



Pole Attachment and Conduit Usage Guidelines

**Policies, Procedures, Guidelines and Requirements
Covering the Installation of Communication Cables
on NES Poles and in NES Conduits**



Prepared by the NES Customer Engineering Attachment Group

**Revision I
Effective January 15, 2010**

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

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SECTION I

INTRODUCTION

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

A: Overview

The information contained in this document is intended to facilitate and expedite pole attachment requests from companies who have a valid Infrastructure Use Agreement with Nashville Electric Service (NES). Strict adherence to these guidelines, procedures and requirements will ensure smooth application and approval processes and will allow completion of the Applicant's construction with minimal delay and conflict.

This document outlines situations under which NES considers the attachment of facilities to its poles and usage of its conduit. It also outlines the requirements and procedures for granting such permission as well as the physical installation and maintenance of facilities on NES' poles.

Those portions of this document relating to cable design and construction are intended to be used in conjunction with the current version of the National Electrical Safety Code (NESC). The NES should be considered as minimum design requirements with regard to the design and installation of communication cables and other facilities. NES design standards may exceed those of the NES.

NES will provide updates to this document as necessary. In all situations, it is the responsibility of attaching companies to be familiar with and adhere to the current version of the NES and these guidelines during the installation, maintenance and related activities involving their facilities attached to NES poles.

Nashville Electric Service
Attachments Group
1214 Church Street
Room 363
Nashville, TN 37246

(615)747-3970

FAX (615)747-3968

attachments@nespower.com

Website: www.nespower.com

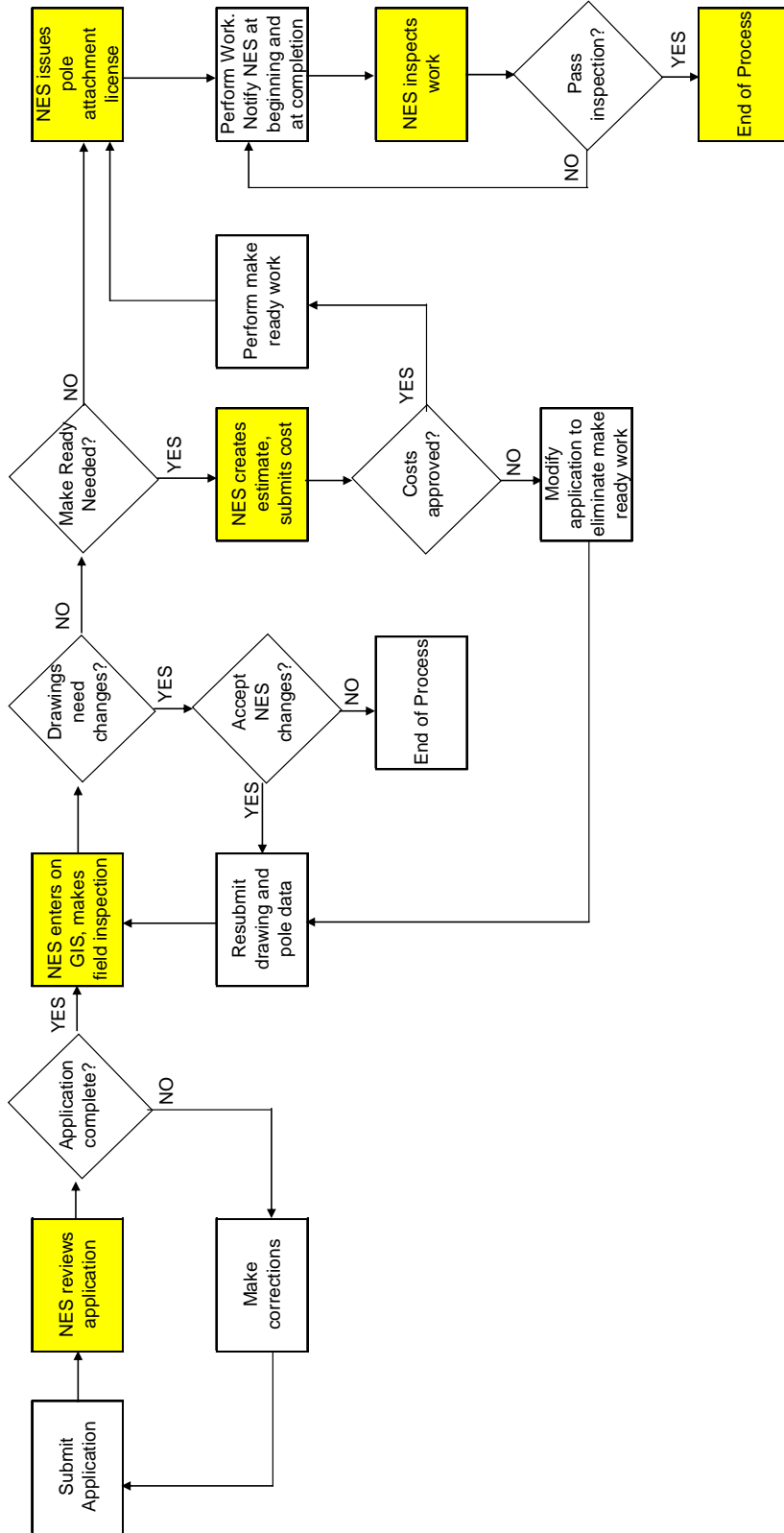
**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

