P 4 Under "How Does Congestion Impact the Houston Galveston Transportation Management Area?," the sentence "Compared to 2007, the region has lost 56 hours per capita at a cost of $2.25 billion," it is unclear if this is referring to what 2007 congestion costs were OR what 2017 congestion costs were in 2007 terms.

METRO

Sentence deleted.

P 5 Gulf Coast Planning Region "We need to clarify and define this phrase!"

TxDOT

Gulf Coast Planning Region and other similar phrases have been replaced with MPO region throughout the document. Houston-Galveston Transportation Management Area is still used where appropriate.

P 6 Under the section heading of "History of the CMP Success", it is noted there was a 5% faster clearance of incidents in 2019 when compared to the previous year. That savings (30.1 min versus 31.8 min) may not be perceived as a tangible benefit by most readers. Is there a similar type of data available by different corridor that can show more noticeable time reductions? Also, for 2045 RTP goals and objective goals, are they listed in order or importance?

METRO

The document has been edited to clarify the importance of faster clearance time on congestion. The goals are not listed in order of importance.

P 6 comment on definition of “free flow” conditions "Rail to be specified: Free flow conditions are applied to Transit service including bus and rail inclusive of both local and regional travel."

C&E

This could be considered in the future. We are not measuring congestion in rail yet for this CMP. Original document retained.

P 6 Last paragraph time reliability should be specified to include truck and rail.

C&E

Tier 1 network has been combined with Tier 2 for one CMP Network.

P 6 Gulf Coast Regional Tow and Go "See above comments on page 6 as well"

TxDOT

Tier 1 network has been combined with Tier 2 for one CMP Network.

P 6 Houston-Galveston region "We need to be consistent"

TxDOT

MPO region is more universally understandable and will be used throughout the document. Changes made.

P 6 Vision Zero Strategies to be considered/incorporated.

Ped Bike Subcommittee

We will be adding safety as an objective into the next plan. Document retained.

P 7 bullet point 1 describing tier 1 network Add Text: Multimodal and active transportation compliment this network and, at times, run directly adjacent or within the National Highway System.

C&E

Tier 1 network has been combined with Tier 2 for one CMP Network.

P 7 bullet point 2 for tier 2 description Add Text: Multimodal and active transportation may serve as a prioritized mode for congestion relief along these corridors.

C&E

Tier 1 network has been combined with Tier 2 for one CMP Network.

P 7 Tier 2 bullet, regionally significant network "Need a list of RS Network Facilities/roadways by functional classification, limits, mileage, etc."

TxDOT

We will create this list in the next iteration of the CMP. No changes made.

P 7 Table 2.1 CMP Roadway Classifications, Selected Minor Arterials, SH 146 "Show the section of SH146 that is MA designation. Is FM 2100/Crosby Huffman Rd from Wolf rd to SH 99 part of Network?"

TxDOT

No it is not.

P 8 The map on Page 8 should mention it is for the current year.

METRO

Map year has been mentioned.

P 8 Map, "Need Interactive map overlay on RTP conformity network (integrate data with RTP conformity network)"

TxDOT

Interactive map will be created in the next version of the CMP. No changes made.


TxDOT

Interactive map will be created in the next version of the CMP.

P 8 Multimodal not stated in objectives -- From Objectives: "Develop Multi-modal Performance Measures" Consider expanding the third bullet point to emphasize increasing multimodal options.

