

1. EQUIPMENT CABINET TEST PROCEDURE

2. DEVICE NAMING COORDINATION

- 2.1. The System Integrator shall coordinate with the TMC/ROC to identify the device names for each device.
- 2.2. The System Integrator shall then send a request to TOTS to identify the network name, IP address, and any pertinent configuration information.

3. EXPLANATION – STANDALONE (SALT) TESTING

- 3.1. The System Integrator shall work with the DEVICE VENDOR (if required by the testing form) and complete the NDOT specified SALT tests (non-network) on each unit of equipment after installation.
- 3.2. Conduct SALT testing on each unit of equipment as outlined on the NDOT provided testing form.
- 3.3. The System Integrator shall coordinate through the Resident Engineer and the Construction Crew to have an appropriate NDOT representative present for the onsite inspection.
- 3.4. The System Integrator shall submit the DEVICE vendor commissioning documents, if applicable, with the SALT testing to the Engineer for review and approval.
- 3.5. Supply a bucket truck and operator, or suitable equivalent equipment necessary to carry out procedures as required by the testing documents, at no direct payment.

EQUIPMENT CABINET (EQUIP CABINET) SALT PROCEDURE

TEST #	SALT TEST PROCEDURE	EXPECTED RESULT	PASS / FAIL
Equip Cabinet Name:		IP Address: N/A	GPS:
TOTS Network Name:	N/A	Associated Cabinet Name:	
<i>Purpose and General Verification</i>			
<p><i>System Integrator:</i> This SALT tests the proper installation of a functional Equip Cabinet.</p> <p><i>General Verification:</i> For each test below, complete the Equip Cabinet SALT Matrix, circling the "Pass" or "Fail" in the appropriate cell. Only indicate a "Pass" on this form if the entire matrix column related to the tested function passes for EACH Equip Cabinet being tested.</p>			
<i>Equipment Information</i>			
1.	Verify Equip Cabinet Information using the manufacturer label.	Manufacturer: _____ Model: _____ Serial Number: _____ Firmware Version: N/A	Pass / Fail
2.	Verify Equip Cabinet material.	Circle one: <div style="display: flex; justify-content: space-around; margin-top: 5px;"> Aluminum Steel </div> Approved Metal: _____	
3.	Manufacturer's commissioning of Equip Cabinet equipment.	Manufacturer confirmation of full operation of all Equip Cabinet associated equipment.	Pass / Fail
<i>Equipment Verification</i>			
4.	Verify Equip Cabinet meets internal and external dimensions and features as specified in the Special Detail.	Equip Cabinet meets specified internal and external dimensions and features as specified in the Special Detail.	Pass / Fail
5.	Verify all external labeling is accurate and conforms to the current NDOT Std. Plan.	External labels conform to the current NDOT Std. Plan.	Pass / Fail
6.	Verify all cabling is labeled with the to/from on each end and at any major transition point and is neatly managed throughout the cabinet.	All premise or inside plant cables originating and ending in the cabinet are properly terminated and labeled. Labeling material rated for Outside Plant (OSP) use. Cables are neatly managed using adjustable hook-and-loop fastener straps.	Pass / Fail
7.	Using a meter, verify the system is properly bonded to earth ground.	Meter reading of 5 Ohms or less.	Pass / Fail