B: Contacts

Company/Department	Contact Person	Email Address	Phone Number
Dangerous Situations			615-234-0000
Customer Service			615-747-3443
Attachments Group	Robert Boleyjack	attachments@nespower.com	615-747-3546
Communication Fiber	Todd Oney	toney@nespower.com	615-747-3836
GIS/Mapping	Mike Buri	mburi@nespower.com	615-747-3687
Private Lighting	Sundae Woodson	sswoodson@nespower.com	615-747-3211
Property and Easements	Glen Biggers	gbiggers@nespower.com	615-747-3392
Street Lighting	Bert Gilchrist	ggilchrist@nespower.com	615-747-3531
Tree Trimming	Billy Mathison	bmathison@nespower.com	615-747-3120
Telephone Company Contacts			
AT&T	Beverly Lamb	bl3021@att.com	615-214-7314
TDS Telecom	Russell Harper	russell.harper@tdstelecom.com	615-758-6445
United Telephone Co.	Larry Hall		615-896-1207
Communication Company Contacts			
Access Fiber Group	Dan Moore	dan.moore@accessfiber.com	205-492-8328
American Fiber Systems	Mark Stacey	mstacey@afsnetworks.com	615-273-1043
Comcast	Steven Lencse	Steve_Lencse@cable.comcast.com	615-244-7462
Kentucky Data Link	George L. Butler	gbutler@kdlink.com	662-862-7031
Level 3 Communications	Luke Wingo	luke.wingo@level3.com	615-263-2224
Nashville Data Link	George Butler	gbutler@kdlink.com	662-862-7031
TWTC Inc.	Ricky Anderson	ricky.anderson@twtelecom.com	615-627-3752
Vanderbilt University	Tanish Horner	tanish.horner@Vanderbilt.Edu	615-343-1705
XO Communications	David Dickerson	david.b.dickerson@xo.com	615-777-7855
Government Agency Contacts			
City of Brentwood	Jeff Donegan		615-371-0080
City of Hendersonville	Jerry Horton		615-822-1000
City of Lavergne (fiber)	Matt Appleton	mappleton@lavergne.org	615-287-8620
Corps of Engineer Permits	Mark Vaughan		615-889-1975
Metro ITS Department	Russ Nash	Russ.nash@nashville.gov	615-862-6232
Metro Planning Comm.	Jennifer Regan/ Brandon Burnett		615-862-7190
Metro ROW permits	Buddy Hall		615-862-8782
Metro Traffic and Parking	Mike Hirtzer	Michael.hirtzer@nashville.gov	615-880-3261
Railroad Crossing Permits		ContractAdmin@csx.com	
TDOT Permits	Gene Scott	Gene.Scott@state.tn.us	615-350-4231
Make-Ready Construction Contractor Contacts			
Davis H Elliot	Bill Harrison	wharrison@davishelliot.com	615-207-2553
Dillard Smith	Jamie Lemay		423-894-4336
Pike Electric	James T. Benfield		336-789-2171
Make-Ready Engineering Contractor Contacts			
Team Fishel	Mark Vucko	MCVucko@teamfishel.com	615-742-3338
First Call Services	Charles Green	Charles.fcs@comcast.net	615-594-2404
IJUS LLC	Brett Willitt	Brett.willitt@ijus.net	614-470-9882 x 30
Power & Communication Services, Inc	Jeff Barnett	barnett@ieee.org jlb901@bellsouth.net	731-668-6949

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

B: Process Flow Chart



SECTION II

SUBMITTAL

PROCESS

NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES

A: Basic Procedures

1. **Enter Into Use Agreement:** Prior to making attachments, the Applicant must enter into an Infrastructure Use Agreement (IUA) and apply for and obtain prior permission for the use of each pole. To initiate this process, send an e-mail to attachments@nespower.com, or call 615-747-3970.
2. **Obtain NJUNS Code:** Prior to making attachments, the Applicant must also obtain an NJUNS member code. NJUNS is a national organization of member utilities formed for the purpose of improving coordination for pole attachment transfers and other related issues. Call the NES Attachments Group at 747-3970 for assistance on obtaining an NJUNS member code. Companies with less than fifty attachments are not required to have an NJUNS member code.
3. **Submit Design Package:** The Applicant must submit to NES an Application and Design Package consisting of one electronic version of the following items:
 - Completed NES Pole Attachment Application
 - Completed NES Field Data Sheet
 - Route Map showing poles proposed for attachment, pole numbers, street names and house/building numbers and required make-ready and maintenance notes.

NES requires 15 business days to review the submittal, at which time the Applicant will receive a more detailed timeline for the project.

The Applicant's design must be in accordance with the current version of the National Electrical Safety Code (NESC) requirements, NES' Pole Attachment and Conduit Usage Guidelines and all applicable local regulations and requirements. NES reserves the right to request that the Application be submitted under the direct supervision of a Professional Engineer licensed by the State of Tennessee.

NES' Pole Attachment Application Forms are available on the NES website (www.nespower.com) or upon request.

E-mail completed forms to attachments@nespower.com (preferred), or forms may be mailed to:

Nashville Electric Service
Attn: Attachments Group Rm. 363
1214 Church St.
Nashville, TN 37246

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

A: Basic Procedures

4. **Obtain Permits:** Where attaching installations involve city, county and/or state road rights-of-way or property owned by others such as Army Corp of Engineers, TVA or Railroad companies, NES strongly recommends the Applicant contact (early in their planning process) the appropriate authorities to obtain the necessary permit(s). The Applicant will be required to submit copies of the following permits (if required) before any license can be finalized:
- Metro ROW Permit:.....<http://www.nashville.gov/pw/permits.asp>
 - Metro Road Crossing Permit: ...Buddy Hall
.....Traffic and Parking Commision
.....(615) 862-8782
 - TDOT Permit(s):Gene Scott of the Right-of-Way Office,
.....TDOT, 6601 Centennial Blvd.,
.....Nashville, TN 37243
.....(615) 350-4231
 - US Army Corps of Engineer Permit(s)
J. Percy Priest lake:c/o Mark Vaughan
.....(615) 889-1975
Old Hickory Lake:(615) 822-4846
 - Railroad Crossing Permit(s).....http://www.csx.com/?fuseaction=about.property_corridor
 - TVAAndy Todd, (615) 781-4763
5. **Pay Fee:** An Application and Processing Fee is due at the time of application. This is a non-refundable fee. Applications submitted for poles that have not been physically set in the field will be cancelled, and all application and processing fees will be forfeited.

Licensees cannot overlash additional cables to an already existing cable without first submitting an application. The mandatory overlashing application and processing fee is due at the time of application.

Contact the Attachments Group of Nashville Electric Service at (615) 747-3970 or e-mail attachments@nespower.com for the current application and processing fee, or if you have any questions or need further assistance with attachment issues.

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

B: Sample Documents, Pole Attachment Application

NES POLE ATTACHMENT APPLICATION				
Applicants Tracking #	Contract #	Date Submitted:	Date Received:	NES Tracking #
Project Name:		Application Type: (choose one) <input type="checkbox"/> Cable/Fiber <input type="checkbox"/> Overlash <input type="checkbox"/> Equipment <input type="checkbox"/> Banner <input type="checkbox"/> Removal <input type="checkbox"/> Other		
Applicants Contact Information:				
Company Name:		Contact Person:	Telephone #	Office:
Street Address:		Email Address:		Fax #
City:		State:	Zip:	
NJUNS Member Code:		24hr Emergency Contact:	24hr Emergency telephone #	
Billing Department:		Contact Person:	Telephone #	Office:
Street Address:		Email Address:		Fax #
City:		State:	Zip:	
Construction/Project Company:		Construction/Project Contact:	Telephone #	Office:
Street Address:		Email Address:		Fax #
City:		State:	Zip:	
Pole Attachment Information:				
Number of Poles Applied for:		Application Fees Submitted:	Attachment Fees Due at Time of Approval:	
Location of Facilities: (City/County)			Desired Construction Date:	
Cable or Equipment Specifications:				
Number of Cables to be Installed:		Fiber Count:		
Conductor/Cable Diameter: (ins.)		Suspension Strand Weight:	(lbs./ft.)	
Conductor/Cable Weight: (lbs./ft.)		Suspension Strand Diameter:	(in.)	
Conductor/Cable Design Stringing Tension: (lbs.)				
Any Other Equipment Dimensions: (ins.)		Length	Width	Height
		inches	inches	inches
Authorization:				

I do hereby authorize Nashville Electric Service this day of , 20 to proceed with the processing of this application.

