

MEMORANDUM TO: Mr. Jeff Ramming
The McLain Group, LLC

FROM: Brendan S. May
Consultant

Luay R. Aboona, PE, PTOE
Principal

DATE: July 12, 2018

SUBJECT: Parking Evaluation
Proposed WhirlyBall Facility
Naperville, Illinois

This memorandum presents the findings and recommendations of a parking evaluation conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed WhirlyBall facility to be located in the northwest quadrant of the intersection of Odyssey Court and Celebration Drive in Naperville, Illinois. As proposed, the site will be developed with a two-story (approximately 41,000 square-foot) WhirlyBall facility that will contain two WhirlyBall courts, twelve bowling lanes, laser tag, and a restaurant/lounge. A parking lot with 150 parking spaces will be provided. A copy of the site plan is included in the Appendix. The purpose of this evaluation is to assess the adequacy of the proposed parking supply to accommodate the future peak parking demand of the proposed facility. In order to achieve that, the following tasks were undertaken:

- Parking occupancy surveys were conducted by KLOA, Inc. at the existing WhirlyBall facility located in Lombard, Illinois in March 2017 on a Thursday, Friday, and Saturday.
- Projected parking demand was estimated for the proposed WhirlyBall facility taking into account the ancillary uses proposed at the Naperville facility as compared to the existing Lombard facility.
- An evaluation of the parking supply for the proposed WhirlyBall in accommodating the projected parking demand.

WhirlyBall Operations

WhirlyBall is a competition style game which combines lacrosse, hockey, basketball, and bumper cars. Games are played on an enclosed court and a minimum of four people are required to play with a maximum of ten people (two teams of five) per game. WhirlyBall facilities are generally open from 11:00 A.M. to 11:00 P.M. Sunday through Thursday and from 11:00 A.M. to 1:00 A.M. on the weekends. It is important to note that in order to reduce wait time for WhirlyBall court use, courts can be reserved ahead of time by patrons. While walk-ins are accepted, patrons are encouraged to call ahead and reserve a time.

Lombard WhirlyBall Parking Demand

Due to the unique operations of WhirlyBall facilities, the baseline parking demand estimated to be generated by the proposed Naperville facility was based on parking occupancy surveys conducted at the Lombard WhirlyBall facility located at 800 East Roosevelt Road. The Lombard WhirlyBall facility is approximately 24,000 square feet and provides two game courts, several private party areas, and a restaurant/lounge. The parking occupancy surveys were conducted in fifteen-minute intervals on the following days/times:

- On Thursday, March 30, 2017 between 5:00 P.M. and 10:00 P.M.
- On Friday, March 31, 2017 between 5:00 P.M. and 10:00 P.M.
- On Saturday, April 1, 2017 between 1:00 P.M. and 11:00 P.M.

The parking occupancy surveys for all three days are summarized in **Table 1** (included in the Appendix) and below:

- Peak parking occupancy on Thursday was 12 vehicles.
- Peak parking occupancy on Friday was 50 vehicles.
- Peak parking occupancy on Saturday was 61 vehicles.

The results of these parking occupancy surveys will be used as the baseline for the projected parking demand of the proposed WhirlyBall facility. It should be noted that on Saturday, the WhirlyBall courts at the Lombard facility were fully booked for the duration of the parking occupancy survey.

Proposed Naperville WhirlyBall Operations and Projected Parking Demand

As previously indicated, the site will be developed with a two-story (approximately 41,000 square-foot) facility that will contain two WhirlyBall courts, twelve bowling lanes, an approximately 3,700 square-foot laser tag space, and a restaurant/lounge. Typical of WhirlyBall facilities, customers will primarily patronize the facility to play WhirlyBall, go bowling, or participate in laser tag. However, many patrons will utilize multiple facilities and specifically the restaurant/lounge area as an ancillary use while waiting to participate in an activity. The total parking projected for the proposed WhirlyBall was estimated based on the following two methods:

- The existing parking demand ratios based on the parking occupancy surveys conducted at the Lombard WhirlyBall facility were applied to the 17,000 square feet of additional facility space at the Naperville facility.
- The estimated parking demand of the additional activities provided (bowling lanes and laser tag) based on data published in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*, 4th Edition were added to the peak parking demand as surveyed at the Lombard WhirlyBall facility.

Overall Parking Evaluation

The following summarizes the total projected parking demand for the proposed WhirlyBall facility based on the two methodologies.

