

## Memorandum

To: Members of the Zoning Rewrite committee, Cunningham Group, Matt Tucker, Rick Roll

From: Eric Sundquist

RE: Parking standards in the zoning rewrite

Date: 2/1/2009

This note follows an Oct. 20, 2008, meeting that included Tim Gruber, Robbie Webber, Matt Tucker, Rick Roll, Suzanne Rhees, and myself, and several subsequent conversations. The meeting addressed two major concerns with regard to parking: 1) Snow removal in bike parking areas, and 2) car parking standards. The former was addressed at the meeting, while discussion on the second raised several questions, prompting this memo. Below I suggest: 1) a way to decouple car and bike parking, so that changing standards for one does not affect the other, 2) revision of car parking minimums and maximums, 3) a revision of shared car parking rules, and 4) a revision of car parking placement and materials standards.

**1. Bike and car parking.** Some current bike parking minimums are tied to the number of required car parking spaces, which prevents adjustments to one standard without affecting the other. A solution is to tie the bike requirement directly to the land use, removing the intervening calculation involving cars. For example, museums must provide one car space per 800 square feet of floor area, and one bike space for every 10 car spaces (with a minimum of two spaces). This requirement converts to one bike space for every 8,000 square feet of floor area (with a minimum of two spaces). Such conversions are shown in Table 1 below.

**Table 1. Converting current bike parking requirements directly to land use.**

Land use	Current bike*	Current auto	Converted bike*
Galleries/museums/libraries	1 per 10 auto	1 per 800 square feet	1 per 8,000 square feet
Places of assembly A (airports, small golf courses, fairgrounds, parks, etc.)	1 per 10 auto	As determined by Zoning Administrator	As determined by Zoning Administrator
Places of assembly B (bowling centers)	1 per 10 auto	5 per lane plus spaces for affiliated uses per relevant standards	1 per every 2 lanes plus spaces for affiliated uses per relevant standards
Places of assembly C (churches)	1 per 10 auto	1 per 10 seats, or per 180 lineal inches of pew, or per 70 square feet of floor area for seating	1 per 100 seats, or per 1,800 lineal inches of pew, or per 700 square feet of floor area for seating
Places of assembly D (amusement establishments, convention halls, swim/tennis clubs, community centers, non-school stadiums, etc.)	1 per 10 auto	10 percent of capacity	1 percent of capacity

Places of assembly E (school and college stadiums, auditoriums, etc.)	1 per 10 auto	1 per 6 seats, or per 108 lineal inches of pew, or per 42 square feet of floor area for seating	1 per 60 seats, or per 1,080 lineal inches of pew, or per 420 square feet of floor area for seating
Places of assembly F (indoor theaters)	1 per 10 auto	1 per 4 seats	1 per 40 seats
Places of assembly G (restaurants, taverns, meeting halls)	1 per 10 auto	30 percent of capacity	3 percent of capacity
Commercial/manufacturing A (agricultural, materials processing, construction offices, highway maintenance shops, junkyards, laboratories, truck terminals, printing establishments, rail yards, warehouses, weigh stations, wholesale establishments, etc.)	1 per 10 auto	1 per 2 employees	1 per 20 employees
Commercial/manufacturing B (automobile laundries)	1 per 10 auto	1 per 2 employees plus 1 for the manager, plus spaces for cars being washed	1 per 20 employees, counting the manager
Commercial/manufacturing C (auto repair shops)	1 per 10 auto	1 per 2 employees plus 1 for the manager, plus spaces for cars being repaired	1 per 20 employees, counting the manager
Commercial/manufacturing D (banks, medical clinics, retail stores, etc.)	1 per 10 auto	1 per 300 square feet of floor area	1 per 3,000 square feet of floor area
Commercial/manufacturing E (cartage and delivery)	1 per 10 auto	1 per 2 employees, plus spaces for vehicles housed on the premises	1 per 20 employees
Commercial/manufacturing F (schools of music, dance and trade)	1 per 10 auto	1 per 2 employees plus one per 5 students at maximum attendance	1 per 20 employees plus one per 50 students at maximum attendance
Commercial/manufacturing G (funeral parlors)	1 per 10 auto	8 per parlor, plus spaces for vehicles housed on the premises	2 per parlor*
Commercial/manufacturing H (business offices)	1 per 10 auto	1 per 400 square feet of floor area	1 per 4,000 square feet of floor area
* Minimum number of bike spaces is 2, per Sec. 28.11(3)(l)1			

