February 18, 2020

Rappahannock Electrical Cooperative

Special Use Permit Application SP 2020-000___

Project Narrative

PROJECT PROPOSAL

Summary of Project Proposal:

Rappahannock Electrical Cooperative ("REC") proposes to add an additional line above the existing circuits on the existing utility line poles within the portion of its service territory in Albemarle County along a 1.6-mile corridor along the southbound lanes of Route 29 north (the "Project"). The proposed new 115 kilovolt line will provide system resiliency by allowing REC's existing substations to back feed when outages occur on the current lines, which will enable REC to restore power to its members more quickly. It will also help REC meet its members' needs for more power in the future. The additional line would be installed by adding an extension or "pole topper" to the top of the existing REC poles. Because this 115-kV line is technically a transmission line, a Special Use permit is required for the Project.

Tax Map Parcel Numbers:

The existing REC lines in Albemarle County cross through the parcels listed below. For details on the ownership of each parcel, please see the cover sheet of the enclosed plans prepared by Alan Franklin, PC, entitled "Rappahannock Electrical Cooperative, Transmission Line Improvement, Special Use Permit Plans."

02100-00-00-012D0
02100-00-00-01200
02100-00-00-01500
02100-00-00-015G0
02100-00-00-015B0
02100-00-00-016C0
02100-00-00-01600
02100-00-00-017C0
02100-00-00-017A0
02100-00-00-01900
02100-00-00-007A0
02100-00-00-007C0
02100-00-00-00700
02100-00-00-006A0
02100-00-00-006B0
02100-00-00-006D0
02100-00-00-006E2
02100-00-00-006I1
02100-00-00-006H0

PUBLIC NEED OR BENEFIT

Starting with President Roosevelt issuing an Executive Order in 1935, and Congress enacting the Rural Electrification Act (the "REA") in 1936, the Federal government has provided support and funding for the installation of electrical distribution systems to serve isolated rural areas of the United States through federal loans to member-owned rural electric cooperatives. When the REA was enacted it was challenging to install electricity in these remote rural areas due to the economics of the systems then built in cities. These member-owned cooperatives were able to purchase power on a wholesale basis for local transmission and distribution to their members on their own network of transmission and distribution lines. By 1959 approximately 90% of US farms and rural homes had electricity compared to only 3% at the time the REA was enacted in 1936.

Almost 100 years later, electric power is more vital now than at the time of passage of the REA. Households and businesses alike rely on electric power for lighting and heating but also a myriad of appliances and tools needed for activities ranging from the manufacturing production at GE-Fanuc, to individual households engaged in elder care requiring special refrigerated medications or bio-medical devices. Nearly every residential and business customer requires power to power smart phones and computers. The REA has an 84-year track record of success with its mission to provide power to rural communities.

Rappahannock Electric Cooperative (REC) also has a lengthy history in providing excellent service to its nearly 170,000 connections to portions of 22 Virginia counties. The Cooperative was formed in 1980 after the consolidation of two cooperatives, Virginia Electric Cooperative in Bowling Green and Northern Piedmont Electric Cooperative in Culpeper. REC operates and maintains more than 17,000 miles of power lines through its service area, which ranges from the Blue Ridge Mountains to the tidal waters of the Chesapeake Bay. The Cooperative serves a variety of residential, commercial and industrial accounts, and the portion of its territory in Albemarle County is located in the northern edge of the County adjacent to the Greene County line, as shown on **Exhibit A**.

REC is requesting to upgrade an existing line in the rural area at the northern end of Albemarle County along Route 29. With increased customer demand and the more routine circumstances of extreme weather, REC is planning for a new line to be placed above the existing circuits on the existing poles along the 1.6-mile corridor within the Albemarle County portion of its territory. This new line of 115kV will provide system resiliency by allowing the substations to back feed when outages occur on the current lines. It will also help this network meet the needs for more power in the future. The REC network system serves over 2,000 Members in Albemarle County however, the project line installation affects a 1.6-mile long pole network from Dickerson Road north to the County line adjoining Greene County. The Project's proposed alignment, along an existing line, will mitigate the need to disturb any areas beyond the existing utility corridor, while meeting current and future power demands. See the project vicinity along the existing utility corridor on **Exhibit B**.

The REC system only touches a small region of Albemarle County, but it is an important segment in connecting Albemarle, Orange, Greene, and Madison Counties to the larger REC network (which includes a total of 22 Counties and 165,000 connections). It is also a key energy supplier to several of the County's larger business operations – GE Intelligent Platform Systems, MicroAire, a portion of the UVA Research Park and the Federal Government's Rivanna Station. By installing a line vertically above the existing lines, REC can add power supply and decrease downtime from outages, while having the *least* impact to the natural environment and rural areas. This is due to REC planning some time ago to enhance the system with the 115kV line. Plan implementation began in 2009 with the replacement of

wooden poles with stronger metal poles. The stronger poles can support all three circuits at a height that has minimal impact on the highway corridor.

While the REA and REC goals to provide power to the Cooperative members in rural areas are currently being met, this project will assure continued success in years to come. The proposed project to "Go Up" the current poles will create the needed capacity with little to no impact on the corridor aesthetics or to the environmental features along the 1.6-mile segment. Half of the existing 40-foot easement is on the roadway side, overlapping the VDOT right-of-way, the other half of this 40-foot easement is on private property with 17.5 feet of additional easement required to accommodate the new line.

REC provides needed electric power in its service district of over 2,000 customers in the northern section of the County of Albemarle. When built, the new line will more efficiently meet the needs of current REC and future business customers located in the County's designated development areas, including GE Intelligent Platform Systems, MicroAire, Rivanna Station, a portion of the UVA Research Park, and any new development in the area requiring available and reliable REC power supply. The Places 29 Master Plan designates a large area north of Rivanna Station for development, and the Project also would address the need for consistently reliable power in that area.

