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Memorandum

P20129-260

To: Kimberly Flom, Senior Planner
Village of Orland Park

From: Lori M. Vierow, RLA
Assistant Director of Landscape Architecture

Juli E. Crane, PWS
Director of Environmental Studies

Date: 20 August 2010

Subject: Stone Church
Landscape Review #4

The following is a review of the following documents pursuant to requirements of Section 6-305 Landscaping and Bufferyards:

- Landscape Plan, AL1, by Architectural Resource Corporation, dated July 28, 2010
- Landscape Plan, AL2, by Architectural Resource Corporation, dated July 28, 2010
- Site Plan Phase 1, AC1, by Architectural Resource Corporation, dated April 19, 2010
- Site Plan Phase 1 & 2, AC2, by Architectural Resource Corporation, dated March 16, 2009
- Grading and Soil Erosion Control Plan, by Bohnak Engineering, Inc. dated March 26, 2010
- Plan Commission Meeting Minutes, March 10, 2009
- Hydrograph data for 2-, 5-, 10-, and 100-year 24-hour storm events for the north basin and the south basin, Bohnak Engineering, Inc.

Review Comments

Bufferyards

On this site, four bufferyards exist (north, south, east and west).

North Bufferyard

The land use adjacent to the north bufferyard is undeveloped land. The required bufferyard between the planned church development and the existing vacant land is bufferyard "C" with a minimum width of 15 feet. Assuming a length of 455 feet, a width of 17 feet, and a 30 percent ratio of evergreen trees and shrubs, required landscaping within this area is described as follows:

Plant Type	Required Quantity	Quantity Proposed	Difference
North Yard			
Canopy Trees* (Evergreen)	18 (5)	8	-10
Ornamental Trees	7	0	-7
Shrubs* (Evergreen)	73 (22)	79 (38)	+6

* 30% of which should be evergreen

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Comments & Recommendations – The petitioner has provided the required bufferyard width but has not met the canopy tree requirements. Due to the proximity of the stormwater basin, it is recommended that the petitioner revise the plan to include 8 canopy trees. The petitioner has since met the requirements requested.

South Bufferyard

The land use adjacent to the south bufferyard is Interstate 80. The required bufferyard between the proposed church and the interstate is bufferyard “B” with a width of 15 feet. Assuming a length of 450 feet, a width of 50 feet, and a 30 percent ratio of evergreen trees and shrubs, required landscaping within this area is described as follows:

Plant Type	Required Quantity	Quantity Proposed	Difference
South Yard			
Canopy Trees* (Evergreen)	11(3)	12(12)	+1
Ornamental Trees	3	3	--
Shrubs* (Evergreen)	54 (16)	0 (0)	-54

*30% of which should be evergreen

Comments & Recommendations – The petitioner has not met the ornamental tree or shrub planting requirements. Due to the one additional evergreen trees proposed and proximity to I-80, we recommend approval of the shrub quantity as shown. However, the petitioner should revise the plan to include the ornamental trees as proposed and approved of in *Landscape Review #1*. The petitioner has since met the requirements requested.

East Bufferyard

The land use adjacent to the east bufferyard is undeveloped land. The required bufferyard between the proposed church and existing vacant land is bufferyard “C” with a width of 15 ft. Assuming a length of 1420 feet, a width of 15 feet, and a 30 percent ratio of evergreen trees and shrubs, required landscaping within this area is described as follows:

Plant Type	Required Quantity	Quantity Proposed	Difference
East Yard			
Canopy Trees* (Evergreen)	64 (19)	37 (12)	-27
Ornamental Trees	25	25	--
Shrubs* (Evergreen)	256 (77)	70(30)	-186

*30% of which should be evergreen

Comments & Recommendations – The petitioner has not met the plant material requirements and

should revise the plan accordingly. Due to the expanse of the southern half of the property, more canopy trees and/or an expanse of prairie in lieu of shrubs would be an acceptable alternative. Per our discussion, the petitioner has proposed additional canopy trees, ornamental trees, and shrubs; however, the large expanse has remained Kentucky blue grass turf in lieu of prairie. We recommend approval of the canopy trees and shrubs as proposed; however, it is recommended that the petitioner meet the ornamental tree requirement. The petitioner has since met the requirements requested.

