



May 10, 2018

Real Estate Equities Development, LLC
1400 Corporate Center Curve, Suite 100
Eagan, MN 55121

RE: Village Cooperative of Centennial – Parking Analysis Study

This Parking Analysis Study (Special Study) is for the proposed Village Cooperative of Centennial project located at the northeast quadrant of E. Arapahoe Road and S. Potomac Street in Centennial, CO. The proposed project consists of approximately 74 dwelling units of Senior Adult Housing (ITE Code 252). Per the *Institute of Transportation Engineers (ITE) 9th Edition Trip Generation Report*, the Village Cooperative of Centennial project is anticipated to generate approximately 255 daily weekday trips, 15 AM total peak hour trips, and 19 total PM peak hour trips. This Parking Analysis Study is a supplement to the *Village Cooperative of Centennial Traffic Impact Study* prepared by Kellar Engineering LLC (KE) dated January 15, 2018.

Per the *Village Cooperative of Centennial Traffic Impact Study* and the ITE 9th Edition, the proposed project is not a large peak hour traffic generator. See Table 1. As shown in Table 1, the peak hour trip generation for the Senior Adult Housing land use (ITE Code 252) is low (5 entering vehicles during the AM weekday peak hour and 10 entering vehicles during the PM weekday peak hour).

Additionally, the Institute of Transportation Engineers (ITE) provides guidance on calculating vehicle parking generation rates for land uses in the *ITE Parking Generation – 4th Edition*. Per the ITE Parking Generation manual, 74 dwelling units of Senior Adult Housing land use (ITE Code 252) occupies approximately 43.66 parking stalls in an average weekday peak period. Additionally, the 85th percentile of this land use results in approximately 48.84 parking stalls being occupied in an average weekday peak period. See Table 2.

Table 1: Trip Generation (ITE Trip Generation, 9th Edition)

ITE Code	Land Use	Size	Average Daily Trips		AM Peak Hour Trips						PM Peak Hour Trips					
			Rate	Total	Rate	% In	In	% Out	Out	Total	Rate	% In	In	% Out	Out	Total
252	Senior Adult Housing	74 DU	3.44	255	0.2	34%	5	66%	10	15	0.25	54%	10	46%	9	19
Total				255			5		10	15			10		9	19

DU = Dwelling Units

Table 2: Parking Generation (ITE Parking Generation, 4th Edition)

ITE Code	Land Use	Size	ITE Vehicle Parking Generation Rates		Total Parking Stalls Occupied in Peak Period	
			Average	85th Percentile	Average	85th Percentile
252	Senior Adult Housing	74 DU	0.59	0.66	43.66	48.84

DU = Dwelling Units

Table 3: Parking Space Counts from other Village Cooperative Locations

Village Cooperative Location	Number of Dwelling Units in Building	Total Number of Surface Parking Spaces Provided	Observed Number of Parking Spaces Being Used									
			4/5/18	4/6/18	4/9/18	4/10/18	4/11/18	4/12/18	4/13/18	4/16/18	4/17/18	4/18/18
Albert Lea, MN	50	23	5	5	3	4	4	3	3	3	5	4
Alexandria, MN	28	14	3	4	4	3	3	3	4	4	4	4
Austin, MN	62	30	3	5	5	4	3	6	3	5	7	5
Fergus Falls, MN	49	26	5	12	3	4	5	8	10	8	4	5
Mason City, IA	50	26	4	5	7	4	6	5	5	6	4	1
Red Wing, MN	44	23	4	N/A	4	7	6	4	N/A	5	5	6
Sioux City, IA	44	19	11	5	12	14	6	9	9	N/A	12	8
Wausau, WI	72	48	13	11	22	12	14	12	8	6	9	9
Marshalltown, IA	50	28	10	6	7	7	6	9	6	5	6	4
Cedar Rapids, IA	65	35	6	6	6	9	7	7	12	11	10	10
Crow Creek, IA	61	35	12	9	14	16	17	18	20	17	13	15
Burlington, IA	35	22	7	13	15	8	10	14	12	11	9	11
Cedar Falls, IA	50	28	10	8	8	7	9	9	9	8	6	9
West Des Moines, IA	55	28	8	7	13	10	10	12	14	13	N/A	N/A
Clinton, IA	44	26	7	4	5	9	11	12	8	8	7	8
Asbury, IA	50	26	N/A	6	7	8	7	11	4	7	3	3
Shawnee, KS	53	21	12	13	12	13	19	9	11	12	11	18
Lees Summit, MO	50	33	13	11	13	11	12	12	12	13	12	12
Lenexa, KS	52	31	16	14	16	14	15	15	15	16	15	15
Fort Collins, CO	52	36	N/A									

