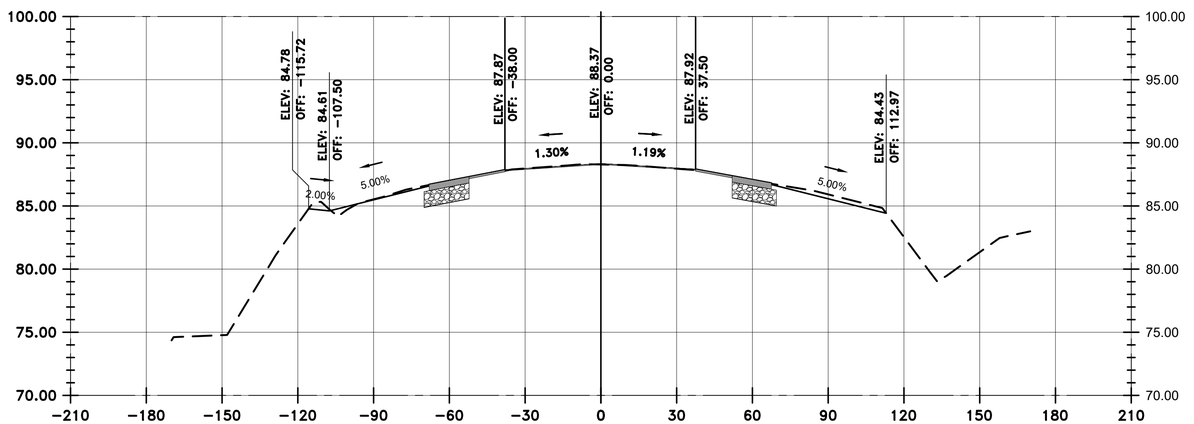

TAXIWAY SA
STA: 2034+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 17

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.17

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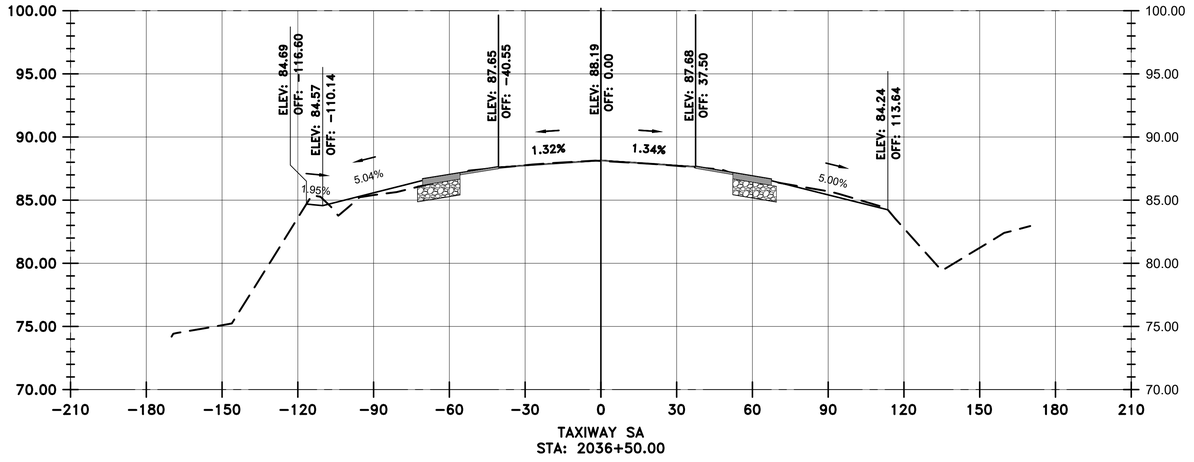

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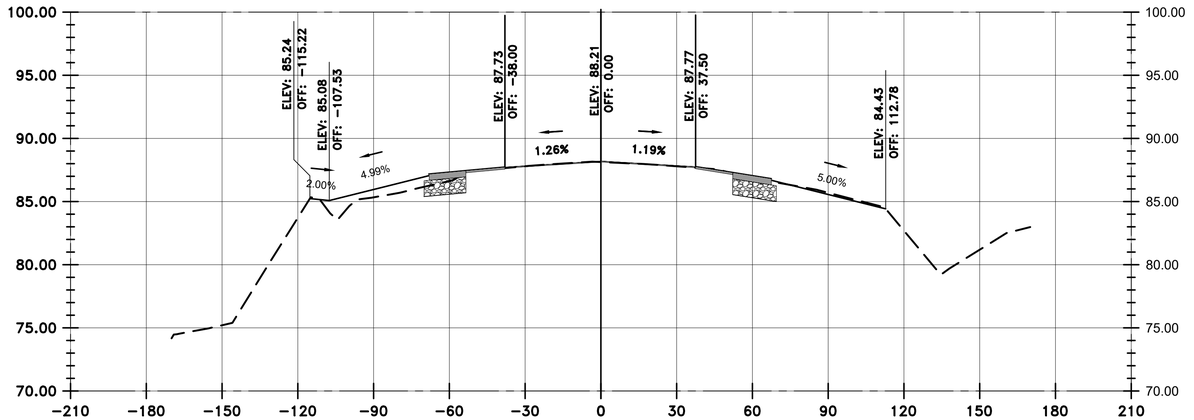

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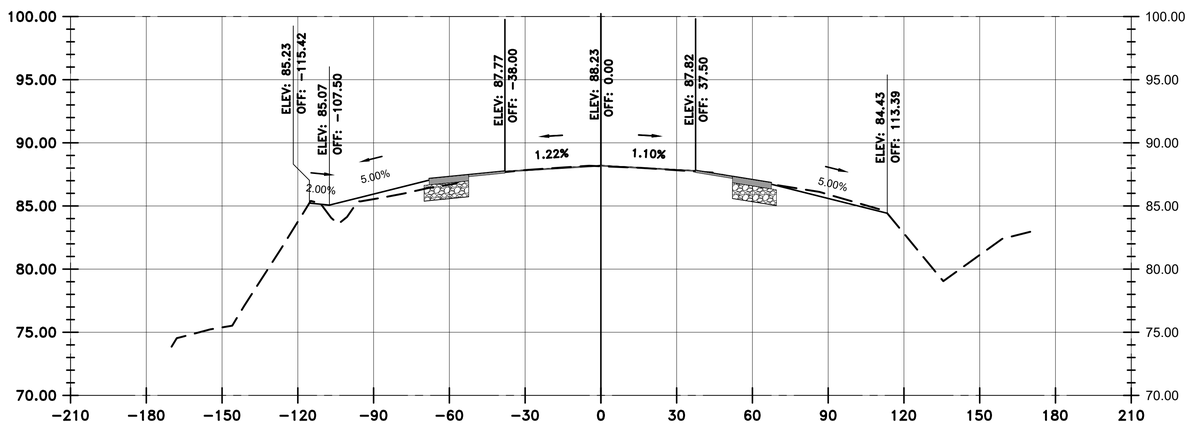

TAXIWAY SA
STA: 2035+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 18

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A
A.I.P. NO.
XXXX
C.I.P. NO.
A-0515
H.A.S. NO.
20C0646A
SHEET NO.
X01.18

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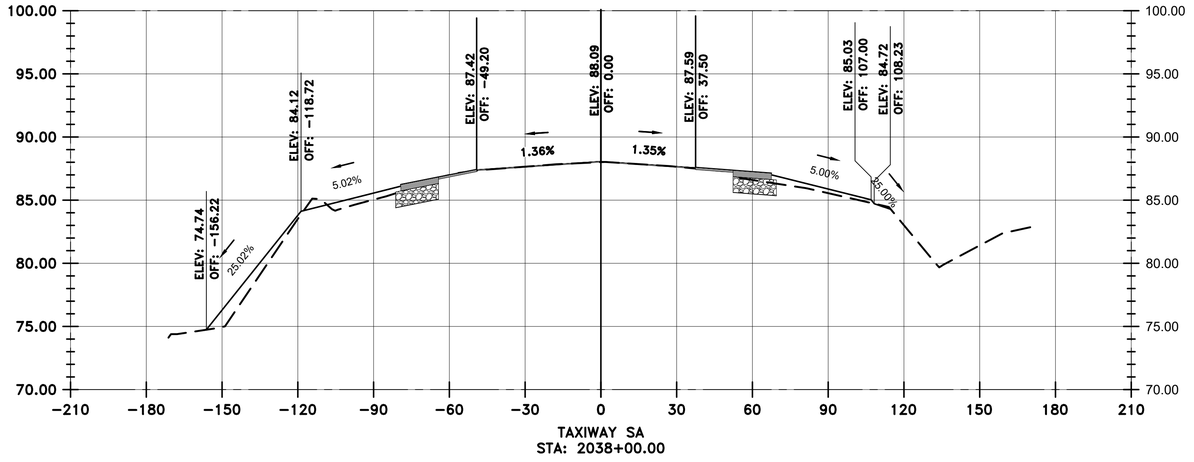

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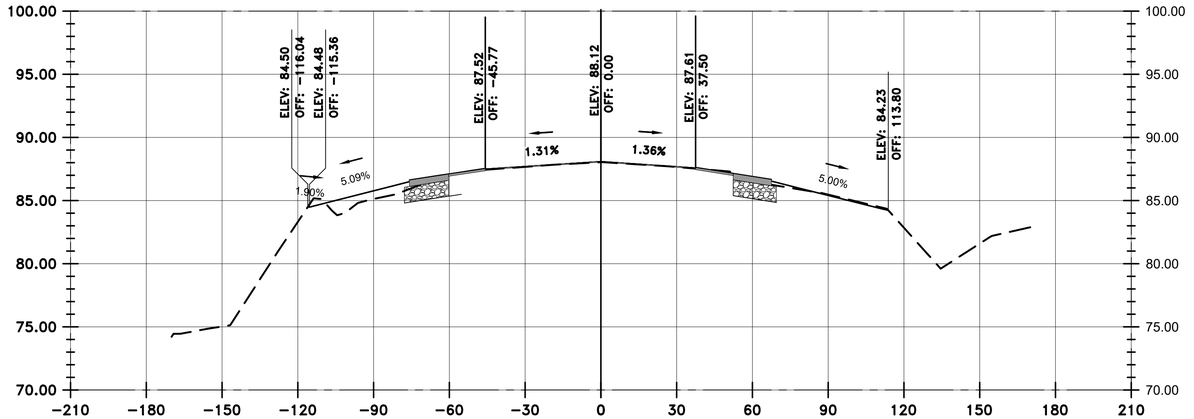

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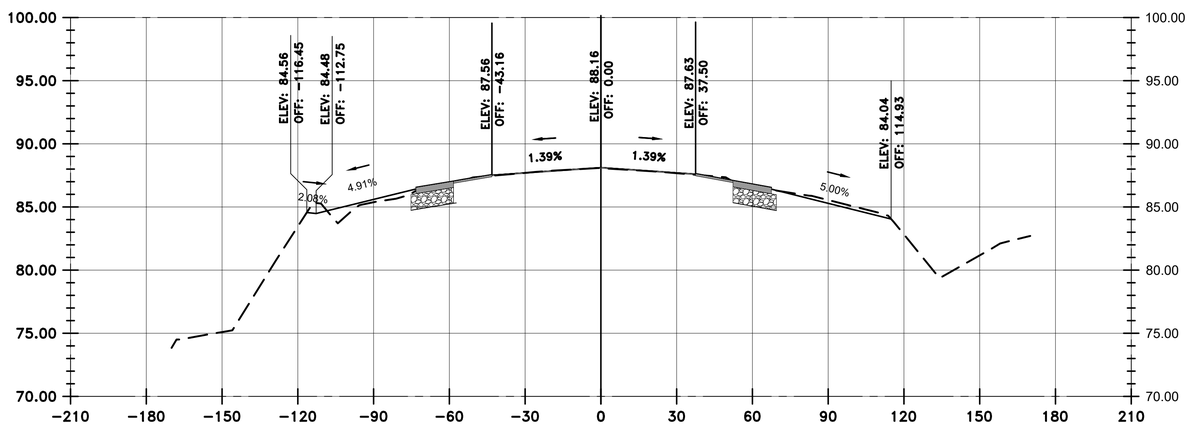

TAXIWAY SA
STA: 2037+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 19

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.19

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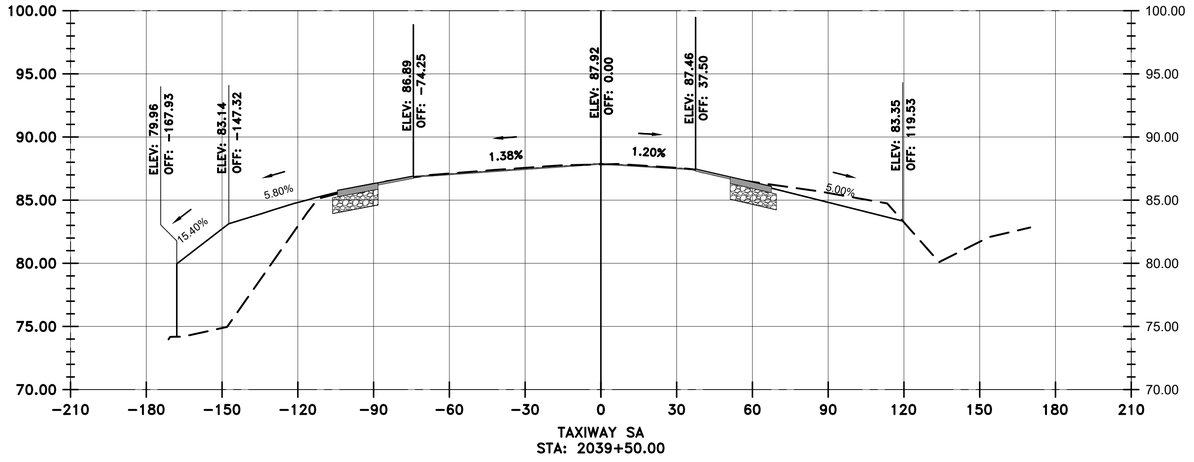

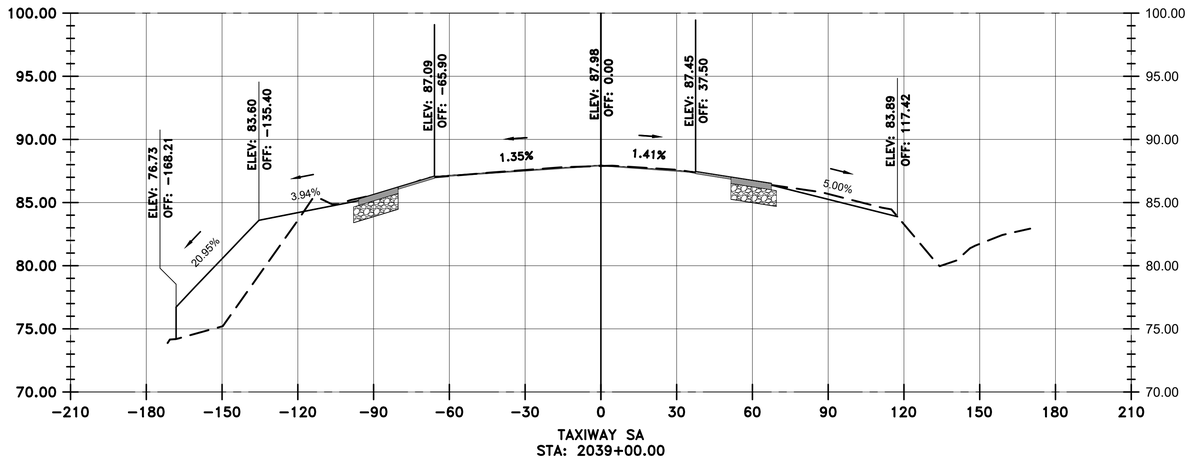

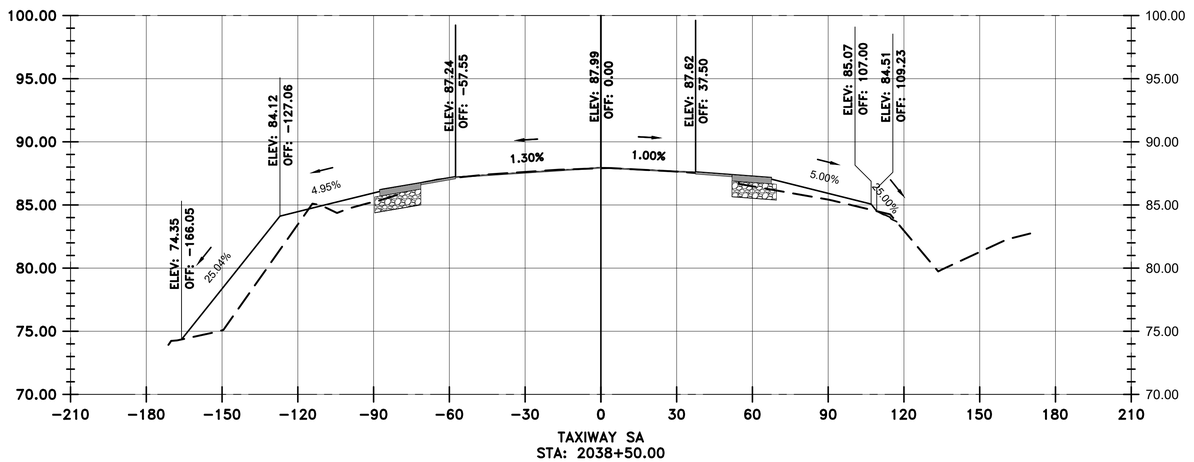

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 20

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

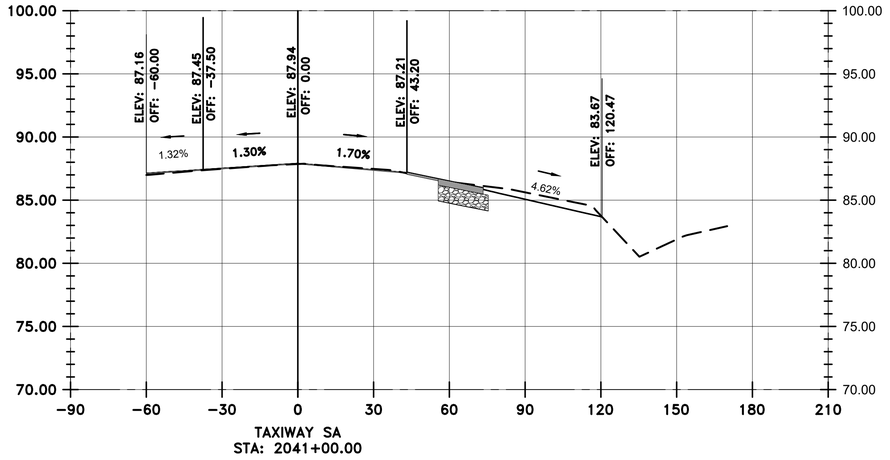
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.20

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



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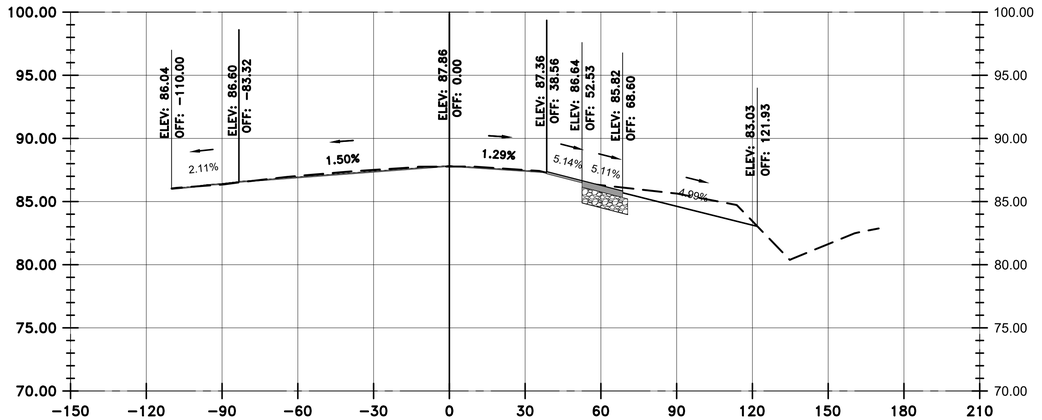
STA: 2041+00.00



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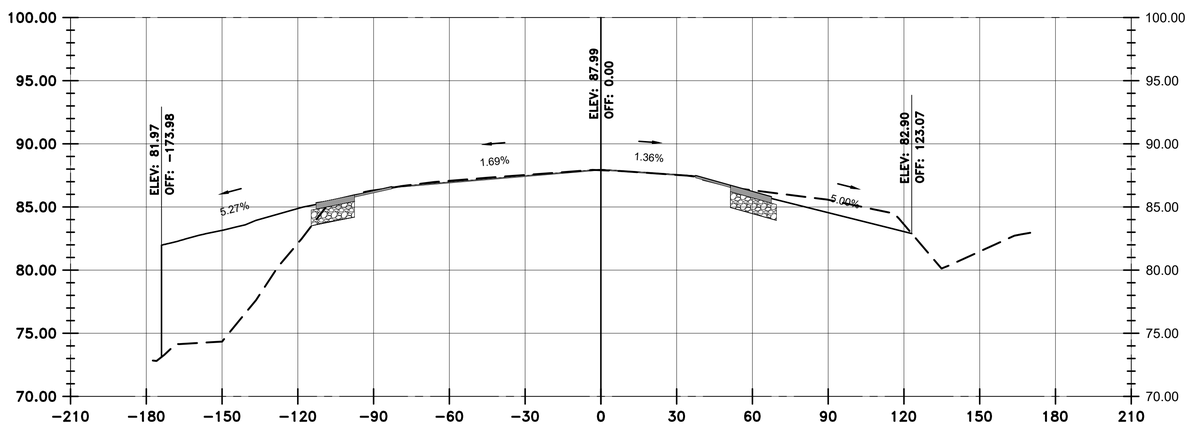
STA: 2040+50.00



TAXIWAY SA
STA: 2040+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 21

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.21

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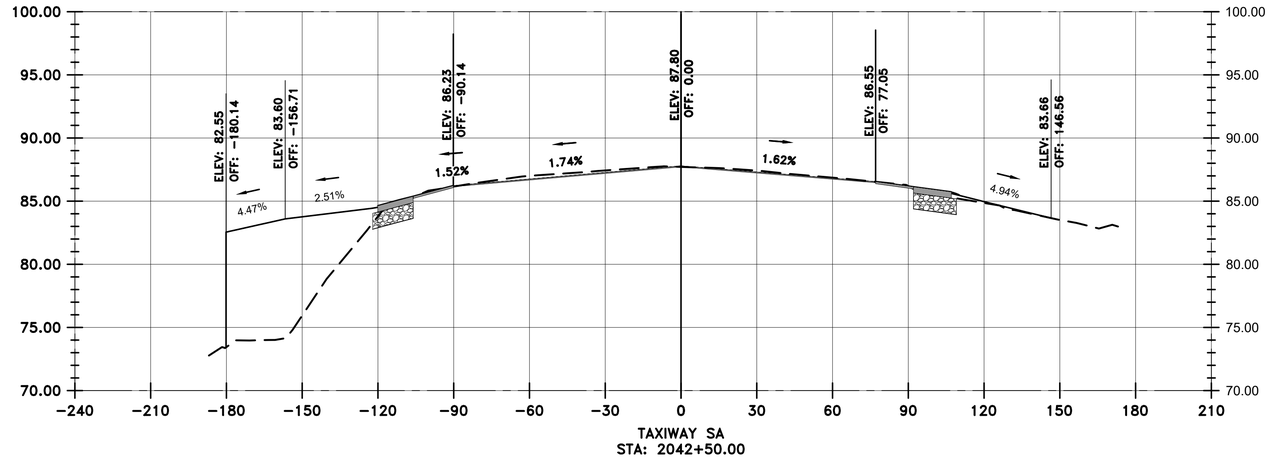

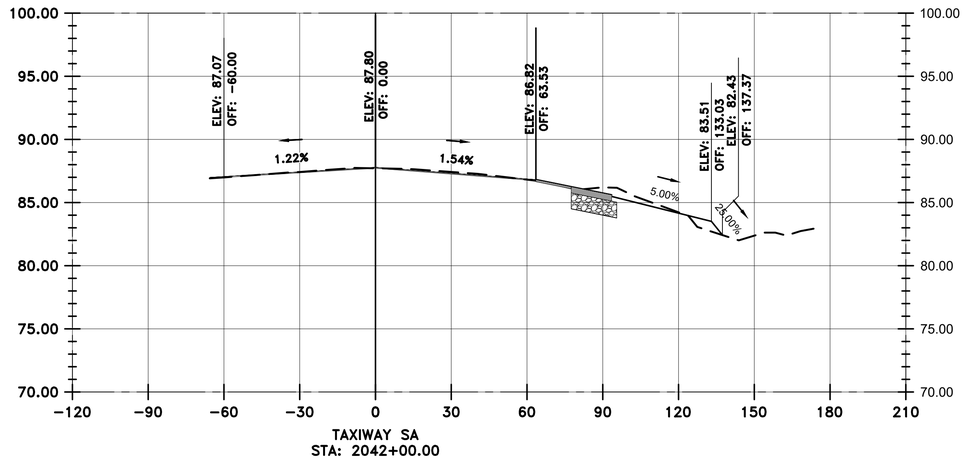

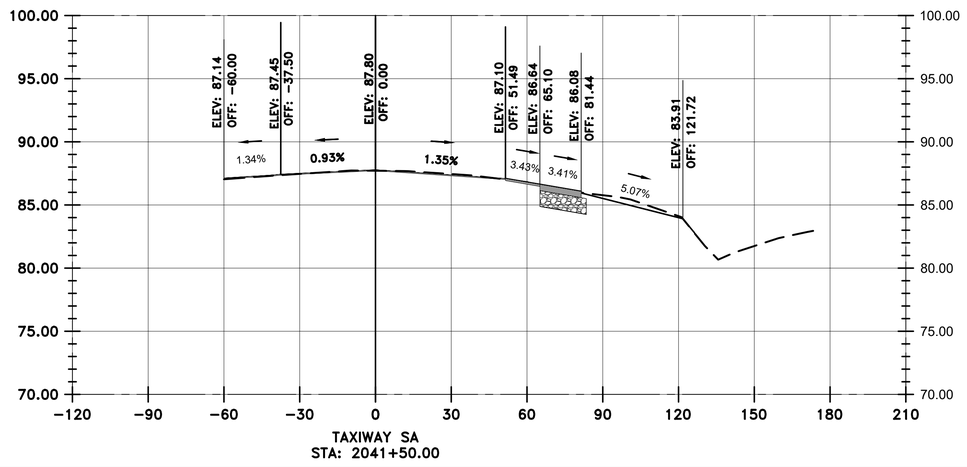

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 22

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.22

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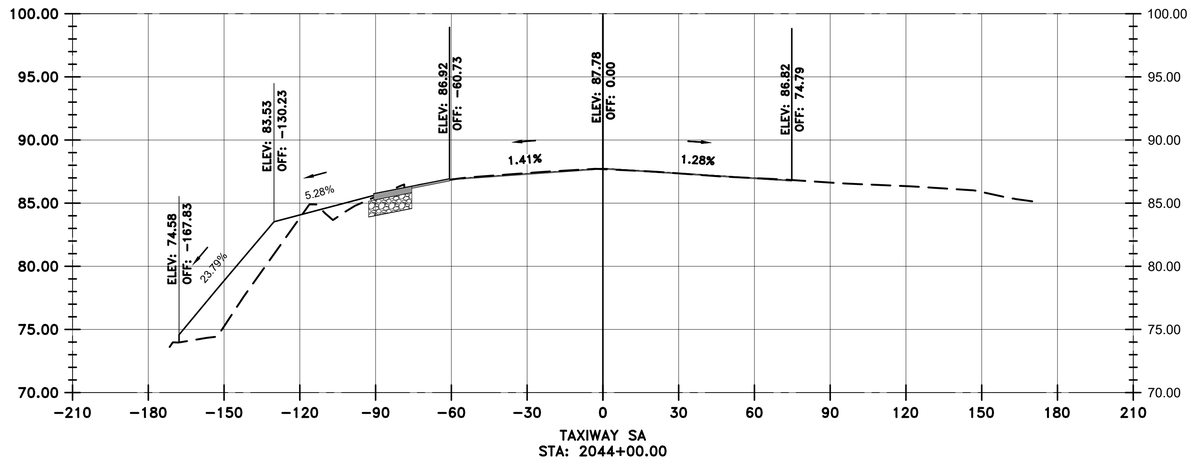

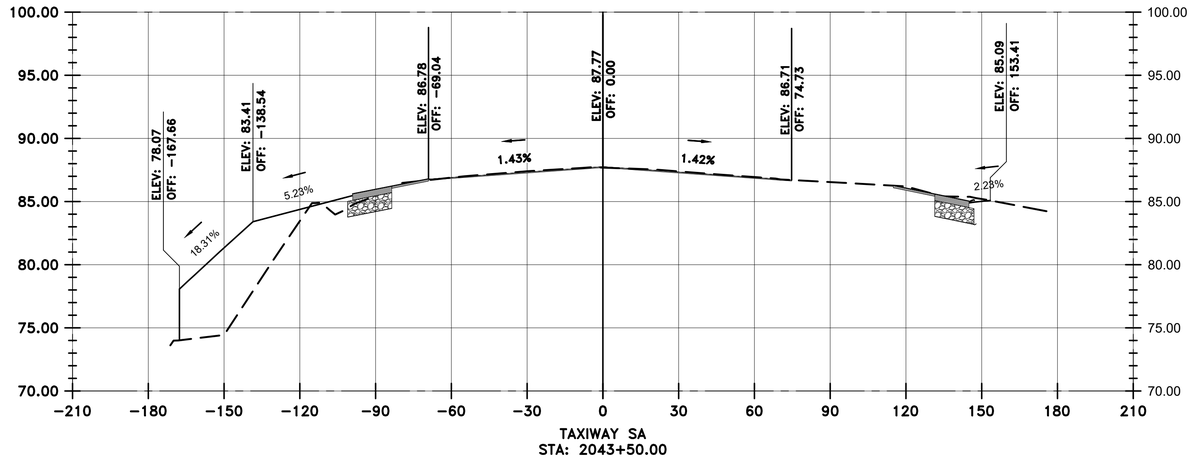

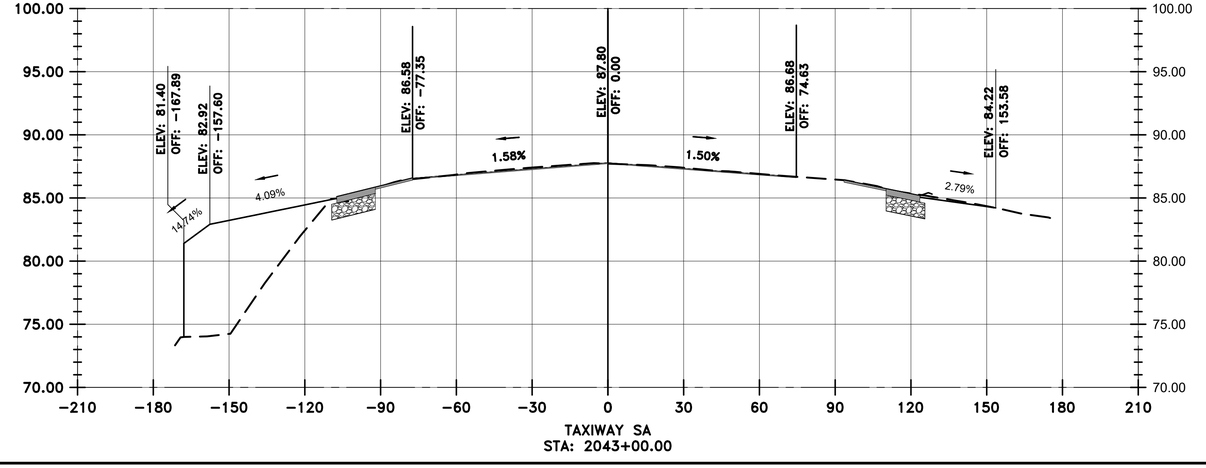

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 23

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.23

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646GSC.dwg
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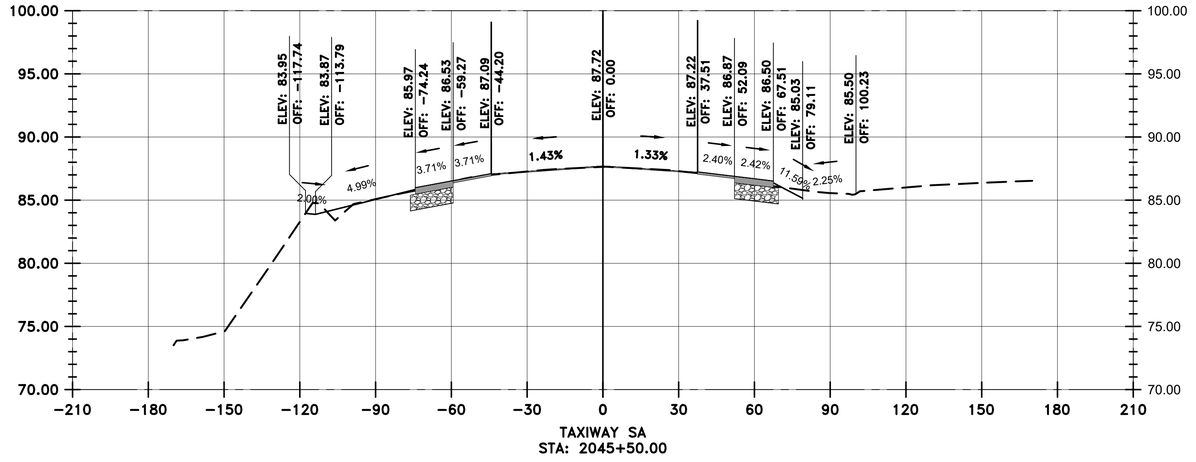

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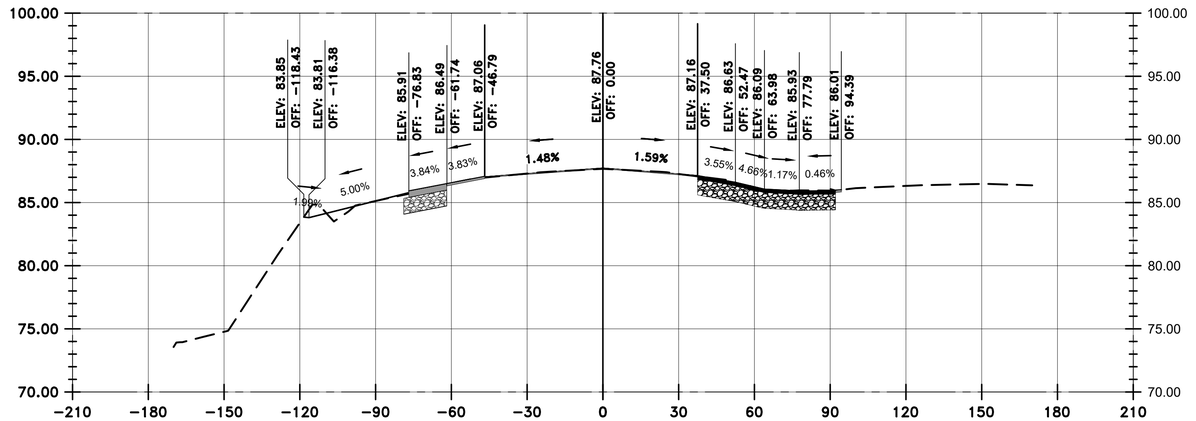
STA: 2045+50.00



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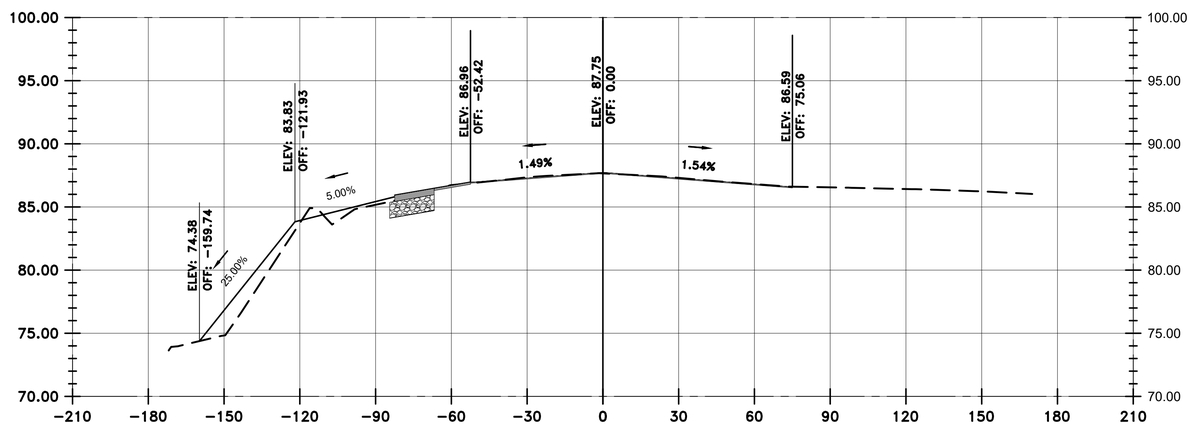

TAXIWAY SA
STA: 2044+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 24

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.24

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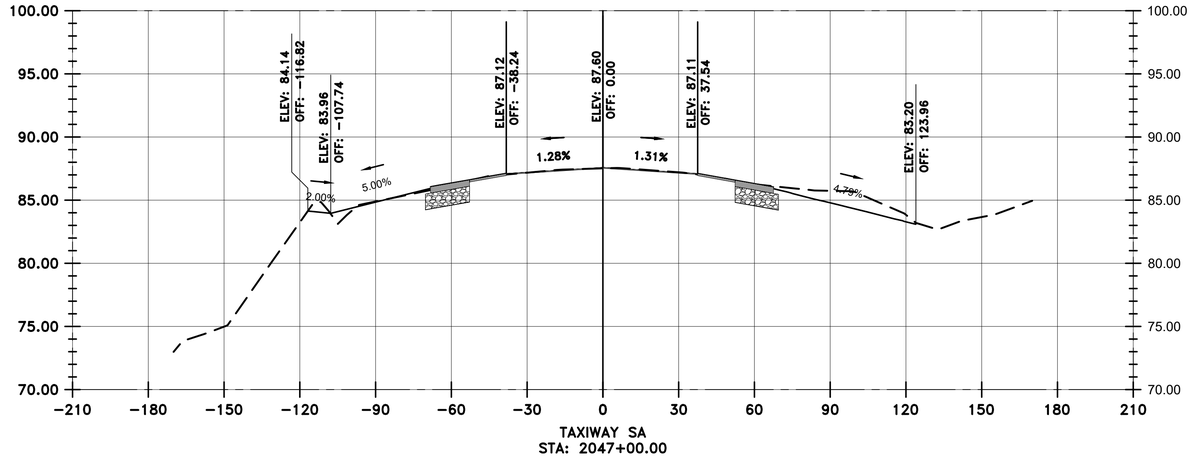

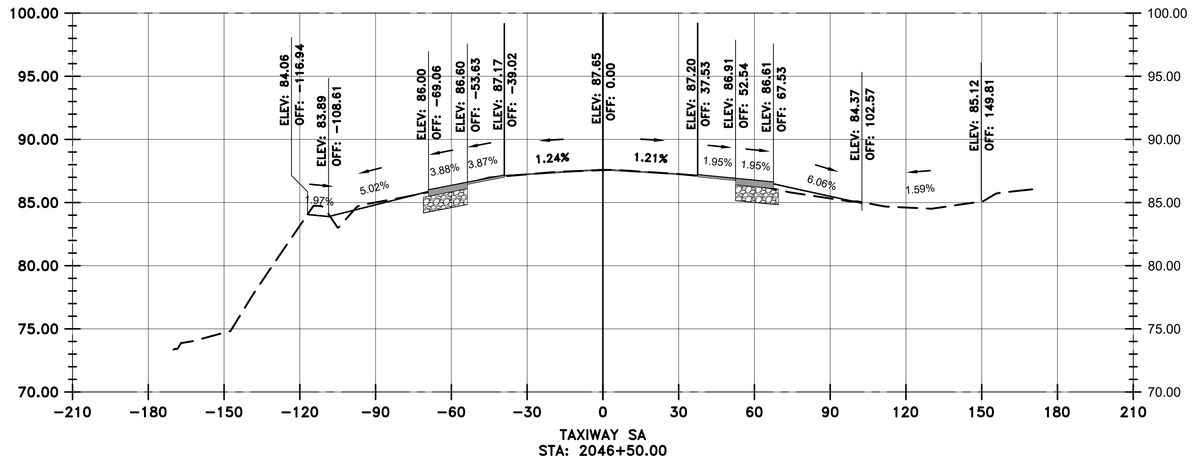

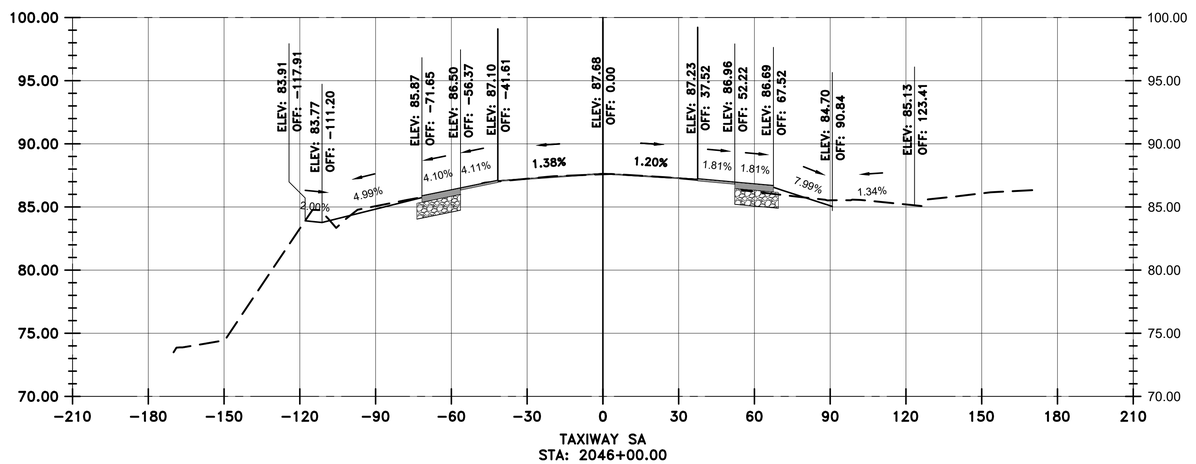

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 25

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
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DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.25

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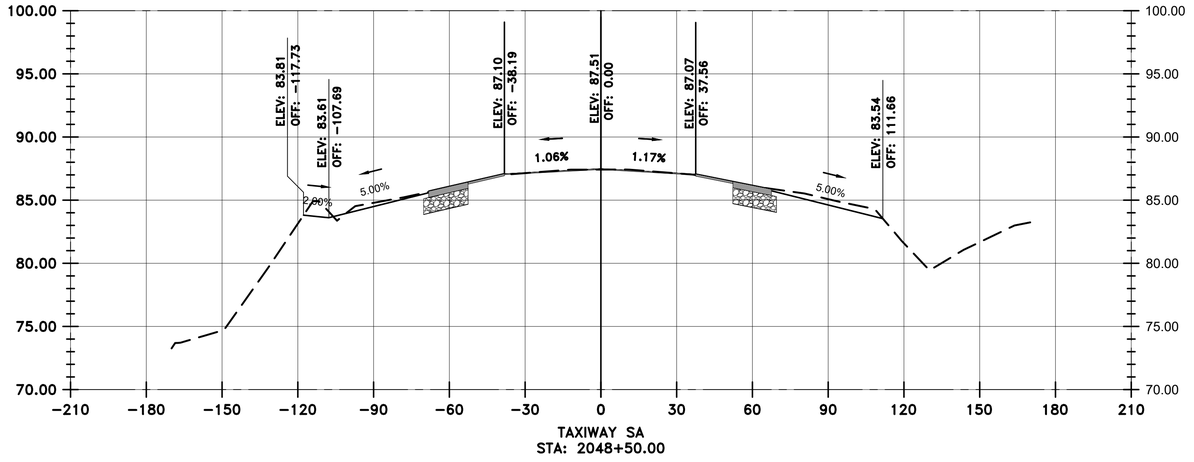

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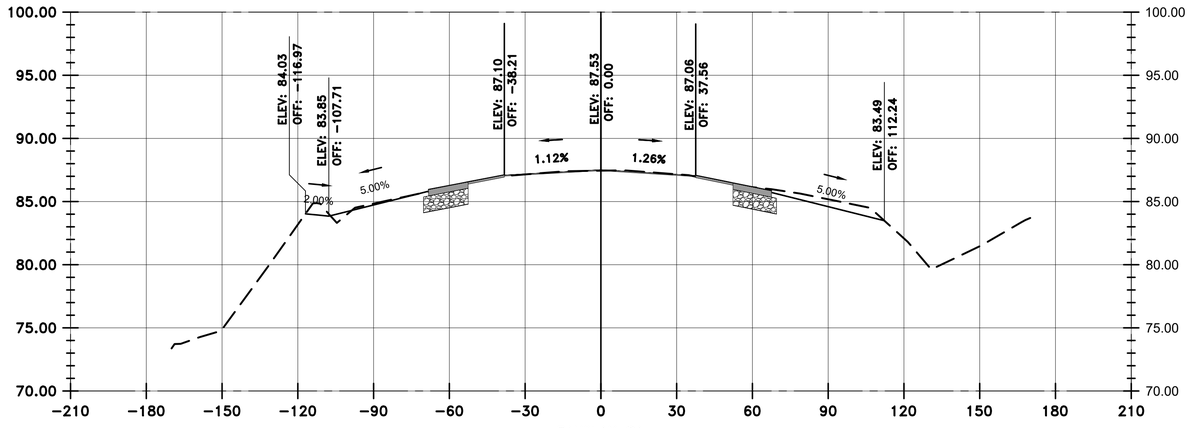

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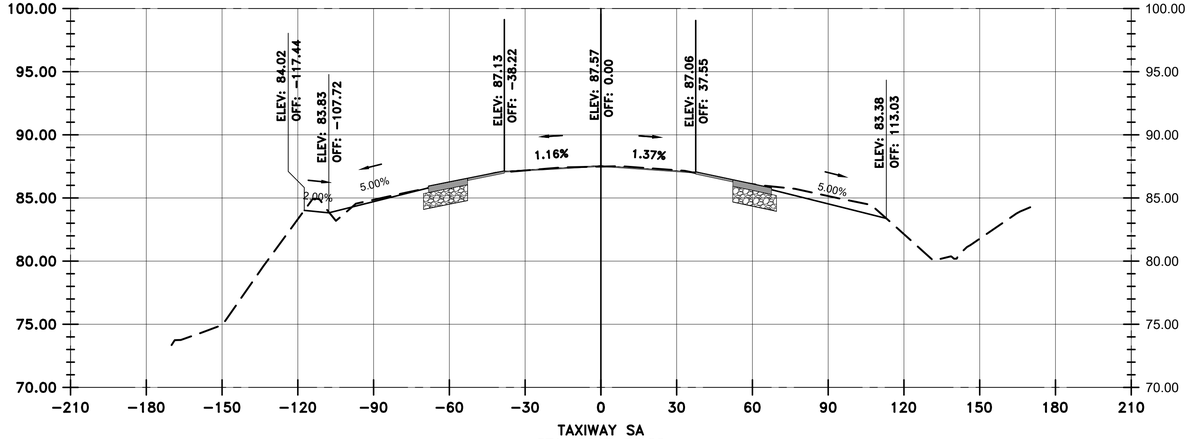

TAXIWAY SA
STA: 2047+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 26

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

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APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.26

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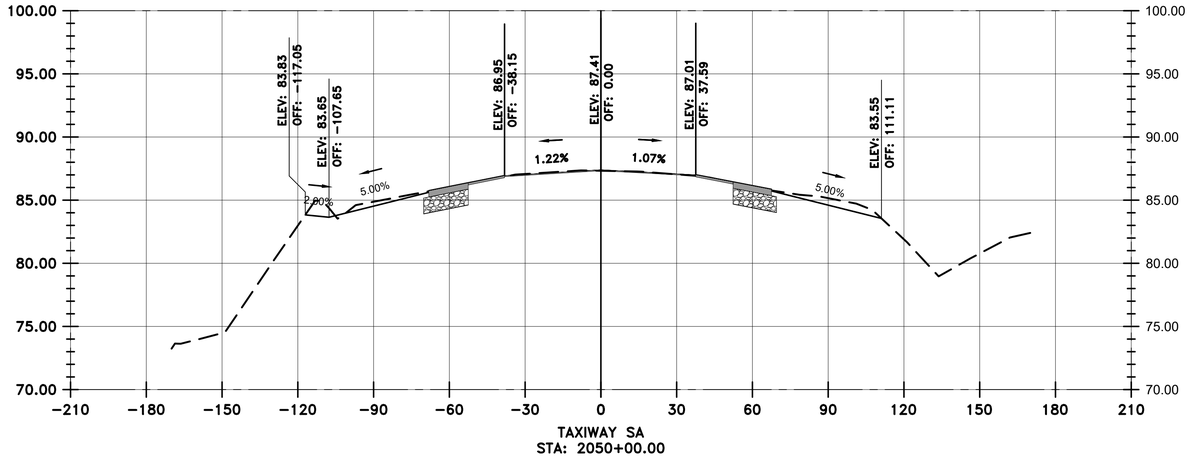

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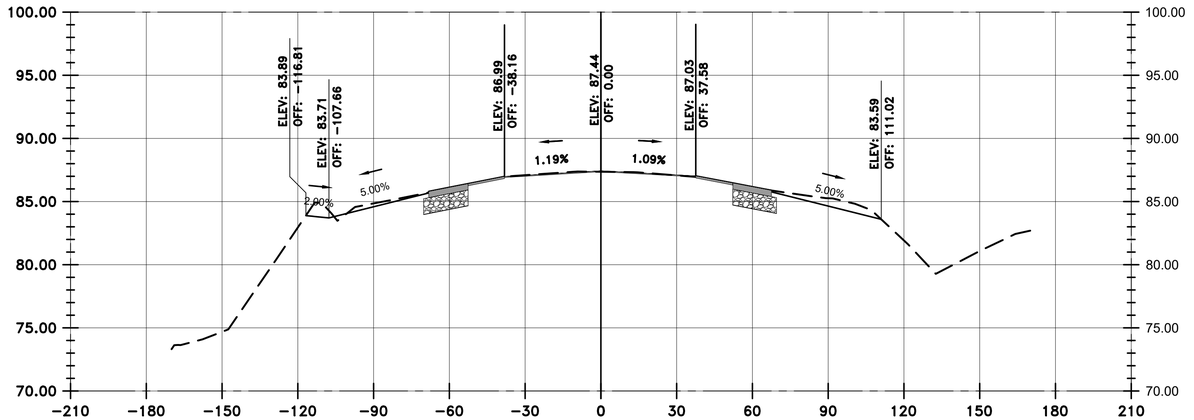

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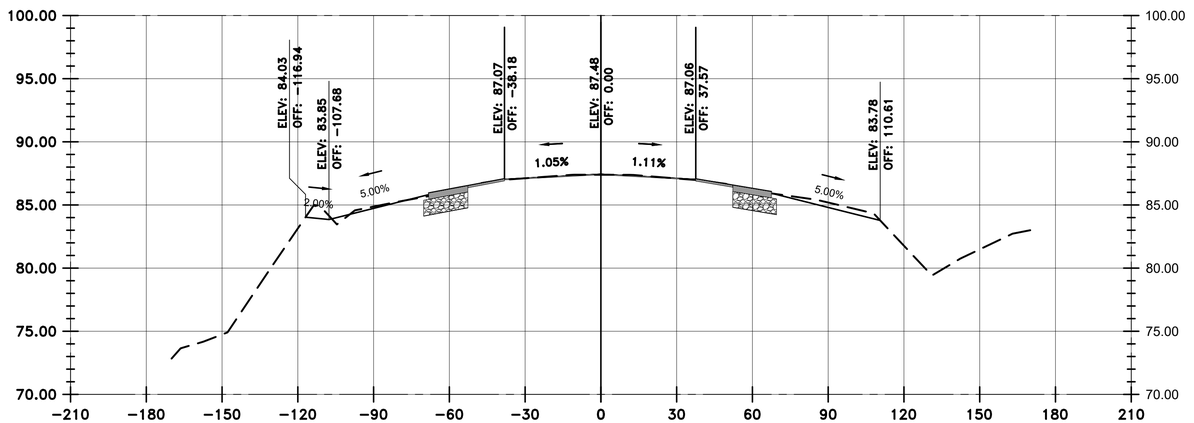

TAXIWAY SA
STA: 2049+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 27

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.27

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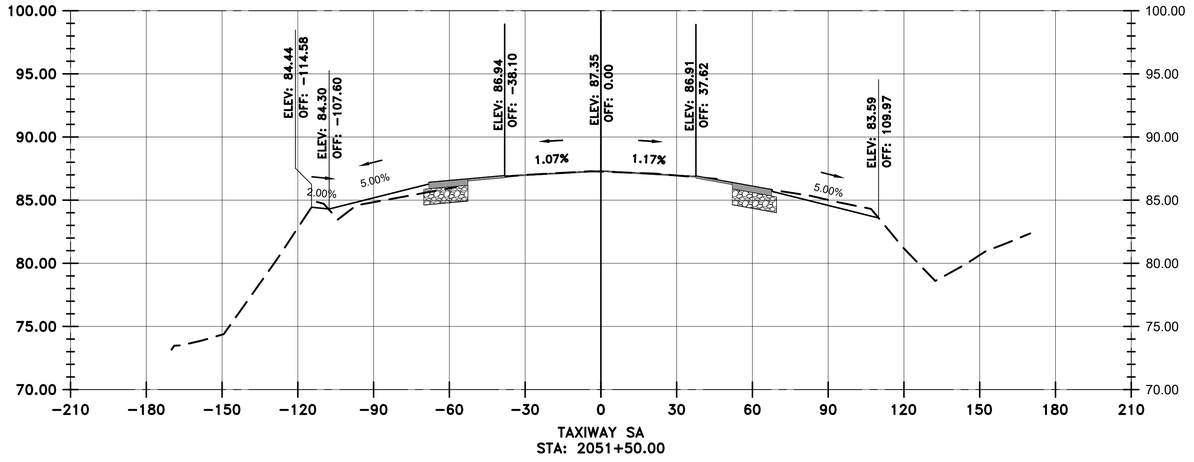

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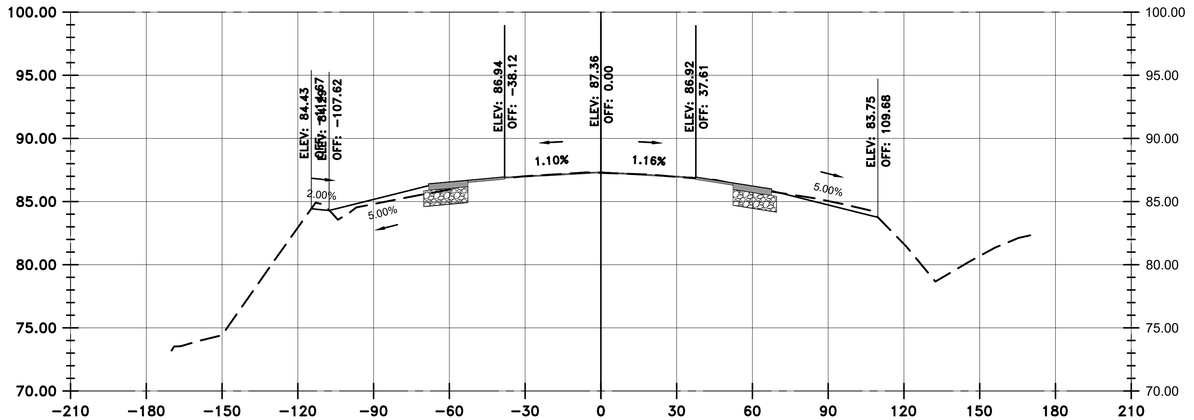

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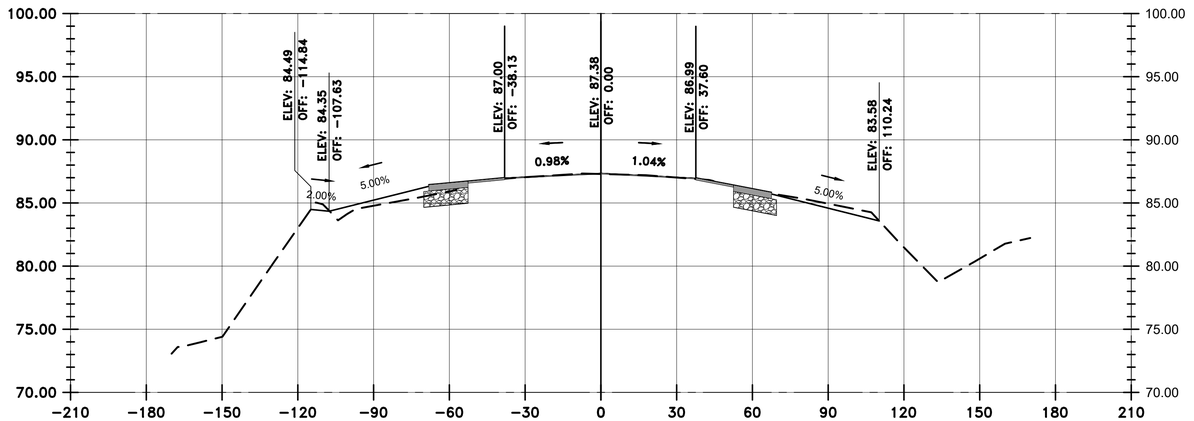

TAXIWAY SA
STA: 2050+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 28

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.28

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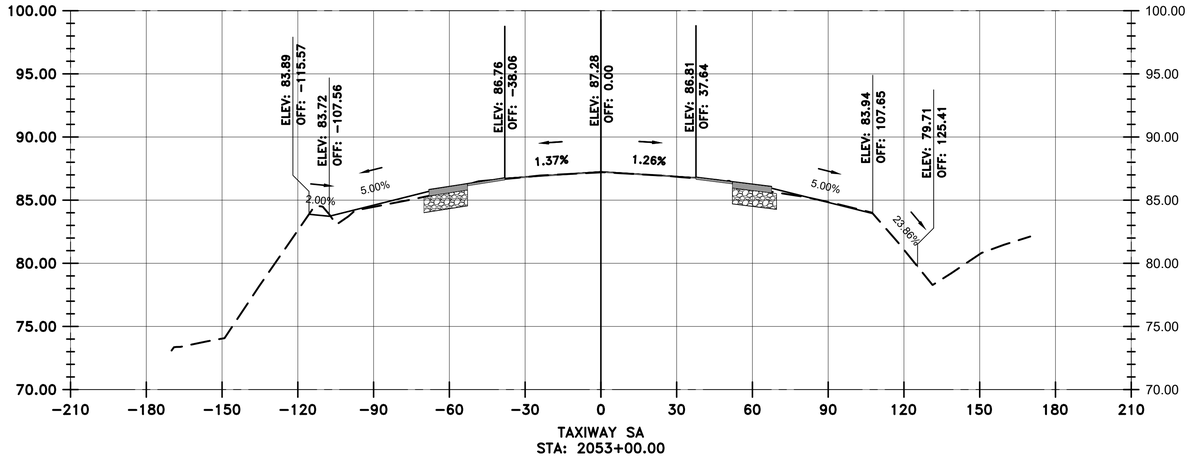

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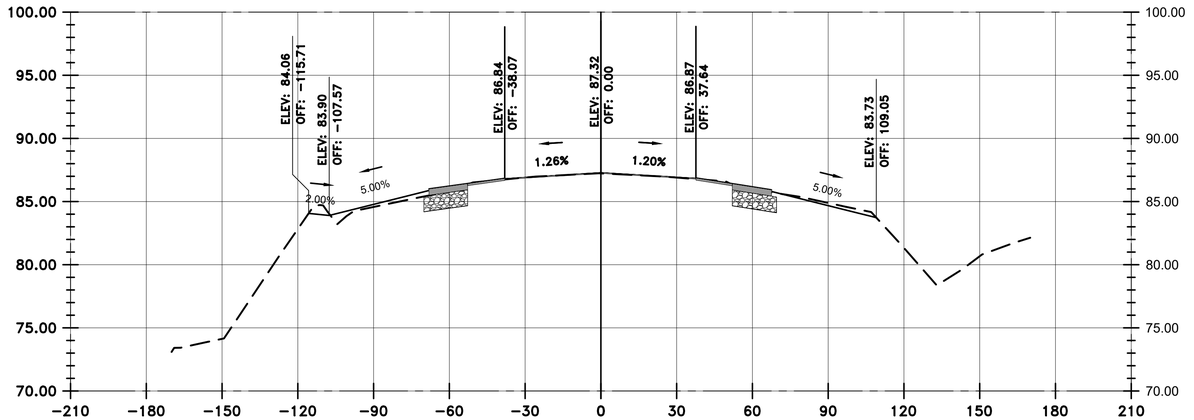

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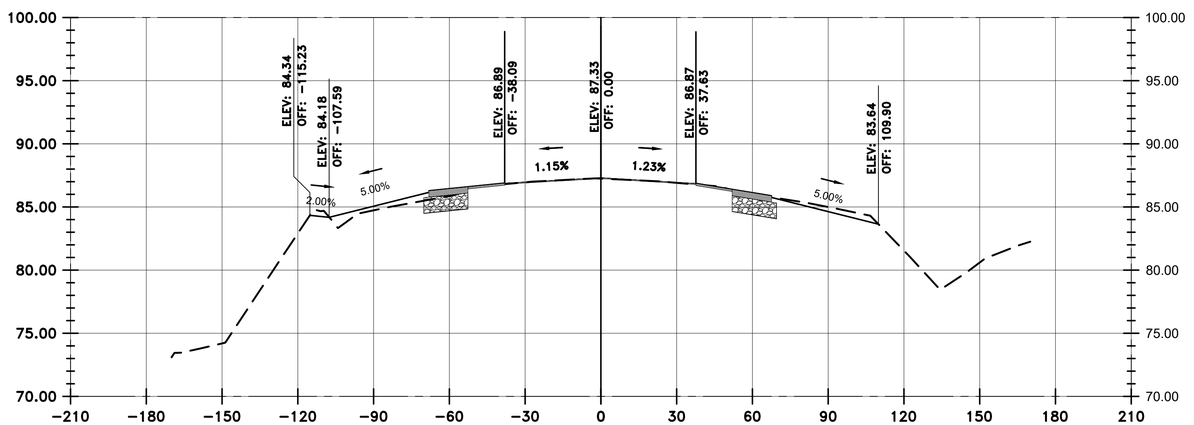

TAXIWAY SA
STA: 2052+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 29

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.29

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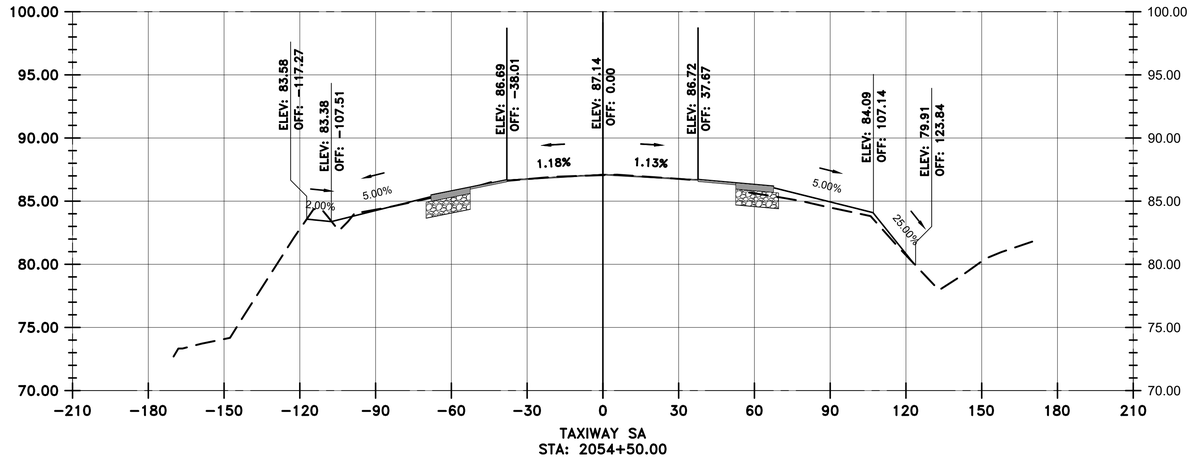

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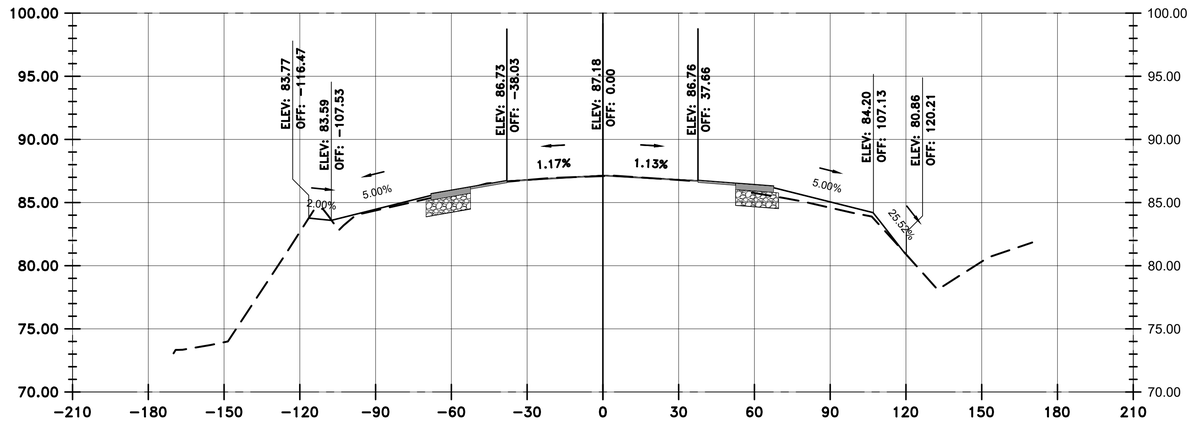

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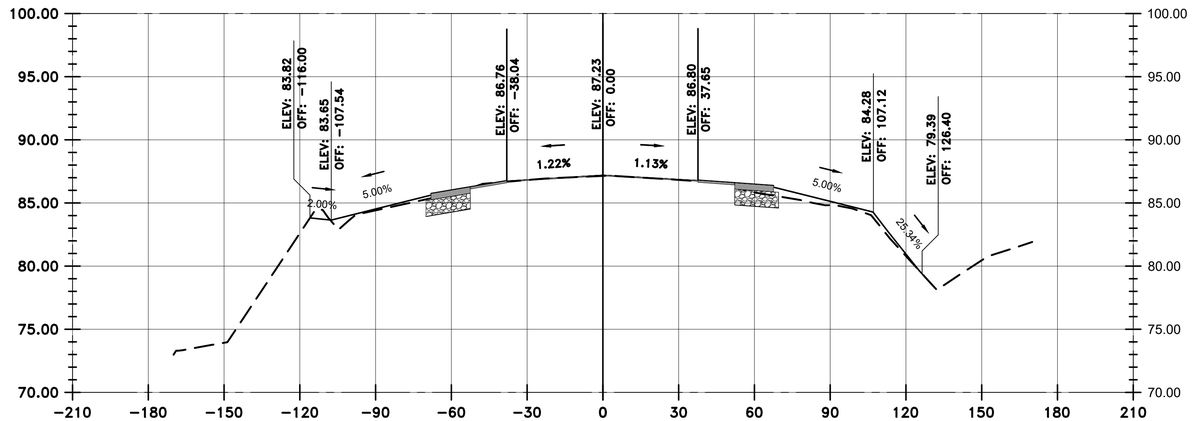
STA: 2054+00.00



TAXIWAY SA
STA: 2053+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 30

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.30

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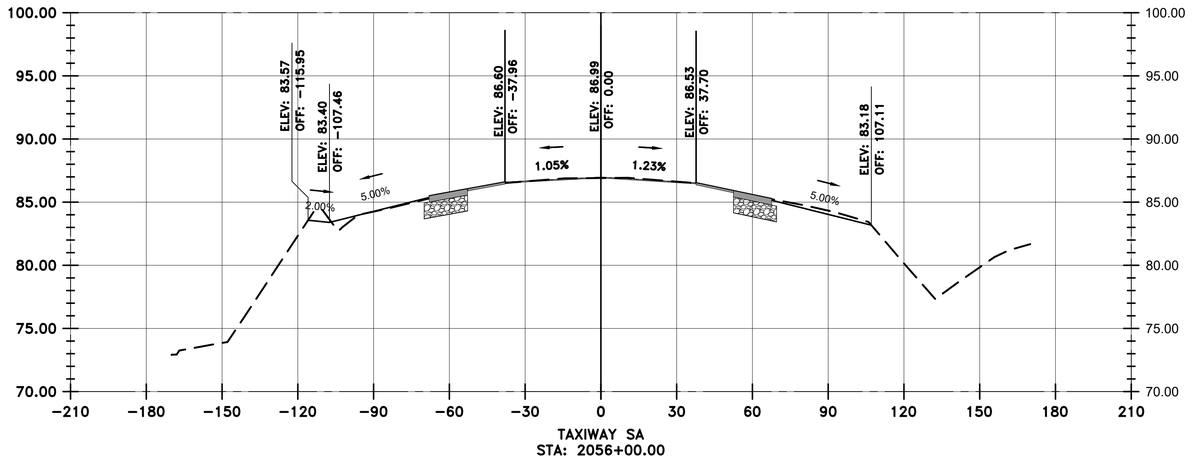
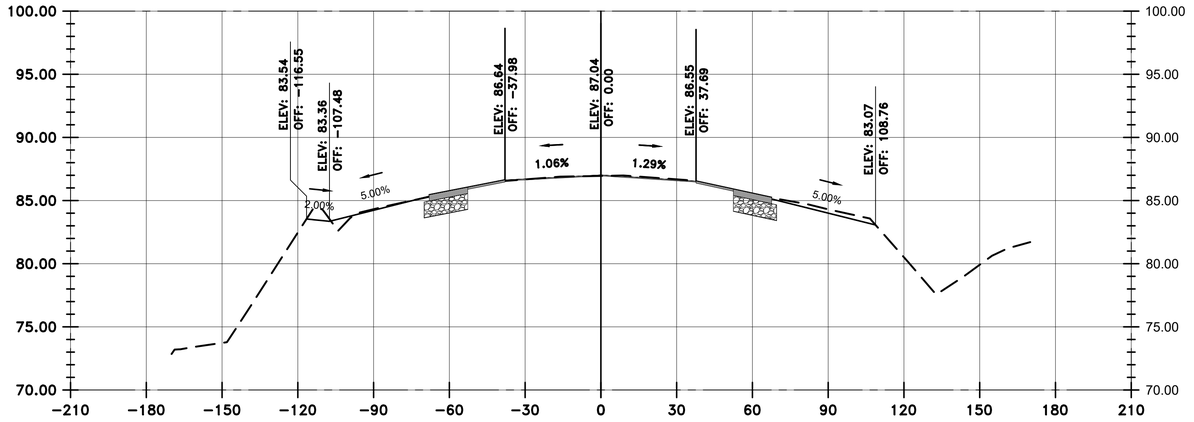


TAXIWAY SA
STA: 2056+00.00



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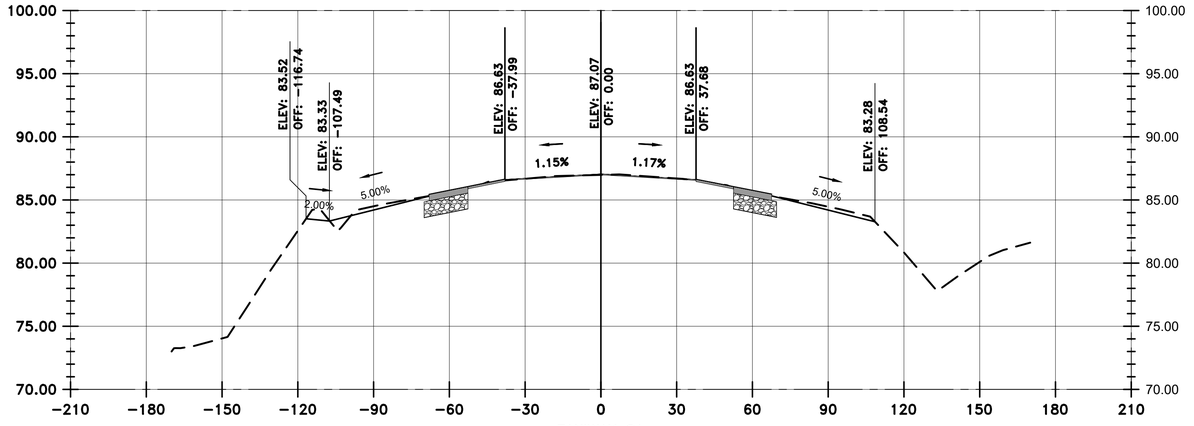
STA: 2055+50.00



TAXIWAY SA
STA: 2055+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 31

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.31

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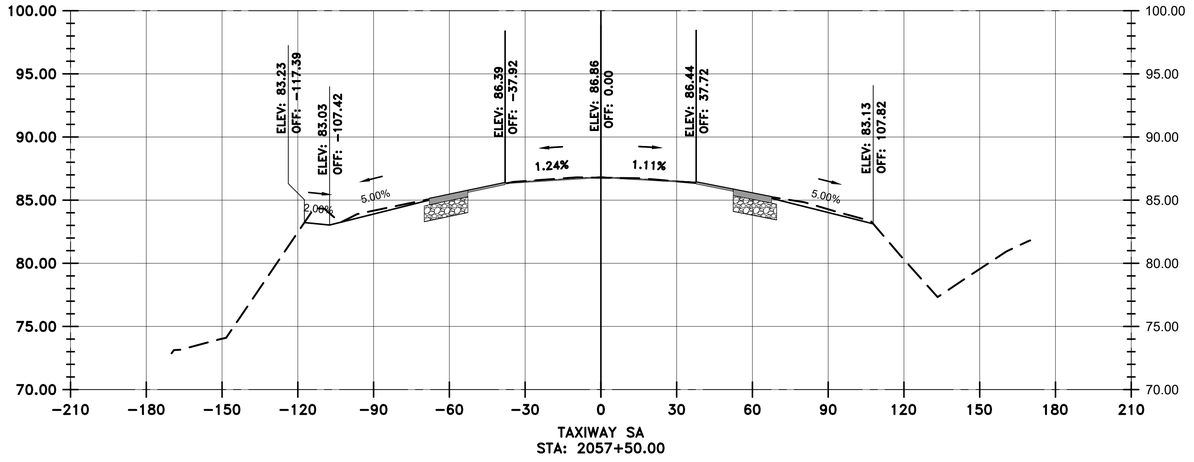

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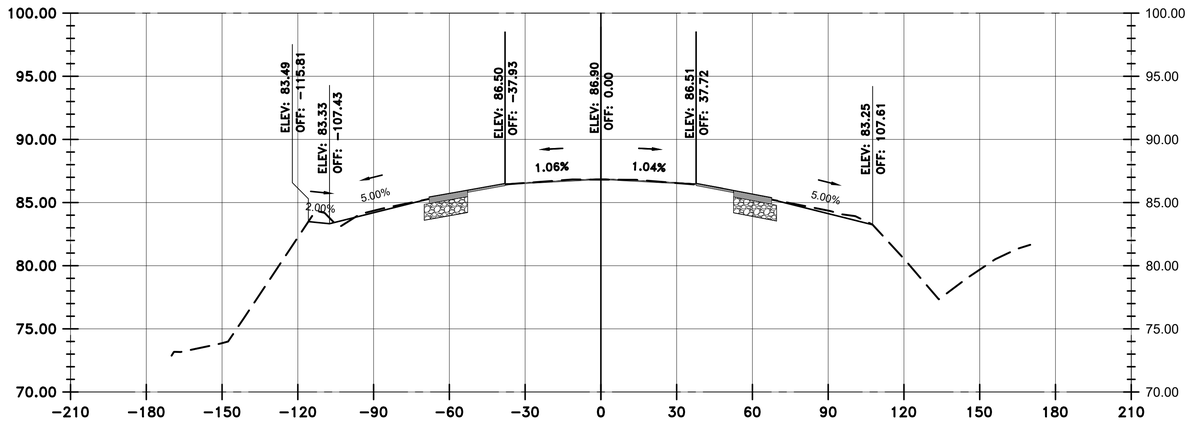
STA: 2057+50.00



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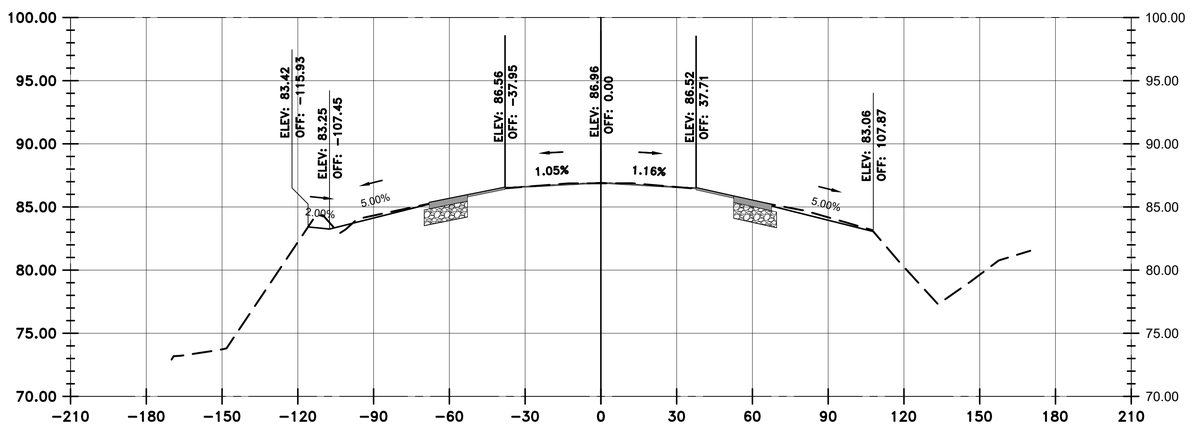
STA: 2057+00.00



TAXIWAY SA
STA: 2056+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 32

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.32

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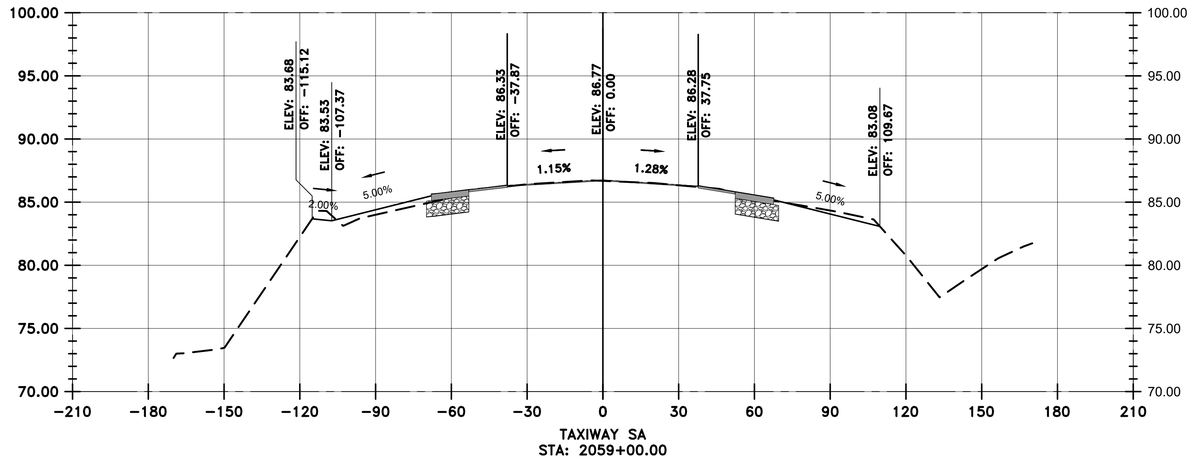

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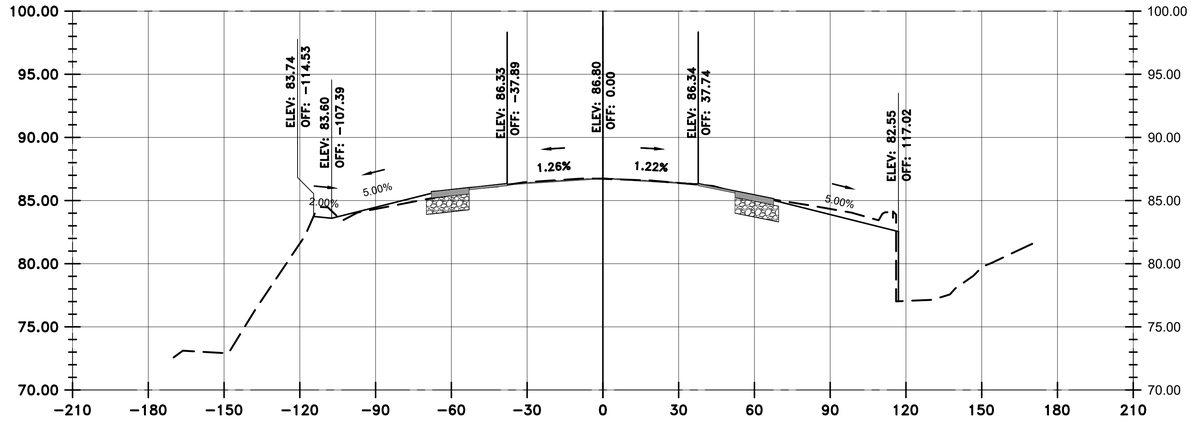

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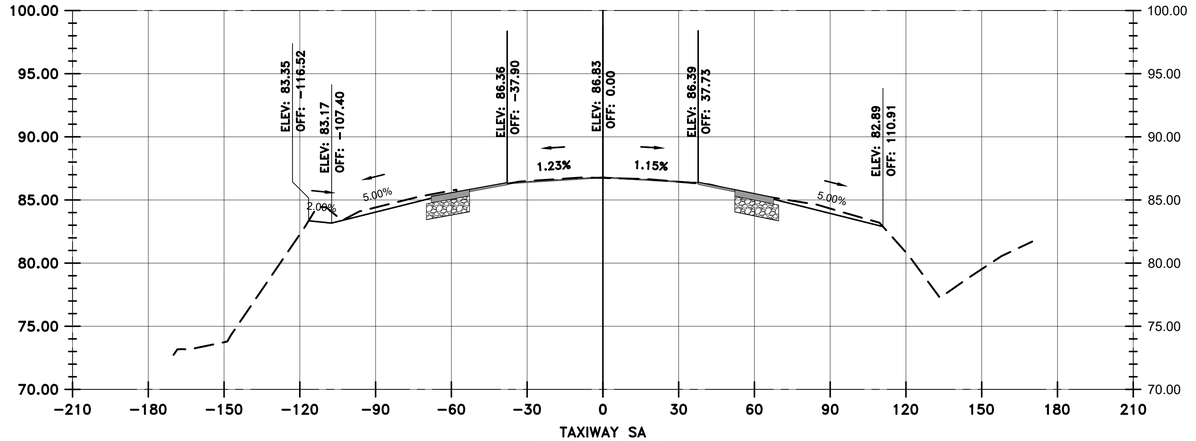

TAXIWAY SA
STA: 2058+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 33

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.33

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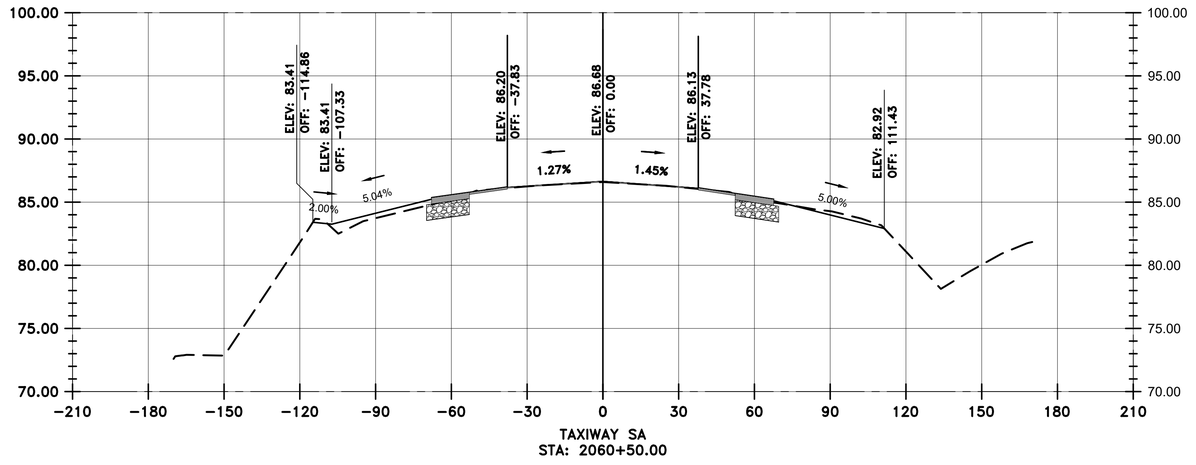

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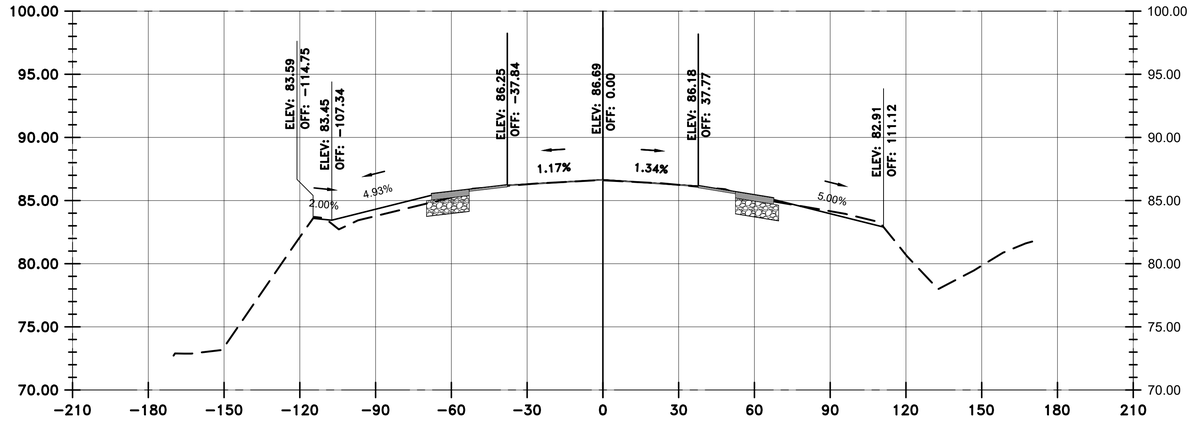

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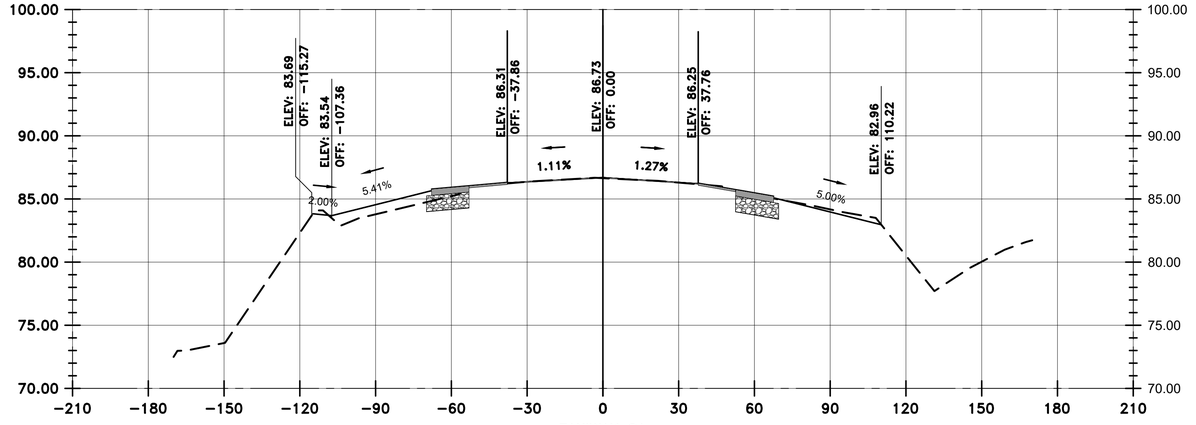

TAXIWAY SA
STA: 2059+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 34

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.34

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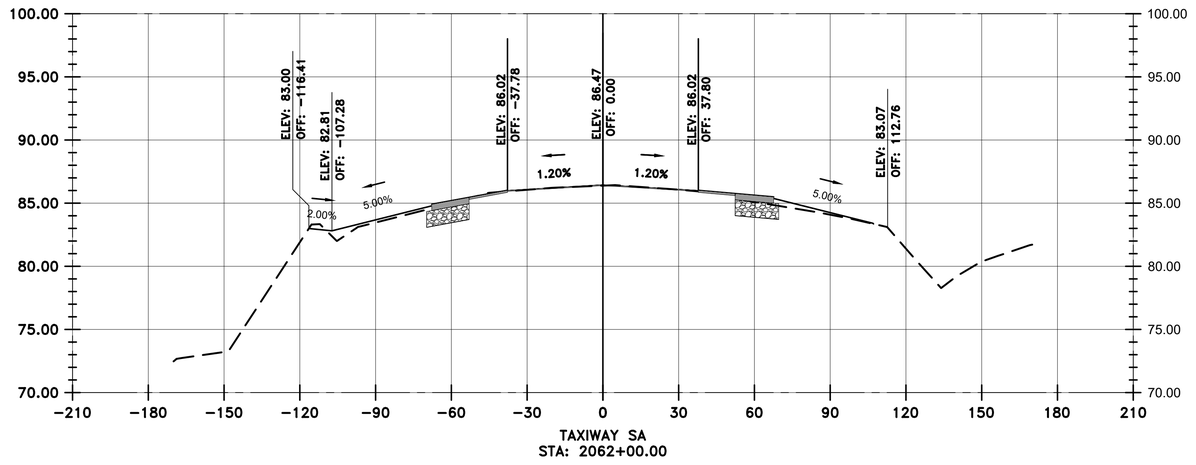

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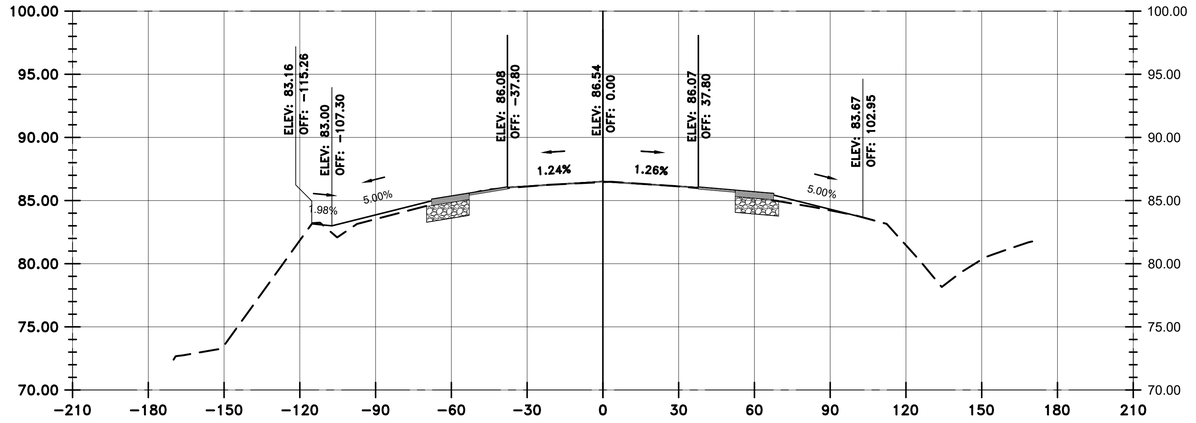
STA: 2062+00.00



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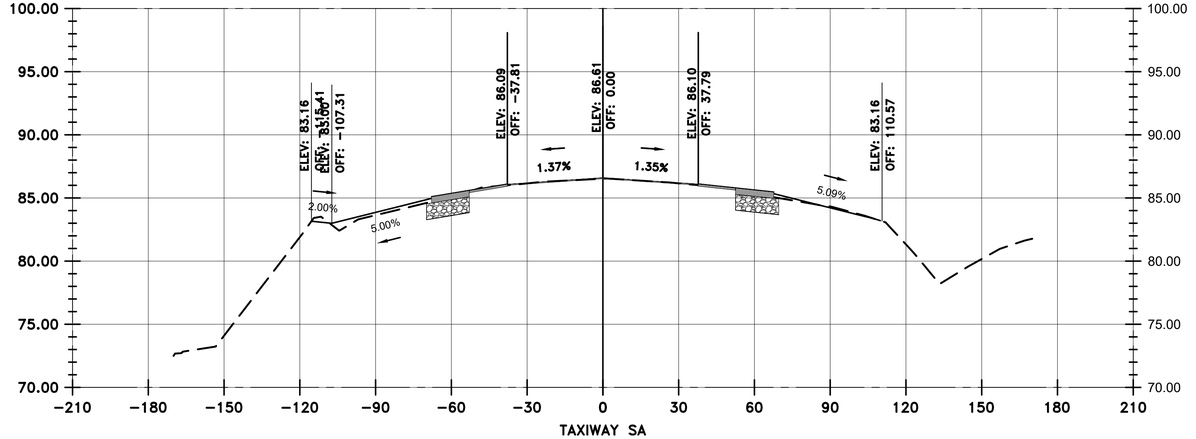

TAXIWAY SA
STA: 2061+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 35

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.35

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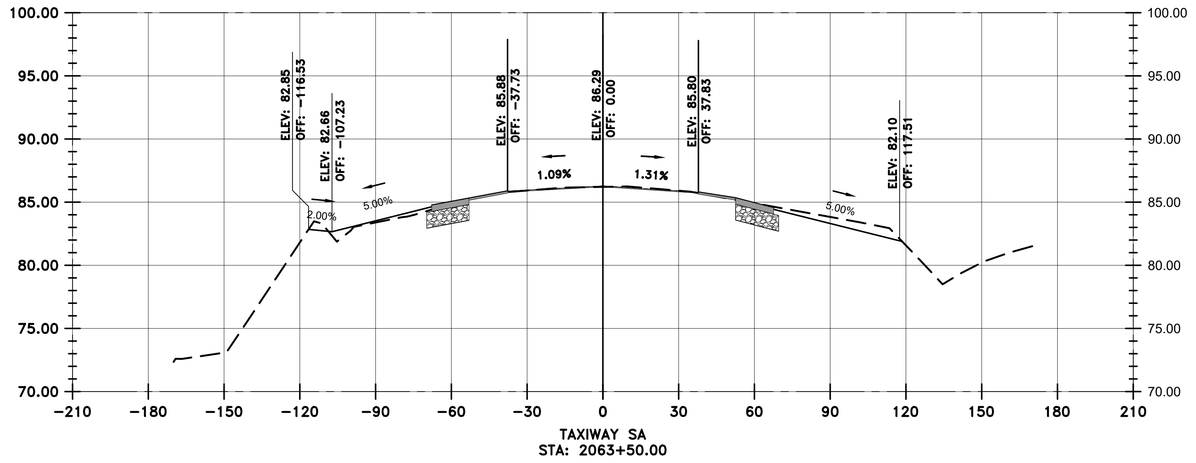

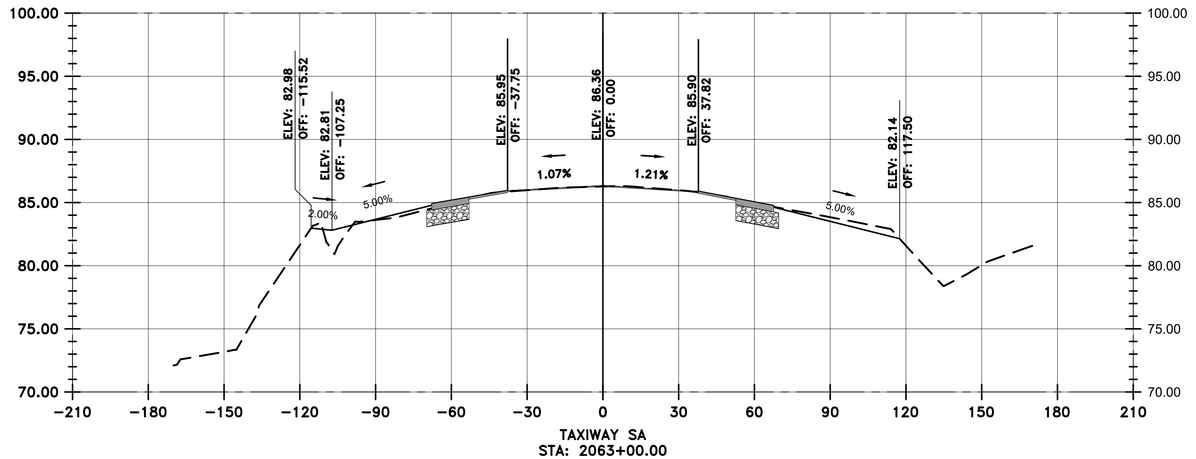

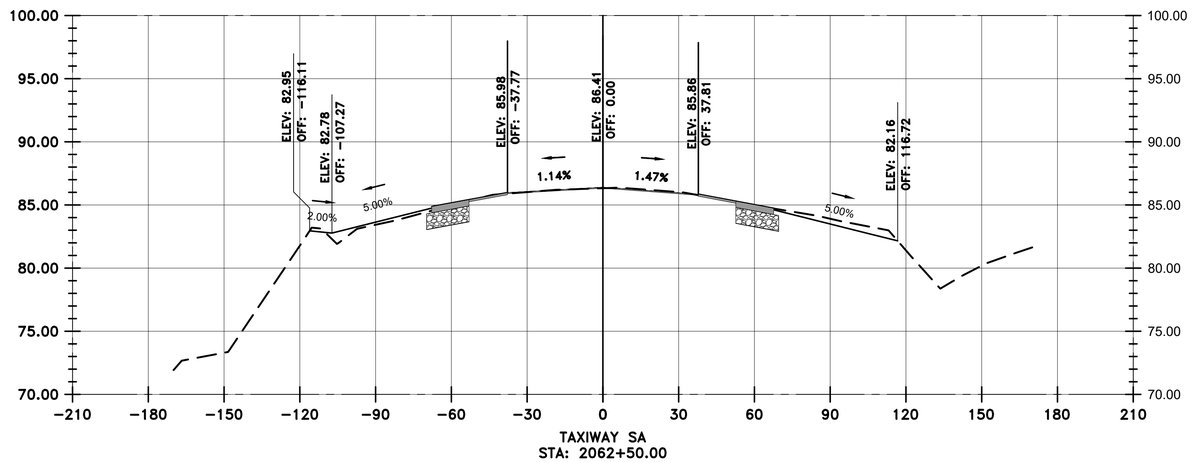

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 36

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.36

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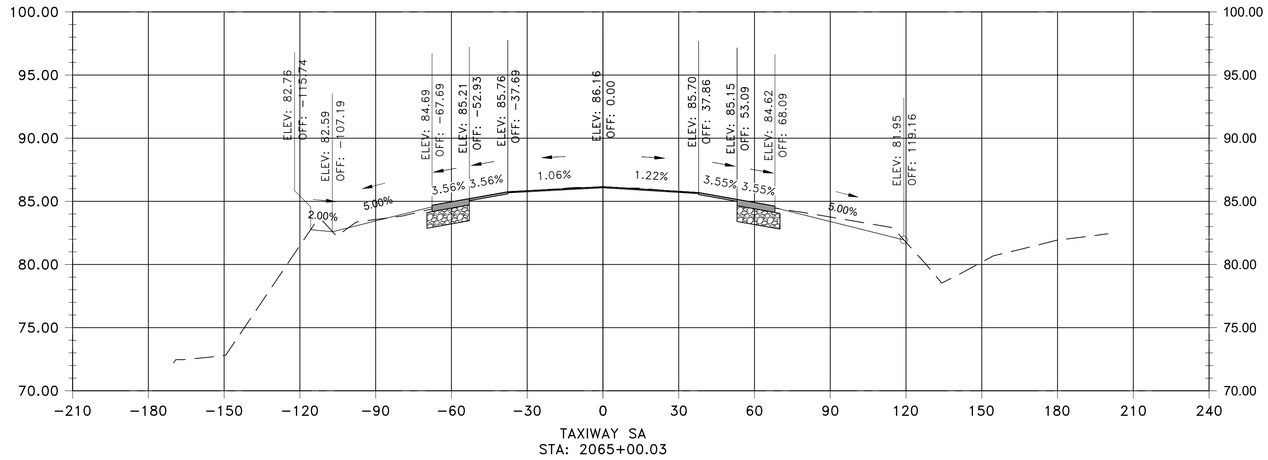