Authorized Signature

Title

Date

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

B: Sample Documents, Completed Data Sheet

EXAMPLE PAGE

Pole Information						Location	Attachment Information								Work Description/Comments	Loading Calculations		
Pole Number	Size	Class	Type	Owner	Riser Type	Street Name	Owner	Type	Height Ft.	In.	Left Span	Right Span	Guying Required	Anchor Max Load	Guy Max Load	Lead Length	Make-Ready/Maintenance	Results (NES Use Only)
12522001	55	1	W	NES	N	1213 Church Street	NES	LP	34	0	215	195						Exempt
No need to repeat pole information							NEW	C	26	0			Y	15000	12000	8'	Pole loading	
							COM	C	25	0							not required.	
							ATT	C	24	0								
							ATT	C	23	0								
12522002	55	1	W	NES	S	1217 Church Street	NES	SP	29	0	195	205					Make-Ready:	Passed
No need to repeat pole information							NEW	C	26	0			N				Raise 1 wire rack 3ft	90% loaded
							COM	C	25	0								
							ATT	C	24	0							Maintenance:	
							ATT	C	23	0							Replace bad pole	
							COM	PS	12	6								
12522003	55	1	W	NES	P.O	Church Street	NES	LP	34	0	205	200						
No need to repeat pole information							NEW	C	26	6			N					
							COM	C	25	6								
							ATT	C	24	6								
							ATT	C	23	6								
09625013	55	1	W	BST	N	1221 Church Street	NES	LP	34	0	200	210						Failed
No need to repeat pole information							NEW	C	26	0			N					125% Loaded
							COM	C	25	0								Pole must be
							ATT	C	24	0								replaced
							ATT	C	23	0								on Make-Ready

Pole Number	Size	Class	Type	Owner	Riser Type	Street Name	Owner	Type	Height Ft.	In.	Left Span	Right Span	Guying Required	Anchor Max Load	Guy Max Load	Lead Length
12522001	55	1	W	NES	N	1213 Church Street	NES	LP	34	0	215	195				
No need to repeat pole information							NEW	C	26	0			Y	15000	12000	8'
							COM	C	25	0						
							ATT	C	24	0						
							ATT	C	23	0						

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

B: Sample Document, NES Letter of Notification

Date _____

Company
Address
City, ST Zip

Contact Person: _____

LETTER OF NOTIFICATION

Engineering has been completed on the following projects:

Project Name & Application #	Make-Ready W/R# & EST.#	Make-Ready Costs	Maintenance Costs
	WR# EST. #	Materials: Total w/labor	Materials: Total w/labor:

Please review the estimated costs associated with these projects and return this "letter of notification" to NES with your selections and approvals **within 10 working days**. Upon return receipt of this letter, NES will release your projects for construction.

NES makes no representation that its existing right-of-ways, easements or other property rights, private or public, are or will be sufficient to permit the applicant's attachments. It is the responsibility of the applicant to determine if it has the requisite authority to make such attachments.

If any additional replacements and/or rearrangements other than those described herein become necessary before delivery of licensee's license to attach, the application must be reprocessed to reflect such additional replacements and/or rearrangements before a license is issued and becomes effective.

A revocable license for attachments will be granted for this project(s) subject to acceptance of the obligation to pay the **actual** make-ready costs and upon completion of the make-ready and/or maintenance construction.

The **estimated** costs are approved. **Actual** costs will be paid to licensor in accordance with the Infrastructure Use Agreement (Contract No. _____).

NASHVILLE ELECTRIC SERVICE

By: _____ By: _____
 Title: Engineering Supervisor Title: _____
 Date: _____ Date: _____

To help us better schedule our resources; please indicate your plans for completing the **make-ready construction** by checking the appropriate box.

NES Line Crews Contract Line Crews Co. name: _____

Please sign and return this document to NES, Attn: Attachments Group, Rm 363, 1214 Church Street, Nashville, TN 37246.

NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES

B: Sample Document, Pole Attachment License

Nashville Electric Service Pole Attachment License
License # XXX-XXXX

As per the terms of contract #123456789 Nashville Electric Service hereby grants a revocable license to "Company Name" to attach cable to the following pole(s) as applied for in application #123456789.

12301001	12301002	12301003	12301004	12301005
12301006				

All attachments must maintain 12" of separation between communications and a minimum of 40" from lowest power. NES makes no representation that its existing right-of-ways, easements or other property rights, private or public, are or will be sufficient to permit the applicant's attachments. It is the responsibility of the applicant to determine if it has the requisite authority to make such attachments.

Nashville Electric Service

By: _____
Title: Supervisor, Customer Engineering
Date: 4/12/2007

Licensee shall complete attachments within 120 days after receipt of this license. License shall become void if conditions are not met.

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

C: Charges

Actual costs are included in the attachment agreement, and are listed in Appendix A at the end of this document.

- **Cable** is charged based on each position on the pole.
- **Banners** are charged based on their linear footage.
- **Conduit usage** is charged based on the linear footage.
- **Equipment** charges vary based on the size and nature of the equipment.

SECTION III

CONDITIONS

AND

PROCEDURES

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

A: General Conditions

1. By submission of the Attachment Application, the Applicant authorizes NES to proceed with the necessary engineering for the processing of the application. The Applicant shall be responsible for all costs incurred by NES as a result of this application.
2. NES reserves the right to reject this application due to insufficient capacity, or for reasons of safety, reliability and generally applicable engineering purposes.
3. No electrical systems other than those of NES can be installed on NES poles without prior written approval from the NES Engineering Department.
4. Often times NES will install poles of sufficient height to allow future installation of electrical equipment on its poles. When applicable, this reserved space will usually comprise ten feet (10'-0") below the crossarm on the distribution pole.
5. Upon the receipt of the completed Application, Design Package and all fees, NES will commence with the following steps:
 - Log application into a GIS-based application and attachment management system.
 - Assign to an NES or contract designer for document and field review.
6. Once the engineering review is complete, if no work is necessary to attach, the application process will continue with steps 7 through 20.