Parking space counts were also provided by the project team from 19 other active Village Cooperative locations (the Fort Collins, CO building is not yet occupied). Parking space counts were conducted between 10:00 AM – 10:30 AM in the applicable time zone. This information is provided in Table 3. The parking space counts show that none of the other 19 existing Village Cooperative locations require more than 48 parking spaces and all of these existing locations show counts of empty parking spaces observed during the 10 days of recent parking space counts.

Therefore, based upon the data in Table 1, Table 2, and Table 3; and the traffic characteristics associated with the project and associated land use, Kellar Engineering has no objections to the proposed Village Cooperative of Centennial project developing with 121 on-site parking spaces. The proposed 121 parking spaces will be adequate to handle the average on-site peak parking demand for the proposed project.

Please do not hesitate to contact me if you have any questions or need anything further at (970) 219-1602 or skellar@kellarengineering.com.

Respectfully,

Kellar Engineering LLC



May 10, 2018
Sean Kellar, PE, PTOE
Colorado PE #38650

Appendix:

Managed Properties:

Village Cooperative of Alexandria Calvin Anderson, MSM Todd Olson, Maint & Housekeeping	515 Jefferson St., Alexandria, MN 56308 320.219.7592 Hours: 9-1 (M-F)	Alexandria@reeddevelopment.com Regional Manager: Tim Anders
Village Cooperative of Albert Lea Holly Jackson, MSM Jackie Werner, Maintenance Donna Werner, Maintenance (Occ) Robert Kamish, Maintenance (Occ) Cedar Valley Svcs, Housekeeping	2201 Stevens St., Albert Lea, MN 56007 507.373.3039 507.383.7932 Hours: 9-2 (M-F)	AlbertLea@reeddevelopment.com Regional Manager: Tim Anders
Village Cooperative of Ames Open, MSM Kirstie Martin, MSM (Tmp) Kevin Shaw, Maintenance Lisa Booms, Housekeeping	2525 Bobcat Drive, Ames, IA 50014 515.292.4849 Hours: 8-12 (M-F)	Ames@reeddevelopment.com Regional Manager: Mark Anderson
Village Cooperative of Asbury Jeanne Conley, MSM Peter Marshall, Maintenance Michael Brooks, Maintenance (Occ) Gina Lary, Housekeeping	5297 Grand Meadow Dr., Asbury, IA 52002 563.582.2544 Hours: 8-12:30 (M-F)	Asbury@reeddevelopment.com Regional Manager: Mark Anderson
Village Cooperative of Austin Norma Beard, MSM Donald Munden, Maintenance Cedar Valley Svcs, Housekeeping	2301 10th St NW, Austin, MN 55912 507.433.1310 Hours: 9-4 (M-F)	Austin@reeddevelopment.com Regional Manager: Tim Anders
Village Cooperative of Burlington Hannah Parrott, MSM Matt Schuler, Maintenance Joanne Vogelgesang, Housekeeping	1431 Cambridge Drive, Burlington, IA 52601 319.752-4457 Hours: 8-12 (M-F)	Burlington@reeddevelopment.com Regional Manager: Mark Anderson
Village Cooperative of Cedar Falls Holly Karr, MSM Joe Jennings, Maintenance Pam Caley, Housekeeping	914 Bluegrass Circle, Cedar Falls, IA 50613 319.277.1533 Hours: 8-12 (M-F)	CedarFalls@reeddevelopment.com Regional Manager: Mark Anderson
Village Cooperative of Cedar Rapids Val Stueber, MSM Julie Squires, Maintenance Doreen Cook, Housekeeping	1230 English Lane NE, Cedar Rapids, IA 52402 319.294.6563 319.651.1530 Hours: 8-1 (M-F)	CedarRapids@reeddevelopment.com Regional Manager: Mark Anderson
Village Cooperative of Clinton Gene Beinke, MSM Dave Willis, Maintenance Caleb Hirl, Maintenance (Occ) Jill Swanson, Housekeeping	1160 14th Ave NW, Clinton, IA 52732 563.219.8656 Hours: 8-12 (M-F)	Clinton@reeddevelopment.com Regional Manager: Mark Anderson
Village Cooperative of Crow Creek Brittany Berrie, MSM James Dixon, Maintenance Royce Young-Monson, Housekeeping	4700 Village Dr., Davenport, IA 52807 563.355.4044 C: 563.449.2879 Hours: 8:30-2:30 (M-F)	CrowCreek@reeddevelopment.com Regional Manager: Mark Anderson
Village Cooperative of Fergus Falls Jennifer Rogholt, MSM Stanley Newton, Maintenance Diane Boese, Housekeeping	1124 Village Cir., Fergus Falls, MN 56537 218.736.7880 Hours: 8-3:30 (M-F)	FergusFalls@reeddevelopment.com Regional Manager: Tim Anders
Village Cooperative of Lee's Summit Amy Hernandez, MSM Richard Smith, Maintenance Mike (Don) Eaton, Maintenance (Occ) Amy Rice, Housekeeping	801 S. Battery Dr., Lee's Summit, MO 64063 816.347.1991 C: 319-321-0951 Hours: 8:30-12:30 (M-F)	LeesSummit@reeddevelopment.com Regional Manager: Jennifer Blake
Village Cooperative of Lenexa Christine Cady, MSM Open, Maintenance James Arbaugh, Maintenance (Occ) Vanessa Morris, Housekeeping	14000 W. 87th St. Pkway, Lenexa, KS 66215 913.227.0469 785.341.3235 Hours: 8:30-12:30 (M-F)	Lenexa@reeddevelopment.com Regional Manager: Jennifer Blake

