

**JOINT MEETING OF THE RTP AND TIP SUBCOMMITTEES
HOUSTON-GALVESTON AREA COUNCIL
3555 TIMMONS LANE, 2ND FLOOR CONFERENCE ROOM B/C
April 11, 2018
9:30 a.m.**

AGENDA

1. Introductions
2. Adoption of Agenda
3. Election of Officers

INFORMATION

4. **2019 - 2022 Transportation Improvement Program**
5. **2018 Call for Projects**
6. **Announcements**
 - TAC Meeting – April 18, 2018, 9:30 a.m., Conf. Room B/C
 - TPC meeting – April 25, 2018, 9:30 a.m., Room B
 - Next RTP-TIP Meeting – May 9, 2018, 9:30 am, Conf. Room B/C
7. **Adjourn**

2019 - 2022 Transportation Improvement Program (TIP) Schedule

- **March 14, 2018** - Technical Advisory Committee Meeting – Information
- **March 23, 2018** - Transportation Policy Council – Information
- **April 10, 2018** - Start of Public Comment Period
- **April 17, 2018** – Public Meeting
- **April 18, 2018** - Technical Advisory Committee Meeting – Preview
- **April 27, 2018** - Transportation Policy Council – Preview
- **May 9, 2018** - End of Public Comment Period
- **May 16, 2018** - Technical Advisory Committee Meeting – Recommendation
- **May 25, 2018** - Transportation Policy Council - Action/Adoption
- **June 18, 2018** - TIP submittal due to TxDOT for inclusion in FY 2019-2022 Statewide Transportation Improvement Program (STIP)

**PUBLIC COMMENT PERIOD FOR THE
DRAFT 2019-2022 TRANSPORTATION IMPROVEMENT PROGRAM**

Background

The Transportation Improvement Program (TIP) is a four-year capital improvements program for transportation projects. Under federal rules, all federally assisted projects must be included in the TIP to be eligible for funding. In addition, federal rules require that regionally significant local projects must also be included in the TIP.

H-GAC's TIP is included, along with all other MPO TIPs and rural TIPs developed by TxDOT, in the Statewide Transportation Improvement Program (STIP). The STIP, reviewed and approved by Federal Highway Administration and Federal Transit Administration, forms the basis for federal project actions including environmental approvals (NEPA), permits and fund obligations.

In Texas, a new STIP is compiled every two years resulting in at least two years of projects carried over each cycle.

Current Situation

The new 2019-2022 TIP must be approved and transmitted to TxDOT by June 18, 2018.

The Draft 2019-2022 TIP contains those projects which have been funded in the TIP timeframe by the TPC or through local sponsor action. This includes estimated amounts for future year federal transit funding as approved by designated recipients in consultation with other local transit providers.

Staff has also been working with sponsors to update locally-funded project information to ensure that projects that need to be listed in the TIP are updated and reflect latest available information.

Based on feedback received from stakeholders and the public, staff has drafted a more concise and accessible document. Where appropriate, appendices have been consolidated or eliminated.

The Draft 2019-2022 TIP is available for review on H-GAC's TIP website: <https://www.h-gac.com/taq/tip/2019-2022-tip.aspx>

As provided in H-GAC's Public Participation Plan, a 30-day public comment period on the draft 2019-2022 TIP was opened on April 10, 2016 and will close at 5:00 pm on May 9, 2018.

A public meeting will be conducted on April 17, 2018, from 5:30 to 7:00 pm in Conference Room A. The meeting will be available via webinar for those who wish to participate but cannot attend in person. Webinar registration is available online: <https://www.h-gac.com/taq/transportation-public-outreach/mobility-transportation-upcoming-public-meetings.aspx>

Comments and sponsor feedback will be incorporated into the TIP document and project information prior to approval being requested at the May TAC and TPC meetings.

Action Requested

For information only

2018 Call for Projects -2045 RTP Investment Strategies

Background

Staff proposes to announce the 2018 Call for projects beginning June 1, 2018. Application period for this call will be open for 60 days ending at 5:00 on July 31, 2018. Projects proposals requesting federal funding will be aligned with the 2045 RTP Goals, Strategies, and Investment Priorities. A summary of the call for projects general rules, project applications summary and estimated available funding from FY 2019 to FY 2028 is attached for you reference.

At the March 7, 2018 RTP-TIP joint meeting staff reviewed adjustments to the draft Investment Priority Matrix and discussed sample investment category evaluation worksheet format and scoring criteria. Based on the discussion and comments received from relevant members evaluation criteria was adjusted. Revised Investment Strategies, associated investment category worksheets, and summary of the proposed evaluation criteria reference tables are attached.

Action Requested

Information only

H-GAC 2018 Call for Projects Summary

1. Project applicants may begin the online application process after the release of application on **June 1, 2018**. Online applications must be submitted by **July 31, 2018, at 5 p.m.**
2. In addition to an electronic submittal, all applicants must submit two paper copies of a completed and signed application with all required attachments to the H-GAC offices by **5 p.m. on July 31, 2018**. Applications must be in hand by the 5 p.m. deadline. Post marked applications not received by the deadline are considered late. Incomplete applications or those not received by the deadline will not be accepted. Supplemental information will not be accepted after the deadline.
3. All funding may be handled on a reimbursement basis and expenditures made prior to signing an agreement on the project may not be eligible expenses.
4. Funds can only be applied in the H-GAC eight county non-attainment areas.
5. The TPC will make all project selections and federal funding determinations for candidate projects.
6. Only eligible costs identified in the project application will be considered. Costs for design, environmental determination and mitigation, right of way acquisition, must be identified in the application if federal participation is desired.
7. The funding requested must be at least **\$500,000** to be considered for the 2018 Call for Projects.
8. Projects with a proposed capital investment of more than or equal to \$100 million must support all RTP Goals. Please refer to "Major Investments" for application requirements.
9. Projects with a proposed capital investment of less than \$100 million, must fall within at least one of the Investment Categories of the 2018 Call for Projects. Please refer to "Other Investments" for application requirements by Investment Category for more details.
10. Eligible applicants include H-GAC, State, Local Governments, Public Transit Providers, Public Ports. Other project sponsors are encouraged to partner with general purpose local government.
11. All projects must have a letter of support from the leadership of organization expressing the agency's support for the project. Projects within multiple jurisdictions must support letters of support for multiple jurisdictions.