The Project not only provides more power in this Piney Mountain area, but also addresses system resiliency. If a line goes down due to ice accumulation, or other natural occurrences, the higher voltage line can be used to connect to a substation and get the power to the area experiencing the outage in minutes instead having to wait for repairs made by a repair team. This new line will provide backfeed capacity to help the system endure in periods of high demand and/or severe weather impacts. This portion of the REC system is served by two separate substations, Gordonsville and Profitt. If one experiences an outage, this proposed line can access power from the other Substation, creating a backfeed solution. See **Exhibit C**, Project Overview: Project Location.

The project will include the construction activity of adding "pole toppers" to each of the existing poles and installing the higher voltage 115kV circuit along this 1.6-mile corridor. The existing steel poles would remain in place and an additional pole segment will be installed on the top of these poles to carry the new 115-kV line. See **Exhibit D**, Project Overview: Structural Drawing, and **Exhibit E**, Project Overview: Before and After.

The height of the poles will increase from the current average height of 46 feet to the new average height of 82 feet, as shown in more detail in a chart attached as **Exhibit F**, Rivanna to Preddy Creek Poles.

The addition of this third circuit will require a wider easement on either side of the pole, from 40 feet to 75 feet, a net increase 35 feet or 17.5 feet on either side of the current easement, as shown in detail on the Special Use Permit Plans.

CONSISTENCY WITH THE COMPREHENSIVE PLAN

Electric power is a necessary element of any community, providing electric lighting, appliance power, heating, air conditioning, and computer support to households and businesses alike. It is also important for agricultural and other rural enterprises and uses. It can be augmented by other sources of renewable energy, such as solar and wind energy. All of these are tied together by an electric power system of distribution. This project is to be owned by the REC Member-owners. The project will benefit the 2000 REC members in Albemarle County. While not called out in the Comprehensive plan under Chapter 12.1

Community Facilities, electric power is the backbone of community facility service delivery (schools, police, fire & rescue). For example, REC electric power provides lighting to the Preddy Creek park natural area. Schools and student instruction depend on children in these rural areas having access to electric power. EMS services also rely on accessing electric power to serve their patients within the Project area as well.

Under the Comprehensive Plan Chapter 8, Development Areas, the primary goal is stated as follows,

Albemarle's Development Areas will be vibrant active places with attractive neighborhoods, high quality, mixed-use areas, thriving business and industry, all supported by services, infrastructure, and multimodal transportation networks.

This goal cannot be achieved without adequate electric power supply. Several of the County's major employers, such as GE Intelligent Platform Systems, MicroAire and the US government's Rivanna Station, as well as the UVA Research Park, are affected by this power supply and will benefit from the Project. Loss of power can reduce these respective operations' ability to thrive in the future as each potentially grow their businesses or employment levels. Other communities already have built-in electric power resiliency to better sustain these kinds of operations. With power system resiliency, Albemarle County can sustain its current employer operations and also compete for other economic development opportunities that request and always require two power sources that this Project will provide. Without power system resiliency, the County economy might face the possibility of these jobs moving away from Central Virginia, and the County will continue to miss economic development opportunities that have opted not to locate in Albemarle since it lacks such a resilient system.

This also affects similar goals stated in Chapter 6 – Economic Development. The Economic Development Comprehensive Plan Goal is for

"Albemarle's economy will be diverse, strong, and sustainable, and retain and benefit County citizens, existing businesses, and new local ventures."

Without resilient electric power, the three major business operations in this portion of the County - GE, Rivanna Station, and UVA Research Park - may lose jobs and ability to compete in the global economy. Without these jobs, Albemarle County's diversity is diminished rather than sustained. New job growth and other business expansion is unlikely to occur as planned in the neighborhood surrounding Rivanna Station, without a long-term commitment to reliable electric power.

Rural Areas Plan

All but two of the parcels in the Project are located in the Rural Area. Most fundamentally, the Rural Areas Plan promotes healthy rural and agricultural communities. The Project is consistent with the goals of the Rural Area Plan in that REC's system enhancement will support the agricultural and residential uses that are permitted in the Rural Areas by ensuring reliable and resilient electricity.

The Project is also consistent with the objectives of the Rural Area, given that it represents the least environmentally disruptive method of making necessary enhancements to REC's power lines. As such, the Project helps protect the surrounding "rural and historic landscapes that enhance the visitor's experience" in the Rural Area by modifying an existing power line corridor rather than creating a new one.

Places29 Master Plan

The two parcels located in the Development Area, which are discussed in greater detail in the Neighborhood Model section below, are designated for Office / R & D / Flex / Light Industrial uses in the Places29 Master Plan. This designation describes industrial uses of a low impact, other than increased traffic. See page 4-6 of the Places29 Master Plan. The existing substation has a low impact and the Project will not change the existing impacts or create new traffic in the development area. Accordingly, the Project is consistent with the Places29 Master Plan.

Principles of the Neighborhood Model

The County's Neighborhood Model Principles apply to neighborhood developments located in one of the Development Areas designated in the County's Comprehensive Plan. The County's Neighborhood Model Principles promote "innovative design tools for creating more urban livable neighborhoods." Albemarle County, The Neighborhood Model, page 5. Because the Project is located almost entirely in the Rural Areas (other than the parcels owned by REC and GE), and is an infrastructure project rather than a development project, most of these principles are not applicable. Nevertheless, as requested by staff, below is an analysis of the Project's consistency with the Neighborhood Model Principles:

The Project involves a total of 19 parcels, 2 of which make up the northernmost portion of the Piney Mountain-Places29 Development Area. The portion of the Project lying within the Development Area is very small relative to the overall project, given the acreage of the remaining 17 parcels. The Neighborhood Model Principles thus apply to that very small portion of the Project, located on a portion of two parcels.

