# SPOTSYLVANIA SOLAR ENERGY CENTER SPOTSYLVANIA COUNTY, VIRGINIA

# Construction Traffic and Access Evaluation

PREPARED FOR



FEBRUARY 16, 2018
REVISED JUNE 14, 2018

Prepared By:



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#### INTRODUCTION

This report was prepared for the Virginia Department of Transportation (VDOT) on behalf of sPower to provide strategies for the management of construction traffic in support of a Special Use Permit (SUP) application for the proposed Spotsylvania Solar Energy Center in Spotsylvania County, Virginia. The Spotsylvania Solar Energy Center is divided into three sites with eight access points proposed for construction. Site A is 5,200 acres and is served by Project Accesses 1-3 and 8, Site B is 245 acres and is served by Project Accesses 4, and Site C is 905 acres and served by Project Accesses 5-7. The overall project area and access points are shown on **Exhibit A-0** in **Appendix A**.

The following sections describe the physical characteristics and anticipated construction traffic volume at each of the eight proposed access points. Sight distance, truck turning movements, and traffic volumes as applied to turn lane warrants were evaluated at each access point. These criteria are described in detail in the sections below, and are summarized for each access point on **Exhibits A-1 through A-7** in **Appendix A**. Sight distances and intersection geometry were measured in the field on November 22, 2017. Site photos documenting existing intersection conditions and sight distances are contained in **Appendix B**. A summary of potential solutions to issues of accessibility, safety, and operations at each access point is provided at the conclusion of this report.

This document will be supplemented by a formal construction traffic mitigation plan to be submitted to VDOT during the detailed site plan review process at such time that the general contractor has determined the ultimate sequence of construction. The construction traffic mitigation plan will address items such as:

- Sequence of construction
- Construction work and delivery hours
- Mitigation strategies for impacts to school zones
- Designated parking areas
- Anticipated haul routes for construction vehicles
- Traffic control measures to facilitate the safe and efficient movement of employees and large construction vehicles in and out of the site
- Plans for the monitoring and repair of any damages to existing public infrastructure resulting from construction traffic, to include video monitoring of pavement condition before and after construction.

#### **EXISTING CONDITIONS**

#### EXISTING AREA ROADWAYS

Major roadways in the vicinity of the Spotsylvania Solar Energy Center that connect to the proposed project access points are identified below and shown on **Exhibit A-0**.

Orange Plank Road is a two-lane undivided major collector road with a posted speed of 45 miles per hour (mph). Orange Plank Road runs from Orange County in the west to its intersection with Plank Road (VA Route 3) in the east, which connects to Interstate 95. Project Access 1 and Project Access 2 intersect with Orange Plank Road along the northern boundary of Site A.

West Catharpin Road is a two-lane undivided minor collector road with a posted speed of 45 mph. West Catharpin Road runs from Orange County in the west to its intersection with Robert E Lee Drive in the east where it becomes Catharpin Road. Project Access 3, and Project Access 5 intersect with West Catharpin Road to the south of Site A and to the north of Sites B and C. Project Access 8 is proposed as a continuation of the north end of Craig's Church Lane (VA State Route 684) which intersects West Catharpin Road southwest of Site A.

Post Oak Road is a two-lane undivided major collector road with a posted speed of 45 mph. Post Oak Road runs from its intersection with West Catharpin Road in the west to its intersection with Lake Anna Parkway to the east. Project Access 4, Project Access 6, and Project Access 7 intersect with Post Oak Road to the south of Sites B and C.

#### **EXISTING TRAFFIC VOLUMES**

Existing daily and peak hour traffic volumes along the major roadways serving the Spotsylvania Solar Energy Center were obtained from the 2017 VDOT Daily Traffic Volume Estimates for Spotsylvania County and from traffic count data provided by the County. Annual Average Daily Traffic (AADT) in the vicinity of each project access is reported in **Table 1** below. Directional peak hour volumes were determined through use of reported K and D factors.

| Table 1. Existing Traffic Volumes |                    |                                 |       |                       |         |
|-----------------------------------|--------------------|---------------------------------|-------|-----------------------|---------|
| Road Name                         | VDOT 20            | VDOT 2017 Reported Traffic Data |       | Peak Hour Thru Volume | Project |
|                                   | AADT               | К                               | D     | (in Peak Direction)   | Access  |
| Orange Plank Road                 |                    |                                 |       |                       |         |
| Orange County Line to             | 2,100              | 0.092                           | 0.641 | 124                   | 1       |
| Windy Acres Lane                  |                    |                                 |       |                       |         |
| Orange Plank Road                 |                    |                                 |       |                       |         |
| Windy Acres Lane to               | 4,500              | 0.081                           | 0.637 | 232                   | 2       |
| Brock Road                        |                    |                                 |       |                       |         |
| West Catharpin Road               |                    |                                 |       |                       |         |
| Post Oak Road to                  | 1,700 <sup>1</sup> | 0.099                           | 0.671 | 113                   | 3,5     |
| Pamunkey Road                     |                    |                                 |       |                       |         |

| Post Oak Road Catharpin Road to Stubbs Bridge Road      | 880    | 0.096           | 0.578           | 49              | 4,6 |
|---|--------|-----------------|-----------------|-----------------|-----|
| Post Oak Road Stubbs Bridge Road to Pamunkey Road       | 1,670² | 0.094           | 0.657           | 103             | 7   |
| West Catharpin Road Orange County Line to Post Oak Road | 1,700  | 0.099           | 0.522           | 88              | 8   |
| Craig's Church Lane<br>Catharpin Road to<br>Hayden Road | 280    | Not<br>reported | Not<br>reported | 31 <sup>3</sup> | 8   |

Source: http://www.virginiadot.org/info/resources/Traffic 2017/AADT 088 Spotsylvania 2017.pdf

#### LOCAL SCHOOL BUS OPERATIONS

According to data provided by Spotsylvania County Schools, school bus stops exist along Orange Plank Road, West Catharpin Road, Post Oak Road, and along various connecting side streets in the vicinity of the project area. These stops serve eleven different local area elementary, middle and high schools. Pickup times generally range from 6:00 AM to 8:30 AM and drop-off times generally range from 2:45 PM to 5:00 PM Monday through Friday. The school year begins in early September and ends in mid-June. Exact start and finish dates for the 2018-2019 and 2019-2020 school years are to be determined.

sPower is prepared to take steps to ensure that students are kept safe and minimal interaction occurs between construction traffic and school bus operations. This will be achieved through a combination of the following strategies:

- Construction work hours and delivery hours will be restricted to midday and early morning wherever possible. sPower will educate drivers on school bus pickup hours and locations.
- Enforcement of reduced speed limits for construction traffic during school bus pickup hours. This will be communicated either via temporary signage along construction traffic routes or through driver education.
- Installation of temporary signage informing truckers of a school bus stop ahead and hours of operation for those stops along busy construction routes (Orange Plank Road, West Catharpin Road, and Post Oak Road).
- Preparation and distribution of informational handouts to students and parents. These handouts will describe the truck routes, hours of operation, and construction schedule and duration. They will also describe basic safety precautions for walkers and students waiting at bus stops.
- Any potential "high-risk" bus stops will be identified and considered for temporary relocation or safety measures. This could include signage describing where to stand and wait, warning of heavy truck traffic.

<sup>&</sup>lt;sup>1</sup>ADT provided by Spotsylvania County from May 2018 count data contained in Appendix C. K and D factors sourced from 2017 VDOT count data for the same segment to provide conservative estimates of peak hour peak direction through volumes.

<sup>2</sup>ADT provided by Spotsylvania County from February 2017 count data contained in Appendix C. K and D factors sourced from 2017 VDOT count data for the same segment to provide conservative estimates of peak hour peak direction through volumes.

<sup>3</sup>In lieu of K and D factors, an average of 11% for K x D was used as recommended in Figure 3-26 of Appendix F of the VDOT Road Design Manual

#### **CONSTRUCTION TRAFFIC**

#### ESTIMATED PEAK TRAFFIC VOLUMES

sPower has estimated that the duration of construction for the project will be approximately eighteen (18) months. The peak volume of traffic and number of workers on site will occur for approximately fifteen (15) months. During the peak period of construction, the estimated daily number of trips in and out of the site is described in **Table 2** below.

| Table 2. Peak Daily Construction Traffic |            |           |  |
|--|------------|-----------|--|
| Vehicle Category                         | Trips In   | Trips Out |  |
| Empl                                     | oyee Trips |           |  |
| Site A                                   | 467        | 467       |  |
| Site B                                   | 133        | 133       |  |
| Site C                                   | 200        | 200       |  |
| TOTAL EMPLOYEE TRIPS                     | 800        | 800       |  |
| Deli                                     | very Trips | ·         |  |
| Work Trucks                              | 30         | 30        |  |
| Heavy Haul - Equipment Delivery          | 1          | 1         |  |
| Heavy Haul - Concrete                    | 2          | 2         |  |
| Heavy Haul - Panels                      | 15         | 15        |  |
| Heavy Haul - BOS                         | 15         | 15        |  |
| Miscellaneous Delivery - (Medium Duty)   | 5          | 5         |  |
| Fuel Trucks                              | 2          | 2         |  |
| TOTAL DELIVERY TRIPS                     | 70         | 70        |  |
| TOTAL DAILY TRIPS                        | 870        | 870       |  |

The volumes above are classified as employee trips and delivery trips. Employee trips will take place at the beginning and ending of the work day, coinciding with the weekday AM and PM peak periods of traffic. Delivery trips involving heavy trucks are assumed to take place outside of peak periods. To the maximum extent possible, sPower will attempt to schedule deliveries accordingly.

The volume of employee trips listed above assumes an average vehicle occupancy of 1.5 employees per vehicle. sPower will implement a carpool program for the employee commute to and from the project site and temporary residences, the details of which will be discussed and finalized as the project progresses. In addition to carpooling, the contractor will also utilize shuttle buses/vans to transport employees to and from the various sites (A, B, & C) to reduce the number of vehicle trips between sites and optimize the use of parking areas around the project. The carpool program and shuttle plans will be established as construction phasing is finalized.

#### EMPLOYEE TRIP DISTRIBUTION

The distribution of daily employee traffic for each site was determined based on the relative size of the disturbed area accessible via each access point. The distribution of construction traffic to each project

access point, and along each of the major roadways that accesses each site, is summarized in **Table 3**. This distribution is also shown on **Exhibit A-0** in **Appendix A**.

| Table 3. Construction Traffic Distribution |                   |            |                     |            |
|--|-------------------|------------|---------------------|------------|
| Site                                       | Project<br>Access | Percentage | To/From             | Percentage |
|  | 1                 | 20%        | Orange Plank Road   | 40%        |
|  | 2                 | 20%        | Orange Plank Road   | 40%        |
| Α  | 3                 | 30%        | West Catharpin Road | 60%        |
|  | 8                 | 30%        | west Catharpin Road | 0076       |
|  | TOTAL             | 100%       | TOTAL               | 100%       |
| В  | 4                 | 100%       | West Catharpin Road | 50%        |
| В  | 4                 |            | Post Oak Road       | 50%        |
|  | TOTAL             | 100%       | TOTAL               | 100%       |
|  | 5                 | 40%        | West Catharpin Road | 40%        |
| С  | 6                 | 40%        | Post Oak Boad       | 600/       |
|  | 7                 | 20%        | Post Oak Road       | 60%        |
|  | TOTAL             | 100%       | TOTAL               | 100%       |

The employee trip distribution described in Table 3 above assumes that employee trips will originate from the east. This assumption is based on the concentration of development surrounding the Interstate 95 corridor. This is a conservative assumption for the purposes of calculating turning movements in and out of the sites.

Daily volumes were converted into directional peak hour volumes in order to calculate turn lane warrants. The majority of left and right turns into the site are anticipated to occur during the AM peak hour when employees report to the site. It is assumed that truck deliveries will not take place during peak hours, therefore the volume of construction traffic during the AM peak hour is equal to the total number of employee trips to each site. Vehicles were distributed according to the percentages in Table 2 above and reviewed in conjunction with 2016 VDOT-reported traffic described in **Table 1**. The peak hour directional volumes were combined with additional site-generated through traffic and used to determine whether left and right turn lanes are warranted under VDOT standards.

The characteristics of construction traffic, including trip generation and distributions, as described in this memorandum represent a conservative estimate maximum number of employee trips to and from each project access. During the Spotsylvania County site plan and VDOT driveway permit process, the construction traffic characteristics and assumptions will be revisited and updated as necessary based on input from the general contractor. In the event that the anticipated characteristics of construction traffic change, any recommended improvements and/or mitigation measures will be revised accordingly and resubmitted to VDOT and Spotsylvania County for approval.

### PROJECT ACCESS 1 (ORANGE PLANK ROAD AND PROJECT ACCESS 1)

Project Access 1 is proposed as a new, temporary roadway. The Project Access 1 location, peak hour construction traffic volumes, available and required intersection sight distance, geometric features, and truck turn movements are shown on **Exhibit A-1** in **Appendix A.** 

#### **Sight Distance**

Sight distance requirements are met at the proposed location for Project Access 1. Two small trees within the Dominion easement will need to be removed to ensure there are no gaps in the sight distance triangle. The appropriate advance warning signs will be in place along Orange Plank Road prior to the access point.

