

National Committee on Uniform Traffic Control Devices

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Item No.: 20A-GMI-01

NCUTCD Proposal for Changes to the Manual on Uniform Traffic Control Devices

TECHNICAL COMMITTEE: GMI Technical Committee
ITEM NUMBER: 20A-GMI-01
TOPIC: Publicly Accessible Off-Street Parking General Service Signs
ORIGIN OF REQUEST: Resubmission of ITE Parking Council Concept from 2008 with support of International Parking and Mobility Institute, ITE Parking Council and RWSTC Parking Task Force
AFFECTED SECTIONS OF MUTCD: Section 2D.04 Size of Signs
Section 2D.47 Parking Area Guide Sign (NPA 174)
Section 2D.50 Community Wayfinding Signs (NPA 180)
Section 2I.01 Sizes for General Service Signs (NPA 272↓)
Section 2I.02 General Service Signs for Conventional Roads

DEVELOPMENT HISTORY:

- Approved by Technical Committee: 01/09/2020 to Sponsors
- Approved by Technical Committee: 01/14/2021 to Council
- Approved by NCUTCD Council: 01/19/2021

This is a proposal for recommended changes to the MUTCD that has been developed by a technical committee of the NCUTCD. The NCUTCD is distributing it to its sponsoring organizations for review and comment. Sponsor comments will be considered in revising the proposal prior to NCUTCD Council consideration. This proposal does not represent a revision of the MUTCD and does not constitute official MUTCD standards, guidance, or options. If approved by the NCUTCD Council, the recommended changes will be submitted to FHWA for consideration for inclusion in a future MUTCD revision. The MUTCD can be revised only through the federal rulemaking process.

SUMMARY:

This proposal updates changes proposed in the 2008 NPA that led to the 2009 MUTCD parking publicly accessible off-street parking wayfinding and guidance. Currently, the MUTCD include the D4-1 sign that is used for parking wayfinding. At the time of the NPA the proposal was to change this sign to white on blue (similar to a service sign). Since that time, both common practice in the United States and the global practice of displaying wayfinding to publicly accessible parking has become even more unified using the symbology of a white "P" on a circular blue background. This proposal addresses the changes needed to make this the uniform and comprehensive standard for signing of parking wayfinding.

DISCUSSION

A decade ago the ITE Parking Council presented an evaluation of parking symbol signs in the United States and other countries and noted that substantial inconsistency was emerging in the signing of wayfinding to publicly accessible off-street parking. FHWA included a proposal to include the white “P” on a blue background in the NPA prior to the 2009 MUTCD approval. It was not included in the 2009 MUTCD at the time and in the Federal Register it was noted that a comment from NCUTCD expressed a concern from a perceived confusion with police signs (comment 186 on page 66772).



The symbol “P” for parking is consistently utilized in the 2009 MUTCD to designate parking as follows:

- For no parking regulatory signs (R7-2, R8-3 – black P with red circle and slash)
- For parking restriction signs (R7-21 to R7-23 – black P with green circle)
- For truck parking (D9-16 – white P with blue background)
- For recreational and cultural interest parking (R-034 – white P with brown background)



The police sign is the D9-14. It spells out “POLICE” and is commonly utilized. The symbol “P” is not utilized for police in the United States. Even in other countries the word police is spelled out. There is research indicating that the symbol “P” is recognized by the majority of drivers for parking. The W15-1 sign exists for playgrounds and it is a warning sign not a wayfinding device.



Worldwide Uniformity

The use of the symbol “P” for parking is consistently utilized throughout the world. Comparison of over 40 countries¹ show that about 90 percent use “P” (or “E” in Spanish) for parking with a blue background (refer to Table 1). The only exceptions are Brazil and Uruguay who utilize a “E” but in a red circle (inconsistent with MUTCD), and Canada, Philippines and Australia who utilized a green circle or “P”. Throughout the United States at airports, event centers and downtown areas with distributed public parking, the blue background “circle P” is widely utilized.