<p>Village Cooperative of Marshalltown Peggy Kellner, MSM Open, Maintenance Kim McCrary, Housekeeping</p>	<p>915 W Merle Hibbs Blvd., Marshalltown, IA 50158 641.752.4411 Hours: 8-12 (M-F)</p>	<p>Marshalltown@reeddevelopment.com Regional Manager: Mark Anderson</p>
<p>Village Cooperative of Mason City Anna LaValle, MSM Samuel Rungee, Maintenance Laura Craig, Housekeeping</p>	<p>275 N Taft Ave., Mason City, IA 50401 641.423.5840 Hours: 8-12 (M-F)</p>	<p>MasonCity@reeddevelopment.com Regional Manager: Tim Anders</p>
<p>Village Cooperative of Red Wing Denise State, MSM St Brigids, Maintenance St Brigids/GFI Svcs, Housekeeping</p>	<p>2533 Eagle Ridge Dr., Red Wing, MN 55066 651.388.2029 Hours: 8-2 (M-Th)</p>	<p>RedWing@reeddevelopment.com Regional Manager: Tim Anders</p>
<p>Village Cooperative of Shawnee Rose Nibert, MSM Donald Hartford, Maintenance Jennifer Kirk, Housekeeping</p>	<p>12830 Johnson Dr, Shawnee, KS 66216 913.631.0464 Hours: 8:30-12:30 (M-F)</p>	<p>Shawnee@reeddevelopment.com Regional Manager: Jennifer Blake</p>
<p>Village Cooperative of Sioux City Alison Jones, MSM Don Pratt, Maintenance James Deck, Maintenance (Tmp) Open, Housekeeping</p>	<p>1400 Indian Hills Dr., Sioux City, IA 51104 712.258.3176 Hours: 8:30-12:30 (M-F)</p>	<p>SiouxCity@reeddevelopment.com Regional Manager: Tim Anders</p>
<p>Village Cooperative of Wausau Carmen Krueger, MSM Andrew Mondroski, Maintenance Janet Bruck, Housekeeping</p>	<p>1508 Merrill Ave., Wausau, WI 54401 715.675.0287 Hours: 8:30-2 (M-F)</p>	<p>Wausau@reeddevelopment.com Regional Manager: Tim Anders</p>
<p>Village Cooperative of West Des Moines Lori Weber, MSM David Witkowski, Maintenance Dennis Tingwald, Maintenance (Occ) Nicki Hull, Housekeeping</p>	<p>845 S. 60th St., West Des Moines, IA 50266 515.224.7639 C: 515-250-9512 Hours: 8-12 (M-F)</p>	<p>WestDesMoines@reeddevelopment.com Regional Manager: Mark Anderson</p>