#### **Heavy Truck Turns**

Project Access 1 is proposed as a new, temporary connection to Orange Plank Road for use during construction. The access will consist of a 20-foot wide, 8" gravel layer and driveway apron with 75-foot entrance radii. This access point will accommodate truck turn movements in and out of the site headed eastbound and westbound.

#### **Traffic Volumes and Turn Lane Warrants**

20% of construction traffic for Site A is anticipated to access the site via Project Access 1. During the AM peak hour, employees travelling from the I-95 corridor will approach the site from the east and enter the site at Project Access 1 via a left turn. This is 93 westbound left-turn movements under the assumed distribution. The left-turn volume does not warrant a left-turn lane at Project Access 1.

#### SUMMARY

Sight distance requirements are met and truck turn movements will be accommodated by the roadway design. Turn lanes are not warranted. *Project Access 1 will be pursued as a full-movement driveway.* 

### PROJECT ACCESS 2 (ORANGE PLANK ROAD AND WINDY ACRES LANE)

Project Access 2 is an existing, paved, public roadway (Windy Acres Lane, VA Route 611). The Project Access 2 location, peak hour construction traffic volumes, available and required intersection sight distance, geometric features, and truck turn movements are shown on **Exhibit A-2** in **Appendix A**.

#### **Sight Distance**

Sight distance requirements are met at Project Access 2. The appropriate advance warning signs will be in place along Orange Plank Road prior to the access point.

#### **Heavy Truck Turns**

Truck turn movements in and out of the site headed eastbound and westbound are expected to encroach onto neighboring private properties and may conflict with existing roadside signage and a nearby utility pole. Improvements along Windy Acres Lane will be necessary to accommodate the truck turn. These improvements could include installation of additional asphalt pavement to increase the road apron radii at the intersection and relocation of the roadside signage and potentially the adjacent utility pole. These improvements will also require agreements and/or easements from neighboring property owners. Therefore, heavy trucks will be restricted along this access.

#### Traffic Volumes and Turn Lane Warrants

20% of construction traffic for Site A is anticipated to access the site via Project Access 2. During the AM peak hour, employees travelling from the I-95 corridor will approach the site from the east and enter the site at Project Access 2 via a left turn. This is 94 westbound left-turn movements under the assumed distribution. The left-turn volume at Project Access 2 warrants a left-turn lane. The minimum turn lane length along a rural road with a posted speed of 45 mph is 100 feet of storage with a 200-foot taper, plus additional stacking length.

#### SUMMARY

Project Access 2 meets sight distance requirements. However, accommodating heavy trucks will require improvements to a paved road and impact adjacent private properties and public infrastructure. A left-turn lane is warranted. **Project Access 2 will be pursued as an employee-only driveway where heavy trucks are restricted.** Truck access to the easternmost portion of Site A will be provided via an additional wetland crossing within Site A.

### PROJECT ACCESS 3 (WEST CATHARPIN ROAD AND PROJECT ACCESS 3)

Project Access 3 is an existing dirt and gravel roadway. The Project Access 3 location, peak hour construction traffic volumes, available and required intersection sight distance, geometric features, and truck turn movements are shown on **Exhibit A-3** in **Appendix A.** 

#### **Sight Distance**

Project Access 3 does not meet VDOT intersection sight distance requirements as measured in the field. However, sight distance is improved as the vehicle approaches the intersection beyond the standard 14.5' sight distance measurement point. At a distance of 8' from the edge of travelway, the vehicle remains clear of the travelway but sight distance is improved. Sight distance may also be improved through tree clearing at the corners of the proposed entrance. A row of mailboxes in the northwest quadrant of the intersection may also affect sight distance and require relocation. Additionally, the appropriate advance warning signs will be in place along Catharpin Road prior to the access point.

#### **Heavy Truck Turns**

Truck turn movements in and out of the site headed eastbound and westbound are expected to encroach onto the road shoulder. Improvements along Project Access 3 are necessary to accommodate the truck turn. These improvements may include tree clearing along the road shoulder, particularly on the northeast corner, and installation of additional gravel pavement to increase the road apron radii at the intersection. The adjacent area is sPower's property or is within the public right of way.

#### Traffic Volumes and Turn Lane Warrants

30% of construction traffic for Site A is anticipated to access the site via Project Access 3. During the AM peak hour, employees travelling from the I-95 corridor will approach the site from the east and enter the site at Project Access 3 via a right turn. This is 140 westbound right-turn movements under the assumed distribution. The right-turn volume warrants a right-turn lane at Project Access 3. The minimum turn lane length along a rural road with a posted speed of 45 mph is 100 feet of storage with a 200-foot taper.

#### SUMMARY

Project Access 3 will require a design exception waiver to be approved by VDOT prior to driveway permitting due to inadequate sight distance. There is potential to increase available sight distance through tree clearing. Tree clearing will also be necessary to accommodate truck turn movements and a right-turn lane. These improvements are feasible given that sPower owns the adjacent properties. *Project Access* 3 will be pursued as a full-movement driveway.

#### PROJECT ACCESS 4 (POST OAK ROAD AND PROJECT ACCESS 4)

The Project Access 4 location, peak hour construction traffic volumes, available and required intersection sight distance, geometric features, and truck turn movements are shown on **Exhibit A-5** in **Appendix A.** 

#### **Sight Distance**

Sight distance requirements are met at Project Access 4. The appropriate advance warning signs will be in place along Post Oak Road prior to the access point.

#### **Heavy Truck Turns**

Project Access 4 is proposed as a new connection to Post Oak Road for use during construction. The access will consist of a 20-food wide, 8" gravel layer and driveway apron with 65-foot entrance radii. This access point will accommodate truck turn movements in and out of the site headed eastbound and westbound.

#### Traffic Volumes and Turn Lane Warrants

100% of construction traffic for Site B is anticipated to access the site via Project Access 4. During the AM peak hour, employees travelling from the I-95 corridor may approach the site from the east or the west to enter the site. It was assumed that trips would be evenly split, resulting in 66 left-turn movements and 67 right-turn movements under the assumed distribution. The right-turn volume warrants a right-turn taper. The minimum right-turn taper along a rural road with a posted speed of 45 mph is 200 feet. The left-turn volume does not warrant a turn lane.

#### SUMMARY

Sight distance requirements are met and truck turn movements can be accommodated with minor road improvements. A right-turn lane taper is warranted. *Project Access 4 will be pursued as a full-movement driveway.* 

### PROJECT ACCESS 5 (WEST CATHARPIN ROAD AND PROJECT ACCESS 5)

The Project Access 5 location, peak hour construction traffic volumes, available and required intersection sight distance, geometric features, and truck turn movements are shown on **Exhibit A-6** in **Appendix A.** 

#### **Sight Distance**

Project Access 5 does not meet VDOT intersection sight distance requirements looking east of the intersection due to the curvature of the road. However, stopping sight distance is met in the same direction. There do not appear to be opportunities to improve sight distance. The appropriate advance warning signs will be in place along Post Oak Road prior to the access point.

#### **Heavy Truck Turns**

Project Access 5 is proposed as a new connection to West Catharpin Road for use during construction, located within the existing Dominion easement. The access will consist of a 46-foot wide, 8" gravel layer and driveway apron with compound curve entrance radii (transitioning from 50 feet to 15 feet). Construction of the access point will require relocation of a wooden utility pole. This access point will accommodate truck turn movements in and out of the site headed eastbound and westbound.

#### Traffic Volumes and Turn Lane Warrants

40% of construction traffic for Site C is anticipated to access the site via Project Access 5. During the AM peak hour, employees travelling from the I-95 corridor will approach the site from the east and enter the site at Project Access 5 via a left turn. This is 80 left-turn movements under the assumed distribution. The left-turn volume at Project Access 5 warrants a left-turn lane. The minimum turn lane length along a rural road with a posted speed of 45 mph is 100 feet of storage with a 200-foot taper, plus additional stacking length.

#### SUMMARY

Project Access 5 will require a design exception waiver to be approved by VDOT prior to driveway permitting due to inadequate sight distance. A left turn lane is warranted. **Project Access 5 will be pursued as a full-movement driveway.** 

#### PROJECT ACCESS 6 (POST OAK ROAD AND PROJECT ACCESS 6)

The Project Access 6 location, peak hour construction traffic volumes, available and required intersection sight distance, geometric features, and truck turn movements are shown on **Exhibit A-7** in **Appendix A**.

#### **Sight Distance**

Project Access 6 does not meet VDOT intersection sight distance requirements looking east of the intersection due to the curvature of the road. Sight distance was measured in the field. However, stopping sight distance is met in the same direction. There do not appear to be opportunities to improve sight distance. The appropriate advance warning signs will be in place along Post Oak Road prior to the access point.

#### **Heavy Truck Turns**

Truck turn movements in and out of the site headed eastbound and westbound are expected to encroach onto neighboring private properties and driveways. sPower will acquire an access easement from the neighboring property to the east. This easement will be of sufficient size to provide the necessary accommodation for truck turn movements to occur east of the existing privately-owned fence and public utility pole without impacts. In the event that the fence is impacted, sPower will arrange for its replacement in kind as needed. Improvements along Project Access 6, a gravel road, may include installation of additional gravel pavement to increase the road apron radii at the intersection and modifications to the adjacent gravel driveways.

#### Traffic Volumes and Turn Lane Warrants

40% of construction traffic for Site C is anticipated to access the site via Project Access 6. During the AM peak hour, employees travelling from the I-95 corridor will approach the site from the east and enter the site at Project Access 6 via a right turn. This is 80 westbound right-turn movements under the assumed distribution. The right-turn volume at Project Access 6 warrants a right-turn taper. The minimum right-turn taper along a rural road with a posted speed of 45 mph is 200 feet.

#### SUMMARY

Project Access 6 will require a design exception waiver to be approved by VDOT prior to driveway permitting due to inadequate sight distance. Improvements to the site access and coordination with neighboring property owners will be necessary to accommodate truck turns. A right-turn taper is warranted. **Project Access 6 will be pursued as a full-movement driveway.** 

#### PROJECT ACCESS 7 (POST OAK ROAD AND CHEWING PLACE)

The Project Access 7 location, peak hour construction traffic volumes, available and required intersection sight distance, geometric features, and truck turn movements are shown on **Exhibit A-7** in **Appendix A.** 

#### **Sight Distance**

Sight distance requirements are met at Project Access 7. The appropriate advance warning signs will be in place along Post Oak Road prior to the access point.

#### **Heavy Truck Turns**

Truck turn movements in and out of the site headed eastbound and westbound are feasible within the clear area surrounding Chewing Place (Project Access 7). Improvements along Project Access 7, a gravel road, will include installation of additional gravel pavement to widen the driveway apron to 40 feet and increase the driveway apron entrance radii to 50 feet. A 50-foot access easement will be obtained to accommodate the access improvements.

#### Traffic Volumes and Turn Lane Warrants

20% of construction traffic for Site C is anticipated to access the site via Project Access 7. During the AM peak hour, employees travelling from the I-95 corridor will approach the site from the east and enter the site at Project Access 7 via a right turn. This is 40 westbound right-turn movements under the assumed distribution. The right-turn volume at Project Access 7 does not warrant a right-turn lane or taper.

#### SUMMARY

Sight distance requirements are met. Improvements to the site access will be necessary to accommodate truck turns. A right-turn taper is warranted. *Project Access 7 will be pursued as a full-movement driveway.* 

### PROJECT ACCESS 8 (WEST CATHARPIN ROAD AND CRAIG'S CHURCH LANE)

Project Access 8 is proposed as an extension of Craig's Church Lane (VA State Route 684), an existing public road. Currently, Craig's Church Lane terminates at a private residence approximately 0.15 miles south of Site A. sPower will obtain an access easement in order to extend Craig's Church Lane to Site A for use during construction. The width of Craig's Church Lane varies from 18 feet to 22 feet between its intersection with West Catharpin Road to the south and its terminus to the north. The Project Access 8 location, peak hour construction traffic volumes geometric features, and truck turn movements are shown on **Exhibit A-8** in **Appendix A**.

#### **Sight Distance**

Given that Project Access 8 is an extension of an existing public road, sight distance measurements were not collected in the field.

#### **Heavy Truck Turns**

Truck turn movements to and from Craig's Church Lane headed eastbound and westbound are expected to encroach onto the road shoulder. Improvements at the intersection are necessary to accommodate the truck turn. These improvements may include installation of additional gravel pavement to increase the road apron radii at the intersection. Further consideration will be given to heavy truck movements along the access easement on private property in the vicinity of Site A.

#### Traffic Volumes and Turn Lane Warrants

30% of construction traffic for Site A is anticipated to access the site via Craig's Church Lane Project Access 8. During the AM peak hour, employees travelling from the I-95 corridor will approach the site from the east and enter the site at Project Access 8 via a right turn onto Craig's Church Road. This is 140 westbound right-turn movements under the assumed distribution. The right-turn volume at Project Access 8 does not warrant a right-turn lane or taper.

#### SUMMARY

Craig's Church Lane is an existing public road. Turn lanes are not warranted. *Project Access 8 will be pursued as a full-movement driveway.* 

#### SUMMARY OF IMPROVEMENTS AND MITIGATION MEASURES

The various improvements and mitigation measures under consideration for each access point as based on the assumed trip generation and distribution characteristics are summarized below. Improvements and mitigation measures will be reviewed with VDOT and Spotsylvania County for adequacy.

