EROSION CONTROL NOTES:

1. THE IMPLEMENTATION OF THE EROSION CONTROL PLAN SHALL BE COORDINATED BY THE CONTRACTOR WITH THE PROJECT CONSTRUCTION SEQUENCING. CHANGES ARE TO BE REVIEWED AND APPROVED PRIOR TO IMPLEMENTATION.

2. CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED WITHIN THE PROJECT LIMITS BY CONSTRUCTION WITH SOD AND TOPSOIL.

3. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AT LOCATIONS SHOWN ON THE EROSION CONTROL PLANS TO KEEP SILT AND/OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS.

4. DURING EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.

5. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY OR MORE FREQUENTLY IF NECESSARY OR DIRECTED BY THE RPR, TO REMOVE ANY EXCESS MUD, SILT, OR ROCK TRACKED FROM THE EXCAVATED AREA.

6. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

7. THE CONTRACTOR SHALL UTILIZE STABILIZED CONSTRUCTION EXITS IN CONJUNCTION WITH THE PROJECT PHASING AND CONTRACTOR HAUL ROUTES. NO SEPARATE PAY FOR STABILIZED CONSTRUCTION EXITS – INCIDENTAL TO THE APPLICABLE MAJOR WORK ITEM IN THE AREA.

8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING STOCKPILE AREAS AND PREVENTING ANY MATERIAL RUNOFF FROM THE DESIGNATED AREAS.

9. CONTRACTORS OPERATING CONSTRUCTION VEHICLES AND EQUIPMENT ON THE AIRPORT MUST BE PREPARED TO EXPEDITIOUSLY CONTAIN AND CLEAN–UP SPILLS RESULTING FROM FUEL, HYDRAULIC FLUID, OR OTHER CHEMICAL FLUID LEAKS. TRANSPORT AND HANDLING OF OTHER HAZARDOUS MATERIALS ON AN AIRPORT ALSO REQUIRES SPECIAL PROCEDURES. TO THAT END, THE CONTRACTOR IS REQUIRED TO DEVELOP AND IMPLEMENT SPILL PREVENTION AND RESPONSE PROCEDURES FOR VEHICLE OPERATIONS. THE CONTRACTOR SHALL INCORPORATE THESE PROCEDURES INTO THE SPCD. THIS INCLUDES MAINTENANCE OF APPROPRIATE MSDS DATA AND APPROPRIATE PREVENTION AND RESPONSE EQUIPMENT ON–SITE.

10. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BEST MANAGEMENT PRACTICES (BMPS) IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE MOST CURRENT TPDES CGP.

11. CONTRACTOR SHALL USE TURF REINFORCEMENT MATTING MATERIAL WHICH SHALL BE RATED 6.0 FT/SEC AND WITHSTAND A SHEAR STRESS OF 2.0 LB/SQ.FT.

12. CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.
    - DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
    - AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
    - STRUCTURAL CONTROL MEASURES.
    - LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

14. CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND/OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

15. STABILIZATION OF DISTURBED GRADE, WHETHER BY SODDING OR EROSION CONTROL MATTING AND SEEDING WILL BE PAID FOR AT THE LIMITS SHOWN IN THESE PLANS. NO SEPARATE PAYMENT WILL BE MADE FOR ANY OTHER STABILIZATION NECESSARY FOR GROUND DISTURBED OUTSIDE THESE LIMITS, STABILIZED AREAS DISTURBED AGAIN IN LATER PHASES, AND GROUND DISTURBED FOR ACCESS TO THE WORK AREAS. THAT WORK SHALL BE CONSIDERED INCIDENTAL TO THE GENERAL EROSION AND SEDIMENTATION CONTROL. ANY AREAS DISTURBED OUTSIDE OF THE PROPOSED GRADING LIMITS FOR EACH PHASE SHALL BE RE–SODDED AT NO ADDITIONAL COST TO THE OWNER.

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL NOTES

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CE001
of

STANDARD NOTES ON IRRIGATION REQUIREMENTS

GENERAL REQUIREMENTS

1. THE GENERAL REQUIREMENTS INDICATE AND SPECIFY A COMPLETE AND EFFICIENT IRRIGATION SYSTEM WHICH WILL OPERATE IN ACCORDANCE WITH THE SPECIFIED EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND WITH STATE AND LOCAL CODES AND REGULATIONS. ITEMS NOT SPECIFIED, BUT FOUND TO BE NECESSARY FOR A COMPLETE SYSTEM SHALL BE FURNISHED UNDER THIS CONTRACT.
2. THE IRRIGATION SYSTEM WILL BE TEMPORARY. ALL PIPES ARE TO BE LAID ABOVE GROUND, EXCEPT WHERE CROSSING ACTIVE AIRFIELD PAVEMENT OR OTHERWISE NOT POSSIBLE. ALL ABOVE GROUND LINES WILL BE PLACED AS UNOBTRUSIVELY AS POSSIBLE. EXISTING STORM DRAIN PIPES MAY BE USED FOR UNDERGROUND PAVEMENT CROSSINGS, HOWEVER OWNER MAKES NO REPRESENTATION AS TO THEIR CONDITION OR SUITABILITY FOR USE. IF INLET OR MANHOLE COVERS MUST BE LEFT OPEN, CONTRACTOR SHALL PROVIDE ADEQUATE AND SUBSTANTIAL BARRIERS TO IDENTIFY THE POTENTIAL HAZARD.
3. IN AREAS WHERE IT IS NOT POSSIBLE OR PRACTICAL TO EXTEND THE TEMPORARY SYSTEM, SUPPLEMENTAL WATER SHALL BE PROVIDED BY TRUCK WATERING OR HAND WATERING (E.G., HOSE, GATOR BAG). ALL WATER USED SHALL BE METERED AND PAID FOR UNDER A SEPARATE BID ITEM.
4. NO IRRIGATION PIPES SHALL BE LAID WITHIN THE RUNWAY SAFETY AREA (RSA) OR TAXIWAY SAFETY AREA (TSA). SYSTEM MUST PROVIDE NOZZLES CAPABLE OF SHOOTING UP TO 150 FEET FROM EDGE OF RSA TO WATER GRASS AND SOD WITHIN RSA.
5. THERE ARE MULTIPLE PHASES IN THIS PROJECT. THE CONTRACTOR WILL BE REQUIRED TO MOBILIZE AND INSTALL TEMPORARY IRRIGATION SYSTEMS MULTIPLE TIMES WITHIN THE DURATION OF THE PROJECT. REFER TO SCOPE OF WORK FOR MORE DETAILS.
6. DESIGN AND INSTALL A COMPLETE AND EFFICIENT LANDSCAPE IRRIGATION SYSTEM WHICH WILL OPERATE IN ACCORDANCE WITH THE SPECIFIED EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND WITH STATE AND LOCAL CODES AND REGULATIONS. THE IRRIGATION SYSTEM WILL INCLUDE:
   - TEMPORARY METER, BACKFLOW PREVENTION, VALVES.
   - ROTORS OR ROTARY NOZZLES FOR SEEDED REVEGETATION AREAS. FOR SLOPING BANK AREAS, INSTALL IRRIGATION AT THE TOP OF THE BANK AND SPRAY DOWN ON TO THE SLOPE.
   - ALL OTHER ELEMENTS NECESSARY TO PROVIDE A FULLY FUNCTIONING AND EFFICIENT IRRIGATION SYSTEM.
7. TEMPORARY IRRIGATION WILL BE KEPT IN PLACE UNTIL VEGETATION IS ESTABLISHED, AND THEN REMOVED BY CONTRACTOR.
8. A TEXAS–LICENSED LANDSCAPE IRRIGATOR IN GOOD STANDING, APPROVED BY THE OWNER OR HIS AGENT, WITH A MINIMUM OF 5 YEARS CONTINUOUS EXPERIENCE IN DESIGNING AND INSTALLING SYSTEMS OF THIS TYPE, AND WHO IS REGULARLY ENGAGED IN INSTALLING LANDSCAPE IRRIGATION SYSTEMS SHALL BE EMPLOYED BY CONTRACTOR FOR THIS WORK.
9. PROVIDE ALL EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE WORK PER MANUFACTURERS RECOMMENDATIONS.
10. PROVIDE ALL CONSTRUCTION EQUIPMENT AND METHODS REQUIRED TO COMPLETE WORK PER MANUFACTURERS RECOMMENDATIONS.

PERMITS AND INSPECTIONS

1. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS, TESTS, AND INSPECTIONS, AND PAY ANY RELATED FEES AND TAXES REQUIRED BY GOVERNING AGENCIES, INCLUDING COST OF METER(S).

SUBMITTAL REQUIREMENTS

1. COPY OF IRRIGATOR'S LICENSE ISSUED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
2. PER STATE OF TEXAS CODE CODE (TITLE 30, TEXAS ADMINISTRATIVE CODE, CHAPTER 344, RULES FOR LANDSCAPE IRRIGATION) THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A WATERING SCHEDULE. THIS SCHEDULE SHALL BE A CHART LISTING ZONE NUMBER, ZONE FLOW (GPM), RUN TIME (MINUTES/MONTH), TYPE OF VEGETATION IRRIGATED PER ZONE AND TYPE OF EMISSION DEVICE PER ZONE.
3. IN THE EVENT OF MANDATED WATERING RESTRICTIONS, PROVIDE A COMPLETED VARIANCE REQUEST APPROVED BY LOCAL MUNICIPALITY.
4. AS–BUILT IRRIGATION PLAN SHOWING ALL EMISSION DEVICES1. , VALVES, CONTROLLER, BACKFLOW PREVENTION DEVICE, AND SIZED PIPES.
5. COMPLETED IRRIGATION SYSTEM MAINTENANCE CHECKLIST (ATTACHMENT A). THE FIRST SHEET OF ATTACHMENT A IS DUE AFTER THE IRRIGATION SYSTEM IS COMPLETED, DURING TIME OF INSPECTION WITH OWNER. THE SECOND SHEET OF ATTACHMENT A IS DUE YEARLY, IN THE SPRING WHEN THE SYSTEM IS REINITIATED DURING THE EXTENDED LANDSCAPE MAINTENANCE PERIOD. IF ACCEPTED GRASS STAND IS ESTABLISHED IN LESS THAN A YEAR SECOND SHEET OF ATTACHMENT A SHALL NOT BE REQUIRED.

EXISTING CONDITIONS AND DAMAGE TO PROPERTY REQUIREMENTS

1. FIELD VERIFY ALL EXISTING SITE CONDITIONS. BY BIDDING THIS WORK, THE CONTRACTOR ACKNOWLEDGES THAT THEY HAVE SATISFIED THEMSELVES AS TO THE NATURE OF THE WORK AND TO THE QUALITY OF SURFACE AND SUBSURFACE MATERIALS AND OBSTACLES INSOFAR AS THIS DATA IS REASONABLY ASCERTAINABLE FROM A SITE INSPECTION. FAILURE OF THE CONTRACTOR TO ACQUAINT THEMSELVES WITH THE AVAILABLE INFORMATION WILL NOT RELIEVE THEIR RESPONSIBILITY OF PROPER ESTIMATION OF THE DIFFICULTY OR COST SUCCESSFUL PERFORMANCE OF THE WORK.
2. CONTRACTOR SHALL LOCATE ALL UTILITIES IN WORK AREA BEFORE INSTALLATION. ANY DAMAGE TO EXISTING UTILITIES OCCURRING DURING IRRIGATION INSTALLATION REQUIRING REPAIR OR REPLACEMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THIS REPLACEMENT CLAUSE EXTENDS TO EXISTING TREES AND OTHER LANDSCAPE MATERIALS PROPOSED FOR PRESERVATION.
3. VERIFY WATER SUPPLY STATIC PRESSURE AND VOLUME AS ADEQUATE BEFORE SYSTEM INSTALLATION. REPORT INADEQUACIES IMMEDIATELY TO THE OWNER OR IRRIGATION DESIGNER OF RECORD FOR RESOLUTION. IN CASES OF HIGH PRESSURE, PRESSURE REDUCTION EQUIPMENT SHALL BE USED.
4. THE IRRIGATION INSTALLATION SHALL ACCOUNT FOR ELEVATION CHANGES ON THE SITE AS PART OF PRESSURE CONSIDERATIONS.
5. IRRIGATION LAYOUT SHALL ACCOUNT A. FOR SLOPE ON A SITE. PIPES SHOULD RUN PERPENDICULAR TO A SLOPE WHERE POSSIBLE. FOR TEMPORARY IRRIGATION SYSTEMS, ABOVE GROUND PIPES SHOULD BE SECURED TO SLOPES EVERY 10 FEET IN A MANNER THAT DOES NOT CREATE A SAFETY HAZARD. STAKE TEMPORARY, ABOVE GROUND LATERAL PIPES AT END POINTS.
6. DETERMINE AND VERIFY A. THE LOCATION AND SIZE OF THE IRRIGATION METER TO BE USED FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR THE TAP, FOR FOLLOWING STATE AND MUNICIPAL REGULATIONS REGARDING CONNECTION TO THE WATER SUPPLY, AND FOR OBTAINING ALL REQUIRED PERMITS AND INSPECTIONS.
7. REPAIR OR REPLACE ANY PROPERTY DAMAGE INFLICTED IN THE COURSE OF THE IRRIGATION INSTALLATION, WITHOUT ADDITIONAL CHARGE AND BEFORE FINAL PAYMENT. INCLUDED ARE DAMAGES TO BUILDING, PAVING, STRUCTURES, EQUIPMENT, PIPING, PIPE COVERING, UTILITIES, SEWERS, WALLS, SIGNS, SIDEWALKS AND LANDSCAPING.
8. THE IRRIGATION INSTALLER IS RESPONSIBLE FOR DAMAGE CAUSED BY LEAKS IN THE PIPING SYSTEMS AND SHALL MAKE REPAIRS WITHOUT CHARGE.

INSPECTION, TESTING AND APPROVAL REQUIREMENTS:

1. DO NOT ENCLOSE OR COVER ANY WORK UNTIL IT HAS BEEN INSPECTED, TESTED AND APPROVED PER LOCAL CODES. WHERE REQUIRED, CONTACT THE ENGINEER TO ARRANGE AN INSPECTION.
2. HYDROSTATIC PIPING TEST::
   - IN THE PRESENCE OF THE ENGINEER HYDROSTATICALLY TEST THE MAINLINE PIPING SYSTEM. TEST TO A MINIMUM PSI OF 100. TEST PERIOD SHALL NOT BE LESS THAN 4 HOURS. PIPE MAY BE TESTED IN SECTIONS TO EXPEDITE THE WORK.
   - TEST IS ACCEPTABLE IF NO LEAKAGE OCCURS DURING TEST PERIOD.
   - REPAIR ALL LEAKS AND RETEST SYSTEM FOR ANOTHER 4–HOUR PERIOD IF NECESSARY. CONTINUE THIS PROCEDURE UNTIL ALL LEAKS ARE REPAIRED.
3. OPERATION TEST:
   - AFTER ALL EQUIPMENT IS INSTALLED, TEST THE SYSTEM FOR COVERAGE, FLOW AND PRESSURE IN THE PRESENCE OF THE OWNER
   - TEST IS ACCEPTABLE IF SYSTEM OPERATES SATISFACTORILY, WITH ADEQUATE PRESSURE AND FLOW AND IF ALL IRRIGATED AREAS ARE RECEIVING PROPER COVERAGE WITH NO OVERSPRAY ONTO PAVEMENT OR BUILDINGS
   - AFTER ALL REQUIRED ADJUSTMENTS ARE MADE, COORDINATE WITH ENGINEER TO OBTAIN AN INSPECTION BY A LOCAL MUNICIPALITY IRRIGATION INSPECTOR, IF REQUIRED.
4. FINAL ACCEPTANCE:
   - FINAL ACCEPTANCE MAY BE GIVEN WHEN ALL PUNCHLIST ITEMS ARE SATISFACTORILY COMPLETED AND, IF REQUIRED, A LOCAL MUNICIPALITY IRRIGATION INSPECTOR HAS APPROVED THE JOB (WITH ALL COMMENTS ACCEPTABLE ADDRESSED).

CLEANUP REQUIREMENTS:

1. MAINTAIN A CLEAN WORK AREA DURING THE PROGRESS OF THE WORK WITHIN REASONABLE LIMITS OF THE INSTALLATION AREA. PERIODICALLY REMOVE ALL RUBBISH, DEBRIS, ETC., FROM WORK SITE AND DISPOSE LEGALLY.
2. UPON COMPLETION OF THE WORK, REMOVE ALL CONSTRUCTION AND INSTALLATION EQUIPMENT FROM THE PREMISES; MAKE GROUND SURFACE LEVEL WHERE IT HAS BEEN AFFECTED BY IRRIGATION SYSTEM INSTALLATION; AND REMOVE EXCESS MATERIALS, RUBBISH AND DEBRIS.
3. IMMEDIATELY REPLACE AND THOROUGHLY HAND WATER ANY PLANT MATERIAL AND GROUNDCOVER WHICH MAY BE DISPLACED DURING INSTALLATION.

MEASUREMENT AND PAYMENT REQUIREMENTS

1. WORK AND ACCEPTABLE MATERIAL FOR 'TEMPORARY IRRIGATION SYSTEM' SHALL INCLUDE THE COMPLETE SYSTEM IN WORKING ORDER WITH ALL THE ELEMENTS NECESSARY TO EFFICIENTLY PROVIDE WATER FOR REESTABLISHMENT OF VEGETATION FOR ALL PHASES OF THE PROJECT.
2. WATER USED IN THE SYSTEM AND FOR ANY TRUCK IRRIGATION OF GRASS AND SOD SHALL BE FROM A METERED CONNECTION ARRANGED FOR AND PROVIDED BY THE CONTRACTOR. WATER TO BE USED FOR THE SYSTEM SHALL BE CONSIDERED INCIDENTAL TO OTHER PROJECT WORK.
3. ALL WORK PERFORMED FOR THE TEMPORARY IRRIGATION SYSTEM SHALL BE CONSIDERED INCIDENTAL TO OTHER PROJECT WORK AND INCLUDES DESIGNING, FURNISHING AND INSTALLING ALL COMPONENTS; FLUSHING AND TESTING WATERLINES; FURNISHING AND OPERATING EQUIPMENT; DISASSEMBLY AND COMPLETE REMOVAL; AND LABOR, TOOLS, INCIDENTALS AND SUBSEQUENT REMOVAL OF SYSTEM FOR ALL PHASES OF THE PROJECT.THIS PROJECT IS PHASED. CONTRACTOR WILL BE REQUIRED TO PROVIDE A TEMPORARY IRRIGATION SYSTEM AT THE END OF EACH PHASE AND KEEP IT IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED FOR THAT PHASE. THEREFORE, THERE WILL BE MULTIPLE MOBILIZATIONS FOR CONTRACTOR'S IRRIGATION SUB–CONTRACTOR. THE WORK WILL COMPRISE DURATION UP TO AND INCLUDING THE PROJECT SUBSTANTIAL COMPLETION AND THROUGH TO THE END OF THE EXTENDED MAINTENANCE PERIOD(S)

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

IRRIGATION NOTES

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

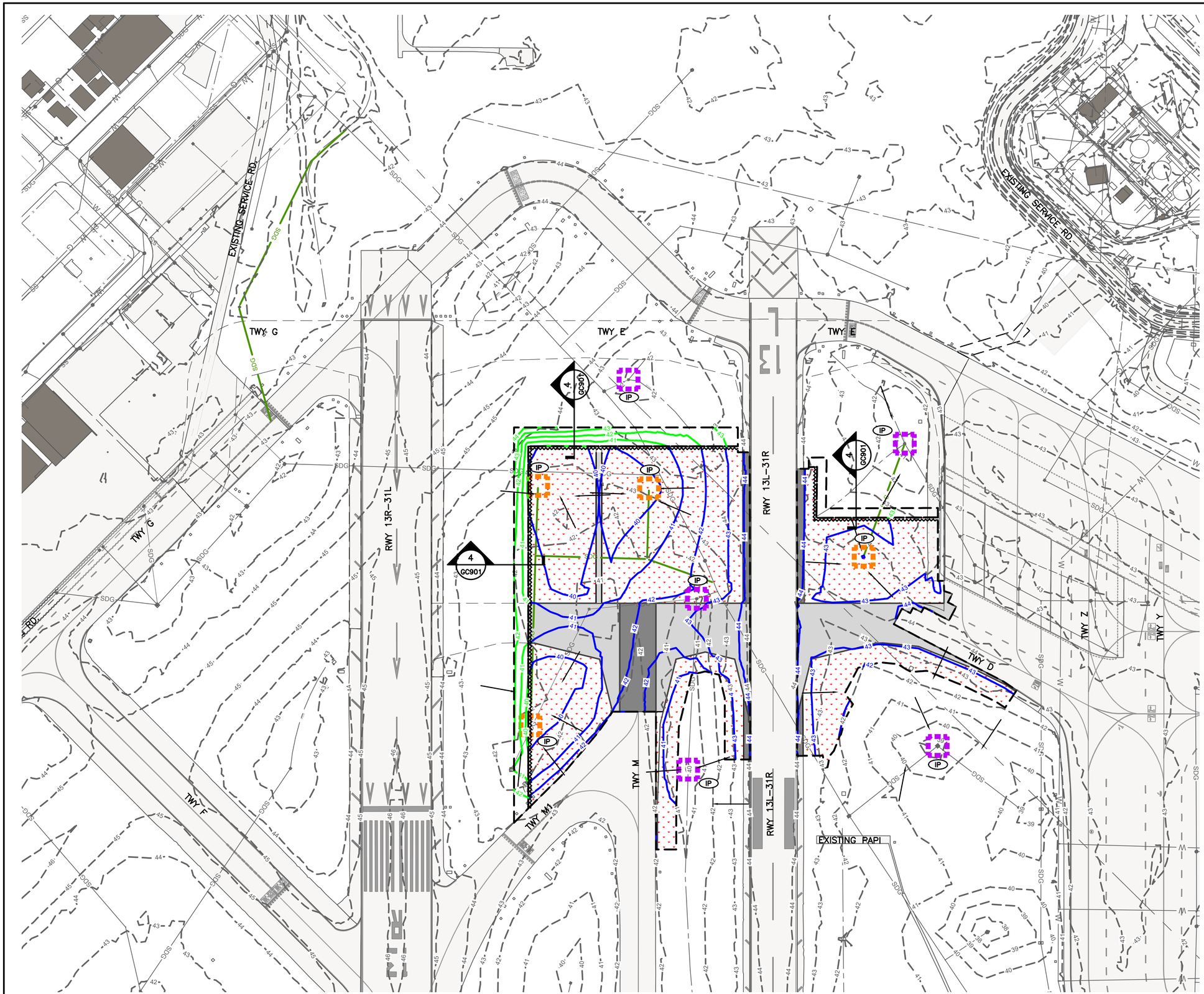
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

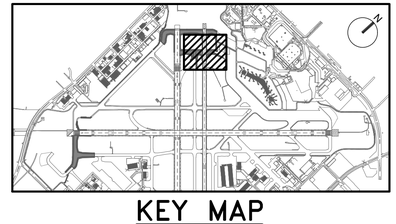
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CE002
of

FILENAME: H22C770A–CE002.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:01:59 AM





KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED INLET PROTECTION (2 / CE501)
- PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET (2 / CE501)
- PROPOSED FIBER ROLL (1 / CE501)
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 1

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
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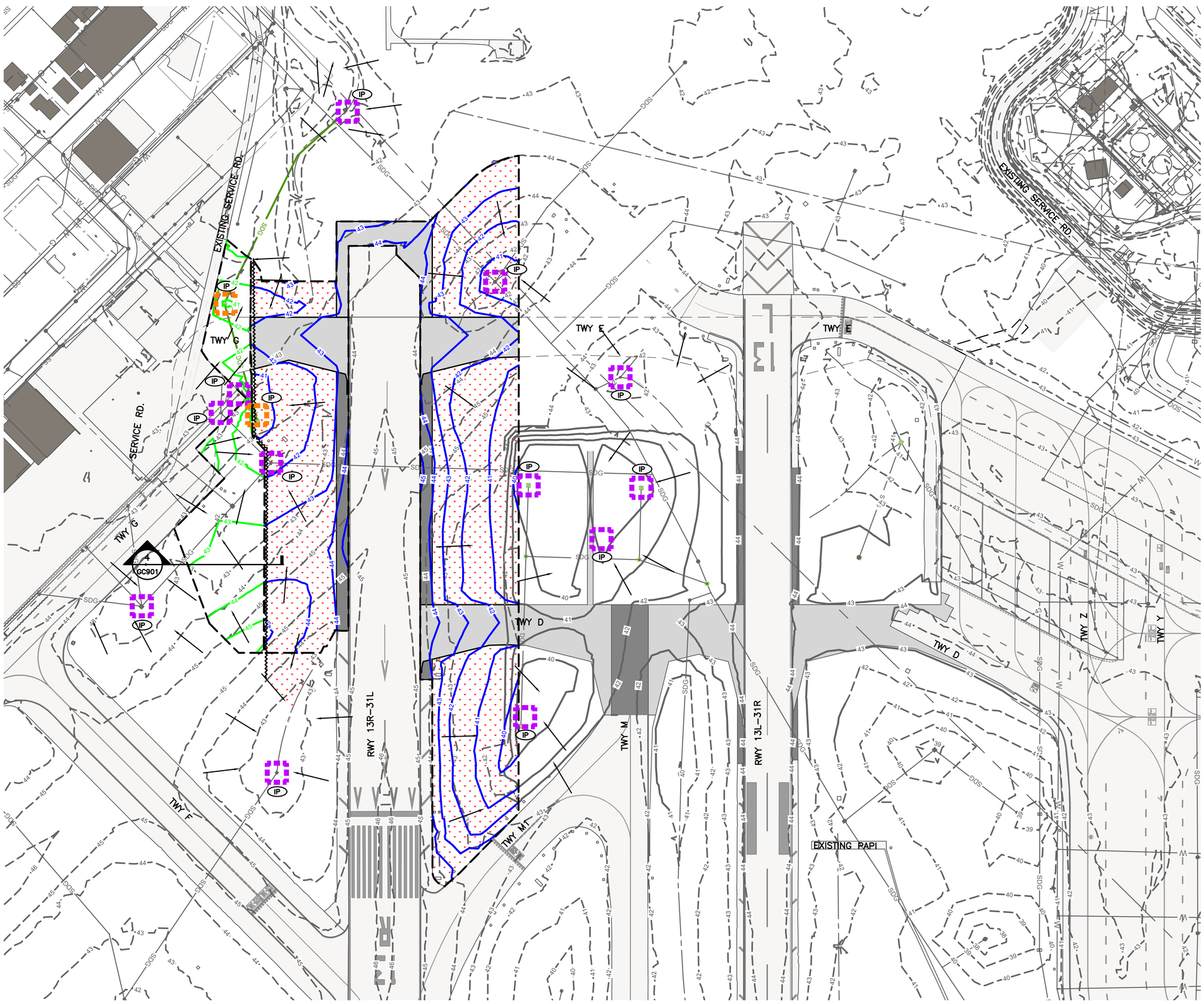
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

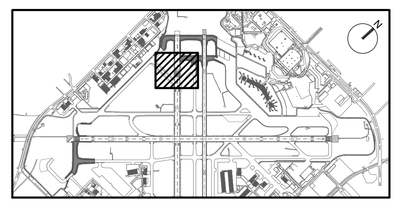
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE101–P1
of

FILENAME: H22C770A–CE101–P1.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:16:29 AM





KEY MAP
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NOTE:

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- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- IP — PROPOSED INLET PROTECTION (2 / CE501)
- IP — PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET (2 / CE501)
- PROPOSED FIBER ROLL (1 / CE501)
- SODDING

GRAPHIC SCALE
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SCALE: 1" = 100'

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NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
EROSION CONTROL PLAN – PHASE 2

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

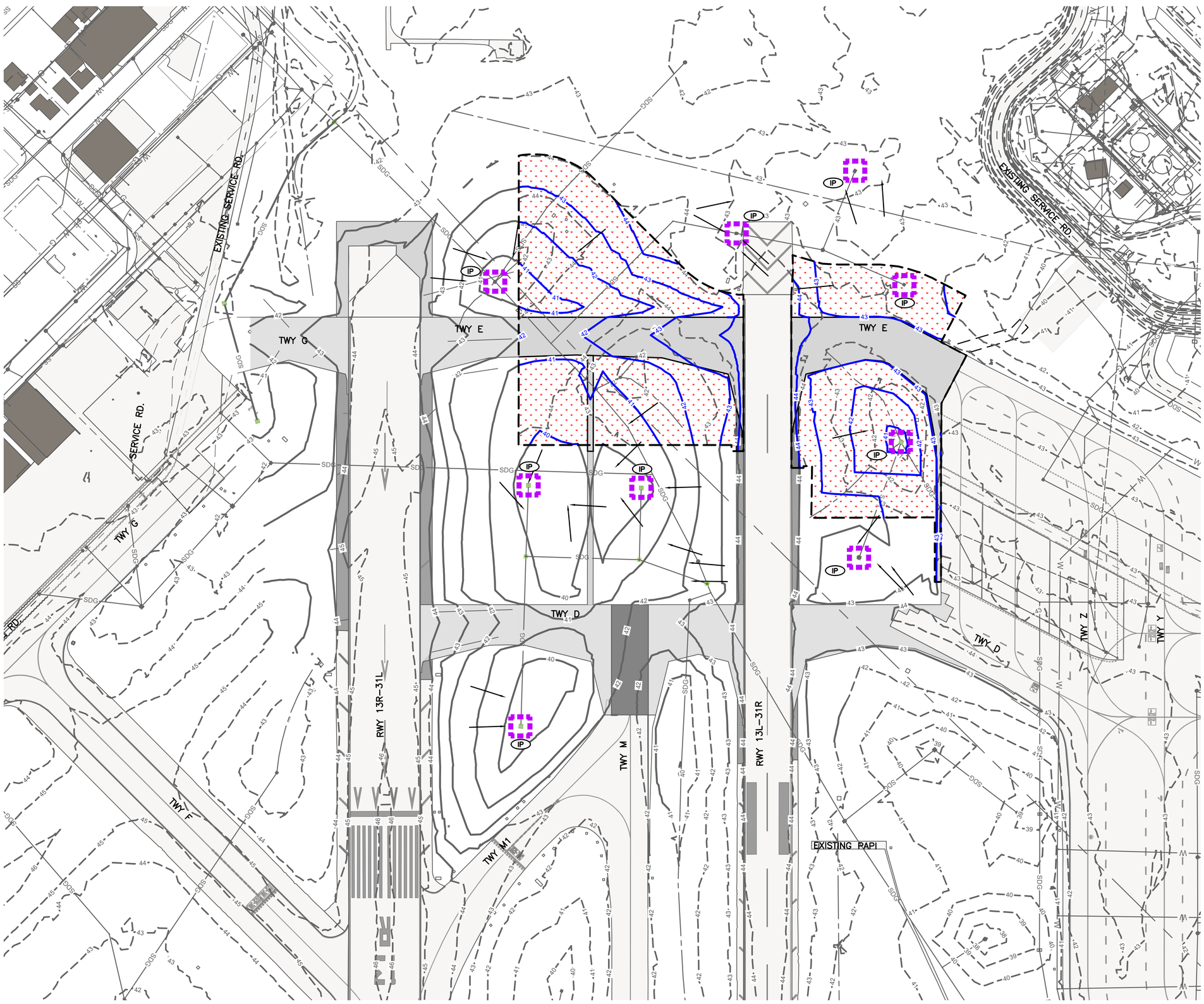
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

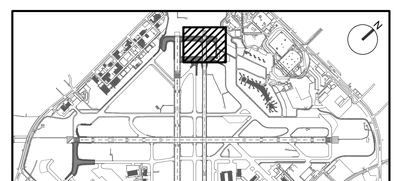
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE102–P2
of

FILENAME: H22C770A–CE102–P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:46:40 AM





KEY MAP
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NOTE:

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FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 3

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
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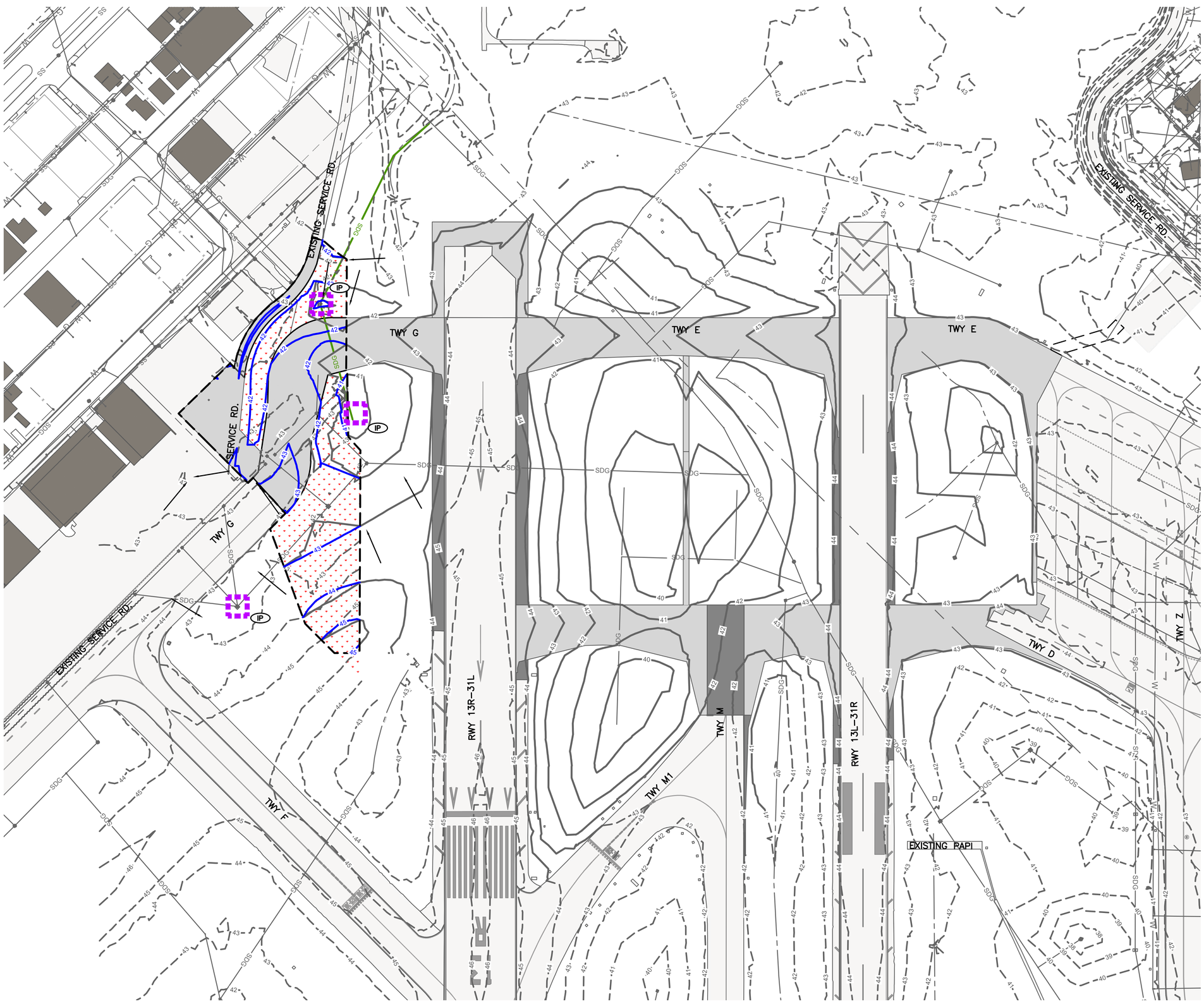
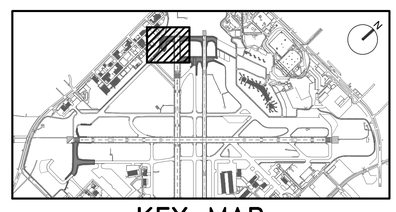
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE103–P3
of





KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- IP — PROPOSED INLET PROTECTION (2 / CE501)
- IP — PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET (2 / CE501)
- PROPOSED FIBER ROLL (1 / CE501)
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 4

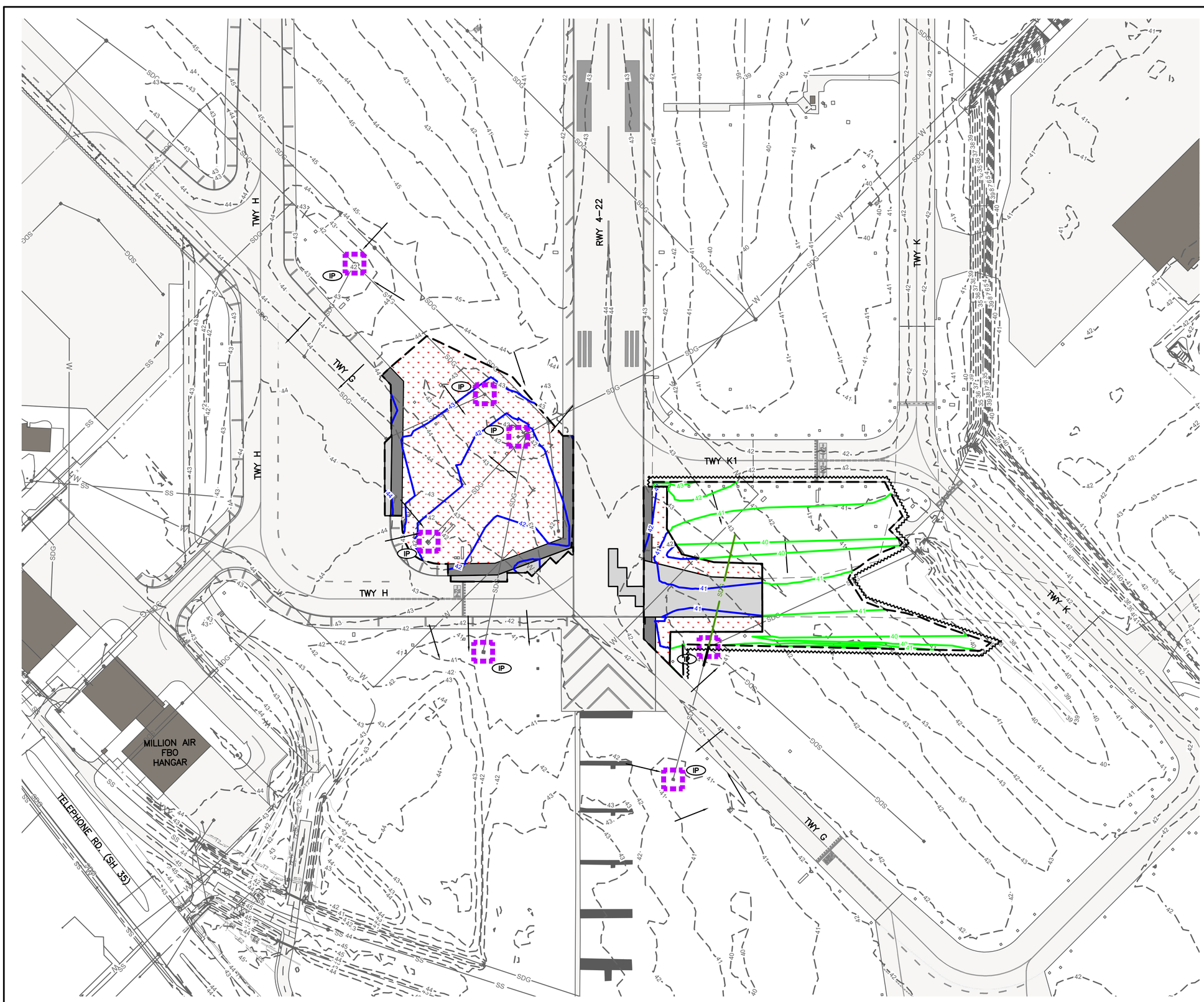
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

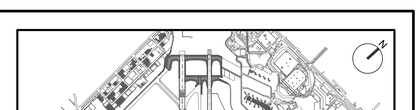
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE104–P4
of





KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- IP — PROPOSED INLET PROTECTION — 2 / CE501
- IP — PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET — 2 / CE501
- PROPOSED FIBER ROLL — 1 / CE501
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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TEXAS P.E. FIRM F-2966

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 5

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

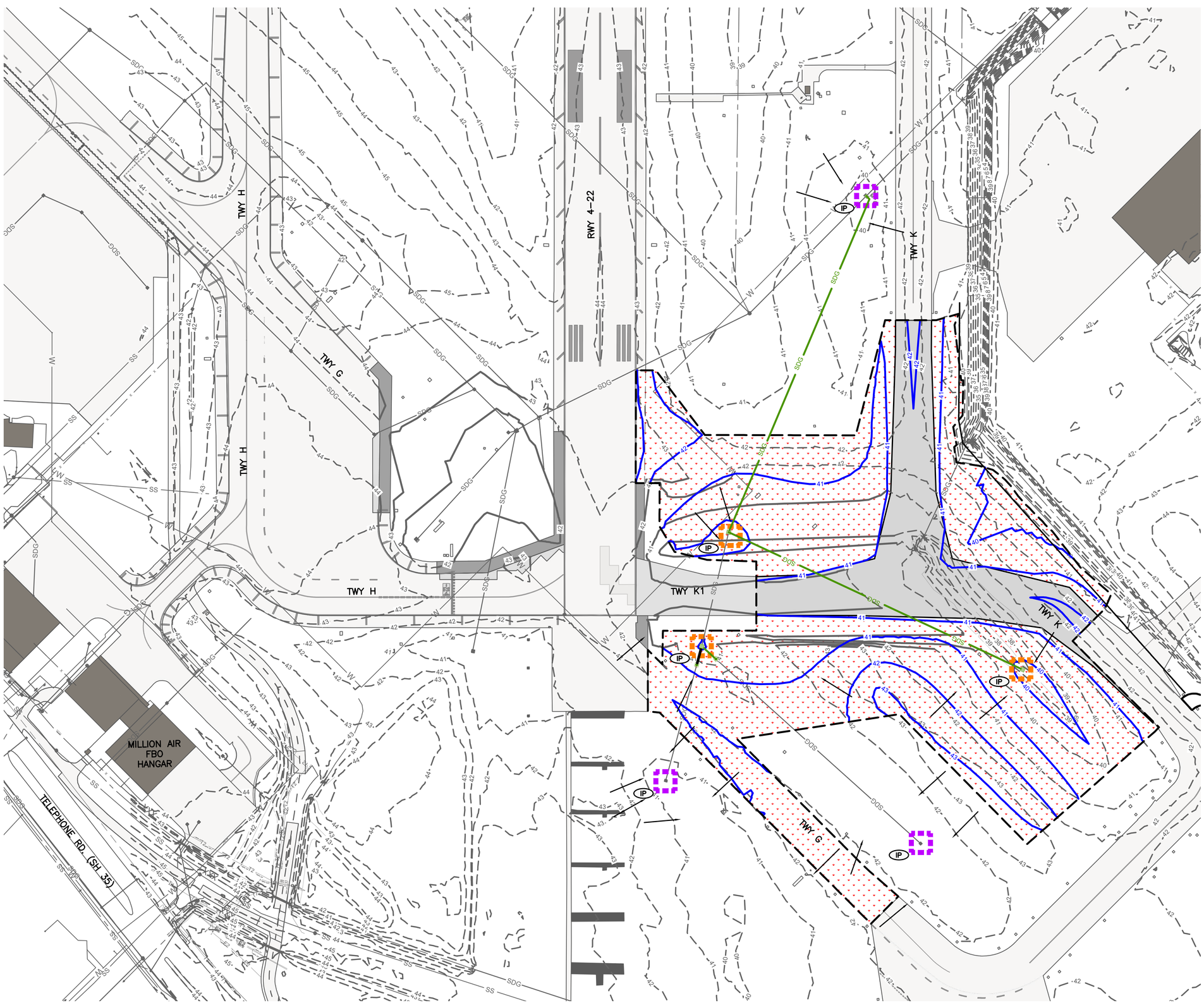
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE105–P5
of

FILENAME: H22C770A–CE105–P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:01:29 AM



KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED INLET PROTECTION — 2 / CE501
- PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET — 2 / CE501
- PROPOSED FIBER ROLL — 1 / CE501
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

HOUSTON AIRPORT SYSTEM
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HOUSTON TEXAS

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 6

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

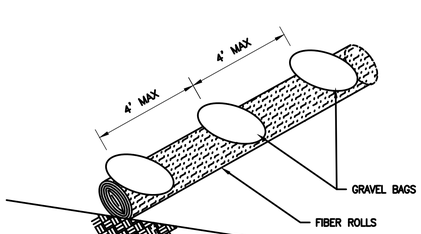
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

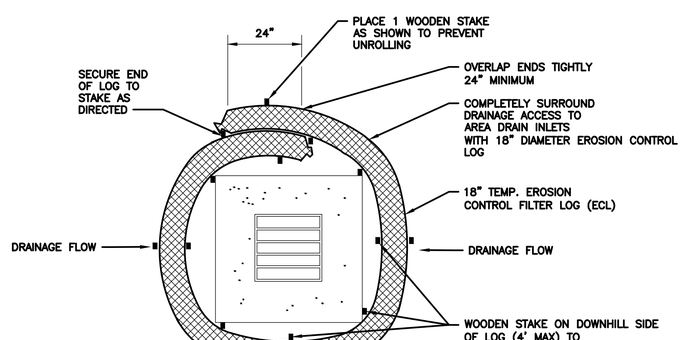
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE106–P6
of

FIBER ROLL INSTALLATION NOTES:

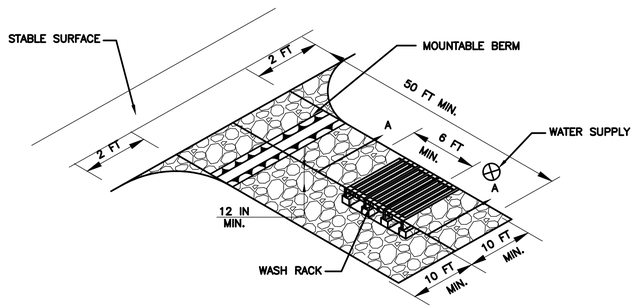
1. INSTALL GRAVEL BAGS EVERY 4' AND WHERE FIBER ROLLS ENDS OVERLAP 1' MINIMUM.



1 FIBER ROLL INSTALLATION
NTS



2 INLET PROTECTION EROSION CONTROL LOG
NTS



CONSTRUCTION SPECIFICATIONS

1. USE A WASH RACK DESIGNED AND CONSTRUCTED/MANUFACTURED FOR THE ANTICIPATED TRAFFIC LOADS. CONCRETE, STEEL, OR OTHER MATERIALS ARE ACCEPTABLE. PRE-FABRICATED UNITS SUCH AS CATTLE GUARDS ARE ACCEPTABLE. USE MINIMUM DIMENSION OF 6 FEET x 10 FEET. ORIENT DIRECTION OF RIBS AS SHOWN ON THE DETAIL.
2. INSTALL PRIOR TO, ALONG SIDE OF, OR AS PART OF THE STABLIZIED CONSTRUCTION ENTRANCE.
3. DIRECT WASH WATER TO AN APPROVED SEDIMENT TRAPPING DEVICE.
4. KEEP AREA UNDER WASH RACK FREE OF ACCUMULATED SEDIMENT. IF DAMAGED, REPAIR OR REPLACE WASH RACK.

3 CONSTRUCTION ENTRANCE AND WASH RACK
NTS

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL DETAILS

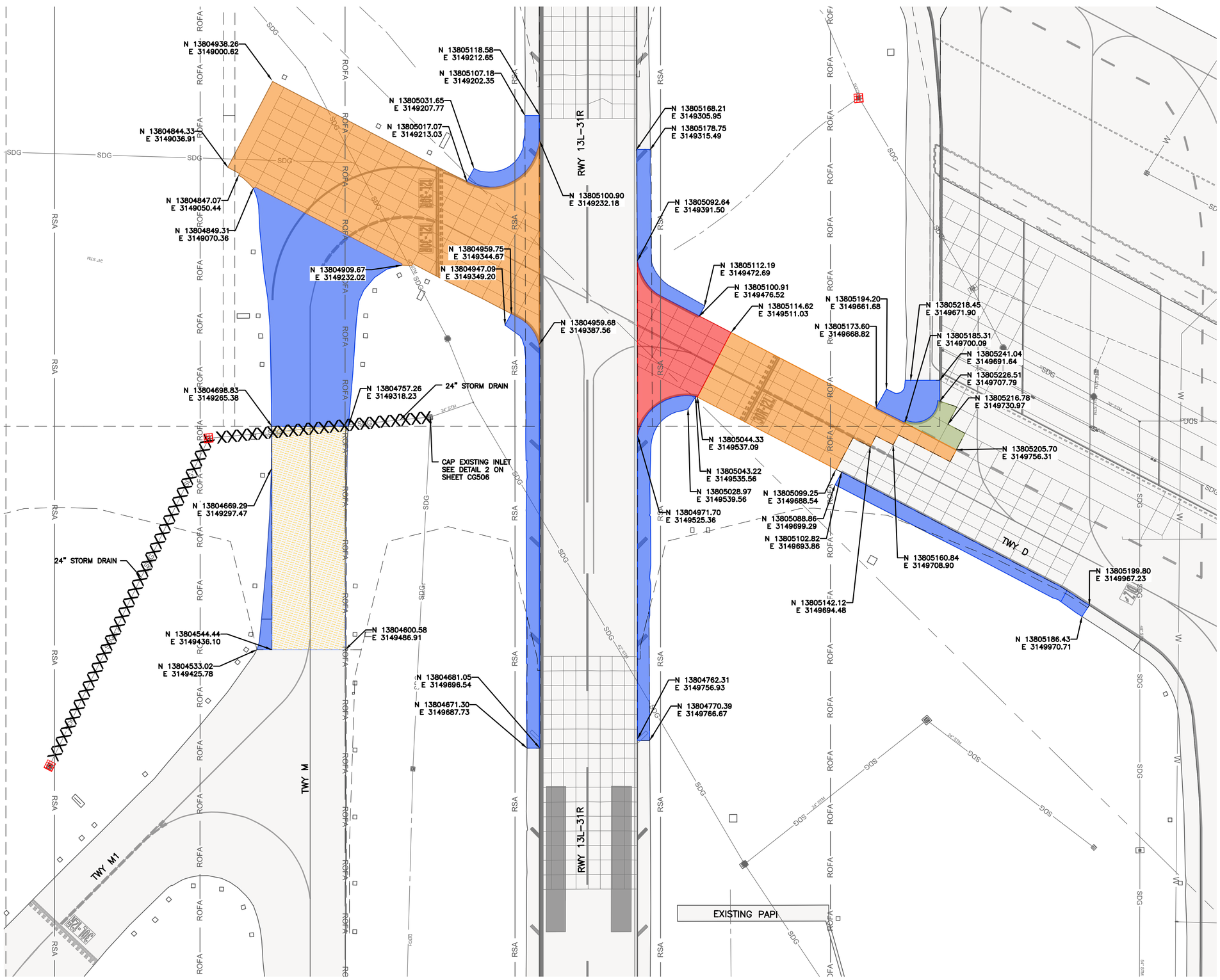
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

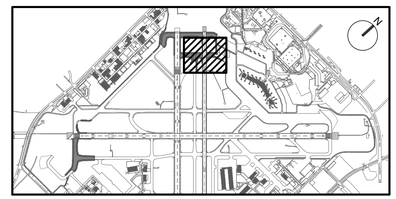
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE501
of





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 1 CD501
- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 3 CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 5 CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 CD501
- ASPHALT MILL – VARIABLE DEPTH (SEE DETAIL 1 SHEET CS002) PER P–101
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 1

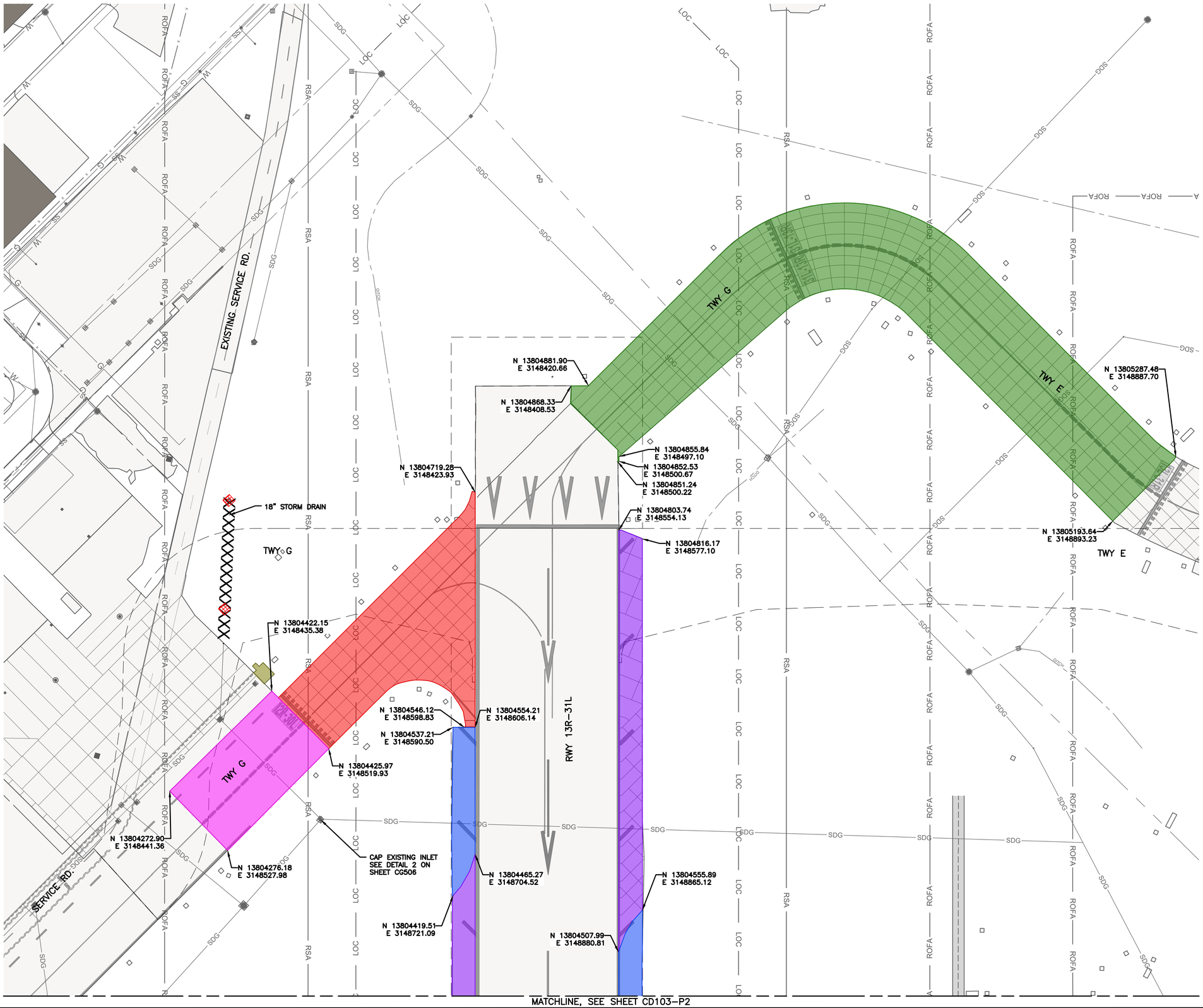
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

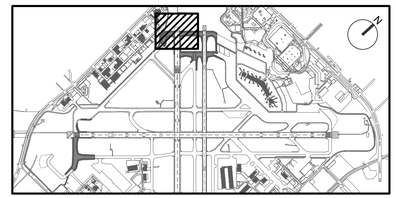
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD101–P1
of





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 2 CD501
- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 3 CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 4 CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 CD501
- PAVEMENT REMOVAL – ASPHALT (6" TO 10") PER P–101 — 10 CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 5 CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX · PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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TEXAS P.E. FIRM F-2966

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 2

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD102–P2
of

FILENAME: H22C770A–CD102–103–P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 8:32:42 AM

MATCHLINE, SEE SHEET CD102-P2

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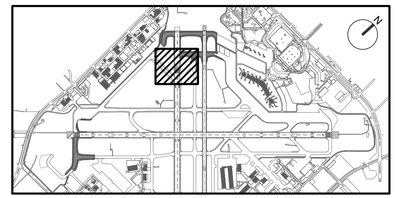
RWY 13R-31L

TWY F

TWY M

TWY M1

TWY D



KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P-152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN-PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P-101 — 2 / CD501
- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P-101 — 3 / CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P-101 — 4 / CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P-101 — 9 / CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
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REVISIONS

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0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 2

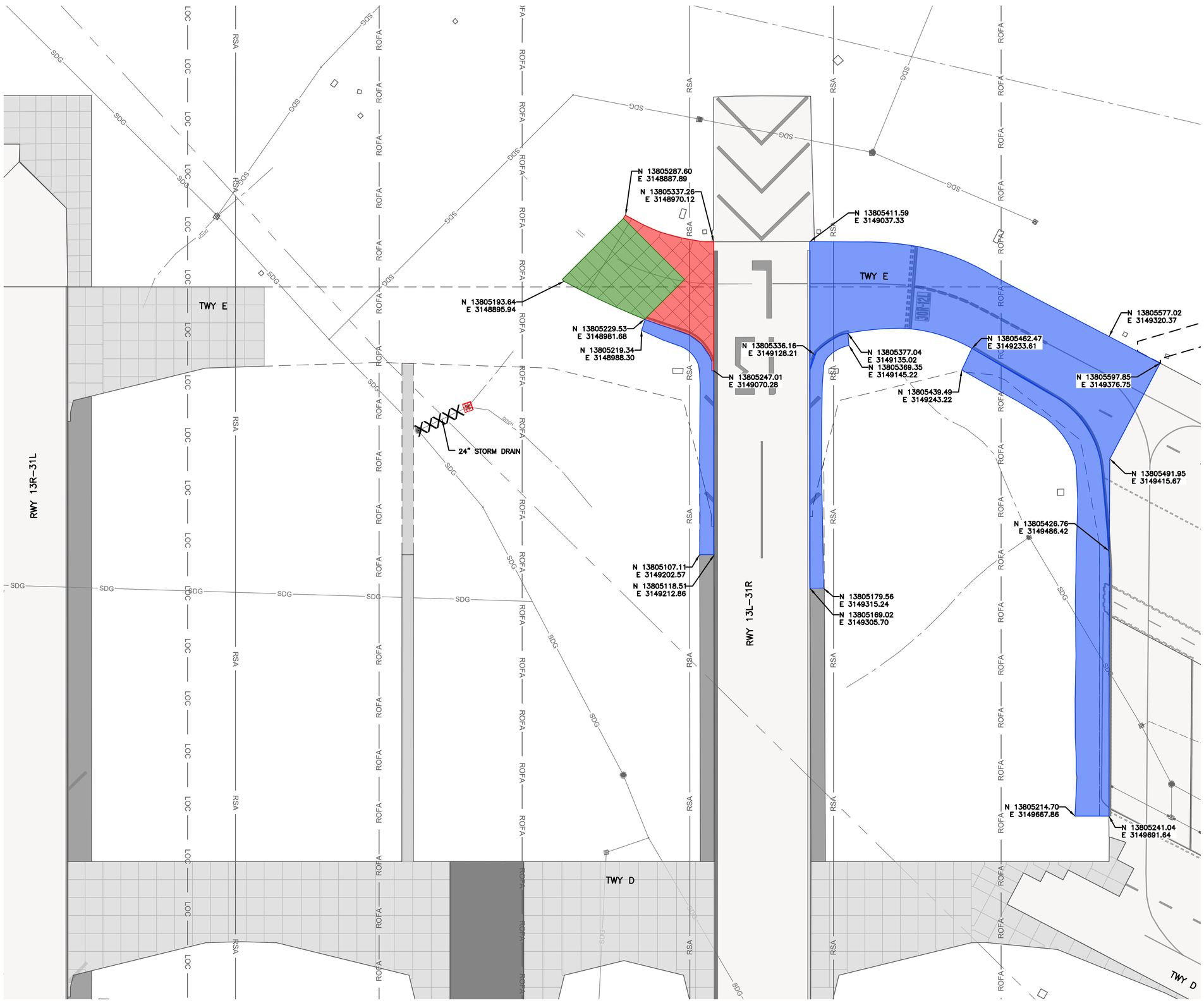
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

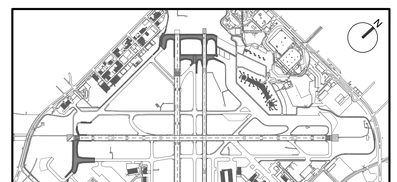
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD103-P2
of





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 3 CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 4 CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX · PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
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WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 3

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

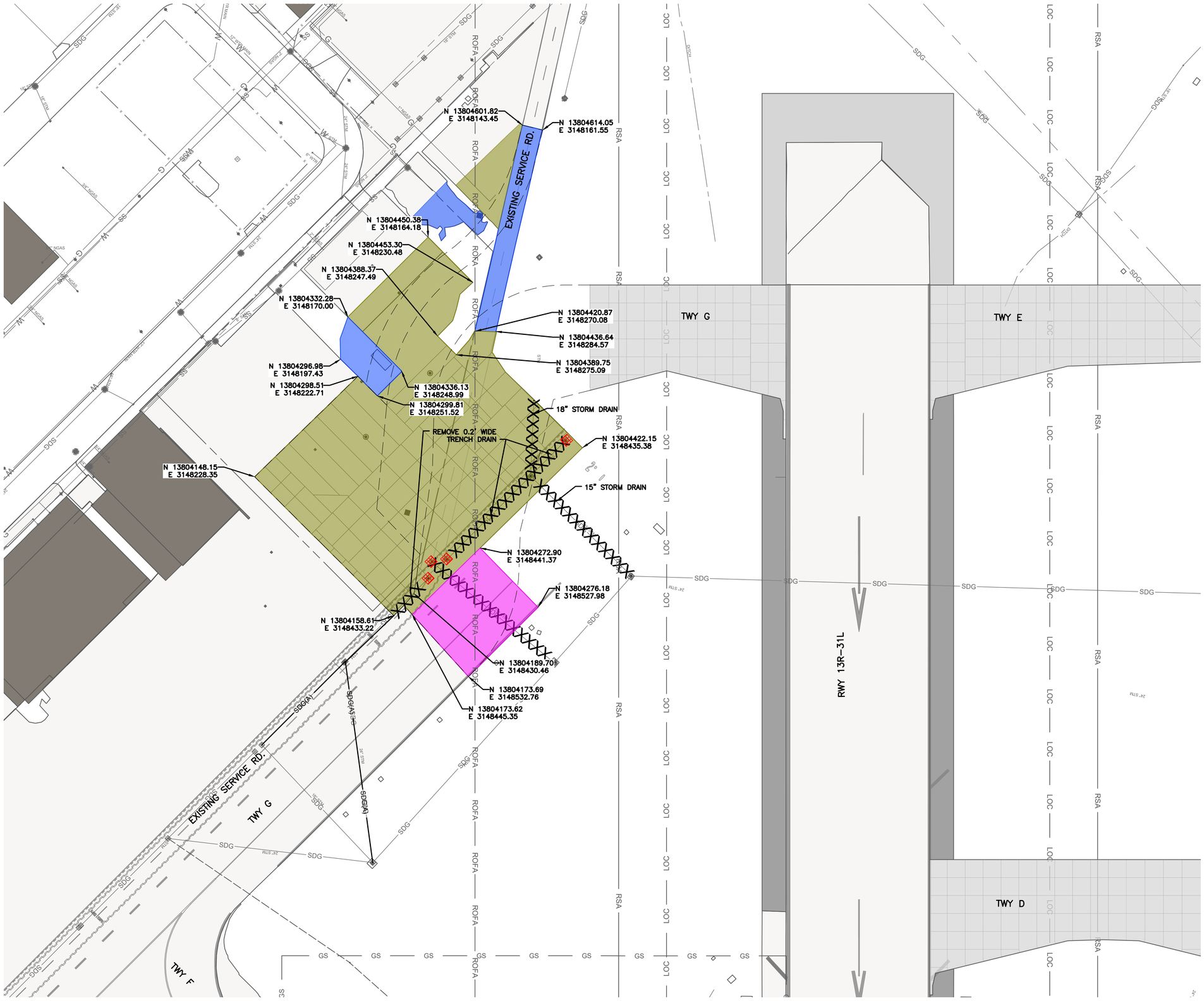
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

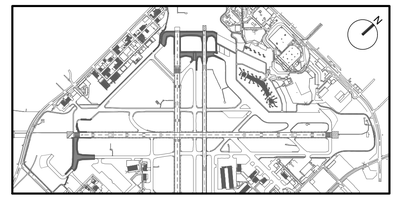
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD104–P3
of

FILENAME: H22C770A–CD104–P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 8:38:26 AM





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 7 / CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 / CD501
- PAVEMENT REMOVAL – ASPHALT (6" TO 10") PER P–101 — 10 / CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX · PROPOSED STORMDRAIN REMOVAL
- SDG(A) — STORM DRAIN PIPE TO BE ABANDONED

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
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TEXAS P.E. FIRM F-2966

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 4

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

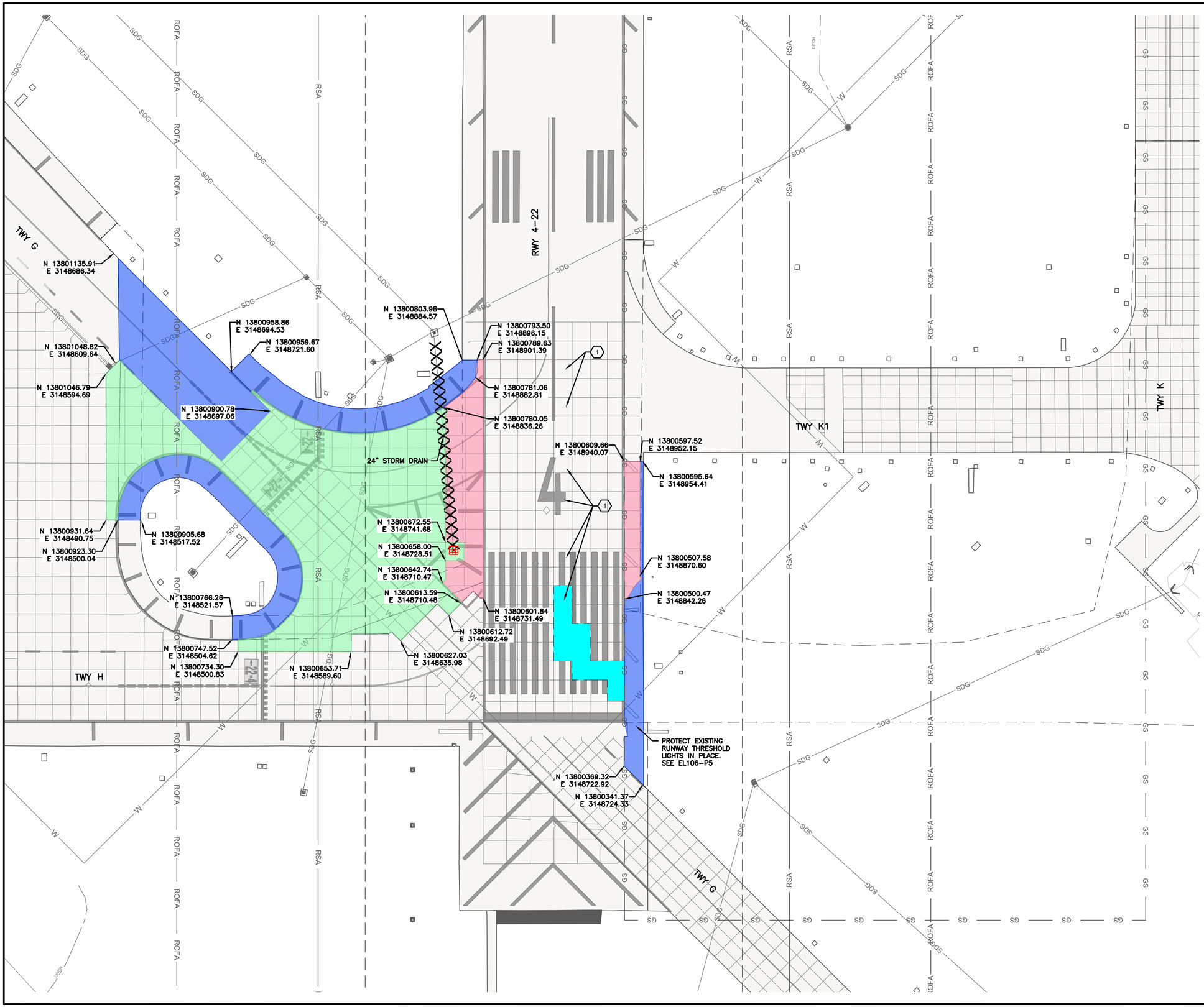
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

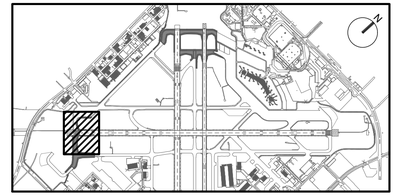
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD105–P4
of

FILENAME: H22C770A–CD105–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 8:53:44 AM





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P-152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN-PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
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7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P-101 — 6 CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P-101 — 8 CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P-101 — 9 CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX PROPOSED STORMDRAIN REMOVAL

KEYED NOTES:

(1) 15" TO 20" CONCRETE PANEL REPLACEMENT. CONTRACTOR SHALL PROTECT EXISTING BASE/SUBGRADE IN-PLACE. ANY DAMAGE TO THE EXISTING BASE/SUBGRADE SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. REMOVAL OF THE PANELS SHALL BE PAID FOR UNDER P-101-5.7. CONCRETE SHALL BE PAID FOR UNDER P-501.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 5

