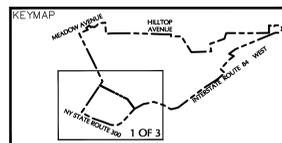


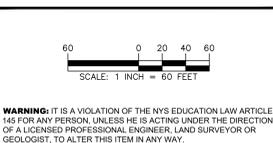
**NOTES:**

1. REFER TO SHEET LL100 FOR OVERALL LIGHTING PLAN, LIGHTING SCHEDULE AND STATISTICS.
2. REFER TO SHEET LL501 FOR LIGHTING NOTES AND DETAILS.



DATE	DESCRIPTION	No.
07/30/2021	REVISED PER TOWN COMMENTS	2.
05/28/2021	ROUTE 300 TRAFFIC IMPROVEMENTS	1.

REVISIONS



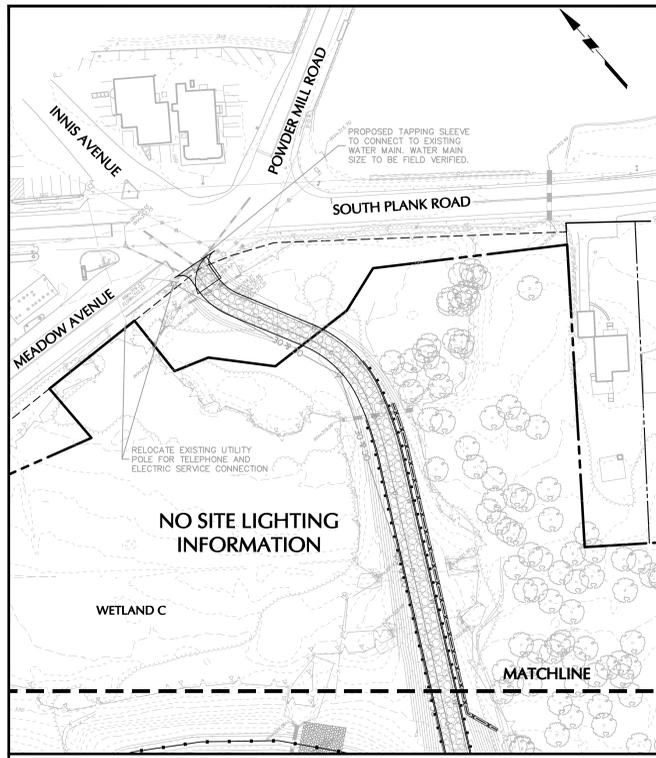
SIGNATURE: *Michael Szura* DATE SIGNED: \_\_\_\_\_  
 MICHAEL SZURA, RLA  
 LANDSCAPE ARCHITECT NY Lic. No. 001901