Basis for Change

There are three changes that are recommended. First is to uniformly utilize the symbol “P” for parking. Second is to uniformly use MUTCD colors by recognizing parking as a general service (blue background) to motorists not a destination (green and white). Third is to uniformly utilize circle shape in parking between regulatory (red), restriction (green) and wayfinding (blue). As vehicle automation technology changes, providing uniform messaging on street, in vehicle and through various communication media improve overall comprehension, recognition and action. Spelling out parking on signs is problematic on several fronts:

¹ Refer to sign comparisons prepared by Wikipedia:

https://en.wikipedia.org/wiki/Comparison_of_European_road_signs

https://en.wikipedia.org/wiki/Comparison_of_MUTCD-influenced_traffic_signs

Table 1. Comparison to Parking Signs in Various Countries

Sign	Country	Sign	Country	Sign	Country	Sign	Country
	Austria		Belgium		Czech Republic		Denmark
	Estonia		Finland		France		Germany
	Greece		Hungary		Iceland		Ireland
	Italy		Luxembourg		Netherlands		Norway
	Poland		Portugal		Romania		Russia & Belarus
	Slovakia		Slovenia		Spain		Sweden
	Switzerland & Liechtenstein		Turkey		Ukraine		United Kingdom
	Argentina		Australia		Brazil		Canada
	Chile		Columbia		Indonesia		Japan
	Malaysia		Mexico		New Zealand		Panama
	Peru		Philippines		Uruguay		

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- It is not multi-lingual where the symbol “P” is more universal and become more recognizable than in 2009.
- It takes up space on wayfinding signs trying to deliver concise messaging in limited sign “real estate” – to be consistent the use of the symbol “P” can be more quickly, readily and broadly be applied for wayfinding signs, pay-to-park situations, dynamic message signs and in-vehicle navigation.
- Spelling the word is inconsistent with already established MUTCD parking signs which are in the 2009 manual (regulatory, restriction and wayfinding as noted above). Uniformity between all three functions – regulatory, restriction and wayfinding – leads to the use of the symbol “P” for parking. Uniformity here is important with future automated vehicles.

- It is inconsistent with worldwide application of the symbol “P” for parking.

No one stays in a parking facility, any more than they do a gas station, restaurant, motel, campground or disabled parking space – the others of which are all general motorist service signs. Parking is not a city, route, river, park, forest, historical site or important destination (criteria from 2D.02 for application of guide signs). Parking can be an element of a wayfinding sign but by itself is a place where vehicles are temporarily stored. Parking is a service you commonly pay for or is provided free as a service to motorists, not their destination and is commonly ancillary to a destination. Parking should be a blue background, square (or rectangular) sign with a white border. Parking regulatory signs are red and parking restriction signs are green.

Finally, the uniform shape of the parking symbol on all existing regulatory and restriction signs are a circle framing the “P” within a rectangular or square sign. To be consistent in the application of parking messaging a circle, the wayfinding sign should follow these shapes using a white circle with the parking symbol.

In summary, it is recommended that parking be treated as a general motorist service, that it be designated by the symbol “P” with a circle and used on a blue background square or rectangular sign.

Research to Date

Pooled Fund Studies: The use of the white “P” and blue background has been studied on two separate occasions. In 2017 the pooled fund study² included human factors research on numerous alternative symbol recreational and cultural interest signs (twelve). The “P” symbol for parking was one of three signs that had over 85% accurate comprehension (responses for the “P” symbol were parking, police station or other). The “P” symbol had the highest legibility score of the various other sign symbols tested. This was part of an evaluation of over different 80 symbols. In 2008 the pooled fund study³ conducted research on truck parking signs. The signs all included the “P” symbol and some form of truck symbol. All three “P” signs had 92% “clearly understood” ratings (the 2nd highest comprehension score of all the 36 various sign alternatives tested in this study).

