

**CITY OF RICHLAND DEVELOPMENT SERVICES DIVISION
STAFF REPORT TO THE PLANNING COMMISSION**

GENERAL INFORMATION:

PROPOSAL NAME: 1750 MCMURRAY AVENUE JASON LEE ELEM.
LOCATION: 1750 MCMURRAY AVENUE
APPLICANT: RICHARD KRASNER
FILE NO.: M2024-103
DESCRIPTION: REQUESTING APPROVAL BY THE PLANNING
COMMISSION FOR A FREESTANDING SIGN
PROJECT TYPE: MISCELLANEOUS
HEARING DATE: MARCH 27, 2024
REPORT BY: MATTHEW HOWIE, SENIOR PLANNER
RECOMMENDED
ACTION: APPROVAL, SUBJECT TO CONDITIONS

**Vicinity
Map**

Item: 1712 McMurray Ave Jason Lee Elementary
Applicant: Richard Krasner with Richland School District
File #: M2024-103



Figure 1 - Vicinity Map

DESCRIPTION OF PROPOSAL

The Richland School District has requested approval by the Planning Commission for a freestanding sign on their campus pursuant to RMC 27.08.040(A)(2). Specifically, The School District is proposing to upgrade their existing freestanding pole signage, which is located on George Washington Way at the site of the old City Hall. The applicants are proposing to install the new sign in the same area as their old one and in the same location.

HISTORY

The School District made an appraisal of their Jason Lee Elementary freestanding sign and found the base of the sign both rusted and compromised by a modification of the pole. To make the sign safe, and in the interest of improving the quality of signage on the property, the School District sought a sign permit. However, the Richland Municipal Code [RMC] Title 27 'Signs' has in more recent years gone through updates restricting the size and quantity of signs Citywide and the existing sign at Jason Lee was now a legal, non-conforming sign as per code only high schools and college campuses were allowed freestanding signage. As such, the applicant could make basic repairs to the sign but would be unable to replace the

sign. In efforts to allow new freestanding signage for primary education institutions, the proponent successfully applied for a Code Amendment through the Planning Commission and City Council to expand the relevant Code section to include elementary and middle schools, in the Parks and Public Facilities [PPF] land use district most such institutions are located in the City. Now, to comply with Code, the proponent now seeks Planning Commission approval for sign proposal.

ANALYSIS

Pursuant to RMC 27.08.040(A)(2), freestanding signs on school district campuses may be allowed, subject to the following criteria:

- a. Only one sign, not exceeding 64 square feet in area, may be permitted.

The current, proposed sign is 100.24 square feet (50.12 square feet per face) as measured by Staff. Each face shall be 32 square feet or less in order to meet this requirement. Approval will be conditioned so that both faces measure no less than or equal to 64 square feet (32 square feet per face).

- b. The sign shall not exceed 20 feet in height.

The overall height of the proposed sign is 13'1".

- c. The sign shall meet minimum building setback requirements so that it will not obstruct either pedestrian or automobile traffic.

The all components of the sign, including face, base, and appurtenances shall be located at least 20' from the property line adjacent to McMurray Avenue. The current sign appears to be only a few feet from the property line.

- d. The sign shall be oriented so that it does not directly face adjacent residential properties.

The sign will be oriented perpendicular to street so as to not directly face adjacent residential properties.

- e. If the sign contains an electronic reader board or is otherwise illuminated, all lighting shall be turned off between the hours of 10 p.m. and 7:00 a.m.

The reader board shall be turned off from the hours of 10:00 p.m. to 7:00 a.m. in order to be compliant with this requirement.

- f. Notice of the public meeting held to review an application for a freestanding sign shall be provided through posting of the site at the proposed sign location.

A City of Richland Pending Land Use Action sign was posted at the site on Friday, March 8, 2024.

RECOMMENDATION

Staff recommends that the Planning Commission approve the request to install a new reader board on the subject site subject to conditions of approval.

CONDITIONS OF APPROVAL:

1. Signage shall not be more than 64 square feet in size (32 square feet per face)
2. Signage shall not be more than 20 feet tall as measured from the grade plane to the top of the sign structure.
3. The structure and attached appendages of the proposed freestanding sign shall be setback at least 20' from the property line/right-of-way associated with McMurray Avenue. The proponent currently is miscalculated the setbacks, measuring setback from the back of the sidewalk. This is not, however, the location of the property line in this area. The future location shall likewise also comply with requirements per Chapter RMC 12.11 'Intersection Sight Distance'.
4. The sign shall not be oriented to face adjacent residential properties.
5. The sign shall not be illuminated from 10:00 p.m. to 7:00 a.m.
6. Planning Commission approval shall not prevent further review or modification to the existing or updated proposal (as required by the above listed conditions) by the Public Works Director, Energy Services, Buildings, or other reviewers on the concurrent Sign Permit [SI-23-01278].


EXHIBIT LIST

1. Application Materials



OPERATIONS

MEMORANDUM

DATE: March 5, 2024
TO: City of Richland, Planning Commission
FROM: Richard Krasner, Executive Director of Operations 
SUBJECT: Jason Lee Elementary Electronic Reader Board Sign

Recently, the Planning Commission and City Council approved the School District's requests to amend the RMC 27.08.040(A)(2) Special Provisions section for freestanding signs at schools. The revisions allow for all school district campuses, not just high schools to benefit from the code section.

