EXHIBIT JC-3

BEFORE THE

NEW JERSEY BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF JERSEY CENTRAL POWER & LIGHT COMPANY PURSUANT TO N.J.S.A. 40:55D-19 FOR A DETERMINATION THAT THE OCEANVIEW 230 KV TRANSMISSION PROJECT IS REASONABLY NECESSARY FOR THE SERVICE, CONVENIENCE OR WELFARE OF THE PUBLIC

Direct Testimony

of

Dave Kozy, Jr.

Re: The Design, Engineering, Construction, Operation and Maintenance of the Project

I. INTRODUCTION AND BACKGROUND

Q. Please state your name and business address.

A. My name is Dave Kozy, Jr. My business address is 76 South Main Street, Akron, Ohio 44308.

Q. By whom are you employed and in what capacity?

A. I am employed by FirstEnergy Service Company ("FirstEnergy"), as General Manager of Transmission Engineering. I am responsible for the management of engineering and design activities with regard to the construction, operation, and maintenance of FirstEnergy's transmission lines. My role includes the management of transmission line work associated with Jersey Central Power & Light Company's ("JCP&L") "Energizing the Future" transmission projects, such as the Oceanview 230 kilovolt ("kV") Transmission Project (the "Project").

Q. Please describe your professional experience and educational background.

A. I began my career as a Substation Engineer with Ohio Edison Company, a predecessor to FirstEnergy, in June, 1987. I was promoted to Construction Engineer in August, 1989 and was then promoted to Transmission Engineer in February, 1991. I have been in the Transmission Engineering Department since 1991. I have held different positions (Transmission Engineer, Advanced Engineer, Senior Engineer, Supervisor, and Manager) prior to being promoted to General Manager, Transmission Engineering in April, 2011. All employment has been with FirstEnergy or its predecessors.

My education, experience and qualifications are fully-set forth in Appendix A to my testimony.

Q. Have you previously testified in Board of Public Utilities ("Board" or "BPU") proceedings?

A. No.

Q. Have you testified before any government body relating to transmission projects?

A. Yes. I have testified before the Pennsylvania Public Utility Commission. I have also testified before the Ohio Power Siting Board. In Pennsylvania, I provided testimony on the Bedford North – Osterburg East 115 kV Transmission Line Project Docket Number A-2011-2247862. Before the Ohio Power Siting Board I have provided testimony on the Geauga County 138 kV Transmission Line Supply Project, Docket Number 07-0171-EL-BTX.

II. PROJECT OVERVIEW

Q. Would you describe the purpose of your testimony?

A. The purpose of my testimony is to describe JCP&L's plans for designing, engineering, and constructing the Project. I will also explain the plans for operating and maintaining the Project, including the removal and control of vegetation and trees along the right-of-way ("ROW")

Q. Are you sponsoring any Exhibits?

A. Yes, I am sponsoring the following exhibits:

Exhibit DRK-1: Preliminary engineering corridor cross section of the existing corridor from the Larrabee substation to Herbertsville Road;

Exhibit DRK-2: Preliminary engineering corridor cross section of the existing corridor from Herbertsville Road to the Atlantic substation;

Exhibit DRK-3: Preliminary engineering renderings of the proposed ROW corridor, showing the davit arms and suspension type insulator configuration between Larrabee substation and Herbertsville Road;

Exhibit DRK-4: Preliminary engineering renderings of the proposed ROW corridor, showing the horizontal braced post insulator configuration between Larrabee substation and Herbertsville Road;

Exhibit DRK-5: Preliminary engineering renderings of the proposed ROW corridor, showing the davit arms and suspension type insulator configuration between Herbertsville Road and the Atlantic substation;

Exhibit DRK-6: Preliminary engineering renderings of the proposed ROW corridor, showing the horizontal braced post insulator configuration between Herbertsville Road and the Atlantic substation;

Exhibit DRK-7: Preliminary engineering corridor cross section of the existing corridor from the Atlantic substation to Oceanview substation;

Exhibit DRK-8: Preliminary engineering renderings of the proposed ROW corridor configuration between the Atlantic substation to the Oceanview substation;

Exhibit DRK-9: Photo of typical existing structures from the Atlantic substation to the Oceanview substation;

Exhibit DRK-10A – 10B: Project Overview Map; and

Exhibit DRK-11A – 11AD: Preliminary Project Construction Access Maps.

Q. Please describe the Project from an engineering perspective.

A. During the Regional Transmission Expansion Planning ("RTEP") process, PJM Interconnection L.L.C. ("PJM") identified the need to construct a new 230 kV transmission line that would feed the Oceanview substation. From an engineering and design perspective, the Project is divided into three major segments. The first two segments are between Larrabee substation in Howell Township heading north towards Atlantic substation in Colts Neck Township. Segment 1 is the ROW portion south of Herbertsville Road in Howell Township, and Segment 2 is the

ROW portion north of Herbertsville Road. Both of these ROW segments are approximately 200 to 210 feet wide and the only difference is the location of the existing double circuit steel lattice tower. In Segment 1, the centerline of existing tower is located approximately 60 feet off the western edge of the ROW. *See* Exhibit DRK-1. In Segment 2, the existing steel lattice tower switches to the other side, approximately 60 feet off the eastern edge of the ROW. *See* Exhibit DRK-2. Segment 3 of the Project is the 100 foot wide ROW between Atlantic substation in Colts Neck to the Oceanview substation in Neptune Township. *See* Exhibit DRK-7.

In Segments 1 and 2, new single-circuit steel monopoles will be added to the open side of the ROW to support the new 230 kV circuit. In Segment 1 the new monopoles will be placed approximately 75 feet off the eastern side of the ROW, as shown in Exhibits DRK-3 and DRK-4. In Segment 2, the new monopoles will be placed approximately 75 feet off the eastern side of the ROW, as shown in Exhibits DRK-5 and DRK-6. In Segment 3, the existing double-circuit wood structures will be removed and two rows of new steel monopoles will be installed. The pole line on the north side of the ROW will carry the two existing 230 kV circuits and the pole line on the south side of the ROW will carry the new 230 kV circuit, as shown in Exhibit DRK-8.

In Segments 1 and 2, the single circuit structures will have one set of three phases arranged vertically on alternating sides of the structure. In Segment 3, the single-circuit structure will have three phases arranged vertically on one side of

the structure. The double-circuit structures will have two sets of three phases arranged vertically on either side of the structure.

Each phase of the existing and new 230 kV circuits phase will have a single 1.5-inch diameter conductor (1590 kcmil 45/7 Aluminum Conductor Steel Reinforced, called "Lapwing"). There are also two grounded lightning shield wires placed above the top phase conductor attachment points (7#8 Alumoweld). Minimum midspan conductor-to-ground clearance for each new 230 kV circuit will be greater than 26 feet at maximum conductor temperature. The ROW widths for the Project are approximately 200 feet from Larrabee to Atlantic and approximately 100 feet from Atlantic to Oceanview.

The Project also will involve reconfiguration of both the Oceanview and Larrabee substations. In order to accommodate the new Larrabee – Oceanview 230 kV line, the Oceanview 230 kV substation will be converted to a six breaker ring bus with five breakers initially. The five Oceanview 230 kV ring bus positions will be occupied by two existing Atlantic – Oceanview 230 kV lines, two existing Oceanview 230-34.5 kV transformers, and the one new Larrabee – Oceanview 230 kV line. The Larrabee 230 kV substation will be converted from a ring bus configuration with 8 breakers to a breaker-and-a-half configuration with 11 breakers.

III. DESIGN OF TRANSMISSION STRUCTURES

A. Segments 1 and 2

Q. Does JCP&L have an existing transmission line running from the Larrabee substation to the Atlantic substation?

A. Yes. JCP&L currently has two 230 kV circuits running from Larrabee substation to Atlantic Substation on double-circuit steel lattice towers, as shown in Exhibits DRK-1 and 2. The two circuits supply energy to the Atlantic substation.

Q. Is JCP&L proposing to replace or upgrade the existing transmission line from Larrabee substation to the Atlantic substation?

A. No. JCP&L is only proposing to construct a new 230 kV transmission line from the Larrabee substation to the Atlantic substation area. This new 230 kV transmission line will be located adjacent to the existing transmission lines. The new 230 kV transmission line will not enter Atlantic substation, but will continue from the Atlantic substation area to the existing Oceanview substation.

Q. What is the width of the ROW for Segments 1 and 2?

A. The existing ROW is approximately 200 to 210 feet wide.

Q. What is the height of the existing structures located in Segments 1 and 2?

A. The existing structures range in height from approximately 110 feet to 160 feet tall.

Q. What is the height of the proposed structures for Segments 1 and 2?

A. Based on preliminary engineering design, the proposed structures in Segment 1 will range from 90 feet to 130 feet. In Segment 2 the proposed structures will range in height from 80 feet to 160 feet tall.

Q. Can you describe the proposed structure design and type of tower proposed for Segments 1 and 2?

A. JCP&L is proposing to install single steel monopoles. Based on the location of the monopoles, the monopoles will have either davit arms and suspension type

insulators installed or horizontal braced post insulators that are directly connected to the steel monopole. Please see Exhibits DRK-3 through DRK-6 for engineering drawings of the proposed structures for Segments 1 and 2.

Q. How is the monopole structure constructed?

A. A monopole structure is manufactured and constructed in sections limited by length and weight for shipping and erection purposes. Monopoles require very large construction support equipment on site for erection.

Q. What type of foundations or footings will be used for the monopole structures in Segments 1 and 2?

A. The foundations will be reinforced concrete drilled piers.

B. <u>Segment 3</u>

Q. Does JCP&L have existing infrastructure running from Atlantic substation to the Oceanview substation?

A. Yes, JCP&L has two 230 kV circuits built on common structures that go from the existing Atlantic substation to the existing Oceanview substation.

Q. When was the existing line constructed from Atlantic substation to the Oceanview substation?

A. Records indicate that the existing 230 kV transmission structures on the ROW from the Atlantic substation to the Oceanview substation were built in 1977.

Q. What is the width of the ROW between the Atlantic substation and the Oceanview substation?

A. The existing ROW width is approximately100 feet wide for the entire length.

Q. What is the design of the existing structures from the Atlantic substation to the Oceanview substation?

A. The existing design is a wooden H-Frame type structure with 3 cross-arms supporting the two circuits on the outside of the structures. A photo of the existing structures on this ROW is located in Exhibits DRK-9.

