

MEMORANDUM TO: Vinoz Channamolu
Project Naperville

FROM: Elise Purguette
Consultant

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Principal

DATE: December 10, 2020

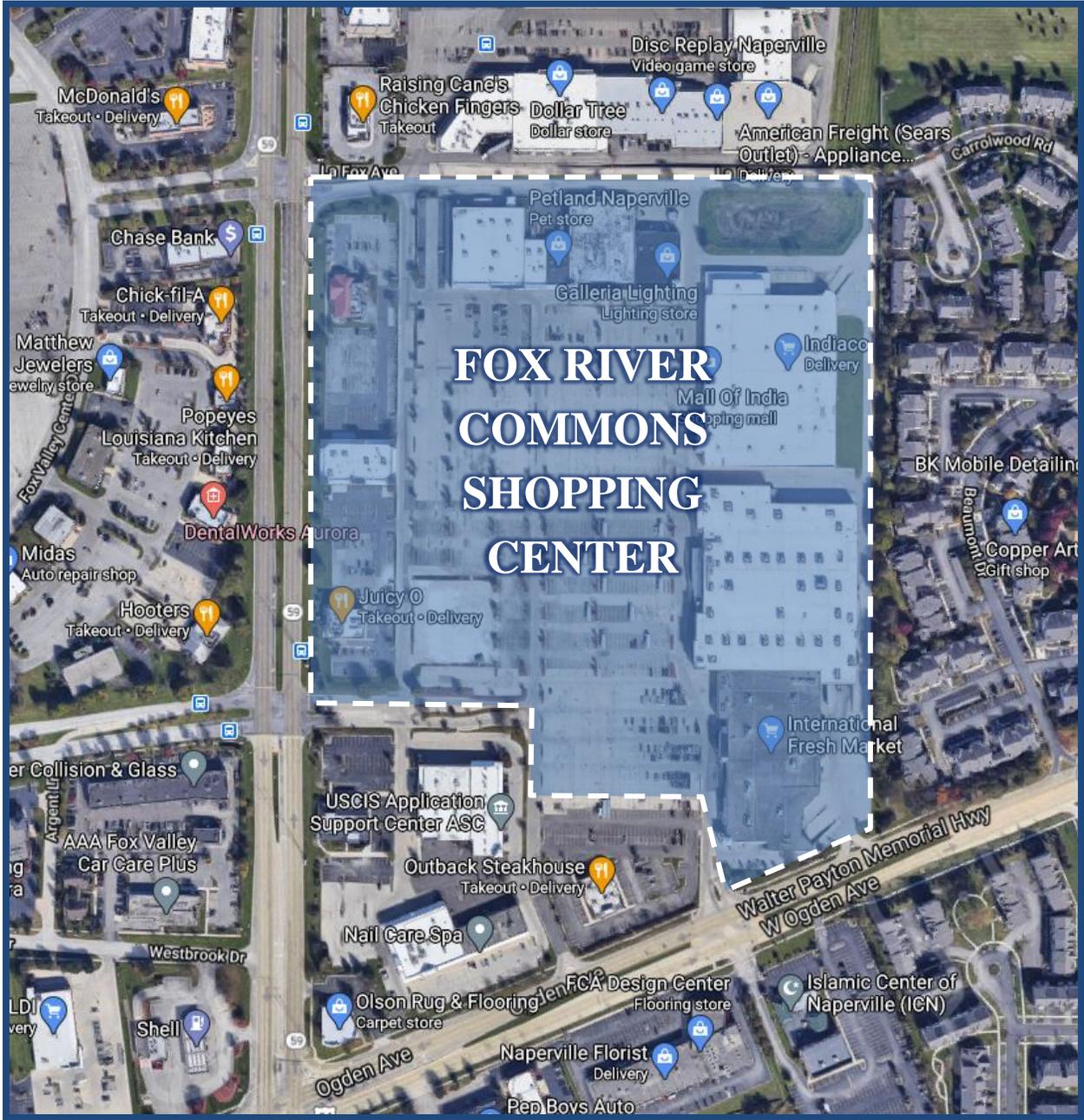
SUBJECT: Parking Study
808 & 776 South Route 59
Naperville, Illinois

This memorandum presents the findings and recommendations of a parking study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) to determine the adequacy of the parking supply within Fox River Commons shopping center to accommodate the parking needs of the proposed repurposing of the former Sam's Club building (808 South Route 59) and the proposed daycare facility and activity center to be located within the existing Mall of India building (776 South Route 59). Fox River Commons shopping center is located in the northeast quadrant of the intersection of Ogden Avenue with IL 59 and has a total of approximately 469,050 square feet of building area and approximately 2,464 parking spaces, of which 527 parking spaces serve the former Sam's Club building and 634 spaces serve the Mall of India building. Access is provided off both roadways via signalized intersections as well as off LaFox Avenue to the north. **Figure 1** shows an aerial view of the site.