The amended code is as follows:

27.08.040 Special Provisions.

The following special provisions are provided to address situations posing unique signage requirements:

- A. Signs Subject to Approval by the Planning Commission. The following signs may be approved by the planning commission, provided they meet the criteria listed, unless waived by the commission:
 - 2. Freestanding signs on **school district campuses** ~~high school~~ or college campuses may be allowed in addition to those signs permitted under Table 27.10.020(A), subject to the following criteria:
 - a. Only one sign, not exceeding 64 square feet in area, may be permitted.
 - b. The sign shall not exceed 20 feet in height.
 - c. The sign shall meet minimum building setback requirements so that it will not obstruct either pedestrian or automobile traffic.
 - d. The sign shall be oriented so that it does not directly face adjacent residential properties.
 - e. If the sign contains an electronic reader board or is otherwise illuminated, all lighting shall be turned off between the hours of 10:00 p.m. and 7:00 a.m.
 - f. Notice of the public meeting held to review an application for a freestanding sign shall be provided through posting of the site at the proposed sign location.



As such, the Special Provisions section 27.08.040(A) does require approval by the Planning Commission. The Richland School District is drafting this letter to request approval of the Planning Commission.

The new freestanding sign Richland School District would like installed at Jason Lee Elementary is a replacement of the currently installed electronic reader board sign that is no longer functioning. The new freestanding sign meets the parameters in the code section. It does not exceed 65sf or 20ft in height. The building setbacks will not obstruct either pedestrian or automobile traffic and it does not face adjacent residential properties. The sign does contain an electronic reader board and therefore shall not operate during the nighttime hours.

The Richland School District would like to thank the Planning Commission for their consideration in approving the unique signage requirements as it pertains to the freestanding electronic reader board sign at Jason Lee Elementary.

Thank you.



Sign Application

Permanent Temporary

Value of Footings/Foundation/
Connection* \$10000

PROPERTY OWNER INFORMATION		<input type="checkbox"/> Contact Person
Owner: RICHLAND SCHOOL DISTRICT #400		
Address: 6972 KEENE RD WEST RICHLAND, WA 99353		
Phone: 5099676000	Email: caren.johnson@rsd.edu	

APPLICANT/CONTRACTOR INFORMATION (if different)		<input checked="" type="checkbox"/> Contact Person
Company: Mustang Signs	UBI#: 603218903	
Contact: Lauren Brandon		
Address: 10379 W Clearwater Ave Ste 110 Kennewick WA 99336		
Phone: 5097354607	Email: lbrandon@mustangsigns.com	

SIGN INFORMATION	
Address and/or location of sign: 1750 McMurray Ave Richland	Value of sign: 40000

GRAPHIC, SIGN, AND BUILDING DIMENSIONS						
Type of sign:	Freestanding <input checked="" type="checkbox"/>	Wall <input type="checkbox"/>	*Projecting <input type="checkbox"/>	Roof <input type="checkbox"/>	Canopy <input type="checkbox"/>	Marquee <input type="checkbox"/>
Size of sign (sq. ft.): 50	Height above grade of lowest part of sign: 7					
Height above grade of highest part of sign: 13	Distance from nearest side line of premises (for projecting signs): na					
Longest Building Wall (ft.): na	Building Height (ft.): na		Surface Area of Building Wall (sq. ft.): na			

Building permits are required for freestanding, pole type or monument signs >6' in height, and for roof-top or wall-mounted signs that project above the roofline. Building permit fee is based on the valuation of the footing/foundation OR the connection to bldg. only. Construction details, including footing details, are required to be submitted with this application. *Roof-top or wall-mounted (projecting above roof or parapet) signs require engineering for the attachment to the roof or building.

The undersigned covenants that the above-mentioned sign for which permit is applied for will be constructed in all respects in accordance with plans and specifications submitted herewith, and in accordance with the provisions and regulations of the Building Code and all other ordinances and codes of the City of Richland applicable hereto in force when construction is commenced; and further agrees that in case of any variances or conflict between the plans and specifications submitted herewith, and the provisions or regulations of any of said ordinances or codes pertaining to such construction, that the provisions or regulations contained in such ordinances or codes shall govern and shall be followed.

PERMANENT SIGN APPLICATION MUST INCLUDE – One application for multiple signs

1. Completed application and filing fee
2. Site plan
3. 2 color copies (min 8 ½" x 11" / scale 1" = 20')
4. Rendering of sign as it will appear on building
5. Weight and dimensions
6. Provide cross-section view showing foundation, structural members (studs, beam, post, etc.) and how sign is attached to building (bolts, screws, lags, weld etc.) and into what framing member
7. Type of material sign is made of, color, and lighted or not
8. Signature of property owner or letter of authorization
9. Any other information the Administrator deems necessary to determine compliance with applicable codes

TEMPORARY SIGN APPLICATION MUST INCLUDE – One application per sign

1. Completed application and filing fee
2. Site plan
3. 1 color copy (min 8 ½" x 11" / scale 1" = 20')
4. Purpose of sign
5. Signature of property owner (where sign is to be placed)
6. Sign dimensions
7. Sketch showing location of sign
8. Any other information the Administrator deems necessary to determine compliance with applicable codes

I authorize employees and officials of the City of Richland the right to enter and remain on the property in question to determine whether a permit should be issued and whether special conditions should be placed on any issued permit. I have the legal authority to grant such access to the property in question.


I also acknowledge that if a permit is issued for land development activities, no terms of the permit can be violated without further approval by the permitting entity. I understand that the granting of a permit does not authorize anyone to violate in any way any federal, state, or local law/regulation pertaining to development activities associated with a permit.

