

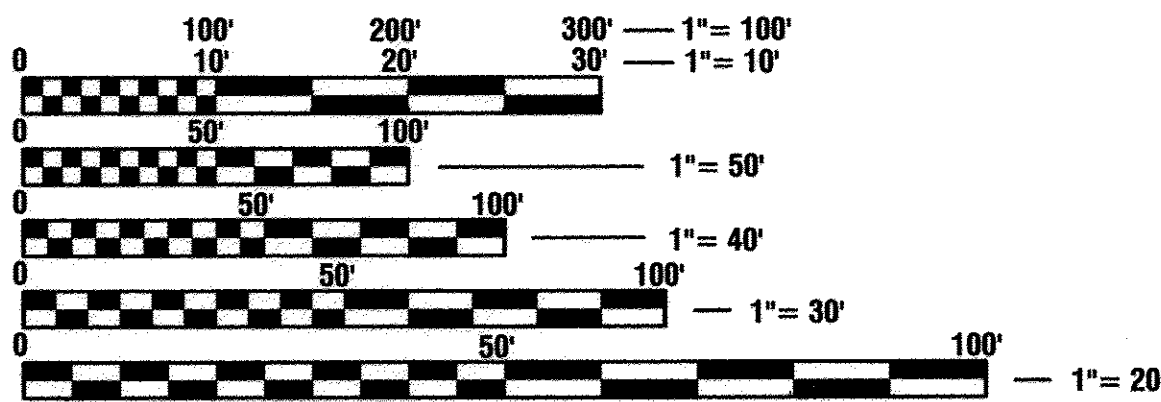
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

METRA-RICHTON PARK STATION
POLE/LUMINAIRE REPLACEMENT
PROJECT: M-4003(493)
SECTION: 15-00056-00-LT
VILLAGE OF RICHTON PARK, COOK COUNTY, ILLINOIS
Job. No.: C-91-258-15

ROADWAY DATA

ROADWAY DESIGNATION:
SAUK TRAIL = MINOR ARTERIAL
RICHTON ROAD = LOCAL STREET
AVERAGE DAILY TRAFFIC (ADT):
SAUK TRAIL = 24,400
RICHTON ROAD = UNKNOWN
SPEED LIMIT (POSTED):
SAUK TRAIL = 40 MPH
RICHTON ROAD = 20 MPH

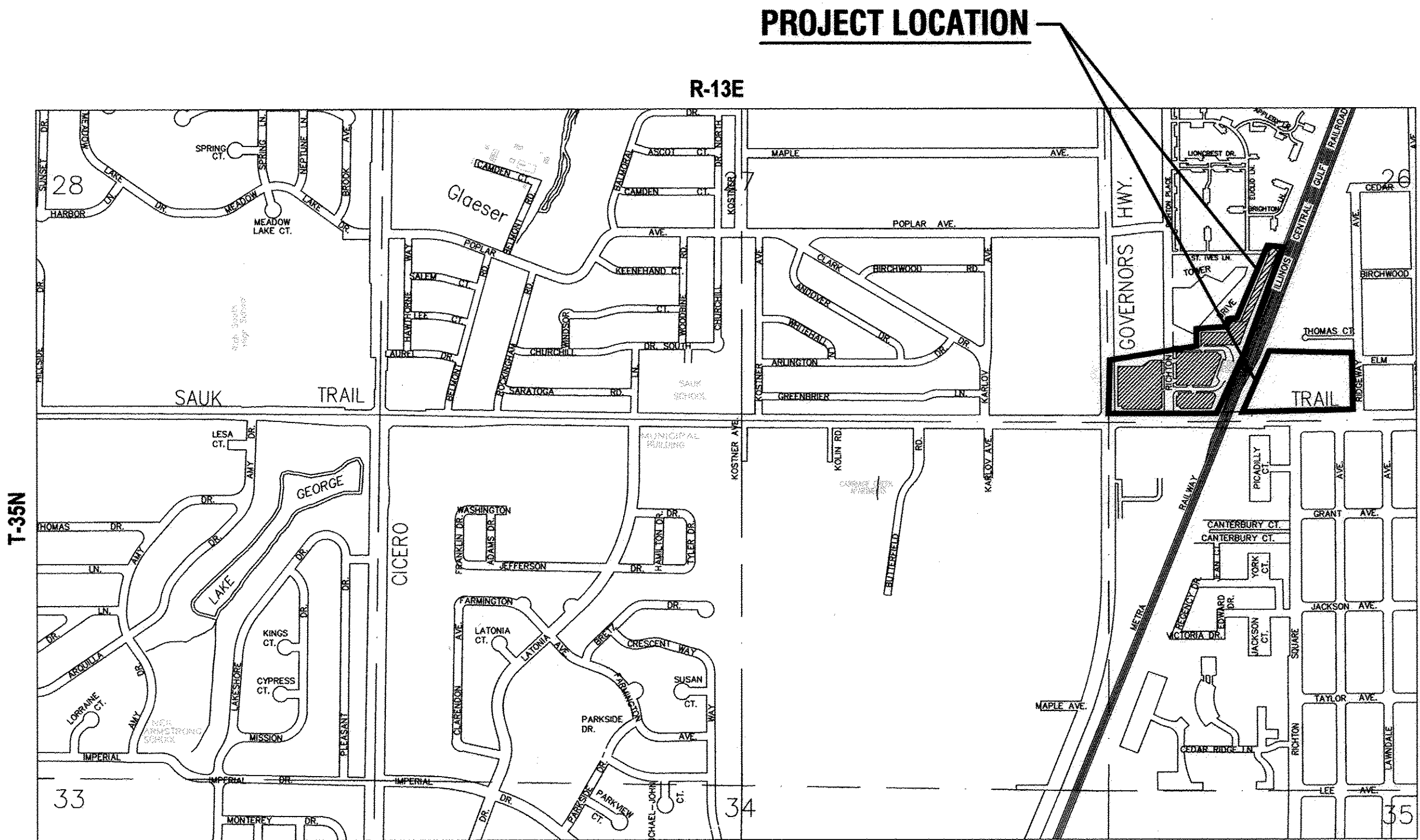


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: BRETT R. BUTTERFIELD
PROJECT MANAGER: THEODORE G. SIANIS, P.E.

CONTRACT NO. 61D10

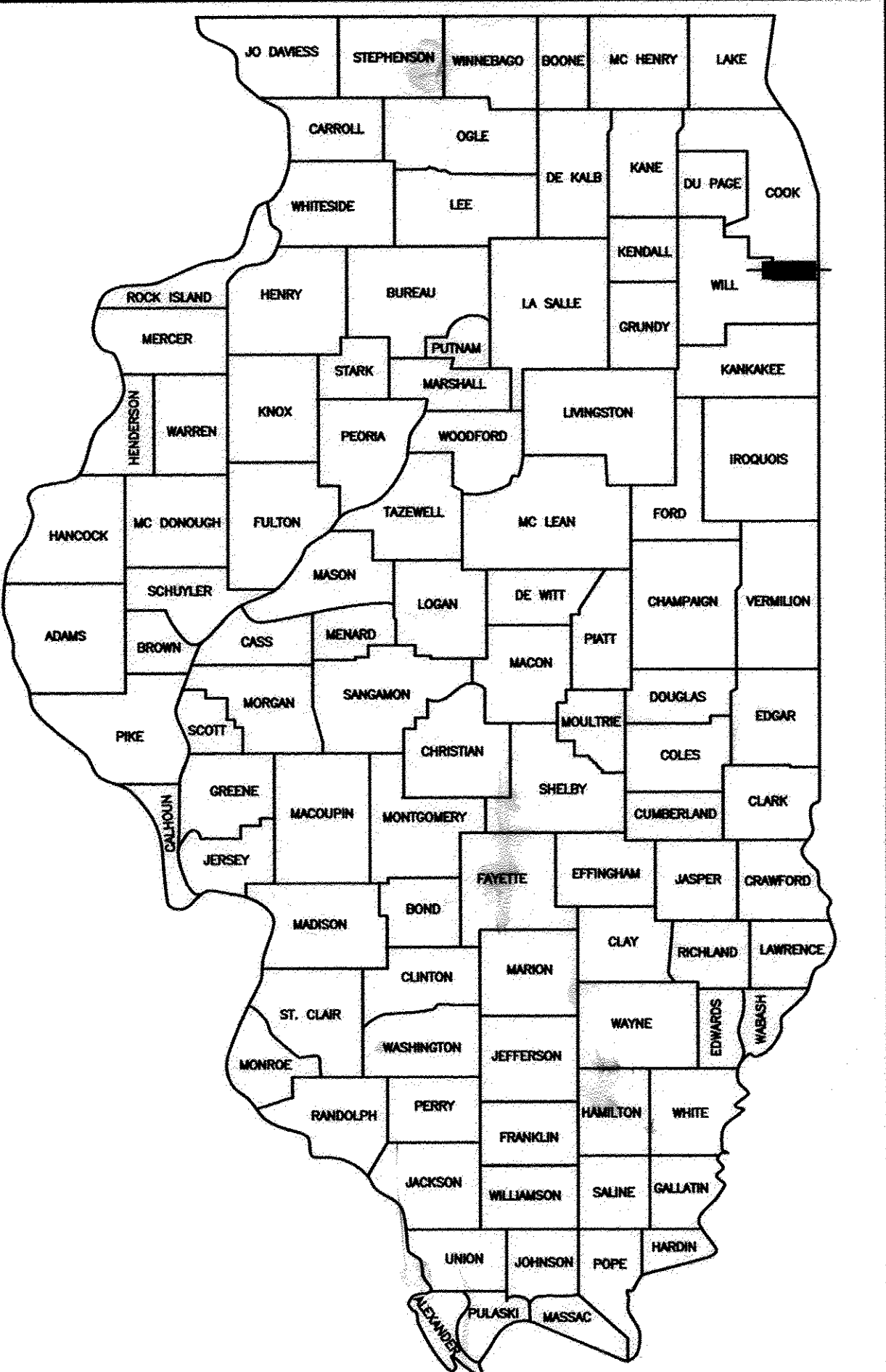


SW 1/4 OF SECTION 26

LOCATION MAP
N.T.S.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	15-00056-00-LT	COOK	8	1
FEDERAL ROAD DISTRICT 1	ILLINOIS	CONTRACT NO. 61D10		

GENERAL LOCATION MAP



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED *November 10, 2017* 20 17
VILLAGE OF RICHTON PARK, PRESIDENT

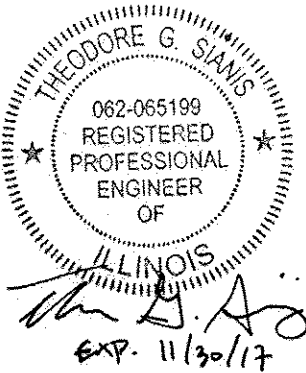
PASSED *NOVEMBER 14, 2016*
DISTRICT ONE ENGINEER OF
LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW *November 15, 2016*
REGIONAL ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

ClarkDietz

DESIGN FIRM REGISTRATION
No. 184-000450
977 NORTH OAKLAWN AVENUE
SUITE 106
ELMHURST, IL 60126
PHONE: 630.413.4130
FAX: 262.657.1594



INDEX OF SHEETS

1	COVER SHEET
2	GENERAL NOTES, SUMMARY OF QUANTITIES
3	PLAN
4	MAINTENANCE OF TRAFFIC
5-7	LIGHTING DETAILS
8	POLE FOUNDATION & WIRING DETAILS

ILLINOIS HIGHWAY STANDARD DRAWINGS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
701901-06	TRAFFIC CONTROL DEVICES

IDOT DISTRICT 1 STANDARD DRAWINGS

STANDARD NO.	DESCRIPTION
--------------	-------------

GENERAL NOTES

1. THE CONTRACTOR SHALL NOTIFY ALL LOCAL UTILITY COMPANIES INCLUDING:

JULIE
COMMONWEALTH EDISON
AT&T CABLE
NICOR
VILLAGE OF RICHTON PARK

800-892-0123
800-334-7661
847-295-2610
888-642-6748
708-481-8950
- 72 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION. SAID UTILITY COMPANIES WILL ESTABLISH, ON THE GROUND, THE LOCATION OF UNDERGROUND PIPES, MAINS, CONDUITS, OR CABLES ADJOINING OR CROSSING PROPOSED CONSTRUCTION.
2. CONTRACTOR SHALL NOTIFY THE VILLAGE PUBLIC WORKS AT 708-481-8950 AND THE ENGINEER AT 262-657-1550 A MINIMUM OF 24 HOURS IN ADVANCE OF PERFORMING ANY WORK. RE-NOTIFICATION SHALL BE REQUIRED IF ANY PHASE OF WORK IS SUSPENDED FOR MORE THAN TWO (2) DAYS.
3. THE FOLLOWING CODES AND STANDARDS, AS APPLICABLE, SHALL GOVERN CONSTRUCTION UNDER THIS CONTRACT:

3.1. STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016 AND THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", ADOPTED APRIL 1, 2016 AND ALL SUBSEQUENT REVISIONS THERETO, HEREINAFTER REFERRED TO AS THE STANDARD SPECIFICATIONS.

