## TOWN OF FAIRFAX STAFF REPORT

## **Department of Planning and Building Services**

TO: Fairfax Planning Commission

**DATE:** March 20, 2014

**FROM:** Jim Moore, Director of Planning and Building Services

Linda Neal, Senior Planner

LOCATION: 305 Scenic Road; Assessor's Parcel No. 001-052-07

PROJECT: Mechanical/equipment/storage area

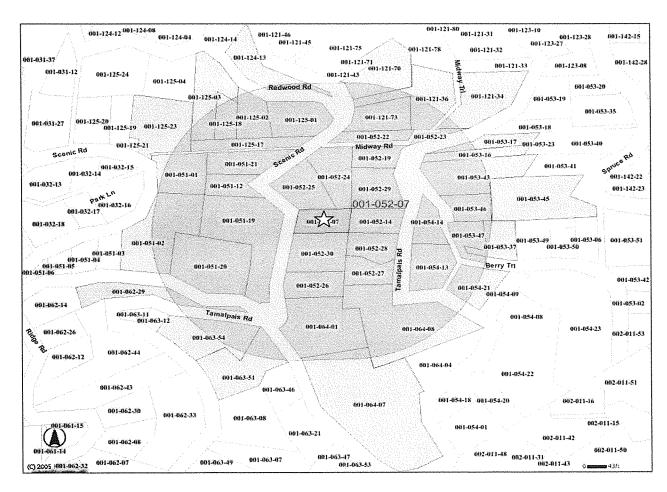
**ACTION:** Modification of approved Hill Area Residential Development and

Design Review permits and Height Variance; Application # 14-13

APPLICANT: Michael and Marjorie McLennan

OWNER: Same

**CEQA STATUS:** Categorically exempt sections 15303(e) and 15304(b)



**305 SCENIC ROAD** 

#### **BACKGROUND**

The 6,410 square foot site is 55.89 feet wide and slopes down from Scenic Road at a rate of 57%. It was previously developed with a condemned 1,397 square foot residence that was constructed in 1920. There was also previously a one car garage on the property. A collapsing retaining wall holding up the public road in the area of the garage was replaced in 1986. The dilapidated garage was demolished in 2005 after the Town began receiving complaints from the neighbors. The site was presumably graded with a large retaining wall below the original structure in the 1920's when the site was first developed (Exhibit B – Site plan and topography of original cottage).

On October 21, 2010, the Commission approved a Hill Area Residential Development (HRD) permit, Encroachment Permit, Minimum Front Setback Variance and an Encroachment permit for a new 2,563 square foot, three story, 3-bedroom, 2 ½-bath, single-family residence with a 2-car carport and 3<sup>rd</sup>-guest parking space parallel to Scenic Road.

On February 21, 2013 the Commission denied an application for a height variance for a fourth story on the house for a storage and mechanical equipment room.

#### DISCUSSION

The applicant has landscaped the side and rear of the property with a pathway, walls, terraced areas and a level, retained lawn area. The plan is a departure from the landscaping plan the Commission was presented with when reviewing the project prior to its original approval in 2010 (Exhibit B – original landscaping plan).

Included in the yard improvements is a trellis structure that reaches 17 feet in height, exceeding the 15 foot permitted height for accessory structures by 2 feet [Town Code § 17.080.060(B)]. The trellis structure is located over a small terrace created by the construction of a 7 foot tall retaining wall using an engineered interlocking retaining wall system. The wall exceeds the permitted retaining wall height of 6 feet [Town Code § 17.044.080(B) (2)].

The re-contouring of the site to accommodate the new landscaping plan required the excavation and fill of less than 100 cubic yards of material so an excavation permit is not required [Town Code § 12.20.080).

The revised landscaping requires the approval of the following discretionary permits:

Hill Area Residential Development Permit; A modification of the original Hill Area Residential Development permit (Exhibit B, page 14, condition 8).

A Height Variance – for the terrace retaining wall which exceeds the permitted 6 foot wall height limit by 1 foot and for the trellis structure over the terrace which exceeds the permitted 15 foot height limit for accessory structures by 2 feet.