2018 Call for Projects Application Summary

- Sponsor Information
- Project Description
 - Purpose and Need (Issues addressed, desired outcomes)
 - Proposed Limits (Facility and Limits (from-to))
 - Alternatives Considered
- Proposed Project Location
 - Map (GIS shapefile or pdf)
- Project Readiness
 - Environmental Clearance & Permits
 - Right of Way/Property Acquisition
 - Utility coordination/relocation
 - Public Involvement
- Investment Group
 - Major Investment (> \$ 100 M)
 - Other Investment (< \$ 100 M)
- Project Evaluation
 - BCA
 - Other Evaluation Criteria (related to planning factors)

Available Funding

Flexible Funding Available, \$ millions (* H-GAC Estimate)

	Starting Balance (est.)	Annual Funding Available										Total
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028*		
CMAQ	77.36	56.88	55.97	81.34	101.87	108.23	109.48	110.66	111.76	112.86	926.42	
CMAQ Flex	13.70	-18.00	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-4.30	
STP-MM	16.95	42.25	81.60	39.62	126.79	99.73	104.94	143.71	145.13	146.55	800.73	
TAP	0.64	-0.43	3.56	-10.10	6.82	2.60	9.38	9.38	9.38	9.38	31.23	
STP Reconciliation	8.84	1.88	1.88	-0-	-0-	-0-	-0-	-0-	-0-	-0-	12.60	
Subtotal, Flexible Funds:	117.50	82.59	143.01	110.86	235.48	210.56	223.80	263.75	266.27	268.79	1,922.60	

Programming Allocations, Proposed, \$ millions

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
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Continue Existing Program Commitments											
Regional ITS (TranStar)	n/a	n/a	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	16.00
Regional Incident Management (Towing)	n/a	n/a	8.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	84.00
Regional Incident Management (MAP/IMU)	n/a	n/a	4.00	5.00	5.00	5.00	5.00	6.00	6.00	6.00	42.00
Clean Cities/Clean Vehicles	n/a	n/a	5.00	5.00	6.00	6.00	7.00	7.00	8.00	8.00	52.00
TDM Marketing/Outreach (Commute Solutions)	n/a	n/a	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	30.00
Regional Vanpool	n/a	n/a	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	40.00
Pilot/Commuter Transit Operations	n/a	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	36.00
Subtotal:	-0-	4.00	31.00	34.00	36.00	36.00	37.00	40.00	41.00	41.00	300.00

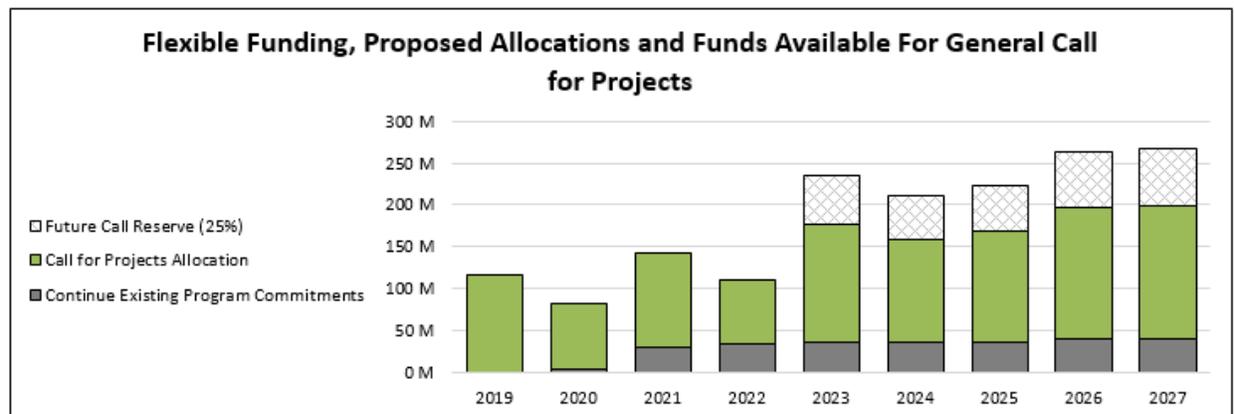
Remainder for Call for Projects, \$ millions

2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Total
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Full Allocation Scenario (100% of available funds):	117.50	78.59	112.01	76.86	199.48	174.56	186.80	223.75	225.27	227.79	1,622.60
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Reserve X% from 2nd Five Years Scenarios:

20%	(FY23-FY27 Reserve = 239.97)	117.50	78.59	112.01	76.86	152.38	132.45	142.04	171.00	172.02	174.03	1,328.87
25%	(FY23-FY27 Reserve = 299.96)	117.50	78.59	112.01	76.86	140.61	121.92	130.85	157.81	158.70	160.59	1,255.44
30%	(FY23-FY27 Reserve = 359.96)	117.50	78.59	112.01	76.86	128.83	111.39	119.66	144.63	145.39	147.15	1,182.00
40%	(FY23-FY27 Reserve = 479.94)	117.50	78.59	112.01	76.86	105.29	90.34	97.28	118.25	118.76	120.27	1,035.14
50%	(FY23-FY27 Reserve = 599.93)	117.50	78.59	112.01	76.86	81.74	69.28	74.90	91.88	92.14	93.40	888.28



Major Investments

Individual contribution of major capital investments exceeding \$100 million toward achievement of RTP Goals and Strategies.