**LANGAN**  
 Langan Engineering, Environmental, Surveying,  
 Landscape Architecture and Geology, D.P.C.  
 One North Broadway, Suite 910  
 White Plains, NY 10601  
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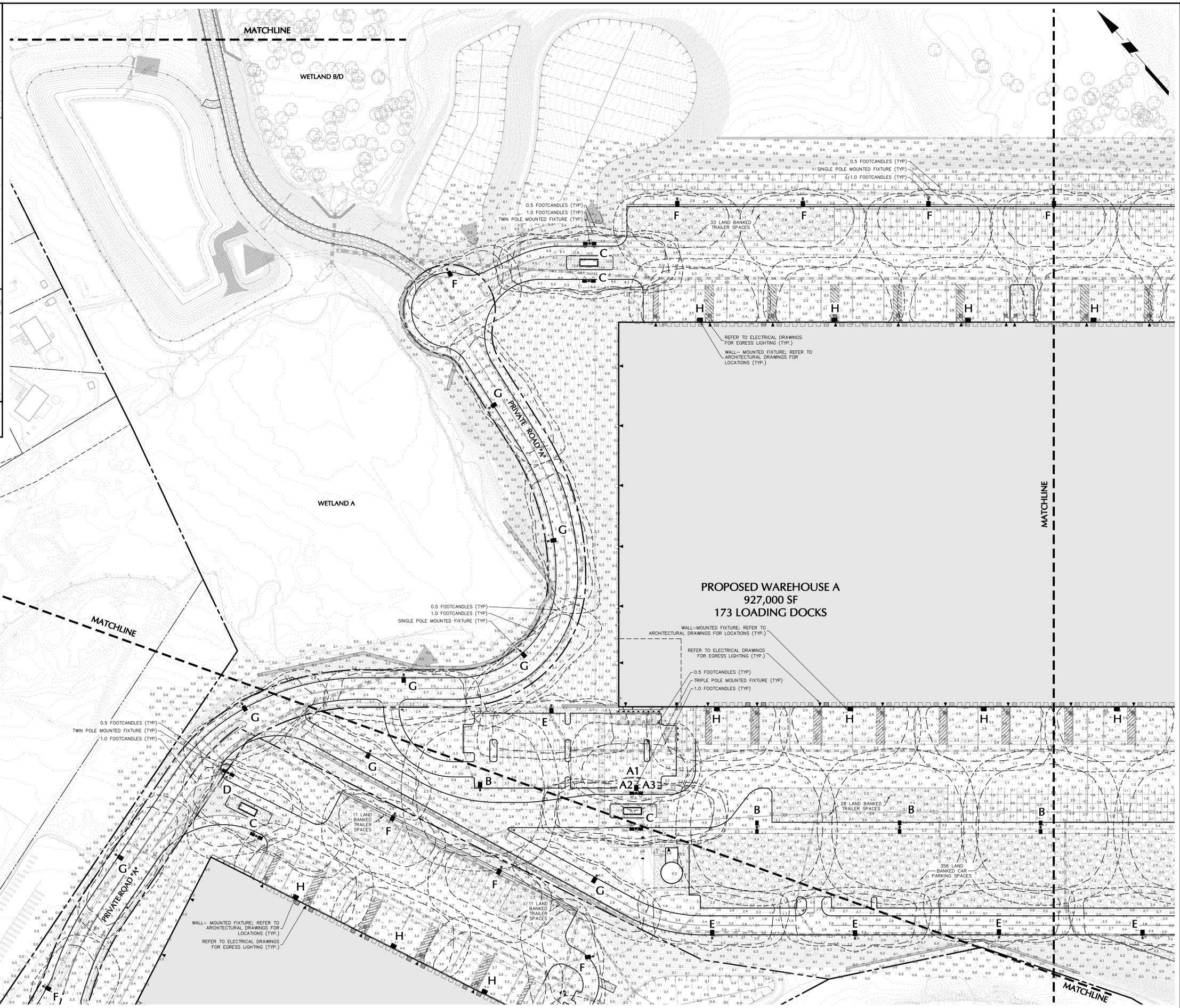
Project: **MATRIX LOGISTICS CENTER AT NEWBURGH**  
 Drawing Title: **SITE LIGHTING PLAN (1 OF 3)**  
 Project No.: **190063301**  
 Date: **MAY 14, 2021**  
 Drawn By: **MJ**  
 Checked By: **MH**

TOWN OF NEWBURGH  
 ORANGE COUNTY  
 NEW YORK

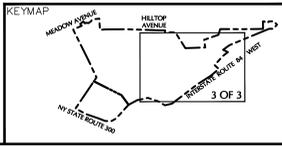
Drawing No.: **LL101**  
 Sheet 52 of 55



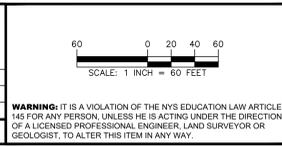
**ROADWAY INSET**  
1" = 60'



- NOTES:**
- REFER TO SHEETS LL100 FOR OVERALL LIGHTING PLAN, LIGHTING SCHEDULE AND STATISTICS.
  - REFER TO SHEET LL501 FOR LIGHTING NOTES AND DETAILS.