If make-ready or maintenance work is required, refer to the Make-Ready and/or Maintenance section on page 18.

7. NES will notify the Applicant when construction may begin (after any required make-ready and/or maintenance work has been completed) by issuing a Pole Attachment License. Attachments should be completed within 120 days of receipt of the Pole Attachment License. Applicant may request a 90-day extension. Any construction not completed at the end of the 90-day period will require the Applicant to reapply to NES for use of the involved NES poles.

NOTE 1: Pole rental charges begin immediately upon issuance of the Pole Attachment License. The Applicant's application should be submitted as close to time of actual construction as possible.

NOTE 2: NES may exclude from the Pole Attachment License any poles it reasonably believes do not comply with design standards, or that may otherwise be restricted for use by NES due to maintenance, renovation, relocation or other NES activities.

8. NES will verify ownership of poles involved in requests, and will indicate all of the NES poles on the Pole Attachment License.
9. NES Engineering is responsible for pole design standards that include but are not limited to vertical clearance requirements involving communication attachments. Installations shall comply with the current version of the NESC in all cases.

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

A: General Conditions

10. Communication cables must be installed without the use of extension arms, standoff brackets or similar hardware, unless otherwise approved in advance by NES.
11. Verbal permission to attach will not be given under any circumstances. In priority situations NES may provide the Applicant with written interim attachment permission by fax or e-mail.
12. If as-built construction does not comply with the Applicant's previously submitted design standards, the Applicant must resolve deficiencies, or NES may correct at the Applicant's expense.
13. All equipment and facilities must be marked with a permanent company identifier. Refer to the Cable Identification section on page 19 for additional specifications.
14. If it is determined that as-built changes exist for reasons of improper installation, incomplete make-ready or maintenance, or NESC non-compliance, the Applicant will have 30 days from notification to complete any necessary as-built requests.
15. Poles and cable other than those belonging to NES cannot be installed on NES property or within NES easements without prior NES approval. Written permission must be obtained from NES in order to access NES poles on NES property.
16. In all situations, prior permission must be obtained from property owners and governmental entities for use of private property and public road rights-of-way. NES assumes no responsibility for securing any permission that may be required, and the Applicant should assume no such permission exists based solely on the presence of NES facilities.
17. **FOR SERVICE DROPS ONLY:** Installations will be allowed with prior approval, provided the service drop is an extension of a previously licensed cable installation and is reported to NES at the time of installation, unless otherwise agreed. The location of new service drops must be reported on a copy of the NES Pole Attachment Application and accompanied by a completed Field Data Sheet. Service drops should not be installed on private light poles.

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

B: Make Ready and Maintenance

MAKE READY

1. In the event make-ready work is necessary, the Applicant will not be authorized to attach until such work is fully completed.
2. All labor and material costs for make-ready work will be the sole responsibility of the Applicant.
3. The Applicant is required to choose either NES or an NES-approved Contract Company to perform such make-ready work. For a list of approved NES Contractors, visit the NES website at www.nespower.com.
4. NES will provide the detailed drawing, design and material estimates if poles must be replaced.
5. If the Applicant deems the time constraints or costs to be too great, the application can be withdrawn/cancelled without further charges.

MAINTENANCE

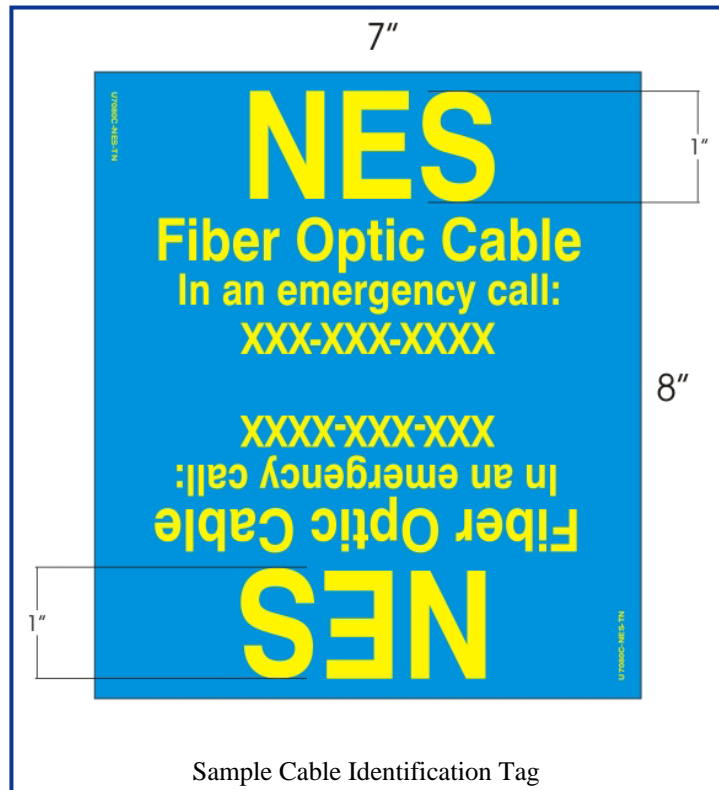
1. In the event maintenance work is necessary, the Applicant will not be authorized to attach until such work is fully completed.
2. NES will perform all such work within its scheduling and budgetary constraints.
3. The Applicant has the option to select an NES-approved Contract Company to expedite the completion of such maintenance work. It will be the responsibility of the Applicant to incur all labor costs of such contractor. NES will supply the necessary materials without charge.
4. NES will provide the detailed drawing, design and material estimates if poles must be replaced.
5. If the Applicant deems the time constraints or costs to be too great, the application can be withdrawn/canceled without further charges.

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

C: Cable Identification

1. To facilitate attachment identification it is necessary that all cables be properly marked in accordance with NES standards. This process will ensure NES' ability to notify attaching companies in emergency and transfer situations and to perform periodic inventories.
2. Cables shall be marked at the time of installation.
3. All tags shall:

- be secured so as to remain permanently affixed to the attaching company's cable.
- be resistant to fading from the effects of weather, chemicals, etc.
- be consistent in appearance for a given attaching company throughout NES' service area.
- indicate the Company name so it is legible to an observer from ground level.
- have a letter height of at least one inch (1").
- avoid the use of sharp edges and corners to prevent injury to personnel and damage to cables.



- be unique to individual companies.
4. Markers shall be installed at every pole or attachment point to ensure adequate identification of a Licensee's cable.
 - Markers should be affixed at or within two feet (2') of a pole.
 - Markers should be placed at all underground drops.
 - Multiple attachments on same pole shall be marked separately.
 5. Please contact the NES Attachments Group for a listing of current markers and identifiers of other companies attached on NES poles.
 6. Unlicensed attachments are subject to removal after the owner has been notified and given an opportunity to rectify. Unmarked cables that cannot be identified are subject to removal without notice.