Q. What is the approximate height of the existing 230 kV structures from the Atlantic substation to the Oceanview substation?

A. The existing structures from the Atlantic substation to the Oceanview substation are 80 feet to 100 feet tall.

Q. Please describe the proposed structure for rebuilding the existing 230 kV transmission line from the Atlantic substation to the Oceanview substation (Segment 3).

A. The existing double-circuit wood structures (as shown in Exhibit DRK-7 and DRK-9) will be removed and replaced with two new steel monopoles. The pole line on the north side of the ROW will carry the two existing 230 kV circuits and the pole line on the south side of the ROW will carry the new 230 kV circuit (as shown in Exhibit DRK8).

Q. What is the height of the structures for the 230 kV transmission lines in Segment 3?

A. Based on preliminary engineering design, the proposed structures in Segment 3 will range between 80 feet to 115 feet tall.

Q. Can you describe the proposed structure design for the new and existing 230 kV transmission line in Segment 3?

A. JCP&L is proposing to install single steel monopoles. The monopoles will have horizontal braced post insulators that are directly connected to the steel monopole. Please see Exhibit DRK-8 for preliminary engineering drawings of the proposed structures for Segment 3.

Q. What type of foundations or footings will be used for the monopole structures in Segment 3?

A. The foundations will be reinforced concrete drilled piers.

IV. PROJECT DESIGN

Q. What will the voltage of the new conductors be for this Project?

A. This transmission line will be constructed and operated at 230,000 volts, which is also described as a 230 kV.

Q. What are the size, type and number of conductors planned for this Project?

A. Transmission lines transmit 3-phase electrical power. Each phase requires one or more conductors. A single-circuit transmission line structure must be capable of supporting three phases. A double-circuit structure must be capable of supporting six phases. "Shield wires" are one or two smaller steel or aluminum cables or fiber optic cables that are suspended above the upper conductor. The shield wires are intended to intercept lightning strikes, which would electrically interfere with the power system if they were to strike the conductors directly. The shield wires may also have a fiber optic communications capability for use in controlling the operation of the transmission system.

The 230 kV circuits for Segment 1, 2, and 3 will be utilizing a single 1590 kcmil 45/7 Aluminum Conductor Steel Reinforced "Lapwing" conductor per

phase that is 1.502 inches in diameter, weighs approximately 10,777 pounds per mile and has a rated breaking strength of 43,800 pounds. The 45/7 designation indicates the stranding of the conductor, with the 45 representing the outer 45 aluminum wires and the 7 representing the inner 7 steel wires.

Q. Will there be any other overhead wires on the structures in connection with this Project?

A. Yes. The static or shield wire will be 7#8 Alumoweld, and will be installed above the top phase conductor attachment points for lightning and relay protection.

Q. Please describe the configuration of the conductors and why this configuration was selected.

A. In Segments 1 and 2, JCP&L will be installing a single-circuit 230 kV monopole that will have one set of three phases arranged vertically on alternating sides of the structure using one conductor per phase. In Segment 3, JCP&L will be installing on the south side of the ROW, a single-circuit 230 kV monopole that will have three phase arranged vertically on one side of the structure using one conductor per phase. JCP&L will also be installing on the north side of the ROW, one double-circuit 230 kV monopole structure that will have two sets of three phases arranged vertically on either side of the structure using one conductor per phase.

The vertical configuration is typical for these types of project and is also economical. The vertical configuration also allows for a compact design which minimizes: (i) electric and magnetic fields; and (ii) the visual impacts that the monopoles may have on the ROW.

Q. What is the height range of the proposed transmission structures that will be constructed for this Project?

A. Based on preliminary engineering design the proposed structures are expected to range in height from approximately 80 feet to approximately 160 feet tall.

Q. What factors determined the height of the monopoles?

A. The factors which determine structure height include: (i) terrain; (ii) National Electric Safety Code clearance requirements; (iii) phase to phase clearance; (iv) phase to ground clearance; (v) phase to other utilities clearance; and (vi) crossing of roads, other structures, and bodies of water.

Q. Does JCP&L plan to use the lowest height monopoles that satisfy engineering, safety, and reliability concerns for the Project?

A. Yes. JCP&L uses the most cost-effective structures possible that minimize electric and magnetic fields and visual impacts, while meeting all NESC, Occupational Safety and Health Administration ("OSHA"), and FirstEnergy clearance and safety requirements.

Q. Does JCP&L have transmission structures at a similar height anywhere else in New Jersey?

A. Yes. Most JCP&L transmission circuits 230 kV or greater have transmission structures that range in height from 80 feet to 160 feet tall. For example, in the vicinity of the Project area, the Atlantic – South River 230 kV, Atlantic – Red Bank 230 kV, Atlantic –Smithburg 230 kV, Lakewood – Larrabee 230 kV, Larrabee – Smithburg 230 kV all have structures of similar height.

Q. Are there any transmission lines owned by JCP&L that consistently have towers exceeding 80 feet in height?

A. Most JCP&L transmission circuits that are 230 kV or greater have a majority of structures that are 80 feet or taller.

V. INFRASTRUCTURE BENEFITS AND LOCATION

Q. What factors does JCP&L consider in its decision regarding structure design and location?

A. The design and location of the transmission structures are based on the natural environment. Specifically, the Company will need to manage steep land, avoid wetlands, properly cross bodies of water and roads, and design structures that are able to withstand severe weather conditions. Other factors that influence design and location are proper clearance to ground, FirstEnergy voltage standards, effects on foundation, and property owner impacts.

JCP&L, along with its consultants, will carefully review the final location of each of the new structures to minimize the number of structures, and avoid wetlands, steep topography, and difficult access requirements.

Q. Please explain where the transmission structures will be located in the ROW.

A. Please see Exhibits DRK-3 through DRK-6 and DRK-8, which show the proposed centerline within the ROW based on the preliminary engineering. In Segment 1, the new structures will be placed approximately 75 feet from the eastern ROW edge, as shown in Exhibits DRK-3 and DRK-4. In Segment 2, the new structures will be placed approximately 75 feet from the western ROW edge, as shown in Exhibits DRK-5 and DRK-6. In Segment 3, the new structures will be placed

approximately 40 feet from the northern ROW edge and approximately 20 feet from the southern ROW edge, as shown in Exhibit DRK-8.

Q. Please describe the temperature at which the conductors will operate.

A. The line will be designed to operate at a maximum design temperature of 212 degree Fahrenheit ("F").

Q. Please describe the minimum conductor to ground clearance under maximum operating conditions the design will meet.

A. The transmission line will be designed to meet or exceed the NESC requirements under all operating conditions. In general, the minimum NESC conductor to ground clearance on public access areas is 22.5 feet, although the minimum requirements vary depending on what the conductor is traveling over. NESC Code clearances are different for bodies of water, railroad crossings and crossing over other types of structures, such as buildings. JCP&L will meet or exceed all NESC requirements.

Q. Did JCP&L consider placing the 230 kV facilities underground?

A. Yes.

Q. In your opinion, would undergrounding these facilities be a reasonable alternative for this Project? Why or why not?

A. No. JCP&L does not believe undergrounding these facilities is a reasonable alternative for this Project for the following reasons:

1. Environmental Impacts. Underground cables and the buried concrete duct banks would require extensive excavation that could negatively impact streams,

wetlands, and other sensitive areas, especially in the rugged terrain associated with the ROW.

2. Restoration Period. When an underground transmission line is experiencing a problem, it will take longer to repair the underground transmission line compared to an overhead transmission line. Due to specialized equipment being needed to determine the location of a fault for an underground transmission line and the excavation that is necessary to reach the fault a repair may take weeks, whereas that same repair for an overhead transmission line may take only hours or days.

3. Cost. The total cost of the Project is approximately $64 million.[1] The cost for siting and constructing the transmission line is $54 million. If the Company was to construct this line underground, the cost would be approximately 4 – 10 times as much as the cost to site and construct the transmission line.

4. Less capacity. Underground cables carry far less power than overhead lines of the same size. In order to protect the underground cables, those cables are placed in plastic encasement or oil filled reservoirs. Overhead transmission lines do not require the same type of protection. Therefore, multiple cables will be needed for an underground transmission line to transfer the same capacity as overhead transmission line.

Q. Are there existing gas or oil pipelines in the ROW or adjacent to the ROW

A. No.

[1] The $64 million cost of the Project does not include overhead costs.

VI. ACCESS AND CONSTRUCTION

Q. As a General Manager of Transmission engineering, are you responsible for designing and implementing a construction plan?

A. Yes.

Q. Please describe, in general terms, the construction process.

A. The Project will be constructed according to a well-defined procedure that utilizes standard construction practices to perform all work safely and in compliance with OSHA Rules and Regulations, while keeping environmental impact to a minimum. Project activities will include the installation and maintenance of soil erosion and sedimentation control measures, i.e., silt fencing, temporary access route construction, right-of-way clearing, foundation, structure and wire installations, and the rehabilitation of all areas disturbed during construction, e.g., reseeding of disturbed areas.

Q. Who will be performing the construction, JCP&L or a contractor?

A. JCP&L is anticipating using contractors for construction. However, JCP&L will at all times remain responsible for the oversight of the construction.

Q. How will JCP&L oversee construction?

A. JCP&L will use a combination of in-house expertise coupled with third party external resources to manage and oversee the construction of the Project. Large projects of these types typically require the use of external resources due to their size, scope and duration. JCP&L normally uses an in-house Project manager to oversee several projects of this size, along with an external project manager for each individual project.

Q. Do you anticipate that construction of the structures for the new 230 kV transmission line (Segments 1, 2, and 3) and the removal and replacement of the structures for the existing 230 kV line (Segment 3) will be within the existing ROW on which JCP&L currently has legal rights?

A. Yes. The Company plans on constructing the Project within existing ROW. However, the Company is reviewing whether it may need to amend certain easements, and may need additional easements for additional tree clearing rights along the edge of the existing ROW as discussed in Tracey J. Janis's Testimony.