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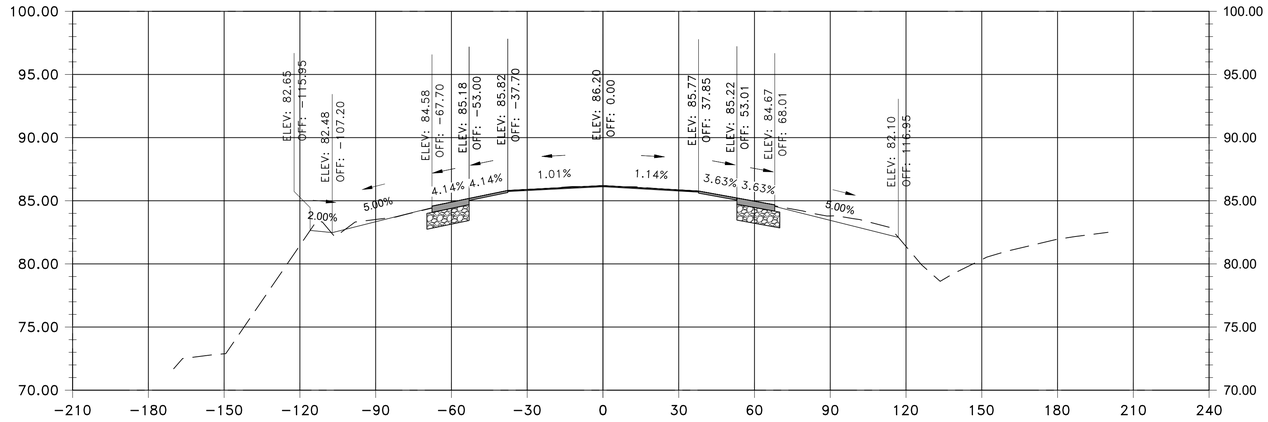
STA: 2065+00.03



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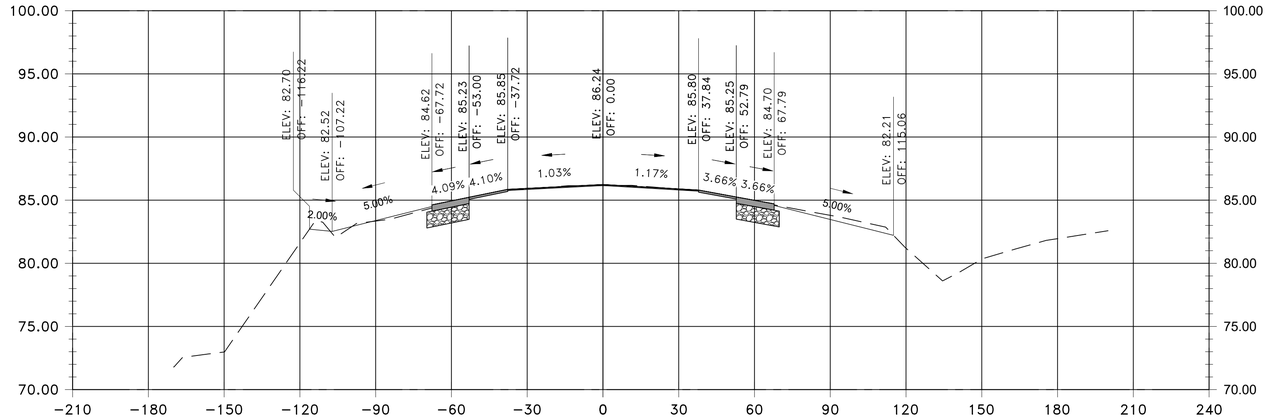

TAXIWAY SA
STA: 2064+00.03

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

0 15' 30' 60' 90'
(IN FEET)

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 37

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A
A.I.P. NO.
XXXX
C.I.P. NO.
A-0515
H.A.S. NO.
20C0646A
SHEET NO.
X01.37

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

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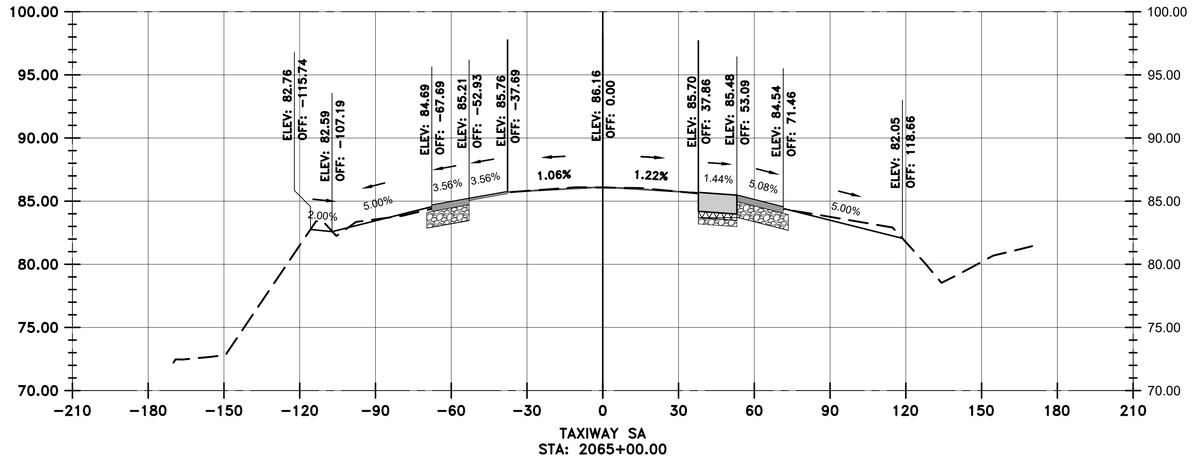

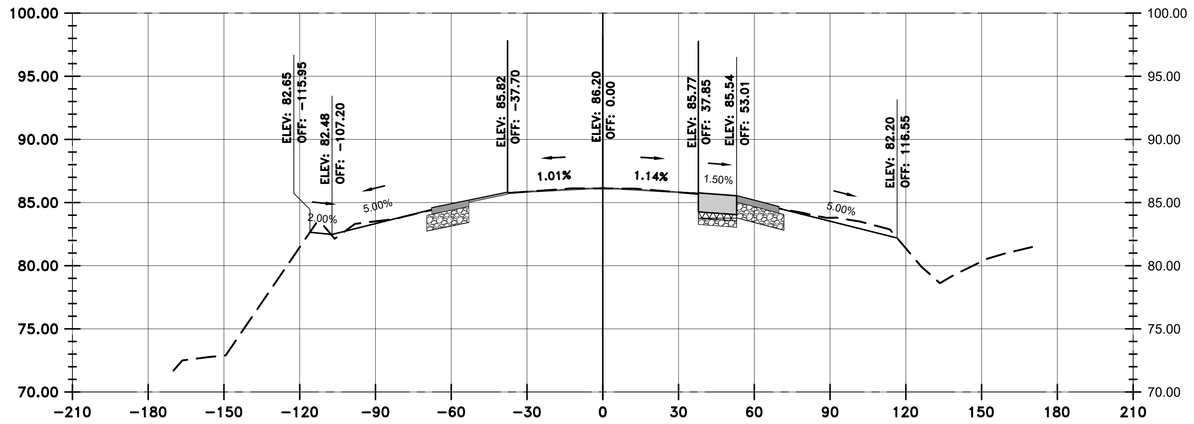

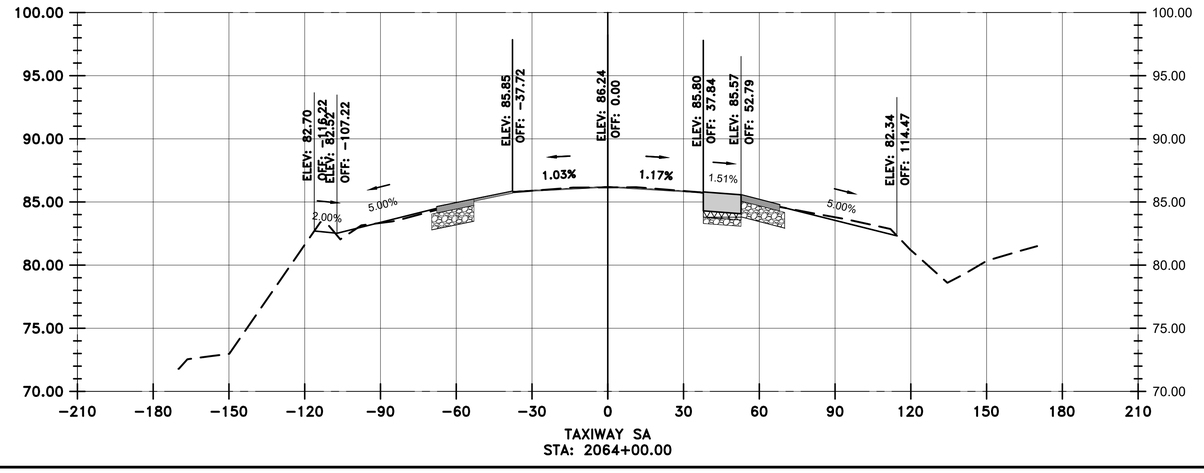

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 37
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.37A

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typical Sections\Model Files\06646CSC.dwg
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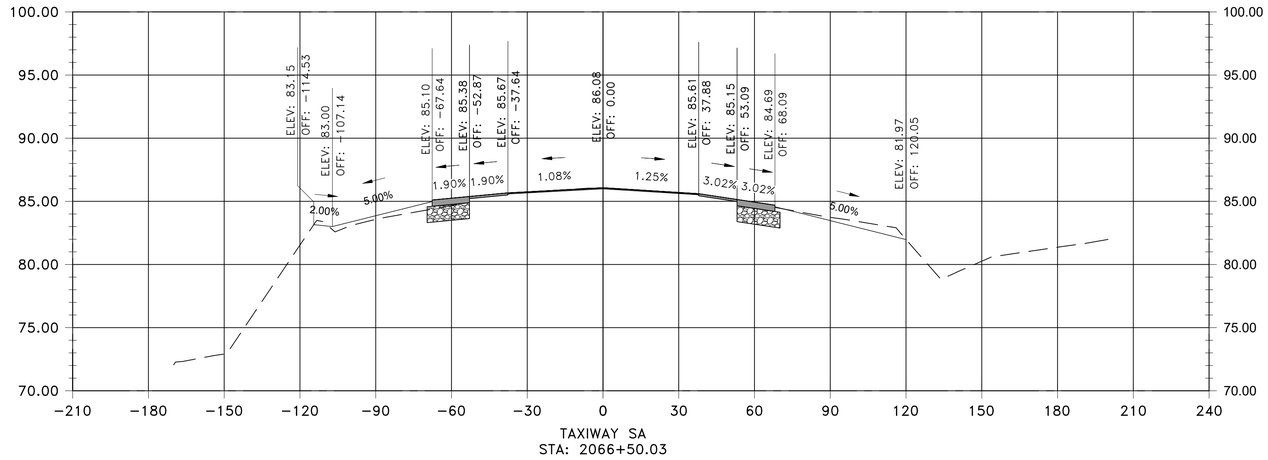

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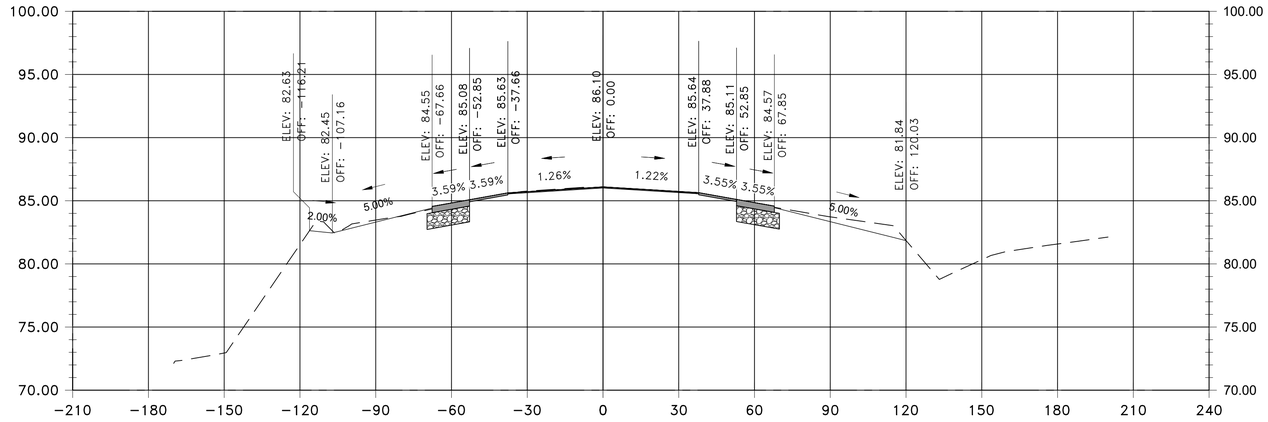
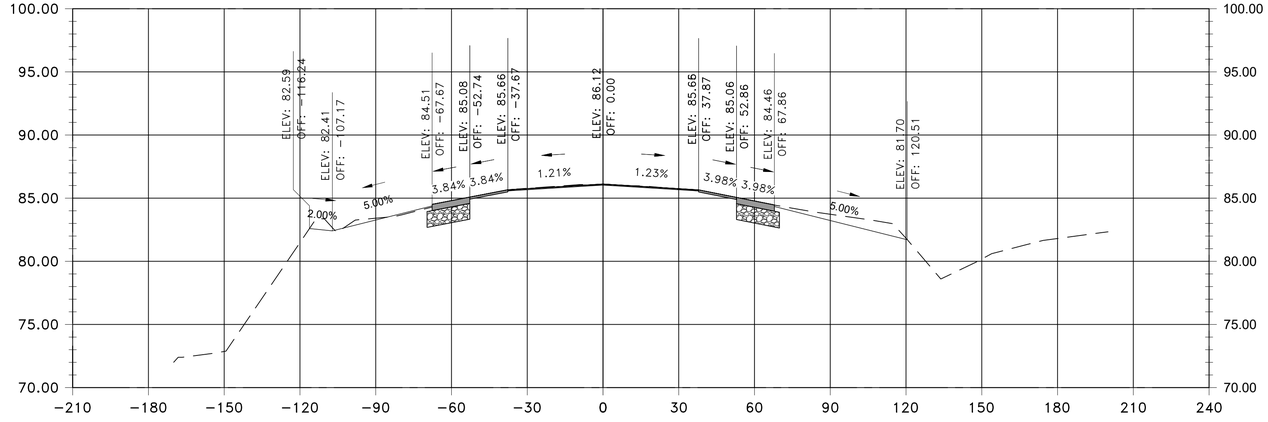
STA: 2066+50.03



TAXIWAY SA
STA: 2066+00.03



TAXIWAY SA
STA: 2065+50.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 38

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.38

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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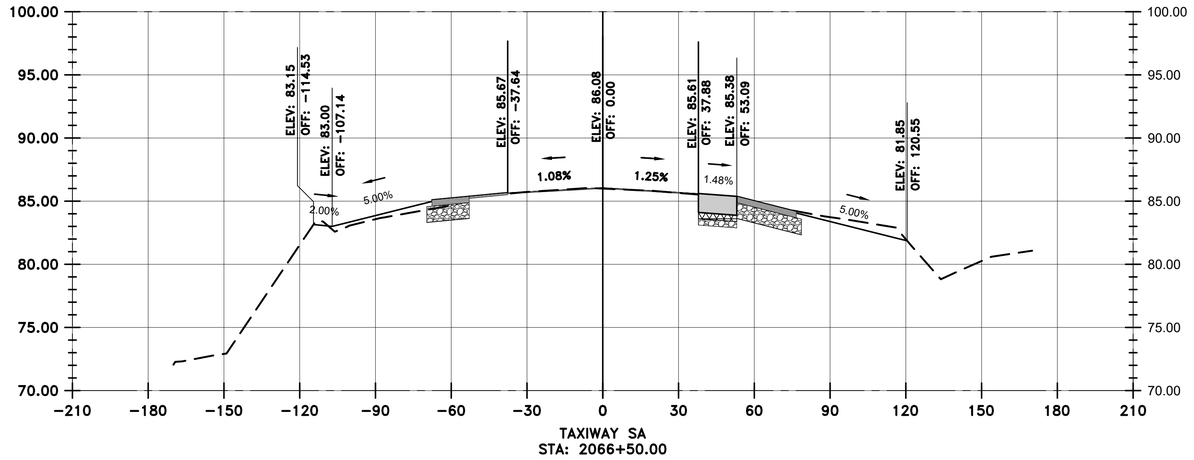
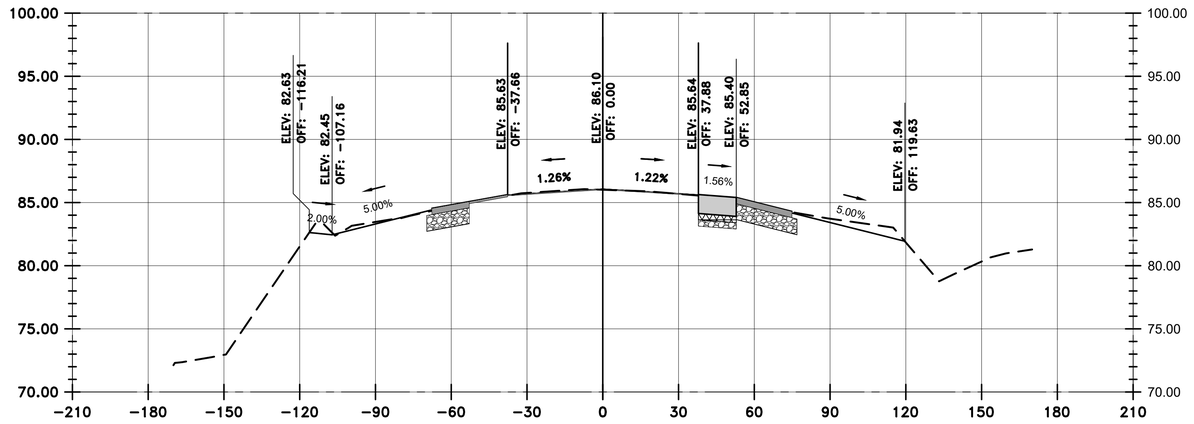
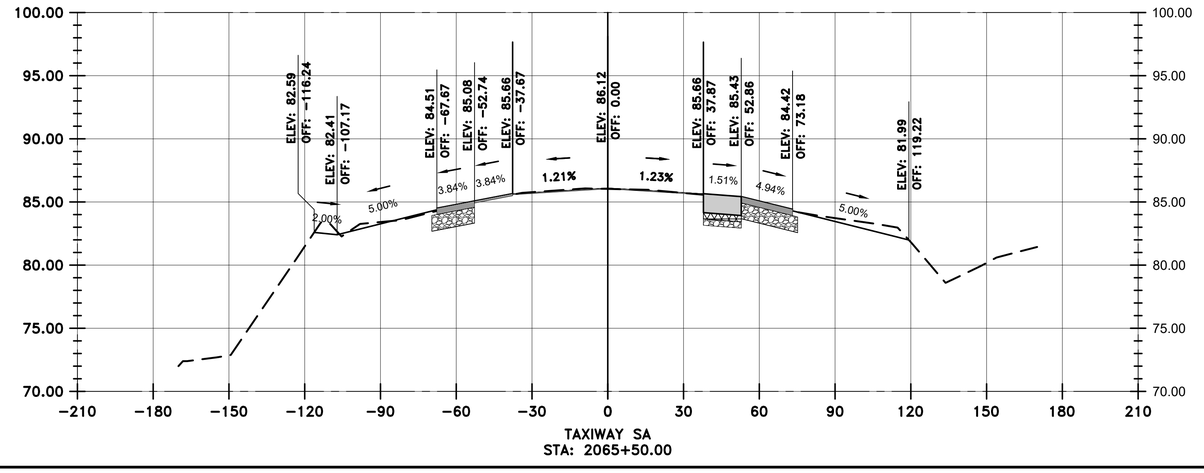
ADDITIVE ALTERNATE 1 (IF AWARDED)







VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 38
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.38A

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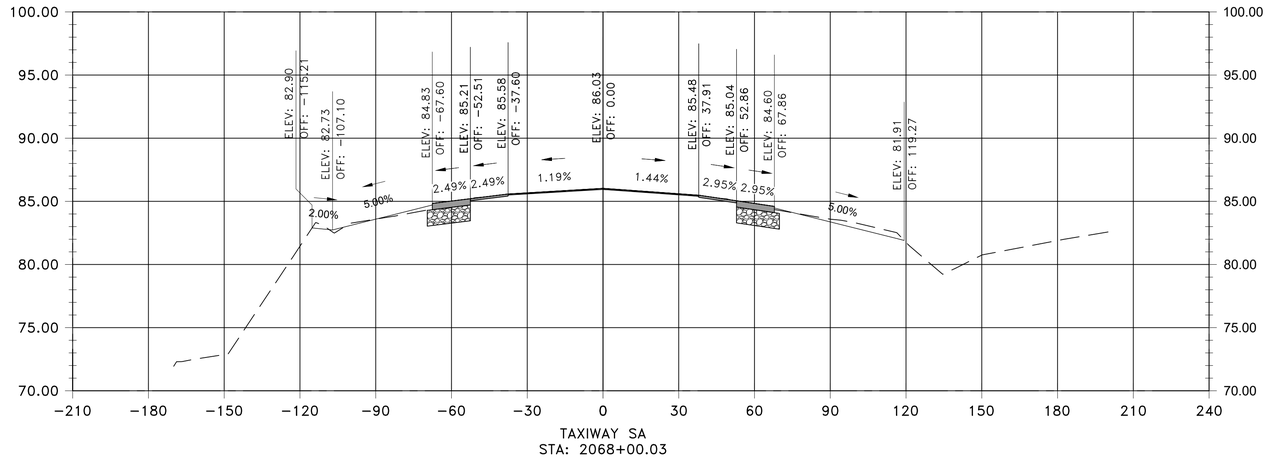
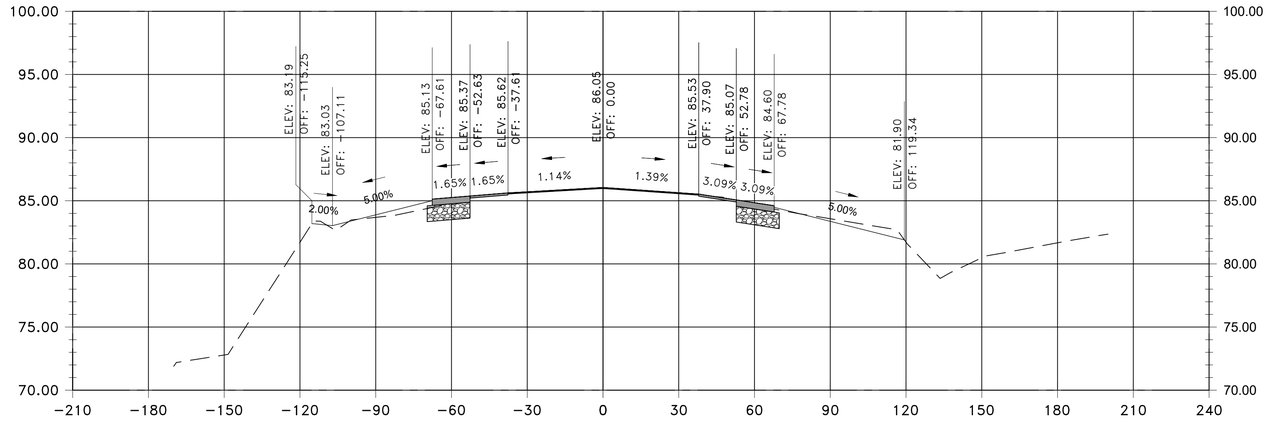
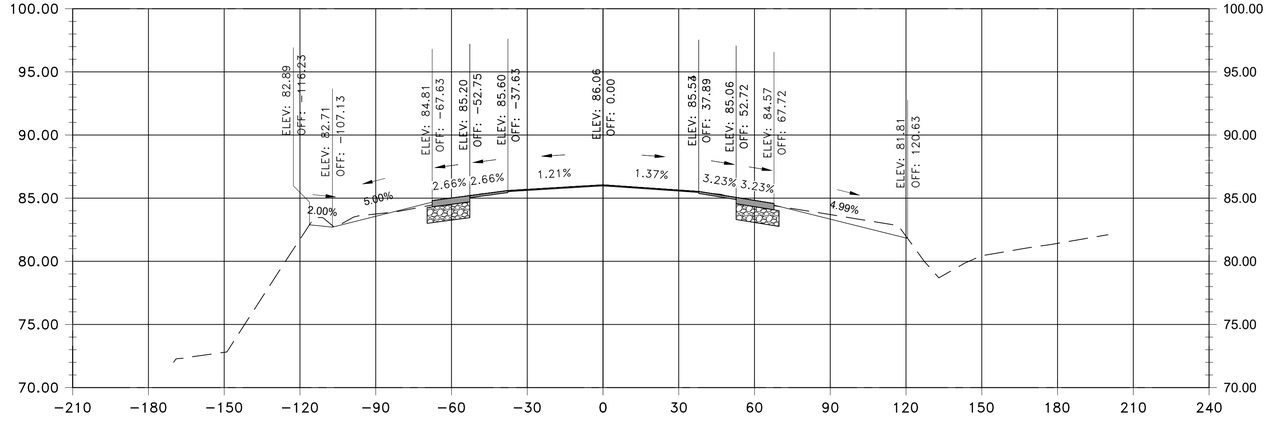


TAXIWAY SA
STA: 2068+00.03



TAXIWAY SA
STA: 2067+50.03



TAXIWAY SA
STA: 2067+00.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 39

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.39

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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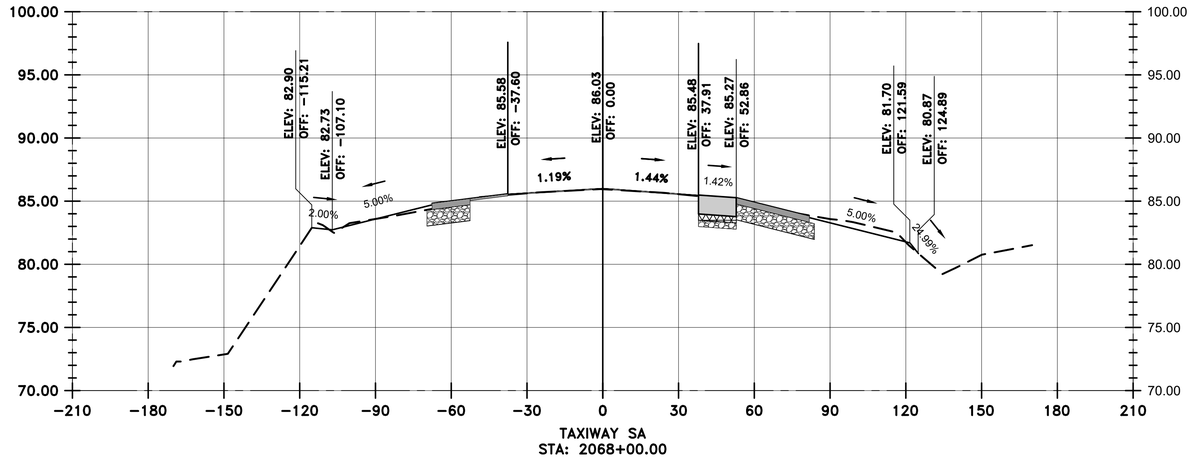

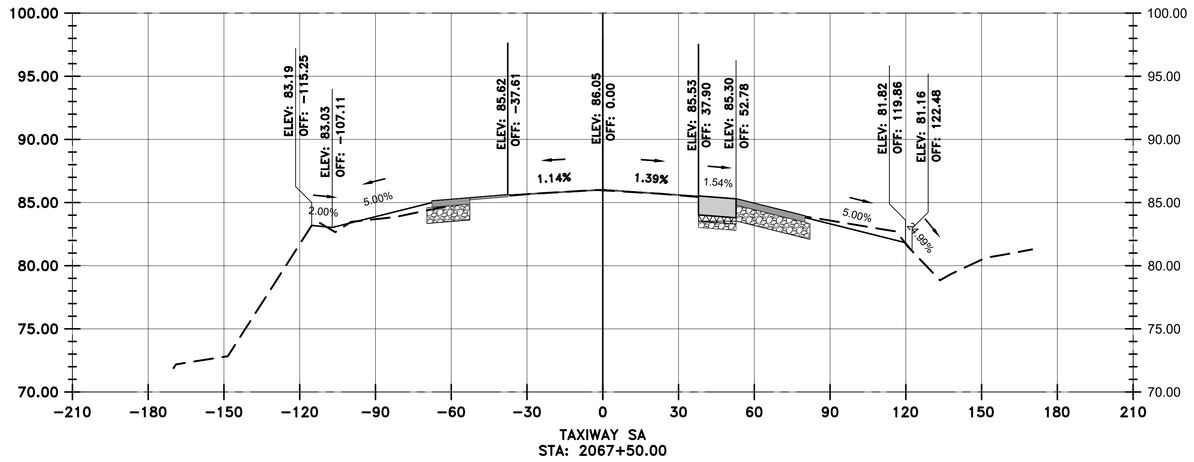

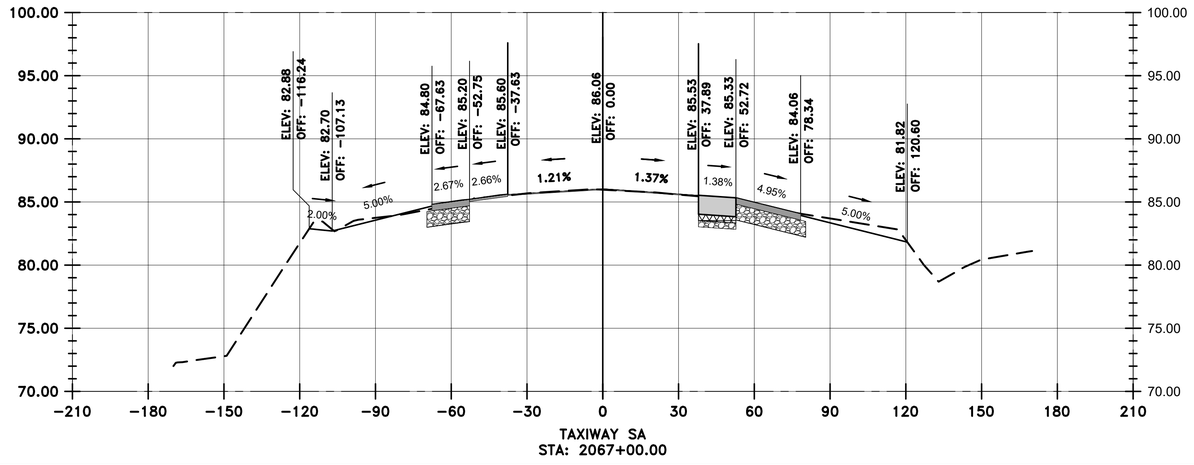

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 39
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.39A

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typical Sections\Model Files\06646CSC.dwg
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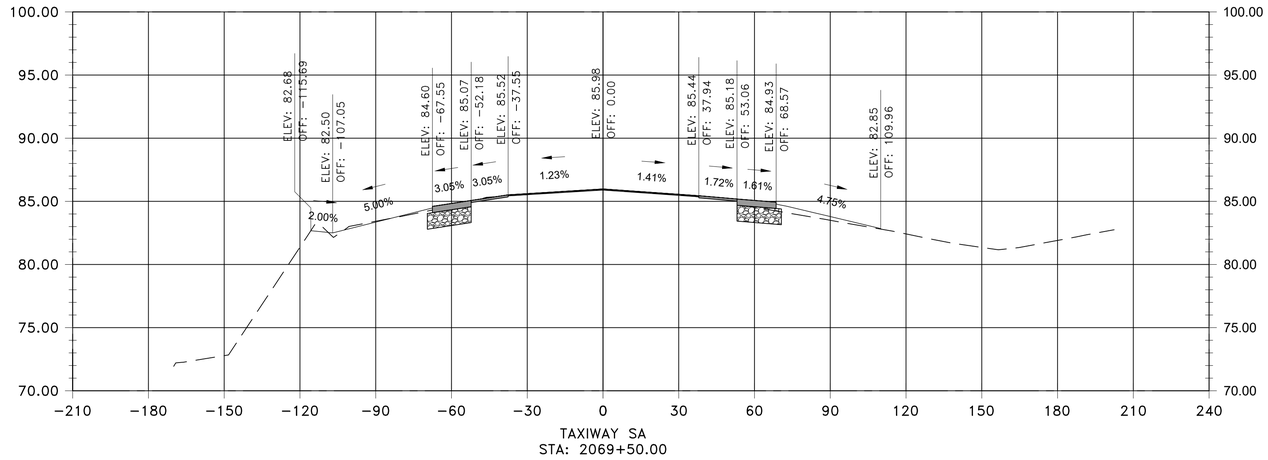
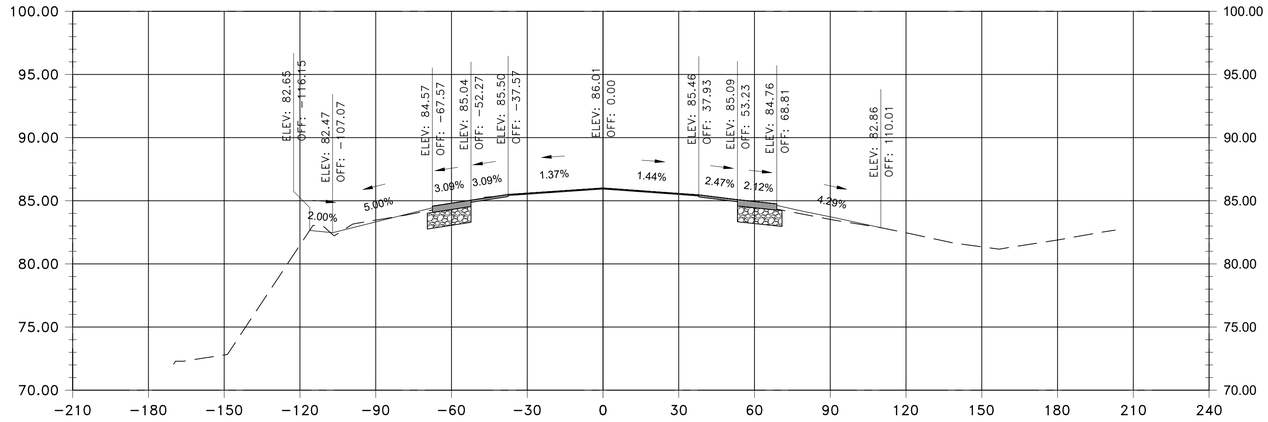


TAXIWAY SA
STA: 2069+50.00



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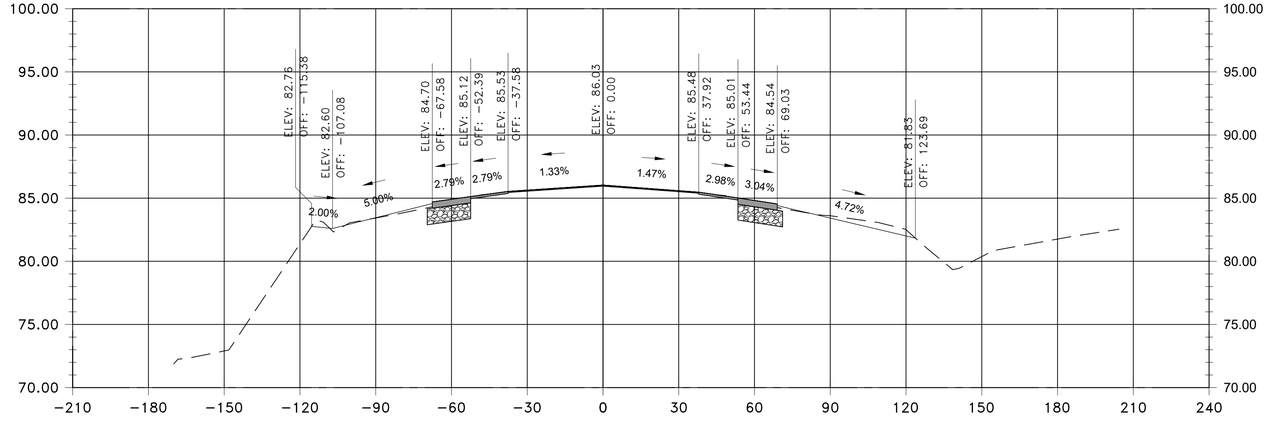
STA: 2069+00.00



TAXIWAY SA
STA: 2068+50.00

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 40

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.40

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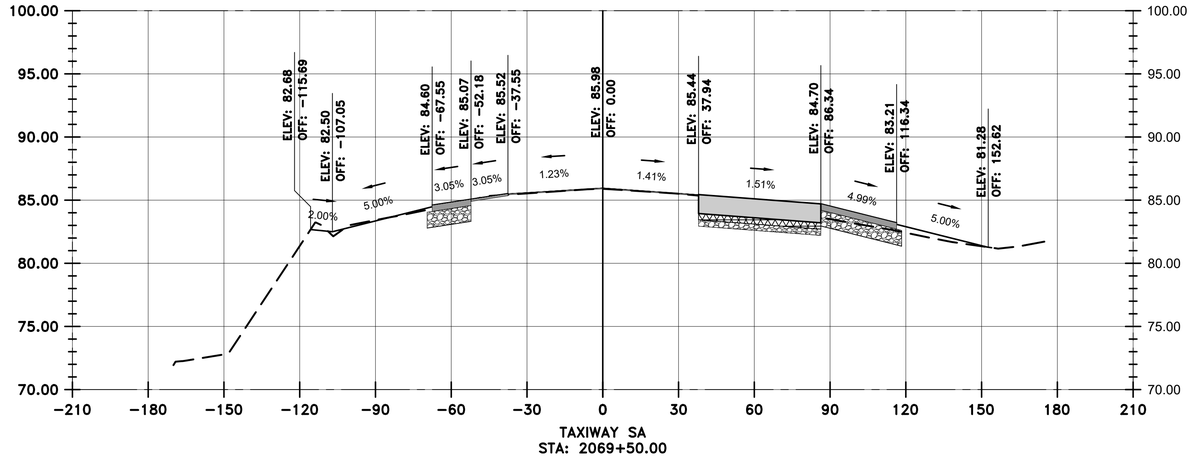

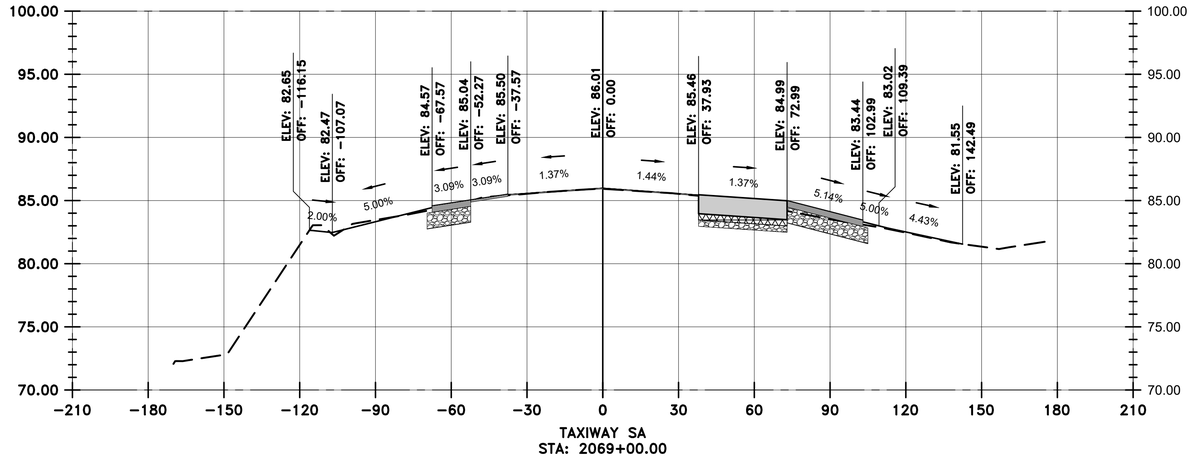

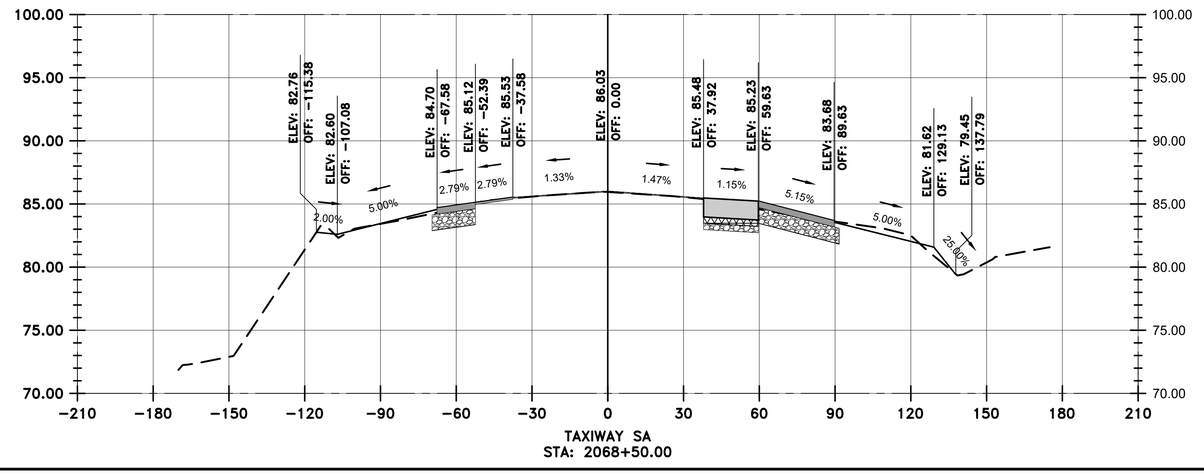

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 40

(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.40A

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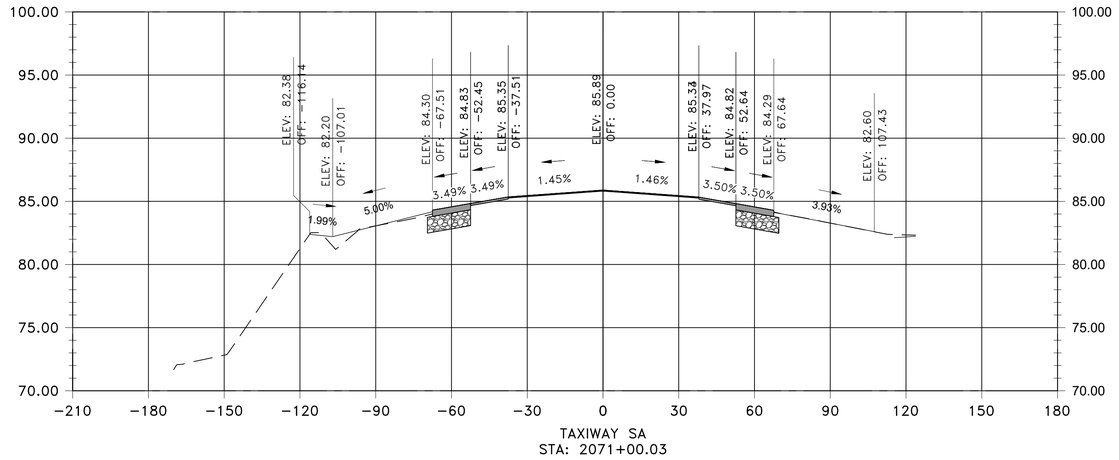
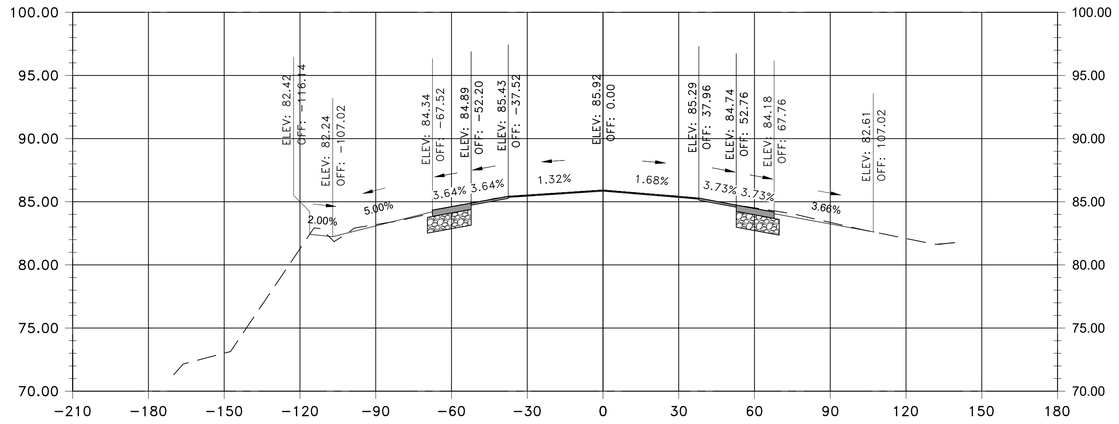


TAXIWAY SA
STA: 2071+00.03



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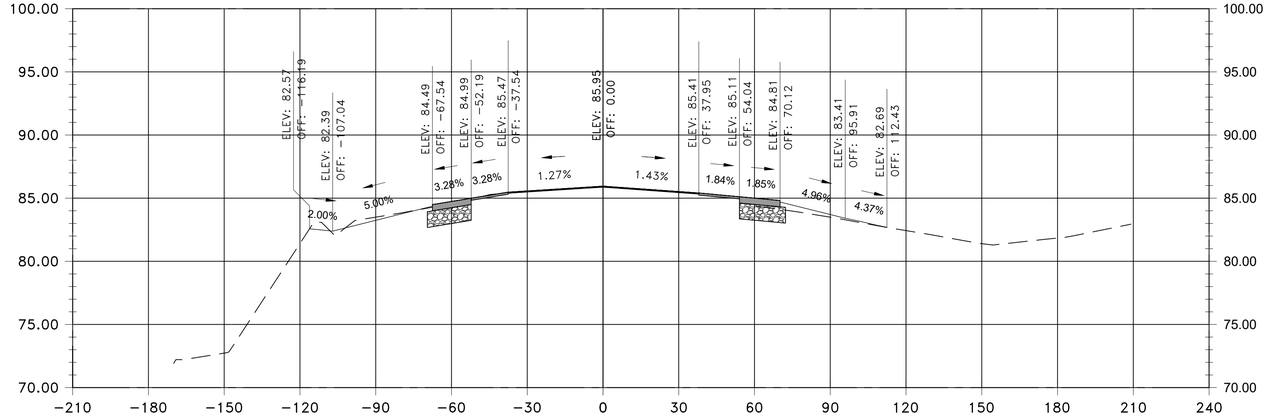
STA: 2070+50.03



TAXIWAY SA
STA: 2070+00.00

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 41

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.41

HAS FILE: C:\Users\WHernandez\OneDrive – Garver\Documents – IAH – TXYS SA SB REHAB – Aviation\0646.2\06 – Typical Sections\Model Files\0646CSC.dwg
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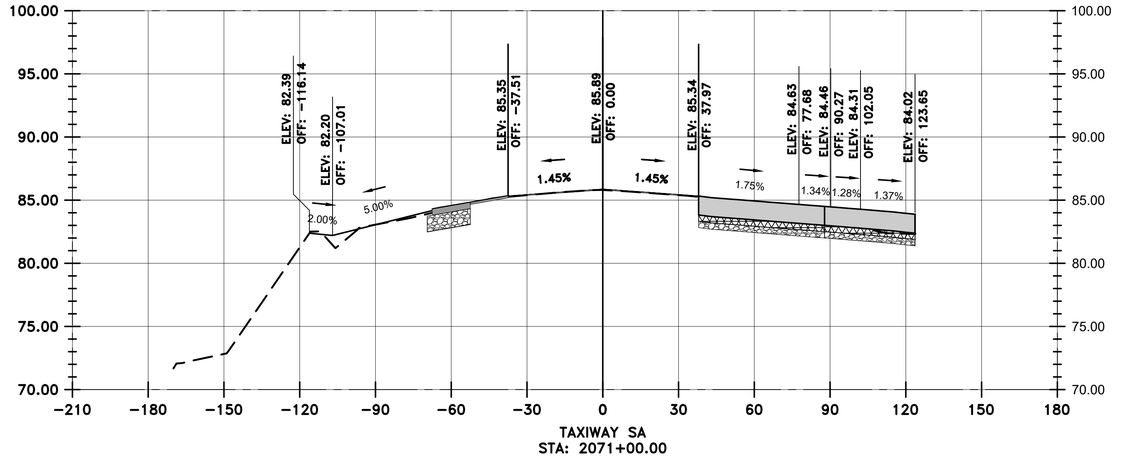

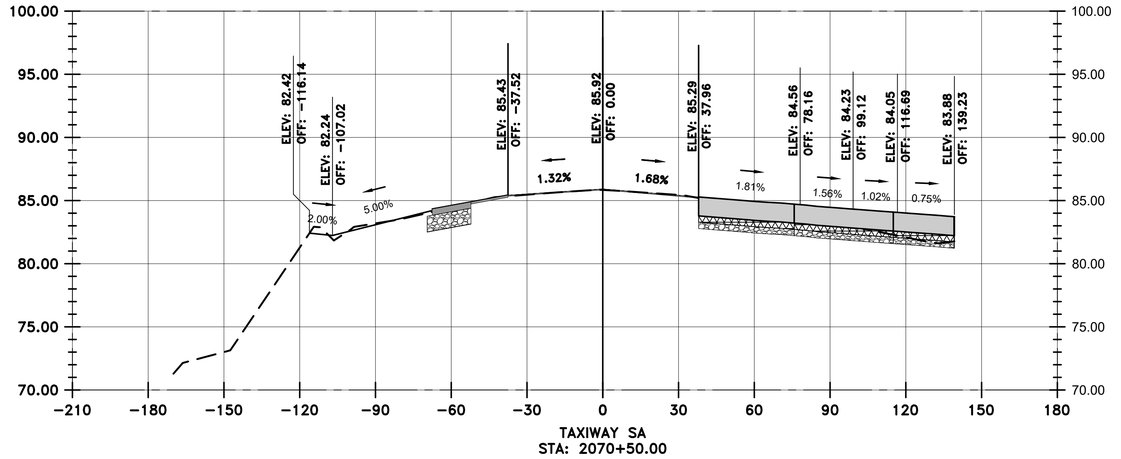

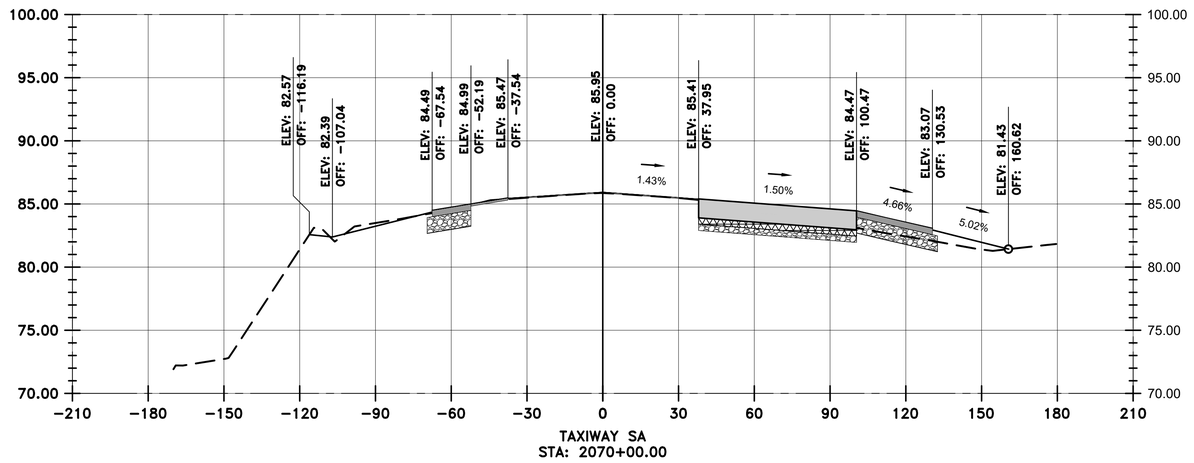

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 41 (ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.41A

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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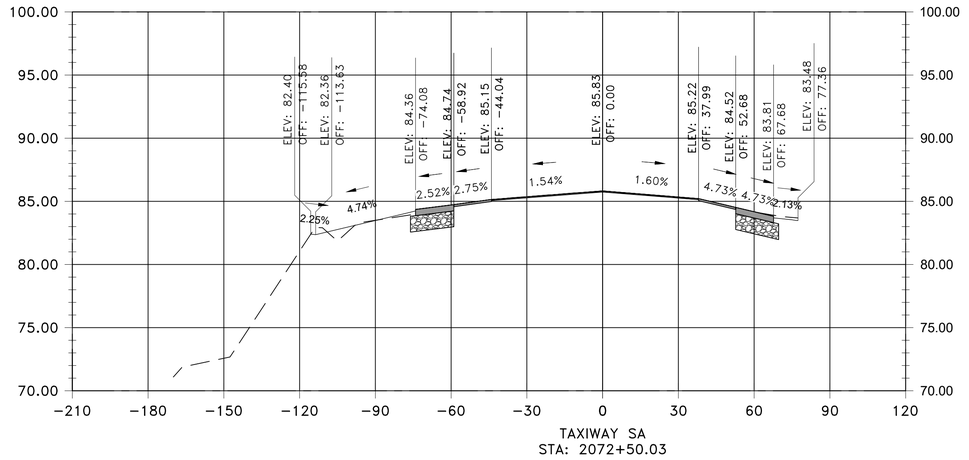

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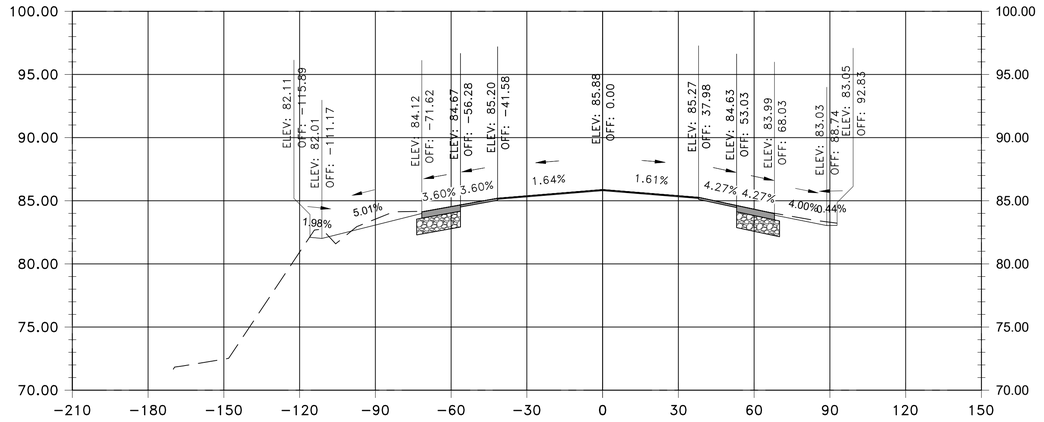
STA: 2072+50.03



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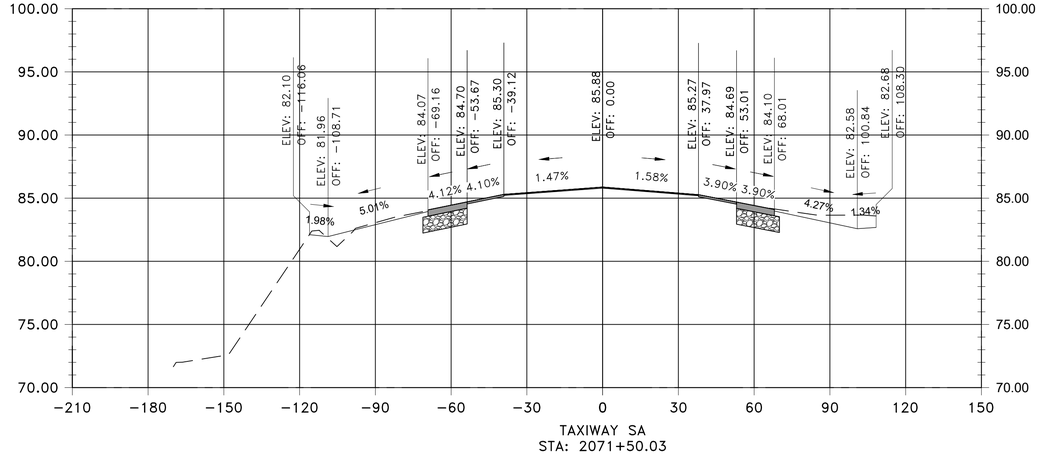
STA: 2072+00.03



TAXIWAY SA
STA: 2071+50.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 42

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.42

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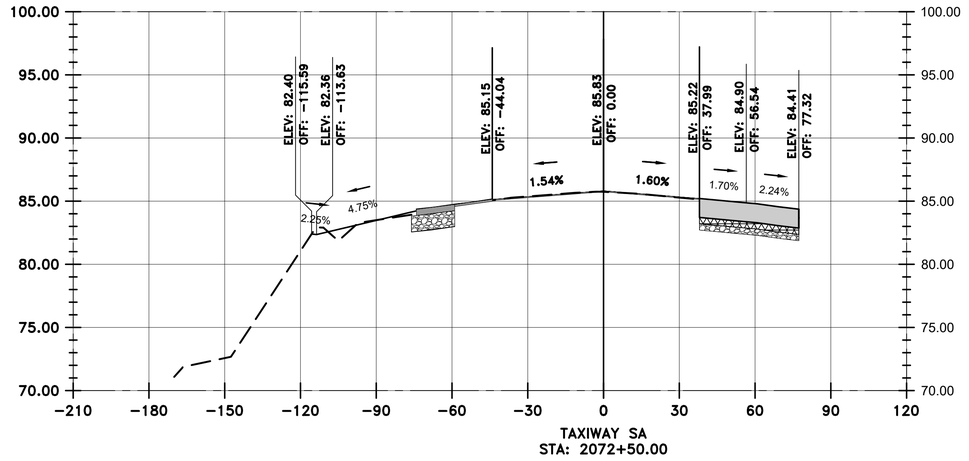

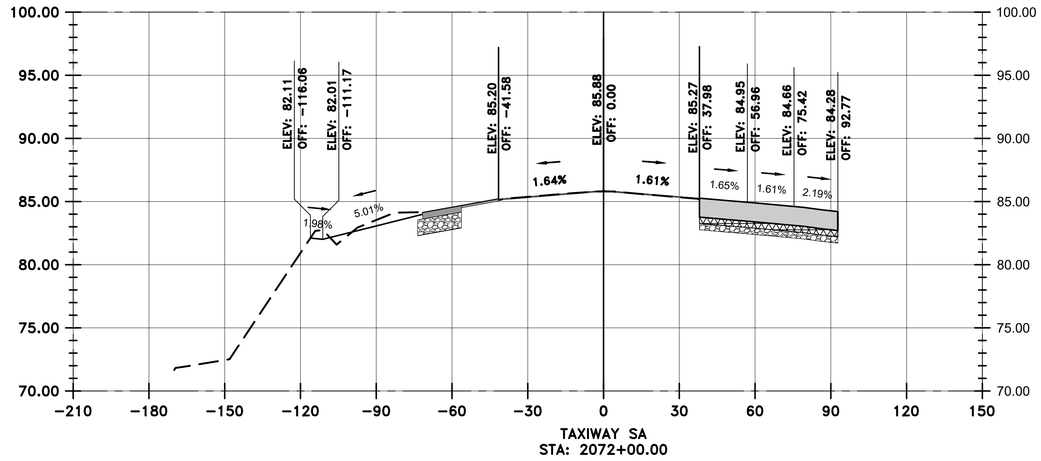

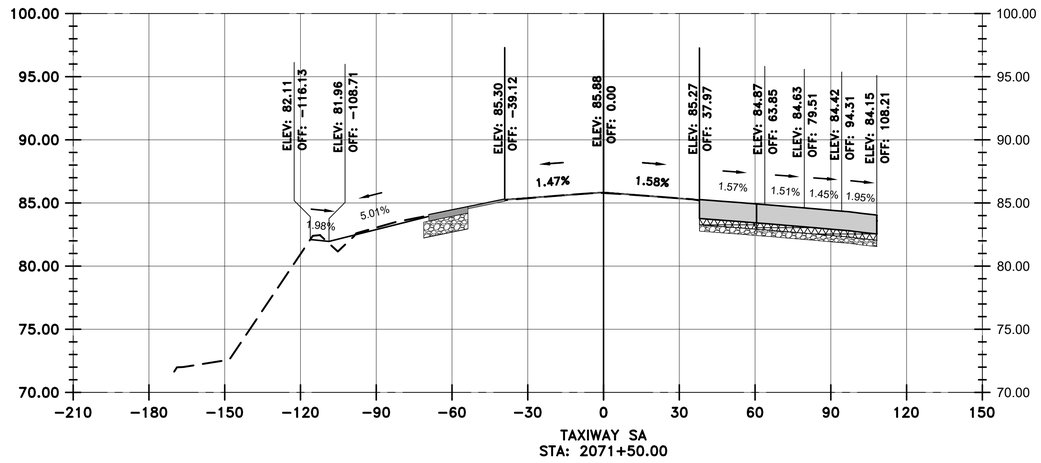

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 42

(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	**X01.42A**

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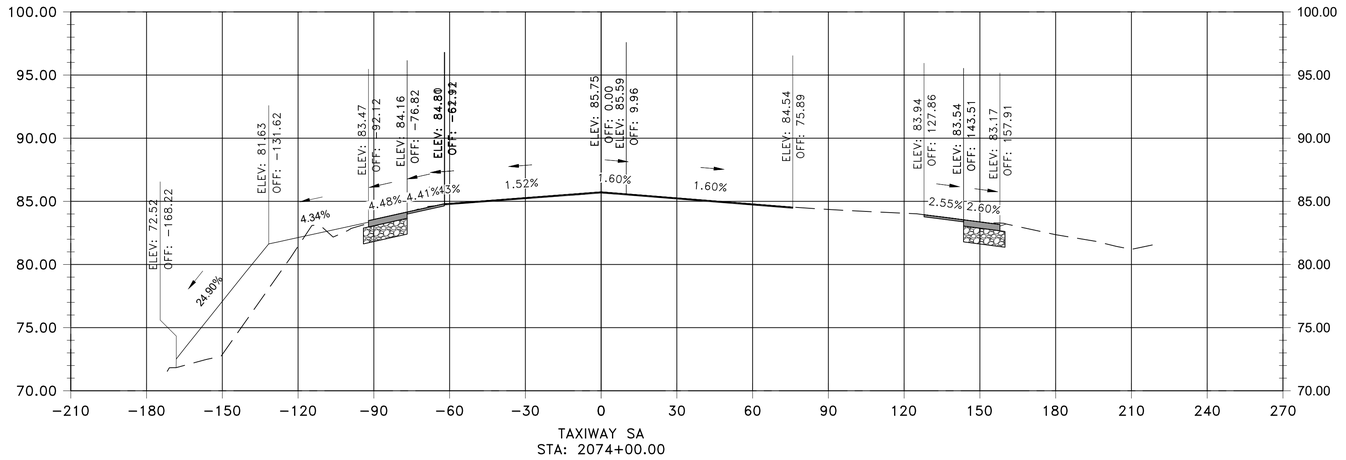
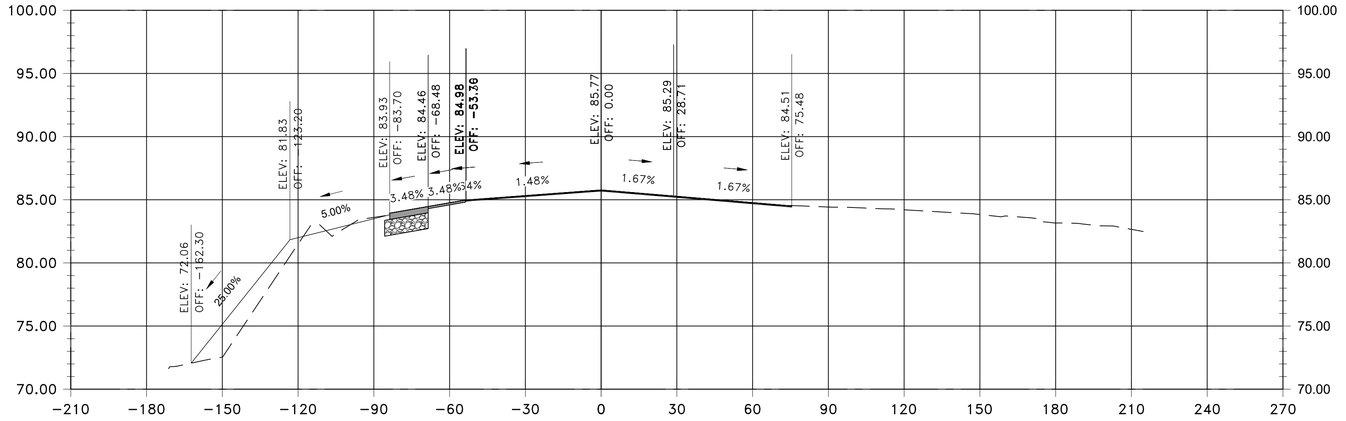
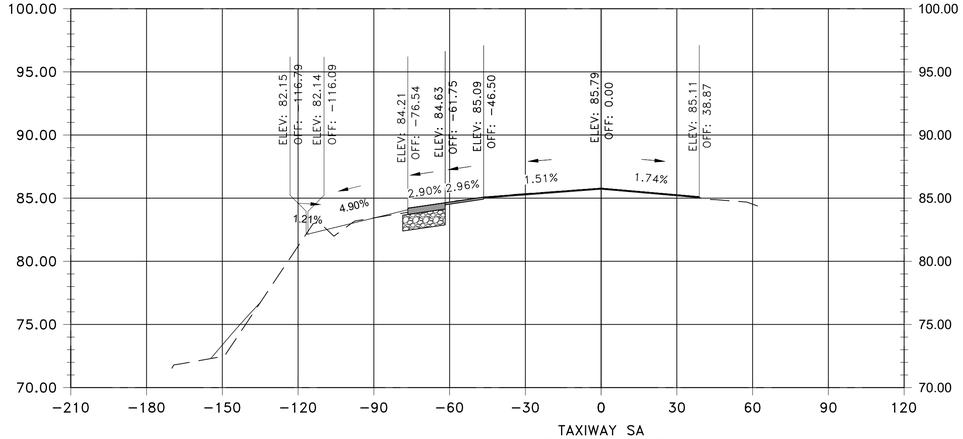


TAXIWAY SA
STA: 2074+00.00



TAXIWAY SA
STA: 2073+50.00



TAXIWAY SA
STA: 2073+00.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 43

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.43

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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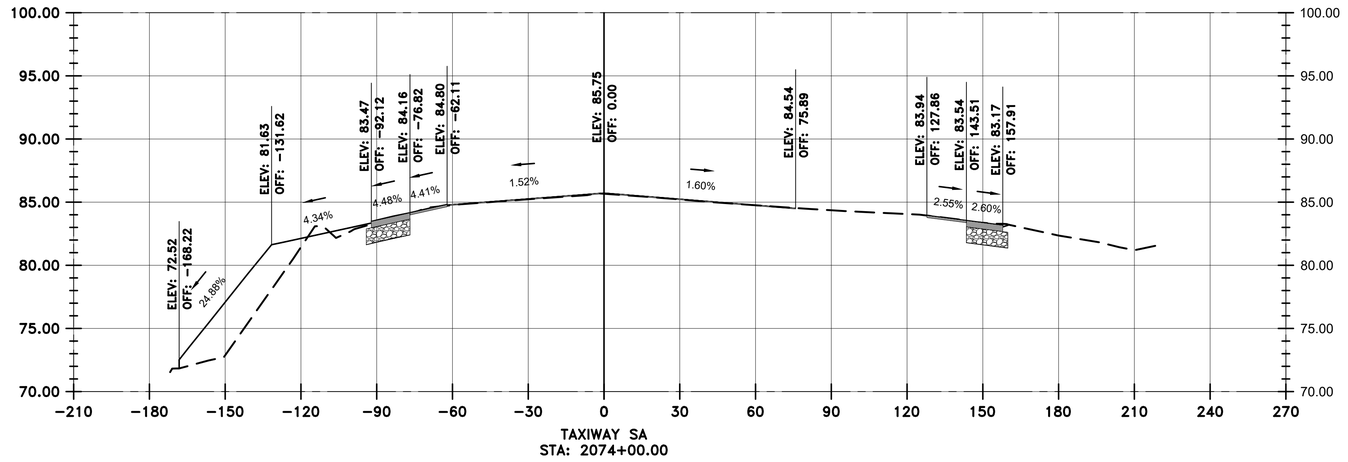
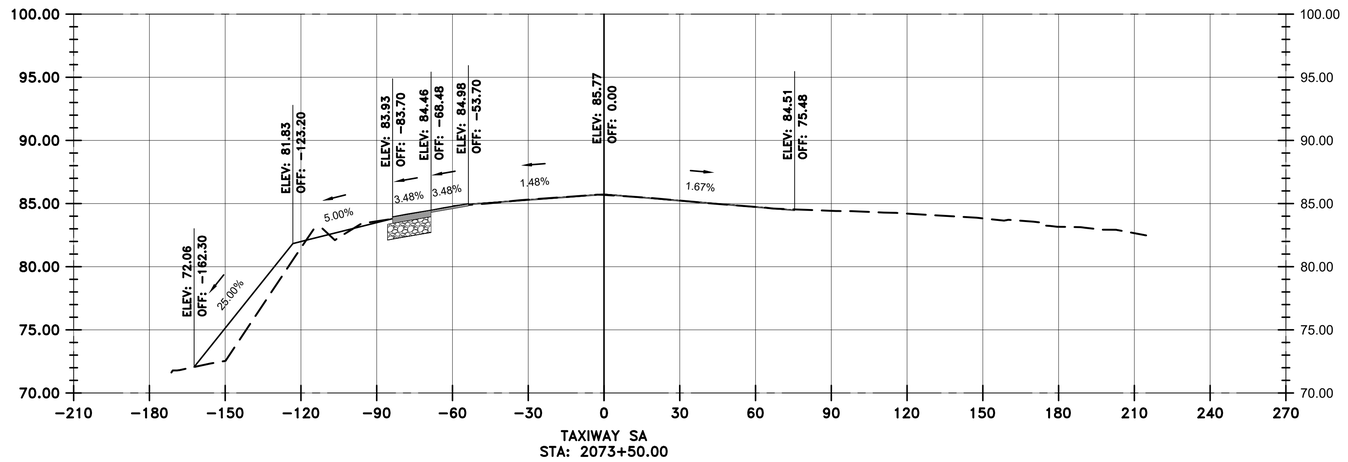
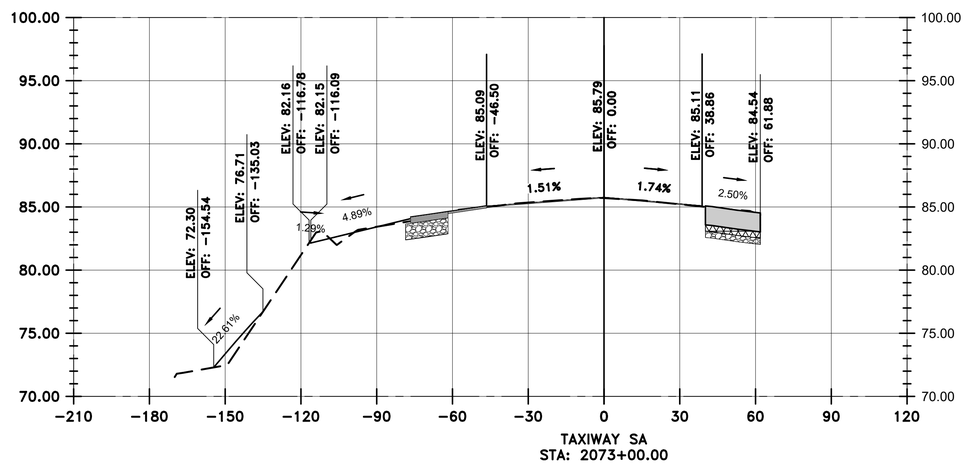
ADDITIVE ALTERNATE 1 (IF AWARDED)







LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 43
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.43A

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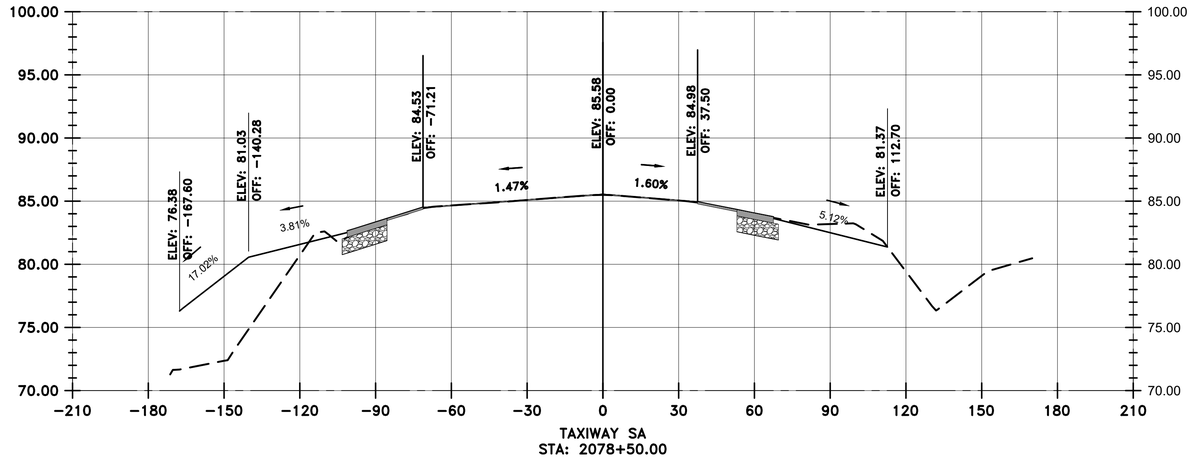
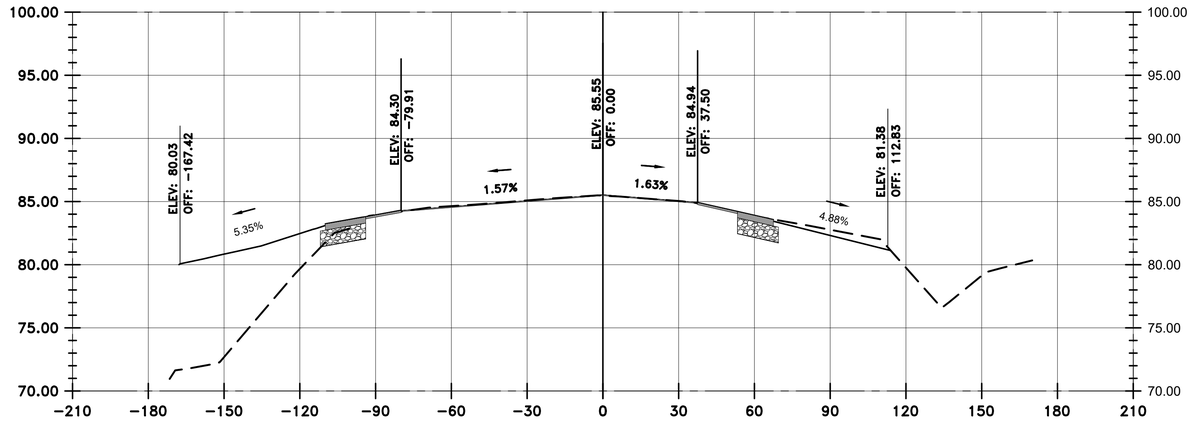


TAXIWAY SA
STA: 2078+50.00



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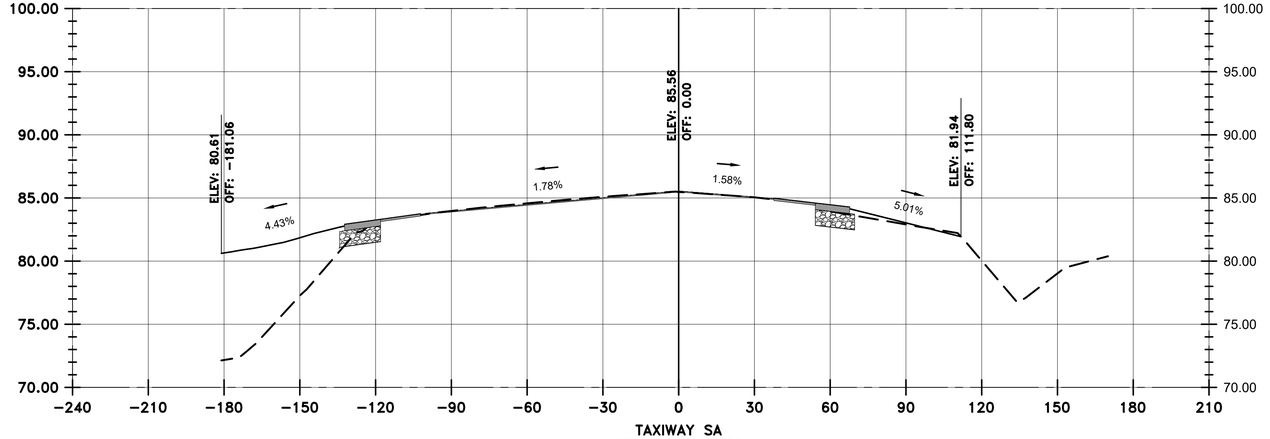
STA: 2078+00.00



TAXIWAY SA
STA: 2077+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 44

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.44

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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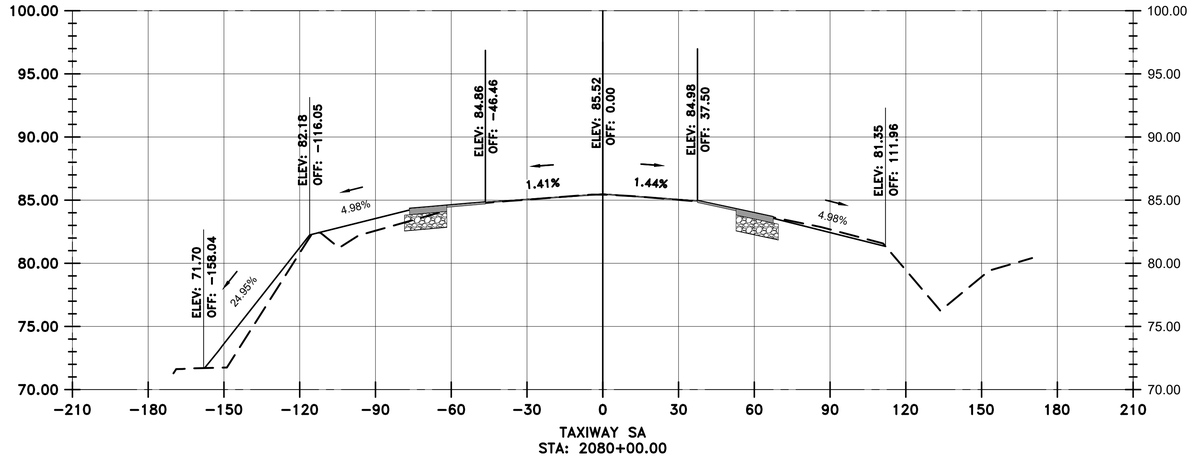

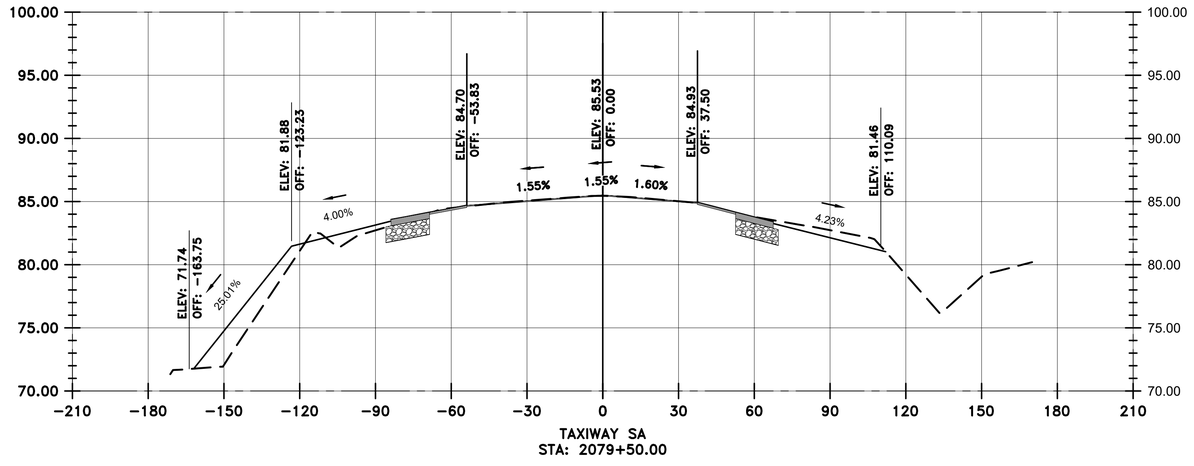

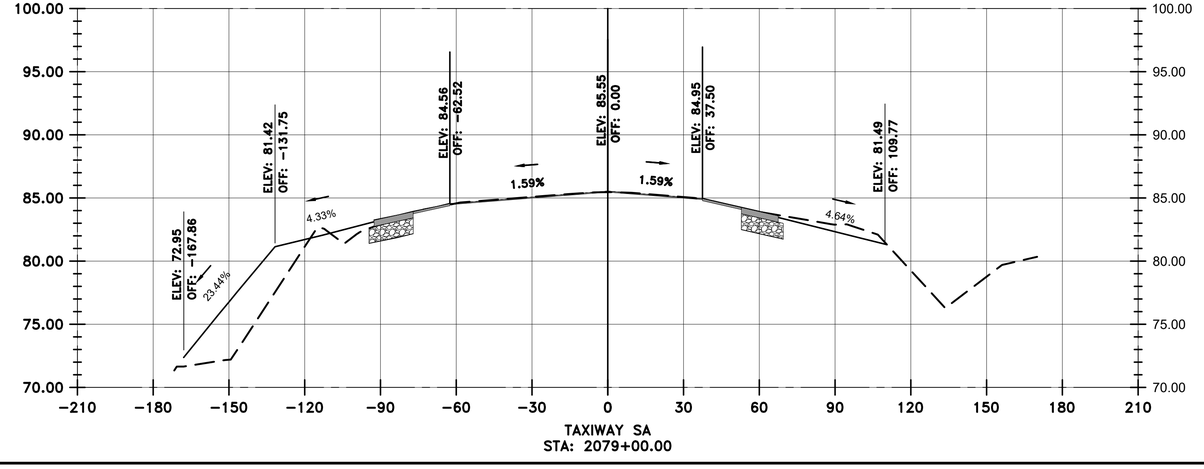

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
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Suite 640
Houston, TX 77079
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 45

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.45

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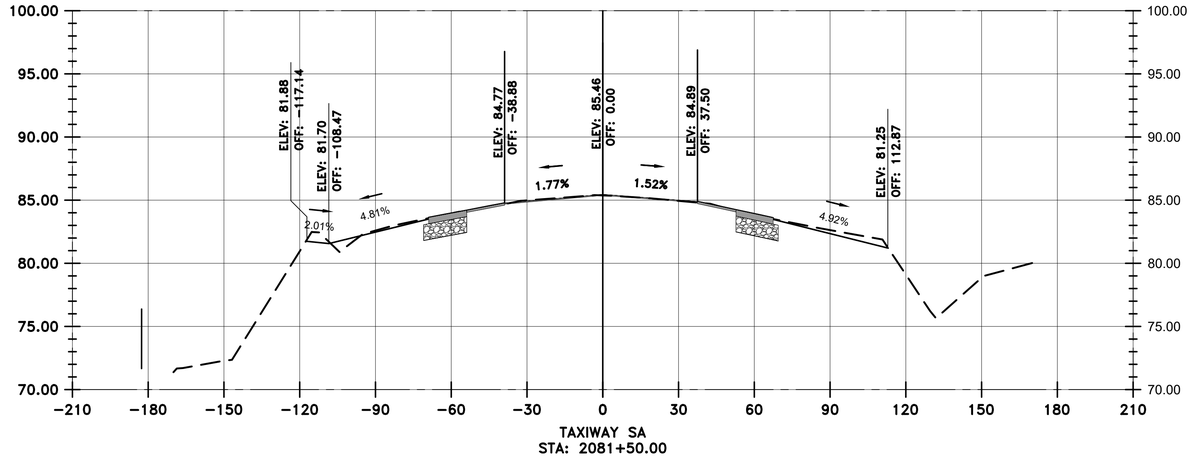

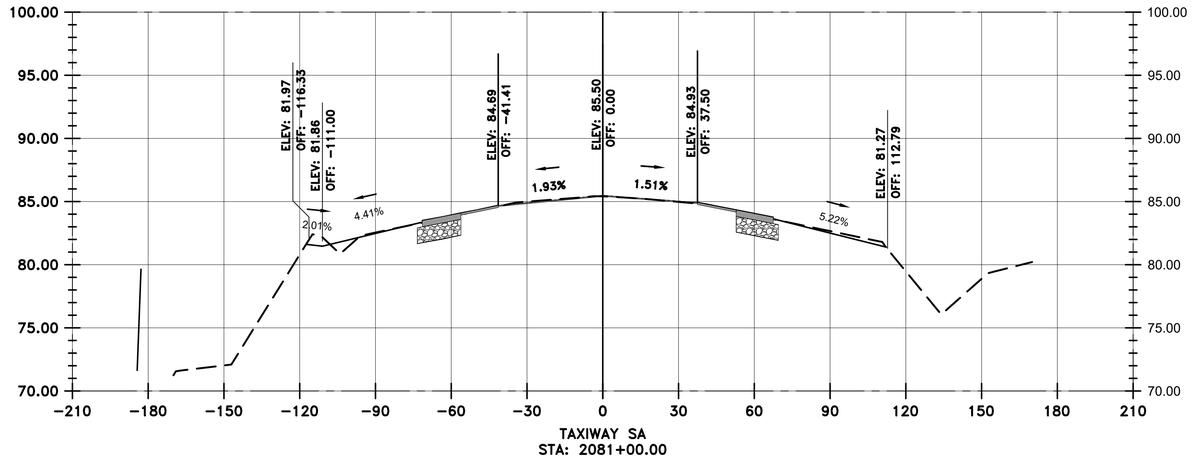

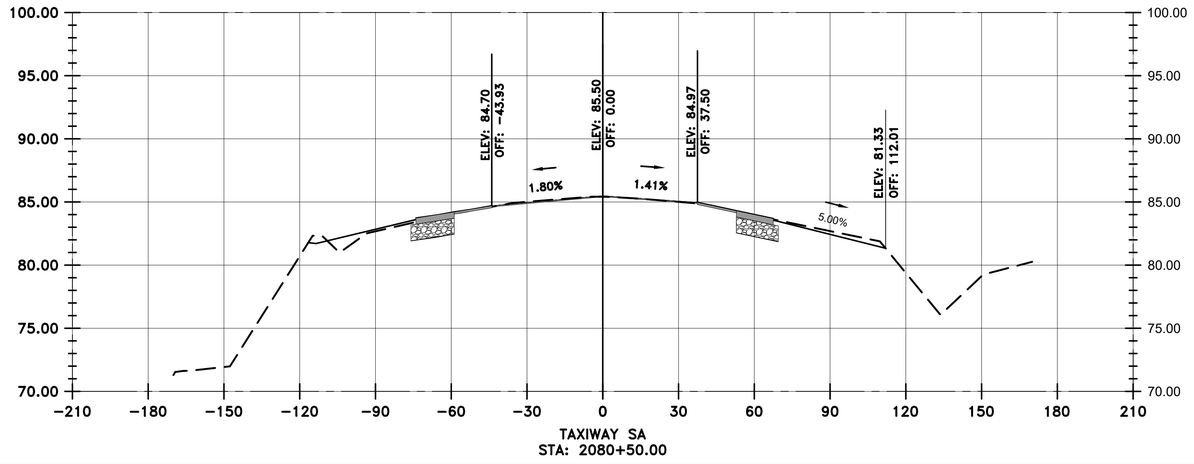

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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Suite 640
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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 46

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.46

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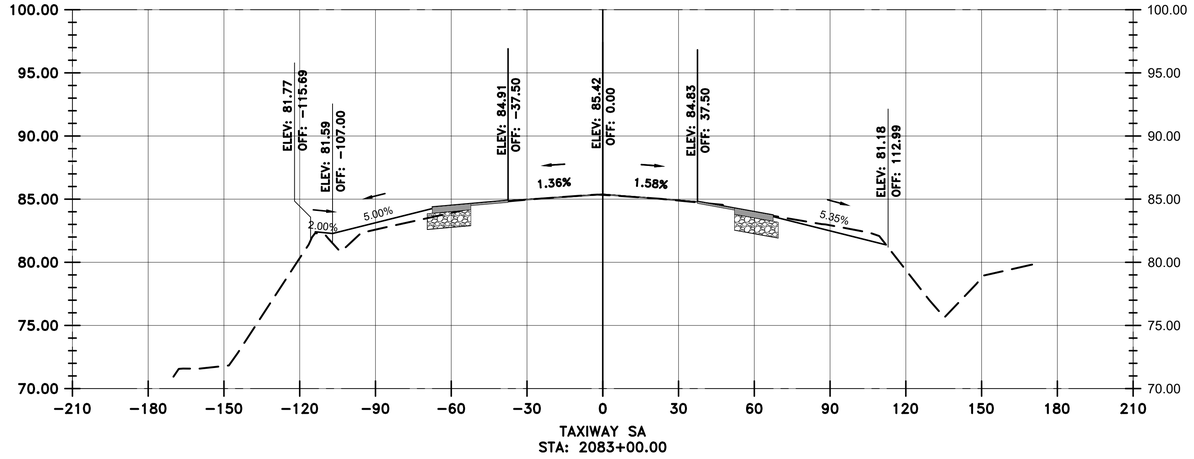

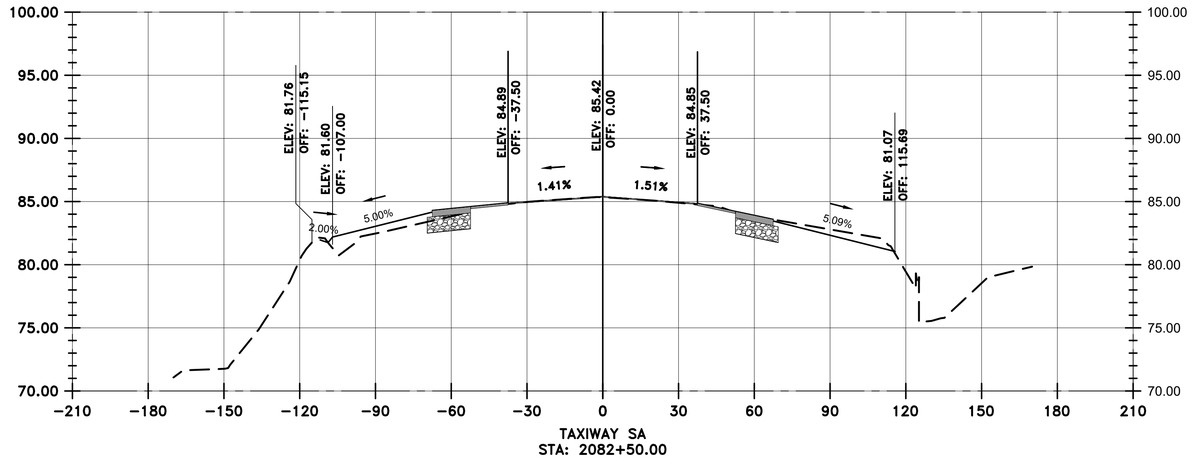

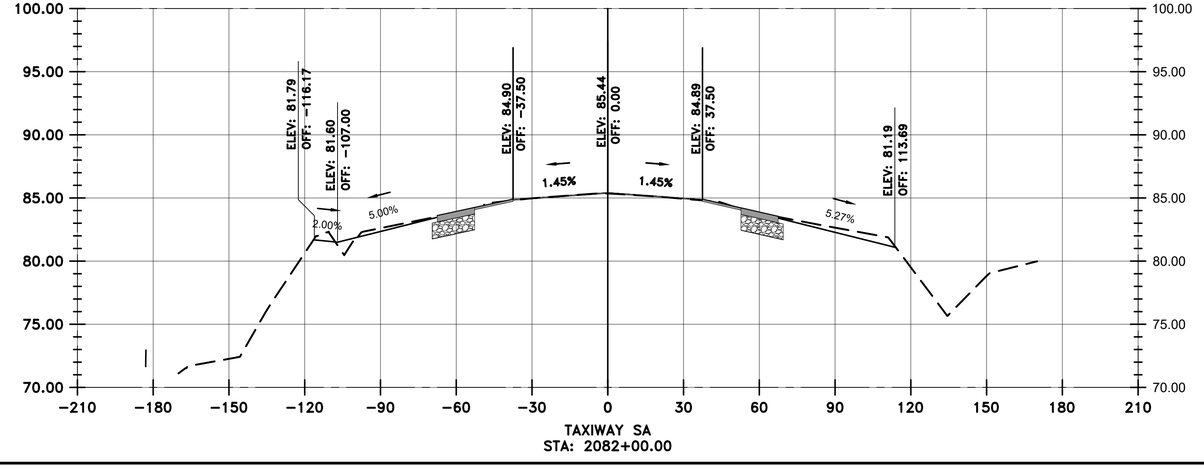

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
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Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 47

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.47

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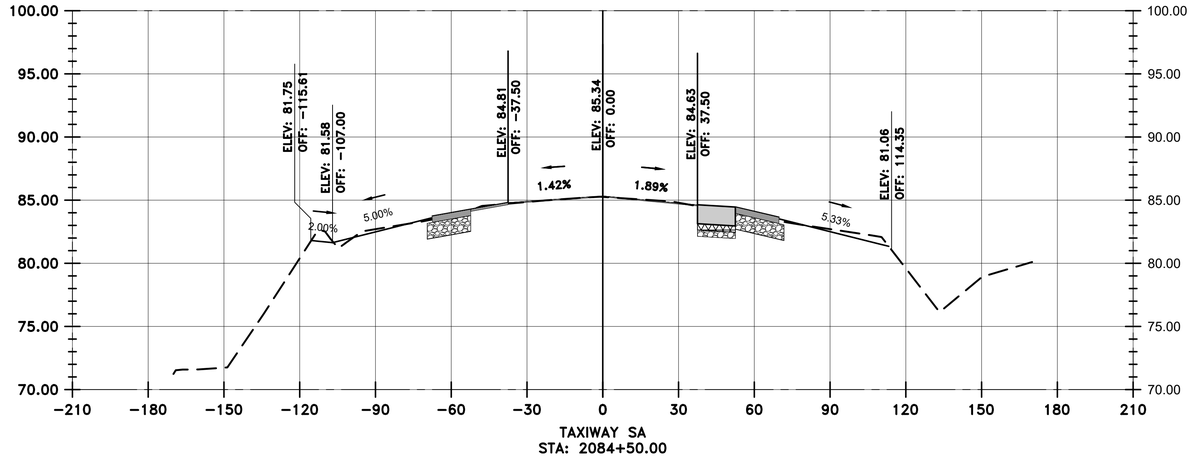

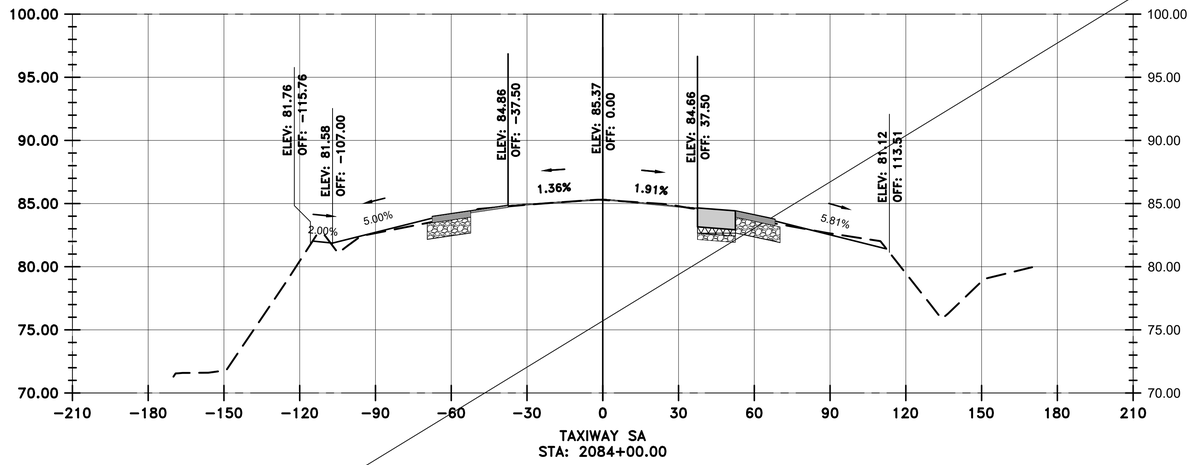

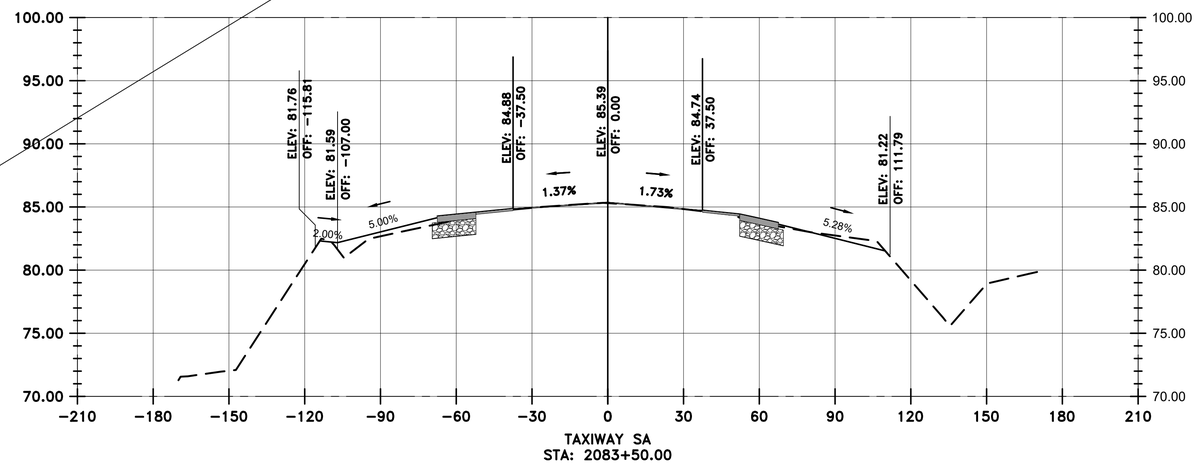

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 48

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.48

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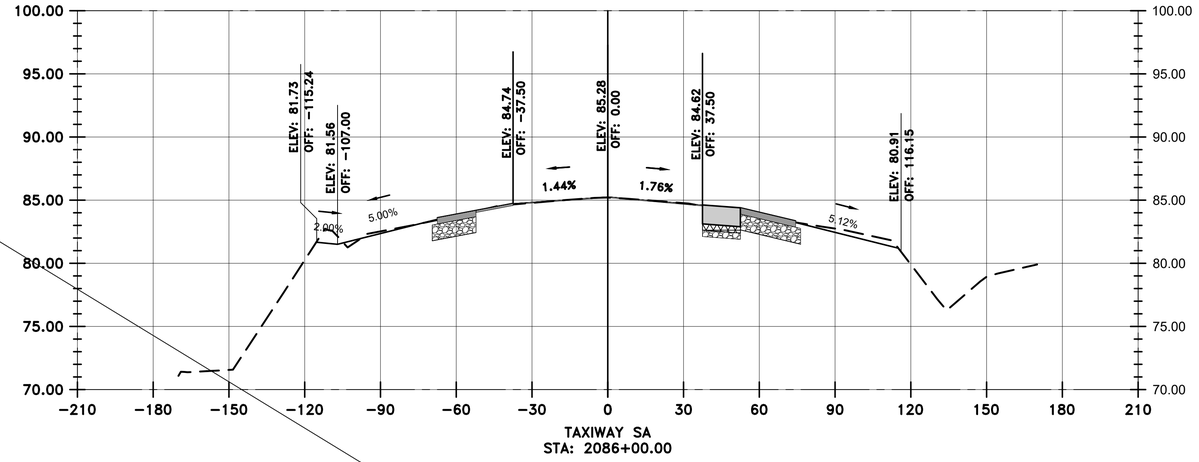

