Cable Preparation and Storage Requirements:
- Refer to NoaNet Approved Materials Sheet for specifications on fiber splicing material.
- Prepare cables for splicing by laying out flat on ground, reducing twists and bends.
- For an aerial splice case application the Aerial Slack Loop will be in place prior to splice work taking place.
- The aerial splice case shall be mounted with aerial adjustable offset brackets for ADSS or Strand and Lash applications.
- Once splicing is completed, white cable tag to be placed on Cable denoting cable direction. Tag should be no more than 12" from plate on case.
- Tape cable tails together to form a coil that neatly combines within the vault.
- Cable bend radius should never be less than 18"
- Verify conduits are plugged and visible in the bottom of the vault.
- Coil cable neatly in the vault placed on cable shoes. Splice case will be supported on shoes with tie wraps.
- Bond/Ground splice case to the ground rod or cable locator marker station.
- Tag cable with NoaNet cable tag, visible when vault is open, at top of coil, or in a aerial application at the splice case.
- The aerial splice case shall be mounted with aerial mounting adjustable offset brackets for ADSS or strand and lash applications. Strap and tie wrap aerial ADSS cable slack. Overlash slack in a strand and application.

- All aerial splice cases needed to be re-hung and mounted into aerial application within 48 hours of splice work completion.

Fiber Splicing Requirements:
- 17" Coyote Dome Enclosures are to be used for 48 count fiber or less. 22" should be used for 72 count fiber or more.All NoaNet fiber cables are loose tube. Cable openings shall match splice case procedures as outlined in manufacturer's requirements.
- Fiber splicer is required to completely read and understand procedures documented in the coyote products application manual prior to work being performed for NoaNet.
- Fiber splice will never cut a spliced fiber without check the light activity with a calibrated light detector prior to cutting.
- No more than 24 fibers per tray.
- End plates are always to be arranged to allow for additional future cable access.

- Always flash test the splice case prior to storing case in vault.

Fiber Splicing Documents and Methods of Procedure Notifications:
- Anytime a splicer is to access an active splice case, place a new splice case on existing lit backbone or lateral fiber, or work requiring splicing fibers in an active panel, a Method of Procedure (MOP) is needed, except for in the case of an outage.
- A MOP is not needed for OTDR testing or splicing on dark fiber.
- A MOP will be provided by NoaNet and will be sent to the Network Operations Center (NOC), contractor, and splicer a minimum of 10 business days prior to scheduled work. MOP window will be between 1AM and 5AM.
- In certain instances, a MOP can be scheduled prior to the 10 day window for emergency needs and fiber repair work. It will be handled on a case-by-case basis depending on necessity of work and what fibers are on existing backbone.
- MOP will list a description of work, splice cases to be entered, or locations of installation of new splice cases. MOP will also provide a list of active customers on cables being worked on.
- MOP will list NoaNet Engineer Contact information as well as NOC contact information.
- NoaNet will provide Splicing Documents (Splice Docs) prior to work taking place. Splice Docs will provide splice locations, fiber splicing assignments, and distances to Cabinet, COLO or other end site location if not splicing back to a NoaNet Cabinet or COLO.
- Fiber splicer is to always test for light prior to cutting. If light is found on fiber assignments, fiber splicer is to contact NoaNet Engineer before proceeding further.
- If discrepancies are found regarding distances provided, or large fiber events/breaks on either existing backbone or newly installed fiber, fiber splicer is to contact NoaNet Engineer before MOP window closes as to fix any issues that may arise from said discrepancies.
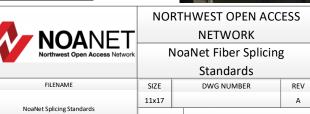
Fiber Testing and Documentation:
- Fiber splicer is to notify NOC prior to splice work is to begin, and prior to access to any NoaNet facilities, whether splicing or testing is to take place.
- Fiber splicer must follow MOP instructions provided. Fiber splicer is to notify NOC and close out ticket once splice work has been completed.
- Prior to splicing fiber, strands provided on splice docs must be tested on existing fiber and new fiber install to verify distances and any potential breaks or large loss events (greater than a 0.3DB loss and/or high reflection event in case of jumpers placed). As noted previously, if any issues arise NoaNet Engineers need to be notified of issue immediately.
- Once splicing is complete bi-directional OTDR reports will be required in both 1310nm and 1550nm. OTDR should run for a minimum of 1 minute, and for up to 3 minutes on longer distance reports. On these occasions splicer will be notified of the necessary run times on long distances prior to work taking place.
- NoaNet will provide splicer with building contact information for customer site. NoaNet will provide access information for splicer to enter NoaNet facilities for testing.

- All OTDR traces need to be delivered in raw format within 48 hours of splice work completion.

Acceptance of OTDR Testing and Splice Completion:
- No fiber strand will be accepted that has an individual splice location event greater than 0.3dB (TIA Standard). This only pertains to strands spliced during work window, excludes existing network splices.
- In certain instances, depending on job and contract for work, the individual splice event standards may be more strict. In these instances NoaNet will notify splicer prior to work taking place.
- Fiber splice locations with reflections are not acceptable and will be rejected. This does not include connectors used during testing, jumpers at panels, or patch panel ports.
- When testing with OTDR; fiber optic jumpers and ports to be cleaned every time both prior to OTDR testing and after testing has completed. Port caps always need to be replaced on unused ports after testing has completed.
- NoaNet may require individual splice locations to be re-spliced to meet standards listed. If this was a new splice, the cost to fix the splice issue that does not meet standards outlined will not be re-imbursed by NoaNet.
- If splicer does not follow MOP, testing requirements, or bi-directional testing, NoaNet will not re-imburse cost to fix splice issue that arise from not following procedures correctly.
- Splicer and/or contractor to provide pictures of fiber install on customer premises. Either picture of fiber coiled on backboard if no panel is installed, or picture of mounted term panel after fiber has been spliced and tested. Pictures need to be delivered to NoaNet within 24 hours of being taken.

Fiber Aerial Slack Loop and Splice Case Application:

Aerial Splice Case Mounted:

Fiber Coil and Splice Case Mounted on Brackets in Vault:

Rack Mounted Patch Panel:

DRAWN BY	REV.	DESCRIPTION	DATE	BY
NPU	1	3/6/2021		

NOANET — Northwest Open Access Network

NORTHWEST OPEN ACCESS NETWORK
NoaNet Fiber Splicing Standards

FILENAME	SIZE	DWG NUMBER	REV
	11x17		A
NoaNet Splicing Standards	SCALE N/A	SHEET 1 OF 1	