

www.neikirkengineering.com

January 23, 2020

Hector Soto Jr. - Planning Division Manager The City of Lee's Summit 220 SE Green Street Lee's Summit, MO 64063

RE: Application Number: PL2019399 Wendy's Restaurant 711 SE Missouri 291 Highway Lee's Summit, MO 64063

Dear Mr. Soto,

Please see below comments and revision notes:

Fire Review

1. All issues pertaining to life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to the safety to fire fighters and emergency responders during emergency operations, shall be in accordance with the 2018 International Fire Code – *Note added as item 17 under General Notes on the Cover Sheet.*

Planning Review

- PLATTING. The subject property is required to be replatted prior to issuance of a building permit. The property may be replatted via a minor plat application. The approval process for a minor plat mirrors that of the final development plan, meaning it is reviewed and approved at the staff level (i.e. no Planning Commission or City Council approval is required). The minor plat application is available on the City's website. – The plat was submitted on December 6th for review and approval.
- 2. CURBING. The parking lot is required to have a boundary constructed of CG-1 curbing. The plan details show C-1 curbing. Please revise. *Detail has been revised. See detail 6 on sheet C7.*
- 3. FLOODPLAIN. Add a note to the plans regarding the site's location relative to the 100year floodplain. Cite the FIRM Panel number and date as the source of the information. – Note has been added, see sheet C1.
- 4. OIL AND GAS WELLS. Add a note to the plans regarding the presence of any active, inactive or capped oil and/or gas wells on the site. The Missouri Department of Natural Resources has an online database for all permitted wells, which can be cited as the source of information. *Note has been added, see sheet C1.*

4915 Lincoln Avenue Evansville, Indiana 47715 812-202-3429

Wendy's – Lee's Summit, MO January 23, 2020 Page 2 of 5

- 5. ADA PARKING SIGN. Revise the detail on Sheet C7 to indicate that the minimum mounting height of the sign shall be 5' above grade, measured to the bottom of the sign. Detail has been revised. See detail 7 on sheet C7.
- 6. LIGHTING. Provide manufacturer specification for the proposed wallpack light fixtures. Wallpacks shall comply with the requirements of UDO Section 8.260. – *Specification and details for the wallpack light fixtures are on sheet C7 and sheet C10.*

Engineering Review

- 1. Please provide a legible vicinity map on the cover sheet, showing a general location of the project. The vicinity map shown on Sheet C2 is illegible, and should be shown on the cover sheet. A new vicinity map is included on the Cover Sheet.
- 2. An index should be provided on the cover sheet, which describes the sheet numbers. *A Sheet Index is included on the Cover Sheet.*
- 3. Please include the contact information for utility companies. Utility company information has been added to the Cover Sheet and Sheet C4.
- 4. A note should be provided stating that all construction shall follow the City of Lee's Summit Design and Construction Manual. *Note has been added to the Cover Sheet as item 16 under General Notes, Sheet C2 and C4.*
- 5. A legend is provided, but includes "fence" as one of the items to be constructed. Are there any fences to be constructed as part of this project? If not, wouldn't it be better to remove this item from the legend? *There are no new fences to be constructed, but there are some existing fences shown on the adjacent properties and running along the east property line. The fence linetype remains in the legend to denote what that line is representing.*
- 6. Water meters for domestic service and irrigation service will need to be removed and replaced with new meters. Please provide notation on the plans stating these items will be removed and replaced with new meters. In addition, the service line from the water main to the meters will need to be replaced for the domestic service line and the irrigation line. Please provide notes stating these lines shall be removed and replaced. *Notes have been added to Sheet C1 and C4 regarding the removal and replaced of the existing meters.*
- 7. The plans call-out 1.5 inch HDPE line from the meter to the building. The City of Lee's Summit requires a minimum of ten (10) feet of soft copper beyond the meter, as shown on the City of Lee's Summit standard drawing for water meters. At that point (i.e., 10 feet beyond the meter), it is acceptable to use different material. Please see the City of Lee's Summit standard detail for water meter connection for details concerning this requirement. The standard typical meter installation detail has been added to Sheet C4. A note has been added to Sheet C4 regarding the installation of type K copper 10' beyond the meter.
- 8. Please call-out the water meter sizes for both the domestic water meter and the irrigation meter. Please specify the diameter of the soft copper line from the water main to the meter. Please be aware the City will only allow a domestic water line diameter from the main to the water meter of the following sizes: 1) 3/4", 2) 1", or 3) 2". *The new water meter sizes and water service sizes have been called out on Sheet C4 as requested.*