3.2. STATE OF ILLINOIS, "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS", LATEST EDITION AND ALL SUBSEQUENT REVISIONS THERETO, HEREINAFTER REFERRED TO AS THE STANDARD SEWER AND WATER SPECIFICATIONS.

3.3. "MANUAL ON TRAFFIC CONTROL DEVICES", LATEST EDITION, AND THE "ILLINOIS SUPPLEMENT TO THE NATIONAL MANUAL ON TRAFFIC CONTROL DEVICES", LATEST EDITION, AND ALL SUBSEQUENT REVISIONS THERETO, HEREINAFTER REFERRED TO AS THE "MUTCD".

4. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND ARTICLE 107.14 OF THE STANDARD SPECIFICATIONS. BARRICADES AND OTHER REQUIRED TRAFFIC CONTROL SHALL BE CONSIDERED INCLUSIVE TO THE UNIT PRICE FOR TRAFFIC CONTROL AND PROTECTION BID ITEM, UNLESS OTHERWISE SPECIFIED.

5. UTILITIES SHOWN IN THE PLANS ARE FOR THE CONTRACTOR'S CONVENIENCE AND ARE APPROXIMATE ONLY. THE UTILITIES ARE LOCATED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL TYPES, SIZES, AND LOCATIONS OF EXISTING UTILITIES.

6. CAUTION: THERE MAY BE OVERHEAD AND BURIED POWER LINES WHICH COULD POSSIBLY INTERFERE OR BE A SAFETY HAZARD WITH EQUIPMENT OPERATIONS.

7. ALL CURB AND GUTTER REMOVAL AND REPLACEMENT SHALL BE COMPLETED PRIOR TO PLACING ANY BITUMINOUS MATERIAL ON THAT STREET SEGMENT.

8. DURING CURB AND GUTTER REMOVAL OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO CONSTRUCT A GRAVEL RAMP TO MAINTAIN ACCESS. PLACEMENT AND REMOVAL OF THE TEMPORARY RAMPS ARE CONSIDERED INCLUSIVE TO THE UNIT PRICE FOR THE CONCRETE CURB AND GUTTER REMOVAL. ROADWAY ACCESS AND THROUGH PASSAGE FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

9. THE CONTRACTOR SHALL PLACE WARNING SIGNS 48 HOURS PRIOR TO PLACEMENT OF PRIME COAT AND COMMENCEMENT OF PAVING OPERATIONS.

10. IF A PERIOD OF TEN (10) CALENDAR DAYS ELAPSES BEFORE THE PLACEMENT OF ANY BITUMINOUS COURSE, THE CONTRACTOR MAY BE REQUIRED TO PLACE ANOTHER PRIME COAT AT NO ADDITIONAL COST.

11. WHEN LOOSE MATERIAL IS DEPOSITED IN ALLEYS OR GUTTERS, IT SHALL BE REMOVED BEFORE THE END OF EACH WORKING DAY. THIS WORK WILL NOT BE PAID FOR SEPARATELY AND SHALL BE CONSIDERED INCLUSIVE TO THE BID ITEM FOR MOBILIZATION.

12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE ALL FEATURES DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL STATE, OR BETTER. ALL RESTORATION WORK REQUIRED BEYOND THE SCOPE OF THE PLANS AND SPECIFICATIONS SHALL BE DONE AT THE CONTRACTOR'S EXPENSE UNLESS WORK WAS DONE AT THE DIRECTION OF THE OWNER OR ENGINEER AND COMPENSATION WAS AGREED UPON PRIOR TO EXECUTION OF WORK.

13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL NECESSARY PAVEMENT OPENINGS AND CONSTRUCTION DEBRIS LEFT IN THE PUBLIC RIGHT-OF-WAY WITH LIGHTED DEVICES. THE CONTRACTOR SHALL MAINTAIN HIGH VISIBILITY OF ALL TEMPORARY HAZARDS TO PEDESTRIANS AND MOTORISTS. REMOVAL OF ANY SUCH TEMPORARY HAZARDS SHALL BE DONE AS SOON AS POSSIBLE.

14. ALL EXISTING DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS THAT WILL BE ADJUSTED OR RECONSTRUCTED SHALL BE CLEANED TO THE SATISFACTION OF THE ENGINEER. ALL COSTS ASSOCIATED WITH THIS SHALL BE INCLUDED IN THE APPLICABLE BID ITEMS.

15. THE GRADING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM WATER. GRADING SHALL BE DONE TO ALLOW FOR POSITIVE DRAINAGE.
16. UTILITY SERVICES TO RESIDENTS OR BUSINESSES WHICH ARE INTERRUPTED DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE RESTORED AT THE EXPENSE OF THE CONTRACTOR SO THAT NO SERVICE IS INTERRUPTED FOR MORE THAN EIGHT (8) HOURS. IF TEMPORARY SERVICE IS REQUIRED, THE EXPENSE FOR SAME SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

17. THE EDGES OF ALL IMPROVED SURFACES WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE SAW CUT FULL DEPTH PRIOR TO RESTORATION. ANY SAW CUTTING OF PAVEMENT PATCHES, BUTT JOINTS, DRIVEWAY APPROACHES, CONCRETE CURBS, SIDEWALK, OR ANY OTHER AREAS NECESSARY TO COMPLETE THIS PROJECT WILL NOT BE PAID FOR SEPARATELY AND SHALL BE CONSIDERED INCLUSIVE TO THE APPLICABLE REMOVAL BID ITEMS.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL STREETS USED BY THE CONTRACTOR, SUB-CONTRACTORS, AND SUPPLIERS CLEAN AND FREE FROM ALL DIRT, MUD, AND OTHER CONSTRUCTION DEBRIS, AND WILL BE REQUIRED TO CLEAN THEM AS IS NECESSARY IN ORDER TO MAINTAIN THEM IN A SAFE, DRIVABLE CONDITION. THE CONTRACTOR SHALL BE RESPONSIVE TO REQUESTS FROM THE ENGINEER, ENGINEER'S REPRESENTATIVE, DIRECTOR OF PUBLIC WORKS SUPERINTENDENT OF STREETS, POLICE AND FIRE DEPARTMENTS, OR ANY OFFICIAL OF THE OWNER TO PRACTICE GOOD HOUSEKEEPING THROUGHOUT THE DUARTION OF THE PROJECT. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUSIVE TO THE TRAFFIC CONTROL AND PROTECTION BID ITEM.

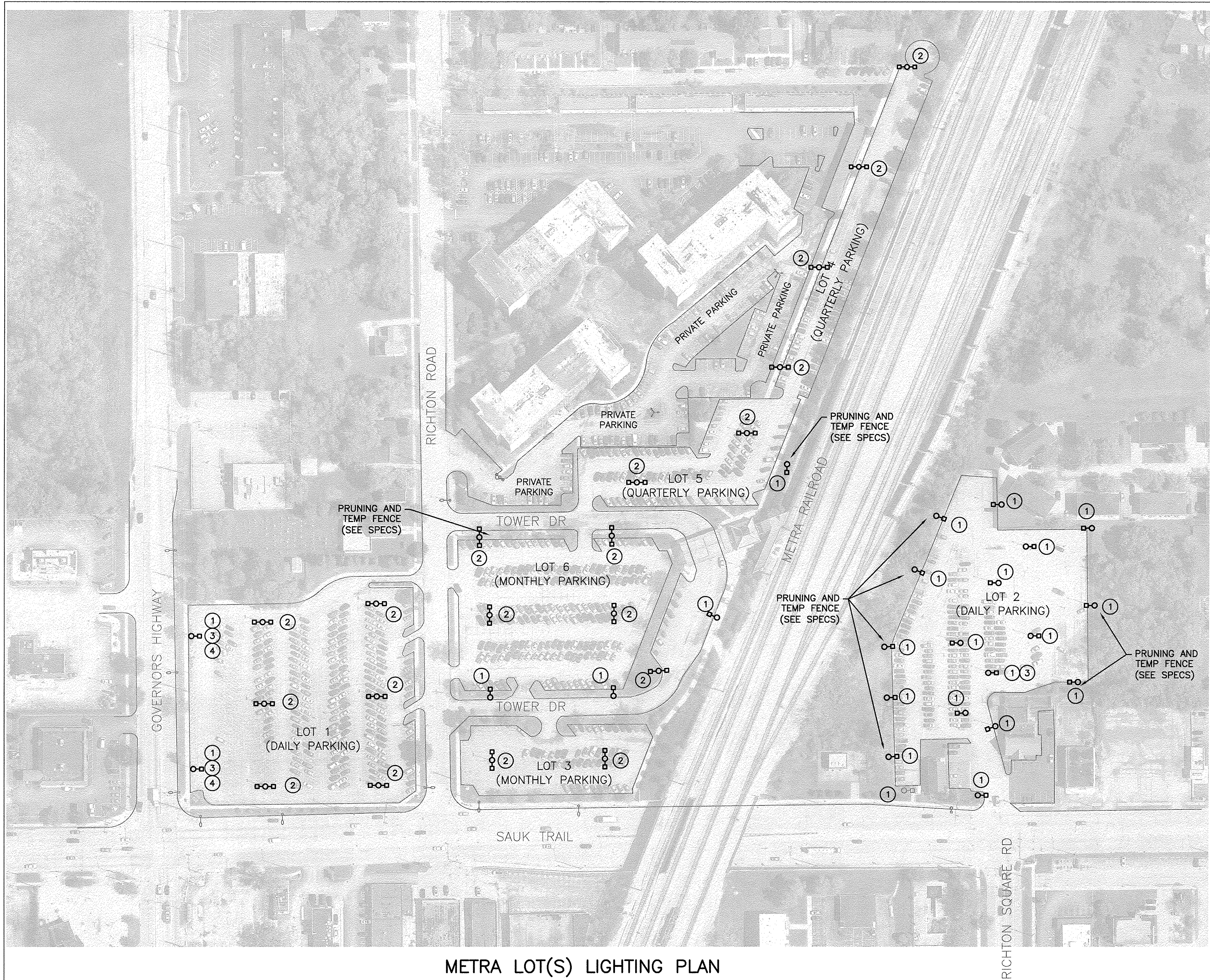
19. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING THE PROJECT.

20. ANY COSTS ASSOCIATED WITH REQUIRED TRIMMING OR TREE REPLACEMENT DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE PAID FOR AT THE CONTRACTOR'S EXPENSE.

