

PUBLIC SAFETY COMMITTEE

12-0285R

RESOLUTION AUTHORIZING CHANGE ORDER ONE TO CONTRACT 21242 WITH AVRIO GROUP SURVEILLANCE SOLUTIONS, LLC, AVRIO RMS GROUP, AS FUNDED BY A PORT SECURITY GRANT, FOR AN INCREASE OF \$313,109.00, AND A TOTAL CONTRACT AMOUNT OF \$791,508.00.

CITY PROPOSAL:

WHEREAS, the Duluth city council awarded a contract to Avrio Group Surveillance Solutions, LLC, Avrio RMS Group, for a port security system with wireless communication (Phase I), following the approval of Resolution 10-0496R on September 27, 2010; and

WHEREAS, the city desires to expand the citywide video surveillance system (Phase II) in accordance with the vendor's proposal dated January 18, 2012, and funding from a Port Security grant, and included with Change Order One;

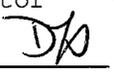
RESOLVED, that the proper city officials are hereby authorized to execute Change Order One to Contract 21242 with Avrio Group Surveillance Solutions, LLC, Avrio RMS Group, substantially the same as that on file in the office of the city clerk as Public Document No. _____, for an increase of \$313,109.00, payable as follows:

- (a) \$234,831.75, Special Projects Fund 210, Dept./Agency 030 (Finance), Org. 3177 (2008 Port Security Grant Program), Object 5580 (Capital Equipment);
- (b) \$ 78,277.25, Capital Equipment Fund 250, Dept./Agency 015 (Administrative Services), Div. 2010 (Fiscal Year), Object 5580 (Capital Equipment), Project No. CE250-E1002.

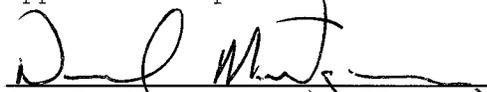
Approved:



Department Director

Purchasing Agent 

Approved for presentation to council:



Chief Administrative Officer

Approved as to form:



Attorney

Approved:



Auditor

STATEMENT OF PURPOSE: STATEMENT OF PURPOSE: This resolution authorizes Change Order No. One to Contract 21242 with Avrio RMS Group, for Phase II work in the amount of \$313,109.00, payable from the special projects and capital equipment funds. The scope of work includes eleven new camera locations with eleven fixed installations using either PoleCams or fixed mounting hardware, additional upgrades to repeater sites and new repeater sites necessary for this deployment, and a head-end expansion.

The project is based on a grant from the Department of Homeland Security.

The purchasing division posted the original request for bids on the city's website on August 9, 2010. The city received five complete proposals by the closing date of August 30, 2010, and determined that Avrio RMS Group offered the best proposal. The council approved the contract on September 27, 2010. This change order is an expansion of that contract.

Requisition No. 12-0347



DEPARTMENT OF FINANCE
 City Purchasing Division
 411 W. 1st St #100
 Duluth, MN 55802-1189
 218-730-5340 FAX: 218-730-5921

CONTRACT 21242
CHANGE ORDER NO. 1
 Date: May 31, 2012

TO: AVRIO GROUP SURVEILLANCE SOLUTIONS, LLC
 AVRIO RMS GROUP
 8 South West Street, #101
 Easton, MD 21601

RE: Change Order #1 for Expansion of Duluth citywide video surveillance system known as Phase II.

CONTRACT NO.: 21242 Port Security Camera System with Wireless Communication

FILE NO.: 12-0347 (Change Order #1), 10-0474 (Previous)

CONTRACT SERVICES: Per attached description of expansion of work.

The following change in your contract for the above project is hereby requested and this form must be completed, signed, and returned to Room 100 City Hall as soon as possible. See attached description of additional duties.

Original contract sum was	\$478,399.00
Net change by previous change orders.....	\$0.00
Contract sum prior to this change order was.....	\$478,399.00
Contract sum will be increased by this change order.....	\$313,109.00
Contract sum including this change order will be.....	\$791,508.00

This Change Order becomes Change Order #1 only upon approvals below.