Ped Bike Subcommittee

No change. Compressed workweeks and other tactics/strategies are effective, but aren't technically modes. More inclusive to say reduce vehicle miles travelled.
<table>
<thead>
<tr>
<th>Page</th>
<th>Comment</th>
<th>Submitted By</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Tier 2 network is the backbone of multimodal modes of transportation. They are integral as part of congestion relief strategies. Multiple roads (corridors) that are not functionally classified as arterial routes perform and are used as principal arterial routes. These roads should not be excluded from the Tier 2 network since they have a vital impact to congestion management. The list should be expanded beyond the two listed as “selected minor arterials” in order to fully realize congestion relief.</td>
<td>Ped Bike Subcommittee</td>
</tr>
<tr>
<td>12</td>
<td>The commute to work rate could decrease due to the effects of the COVID-19 pandemic and the rise of employees working from home/Telecommuting.</td>
<td>METRO</td>
</tr>
<tr>
<td>12</td>
<td>Figure 3-3 (Reduce SOV Trips) - 1) % of HOV 1+ or 2+ ridership (Provided by Texas Toll Authority)  2) % of Bus Transit (Provided by Local Transit Authorities)  3) % of non-vehicular Multi-modal Facilities planned/programmed/built In the future iterations/updates, use the work flow model to aid in data analysis.</td>
<td>Ped Bike Subcommittee</td>
</tr>
<tr>
<td>12</td>
<td>Definitions - Transit highly recommended to be included.</td>
<td>Ped Bike Subcommittee</td>
</tr>
<tr>
<td>13</td>
<td>Figure 4-3 (SOV) - How do you determine a transit desert?</td>
<td>Ped Bike Subcommittee</td>
</tr>
<tr>
<td>14</td>
<td>More explanation on how the 2022 targets for different CMP objectives were developed would be helpful, especially explaining how the impact of COVID-19 was accounted for in setting targets.</td>
<td>METRO</td>
</tr>
<tr>
<td>15</td>
<td>Figure 5-1 (Moving Toward Meeting Federal Air Standards) - There appears to be a typo in the 2022 target.</td>
<td>Ped Bike Subcommittee</td>
</tr>
<tr>
<td>16</td>
<td>During the construction period of the NHHP, how will the delay per mile affect the statewide congestion rankings?</td>
<td>METRO</td>
</tr>
<tr>
<td>16</td>
<td>On the table of roads and segments ranked by level of congestion, Request: Table to identify Tier 1 vs. Tier 2 corridors. If intended just for Tier 1, where/when are Tier 2 corridors identified? Comment consistent for all tables in this section.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>16</td>
<td>Measures Explained, referring to top 10 most congested roadways &quot;Why not 20?&quot; &amp; on the year 2019 in the table: &quot;Do we update to 2020?&quot;</td>
<td>TxDOT</td>
</tr>
<tr>
<td>16</td>
<td>Figure 5-1 (2020 Actual Numbers) - What baseline are we using to establish these numbers? For example, how do these percentages work towards?</td>
<td>Ped Bike Subcommittee</td>
</tr>
<tr>
<td>22</td>
<td>Recommend: Incorporate an Origin/Destinations Map to this section.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>Forecast Group to provide map example as a separate attachment.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>Recommend: stronger connection to Appendix A. Multimodal consideration of CMP. Process not adequately identified in the existing text. Recommend incorporation of H-GAC regional bikeways map, or reference to its existence. If Appendix A, stronger connection needed and stated in text.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>Map Edits and Concerns - Breaks are not even (28-80, 81-90, 91-100). 28-80 covers the majority of the region and does not offer insight to change in patterns moving forward. - Share of SOV trips doesn’t necessarily mean a high number of trips (e.g., Chambers, Liberty County tracts look like they would be high priorities than Katy or Cypress). If we’re going to use tracts, might be better to use absolute values. - Text implies that people are working in or around Downtown Houston, but this is not Origins/Destinations data.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>Tier 1 and 2 have been blended into one CMP network.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>It could. We briefly address COVID and its possible impact for this CMP in the introduction.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>These mitigation strategies will be monitored, but will not be listed as ways to measure reducing single occupancy vehicle travel in this CMP, because they are not all inclusive of strategies that lead to SOV reduction. Further study will be needed on these and additional strategies before we include them as possible metrics to identify progress towards SOV reduction in the next CMP.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>Transit is mentioned on page 15 as an alternative mode that can contribute to reducing SOV trips. That term was a typographical error and has been deleted.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>We have included text in the document to explain how the targets are set. This is not a typo: the large disparity is due to unusual circumstances caused by the non-implementation of zero emissions vehicles in 2018. The anomaly should be rectified in coming years.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>There will be a shift. We will continue monitoring rankings and adjust the CMP periodically.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>We have added the 2018 baseline to show trend.</td>