21. THE CONTRACTOR SHALL TAKE EXTRA CARE IN GRADING AND EXCAVATING NEAR TREES WHICH ARE NOT MARKED FOR REMOVAL SO AS NOT TO CAUSE INJURY TO THE ROOT SYSTEM OR TRUNKS. ROOTS OF A TREE THAT ARE TO REMAIN IN PLACE EXTENDING INTO THE EXCAVATION AREA IN A MANNER THAT WILL CAUSE THE LEAST AMOUNT OF SYSTEMATIC DAMAGE TO THE REMAINING TREE STRUCTURE. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.

22. PRUNE TREE LIMBS THAT MIGHT BE DAMAGED BY EQUIPMENT OPERATIONS AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION BY A CERTIFIED ARBORIST. ANY TREE LIMBS THAT ARE BROKEN BY CONSTRUCTION EQUIPMENT AFTER THE INITIAL PRUNING MUST BE PRUNED CORRECTLY WITHIN 72 HOURS.

23. SUPPLEMENTAL WATERING IS SPECIFIED FOR TREES AND SHRUBS THAT WILL BE DISTURBED BY CONSTRUCTION BUT WILL REMAIN. NOTE THAT WATERING SHOULD BEGIN IMMEDIATELY AFTER ROOT PRUNING, TOP PRUNING, OR OTHER CONSTRUCTION DISTURBANCE.
- SUMMARY OF QUANTITIES
- | | | | LIGHTING
0021 |
|---|----------|--|------------------|
| | CODE NO. | ITEM | TOTAL
QTY |
| Δ | 20101300 | TREE PRUNING (1 TO 10 INCH DIAMETER) | 6 |
| Δ | 20101350 | TREE PRUNING (OVER 10 INCH DIAMETER) | 6 |
| | 20101000 | TEMPORARY FENCE | 250 |
| | 67100100 | MOBILIZATION | 1 |
| Δ | 44201670 | CLASS D PATCHES, TYPE 1, 2 INCH | 10 |
| | 81702130 | ELECTRICAL CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6 | 150 |
| * | 83600200 | LIGHT POLE FOUNDATION, 24" DIAMETER | 20 |
| * | 84200600 | REMOVAL OF LIGHTING UNIT, NO SALVAGE | 43 |
| * | 84200804 | REMOVAL OF POLE FOUNDATION | 2 |
| * | X1400095 | LUMINAIRE, LED, HORIZONTAL MOUNT, HIGH WATTAGE | 62 |
| * | X8300001 | LIGHT POLE, SPECIAL | 24 |
| * | X8009135 | LIGHT POLE, SPECIAL, TYPE 2 | 19 |
| * | X7010216 | TRAFFIC CONTROL & PROTECTION, (SPECIAL) | 1 |
- Δ SPECIALTY ITEMS
- | | | | | | | | | | | | | |
|--|--------------------------------|----------------------|-----------|---|---|-------------------------|------|--------------------|--|--------|-----------------|--------------|
| FILE NAME = R0130190-GENERAL INFORMATION.DWG | USER NAME = THEODORE G. SIANIS | DESIGNED - TSIANIS | REVISED - | STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION | GENERAL NOTES & SUMMARY OF QUANTITIES SYMBOL LEGEND | | | F.A.P.
RTE. | SECTION | COUNTY | TOTAL
SHEETS | SHEET
NO. |
| | | DRAWN - BBUTTERFIELD | REVISED - | | | | | N/A | 15-00056-00-LT | COOK | 8 | 2 |
| | PLOT SCALE = ---- | CHECKED - TSIANIS | REVISED - | | | | | CONTRACT NO. 61D10 | | | | |
| | PLOT DATE = 11/10/2016 8:59 AM | DATE - 04/18/16 | REVISED - | | SCALE: NONE | SHEET NO. 2 OF 8 SHEETS | STA. | TO STA. | FED. ROAD DISTRICT 1 ILLINOIS FED. AID PROJECT | | | |



METRA LOT(S) LIGHTING PLAN

NOTE:

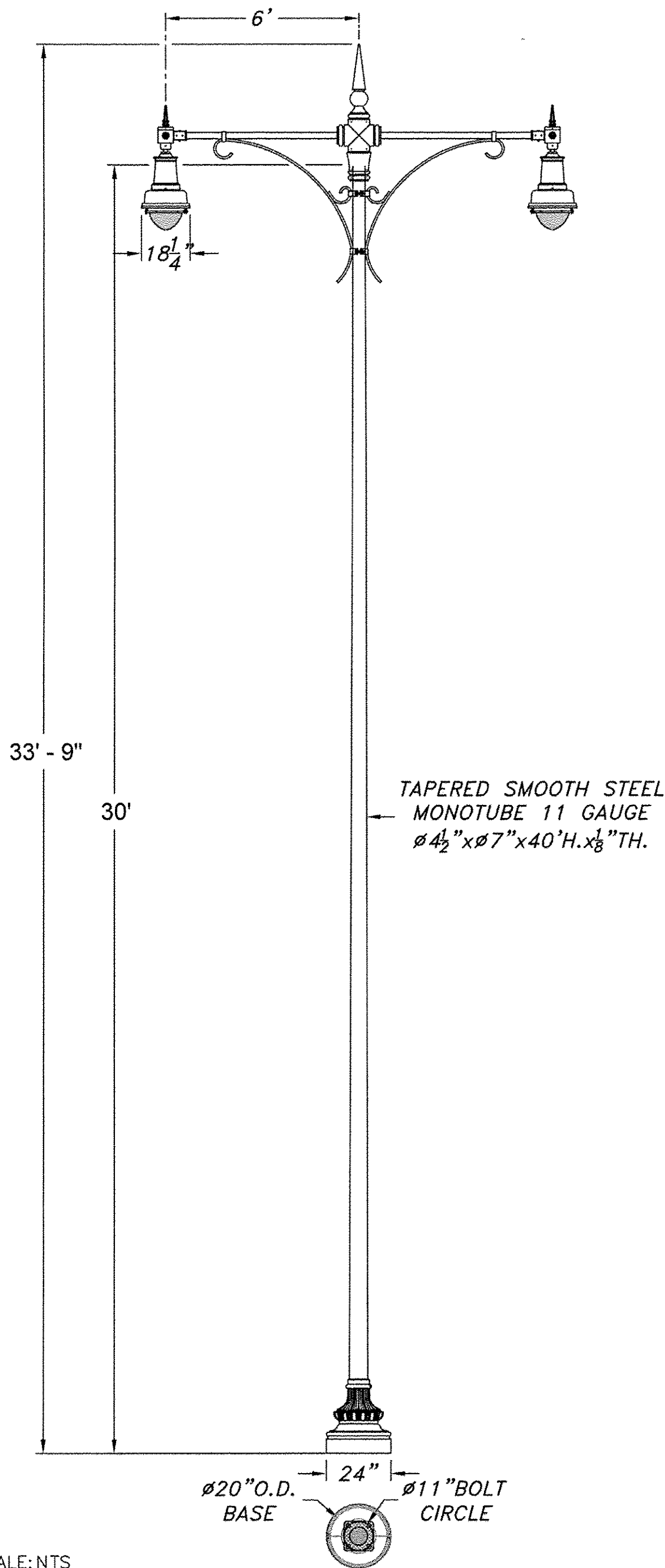
REMOVE AND REPLACE EXISTING POLES AS SPECIFIED WITH DECORATIVE POLES, BASES, ARMS, AND LUMINAIRES AT THE LOCATIONS SHOWN.

- ① LIGHT POLE, SPECIAL
1. SINGLE MAST ARM AND LUMINAIRE
- ② LIGHT POLE, SPECIAL, TYPE 2
2. DUAL MAST ARM AND LUMINAIRES
- ③ PROTECT COMED OVERHEAD POWER LINES.
- ④ REMOVE EXISTING LIGHT POLE AND FOUNDATION AND REINSTALL NEW POLE FOUNDATION AND LIGHT POLE ASSEMBLY 5' EAST OF EXISTING LIGHT POLE PER SPECIAL PROVISION. RESTORE SURROUNDING PAVEMENT WITH CLASS D, TYPE 1, 2" PATCHES.

FILE NAME = R0130190-PLANSHEETS.DWG	USER NAME = THEODORE G. SIANIS	DESIGNED - TSIANIS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BBUTTERFIELD	REVISED -						N/A	15-00056-00-LT	COOK	8	3
	PLOT SCALE = -----	CHECKED - TSIANIS	REVISED -						CONTRACT NO. 61D10				
	PLOT DATE = 11/10/2016 8:59 AM	DATE - 04/18/16	REVISED -		SCALE: VARIES	SHEET NO. 3 OF 8 SHEETS	STA.	TO STA.		FED. ROAD DISTRICT 1	ILLINOIS	FED. AID PROJECT	

All LED products manufactured in the United States.

NILAND-24 SERIES



SCALE: NTS

Catalog Name:

N-24-TSS-30-CH-1-BC-18-LEX-LED

Revision #: 0 Date: 03.30.16 Page: 1 of 5

Revision History: N/A

Niland Approval: Luis M. Gomez Customer Approval:

CSI POLE SPECIFICATION

I. BASE

Base shall be cast aluminum. Aluminum shall be certified as pure 356 copper free of any porosity, foreign materials or cosmetic fillers. Base casting shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be .250".

II. POLE

Post shall be tapered smooth steel pole. Shaft extrusion shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be 11 gauge (1/8"). There are no exterior welds to finish. A bolt plate shall be welded on bottom of the extrusion.

III. CROSSARM

Arm shall be cast iron and steel construction that will mount directly to the steel pole.

IV. ANCHORAGE DETAIL

Post base requires (4) #1"x36" hot dip galvanized L-type anchor bolts with 3" maximum projection each.

V. HOUSING

The pendant mount luminaire shall be core cast aluminum. Aluminum shall be certified as pure #356 alloy, free of any porosity, foreign materials or cosmetic fillers. Castings shall be uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be 3/16". Electrical components are one piece plug-in. LED assembly unit shall be mounted with four stainless steel screws. The core ports for ventilation located just beneath pendant housing and LED unit mounting ring increase thermal management and over all LED longevity. The optional refractor shall be molded of acrylic, glass or a polycarbonate globe with external refractor designed for either a type III or type V light distribution pattern.

VI. LED POWER SUPPLY

Up to 100,000 hours Mean Time Before Failure (MTBF). Each factor adjustable setting draws between 300 to 600 milliamps of power. Only 1 power supply is used for up to 125 LED watts each enclosed fixture. Multiple circuit detection and protections. Each unit is rated up to 16 amps of power. Input voltage range of 90-305VAC. Minimum operating temperature -22°F (-30°C) Maximum operating temperature 140°F (60°C).

FINISHES

Five Year Powder Coating Warranty

Niland Company factory-applied powder coatings are warranted against peeling, excessive fading and cracking under normal climatic exposure for a period of five years from date of shipment. Damage to finish coating caused by abuse or mishandling during installation is not covered by warranty. This warranty is limited to the repair or replacement of the material involved and does not include reimbursement of consequential expenses such as installation or removal of equipment or transportation costs.

I. STANDARD FINISH

Satin iron achieved by rotary sanding, blasting and phosphate conversion coating.

II. THERMOSET POWDER PAINT FINISH

Pretreatment shall consist of degreasing phosphate acid-etching with 140° and de-ionizing water, rinsed and oven dried.

FINISH COAT

Thermoset TGIC super polyester powder coat finish electrostatically applied, oven cured and bonded at approximately 420° F to a minimum dry film thickness of 1.6 mils. All Niland powders must pass a minimum 3000-hour salt-spray test for corrosion resistance. The National Association of Architectural Metal Manufacturers, Metal Finishes Manual rates the outdoor life of these powders at 15-plus years.