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

SECTION V

SAFETY

GUIDELINES

**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

A: Construction Guidelines

NES distribution poles are part of an overhead electrical distribution system. The power lines attached to these poles should always be presumed energized. All persons, including the Licensee's employees and contractors must exercise caution and take all reasonable precautions when working on or near electric utility poles, and/or near high voltage lines. NES employees and contractors are specially trained to perform their jobs safely by adhering to OSHA safety requirements. Likewise, NES strongly urges Licensees to stress to their employees and contractors the importance of electrical safety.

1. Prior to proceeding with their physical installations on NES poles, Licensees should ensure their workers (whether employees or contractors) are qualified to work on NES poles or near NES electrical lines.
2. At all times during their construction activities on NES poles, Licensees should adhere to the following:
 - When installing or maintaining its facilities, the Licensee's construction crews, whether employees or contractors, must be able to show some form of written interim permission covering the specific construction.
 - Communication cables must be properly guyed and anchored before tensioning. This means the Licensee must install separate guying and anchoring devices to secure their cables; joint use of NES' guys and anchors is prohibited.

NOTE: Attaching companies are responsible for the costs of any damage to NES facilities resulting from improper guying, anchoring, and/or loading.

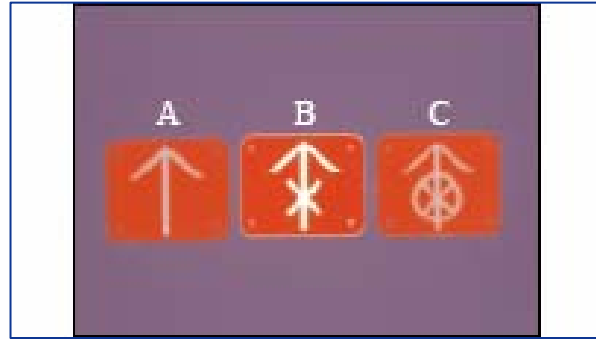
- Communication cables attached to NES poles must be properly identified according to the Cable Identification Section on page 19.
- Upon completion of construction, the Licensee must notify NES by e-mail (attachments@nespower.com) or telephone (615-747-3970). Any existing codes violations should be brought to NES' attention at this time.
- Refer to the most recent edition of the NESC; Part 4 Rules for the Operation of Electric Supply and Communication Lines; Section 41 - Supply and Communication Systems - Rules for Employers; Subsection 411E - Identification and Location.

NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES

B: Inspection Markings

Shown to the right are universal symbols are used by U.S. utilities.

“A” indicates the pole can be climbed, but care is needed. “B” indicates only that the pole should not be climbed. “C” indicates that the pole should not be climbed and needs to be replaced.



As a part of the ground-line treatment program, NES identifies poles which are safe for climbing, and poles which should not be climbed. Several types of metal tags and flags are used to identify the condition of NES poles. These tags also designate poles which have been inspected and/or subjected to a chemical treatment process.

Oval tags designate poles which have been inspected and are deemed safe for climbing without any preservative treatment.



Round tags designate poles which have been inspected, subjected to some form of chemical preservative treatment, and are deemed safe for climbing.

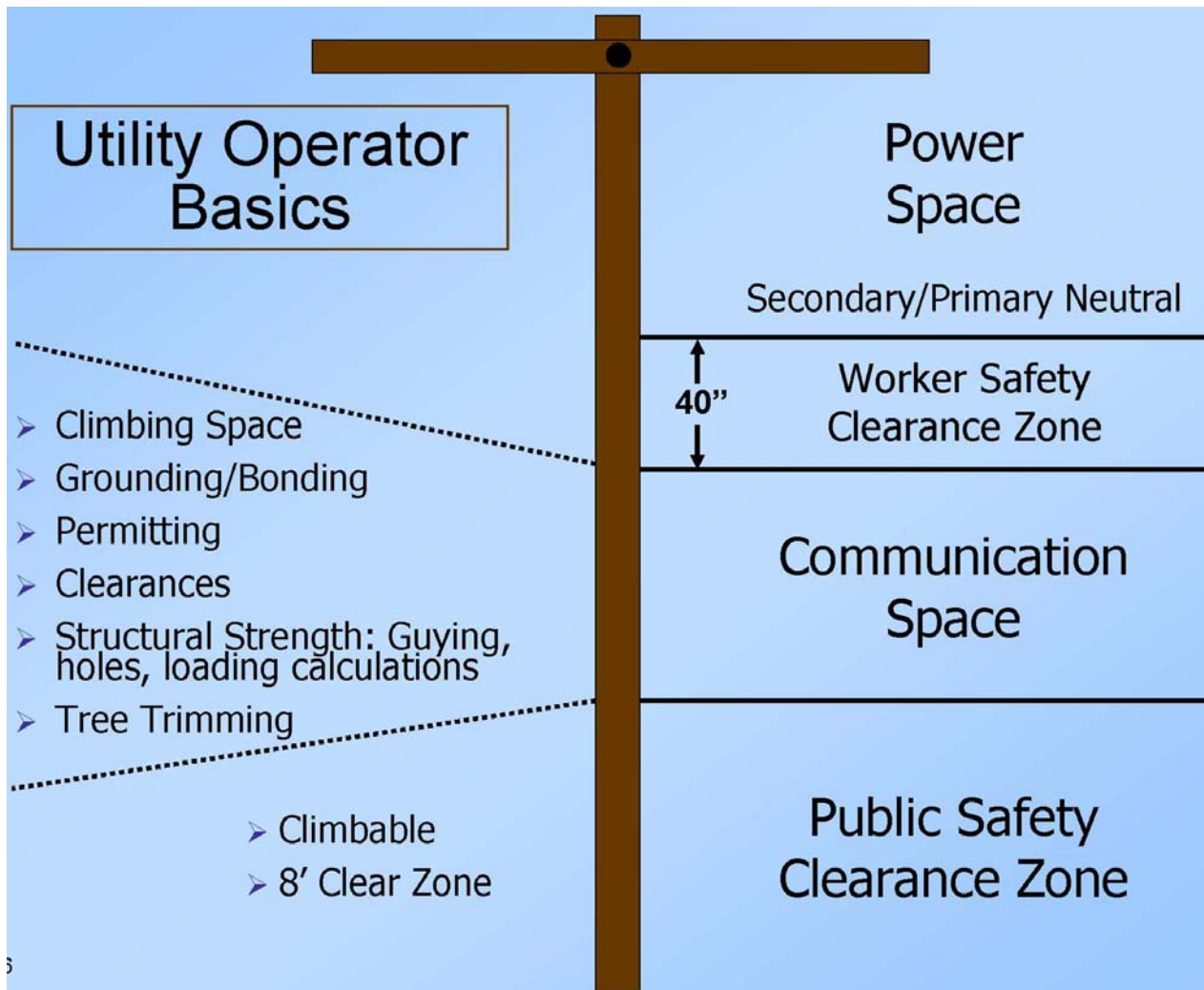


Certain poles have been identified and tagged with various colored rectangular tags, as poles that should not be climbed under any circumstance. **Poles displaying one or more rectangular metal tags are scheduled for reinforcement or replacement and should not be climbed.**

