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Advanced Transportation Planning and Traffic Engineering

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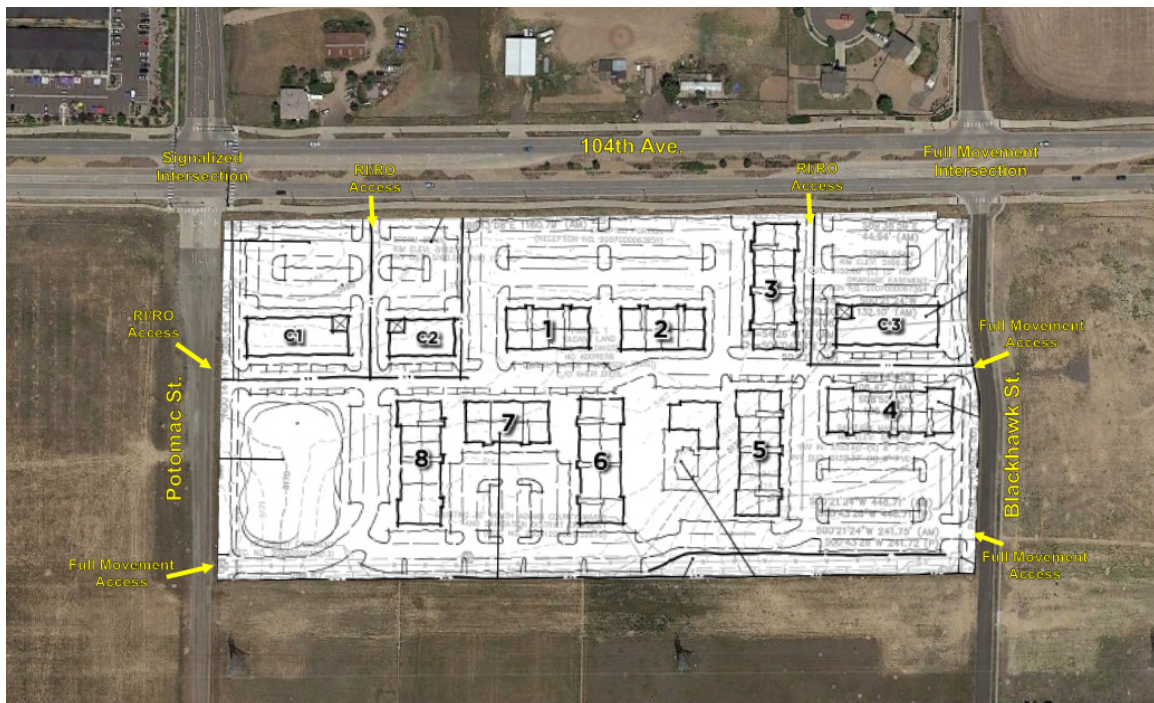
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May 27, 2021

Chris Hodyl, Commerce City Public Works
Jackson Givens, Southwestern Property Corp.
Jeff Neulieb, Kephart

RE: Response to Comments
Commons at 104th

With this letter we are responding to comments prepared by Commerce City regarding the March 2021 Traffic Impact Study for Commons at 104th. We would first like to correct what appears to be a misunderstanding of the proposed accesses. The following graphic is the latest proposal. Note that there is no disagreement on the type and location of the accesses on Potomac St. and Blackhawk St.

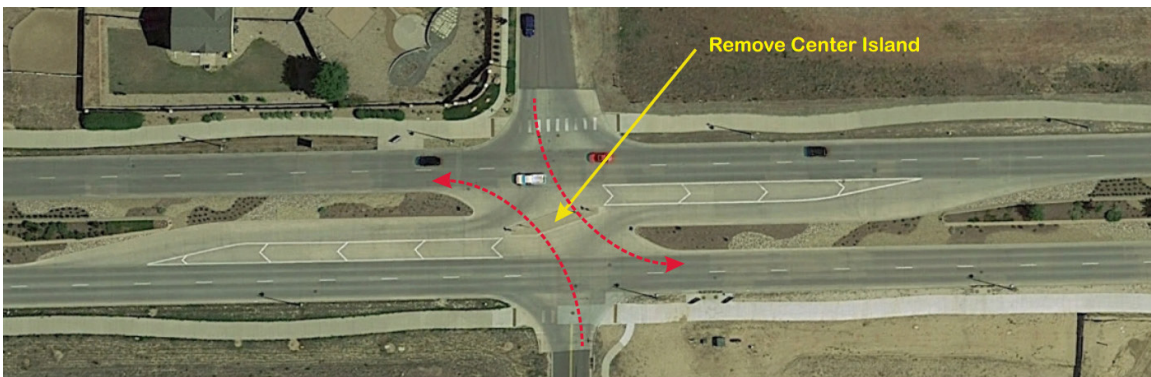


On Potomac we are proposing a right in/right out only at about 330 feet from 104th and a full movement at approximately 660'. On Blackhawk St. there are two full movement



accesses at approximately the same distances on Potomac St. These are consistent with the City's recommendations in comments d and e.

