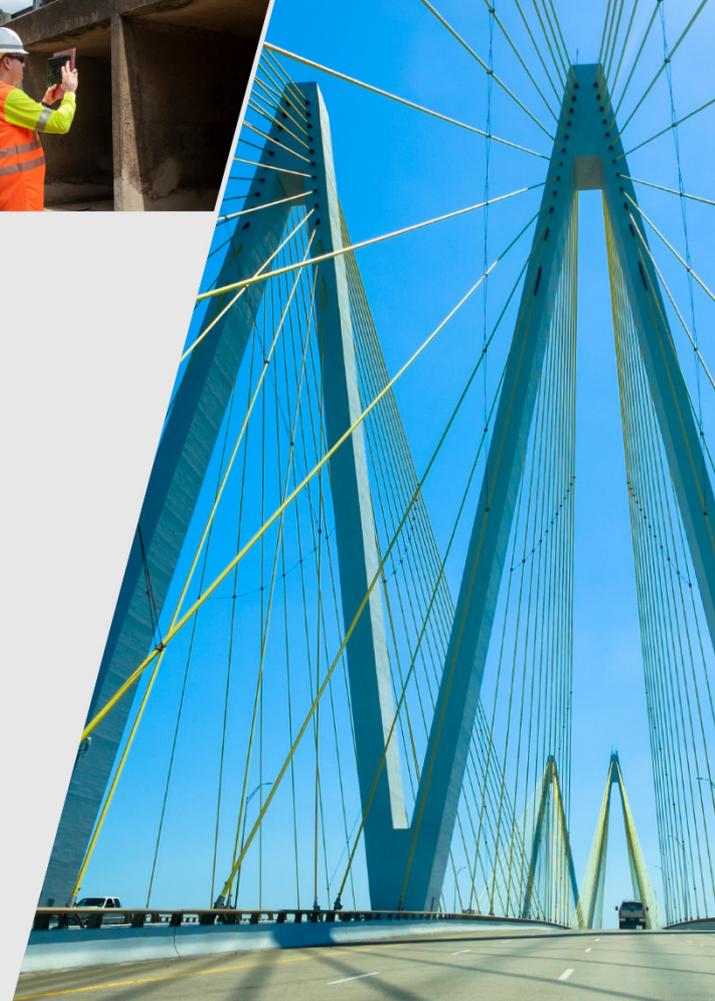




Bridge Funding/Management

Bridge Safety & Rehabs/Widenings



February 7, 2020



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Bridge Funding

*Focused on
Conditions*

Highway Bridge Program (HBP)

- Funds the major rehabilitation or replacement of eligible bridges on or off the state system

Bridge Maintenance Improvement Program (BMIP)

- Funds the rehabilitation of eligible bridges on the state system

*Focused on
Safety*

Bridge System Safety Program (BSSP)

- Targeted to address various safety risks



Bridge System Safety Program (BSSP)

- Targeted to address various safety risks

- Railroad Grade Separation (RGS)
- Rail Replacement Program (RRP)
- Higher Risk Bridges



Bridge System Safety Program



- Railroad Grade Separation (same as before)
 - Existing On-system at-grade rail-highway crossing
 - Deficient railroad underpass





- Rail Replacement
 - Upgrade Deficient railing
 - On-system, non-historic bridge
 - Good or Fair condition
 - Condition ratings all > 5



Bridge System Safety Program



Narrow Bridge Prioritization

- Deck Width – emphasis on 24 ft or less
- AADT
- Truck Traffic Percentage



Narrow or Constricted Bridge Deck

- Approach >> Bridge deck
- Bridge width to Approach with ratio



Waterway Risks

- Scour
- Debris Impact and Loading
 - Diverted flow





6-30 ft Pan Girder Spans Normal day with debris



Bridge System Safety Program



During and after flood event



Rehab or Widen?