Goal	B/C Analysis	Narrative (Examples)
Safety	Crash Reduction Savings (\$)	Design improvements, incident management strategies, safety countermeasures
Efficiency	Travel Time Savings (\$)	Extent/duration, operations management strategies (pricing, etc.)
State of Good Repair	Maintenance and Operations Costs	Condition, operations management and asset management strategies
Economic Competitiveness	Property Value Increased > Investment Cost, jobs created or retained (Not included in B/C Ratio)	Announced developments/Associated investments
Environment/Resiliency	Emissions reductions (\$)	Mitigation/avoidance strategies

2045 RTP Investment Strategies

Major Investments (>\$100 million)

Consider individual contribution of major capital investments exceeding \$100 million toward achievement of RTP Goals and Strategies.

Other Investments (<\$100 million)

Provide priority direction to other investments to ensure alignment with RTP Strategies (TABLES BELOW):

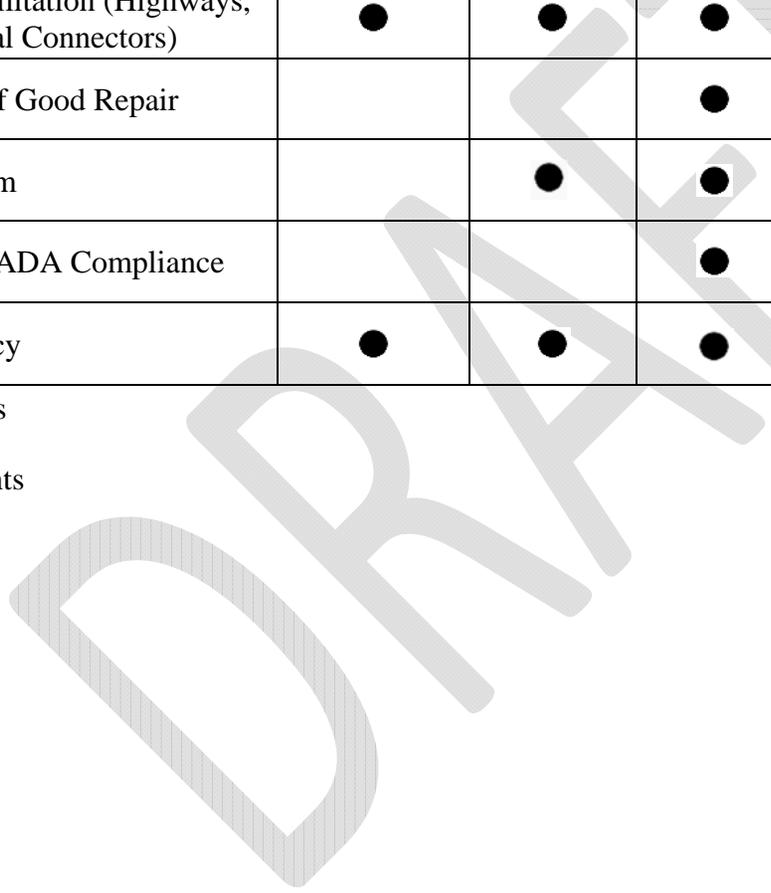
Investment Categories	RTP Strategy - Manage					
	Transportation Mode				Air Quality	Planning
	Highways	Freight	Transit	Active Transportation (Bike/Ped)		
Access Management & Safety	●	●	●	●	◐	
Grade Separations (direct connectors/interchanges/rail-highway)	●	●		◐	◐	
ITS Infrastructure	●	●			◐	
Transit Infrastructure Priority	●		●	◐	◐	
Active Transportation "First Mile/Last Mile"			●	●		
Regional Fare Collection	●	●	●			
Autonomous Vehicle/Connected Vehicle	●	●	●			
Vanpool			●		●	
Commute Solutions			●	●	●	
Safety Planning	●	●	●	●		●

● Direct Improvements

◐ Related Improvements

Investment Categories	RTP Strategy - Maintain					
	Transportation Mode				Air Quality	Planning
	Highways	Freight	Transit	Active Transportation (Bike/Ped)		
Reconstruction/ Rehabilitation (Highways, Bridges, and Intermodal Connectors)	●	●	●			
Transit Facility State of Good Repair			●	●		
Clean Vehicles Program		●	●		●	
Active Transportation ADA Compliance			●	●		
Infrastructure Resiliency	●	●	●	●		

- Direct Improvements
- Related Improvements



Investment Categories	RTP Strategy - Expand					
	Transportation Mode				Air Quality	Planning
	Highways	Freight	Transit	Active Transportation (Bike/Ped)		
Interjurisdictional Connectivity/Barrier Elimination	●	●	●	●		
Roadway Added Capacity (New Construction/Widening/Complete Streets)	●	●	●	●		
Innovative Freight Movement	●	●			◐	●
Transit Passenger Facilities			●		◐	
Transit Expansion (including fleet and transit service)			●		◐	
Active Transportation Elimination of Gaps			●	●		
Alternative Fuel Infrastructure	●	●	●		●	
Sub-regional/Multimodal Planning/Livable Cities Initiative	●	●	●	●		●