DATE	DESCRIPTION	No.
07/30/2021	REVISED PER TOWN COMMENTS	2.
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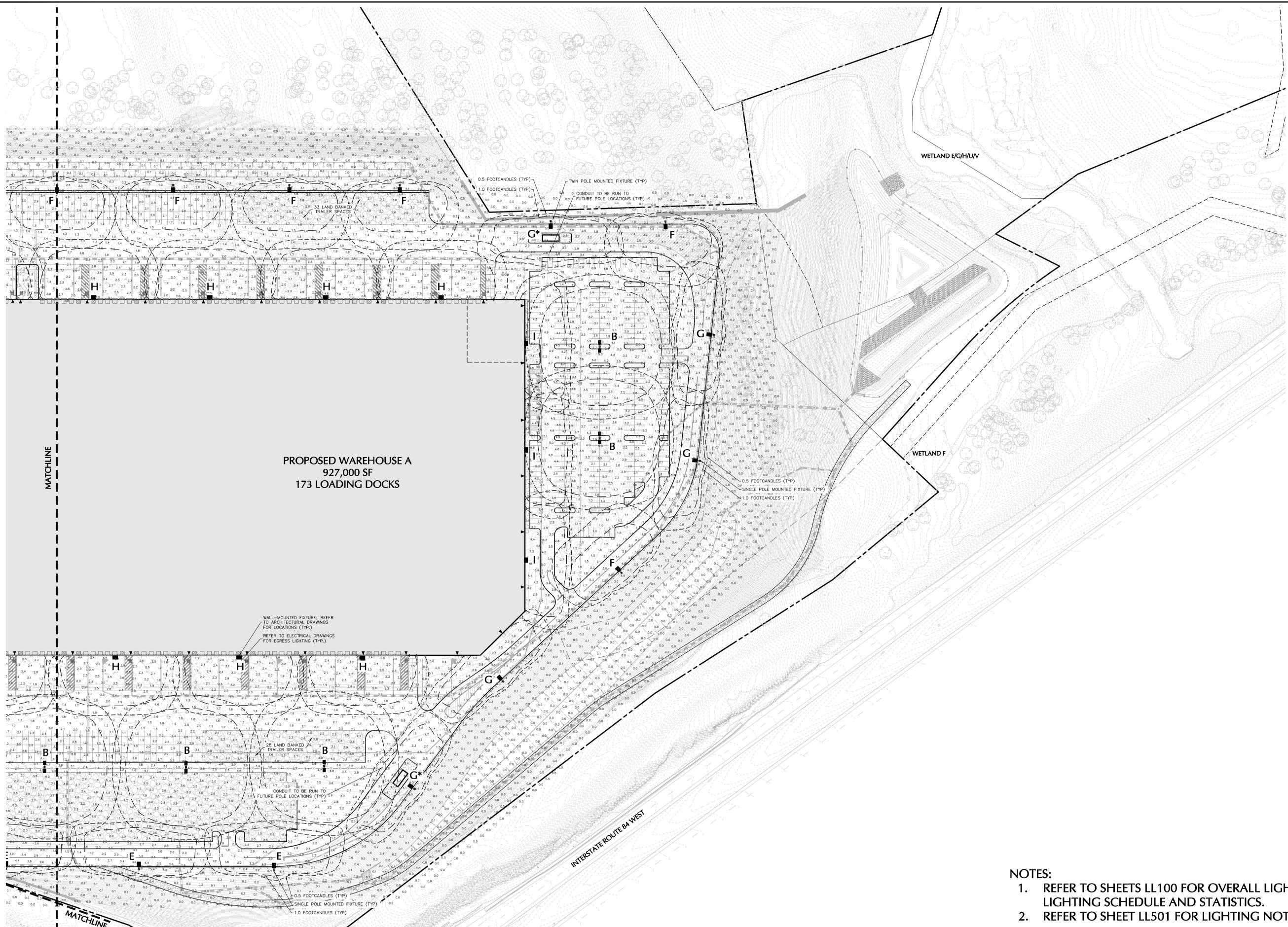
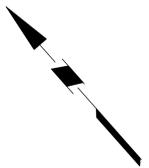