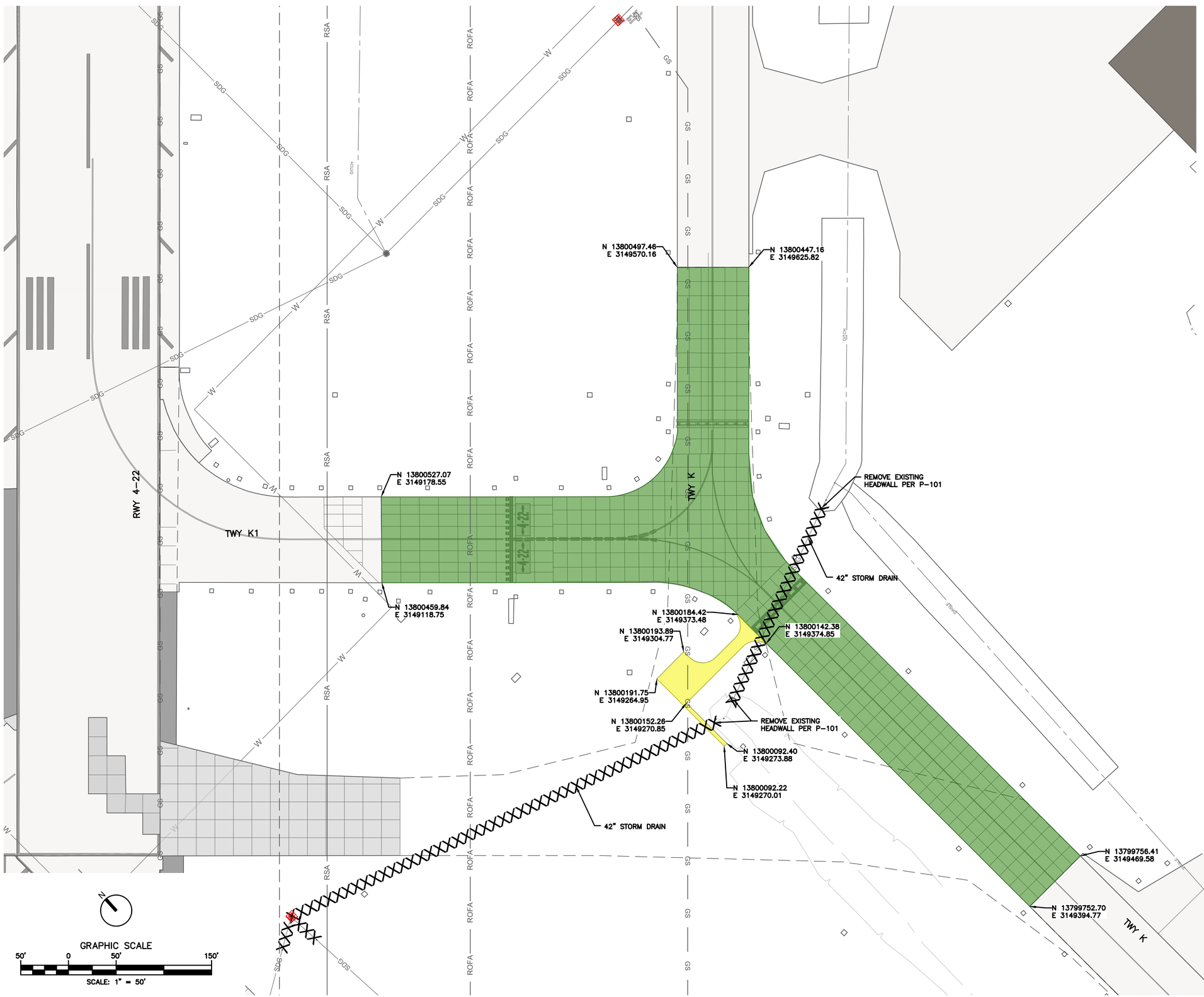
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

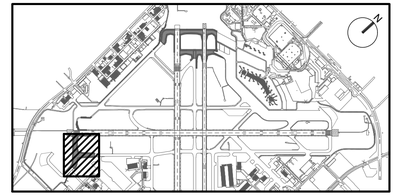
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD106-P5
of





KEY MAP
NTS

NOTES:

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9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101
- PAVEMENT REMOVAL – CONCRETE PAD (1" TO 12") PER P–101
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- XXXXXX · PROPOSED STORMDRAIN REMOVAL

4 / CD501

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 6A

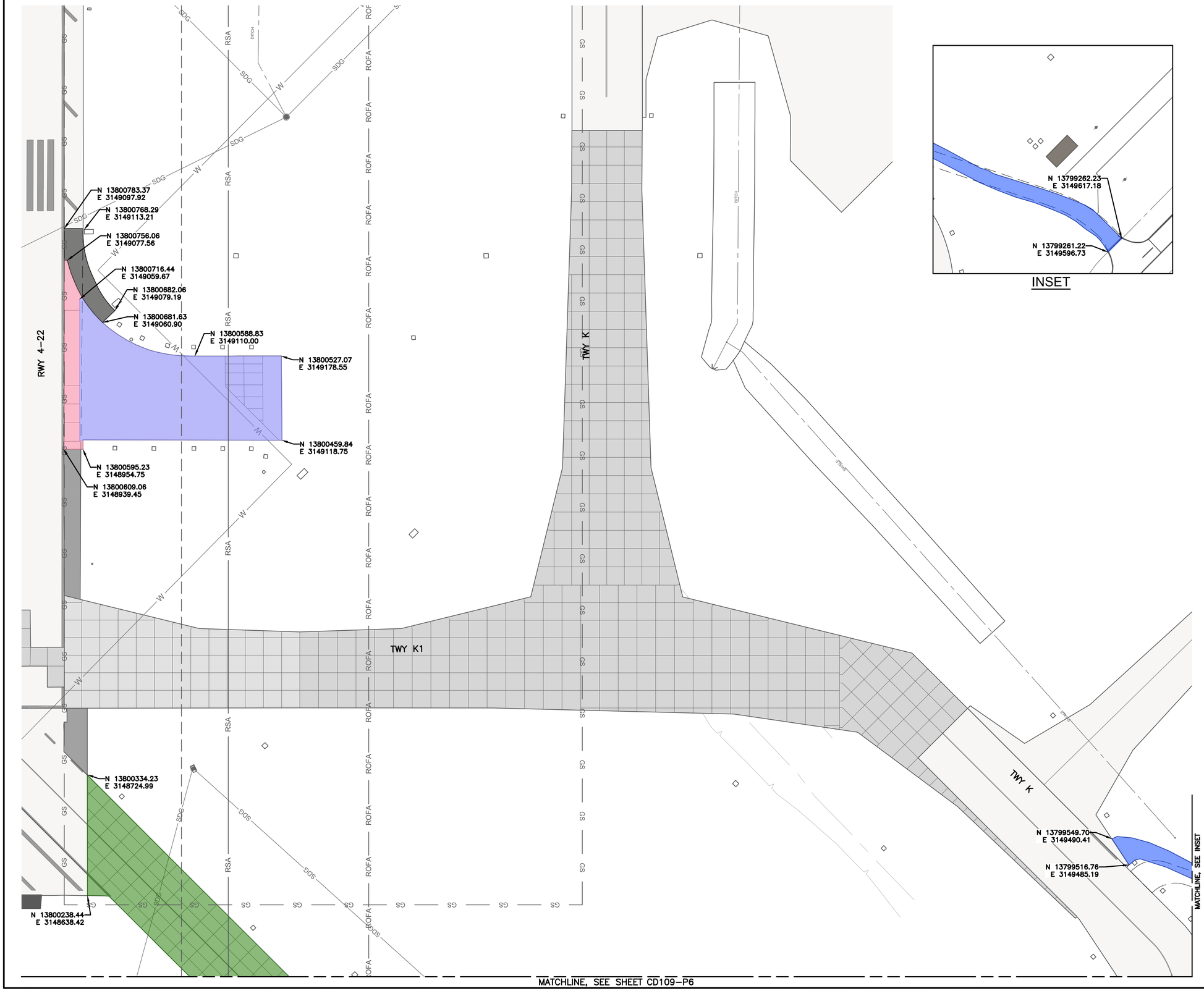
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD107–P6
of



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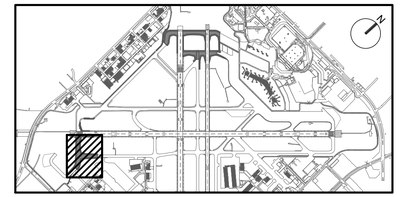

KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
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9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 4 / CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 8 / CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 / CD501
- PAVEMENT REMOVAL – ASPHALT (10" TO 20") PER P–101 — 11 / CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- XXXXXX · PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 6B

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD108–P6
of

MATCHLINE, SEE SHEET CD108-P6

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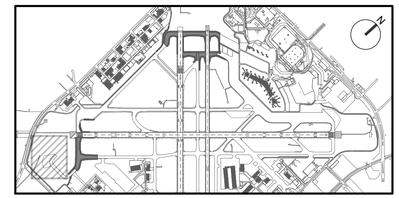
N 13799597.37
E 3148686.15



KEY MAP
NTS

NOTES:

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8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P-101 — 4 / CD501

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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VERIFY SCALE
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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 6B

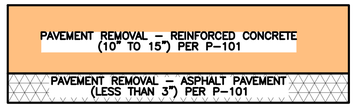
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

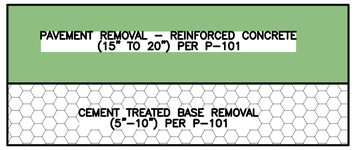
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD109-P6
of



1 SECTION 1
NTS



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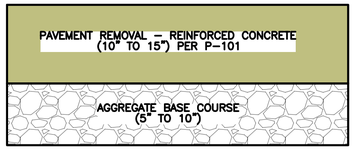

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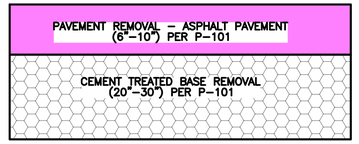

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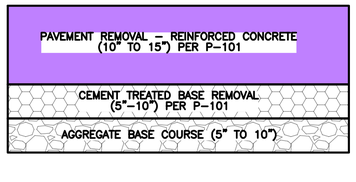

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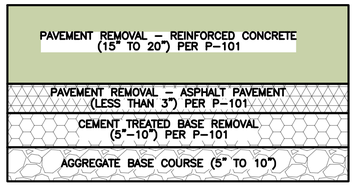

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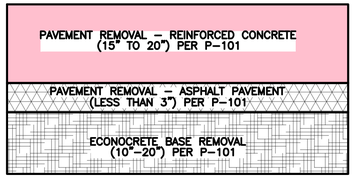

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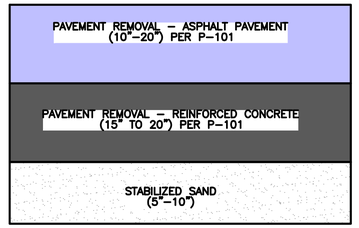

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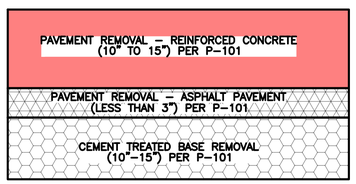

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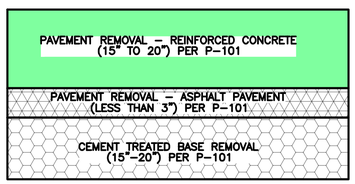

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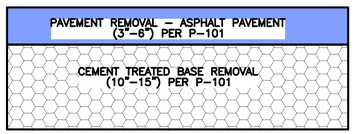

9 SECTION 9
NTS

NOTES:

1. PAVEMENT DEMOLITION PER P-101 IS PLANNED TO THE BOTTOM OF RIGID SECTIONS (ASPHALT, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR BASE OR SUBGRADE MATERIAL SHOWN SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P-152).
2. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL AND EXISTING CONDITIONS SHOWN IN THE PLANS TO THE RPR.

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VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION DETAILS

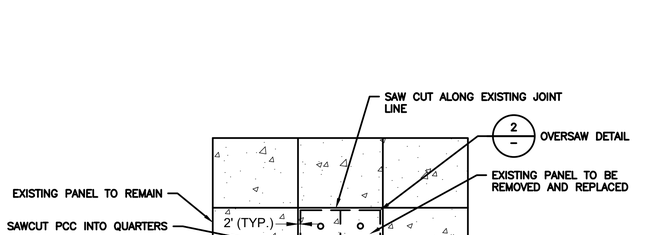
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

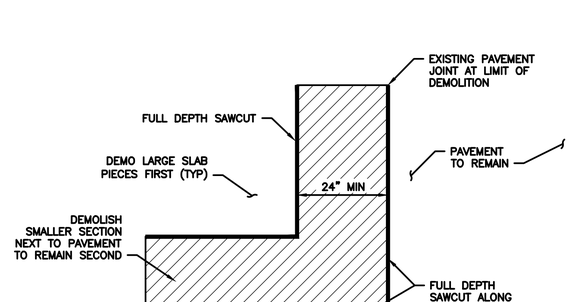
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD501
of



1 PANEL REPLACEMENT – PCC AND FULL DEPTH REMOVAL DETAIL
NTS



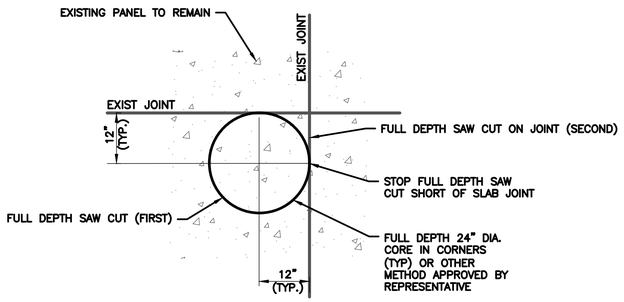
NOTES:

1. UPON COMPLETION OF THE FULL-DEPTH SAWCUTTING, THE MAIN SLAB SHALL BE FURTHER DIVIDED, AT APPROPRIATE LOCATIONS, AND EACH PIECE LIFTED OUT AND REMOVED. THE USE OF IMPACT DEVICES WILL NOT BE ALLOWED.
2. DAMAGE TO THE ADJACENT PAVEMENT TO REMAIN IS NOT ALLOWED. ANY DAMAGE TO THE ADJACENT PAVEMENT TO REMAIN CAUSED BY THE CONTRACTOR'S DEMOLITION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

3 PCC SLAB DOUBLE SAW CUT REMOVAL ALONG EXISTING JOINT
NTS

PANEL REPLACEMENT AND OVERSAW DETAIL NOTES:

1. CONTRACTOR SHALL EXERCISE EXTREME CAUTION FOR PANEL REMOVALS. ANY DAMAGE TO REMAINING UNDERLYING CEMENT TREATED BASE OR SURROUNDING PANELS SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
2. ALL OPERATIONS SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO THE CONCRETE PAVEMENT AND TO THE UNDERLYING MATERIAL TO REMAIN IN PLACE. ALL SAW CUTS SHALL BE MADE PERPENDICULAR TO THE SLAB SURFACE.
3. REMOVAL OF EXISTING PAVEMENT SLAB: WHEN NECESSARY TO REMOVE EXISTING CONCRETE PAVEMENT AND LEAVE ADJACENT CONCRETE IN PLACE, THE JOINT BETWEEN THE REMOVAL AREA AND ADJOINING PAVEMENT, SCHEDULED TO REMAIN IN PLACE AND PROTECTED FROM DAMAGE, SHALL FIRST BE CUT TO THE DEPTH SPECIFIED IN THE PLANS (FULL DEPTH OR PCC ONLY). NEXT, A SAW CUT OF THE SAME DEPTH SHALL BE MADE PARALLEL TO AND AT LEAST 12 INCHES FROM THE EXISTING AND PREVIOUSLY SAW CUT JOINT LINE. ALL PAVEMENT BETWEEN THE INNER SAW CUT AND THE JOINT LINE SHALL BE CAREFULLY BROKEN UP AND REMOVED USING APPROVED LIGHT-DUTY EQUIPMENT WHICH WILL NOT CAUSE STRESS TO PROPAGATE ACROSS THE SAW CUT JOINT LINE AND RESULT IN THE DEVELOPMENT OF DISTRESSES IN ADJACENT PAVEMENT WHICH IS TO REMAIN IN PLACE.
4. THE CONTRACTOR SHALL REMOVE THE REMAINING PORTIONS OF THE CONCRETE PAVEMENT SLAB BY LIFTING AND PLACING DIRECTLY INTO HAUL TRUCKS. THE CONTRACTOR WILL NOT BE ALLOWED TO USE HYDRAULIC RAMS ON EXCAVATORS, OR GUILLOTINE TYPE BREAKERS THAT MAY DAMAGE THE UNDERLYING CEMENT TREATED BASE BELOW THE PCC PAVEMENTS TO BE REMOVED. SAW CUTTING DEPTHS MAY VARY. NO ADDITIONAL PAYMENT WILL BE ALLOTTED FOR VARYING DEPTHS OF PCC CONCRETE PAVEMENT.
5. CONTRACTOR MAY SUBMIT ALTERNATIVE METHOD FOR PCC PANEL REMOVAL TO THE REPRESENTATIVE FOR APPROVAL.



2 OVERSAW DETAIL
NTS

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION DETAILS

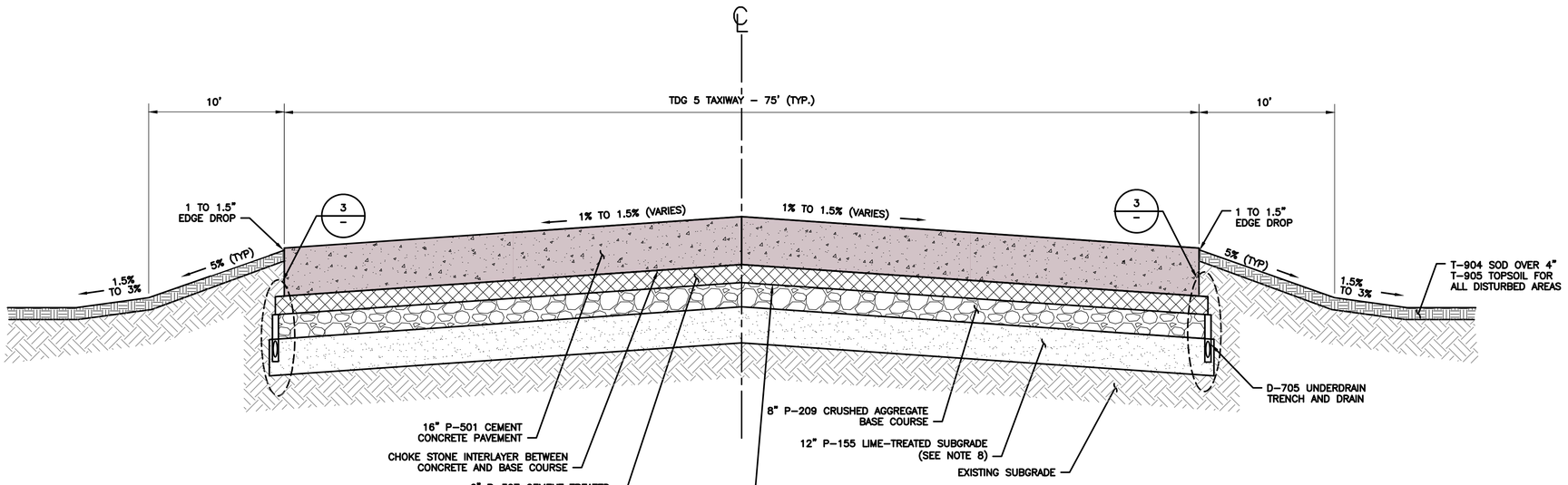
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

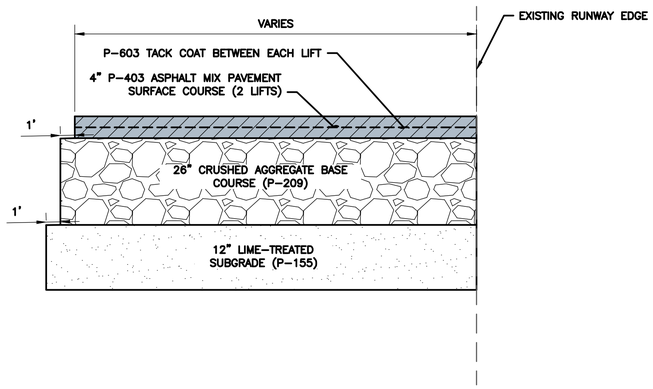
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD502
of



1 16" CONCRETE PAVEMENT TYPICAL SECTION
NTS

GENERAL NOTES:

1. GRADES VARY THROUGHOUT THE TYPICAL SECTIONS. SEE GRADING SHEETS FOR SPECIFIC CROSS SLOPE INFORMATION.
2. THE 4" P-403 LAYER SHALL BE PLACED IN TWO 2" LIFTS.
3. EMULSIFIED ASPHALT TACK COAT (P-603) SHALL BE PLACED BETWEEN LIFTS OF ASPHALT MIXTURE COURSES AND ON EXISTING ADJACENT CONCRETE OR ASPHALT SURFACES.
4. FOR PAVEMENT DETAILS, SEE SHEETS CP501 THROUGH CP505.
5. THE SUBGRADE AND SUBSEQUENT PAVEMENT LAYERS SHALL BE PROTECTED FROM MOISTURE AT ALL TIMES DURING CONSTRUCTION BY MAINTAINING POSITIVE DRAINAGE AWAY FROM THESE AREAS.
6. CHOKE STONE BOND BREAKER UNDER CONCRETE PAVEMENT SHALL BE INCIDENTAL TO P-307.
7. PRIOR TO BUILDING ADJACENT TO OR ABOVE PREVIOUSLY CONSTRUCTED OVERBUILD SECTIONS, CONTRACTOR SHALL RE-VERIFY THAT THE PREVIOUSLY CONSTRUCTED BASE COURSE AND/OR SUBGRADE MEETS THE REQUIREMENTS FOR COMPACTION. IF THE PREVIOUSLY CONSTRUCTED BASE COURSE AND/OR SUBGRADE DO NOT MEET THE REQUIREMENTS IN THE SPECIFICATIONS, MATERIAL SHALL BE REWORKED UNTIL THEY MEET ALL REQUIREMENTS. ANY REWORK OF THE PREVIOUSLY CONSTRUCTED MATERIAL SHALL BE INCIDENTAL TO THE RESPECTIVE ITEM.
8. CONTRACTOR SHALL DEVELOP AND SUBMIT A LIME SLURRY MIX DESIGN TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. THE PERCENT LIME TO BE USED SHALL BE INCLUDED IN THE MIX DESIGN AND DETERMINED BY A LIME SERIES TEST. DEVELOPMENT OF THE MIX DESIGN SHALL BE INCIDENTAL TO P-155.
9. CONTRACTOR SHALL PLACE FILTER FABRIC BETWEEN THE CEMENT TREATED PERMEABLE BASE (P-307) AND CRUSHED AGGREGATE BASE COURSE LAYERS (P-209). SEE P-209 FOR INFORMATION REGARDING FILTER FABRIC.
10. THE BASE COURSE OVERBUILD SHOWN ON PLANS IS FOR REFERENCE ONLY. THE CONTRACTOR MAY BE REQUIRED TO CONSTRUCT ADDITIONAL OVERBUILD IN ORDER TO PROVIDE CONSTRUCTION EQUIPMENT, SUCH AS PAVERS, WITH A UNIFORM STABLE PLATFORM. ANY ADDITIONAL OVERBUILD WILL BE CONSIDERED INCIDENTAL AND NO ADDITIONAL PAYMENT WILL BE MADE.



2 RUNWAY SHOULDER TYPICAL SECTION
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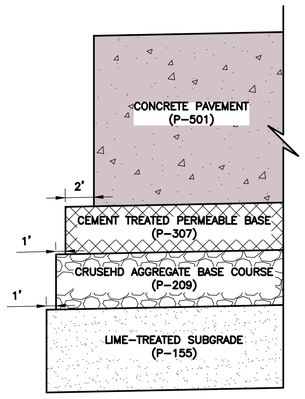

3 PAVEMENT OVERBUILD – CONCRETE
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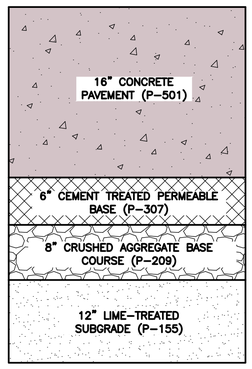

4 PAVEMENT SECTION 16" CONCRETE
NTS

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BAR IS ONE INCH ON ORIGINAL DRAWING.
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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

TYPICAL PAVEMENT SECTIONS

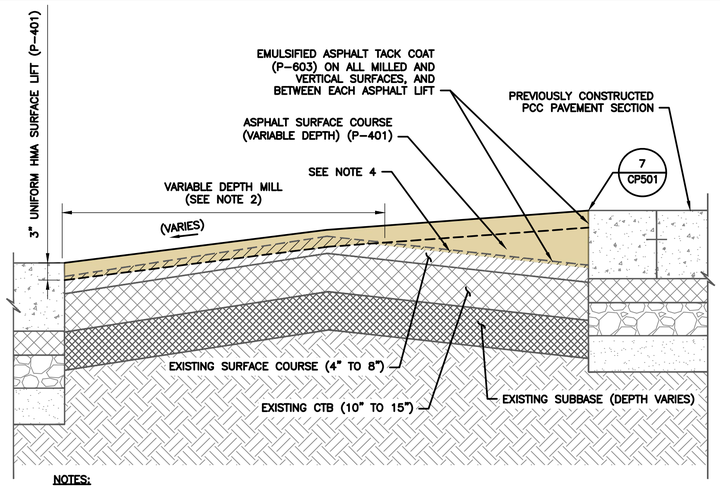
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

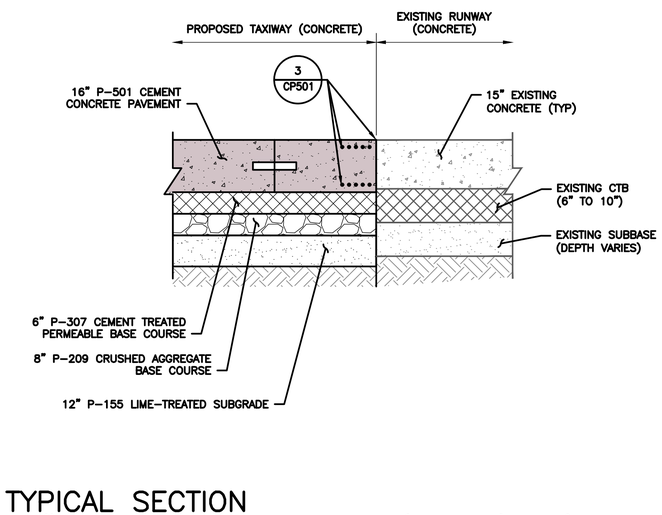
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS001
of



NOTES:

1. DEPTH OF ASPHALT REQUIRED TO REACH FINISHED GRADE WILL VARY. SURFACE LIFT SHALL BE A UNIFORM 3" PLACEMENT OF HMA.
2. MILL DEPTHS WILL VARY BASED ON THE EXISTING GRADES. CONTRACTOR SHALL MILL THE EXISTING HMA TO ENSURE A MINIMUM 3" PLACEMENT OF P-401.
3. ANY VARIATIONS IN THICKNESS MUST BE ACCOUNTED FOR WITHIN THE BASE ASPHALT PAVEMENT TO ENSURE A 3" SURFACE LIFT.
4. ALL ASPHALT TO BE OVERLAIN SHALL REQUIRE A MINIMUM 0.5" MILL.

1 TYPICAL SECTION MILL AND OVERLAY (VARIABLE DEPTH)
NTS



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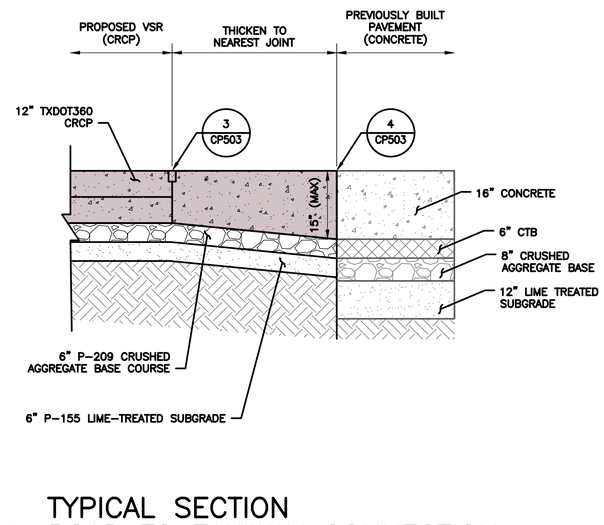
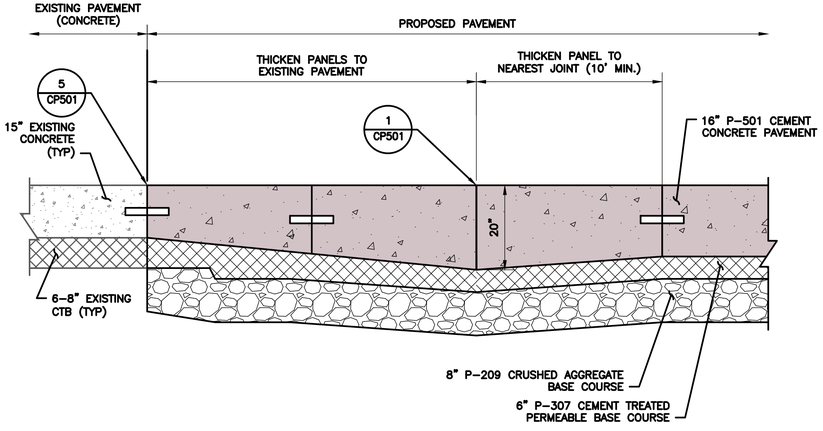


5 TYPICAL SECTION ROAD TO TAXIWAY CONNECTION
NTS



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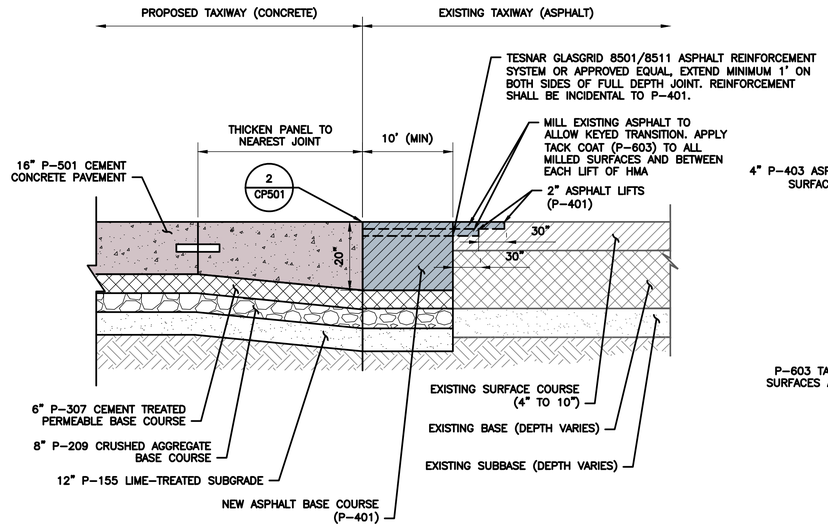

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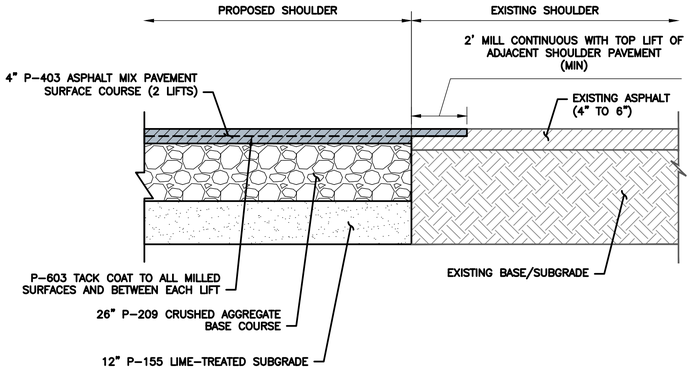

6 TYPICAL SECTION SHOULDER TO SHOULDER CONNECTION
NTS

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NO.	DESCRIPTION	DATE	BY
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FAA NON-STANDARD TAXIWAYS PROJECT

TYPICAL PAVEMENT SECTIONS

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
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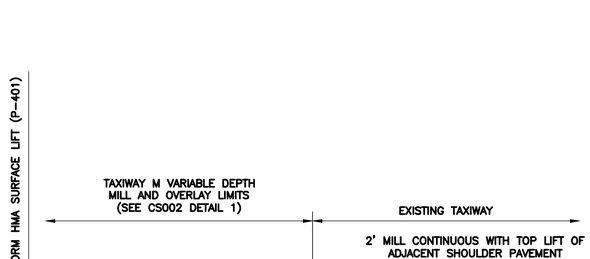
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY:	DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

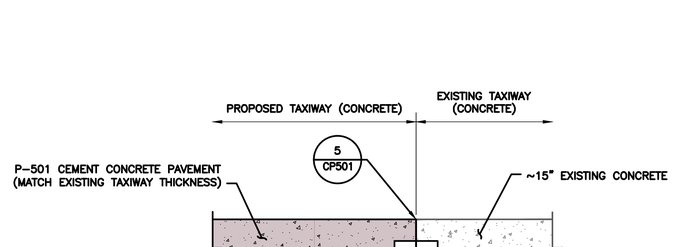
PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	CS002

of



1 TYPICAL SECTION TAXIWAY M ASPHALT TO ASPHALT CONNECTION

NTS



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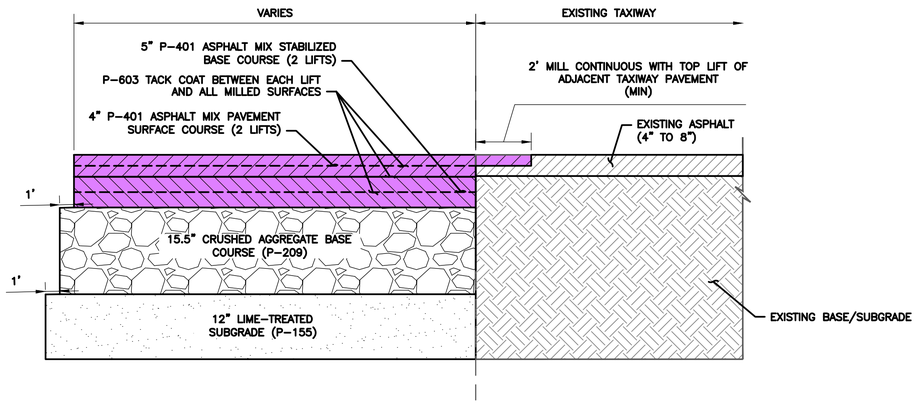

3 TYPICAL SECTION FULL STRENGTH ASPHALT

NTS

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FAA NON-STANDARD TAXIWAYS PROJECT