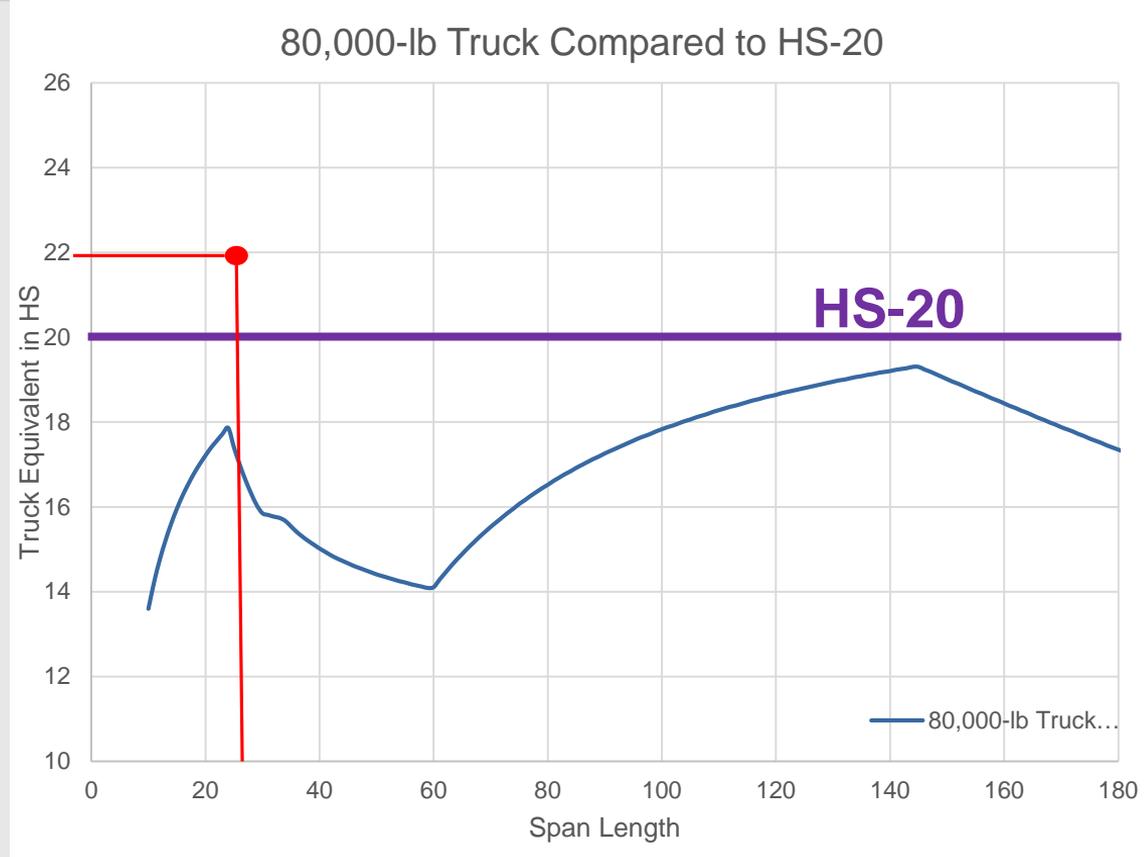
- Cost of widening vs replacement?
- Widening unit costs
3x-4x new construction
- Load Capacity





Example Bridge:

- 25 ft spans
- Operating Rating = HS 22





New Trucks

- Specialized Hauling Vehicles:
SU4, SU5, SU6, SU7
- Mil Truck: 90 k (6 axles)
- Ocean Containers: 100 k (7 axles)

