



## **CENTURION ENGINEERS, INC.**

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Date: 9 December 2023

Subject: **Riverside Hotel Bikeway  
2900 West Chinden Boulevard  
DSRFY2024-0004  
Tax Parcels R2734541910 & R2734541997  
Land Area = ±11 Acres**

Pages: 4

Media: Transmitted via E-mail

On behalf of Garden City, as the city engineer, we have completed a review of the application for the subject project. This project is proposing to construct a bikeway, trash enclosure, loading area and transformer screening wall at the Riverside Hotel.

Any approval of the project should be conditioned upon successfully addressing items presented in this review.

### ***Erosion and Sediment Control***

Prior to performing any grading on the site, the applicant must prepare and have approved by the city an erosion and sediment control plan.

### ***Ada County Highway District***

Approval of the project by the Ada County Highway District will be required for the connection of the bikeway at East 32<sup>nd</sup> Street.

The applicant should be required to close the existing approach on East 50<sup>th</sup> Street. Fire access should be considered.

### ***Fire District Approval***

Approval of the project by the North Ada County Fire and Rescue District may be required for proposed proximity of components to property lines/improvements that may contain/use combustible materials.

### ***Site Grading and Drainage Plan***

Submitted plans have not been reviewed as they are not sealed, dated and signed by the design professional; however some preliminary comments follow:

We presume all the proposed area for improvements are currently hard-surfaced? Please provide a brief summary of existing and proposed conditions.

Please assure that all hard surface run-off is directed toward the parent property and does not run off-site.

A site grading and drainage plan may will be required that is sealed, dated and signed by the design professional. Said plan, if required, must be reviewed and approved by the city.

A storm water design report and a drainage system operation and maintenance manual for handling of storm water prepared by an Idaho licensed design professional that is sealed, dated and signed may be required. Compliance with the storm water ordinance and policies of the city will be required. Drainage must be maintained on-site.

A site geotechnical report may be required for the design of the on-site storm water system prepared and sealed, dated and signed by a qualified license professional. Said report must identify the depth to seasonal high groundwater, provide a profile of encountered soils and their infiltration rates. The report also must provide a design infiltration rate recommendation for the storm water system. The storm water design must provide for at least three feet of vertical separation between the bottom of the storm water facility and the seasonal high groundwater.

**Storm Water Operation and Management Agreement**

The landowner may be required to enter into an agreement with the city that will be recorded addressing mandatory maintenance of the site’s storm water system. The agreement must be fully executed, have conditionally approved plans attached and be recorded by the city with final plan approval.

**Power Transformers**

We presume the power transformers are owned and operated by Idaho Power. Please assure Idaho Power reviews the proposed screening wall and it meets separation and access requirements.

**Bikeway Geometry**

Please provide a discussion on the volume of traffic and expected use of the proposed bikeway.

We are interested in four primary items:

- 1. Is the bikeway to be public?
- 2. The width of the bikeway
- 3. The minimum horizontal curve radius at corners
- 4. Sight distances that may be compromised due to fencing

If the bikeway is public, appropriate easements must be provided.

Below are some suggested guidelines for bike paths:

Table 900-12 Recommended Shared Use Path Widths

Shared Use Path Peak Hour Volume	Recommended Width (feet)
Less than 50	8*
50 to 150	8 to 10*
150 to 300	10 to 12
300 to 500	12 to 15
500 to 600	16 to 20
Over 600	Over 20

\*Design Exception required where width is less than 10 feet.

Table 900-13: Minimum Radius of Curvature for Horizontal Curves

Design Speed (mph)	8	10	12	14	16	18	20	22	24	26	28	30
Minimum Curve Radius (feet) at 20° Lean Angle	12	18	27	36	47	60	74	89	106	124	144	166
Minimum Curve Radius (feet) at 1.5% superelevation	12	20	30	42	57	74	96	122	151	184	222	267
Minimum Curve Radius (feet) at 5.0% superelevation*	11	18	27	37	50	65	86	108	132	161	194	231
Minimum Curve Radius (feet) at 8.0% superelevation*	10	17	25	34	46	60	78	98	120	145	174	207
Friction factor (f)	0.33	0.32	0.31	0.30	0.29	0.28	0.26	0.25	0.24	0.23	0.22	0.21

\* Superelevation above 1.5% only to be used on paths not shared with pedestrians.

In particular, there are two sharp corners along the route that would be a challenge to negotiate while mounted, and more so should other path users be present.

We have no other comments regarding this request at this time.