SIGNATURE: *Michael Szura* DATE SIGNED: \_\_\_\_\_  
MICHAEL SZURA, RLA  
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Project: **MATRIX LOGISTICS CENTER AT NEWBURGH**  
Drawing Title: **SITE LIGHTING PLAN (2 OF 3)**  
Project No.: 190063301  
Date: MAY 14, 2021  
Drawn By: MJ  
Checked By: MH

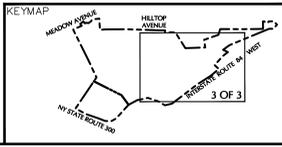
Drawing No.: **LL102**  
Sheet 53 of 55



PROPOSED WAREHOUSE A  
927,000 SF  
173 LOADING DOCKS

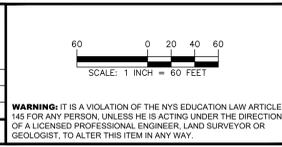
WALL-MOUNTED FIXTURE; REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS (TYP.)  
REFER TO ELECTRICAL DRAWINGS FOR EGRESS LIGHTING (TYP.)

- NOTES:
- REFER TO SHEETS LL100 FOR OVERALL LIGHTING PLAN, LIGHTING SCHEDULE AND STATISTICS.
  - REFER TO SHEET LL501 FOR LIGHTING NOTES AND DETAILS.



DATE	DESCRIPTION	No.
07/30/2021	REVISED PER TOWN COMMENTS	2.
05/28/2021	ROUTE 300 TRAFFIC IMPROVEMENTS	1.

REVISIONS



SIGNATURE:  DATE SIGNED: \_\_\_\_\_  
MICHAEL SZURA, RLA  
LANDSCAPE ARCHITECT NY Lic. No. 001901

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Project: **MATRIX LOGISTICS CENTER AT NEWBURGH**  
Drawing Title: **SITE LIGHTING PLAN (3 OF 3)**  
Project No.: 190063301  
Date: MAY 14, 2021  
Drawn By: MJ  
Checked By: MH  
TOWN OF NEWBURGH  
ORANGE COUNTY NEW YORK

Project No.: 190063301  
Date: MAY 14, 2021  
Drawn By: MJ  
Checked By: MH

Drawing No.: **LL103**  
Sheet 54 of 55

**LIGHTING NOTES:**

**GENERAL**

- POINT-BY-POINT CALCULATIONS PROVIDED WITHIN HAVE BEEN PREPARED IN ACCORDANCE TO IESNA STANDARDS AND IN CONSIDERATION OF THE VARIABLES WITHIN THESE NOTES AND SITE LIGHTING SCHEDULE. THE VALUES SHOWN ON THE PLANS ARE NOT AN INDICATION OF THE INITIAL LIGHT INTENSITIES OF THE LAMPS. THESE VALUES ARE AN APPROXIMATION OF THE MAINTAINED INTENSITIES DELIVERED TO THE GROUND PLANE USING INDUSTRY STANDARD LIGHT LOSS FACTORS (LLF) WHICH COVER LAMP DEGRADATION AND NATURAL BUILDUP / DIRT DEGRADATION ON THE FIXTURE LENS. THE LIGHTING PLAN IS DESIGNED WITH AN INDUSTRY STANDARD LLF IN ACCORDANCE WITH GUIDANCE AS PROVIDED BY IESNA. MINOR VARIATIONS IN TOPOGRAPHY, PHYSICAL OBSTRUCTIONS, AMBIENT OR ADJACENT LIGHT SOURCES AND/OR OTHER POTENTIAL IMPACTS HAVE NOT BEEN INCLUDED IN THESE CALCULATIONS. THEREFORE, AS-BUILT LIGHT INTENSITIES MAY VARY, IN EITHER DIRECTION, FROM WHAT IS EXPLICITLY PORTRAYED WITHIN THESE DRAWINGS. NO GUARANTEE OF LIGHT LEVELS IS EXPRESSED OR IMPLIED BY THE POINT BY POINT CALCULATIONS SHOWN ON THESE PLANS.
- LIGHT LEVEL POINT SPACING IS 10 FT. LEFT TO RIGHT AND 10 FT. TOP TO BOTTOM. POINT BY POINT CALCULATIONS ARE BASED ON THE LIGHT LOSS FACTOR AS STATED IN THE LIGHTING SCHEDULE.
- ALL LIGHTING IS TO BE FULL CUT-OFF.

