



Houston Airport System Infrastructure Industry Day

April 27, 2017



Agenda

- 9:00 Introductory Comments &
 Office of Business Opportunity Overview
- 9:05 Welcoming Remarks
- 9:15 ITRP Overview
- 9:30 Infrastructure CIP FY 2018-22
 - » Pavements & Grounds
 - » FAR 139 Pavements
 - » Facilities
 - » Utilities
 - » Signage & Wayfinding
 - » Transportation & Parking Structures
 - » Residential Noise Insulation Program
- 10:15 Building Standards Overview
- 10:30 Question & Answer Opportunity
- 11:00 Adjourn



Office of Business Opportunity



Jason McLemore
Deputy Assistant Director
Office of Business Opportunity
Jason.McLemore@houstontx.gov

Introductory Comments



- Industry Day – Housekeeping Matters
 - Registration
 - Facility Accommodations, Emergency Exits
 - Cell Phone Etiquette
 - Question & Answer Opportunity Will Follow Presentations
 - One Question Per Person
 - Introduce Yourself And Your Company
 - Follow-up Verbal Questions With Written Questions Via E-Mail
 - Please Network And Exchange Business Cards

Office of Business Opportunity

Overview

- Provide Contracting Opportunity Information To M/W/S/P/DBEs
- Serve As An Advocate For M/W/S/P/DBEs And Support Policies And Activities To Maximize Their Participation In Airport Contracts
- Assist Prime Contractors With Identifying Certified M/W/S/P/DBEs To Participate On Contracts As Sub-Contractors And Concessionaires
- Educate M/W/S/P/DBEs On How To Access HAS Contracting Opportunities

Office of Business Opportunity

Overview

- Monitor M/W/S/P/DBEs Utilization On Contracts With Participation Goals
- Ensure That Wage Standards Are Met On All Construction Projects With Federal And City Funding
- Host Small Business And Minority Forums For Networking
- Provide Information And Referral Services To M/W/S/P/DBEs

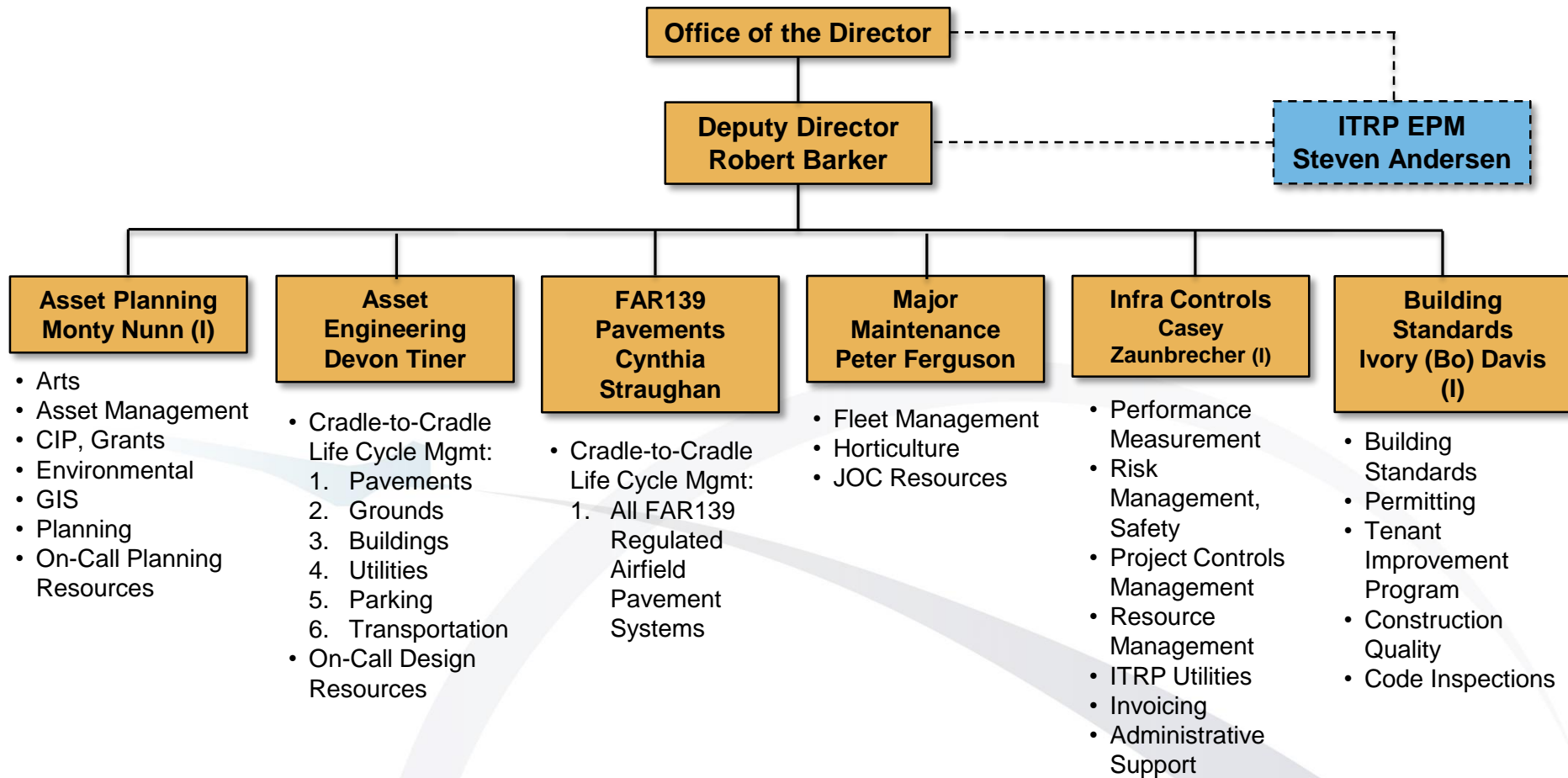


Welcoming Remarks



Bob Barker
Chief Development Officer
Infrastructure Division
Rober.Barker2@houston.tx.gov

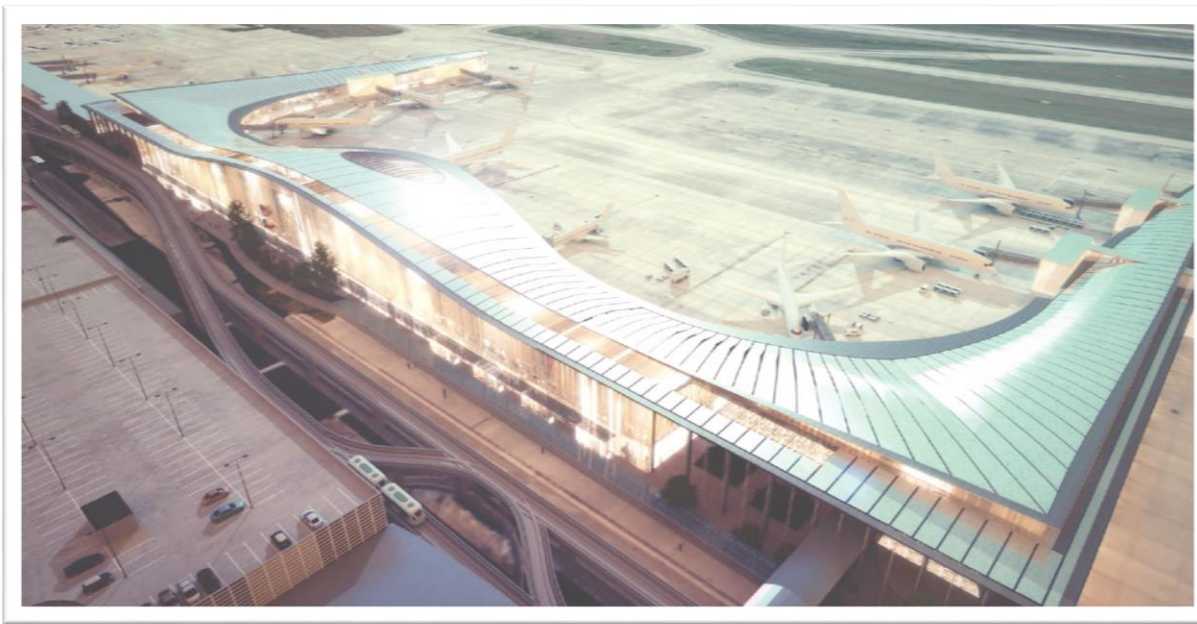
Infrastructure Organization





ITRP Overview

Current/Upcoming Project Information



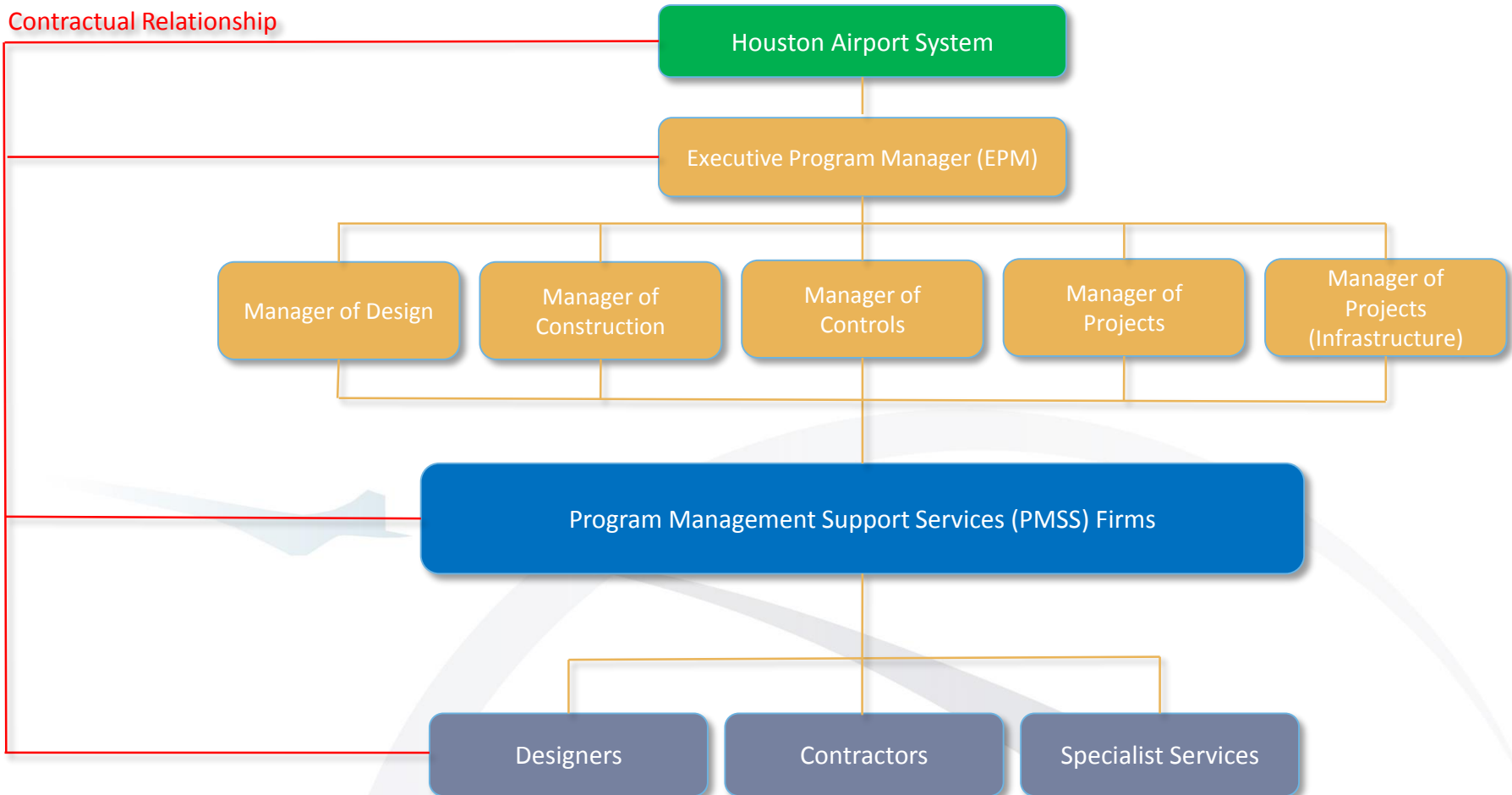
Steven Andersen
IAH Terminal Redevelopment Program
Executive Program Manager
Steven.Andersen@houstontx.gov