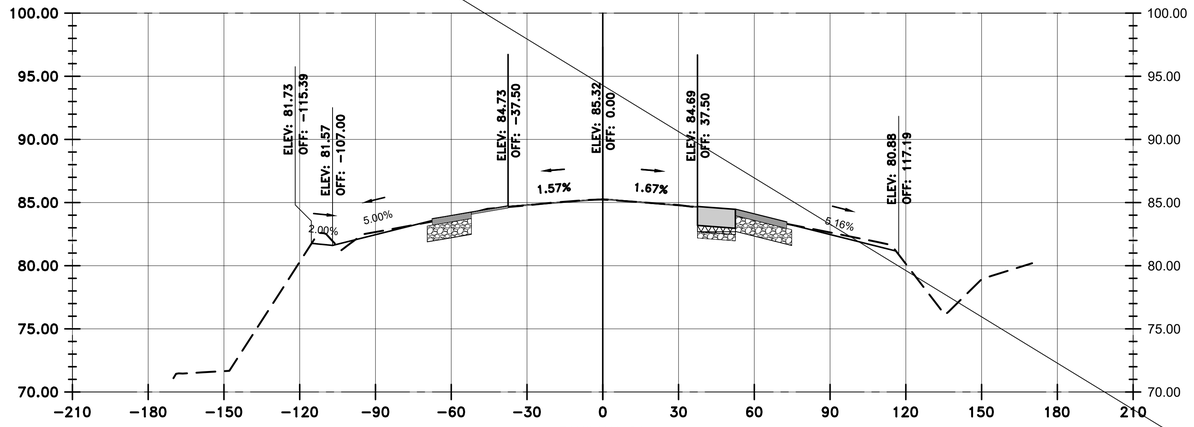

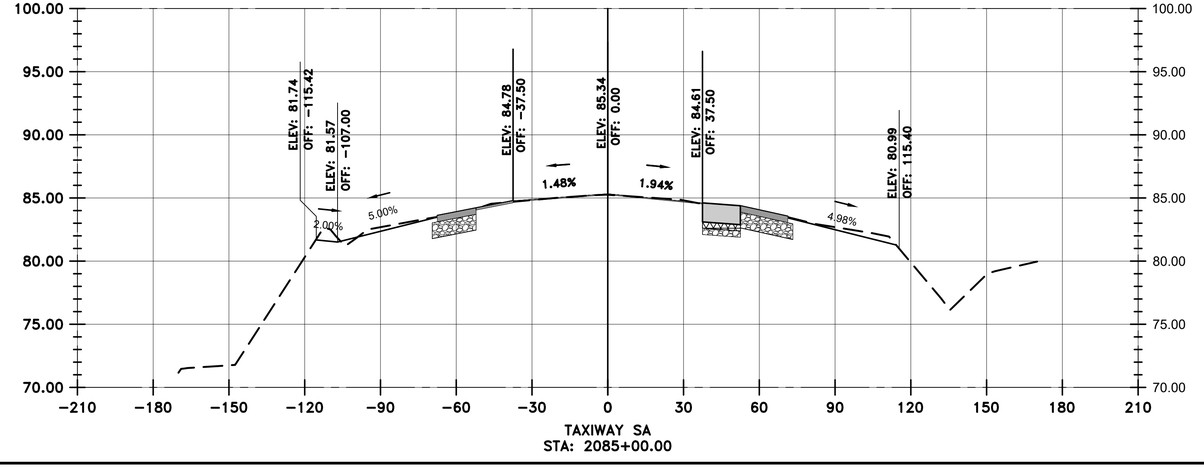

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 49

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.49

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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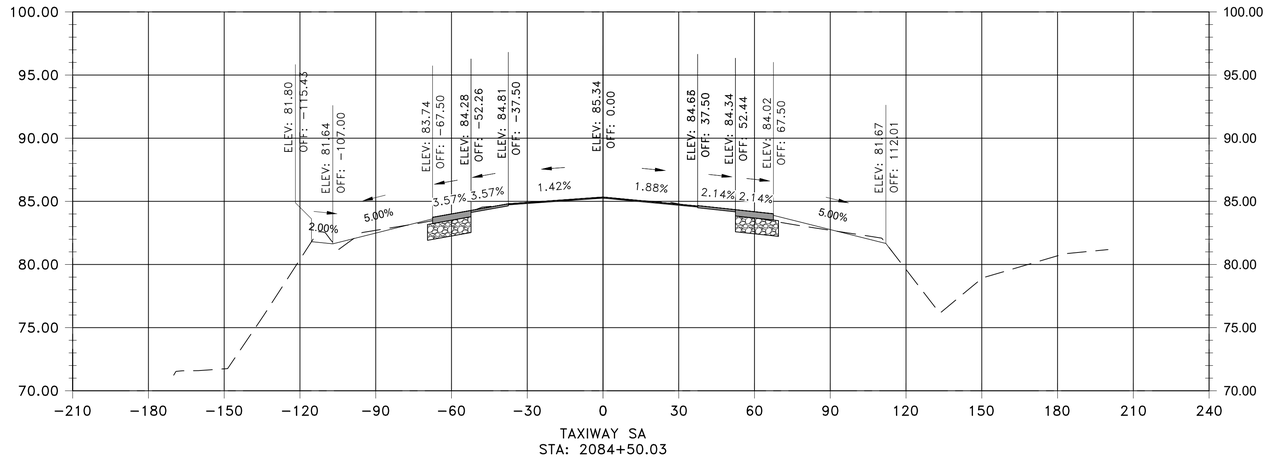
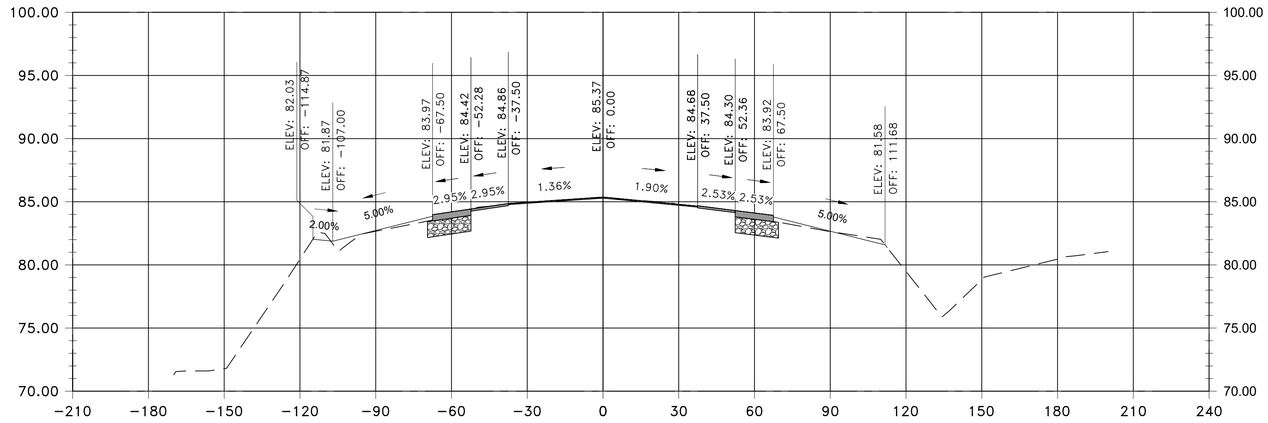
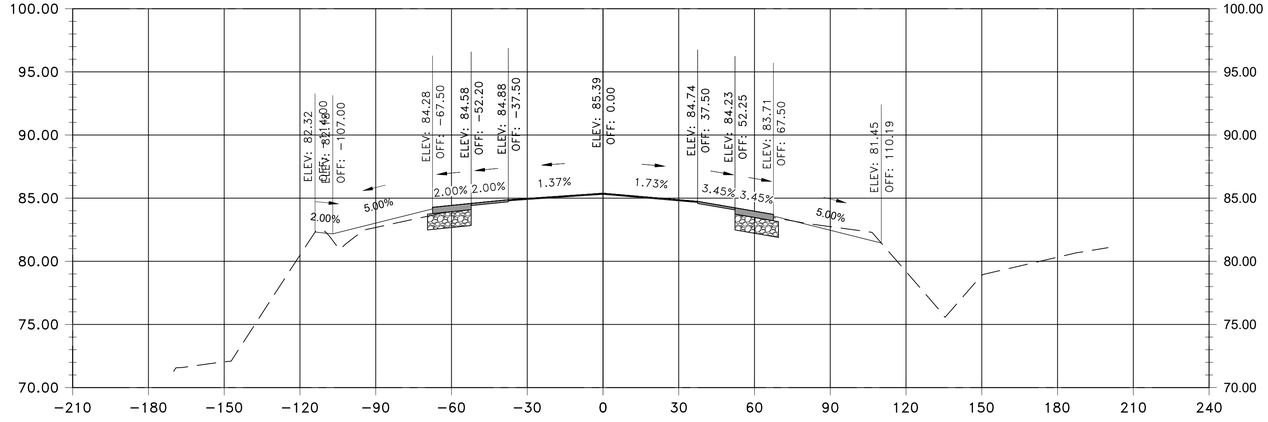


TAXIWAY SA
STA: 2084+50.03



TAXIWAY SA
STA: 2084+00.03



TAXIWAY SA
STA: 2083+50.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 50

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

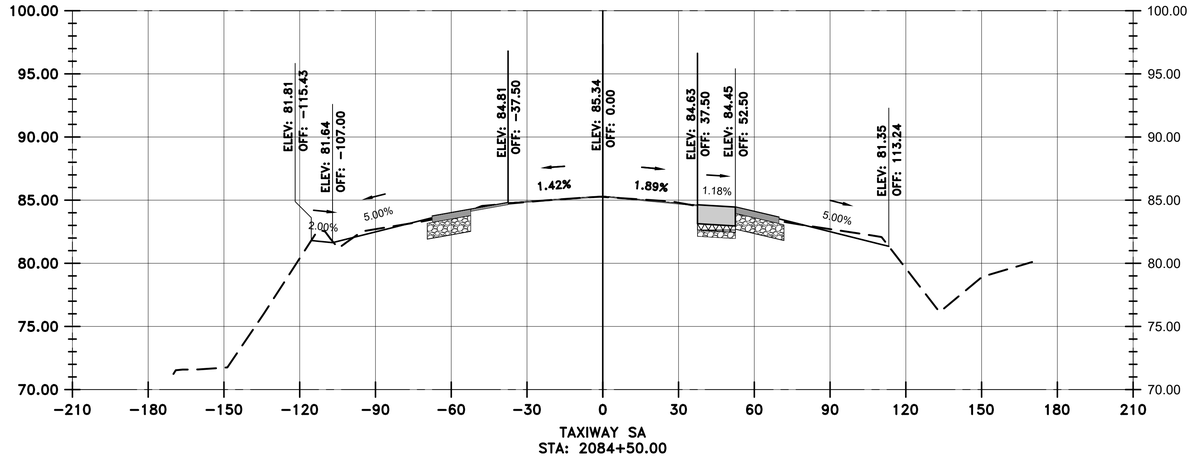
C.I.P. NO.
A-0515

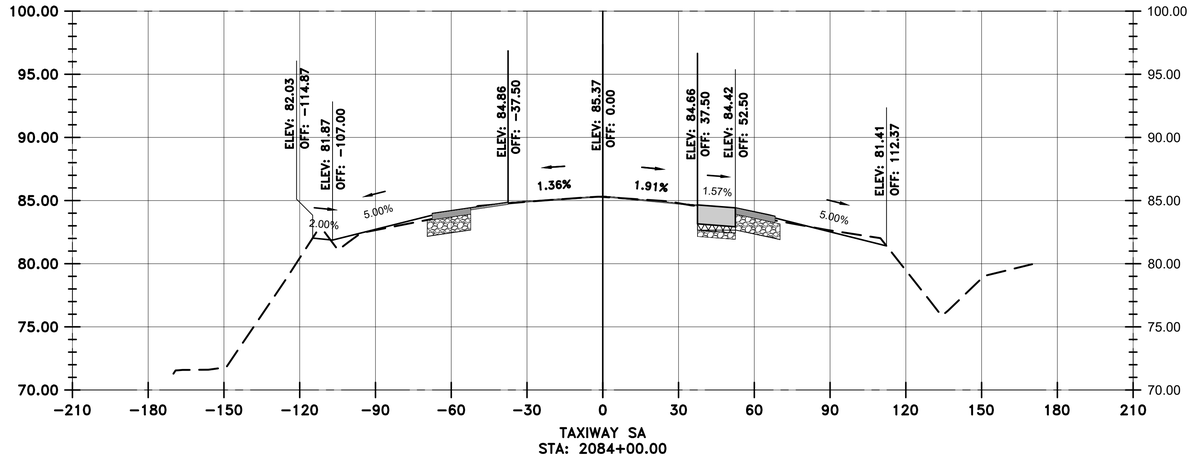
H.A.S. NO.
20C0646A

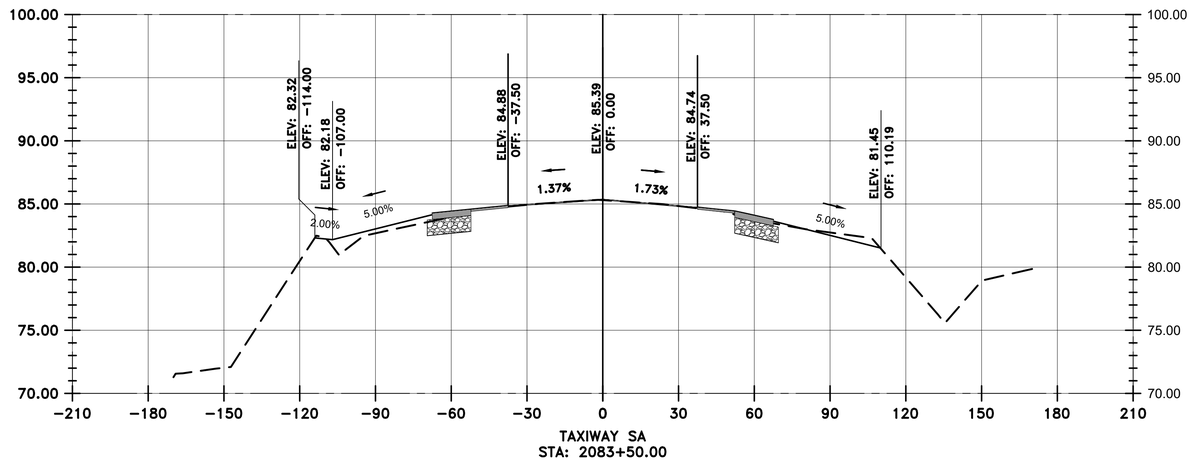
SHEET NO.
X01.50

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

ADDITIVE ALTERNATE 1 (IF AWARDED)







LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 50

(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

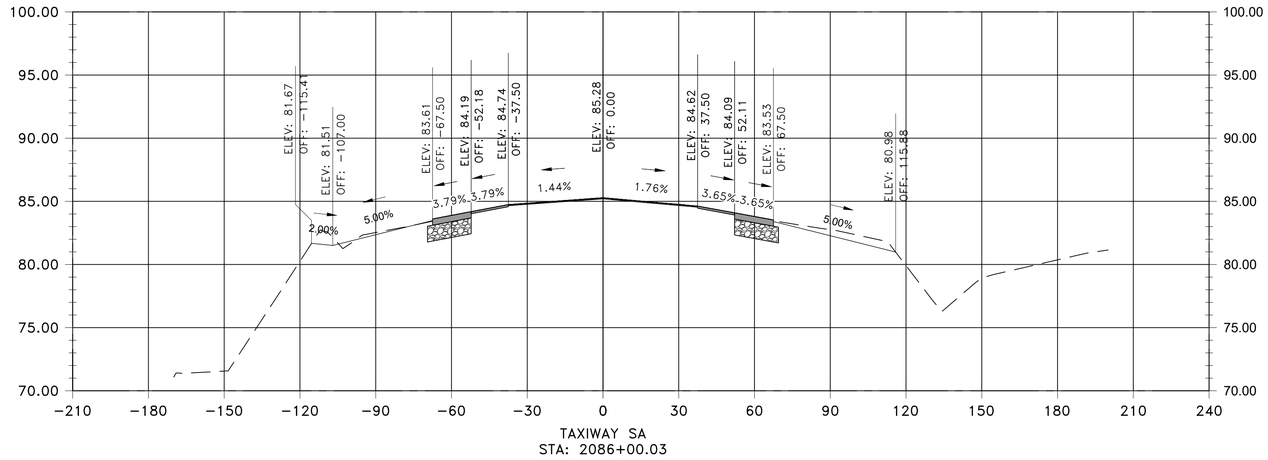
A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

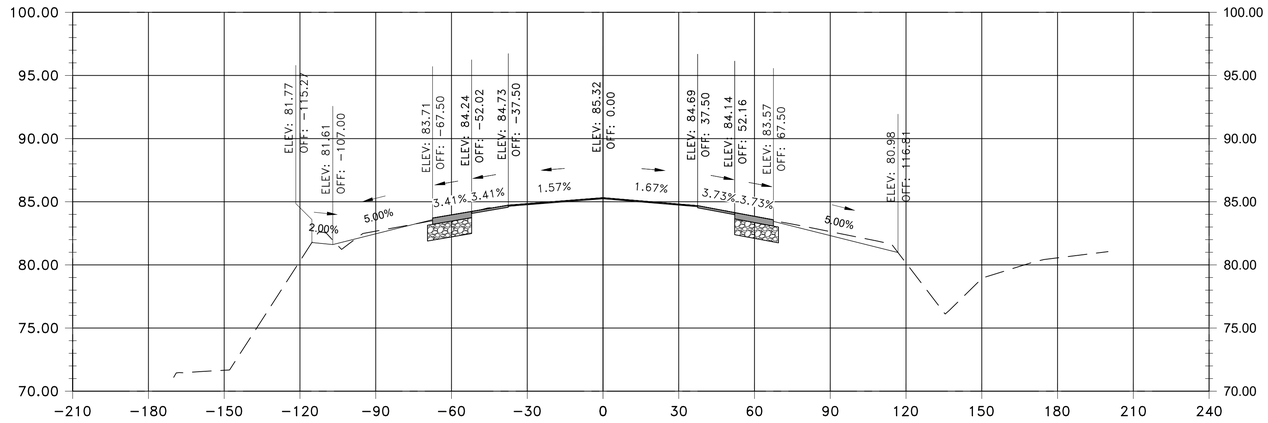
H.A.S. NO.
20C0646A

SHEET NO.
X01.50A

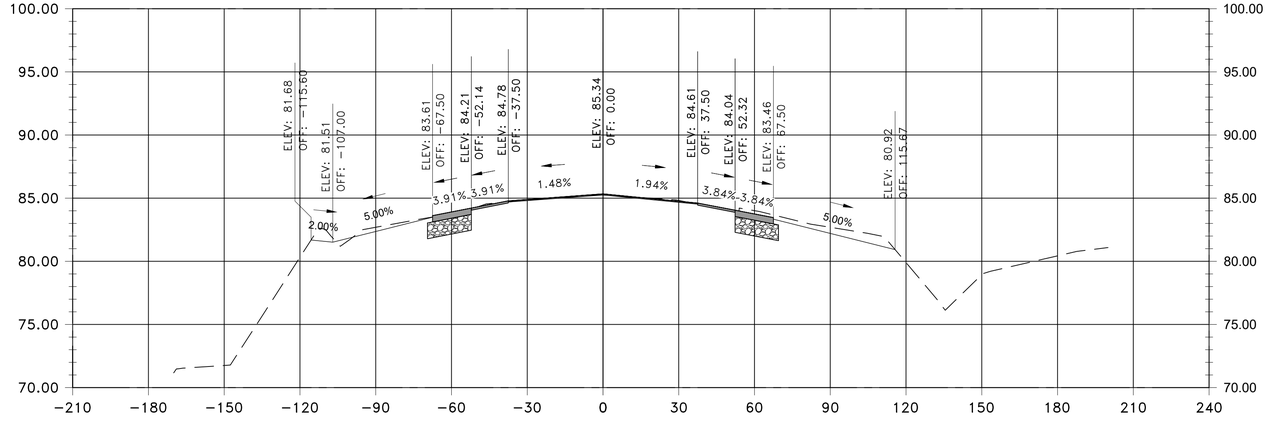
HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



TAXIWAY SA
STA: 2086+00.03



TAXIWAY SA
STA: 2085+50.03



TAXIWAY SA
STA: 2085+00.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 51

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.51

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

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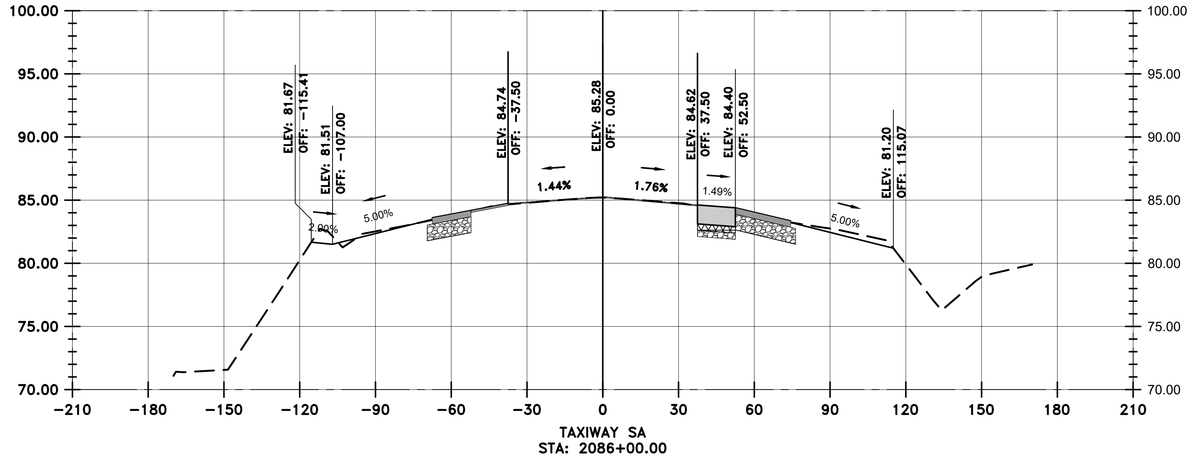

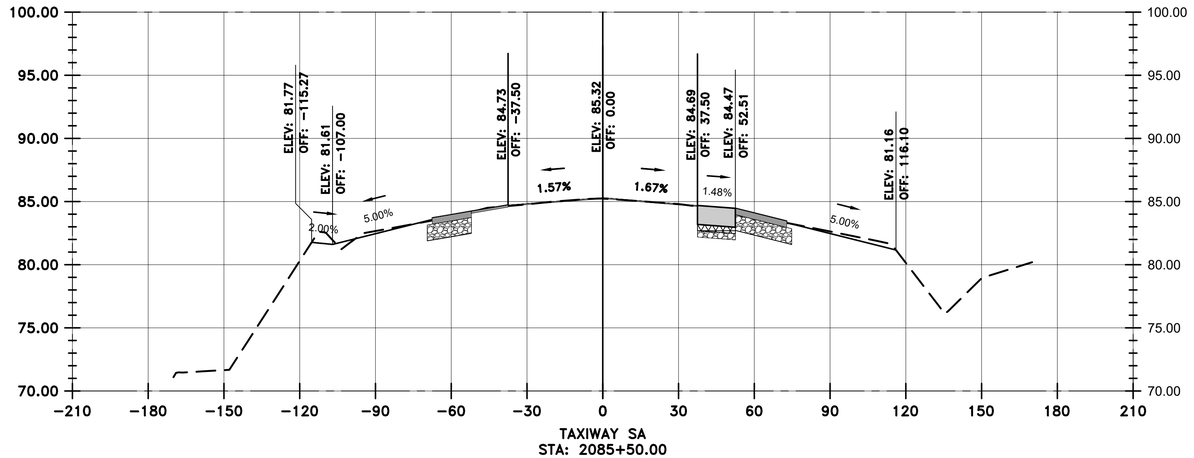

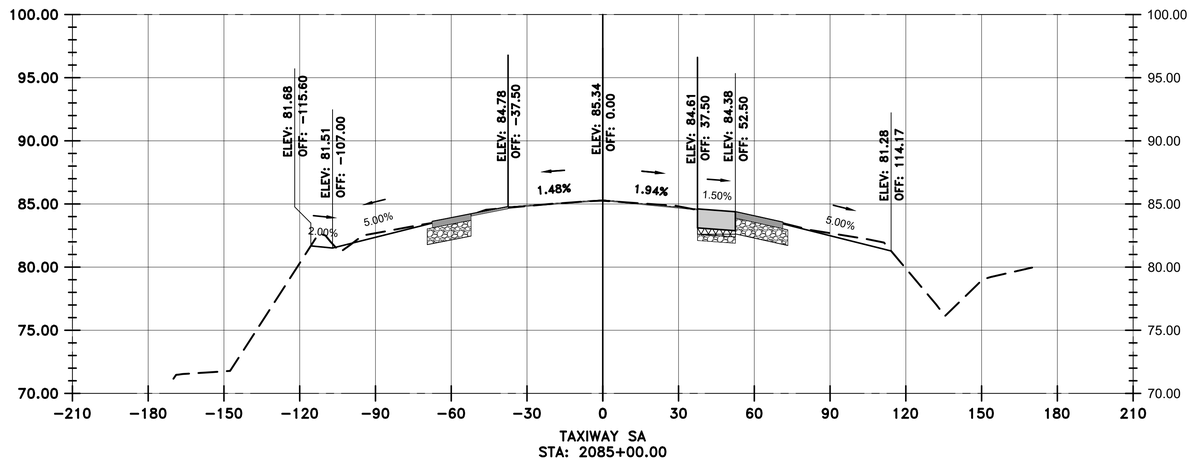

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 51

(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

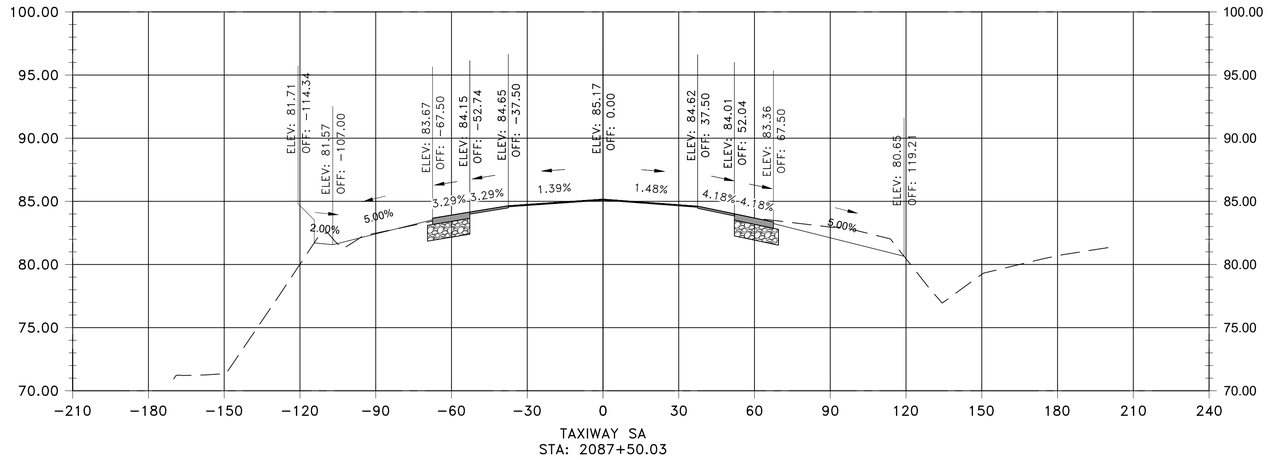
A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

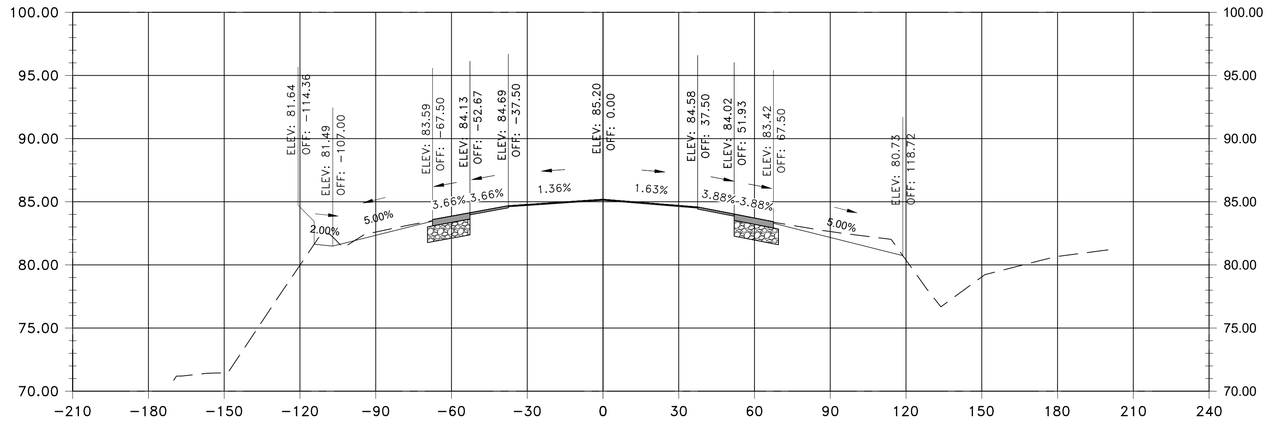
H.A.S. NO.
20C0646A

SHEET NO.
X01.51A

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



TAXIWAY SA
STA: 2087+50.03



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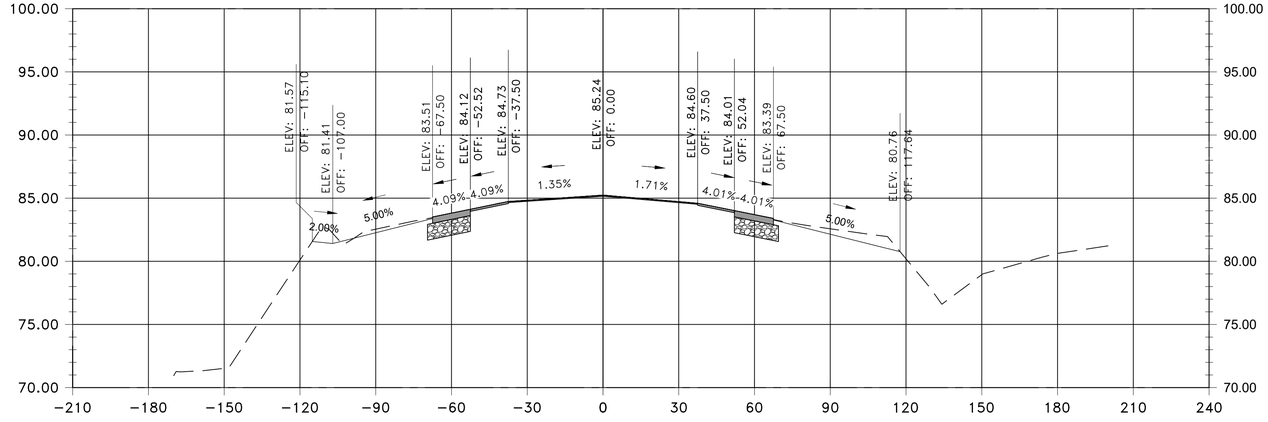
STA: 2087+00.03



TAXIWAY SA
STA: 2086+50.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 52

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.52

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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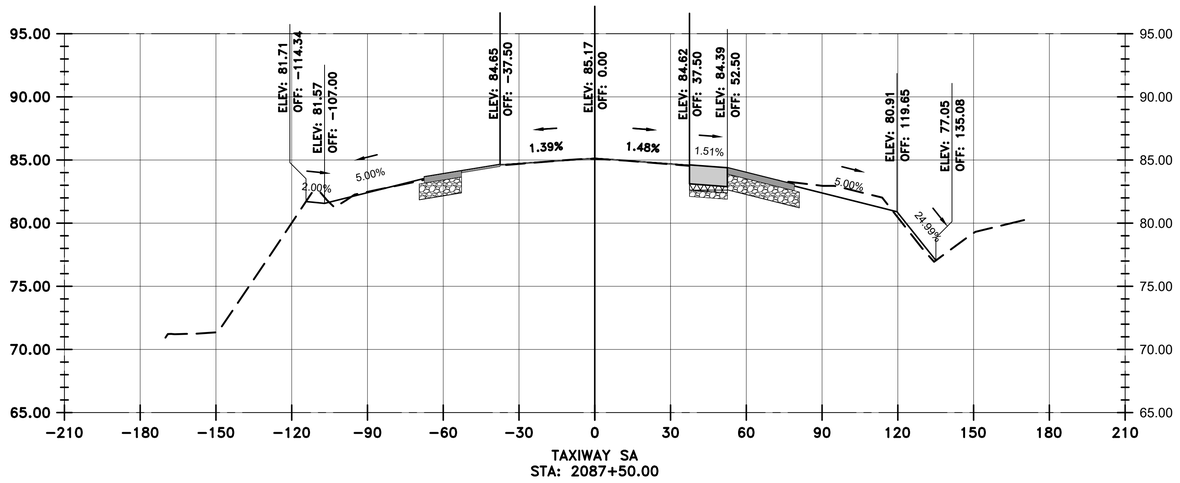
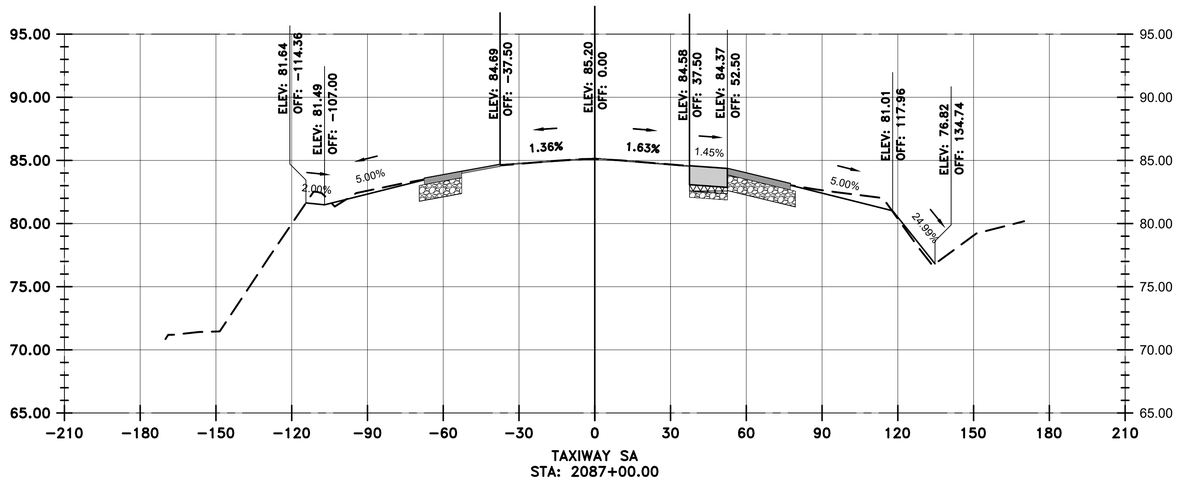
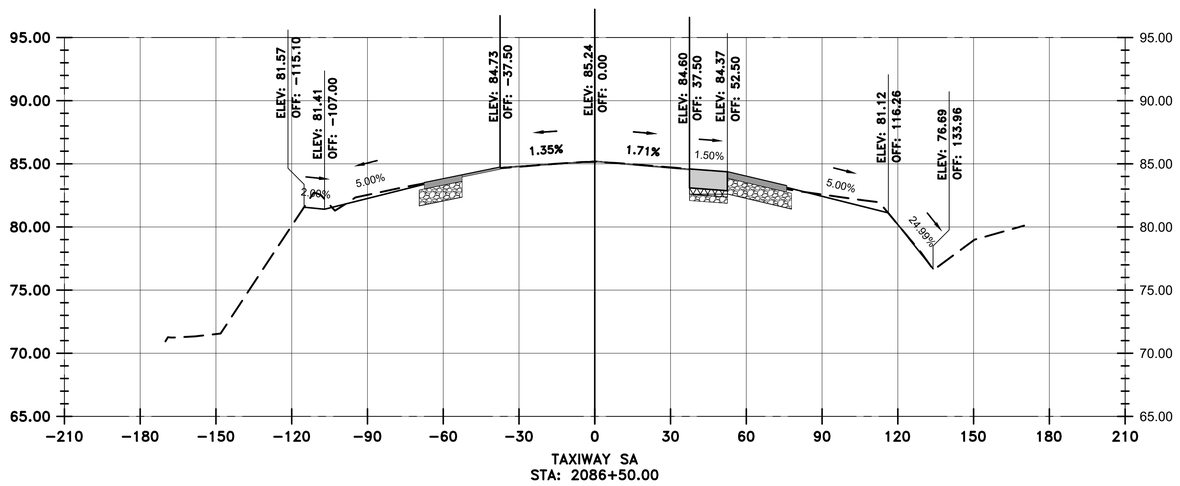
ADDITIVE ALTERNATE 1 (IF AWARDED)







VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 52
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO. 0646A
A.I.P. NO. XXXX
C.I.P. NO. A-0515
H.A.S. NO. 20C0646A
SHEET NO.

X01.52A

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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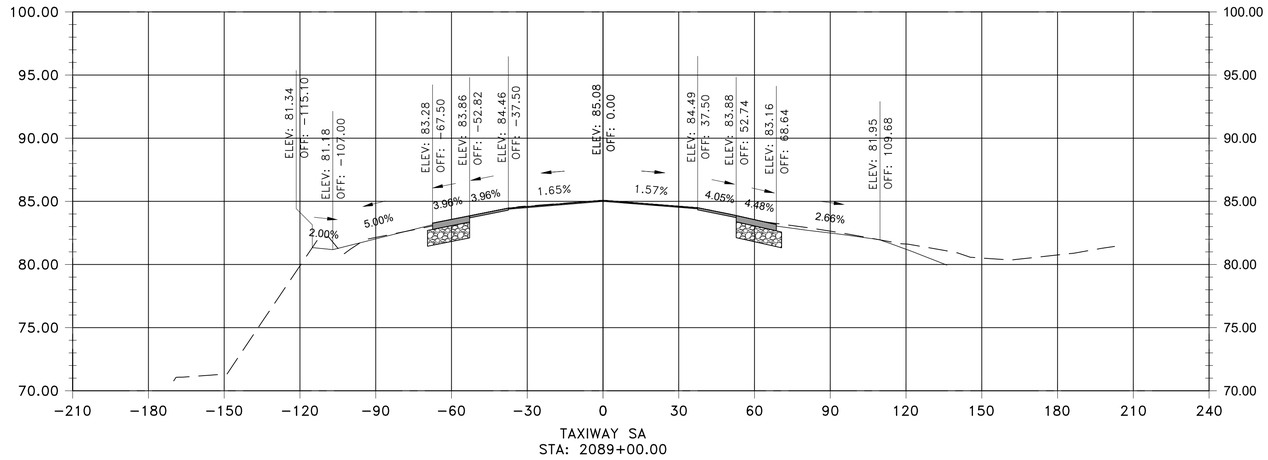
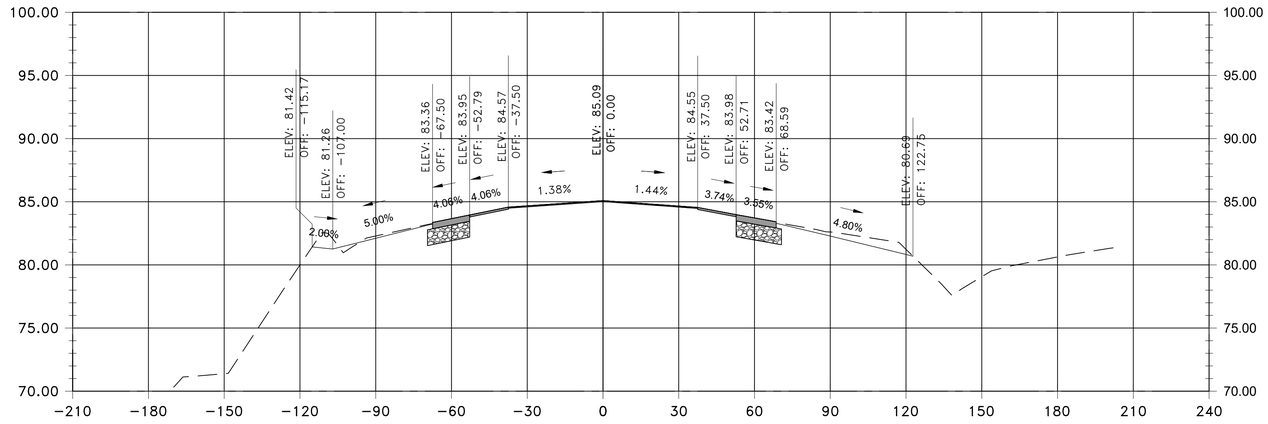


TAXIWAY SA
STA: 2089+00.00



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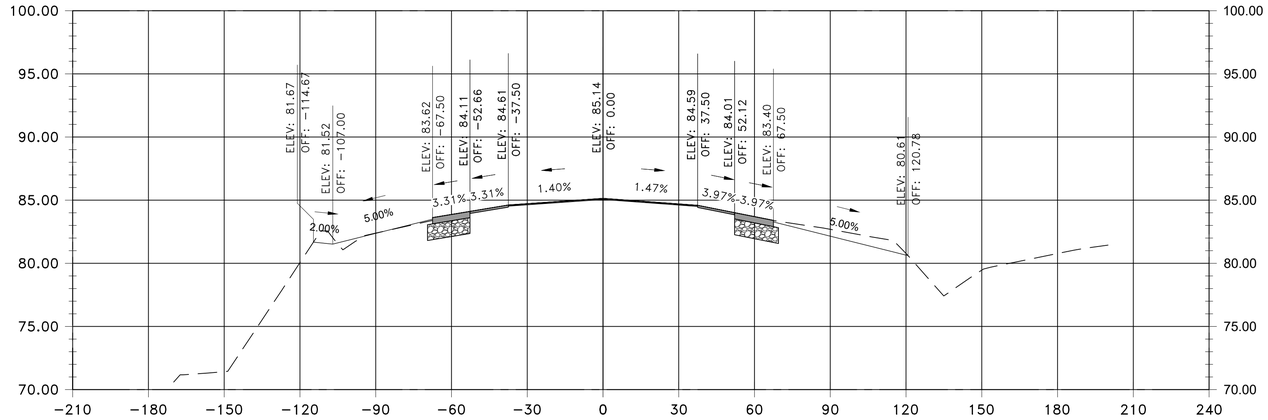
STA: 2088+50.00



TAXIWAY SA
STA: 2088+00.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
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Suite 640
Houston, TX 77079
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 53

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.53

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

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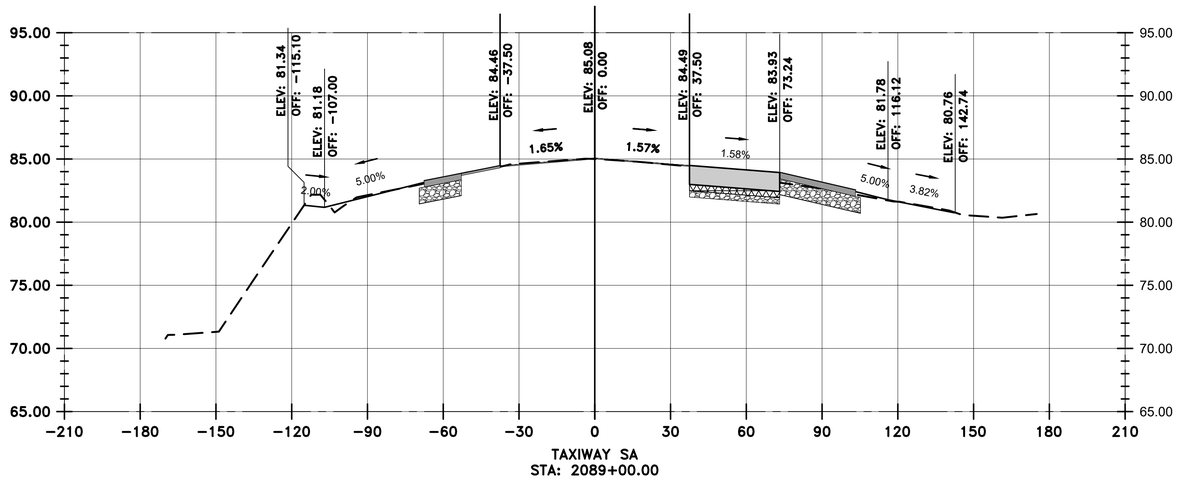

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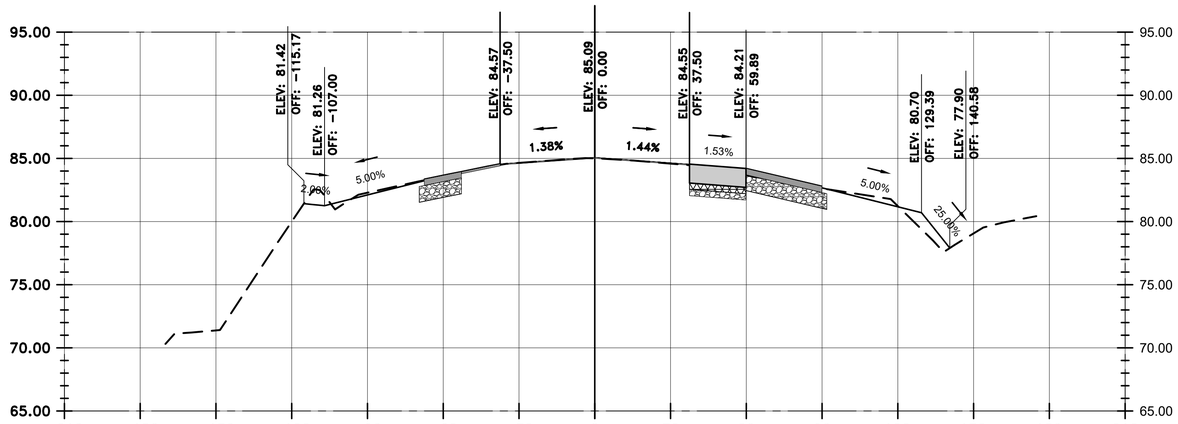
STA: 2089+00.00



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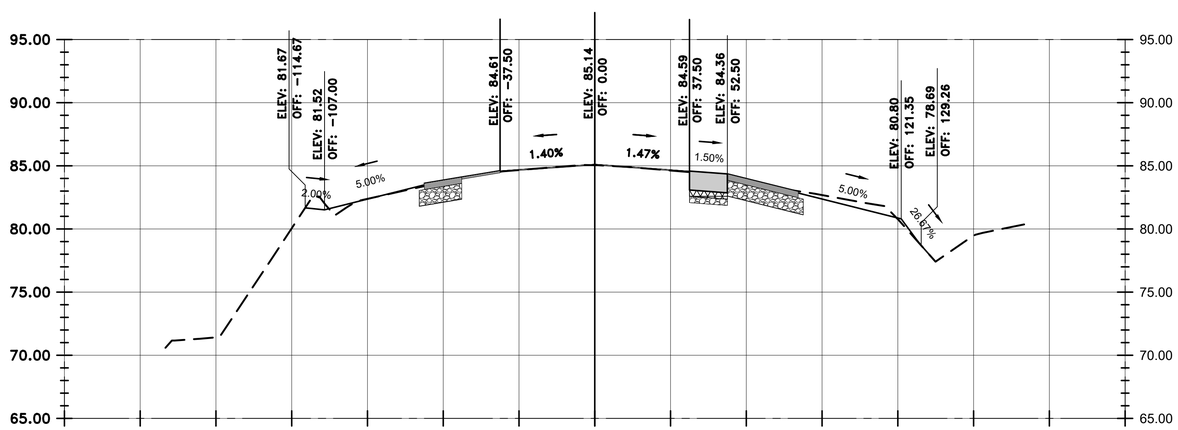
STA: 2088+50.00



TAXIWAY SA
STA: 2088+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 53
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

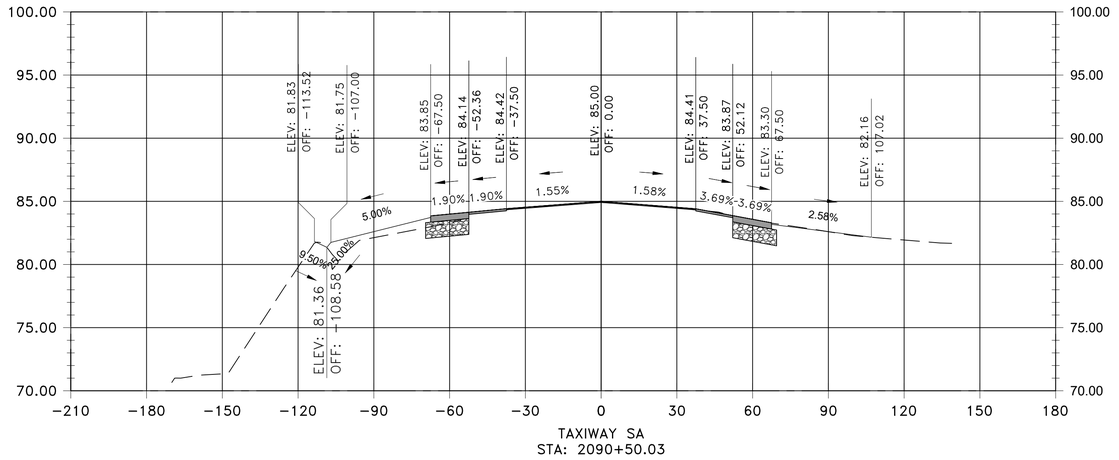
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

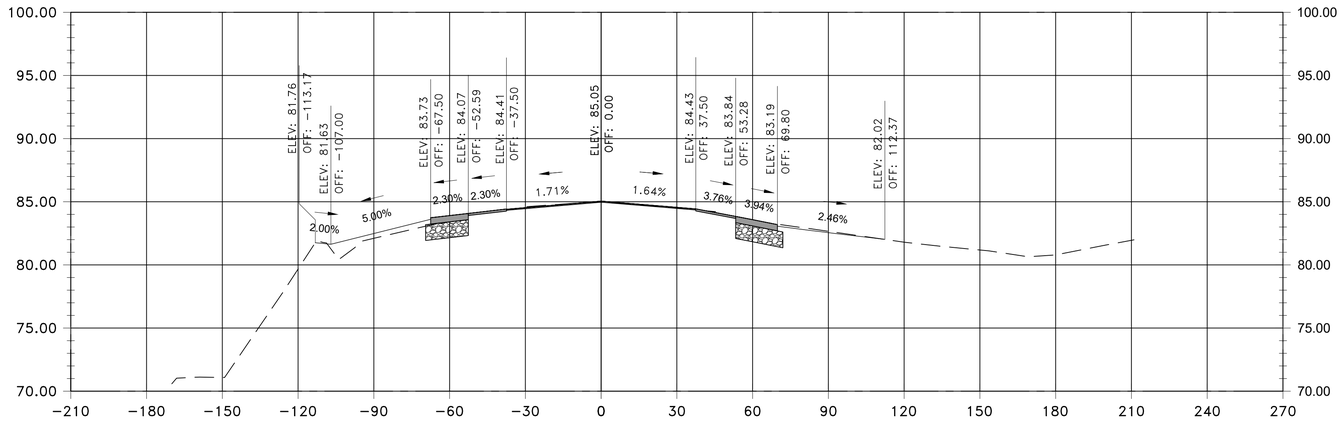
PROJECT NO.
0646A
A.I.P. NO.
XXXX
C.I.P. NO.
A-0515
H.A.S. NO.
20C0646A
SHEET NO.

X01.53A

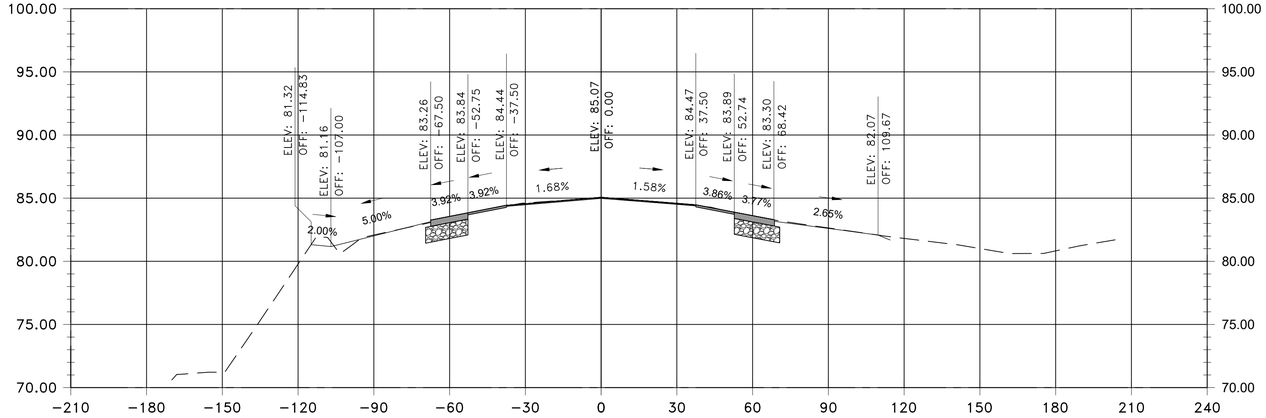
HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM



TAXIWAY SA
STA: 2090+50.03



TAXIWAY SA
STA: 2089+99.99



TAXIWAY SA
STA: 2089+50.00

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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Suite 640
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 54

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.54

HAS FILE: C:\Users\WHernandez\OneDrive – Garver\Documents – IAH – TXYS SA SB REHAB – Aviation\0646.2\06 – Typical Sections\Model Files\0646CSC.dwg
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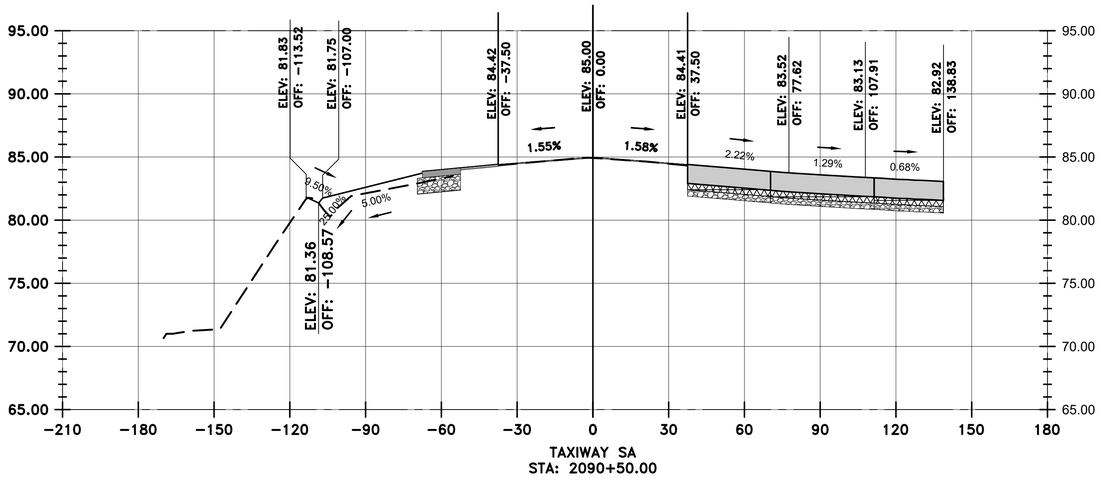
ADDITIVE ALTERNATE 1 (IF AWARDED)



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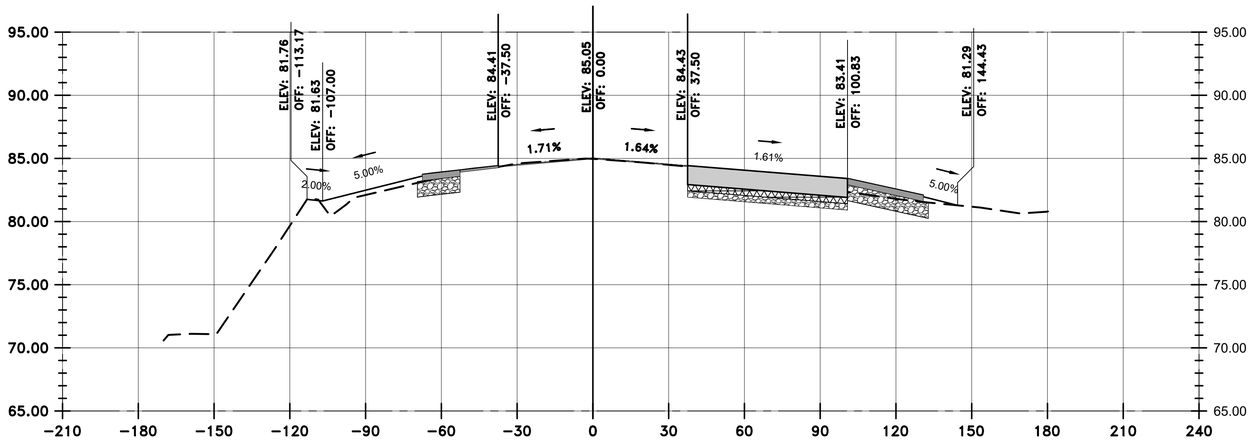
STA: 2090+50.00



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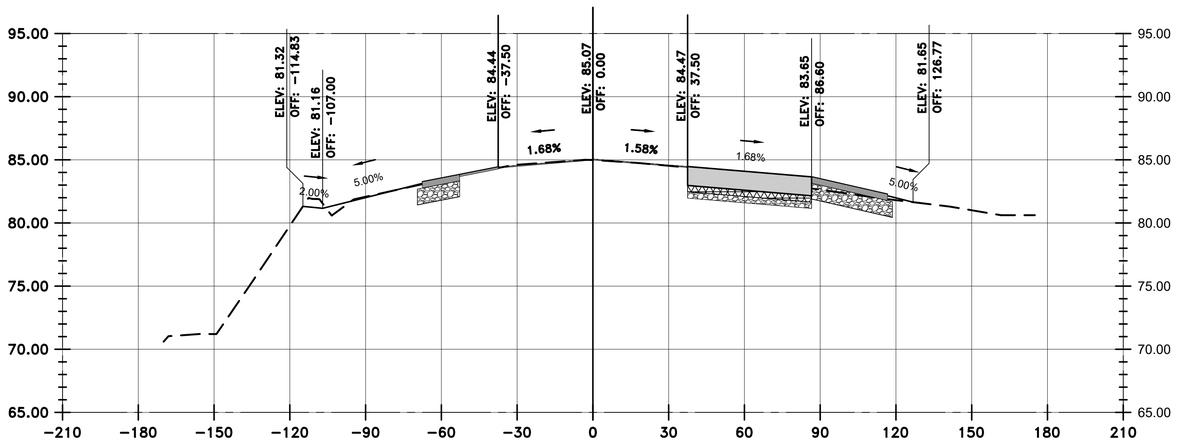
STA: 2090+00.00



TAXIWAY SA
STA: 2089+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 54
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.54A

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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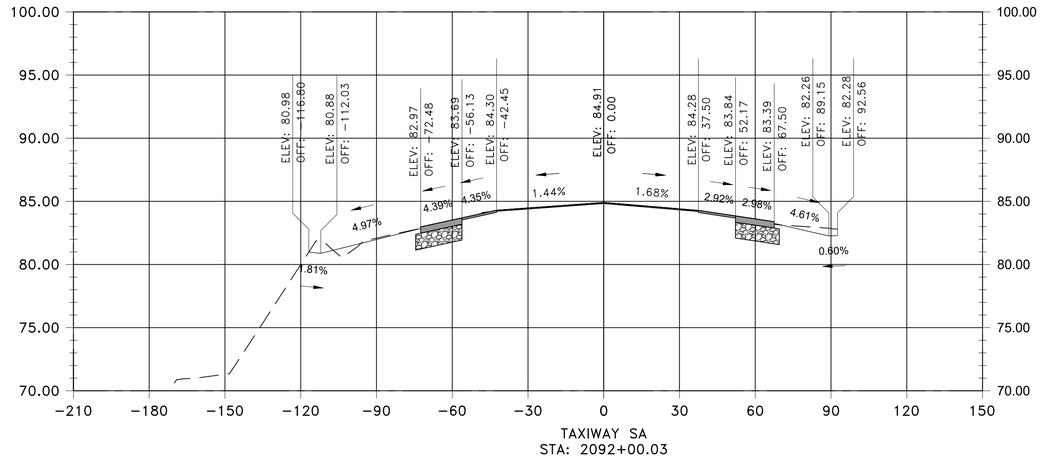
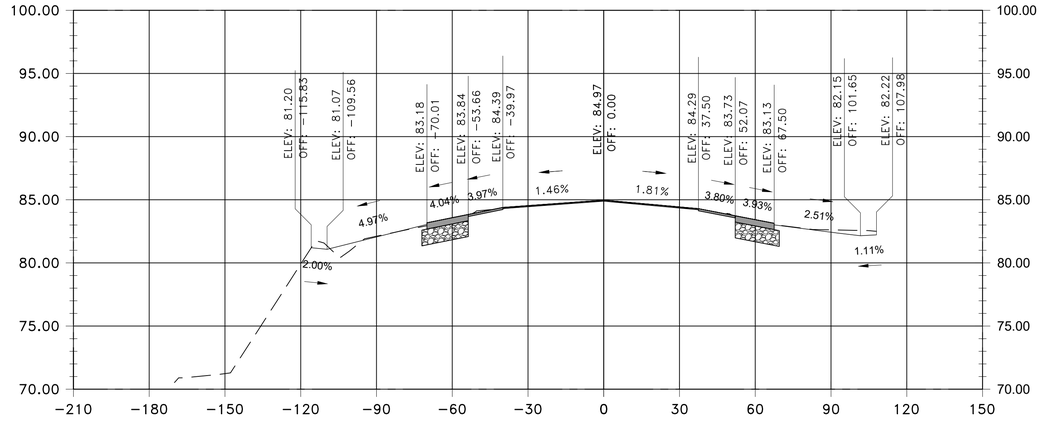


TAXIWAY SA
STA: 2092+00.03



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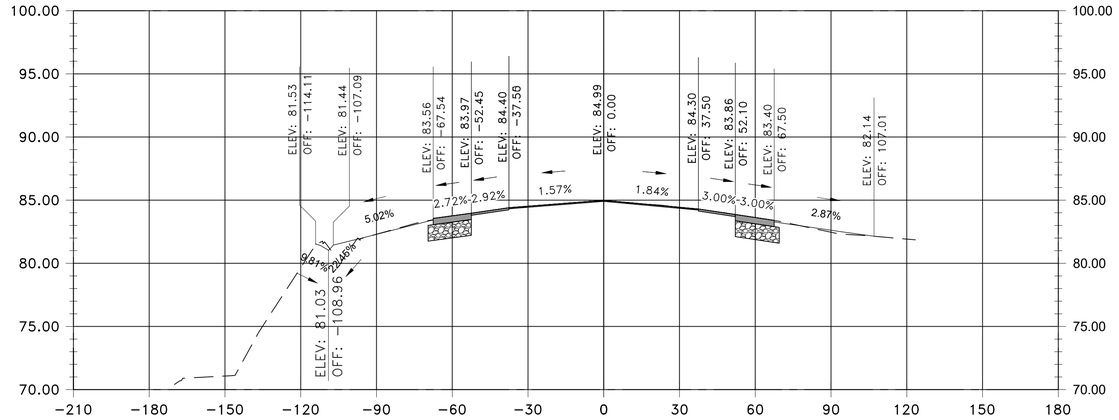
STA: 2091+50.03



TAXIWAY SA
STA: 2091+00.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 55

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.55

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

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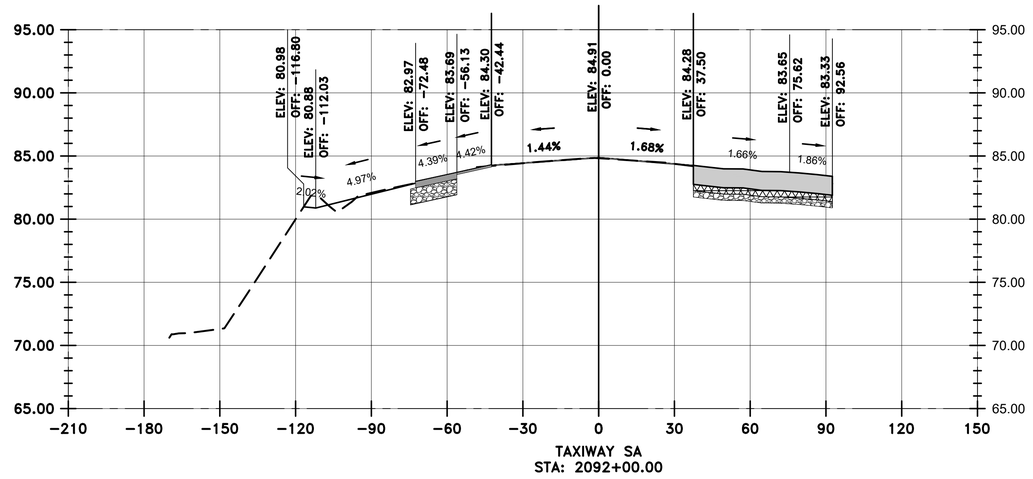

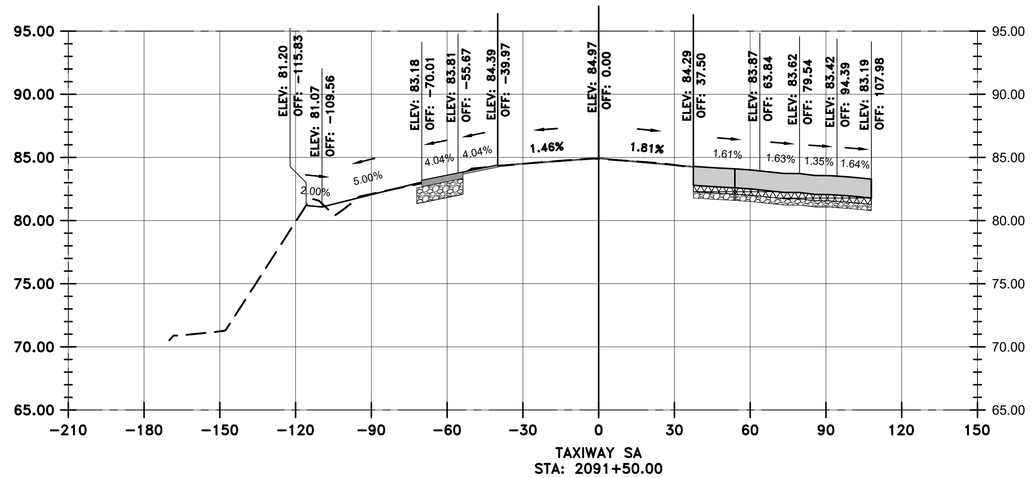

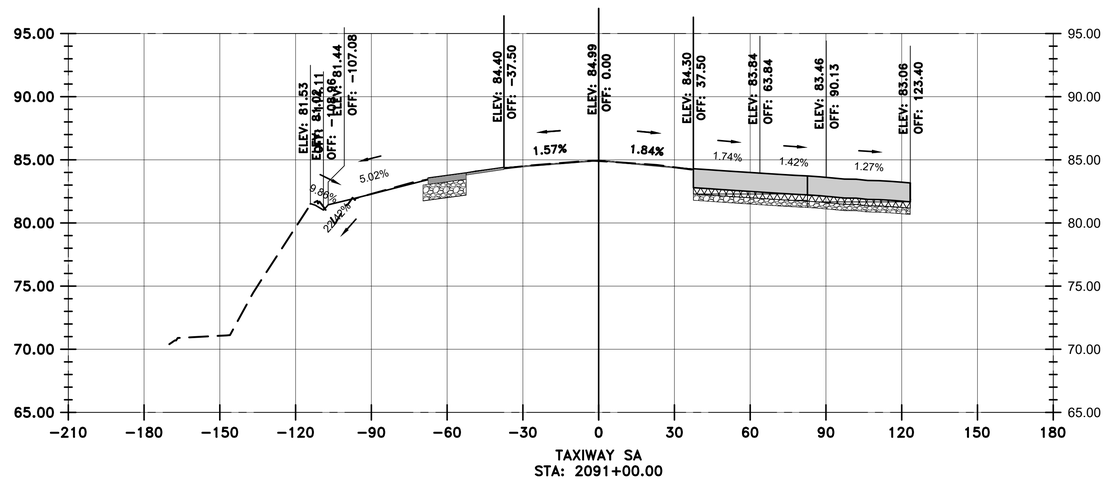

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

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12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 55
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.55A

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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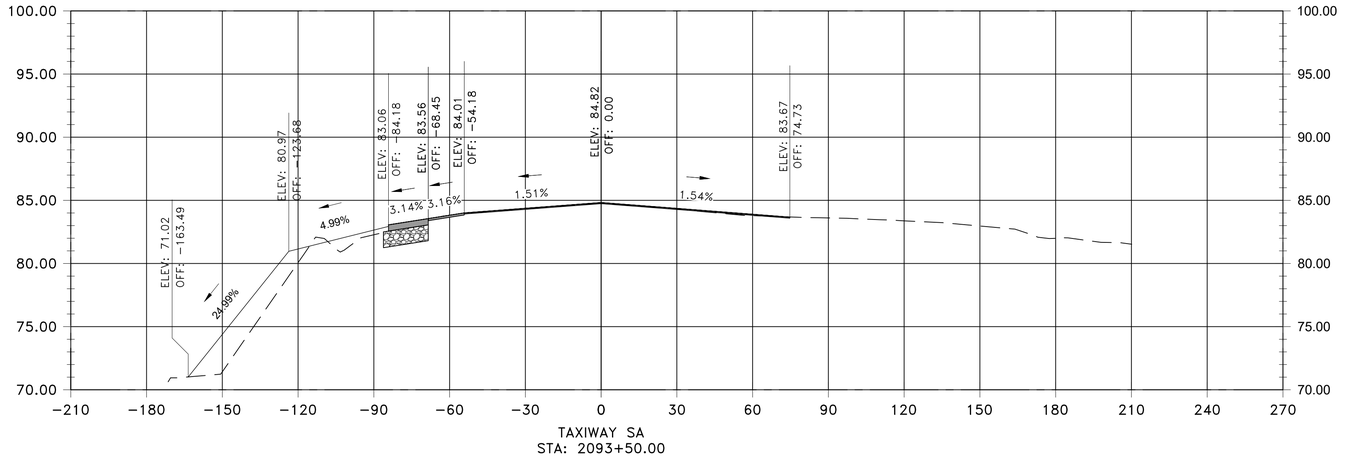

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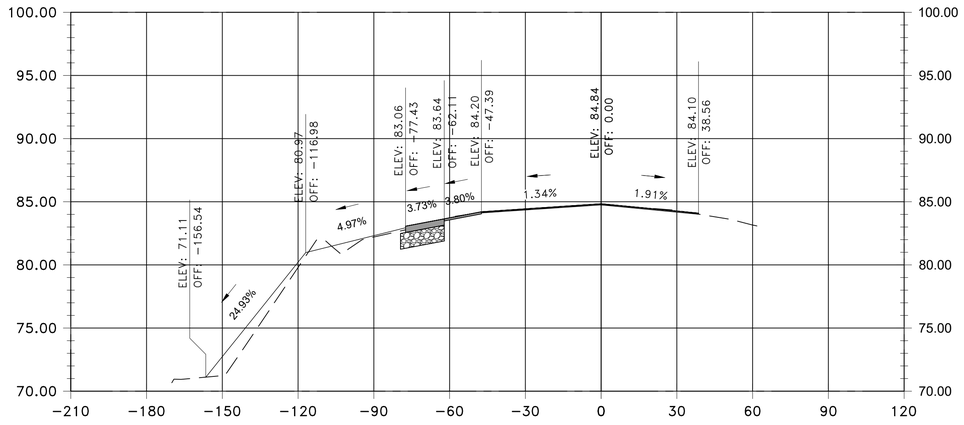
STA: 2093+50.00



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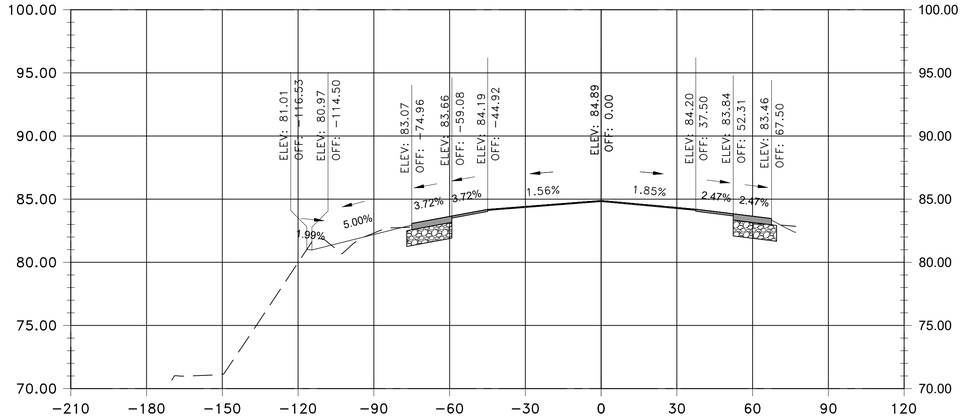
STA: 2093+00.03



TAXIWAY SA
STA: 2092+50.03

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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Suite 640
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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 56

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.56

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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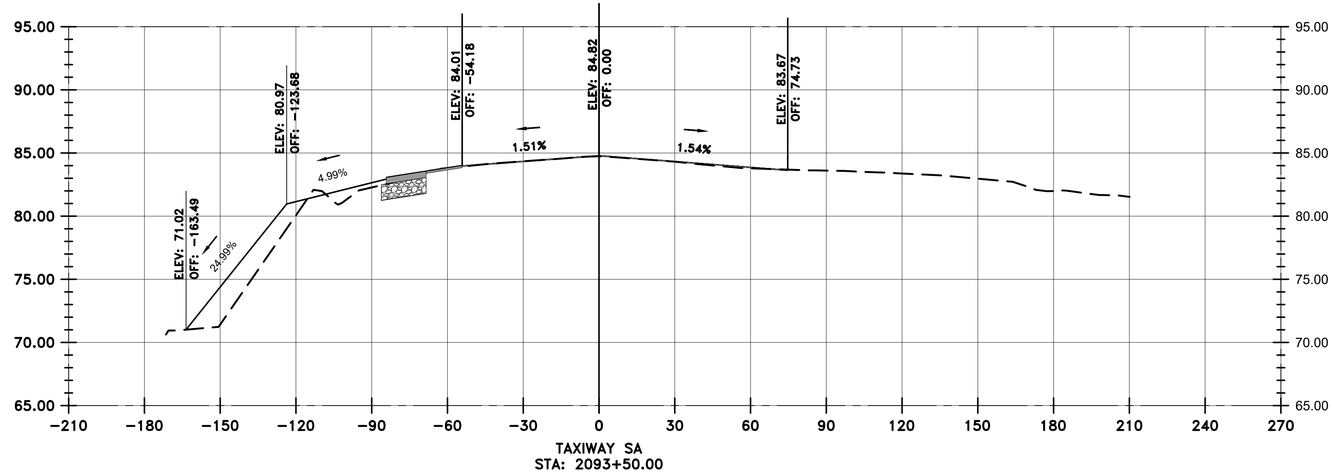
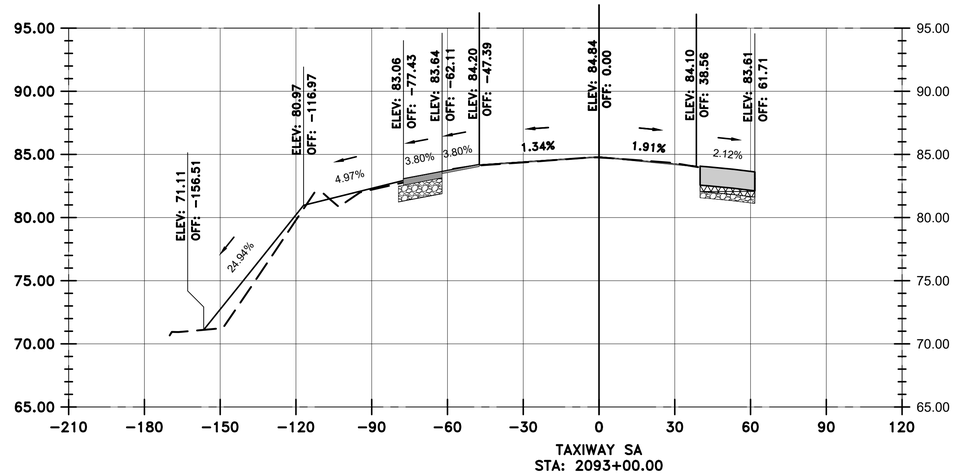
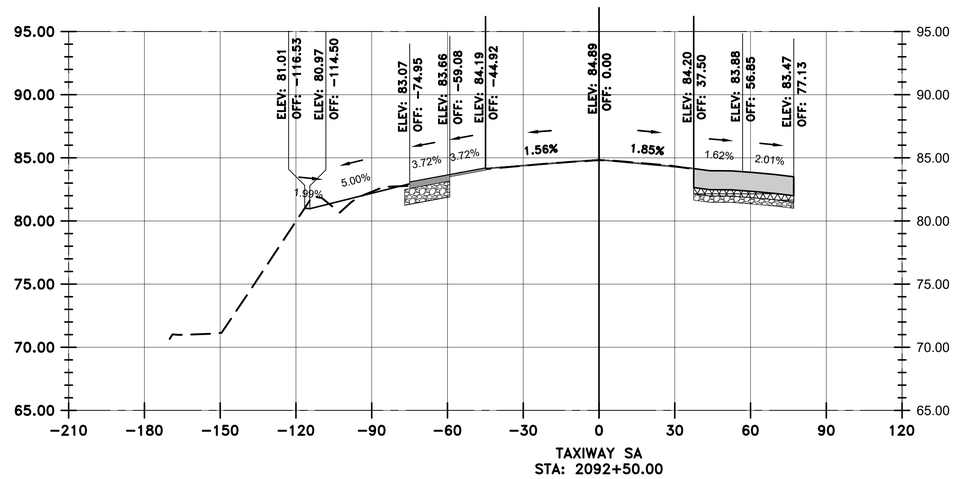
ADDITIVE ALTERNATE 1 (IF AWARDED)







VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 56
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.56A

HAS FILE: C:\Users\WHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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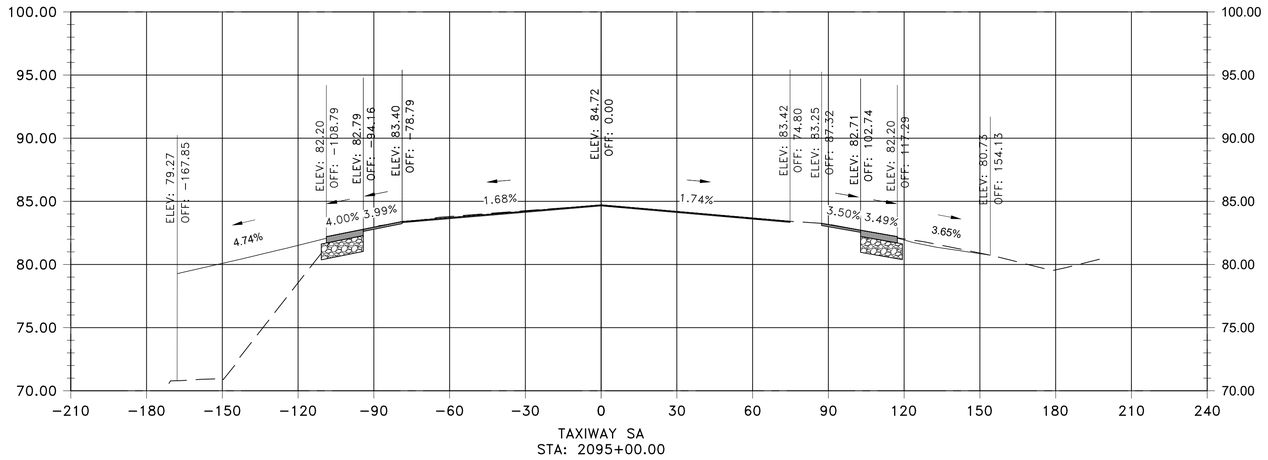

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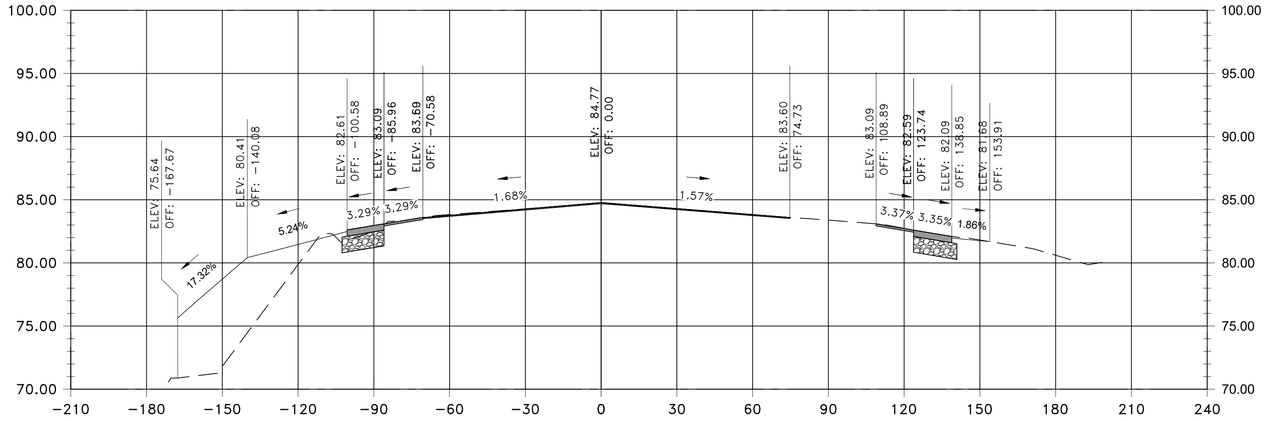
STA: 2095+00.00



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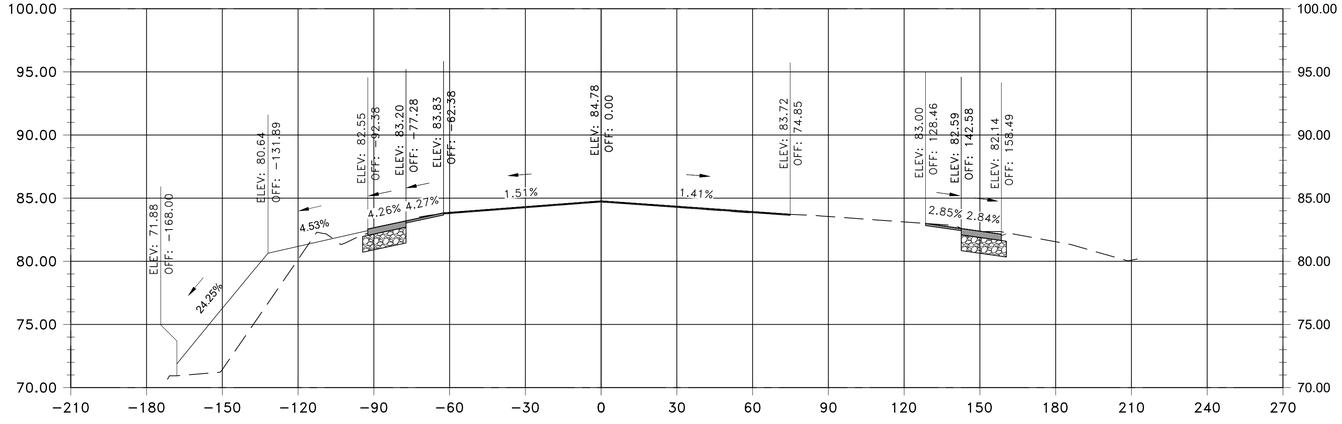
STA: 2094+50.00



TAXIWAY SA
STA: 2094+00.00

VERTICAL EXAGGERATION = 2

0 15' 30' 60' 90'
(IN FEET)

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
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Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 57

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	####
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X01.57

HAS FILE: C:\Users\MHernandez\OneDrive - Garver\Documents - IAH - TXYS SA SB REHAB - Aviation\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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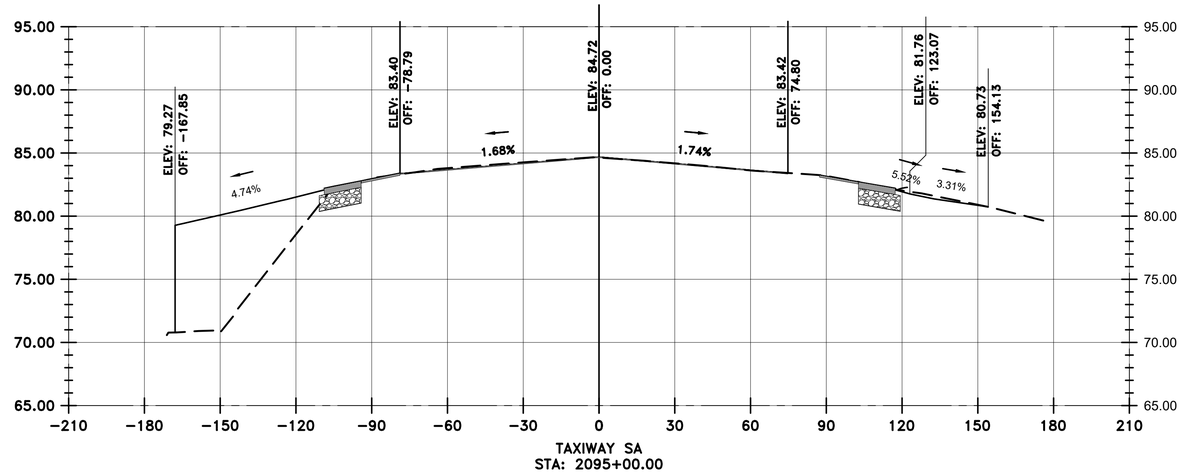
ADDITIVE ALTERNATE 1 (IF AWARDED)



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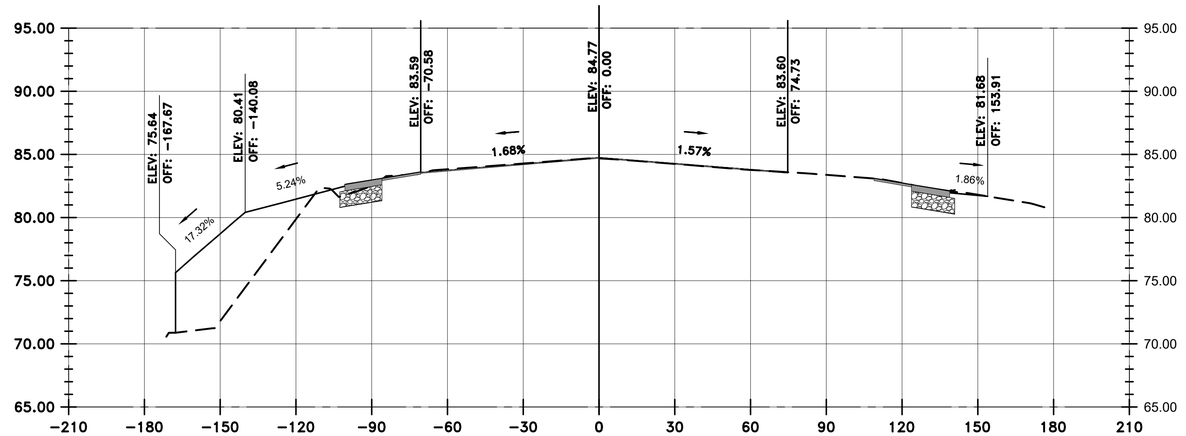

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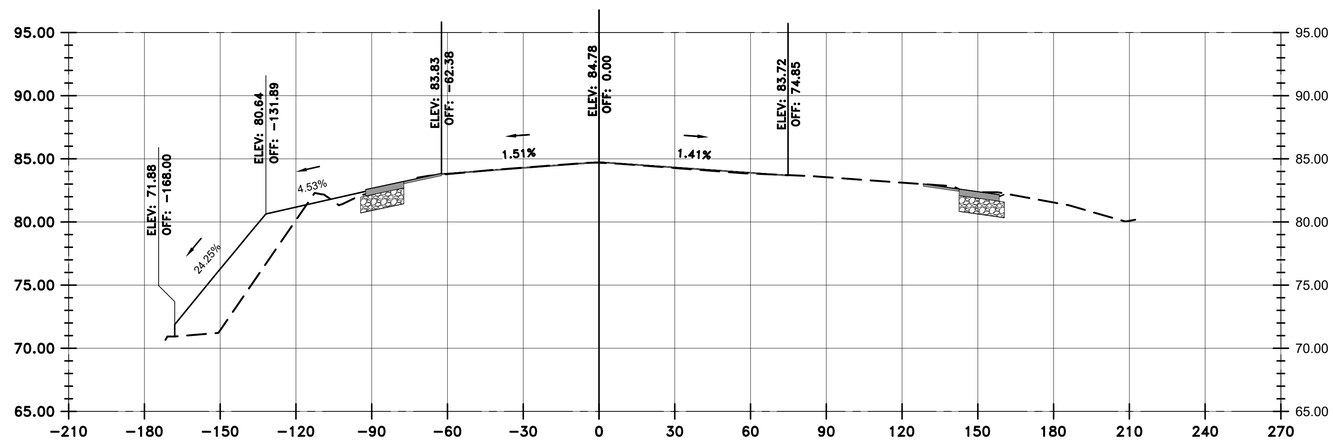

TAXIWAY SA
STA: 2094+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 57
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.57A

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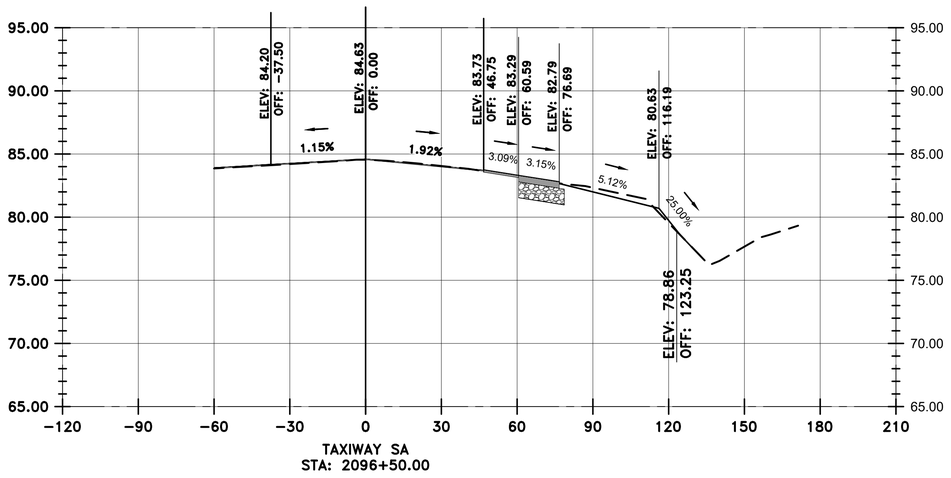

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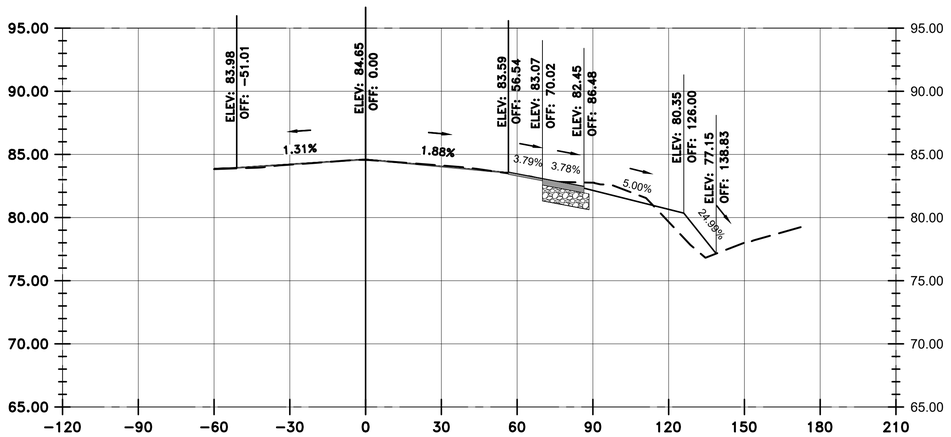

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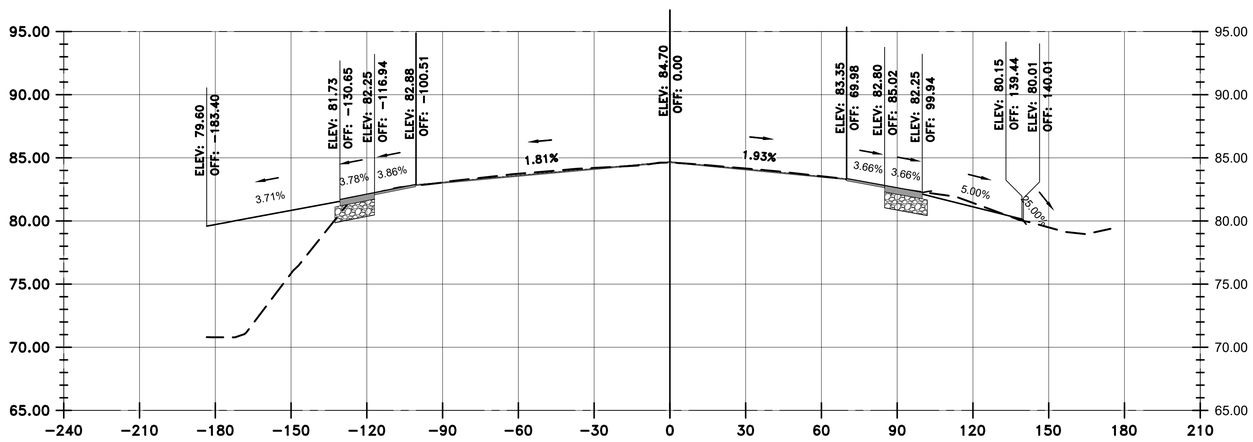
STA: 2096+00.00



TAXIWAY SA
STA: 2095+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 58

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.58

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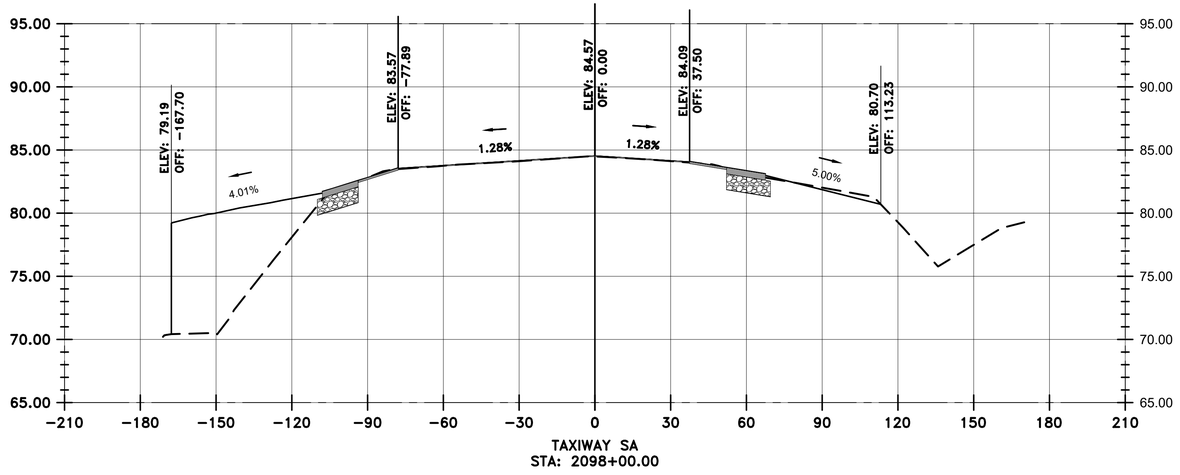

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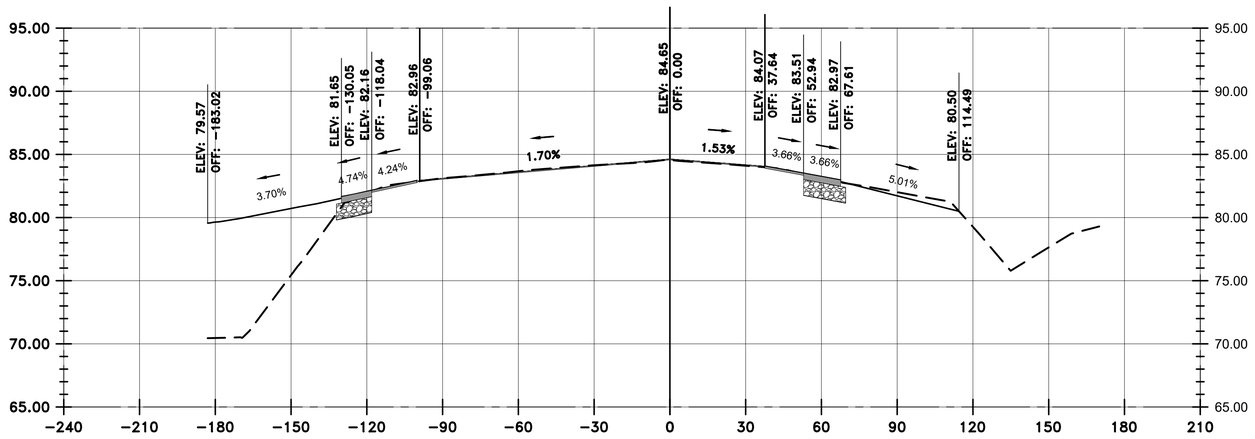
STA: 2098+00.00



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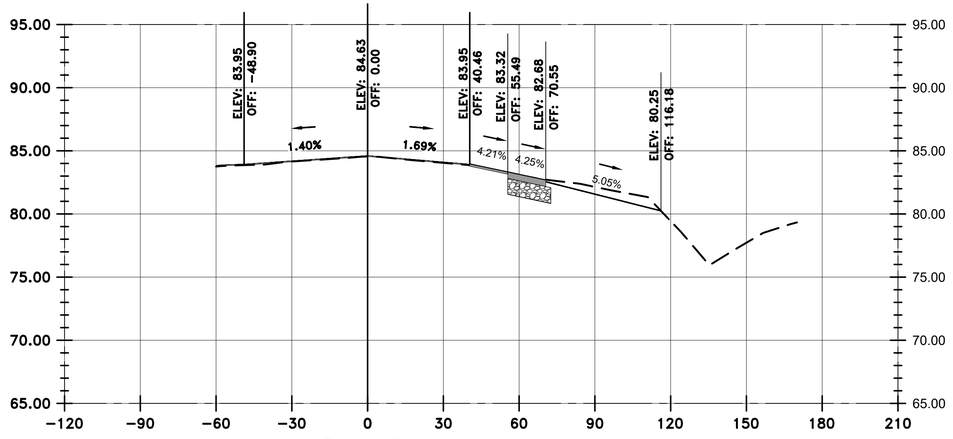

TAXIWAY SA
STA: 2097+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 59

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.59

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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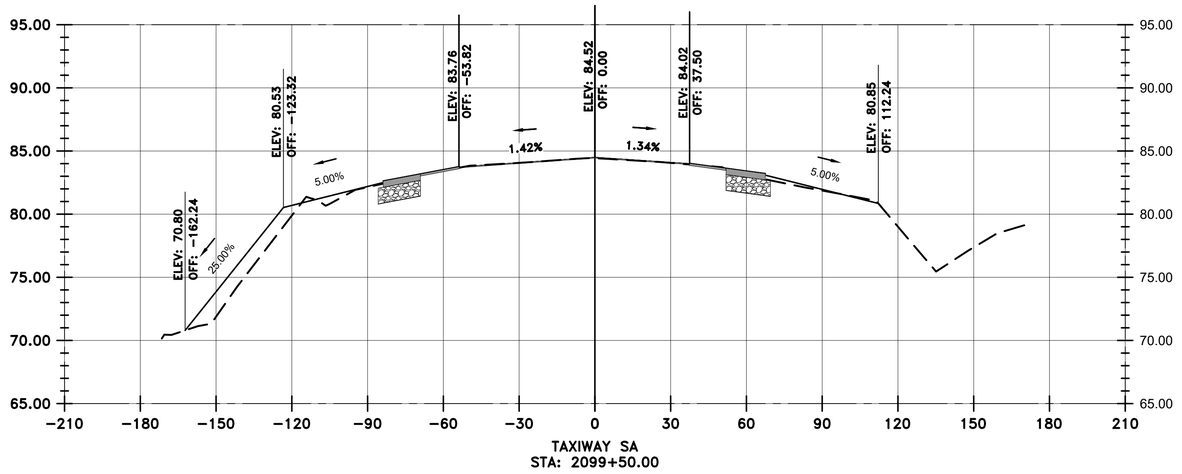