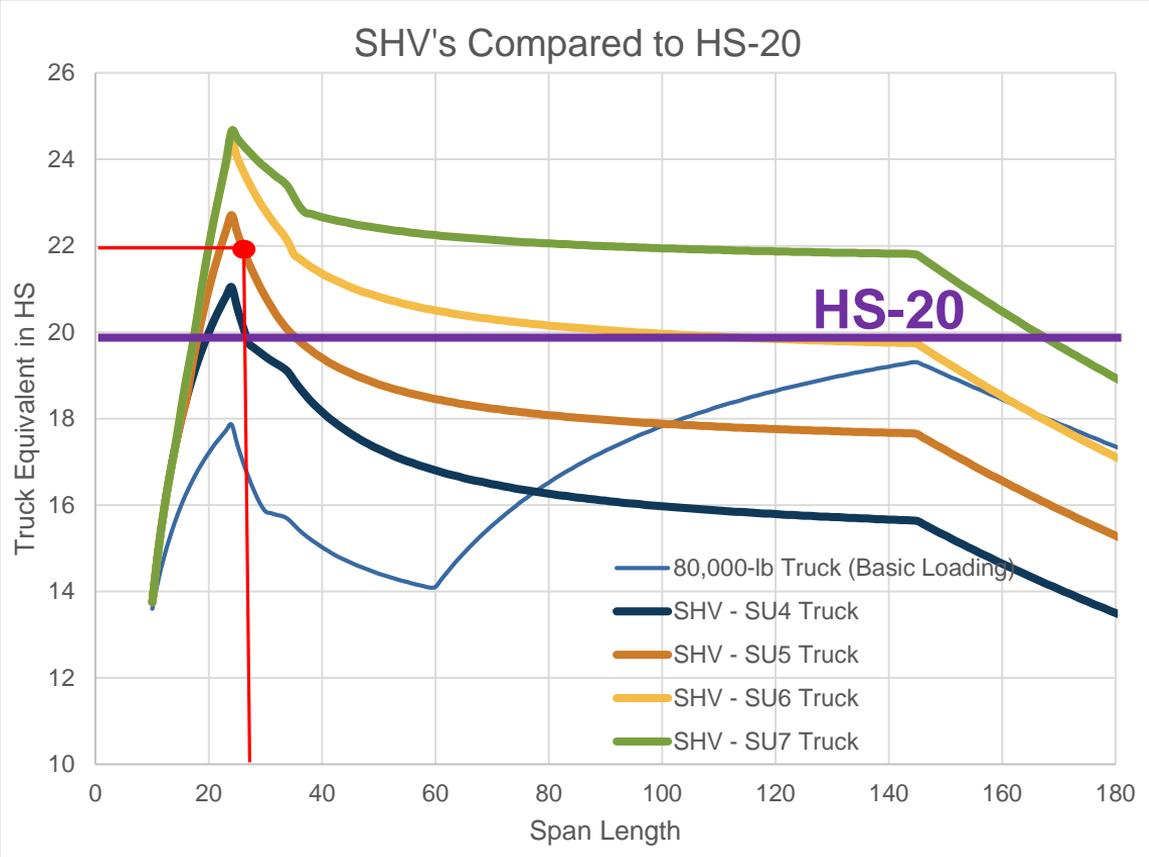


SU7 – 3 fixed axles,
4 lowered axles



Example Bridge:

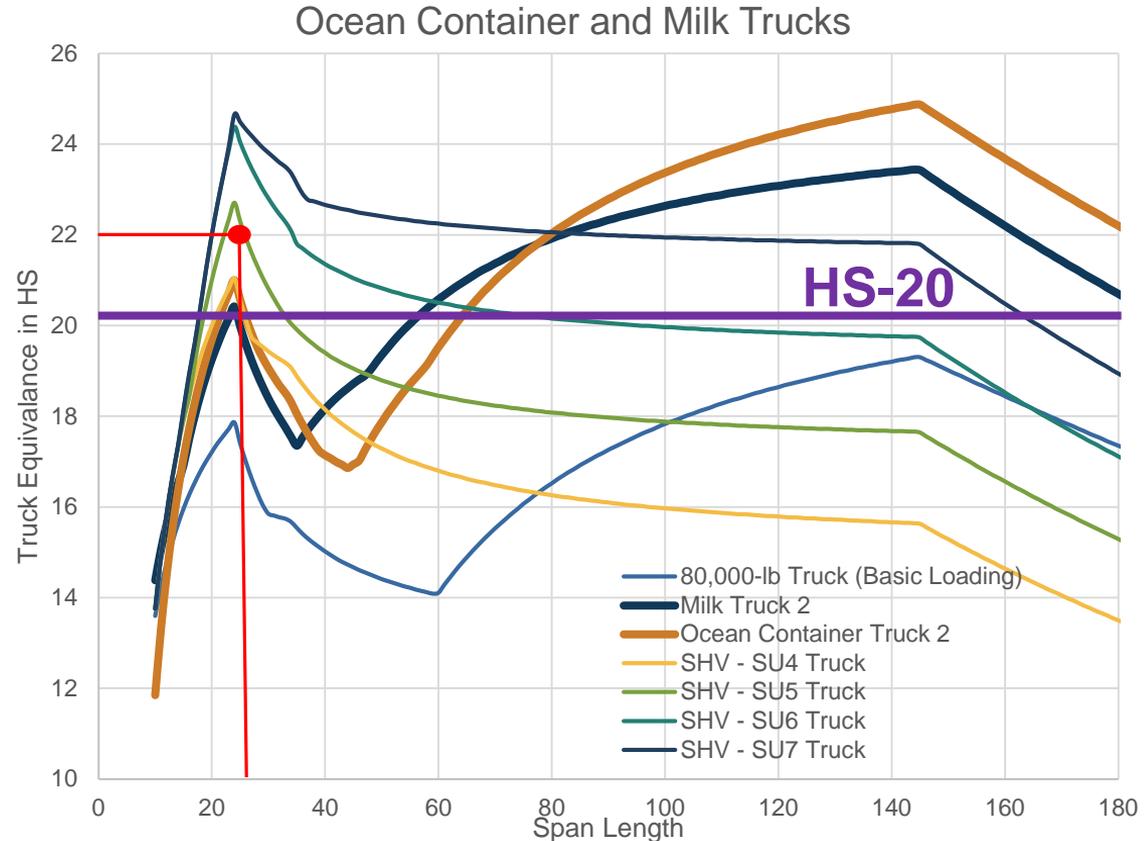
- 25 ft span
- Operating Rating = HS 22
- New truck loads
 - SU4, SU5, SU6, SU7





