

Alectra Joint Use Pole Attachment Guidelines

December, 2020

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1. General Information

1.1 Permitted Attachments

This document outlines the procedures and requirements through which Alectra Utilities Inc (Alectra) will permit attachment(s) to its Poles. It is intended as a supplemental document to an executed Joint Use Agreement to guide Applicants and their designers through the procedures and requirements of the Alectra Joint Use Permitting and approval process.

Alectra, as an OEB licensed Local Distribution Company (LDC), is required to provide communications service providers non-discriminatory access to its Poles for the sole purpose of attaching facilities used to deliver cable television and/or telecommunications services. Alectra may also allow other types of attachments to its Poles, including but not limited to the following:

- Telecommunications cables, fibre, and associated equipment;
- Wireless Communication Antennas
- Municipal infrastructure such as streetlights, traffic and signals lights
- Cable risers for connection of underground low-voltage electrical services located on the road allowance such as municipal or telecom infrastructure. Privately owned services located in the boulevard are not considered joint use attachments.
- Temporary decorative Attachments such as banners, flower baskets, seasonal or festive lighted decorations, and Pole wraps;
- Pipeline and gas distribution company monitoring equipment.

1.2 Agreements

Such attachments may only be made on Alectra owned Poles after a joint use agreement has been executed between the applicant and Alectra **and** the attachments have been approved through Alectra's Joint Use process as outlined in this document.

Note that Alectra reserves the right to determine what types of attachments will be permitted for attachment to its Poles. Depending on the nature of the requested attachment, Alectra may elect not to enter into an agreement for attachment.

Alectra's Joint Use and Agreements department within Network Services is responsible for the negotiation and execution of all joint use attachment agreements.

In cases where equipment has been installed on Alectra Poles through legacy practices without an executed joint use agreement, Alectra reserves the right to remove such attachments unless the owner enters into an agreement for joint use attachment.

1.3 Compliance

While Alectra standards do facilitate the required attachment of communication service provider facilities, capacity and safe limits of approach are not guaranteed on any Alectra Pole. As such, Alectra may deny an attachment where insufficient capacity exists, or for any reason related to safety, reliability, and generally accepted engineering practices.

Attachments made to Alectra's Poles must also, at a minimum, comply with the latest editions of the following documents:

- Alectra (or legacy) Construction Standards;
- Ontario Regulation 22/04;
- Canadian Standards Association C22.3 No.1;
- Occupational Health and Safety Act (OHSA) and Regulations;
- Ontario Electrical Safety Code (OESC)

Approval to attach on any Alectra Pole does not release the Applicant of responsibility for compliance with any and all applicable laws, regulations, and guidelines related to worker and public safety including but not limited to Ontario Reg. 22/04, CSA C22.3 No.1 (latest edition), the OESC, and applicable OHSA requirements. Additionally, the applicant is independently responsible for its compliance with all rules and applicable municipal, provincial, or federal laws, codes, and regulations.

Note: Where any attachment is approved and/or exists within the Safe Limits of Approach on an Alectra Pole as defined in the OHSA and EUSR, **only** Alectra staff or an Alectra Authorized (competent and approved) contractor will be permitted to work on the tenant's attachment. See further details on Authorized workers under the Tenant Construction section of this document and under Definitions and Terminology in Appendix A.

1.4 Contacts

Alectra's Joint Use and Agreements team can be reached at the following email addresses:

Alectra West (legacy Horizon area) westjointuse@alecrautilities.com

Alectra Central South (legacy Enersource area) mississaugajointuse@alecrautilities.com

Alectra Central North (legacy Hydro One Brampton area) bramptonjointuse@alecrautilities.com

Alectra East (legacy PowerStream area) engineeringadmin@powerstream.ca

Alectra Guelph(legacy Guelph Hydro area) guelphjointuse@alecrautilities.com

New Connections: Alectrautilities.com > Connection Services Tab > Make a Service Request

GIS Records: Contact Alectra's Joint Use and Agreements Team

Control Room Emergency Contact: 1 833 ALECTRA (253-2872)

1.5 Joint Use Transfer Design and Construction Options

As noted in Sections 2.2 and 4.4 of this document, there are many times when the installation being applied for is a transfer of a Tenant's existing attachments to new Alectra Pole(s) as opposed to a net new installation on the Alectra Pole line. In these cases, Alectra has prescribed processes to assist and expedite the design, permitting, and transfer of Tenant's attachments in cooperation with Alectra's Distribution Design teams. The following is a brief overview of the types of design and construction options Alectra's Pole line tenants can participate in to complete their transfers should they chose. The full flowcharts outlining the detailed steps in these processes can be found in Appendix B

1.5.1 Integrated Design

In the Alectra Integrated Design model, Alectra's Distribution Design team in cooperation with all third parties will agree to utilize one Alectra approved design consultant. This consultant will design the Pole line on behalf of Alectra and include complete transfer design packages for all tenants. At a minimum, the Alectra approved consultant will assign a strand position for each tenant (top, middle or bottom) on the Pole including design for all required guying, anchoring, and structural analysis. The Alectra approved consultant will then work with the Tenants' staff and/or consultants to ensure a full transfer design for each tenant is completed based on the assigned strand position. If approved as a fully qualified design consultant by the tenant, then the Alectra approved consultant completes the full design for the tenants, including cabling and equipment. This same Alectra approved consultant will be responsible for submitting each tenants' Joint Use Application Permit to Alectra's Joint Use Team for review and approval on behalf of the tenants. This allows the Joint Use review process to review all tenant permit applications at the same time, reducing costs and expediting the process. The Joint Use team will then approve the attachments based on Alectra's theoretical (pre-construction) design.

1.5.2 Consolidated Design

In Alectra's Consolidated Design model, all Tenant's agree cooperatively to utilize one consultant as noted in the Integrated Design model. The key difference in this model is that the consultant does not have to be an Alectra approved design consultant. The consultant only need be approved by the tenants. In the Consolidated model, the Tenant consultant prepares all full transfer design packages at the same time, ensuring each party is assigned to a strand position, including all guying, anchoring and structural analysis. As above, the Tenants' consultant will be responsible for submitting each tenants' Joint Use Application Permit to Alectra's Joint Use Team for review and approval on behalf of the tenants. This allows the Joint Use review process to review all tenant permit applications at the same time, reducing costs and expediting the process. In the Consolidated Design model, the tenant's consultant can work from the Alectra theoretical (pre-construction) design or can wait to design based on Alectra's as-built (post-construction) design; depending on required timelines.

1.5.3 Integrated Construction

Similar to Integrated Design, Integrated Construction is a cooperative approach with Alectra's Distribution Design and Construction teams where Alectra and all Tenants agree to utilize an Alectra approved Line Contractor to construct the Pole line and install/transfer all party's attachments. As with design, where the Alectra approved contractor is not qualified in aspects of tenants' construction such as cable equipment installation or fibre splicing for example; the Alectra approved contractor provides a "quarter back" role, working with other tenant's contractor(s), to complete all installations and remove the old Pole line. Key benefits of this approach are expedited construction timelines and reduced (or eliminated) chance that Alectra's as-built conditions will impact tenant transfers.

1.5.4 Consolidated Construction

Similar to Consolidated Design, Consolidated Construction is a model wherein all Tenant's cooperatively agree to utilize one contractor as noted in the Integrated Construction model. As with design, the key difference in this model is that the tenants can utilize any contractor they agree on, regardless of whether the contractor is approved by Alectra. In this model, Alectra's construction crews or approved contractor will complete the installation of a new Pole line and top the old Poles. With a permit to transfer from Alectra's Joint Use team, the one approved tenant contractor mobilizes to complete all remaining transfers. Benefits are expedited transfers, reduced shared costs, and the ability to utilize contractors more familiar with the tenants' construction practices and requirements. An additional benefit to tenants using an Alectra-approved contractor as their Consolidate contractor is that any Alectra makeready and/or Safe Limits of Approach work can be completed at the same time as transfers.

2. The Application

2.1 Process Overview

This section outlines the Alectra Permit Application process, including the design requirements as well as the applicable standards which must be adhered to. The general steps to acquire an approved permit to attach to Alectra Poles are as follows:

1. The Applicant fills in an Alectra Joint Use Application form
2. The Applicant completes a P.Eng. approved design certifying that the design meets the requirements of CSA 22.3 and Ontario Reg. 22/04.
3. The Applicant completes full Pole loading structural analysis in SPIDAcalc V7.2 (or other approved structural analysis software as noted below).
4. The application documents noted above are submitted to Alectra's Joint Use and Agreements department via the appropriate email address note above.
5. The permit application is entered into the Alectra database and assigned an Alectra Permit number which is shared with the Applicant for further reference. The application is reviewed (see Preliminary Permit Review Checklist below) to ensure all required information has been submitted before being sent to one of Alectra's Joint Use consultants for detailed review.
6. Alectra's consultant completes a detailed review of the application documents including a field check of the Poles applied for. Any issues or deficiencies noted during these reviews are referred back to the Applicant directly for resolution.
7. Once any issue or deficiencies are resolved to the satisfaction of the Alectra Joint Use consultant, a Certification Letter recommending approval is sent to Alectra's Joint Use and Agreements team.
8. Alectra's Joint Use Team then provides a quote to the Applicant which includes all permit review fees as well as an estimate for any makeready work identified in the application.
9. Once a Purchase Order (telecoms and municipalities only) or certified cheque is received, any makeready is completed by Alectra or an Alectra approved contractor.
10. Upon completion of the makeready, the approved Permit Application is sent to the Applicant to proceed with installation of the approved attachments. Note that the permit approval issued is valid for 180 days from the date it is issued. If the Applicant has not completed their installation within that time, either an extension request must be made to Alectra or a new permit application may be required.
11. The Applicant completes the installation and submits As-built drawings to Alectra's Joint Use team within 45 days of completion, including an acceptable Record of Inspection form. Note that the connection of any required bonding of the communication strand should be requested at this time and Alectra will provide a separate quote and obtain a PO for this work as a separate project from the application process.
12. Alectra inspects the attachments as part of its Construction Verification Program (CVP)
13. Alectra closes the permit and invoices based on actual costs once any outstanding issues discovered in the inspection are resolved.

2.2 Application Documents

As noted above, there are three main components to a full and complete Alectra Joint Use Permit application. The permit application form, the P. Eng. approved design drawings, and the structural analysis. To expedite permit review and approvals, Applicants are asked to submit the Excel version of the permit application, both PDF and AutoCAD files of the design drawings, and the SPIDAcad (or other software) design file for the structural analysis. Samples of these documents can be found in Appendix C. Unless noted otherwise, the process to apply for a wireline attachment and a wireless attachment follow the same processes with some minor variation in the requested information on the Permit Application form. Wireless Communication Permit Application forms will be provided to parties upon execution of a Wireless Joint Use Agreement with Alectra

2.2.1 Permit Application Form

The latest Permit Application Form can be found on the Alectra Utilities website at:

Alectrautilities.com

→ Customer Services

→ Find a Form

→ Construction Services

→ Joint Use Permit Application

The Applicant must provide complete, accurate, and sufficient information in order for Alectra to review the Permit Application. The Excel based document as shown in Appendix C, contains 4 Tabs:

1. Instructions
2. JU-Removal
3. JU-Attachment Application Pg1
4. JU-ATT-Pg2

While the Instructions tab of the spreadsheet provides detailed information on how to fill out the application forms, the following supplemental information is offered.

2.2.1.1 JU Removals Form

This tab is used to notify Alectra when an Applicant plans to remove existing plant from Alectra's Poles. It does not require the submission of any designs or P.Eng. approved plans and is used mainly to update Alectra's GIS for billing purposes to ensure the Applicant is not invoiced for future attachment fees on the referenced Poles. Note that attachments being transferred to a new Pole as indicated on the JU Attachment form need not be referenced on this form as it's only for complete and permanent removal of attachments from an Alectra Pole. In the case of a tenant consolidating their attachments from 2 strands in the communications space to 1, the form can be used to denote the removal of one strand position while the JU Attachment for reflects the transfer of the other strand. **NOTE:** Tenants are reminded that "Completion Report" at the bottom of the JU Removals form must be signed off and returned to Alectra once removal construction is completed.