The site slopes down steeply from Scenic Road at a rate of 57 % as indicated above and the significant changes in elevations on the site contribute to the need for the increased height of the wall and trellis to create the sheltered outdoor area. The wall and structure maintain large setbacks from all of the adjacent neighboring homes...setbacks in excess of 60 feet and they only exceed the height limits by 1 and 2 feet respectively. The trellis structure only exceeds the 15 foot height limit at the easternmost end where the tall beams, recycled from a local residence, had to be inserted into the natural grade and not within the terrace that was created by the interlocking retaining wall system that is not engineered to carry any kind of surcharge.

The height exceptions being requested are minimal and are a result of the 57% slope and the terrace structure is well screened from view, open sided and maintains large setbacks from the neighbors.

### OTHER AGENCY/DEPARTMENT COMMENTS

No other agencies or Departments had any comments on the proposed landscaping modifications or the trellis structure.

### RECOMMENDATION

- Open the public hearing and take public testimony.
- 2. Close the public hearing.
- 3. Move to approve the proposed modification of application # 14-13 by adopting the attached amended Resolution No. 10-06 (modifications are in underlined red typeface):

Suggested Findings for approval of the landscaping modifications (also included in Resolution) -

- 1. The very steep 57% slope of the site is the special circumstance applicable to the property that results in a strict interpretation of the 15 foot accessory structure height limit depriving the applicant of ability to create a partially sheltered outdoor living space are which is a privilege enjoyed by other property owners in the vicinity and under identical zone classifications
- The height variance will not constitute a grant of special privilege because the wall and terrace only exceed the height limits for walls and accessory structures by 1 and 2 feet respectively and only in small areas at the most eastern portions of the wall and trellis structures.
- 3. The strict application of this title would result in excessive or unreasonable hardship.

4. The structures only exceed the height limits by a small amount and they maintain large setbacks from the neighboring property outdoor living areas and are significant view of the structure are fairly well screened from view by either the house itself or existing trees and landscaping. Therefore, the granting of the variance of adjustment will not be detrimental to the public welfare or injurious to other property in the vicinity in which the property is situated.

## **ATTACHMENTS**

Exhibit A – Resolution No. 10-06

Exhibit B - Applicant's supplemental information

## RESOLUTION NO. 10-06 APPLICATION NO. 10-28 AND REVISION APPLICATION NO. 14-13

### TOWN OF FAIRFAX PLANNING COMMISSION

## 305 Scenic Road, Assessor's Parcel No. 001-052-07

WHEREAS, the Town of Fairfax hads received an application for 305 Road to construct a single-family residence in 2010 and has now received a revision to the originally approved plan; and

Whereas, the Planning Commission held a duly noticed Public Hearing for the original proposal on October 21, 2010 and a duly noticed Public Hearing for the proposed landscaping improvements and modifications on March 20, 2014 at which times all interested parties were given a full opportunity to be heard and to present evidence; and

Whereas the project and proposed modifications are Categorically Exempt from the Environmental Quality Act (CEQA) pursuant Section 15303(a), One single-family residence in a residential zone, Class 3, of the Public Resources Code (CEQA). This exemption allows for the construction of new small structures in an urbanized area; and

**W**HEREAS, the applicant has met the burden of proof required to support said *modification* application for Planning Commission approval, and the following findings have been determined:

1. The proposed development is consistent with the General Plan, other adopted codes and policies of the Town of Fairfax, and is consistent with the purpose and intent of the Hill Area Residential Development Ordinance as follows:

## Goal 4.1.2: All new development shall be required to preserve some of the natural landscape.

The new residence is proposed in roughly the same location as the existing residence and the trees that are not subject to removal as required by the Ross Valley Department defensible space regulations have been preserved. Therefore, the project preserves the much of the natural features on the site.

Goal 5.1.0: The basic goal of the Town of Fairfax in adopting the Environmental Safety Element is to prevent loss of life, to reduce injuries and property damage and to minimize economic and social dislocations which may result from earthquakes, other geologic hazards, fires and floods.