Recommendations for improvements will be modified as necessary pending additional input from the general contractor on the project.

Potential improvements that may have impacts to adjacent properties are subject to agreements with adjacent property owners. The extent of these impacts and any subsequent coordination will be determined as site design progresses.

#### Project Access 1 (Orange Plank Road and Project Access 1)

- Full movement driveway
- o Considerations:
  - New road connection
  - o Minor tree clearing within Dominion easement

#### Project Access 2 (Orange Plank Road and Windy Acres Lane)

- Employee-only driveway where heavy trucks are restricted
- Considerations:
  - Left-turn lane warranted

#### Project Access 3 (West Catharpin Road and Project Access 3)

- Full movement driveway
- o Considerations:
  - Design exception waiver for sight distance limitations
  - Minor intersection improvements along Project Access 3 (gravel road)
  - Tree clearing
  - o Right-turn lane warranted

#### Project Access 4 (Post Oak Road and Project Access 4)

- Full movement driveway
- Considerations:
  - New road connection
  - Right-turn taper warranted

#### Project Access 5 (West Catharpin Road and Project Access 5)

- Full movement driveway
- o Considerations:
  - Design exception waiver for sight distance limitations
  - New road connection
  - Utility pole relocation
  - Left-turn lane warranted

#### Project Access 6 (Post Oak Road and Project Access 6)

- Full-movement driveway
- o Considerations:
  - Design exception waiver for sight distance limitations
  - o Intersection improvements along Project Access 6 (gravel road)
  - o Right-turn taper warranted

#### Project Access 7 (Post Oak Road and Chewing Place)

- Full movement driveway
- o Considerations:
  - o Intersection improvements along Chewing Place (gravel road)

#### Project Access 8 (West Catharpin Road and Craig's Church Lane)

- Full movement driveway, as an extension of Craig's Church Lane
- o Considerations:
  - o Road extension required
  - Additional gravel pavement along shoulder at intersection of West Catharpin Road and Craig's Church Lane

#### **DECOMMISSIONING TRAFFIC**

Site decommissioning involves the removal of panels and land remediation. Decommissioning is currently scheduled to take place approximately 35 years after the site commences operation. Based on the size of the three sites and the number of solar panels, sPower has estimated that the duration of decommissioning will be approximately nine (9) months. During the decommissioning period, the estimated daily number of trips in and out of the site is described in **Table 3** on the following page.

| Table 3. Daily Decommissioning Traffic |                |           |  |  |
|--|----------------|-----------|--|--|
| Vehicle Category                       | Trips In       | Trips Out |  |  |
| Empl                                   | oyee Trips     | ·         |  |  |
| Passenger Vehicles                     | 100            | 100       |  |  |
| TOTAL EMPLOYEE TRIPS                   | 100            | 100       |  |  |
| Deliv                                  | Delivery Trips |           |  |  |
| Work Trucks                            | 30             | 30        |  |  |
| Medium Duty                            | 5              | 5         |  |  |
| Heavy Duty (Steel Hauling)             | 33             | 33        |  |  |
| TOTAL DELIVERY TRIPS                   | 68             | 68        |  |  |
| TOTAL DAILY TRIPS                      | 168            | 168       |  |  |

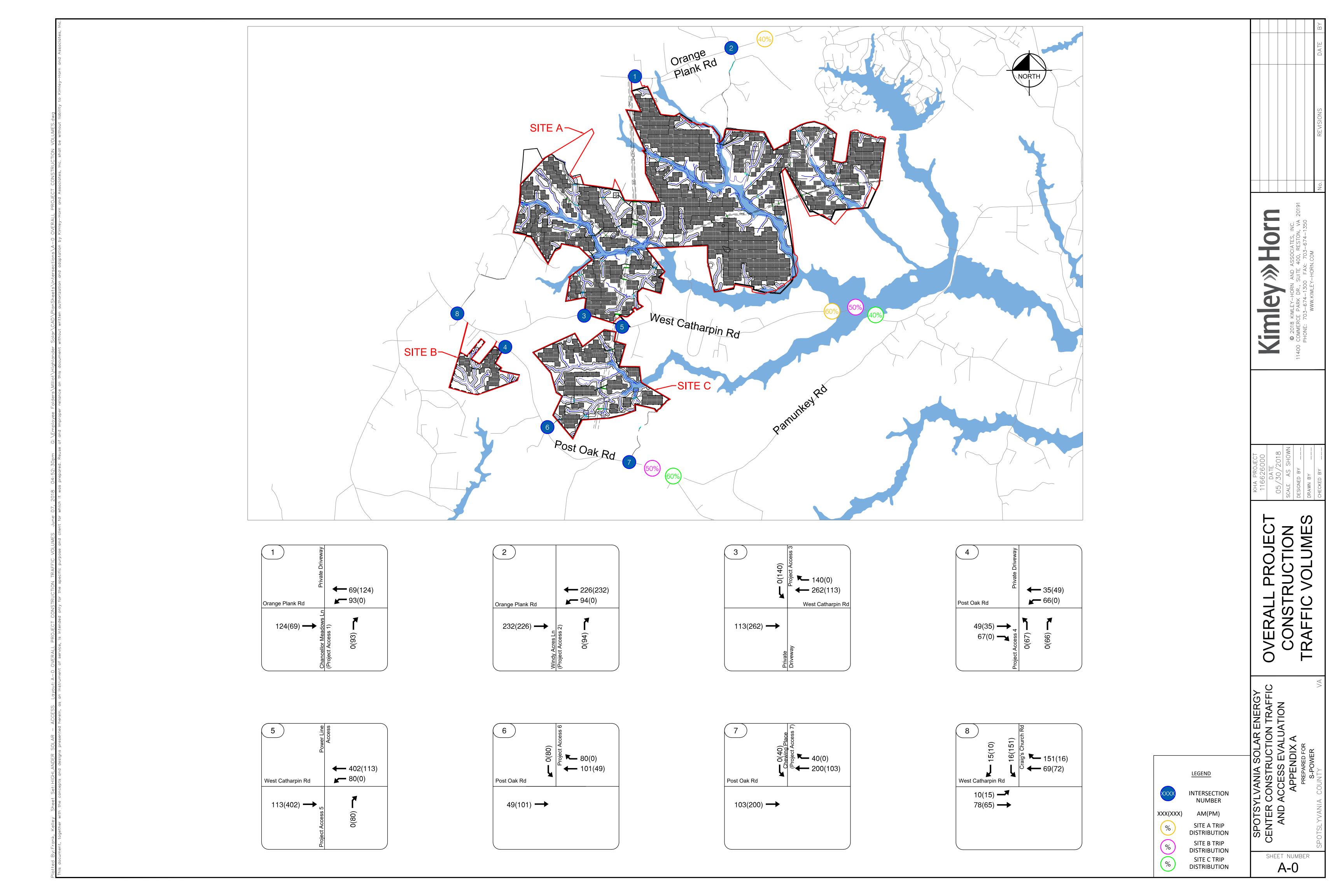
The total estimated daily traffic during decommissioning is less than 20% of the total daily traffic estimated during construction. Similar to the hourly distribution of construction traffic, employee trips will take place at the beginning and ending of the work day, coinciding with the weekday AM and PM peak periods of traffic, while delivery trips will take place outside of peak periods. The total estimated peak hour employee traffic during decommissioning is less than 15% of the peak hour employee traffic estimated during construction.

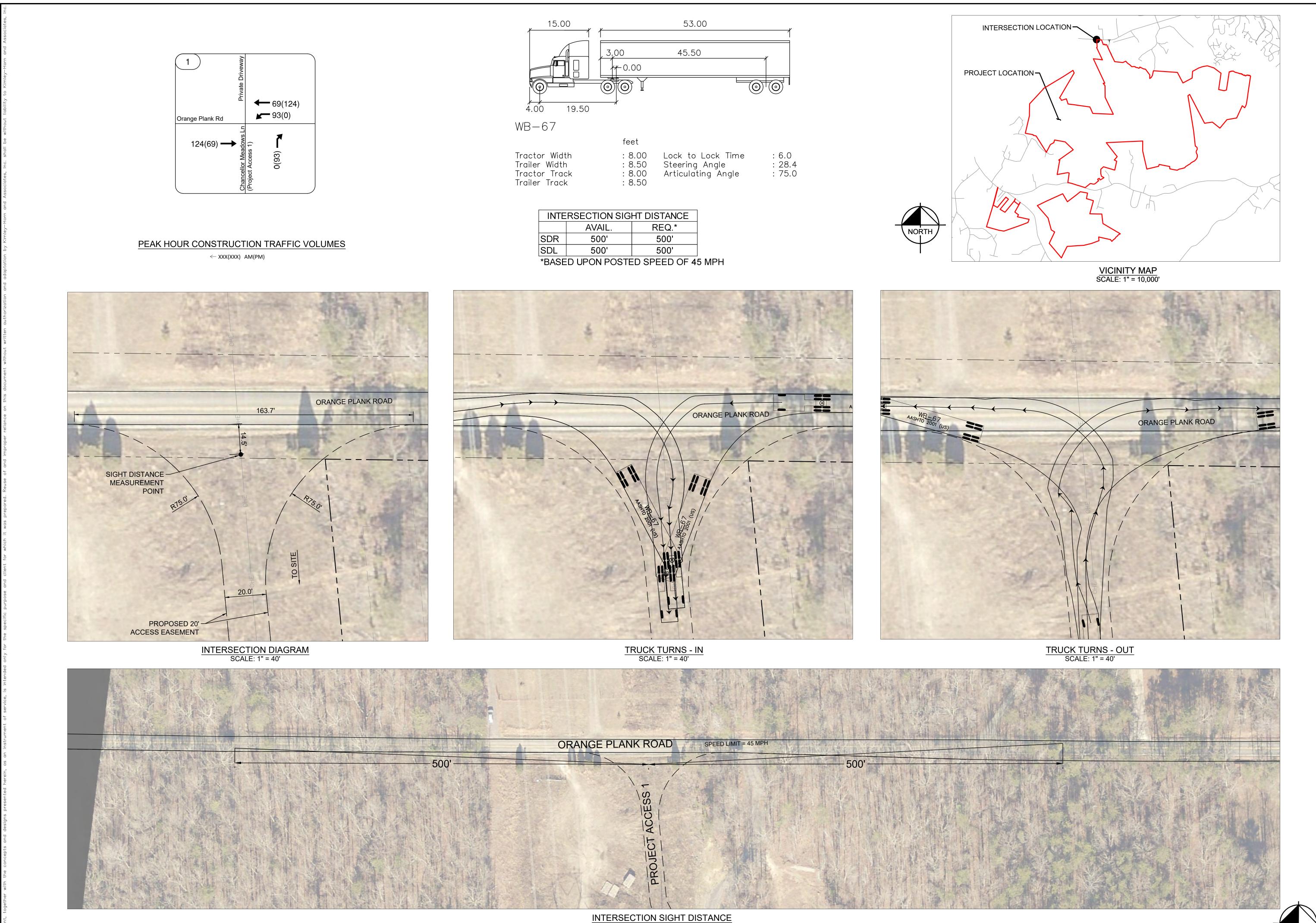
Existing daily and peak hour traffic volumes along the major roadways serving the Spotsylvania Solar Energy Center at the time of decommissioning cannot be estimated with certainty given the 35-year outlook. Therefore, at the time of decommissioning, the latest traffic volumes should be reviewed and analyzed in order to confirm the adequacy of the existing infrastructure to accommodate the projected decommissioning traffic. The access point improvements described in previous sections are intended to remain in place for the life of the project. If it is determined that the existing infrastructure with access point improvements listed above cannot accommodate the projected decommissioning traffic, additional roadway improvements will be considered.

