

**PART 1. SPECIFICATIONS**

<b>1.01 Performance</b>		
	.1 Temperature Range:	Operation: -40°C to +70°C Storage: -40°C to +70°C Installation: -30°C to +70°C

**PART 2. PRODUCT**

<b>2.01 Cable</b>		
	.1 Type	Fibre Optic back bone cable: Outdoor Self Supporting Aerial Cable, six strands - Multimode, 50 micron fibre, OM2 (ISO/IEC 11801)
	.2 Maximum Attenuation	At 850 nm wavelength - 3.0 dB/km At 1300 nm wavelength - 1.0 dB/km
	.3 Maximum Sag	Maximum 3.2% sag at maximum span between poles as indicated in the Contract Documents, under NESC Heavy conditions
	.4 Central Member	Shall be Dielectric
	.5 Sheath	Polyethylene (Black), UV resistant
<b>2.03 Electrical</b>		
	.1 Approval:	RDUP 7 CFR 1755.900
	.2 Class/Div /Group	Not Classified

**PART 3. INSTALLATION**

<b>3.01 General</b>	
	The following installation requirements are in addition to or deviations from the requirements set forth for instrumentation in the General Instrumentation Standard.
.1	Cable shall be suitable for installation in rough climates with high ice-loads and be installed adjacent to power lines up to 120kV.
.2	Provide all Fibre optic cable, connectors and appurtenances that make up the Horizontal cable segments.
.3	The Fibre optic backbone cable shall meet the requirements of the TIA-568-C specification for multimode fibre.
.4	Provide three separate cables from the Waste Water Treatment Plant, one to each of the Pumping Stations, as shown on the contract drawings. Visit the job site to verify lengths of Fibre Optic cable required and availability of cable termination points.
.5	All connectors to be Duplex SC-SC.
.7	All Fibre optic backbone cable runs defined in this contract are to have six fibre optic strands fully terminated.

**PART 4. NOTES**

<b>4.01 General Notes</b>	
The following requirements are in addition to or deviations from the requirements set forth for instrumentation in the General Instrumentation Standard.	
<b>Warranty and Services</b>	<ul style="list-style-type: none"><li>▪ The complete cabling system shall be supported by a System Warranty.</li><li>▪ The system warranty shall be facilitated and be established between the Owner and the Contractor.</li><li>▪ After installation, submit all documentation to support the warranty in accordance with the manufacturer's warranty requirements, and to apply for said warranty on behalf of the Owners within the requirements stipulated by the manufacturer's warranty. The warranty shall cover the components</li></ul>

	<p>and labour associated with the repair/replacement of any failed link, within the warranty period that is a valid warranty claim.</p> <ul style="list-style-type: none"><li>▪ Provide a warranty covering the installed cable system against defects in workmanship, components, and performance, and follow-on support after project completion.</li></ul>
<b>Installation Warranty</b>	<ul style="list-style-type: none"><li>▪ Warranty the cabling system against defects in workmanship for a period of one year from the date of system acceptance. The warranty shall cover all labor and materials necessary to correct a failed portion of the system and to demonstrate performance within the original installation specifications after repairs are accomplished. This warranty shall be provided at no additional cost to the Contract.</li></ul>
<b>Cable System Warranty</b>	<ul style="list-style-type: none"><li>▪ Provide a certified fibre optic system and copper CAT6 system warranted by the cabling system Subcontractor and Product manufacturer, that the workmanship and materials perform in accordance with the specifications for a period of 20 years. In the event of performance degradation, the Subcontractor who is the installer shall provide necessary troubleshooting and repairs. Troubleshooting shall commence within 48 hours of notification by telephone; performance shall be completely restored within 120 hours.</li><li>▪ Where the Contractor selects the Product, ensure that the Products/components of the cable system are eligible for the 20 year certification provided by the cabling system Subcontractor and include the warranties as described herein. Ensure that all terms and conditions of the cabling system manufacturer are satisfied and complete. Ensure that all submissions to the cabling system manufacturer conform to the time requirements defined in the warranty terms and conditions.</li></ul>
<b>Material Guarantee:</b>	<ul style="list-style-type: none"><li>▪ The Contractor shall ensure that Fibre optic cabling and components meet or exceed the specifications (including installation) of TIA-568-C and TIA-569-C.</li></ul>

**PART 5. ACCEPTABLE MATERIAL**

Acceptable Material: 'SOLO ADSS' manufactured by Corning Cable Systems, 416-949-4471, [www.corning.com/cablesystems](http://www.corning.com/cablesystems).