

PROJECT MANAGER *Town of Vienna Public Works Dept. Dennis Johnson, P.E. (703) 255-6380*
 SURVEYED BY, DATE *Rinker Design Associates, P.C. Sidney Thomas, L.S. (703) 368-7373, April 2015*
 DESIGN BY *Rinker Design Associates, P.C. Adam Welschenbach, P.E. (703) 368-7373*
 SUBSURFACE UTILITY BY, DATE *Mid-Atlantic Utility Locating, LLC, April 2015*

Roadway Lighting Design Criteria Statistical Calculations, Pole and Luminaire Specifications

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ROADWAY ENGINEER

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	6676	U000-153-198, C-501	7(1)

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Pole Inventory

Pole	Station	Offset	Baseline	Mounting Height	Arm Length	Luminaire
Pole #1	14+98	17.81' RT	Park Street B.L.	30	6	88W
Pole #2	30+86	22.80' LT	Locust Street	30	6	88W
Pole #3	14+88	29.16' LT	Park Street B.L.	25	6	60W

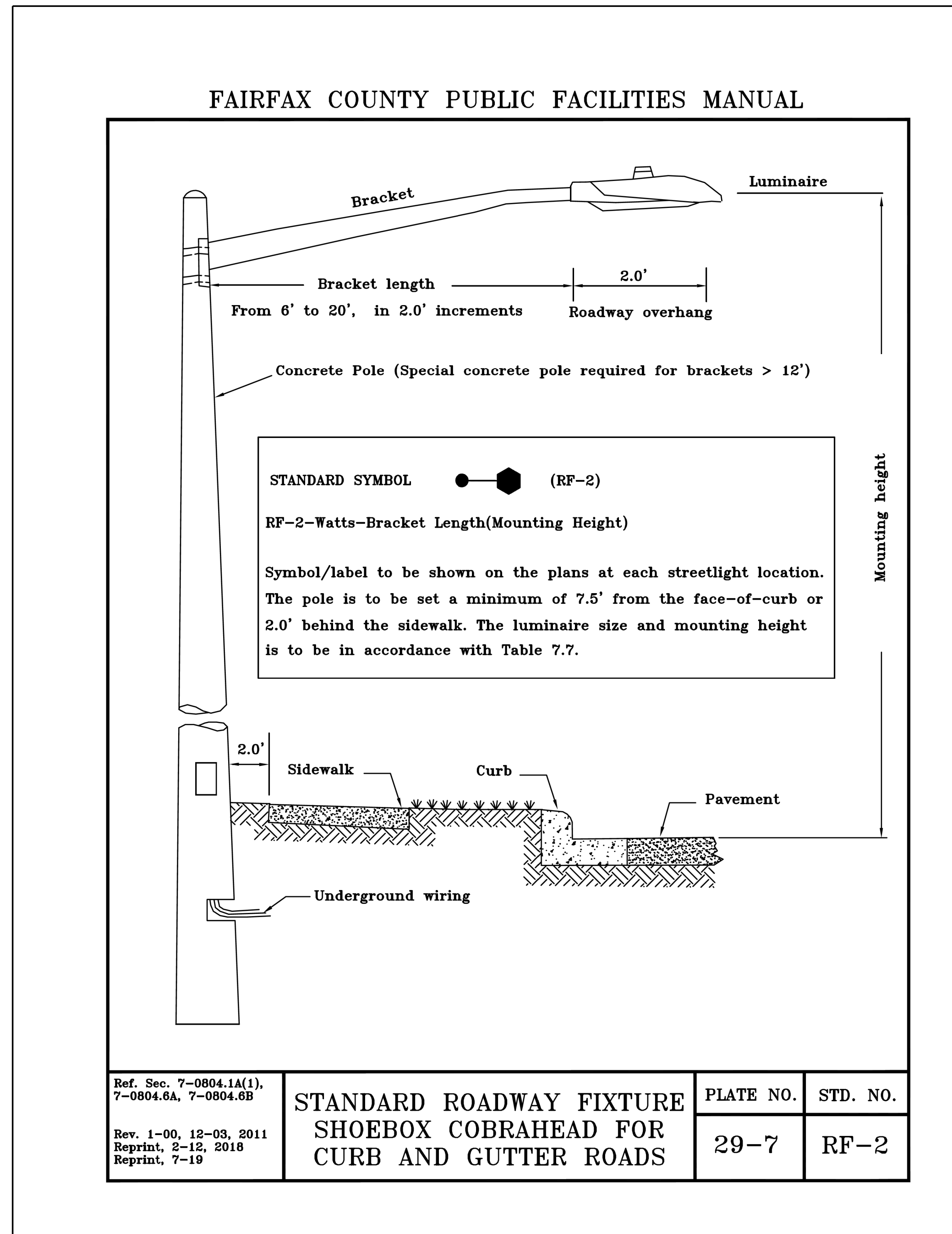
Roadway Lighting RP-8-18: Table 12-4 Illuminance for Roundabouts (lux/fc)