The Town Engineer, based on a significant body of engineering information and architectural plans as described above, has determined that the project can be built in a manner that will prevent loss of life, reduce injuries and minimize property damage and



dislocations from earthquakes or other geologic hazards, fires and floods.

## Goal 5.7.0: It is the goal of the Town of Fairfax to reduce height levels of risk in fire prone areas.

The project site is located within the Wildland-Urban Interface zone which is prone to wildfires. The project incorporates the development of a fire truck turn-out and comply with the requirements for defensible space to comply with the Wildland-Urban Interface Code requirements.

## Goal 5.9.0: It is the goal of the Town of Fairfax to minimize flooding in areas prone to inundation.

- 1. The Town Engineer has reviewed the project plans, topographic and boundary survey information, the hydrology and geologic reports and other miscellaneous engineering information listed and has determined the following:
- The health safety and welfare of the public will not be adversely affected by the development;
- Adjacent properties are adequately protected by project investigation and design from geologic hazards as a result of the work;
- Adjacent properties are adequately protected by project design from drainage, seismic and erosion problems as a result of the work;
- The 123 cubic yards of excavation and fill necessary to construct the residence and the required on-site parking is the minimum necessary to allow the owners use of their property.
- 3. The residence will only project 11.5 feet above the Scenic Road roadway and will maintain the minimum required 5ft side yard setback from the duplex at 309 Scenic and over an 80 foot setback from the neighboring property at 297 Scenic Road. Privacy screens have been included in the design of the structure on the southern side of the rear decks between the structure and the neighboring duplex. The residence is not located in a significant view corridor as defined by Town Code §17.060.020. Therefore, the visual and scenic enjoyment of the area by others will not be adversely affected by the project more than is necessary;
- 4. Construction of the residence will require the removal of 1 Bay tree and further vegetation removal will be subject to the approval of a defensible space plan by the Ross Valley Fire Department as required. Therefore, the natural landscaping will not be removed by the project more than is necessary;
- 5. Town Code § 17.072.090(C)(4) prohibits grading during the rainy season from

- October 1<sup>st</sup> through April 1<sup>st</sup>. Therefore, the time of year during which construction will take place is such that work will not result in excessive siltation from storm runoff or prolonged exposure of unstable excavated slopes.
- 6. The project provides two on-site parking spaces and a guest parking space as required by Town Code §§ 17.052.(A)(1) and (2). The project also includes a fire-truck turn out to provide a fire truck staging are and improve emergency vehicle access to the site and the surrounding Scenic Road neighborhood. Therefore, vehicular access and parking are adequate.
- 10. The granting of the variance of adjustment will not be detrimental to the public welfare or injurious to other property in the vicinity in which the property is situated because the compact carport cover will not change the single-family character or the development density of the neighborhood.
- 11. The proposed development is consistent with the General Plan and Zoning Ordinance which have designated the property for development with a single-family residence.
- 12. The proposed 2,563 square foot, three story, residence is of a similar square footage to other development in the area, harmonizes with the surrounding residential development, and does not result in the deterioration of significant view corridors.
- 13. The very steep 57% slope of the site is the special circumstance applicable to the property that results in a strict interpretation of the 15 foot accessory structure height limit depriving the applicant of ability to create a partially sheltered outdoor living space are which is a privilege enjoyed by other property owners in the vicinity and under identical zone classifications
- 14. The height variance will not constitute a grant of special privilege because the wall and terrace only exceed the height limits for walls and accessory structures by 1 and 2 feet respectively and only in small areas at the most eastern portions of the wall and trellis structures.
- 15. The strict application of this title would result in excessive or unreasonable hardship.
- 16. The structures only exceed the height limits by a small amount and they maintain large setbacks from the neighboring property outdoor living areas and are well screened from view????Therefore, the granting of the variance of adjustment will not be detrimental to the public welfare or injurious to other property in the vicinity in which the property is situated.