ITRP Organization Model



ITRP Organization Model

Contractual Relationship



ITRP Scope Overview – Individual Projects

United New Terminal C North

MLIT - Terminal, Airside, Landside Reconfiguration, Apron & Taxi-lane



PMO Building

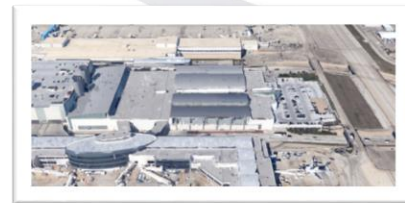


Landside Enabling Utilities

Landside Roadway Rehabilitation

Federal Inspection Services

East Aircraft Parking Hardstand (Project Eliminated)



ITRP Procurement Update



PROCUREMENT ACTION	PROCUREMENT METHOD	PROCUREMENT STATUS
Program Management Office (PMO)	Design-Build (RFQ Two Step Process)	Contract awarded 11/16/16
MLIT Design Services	Architect Engineer (AE) Design Services (RFQ)	Contract awarded 11/30/16
MLIT Construction Manager at Risk	Construction Manager at Risk (CMAR)	Contract award recommendation pending.
Enabling Utilities - Landside	Design-Build (RFQ Two Step Process)	Statements of Qualification currently under review.
East Aircraft Parking Hardstand	Design-Build (RFQ Two Step Process)	Procurement canceled, aircraft parking accommodated in MLIT Apron & Taxi-lane.
Owner's Controlled Insurance Program (OCIP)	Request for Proposals (RFP)	Contract award recommendation pending.
FIS Design Services	Architect Engineer (AE) Design Services (RFQ)	Statements of Qualification currently under review.
FIS Construction Manager at Risk	Construction Manager at Risk (CMAR)	Statements of Qualification currently under review.
IAH Energy Initiatives	Request for Qualifications (RFQ)	RFQ specifications and scope of services under development.
Apron & Taxilanes	Request for Qualifications (RFQ)	RFQ specifications and scope of services under development.



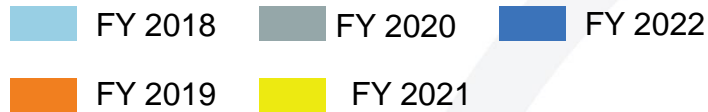
Infrastructure CIP FY 2018-22

Current/Upcoming Project Information



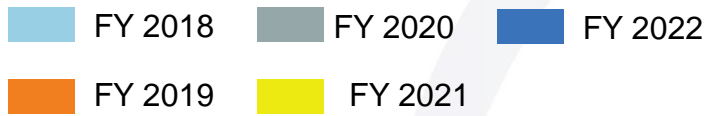
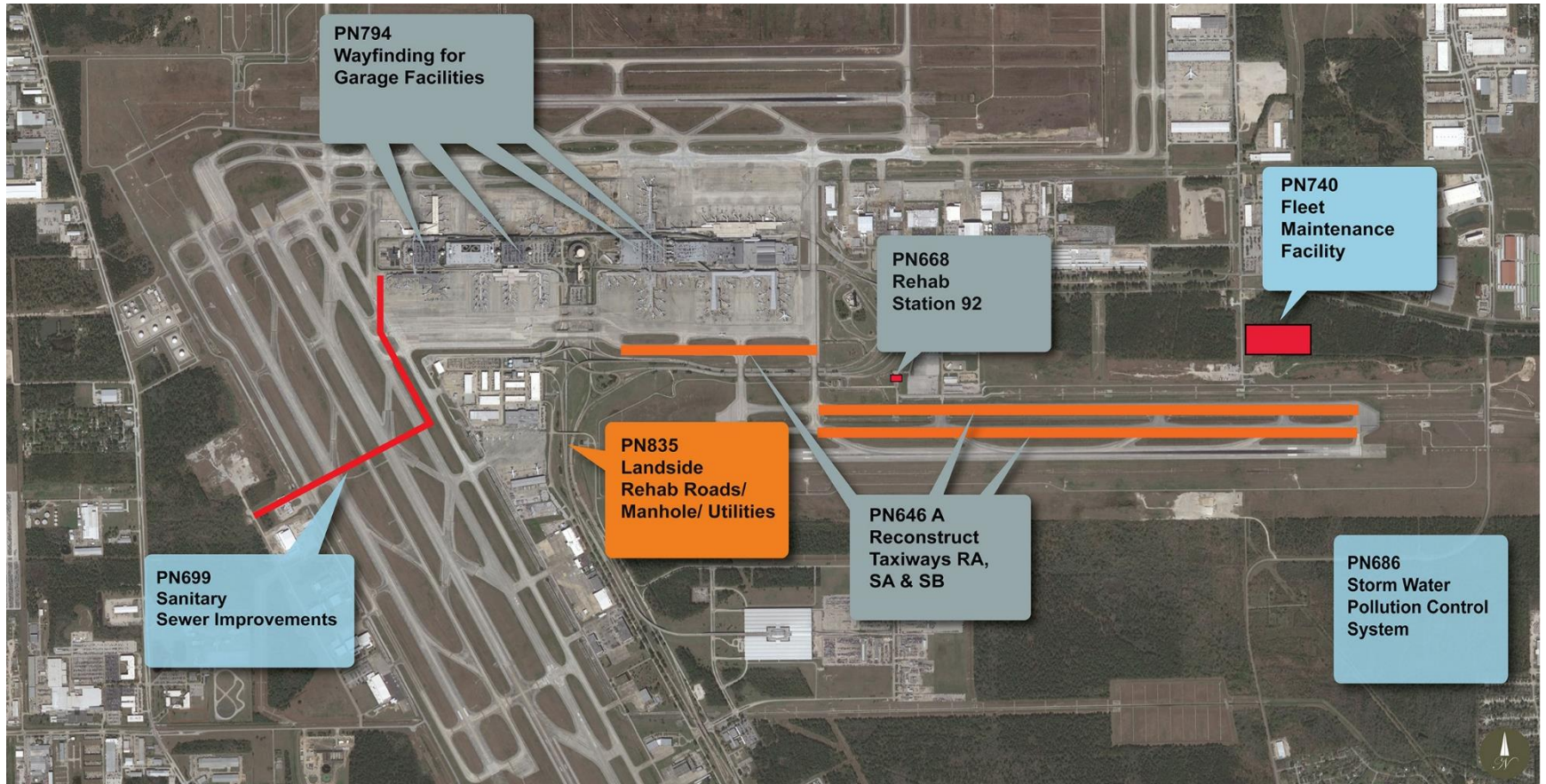
Devon Tiner
Assistant Director
Asset Engineering
Devon.Tiner@houstontx.gov

Infrastructure CIP FY 2018-22



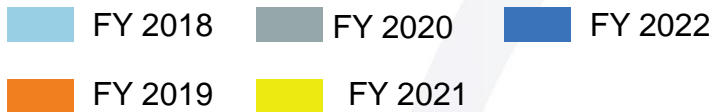
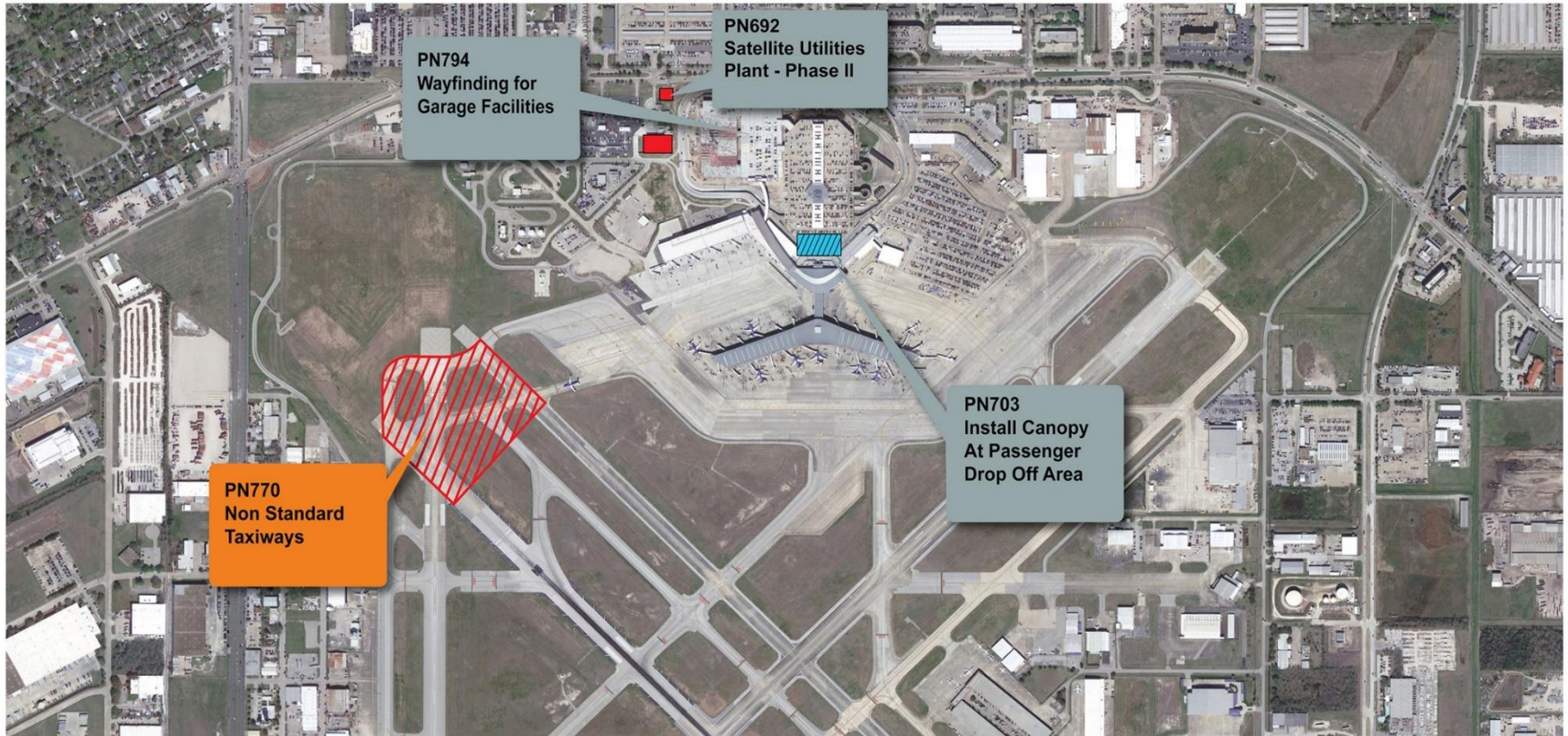
George Bush Intercontinental Airport