Functional Classification	Pedestrian Activity Classification			E(avg)/E(min)
	High	Medium	Low	
Major/Major	34/3.2	26/2.4	18/1.7	3f
Major/Collector	29/2.7	22/2.0	15/1.4	3f
Major/Local	26/2.4	20/1.9	13/1.2	3f
Collector/Collector	24/2.2	18/1.7	12/1.1	4f
Collector/Local	21/2.0	16/1.5	10/0.9	4f
Local/Local	18/1.7	14/1.3	8/0.7	6f

Note: Local/Local roadway classification was determined by Fairfax County

Photometric Calculation Summary - Roundabout

Roadway	Calc Type	Units	Avg	Max	Min	Avg/Min
PARK ST AND LOCUST ST	Illuminance	Fc	1.5	2J	0.9	1.6

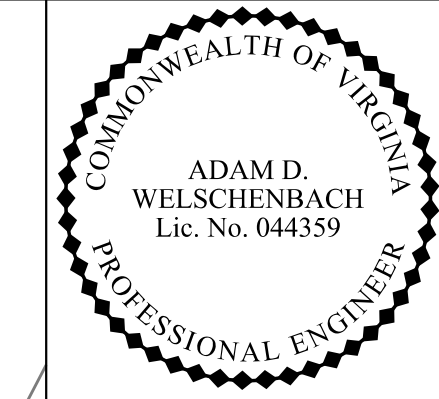


Shoebbox (150W – 250W EQ)

The Shoebox luminaire provides a full cut-off distribution for lighting roadways and parking areas.

Comparable HID Wattage	Finish Color	Initial Lamp Lumens	Lighting Pattern	Correlated Color Temperature (CCT)	Input Wattage	Input Amps	Billing Tier	EPA	B-U-G Rating	Recommended Mounting Height (ft.)	Luminaire Stock #	WMIS CU Code
150	Black	8643	Type II	3000K	60	0.58	3	0.76	2-0-2	25 - 30	42341567	LEDSBBA0823BXXX
150	Gray	8643	Type II	3000K	60	0.58	3	0.76	2-0-2	25 - 30	42341566	LEDSBBA0823GXXX
150	Black	8729	Type II	4000K	60	0.58	3	0.76	2-0-2	25 - 30	42341568	LEDSBBA0824BXXX
150	Gray	8729	Type II	4000K	60	0.58	3	0.76	2-0-2	25 - 30	42339747	LEDSBBA0824GXXX
150	Black	8145	Type III	3000K	60	0.58	3	0.76	2-0-2	25 - 30	42323697	LEDSBBA0833BXXX
150	Gray	8145	Type III	3000K	60	0.58	3	0.76	2-0-2	25 - 30	42323695	LEDSBBA0833GXXX
150	Black	8823	Type III	4000K	60	0.58	3	0.76	2-0-2	25 - 30	42315811	LEDSBBA0834BXXX
150	Gray	8823	Type III	4000K	60	0.58	3	0.76	2-0-2	25 - 30	42315783	LEDSBBA0834GXXX
150	Black	8318	Type IV	3000K	60	0.58	3	0.76	2-0-2	25 - 30	42323698	LEDSBBA0843BXXX
150	Gray	8318	Type IV	3000K	60	0.58	3	0.76	2-0-2	25 - 30	42323696	LEDSBBA0843GXXX
150	Black	8651	Type IV	4000K	60	0.58	3	0.76	2-0-2	25 - 30	42315632	LEDSBBA0844BXXX
150	Gray	8651	Type IV	4000K	60	0.58	3	0.76	2-0-2	25 - 30	42315784	LEDSBBA0844GXXX
200	Black	11490	Type III	3000K	88	0.86	3	0.76	3-0-3	30 - 35	42332134	LEDSBBA1233GXXX
250	Black	15230	Type III	3000K	106	1.03	4	0.76	3-0-3	30 - 35	42337108	LEDSBBA1533BXXX
250	Gray	15230	Type III	3000K	106	1.03	4	0.76	3-0-3	30 - 35	42329991	LEDSBBA1533GXXX
250	Black	15720	Type IV	3000K	106	1.03	4	0.76	3-0-3	30 - 35	42337109	LEDSBBA1543BXXX
250	Gray	15720	Type IV	3000K	106	1.03	4	0.76	3-0-3	30 - 35	42329992	LEDSBBA1543GXXX
250	Black	15950	Type III	4000K	106	1.03	4	0.76	3-0-3	30 - 35	42342703	LEDSBBA1534BXXX
250	Gray	15950	Type III	4000K	106	1.03	4	0.76	3-0-3	30 - 35	42315785	LEDSBBA1534GXXX
250	Black	15380	Type IV	4000K	106	1.03	4	0.76	3-0-3	30 - 35	42342704	LEDSBBA1544BXXX
250	Gray	15380	Type IV	4000K	106	1.03	4	0.76	3-0-3	30 - 35	42315786	LEDSBBA1544GXXX