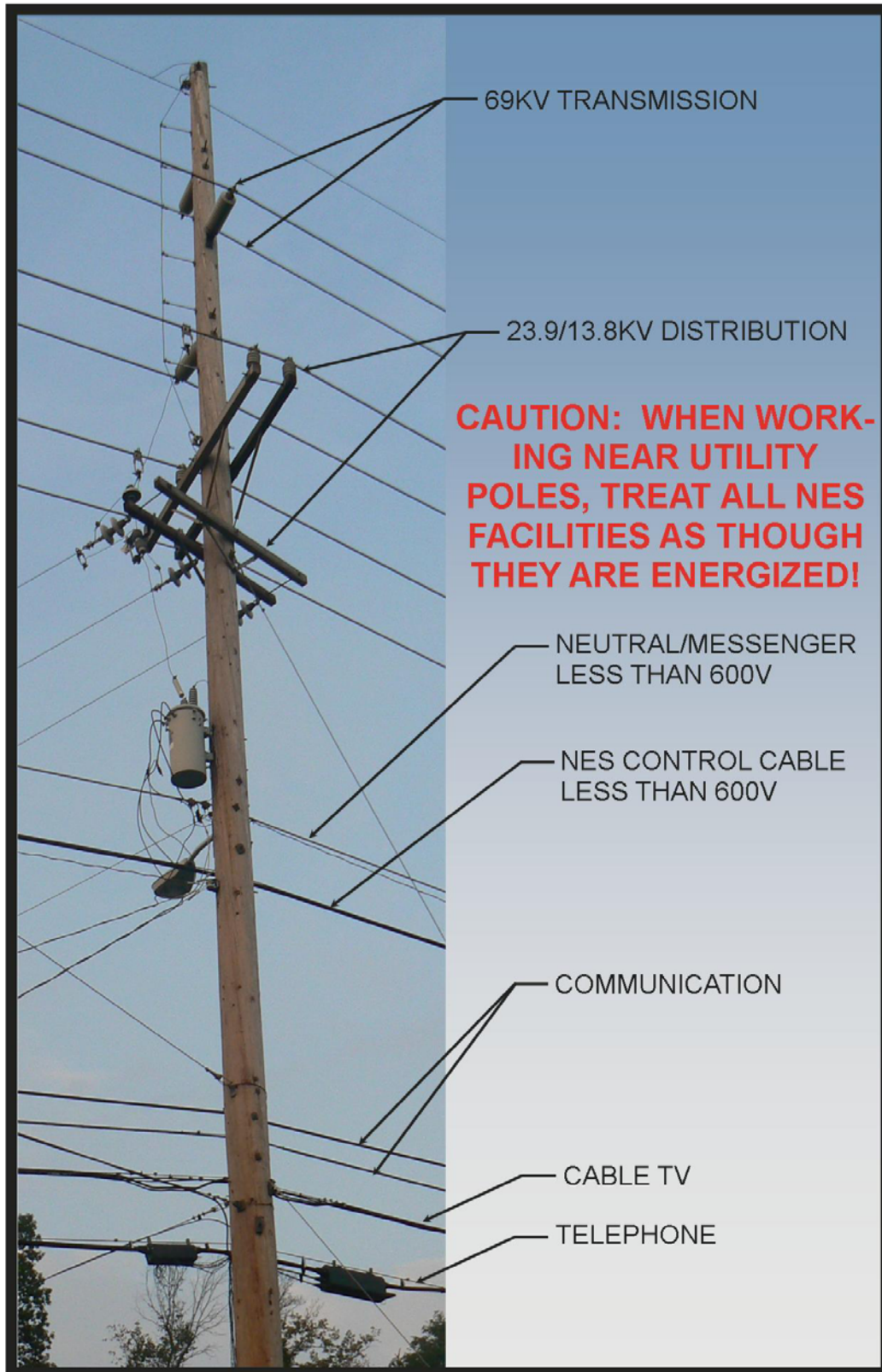
Some poles are marked with colored flags, usually red, yellow or orange. A pole bearing a flag of any color should not be climbed.

NOTE: In all situations, it is the responsibility of any persons having reason to climb an NES pole in performance of their job to determine the structural integrity of the pole prior to climbing it.