This contract is payable as follows:

- (a) \$234,831.75, Special Projects Fund 210, Dept./Agency 030 (Finance), Org. 3177 (2008 Port Security Grant Program), Object 5580 (Capital Equipment);
- (b) \$ 78,277.25, Capital Equipment Fund 250, Dept. /Agency 015 (Administrative Services), Div. 2010 (Fiscal Year), Object 5580 (Capital Equipment), Project No. CE250-E1002.

By Contract Representative

Print Name/Title	Date	City Auditor	Date
Purchasing Agent	Date	Department Head	Date

CONTRACTOR NOTE: Please return **all** signed copies to the Purchasing Division. One signed, fully executed copy will be returned to the Owner.



STATEMENT OF WORK FOR THE CITY OF DULUTH

PHASE II CAMERA EXPANSION

RESPONSE PREPARED BY:

AVRIO RMS GROUP LLC.
8 S. WEST STREET, SUITE 101
EASTON, MD 21601

(410) 820-9334 X101

January 18, 2012

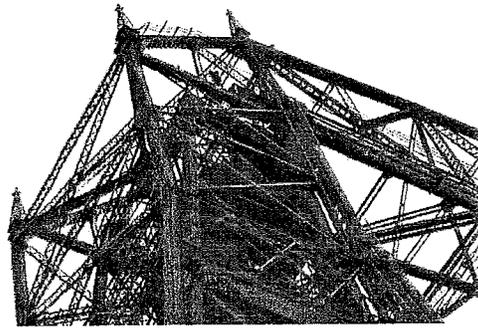
dlipscomb@avriormsgroup.com

SECTION ONE: SCOPE OF WORK

The following is the scope of work for expansion of the Duluth City-Wide video surveillance system known as Phase II. The scope includes 11 new camera locations with 11 fixed installations using either PoleCams or fixed mounting hardware. An additional Upgrades to repeater sites and new repeater sites necessary for this deployment are also included in the statement of work and associated pricing. Lastly, a head-end expansion is proposed and included in the pricing section.

DEPLOYMENT LOCATIONS

Lift Bridge Upgrade



Wireless Upgrade

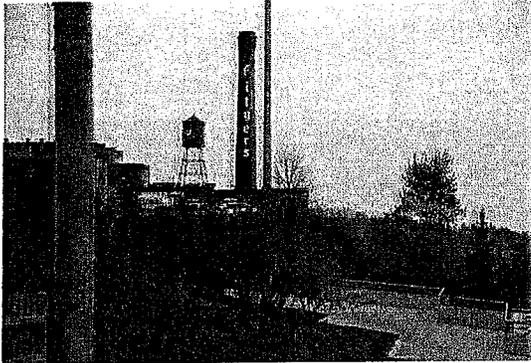
Due to the prime location and elevation of the lift bridge it has become an excellent repeater site for wireless equipment. With the expansion of cameras along the Boardwalk and Lake Walk area a larger capacity Backhaul is necessary to support the video traffic. The existing backhaul will be moved to the Garfield Building and support the mesh on the Rice Point Pier at the port terminal.

New mesh radios will also be installed and aimed to the new cameras location along the Boardwalk.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Boardwalk 4



Power

Convert the existing power feed from a lighting circuit to 24/7 power. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole. Install a fuse holder inside the base of the pole.

Camera installation

Remove the secondary PTZ camera from Boardwalk 2 and install on a new Polecam enclosure. Band the Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

Band antenna to the pole with 1/2 inch stainless steel banding. Aim antenna to the lift bridge.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Upgrades to the Lift Bridge Required

Boardwalk 5



Power

Install a new circuit for the controller to camera location. Add a breaker panel inside of the controller enclosure and a fuse holder inside the base of the pole. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

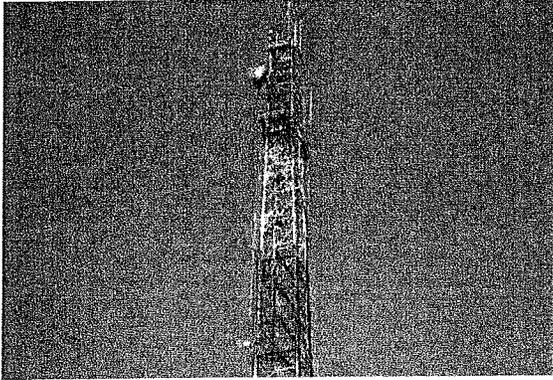
Band antenna to the pole with 1/2 inch stainless steel banding. Aim antenna to the lift bridge.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Upgrades to the Lift Bridge Required

MNDOT Tower upgrade



Upgrades to the MNDOT tower required to support the expansion of the network.