**Now, Therefore**, the Planning Commission of the Town of Fairfax does hereby resolve as follows:

**Section 1**. After careful consideration of the site plan, architectural drawings, plans and other exhibits submitted in connection with this matter, approval of the application by Michael McLennan for a single-family residence and yard and landscaping improvements proposed and reviewed on March 20, 2014, are hereby granted subject to the following conditions:

## **Community Development**

1. This approval is limited to the development illustrated on the plans prepared by Onju Updegrave Architect, pages A1.1, A2.1 to A2.3 and A3.1 revision date 5/21/10; site improvements, grading and drainage plans by Darius Abolhassani Consultant and Associates, professional engineer and geotechnical engineer, pages C1 and C1, dated 5/21/10; record of survey by J.L. Engineering recorded November 13, 2009 and discussed in the following project engineering reports and <u>yard structures plan by Michael McClennan</u>, page A0.0 dated 1/30/14 and the revised grading and landscaping plans dated 10/10/13, pages L-1 and L-2.

From the Geotechnical Engineer, Darius Abolhassani Consultant and Associates

- 8/28/09 original geotechnical investigation by Darius Abolhassani, Professional and Geotechnical Engineer
- 5/21/10 geotechnical review addendum from Darius Abolhassani, Professional and Geotechnical Engineer
- The 11/13/2009 recorded survey by J.L. Hallberg, Civil Engineer/Land Surveyor
- The September 2010 topographic survey by J.L. Hallberg, Civil Engineer/Land Surveyor
- The development architectural plans, pages A1.0, A1.1, A2.1, A2.2, A2.3, A3.1 and A32.
- The proposed site grading and drainage plans, pages C-1 and C-2, revision date 5/21/10, by Darius Abolhassani, Professional and Geotechnical Engineer
- 2. Prior to issuance of a building permit the applicant or his assigns shall:
  - a) Submit a construction plan to the Public Works Department which may include but is not limited to: a) Construction delivery routes approved by the Department of Public Works; b) Construction schedule (deliveries, worker hours, etc.); c) Notification to area residents; and d) Emergency access routes.
  - b) Submit a letter of credit or bond to the Town in an amount that will cover the cost of grading, weatherization and repair of possible roadway damage. The applicant shall submit contractor's estimates for any grading, site weatherization and improvement plans for approval by the Town Engineer. Upon approval of

- the contract costs, the applicant shall submit a cash deposit or letter of credit equaling 100% of the estimated construction costs.
- c) The foundation and retaining elements shall be designed by a structural engineer certified as such in the state of California. Plans and calculations of the foundation and retaining elements shall be stamped and signed by the structural engineer and submitted to the satisfaction of the Town Engineer.
- d) The grading, foundation, retaining, and drainage elements shall also be stamped and signed by the site geotechnical engineer as conforming to the recommendations made by the project engineer.
- e) Prior to issuance of the building permit the applicant shall secure written approval from the Ross Valley Fire Authority noting the developments conformance with their recommendations and provide evidence of the approval to the Building Department.
- f) The applicant shall secure a tree cutting permit from the Town prior to removal of any on-site trees over 24 inches in circumference measured 24 inches from the ground. Any trimming of trees shall be supervised by a licensed arborist. The applicant shall provide to the Tree Committee a report from an ISA certified arborist indicating why the large oak 6 feet from the rear of the proposed structure has to be removed. If the ISA Certified arborist indicates the tree does not need to removed, the report shall include recommended mitigation measures to ensure the continued health of the tree during and after construction.
- g) Submit two copies of a record of survey subject to review by the Town Engineer and the Public Works Director prior to issuance of the building permit.
- 3. During the construction process the following shall be required:
  - a) The geotechnical engineer shall be on-site each day during the grading process and shall submit written certification to the Town staff that the grading has been completed as recommended prior to installation of foundation and retaining forms and piers.
  - b) Prior to the concrete form inspection by the building official, the geotechnical and structural engineers shall field check the forms of the foundations and retaining elements and provide written certification to the Town staff that the work to this point has been completed in conformance with their recommendations and the approved building plans. The building official shall field check the concrete forms prior to the pour.
  - c) All construction related vehicles including equipment delivery, cement trucks and construction materials shall be situated off the travel lane of the adjacent public