C: Utility Operator Basics



D: Identifying NES Cables



**NASHVILLE ELECTRIC SERVICE
POLE ATTACHMENT AND CONDUIT USAGE GUIDELINES**

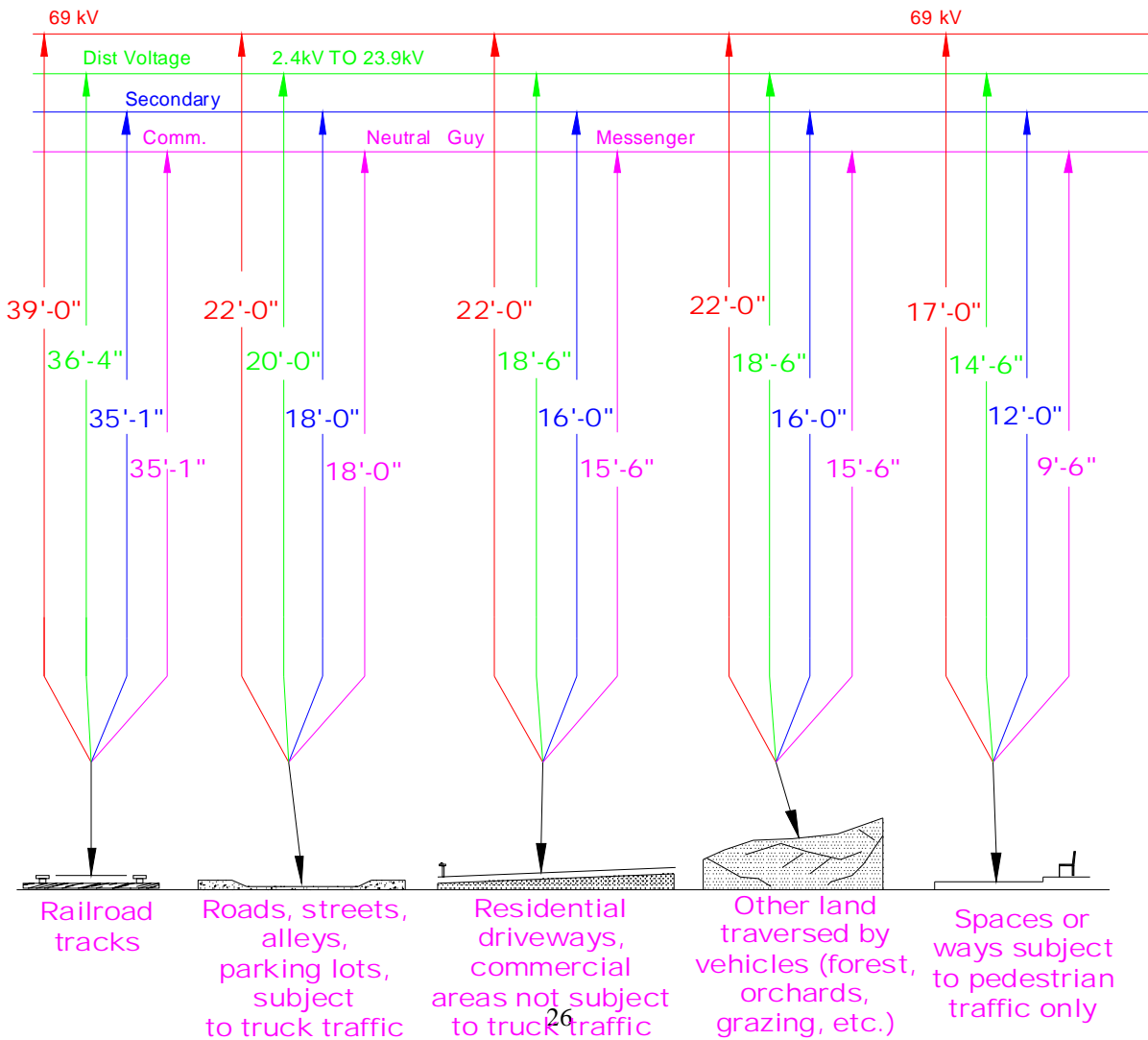
E: Vertical Clearance Requirements

- These clearances meet or exceed the National Electrical Safety Code (NESC) 2007 edition, Table 232-1.

NESC Exception #1: Where the height of attachment to a building does not permit service drops to meet these values, clearances may be reduced to 12.5 feet for a service drop over a residential driveway, or 10.5 feet for a drip loop over a residential driveway.

NESC Exception #2: Maintain a minimum of 24 feet from the lowest NES attachment over all state roads, especially interstates.

NESC Exception #3: Railroad clearances shown are specified by CSX Form 767 (Rev. 8-88). These clearances are for a line 75 feet or less from the pole to the farthest rail. If the distance exceeds 75 feet, the clearance shall be increased by 1/20th foot for each 10 feet in excess of 75 feet. Additionally, rails must have at least 12 feet clearance from the nearest obstruction such as poles or anchors.
- Secondary distances are for triplex or quadruplex. Add six inches (6") for open-wire secondary.

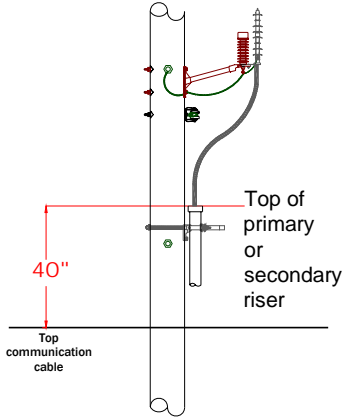


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F: Attachment Clearance Requirements

DETAIL "A": NES RISER

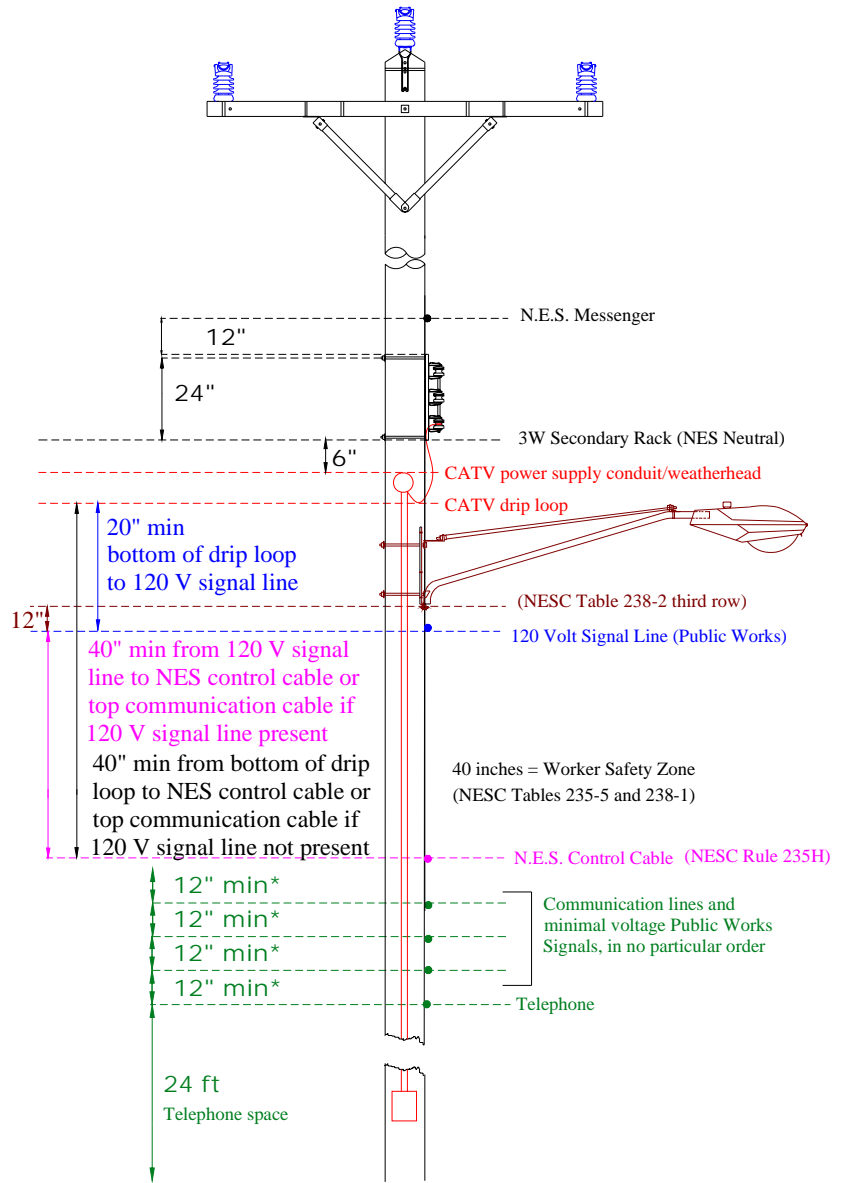
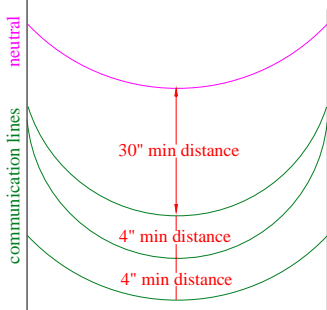
If NES has a riser (either primary or secondary) on the pole, the 40" working space is measured from the TOP OF THE RISER to the top communication cable.