● Direct Improvements

◐ Related Improvements

Investment Category Evaluation Criteria Reference [MANAGE]

EVALUATION CRITERIA	MANAGE					
	Roadways/Freight				Transit	Active Transportation
	Access Management & Safety	Grade Separation	ITS Infrastructure	AV/CV Infrastructure	Transit Priority Infrastructure	Active Transportation- "First Mile/Last Mile"
Barrier Elimination						X
Connectivity to Major Employment	X			X	X	X
Connectivity to Ped/Bike				X		
Connectivity to Points of Interest				X	X	X
Connectivity to Schools					X	X
Connectivity to Transit				X	X	X
Connectivity to Medical Facility/University (Campus environment)				X		
Continuity of Operations			X			
Corridor LOTTR	X	X	X			
Elimination or prevention of at grade crossing		X				
Environmental Justice	X	X		X	X	X
Evacuation Route	X	X				
Freight System Priority	X	X				
Frequency of Transit					X	
Funding Match Exceeding Base Match						X
Improves Safety						X
Incident/Event Management			X			
Interagency Coordination			X			
Life Cycle Maintenance			X	X		
Multimodal LOS	X	X			X	
Planning Coordination	X	X		X	X	X
Public Private Partnership				X		
Roadway Hierarchy	X	X				

Investment Category Evaluation Criteria Reference [MAINTAIN]

EVALUATION CRITERIA	MAINTAIN			
	Roadway/Freight		Transit	Active Transportation
	Rehabilitation/ Reconstruction	Infrastructure Resiliency	Transit Facility State of Good Repair	Active Transportation ADA Compliance
Barrier Elimination				X
Connectivity to Major Employment	X			X
Connectivity to Ped/Bike			X	
Connectivity to Points of Interest				X
Connectivity to Schools				X
Connectivity to Transit				X
Environmental Justice	X	X	X	X
Evacuation Route	X	X		
Freight System Priority	X	X		
Frequency of Hazard Impacting Roadway Usage		X		
Funding Match Exceeding Base Match		X		X
Hazard Identified in the Regional Hazard Mitigation Plan		X		
Improves Safety	X			X
Interjurisdictional Connectivity			X	
Life Cycle Maintenance			X	
Multimodal LOS	X			
Planning Coordination	X	X	X	X
Preventative Strategies		X		
Ridership Plan			X	
Roadway Hierarchy	X	X		
Years Beyond Useful Life			X	

Investment Category Evaluation Criteria Reference [EXPAND]

EVALUATION CRITERIA	EXPAND					
	Roadways/Freight			Transit		Active Transportation
	Added Capacity	Interjurisdictional Connectivity	Innovative Freight Movement	Transit Passenger Facilities	Transit Expansion (Including Fleet and Transit Services)	Active Transportation Elimination of Gaps
Annual Heavy Cargo Movement (Weight in Tonnage)			X			
Barrier Elimination		X				X
Connectivity to Freight Generator		X				
Connectivity to Major Employment	X					X
Connectivity to Ped/Bike				X		
Connectivity to Points of Interest						X
Connectivity to Schools						X
Connectivity to Transit				X		X
Corridor LOTTR	X					
Environmental Justice	X	X		X	X	X
Evacuation Route	X					
Freight System Priority	X					
Funding Match Exceeding Base Match						X
Improves Safety/Includes Safety Countermeasures		X				X
Includes AC/CV Technology			X			
Includes Economic Benefits Analysis			X			
Includes Revenue Vehicle Maintenance Strategies					X	
Increased Service Frequency					X	
Interjurisdictional Connectivity				X	X	
Life Cycle Maintenance			X	X		
Multimodal LOS	X	X				
Planning Coordination	X	X	X	X	X	X
Potential VMT Reductions on Parallel Route		X				
Project Part of Transit Oriented Development				X		
Public Private Partnership			X			
Ridership Plan				X	X	
Roadway Hierarchy	X					
Unlinked Passenger Trips per Vehicle Type for Service Type					X	

2018 Call for projects Investment Category planning factors points

Barrier Elimination (Max - 15 Points)	Points
Does the project eliminate a barrier by building a bridge over waterways? (Y/N)	15
Does the project eliminate a barrier by building a bridge over arterial roadways or railroads? (Y/N)	10
<ul style="list-style-type: none"> <i>Points allocated based on proposed project location</i> 	

Connectivity to Major Employment Center (Max - 10 Points)	Points
Does the facility directly connect to or is it within 1/4 mile of an employment center with more than 1000 jobs? (Y/N)	10
Does the facility directly connect to or is it within 1/4 mile of an employment center with more than 500 jobs? (Y/N)	5
<ul style="list-style-type: none"> <i>Points allocated based on proposed project location</i> <i>H-GAC will provide employment density map</i> 	

Connectivity to School (Max - 10 Points)	Points
Does the facility directly connect to or within 1/4 mile of a school? (Y/N)	10
Does the facility directly connect to or within 1/2 mile of a school? (Y/N)	5
<ul style="list-style-type: none"> <i>Points allocated based on proposed project location</i> <i>H-GAC will provide school locations maps</i> 	

Connectivity to Points of Interest (Max - 10 Points)	Points
Does the facility directly connect to or is it within 1/4 mile of a school or other point of interest? (Y/N)	10
Does the facility directly connect to or is it within 1/4 mile of a school or other point of interest? (Y/N)	5
<ul style="list-style-type: none"> <i>Points allocated based on proposed project location</i> <i>H-GAC will provide other points interest locations maps</i> <i>Points of interest include major shopping centers, medical facilities, museums, parks and other recreational activity centers</i> 	