In particular, the portions of Parcels 21-12 and 21-12D that front U.S. 29 are the only areas in the Project for which consistency with the Neighborhood Model Principles is directly relevant. Parcel 21-12D is owned by the Applicant and is the current site of the REC Rivanna substation. Given the existing use of Parcel 21-12D, and this application, redevelopment of this parcel to any other use is unlikely. Parcel 12-12- is vacant land zoned for Light Industry and owned by GE Intelligent Platforms, Inc. It is possible that an applicant could pursue a redevelopment of this parcel in the future to a different zoning district, in which case these Principles would apply. Below is our analysis of the Project's consistency with the applicable Neighborhood Model Principles:

1. *Pedestrian Orientation*

The Project does not prevent adjacent buildings and development that may be proposed on TMP 21-12 in the future from having a pedestrian orientation. This principle is not applicable to the remaining 17 parcels, since those parcels are in the Rural Areas and the Project is merely a utility infrastructure enhancement.

2. *Neighborhood Friendly Streets and Paths*

Likewise, this principle is not applicable to this Project. This is a utility infrastructure enhancement project that does not propose any streets or paths. In addition, the Applicant is an easement holder and does not have the right to create paths or streets within its easement area, nor are any proposed.

3. *Interconnected Streets and Transportation Networks*

Not applicable. The Project does not propose change the existing street network, or otherwise impact the street network in any way.

4. *Parks and Open Space*

Not applicable. This is a utility infrastructure enhancement project, and does not impact any parks or designated open space. However, the maintained land within the REC easement area can somewhat function as open space since buildings and other structures other than the existing poles and utility improvements are not permitted within that area.

5. *Neighborhood Centers*

While not located in a neighborhood center, the Project will provide improvements to the electrical infrastructure system and supply that supports existing and future neighborhood centers in the adjacent designated development area that comprises the REC service territory.

6. *Buildings and Spaces of Human Scale*

No new buildings or structure are proposed in the Project, merely the extension of existing poles to accommodate the necessary infrastructure improvements. Nothing about the Project will preclude the properties from developing consistent with this principle in the future if applicable.

7. *Relegated Parking*

This is not applicable, as the Project does not propose any new parking areas. Other than existing parking for service vehicles at the substation on Parcel 21-12D, the Project does not propose any parking spaces. The existing parking is relegated.

8. *Mixture of Uses*

This is not applicable, as the Project is merely an infrastructure enhancement project. However, the Project will not limit or impact the potential uses of the underlying parcels. The owners of the relevant parcels may continue to pursue such mixture of uses as allowed by the County's Comprehensive Plan and Zoning Ordinance.

9. *Mixture of Housing Types and Affordability*

Not applicable, as no dwelling units are proposed.

10. *Redevelopment*

Not entirely applicable. However, to the extent one considers the adaptive use of existing power poles for the infrastructure enhancement and system improvements instead of creating a new utility corridor just for this 115kv line as redevelopment, the Project satisfies this principle.

11. *Site Planning That Respects Terrain*

The Project will not involve any grading, since it will utilize existing poles that were previously designed and constructed in anticipation of the future installation of the third line, such that no new construction or site work will be required to accommodate the pole extension/topper.

12. *Clear Boundaries with the Rural Areas*

The proposed transmission line is permitted by SUP in all zoning districts, without regard for whether the parcels are located in the development areas or the rural areas. The Project is merely a utility enhancement project, and does not introduce any change the use of the land

IMPACTS ON PUBLIC FACILITIES AND PUBLIC INFRASTRUCTURE

Completing the loop between the Proffit and Gordonsville Substations will improve resiliency, enabling REC to restore power supply in minutes as opposed to hours or days in the event of extreme weather or other system damages. In the past six (6) years there have been several major extreme weather events that caused outages for extensive periods of time, including the following:

- July 2012 Derecho
- April 2018 Nor'easter
- September 2018 Hurricane Florence, which caused prolonged outages in southern Virginia. Hurricane Florence could have substantially impacted Central Virginia if weather patterns had manifested in a slightly different direction.

During a March 2018 event, there was an outage on the portion of REC's existing 115-kV line in Albemarle County between the Proffit and Rivanna Substations (refer to **Exhibit C)** and the entire area was out of power for close to 5 hours. Had there been an alternate source for this 115-kV line, it could have automatically transferred over to its alternate source in minutes with almost no outage time at all. Considering the increasing amount of extreme weather occurrences this area has seen in the last few years, having resilient systems would vastly decrease the time it takes to re-energize REC members. REC currently has a total customer base of over 170,000 services. Transmission line outages of 115 kV and above are not a "typical" occurrence; however, an outage of a transmission voltage line normally takes longer to restore than one of distribution voltage and affects many more Members, thus making the outage much more widespread. This 115-kV project segment connecting to REC's Rivanna Substation serves over 4,000 REC members, of which approximately 2,000 are located in Albemarle County. These members are a mix of both residential and commercial accounts (which also includes agricultural accounts).

The Project will not create any additional transportation impacts, as other than during the installation period, no additional vehicular trips will be generated in connection with the Project. And unlike most residential, commercial, and industrial projects, the REC Project will have no impacts of any kind on school capacity, the public water and sewer systems, parks and recreational resources, or create demands on any other County facilities or departments, such as libraries, police and fire departments, or other public infrastructure and facilities.

IMPACTS ON ENVIRONMENTAL FEATURES

The existing poles were designed and installed in 2009 to accommodate this 115-kV line in the future. The corridor lies in the rural area of Albemarle, except the one REC-owned parcel (TMP 21-12D), and follows along the Route 29 right of way to the County line. Effectively, the project will involve placing one circuit higher above the two lines already in place. No additional construction work or earth disturbance will be required to add the pole extensions and the additional line, for all such construction took place when the new poles were installed in 2009. The poles will not be relocated, nor will native vegetation, steep slopes, or stream buffers be affected in between the poles. Additional easement land will be needed to accommodate the 115kV line. This will include some tree removal within the additional easement area to allow for routine maintenance and emergency repairs, as well as to keep tree lines from touching the new line and causing safety problems. REC will foster Virginia native meadow growth in the expanded easement area. A review of the County aerial footage shows the utility line corridor not having impact on critical environmental features.

