PUBLIC NOTICE & AGENDA
BELOIT PLAN COMMISSION
City Hall Forum - 100 State Street, Beloit, WI 53511
7:00 PM
Wednesday, February 19, 2025

1. CALL TO ORDER AND ROLL CALL

2. MINUTES

   2.a. Consideration of the minutes of the February 5, 2025 Plan Commission meeting
   Attachment

3. PUBLIC HEARINGS

   3.a. Consideration of Ordinance No. 3864 amending the Zoning District Map of the City of Beloit for the property located at 1014 Masters Street
   Attachment

   3.b. Consideration of Resolution 2025-06 authorizing an extension for the Conditional Use Permit to allow a drive-in use at 1450 Fourth Street
   Attachment

   3.c. Consideration of Resolution 2025-03 approving a Conditional Use Permit to allow Liquor Sale for the property located at 1623 Park Avenue
   Attachment

   3.d. Consideration of Resolution 2024-035 approving an exception to Sections 30.09, 30.10, 30.35(2)(c), and 30.40(2)(c) of the Outdoor Sign Regulations for the property located at 2825 Prairie Avenue
   Attachment

4. REPORTS

   4.a. Consideration of Resolution 2025-07 approving a two-lot Extraterritorial Certified Survey Map for parcels 6-2-450.549.1 and 6-2-450.549.2 located on the 3100 block of South Bartells Drive in the Town of Beloit
   Attachment

5. STATUS REPORT ON PRIOR PLAN COMMISSION ITEMS
   Rezoning 423 St. Lawrence Avenue

6. FUTURE AGENDA ITEMS
   Annexation - 2016 E Bradley Street

7. ADJOURNMENT

** Please note that, upon reasonable notice, at least 24 hours in advance, efforts will be made to accommodate the needs of disabled individuals through appropriate aids and services. For additional information to request this service, please contact the City Clerk's Office at 364-6680, 100 State Street, Beloit, WI 53511.

MINUTES
PLAN COMMISSION
City Hall Forum - 100 State Street, Beloit, WI 53511
7:00 PM
Wednesday, February 5, 2025

1. **CALL TO ORDER AND ROLL CALL**
Chairperson Ramsden called the meeting to order at 7:00 PM. Commissioners Ramsden, Winkelmann, Anderson, Jacobsen, and Councilor Day were present. Commissioners Elliott, Abarca, and Flesch were absent.

2. **MINUTES**
2.a. **Consideration of the minutes of the January 22, 2025 Plan Commission meetings**
Commissioner Jacobsen made a motion to approve the Minutes, seconded by Commissioner Anderson. Motion prevailed, voice vote (4-0).

3. **PUBLIC HEARINGS**
3.a. **Consideration of Ordinance No. 3863 amending the Zoning District Map of the City of Beloit for the property located at 1990 E Bradley Street**
Community Development Director, Julie Christensen, presented the staff report and recommendation.

Chairperson Ramsden opened and closed the public hearing.

Commissioner Anderson made a motion for approval, seconded by Commissioner Winkelmann. Motion carried, voice vote (4-0).

3.b. **Consideration of Ordinance No. 3861 amending the Zoning District Map of the City of Beloit for the properties located at 717 and 725 Chapin Street**
Community Development Director, Julie Christensen, presented the staff report and recommendation.

Chairperson Ramsden opened the public hearing.

Dan Schooff, 1955 Pebble Dr explained that the property located at 725 Chapin Street is under contract with a local family from just outside the City of Beloit, who are eagerly awaiting ownership. Additionally, both 722 Chapin and the Bushnell house are under contract. Four properties remain to be sold, with two currently on the market and two yet to be listed.

Chairperson Ramsden closed the public hearing.

Commissioner Jacobsen made a motion for approval, seconded by Commissioner Anderson. Motion carried, voice vote (4-0).

3.c. **Consideration of Ordinance No. 3862 amending the Zoning District Map for the City of Beloit for the property located at 113 Bluff Street**

Community Development Director, Julie Christensen, presented the staff report and recommendation.

Commissioner Anderson noted that the only reason the Zoning District Map was denied last time was that it did not align with the Comprehensive Plan. Ms. Christensen explained that the Comprehensive Plan designated the area as Parks and Open Space, and at the time, rezoning this property to R-2 did not make sense. However, the new Comprehensive Plan includes a goal to allow buildings originally built as a duplex to be used as a duplex. We will be updating the Zoning Ordinance to reflect this. While the zoning ordinance is being revised, we will be supporting rezoning such as this one. However, we do not intend to recommend additional units beyond what was originally built.

Chairperson Ramsden opened the public hearing.

Jaron Bertelsen, speaking on behalf of Mary Molique, indicated that both sides of the property have been vacant since 2018. In 2022, Mary applied for R-2 zoning, and at that time, the Comprehensive Plan and Land Use Map indicated a proposed park. Currently, the unit is designated for single-family use, but it was originally built and designed as a two-family residence in 1945. The property is under contract, and if the zoning is approved, an investment would be made to update the interior. While the exterior appears in good condition, approximately $50,000 is needed for renovations to make it suitable for rental and align with market rates.

Chairperson Ramsden closed the public hearing.

Commissioner Anderson made a motion for approval, seconded by Commissioner Jacobsen. Motion carried, voice vote (4-0).

4. **REPORTS**

There are no reports to consider.

5. **STATUS REPORT ON PRIOR PLAN COMMISSION ITEMS**

Julie Christensen provided an update on items previously reviewed by the Commission.

6. **FUTURE AGENDA ITEMS**
Julie Christensen outlined the future agenda items. The next meeting is scheduled for February 19, 2025.

7. **ADJOURNMENT**
Commissioner Winkelman made a motion to adjourn the meeting, seconded by Commissioner Anderson at 7:14PM. Motion carried, voice vote (4-0).

Mike Ramsden, Chairperson

REPORT TO THE PLAN COMMISSION

Plan Commission Meeting Date: February 19, 2025

Agenda Item: 3.a.

File Number: ZMA-2025-04

General Information

Applicant: The City of Beloit

Owner: Brian and Mary Davies

Address/Location: 1014 Masters Street

Applicant's Request/Proposal: Zoning Map Amendment to assign a zoning classification of R-1A, Single Family Residential District, for the property located at 1014 Masters Street in the City of Beloit.

Staff Analysis

Existing Site Conditions: The City Council adopted Ordinance 3753 annexing the subject property to the City of Beloit on June 6, 2022. The subject property was annexed at the owner's request for access to City of Beloit sewer service.

Surrounding Land Use and Zoning: The attached Location and Zoning Map illustrates the property's location and the zoning of the surrounding area, which is situated south of Liberty Avenue and west of Masters Street. To the north, the property is adjacent to land zoned R-1A, Single-Family Residential District within the City of Beloit, which consists of single-family residential development. To the south and west, the surrounding properties are zoned R-1, Single-Family Residential District within the Town of Beloit, also developed with single-family residences. To the east, the adjacent land is similarly zoned R-1, Single-Family Residential District within the Town of Beloit but remains vacant residential land.

City of Beloit Comprehensive and Strategic Plan: The Future Land Use Map of the Comprehensive Plan recommends *Established Neighborhood* for the parcel, which is consistent with the proposed zoning and existing land uses.

Future Zoning Classification: A temporary zoning classification of R-1A, Single Family Residential District was assigned at the time of annexation as allowed by Section 66.0217(8) of Wisconsin Statutes. The proposed ordinance will assign a permanent zoning classification of R-1A.

Notice of the proposed Zoning Map amendment was sent to the surrounding parcels within 150 feet of the subject parcel. No comments were received as of the publishing of this report.

Zoning Map Amendment Findings of Fact: Based on Section 2-304 of the Zoning Ordinance, the Plan Commission shall make a recommendation based on the following considerations:

1. **The existing use of property within the general area of the subject property.**
   The existing use of the property is single-family residential, and the surrounding uses are primarily single-family residences.

2. **The zoning classification of property within the general area of the subject property.**
   The proposed zoning map amendment to assign City of Beloit R-1A, Single Family Residential District zoning to 1014 Masters Street is consistent with the adjacent R-1A, Single Family Residential District zoning and residential uses in the City, as well as adjacent R-1, Residential One District zoning and residential uses in the Town of Beloit.

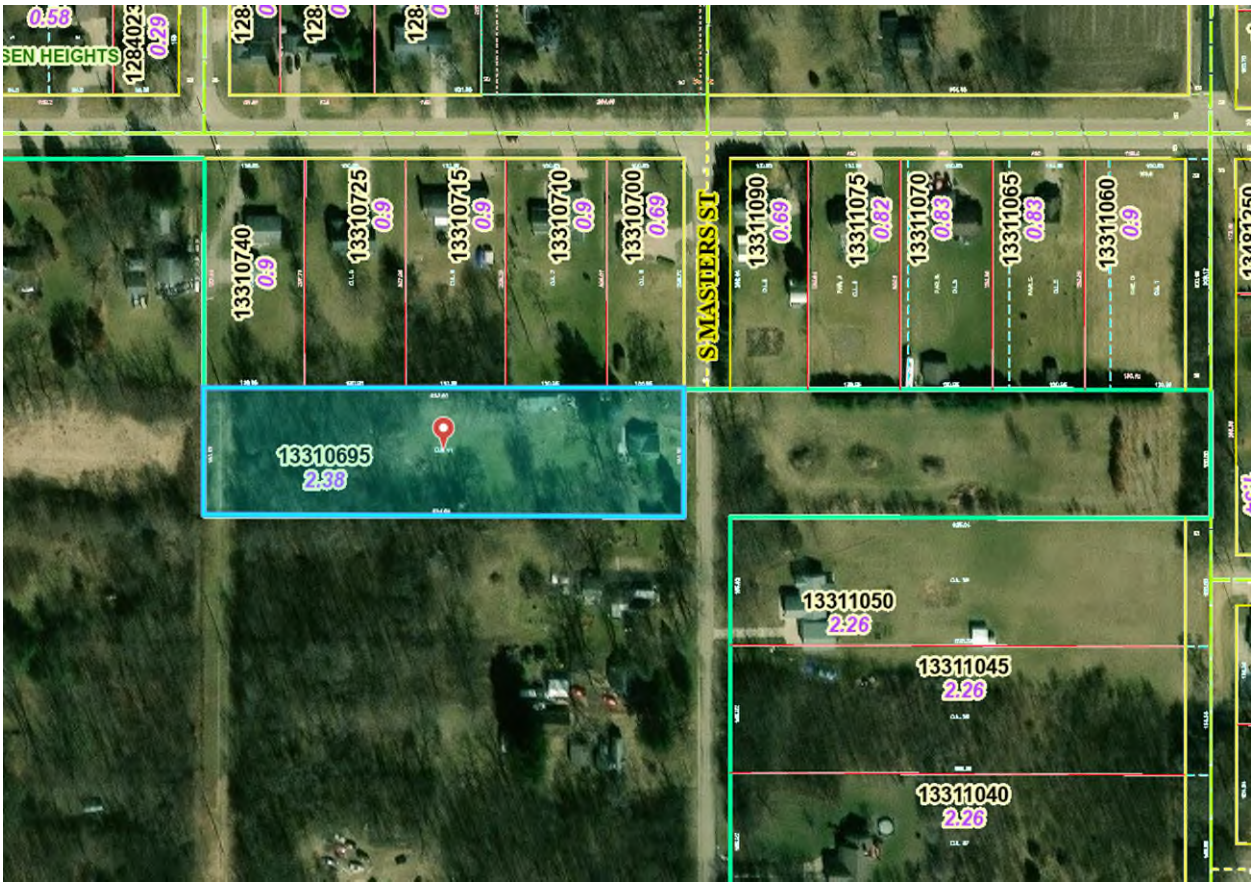
3. **The suitability of the subject property for the uses permitted under the existing zoning classification**.
   The parcel was annexed from the Town of Beloit; therefore, no City of Beloit zoning designation exists. The property was zoned for single-family residential use in the Town, and is proposed to be zoned for the same use in the City.

4. **The trend of development and zoning map amendments in the general area of the subject property.**
   This area consists of a mix of established single-family residential developments and vacant land. The most recent zoning map amendments in the vicinity occurred in 2007 for properties at 905-1005 Masters Street, following an annexation to facilitate access to City of Beloit sewer services for single-family residential use.

STAFF RECOMMENDATION – ZONING MAP AMENDMENT:
The Planning and Building Services Division recommends **approval** of a Zoning Map Amendment to assign a zoning district classification of R-1A, Single Family Residential District for the property located at 1014 Masters Street in the City of Beloit.

ATTACHMENTS: Location and Zoning Maps, Application, Annexation Ordinance, Public Notice, Mailing List and Ordinance.

LOCATION MAP



City of Beloit Zoning Map

2/10/2025

Zoning Districts

R-1A

World Imagery

Low Resolution 15m Imagery

High Resolution 60cm Imagery

High Resolution 30cm Imagery

Citations

30cm Resolution Metadata

1:1,467

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.08 km

Maxar, Microsoft

CITY of BELOIT

PLANNING & BUILDING SERVICES DIVISION

100 State Street, Beloit, WI 53511 Phone: (608) 364-6700 Fax: (608) 364-6609

Zoning Map Amendment Application Form

(Please Type or Print) **File No.:** ZMA-2025-04

1. **Address of subject property:** 1014 Masters Street

2. **Legal description: Lot:____ Block:____ Subdivision:** _____
(If property has not been subdivided, attach a copy of the complete legal description from deed.)
Property dimensions are: 110.22 feet by 604.69 feet = _____ square feet.
If more than two acres, give area in acres: 2.374 acres.

3. **Tax Parcel Number(s):** 133106095

4. **Owner of record:** Brian + Mary Davies Phone: _____
1014 Masters Street Beloit WI 53511
(Address) (City) (State) (Zip)

5. **Applicant's Name:** City of Beloit Plan Commission
100 State Street Beloit WI 53511
(Address) (City) (State) (Zip)
608-364-6700 / _____ / _____
(Office Phone #) (Cell Phone #) (E-mail Address)

6. ***THE FOLLOWING ACTION IS REQUESTED:***
Change zoning district classification from: _____ to: R-1A
All existing uses on this property are: Single Family Residential

7. **All the proposed uses for this property are:**
Principal use(s): _____
Secondary use(s): _____
Accessory use(s): _____

8. I/we represent that I/we have a vested interest in this property in the following manner:

( ) Owner

( ) Leasehold, Length of lease:_____

( ) Contractual, Nature of contract:_____

(X) Other, explain: Government

9. Individual(s) responsible for compliance with conditions (if any), if request is granted:

Name(s): _____ Phone: _____

_____

(Address) (City) (State) (Zip)

The applicant's signature below indicates the information contained in this application and on all accompanying documents is true and correct.

I/we, the undersigned, do hereby respectfully make application for and petition the City Plan Commission and City Council to grant the requested action for the purpose stated herein. I/we represent that the granting of the proposed request will not violate any of the required standards of the Zoning Ordinance of the City of Beloit. I/we also agree to abide by all applicable federal, state and local laws, ordinances, rules, and regulations.

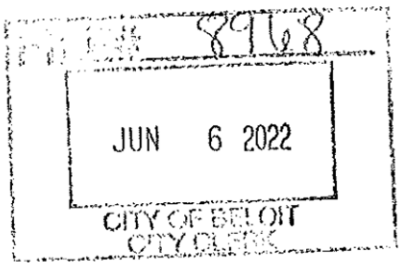
(Signature of Owner)	(Print name)	(Date)
Julie Christensen	Julie Christensen	2/3/25
(Signature of Applicant, if different)	(Print name)	(Date)

In order for your request to be heard and considered in a timely manner, you must submit the completed application and all accompanying documents to the Planning and Building Services Division for acceptance by the filing deadline date prior to a scheduled Plan Commission meeting. This application must be submitted with the application fee.

To be completed by Planning Staff

Filing Fee: **$500.00** Amount Paid: N/A Meeting Date: 2/19/25

Application accepted by: Allany Pattmann Date: _____



ORDINANCE NO. 3753

AN ORDINANCE ANNEXING THE PROPERTY LOCATED AT 1014 MASTERS STREET TO THE CITY OF BELOIT

The City Council of the City of Beloit, Rock County, Wisconsin, do ordain as follows:

Section 1. Territory Annexed. In accordance with Section 66.0217(2) of Wisconsin Statutes and the *Petition for Direct Annexation* filed by Mary and Brian Davies with the City Clerk on the 31st day of March 2022, signed by all of the owners of real property of the following described property in the Town of Beloit, Rock County, Wisconsin, the following territory is annexed to the City of Beloit, Wisconsin:

> Outlot 33-41 of the Assessor's Plat of Beloit Township situated in part of the NE ¼ of the NE ¼ of Section 33, T. 1 N., R. 12 E., of the 4th P.M., Beloit Township, Rock County, Wisconsin (a/k/a 1014 Masters Street). Said parcel contains 2.374 acres, more or less.

Section 2. Effect of Annexation. From and after the date of this Ordinance the territory described in Section 1 shall be part of the City of Beloit for any and all purposes provided by law and all persons coming or residing within such territory shall be subject to all Ordinances, rules, and regulations governing the City of Beloit.

Section 3. Payment to Town of Beloit. The City of Beloit agrees to pay the Town of Beloit, for five (5) years, an amount equal to the annual amount of property taxes levied on the annexed territory by the Town of Beloit as shown on the Town of Beloit's tax roll prepared pursuant to Section 70.65 Wisconsin Statutes.

Section 4. Temporary Zoning Classification. A) The territory annexed to the City of Beloit by this Ordinance is temporarily designated to be part of the following district of the City for zoning purposes and subject to all provisions of Chapter 19 of the Code of General Ordinances of the City of Beloit, entitled "*The City of Beloit Zoning Ordinance*" relating to such district classifications and to zoning in the City: R-1A, Single-Family Residential District. **B)** The boundaries of these designated districts are established as shown on the map filed in the office of the City Clerk. **C)** The Plan Commission is directed to initiate an amendment to the Zoning Ordinance not later than 30 days from the effective date of this Ordinance setting forth a permanent classification and regulations for the zoning of the attached area and to submit its recommendations to the City Council.

Section 5. Ward Designation. The territory described in Section 1 of this Ordinance is hereby made a part of the Fourth (4th) Ward of the City of Beloit, subject to the Ordinances, rules, and regulations of the City, governing ward districts.

Section 6. Severability. If any provision of this Ordinance is invalid or unconstitutional, or if the application of this to any person or circumstance is invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the other provisions or applications of this Ordinance, which can be given effect without the invalid or unconstitutional provision or application.

Section 7. Effective Date. This Ordinance shall take effect and be in force upon its passage and publication.

Adopted this 6th day of June, 2022.

CITY COUNCIL FOR THE CITY OF BELOIT

By: _____
Regina Dunkin, President

ATTEST:

By: _____
Marcy J. Granger, City Clerk-Treasurer

PUBLISHED: 6/14/2022
EFFECTIVE DATE: 6/15/2022
01-611100-5231- 22-065

CITY HALL • 100 STATE STREET • BELOIT, WI 53511
Office: 608/364-6700 • Fax: 608/364-6609
www.beloitwi.gov
Equal Opportunity Employer

NOTICE TO THE PUBLIC

February 5, 2025

To Whom It May Concern:

The City of Beloit has initiated an application for review and consideration of a Zoning Map Amendment to assign a zoning classification of R-1B, Single-Family Residential to 1014 Masters Street. The property was annexed from the Town of Beloit to the City of Beloit. The following public hearings will be held regarding these applications:

The following public hearings will be held regarding these applications:

City Plan Commission: Wednesday, February 19, 2025, at 7:00 PM, or as soon thereafter as the matter can be heard in The Forum, Beloit City Hall, 100 State Street.

City Council: Monday, March 17, 2025, at 7:00 PM, or as soon thereafter as the matter can be heard in The Forum, Beloit City Hall, 100 State Street.

We are interested in your opinion. *

Anyone bringing handouts to the Plan Commission meeting must bring 10 copies and submit them to City staff before the meeting begins. You may also mail your comments to the attention of Hilary Rottmann at 100 State Street or via email to planning@beloitwi.gov. You may also call (608) 364-6708 to provide your comments over the phone.

Mailing List

Vernon M. Price
1005 Masters St
Beloit, WI 53511

Mary Davies
1014 Masters St
Beloit, WI 53511

Michael D. McLeod
715 Jeannie Ln
Beloit, WI 53511

Lee L. Kinyon II
2404 Liberty Ave
Beloit, WI 53511

James L. McLeod
2428 Liberty Ave
Beloit, WI 53511

Jim L. Martin
2348 Liberty Ave
Beloit, WI 53511

Stacy E. Tyler
2410 Liberty Ave
Beloit, WI 53511

Donald L Grenawalt and Diane K
Grenawalt, Trustees of
2400 Liberty Ave
Beloit, WI 53511

ORDINANCE NO. 3864

AN ORDINANCE AMENDING THE ZONING DISTRICT MAP OF THE CITY OF BELOIT

The City Council of the City of Beloit, Rock County, Wisconsin do ordain as follows:

Section 1. The Zoning District Map of the City of Beloit, mentioned in the Zoning Code, Chapter 19 of the Code of General Ordinances of the City of Beloit, is amended as follows:

The following described lands are hereby assigned permanent R-1A, Single Family Residential District:

OUTLOT 33-41 OF THE ASSESSOR'S PLAT OF BELOIT TOWNSHIP SITUATED IN PART OF THE NE ¼ OF THE NE ¼ OF SECTION 33, T. 1 N., R. 12 E., OF THE 4TH P.M., NOW CITY OF BELOIT, ROCK COUNTY, WISCONSIN (A/K/A 1014 MASTERS STREET). SAID PARCEL CONTAINS 2.374 ACRES, MORE OR LESS.

Section 2. This Ordinance shall take effect and be in force upon its passage and publication.

Adopted this ____ day of _____, 2025.

City Council of the City of Beloit

_____
Kevin D. Leavy, Council President

Attest:

_____
Marcy J Granger, City Clerk-Treasurer

Published this ____ day of _____, 2025
Effective this ____ day of _____, 2025
01-611100-5231-_____

REPORT TO THE PLAN COMMISSION

Plan Commission Meeting Date: February 19, 2025

Agenda Item: 3.b.

File Number: CU-2025-02

General Information

Applicant: Cave Enterprises Operations LLC
Owner: JHGV, LLC
Address/Location: 1450 Fourth Street
Applicant's Request: An extension for an approved Conditional Use Permit (CUP) to allow a Drive-In Restaurant in a C-3, Community Commercial District, for the property located at 1450 Fourth Street.

Background

Cave Enterprises Operations LLC on behalf of JHGV, LLC has filed an application for an extension to the Conditional Use Permit (CUP) approved by the Plan Commission on March 20, 2024, to allow a Drive-In Use in a C-3, Community Commercial District, for the property located at 1450 Fourth Street. The existing drive-in does not have a conditional use permit and is legal non-conforming. The applicant intends to build a new Burger King restaurant and would like to include an additional drive-in lane. As indicated in the attached letter, the applicant postponed the project in 2024 but intends to complete it by November 30, 2025.

STAFF RECOMMENDATION:

Section 2-511 of the Zoning Ordinance indicates that a Conditional Use Permit shall lapse if not established within one year. However, this section allows for the applicant to apply to the Plan Commission for an extension for the time requirement before the CUP lapsing, which would be March 20, 2025. This extension cannot exceed one year. While the applicant has requested an extension to November 30, 2025, staff recommends extending the CUP to the end of the year to provide additional time to complete the project if needed.

The Planning and Building Services Division recommends **approval** of an extension of a Conditional Use Permit to allow a Drive-In use in a C-3, Community Commercial District, for the property located at 1450 Fourth Street, subject to the conditions listed below.

1. The Conditional Use Permit authorized under Plan Commission Resolution 2024-008 is extended to December 31, 2025, and the proposed Drive-in Restaurant at 1450 Fourth Street must be established by said date.

2. All Ordinance Requirements and Permit Conditions included in Plan Commission Resolution 2024-008 remain in full force and effect.

ATTACHMENTS: Extension Request, Plan Commission Resolution 2024-008, Site Plan, Renderings, and Resolution 2025-006.

CAVE ENTERPRISES OPERATIONS, LLC.

Real Estate – Development – Construction Department
1624 W. 18th Street Chicago, IL 60608
P: (312) 829-4000

To: Hilary Rottmann – City of Beloit 1.17.25

Re: Burger King

1450 Fourth Street

Extension Request for CUP

Hilary,

This letter serves as a request to extend the Conditional Use Permit for subject property located at 1450 Fourth Street, Beloit WI.

As discussed, we postponed the project in 2024 as the new image prototype building design was still under architectural review by the brand and subject to pending revisions. The image standards have been finalized and we are therefore prepared to move forward with permitting and site redevelopment of subject location this calendar year. The construction timeline is 4 months. We intended to start the project in Q2 and complete in Q3, therefore I would like to request an extension to November 30th, 2025.

Sincerely,

John Kayser

Cave Enterprises Operations, LLC

JHGV, LLC

RESOLUTION 2024-008

APPROVING A CONDITIONAL USE PERMIT TO ALLOW A DRIVE-IN USE AT 1450 FOURTH STREET

WHEREAS, the application of Cave Enterprises Operations LLC on behalf of JHGV, LLC for a Conditional Use Permit to allow a drive-in use at the C-3, Community Commercial District for the property located at 1450 Fourth Street having been considered by the Plan Commission of the City of Beloit, Wisconsin at a public hearing held for that purpose and due notice of said hearing having been given by publication as appears by the Proof of Publication on file in the office of the City Clerk.

NOW, THEREFORE, BE IT RESOLVED THAT, the Plan Commission of the City of Beloit, Rock County, Wisconsin does hereby grant a Conditional Use Permit to allow a Drive-In Use at the C-3, Community Commercial District, for the property located at 1450 Fourth Street in the City of Beloit, in the area described in the attached legal description and exhibit for the following premises:

PART OF GOVERNMENT LOT 3 OF SECTION 26, TOWNSHIP 1 NORTH, RANGE 12 EAST, OF THE 4TH P.M., AND PART OF BLOCK 1, DOW'S ADDITION TO BELOIT, IN THE CITY OF BELOIT, ROCK COUNTY, WISCONSIN. BEGINNING AT THE NORTHEAST CORNER OF BLOCK 1 OF DOW'S ADDITION; THENCE SOUTH 02° 14' 35" WEST, ALONG THE EAST LINE OF SAID BLOCK 1 AND THE WEST RIGHT OF WAY LINE OF FOURTH STREET, 259.50 FEET; THENCE NORTH 89° 51' 17" WEST, 219.83 FEET TO A POINT IN THE EAST RIGHT OF WAY LINE OF THE ABANDONED CHICAGO AND NORTHWESTERN RAILROAD RIGHT OF WAY; THENCE NORTH 02° 12' 17" EAST, ALONG THE EAST RIGHT OF WAY LINE OF THE ABANDONED CHICAGO AND NORTHWESTERN RAILROAD RIGHT OF WAY, 59.50 FEET; THENCE NORTH 89° 51' 17" WEST, 25.00 FEET; THENCE NORTH 02° 12' 17" EAST, 110.00 FEET; THENCE SOUTH 89° 51' 17" EAST, 50.00 FEET; THENCE NORTH 02° 12' 17" EAST, 90.00 FEET TO A POINT IN THE NORTH LINE OF SAID BLOCK 1; THENCE SOUTH 89° 51' 17" EAST, ALONG THE NORTH LINE OF SAID BLOCK 1, 195.00 FEET TO THE POINT OF BEGINNING. CONTAINING 1.32 ACRES, MORE OR LESS. A/K/A 1450 FOURTH STREET.

As a condition of granting the Conditional Use Permit, the Plan Commission does hereby stipulate the following conditions and restrictions upon the Conditional Use, which are hereby deemed necessary for the public interest:

1. This Conditional Use Permit authorizes a Drive-In use for a restaurant in a C-3, Community Commercial District, for the property located at 1450 Fourth Street.
2. Any major changes in the adopted conditions or use of the property shall be approved by the Plan Commission amending this Conditional Use Permit. The Director of Planning and Building Services may approve minor changes administratively.

BE IT FURTHER RESOLVED that the applicant is formally advised of the following additional ordinance requirements:

1. The developer shall obtain an Architectural Review Certificate, Certificate of Zoning Compliance, and Building Permit before beginning construction.
2. In accordance with Section 8-112 of the Zoning Ordinance stacking spaces may not impede on- or off-site traffic movements or movements into or out of off-street parking spaces. In addition, stacking spaces shall be designed to allow vehicles to exit the stacking lane without backing up or waiting until they have reached the end of the stacking lane.
3. In accordance with Section 2-511 of the Zoning Ordinance, the applicant shall have twelve (12) months from the date of CUP to establish and commence use of the drive-in, or the CUP shall lapse and be of no further effect.

Adopted this 20th day of March 2024.

PLAN COMMISSION

Mike Ramsden

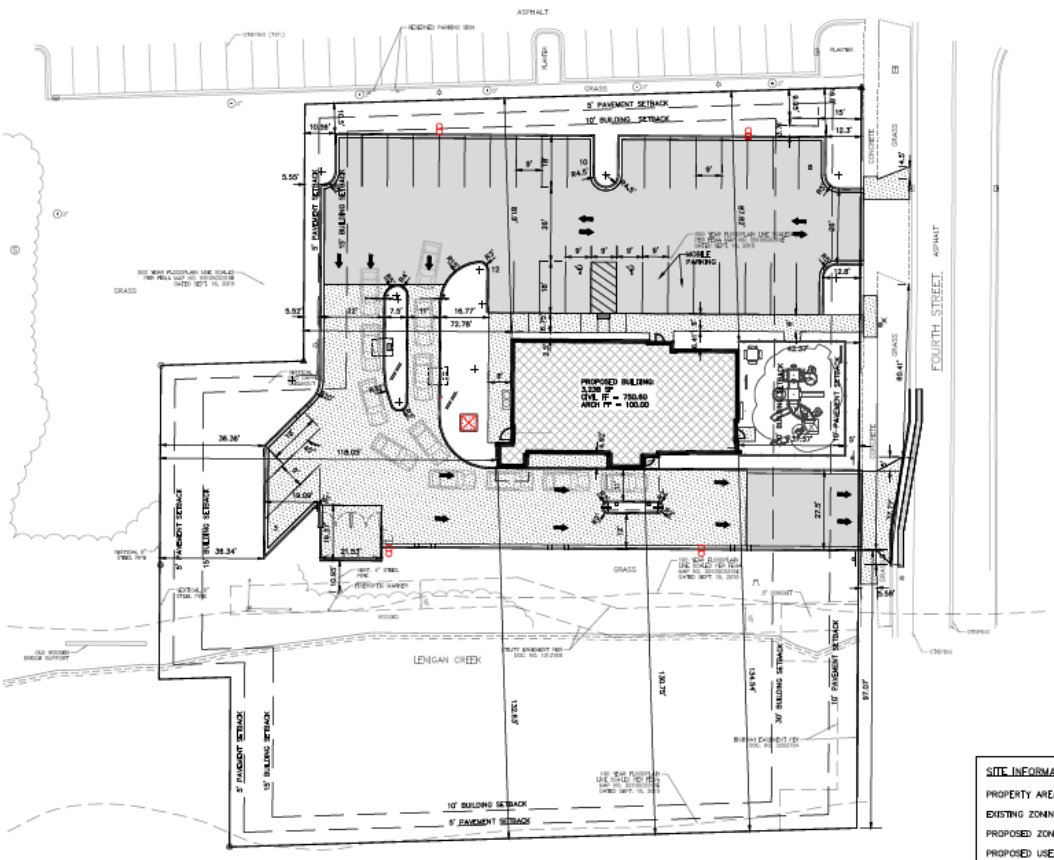
Mike Ramsden, Chairperson

ATTEST:

Julie Christensen

Julie Christensen
Community Development Director

SITE PLAN



SITE INFORMATION:

PROPERTY AREA: 57,530 S.F. (1.32 ACRES).