Connectivity to other Transit Routes/Service/Transit Centers (Max – 10 Points)	Points
Does the facility provide connections to other transit routes? (Y/N)	10
<ul style="list-style-type: none"> <i>Points allocated based on proposed project location</i> 	

- *H-GAC will provide transit routes and transit centers maps in coordination with transit providers*

Connectivity to Existing Freight System or Freight Generator (Max - 20 Points)	Points
Does the facility provide direct connections to an existing freight priority network or freight generator? (Y/N)	20
<ul style="list-style-type: none"> • <i>Points allocated based on proposed project location</i> • <i>H-GAC will provide Greater Houston Freight System map</i> • <i>Local Sponsors must provide locally designated freight system maps</i> 	

Continuity of Operations (ITS) (Max - 20 Points)	Points
Will the system enhance continuity of operations in the event of a disruption? (Y/N)	20
<ul style="list-style-type: none"> • <i>Sponsors must provide description of how ITS system enhances continuity of operations in the event of a disruption</i> 	

Corridor Level of Travel Time Reliability (Max - 20 Points)	Points
Will the proposed project reduce Planning Time Index (PTI) by more than 30%?	20
Will the proposed project reduce Planning Time Index (PTI) by 21 - 30%?	15
Will the proposed project reduce Planning Time Index (PTI) by 11% - 20%?	10
Will the proposed project reduce Planning Time Index (PTI) by 1% - 10%?	5
<ul style="list-style-type: none"> • <i>H-GAC will calculate estimated Planning Time Index (PTI) using PTI estimation template (being developed by TTI)</i> • <i>H-GAC will obtain input data from the sponsors</i> 	

Eliminates or Prevents at Grade Railroad Crossing (Max - 10 Points)	Points
Does the proposed project eliminate or prevent at-grade railroad crossings? (Y/N)	10
<ul style="list-style-type: none"> • <i>Points allocated based on proposed project location</i> • <i>Project sponsor will provide project location map in GIS or pdf format</i> 	

Evacuation Route (Max - 10 Points)	Points
Is the proposed project located on a state designated evacuation route? (Y/N)	10
<ul style="list-style-type: none"> • <i>Points allocated based on proposed project location</i> • <i>H-GAC will provide state designated Evacuation Routes map</i> 	

Environmental Justice (Max - 10 Points)	Points
Is all or part of the proposed facility located within a census tract that has higher proportion of underserved populations than the regional average?	10 points if three or more the underserved population is above regional average
<ul style="list-style-type: none"> • Minority Populations • Low-Income Households • Senior Populations (Over 65) • Limited Educational Attainment • Zero Automobile Ownership • Limited English Proficiency 	7 points if two of the underserved population is above regional average
	3 points if one of the underserved population is above regional average
<ul style="list-style-type: none"> • <i>Points allocated based on proposed project location</i> • <i>H-GAC will provide underserved population maps</i> 	

Freight System Priority (Max - 10 Points)	Points
Is the proposed project located on the Greater Houston Freight System or a locally-designated freight corridor? (Y/N)	10
<ul style="list-style-type: none"> • <i>Points allocated based on proposed project location</i> • <i>H-GAC will provide Greater Houston Freight System map</i> • <i>Local Sponsors must provide locally designated freight system maps</i> 	

Frequency of Transit Service (Max - 20 Points)	Points
Is the frequency of service 15 minutes or less?	20
Is the frequency of service 15 - 30 minutes?	15
Is the frequency of service 30 - 60 minutes?	10
<ul style="list-style-type: none"> • <i>Transit providers will provide transit service frequency</i> 	

Incident/Event Management (Max - 25 Points)	Points
Will the system be an integral part of an incident management system? (Y/N)	5
Is the proposed system is located on H-GAC's CMP network? (Y/N)	5
Will the proposed system provide notification of potential congestion to facility users? (Y/N)	5
Will the proposed system give priority to Emergency vehicles? (Y/N)	5
Will the proposed system provide priority to transit or high occupancy vehicles? (Y/N)	5
<ul style="list-style-type: none"> • <i>Project sponsor will provide answers to each of the above questions with descriptive explanation</i> • <i>H-GAC will provide CMP network map</i> 	

Interagency Coordination (Max - 25 Points)	Points
Will system tie into another agency's systems to allow for data sharing? (Y/N)	10
Will the system allow for potential control by another agency in the event of a primary agency's loss of system control? (Y/N)	15
<ul style="list-style-type: none"> • <i>Project sponsor will provide answers to each of the above questions with descriptive explanation</i> 	

Life Cycle Maintenance (Max - 10 Points)	Points
Does sponsor have a funded routine maintenance program in place? (Y/N)	10
<ul style="list-style-type: none"> • <i>Project sponsor provides routine maintenance plan</i> 	

Multimodal LOS (Max - 20 Points)	Points
Does the proposed project improve automobile LOS?	10
Does the proposed project improve bike/pedestrian LOS?	5
Does the proposed project improve transit LOS?	5
<ul style="list-style-type: none"> • <i>H-GAC will calculate Multimodal LOS using FDOT's LOSPLAN software</i> • <i>H-GAC will obtain input data from project sponsors</i> 	

Planning Coordination (Max - 10 Points)	Points
Is the proposed project recommended in a regional/sub regional/or locally adopted plan including regional thoroughfare plans?	10