<td>C&amp;E</td>
</tr>
<tr>
<td>22</td>
<td>Here we are showing problems not strategies, however we do capture additional information on this connection under the strategies section of the CMP. No change.</td>
<td>C&amp;E</td>
</tr>
</tbody>
</table>
Comment Submitted By  Staff Recommendation/Comment
P 22 on NW part of map "Surprised about the rate?"  TxDOT  Map corrected.
P 22 on Ft Bend Cty. part "Same, thought it will be higher" TxDOT  Map corrected.
P 25 In the near term, Public Transportation strategies will need to realign due to the effects of COVID-19. METRO  Yes. COVID is now addressed in the opening of the document.
P 25 Public Transportation Strategies table, Access Convenience. Add: A 12 intermodal Enhancements: Coordinating travel modes makes movement from one mode to the other easier. These enhancements typically include modifying transit schedules to reduce layover time or increase the opportunity for transfers, creation of multimodal facilities, informational leis, and improved amenities at transfer locations. These improvements can improve the freight and pedestrian experience C&E  Added.
P 26 ITS / Operations Strategies table, Non-motorized signal installation C&E  Added.
P 26 Table - Mixed use, infill, TOD, POD all seem to also contribute to approach 3 (discourage SOV). Ped Bike Subcommittee  active way to discourage, not the more passive (but still effective) strategies that occur through design.
P 26 Table - Electronic fare collection and universal fare pass both contribute to moving people and goods efficiently. There are time savings associated boarding and transfers. Ped Bike Subcommittee  Added.
P 26 Table - All access Convenience and Service Operations strategies seem to also fit in the approach 3. Ped Bike Subcommittee  Added.
P 27 A concise explanation on how a particular strategy contributes to strengthening economy would be desirable. We are not sure why Bike/Ped facility near bus stop can contribute to strengthening economy while all other strategies in the table do not. METRO  We removed the column aligning strategies with goals and objectives, because all of the strategies align with all of the goals and objectives of the CMP.
P 27 Roadway / Mobility Strategies table, Roadway Diet, Right Sizing or Roadway Reallocation: Verbiage addition to better reflect AASHTO jargon. C&E  Changed to Roadway Diet/Re-Allocations
P 27 ITS/Operations Table - Add Transit Signal Priority/Preemption Ped Bike Subcommittee  Added under Public Transit strategies
P 28 Comment on the first table: Since new freeways & travel lanes improve travel times and mobility significantly, they can strengthen economy. Also, regional freight travel information system can improve efficiency and contribute to strengthening economy. This point should be noted. METRO  Adjusted.
P 28 Roadway Capacity Expansion Strategies table, Hoffmann Add Active Transportation facilities. Taebel: Aren't these covered in bicycle-pedestrian strategies? not sure they belong here C&E  We will not add these in document.
P 28 Bike/Ped Strategies Table - New SW/BK and Safety/Access - This could also include Approach #2 Ped Bike Subcommittee  Adjusted.
P 28 Roadway/Mobility Table - Include: Road Safety Improvements for all modes including pedestrian and bicyclist. Refuge pedestrian islands, intersection design for all people abilities. Ped Bike Subcommittee  Road safety improvements are added as a line item (ex: interaction improvements, pedestrian islands, etc.)
P 29 Bike/Ped Narrative - Include reference to 2019 AASHTO Standards and 2020 Vision Zero. Ped Bike Subcommittee  Paragraph modified to add "especially when in alignment with the latest AASHTO standards and with TxDOT's new call for Vision Zero.
P 29 Bike/Ped Narrative - Include in the definitions section the definition for "exclusive non-motorized rights of way." Ped Bike Subcommittee  We have inserted parentheses with additional description next to exclusive non-motorized rights of way.
P 29 2nd Sentence of Bike/Ped Narrative - Expand the mention of "decreasing single-occupancy trips" with "and increasing multi-modal travel options" Ped Bike Subcommittee  Mention expanded.
P 29 Bike/Ped Narrative and Strategy Table - Are these defined? For each Strategy below, please indicate assumption as it pertains to VMT reduction and improved air quality. Ped Bike Subcommittee  Are these defined? For each Strategy below, please indicate assumption as it pertains to VMT reduction and improved air quality.
Comment
P 39 Bike/Ped Table - Separate "Sidewalks and Bike Lanes" and 'Safety and accessibility' into two (2) separate categories.
P 38 Accelerated Projects, Add as exempt:
Ped Bike Subcommittee
Submitted By
Ped Bike Subcommittee
Staff Recommendation/Comment
Edited.