EXISTING ZONING: C-3

PROPOSED ZONING: C-3

PROPOSED USE: QUICK SERVE RESTAURANT WITH DRIVE THRU

AREA OF SITE DISTURBANCE: 37,120 SF (0.85 ACRES)

SETBACKS: BUILDING: FRONT = 30'
SIDE = 10'
REAR = 15'

PAVEMENT: FRONT = 10'
SIDE = 5' (TYPE B BUFFER TO NORTH)
REAR = 5' (TYPE B BUFFER TO WEST)

PROPOSED BUILDING HEIGHT: 23' (MAX. HEIGHT ALLOWED: 55')

PARKING REQUIRED: SPACES EQUAL TO 50% OF CAPACITY INCLUDING EMPLOYEES ON LARGEST SHIFT (33 SPACES)

PARKING PROVIDED: 33 SPACES (2 H.C. ACCESSIBLE)

HANDICAP STALLS REQUIRED: 2, HANDICAP STALLS PROVIDED: 2

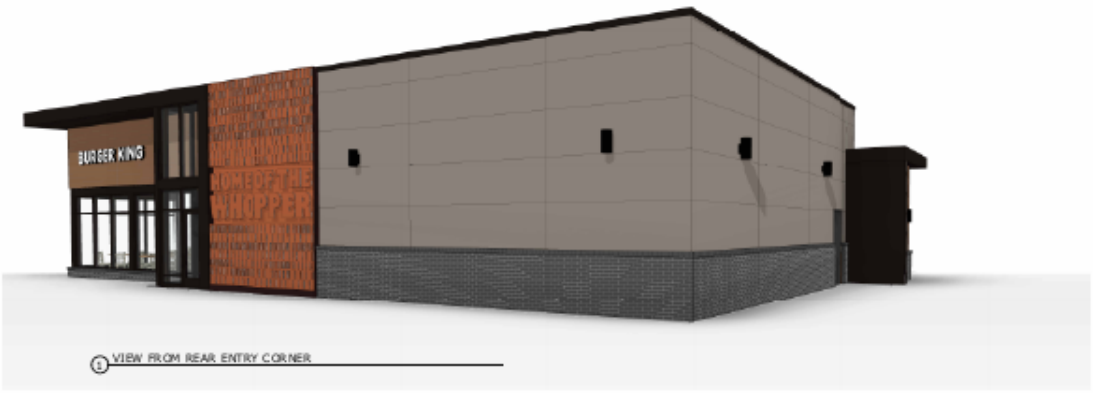
BUILDING OCCUPANCY CLASSIFICATION = A-2

CLASS OF BUILDING CONSTRUCTION = VB


GENERAL ELEVATION NOTES:
KEYNOTES
BURGER KING
HOME OF THE WHOPPER
1 MAIN ENTRANCE ELEVATION
BURGER KING
2 DRIVE-THRU ELEVATION
BURGER KING
3 FRONT ELEVATION
4 REAR ELEVATION

1 VIEW FROM ENTRY CORNER

2 VIEW FROM DRIVE-THRU CORNER



1 VIEW FROM REAR ENTRY CORNER

2 VIEW FROM REAR DRIVE-THRU CORNER

RESOLUTION 2025-06

RESOLUTION AUTHORIZING AN EXTENSION TO AN EXISTING CONDITIONAL USE PERMIT TO ALLOW A DRIVE-IN USE AT 1450 FOURTH STREET

WHEREAS, on March 20, 2024, the Plan Commission of the City of Beloit approved Resolution 2024-008 approving a Conditional Use Permit for a Drive-In Use on property located at 1450 Fourth Street subject to a number of Ordinance Requirements and Permit Conditions; and

WHEREAS, the application of Cave Enterprises Operations LLC on behalf of JHGV, LLC for an extension to said Conditional Use Permit to allow a drive-in use at the C-3, Community Commercial District for the property located at 1450 Fourth Street having been considered by the Plan Commission of the City of Beloit, Wisconsin; and

NOW, THEREFORE, BE IT RESOLVED THAT, the Plan Commission of the City of Beloit, Rock County, Wisconsin does hereby grant an extension for a Conditional Use Permit authorized by Resolution 2024-008 to allow a Drive-In Use at the C-3, Community Commercial District, for the property located at 1450 Fourth Street in the City of Beloit, in the area described in the attached legal description and exhibit for the following premises:

PART OF GOVERNMENT LOT 3 OF SECTION 26, TOWNSHIP 1 NORTH, RANGE 12 EAST, OF THE 4TH P.M., AND PART OF BLOCK 1, DOW'S ADDITION TO BELOIT, IN THE CITY OF BELOIT, ROCK COUNTY, WISCONSIN. BEGINNING AT THE NORTHEAST CORNER OF BLOCK 1 OF DOW'S ADDITION; THENCE SOUTH 02° 14' 35" WEST, ALONG THE EAST LINE OF SAID BLOCK 1 AND THE WEST RIGHT OF WAY LINE OF FOURTH STREET, 259.50 FEET; THENCE NORTH 89° 51' 17" WEST, 219.83 FEET TO A POINT IN THE EAST RIGHT OF WAY LINE OF THE ABANDONED CHICAGO AND NORTHWESTERN RAILROAD RIGHT OF WAY; THENCE NORTH 02° 12' 17" EAST, ALONG THE EAST RIGHT OF WAY LINE OF THE ABANDONED CHICAGO AND NORTHWESTERN RAILROAD RIGHT OF WAY, 59.50 FEET; THENCE NORTH 89° 51' 17" WEST, 25.00 FEET; THENCE NORTH 02° 12' 17" EAST, 110.00 FEET; THENCE SOUTH 89° 51' 17" EAST, 50.00 FEET; THENCE NORTH 02° 12' 17" EAST, 90.00 FEET TO A POINT IN THE NORTH LINE OF SAID BLOCK 1; THENCE SOUTH 89° 51' 17" EAST, ALONG THE NORTH LINE OF SAID BLOCK 1, 195.00 FEET TO THE POINT OF BEGINNING. CONTAINING 1.32 ACRES, MORE OR LESS. A/K/A 1450 FOURTH STREET.

BE IT FURTHER RESOLVED that the extension is subject to the following requirements:

1. The Conditional Use Permit authorized under Plan Commission Resolution 2024-008 is extended to December 31, 2025, and the proposed Drive-in Restaurant at 1450 Fourth Street must be established by said date.

2. All Ordinance Requirements and Permit Conditions included in Plan Commission Resolution 2024-008 remain in full force and effect.

Adopted this 19th day of February, 2025.

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PLAN COMMISSION

Mike Ramsden, Chairperson

ATTEST:

Julie Christensen
Community Development Director

REPORT TO THE PLAN COMMISSION

Plan Commission Meeting Date: February 19, 2025

Agenda Item: 3.c.

File Number: CU-2025-01

General Information

Applicant: Jairo Sanchez Garcia

Owner: Margarita Mora

Address/Location: 1623 Park Avenue (Cinco De Mayo Supermarket)

Applicant's Request: The applicant has applied for a Conditional Use Permit (CUP) to allow Liquor Sale in a C-2, Neighborhood Commercial District for the property located at 1623 Park Avenue.

Background

Cinco De Mayo Supermarket would like to add beer and liquor sales to their existing supermarket at 1623 Park Avenue, which is zoned C-2, Neighborhood Commercial. The Use Table contained in the Zoning Ordinance indicates that *Liquor Sale* in the C-2, Neighborhood Commercial District is only allowed if reviewed and approved in accordance with the CUP procedures.

In 2013, the property owner applied for liquor sale within a C-2 district, but the request was denied due to opposition from residents. Community members expressed concerns and did not support the sale of alcohol in nearby commercial establishments.

Conditional Use Law

In late 2017, Wisconsin Statutes were amended to limit local government discretion related to the issuance of CUPs. Under the current law, the requirements and conditions imposed related to the approval of a CUP must be reasonable and, to the extent practicable, measurable. Acceptable conditions could relate to the permit's duration, transfer, or renewal. The City's decision to approve or deny the permit must be supported by substantial evidence. This is defined as facts and information, other than merely personal preferences or speculation, directly pertaining to the requirements and conditions an applicant must meet to obtain a CUP and that reasonable persons would accept in support of a conclusion.

The state law also states that if the applicant meets or agrees to meet all of the requirements and conditions imposed by Plan Commission, the Plan Commission shall grant the CUP. Any condition must be based on substantial evidence.

Attached to the staff report is the Conditional Use Permit Decision Form which will guide the Plan Commission in making a decision about the application. Planning staff has completed this form

for Plan Commission. However, the Commission may make modifications as part of their decision on the CUP.

Staff Analysis

Existing Conditions: Cinco De Mayo Supermarket is located at the corner of Park Avenue and Washburn Street in the Merrill Neighborhood. The businesses on this commercial block share a rear off-street parking lot, which is accessible from Washburn Street.

Surrounding Land Use and Zoning: To the north is the CFSC Beloit Check Cashing Store, which is zoned C-2, Neighborhood Commercial. To the east are single-family dwellings zoned R-1B, Single-Family Residential. To the south are R & R Auto Rental, Clippers & Curls, and Two Worlds One Heart Childcare Center, all zoned C-2, Neighborhood Commercial. To the west is American Construction Metals (ACM), which is zoned M-2, General Manufacturing.

Public Notice

In addition to a Class 2 Newspaper Notice published in the Beloit Daily News on January 8, and 15, the attached Public Notice was sent out to the media and surrounding property owners. No comments have been submitted as of the writing of this report.

City of Beloit Comprehensive and Strategic Plan: The City's Comprehensive Plan recommends *Avenue Mixed Use* for the subject property. *Avenue Mixed Use* includes small-scale office, service, institutional, or retail commercial uses, small-scale indoor-oriented industrial, existing single-family residential, and mixed residential formats and uses in an arrangement compatible with the scale of the neighborhood context through building form, site design, and landscaping; typically, 1 to 5 stories in height. It encourages neighborhood-oriented retail, office, and service businesses that will conveniently serve residential neighborhoods. However, Section 66.1001(2m) (b) of Wisconsin Statutes specifies that conditional use permits do not need to be consistent with the Comprehensive Plan.

Municipal Utilities: The subject property receives the full range of municipal services.

Review Agent Comments: This application was sent out to the City's Review Agents including the utilities. The Police Department provided a comment which is outlined below. They also ran calls for service for the last year and found that there were 9 total calls which include 7 business checks and 2 reported thefts.

> Chief Sayles noted that alcohol-related businesses sometimes bring increased noise, loitering, or even disorderly conduct, especially if they stay open later in the evening. This business could deter families from using daycare which there is currently a lack of in the City, and it can disrupt the calm environment in this area.
>
> Parking/Traffic. Increased visitors to an already dense parking location can cause overcrowding in this area. Increased visitors could lead to parking shortages or traffic congestion, which could frustrate existing business patrons, especially parents dropping off children at the daycare.

Impact on Business Image. If the alcohol-serving establishment isn't well-managed, it might affect the neighborhood's reputation. Parents might hesitate to bring their kids to a daycare located near a bar or similar venue, fearing safety or exposure to inappropriate behavior.

Plan Commission's Role: At this time, for beer, wine or liquor applications, there may be three decision-making bodies involved in the process for approval or denial: Plan Commission (if a CUP is needed), Alcohol Beverage License Control Committee (ABLCC), and City Council. The Plan Commission's role relates to the land use, whereas ABLCC and City Council focus on whether an alcohol license should actually be issued.

Findings of Fact: Section 2-506 of the Zoning Ordinance indicates that no conditional use permit shall be approved unless the Plan Commission finds:

a. *That the establishment, maintenance, or operation of the conditional use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare;*
   - The proposed use of liquor sales will require a license which will be reviewed by the City's Alcohol Beverage and License Control Committee and approved by City Council. If the use is determined to be detrimental to the public welfare, the license can be denied, revoked or suspended.
   - The license being requested by the applicant does not include drinking on-premise. It is for the sale of packaged alcohol only. No evidence has been found that would indicate that the sale of packaged alcohol in a retail sales/service business automatically leads to negative neighborhood outcomes.

b. *That the conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for purposes already permitted;*
   - The proposed conditional use is not expected to injure the use and enjoyment of nearby properties. A majority of properties contain commercial and industrial uses. This use is an existing grocery store. Simply adding another product type to sell is not expected to be harmful to nearby businesses. The land use is not changing; it will remain a retail sales outlet.
   - Although there is a daycare located in the same block as the Cinco de Mayo Supermarket, there is no evidence that adding packaged alcohol sales in proximity to a daycare would cause injury to the daycare.

c. *That the conditional use will not substantially diminish or impair property values within the neighborhood of the subject property;*
   - The proposed conditional use is not expected to diminish or impair property values in this commercial corridor. Increased revenues for the supermarket may spur investment the property and improve property value.

d. *That the establishment of the conditional use will not impede the normal and orderly development and improvement of the surrounding property;*
   - The surrounding area is either developed or suitable for redevelopment, and proposed alcohol sales is not expected to impede further development or redevelopment.

e. *That the exterior architectural design or site layout of the proposed conditional use is not dissimilar or otherwise incompatible with existing or proposed development in the immediate neighborhood that it will cause a depreciation in property values;*
   - The proposed conditional use does not include changes to exterior architectural design or site layout. Staff does not believe the conditional use will depreciate the property values of neighboring properties. Any modifications to the exterior of the building will require architectural review and approval by staff.

f. *That adequate utilities, access roads, drainage or other necessary facilities will be available to serve the proposed use at the time of its occupancy or use;*
   - The property already has the necessary utilities and facilities. The existing site has adequate parking on-site. There is an off-street parking lot immediately behind the building with a rear door to enter the building.

g. *That adequate measures will be taken to minimize traffic congestion; and*
   - The proposed use is not anticipated to increase traffic congestion. The business may gain additional customers with the increase in product selection, but Park Avenue is functionally classified as a Minor Arterial, and designed to handle traffic. Also, off-street parking is available, as is on-street parking along Park Avenue.

h. *That the conditional use will comply with all applicable regulations of the Zoning Ordinance.*
   - The proposed use will comply with all other applicable regulations.

STAFF RECOMMENDATION:
The Planning and Building Services Division recommends **approval** of a Conditional Use Permit to allow *Liquor Sale* in the C-2, Neighborhood Commercial District for property located at 1623 Park Avenue based on the above Findings of Fact and subject to the following conditions:

1. This Conditional Use Permit (CUP) authorizes *Liquor Sale,* for the property located at 1623 Park Avenue.
2. The applicant shall obtain and retain all applicable liquor licenses, while the conditional use is established and maintained.
3. In accordance with Section 2-511 of the Zoning Ordinance, if the conditional use has not been established within one year after the date of issuance of the permit, then without further action by the Plan Commission and without further notice to the applicant, the conditional use permit shall lapse and become null and void.
4. Any major changes in the adopted conditions or use of the property shall be approved by the Plan Commission by amending this CUP. The Director of Planning and Building Services may approve minor changes administratively.

ATTACHMENTS: Resolution 2025-003, Conditional Use Permit Decision Form, Store Layout, Application, Public Notice and Mailing List.

RESOLUTION 2025-03

APPROVING A CONDITIONAL USE PERMIT TO ALLOW LIQUOR SALE FOR PROPERTY LOCATED AT 1623 PARK AVENUE

WHEREAS, the application of Jairo Sanchez Garcia on behalf of Margarita Mora for a Conditional Use Permit (CUP) to allow *Liquor Sale*, in the C-2, Neighborhood Commercial District for the property located at 1623 Park Avenue having been considered by the Plan Commission of the City of Beloit, Wisconsin at a public hearing held for that purpose and due notice of said hearing having been given by publication as appears by the Proof of Publication on file in the office of the City Clerk.

NOW, THEREFORE, BE IT RESOLVED THAT, the Plan Commission of the City of Beloit, Rock County, Wisconsin does hereby grant a CUP to allow a Liquor Sales at 1623 Park Avenue in the City of Beloit, for the following premises:

NORTH 46 FEET OF LOTS 1, 2, 3, AND 4 OF BLOCK THREE OF RIVERSIDE ADDITION, CITY OF BELOIT, ROCK COUNTY, WISCONSIN. CONTAINING 0.17 ACRES, MORE OR LESS.

As a condition of granting the Conditional Use Permit, the Plan Commission does hereby stipulate the following conditions and restrictions upon the conditional use, which are hereby deemed necessary for the public interest:

1. Any major changes in the adopted conditions or use of the property shall be approved by the Plan Commission by amending this CUP. The Director of Planning and Building Services may approve minor changes administratively.

BE IT FURTHER RESOLVED that the applicant is formally advised of the following additional ordinance requirements:

1. This Conditional Use Permit authorizes *Liquor Sale,* for the property located at 1623 Park Avenue.
2. The applicant shall obtain and retain all applicable liquor licenses while the conditional use is established and maintained.
3. In accordance with Section 2-511 of the Zoning Ordinance, if the conditional use has not been established within one year after the date of issuance of the permit, then without further action by the Plan Commission and without further notice to the applicant, the conditional use permit shall lapse and become null and void.

Adopted this 19th day of February, 2025.

PLAN COMMISSION

Mike Ramsden, Chairperson

ATTEST:

Julie Christensen
Community Development Director

Beloit Plan Commission
Conditional Use Permit Decision Form

When reviewing an application for a conditional use, the local government must look to the requirements and conditions found in the local zoning ordinance and determine if the applicant meets those requirements and conditions. The local government must provide **substantial evidence** supporting their decision to grant or deny the permit, and to impose additional conditions on the permit. Substantial evidence means **facts and information**, directly relating to the requirements and conditions, that a reasonable person would accept in support of a conclusion. Personal preferences and speculation are not sufficient forms of evidence. All requirements and conditions imposed by the local government must be reasonable, and to the extent, practicable, measurable.

Ordinance Requirements

List ordinance requirements related to the conditional use permit:

1. This Conditional Use Permit authorizes *Liquor Sale,* for the property located at 1623 Park Avenue.

   Substantial Evidence: *Retail Sales and Service (Entertainment Oriented)* uses including *Liquor Sale* requires a Conditional Use Permit in the C-2 district, and this condition articulates that the proposed uses are deemed appropriate at this location. No substantial evidence to the contrary has been found that would alter this authorization or result in reasonable and, to the extent practicable, measurable conditions, other than those required by ordinance or otherwise a standard condition imposed on all CUPs.

2. The applicant shall obtain and retain all applicable liquor licenses while the conditional use is established and maintained.

   Substantial Evidence: All alcohol sales require a liquor license per City regulations.

3. In accordance with Section 2-511 of the Zoning Ordinance, if conditional use has not been established within one year after the date of issuance of the permit, then without further action by the Plan Commission and without further notice to the applicant, the conditional use permit shall lapse and become null and void.

   Substantial Evidence: Standardized condition that outlines the regulation for establishing a Conditional Use Permit.

Does the applicant meet **all** of the ordinance requirements? ☐ No ☒ Yes, after the steps above

Permit Conditions

A local government is authorized to impose conditions on the permit that relate to the purpose of the ordinance. Conditions must be **reasonable**, and to the extent, practicable and **measurable**. Conditions may limit the permit's duration, transfer, or renewal.

List conditions imposed on the permit:

1. Any major changes in the adopted conditions or use of the property shall be approved by the Plan Commission by amending this Conditional Use Permit. The Director of Planning and Building Services may approve minor changes administratively.

   Substantial Evidence: Standardized condition to establish a process for future changes.

Decision: Based on the findings of fact, conclusions of law, and the record in this matter, the permit is:

☒ Approved, with the conditions stated above
☐ Denied, for the following reasons:

City of Beloit Zoning Map

1/2/2025

Zoning Districts
- C-2
- C-3
- M-2
- R-1B

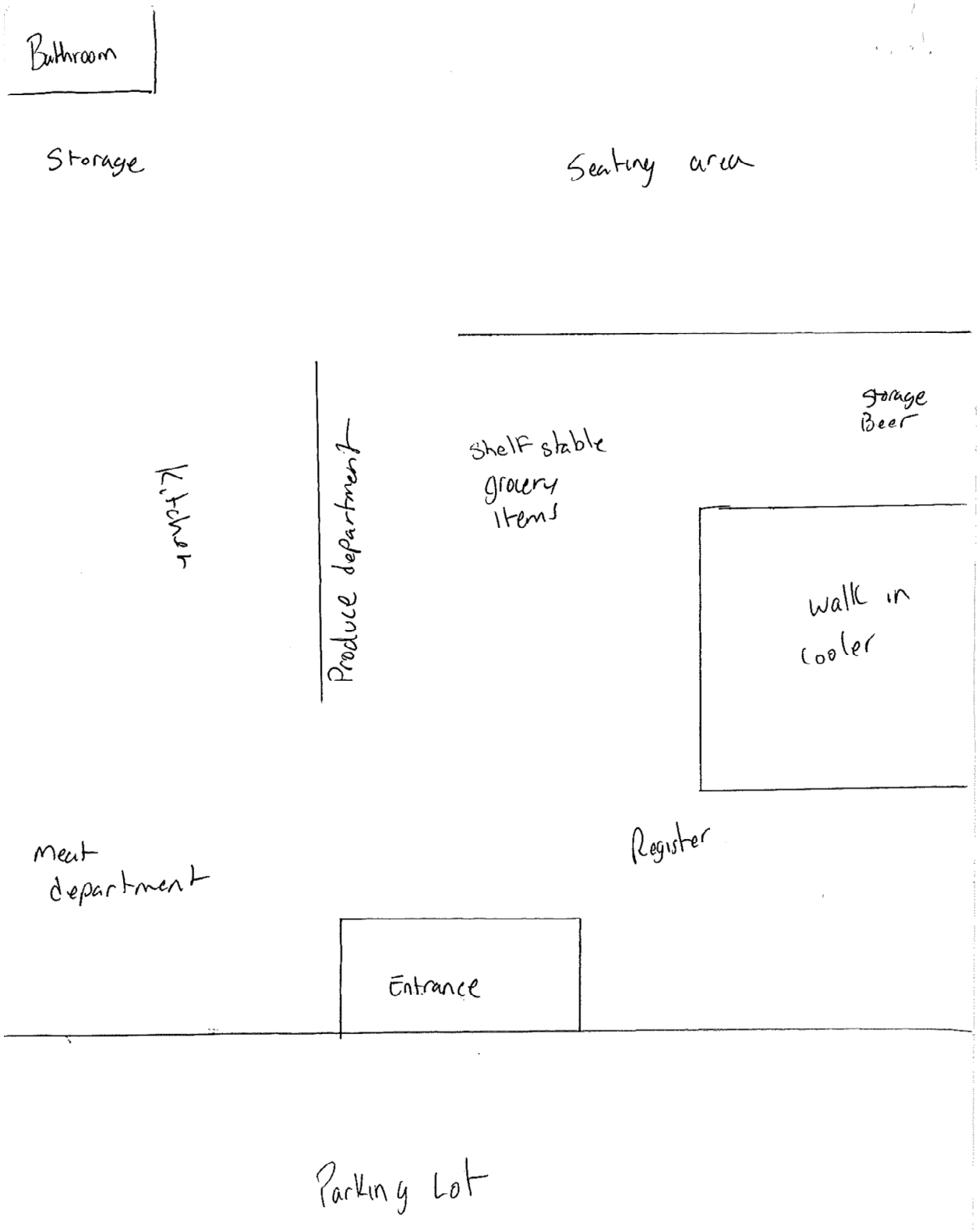
World Imagery

Low Resolution 15m Imagery
High Resolution 60cm Imagery
High Resolution 30cm Imagery
Citations
60cm Resolution Metadata

12,415

0 0.01 0.03 0.06 mi
0 0.02 0.04 0.09 km

Maxar, Microsoft


Bathroom
Storage
Seating area
Produce department
Shelf stable grocery items
Storage Beer
walk in cooler
Register
Meat department
Entrance
Parking Lot

CITY of BELOIT

Planning and Building Services Division

100 State Street, Beloit, WI 53511 Phone: (608) 364-6700 Fax: (608) 364-6609

Conditional Use Permit Application

(Please Type or Print) File Number: _____

1. Address of subject property: 1623 Park Ave
2. Legal description: Grocery Store

   If property has not been subdivided, attach a copy of the complete legal description from deed.

   Property dimensions are: _____ feet by _____ feet = _____ square feet.

   If more than two acres, give area in acres: _____ acres.
3. Tax Parcel Number(s): _____
4. Owner of record: _____ Phone: _____

   _____
   (Address) (City) (State) (Zip)
5. Applicant's Name: Jairo Sanchez Garcia (Cinco de Mayo Supermarket)

   1255 S 53rd st West Milwaukee wi 53214
   (Address) (City) (State) (Zip)

   / 414-731-7920 / cincodeMayoSupermarket@gmail.com
   (Office Phone #) (Cell Phone #) (E-mail Address)
6. All existing use(s) on this property are: Grocery Store

   _____
7. THE FOLLOWING ACTION IS REQUESTED:

   A Conditional Use Permit for: BEER / LIQUOR

   _____ in a(n) C-2 Zoning District.
8. All the proposed use(s) for this property will be:

   Principal use: GROCERY STORE

   _____

   _____

   Secondary use: _____

   _____

   _____

   Accessory use: _____

   _____

   _____

9. Project timetable: Start date: _____ Completion date: _____

10. I/We) represent that I/we have a vested interest in this property in the following manner:

( ) Owner

(X) Leasehold, length of lease: 5 years

( ) Contractual, nature of contract: _____

( ) Other, explain: _____

_____

The applicant's signature below indicates the information contained in this application and on all accompanying documents is true and correct.

I/We, the undersigned, do hereby respectfully make application for and petition the City Plan Commission and City Council to grant the requested action for the purpose stated herein. I/We represent that the granting of the proposed request will not violate any of the required standards of the Zoning Ordinance of the City of Beloit. I/We also agree to abide by all applicable federal, state and local laws, ordinances, rules, and regulations.

Jairo Sanchez Garcia / Jairo Sanchez Garcia / 11-21-24
(Signature of Owner) (Print name) (Date)

Margarita Mora / _____ / 11/9/24
(Signature of Applicant, if different) (Print name) (Date)

In order for your request to be heard and considered in a timely manner, you must submit the completed application, and all accompanying documents, to the Planning and Building Services Division for acceptance by the filing deadline date prior to a scheduled Plan Commission meeting.

This application must be submitted with one copy of a scaled drawing showing the layout of the proposed development in accordance with all code requirements, and the application fee.

Margarita Mora (Building

To be completed by Planning Staff

Filing fee: $500.00 Amount paid: _____ Meeting date: _____

Application accepted by: _____ Date: _____

CITY HALL • 100 STATE STREET• BELOIT, WI 53511
Office: 608/364-6700 • Fax: 608/364-6609
www.beloitwi.gov *Equal Opportunity Employer*

NOTICE TO THE PUBLIC

January 8, 2025

To Whom It May Concern:

Jairo Sanchez Garcia, on behalf of Margarita Mora has applied for a Conditional Use Permit to allow alcohol sales in a C-2, Neighborhood Commercial District for the property located at:

1623 Park Avenue

The following public hearings will be held regarding this proposed Conditional Use Permit:

City Plan Commission: Wednesday, January 22 2025, at 7:00 PM, or as soon thereafter as the matter can be heard in The Forum, Beloit City Hall, 100 State Street.

THE PUBLIC IS INVITED TO ATTEND THESE HEARINGS.

We are interested in your opinion.

Anyone bringing handouts to the Plan Commission meeting must bring 10 copies and submit them to City staff before the meeting begins. You may also mail your comments to the attention of Hilary Rottmann at 100 State Street or via email to planning@beloitwi.gov. You may also call (608) 364-6708 to provide your comments over the phone.

Andrew Milner Rentals, LLC
PO Box 1161
Beloit, WI 53511

Loyd Majeed
2034 S Mound Ave
Beloit, WI 53511

George H. Hattiex
923 Washburn St
Beloit, WI 53511

American Builders & Contractors
Supply Co, Inc
1 Abc Pkwy
Beloit, WI53511

1637 Park, LLC
425 Huehl Rd Bldg 3
Northbrook, IL 60062

Rockside Properties, LLC
4380 67th Dr #1005
Union Grove, WI 53182

Edward R Mulligan
2091 Shopiere Rd Ste D
Beloit, WI 53511

Martha S. Mendoza Soberanes
920 Washburn St
Beloit, WI 53511

Edward A Laughlin Rentals, LLC
121 Dayton Row
Madison, WI 53703

Harril White
913 Washburn St
Beloit, WI 53511

Leon J. Foxen Sr
10703 S Hickory Ct
Beloit, WI 53511

Javier Almaraz-Agudo
931 Copeland Ave
Beloit, WI 53511

Nora Navarro Revocable Trust
1119 Dewey Ave
Beloit, WI 53511

ADT Ventures, LLC
PO Box 930312
Verona, WI 930312

Juan Cabrera-Aguilar
921 Copeland Ave
Beloit, WI 53511

REPORT TO THE PLAN COMMISSION

Plan Commission Meeting Date: February 19, 2025

Agenda Item: 3.d.

File Number: SOE-2024-01

General Information

Applicant: Randy Benish
Owner: Mercy Hospital
Address/Location: Mercyhealth Beloit, 2825 Prairie Avenue
Applicant's Request: Randy Benish, on behalf of Mercy Hospital, has submitted a request for exceptions to the following sections of the Outdoor Sign Regulations for the property located at 2825 Prairie Avenue: Section 30.09 to exceed the maximum allowable sign area on the same premises; to Section 30.10 to exceed the maximum sign height in a nonresidential zoning district; to Section 30.35(2)(c) to exceed the maximum square footage of a primary on-premises sign; and to Section 30.43(2)(c) to allow secondary wall signs larger than 10% of the primary on-premises sign.

Staff Analysis

Existing Conditions: Mercyhealth Beloit is located on the east side of Prairie Avenue between Huebbe Parkway and Hart Road. The building is undergoing a building addition to add emergency services to the existing medical office use.

For properties with C-2 zoning, the maximum sign area is calculated as twice the street frontage, which in this case equals 658.14 square feet. Mercyhealth Beloit is proposing a total of 814.8 square feet of signage, or 156.66 square feet more than the total allowed by code. Additionally, the applicant is proposing that six of the on-premises signs exceed the sign area allowed by code, and one of the signs exceed the sign height allowed by code.

The Plan Commission first reviewed this proposal on December 18, 2024, but deferred action at the applicant's request. Since then, staff met with the applicant, and at that meeting, a primary concern of the applicant was the size of the "Emergency" wall signage, which staff had considered secondary signage. According to the Ordinance, secondary wall signage may only be 30 square feet or 10 percent the size of the primary sign (the monument sign), whichever is less. Since the monument sign can only be 165 square feet with the 10 percent landscape bonus applied, the secondary wall signs can only be 16.5 square feet, plus applicable bonuses which allowed them to be 18.2 or 21.8 square feet depending on the distance of the wall signs to the property line. As such, staff reviewed the Ordinance and determined that the "emergency" signage could be considered "Directional" signage by Ordinance, which is "*a sign which is erected on private property for the purpose of telling people how to locate businesses, activities, products, persons, places or services, whether on or off the premises where the sign is located.*"

Within the C-2 district, directional signs may be up to 32 square feet and eight feet in height measured from the ground. Therefore, an exception is still required for the Emergency signs to

be higher up on the building than eight feet. Staff supports both the 32-square-foot size and the height exception (up to 25 feet) for the Emergency wall signs to allow for better visibility on the building. Additionally, staff has received a similar request from Beloit Health System for emergency signage, proposing 32-square-foot signs on the Emergency Room overhangs, which are located approximately 500 feet from each site access point. Given that the PLI, Public Lands and Institutions District (in which the Hospital is zoned) restricts directional signs to a maximum of 5 square feet, this request will also necessitate an exception request for both size and height, which would be reviewed at an upcoming Plan Commission meeting.

On-Premises, Sign Area Bonuses that are applicable: The maximum on-premises sign areas may be increased if the signage meets one or more of the following:

- If the on-premises sign is a freestanding sign, other than a pole sign, the maximum allowed sign area of the freestanding sign may be increased by an additional 10 percent if the sign is in a landscaped area where there is a minimum of 2 square feet of landscaping for each square foot of sign area.
    - This would bring the maximum allowed sign area of the Primary On-Premise freestanding sign to 165 square feet (both sides combined).

- If the on-premises sign is an outdoor wall sign, the maximum allowed sign area of the wall sign may be increased by an additional 10 percent if the wall sign consists of individual letters mounted directly on the face of a building.
    - This would bring the allowance for each secondary wall sign area to 18.2 square feet.

- If the on-premises sign is an outdoor wall sign, the maximum allowed sign area may be increased by up to 20% if the wall sign is set back between 160 and 214 feet from the front lot line.
    - The wall signs are setback:
        - On the north elevation 182 square feet from the front property line.
        - On the west elevation 171 square feet from the front property line.
        - On the south elevation 161 square feet from the front property line.

    - This would bring the allowance for the secondary wall signs to 21.8 square feet.

The Outdoor Sign Ordinance defines height as the distance measured vertically to the highest point of an outdoor sign from grade and defines sign face as the portion of a sign upon which a message is displayed by graphics, symbols, insignias, logos, pictures or other means, including any background color, border, frame, trim or other material which is an integral part of the sign. "Sign face" does not include a sign structure. "Sign face" includes both sides of a double-faced sign.

Exception Request Details:					
Sign	**Description**	**Sign Type**	**Square Feet of Sign Face Proposed**	**Square Feet of Sign Face Allowed with Bonuses**	**Square Feet Overage (Exception Request)**
MD	Double Sided Ground Mounted – Mercyhealth Logo, Emergency, Clinic, and Urgent Care	Primary	435	165	270
CL.1	West Wall -Mercyhealth Logo	Secondary	64.3	18.2	46.1
CB.1	West Wall -Clinic/Urgent Care	Secondary	20	18.2	1.8
CL.2	West Wall -Emergency	~~Secondary~~ Directional	87.9	~~18.2~~ 32	~~69.7~~ 55.9
CL.3	North Wall -Emergency	~~Secondary~~ Directional	156.2	~~21.8~~ 32	~~134.4~~ 124.2
CL.4	South Wall -Emergency	~~Secondary~~ Directional	39	~~21.8~~ 32	~~17.2~~ 7

The applicant is proposing one ground sign, five secondary wall signs and five directional signs. The proposed directional signs meet code; however, none of the five wall signs in the table above nor the ground sign do. Specifically, the applicant is requesting approval for a primary ground sign with a sign face of 435 square feet and a height of 25 feet. This request deviates from the maximum allowable size of 165 square feet for the sign face and a height of 20 feet. Additionally, the applicant is requesting an exception for five of the secondary wall signs located on three building elevations, ranging in size from 20 square feet to 156.2 square feet. This is a deviation from the maximum allowance of 18.2 square feet for general wall signage and 32 square feet for "emergency" Directional wall signage.

Applicant's Hardship Argument:

The applicant states that strict compliance with the ordinance would impose an economic burden and, more importantly, compromise patient safety by making the Emergency Center difficult to locate in critical situations. The applicant contends that the hardship is not self-created, as the facility's location presents unique challenges not encountered by typical commercial properties. The applicant further states that granting the exception would serve the public interest by improving wayfinding, minimizing patient delays, and aligning with industry standards for emergency signage. Mercyhealth emphasizes that this request is a site-specific exception tailored to the unique circumstances of the Emergency Center, rather than a precedent-setting change to the ordinance.

Exception Standards: Section 30.48(2) of the Sign Ordinance outlines standards for granting an exception. The Ordinance states that the Plan Commission may grant an exception if it determines that:

a. *Compliance with the strict letter of the Sign Ordinance would create an economic hardship by either unreasonably restricting an on-premises sign owner from advertising a business*

or rendering conformity with such regulations unnecessarily burdensome upon an owner of an on-premises sign.

- The site has no topographical challenges or obstructions that would limit the visibility of compliant signage. The proposed signage—totaling 802.4 square feet, including a double-sided 25-foot-tall, 435-square-foot freestanding sign for a two-story building that is slightly more than 26 feet tall—is excessive and far exceeds what is necessary for effective communication. The allowable signage area, as outlined in the ordinance, provides ample capacity to advertise without overwhelming the site or its surroundings. Furthermore, other businesses within the same zoning district operate effectively within these limits.

- Granting this exception based on the emergency use of the facility could subject the City to a legal challenge. In *Reed v. Town of Gilbert* (2015), the U.S. Supreme Court reinforced that municipalities cannot regulate signs based on content without meeting strict scrutiny. The argument that this sign should be larger because it pertains to emergency medical care is a content-based distinction. Allowing an exception based on the sign's message could not only open the City to legal challenge, but also set a precedence for other businesses or institutions, including competing healthcare facilities or even unrelated commercial establishments, claiming larger signage than what code allows is a public necessity.

b. *The hardship is not self-created.*

- The request for increased signage stems from the applicant's decision to add emergency services, which does not constitute a hardship caused by the ordinance itself. Adequate signage can be achieved within the current regulations, ensuring visibility and communication for the new use of the property without requiring excessive deviations. Other emergency services in the City as well as those of the applicant in other communities such as Janesville communicate those services effectively with smaller signage.

- Mercyhealth argues that the sign ordinance creates an undue hardship, but the conditions presented do not meet the threshold for a hardship exemption. A true hardship arises when compliance with an ordinance would render a property unusable for its permitted purpose. The Emergency Center can still operate effectively under the existing sign regulations. The standards being applied to Mercyhealth are standards that would be applied to all C-2 zoned properties throughout the City.