On 104th Ave. and in response to comments a, b, and c, we recognize the two recommended right in/right out accesses are not in strict accord with the City's standards. But they are essential and necessary to serve the proposed commercial product along 104th Ave. For the same reason we are recommending that the present 3/4 movement intersection on 104th Ave. at Blackhawk St. be converted to full movement. This is necessary particularly for any patron of the corner commercial property to make a left turn out and head westbound on 104th Ave.



We make these recommendations as required by the City's traffic impact study guidelines based on sound engineering judgment, the standard of practice for transportation planning and traffic engineering, and level of service analyses from traffic operations modeling software, principally Synchro v.10 which is based on the methodology and procedures promulgated by the Highway Capacity Manual, 6th Edition.

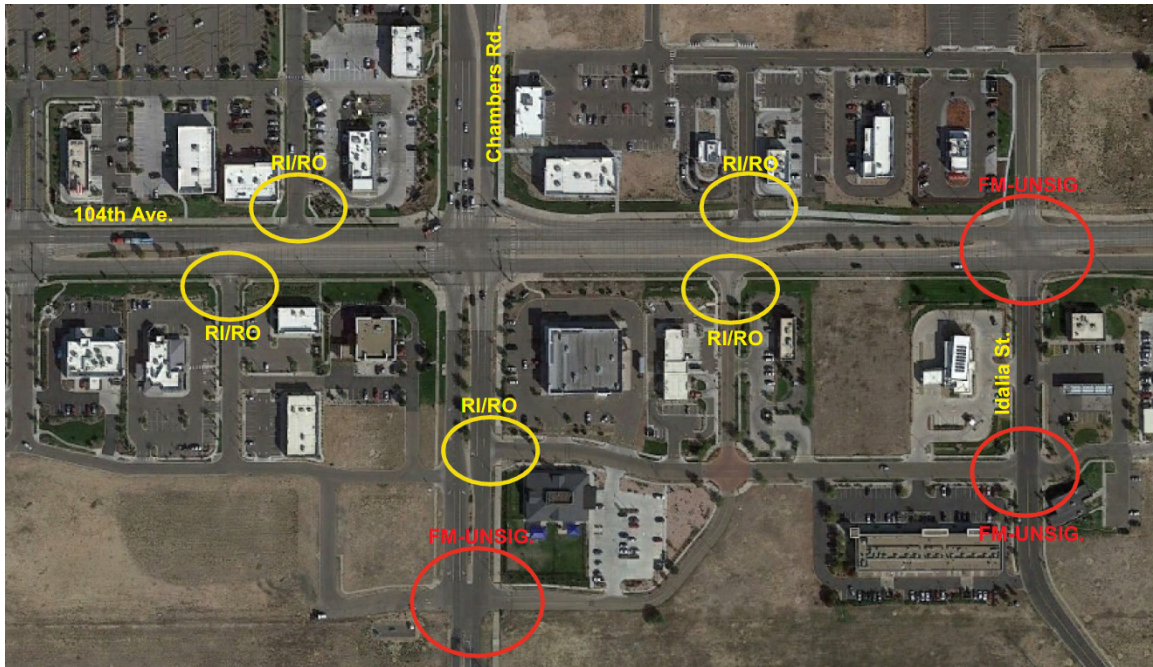
We understand the left turn out from Blackhawk St. will operate at LOS E and F in the future design horizons (2025 and 2040) however per the HCM, "*LOS is used to translate complex numerical performance rating into a simple A-F system representative of the travelers' perception of the quality of service provided by a facility or service. Practitioners and decision makers alike must understand that the LOS letter result hides much of the complexity of facility performance*¹." It is more important to evaluate other performance measures such as volume over capacity, duration of control delay, and the 95th percentile queue length. These measures show acceptable results until the 2040 PM peak hour. However, by then and importantly as the properties east of Blackhawk's north and south legs develop, there is strong likelihood that the intersection will require traffic signal control.

There are also precedents on 104th Ave. for similar access to commercial properties. As shown on the graphic on the next page, these are just down the road at Chambers Rd. The commercial properties there are well served by the plethora of right in/right out accesses

¹ HCM version 6, Chapter 5, pages 5-3 – 5-6.



on 104th Ave. and including a full-movement two-way stop sign controlled intersection at Idalia St. On Chambers Rd. there is a right in/right out access and an unsignalized full-movement intersection in the same positions we propose on Potomac St. On Idalia St. the full movement unsignalized intersection at 104th and the full movement unsignalized intersection at 103rd Pl. is identical to what we propose on Blackhawk St.



Commercial properties need proper and safe access to thrive and be of service to the community. Without good access commercial enterprises won't waste their money on property no one can get to or that involves awkward and out of direction travel.

ATC appreciates the opportunity to be of service. Please call if you have any questions. We can be reached at 303-703-9112.



Respectfully submitted,
Aldridge Transportation Consultants, LLC

John M.W. Aldridge, P.E.
Principal

ATC is professional service firm specializing in traffic engineering and transportation planning. ATC's principal, John M.W. Aldridge, is a Colorado licensed professional engineer. In the past 20 years, ATC has prepared over 1,000 traffic impact studies, designed over 100 traffic signals, and has provided expert witness testimony on engineering design and access issues on multi-million-dollar interchange and highway projects in Kansas and Colorado.