

I-95 Corridor Study

Phase II Highway Element

FAMPO Briefing

December 18, 2017

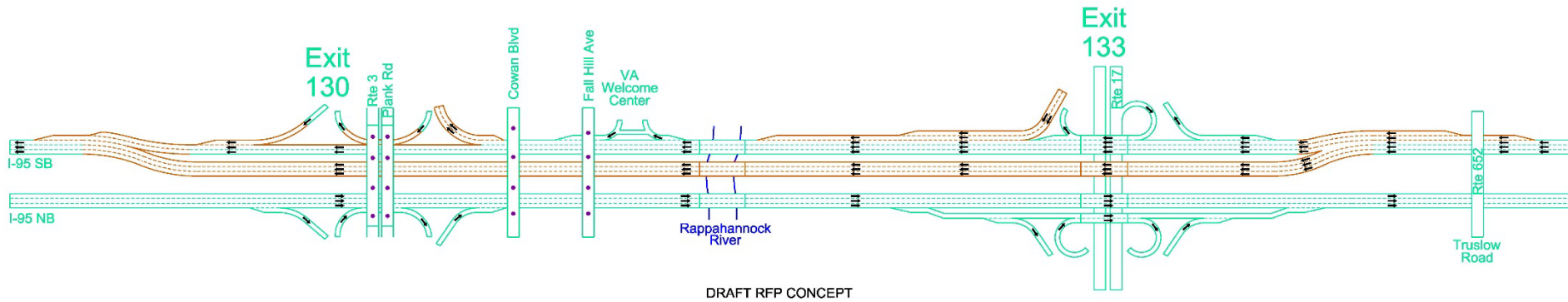
'Freeway Capacity 101'

(Transportation Research Board *Highway Capacity Manual*)

- The theoretical capacity of a freeway segment is normally expressed in terms of vehicles per hour per lane (vphpl)
- The maximum vphpl of a given freeway segment is influenced by numerous factors such as:
 - Free-flow speed
 - Lane width, Shoulder width & Lateral clearance
 - Vertical terrain and horizontal curves
 - Presence of heavy vehicles
 - Presence of interchanges (weaving, merging, diverging)
 - Other factors
- As a rule of thumb for planning level decision-making, we can use 2,000 vphpl as a guide when considering the ability for a proposed freeway segment to function reasonably well



Future No-Build Assumptions (Southbound CD-lane project) *Rappahannock River Crossing*