TYPICAL PAVEMENT SECTIONS

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DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
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02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS003
of

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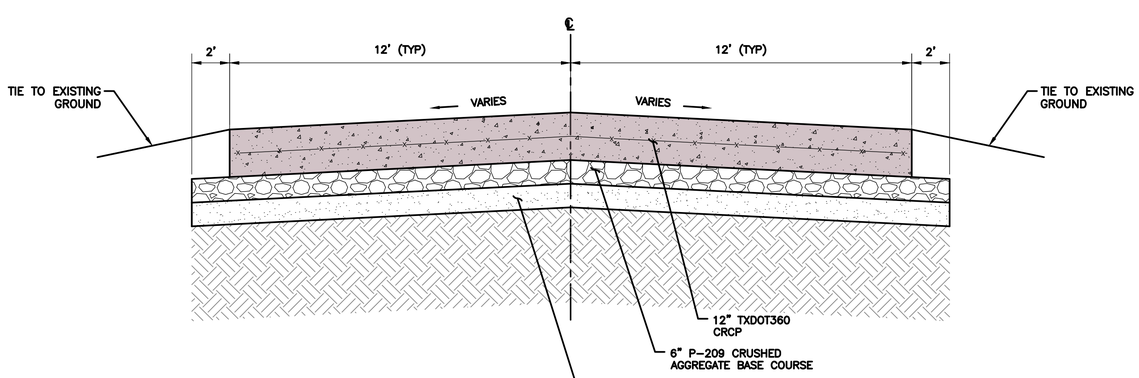

1 VEHICLE SERVICE ROAD TYPICAL SECTION
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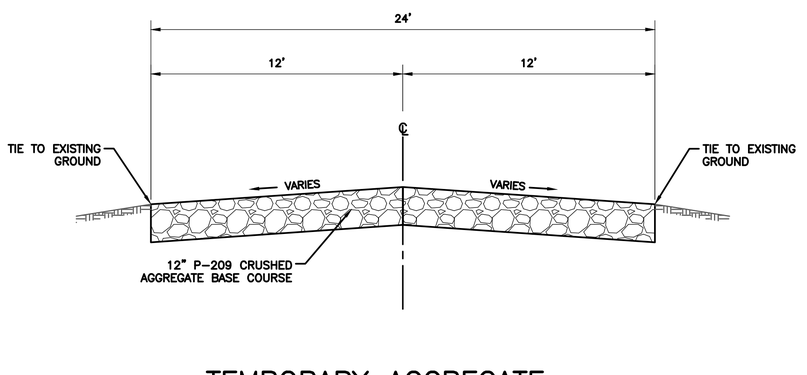

3 TEMPORARY AGGREGATE ACCESS ROAD TYPICAL SECTION
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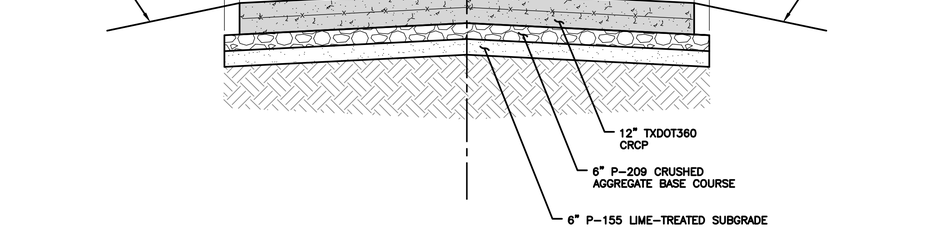

2 HAUL ROAD TYPICAL SECTION
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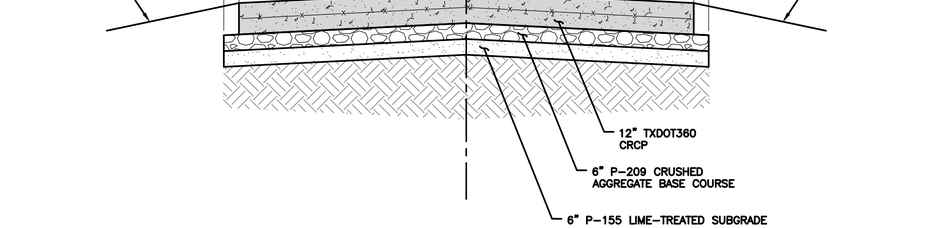

4 SERVICE ROAD TYPICAL SECTION
NTS

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TEXAS P.E. FIRM F-2966

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BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

TYPICAL PAVEMENT SECTIONS

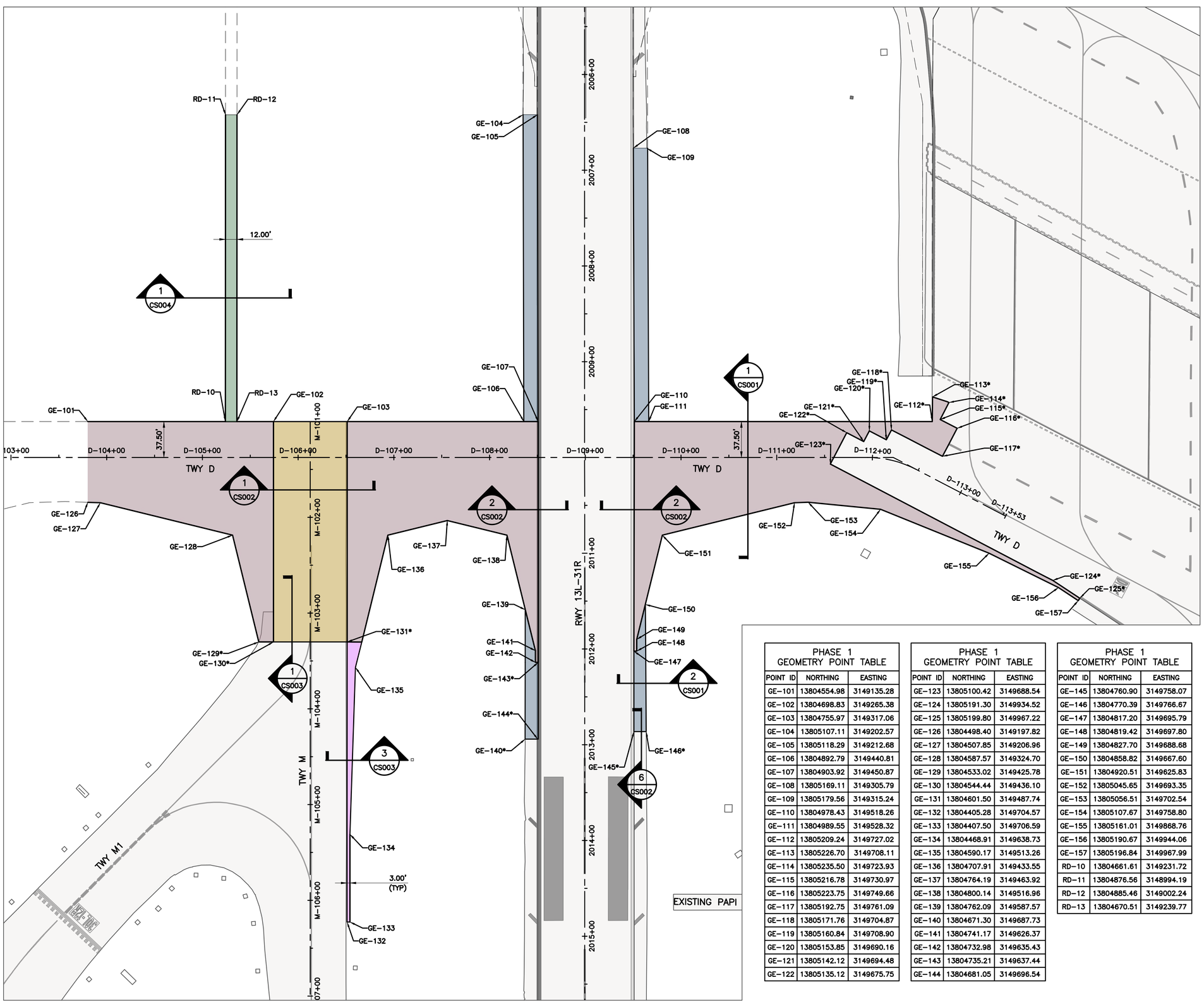
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

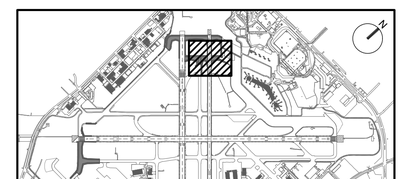
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS004
of





KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

PHASE 1 GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-101	13804554.98	3149135.28
GE-102	13804698.83	3149265.38
GE-103	13804755.97	3149317.06
GE-104	13805107.11	3149202.57
GE-105	13805118.29	3149212.68
GE-106	13804892.79	3149440.81
GE-107	13804903.92	3149450.87
GE-108	13805169.11	3149305.79
GE-109	13805179.56	3149315.24
GE-110	13804978.43	3149518.26
GE-111	13804989.55	3149528.32
GE-112	13805209.24	3149727.02
GE-113	13805226.70	3149708.11
GE-114	13805235.50	3149723.93
GE-115	13805216.78	3149730.97
GE-116	13805223.75	3149749.66
GE-117	13805192.75	3149761.09
GE-118	13805171.76	3149704.87
GE-119	13805160.84	3149708.90
GE-120	13805153.85	3149690.16
GE-121	13805142.12	3149694.48
GE-122	13805135.12	3149675.75

PHASE 1 GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-123	13805100.42	3149688.54
GE-124	13805191.30	3149934.52
GE-125	13805199.80	3149967.22
GE-126	13804498.40	3149197.82
GE-127	13804507.85	3149206.96
GE-128	13804587.57	3149324.70
GE-129	13804533.02	3149425.78
GE-130	13804544.44	3149436.10
GE-131	13804601.50	3149487.74
GE-132	13804405.28	3149704.57
GE-133	13804407.50	3149706.59
GE-134	13804468.91	3149638.73
GE-135	13804590.17	3149513.26
GE-136	13804707.91	3149433.55
GE-137	13804764.19	3149463.92
GE-138	13804800.14	3149516.96
GE-139	13804762.09	3149587.57
GE-140	13804671.30	3149687.73
GE-141	13804741.17	3149626.37
GE-142	13804732.98	3149635.43
GE-143	13804735.21	3149637.44
GE-144	13804681.05	3149696.54

PHASE 1 GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-145	13804760.90	3149758.07
GE-146	13804770.39	3149766.67
GE-147	13804817.20	3149695.79
GE-148	13804819.42	3149697.80
GE-149	13804827.70	3149688.68
GE-150	13804858.82	3149667.60
GE-151	13804920.51	3149625.83
GE-152	13805045.65	3149693.35
GE-153	13805056.51	3149702.54
GE-154	13805107.67	3149758.80
GE-155	13805161.01	3149868.76
GE-156	13805190.67	3149944.06
GE-157	13805196.84	3149967.99
RD-10	13804661.61	3149231.72
RD-11	13804876.56	3148994.19
RD-12	13804885.46	3149002.24
RD-13	13804670.51	3149239.77

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
GEOMETRY PLAN – PHASE 1

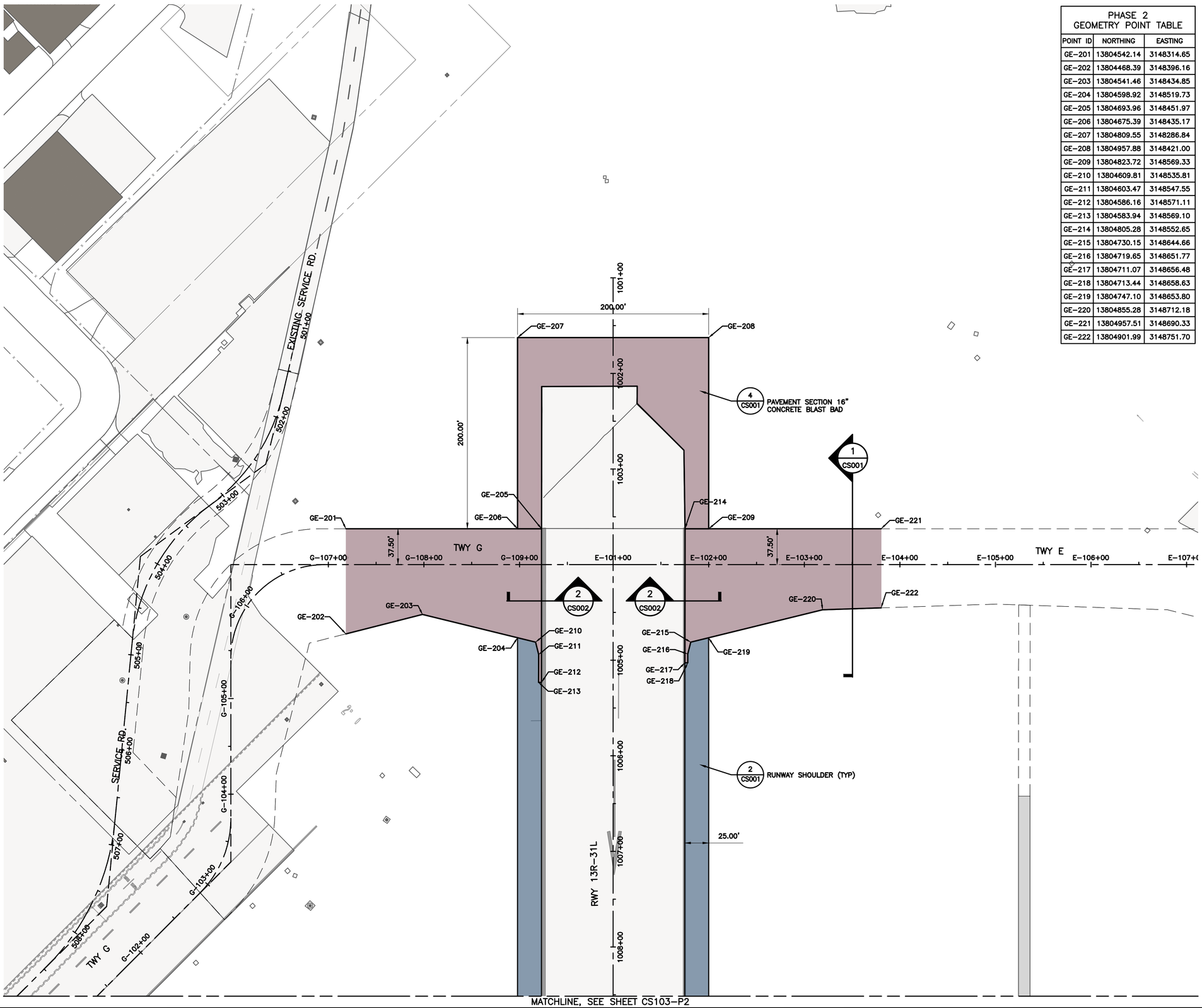
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

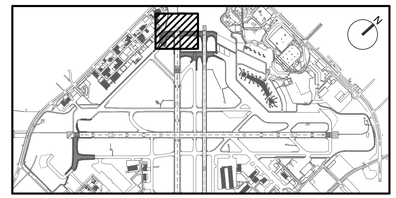
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS101-P1
of



PHASE 2 GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE-201	13804542.14	3148314.65
GE-202	13804468.39	3148396.16
GE-203	13804541.46	3148434.85
GE-204	13804598.92	3148519.73
GE-205	13804693.96	3148451.97
GE-206	13804675.39	3148435.17
GE-207	13804809.55	3148286.84
GE-208	13804957.88	3148421.00
GE-209	13804823.72	3148569.33
GE-210	13804609.81	3148535.81
GE-211	13804603.47	3148547.55
GE-212	13804586.16	3148571.11
GE-213	13804583.94	3148569.10
GE-214	13804805.28	3148552.65
GE-215	13804730.15	3148644.66
GE-216	13804719.65	3148651.77
GE-217	13804711.07	3148656.48
GE-218	13804713.44	3148658.63
GE-219	13804747.10	3148653.80
GE-220	13804855.28	3148712.18
GE-221	13804957.51	3148690.33
GE-222	13804901.99	3148751.70



KEY MAP
NTS

NOTES:

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3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 2

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

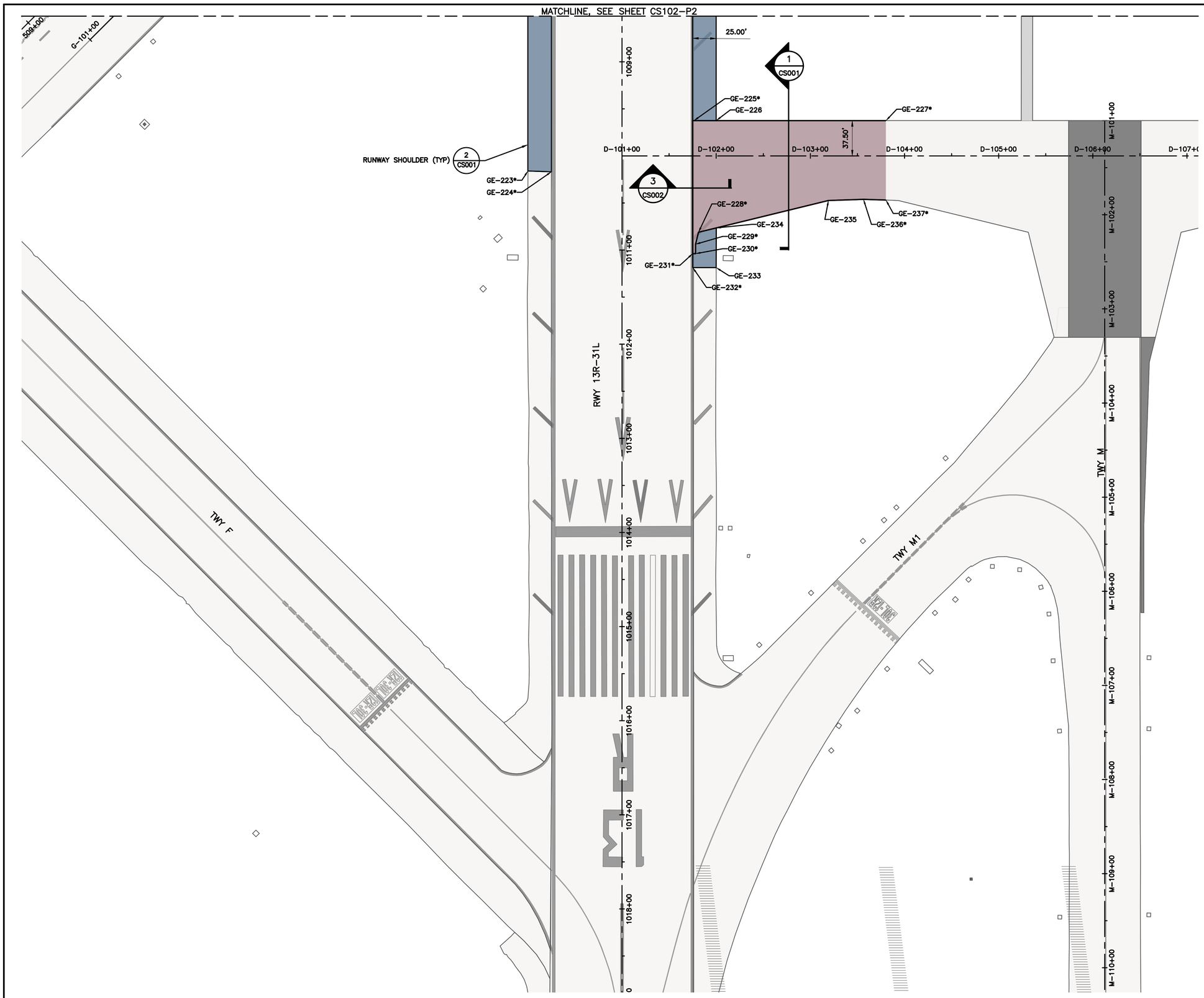
STATE OF TEXAS
THOMAS L. MILLS III
103660
PROFESSIONAL LICENSED ENGINEER
02/24/2023

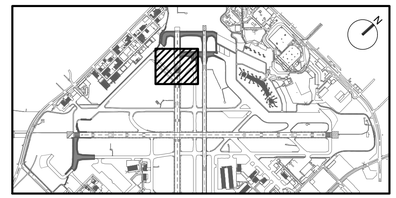
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS102-P2
of

FILENAME: H22C770A-CS102-103-P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:44:44 AM





KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
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4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

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- ASPHALT OVERLAY
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- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

PHASE 2
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-223	13804237.10	3148919.88
GE-224	13804254.99	3148937.23
GE-225	13804403.72	3148998.47
GE-226	13804421.25	3149014.32
GE-227	13804554.98	3149135.28
GE-228	13804327.68	3149089.65
GE-229	13804316.86	3149096.97
GE-230	13804310.16	3149104.39
GE-231	13804307.92	3149102.37
GE-232	13804298.05	3149113.31
GE-233	13804316.48	3149130.00
GE-234	13804344.79	3149098.88
GE-235	13804452.81	3149157.18
GE-236	13804481.21	3149181.20
GE-237	13804498.40	3149197.82

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 2

PROJECT MGR: S. CHILDERS
DESIGNER: D. CRAWFORD
DRAWN BY: B. BARTLETT
CHECKED BY: R. EHTESHAM
SCALE: AS SHOWN
DATE: 02/24/2023

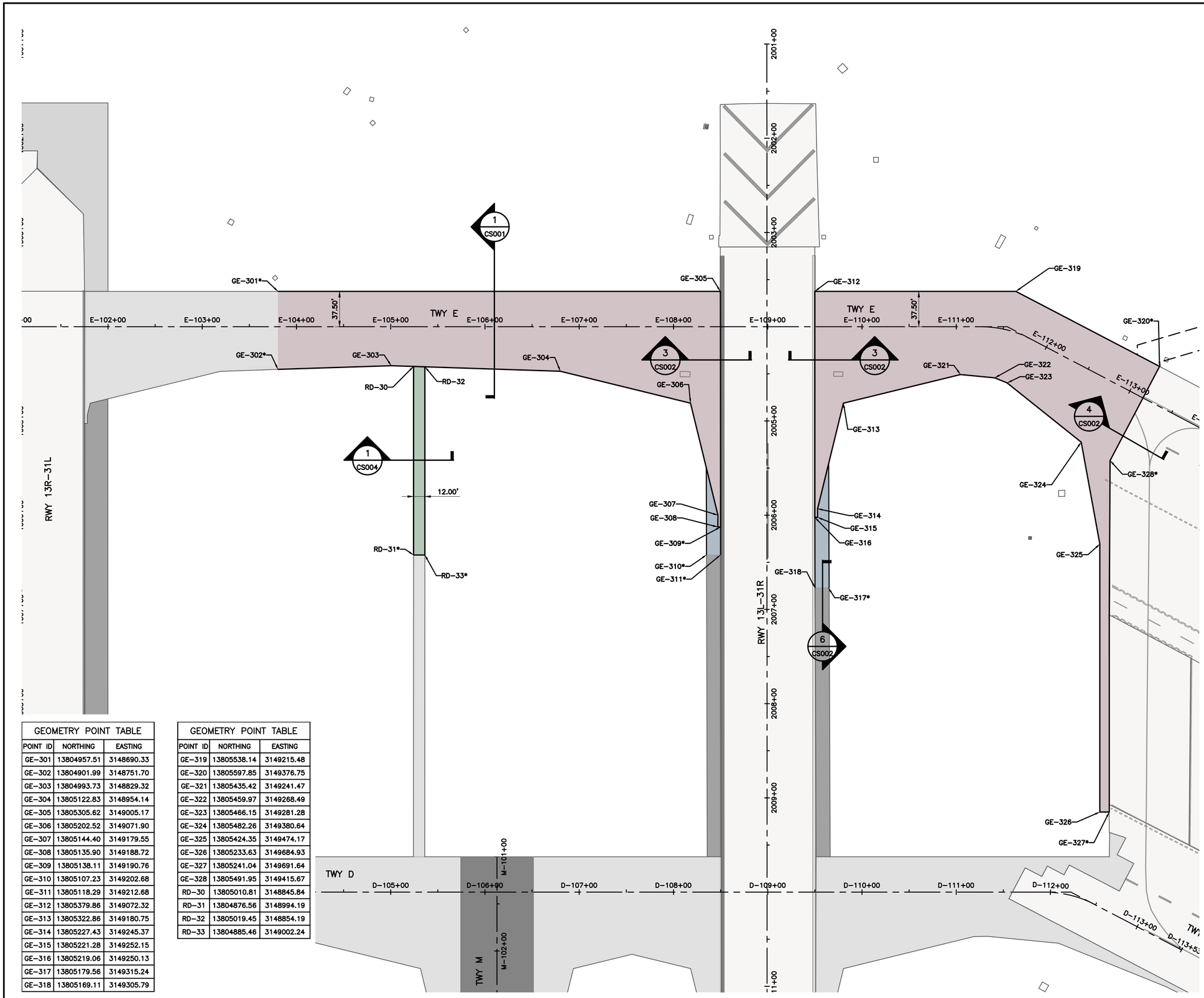
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

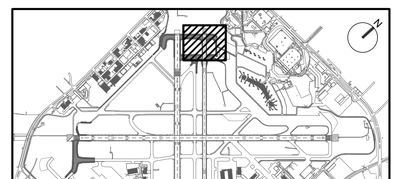
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS103-P2
of

FILENAME: H22C770A-CS102-103-P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:45:51 AM



KEY MAP
NTS



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- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-301	13804957.51	3148690.33
GE-302	13804901.99	3148751.70
GE-303	13804993.73	3148829.32
GE-304	13805122.83	3148954.14
GE-305	13805305.62	3149005.17
GE-306	13805202.52	3149071.90
GE-307	13805144.40	3149179.55
GE-308	13805135.90	3149188.72
GE-309	13805138.11	3149190.76
GE-310	13805107.23	3149202.68
GE-311	13805118.29	3149212.68
GE-312	13805379.86	3149072.32
GE-313	13805322.86	3149180.75
GE-314	13805227.43	3149245.37
GE-315	13805221.28	3149252.15
GE-316	13805219.06	3149250.13
GE-317	13805179.56	3149315.24
GE-318	13805169.11	3149305.79

GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-319	13805538.14	3149215.48
GE-320	13805597.85	3149376.75
GE-321	13805435.42	3149241.47
GE-322	13805459.97	3149268.49
GE-323	13805466.15	3149281.28
GE-324	13805482.26	3149380.64
GE-325	13805424.35	3149474.17
GE-326	13805233.63	3149684.93
GE-327	13805241.04	3149691.64
GE-328	13805491.95	3149415.67
RD-30	13805010.81	3148845.84
RD-31	13804876.56	3148994.19
RD-32	13805019.45	3148854.19
RD-33	13804885.46	3149002.24

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
GEOMETRY PLAN – PHASE 3

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

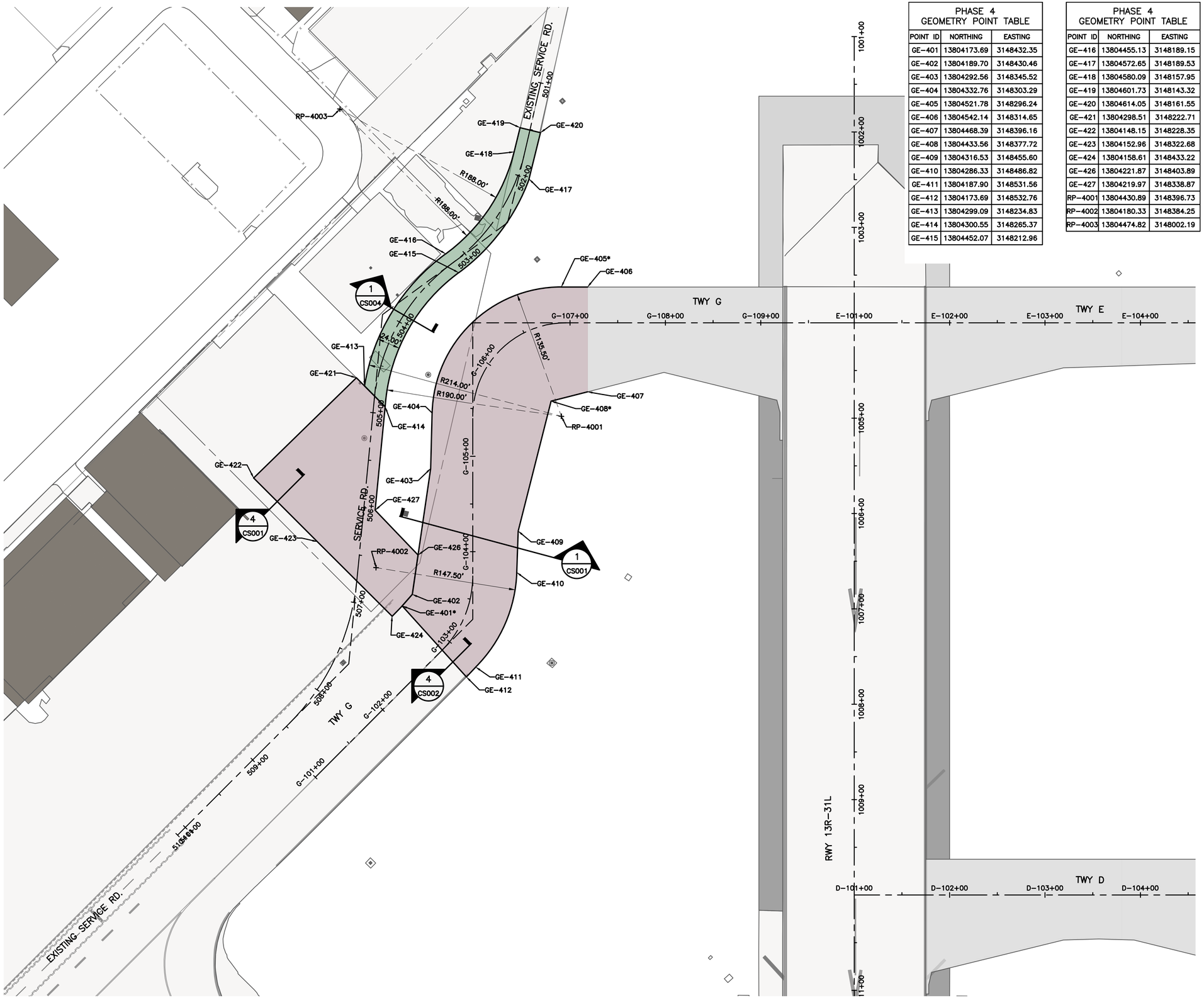
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

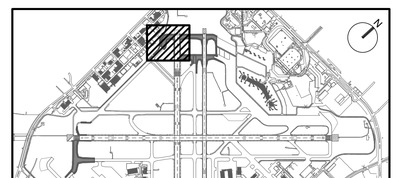
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS104-P3
of

FILENAME: H22C770A-CS104-P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:47:38 AM



PHASE 4 GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE-401	13804173.69	3148432.35
GE-402	13804189.70	3148430.46
GE-403	13804292.56	3148345.52
GE-404	13804332.76	3148303.29
GE-405	13804521.78	3148296.24
GE-406	13804542.14	3148314.65
GE-407	13804468.39	3148396.16
GE-408	13804433.56	3148377.72
GE-409	13804316.53	3148455.60
GE-410	13804286.33	3148486.82
GE-411	13804187.90	3148531.56
GE-412	13804173.69	3148532.76
GE-413	13804299.09	3148234.83
GE-414	13804300.55	3148265.37
GE-415	13804452.07	3148212.96

PHASE 4 GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE-416	13804455.13	3148189.15
GE-417	13804572.65	3148189.53
GE-418	13804580.09	3148157.95
GE-419	13804601.73	3148143.32
GE-420	13804614.05	3148161.55
GE-421	13804298.51	3148222.71
GE-422	13804148.15	3148228.35
GE-423	13804152.96	3148322.68
GE-424	13804158.61	3148433.22
GE-426	13804221.87	3148403.89
GE-427	13804219.97	3148338.87
RP-4001	13804430.89	3148396.73
RP-4002	13804180.33	3148384.25
RP-4003	13804474.82	3148002.19



KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
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- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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VERIFY SCALE
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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 4

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

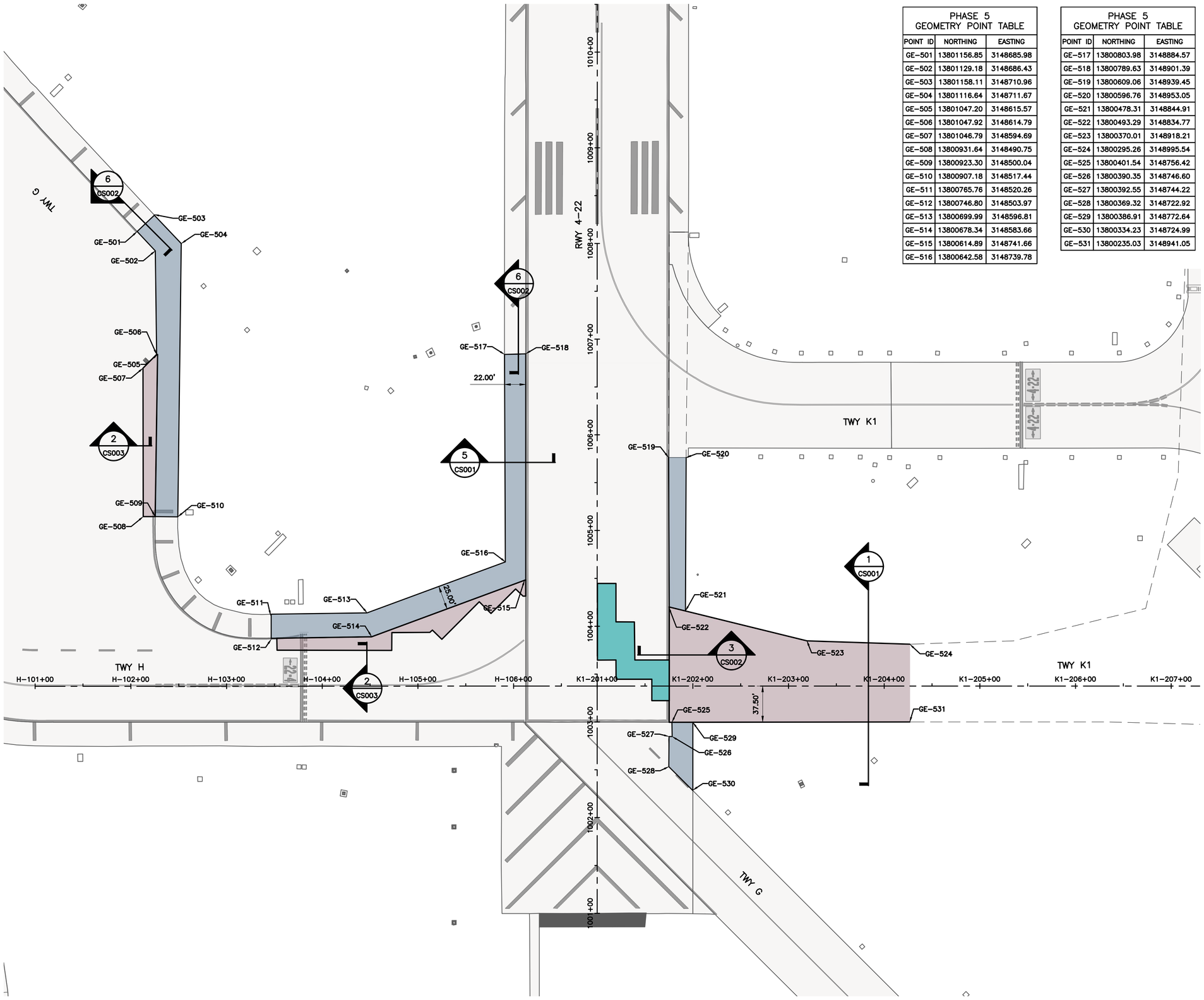
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