West Bufferyard

The land use adjacent to the west bufferyard is an existing oil tank farm. The required bufferyard between the proposed church and existing oil tank farm is bufferyard "C" with a width of 15 ft. Assuming a length of 1420 feet, a width of 15 feet, and a 30 percent ratio of evergreen trees and shrubs, required landscaping within this area is described as follows:

Plant Type	Required Quantity	Quantity Proposed	Difference
West Yard			
Canopy Trees* (Evergreen)	64 (19)	39(12)	-25
Ornamental Trees	25	25	--
Shrubs* (Evergreen)	256 (77)	108 (18)	-148

*30% of which should be evergreen

Comments & Recommendations – The petitioner has not met the plant material requirements and should revise the plan accordingly. Due to the expanse of the southern half of the property, more canopy trees and/or an expanse of prairie in lieu of shrubs would be an acceptable alternative. Per our discussion, the petitioner has proposed additional canopy trees, ornamental trees, and shrubs; however, the large expanse has remained Kentucky blue grass turf in lieu of prairie. We recommend approval of the canopy trees and shrubs as proposed; however, it is recommended that the petitioner meet the ornamental tree requirement. The petitioner has since met the requirements requested.

Parkway Trees

At 40-foot spacing, there are 10 required parkway trees along Orland Parkway. The petitioner is proposing only 6 trees along Orland Parkway. Plan Commission raised a concern regarding the view of drivers exiting the church property. Therefore, it is recommended that the petitioner add two parkway trees within the parkway east of the entrance drive to satisfy the Ordinance requirements. The petitioner has satisfied the request with 8 parkway trees provided.

Foundation Plantings

All buildings that front a dedicated street are required to provide a 10 foot landscaped area along 70 percent of the sides of the building. The petitioner has provided foundation plantings that consist of a mixture of deciduous shrubs, evergreen shrubs, and groundcover that provide seasonal color, texture, and interest.

Parking Lot/Landscape Islands

The ordinance requires one landscaped island for every seven parking spaces, resulting in 36 required islands for this site. The petitioner has provided 32 islands and per Plan Commission minutes dated March 10, 2009, the space requirements for the tree islands have been met. Each island is required to have one canopy tree and a

minimum of one shrub per island, for a minimum of 32 required canopy trees and 32 shrubs. The petitioner has provided a total of 27 canopy trees and 33 shrubs for the parking lot islands. The petitioner has not provided the required number of canopy trees. However, due to the large center island planting, we recommend approval of the plans as shown.

Tree Preservation

To our knowledge, no tree survey has been submitted. As stated in the Village Ordinance, any mature trees over four inches in size must be mitigated if removed.

Screening of Trash Enclosures/Utilities

The petitioner has indicated the location of one trash enclosure on the landscape plan. The petitioner has provided year-round screening for the trash enclosure.

Detention/Retention

Plans indicate two stormwater basins. The northern basin is a wet detention basin with shallow (1 foot) standing water. The southern basin is a dry bottom facility associated with a baseball field and soccer field.

Based on hydrology data, the north basin is expected to have up to 3 feet of bounce and drawdown to critical water surface elevation of approximately 2.7 days during a 100-year, 24-hr storm. Turfgrass should be able to tolerate anticipated conditions at this basin except immediately near NWL. Over time, the NWL edge may be expected to slough. As previously recommended, this can be prevented/minimized with installation of structurally robust shoreline emergent plants. Culverts should have erosion protection should be provided from the invert to the NWL.

The south pond will have typical bounce for a stormwater facility but extended drawdown times. This means the turfgrass will be soggy for an estimated 2.5 days following a 2-year rain event and approximately 4.6 days after a 100-year storm. This condition is expected to adversely affect standard bluegrass turfgrass. We recommend using a seed mix that is more tolerant of wet soil conditions and shallow flooding such as a modified Clesen's Retention Mix that includes 70 percent Kentucky 31 tall fescue, 25 percent perennial ryegrass, and 5 percent redtop.

Plant List

A plant list has been provided, including botanic names, common names, and sizes for all plant material.

Planting Details

An acceptable set of planting details has been provided.

Wetlands

To our knowledge there are no wetlands on the site and that the Village has documentation supporting this.