- right(s)-of-way at all times. This condition may be waved by the building official on a case by case basis with prior notification from the project sponsor.
- d) Additionally, any proposed temporary closure of a public right-of-way shall require prior approval by the Fairfax Police Department and any necessary traffic control, signage or public notification shall be the responsibility of the applicant or his/her assigns. Any violation of this provision will result in a stop work order being placed on the property and issuance of a citation.
- 4. Prior to issuance of an occupancy permit the following shall be completed:
  - a) The geotechnical engineer shall field check the completed project and submit written certification to the Town Staff that the foundation, retaining, grading and drainage elements have been installed in conformance with the approved building plans and the recommendations of the soils report.
  - b) The Town Engineer shall field check the completed project to verify that the work has been installed as per his recommendations to the Planning Commission.
  - c) The Planning Department shall field check the completed project to verify that all design review and planning commission conditions have been complied with including installation of landscaping and irrigation.
- 5. Excavation shall not occur between October 1st and April 1st. The Town Engineer has the authority to waive this condition depending upon the weather.
- 6. The roadways shall be kept clean and the site free of dust by watering down the site if necessary. The roadways shall be kept free of dust, gravel and other construction materials by sweeping the roadway, daily, if necessary.
- 7. During construction, developer and all employees, contractor's and subcontractor's must comply with all requirements set forth in Ordinance # 637 (Chapter 8.26 of the Town Code), "Storm Water Management and Discharge Control Program."
- 8. Notwithstanding section # 17.38.050(A) of the Fairfax Zoning Ordinance, any changes, modifications, additions or alterations made to the approved set of plans will require a modification of Resolution # 10-06 and application # 10-28 by the Planning Commission. Any construction based on job plans that have been altered without the benefit of an approved modification of Resolutioni # 10-06 and application # 10-28 will result in the job being immediately stopped and red tagged.
- 9. Any damages to the roadway resulting from construction activities shall be the responsibility of the property owner. The owner or contractor shall videotape or otherwise document as approved by the Public Works Director, the existing condition of the roads in the vicinity of the site prior to starting construction of the residence. Road closures, if necessary, shall be coordinated with the Fairfax Police

Department and the Ross Valley Fire Department.

- 10. The applicant or owner shall defend, indemnify, and hold harmless the Town of Fairfax or its agents, officers, and employees from any claim, action, or proceeding against the Town of Fairfax or its agents, officers, or employees to attach, set aside, void, or annul an approval of the Planning Commission, Town Council, Planning Director, Design Review Board or any other department or agency of the Town concerning a development, variance, permit or land use approval which action is brought within the time period provided for in any applicable statute; provided, however, that the applicant's or owner's duty to so defend, indemnity, and hold harmless shall be subject to the Town's promptly notifying the applicant or owner of any said claim, action, or proceeding and the Town's full cooperation in the applicant's or owner's defense of said claims, actions, or proceedings.
- 11. The applicants shall obtain Design Review Board approval prior to submitting an application for a building permit. A minimum of 20 days prior to the Design Review meeting the applicant shall submit revised defensible space plans and a landscaping plan that do not contradict each and that comply with the Ross Valley Fire Department regulations.
- 13. The applicants shall submit a \$2,000 payment for the Town Engineer's services prior to issuance of the building permit. The monies will be used to review the building permit plans and to perform required site inspections to determine compliance with his requirements. Any unused monies will be refunded.
- 14. Prior to issuance of the building permit for the project the applicants shall sign and record a deed restriction indicating that the structure is to be used as a single family residence only and shall have only one kitchen. Kitchen is defined as follows: Any portion of a structure with any combination of the following: sink, other than that within a bathroom, food storage and preparation areas, refrigerator, stove, microwave oven, convection oven, cooking burners, or similar appliances which may reasonably be used for the preparation of food.
- 15. The applicant shall obtain a building permit for the retaining wall and trellis structure and demonstrate to the Town that both structures have been constructed in compliance with accepted engineering standards and in compliance with the Building Code prior to the residence final inspection.