Q. Please describe the relationship of the proposed ROW width to design and NESC requirements for the Project?

A. The ROW width was determined in order to provide necessary conductor clearances when considering structure type, conductor motion, line voltage, and NESC-defined weather conditions.

Q. How do you anticipate access for construction will be completed?

A. Construction access needs along the route are being identified as part of JCP&L's design effort and the Company plans to use existing ROW access routes. Where there is no current access, JCP&L will need to locate access points and negotiate with property owners for the right to access these properties. The preliminary planned access routes are shown in Exhibit DRK-11A through DRK-11AD.

Q. What will the driving factor in determining the type of access needed?

A. The ability to move equipment to each location in order to construct the 230 kV transmission line.

Q. What material will JCP&L use to construct access roads?

A. Access road material is dependent upon site-specific conditions and requirements. However, typical construction access road materials consist of stone and matting.

Q. Where do you anticipate construction lay down areas will be located?

A. Construction lay down areas not adjacent to or part of the structure lay down area will be determined as part of the detailed design effort. However, JCP&L anticipates that the Larrabee, Atlantic and Oceanview substations, as well as existing ROW, will be used as part of the Company's construction laydown areas.

Q. What factors determine the proposed location of access roads?

A The factors JCP&L considers in determining access road locations are: (i) proximity to structures; (ii) locations; (iii) environmental impacts; (iv) topography; (v) structure type; (vi) adjacent access; and (viii) property rights.

Q. Do you anticipate any clearing of the ROW will be necessary for construction?

A. Yes. The current ROW between Larrabee substation and Atlantic substation will need to be cleared for the new circuit. The ROW for this section has been maintained for the existing circuits within the ROW. As I previously mentioned, the Company may need additional easements for additional tree clearing rights along the edge of the existing ROW.

Q. What steps are planned for minimizing the effects of construction on areas within and outside of the ROW, including such things as traffic and other local community issues?

A. All work will commence and be conducted in accordance with all applicable state and local permits, property releases and approved special conditions. JCP&L

will, at all times, minimize to the greatest extent practical the impacts of construction activities on local communities.

Q. What method or methods will be used to clear and otherwise prepare the ROW for construction?

A. The construction specifications adopted for the Project are designed to keep environmental impact to a minimum. In addition to the implementation of Best Management Practices ("BMPs"), JCP&L's efforts during the ROW preparation phase of construction will include the following:

1. A copy of the Soil Erosion and Sedimentation Control Plan ("E&S Plan"), along with the appropriate permit forms, will be submitted to the Freehold Soil Conservation District for approval.

2. Soil Erosion and Sedimentation Control measures will be installed prior to any earth disturbance.

3. Construction access routes will be installed in accordance with the E&S Plan. JCP&L will attempt to avoid installing any permanent access roads. Where access routes were needed for construction, the routes will be re-graded to pre-construction contours and re-vegetated with appropriate vegetation.

4. Disturbed work areas will be re-vegetated in accordance with the E&S Plan.

5. The initial clearing will be performed in accordance with N.J.A.C 14:5-9.6 and the Company's Vegetation Management Program. The Company's Vegetation Management Program includes the removal of all incompatible vegetation within the Transmission clearing zone. The transmission clearing zone

corridor refers to the clearing width to be achieved at the time of routine vegetation management. All incompatible vegetation overhanging the transmission clearing zone corridor that is within the minimum clearance requirements shall be removed, pruned to the main stem, or controlled using herbicides.

When required, JCP&L's standard specifications will be modified and/or amended to comply with all terms of the applicable permits required to construct the Project.

Q. After construction is completed, will JCP&L take steps to upgrade, seed, or otherwise restore disturbed right-of way and any access roads?

A. Yes. After construction, drainage, fencing and erosion control aspects of the transmission line ROW will be restored to conditions as good as or better than those that existed prior to construction. This includes the restoration of drainage ditches, fencing, field drainage tiles, fertilizing, seeding and mulching of disturbed non-cultivated areas and the removal of temporary soil erosion and sedimentation control measures after vegetative cover has been established. Where required, access roads shall be removed and the area restored to as good or better condition than existed prior to construction

Q. What is the timetable to complete construction and have facilities in service?

A. The construction schedule will be established to meet a June 1, 2017 in-service date. JCP&L anticipates access road construction will start in early 2016 and actual transmission line construction is estimated to take 12 to 16 months.

Q. What is the estimated cost to site and construct the Project?

A. As I discussed earlier in my testimony, the total Project cost is approximately $64 million[2], which includes construction work at two existing substations - Oceanview and Larrabee.

Q. Please explain why the estimate to site and construct the Project has changed from the $44.5 million figure identified during the public meetings for the Project in Spring 2013 to $64 million?

A. The $44.5 million number was a preliminary estimate for siting and construction of the transmission line only. The number did not include the substation portion of the Project. The $64 million includes the transmission line and substation work associated with the Project. The Company reviews the Project estimates on a regular basis. Based on the Company's review, the Company is seeing higher than anticipated labor and material costs than originally forecasted for the transmission line portion of the Project.

Q. Will property owners be notified when construction begins? How?

A. Yes. The Company's project managers typically notify property owners that are on the ROW or adjacent to the ROW via letter approximately one month prior to start of construction for each area.

Q. Do you have any safety concerns regarding the construction of the Project?

A. No. The Project will be constructed according to a well-defined procedure that utilizes standard construction practices to perform all work safely and in compliance with OSHA Rules and Regulations.

[2] The $64million Project cost does not include overhead costs.

VII. MAINTENANCE

Q. Under what general parameters will JCP&L maintain the Project's ROW?

A. Tall-growth vegetation within the line ROW will be removed. Dead, dying and deceased vegetation that is outside of the easement will be removed before it causes a service interruption or interferes with line inspections or repairs. This task – typically referred to as "brush control" - may be accomplished by the use of herbicides, mechanical mowing, or hand cutting. Tree limbs that threaten to intrude into the ROW from trees growing outside the ROW will be removed before they pose a threat or cause damage to the line conductor or other facilities. This "vegetation removal" will be accomplished by a wide variety of mechanical trimmers, manual trimming, or the aerial saw, as conditions require.

Entire trees, both within and outside of the ROW, will be removed when they exhibit weakness or structural damage and thereby pose a high degree of risk to the line's uninterrupted service. This tree removal process will apply to any dead or live priority trees, and will be accomplished using any tool at JCP&L's disposal that can safely and quickly remediate the hazard. JCP&L's overarching goal is to prevent all vegetation-caused service interruptions at the lowest possible cost by removing potentially threatening vegetation at the most advantageous time. In order to remove trees that are outside the Company's ROW (i.e., off-corridor), JCP&L will have to obtain the necessary rights from the applicable property owners.

Q. Please describe the expected ROW maintenance cycle for this Project.

A. The Company will comply with both N.J.A.C. 14:5-9.6 and the Company's Transmission Vegetation Management program. The JCP&L service territory is currently on a five-year maintenance schedule for all transmission voltages. Each transmission circuit within the FirstEnergy footprint has a vegetation maintenance plan filed with FERC that FirstEnergy is required to follow. The plan for this Project will be filed after the transmission line is placed in service.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Appendix A

Dave Kozy, Jr.

Education

1987	University of Akron, BS Civil Engineering

Experience

1987 – 1989	Substation Engineer B, Substation Engineering, Ohio Edison Company
1989 – 1991	Construction Engineer A, Substation Construction, Ohio Edison Company
1991 – 1996	Transmission Engineer, Transmission Engineering, Ohio Edison Company
1996 – 2004	Advanced Engineer, Transmission Engineering, FirstEnergy Service Company
2004 – 2006	Senior Engineer, Transmission Engineering, FirstEnergy Service Company
2006 – 2008	Supervisor, Transmission Engineering, FirstEnergy Service Company
2008 – 2011	Manager, Transmission Engineering, FirstEnergy Service Company
2011 – Present	General Manager, Transmission Engineering, FirstEnergy Service Company

Professional Engineer

Licensed in Ohio, Pennsylvania, New Jersey, West Virginia, Maryland and Virginia

Provided testimony in the following cases:

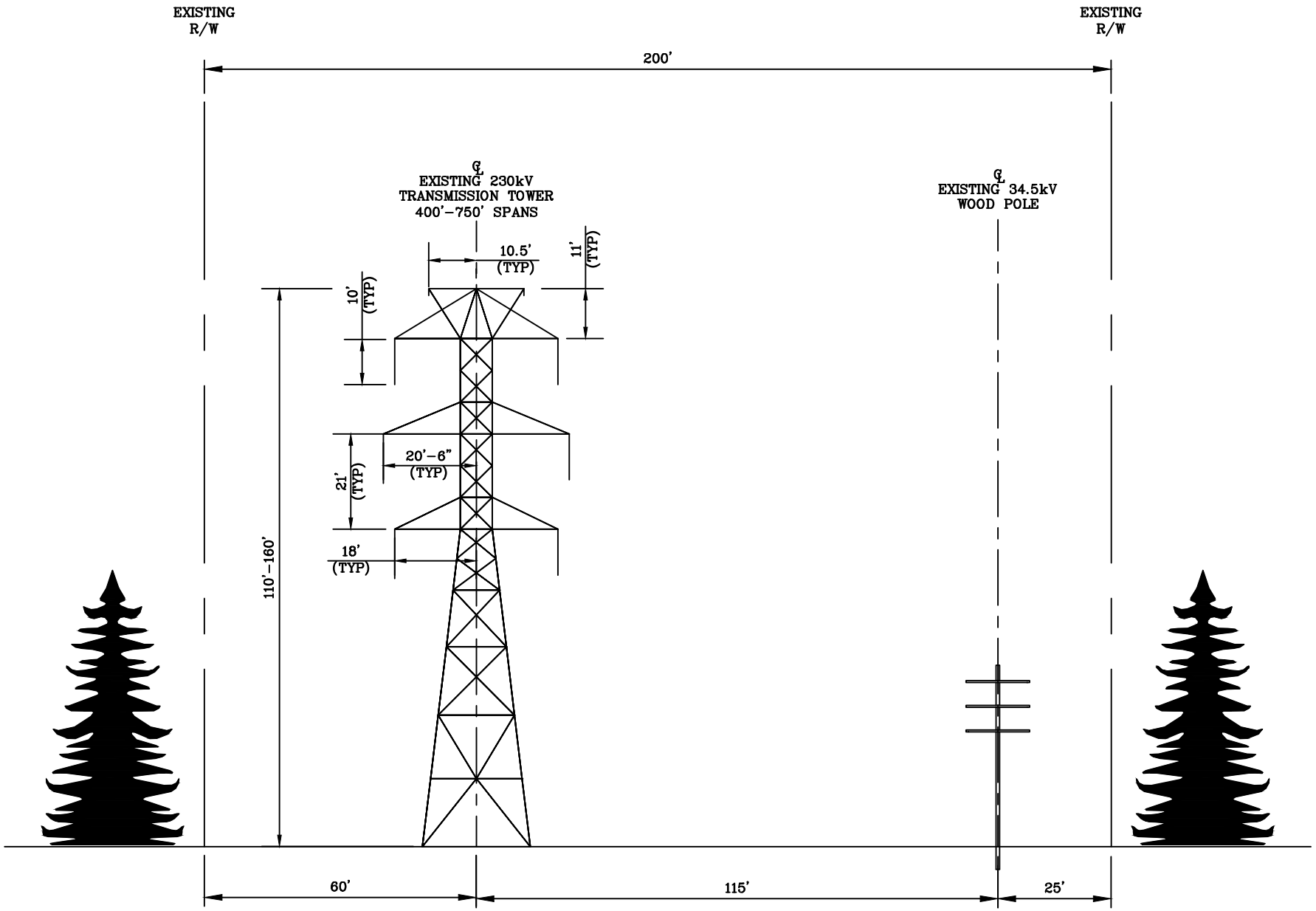
Ohio Power Siting Board Case:

Docket No. 07-0171-EL-BTX, Geauga County 138 kV Transmission Line Supply Project

Pa P.U.C. Case:

Docket No. A-2011-2247862, Bedford North – Osterberg East 115 kV HV Transmission Line Project

Exhibit DRK-1



PRELIMINARY - NOT FOR CONSTRUCTION

LARRABEE–OCEANVIEW
(LOOKING NORTH)
LARRABEE SS TO HERBERTSVILLE ROAD
3.5 MILES
TYPICAL EXISTING CORRIDOR

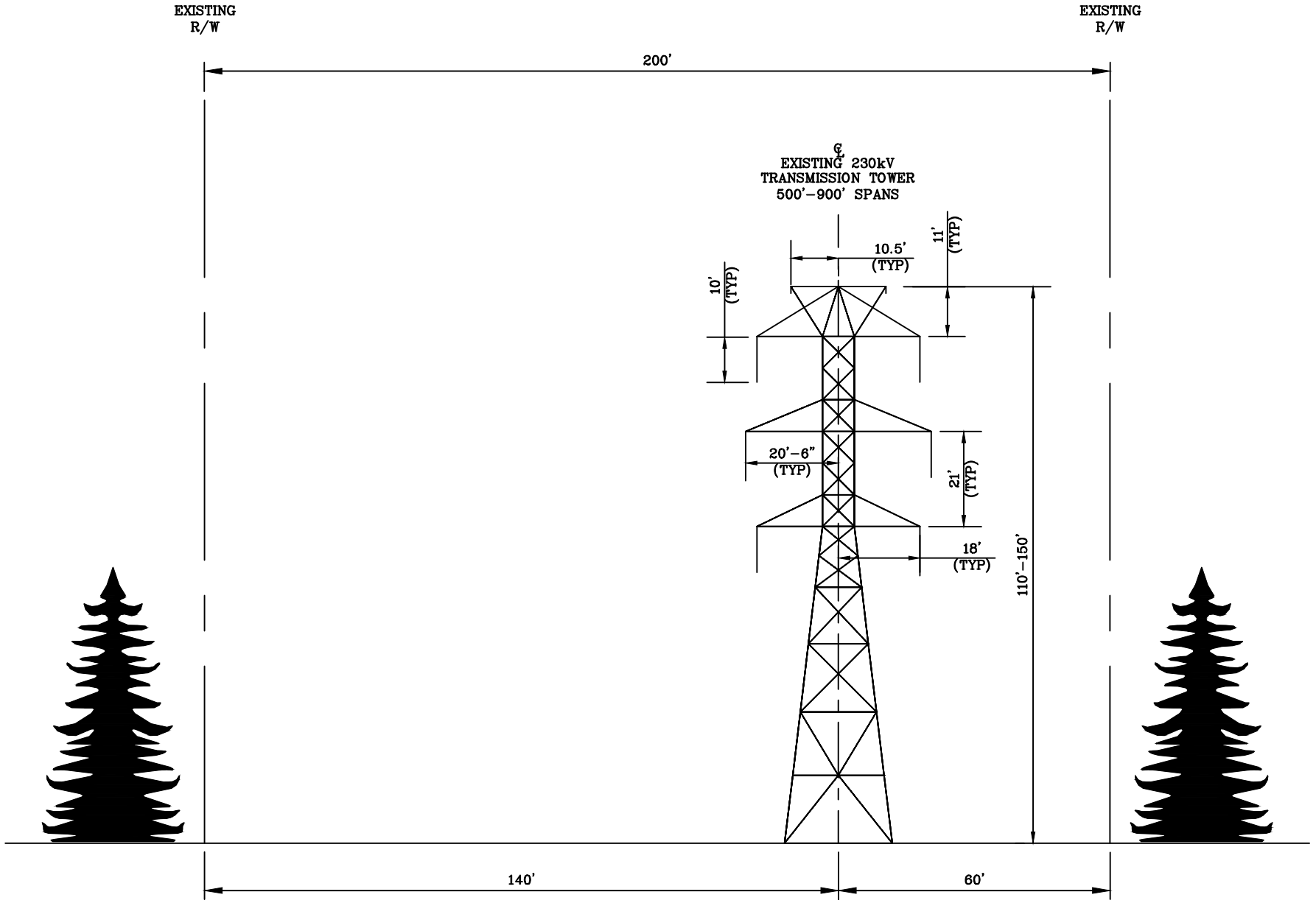
Burns & McDonnell

Jersey Central Power & Light
A FirstEnergy Company

Transmission Design

CORRIDOR CROSS SECTION
LARRABEE-OCEANVIEW 230kV
DRK-EXHIBIT 1

Exhibit DRK-2



PRELIMINARY - NOT FOR CONSTRUCTION

LARRABEE–OCEANVIEW
(LOOKING NORTH)
HERBERTSVILLE ROAD TO ATLANTIC SS
8.0 MILES
TYPICAL EXISTING CORRIDOR

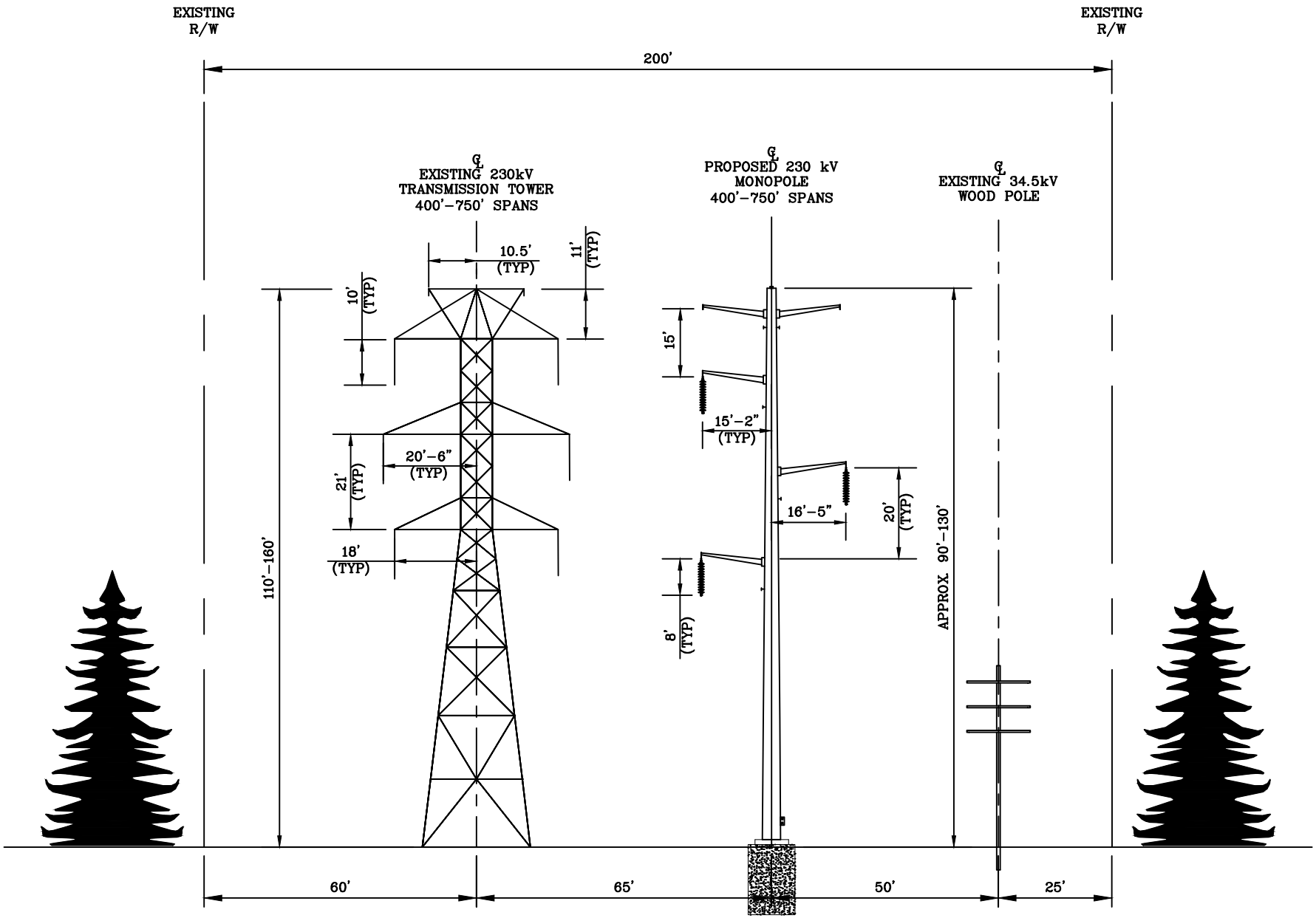
Burns & McDonnell

Jersey Central Power & Light
A FirstEnergy Company

Transmission Design

CORRIDOR CROSS SECTION
LARRABEE-OCEANVIEW 230kV
DRK-EXHIBIT 2

Exhibit DRK-3



LARRABEE–OCEANVIEW
(LOOKING NORTH)
LARRABEE SS TO HERBERTSVILLE ROAD
3.5 MILES
PROPOSED CORRIDOR
PRELIMINARY ENGINEERING ONLY