Infrastructure CIP FY 2018-22



George Bush Intercontinental Airport

Infrastructure CIP FY 2018-22



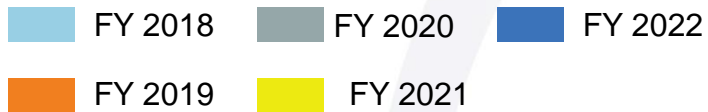
William P. Hobby Airport

Infrastructure CIP FY 2018-22



William P. Hobby Airport

Infrastructure CIP FY 2018-22



Ellington Airport

Infrastructure CIP FY 2018-22



FY 2018

Identifier	Title	Opportunity	CIP Budget*
IAH PN646A	Reconstruct Taxiways RA, SA & SB	Design Services	\$5,000,000
IAH PN673	Terminal A Modernization Program	Design & CMAR Services	\$75,000,000
IAH PN740	Fleet Maintenance Building	Design-Build	\$4,500,000
IAH PN686	Storm Water Pollution Control System	Construction Bid	\$5,700,000
IAH PN699	Sanitary Sewer Improvements	Competitive Sealed Proposal	\$9,200,000
IAH PN546	Upgrade Automated People Mover Facilities	Design-Build	\$29,000,000
IAH PN901	Taxiway WA/WB Reconstruction	Competitive Sealed Proposal	\$110,000,000
IAH PN676	Residential Noise Mitigation Program	Construction Bid	\$1,900,000
IAH PN746	Demolition of ATCT Support Buildings	Construction Bid	\$3,000,000
HOU PN770	Non-Standard FAA Taxiways	Design Services	\$1,500,000
EFD PN707**	Taxiway L at EFD	Design Services	\$4,000,000
EFD PN779	Spaceport Infrastructure	Design-Build	\$18,000,000
HAS	Design On-Call Services	Request for Qualifications	TBD
Total			\$266,800,000

Notes:

*CIP Budget numbers are program level which is inclusive of design, construction, contingency and soft costs and do not represent opportunity value.

**Project currently in the quiet period for solicitation. Advertised in the Houston Business Journal on 4/21/2017, and posted to the fly2houston.com website on 4/25/2017. Please go to those for more info.

Infrastructure CIP FY 2018-22



FY 2019

Identifier	Title	Opportunity	CIP Budget*
IAH PN668	Rehabilitate & Expand ARFF Station 92	Design Services	\$1,900,000
IAH PN618A	Tunnel Drainage Improvements	Construction Bid	\$10,000,000
HOU PN770	Non-Standard FAA Taxiways	Construction Bid	\$13,500,000
HOU PN692	Satellite Utilities Plant Upgrades	Design Services	\$1,700,000
EFD PN707	Construct Taxiway L	Construction Bid	\$41,000,000
IAH PN565	Landside Roadway Rehabilitation	CMAR Services	\$50,000,000
Total			\$118,100,000

Notes:

*CIP Budget numbers are program level which is inclusive of design, construction, contingency and soft costs and do not represent opportunity value.

Infrastructure CIP FY 2018-22



FY 2020

Identifier	Title	Opportunity	CIP Budget*
IAH PN646A	Reconstruct Taxiways RA, SA & SB	Construction Bid	\$65,000,000
IAH PN668	Rehabilitate & Expand ARFF Station 92	Design-Build	\$22,100,000
IAH PN604A	Inter-Terminal Train	Design Services	\$5,000,000
HOU PN692	Satellite Utilities Plant Upgrades	Construction Bid	\$8,200,000
HOU PN703	Passenger Drop Off Canopy	Construction Bid	\$4,700,000
HAS PN794	Garage Wayfinding	Construction Bid	\$2,500,000
Total			\$107,500,000

FY 2021

Identifier	Title	Opportunity	CIP Budget*
HOU PN589	Rehabilitate & Expand ARFF Station 81	Construction Bid	\$1,925,000
Total			\$1,925,000

FY 2022

Identifier	Title	Opportunity	CIP Budget*
IAH PN604A	Inter-Terminal Train	Construction Bid	\$20,000,000
HOU PN692	Satellite Utilities Plant Upgrades	Construction Bid	\$8,700,000
Total			\$28,700,000

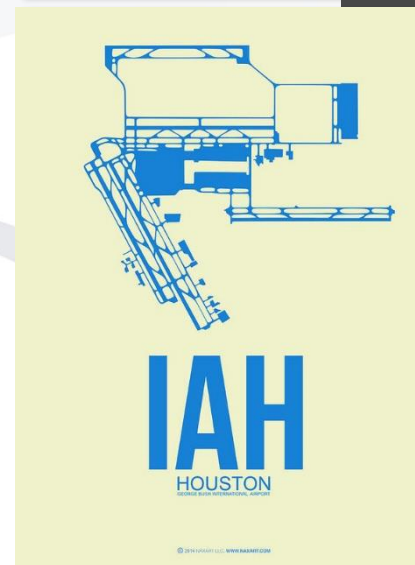
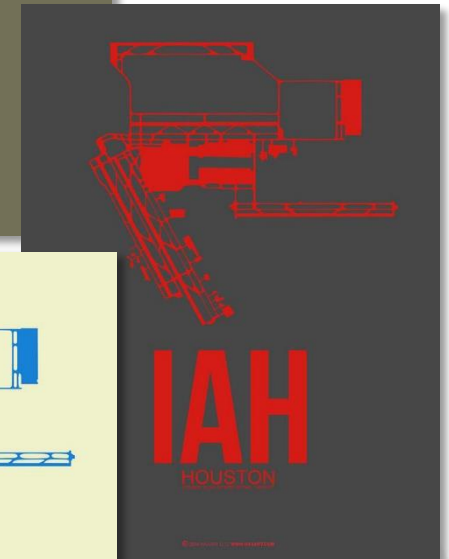
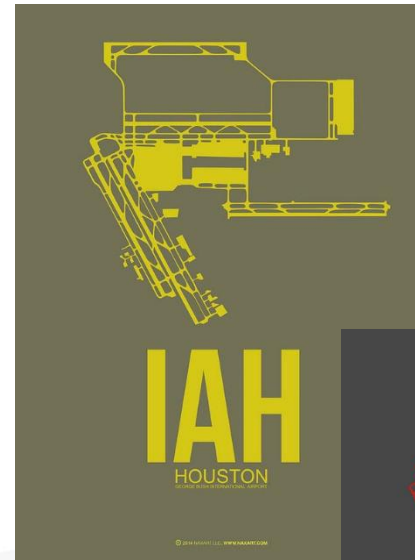
Notes:

*CIP Budget numbers are program level which is inclusive of design, construction, contingency and soft costs and do not represent opportunity value.

Infrastructure: Design

Design On-Call

- New contract with multiple firms for architecture and engineering services for airport facilities. Potential projects include:
 - APM modifications
 - ARFF Station Modification & Expansion
 - ITT Improvements
 - Wayfinding & Signage Improvements
 - Airside and Landside Pavement Rehabilitation
 - Drainage Rehabilitation
- Existing contract status:
 - Origination date: 9/19/2012
 - Total Contract to date: \$44,600,000
 - Expiration date 9/26/2017
- CIP budget: TBD
- Opportunity: RFQ for Design
- Status: Advertisement in May 2017





Pavements & Grounds Current/Upcoming Project Information



Bill Gaw
Asset Engineer
Pavements & Grounds
Bill.Gaw@houstontx.gov

Infrastructure: Pavements & Grounds

Project No. 686 Storm Water Pollution Control System

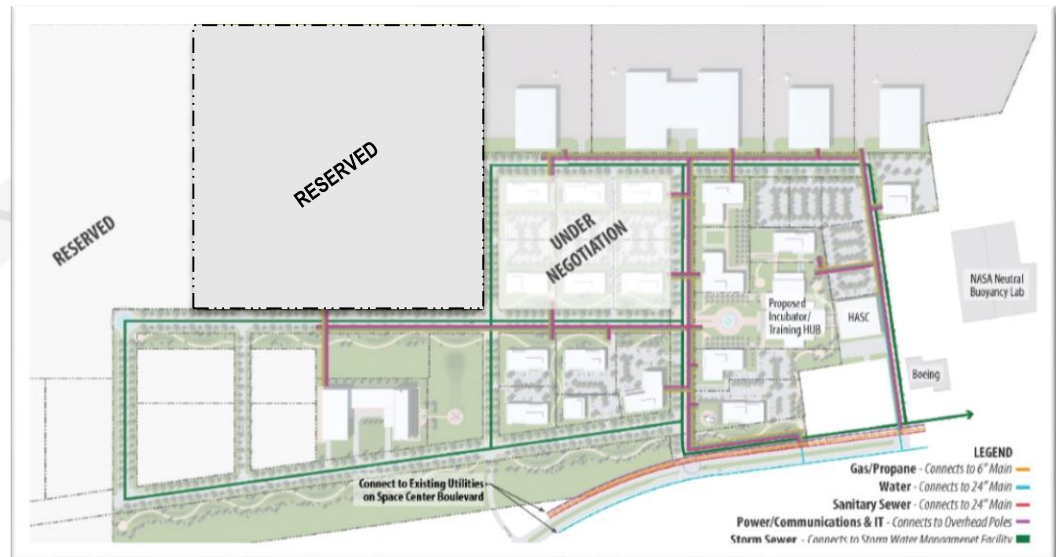
- Replace current systems with new storm water pollution control system throughout airfield
- CIP Budget: \$5,700,000
FY2018
- Opportunity: Construction Bid
- Status: In Design with On-Call Consultant.



Infrastructure: Pavements & Grounds

Project No. 779 Spaceport Infrastructure at EFD

- Provide roadways and utilities for future tenants (Phase 1)
- CIP Budget: 18,000,000 FY 2018
- Opportunity: Design-Build
- Status: Bridging documents being prepared by On-Call Design Consultant for inclusion in Design-Build solicitation package.
- Anticipated advertisement in June 2017.