- Additionally, the presence of large non-conforming signs in the area is not a justification for granting another oversized sign. Over time, those signs will be brought into compliance as businesses update their signage. The request is based on economic and competitive concerns, not a legitimate hardship. The ability to distinguish itself from Beloit Health System (BHS) is a business consideration, not a matter of public safety. Patients seeking emergency care are more likely to rely on GPS navigation, prior knowledge, or EMS transport rather than a single sign. Even if patients find themselves on Prairie Avenue seeking emergency medical care without the aid of prior knowledge or navigation, staff believes code-compliant signage is adequate to

convey the presence of this and neighboring medical facilities, particularly if Plan Commission agrees that the "Emergency" wall signs are directional and can be 32 square feet, and grants the exception to allow them higher than eight feet on the building.

c. *The exception will not undermine the purpose of the Sign Ordinance or the public interest.*

- The proposed signage is incompatible with the scale and character of the surrounding area. The ordinance seeks to maintain visual harmony within zoning districts, and the proposed signage would detract from the overall aesthetic appeal of the area by introducing disproportionate and overly prominent features.

- The applicant's reliance on MDOT and ISA standards for visibility fails to account for the local context and scale of the site. Visibility can be achieved within the ordinance's current limits through thoughtful design and placement, ensuring public safety and effective wayfinding without compromising the ordinance's goals.

- Granting an exception would undermine the regulations and invite future requests from other businesses seeking to increase their visibility. The argument that a larger sign will improve patient outcomes is speculative. Emergency medical care operates within an integrated system that includes 911 dispatch, EMS services, and hospital coordination. Wayfinding for walk-in patients can be effectively addressed through compliant signage, electronic navigation tools, and public awareness efforts rather than an oversized sign.

STAFF RECOMMENDATION:

The Planning and Building Services Division recommends ***denial*** of an exception to Section 30.09 of the Outdoor Sign Regulations to exceed the maximum allowable sign area on the same premises; to Section 30.10 of the Outdoor Sign Regulations to exceed the maximum sign height in a nonresidential zoning district; to Section 30.35(2)(c) of the Outdoor Sign Regulations to exceed the maximum square footage of a primary on-premises sign; and to Section 30.43(2)(c) of the Outdoor Sign Regulations to allow secondary wall signs larger than 10% of the primary on-premises sign. Staff supports granting an exception to Section 30.16(2)(e) of the Outdoor Sign Regulations and recommends ***approval*** to exceed the maximum sign height for a directional sign for the Emergency wall signs only in the C-2, Neighborhood Commercial District at 2825 Prairie Avenue, based on the criteria outlined for granting such exceptions.

ATTACHMENTS: Location Map, Zoning Map, Site Diagram, Sign Renderings, Applicants Narrative, Application, Sign Line Document, Public Notice, Resolution, and USSC Guideline Standards for On-Premise Signs.

RESOLUTION 2024-035

**APPROVING AN EXCEPTION TO SECTIONS 30.16(2)(E)
OF THE OUTDOOR SIGN REGULATIONS FOR THE PROPERTY
LOCATED AT 2825 PRAIRIE AVENUE**

WHEREAS, the application of Randy Benish, on behalf of Mercy Hospital for an exception to Section 30.09 to exceed the maximum allowable sign area on the same premises; to Section 30.10 to exceed the maximum sign height in a nonresidential zoning district; to Section 30.35(2)(c) to exceed the maximum square footage of a primary on-premises sign; and to Section 30.43(2)(c) to allow secondary wall signs larger than 10% of the primary on-premises sign. for the property located at 2825 Prairie Avenue, having been considered by the Plan Commission of the City of Beloit, Wisconsin at a public hearing held for that purpose; and

WHEREAS, the application as submitted does not meet the criteria for granting an exception as required by Section 30.48 of the Sign Ordinance.

WHEREAS, the exception to 30.16(2)(e) does meet the criteria for granting an exception as required by Section 30.48 of the Sign Ordinance.

NOW, THEREFORE, IT IS HEREBY RESOLVED, that the Plan Commission of the City of Beloit, Rock County, Wisconsin does hereby approve an exception to Section 30.16(2)(e) to exceed the maximum sign height for a directional sign for the Emergency walls signs only in the C-2, Neighborhood Commercial District for the property located at 2825 Prairie Avenue in the City of Beloit, for the following described premises:

LOT 2 OF CERTIFIED SURVEY MAP DOCUMENT NUMBER 823186 IN VOLUME 4, PAGES 208-209 OF THE CERTIFIED SURVEY MAPS OF ROCK COUNTY, LOCATED IN THE CITY OF BELOIT, ROCK COUNTY, WISCONSIN (A/K/A 2825 PRAIRIE AVENUE). SAID PARCEL CONTAINS 2.15 ACRES, MORE OR LESS.

Adopted this 19th day of February, 2025.

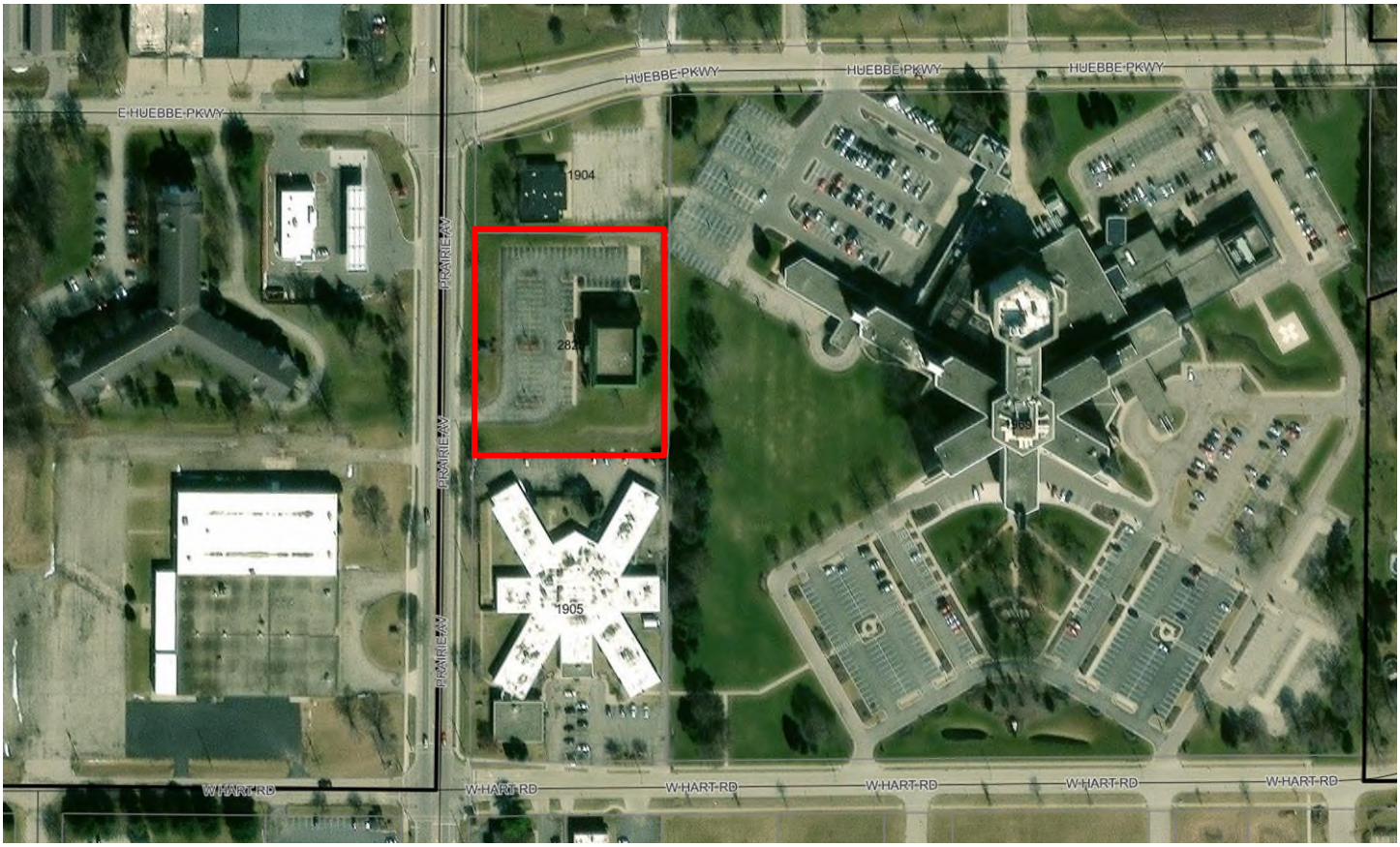
PLAN COMMISSION

_____
Mike Ramsden, Chairperson

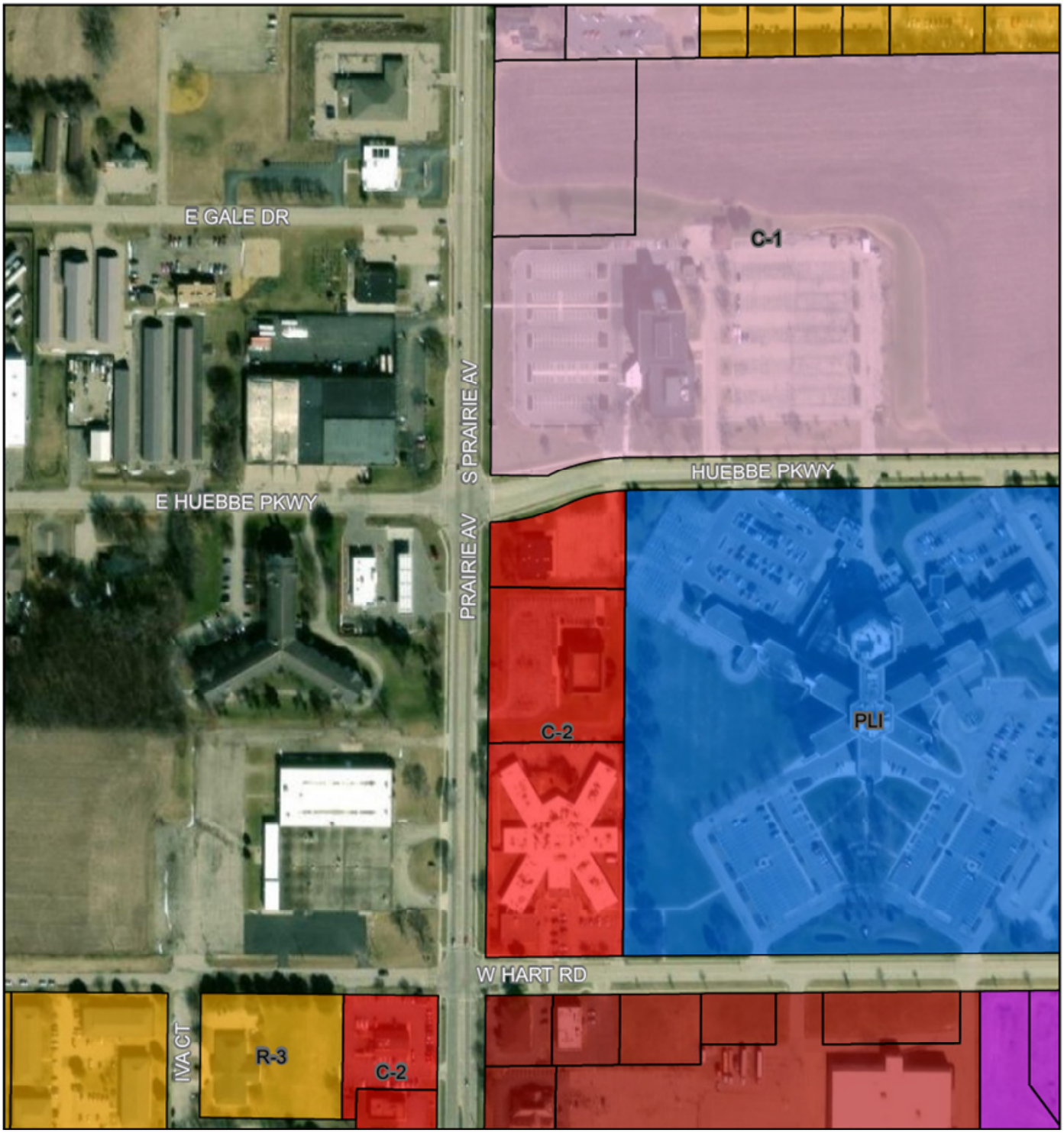
ATTEST:

_____
Julie Christensen
Community Development Director

LOCATION MAP



City of Beloit Zoning Map



12/5/2024

Zoning Districts
- C-1
- C-2
- C-3
- PLI
- PUD
- R-3

World Imagery
Low Resolution 15m Imagery
High Resolution 60cm Imagery
High Resolution 30cm Imagery
Citations
1.2m Resolution Metadata

1:4,830

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.19 km

Maxar

SIGNAGE VISIBILITY STUDY FOR
2825 PRAIRIE AVE., BELOIT, WI 53511

The information below is obtained from the USSC On Premise Sign Standards. These Standards are based upon federal MUTCD traffic and academic research studies. This sets an objective standard for determining the visibility of the proposed and code compliant signs. The following pages compare the proposed signage vs the code compliant signage evaluating the functionality of the signage. The signs function is to allow a driver reasonably appropriate time to safely read and react to the sign message.

Viewer Reaction Time
Computation Relative to Primary Message

Task	Driving Environment: Simple	Complex[1]	Multi Lane[2]
Detection	0.5 Second	1 Second	1 Second
Message Scan	0.1 Sec / Letter 0.5 Sec / Symbol	0.1 Sec / Letter 0.5 Sec / Symbol	0.1 Sec / Letter 0.5 Sec / Symbol
Re-Orientation Scan	0.02 Sec / Letter 0.1 Sec / Symbol	0.04 Sec / Letter 0.2 Sec / Symbol	0.04 Sec / Letter 0.2 Sec / Symbol
Maneuver	4 Seconds	5 Seconds	6 Seconds

1. Developed town or city commercial areas. Single or multi-lane travel under 35 mph
2. Developed urban/suburban commercial areas. Multi-lane travel over 35 mph

DETERMINING SIGN SIZE – The Component Determinants

Viewer Reaction Time
The Viewing/Reaction Process

Viewer Reaction Time is a measurement of the total viewing and reaction time available to a driver reading a sign. It consists of four identifiable elements, each of which can be measured in components of elapsed time. They are:

1) Detection of the sign, noting it as a separate entity in a field of roadside objects;
2) The Message Scan, or fixation of view on the message contained on the sign;
3) The Re-Orientation Scan, or refocus of view from the message to the road environment at known intervals;
4) Driving Maneuvers as required in response to the message.

Manual on Uniform Traffic Control Devices for Streets and Highways

INTERNATIONAL SIGN ASSOCIATION

U.S. Department of Transportation Federal Highway Administration

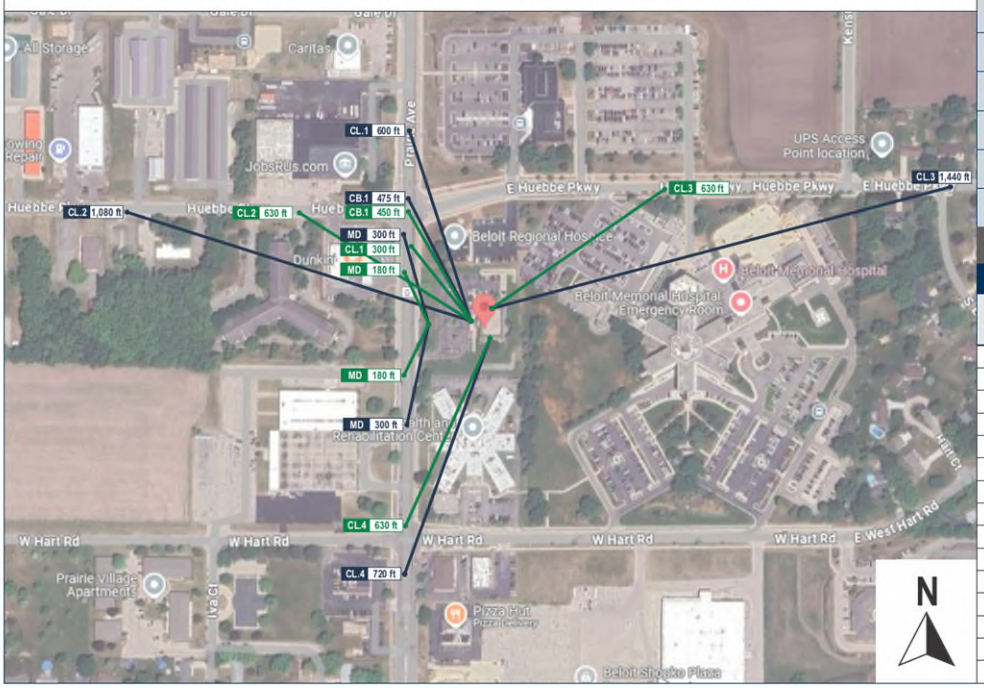
USSCF

United States Sign Council Foundation
"Bringing Science to Sign Regulation"

VISIBILITY STUDY

SITEPLAN

PROPOSED (MAXIMUM READABLE DISTANCE) CODE COMPLIANT (MAXIMUM READABLE DISTANCE)



SCALE: NTS SCALE: NTS

EXTERIOR SIGNS

TYPE	DESCRIPTION	PROPOSED HEIGHT	CODE COMPLIANT HEIGHT
MD	D/F INTERNALLY ILLUMINATED MONUMENT SIGN - AT WEST ELEVATION	300" (Overall Height) 13 3/4" (LETTER E) 10 3/4" (LETTER P)	184 1/2" (Overall Height) 8 1/2" (LETTER E) 6 3/4" (LETTER P)
CL.1	FACE-LIT SHIELD & FACE-LIT LETTERS SHIELD / MERCYHEALTH - WEST ELEVATION	32 3/8" (LETTER M) 20 3/4" (LETTER e) 40 3/4" (SHIELD)	17" (LETTER M) 11" (LETTER e) 21" (SHIELD)
CB.1	S/F ILLUMINATED CABINET SIGN CLINIC / URGENT CARE - WEST ELEVATION	10" (LETTER C) 16" (OVERALL)	9 15/16" (LETTER C) 15 1/4" (OVERALL)
CL.2	FACE LIT CHANNEL LETTER EMERGENCY - WEST ELEVATION	36" (LETTER E)	21 5/8" (LETTER E)
CL.3	FACE LIT CHANNEL LETTER EMERGENCY - NORTH ELEVATION	48" (LETTER E)	21 5/8" (LETTER E)
CL.4	FACE LIT CHANNEL LETTER EMERGENCY - SOUTH ELEVATION	24" (LETTER E)	21 5/8" (LETTER E)

LETTER HEIGHT VISIBILITY

SPEED LIMIT ALONG PRAIRIE AVENUE IS 35 MPH
SPEED LIMIT ALONG HUEBBE PARKWAY IS 25 MPH

LETTER HEIGHT	OPTIMAL VIEWING DISTANCE	FARTHEST READABLE DISTANCE
3"	30 ft	90 ft
4"	40 ft	120 ft
6"	60 ft	180 ft
8"	80 ft	240 ft
9"	90 ft	270 ft
10"	100 ft	300 ft
12"	120 ft	360 ft
15"	150 ft	450 ft
18"	180 ft	540 ft
24"	240 ft	720 ft
30"	300 ft	900 ft
36"	360 ft	1080 ft
42"	420 ft	1260 ft
48"	480 ft	1440 ft

WEST ELEVATION - PROPOSED

WEST ELEVATION
SCALE: 1/16" = 1'-0"

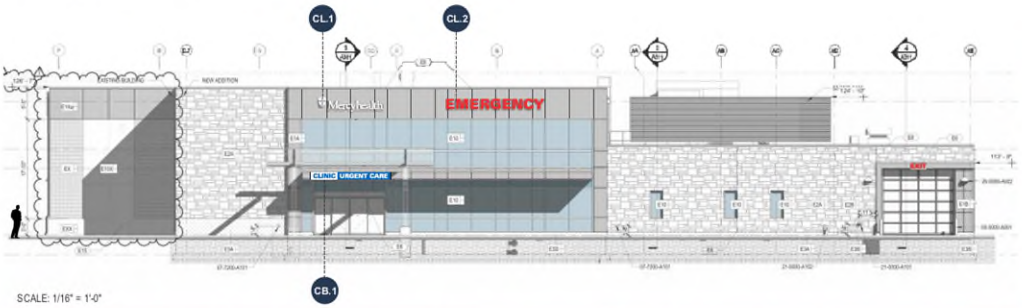
CL.1 Proposed
Letter Height 20" (Lower Case)
Farthest Readable Distance 600 Feet
Maximum Viewing Time @ 35 MPH ~ 12 seconds
* Minimum viewing time required for safety 6.6 seconds
Minimum viewing time under stressed conditions 13+ seconds

CL.2 Proposed
Letter Height 36"
Farthest Readable Distance 1,080 Feet
Maximum Viewing Time @ 35 MPH ~ 21 seconds
* Minimum viewing time required for safety 6 seconds
Minimum viewing time under stressed conditions 13+ seconds

SIGN LABEL	OAH	OAW	TOTAL SF
CL.1 MERCY HEALTH	60"	266 1/2"	64.3
CL.2 EMERGENCY	36"	351 5/8"	87.9
CB.1 CLINIC / URGENT CARE	16"	180"	20

OAH = Overall Height, OAW = Overall Width

WEST ELEVATION - CODE COMPLIANT



SCALE: 1/16" = 1'-0"

CL.1 Code Compliant
Letter Height 10" (Lower Case)
Farthest Readable Distance 300 Feet
Maximum Viewing Time @ 35 MPH ~ 6 seconds
* Minimum viewing time required for safety 6.6 seconds
Minimum viewing time under stressed conditions 13+ seconds

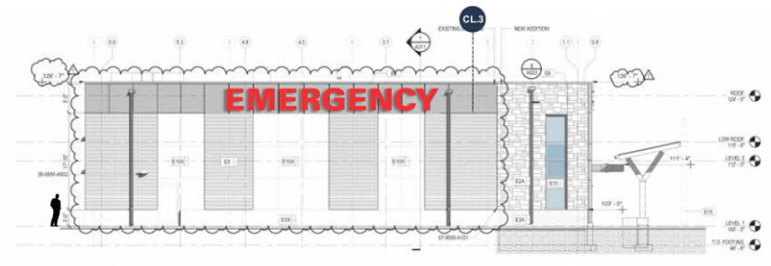
CL.2 Code Compliant
Letter Height 21 5/8"
Farthest Readable Distance 630 Feet
Maximum Viewing Time @ 35 MPH ~ 12.35 seconds
* Minimum viewing time required for safety 6 seconds
Minimum viewing time under stressed conditions 13+ seconds

SIGN LABEL	OAH	OAW	TOTAL SF
CL.1 MERCY HEALTH	31 1/2"	140 3/8"	18.2
CL.2 EMERGENCY	21 5/8"	211 1/4"	32
CB.1 CLINIC / URGENT CARE	15 1/4"	172"	18.2

OAH = Overall Height, OAW = Overall Width

***Minimum viewing time is based upon a non-stressed driver with average vision under normal daytime driving conditions. Minimum viewing time increases considerably based upon a driver's psychological state, familiarity with the setting, less than average vision, stress, night-time, traffic volume and weather conditions.**
Increasing time required up to 13 - 16 seconds for a single word to allow enough time for viewer to safely read and react.

NORTH ELEVATION - PROPOSED



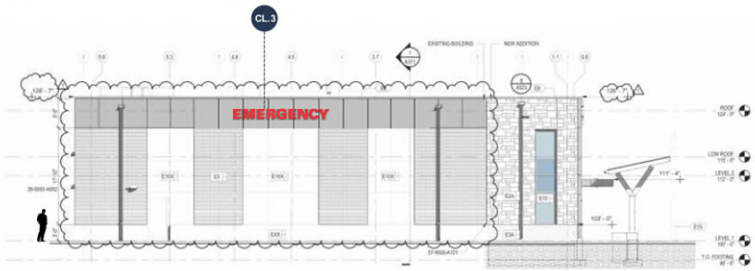
NORTH ELEVATION
SCALE: 1/16" = 1'-0"

CL.3 Proposed
Letter Height 48"
Farthest Readable Distance 1,440 Feet
Maximum Viewing Time @ 35 MPH ~ 28 seconds
* Minimum viewing time required for safety 6 seconds
Minimum viewing time under stressed conditions 13+ seconds

SIGN LABEL	OAH	OAW	TOTAL SF
CL.3 EMERGENCY	48"	468 7/8"	156.2

OAH = Overall Height, OAW = Overall Width

NORTH ELEVATION - CODE COMPLIANT



NORTH ELEVATION
SCALE: 1/16" = 1'-0"

CL.3 Code Compliant
Letter Height 21 5/8"
Farthest Readable Distance 630 Feet
Maximum Viewing Time @ 35 MPH ~ 12.35 seconds
* Minimum viewing time required for safety 6 seconds
Minimum viewing time under stressed conditions 13+ seconds

SIGN LABEL	OAH	OAW	TOTAL SF
CL.3 EMERGENCY	21 5/8"	211 1/4"	32

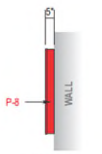
OAH = Overall Height, OAW = Overall Width

***Minimum viewing time is based upon a non-stressed driver with average vision under normal daytime driving conditions. Minimum viewing time increases considerably based upon a driver's psychological state, familiarity with the setting, less than average vision, stress, night-time, traffic volume and weather conditions. Increasing time required up to 13 - 16 seconds for a single word to allow enough time for viewer to safely read and react.**

CL.3 48" FACE LIT CHANNEL LETTERS - REMOTE POWER SUPPLY - EXTERIOR (QTY 1)

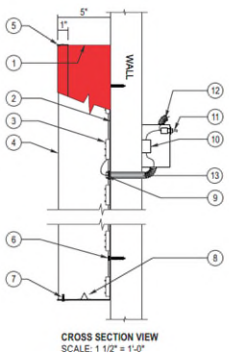
SQUARE FOOTAGE: 156.2

FRONT VIEW
SCALE: 1/4" = 1'-0"



SIDE VIEW
SCALE: 1/4" = 1'-0"

NIGHT VIEW
SCALE: NTS



CROSS SECTION VIEW
SCALE: 1 1/2" = 1'-0"

SPECIFICATIONS:

1. .040" X 5" ALUMINUM COIL (WHITE INSIDE) (SEAMS IN CORNERS OR TOP) P-8
2. 3MM ACM BACKS / LETTER LOCKED TO RETURNS
3. SLOAN PRISM RED LED'S
4. 3/16" #7328 WHITE ACRYLIC WITH FIRST SURFACE APPLIED VINYL V-4
5. ALUM. TRIMCAP P-8
6. MOUNTING HARDWARE TO SUIT FIELD CONDITIONS
7. #8 - 1/2" PAN HEAD SCREWS (NO MORE THAN 24" APART)
8. 1/4" DIA. WEEP HOLES W/ .063" DRAIN HOLE COVER
9. 7/8" ELECTRICAL HOLE / 1/2" COUPLER WITH FLEXIBLE CONDUIT TO POWER SUPPLY BOX (IN MIDDLE OF LETTER UNLESS NOTED OTHERWISE). INSTALLER TO FOLLOW LOCAL CODE.
10. LED POWER SUPPLY INSIDE POWER SUPPLY BOX
11. TOGGLE SWITCH MOUNTED TO POWER SUPPLY BOX
12. 15 FT. MIN. WHIP LENGTH. IF PRIMARY ELECTRIC IS LOCATED WITHIN 6 FT. OF THE POWER SUPPLY BOX, ELECTRIC TO BE CONNECTED BY INSTALLERS, INSTALLER TO FOLLOW LOCAL CODE.
13. RIGID CONDUIT THROUGH WALL WITH 1/2" - 1" STUB BEYOND INSIDE WALL. 15 FT. MINIMUM WHIP LENGTH FOR LOW VOLTAGE WIRE.

NOTES:

1. ETL STICKER TO BE PLACED ON BOTTOM OF SIGN, VISIBLE FROM GROUND
2. ALL BLOCKING PROVIDED BY MERCY HEALTH

COLORS / FINISHES:

P-8 MP TO MATCH PMS 1797 C
V-4 3M 3630-33 RED TRANSLUCENT

FONTS:
UNIVERS BOLD

SOUTH ELEVATION - PROPOSED

SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

CL.4 Proposed
Letter Height 24"
Farthest Readable Distance 720 Feet
Maximum Viewing Time @ 35 MPH ~ 14 seconds
* Minimum viewing time required for safety 6 seconds
Minimum viewing time under stressed conditions 13+ seconds

SIGN LABEL	OAH	OAW	TOTAL SF
CL.4 EMERGENCY	24"	234 1/2"	39

OAH = Overall Height, OAW = Overall Width

SOUTH ELEVATION - CODE COMPLIANT

SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

CL.4 Code Compliant
Letter Height 21 5/8"
Farthest Readable Distance 630 Feet
Maximum Viewing Time @ 35 MPH ~ 12.35 seconds
* Minimum viewing time required for safety 6 seconds
Minimum viewing time under stressed conditions 13+ seconds

SIGN LABEL	OAH	OAW	TOTAL SF
CL.4 EMERGENCY	21 5/8"	211 1/4"	32

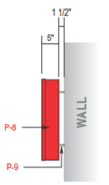
OAH = Overall Height, OAW = Overall Width

***Minimum viewing time is based upon a non-stressed driver with average vision under normal daytime driving conditions. Minimum viewing time increases considerably based upon a driver's psychological state, familiarity with the setting, less than average vision, stress, night-time, traffic volume and weather conditions. Increasing time required up to 13 - 16 seconds for a single word to allow enough time for viewer to safely read and react.**

CL.4 24" FACE LIT CHANNEL LETTERS - REMOTE POWER SUPPLY - EXTERIOR (QTY 1)

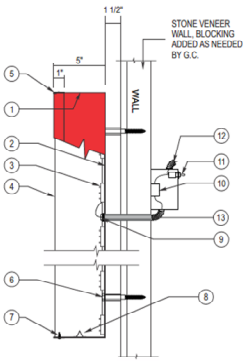
SQUARE FOOTAGE: 39

FRONT VIEW
SCALE: 1/2" = 1'-0"



SIDE VIEW
SCALE: 1/2" = 1'-0"

NIGHT VIEW
SCALE: NTS



CROSS SECTION VIEW
SCALE: 1 1/2" = 1'-0"

SPECIFICATIONS:

1. .040" X 5" ALUMINUM COIL (WHITE INSIDE) (SEAMS IN CORNERS OR TOP) P-8
2. 3MM ACM BACKS / LETTER LOCKED TO RETURNS
3. SLOAN PRISM RED LED'S
4. 3/16" #7328 WHITE ACRYLIC WITH FIRST SURFACE APPLIED VINYL V-4
5. 1" PRE-FINISHED JEWELITE CHEMICALLY BONDED TO FACES (SEAMS AT THE TOP) P-8
6. 3/8" LAG SCREW WITH 1/2" ID SPACER P-9
   WALL BLOCKING ADDED AS NEEDED BY G.C.
7. #8 - 1/2" PAN HEAD SCREWS (NO MORE THAN 24" APART)
8. 1/4" DIA. WEEP HOLES W/ .063" DRAIN HOLE COVER
9. 7/8" ELECTRICAL HOLE / 1/2" COUPLER WITH FLEXIBLE CONDUIT TO POWER SUPPLY BOX (IN MIDDLE OF LETTER UNLESS NOTED OTHERWISE). INSTALLER TO FOLLOW LOCAL CODE.
10. LED POWER SUPPLY INSIDE POWER SUPPLY BOX
11. TOGGLE SWITCH MOUNTED TO POWER SUPPLY BOX
12. 15 FT. MIN. WHIP LENGTH. IF PRIMARY ELECTRIC IS LOCATED WITHIN 6 FT. OF THE POWER SUPPLY BOX. ELECTRIC TO BE CONNECTED BY INSTALLERS. INSTALLER TO FOLLOW LOCAL CODE.
13. RIGID CONDUIT THROUGH WALL WITH 1/2" - 1" STUB BEYOND INSIDE WALL. 15 FT. MINIMUM WHIP LENGTH FOR LOW VOLTAGE WIRE.

NOTES:

1. ETL STICKER TO BE PLACED ON BOTTOM OF SIGN, VISIBLE FROM GROUND
2. ALL BLOCKING PROVIDED BY MERCY HEALTH
3. **SIGN INSTALLED ON STONE VENEER WALL. SPACERS WILL BE REQUIRED.**

COLORS / FINISHES:

- P-8 MP TO MATCH PMS 1797 C
- P-9 MP TO MATCH WALL COLOR TBD
- V-4 3M 3630-33 RED TRANSLUCENT

FONTS:
UNIVERS BOLD

MD - D/F INTERNALLY ILLUMINATED MONUMENT SIGN PROPOSED

MD Proposed
'EMERGENCY' Letter Height 14"
Farthest Readable Distance 420 Feet
Maximum Viewing Time @ 35 MPH ~ 8 seconds

'Urgent Care' Letter Height 7" (Lower Case)
Farthest Readable Distance 330 Feet
Maximum Viewing Time @ 35 MPH ~ 6.5 seconds

SIGN LABEL	OAH	OAW	TOTAL SF
MD	300"	174"	217.5 per side 435 total

OAH = Overall Height, OAW = Overall Width

Minimum viewing time under stressed conditions 13+ seconds

FRONT VIEW - PROPOSED
SCALE: 1/4" = 1'-0"

MD - D/F INTERNALLY ILLUMINATED MONUMENT SIGN CODE COMPLIANT

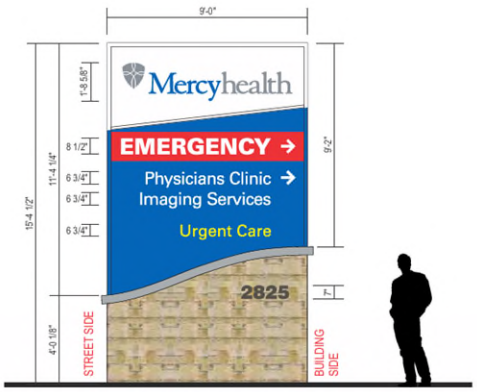
MD Code Compliant
'EMERGENCY' Letter Height 8 1/2"
Farthest Readable Distance 255 Feet
Maximum Viewing Time @ 35 MPH ~ 5 seconds
* Minimum viewing time required for safety 6 seconds

'Urgent Care' Letter Height 5" (lower case)
Farthest Readable Distance 150 Feet
Maximum Viewing Time @ 35 MPH ~ 2.97 seconds
* Minimum viewing time required for safety 6.5 seconds

SIGN LABEL	OAH	OAW	TOTAL SF
MD	184 1/2"	108"	82.5 per side 165 total

OAH = Overall Height, OAW = Overall Width

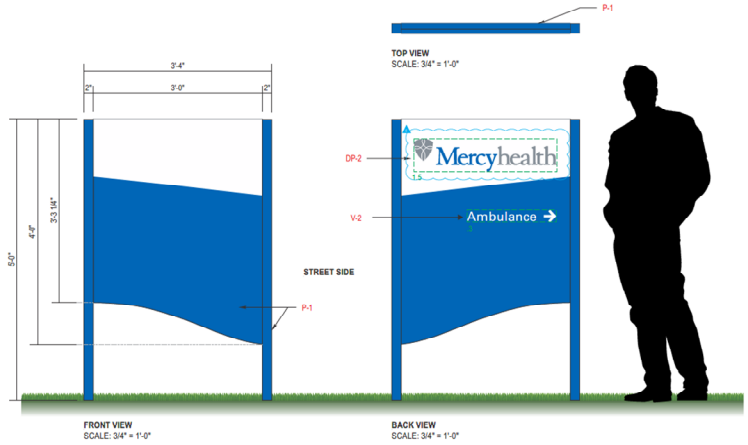
Minimum viewing time under stressed conditions 13+ seconds

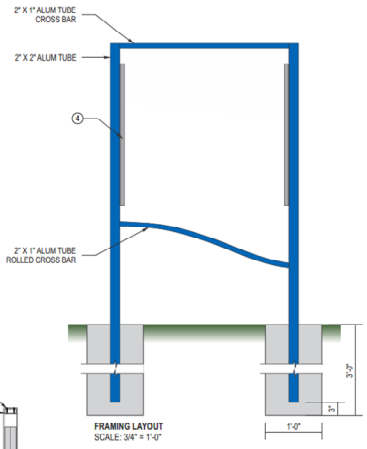


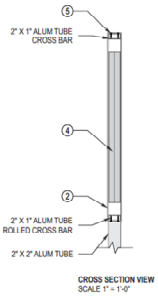
FRONT VIEW - CODE COMPLIANT
SCALE: 1/4" = 1'-0"

PP.1 D/F NON-LIT POST AND PANEL - 3'x4' PANEL (Qty 1)

SQUARE FOOTAGE: 1.8







SPECIFICATIONS.