**COMPLIANCE**

- ALL SITE LIGHTING RELATED WORK AND MATERIALS SHALL COMPLY WITH CITY, COUNTY, AND OTHER APPLICABLE GOVERNING AUTHORITY REQUIREMENTS.
- LIGHTING LAYOUT COMPLIES WITH THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) SAFETY STANDARDS FOR LIGHT LEVELS.

**COORDINATION**

- CONTRACTOR TO COORDINATE POWER SOURCE WITH LIGHT FIXTURES TO ENSURE ALL SITE LIGHTING IS OPERATING EFFECTIVELY, EFFICIENTLY AND SAFELY.
- REFER TO ELECTRIFICATION PLAN FOR PROVIDING ADEQUATE POWER FOR SITE LIGHTING.
- CONTRACTOR TO COORDINATE LOCATION OF EASEMENTS, UNDERGROUND UTILITIES AND DRAINAGE BEFORE DRILLING POLE BASES.
- INSTALLATION OF ALL LIGHTING FIXTURES, POLES, FOOTINGS, AND FEEDER CABLE TO BE COORDINATED WITH ALL SITE WORK TRADES TO AVOID CONFLICT WITH FINISHED AND PROPOSED WORK.
- CONTRACTOR TO COORDINATE INSTALLATION OF UNDERGROUND FEEDER CABLE FOR EXTERIOR LIGHTING WITH EXISTING AND PROPOSED UTILITIES, SITE DRAINAGE SYSTEMS, AND PAVING. CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE SHOULD ANY UTILITIES, NOT SHOWN ON THE PLANS, BE FOUND DURING EXCAVATIONS.

**POLES AND FOOTINGS**

- PROVIDE A CONCRETE BASE FOR EACH LIGHT POLE AT THE LOCATIONS INDICATED ON THE CONSTRUCTION DRAWINGS AND/OR IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS RELATING DIRECTLY TO CAST-IN-PLACE CONCRETE. THE USE OF ALTERNATE LIGHTING FOUNDATIONS, SUCH AS PRECAST, MAY CHANGE THE SIZING AND REINFORCEMENT REQUIREMENTS FROM THOSE SHOWN ON THESE PLANS. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW PRIOR TO ORDERING ANY SUBSTITUTED PRODUCTS.
- CONTRACTOR SHALL EXAMINE AND VERIFY THAT SOIL CONDITIONS ARE SUITABLE TO SUPPORT LOADS EXERTED UPON THE FOUNDATIONS DURING EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNSATISFACTORY CONDITIONS.
- POLE FOUNDATIONS SHALL NOT BE POURED IF FREE STANDING WATER IS PRESENT IN EXCAVATED AREA.
- ALL POLES HIGHER THAN 25 FT. SHALL BE EQUIPPED WITH FACTORY INSTALLED VIBRATION DAMPENERS.

**WALL MOUNTED FIXTURES**

- CONTRACTOR TO COORDINATE INSTALLATION OF ALL THE WALL MOUNTED FIXTURES AND ELECTRICAL CONNECTIONS TO SITE STRUCTURE(S) WITH BUILDING MEP, ARCHITECT, AND/OR OWNER.
- INSTALLATION AND ELECTRICAL CONNECTIONS FOR WALL MOUNTED FIXTURES TO BE COORDINATED WITH ARCHITECTURAL, STRUCTURAL, UTILITY AND SITE PLANS AND TO BE IN ACCORDANCE WITH ALL APPLICABLE CODES.

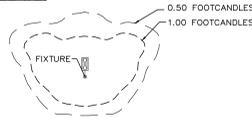
**ADJUSTMENT AND INSPECTION**

- CONTRACTOR TO OPERATE EACH LUMINAIRE AFTER INSTALLATION AND CONNECTION. INSPECT FOR IMPROPER CONNECTIONS AND OPERATION.
- CONTRACTOR TO AIM AND ADJUST ALL LUMINAIRES TO PROVIDE ILLUMINATION LEVELS AND DISTRIBUTION AS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNER.
- CONTRACTOR TO CONFIRM THAT LIGHT FIXTURES, TILT ANGLE AND AIMING MATCH SPECIFICATIONS ON THE PLANS.