4915 Lincoln Avenue Evansville, Indiana 47715 812-202-3429

- 9. It appears the standard detail for a water meter was missing from the plans. Detail has been added, see Sheet C4.
- 10. It appears the existing sanitary sewer lateral should be replaced all the way to the wye, and including the wye connection. Please add appropriate notation stating this shall be done. *The existing sanitary sewer lateral is noted to be replaced in its entirety. See Sheet C4.*
- 11. Formal approval of the Final Development Plan shall be contingent upon the receipt of an executed and recorded private easement (with a graphical representation of the easement in the form of an 8.5" by 11" exhibit) from the owner of the lot to the south. Prior to execution and recording of this document, the City will need to perform a courtesy review of the document, and exhibit, to determine if the easement is suitable. Following a courtesy review, the easement should be executed and recorded at the Jackson County Recorder of Deeds. The executed private easement are forthcoming and will be completed as soon as possible.
- 12. Proper abandonment of the existing sanitary sewer lateral must follow the City of Lee's Summit Design and Construction Manual. Please add notes to the plans as appropriate. *-Note has been added. See Sheet C1 and C4.*
- 13. Due to the overall excessive length of the new sanitary sewer lateral, a profile view should also be provided. *Sanitary sewer lateral profile view has been added to Sheet C4.*
- 14. Sheet C7: The asphalt paving section appears a bit confusing in terms of geogrid. We recommend underlining the word "geogrid" so there is no confusion on the part of the contractor. *-Detail has been revised. See detail 9B on sheet C7.*
- 15. Sheet C7: The above-referenced subgrade must extend a minimum of one (1) foot beyond the back of curb. The curb and gutter section, therefore, is incorrect. Please see additional comments below, however, because it appears the incorrect curb and gutter section is being called-out. *The CG-1 high-back curb and gutter standard detail is now shown on sheet C7 as requested. A note has been added to Detail 9B and Detail 6 on sheet C7 stating that subgrade must extend minimum of 1 foot beyond the back of curb*
- 16. The entrance at SE 7th Terr. must be constructed of 8" KCMMB concrete from the right of way line, to the sawcut. Asphaltic concrete is shown. A 1.5% cross-slope area across the driveway must be constructed, with a minimum width of 5 feet to accommodate an ADA-accessible ramp. Details must be provided showing how this will be constructed. *City of Lee's Summit Standard Driveway Detail has been added to Sheet C8. A 5' wide area of 1.5% cross slope has been added, see Sheet C3 for grades and note.*
- 17. Sheet C2: Where is the water main along the west side of the property? It appears to be absent from the drawing. It appears the new monument sign is directly on top of the water main, which is not allowed. In addition, it appears there is a parking lot light within five (5) feet of the water main. In general, a minimum of ten (10) feet is required between lighting poles, monument signs. *The parking lot light has been relocated to ensure the 10' separation, see sheet C2 and C10 for revisions to the light pole locations and photometrics. The monument sign has been moved to the east and a note has been added on Sheet C4 regarding placement of the monument sign in relation to the existing water main.*