### **APPENDIX**

### **APPENDIX A**

### **Exhibits**

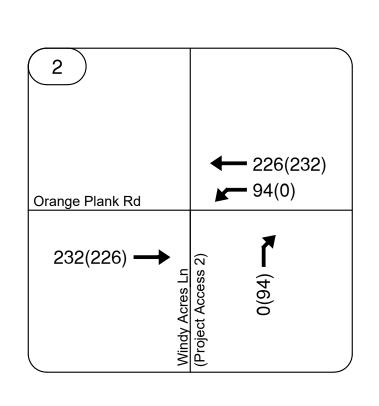




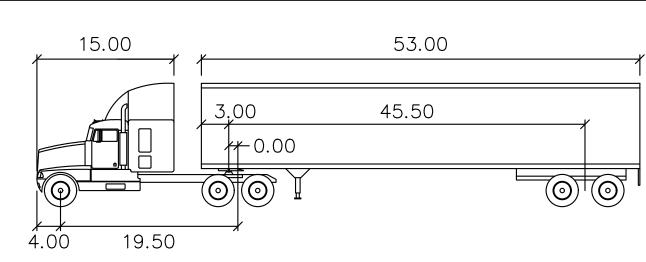
SCALE: 1" = 100'

SHEET NUMBER

A-1



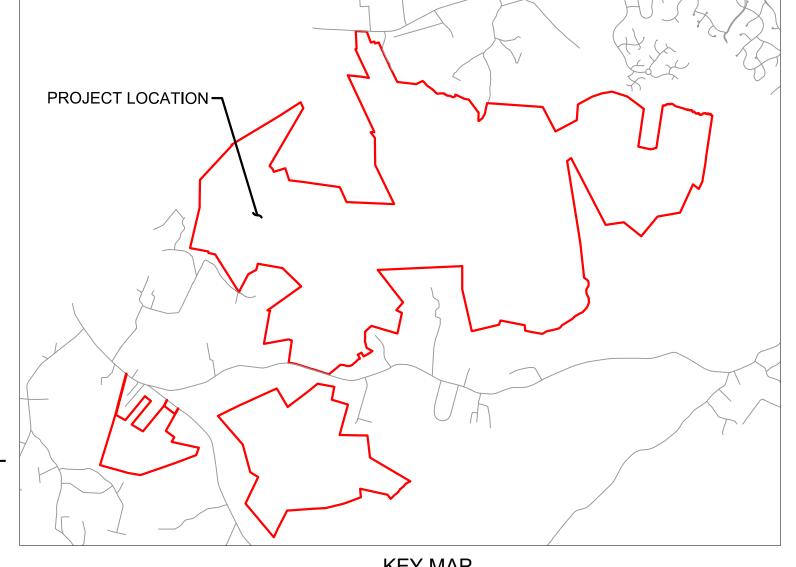
## $\frac{\mathsf{PEAK}\;\mathsf{HOUR}\;\mathsf{CONSTRUCTION}\;\mathsf{TRAFFIC}\;\mathsf{VOLUMES}}{\leftarrow\mathsf{xxx}(\mathsf{xxx})\;\;\mathsf{AM}(\mathsf{PM})}$



| \   | $\sim$ $\sim$ |
|-----|---------------|
| MR- | -6/           |

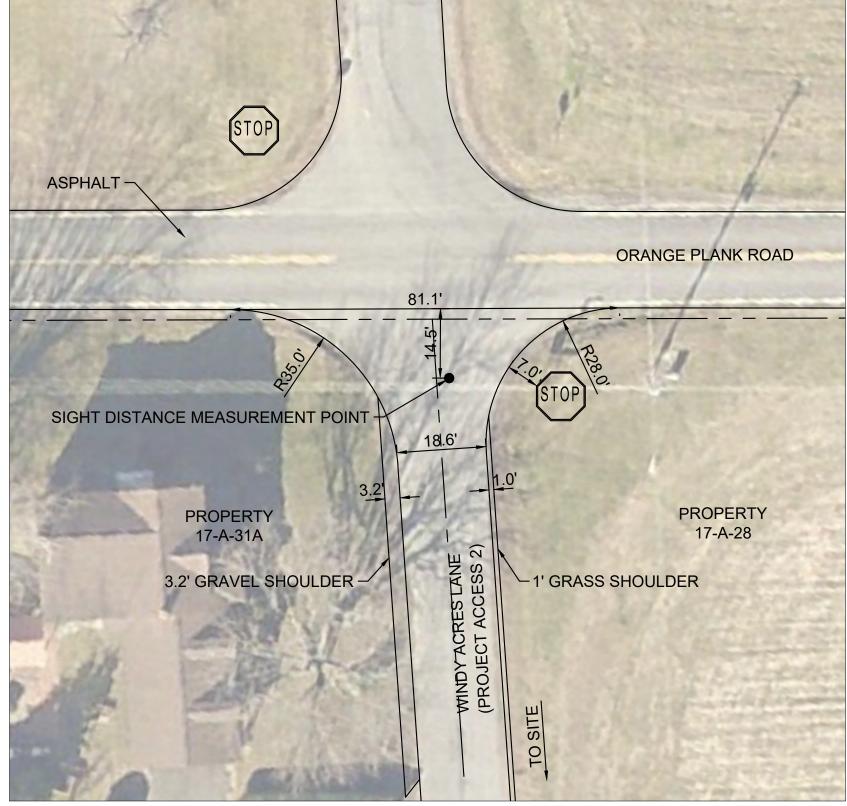
|  | feet                                 |   |                           |
|--|--------------------------------------|---|---------------------------|
| Tractor Width<br>Trailer Width<br>Tractor Track<br>Trailer Track | : 8.00<br>: 8.50<br>: 8.00<br>: 8.50 | Lock to Lock Time<br>Steering Angle<br>Articulating Angle | : 6.0<br>: 28.4<br>: 75.0 |

| INTERSECTION SIGHT DISTANCE        |       |      |
|------------------------------------|-------|------|
| AVAIL. REQ.*                       |       |      |
| SDR                                | 1070' | 500' |
| SDL                                | 971'  | 500' |
| *BASED UPON POSTED SPEED OF 45 MPH |       |      |

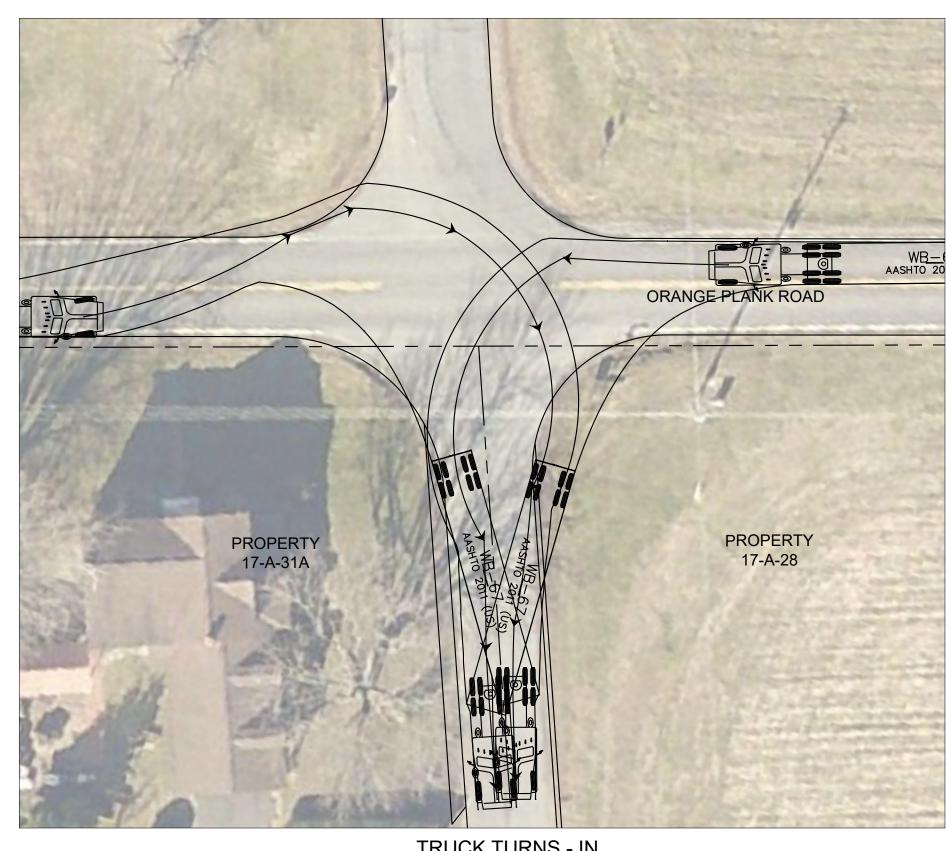


INTERSECTION LOCATION-

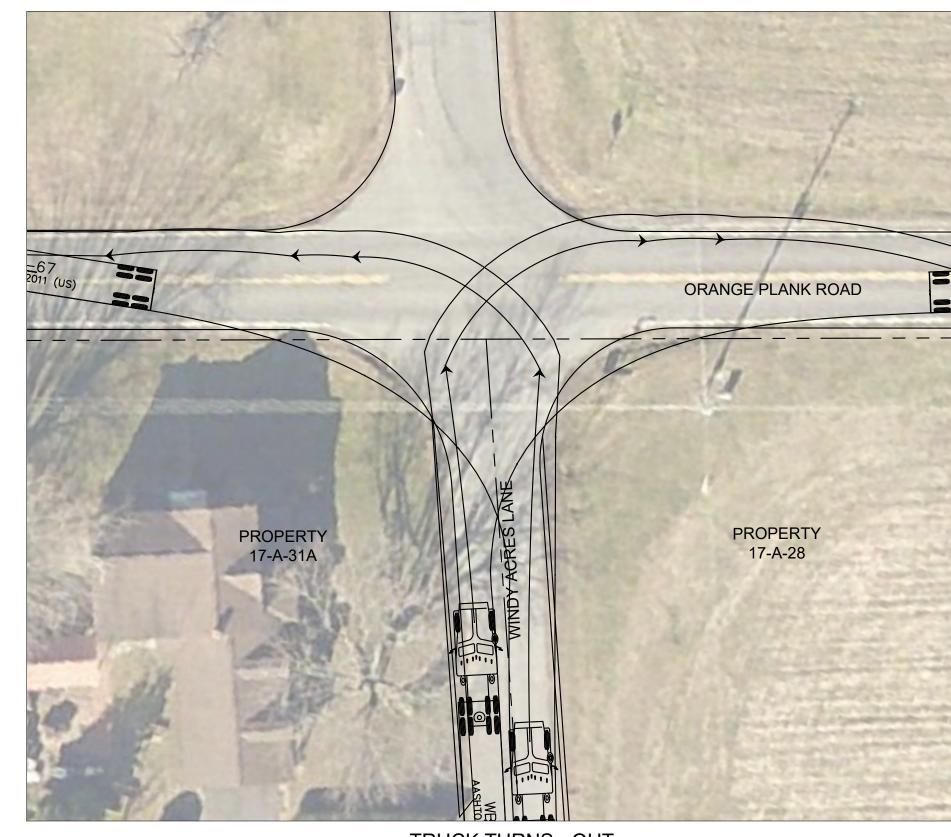
KEY MAP SCALE: 1" = 10,000'



INTERSECTION DIAGRAM SCALE: 1" = 40'



TRUCK TURNS - IN SCALE: 1" = 40'



TRUCK TURNS - OUT SCALE: 1" = 40'

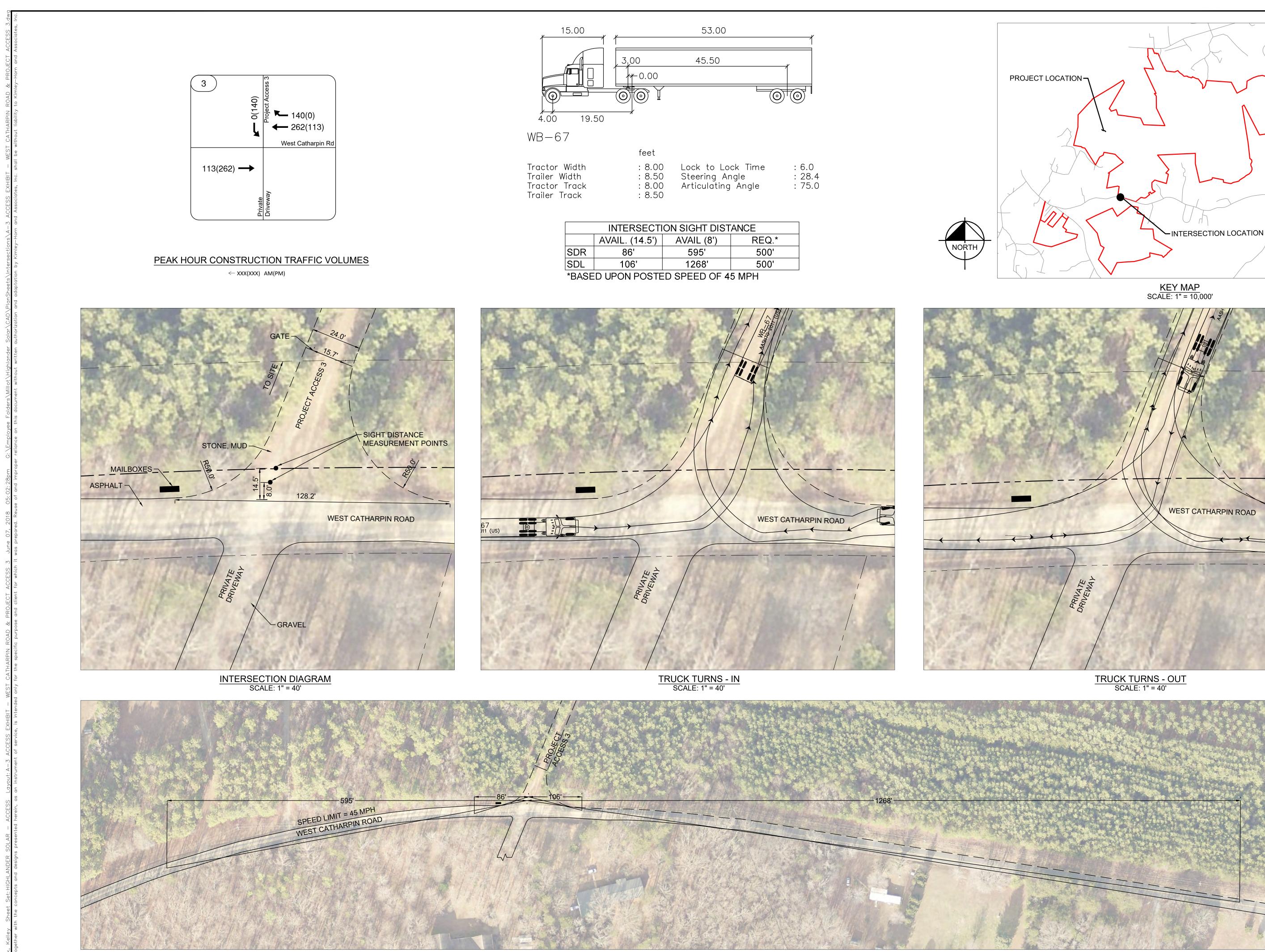






SPOTSYLVANIA SOLAR ENERC CENTER CONSTRUCTION TRAF AND ACCESS EVALUATION

SHEET NUMBER





POTSYLVANIA SOLAR ENERGY
ENTER CONSTRUCTION TRAFFIC
AND ACCESS EVALUATION
APPENDIX A

SHEET NUMBER

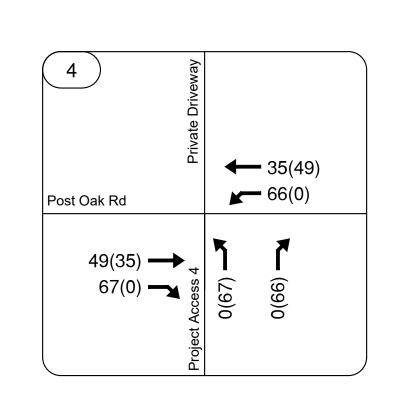
A-3

INTERSECTION SIGHT DISTANCE

SCALE: 1" = 150'