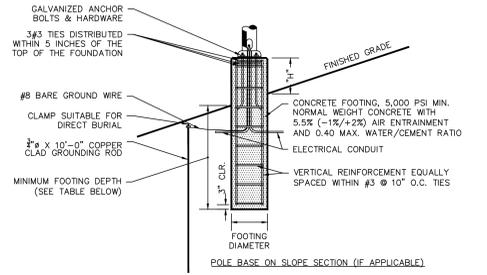
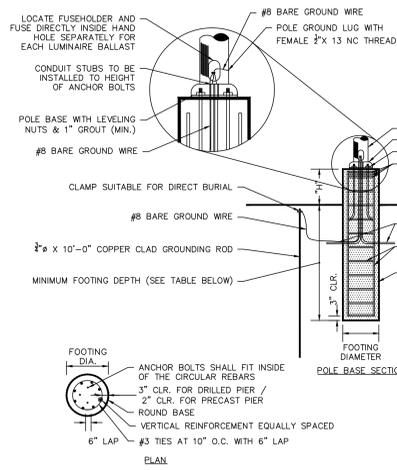
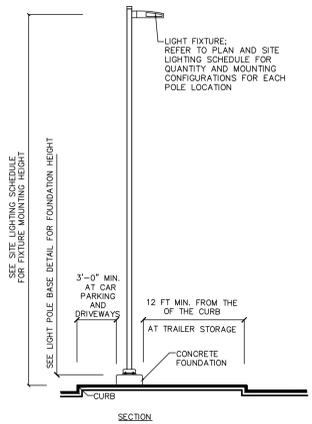
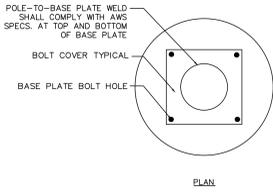
**REQUIREMENTS FOR ALTERNATES**

- ALL LIGHTING SUBSTITUTIONS MUST BE MADE WITHIN 14 DAYS PRIOR TO THE BID DATE TO PROVIDE AMPLE TIME FOR REVIEW AND TO ISSUE AN ADDENDUM INCORPORATING THE SUBSTITUTION WITH THE FOLLOWING REQUIREMENTS:
  - ANY SUBSTITUTION TO LIGHTING FIXTURES, POLES, ETC. MUST BE APPROVED BY THE OWNER, ENGINEER AND TENANTS. ANY COST ASSOCIATED WITH REVIEW AND/OR APPROVAL OF THE SUBSTITUTIONS SHALL BE ENTIRELY BORNE BY THE CONTRACTOR.
  - COMPUTER PREPARED PHOTOMETRIC LAYOUT OF THE PROPOSED LIGHTED AREA WHICH INDICATES, BY ISOPHOTICANDLE, THE SYSTEM'S PERFORMANCE.
  - A PHOTOMETRIC REPORT FROM A NATIONAL INDEPENDENT TESTING LABORATORY WITH REPORT NUMBER, DATE, FIXTURE CATALOG NUMBER, LUMINAIRE AND LAMP SPECIFICATIONS, IES CALCULATIONS, POINT BY POINT FOOT CANDLE PLAN, STATISTIC ZONES SHOWING AVERAGE, MAXIMUM, MINIMUM AND UNIFORMITY RATIOS, SUMMARY, ISOLUX PLOT, AND CATALOGUE CUTS. CATALOGUE CUTS MUST IDENTIFY OPTICS, LAMP TYPE, DISTRIBUTION TYPE, REFLECTOR, LENS, BALLASTS, WATTAGE, VOLTAGE, FINISH HOUSING DESCRIPTION AND ALL OTHER PERTINENT INFORMATION.
  - POLE MANUFACTURER AASHTO CALCULATIONS INDICATING THE POLE AND ANCHOR BOLTS BEING SUBMITTED ARE CAPABLE OF SUPPORTING THE POLE AND FIXTURE SYSTEMS BEING UTILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
  - THE UNDERWRITERS LABORATORY LISTING AND FILE NUMBER FOR THE SPECIFIC FIXTURE(S) TO BE UTILIZED.
  - A COLOR PHOTOGRAPH THAT CLEARLY SHOWS THE REPLACEMENT FIXTURE POLE MOUNTED, THE FIXTURE'S COLOR, FINISH, AND PHYSICAL CHARACTERISTICS.

