



**James J. Benning II, P.E.**  
*Director, Public Works & Utilities*

Room 274  
411 West First Street  
Duluth, Minnesota 55802-1191



Office: 218-730-5200  
Direct: 218-730-5105



[jbenning@duluthmn.gov](mailto:jbenning@duluthmn.gov)

September 13, 2022

To: Duluth Public Utilities Commission  
From: James Benning, Public Works & Utilities Director  
Re: Equivalent Residential Unit Determination  
Short Elliot Hendrickson, Inc.  
Memo of August 4, 2022

Attached for your review and comment please find a copy of the above memorandum recommending that I, as Department Director, adopt a revised Equivalent Residential Unit ("ERU") value of 2,228 square feet. Pursuant to Section 43-66 (d) of the City Code, it is my function to make that determination. Before finalizing my determination, I am presenting the attached memo, along with the following, to you for your consideration and input.

By way of background, the Storm Water Utility's revenue base is based on the ERU, which is defined by City Code as "the average impervious area of residential property per dwelling unit located in the City." Duluth City Code, § 43-65, 1959, as amended (emphasis added). A representative sample of the residential property base is surveyed to arrive at an average of the area of residential dwelling units in the City, and then that average is used to determine each property's share of the cost of supporting the Utility. Each residential unit is charged for one ERU, while the square footage of impervious surfaces of commercial and industrial properties are determined and then divided by the ERU value to determine their fair share of the Utility's costs.

The existing ERU value of 1,708 square feet was established after a study conducted at the time that the Storm Water Utility was created in 1998. Since that time a lot has happened in the Duluth real estate world including but not limited to significant changes in the amount of impervious surface areas on non-residential properties and a significant increase in the number of multi-unit residential properties in the market. In response to these changes, my department has undertaken to reexamine the impact that these changes might have had on the stormwater utility, including on the accuracy of our impervious surface area determinations and the calculation of the ERU value. As part of that effort, we contracted for the services of Short Elliot Hendrickson ("SEH") to review the data and to make recommendations for any needed changes. The result of their initial review of the ERU value was reported to you at your meeting of August 17, 2021.

Unfortunately, those results were reported prior to City staff having completed our review of their report. An in-depth review revealed that it had failed to take into account the requirements of the City Code. As pointed out above, the Code requires that the ERU be determined on a per dwelling unit basis. Their initial recommendation was established on a per single-family residential property analysis and therefore was incompatible with the requirements of the City Code. So, staff requested that SEH reanalyze the data using a methodology that conformed to the requirements of the Code.



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The results of that analysis are attached for your review and comment. I will be happy to discuss the results and the methodology with you and look forward to your input to help me make my determination of the appropriate ERU value to use going forward.