Example Bridge:

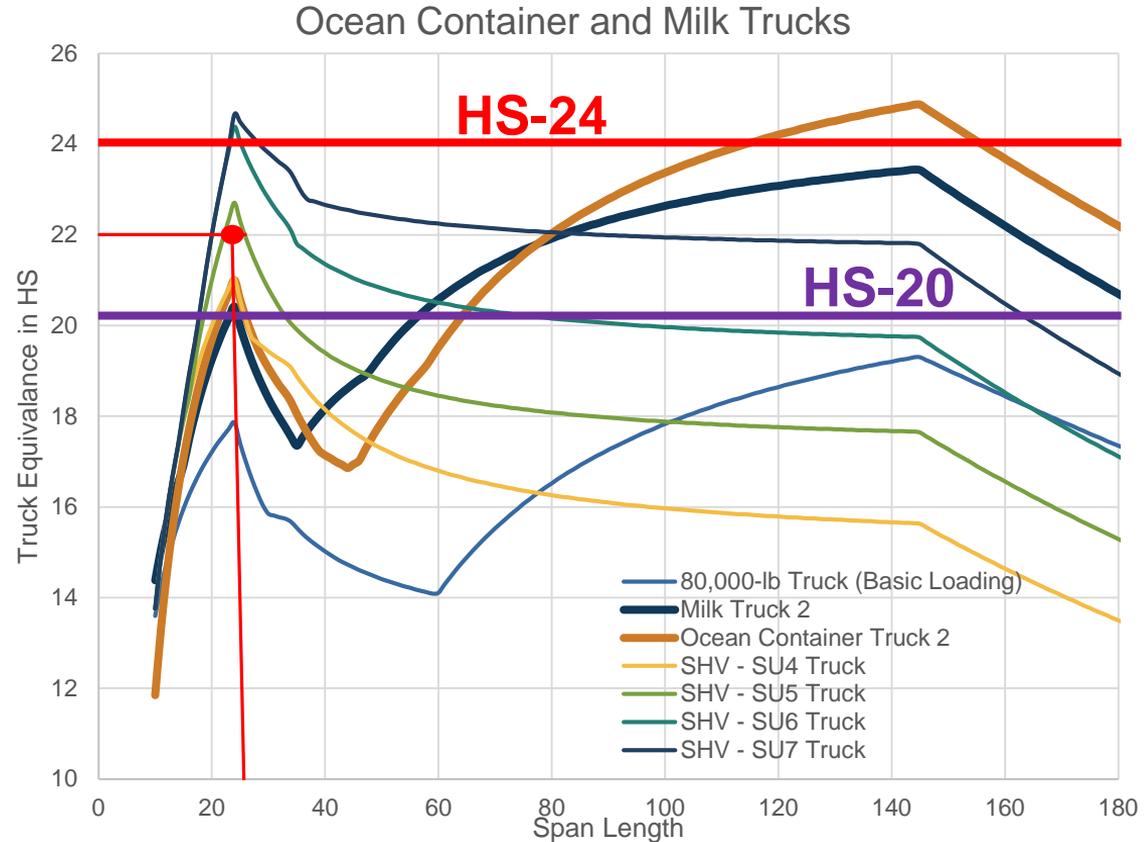
- 25 ft span
- Operating Rating = HS 22
- New truck loads
 - SU4, SU5, SU6, SU7
 - Ocean Container (100 k)
 - Milk Truck (90 k)





New Threshold:

- Operating Rating = HS-24





Rehab or Widen?

- FS slabs
- Some pan girders
- T-beams

Life cycle cost?

- 75 year design life
- New construction similar TCP





Questions?

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