Roadway Hierarchy (Max – 10 Points)	Points
Does roadway meet the characteristics of Principal Arterials as defined in USDOT's Highway Functional Classification Concepts, Criteria and Procedures?	10
Does roadway meet the characteristics of Minor Arterials as defined in USDOT's Highway Functional Classification Concepts, Criteria and Procedures?	7
Does roadway meets the characteristics of Collector roadways as defined in USDOT's Highway Functional Classification Concepts, Criteria and Procedures?	3
<ul style="list-style-type: none"> • <i>Points allocated based on proposed project location</i> • <i>Highway Functional Classification Concepts, Criteria and Procedures can be found at: https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/fcauab.pdf</i> • <i>Existing Functional Classification map can be found at: http://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html</i> 	

Ridership Plan (Max - 15 Points)	Points
Does the proposed project include an expected ridership plan?	15
<ul style="list-style-type: none"> • <i>Documentation showing expected ridership and potential growth. Backed by supporting data, reasonable and viable ridership given type of service and area to be served</i> 	

Improves Safety - Active Transportation (Max - 20 Points)	Points
Was there a documented crash within 1/4 mile on existing facility involving pedestrian and/or bicyclist between 2015 - 2018 and proposed project includes safety countermeasures?	20
Was there a documented crash within 1/2 mile on existing facility involving pedestrian and/or bicyclist and proposed project includes safety countermeasures?	10
<ul style="list-style-type: none"> • <i>H-GAC will provide Crash Record Information System (CRIS) data</i> • <i>Crashes within the last 3 years</i> 	

Years Beyond Useful Life Benchmark (Max - 20 Points)	Points
Is the facility more than 10 years beyond its useful life?	20
Is the facility more than 5 - 10 years beyond its useful life?	10
Is the facility more than 1 - 5 years beyond its useful life?	5

Investment Category: Access Management & Safety [MANAGE]

Category Description/Objective: Improve thoroughfare safety and operational efficiency through the application of access management treatments.

Typical Projects:

- Driveway consolidation/elimination/relocation, raised medians, dedicated turn lanes, roundabouts/innovative intersections, road diet/reconfiguration, associated reasonable ped/bike accommodations, and improvements to circulation and connectivity between land uses along major thoroughfares.

Base Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay Reductions (PHED) (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0 (benefits exceed costs)

Planning Factors: 50%	Max
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Multimodal LOS	20
Corridor Level of Travel Time Reliability (LOTTR)	20
Planning Coordination	10
Connectivity to Major Employment Center	10
Environmental Justice	10
Total	100

Investment Category: Grade Separations [MANAGE]

Category Description/Objective: Improve thoroughfare safety and operational efficiency through the application of interchange and grade separation treatments.

Typical Projects:

- Direct connectors, grade separations, associated intersection and reasonable ped/bike accommodations

Base Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay Reductions (PHED) (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0 (benefits exceed costs)

Planning Factors: 50%	Max
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Multimodal LOS	20
Corridor Level of Travel Time Reliability (LOTTR)	20
Planning Coordination	10
Eliminates or Prevents at grade Railroad Crossing	10
Environmental Justice	10
Total	100

Investment Category: Regional ITS Infrastructure [MANAGE]

Category Description/Objective: Improve transportation operational efficiency through the deployment and expansion of regional ITS infrastructure.

Typical Projects:

- Regional communications (connectivity with TranStar, interagency redundancy, etc), traveler information systems (dynamic message signage, warning systems, real-time transit vehicle location/next-bus arrival, active parking management), active traffic management/dynamic facility management (automated ramp/gate operations, signage, etc)

Base Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay Reductions (PHED) (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Incident/Event Management	25
Interagency Coordination	25
Continuity of Operations	20
Corridor Level of Travel Time Reliability (LOTTR)	20
Life Cycle Maintenance	10
Total	100

Investment Category: Transit Priority Infrastructure [MANAGE]

Category Description/Objective: Improve operational efficiency of transit services within H-GAC’s 8-county planning area by prioritizing the movement of transit vehicles within mixed traffic.

Typical Projects:

- Bus pullouts, queue jump lanes, stop consolidation, ITS systems (detection, controllers, communications), signage

Base Funding Participation/Match: 80/20 (TDC eligible)

Benefit/Cost Analysis Measure(s): [Transit Passenger Delay Reductions (\$) / Funding Requested

Weight and/or Minimum Ratio: 50%/1.0 (benefit must exceed costs)

Planning Factors: 50%	Max
Frequency of Transit Service	20
Connectivity to Other Transit Routes/Services/Transit Centers	10
Multimodal LOS	20
Connectivity to Major Employment Center	10
Connectivity to Schools	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Total	100

Investment Category: Active Transportation “First Mile/Last Mile Connectivity [MANAGE]

Category Description/Objective: Increase utilization of existing transit services and active modes of transportation through direct pedestrian and bicycle connections to priority destinations/services.

Typical Projects:

- New and widened sidewalks/multi-use trails/protected bicycle facilities, bicycle station infrastructure, pedestrian amenities and necessary utilities (lighting/landscaping/furniture/etc, capped at 25% of funding request)

Base Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): Cost Effectiveness (Cost \$/Estimated Users)

Weight: 50%

Planning Factors: 50%	Max
Improves Safety	20
Barrier Elimination	15
Connectivity to Transit Routes/Services/Transit Centers	10
Connectivity to Major Employment Center	10
Connectivity to Schools	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Funding Match above 50 %	5
Total	100

Investment Category: Regional Transit Fare Collection [MANAGE]

Category Description/Objective: Provide federal funding assistance to achieve regional coordination of fare collection and fare structure among providers of public transportation within H-GAC's 8-county planning area.

Selection Process: Future, Collaborative Planning Process

Typical Projects:

- Planning associated with creation of a Regional Fare Collection Plan
- Implementation of Regional Fare Collection Plan recommendations

Base Funding Participation/Match: 100%/0% (TDCs)

Benefit/Cost Analysis Measure(s): TBD, result of planning process

Weight or Minimum Ratio: N/A

Investment Category: Autonomous and Connected Vehicle Infrastructure [MANAGE]

Category Description/Objective: Support the broad deployment of autonomous and connected vehicles through implementation of eligible construction and technology equipment investments.