By simply placing a pole on top of the existing pole along the existing utility corridor, the project will not require or cause any earth disturbance, thus the project has no impact on any existing environmental features along the corridor. Construction staging will be handled by the general contractor hired by REC, however the most likely staging area will be the REC-owned parcel TMP 21-12D at the intersection of Dickerson Road and Route 29.

- Water Protection Ordinance Stream buffers. By simply placing a pole on top of the existing pole along the corridor, the project will not cause any impact to the stream buffer. GIS web shows three streams in the vicinity of the corridor line: 1) the North segment of Herring Branch, 2) just north of Short Rock Road and Route 29, 3) the residence at 4886 Seminole Trail. The REC Poles are located outside of these stream buffers, according to the 2013 One-Foot ortho-photography, and thus the project has no impact on any stream buffers.

- Historic districts. The existing Project corridor is not within any state, local or federal historic district, and thus will not have any impact on any historic districts or resources.

- Mountain Protection areas. The existing Project corridor line is outside of the County's Mountain Protection Areas, and thus has no impact on any mountain resources.

In addition, REC is a Rural Utility Services (RUS) borrower and, thus must adhere to all RUS federal agency rules and guidelines for capital projects such as installing this 115-kV line. One of these rules is to complete a Borrower's Environmental Review (BER), or also known as an Environmental Review (ER), for all construction projects before work can begin. This BER or ER consists of contacting all State and National environmental agencies to determine if any permit, or permits, are required. REC will comply with all applicable State and Federal environmental regulations as part of the construction of adding these pole toppers and installing the higher 115-kV line.

The REC System Enhancement project provides system resiliency to support its members, including several of the County's major employers. The proposed approach of existing the height of existing poles along an established utility corridor has the least impact to the environment and related systems (steep slopes, water systems, and native vegetation). The benefits are significant to not only the members who will be able to rely on consistent electric power well into the future, but also the County, as a whole, by supporting the needs of the existing major employers mentioned previously. It also serves the needs of the residences and agricultural operations in this area, providing safe and reliable power in the event of

an emergency. It meets the needs of a greater system, bringing REC system elements from Greene, Madison, and Orange to support this area in Albemarle County.

Description of the Construction Process:

As requested by the pre-application materials, we provide the following summary of the construction process. The additional easement area will be cleared of trees and limbs overhanging into the easement area. The stumps and tree roots will be left in place. Then the General Contractor that REC hires will bring each pole topper/extension from the construction staging area using either a line truck or a crane to the pole location. The General Contractor will install the equipment on the pole extension while it is on the ground within the easement area. Then the Contractor will use a line truck or crane to install the pole extension on the top of the existing pole. The Contractor will then install new conductors on the pole extension by pulling them through rollers attached to the newly installed pole extension. Then the new conductors would be attached to the insulators on the poles. This work will all take place within the easement area (a portion of which will include the VDOT right-of-way along Route 29). Again, no new earth disturbance or grading is required or planned as part of the Project.

Special Use Permit Criteria:

How the special use will not be a substantial detriment to adjacent parcels:

The Special Use Permit to extend pole height will not be detrimental to adjacent lots. REC's existing and future Members will be able to rely on a more consistent power supply and shorter periods of power outage. The pole locations will not change. The higher height will require an additional 17.5 feet of easement area on the west side for periodic pole and electric power line maintenance. The additional easement on the east side overlaps with the VDOT right-of-way. The existing lines will remain in place below the proposed 115-kV line. The Project will not generate any additional traffic, noise, dust, fumes, or other adverse impacts. The extension of the existing poles in the same location is not expected to cause a substantial detriment to adjacent parcels. The diameter of the existing poles will not increase, and no additional reinforcement of the pole foundations are required or planned. There will be no construction impacts due to the use of the existing poles, and the pole topper extensions are the only structures required for the Project.

How the character of the zoning district will not be changed by the proposed special use

A utility corridor with monopoles and power lines already exists in this area. Increasing the height of these poles as proposed in the existing corridor will not change the character of the area or the rural areas zoning district. The project is in the County Entrance Corridor along westside of Route 29. The existing poles have a history going back to at least 1977 when the Northern Piedmont Electric Cooperative purchased this line and substation from Virginia Power. This pre-dates the County's Entrance Corridor policy and overlay zoning district, as well as the creation of the County's designated development areas. These poles were built to serve both the rural and urban areas by connecting to a larger system grid. Furthermore, the proposed Project will not reduce any access to agricultural or forestal lands within the corridor. By contrast, the Project will substantially benefit all of the uses permitted in the Rural Areas zoning district, thus supporting the district's character.

Although the increase in the height of the existing poles will potentially increase visibility, the use of the existing poles and existing long-established utility corridor will help to limit visual impacts. If REC instead elected to create a new utility corridor just for the 115kv line, far more impacts would be crated within

the area and the RA zoning district. A new corridor would require far more tree clearing, easement acquisitions, and likely impacts on sensitive environmental features such as critical slopes and stream buffers, and would require substantial grading and earth disturbance. The modest increase in pole height and corresponding visibility is minimal compared to the impact that a new utility corridor would have on the area and on the Entrance Corridor.

REC upgraded the poles and circuits in 2009, designing this pole foundations to support and otherwise accommodate a future third line above the two existing lines without the need to further reinforce the pole foundations or to increase the diameter of the poles. These poles are also in Greene County and Counties where there is already a 115-kV segment in place without changing the pole diameter and with limited ground disturbance.