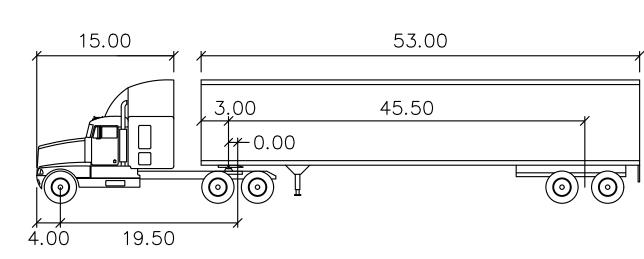
SDR: 86' (14.5') / 595' (8')

SDL: 106' (14.5') / 1268' (8')



PEAK HOUR CONSTRUCTION TRAFFIC VOLUMES

 $\leftarrow$  XXX(XXX) AM(PM)



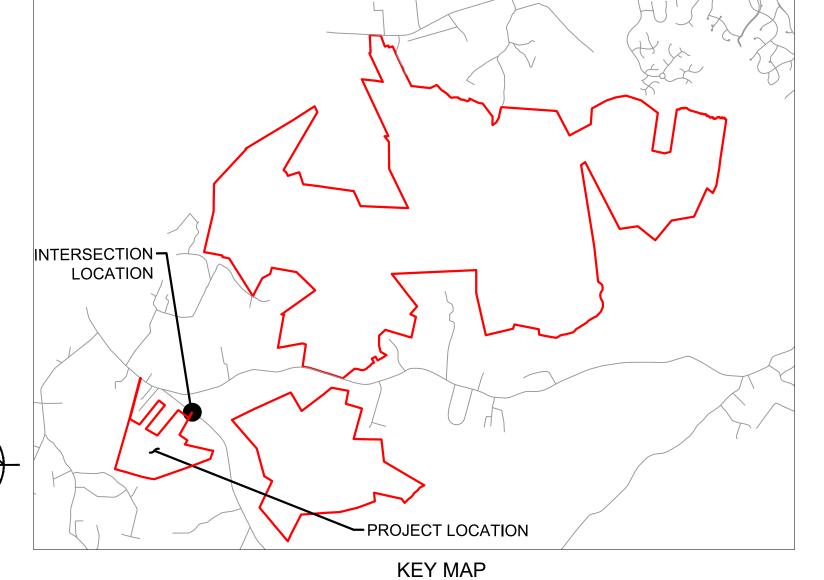
WB - 67

feet

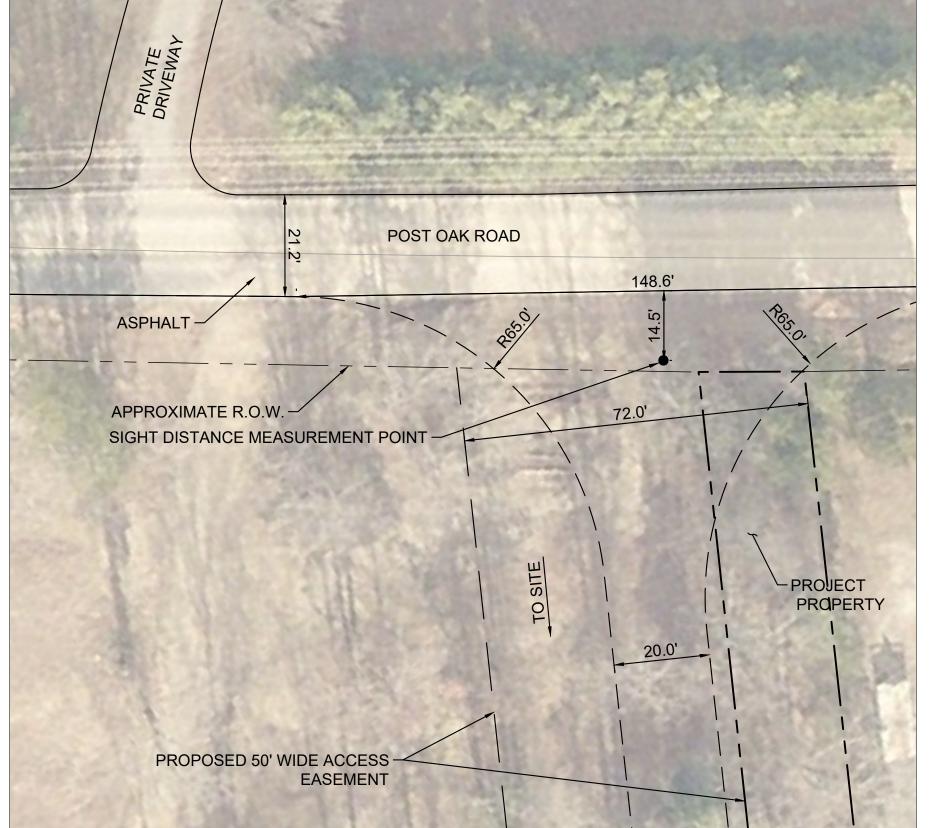
Tractor Width Trailer Width Tractor Track Trailer Track : 8.00 : 8.50 : 8.00 : 8.50 : 6.0 : 28.4 : 75.0 Lock to Lock Time Steering Angle Articulating Angle

|     | NTERSECTION SIG | HT DISTANCE |
|-----|-----------------|-------------|
|     | AVAIL.          | REQ.*       |
| SDR | 545'            | 500'        |
| SDL | 640'            | 500'        |

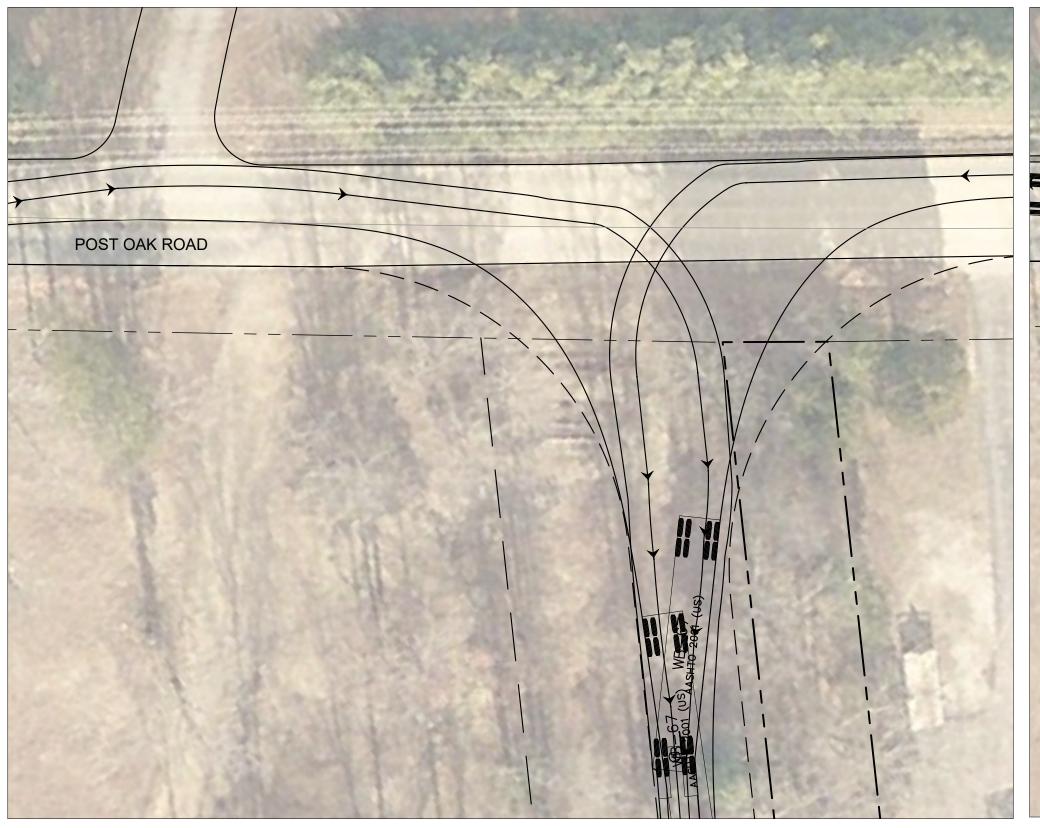
\*BASED UPON POSTED SPEED OF 45 MPH



KEY MAP SCALE: 1" = 10,000'



INTERSECTION DIAGRAM SCALE: 1" = 40'



TRUCK TURNS - IN SCALE: 1" = 40'



TRUCK TURNS - OUT SCALE: 1" = 40'

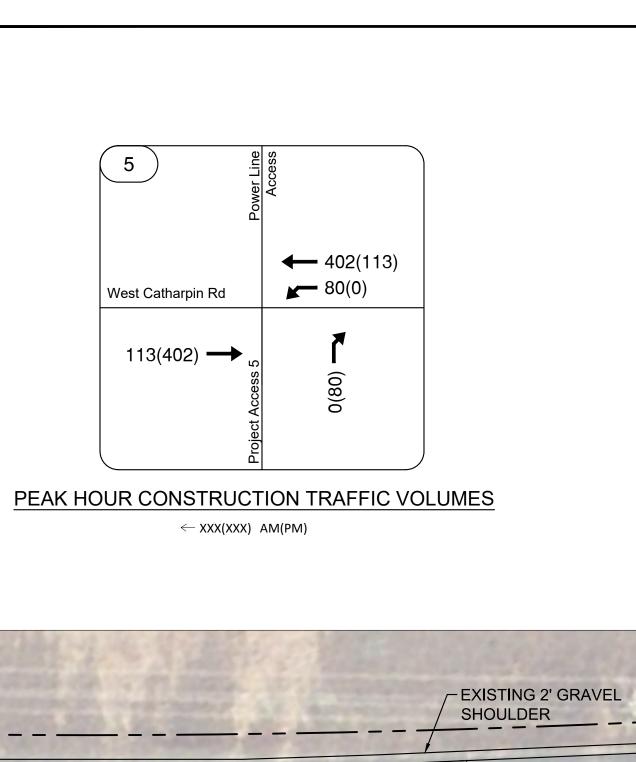




Kimley»

SHEET NUMBER A-4

INTERSECTION SIGHT DISTANCE SCALE: 1" = 150'



113.3'

EXISTING 2' GRAVEL

- APPROXIMATE R.O.W.