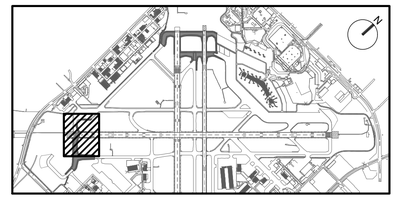
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS105-P4
of

FILENAME: H22C770A-CS105-P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:49:26 AM



PHASE 5 GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE–501	13801156.85	3148685.98
GE–502	13801129.18	3148686.43
GE–503	13801158.11	3148710.96
GE–504	13801116.64	3148711.67
GE–505	13801047.20	3148615.57
GE–506	13801047.92	3148614.79
GE–507	13801046.79	3148594.69
GE–508	13800931.64	3148490.75
GE–509	13800923.30	3148500.04
GE–510	13800907.18	3148517.44
GE–511	13800765.76	3148520.26
GE–512	13800746.80	3148503.97
GE–513	13800699.99	3148596.81
GE–514	13800678.34	3148583.66
GE–515	13800614.89	3148741.66
GE–516	13800642.58	3148739.78

PHASE 5 GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE–517	13800803.98	3148884.57
GE–518	13800789.63	3148901.39
GE–519	13800609.06	3148939.45
GE–520	13800596.76	3148953.05
GE–521	13800478.31	3148844.91
GE–522	13800493.29	3148834.77
GE–523	13800370.01	3148918.21
GE–524	13800295.26	3148995.54
GE–525	13800401.54	3148756.42
GE–526	13800390.35	3148746.60
GE–527	13800392.55	3148744.22
GE–528	13800369.32	3148722.92
GE–529	13800386.91	3148772.64
GE–530	13800334.23	3148724.99
GE–531	13800235.03	3148941.05



KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX–XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 5

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

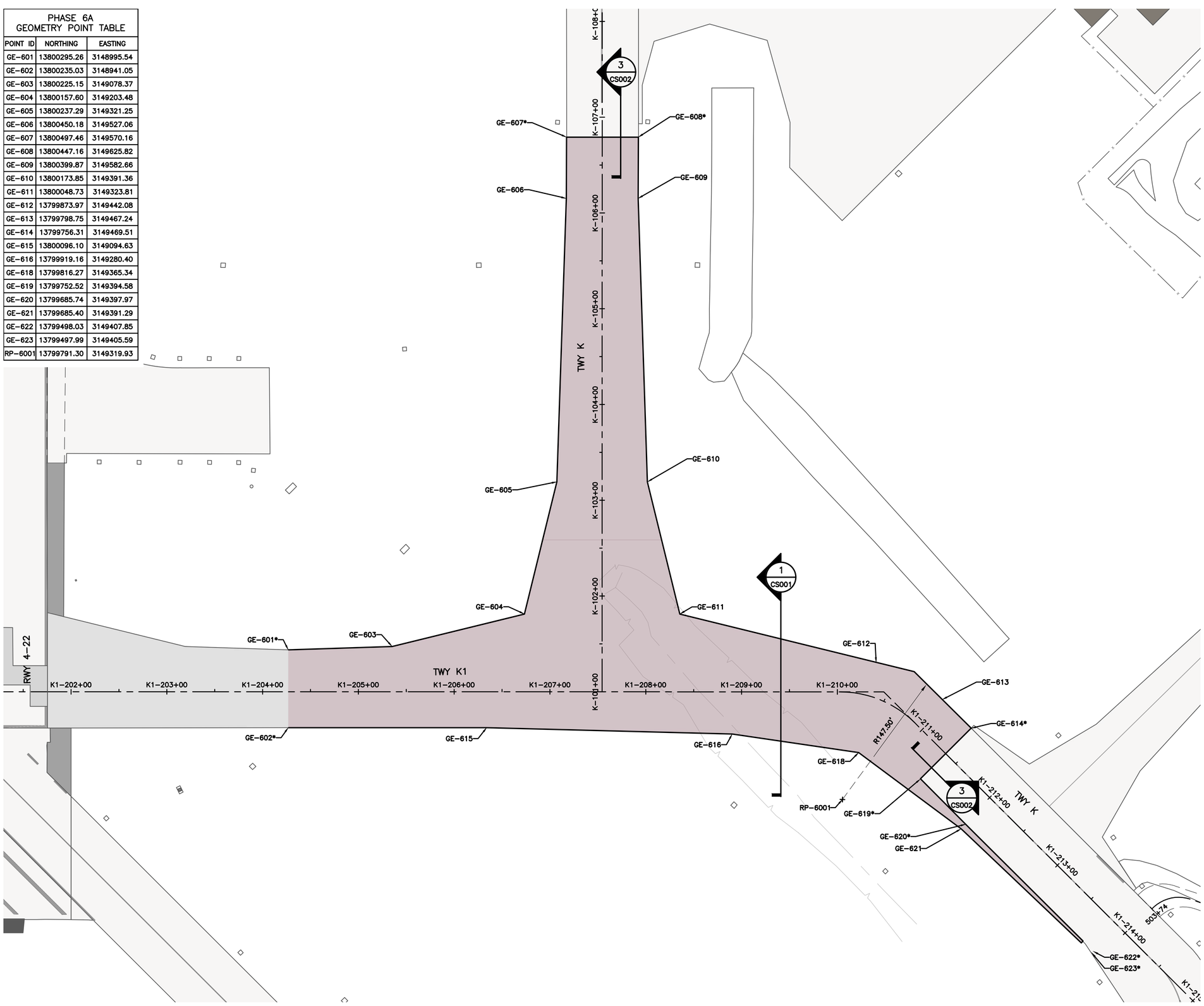
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

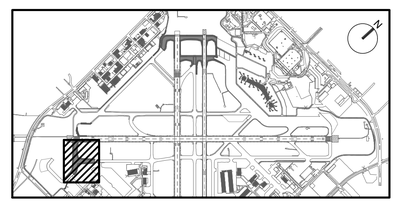
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS106–P5
of

PHASE 6A GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE-601	13800295.26	3148995.54
GE-602	13800235.03	3148941.05
GE-603	13800225.15	3149078.37
GE-604	13800157.60	3149203.48
GE-605	13800237.29	3149321.25
GE-606	13800450.18	3149527.06
GE-607	13800497.46	3149570.16
GE-608	13800447.16	3149625.82
GE-609	13800399.87	3149582.66
GE-610	13800173.85	3149391.36
GE-611	13800048.73	3149323.81
GE-612	13799873.97	3149442.08
GE-613	13799798.75	3149467.24
GE-614	13799756.31	3149469.51
GE-615	13800096.10	3149094.63
GE-616	13799919.16	3149280.40
GE-618	13799816.27	3149365.34
GE-619	13799752.52	3149394.58
GE-620	13799685.74	3149397.97
GE-621	13799685.40	3149391.29
GE-622	13799498.03	3149407.85
GE-623	13799497.99	3149405.59
RP-6001	13799791.30	3149319.93





KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
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3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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TEXAS P.E. FIRM F-2966

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REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 6A

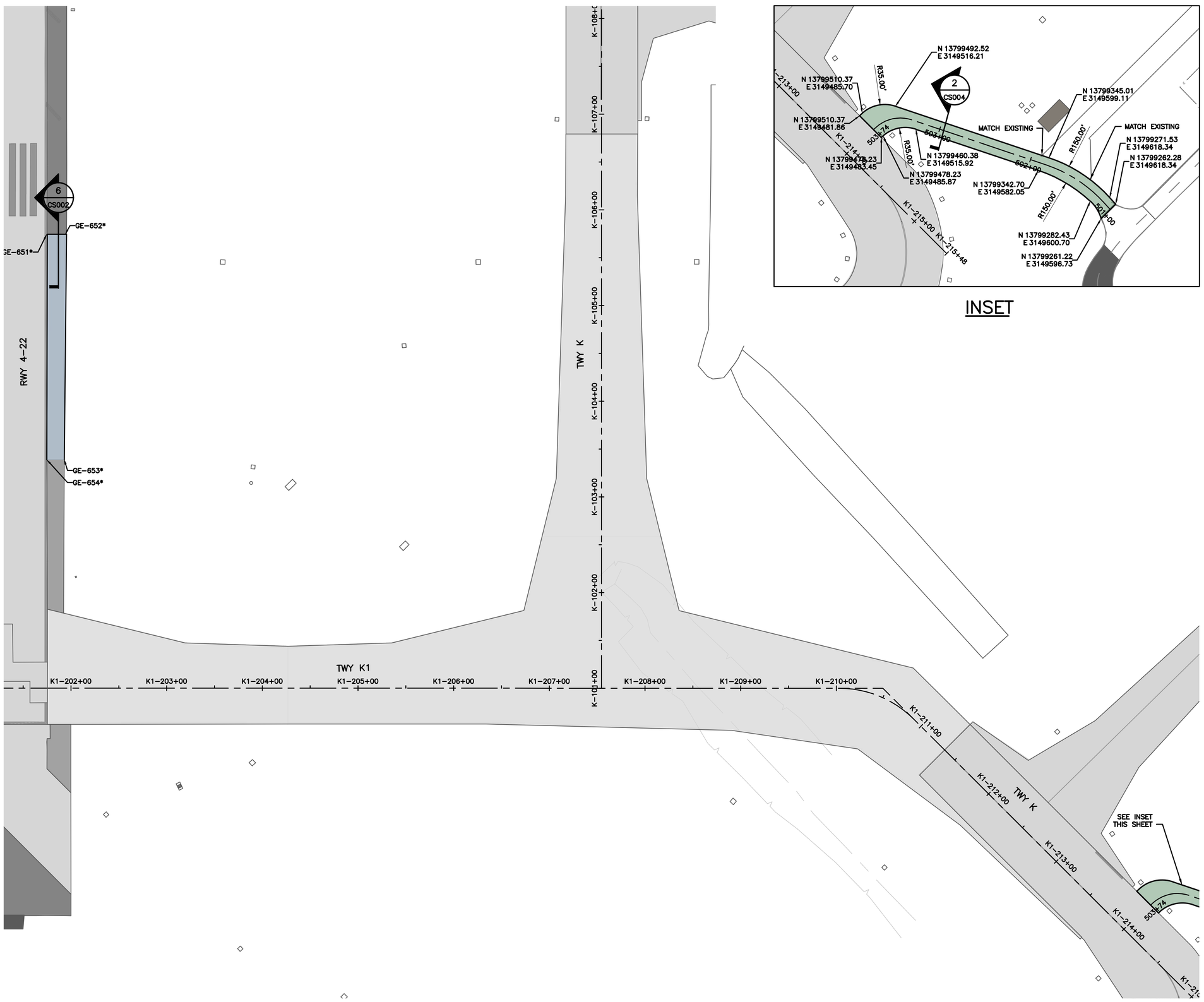
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

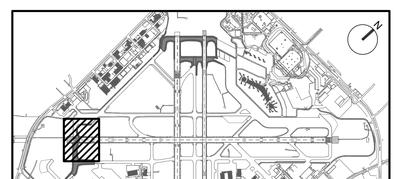
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS107-P6
of



INSET



KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
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3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

PHASE 6B
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-651	13800783.80	3149097.44
GE-652	13800770.75	3149111.88
GE-653	13800596.76	3148953.05
GE-654	13800609.06	3148939.45

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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TEXAS P.E. FIRM F-2966

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 6B

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

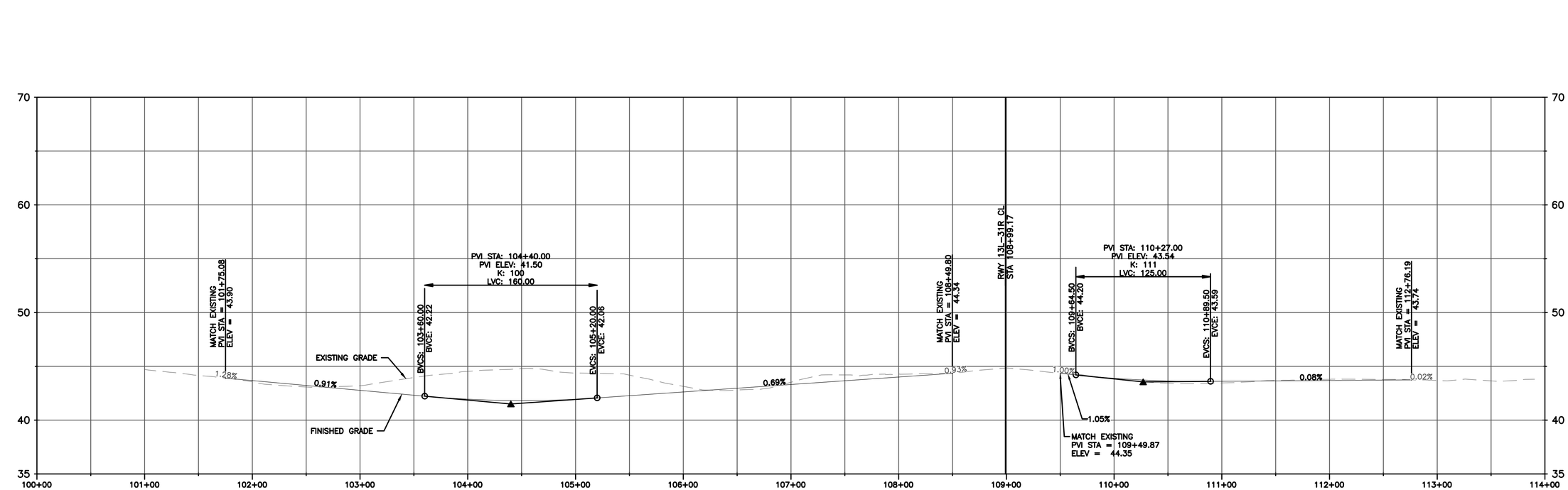
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS108-P6
of

FILENAME: H22C770A-CS108-P6.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:53:15 AM



EXISTING ELEV			44.69	44.14	43.57	43.08	43.18	43.96	44.53	44.78	44.37	44.18	43.13	42.79	43.52	44.20	44.28	44.35	44.85	44.35	43.82	43.42	43.46	43.69	43.79	43.79	43.68	43.64		
PROPOSED ELEV					43.67	43.22	42.77	42.32	41.94	41.81	41.94	42.26	42.61	42.96	43.30	43.65	44.00			44.35	43.88	43.63	43.60	43.64	43.68	43.72			

TWY–E

HOR SCALE: 1":100'
VER SCALE: 1":10'

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HOUSTON TEXAS

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TEXAS P.E. FIRM F-2966

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

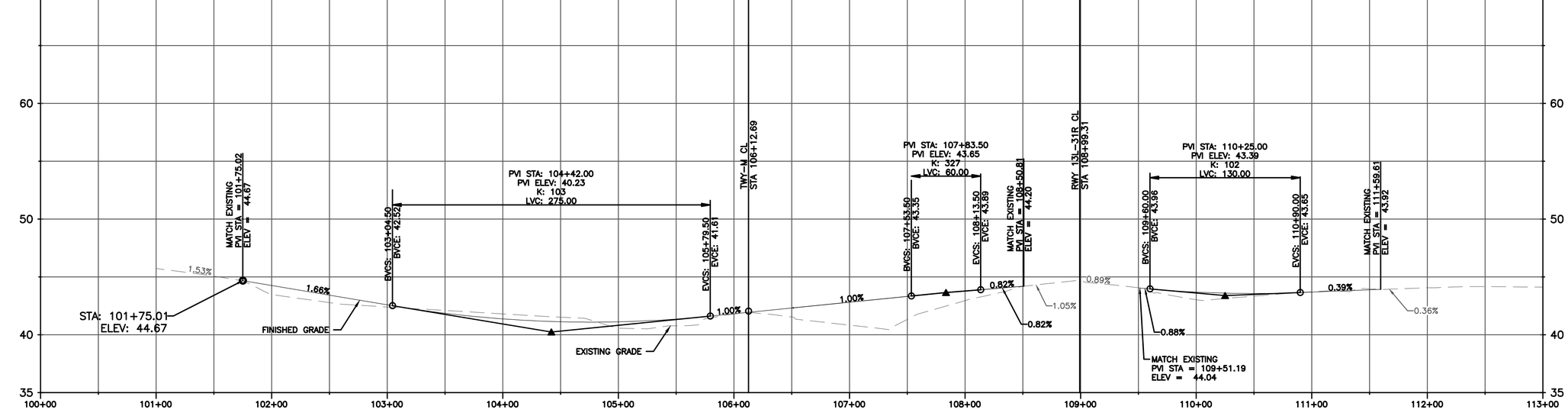
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS201
of

FILENAME: H22C770A–CS201–206.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:54:15 AM



EXISTING ELEV			45.72	45.06	43.45	42.78	42.39	42.10	41.81	41.52	40.57	40.78	41.79	41.53	40.83	41.33	42.95	44.19	44.67	44.07	43.03	43.34	43.70	43.97	44.06	44.17	44.11
PROPOSED ELEV					44.25	43.42	42.59	41.86	41.37	41.12	41.12	41.35	41.81	42.31	42.81	43.31	43.78	44.19			43.69	43.57	43.68	43.88			

TWY–D

HOR SCALE: 1":100'
VER SCALE: 1":10'

HOUSTON AIRPORT SYSTEM
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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

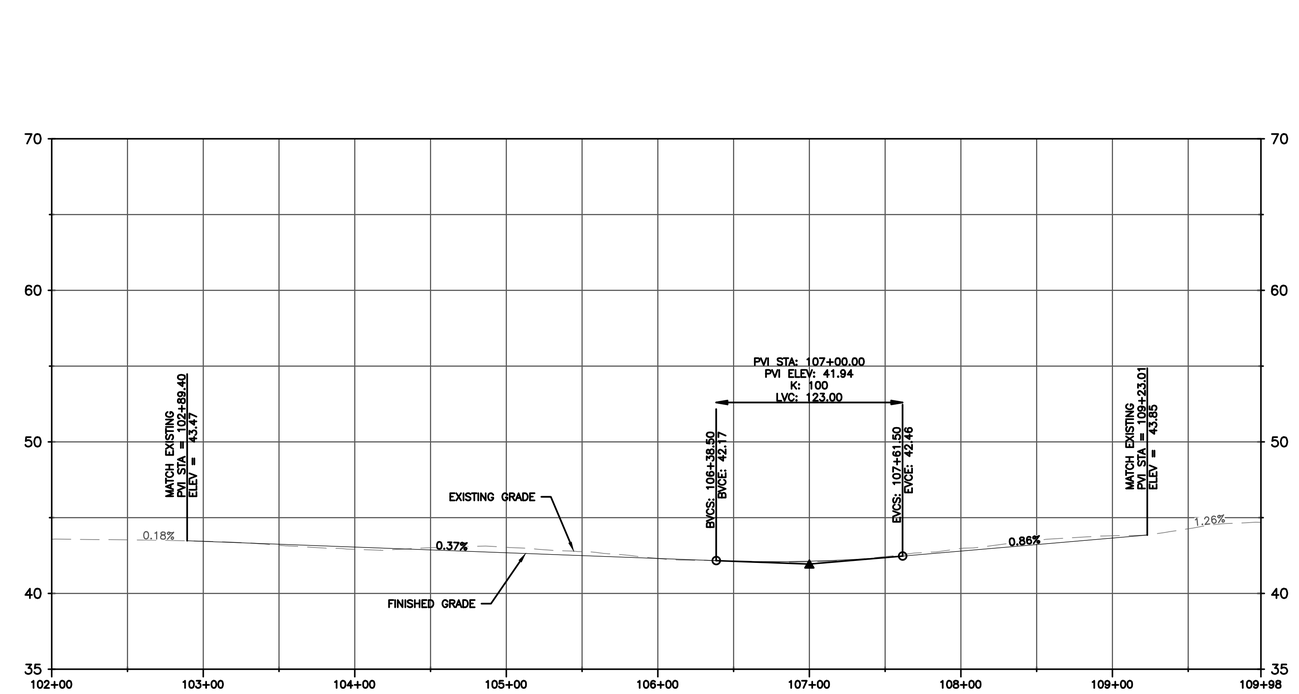
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS202
of



EXISTING ELEV	43.58	43.53	43.44	43.18	42.91	43.01	43.04	42.76	42.30	42.15	42.09	42.43	42.96	43.49	43.80	44.26	44.69
PROPOSED ELEV			43.43	43.24	43.06	42.87	42.68	42.50	42.31	42.13	42.13	42.37	42.80	43.23	43.66		

TWY–G

HOR SCALE: 1":100'
VER SCALE: 1":10'

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WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

PROJECT MGR: S. CHILDERS
DESIGNER: D. CRAWFORD
DRAWN BY: D. CRAWFORD
CHECKED BY: R. EHTESHAM
SCALE: AS SHOWN
DATE: 02/24/2023

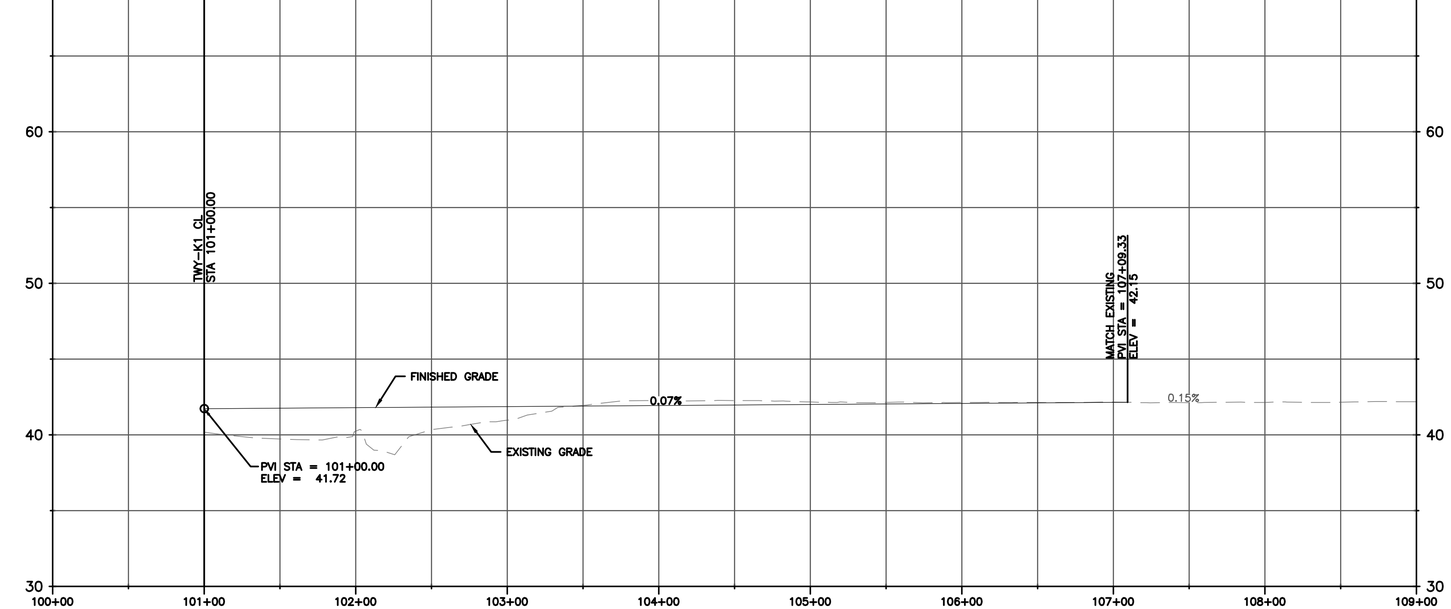
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS203
of

FILENAME: H22C770A-CS201-206.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:56:10 AM



EXISTING ELEV			40.18	39.72	40.24	40.34	40.97	41.95	42.25	42.26	42.17	42.14	42.13	42.13	42.16	42.12	42.14	42.15	42.19
PROPOSED ELEV			41.72	41.76	41.79	41.83	41.86	41.90	41.93	41.97	42.00	42.04	42.08	42.11	42.15				

TWY-K

HOR SCALE: 1":100'
VER SCALE: 1":10'

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

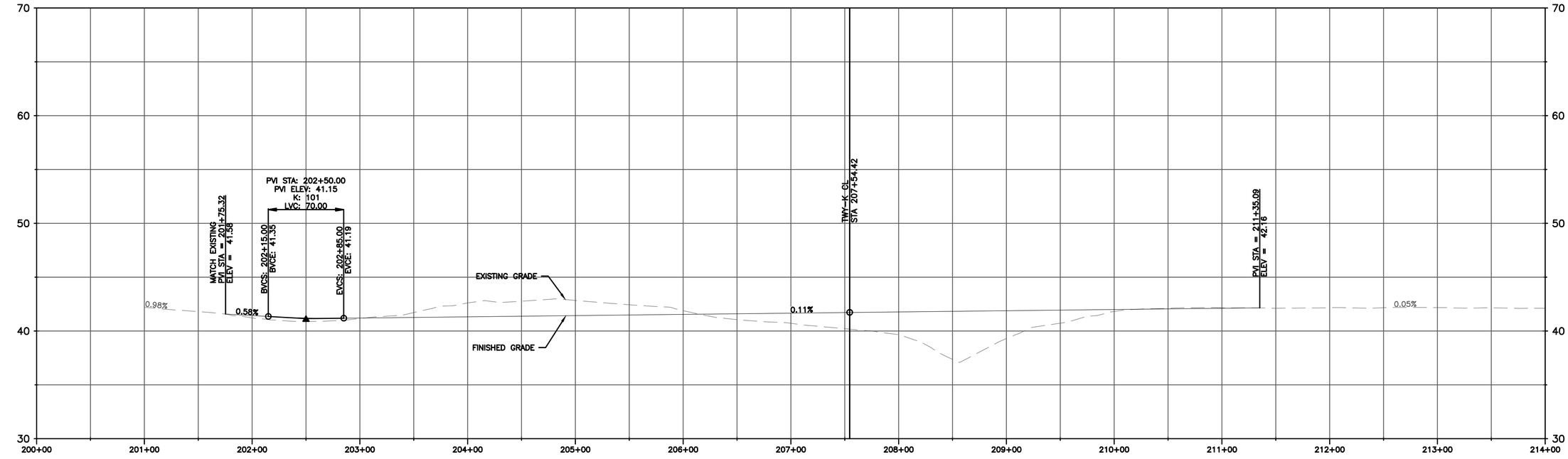
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS204
of



EXISTING ELEV		42.19	41.81	41.22	40.89	41.16	41.72	42.61	42.77	42.84	42.44	41.89	41.06	40.72	40.22	39.66	37.36	39.30	40.73	41.82	42.12	42.16	42.12	42.17	42.16	42.18	42.16	42.12
PROPOSED ELEV				**41.44**	**41.21**	**41.21**	**41.26**	**41.32**	**41.38**	**41.43**	**41.49**	**41.55**	**41.60**	**41.66**	**41.72**	**41.77**	**41.83**	**41.89**	**41.95**	**42.00**	**42.06**	**42.12**						

TWY-K1

HOR SCALE: 1":100'
VER SCALE: 1":10'

HOUSTON AIRPORT SYSTEM
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0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

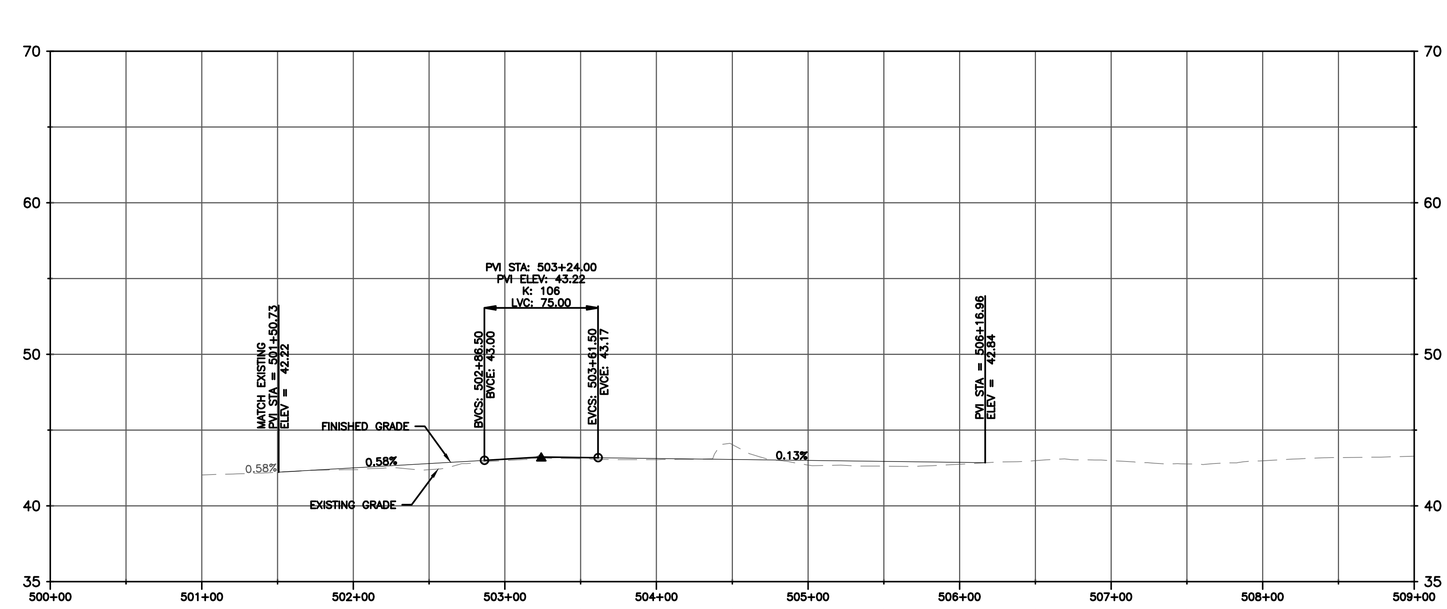
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS205
of

FILENAME: H22C770A-CS201-206.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:57:33 AM



EXISTING ELEV			42.04	42.21	42.39	42.39	42.99	43.11	43.05	44.04	42.69	42.62	42.74	42.98	42.98	42.76	42.98	43.19	43.27
PROPOSED ELEV					42.50	42.79	43.07	43.18	43.12	43.06	42.99	42.93	42.87						

VSR

HOR SCALE: 1":100'
VER SCALE: 1":10'

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

SERVICE ROAD PROFILES

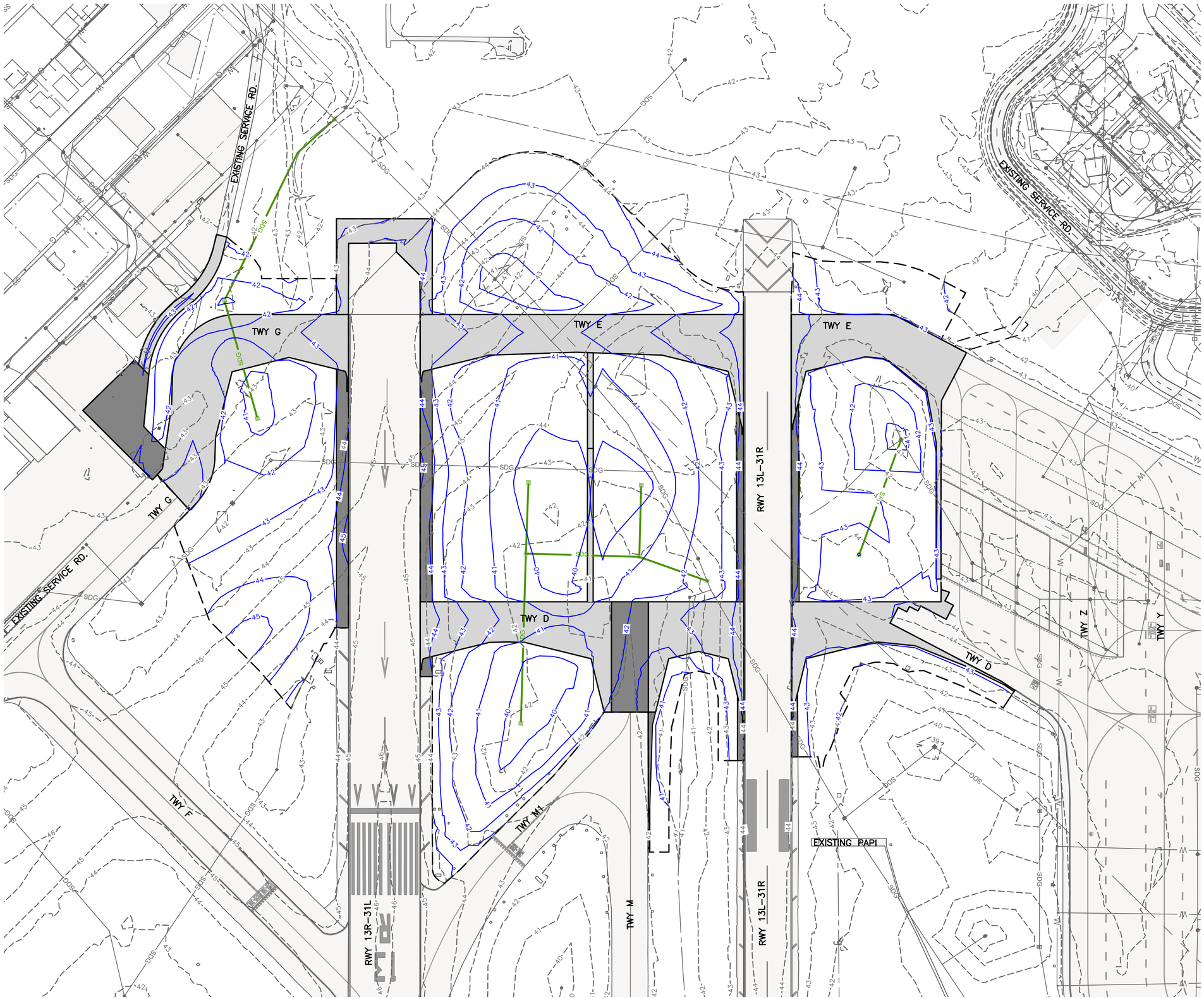
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

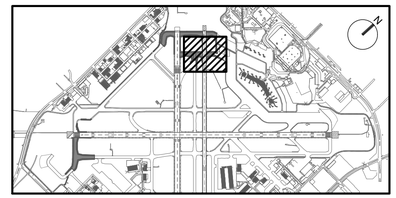
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS206
of