I hereby certify under penalty of perjury under the laws of the State of Washington that the following is true and correct:

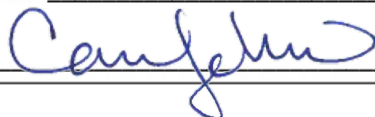
1. I have read and examined this permit application and have documented all applicable requirements on the site plan.
2. The information provided in this application contains no misstatement of fact.
3. I am the owner(s), the authorized agent(s) of the owner(s) of the above referenced property, or I am currently a licensed contractor or specialty contractor under Chapter 18.27 RCW or I am exempt from the requirements of Chapter 18.27 RCW.
4. I understand this permit is subject to all other local, state, and federal regulations.

Note: This application will not be processed unless the above certification is endorsed by an authorized agent of the owner(s) of the property in question and/or the owner(s) themselves. If the City of Richland has reason to believe that erroneous information has been supplied by an authorized agent of the owner(s) of the property in question and/or by the owner(s) themselves, processing of the application may be suspended.

Applicant Printed Name: Lauren Brandon

Applicant Signature:  Date 06-02-2023

Property Owner Printed Name: Caren Johnson

Property Owner Signature:  Date 06-05-2023

MC MURRAY AVE

(E)L=195.62'
R=960.00'
Δ=11°40'30"

REMOVING OLD PYLON
SIGN & REPLACING WITH
NEW ONE. SAME SPOT
AS EXISTING

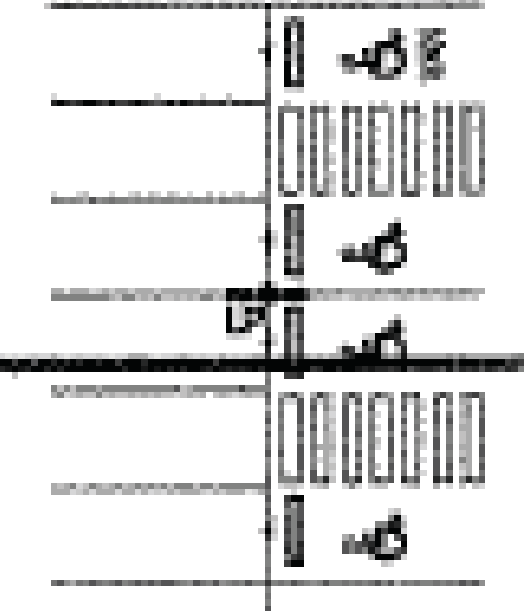
READER BOARD

ALTERNATE
NO. 1

FLAG

200' FROM PROPERTY
LINE ON SANFORD AVE

FUTURE
PARKING



(E)N32°12'00"E
193.957±0.00'

40'± (E)ROW

40'± (E)ROW

170.0'±
S90°00'00"W

1
A

FDC

SERVIC

COTG

EM

CB

CB

SDMH

(E)CB

(E)SSMH

(E)SDMH

(E)FH

CB

MATERIALS

SINGLE SIDED 4X8 EMC: QTY 2
SINGLE SIDED TOP CABINET: QTY 2

COLORS

 DIGITAL

NOTES

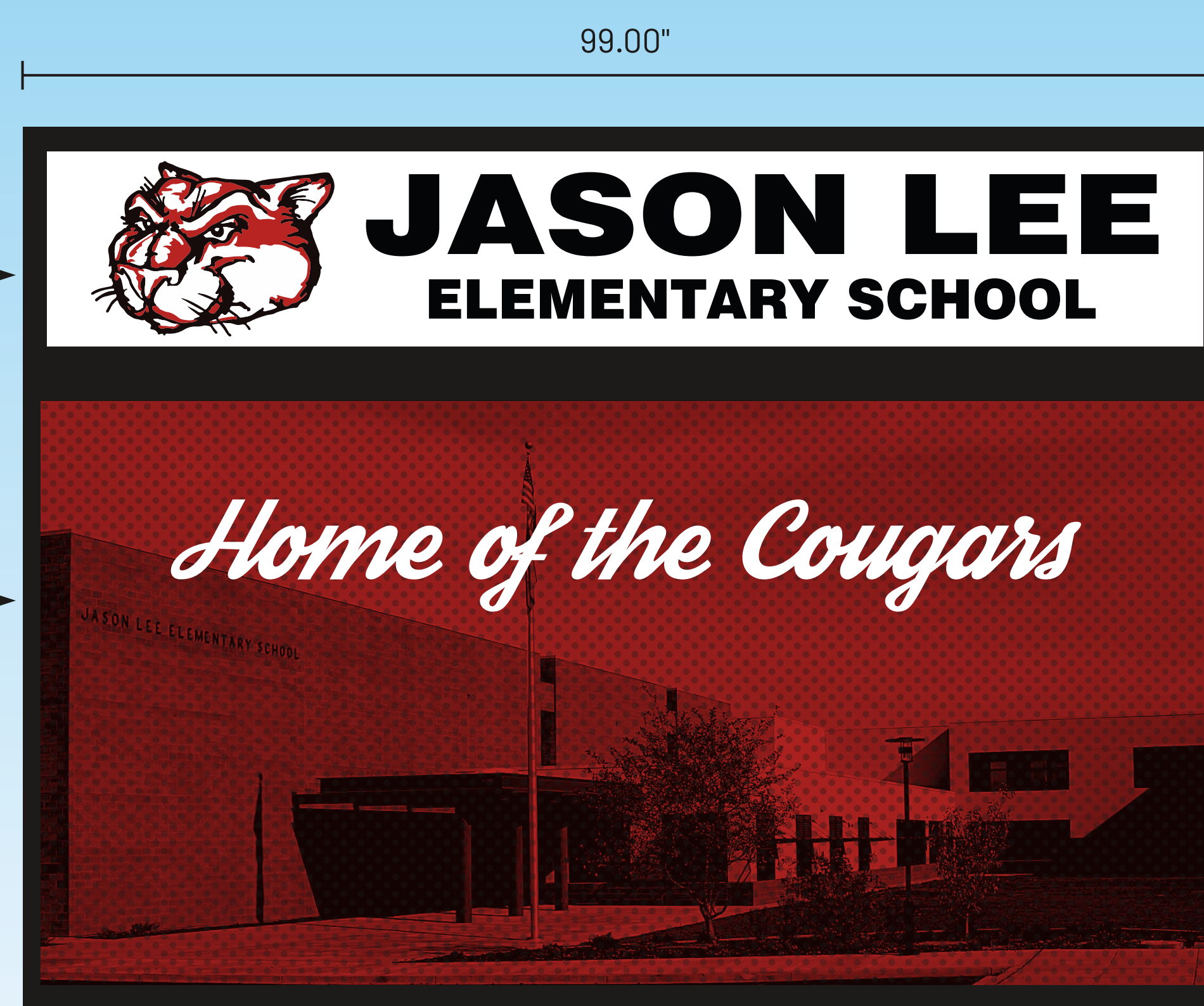
CLIENTS ARE RESPONSIBLE TO ENSURE PROVIDED INFORMATION IS ACCURATE BEFORE PRINT. IF YOU REQUIRE ANY CHANGES AFTER APPROVAL, YOU WILL BE RESPONSIBLE FOR ANY REPRINTS.