The proposed daycare facility and the activity center with a swimming pool, totaling approximately 19,000 square feet in size, will be located within the Mall of India building occupying the southeast corner of the building. A copy of the site plan is included in the Appendix.

The plans for the former Sam's Club building, which is approximately 136,446 square feet in size, call for repurposing the building to include the following uses:

- An approximate 21,790 square-foot banquet hall
- An approximate 6,682 square-foot restaurant
- A live theater with a capacity of 200 seats
- Approximately 24,170 square feet of athletic fields to include basketball, tennis, batting cages, and volleyball



Aerial View of Site

Figure 1

The purpose of this study was to assess the adequacy of the parking supply within Fox River Commons shopping center in accommodating the future parking demand that will be generated by the existing and proposed uses. In order to do that, the following tasks were undertaken:

- The parking demand was generated for the different uses proposed for the former Sam's Club building and the daycare facility/activity center using City of Naperville parking code requirements and Institute of Transportation Engineers (ITE) parking rates.
- The adequacy of the available parking within the Fox River Commons shopping center was evaluated by applying the shared parking concept to assess its ability to accommodate the estimated future parking demand.

Projected Parking Demand of Mall of India

Based on the information provided by the operator, Mall of India is an approximate 115,751 square-foot building which currently includes an approximate 25,000 square-foot grocery store and approximately 71,751 square feet of retail space and is served by 634 parking spaces. As proposed, the southeast corner of the building is proposed to be occupied by an approximate 19,000 square-foot daycare facility including an activity center and a swimming pool. The daycare facility will have a capacity of 100 students and 18 staff members. Access to the daycare facility will be provided via two entrances:

- Entrance 1, which will be located on the west side of the building. Parents will park in the main parking lot and walk their children into the mall.
- Entrance 2, which will be located on the south side of the building. Parents will drop off their children to a staff member at the side entrance.

It should be noted that Entrances 1 and 2 to the daycare facility can be used Monday through Friday from 8:00 A.M. to 6:00 P.M. Entrance 2 will also be open from 6:00 A.M. to 8:00 A.M.

In addition, the activity center will be open from 5:00 P.M. to 9:00 P.M. on weekdays and from 8:00 A.M. to 9:00 P.M. on weekends and the swimming pool will be open from 4:00 P.M. to 9:00 P.M. on weekdays and from 9:00 A.M. to 9:00 P.M. on weekends. Access to the activity center and the swimming pool will be provided via Entrance 1 only.

In order to determine the projected parking demand of the full occupancy of Mall of India, the parking demand was estimated based on the City of Naperville Code Ordinance and the parking rates published in the ITE *Parking Generation Manual*, 5th Edition. Based on the two methodologies, the parking demand for each use within Mall of India is as follows:

City of Naperville Code Ordinance

- Retail Space: 323 spaces (ratio of 4.5 spaces per 1,000 square feet)
- Grocery Store: 113 spaces (ratio of 4.5 parking spaces per 1,000 square feet)
- Proposed Daycare Facility and Activity Center: 76 spaces (ratio of 4.0 parking spaces per 1,000 square feet)
- Total Parking Requirement: 512 spaces

ITE Parking Generation Manual

- Retail Space (Shopping Center – LUC 820):
 - Weekday: 140 spaces (ratio of 1.95 spaces per 1,000 square feet)
 - Saturday: 209 spaces (ratio of 2.91 spaces per 1,000 square feet)
- Grocery Store (Supermarket – LUC 850):
 - Weekday: 74 spaces (ratio of 2.93 spaces per 1,000 square feet)
 - Saturday: 91 spaces (ratio of 3.64 parking spaces per 1,000 square feet)
- Proposed Daycare Facility and Activity Center (Recreational Community Center – LUC 495)
 - Weekday: 40 spaces (ratio of 2.07 spaces per 1,000 square feet)
 - Saturday: 37 spaces (ratio of 1.9 spaces per 1,000 square feet)
- Total Parking Requirements:
 - Weekday: 254 spaces
 - Saturday: 337 spaces

Tables 1A and 1B (all tables are located in the Appendix) show the projected parking demand of the full occupancy of Mall of India was distributed hourly for each use based on information provided in the *ITE Parking Generation Manual*, 5th Edition for both the City of Naperville Code Ordinance and ITE ratios, respectively. As can be seen, the parking requirements for the Mall of India, utilizing both City of Naperville code requirements and ITE parking generation methodologies, can be accommodated by the 634 parking spaces provided on site, resulting in a surplus of 156 to 361 parking spaces.