FAR-139 Airfield Pavement Current/Upcoming Project Information



Dev Pokhrel, P.E.
Asset Engineer
Airfield Pavement
Dev.Pokhrel@houstontx.gov

Airfield Pavement Opportunities: Design/Construction

- DBE requirement
 - FAA Design Standard
 - Procurement Method-DBB
- } FAA Criteria

Project Key Elements:

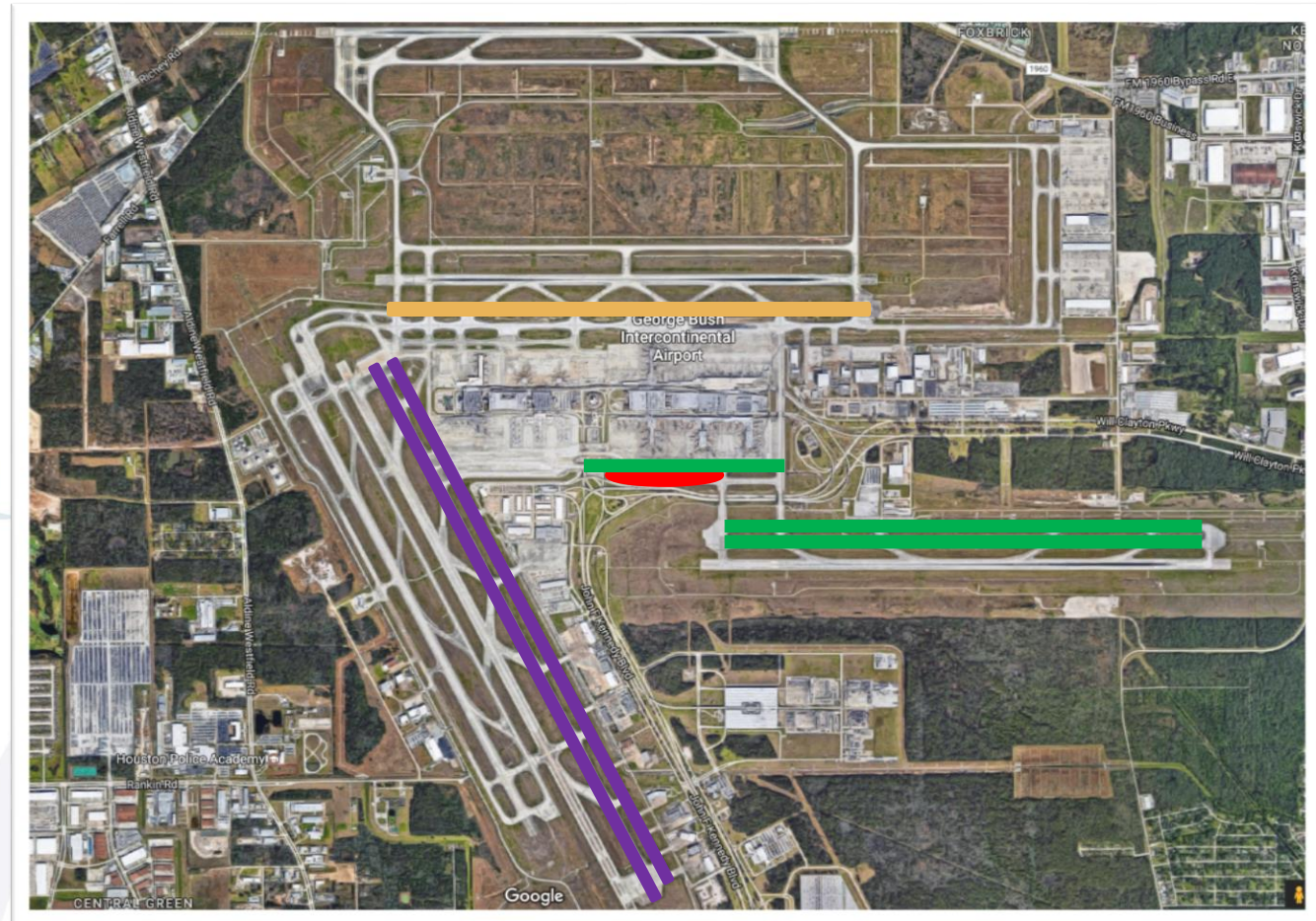
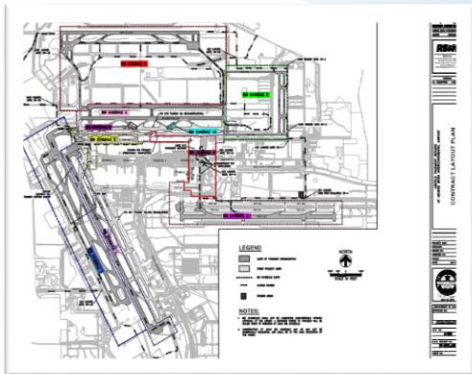
- Team Building-Pavement Design
- Evaluation of Existing Pavement/ subgrade
- Geotechnical, Survey, SUE
- Underdrainage Issues
- QA/QC
- Operational Safety- Security; SMS/CSPP-steps/process
- Project Phasing/Scheduling; Design to Budget

Infrastructure: FAR 139 Pavements

Critical Phasing/ Scheduling & Operational Impact

Overall Projects-IAH

- P675-TWY NA
- P797-Urgent Repairs TWY RA
- P460C-Misc Repairs
- P901-WA/WB
- P646 A - TWY SA
- P646 B - TWY RA/RB,SB

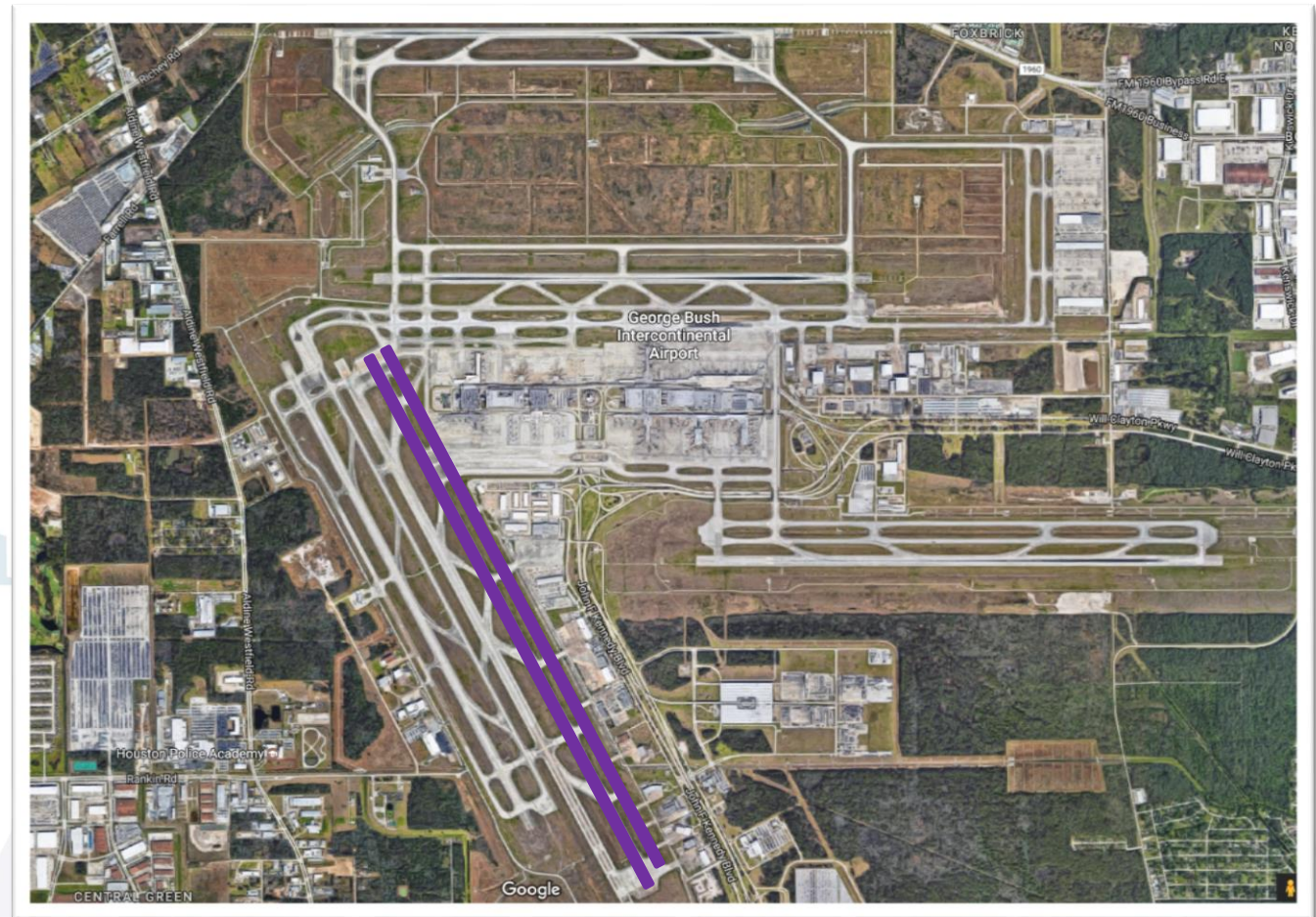


460C-IAH

Infrastructure: FAR 139 Pavements

Project No. 901 Taxiway WA/WB 2017/2018

- Full Depth Reconstruction
- WA-TDG 7
- WB TDG 6
- Both Concrete Pavement
- Phasing/Scheduling-
Critical
- Opportunity: Competitive
Sealed Proposal
- Status – Expected to
advertise in late Spring
2017



Infrastructure: FAR 139 Pavements

Project No. 646 TWY RARB/SB FY: 2018/2019

RA

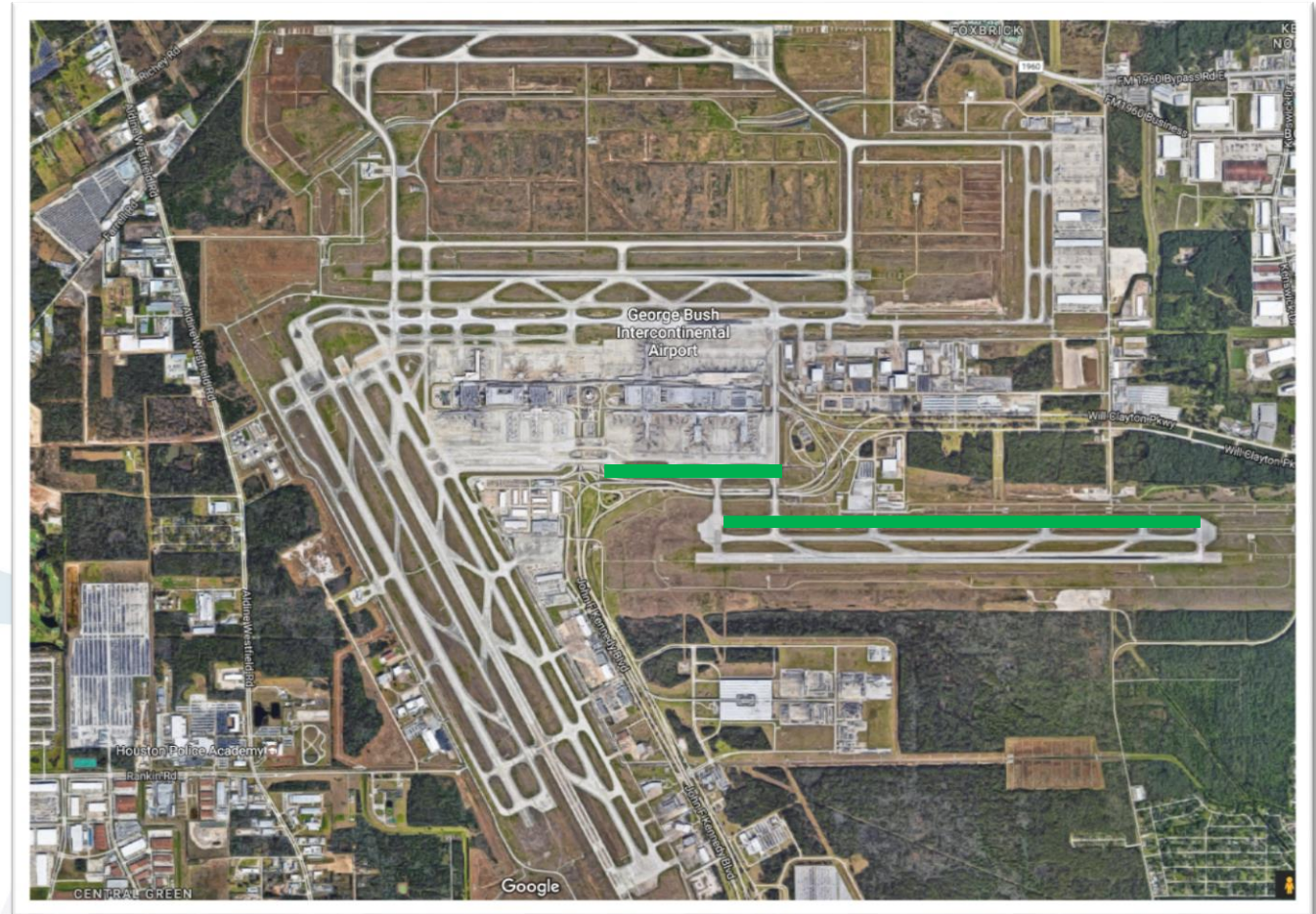
- 4500 ft. long approx.
- Conc. rehab
- Underdrainage Pumping issues
- Shoulder upgrade