1. 2" X 2" X .125" SQUARE ALUMINUM TUBE WITH 2" X 1" ALUMINUM CROSS BARS, BOTTOM CROSS BAR TO BE CURVED TO MATCH CURVE OF SIGN FACE P-1
2. 1/8" ALUMINUM FACE PANEL BREAK FORMED AT TOP AND CURVED RETURN WELDED TO BOTTOM, FACE WILL SLEEVE ONTO FRAMING CROSS BARS P-1
3. OPAQUE VINYL APPLIED FIRST SURFACE TO ALUMINUM FACE V-2, DP-2
4. 1" X 1" X .125" ALUMINUM ANGLE FOR PANEL STIFFENERS (IF REQUIRED)
5. COUNTERSUNK HARDWARE ON TOP AND BOTTOM OF FACE PANEL TO ATTACH TO CROSSBAR FRAME
6. POSTS TO BE DIRECT BURIED WITH SEPARATE CONCRETE FOOTINGS FOOTINGS TO BE 1'-0"Ø X 3'-0" DEEP

NOTES:

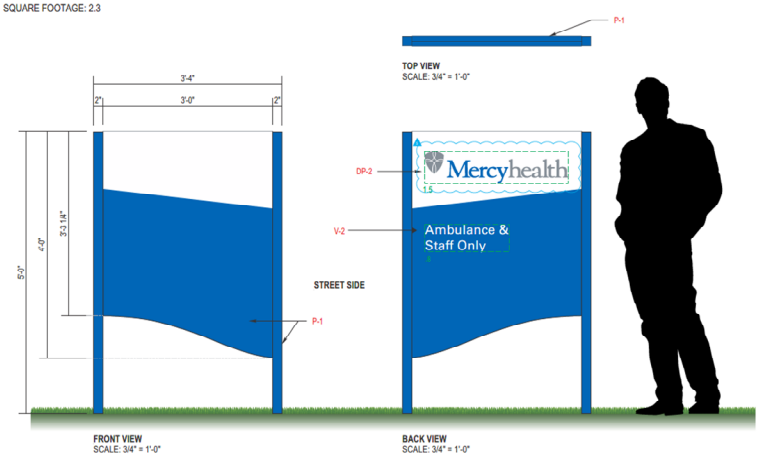
COLORS / FINISHES:

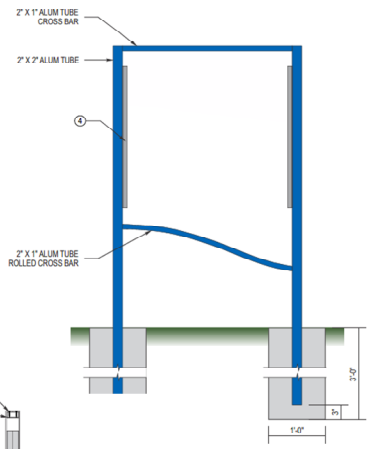
P-1 MP TO MATCH PMS 2144C BLUE
V-2 3M 7725-10 WHITE OPAQUE
DP-2 DIGITALLY PRINTED GRAPHIC ON OPAQUE WHITE VINYL TO MATCH PMS 2144C BLUE & PMS 7544C GREY WITH MATTE LAMINATE

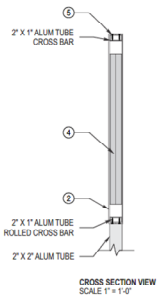
FONTS:
UNIVERS 55 ROMAN

PP.2 D/F NON-LIT POST AND PANEL - 3'x4' PANEL (Qty 1)

SQUARE FOOTAGE: 2.3







SPECIFICATIONS:

1. 2" X 2" X .125" SQUARE ALUMINUM TUBE WITH 2" X 1" ALUMINUM CROSS BARS, BOTTOM CROSS BAR TO BE CURVED TO MATCH CURVE OF SIGN FACE P-1
2. 1/8" ALUMINUM FACE PANEL BREAK FORMED AT TOP AND CURVED RETURN WELDED TO BOTTOM, FACE WILL SLEEVE ONTO FRAMING CROSS BARS P-1
3. OPAQUE VINYL APPLIED FIRST SURFACE TO ALUMINUM FACE V-2, DP-2
4. 1" X 1" X .125" ALUMINUM ANGLE FOR PANEL STIFFENERS (IF REQUIRED)
5. COUNTERSUNK HARDWARE ON TOP AND BOTTOM OF FACE PANEL TO ATTACH TO CROSSBAR FRAME
6. POSTS TO BE DIRECT BURIED WITH SEPARATE CONCRETE FOOTINGS FOOTINGS TO BE 1'-0"Ø X 3'-0" DEEP

NOTES:

COLORS / FINISHES:

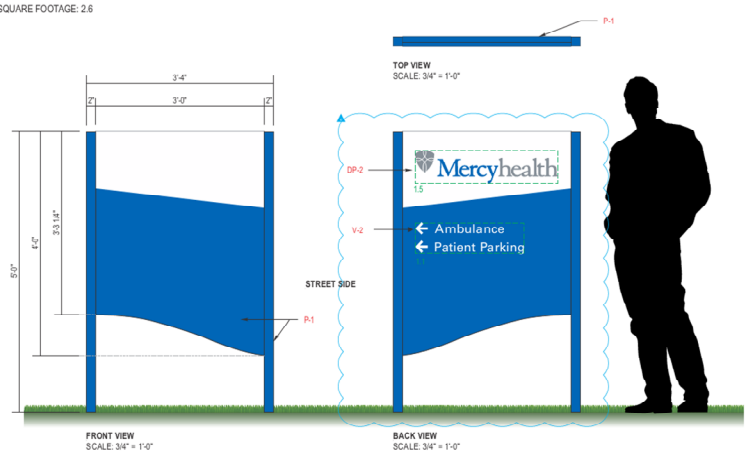
P-1 MP TO MATCH PMS 2144C BLUE
V-2 3M 7725-10 WHITE OPAQUE
DP-2 DIGITALLY PRINTED GRAPHIC ON OPAQUE WHITE VINYL TO MATCH PMS 2144C BLUE & PMS 7544C GREY WITH MATTE LAMINATE

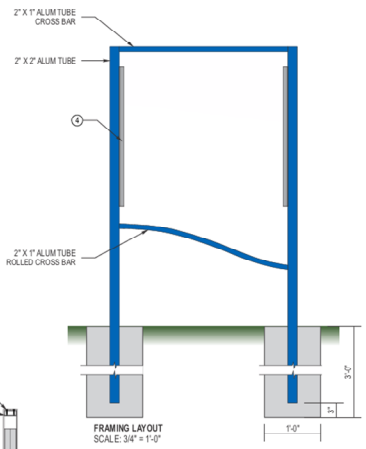
FONTS:
UNIVERS 55 ROMAN

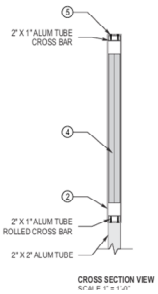
Not a part of the exception request

PP.3 D/F NON-LIT POST AND PANEL - 3'x4' PANEL (Qty 1)

SQUARE FOOTAGE: 2.6







SPECIFICATIONS:

1. 2" X 2" X .125" SQUARE ALUMINUM TUBE WITH 2" X 1" ALUMINUM CROSS BARS, BOTTOM CROSS BAR TO BE CURVED TO MATCH CURVE OF SIGN FACE P-1
2. 1/8" ALUMINUM FACE PANEL BREAK FORMED AT TOP AND CURVED RETURN WELDED TO BOTTOM. FACE WILL SLEEVE ONTO FRAMING CROSS BARS P-1
3. OPAQUE VINYL APPLIED FIRST SURFACE TO ALUMINUM FACE V-2, DP-2
4. 1" X 1" X .125" ALUMINUM ANGLE FOR PANEL STIFFENERS (IF REQUIRED)
5. COUNTERSUNK HARDWARE ON TOP AND BOTTOM OF FACE PANEL TO ATTACH TO CROSSBAR FRAME
6. POSTS TO BE DIRECT BURIED WITH SEPARATE CONCRETE FOOTINGS FOOTINGS TO BE 1'-0"D X 3'-0" DEEP

NOTES:

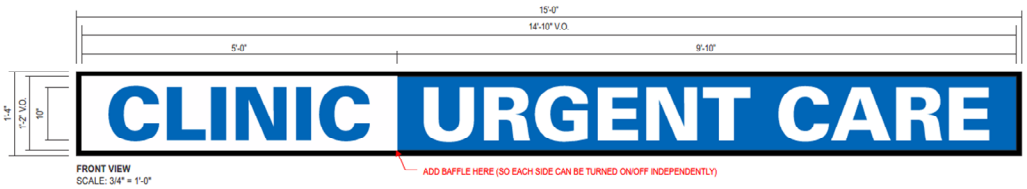
COLORS / FINISHES:

P-1 MP TO MATCH PMS 2144C BLUE
V-2 3M 7725-10 WHITE OPAQUE
DP-2 DIGITALLY PRINTED GRAPHIC ON OPAQUE WHITE VINYL TO MATCH PMS 2144C BLUE & PMS 7544C GREY WITH MATTE LAMINATE

FONTS:
UNIVERS 55 ROMAN

CB.1 S/F ILLUM. CABINET SIGN (QTY 1)

SQUARE FOOTAGE: 20



SPECIFICATIONS:

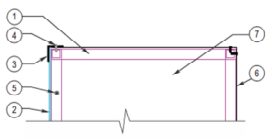
1. ALUMINUM TUBE, BUTTED & WELDED
2. WHITE PLEX FACE w/ 1ST SURFACE VINYL
3. RETAINER
4. POP RIVET RETAINER AT TOP & BOTTOM
5. NON-DRILL POINT PAN-HEAD SCREW RETAINER AT SIDES
6. ACM BACK, CAULKED & POP-RIVETED TO FRAME
7. .063" PRE-FINISHED ALUMINUM SKIN AT SIDES, POP RIVETED TO FRAME
8. WHITE LED'S
9. LED POWER SUPPLY
10. TOGGLE SWITCH / SWITCH PLATE
11. ELECTRICAL HOLE
12. 1" X 2" TUBULAR / ANGLE ALUMINUM SUPPORTS ON 4 FT. CENTERS
13. LIFTING EYEBOLT, MIN. (2) NO MORE THAN 8 FT. APART
14. MOUNTING HARDWARE TO SUIT FIELD CONDITIONS

NOTES:
- SEPARATE SWITCH REQUIRED FOR EACH SIGN, THEY BOTH CAN LIGHT INDEPENDENTLY

COLORS / FINISHES:

MP BLACK
V-9 BLOCK OUT VINYL W/ MP MATCH TO PMS 2144C BLUE W/ MATTE LAMINATE

FONTS:
UNIVERS BOLD



Not a part of the exception request

CL.5 10" FACE LIT CHANNEL LETTERS - REMOTE POWER SUPPLY - EXTERIOR (QTY 1)

SQUARE FOOTAGE: 2.3

FRONT VIEW
SCALE: 1 1/2" = 1'-0"

SIDE VIEW
SCALE: 1 1/2" = 1'-0"

FRONT VIEW
SCALE: NTS

SPECIFICATIONS:

1. .040" X 3" ALUMINUM COIL (WHITE INSIDE) (SEAMS IN CORNERS OR TOP) P-8
2. 3MM ACM BACKS / LETTER LOCKED TO RETURNS
3. SLOAN PRISM RED LED'S
4. 3/16" #7328 WHITE ACRYLIC WITH FIRST SURFACE APPLIED VINYL V-4
5. 1" PRE-FINISHED JEWELITE CHEMICALLY BONDED TO FACES (SEAMS AT THE TOP) P-8
6. MOUNTING HARDWARE TO SUIT FIELD CONDITIONS
7. #8 - 1/2" PAN HEAD SCREWS (NO MORE THAN 24" APART)
8. 1/4" DIA. WEEP HOLES W/ .063" DRAIN HOLE COVER
9. 7/8" ELECTRICAL HOLE / 1/2" COUPLER WITH FLEXIBLE CONDUIT TO POWER SUPPLY BOX (IN MIDDLE OF LETTER UNLESS NOTED OTHERWISE). INSTALLER TO FOLLOW LOCAL CODE.
10. LED POWER SUPPLY INSIDE POWER SUPPLY BOX
11. TOGGLE SWITCH MOUNTED TO POWER SUPPLY BOX
12. 15 FT. MIN. WHIP LENGTH. IF PRIMARY ELECTRIC IS LOCATED WITHIN 6 FT. OF THE POWER SUPPLY BOX, ELECTRIC TO BE CONNECTED BY INSTALLERS, INSTALLER TO FOLLOW LOCAL CODE.
13. RIGID CONDUIT THROUGH WALL WITH 1/2" - 1" STUB BEYOND INSIDE WALL. 15 FT. MINIMUM WHIP LENGTH FOR LOW VOLTAGE WIRE.

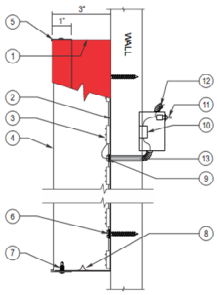
NOTES:

1. ETL STICKER TO BE PLACED ON BOTTOM OF SIGN, VISIBLE FROM GROUND
2. ALL BLOCKING PROVIDED BY MERCY HEALTH

COLORS / FINISHES:

P-8 MP TO MATCH PMS 1797 C
V-4 3M 3630-33 RED TRANSLUCENT

FONTS:
UNIVERS BOLD

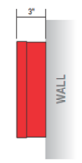


CROSS SECTION VIEW
SCALE: 3" = 1'-0"

CL.6 10" FACE LIT CHANNEL LETTERS - REMOTE POWER SUPPLY - EXTERIOR (QTY 1)

SQUARE FOOTAGE: 3.4

FRONT VIEW
SCALE: 1 1/2" = 1'-0"



SIDE VIEW
SCALE: 1 1/2" = 1'-0"

FRONT VIEW
SCALE: NTS

SPECIFICATIONS:

1. .040" X 3" ALUMINUM COIL (WHITE INSIDE) (SEAMS IN CORNERS OR TOP) P-8
2. 3MM ACM BACKS / LETTER LOCKED TO RETURNS
3. SLOAN PRISM RED LED'S
4. 3/16" #7328 WHITE ACRYLIC WITH FIRST SURFACE APPLIED VINYL V-4
5. 1" PRE-FINISHED JEWELITE CHEMICALLY BONDED TO FACES (SEAMS AT THE TOP) P-8
6. MOUNTING HARDWARE TO SUIT FIELD CONDITIONS
7. #8 - 1/2" PAN HEAD SCREWS (NO MORE THAN 24" APART)
8. 1/4" DIA. WEEP HOLES W/ .063" DRAIN HOLE COVER
9. 7/8" ELECTRICAL HOLE / 1/2" COUPLER WITH FLEXIBLE CONDUIT TO POWER SUPPLY BOX (IN MIDDLE OF LETTER UNLESS NOTED OTHERWISE). INSTALLER TO FOLLOW LOCAL CODE.
10. LED POWER SUPPLY INSIDE POWER SUPPLY BOX.
11. TOGGLE SWITCH MOUNTED TO POWER SUPPLY BOX
12. 15 FT. MIN. WHIP LENGTH. IF PRIMARY ELECTRIC IS LOCATED WITHIN 6 FT. OF THE POWER SUPPLY BOX, ELECTRIC TO BE CONNECTED BY INSTALLERS, INSTALLER TO FOLLOW LOCAL CODE.
13. RIGID CONDUIT THROUGH WALL WITH 1/2" - 1" STUB BEYOND INSIDE WALL. 15 FT. MINIMUM WHIP LENGTH FOR LOW VOLTAGE WIRE.

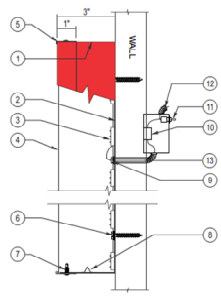
NOTES:

1. ETL STICKER TO BE PLACED ON BOTTOM OF SIGN, VISIBLE FROM GROUND
2. ALL BLOCKING PROVIDED BY MERCY HEALTH

COLORS / FINISHES:

P-8 MP TO MATCH PMS 1797 C
V-4 3M 3630-33 RED TRANSLUCENT

FONTS:
UNIVERS BOLD



CROSS SECTION VIEW
SCALE: 3" = 1'-0"

Not a part of the exception request

NOWLAN

February 14, 2025

City of Beloit Plan Commission

RE: Mercyhealth Beloit Clinic

Dear Planning Commission:

Below please find Mercyhealth's position regarding its for an exemption to the City of Beloit's sign ordinance. We will be available at the Plan Commission meeting to answer any questions you may have regarding this narrative or any of the other materials we have submitted in support of our request. In addition, you are free to reach out to the undersigned in advance of the meeting to address any questions or concerns. Thank you for your time and consideration.

Introduction. Mercyhealth is requesting an exception to the City of Beloit's sign ordinance for the redeveloped clinic and emergency room located at 2825 Prairie Avenue ("Emergency Center").

This request for the exception is necessary to:

- ensure the health and safety of patients in need of emergency services;
- address the unique challenges presented by the property, the use thereof, its location, particularly in terms of proximity to the Beloit Health System hospital ("BHS") and other commercial properties; and
- effectively increase the visibility of the Emergency Center and the services offered thereby.

The sign proposal presented is based upon objective scientific data that has been developed over the course of years and is consistent with industry standard. This data has been submitted, along with this narrative, by Jim Merriman of Jones Signs, who is a subject matter expert.

Hardship. Compliance with the strict letter of the sign ordinance would create an economic hardship for Mercyhealth because it would:

1. subject patients in need of emergency services to potential and avoidable harm.
2. make it difficult for patients to locate and access its services.
3. create confusion between the Emergency Center and BHS, thereby hindering a patient's ability to make informed decisions about their in-network healthcare options, which will

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lead to additional costs and will limit Mercyhealth's ability to effectively serve the community.

Simply put, the sign ordinance does not allow the signage to function for the use allowed on the subject property. This restriction is particularly burdensome given the critical nature of emergency care, as well as the unique use of the subject property in relation to its proximity to BHS and the other commercial enterprises located on and along Prairie Avenue.

If the Emergency Center cannot effectively distinguish itself, and patients waste precious time navigating between the facilities, Mercyhealth could be considered to be at fault for ineffectively directing patients to the facility. This would have a negative impact on Mercyhealth's reputation and finances.

As will be presented by Dr. Christopher Wistrom, the proposed signs are likely to directly impact patient outcomes and prevent life-threatening delays. The sign size that is recommended by Mercyhealth's expert will help differentiate itself from BHS, which is providing the same services as Mercyhealth, and all other commercial enterprises, many of which have large existing non-conforming signs.

The Hardship is Not Self-Created. The hardship is not self-created. The Emergency Center is on a road already populated with many large non-conforming signs, making compliance with the current sign ordinance impractical and problematic. Unfortunately, there are numerous signs in the immediately surrounding area that pre-date the sign ordinance and, as a result, are much larger than what the current ordinance provides. These commercial operations are not providing life-saving services where every second matters. Further, the proposed signs are essential to differentiate the property from BHS to prevent confusion and to ensure that patients arrive at the correct location for the care they need.

The Exception Will Advance the Public Interest. Granting this exception will not undermine the purpose of the sign ordinance or the public interest. In fact, the primary reason for the requested exception is to:

- advance public safety and efficient patient care by allowing Mercyhealth to differentiate itself from BHS and the surrounding commercial properties, which will avoid confusion and allow any individual seeking care to promptly identify where he or she needs to go for critical care;
- maintain Mercyhealth's branding and aesthetic image and comply with objective industry sign standards.

This exception request does not harm the public's interest in the uniform application of the sign ordinance. The Emergency Center's urgent, time-sensitive services, proximity to BHS, and the surrounding area's abundance of large commercial signs make it incredibly unique as compared to other properties. We are not asking to set a precedent; we are asking for a one-time, property-specific exception.

Conclusion. Mercyhealth respectfully requests an exception to the City of Beloit's sign ordinances to allow for larger, more visible signs at the Emergency Center. This exception is necessary to address the economic and other hardships imposed by the current sign limitations, ensure the health and safety of the citizens of Beloit and the surrounding region, and maintain the public interest in effective and efficient wayfinding. The request for larger signs is driven by the need to ensure clear and effective wayfinding for patients, particularly in emergency situations where time is of the essence, as well as Mercyhealth's need to effectively promote the Emergency Center in a way that conforms to its brand aesthetic and industry sign standards.

Again, thank you for your consideration of this matter.

Sincerely,

NOWLAN LAW LLP

Electronically signed by Timothy H. Lindau

Timothy H. Lindau
tlindau@nowlan.com

SIGNLINE

ISSUE FIFTY ONE 2007

Conspicuity and Readability

Speech is a two-way interaction, in which one person conveys a message to another, and it is only complete when the recipient of the message understands it. If someone whispers in a crowded room, you cannot understand them. If their back is turned to you so that their words are muffled and you cannot read their lips, and others are attempting to talk to you at the same time, you cannot understand them. If someone covers their mouth while they are trying to speak, you cannot understand them. If they speak in a language you do not know, you cannot understand them. If they do not express themselves well enough, or speak too quickly, you cannot understand them.

Like any other form of speech, the purpose of any sign is to convey a message. But if that message is to be understood it must first be noticed and then read – that is, it must be conspicuous and readable. While this may appear to be obvious, the factors that result in a conspicuous and readable sign are numerous and complex. For the sign industry, "conspicuity and readability" have become synonymous with sufficiency in size, height, placement, and illumination to allow the message to be seen, read and comprehended.

Planners who regulate signage can benefit from understanding the numerous and complex factors that result in conspicuous and readable signage that can serve as a planning tool to facilitate efficient resource allocation, enhance traffic safety, beautify retail/commercial districts, and stimulate the local economy.

Definition of Terms

Before going further, four terms need to be defined: conspicuity, visibility, legibility and readability.

Conspicuity: The capacity of a sign to stand out or be distinguishable from its surroundings and thus be readily discovered by the eye. It is the noticeable contrast between a sign and its background, attributed to an exogenous (unplanned) or endogenous (planned) mindset, with the display having features that attract attention to the sign. Conspicuity is considered a subjective outcome.

Visibility: The physical attributes of a sign and its contents that allow for detection at a given distance, although legibility may be uncertain. Visibility is considered an objective stimulus.

Legibility: The physical attributes of a sign that allow for differentiation of its letters, words, numbers, or graphics and that directly relate to an observer's visual acuity. Legibility is considered an objective stimulus.

Readability: That which enables the observer to correctly perceive the information content of letters, numbers or symbols grouped together in words, sentences, or other meaningful relationships on the sign. Readability is the character of a sign that leads to comprehension of its intended message, and depends on legibility and other considerations of contents and time restraints. It is considered a subjective outcome.

The on-premise signs used by businesses to communicate with passing traffic are functioning in a complex environment. Those on the receiving end of the message signs convey are typically viewing the signs through the windshield of their vehicle. In order to mentally process and respond safely to the information on the sign, they must within seconds be capable of noticing it, reading it, comprehending it, and making a decision as to whether to maneuver through traffic and stop at the business. When a passing motorist sees a business that is interesting and either stops at the business or remembers it for future use, the benefit is shared by the business, its potential customer, and the municipality in which the business is located.

As a matter of good public policy and smart planning, sign regulations should be written to allow local businesses to communicate effectively with passing motorists. That means signs should be allowed sufficient size, height, placement, and illumination to be certain the sign will be noticed and its message understood. This brings numerous benefits to the local community, not the least of which is enhancement of public safety through effective wayfinding.

Time, Place and Manner

In the regulation of speech under the First Amendment, governments are constitutionally restrained from stepping outside the bounds of content-neutral regulation of "time, place and manner" of expression. In the case of signs, this refers to the "time" when a message may be displayed on a sign, the "place" at which the sign may be located, and the "manner" in which the message may be displayed. Translated into sign code language,

this means the government may regulate the size, height, placement, and illumination of a sign.

But the Court has placed limits on how far the government may go in regulating these factors. In Virginia State Board of Pharmacy v. Virginia Citizen Consumer Council, Inc.,[1] a First Amendment case, the Court laid out the test for determining whether a speech-restricting ordinance is constitutional:

> Time, place and manner restrictions on commercial speech are permissible only if the restrictions:
>
> (1) are justified without reference to the content of the speech,
> (2) serve a significant government interest, and
> (3) leave open ample alternative channels for effective communication of the information.

These guidelines were enhanced in Central Hudson Gas & Elec. Corp v. Public Service Comm.[2] Today, if a sign ordinance is to withstand a constitutional challenge, the government must show all of the following:

> (1) a substantial government interest that justifies the regulation;
> (2) the regulation directly advances that interest;
> (3) the regulation is narrowly tailored to achieve that interest; and
> (4) the regulation leaves open ample alternative avenues of communication for those it affects.

This was clarified in Cleveland Area Board of Realtors v. City of Euclid,[3] in which Euclid, Ohio passed an ordinance allowing real estate signs to be displayed only in windows, and barring them from their normal placement on front lawns. Euclid's ordinance was struck down largely because it did not allow for adequate alternative communication. The selling of real estate could only reasonably be facilitated through the placement of signs on front lawns. Placing the signs in windows rendered them virtually invisible to passing motorists. The Court found that it was not enough that the homeowners be able to "speak" by putting their for sale signs in their windows, their message also had to be capable of being "heard." In other words, the Court affirmed that for speech to be protected, the intended recipient had to be capable of receiving and understanding the message, and government could not arbitrarily interfere with the reception of that message.

As applied to sign regulations, this would indicate that signs must be allowed sufficient size, height, placement, and illumination to be capable of being seen, read and understood by the passing motorist. Most states require a minimum of 20/40 vision to obtain a driver's license; therefore, signs should minimally be capable of communicating effectively with drivers having 20/40 vision.

While we will not address at great length the variety of factors that affect individuals' abilities to read and comprehend the message on a sign, it is worthwhile for communities to consider whether they might need to accommodate the visual needs of particular members of society, at least where they relate to particular businesses. For instance, as people age, they are less able to distinguish between certain colors, have longer reaction times, their field of view narrows, and their vision declines. These individuals need to be able to see and read signs from a greater distance than others in order to safely read and react to them. Other issues that can interfere with a person's ability to see or read a sign include color blindness, cultural differences, and visual impairment. The special visual needs of the community should be considered as part of the zoning in areas where appropriate, such as in retirement communities and/or campuses.

Let's look a little more closely at visibility, conspicuity, legibility, and readability, both at what they mean and how they are achieved.

Visibility

The very first step in assuring a sign can communicate effectively is ensuring that sign can be seen – that it is visible. This is primarily a matter of placement, but other factors also affect visibility. For instance, in order to be visible at night a sign must be illuminated. If the sign does not sufficiently contrast with its environment, is poorly maintained, or is parallel to the roadway it can become essentially

The average person takes approximately 0.33 seconds to recognize a familiar single word or symbol.

Research has shown that parallel signs are missed significantly more times than perpendicular signs.

invisible. If it is too small, too high, or too low to be seen through a windshield, it has no visibility. Blockage by trees, other vehicles, buildings, inclement weather, or other signs can also impair a sign's visibility.

Imagine you are the owner of an independent bookstore and your business is located in the downtown area of a mid-sized town. Street trees have been added all along the street in front of your business, and your sign, though large enough to be seen from the road, is blocked from view by a lush, leafy tree. Your long-time customers know where you are, but because 16% of Americans relocate each year,[4] and almost as many change their work location each year,[5] they are slowly dwindling away and newcomers to your town do not know your business exists. Sure, word-of-mouth will replace some of your lost customers, but, at least according to one comprehensive survey,[6] half of an independent small business's first-time customers will stop at the business because they saw its sign. What all of this means is that unless you can find some other way to make your store more visible to passing motorists, your business will steadily decline or, at a minimum, fail to grow as it should.

Some businesses attempt to overcome visibility problems through the use of temporary signage, such as banners, sandwich board signs, balloons, flashing lights, etc. Many communities, however, view these alternative forms of signage as "clutter" and bar their use. The problem here is that by first infringing upon the right of the business to "speak" to passing motorists, and then refusing to allow alternate forms of communication, regulators are quite possibly engaging in unconstitutional censorship of speech.

Imagine you are looking to buy a book and would like to buy from an independent bookstore, rather than one of the very visible and well-known chain stores. You have never seen the independent book store downtown, but you have heard one is located there. As you try to safely maneuver through traffic, watching for pedestrians and cars entering and exiting the roadway, you are also looking for the bookstore's sign. Unfortunately, all you can see are trees. You become very frustrated, perhaps even risking further distraction by picking up your cell phone and dialing information in hopes of finding out the store's location. You may or may not eventually locate the store, but in the mean time you have taken safety risks and perhaps even driven around the block several times, wasting gas and time.

When signs are not visible, nobody is better off. For reasons of safety, economics, and even aesthetics, it is incumbent upon cities to ensure local businesses' signs can be seen by motorists.

Conspicuity

Whereas visibility addresses issues of physical conditions that allow a sign to be seen, conspicuity addresses issues related to the viewer noticing and being aware of the sign. For a sign to be conspicuous, the viewer must be able to differentiate it from the surrounding background.

Visibility can be objectively and consistently determined. For instance, a photograph will readily reveal whether a sign

Variables Affecting Conspicuity

Measurements and construction of the sign

- Placement of the sign
  - a. Height
  - b. Setback (distance to the first edge of the sign)
  - c. Obliquity of viewing angle
- Size of the sign
  - a. Letter height
  - b. Number and length of words
  - c. Dimensions of logos or other graphics
  - d. "White" space
  - e. Square footage
- Illumination (day or night) on the sign
  - a. Luminance (candelas per square foot or square meter)
  - b. Luminance contrast (positive or negative)
  - c. Color contrast
- Type of sign (roof, pole, projecting, monument, V, wall)

Considerations external to the sign

- a. Speed of traffic (affecting seeing, reading, and reacting times)
- b. Number of traffic lanes
- c. Artistic and attractive qualities of the sign
- d. Obstructions or distractions affecting conspicuity
- Community Aesthetics

is visible. Conspicuity, on the other hand, is subjective and cannot be consistently measured. One motorist might readily notice it, while another will drive right past it and never know it is there.

One of the reasons a sign will be conspicuous to one person and not another has to do with whether or not the person is looking for a particular business or type of business. If someone is hungry, that person is much more likely to notice a restaurant than someone who is simply on the way to work. Someone who has a special preference for the color red will be more likely to notice a business with a red sign than someone who has no feeling about the color one way or the other.

Most businesses need to be noticed and remembered by those who pass them on the street, but often their signs are placed among many other visual stimuli. Nonetheless, if a sign is properly designed and placed it will be noticed even by those who are not specifically seeking it at that moment. The conspicuity of a sign is enhanced by virtue of its placement within the cone of vision (see below), its angle in relationship to the viewer (signs facing the roadway are far more difficult to read than signs facing the oncoming motorist), the ease with which it can be read, the design elements (colors, shapes, contrast, illumination, motion, and borders) that differentiate it from its surroundings, the speed at which traffic is passing, and the familiarity of the sign's graphic elements, such as logos.

A sign's shape and color are usually noticed and recognized from a much greater distance than its legend. Corporations, chains and franchises know this, which is why they make the most of trademark colors, logos and shapes. Public roadway signage is designed based on the same principle. You don't need to read a stop sign to know what it is; its shape and color are only used for one purpose. When you see a green sign with white lettering along the highway, you know it will contain information about places ahead and how many miles away they are located.

Cone of Vision

The human eye is designed to focus in one direction, with peripheral vision extending out to either side, creating a fan-shaped zone of visual awareness. A sub-portion of that zone

Color contrasts and familiar symbols or logos are likely to enhance conspicuity.

TABLE 1

The Standard Relationship Between Vehicle Speed and Legibility Distance In Feet and Meters

Vehicle Speed		MRLD
55 mph (88 kph)	81' /sec (25 m/sec)	440' (134 m)
50 mph (90 kph)	73' /sec (22.25 m/sec)	400' (122 m)
45 mph (72 kph)	66' /sec (20 m/sec)	360' (110 m)
40 mph (64 kph)	59' /sec (18 m/sec)	320' (98 m)
35 mph (56 kph)	51' /sec (15.5 m/sec)	280' (85 m)
30 mph (48 kph)	44' /sec (13.4 m/sec)	240' (73 m)
25 mph (40 kph)	37' /sec (11.3 m/sec)	200' (61 m)

Source: Schwab, Richard N.;[7] also, Garvey, P.M., et al, 1996.[8]

is the "cone of vision," which is variously reported to be limited to 18 to 24 degrees. Location within a range of 20 degrees from the motorist (the half-angle being 10 degrees) is recommended for on-premise signage, and outside of that visual cone, a sign's conspicuity is dramatically diminished. Once the sign is noticed with peripheral vision, the motorist will have to make accurate eye movements to look directly at the sign with central vision for legibility and readability.