2.2.1.2 JU Attachments Form

While the majority of the fields are self explanatory in conjunction with the Instructions tab, further clarification is provided on the following items.

“**Installation**” drop down options.

- “**New**” means the tenant has no existing attachments currently on the Pole or is adding a second new strand attachment with new cable.
- “**Like for Like**” means the tenant is applying to transfer an existing attachment from an old Pole to attach to a new Pole (not to be confused with the ESA technical meaning of Like for Like Replacement). This transfer may be the existing strand and cable or the placement of identical new strand and cable.
- “**Overlash**” means the tenant has an existing strand attachment on a Pole and is applying to lash a new cable to the existing strand.

“**Max Cable Diameter**” - the Alectra requirement is that the maximum bundle diameter for any attachment should not exceed 2” or 51mm. However, on a case by case basis, Alectra’s Joint Use team may permit bundle diameters that exceed this dimension if the following conditions are met:

- There are no abandoned cables in the bundle.
- Final bundle size is not to exceed <<size requested, in this case XX mm>>.
- Structural analysis provides passing results
- Clearances over ground, roadways, etc. are met

2.3 P. Eng. Approved Design Drawings

In compliance with Ontario Regulation 22/04, all applications to attach to Poles within Alectra’s distribution system must be accompanied by detailed design drawings sealed by a Professional Engineer (P. Eng.) licensed in the province of Ontario.

All design drawings **must** show both plan and profile views of all Poles for which attachments are being proposed. The design drawings must also be fully signed and sealed by the P. Eng. certifying the entire Pole structure, including all existing and proposed attachments, guying and anchoring, unconditionally meet the Safety Requirements of Section 4 of Ontario Reg. 22/04. (See sample design drawing format and stamp in Appendix C). There are currently three exceptions where Alectra does not require full structural analysis to be submitted as part of a full design package noted in following section under Section 2.4.1.1. of Full Pole Loading Structural Analysis. **Applicants are asked to submit both PDF and AutoCAD versions of the P.Eng.**

approved design to facilitate both the permit review and to assist with any makeready that needs to be redrafted or applied for by Alectra per the application design.

2.3.1 Drawing Requirements

Similar to the requirements outlined in an executed joint use agreement, the following items should be considered and included where applicable in a P. Eng. approved permit application design drawing being submitted to Alectra for review. Note that items that have no serious impact on demonstrating the intended attachment plans and/or compliance with applicable standards and regulations may be excluded.

2.3.1.1 Basic Drawing Requirements (applies to all drawings)

- Title block (name & address of Licensee, date, north point, drawing/project number, location of project)
- Name & phone number of the Project Manager for the specific application
- Scale & Dimensions: Metric
- Horizontal Scale Size: Larger than or equal to 1: 1000 (e.g. 1: 1000, 1: 500, 1: 250)
- Legend of symbols
- Key Map
- Street names: clearly indicated
- Plan and Profile views for each Pole

2.3.1.2 Project Specific Drawing Requirements

- Sidewalks, curbs, driveways, edge of roadway, trees, buildings, bridges, rivers, railroads, other utilities if they add clarity to specific issues
- Clearly indicated Poles, their ownership, and Pole numbers
- Proposed cable and Support Strands clearly indicated with heavier line style
- Proposed cable to be Over-lashed to existing Support Strand and indicate owner of that Support Strand
- Which side of the Pole is to be attached to (roadside or field side)
- Slack storage & splice case locations
- Electrical bonding locations
- Proposed grounds and ground rods
- Alectra primary and secondary risers and customer-owned secondary services
- Ducts, guards, and/or concrete work on Poles for dips and/or risers
- Communication Cable dip details
- Proposed and existing Licensee anchoring
- Make ready work anticipated by the Licensee on Alectra Poles or third party Attachments
- Existing & proposed pedestal locations along route
- Railroad, major highway, & river crossing engineering details & associated profiles

- Pole profile details indicating dimensions above grade for all existing Alectra attachments including primary and secondary conductors and risers, transformers, riser terminations, fuses, switches, and guying attachments. Profiles must also show all existing and proposed third party attachments such as telecommunications, streetlighting, municipal attachments, and any other attachments by name.
- Proposed guying or modifications to existing Alectra guying which may form part of a makeready request should identify the guying attachment points in reference to an Alectra attachment on the Pole, not a distance above grade. For example, a proposed new guy for the neutral should be noted in the design as: “Install new down guy at 0.15m below system neutral.....” as opposed to “Install new down guy at 7.85m above grade...”
- Horizontal offset measurements for proposed Pole contact close construction to buildings, other non-Owner overhead systems (ex. traffic, street lighting, signs), and/or bridges
- Wiring, wire routing, and Attachment methods to the Pole
- Lot lines and/or buildings, and house numbers in front of Poles

2.3.2 Design Requirements

Applicants and their design consultants are advised to review the following lists of Alectra design requirements intended to give guidance in the preparation of an application design. The list is by no means intended to be exhaustive and Applicants are encouraged to reach out to Alectra's Joint Use and Agreements team with any further questions related to design criteria.

2.3.2.1 General

- In all cases, the Applicant shall propose makeready work where practicable to maintain the Alectra standard separations and clearances for new attachments. Deviations from required clearances or separations will not be permitted when the primary reason is the avoidance of makeready costs.
- The required separation of 1.0m minimum from the communications attachments to the lowest secondary on a Pole includes the lowest of: Alectra's system neutral, secondary bus, secondary service, street light bus, and/or secondary service drip loop.
- While a design should identify where any attachments of other third parties on the Pole do not meet Alectra and/or CSA standards, the Applicant will not be expected to make corrections to other party's attachments.
- Horizontal or vertical extension arms shall not be used by Applicants to achieve required vertical clearances and/or horizontal separation
- Applicants should note that any approval to attach to Alectra's Pole does not convey any approvals or permission to install infrastructure in or on public or private property. Any required permission or approvals beyond making attachment to Alectra's Poles is the responsibility of the Applicant.
- Applicants wishing to obtain a full set of Alectra Construction Standards can do so by contacting the Alectra Joint Use and Agreements Team
- Unless otherwise directed by Alectra, transfer of a tenant's existing attachments from an old Alectra Pole to a new Pole will require a full joint use permit application prior to transfer to the new Poles. Through this process, the addition or removal of attachments as part of the transfer will be permitted through the normal permit review and approval process.
- In certain cases, Alectra may identify specific transfers as "like for like" meaning that the tenant may complete their transfers without the need for a permit application design submission. In the case of a "like for like" transfer, the tenant is only approved to transfer the existing attachments or install new identical attachments. The tenant will still be required to submit a Record of Inspection upon completion of the transfers.
- Power supplies for communications equipment should be included in the design per Alectra Standard (See Appendix D).
- While approval to make attachments to Alectra's Poles is obtained through the joint use process, power supply connections are obtained separately through Alectra's New Connections Portal at Alectrautilities.com > Connection Services Tab > Make a Service Request

2.3.2.2 Wireline Communications

- A maximum of 3 attachments positions will be permitted in the communication space on same side of the Pole on a first come, first serve basis. The top of the communications space is 1.6m below the Alectra system neutral with 0.3m spacing between each of the top, middle and bottom attachment positions (0.25m on concrete Poles). The top position may be reduced to 1.0m below the system neutral by Alectra where no S/L will be installed. (See Alectra standard future 3-1020 in Appendix D)
- Tenants are advised that whenever a transfer of existing communications wireline attachments is required from an old Pole line to a newly constructed one, tenants will be required to amalgamate their attachments onto one of the three strand attachment locations. Priority of strand ownership will be allotted based on chronological order of attachment to CRTC Registered Telecommunications providers. In other words, the first three registered telecommunication tenants to have applied for and attached to the old Pole line will have first right of refusal to the new strand positions on the new Poles. All others will be required to negotiate permission to overlash on one of the three new strand locations should they wish to transfer.
- Where practicable, a tenant's strand position in the communications space must be maintained and will not be permitted to deviate between top, middle, and/or bottom positions along the same street or Pole line.
- In the case of a new Alectra Pole line where there are no existing wireline communications attachments, the first Applicant on the Pole is expected to attach in the top position as defined above with subsequent Applicants taking the next highest available position unless otherwise directed by Alectra.
- Proposed new communications strand and cable attachments must comply with current Alectra standards. Proposed overlash of new cables on existing strand may be permitted where at minimum, CSA 22.3 No.1 (latest edition) minimum clearances can still be achieved. In all cases, the Pole must pass in structural loading analysis
- Where overlash on an existing strand is proposed, the structural loading passes, but the strand is located within 1.0m of secondary conductor (0-750V), and makeready to achieve proper clearances is not practicable, the overlash may be permitted if the work is completed by a competent worker.
- Where overlash on an existing strand is proposed, the structural loading passes, but the strand is located within 3.0m of primary conductor (>750 V) and makeready to achieve proper clearances is not practicable, the overlash may be permitted only if the work is completed by an Alectra Authorized contractor.
- Overlash proposed by an Applicant on another tenant's existing strand must first be negotiated with and approved by the strand owner prior to submitting a full permit application to Alectra for approval.
- New communication dips should be proposed on clean Poles with no existing Alectra primary risers or switch control handles. Existing communication dip transfers may be permitted to transfer to Poles with Alectra primary risers where a clean quadrant exists. In no case will a communications dip be permitted on a Pole with back to back 3 phase

primary risers and/or where such attachments will impede the safe and efficient operation of and access to Alectra equipment.

- Individual communication service drops may be installed without submission of a detailed design per the criteria outlined in the executed joint use agreement. However, these service drops may not exceed 5 inline spans for fibre optic service drops or 3 spans for other materials such as coaxial or copper service drops. Any service drop exceeding these conditions may require a full design permit submission.
- Subsequent to the terms of an accompanying Joint Use Agreement, any tenant who has more than one support strand attachment on a Pole will make commercially reasonable efforts to consolidate it's attachments onto one support strand during any new installations or transfers. Additionally, if a third party requests attachment to Alectra's Poles where a tenant has multiple parallel support strands, the tenant will be required to either consolidate it's attachments onto one support strand at no cost to the Alectra or the third party or allow the third party to overlash on one of the tenant's support strands.

2.3.2.3 Wireless Communications

- Wireless Telecommunications Attachments should be proposed on in-line, tangent Poles. Dead-end Poles, Poles with guying, or Poles framed for primary take-offs or laterals should be avoided but may be considered for attachment where a clean tangent Pole is not available nearby.
- Poles with high voltage electrical equipment or devices (operating above 750V) that pass through the communication space of a Pole such as manual or remote-controlled switches, sectionalizers, reclosers, and 3-phase primary risers will not be considered for wireless attachments.
- Poles selected for Wireless Telecommunications Attachments must be truck accessible from the road right-of-way.
- All Wireless Antenna installations must incorporate a power disconnect switch allowing for manual disconnection of AC and DC power to the antenna by Alectra and/or Alectra-Authorized contractors when working on a Pole with a wireless antenna installation.
- Antenna grounding shall be in compliance with OESC.

2.3.2.4 Street Lighting and Other Electrical Services

- The standard street light position on Alectra Poles is 0.15m below the system neutral on wood Poles and 0.25m below on concrete Poles.
- Where an existing legacy installation includes a separate streetlight secondary bus, the bus shall be installed at of 0.6 m below the street light mounting bracket on wood Poles and 0.5m below on concrete Poles.
- Electrical power supplies for attachments other than those listed above, such as 120V outlets for seasonal lighting, etc. should be located on the side of the Pole between the system neutral and the top communications space but at no point, closer than 1.0m to the top communications attachment.

- Other electrical services such as decorative lighting, traffic signals, etc. may be permitted on Alectra Poles and should follow the application requirements listed above.
- Some attachments in this category may be permitted without the provision of structural analysis. However, all attachments will require a P. Eng. approved plan and profile design drawing certifying that the attachment will meet the applicable CSA and OESC standards. Contact the Alectra Joint Use and Agreements if further clarification is required.

2.3.2.5 Other Attachments

- Other attachments not in the above categories such as planter hangers, banners, etc. may be permitted to attach to Alectra Poles. Contact the Alectra Joint Use and Agreements if further clarification is required.
- While full Pole loading structural analysis may or may not be required, depending on the nature of the attachment, Applicants will still be required to submit P. Eng. approved design drawings as noted above verifying the attachments will meet the applicable CSA, OESC, or other relevant standards.