Surveys Conducted at the Existing WhirlyBall Facility

The surveys conducted at the existing WhirlyBall facility in Lombard indicated that the peak parking ratios on Thursday, Friday, and Saturday were 0.5 vehicles per 1,000 square feet., 2.08 vehicles per 1,000 square feet and 2.54 vehicles per 1,000 square feet, respectively. When these parking ratios are applied to the size of the proposed WhirlyBall facility, the total projected parking demands are as follows:

- The total projected parking demand on Thursday is projected to be 21 vehicles.
- The total projected parking demand on Friday is projected to be 85 vehicles.
- The total projected parking demand on Saturday is projected to be 104 vehicles.

As such, the 150 parking spaces to be provided will be more than sufficient to meet the proposed peak demand based on the surveys at the Lombard facility.

Lombard Facility Surveys Plus ITE Parking Generation Rates

Based on data provided by ITE for Land-Use Code 437 (Bowling Alley), the average peak parking demands for the proposed twelve bowling lanes are as follows:

- 48 parking spaces on a non-Friday weekday, ratio of 4 vehicles per lane.
- 60 parking spaces on a Friday, ratio of 5.02 vehicles per lane.
- 42 parking spaces on a Saturday, ratio of 3.47 vehicles per lane.

The parking projected to be generated by the laser tag space was based on data provided by ITE for Land-Use Code 435 (Multipurpose Recreational Facility) as this land use is the closest to the operations of the 3,700 square-foot indoor laser tag space. The average peak parking demands for the laser tag space based on this land use are as follows:

- 23 parking spaces on a Friday, ratio of 6.33 vehicles per 1,000 square feet.
- 39 parking spaces on a Saturday, ratio of 10.67 vehicles per 1,000 square feet.

It should be noted that the ITE *Parking Generation Manual* does not provide data for a non-Friday weekday. As such, the parking generation for Friday was also conservatively used for a non-Friday weekday. Further, the use of the multipurpose recreation facility provides for a worst-case scenario as the rates are based on a facility that included several outdoor activities that inflated the number of parking generated by square foot of building area.

The peak parking demand to be generated by the proposed bowling lanes and laser tag space (which are not provided at the Lombard facility) was added to the peak parking demand of the Lombard WhirlyBall facility to estimate the total peak parking demand that is summarized below.

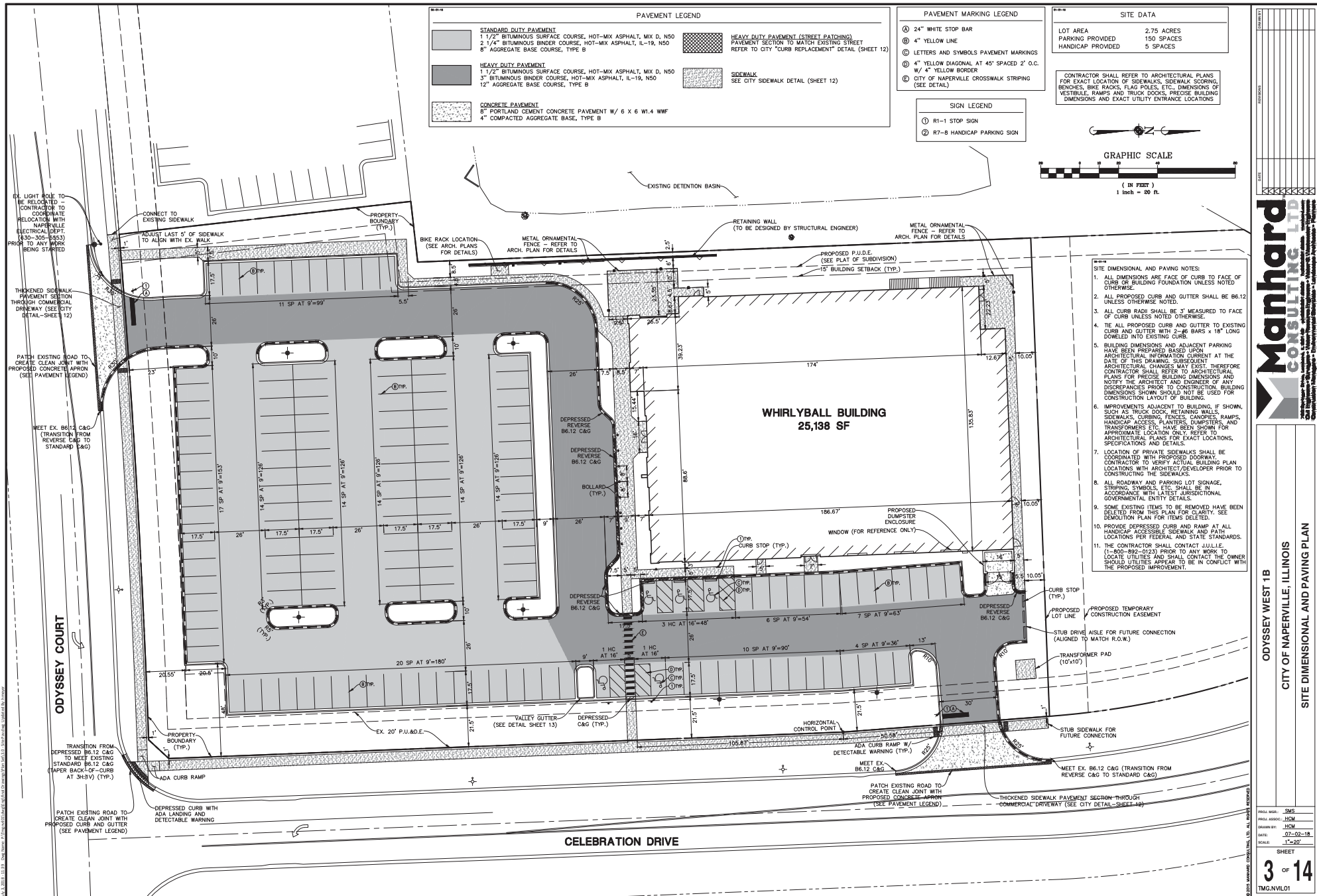
- The total projected parking demand on Thursday is projected to be 83 vehicles.
- The total projected parking demand on Friday is projected to be 133 vehicles.
- The total projected parking demand on Saturday is projected to be 142 vehicles.

