



December 27th, 2023

John Huss, PE
OWN
4240 Philips Farm Road, Suite 101
Columbia, MO 65201

Dear Mr. Huss,

At your request, I have prepared this letter to compare trip generation from the September 2022 Summit Orchards West Traffic Impact Study with expected trip generation from the developer provided December 2023 site plan.

The Summit Orchards West site is located in Lees Summit, Missouri, on the northwest quadrant of the intersection of Chipman Road and Ward Road. The September 2022 site plan was expected to be constructed in two phases with Phase I on the south side of the development—it included two fast-food restaurants with drive-through windows (12.3k sq ft) and a residential multi-family housing complex (323 units). Phase II was planned for the north side of the development and included two warehouse buildings (123k sq ft).

The updated site plan replaces the two fast-food restaurants with three restaurants—one fast-food restaurant with drive-through window and two fast-food restaurants with drive-through windows and no indoor seating. Overall, the total building square footage decreases from 12,300 sq ft to 5,298 sq ft. The multi-family housing, Phase II warehouse buildings, and access locations are unchanged from the September 2022 site plan. Site access to Lots 10-A, 10-B, and 10-C have not changed from the original PDP and traffic study. The access into Lot 10-C has been constructed from Ward Road.

The current land use of the planned development is undeveloped. The land use of the surrounding areas is undeveloped to the northeast, light industrial to the west, commercial/retail/multi-family housing to the east, and low density residential to the south.

The development is bordered on the west by Outerview Road and on the east by Ward Road. Chipman Road is located to the south of the site and provides access to US Highway 50.

Chipman Road is a four-lane east-west median divided major arterial with a posted speed limit is 45 miles per hour (mph).

Ward Road is a four-lane north-south median divided major arterial roadway with a posted speed limit of 35 mph. The intersection of Chipman Road and Ward Road is signalized with left-turn lanes on all approaches (dual lefts southbound and eastbound), a southbound right-turn lane, and a westbound right-turn lane. The intersection of Chipman Road and Ward Road is approximately 2,700 feet east of US 50.

The southbound right-turn lane and northbound left-turn lane into the south Ward Road access are under construction and are expected to be completed by January 1, 2024, except the permanent striping, which will be completed in the spring.

The September 2022 site plan and most recent site plan (December 2023) are enclosed as part of this letter.

Expected Trip Generation

The expected trip generation for the development was estimated using the 11th Edition of the Trip Generation Handbook published by the Institute of Transportation Engineers. The trip generation was based on Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 AM, along with One Hour Between 4 and 6 PM. As ITE doesn't provide a weekday trip generation rate for the weekday Fast-Food Restaurant with Drive-Through Window and No Indoor Seating land use, the weekday trips were calculated using the Fast-Food Restaurant with Drive-Through Window land use. This trip generation is likely conservative as the planned land uses will not be open during the morning peak hour while the Fast-Food Restaurant with Drive-Through Window land use does have morning peak trips.

A comparison of the expected trips generated by the September 2022 and December 2023 site plans for Phase I of the development are provided in Table 1.

Table 1 – Trip Generation for Phase I							
ITE Land Use Code	Units	Weekday		AM		PM	
		Trips In (vpd)	Trips Out (vpd)	Trips In (vph)	Trips Out (vph)	Trips In (vph)	Trips Out (vph)
220- Multifamily Housing (Low-Rise)	323 dwelling units	1,073	1,073	30	93	100	59
934- Fast-Food Restaurant with Drive-Through Window	12,300 sq ft	2,875	2,875	280	269	211	195
September 2022 Total		3,948	3,948	310	362	311	254
220- Multifamily Housing (Low-Rise)	323 dwelling units	1,073	1,073	30	93	100	59
934- Fast-Food Restaurant with Drive-Through Window	2,540 sq ft	1,293	1,293	57	55	43	40
935- Fast-Food Restaurant with Drive-Through Window and No Indoor Seating	2,758 sq ft			n/a	n/a	85	82
December 2023 Total		2,312	2,312	87	148	228	181
Change in Trips		-1,636	-1,636	-223	-214	-83	-73

Overall, it is expected that during both the weekday and peak hours, the trips will decrease from the September 2022 site plan to the proposed December 2023 site plan.

Capacity - Existing Plus Phase I Site Conditions

The capacity of the nearby Chipman Road and Ward Road intersection for the September 2022 site plan was expected to operate at a Level of Service (LOS) D or better for both the morning and afternoon peak periods with sufficient capacity for queueing vehicles. As the trips are expected to decrease, there is no expected significant change in the operations of this intersection from the September 2022 site plan.