For line maintenance, the project will impact an added 17.5-foot easement from the current western edge of the Utility easement. The eastern 17.5-foot added easement will coincide with the VDOT right-of-way. As such, any landscaping desired by individual property owners must be compatible with VDOT's clear zone regulations and general highway safety vehicular traffic movement. REC will work with individual property owners on landscaping preferences on their properties, with a preference to enhance native species - Virginia meadow habitat. The rural road character will remain the same along the corridor.

How the special use will be in harmony with the following:

- *The purpose and intent of the Zoning Ordinance*. The proposed REC electric utility line meets the purpose and intent of the following sections of the Zoning Ordinance:
    - *Section 1.4(C): Facilitate creating a convenient, attractive and harmonious community;*
    - *Section 1.4(D): Facilitate providing adequate police and fire protection, disaster evacuation, civil defense, transportation, water, sewerage, flood protection, schools, parks, forests, playgrounds, recreational facilities, airports and other public requirements;*
    - Section 1.4(G): Encourage economic development activities that provide desirable employment and enlarge the tax base;
    - *Section* 10.1: Purpose and Intent of the RA Zoning District:
        - The Project will preserve agricultural forest lands and activities
        - The Project will preserve and protect the water supply
        - The Project will provide enhanced electrical service to the nearby designated development areas and to the rural areas at no cost to the County
        - The Project will conserve the natural, scenic, and historic resources of the area by avoiding any impacts on sensitive areas, minimizing any increased visibility as a result of the extension of the pole height (especially as compared to the visual impact created by a new separate utility corridor just for this 115kv line), and avoiding impacts on any historic resources

- Section 5.1.12 – Public Utility Structures/Uses:
  - Since 115kV is categorized as a "transmission line," it is only permitted by Special Use Permit approval. It is important to note that while this is categorized as a "transmission activity" due to the 115kV power level; in fact, it does not meet the State code definition as "providing wholesale power distribution." Instead, this new line will only serve its direct Members and complete the connection to other REC regions and counties for power system reliability and resiliency. This power line's 115kV segment will connect the 2000 homes and businesses in the northern portion of the County to the two closest substations for more resilient power. Resiliency in this context indicates the speed at which power is restored and connected to another power source during an outage. The 115kV line will act to bring power back to this area much more quickly than the current system, e.g., within minutes versus what could be several days, as was experienced following the 2012 Derecho.

- *Uses permitted by right in the zoning district*. Public utilities are in harmony with and supportive of agricultural and residential uses in the district. Electric utility lines are allowed by right in the Rural areas, however as stated above, voltage of 115kV is considered a transmission line by County of Albemarle zoning code and requires a special use permit.

- *Regulations provided in Section 5 of the Zoning Ordinance as applicable*. There do not appear to be any regulations within Section 5.1.12 of the Zoning Ordinance that apply to this project of adding an electric utility top to an existing electric utility line, since no new use is proposed and no earth disturbing activity is proposed, and no river crossing are proposed.

- *Public health, safety and general welfare*. The 115-kV line will be placed above the existing circuits, overhead at a height such that it will have no impact on activities at ground level. The additional 17.5-foot wide easement will ensure no impact from routine maintenance or emergency repairs. The third line will assure that system segments can be restored quickly in the event of an outage and that there is adequate infrastructure to meet the needs of this geographic area in years to come, as development occurs in the Piney Mountain development area. The additional system will address both the growing demand for electric power, as well as provide a back-up source of power to the currently served area when severe weather occurs. This 1.6-mile segment will complete a larger loop feed, and extend from the existing Proffit substation, over 30 miles to the Gordonsville substation, through four counties: Albemarle, Greene, Madison, and Orange. It will connect to seven substations and more than 9,300-member accounts. The Project will have significant positive impacts by providing consistent and resilient power supply to mitigate possible disruption from adverse weather. With this system enhancement, REC can backfeed against power outages in this vicinity.

System History

Originally fed by the Piney Mountain Delivery Point from Virginia Power's Hollymead Substation on Route 29, this delivery point served Northern Piedmont Electric Cooperative (NPEC), now REC, via three miles of 34.5 kV distribution line and a small substation located on Route 29 in Greene County (Dunnes Substation). In 1977, NPEC purchased this line and substation from Virginia Power. In the early 1990's, both the Proffit and Rivanna Substations were built, along

with the 115-kV transmission line between the two stations. In 2010, in order to prevent overloading due to the proposed growth in Rivanna Station and Boulders Road neighborhood, this line was rebuilt for more capacity with the ability to add a 115-kV circuit on top in the future. The history of REC includes several milestones to reach its current territory size which includes 22 Virginia counties:

1935	Farmers Rural Utilities organized as Virginia's first non-profit utility corporation.
1936	Farmers Rural Utilities energizes the first Rural Electrification Administration (REA) financed line in Virginia and on the East Coast, serving 73 member-owners.
1938	Northern Piedmont Electric Cooperative (NPEC) formed at a meeting in the Town of Culpeper. Farmers Rural Utilities reorganizes into Virginia Electric Cooperative (VEC).
1939	NPEC energizes its first REA-financed line in Brightwood.
1980	Rappahannock Electric Cooperative (REC) formed after the consolidation of VEC and NPEC.
2010	REC becomes Virginia's largest electric cooperative and the third largest utility in Virginia after acquiring 51,000 new members from the former Virginia based investor-owned utility Allegheny Power.
2013	REC celebrates 75 years and serves over 157,000 connections across 16,000 miles of power lines in portions of 22 counties.
2020	REC now has more than 170,000 services with almost 17,500 miles of power lines in portions of 22 counties.