### ROSS VALLEY FIRE DEPARTMENT

1. The fire truck turn-out shall be constructed in conjunction with the house and the residence and a meter release will not be granted and a certificate of occupancy will not be issued until the fire turn out is completed.

- A vegetative management plan shall be prepared and submitted to the Fire Department complying with RVFD Fire Protection Standard 220 Vegetation/fuels Management Plan.
- 3. A sprinkler system shall be installed that complies with the requirements of the National Fire Protection Association 13-D.
- 4. Smoke detectors are required and all detectors shall be interconnected and provided with AC power. Detectors shall be located in compliance with the requirements of the Ross Valley Fire Department.
- 5. All roof coverings shall be Class A rated assemblies as defined in the Uniform Building code.
- 6. The property address shall be posted with illuminated numerals at least 4" high in a location visible from the street.
- 7. During Construction, combustible debris shall not be accumulated within the building or around the exterior of the building.
- 8. Access to building for the purpose of firefighting shall be provided. Construction materials shall not block access to buildings, hydrants or fire appliances.

#### **TOWN ENGINEER**

- The building plans shall be reviewed by the Town Engineer for compliance with his requirements, prior to issuance of the building permit. The applicant shall pay for the
  - Town Engineer's time to review the plans and perform inspections at a rate of \$96.00 per hour.
- 2. The applicants shall comply with any and all requirements of the Town Engineer prior to issuance of the building permit, during construction and prior to the project final.
- The applicant shall comply with any and all other requirements placed upon the project by the Town Engineer prior to issuance of the building permit and during construction.

### MARIN MUNICIPAL WATER DISTRICT

- 1. Comply with the backflow prevention requirements if warranted.
- 2. All landscaping and irrigation plans must comply with Water District Ordinance # 385.

### ROSS VALLEY SANITARY DISTRICT

- 1. A sewer connection permit is required and may be issued by the District after the building permit is obtained and all appropriate fees have been paid.
- 2. If the sewer lateral is not used or replaced, it must be plugged off per District specifications.
- In order to use the existing sewer lateral the later must be tested in the presence of a District Inspector. If the later passes, it must be equipped with the appropriate backwater relief device. If it fails, it must be replaced with a new sewer lateral.
- 4. All alterations to the sewer lateral must meet District specifications and be inspected by a District Inspector before it is covered.

### **PUBLIC WORKS DEPARTMENT**

A recorded copy of the "License Agreement to Permit Revocable Encroachment on Town Property" for the improvements in the public right-of-way shall be provided to the Town Prior to issuance of the building permit.

**PASSED AND ADOPTED** by the Town of Fairfax Planning Commission, State of California, this 20th4<sup>st</sup> day of October March by the following roll call vote:

AYES: NOES: ABSTAIN:	
	Chair, Planning Commission
	ATTEST:
	Jim Moore, Director of Planning and Building Services

This permit *modification* is hereby accepted upon the express terms and conditions hereof, and shall have no force or effect unless and until agreed to, in writing, by the Applicant, and Property Owner or Authorized Agent. The undersigned hereby acknowledges the approved terms and conditions and agrees to fully conform to and comply with said terms and conditions within the recommended time frames approved

by the City Planning Commission.		
	**************************************	
Michael McLennan		Date
Property Owner		

# Aichael Douglas McLenna.

General Contractor License #632451

September 1, 2013

Ms Linda Neal, Senior Planner Town of Fairfax 142 Bolinas Road Fairfax, CA 94930 TOWN OF FAIRFAX

SEP 0 3 2013

RECEIVED

Regarding: Your letter dated 8/29/13

Hello Ms Neal,

Thanks for the written response to concerns on the exterior work at 305 Scenic. We are finally moving along on the interior and exterior finishes for this project after a somewhat torturous process with the banks. Your letter outlines several things that I'd like to address, first with these notes and second with a formal submittal of revisions to the original plan.