FRONT VIEW

SIDE VIEW

Topper Cabinet
(Double Sided)

4' x 8' Message Center
(Double Sided)



5" 6" 5"

20.00"

53.00"

84.00"

6.00"

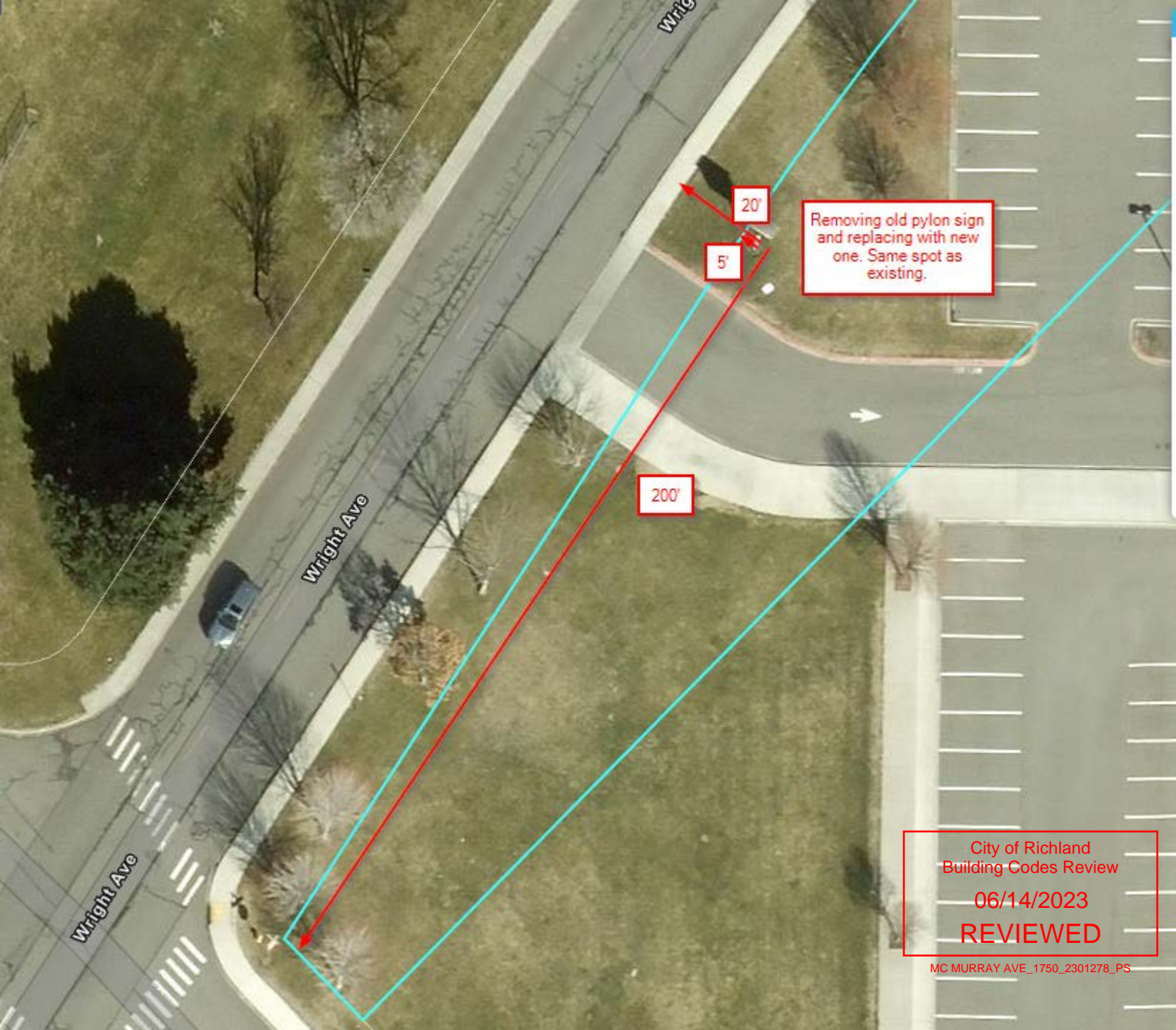
REVIEWED FOR BUILDING CODE COMPLIANCE

These plans have been checked for compliance with major building code items. The City's permit process has been established this way in order to expedite the start of construction, and this approval shall not be construed to be an approval to violate specific building code or other municipal ordinance provisions discovered during actual construction. Where these plans conflict with code provisions, the code provisions shall still apply. The permit holder and his contracted parties shall take full financial and all other liability for making corrections of errors and omissions to these plans and to the actual construction, including corrections mandated by other government agencies or other City departments. Permit holder shall comply with all requirements from other City departments prior to use or occupancy of the structure or building. Changes to these approved plans must be submitted to and approved by the City prior to construction of the change (additional fees apply).

macevedo 06/14/2023
Plans Examiner Date

Attachments

Total of 10 Plan Sheets



Wright Ave

Wright Ave

Wright

20'

5'

200'

Removing old pylon sign and replacing with new one. Same spot as existing.

City of Richland
Building Codes Review
06/14/2023
REVIEWED

MC MURRAY AVE_1750_2301278_PS



523 EAST THIRD AVENUE
SPOKANE, WASHINGTON 99202
P 509.323.9292 F 509.747.7115
WWW.LSBENGINEERS.COM

Sign Post for Jason Lee Elementary

*1750 McMurray Ave
Richland, Washington*

Structural Calculations

LSB Consulting Engineers
Project No: 22061

August 2022



City of Richland
Building Codes Review

06/14/2023

REVIEWED

MC MURRAY AVE_1750_2301278_PS

