MEMORANDUM

Date: December 31, 2019

To: Drew Havens, Town Manager

From: Marty Stone, Assistant Town Manager

Re: Work Session
Electric Operations Center

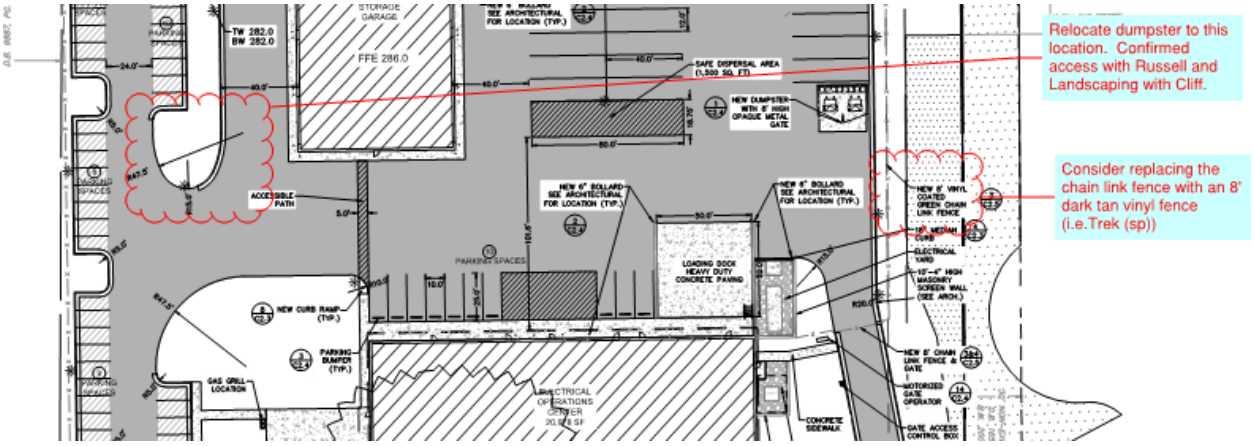
At the November 6th meeting of the Town Council, staff was directed to investigate options and the associated magnitude of costs to mitigate certain concerns of the residents living near the new electric operations center and to bring back the information to Council for their consideration. Below are things the Council wanted evaluated followed by staff's findings:

1. Exterior wall cladding for the pole barn on the exterior walls to provide screening on sides facing south (toward Milano) and east (facing to Bella Casa HOA).

   Provide independent pierced brick screen wall approximately 16 feet in height. The total cost is estimated to be $300,000 including the design. Potential examples are shown below.

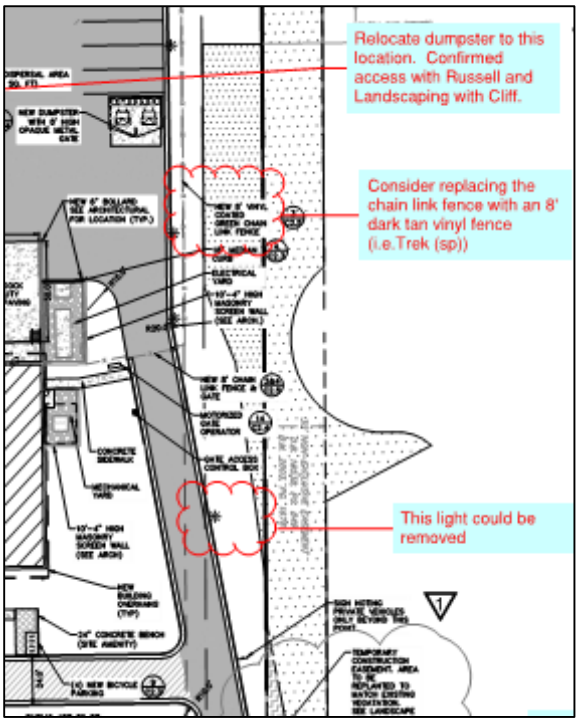
2. Relocating the dumpster away from the eastern border.-

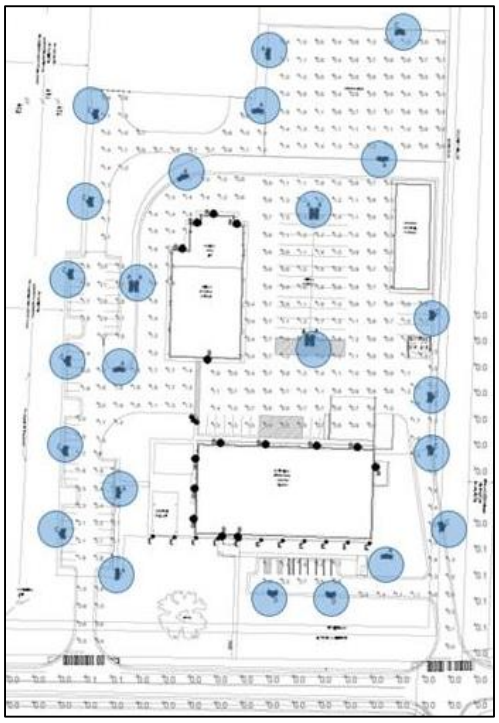
Relocate dumpster away from the eastern border as generally shown below for a total estimated cost of $50,000 including redesign.