Power

Installation of three new data and a two low voltage cables from the equipment rack to the radio location on the tower

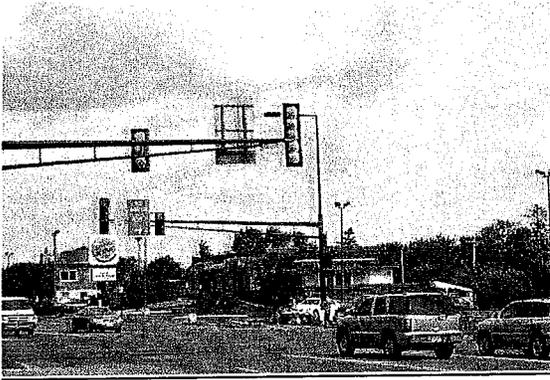
Wireless

Install two backhaul radios near the existing equipment height of 100 feet. Aim the first toward City Hall and the second to 21stAve E. and Superior St. Realign the existing radios to the downtown cameras.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

21st Ave E and London RD



Power

Add a breaker panel inside of the controller enclosure and a fuse holder inside the base of the pole. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

Band the backhaul antenna to the pole with 1/2 inch stainless steel banding. Align antenna to the MNDOT Tower.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Upgrades to the MNDOT Tower Required

Lake Ave and 4th St.



Power

Convert the existing power feed from a lighting circuit to 24/7 power. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole. Install a fuse holder inside the base of the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

Band antenna to the pole with 1/2 inch stainless steel banding. Aim antenna to the MNDOT Tower.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Upgrades to the MNDOT Tower Required

1st Ave W and 2nd St



Power

Add a breaker panel inside of the controller enclosure and a fuse holder inside the base of the pole. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

Band antenna to the pole with 1/2 inch stainless steel banding. Aim antennas to the MNDOT tower and 1st Ave W and 1st St.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

1st Ave W and 1st St



Power

Add a breaker panel inside of the controller enclosure and a fuse holder inside the base of the pole. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

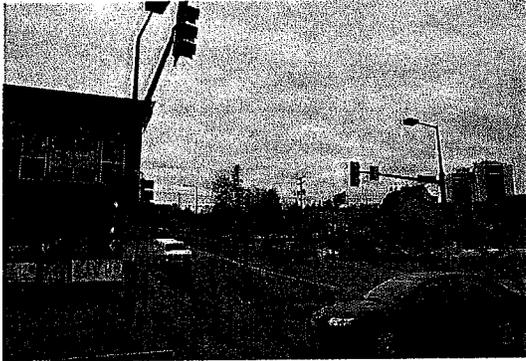
Band antenna to the pole with 1/2 inch stainless steel banding. Aim antennas to 1st Ave W and 2nd St and 1st Ave E and 1st St.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Upgrades to the MNDOT Tower Required also 1st Ave W and 2nd St.

1st ave E and 1st St



Power

Add a breaker panel inside of the controller enclosure and a fuse holder inside the base of the pole. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

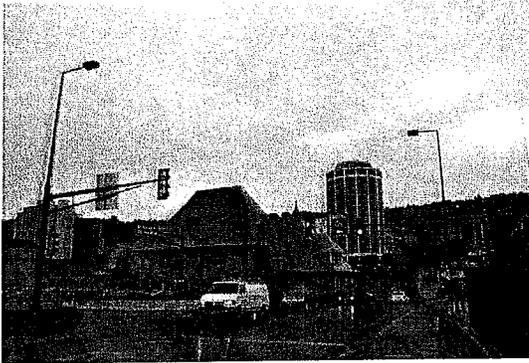
Band antenna to the pole with 1/2 inch stainless steel banding. Aim antenna to the 1st Ave W.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Upgrades to the MNDOT Tower Required also 1st Ave W and 2nd St. and 1st Ave W and 1st St.