The calculations contained herein have been prepared exclusively for this project. LSB Consulting Engineers analyzed and/or designed this system for the specific configurations indicated and for the loading criteria appropriate at this location, as of this date. Unless explicitly noted, these calculations do not apply to similar configurations, or to the same configuration at another location. These calculations are only valid with a stamp and signature.

SIGN POST & FOOTING

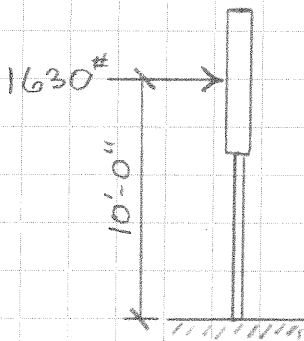
See Sign Dimensions and Wind Loading Criteria
on Attached Sheets

WIND LOAD

Case C Controls by Inspection

$$\begin{aligned} \therefore \text{Total Wind Force} &= 35.3 \text{ psf} (6.1 \times 6.1) + 23.6 \text{ psf} (2.2 \times 6.1) \\ &= \underline{\underline{1630^\#}} \text{ ULTIMATE} \end{aligned}$$

POST DESIGN



Use ASTM A500, Grade C Round HSS
 $F_y = 50 \text{ ksi}$

$$\begin{aligned} \text{Limit Wind Drift to } H/100 &= (10 \times 12) / 100 \\ &= 1.2" \end{aligned}$$

See Attached ENERCALC Analysis

$$\begin{aligned} \therefore \text{Use HSS } 6.625 \times 0.280 \\ \text{Stress Ratio} &= 0.373 < 1.0 \\ \text{Drift} &= 0.734" < 1.2" \end{aligned}$$

City of Richland
Building Codes Review

06/14/2023

REVIEWED

MC MURRAY AVE_1750_2301278_PS



LSB
CONSULTING
ENGINEERS

Job No. 22061

JASON LEE ELEMENTARY

Date 8/9/22

By LAH

Sheet No.



509-735-4607 | MUSTANGSIGNS.COM
10379 W CLEARWATER AVE, KENNECICK, WA 99336

MATERIALS

COLORS

DIGITAL PRINT

NOTES

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FRONT VIEW

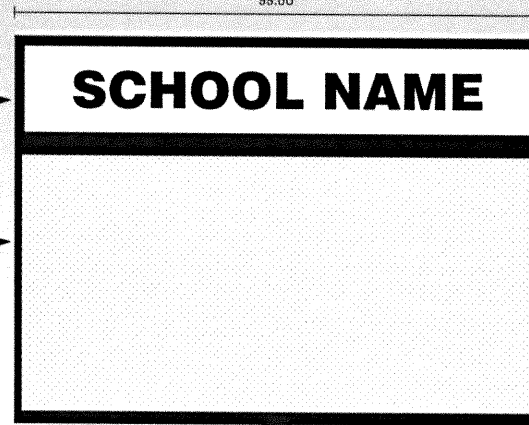
8'-3"

99.00"

SIDE VIEW

5' 6' 5"

Topper Cabinet (Double Sided)
LED Topper- 350 LBS
4' x 8' Message Center (Double Sided)



20.00"
1'-8"
53.00"
4'-5"

7'-0"

84.00"

City of Richland
Building Codes Review
06/14/2023
REVIEWED

MC MURRAY AVE_1750_2301278_PS

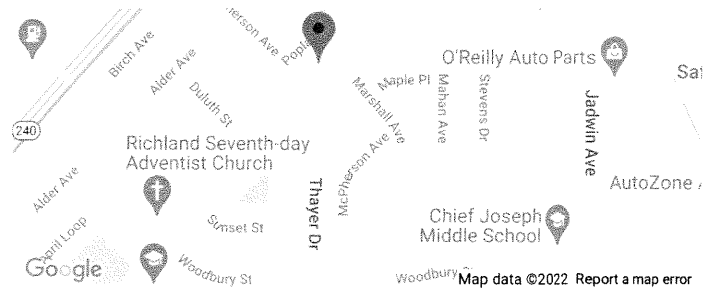
⚠ This is a beta release of the new ATC Hazards by Location website. Please [contact us](#) with feedback.