3. Reducing the lighting on the sight in addition to shielding and dimmable lights.

Planning says the light shown below on left inset could be removed; however, CRA does not recommend deleting any lights on the sight. Based on current lighting design, there is no light spillover and lights will be shielded.





In addition, the town is reviewing dimming systems (see inset above on right) that could be utilized on the site. The cost for the dimming system ranges between $5,000 and $10,000, and it is not currently in the project budget.

4. Fencing other than vinyl coated chain link.

   Provide 8' dark tan vinyl fence on the west, north and ease sides of the property at an estimated additional cost of $360,000. Alternatively, provide 8' dark tan vinyl fence on the east side of the property only for an estimated additional cost of $125,000.

5. Additional plantings to create more opacity.

   Provide additional landscaping to increase opaqueness for a total estimated cost of $150,000 including redesign. This estimate is based on making improvements along the east side of the property as outlined by Planning below:

   If the currently proposed chain link fence is used, do the following:
   - Replace 10 Nellie Stevens with 10 Southern Magnolia (8-10' tall) planted 10' on center. Additional Wax Myrtles should be planted between these trees if there is adequate space.
   - Replace 10 of the 13 Wax Myrtles adjacent to the retaining wall with 10 Green Giant Arborvitae (8-10' tall) planted 6-7' on center
   - Additional plantings may be required to meet the type A buffer standard and placement of plants and trees will need to be coordinated with the zoning compliance officer.

   If the chain link fence is replaced with a solid fence 6-8' tall, the number of Wax Myrtles (shrubs) may be reduced by half. The number of trees would remain unchanged.

   It is noted that there is no fence proposed along the driveway to the security gate. If the fence is added, we suggest the following changes to ensure more opacity above the top of the fence:
   - Replace 2 Magnolia Grandiflora with 2 Green Giant Arborvitaes planted per plan
   - Replace 7 Wax Myrtles with 7 Nellie Stevens planted 10' on center. The remaining 7 wax myrtles should be planted between each Nellie Steven.

6. Construction of a sound wall versus a berm or a fence.

   In lieu of improvements considered in items 1, 2, 4, and 5 above (total estimated cost ranging between $625,000 and $860,000), construct 500 linear feet of 15' tall architectural precast screen thin wall (see examples on following page) along the eastern boundary for an estimated total cost ranging between $300,00 and $350,000. The thin wall is projected to reduce "highway" noise by 33% at 10 feet tall. Alternatively, construct a 15' tall precast concrete sound wall (see examples on page 5) for 500 linear feet along the eastern boundary for an estimated cost ranging between $510,000 and $560,000. The sound wall is approximately twice as thick as the thin wall and should reduce sound levels more, but the difference has not been quantified. The thin wall is recommended by the manufacturer for sites. The precast concrete sound wall is typically used in highway applications.

Thin Wall Examples

Example of Sound Wall

Example of Sound Wall

7. Plan in case of an emergency at the facility.

   The electric department is working with fire and police on individual plans for emergencies associated with their support. In addition, the town's *Spill Prevention, Control, and Countermeasure Plan* for Electric Facilities will be updated when the construction of the facility is completed to reflect the new retention pond as the closest water source.

8. Theft concerns during and after construction.

   During construction, the site will be secured by the contractor based on standard construction practices. After construction, the facility with be gated and have security cameras installed in areas of interest that will be monitored by police as are all town cameras. Materials of value typically stolen at these facilities will be housed in secure locations.

9. Can bulk chemicals be stored offsite and only have chemicals on site that are immediately needed?

   Bulk chemicals could be stored offsite, but other than herbicides, the electric department does not store any "bulk" chemicals. Below is a picture of our existing inventory of herbicides that fits in a small locked cabinet and does not exceed 50 gallons total. The department will order chemicals on demand and will have ½ of what is in this picture in the new facility.

10. What is to be stored in the gravel lot at the back of the site?

    The gravel lot in the rear of the facility will be the town's training facility for linemen. The final design of the training facility is not complete, but it will have poles installed for climbing, underground pad-mounted and overhead transformers. A trailer storing equipment and tools needed for training will be parked on the lot. Occasionally, the lot may be used to temporarily store deliveries for large projects, but it is not known how often it would be used for this purpose.

11. Policy to only use Milano for ingress and egress.

    Milano is a "Major Collector" road and is designed to handle the larger truck traffic. It is anticipated Milano will be the preferred access for electric operations, and more specifically, Milano to Richardson will be the route generally used for large trucks pulling trailers in order to avoid the traffic circles. However, there will be occasions the electric operations will need to transverse all roads in Bella Casa for operational / maintenance reasons.

12. Help HOA identify owner of 30' easement adjacent to the eastern border of the Electric Operations Center.

    According to the staff's research and the known public record, the Deed of Easement was recorded on November 7, 2003. Please refer to Book: 010538 Page: 00849 – 00852.

    Mr. Fred Wallace Jr. (unmarried) conveyed the interest to:

    Charles E Walden
    Theodore Walden Jr.
    Rufus Pernell Walden
    Dorothy M. Richardson
    Anthony Richardson and wife Delois
    Rufus Gray Richardson
    Margaret R. Bland
    Linner E. Richardson

    The referenced deed above calls out these same names and explains the easement interest.