DETAIL "B": SPACING

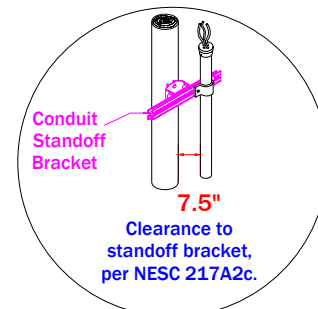
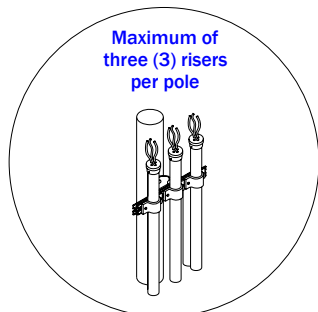
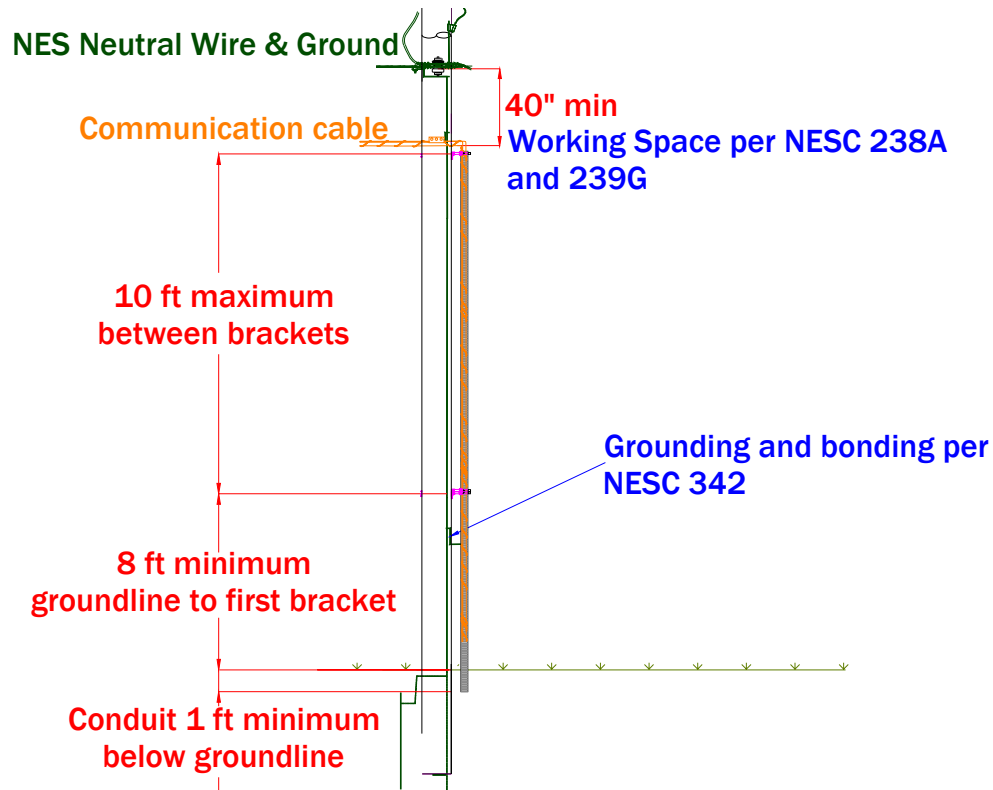
* **NOTE:** Mid-span spacing between different communications must be at least four inches. If more than 12 inches is needed at the pole to obtain four inches at all points, the four inch spacing is the overriding factor.

Maintain 30" min. separation between neutral or any voltage lines.



G: Communication Riser Clearances

1. Risers are not allowed on NES poles unless specifically included in the Attachment Agreement.
2. Attachment installations must meet or exceed all NESC requirements.
3. Attachment cable **MUST** be installed in a conduit. The conduit must be installed on separate standoff brackets which meet clearance requirements of the NESC.
4. The total number of risers allowed is limited by NESC Rule 362B which specifies there must be adequate access for climbing the pole.
5. Attachment company must relocate their riser at their expense if NES replaces or relocates the pole.
6. Riser attachments will not be allowed on NES riser poles (primary or secondary).

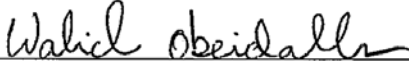


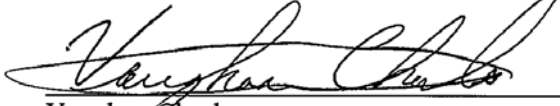
NASHVILLE ELECTRIC SERVICE
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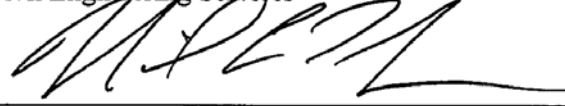
APPENDIX A: Approvals

Update Review Committee

Ron Davidson (Supervisor, NES Customer Engineering Department)
Sally Dunn (Street Lighting and Attachments Section, NES Customer Engineering Department)
Hank Dunning (Supervisor, NES Customer Engineering Department)
Holly Lively (Supervisor, NES Customer Engineering Department)
Lance Mosteller (Attachments Group, NES Customer Engineering Department)

Approved by: 
Walid Obeidalla,
Engineering Supervisor
Street Lighting, Attachments and Maintenance Sections

Approved by: 
Vaughan Charles,
Engineering Supervisor
Civil Engineering Services

Approved by: 
Nick Thompson,
Engineering Manager
Customer Engineering Department