2019 TTI Distractor Study: As a part of a broader study of freeway human factors, TTI included a series of distractor questions. One of those distractor questions pertained to parking signs. Using the square blue sign with a white circle and white “P” symbol 320 participants were asked if they saw such a sign where would it be directing you to? There were six options provided including police station, park, picnic area, playground, parking lot or garage, and don’t know. The participants of the study⁴ were answering several questions regarding freeway research had a wide range of driving frequency (from 1-4 times a month to at least twice a day). The surveyed locations were from College Station, TX, Columbus, OH, Dallas, TX, Las Vegas, NV and Raleigh, NC. The majority (98%) had English as their primary language. The most

² Balk, Kissner, Katz, Comprehension and Legibility of Selected Symbol Signs Phase IV, Traffic Control Devices Pooled Fund Study, December 2017

³ Katz, Hawkins, Kennedy, Howard, Design and Evaluation of Selected Symbol Signs, Traffic Control Devices Pooled Fund Study, May 2008.

⁴ Chrysler, Fitzpatrick, Texas Transportation Institute, 2019, unpublished research.

common response from the survey was parking lot or garage (56%) which increase as the driving frequency increased. All other responses were either near zero or were 1/3 or less of the parking response.

Applications

The use of white “P” symbol with circle blue parking signs are common in many United States urban areas. Their use is two-fold:

1. Provide wayfinding similar to general service sign application to direct motorist to parking facilities that are publicly accessible⁵.
2. Provide access/entrance identification to publicly accessible parking at the point of entry.

The use of parking general service signs for wayfinding is a MUTCD application. The use of the parking symbol to identify the entrance/access point to a parking facility has not been subject of the MUTCD yet it is an important message provided to motorist to identify proper lane and turning needs to enter facilities from public roads and site roadways open to public travel. This becomes more important with vehicle automation. By unifying these two functions, safety and operation of locating parking facilities for motorist, given complex urban environments, can be improved (proper approach lane, better advance identification of access).

Wayfinding using the general motorist service sign could include use of arrows (rectangular sign) or combination of parking facility name. This would replace the existing D4-1 sign in Section 2D.47 with a new sign in Section 2I.02 as noted below.

The design of the sign would be a white font and circle using an E-modified font with a blue background (pantone 294, within the FHWA blue color box). Character of the “P” and circle should follow Standard Highway Signs that already utilize the P symbol.⁶

RECOMMENDED MUTCD CHANGES

The following present the proposed changes to the current MUTCD within the context of the current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and proposed deletions from the MUTCD are shown in ~~red strikethrough~~. Changes previously approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double underline for additions and ~~green double strikethrough~~ for deletions. In some cases, background comments may be provided with the MUTCD text. These comments are indicated by [highlighted light blue in brackets].

⁵ Publicly accessible means that any motorist can utilized the facility (free or paid) without restriction. For example, customers, visitors, and general public can access the facility. Parking that is exclusive to certain users is not publicly accessible (employee only, resident only).

⁶ Standard Highway Signs, US DOT, 2004 Edition, page 1-104 for R8-3a and 2012 Supplement R7-21, R7-23 and D9-16.

PART 2. SIGNS

CHAPTER 2D. GUIDE SIGNS - CONVENTIONAL ROADS

Section 2D.04 Size of Signs

Table 2D-1. Conventional Road Guide Sign Sizes

Sign	Sign Designation	Section	Conventional Road	Minimum	Oversized
Parking Area	D4-1	2D.49	30 x 24	18 x 15	—
Park-Ride	D4-2	2D. 50 <u>48</u>	30 x 36	24 x 30	36 x 48

~~Section D.47 Parking Area Guide Sign (D4-1)~~

~~Option:~~

~~01—The Parking Area (D4-1) guide sign (see Figure 2D-10) may be used to show the direction to a nearby public parking area or parking facility. [Text moved to paragraph 12a of Section 2I.02]~~

~~Standard:~~

~~02—If used, the Parking Area (D4-1) guide sign shall be a horizontal rectangle with a standard size of 30 x 24 inches, or with a smaller size of 18 x 15 inches for minor, low-speed streets. It shall carry the word PARKING, with the letter P five times the height of the remaining letters, and a directional arrow. The legend and border shall be green on a retroreflectorized white background.~~

