CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

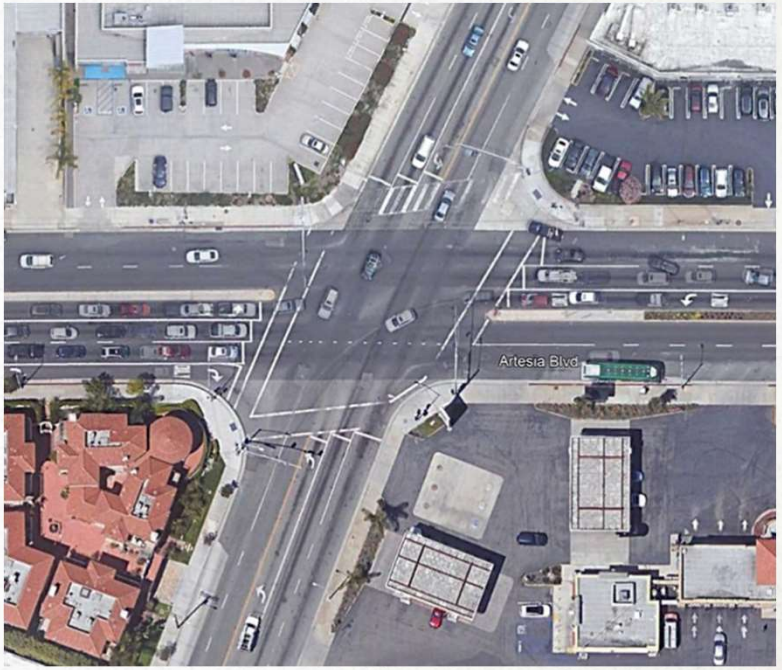
- Existing Conditions
- Planned Improvements
- PSRE Analysis
- Right-turn volumes
- Alternative project

CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

- Existing Conditions

CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

- Planned Improvements
  - City of Redondo Beach General Plan
    - Eastbound Right-Turn Lane (Currently Existing)
    - Southbound Right-Turn Lane (Within City of Manhattan Beach)
  - City of Redondo Beach Capital Improvement Program
    - Northbound Right-Turn Lane



CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

- City General Plan Circulation Element Policy P9:
  - Where feasible, maintain or achieve LOS D at City intersections.

- City's PSRE Analysis (2009)
  - Existing Level of Service (LOS) is "**F**" for AM and PM peak hours
  - Future LOS without Project is "**F**" for AM and PM peak hours
  - Future LOS with Project is "**F**" for AM and PM peak hours

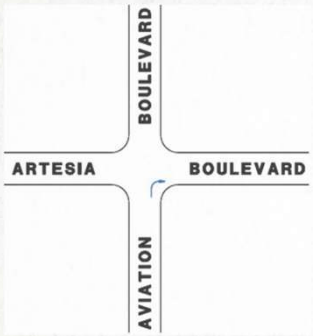
CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

- City General Plan Circulation Element Policy P9:
  - Where feasible, maintain or achieve LOS D at City intersections.

- Rick Engineering's Queuing Analysis
  - NB Right-Turn Storage = 130 feet
  - Analysis shows queue to be accommodated within turn pocket for buildout AM peak hour (101 feet), but not buildout PM peak hour (171 feet).
  - However, queuing for northbound through lanes blocks access to the right-turn lane (never anticipated to be less than ~255 feet).

CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

- Northbound right-turn volumes, from Aviation Boulevard to Artesia Boulevard



2009	2015	2018 (Tue)	2018 (Wed)	2030
AM/PM	AM/PM	AM/PM	AM/PM	AM/PM
126/165	**107/170**	**189/139**	**192/179**	**190/270**

- Highway Capacity Manual (HCM) standard states "An exclusive right-turn lane is often provided when the right-turn volume exceeds **300** veh/h and the adjacent through volume exceeds 300 veh/h/ln."