At night, the cone of vision is greatly reduced, often to only the area illuminated by the vehicle's headlights. Unless a sign otherwise optimally visible is either internally illuminated or lighted by exterior flood lamps, it is essentially invisible at night. Even signs containing retroreflective materials cannot be seen unless they can be illuminated by vehicle headlights. For this to occur, a sign must be located near the right shoulder of the roadway.

Legibility

Legibility occurs when a sign's letters, symbols and graphics are capable of being deciphered sufficiently that it's meaning may then be understood. How easily a sign can be read by oncoming drivers of 20/40 visual acuity is first dependent on the sign's legibility, which in turn is dependent upon such characteristics as letter size, font, spacing of letters and words, extent of negative space (blank area of sign), whether the sign contains a dark legend on a light background or a light legend on a dark background, the color combinations between legend and background, and (in the case of obliquely oriented signs) foreshortening effects, among other factors.

Before judging the legibility of a sign, it is essential to first determine the distance from the sign at which it must be legible. This, of course, is because the intended viewer of the sign's message will not be standing in a sign shop or at a permit hearing looking at a drawing. They will be seated behind the windshield of a moving vehicle, focusing their attention on the driving task in an environment full of items vying for their attention. Moreover, they must be able to notice and read the sign in sufficient time to make a decision to stop at the business and then safely stop at the business. The key, therefore, is the speed at which they are traveling and the duration of time they will need to read and react to the sign.

In most research minimum sight distance is referenced as the MRLD, or the Minimum Required Legibility Distance at which a sign should be detectable and readable. The distance will vary according to the speed of approaching vehicles, the sign's placement in relation to the roadway, its conspicuity and readability, and the complexity of the message. For simplicity's sake, Table 1 offers the minimum distance at which a sign must be legible to the average driver of 20/40 visual acuity (the minimum required for a driver's license). It assumes the sign being viewed is within 5 to 10 feet of the edge of the right-of-way, that it is of optimal height, that it is optimally conspicuous and readable, and that it is not subject to any environmental degradation, distractions or visual obstructions.

The next step is to determine how large the letters must be at that distance to be legible to the average driver of 20/40 visual acuity. Forbes and Holmes developed a Legibility Index (LI)[9] to describe the relative legibility of different letter sizes used on highway signs. They found that for every 50 feet of distance, lettering needed one inch in height to be read by a person with 20/23 visual acuity. Although the Forbes-Holmes standard was used for many years, the needs of drivers with lower visual acuity have been taken into consideration by the Federal Highway Administration, and the standard has been reduced to one inch of letter height for every 35 feet of distance. For a person of 20/40 visual acuity, however, one inch of letter height is needed for every 28.6 feet of distance.

Because the previous MRLD studies had been conducted primarily on test tracks where no driving tasks were involved, in 2001 a study by Chrysler, et al[10] was undertaken that included driving tasks. The test group, which included

TABLE 2

Standard Letter Height Guidelines for On-Premise Signs

Speed Limit (mph)	Speed Limit (kph)	MRLD (Feet)	MRLD (meters)	Letter Height (Inches)	Letter Height (Centimeters)
25	40	200	61	7	18
35	55	280	85	9	23
45	70	360	110	12	30
55	90	445	136	15	38

older drivers, was asked to find and read street name signs throughout Minneapolis, MN. The subjects were instructed to observe all traffic rules and engage in safe-driver behaviors. The test signs were located on both sides of the roadway in varying degrees of visual-field complexity, and consisted of several types of retroreflective materials.

The researchers found a mean legibility distance of 153 feet for 6-inch letters, or an LI of 25 feet/inch. For left-mounted signs using low reflectance materials, the LI dropped to 16 feet/inch, and if said signs were placed in high complexity locations, the LI dropped to 5.5 feet/inch. Clearly, when driving tasks are taken into account, drivers need larger lettering than has long been thought to be able to decipher roadway signs.

The reality of on-premise signs is that unlike highway signs, they are extremely varied in font, color, size, and design. This fact prompted Garvey, et al[11] to further study the detectability and legibility of a variety of on-premise signs under real life environmental conditions. The results of their study disclosed that even under the best conditions (daytime and low complexity), the LI was approximately 30 feet/inch. In high complexity circumstances, the LI dropped as low as 7 feet/inch (consistent with Chrysler, et al), with the mean LI determined at 25 feet/inch.

Clearly, then, an increase in letter height will increase legibility distance, although the ultimate size of lettering needed depends heavily on the selected font. Often the most aesthetically pleasing fonts are more difficult to read, while plain block fonts are most legible. Table 2 sets out recommended minimum letter heights based on standard highway-style fonts for 20/40 visual acuity and various speeds of traffic.

Speed, setback, distance, and letter size are not the only considerations. Of equal importance is the length of time needed to recognize and comprehend the message on the sign. Griffin and Bailey[12] have found that when test subjects are asked to read words that are flashed at them, a level of 75% accuracy in 0.7 seconds can be expected. Accuracy approaches 100% when the subject has 1 to 2 seconds to read the word. Table 3 can be used as a guideline when 0.7 time factor is applied. For example, a sign with three words would take 2.1 seconds (3 x 0.7 = 2.1). Note that individuals with literacy problems, such as those associated with dyslexia or in those who are not fluent in English, can be expected to have difficulty with word recognition with estimated more time being necessary.

Wall signs are particularly troublesome as communication devices in terms of legibility. This is so for two reasons. First, the effect of foreshortening is so intense that the words on the sign simply cannot be deciphered from any reasonable distance, no matter how large they are. Second, because the signs are parallel to the roadway, unless the driver is approaching from a direction directly or nearly-directly opposite, the sign is outside the cone of vision. To those driving past, it can only be discerned by a 90 degree sideways turn of the head. In many cases, neither action provides the driver enough time to safely slow down, brake, or change lanes should the sign prompt a responsive reaction or contain information the driver is looking for. According to Schwab,[13] a general assumption is that at angles greater than 2-3 degrees, the sign's legend or copy is foreshortened, thereby decreasing legibility and readability. One way to correct this problem is to install a building-mounted, double-faced projecting sign that is either "V" shaped or perpendicular to the roadway.

Although the "V" sign is a compromise between a perpendicular sign and a parallel wall sign, Griffin and Bailey[14] concluded that such a sign angled approximately 30 degrees from the wall of a building that is parallel to the roadway is highly readable (criterion of 75% accuracy under normal viewing conditions). They found, however, that readability at increasingly oblique angles is greatly reduced when a sign utilizes crowded letters (small spaces between letters); although, larger letters may be used to help offset crowding if wider spacing is not an option.

Readability

Readability is the ultimate goal of any sign, and it speaks to the ability of the message to be comprehended. Johnston and Cole (1976)[15] pointed out what researchers have consistently found about signs – that even when a driver is exposed to several signs within a short distance, the signs do not cause

TABLE 3

Readability Time per Number of Words

Number of Words	Normal Reader	Nonfluent or Dyslexic
1	0.7 seconds	3 to 13 seconds
2	1.4 seconds	6 to 16 seconds
3	2.1 seconds	9 to 19 seconds
4	2.8 seconds	12 to 22 seconds
5	3.5 seconds	15 to 25 seconds
6	4.2 seconds	18 to 28 seconds
7	4.9 seconds	21 to 31 seconds
8	5.6 seconds	24 to 34 seconds
9	6.3 seconds	27 to 37 seconds

traffic accidents. This is so because the normal human brain has a remarkable ability to process visual input, recognizing even highly complex items, such as the movement of vehicles and pedestrians on a crowded road, buildings, landscaping, signs, and more as single inputs, make rapid decisions and selectively choose items of importance requiring more attention, while rejecting others.

Engel (1977)[16] found that recognition relied not only on sensory and visual prominence, but also on cognitive recognition. In other words, the driver's psychological state, motivations, and familiarity with a sign and its contents greatly affect the ability of that driver to recognize and comprehend its message. The more familiar an object or figure on a sign is to the driver, the fewer glances he or she will require to recognize it, thereby reducing recognition time. In situations where a driver may become distracted by too much information in the visual field, the average driver will be quickly concentrate attention on the information he or she needs to attend to the driving task and ignore everything else.

Aesthetics play an important role in the readability of a sign. People who may only glance at a sign will within milliseconds comprehend a message about the business based on the fonts, colors, shapes and graphics used in the sign and use that information to decide whether to take a second look an attempt to read the words on the sign. For example, a person seeking a fast food restaurant will not bother to read a lavender colored sign with a lovely script font. Thus, all aspects of a sign contribute to the successful conveyance of its unique message.

A properly designed sign will meet the marketing needs of the business and conform to appropriate standards of safety, quality and functionality. If the community desires a thriving business district, then the sign that allows a business to flourish will be a sign that is compatible with the desired character of the community. The purpose of the sign code should be to facilitate the city's objectives without regulating the content or restricting creativity. Establishing minimum standards for conspicuity and readability of signs based on sound science will ensure that each sign serves the communication purpose for which it was intended, bringing benefit to the business, the consumer, and the community as a whole.

A sign code must resist content-interference, including interfering with the aesthetic features that flavor the textual content, as well as the imposition of physical constraints that result in design interference, and instead allow local businesses sufficient leeway to engage in creative expression within a framework of thoughtful design, structural safety, and community values. Undue restrictions on time, place and manner – or size, height, placement and illumination – simply

When a script font is used, the size of the lettering - and, thus, the size of the sign itself - must be increased to ensure readabiltiy.

work to undermine the attractiveness and effectiveness of the sign's communication ability. When forced to reduce a sign's message to fit into a smaller space, a business will have no choice but to abandon aesthetic elements and fonts and instead use the most basic, readable fonts and colors available to maximize visibility and legibility. The business's unique message is lost. Differentiation between the small, locally-owned business and major corporations begins to disappear, and the locally-owned small business is usually the one that suffers.

Constitutional application of content-neutral regulation of time, place and manner – or size, height, placement and illumination – will ensure that the sign's message, as designed by the speaker, is capable of being seen and comprehended by its intended recipient. It will ensure that signs are allowed to be readable and conspicuous, thereby functioning as effectively as possible in our highly mobile society.

Endnotes:

1. Virginia State Board of Pharmacy v. Virginia Citizen Consumer Council, Inc., 425 U.S. 748, 761-773 (1976).
2. Central Hudson Gas & Elec. Corp v. Public Service Comm., 447 U.S. 557 (1980).
3. Cleveland Area Bd. of Realtors v. City of Euclid, 88 F.3d 382, (6th Cir., 1996).
4. The rate for some groups is particularly high. More than one in three people aged 20 to 24 move each year, and nearly 31% of those between 25 and 29 move annually. Additionally, a full third of renters moves each year. Schimmel, Bruce, "Moving Facts", Philadelphia citypaper.net, April 10-17, 1997. <http://www.citypaper.net/articles/041097/article019.shtml>
5. Nolte, Carl, "Driving Force for Many – Parking: Survey finds 67% are alone at the wheel" San Francisco Chronicle, p. A13, September 4, 2000.
6. Based on a 1997-99 survey, in conjunction with Signtronix, of nearly 2500 first-time customers who were visiting 165 independent small businesses within 30 to 45 days after those businesses installed a new sign. The Signage Sourcebook. (Sherwood, OR: The Signage Foundation for Communication Excellence and the U.S. Small Business Administration, 2003), p. 183.
7. Richard N. Schwab, Ret., Safety and Human Factors: Design Considerations for On-Premise Commercial Signs. (Washington DC: International Sign Association, 1998).
8. P.M. Garvey, et al., Sign Visibility: Research and Traffic Safety Overview. (Bristol, PA: The United States Sign Council, 1996).
9. T.W. Forbes and R.S. Holmes, "Legibility Distance of Highway Destination Signs in Relation to Letter Height, Letter Width, and Reflectorization," Proceedings: Highway Research Board, Vol. 19, pp. 321-326, 1939.
10. S. Chrysler , et al., "Improving Street Name Sign Legibility for Older Drivers," Proceedings of the Human Factors and Ergonomics Society 45th Annual Meeting, pp. 1597-1601. (2001).
11. P.M. Garvey, et al., Real World On-Premise Sign Visibility: The Impact of the Driving Task on Sign Detection and Legibility. (Bristol, PA: The United States Sign Council, 2002).
12. J.R. Griffin and J.E. Bailey, Visual Science and Signage: Signtronix Report. (Torrance, CA: Signtronix, 2001).
13. Richard N. Schwab. Safety and Human Factors: Design Considerations for On-Premise Commercial Signs. (Washington DC: International Sign Association, 1998).
14. John Griffin and James Bailey, Horizontal Obliquity: Word Readability and Logo Identification. (Torrance, CA: Signtronix, 2002).
15. A.W. Johnston, B.L. Cole, Investigations of Distraction by Irrelevant Information. (Australian Road Research, 1976; 6:3-23).
16. F.L. Engle, Visual Conspicuity, Visual Search and Fixation Tendencies of the Eye. (Vision Research, 1977; 17:95-108).

Several legal issues are discussed throughout ISA's Signline series. Signline is offered for educational and informational purposes only and not to be construed as given legal advice to any user. Competent legal advice/advisors should be sought after and obtained by the user.

INTERNATIONAL SIGN ASSOCIATION
International Sign Association
707 North Saint Asaph Street
Alexandria, VA 22314-1911
www.signs.org

Can we help?

For more information:

International Sign Association
Email: signage.help@signs.org
Phone: (866) WHY-SIGN (866) 949-7446

For other signage resource help see:
http://www.sba.gov/smallbusinessplanner/start/pickalocation/signage/index.html
http://www.uschamber.com/signs.htm

CITY of BELOIT

Planning & Building Services Division

100 State Street, Beloit, WI 53511 Phone: (608) 364-6700 Fax: (608) 364-6609

Sign Ordinance Exception Application Form

(Please Type or Print) File number: _____

1. Name of applicant: Randy Benish Phone #: 608-295-3522

   1000 Mineral Point Ave. Janesville WI 53547
   (Address) (City) (State) (Zip)

2. Address of subject property: 2825 County Hwy G, Beloit, WI 53511

3. Tax Parcel Number(s): 21870200

4. Legal description: COM 289.07 FT ELY FROM NE COR PRAIRIE AVE & W HART RD; TH ELY 1032 FT; TH NLY 980.36 FT; TH WLY 1032 FT ON S LE HUEBBE PKWY; TH SLY 980.36 FT TO POB

5. Present zoning: C-2 Present use: Hospital

6. Proposed use (if different): N/A

7. Owner of record: Mercy Health System Coorporation Phone: 608-295-3522

   3401 N. Perryville Rd. Rockford Il 61114
   (Address) (City) (State) (Zip)

   E-mail address: rbenish@mhemail.org

8. State specific sections of code and exception(s) requested: (Use separate sheet if necessary)

   Code Section 30.09 - MAXIMUM SIGN AREA ALLOWED ON SAME PREMISES
   See attached sheet for details.

9. State specific hardship experienced by the applicant: (Use separate sheet if necessary)

   See attached sheet for details.

10. In order for this application to be considered complete, the applicant must attach a scale drawing (1" = 20' usually works best) showing the location of property lines and their dimensions, existing buildings and improvements, all abutting properties and improvements thereon, and the proposed changes or additions. A professional drawing is not required. You are required to furnish a legible drawing with enough detail that will adequately advise and inform the Commission.

The applicant's signature below indicates the information contained in this application and on all accompanying documents is true and correct.

Joann Benning / Joanna Benning / 11/12/2024
(Signature of Owner) (Print name) (Date)

Randy Benish / Randy Benish / 11/12/2024
(Signature of Applicant, if different) (Print name) (Date)

The applicant acknowledges that this application is not deemed filed until dated and receipt acknowledged by a person authorized to receive the application. The applicant is entitled to receive a copy of the acknowledged application once it is officially reviewed and accepted.

Hearings are usually held in City Hall Forum, City Hall, 100 State Street at 7:00 P.M.

In order for your request to be heard and considered in a timely manner, you must submit the completed application to the Planning & Building Services Division for acceptance by the filing deadline date prior to a scheduled Plan Commission meeting.

The application fee will be $100 and applicants will be charged actual out-of-pocket costs for mailing public notices at the rate of $0.50 per notice.

To be completed by Planning staff

Filing fee: **$100.00** Amount paid: _____ Meeting date: _____

Application accepted by: _____ Date: _____

No. of notices:_____ x mailing cost ($0.50) = cost of mailing notices: $ _____

Date Notice Published: _____ Date Notice Mailed: _____

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NOTICE TO THE PUBLIC

December 4, 2024

To Whom It May Concern:

Randy Benish, on behalf of Mercy Hospital, has submitted a request for exceptions to the following sections of the Outdoor Sign Regulations for the property located at 2825 Prairie Avenue: Section 30.09: To exceed the maximum allowable sign area on the same premises. Section 30.10: To exceed the maximum sign height in a nonresidential zoning district. Section 30.35(2)(c): To exceed the maximum square footage of a primary on-premises sign. Section 30.40(2)(c): To allow secondary signs larger than 10% of the primary on-premises sign. The following public hearing will be held regarding the proposed exception:

City Plan Commission: Wednesday, December 18, 2024 at 7:00 PM, or as soon thereafter as the matter can be heard in The Forum, Beloit City Hall, 100 State Street.

We are interested in your opinion.

Anyone bringing handouts to the Plan Commission meeting must bring 10 copies and submit them to City staff before the meeting begins. You may also mail your comments to the attention of Hilary Rottmann at 100 State Street or via email to planning@beloitwi.gov. You may also call (608) 364-6708 to provide your comments over the phone.

Beloit Realty, LLC
1905 W Hart Rd
Beloit, WI 53511

Beloit Memorial Hospital
1969 W Hart Rd
Beloit, WI 53511

Beloit Health Systems, Inc
1969 W Hart Rd
Beloit, WI 53511

USSC **FOUNDATION**

On-Premise Sign Standards

Research-based Approach to:

- Sign Size
- Sign Legibility
- Sign Height
- Parallel Sign Size
- Sign Lighting

USSC Foundation
Best Practice Standards for On-Premise Signs

By Andrew Bertucci, Past Executive Director, United States Sign Council, and Richard Crawford, United States Sign Council Foundation, Inc.

A Research Based Approach To:
Sign Size
Sign Legibility
Sign Height
Parallel Sign Size
Sign Lighting

USSC **FOUNDATION**

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USSC **FOUNDATION**

Published by the
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as part of an on-going effort
to provide a verifiable
body of knowledge concerning
the optimal usage of signs
as a vital communicative resource
within the built environment.

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PREFACE, The Advancement of Scientific Research

In 1996 the United States Sign Council and its research arm, The United States Sign Council Foundation, began research into the legibility and traffic safety implications of roadside on-premise signs. Prior to that time, very little research existed relative to the design and safety characteristics of this type of sign. Traffic engineers, seeking to develop a directional sign system to be used by motorists on local and interstate highways, had promulgated some earlier academic research. However, although useful as a starting point, the data had little relevance to the distinct qualities of private roadside signs. By virtue of their diversity and placement on private property, on-premise signs exist as a totally separate class of motorist-oriented communication, encompassing unique design challenges and traffic safety implications.

Since 1996, the United States Sign Council Foundation, in concert with traffic engineers, human factors researchers, and statistical analysts of the Pennsylvania Transportation Institute of the Pennsylvania State University, has published a series of research studies. The results from this work now provide a distinct and objective scientific basis for understanding the manner in which motorists receive and respond to the information content of the private, roadside sign system. The research and corresponding analyses afford designers and regulators of signs with an insight into the legibility, size, and placement characteristics necessary for effective roadside communication to occur. Coincidental with the work of the Pennsylvania State University research teams, other researchers, including teams studying the impact of sign systems serving the needs of an aging population on traffic safety, have arrived at conclusions essentially confirming the sign legibility and placement parameters discovered by the Pennsylvania State University researchers.

Ten distinct volumes comprise the United States Sign Council / Pennsylvania Transportation Institute collaborative research work:

1) SIGN VISIBILITY, Research and Traffic Safety Overview (1996)
2) SIGN LEGIBILITY, The Impact of Color and Illumination on Typical On-Premise Sign Font Legibility (1998)
3) REAL WORLD ON-PREMISE SIGN VISIBILITY, The Impact of the Driving Task on Sign Detection and Legibility (2002)
4) SIGN VISIBILITY, Effects of Traffic Characteristics and Mounting Height (2003)
5) ENVIRONMENTAL IMPACT OF ON-PREMISE SIGN LIGHTING, With Respect to Potential Light Trespass, Sky Glow, and Glare (2004)
6) RELATIVE VISIBILITY OF INTERNALLY AND EXTERNALLY ILLUMINATED ON-PREMISE SIGNS (2004)
7) ON PREMISE SIGNS, Determination of Parallel Sign Legibility and Letter Heights (2006)
8) INTERNALLY ILLUMINATED SIGN LIGHTING, Effects on Visibility and Traffic Safety (2009)
9) INTERNAL vs. EXTERNAL ON-PREMISE SIGN LIGHTING, Visibility and Safety in the Real World (2009)
10) ON-PREMISE SIGN LIGHTING, Terms, Definitions, Measurement (2010)

Together, these volumes, along with the aforementioned corroborating research provided by other teams, comprise the basis for the United States Sign Council Best Practices Standards for the design of roadside on-premise signs in dynamic motorist-oriented environments.

OVERVIEW, Seeing and Reading Roadside On-Premise Signs

The viewing of a roadside sign by a motorist involves a complex series of sequentially occurring events, both mental and physical. They can include

message acquisition and processing, intervals of eye movement alternating between the sign and the road environment and, finally, active maneuvering of the vehicle itself as required in response to the stimulus provided by the sign.

Further complicating this process, is the dynamic of the viewing task itself. The subject must look through the constricted view frame of the windshield of a moving vehicle, with the distance between him/herself and the sign quickly diminishing. At 40 miles per hour, for example, the rate at which the viewing distance decreases is 58 feet per second; at 50 miles per hour, it becomes an impressive 88 feet per second. Because of this rapidly decreasing window of viewing opportunity, roadside sign design becomes highly challenging and critical to traffic safety. In addition, it necessitates the development of scientific standards for on-premise sign legibility, size, placement, and height in order to achieve effective roadside communication and maintain traffic safety.

Research has now been able to quantify the viewing process, such that measurement of the time necessary for a motorist to view and react to a roadside sign, while driving at a specified rate of speed, can be calculated. Using this time frame, or Viewer Reaction Time, and the amount of distance from the sign represented by that time frame, the optimal sign size required to transmit the message and allow sufficient time for detection, comprehension, and maneuvering can be calculated reliably.

The message content of the sign, usually composed of letterforms and/or symbols, sets the initial parameter for determining sign size. Once message content has been established and its length and/or complexity considered, sign size can be ascertained by assigning numerical values to the following:

1) Viewer Reaction Time
2) Viewer Reaction Distance
3) Letter Height

4) Copy Area
5) Negative Space

Each of these determinants is explained in detail below, along with the methodology for calculating their individual values. The size of the sign, then, can be computed either by summing these five determining values or by inserting them into the algebraic equation developed by USSC for that purpose. The result derived by using either method is the USSC standard for minimum sign size under dynamic roadside conditions.

DETERMINING SIGN SIZE – The Component Determinants

Viewer Reaction Time
The Viewing/Reaction Process

Viewer Reaction Time is a measurement of the total viewing and reaction time available to a driver reading a sign. It consists of four identifiable elements, each of which can be measured in components of elapsed time. They are:

1) Detection of the sign, noting it as a separate entity in a field of roadside objects;
2) The Message Scan, or fixation of view on the message contained on the sign;
3) The Re-Orientation Scan, or refocus of view from the message to the road environment at known intervals;
4) Driving Maneuvers as required in response to the message.

Detection

Detection of a specific sign as a recognizable element of the roadside landscape is a direct function of its *conspicuity*, or its ability to stand out from other objects within the field of view. The degree of conspicuity depends on a number of

factors, including size, color, design, and placement, but even more specifically, the amount of contrast between the sign and its surrounding environment. Without some degree of conspicuity, a sign may lack detectability and cease to be a source of effective roadside identity or wayfinding communication.

Detection and Complexity of Driver and Sign Environment

Research has shown that detection is inversely related to the complexity of both the driving task and the landscape. Thus, as complexity increases for either or both the driving task and the visual environment, detection of any specific object within that landscape is likely to decrease. The more complex the landscape (e.g., city centers or multi-lane commercial corridors), the longer the time frame in the viewing cycle necessary and, therefore, the more conspicuous signs need to be for specific detection.

In this context, the effect of illumination can also have a profound effect on detectability, with the research verifying a pronounced increase in detection after dark for internally illuminated signs over similar signs viewed under daylight conditions.

Detection and Sign Orientation

Detectability is also a function of sign orientation, or the relative angle of view between the sign and the viewer. This angle has been shown to be at an optimum level when signs are positioned perpendicular to the viewer, and at initial detection, within a cone of vision extending 10 degrees to either side of the viewer. As confirmed by the research, “head-on”, or perpendicular views, are far superior in detectability to parallel or side oriented views.

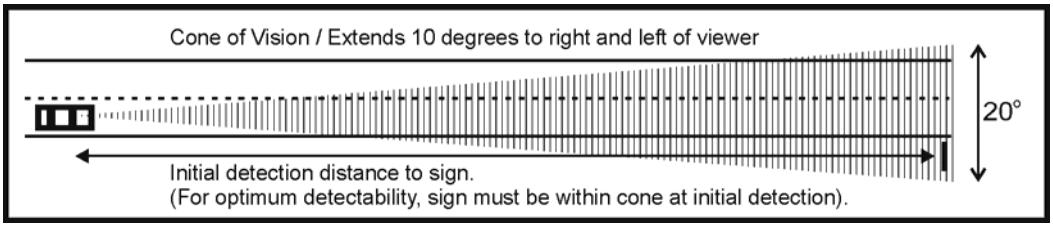


Figure 1. Cone of Vision and Detectability

Lateral Offset or Setback and The Cone of Vision

Lateral Offset, or Setback is the distance in feet at which the sign is offset to the right or left of the driver's eye position. It is critical to detectability because it determines the position of the sign either inside or outside the cone of vision at initial detection.

To assure optimal initial detection within the cone of vision, the sign should be located as close to the roadside as possible, so that the lateral offset is kept to a minimum. This usually means placement of the leading edge of a freestanding sign at the front property line, and signs on the sides of buildings as close to the front of the building as is practical. Arbitrarily imposed setback requirements increasing lateral offset beyond these parameters are generally counter productive to sign detection since they increase the distance of the sign from the driver's eye position, even if it is within the cone of vision.

It is important to note, as well, that roadside geometry affects any lateral offset calculation, which must include the number of road lanes, the width of the shoulder, and, in particular, the width of any utility or future right of way easements before the property line is reached; all of which add considerable lateral distance from the driver's eye position. In some instances in which public easements are large and initial detection distances are short, lateral offset may exceed the cone of vision inclusion even if the sign is placed at the property line.

Increasing sign size, and therefore, visual range, is one solution to this detection problem, since as visual range increases, lateral offset is also increased.

Lateral offset from the viewer's eye position can be calculated through the application of the following equation in which:
L equals ten degrees of lateral offset.
D equals distance in feet from the sign at initial detection.

$$L = D\ (.176)$$

Thus, if initial detection distance from the sign is 300 feet, 10 degrees of lateral offset would be 52 feet. Note that this offset is from the driver's eye position, and not from some variable point, such as the edge of the road, road shoulder, or roadside easement.

Vertical Offset or Sign Height

Sign height limits which would enable sign detection without loss of eye contact with the road have variously been recommended by researchers at between five to eight degrees vertically from the driver's eye level. Researchers at the Pennsylvania Transportation Institute have adopted the five degree vertical limit as a conservative estimate of sign height limits, or vertical offset. Since additional research into this aspect of sign detection clearly remains to be done, particularly since sign height is affected not only by the viewer's eye position, but by differences in the topography of the roadside itself, the five degree height limit proposed by the PTI research team is offered here only as a minimum guideline for the vertical placement of roadside signs, and not as a USSC standard at this time.

Nonetheless, it can serve to provide some means for optimizing the relationship between sign height, sign detection over both long and short ranges, and

motorist safety. Using five degrees of vertical elevation, plus 3.5 feet representing elevation of the average driver's eye position above the road, a calculation of vertical sign height limits capable of providing comfortable detection over both long and short ranges can be derived from the following equation in which:

H equals sign height limit.
D equals distance in feet from the sign at initial detection.

$$H = D\ (.088) + 3.5$$

Thus, if initial detection distance from the sign is 400 feet, the sign height would be limited to 38.5 feet.

Table 1 below indicates varied Lateral and Vertical Offsets for selected detection ranges.

Detection Distance To Sign	Lateral Offset (Setback)	Vertical Offset (Height Limit)
200 ft.	35 ft.	21 ft.
400 ft.	70 ft.	38.5 ft.
600 ft.	106 ft.	55.5 ft.
800 ft.	141 ft.	73.5 ft.
1000 ft.	176 ft.	90.5 ft.

Lateral Offset at 10 degrees right or left.

Vertical Offset at 5 degrees plus 3.5 feet.

Table 1. Lateral and Vertical Offsets as function of distance.

Detection…Conclusion

The USSC Best Practices Standards for sign legibility and size assumes that conditions of sign orientation and setback afford optimum detectability, as described above. In practice, these conditions would include most freestanding and projecting signs, building signs on walls directly facing the viewer, and roof signs mounted at similar optimum viewing angles within the cone of vision.

Detection as a component of Viewer Reaction Time in the USSC standard is calculated at one-half to one second duration, depending on roadside complexity and traffic volume.

The Message Scan / The Re-Orientation Scan

The message depicted on a sign establishes the time frame for the essential component of the viewing process. Short messages and/or simple typography take less time to read and mentally process than long messages and/or cursive or decorative typography.

In this context, it should be noted that on-premise signs frequently contain a variety of messages, which may be displayed in a number of different sizes and font configurations. The USSC standard for sign size is related principally to Primary Messages, or those messages providing essential information relative to the activities conducted on the site (e.g., the name of the activity, the nature of the activity or product available, principal or major occupants of the site, and other information of similar nature). Secondary Messages are usually designed to provide ancillary information concerning product features or to denote secondary occupants of the site, as seen on site directories. While clearly useful to roadside viewers and to the marketing programs of the sign user, secondary messages are considered less important to the immediate transfer of information demanded

of signs placed in a high-speed, dynamic roadside environment in which viewing and reaction time is calculated in seconds.

Current research on average reading times indicates that signs displaying four to eight words in simple typography can be comfortably read and comprehended in approximately four seconds, yielding a reading time, or Message Scan, of one-half second per word. Since words in this context are each assumed to contain five letters, this time frame can be further refined to one-tenth of a second per letter, which is the USSC computational standard for the Message Scan. *(Note: Although it is true that sign copy is read by reference to the words comprising the message, USSC elects to achieve greater precision in the calculation process by reference to the individual letters making up the words, in order to minimize any potential skewing effect of large or small words.)*

Additionally, symbols, such as directional arrows, or universally recognized logos or icons displayed on the sign, are considered equivalent to one word, or five letters, yielding a reading, or scan time, of one-half second per symbol. Although reading time for universally recognized symbols has been shown to be at least equal to the reading time per word, it is not known to what extent reading time would be increased if unfamiliar symbols or icons were used. Understandably, the viewer would require more time for interpretation and processing if the symbols were not familiar. Therefore, the USSC standard for computation is based on the use of universally recognizable symbols only.

In addition to the reading time, research based on eye-movement studies indicates that motorists feel compelled to glance back at the road for at least one-half second for every two and one-half seconds of reading time. Within complex driving environments, the USSC Best Practices Standards increases this re-orientation with the road from one-half second to one second to account for the

heightened difficulty of the driving task incurred by the additional visual demands of reading a sign.

The Driving Maneuver

When a motorist detects a sign indicating a sought-after location, s/he will respond by executing some form of driving maneuver. Depending on the number of lanes of traffic, traffic volume, and complexity of the driving environment, potential reactions may include signaling, deceleration, braking, changing lanes, and turning either right or left to gain access to the desired location.

The time interval needed to complete the driving maneuver may or may not be included in the computation of Viewer Reaction Time, depending on whether or not such maneuver must be made before (pre-sign) or after (post-sign) the sign location is passed. Generally, since on-premise identity signs are designed to mark the specific location of a given business or institutional entity, driving maneuvers necessary for entry into that location must be executed before passing the sign. The driving maneuver component, then, will be included as part of Viewer Reaction Time.

On the other hand, signs containing directional and/or wayfinding information, or other signs (such as projecting signs in crowded cityscapes) not directing ingress to the location of the sign, do not necessarily require any driving maneuver to be made until after the sign is passed. In these instances, the driving maneuver is not incorporated as part of Viewer Reaction Time.

The USSC standard for the Driving Maneuver varies from four to six seconds depending on roadside complexity and traffic volume.

Table 2. Computation of Viewer Reaction Time

Viewer Reaction Time

Computation Relative to Primary Message

	Driving Environment		
Task	Simple	Complex[1]	Multi Lane[2]
Detection	0.5 Second	1 Second	1 Second
Message Scan	0.1 Sec / Letter 0.5 Sec / Symbol	0.1 Sec / Letter 0.5 Sec / Symbol	0.1 Sec / Letter 0.5 Sec / Symbol
Re-Orientation Scan	0.02 Sec / Letter 0.1 Sec / Symbol	0.04 Sec / Letter 0.2 Sec / Symbol	0.04 Sec / Letter 0.2 Sec / Symbol
Maneuver	4 Seconds	5 Seconds	6 Seconds

1. Developed town or city commercial areas. Single or multi-lane travel under 35 mph
2. Developed urban/suburban commercial areas. Multi-lane travel over 35 mph

The computation table above is designed to provide a reasonably accurate assessment of the minimum Viewer Reaction Time for a motorist, with at least the 20/40 visual acuity necessary to maintain a driving license, to view an individual sign. Because of the significant variations that can exist in individual sign design and placement, motorist response, and the roadside environment in which the sign is placed, the table is intended as a guideline only and not as a substitute for actual field observation.