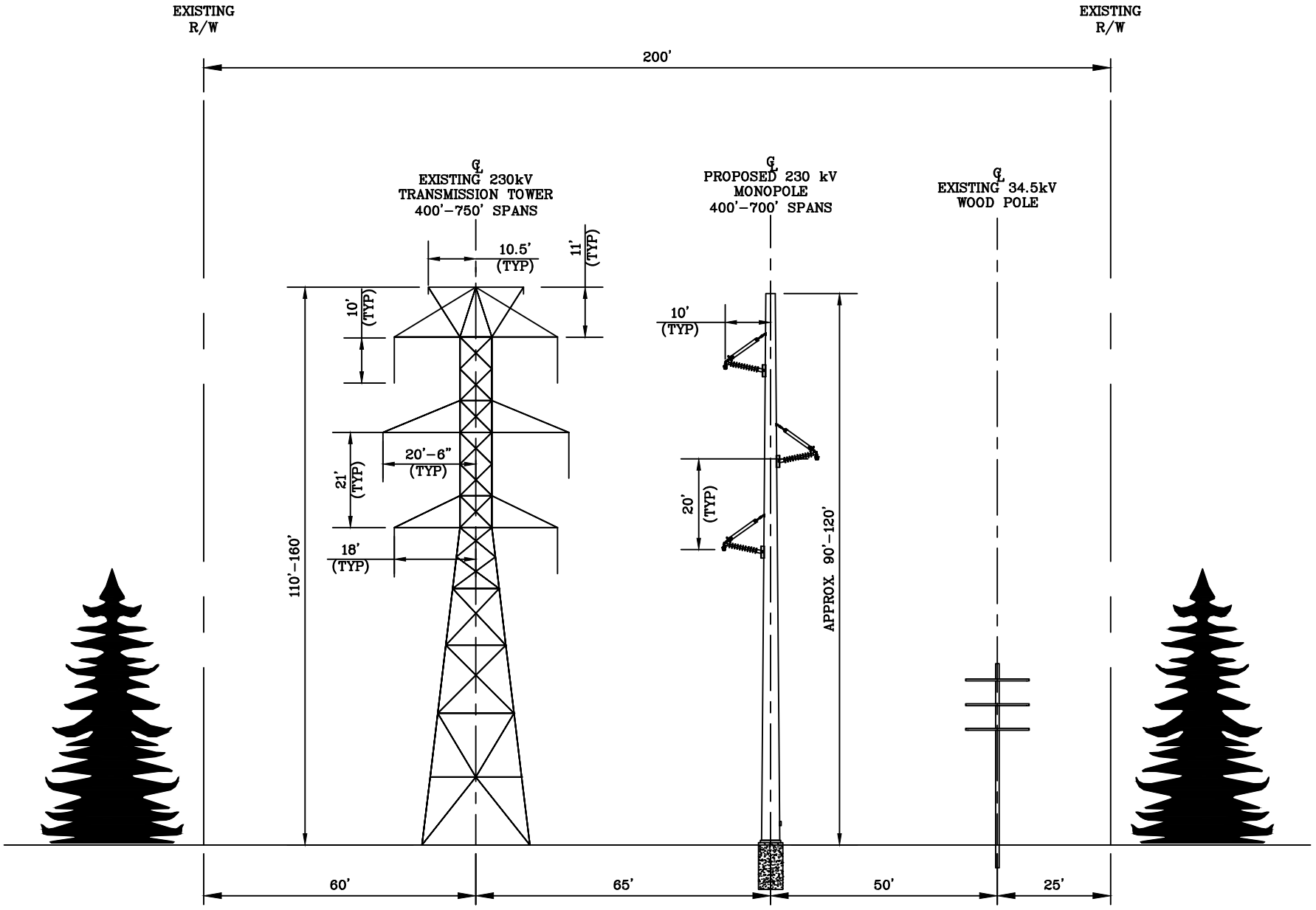
PRELIMINARY - NOT FOR CONSTRUCTION

Jersey Central Power & Light
A FirstEnergy Company

Transmission Design

CORRIDOR CROSS SECTION
LARRABEE-OCEANVIEW 230kV
DRK-EXHIBIT 3

Exhibit DRK-4



LARRABEE–OCEANVIEW
(LOOKING NORTH)
LARRABEE SS TO HERBERTSVILLE ROAD
3.5 MILES
PROPOSED MONOPOLE

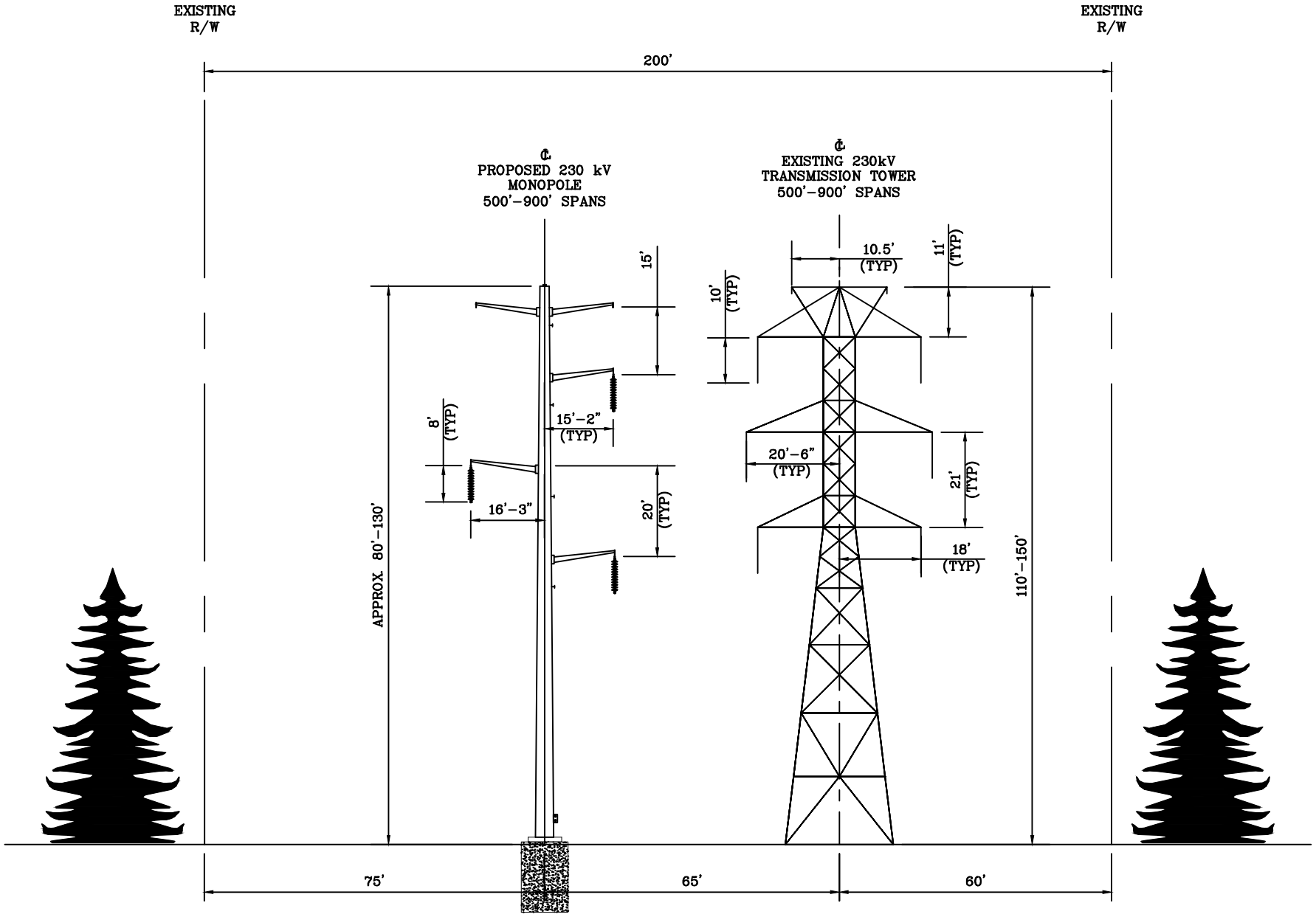
PRELIMINARY - NOT FOR CONSTRUCTION

Jersey Central Power & Light
A FirstEnergy Company

Transmission Design

CORRIDOR CROSS SECTION
LARRABEE-OCEANVIEW 230kV
DRK-EXHIBIT 4

Exhibit DRK-5



LARRABEE–OCEANVIEW
(LOOKING NORTH)
HERBERTSVILLE ROAD TO ATLANTIC SS
8.0 MILES
PROPOSED CORRIDOR
PRELIMINARY ENGINEERING ONLY