5th Ave West and I35



Power

Add a breaker panel inside of the controller enclosure and a fuse holder inside the base of the pole. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

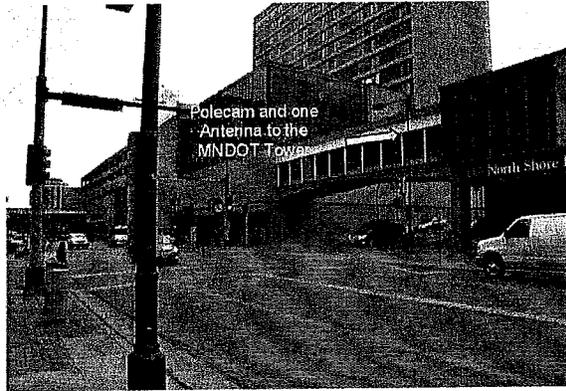
Wireless

Band antenna to the pole with 1/2 inch stainless steel banding. Aim antennas to City Hall and the Skate Park.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

2nd Ave west and Superior St.



Power

Add a breaker panel inside of the controller enclosure and a fuse holder inside the base of the pole. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

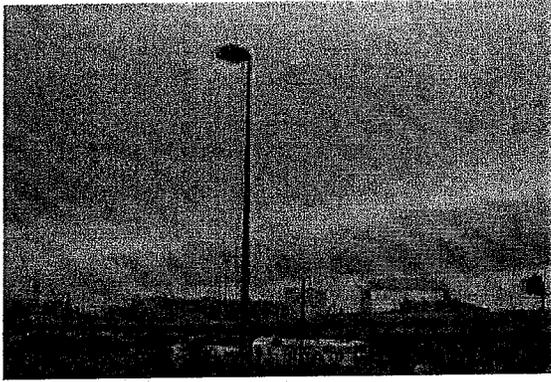
Wireless

Band antenna to the pole with 1/2 inch stainless steel banding. Aim antennas to City Hall and the Skate Park.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Skate Park



Power

Convert the existing power feed from a lighting circuit to 24/7 power. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole. Install a fuse holder inside the base of the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

Band antenna to the pole with 1/2 inch stainless steel banding. Aim antenna to 5th St W and I35.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Canal Park Walking Bridge (DECC)



Power

Install a new circuit for the controller to camera location. Add a breaker panel inside of the controller enclosure and a fuse holder inside the base of the pole. Install a 15amp 110vac twist lock receptacle with an in-use cover on the pole.

Camera installation

Band a PTZ Polecam to the pole with 3/4 inch stainless steel banding.

Wireless

Band antenna to the pole with 1/2 inch stainless steel banding. Aim antenna at lift bridge.

Engineering services.

Configuration of cameras and wireless equipment to the network and radio alignment with baseline readings taken. Programming of wireless equipment, test and verification, documentation, and installation supervision.

Remote Viewing and Video Recovery Kit



Rugged case with a WiFi station for remote monitoring of the CCTV network. Monitoring would be available when with in range of WiFi access points. It is 12 volts and plugs into a vehicles accessory port or can be connected directly to an12 volt battery.

Note: Laptop not included in this quote.