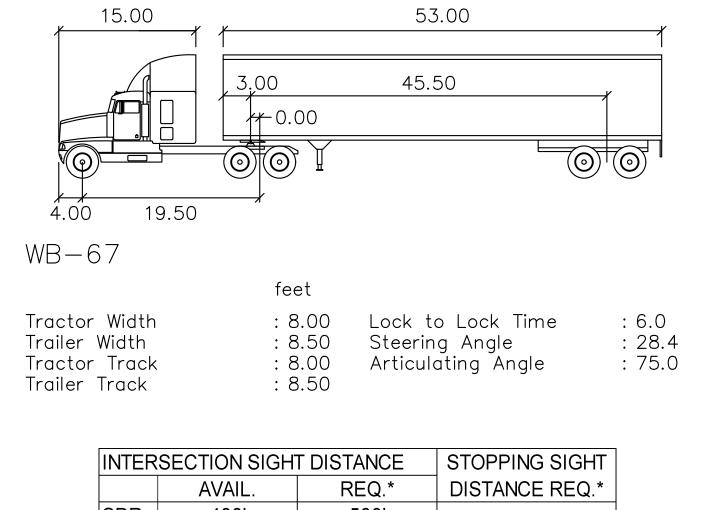
SHOULDER

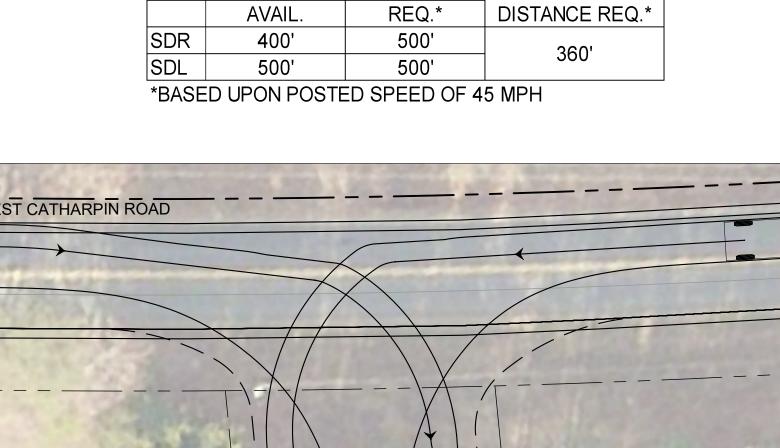
-PROPOSED GRAVEL DRIVE

EXISTING 50'
INGRESS AND
EGRESS EASEMENT

WEST CATHARPIN ROAD

SIGHT DISTANCE + MEASUREMENT

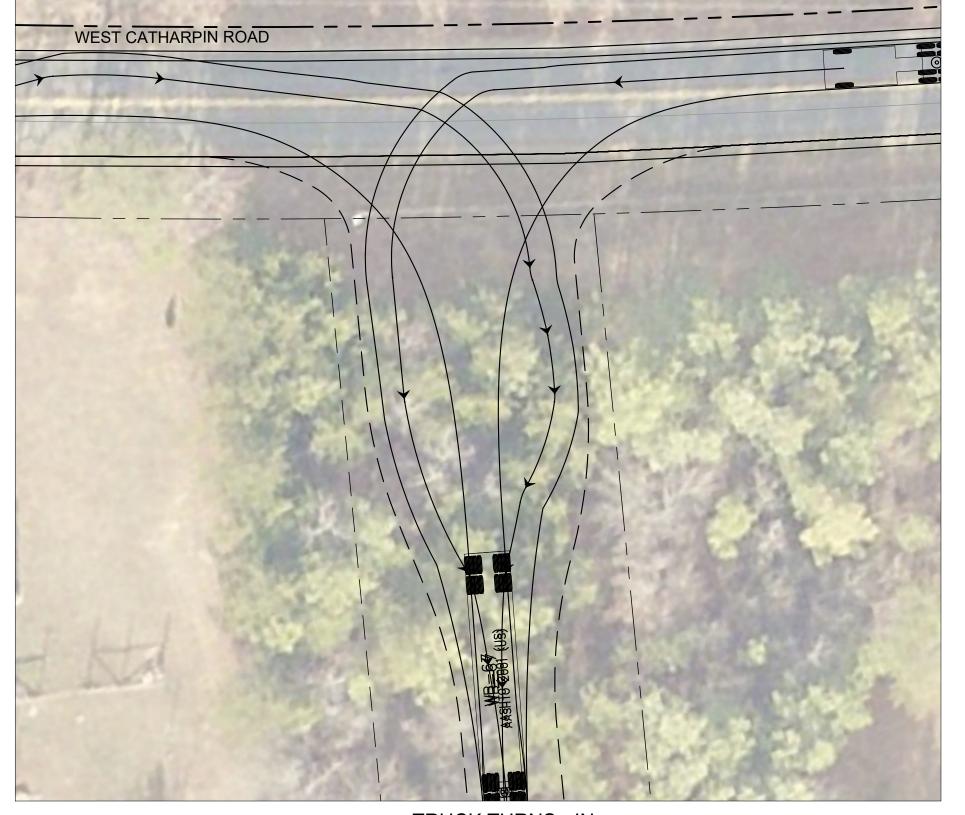


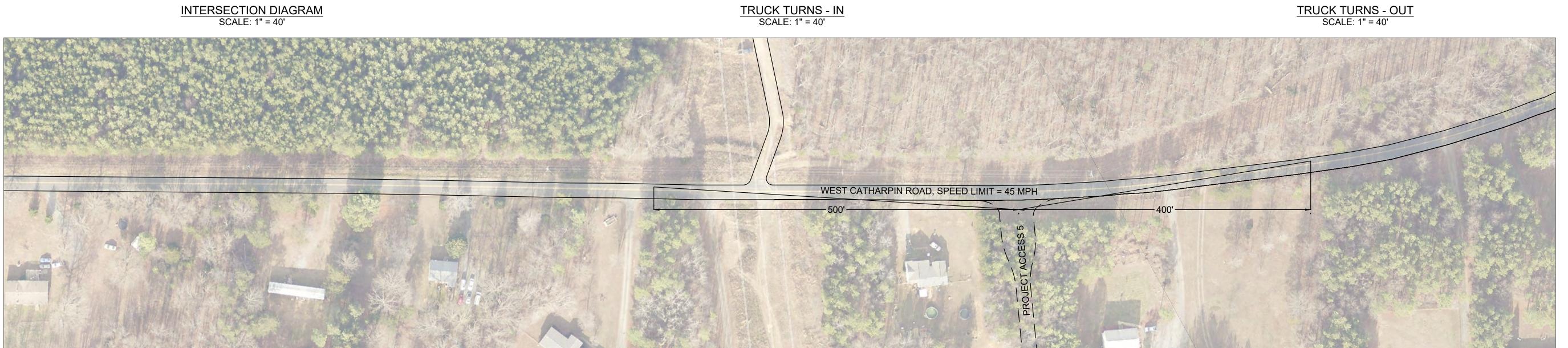




➤INTERSECTION LOCATION

PROJECT LOCATION

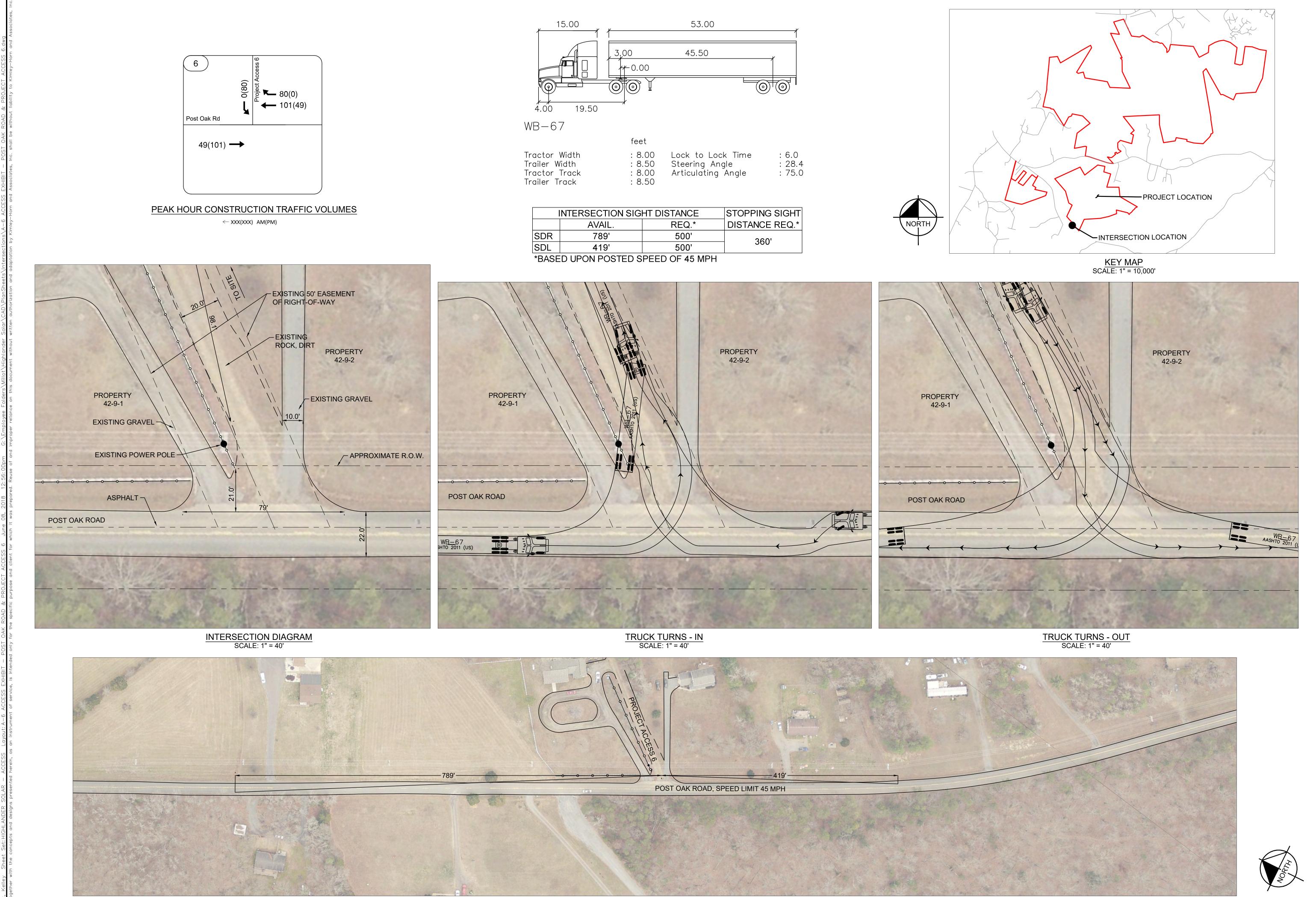




INTERSECTION SIGHT DISTANCE SCALE: 1" = 150'

SHEET NUMBER A-5

Kimley



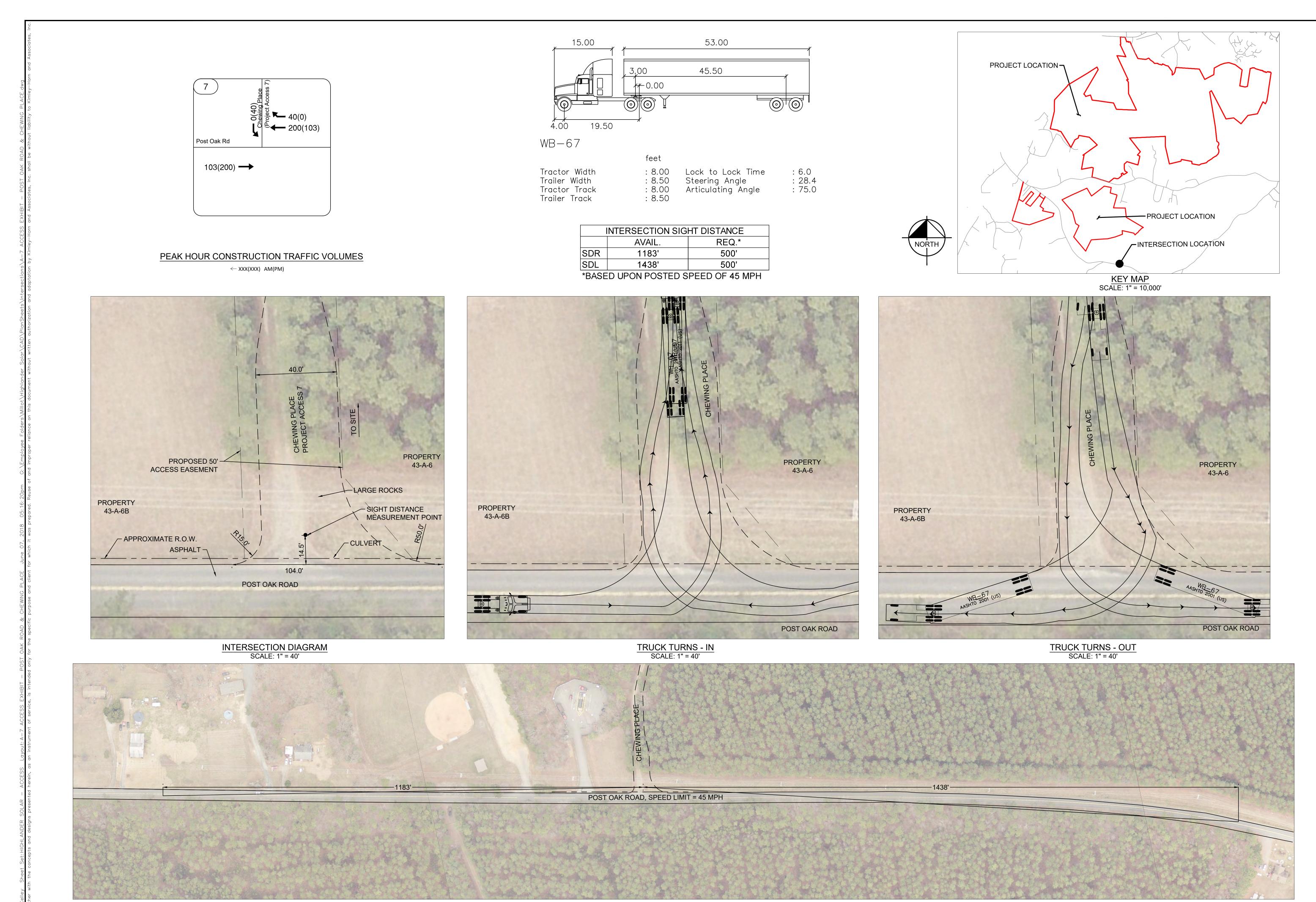
INTERSECTION SIGHT DISTANCE
SCALE: 1" = 150'