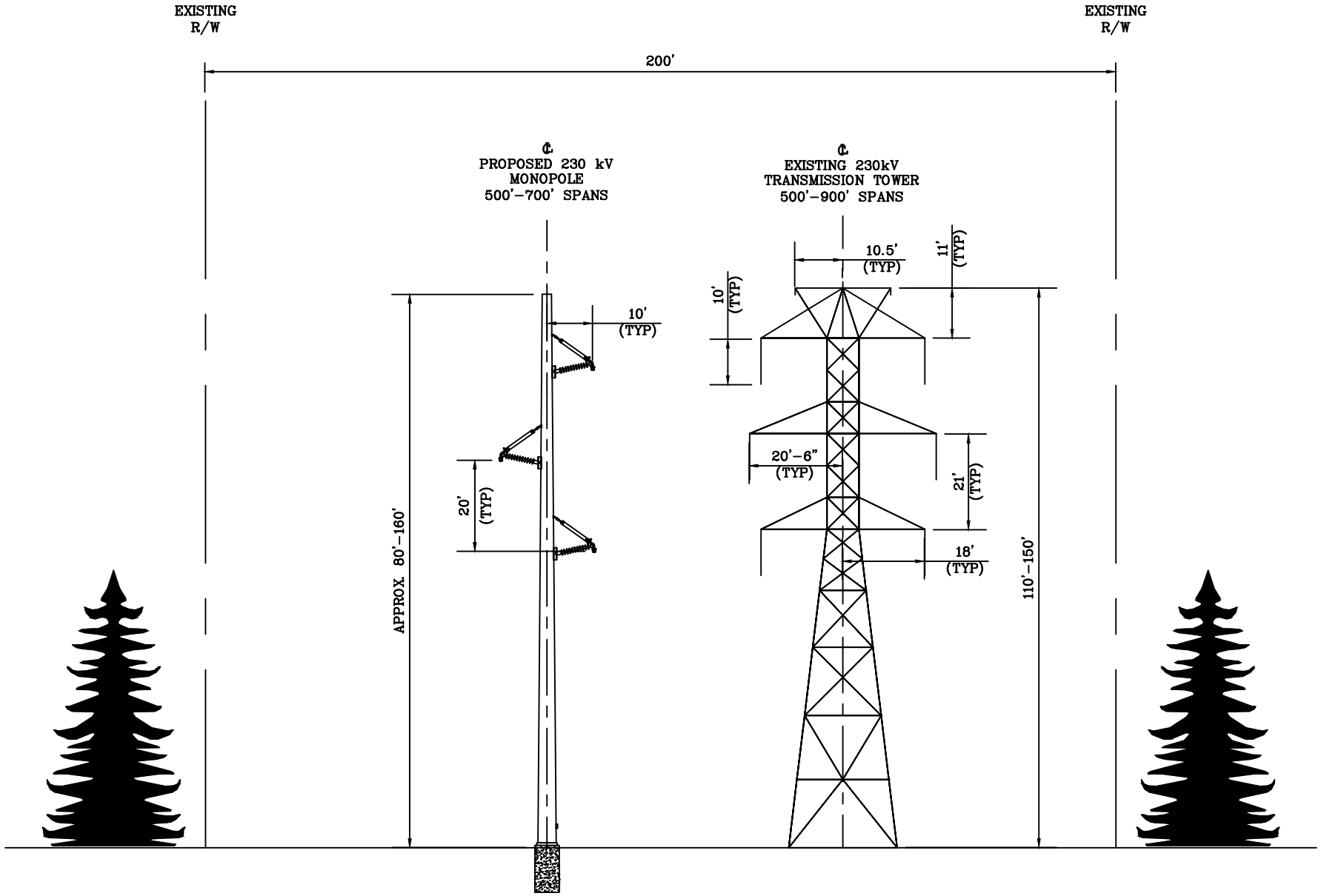
PRELIMINARY - NOT FOR CONSTRUCTION

Jersey Central Power & Light
A FirstEnergy Company

Transmission Design

CORRIDOR CROSS SECTION
LARRABEE-OCEANVIEW 230kV
DRK-EXHIBIT 5

Exhibit DRK-6



PRELIMINARY - NOT FOR CONSTRUCTION

LARRABEE–OCEANVIEW
(LOOKING NORTH)
HERBERTSVILLE ROAD TO ATLANTIC SS
8.0 MILES
PROPOSED MONOPOLE

Burns & McDonnell

Jersey Central Power & Light
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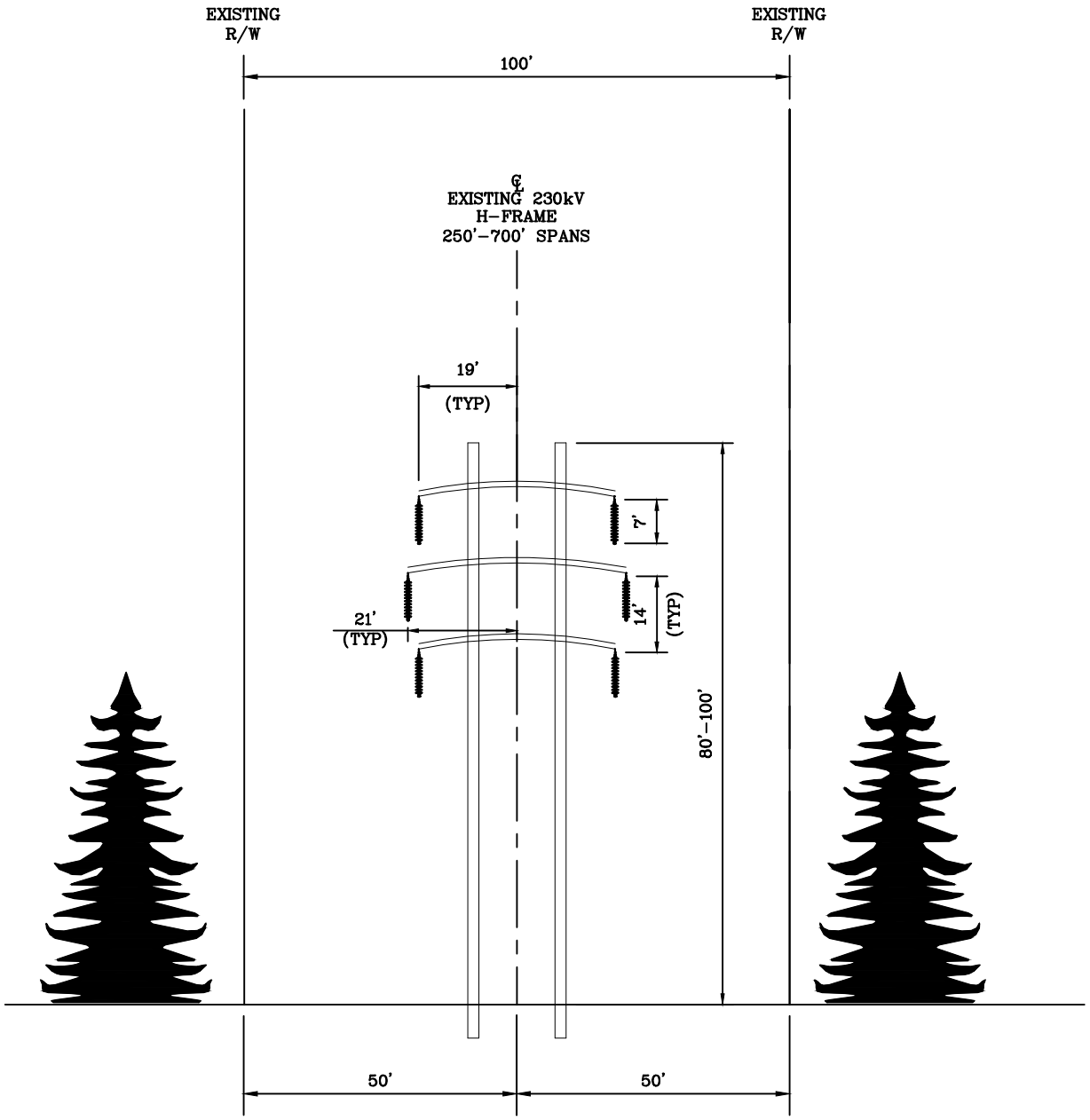
Transmission Design

CORRIDOR CROSS SECTION
LARRABEE-OCEANVIEW 230kV
DRK-EXHIBIT 6

Exhibit DRK-7



LARRABEE-OCEANVIEW
(LOOKING EAST)
ATLANTIC SS TO OCEANVIEW SS
5.2 MILES
TYPICAL EXISTING CORRIDOR

PRELIMINARY - NOT FOR CONSTRUCTION

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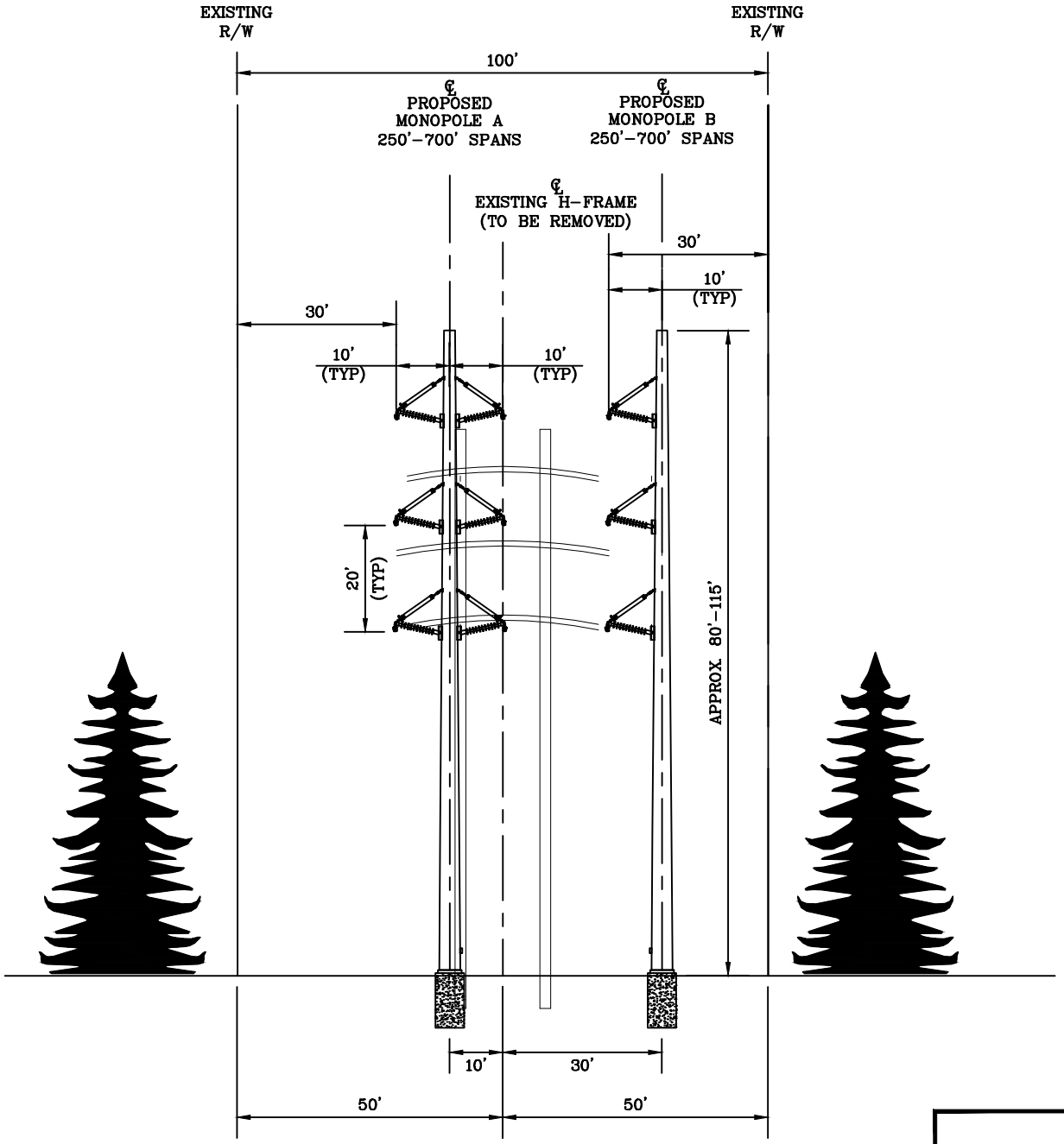
CORRIDOR CROSS SECTION
LARRABEE-OCEANVIEW 230kV
DRK-EXHIBIT 7