List of Exhibits:

Exhibit A: REC Territory Map
Exhibit B: Project Location Map
Exhibit C: Project Overview: Project Location
Exhibit D: Project Overview: Structural Drawing
Exhibit E: Project Overview: Before and After
Exhibit F: Rivanna to Preddy Creek Poles

Exhibit A:
REC's Territory Map

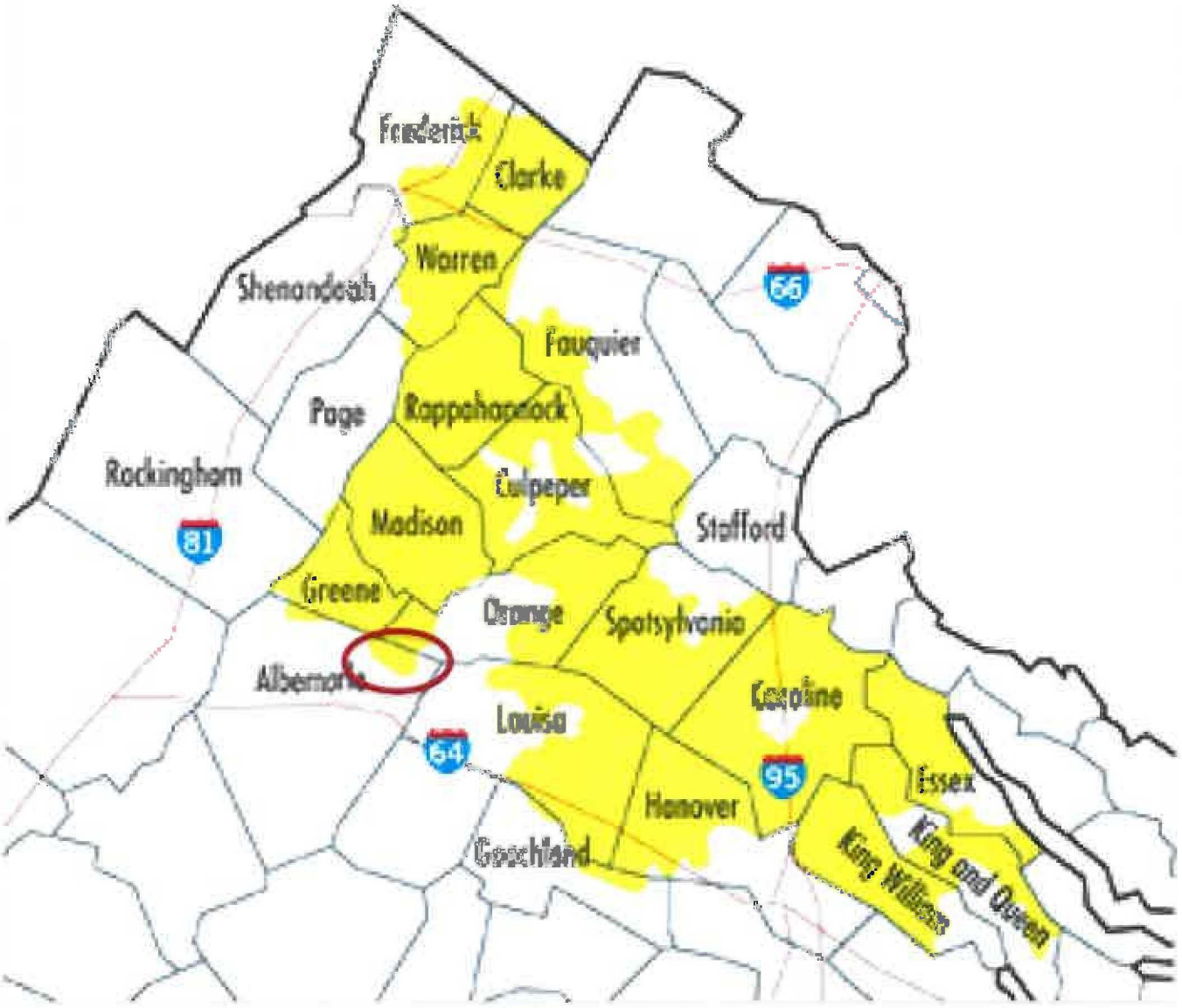
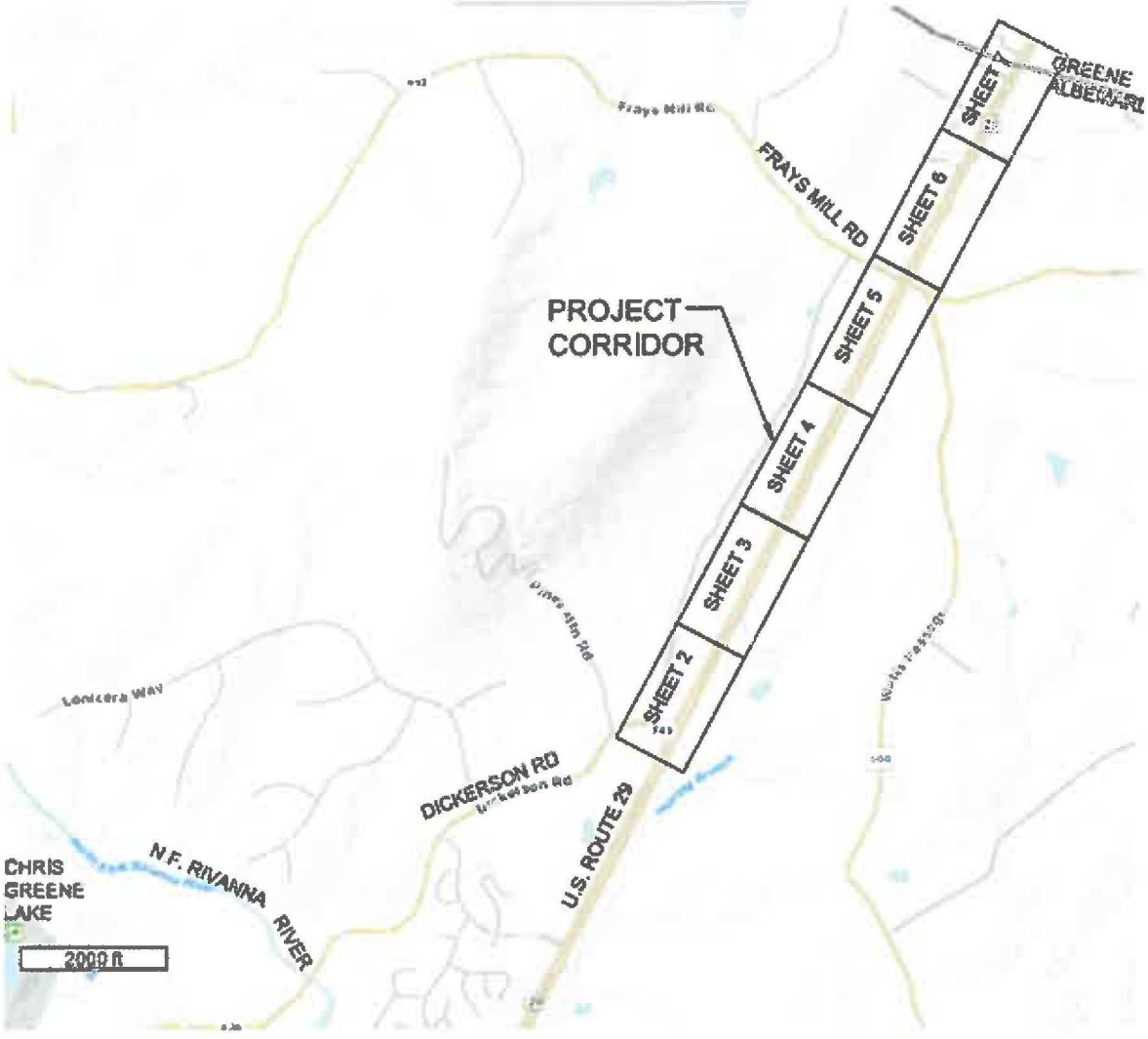


