Comparison of Current and Required CCTV Capabilities

Category	Current Metro CCTV Capabilities	Requirements for Brandished Firearm Detection Analytics
Camera Resolution	Low to standard definition; optimized for constant live-viewing requirements	High-definition (HD) or greater to ensure visual clarity for detection
Frame Rate	Minimal frame rate; sufficient for monitoring	High, stable frame rate required for frame-to-frame analysis
Network Bandwidth	Limited; configured for low data throughput	High bandwidth is necessary to support streaming video across the network
Storage Capacity	Optimized for incident-based playback	Rapid-access capability for video-based AI processing and review
Camera Processing Load	Low processing demand; not designed for analytics workloads	Continuous data streaming to edge servers or cloud analytics systems
System Longevity	Standard operational lifespan expected	Risk of accelerated wear from higher operating loads
Use Case Fit	Suitable for live monitoring and post-incident review	Must support real-time object recognition and alert generation via AI tools