Memorandum

TO: **City of Golden Valley, MN**

COPY:

FROM: Craig Carter, AIA – BKV Group

DATE: February 7, 2023

RE: Golden Valley Remote Fire Station Location Study – Scoring Guidelines Narrative

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To Whom It May Concern:

A list of six Site Selection Criteria were developed with City Staff based on core values surrounding the project. Some of those were broken down into sub-criteria. For each, the group then developed Scoring Guidelines that ensured apples-to-apples scoring from one explored site option to another. The point values assigned represent the relative importance of each Criteria in the eyes of the group.

CORE VALUES		CRITERIA
Location	1	1.1 Location for Response (Calls) 1.2 Location for Response (Area)
Buildable Land	2	2.0 Amount of Buildable Land Re: Station Program Size
Cost	3	3.1 Cost to Acquire Site/Land 3.2 Relative Cost to Build
Impact	4	4.1 Civic Presence/Recruitment 4.2 Neighborhood Impact
Traffic	5	5.0 Traffic Patterns/Regulation for Safe, Effective Mobilization
Sustainability	6	6.0 Site Capacity and Attributes to Support Sustainable Development

This process is completed prior to any potential sites being identified so as not to allow the establishment of criteria that intentionally benefits one site over another. However, there is build-in subjectivity to the Scoring Guidelines in the sense that City Staff assigns point valves to each Criteria according to its relative level of importance as perceived by the group establishing the Guidelines. A different group would not necessarily assign the same point values.

It is important to realize that the highest performing sites tend to rise to the top regardless of minor difference in Scoring Guidelines.

Another important note is that the potential for eminent domain or condemnation proceedings was specifically discussed with Staff and excluded from the Criteria. This was because data on that could not be obtained without discussing each potential property with Council. Staff felt that the willingness of parcel owners to sell was an important point of consideration, but that it had to be considered later in the process.

Criteria 1.1: Location for Response (Calls):

This metric evaluates the performance of each potential two-station system based on where calls have occurred, historically. The downtown station, within 4-minutes of drive time, can reach 2,917 (64.1%) of the 4,549 historic calls-for-service. Sites score 6 points for every 10% increase in coverage, with zero set at 60%. A

site that covered 90% of historic calls within 4:00 of drive time would score 18 points. With Duty Crews responding to medical calls, the Fire Department is expected to get ~180 calls per service per month. This means that every point earned represents three more calls per month meeting the 4-minute threshold. Over the 50-75 year lifespan of the building, with call volumes steadily increasing, this represents a large impact to public safety.

Criteria 1.2: Location for Response (Area):

This metric evaluates the performance of each potential two-station system based on how much land area can be covered, so it is a future-proof metric (assuming City boundaries will not change). The downtown station, within 4-minutes of drive time, can reach 5.48 sq mi (51.9%) of the 10.55 sq mi within City Limits. (Early in the study this was expected to be 5.1 sq mi, but the location of the Apparatus Bays at the future Public Safety Building changed slightly.) Sites score 1 point for each 0.25 sq mi they cover. Zero was set at 5.1 sq mi. A site that reached 90% of the City within 4-minutes of drive time would score 17.58.

Criteria 2.0: Appropriate Amount of Buildable Land

For this metric, we penalize small sites because of long-term functional considerations. Some examples:

- A two-story facility is not as fast or safe to respond from
- A smaller site may restrict the space between the apparatus door and the sidewalk, meaning the driver will have less time to see and react to traffic or pedestrians when responding
- A smaller site has less space available for training activities
- A smaller site has less flexibility for future changes that might be necessary over the 50-75 year lifespan of the building.

At the initial stage each combination of parcels under consideration was scored based on overall property area based on the County Assessor data. Later in the process, each remaining combination of parcels was evaluated for "buildable area" to include all land within property lines except wetlands, floodplains, and easements that cannot be relocated. This dropped some site rankings significantly. A site of 2.3 acres was deemed sufficient for a single-story station with enough parking and space for future growth, so sites greater than or equal to 2.3 acres score 7 points. Sites lose one point for every 0.2 acres smaller. Sites less than 1.3 acres were not considered, but at that size some zoning variances would be necessary. A more realistic minimum size is 1.6 acres.