Projected Parking Demand of Former Sam’s Club

As previously indicated, the former Sam’s Club building, which is served by 527 parking spaces, is to be repurposed to include the following:

- An approximate 21,790 square-foot banquet hall, which will be open from 8:00 A.M. to 11:00 P.M. Monday through Thursday and from 7:00 A.M. to 1:00 A.M. Friday through Sunday.
- An approximate 6,682 square-foot restaurant, which will be open from 11:00 A.M. to 2:00 P.M. and from 5:30 P.M. to 11:00 P.M. Monday through Thursday, and from 5:30 P.M. to 1:00 A.M. Friday through Sunday.
- A live theater with a capacity of 200 seats, which will be open from 6:00 P.M. to 11:00 P.M. Friday through Sunday.

- Approximately 24,170 feet of athletic fields, which will be open from 2:00 P.M. to 9:00 P.M. Monday through Thursday, from 2:00 P.M. to 12:00 A.M. on Friday, from 9:00 A.M. to 12:00 A.M. on Saturday, and from 9:00 A.M. to 9:00 P.M. on Sunday.
- Approximately 80,166 square feet of retail space.

The projected parking demand of the former Sam’s Club was estimated based on the City of Naperville Code Ordinance and the parking ratios published in the *ITE Parking Generation Manual*, 5th Edition. Based on the two methodologies, the parking demand for each use of the former Sam’s Club is as follows:

City of Naperville Code Ordinance

- Banquet Hall: 218 spaces (ratio of 10.0 spaces per 1,000 square feet)
- Restaurant: 67 spaces (ratio of 10.0 spaces per 1,000 square feet)
- Live Theater: 80 spaces (ratio of one parking space per 2.5 seats)
- Sport Games: 121 spaces (ratio of 5.0 parking spaces per 1,000 square feet)
- Retail Space: 361 spaces (ratio of 4.5 parking spaces per 1,000 square feet)
- Total Parking Requirement: 847 spaces

ITE *Parking Generation Manual*

- Restaurant (High Turnover Sit Down Restaurant – LUC 932):
 - Weekday: 64 spaces (ratio of 9.44 spaces per 1,000 square feet)
 - Saturday: 83 spaces (ratio of 12.28 spaces per 1,000 square feet)
- Live Theater (Live Theater – LUC 441):
 - 76 spaces (0.38 spaces per seat)
- Athletic Fields (Health/Fitness Club – LUC 492)
 - Weekday: 115 spaces (ratio of 4.73 spaces per 1,000 square feet)
 - Saturday: 79 spaces (ratio of 3.26 spaces per 1,000 square feet)
- Retail Space (Shopping Center – LUC 820):
 - Weekday: 157 spaces (ratio of 1.95 spaces per 1,000 square feet)
 - Saturday: 234 spaces (ratio of 2.91 spaces per 1,000 square feet)

It should be noted that, since ITE does not include any parking ratios for banquet halls, the parking demand of the banquet hall space was estimated based on previous surveys conducted by KLOA, Inc. at a banquet facility in Arlington Heights, which indicated a peak parking ratio of 0.31 spaces per seat. As such, the total parking requirements will be as follows:

- Weekday: 784 spaces
- Saturday: 724 spaces

In order to determine whether the parking supply will be adequate in accommodating the parking needs of the proposed uses, the parking demands for each use (except for the banquet hall space) were distributed hourly based on information provided in the *ITE Parking Generation Manual*, 5th Edition, since the uses experience peak parking demands at different times throughout the day. Since ITE does not include any parking ratios for banquet halls, the parking demand for the banquet hall was distributed hourly based on the information provided in the Urban Land Institute (ULI) *Shared Parking*, 3rd Edition when applying the City of Naperville Code Ordinance, and based on the surveys conducted by KLOA, Inc. under the ITE parking ratios methodology. **Tables 2A and 2B** show the projected parking demand of the full occupancy of the former Sam's Club based on the City of Naperville Code Ordinance and ITE rates, respectively. As can be seen, the peak demand using City of Naperville ratios will be 717 spaces occurring at 6:00 P.M. on a weekday resulting in a deficit of 180 spaces. The peak demand using ITE rates will be 631 spaces occurring at 7:00 P.M. on a weekday resulting in a deficit of 94 spaces.