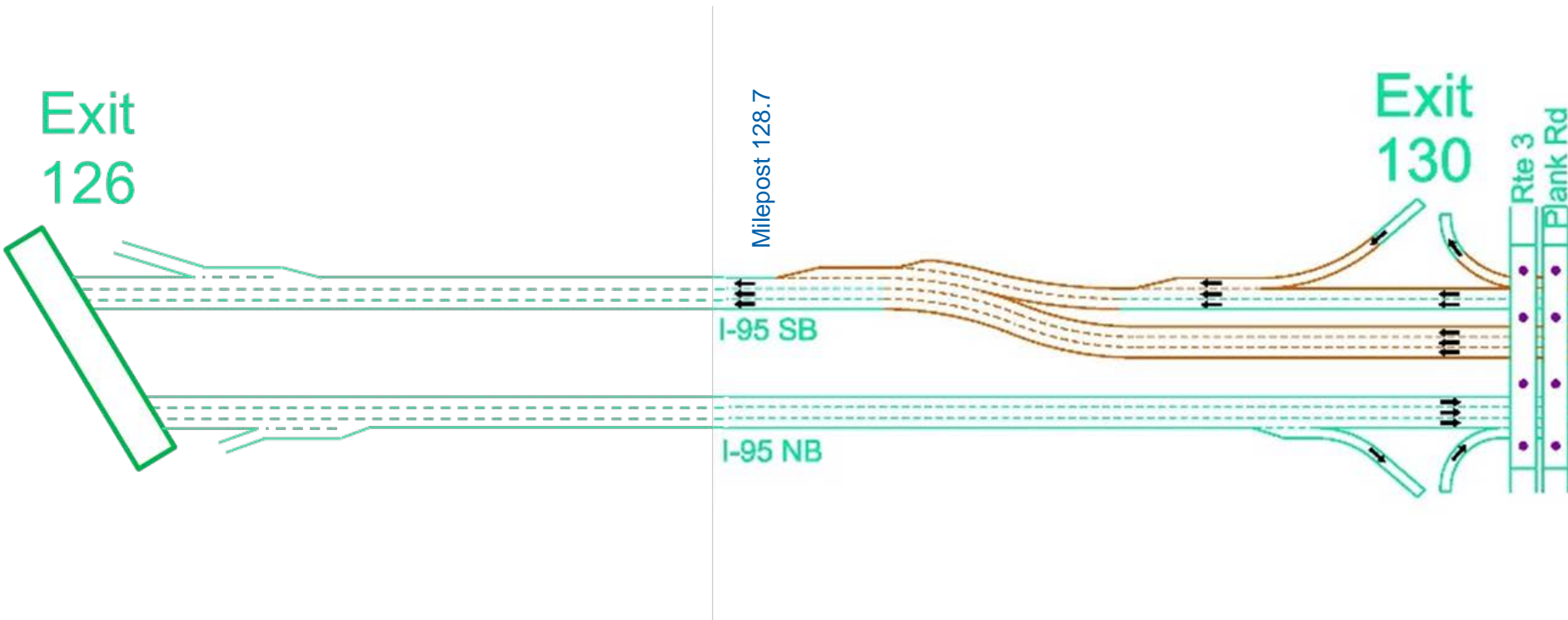


Not To Scale

Year 2045 forecasted Peak Hour volume: AM, PM, & Weekend

Red = Congestion

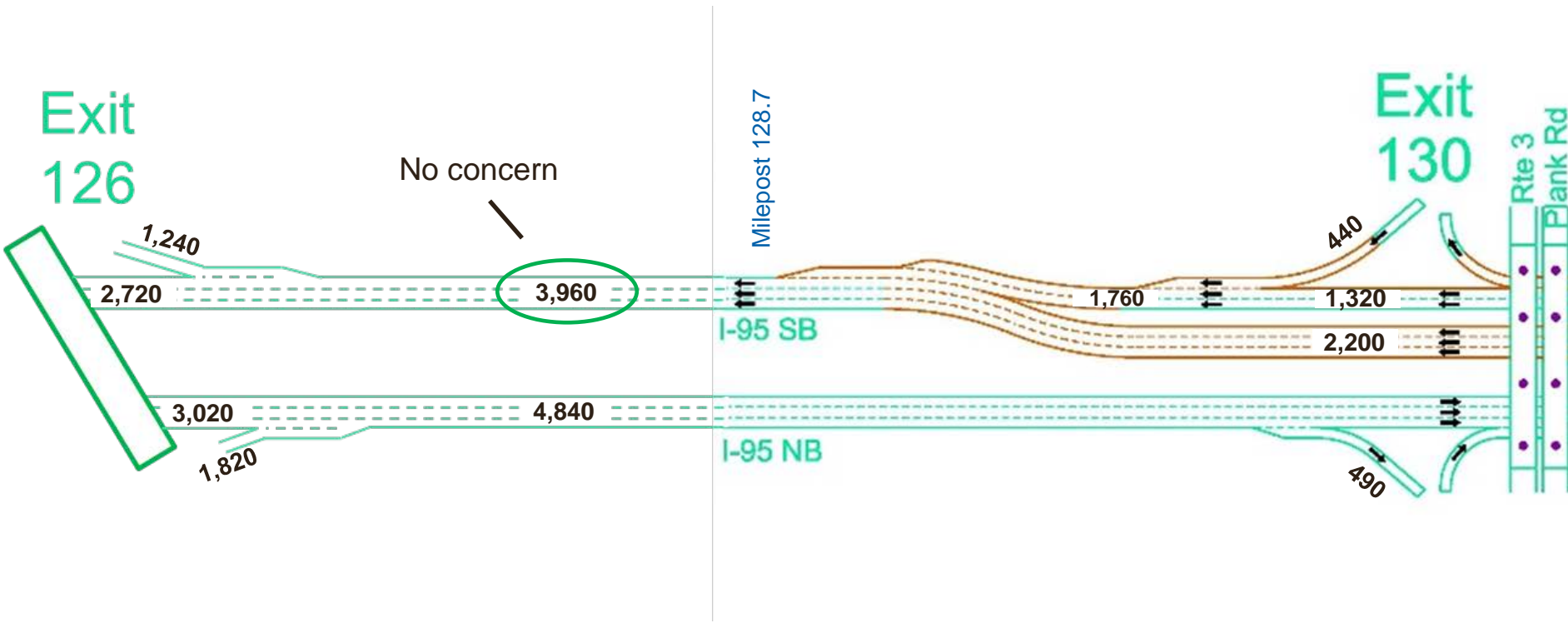
**6-Lane to 3-Lane Drop on I-95 SB between
Exit 130 and 126**



