



Ministry of
Transportation
and Infrastructure

ELECTRICAL AND TRAFFIC ENGINEERING MANUAL

Appendix 600.2

Camera Installation Field Check List

Camera Installation Field Check List

This document should be printed and filled out at camera location site surveys to ensure all criteria relevant to a potential camera installation have been examined and documented. The completed document should be submitted to the Camera Program Manager.

SITE DETAILS	
Location (Hwy@Cross Rd):	
GPS (Lat, Lon) Format: NNN.nnnnnn:	
Date:	
Completed by:	

GENERAL	Completed	N/A
If camera direction is not north, ensure sun is blocked by mountains, trees, or other obstruction when low in horizon.	☐	☐
Construction standards are met, including roadway clearances, clear zones, overhead clearances, and underground checks are completed.	☐	☐
If new roadway luminaire(s) are installed, it is where motorist would normally expect, such as cross street, rest area, or pull-out. Also, ensure light there is no light trespass onto private residence(s).	☐	☐
Clearances for overhead wiring have been observed. This includes BC Hydro, communications, and roadway vehicle clearances.	☐	☐
Camera is located at a 'known' location i.e. near a cross road or geographical landmark that the public will recognize.	☐	☐
Maintenance access is adequate; consider roadside snow accumulation.	☐	☐
Highway number, cross street, or other landmark has been recorded along with latitude and longitude to six decimal places (i.e. 55.678912, -123.456789 Note negative sign for longitude).	☐	☐
Photographs showing exact camera location, all fields of view, existing infrastructure, and other relevant details have been taken and labeled.	☐	☐
Camera can be mounted on pole with existing service panel and provide desired field of view that is adequately illuminated.	☐	☐
Lighting is not likely to create glare in the night image, avoid drop-glass luminaires in the near field of view.	☐	☐
The camera field of view does not include a private residence or commercial entity, or appear to performing surveillance onto private property.	☐	☐

CAMERA INSTALLATION FIELD CHECK LIST

POWER (UTILITY)	Completed	N/A
Available electrical service from existing Ministry infrastructure. The service is within reasonable distance to the preferred camera location.	☐	☐
Power lines in proximity have been confirmed to be Distribution and are not Transmission. The power lines are energized.	☐	☐
If power is Distribution, there is an available pole for a new transformer within BC Hydro specified distance.	☐	☐
Pole tag numbers have been recorded. Note: Photographs are best.	☐	☐
Check for other possible power options such as rail, pipeline, or other.	☐	☐

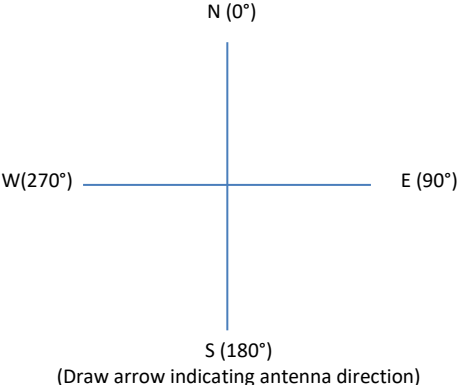
POWER (SOLAR)	Completed	N/A
There is southern exposure.	☐	☐
There are no impediments to southern exposure such as mountains, trees, structures. Consider sun elevation during winter.	☐	☐
Consult wind load tables to ensure solar panels, satellite antennas, and other equipment do not overload pole structure.	☐	☐
COMMUNICATIONS (field check list for antennas below)	Completed	N/A
CELLULAR	RSSI and EC/IO have been confirmed adequate and recorded (3G).	☐
	RSSI, SINR, RSRQ, RSRP have been confirmed to be adequate and recorded (4G).	☐
	Correct antenna has been selected (yagi, omni, diversity).	☐
	The service provider is Telus. If not, note alternate service provider.	☐
Wi-Fi	Service is not provided by privately owned network.	☐
	Signal level and performance have been confirmed adequate.	☐
SATELLITE	Line of site satellite has been confirmed. Normally, these are Galaxy 99W (Ku) or Galaxy 91W (Ka).	☐
	Signal strength has been confirmed adequate (>75).	☐
	Antenna dish size and type has been confirmed with satellite service provider.	☐
PSTN	Telephone line is in proximity to camera location.	☐
	Telephone service provider has confirmed data service to selected location.	☐
	All cable and vehicular clearances have been observed.	☐

CAMERA INSTALLATION FIELD CHECK LIST

RF ANTENNA AIMING AND SIGNAL STRENGTH - CELLULAR				
Antenna Type:	Omni: ☐	Directional: ☐	Diversity: ☐	
Polarity:	Vertical: ☐	Horizontal: ☐		
Mounting Location: Note height, structure, mounting details, pictures, etc.				
Antenna Azimuth: _____° Azimuth Degrees			Signal (4G) ☐	Signal (3G) ☐
			RSSI:	RSSI:
			SINR:	EC/Io:
			RSRQ:	
			RSRP:	
			Antenna Direction Relative to Road _____ ----- _____	

RF ANTENNA AIMING AND SIGNAL STRENGTH – SPREAD SPECTRUM				
Antenna Type:	Omni: ☐	Directional: ☐	Radio Make / Model:	
Polarity:	Vertical: ☐	Horizontal: ☐		
Mounting: (note height, structure, mounting details, etc.)				
Antenna Azimuth: _____° Azimuth Degrees			Signal	
			RSSI:	
			Baud:	
			Other:	
			Antenna Direction Relative to Road _____ ----- _____	

CAMERA INSTALLATION FIELD CHECK LIST

RF ANTENNA AIMING AND SIGNAL STRENGTH – SATELLITE										
Antenna Type: Parabolic .74m ☐ Circular .98m ☐	Satellite: G16 ☐ ANIK F2: ☐									
Power: 1W ☐ 2W: ☐	Lat: _____ Lon: _____	Modem- _____								
Mounting Location: (note height, structure, mounting details, etc.)										
Antenna Aiming Azimuth Degrees: _____ ° Elevation Degrees: _____ ° Polarity Degrees: _____ °		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; padding: 5px;">Signal</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">RSSI: _____</td> </tr> <tr> <td style="padding: 5px;">Cross Pol: _____</td> </tr> <tr> <td style="padding: 5px;">Other: _____</td> </tr> <tr> <td style="padding: 5px; text-align: center;">Antenna Direction Relative to Road</td> </tr> <tr> <td style="padding: 5px;">_____</td> </tr> <tr> <td style="padding: 5px;">-----</td> </tr> <tr> <td style="padding: 5px;">_____</td> </tr> </tbody> </table>	Signal	RSSI: _____	Cross Pol: _____	Other: _____	Antenna Direction Relative to Road	_____	-----	_____
Signal										
RSSI: _____										
Cross Pol: _____										
Other: _____										
Antenna Direction Relative to Road										

Cellular Signal Strength Summary:

Cellular Signal Strength Guide						
		RSSI (dBm)	SINR (dB)	RSRQ (dB)	RSRP (dBm)	EC/IO (dB)
	Technology	LTE & 3G	LTE Only	LTE Only	LTE Only	HSPA+ & EVDO
Signal Quality	Excellent	> -65	> 12.5	> -5	> -84	> -2
	Good	-65 to -75	10 to 12.5	-6 to -8	-85 to -102	-2 to -5
	Fair	-75 to -85	7 to 10	-8 to -10	-102 to -111	-5 to -10
	Poor	< -85	< 7	< -11	< -112	< -10