🔔 The ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

ATC Hazards by Location

Search Information

Coordinates: 46.30, -119.29
Elevation: 389 ft
Timestamp: 2022-08-09T23:12:11.352Z
Hazard Type: Wind



ASCE 7-16		ASCE 7-10		ASCE 7-05	
MRI 10-Year	69 mph	MRI 10-Year	72 mph	ASCE 7-05 Wind Speed	85 mph
MRI 25-Year	76 mph	MRI 25-Year	79 mph		
MRI 50-Year	81 mph	MRI 50-Year	85 mph		
MRI 100-Year	85 mph	MRI 100-Year	91 mph		
Risk Category I	94 mph	Risk Category I	100 mph		
Risk Category II	100 mph	Risk Category II	110 mph		
Risk Category III	107 mph	Risk Category III-IV	115 mph		
Risk Category IV	111 mph				

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Please note that the ATC Hazards by Location website will not be updated to support ASCE 7-22. [Find out why.](#)

Disclaimer

Hazard loads are interpolated from data provided in ASCE 7 and rounded up to the nearest whole integer. Per ASCE 7, islands and coastal areas outside the last contour should use the last wind speed contour of the coastal area – in some cases, this website will extrapolate past the last wind speed contour and therefore, provide a wind speed that is slightly higher. NOTE: For queries near wind-borne debris region boundaries, the resulting determination is sensitive to rounding which may affect whether or not it is considered to be within a wind-borne debris region.

Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

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City of Richland
 Building Codes Review
 06/14/2023
REVIEWED

LSB Consulting Engineers

523 East Third Ave
Spokane, WA
509-323-9292

JOB TITLE Sign Post at Jason Lee Elementary

JOB NO. 22061
CALCULATED BY LAH
CHECKED BY

SHEET NO.
DATE
DATE

Wind Loads - Other Structures:

ASCE 7- 16

Ultimate Wind Pressures

Wind Factor = 1.00
Gust Effect Factor (G) = 0.85 Ultimate Wind Speed = 100 mph
Kzt = 1.00 Exposure = C

A. Solid Freestanding Walls & Solid Signs (& open signs with less than 30% open)

Dist to sign top (h)	13.1 ft	s/h =	0.47	Case A & B
Height (s)	6.1 ft	B/s =	1.35	C _f = 1.74
Width (B)	8.3 ft	Lr/s =	0.00	F = q _z G C _f A _s = 27.4 As
Wall Return (Lr) =		Kz =	0.849	A _s = 50.0 sf
Directionality (Kd)	0.85	qz =	18.5 psf	F = 1369 lbs
Percent of open area to gross area	0.0%	Open reduction factor =	1.00	

<u>Case C reduction factors</u>		CaseC	
Factor if s/h>0.8 =	1.00	Horiz dist from windward edge	C _f F=qzGCfAs (psf)
Wall return factor for C _f at 0 to s =	1.00	0 to s	2.25 35.3 As
		s to 2s	1.50 23.6 As

B. Open Signs & Single-Plane Open Frames (openings 30% or more of gross area)

Height to centroid of A _f (z)	15.0 ft	Kz =	0.849
Width (zero if round)	0.0 ft	Base pressure (qz) =	18.5 psf
Diameter (zero if rect)	2.0 ft	D(qz) ^{.5} =	8.60
Percent of open area to gross area	35.0%	I =	0.65
Directionality (Kd)	0.85	C _f =	1.1

F = q _z G C _f A _f =	17.3 Af
Solid Area: A _f =	10.0 sf
F =	173 lbs

C. Chimneys, Tanks, & Similar Structures

Height to centroid of A _f (z)	15.0 ft	Kz =	0.849
Cross-Section	Square	Base pressure (qz) =	19.6 psf
Directionality (Kd)	0.90	h/D =	15.00
Height (h)	15.0 ft		
Width (D)	1.0 ft		
Type of Surface	N/A		

<u>Square (wind along diagonal)</u>		<u>Square (wind normal to face)</u>	
C _f =	1.28	C _f =	1.67
F = q _z G C _f A _f =	21.2 Af	F = q _z G C _f A _f =	27.7 Af
A _f =	sf	A _f =	10.0 sf
F =	0 lbs	F =	277 lbs

D. Trussed Towers

Height to centroid of A_f (z) 15.0 ft
ε = 0.27
Tower Cross Section triangle
Member Shape flat
Directionality (Kd) 0.95

City of Richland
Building Codes Review
06/14/2023
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MC MURRAY AVE_1750_2301278_PS

Kz = 0.849
Base pressure (qz) = 20.6 psf
Diagonal wind factor = 1
Round member factor = 1.000

Triangular Cross Section
C_f = 2.38
F = q_z G C_f A_f = **41.7 Af**
Solid Area: A_f = 10.0 sf
F = 417 lbs