The exterior landscaping is the focus of your letter. The landscaping and grading plan was drawn in May of 2010 with a revision in December of that year. At that time we were primarily focused on initial construction details with very little thought on how to make this very steep lot accessible and practical for the eventual residents. The requirements for drought and fire resistant plantings were met to the approval of the water district and fire marshal. This was a predicate to permit issuance to get this project underway. I have put a lot of thought since the project start on how the lower end of the lot can be accessible for the residents, kept within the guidelines from the various agencies, and to re-use as much of the on site materials as possible. I would like to address each of your concerns outlined in the letter and am prepared to go through the planning and building process, if necessary. I believe it was mentioned that the original landscape plan was drawn by Tom Galli at the request of my Architect, Onju Updegrave. Tom has since retired, but remains available for limited consultation. We have decided to engage one of my clients, Lisa Guthrie, also a Landscape Architect, to revise the original plan. She is on vacation for another two weeks, but plans to be able to handle requested revisions upon her return.

Let's review what we started with before any construction took place. The original house had brick stairs from the North West corner down to a brick patio at the original entry level. Those steps and brick patio have been repaired as the only elements salvageable from the old house. That got us to a point where we had a failed set of wooden steps over a crumbling retaining wall and then down a rather steep bank leading to a modest flat area where I assume the old septic tank was located. None of those elements were salvageable and a simple long stairway to the lower area with required landings wouldn't work. I came up with the idea of a series of ramps using a combination of gravity block walls and pavers as the way to descend safely to the lower area. These concrete paver ramps pretty much follow the original hill contours with the addition of some stabilizing retaining walls to ensure existing steep sections were sound.

Another factor in design decisions was what to do with the huge amount of native rock from the retaining walls from the street to house level. All that had to go to make way for the very tall, complex structural walls anchoring and guarding the house. I looked at the relatively flat area at the bottom of the lot and decided to use that rock to build a series of three non-structural retaining walls made of the salvaged, battered native rock three feet in height and six feet apart. These parameters fall outside requirements for engineering as confirmed by my engineer and building official, Mark. Even though we were not required to do anything other than place these walls on firm dirt, we did pour a re-enforced footing anchored to the hill with three foot deep re-enforced columns. I have pictures of that detail



larger flat area, perfect for a future garden. The lowest wall is guarded with cyclone fencing, some of which was salvaged from the original street fence. All this was run by the neighbor below with their approval. The soil used to backfill those minimal retaining walls was from the major excavation above for the house and actually reduced the volume of soil moving off-site allowed on the original plan.

The steps and ramp pathway down from the original brick patio was laid out to follow the existing hillside with no significant contour change. The majority of the block walls defining the pathways were McNear Brick & Block Handi-Scape gravity blocks with an allowed height of three feet without engineering. The few places that the walls exceeded three feet were constructed using the same company's Versa-Loc blocks, strictly following their drawn engineering template: for base rock, embedment of the first two landscape wall courses; use of geosynthetic fabric for every fourth course; and drain rock plus drainage. The engineering drawings, supplied by McNears, allow up to fourteen courses of block within their guidelines. The tallest wall we built within these parameters is only seven courses tall. I can assure you that this part of the landscaping was important for practical and structural necessities. All potential falls greater than 30" will be guarded by code guardrails/handrails for safety. By the way, we choose the block system and pavers, rather than hard concrete, to provide permeable surfaces and to soften the look. Ross Valley drainage basin rules prefer these products over poured concrete to increase percolation of runoff.

The trellis structures were added once we saw how the hard scape looked. The smaller trellis was built to accommodate a wonderful historic rose adjacent to one of the bay trees. This rose had been there for probably eighty years with a trunk in excess of eight inches. That trellis is over the lowest ramp section and the rose loves it. The other trellis came to be as a way to soften the look and to shade the flat area meant for a table and chairs. Even though we are planning to install a series of approved trees and shrubs down the North side of the property, the ramp/step hard scape needed something to break it up. In addition to taking care of those needs, the town should realize that the property immediately to the North can never be built due to creek issues and that the existing 297 Scenic house maxes out that lot coverage ratio. I request we look beyond the proximity to the property line.