III. LIQUID FINISH

Optional liquid finish is first prime coated then finished with a two part liquid epoxy coat.

WARRANTY

Niland Company warrants to repair or replace, at our option, any equipment that fails due to defects in material or workmanship within one year from date of shipment. This warranty does not include failures as a result of improper installation, mishandling or misapplication. This guarantee is limited to repair or replacement only and does not include reimbursement for expense of installation, removal of equipment, transportation or any other expenses that may be incurred. Authorization must be obtained from Niland Company in El Paso, Texas before any material is returned.

NILAND/LED **Leading The Way For Solid State Street Lighting**



QUICK 60+ Warranty
On Parts and Labor

NILAND COMPANY • PH: (915) 779-1405 • FAX: (915) 779-3618 • E-MAIL: INFO@NILANDCO.COM
320 N. Clark El Paso, Tx 79905 • PH: 800-648-9013 • FAX: 888-779-3065 • WEB PAGE: HTTP://www.nilandco.com

All LED products manufactured in the United States.

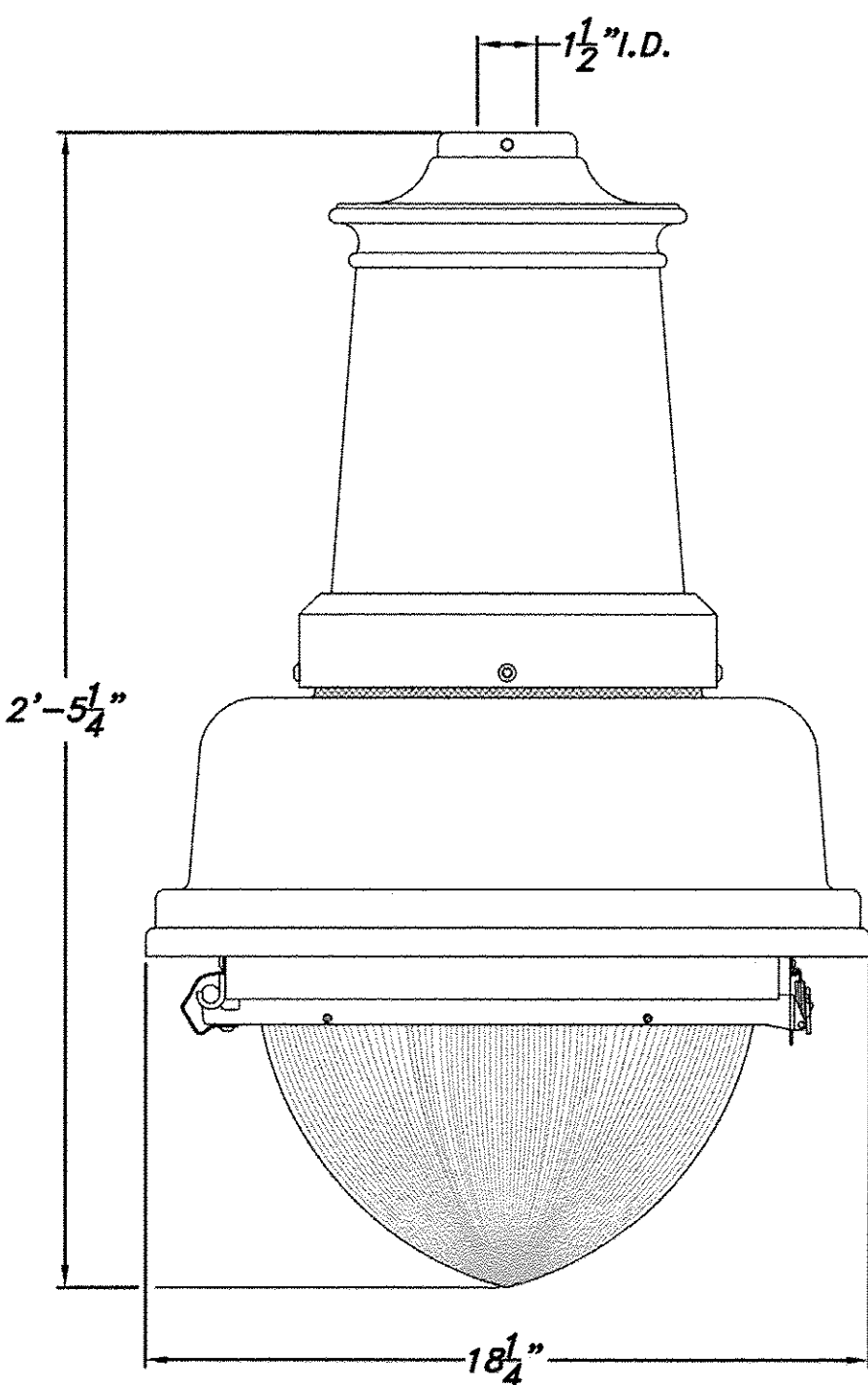
All LED products manufactured in the United States.

BOSTON COMMON-18 LED SERIES

IP 66 RATED
LED CHAMBER

BC-18-LEX-LED-D15

FULL CUT OFF;
DARK SKY COMPLIANT,
PENDANT MOUNTED
HORIZONTAL LED
ASSEMBLY



E.P.A.=2.4 SQ.FT.

SCALE: 1"=1'-0"

STANDARD KELVIN	WATTAGE RANGE ACTUAL = EQUIVALENT	VOLTAGE RANGE-AC	REFRACTOR TYPE	COLOR (POWDER COAT)
3000 <input type="checkbox"/>	38w = 75w EQ. <input type="checkbox"/> 50w = 100w EQ. <input type="checkbox"/>	120-277 <input checked="" type="checkbox"/>	TYPE III <input type="checkbox"/>	(TB) TEXTURED BLACK <input type="checkbox"/> (GB) GLOSS BLACK <input type="checkbox"/> (TG) TEXTURED FOREST GREEN <input type="checkbox"/> (GG) GLOSS GREEN <input type="checkbox"/>
4000 <input type="checkbox"/>	75w = 150w EQ. <input type="checkbox"/> 88w = 175w EQ. <input type="checkbox"/>	347-480 <input type="checkbox"/>	TYPE V <input type="checkbox"/>	(TR) TEXTURED BRONZE <input type="checkbox"/> (BG) GLOSS BLACK GREEN <input type="checkbox"/> (HG) HAND BRUSHED GREEN <input type="checkbox"/> (GR) GLOSS BRONZE <input type="checkbox"/>
5000 <input checked="" type="checkbox"/>	125w = 250w EQ. <input type="checkbox"/> 200w = 400w EQ. <input type="checkbox"/>			(HR) HAND BRUSHED GRAY <input type="checkbox"/> CUSTOM... <input type="checkbox"/>

LUMINAIRE SPECIFICATIONS

HOUSING

The pendant mount luminaire shall be core cast aluminum. Aluminum shall be certified as pure #356 alloy, free of any porosity, foreign materials or cosmetic fillers. Castings shall be uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be 3/16". Electrical components are one piece plug-in. LED assembly unit shall be mounted with four stainless steel screws. The core ports for ventilation located just beneath pendant housing and LED unit mounting ring increase thermal management and over all LED longevity. The optional refractor shall be molded of acrylic, glass or a polycarbonate globe with external refractor designed for either a type III or type V light distribution pattern.

LED POWER SUPPLY

Up to 100,000 hours Mean Time Before Failure (MTBF). Each factor adjustable setting draws between 300 to 600 milliamps of power. Only 1 power supply is used for up to 125 LED watts each enclosed fixture. Multiple circuit detection and protections. Each unit is rated up to 16 amps of power. Input voltage range of 90-305VAC. Minimum operating temperature -22°F (-30°C) Maximum operating temperature 140°F (60°C).

LED CIRCUIT BOARD

90 or 60 individual, CREE XPE LED's rated for up to 100,000 hours service life. 5000 Kelvin white LED's are standard with a CRI of 72, 3500 Kelvins "warm white" LED's are optional. Lead free and RoHS compliant.

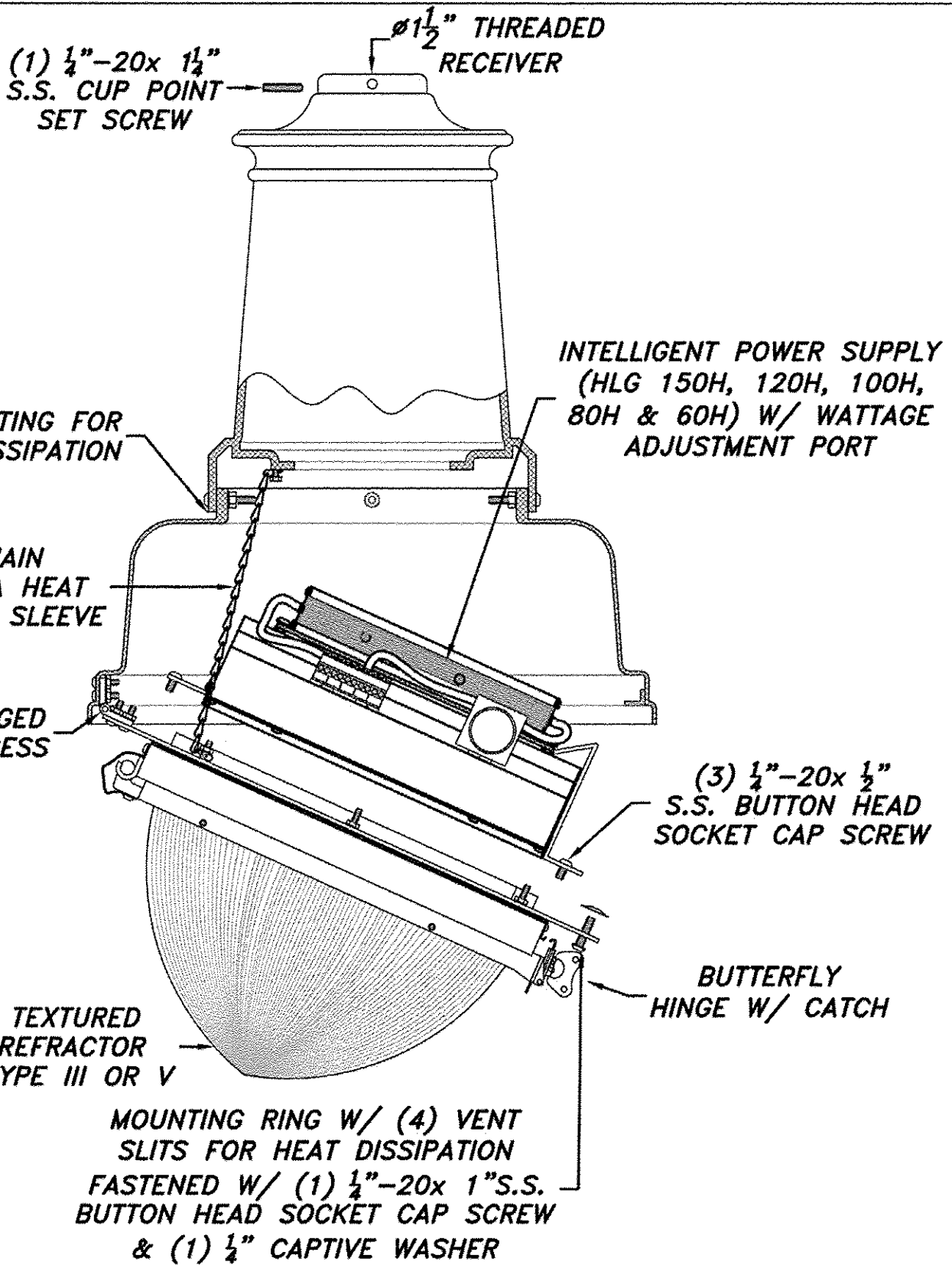
MOUNTING

Fixture shall be mounted to the arm by the self-leveling mechanism. Self-leveling mechanism be mounted to arm with stainless steel allen head set screws (8 @ 90°).