KEY MAP
NTS

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- SDG EXISTING STORM DRAINAGE

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

OVERALL GRADING AND DRAINAGE PLAN (PHASES 1 THROUGH 4)

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

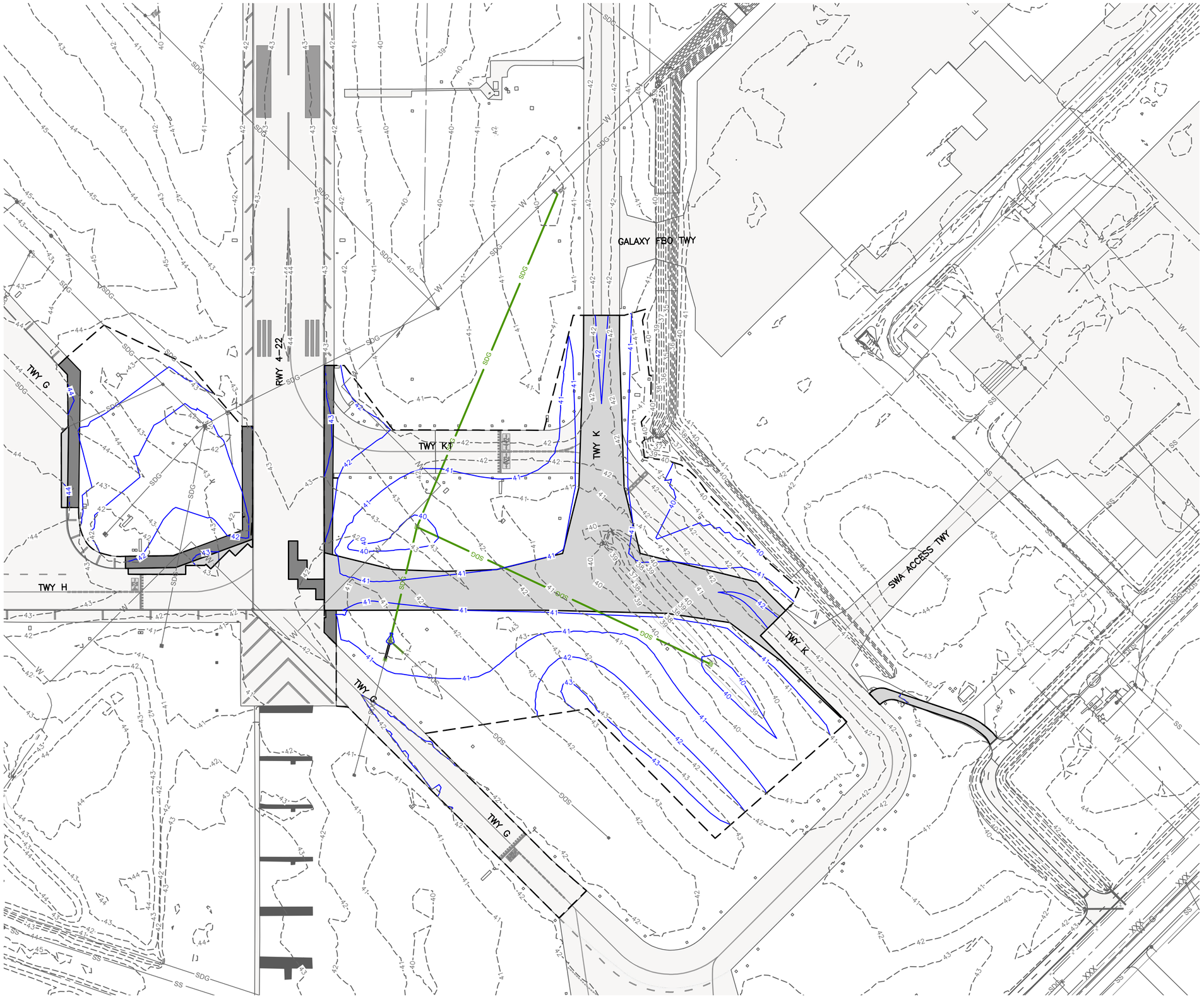
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

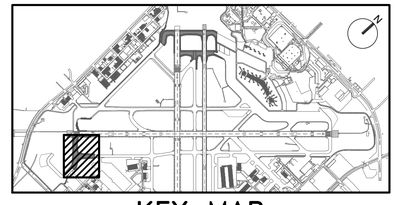
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG001
of

FILENAME: H22C770A-CG001-011.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:20:38 AM





KEY MAP
NTS

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- SDG EXISTING STORM DRAINAGE

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

OVERALL GRADING AND DRAINAGE PLAN (PHASES 5 AND 6)

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG002
of

SD2-S-87
N 13804737.30
E 3148964.39
RIM: 39.50'
SUMP: 33.42'
INV OUT: 33.75 36" RCP

SD3-S-89
N 13804908.37
E 3149126.38
RIM: 39.60'
SUMP: 33.85'
INV OUT: 33.85 36" RCP

SD2-P-36
148 LF
36" RCP

SD3-P-37
150 LF
36" RCP

SD8-S-108
N 13804904.87
E 3149234.68
RIM: 40.88'
SUMP: 32.92'
INV IN: 33.30 42" RCP
INV OUT: 33.30 42" RCP

SD8-P-26
237 LF
42" RCP

SD8-P-47
150 LF
42" RCP

SD8-S-109
N 13804876.30
E 3149366.97
RIM: 42.49'
SUMP: 31.82'
INV IN: 32.20 42" RCP
CONNECT EXISTING 42" STORM DRAIN TO MANHOLE

SD2-S-88
N 13804633.76
E 3149070.76
RIM: 40.13'
SUMP: 33.60'
INV IN: 33.60 36" RCP

CAP EXISTING INLET.
SEE CG506 DETAIL 2

SD1-101
335 LF
36" RCP

SD1-S-80
N 13804388.28
E 3149326.71
RIM: 39.47'
SUMP: 34.12'
INV OUT: 34.12 36" RCP

SD4-EXMH-01
N 13805374.65
E 3149419.82
RIM: 40.60'
SUMP: 36.42'
INV IN: 36.42 24" RCP

SD4-101
256 LF
24" RCP

SD4-CB-01
N 13805148.43
E 3149539.28
RIM: 42.00'
SUMP: 37.25'
INV OUT: 37.50 24" RCP

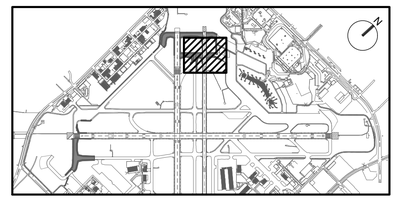
RWY 13L-31R

TWY M

TWY MT

TWY D

EXISTING PAPI



KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 — PROPOSED CONTOUR
- 40 — EXISTING CONTOUR
- 40 — PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG — EXISTING STORM DRAIN PIPE
- CO — PROPOSED UNDERDRAIN CLEANOUT
- UD — PROPOSED UNDERDRAIN PIPE
- 40 — TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

Jacobs
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TEXAS P.E. FIRM F-2966

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 1

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

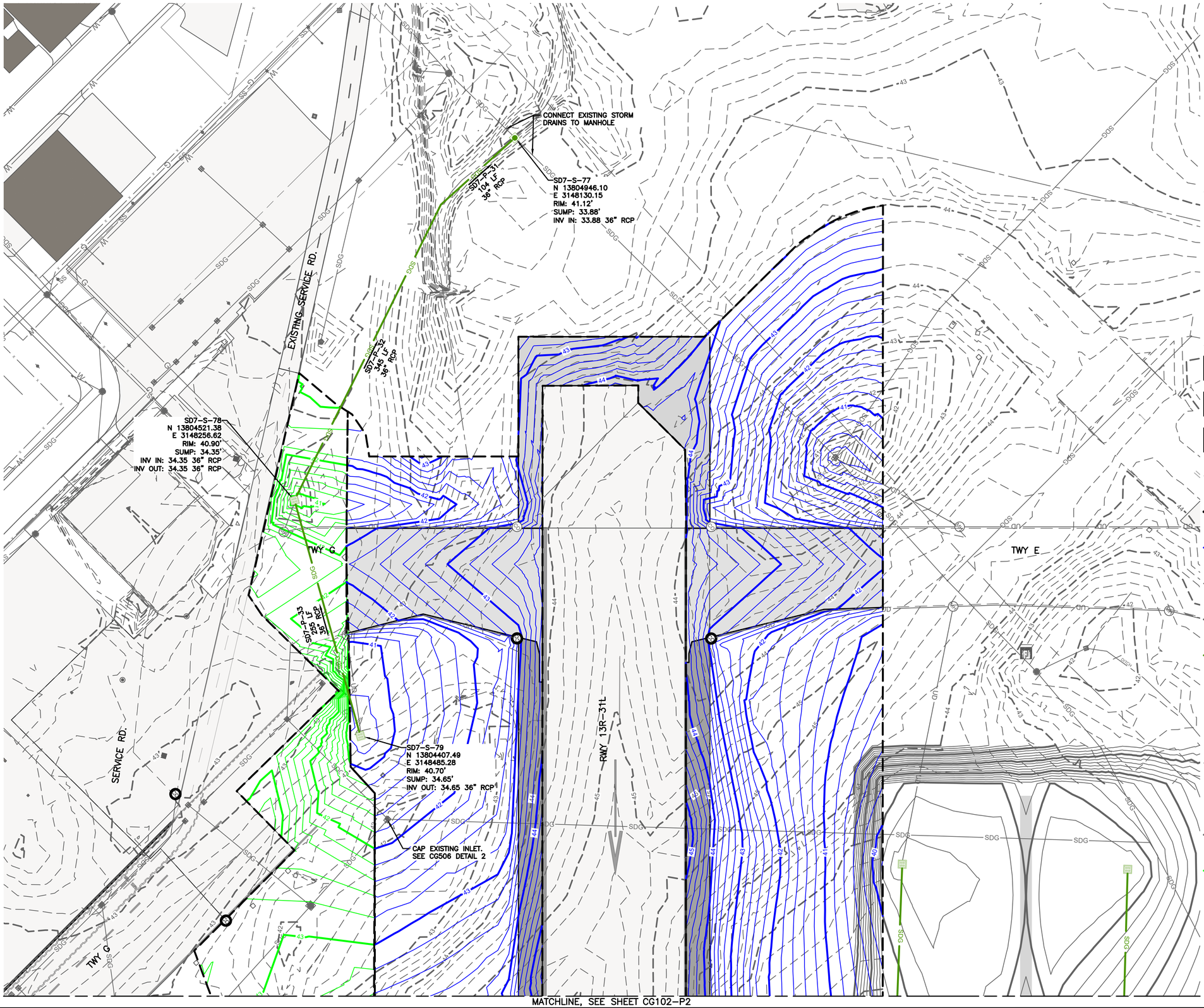
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

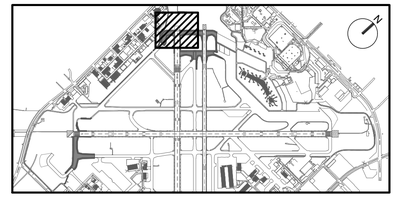
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG101-P1
of

FILENAME: H22C770A-CG101-P1.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:23:51 AM





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 2

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

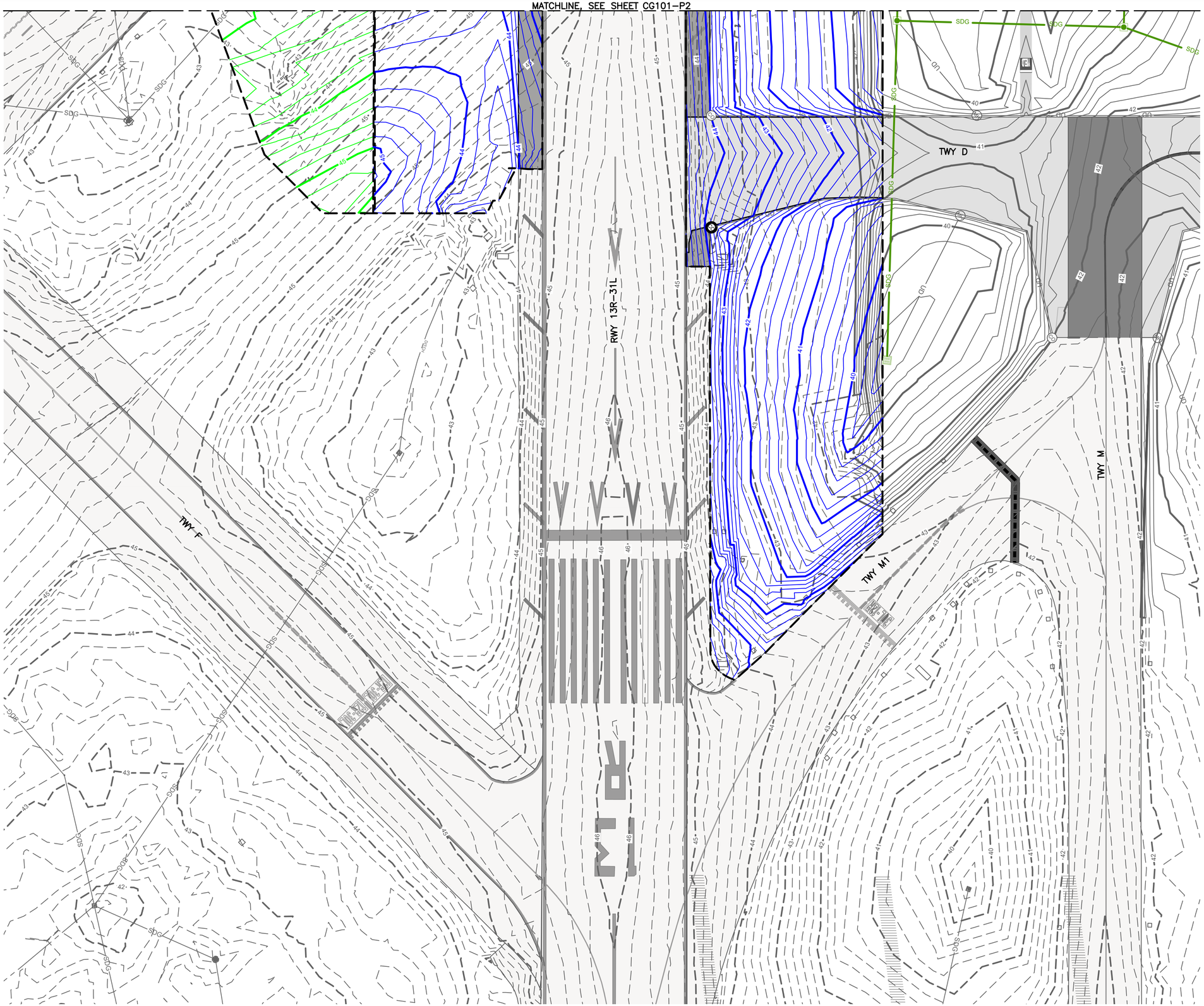
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

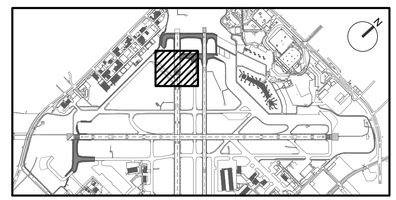
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG102-P2
of

MATCHLINE, SEE SHEET CG101-P2





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 2

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

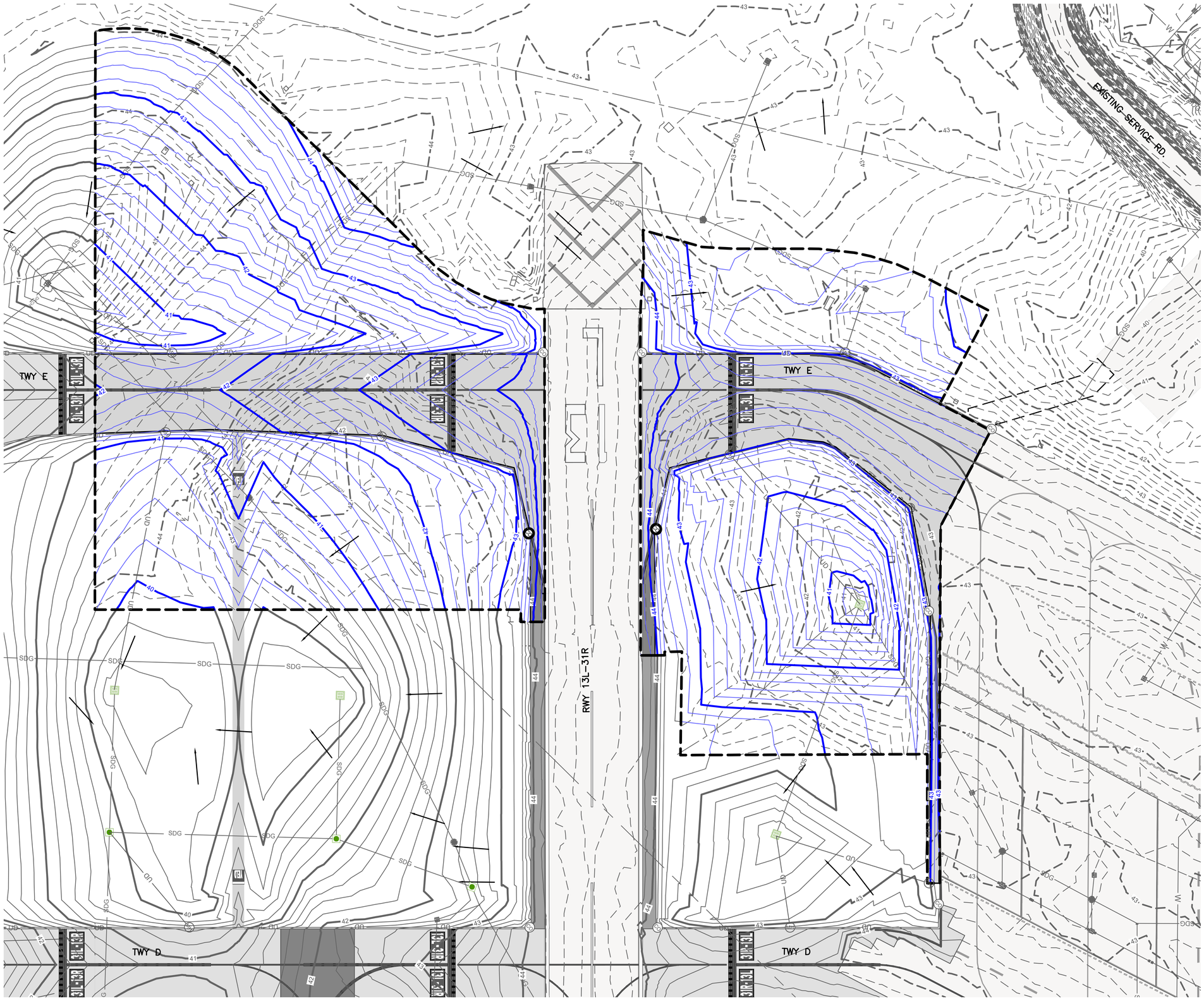
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

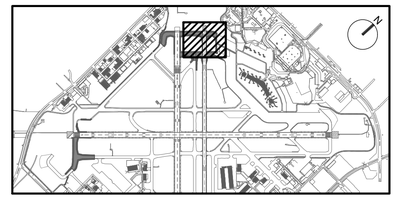
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG103-P2
of

FILENAME: H22C770A-CG102-103-P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:26:19 AM





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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

VERIFY SCALE
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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 3

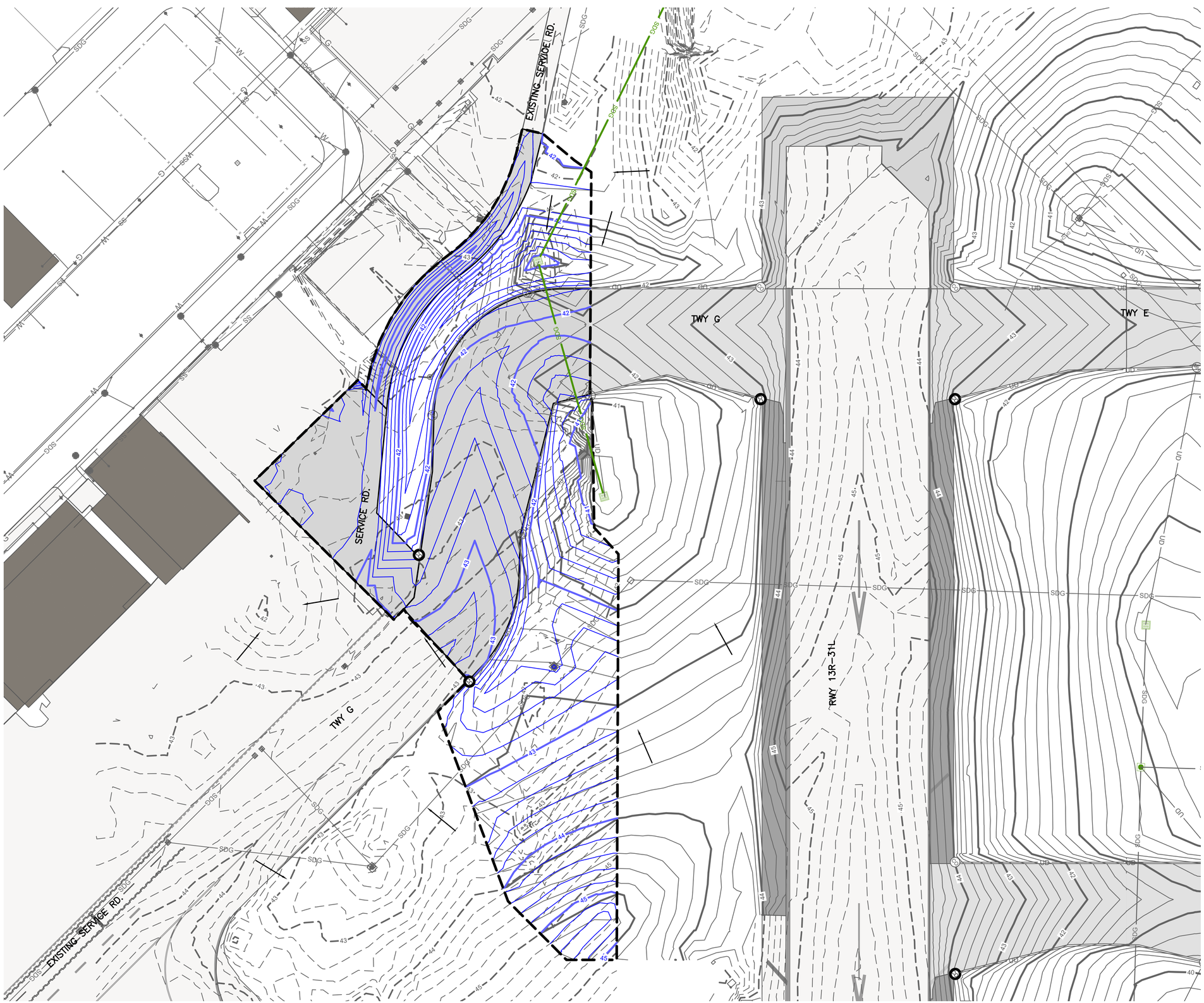
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

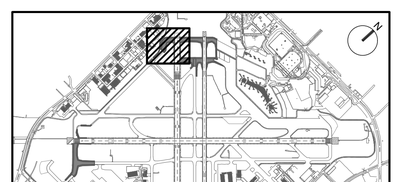
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG104-P3
of





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC–901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P–152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 4

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

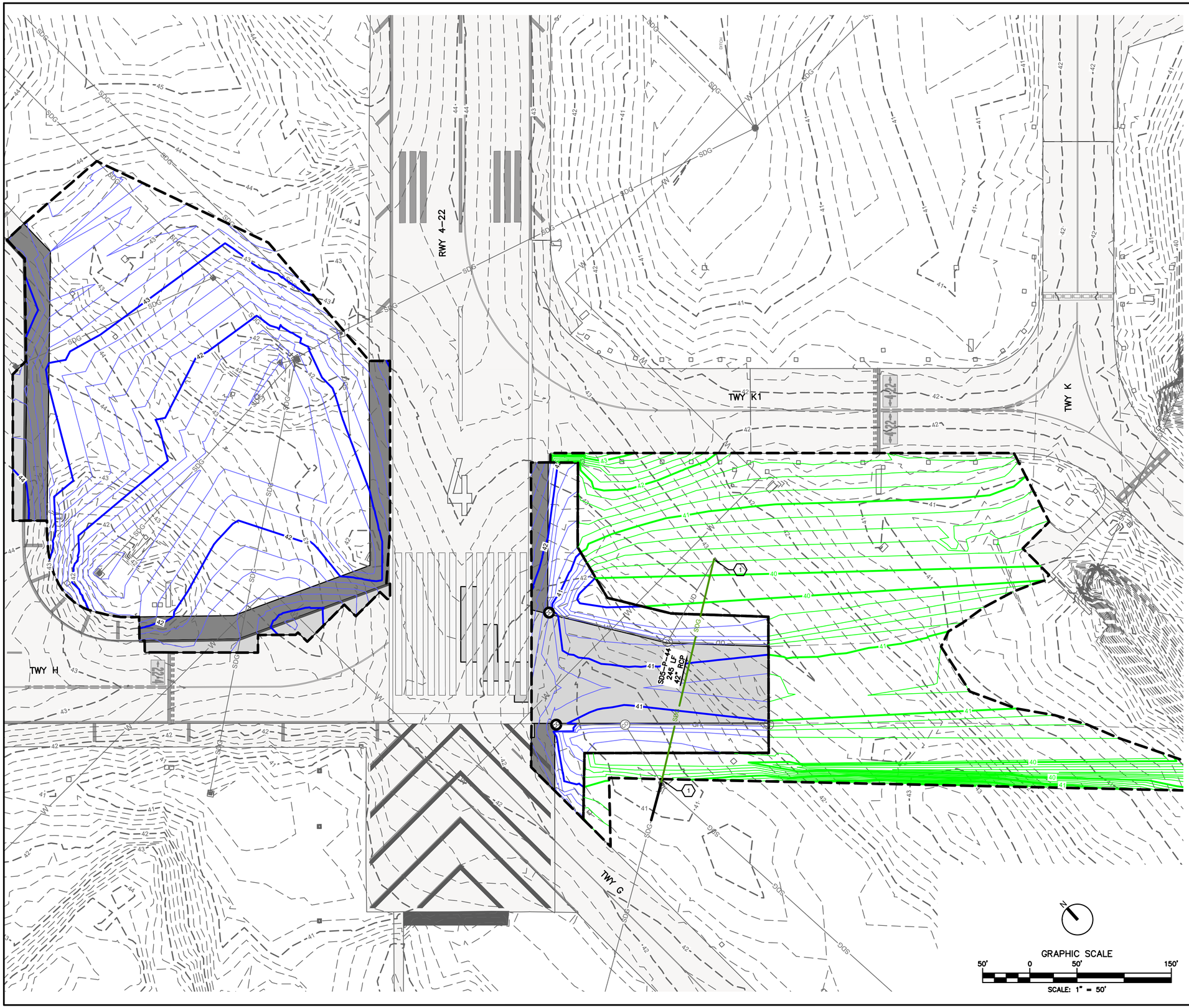
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

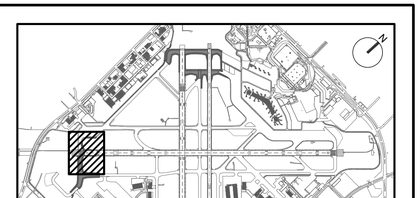
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CG105–P4
of

FILENAME: H22C770A–CG105–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:29:22 AM





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC–901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P–152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

KEYED NOTES:

1. CONSTRUCT 42" RCP AS SHOWN AND CAP WITH APPROVED SPIGOT END PLUG. CONTRACTOR SHALL REMOVE CAPS AND CONNECT THE RCP TO PROPOSED INLETS IN PHASE 6A AT THE ELEVATIONS SHOWN IN CG107–P6. CAPS SHALL BE INCIDENTAL TO OTHER PROJECT WORK.

HOUSTON AIRPORT SYSTEM
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TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 5

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

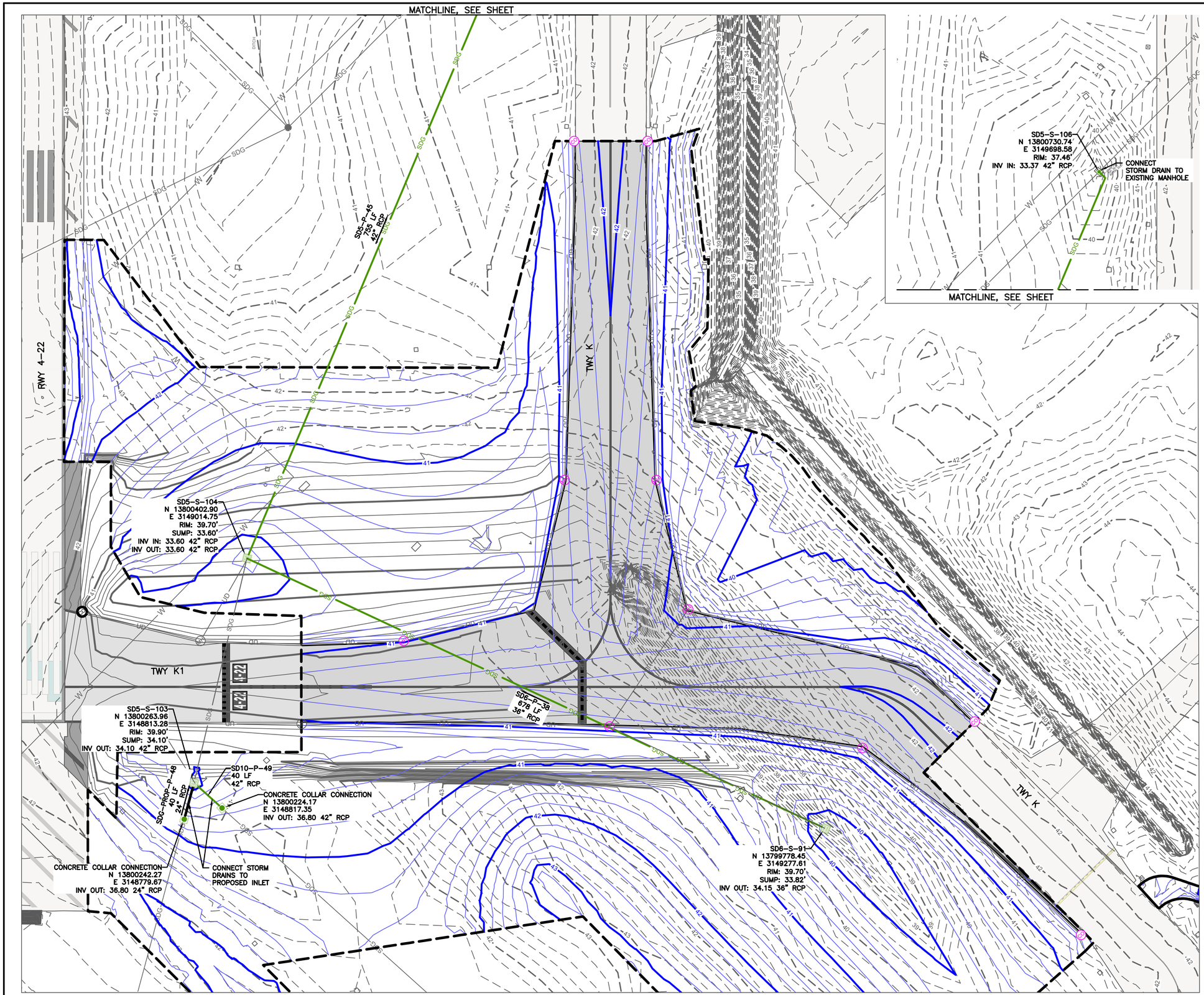
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

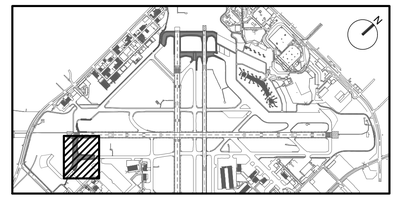
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG106–P5
of

FILENAME: H22C770A–CG106–P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:30:52 AM





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 — PROPOSED CONTOUR
- 40 - - - EXISTING CONTOUR
- 40 — PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG — EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD — PROPOSED UNDERDRAIN PIPE
- 40 — TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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0 1"

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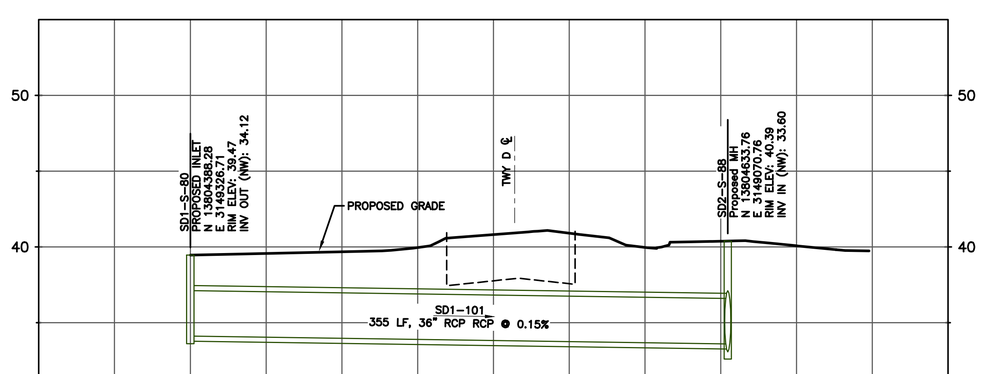
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
GRADING AND DRAINAGE PLAN – PHASE 6A AND 6B

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

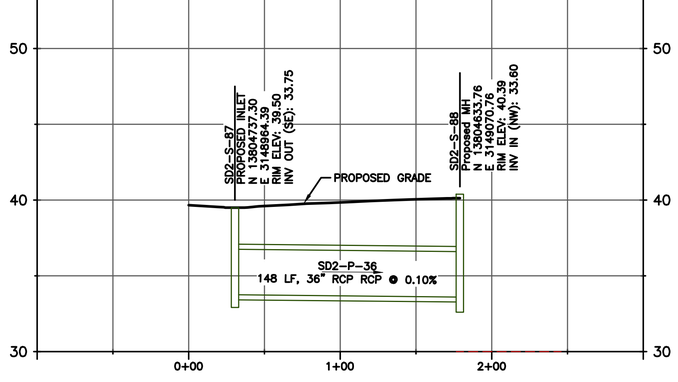
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED ENGINEER
02/24/2023

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	CG107-P6
of	



SD1

HOR SCALE: 1":100'
VER SCALE: 1":10'