Viewer Reaction Time – Average Standard

Although the computation chart provides a useful guideline for the Viewer Reaction Time ascribed to a particular sign, it can also be used to approximate a broad average for a variety of signs within a particular landscape. This average

Viewer Reaction Time is helpful in preparing sign size limits for a planned development, a community sign system, or a series of highway oriented and/or wayfinding signs, among others. Assuming a message content of six words (30 letters) on a typical sign, the USSC standard Viewer Reaction Time average in simple environments for pre-sign maneuver is 8 seconds; and for post-sign maneuver, 4 seconds. In complex or multi lane environments, the pre-sign maneuver average advances to 10 or 11 seconds, respectively, and the post-sign maneuver average advances to 5 or 6 seconds.
Table 2 below details these average Viewer Reaction Time values through the range of traffic conditions.

Table 3. Average Viewer Reaction Time

Road Conditions	Maneuver	
	Pre Sign	Post Sign
Simple	8 Sec.	4 Sec.
Complex	10 Sec.	5 Sec.
Multi Lane	11 Sec.	5 Sec.

Average Viewer Reaction Time

Viewer Reaction Distance: Converting Time to Distance

Viewer Reaction Distance represents the distance in lineal feet that a viewer will cover at a given rate of speed during the Viewer Reaction Time interval. Essentially, Viewer Reaction Distance represents the same visual dynamic as Viewer Reaction Time, except it is expressed in lineal feet instead of seconds of elapsed time.

Viewer Reaction Distance is essential to the determination of sign legibility and size. The distance between the viewer and the sign at the point of initial detection determines the letter height necessary for the viewer to acquire and understand the message. By converting Viewer Reaction Time to Viewer Reaction Distance, a relatively precise calculation of initial detection distance can be established.

Viewer Reaction Distance, expressed in feet, can be calculated by first converting travel speed in miles per hour (MPH) to feet per second (FPS) by using the multiplier, 1.47.

FPS = (MPH) 1.47

Viewer Reaction Distance (VRD) is then calculated by multiplying feet per second by the Viewer Reaction Time (VRT).

The following is the resultant equation:

VRD = (MPH) (VRT) 1.47

Letter Height / The USSC Standard Legibility Index

The overall legibility of a sign is, essentially, a function of the height, color, and font characteristics of the letters making up its message component. For the publication, *Sign Legibility: The Impact of Color and Illumination*, test track studies of individual signs were conducted, using subjects in all age groups, to determine the effect that different conditions of daylight and darkness have on detecting and reading signs of varying colors. In order to simulate real-world conditions, two letterforms, Helvetica and Clarendon, were chosen for the study, as they best represent the two general letterform families used in the English language: sans-serif Gothic style (Helvetica) and serif Roman style (Clarendon). The research produced a definitive understanding of the legibility of letterforms under many color and illumination conditions, as well as an understanding of the letter heights necessary for legibility over varying distances from the observer.

Figure 2. Helvetica and Clarendon Letterforms

Using this research not only as a benchmark for the specific letterforms studied, but also as a reasonable basis for extrapolation to other similarly configured letterforms, USSC developed a Standard Legibility Index. By means of the Index, the height of letters necessary to provide legibility from a given distance can be calculated.

The USSC Standard Legibility Index is a numerical value representing the distance in feet for every inch of capital letter height at which a sign may be read. The table also reflects the 15 percent increase in letter height required when all upper case letters (all caps) are used instead of upper and lower case letters with initial caps, a difference in recognition distance documented in earlier studies by the researchers at the Pennsylvania Transportation Institute.

To use the table to determine letter height for any given viewing distance, select the combination of illumination, letter style, letter color, and background color that most closely approximates those features on the sign being evaluated. Then, divide the viewing distance (in feet) by the appropriate Legibility Index value. The result is the letter height in inches for the initial capital letter in upper and lower case configurations, or for every letter in an all caps configuration.

$$\text{Letter Height} = \frac{\text{VRD}}{\text{Legibility Index}}$$

Letter height is expressed in inches, and the Viewer Reaction Distance (VRD) in feet.

Table 4. The USSC Standard Legibility Index

ILLUMINATION	LETTER STYLE	LETTER COLOR	Background COLOR	LEGIBILITY INDEX	
				Upper & Lower Case	ALL CAPS
External	Helvetica	Black	White	**29**	**25**
External	Helvetica	Yellow	Green	**26**	**22**
External	Helvetica	White	Black	**26**	**22**
External	Clarendon	Black	White	**28**	**24**
External	Clarendon	Yellow	Green	**31**	**26**
External	Clarendon	White	Black	**24**	**20**
Internal Translucent	Helvetica	Black	White	**29**	**25**
Internal Translucent	Helvetica	Yellow	Green	**37**	**31**
Internal Translucent	Clarendon	Black	White	**31**	**26**
Internal Translucent	Clarendon	Yellow	Green	**37**	**31**
Internal Opaque	Helvetica	White	Black	**34**	**29**
Internal Opaque	Helvetica	Yellow	Green	**37**	**31**
Internal Opaque	Clarendon	White	Black	**36**	**30**
Internal Opaque	Clarendon	Yellow	Green	**37**	**28**
Neon	Helvetica	Red	Black	**29**	**25**
Neon	Helvetica	White	Black	**38**	**32**

Illumination Variations:

External light source

Internal light source with fully translucent background

Internal light source with translucent letters and opaque background

Exposed neon tube

Legibility Index – Average Standard

30

In addition to the specific legibility ranges provided by the chart, an average Legibility Index value can be used in some situations. For instance, if a committee wishes to set code limits for average size ranges for a community sign system, or to set letter height and size limits for a highway or community wayfinding system, an average Legibility Index value of 30 may be used. However, it must be understood that this is an average only and, as such, may fall short of meeting the legibility needs of any specific sign or environment.

Legibility Index – Environmental Adjustment

In *Real World On-Premise Sign Visibility, The Impact of the Driving Task on Sign Detection and Legibility* (Pennsylvania Transportation Institute 2002), a marked difference was documented between legibility index results obtained from the relatively distraction free test track environment (as detailed in table 4), and observations taken from real-world driving situations involving increased levels of driver workload in complex and/or congested environments.

Both the research team at PTI, as well as a similar team studying the impact of the driving task on sign legibility (Chrysler, et al. 2001), arrived at the same essential conclusion; notably that the driving task, particularly in environments involving a high degree of visual stimuli, produces a significant reduction in the basic test track legibility index values.

This reduction, or legibility index deterioration, is essentially a manifestation of delayed detection caused by increased driver workload, and is clearly measurable as a percentage decrease in the standard legibility index. In a comparison analysis of the test track values versus values produced from real

world observation, an average decrease of at least thirty-five percent of the standard legibility index values was documented, with extreme values as low as seven feet of distance per inch of letter height in highly complex environments. In general, and across a median range of complexity, this decrease can conservatively result in a reduction in the average legibility index value of 30 feet of distance per inch of letter height to 20 feet of distance per inch of letter height, particularly as the complexity of the driver's visual load is increased.

Accordingly, in both moderate to highly congested zones in which demands on driver attention are high, USSC recommends the application of an adjustment factor designed to bring the standard legibility index values into alignment with the real world driving conditions encountered by drivers in those zones. The adjustment factor is applied by multiplying the standard legibility index value by the adjustment factor. The product is the adjusted legibility index for the zone.

Adjustment Factors:

1). For moderately congested strip, in-town, or in-city zones,
usually characterized by some of the following environmental conditions:

Moderate pedestrian and/or vehicular activity
Traffic signal or traffic sign control at major intersections
Intermittent "stop and go" traffic patterns
On street Parking
Posted speeds below 40 MPH
Tightly spaced retail locations

Apply Adjustment Factor of 0.83

Or as an equation; Adjusted Moderate Complexity LI = (Standard LI) 0.83

Thus, in moderately congested zones, the average legibility index value of 30 would be adjusted to 25, and individual index values adjusted accordingly. In highly congested zones, (as characterized in 2 below) the average legibility index value would be adjusted from 30 to 20 feet/inch.

2). For highly congested strip, in-town, or in-city zones
usually characterized by some of the following environmental conditions:

High pedestrian and/or vehicular activity
Traffic signal or traffic sign control at most intersections
Intermittent “stop and go” traffic patterns
On street parking
Posted speeds below 30 MPH
Tightly spaced retail locations

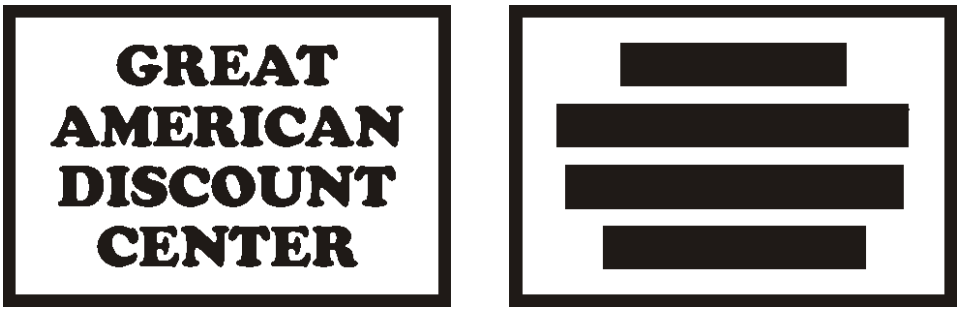
Apply Adjustment Factor of 0.67

Or as an equation; Adjusted High Complexity LI = (Standard LI) 0.67

Copy Area

The copy area of a sign is that portion of the sign face encompassing the lettering and the space between the letters (letterspace), as well as any symbols, illustrations, or other graphic elements. It is a critical component of effective sign design because it establishes the relationship between the message and the negative space necessary to provide the sign with reasonable legibility over distance.

Figure 3. Copy Area

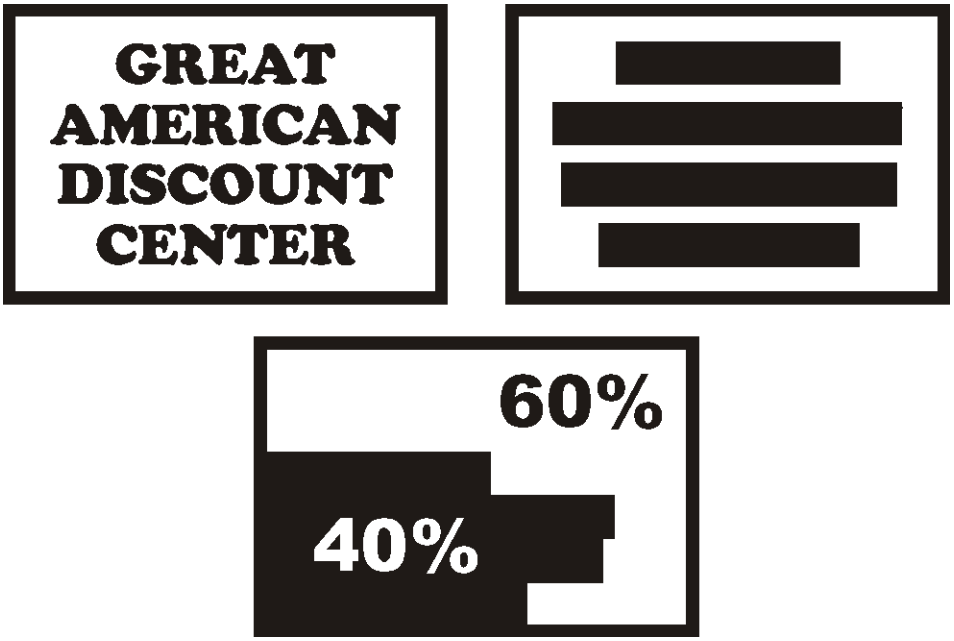


The illustration on the left depicts a typical on-premise sign face; while the one on the right, with black rectangles covering the copy area, affords a visual of the message layout

Negative Space

Negative space is the open space surrounding the copy area of a sign. It is essential to legibility, particularly in signs in which the copy is displayed within a background panel. Negative space should never be less than 60 percent of the copy area on any given background. This requirement for a 40/60 relationship between the copy area and negative space is the minimum USSC standard. It is intended only to establish a measurable baseline for the negative space component of a sign, such that a reasonable expectation of legibility will exist.

Figure 4. Relationship Between Copy Area And Negative Space



The bottom sign panel illustrates how the aggregate copy area comprises 40 percent of the total sign panel area, with the remaining 60 percent forming the negative space area.

DETERMINING SIGN SIZE – Calculation Methodology

The size of a sign is determined by the size and length of the message and the time required to read and understand it. It can be calculated once the numerical values of the five size determinants –Viewer Reaction Time, Viewer Reaction Distance, Letter Height, Copy Area, and Negative Space – have been established.

The step-by-step process to determine sign size, which is explained below, is useful not only as a calculation method, but also as a means of understanding the elements involved in the calculation.

Area of Sign / Computation Process:

1. Determine speed of travel (MPH) in feet per second (FPS): (MPH x 1.47).
2. Determine Viewer Reaction Time (VRT).
3. Determine Viewer Reaction Distance (VRT x FPS).
4. Determine Letter Height in inches by reference to the Legibility Index (LI): (VRD/LI).
5. Determine Single Letter Area in square inches (square the letter height to obtain area occupied by single letter and its adjoining letterspace).
6. Determine Single Letter Area in square feet: Single Letter Area in square inches/144.
7. Determine Copy Area (Single Letter Area in square feet x total number of letters plus area of any symbols in square feet).
8. Determine Negative Space Area at 60% of Copy Area (Copy Area x 1.5).
9. Add Copy Area to Negative Space Area.
10. Result is Area of Sign in square feet.

Computation Process / Calculation Example

Figure 5. Calculation Example Sign

Location: Complex Driving Environment

Posted Traffic Speed of 40 MPH

Sign Background: White

Sign Copy: 23 Letters, Upper & Lower Case

Clarendon Style, Black

Internally Illuminated, Translucent Face

1. Determine speed of travel in feet per second; 40 MPH x 1.47 = 59 FPS
2. Determine Viewer Reaction Time - Refer to Table 2
   Detection (Complex Environment) ……..... 1 second
   Message Scan - 23 letters x 0.1……2.3 seconds
   Re-orientation Scan - 23 letters x .04……0.9 seconds
   Maneuver…….5 seconds
   Total Viewer Reaction Time (rounded) = 9 seconds VRT
3. Determine Viewer Reaction Distance; 59 (FPS) x 9 (VRT) = 530 feet
4. Determine Letter Height in inches - Refer to Legibility Index, Table 4
   Black Clarendon letters on White background = Index of 31
   530 (VRD) / 31 (LI) = 17 inch letter height
5. Determine Single Letter Area in square inches
   17 x 17 = 289 square inches, single letter area
6. Determine Single Letter Area in square feet
   289 / 144 = 2 square feet, single letter area
7. Determine Copy Area; single letter area (sq. ft.) x number of letters
   2 x 23 = 46 square feet, copy area
8. Determine Negative Space @ 60% of copy area
   46 x 1.5 = 69 square feet, negative space
9. Add Copy Area to Negative Space
   46 + 69 = 115 square feet
10. Result is Area of Sign, 115 square feet

Area of Sign – Equation / Specific Usage

In addition to the computation method above, the USSC has developed an algebraic equation to determine the Area (A_{sign}) for signs containing letters only, which will provide the same result but will simplify the process. The equation allows for insertion of all of the size determinants, except for Negative Space, which is fixed at the standard 40/60 ratios. (Note: If numbers are rounded off in the computation process, a very slight difference in result may occur between the computation process and the equation).

$$A_{sign} = \frac{3n}{80}\left[\frac{(VRT)\,(MPH)}{LI}\right]^2$$

Fixed Value:
- 40/60 ratio, letters/negative space

Variable Values:
- Number of Letters (n)
- Viewer Reaction Time (VRT)
- Miles Per Hour (MPH)
- Legibility Index (LI)

Area of Sign – Equation / Broad Usage

The equation above is used to calculate the size of a sign containing letterforms when the motorist is traveling at a specific rate of speed. To allow for a broader scientific evaluation of sign size and satisfy the minimal legibility requirements across a full range of reaction times and speed zones, USSC has developed a second equation. This formula fixes the average sign size determinants, leaving only Viewer Reaction Time (VRT) and the speed of travel (MPH) as the sole variables. It can be used to ascertain the general size of signs necessary to

adequately and safely convey roadside information to motorists traveling at a given rate of speed as well as to establish size parameters for signs across an entire community and/or road system. Table 5 below provides some examples of the use of the equation.

$$A_{sign} = \frac{[(VRT)\,(MPH)]^2}{800}$$

Fixed Values:
- 30 Letters
- Legibility Index (LI) of 30
- 40/60 ratio, letters/negative space

Variable Values:
- Viewer Reaction Time (VRT)
- Miles Per Hour (MPH)

Table 5. Sign Size As Function Of Travel Speed And Viewer Reaction Time

MPH	VRT (Seconds)	Sign Size (Square Feet)
25	4	12.5
	5	20
	8	50
	10	78
40	4	32
	5	50
	8	128
	10	200
55	4	60.5
	5	95
	8	242
	10	378

Sign Size as function of travel speed and Viewer Reaction Time

Sign Height – Minimum Standards for Vehicular Oriented Environments

For signs providing roadside information in primarily vehicular-oriented environments, the height above grade of the sign and/or sign copy has a pronounced effect on an approaching motorist's ability to detect and read the message displayed. As is now documented in the research publication, *Sign Visibility, Effects of Traffic Characteristics and Mounting Height*, the simple presence of other vehicles on the road (i.e., in front, in an adjacent travel lane, or in travel lanes in the opposite direction) can potentially prevent the motorist from detecting a sign. If a sign is situated at or below five feet above grade, other vehicles may block the motorist's view, and the sign copy will not be legible.

The aforementioned study used analytical algorithms reflecting known patterns of traffic flow and volume, in conjunction with computer generated simulation software. The research resulted in predictions of the percentage of times that other vehicles blocked the view of an approaching motorist, thus preventing him/her from detecting a low mounted sign (5 feet or less above grade). The percent of blockage was computed as a function of the traffic flow rate, the position of the subject motorist in the traffic stream, and the position and setback of the sign. Oversize vehicles (such as trucks, buses, and recreational vehicles) were not included in the calculations even though their normal presence in the vehicular mix would have, undoubtedly, increased the percentages noted in the study.

Eight traffic scenarios were analyzed, based on a four-lane undivided highway and either 35 or 45 miles per hour as the speed of travel. These conditions were chosen to simulate the general characteristics of roadways traversing commercial zones throughout the United States. The signs (assumed to be 10

feet wide) were located at either 10 or 20 feet from the edge of the roadway and on either the right- or left-hand side of the road. The findings clearly establish a quantifiable loss of visibility across the full range of sign placement as traffic flow rates increase. The charts, A through H, document the findings for traffic flow rates ranging from 200 to 1200 vehicles per hour.

Based on the research, the USSC minimum height standard for copy on signs placed on roads with characteristics as detailed in the charts is no less than five feet above grade. However, the USSC strongly recommends a minimum height standard for sign copy of no less than seven feet above grade in order to ensure adequate visibility and a reasonable viewer reaction time, considering the blocking potential of other vehicles on the road. The seven feet above grade recommendation is the same as the Federal Highway Administration's standard, as promulgated in the Manual of Uniform Traffic Control Devices (MUTCD), for the height above grade of official roadside directional and wayfinding signs utilized along urban roadways in the United States.

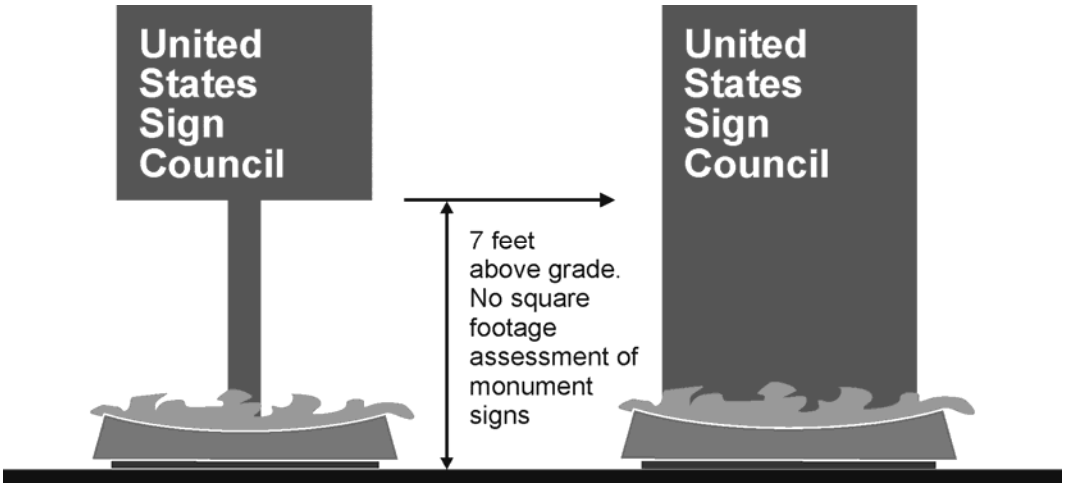
Minimum Sign Height – Regulatory Issues

As a related issue, the visibility requirement for ground or monument sign copy placement above seven feet above grade may run counter to community sign code regulation which: 1.) sets overall low maximum height limits, or 2.) computes maximum square footage limits on sign size as the simple product of the total height times the total width of the monument structure, regardless of sign copy placement. In either case, a community intent on encouraging the use of monument or monolithic type ground signs may find its sign regulations to be counter productive to its aims, as well as to the effective transfer of roadside information in moderate to high density traffic conditions.

To alleviate this condition, USSC offers the following sign code modification recommendations for use in land use zones in which the data indicate significant blockage of the copy area of low mounted or monument signs.

1.) Maximum height limits of such signs – as well as maximum height limits for other freestanding signs within the zone – should take into account the recommended lower limit of seven feet above grade for copy placement.
2.) No maximum square footage assessment of monument or monolithic type ground signs should be imposed below seven feet above grade, provided that no primary copy is placed within that area. See Figure 6 below.

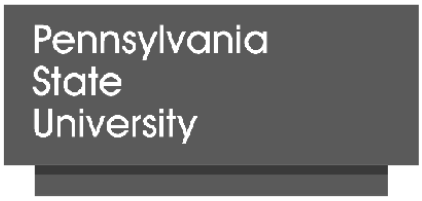
Figure 6. Comparison / Pole and Monument Signs



Sign Blocking Scenarios
(Schematic)

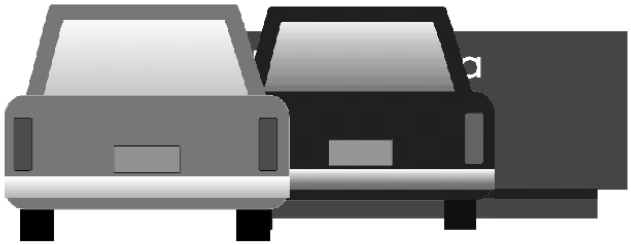
Sign Blocking Charts (Schematic)
Blocking Tables

Sign Blocking Scenarios (Schematic)



Typical
Low Mounted
Ground Sign

Single Lane
View
Blocking



Two Lane
View
Blocking

Visibility
Solution:
Maintain Sign
Design Style
Raise Copy
To Viewable Height

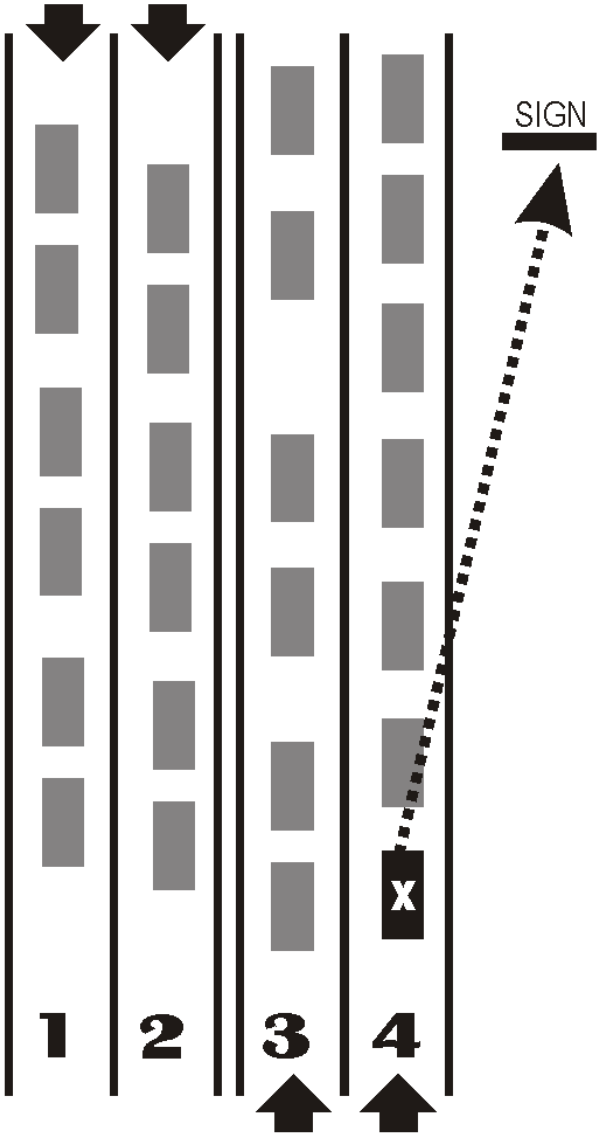


Chart A

(Schematic)

Speed of Travel

35 mph

Subject Vehicle - Lane 4
Sign on Right

Tables indicate percent of time sign is blocked from view of subject vehicle depending on Flow Rate and sign setback.

Flow Rate represents the number of vehicles traveling in both lanes in one direction for a period of one hour.

Sign Setback at 10 Feet

Flow Rate	% Blocking
200	9
400	17
600	25
800	31
1000	38
1200	43

Sign Setback at 20 Feet

Flow Rate	% Blocking
200	6
400	12
600	18
800	23
1000	28
1200	33

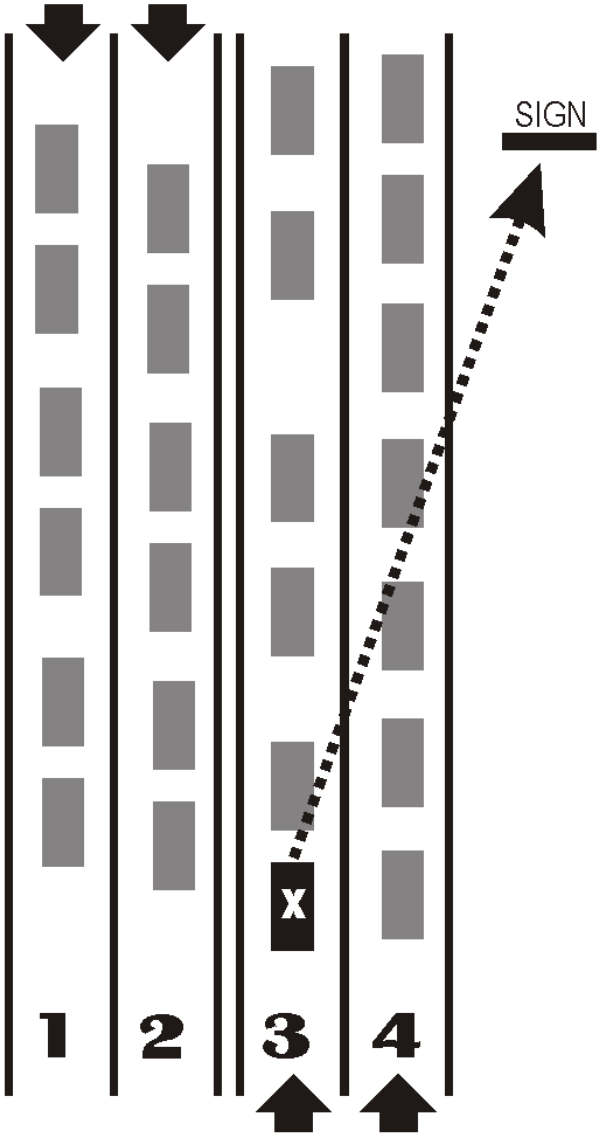


Chart B

(Schematic)

Speed of Travel

35 mph

Subject Vehicle - Lane 3
Sign on Right

Tables indicate percent of time sign is blocked from view of subject vehicle depending on Flow Rate and sign setback.

Flow Rate represents the number of vehicles traveling in both lanes in one direction for a period of one hour.

Sign Setback at 10 Feet

Flow Rate	% Blocking
200	16
400	29
600	41
800	50
1000	58
1200	65

Sign Setback at 20 Feet

Flow Rate	% Blocking
200	12
400	24
600	33
800	42
1000	49
1200	56

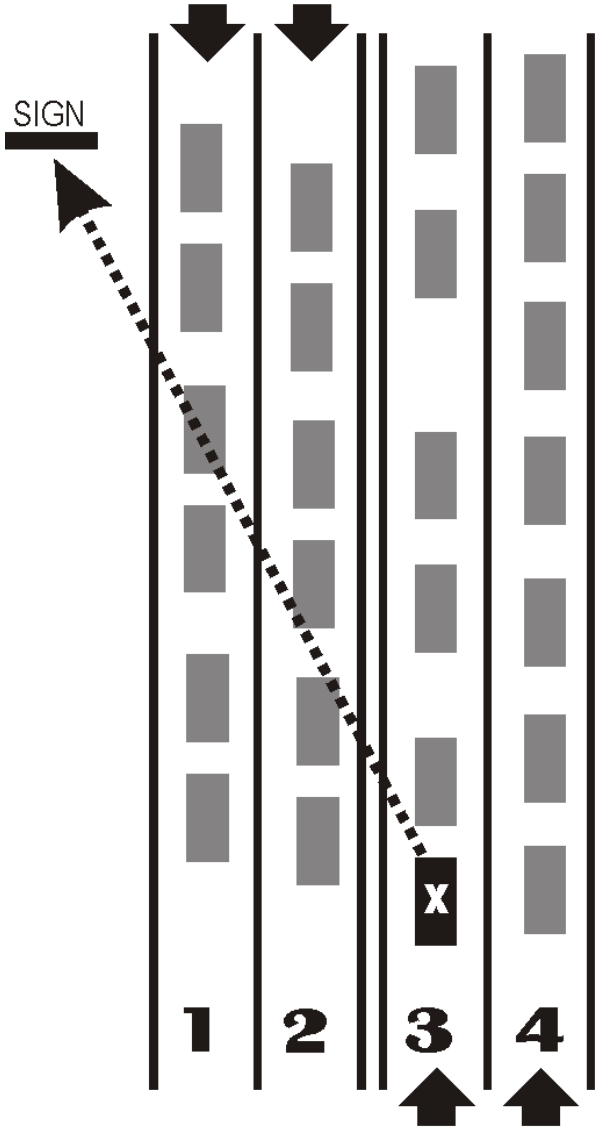


Chart C

(Schematic)

Speed of Travel

35 mph

Subject Vehicle - Lane 3
Sign on Left

Tables indicate percent of time sign is blocked from view of subject vehicle depending on Flow Rate and sign setback.

Flow Rate represents the number of vehicles traveling in both lanes in one direction for a period of one hour.

Sign Setback at 10 Feet

Flow Rate	% Blocking
200	19
400	35
600	48
800	58
1000	66
1200	72

Sign Setback at 20 Feet

Flow Rate	% Blocking
200	16
400	30
600	41
800	51
1000	59
1200	65

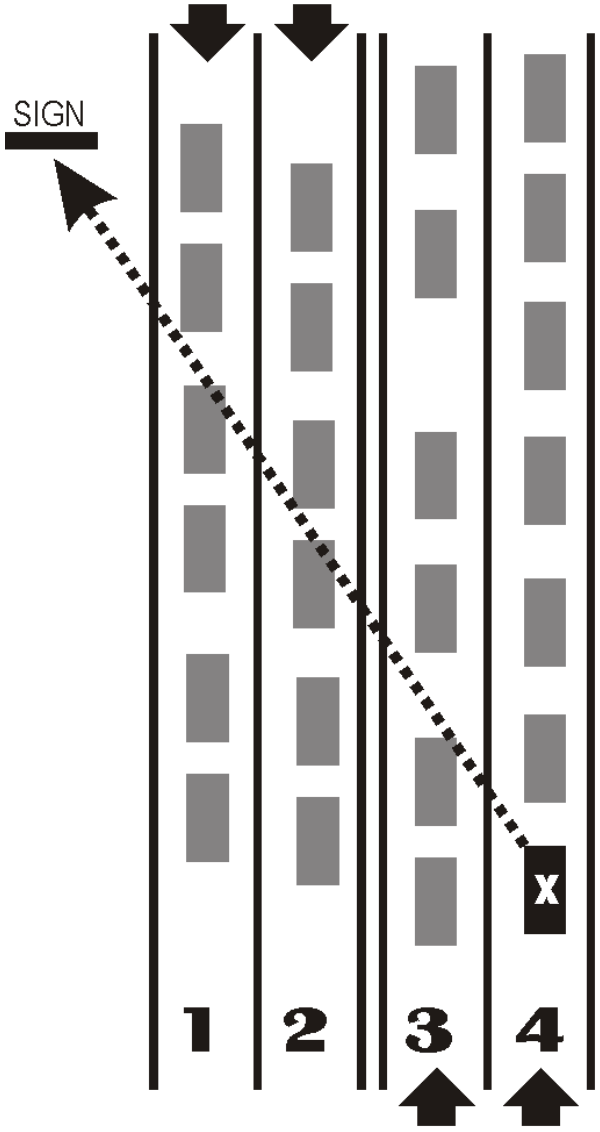


Chart D

(Schematic)

Speed of Travel

35 mph

Subject Vehicle - Lane 4
Sign on Left

Tables indicate percent of time sign is blocked from view of subject vehicle depending on Flow Rate and sign setback.

Flow Rate represents the number of vehicles traveling in both lanes in one direction for a period of one hour.