Not to Scale

Year 2045 forecasted **Weekday AM Peak Hour** volume

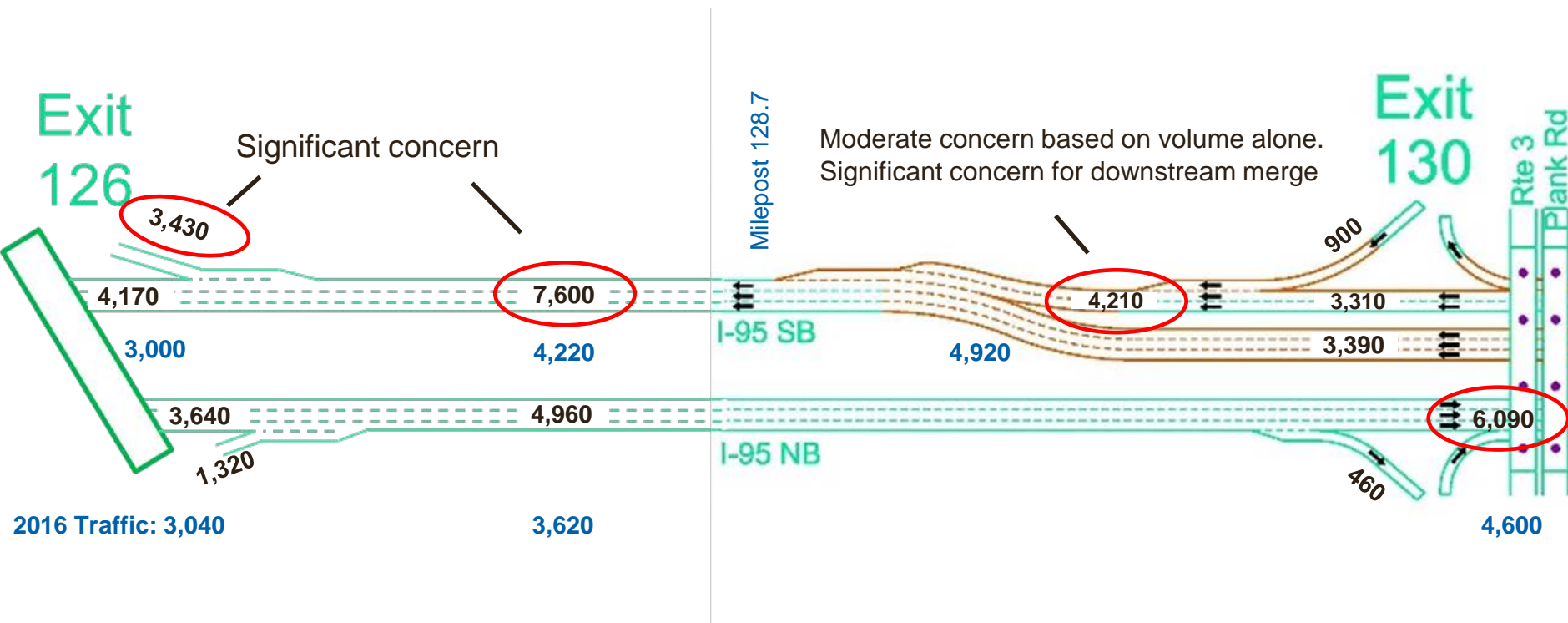
6-Lane to 3-Lane Drop on I-95 SB between Exit 130 and 126