TEST #	SALT TEST PROCEDURE	EXPECTED RESULT	PASS / FAIL
8.	Verify exothermic weld bonds are properly welded.	Exothermic weld bonds are verified for proper adhesion.	Pass / Fail
9.	Verify the installation of bolts in the required and expected locations.	Bolts are installed in the proper locations.	Pass / Fail
10.	Verify all bolts are torqued to manufacturer's recommendations.	All bolts are torqued to manufacturer's recommendations.	Pass / Fail
11.	Verify the cabinet interior and exterior are painted or powder coated white in conformance with the Special Provisions.	The cabinet interior and exterior are painted or powder coated white in conformance with the Special Provisions.	Pass / Fail
12.	Verify the cabinet interior and exterior are in good condition with no visible damage.	The cabinet interior and exterior are free of dents, scratches, or other defects.	Pass / Fail
13.	Verify the cabinet is firmly anchored or mounted in position.	Cabinet is firmly anchored to the foundation or mounted to the standard.	Pass / Fail
14.	Verify the door vents have louvre vent covers.	Louvre vent covers are present.	Pass / Fail
15.	If applicable, verify the agency-approved lock conforms to the requirements of the agency responsible for this specific cabinet.	The agency-approved lock conforms to the responsible agency's requirements.	Pass / Fail / N/A
16.	If applicable, verify the agency-approved lock operates properly.	Agency-approved lock unlocks and locks as expected.	Pass / Fail / N/A
17.	Verify both the front and rear cabinet door lock teeth oriented upward.	Both the front and rear cabinet lock teeth are oriented upward.	Pass / Fail
18.	Verify the front cabinet door lock operates properly.	Front cabinet door lock unlocks and locks as expected.	Pass / Fail
19.	Verify the condition and proper operation of the front cabinet door.	The front cabinet door is free of dents, scratches, or other defects. The front cabinet door opens freely.	Pass / Fail
20.	Verify the condition and proper operation of the front top and bottom doorstop arms.	The front top and bottom doorstop arms is free of dents, scratches, or other defects. The front top and bottom doorstop arms keep the door open securely in place.	Pass / Fail
21.	Verify the rear cabinet door lock operates properly.	Rear cabinet door lock unlocks and locks as expected.	Pass / Fail

TEST #	SALT TEST PROCEDURE	EXPECTED RESULT	PASS / FAIL
22.	Verify the condition and proper operation of the rear cabinet door.	The rear cabinet door is free of dents, scratches, or other defects. The rear cabinet door opens freely.	Pass / Fail
23.	Verify the condition and proper operation of the rear top and bottom doorstop arms.	The rear top and bottom doorstop arms is free of dents, scratches, or other defects. The rear top and bottom doorstop arms keep the door open securely in place.	Pass / Fail
24.	Verify the interior cabinet light and fan are intact and securely mounted in the cabinet.	The interior cabinet light and fan are securely mounted.	Pass / Fail
25.	Verify the interior cabinet light and fan are in good condition with no visible damage.	The interior cabinet light and fan are free of dents, scratches, or other defects.	Pass / Fail
26.	Perform Megger test on cabinet ground per Megger tester directions using three-terminal-fall-of-potential method.	The Megger test value provides resistance to ground of 5 Ohms or less.	Pass / Fail
27.	Verify the presence of separate and isolated ground bus bars for equipment grounding and power conductor grounding.	The commercial AC ground is tied back to the service pedestal. The equipment ground is tied locally to the ground rod or local grounding method.	Pass / Fail
28.	Verify the Equip Cabinet is free from 60Hz noise using an oscilloscope.	The Equip Cabinet produces a non-distorted AC sine wave between the power conductor (load 1 and/or load 2) and neutral bus bar, neutral bus bar and ground bus bar, and power conductor (load 1 and/or load 2) and ground bus bar.	Pass / Fail
29.	Verify the fans turn on and off.	The fans turn on and off.	Pass / Fail
30.	Verify the fans turn on when temperature exceeds 65°F.	The fans turn on when the temperature exceeds 65°F.	Pass / Fail
31.	Verify the fans turn off when temperature falls below 65°F.	The fans turn off when the temperature exceeds 65°F.	Pass / Fail
32.	For each door, verify the cabinet LED lights turn on/off when the door actuator push button switch is activated/deactivated.	The cabinet LED lights turn on/off when the door actuator push button switch is activated/deactivated.	Pass / Fail

TEST #	SALT TEST PROCEDURE	EXPECTED RESULT	PASS / FAIL
33.	Verify the presence of a replaceable pleated paper filter behind the door vents.	A replaceable pleated paper filter is inserted behind the door vents.	Pass / Fail

Signatures

DATE	AGENCY/FIRM	PERFORMED BY (Print Name) (Integrator)	INTL	AGENCY/FIRM	WITNESSED BY (Print Name) (NDOT)	INTL

Integrator Signature	
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NDOT Signature	
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