

9801 Renner Boulevard, Suite 300 Lenexa, KS 66219

March 13th, 2020

City of Lee's Summit, MO 220 SE Green Street Lee's Summit, MO 64063

RE: PL2019023 – Paragon Star Soccer Complex Strom Plan

We have received your comments dated November 1st, 2019 for the above referenced project. Our responses follow each comment. The comment responses have been organized by the review section they pertain to.

Engineering Review

1. Cover Sheet and title blocks: Please include the project name, Paragon Star Soccer Complex – Field Storm Sewer, on the cover sheet as well as in the title block on each sheet. GBA Response: Project name has been included on Cover sheet and title blocks.

2. Review the plans to ensure information in Plan Views, Profile Views, and calculations all match. There are many instances where the information differs.

GBA Response: Plan, Profiles, and calculations have been updated to match incremental design changes.

3. Profiles:

 Revise the compacted Fill hatching locations to fill all areas between the existing grade and 18" above top of pipe.

GBA Response: Hatching locations have been updated to their correct locations.

• Show and label the design HGL and revise as needed to maintain the HGL within the pipe.

GBA Response: HGL have been shown on all pipes.

- Verify all grade label leaders point to the respective grade lines and that all structure tops match proposed grade lines. **<u>GBA Response</u>**: Grade labels and structure tops are updated to match grade lines.
- Relocate overlapping text downstream of Structure 704 on Line 700 Profile for clarity. **GBA Response:** Overlapping text has been corrected.
- 705-706 exceeds the 400 foot maximum spacing between structures, please revise. **GBA Response:** Additional junction structure has been added, labels and calculation sheet have been updated.
- Relocate Line 800 line label for clarity. GBA Response: Label moved for clarity.



- Label Line 1900 Profile. GBA Response: Label moved for clarity.
- Show end sections and riprap in Profile view. **<u>GBA Response</u>**: Riprap and end sections have been added to profile views.
- Include end section size in the Line 1900 Profile structure label. GBA Response: Structure 1900 label has been corrected.
- Clarify the Structure 2200 label in the Line 2200 Profile, it isn't how end sections are typically labeled. **GBA Response:** Structure 2200 label has been corrected.
- Are the 2 flowlines entering Structure 1301 in the Line 1300 Profile "Future Field"? If so, label accordingly. **<u>GBA Response</u>**: Structure 1301 flowline labels have been corrected.
- Structures 1601, 1701, and 1901 appear to have drops through the structures of less than the 0.5' minimum requirement. Revise as needed. **GBA Response:** Lines 1700 and 1900 have been adjusted to a 0.5' or greater drop. Due to the existing elevation of wetland, that cannot be changed, we are unable to achieve a 0.5' drop in 1601.
- The Future Field FL entering Structure 1702 is lower than the existing flowline. Please revise.

GBA Response: Field flowline has been adjusted.

4. Drainage Map: please clarify how the drainage areas shown on the drainage map coordinate with and/or match the drainage calculations. In particular, how is drainage shown on the soccer fields being accounted for in the proposed system as well as ultimately when the field storm sewer is constructed?

<u>GBA Response</u>: The soccer fields have an underdrain system, designed and shown on separate plans. This set of plans shows the flowlines into this system as coordinated with the designers of the fields. The construction of the field underdrain system will occur with the construction of the overall sports complex.

5. Sheet 19: Revise the Non-setback Curb Inlet detail to remove references to Overland Park requirements, standards, and departments.

GBA Response: Non-setback Curb Inlet detail has been updated.



6. Provide calculations to verify end section outlet protection is adequate for the proposed conditions.

<u>GBA Response</u>: Outlet protection calculations have been attached.

7. Submit the Engineer's Estimate of Probable Construction Costs.

<u>GBA Response</u>: An Engineer's Estimate of Probable Construction Costs has been attached.

8. Due to the number and nature of the review comments, resubmittal will be assigned a 10 business day review period.

GBA Response: Acknowledged.

We believe we have addressed all comments on this project. If you have any additional questions or concerns, please feel free to contact us.

Sincerely,

GEORGE BUTLER ASSOCIATES, INC.

Clint Loumaster, P.E.