~~Guidance:~~

~~03—If used, the Parking Area guide sign should be installed on major thoroughfares at the nearest point of access to the parking facility and where it can advise drivers of a place to park. The sign should not be used more than four blocks from the parking area. [Text moved to paragraph 12a of Section 2I.02].~~

~~[Remove D4-1 from Figure 2D-10, replaced by D9-XX in Figure 2I-1 – remove D4-1 text from figure].~~

Figure 2D-10. Street Name and ~~Parking Signs~~ [Park-Ride Signs](#)



Section 2D.50 Community Wayfinding Signs

[Skip To Paragraph 32]

Standard:

32 Except for signs that are intended to be viewed only by pedestrians, bicyclists stopped out of the flow of traffic, or occupants of parked vehicles, Internet and e-mail addresses, including domain names and uniform resource locators (URL), shall not be displayed on any community wayfinding guide sign or sign assembly.

33 The arrow location and priority order of destinations shall follow the provisions described in Sections 2D.08 and 2D.37. Arrows shall be of the designs provided in Section 2D.08.

Option:

34 Pictographs (see definition in Section 1A.13) may be used on community wayfinding guide signs.

Standard:

35 If a pictograph is used, its height shall not exceed two times the height of the upper-case letters of the principal legend on the sign.

36 Except for pictographs, symbols that are not approved in this Manual for use on guide signs shall not be used on community wayfinding guide signs.

37 Business logos, commercial graphics, or other forms of advertising (see Section 1A.01) shall not be used on community wayfinding guide signs or sign assemblies.

Guidance:

37a When used on community wayfinding signs, publicly accessible parking wayfinding should use the parking symbol (see Section 2I.02 and refer to Figures 2D-19 and 2D-20).

Option:

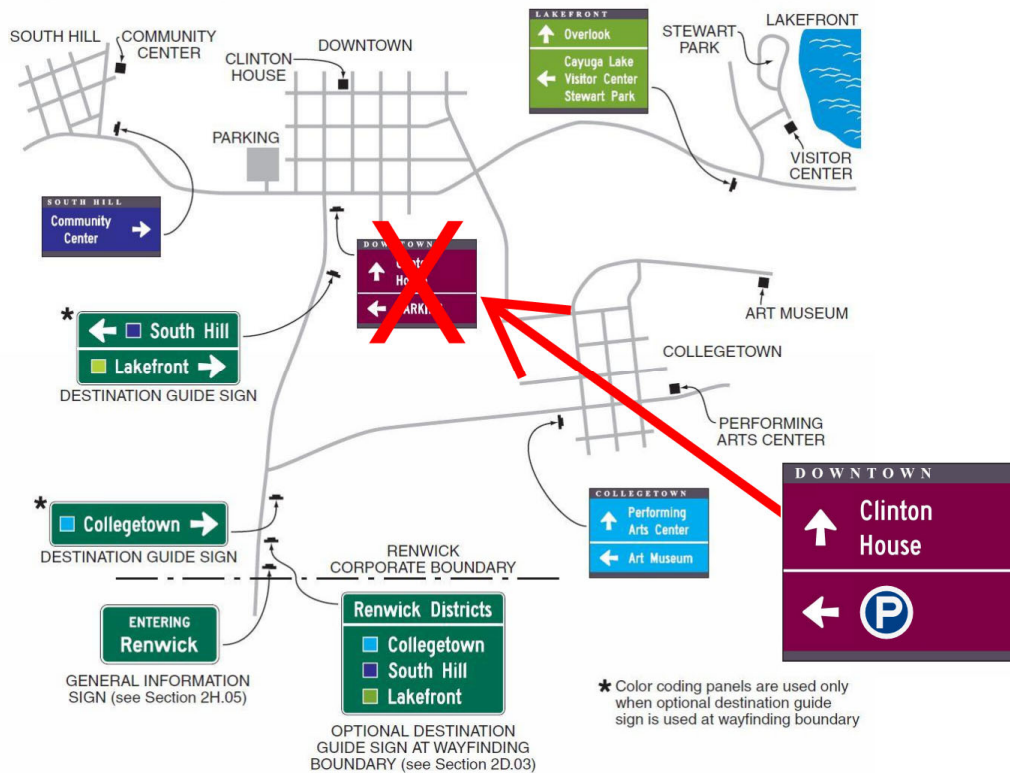
38 Other graphics that specifically identify the wayfinding system, including identification enhancement markers, may be used on the overall sign assembly and sign supports.