Projected Parking Demand of the Remaining Uses

Based on the information provided by the operator, the remaining uses of the Fox River Commons shopping center consist of approximately 128,482 square feet of retail space, an approximate 39,716 square-foot grocery store, and an approximate 8,100 square-foot restaurant. In order to determine the projected parking demand of the remaining uses of the Fox River Commons shopping center, the parking demand was estimated based on the City of Naperville Code Ordinance and the parking rates published in the *ITE Parking Generation Manual*, 5th Edition. Based on the two methodologies, the parking demand for the remaining uses of the Fox River Commons shopping center is as follows:

City of Naperville Code Ordinance

- Retail Space: 579 spaces (ratio of 4.5 spaces per 1,000 square feet)
- Grocery Store: 179 spaces (ratio of 4.5 parking spaces per 1,000 square feet)
- Restaurant: 81 spaces (ratio of 10.0 spaces per 1,000 square feet)

ITE *Parking Generation Manual*

- Retail Space (Shopping Center – LUC 820):
 - Weekday: 251 spaces (ratio of 1.95 spaces per 1,000 square feet)
 - Saturday: 374 spaces (ratio of 2.91 spaces per 1,000 square feet)
- Grocery Store (Supermarket – LUC 850):
 - Weekday: 117 spaces (ratio of 2.93 spaces per 1,000 square feet)
 - Saturday: 145 spaces (ratio of 3.64 parking spaces per 1,000 square feet)
- Restaurant (High Turnover Sit Down Restaurant – LUC 932):
 - Weekday: 77 spaces (ratio of 9.44 spaces per 1,000 square feet)
 - Saturday: 100 spaces (ratio of 12.28 spaces per 1,000 square feet)

The parking demands for each use were distributed hourly based on information provided in the *ITE Parking Generation Manual*, 5th Edition, since the uses experience peak parking demands at different times throughout the day. **Tables 3A and 3B** show the projected parking demand of the remaining uses within the Fox River Commons shopping center based on the City of Naperville Code Ordinance and ITE rates, respectively.

Parking Evaluation

In order to determine the projected peak parking demand of the full occupancy of Fox River Commons shopping center, the hourly parking demands for the remaining uses were added to the projected parking demand of Mall of India and the former Sam's Club. **Tables 4A and 4B** show the projected parking demand of the full occupancy of the Fox River Commons shopping center based on the City of Naperville Code Ordinance and ITE rates, respectively.

As previously indicated, the parking inventory is 2,464 parking spaces. The projected peak parking demands using the two methodologies are as follows:

City of Naperville Code Ordinance

- Peak occupancy on a weekday will be 1,903 vehicles (77 percent) occurring at 1:00 P.M., resulting in a surplus of 561 parking spaces.
- Peak occupancy on a Saturday will be 1,954 vehicles (79 percent) occurring at 1:00 P.M., resulting in a surplus of 510 parking spaces.

ITE *Parking Generation Manual*

- Peak occupancy on a weekday will be 1,192 vehicles (48 percent) occurring at 7:00 P.M., resulting in a surplus of 1,272 parking spaces.
- Peak occupancy on a Saturday will be 1,349 vehicles (55 percent) occurring at 1:00 P.M., resulting in a surplus of 1,115 parking spaces.

Trip Generation Estimates

The number of peak hour trips that will be generated by the proposed daycare facility was estimated based on trip rates published by ITE for Day Care Center (Land-Use Code 565) in the *Trip Generation Manual*. **Table 5** summarizes the trips that will be generated during the peak hours.

As indicated earlier, drop-off and pick-up activities can occur at two entrances to the facility. Entrance 1 will be located on the west side of the building, which will require parents to park in the main parking field and walk their children to the facility. The second entrance will be located on the south side of the building, where parents will drop off their children to a staff member. The ability to drop off and pick up children at two entrances will minimize traffic congestion.

Conclusion

Based on the results of the parking study, the following conclusions are made:

- The parking supply of 634 spaces that serve the Mall of India building will be adequate in meeting the future needs of its existing and proposed uses.
- The parking supply of 527 spaces that serve the former Sam's Club building will not be sufficient in accommodating the future needs of the proposed uses.
- The overall parking supply in the shopping center given the sharing of parking that will occur between the different uses will be adequate in meeting the parking demands of the uses including Mall of India and the redevelopment of Sam's Club building.
- This was based on the City of Naperville Code Ordinance, which shows a maximum occupancy of 79 percent, and the parking rates published in the *ITE Parking Generation Manual*, which show a maximum occupancy of 55 percent.