2.3.3 Makeready

Where the current attachments on an Alectra Pole do not allow an Applicant's proposed new attachment to meet Alectra Standards and/or where the structural analysis of the Pole requires upgrades to the Pole or existing attachments, an applicant is expected to request makeready. The applicant's P. Eng. approved design should call for the appropriate and specific makeready required to bring the Pole and attachments up to standard, both for clearances and separations as well as structural integrity. The following list reflects some of the terms and requirements typically associated with Makeready:

- Where the proposed installation is a new installation where a new strand and new cable are being proposed, the makeready must bring the overall structure and attachments up to the latest Alectra standards for separations and clearances.
- Where the proposed installation is a new overlash of an existing strand, the makeready may be permitted to bring the overall structure and attachments to meet the minimum clearance and separation requirements of CSA 22.3 No.1 (latest edition)
- Where makeready to obtain even the minimum separations required by CSA 22.3 standards is not practicable for a proposed overlash on an existing strand, Alectra may permit the installation only if the application design calls for the attachments within the safe limits of approach to be installed and maintained by an Authorized Alectra contractor.
- In compliance with Clause 5.8.3.3 of CSA 22.3 No.1-15; no mid-span pole(s) that only support communications attachments will be permitted in Alectra pole lines as a method to achieve mid-span clearances for third party attachments. If a new mid-span pole is

required to achieve mid-span clearances, it must be a full height pole equivalent in height to the adjacent poles with Alectra fully attached.

- Where another tenant's attachments are not installed to standard but do not impede the standard installation of the Applicant, the applicant is not required to request makeready to correct the other tenant's existing installation.
- In the case of Makeready requiring the relocation of any attachments other than Alectra-owned facilities, an Applicant is responsible for coordinating such work with the appropriate third parties, and as appropriate, directly compensating third parties for performing the work requested.
- In compliance with Regulation 22/04 as well as its joint use contractual obligations, Alectra inspects its Poles on a continuous basis and where identified, schedules deteriorated or failing Poles for replacement based on priority. Where such a Pole is identified on a joint use permit application as failing in structural analysis and requiring replacement due to its deteriorated state, the Applicant will have one of two choices. The applicant may delay their application until the Pole is replaced by Alectra on its schedule or the applicant may pay the full cost to have the Pole replaced and Alectra's attachments transferred as part of the makeready for the application.
- Makeready that proposes installation of Alectra facilities on private property will not be accepted by Alectra unless it is proposed within a suitable and existing Alectra easement.
- Drilling of Alectra's concrete Poles may only be completed by Alectra or Alectra Authorized contractors. If drilling is required to accommodate an Applicant's installation, it should be requested as part of preconstruction makeready.
- Applicants should note that bonding locations identified on the permit application design will not be quoted or completed prior to the tenant's approved installation. Tenants are advised to submit the bonding requests for quote and completion once construction of their plant has been completed at the as-built stage.
- As noted in 2.3.1.2 Project Specific Drawing Requirements, Proposed guying or modifications to existing Alectra guying which may form part of a makeready request should identify the guying attachment points in reference to an Alectra attachment on the Pole, not a distance above grade. For example, a proposed new guy for the neutral should be noted in the design as: "Install new down guy at 0.15m below system neutral...." as opposed to "Install new down guy at 7.85m above grade..."

2.4 Full Pole Loading Structural Analysis

Alectra requires full Pole loading analysis, including all existing attachments at the time of the application plus the Applicant's proposed attachments, which must be modelled and analyzed using Geometric Nonlinear Analysis software in compliance with CSA 22.3 No.1-15 (or latest edition). Alectra utilizes SPIDAcalc Version 7.2 and offers a supporting Client File (Version 5 or latest edition) via a Nondisclosure Agreement (NDA) containing the required Alectra equipment for inclusion in the modelling of Alectra-owned Poles. While Applicants may utilize other geometric nonlinear analysis software in the preparation and certification of their application design, additional permit review fees may apply if the Pole loading analysis is submitted using any software other than SPIDAcalc.

2.4.1 Pole Modelling and Analysis

All attachments and equipment, existing and/or proposed on an Alectra Pole, must be modelled in the structural analysis software as part of any Joint Use Application. Applicants are required to submit and be aware of the following structural analysis information:

- The Alectra client file for SPIDAcalc can be obtained upon execution of an Alectra NDA. Please request this file through the Joint Use Team contacts identified in Section 1.4.
- The Applicant is required to submit both the SPIDAcalc results report as well as the final SPIDAcalc software design file for review.
- The Alectra SPIDAcalc client file may be adjusted as required for the communication equipment portion of the database only. The Alectra distribution portion of the database shall not be adjusted or modified by third parties, their agents or consultants unless expressly permitted to by Alectra and/or Alectra's permit review consultants.
- Should any Alectra distribution equipment be found in the field by an Applicant that does not exist in the Alectra Client file, the consultant should advise Alectra's Joint Use team. After field verification, Alectra will add the missing equipment to the client file and release a revision of the file to all joint use companies, their agents and consultants
- The Pole profile drawing and the attachments noted in the structural analysis file for that Pole should match.
- Any obvious Pole damages should be noted and modelled in the structural analysis
- Applicants are advised that SPIDAcalc has been found to have varying results when being utilized to model Changes in Grade of Construction in compliance with CSA 22.3 No. 1-15 Clause 7.8.2.3. addressing the modelling of 33-1/3 unbalanced load requirement. In exception to Note 3 above and the conditions of the Alectra SPIDAcalc client file NDA, Applicants may alter the Displacement Based Loading (DBL) analysis in the client file only as outlined in the Changes to Alectra SPIDAcalc DBL document found in Appendix C.

2.4.1.1 Exceptions

Alectra currently allows three (3) exceptions to the requirement for full Pole loading structural analysis of its Poles. While P.Eng. approved designs showing plan and profile attachments

must still be submitted in accordance with Section 2.3 above, structural analysis for these attachments is not necessary for:

1. Attachment of a Communications Cable Dip **only**, attaching to an Alectra Pole from an existing overhead cable attachment point located within 5.0m of the Pole to underground infrastructure. Note that if additional in-span cable beyond the maximum 5.0m from the attachment point to the Pole must be added to the support strand as part of this dip installation, full structural analysis will still be required. A typical example requiring full analysis would be lashing up a loopback of additional fibre optic cable from a fibre splice prior to dipping down a Pole.
2. Wireless Communication antennas, including the required disconnect switch and other associated attachments per proposed Alectra Standard 3-1021 (see Appendix D).
3. Street light arms and luminaires, when supplied by an existing secondary bus (Alectra owned or separate municipally owned bus) are not required to submit structural analysis calculations.

2.4.2 Guying and Anchoring

2.4.2.1 Unbalanced Loads - Alectra requires unbalanced loads to be guyed in accordance with CSA 22.3 No.1 (latest edition). It is not an accepted Alectra practice to utilize the structural capacity of a Pole to support unbalanced loads where guying and anchoring of the load is practicable. The following guideline should be employed with respect to guying tenant loads:

- *Pole has existing Alectra guying and **does** have sufficient room to install a new third party anchor or guy – tenant to propose new guy and anchor.*
- *Pole has existing Alectra guying but **does not** have a suitable location to install a new third party anchor or guy – If structural analysis of the full Pole by tenant shows a passing result, Alectra may allow if no reasonable alternative*
- *Pole **does not** have existing Alectra guying but **does** have sufficient room to install a new third party anchor or guy – tenant to propose guy and anchor to avoid making the structural situation worse than existing.*
- *Pole **does not** have existing Alectra guying and **does not** have a suitable location to install a new third party anchor or span guy - If structural analysis of the full Pole by tenant shows a passing result, Alectra may allow if no reasonable alternative*

2.4.2.2 Sharing of Guys/Anchors - Alectra will not permit sharing of or use of Alectra anchors by third party attachers. Use of another tenant's guy and/or anchor to support the Applicant's attachment must be approved by the guy and/or anchor owner and structural loading calculations must demonstrate that the shared entities meet the loading requirements of CSA 22.3 No.1 (latest edition)

2.4.2.3 Anchor Spacing - All anchoring supporting Alectra Poles must maintain a minimum separation of at least 1.5m apart unless otherwise approved by Alectra.

3. Permit Reviews and Approval

3.1 Preliminary Review Checklist

Upon receipt of a new Permit Application, Alectra's Joint Use team will perform the following cursory review steps:

- Confirm the "Applicant Company" is a company that has a valid executed joint use agreement with Alectra.
- Review the Permit Application Form and confirm that all information has been filled out completely and accurately
- Review the noted "Installation" type for each Pole, confirming each one matches Alectra's GIS records (see Installation types defined under JU Attachment tab in Section 1 above)
- Confirm that all Poles noted on the application are Alectra-owned Poles.
- The required design drawings are included with the permit application form and appear to comply with the Drawing Requirements under Section 2 above. Specifically, Pole profiles for all Poles accompany the plan views and that all drawing sheets contain a signed P. Eng. stamp and a signed Certificate of Approval that states the drawings meet the Safety Requirements of Ontario Regulation 22/04.
- Confirm that the required geometric nonlinear analysis files (typically SPIDAcalc) are attached unless one of the three exceptions (noted above) apply.

If the above criteria are included and complete in the application package, the permit will be assigned an Alectra Joint Use Permit No. which will be communicated to the tenant for tracking purposes. It will then be assigned to one of Alectra's consultants for a detailed permit review

3.2 Detailed Permit Review and Approval

As described above, upon receipt of an Alectra Permit Application, the application is assigned a Permit No. and then forwarded to an Alectra approved consultant who conducts a detailed permit review, including field checks, on behalf of Alectra. As part of this review, Alectra's consultant corresponds directly with the Applicant to address and resolve any deficiencies or issues found in the review. When the Alectra's consultant is satisfied that the permit meets Alectra's requirements, Alectra's consultant will provide a Certification Letter to Alectra's Joint Use team, signed by a P.Eng., certifying that the permit meets the requirements and recommending approval of the permit.

Alectra Consultants are asked to consolidate any noted deficiencies into a list "major" and/or "minor" deficiencies as part of their permit review for Alectra. If the deficiency is of a nature that the permit can not be approved until the deficiency is resolved, such as makeready or inaccurate information regarding a failing Pole for example, this should be deemed "Major".

However, in the case of something noteworthy to be addressed by the Applicant but not critical to the approval of the permit, it should be labelled “Minor”. Examples of “Minor” deficiencies would be something as simple as a spelling mistake or a minor notation mistake such as the incorrect attachment height of an existing attachment on a profile drawing which is correct in the SPIDAcad file which shows the structure passes. In these cases, the Alectra consultant can offer the Certification Letter with conditions such as the attached minor deficiency list needing to be addressed prior to issuance of the Permit Approval.

3.2.1 Detailed Permit Review Checklist

Upon receipt of a Joint Use Permit Application for review on behalf of Alectra, the Alectra Joint Use consultant will perform a detailed review of the submission, including a field check. The Alectra approved Joint Use consultant will act on Alectra’s behalf to complete the review of the permit application and correspond directly with the Applicant to resolve any issues or deficiencies with the application. All correspondence between the Alectra consultant and the Applicant will cc’ both the appropriate Joint Use email address as well as the local Joint Use Design Tech. In addition to ensuring compliance with the requirements outlined in Section 2 of this document, the following items at a minimum will also be verified.

3.2.1.1 Review the Permit Application Form:

- Confirm that the “Installation” type on each Pole in the application have been identified correctly per the descriptions outlined in Section 2.2.1.2 above.
- Pole Numbers match those on the design drawing(s)
- Attachment and Guying information matches the design drawings

3.2.1.2 Review the P. Eng. Approved Design Drawings:

- Plan and profile views for each Pole included in the design drawings.
- Pole profiles contain all existing and proposed Pole attachments and are properly dimensioned showing clearances and separations.
- Confirm that the proposed Attachment will not interfere with any existing Attachments or with any Alectra equipment
- Confirm that there are no other safety or operational reasons to reject the proposed Attachment
- Review any proposed Alectra makeready identified on the application for compliance with Alectra’s standards and practices
- The requested makeready is specifically defined and resolves an existing deficiency in compliance with Alectra and CSA standards
- The requested makeready references materials utilized in Alectra (or legacy) standards. For example, proper and guy steel sizes and specifications.
- The proposed attachment(s) meet the requirements of Ontario Regulation 22/04 and Guidelines for Third Party Attachments.
- Proposed anchoring and guying for third party attachments is not shared with Alectra anchors.