RB

- Miscellaneous Pavement Repairs

SB

- Existing Pavement- AC
- Needs Mill and Overlay
- Full length



Design Advertise- August 2017 (FY 2018)
Construction –FY 2020 → NTP July 2019

Infrastructure: FAR 139 Pavements

Project No. 646A Taxiway SA FY: 2019/2020

SA

- Existing pavement – AC
- 8500 ft. long approx.
- Full Depth Concrete Reconstruction
- ADG-V
- Cross Taxiways
- Shoulder upgrade
- TWY Lighting (LED), Painting-Marking



Design Advertise- July 2019

Construction –FY 2021 → Advertise September 2020

Infrastructure: FAR 139 Pavements

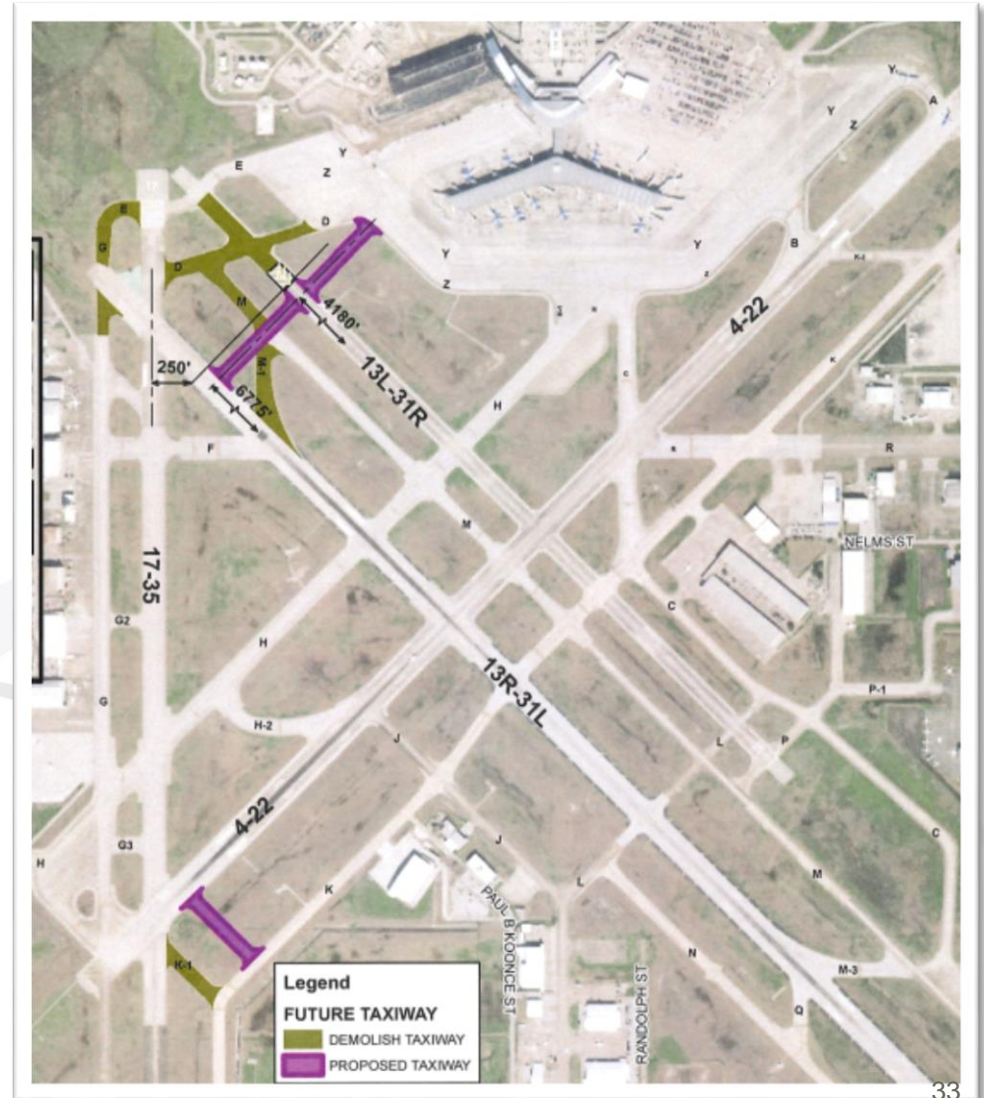
Upcoming Projects - HOU

Project No. 460C
Misc Airfield Pavement Repairs-
2017/2018

- On call Design at 65%
- Construction - 2018/2019

Project No. 770
HOU TWY Hot Spot- not meeting FAA
Standards

- RFQ –July/August 2017
- Construction 2018/2019





Infrastructure: Facilities

Current/Upcoming Project- Information



Guillermo Cabrera
Asset Engineer
Facilities
Guillermo.Cabrera@houstontx.gov

Infrastructure: Facilities

Project No. 673 IAH Terminal A Modernization

- The project will include the following:
 1. Exterior Waterproofing
 2. Restroom Renovations
 3. Check-in and Hold-rooms counter replacements
 4. MEP/IT Upgrades
 5. Ticket Lobby Architectural Enhancements
- CIP Budget: FY 2018 - \$75,000,000
- Opportunity: Design & CMAR Services
- Status: Project Definition Document in progress



Infrastructure: Facilities

Project No. 740 IAH Fleet Maintenance Building

- A new Vehicle Maintenance Facility for IAH
- CIP budget: FY 2018 - \$4,500,000
- Opportunity: Design-Build
- Status: Bridging Documents Completed



Infrastructure: Facilities

Project No. 668 IAH ARFF 92 Rehabilitation and Expansion

- Reconfigure the Interior to suit current needs and update structure, equipment and systems as required.
- CIP budget:
 - FY 2019 \$1,900,000
 - FY 2020 \$22,100,000 (Const.)
- Opportunity: Design Services
- Status: Program Design Document in process



Infrastructure: Facilities

Project No. 618A IAH Tunnel Drainage Improvements

- Rehabilitation of the Subway tunnel to repair structural and leak location defects.
- CIP Budget: FY 2019
\$10,000,000
- Opportunity: Construction Bid
- Status: Assessment and Recommendations Report Completed



Infrastructure: Facilities

Project No. 589 HOU ARFF 81 Rehabilitation and Expansion

- Reconfigure the Interior to suit current needs and update structure, equipment and systems as required.
- CIP Budget: FY 2021
\$1,900,000
- Opportunity: Construction Bid
- Status: Program Design Document pending



Infrastructure: Facilities

Project No. 746 IAH Demolition of Old TRACON Facility Support Buildings

- Demolition of all the support buildings surrounding the old ATCT and backfilling the site
- Budget: \$3,000,000
- Opportunity: Construction Bid
- Status: Design Documents in Process





Infrastructure: Utilities Current/Upcoming Project Information

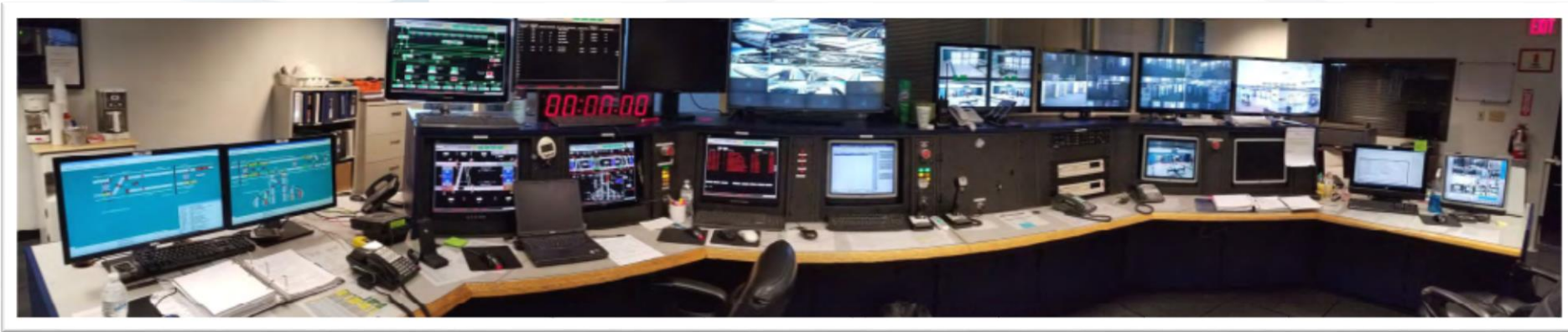


Eren Selcen
Asset Engineer
Utilities
Eren.Selcen@houstontx.gov

Infrastructure: Utilities

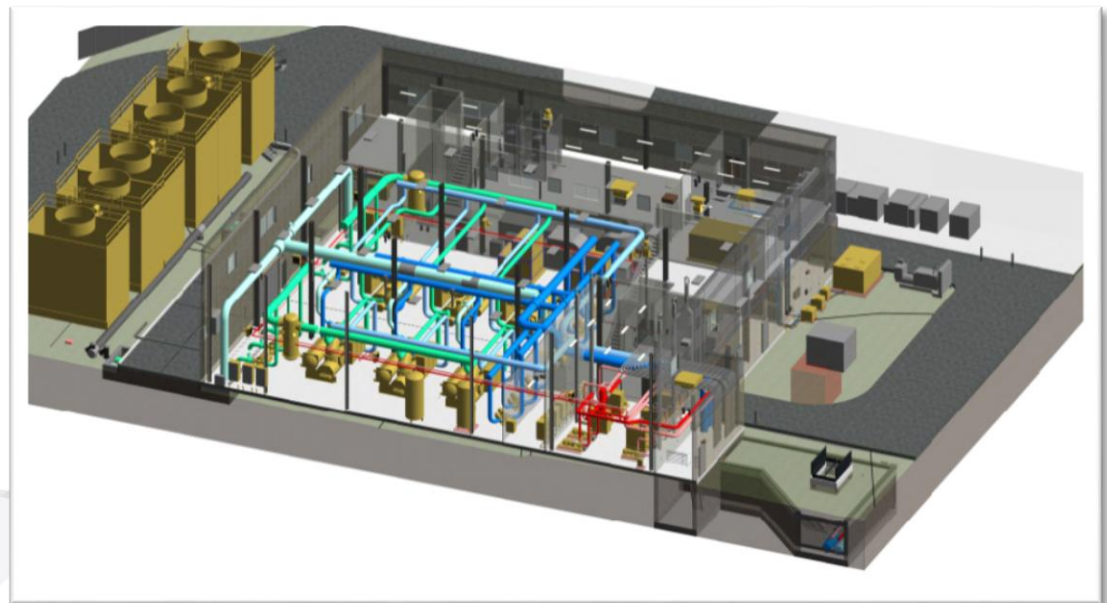
PN 546- IAH Automated People Mover Facilities Upgrade and Control Center Relocation Project

- CIP Budget: \$29,000,000
- Opportunity : Construction
- Project is approved. Pending Design Documents for Construction scheduled for FY2018.