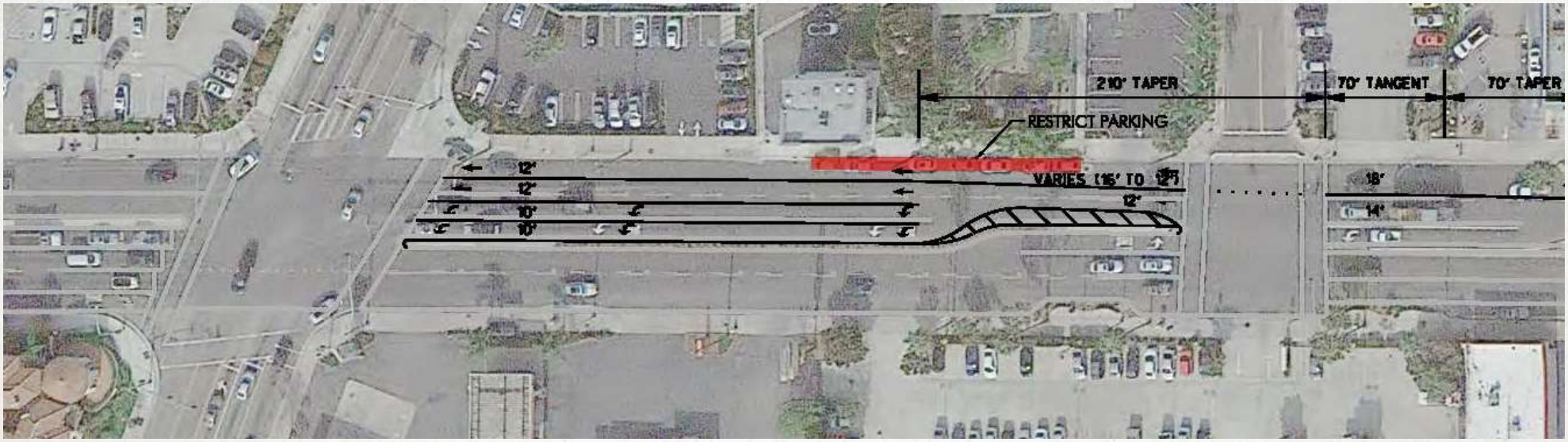
CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

- Alternative project – Install westbound dual left-turn lanes
  - HCM standard states "A single exclusive left-turn lane is often provided when the left-turn volume ranges between 100 and 300 veh/h. Similarly, a dual exclusive left-turn lane is often provided when the left-turn volume **exceeds 300 veh/h**."
  - Westbound left-turn volumes, from Aviation Boulevard to Artesia Boulevard

2009	2018 (Tue)	2018 (Wed)	2030
AM/PM	AM/PM	AM/PM	AM/PM
229/280	**167/251**	**161/259**	**320/530**

CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

- Alternative project



CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

	City's PSRE Project	City's Updated PSRE Analysis*	Alternate Dual Left Project
	Forecast + GP	Forecast + GP	Forecast + GP
AM Peak Hour LOS/Delay (sec)	E/75.4	F/82.1	E/72.6
PM Peak Hour LOS/Delay (sec)	F/112.6	F/113.8	F/84.3

*Based on information provided in City's 1/19/2021 staff report for Item L.1

CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

- Conclusion
  - **City's analysis shows the City's Proposed Right-Turn Project <u>will not improve</u> LOS at the intersection**
    - City's analysis would require take of private property, and impact traffic at driveways during construction
  - **Rick Engineering's Project Alternative analysis shows improvement in comparison to City's Proposed Right-Turn Project**
    - Alternative Project would not require take of private property
    - Alternative Project will fit within the existing curb to curb width along Artesia Boulevard
    - Alternative Project will serve the City's projected traffic volumes for the westbound left-turn movement

CITY OF REDONDO BEACH'S PROPOSED RIGHT-TURN ONLY POCKET FROM AVIATION BOULEVARD TO ARTESIA BOULEVARD

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