Catalog Name: N-24-TSS-40-CH-1-BC-18-LEX-LED Date: 03.31.16

Revision History: N/A Revision #: 0

Niland Approval: Luis M. Gomez Customer Approval: Page: 5 of 5



CERTIFICATION

The fixture shall be UL Certified for wet location use.

FINISH-AAMA-2604-5

Fixture finish shall consist of degreasing, phosphate acid etching with 140° deionized water, rinsed, oven dry off and top coated with a thermoset TGIC super polyester powder coat finish designed not to chalk or fade for many years. All Niland Company powders must pass a minimum 3000-hour salt spray test for corrosion resistance.

WARRANTY

Quick 60+ month warranty on LED module and electronic driver. Please contact manufacturer for more details.

PHOTOMETRICS

Complete photometric data for all fixtures is available in IES-formatted. A certified independent laboratory performs all testing. Call the Niland Company directly for more information.

NILAND/LED **Leading The Way For Solid State Street Lighting**



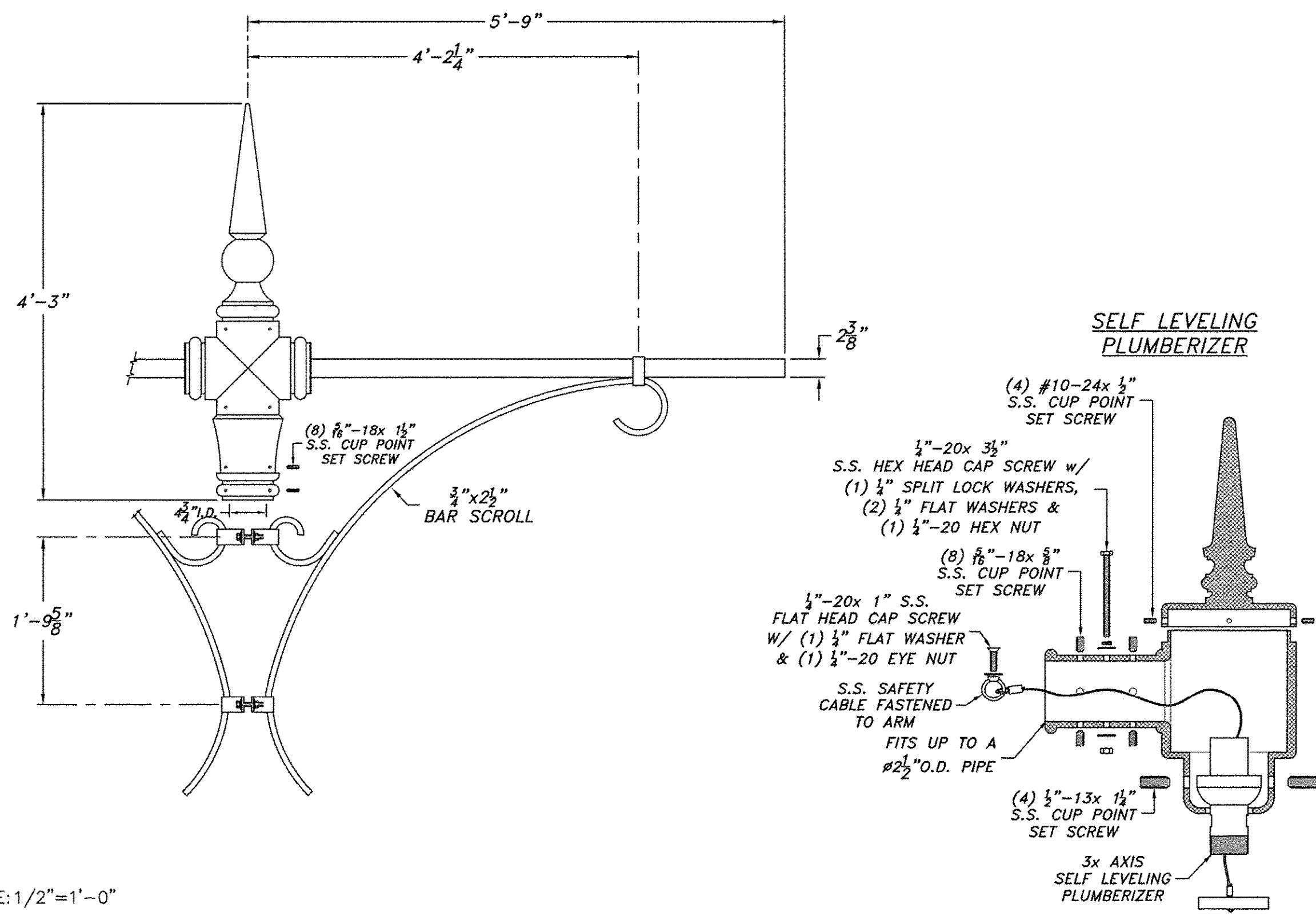
QUICK 60+ Warranty
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320 N. Clark El Paso, Tx 79905 • PH: 800-648-9013 • FAX: 888-779-3065 • WEB PAGE: HTTP://www.nilandco.com

All LED products manufactured in the United States.

FILE NAME = R0130190-LIGHTING DETAILS.DWG	USER NAME = THEODORE G. SIANIS	DESIGNED - TSIANIS	REVISED - 10/28/16	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING DETAILS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BBUTTERFIELD	REVISED -						N/A	15-00056-00-LT	COOK	8	5
	PLOT SCALE = ----	CHECKED - TSIANIS	REVISED -						CONTRACT NO. 61D10				
	PLOT DATE = 11/10/2016 9:00 AM	DATE - 04/18/16	REVISED -										
	SCALE: NONE								SHEET NO. 5 OF 8 SHEETS		STA. TO STA.		FED. ROAD DISTRICT 1 ILLINOIS FED. AID PROJECT

CHICAGO SERIES
CH-1



SCALE: 1/2"=1'-0"

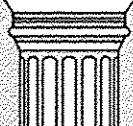
EXAMPLE		CH-1 - _____	
CH-1-TB		Color	

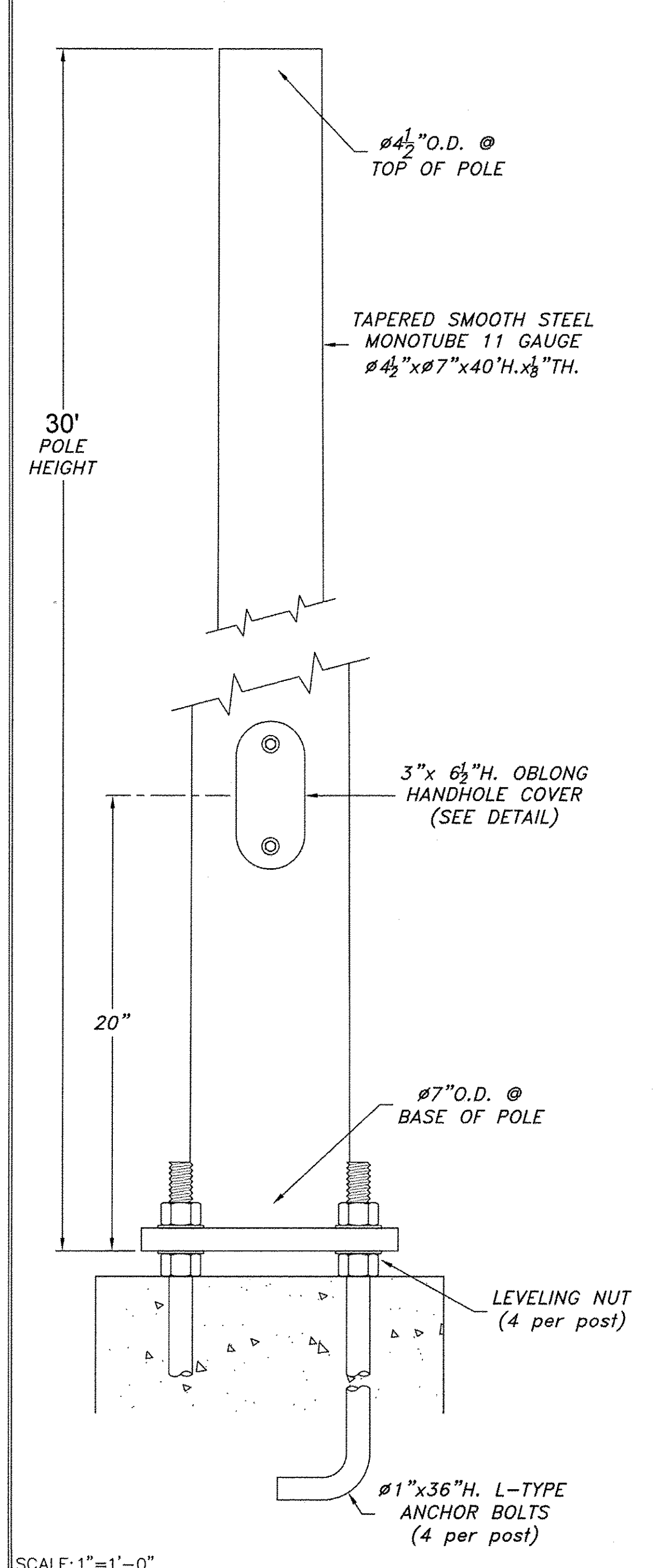
ARMS	ARM LENGTH	COLOR (POWDER COATED)			
1 <input type="checkbox"/>	4ft <input type="checkbox"/>	(TB) TEXTURED BLACK <input type="checkbox"/>	(GB) GLOSS BLACK <input type="checkbox"/>	(HG) HAND BRUSHED GREEN <input type="checkbox"/>	
2 <input checked="" type="checkbox"/>	6ft <input checked="" type="checkbox"/>	(TG) TEXTURED FOREST GREEN <input type="checkbox"/>	(GG) GLOSS GREEN <input type="checkbox"/>	(HR) HAND BRUSHED GRAY <input type="checkbox"/>	
	8ft <input type="checkbox"/>	(TR) TEXTURED BRONZE <input type="checkbox"/>	(BG) GLOSS BLACK GREEN <input type="checkbox"/>	(GR) GLOSS BRONZE <input type="checkbox"/>	CUSTOM <input type="checkbox"/>

ARM SPECIFICATIONS

ARM The arms shall be steel construction. Extrusion shall be 11 gauge (1/8") wall thickness with no warping or mold shifting. Electrical wiring shall run through arm up and out through the 93" opening.	FINISH Fixture finish shall consist of degreasing, phosphate acid etching with 140°F deionized water, rinsed, oven dry off and top coated with a thermoset TGIC super polyester powder coat finish designed not to chalk or fade for many years. All Niland Company powders must pass a minimum 3000-hour salt spray test for corrosion resistance.
ELECTRICAL All electrical wiring is run through center shaft and arm and shall be UL-recognized and wired by a certified UL technician. The electrical assembly is prewired with quick disconnects for servicing. Fixture shall be UL certified for wet locations.	CERTIFICATION The Fixture shall be UL-Listed for wet location use, and all HID listings.
MOUNTING Arm shall be mounted to a steel pole using (4) steel hex head set screws for fastening.	WARRANTY Fixture shall be warranted to be free of defects for five years. Ballast components shall carry the ballast manufacturers limited warranty of two years.