Not to Scale

Year 2045 forecasted **Weekday PM** Peak Hour volume

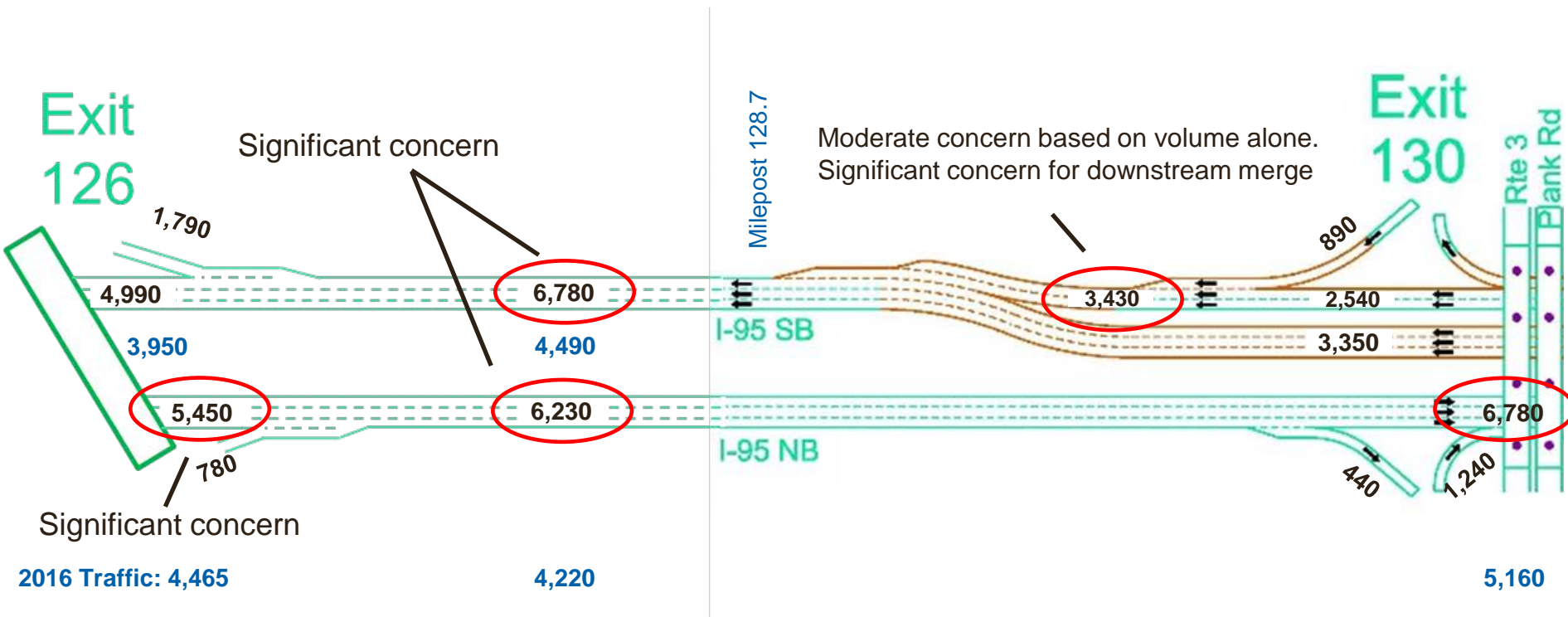
6-Lane to 3-Lane Drop on I-95 SB between Exit 130 and 126