It should be noted that the peak parking demand based on this methodology provides a worst-case scenario as it does not take into consideration patrons that may participate in more than one activity and the fact that the multipurpose recreation facility land-use was utilized for the laser tag space. Even under this very conservative (worst-case) analysis, the 150 parking spaces to be provided is greater than the peak parking demand of the facility.

Conclusion and Recommendations

Based on the preceding parking evaluation, the 150 parking spaces serving the proposed Naperville WhirlyBall facility will be adequate in accommodating the projected parking demand of the facility based on surveys conducted at an existing WhirlyBall facility and data published in the *ITE Parking Generation Manual*.

Appendix



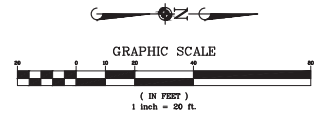
PAVEMENT LEGEND	
	STANDARD DUTY PAVEMENT 1 1/2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50 2 1/4" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL-19, N50 8" AGGREGATE BASE COURSE, TYPE B
	HEAVY DUTY PAVEMENT (STREET PATCHING) PAVEMENT SECTION TO MATCH EXISTING STREET REFER TO CITY "CURB REPLACEMENT" DETAIL (SHEET 12)
	CONCRETE PAVEMENT 8" PORTLAND CEMENT CONCRETE PAVEMENT W/ 6 X 6 W1.4 WWF 4" COMPACTED AGGREGATE BASE, TYPE B
	SIDEWALK SEE CITY SIDEWALK DETAIL (SHEET 12)

PAVEMENT MARKING LEGEND	
Ⓐ	24" WHITE STOP BAR
Ⓑ	4" YELLOW LINE
Ⓒ	LETTERS AND SYMBOLS PAVEMENT MARKINGS
Ⓓ	4" YELLOW DIAGONAL AT 45° SPACED 2' O.C.
Ⓔ	W/ 4" YELLOW BORDER
Ⓕ	CITY OF NAPERVILLE CROSSWALK STRIPING (SEE DETAIL)

SIGN LEGEND	
①	R1-1 STOP SIGN
②	R7-8 HANDICAP PARKING SIGN

SITE DATA	
LOT AREA	2.75 ACRES
PARKING PROVIDED	150 SPACES
HANDICAP PROVIDED	5 SPACES

CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF SIDEWALKS, SIDEWALK SCORING, BENCHES, BIKE RACKS, FLAG POLES, ETC. DIMENSIONS OF VESTIBULE, RAMPS AND TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS.