Catalog Name: N-24-TSS-40-CH-1-BC-18-LEX-LED	Date: Q3.31.16
Revision History: N/A	Revision #: 0
Niland Approval: Luis M. Gomez Customer Approval: _____ Page: 4 of 5	

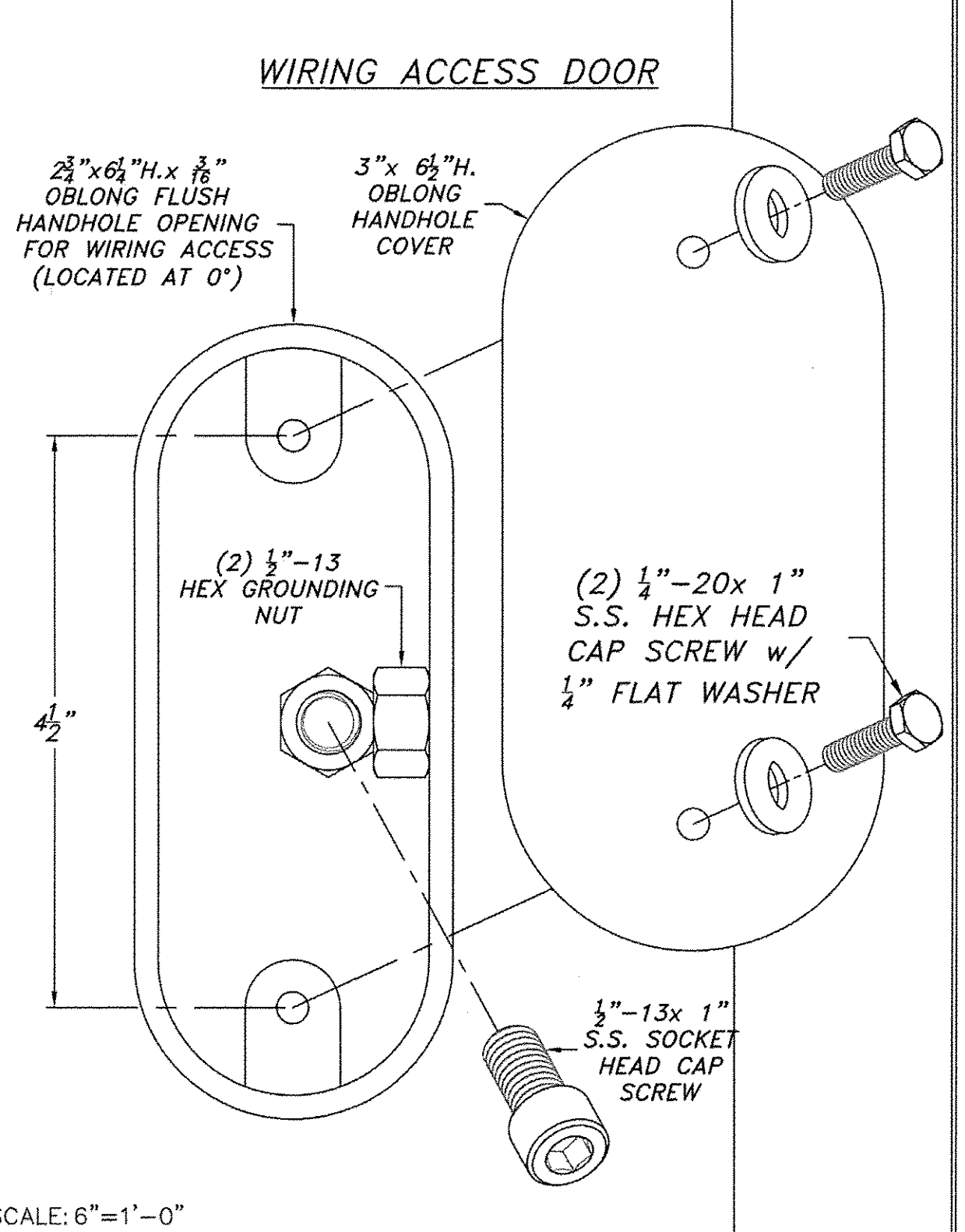
**Niland Company**
NILAND COMPANY • PH: (915) 779-1405 • FAX: (915) 779-3618 • E-MAIL: INFO@NILANDCO.COM
320 N. Clark El Paso, Tx 79905 • PH: 800-648-9013 • FAX: 888-779-3065 • WEB PAGE: HTTP://WWW.NILANDCO.COM



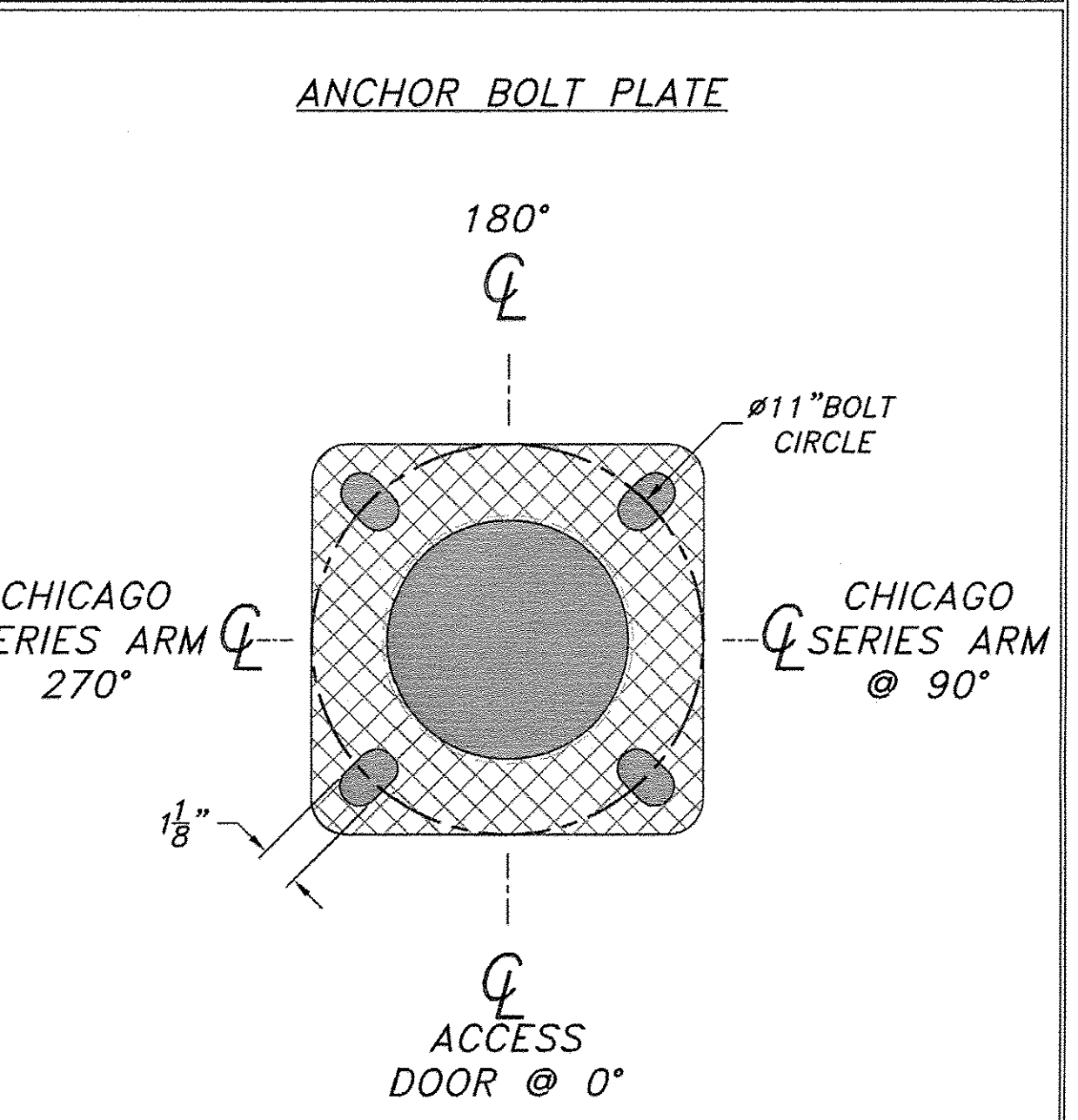
SCALE: 1"=1'-0"

STEEL POLE-11' BOLT PLATE-TAPERED SMOOTH STEEL-
30' POLE HEIGHT
SS-11-TFS-30'

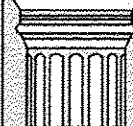
Catalog Name: N-24-TSS-30-CH-1-BC-18-LEX-LED	Date: Q3.30.16
Revision History: N/A	Revision #: 0
Niland Approval: Luis M. Gomez Customer Approval: _____ Page: 2 of 5	



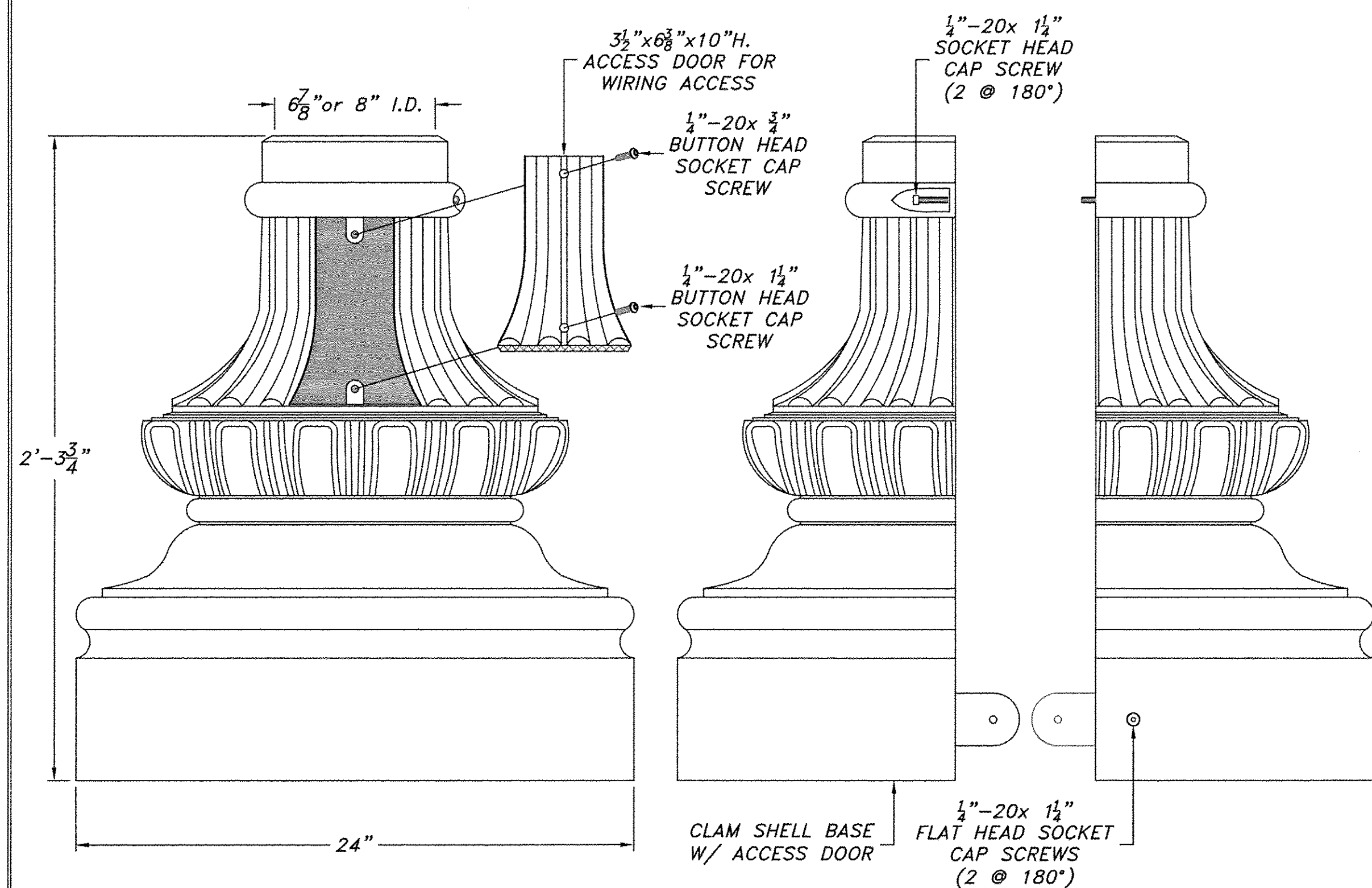
SCALE: 6"=1'-0"