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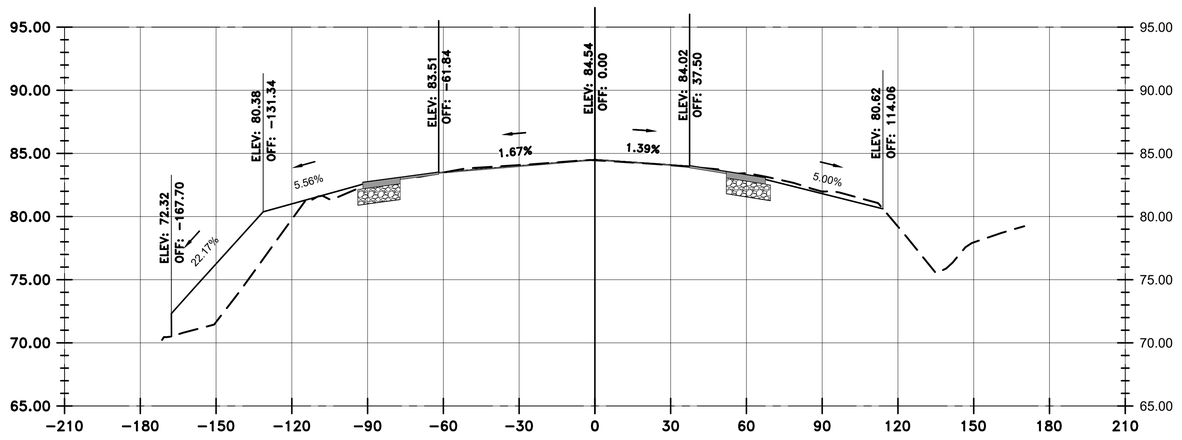
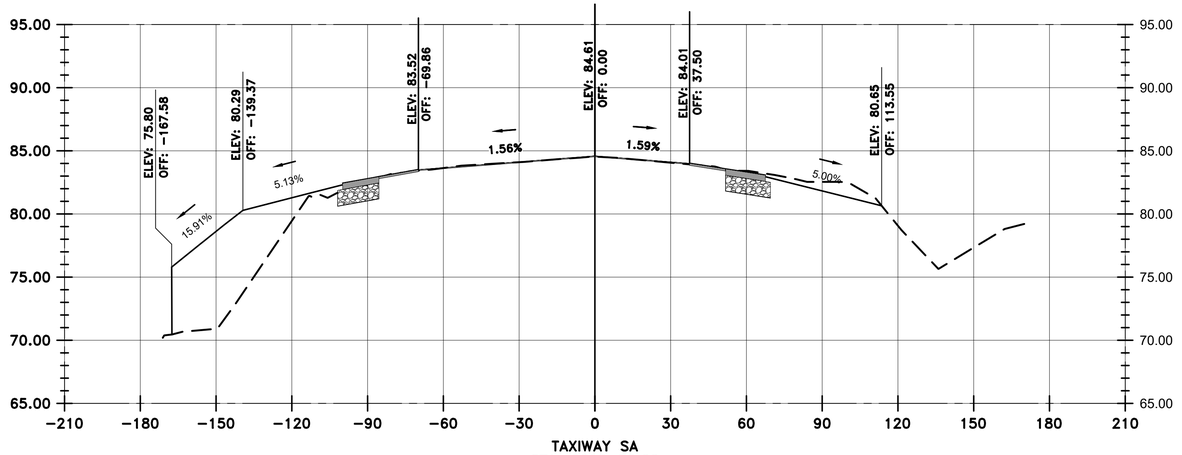
STA: 2099+50.00



TAXIWAY SA
STA: 2099+00.00



TAXIWAY SA
STA: 2098+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 60

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.60

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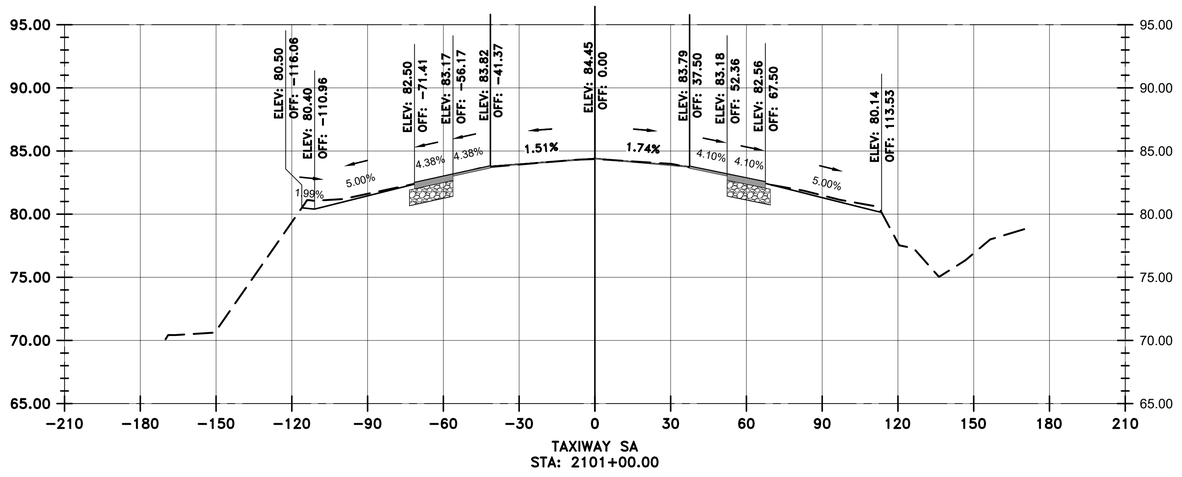

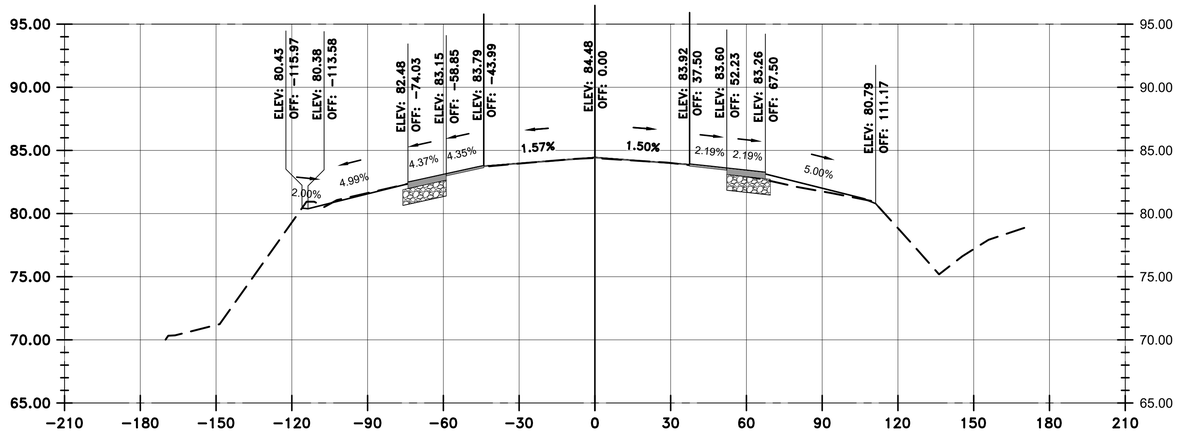

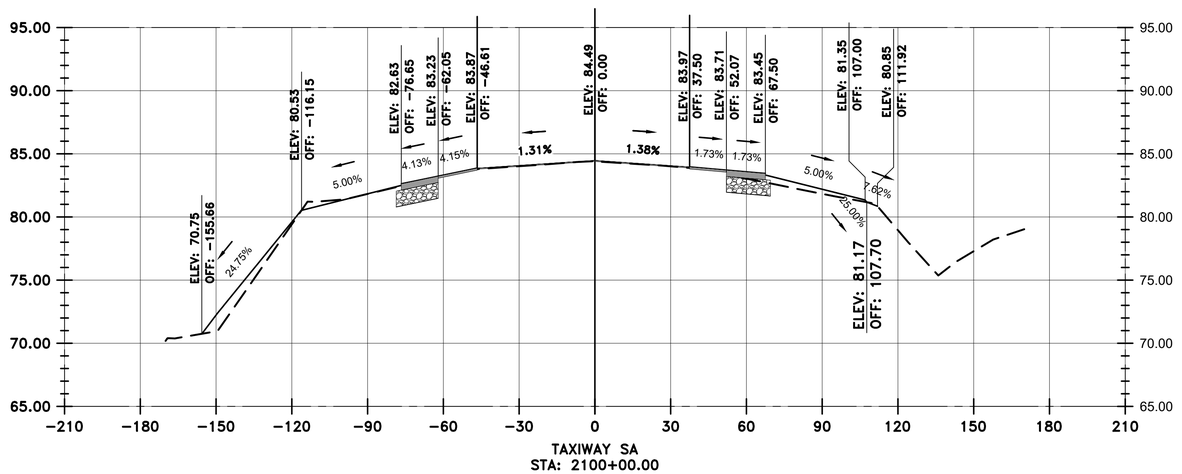

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB
SA CROSS SECTIONS 61

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.61

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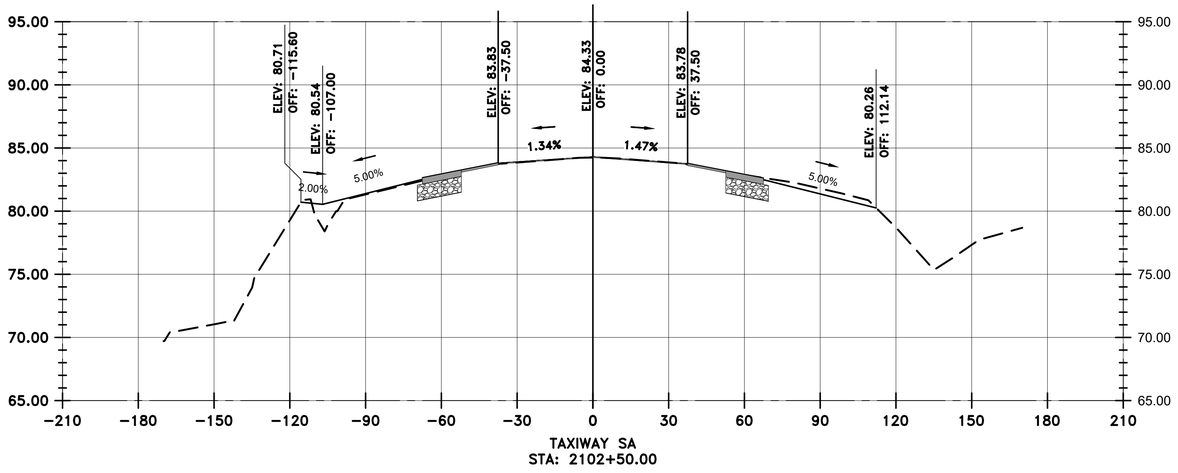

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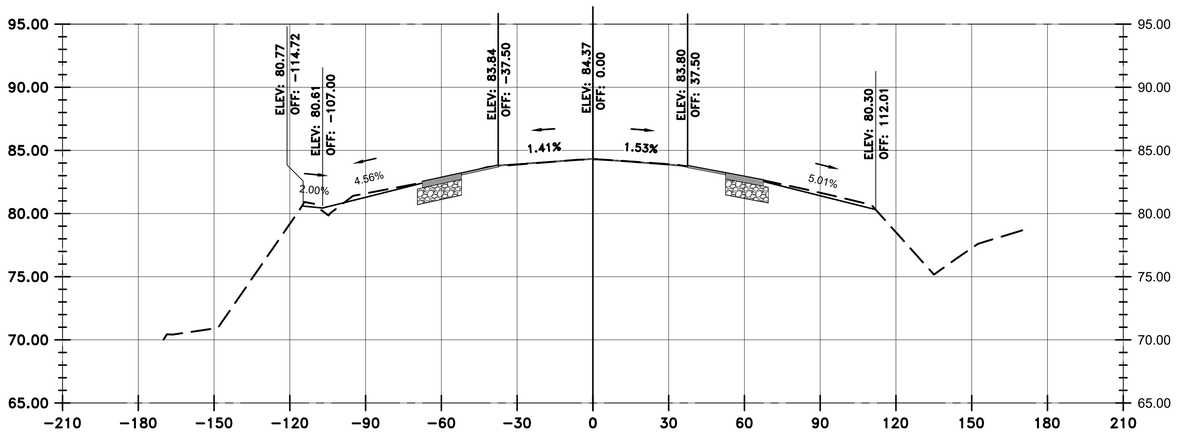

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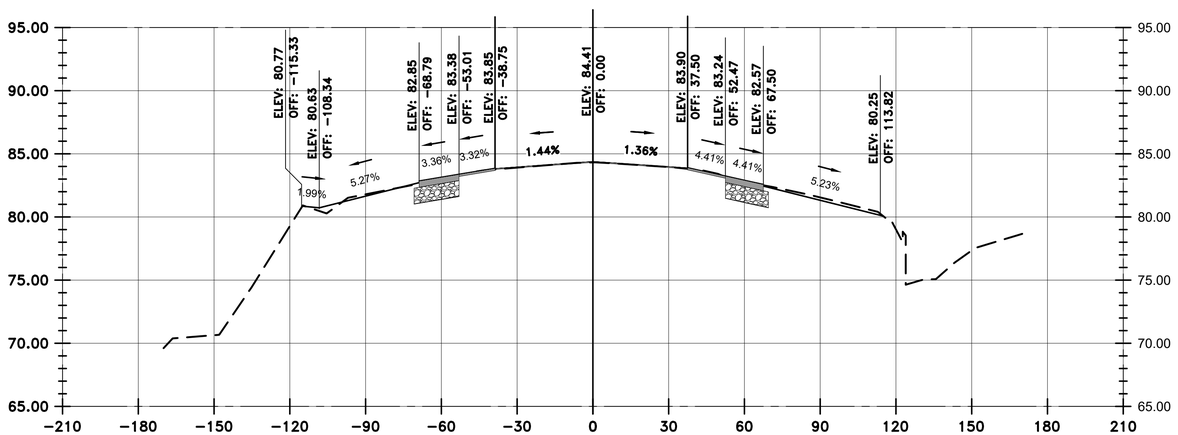

TAXIWAY SA
STA: 2101+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 62

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.62

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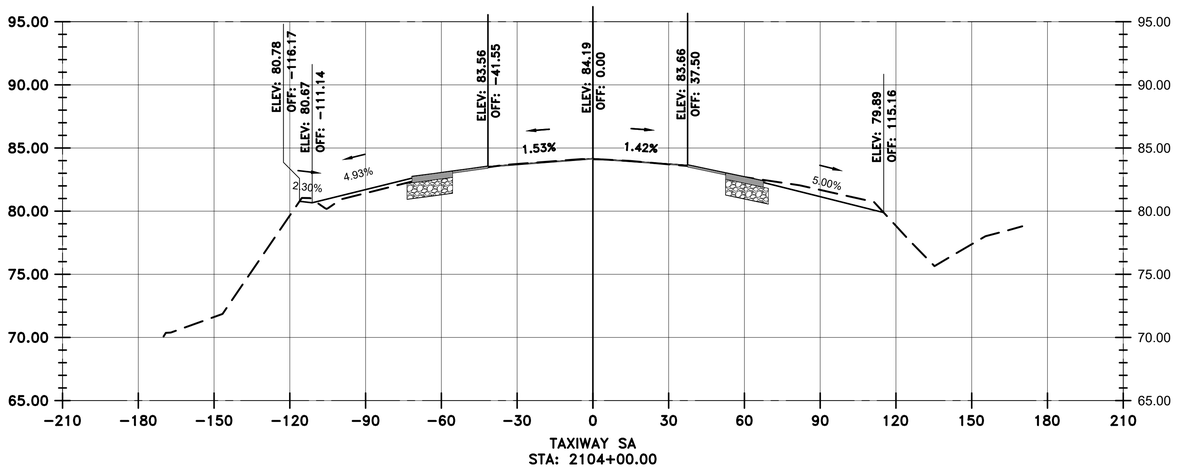

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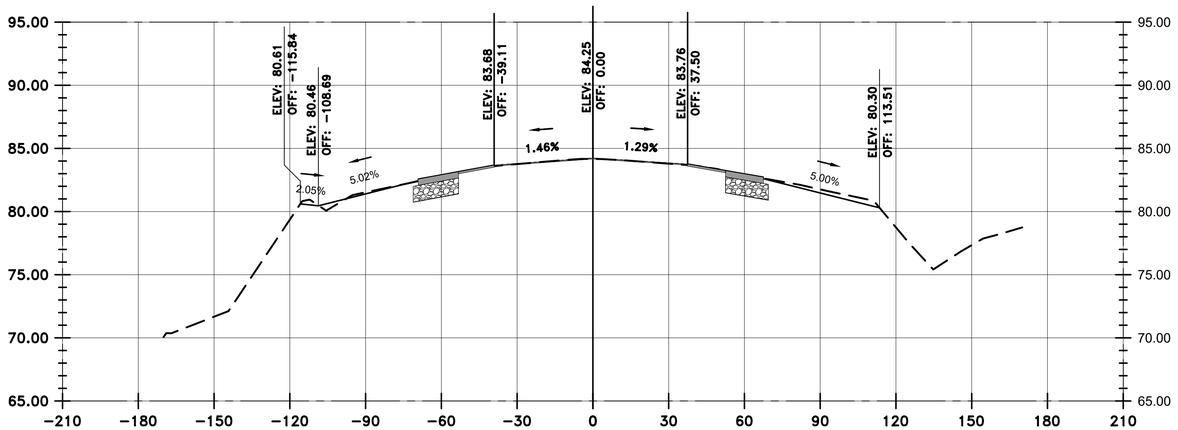

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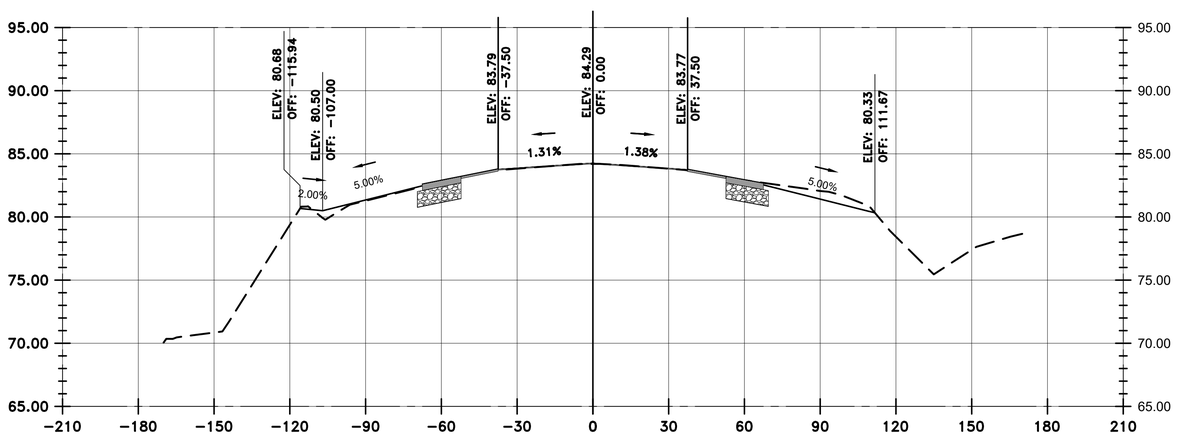

TAXIWAY SA
STA: 2103+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 63

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.63

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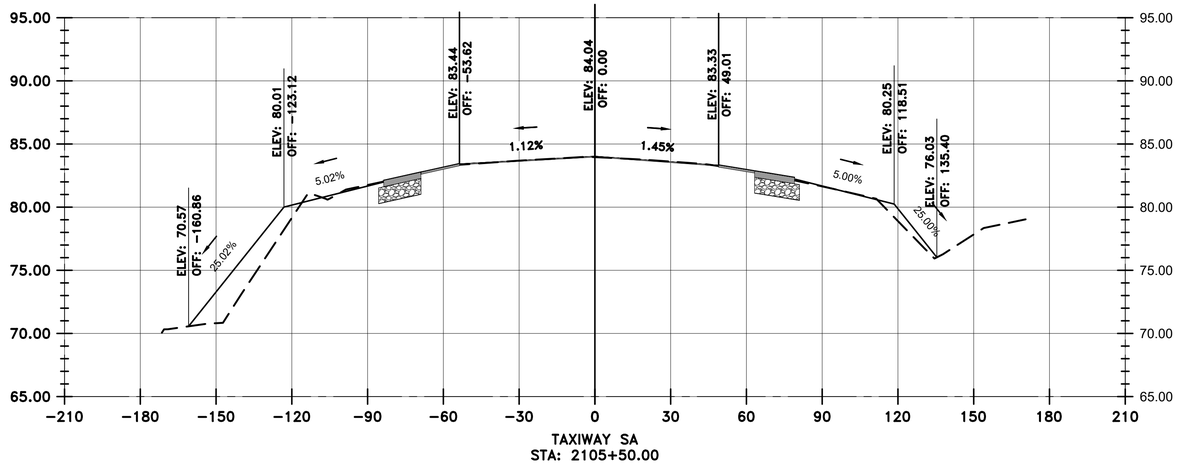

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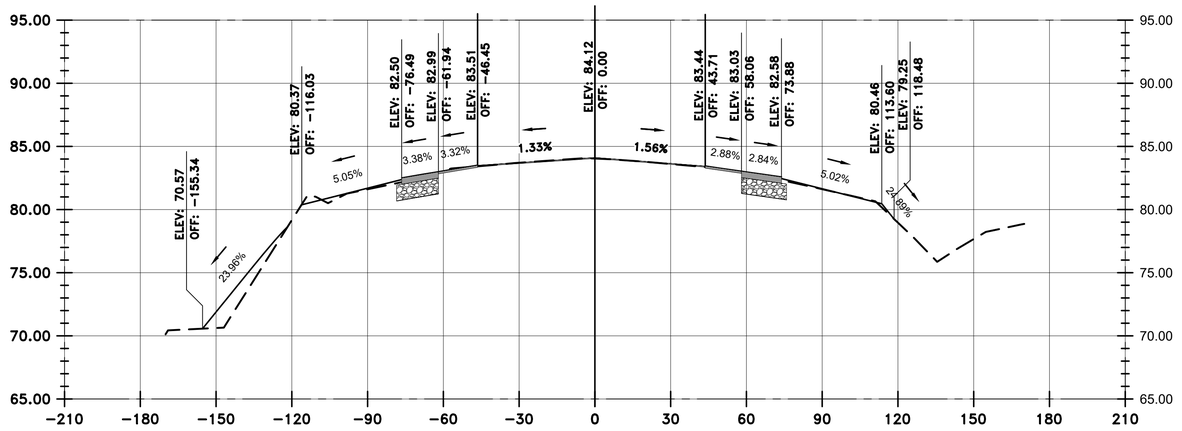

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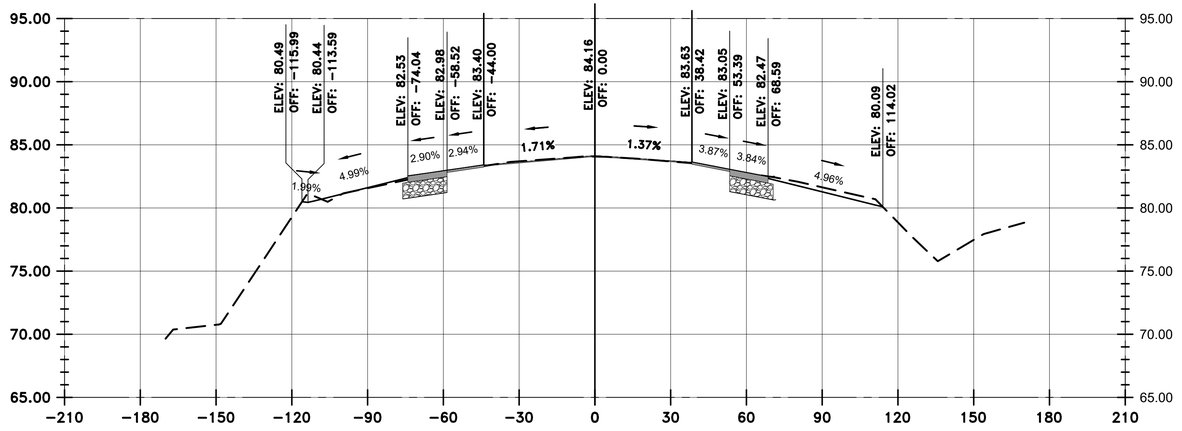

TAXIWAY SA
STA: 2104+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 64

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.64

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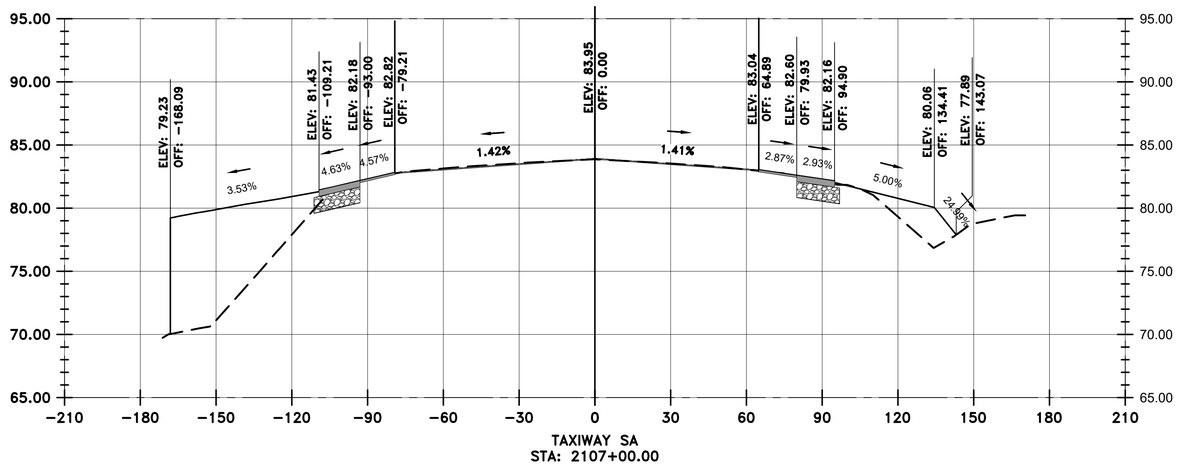

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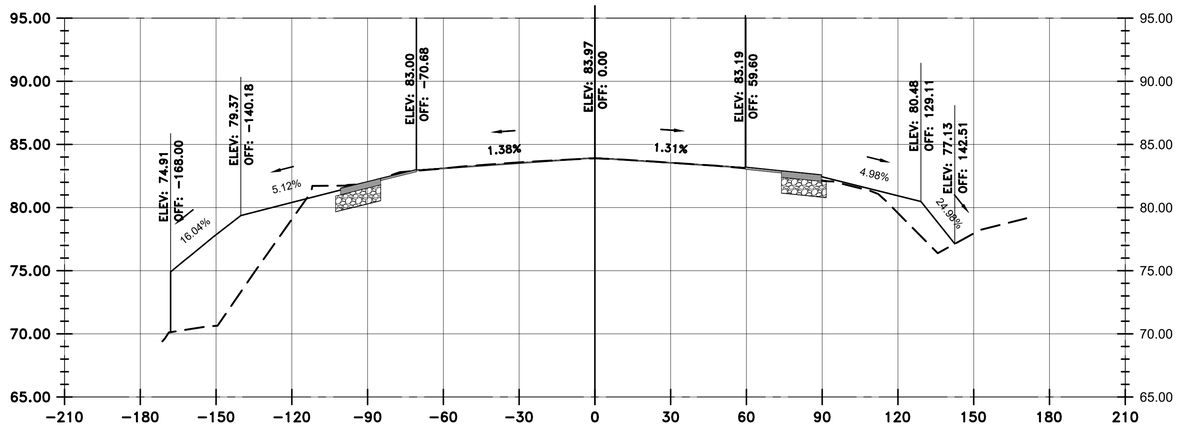

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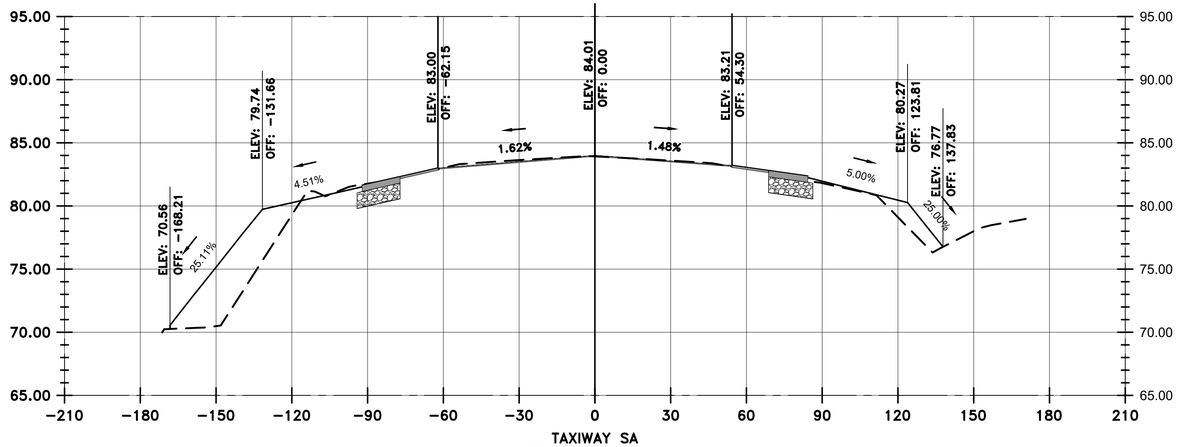

TAXIWAY SA
STA: 2106+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 65

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.65

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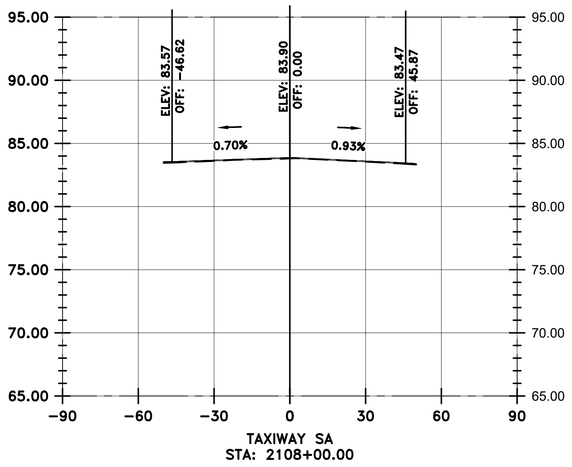
LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE



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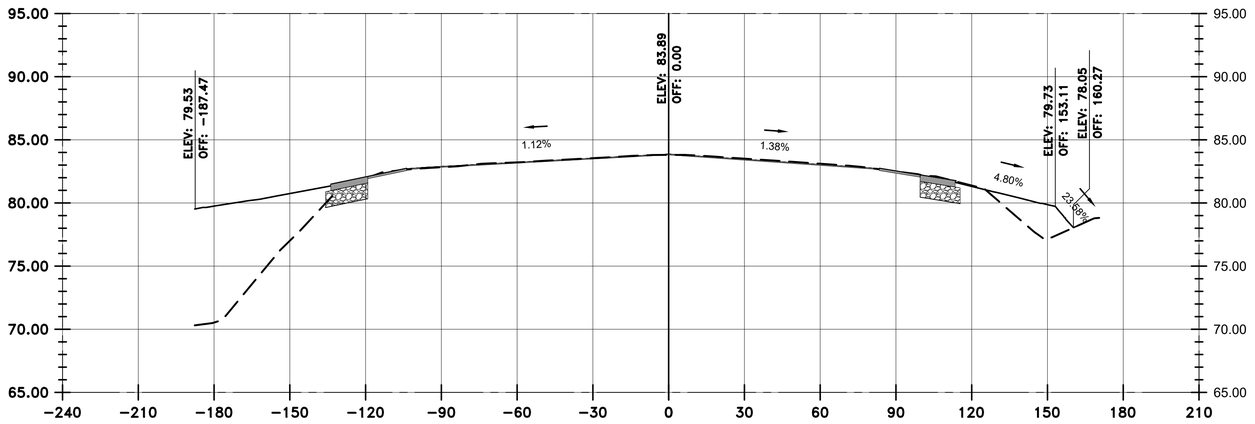

TAXIWAY SA
STA: 2107+50.00

VERTICAL EXAGGERATION = 5

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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SA CROSS SECTIONS 66

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

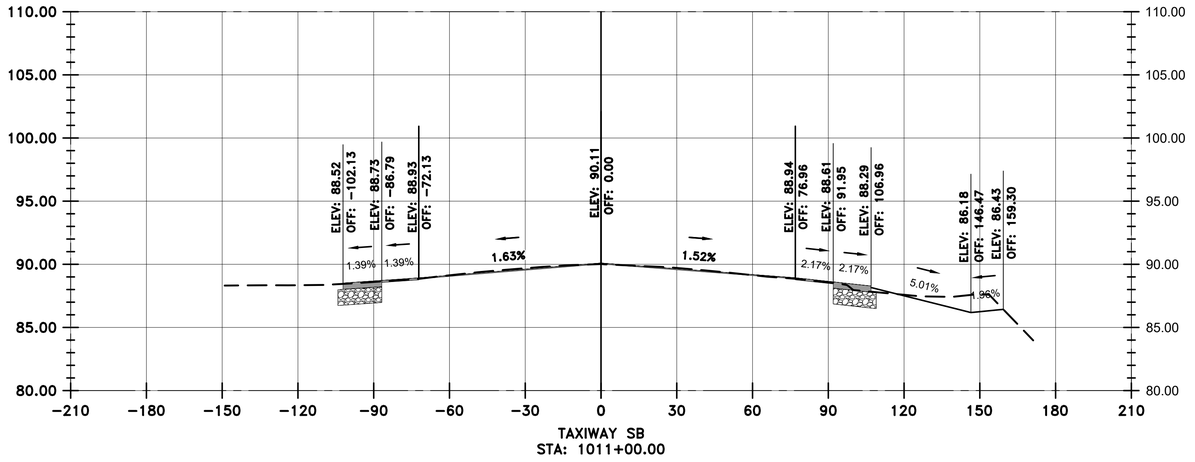
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

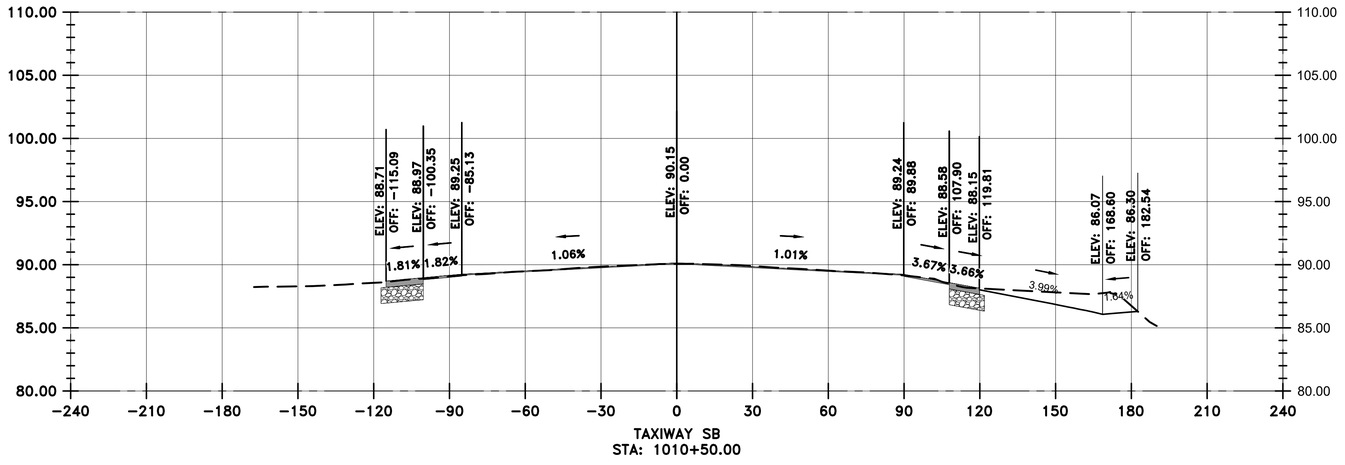
Digitally Signed 11/02/2023

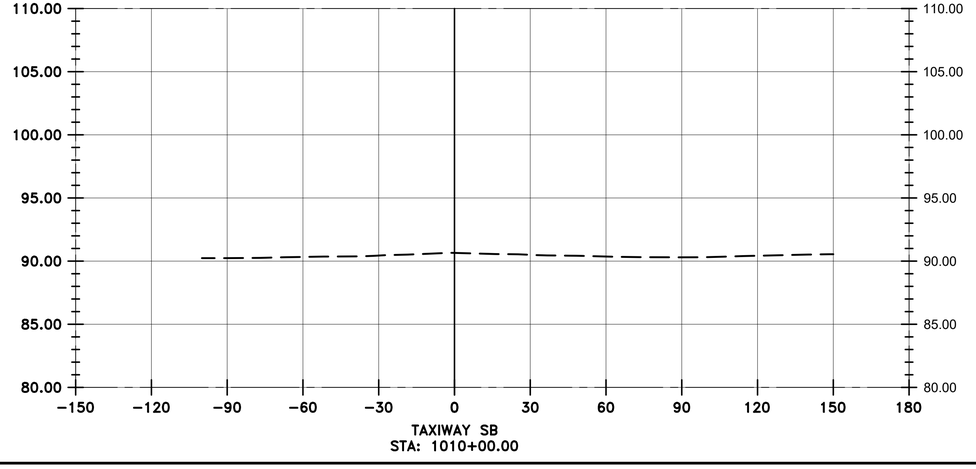
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X01.66







VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.01

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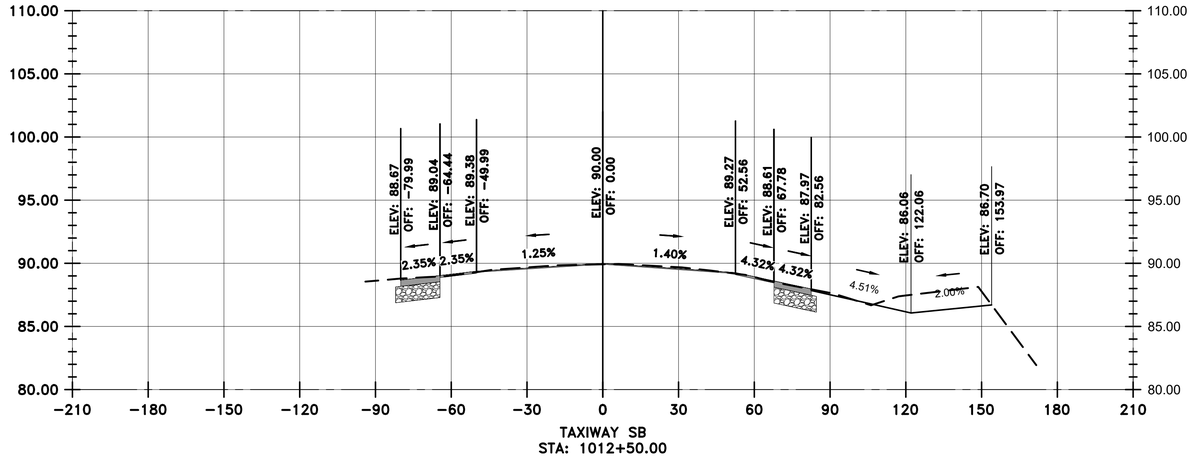

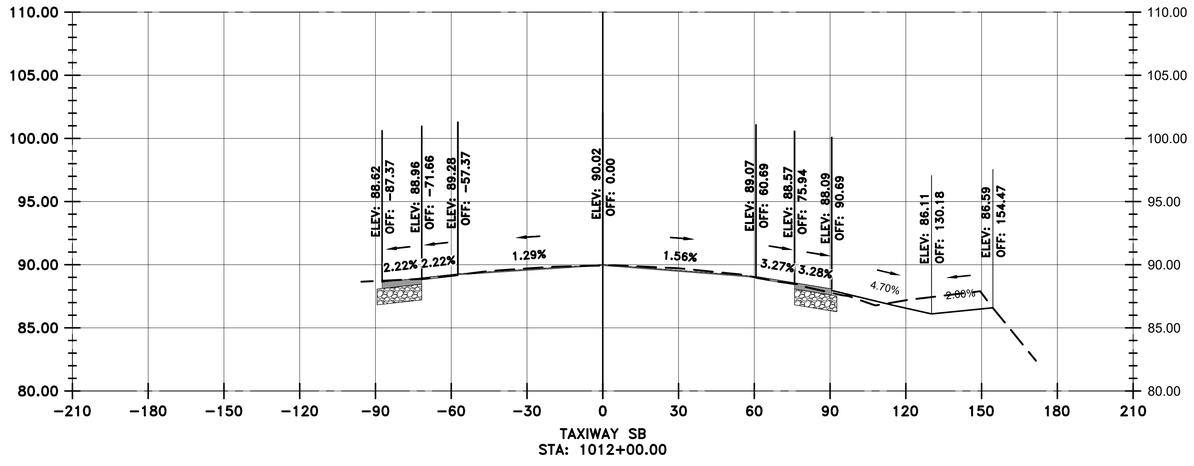

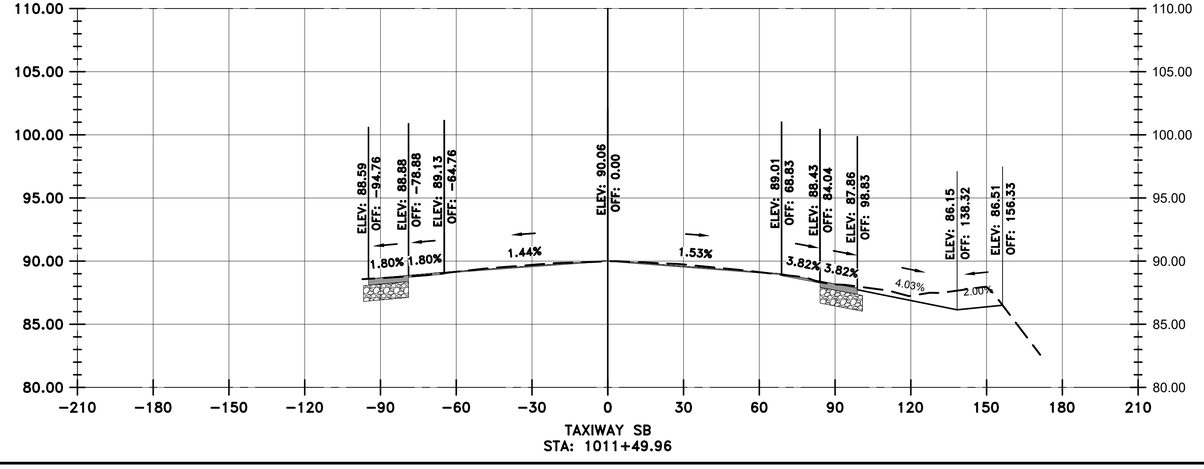

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.02

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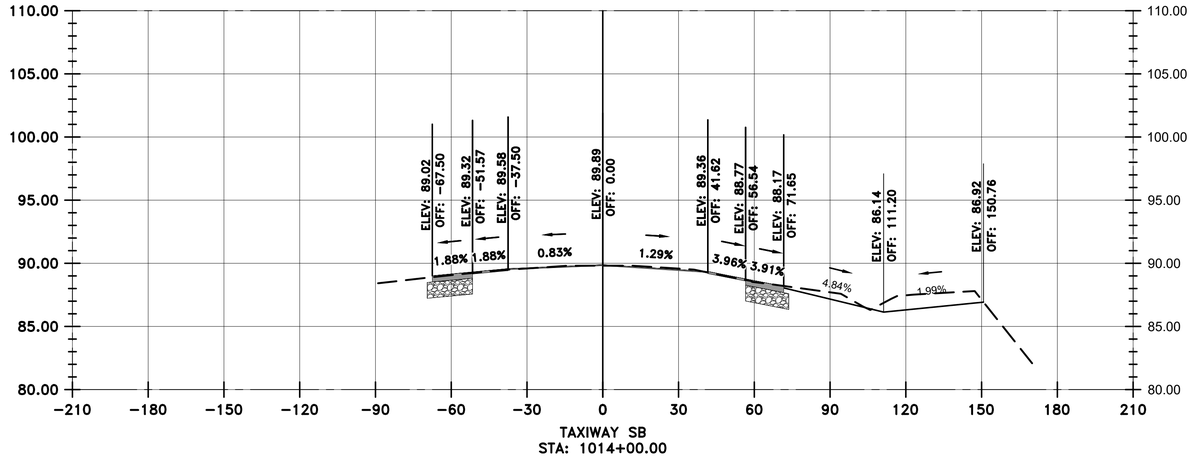

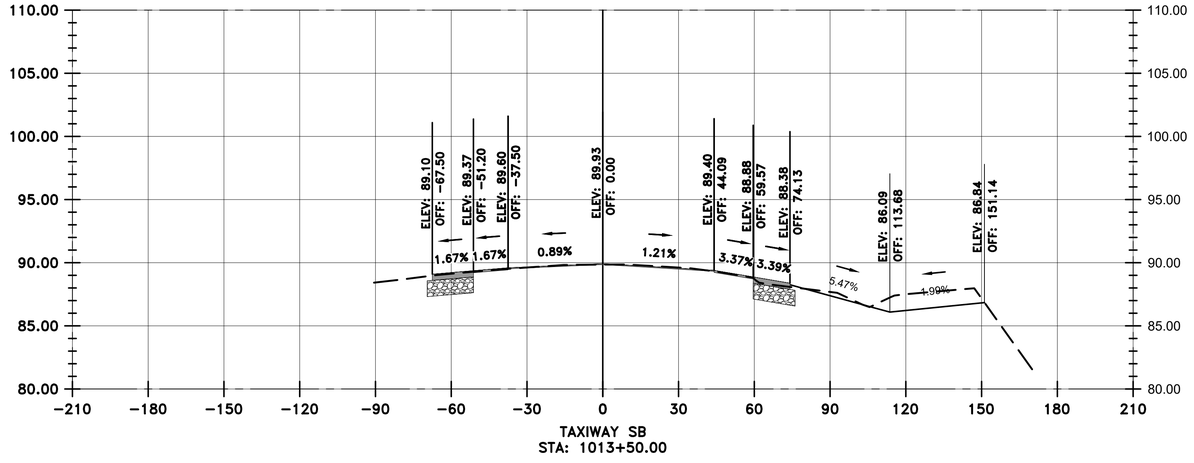

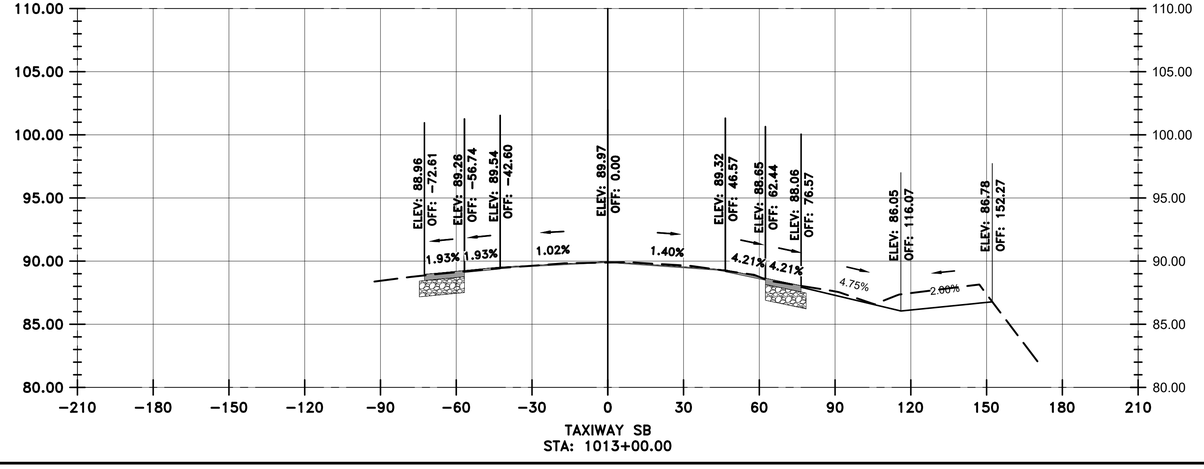

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 3

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.03

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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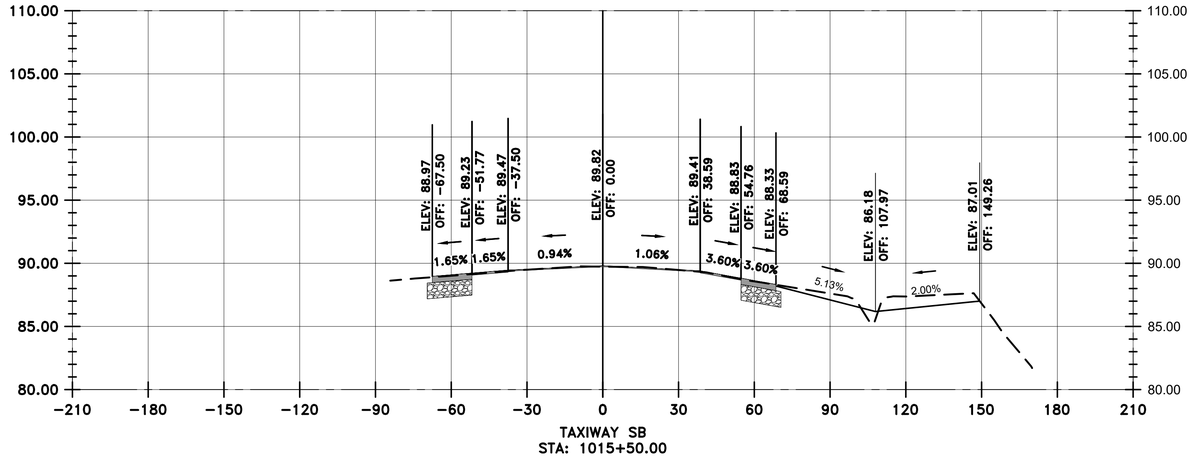
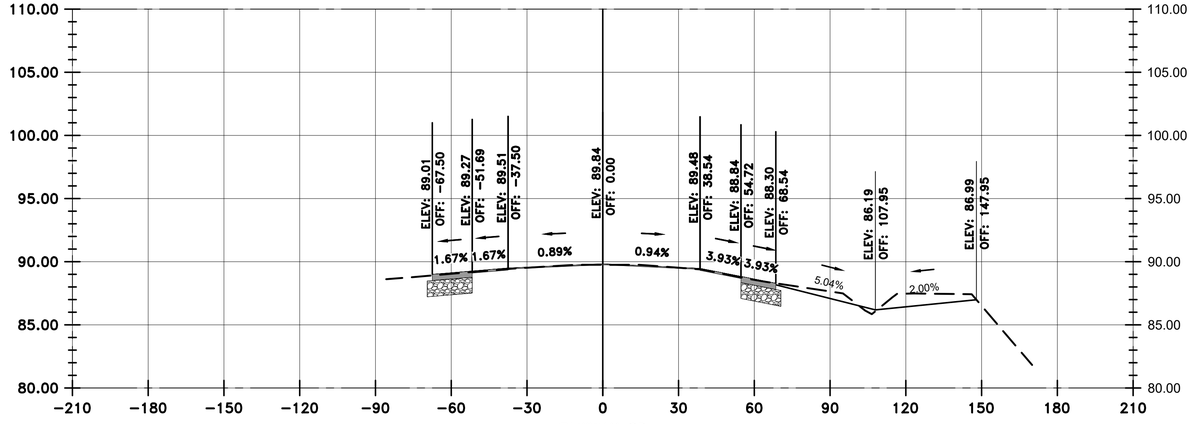
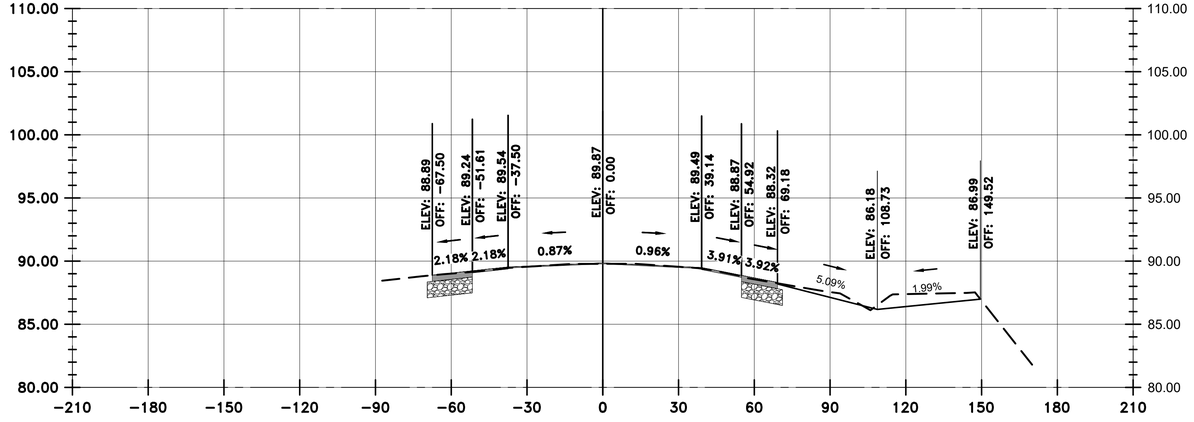


TAXIWAY SB
STA: 1015+50.00



TAXIWAY SB
STA: 1015+00.00



TAXIWAY SB
STA: 1014+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 4

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.04

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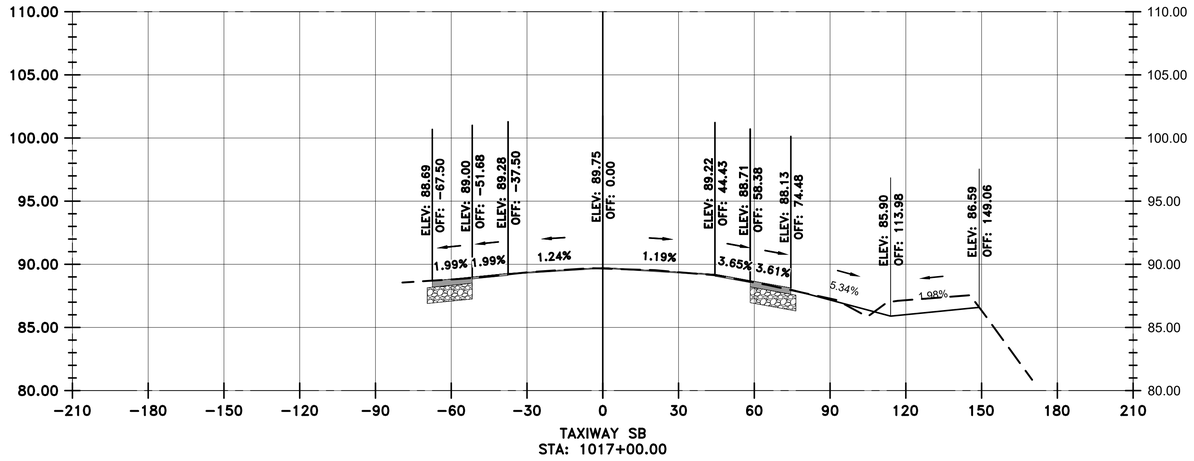

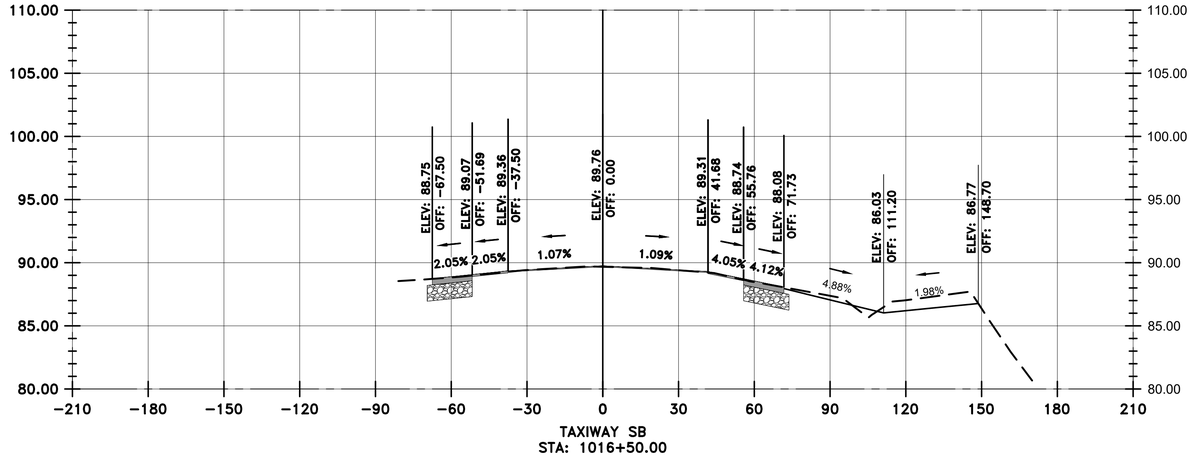

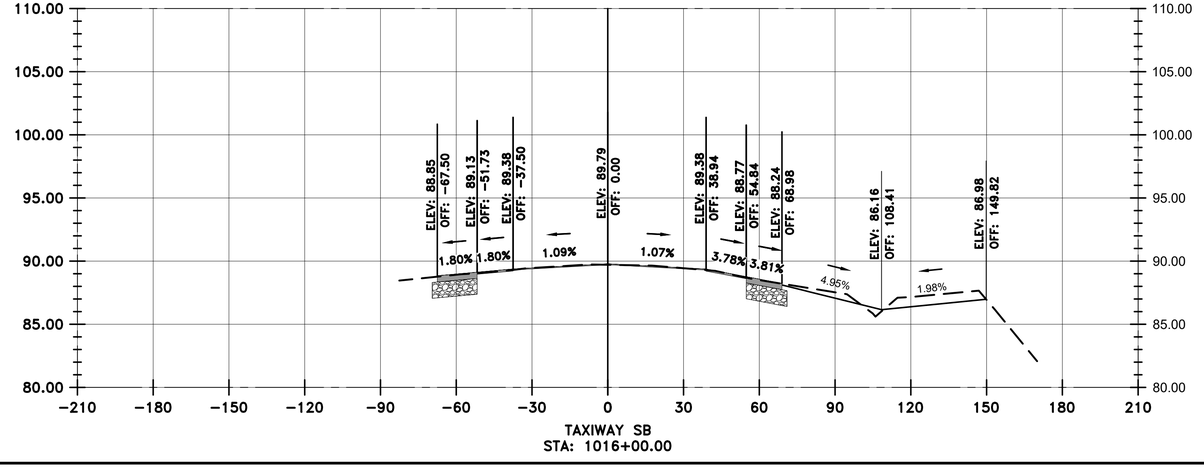

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 5

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.05

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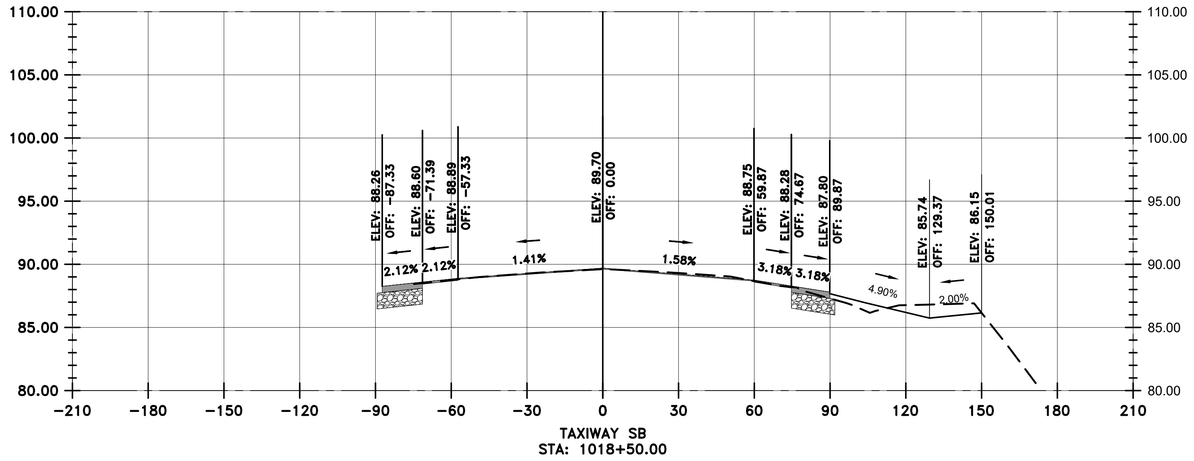
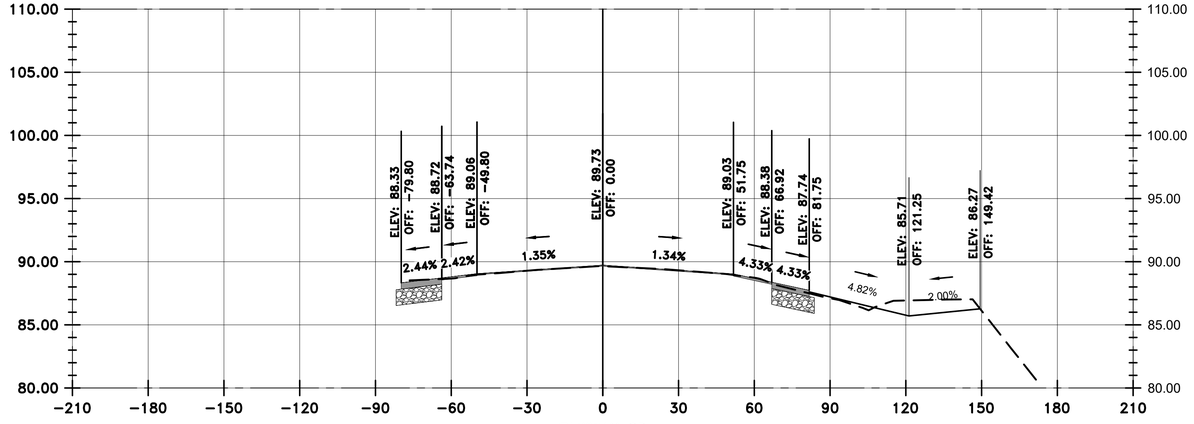


TAXIWAY SB
STA: 1018+50.00



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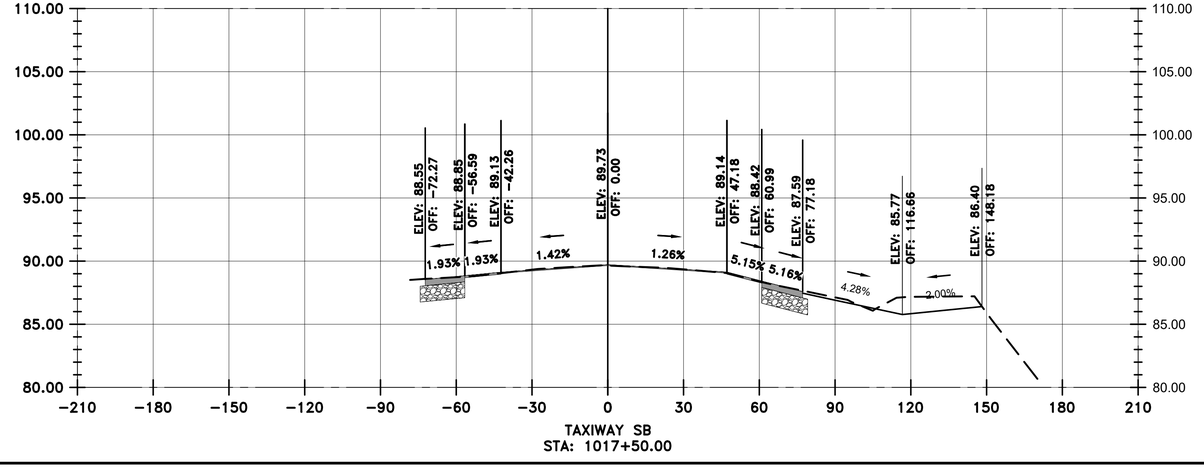
STA: 1018+00.00



TAXIWAY SB
STA: 1017+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 6

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.06

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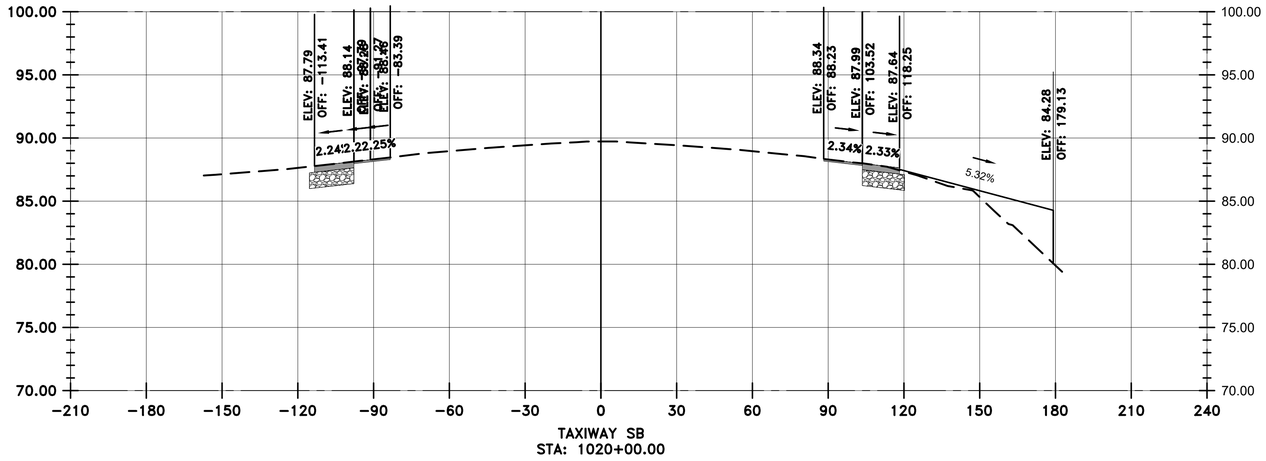

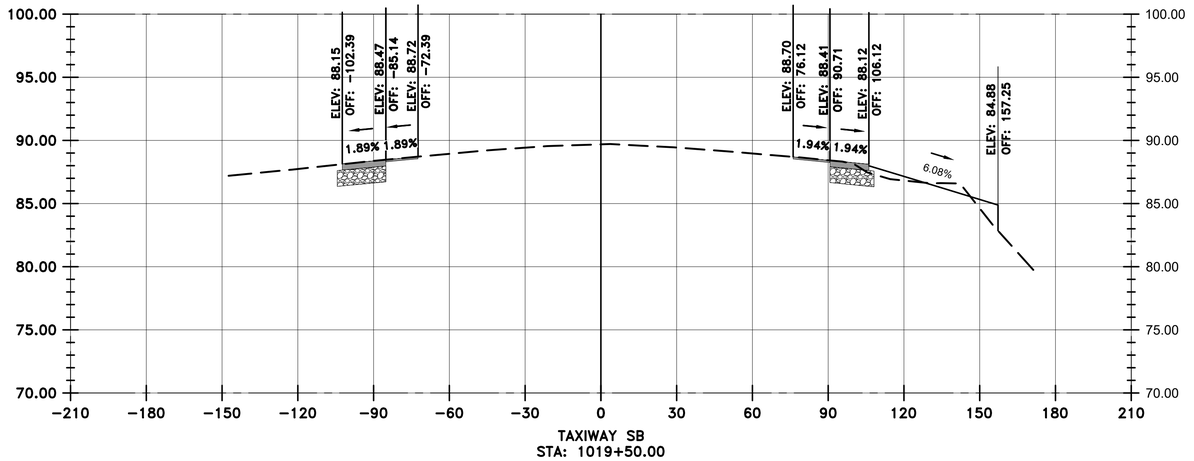

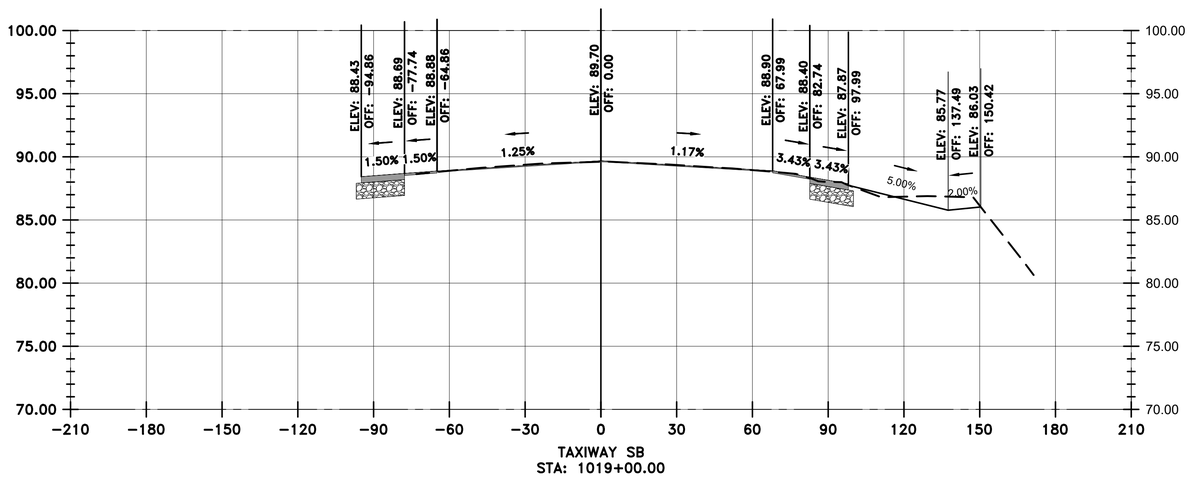

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 7

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.07

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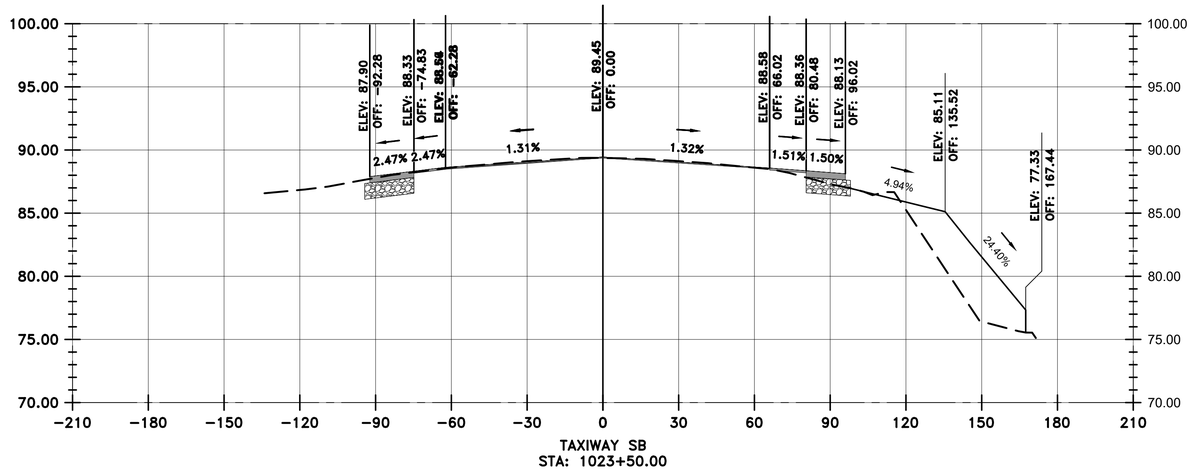

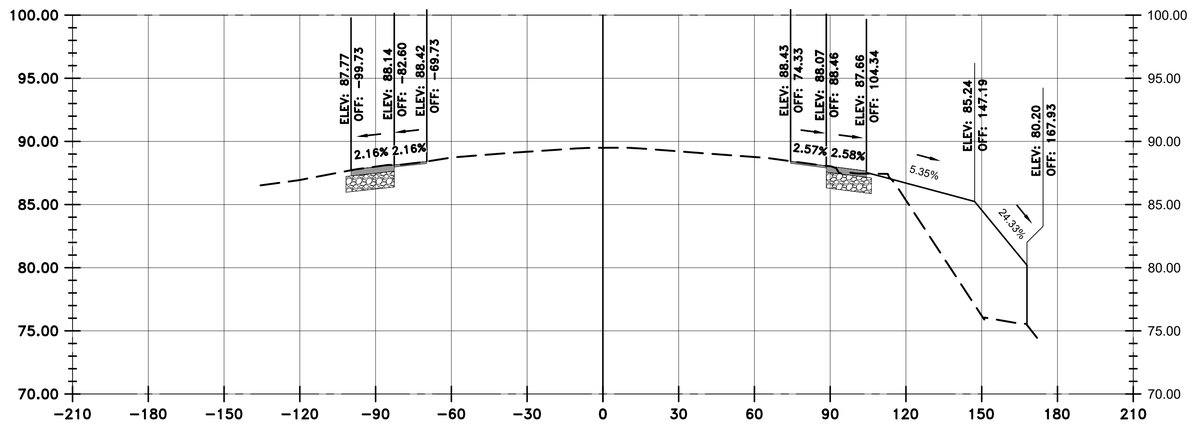

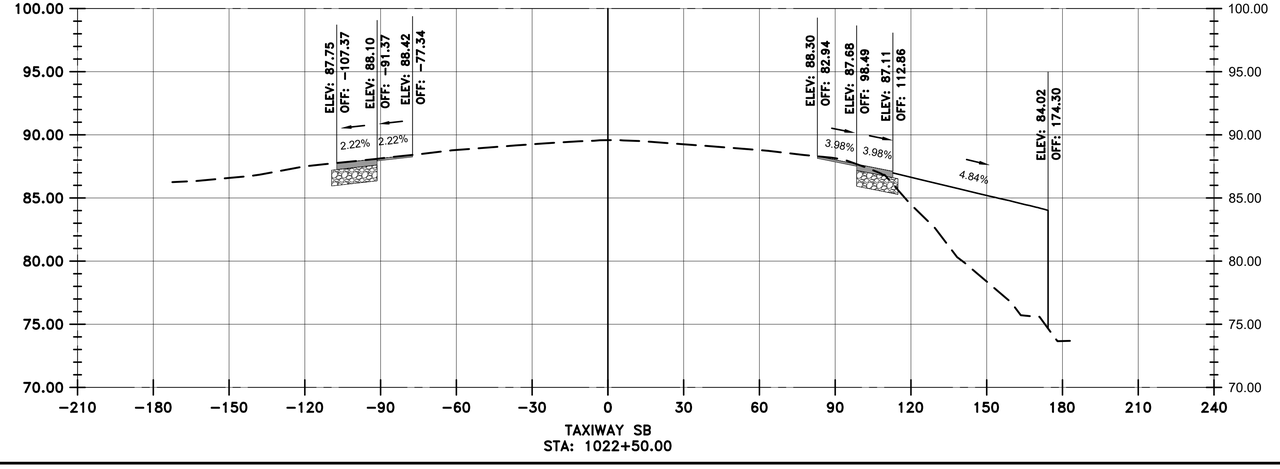

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 8

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.08

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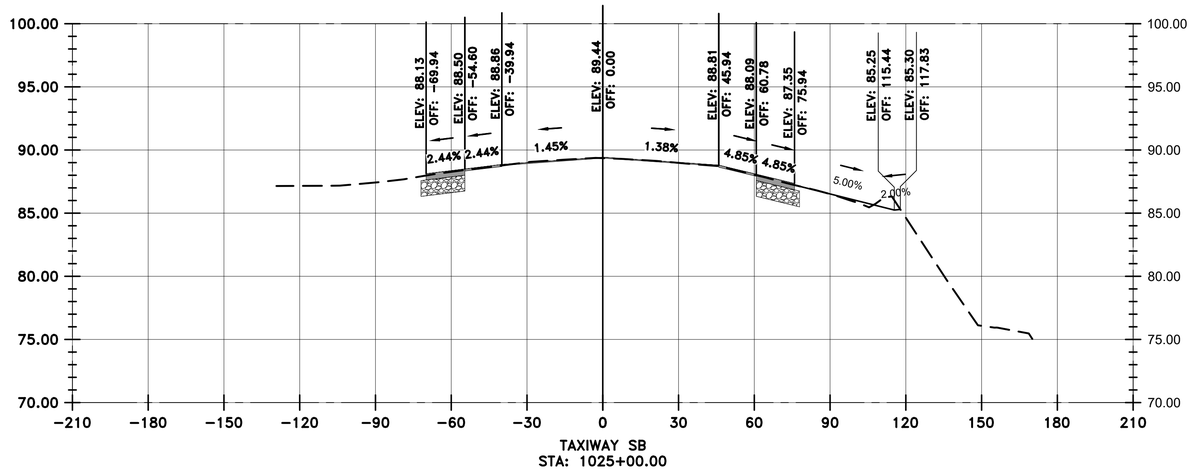

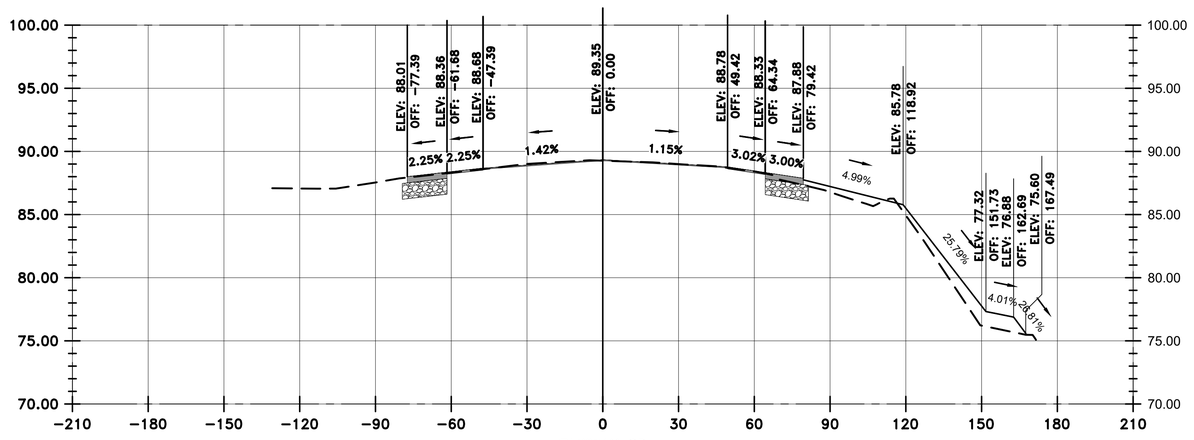

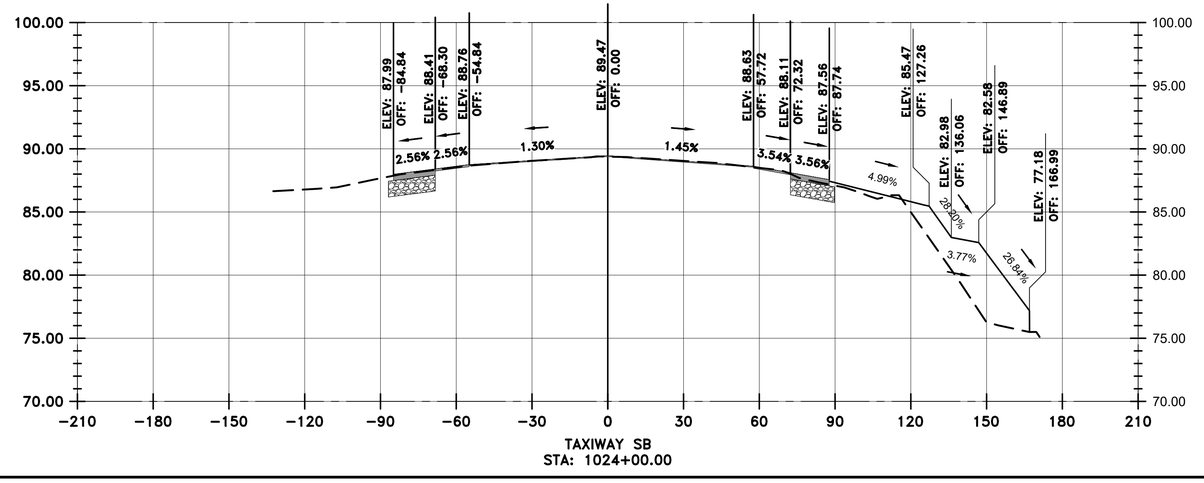

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 9

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.09

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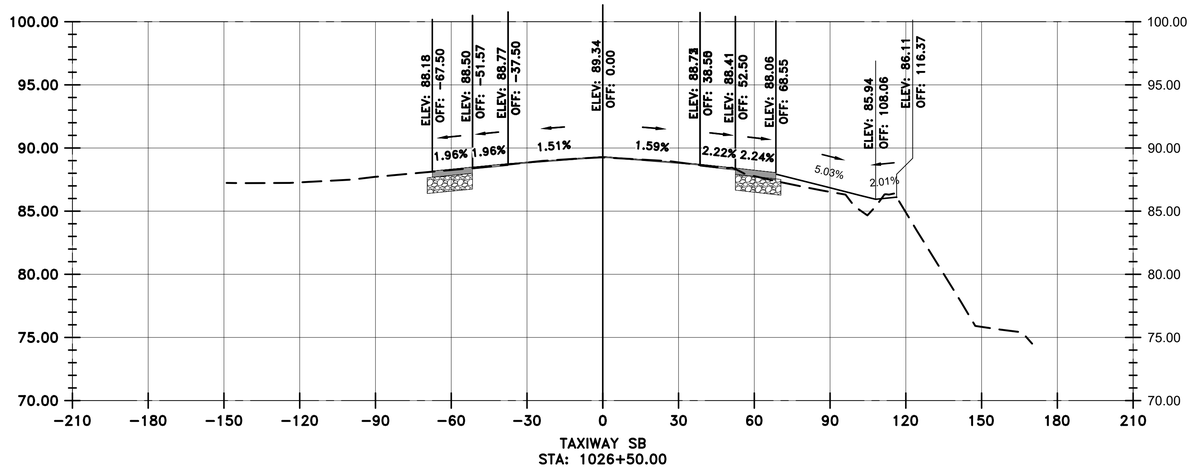

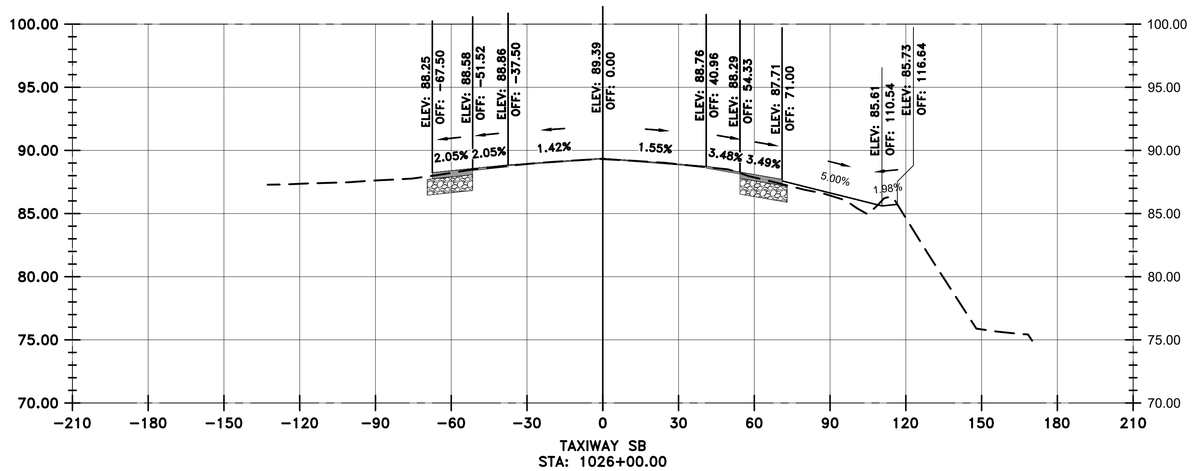

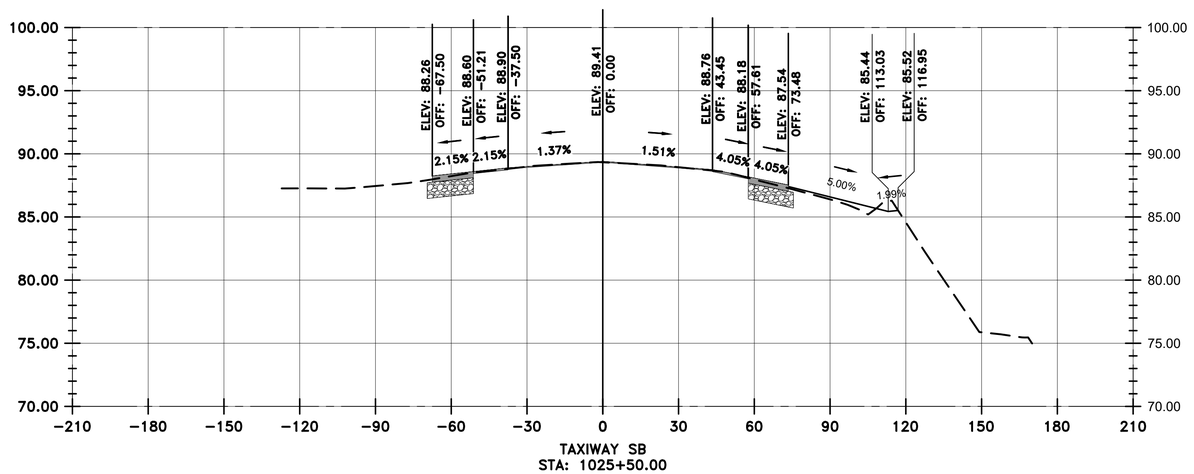

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 10

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.10

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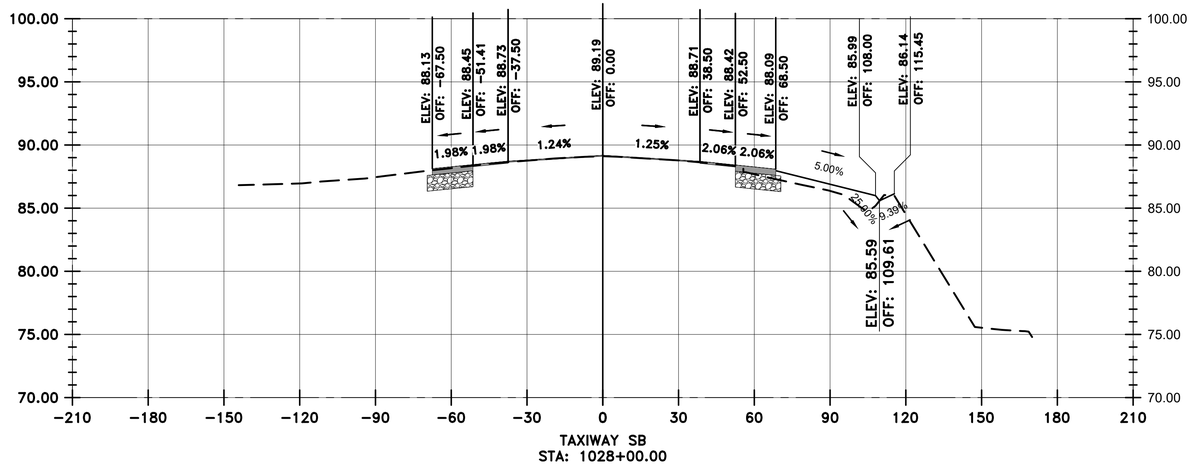

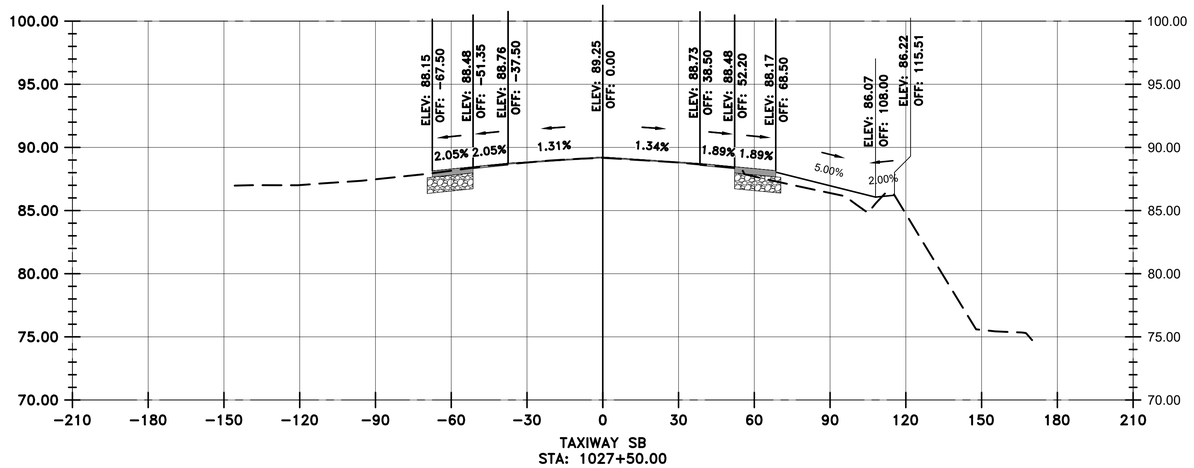

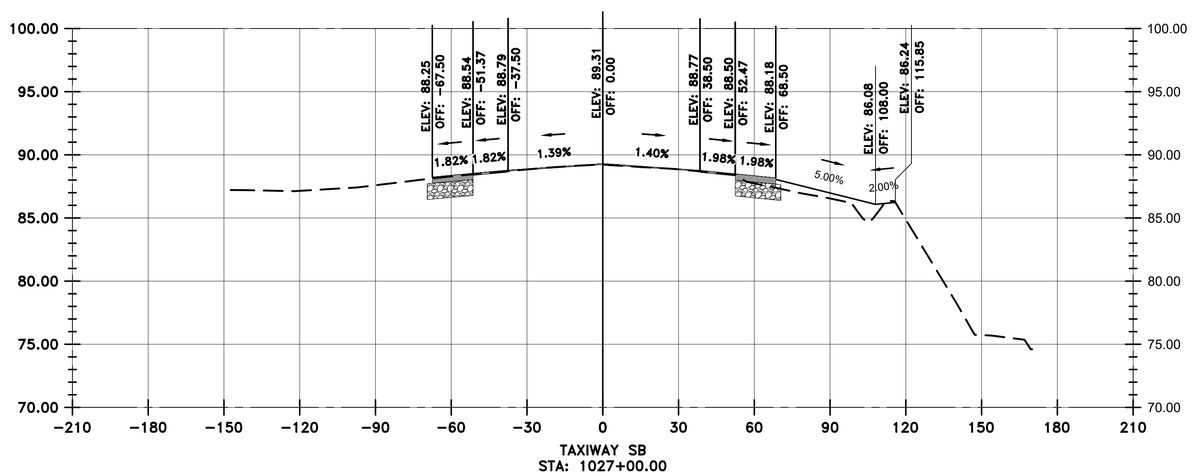

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 11

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.11

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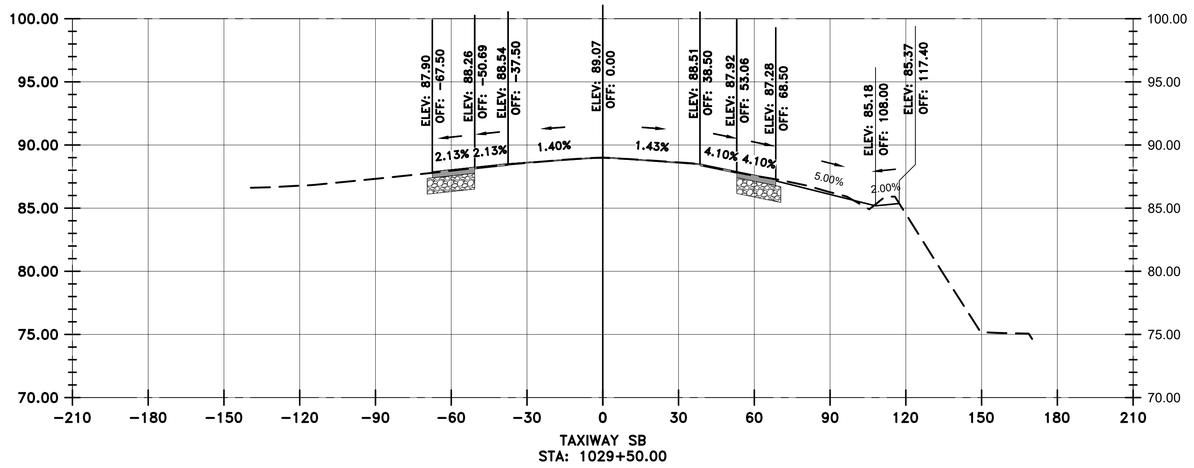

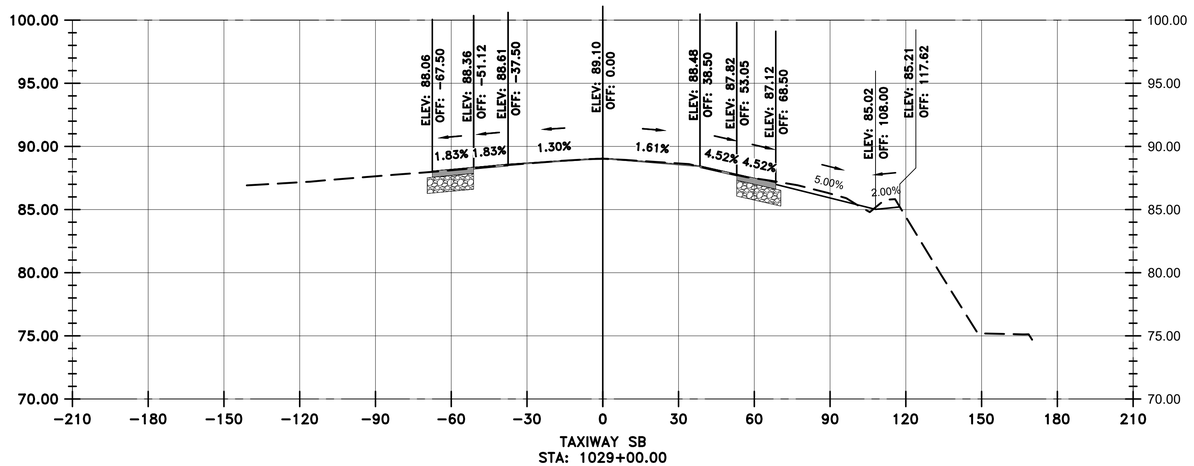

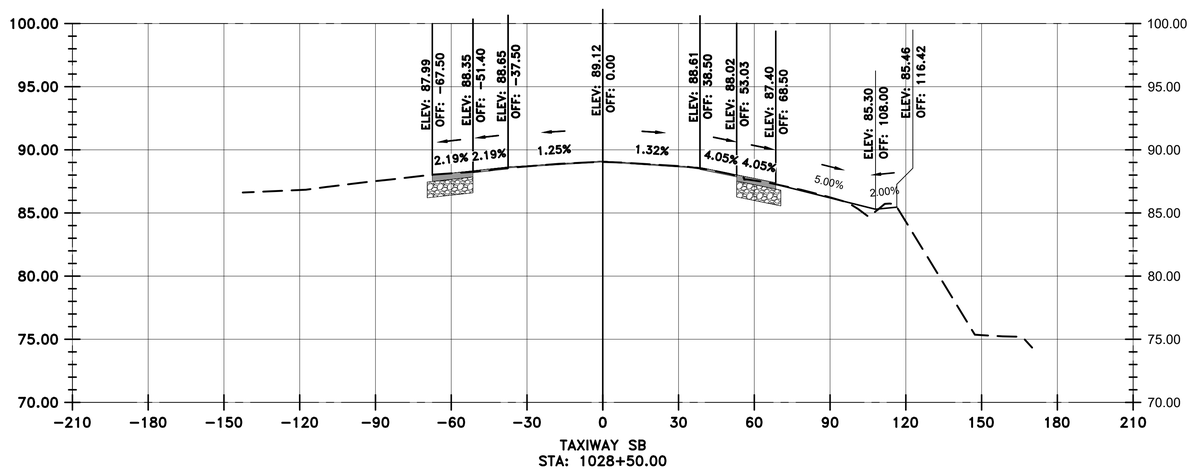

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 12

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.12

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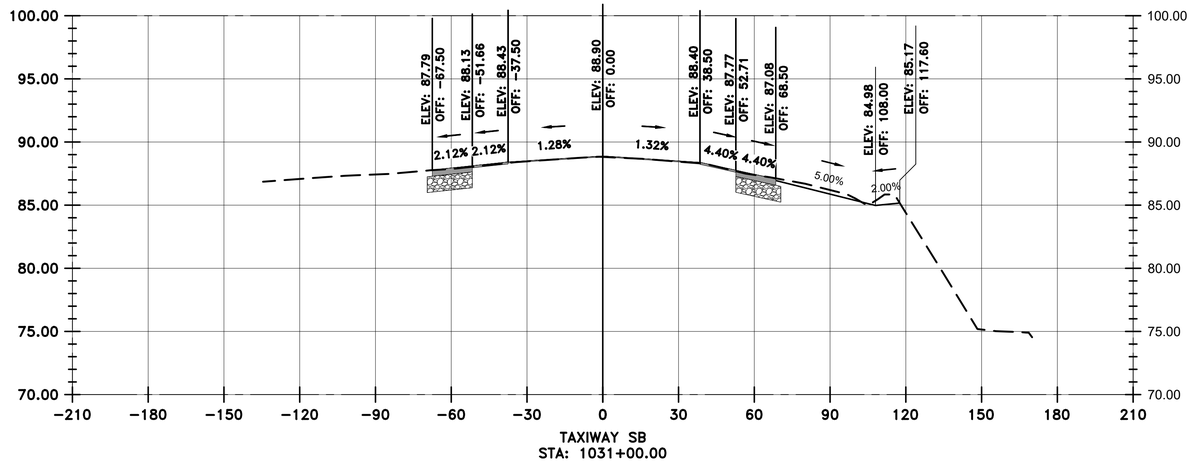

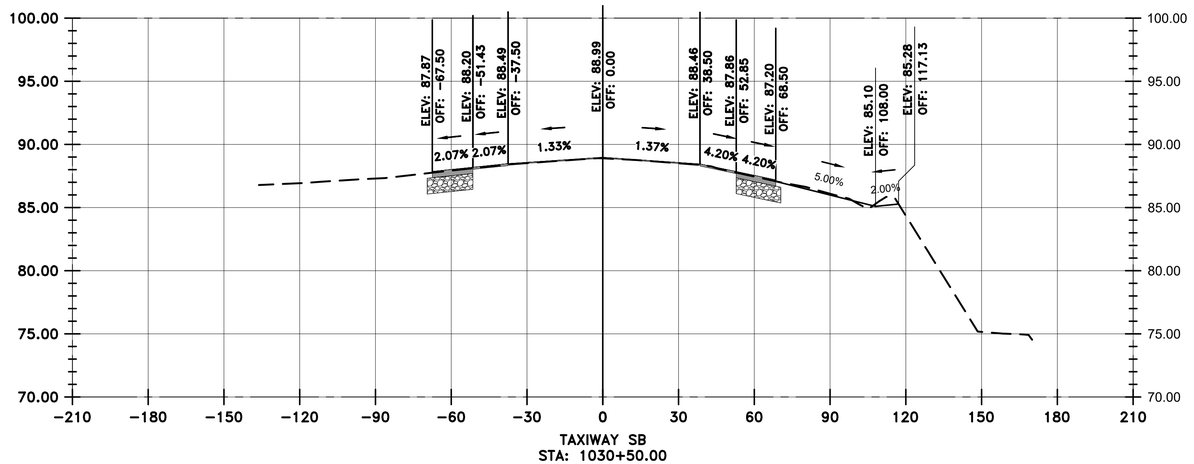

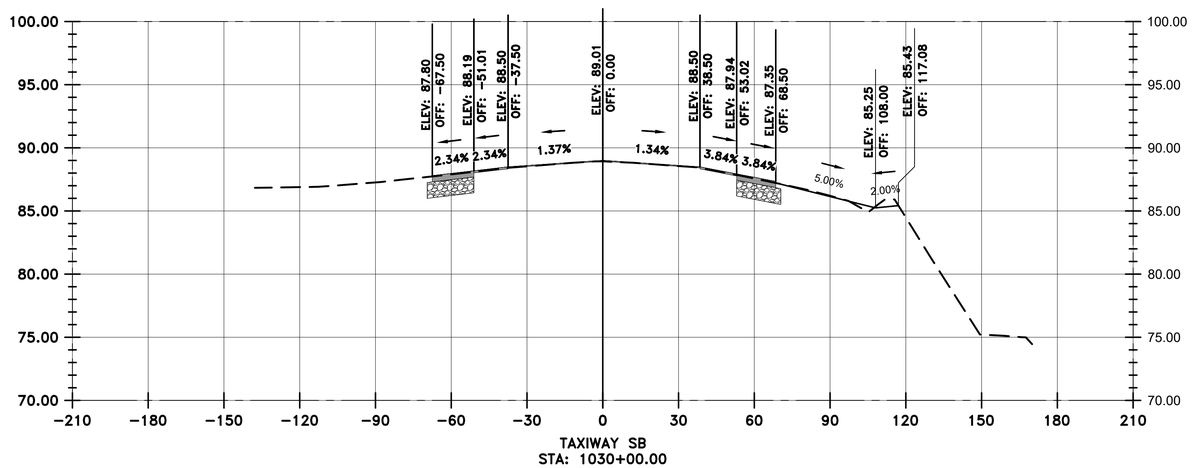

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 13

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.13

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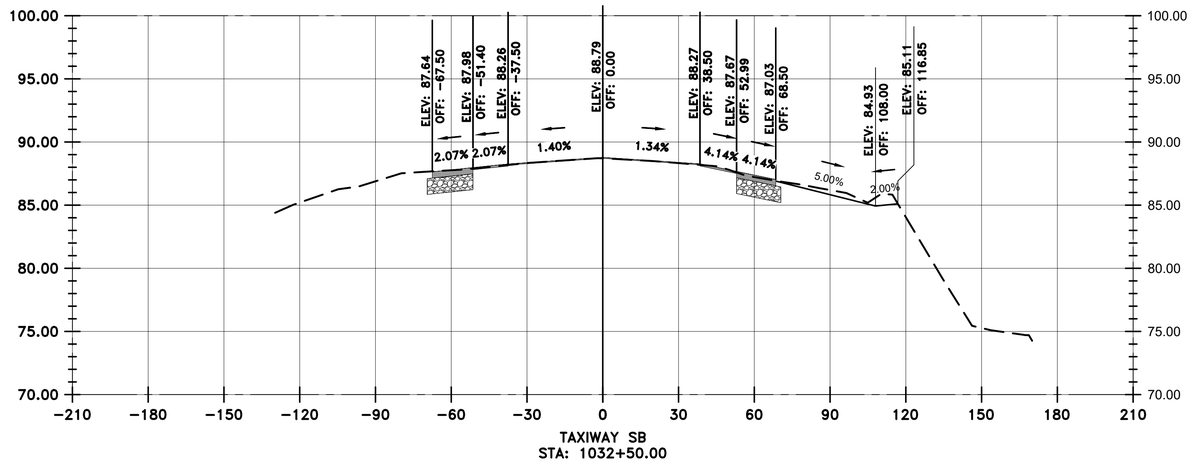