**2. Car parking minimums and maximums.** As we discussed in October, cities around the country are revisiting parking standards in an attempt to reduce costs and move toward sustainability. Ideally, we would remove minimums and let the market dictate parking provision, using residential parking permits, meters, and other tools to avoid conflicts over street parking where needed. We might also ratchet down maximums. If a blanket no-minimum policy seems too great a change, however, another choice would be to find guidance in other cities' experience. Fortunately, Wisconsin offers an example of a city that has done quite well with relatively low minimums for many years – Milwaukee. While Milwaukee's land use classifications do not match Madison's exactly,

Table 2 shows our standards with the closest equivalents in Milwaukee. With only a few exceptions, Milwaukee's minimums improve on ours. (In some cases the metrics do not match and some further work would be needed to judge the two on a similar standard.) Milwaukee has tighter maximums on residential and retail, as well, but no maximums on office uses. A starting point then, would be to consider adopting Milwaukee's minimums and maximums where they improve on Madison's, and to retain existing minimums and maximums that are below Milwaukee's.

**Table 2. Madison and Milwaukee parking standards compared.**

	Use	Current Madison		Milwaukee	
		Min	Max	Min	Max
Residential (subsection 2)	DU -- efficiency detached/duplex	.5 - 1	None	0	4
	DU -- efficiency multifamily	.5 - 1	None	.66-1	None
	DU -- 1 BR detached/duplex	1 - 1.5	None	0	4
	DU -- 1 BR multifamily	1 - 1.5	None	.66-1	None
	DU -- 2 BR detached/duplex	1 - 1.75	None	0	4
	DU -- 2 BR multifamily	1 - 1.75	None	.66-1	None
	DU -- 3+ BR detached/duplex	1 - 2	None	0	4
	DU -- 3+ BR multifamily	1 - 2	None	.66-1	None
	DU in fraternity/sorority	1	None		
	DU in hotel/motel	1	None		
	LR	.33-1	None		
	LR -- in private club	30 percent of capacity	None		
	LR -- in fraternity/sorority	0.33	None	0.5	None
	LR -- in hotel/motel	1	None	1 per 1,000 square feet	
Community service and institutional (subsection 3)	Art galleries, musuems, libraries	1 per 800 square feet	1 per 400 square feet*	None	None
	Colleges, universities, day care centers, K-12 schools	1 per 2 employees	1 per 1 employee*	None	None
	Convalescent/nursing homes, homes for aged and children, sanitariums	1 per 2 beds	1 per bed*	1 per 4 beds	None
	Hospitals	1.5 per bed	3 per bed*	1 per 4 beds	None

Places of assembly, recreation, entertainment and amusement (subsection 4)	Airports, fairgrounds, carnivals, athletic fields, land/water preserves, golf courses, parks, playgrounds	As determined by Zoning Administrator	As determined by Zoning Administrator	None	None
	Bowling centers	5 per lane	10 per lane*	1 per 1,000 square feet	3.5 per 1,000 square feet
	Bars, restaurants in bowling centers	As determined by Zoning Administrator, based on standards for similar uses	As determined by Zoning Administrator, based on standards for similar uses	1 per 1,000 square feet	3.5 per 1,000 square feet
	Churches	1 per 10 seats, or per 180 lineal inches of pew, or per 70 square feet of floor area for seating	1 per 5 seats, or per 90 lineal inches of pew, or per 35 square feet of floor area for seating*	1 per 6 seats	None
	Misc. "amusement establishments," including dance halls, driving ranges, gymnasiums, skating rinks, convention halls, swim/tennis clubs, community centers, and non-school arenas	10 percent of capacity	20 percent of capacity*	1 per 1,000 square feet for indoor; as required by board for outdoor	3.5 per 1,000 square feet for indoor; as required by board for outdoor
	School stadiums, gyms, stands	1 per 6 seats, or per 108 lineal inches of seating, or per 42 square feet of floor area for seating	1 per 3 seats, or per 56 inches of seating, or per 42 square feet of floor area of seating*	None	None