- The anchoring and guying comply with requirements of Section 2.4.2.1 above.
- Bonding and grounding of the communications strand in compliance with the requirements of CSA 22.3 No. 1 (latest edition)
- Mid-span clearances noted at critical points such as road or rail crossings.
- Attachments in the wireline communications space are on the same side of the Pole as all others
- Wireline strand attachments maintain the same space on the Pole, i.e. Top, middle or bottom, per Section 2.3.2.2
- There are no encroachments on private property, either existing or proposed.
- The correct grades of construction are being referenced to match field conditions

3.2.1.3 Review the Structural Analysis Submission:

- Are the geometric nonlinear Pole loading analysis files included and are they SPIDAlcalc or another CSA 22.3 No.1 compliant software. If not SPIDAlcalc, is the Alectra consultant able to perform the review and verification in the submitted software or will additional modelling in SPIDAlcalc need to be completed for the review.
- Confirm the Alectra portion of the Alectra SPIDAlcalc client file has not been altered.

3.2.1.4 Field Visit:

- Verify the Pole numbers on the design drawings match those in the field
- Verify the Poles are Alectra-owned Poles
- Proposed attachment does not interfere with Pole numbering or other labels on the Poles
- The material, height and class noted on the design are correct.
- Confirm the number of wireline communications attachments, existing and proposed, will not exceed three (3)
- Confirm all equipment in the field is noted on the designs and in the correct positions on both the plan and profile drawings
- Note any Pole damage or deterioration and confirm the application notes it as well.
- In no case shall any proposed attachment to an Alectra Pole impact the safe and efficient operation of, or access to, any existing Alectra or other third party attachments
- Note any existing damaged or deficient attachments for referral to Alectra or the Tenant, as applicable.
- Note any deficiency or attachments that may represent an undue public hazard.
- Note any existing bonding coils which are still awaiting connection to Alectra's neutral
- Existing wireline communications are properly tagged properly identifying the attachment owner.
- There are no existing attachments impeding the proposed attachment that has not been noted in the required makeready.
- Note missing or damaged guy guards or u-guards
- Note any obvious aesthetic objections

3.2.2 Permit Review Fees

Alectra invoices to recover actual costs incurred to review and approve joint use permits. These costs typically consist of a Joint Use Design Tech's time involved in the review and approval of a permit as well as Alectra's consultant review fees. Applicants are advised of the following consultant fees currently being charged for all permit applications submitted for review to Alectra (subject to change). Note that these fee covers the initial permit review only and additional fees will apply for review of subsequent revisions that need to be submitted.

2020 Rates

Alectra Utilities Distribution Pole Attachment Standard Review	1-10 Poles	\$1,650
Additional per Pole fee	11-100 Poles	\$90
Additional per Pole fee	100+ Poles	\$85
Dip-only permit review (as defined in Exception 1, Full Pole Loading Structural Analysis)		\$500 Flat Fee

Should Alectra makeready be required (and approved by the Applicant) upon completion of the permit review between Alectra's consultant and the Applicant, Alectra's consultant completes this work on Alectra's behalf as well. This includes drafting of the makeready identified on the Applicant's P.Eng. approved design in Alectra's drafting standard and obtaining any municipal or other permitting required to complete the makeready. These additional costs are also added to the permit review fees.

3.2.3 Permit Approval

As noted in the previous section, Alectra's consultant drafts and obtains approvals for makeready on Alectra's behalf. However, typically before any makeready associated work proceeds, the Alectra Joint Use Design Tech will provide a high-level estimate of the makeready costs to the Applicant to confirm the Applicant approves of these costs. Should the applicant decide not to proceed with the makeready and application at this point, the application will be terminated and all permit review costs incurred to that point will be invoiced to the Applicant.

Should the Applicant approve of the estimated costs, the following steps occur to complete the permit approval process.

1. Once the permit review process is completed, Alectra's consultant provides the Joint Use Design Tech. with the following:
 - A Certification Letter, signed by a P.Eng., confirming that the consultant has reviewed the permit and that it meets Alectra, CSA, and applicable other standards.

Based on that review, the consultant is recommending Alectra approve the permit application. (see sample letter in Appendix C)

- The Alectra-formatted makeready plan along with copies of any required approvals necessary to complete the makeready.
 - An estimate of the total amount to be invoiced by the consultant for services performed as noted above.
2. The Joint Use Design Tech then prepares a formal estimate and forwards to the Applicant, requesting either a Purchase Order (Telecoms and Municipalities only) or Certified Cheque only for the total amount of the permit review fees and any required makeready. No other forms of payment will currently be accepted.
 3. Upon receipt of payment, the makeready is issued to Alectra crews or an Authorized Alectra contractor to be completed.
 4. After completion of the makeready, the permit is approved within the Joint Use team and a copy of the approved permit is sent to the Applicant. The permit to make the approved attachments is then valid for 180 days.

4. Tenant Construction

4.1 Tenant Construction

Upon receipt of an approved Alectra Joint Use Permit, the Applicant may proceed with the installation of their plant in accordance with the approved design. Applicants are reminded that the approved attachments must be installed within 180 days of the Permit approval date or without an extension from Alectra, the permit is considered cancelled.

4.1.1 The Wireline Communications Space on an Alectra Pole designates 3 positions on the Poles (see Alectra Standard 3-1020). The top wireline communication position is defined at 1.6m below the Alectra system neutral. The remaining two positions are 0.3m and 0.6m below the top position on wood Poles and 0.25m and 0.5m on concrete Poles. Irrespective of the number of occupied joint communications positions, no communications attachment should be installed such that the minimum mid-span ground clearances as defined by CSA 22.3 No.1 Table 2 (latest edition) are not met.

4.1.2 The Wireless Communications Space for wireless antenna installations is located immediately below the bottom of the wireline communications space is established in Alectra Standard 3-1021. The small cell antenna should be installed on the side of the Pole 0.3m below the lowest wireline communications position. It must be installed so as not to interfere with other third party attachments, risers, or any other attachments on the Pole.

4.1.3 The Streetlight Space on an Alectra Pole is designated at 0.15m below the Alectra system neutral to the top mounting bracket bolt on wood Poles and 0.25m to top bolt on concrete Poles. Tenants should note that Alectra's new standards will call for the supply of street lights from Alectra's secondary bus. Any and all connections of a customer supply to Alectra's secondary bus must be made by Alectra crews unless directed otherwise by Alectra. Where an existing legacy installation includes a separate streetlight secondary bus, the bus shall be installed at of 0.6 m below the street light mounting bracket on wood Poles and 0.5m below on concrete Poles but at no point closer than 1.0m above the top communications wireline attachment.

4.1.4 Other attachments such as banners, plant hangers, and other decorative attachments must be installed by qualified individuals and must adhere to OSHA requirements as well as those outlined in this document.

4.2 Safety

Applicant's employees and contractors are reminded that Alectra Poles form part of an overhead electrical Distribution System. The conductors attached to these Poles should be presumed energized at all times and all Applicant's employees and contractors must exercise all reasonable precautions when working on or near Alectra infrastructure. To that end, Applicants are responsible for ensuring their workers or contractors retained to install, maintain, or repair their attachments on Alectra Poles are competent as defined in the OSHA, the OESC, and other applicable regulations. Alectra, in its sole discretion, reserves the right to prohibit any worker or

contractor found performing in an unsafe manner, or whom Alectra otherwise determines is not qualified to perform work on Alectra Poles.

4.2.1 Limits of Approach – Applicant’s employees and contractors are reminded that Alectra adheres to the Electrical Utility Safety Rules (EUSR) as published by the Infrastructure Health & Safety Association (IHSA). These requirements are similarly reflected in the Ontario Occupational Health and Safety Act (OHSA) with respect to Authorized Workers and Safe Limits of Approach. As such, Alectra will only allow an *Authorized Worker* to perform any work within the *Safe Limits of Approach* on an Alectra Pole. This means that the installation, maintenance, and/or removal of **all** third party attachments, existing or proposed, within 3.0m (10 feet) of any *Energized Apparatus* over 750V must be completed by Alectra or an Authorized Alectra contractor **only**. Presently, Applicants and their contractors are advised that a contractor who may be *Authorized* in one Alectra service area may or may not be Authorized in other areas of Alectra to perform work. Applicants and contractors can inquire with Alectra’s Joint Use and Agreements team to verify which areas of Alectra’s service territory they are Authorized in if uncertain. Applicant’s employees and contractors are to be aware that the lowest energized apparatus greater 750V may not necessarily be the bottom primary phase. Where a transformer or primary riser, for example, is mounted to a Pole, the transformer bushing or primary cable termination respectively may be the lower point on the Pole from which 3.0m (10 feet) Safe Limits of Approach must be maintained. See diagrams in Appendix E

4.2.2 Emergency contact – In the case of any emergency situation related to Alectra’s distribution system or to report any problems with Alectra plant, Applicant’s employees and contractors can reach the Alectra Control Room at: **1 833 ALECTRA (253-2872)**

4.2.3 Climbing Alectra Poles - It is the responsibility of any persons having valid reasons to climb Alectra Poles in performance of their job using either spurs or ladders to first satisfy themselves as to the condition and structural integrity of Poles prior to climbing. Before climbing using either ladders or spurs, the worker must inspect the Pole and determine the Pole’s structural integrity to support the horizontal forces applied. Alectra discourages any attempt to climb Poles that have 3-phase Pole-mounted switches, or 3-phase cable risers, or any other equipment on them that makes those Poles unsuitable to climb. Persons climbing Alectra wood Poles should be aware that all Alectra wood Poles are treated with various chemical wood preservatives.

4.3 Installation

All installations should be completed as indicated on the approved permit design. In general, wood Pole installations should be attached by drilling and bolting at the appropriate location. For concrete Poles, the appropriate attachment holes should be predrilled for bolt-on installation. Should the approved attachment height not have a predrilled hole on concrete Poles, see Pole drilling and/or banding below for solutions. Applicant’s contractors and installers are advised to be aware of the following construction items and Alectra’s required approach:

4.3.1 Drilling of Concrete Poles may be permitted on Alectra Poles, depending on age and condition of the Pole. If drilling is permitted on an Alectra Pole, the drilling can only be done by Alectra or an Alectra authorized contractor and should be requested as part of pre-construction makeready.

4.3.2 Banding of third party attachments on concrete Poles is an acceptable alternative in a tangent application where existing bolt holes and/or drilling is not available. Note that any banding must be approved for the specific installation(s) referenced in the P.Eng. approved permit application design.

4.3.3 Electric power service, where required for specific types of Pole Attachments (i.e.: street lights, traffic signals, communications power supplies, etc.), is obtained through Alectra's New Connections department. Details and requirements can be found at: Alectrautilities.com > Connection Services Tab > Make a Service Request

4.3.4 Grounding and Bonding of third party attachments in compliance with CSA 22.3 No.1 (latest edition), CSA 22.3 No. 5 (latest edition), and the OESC is the responsibility of the tenant. In the case of telecommunications, the Applicant must install on the Pole a coil of bonding wire of sufficient length to allow Alectra or its Authorized contractor to uncoil the bonding wire and make the final bonding connection to the Alectra system neutral. In no case will an applicant make a bonding connection to Alectra's vertical pole grounds. The Applicant is responsible for installing their own ground rod or ground plate at the base of the Pole where required.

4.3.5 Communication Service Drops – For the sole purpose of providing new service to a new customer, an Applicant shall have the right to attach Communication Service Drop cables extending from an existing supply line to the new customer's premises provided that:

- The Communication Service Drop is an extension of a previously licensed Attachment
- The Communication Service Drop is installed in compliance the OESC, any provision of these Guidelines, Alectra Standards, or other codes, laws, or regulations.
- The Communication Service Drop may not exceed 5 inline spans for fibre optic service drops or 3 spans for other materials such as coaxial or copper service drops. Any service drop exceeding these conditions may require a full design permit submission.