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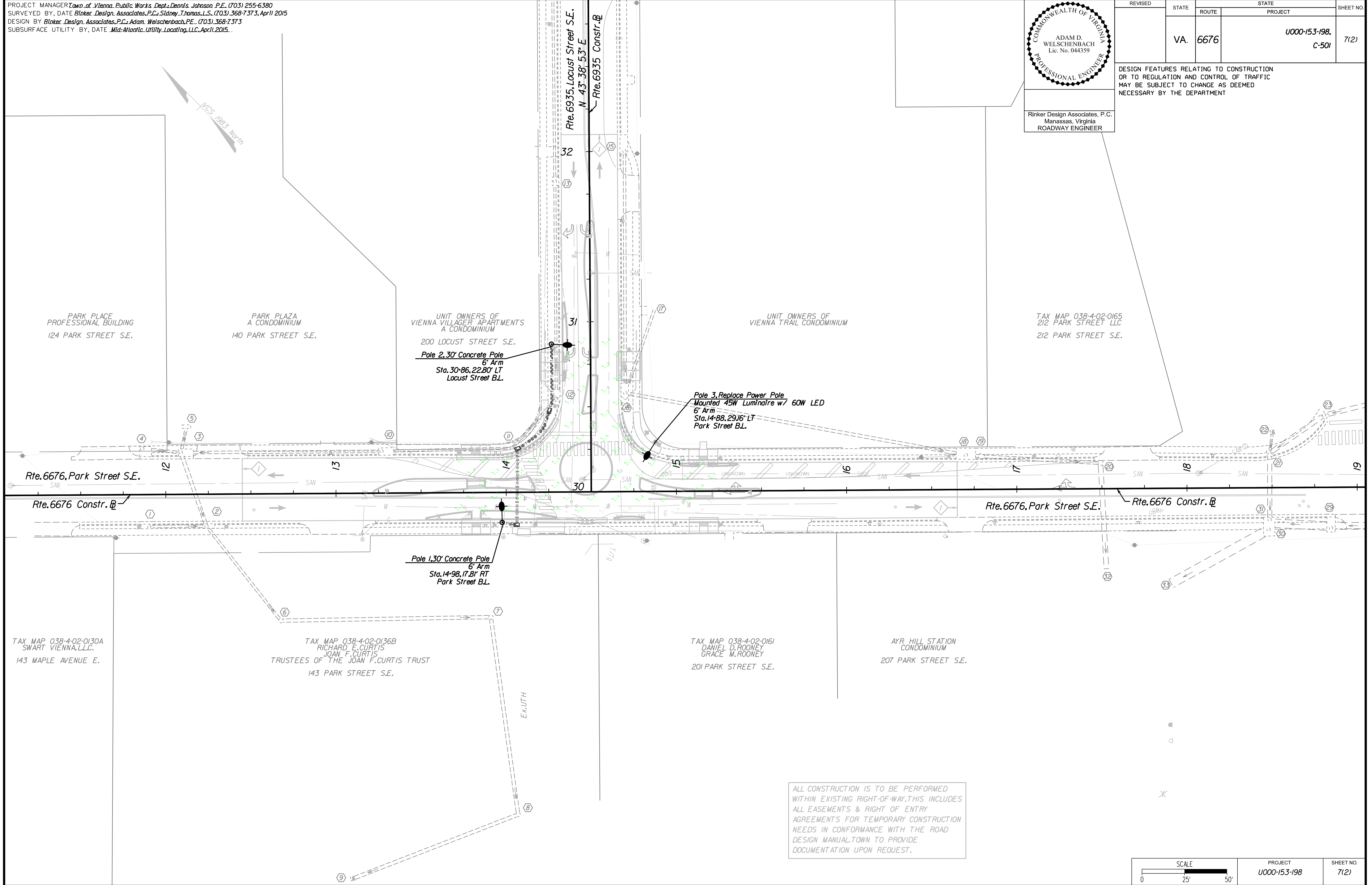
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TOWN OF VIENNA



ALL CONSTRUCTION IS TO BE PERFORMED WITHIN EXISTING RIGHT-OF-WAY. THIS INCLUDES ALL EASEMENTS & RIGHT OF ENTRY AGREEMENTS FOR TEMPORARY CONSTRUCTION NEEDS IN CONFORMANCE WITH THE ROAD DESIGN MANUAL. TOWN TO PROVIDE DOCUMENTATION UPON REQUEST.

SCALE 0 25' 50'	PROJECT U000-153-198	SHEET NO. 7(2)
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FINAL PLAN