Details of the trellis size and height should be mentioned. The size of the trellis was dictated by the size of the platform for the sitting/table area already mentioned. I was unaware of a size limit of 120 sq. ft. without approval. The practical height over the area being shaded is less than ten feet. The tall post structures, that I had looked by the engineers, were necessary on the downhill side only because of the steepness of the slope. The trellis is properly built to handle the unusual site using durable materials and strong vertical/horizontal assemblies. Your letter of 8.29.13 poses concerns for the trellis height and implies a solution to the 15 foot height limit. The posts on the downhill side slightly exceeding the fifteen foot guideline at the downhill side only could be shorted to conform, by increasing the height of the grade below through raising the landscape wall at the bottom of the ramp. This would require cutting those posts and an expensive, awkward raising of the post embedment in concrete. The original embedment assembly for these posts is quite stout including almost a half a yard of concrete each post encasing treated Douglas Fir posts to a depth of four feet along with heavy post anchors.

Mike McLennan

VERSA-LOK® CER & 2 2002

Retaining Wall Systems
Solid Solutions

SEP 0 3 2013

A. & E. DESIGN SERVICES

2157 FOURTH STREET LIVERMORE, CALIFORNIA 94550 (925) 449-3683

<del>- FEO</del>FWE

STANDARD BLOCK



INT. BUILDING CODE CLASS 3 AND 4 SOIL 3:1 SLOPED BACKFILL NO SURCHARGE

PEDESTRIAN BARRICADE BY OTHERS. NOT SHOWN 3 **FINISHED** DRAINAGE SWALE BY OTHERS MAX SLOPE GRADE CAP BLOCK ----COMPACTED BACKFILL CLASS 4 SANDY / GRAVELLY 1.1 SOILS 13 STANDARD UNITS ... LIMITS OF 12 **EXCAVATION** 11 7.12 DEGREES 10 EXPOSED FACE-9 GEOGRID REINFORCING VERSA-LOK 3.0 TYPICAL 8 COMPACTED 7 BACKFILL ΰ 5 12" WIDE GRAVEL FILL 6" EMBEDMENT DRAIN ROCK) 4 TYPICAL 3 4" PERFORATED PIPE FINISHED GRADE SLOPE 1/8" PER FOOT LEVEL WITHIN 2'-0" TO SUITABLE DRAIN OF WALL. CALTRANS CLASS II **GEOGRID LENGTH THEN 2:1** NATIVE SOIL BASE OR EQUAL IN SOIL MAXIMUM SLOPE 6" THICK, 24" WIDE

VERSA-LOK TABLE EFFECTIVE FLUID PRESSURE = 45 PCF. SURCHARGE PRESSURE = 0 PSF							
STANDARD SLOPED 3:1 PASSIVE BEARING PRESSURE = 150 PCF FRICTIONAL COEFICIENT = .25							
	TOTAL						
EXPOSED	NUMBER	NUMBER			GRID		
FACE	OF	OF	G	GRID LEVELS		LENGTH	
	BLOCKS	GRIDS			IN SOIL		
<= 2'-0"	5	0		***************************************			
2'-6"	6	1	3				2'-6"
3'-0"	7	1	2	5			3'-0"
3'-6"	8	2	2	5			3'-6"
4'-0"	9	3	2	5	7		4'-0"
4'-6"	10	3	2	5	8		4'-8"
5'-0"	11	3	2	5	8		5'-8"
5'-6"	12	4	2	5	8	10	6'-2"
6'-0"	13	4	2	5	8	11	6'-8"

SOIL TYPES	CLASS 3 AND 4
SAND	SW, SP
SILTY SAND	SM
GRAVELS	GW, GP, GM
CLAYEY GRAVE	_S GC
SAND-SILT CLA	Y MIX SC
CLAYEY SILTS	MI