4.3.6 Operational Impact – in no case shall any new attachment to an Alectra Pole impact the safe and efficient operation of, or access to, any existing Alectra or other third party attachments. Any installation of this nature may be subject to immediate removal with the tenant responsible for all costs and damages resulting from the improper installation or it's removal.

4.3.7 Mid-span Stub poles - In compliance with Clause 5.8.3.3 of CSA 22.3 No.1-15; no mid-span pole(s) that only support communications attachments will be permitted in Alectra pole lines as a method to achieve mid-span clearances for third party attachments. If a new mid-span pole is required to achieve mid-span clearances, it must be a full height pole equivalent in height to the adjacent poles with Alectra fully attached.

4.3.8 Identification - Applicants are required to place markers on their cables and Support Strands in a manner acceptable to the Owner to assist in field identification of ownership of Attachments made by various permitted users of the Pole. As a minimum, these markers shall be placed at all Cable Risers/Dips and at every second Pole, in a manner acceptable to the Owner.

4.4 Transfers

4.4.1 Transfer Conditions

Transfers from an old Alectra Pole to a new Alectra Pole may take place under one of two conditions:

1. Through the normal joint use permit application process wherein the transfer is based on a P.Eng. approved design which has been approved by Alectra in which case the transfer is completed per the approved design.
2. Like for Like transfer where the tenant is only approved to transfer the existing attachments or install new identical attachments. The tenant will still be required to submit a Record of Inspection upon completion of the transfers. Tenants should complete these transfers in the same Pole location they occupy on the old Pole relative to others. For example, an attachment on the old Pole in the middle communications position should be transferred to the middle communications position on the new Pole.

4.4.2 Consolidation of Attachments

As noted throughout this document, Alectra only permits three (3) wireline communications spaces on its Poles. Tenants are advised that whenever a transfer of existing communications wireline attachments is required from an old Pole line to a newly constructed one, tenants will be required to amalgamate their attachments onto one of the three strand attachment locations. Priority of strand ownership will be allotted based on chronological order of attachment to CRTC Registered Telecommunications providers. In other words, the first three registered telecommunications tenants to have applied for and attached to the old Pole line will have first right of refusal to the new strand positions on the new Poles. All others will be required to negotiate permission to overlash on one of the three new strand locations should they wish to transfer.

4.4.3 Timely Transfers

Tenants are reminded that further to the terms of the executed Joint Use Agreement, tenants are obligated to complete their transfers in a timely manner. While Alectra endeavors to work cooperatively with tenants, any transfers that are not completed in a timely manner may be transferred by Alectra at the owners expense and liability where specific joint use agreement terms allow for such actions.

5. As-Builts, Inspections, and Invoicing

5.1 As-Builts and Inspections

5.1.1 As-Builts Drawings

Per the executed Joint Use Agreement, Applicants are required to provide Alectra with acceptable As-Built drawings as well as an acceptable form of Record of Inspection and Certificate (Certificate of Construction) to enable the Owner to verify the accuracy and completion of the work. The Record of Inspection, which is included on the bottom of the Joint Use Permit form should be signed, dated and returned at the same time as the As-Built drawings. These documents must be submitted within **45** days of the completion of the work and in any event within 225 days from the date the Permit Application was approved. Samples of these documents can be found in Appendix E under Joint Use Attachment Compliance Requirements

5.1.2 Inspections

In compliance with its Reg. 22/04 Construction Verification Program, Alectra performs a post-installation inspection of Applicant's As-Built construction upon receipt of the as-built information noted above. If the installation is compliant with the approved as-built plans, Alectra will deem the permit application as completed and closed.

If the Applicant's As-Built Construction is not in compliance with the approved permit design and/or approved as-builts submitted to Alectra, the Applicant will be formally notified of the deficiencies and given a set time period to resolve them. Upon notice by the tenant that the deficiencies have been corrected and verified by Alectra, the permit application will be closed.

The following is a list of suggested items to be included in a Joint Use Permit Application post installation inspection.

- 1) Ensure anchors installed at correct lead lengths and locations.
- 2) Ensure guying attached at the correct height.
- 3) Ensure Attachment heights within +/- 0.15m of spec while meeting minimum clearance of 1.0m in any case where required.
- 4) Ensure trunk cable, equipment and messenger installed where indicated on the drawing as can best be determined.
- 5) Ensure cable(s) are installed with sufficient tension to prevent excessive mid-span sagging and contact with other 3rd party Attachments.
- 6) Note broken or missing lashing wire
- 7) Ensure cable risers are installed in conduit or u-guards are installed over the cables. Class 2 conduit is required for service risers.
- 8) Ensure that cables are secured to the Poles with suitable cable clips or straps, and confirm that electrical tape has not been used to secure cables to the Pole(s).
- 9) Ensure that all installed cables are tagged with weatherproof tags identifying the owner.
- 10) Take note if any cable messenger appears to be obviously undersized or inadequate in any way, so that this can be confirmed later by Alectra line crews.

- 11) Ensure the overall installation is a clean installation and that no loops extend from the strand other than formed loop backs and coaxial cable expansion loops.
- 12) Ensure that all attacher civil work at the base of the Pole(s) has been complete, and that all temporary construction fencing has been removed, and proper property restoration.
- 13) Immediately note and report any deficiencies that could be hazardous to the safety of the public, Alectra employees, contractors, and other permitted occupants of the Poles.

Note: Failure to provide Alectra with satisfactory As-Built Drawings and Record of Inspection after construction is completed will result in the Attachments being deemed as unauthorized Attachments, and the Applicant will be required to remove those Attachments within 90 days of formal notification

5.2 Invoicing

Upon closure of the permit application, Alectra will invoice for actual costs incurred for each permit application. In the case of a Purchase Order, an invoice for the total will be sent per the purchase order instructions. In the case of a certified cheque or deposit, the customer will either be refunded the balance of the deposit when the deposit is greater than the actual costs or invoiced for the balance when the deposit is less than the actual costs.

6. APPENDICES

Appendix A Definitions and Terminology

NOTE: The following terms, provided here for general reference purposes, may appear throughout these Guidelines and/or relate directly to electric power and communications Attachments on Alectra Poles.

Anchor – A device supporting and holding in place conductors terminated at a Pole or structure buried and attached to the Pole by way of a guy wire to counteract the mechanical forces of these conductors.

Applicant – An entity, typically a telecom provider (or their consultants) or municipal government, which applies to Alectra for permission to attach to its Poles, pursuant to applicable law and the parties' Pole Attachment Agreement. See also Licensee.

As-Built Construction – The actual installation of Attachments to Alectra Poles, based on an originally-submitted Permit Application for Pole Attachments, and any necessary design modifications and field changes made by the Applicant or requested by Alectra during actual construction.

As-Built Drawing – Engineering drawings that indicate the actual installation of the Attachments on Alectra Poles. The As-Built Drawing will also include a Record of Inspection field, signed and dated, signifying that the installation meets the safety requirements of Ontario Regulation 22/04. These drawings should reflect any variations between the P. Eng. approved permit application design drawings and the actual final as constructed state in the field.

Attachment – means any material, apparatus, equipment or facility owned by the Licensee which the Owner has approved for affixing to Poles or other equipment of the Owner or in-span, including, but without limiting the generality of the foregoing:

- Licensee-owned cable not directly attached to a Pole, but Over Lashed to a cable or Support Strand not owned by the Licensee;
- Service Drops Affixed directly to the Owner's Poles; and
- Service Drops Affixed In-span to a Support Strand supported by Poles of the Owner.

Attachment Permit – The approved Alectra document designating the Poles on which an Applicant has been granted permission to place its attachments. Note: Construction of the attachments approved in this permit must be completed within 180 days from the date of approval or an extension requested else the permit is deemed invalid.

Authorized Worker – means a worker who has been given formal permission by the owner and employer and is competent to perform work in proximity to exposed energized apparatus. **In the Alectra service territory, formal permission must be first obtained from Alectra (as the owner of the energized apparatus) before any worker can be deemed an Authorized Worker.**

Boxed-In Pole – A Pole with cable Attachments installed on two opposite sides of the Pole, effectively 180 degrees apart, obstructing safe Pole access for Alectra line crews and hindering either routine or emergency Pole replacement.

Cable Riser – a vertical Attachment on a Pole that transitions cables from the underground to connect to the overhead conductors or equipment on the Pole, and visa-versa.

Cable Tagging – Method for the physical identification in the field of an attaching company's aerial cable plant attached to Alectra Poles.

Communication Service Drop – Communications cable from a Licensee's existing Attachment to a customer's premises for the sole purpose of providing service to the customer. Can also refer to a small light weight communications cable attached to, or supported by, an Alectra Pole to enable the provision of service to a customer's premises from the communication facilities located on non-Alectra Poles (i.e.: from a Bell Canada Pole line). See also Service Drop.

Competent Person – means a person who:

- a) is qualified because of knowledge, training and experience to organize work and its performance;
- b) is familiar with the provisions of the Occupational Health and Safety Act and the Regulations that apply to the work; and
- c) has knowledge of any potential or actual danger to health or safety in the workplace.

NOTE: A Competent Person must not be confused with an Authorized Worker.

Conduit Riser – PVC tubing used to protect cable/fiber facilities that are attached to a Pole that transitions facilities from underground to overhead.

Construction Standards – Alectra approved engineering drawings, documents and specifications compiled for the benefit and guidance of Alectra staff, contractors, customers, electricians, architects, and engineers.

CSA 22.3 No.1 (latest edition) Overhead Systems – The edition of Canadian Standards Association standard that applies to overhead electric supply and communication lines and equipment located entirely outside of buildings and fenced supply stations.

Distribution System – The portion of an overhead or underground electric power system that distributes electricity to consumers from a bulk power location such as a substation.

Electrical Ground – A conducting connection by which an electric circuit, or equipment, is connected to the earth or some conducting body that serves in place of the earth.

Energized Apparatus – All equipment pertaining to the generation, transmission, distribution and use of electricity capable of delivering energy by reason of being dynamically alive or charged. **NOTE:** In the case of Alectra Primary Voltage apparatus such as transformer bushings and primary riser terminations, the **bottom** of the bushing or terminations respectively should be deemed the point from which Safe Limits of Approach should be established.

ESA – The Electrical Safety Authority of Ontario that enforces compliance of the OESC and Ontario Regulation 22/04.

Ground Rod – A large conductor attached to one side of the power supply that serves as the common return path for current from many different components in the circuit.

Grounding System – A power system providing for a common return path (to earth) for electrical current and for an appropriate current-carrying capability for absorbing an excess amount of current.

Horizontal Extension Arm – A bracket extension arm attached at the Pole for the purpose of suspending cables or conductors at a distance from a Pole.

Joint Messenger - means a wire or strand for the supply or communication lines that supports, in addition to its own weight, the weight of one or more conductors or cables owned by more than one communications company.

Licensee – An entity, typically a telecom provider or municipal government, which Alectra has granted certain non-exclusive rights to use its Poles, pursuant to applicable law and the parties' Pole Attachment Agreement. See also Applicant.

Like for Like Replacement – means the replacement of one piece of electrical equipment (one assembly) under all conditions, or a part or portion of a line under emergency conditions, on an existing distribution system that maintains as a minimum the characteristics and functionalities of the original installation. **This is the ESA Technical meaning referenced in Section 2.2.1.2**

Make-Ready/Make-Ready Work – All work on an existing Pole, including but not limited to such work required to rearrange and/or relocate existing Attachments by Alectra and/or third parties, replacement of the existing Pole, and/or correction of existing safety violations that Alectra may deem necessary pre-installation to ensure that the Pole is safe, reliable, and in suitable condition to support an Applicant's proposed Attachment.

Mid-Span Clearance – the distance, under specified design conditions, between the nearest points of two objects at points where at least one object is movable. **NOTE:** Typically refers to the distance between the middle of a span of conductor or cable and the grade below.

Neutral – The distribution system conductor used to carry unbalanced current. In single-phase systems, the distribution system conductor used for a return current path.

OHSA – The Ontario Occupational Health and Safety Act.

Ontario Electrical Safety Code (OESC) – is a provincial regulation that sets safety standards for the installation and maintenance of electrical equipment. It is mainly a technical document aimed at enforcing safety standards.

Ontario Regulation 22/04 – The Ontario Regulation for Electrical Distribution Safety.