**PHOTOMETRIC LIGHTING LEGEND:**



NOTE: THE PHOTOMETRIC TEMPLATE REPRESENTS LIGHT THROW FOR EACH INDIVIDUAL FIXTURE AND DOES NOT REPRESENT LIGHT COMING FROM OTHER SOURCES.



MOUNTING HEIGHT	FOOTING DEPTH	FOOTING DIAMETER	VERTICAL REINFORCEMENT	1'
40'-0"	9'-6"	2'-6"	8 #6 BARS	3' EXPOSED CONCRETE BASE

**NOTES:**

- SHAFT CAP, ARMS, BASE FLANGE, ANCHOR BOLTS, LEVELING NUTS, CONNECTION HARDWARE, BOLT COVERS, HANDHOLE COVER, AND BOLT CIRCLE TEMPLATE SHALL BE FURNISHED BY POLE MANUFACTURER.
- EACH STANDARD TO BE PROTECTED AGAINST LIGHTNING WITH AN INTERCONNECTED GROUND ROD. THIS ROD SHALL BE BONDED PER SECTION NUMBER 250-86, I.E.C.
- CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENT OF AC 318. CAST-IN-PLACE SHALL HAVE UNCONFINED COMPRESSIVE STRENGTH OF AT LEAST 5,000 PSI AT 28-DAYS. DEFORMED REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- CONTRACTOR TO ENSURE CONCRETE POLE BASES ARE POURED / PLACED ABSOLUTELY VERTICAL & LEVEL.
- IF POLE BASE IS CAST-IN-PLACE, POLE BASE SHALL BE ONE CONTINUOUS POUR. EXPOSED PORTION OF BASE SHALL BE HAND-RUBBED SMOOTH.
- CONTRACTOR TO COMPACT SUBGRADE AROUND POLE BASE PER EARTHWORK SPECIFICATIONS / GEOTECH REPORT.
- THE INFORMATION ILLUSTRATED IN THE LIGHT POLE FOUNDATION DETAIL HAS BEEN PROVIDED FOR GENERAL REFERENCE AND PRELIMINARY COST ESTIMATE PURPOSES. LIGHT POLE FOUNDATIONS SHOULD BE DESIGNED AND DETAILED BY A LICENSED STRUCTURAL ENGINEER BASED ON EXISTING SOIL CONDITIONS, LOCAL DESIGN STANDARDS AND MANUFACTURERS RECOMMENDATIONS.
- CONTRACTOR TO CONFIRM GROUNDING DESIGN WITH MEP.

**1 FIXTURE AND POLE**

NTS

**2 LIGHT POLE FOOTING**

NTS

Project	Catalog #	Type
Prepared by	Notes	Date



**McGraw-Edison**  
**GLEON Galleon**  
Area / Site Luminaire

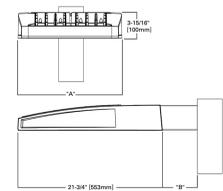
Typical Applications  
Outdoor - Parking Lots - Walkways - Roadways - Building Areas

**Interactive Menu**

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 1
- Energy and Performance Data page 4
- Control Options page 5

- Quick Facts**
- Lumen packages range from 4,200 - 80,800 (34W - 640W)
  - Efficacy up to 156 lumens per watt

**Dimensional Details**



Number of Light Spheres	1"	Standard Arm Length	12" Extended Arm Length	18" Quick Mount Arm Length	18" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--