P 39 Accelerated Projects, Add as exempt:
Ped Bike Subcommittee
Submitted By
Ped Bike Subcommittee
Staff Recommendation/Comment
Edited.

P 39 Roadway Capacity Expansion Narrative - Roadway capacity expansion should be considered adding capacity for all modes: transit, bicycle and pedestrian.
P 38 TIP Narrative - 2nd Paragraph - Please confirm, Active Transportation Projects are not evaluated against the CMP. Is this correct?*
P 37 TIP Narrative - 2nd Paragraph - Confirm that CMP would not be used to evaluate/score TIP projects for next call.
P 38 Table 7.1: CMP Analysis Process, CMP Analysis Process: "Major investments shall incorporate multimodal investments including non-motorized investment within or adjacent to Tier 1 and Tier 2 projects."
P 37 Bike/Ped Table - Safety and Accessibility - Add Vision Zero strategies including, but not limited to, "Context Appropriate Travel Speeds."
P 38 Roadway Capacity Expansion Narrative - Roadway capacity expansion should be considered adding capacity for all modes: transit, bicycle and pedestrian.
P 36 P 36 Major Investments - Bullet - Include transit, pedestrian or bike projects.
P 35 P 35 major investments, Add text: Major investments shall incorporate multimodal investments including non-motorized investment within or adjacent to Tier 1 and Tier 2 projects.

P 35 Other Investment Types, Add Text: Other Investment Types shall incorporate multimodal investments including non-motorized investment within or adjacent to Tier 1 and Tier 2 projects.
P 35 Accelerated Projects, Add Text: Accelerated Projects shall incorporate multimodal investments including non-motorized investment within or adjacent to Tier 1 and Tier 2 projects.
P 35 Other Investment Types, Add Text: Other Investment Types shall incorporate multimodal investments including non-motorized investment within or adjacent to Tier 1 and Tier 2 projects.
P 35 P 35 Accelerated Projects, Add as exempt: Active Transportation

P 36 Major Investments - Bullet - Include transit, pedestrian or bike projects.
P 35 P 35 Other Investment Types, Add Text: Other Investment Types shall incorporate multimodal investments including non-motorized investment within or adjacent to Tier 1 and Tier 2 projects.
P 35 P 35 Accelerated Projects, Add Text: Accelerated Projects shall incorporate multimodal investments including non-motorized investment within or adjacent to Tier 1 and Tier 2 projects.
P 36 P 36 Major Investments - Bullet - Include transit, pedestrian or bike projects.
P 37 This CPM is not being used to evaluate projects. Staff is considering proposing a COMPAT analytical tool to be used to as part of the planning factors evaluation criteria for future proposed projects.
P 37 We have added clarification in parentheses next to CMP threshold to define the threshold as ensuring the Level of Service and/or Volume to Capacity ratio remain level or improve.
P 38 In the call for projects process the proposed Major Investments investment category is only defined by the total project cost. For this category, multimodal connectivity is a part of the planning factors evaluation criteria, however, for highways, mandating non-motorized accommodations may not always be safe/feasible.
P 38 Major investments category is only defined by the total project cost. For this category, multimodal connectivity is a part of the planning factors evaluation criteria.
Comment

P 43 CMP Analysis for Accelerated Projects, bullet 3 "Multimodal considerations."

C&E

Submitted By

Staff Recommendation/Comment

I am not sure that we should change this. I am not understanding why multimodal considerations would slow a project down.

ON 37 Figure 3.3: How will projects be analyzed?

C&E

On page 37, How will projects be analysed, we have provided a clarification on what we mean by the term project sponsors.

P 44 R1: "Who does this consist of, and how are nominations received?"

C&E

P44 CMP Analysis Exemptions! "Active Transportation is not specifically identified within the CMP, but an active TP category. As such, it is recommended to be added as a CMP Analysis Exemption."