Overlash(ing) – A specific method of attaching multiple communications cables on a single supporting strand.

Permit Application – Alectra Forms and documentation used by potential Pole user to provide proposed Attachment design and construction data to Alectra in order to request permission for Pole Attachments.

Permit Application Fees - means those charges required to effect a permit, including field visit, engineering design review, inspection and construction verification requirements such as Ontario Regulation 22/04. These fees are one-time application fees not to be confused with Annual Licence Fees as defined in the Joint Use Agreement.

Pole – Alectra Poles (wood, concrete, steel or composite) supporting electrical conductors of 44 kV or less, not including dedicated metal Poles, street light Poles, and all other such special

purpose Poles or Pole lines of non-standard design that do not support Alectra's electrical distribution system.

Pole Attachment Agreement – Agreement executed by Alectra and Licensee setting forth the terms and conditions pursuant to which Licensee may obtain access to Alectra Poles, the applicable Pole Attachment rate(s) or rate formula(s), and the process whereby Licensee may obtain an Attachment Permit to use any individual Alectra Pole.

Post-Installation Inspection – Inspection performed by Alectra to ensure that Applicant's installation conforms to the design data approved in Applicant's Attachment Permit, and fully complies with CSA 22.3 No.1, the OESC, these Guidelines, and applicable regulations, codes, and laws.

Primary Voltage – Voltage potential of greater than 750V.

Request for Joint Use – means the completed and submitted Permit Application Form, the form template amended from time to time by Alectra

Safe Limits of Approach – A procedural barrier system for authorized workers or workers under the continuous direction of an authorized worker, intended to minimize the risk associated with working in proximity to exposed energized apparatus

Secondary Service – means a connection to the low voltage ($\leq 750V$) side of an Alectra transformer located on the distribution system to a customer's building or other electrical load. The secondary service wire may be either overhead (tapping directly off the Pole or mid-span), or underground (running down the side of the Pole as a cable riser).

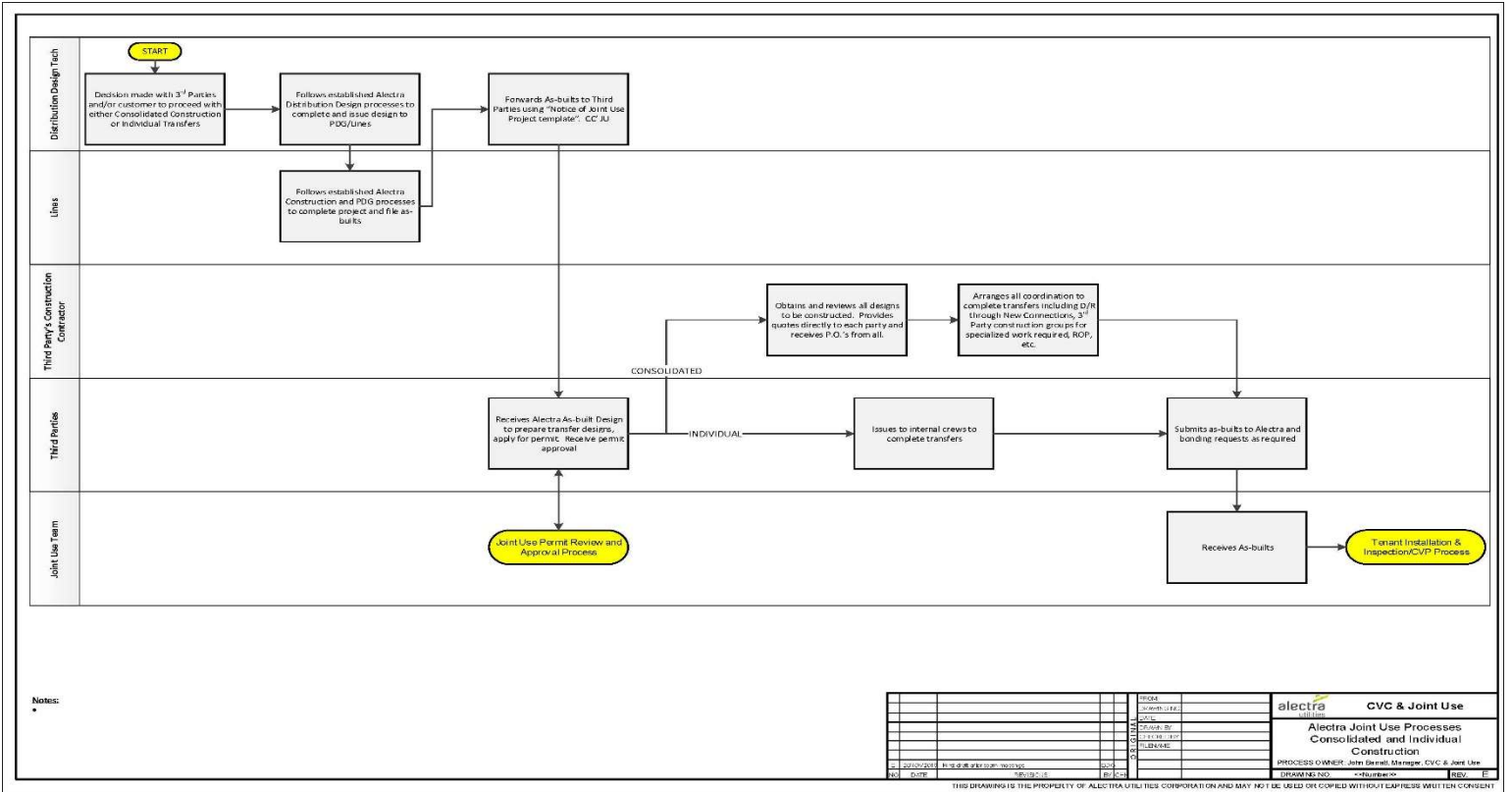
Service Drop - means a small light weight single communication cable or wire between an Attacher's overhead plant and customer's residence or place of business. The cable or wire shall be affixed in span, to a Pole or existing messenger, constructed per the Attacher's engineered service wire standard. See also Communication Service Drop.

U-Guard – The U-shaped cover molding designed to protect electric and/or communication cables where cables transition from underground to overhead on a Pole.

Unauthorized Attachments – Any communication cable or electrical equipment attached to an Alectra Pole that has been attached without the knowledge and express approval of Alectra.

Wireless Telecommunications Attachments – Antennas and support equipment including but not limited to batteries, conduits, and boxes for power supply and other purposes, support mounts and structures, radio access nodes, accessory equipment (including associated hardware), cables and wires connecting antennas to accessory equipment on the same Pole, and other necessary communications equipment used to provide Telecommunications Service.

Appendix B-4 Consolidated Construction





Instructions for completing the form:

- For Attachment removal requests, complete the JU-Removal tab.
- For Attachment requests, complete the JU-Attachment Application Pg1 tab. Use the JU-ATT-Pg2 tab for projects with larger numbers of poles to be listed, and copy this tab if more space is required.

General Fields:	
Alectra Reference # (Permit #)	For Removal form, to be entered by Applicant, For Attachment, to be entered by Alectra
Applicant Company	Tenant company name
Applicant (Name&Title)	Tenant company representative
Application Date	Date application submitted to Alectra
E-Mail	Tenant company representative email
Project Start Date	Proposed construction start date from the Tenant company
Phone	Tenant company representative phone
Municipality	Select from dropdown list
Applicant's Reference #	Reference number of the Tenant company.
Removal Form:	
Alectra Pole Number	Corresponds to number attached to pole and contained on Alectra's AM/FM/GIS records
Street Name	Location of pole (closest street number if known)
Attachment	Information regarding attachment to be removed (ie. overlash, complete attachment, etc)
Type	Select L (Line) or C (Clearance)
Application Form:	
Alectra Pole Number	Corresponds to number attached to pole and contained on Alectra's AM/FM/GIS records
Street Name	Location of pole (closest street number if known)
Attachment: Installation	Select from dropdown list
Attachment: Max Cable Diameter	Provide the proposed bundle diameter. Should be less than 2"
Attachment: Existing Permit	Provide any existing permits that the Tenant has for the associated pole
Guying: Tension Change	Check if there is a tension change (of the tenant's plant) at the pole
Guying: Deadend	Check if there is a deadend (of the tenant's plant) at the pole
Guying: Deflection Pole	Check if there is a deflection (of the tenant's plant) at the pole
Approval	To be complete by Alectra after application review
Variation Approved Design/Standard Report	If there is a variation to standards in the design, indicate in this field
Inspection by Attacher	After construction of the Tenant's plant, Tenant is to complete this Inspection sign off

Notes regarding permit application:

- Drawings to include Title Block (name & address of Licensee, date, north point, drawing/project number and location of project), name and phone number of Project Manager, scale and dimensions: metric, scale size >= 1:1000, legend of symbols, key map and street names.
- EXAMPLE STAMPS FOR USE BY 3rd PARTIES FOR JOINT-USE ATTACHMENTS**

As-Built Drawing
This is to certify that the drawing provided is the approved As-Built drawing for this construction.
Name:
Date:
Signature:

Record of Inspection
This record of inspection confirms that the construction as recorded is this drawing is consistent with the approved plan, Standard Designs, or work instructions, and that approved equipment has been used.
Name:
Date:
Signature:
Position:

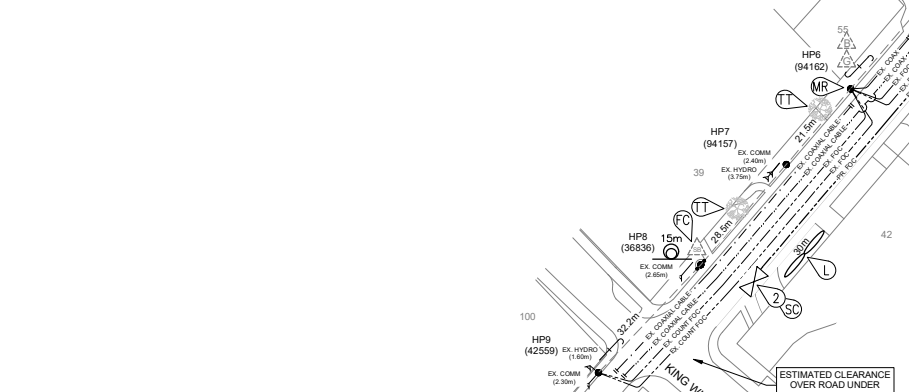
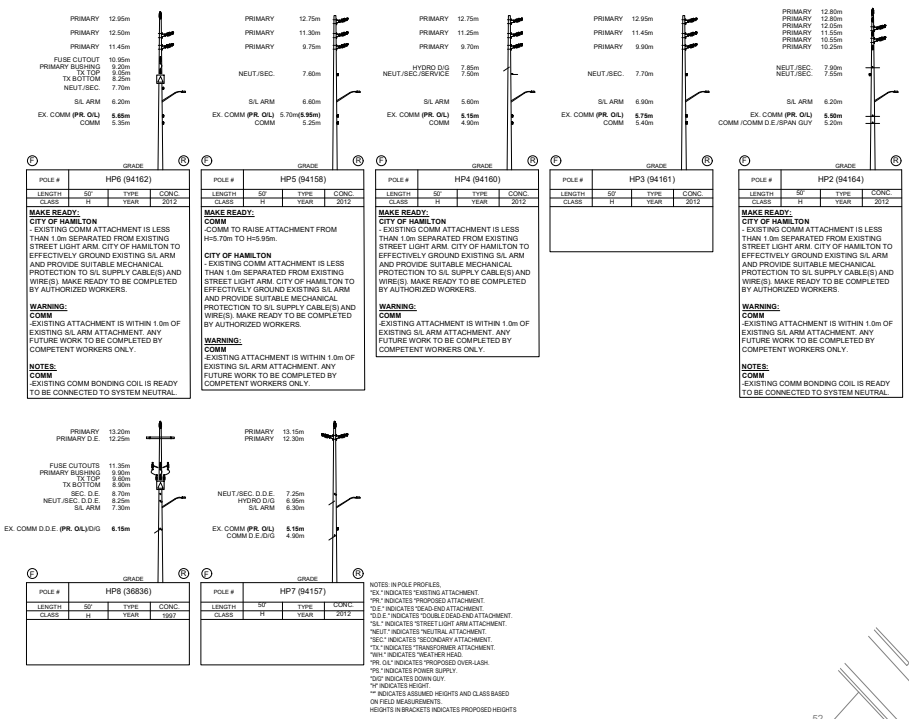
Certificate (Certificate of Construction)
This is to certify that the construction as recorded in this drawing is consistent with the approved plans, Standard Designs, or work instructions, and that approved equipment has been used.
Name:
Date:
Signature:
Position:

3. Alectra Joint Use Contacts:

Please ensure that the email below is copied on all correspondence regarding your application.