Not to Scale

Year 2045 forecasted **Weekend** Peak Hour volume

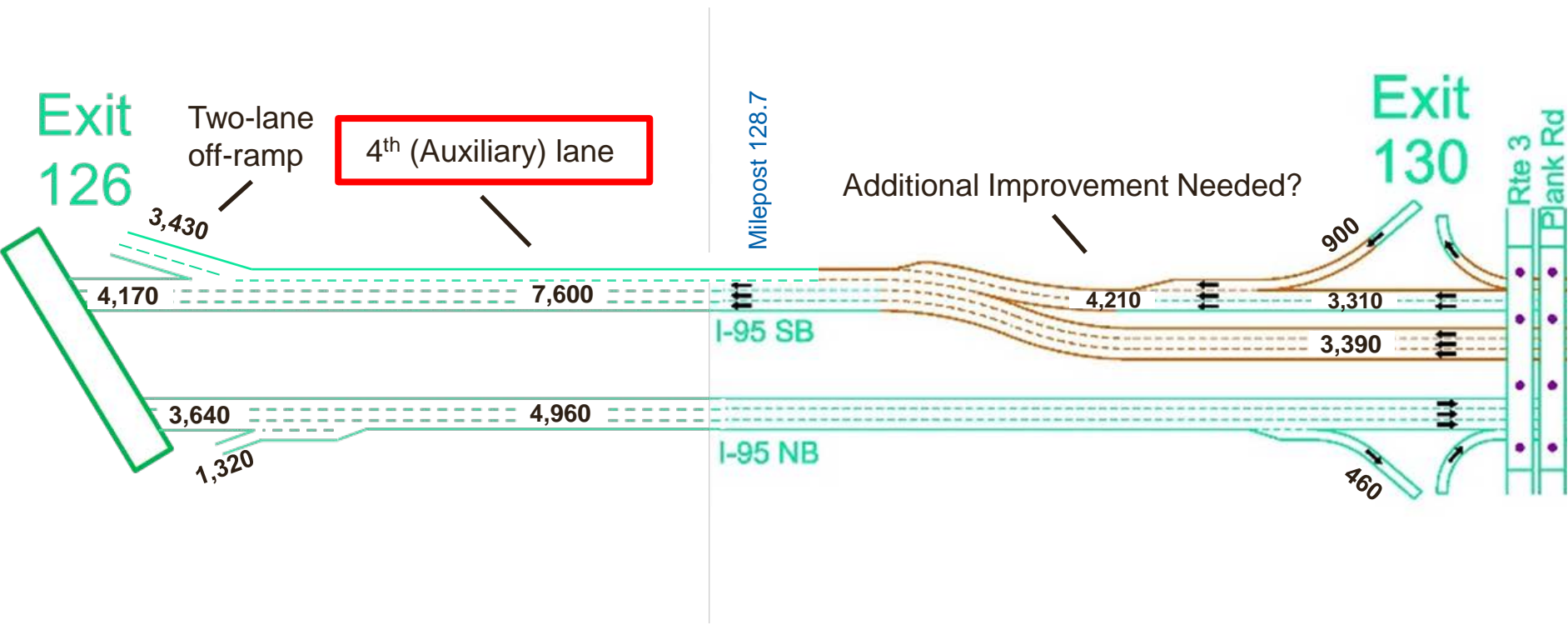
6-Lane to 3-Lane Drop on I-95 SB between Exit 130 and 126



Not to Scale

Potential Solution to 2045 Southbound Demand

4th (Auxiliary) Lane between end of SB River Crossing and Exit 126



Not to Scale

Next Steps: I-95 Phase 2 Highway

Major presentation scheduled for January 22nd:

- Further analysis into when Weekday PM and Weekend congestion starts for I-95 SB after committed improvements are completed in 2022
- Results from New Access points at Central Park and Harrison Rd
- Results from 4th (Auxiliary Lane) between SB River Crossing terminus and Exit 126
- Draft recommendations for Smart Scale Round 3 consideration