City of Hilshire Village
Request for Variance from Right of Way Ordinance

8210 Burkhart Road
Vanita Esphahanian and Jeff Sechelski
March 17, 2020

I. Background

A. Vanita and I have owned our property on Burkhart since November of 1992. Our property is the last lot on the street, on the right hand (north) side as you approach from Ridgely. We have a circular driveway with approaches on the east and west side of our lot, with a culvert only under the east approach.

B. Our landscape architect/contractor is: Mark McKinnon, McKinnon Associates, 1137 W. 26th St., Houston, TX, 77008. Phone: (713) 869-2797; Email: mckinnon@mckinnonassociates.com.

II. Project Motivation

A. We wanted to add a new walkway to provide easier access to our front door from the street. As we thought through our design we decided to incorporate a rehabilitation of the street shoulder and ditch area to correct various long-standing problems plaguing that area:

1. Soil compaction - The shoulder area of the street has never been conducive to growing grass and as a result the default state of that area over the years has been bare, compacted soil.

2. Burkhart Road exists not only in Hilshire Village, but picks up again across the bayou with sections in Spring Valley and beyond Bingle Road as well. This results in drivers reaching the dead end of our street and having to turn around, often tracking through the off-pavement shoulder area. When it's been raining this causes ruts and mud tracking; when it's dry, soil compaction results.

3. It's notable that there are ten dead-end streets in Hilshire Village. Burkhart Road is the only one without a cul-de-sac circle.

4. The culvert under our eastern driveway approach tends to collect sediment over time.

B. The following photo shows the condition of the area before the project:

III. Project Goals and Philosophy

A. Enhanced tree health

B. Enhance retainage of runoff before it enters the drainage system

C. Reduce standing water in culvert prevents mosquito breeding

D. Reduce sediment washed down into culvert which reduces capacity for flash flood events.

E. Our design was guided by two main ideas:

1. **Our entire design of the pad, shoulder, and ditch area was predicated on the fact that our lot sits at the head of the ditch gradient for our section of Burkhart. In other words, runoff initiates at our west driveway and flows *east* to the gulley at the intersection of Burkhart and Ridgely. It is important to note that as a consequence of this our lot doesn't inherit any water, because there is nothing upstream of us. Another consequence of this is that the only water flowing in our section of ditch comes from the front yard area immediately around the ditch. (Runoff from areas away from the front yard flows either into the gulley behind our house, or directly into Spring Branch.)**

2. **We wanted to capture and absorb as much rainfall runoff as possible before it entered the ditch system and moved on to our neighbors, which we believe is in agreement with Hilshire Village's drainage philosophy.**

IV. Design Details

A. Parking Pad

1. McKinnon Associates designed the shoulder/pad area with a lateral grade that approximately matches that of the street surface. Starting from the bottom there is a layer of geo-textile fabric, a layer of compacted decomposed granite, a second layer of fabric, and topped with the hexagonal permeable paver grid, filled with blackstar gravel. The following photos illustrate:


CAUTION CAUTION

B. Swale and ditch area

1. To prevent erosion of soil and deposition of sediment downstream we designed a channel to collect the runoff from the yard and pad area. The bottom of this channel was constructed with a grade matching the natural slope of the lot, starting at near zero elevation on the west end and matching the culvert level on the east end.

2. To increase the opportunity for water to percolate into the soil we lined the bottom of the channel with aggregate to slow the flow down before it reached the culvert. *We realize slowing the flow is contrary to an acceptable design for other lots in the Village, but in our case since we are at the head of the grade we are not impeding water; rather we are preventing a net addition of runoff into the drainage system.*

3. Additionally, three "sump wells" were dug at intervals along the course of the channel. These resemble the gutter downspout wells that were required for our recent addition that we completed in 2016. These were a hole about five inches in diameter and about 36 inches deep, filled with the same aggregate used in the bottom of the ditch channel. We felt these would help even more runoff percolate into the soil rather than contribute to runoff entering our neighbor's ditch.

4. An additional "wall" of aggregate about three inches wide was placed against the street side of the steel channel liner to give further absorption opportunity for runoff from the street/pad area. The depth of this wall extends to the same depth as the inner channel.

5. The following illustrations will make these details clearer.

DETAIL SECTION
STORM WATER MGMT./EROSION CONTROL
8210 BURKHART
1/2"=1'-0"

V. Conclusions

A. We feel that this project was executed with high standards of professional landscaping design and construction, and that it provides benefits not only to us the homeowners but also to our neighbors in the Village as well.

B. We also feel that our lot position at the head of the drainage gradient combined with the absence of a cul-de-sac circle creates a set of conditions not found at any other spot in the Village. We hope that the Council will agree, and grant us a variance to the applicable ordinances.