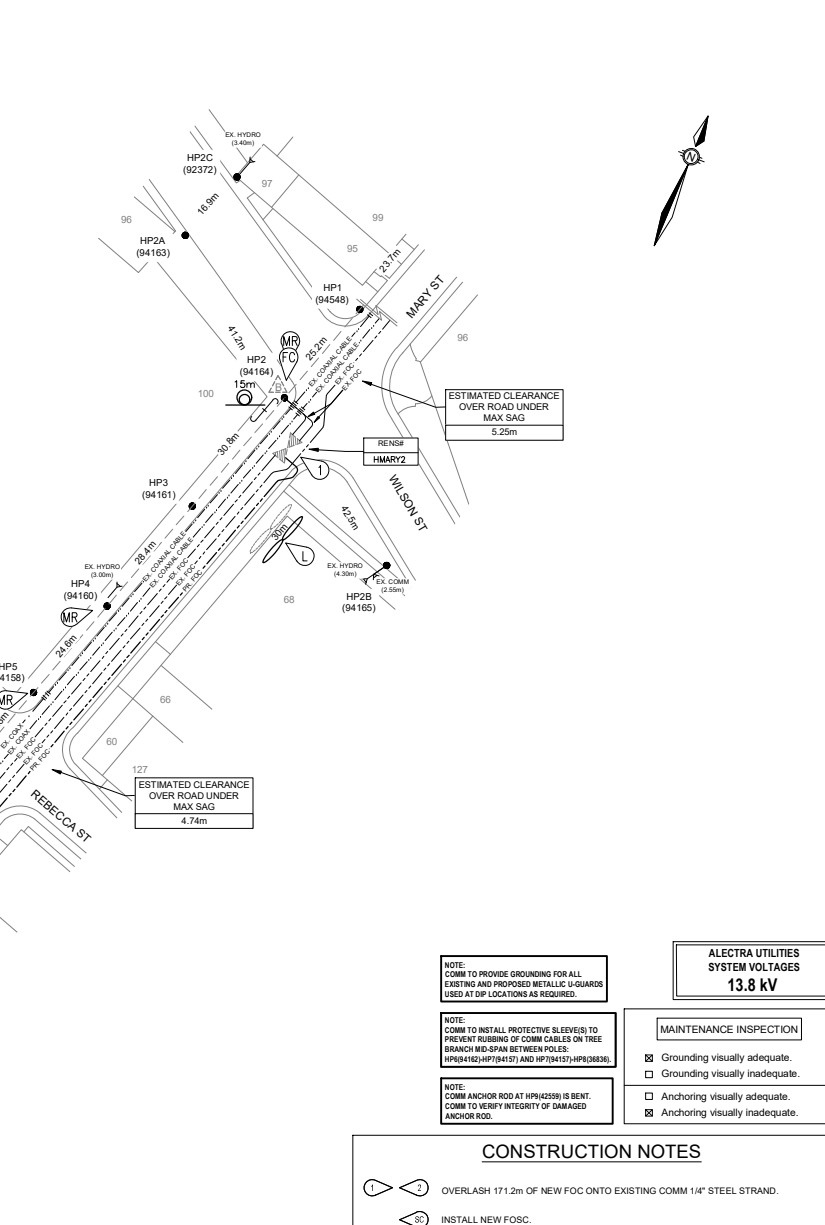
Alliston, Aurora, Barrie, Beeton, Bradford West Gwillimbury, Markham, Penetanguishene, Richmond Hill, Thornton, Tottenham, Vaughan	engineeringadmin@powerstream.ca
Brampton	bramptonjointuse@alectrautilities.com
Hamilton, St. Catherines	network.info@horizonutilities.com
Mississauga	mississaugajointuse@alectrautilities.com

Appendix C-2 Design Drawing Sample



STREET	SPAN	SPAN DISTANCE TENSION (N)	MAXIMUM TENSION (N)	STANDARD TENSION (N)	SPAN (% SLOPE)	MAXIMUM SAG (M)	SEPARATED CLEARANCE (M)	BARBLE DIAMETER (MM)	BARBLE WEIGHT (KG)
MARY ST	HP1-HP2	25.2	812	28.7	0.6	3.26	69.9	E230	
MARY ST	HP2-HP3	25.2	812	28.7	0.6	3.26	69.9	E230	
MARY ST	HP3-HP4	25.2	812	28.7	0.6	3.26	69.9	E230	
MARY ST	HP4-HP5	25.2	812	28.7	0.6	3.26	69.9	E230	
MARY ST	HP5-HP6	25.2	812	28.7	0.6	3.26	69.9	E230	
MARY ST	HP6-HP7	25.2	812	28.7	0.6	3.26	69.9	E230	
MARY ST	HP7-HP8	25.2	812	28.7	0.6	3.26	69.9	E230	
MARY ST	HP8-HP9	25.2	812	28.7	0.6	3.26	69.9	E230	
MARY ST	HP9-HP10	25.2	812	28.7	0.6	3.26	69.9	E230	

MAXIMUM TENSION IS CALCULATED USING 30°C TEMPERATURE, 1.5% SLOPE, ICE THICKNESS, WIND SPEED PRESSURE, 50% OVERLOAD. MAXIMUM SAG IS CALCULATED USING 10°C TEMPERATURE, 1.5% SLOPE, ICE THICKNESS, WIND SPEED PRESSURE, 50% OVERLOAD.



NOTE: COMM TO PROVIDE GROUNDING FOR ALL EXISTING AND PROPOSED METALLIC U-GUARDS USED AT DP LOCATIONS AS REQUIRED.

NOTE: COMM TO INSTALL PROTECTIVE SLEEVES TO PREVENT RUBBING OF COMM CABLES ON TREE BRANCH MID-SPAN BETWEEN POLES.

NOTE: COMM ANCHOR ROD AT HP9(42559) IS BENT. COMM TO VERIFY INTEGRITY OF DAMAGED ANCHOR ROD.

ALECTRA UTILITIES SYSTEM VOLTAGES 13.8 kV

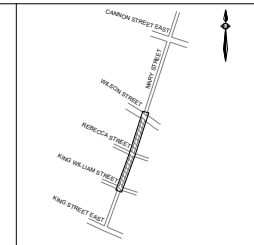
MAINTENANCE INSPECTION

Grounding visually adequate.
 Grounding visually inadequate.

Anchoring visually adequate.
 Anchoring visually inadequate.

CONSTRUCTION NOTES

- 1 OVERLASH 171.2m OF NEW FOC ONTO EXISTING COMM 1/4" STEEL STRAND.
- 2 INSTALL NEW FOSC.
- 3 INSTALL NEW 30m OF FOC LOOP BACK.
- 4 MAKE READY AS NOTED.
- 5 TREE TRIMMING REQUIRED.
- 6 INSTALL NEW 15m OF FOC COIL.



KEY MAP (N.T.S.)

Record of inspection (applies to complete drawing)
 Progressive Record of inspection (applies to highlighted area only)
 Non-conformance has been identified, report attached

Initials: _____ Date: _____

Certificate
 This is to certify that the construction as recorded in this drawing is consistent with the approved plan, Standard Designs, or work instruction and that only approved equipment has been used.
 All non-conformance issues have been rectified.

Name: _____ Date: _____
 Signature: _____ Position: _____

ALECTRA UTILITIES REPRESENTATIVE
 905-552-9200
 55 JOHN ST N.
 HAMILTON, ON L8R 3M8

COMM CONTACT

Certificate of Approval
 The installation work covered by this document meets the safety requirements of Section 4 of the Ontario Regulation 220/04 - Electrical Distribution Safety (Electricity Act, 1998).

Name: _____ Date: _____
 Signature & Professional Designation: _____

NO.	DATE	DESCRIPTION	BY	APP

NBM ENGINEERING
 1525 CORNWALL ROAD, UNIT 27, CANVILLE, ONTARIO, L6A 0E2
 PH: 905-845-7170 Fax: 905-845-7172
 nbm@nbmengineering.com

PROJECT :

DESCRIPTION :

APPROVED: _____ PROJECT#: _____ DATE: _____
 DRAWN: W0# _____ SCALE (ARCH D) 1 : 500 (24 x 36)
 CHECKED: _____ PERMIT#: _____ DWG NO. _____



Alectra Requirements for Modeling Change in Grade of Construction (Crossings) in SPIDACalc

As per CSA standards; the designer shall consider the CSA requirements for a crossing, where the grade of construction is changing, and additional longitudinal loads need to be modelled.

Per CSA C22.3 No. 1:20:

7.8.2.3 Lines of Grade 2 construction or weaker

Where supply lines or communication lines built to Grade 2 construction or weaker are adjacent to a section requiring Grade 1 construction, the longitudinal load for wires, self-supporting cables, and messengers shall be taken as an unbalanced pull in the direction of the section requiring the stronger grade, in accordance with 33-1/3 percent of the sum of all the tensions, under the appropriate loading conditions.

The assumed longitudinal load shall have a means of support as specified in Clause 8.4.4.

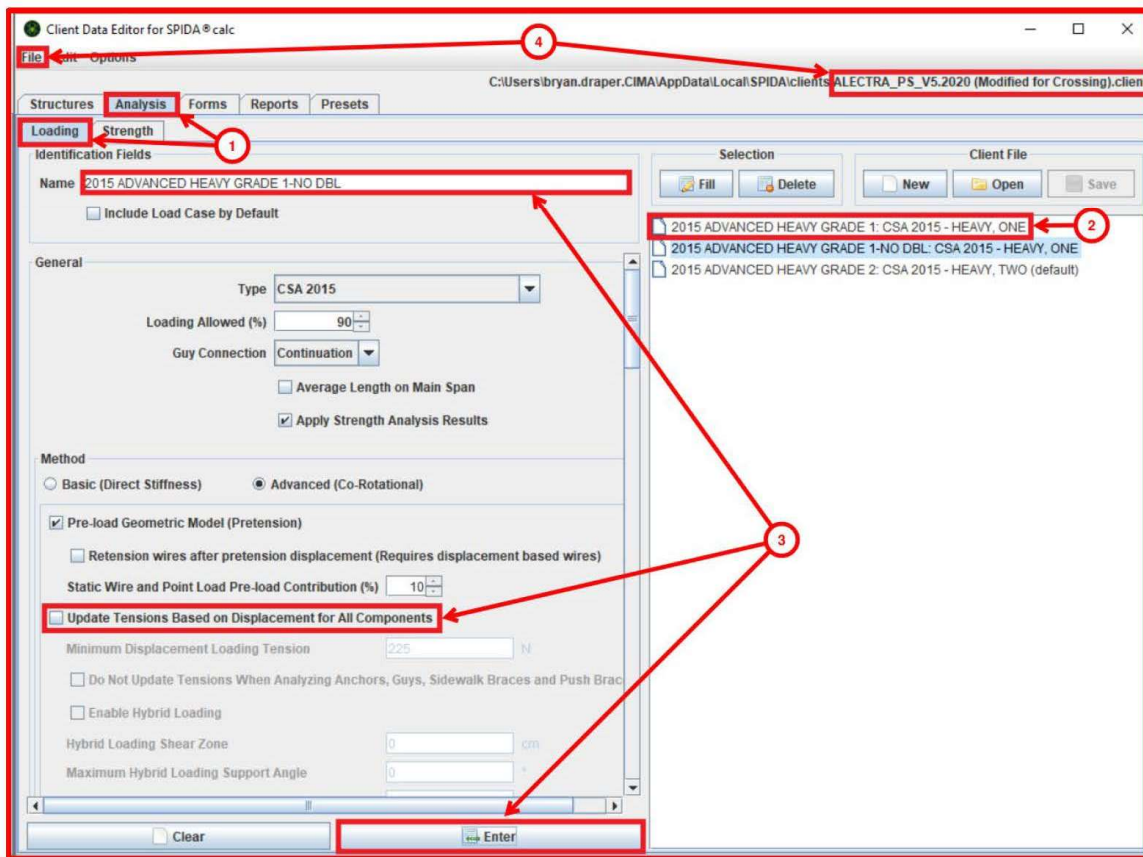
This CSA requirement necessitates the use of point loads in order to model the additional required loads on these transitional poles. An incompatibility was recently discovered; where SPIDACalc returns unintuitive analysis results when using Displacement Based Loading (DBL) analysis methods in conjunction with longitudinal point loads.