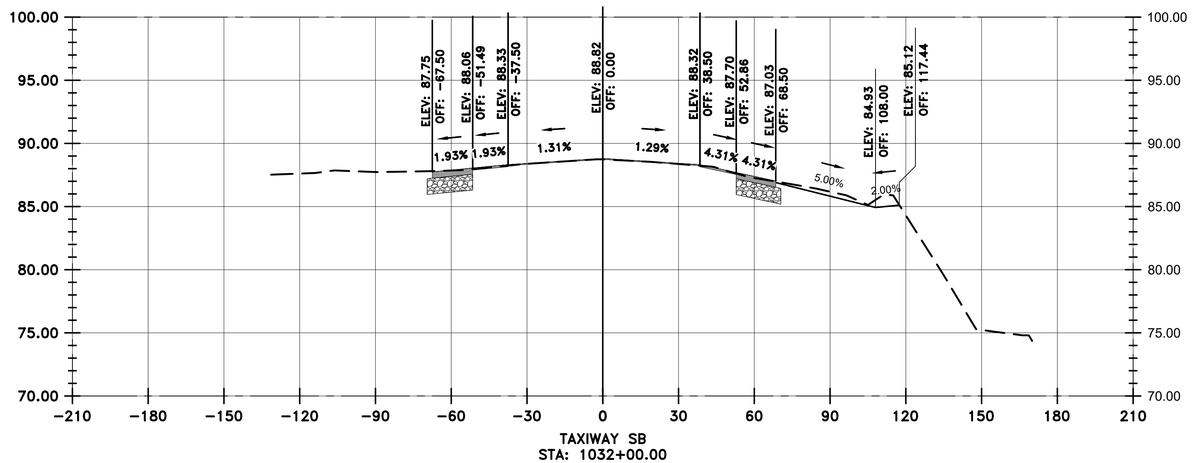

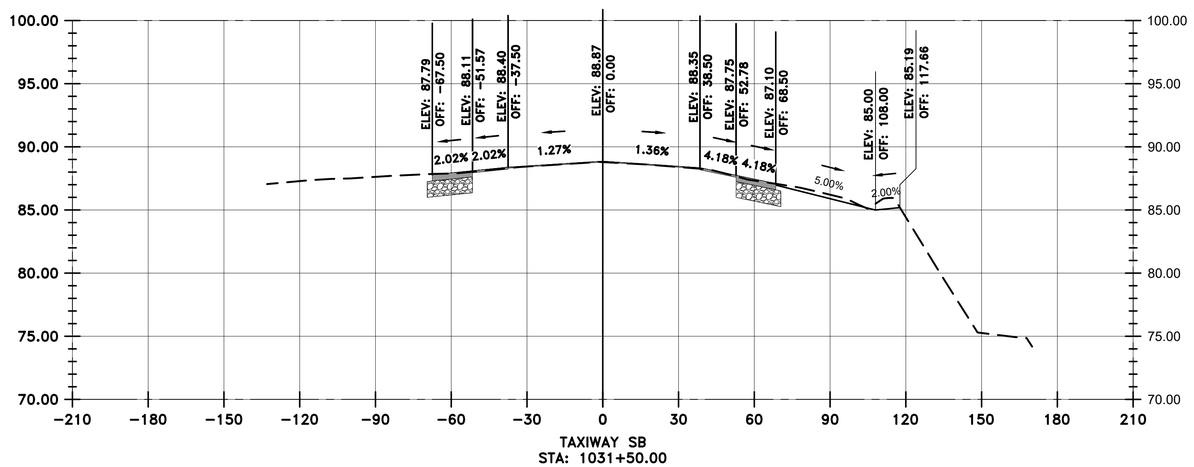

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 14

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.14

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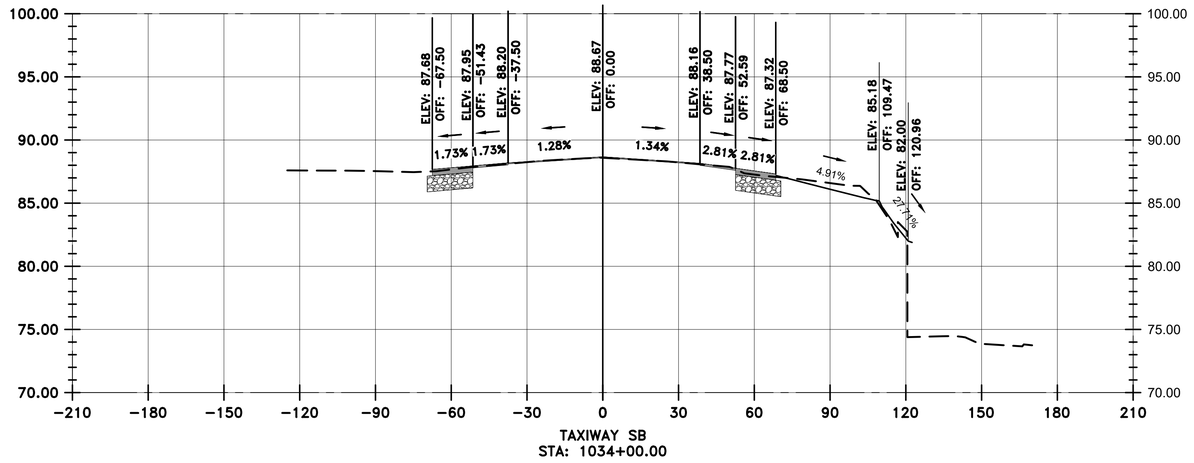

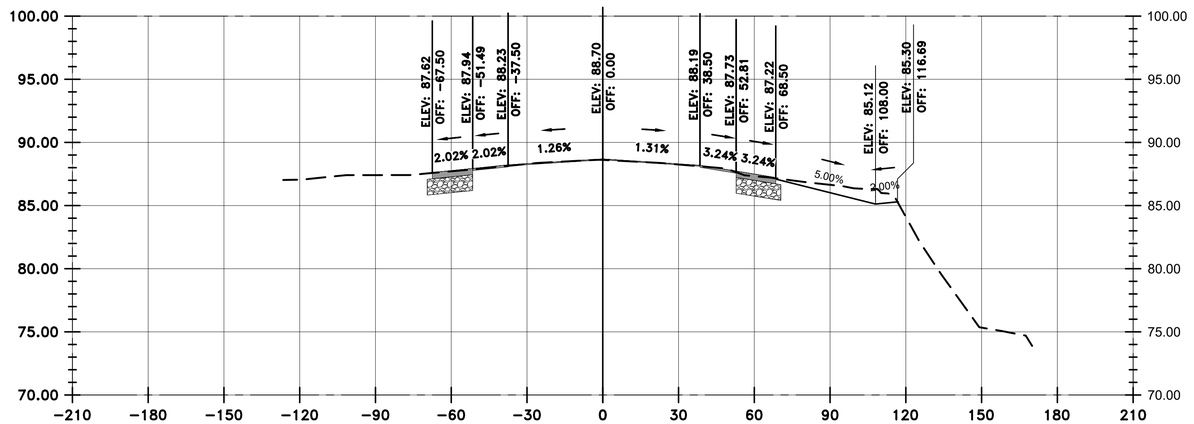

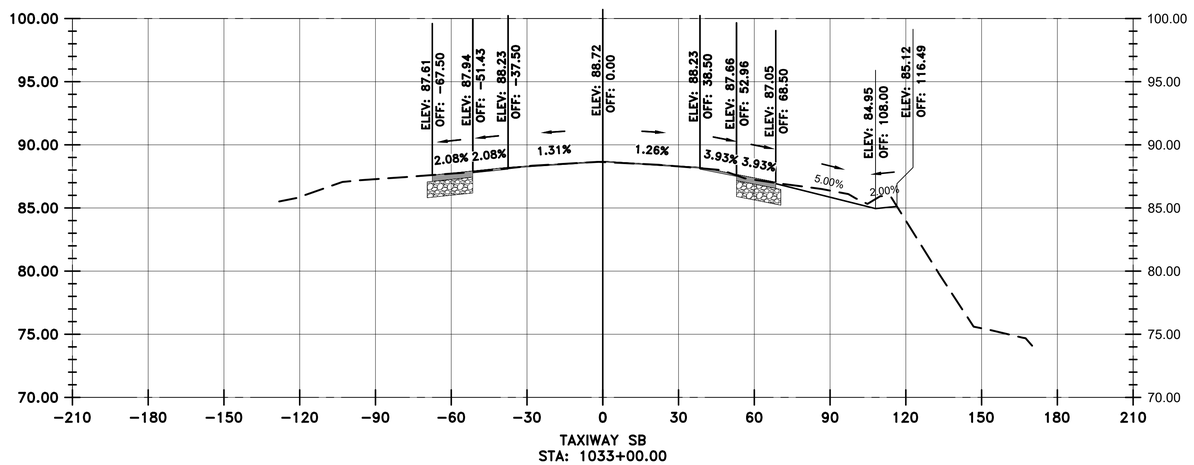

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 15

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.15

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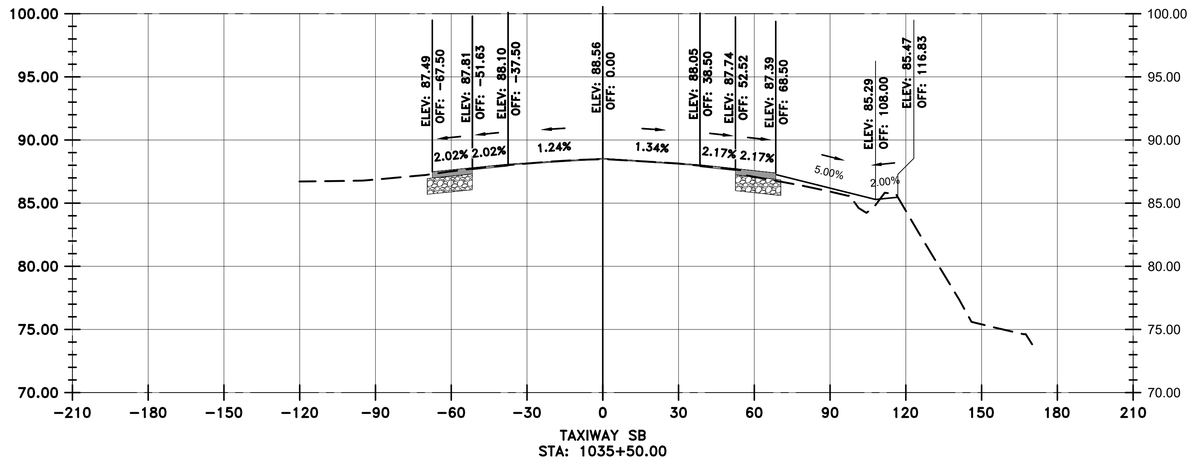

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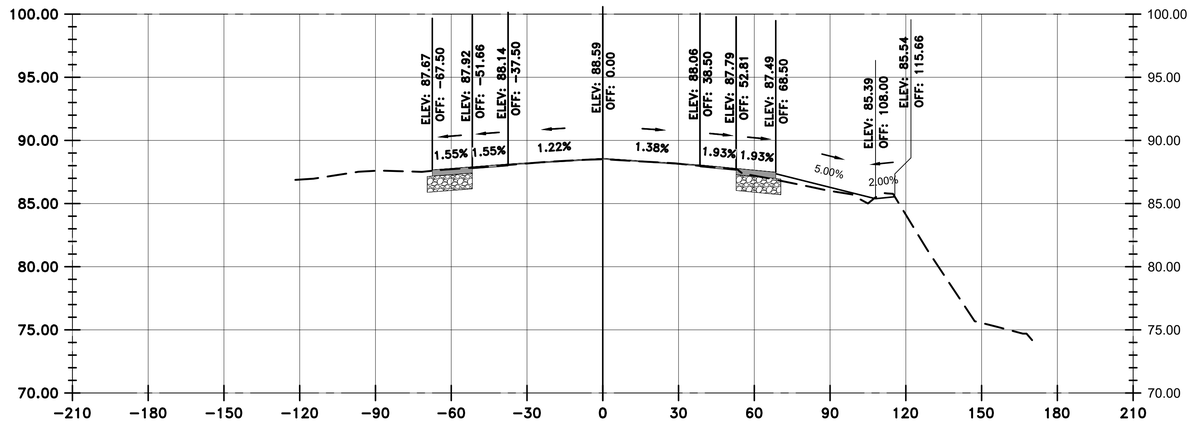
STA: 1035+50.00



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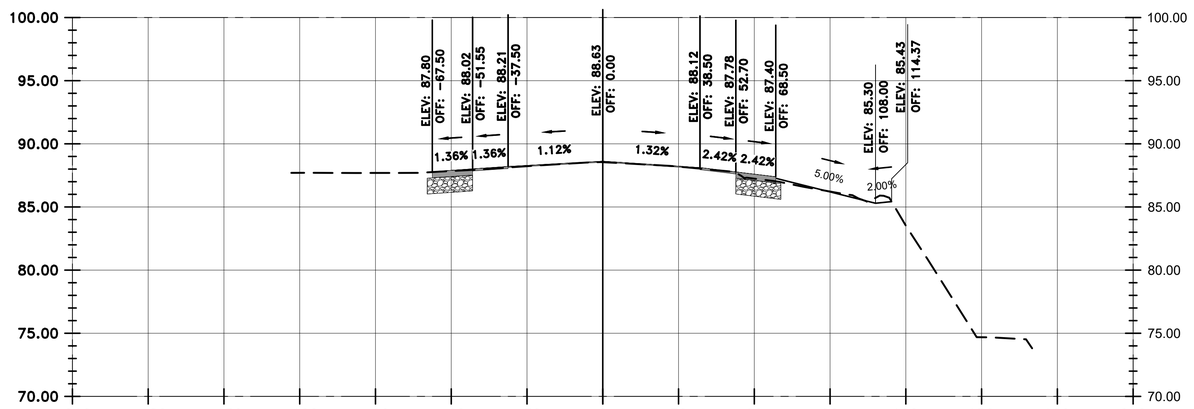
STA: 1035+00.00



TAXIWAY SB
STA: 1034+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 16

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.16

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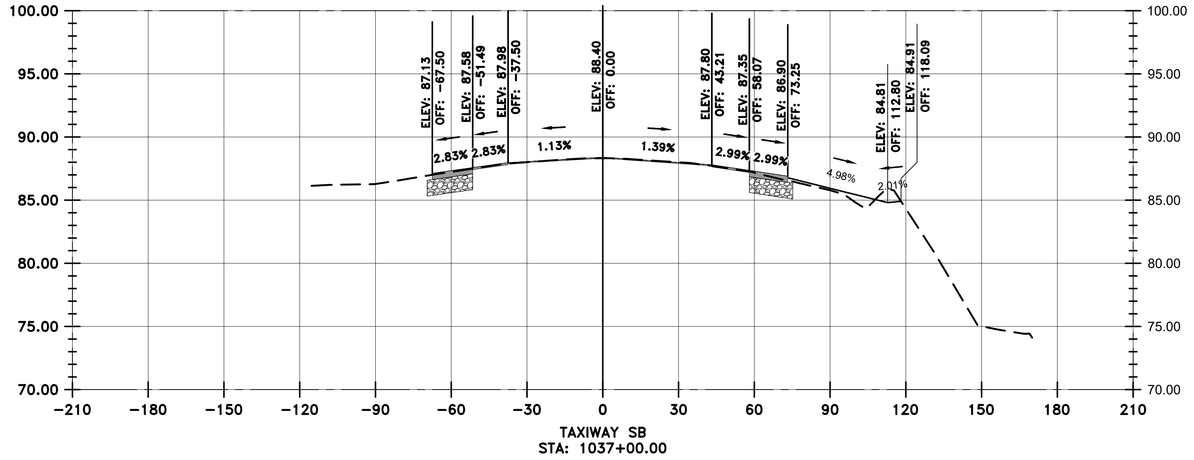

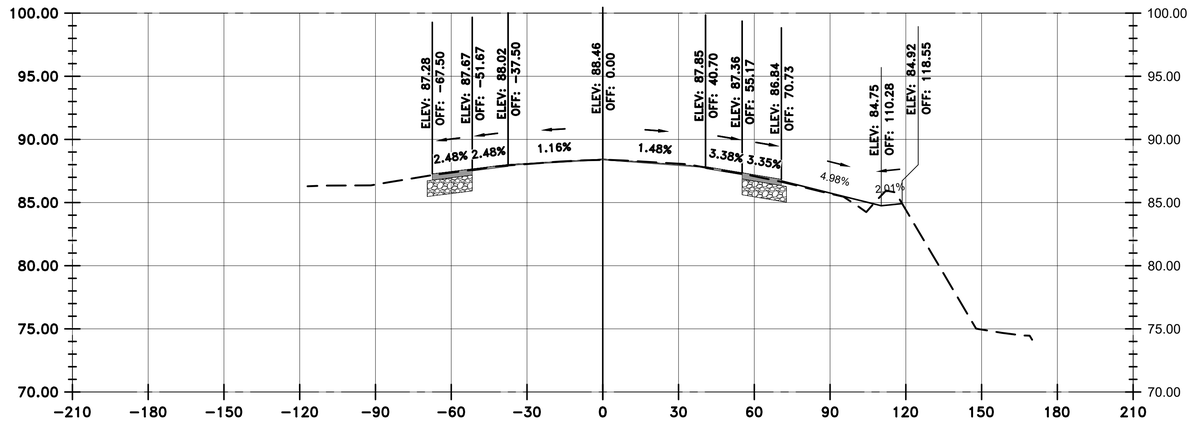

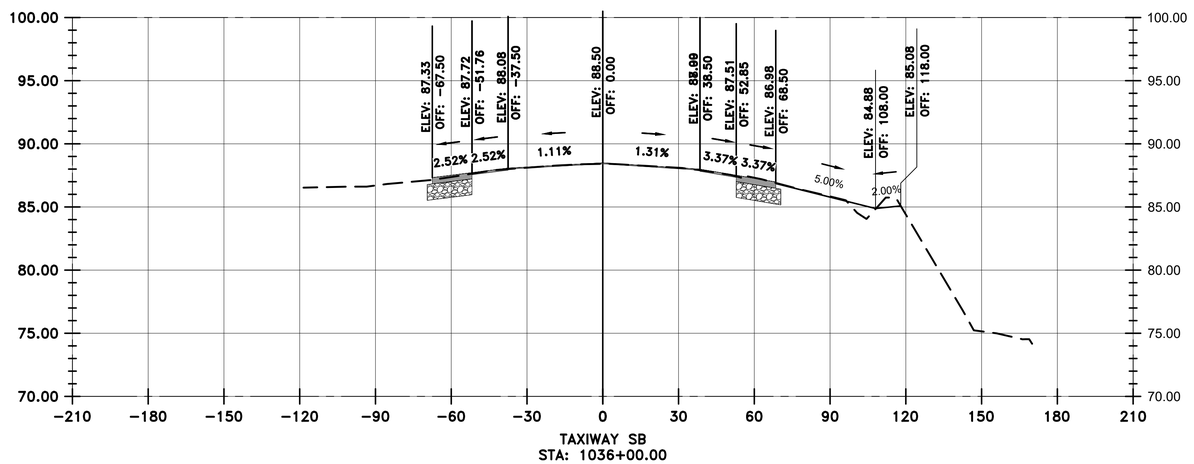

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 17

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.17

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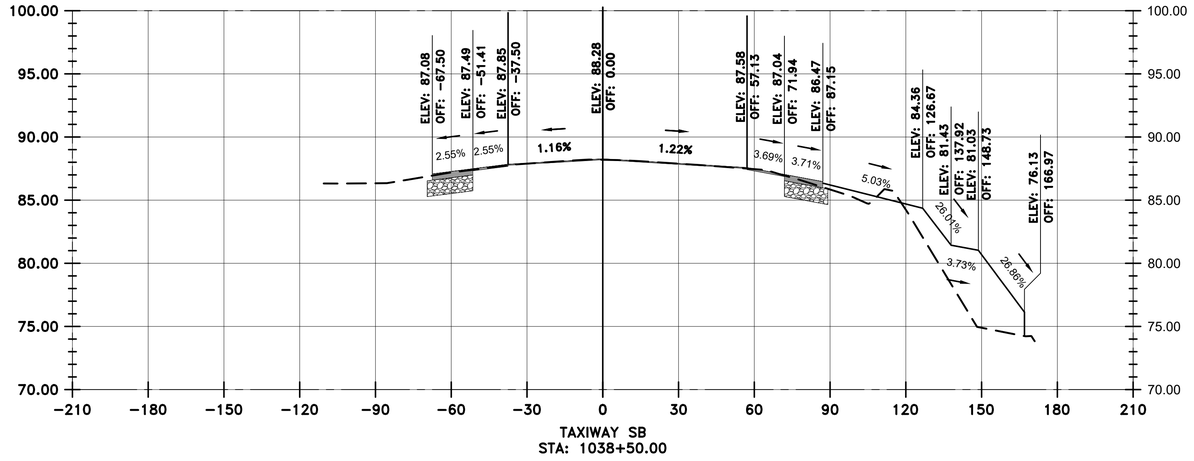

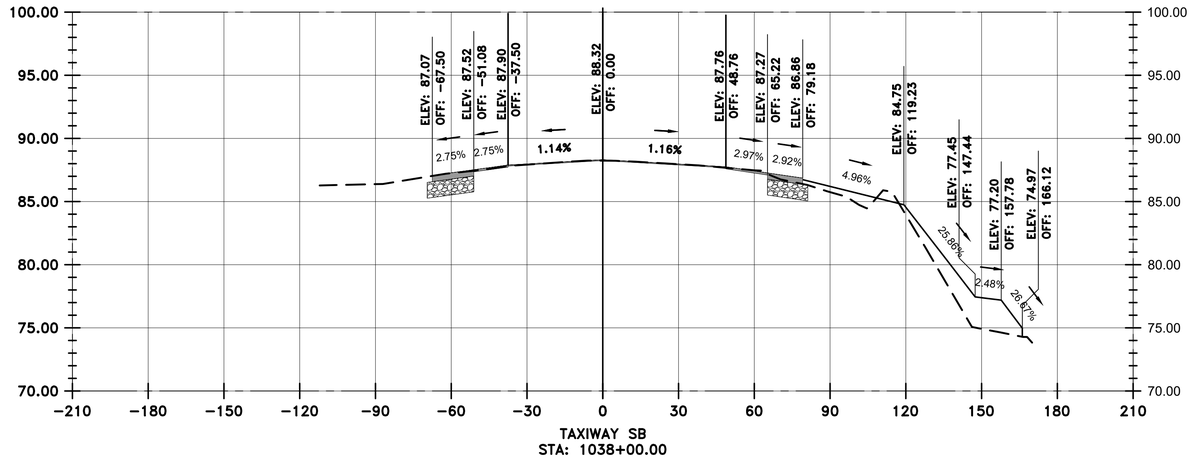

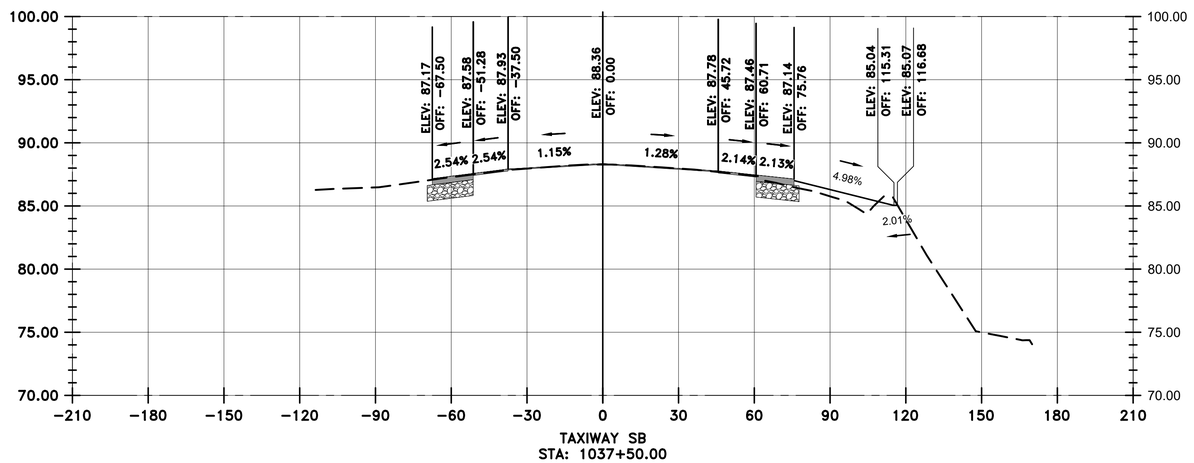

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
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Suite 640
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 18

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.18

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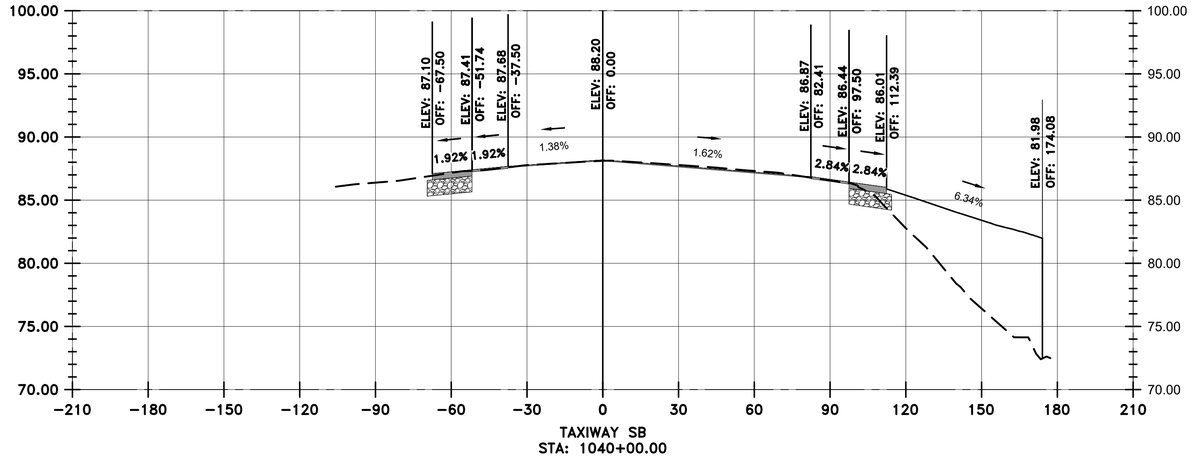

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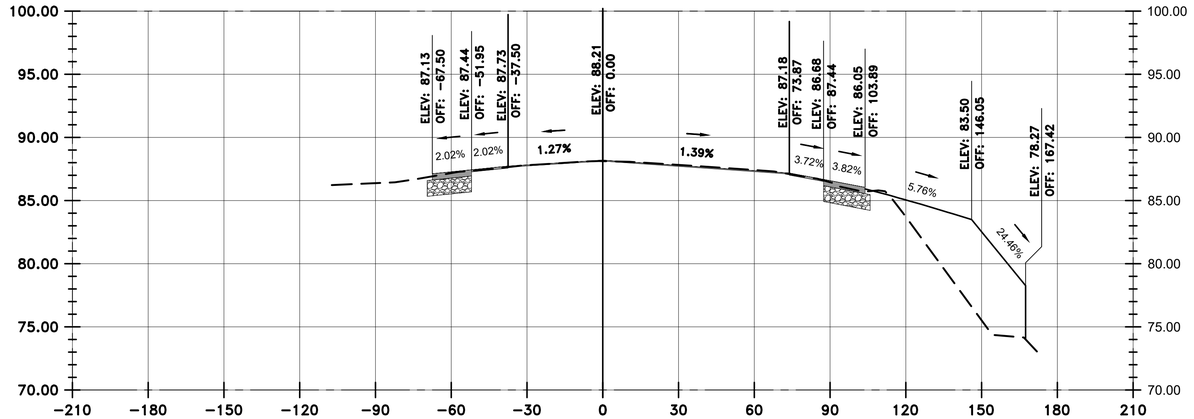

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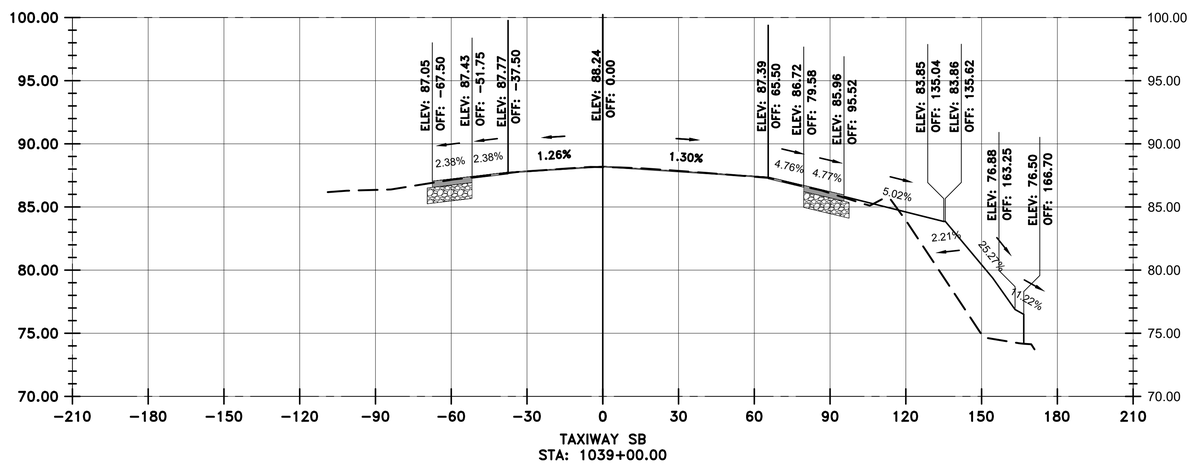

TAXIWAY SB
STA: 1039+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 19

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.19

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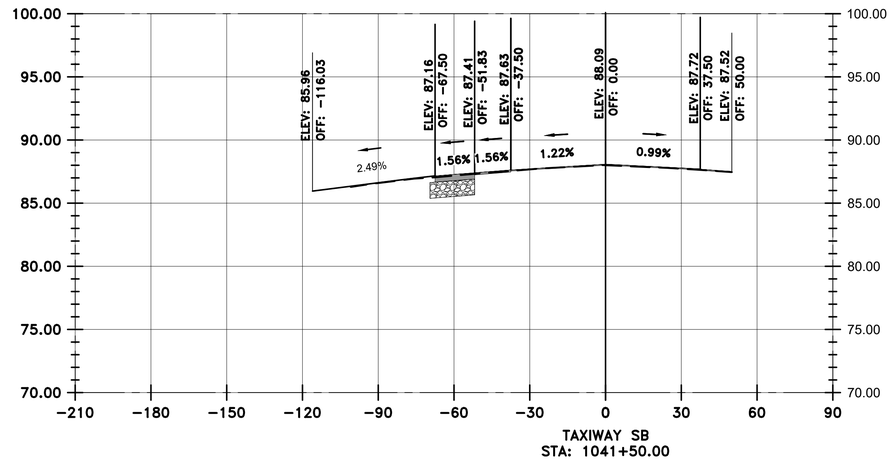

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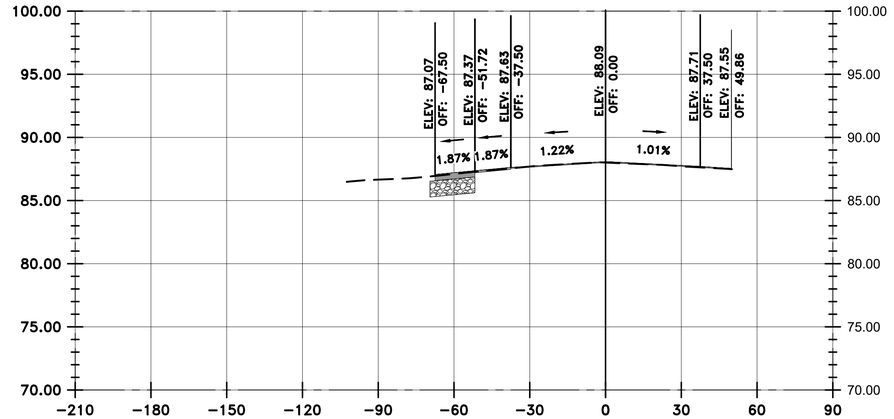

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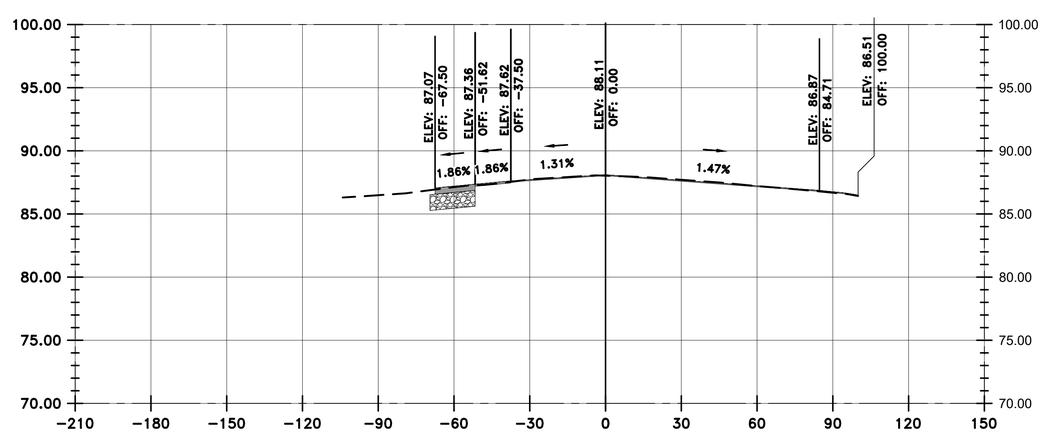

TAXIWAY SB
STA: 1040+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 20

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.20

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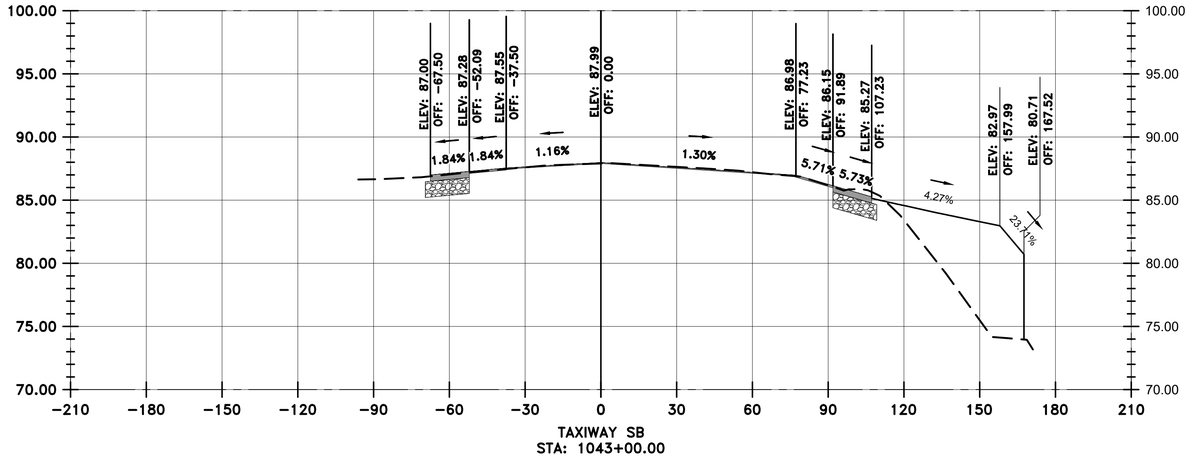

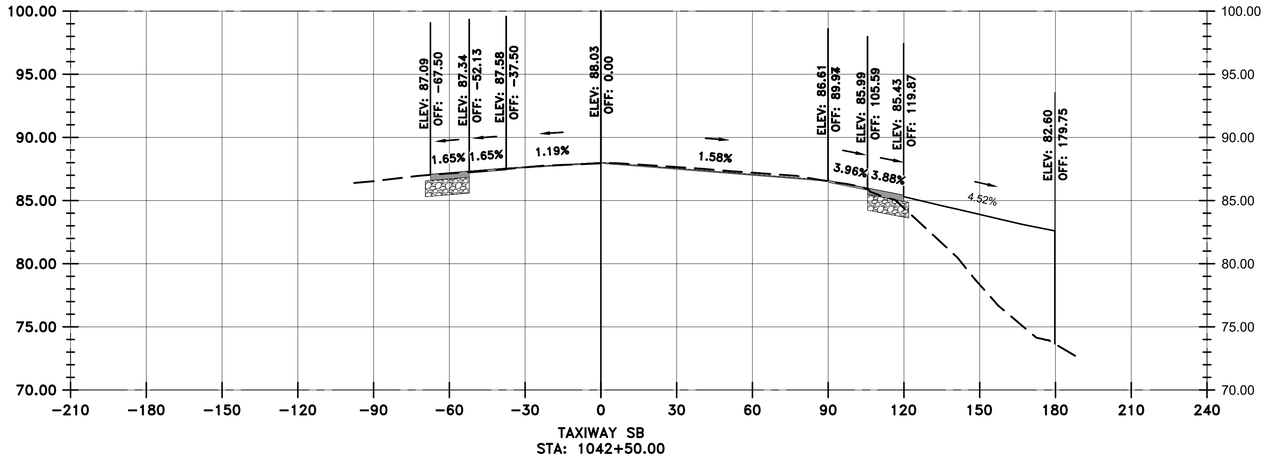

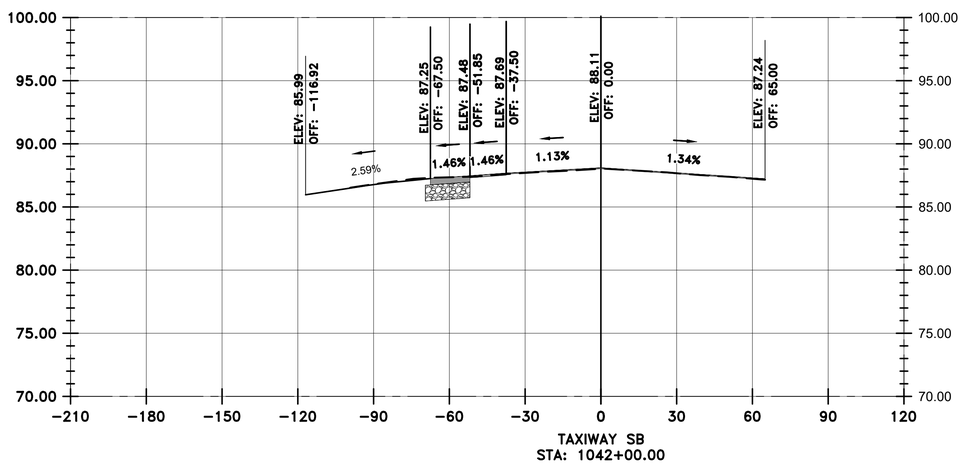

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 21

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.21

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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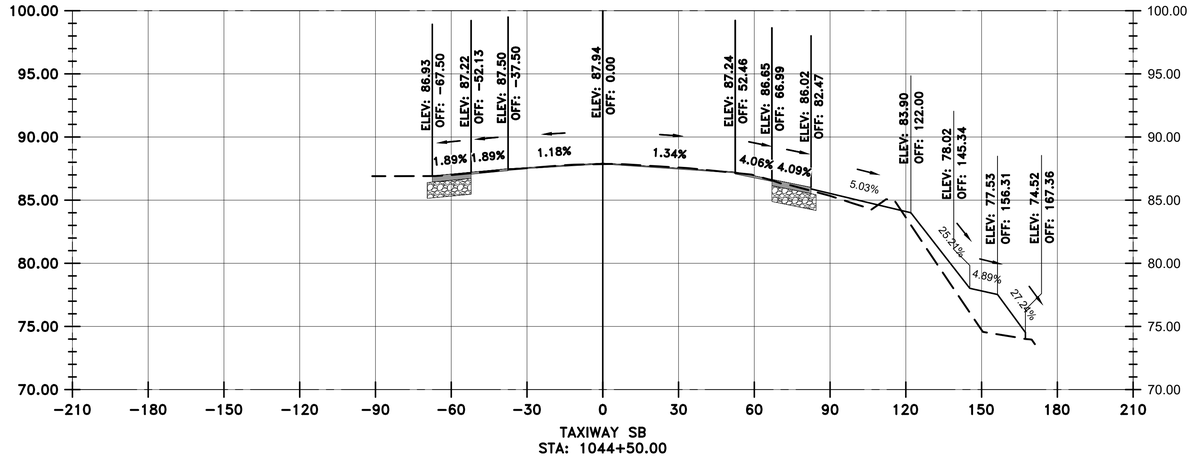
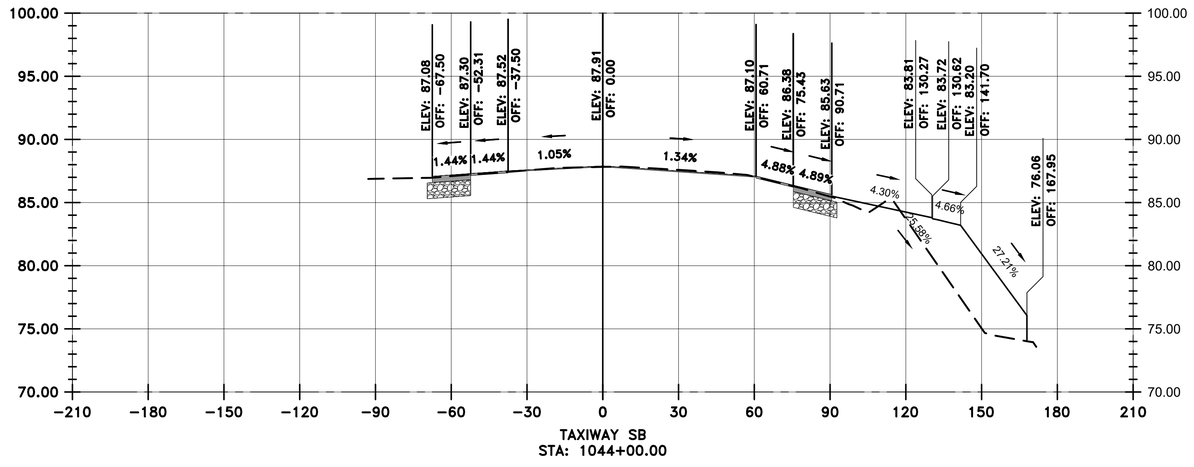


TAXIWAY SB
STA: 1044+50.00



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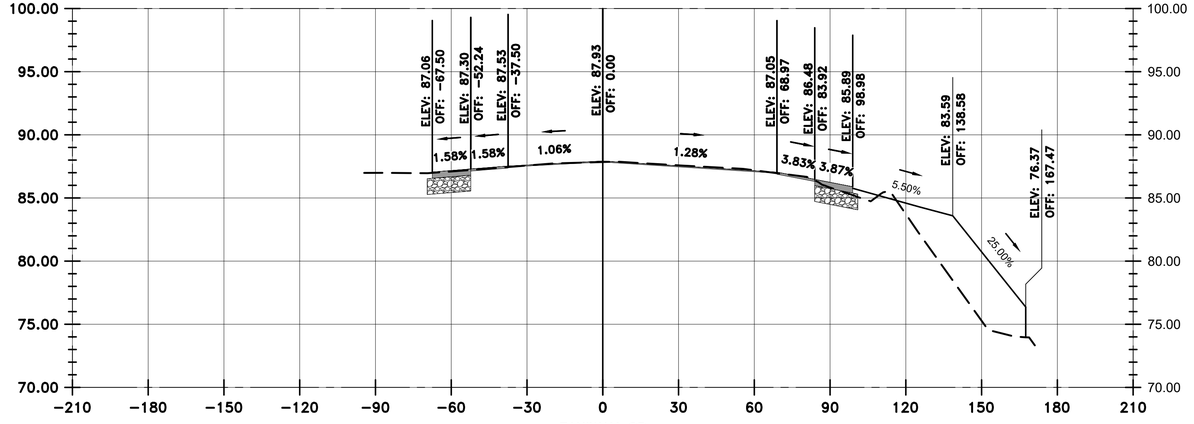

TAXIWAY SB
STA: 1043+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 22

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.22

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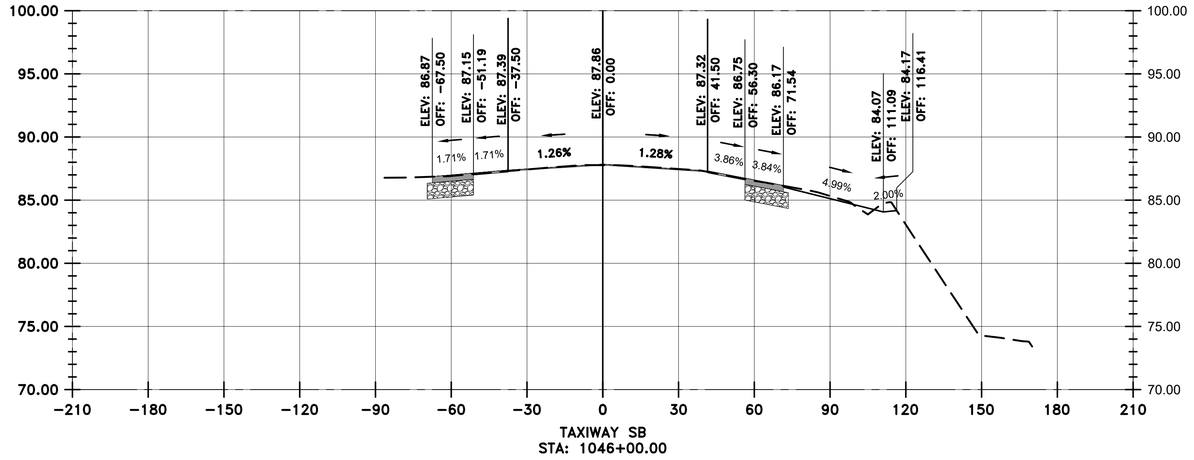

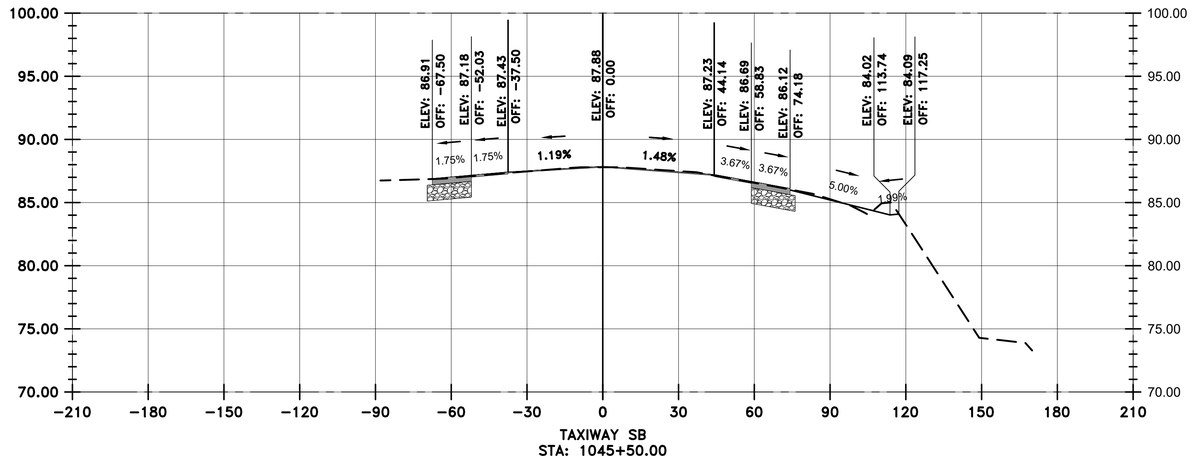

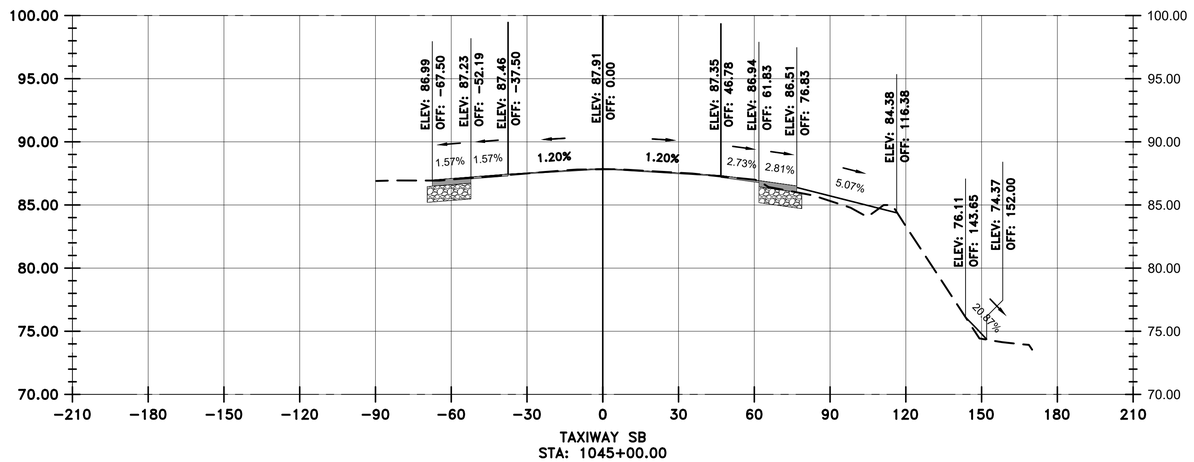

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 23

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.23

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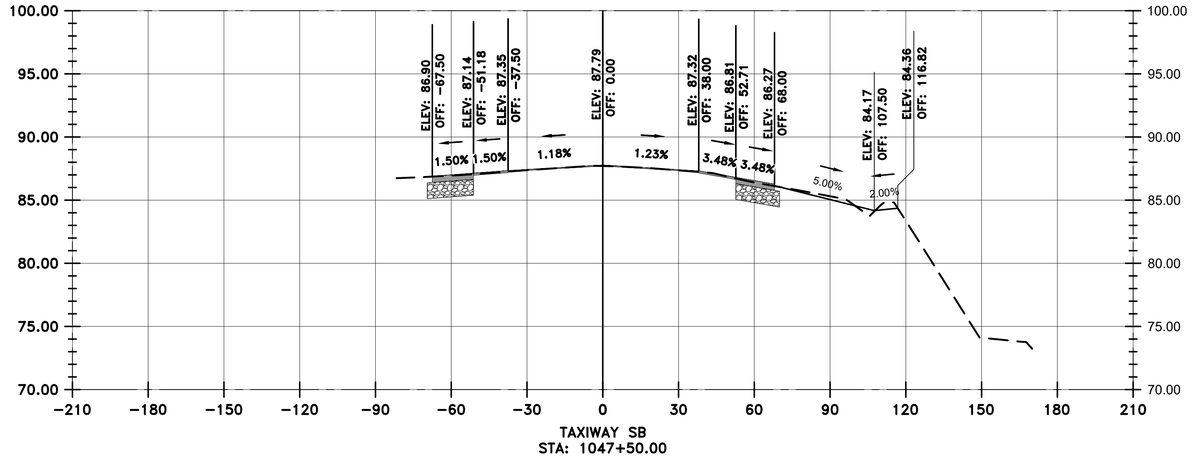

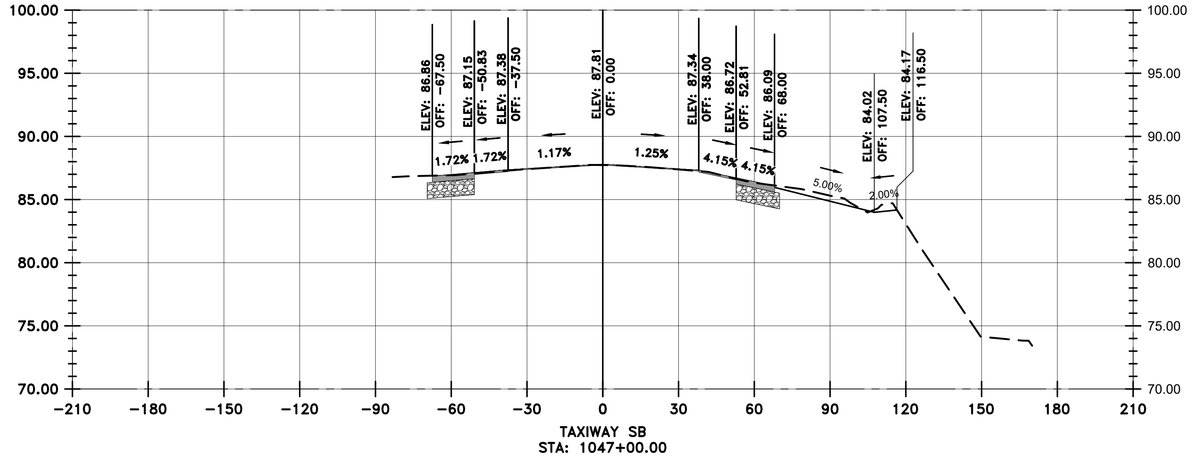

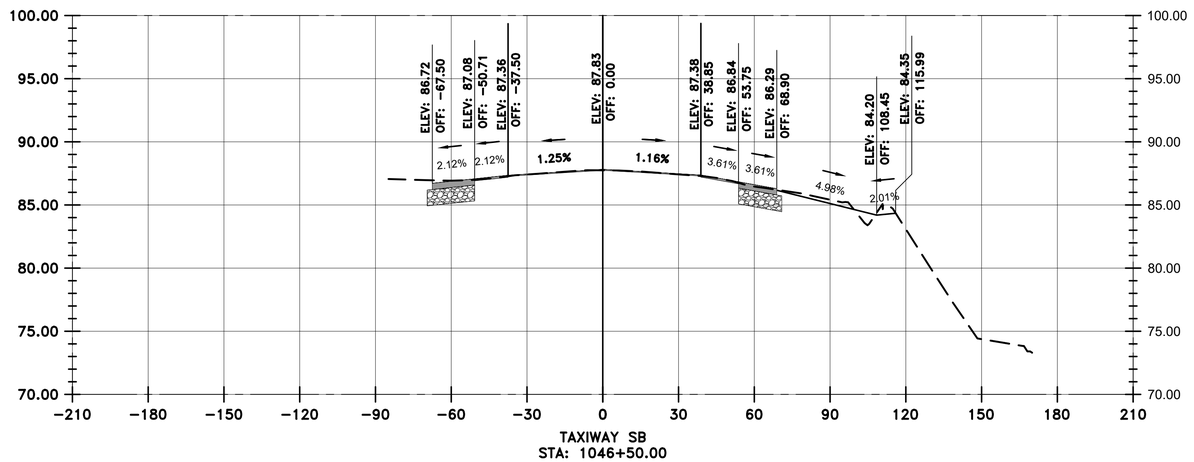

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 24

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.24

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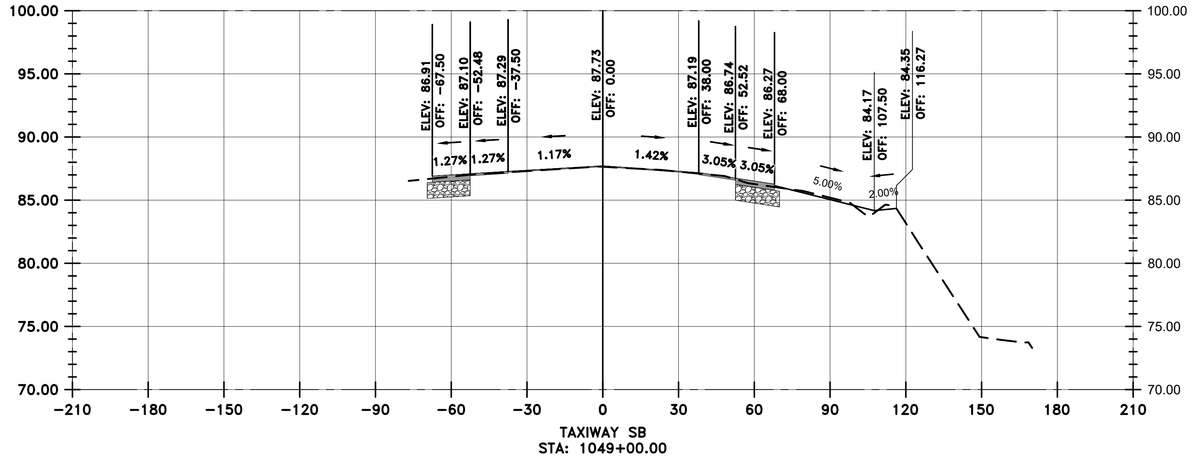

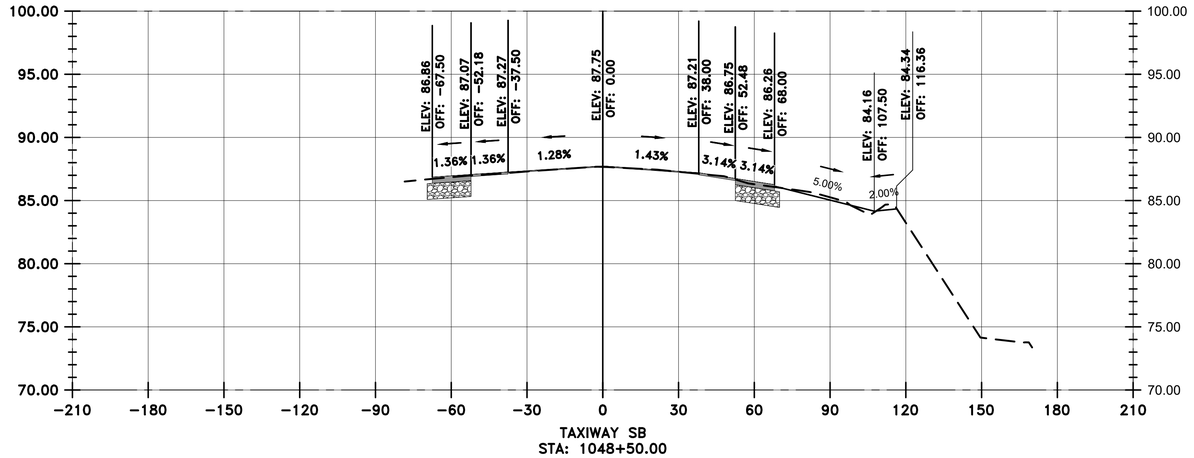

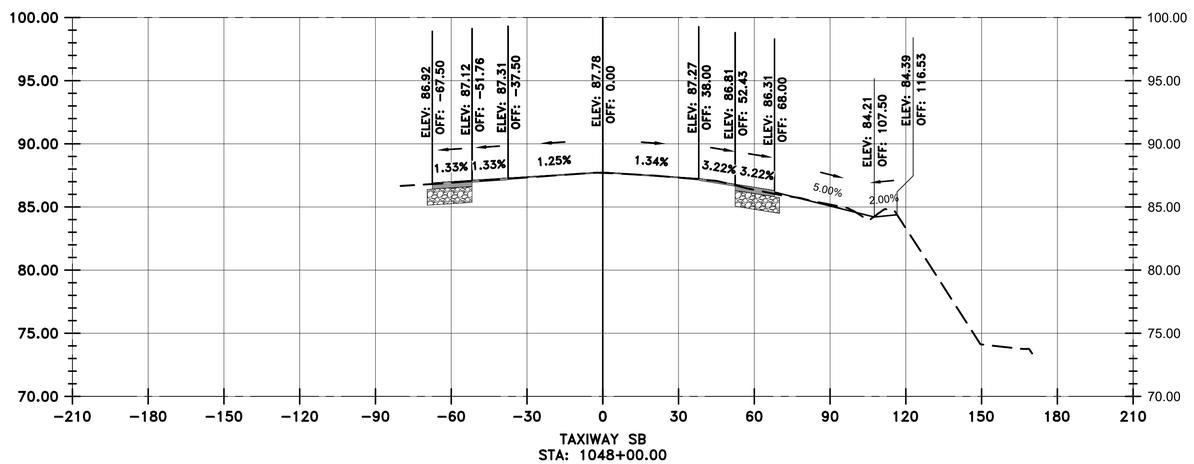

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 25

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

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HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.25

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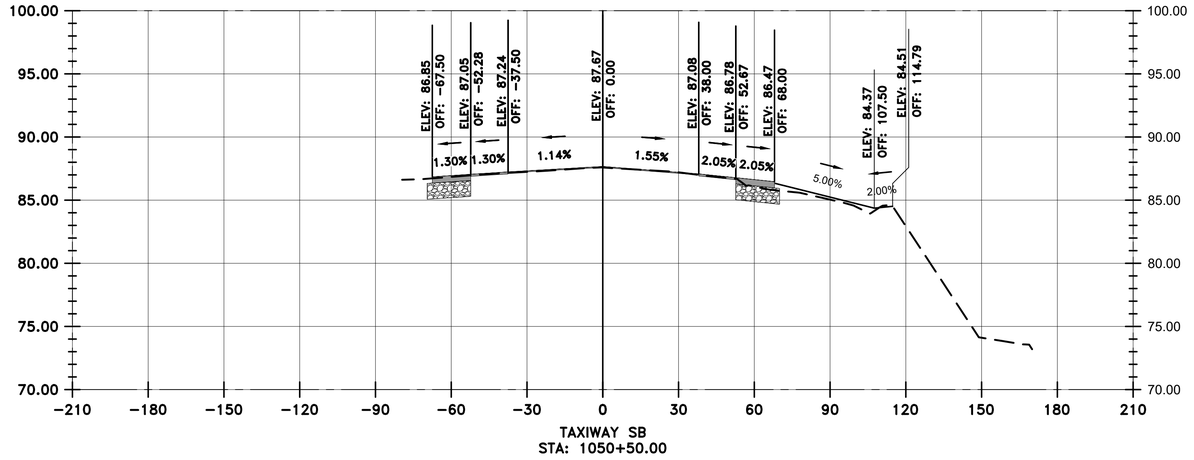

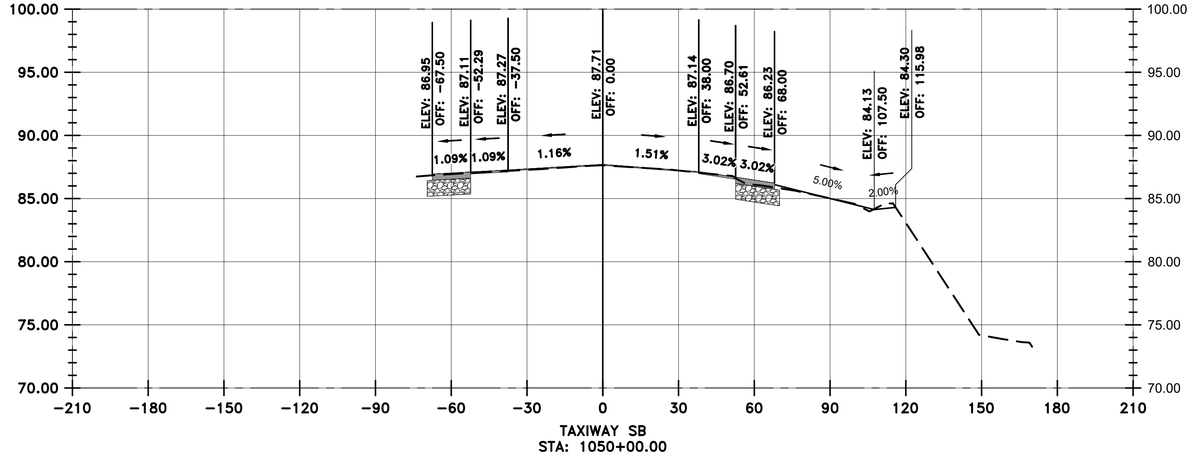

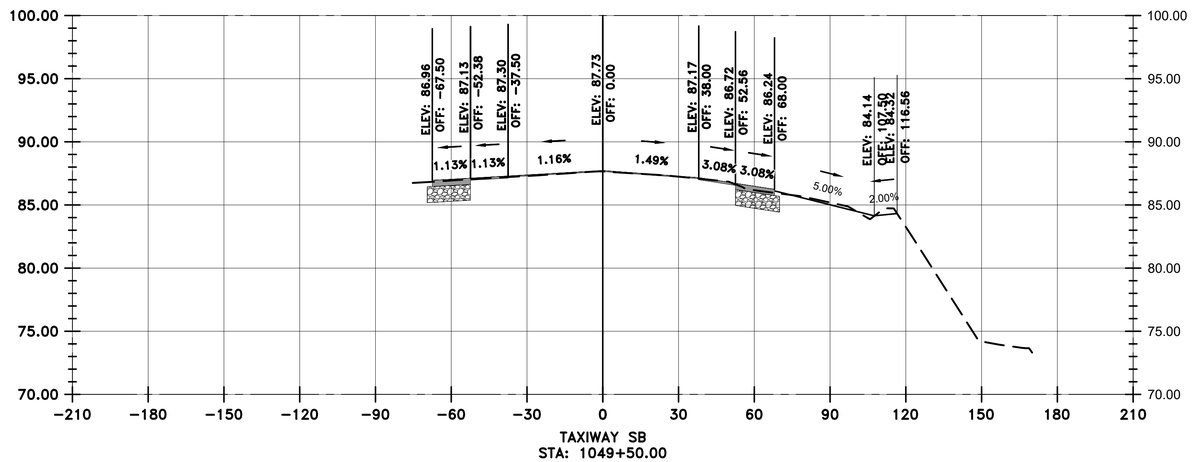

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 26

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

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JASON E. FRANK
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PROFESSIONAL ENGINEER
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PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.26

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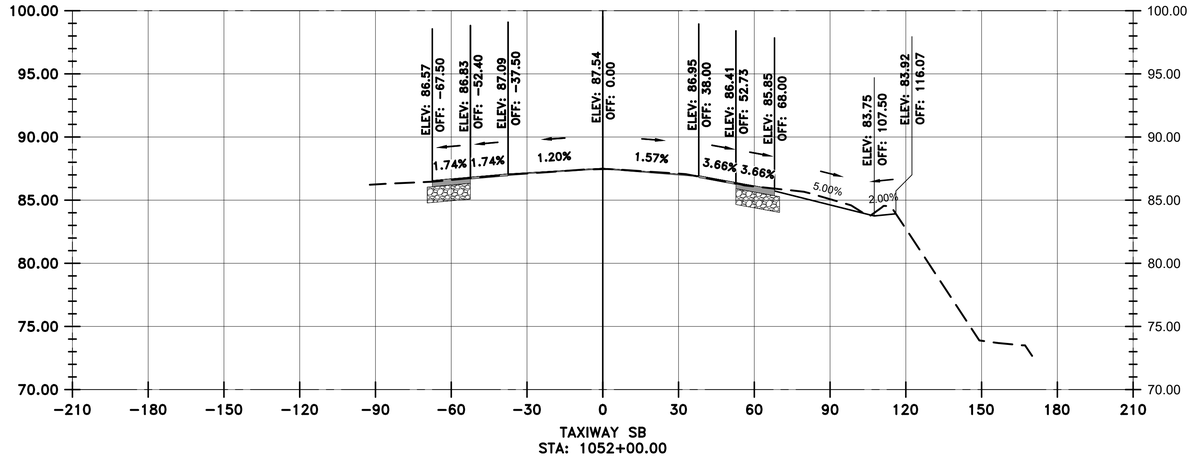

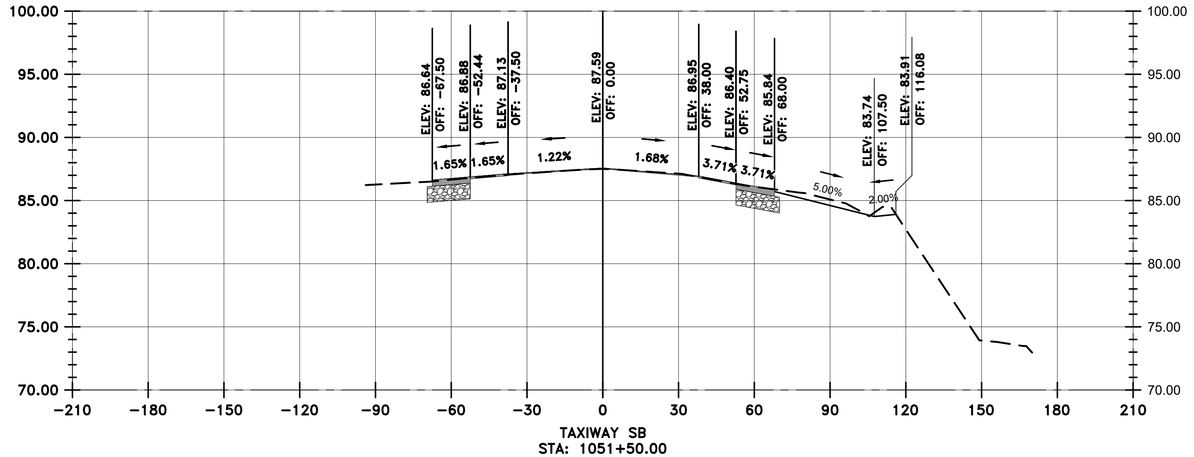

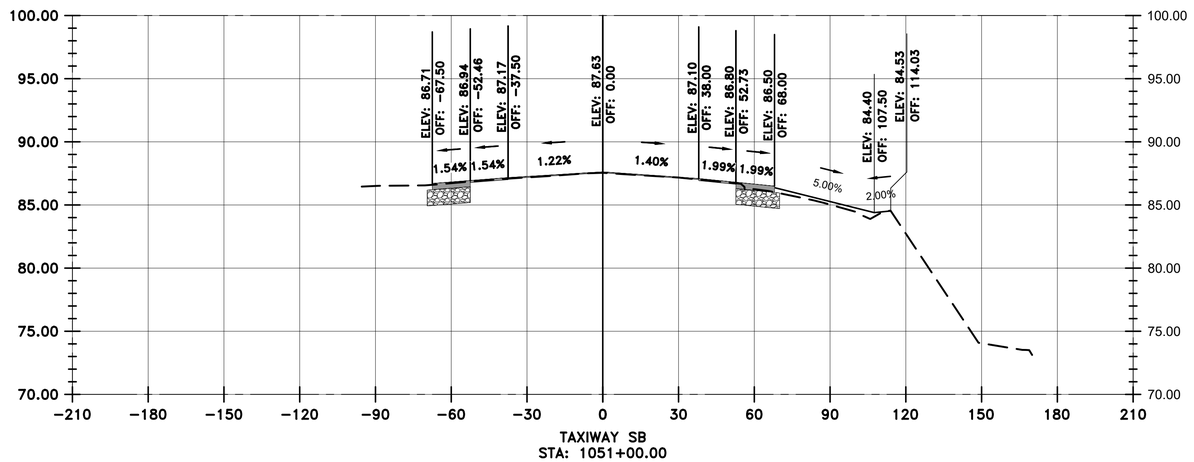

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

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Houston, TX 77079
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 27

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
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DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.27

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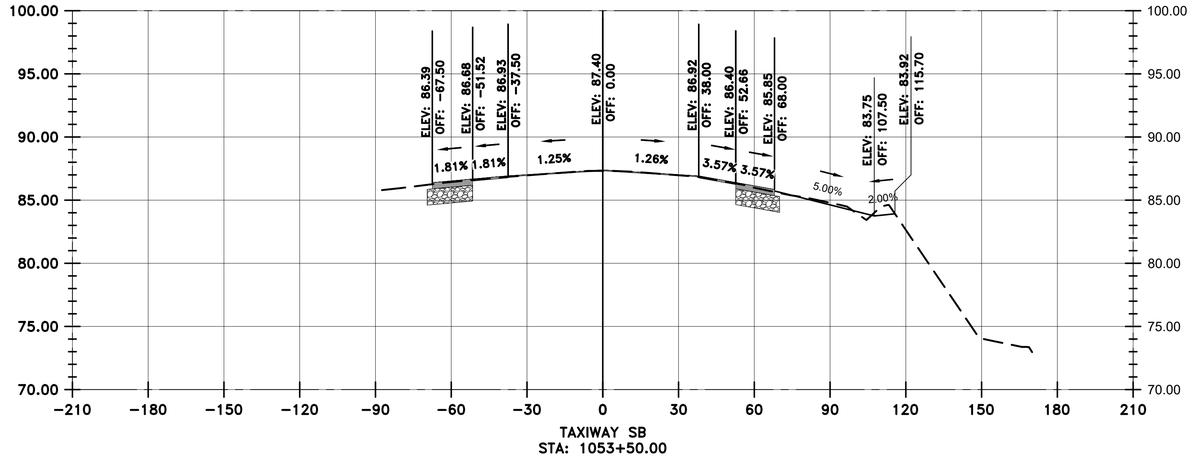

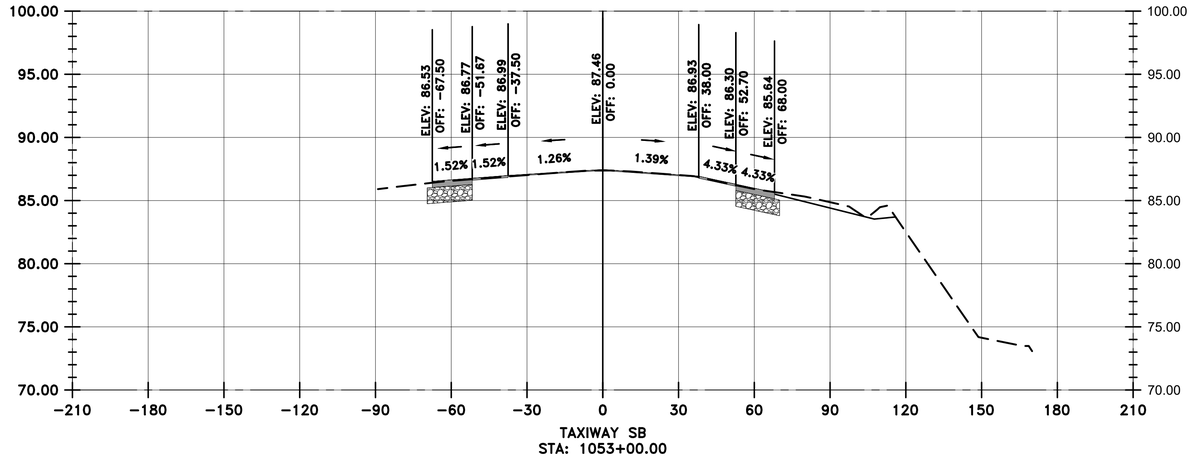

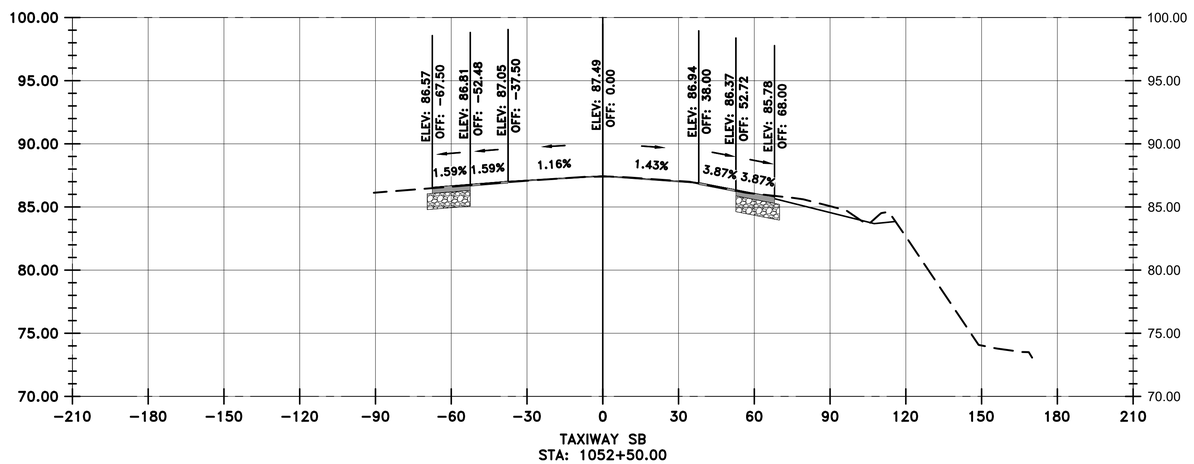

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 28

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.28

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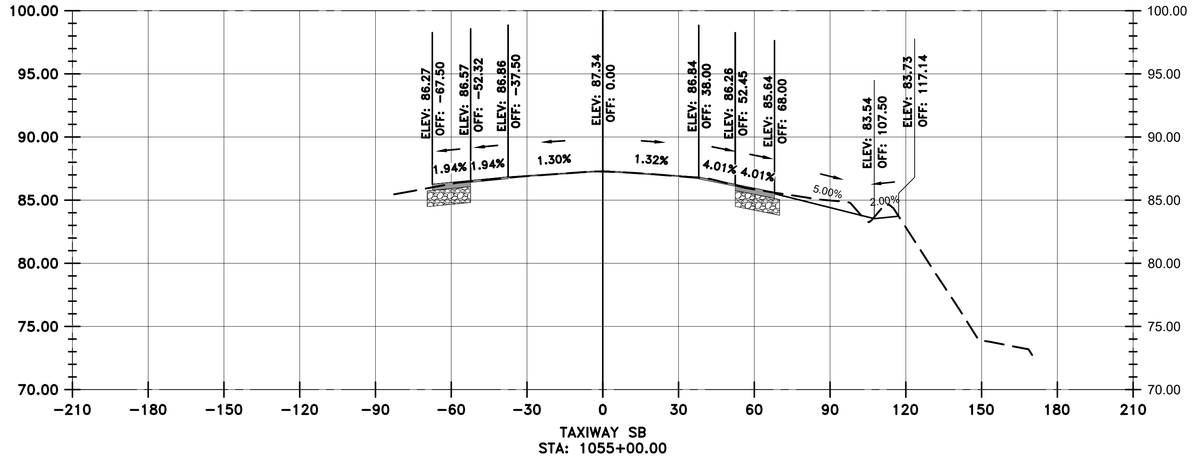

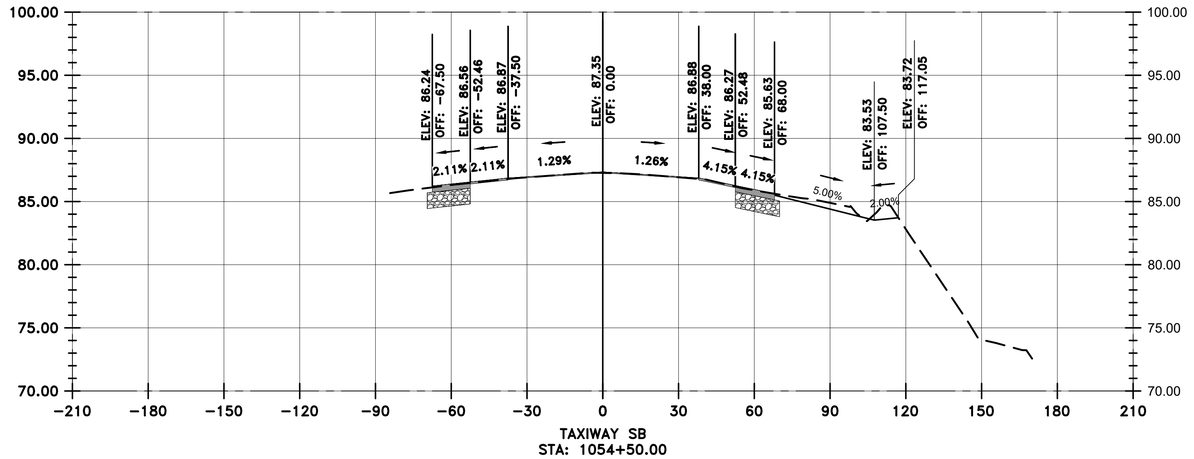

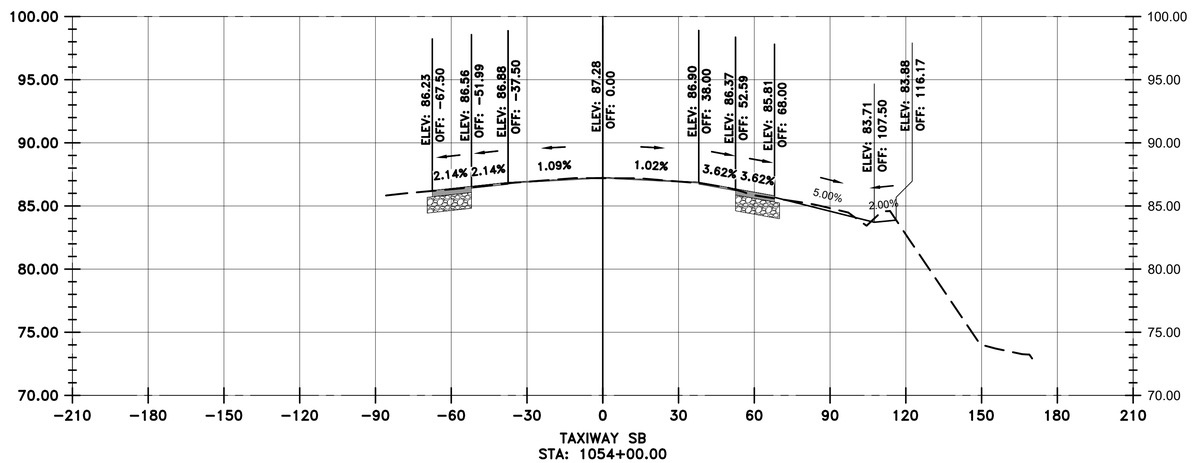

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 29

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.29

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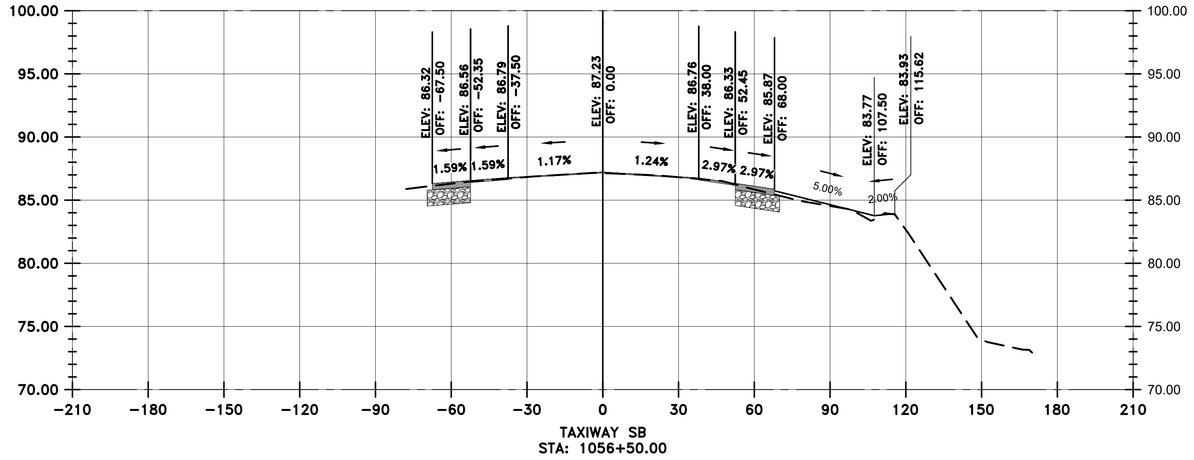

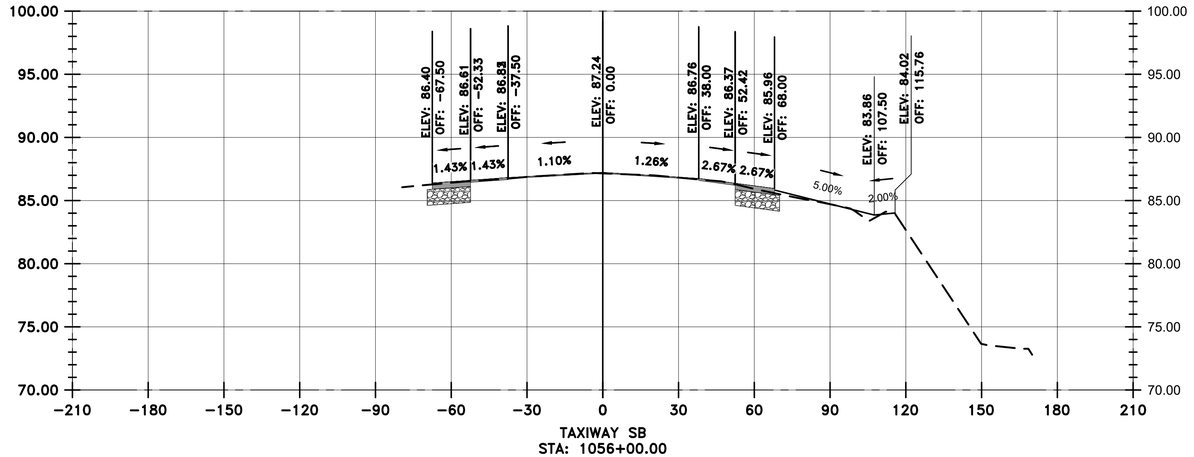

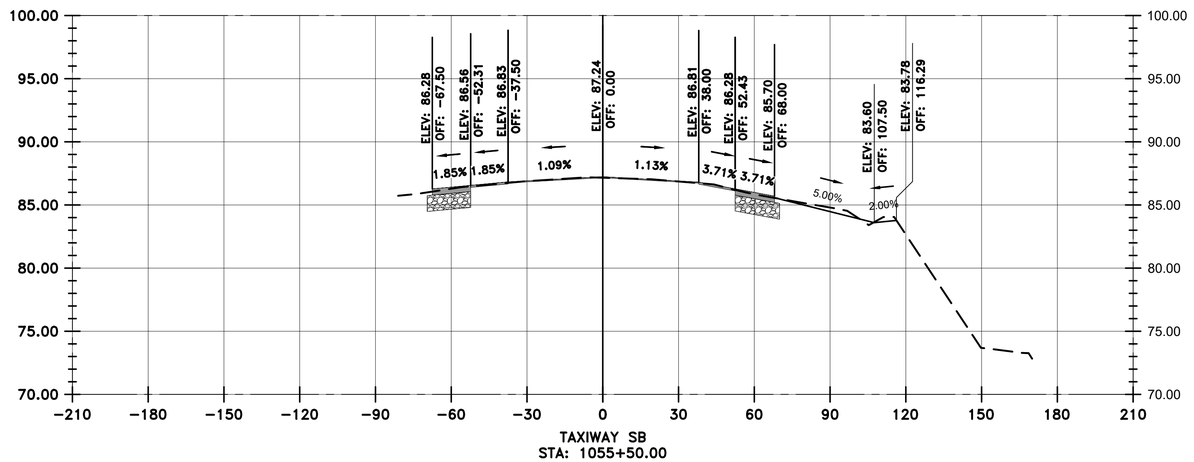

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 30

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.30

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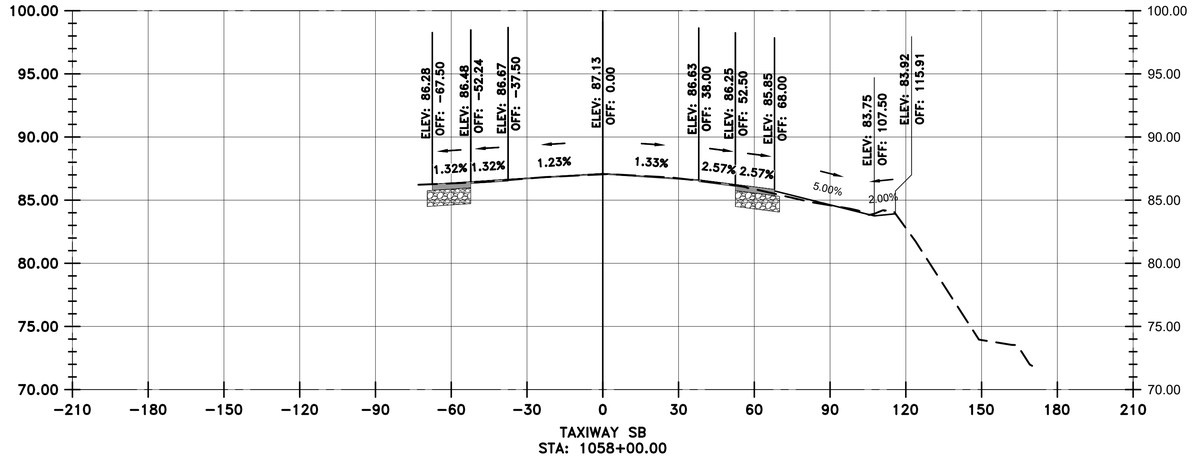

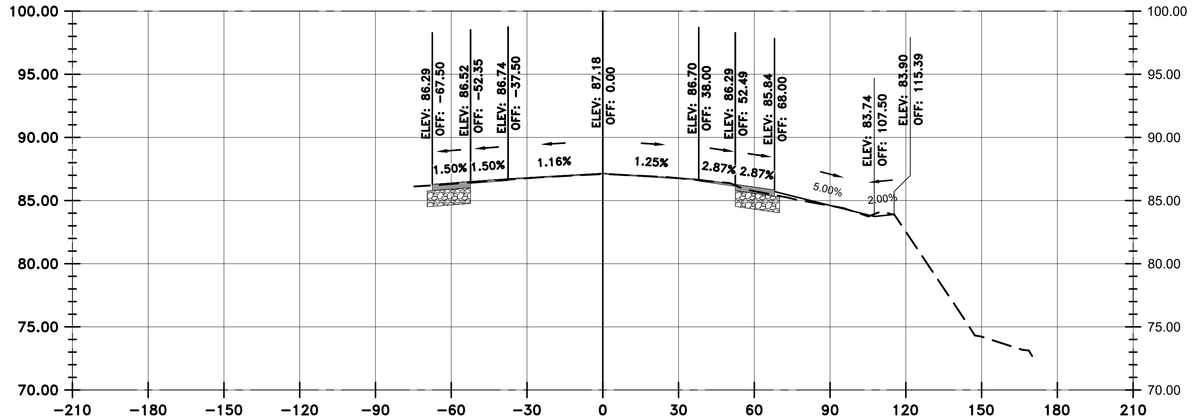

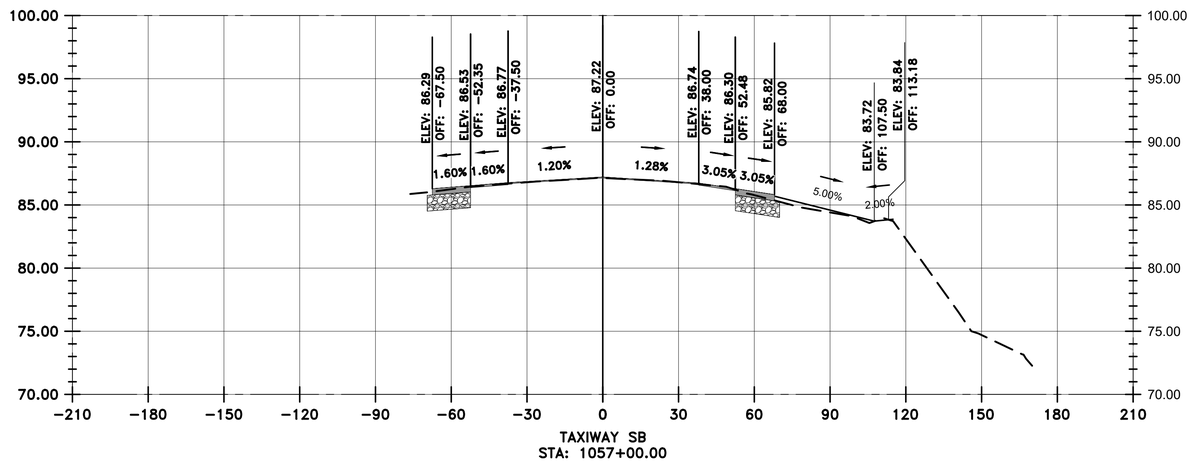

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 31

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.31

HAS FILE: c:\Users\dagonato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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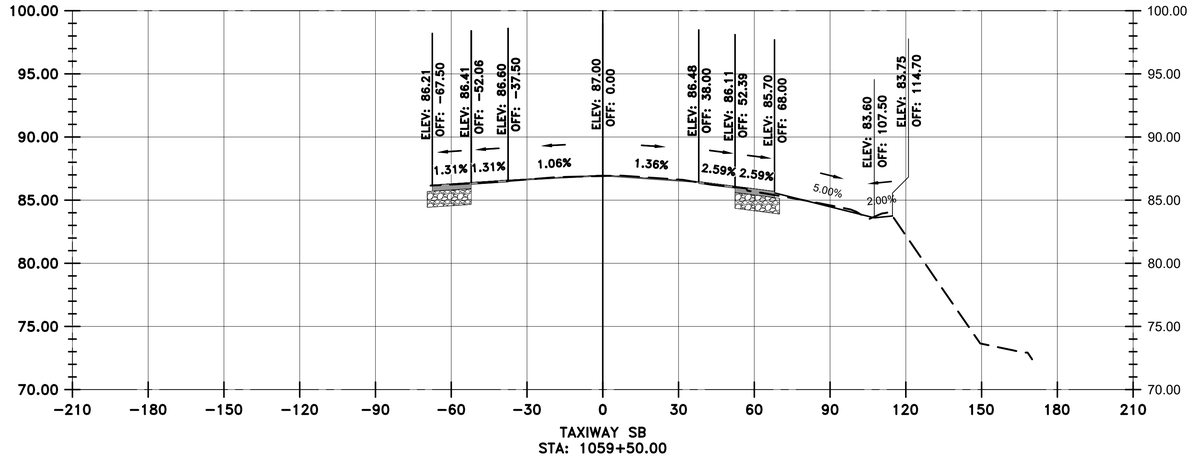

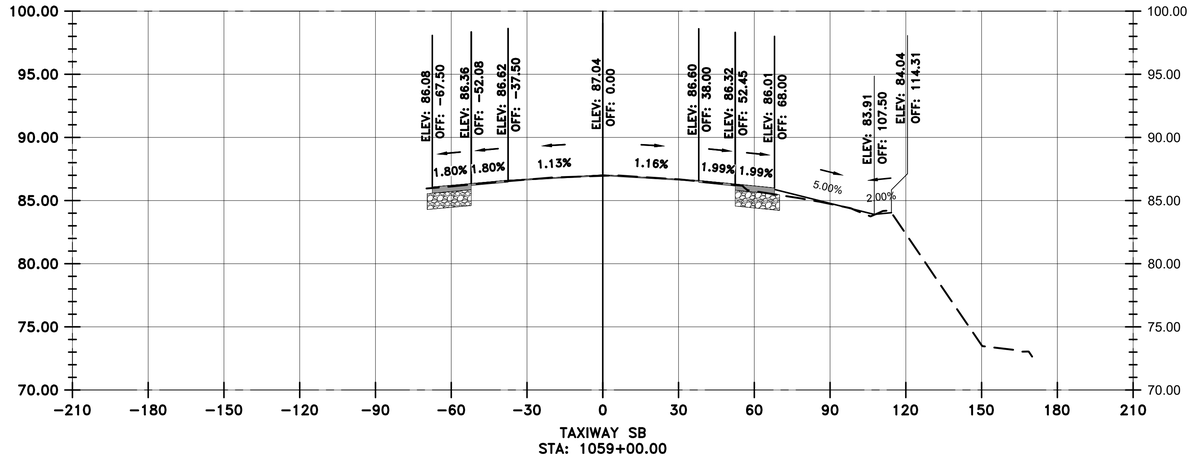

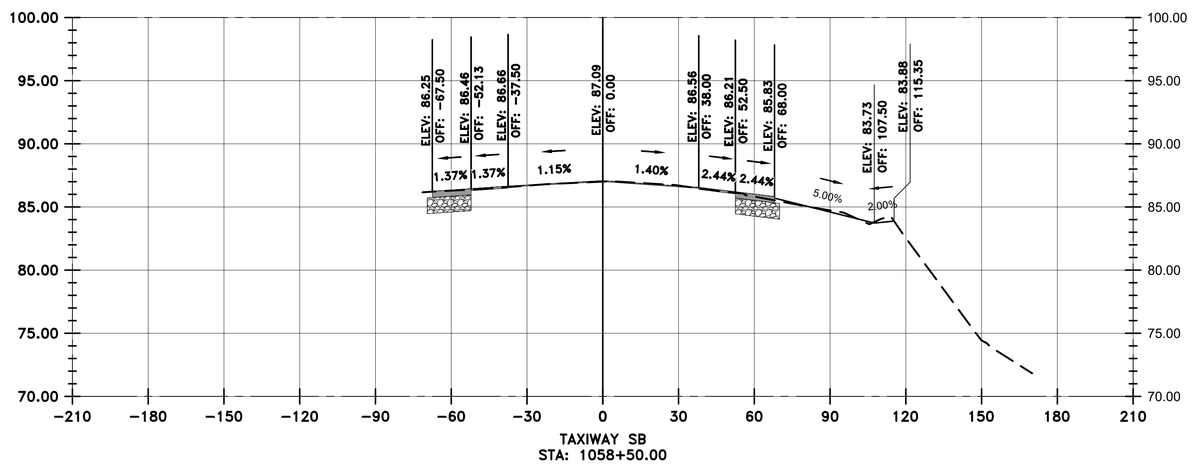

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 32

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.32

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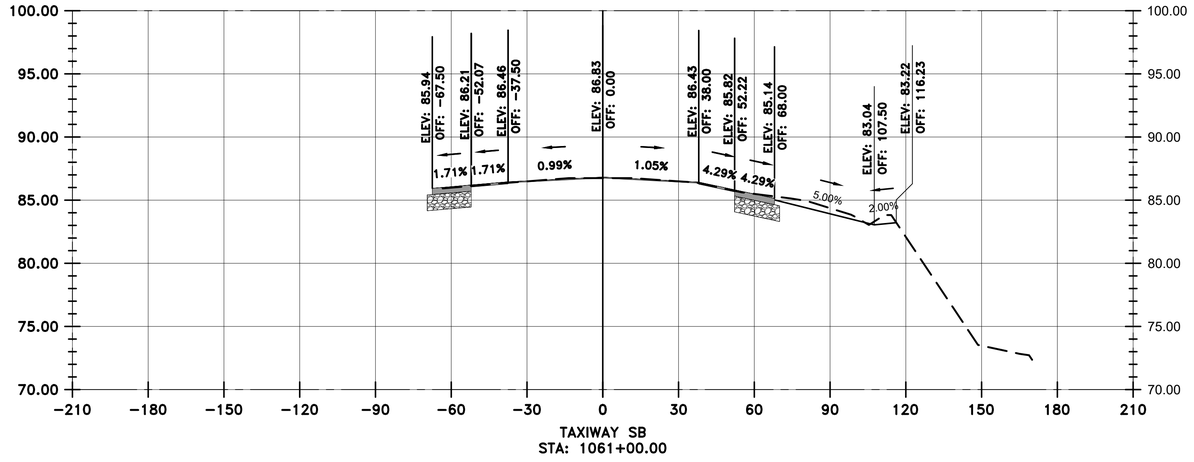