SPOTSYLVANIA SENTER CONSTRAND ACCESS

Kimley

SHEET NUMBER

A-6

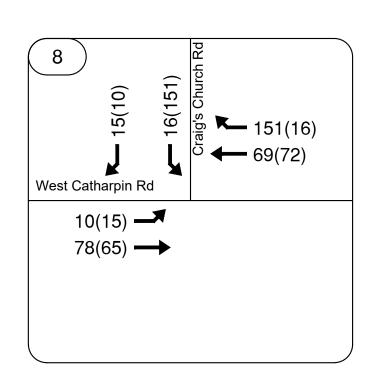


SPOTSYLVANIA SC CENTER CONSTRUC AND ACCESS EV

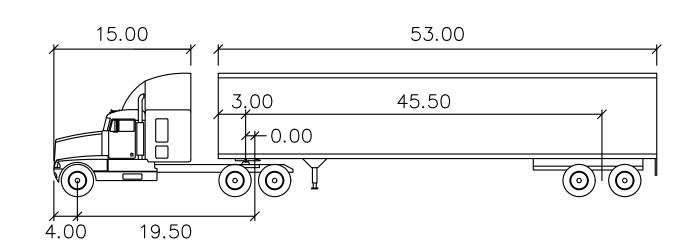
Kimley

SHEET NUMBER
A-7

INTERSECTION SIGHT DISTANCE
SCALE: 1" = 200'



PEAK HOUR CONSTRUCTION TRAFFIC VOLUMES ← XXX(XXX) AM(PM)

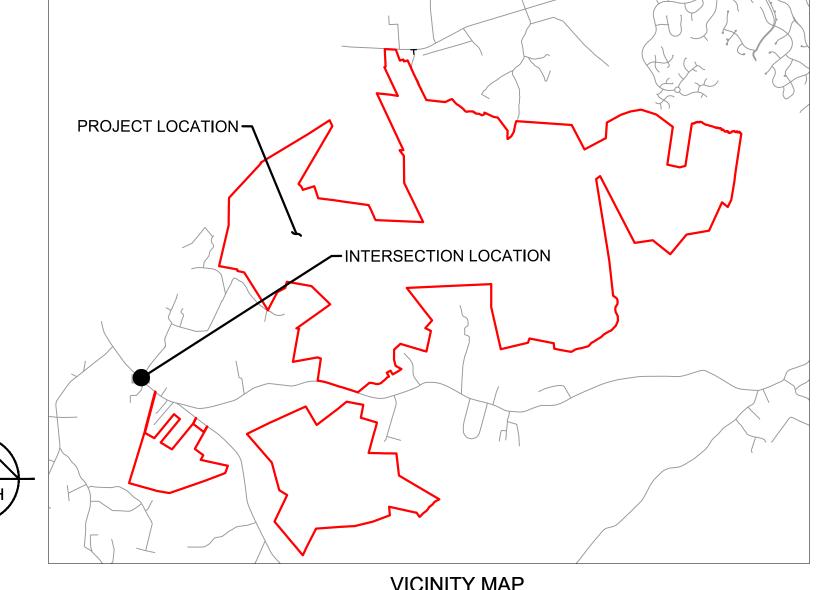


| WB - 67 |  |
|---------|--|
|         |  |

|  | feet                                 |                       |
|--|--------------------------------------|-----------------------|
| Tractor Width<br>Trailer Width<br>Tractor Track<br>Trailer Track | : 8.00<br>: 8.50<br>: 8.00<br>: 8.50 | Lock<br>Stee<br>Artic |

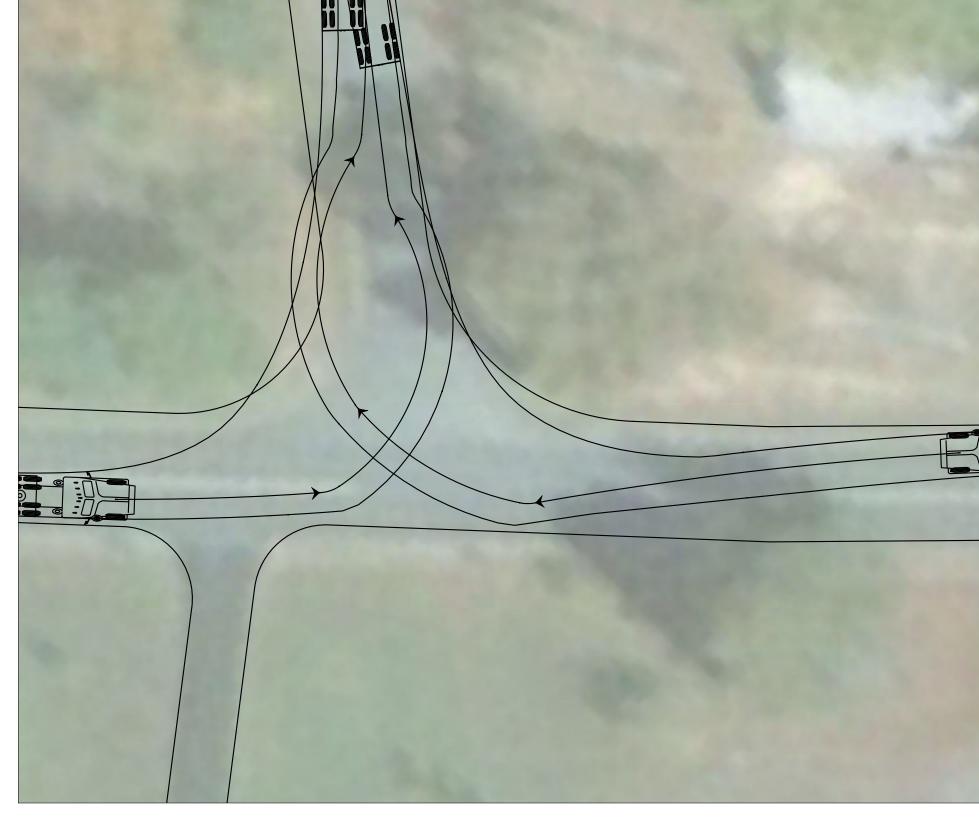
| : 8.00 | Lock to Lock Time  | : 6.0  |
|--------|--------------------|--------|
| : 8.50 | Steering Angle     | : 28.4 |
| : 8.00 | Articulating Angle | : 75.0 |
| : 8.50 |                    |        |

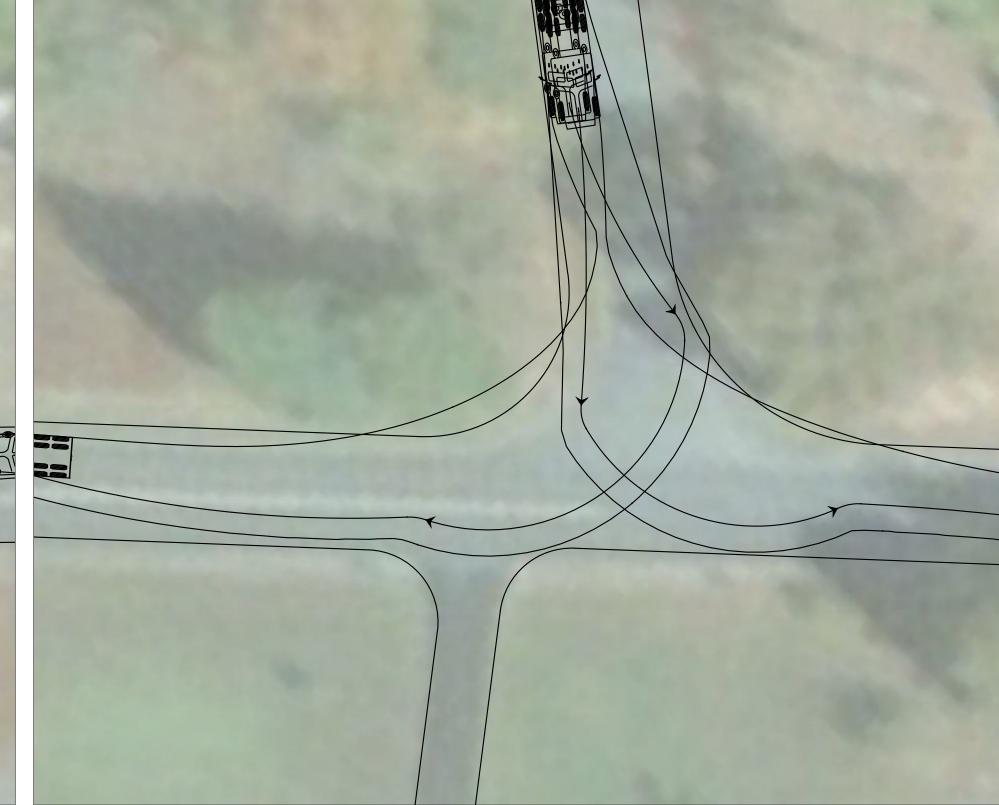
| INTERSECTION SIGHT DISTANCE        |        |       |  |  |
|------------------------------------|--------|-------|--|--|
|                                    | AVAIL. | REQ.* |  |  |
| SDR                                | 500'   | 500'  |  |  |
| SDL                                | 500'   | 500'  |  |  |
| *BASED UPON POSTED SPEED OF 45 MPH |        |       |  |  |



VICINITY MAP SCALE: 1" = 10,000'







TRUCK TURNS - IN SCALE: 1" = 40' TRUCK TURNS - OUT SCALE: 1" = 40' INTERSECTION DIAGRAM
SCALE: 1" = 40'



INTERSECTION LOCATION
SCALE: 1" = 150'

SHEET NUMBER A-8

### **APPENDIX B**

### Site Photos

### Old Plank Road and Project Access 1

#### Northbound



**Southbound** 



**Eastbound** 



Westbound



Sight Distance Right (View from Intersection)



Sight Distance Right (View from Object)



Sight Distance Left (View from Intersection)





Sight Distance Left (View from Object)



### Old Plank Road and Windy Acres Lane (Project Access 2)

#### Northbound



#### Southbound



**Eastbound** 



#### Westbound



**Sight Distance Right (View from Intersection)** 



Sight Distance Left (View from Object)



# West Catharpin Road and Project Access 3

#### Southbound



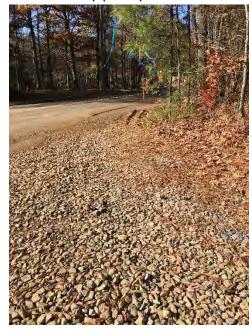
**Eastbound** 



#### Westbound



Sight Distance Right (View from Intersection) (14.5')



Sight Distance Right (View from Object) (14.5')



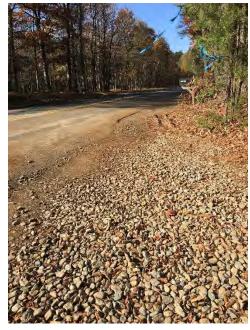
Sight Distance Left (View from Intersection) (14.5')



Sight Distance Left (View from Object) (14.5')



Sight Distance Right (View from Intersection) (8')





Sight Distance Right (View from Object) (8')



Sight Distance Left (View from Intersection) (8')



Sight Distance Left (View from Object) (8')



# **Post Oak Road and Project Access 4**

#### **Southbound**



**Eastbound** 



#### Westbound



Sight Distance Right (View from West of Intersection)





Sight Distance Right (View from Object)



Sight Distance Left (View from West of Intersection)



# West Catharpin Road and Project Access 5

#### Southbound



**Eastbound** 



#### Westbound



**Sight Distance Left (View from Object)** 



# Post Oak Road and Project Access 6

**Project Access 6, North of Intersection** 



**Southbound** 



**Eastbound** 



Westbound



Sight Distance Right (View from Intersection)



Sight Distance Right (View from Object)



**Sight Distance Left (View from Intersection)** 

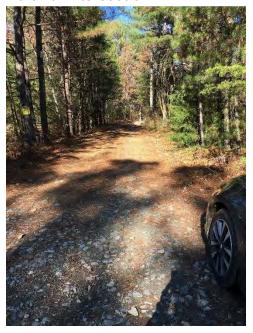


**Sight Distance Left (View from Object)** 



# Post Oak Road and Chewing Place (Project Access 7)

#### North of Intersection



**Southbound** 



#### **Eastbound**



Westbound





Sight Distance Right (View from Intersection)



Sight Distance Right (View from Object)



Sight Distance Left (View from Intersection)



Sight Distance Left (View from Object)



### West Catharpin Road and Craig's Church Road (Project Access 8)

End of Public Road (proposed Project Access 8 pending property owner agreement)