SCALE: 6"=1'-0"

 Niland Company <small>NILAND COMPANY • PH: (915) 779-1405 • FAX: (915) 779-3618 • E-MAIL: INFO@NILANDCO.COM 320 N. Clark El Paso, Tx 79905 • PH: 800-648-9013 • FAX: 888-779-3065 • WEB PAGE: HTTP://WWW.NILANDCO.COM</small>

NILAND-24 SERIES
N-24-CS



SCALE: 1 1/2"=1'-0"

EXAMPLE N-24-CS-TB		N-24-CS- Series Color	
BASE MATERIAL	NECK OPENING	COLOR (POWDER COATED)	
CAST ALUMINUM <input checked="" type="checkbox"/>	6 7/8" I.D. <input checked="" type="checkbox"/>	(TB) TEXTURED BLACK	<input type="checkbox"/> (GB) GLOSS BLACK
CAST IRON <input type="checkbox"/>	8" I.D. <input type="checkbox"/>	(TG) TEXTURED FOREST GREEN	<input type="checkbox"/> (GG) GLOSS GREEN
		(TR) TEXTURED BRONZE	<input type="checkbox"/> (BG) GLOSS BLACK GREEN
		(HG) HAND BRUSHED GREEN	<input type="checkbox"/> (GR) GLOSS BRONZE
		(HR) HAND BRUSHED GRAY	<input type="checkbox"/> CUSTOM

BASE SPECIFICATIONS


ALUMINUM BASE
Base shall be cast aluminum. Aluminum shall be certified as pure 356 copper free of any porosity, foreign materials or cosmetic fillers. Base casting shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be .250". Cast aluminum access cover shall be secured with two to four stainless steel screws. Exterior transition ring shall be cast in to the top of the base to mirror the design of the smooth or fluted shaft. There are no exterior welds to finish.

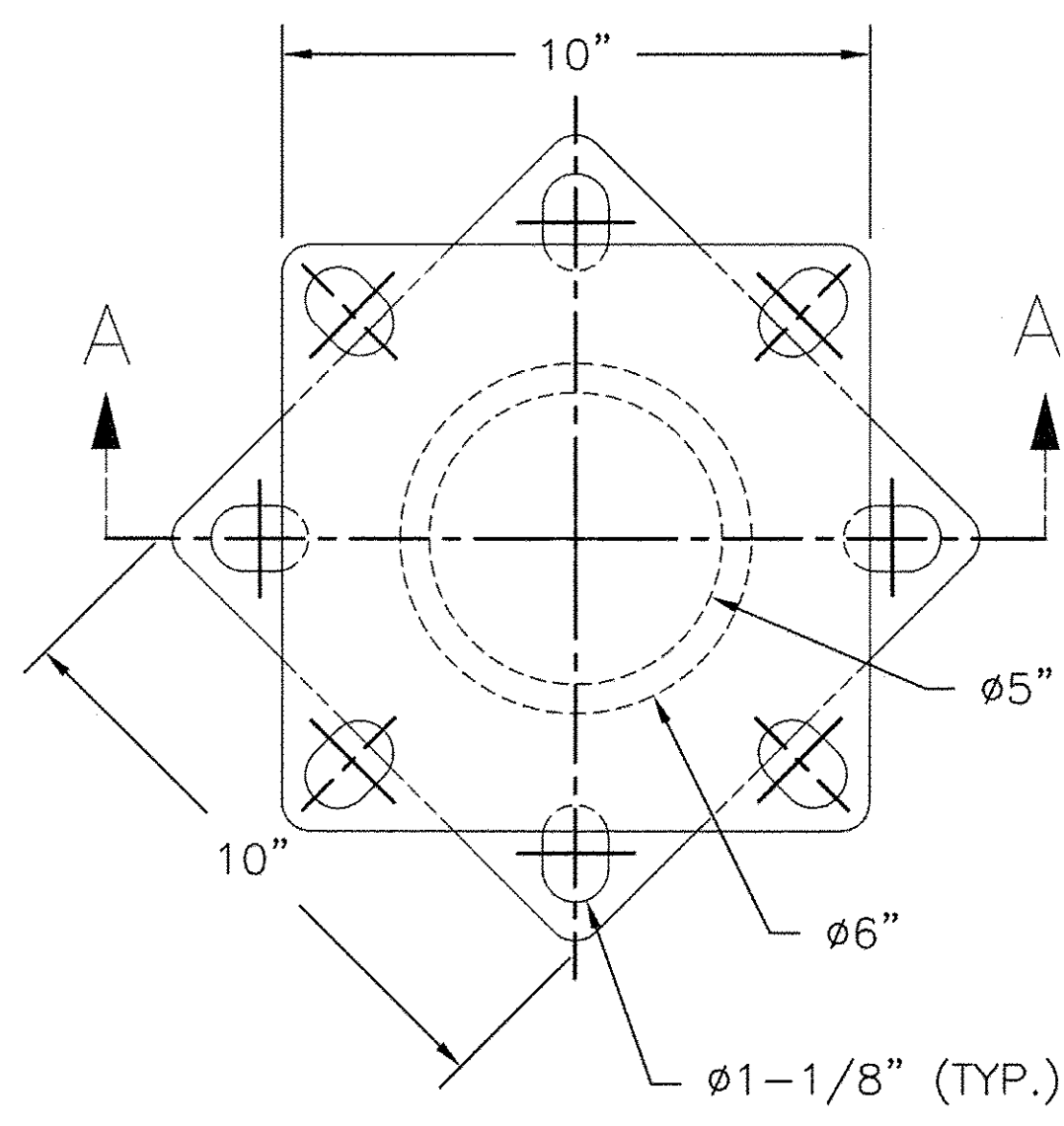
IRON BASE
Base shall be cast iron. Iron shall be certified as pure ASTM A-48 83 class, free of any porosity, foreign materials or cosmetic fillers. Base casting shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be .250". Cast iron access cover shall be secured with two to four stainless steel screws. Exterior transition ring shall be cast in to the top of the base to mirror the design of the smooth or fluted shaft. There are no exterior welds to finish.

FINISH
Fixture finish shall consist of degreasing, phosphate acid etching with 140+ deionized water, rinsed, oven dry off and top coated with a thermoset TGIC super polyester powder coat finish designed not to chalk or fade for many years. All Niland Company powders must pass a minimum 3000-hour salt spray test for corrosion resistance.

CERTIFICATION
The Fixture shall be UL-Listed for wet location use, and all HID listings.

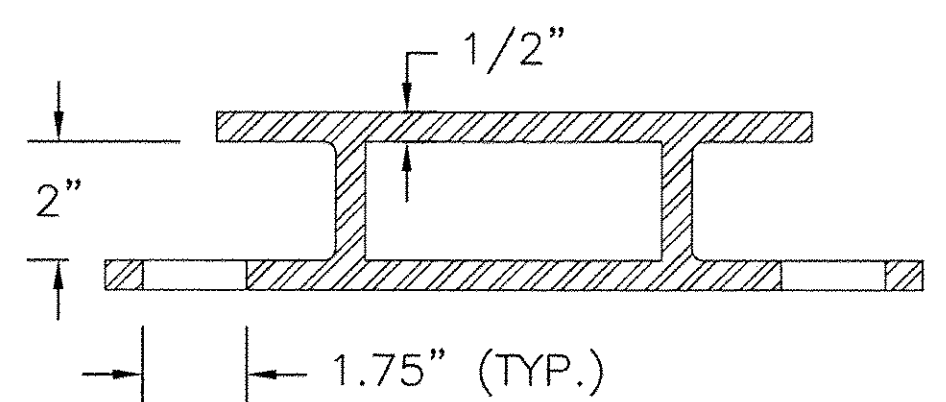
WARRANTY
Fixture shall be warranted to be free of defects for five years. Ballast components shall carry the ballast manufacturers limited warranty of two years.

Catalog Name: N-24-TSS-40-CH-1-BC-18-LEX-LED	Date: 03.30.16
Revision History: N/A	Revision #: 0
Niland Approval: Luis M. Gomez Customer Approval: _____ Page: 3 of 5	
	
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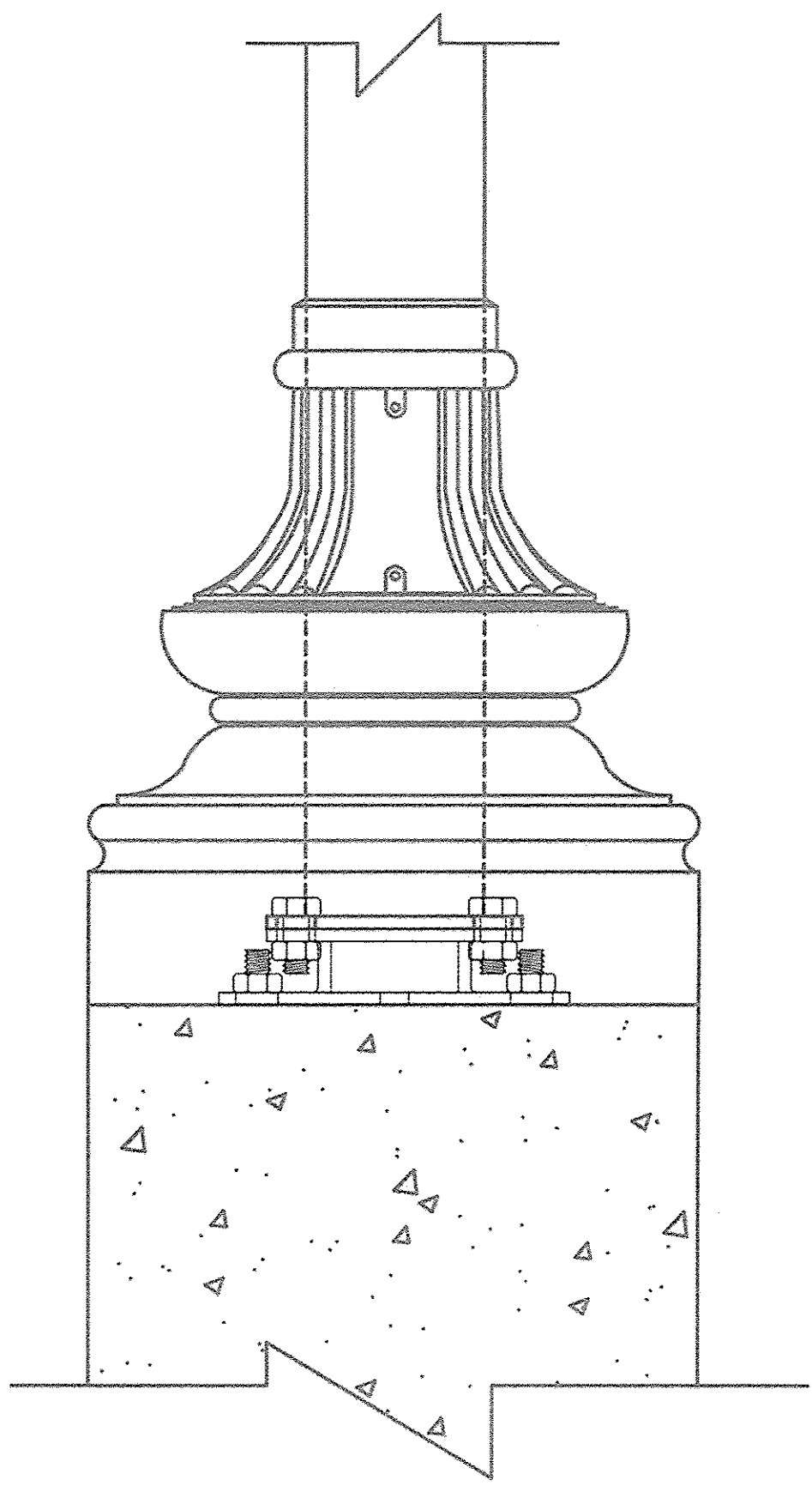