Sign Setback at 10 Feet

Flow Rate	% Blocking
200	23
400	41
600	54
800	65
1000	73
1200	79

Sign Setback at 20 Feet

Flow Rate	% Blocking
200	20
400	36
600	49
800	59
1000	67
1200	74

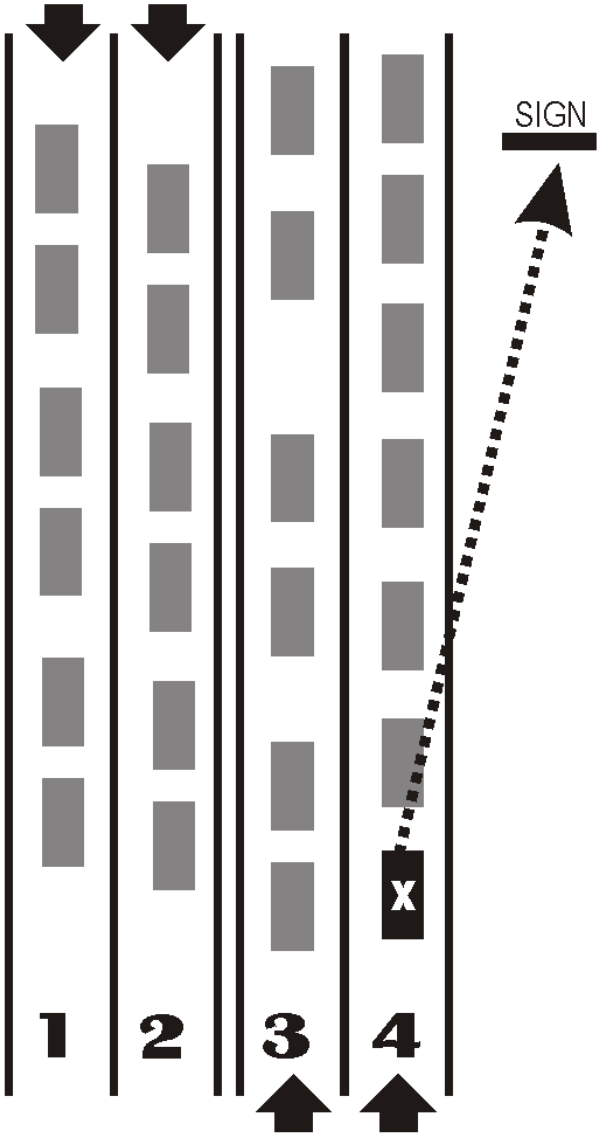


Chart E

(Schematic)

Speed of Travel

45 mph

Subject Vehicle - Lane 4
Sign on Right

Tables indicate percent of time sign is blocked from view of subject vehicle depending on Flow Rate and sign setback.

Flow Rate represents the number of vehicles traveling in both lanes in one direction for a period of one hour.

Sign Setback at 10 Feet

Flow Rate	% Blocking
200	9
400	17
600	24
800	31
1000	37
1200	42

Sign Setback at 20 Feet

Flow Rate	% Blocking
200	6
400	12
600	17
800	23
1000	27
1200	32

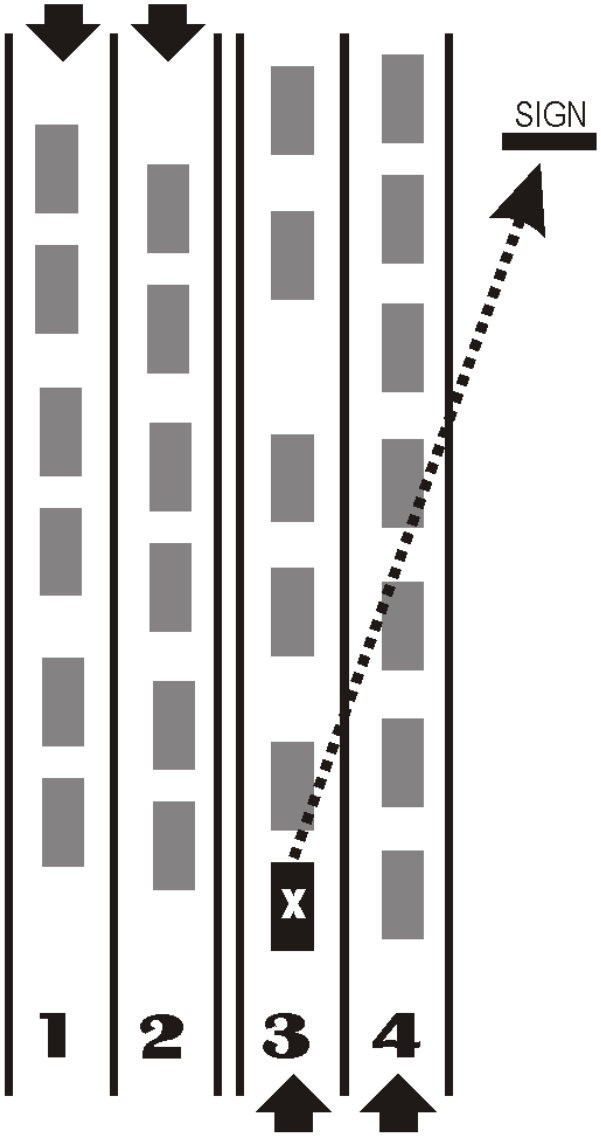


Chart F

(Schematic)

Speed of Travel

45 mph

Subject Vehicle - Lane 3
Sign on Right

Tables indicate percent of time sign is blocked from view of subject vehicle depending on Flow Rate and sign setback.

Flow Rate represents the number of vehicles traveling in both lanes in one direction for a period of one hour.

Sign Setback at 10 Feet

Flow Rate	% Blocking
200	16
400	29
600	40
800	49
1000	57
1200	64

Sign Setback at 20 Feet

Flow Rate	% Blocking
200	12
400	23
600	32
800	41
1000	48
1200	54

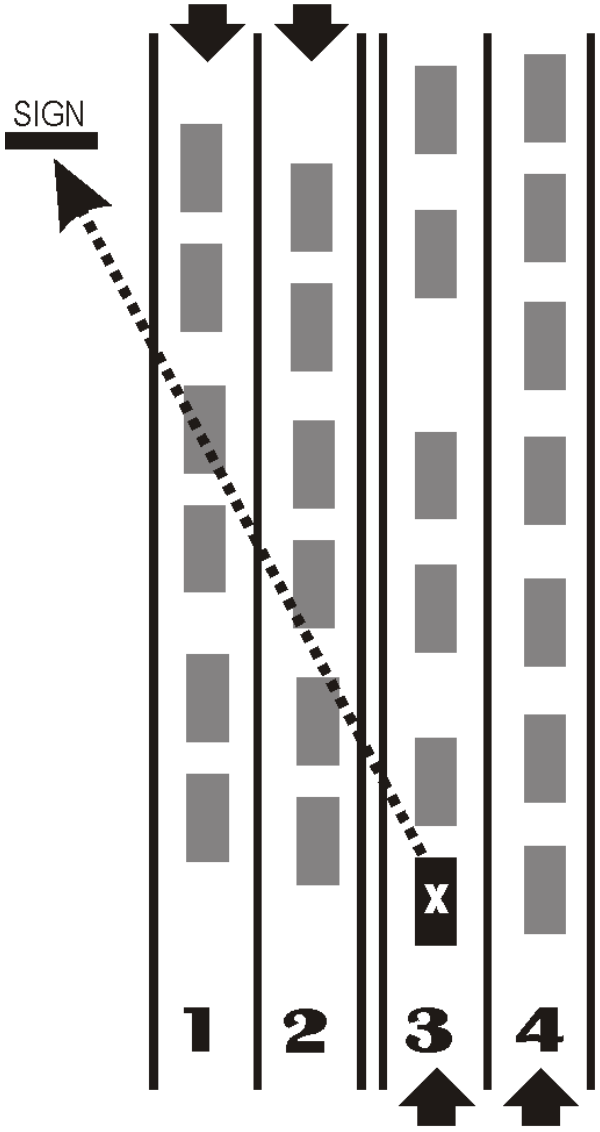


Chart G

(Schematic)

Speed of Travel

45 mph

Subject Vehicle - Lane 3
Sign on Left

Tables indicate percent of time sign is blocked from view of subject vehicle depending on Flow Rate and sign setback.

Flow Rate represents the number of vehicles traveling in both lanes in one direction for a period of one hour.

Sign Setback at 10 Feet

Flow Rate	% Blocking
200	19
400	34
600	46
800	56
1000	64
1200	70

Sign Setback at 20 Feet

Flow Rate	% Blocking
200	16
400	29
600	40
800	49
1000	57
1200	63

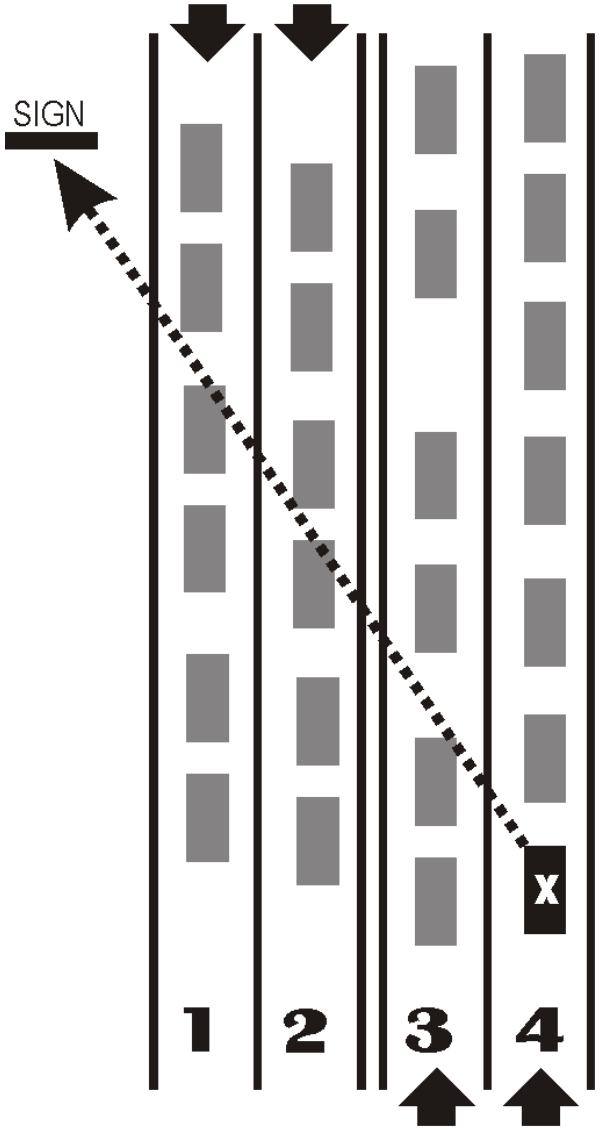


Chart H

(Schematic)

Speed of Travel

45 mph

Subject Vehicle - Lane 4
Sign on Left

Tables indicate percent of time sign is blocked from view of subject vehicle depending on Flow Rate and sign setback.

Flow Rate represents the number of vehicles traveling in both lanes in one direction for a period of one hour.

Sign Setback at 10 Feet

Flow Rate	% Blocking
200	22
400	39
600	52
800	63
1000	71
1200	77

Sign Setback at 20 Feet

Flow Rate	% Blocking
200	19
400	34
600	47
800	57
1000	65
1200	71

Parallel Signs

The United States Sign Council On-Premise Sign Standards, published in 2003, were based on numerous university level scientific studies conducted by the United States Sign Council (USSC) and its research arm, The United States Sign Council Foundation, aimed at quantifying various aspects of on-premise sign functionality, including sign size, legibility and height for on-premise signs that are oriented in a perpendicular fashion to the driver. These signs are typically referred to as freestanding signs, pylon signs, monument signs, projecting signs or any type of sign that is situated alongside a roadway and is installed in a perpendicular fashion to the roadway and facing a driver's line of sight.

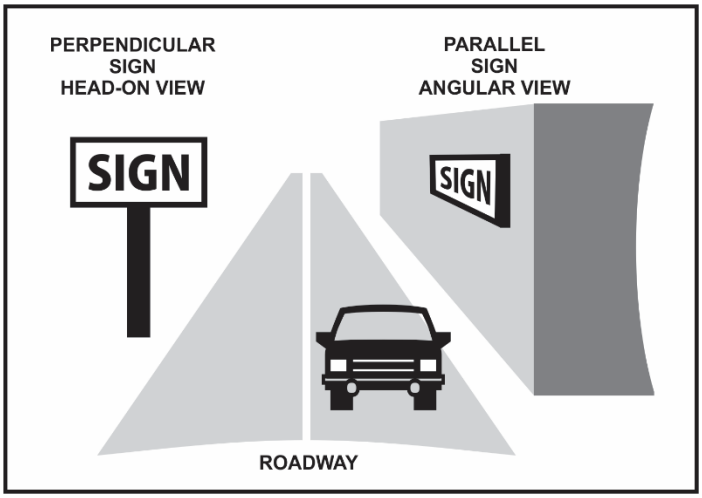
Research performed in 2006 extended this inquiry to the subject of "parallel" signs. Parallel signs present unique challenges for the driver. Parallel signs are often referred to as wall signs, building signs, façade signs, and other terminology used to denote on-premise signs that are affixed to a building structure, and are typically presented in an orientation that is parallel to the roadway and the driver's line of sight, instead of perpendicular to it.

On-Premise Signs: Determination of Parallel Sign Legibility and Letter Heights, Pennsylvania State University (2006) describes the development of, and rationale for, a mathematical model that calculates letter heights for parallel-mounted on-premise signs. The parallel sign research integrated the original legibility standards described earlier in these standards, so that the letter heights developed for perpendicular signs form the basis for letter heights on parallel signs with various lateral offsets (distance from the edge of the roadway to the sign).

Unique factors presented by Parallel Signs

A parallel on-premise sign is more difficult to read because of its orientation, or tilt, with respect to the driver. This orientation makes it impossible to see the sign face at certain distances and offsets (Figure 7). Even when a driver can see the sign face, the sign content is often foreshortened and distorted. A driver must get close to the sign in order to increase the viewing angle to the point where the sign becomes legible. Yet, as a driver approaches the sign, the time available to read the sign becomes shorter, and the sign moves further into the driver's peripheral vision. Therefore, parallel signs must be read using a series of very quick glances at large visual angles during small windows of viewing opportunity. Because of this, the letter heights previously developed for perpendicular signs, where drivers have more time and can take longer straight ahead glances, do not provide adequate parallel sign legibility.

Figure 7. Parallel Sign and Perpendicular Sign Comparison



Components related to Parallel Sign Legibility

Researchers have identified multiple factors that assist in the construction of a comprehensive model for the determination of parallel sign letter heights for signs along typical roadway cross-sections (number of lanes) and lateral sign offsets.

1. Glance Angle: The maximum angle at which drivers look away from the road to read signs.
2. Glance Duration: The length of time drivers look away from the road to read signs.
3. Glance Frequency: The number of glances that drivers make at any given sign.
4. Sign reading speed.
5. Observation Angle: The angle, or tilt, at which signs become legible.

Glance Angle

As discussed earlier in the Standards, sign detectability and legibility are, among other things, functions of sign orientation, or the relative angle of view between the sign and the driver. This angle is at its optimum level when the sign is positioned perpendicular to the driver and within driver's cone of vision at the initial point of detection (see Figure 1). Parallel signs typically have a large lateral offset, or are set back in a location that is outside the driver's cone of vision, to the left or to the right. This increases the driver's Glance Angle, and makes it more difficult to detect and read the sign.

Glance Duration

Researchers have found that drivers take their attention away from the forward roadway and glance at signs outside their cone of vision for varying lengths of

time. The range for Glance Duration based on research extends from very short "look away" times to read signs to one second glances to two second and greater glance durations.

The USSC Best Practices Standards assumes the following based on research:

> Drivers directed the majority of their visual attention to areas of the roadway that were relevant to the task at hand (i.e., the driving task).
>
> Drivers look away from the forward roadway to view signs located outside a driver's cone of vision for varying amounts of time.
>
> The key for parallel sign visibility and legibility is to afford the driver adequate time and distance to see and read a parallel sign within the duration of a typical glance or glance period.

Glance Frequency

Researchers in the 2006 parallel sign study stated that drivers typically glance at signs along the roadway at a frequency of 1 to 2 times, assuming they look at signs in any fashion. The number of glances that a driver can perform regarding a sign is limited, however, by the time and distance that is available to the driver to perform the viewing function. For instance, if a driver has a maximum window of 7 seconds to detect and read an on-premise parallel sign (see discussion of Viewer Reaction Time in this Chapter), and looks at the sign beginning at the first second of the Viewer Reaction Time sequence, and glances for a full 2 seconds, and then returns his or her attention to the forward roadway for 2 seconds, then only one additional glance at the maximum 2 seconds is physically possible before the sign is outside the view of the driver. Therefore, parallel signs need to be visible and legible for drivers within a 2-glance period in general.

Sign Reading Speed

The USSC Foundation research determined that parallel roadside signs are read, and can only be read, in short spurts as the driver looks from the road to the sign and back to the road again. This type of reading task is termed “glance legibility”, for which reading speed is a critical element. An important factor in this calculation is how long it takes a driver to read a roadside sign and how to maximize sign reading speed in order to minimize the time a driver must look away from the road.

Typical adult text reading speed, for a book or an electronic monitor, is roughly 250 words per minute, or 4.2 words per second. Research on highway sign reading indicates that it takes drivers between 0.5 to 2.0 seconds to read and process a single sign word or unit of information (note that this is two to eight times slower than normal reading speed). Therefore, a concept known as the “acuity threshold” helps explain some of the disparity between normal reading speed and the time it takes to read a roadside sign.

Drivers begin to read signs as soon as they become legible; but at the lower threshold of legibility – the acuity threshold - the reading task is slower. Optimum legibility begins at the point of “critical print size,” defined as the smallest letter height necessary for maximum reading speed.

Parallel sign letter size needs to be increased or adjusted upward as compared to the threshold letter height in order to increase reading speed for drivers and achieve the critical print size. It is essential to optimize reading speed for parallel mounted signs in order to minimize the duration and frequency of glances that drivers must make at these signs and to maximize the time they have for the primary visual driving tasks and the roadway forward.

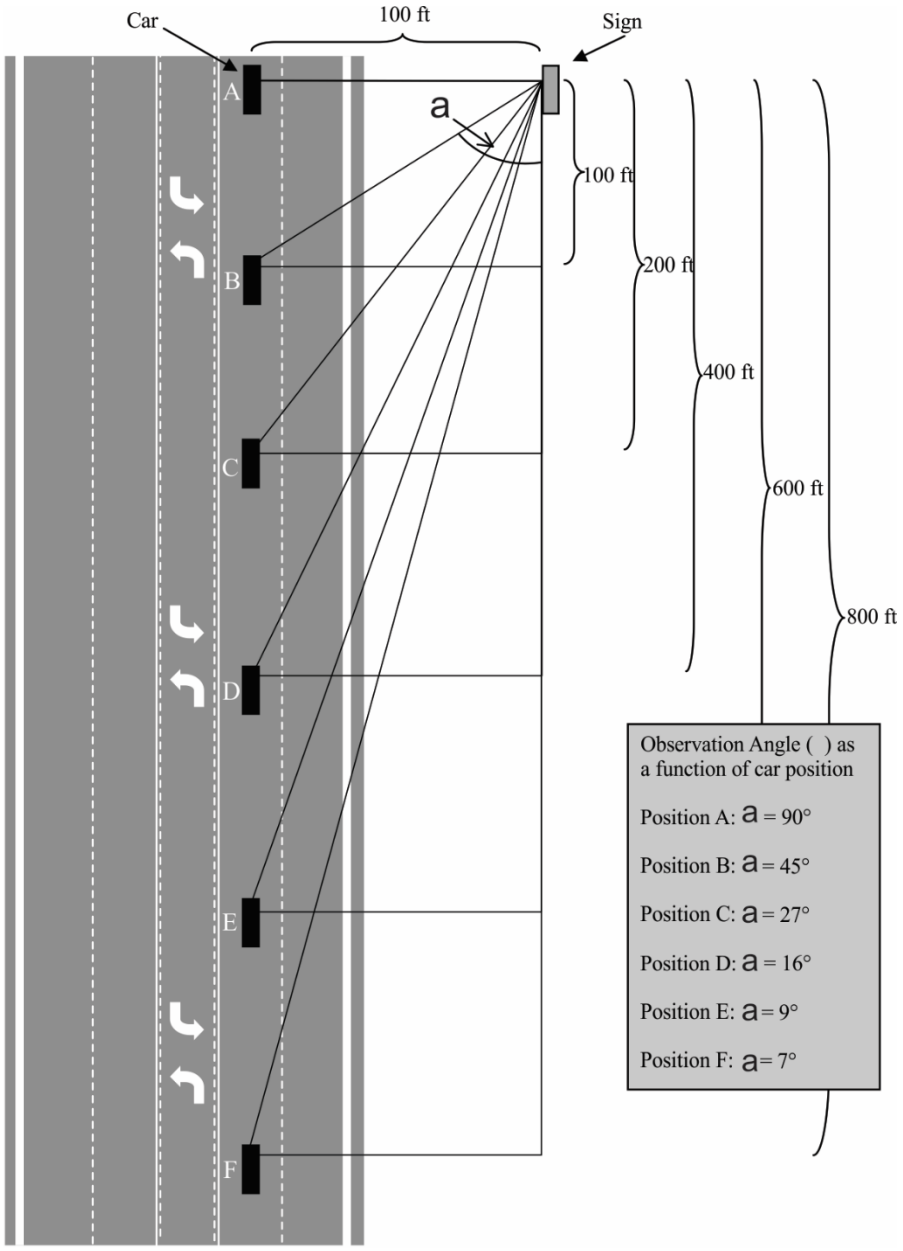
The research shows that drivers read the fastest at two to three times threshold letter height. To ensure adequate letter height across a variety of scenarios and environments, a multiplier of three times threshold was selected for use in the standard. Utilizing this threshold letter height improves the likelihood that drivers will be able to begin reading signs at the initial 30° observation angle (see below).

Observation Angle

As a driver gets closer to a parallel mounted sign (a typical wall sign or building sign), the driver's glance angle increases from nearly 0° when the driver is far down the road, to 90° when the driver is beside the sign (Figure 8). At 90°, a sign is optimally legible. However, it is at a glance angle where the sign can only be viewed through either the passenger or driver side window, presenting the driver with an inappropriate choice in terms of maintaining attention to the roadway forward, or turning at a substantial angle to view the sign.

Researchers found that signs begin to be legible at a "threshold observation angle" somewhere between 0° and 90°. The USSC standard threshold angle is 30°. Optimum parallel sign legibility extends from 30° to 60°; that is, when the driver has an observation angle to the target sign within these parameters. Legibility of the sign message deteriorates above and below these benchmarks. Finally, increasing parallel sign letter height improves driver performance and sign legibility.

Figure 8. Change in observation angle with distance



Parallel Sign and Letter Size

The minimum distance at which a sign and letters become legible is a function of the time it takes to read the sign or letters and the decisions and maneuvers required to comply with the message. Parallel sign and letter legibility is a function of both time and distance. See Table 5 for appropriate letter heights for perpendicular mounted signs. The overall standard Legibility Index (LI) for perpendicular signs is 30; that is, a 1” letter is legible from a 30’-0” viewing distance.

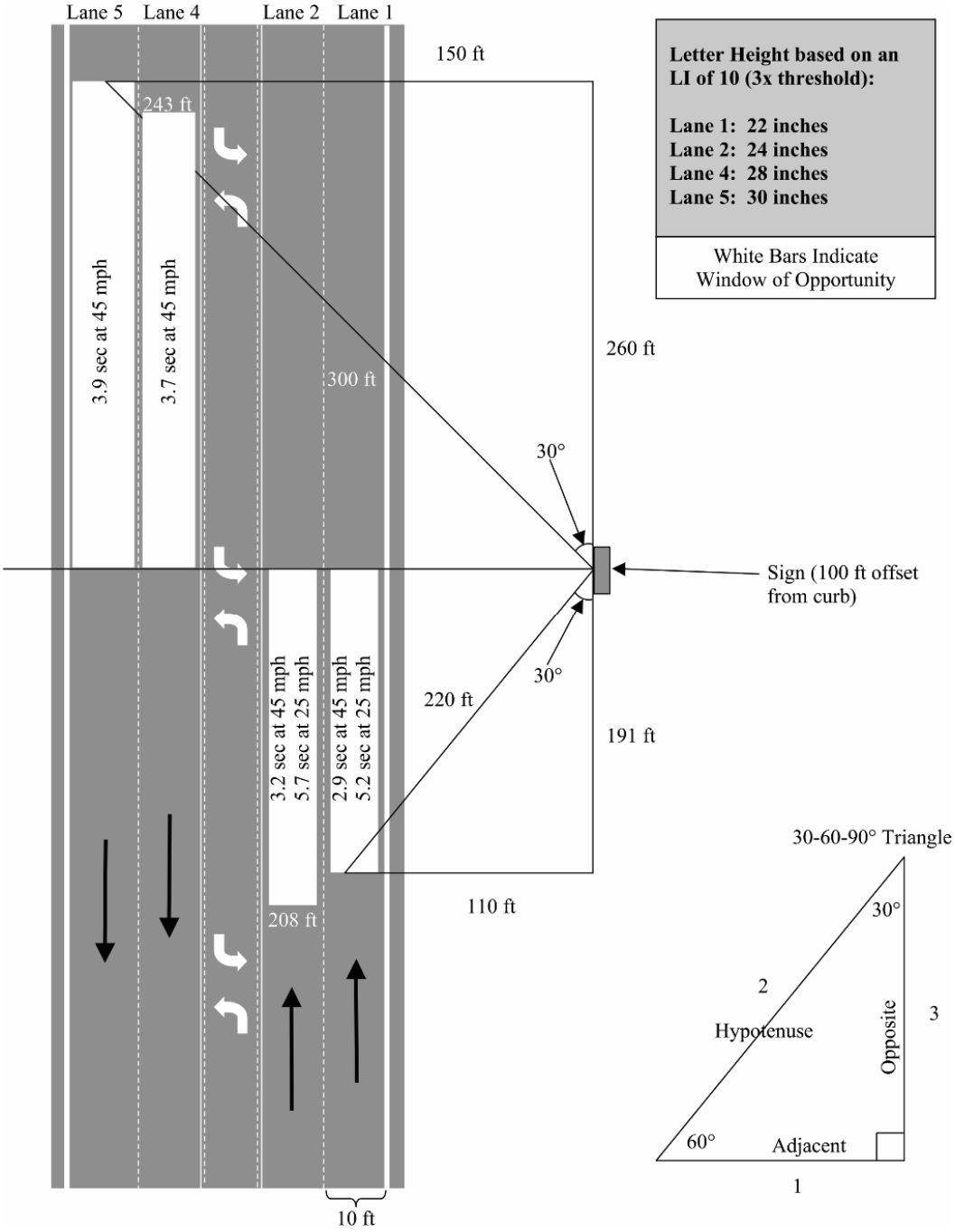
As discussed above, restricted viewing angles curtail parallel sign sight distance. The MALD or Maximum Available Legibility Distance for a parallel sign is the sight distance between the driver and the sign at the angle where the sign first becomes legible. This distance is calculated using the number of travel lanes, the sign’s lateral offset from the curb, and the threshold observation angle discussed above.

Table 6. Window of opportunity to read parallel signs (in seconds)

25 mph Speed Limit					
	Number of Lanes				
Offset from Curb	1	2	3	4	5
10	0.94	1.42	1.89	2.36	2.83
20	1.42	1.89	2.36	2.83	3.31
40	2.36	2.83	3.31	3.78	4.25
60	3.31	3.78	4.25	4.72	5.20
80	4.25	4.72	5.20	5.67	6.14
100	5.20	5.67	6.14	6.61	7.09
125	6.38	6.85	7.32	7.79	8.27
150	7.56	8.03	8.50	8.98	9.45
175	8.74	9.21	9.68	10.16	10.63
200	9.92	10.39	10.86	11.34	11.81

45 mph Speed Limit					
	Number of Lanes				
Offset from Curb	1	2	3	4	5
10	0.52	0.79	1.05	1.31	1.57
20	0.79	1.05	1.31	1.57	1.84
40	1.31	1.57	1.84	2.10	2.36
60	1.84	2.10	2.36	2.62	2.89
80	2.36	2.62	2.89	3.15	3.41
100	2.89	3.15	3.41	3.67	3.94
125	3.54	3.81	4.07	4.33	4.59
150	4.20	4.46	4.72	4.99	5.25
175	4.85	5.12	5.38	5.64	5.90
200	5.51	5.77	6.04	6.30	6.56
225	6.17	6.43	6.69	6.95	7.22
250	6.82	7.09	7.35	7.61	7.87
275	7.48	7.74	8.00	8.27	8.53
300	8.14	8.40	8.66	8.92	9.19
325	8.79	9.05	9.32	9.58	9.84
350	9.45	9.71	9.97	10.23	10.50
375	10.10	10.37	10.63	10.89	11.15
400	10.76	11.02	11.28	11.55	11.81

Figure 9. Example calculation for letter height model



Parallel sign letter size can be determined using the following equation, given the number of lanes of travel and the lateral offset of the sign from the curb. The equation uses an average Legibility Index of 10, based on the standards described earlier for perpendicular signs. When using the equations or the lookup table always use the maximum number of lanes on the primary target road.

The USSC Standard for parallel sign letter height should not be interpreted as or applied in a fashion that prohibits other parallel sign and letter sizes that do not comply with the Standard, i.e. signs and letters that do not meet the Standard. The parallel sign and letter size recommended Standard is provided as a guide that can be used when there is a need to determine appropriate parallel sign and letter sizes in a variety of contexts.

Equations and Lookup Table

The following equations can be used to determine appropriate letter heights for parallel mounted signs given the number of lanes of travel and the lateral offset of the sign from the curb. Equation #1 uses an average Legibility Index of 10, while Equation #2 allows users to input the LI that most closely matches their sign conditions from the USSC Legibility Index table (Table 4) and applies the three times threshold constant to that LI. A parallel sign letter height lookup table is also provided for typical roadway cross-sections and lateral sign offsets (Table 7).

When using the equations or the lookup table always use the maximum number of lanes on the primary target road.

Parallel Letter Height Model Equation

Equation #1: LH = (LN x 10 + LO) / 5

where:

LH is letter height in inches.

LN is the number of lanes of traffic.

LO is the lateral offset from curb in feet.

Examples of how to work the equations

2-Lane Roadway

Lateral offset is 37 feet from the curb.

User does not know the letter style.

Equation #1: LH = (LN x 10 + LO) / 5

LH = (2 x 10 + 37) / 5

LH = 57 / 5

LH = 11.4 inches

Same scenario, but user knows the sign is: Externally Illuminated, Helvetica, all Caps, Light Letters on Dark Background

(USSC LI = 22 ft/in)

Equation #2: LH = (LN x 10 + LO) / (LI / 6)

LH = (2 x 10 + 37) / (22 / 6)

LH = 57 / 3.67

LH = 15.5 inches

Table 7. Parallel sign letter height lookup table

Offset from Curb (ft)	Letter Height in Inches Number of Lanes 1	2	3	4	5
10	4	6	8	10	12
20	6	8	10	12	14
40	10	12	14	16	18
60	14	16	18	20	22
80	18	20	22	24	26
100	22	24	26	28	30
125	27	29	31	33	35
150	32	34	36	38	40
175	37	39	41	43	45
200	42	44	46	48	50
225	47	49	51	53	55
250	52	54	56	58	60
275	57	59	61	63	65
300	62	64	66	68	70
325	67	69	71	73	75
350	72	74	76	78	80
375	77	79	81	83	85
400	82	84	86	88	90

Sign Illumination

The USSC has completed a series of six (6) on-premise sign lighting studies and reports designed to assist in the understanding of how on-premise signs function at night when illuminated, and to address questions on the best type of lighting at night for the driver and traffic safety – including best lighting level (or luminance) for signs at night, and best type of sign construction. Included in these studies is an examination of:

- □ The environmental impact of on-premise sign lighting
- □ The best type of sign lighting for driver detection & legibility
- □ Whether a real world environment changes detection & legibility results
- □ What lighting level, or brightness, is best at night for driver detection and legibility

Testing has shown that on-premise signs are easier for drivers to (a) see and (b) read during the day. These two concepts are often referred to as “detection” and “legibility”. Because drivers can see and read signs best during the daytime, then for purposes of traffic safety, sign illumination practices at night should attempt to get as close as possible to the daytime benchmarks. The functions of on-premise signs are no less critical after dark as they are during daylight hours, and their functional value may be even more critical to the safety and cognitive implications for older drivers, whose visual acuity has been shown to deteriorate markedly at night.

On-premise sign lighting standards also reflect the informational transfer and communication aspects that are unique to the on-premise sign medium, as these signs provide a principal means of roadside communication and situational

awareness for drivers, in both form and function. It is this place-based orientation that gives on-premise signs their unique character, but which also acts to limit their communicative ability to a relativity short span of time during which they can be seen by any given driver.

Types of Sign Illumination and Sign Construction

On-premise signs can be illuminated at night using a variety of lighting techniques. There are two principal methods for providing sign lighting - internal illumination and external illumination – and these were the two types of sign lighting studied over the course of the research.

Internal illumination: An internally illuminated on-premise sign has its lighting element or lighting source contained inside the sign cabinet, letter module, or sign body. Typical lighting elements used for internal illumination include fluorescent lighting, neon tubing, and light-emitting diodes (LEDs).

External illumination: An externally illuminated on premise sign has its lighting element or source installed outside the sign, directed toward the sign face, letters, or sign message. Typical external lighting sources include fluorescent lighting, spotlights, floodlights, gooseneck lamps.

A third method of sign lighting is used less frequently, but has the longest history. Exposed lighting elements provide unique character to many on-premise signs, and these applications include exposed neon tubing on signs and letters, incandescent and LED-based exposed lamp bulbs on theater, event signage, and other types of applications. These lighting methods were also studied in several of the research projects.

National electrical and fire safety standards exist regarding the fabrication and installation of internally illuminated signs – see the National Electric Code and testing agencies such as Underwriters Laboratories. By contrast, there are few if any rules regarding the installation of lighting for externally illuminated on-premise signs, the appropriate placement of external lighting fixtures, and the type of lighting required.

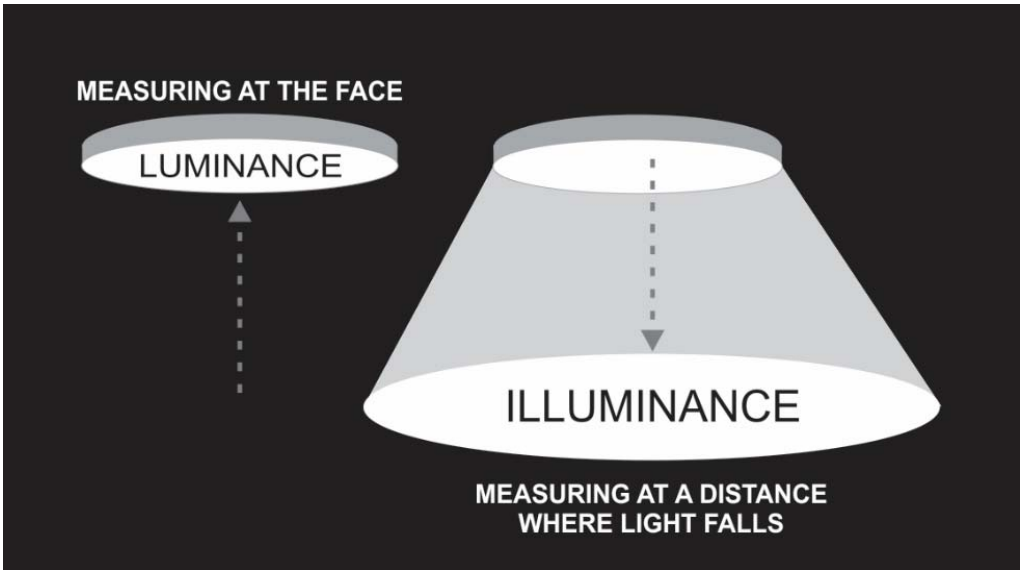
Additional information on sign lighting can be found in *On-Premise Sign Lighting – Terms, Definitions, Measurement,* The Visual Communication Research Institute (2010).