West Catharpin Road and Craig's Church Road – Southbound



West Catharpin Road and Craig's Church Road – Eastbound



West Catharpin Road and Craig's Church Road – Westbound



### **APPENDIX C**

# Spotsylvania County Traffic Count Data

### **Spotsylvania County**

#### 9019 Old Battlefield Blvd. Spotsylvania, Va. Planning Department (D.G. Cole)

Site Code: POST OAK ROAD

Stubbs Bridge Road Pamunkey Road (612) Latitude: 0' 0.000 Undefined

|                 |                  |                  |                  |                  |                  |                |                  |                  | Latitude: 0' 0.000 Undefined |
|-----------------|------------------|------------------|------------------|------------------|------------------|----------------|------------------|------------------|------------------------------|
| Start<br>Time   | Mon<br>20-Feb-17 | Tue<br>21-Feb-17 | Wed<br>22-Feb-17 | Thu<br>23-Feb-17 | Fri<br>24-Feb-17 | Average<br>Day | Sat<br>25-Feb-17 | Sun<br>26-Feb-17 | Week<br>Average              |
| 12:00 AM        | 12               | 11               | 9                | 23-Feb-17        | 11               |                | 25-Feb-17<br>24  | 33               | 15                           |
| 01:00           | 8                | 8                | 3                | 5                | 7                | 6              | 19               | 21               | 10 🔲                         |
| 02:00           | 2                | 3                | 5                | 9                | 3                | 4              | 24               | 10               | 8                            |
| 03:00           | 8                | 6                | 4                | 3                | 8                | 6              | 11               | 7                | 7                            |
| 04:00           | 12               | 18               | 15               | 15               | 16               | 15             | 18               | 2                | 14                           |
| 05:00           | 30               | 31               | 29               | 27               | 33               | 30             | 12               | 2                | 23                           |
| 06:00           | 72               | 73               | 72               | 68               | 61               | 69             | 26               | 12               | 55                           |
| 07:00           | 136              | 136              | 108              | 121              | 133              | 127            | 51               | 21               | 101                          |
| 08:00           | 108              | 109              | 115              | 99               | 119              | 110            | 72               | 27               | 93                           |
| 09:00           | 71               | 66               | 73               | 66               | 78               | 71             | 90               | 45               | 70                           |
| 10:00           | 66               | 71               | 67               | 82               | 80               | 73             | 103              | 94               | 80                           |
| 11:00           | 76               | 62               | 77               | 78               | 59               | 70             | 123              | 108              | 83                           |
| 12:00 PM        | 64               | 56               | 80               | 70               | 89               | 72             | 140              | 85               | 83                           |
| 01:00           | 92               | 68               | 79               | 78               | 83               | 80             | 129              | 114              | 92                           |
| 02:00           | 118              | 85               | 89               | 88               | 129              | 102            | 109              | 145              | 109                          |
| 03:00           | 111              | 80               | 140              | 115              | 148              | 119            | 137              | 77               | 115                          |
| 04:00           | 126              | 117              | 140              | 131              | 139              | 131            | 108              | 87               | 121                          |
| 05:00           | 133              | 133              | 145              | 173              | 139              | 145            | 119              | 118              | 137                          |
| 06:00           | 130              | 122              | 147              | 141              | 146              | 137            | 95               | 82               | 123                          |
| 07:00           | 100              | 77               | 76               | 99               | 137              | 98             | 88               | 58               | 91                           |
| 08:00           | 86               | 56               | 87               | 84               | 93               | 81             | 81               | 59               | 78                           |
| 09:00           | 41               | 42               | 57               | 53               | 72               | 53             | 60               | 32               | 51                           |
| 10:00           | 30               | 23               | 28               | 34               | 71               | 37             | 35               | 19               | 34                           |
| 11:00           | 25               | 16               | 9                | 19               | 39               | 22             | 56               | 13               | 25                           |
| Day Total       | 1657             | 1469             | 1654             | 1664             | 1893             | 1668           | 1730             | 1271             | 1618                         |
| % Avg.<br>WkDay | 99.3%            | 88.1%            | 99.2%            | 99.8%            | 113.5%           |                |                  |                  |                              |
| % Avg.<br>Week  | 102.4%           | 90.8%            | 102.2%           | 102.8%           | 117.0%           | 103.1%         | 106.9%           | 78.6%            |                              |
| AM Peak         | 07:00            | 07:00            | 08:00            | 07:00            | 07:00            | 07:00          | 11:00            | 11:00            | 07:00                        |
| Vol.            | 136              | 136              | 115              | 121              | 133              | 127            | 123              | 108              | 101                          |
| PM Peak         | 17:00            | 17:00            | 18:00            | 17:00            | 15:00            | 17:00          | 12:00            | 14:00            | 17:00                        |
| Vol.            | 133              | 133              | 147              | 173              | 148              | 145            | 140              | 145              | 137                          |
| Grand<br>Total  | 1657             | 1469             | 1654             | 1664             | 1893             | 1668           | 1730             | 1271             | 1618                         |

ADT Not Calculated

### **Spotsylvania County** 9019 Old Battlefield Blvd.

#### 9019 Old Battlefield Blvd. Spotsylvania, Va. Planning Department (D.G. Cole)

Site Code: W CATHARPIN ROAD

Pamunkey Road (612) Post Oak Road (606) Latitude: 0' 0.000 Undefined

|                   |           |           |           |           |          |         |          |           | Latitude: 0' 0.000 Undefined |
|-------------------|-----------|-----------|-----------|-----------|----------|---------|----------|-----------|------------------------------|
| Start             | Mon       | Tue       | Wed       | Thu       | Fri      | Average | Sat      | Sun       | Week                         |
| Time              | 14-May-18 | 15-May-18 | 16-May-18 | 17-May-18 |          | Day     |          | 20-May-18 | Average 10 📗                 |
| 12:00 AM<br>01:00 | 11 4      | 6 3       | 7<br>11   | 9         | 13<br>13 | 9       | 12<br>13 | 12<br>15  | 10 📗                         |
| 02:00             | 5         | 8         | 9         | 7         | 6        | 0       | 5        | 12        | 7 🗓                          |
| 03:00             | 19        | 11        | 15        | 14        | 9        | 14      | 12       | 7         | 12                           |
| 03.00             | 39        | 31        | 36        | 41        | 30       | 35      | 9        | 5         | 27                           |
| 05:00             | 96        | 58        | 72        | 76        | 62       | 73      | 24       | 5         | 56                           |
| 06:00             | 137       | 85        | 122       | 106       | 90       | 108     | 34       | 20        | 85                           |
| 07:00             | 177       | 114       | 147       | 129       | 120      | 137     | 50       | 26        | 109                          |
| 08:00             | 124       | 84        | 115       | 109       | 94       | 105     | 72       | 46        | 92                           |
| 09:00             | 63        | 69        | 84        | 82        | 77       | 75      | 79       | 97        | 79                           |
| 10:00             | 70        | 70        | 66        | 73        | 67       | 69      | 104      | 117       | 81                           |
| 11:00             | 77        | 94        | 91        | 63        | 73       | 80      | 108      | 101       | 87                           |
| 12:00 PM          | 68        | 72        | 85        | 66        | 82       | 75      | 88       | 114       | 82                           |
| 01:00             | 75        | 82        | 81        | 72        | 92       | 80      | 89       | 123       | 88                           |
| 02:00             | 105       | 105       | 94        | 81        | 84       | 94      | 108      | 115       | 99                           |
| 03:00             | 122       | 100       | 118       | 119       | 104      | 113     | 78       | 82        | 103                          |
| 04:00             | 145       | 129       | 114       | 138       | 139      | 133     | 94       | 91        | 121                          |
| 05:00             | 150       | 178       | 150       | 151       | 120      | 150     | 60       | 66        | 125                          |
| 06:00             | 93        | 155       | 105       | 101       | 124      | 116     | 65       | 79        | 103                          |
| 07:00             | 52        | 133       | 81        | 76        | 64       | 81      | 63       | 55        | 75                           |
| 08:00             | 51        | 77        | 44        | 59        | 63       | 59      | 52       | 52        | 57                           |
| 09:00             | 41        | 53        | 33        | 38        | 36       | 40      | 52       | 43        | 42                           |
| 10:00             | 25        | 28        | 30        | 29        | 36       | 30      | 34       | 24        | 29                           |
| 11:00             | 14        | 13        | 8         | 20        | 29       | 17      | 27       | 15        | 18 🔲                         |
| Day Total         | 1763      | 1758      | 1718      | 1668      | 1627     | 1708    | 1332     | 1322      | 1597                         |
| % Avg.<br>WkDay   | 103.2%    | 102.9%    | 100.6%    | 97.7%     | 95.3%    |         |          |           |                              |
| % Avg.<br>Week    | 110.4%    | 110.1%    | 107.6%    | 104.4%    | 101.9%   | 107.0%  | 83.4%    | 82.8%     |                              |
| AM Peak           | 07:00     | 07:00     | 07:00     | 07:00     | 07:00    | 07:00   | 11:00    | 10:00     | 07:00                        |
| Vol.              | 177       | 114       | 147       | 129       | 120      | 137     | 108      | 117       | 109                          |
| PM Peak           | 17:00     | 17:00     | 17:00     | 17:00     | 16:00    | 17:00   | 14:00    | 13:00     | 17:00                        |
| Vol.              | 150       | 178       | 150       | 151       | 139      | 150     | 108      | 123       | 125                          |
|                   |           |           |           |           |          |         |          |           |                              |

### **Spotsylvania County** 9019 Old Battlefield Blvd.

#### 9019 Old Battlefield Blvd. Spotsylvania, Va. Planning Department (D.G. Cole)

Site Code: W CATHARPIN ROAD

Pamunkey Road (612) Post Oak Road (606)

Latitude: 0' 0.000 Undefined

|                 |       |       |           |           |           |         |           |           | Latitude. U 0.000 Undefined |
|-----------------|-------|-------|-----------|-----------|-----------|---------|-----------|-----------|-----------------------------|
| Start           | Mon   | Tue   | Wed       | Thu       | Fri       | Average | Sat       | Sun       | Week                        |
| Time            |       |       | 23-May-18 | 24-May-18 | 25-May-18 | Day     | 26-May-18 | 27-May-18 | Average                     |
| 12:00 AM        | 11    | 3     | ^         | *         | *         | 7       | *         |           | 7 🗓                         |
| 01:00           | 4     | 14    | *         | *         | *         | 9       | *         | *         | 9                           |
| 02:00           | 5     | 15    | *         | *         | *         | 10      | *         | *         | 10                          |
| 03:00           | 19    | 18    |           | *         | *         | 18      | *         | *         | 18                          |
| 04:00           | 39    | 48    | *         |           |           | 44      |           |           | 44                          |
| 05:00           | 96    | 90    | *         | *         | *         | 93      | *         | *         | 93                          |
| 06:00           | 137   | 149   | *         | *         | *         | 143     | *         | *         | 143                         |
| 07:00           | 177   | 188   | *         | *         | *         | 182     | *         | *         | 182                         |
| 08:00           | 124   | 132   | *         | *         | *         | 128     | *         | *         | 128                         |
| 09:00           | 63    | 98    | *         | *         | *         | 80      | *         | *         | 80                          |
| 10:00           | 70    | 70    | *         | *         | *         | 70      | *         | *         | 70                          |
| 11:00           | 77    | *     | *         | *         | *         | 77      | *         | *         | 77                          |
| 12:00 PM        | 68    | *     | *         | *         | *         | 68      | *         | *         | 68                          |
| 01:00           | 75    | *     | *         | *         | *         | 75      | *         | *         | 75                          |
| 02:00           | 105   | *     | *         | *         | *         | 105     | *         | *         | 105                         |
| 03:00           | 110   | *     | *         | *         | *         | 110     | *         | *         | 110                         |
| 04:00           | 150   | *     | *         | *         | *         | 150     | *         | *         | 150                         |
| 05:00           | 153   | *     | *         | *         | *         | 153     | *         | *         | 153                         |
| 06:00           | 113   | *     | *         | *         | *         | 113     | *         | *         | 113                         |
| 07:00           | 99    | *     | *         | *         | *         | 99      | *         | *         | 99                          |
| 08:00           | 69    | *     | *         | *         | *         | 69      | *         | *         | 69                          |
| 09:00           | 47    | *     | *         | *         | *         | 47      | *         | *         | 47                          |
| 10:00           | 29    | *     | *         | *         | *         | 29      | *         | *         | 29                          |
| 11:00           | 9     | *     | *         | *         | *         | 9       | *         | *         | 9 📘                         |
| Day Total       | 1849  | 825   | 0         | 0         | 0         | 1888    | 0         | 0         | 1888                        |
| % Avg.<br>WkDay | 97.9% | 43.7% | 0.0%      | 0.0%      | 0.0%      |         |           |           |                             |
| % Avg.<br>Week  | 97.9% | 43.7% | 0.0%      | 0.0%      | 0.0%      | 100.0%  | 0.0%      | 0.0%      |                             |
| AM Peak         | 07:00 | 07:00 |           |           |           | 07:00   |           |           | 07:00                       |
| Vol.            | 177   | 188   |           |           |           | 182     |           |           | 182                         |
| PM Peak         | 17:00 |       |           |           |           | 17:00   |           |           | 17:00                       |
| Vol.            | 153   |       |           |           |           | 153     |           |           | 153                         |
| Grand<br>Total  | 3612  | 2583  | 1718      | 1668      | 1627      | 3596    | 1332      | 1322      | 3485                        |

ADT Not Calculated