Steel Beam

Project File: 22061 Signs.ec6

LIC#: KW-06016401, Build:20.22.7.25

LSB CONSULTING ENGINEERS

(c) ENERCALC INC 1983-2022

DESCRIPTION: Sign Post

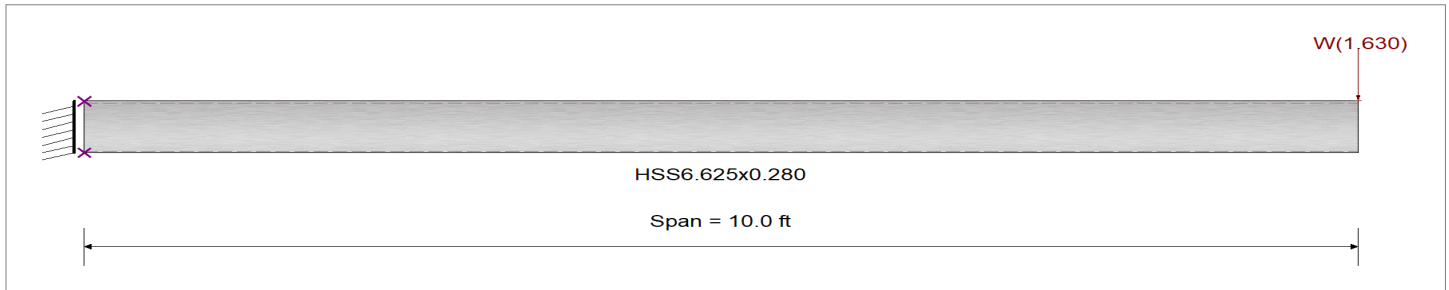
CODE REFERENCES

Calculations per AISC 360-16, IBC 2018, CBC 2019, ASCE 7-16
 Load Combination Set : ASCE 7-16

Material Properties

Analysis Method Allowable Strength Design
 Beam Bracing : Completely Unbraced
 Bending Axis : Major Axis Bending

Fy : Steel Yield : 50.0 ksi
 E: Modulus : 29,000.0 ksi



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
 Load(s) for Span Number 1
 Point Load : W = 1.630 k @ 10.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio =	0.373 : 1	Maximum Shear Stress Ratio =	0.021 : 1
Section used for this span	HSS6.625x0.280	Section used for this span	HSS6.625x0.280
Ma : Applied	9.780 k-ft	Va : Applied	0.9780 k
Mn / Omega : Allowable	26.198 k-ft	Vn/Omega : Allowable	46.707 k
Load Combination	+0.60W	Load Combination	+0.60W
Span # where maximum occurs	Span # 1	Location of maximum on span	0.000 ft
		Span # where maximum occurs	Span # 1
Maximum Deflection			
Max Downward Transient Deflection	0.000 in Ratio =	0	<360
Max Upward Transient Deflection	0.000 in Ratio =	0	<360
Max Downward Total Deflection	0.734 in Ratio =	327	>=180
Max Upward Total Deflection	0.000 in Ratio =	0	<180
		Span: 1 : +0.60W	

Maximum Forces & Stresses for Load Combinations

Load Combination	Segment Length	Span #	Max Stress Ratios		Summary of Moment Values					Summary of Shear Values				
			M	V	Mmax +	Mmax -	Ma Max	Mnx	Mnx/Omega	Cb	Rm	Va Max	Vnx	Vnx/Omega
Dsgn. L = 10.00 ft		1		0.000				43.75	26.20	1.00	1.00	-0.00	78.00	46.71
+0.60W														
Dsgn. L = 10.00 ft		1	0.373	0.021		-9.78	9.78	43.75	26.20	1.00	1.00	0.98	78.00	46.71
+0.450W														
Dsgn. L = 10.00 ft		1	0.280	0.016		-7.34	7.34	43.75	26.20	1.00	1.00	0.73	78.00	46.71

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+0.60W	1	0.7342	10.000		0.0000	0.000

Vertical Reactions

Load Combination	Support 1	Support 2
Overall MAXimum	1.630	
Overall MINimum	0.734	
+0.60W	0.978	
+0.450W	0.734	
W Only	1.630	