	Indoor theaters	1 per 4 seats	1 per 2 seats	1 per 100 square feet in auditorium	None
	Restaurants, taverns, meeting halls	30 percent of capacity	60 percent of capacity*	1 per 1,000 square feet	3.5 per 1,000 square feet
Commercial and manufacturing (subsection 5)	Agricultural, materials processing, construction offices, highway maintenance shops, junkyards, laboratories, truck terminals, printing establishments, rail yards, warehouses, weigh stations, wholesale establishments, etc.	1 per 2 employees	1 per employee*	None	None
	Automobile laundries	1 per 2 employees plus 1 for the manager, plus spaces for cars being washed	1 per employee plus 2 for the manager, plus spaces for cars being washed*	None	None
	Auto repair shops	1 per 2 employees plus 1 for the manager, plus spaces for cars being repaired	1 per employee plus 2 for the manager, plus spaces for cars being repaired*	None	None
	Banks, retail stores, etc.	1 per 300 square feet of floor area	1 per 150 square feet of floor area*	1 per 1,000 square feet	3.5 per 1,000 square feet
	Medical clinics	1 per 300 square feet of floor area	1 per 150 square feet of floor area*	1 for each 500 square feet of first 2,000, plus 1 for each additional 1,000 square feet	None

	Cartage and delivery	1 per 2 employees, plus spaces for vehicles housed on the premises	1 per employee, plus space for vehicles housed on the premises*	None	None
	Schools of music, dance and trade	1 per 2 employees plus one per 5 students at maximum attendance	1 per employee plus 1 per 2.5 students at maximum attendance*	None	None
	Funeral parlors	8 per parlor, plus spaces for vehicles housed on the premises	16 per parlor, plus spaces for vehicles house on the premises	4, or 1 per 100 sqyare feet of chapel	None
	Business offices	1 per 400 square feet of floor area	1 per 200 square feet of floor area*	1 for each 500 square feet of first 2,000, plus 1 for each additional 1,000 square feet	None
Miscellaneous (subsection 6)	Cemeteries	10 per interment per hour	20 per interment per hour*	None	None
	Convents/monasteries	As determined by Zoning Administrator, based on standards for similar uses	As determined by Zoning Administrator, based on standards for similar uses	1	None
	Fire stations, utility/public service, radar, sewage treatment plants	1 per 2 employees, plus space for the public as determined by the Zoning Administrator	1 per employee, plus space for the public as determined by the Zoning Administrator*	1 for each 500 square feet of first 2,000, plus 1 for each additional 1,000 square feet	None

	Bed and breakfasts	1 per guest room, plus spaces for family of owner	2 per guest room, plus spaces for family of owner*	1 per room plus 1	None
			*Max as shown or 15, whichever is greater.		



**3) Shared parking rules.** Though city staff laudably attempts to find shared-parking solutions in order to minimize the area devoted to parking, our current standards work against such arrangements by requiring that shared parking equal the sum of the requirements for each use (Sec. 28.11[3][d]). So if a church, which needed 100 spaces on Sundays, shared its lot with an office building, which needed 100 spaces on weekdays, the ordinance would require 200 spaces in the lot. Many cities have formal means of determining shared parking requirements that avoid this problem. An example is Minneapolis, whose ordinance follows:

#### ARTICLE IV. REDUCING OFF-STREET PARKING REQUIREMENTS

541.190. Shared parking. The zoning administrator may authorize a reduction in the total number of required parking spaces for two (2) or more uses jointly providing off-street parking when their respective hours of peak operation do not overlap. Shared parking shall be subject to the location requirements of section 541.250 and the following conditions:

- (1) *Computation.* The number of shared spaces for two (2) or more distinguishable land uses shall be determined by the following procedure:
  - a. Multiply the minimum parking required for each individual use, as set forth in Table 541-1, Specific Off-Street Parking Provisions, by the appropriate percentage indicated in Table 541-2, Shared Parking Calculations, for each of the six (6) designated time periods.
  - b. Add the resulting sums for each of the six (6) columns.
  - c. The minimum parking requirement shall be the highest sum among the six (6) columns resulting from the above calculations.
  - d. Select the time period with the highest total parking requirement and use that total as the shared parking requirement.
- (2) *Other uses.* If one (1) or all of the land uses proposing to make use of shared parking facilities do not conform to the general land use classifications in Table 541-2, Shared Parking Calculations, as determined by the zoning administrator, then the applicant shall submit sufficient data to indicate the principal operating hours of the uses. Based upon this information, the zoning administrator shall determine the appropriate shared parking requirement, if any, for such uses.
- (3) *Process.* An application for shared parking shall be submitted on a form approved by the zoning administrator, as specified in Chapter 525, Administration and Enforcement.