Measuring Sign Brightness: Luminance

There are two accepted ways to consider and measure the light produced by an object or sign. The first is to measure the "brightness" of the sign at the face of the sign, or its "luminance." Luminance measures light output at its source, is a constant, and does not vary with ambient light conditions.

There is a second metric that can be applied to sign lighting, termed "illuminance", which refers to a projection of light from a sign into surrounding space, such as light cast by a sign onto property line or ground surface. Illuminance diminishes rapidly with distance from a sign, and this reduction in light is measurable at any point from the sign at a rate equal to the square of the distance from the sign.

Figure 10. Luminance and Illuminance



These basic lighting concepts can be sometimes hard to understand because there are two sets of photometric terms used to measure and describe them – the SI (or metric) system and English units of measurement. The dual systems can cause confusion, which is significant, because the systems are not aligned in terms of terminology and measurement equations, although one can convert values from one system to the other using formulae.

Luminance: The SI (metric) unit is **candelas per square meter** or cd/m2, and the English unit is **foot lamberts** (or candles per square foot, cd/ft2). One **foot lambert** is equal to 3.43 **candelas per square meter** (cd/m2.) **Candelas per square meter** (cd/m2) is often referred to as a **nit**, which is neither an SI (metric) nor an English term, but is used frequently to describe sign luminance and to measure sign brightness.

Illuminance: The SI (metric) unit is **lux** (lx) and the English unit is **foot candles**. One **foot candle** is equal to ten **lux**. Table 8 provides conversion factors from one system to the other.

Table 8. SI (Metric) and English Conversion

	English	Conversion to SI (metric)	SI (metric)
Luminance	foot lambert (fL or ft-L)	x 3.43	cd/m^2
Illuminance	foot candle (fc)	x 10	lux (lx)
	SI (metric)	**Conversion to English**	**English**
Luminance	cd/m^2	X 0.29	fL or ft-L
Illuminance	lux (lx)	x 0.1	fc

The USSC standard for the measurement of on-premise sign illumination is “luminance,” based on the needs of the driver and traffic safety. The standard luminance value for on-premise signs at night has been found to provide optimum legibility and reading sight distances for drivers without any significant impact on environmental light trespass or sky glow.

Luminance can further be objectively controlled and measured during the sign design process, the sign fabrication process and after installation in the field to ensure adherence to the luminance requirements of the standard set forth below.

The standard does not restrict sign luminance during daylight operation. Electronic signs and other dynamic message signs which, because their LED powered display surfaces, require daylight illumination of sufficient luminance to maintain legibility under bright ambient light, may require lighting adjustment of their lighting output during the day, in addition to lighting adjustments at night.

Illuminance has only an indirect relevance to on-premise signs. The illuminance that a sign may possess does not relate to the issue of adequate sign brightness for driver detection and legibility. It is a variable lighting measurement dependent on distance from the sign itself.

In addition, since on-premise signs are not designed to cast light on other objects or spaces or provide task lighting, their illuminance only becomes relevant in terms of its possible relationship to an environmental concept called “light trespass.” Because research has shown that internally illuminated signs have low initial light levels that fall off rapidly with distance, internally illuminated on-premise signs have virtually no significant light trespass implications. Light trespass is most likely to occur where there is a problem with badly aimed external sign illumination. Nonetheless, in addition to their other provisions, communities may address the issue of light trespass by requiring that the illuminance of signs be restricted to a specific level at property lines when immediately adjacent to residential properties.

Sign Lighting Levels, Environmental Issues and Energy Conservation

Researchers have investigated the potential consequences of sign lighting design. First, in regard to “sky glow” (sky brightness caused by artificial light reflecting off the atmosphere), it was found that there are no agreed upon-objective methods for physically measuring overall sky glow, and no universally agreed-upon levels of acceptable or unacceptable sky glow. Moreover, there is no metric to measure sky glow from a single light source, like a sign, nor any objective standard or measurement technique to establish the effect of on-premise identification sign lighting on sky glow at this time.

Second, in regard to “light trespass,” researchers found that (a) light trespass is a concept related to sign illuminance (light falling where it is not wanted or

intended) and is not related to the needs of the driver or traffic safety; and (b) the illuminance of all sign lighting designs measured in research had a mean vertical illuminance below 3.0 lux (or .3 footcandles) at a reasonable distance from the signs measured, a light level which is not associated with light trespass.

In addition, initiatives involving energy savings achieved through the reduction of sign luminance from optimum levels are likewise not considered appropriate to sign lighting standards because there is the potential that such reductions may compromise traffic safety. Unlike outdoor lighting in the nighttime landscape, on-premise signs are specifically designed to provide vital wayfinding and situational awareness information to drivers, and to this end, must be permitted to maintain illumination levels consistent with optimum legibility and viewer reaction time parameters. The minimum luminance value for standard sign illumination is structured to comply with these parameters.

Communities historically have had concerns about on-premise sign lighting on properties that are adjacent to residential areas. The USSC sign illumination guideline standards provide a baseline for setting brightness levels for all on-premise signs; adjustments for local circumstances may be made by individual local jurisdictions accordingly.

Best Sign Lighting Method for the Driver

Extensive sign illumination research, conducted under both test track and real world conditions, has shown a marked difference in sign detection and sign legibility between internally illuminated signs and externally illuminated signs.

Legibility: The difference in legibility between internal and external sign illumination has been calculated to provide as much as a 70% advantage in legibility favoring internal over external sign lighting. Since sign lighting and traffic

safety are inextricably intertwined, the use of internally illuminated signs should neither be prohibited nor curtailed in any zone or district where vehicular traffic is present.

Distance: Research has shown conclusively that internally illuminated on-premise signs are read from a much greater distance than externally illuminated signs. This was first demonstrated in test track research, where 40 to 60 percent longer reading distances were found with internally illuminated signs. In subsequent real world studies directly comparing internal and external illumination, the results confirmed that when externally illuminated signs are switched to identical signs using internal illumination, drivers on average read the internally illuminated signs more rapidly and at a greater viewing distance.

Time: In a majority of cases, externally illuminated signs did not afford the driver adequate time to detect and read the sign, and execute a driving maneuver. Internally illuminated signs gave drivers on average an additional 2 seconds more time than externally illuminated signs to read the signs and execute a driving maneuver. Or, to illustrate the condition another way, in comparing the time to read a sign between internal and external illumination, an externally illuminated sign must be increased in size by 40% over the size of an internally illuminated sign, to achieve the same legibility factor, or the speed of traffic must be reduced by 40% to achieve the same legibility values, internal vs external illumination.

In any driving environment where posted speeds are at 25 MPH or higher, on-premise signs provide motorists with wayfinding and situational awareness information, and the time required to process that information is critical. These research findings in regard to sign illumination have significant traffic safety implications.

On-Premise Sign Illumination Guideline Standard

The USSC has established a sign illumination guideline standard for on-premise signs at night based on the results of completed research. This standard insures that sign lighting can meet the needs of the driver in regard to on-premise sign detection and legibility.

The USSC standard is based on the luminance of a sign. As discussed above, luminance is the measurement of the brightness of a sign at its face. Testing has provided maximum luminance levels for optimum sign detection and legibility. This guideline standard does not dictate that all signs should meet a certain luminance level at all times; rather, it sets the outer-most level for signs, beyond which on-premise sign brightness should not extend. In that regard, signs with luminance values greater than the standard did not perform better in sign legibility testing. Therefore, increasing sign brightness beyond the standard does not yield better sign legibility, and is not recommended in these guidelines. The vast majority of on-premise signs, using different color combinations and designs, will have luminance values far below the maximum standard for brightness at night.

Because the illuminance measurements of any particular sign will vary based on distance from the sign, and drivers are generally traveling continuously along a roadway as they view the sign at changing distances, and on-premise sign viewing distances for best legibility are different for each sign, based on a multitude of factors, use of an illuminance standard for on-premise sign brightness does not offer a uniform and easy-to-apply guideline, and is almost impossible to test for from a detection and legibility standpoint for all on-premise signs.

The USSC Sign Illumination Guideline Standard: It is recommended that all illuminated signs comply with the maximum luminance level of seven hundred fifty (750) cd/m² or Nits at least one-half hour before apparent sunset, as determined by the National Oceanic and Atmospheric Administration (NOAA), US Department of Commerce, for the specific geographic location and date. It is also recommended that all illuminated signs comply with this maximum luminance level throughout the night, if the sign is energized, until apparent sunrise, as determined by the NOAA, at which time the sign may resume luminance levels appropriate for daylight conditions, when required or appropriate.

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USSC **FOUNDATION**

EXECUTIVE OFFICES:
211 Radcliffe Street
Bristol, PA 19007-5013
215-785-1922
www.usscfoundation.org

REPORT TO THE PLAN COMMISSION

Plan Commission Meeting Date: February 19, 2025

Agenda Item: 4.a.

File Number: CSM-2025-05

General Information

Applicant: Kristin J. Belongia, PLS
Owner: LookAbel, LLC
Address: Parcel Numbers 6-2-450.549.1 and 6-2-450.549.2 in the 3100 Block of South Bartells Drive in the Town of Beloit
Jurisdiction: Town of Beloit
Applicant's Request: Approval of a two-lot Extraterritorial Certified Survey Map (CSM)

Staff Analysis

Proposed Land Division: The intent of the proposed extraterritorial CSM is to reconfigure parcel numbers 6-2-450.549.1 and 6-2-450.549.2 in the 3100 block of South Bartells Drive, and to dedicate public right-of-way for proposed streets to serve a future residential condominium development. The proposed Lot 1 is 4.65 acres (approximately 202,561 square feet). The proposed Lot 2 is 3.09 acres (approximately 134,743 square feet). The dedicated right-of-way would be for the creation of two new public streets, Coopers Hawk Drive and Goldfinch Court. The parcels are zoned R-4, Planned Unit Development District in the Town of Beloit to allow for a maximum of 8 to 12 units per acre.

Surrounding Land Use and Zoning: To the west and north of the subject parcels is zoned R-2, Single and Two-Family Residential District, and R-1, Single Family Residential District, in the Town of Beloit. To the east and south of the subject parcels is zoned R-4, Planned Unit Development District, and C-1, Conservancy District, including Turner High School, in the Town of Beloit. To the southwest of the subject parcels is zoned B-3, General Business District, in the Town of Beloit.

City of Beloit Comprehensive Plan and Strategic Plan: The City's Comprehensive Plan Future Land Use Map shows that these parcels are planned for *Established Neighborhood* uses, which is being proposed. However, land use cannot be considered when reviewing Extraterritorial CSM applications according to state law.

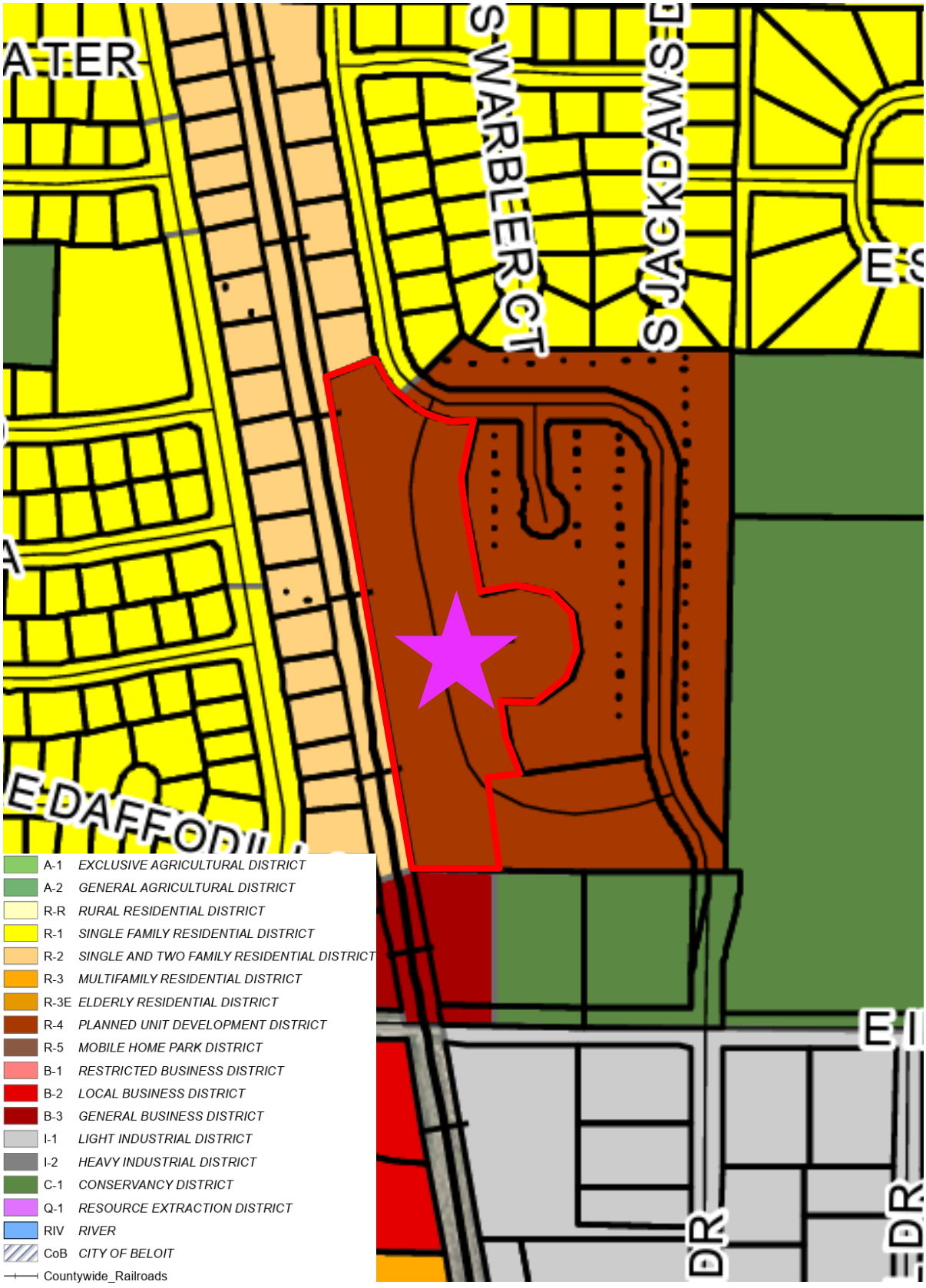
Review Agent Comments: The proposed CSM was distributed to the Review Agents. No concerns or comments were received. It is staff's understanding that the future development within this area would be served by City water. Further discussion may be needed with City Engineering and Water Resources staff regarding proposed water infrastructure. A developer's agreement may be needed. Construction plans for proposed City water infrastructure would need to be reviewed and approved by Engineering and Water Resources.

STAFF RECOMMENDATION:
The Planning and Building Services Division recommends **approval** of the attached two-lot Extraterritorial CSM for parcels 6-2-450.549.1 and 6-2-450.549.2 located in the 3100 block of South Bartells Drive in the Town of Beloit, subject to the following condition:

1. The final CSM shall be recorded with the Rock County Register of Deeds within one year of approval and a copy provided to the Planning and Building Services Division.

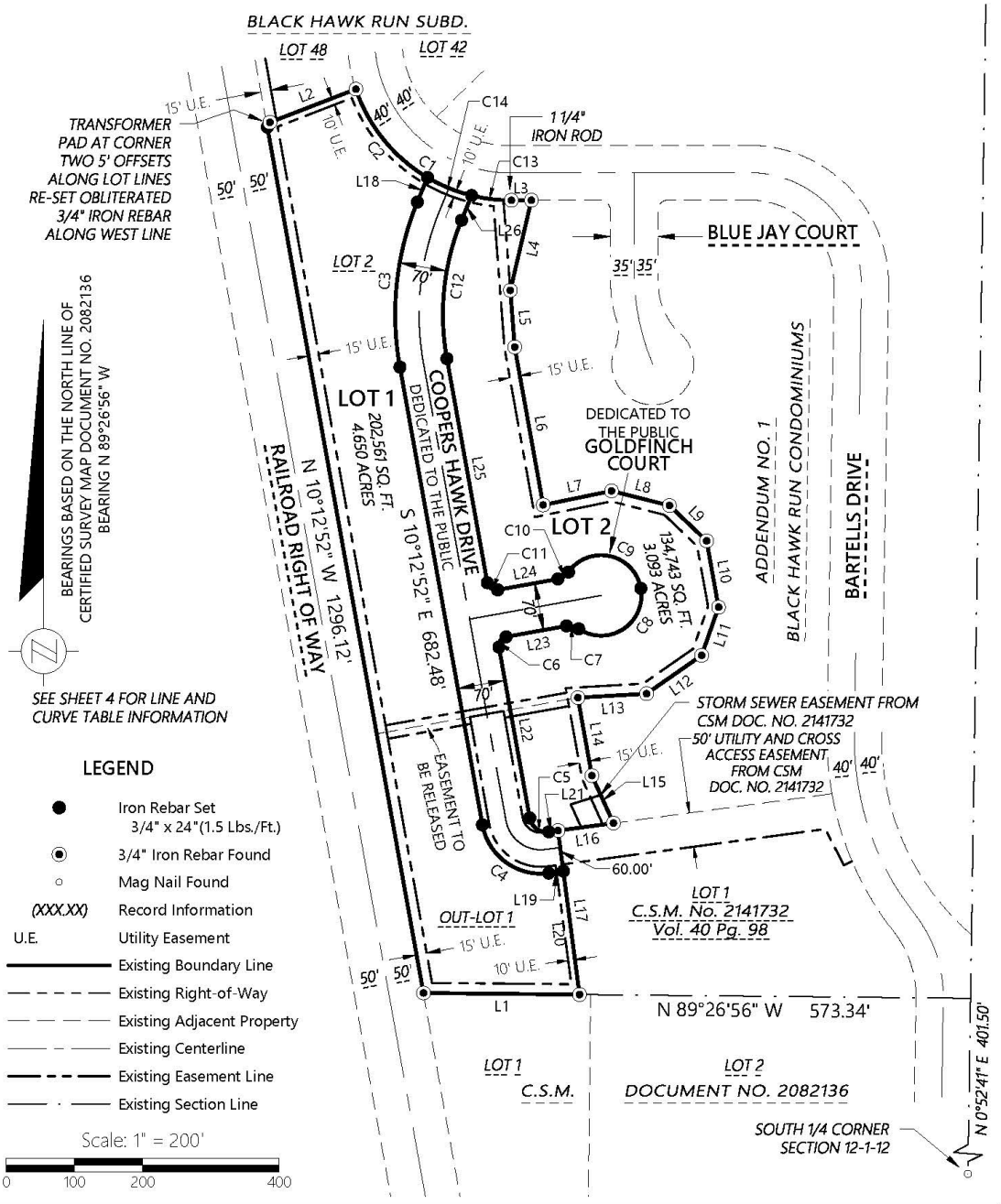
ATTACHMENTS: Location and Town Zoning Map, Certified Survey Map, Application, and Resolution.

LOCATION AND TOWN ZONING MAP



CERTIFIED SURVEY MAP

OF LOT 2 AND OUT-LOT 1 OF CERTIFIED SURVEY MAP DOCUMENT NO. 2141732, RECORDED IN VOLUME 40 ON PAGES 98-101, PART OF OUT-LOT 12-5 OF THE ASSESSOR'S PLAT OF BELOIT TOWNSHIP, BEING SITUATED IN PART OF THE NE 1/4 OF THE SW 1/4 AND PART OF THE SE 1/4 OF THE SW 1/4 OF SECTION 12, T. 1 N., R. 12 E., OF THE 4TH P.M., TOWN OF BELOIT, ROCK COUNTY, WISCONSIN.



ORDER NO: 35037D	*FOR THE EXCLUSIVE USE OF:*	Batterman engineers surveyors planners
FIELD CREW: AMK DRAWN BY: BMR SHEET 1 OF 4	LOOKABEL, LLC 2843 S. BARTELLS DRIVE BELOIT, WI 53511	2857 Bartells Drive Beloit, Wisconsin 53511 608.365.4464 www.rhbatterman.com

File Name: J:\35000-35137\35037 - Blackhawk Run Condos - LookAbel\SURVEY\RHB DRAWING FILES

CERTIFIED SURVEY MAP

OF LOT 2 AND OUT-LOT 1 OF CERTIFIED SURVEY MAP DOCUMENT NO. 2141732, RECORDED IN VOLUME 40 ON PAGES 98-101, PART OF OUT-LOT 12-5 OF THE ASSESSOR'S PLAT OF BELOIT TOWNSHIP, BEING SITUATED IN PART OF THE NE 1/4 OF THE SW 1/4 AND PART OF THE SE 1/4 OF THE SW 1/4 OF SECTION 12, T. 1 N., R. 12 E., OF THE 4TH P.M., TOWN OF BELOIT, ROCK COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE OF COMPLIANCE WITH STATUTE

State of Wisconsin }
County of Rock } ***ss.***

I, Kristin J. Belongia, a Professional Land Surveyor, do hereby certify that I have surveyed and mapped Lot 2 and Out-Lot 1 of Certified Survey Map Document No. 2141732, recorded in Volume 40 on Pages 98-101, part of Out-Lot 12-5 of the Assesor's Plat of Beloit Township, being situated in part of Northeast 1/4 of the Southwest 1/4 and part of the Southeast 1/4 of the Southwest 1/4 of Section 12, T. 1 N., R. 12 E., of the 4th P.M., Town of Beloit, Rock County, Wisconsin.

Containing 428,758 square feet (9.843 acres) of land, more or less.

Given under my hand and seal this ___ day of _____, 2025 at Beloit, Wisconsin.

Approved by the Planning Commission of the City of Beloit, this ___ day of _____, 2025.

By: _____

Approved by the Town Board of the Town of Beloit, this ___ day of _____, 2025.

By: _____

I hereby certify that the Property Taxes on the parent Parcel are current and have been paid as of _____, 2025.

_____
Rock County Treasurer

This Final Land Division No. LDxxxx-xxx is approved, this _____ day of _____, 2025, pursuant to Chapter 4 of the Rock County Ordinance.

By: _____
Rock County Planning, Economic and Community Development Department

ORDER NO: 35037D FIELD CREW: AMK DRAWN BY: BMR SHEET 2 OF 4	*FOR THE EXCLUSIVE USE OF:* LOOKABEL, LLC 2843 S. BARTELLS DRIVE BELOIT, WI 53511	Batterman engineers surveyors planners 2857 Bartells Drive Beloit, Wisconsin 53511 608.365.4464 www.rhbatterman.com

File Name: J:\35000-35137\35037 - Blackhawk Run Condos - LookAbel\SURVEY\RHB DRAWING FILES

CERTIFIED SURVEY MAP

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CORPORATE OWNERS CERTIFICATE

Lookabel LLC, a limited liability company duly organized and existing under and by virtue of the laws of the State of Wisconsin, as Owner of the land described in the foregoing description, does hereby certify that said limited liability company caused the land described on this map to be surveyed, divided, mapped and dedicated as represented on the map. Lookabel LLC does further certify that this map is required to be submitted to the following for approval or objection: Town Board of the Town of Beloit and Planning Commission of City of Beloit.

IN WITNESS WHEREOF, Lookabel, LLC has caused these presents to be signed by _____,
(print name)
its _____, this _____ day of _____, 2025.

_____
(signature)

State of Wisconsin }
County of _____ } ***ss.*** Personally came before me, this _____ day of _____, 2025,

_____of the above-named limited liability company, to me known to be the person(s) who executed the foregoing certificate, and to me known to be such

_____ of said limited liability company and acknowledged that they executed the foregoing certificate as such officers as the deed of such limited liability company, by its authority.

_____

Notary Public, _____ County, Wisconsin

My Commission Expires _____

CONSENT OF MORTGAGEE

_____, a corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, Mortgagee of the land described in the foregoing description, does hereby consent to the surveying, dividing, mapping and dedication as described on this map and does hereby consent to the above certificate of Lookabel LLC, as authorized agent for _____, WITNESS, the hand and seal of

_____, this _____ day of _____, 2025.
(signature) (title)

State of Wisconsin }
County of _____ } ***ss.*** Personally came before me, this _____ day of _____, 2025,

the above-named _____, to me known to be the persons who
(print name)
executed the foregoing certificate and acknowledged the same.

_____

Notary Public, _____ County, Wisconsin

My Commission Expires _____

ORDER NO: 35037D FIELD CREW: AMK DRAWN BY: BMR SHEET 3 OF 4	*FOR THE EXCLUSIVE USE OF:* LOOKABEL, LLC 2843 S. BARTELLS DRIVE BELOIT, WI 53511	Batterman engineers surveyors planners 2857 Bartells Drive Beloit, Wisconsin 53511 608.365.4464 www.rhbatterman.com

File Name: J:\35000-35137\35037 - Blackhawk Run Condos - LookAbel\SURVEY\RHB DRAWING FILES

CERTIFIED SURVEY MAP

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LINE TABLE		
LINE #	*DIRECTION*	*LENGTH*
L1	N 89°26'56" W	228.87'
L2	N 68°52'29" E	140.13'
L3	N 89°54'14" E	29.68'
L4	S 13°08'18" W	135.75'
L5	S 04°22'28" E	83.44'
L6	S 10°12'11" E	235.44'
L7	N 78°21'51" E	102.39'
L8	S 75°46'58" E	87.62'
L9	S 46°25'43" E	75.11'
L10	S 10°14'17" E	98.89'
L11	S 19°19'23" W	74.83'
L12	S 55°06'58" W	98.49'
L13	S 86°44'41" W	100.96'
L14	S 10°12'11" E	116.25'
L15	S 24°23'24" E	76.54'
L16	S 82°20'04" W	82.02'
L17	S 07°29'07" E	242.59'
L18	S 22°15'30" W	39.17'
L19	N 82°20'04" E	21.51'
L20	S 07°29'07" E	182.59'
L21	S 82°20'04" W	13.60'
L22	N 10°12'52" W	254.69'
L23	N 79°47'08" E	90.00'
L24	S 79°47'11" W	89.79'
L25	N 10°12'52" W	334.17'
L26	N 22°15'30" E	39.17'

CURVE TABLE				
CURVE NO.	*RADIUS*	*ARC*	*CHORD BEARING*	*CHORD LENGTH*
C1	240.00'	299.02'	S 54°24'11" E	280.05'
C2	240.00'	170.26'	S 39°01'59" E	166.71'
C3	435.00'	246.54'	S 06°01'19" W	243.25'
C4	87.00'	132.79'	S 53°56'24" E	120.27'
C5	25.00'	38.16'	N 53°56'24" W	34.56'
C6	13.00'	20.42'	N 34°47'08" E	18.38'
C7	23.16'	18.93'	S 76°46'46" E	18.41'
C8	59.00'	138.17'	N 56°51'39" E	108.69'
C9	59.00'	138.16'	N 77°18'51" W	108.69'
C10	23.18'	19.12'	S 56°38'23" W	18.58'
C11	13.00'	20.39'	N 55°16'32" W	18.37'
C12	365.00'	206.87'	N 06°01'19" E	204.11'
C13	240.00'	58.51'	S 83°06'42" E	58.37'
C14	240.00'	70.25'	S 67°44'30" E	70.00'

DOCUMENT NO. _____ RECEIVED FOR RECORD THIS ____ DAY OF _____ A.D. 2025 AT _____ O'CLOCK ___.M. AND RECORDED IN VOLUME _____, PAGES _____ OF CERTIFIED SURVEY MAPS OF ROCK COUNTY, WISCONSIN.

_____ REGISTER OF DEEDS

ORDER NO: 35037D

FIELD CREW: AMK
DRAWN BY: BMR
SHEET 4 OF 4

FOR THE EXCLUSIVE USE OF:
LOOKABEL, LLC
2843 S. BARTELLS DRIVE
BELOIT, WI 53511

Batterman
engineers surveyors planners
2857 Bartells Drive Beloit, Wisconsin 53511
608.365.4464 www.rhbatterman.com

File Name: J:\35000-35137\35037 - Blackhawk Run Condos - LookAbel\SURVEY\RHB DRAWING FILES

Batterman
engineers surveyors planners

January 7, 2025

Beloit Town Hall
Town Clerk – Karry DeVault
2445 S Afton Road
Beloit, WI 53511
(608) 364-2980

Re: Land Division (Certified Survey Map)
RHB Project #35037D

Dear Karry DeVault:

Attached please find an application for a Preliminary Land Division for a 2-Lot Certified Survey Map to be reviewed at the February 12th Planning and Zoning meeting and subsequent Town Board meeting.

Our client, LookAbel, LLC currently owns Parcel(s) 004 0505491 & 004 0505492. The purpose of this land division is for future residential development. A condominium plat to create the individual units will follow.

Concurrently, the same application will also be submitted to the City of Beloit Planning and Building Services.

If you have any questions or need any additional information, please let us know. My e-mail address is kbelongia@rhbatterman.com and office phone number is (608) 365-4464. Thank you in advance.

R. H. BATTERMAN & CO., INC.
Engineers - Surveyors – Planners

Kristin Belongia

Kristin Belongia, P.S.

pc: LookAbel, LLC, (Owner)

T.J. Nee, Director of Planning and Building Services

CITY of BELOIT

Planning and Building Services Division

100 State Street, Beloit, WI 53511 Phone: (608) 364-6700 Fax: (608) 364-6609

Application for Review of a Minor Subdivision

(Please Type or Print) **File Number:** RHB - 35037D

1. **Address of property:** Parcel Numbers: 004 0505491 & 004 0505492
2. **Tax Parcel Number(s):** 6-2-450.549.1 & 6-2-450.549.2
3. **Property is located in** (circle one): **City of Beloit or Town of: Turtle, Beloit, Rock or LaPrairie**
   In the SW **Quarter of Section** 12**, Township** 1 **North, Range** 12 **East of the 4th P.M.**
4. **Owner of record:** LookAbel, LLC **Phone:** (608) 289-5093 (815) 985-7112
   2843 S. Bartells Drive (Address) Beloit (City) WI (State) 53511 (Zip)
5. **Applicant's Name:** Kristin J. Belongia, PLS
   2857 S. Bartells Dr. (Address) Beloit (City) WI (State) 53511 (Zip)
   (608) 365-4464 (Office Phone #) / N/A (Cell Phone #) / kbelongia@rhbatterman.com (E-mail Address)
6. **Number of new lots proposed with this land division is** 2 **lot(s).**
7. **Total area of land included in this map:** 428,758 sq. ft.
8. **Total area of land remaining in parent parcel:** 0 sq. ft.
9. **Is there a proposed dedication of any land to the City of Beloit?** No
10. **The present zoning classification of this property is:** R-4
11. **Is the proposed use permitted in this zoning district:** Yes
12. ***THE FOLLOWING ITEMS MAY NEED TO BE COMPLETED AND/OR ATTACHED:***
    - ☐ **Site Assessment Checklist;** is required if the total area of CSM is over 5 acres.
    - ☐ **Pre-application meeting;** a pre-application meeting was held on _____ with City of Beloit Staff.
    - ☐ **Developer's Statement;** as required by section 12.02(7) of the Subdivision Ordinance.
    - ☐ **Phase One Environmental Assessment:** as per section 12.05(1)(c) of the Subdivision Ordinance.
    - ☒ **Certified Survey Map:** one copy as required by section 12.05(1) of the Subdivision Ordinance.

The applicant's signature below indicates the information contained in this application and on all accompanying documents is true and correct. The undersigned does hereby respectfully make application for and petition the City Plan Commission or City Council for approval of this Certified Survey Map for the purpose stated herein. The undersigned also agrees to abide by all applicable federal, state and local laws, rules, and regulations.

Kristin J Belongia (Signature of applicant) / Kristin J. Belongia (Print name of applicant) / 1/13/2025 (Date)

This application must be submitted at least 21 days prior to the Plan Commission meeting date.

Review fee: **$300.00** Amount paid: _____

Scheduled meeting date: _____

Application accepted by: _____ Date: _____

RESOLUTION 2025-07

APPROVING A TWO-LOT EXTRATERRITORIAL CERTIFIED SURVEY MAP FOR PARCELS 6-2-450.549.1 AND 6-2-450.549.2 LOCATED AT THE 3100 BLOCK OF SOUTH BARTELLS DRIVE IN THE TOWN OF BELOIT

WHEREAS, Section 12.05(1)b of Chapter 12 of the Code of General Ordinances of the City of Beloit entitled "*Subdivision and Official Map Ordinance*" authorizes the City Plan Commission of the City of Beloit to approve, conditionally approve, or reject any minor subdivision of land within the extraterritorial jurisdiction of the City; and

WHEREAS, the attached two-lot Certified Survey Map of parcels 6-2-450.549.1 and 6-2-450.549.2 located in the 3100 Block of South Bartells Drive in the Town of Beloit, containing 7.743 acres, more or less, is located within the extraterritorial jurisdiction of the City of Beloit; and

WHEREAS, the City Plan Commission of the City of Beloit has reviewed the attached two-lot Certified Survey Map, which pertains to the following described land:

LOT 2 AND OUT-LOT 1 OF CERTIFIED SURVEY MAP DOCUMENT NO. 2141732, RECORDED IN VOLUME 40 ON PAGES 98-101, PART OF OUT-LOT 12-5 OF THE ASSESSOR'S PLAT OF BELOIT TOWNSHIP, BEING SITUATED IN PART OF THE NE 1/4 OF THE SW 1/4 AND PART OF THE SE 1/4 OF THE SW 1/4 OF SECTION 12, T. 1 N., R. 12 E., OF THE 4TH P.M., TOWN OF BELOIT, ROCK COUNTY, WISCONSIN.

NOW, THEREFORE, BE IT RESOLVED THAT the Plan Commission of the City of Beloit does hereby conditionally approve the attached two-lot Extraterritorial Certified Survey Map of parcels 6-2-450.549.1 and 6-2-450.549.2 located in the 3100 Block of South Bartells Drive in the Town of Beloit, subject to the following condition:

1. The final CSM shall be recorded with the Rock County Register of Deeds within one year of approval and a copy provided to the Planning and Building Services Division.

Adopted this 19th day of February, 2025.

Plan Commission

_____

Mike Ramsden, Chairperson

ATTEST:

_____

Julie Christensen,
Community Development Director