Cost

For both cost metrics, 1 point is equivalent to $100,000 of expense.

Criteria 3.1: Cost to Acquire Site/ Land

Cost of acquisition for each combination of parcels was based on Zillow for residential properties and based on comps run by a licensed real estate agent for commercial properties. These numbers represent a snapshot in time since property prices fluctuate with market conditions. At this moment, the commercial property market has softened due to work-from-home while the residential market is steady despite the rise in interest rates. This should be considered as an "order of magnitude" number that provides rough valuation for initial comparison. Those estimates must be verified by an appraiser as the study comes to a close, and the overall number should be modified to include the cost of relocating any residents or businesses. The scoring arbitrarily assumes a minimum cost of $800,000 and penalizes sites by 1 point for every $100,000 in excess of that.

Criteria 3.2: Relative Cost to Build

This is a labor-intensive metric, so it was not performed on every site. BKV Group analyzed combinations of parcels using back-of-the-napkin level of detail to determine how a station might be positioned on the site.

The baseline, which represents a score of 0, would have single-story construction, surface stormwater management, insignificant topography (no import, export, or retaining walls), shallow building foundations, no relocation or extension of utilities, no environmental cleanup costs etc. Sites not meeting these requirements were penalized 1 point for every $100,000 of excess cost. A two-story station would add $500,000 (stairs and elevator and some inefficiency), building living spaces over the apparatus bays would add up to $1,000,000 depending on how much space would need to move there (stairs, elevator, added structure, some inefficiency). Below-grade stormwater management would add $100,000. Topographic impacts vary in cost based on severity. Relocation of utilities varies in cost based on severity.

Some sites were stricken from consideration at this stage because, while large enough on paper, the actual shape of the parcel and constraints from wetlands or floodplains wouldn't allow a station to work.

Criteria 4.1: Civic Presence/ Recruitment

The Fire Department is still a "volunteer" organization reliant on recruitment within the community for staffing. This is a massive cost savings compared to running career staff. To run a three-person engine company with 24/7 career staff costs ~$1.2M annually. To cover that same engine company with duty crews costs less than half of that. The visibility of the fire station within the community directly affects recruitment and is an important consideration.

- 5 pts Located at intersection of major roads (Collector or higher as defined by City's Comprehensive Plan)
- 3 pts Located on one major road
- 2 pts Visible from major road, but not a primary façade
- +1 pt extra credit if visible from Highways 55 or 100

Criteria 4.2: Neighborhood Impact

It is important to understand the impacts that a station can have on the surrounding community. While we consistently hear that fire stations make very good immediate neighbors, there will always be concern, even if it's just about the 12 months of construction. Impacts can occur at a variety of scales, which this metric takes into consideration. Sites can theoretically score on all three of these impacts for a total of -9 pts.

- 0 pts Impacts only Commercial/ Industrial property
- -1 pt Impacts immediate Residential properties
- -3 pts Impacts neighborhood, e.g. close a local road, proximate to a school (affects drop off/ pick up and safety/noise concerns)
- -5 pts Impacts felt city-wide, e.g. close a school, close a park, close a church (FYI, none of the sites considered fell into this category but we didn't know that when we were establishing the scoring guidelines)

Criteria 5.0: Traffic Issues

Responding onto a heavily traveled roadway frequently requires adjustments to the roadway to improve traffic safety, up to and including a traffic signal dedicated to the Station. These measures alleviate, but don't eliminate the risk of accidents, and require maintenance like anything else. This metric accounts for the safety and long-term costs impacts.

- 0 pts No Roadway Improvements Required
- -2 pts Turning Lanes/ Ramps/ Tapers Required
- -5 pts Signalized Traffic Pre-emption Required

Criteria 6.0: Sustainability

Sustainability is an important community value, with proven impacts to mental well-being as well helping to reduce long-term operating costs. Sustainability measures will be incorporated in the project regardless, but there are a few important measures that can be greatly affected by the building site, which are tracked with this metric.

- 0 pts Baseline
- +3 pts Accommodates proper solar orientation
- +.5 pts No impediments to onsite photovoltaics
- +.5 pts Adjacent to views of nature

END OF MEMORANDUM