P 44 Roadway/Mobility Table - Does the project include ped and bike safety improvements at intersections?

P46 Table 7.2 Land Use - potential future or existing transit connection?

P 44 Table 7.2 Land Use - How are counties without Transit being accommodated?

P 44 Table 7.2 Land Use - Is the H-GAC Livable Centers study still relevant? Please note Vision Zero/AASHTO comments on previous pages

Ped Bike Subcommittee

P 45 Safety Projects in existing ROW "Bicycle or Pedestrian Improvement"

C&E

P 45 Bottleneck projects, low cost improvements "including bicycle facilities."

C&E

P 45 Bike and Ped Improvements - Second Bullet - Remove the word "concept" from the bikeway map reference.

Ped Bike Subcommittee

P 46 Since peak period congestion is usually more pronounced in the peak direction, it is not clear why volumes in both directions are used to calculate the V/C ratios for the peak period. More explanation needed or change both directions to peak direction.

METRO

P 48 Appendix A "Please define purpose of Appendix. How does this intended to be used in the CMP?"

C&E

P 48 Figure A-1: Regional Tow and Go Network "Add Legend"

TxDOT

P 51 2020 Express/High Capacity Map - The Uptown Silver Line BRT project was constructed in 2020 and should be shown as open/permanent.

Ped Bike Subcommittee

P 53 Figure A-6 "Integrate map"

TxDOT

P 54 CMP Project Analysis Form "This Form needs to be updated and streamlined based on past initiatives (talk with Stephan Gage) relevancy"

TxDOT

P 56 CMP Analysis for Other Investments, Item 14, Transportation Demand Management Strategies "Does the project provide for multimodal system improvements? Define prioritized mode other than single occupancy vehicles? Or define how improvements reduce SOV use."

C&E

P 16, 19 Recommend putting units for Annual Delay per mi. Is it minutes or hours?

METRO

We will be also listing the 36 most congested segments (of the 100 statewide) in Houston

P 17, 20 Same as above for Map on P-17. requirements of the HGAC planning process should be that every major employment center in the region (downtown, uptown/galleria, medical center, energy corridor, Westchase, Pasadena/Harrisburg, NASA, etc.) should be required to conduct a zip code survey of all their major employers (at least the 10 largest employers) to determine the home and work zip codes of the majority of employees in that employment center. Once this data is in hand, commuter bikeways could be planned to link the key residential zip codes to the employment zip codes (assuming the distance is reasonable, maybe 0-15 or 0-20 miles) to have a real impact on getting vehicles off the roads and securing more CMAQ funding for the region. Every HR

N/A

Yes, Great idea. We do get this kind of data through Census, but we do plan to augment that with TDM planning work with major employers and management districts. It is one of the services we offer as part of the Commute Solutions program. This is a voluntary trip reduction program. It is not required.
I also wonder if it is possible to determine home and destinations on congested roadways via some other means such as aerial tracking of some kind. When I think about the Loop 610 from I-10 to Hwy 69 and Hwy 69 from 610 to 288, I suspect that many users of this road are not beginning or ending trips in that area, but are passing through. Maybe if it could be determined where the bulk of the vehicles are coming from and going to, it would help planners determine if it is great you are evaluating multi modal transportation performance but I’m concerned that past efforts to widen roads and add more have made the roads less safe for everyone including bikes and pedestrians. What strategies are you considering to relieve congestion that does not involve widening roads?

Using modeling we can get an idea of trips that begin outside our MPO service area. This is a good idea to expand the tool set included in our next CMP.

There are many strategies in the CMP that do not add capacity to our roadways. This was answered at meeting using strategies section of CMP. Widening is a last suggestion not a first suggestion. Multiple strategies are offered with widening as last resort. This was answered at meeting using the strategies section of CMP.

There are many strategies in the CMP that do not add capacity to our roadways. This was answered at meeting using strategies section of CMP.

Yes we are. This was answered at meeting using strategies section of CMP.

Yes we are. This was answered at meeting using strategies section of CMP.

Yes, building additional lanes is a strategy, but only one of many, many strategies, and ideally, not the first strategy.

Thank you. We have included all 36 roadway segments identified in the TTI’s evaluation in the appendix of this document.