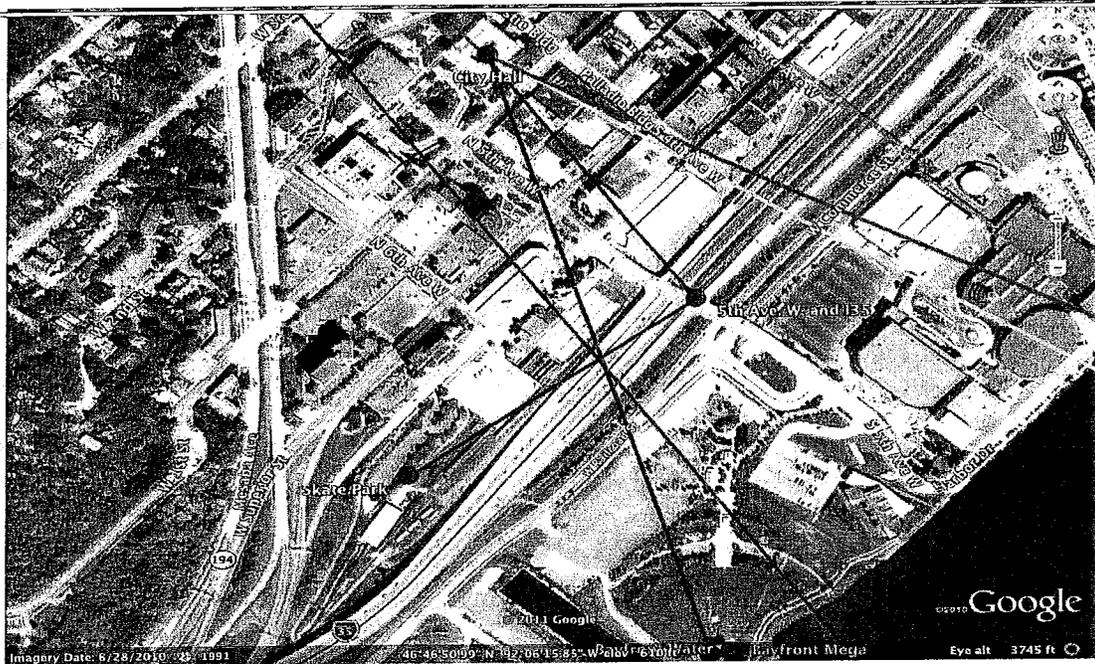
SECTION THREE: NETWORK DIAGRAMS



21st Ave East and London Road



Boardwalk Addition



5th Ave W and I35 and Skate Park

Qty	Description	Price	Total
	Lift Bridge Upgrade		
2	FM2200	\$2,000.0	\$4,000
1	BW80 1g Backhaul to City Hall	\$28,000.0	\$28,000
3	1' panel antenna	\$150.0	\$450
1	Data Materials	\$400.0	\$400
		Equipment	\$32,850
2	Installation Labor - prevailing wages, daily rate for crew	2560	\$5,120
2	Engineering services for site engineering, design, deployment, or documentation	1250	\$2,500
2	Project Management Services, Meetings logistics, site work supervision	1250	\$2,500
		Shipping	\$-
		Labor	\$10,120
	Maintenance	5%	\$2,149
		Total	\$42,970
		Location Total	\$45,119

Qty	Description	Price	Total
	Boardwalk 4		
	Requires upgrades to lift bridge		
1	Polecam Box Only move the second camera from Boardwalk 2	\$1,500.0	\$1,500
1	FM2200	\$2,000.0	\$2,000
1	1' panel antenna	\$150.0	\$150
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$5,075
1	Installation Labor - prevailing wages, daily rate for crew	2560	\$2,560
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$5,060
	Maintenance	5%	\$507
		Total	\$10,135
		Location Total	\$10,642

Qty	Description	Price	Total
	Boardwalk 5		
	Requires upgrades to lift bridge		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
1	1' panel antenna	\$150.0	\$150
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials and Pole Extension	\$500.0	\$500
		Equipment	\$9,824
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$680
		Total	\$13,604
		Location Total	\$14,284

Qty	Description	Price	Total
	MNDOT Tower upgrade		
1	BW80 125mg Backhaul to City Hall	\$19,000.0	\$19,000
1	EX5000 2'dish 25mg To 21st ave E and Superior St.	\$8,500.0	\$8,500
1	EX5000 1'flat 25mg to Park Point Siren	\$7,530.0	\$7,530
1	FM2200	\$2,000.0	\$2,000
2	1' panel antenna	\$150.0	\$300
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
		Equipment	\$38,605
1	Installation Labor - prevailing wages, daily rate for crew	2963	\$2,963
3	Engineering services for site engineering, design, deployment, or documentation	1250	\$3,750
3	Project Management Services, Meetings logistics, site work supervision	1250	\$3,750
		Shipping	\$-
		Labor	\$10,463
	Maintenance	5%	\$2,453
		Total	\$49,068
		Location Total	\$51,521