LOWER BOLT CIRCLE = 10-3/4"
UPPER BOLT CIRCLE = 11"

TOP VIEW



SECTION A-A

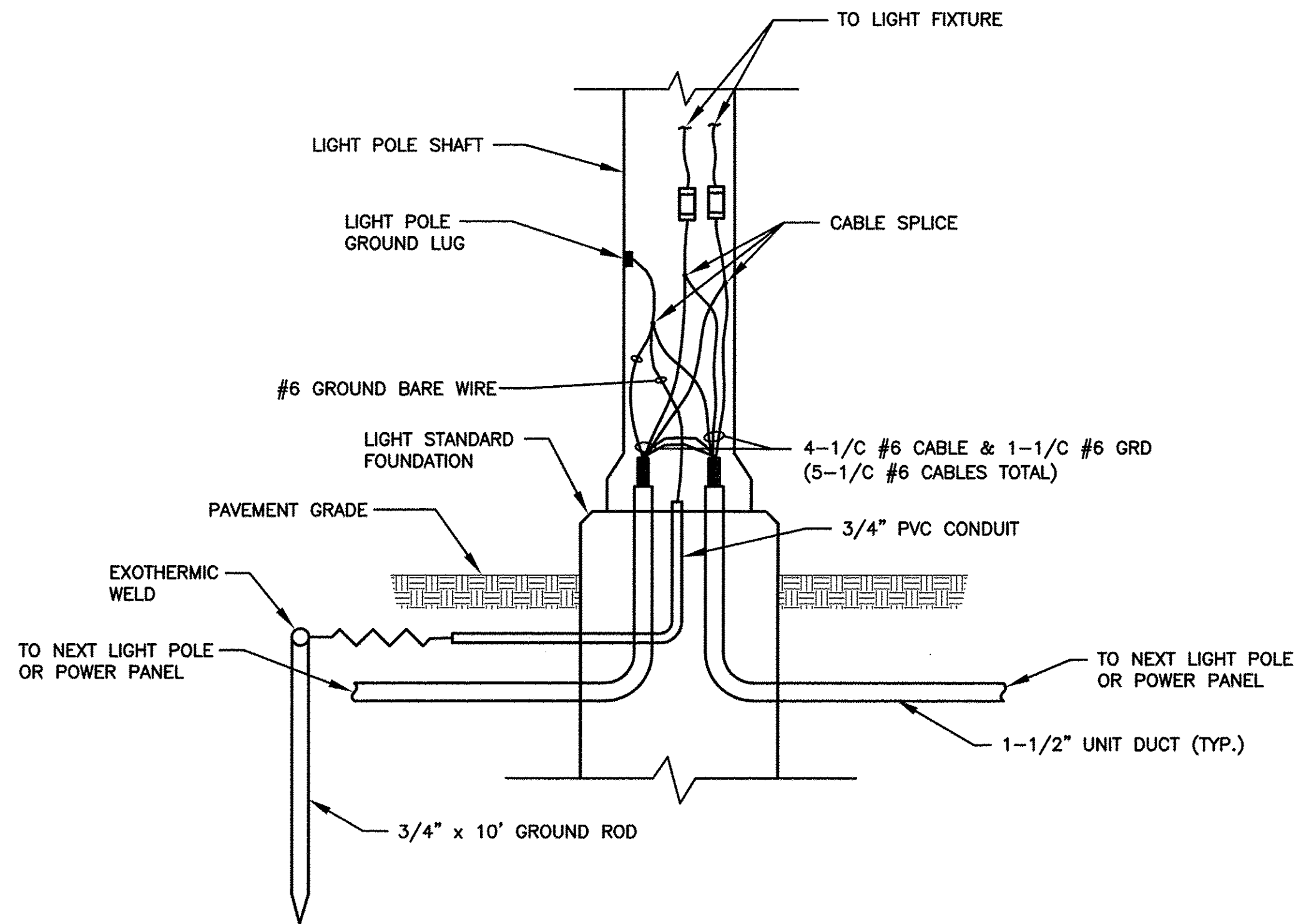


INSTALLED ADAPTOR SCHEMATIC

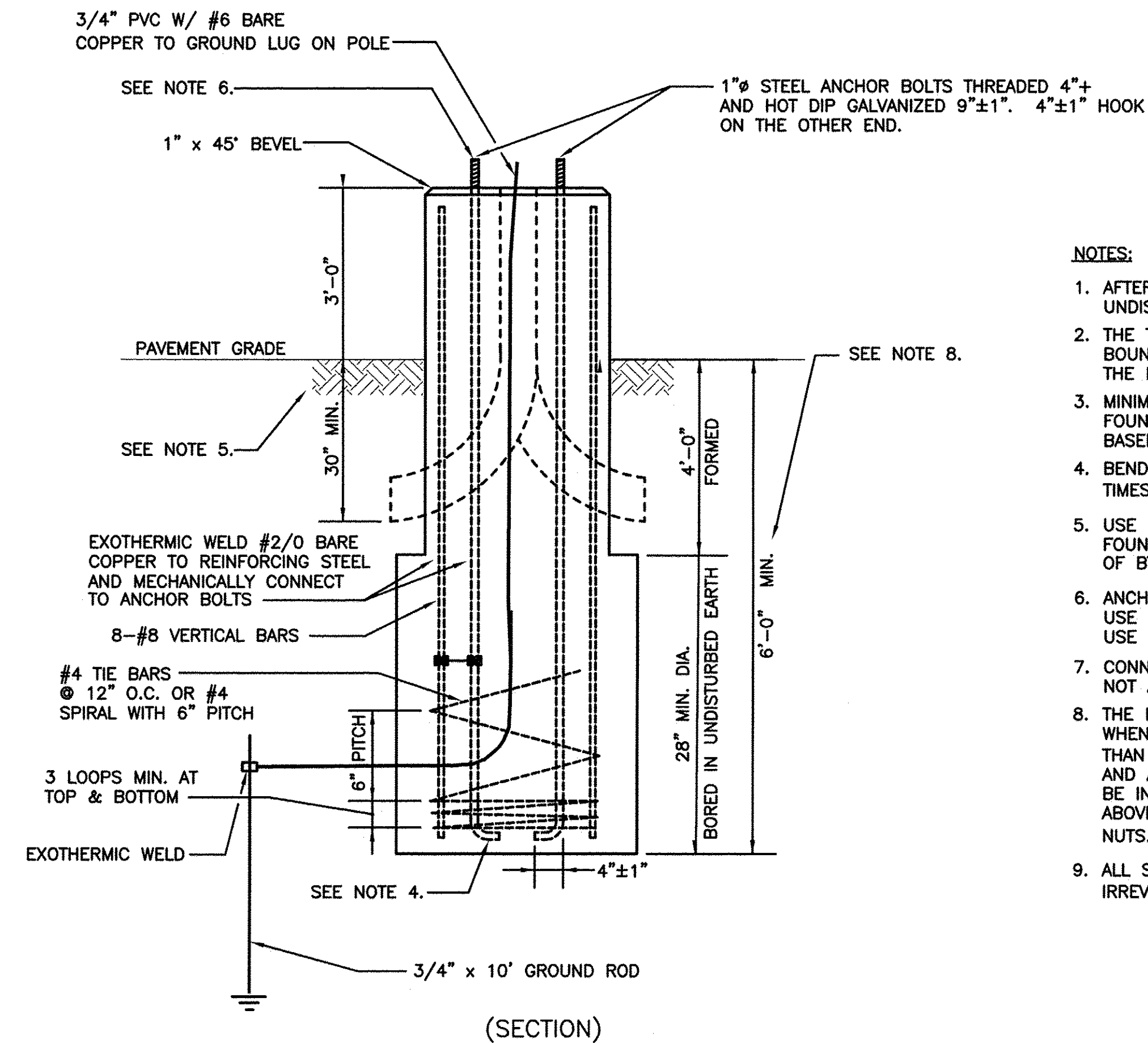
DRAWN BY: BRB
DATE: 04/2016
CHECKED BY: TGS
DATE CHECKED: 4/2016
REVISED BY: .
LAST REVISED: .

DETAIL NAME
BOLT CIRCLE ADAPTOR

CLARK DIETZ, ENGINEERS
625 57TH STREET, 6TH FLOOR
KENOSHA, WI 53144
PHONE : 262.657.1550



LIGHTING UNIT TYPICAL WIRING
NO SCALE



POLE FOUNDATION & BASE MOUNTING DETAIL
NO SCALE

NOTES:

1. AFTER POURING CONCRETE, THE FORM SHALL REMAIN UNDISTURBED FOR 24 HOURS.
2. THE TOP 4' ONLY SHALL BE FORMED. CONCRETE BOUNDED BY UNDISTURBED EARTH ONLY SHALL FILL THE REMAINDER OF THE HOLE.
3. MINIMUM CLEARANCE FROM THE OUTSIDE EDGE OF FOUNDATION TO ANY PART OF THE POLE BASEPLATE SHALL BE 3".
4. BEND RADIUS SHALL NOT BE GREATER THAN FOUR TIMES THE BOLT DIAMETER.
5. USE IDOT GRADATION NO. CA-7 STONE TO FILL AROUND FOUNDATION TOP. ANY EXCESS DIRT WILL BE DISPOSED OF BY THE CONTRACTOR AT HIS EXPENSE.
6. ANCHOR BOLT SHALL EXTEND THROUGH NUT 3/8" TO 1". USE SELF-LOCKING NUT AND FLAT WASHER. DO NOT USE LOCKWASHER.
7. CONNECT GROUND WIRES TO POLE BASE GOURND LUG, NOT ANCHOR BOLTS.
8. THE MINIMUM DEPTH OF ANY FOUNDATION SHALL BE 6 FT. WHEN THE FOUNDATION DEPTH IS REDUCED TO LESS THAN 6 FT, THE ANCHOR RODS SHALL BE CUT, THREADED, AND A STEEL PLATE (20" X 20" X 1/4") SHALL BE INSTALLED ON THE BOTTOM OF THE ANCHOR RODS, 6" ABOVE THE BOTTOM OF THE EXCAVATED HOLE WITH 1" NUTS.
9. ALL SPLICES IN GROUND WIRES SHALL BE BY IRREVERSIBLE HYDRAULIC COMPRESSION FITTINGS.

FILE NAME = R0130190-LIGHTING DETAILS.DWG	USER NAME = THEODORE G. SIANIS	DESIGNED - TSIANIS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	POLE FOUNDATION & WIRING DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - BBUTTERFIELD	REVISED -					N/A	15-00056-00-LT	COOK	8	8
	PLOT SCALE = -----	CHECKED - TSIANIS	REVISED -					CONTRACT NO. 61D10				
	PLOT DATE = 11/10/2016 9:00 AM	DATE - 04/18/16	REVISED -					FED. ROAD DISTRICT 1 ILLINOIS FED. AID PROJECT				
					SCALE: NONE	SHEET NO. 8 OF 8 SHEETS	STA.	TO STA.				