Exhibit B:

VICINITY MAP:



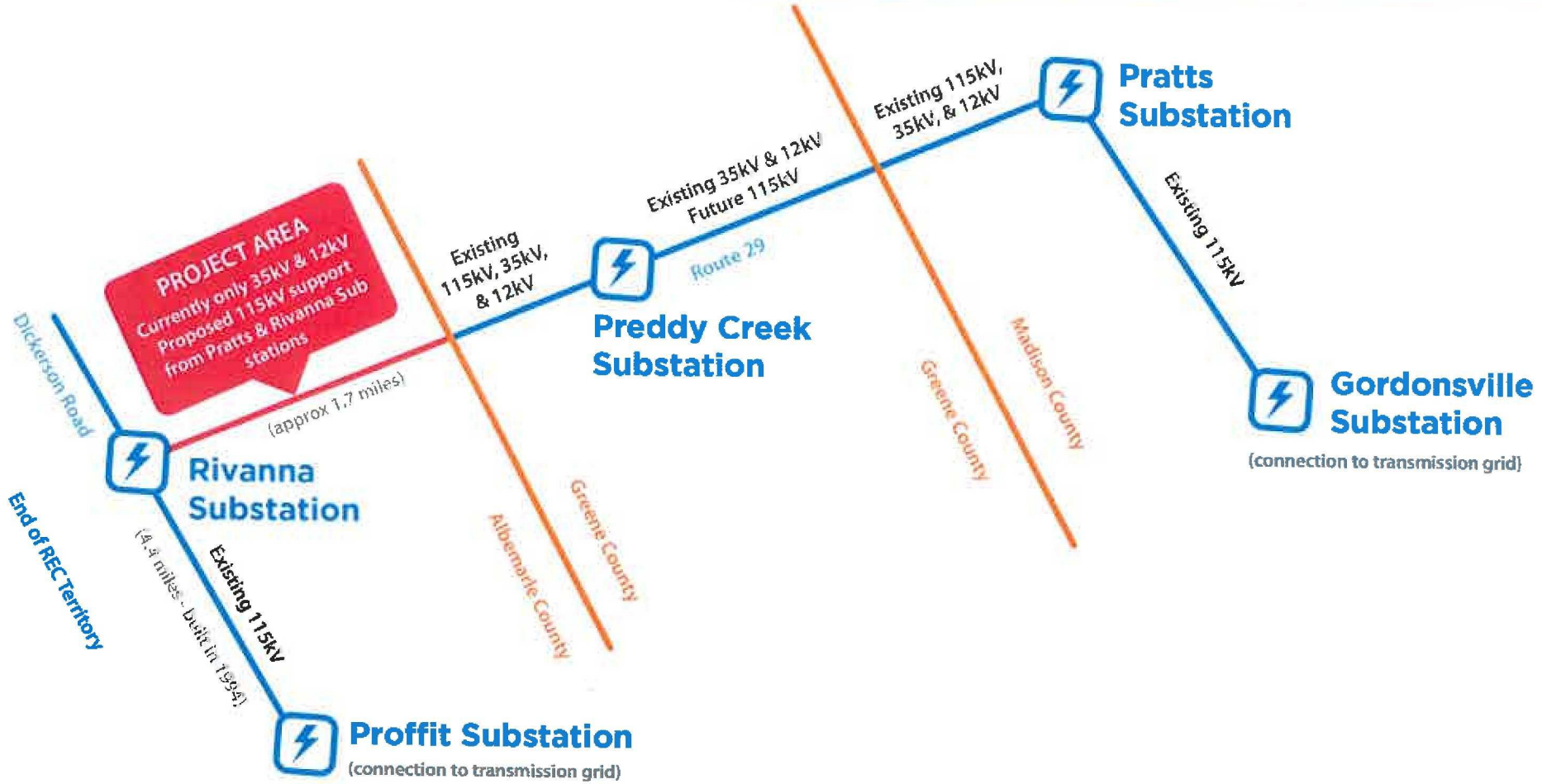
February 18, 2020

Exhibit C:

Project Overview: Project Location

Project Overview: **Project Location**

Rappahannock Electric Cooperative
A Touchstone Energy® Cooperative



February 18, 2020

Exhibit D:

Project Overview: Structural Drawing

Project Overview:
Project Characteristics

Rappahannock Electric Cooperative
A Touchstone Energy® Cooperative

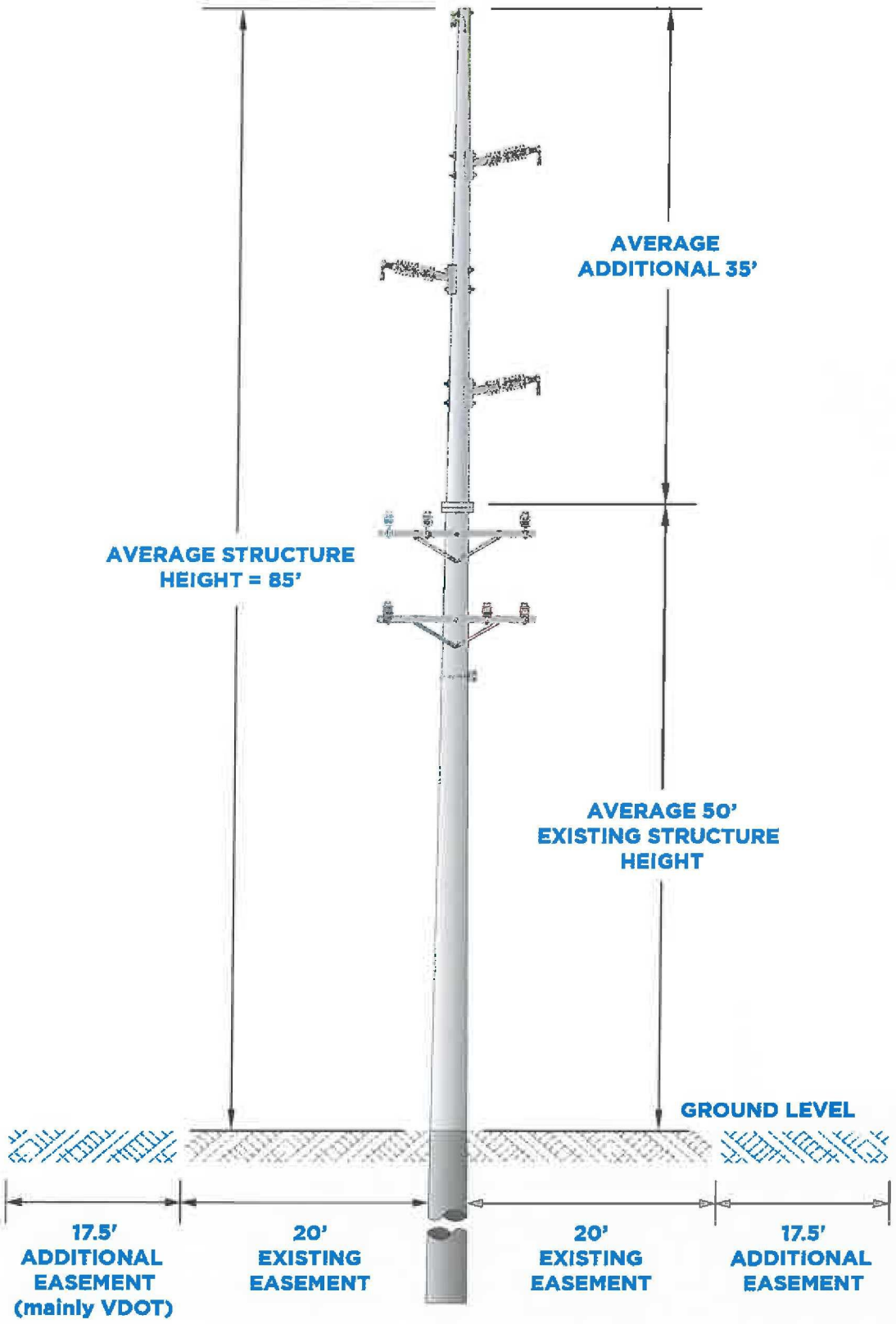


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Exhibit E:

Project Overview: Before and After

Project Overview:
Before and After

Rappahannock Electric Cooperative
A Touchstone Energy Cooperative

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Exhibit F:

Rivanna to Preddy Creek Poles

Rivanna to Predddy Creek Poles

Str. #	Pole Length	Setting Depth	Total Pole Height	Pole Top Sections	Bottom Section Heights
2-1	55	7.5	47.5	47.5	0
2-2	55	7.5	47.5	47.5	0
2-3	55	7.5	47.5	47.5	0
2	100	12	88	35	53
3	105	12.5	92.5	35	57.5
4	95	11.5	83.5	35	48.5
5	95	11.5	83.5	35	48.5
6	90	11	79	35	44
7	95	11.5	83.5	35	48.5
8	110	13	97	35	62
9	90	11	79	35	44
10	95	11.5	83.5	35	48.5
11	85	10.5	74.5	35	39.5
12	90	11	79	35	44
13	90	11	79	35	44
14	95	11.5	83.5	35	48.5
15	90	11	79	35	44
16	95	11.5	83.5	35	48.5
17	90	11	79	35	44
18	100	12	88	35	53
19	100	12	88	35	53
20	100	12	88	35	53
21	105	12.5	92.5	40	52.5
22	110	13	97	40	57
23	105	12.5	92.5	40	52.5
24	100	12	88	35	53
25	100	12	88	40	48
26	90	11	79	35	44
27	110	13	97	35	62
28	95	11.5	83.5	35	48.5
29	100	12	88	35	53
30	90	11	79	35	44
31	100	12	88	35	53
32	95	11.5	83.5	35	48.5
Total Pole Height			2789.5		1542
Total # of Str.			34		34
Average Heights			82		45