PHOTO 002020EN page 1  
October 20, 2020 1:00 PM

**3 LIGHT FIXTURE**

NTS

**RTS Round Tapered Steel Pole No Arm — 4-Bolt Base**

**Removable Pole Cap (Person Option Available)**

**D Top Diameter**

**B Wall Thickness**  
Round Tapered Steel Tube  
ASTM A509 Grade A Steel

**Handhole**

**C Butt Diameter**

**4-Bolt Base With Cover**

**Base Style**  
4-Bolt Steel Base Plate of fabricated hot rolled carbon steel conforming to ASTM A509 Grade A. Options include 1 gauge and 7 gauge. All notes shall conform to AISC 310 using F1502-1 electrodes.

**Anchorage**  
Anchorage kit will include four (4) L-shaped Steel Anchor Bolts conforming to ASTM A307-A307 Grade 55, ten inches (10") of threaded rod and will be galvanized per ASTM A153. Kits will contain eight (8) new nuts, four (4) Lock Washers, and eight (8) Flat Washers. All components galvanized steel. A paper lock circle template will be provided.

**Handhole**  
Up To 8.0" Butt Diameters - Reinforced, 3" x 2" Handhole with cover, stainless steel cover and lockset. A grounding provision incorporating a tapered 1/2" x 1/4" hole will be provided.  
6" Butt Diameters - Reinforced, 4" x 6-1/2" Handhole with cover, stainless steel cover and lockset. A grounding provision incorporating a tapered 1/2" x 1/4" hole will be provided.

**Base Cover**  
Square metal powder coated Base Covers are standard on all RTS poles.

**Vibration Damper**  
As determined necessary by factors or specified by the customer, a first and/or second inside vibration damper will be provided.

**WARNING: Do not install light pole without luminaire**

C	F	G	H	I
Butt Dia.	Butt Dia.	Butt Dia.	Butt Dia.	Butt Dia.
4.5	7.5-8.5	8	3.75	75 x 17 x 3
5.2	8	8.5	3.75	75 x 17 x 3
6.1-6.6	8.5-10.5	10	3.75	75 x 20 x 3
6.8	10-11	10	3.75	75 x 20 x 3
7.07-7.5	10.5-11.5	10.5	4.875	11 x 36 x 4
8.0	11-12	11	4.875	11 x 36 x 4
8.5	11.5-12.5	12	4.875	11 x 36 x 4
9.0 (7' base)	12-13	12.375	4.875	11 x 36 x 4
9.0 (8' base)	13-14	12.75	5.875	1.25 x 48 x 6
10	13.5-14.5	13	4.875	11 x 48 x 6
11	15-16	14	5.875	1.25 x 48 x 6
12	16-17	15.5	6.75	1.5 x 60 x 6

**6 hupco** www.hupco.com

**4 LIGHT POLE**

NTS

<p>07/30/2021 REVISED PER TOWN COMMENTS 2.</p> <p>05/28/2021 ROUTE 300 TRAFFIC IMPROVEMENTS 1.</p> <p>DATE Description No.</p> <p>REVISIONS</p>		<p><b>WARNING:</b> IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR OR GEOLOGIST, TO ALTER THIS ITEM IN ANY WAY.</p> <p>SIGNATURE: MICHAEL SZURA, RLA LANDSCAPE ARCHITECT NY Lic. No. 001901</p> <p>DATE SIGNED</p>	<p><b>LANGAN</b> Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. One North Broadway, Suite 910 White Plains, NY 10601</p> <p>T: 914.323.7400 F: 914.323.7401 www.langan.com</p>	<p>Project: <b>MATRIX LOGISTICS CENTER AT NEWBURGH</b></p> <p>Drawing Title: <b>SITE LIGHTING NOTES &amp; DETAILS</b></p> <p>Project No.: <b>190063301</b></p> <p>Date: <b>MAY 14, 2021</b></p> <p>Drawn By: <b>MJ</b></p> <p>Checked By: <b>MH</b></p> <p>Project No.: <b>190063301</b></p> <p>Drawing No.: <b>LL501</b></p> <p>Sheet 55 of 55</p>
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