July 15, 2020

City of Lee's Summit Development Service
Atten: Sue Pyles, P.E.
220 SE Green St
Lee's Summit, MO 64063

Dear Ms. Pyles:

We received your comments regarding the Aria Public Water Main plans on June 24, 2020. Our response to your comments are as follows:

1. General:
    - *Submit an Engineer's Estimate of Probable Construction Costs.* – An Engineer's Estimate of Probable Construction Costs is attached to this letter.
    - *Include the City's standard details, as appropriate.* – We have added the necessary standard details to our plan set (see Sheets 8 and 9).
    - *Please revise to provide specific bend and/or deflection requirements throughout the plan set, rather than leaving it open-ended for the contractor to decide in the field. Verify notes and callouts are coordinated.* – We have clarified the notes and added station callouts specifying the start, end, and degree of deflection.

2. Sheet 1:
    - *KCP&L is now Evergy. Please update the plan set.* – Updated.
    - *Include a Summary of Quantities* table. – We have added a Summary of Quantities table (see Sheet 3).

3. Sheet 2:
    - *Review water line graphics for overlapping text. Revise for clarity.* – Revised.
    - *Why is the road crossing at such an angle? The City prefers road crossings closer to 90 degrees.* – There are several factors affecting the angle of the road crossing. First, there is an existing storm culvert near the tie-in location that crosses beneath the road. This causes the ground elevation to drop steeply on either side of the road. The water line cannot cross the road at a 90-degree angle will maintaining adequate ground cover and a reasonable depth. Second, the existing water line that the proposed water line will tie into does not parallel the road in the proposed tie-in location. It approaches the road at an angle. This affected that angle that the proposed water line could cross the road at.
    - *Show and label existing R/W.* – The existing R/W was incorrectly labeled as proposed. We have corrected the labeling.

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4. Sheet 3-6:
    - *Notes 1 & 4 contradict each other.* – Note 1 has been removed.
    - *The "Deflect as Necessary" label in the Profile view contradicts Note 4.* – We have added "See Notes" after the "Deflect as Necessary" label to clarify that the contractor should deflect as necessary within the given deflection parameters.
    - *Include FH locations in the Profile views.* – Added.

5. Sheet 3: *The air release valve stationing shown in the Plan view is incorrect. Please revise.* – Revised.

6. Sheet 4: *Revise the Exist. Grade leader to point to the correct line in the Profile view.* – Revised.

7. Sheet 5: *Relocated the north match line overlapping text in the Plan view for clarity.* – Revised.

Thank you for your assistance on this project.

Sincerely,

Jonathan Hoflander, PE

Michelle King, EI

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ENGINEER'S ESTIMATE - FINAL PLANS

Project: Aria Apartments Phase 1
Project Number: 017-0830
Project Location: Lee's Summit, MO
Date: 7/17/2020

	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST
1	Mobilization	1	L.S.	$18,700.00	$18,700.00
2	Clearing and Grubbing	1	L.S.	$40,000.00	$40,000.00
3	Sidewalk	50	S.Y.	$55.00	$2,750.00
4	Water Line Pipe (12" PVC C900)	1,799	L.F.	$125.00	$224,875.00
5	Casing (24" Steel ASTM A139)	100	L.F.	$250.00	$25,000.00
6	Water Line Valve (8" Gate)	4	EA.	$1,400.00	$5,600.00
7	Water Line Valve (12" Butterfly)	7	EA.	$1,600.00	$11,200.00
8	Water Line Valve (2" Air Release)	1	EA.	$10,000.00	$10,000.00
9	Water Line Fitting (12" 45-deg Bend)	5	EA.	$650.00	$3,250.00
10	Water Line Fitting (12" 22.5-deg Bend)	1	EA.	$650.00	$650.00
11	Water Line Fitting (12" 11.25-deg Bend)	2	EA.	$650.00	$1,300.00
12	Water Line Fitting (8" MJ Plug)	4	EA.	$400.00	$1,600.00
13	Water Line Fitting (12" MJ Plug)	2	EA.	$500.00	$1,000.00
14	Water Line Fitting (12" Tee w/ Backing Block)	1	EA.	$1,000.00	$1,000.00
16	Water Line Fitting (12"x6" Tee w/ Backing Block)	4	EA.	$1,000.00	$4,000.00
15	Water Line Fitting (12"x8" Tee w/ Backing Block)	4	EA.	$1,000.00	$4,000.00
17	Water Line Fitting (12" Solid Sleeve)	3	EA.	$600.00	$1,800.00
18	Fire Hydrant Assembly	4	EA.	$5,000.00	$20,000.00
19	Temporary Flushing Assembly	4	EA.	$3,500.00	$14,000.00
20	Water Line Fitting (Straddle Block)	1	EA.	$1,100.00	$1,100.00
			Opinion of Probable Cost		$391,825.00

The Engineer, using his or her professional judgment, has developed this stated Opinion of Probable Construction Cost based upon the design status identified above. Development of this Opinion has included consideration of design input level; however, the circumstances under which the work is expected to be undertaken, the cost and availability of materials, labor and services, probable bidder response and the economic conditions at the time of bid solicitation are beyond the control of the Engineer and will impact actual bid costs. Should bidding be delayed, these costs should be reviewed and, if necessary, adjusted to a more applicable *Engineering News Record* Construction Cost Index.