4915 Lincoln Avenue Evansville, Indiana 47715 812-202-3429

Wendy's – Lee's Summit, MO January 23, 2020 Page 4 of 5

- 18. Sheet C7: Is there a public easement for the water line along the west side of the project? If not, an easement should be dedicated by separate document, in a form acceptable to the City. There is no public easement for the water line along the west side of the property. The water line is located within the Right-of-way of Missouri Highway 291 as shown on Sheet C1 and Sheet C4. Since the minimum water line easement is 10' with the water line centered in the 10' easement, 5' is proposed on the west side of the property and the other 5' would be located on MODOT ROW which would not require an easement.
- 19. Please coordinate all activities within MoDOT right of way by obtaining a permit from MoDOT. This would include any work to re-construct the entrance along the southwest side of the project. Activities have been coordinated with MoDOT and a permit will be obtained. According to email from Stephen M. Holloway, there is nothing further to do until a contractor has been selected.
- 20. Sheet C4: The new sanitary sewer lateral shown within the new private easement does not include any information regarding the repair of the existing pavement and/or restoration to the west of the new sanitary sewer lateral. Please provide details concerning the repair of this area. *Pavement patch details have been added, see detail 3, on sheet C7. Also see keynote 30 on Sheet C2.*
- 21. Sheet C7: An ADA-accessible ramp detail is provided, but no ADA-accessible ramps are shown on the plans. In addition, no sidewalk is required for this project. Please remove the detail from the plans. There are two ADA accessible ramps on the property. One denoted by keynote 12, which is located on the south side of the building directly north of the ADA parking. This one is detailed in Detail 13, Sheet C7. The second one is located on the east side of the building, denoted by keynote 19 and detailed by Detail 4 on Sheet C7. Detail 3 has been removed from Sheet C7 as requested.
- 22. The curb and gutter section called-out on the plan sheet C2 appears to reference a nonstandard design that is not allowed in the City of Lee's Summit. The City of Lee's Summit requires the use of CG-1 high-back curb and gutter with integral gutter, rather than the straight slab design as shown. – *The CG-1 type curb and gutter standard detail is now shown on Sheet C7 as requested.*
- 23. The City of Lee's Summit standard detail for the sanitary wye connection, tracer wire, and trench check was missing from the plans. Please include this detail in the resubmittal. *City of Lee's Summit standard details have been added to sheet C4, C7 and C8.*
- 24. An Engineer's Estimate of Probable Construction Costs should accompany your final submittal drawings. The Engineering Plan Review and Inspection Fee is based on this estimate, and calculated at 3% of the total sitework, plus a right of way inspection fee of \$80. This estimate should include: 1) sanitary sewer lateral and wye, 2) sanitary sewer lateral removal and abandonment, 3) water lines, 4) pavement, 5) aggregate base for pavement, including the area one (1) foot beyond the back of curb, 6) chemically-stabilized subgrade or geogrid, including the area one (1) foot beyond the back of curb, 7) curb and gutter, 8) sidewalks, 9) ADA-accessible ramps, 10) commercial entrances, 11) grading and compaction of parking area, 12) erosion and sediment control devices and measures, and 13) final restoration, including sodding, seeding, fertilizer, mulch, and topsoil. Engineer's Cost Estimate is included in this submittal.

4915 Lincoln Avenue Evansville, Indiana 47715 812-202-3429

Wendy's – Lee's Summit, MO January 23, 2020 Page 5 of 5

Traffic Review

1. Consider revisions to the CG-1 curbed island near the menu board to allow for an escape from the drive thru queue (e.g. a CG-2 curb in this area so that its traversable). – *This has been considered.*

Building Codes Review

No comments.

Should you have any questions or require additional information please contact me via phone, 618-263-4100, or email, tlehman@neikirk.us, at your convenience.

Sincerely,

Liftony Kehman

Tiffany Lehman, P.E. Neikirk Engineering, LLC

ENGINEER'S COST ESTIMATE PROJECT: WENDY'S LEE'S SUMMIT, MO DATE: 01/23/2020

	QTY UNIT	- UNIT PRICE		TOTAL PRICE
SANITARY SEWER LATERAL AND WYE, REMOVAL AND ABANDONMENT	410 LF	\$30	/LF	\$12,300
WATER LINE - HDPE WATER LINE	151 LF	\$10 /LF	/LF	\$1,510
WATER LINE - COPPER TYPE K WATER LINE	40 LF	\$15 /LF	/LF	\$600
ASPHALT PAVEMENT	1,094 TON		\$120 /TON	\$131,280
CONCRETE PAVEMENT	5,352 SF	\$10 /SF	/SF	\$53,520
AGREEGATE BASE (INCLUDING ADDITIONAL 1' BEYOND CURB & GUTTER)	1,282 TON	\$25	\$25 /TON	\$32,050
GEOGRID (INCLUDING ADDITIONAL 1' BEYOND CURB & GUTTER)	39,442 SF	\$1.50 /SF	/SF	\$59,163.00
CURB AND GUTTER	1,570 LF	\$20 /LF	/LF	\$31,400
SIDEWALK	1,420 SF	\$5	\$5 /SF	\$7,100
ADA-ACCESSIBLE RAMPS	2 EA	\$500 /EA	/EA	\$1,000
COMMERCIAL ENTRANCES	935 SF	\$10 /SF	/SF	\$9,350
GRADING AND COMPACTION OF PARKING AREA	1 LS	\$10,000 /LS	/rs	\$10,000
EROSION AND SEDIMENT CONTROL DEVICES	1 LS	\$10,000 /LS	/LS	\$10,000
FINAL RESTORATION	1 LS	\$10,000 /LS	/LS	\$10,000
			TOTAL	\$369,273