Conclusions

Based on the trip generation of the proposed development site and review of the site plan with regard to City requirements, traffic from the December 2023 site plan is expected to operate comparably or better compared to the September 2022 site plan. The recommendations from the September 2022 traffic impact study remain unchanged.

Sincerely,

Amy L. McCurdy

Amy L. McCurdy, P.E., PTOE
President/Owner

Enclosure: Site Plan



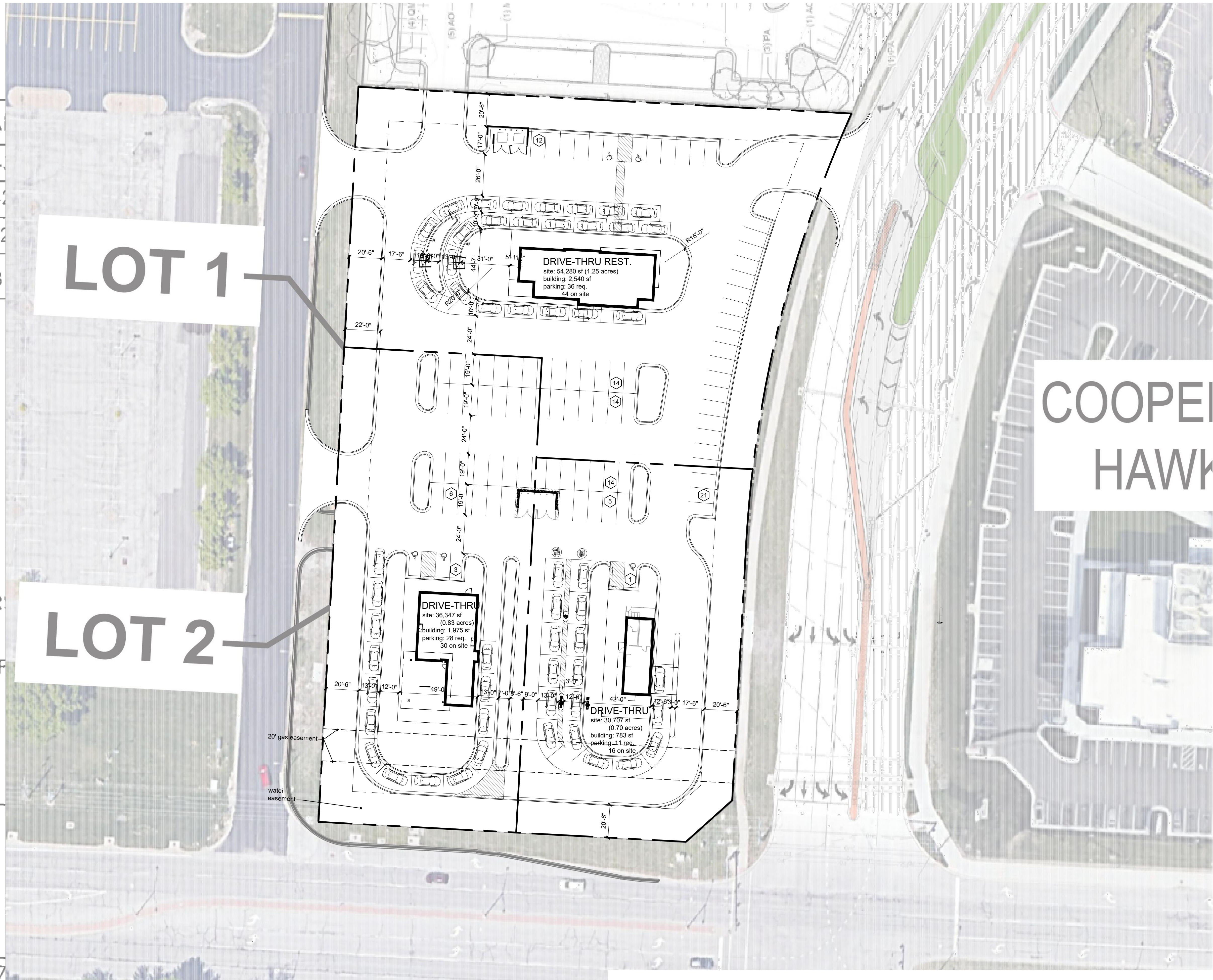
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LOT 1

LOT 2



COOPER
HAWK

a new development for

Summit Orchard West

700 NW Ward Road

Lee's Summit, Missouri

date
11.09.2023
drawn by
DAE
checked by
DAE
revisions

sheet number

A1.11

1 | site plan
scale: 1" = 30'-0"



drawing type
preliminary
project number
23189



APPROXIMATE DWELLING UNITS ±323