**Table 541-2 Shared Parking Calculations**

TABLE INSET:

General Land Use Classification	Weekdays			Weekends		
	1:00 a.m.-- 7:00 a.m.	7:00 a.m.-- 6:00 p.m.	6:00 p.m.-- 1:00 a.m.	1:00 a.m.-- 7:00 a.m.	7:00 a.m.-- 6:00 p.m.	6:00 p.m.-- 1:00 a.m.
Office	5%	100%	5%	0%	15%	0%
Retail sales and services	0%	100%	80%	0%	100%	60%
Restaurant (not 24 hr)	20%	70%	100%	30%	75%	100%

Residential	100%	60%	100%	100%	75%	90%
Theater	0%	60%	100%	0%	80%	100%
Hotel						
Guest rooms	100%	55%	100%	100%	55%	100%
Restaurant/lounge	40%	60%	100%	50%	45%	100%
Conference rooms	0%	100%	100%	0%	100%	100%
Religious institution	0%	25%	50%	0%	100%	50%

**4) Placement and materials standards.** I understand from the briefing by Cunningham at the Jan. 26 Plan Commission meeting that the current draft of the code rewrite would require parking at the side or back of many or all retail and office buildings, a move that comports well with current thinking on sustainable infrastructure. I hope this provision is widely applied.

I also understand the Rewrite Committee is considering loosening Madison's ban on pervious pavements (Sec. 28.11[3][h]2). This would be another important reform to lessen runoff-borne pollution and the need for costly stormwater infrastructure.

-----Original Message-----

From: Mike Slavney [mailto:MSlavney@vandewalle.com]  
Sent: Tuesday, February 03, 2009 9:04 AM  
To: Roll, Rick  
Subject: RE: Zoning Rewrite -- Parking Standards / Sustainability

Thanks Rick

Please distribute these thoughts to Cunningham, City Staff, the ZCRAC and others on the list.

I support the shared parking approach -- we need a few more typical land use types listed.

I would also be interested in a maximum parking limit and other ways to get infiltration.

The Village of Oregon requires a conditional use permit to exceed the calculated number of spaces by more than 20%.

The Village of Oregon also allows a reduction in the minimum number of required parking spaces of up to 25% where a site is within 500 feet of a transit stop.

Finally, most of my client communities allow the developer to only improve that portion of the total parking approved/required for the site that is actually needed -- leaving the rest as sod or treeless landscaped area. Where this approach is proposed from the start, the site plan shows the initially unimproved parking spaces as dashed in.

The developer / property owner must demonstrate that the stormwater management system works with the partial improvement approach. Parking on the grass or gravel is not permitted.

Finally, in dealing with local public works directors and consulting and on-staff civil engineers in my client communities, I see a uniform reluctance to accept pervious pavement (due to winter sanding and compaction concerns), I see much broader acceptance of depressed parking lot landscaped areas -- islands, peninsulas and medians -- as "bio-retention" and infiltration basins and swales. The ability to maintain these areas over time must be demonstrated to allow them to count toward the stormwater management calculations. Where proposed as part of the calculations, we are requiring the submittal and staff approval of a long-term maintenance program / commitment for these areas that runs with the property and is recorded.

Finally -- although more of a subdivision ordinance issue, the Village of Cross Plains, and particularly Village Public Works Director Jerry Gray and consulting Engineer Warren Myers seem to be very happy with the combination urban/rural cross section along Gil's Way on the south side of the Village. This street uses curbs and storm inlets feeding into a swale on one side of the road, with a sidewalk on the other side. I believe a 66 foot right-of-way is

used, with the road centerline slightly off-set. I think Ron Klaus of D-Kottke did the design. I have been told that DNR or USGS is monitoring water quality at the low end of the system (just a couple of hundred feet from Black Earth Creek) and that to-date the approach is exceeding expectations.

Thanks

Mike

-----Original Message-----

From: Roll, Rick [mailto:RRoll@cityofmadison.com]  
Sent: Tuesday, February 03, 2009 8:21 AM  
Subject: FW: Zoning Rewrite -- Parking Standards

Hi,

I'm forwarding this e-mail per Eric's request.

Rick

-----Original Message-----

From: Eric Sundquist [mailto:erics@cow.s.org]  
Sent: Monday, February 02, 2009 11:17 AM  
To: Tucker, Matthew; Roll, Rick  
Cc: Gruber, Timothy; Robbie Webber  
Subject: Zoning Rewrite -- Parking Standards

Hi Matt and Rick,

The attached memo deals with issues raised in a meeting with Cunningham in the fall and several subsequent conversations, including decoupling bike and car parking rules, minimums and maximums for cars, shared parking, and parking lot placement and materials. Please forward it to the Rewrite Committee and to Cunningham for their consideration.

Thanks,

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