218 [Modify Figures 2D-19 and 2D-20 as shown below](#)

Figure 2D-19. Example of a Community Wayfinding Guide Sign System
Showing Direction from a Freeway or Expressway



219 Figure 2D-20. Example of a Color-Coded Community Wayfinding Guide Sign System



CHAPTER 2I. GENERAL SERVICE SIGNS

Section 2I.01 Sizes of General Service Signs

Table 2I-1. General Service Sign and Plaque Sizes

Sign or Plaque	Sign Designation	Section	Conventional Road	Freeway or Expressway
Parking	D9-XX	2I.02	24 x 24	30 x 30
Parking Plaque	D9-XXP	2I.02	12 x 24	12 x 30

Section 2I.02 General Service Signs for Conventional Roads

Support:

01 On conventional roads, commercial services such as gas, food, and lodging generally are within sight and are available to the road user at reasonably frequent intervals along the route. Consequently, on this class of road there usually is no need for special signs calling attention to these services. Moreover, General Service signing is usually not required in urban areas except for hospitals, law enforcement assistance, tourist information centers, [parking](#), and camping.

Option:

02 General Service signs (see Figure 2I-1) may be used where such services are infrequent and are found only on an intersecting highway or crossroad.

Standard:

03 All General Service signs and supplemental sign panels shall have white letters, symbols, arrows, and borders on a blue background.

Figure 2I-1. General Service Signs and Plaques



[Skip To Paragraph 10]

Standard:

Except as provided in paragraph 12a, Symbols and word message General Service legends shall not be intermixed on the sign. The Pharmacy (D9-20) sign shall only be used to indicate the availability of a pharmacy that is open, with a State-licensed pharmacist present and on duty, 24 hours per day, 7 days per week, and that is located within 3 miles of an interchange on the Federal-aid system. The D9-20 sign shall have a 24 HR (D9-20aP) plaque mounted below it.

Support:

Formats for displaying different combinations of these services are described in Section 2I.03.

Option:

If the distance to the next point at which services are available is 10 miles or more, a NEXT SERVICES XX MILES (D9-17P) plaque (see Figure 2I-2) may be installed below the General Service sign.

Figure 2I-2. Example of Next Services Plaque



D9-17P

Guidance:

The parking symbol of a white P on a blue background enclosed in a circular white border (minimum 24 inch) should be used at the entrance of an off-street, publicly accessible parking area.

Option:

The Parking Area (D4-1 D9-XX) guide sign (see Figure 2D-10 2I-1), with accompanying Advanced Turn and Directional Arrow Auxiliary signs, may be used installed on approach routes to show the direction to a nearby publicly accessible parking areas. [Paragraph 12a moved from paragraphs 01 and 03 from Section 2D-47] For large parking areas, the Parking (D9-XX) sign may be supplemented with a parking facility name or logo and may include a changeable message sign element showing the number of available spaces and/or parking fee with a letter height for numeric digits of at least six inches.

The Parking (D9-XX) sign may be supplemented by an educational plaque placed below the D9-XX sign.

The International Symbol of Accessibility for the Handicapped (D9-6) sign may be used beneath General Service signs where paved ramps and rest room facilities accessible to, and usable by, the physically handicapped persons with disabilities are provided.

Guidance:

When the D9-6 sign is used in accordance with Paragraph 13, and van-accessible parking is available at the facility, a VAN ACCESSIBLE (D9-6P) plaque (see Figure 2I-1) should be mounted below the D9-6 sign.