PN 692- HOU Satellite Utilities Plant Project

- CIP Budget: \$18,600,000
- Opportunity : Design & Construction
- Status: HAS planned to incrementally Construct A New SUP in A New Location
- SUP is constructed. Incremental Plan To Replace The Existing Space-Constrained CUP As Chillers Reach End Of Useful Service Life.
- Phased development cooling and heating systems of HOU SUP FY2018-22



Infrastructure: Utilities

PN 604A- IAH Inter Terminal Subway Train Upgrade Project

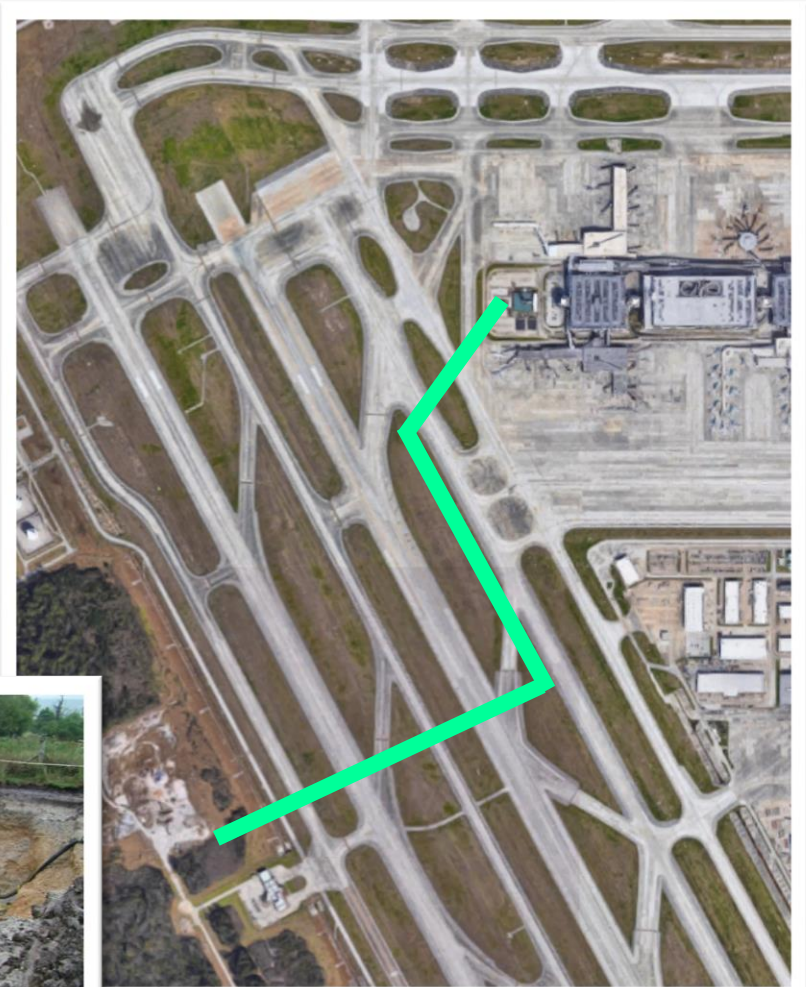
- CIP Budget: \$25,000,000
- Opportunity :
Design/Construction
- Status: Pending Planning Documents. To re-life or replace Subway Train System in FY 2020-22.



Infrastructure: Utilities

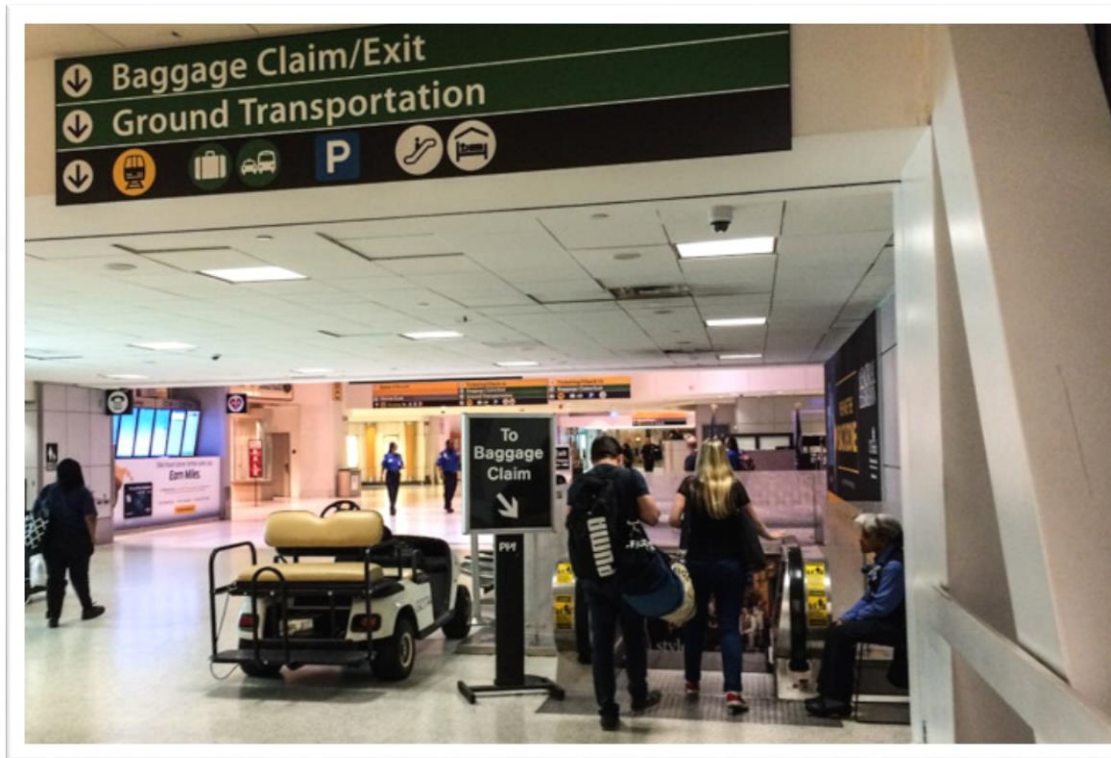
Project No. 699 Sanitary Sewer Improvement

- Rehabilitation of Sanitary Sewer from Terminal A to Chanute Road Lift Station
- CIP Budget: \$9,200,000 – FY 2018
- Opportunity: Competitive Sealed Proposal
- Status: Procurement in FY 2018





Infrastructure: Wayfinding & Signage Current/Upcoming Project Information

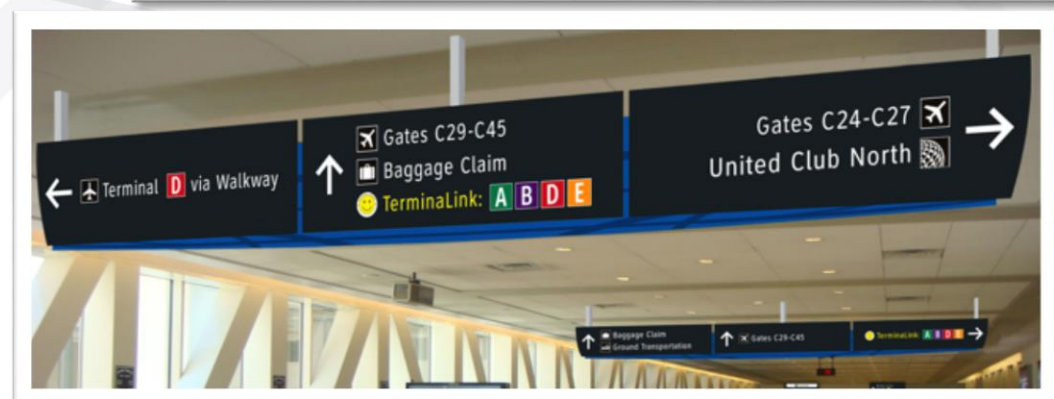


Lorna Clark
Asset Engineer
Wayfinding & Signage
Lorna.Clark@houstontx.gov

Infrastructure: Wayfinding & Signage

Wayfinding Signage for Terminals A, B, and C

- Fabrication & Installation of Wayfinding Signage in Terminals A, B and C.
- Fabrication and Installation of Interim Signs – High Density Extruded Polystyrene with Vinyl Graphics
- Fabrication and Installation of Aluminum Signs with Vinyl Graphics
- CIP Budget: \$1,500,000 in FY 2018
- Opportunity: Construction Bid
- Status: Design is slated for the remainder of this year under the HAS On-Call Design contracts
- Start Construction early 2018



Infrastructure: Wayfinding & Signage

Wayfinding Signage for Terminals A/B, C, & D/E Garages

- Fabrication and Installation of Wayfinding Signage in Terminals A/B, C & D/E Garages
- Fabrication and Installation of Aluminum Signs with Vinyl Graphics
- Rebranding and eliminating the 3-Color identifiers of Terminal C Garages
- CIP Budget: \$2,500,000 in FY 2019
- Opportunity: Construction Bid
- Status: Design is slated for next year under the HAS On-Call Design contracts
- Start Construction 2019