Typical Projects:

- Implementation of Regional AV/CV infrastructure technology and equipment

Base Funding Participation/Match: 50/50

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay Reductions (PHED) (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Connectivity to Transit Routes/Services/Transit Center	10
Connectivity to Ped/bike	10
Connectivity University or Medical Facility (Campus environment)	10
Connectivity to Major Employment Center	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Life Cycle Maintenance Plan	10
Public Private Partnership	20
Total	100

Investment Category: Rehabilitation/Reconstruction [MAINTAIN]

Category Description/Objective: Improve state of good repair and operational efficiency of the network through major rehabilitation and reconstruction. Including intermodal connectors (“First Mile/Last Mile” Freight projects)

Typical Projects:

- Major rehabilitation and reconstruction of roadway pavements and structures including bridges, including reasonable pedestrian/bicycle/transit accommodations and drainage improvements related to the roadway impervious surface only.
- Jurisdictions must have adopted asset management plan that demonstrates how preservation/preventive maintenance strategies are being utilized to extend the useful life of roadway infrastructure and reduce the need for major rehabilitation or reconstruction.

Base Funding Participation/Match: 50/50

Benefit/Cost Analysis Measure(s): 20-year Life-Cycle Cost Analysis (LCCA)

Weight and/or Minimum Ratio: 50%/1.0 (benefits exceed costs)

Planning Factors: 50%	Max
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Multimodal LOS	20
Improves Safety	20
Planning Coordination	10
Corridor Provides Access to Major Employment Center	10
Environmental Justice	10
Total	100

Investment Category: Transit Facility State of Good Repair [MAINTAIN]

Category Description/Objective: Improve the safety and operational efficiency of transit services within H-GAC’s 8-county planning area by supporting the replacement or overhaul of transit passenger and vehicle maintenance facilities that have exceeded their Useful Life Benchmark (ULB) and construction of new transit maintenance facilities, consistent with each transit provider’s adopted Transit Asset Management Plan (TAMP) and performance targets.

Typical Projects:

- Major rehabilitation and reconstruction of transit passenger facilities including Park & Rides/Pool, Multi-route transfer points/Super Stops, Shelters
- Construction, major rehabilitation and reconstruction of vehicle maintenance facilities
- Costs allocable to other functions are not eligible (e.g. administration, emergency operations, etc.)

Base Funding Participation/Match: 50/50 (provider must explain how they are utilizing FTA allocations, provider may use other federal funds to increase federal participation)

Benefit/Cost Analysis Measure(s): Cost Effectiveness (Cost \$/Annual PMT)

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Years Beyond Useful Life	20
Planning Coordination	10
Provides Interjurisdictional Connectivity	15
Ridership Plan (Expected Ridership Growth)	15
Provides Safe ped/bike accommodations	10
Transit Provider provides facility routine maintenance plan	20
Environmental Justice	10
Total	100

Investment Category: Active Transportation ADA Compliance [MAINTAIN]

Category Description/Objective: Improve accessibility of the pedestrian network by upgrading existing facilities and constructing new ADA-compliant pedestrian facilities.

Typical Projects and Costs:

- ADA-compliant pedestrian facilities such as sidewalks, curb ramps, tactile detectors, pedestrian signals, etc.
- Improvements must be identified within a jurisdiction’s adopted ADA self-evaluation or transition plan.

Base Funding Participation/Match: 50/50

Benefit/Cost Analysis Measure(s): Cost Effectiveness (Cost/Estimated # of Users)

Weight: 50%

Planning Factors: 50%	Max
Improves Safety	20
Barrier Elimination	15
Connectivity to Major Employment Center	10
Connectivity to Schools	10
Connectivity to Transit	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Funding Match above 50 %	5
Total	100

Investment Category: Infrastructure Resiliency [MAINTAIN]

Category Description/Objective: Address vulnerabilities of highways and regional thoroughfares to extreme weather, sea level change and changes in environmental conditions through implementation of eligible construction investments.

Typical Projects:

- Elevation or hardening of roadways on corridors that have required multiple emergency repairs, experience regular inundation, and/or are critical to evacuation plans
- Building capacity of routes that serve as alternates to roadways that become impacted by extreme weather
- Rebuilding roadways that have required multiple repairs due to extreme heat; this includes: drought conditions, subsidence, expansive soils, etc.

Benefit/Cost Analysis Measure(s):

A measure will be cost-effectiveness. An example would be a roadway vulnerable to extreme flooding, storm surges, or erosion that is located proximate to high-density at-risk populations.

Planning Factors:

Planning Factors: 50%	Max
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Frequency of hazard impacting roadway usage	20
Hazard identified in the Regional Hazard Mitigation Plan	15
Does the project include preventative activities to keep the hazard problems from worsening (e.g. floodplain regulation, open space preservation)	15
Planning Coordination	10
Environmental Justice	10
Total	100

Investment Category: Interjurisdictional Connectivity [EXPAND]

Category Description/Objective: Improve accessibility and mobility of people and goods through enhanced roadway connectivity between local jurisdictions.

Typical Projects:

- Construction of roadway pavements and structures including bridges, reasonable pedestrian/bicycle/transit accommodations and drainage improvements related to the roadway impervious surface only.
- Roadway segments up to 2 miles in length.
- Projects must be consistent with H-GAC’s congestion management process.
- Jurisdictions must have adopted asset management plan that demonstrates how preservation/preventive maintenance strategies are being utilized to extend the useful life of roadway infrastructure and reduce the need for major rehabilitation or reconstruction.