- SITE DIMENSIONAL AND PAVING NOTES:**
1. ALL DIMENSIONS ARE FACE OF CURB TO FACE OF CURB OR BUILDING FOUNDATION UNLESS NOTED OTHERWISE.
 2. ALL PROPOSED CURB AND GUTTER SHALL BE B6-12 UNLESS OTHERWISE NOTED.
 3. ALL CURB RADI SHALL BE 3' MEASURED TO FACE OF CURB UNLESS NOTED OTHERWISE.
 4. THE ALL PROPOSED CURB AND GUTTER TO EXISTING CURB AND GUTTER WITH 2'-6" BARS X 18" LONG DOWNED INTO EXISTING CURB.
 5. BUILDING DIMENSIONS AND ADJACENT PARKING HAVE BEEN PREPARED BASED UPON ARCHITECTURAL INFORMATION CURRENT AT THE DATE OF THIS DRAWING. SUBSEQUENT ARCHITECTURAL CHANGES MAY EXIST. THEREFORE, CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR PRECISE BUILDING DIMENSIONS AND NOTIFY THE ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. BUILDING DIMENSIONS SHOWN SHOULD NOT BE USED FOR CONSTRUCTION LAYOUT OF BUILDING.
 6. IMPROVEMENTS ADJACENT TO BUILDING, IF SHOWN, SUCH AS TRUCK DOCK, RETAINING WALLS, SIDEWALKS, CURBING, FENCES, CANOPIES, RAMPS, HANDICAP ACCESS, PLANTERS, DUMPSTERS, AND TRANSFORMERS, ETC. HAVE BEEN SHOWN FOR APPROXIMATE LOCATION ONLY. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS, SPECIFICATIONS AND DETAILS.
 7. LOCATION OF PRIVATE SIDEWALKS SHALL BE COORDINATED WITH PROPOSED DOORWAY. CONTRACTOR TO VERIFY ACTUAL BUILDING PLAN LOCATIONS WITH ARCHITECT/DEVELOPER PRIOR TO CONSTRUCTING THE SIDEWALKS.
 8. ALL ROADWAY AND PARKING LOT SIGNAGE, STRIPING, SYMBOLS, ETC. SHALL BE IN ACCORDANCE WITH LATEST JURISDICTIONAL GOVERNMENTAL ENTITY DETAILS.
 9. SOME EXISTING ITEMS TO BE REMOVED HAVE BEEN DELETED FROM THIS PLAN FOR CLARITY. SEE DEMOLITION PLAN FOR ITEMS DELETED.
 10. PROVIDE DEPRESSED CURB AND RAMP AT ALL HANDICAP ACCESSIBLE SIDEWALK AND PATH LOCATIONS PER FEDERAL AND STATE STANDARDS.
 11. THE CONTRACTOR SHALL CONTACT JULLIE, (1-800-892-0123) PRIOR TO ANY WORK TO LOCATE UTILITIES AND SHALL CONTACT THE OWNER SHOULD UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENT.

Manhard CONSULTING LTD.

ODYSSEY WEST 1B
CITY OF NAPERVILLE, ILLINOIS
SITE DIMENSIONAL AND PAVING PLAN
PENDING APPROVAL - NOT FOR CONSTRUCTION

PROJECT NO.: SMS
FIELD ASSOC.: HCM
DRAWN BY: HCM
DATE: 02-02-19
SCALE: 1"=20'
SHEET
3 OF 14
TMC:NVJLO1

Time	Parking Count - WhirlyBall Lombard		
	Thursday, March 30, 2017	Friday, March 31, 2017	Saturday, April 1, 2017
1:00 PM	--	--	20
1:15 PM	--	--	23
1:30 PM	--	--	23
1:45 PM	--	--	23
2:00 PM	--	--	27
2:15 PM	--	--	31
2:30 PM	--	--	29
2:45 PM	--	--	30
3:00 PM	--	--	33
3:15 PM	--	--	34
3:30 PM	--	--	36
3:45 PM	--	--	39
4:00 PM	--	--	41
4:15 PM	--	--	42
4:30 PM	--	--	44
4:45 PM	--	--	44
5:00 PM	11	12	48
5:15 PM	11	14	52
5:30 PM	10	16	48
5:45 PM	9	19	47
6:00 PM	5	25	49
6:15 PM	4	26	49
6:30 PM	6	24	49
6:45 PM	6	27	51
7:00 PM	9	31	50
7:15 PM	8	30	53
7:30 PM	9	31	52
7:45 PM	9	33	47
8:00 PM	9	40	47
8:15 PM	9	41	49
8:30 PM	10	37	47
8:45 PM	11	38	48
9:00 PM	12	39	51
9:15 PM	8	44	53
9:30 PM	7	49	52
9:45 PM	3	47	51
10:00 PM	3	50	52
10:15 PM	--	--	50
10:30 PM	--	--	53
10:45 PM	--	--	56
11:00 PM	--	--	61