

Date: Wednesday, December 26, 2018

To:

OLSSON ASSOCIATES

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From: Gene Williams, P.E.

Senior Staff Engineer

Application Number: PL2018219

Application Type: Engineering Plan Review

Application Name: WOODSIDE RIDGE 1ST PLAT - PRYOR RD & O'BRIEN RD INTERSECTION
IMPROVEMENTS

The Development Services Department received plans for this project on December 03, 2018. We have completed our review and offer the following comments listed below.

- Resubmit three (3) full size sets of plans (no larger than 24"x36") folded to 8-½"x11", one (1) comment response letter, and one (1) digital copy following the electronic plan submittal guides as stated below.
- Revised plans will be reviewed within five (5) business days of the date received.

Engineering Review

1. Sheet 1: Please delete the Public Works "Utility Service Number", and replace it with "Development Services 816-969-1200".
2. Sheet 5 and 6: CG-2 curb and gutter is called-out. O'Brien is a commercial local road. Please show CG-1 curb and gutter. Also, show where the CG-1 curb and gutter will transition to the CG-2 curb and gutter on the plan view.
3. Sheet 5 and 6: Label each typical section for O'Brien as "Commercial Local".
4. Sheet 5 and 6: A commercial local street requires 7.5 inch base course asphaltic concrete, not 5.5 inches. Also, the surface course should be specified as Type 5 or 6, and the base course Type 5. Finally, the widened portion on typical section view from station 31+40 to 33+74 shows a 6 inch concrete strip, capped with a surface course of asphaltic concrete. The minimum thickness for the concrete should be specified as 8 inches KCMMB, and also clarify the subgrade design. It is not defined for that portion.
5. Sheet 6: Please label the Pryor Rd. section view as "Arterial Roadway Section".

6. Sheet 6: Arterial street widening projects require the developer to match existing conditions. Were Record Drawings consulted to determine the original design? Where is the pavement jointing and sawcut plan? Where are the existing pavement joints in relation to these?
7. As commented above, a plan must be provided showing existing joints and sawcuts along Tudor Rd., and the joint patterns and sawcuts to be established with this project, along with any dowels or rebar. We will not allow a field-design.
8. The ADA-accessible ramps on the west side of Pryor Rd. do not appear to match-up with the existing ADA-accessible route across Pryor Rd. How will this be addressed?
9. What is the existing cross-slope and width across O'Brien at the intersection of Pryor Rd. and O'Brien, and how will this stop-controlled intersection be designed to maintain no greater than 1.5% cross-slope, and 5 feet minimum width?
10. Is the intent to re-use the existing ADA-accessible ramps on the west side of Pryor Rd. as the ADA-accessible route across Pryor Rd.? If so, do these ramps meet current City requirements in terms of cross-slope and running slope of the ramp? Width of the ramp? If not, then these must be upgraded with these improvements.
11. Sheet 11: The City has adopted a more stringent standard for design than PROWAG. Please see Section 5304.8 of the Design and Construction Manual for details, including the bullet point items needed for plans, with design criteria listed on Table LS-5 of the same section. In general, the City requires no more than a design cross-slope of 1.5% in all directions of an ADA-accessible ramp, and no more than 7.5% running slope. A minimum 5.0 feet width is also required. It appears there are instances on this sheet where the design criteria are not met.
12. Sheet 11: Please see the above comments concerning the ADA-accessible ramp details. Section 5304.8 requires that plans include the bullet point items in the design, including cross-sections along the long axis, width, and curb opening of the ramp.
13. Please delete the standard ADA-accessible ramp details from the plans. These are only used in retrofit cases, where site-specific designs are not provided. In the case of this project, site-specific designs for the ADA-accessible ramps and ADA-accessible routes across stop-control intersections are required.
14. What is the cross-slope of Pryor Rd. across the ADA-accessible routes? No more than 1.5% cross-slope is allowed at this stop-controlled intersection. A minimum width of 5 feet is required. Please show this on the plans.
15. Sheet 16: This is supposed to be an erosion and sediment control plan, but nothing is shown other than a plan view of the project.

16. O'Brien Rd. is well over 400 feet in length, and a storm sewer should be installed to collect stormwater, and tie into the storm sewer of Woodside Ridge 1st Plat. It appears that a minimum of two (2) curb inlets are required along O'Brien Rd., on each side of the street.
17. Sheet 8: It is not clear what is being done to modify the existing curb inlet within the widened portion of the turn lane. Is the existing curb inlet being removed? Please provide sufficient details for this portion of the project so there is no uncertainty concerning expectations of the contractor.
18. Sheet 8: A note is provided stating "relocate signal". Wouldn't it be a good idea to provide the sheet number where details concerning this relocation are provided?
19. General Comment: Please go over the plans and ensure missing items necessary to construct this project are provided. From our standpoint, the plans are incomplete.

Traffic Review

1. Add a R2-1 (25 mph) on westbound NW O'Brien Rd at an appropriate distance from NW Pryor Rd.
2. The three lane section on NW O'Brien Rd should be extended to approximately 29+50 in order to plan for the future commercial entrances into West Village.
3. On NW O'Brien, transition from CG2 to CG1 over a distance of ten feet from the PC at the intersection of NW O'Brien Rd and NW Ambersham Dr.
4. Provide a traffic control plan for any impacts to NW Pryor Rd and / or NW O'Brien Rd.

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs shall accompany your final submittal copies. The itemized estimate (material and installation) shall be sufficiently broken down and shall include the following items, as applicable.

- Public infrastructure, both onsite and offsite.
- Private street construction, including parking lots and driveways.
- Sidewalks located within the right-of-way.
- ADA accessible ramps.
- Sanitary sewer manholes and piping between manholes, including private mains.
- Connection of the building sanitary sewer stub to the public main.
- Waterlines larger than 2 inches in diameter, valves, hydrants, and backflow preventer with vault, if outside the building.
- Stormwater piping greater than 6 inches in diameter, structures, and detention / retention facilities - public or private.
- Water quality features installed to meet the 40-hour extended duration detention requirements.
- Grading for detention / retention ponds.

- Grading to establish proper site drainage.
- Utility infrastructure adjustments to finished grade (i.e. manhole lids, water valves, etc.).
- Erosion and sediment control devices required for construction.
- Re-vegetation and other post-construction erosion and sediment control activities.

Electronic Plans for Resubmittal

All Planning application and development engineering plan resubmittals shall include an electronic copy of the documents as well as the required number of paper copies.

Electronic copies shall be provided in the following formats

- Plats – All plats shall be provided in multi-page Portable Document Format (PDF).
- Engineered Civil Plans – All engineered civil plans shall be provided in multi-page Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Please contact me if you have any questions or comments.

Sincerely,

Original Signed

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cc: Development Engineering Project File