Infrastructure: Parking & Transportation Structures

Current/Upcoming Project Information

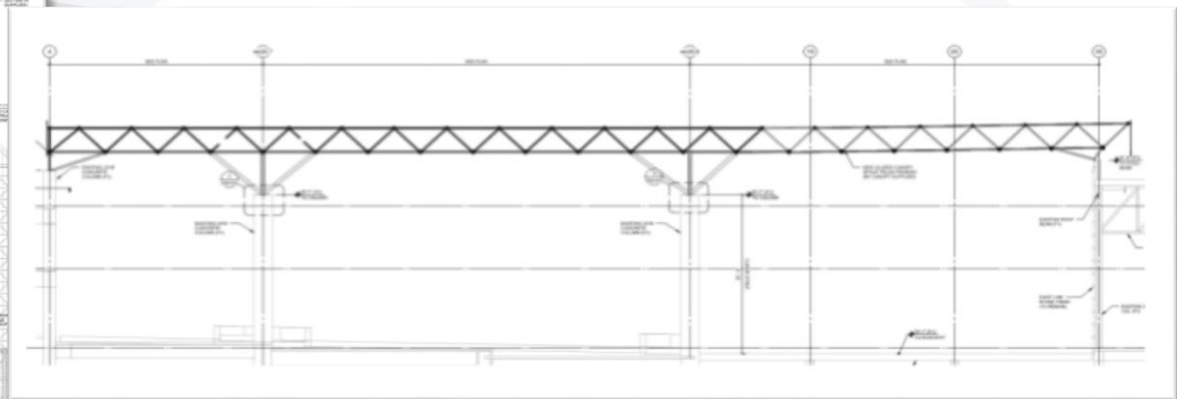
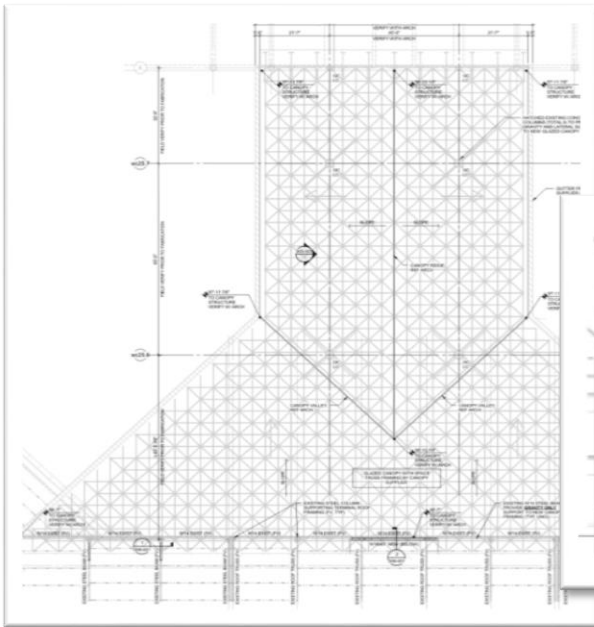


Shatha Lingle
Asset Engineer
Parking & Transportation
Structures
Shatha.Lingle@houstontx.gov

Infrastructure: Parking & Transportation Structures

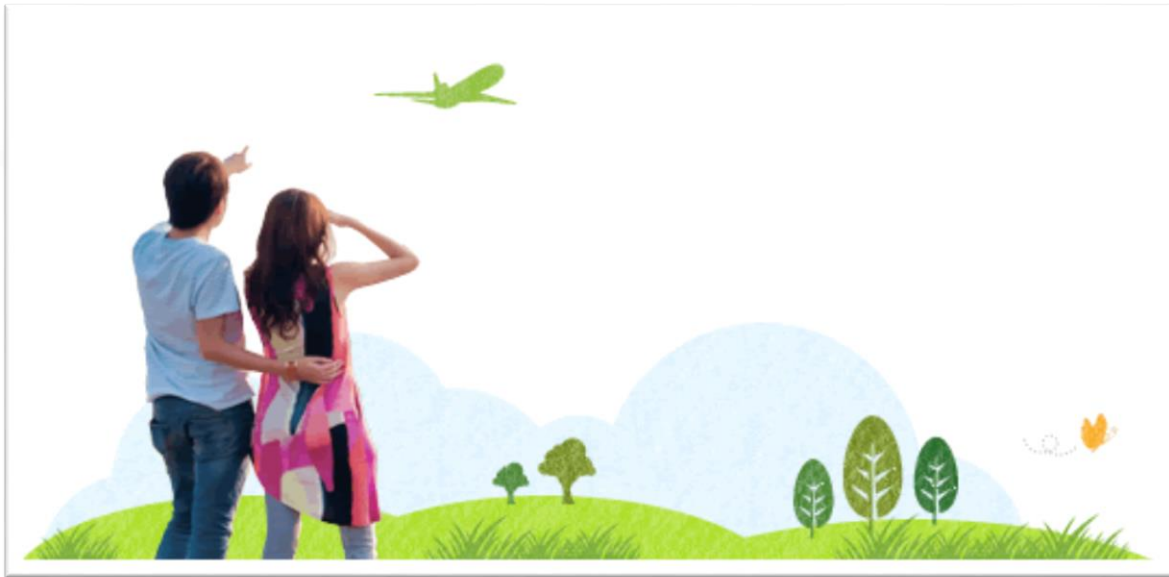
Project No. 703 HOU Passenger Drop Off Canopy

- Construct canopy between Red Garage and Terminal Building
- CIP Budget: \$4,700,000
- Opportunity: Construction Bid
- Status: Construction is scheduled for FY 2020





Infrastructure: Environmental Current/Upcoming Project Information



Carlos Ortiz
Division Manager
Environmental
Carlos.Ortiz@houstontx.gov

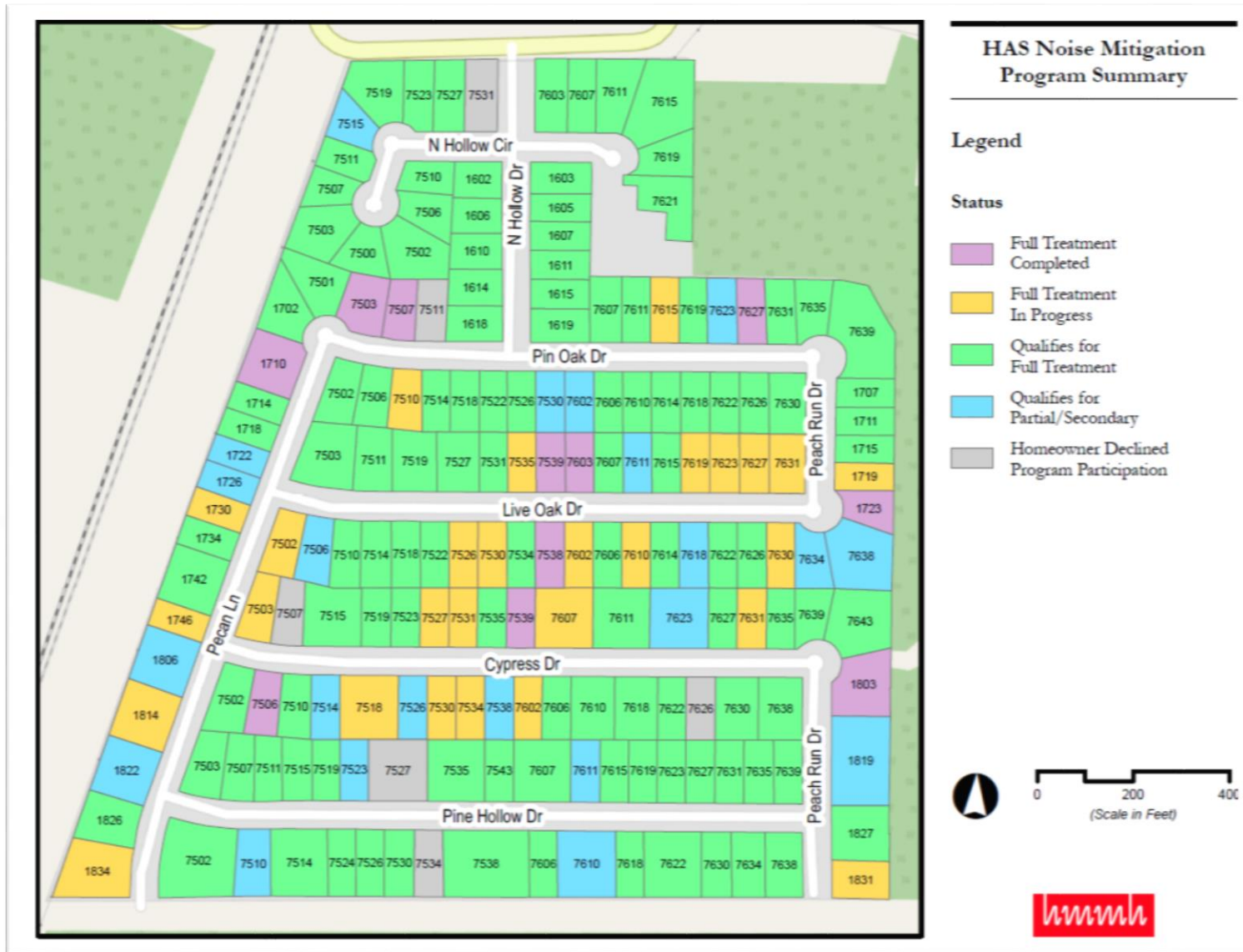
Infrastructure: Environmental

Project No. 676A Residential Noise Insulation Program

- Construction program to install new windows, doors, and insulation for reduction of aircraft noise in 27 single family homes
- CIP Budget: \$1,900,000
- Opportunity: Construction Bid
- Status: Advertise for bids in May



Infrastructure: Environmental

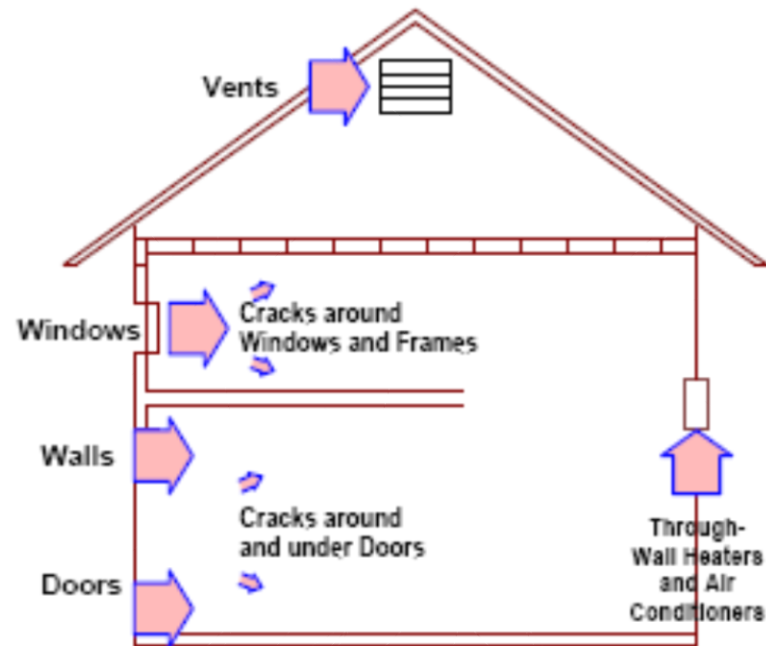


Infrastructure: Environmental

Project No. 676A Residential Noise Insulation Program

Sound Insulation Potential Treatments

- Replace Windows
- Replace Exterior Prime Doors
- Add / Replace Exterior Storm Doors
- Add Attic Insulation
- Caulk/Seal Penetrations
- Ventilation System Improvements
- Electrical System Improvements