Base Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Delay (PHED) Reduced in \$]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0

Planning Factors: 50%	Max
Barrier Elimination	15
Potential for VMT Reductions on Parallel Route	15
Multimodal LOS	20
Connectivity to Existing Freight System (Freight Generator)	20
Planning Coordination	10
Includes Safety Countermeasures (Y/N)	10
Environmental Justice	10
Total	100

Investment Category: Roadway Added Capacity (New Construction/Widening/Complete Streets) [EXPAND]

Category Description/Objective: Improve accessibility and mobility of people and goods on the regional thoroughfare network through the addition of roadway capacity.

Typical Projects:

- Widening and reconstruction of roadway pavements and structures including bridges, including reasonable pedestrian/bicycle/transit accommodations and drainage improvements related to the roadway impervious surface only.
- Projects must be consistent with H-GAC’s congestion management process.
- Jurisdictions must have adopted asset management plan that demonstrates how preservation/preventive maintenance strategies are being utilized to extend the useful life of roadway infrastructure and reduce the need for major rehabilitation or reconstruction.

Base Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay Reductions (PHED) (\$)]/Funding Requested

Weight and/or Minimum Ratio: 50%/1.0 (benefits exceed costs)

Planning Factors: 50%	Max
Roadway Hierarchy	10
Freight System Priority	10
Evacuation Route	10
Multimodal LOS	20
Corridor Travel Time Reliability (LOTTR)	20
Planning Coordination	10
Connectivity to Major Employment Center	10
Environmental Justice	10
Total	100

Investment Category: Innovative Freight Movement [EXPAND]

Category Description/Objective: Improve transportation safety and operational efficiency through the deployment of innovative intermodal freight transfer technologies.

Selection Process: Future, Collaborative Planning Process

Typical Projects:

- Capital equipment and installation/construction costs
- Intermodal transfer equipment

Base Funding Participation/Match: 50/50

Benefit/Cost Analysis Measure(s): [Safety Benefits (\$) + Delay Reductions (PHED) (\$)]/Funding Requested

Weight: 50%

Planning Factors 50%	Max
Planning Coordination (Consistent with Regional Goods Movement Plan or Texas Freight Mobility Plan or Ports Area Mobility Study)	10
Includes Autonomous/Connected Vehicle Technology (Y/N)	20
Annual Heavy Cargo Movement (in Tonnage)	10
Includes Economic Benefits Analysis (Y/N)	20
Includes Life Cycle Maintenance Plan (Y/N)	20
Public Private Partnership	20
Total	100

Investment Category: Transit Passenger Facilities [EXPAND]

Category Description/Objective: Increase transit usage within H-GAC’s 8-county planning area by supporting the construction of new or expanded passenger facilities.

Typical Projects:

- New or Expanded Park & Rides/Pool, Multi-route transfer points/Super Stops, Shelters

Base Funding Participation/Match: 80/20 (TDC Eligible, provider must explain how they are utilizing FTA allocations)

Benefit/Cost Analysis Measure(s): Cost Effectiveness (Annualized \$/Estimated VMT Reduced)

Weight: 50%

Planning Factors: 50%	Max
Planning Coordination	10
Provides Interjurisdictional Connectivity	20
Ridership Plan (Expected Ridership Growth)	15
Provides Connection to Other Transit Services (Fixed Route/Commuter/Rail/Demand Response/etc)	10
Provides Safe ped/bike accommodations (Y/N)	15
Project Part of Transit Oriented Development (Y/N)	10
Includes Facility Maintenance Strategies (Y/N)	10
Environmental Justice	10
Total	100

Investment Category: Transit Fleet Expansion [EXPAND]

Category Description/Objective: Increase transit usage within H-GAC’s 8-county planning area by supporting the purchase of additional revenue vehicles for transit providers demonstrating ridership growth, as documented in reporting to FTA’s National Transit Database (NTD).

Typical Projects:

- Revenue vehicle purchase

Base Funding Participation/Match: 80/20 (TDC Eligible, provider must provide a plan describing how they plan to utilize FTA funding allocations)

Benefit/Cost Analysis Measure(s): Cost Effectiveness (Annualized Cost/Current PMT Growth for service type)

Weight: 50%

Planning Factors: 50%	Max
Planning Coordination	10
Unlinked Trips Per Vehicle Type for Service Type	20
Ridership Plan (Expected Ridership Growth)	15
Increases Service Frequency by Service Type (Y/N)	15
Expands Service to Improve Interjurisdictional Connectivity	20
Includes Revenue Vehicle Maintenance Strategies	10
Environmental Justice	10
Total	100

Category Description/Objective: Active Transportation - Eliminate gaps between existing facilities [EXPAND]

Eligible Projects and Costs:

- Construction costs
- New and enhanced bicycle facilities such as bicycle lanes (buffered, separated), shared-use trails, amenities (lighting, landscaping, furniture, etc.) and necessary utilities capped at 25% of funding request
- Improvements must fill a gap within and connect to the existing Regional Bikeway Network

Base Funding Participation/Match: 80/20

Benefit/Cost Analysis Measure(s): Cost Effectiveness (Annualized \$/Estimated VMT Reduced)

Weight: 50%

Planning Factors: 50%	Max
Improves Safety	20
Barrier Elimination	15
Connectivity to Major Employment Center	10
Connectivity to Schools	10
Connectivity to Transit	10
Connectivity to Other Points of Interest	10
Environmental Justice	10
Planning Coordination	10
Funding Match above 50 %	5
Total	100