City of Richland
 Building Codes Review
 06/14/2023
REVIEWED

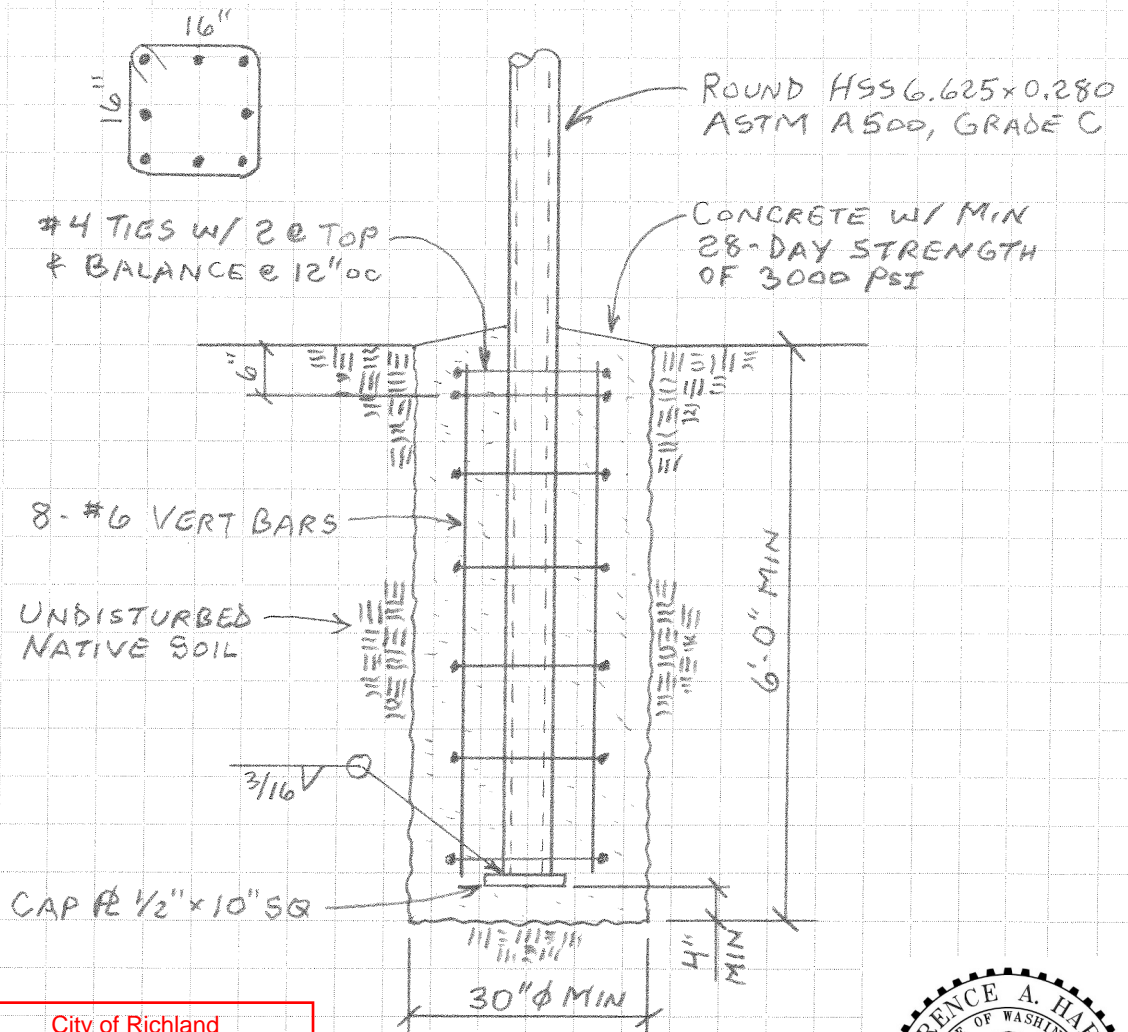


FOOTING DESIGN

Use an Embedded "Flag Pole" Footing

Assume Allowable Passive Soil Pressure = 200pcf

See Attached ENERCALC Output



City of Richland
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MC MURRAY AVE_1750_2301278_PS



Job No. 22061
JASON LEE ELEMENTARY

Date 8/10/22
By LAH

Sheet No.

Pole Footing Embedded in Soil

Project File: 22061 Signs.ec6

LIC#: KW-06016401, Build:20.22.7.25

LSB CONSULTING ENGINEERS

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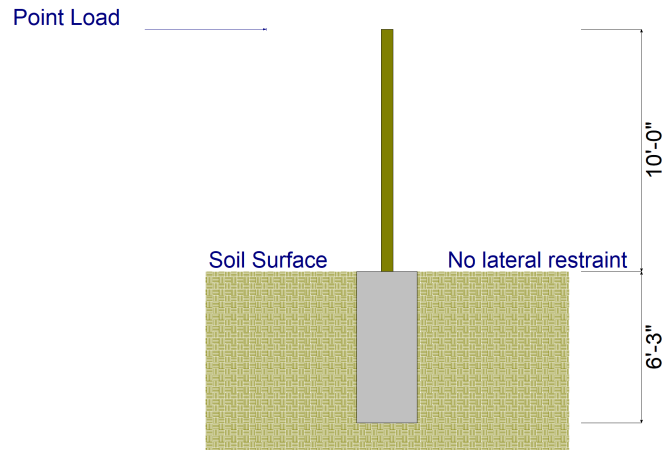
DESCRIPTION: Sign Post Footing

Code References

Calculations per IBC 2018 1807.3, CBC 2019, ASCE 7-16
 Load Combinations Used : ASCE 7-16

General Information

Pole Footing Shape Circular
 Pole Footing Diameter 30.0 in
 Calculate Min. Depth for Allowable Pressures
 No Lateral Restraint at Ground Surface
 Allow Passive 200.0 pcf
 Max Passive 1,500.0 psf



Controlling Values

Governing Load Combination **+0.60W**
 Lateral Load 0.9780 k
 Moment 9.780 k-ft

NO Ground Surface Restraint

Pressures at 1/3 Depth
 Actual **410.048 psf**
 Allowable **411.589 psf**

Minimum Required Depth 6.250 ft

Footing Base Area 4.909 ft²
 Maximum Soil Pressure 0.0 ksf

Applied Loads

Lateral Concentrated Load (k)	Lateral Distributed Loads (k)	Vertical Load (k)
D : Dead Load k	k/ft	k
Lr : Roof Live k	k/ft	k
L : Live k	k/ft	k
S : Snow k	k/ft	k
W : Wind 1.630 k	k/ft	k
E : Earthquake k	k/ft	k
H : Lateral Earth k	k/ft	k
Load distance above ground surface 10.0 ft	TOP of Load above ground surface ft	
	BOTTOM of Load above ground surface ft	

Load Combination Results

Load Combination	Forces @ Ground Surface		Required Depth - (ft)	Pressure at 1/3 Depth		Soil Increase Factor
	Loads - (k)	Moments - (ft-k)		Actual - (psf)	Allow - (psf)	
+0.60W	0.000	0.000	0.13	0.0	0.0	1.000
+0.450W	0.978	9.780	6.25	410.0	411.6	1.000
	0.734	7.335	5.63	368.4	368.9	1.000

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