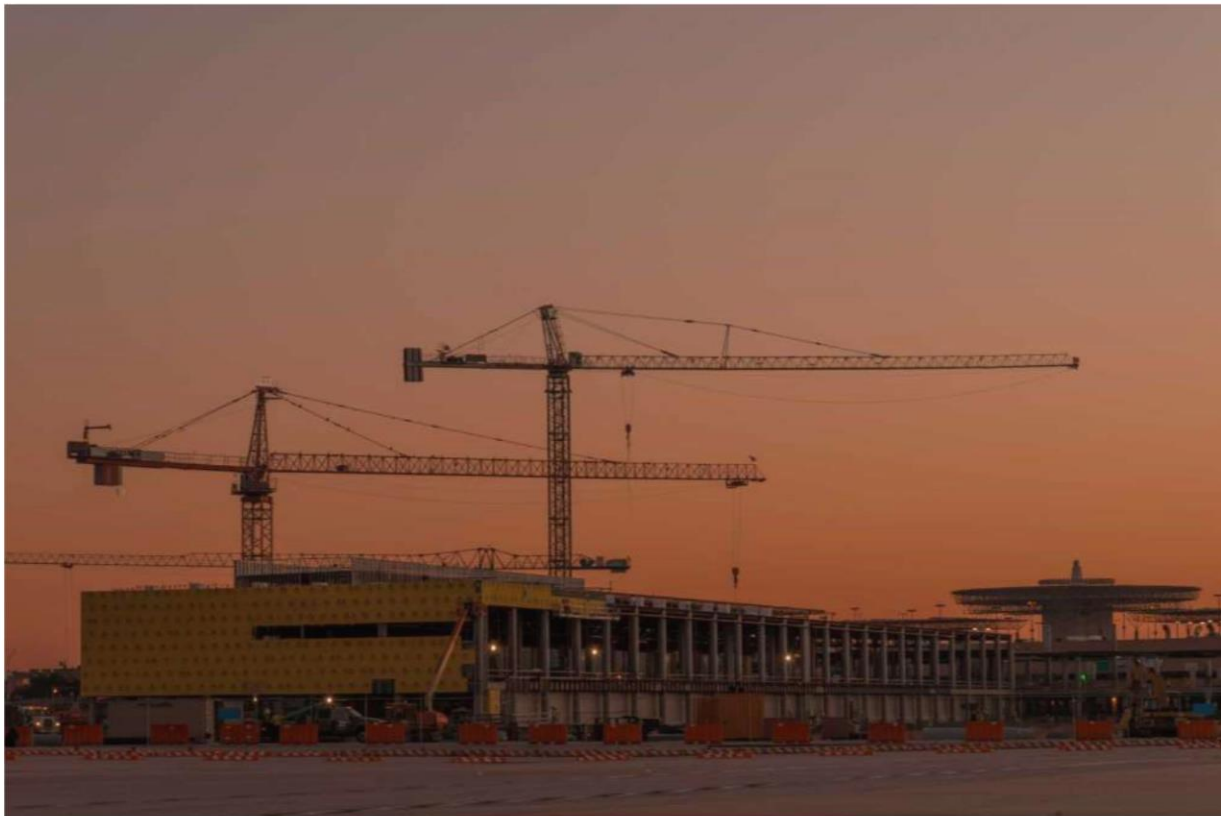


Three Major Paths For Noise Transmission:

Gaps and Cracks
Windows and Doors
Walls and Vents



Infrastructure: Building Standards Overview



Ivory "Bo" Davis
Interim Assistant Director
Building Standards
Ivory.Davis@houstontx.gov

Infrastructure: Building Standards

- The Building Standards Group, or BSG, is an “in-house” code review and inspection program
- Created specifically to provide code plan review and inspection support for construction taking place on any of the Houston Airport System (HAS) premises.
- Agreement with the City of Houston Public Works Department
 - HAS was given the authority to create and staff this new group in order to help expedite the code review, permit issuance and inspection for all construction on airport premises
- HAS BSG has its own unique permit submittal process, that is completely separate from that used by the City of Houston Permitting Center
- Application must be made directly to the BSG for any construction taking place at George Bush Intercontinental, Hobby or Ellington airports.
- Once a permit application has been reviewed and approved, BSG will issue a construction permit for that project.

Infrastructure: Building Standards



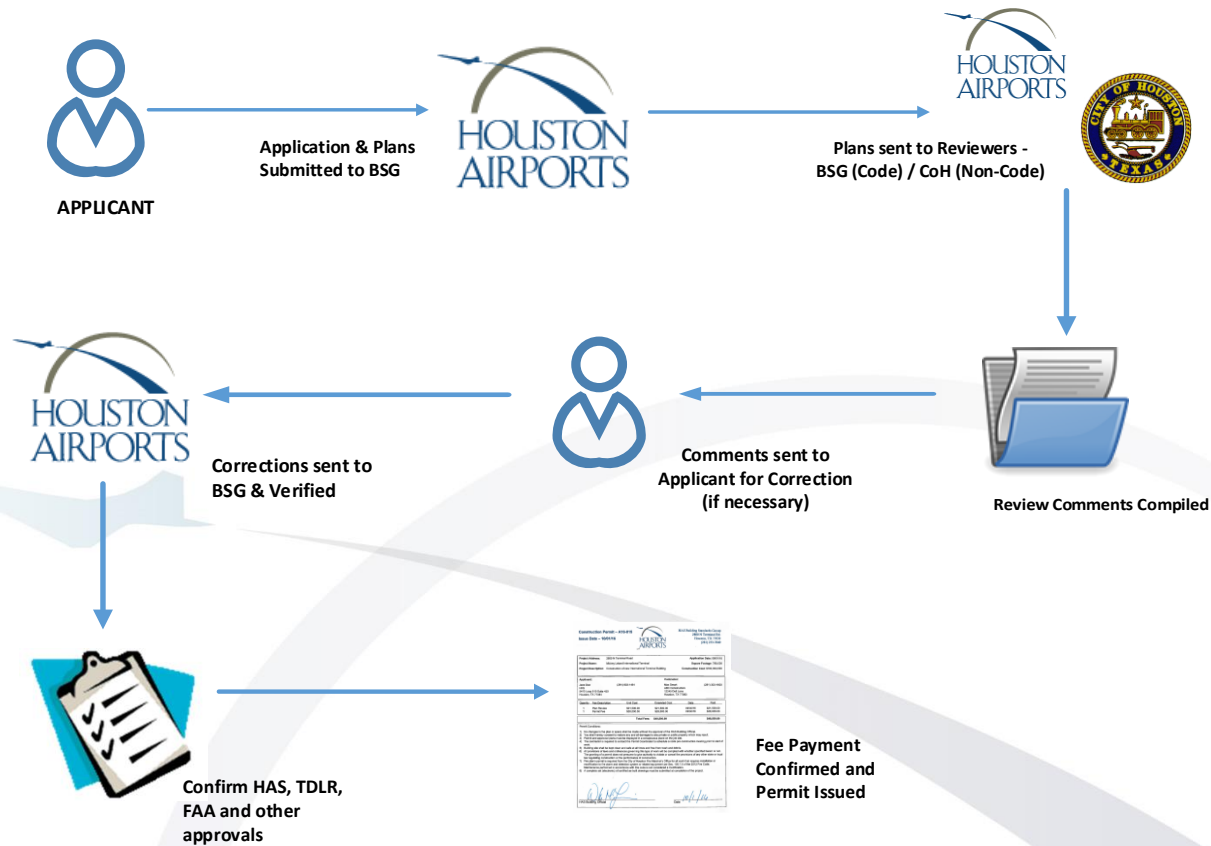
HAS Permitting

- A permit is required for all new construction, as well as remodel, repair, additions or other alterations to existing structures.
 - This includes work associated with utilities, infrastructure, flatwork, or signage projects.
- An HAS BSG Application for Construction Permit, along with electronic (pdf) copies of the plans and all associated documents must be submitted to the BSG Permit Coordinator at BSG-Permitsubmittal@houstontx.gov.
- Any alterations to a building that effect or modify the exiting or egress from the facility, such as access control or relocation of doors, as well as any changes to the fire alarm or fire suppression system must be permitted.
- A Certificate of Occupancy (CO) is required prior to occupying any space within a building. The City of Houston Public Works & Engineering (PWE) Code Compliance section will continue to issue all Certificates of Occupancy.

Infrastructure: Building Standards

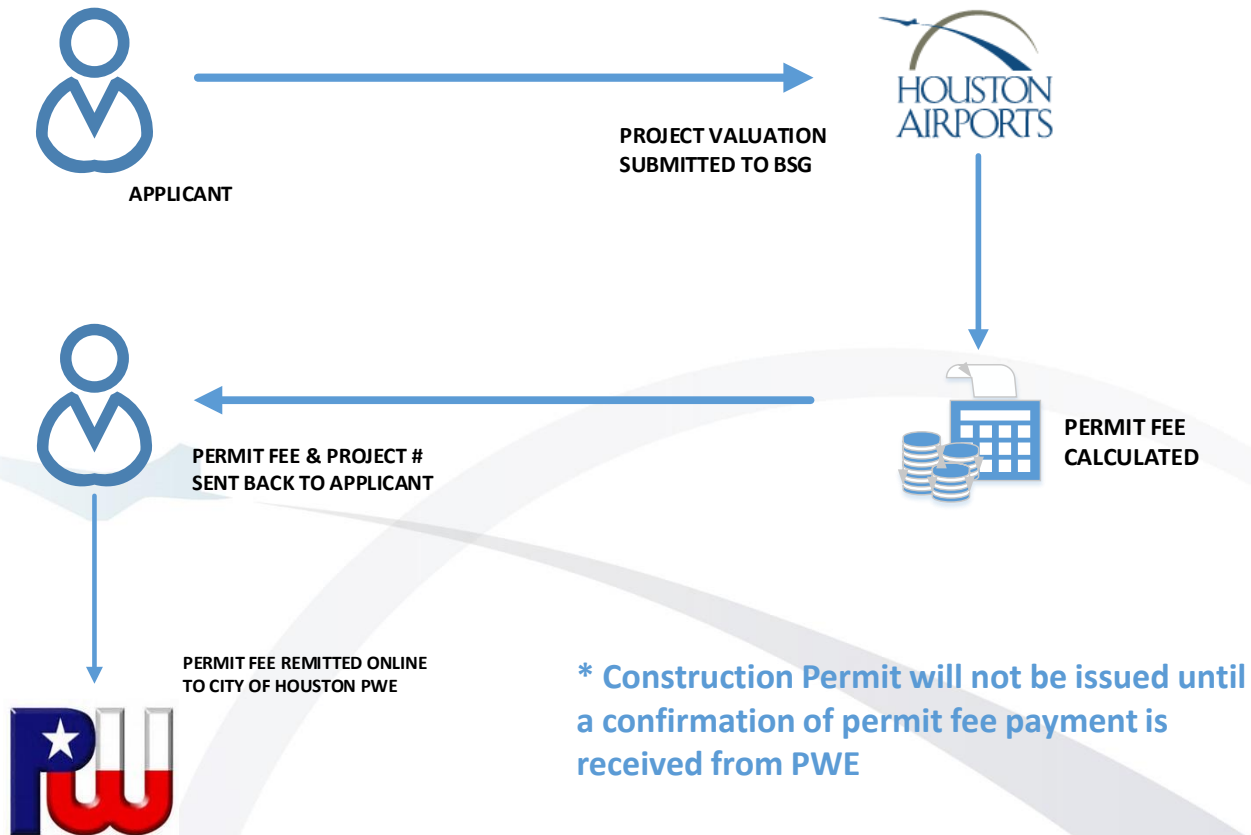


Process Flow – Permit Review



Infrastructure: Building Standards

Permit Fee Payment





Question & Answer Opportunity