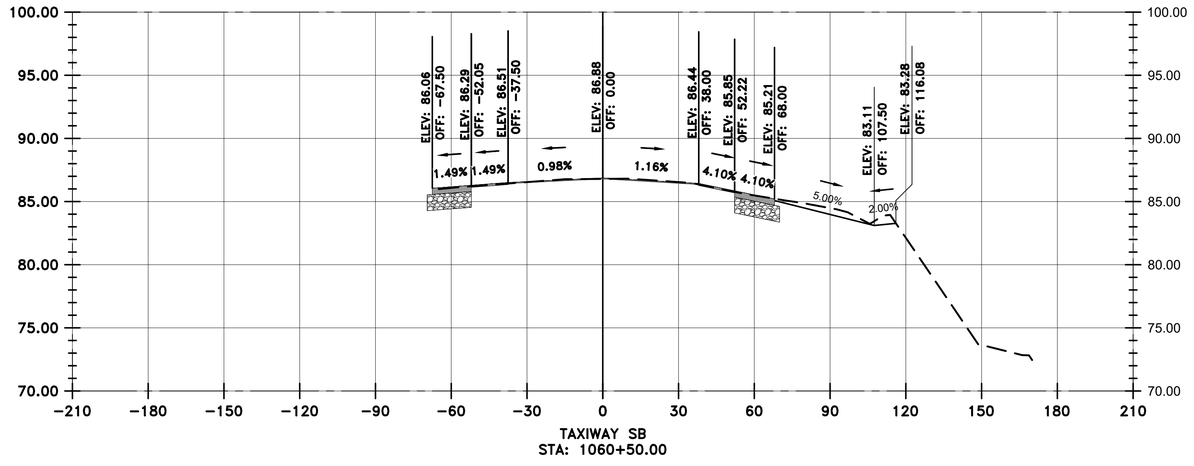

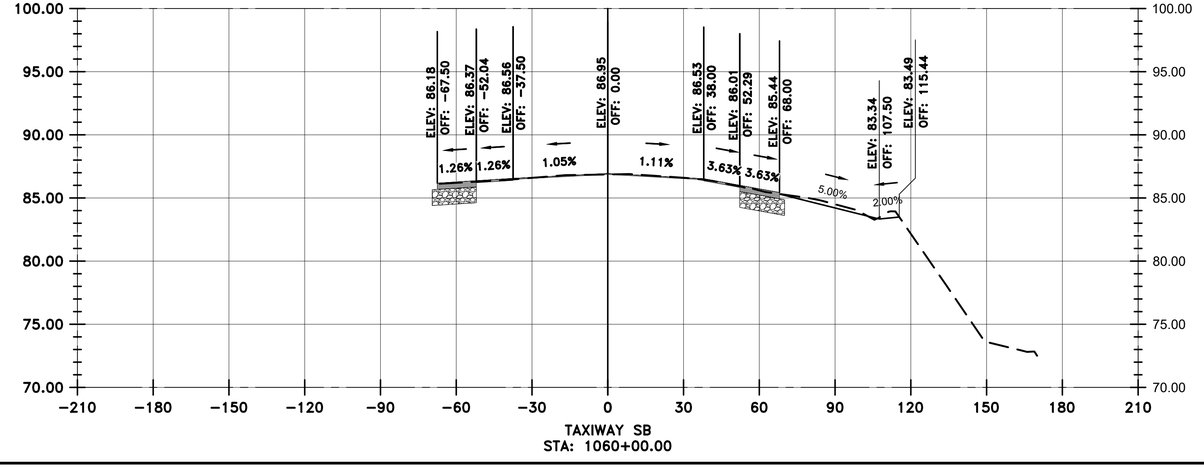

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 33

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.33

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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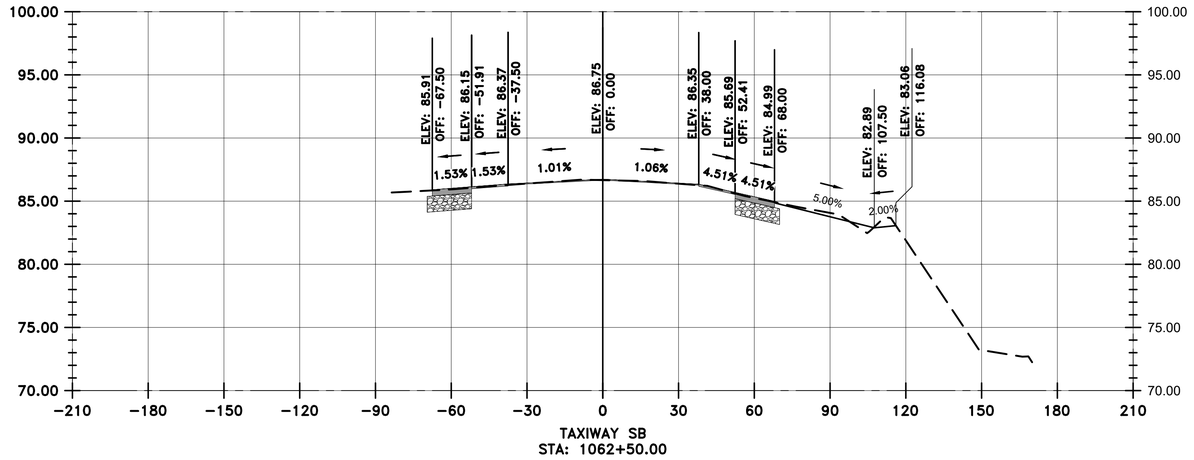

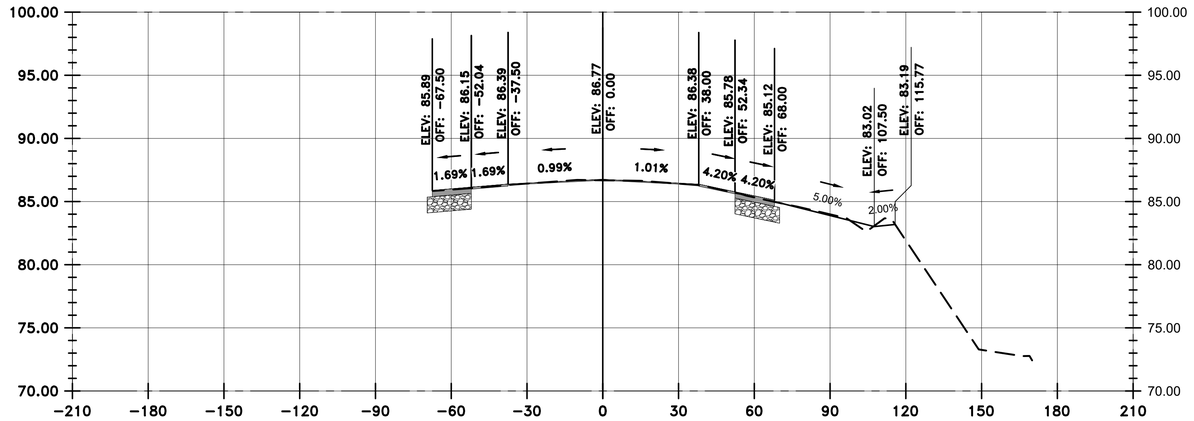

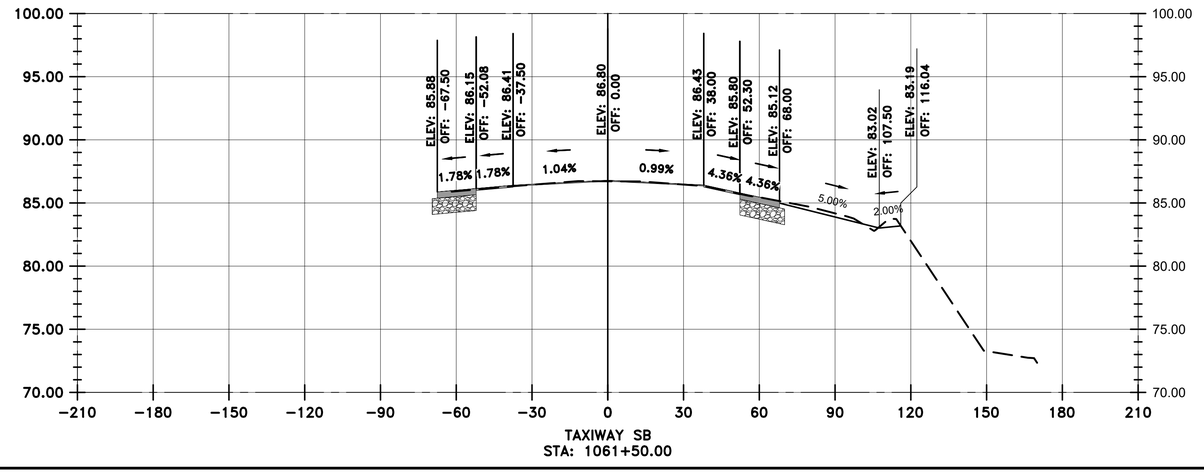

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 34

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.34

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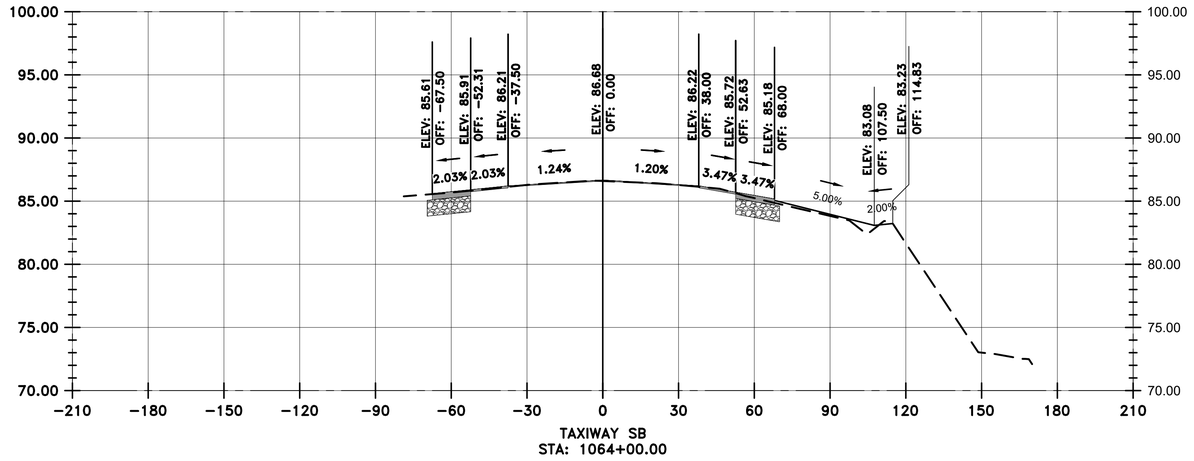

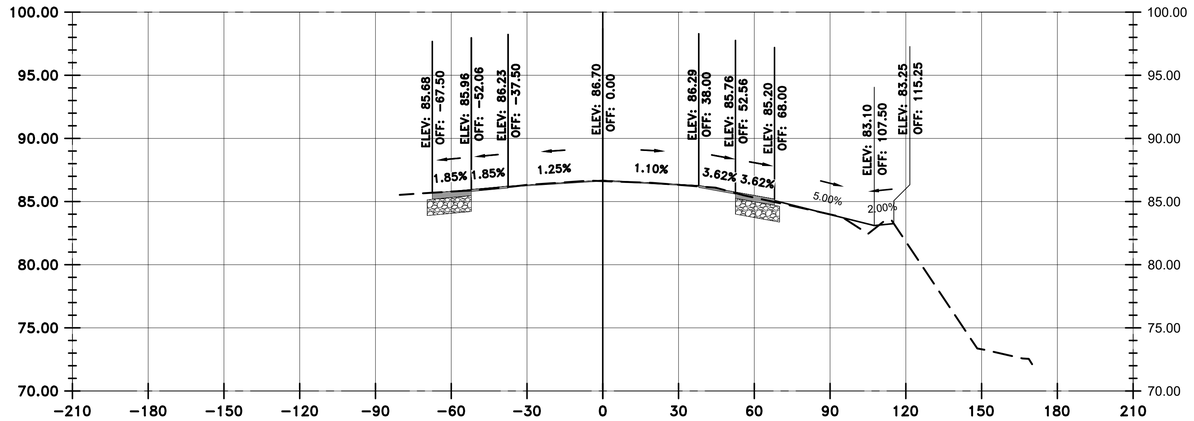

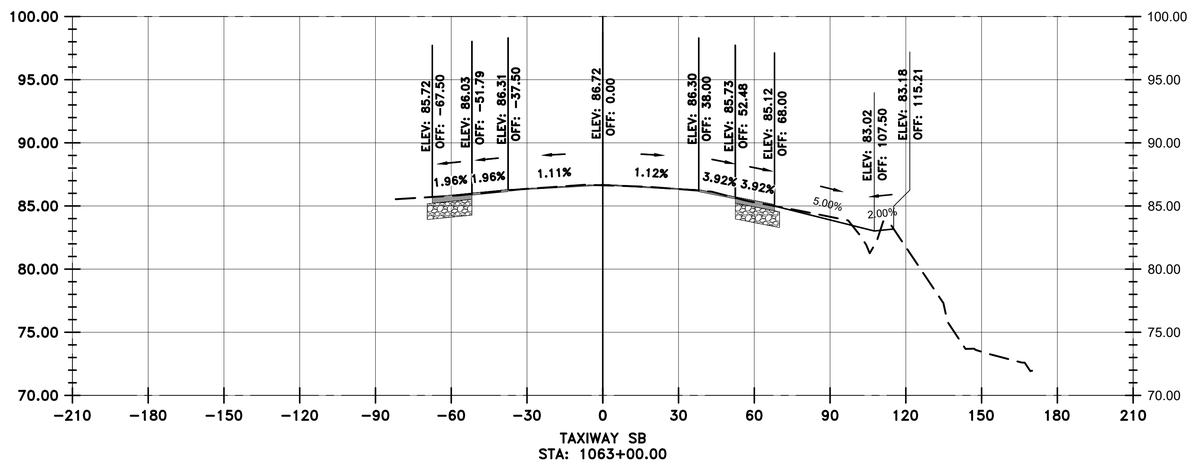

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 35

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
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APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.35

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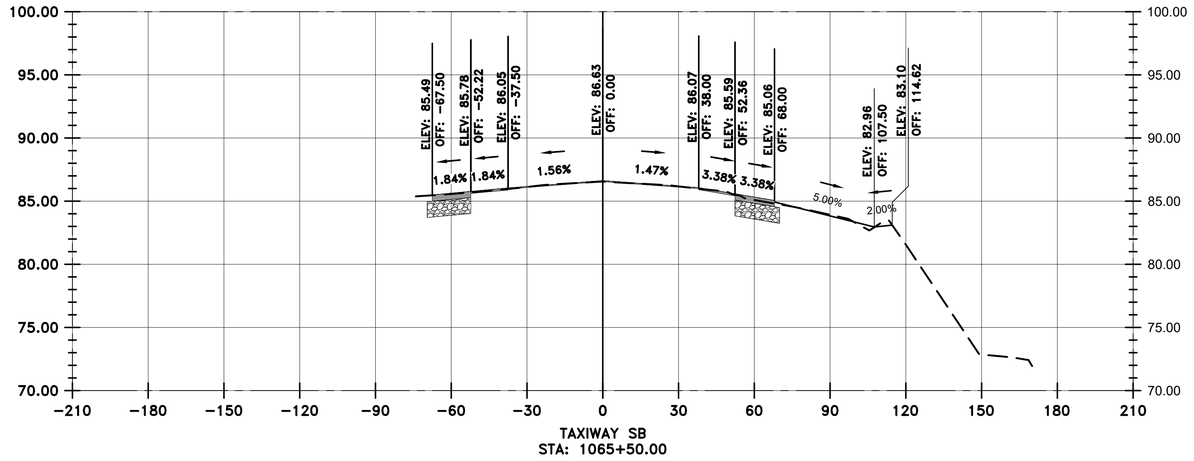

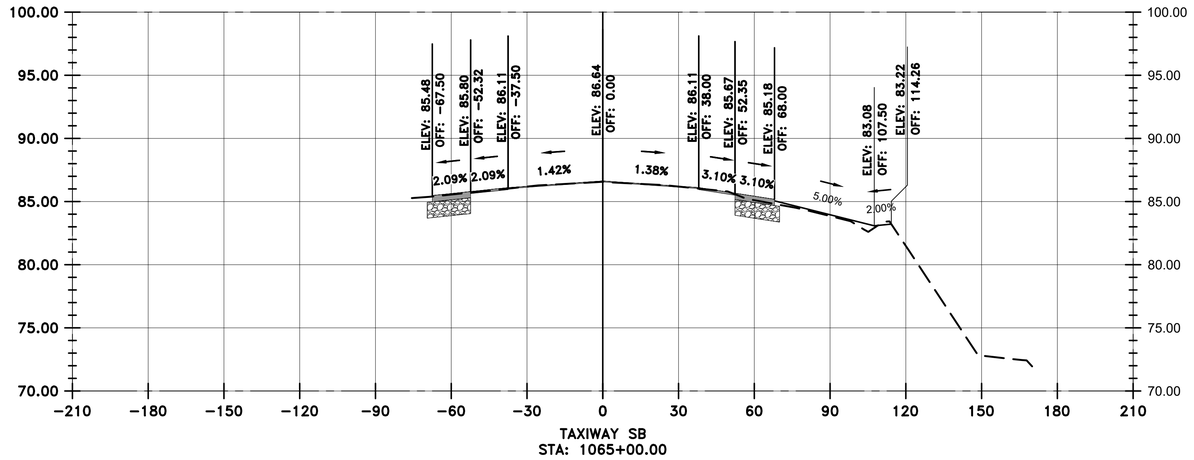

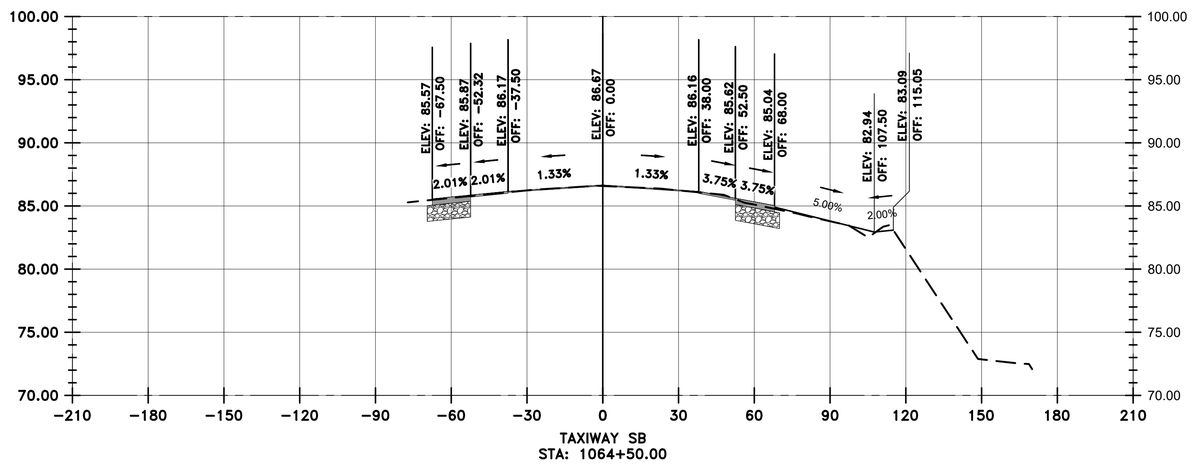

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 36

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
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HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.36

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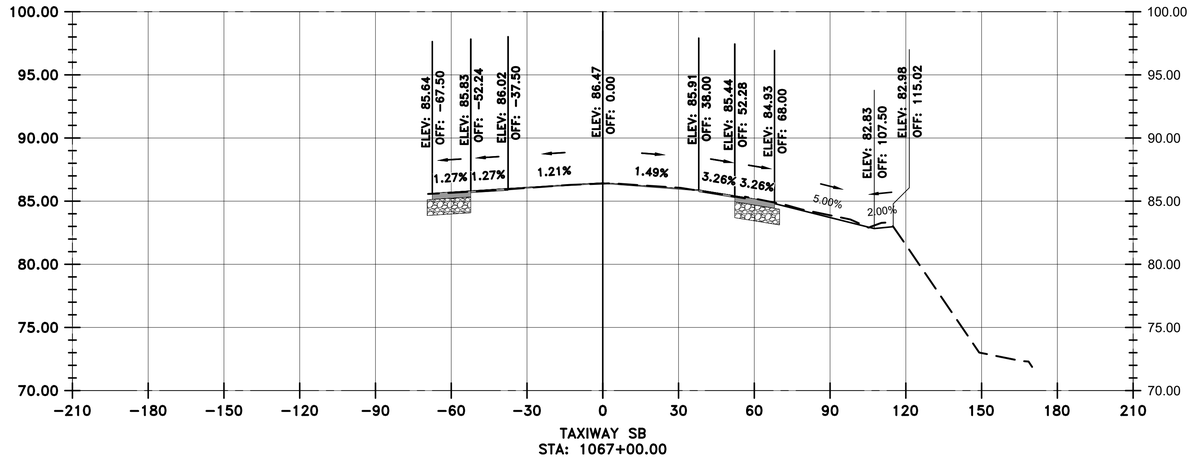

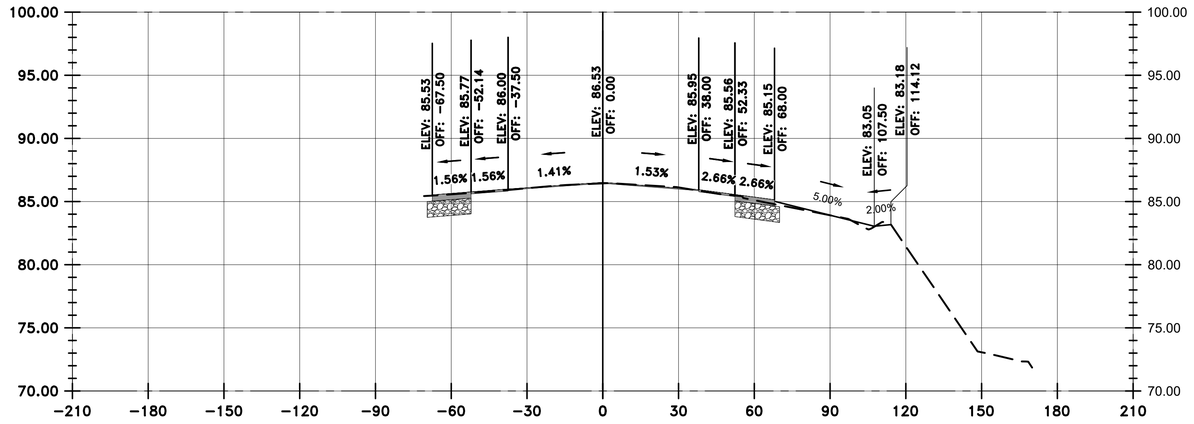

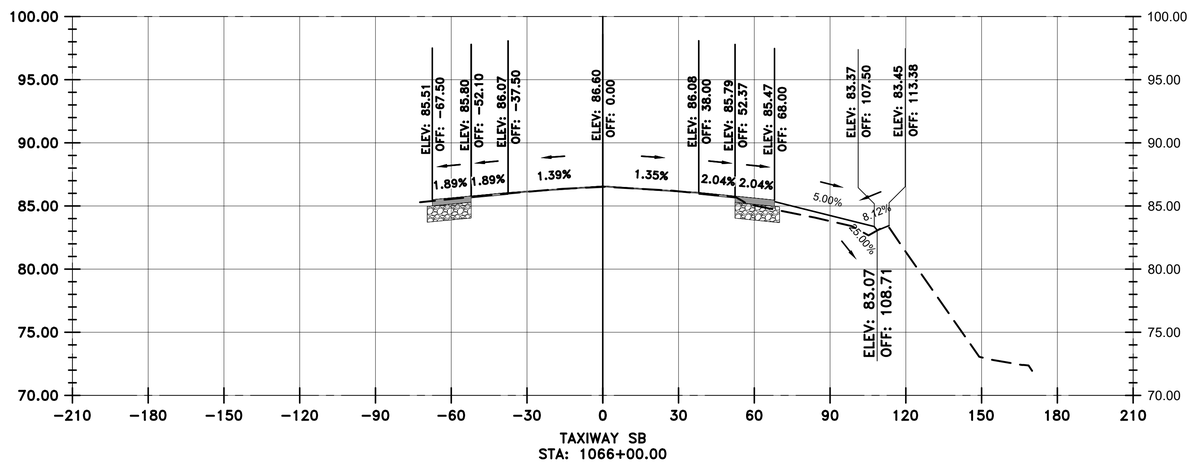

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
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- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 37

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.37

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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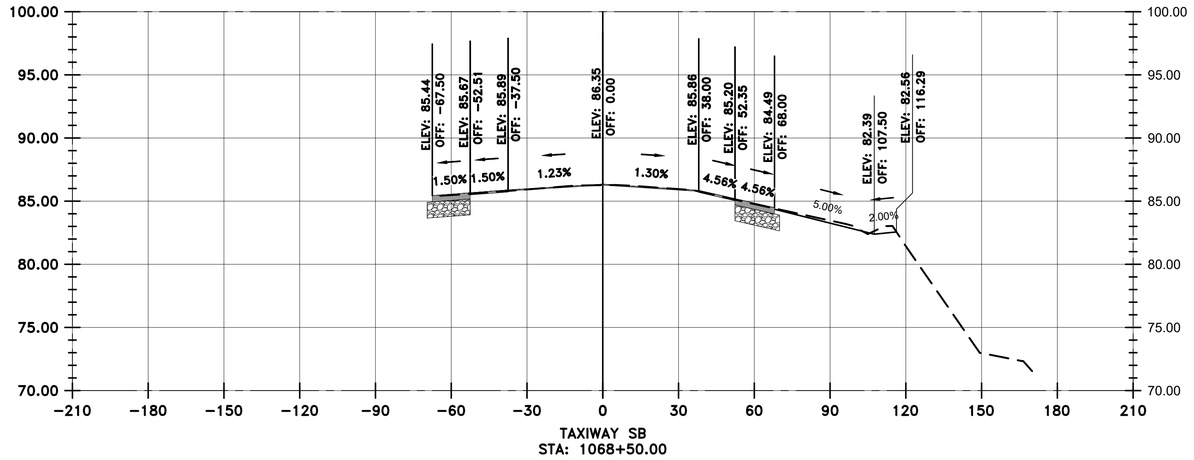

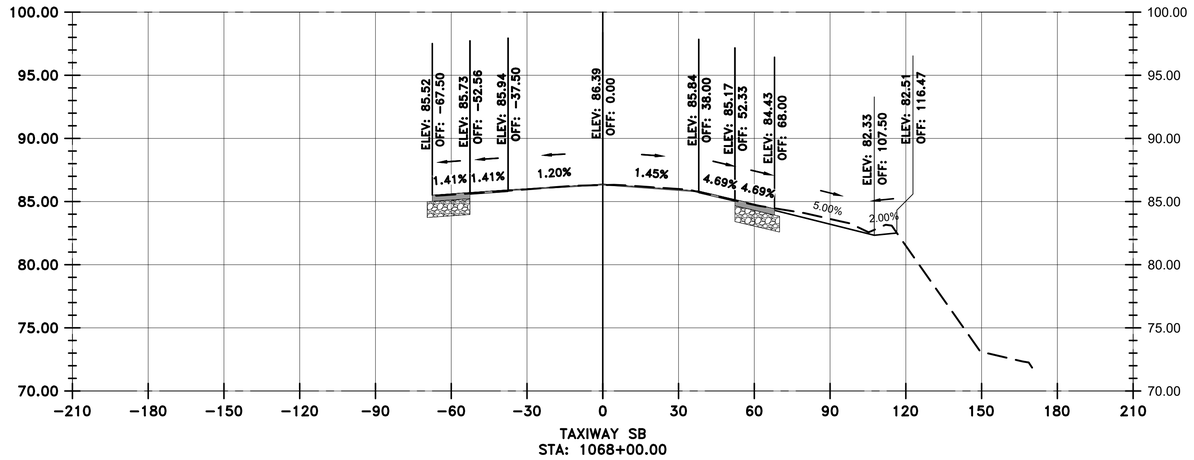

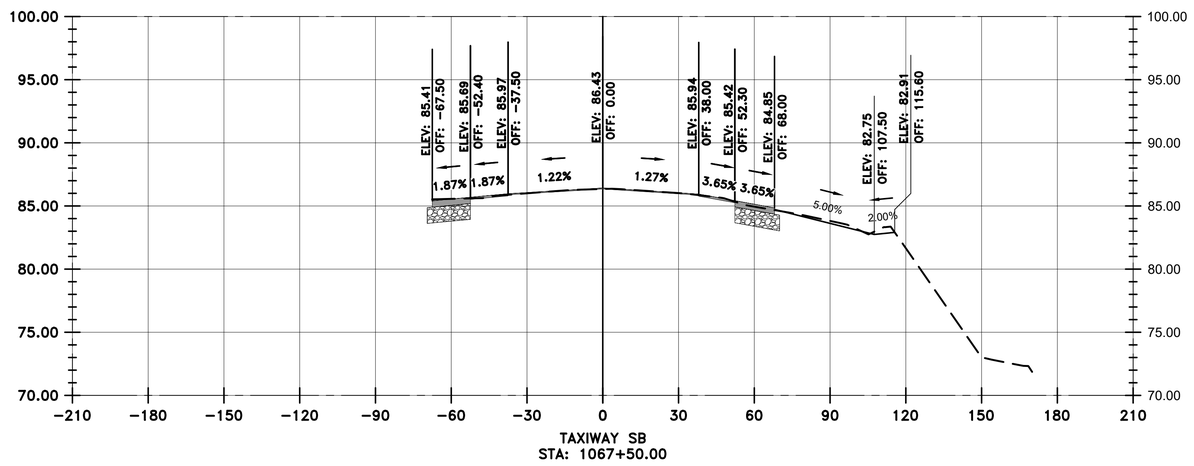

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
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Houston, TX 77079
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 38

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.38

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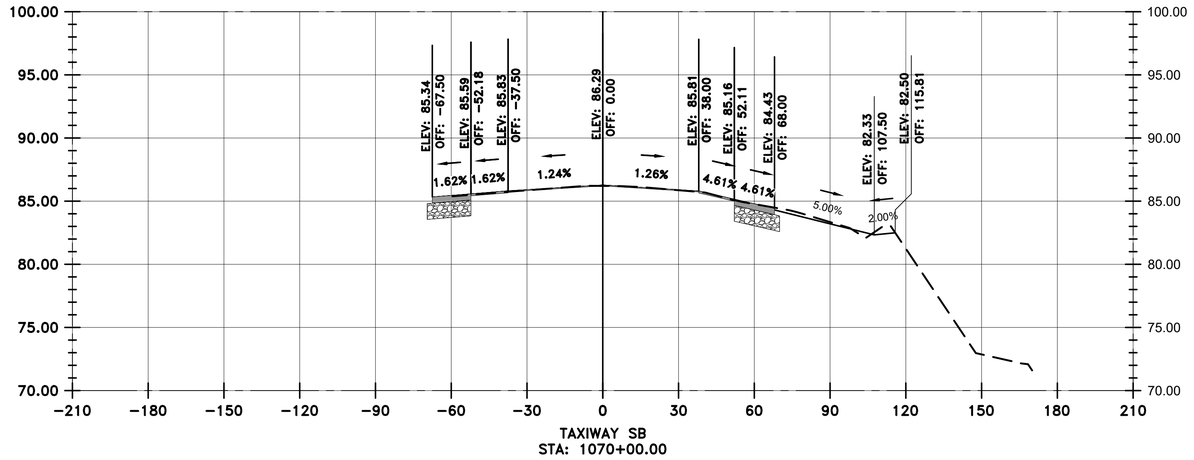

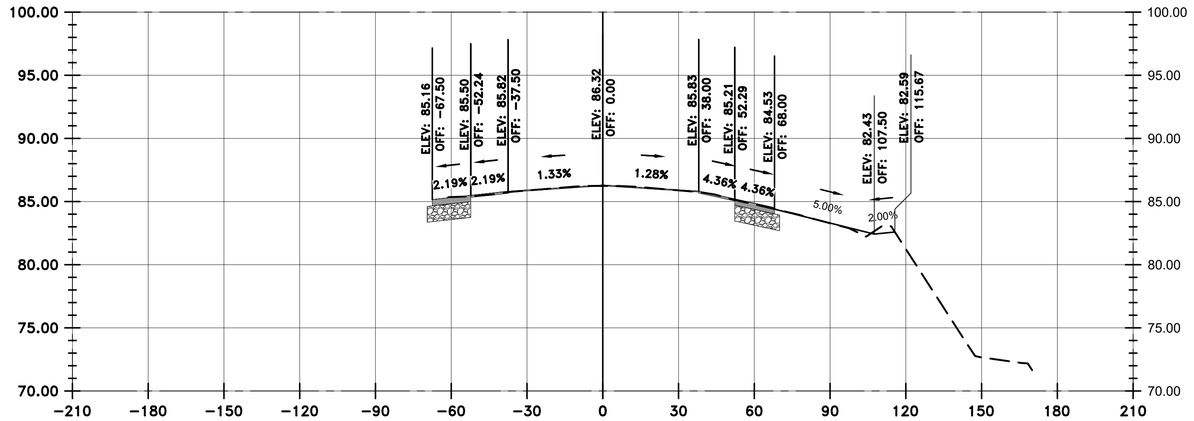

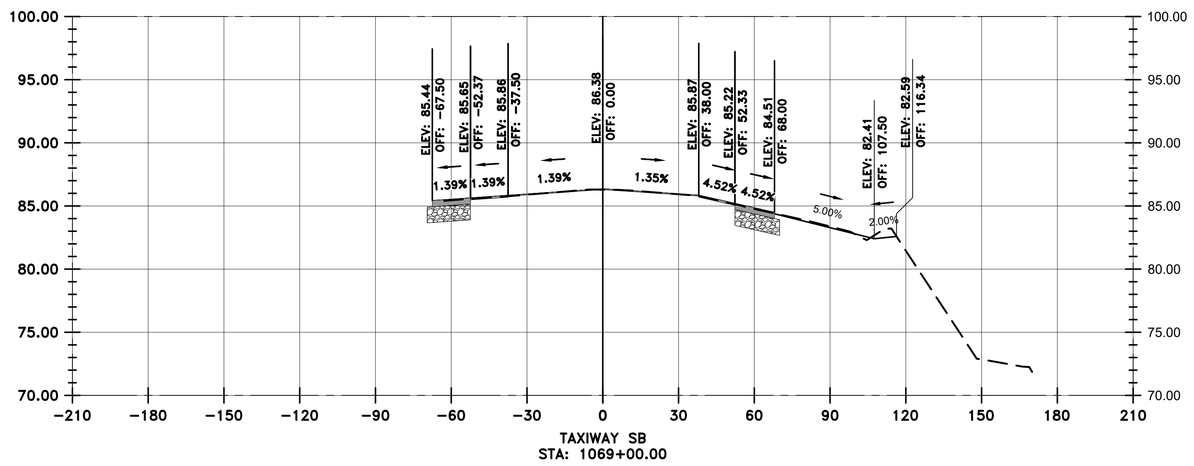

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 39

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.39

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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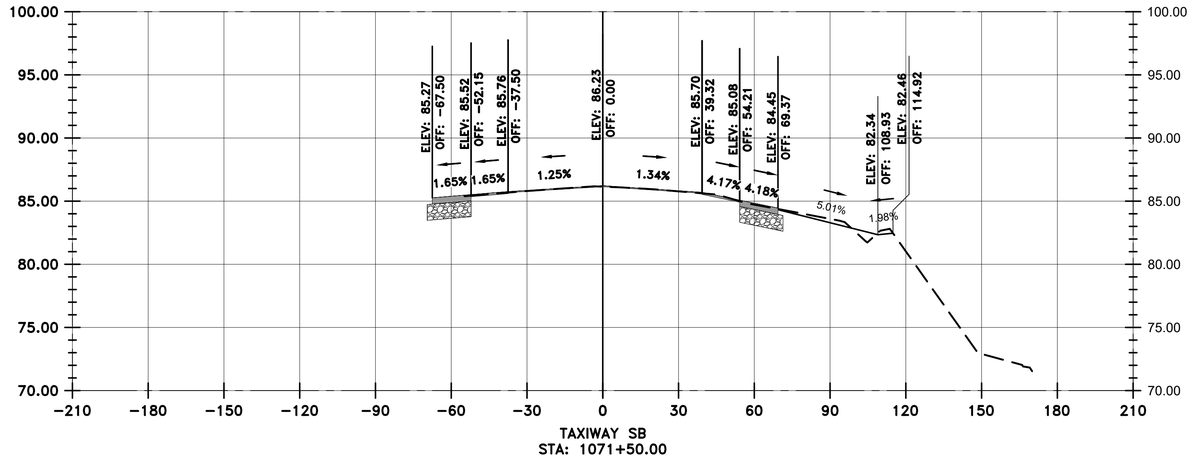

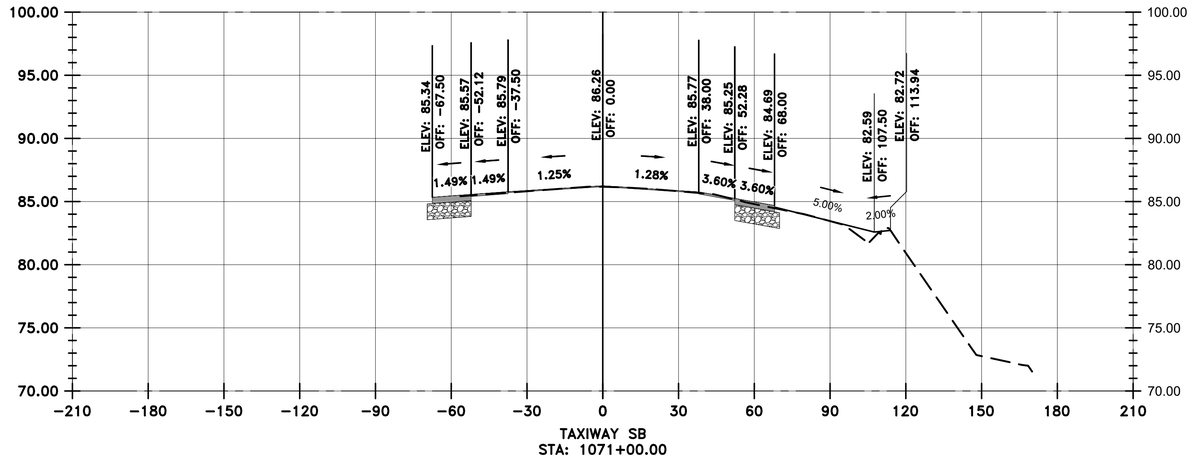

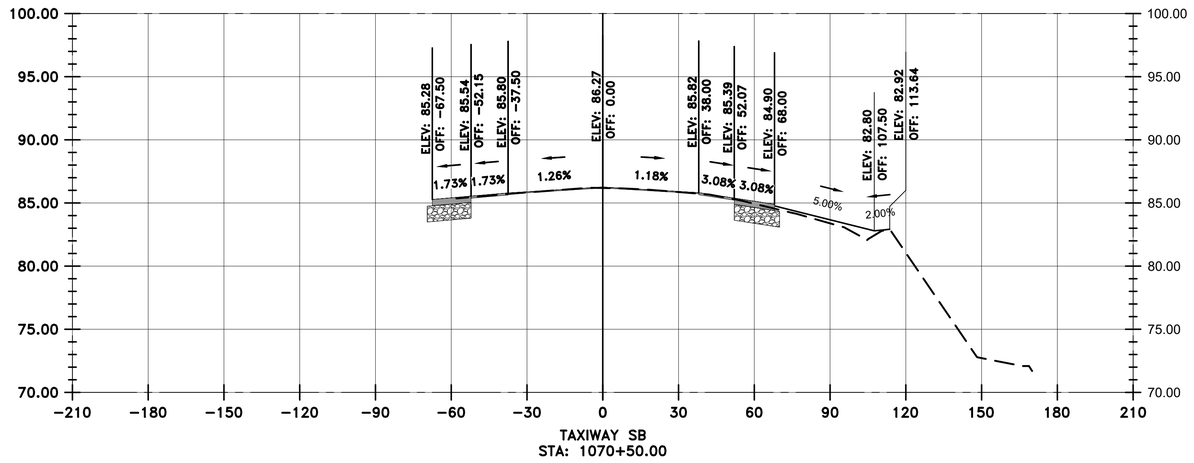

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 40

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.40

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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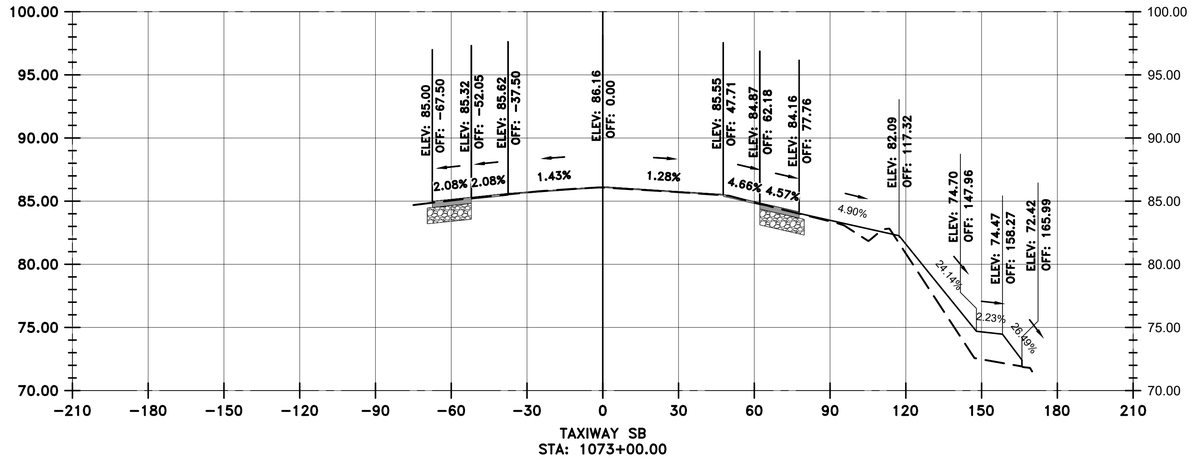
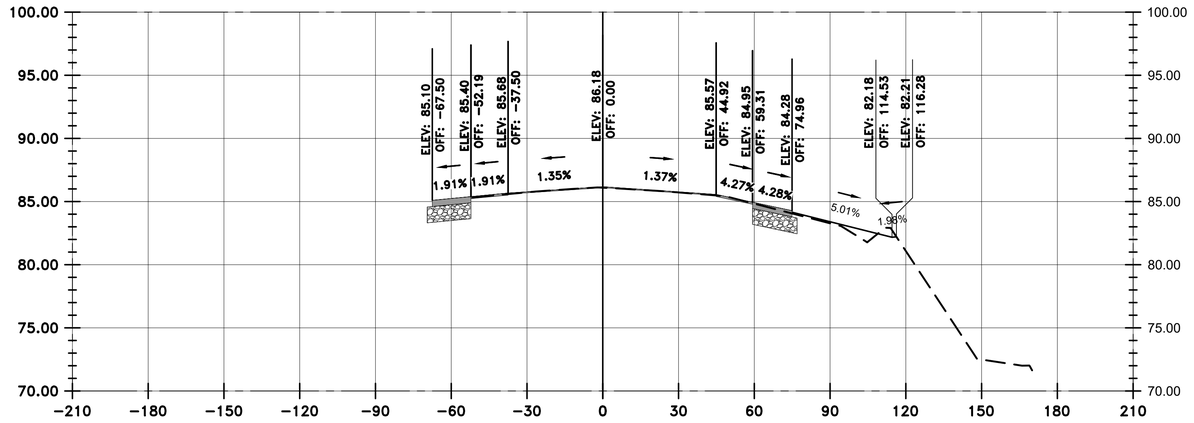
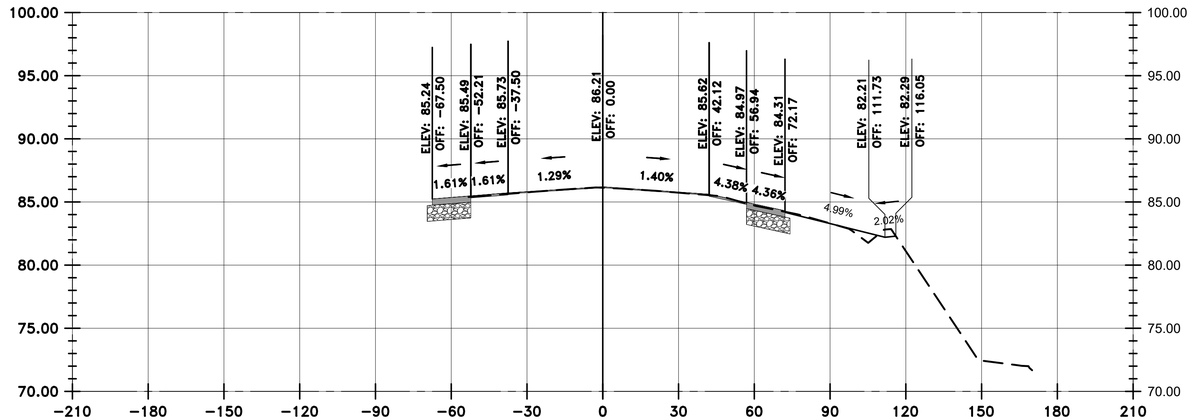


TAXIWAY SB
STA: 1073+00.00



TAXIWAY SB
STA: 1072+50.00



TAXIWAY SB
STA: 1072+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 41

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.41

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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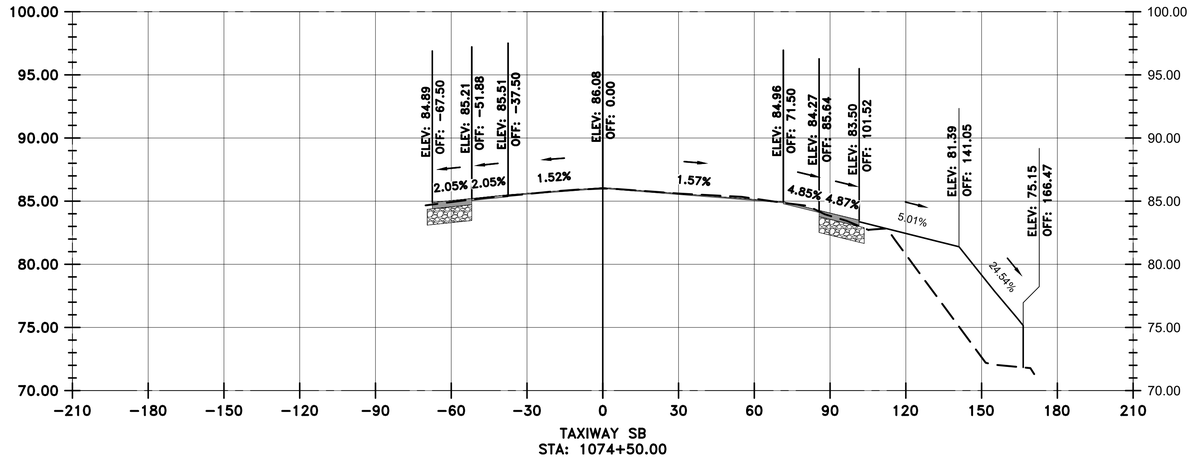

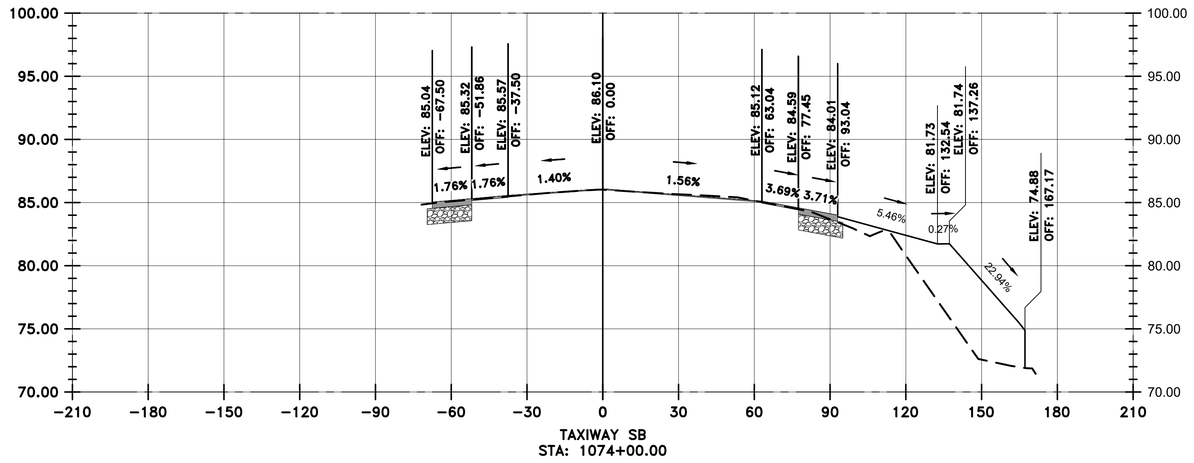

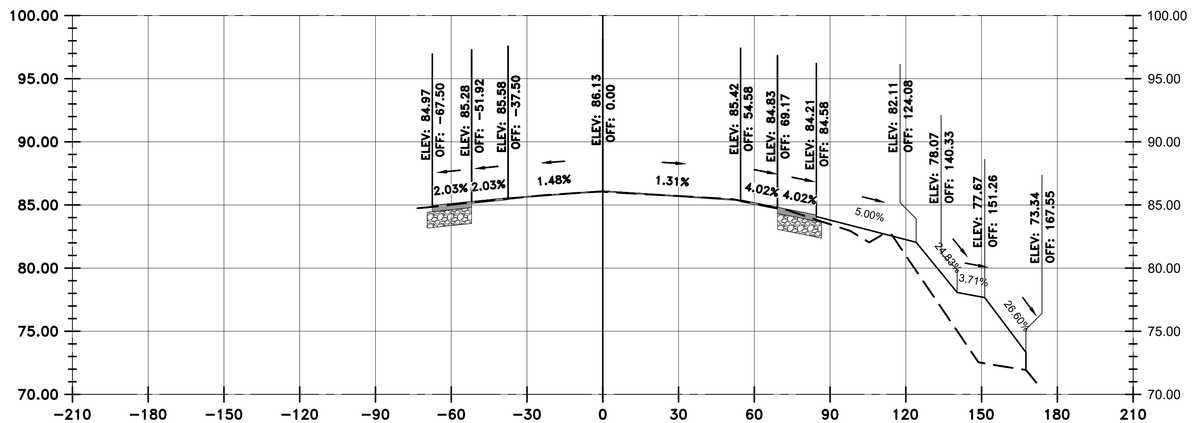

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 42

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY:	JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.42

VERTICAL EXAGGERATION = 5

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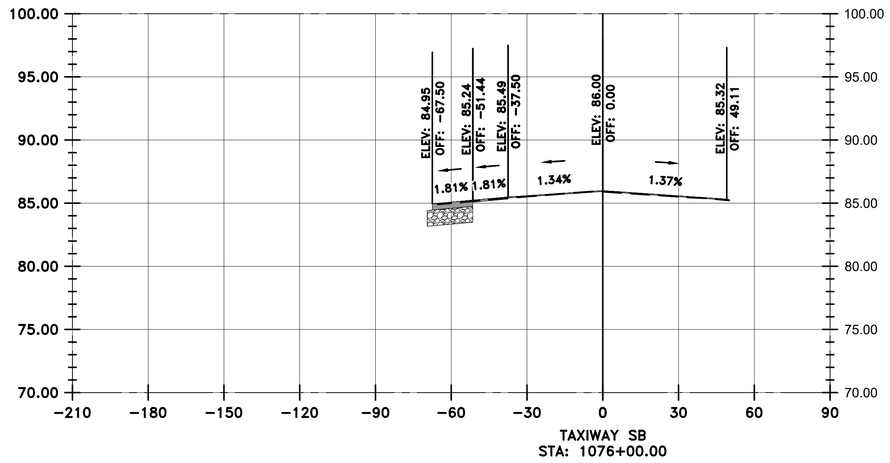

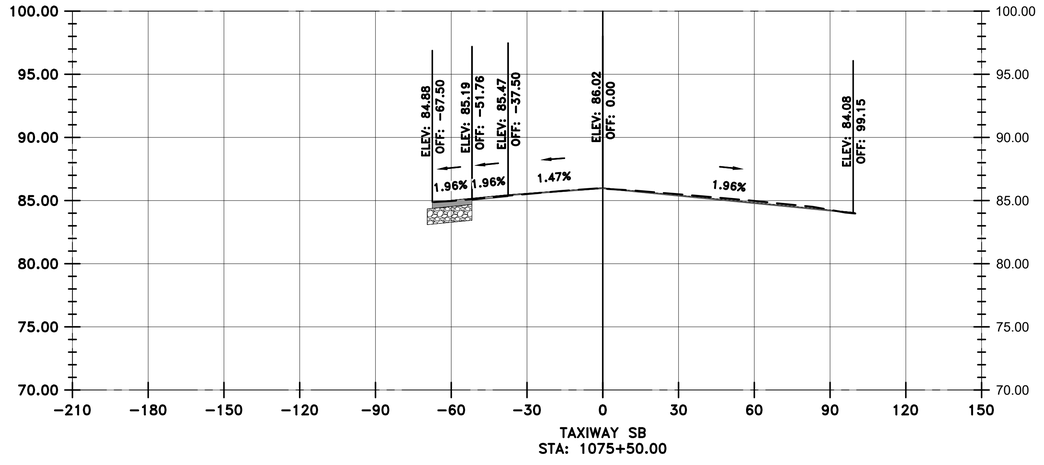

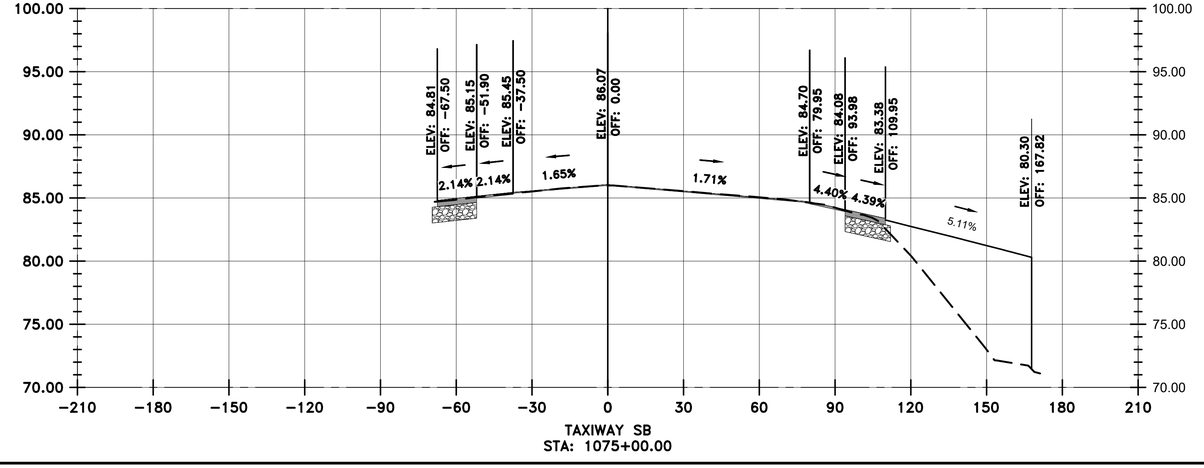

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 43

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.43

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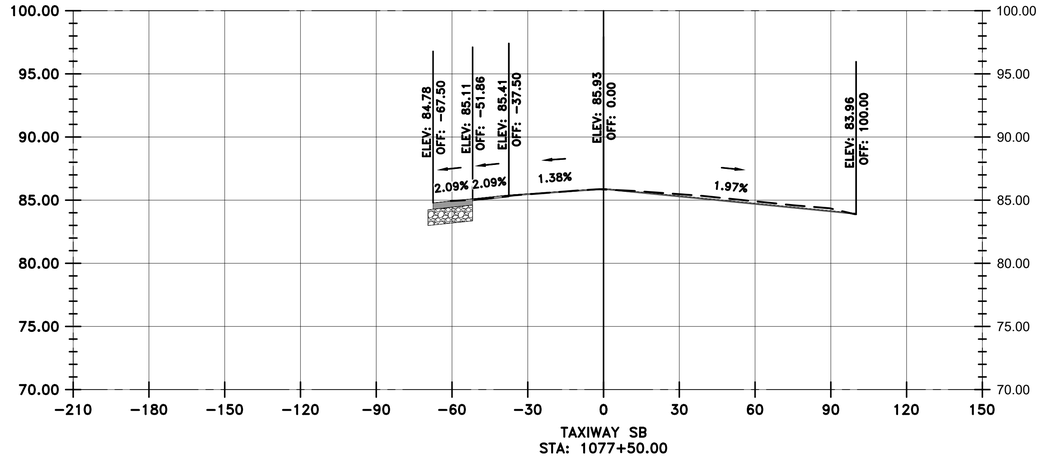

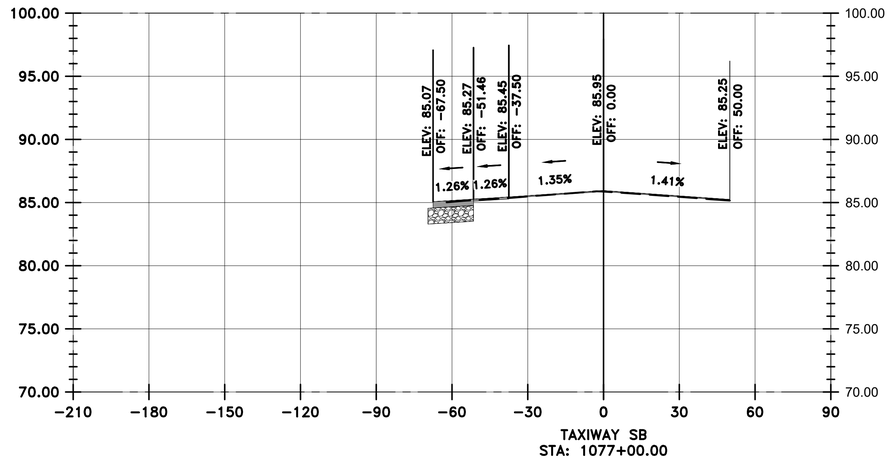

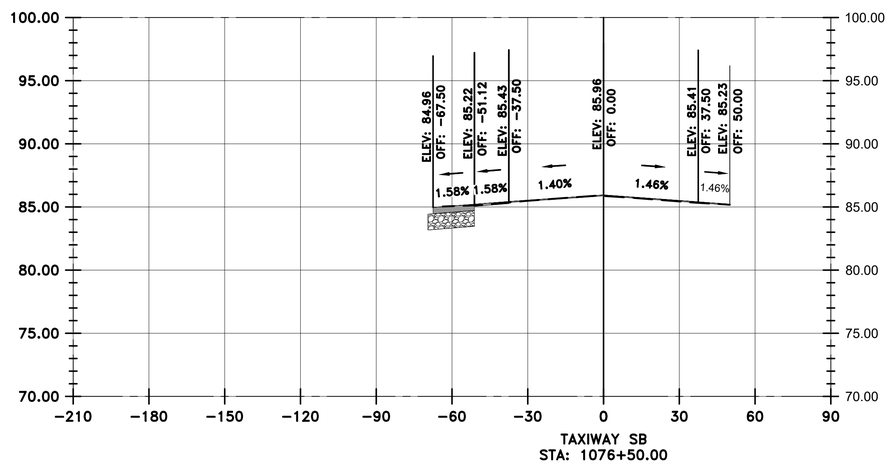

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

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HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 44

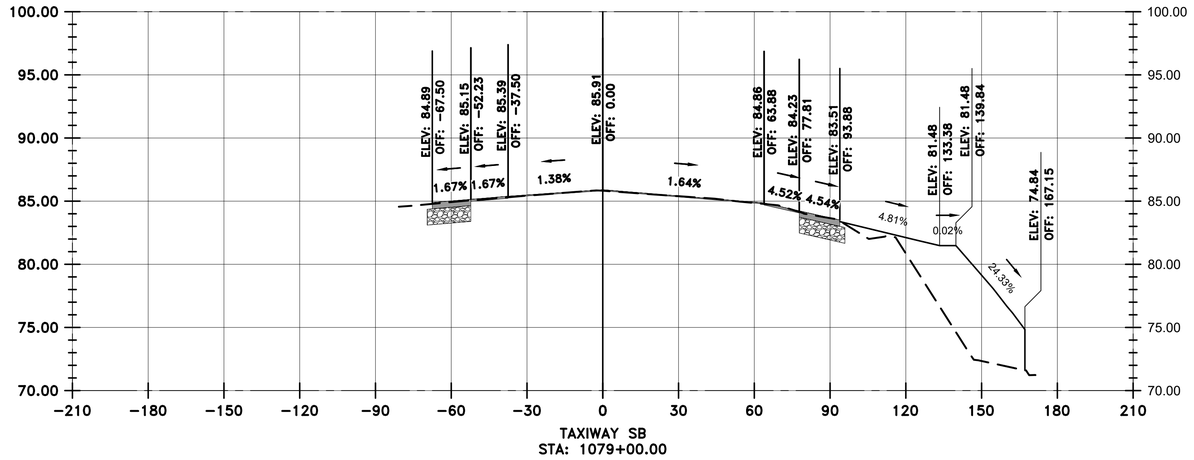
PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

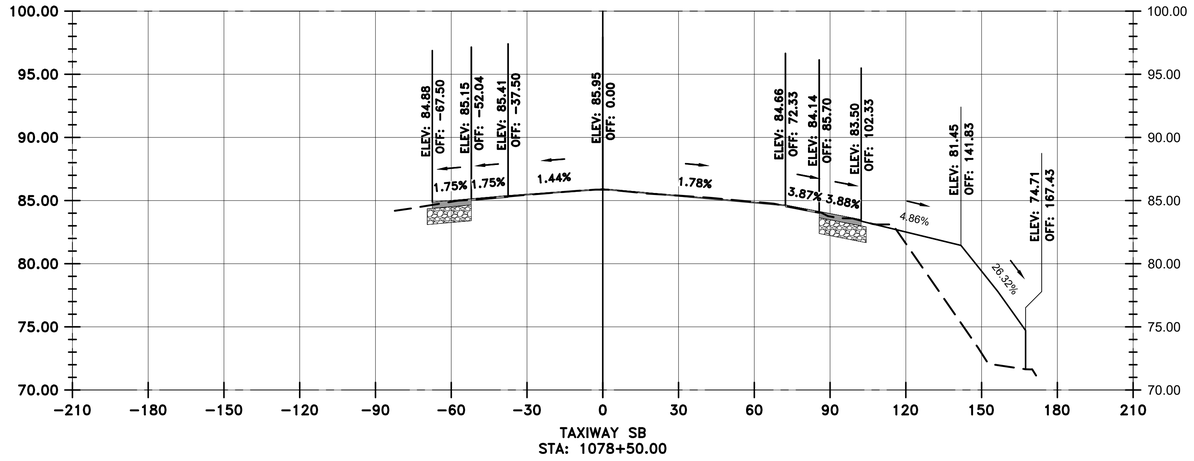
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

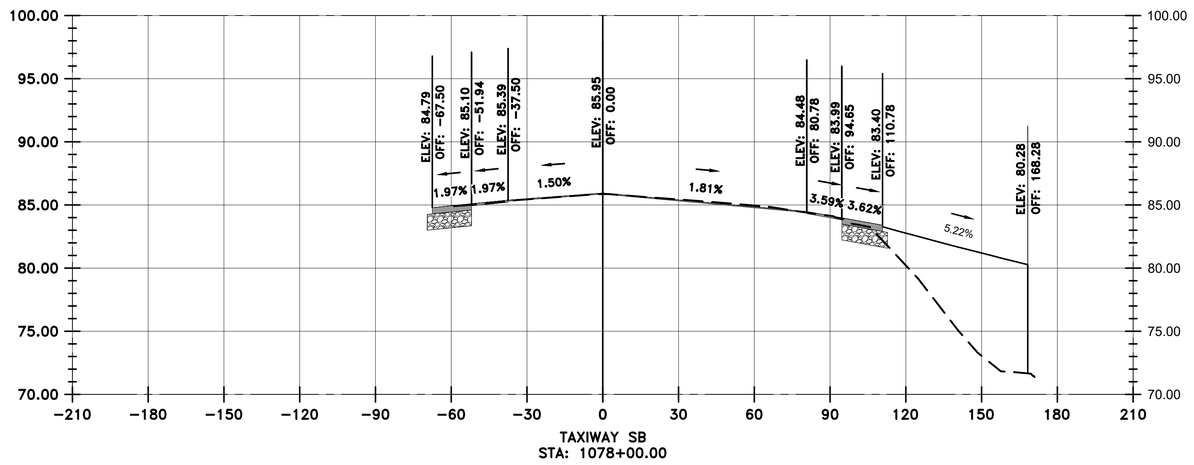
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.44







LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 45

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.45

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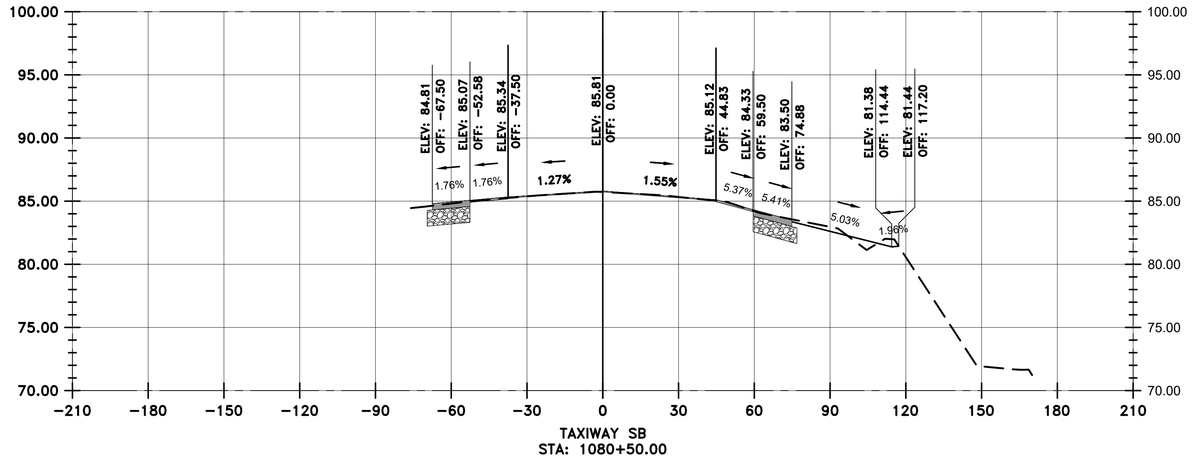

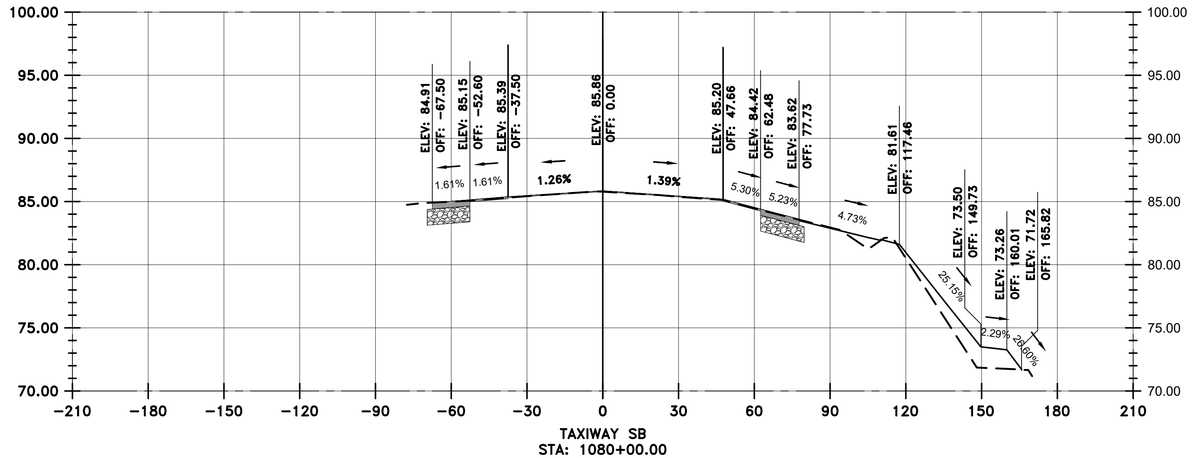

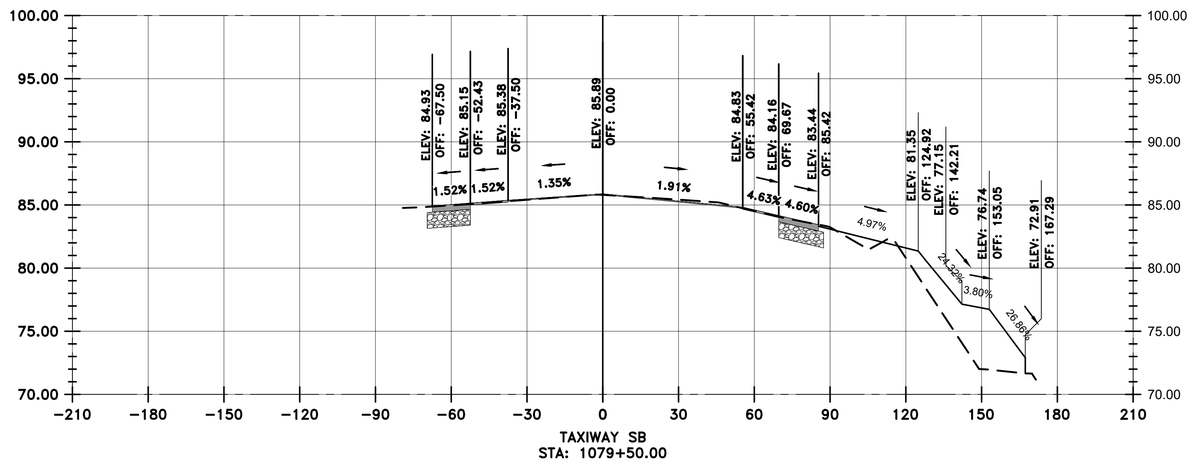

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 46

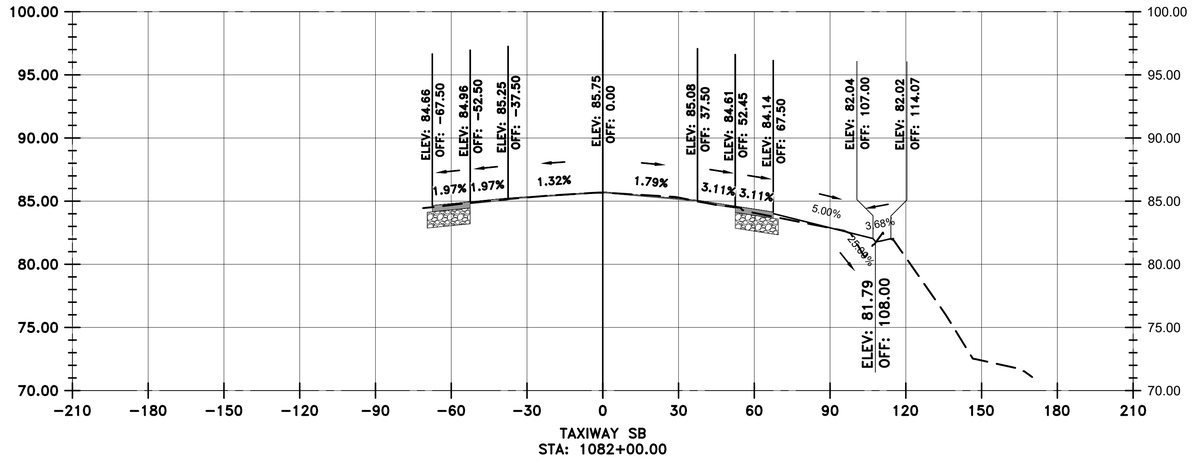
PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

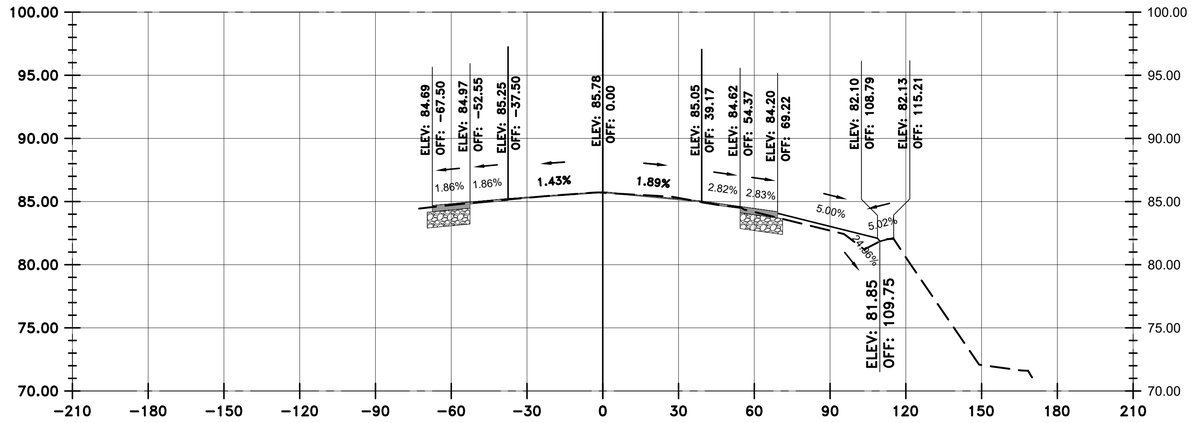
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.46



TAXIWAY SB
STA: 1082+00.00



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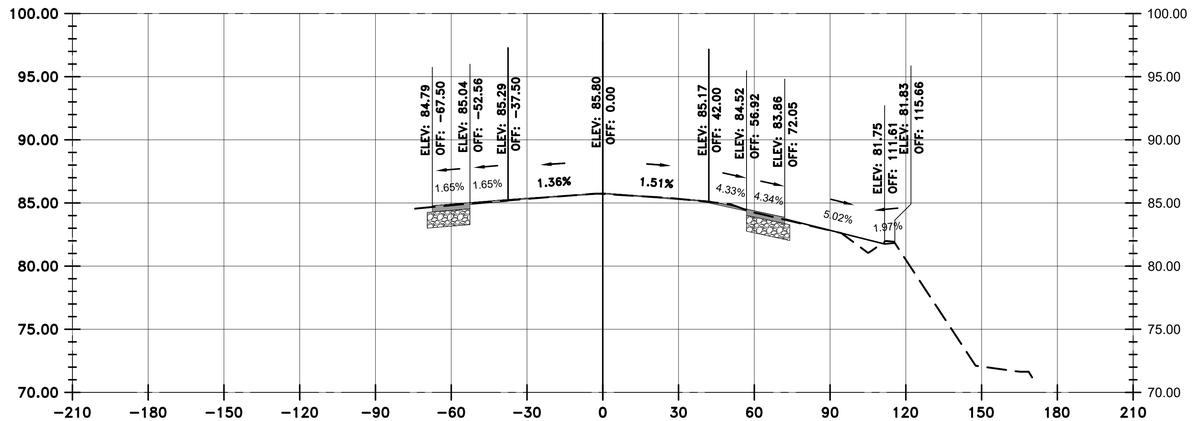
STA: 1081+50.00



TAXIWAY SB
STA: 1081+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 47

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.
X02.47

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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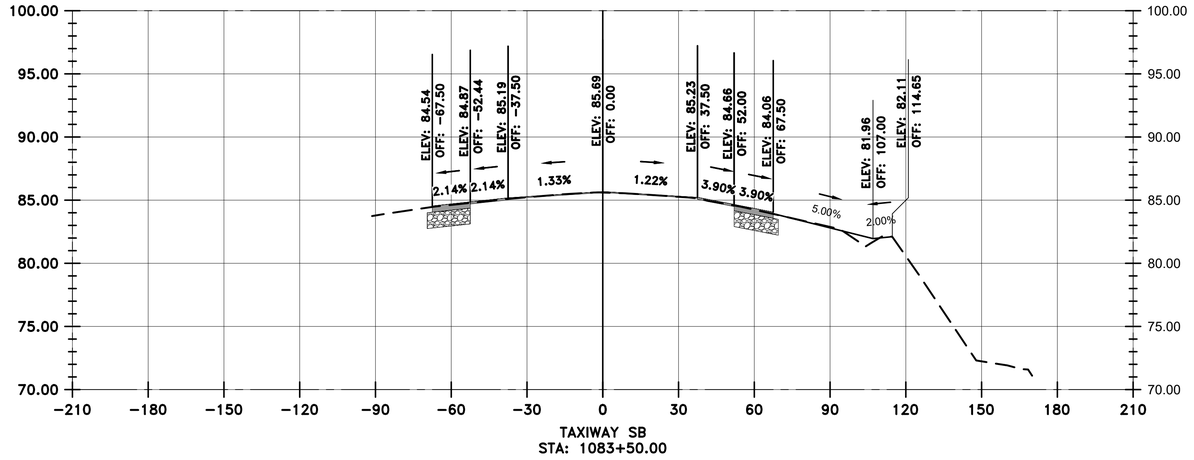

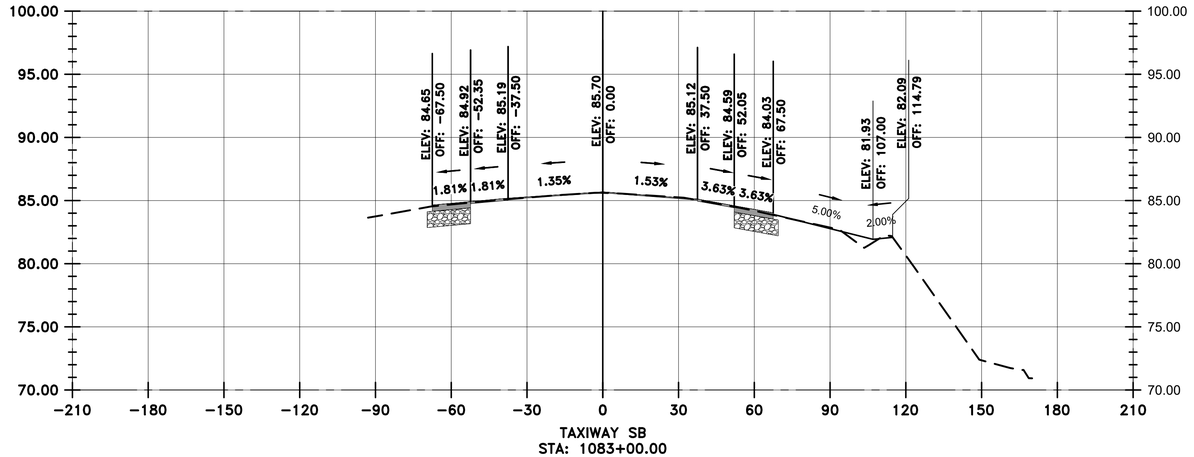

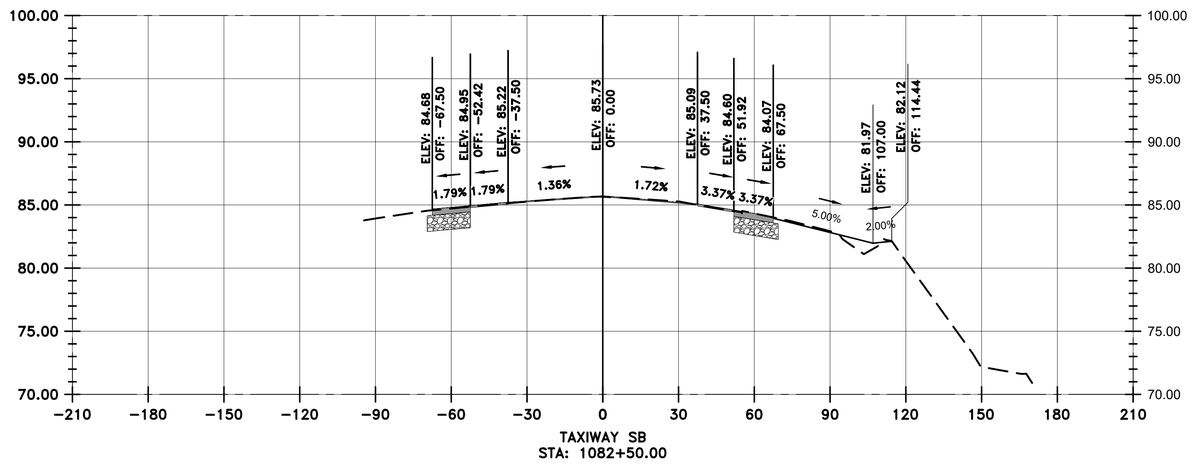

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 48

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.48

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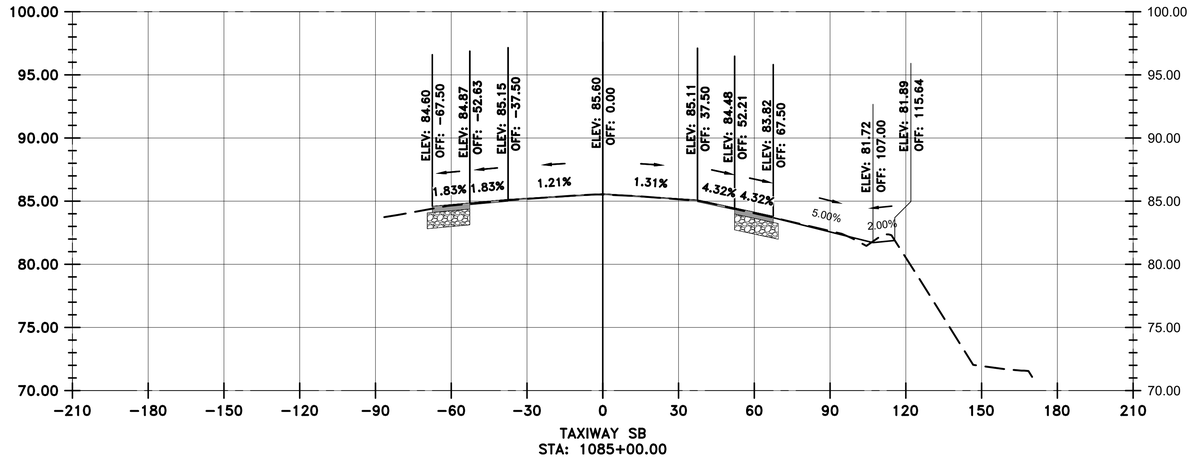

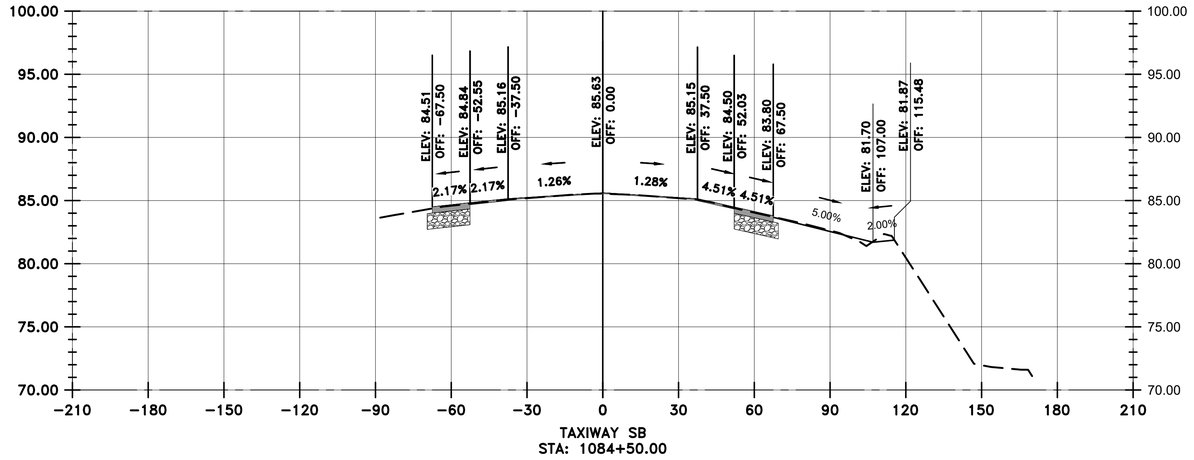

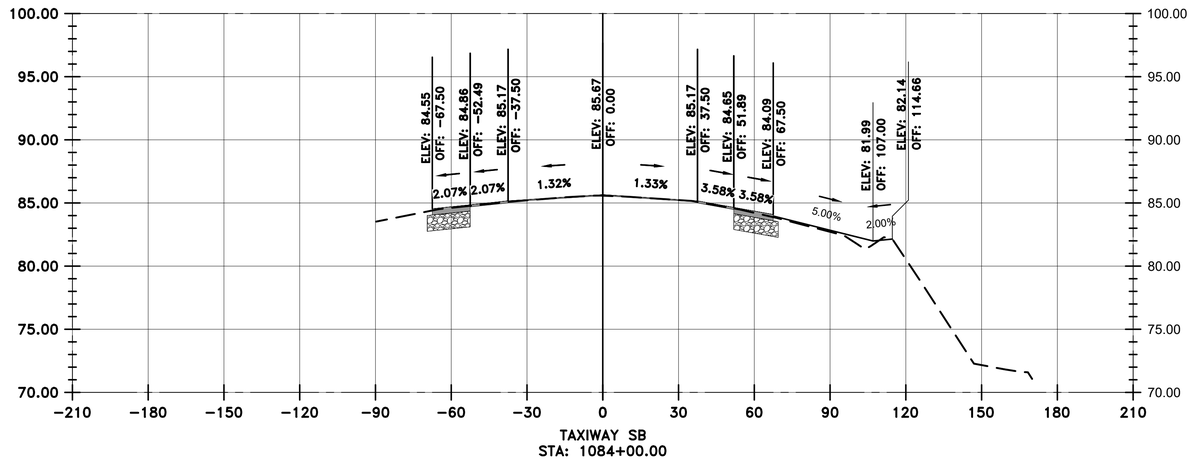

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 49

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.49

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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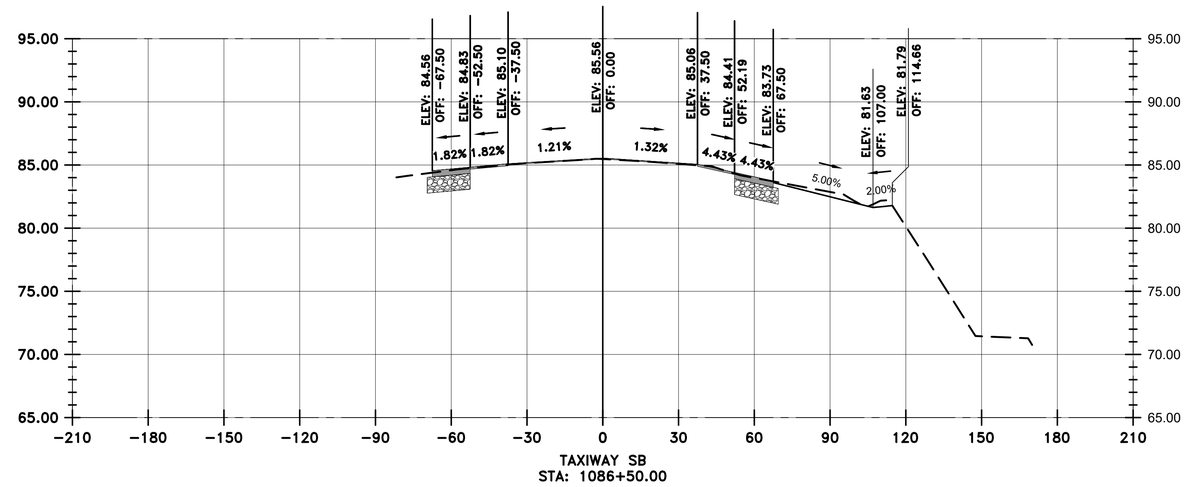

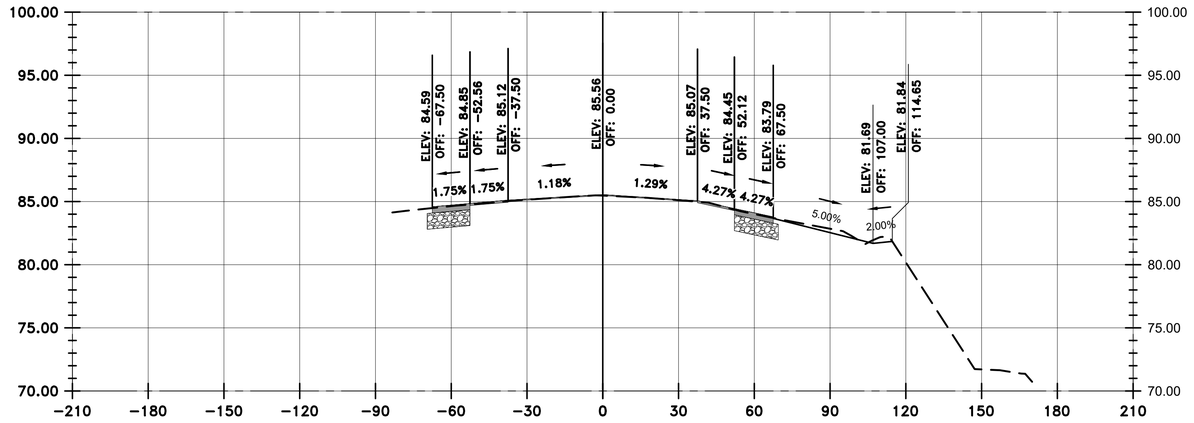

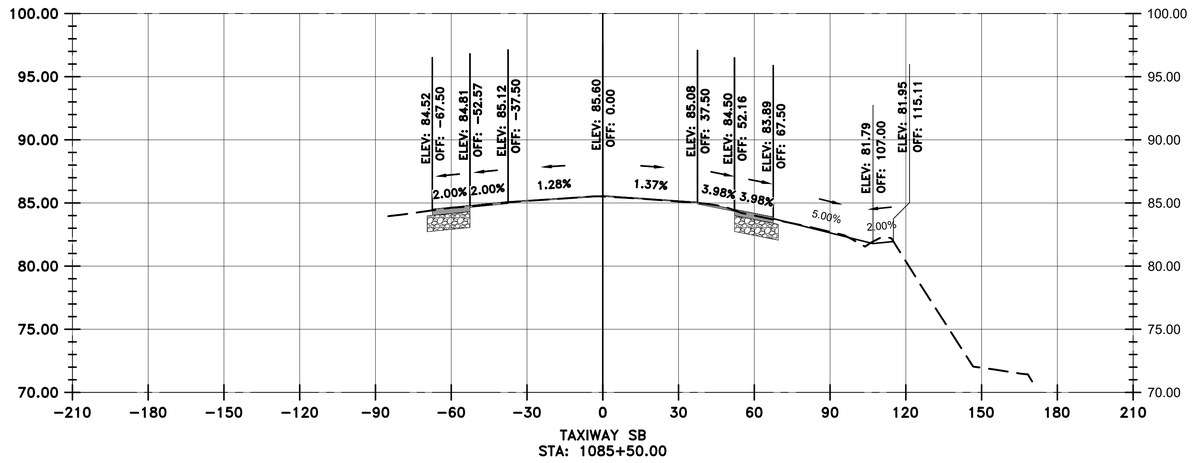

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 50

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.50

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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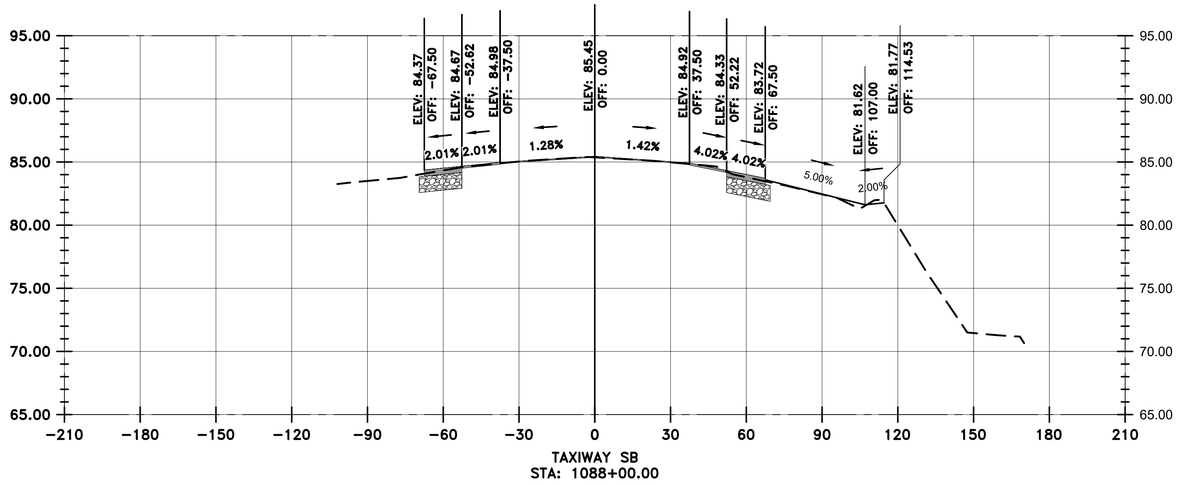

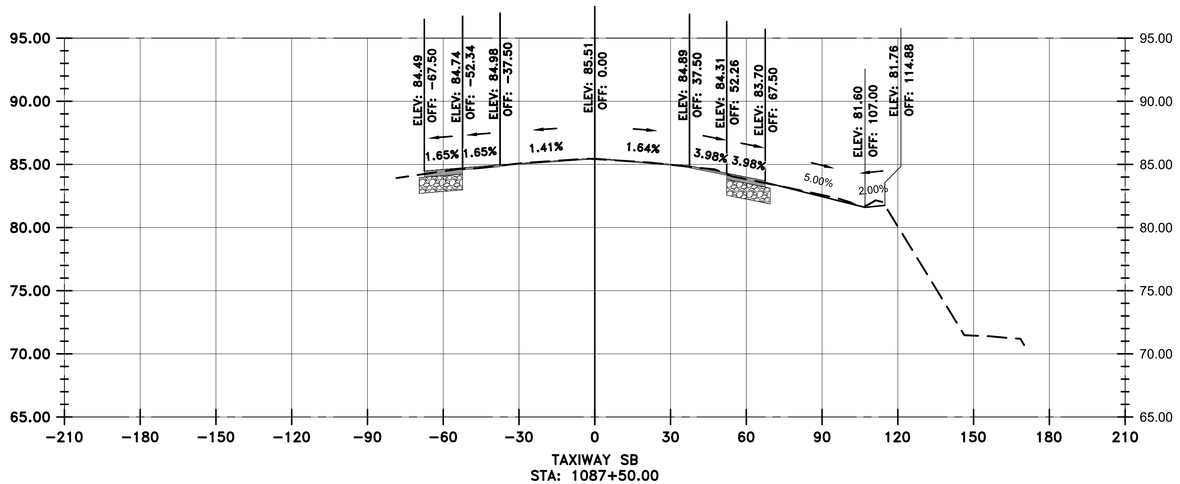

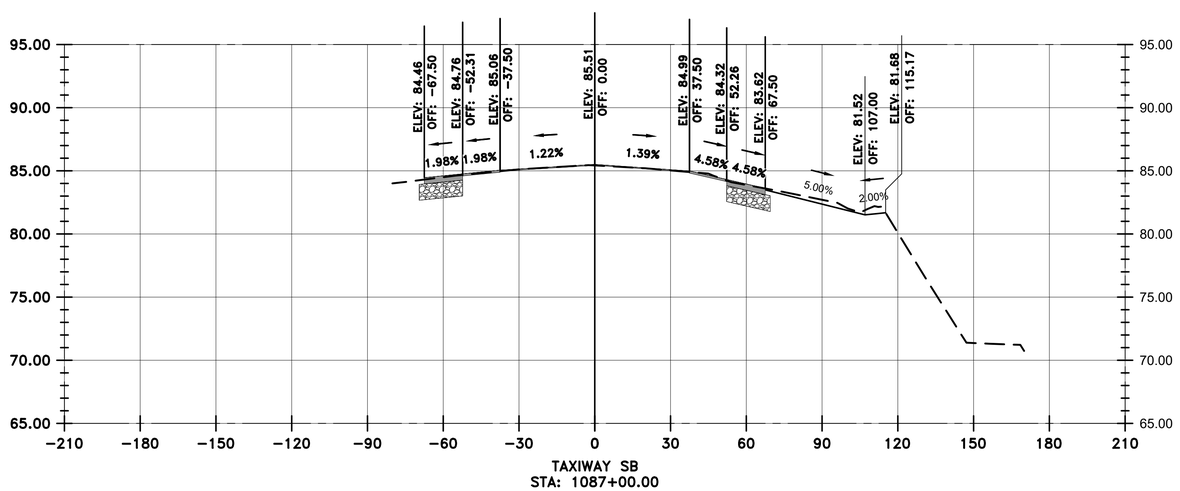

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 51

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.51

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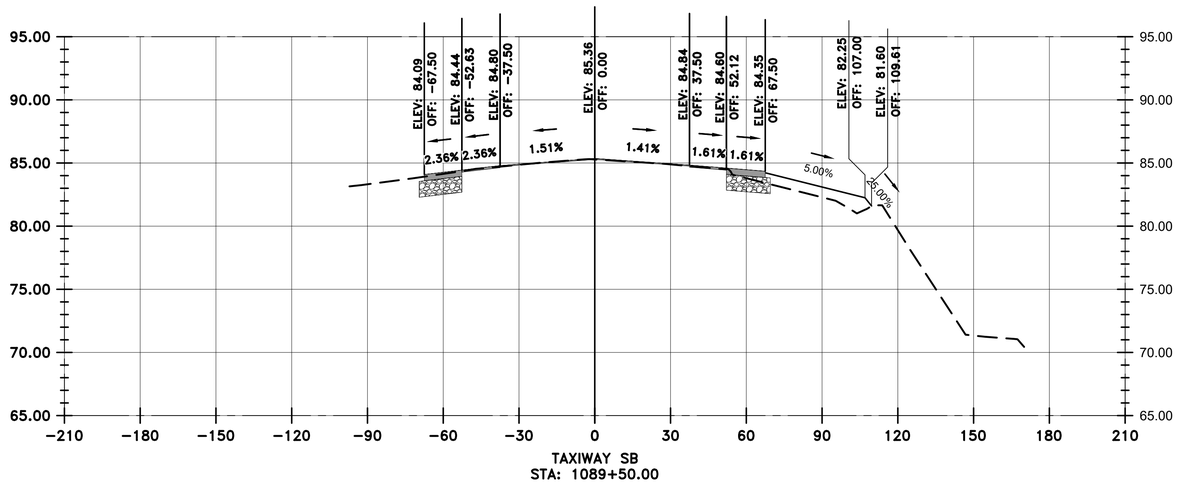