The Alectra Client files exclusively make use of DBL analysis methods. When designers encounter situations where grade 2 construction is meeting grade 1 construction, designers should employ a non-DBL load case in order to model these additional loads. This requires a modification of the Alectra Client files established analysis methodologies. The User Agreement for Alectra client files expressly forbids this type of modification to Alectra client files, however; in this situation it is permissible to adjust the analysis methods as described below.

In this instance, where a third party designer is required to make modifications to the Alectra Client File(s) and established Alectra analysis methodologies, the third party designer should notify the Alectra Design representative of the modification.

Modeling Change of Construction Grade

1. Open the client data editor and the default Alectra client file for the area you are working in, then click on the "Analysis" tab (make sure the "Loading" tab is selected).
2. Double click on "2015 ADVANCED HEAVY GRADE 1: CSA 2015 - HEAVY, ONE" to show the settings in the left side of the window.
3. Add "-NO DBL" to the end of the name for the load case, then uncheck "Update Tensions Based on Displacement for All Components" under the Method settings and click the "Enter" button. The load case should now appear in the list on the right.
4. Go to 'File > Save As...' and rename the client file to indicate the change. In this example, "(Modified for Crossing)" was appended to the name.
5. Analyze the pole using the new "...-NO DBL" load case, then use point loads to model the unbalanced load as per CSA C22.3 No 1-20 clauses 7.8.2.3 and A.7.8.2, and Figures A.14 and A.15.



Appendix C-4 Sample Alectra Consultant Certification Letter



Alectra Joint Use Attachment Application Review # HE2020-000

Applicant: Communication Company A
Project: Street 1, Anywhere, Ontario
Communication Company A Reference #: ABC123
Date: 2020-12-10
CIMA+ Project No.: T123456A

Communication Company A is proposing to install fibre optic cable on Alectra poles on Street 1 in Anywhere, Ontario. The proposed design **requires** Alectra make ready prior to construction.

This letter certifies that the third-party joint use application, prepared by Communication Company A for Alectra Utilities permit #HE2020-000, has been reviewed by CIMA+ for compliance with Alectra's standards and pole attachment requirements, including Ontario Regulation 22/04 Section 4 and CSA 22.3 No. 1:20. The proposed aerial design will not compromise the safety, reliability, or sound engineering of Alectra facilities.

A site visit was performed to verify the existing conditions and identify any conflicts with the application. The non-linear calculations and drawings have been reviewed, and any comments from CIMA+ have been addressed by the designer. Based on this review, CIMA+ advises that Alectra issue a permit to Communication Company A for the proposed work.

Signature

Approved by: Name_Surname, P.Eng.

5935 Airport Rd, Suite 500
Mississauga, ON L4V 1W5
Canada

Phone : (905) 695-1005
Fax : (905) 695-0525
www.cima.ca

Appendix D-1 – Applicable Alectra Standards

NOTE: Alectra Standards are still underdevelopment at this time. In general, the majority of the legacy Alectra standards with respect to Joint Use remain in use in your local area. Please contact Alectra's Joint Use and Agreements Department for specific standards and requirements questions.

Appendix E-1 Joint Use Attachment Compliance Requirements

Purpose:

This document is a general guide to be used by Joint Use (JU) or Third Party (3rd Party) attachers when affixing or maintaining their attachments on poles, ducts, or any other infrastructure owned by Alectra Utilities Corporation.

Worker Requirements:

- All JU attachers must adhere to OSHA regulations and the Safe Limits of Approach.
- JU attachers must provide an annual list of qualified and/or competent staff performing inspections of 3rd party attachments subject to approval by Alectra. These individuals must have attended the Regulation 22/04 training conducted by Alectra Utilities and be listed on the Construction Verification Program (CVP).
- **Affixing and Maintenance Requirements:**
 - The attacher shall affix and maintain its attachments in a safe and serviceable manner while following good utility practice that is satisfactory to Alectra Utilities and in accordance with all applicable Standards. The attachments will not interfere with:
 - The lines, works or equipment of Alectra or the electrical supply carried by Alectra's equipment or the other permitted third party attachers on the pole.
 - Once construction has been completed, the attacher will be required to submit as-built drawings as per the timelines stipulated in the Joint Use process.
 - Bonding/Grounding- Bonding requests are to be provided to Alectra. Include an excel list of the pole number and location. Alectra will provide a quote and this work will be completed in a similar manner to make-ready work.
 - Power supplies- Connections for Power Supplies follows the New Connections Process and the application is accessible via the link below under Construction Services:
<https://alectrautilities.com/find-form>
- **Approval and Inspection Requirements:**
 - All JU applications requiring attachment(s) to any of Alectra's equipment or systems are subject to approval by Alectra utilities. More details can be found on the JU Process.
 - Before beginning work on the distribution system, a work instruction or plan that conforms to Standard Designs that has been approved by a Professional Engineer together with a Plan Certificate of Approval (COA) must be provided to Alectra Utilities. A sample of the COA is available on the next page.

- After completing work on the distribution system, a Record of Inspection (ROI) will be completed on a daily basis, followed by a Certificate of Construction (COC) at the end of the project. A sample of the ROI and COC is available on the next page.
- When a transfer of equipment is initiated by Alectra Utilities, the attacher may be allowed to transfer on a like-for-like basis for areas not requiring analysis, dead-ends and/or guying. Such work shall still be subject to completion of a ROI and a COC by a competent person to ensure compliance to Ontario Regulation 22/04 (OReg. 22/04).
- Once a year, Alectra may audit 10% of the JU applications at the attacher's cost to ensure compliance to OReg. 22/04.
- As-Built drawings are to be sent back to Alectra in a timely fashion as per the JU process.

<p>PLAN CERTIFICATE OF APPROVAL</p> <p>This plan has been assembled by utilizing certified construction standards, certified specifications, approved equipment and it meets the safety requirements of Section 4 of Ontario Regulation 22/04.</p>	
Name	Date
Signature	Position

Figure 1: Plan COA on the Telecom Design drawings

<p>Inspection by Contractor</p>
<p>This certifies that the construction work has been completed and meets the safety requirement of Section 4 of Ontario Regulation 22/04. This site has been left in a condition that presents no undue hazard.</p>
<p>Name and Position</p>
<p>Signature of Qualified Person</p>
<p>Date (dd/mm/yyyy)</p>

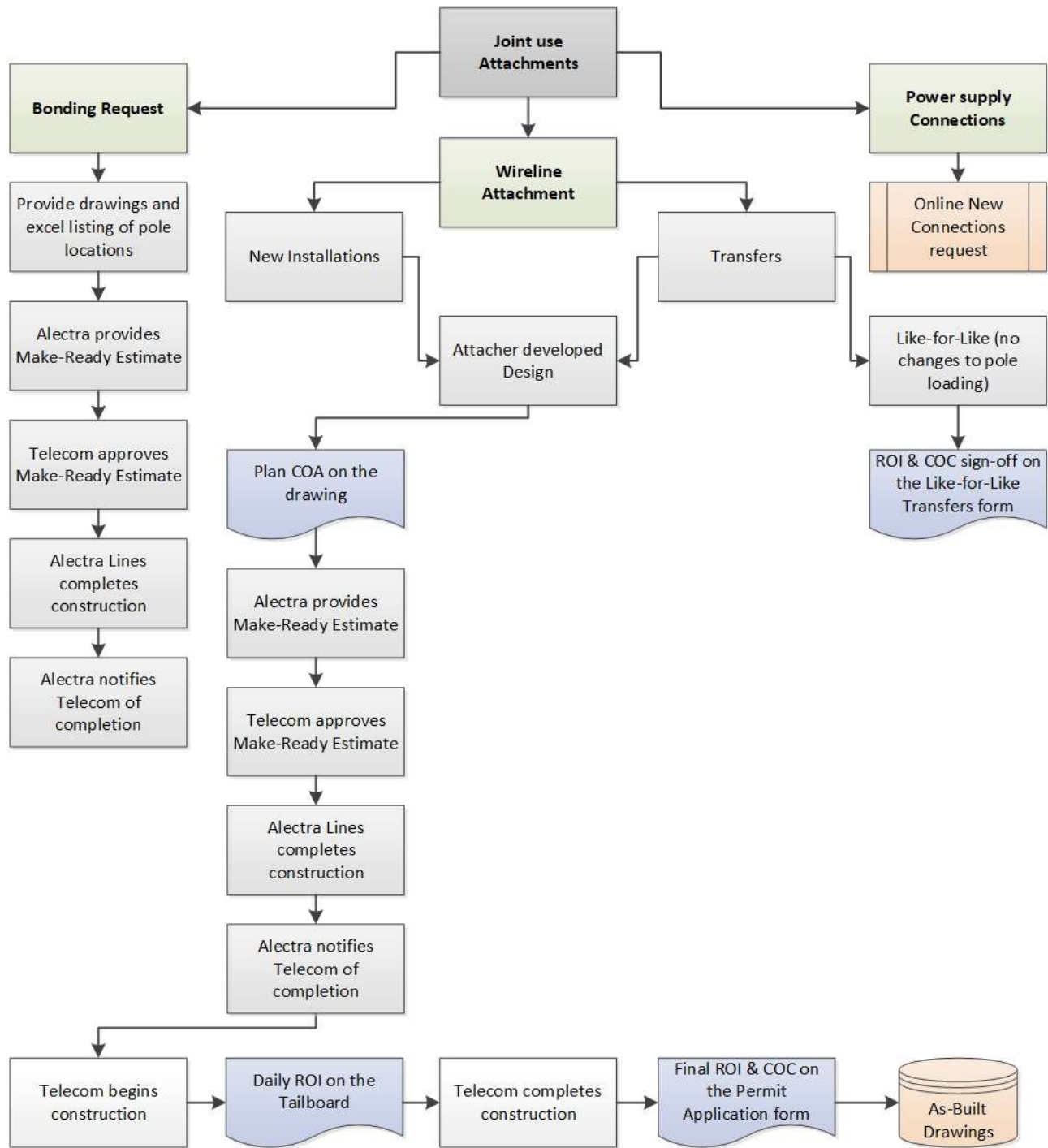
Figure 2: ROI & COC sign-off on the JU Like-for-Like Transfer Form

<p>Inspection by Attacher:</p> <p>This certifies that the construction work has been completed and is consistent with the application and meets the safety requirement of Section 4 of Ontario Reg.22/04. The site has been left in a condition that presents no undue hazard.</p>
<p>Name & Position: <input style="width: 100%;" type="text"/></p>
<p>Signature of Qualified Person: <input style="width: 100%;" type="text"/></p>
<p>Date: <input style="width: 100%;" type="text"/></p>

Figure 3: ROI & COC sign-off on the JU Permit Application Form

Record of Inspection			
Item:	Complies:		
	Yes	No	N/A
Approved Work instruction and/or plan has Been Followed			
Approved Equipment Has Been Used			
Standard Designs Have Been Applied Correctly			
All non-conformances corrected			
No Undue Hazards exist			
Comments:			

Figure 4: ROI sign-off on individual Tailboards



ACRONYM	MEANING
COA	Certificate Of Approval
COC	Certificate Of Construction
ROI	Record Of Inspection

				FROM		alectra CVC & JU utilities Sign-Off Requirements, Joint Use PROCESS OWNER: John Barratt, Manager CVC & JU DRAWING NO. _____ REV. _____
				DRAWING NO.		
				DATE		
				DRAWN BY		
				CHECKED BY		
				FILENAME		
NO.	DATE	REVISIONS	BY	CHK		

Appendix E-2 Safe Limits of Approach

Appendix E-2 SAFE LIMITS OF APPROACH Optimal Configuration