Exhibit DRK-8



LARRABEE–OCEANVIEW
(LOOKING EAST)
ATLANTIC SS TO OCEANVIEW SS
5.2 MILES
PROPOSED CORRIDOR
PRELIMINARY ENGINEERING ONLY

PRELIMINARY - NOT FOR CONSTRUCTION

Burns & McDonnell

Jersey Central Power & Light
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Transmission Design

CORRIDOR CROSS SECTION
LARRABEE-OCEANVIEW 230kV
DRK-EXHIBIT 8

Exhibit DRK-9

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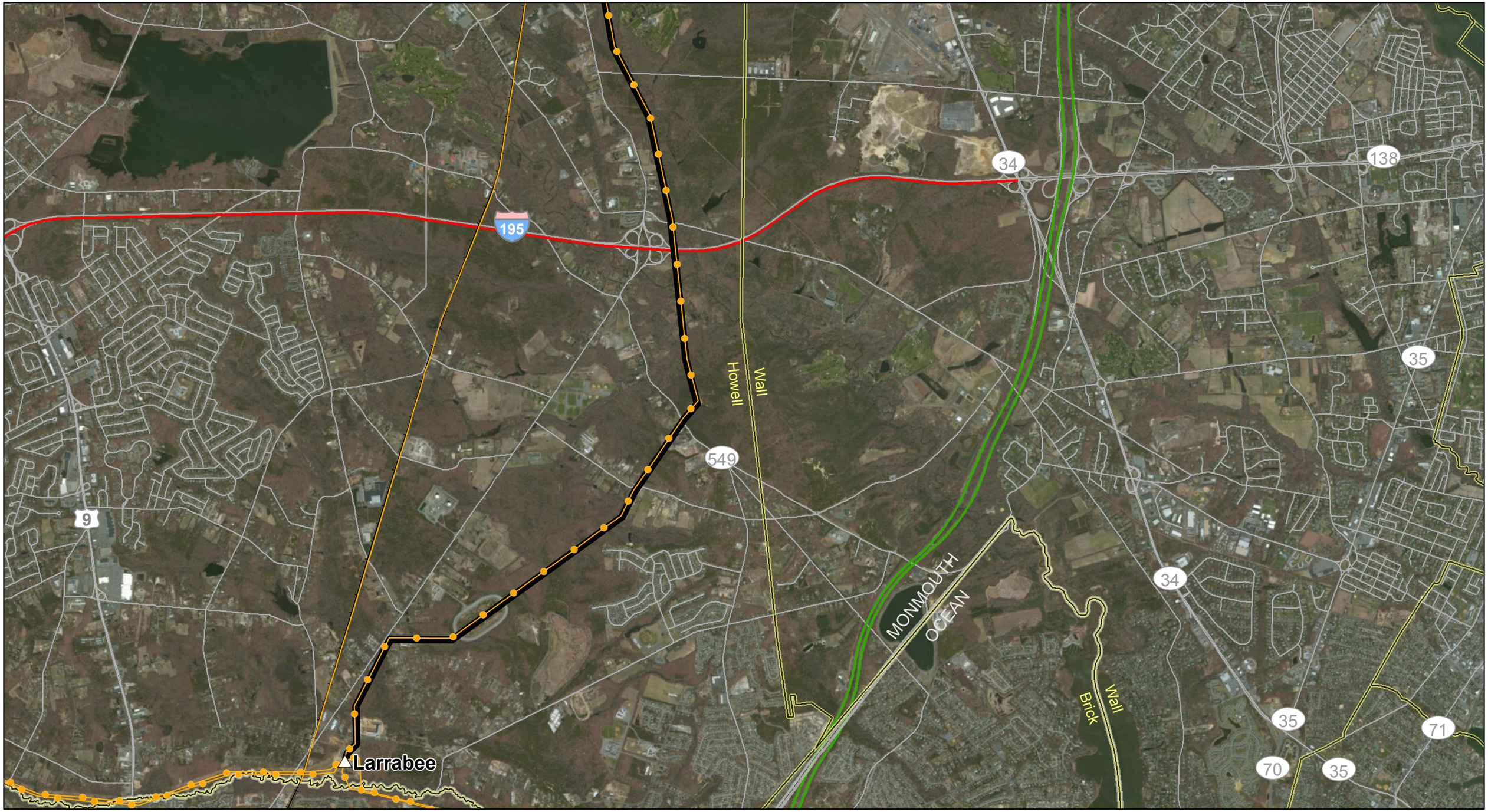
H-FRAME
TRANSMISSION STRUCTURE
LARABEE-OCEANVIEW 230 kV
DRK-EXHIBIT 9

Exhibits DRK-10A-10B



Legend

- Substation
- Preferred Route
- Municipal Boundary
- County Boundary
- Department of Defense
- Local Road
- Interstate
- Garden State Parkway
- Existing Transmission
  - 230 kV
  - 115/138 kV
  - < 115 kV

N W E S

DRK-Exhibit 10A: Project Overview Map

0 0.5 1 1.5 2 2.5 Miles

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.

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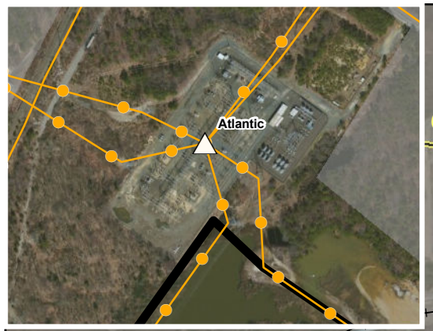

See Inset Map

Atlantic

Colts Neck

Howell

34

33

Wall

Tinton Falls

574

Howell

Wall

Farmingdale Borough

Tinton Falls

Ocean

Tinton Falls

Neptune

18

35

Oceanview

33

34

Legend

Substation	Department of Defense	Existing Transmission
Preferred Route	Local Road	230 kV
Municipal Boundary	Interstate	115/138 kV
County Boundary	Garden State Parkway	< 115 kV

N W E S

DRK-Exhibit 10B: Project Overview Map

0 0.5 1 1.5 2 2.5 Miles

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.

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Exhibits DRK-11A-11AD

- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

Parcel boundaries dislayed in white

Tile 1 of 30

DRK-Exhibit 11A
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.

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- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

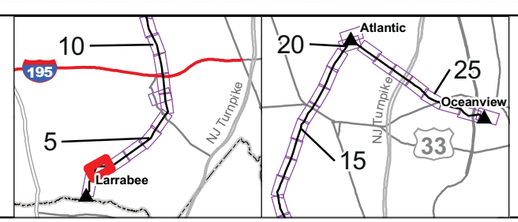
Parcel boundaries dislayed in white

Tile 2 of 30

DRK-Exhibit 11B
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.



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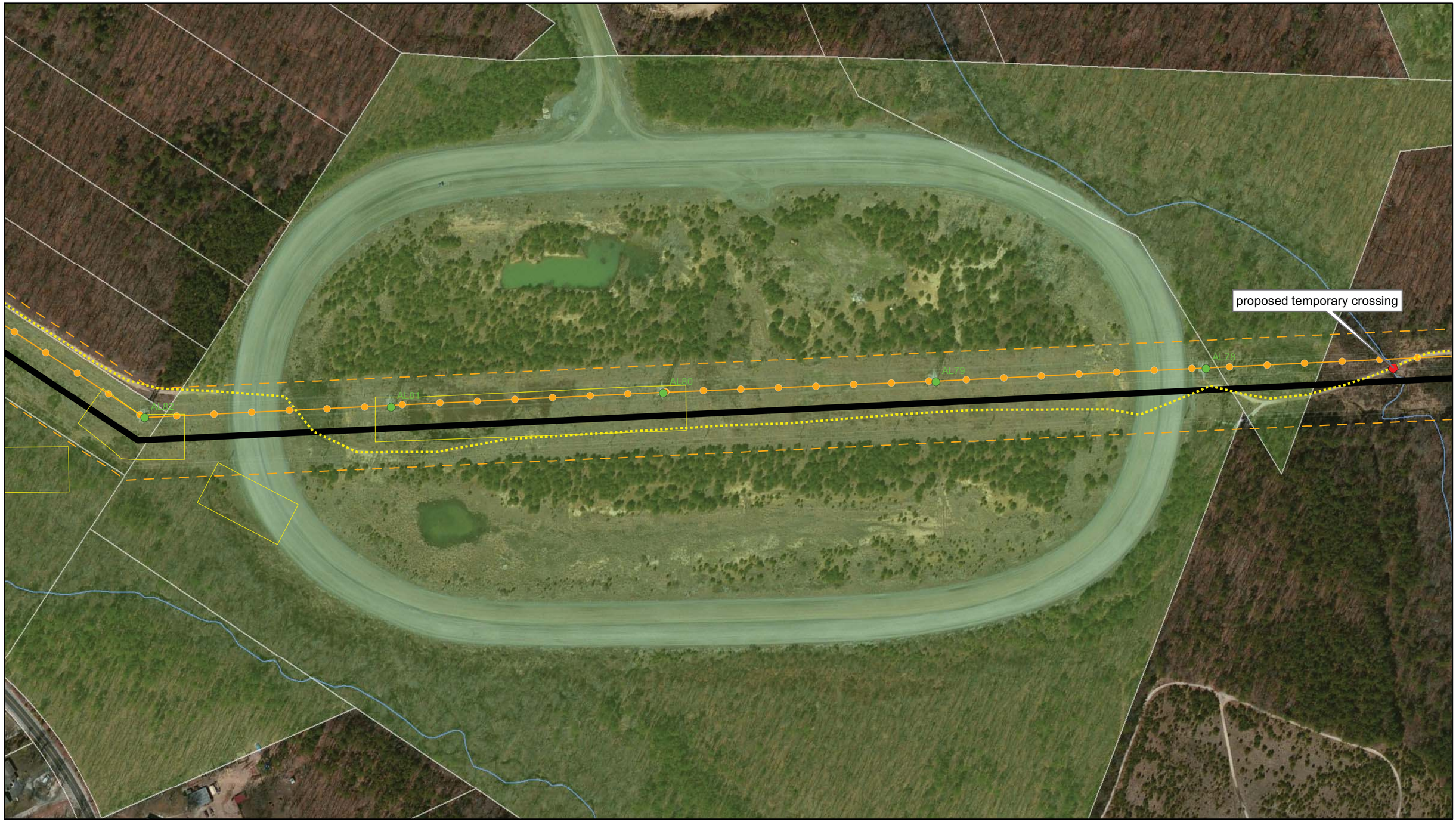


- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

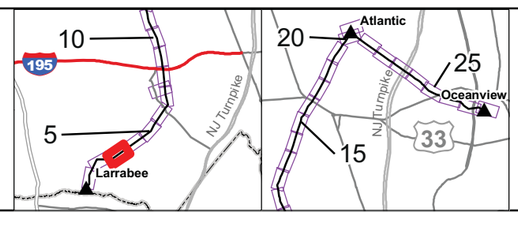
Parcel boundaries dislayed in white

Tile 3 of 30

DRK-Exhibit 11C
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.



Oceanview 230 kV Transmission Line Reinforcement Project

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- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

Parcel boundaries dislayed in white

Tile 4 of 30

DRK-Exhibit 11D
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.

Oceanview 230 kV Transmission Line Reinforcement Project

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- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

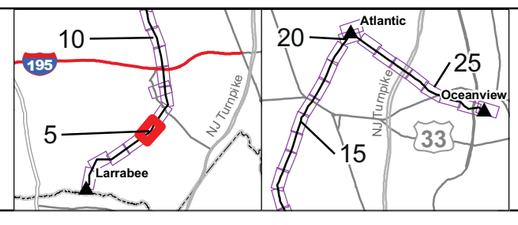
Parcel boundaries dislayed in white

Tile 5 of 30

DRK-Exhibit 11E
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.



Oceanview 230 kV Transmission Line Reinforcement Project

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- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

Parcel boundaries dislayed in white

Tile 6 of 30

DRK-Exhibit 11F
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.

Oceanview 230 kV Transmission Line Reinforcement Project

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- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

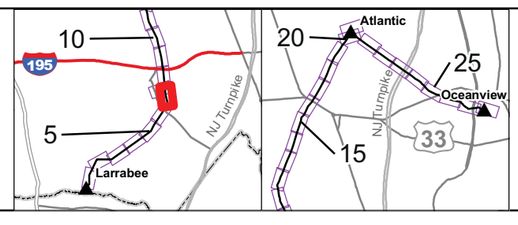
Parcel boundaries dislayed in white

Tile 7 of 30

DRK-Exhibit 11G
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.



Oceanview 230 kV Transmission Line Reinforcement Project

Jersey Central Power & Light
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- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

Parcel boundaries dislayed in white

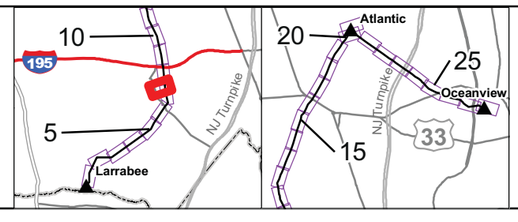
Tile 8 of 30

N W E S

DRK-Exhibit 11H
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.



Oceanview 230 kV Transmission Line Reinforcement Project

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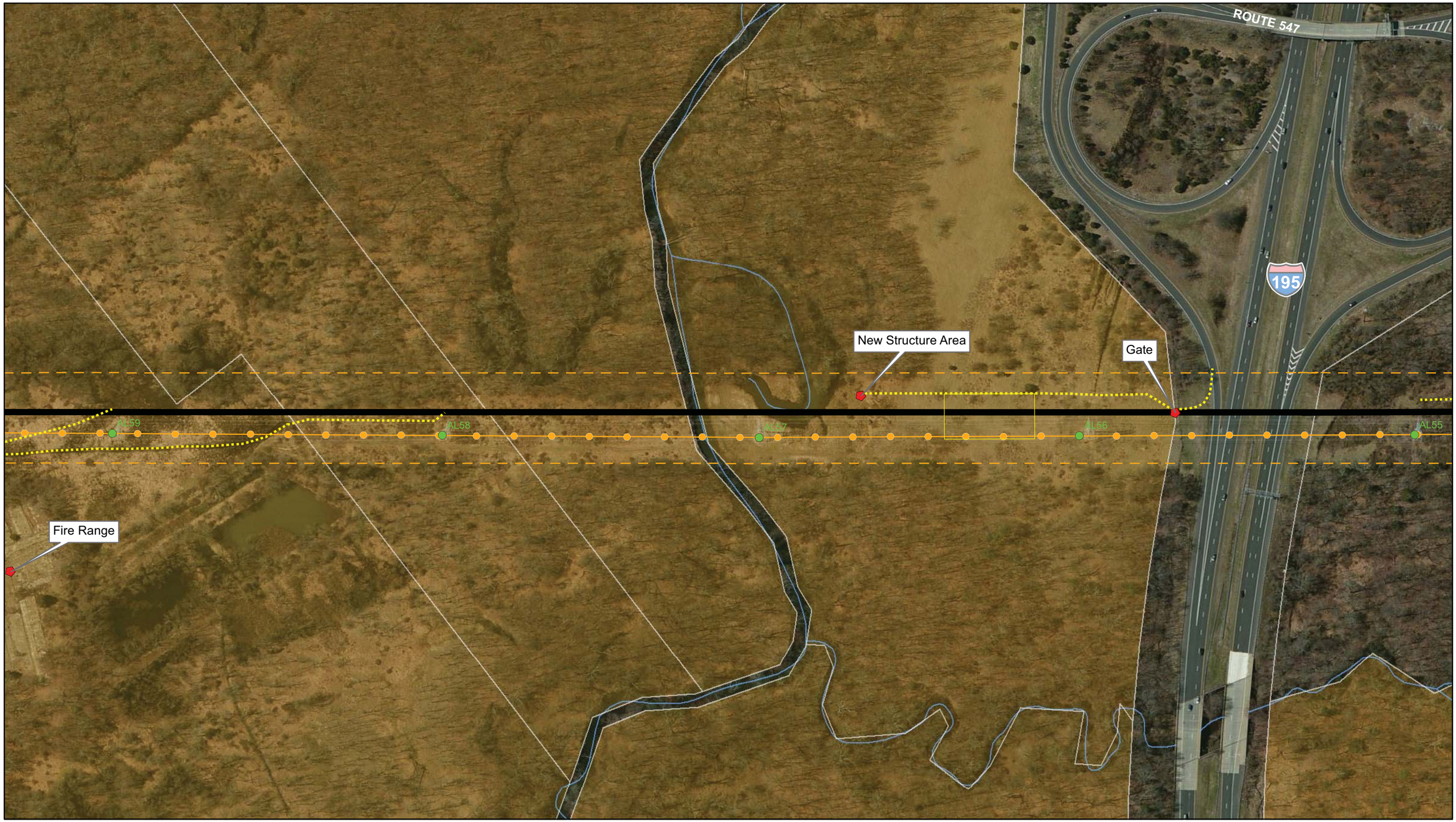


- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

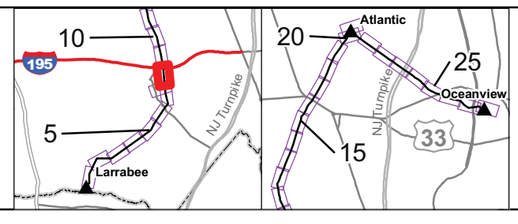
Parcel boundaries dislayed in white

Tile 9 of 30

DRK-Exhibit 11I
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.



Oceanview 230 kV Transmission Line Reinforcement Project

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- Substation
- Field Note
- School
- Pull Site/Lay Down Area
- Access Road
- Access Road Option
- Preferred Route
- Preferred Route (Rebuild)

Existing Transmission
- 230 kV
- 115/138 kV
- < 115 kV
- Distribution Line
- Existing Tower

- Existing Transmmission ROW
- Municipal Boundary
- County Boundary
- Department of Defense
- State Parks/State Conservation
- Local/Private Conservation

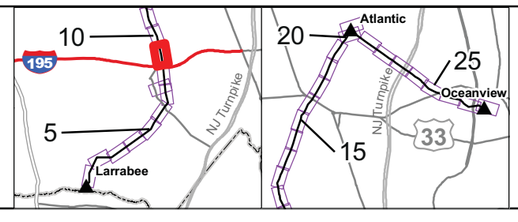
Parcel boundaries dislayed in white

Tile 10 of 30

DRK-Exhibit 11J
Preliminary Access Roads

0 100 200 300 400 500 Feet

Data Sources: ESRI, 2012; USGS 2012, NJDEP, 2012
Geographic Coordinate System:NAD_1983_StatePlane_New_Jersey_FIPS_2900_Feet
Datum: North American Datum of 1983 (NAD83).
Projection: Transverse Mercator.
Linear Unit: Foot_US
Ellipsoid: Geodetic Reference System 80.



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