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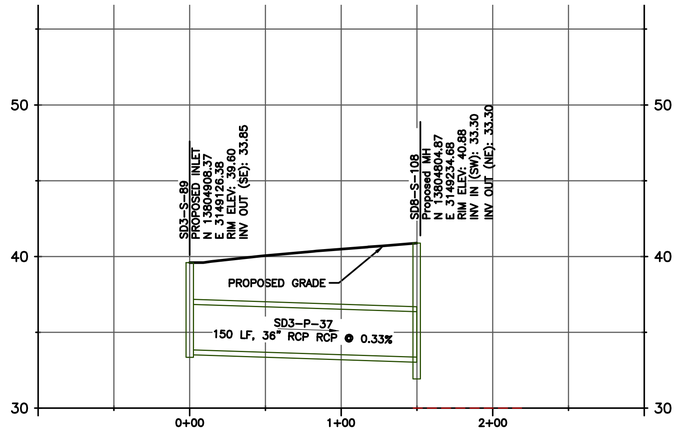

SD3

HOR SCALE: 1":100'
VER SCALE: 1":10'

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

STORM DRAIN PROFILES

PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	S. WAZIRI
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

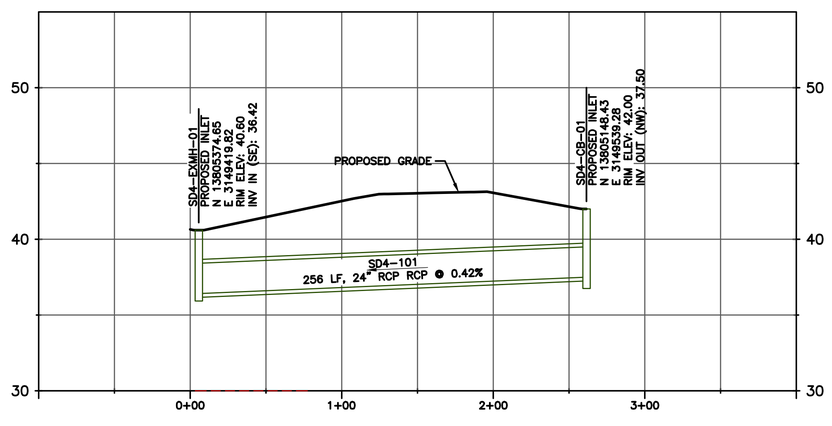
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG201
of

FILENAME: H22C770A-CG201.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:15:20 AM



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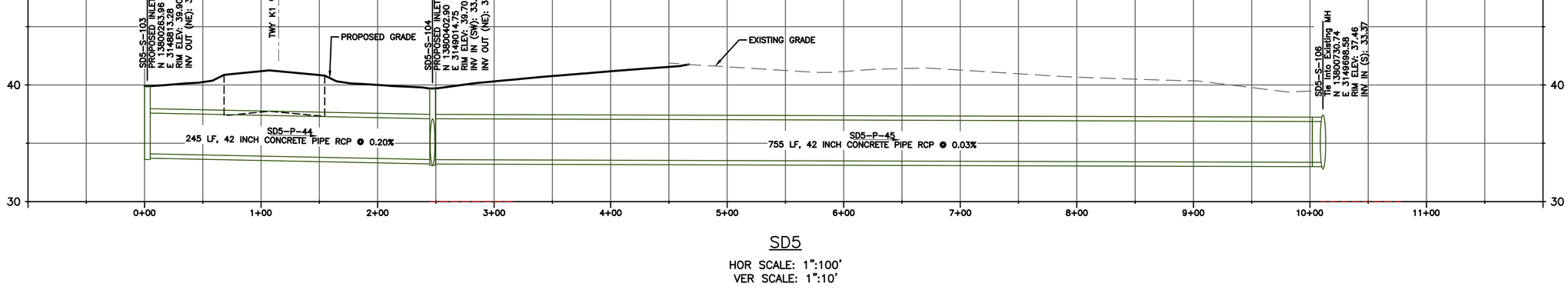
VER SCALE: 1":10'



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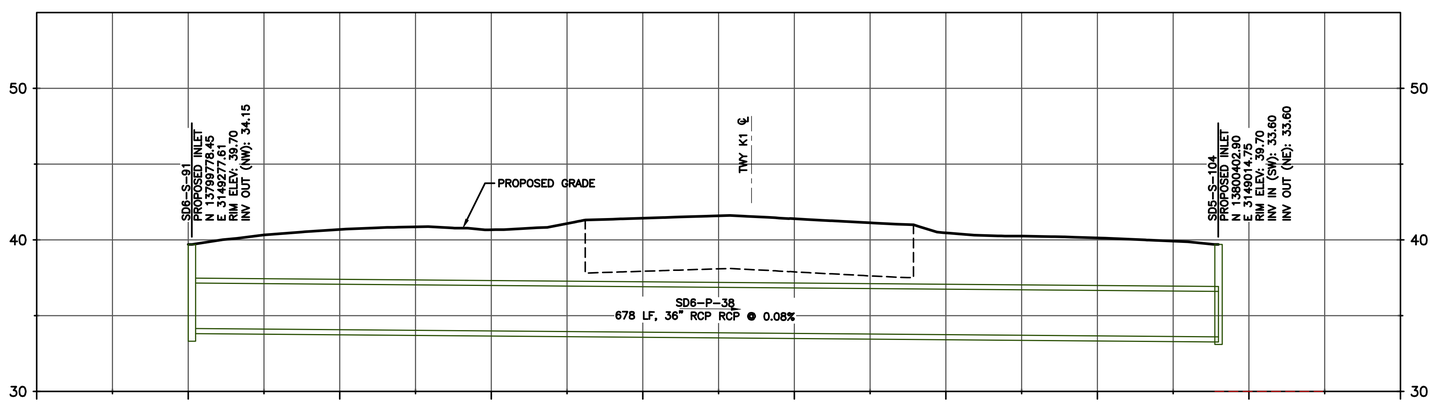

SD6

HOR SCALE: 1":100'
VER SCALE: 1":10'

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

STORM DRAIN PROFILES

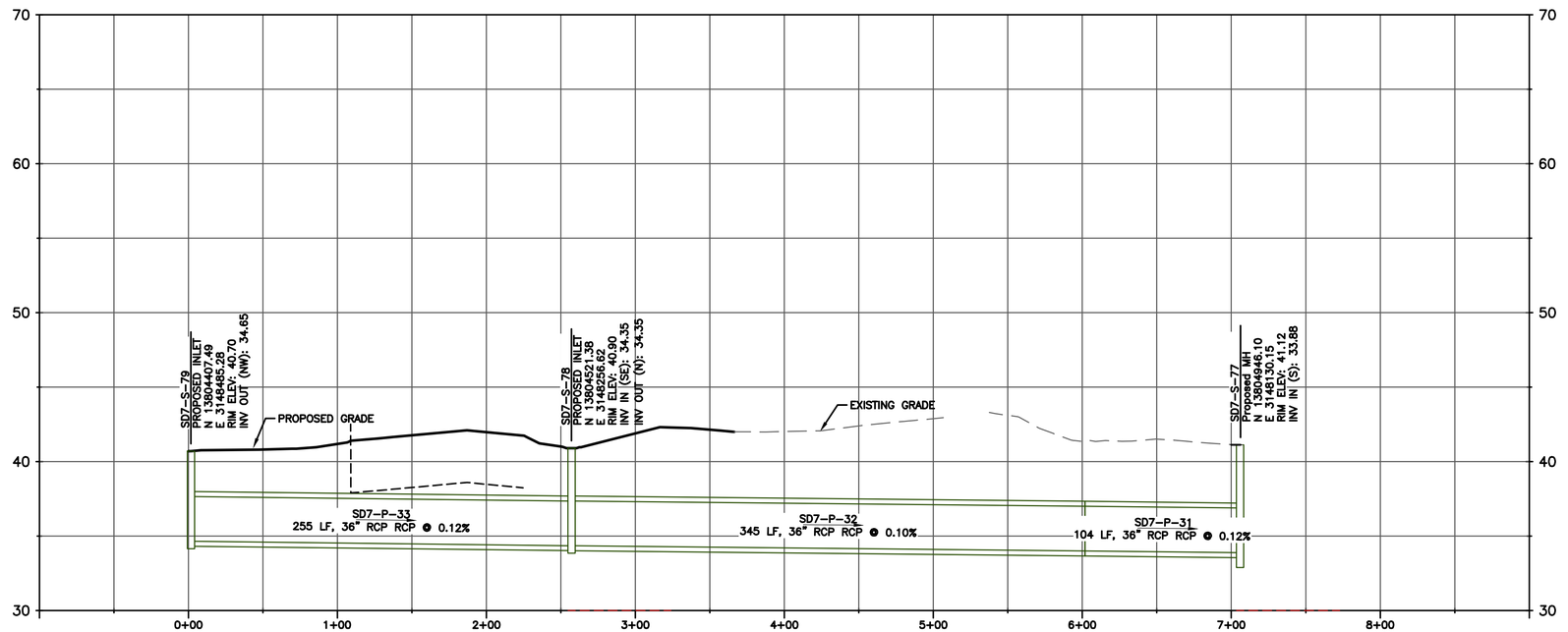
PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	S. WAZIRI
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG202
of



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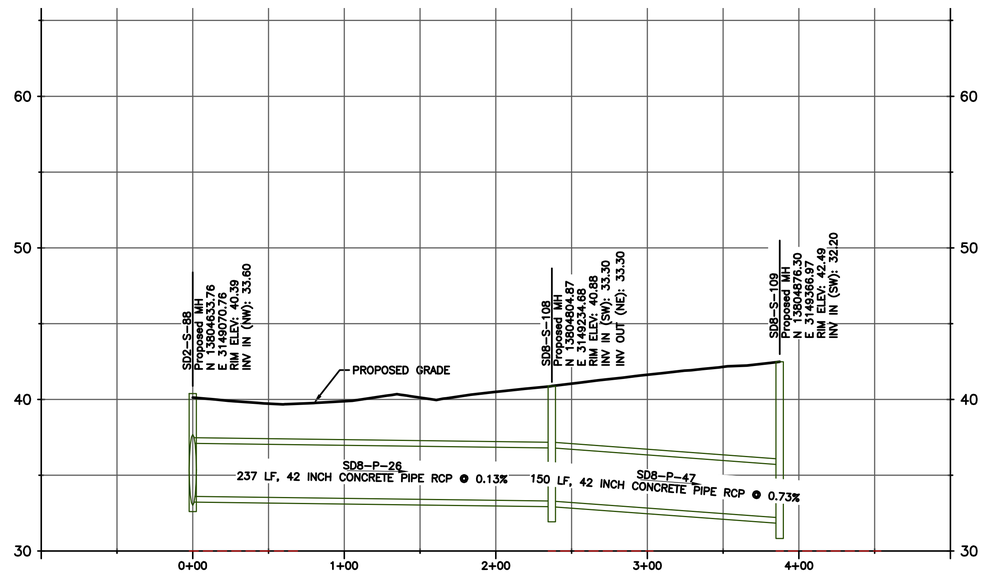
HOR SCALE: 1":100'
VER SCALE: 1":10'



SD8

HOR SCALE: 1":100'
VER SCALE: 1":10'

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

CG203 – STORM DRAIN PROFILE

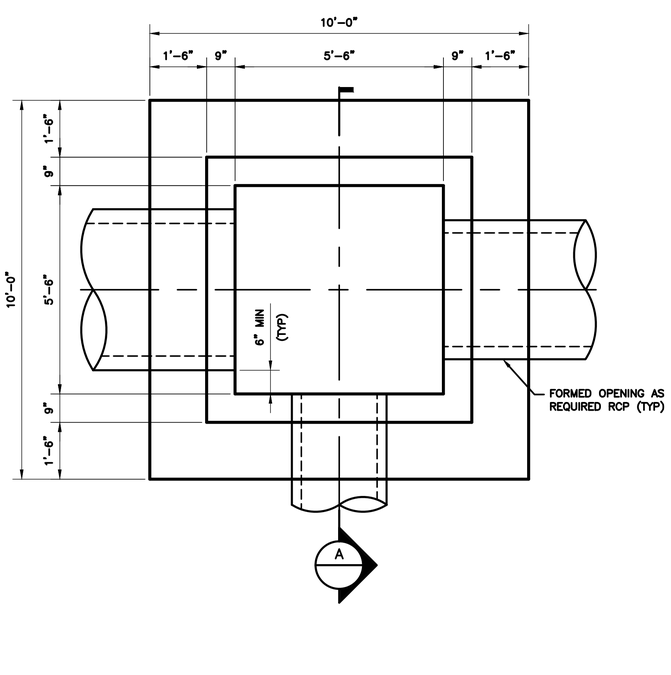
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

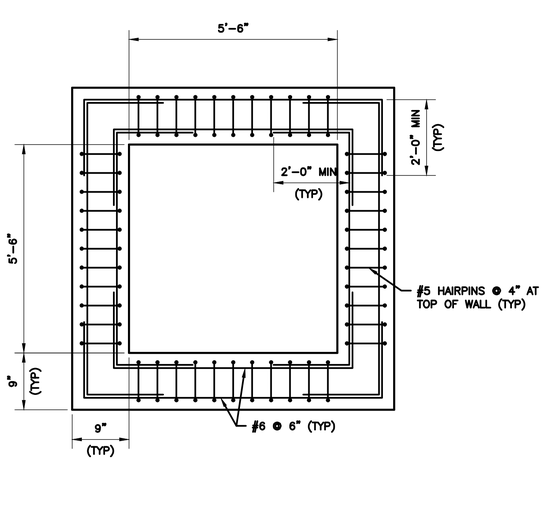
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

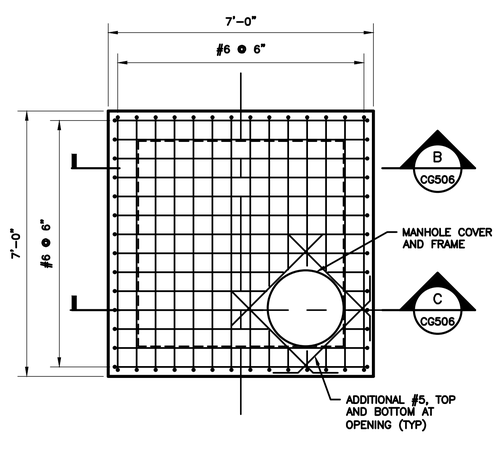
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG203
of



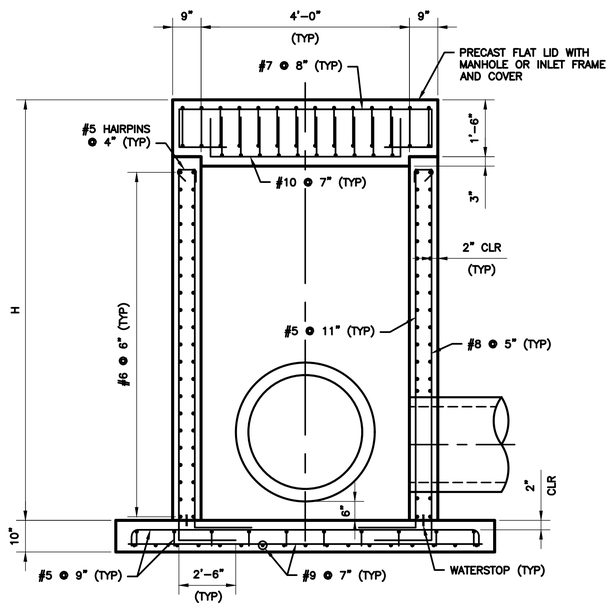
1 AIRCRAFT RATED MANHOLE AND INLET
1" = 2'–0"



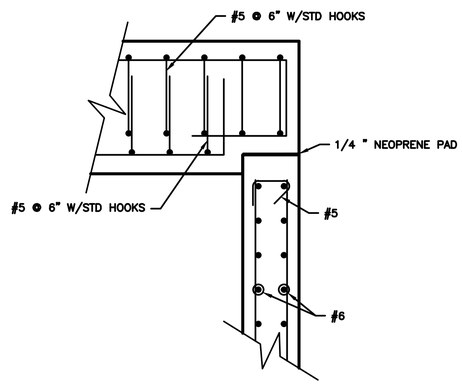
2 CORNER DETAIL
NTS



3 PRECAST MANHOLE LID
NTS



SECTION A–A
NTS



4 DETAIL
NTS

GENERAL DRAINAGE DETAIL NOTES:

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 POUNDS PER SQUARE INCH AT 28 DATS. DESIGN MIX FOR 4,000 POUND CONCRETE SHALL CONTAIN A MINIMUM OF 6 STACKS OF CEMENT PER CUBIC YARD AND SHAL CONFORM TO THE REQUIREMENTS OF ITEM P–160 OF THE SPECIFICATIONS.
2. UNLESS OTHERWISE NOTED, ROUND EDGES AND JOINTS THAT DO NOT HAVE A SAWCUT JOINT WITH AN EDGER HAVING A RADIUS OF ⅛"
3. REINFORCING STEEL SHALL CONFORM TO ASTM DESIGNATION A615, GRADE 60, AND HAVE A MINIMUM YIELD STRENGTH OF 60 KSI, UNLESS NOTED OTHERWISE.
4. REINFORCING BARS SHALL BE SUPPORTED, SPACED AND ACCURATELY SECURED IN PLACE BY BOLSTERS, SPACERS OR CHAIRS IN ACCORDANCE WITH ITEM P–610 OF THE SPECIFICATIONS, AND IN ACCORDANCE WITH ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
5. ALL REINFORCING SHALL BE LAPPED A MINIMUM OF 36 BAR DIAMETERS AT ALL CORNERS AND AT ALL SPLICE POINTS UNLESS OTHERWISE NOTED ON THE PLANS.
6. ALL REINFORCING STEEL SHALL BE CUT AND BENT AS REQUIRED TO CLEAR PIPES.
7. ALL INLETS OR MANHOLES OVER A DEPTH OF 5 FEET SHALL BE FURNISHED WITH MANHOLE STEPS. STEPS SHALL CONFORM TO CURRENT O.S.H.A. REQUIREMENTS.
8. CLEAR COVER FOR REINFORCEMENT SHALL BE AS SHOWN ON THE DRAWINGS. WHERE NOT SHOWN, A MINIMUM CLEAR COVER OF 2" SHALL BE MAINTAINED TO ALL REINFORCING AND WELDED WIRE REINFORCING.
9. REINFORCING BAR DESIGNATION NUMBERS SHALL CONFORM TO THE NUMBERING SYSTEM OF THE CONCRETE REINFORCING STEEL INSTITUTE (CSRI).
10. PIPE LINES WILL ENTER GRATE INLETS AT LOCATIONS INDICATED ON THE PLANS.
11. CHAMFER ALL EXPOSED CONCRETE CORNERS ¾".
12. FORMED CONCRETE COLLARS WITH 2 LOOPS OF #3 REBAR WITH CROSS PIECES AT 12" CENTERS SHALL BE AT ALL CONNECTIONS AT INLETS, MANHOLES AND ALL STRUCTURES.
13. FILTER FABRIC SHALL BE WRAPPED AROUND ALL RCP JOINTS AT 3' WIDTH.
14. BEDDING FOR RCP SHALL BE LAID TO NO LESS THAN SPRING LINE OF THE PIPE.
15. UNDERDRAINS WILL NEED TO BE FLOW TESTED TO ASSURE PROPER DRAINAGE.
16. UNDERDRAIN PIPES CONNECTING TO STRUCTURES NEED TO BE CUT SMOOTH WITH SIDE OF WALL.

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TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE DETAILS

PROJECT MGR:	S. CHILDERS
DESIGNER:	V. NGANGA
DRAWN BY:	E. KRACK
CHECKED BY:	C. FUESTING
SCALE:	AS SHOWN
DATE:	02/24/2023

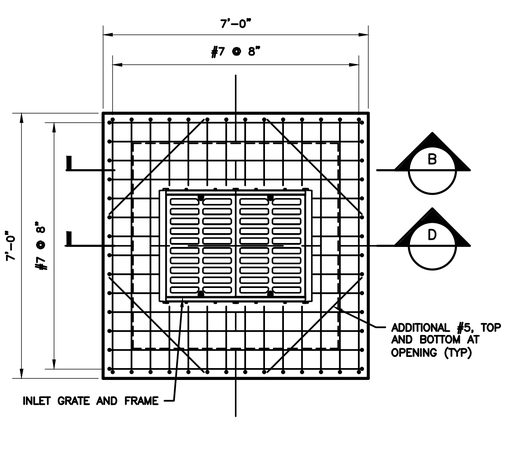
Jacobs Engineering Group
STATE OF TEXAS
JOHN E FINKE
121220
LICENSED
PROFESSIONAL ENGINEER
2/24/2023
F-2966

APPROVED BY: DATE:

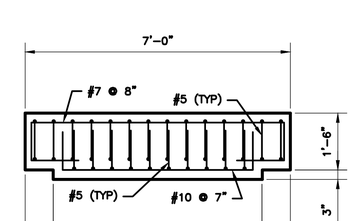
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CG501
of

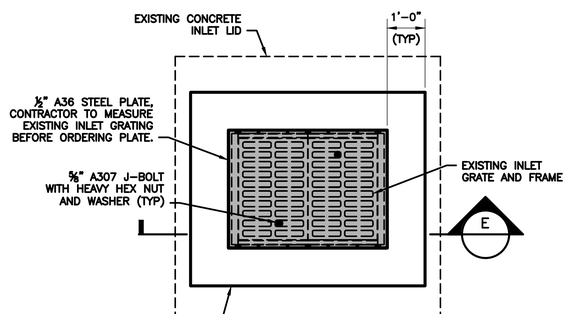
FILENAME: H22C770A–CG501.DWG PLOT DATE: 2023/02/20 PLOT TIME: 9:00:54 AM



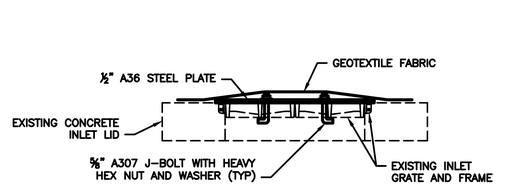
1 PRECAST INLET LID
NTS



SECTION B–B
NTS

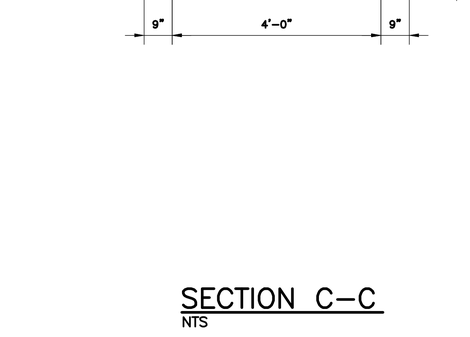


PLAN
NTS

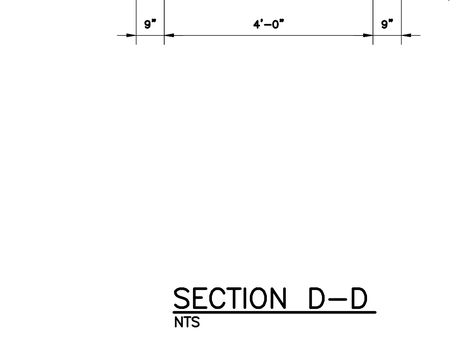


SECTION E–E
NTS

2 EXISTING INLET CAP
NTS



SECTION C–C
NTS



SECTION D–D
NTS

NOTES:

1. A FILTER CLOTH MEETING THE REQUIREMENTS FOR A SEPARATION GEOTEXTILE MATERIAL SHALL BE PLACED BETWEEN THE SELECT GRANULAR BACKFILL FOR STRUCTURAL SYSTEMS AND THE BACKFILL BEING RETAINED BY THE EARTH FILL.
2. GEOTEXTILES SHALL BE IN ACCORDANCE WITH THE PHYSICAL AND CHEMICAL REQUIREMENTS OF AASHTO M288 FOR THE SPECIFIED APPLICATION, EXCEPT AS MODIFIED IN THIS SPECIFICATIONS.
3. SUBSURFACE DRAINAGE GEOTEXTILE SHALL BE USED IN SUBSURFACE DRAINAGE AS A FILTER TO PROTECT MEDIA FROM CLOGGING WITH FINES FROM ADJACENT SOIL. TYPICAL APPLICATIONS INCLUDE THE LINING OF DRAINAGE TRENCHES AND THE WRAPPING OF DRAINPIPES.
4. THE MINIMUM PERMITTIVITY SHALL BE 1.0 SEC–1.
5. THE MATERIAL SHALL BE AASHTO CLASS 2.
6. CARE SHALL BE TAKEN, NOT TO DISTURB GEOTEXTILE FABRIC DURING EARTHWORK.
7. FOR "GENERAL DRAINAGE DETAIL NOTES", SEE SHEET CG505.
8. COORDINATE THE INLET AND MANHOLE DIMENSIONS WITH THE REQUIREMENTS OF THE APPROVED FRAME AND GRATE. FRAME AND GRATE MUST BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
9. 5436Z1, 5436Z2, 5436ML ASSEMBLY FRAME AND GRATE AS MANUFACTURED BY EAST JORDAN IRON WORKS OR APPROVED EQUAL FOR INLETS.
10. P–3494 FRAME AND GRATE AS MANUFACTURED BY D&L OR APPROVED EQUAL FOR MANHOLES.

HOUSTON AIRPORT SYSTEM
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TEXAS P.E. FIRM F-2966

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE DETAILS

PROJECT MGR:	S. CHILDERS
DESIGNER:	V. NGANGA
DRAWN BY:	E. KRACK
CHECKED BY:	C. FUESTING
SCALE:	AS SHOWN
DATE:	02/24/2023

Jacobs Engineering Group
STATE OF TEXAS
JOHN E FINKE
121220
LICENSED
PROFESSIONAL ENGINEER
2/24/2023
P-2966

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CG502
of

NOTES:

1. SEE SHEET CU501–503 FOR EDGE DRAIN DETAILS.
2. SEE EXISTING UTILITY PLANS AND AIRFIELD LIGHTING AND SIGNAGE DEMO PLANS FOR EXISTING UTILITY LIGHTING CIRCUITS.
3. EDGE DRAIN LATERALS TO BE REMOVED AT THE TIME NEW LATERALS ARE TO BE INSTALLED.
4. THE PROPOSED EDGE DRAINS CROSS NUMEROUS EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE DEPTH OF THE EXISTING UTILITIES AT EACH CROSSING PRIOR TO PLACING EDGE DRAINS. IF A CONFLICT IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE RPR AT WHICH TIME ADJUSTMENTS WILL BE MADE TO THE SLOPE OF THE PROPOSED EDGE DRAINS.
5. CONTRACTOR TO VERIFY EXISTING INLET INVERT ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION OF EDGE DRAINS AND REPORT ANY DISCREPANCIES TO THE OAR IMMEDIATELY. IF DISCREPANCIES ARE DISCOVERED, THE SLOPE OF THE EDGE DRAIN OUTFALL SHALL BE ADJUSTED IN ORDER TO MAINTAIN A MINIMUM SLOPE OF 0.15%. EDGE DRAINS TO HAVE A MINIMUM COVER OF 34" FROM TOP OF PIPE.
6. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UNDERDRAIN AND CLEANOUTS.
7. AT LOCATIONS WHERE THE EXISTING EDGE DRAINS/STRIP DRAINS ARE TO REMAIN (UNDER EXISTING PAVEMENT TO REMAIN), CAP OR CONNECT TO THE PROPOSED EDGE DRAIN TO MAINTAIN FLOW TO THE OUTFALLS.
8. COST OF ALL MATERIALS, EQUIPMENT AND LABOR FOR THE CONSTRUCTION OF THE EDGE DRAIN, INCLUDING BUT NOT LIMITED TO THE 8" PERFORATED PIPE, POROUS BACKFILL, FILTER FABRIC AND CONNECTIONS TO THE PROPOSED UNDERDRAIN MANHOLES (EXCEPT 8" NON–PERFORATED OUTLET PIPE) SHALL BE INCLUDED IN THE UNIT COST OF THE 8" PERFORATED PIPE. ALL COSTS ASSOCIATED WITH THE MATERIAL, EQUIPMENT AND LABOR ASSOCIATED WITH THE CONSTRUCTION OF THE 8" NON–PERFORATED OUTLET PIPE, INCLUDING BUT NOT LIMITED TO THE CONNECTIONS TO THE PROPOSED UNDERDRAIN MANHOLES SHALL BE PAID FOR BY THE UNIT PRICE FOR 8" NON–PERFORATED PIPE.
9. THE COST OF TRENCH SAFETY SHALL BE INCLUDED IN THE COST OF THE ITEM BEING CONSTRUCTED. THIS SHALL INCLUDE ALL INCIDENTALS NECESSARY FOR BRACING, SHEATHING AND SHORING TO PROTECT WORKERS, AS NECESSARY, TO PERFORM THE WORK IN CONFORMANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS INCLUDING CFR 29.
10. UNDERDRAIN MANHOLES AND CLEANOUTS ARE TO BE OFFSET FROM CONCRETE PAVEMENT AS SHOWN IN THE PLANS.
11. EDGE DRAIN CONSTRUCTION SHALL CORRELATE WITH PHASING PLAN. CONTRACTOR SHALL ENSURE POSITIVE FLOW OF DRAINS DURING CONSTRUCTION PHASING.
12. WHEN CONNECTING EDGE DRAIN TO UNDERDRAIN MANHOLES, CONTRACTOR SHALL USE MAXIMUM 45° TO TIE TO CENTER OF UNDERDRAIN MANHOLE. THIS SHALL BE CONSIDERED SUBSIDIARY.
13. WHEN CONNECTING EDGE DRAINS TO INLETS & UNDERDRAIN MANHOLES, CONTRACTOR SHALL INCLUDE THE USE OF LINK SEALS. THIS SHALL BE CONSIDERED SUBSIDIARY.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 40 — PROPOSED CONTOUR
- 40 — EXISTING CONTOUR
- 40 — PREVIOUSLY COMPLETED GRADING
- UD — PROPOSED 8" HDPE UNDERDRAIN
- CO — PROPOSED 8" UNDERDRAIN CLEANOUT
- MH — PROPOSED UNDERDRAIN MANHOLE

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WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN NOTES AND LEGEND

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CU001
of

AF10–204
UD OUTFALL
N: 13804633.76
E: 3149070.76
RIM ELEV: 40.13
INV IN (E): 36.21

AF10–201
UD MANHOLE
N: 13804628.99
E: 3149200.19
RIM ELEV: 40.49
INV IN (NE): 36.40
INV IN (SW): 36.40
INV OUT (W): 36.40

129.52 OF 8" HDPE UD

AF10–203
UD CLEANOUT
N: 13804892.69
E: 3149438.69
RIM ELEV: 44.00
INV OUT (SW): 40.10

355.57 OF 8" HDPE UD

AF12–105
UD MANHOLE
N: 13804763.48
E: 3149465.24
RIM ELEV: 42.80
INV IN (NE): 39.20
INV OUT (SW): 39.20

70.27 OF 8" HDPE UD

70.86 OF 8" HDPE UD

169.04 OF 8" HDPE UD

AF11–204
UD OUTFALL
N: 13804388.28
E: 3149326.71
RIM ELEV: 39.47
INV IN (N): 37.07

AF11–203
UD MANHOLE
N: 13804546.09
E: 3149266.12
RIM ELEV: 40.49
INV IN (SW): 36.85
INV IN (NE): 36.85
INV OUT (S): 37.32

113.97 OF 8" HDPE UD

63.06 OF 8" HDPE UD

62.47 OF 8" HDPE UD

75.12 OF 8" HDPE UD

AF12–102
UD MANHOLE
N: 13804613.62
E: 3149499.19
RIM ELEV: 41.33
INV IN (NW): 37.70
INV OUT (E): 37.70

AF11–202
UD CLEANOUT
N: 13804531.70
E: 3149425.06
RIM ELEV: 41.94
INV OUT (NW): 38.20

132.83 OF 8" HDPE UD

AF12–107
UD CLEANOUT
N: 13804760.85
E: 3149586.70
RIM ELEV: 43.76
INV OUT (NW): 40.20

AF12–103
UD OUTFALL
N: 13804569.46
E: 3149624.58
RIM ELEV: 39.90
INV IN (W): 37.50

RWY 13L–31R

TWY M

TWY MT

AF12–203
UD MANHOLE
N: 13805094.17
E: 3149621.16
RIM ELEV: 43.24
INV IN (SW): 39.30
INV IN (NE): 39.30
INV OUT (NW): 39.30

AF12–204
UD OUTFALL
N: 13805147.55
E: 3149540.93
RIM ELEV: 42.00
INV IN (SE): 39.16

AF12–202
UD CLEANOUT
N: 13804981.45
E: 3149528.46
RIM ELEV: 43.82
INV OUT (NE): 39.60

96.36 OF 8" HDPE UD

154.87 OF 8" HDPE UD

24.25 OF 8" HDPE UD

138.37 OF 8" HDPE UD

AF12–201
UD CLEANOUT
N: 13805225.60
E: 3149707.10
RIM ELEV: 43.29
INV OUT (SE): 39.70

AF14–211
UD MANHOLE
N: 13805055.47
E: 3149703.62
RIM ELEV: 43.07
INV IN (NE): 39.30
INV OUT (SW): 39.30

AF14–212
UD MANHOLE
N: 13804960.13
E: 3149648.91
RIM ELEV: 42.82
INV IN (SW): 38.90
INV IN (NE): 38.90
INV OUT (E): 38.90

96.20 OF 8" HDPE UD

75.72 OF 8" HDPE UD

13.98 OF 8" HDPE UD

121.94 OF 8" HDPE UD

80.78 OF 8" HDPE UD

23.12 OF 8" HDPE UD

44.92 OF 8" HDPE UD

73.41 OF 8" HDPE UD

205.84 OF 8" HDPE UD

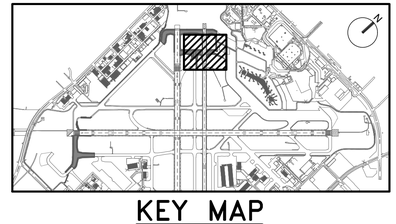
AF14–215
UD CLEANOUT
N: 13804859.82
E: 3149668.74
RIM ELEV: 43.55
INV OUT (NW): 40.00

AF14–213
UD OUTFALL
N: 13804996.11
E: 3149942.53
RIM ELEV: 38.62
INV IN (W): 35.44

AF14–210
UD CLEANOUT
N: 13805195.01
E: 3149966.91
RIM ELEV: 43.29
INV OUT (W): 39.75

TWY W

EXISTING PAPI



KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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TEXAS P.E. FIRM F-2966