Appendix

Table 4A

PROJECTED PARKING DEMAND PER HOUR – FOX RIVER COMMONS SHOPPING CENTER – CITY OF NAPERVILLE CODE ORDINANCE

Time	Weekday			Total		Saturday			Total	
	Mall of India	Former Sam's Club	Remaining Uses	Occupied Spaces	Percent Occupancy	Mall of India	Former Sam's Club	Remaining Uses	Occupied Spaces	Percent Occupancy
6:00 AM	45	0	9	54	2%	0	0	0	0	0%
7:00 AM	45	0	127	172	7%	0	0	149	149	6%
8:00 AM	55	55	249	359	15%	57	98	326	481	20%
9:00 AM	389	116	351	856	35%	431	288	454	1173	48%
10:00 AM	388	250	482	1120	45%	423	418	588	1429	58%
11:00 AM	398	428	600	1426	58%	445	567	746	1758	71%
12:00 PM	411	608	809	1828	74%	478	625	802	1905	77%
1:00 PM	472	622	809	1903	77%	475	657	822	1954	79%
2:00 PM	466	610	735	1811	73%	479	651	797	1927	78%
3:00 PM	450	558	690	1698	69%	464	627	742	1833	74%
4:00 PM	413	574	643	1630	66%	438	593	677	1708	69%
5:00 PM	442	629	666	1737	70%	388	573	618	1579	64%
5:30 PM	460	695	672	1827	74%	367	609	595	1571	64%
6:00 PM	476	717	676	1869	76%	346	603	572	1521	62%
7:00 PM	461	667	613	1741	71%	346	607	560	1513	61%
8:00 PM	408	584	460	1452	59%	346	621	508	1475	60%
9:00 PM	391	432	313	1136	46%	346	520	456	1322	54%
9:30 PM	0	215	220	435	18%	0	437	421	858	35%
10:00 PM	0	96	87	183	7%	0	347	221	568	23%
11:00 PM	0	19	0	19	1%	0	187	0	187	8%
12:00 AM	0	0	0	0	0%	0	107	0	107	4%
1:00 AM	0	0	0	0	0%	0	31	0	31	1%

Table 4B

PROJECTED PARKING DEMAND PER HOUR – FOX RIVER COMMONS SHOPPING CENTER – ITE

Time	Weekday			Total		Saturday			Total	
	Mall of India	Former Sam's Club	Remaining Uses	Occupied Spaces	Percent Occupancy	Mall of India	Former Sam's Club	Remaining Uses	Occupied Spaces	Percent Occupancy
6:00 AM	0	0	8	8	0%	0	0	0	0	0%
7:00 AM	43	0	90	133	5%	0	129	130	259	11%
8:00 AM	54	99	161	314	13%	56	193	255	504	20%
9:00 AM	223	126	207	556	23%	304	316	350	970	40%
10:00 AM	222	160	266	648	26%	296	365	444	1105	45%
11:00 AM	229	215	322	766	31%	310	405	558	1273	52%
12:00 PM	234	292	427	953	39%	328	415	590	1333	54%
1:00 PM	254	293	424	971	39%	324	427	598	1349	55%
2:00 PM	249	291	379	919	37%	326	417	575	1318	53%
3:00 PM	246	254	356	856	35%	315	402	530	1247	51%
4:00 PM	235	283	318	836	34%	297	387	467	1151	47%
5:00 PM	252	318	328	898	36%	264	366	426	1056	43%
5:30 PM	263	374	331	968	39%	251	458	411	1120	45%
6:00 PM	273	468	332	1073	44%	237	513	396	1146	47%
7:00 PM	262	631	299	1192	48%	237	537	389	1163	47%
8:00 PM	232	612	222	1066	43%	237	582	355	1174	48%
9:00 PM	221	569	151	941	38%	237	543	321	1101	45%
9:30 PM	0	444	107	551	22%	0	526	299	825	33%
10:00 PM	0	414	38	452	18%	0	505	143	648	26%
11:00 PM	0	390	0	390	16%	0	416	0	416	17%
12:00 AM	0	0	0	0	0%	0	340	0	340	14%
1:00 AM	0	0	0	0	0%	0	291	0	291	12%

Table 5

PROJECTED DAYCARE-GENERATED TRAFFIC VOLUMES

ITE Land Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily
		In	Out	Total	In	Out	Total	
565	Daycare (100 students)	37	33	70	37	42	79	409