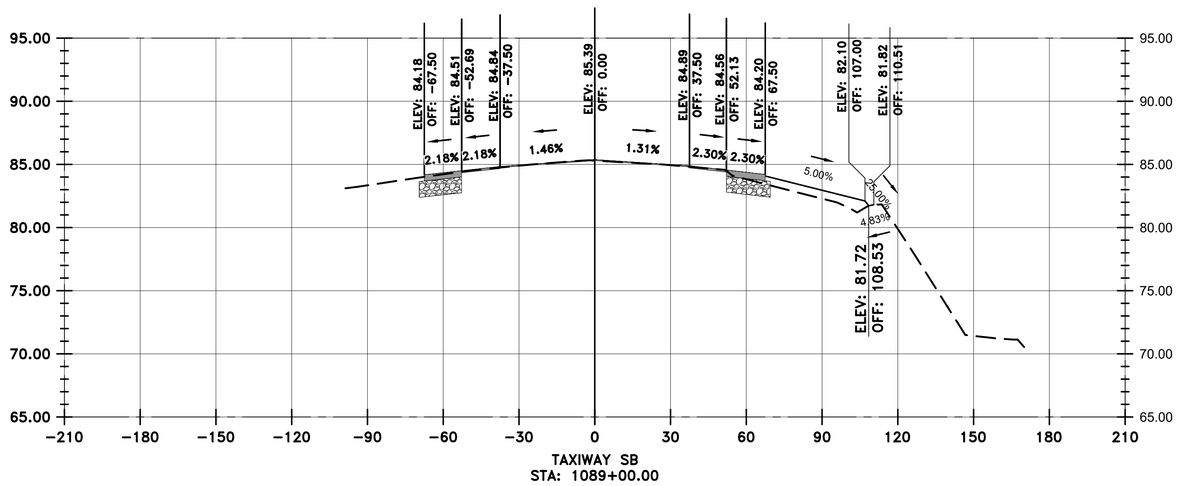

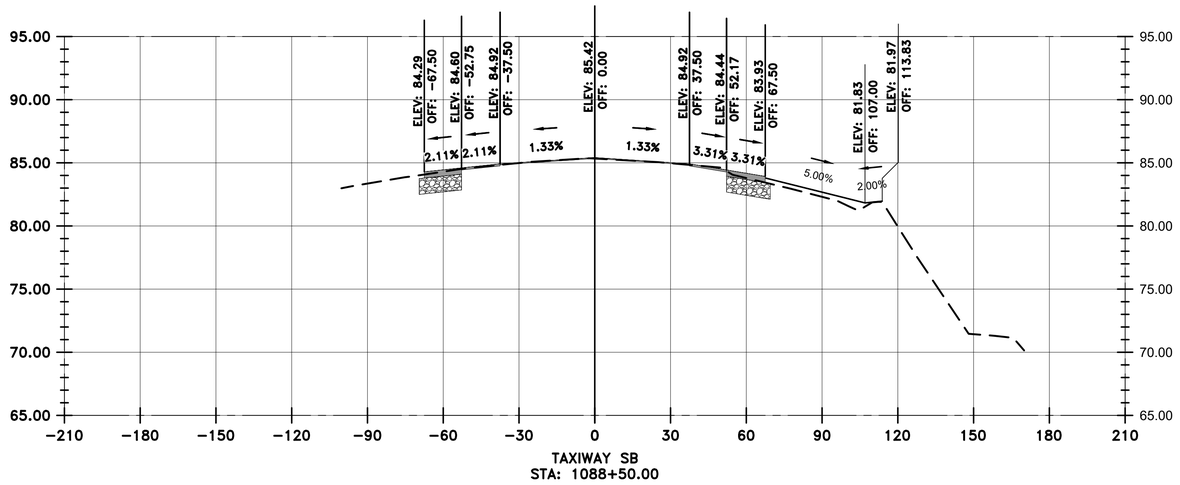

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 52

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.52

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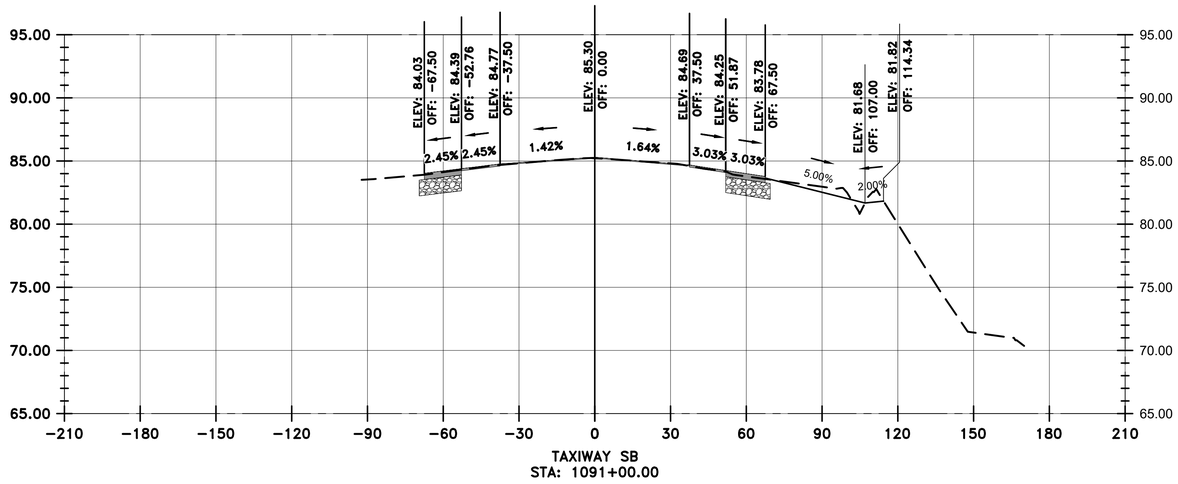

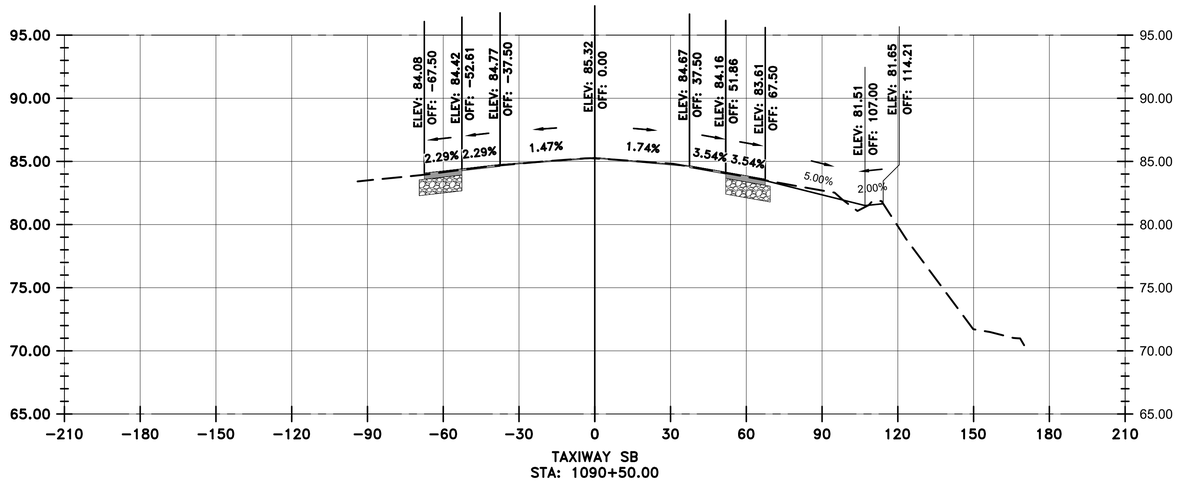

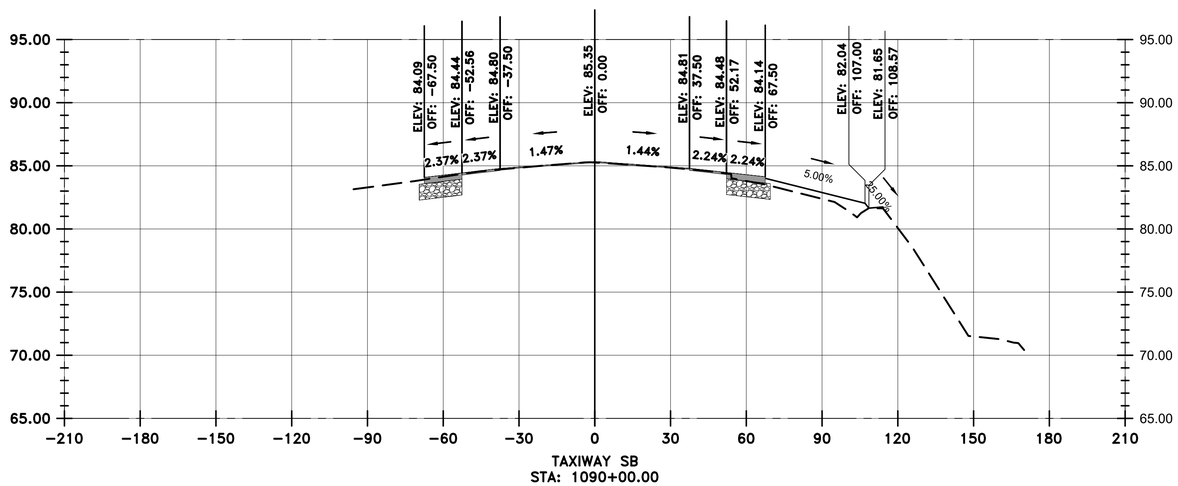

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 53

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.53

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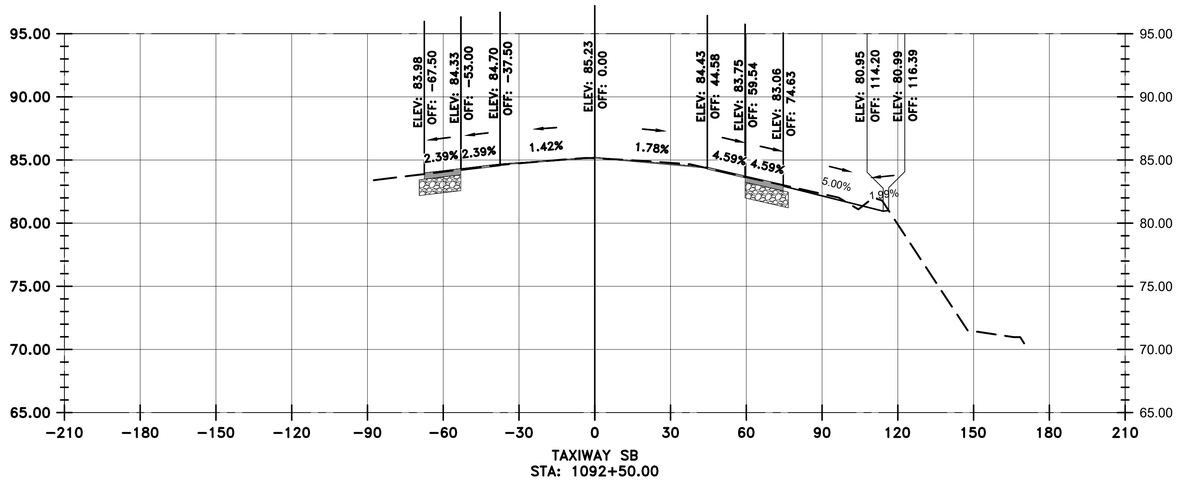
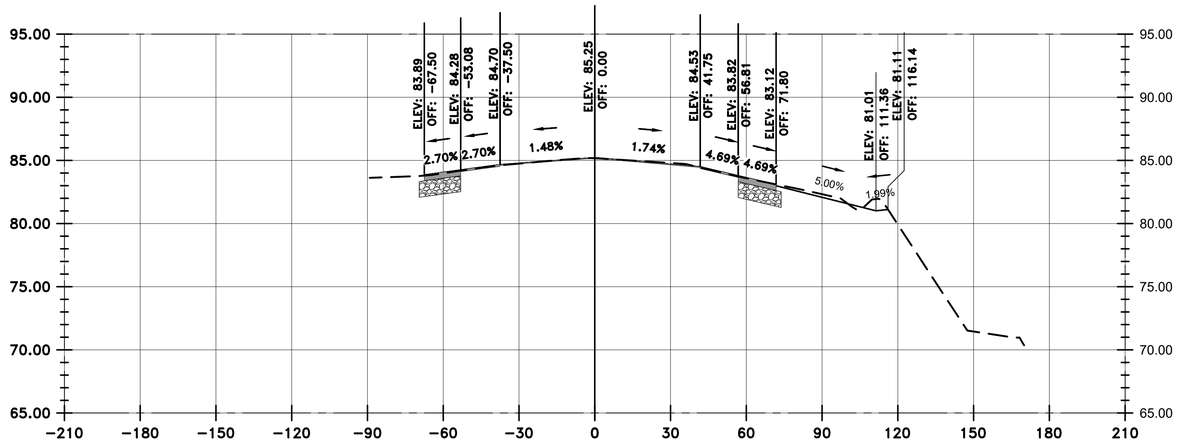
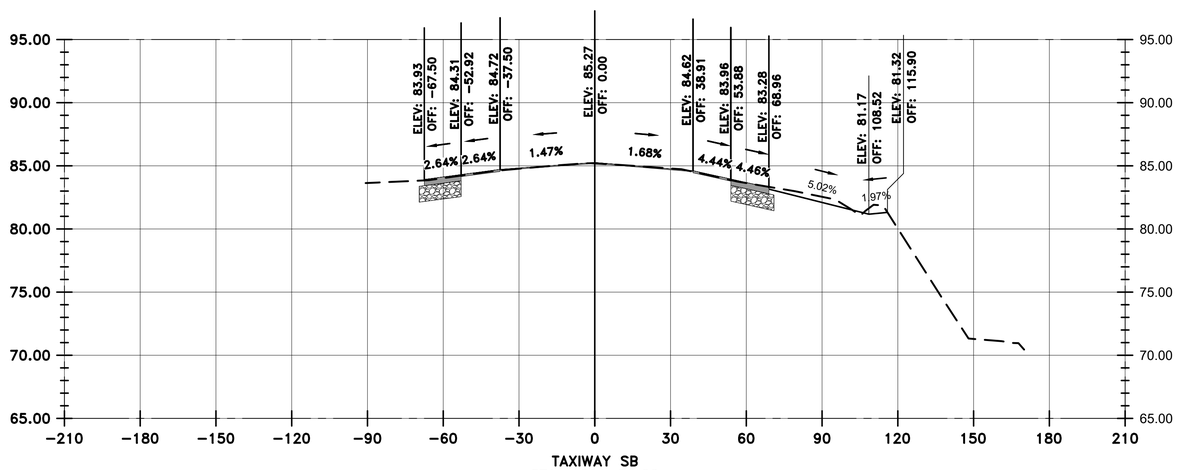


TAXIWAY SB
STA: 1092+50.00



TAXIWAY SB
STA: 1092+00.00



TAXIWAY SB
STA: 1091+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 54

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.54

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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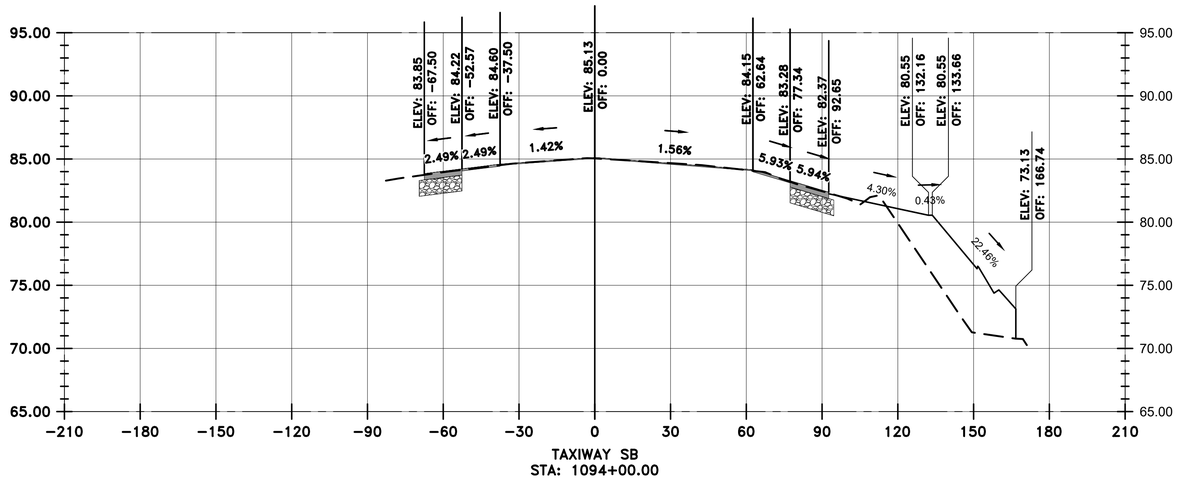

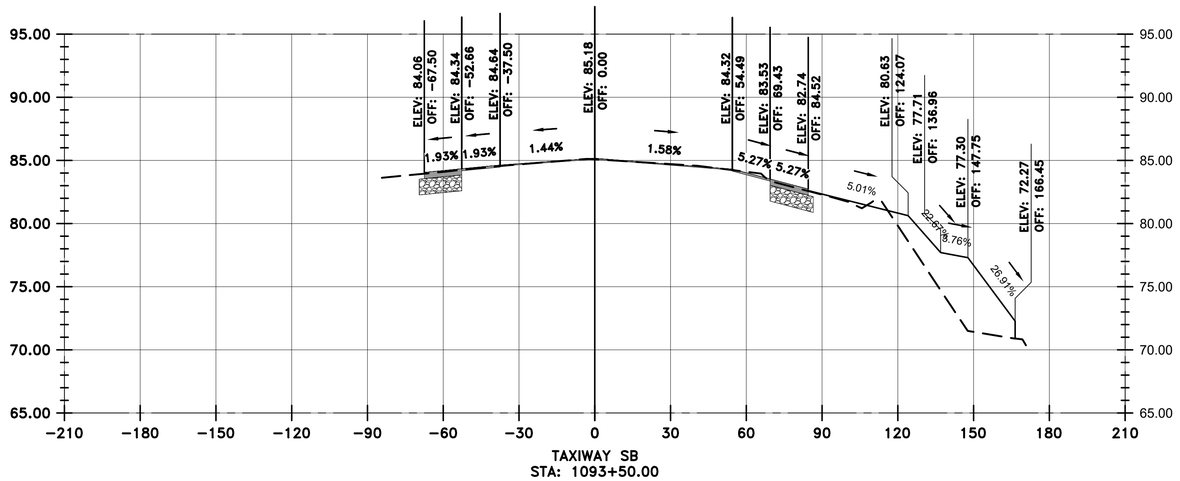

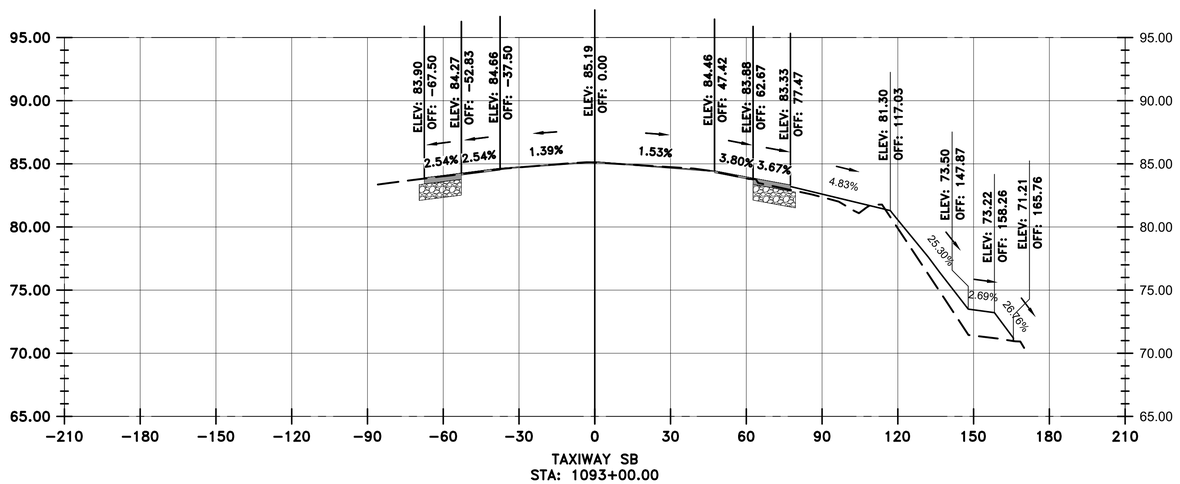

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 55

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.55

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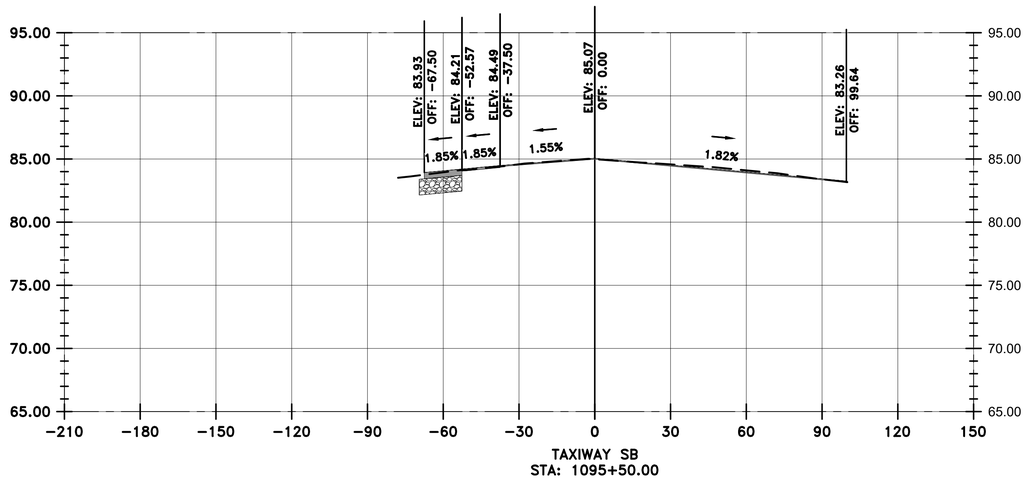
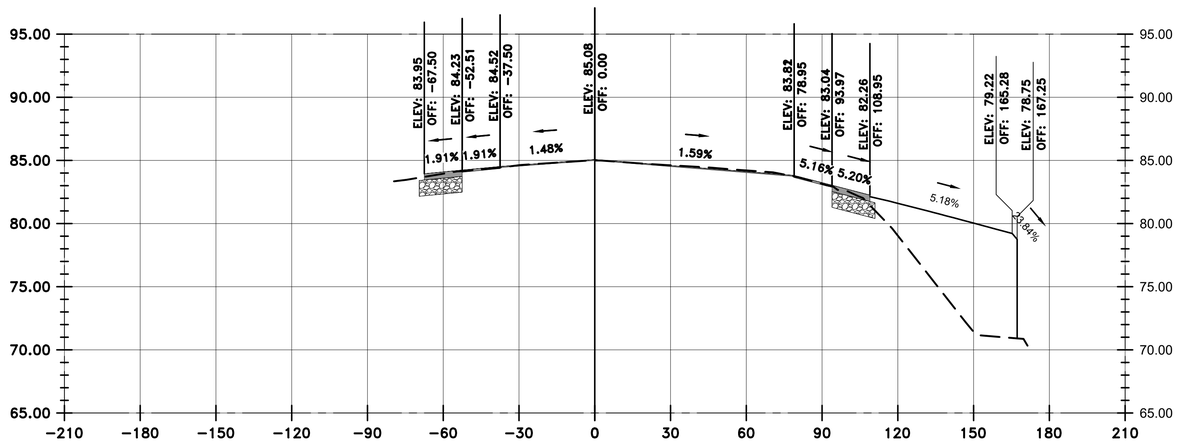


TAXIWAY SB
STA: 1095+50.00



TAXIWAY SB
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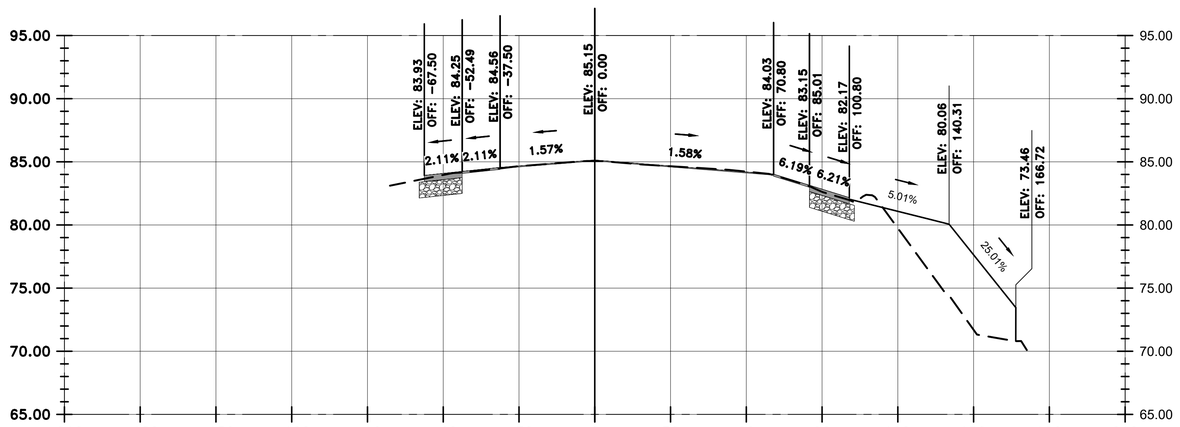

TAXIWAY SB
STA: 1094+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 56

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.56

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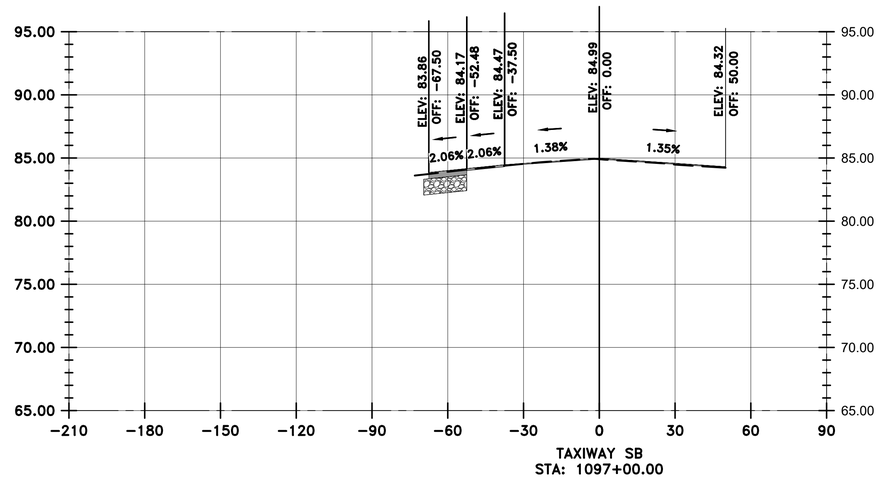

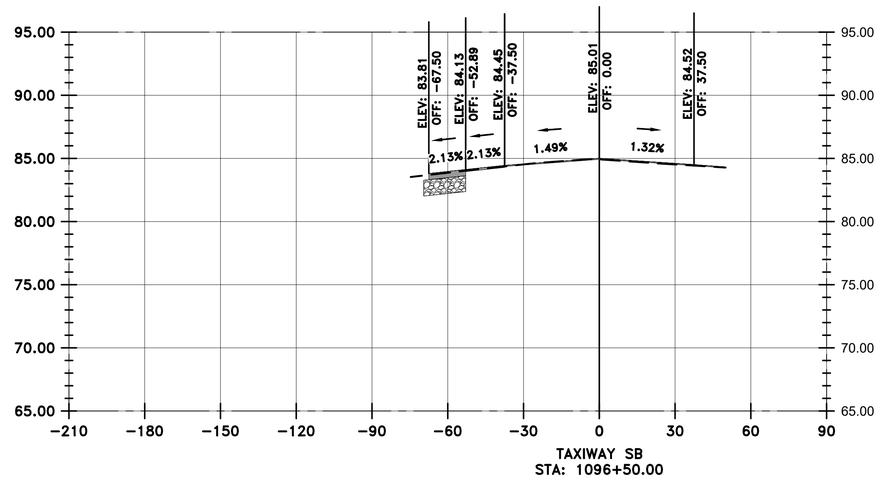

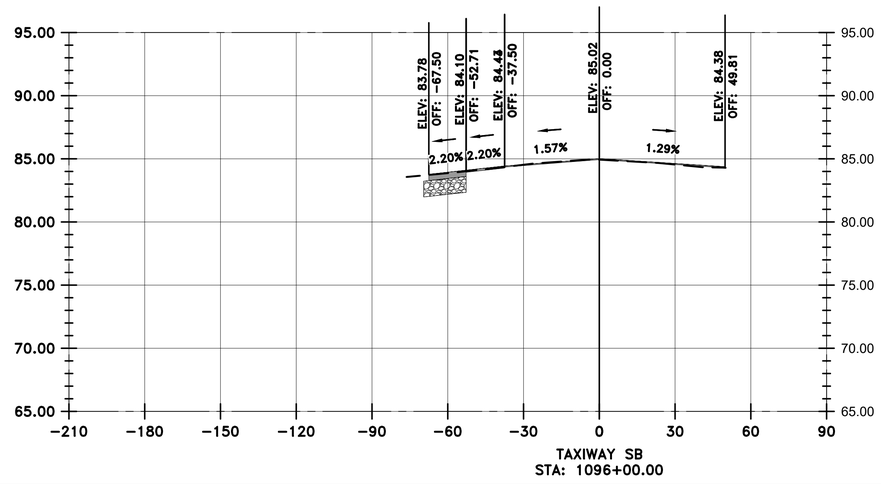

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 57

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.57

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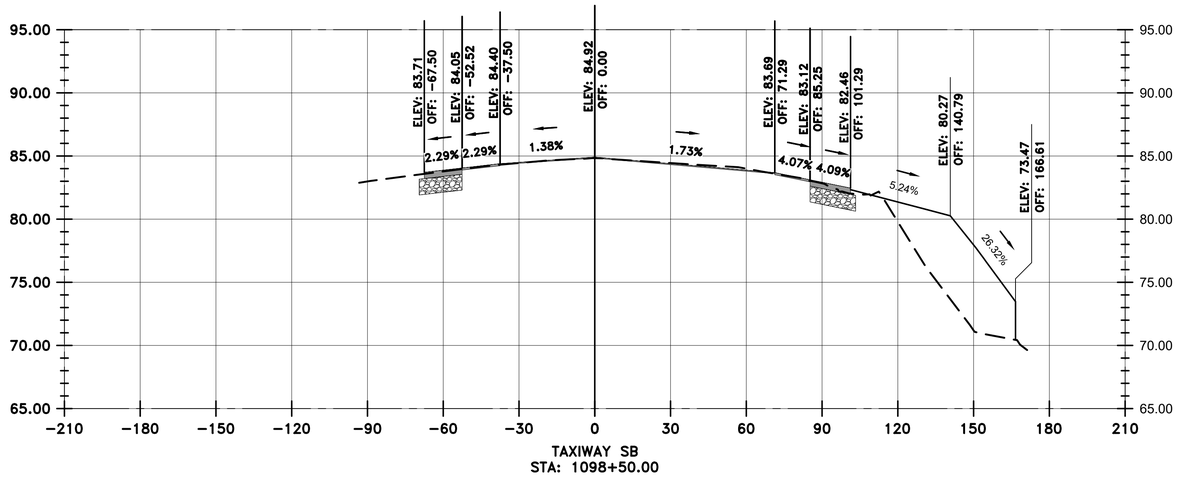

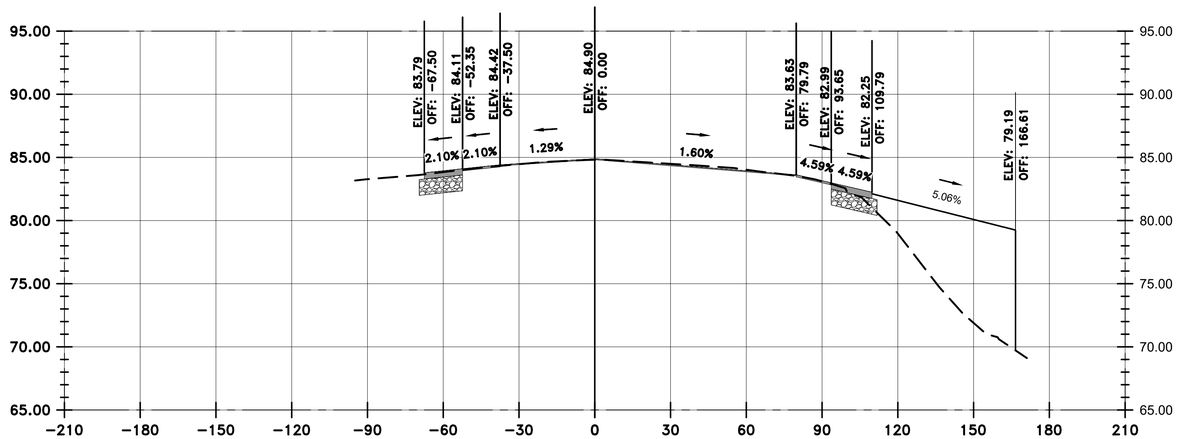

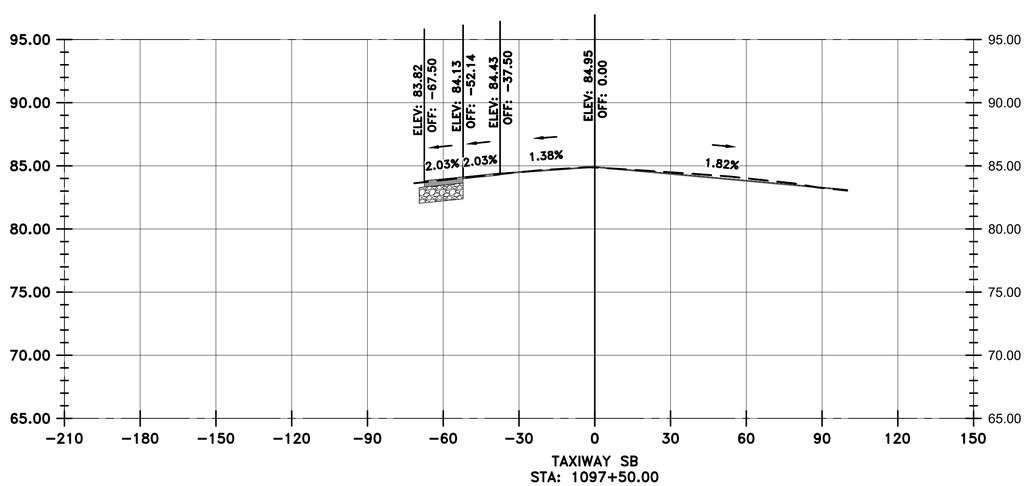

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 58

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.58

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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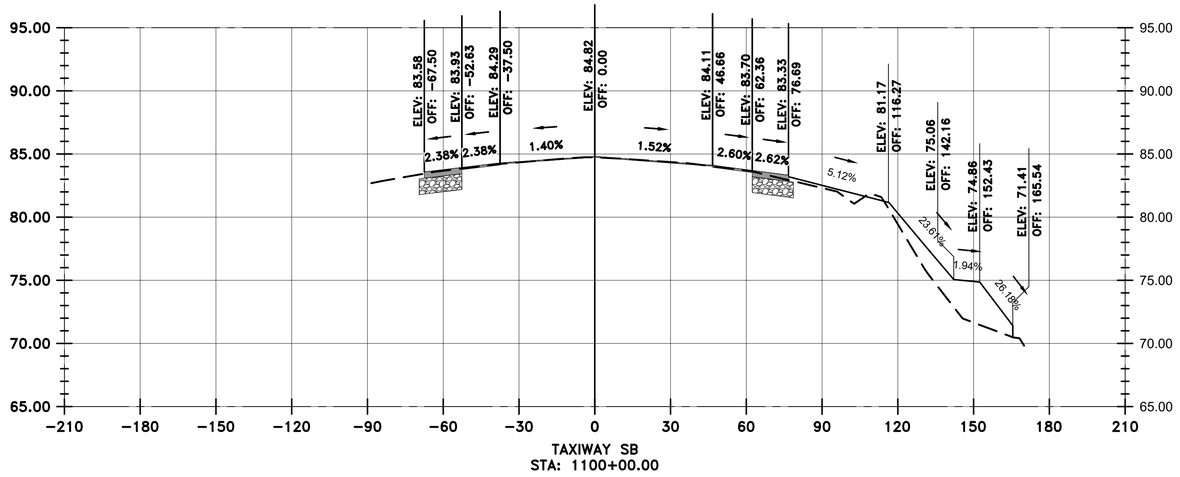

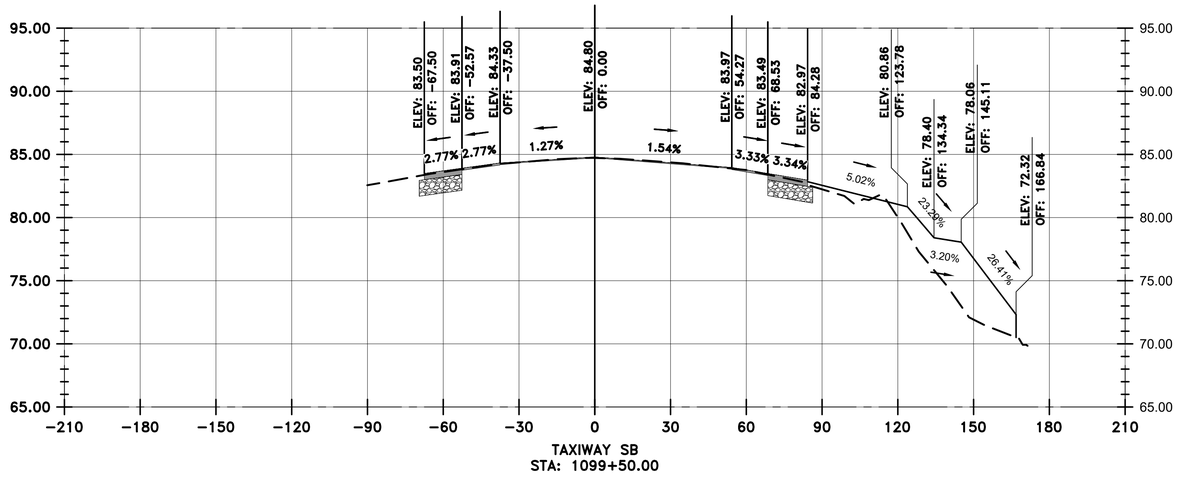

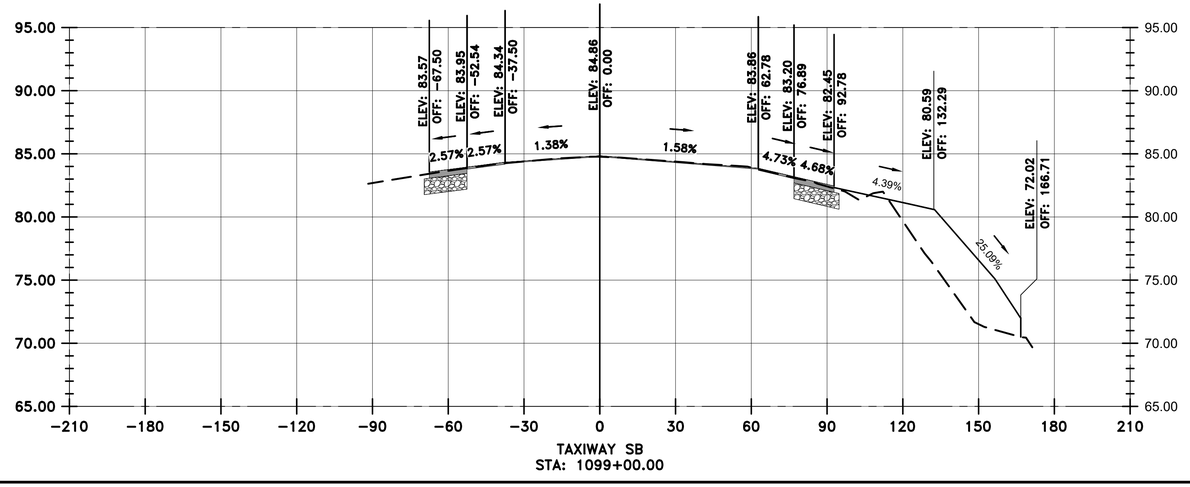

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 59

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.59

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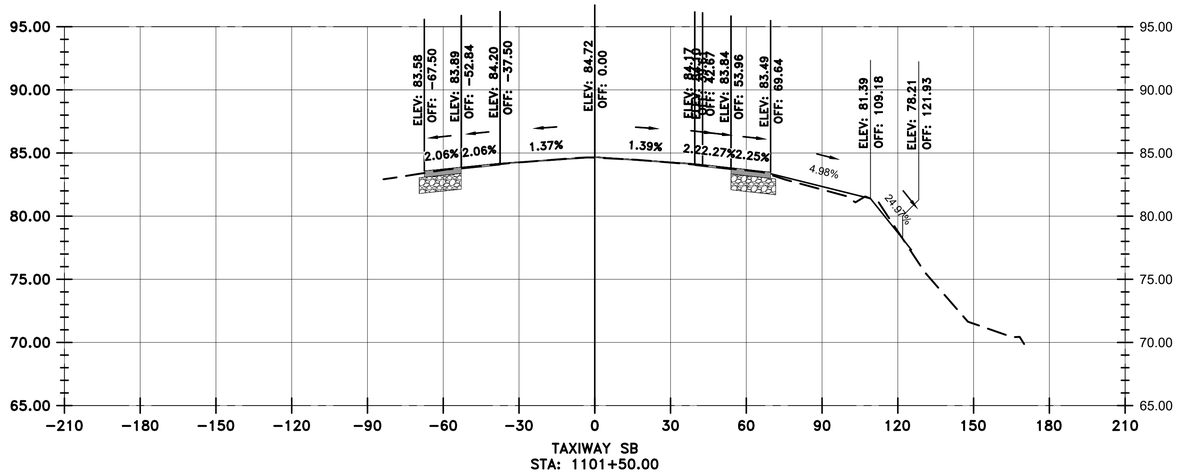

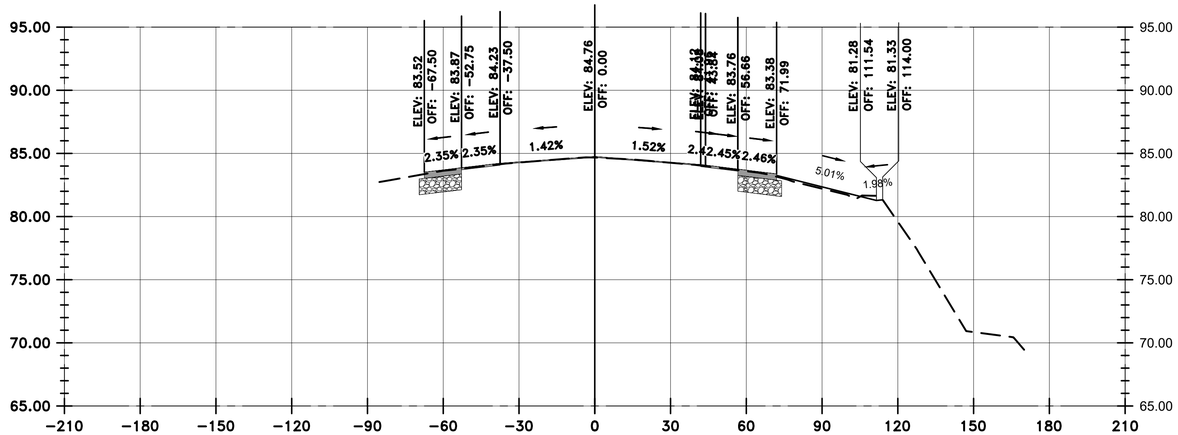

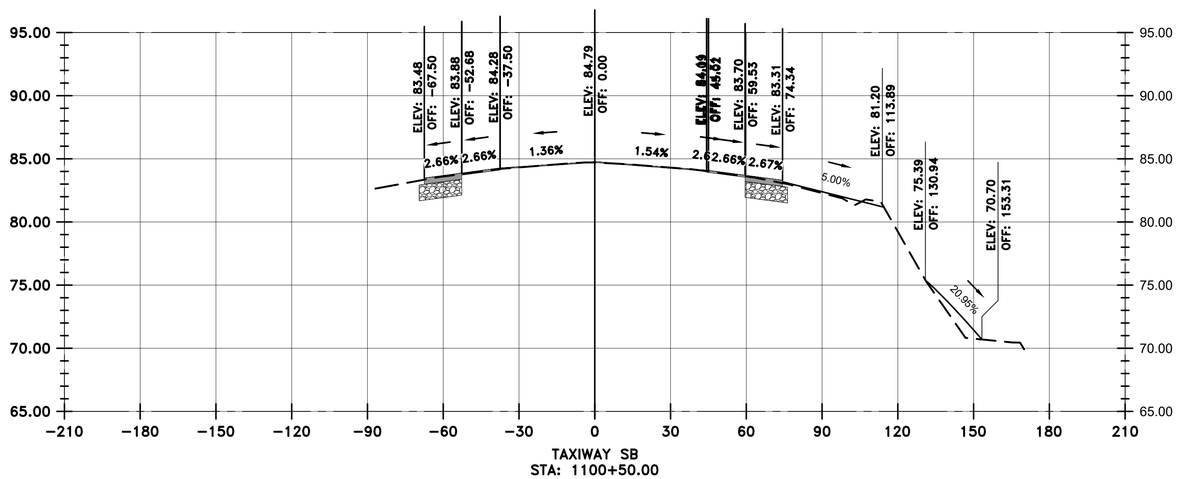

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 60

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANIK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.60

HAS FILE: c:\Users\dagonato\onedrive - garver\0646.2\06 - Typical Sections\Model Files\0646CSC.dwg
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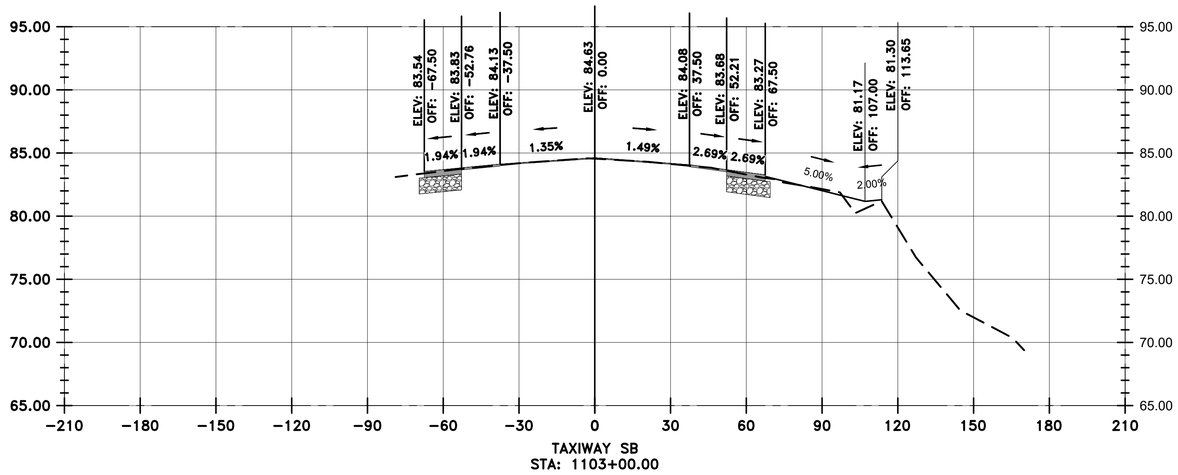

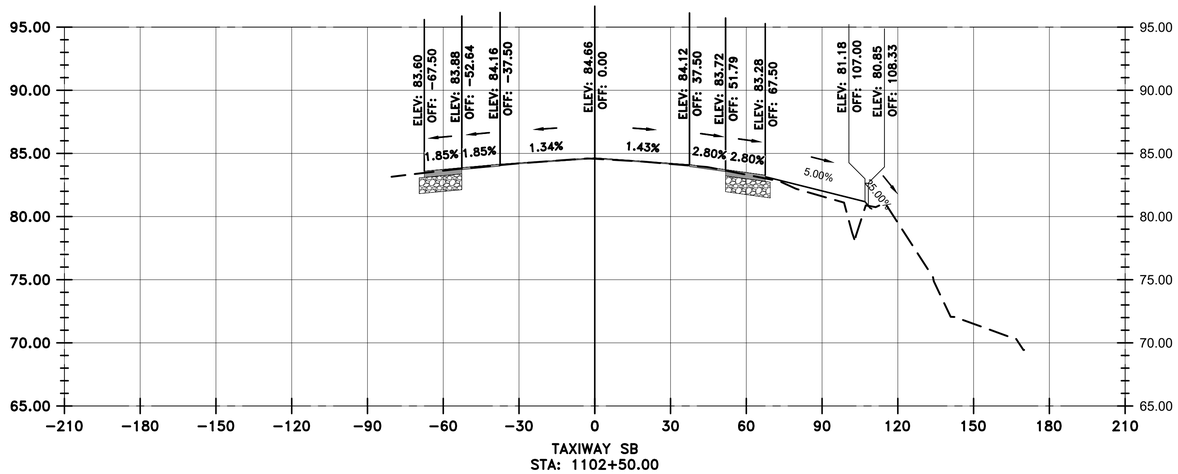

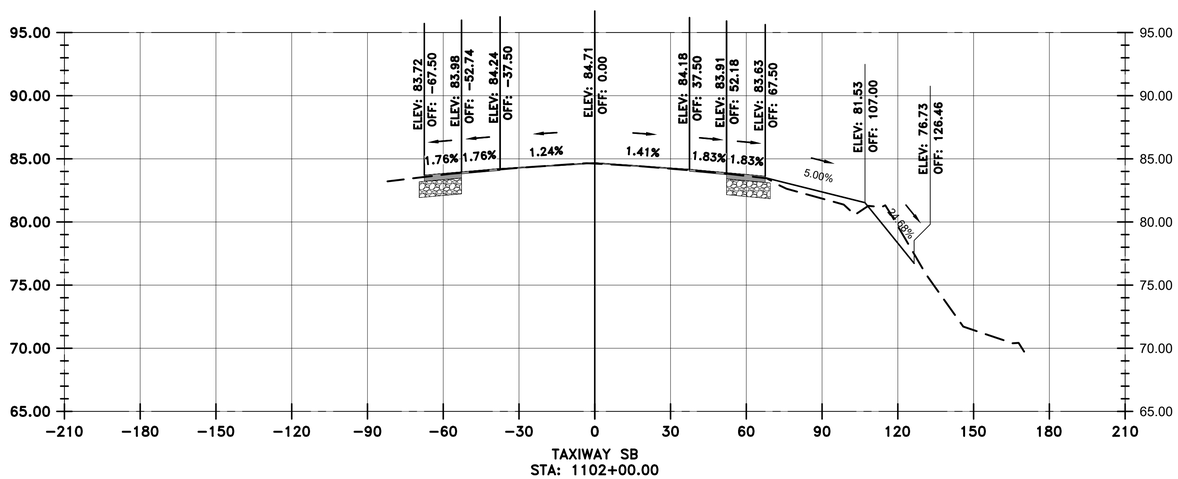

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 61

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.61

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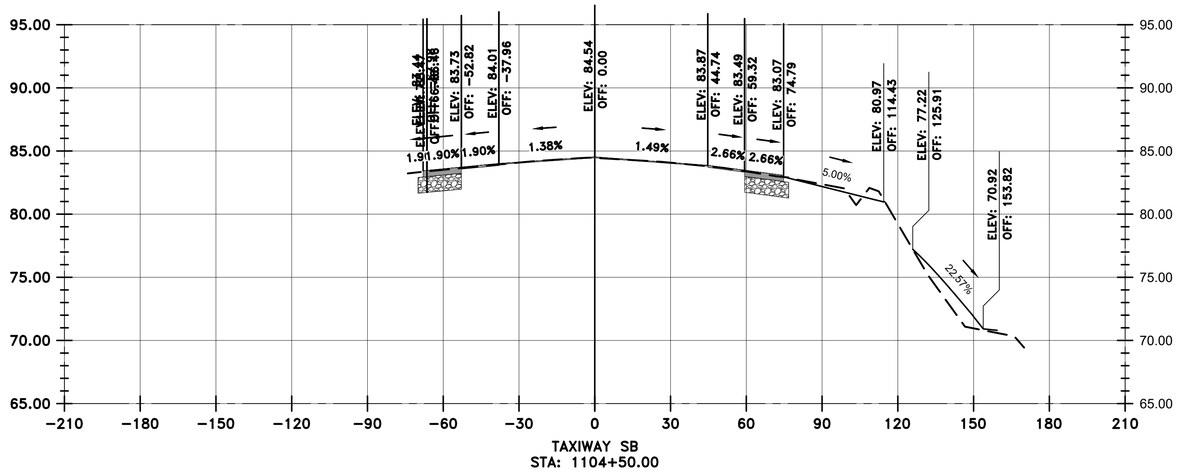

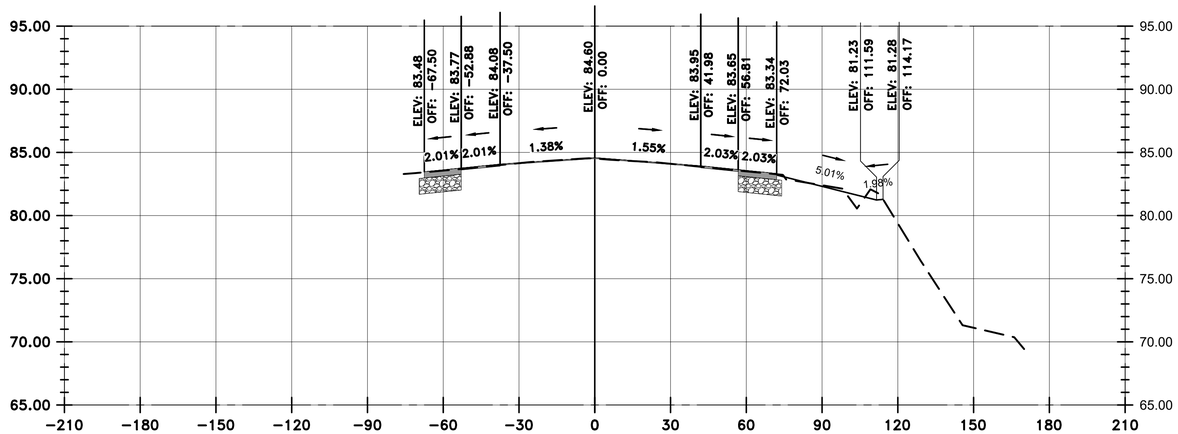

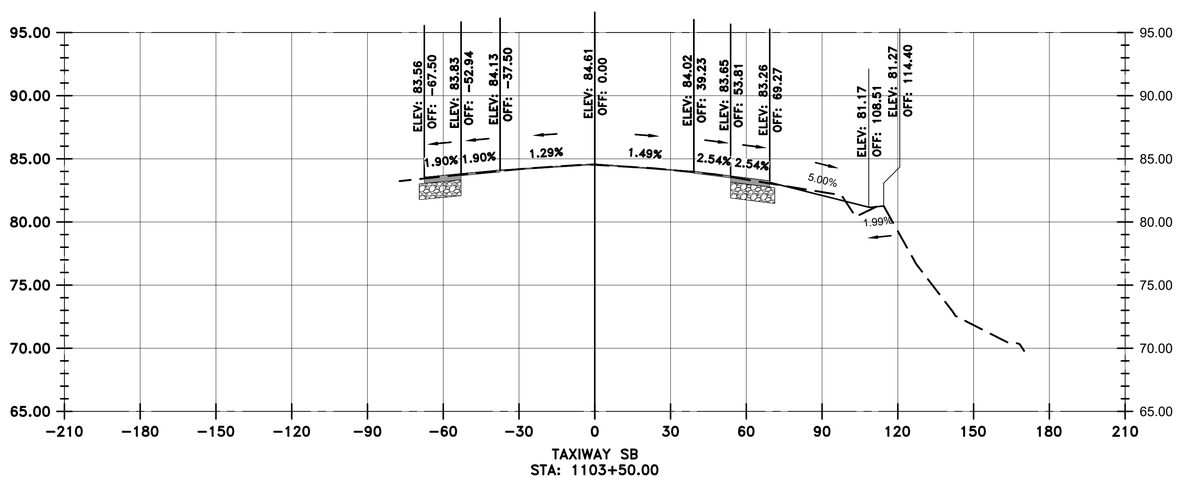

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 62

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.62

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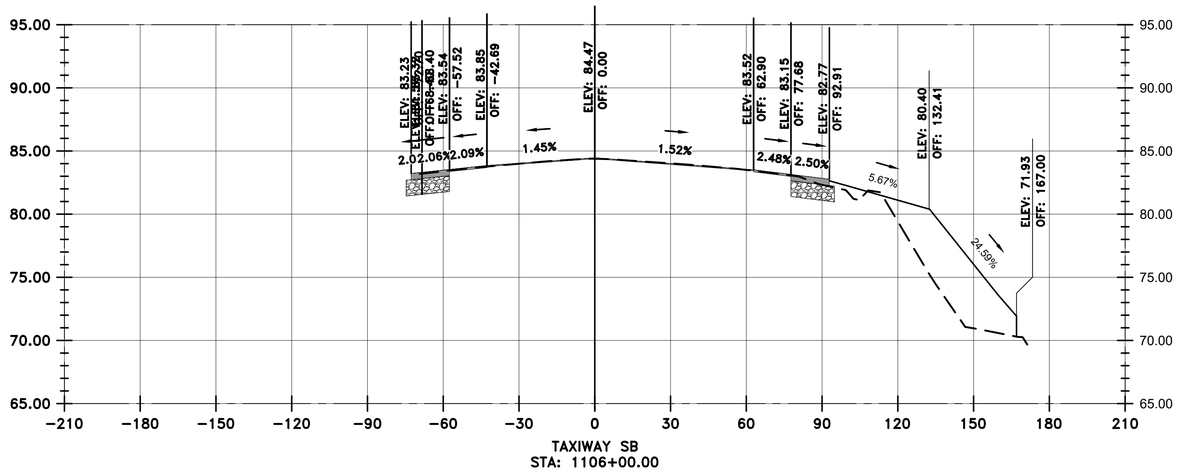

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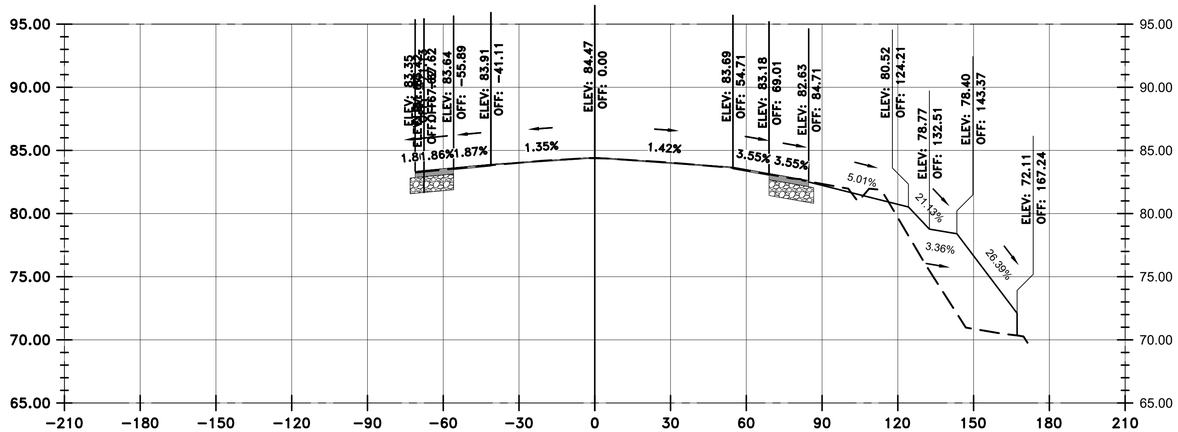

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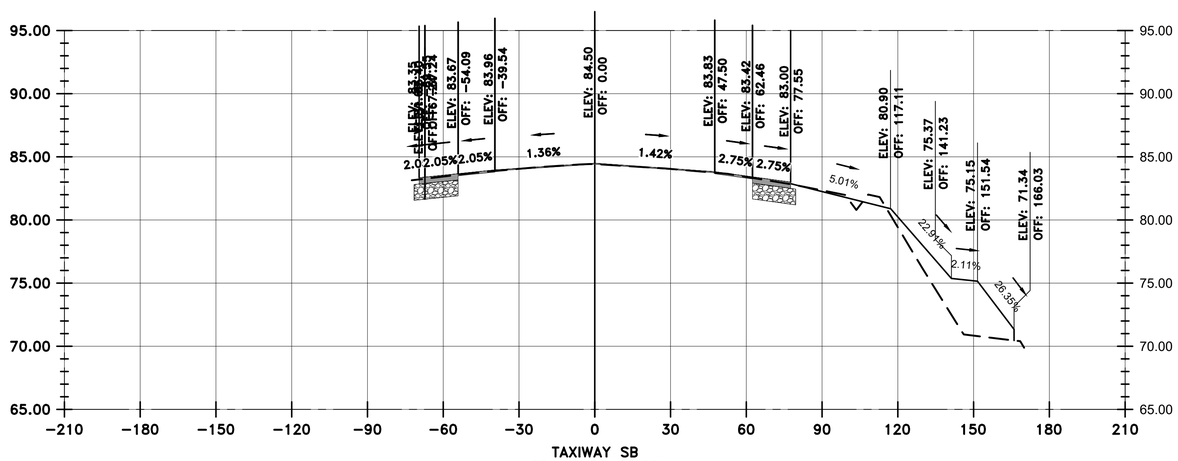

TAXIWAY SB
STA: 1105+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 63

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
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PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.63

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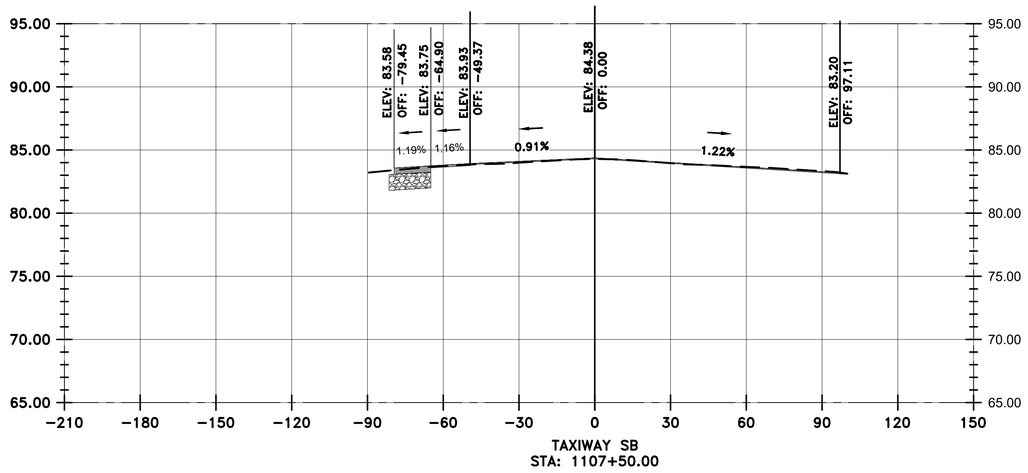

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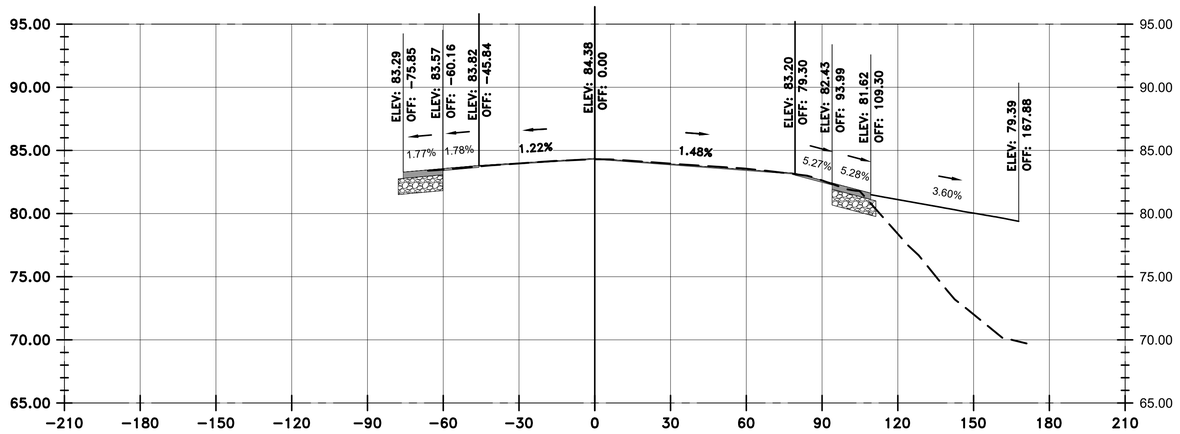

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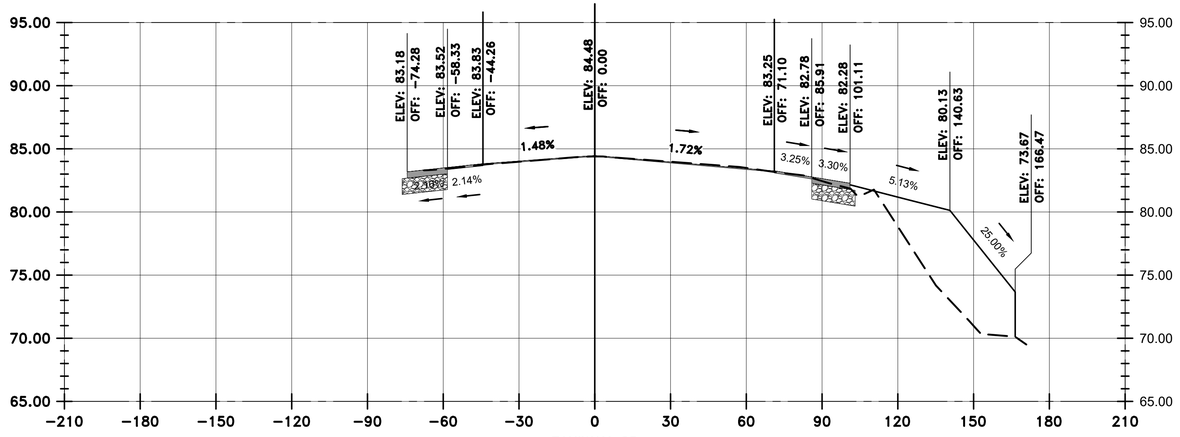

TAXIWAY SB
STA: 1106+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 64

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

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APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.64

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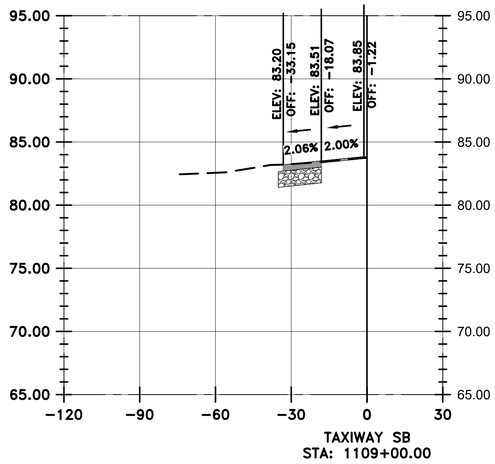

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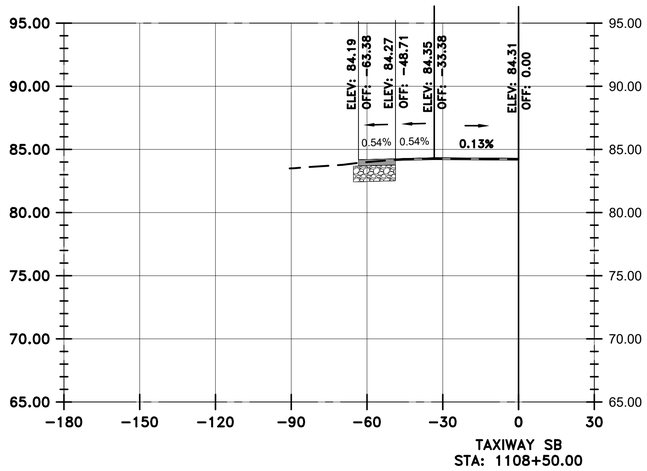

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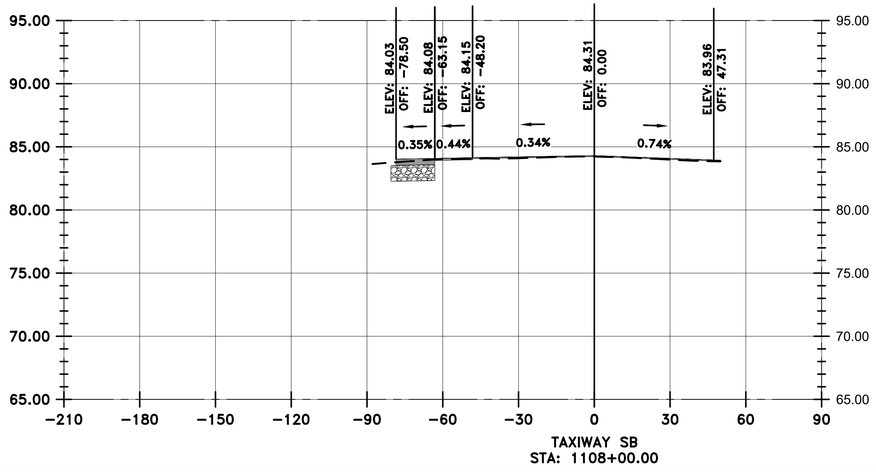

TAXIWAY SB
STA: 1108+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SB CROSS SECTIONS 65

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X02.65

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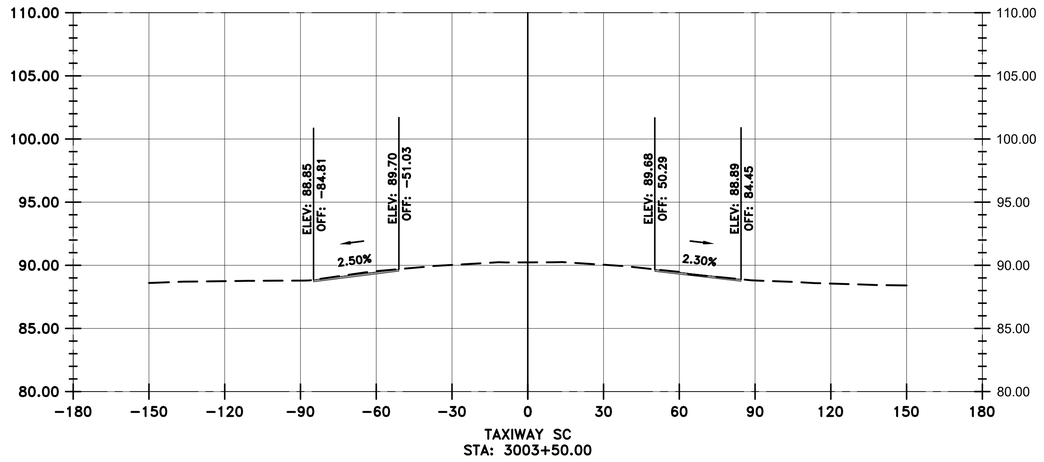

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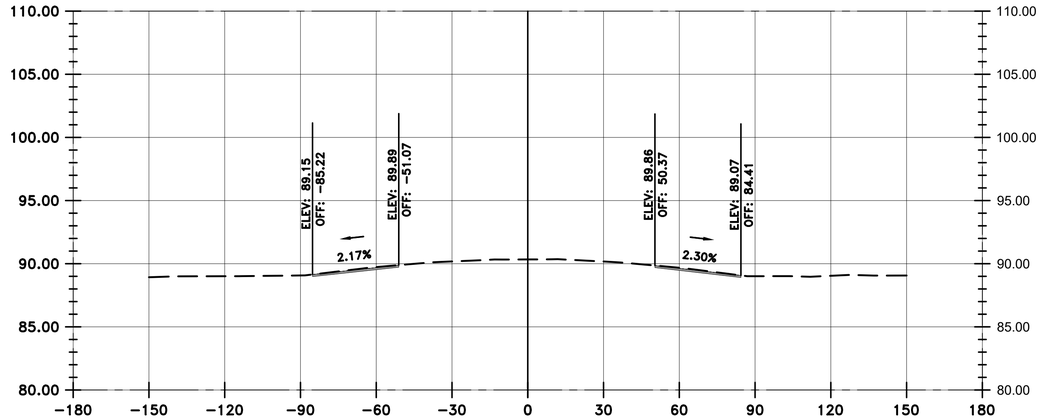

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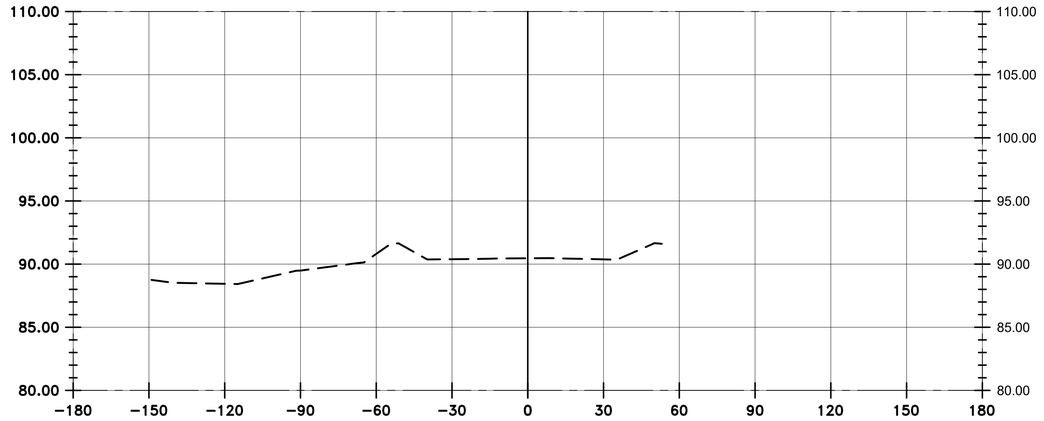

TAXIWAY SC
STA: 3002+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SC CROSS SECTIONS 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X03.01

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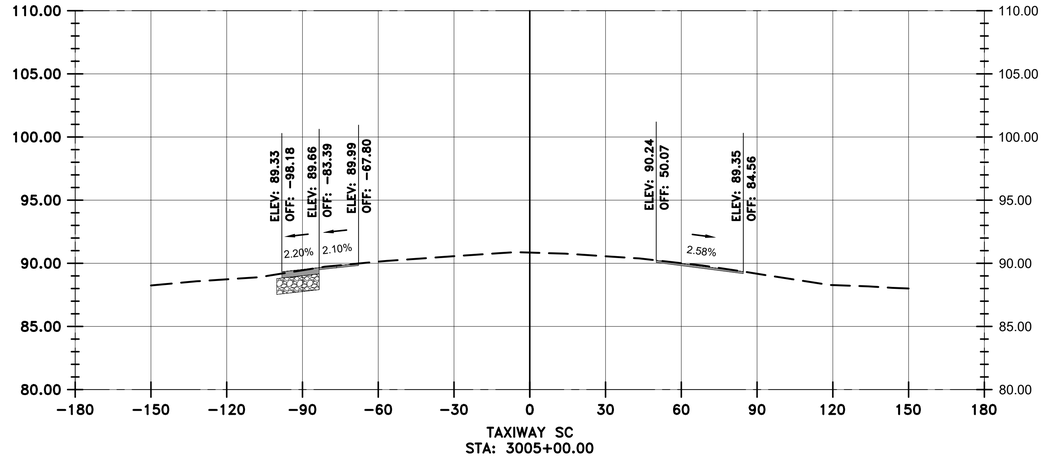

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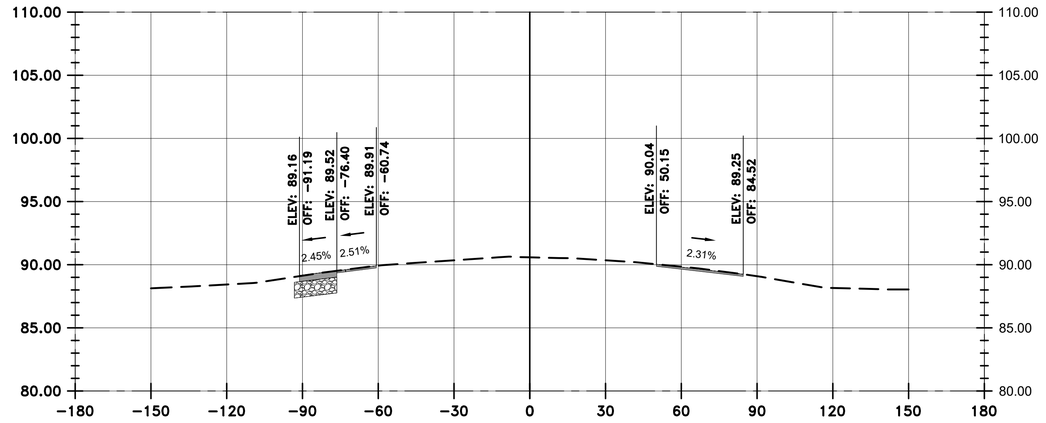

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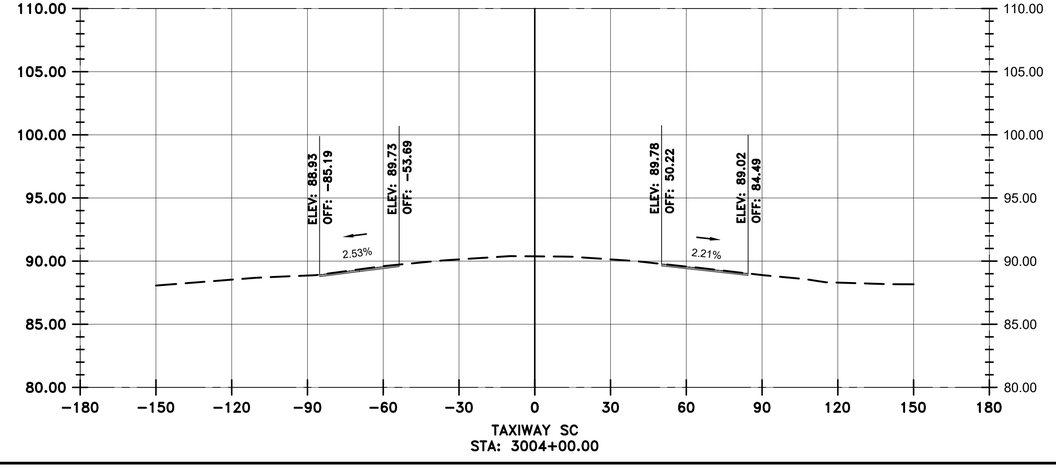

TAXIWAY SC
STA: 3004+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SC CROSS SECTIONS 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X03.02

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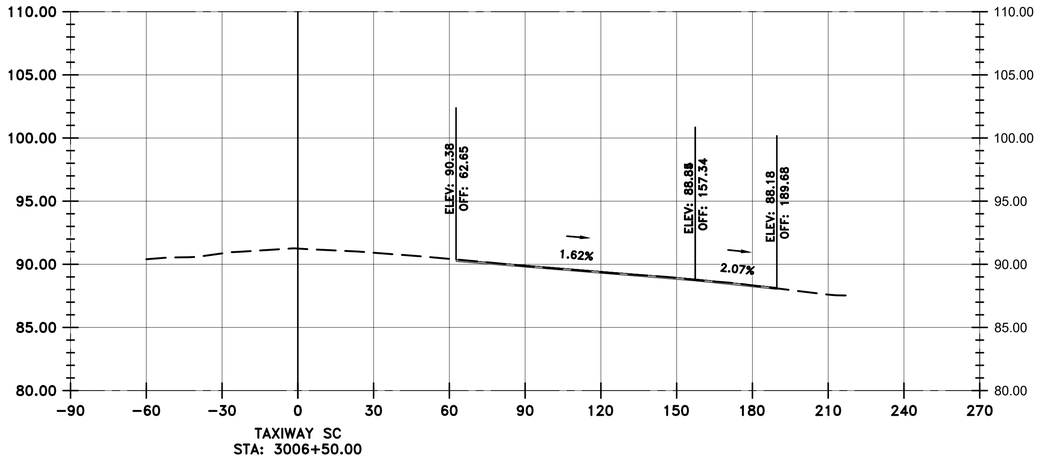

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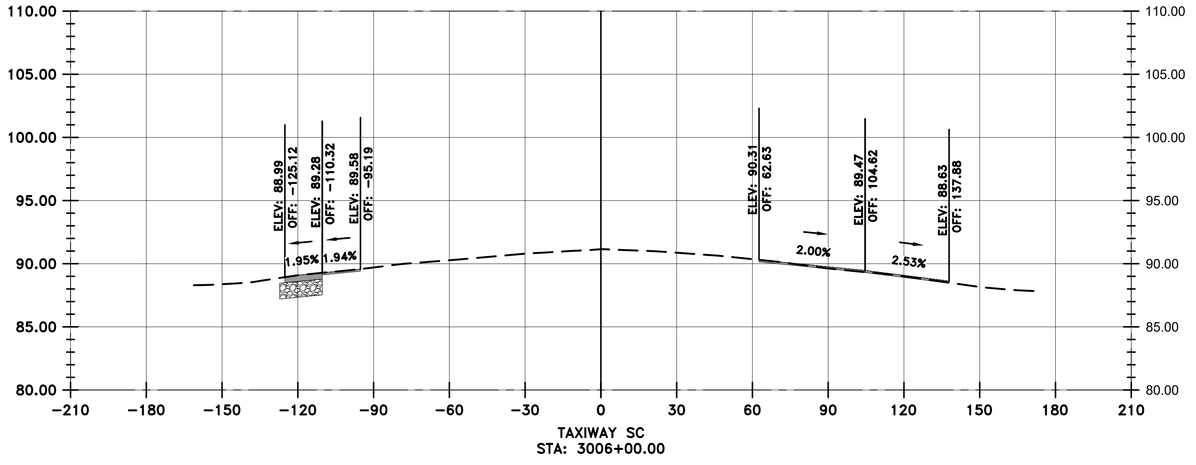

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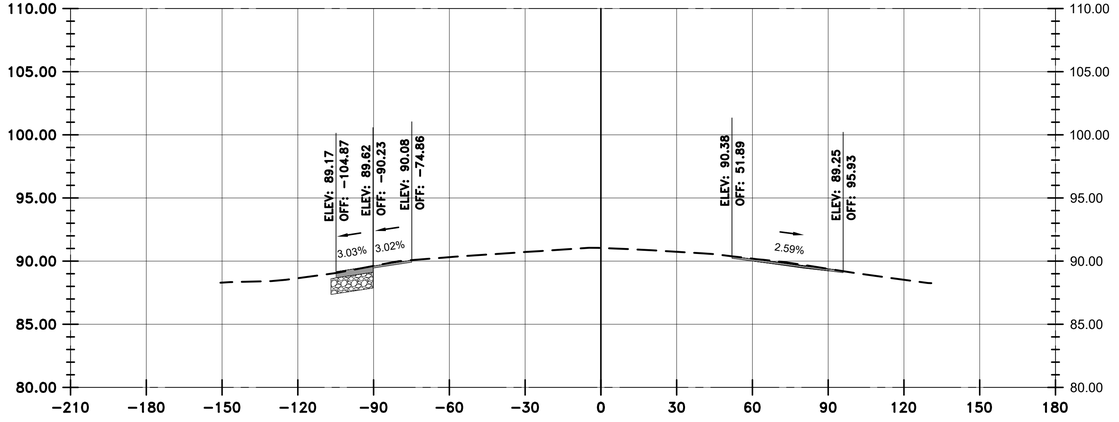

TAXIWAY SC
STA: 3005+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SC CROSS SECTIONS 3

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X03.03

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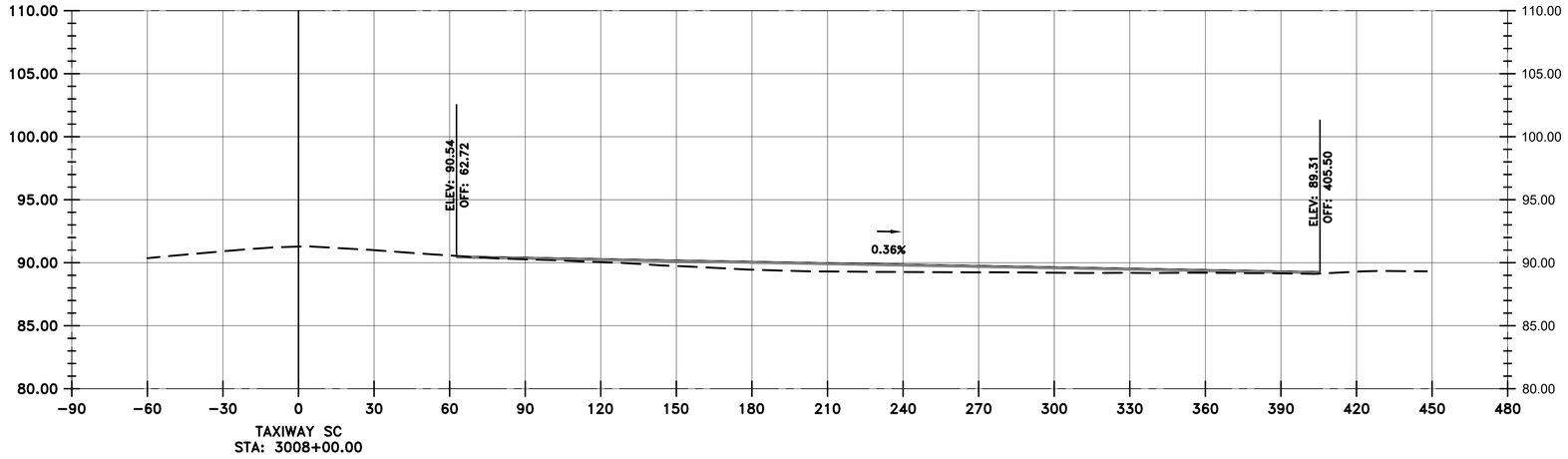

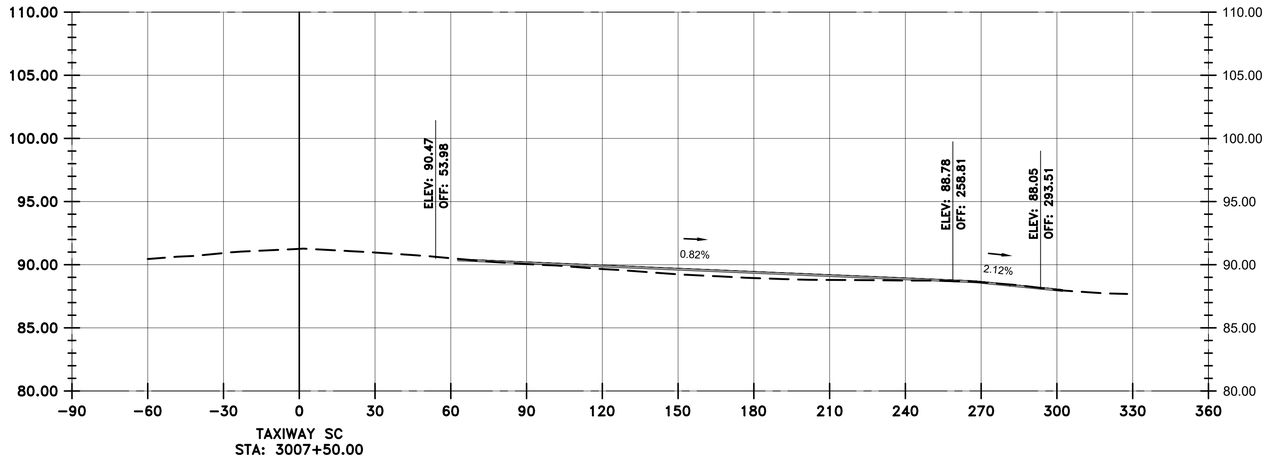

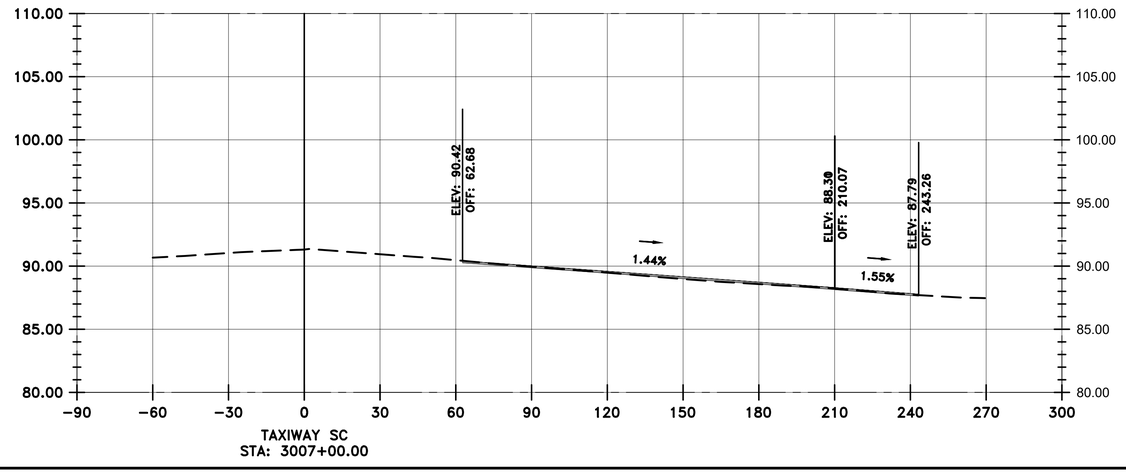

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SC CROSS SECTIONS 4

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X03.04

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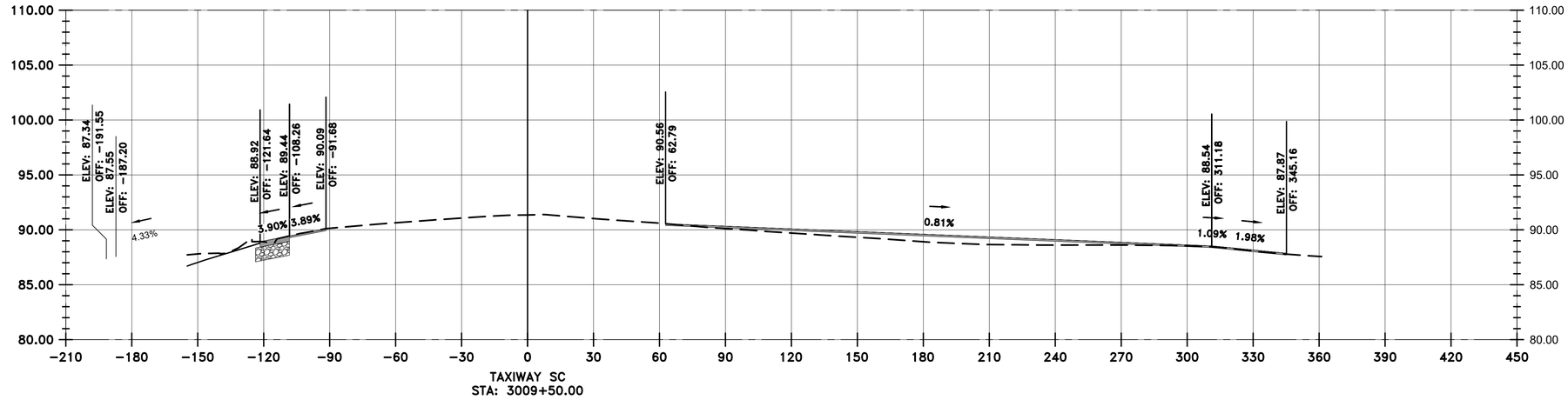

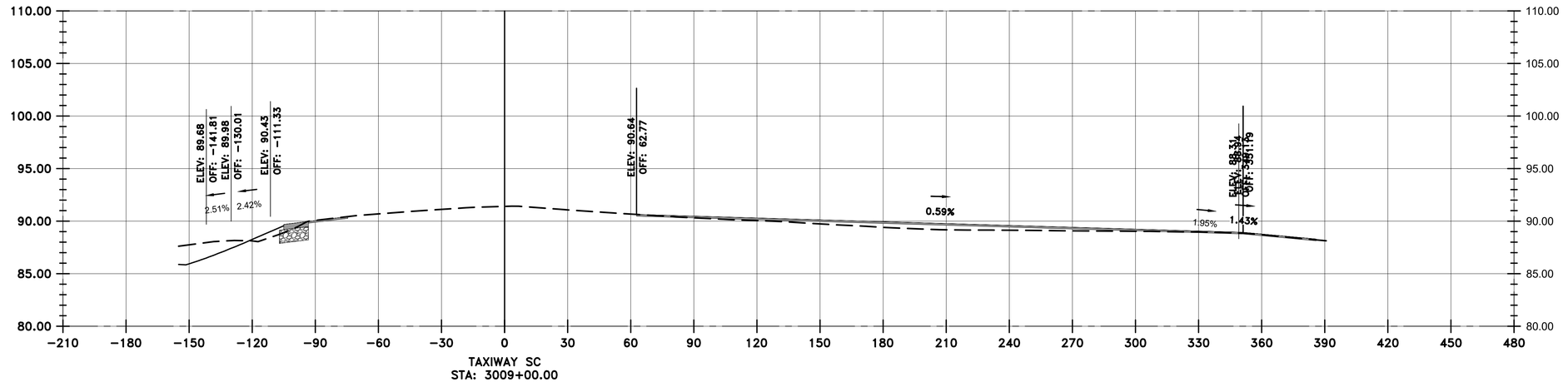

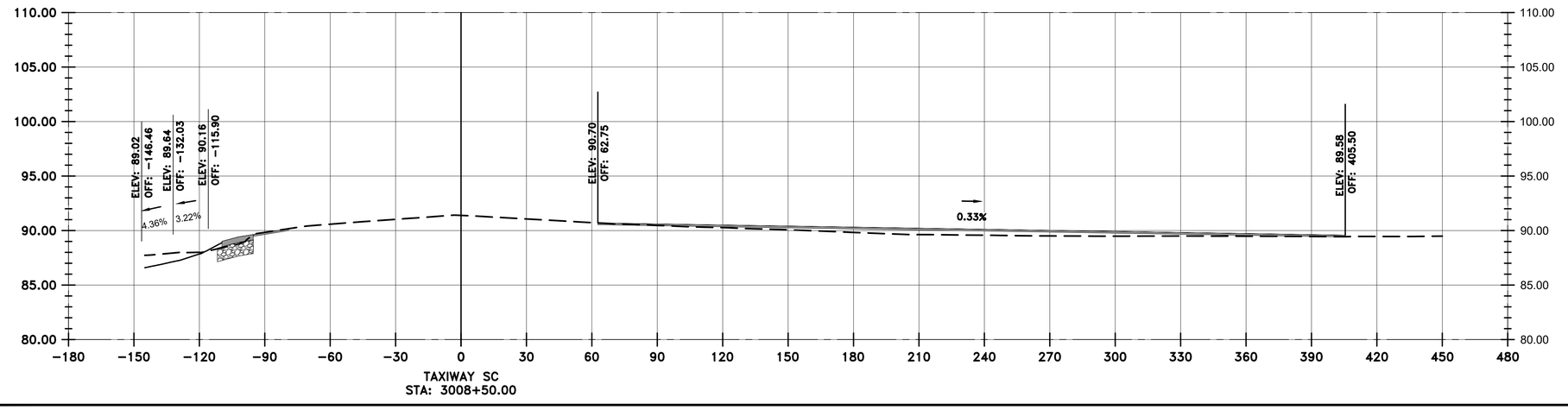

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SC CROSS SECTIONS 5

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X03.05

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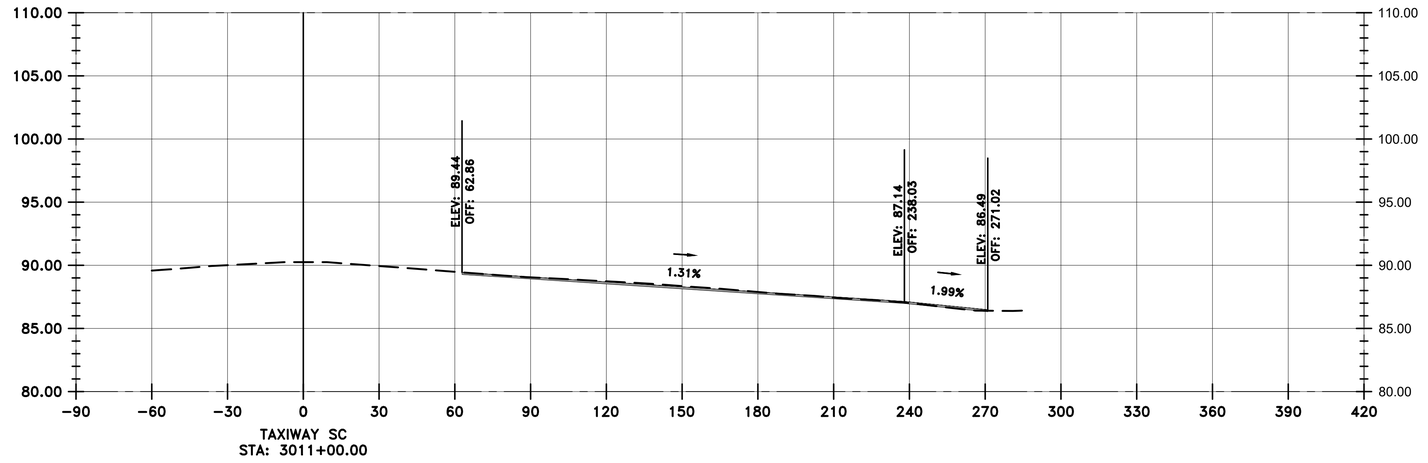

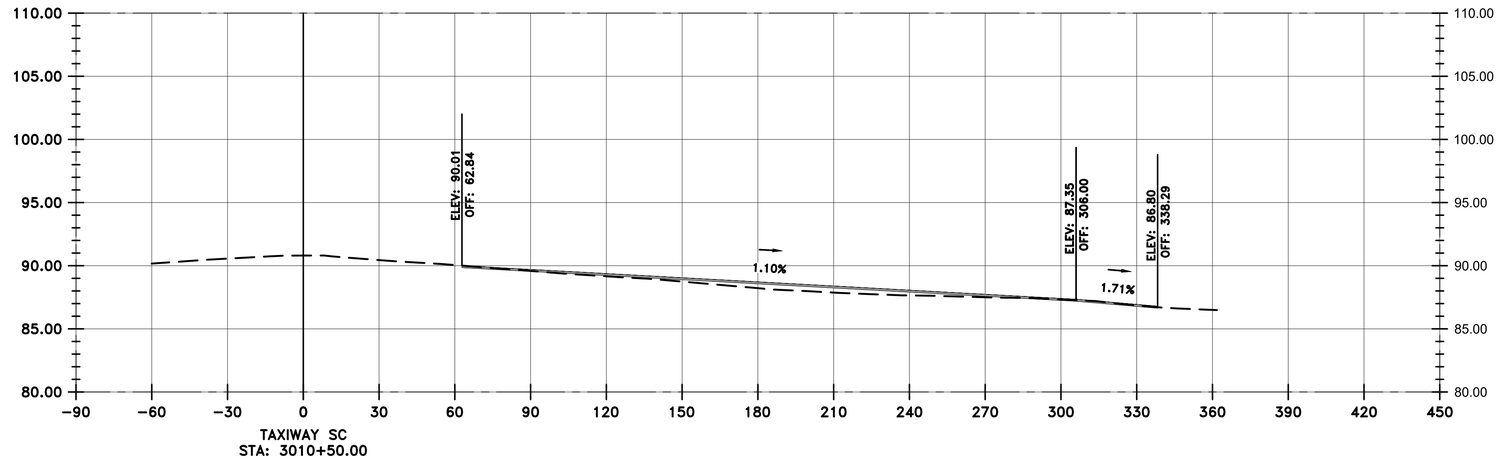

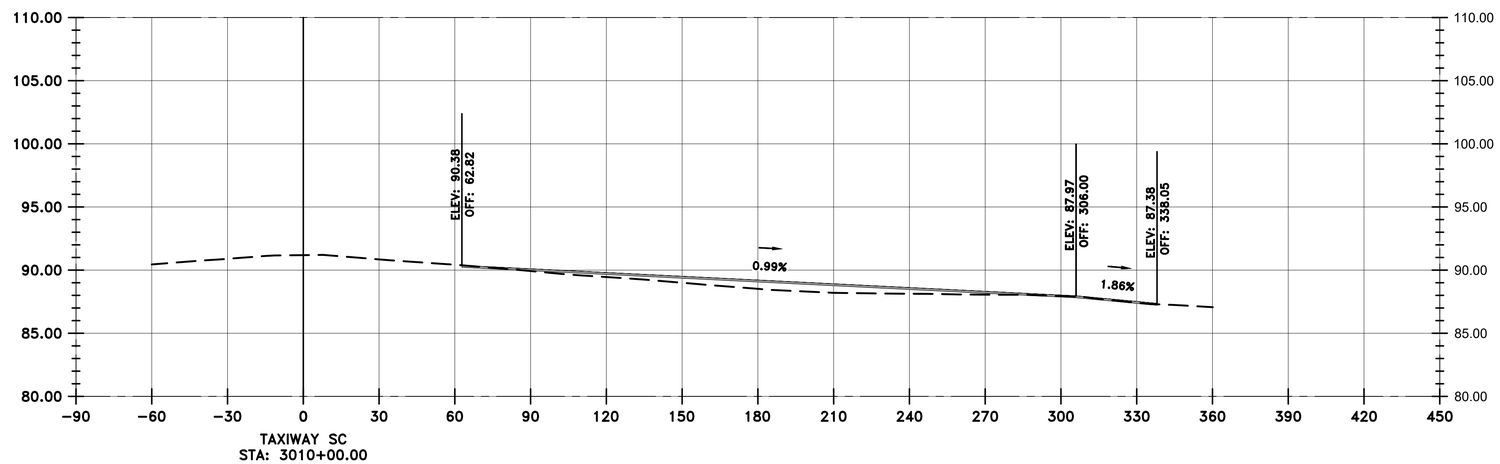

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SC CROSS SECTIONS 6

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X03.06

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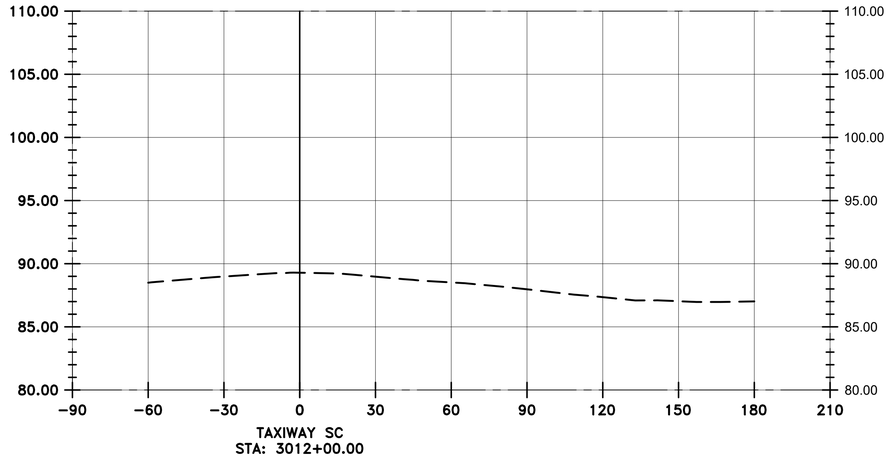
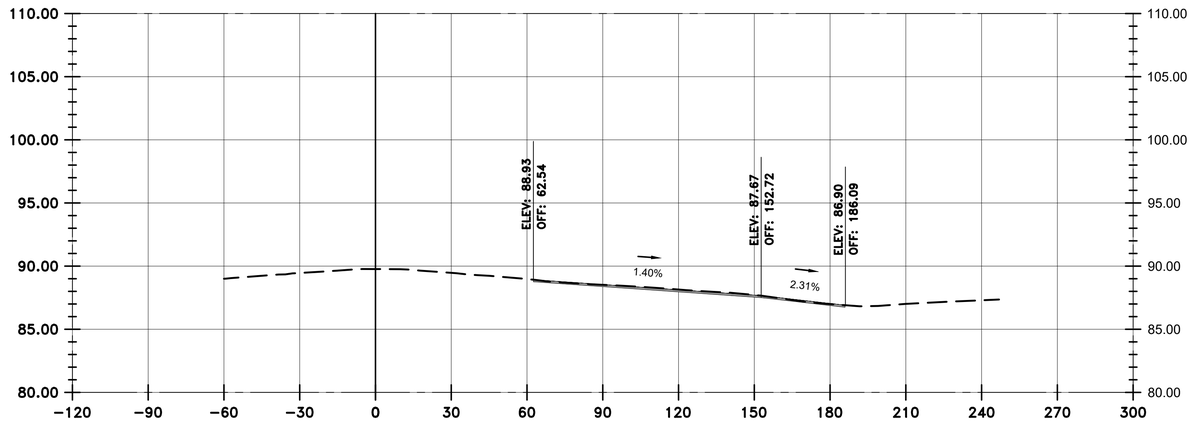
LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE



TAXIWAY SC
STA: 3012+00.00



TAXIWAY SC
STA: 3011+50.00

VERTICAL EXAGGERATION = 5

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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SC CROSS SECTIONS 7

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

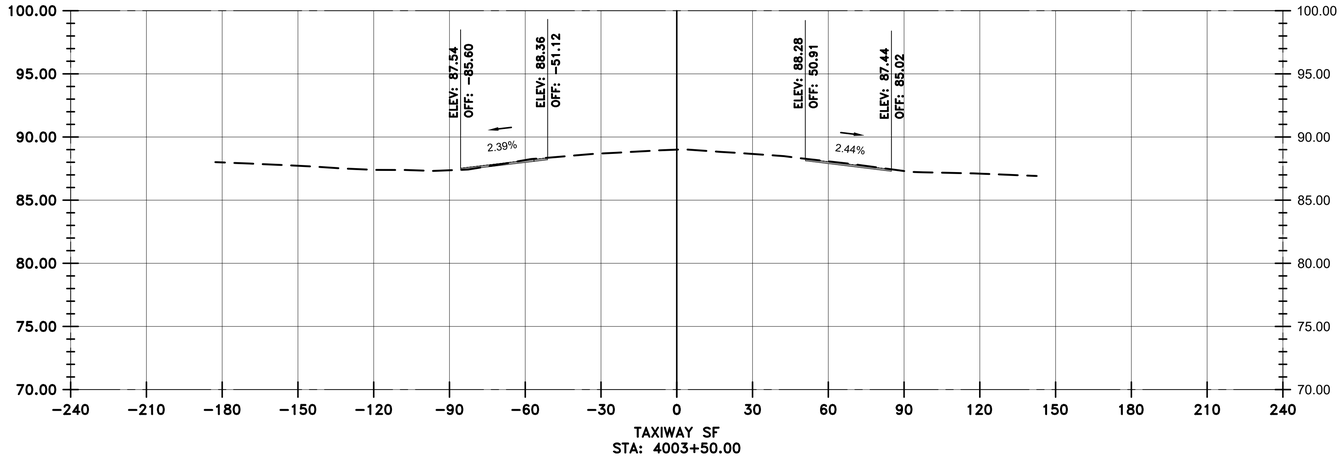
STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X03.07



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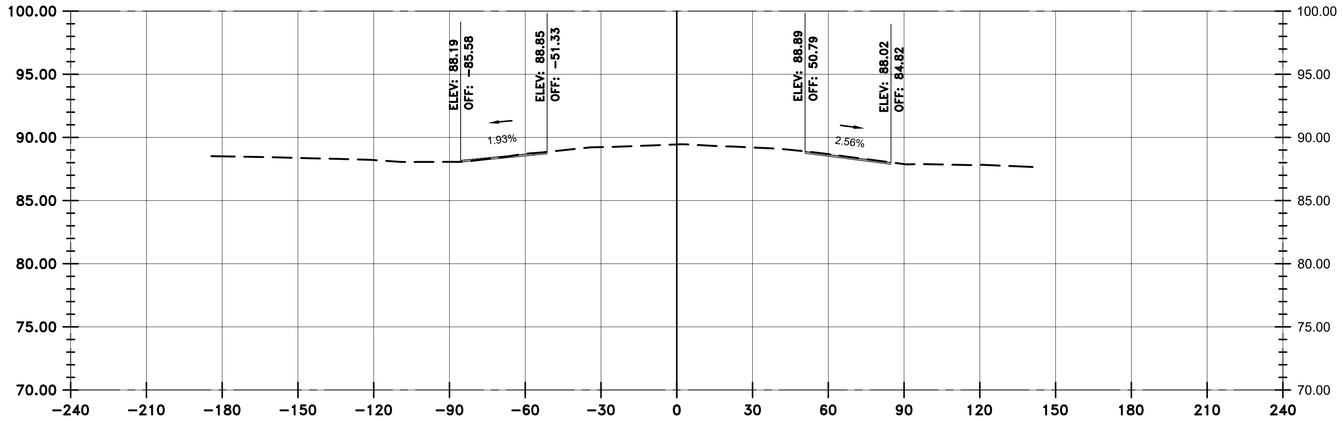

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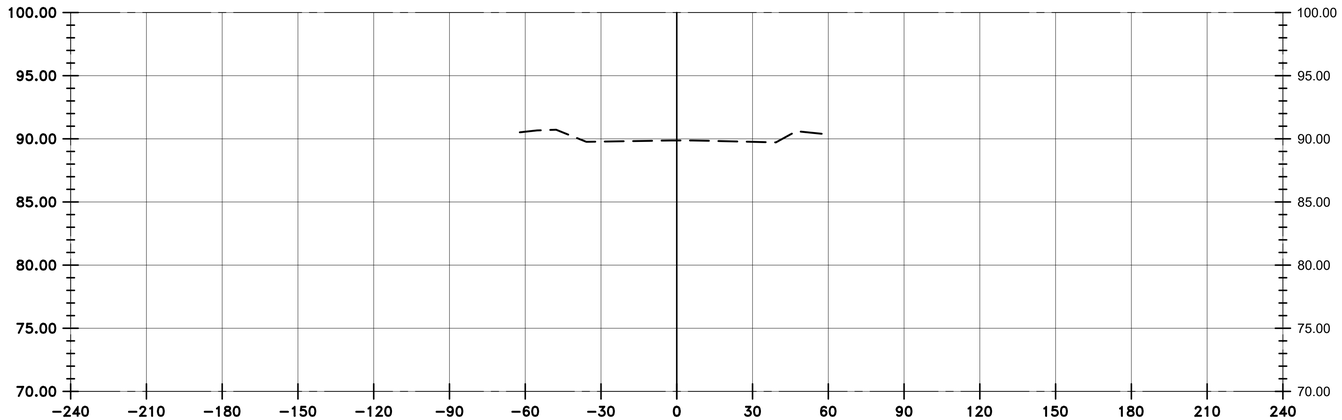

TAXIWAY SF
STA: 4002+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SF CROSS SECTIONS 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
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APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X04.01

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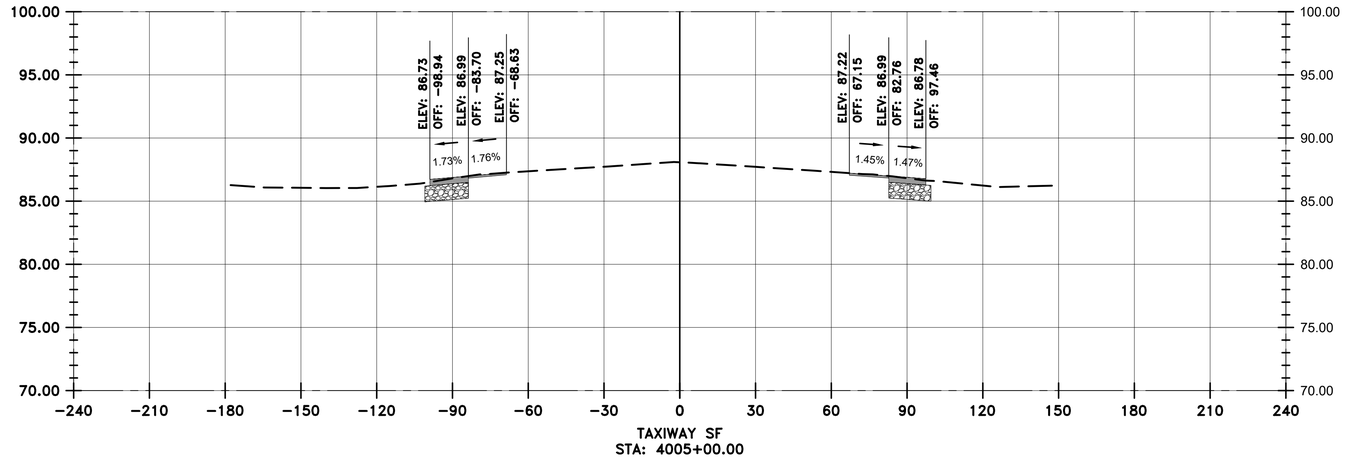

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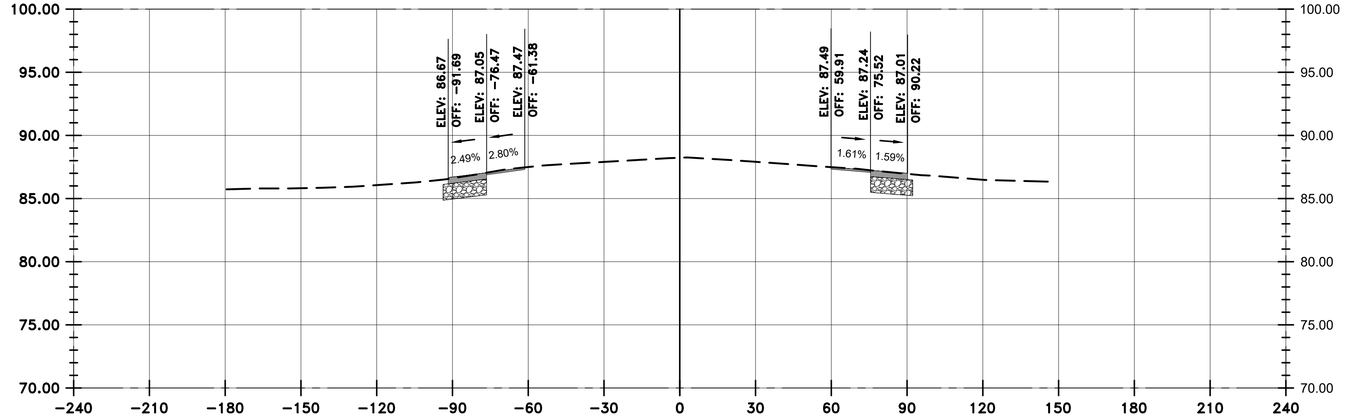

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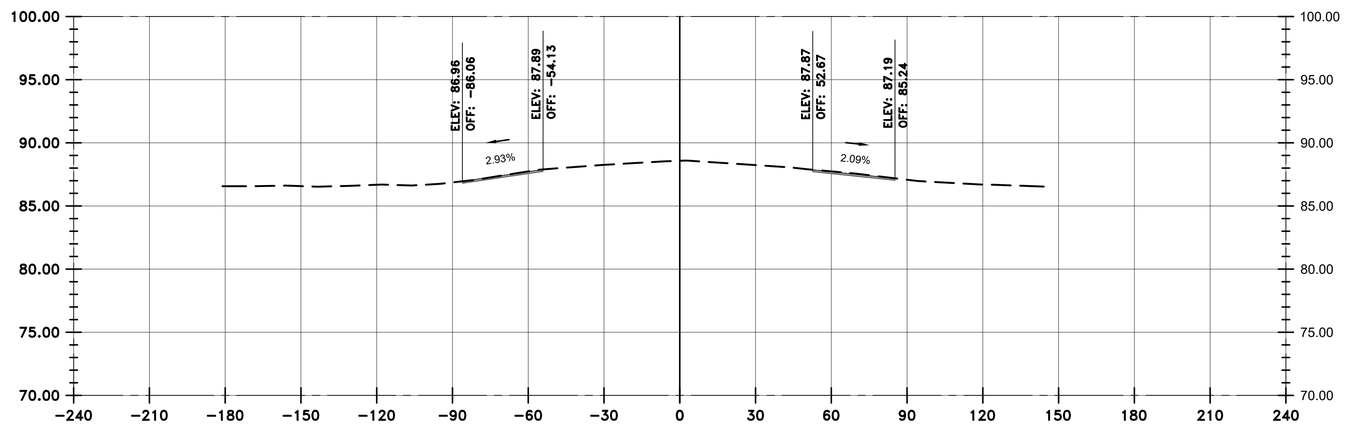

TAXIWAY SF
STA: 4004+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SF CROSS SECTIONS 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
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LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X04.02

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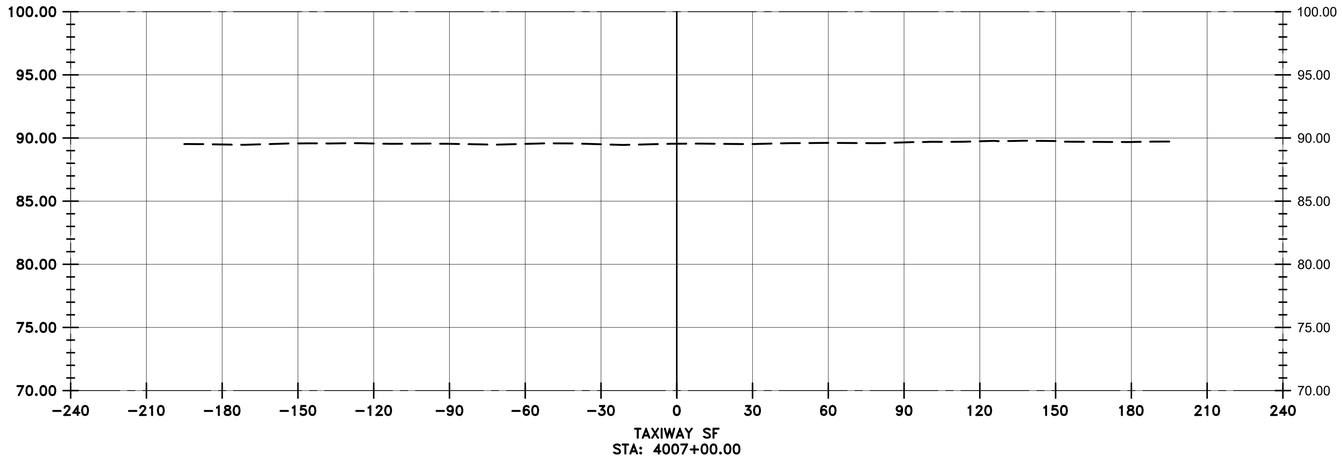

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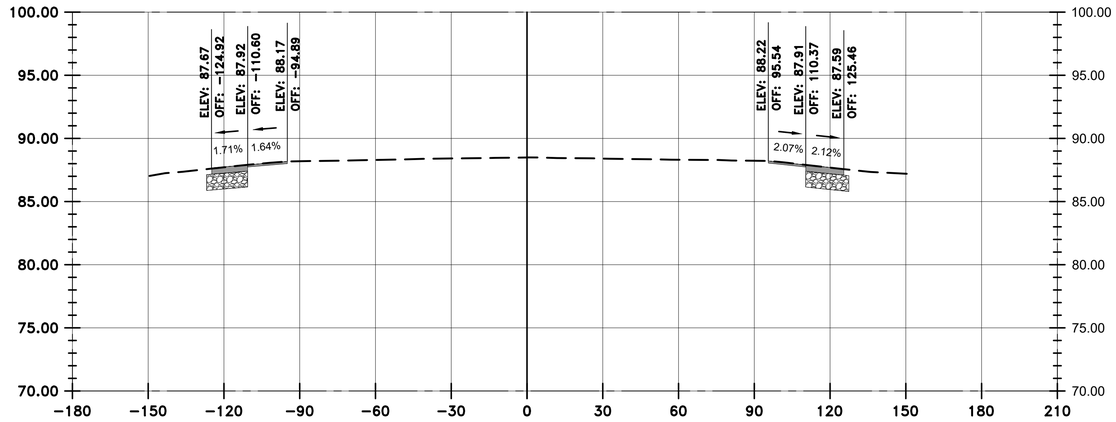

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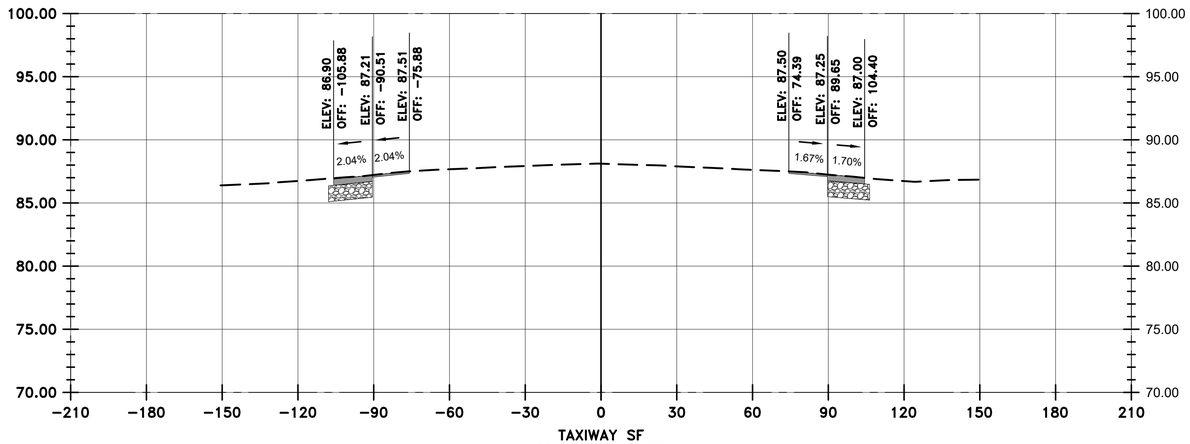

TAXIWAY SF
STA: 4005+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SF CROSS SECTIONS 3

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X04.03

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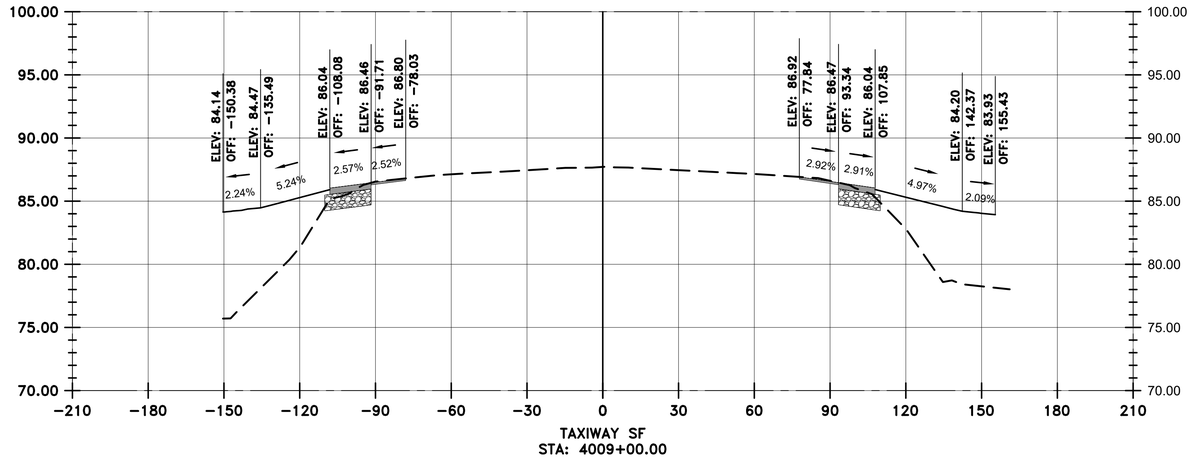

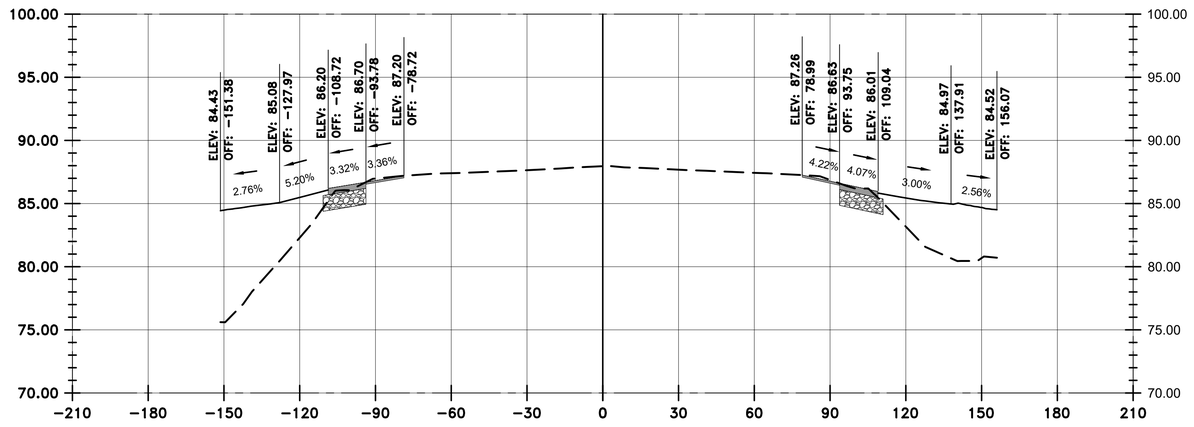

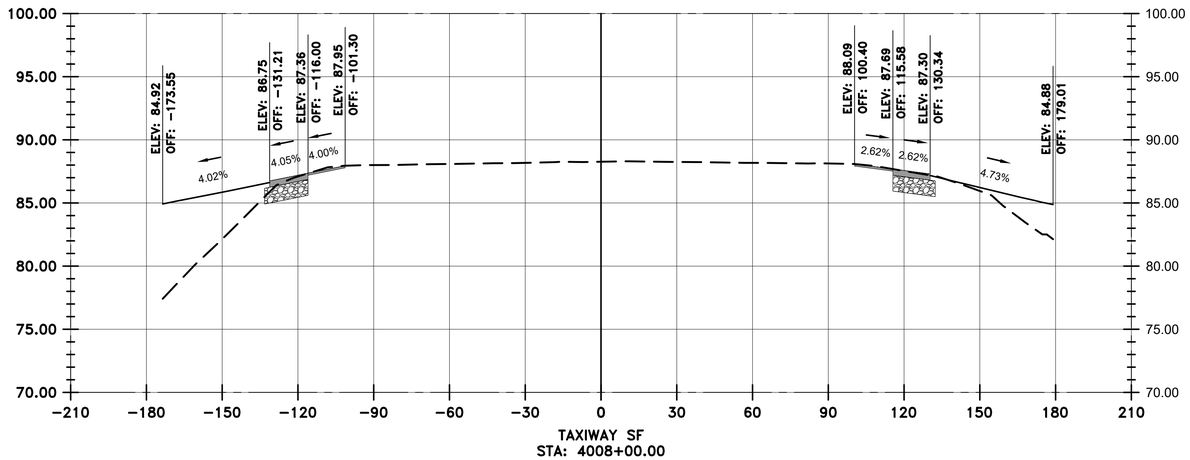

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SF CROSS SECTIONS 4

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X04.04

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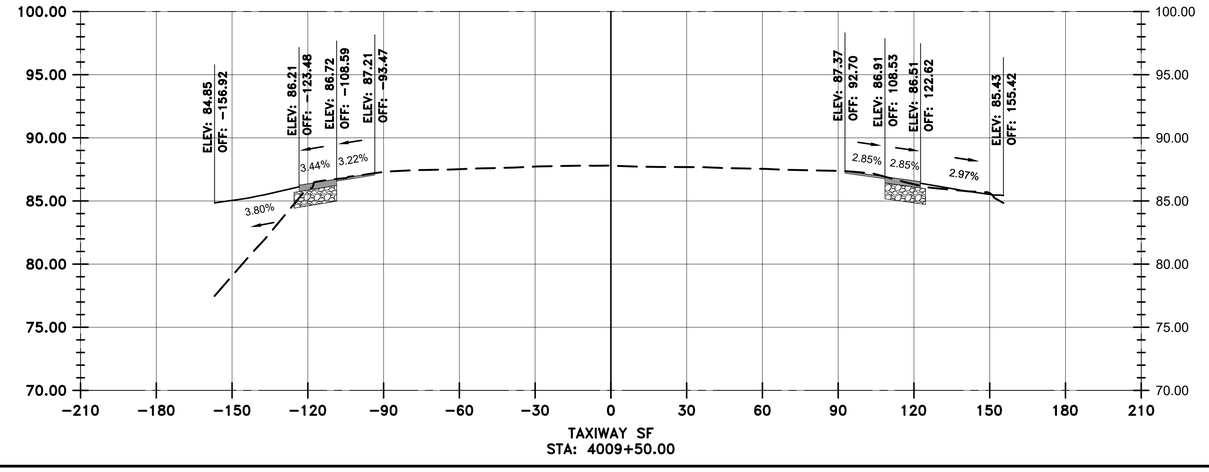
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE



TAXIWAY SF
STA: 4009+50.00

VERTICAL EXAGGERATION = 5

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HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SF CROSS SECTIONS 5

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

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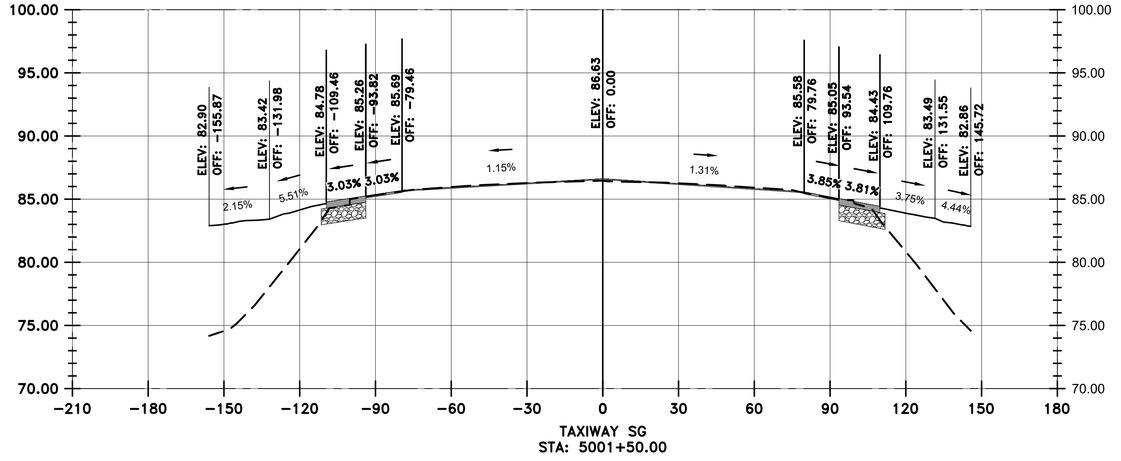
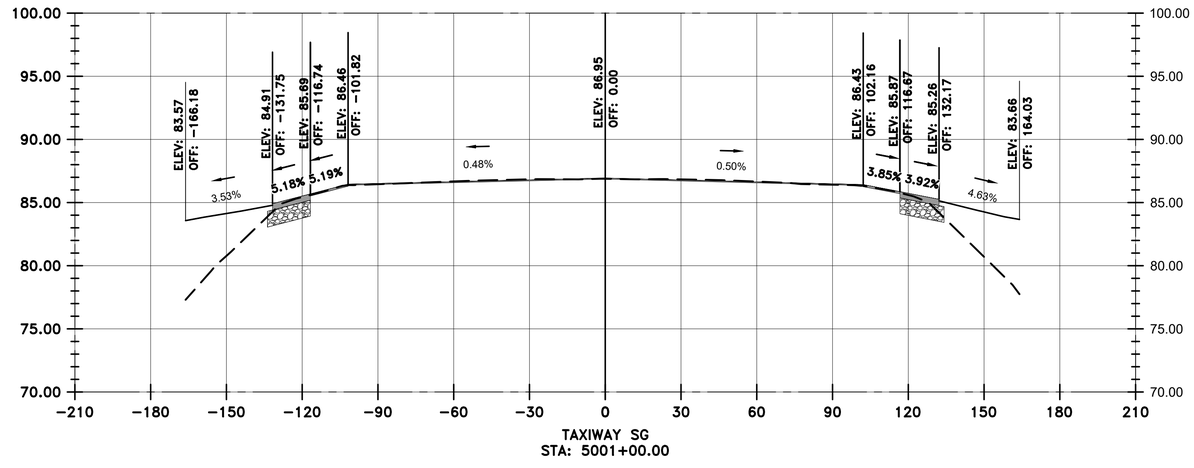
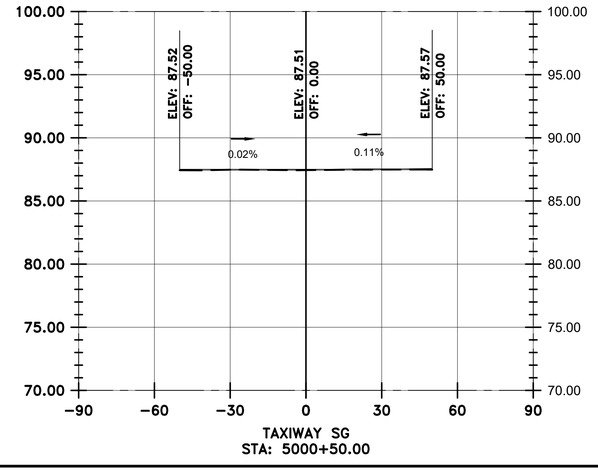
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X04.05







LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS
GARVER
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SG CROSS SECTIONS 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X05.01

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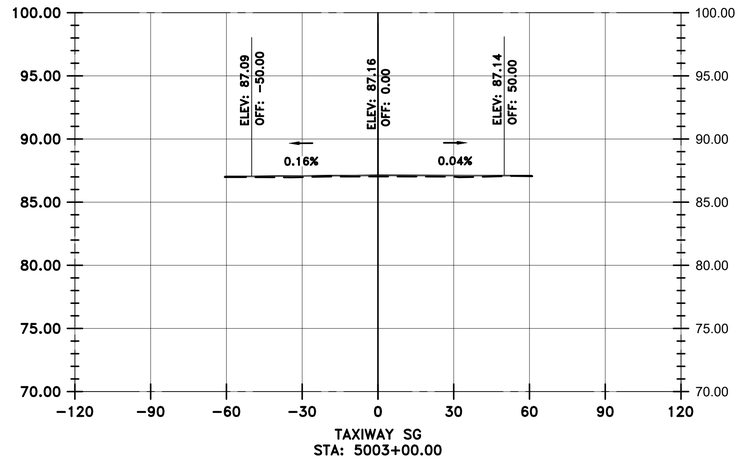

TAXIWAY SG
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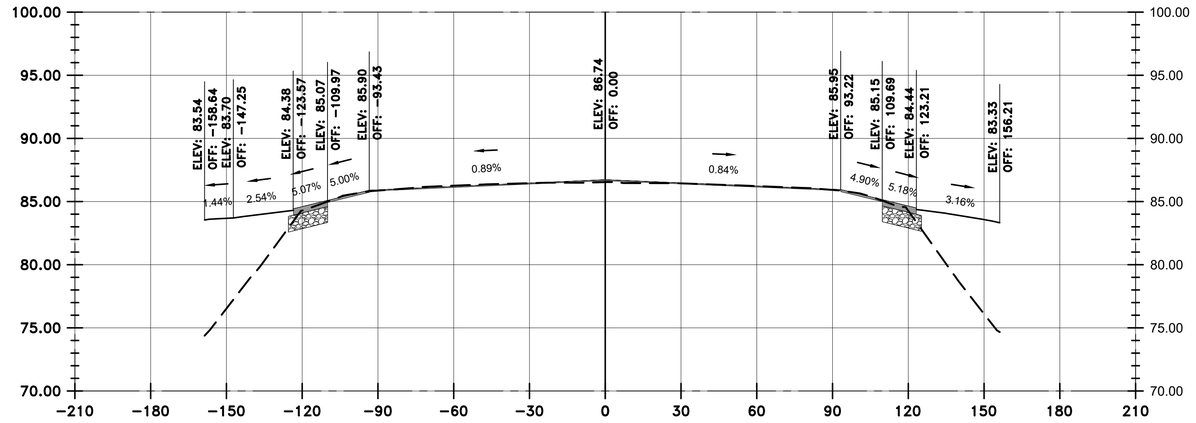

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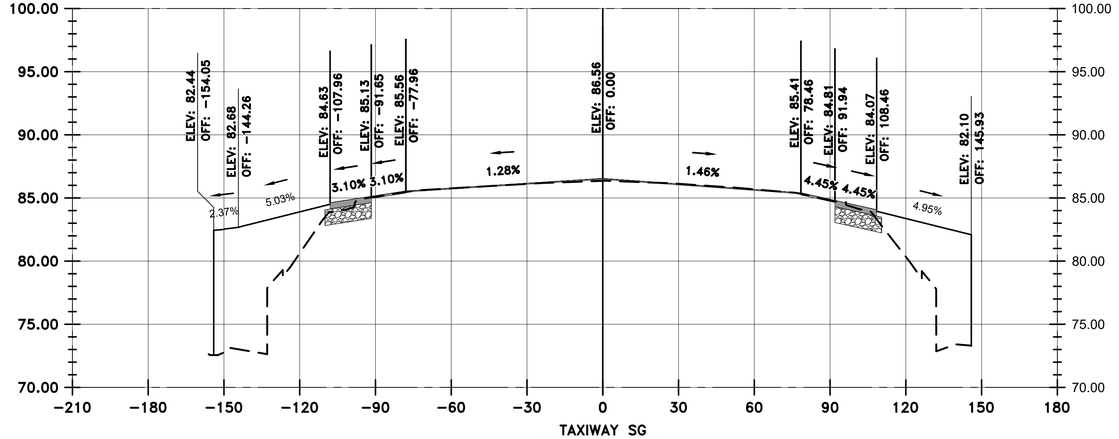

TAXIWAY SG
STA: 5002+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SG CROSS SECTIONS 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X05.02

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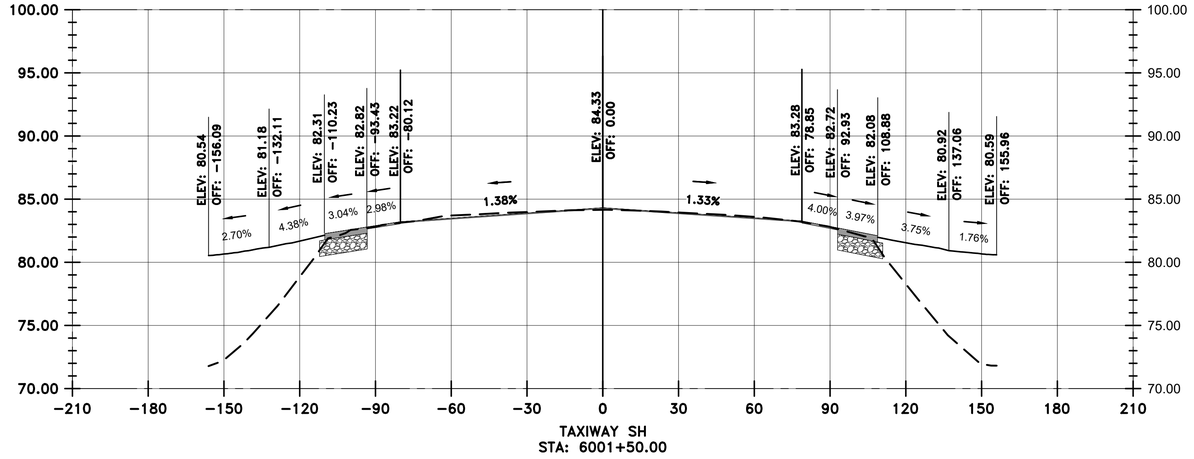

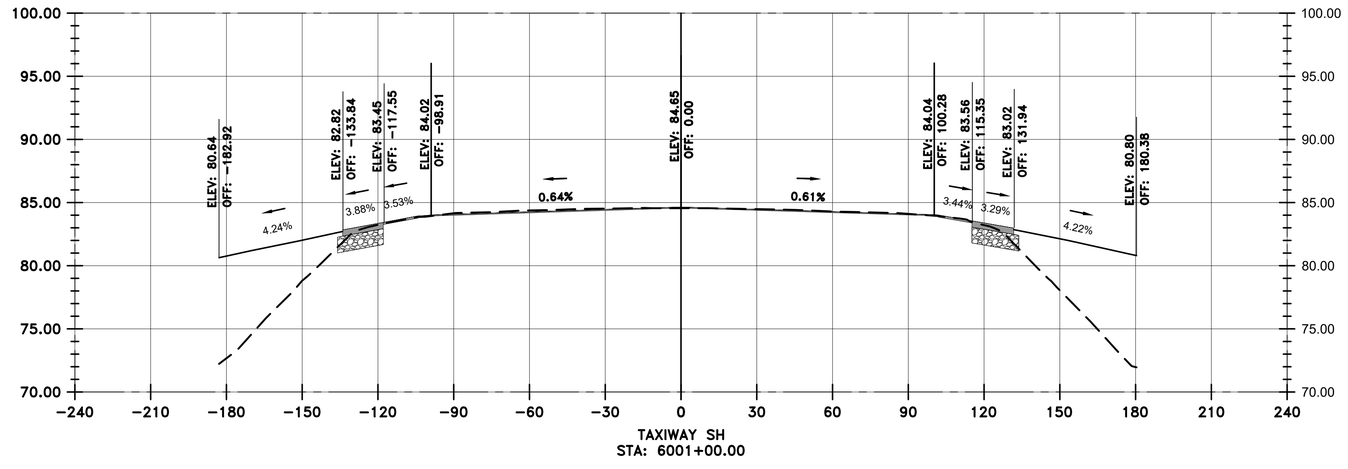

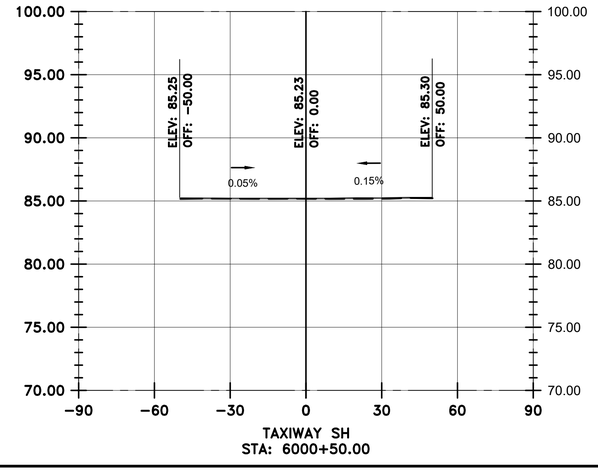

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SH CROSS SECTIONS 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
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LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X06.01

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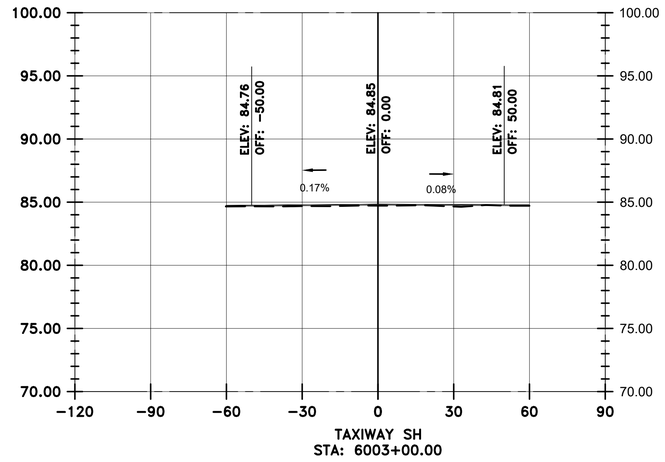

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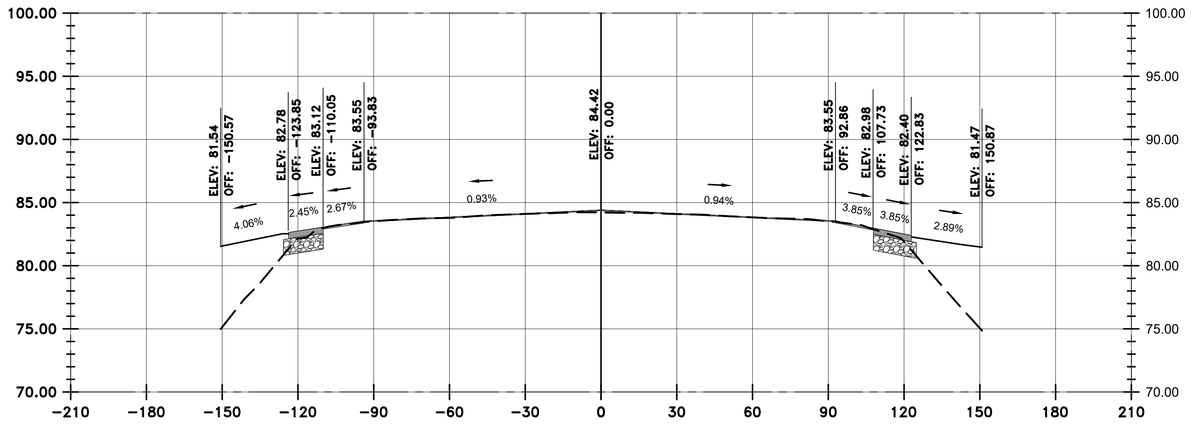
STA: 6003+00.00



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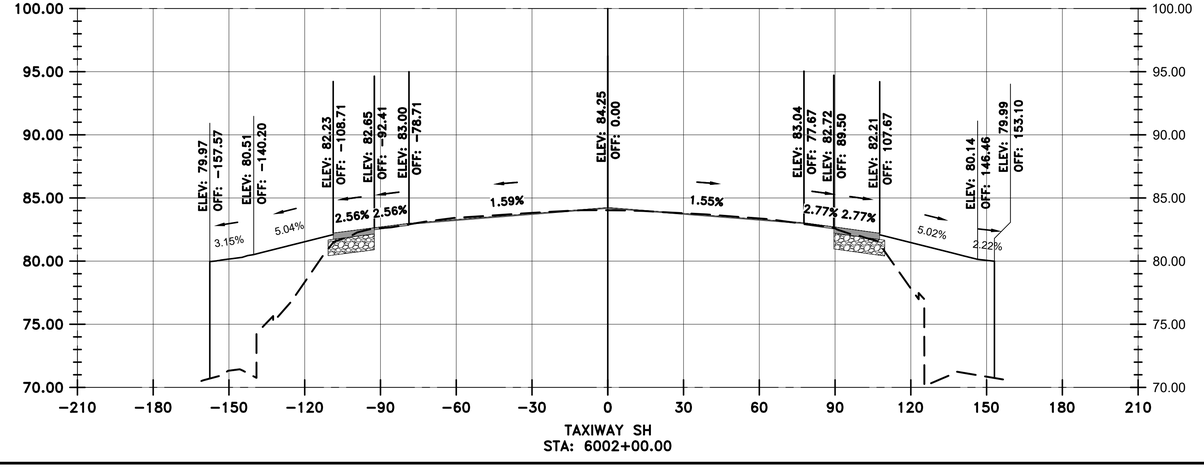
STA: 6002+50.00



TAXIWAY SH
STA: 6002+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SH CROSS SECTIONS 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X06.02

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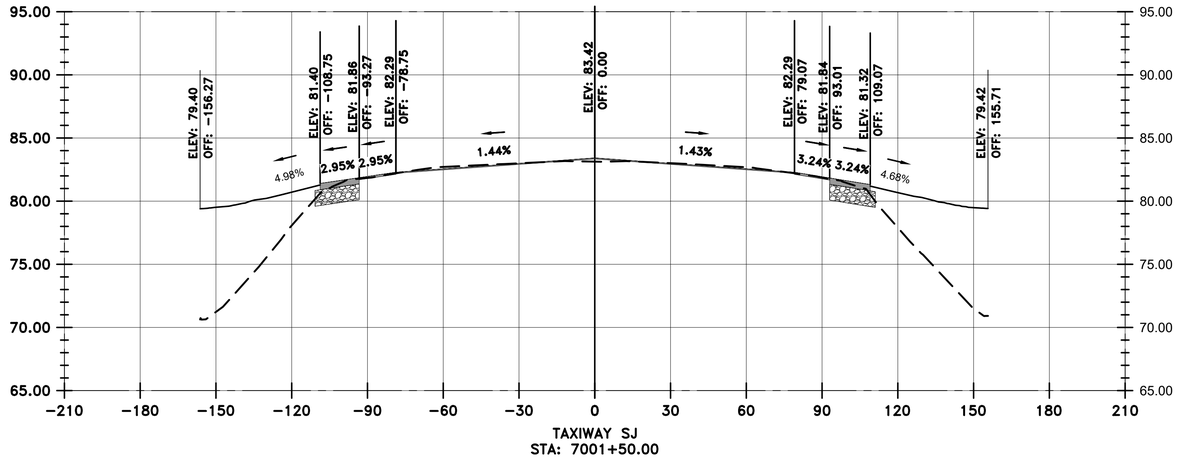

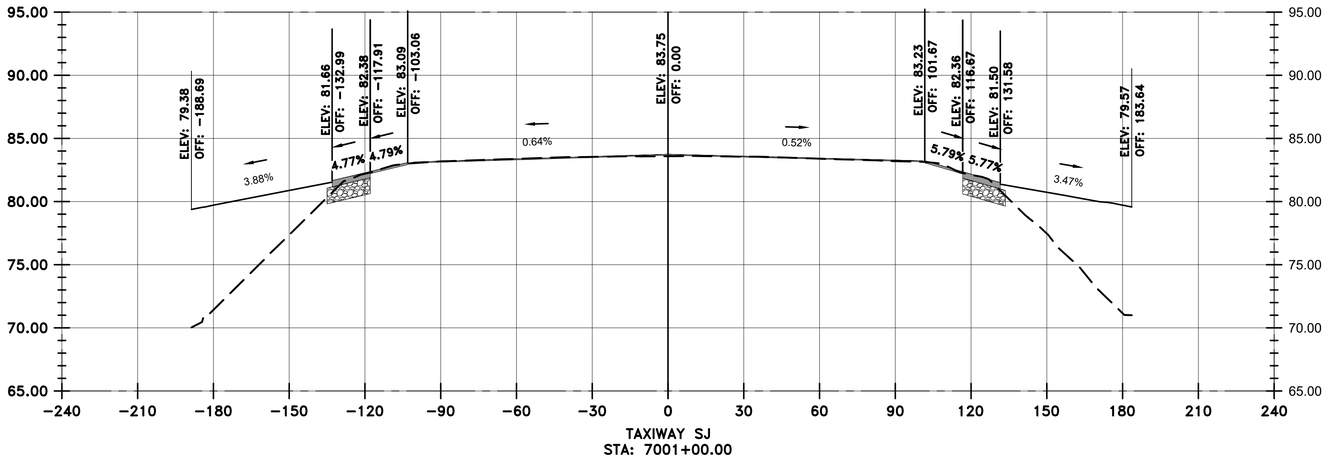

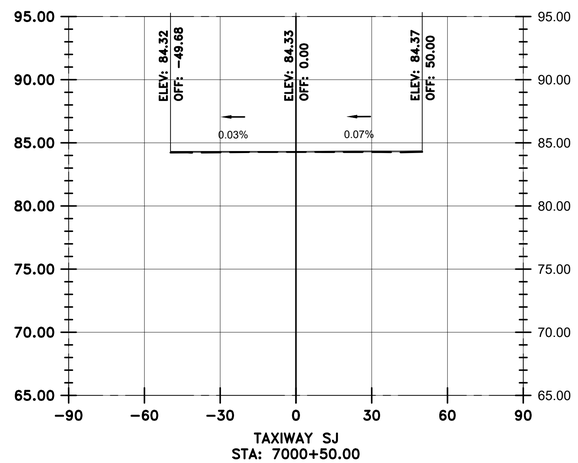

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SJ CROSS SECTIONS 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X07.01

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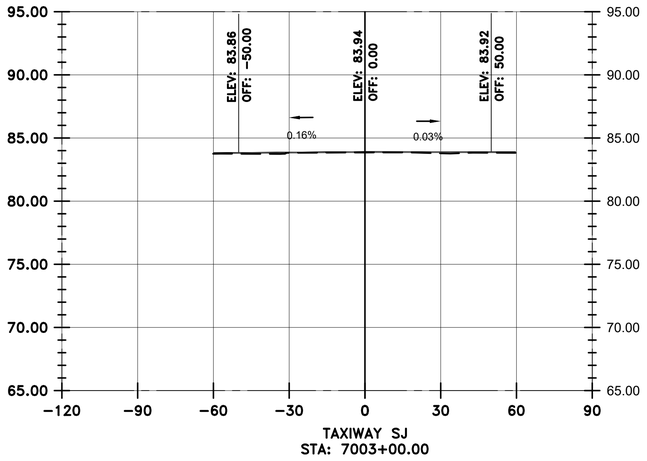

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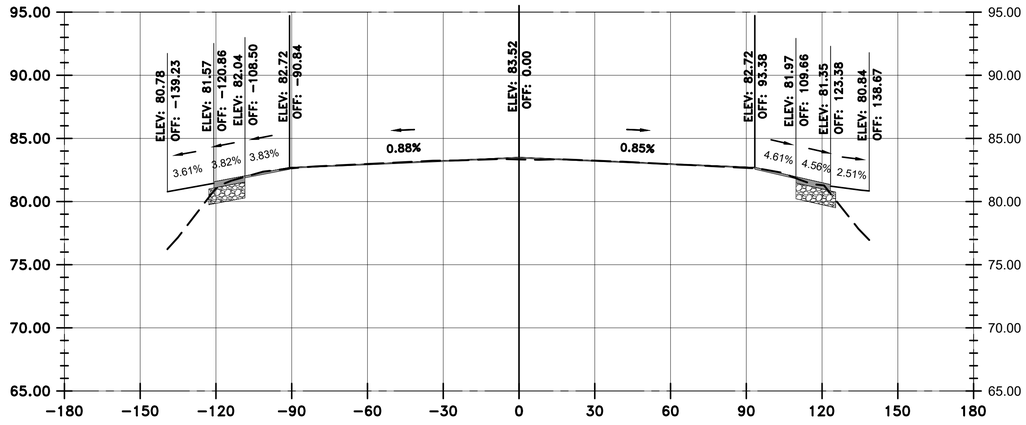
STA: 7003+00.00



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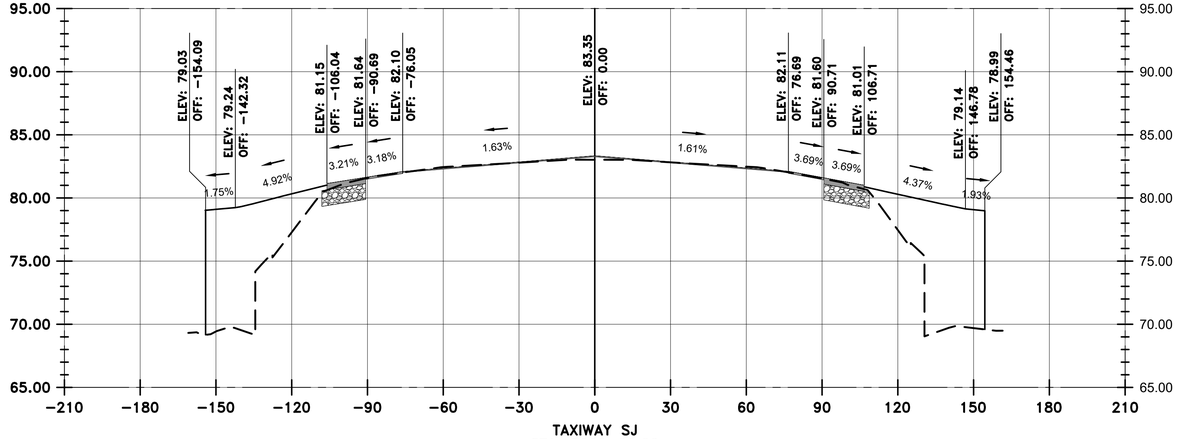

TAXIWAY SJ
STA: 7002+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
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Houston, TX 77079
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SJ CROSS SECTIONS 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X07.02

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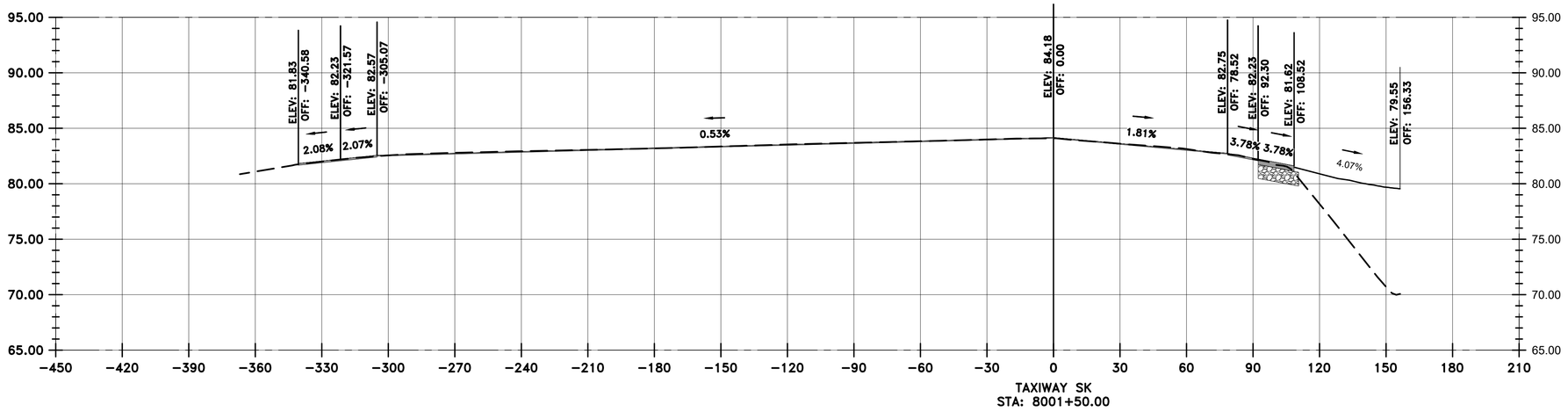

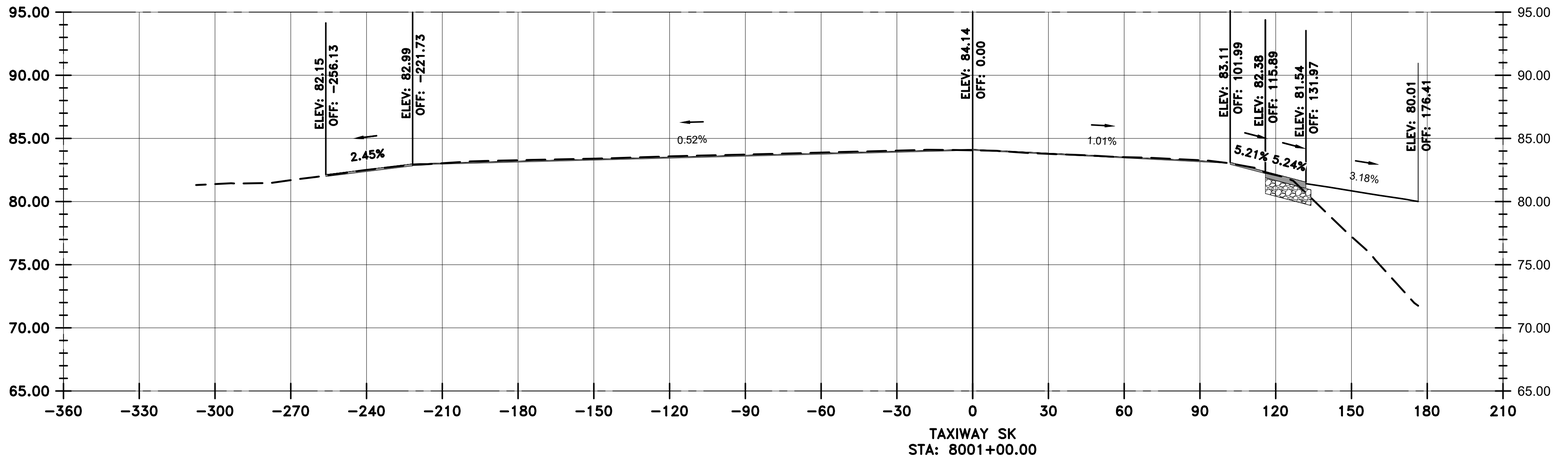

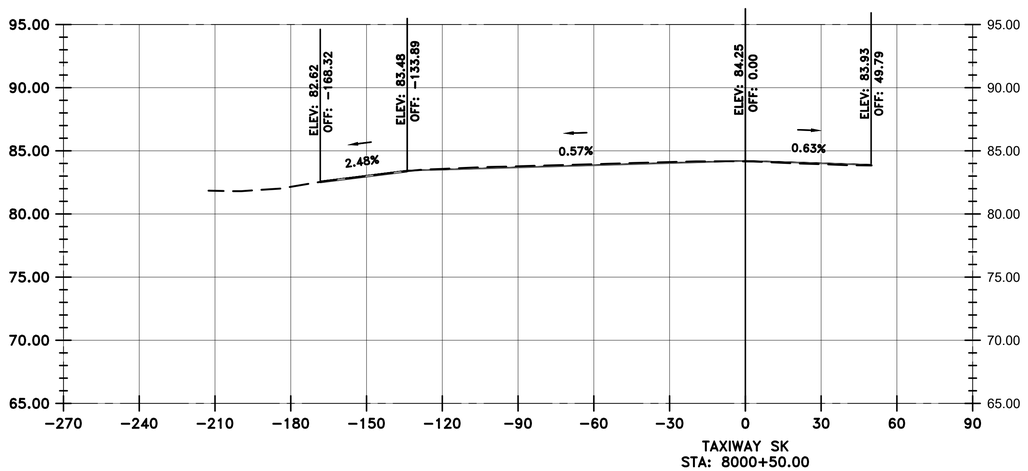

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
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(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SK CROSS SECTIONS 1

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X08.01

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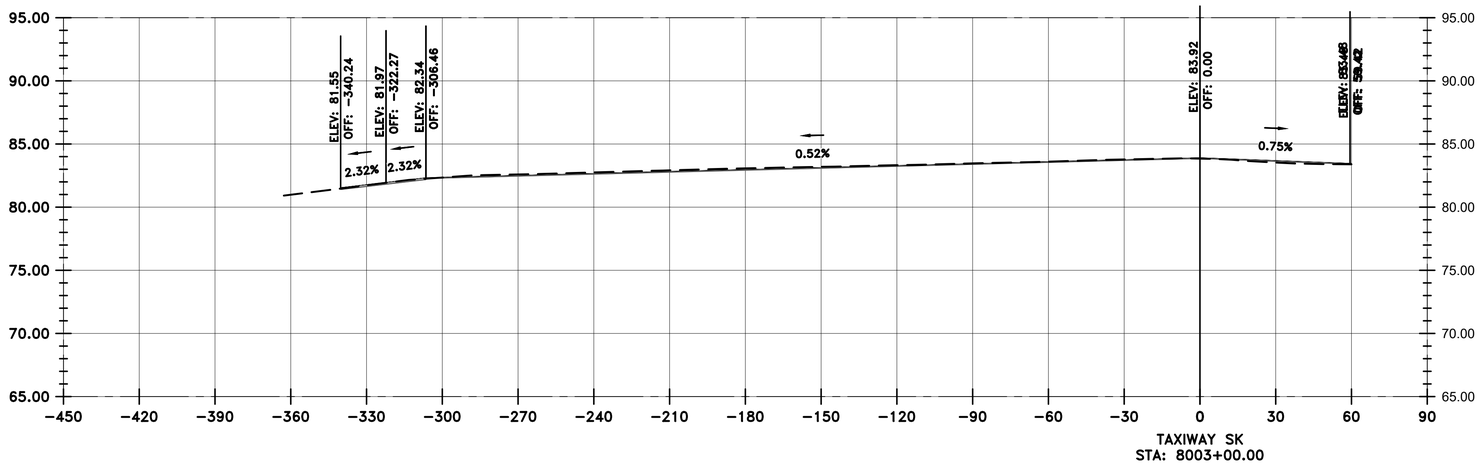

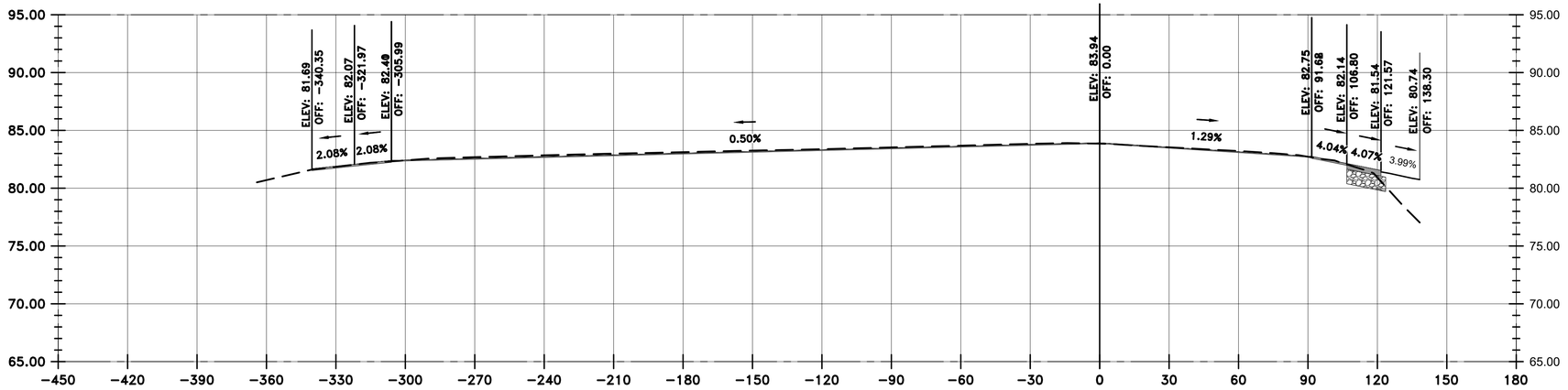

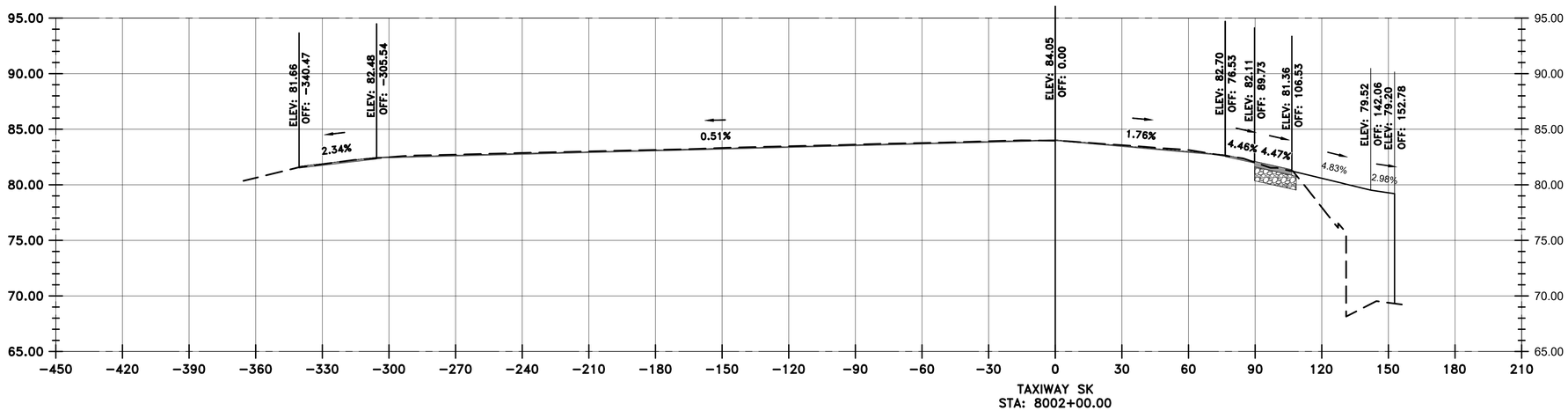

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS
GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SK CROSS SECTIONS 2

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X08.02

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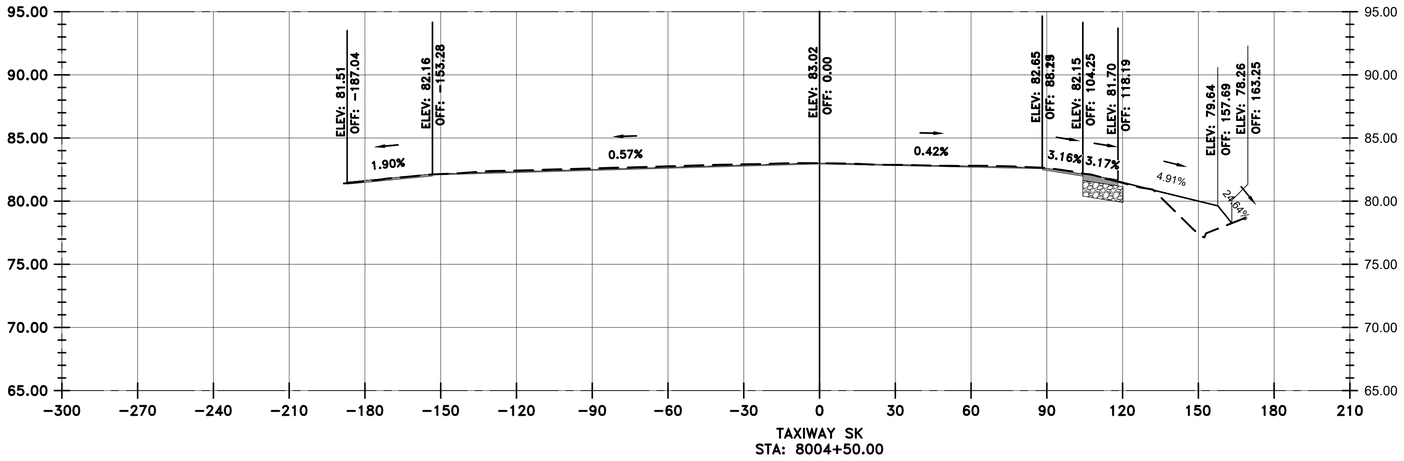

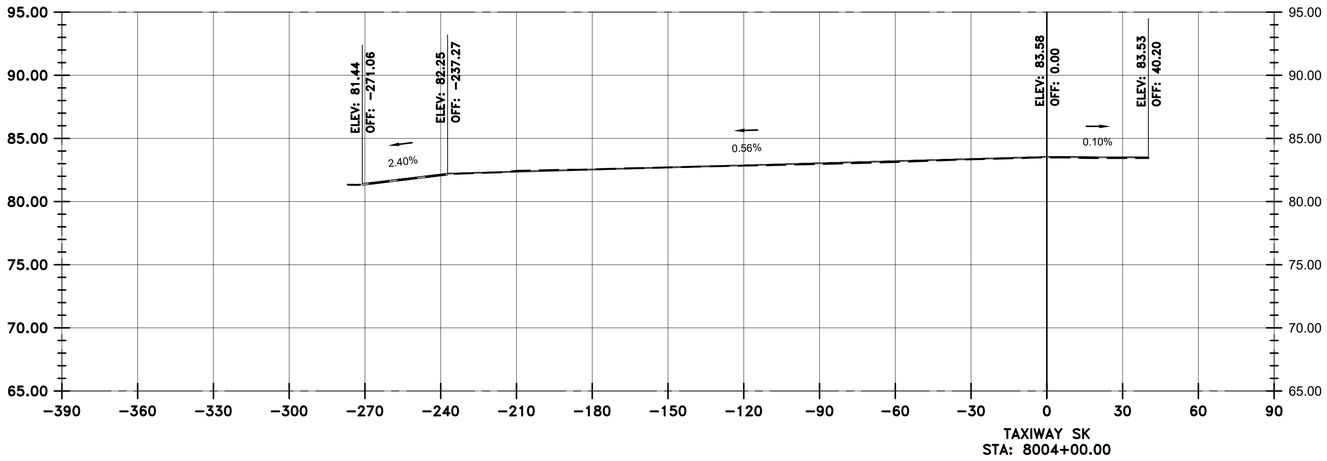

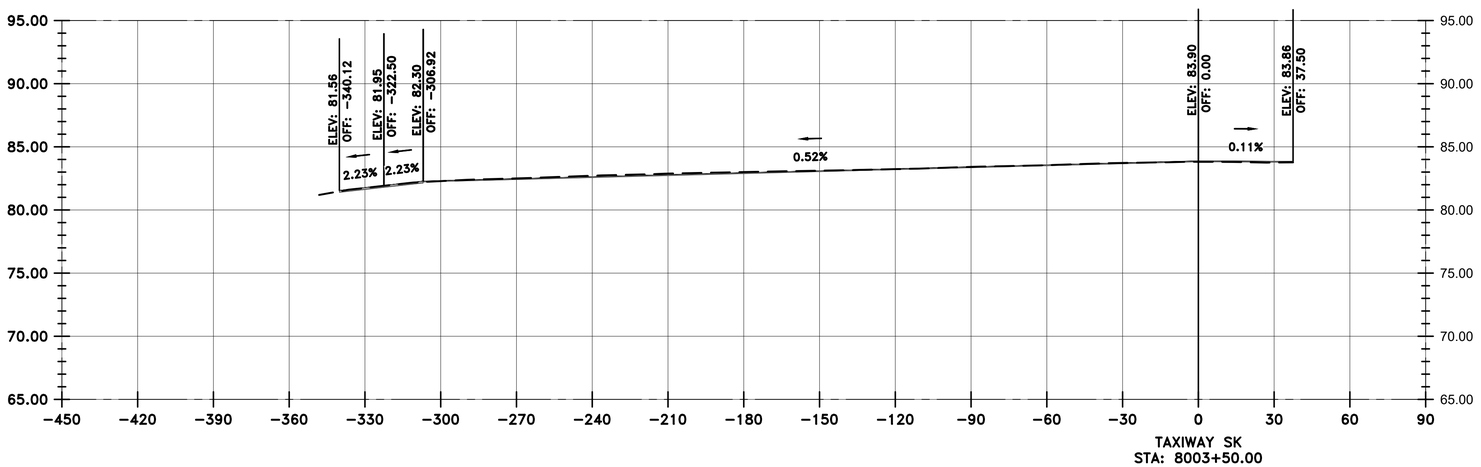

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SK CROSS SECTIONS 3

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X08.03

HAS FILE: c:\Users\dagnato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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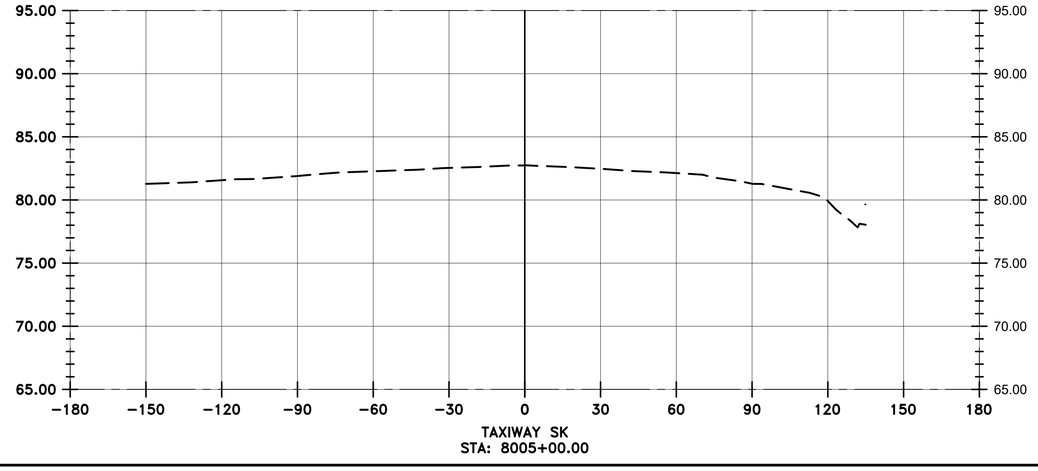
LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED AGGREGATE BASE



VERTICAL EXAGGERATION = 5

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SK CROSS SECTIONS 4

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	########
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X08.04

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
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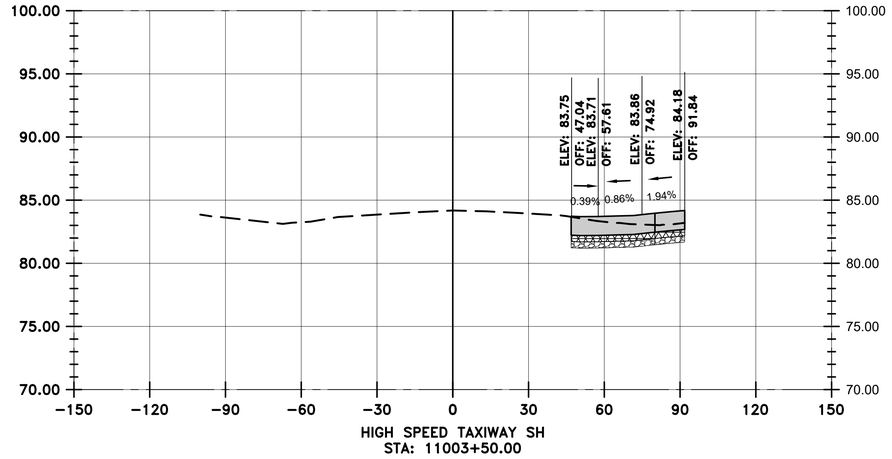
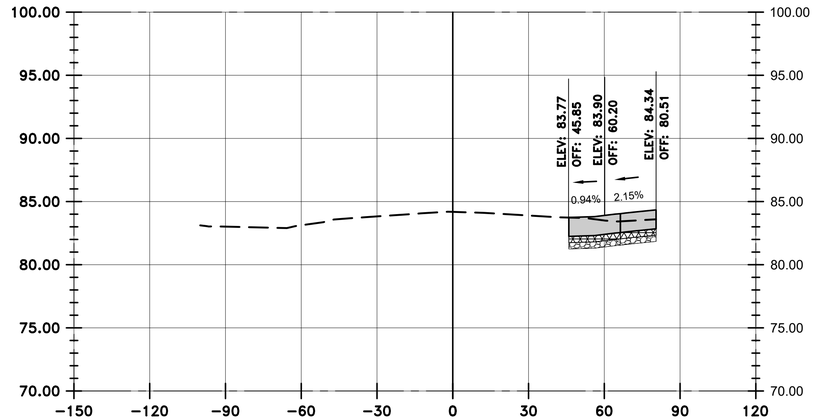
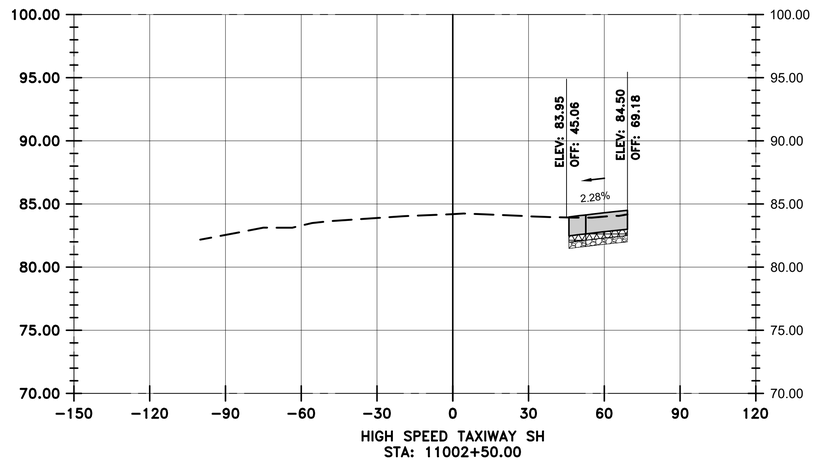


HIGH SPEED TAXIWAY SH
STA: 11003+50.00



HIGH SPEED TAXIWAY SH
STA: 11003+00.00



HIGH SPEED TAXIWAY SH
STA: 11002+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SH-HS CROSS SECTIONS 1
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

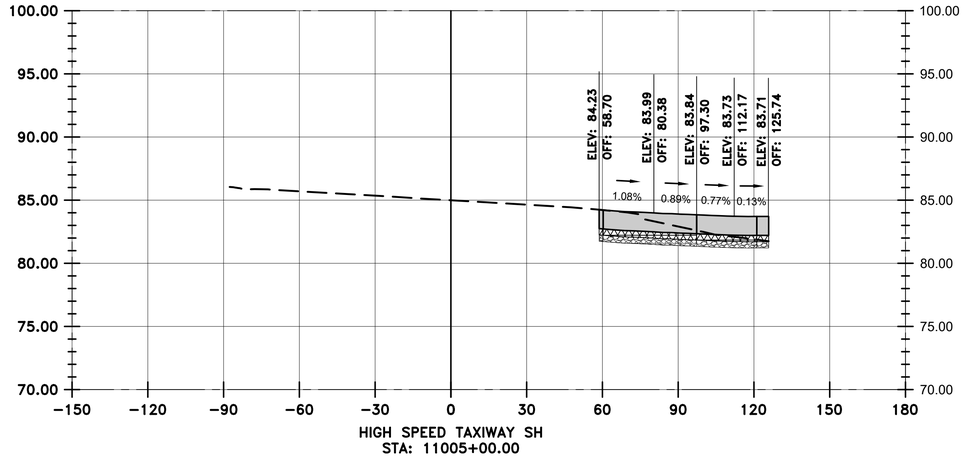
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

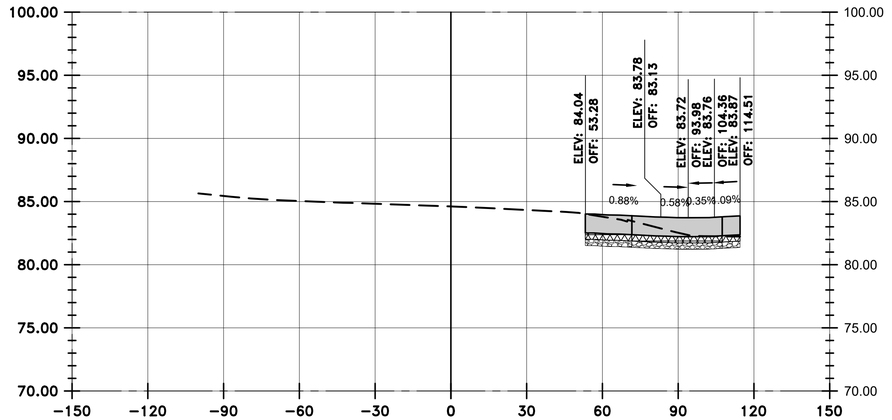
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X09.01

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

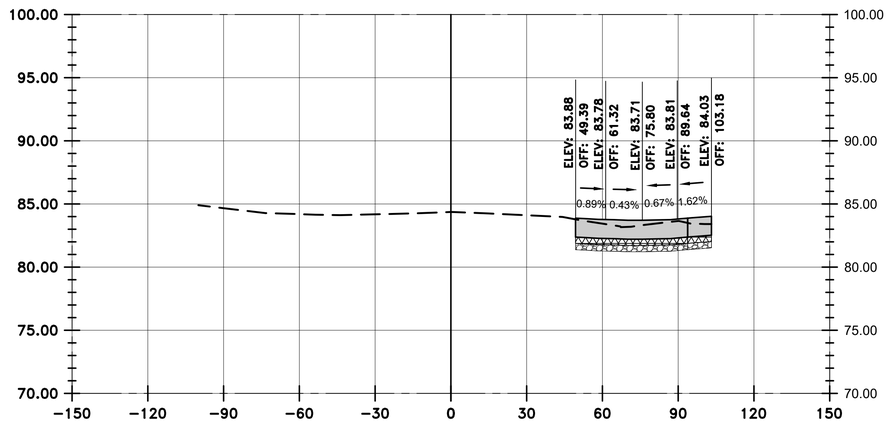
ADDITIVE ALTERNATE 1 (IF AWARDED)



HIGH SPEED TAXIWAY SH
STA: 11005+00.00



HIGH SPEED TAXIWAY SH
STA: 11004+50.00



HIGH SPEED TAXIWAY SH
STA: 11004+00.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
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TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SH-HS CROSS SECTIONS 2

(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
Digitally Signed 11/02/2023

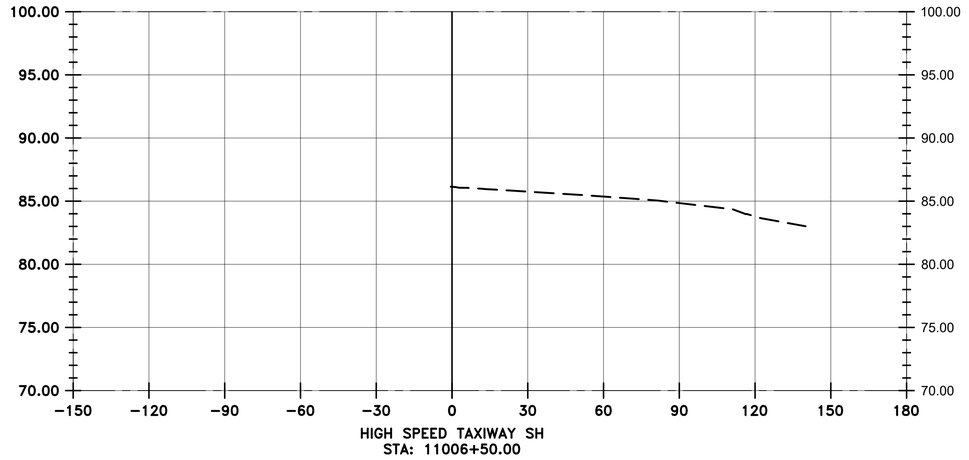
APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

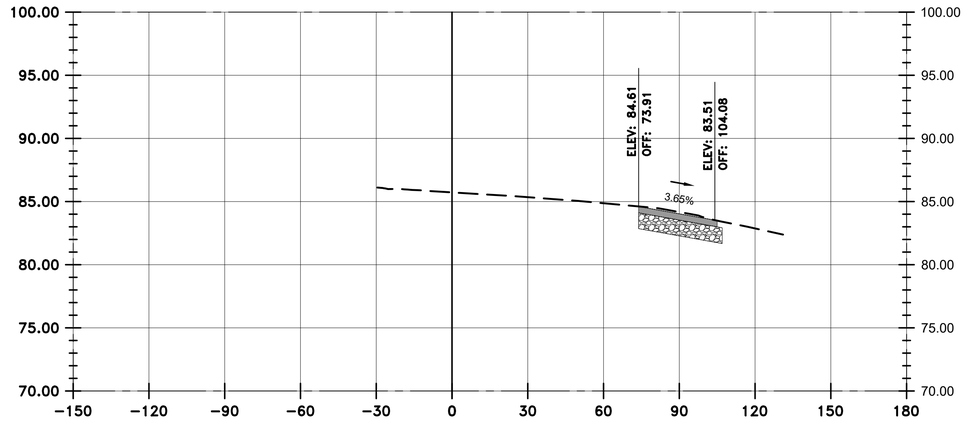
PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X09.02

HAS FILE: c:\Users\dagranato\onedrive - garver\0646.2\06 - Typcial Sections\Model Files\0646CSC.dwg
PLOT DATE: 11/8/2019 3:32:47 PM

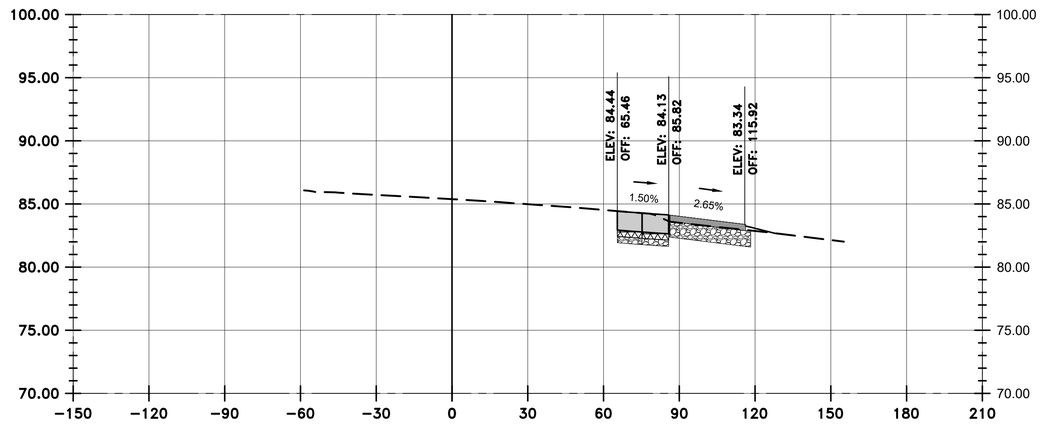
ADDITIVE ALTERNATE 1 (IF AWARDED)



HIGH SPEED TAXIWAY SH
STA: 11006+50.00



HIGH SPEED TAXIWAY SH
STA: 11006+00.00



HIGH SPEED TAXIWAY SH
STA: 11005+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

GARVER
12141 Wickchester Lane
Suite 640
Houston, TX 77079
(713) 491-8333
TBPE Registration No. F-5713

REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SH-HS CROSS SECTIONS 3 (ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.
0646A

A.I.P. NO.
XXXX

C.I.P. NO.
A-0515

H.A.S. NO.
20C0646A

SHEET NO.

X09.03

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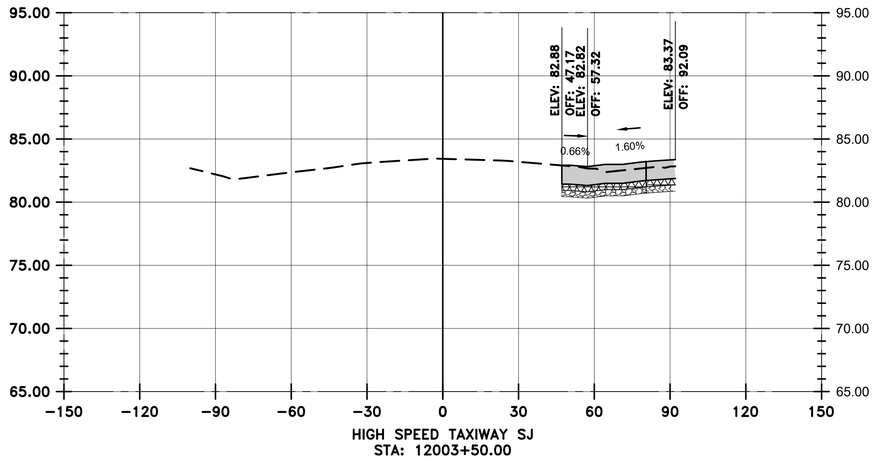
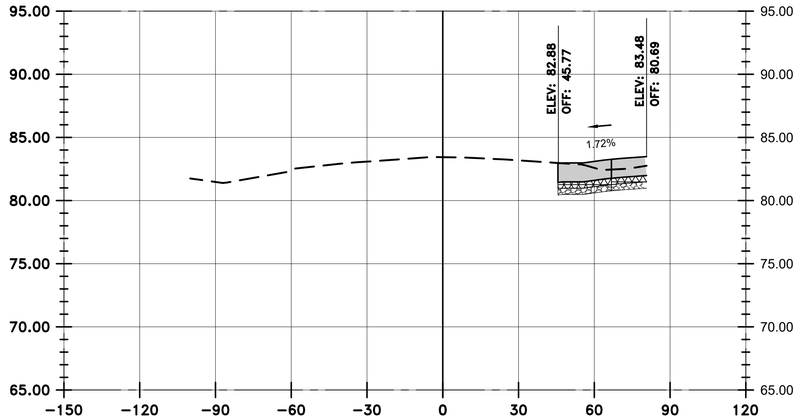
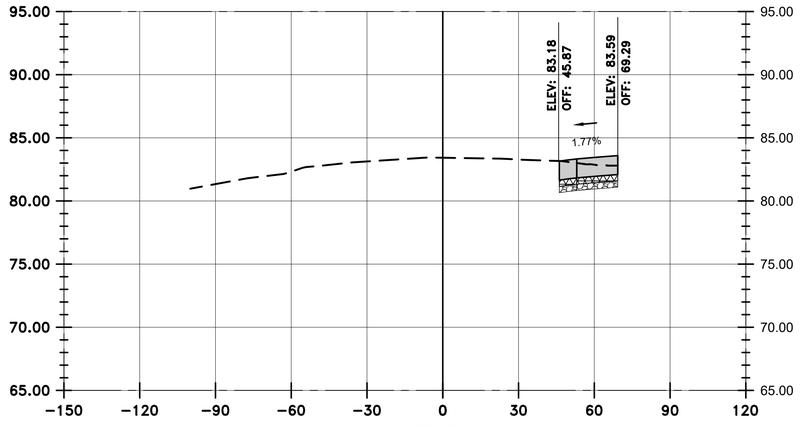


HIGH SPEED TAXIWAY SJ
STA: 12003+50.00



HIGH SPEED TAXIWAY SJ
STA: 12003+00.00



HIGH SPEED TAXIWAY SJ
STA: 12002+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED CEMENT TREATED BASE
- PROPOSED AGGREGATE BASE

HOUSTON AIRPORTS

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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SJ-HS CROSS SECTIONS 1 (ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER

Digitally Signed 11/02/2023

APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X10.01

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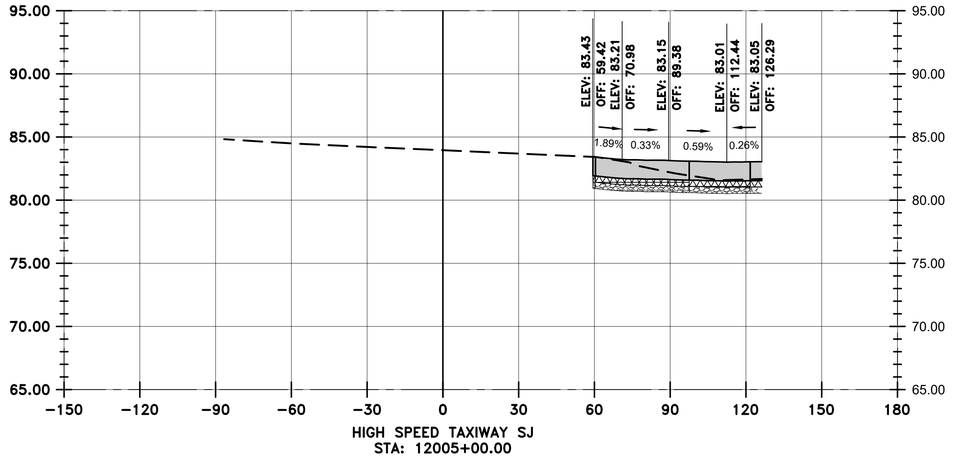

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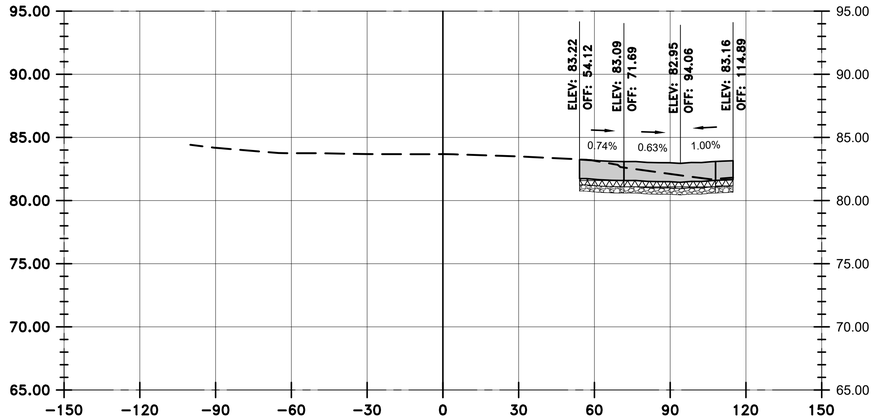

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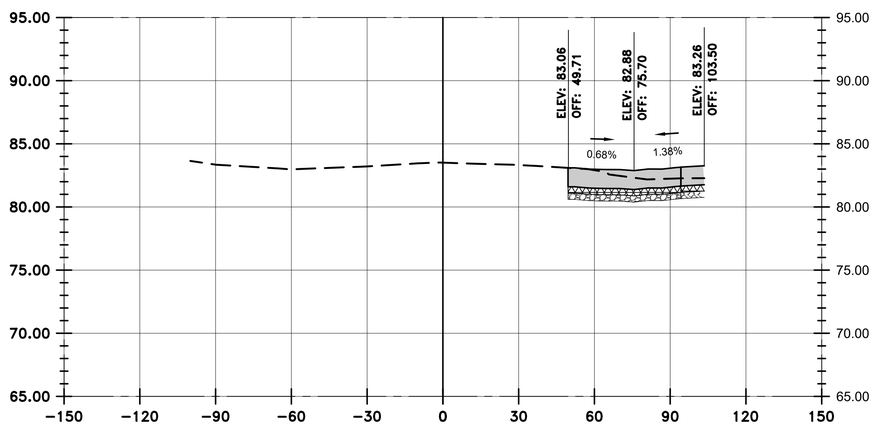

HIGH SPEED TAXIWAY SJ
STA: 12004+00.01

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
- PROPOSED CONCRETE
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REVISIONS

NO.	DESCRIPTION	DATE	BY

GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SJ-HS CROSS SECTIONS 2
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
JASON E. FRANK
87979
LICENSED
PROFESSIONAL ENGINEER
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APPROVED BY: JEF

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO.	0646A
A.I.P. NO.	XXXX
C.I.P. NO.	A-0515
H.A.S. NO.	20C0646A
SHEET NO.	X10.02

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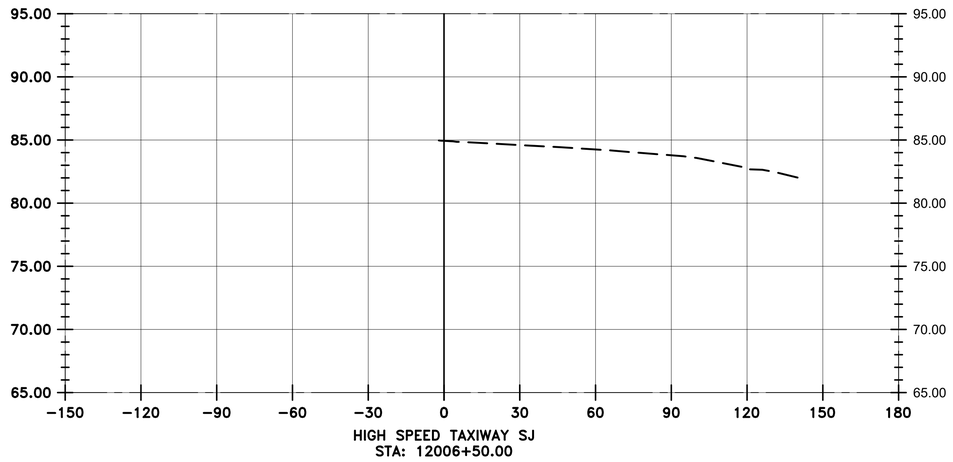

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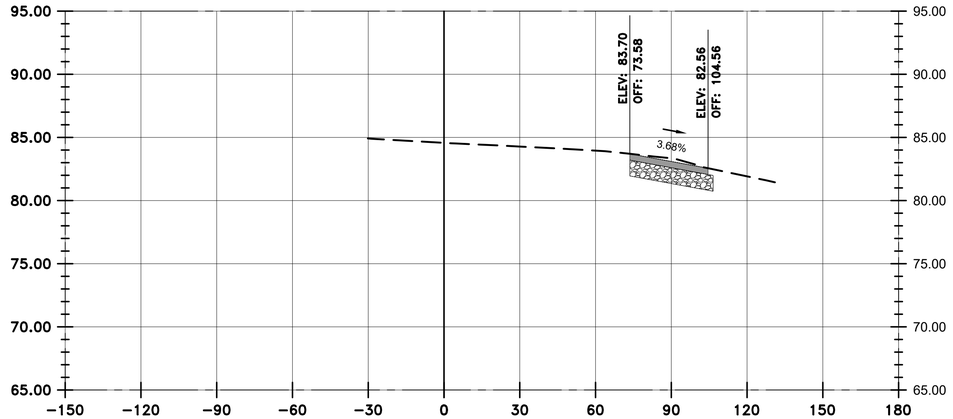
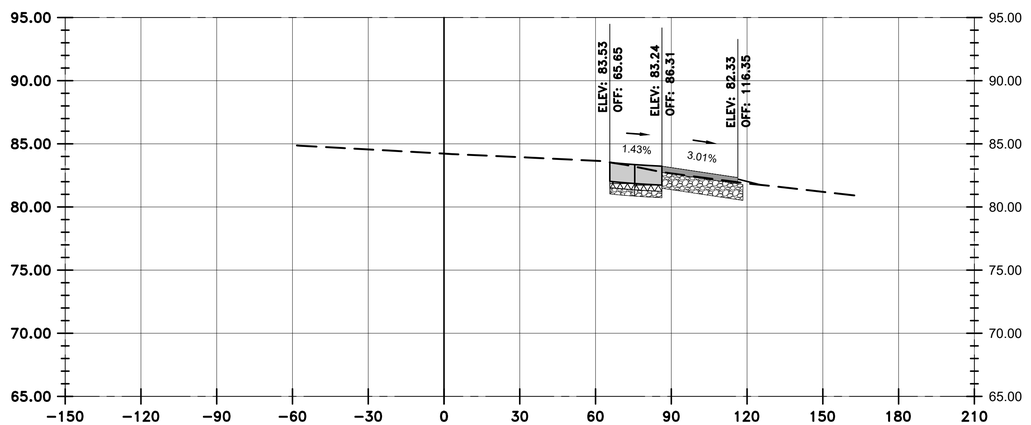


HIGH SPEED TAXIWAY SJ
STA: 12006+00.00



HIGH SPEED TAXIWAY SJ
STA: 12005+50.00

VERTICAL EXAGGERATION = 5

LEGEND

- EXISTING SURFACE
- PROPOSED SURFACE
- PROPOSED ASPHALT
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REVISIONS

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GEORGE BUSH INTERCONTINENTAL AIRPORT
REHABILITATION OF TAXIWAYS SA & SB

SJ-HS CROSS SECTIONS 3
(ADDITIVE ALTERNATE 1)

PROJECT MGR:	JEF
DESIGNER:	KKR
DRAWN BY:	DAG
CHECK BY:	JEF
SCALE:	1:30
DATE:	11/02/2023

STATE OF TEXAS
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SHEET NO.	X10.03

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