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 1

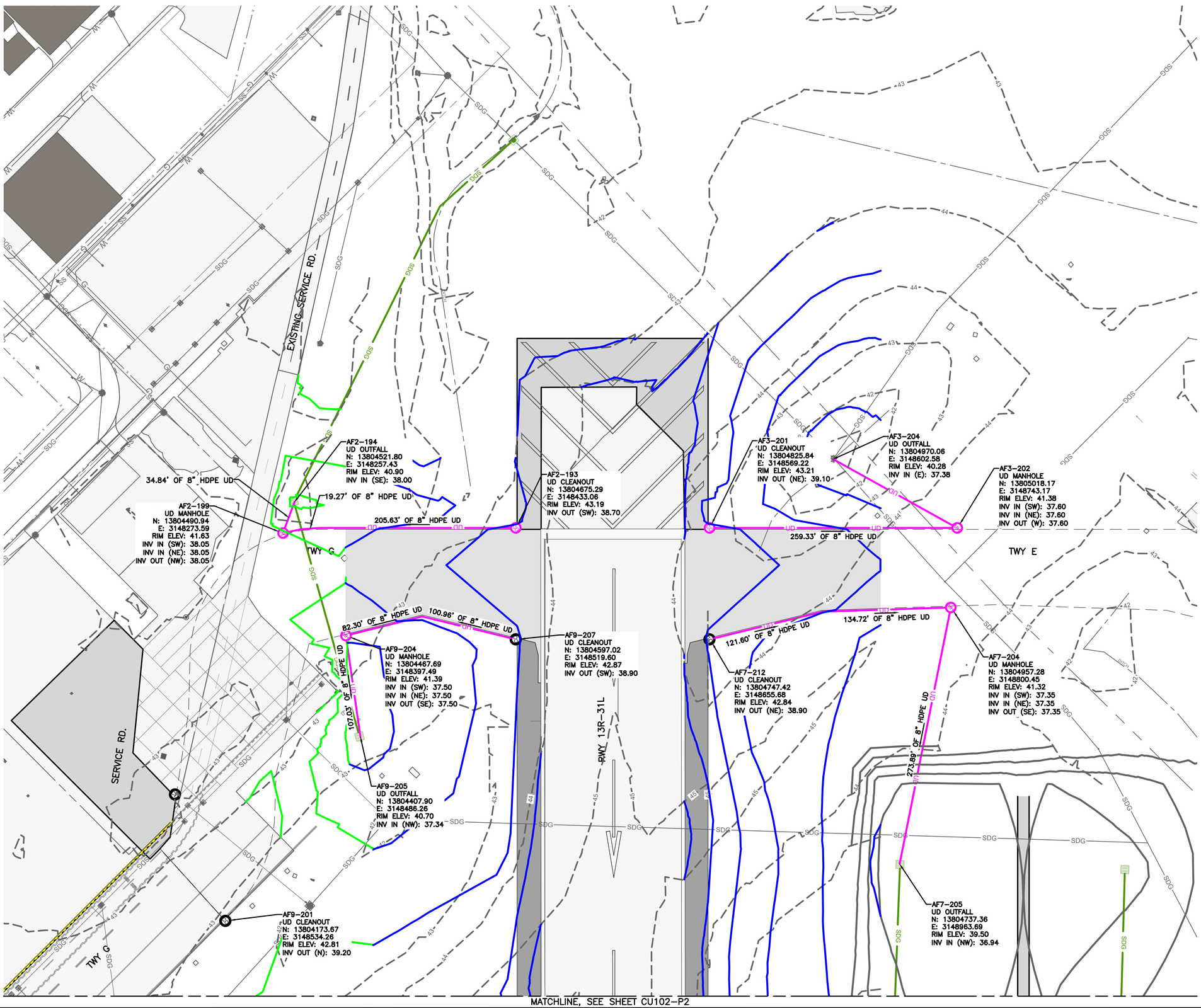
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

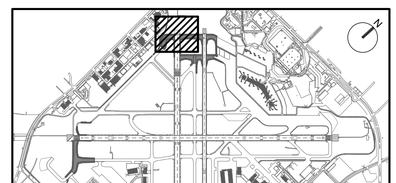
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CU101–P1
of





KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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REVISIONS

NO.	DESCRIPTION	DATE	BY
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FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 2

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU102-P2
of

MATCHLINE, SEE SHEET CU101-P2

AF10-202
UD CLEANOUT
N: 13804423.37
E: 3149014.21
RIM ELEV: 43.99
INV OUT (NE): 39.40

277.27' OF 8" HDPE UD

AF10-201
UD MANHOLE
N: 13804628.99
E: 3149200.19
RIM ELEV: 40.49
INV IN (NE): 36.40
INV IN (SW): 36.40
INV OUT (W): 36.40

36.85' OF 8" HDPE UD

70.27' OF 8" HDPE UD

120.61' OF 8" HDPE UD

37.80' OF 8" HDPE UD

AF11-206
UD CLEANOUT
N: 13804345.11
E: 3149100.76
RIM ELEV: 43.71
INV OUT (NE): 40.10

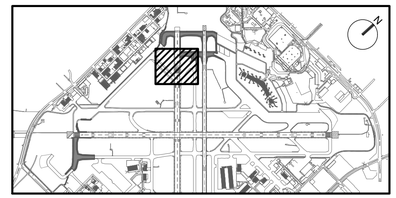
AF11-203
UD MANHOLE
N: 13804546.09
E: 3149266.12
RIM ELEV: 40.49
INV IN (SW): 36.85
INV IN (NE): 36.85
INV OUT (S): 37.32

RWY 13R-31L

TWY F

TWY M

TWY M



KEY MAP
NTS

NOTE:

1. FOR GRADING AND DRAINAGE NOTES AND LEGEND, SEE SHEET CU101-P1.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
UNDERDRAIN PLAN – PHASE 2

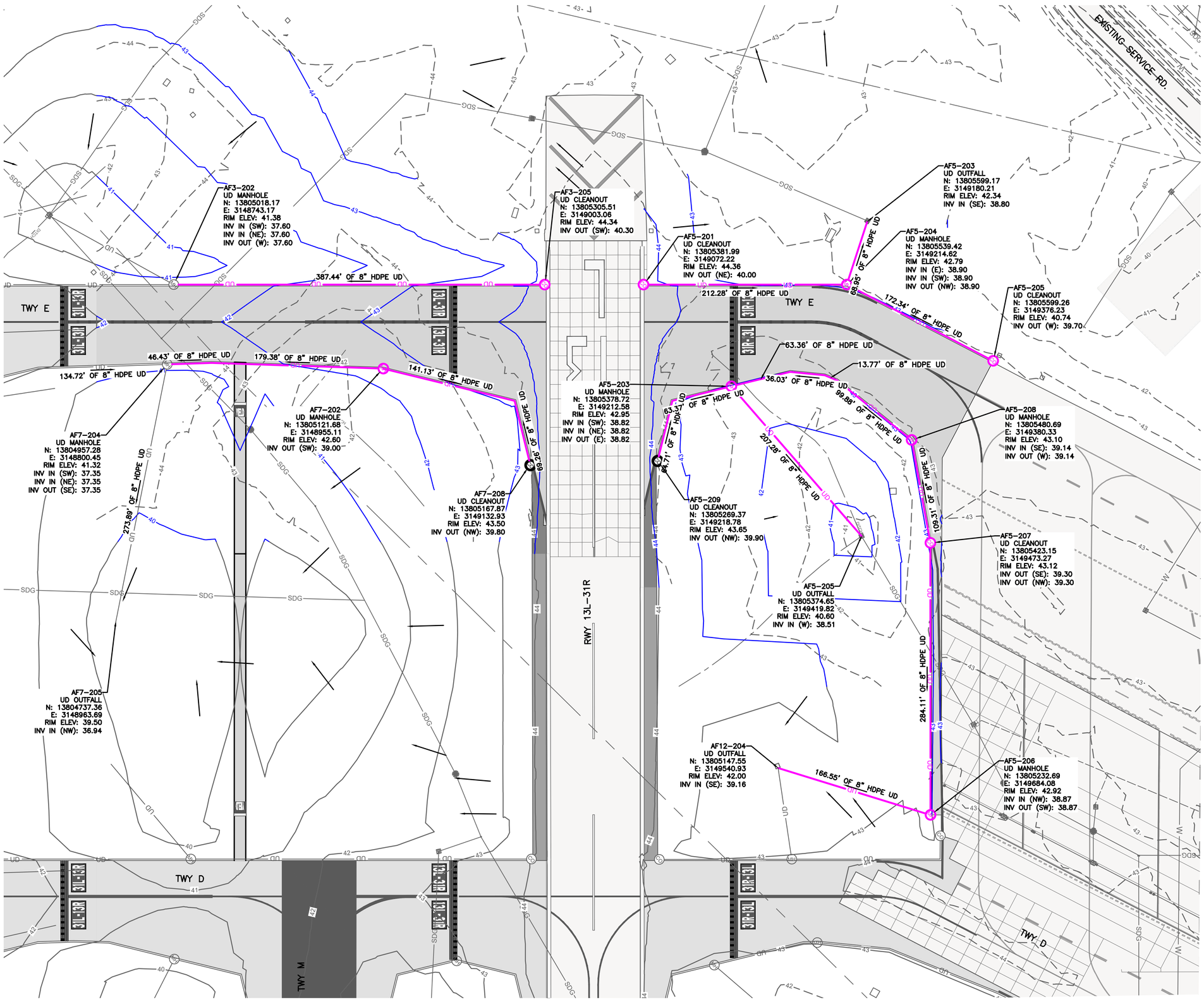
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

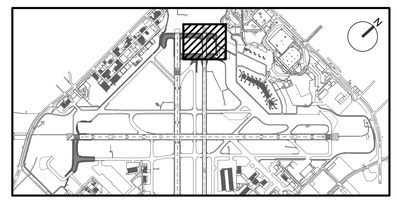
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU103-P2
of





KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
UNDERDRAIN PLAN – PHASE 3

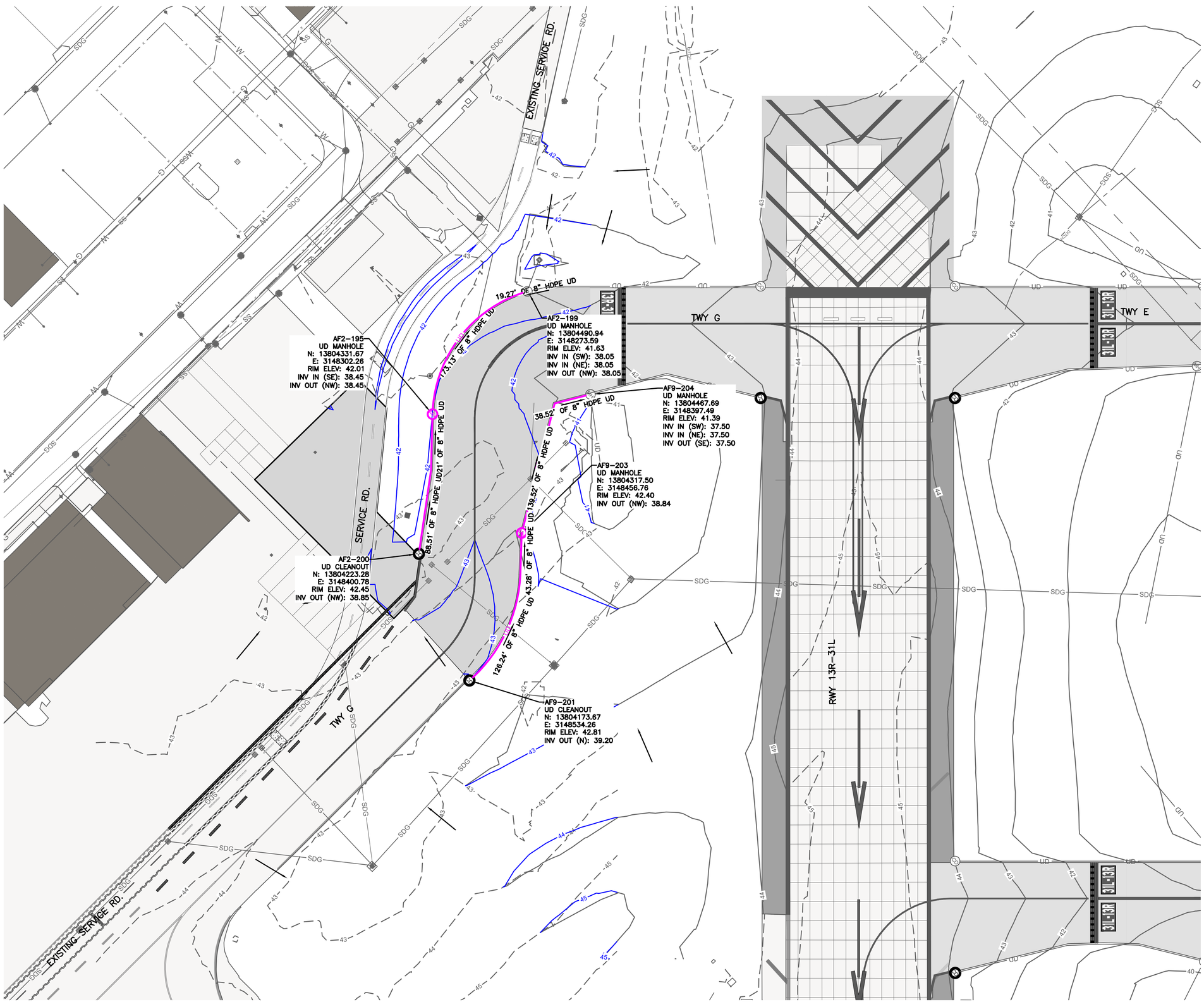
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

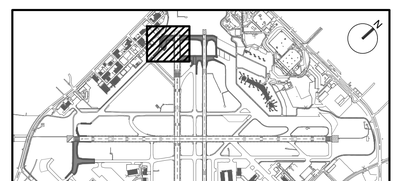
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU104–P3
of





KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

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TEXAS P.E. FIRM F-2966

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 4

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU105–P4
of

FILENAME: H22C770A–CU105–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:11:24 PM

RWY 4-22

TWY G

TWY H

TWY K1

TWY G

AA6-201
UD CLEANOUT
N: 13800478.17
E: 3148846.82
RIM ELEV: 41.41
INV OUT (SE): 37.05

AA6-202
UD MANHOLE
N: 13800370.98
E: 3148919.37
RIM ELEV: 40.69
INV IN (NW): 36.65
INV IN (SE): 36.65
INV OUT (E): 36.65

CONNECT OUTFALL TO PROPOSED INLET IN PHASE 6A

129.43' OF 8" HDPE UD

101.33' OF 8" HDPE UD

SEE PHASE 6A FOR PIPE CONNECTION

AA10-200
UD CLEANOUT
N: 13800335.91
E: 3148826.85
RIM ELEV: 40.73
INV IN (NW): 37.07
INV IN (SE): 37.07
INV OUT (S): 37.07

152.37' OF 8" HDPE UD

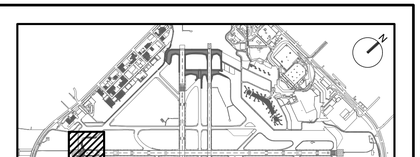
72.92' OF 8" HDPE UD

73.39' OF 8" HDPE UD

CONNECT OUTFALL TO PROPOSED INLET IN PHASE 6A

AA10-201
UD CLEANOUT
N: 13800384.78
E: 3148772.74
RIM ELEV: 41.16
INV OUT (SE): 37.30

AA10-202
UD MANHOLE
N: 13800233.79
E: 3148939.93
RIM ELEV: 40.89
INV OUT (NW): 37.30
INV OUT (SE): 37.30



KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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TEXAS P.E. FIRM F-2966

VERIFY SCALE
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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 5

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU106-P5
of

AA6–208
UD CLEANOUT
N: 13800498.47
E: 3149569.05
RIM ELEV: 41.70
INV OUT (SW): 38.15

AA11–201
UD CLEANOUT
N: 13800446.20
E: 3149626.87
RIM ELEV: 41.70
INV OUT (SW): 38.16

63.95' OF 8" HDPE UD

63.99' OF 8" HDPE UD

295.94' OF 8" HDPE UD

295.94' OF 8" HDPE UD

RWY 4–22

TWY K

AA6–207
UD MANHOLE
N: 13800238.44
E: 3149320.28
RIM ELEV: 41.29
INV IN (NE): 37.61

AA11–203
UD MANHOLE
N: 13800172.99
E: 3149392.60
RIM ELEV: 41.33
INV IN (NE): 37.55
INV OUT (SW): 37.55

AA6–204
UD MANHOLE
N: 13800226.41
E: 3149079.23
RIM ELEV: 40.92
INV IN (SE): 37.09
INV OUT (NW): 37.09

141.13' OF 8" HDPE UD

141.12' OF 8" HDPE UD

AA11–204
UD MANHOLE
N: 13800048.81
E: 3149325.56
RIM ELEV: 40.68
INV IN (NE): 37.10

AA6–206
UD OUTFALL
N: 13800402.54
E: 3149015.66
RIM ELEV: 39.70
INV IN (W): 36.50

108.30' OF 8" HDPE UD

141.12' OF 8" HDPE UD

251.47' OF 8" HDPE UD

84.19' OF 8" HDPE UD

AA11–200
UD CLEANOUT
N: 13799756.49
E: 3149471.08
RIM ELEV: 41.70
INV OUT (N): 38.00

TWY K1

4-22

4-22

149.83' OF 8" HDPE UD

207.07' OF 8" HDPE UD

119.58' OF 8" HDPE UD

136.87' OF 8" HDPE UD

132.95' OF 8" HDPE UD

132.95' OF 8" HDPE UD

AA10–203
UD MANHOLE
N: 13800012.53
E: 3149180.19
RIM ELEV: 41.24
INV IN (NW): 36.81
INV IN (SE): 36.81
INV OUT (SE): 36.81

252.57' OF 8" HDPE UD

TWY K

AA10–204
UD OUTFALL
N: 13800262.80
E: 3148813.75
RIM ELEV: 39.90
INV IN (N): 36.96

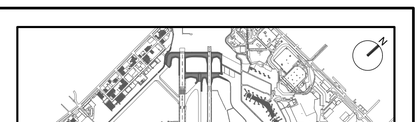
AA10–202
UD MANHOLE
N: 13800233.79
E: 3148939.93
RIM ELEV: 40.89
INV OUT (NW): 37.30
INV OUT (SE): 37.30

AA10–213
UD OUTFALL
N: 13799779.31
E: 3149277.16
RIM ELEV: 39.71
INV IN (NW): 36.43

AA10–206
UD MANHOLE
N: 13799815.61
E: 3149363.94
RIM ELEV: 41.46
INV IN (S): 37.69
INV OUT (NW): 37.69

172.84' OF 8" HDPE UD

AA10–208
UD CLEANOUT
N: 13799512.86
E: 3149402.95
RIM ELEV: 41.71
INV OUT (N): 38.15



KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

KEYED NOTES:

(1) CONTRACTOR TO ADJUST SLOPE AND ANGLE OF THE UNDERDRAIN OUTFALL PIPE AS NECESSARY TO AVOID INTERFERING WITH THE PROPOSED 36" RCP. SLOPE MUST BE A MINIMUM 0.15% AND PROVIDE POSITIVE DRAINAGE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

HOUSTON AIRPORT SYSTEM
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TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 6A

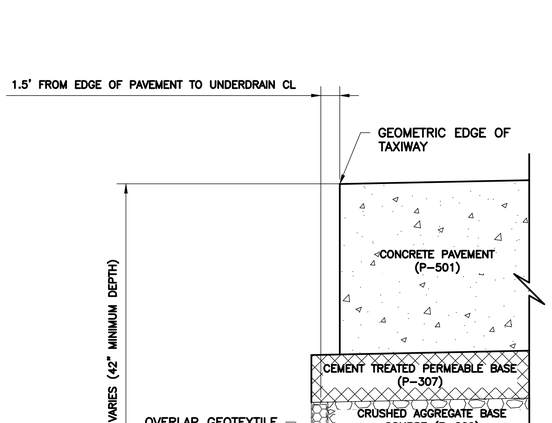
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

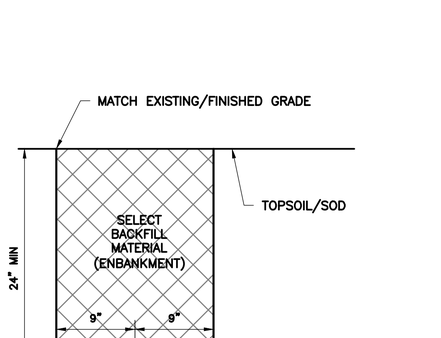
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

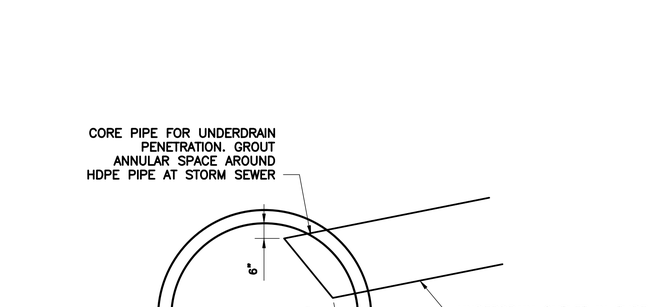
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU107–P6
of



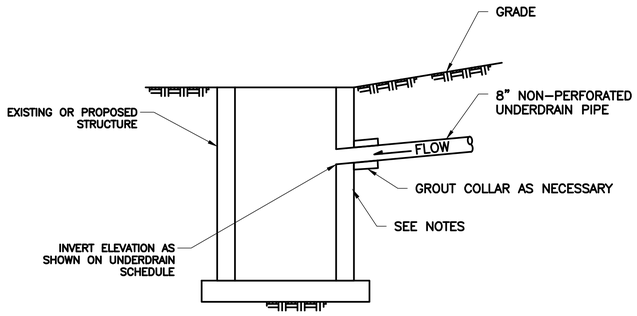
1 PERFORATED UNDERDRAIN
NTS



3 UNDERDRAIN OUTLET IN TURF
NTS



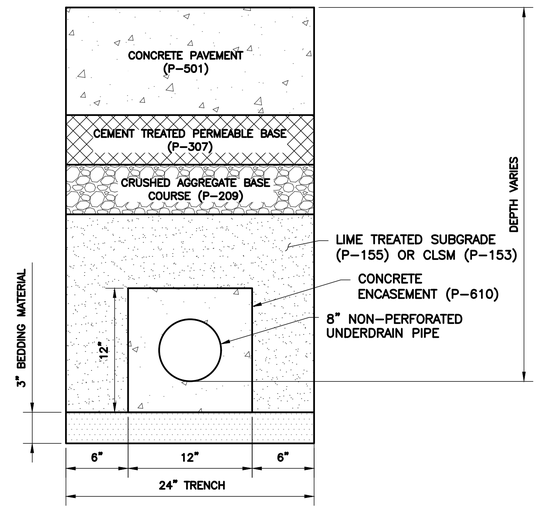
5 UNDERDRAIN CONNECTION PIPE
NTS



NOTES:

1. CORE STRUCTURE FOR UNDERDRAIN PENETRATION. IMPACT DEVICES WILL NOT BE ALLOWED.
2. GROUT ANNULAR SPACE AROUND PIPE AT STRUCTURE OR BOX CULVERT.
3. GROUT PIPE INTO PLACE WITH NON-SHRINK GROUT AND TRIM INTERIOR FLUSH WITH INSIDE WALL OF STRUCTURE.

2 UNDERDRAIN OUTFALL CONNECTION
NTS



4 UNDERDRAIN OUTLET UNDER PAVEMENT
NTS

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN DETAILS

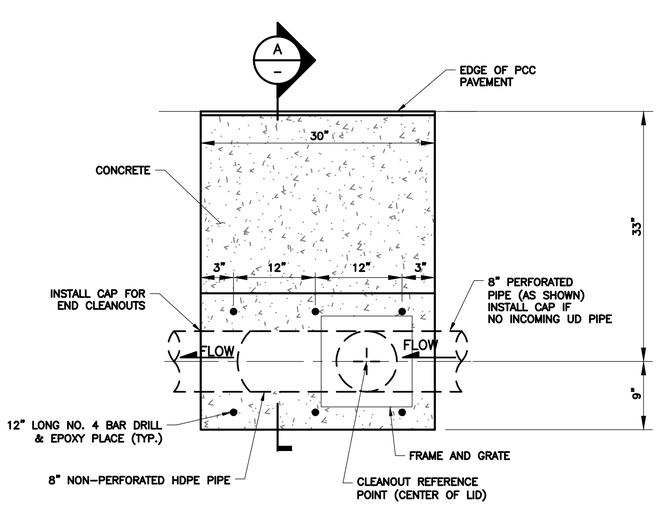
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

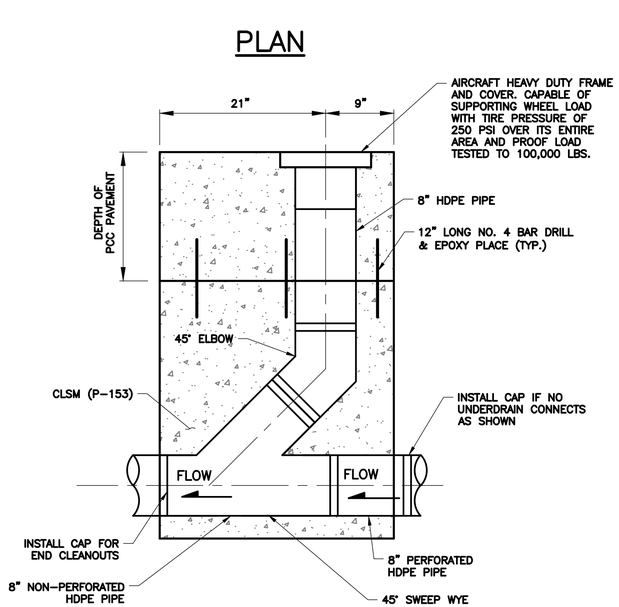
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU501
of

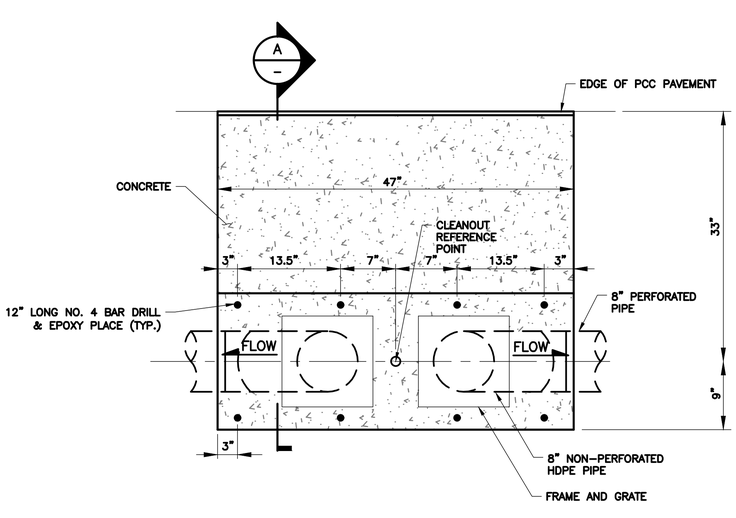


PLAN

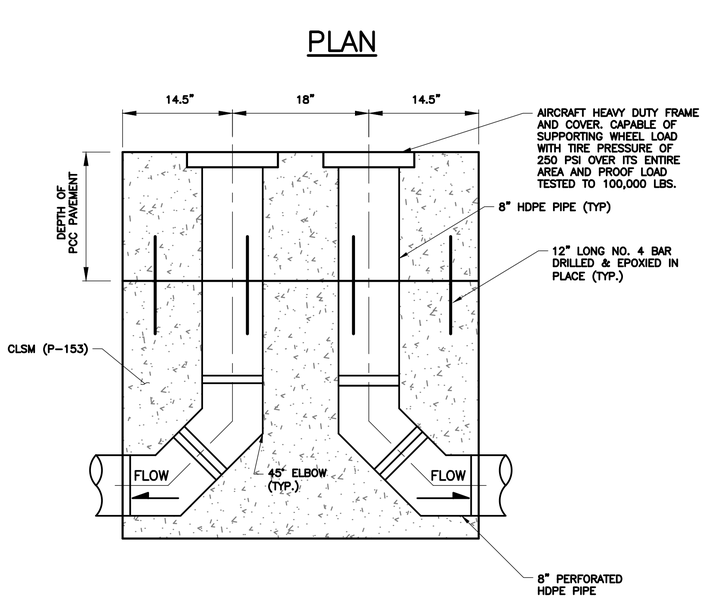


SECTION

1 UNDERDRAIN CLEANOUT – TYPE I
NTS

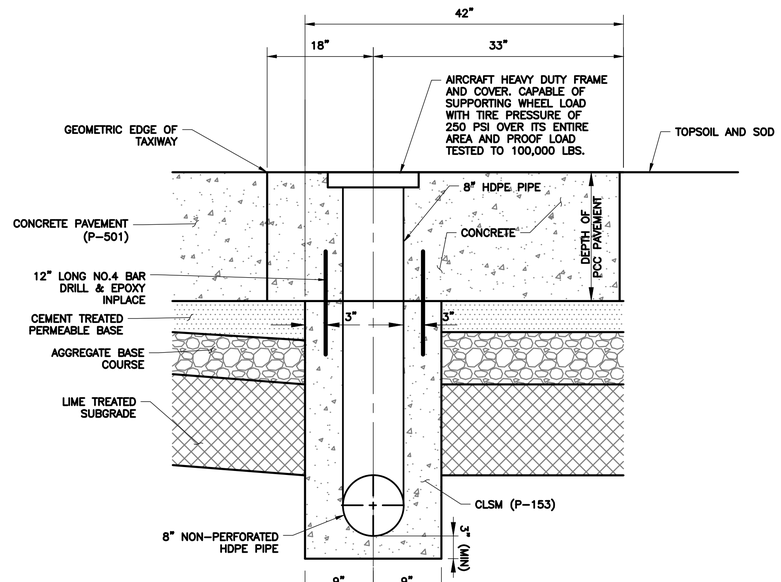


PLAN



SECTION

2 UNDERDRAIN CLEANOUT – TYPE II
NTS



A SECTION
NTS

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0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN DETAILS

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

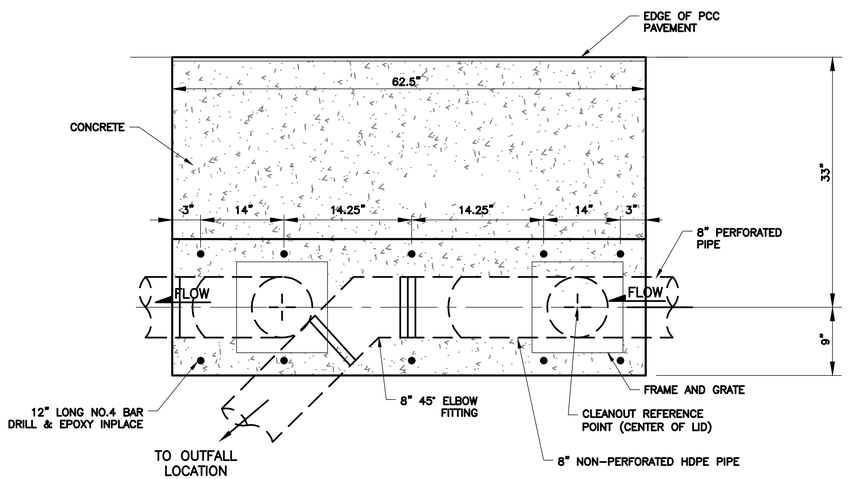
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY:	DATE:

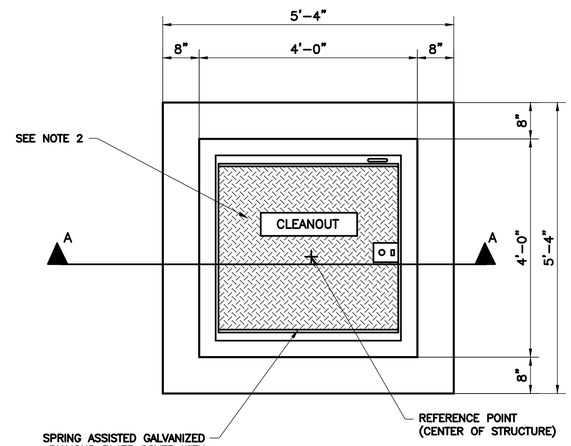
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	CU502

of

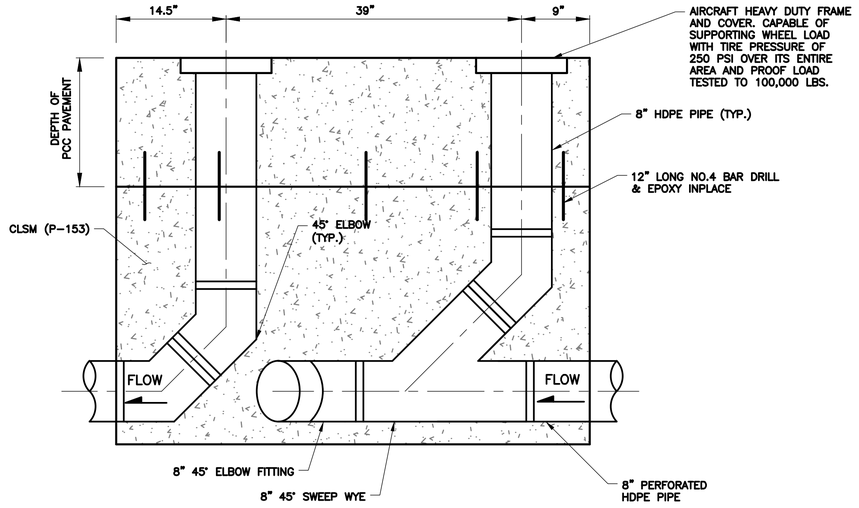


PLAN



NOTES:

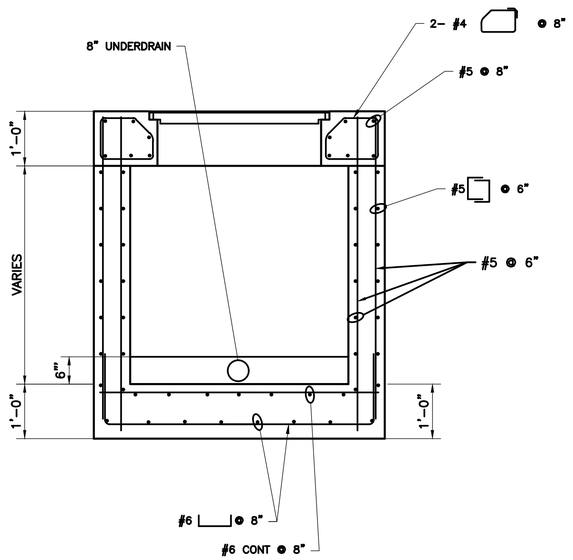
1. THE STRUCTURES SHALL BE LOCATED AS SHOWN ON THE PLAN SHEETS.
2. ALL COVERS SHALL HAVE SURFACE LETTERING IDENTIFYING THE TYPE OF STRUCTURES.
3. ALL WALL REINFORCEMENT (LOOP AND VERTICAL) AFFECTED BY UNDERDRAIN INSTALLATION SHALL BE RELOCATED ON EITHER SIDE OF THE UNDERDRAIN BANK.



SECTION

3 UNDERDRAIN CLEANOUT – TYPE III

NTS



SECTION

1 UNDERDRAIN MANHOLE

NTS

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REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN DETAILS

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU503
of