Qty	Description	Price	Total
	21st Ave E and London Rd.		
	(requires upgrade to MNDOT Tower)		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
	EX5000 1'flat 25mg to MNTOT Tower (cost in MNTOT Tower Upgrade)		\$-
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$7,324
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
	(No Mesh Radio included) Only required if expanding from this location in the future	Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$555
		Total	\$11,104
		Location Total	\$11,659

Qty	Description	Price	Total
	1st ave W and 2nd St		
	Requires MNDOT Tower upgrade		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
2	1' panel antenna	\$150.0	\$300
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$9,624
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$670
		Total	\$13,404
		Location Total	\$14,074

Qty	Description	Price	Total
	Lake Ave and 4th St.		
	Requires MNDOT Tower upgrade		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
1	1' panel antenna	\$150.0	\$150
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$9,474
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$663
		Total	\$13,254
		Location Total	\$13,917

Qty	Description	Price	Total
	1st ave W and 1st St		
	Requires 1st ave W and 2nd St		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
2	1' panel antenna	\$150.0	\$300
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$9,624
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$670
		Total	

	\$13,404
Location Total	\$14,074

Qty	Description	Price	Total
	1st ave E and 1st St		
	Requires 1st ave W and 1nd St		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
1	1' panel antenna	\$150.0	\$150
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$9,474
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$663
		Total	\$13,254
		Location Total	\$13,917

Qty	Description	Price	Total
	2st ave W and Superior St		
	Requires 1st ave W and 1nd St		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
1	1' panel antenna	\$150.0	\$150
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$9,474
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$663
		Total	\$13,254

Location	
Total	\$13,917

Qty	Description	Price	Total
	5th Ave W and I35		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
2	1' panel antenna	\$150.0	\$300
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$9,624
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$670
		Total	\$13,404
		Location Total	\$14,074

Qty	Description	Price	Total
	Skate Park		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
1	1' panel antenna	\$150.0	\$150
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$9,474
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services, Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780

Maintenance	5%	\$663
	Total	\$13,254
	Location Total	\$13,917

Qty	Description	Price	Total
	Decc		
1	Onssi Camera license 1 year SUP	\$399.0	\$399
1	Polecam, includes Sony PTZ camera SNC-S46N, dome, mounts	\$5,500.0	\$5,500
1	FM2200	\$2,000.0	\$2,000
1	1' panel antenna	\$150.0	\$150
1	N-Tron 4 port managed switch	\$1,000.0	\$1,000
1	WiFi access points	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
1	Data Materials	\$150.0	\$150
		Equipment	\$9,474
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
1	Engineering services for site engineering, design, deployment, or documentation	1250	\$1,250
1	Project Management Services .Meetings logistics, site work supervision	1250	\$1,250
		Shipping	\$-
		Labor	\$3,780
	Maintenance	5%	\$663
		Total	\$13,254
		Location Total	\$13,917

Qty	Description	Price	Total
	City Hall		
	Required for the Lift Bridge and MNDOT Tower Upgrade Also 5th Ave W and I35		
1	FM2200	\$2,000.0	\$2,000
1	1' panel antenna	\$150.0	\$150
1	BW80 to MNDOT (cost of link in MNDOT Tower upgrade)		
1	BW80 to Lift Bridge Cost of line in Lift Bridge upgrade)		
1	Data Materials	\$150.0	\$150
		Equipment	\$2,300
0.5	Installation Labor - prevailing wages, daily rate for crew	2560	\$1,280
0.5	Engineering services for site engineering, design, deployment, or documentation	1250	\$625
0.5	Project Management Services, Meetings logistics, site work supervision	1250	\$625
		Shipping	\$-
		Labor	\$2,530
	Maintenance	5%	\$242
		Total	\$4,830
		Location	
		Total	\$5,072

Qty	Description	Price	Total
	Remote Viewing and Video Recovery Kit		
	12v Portable		
1	Pelican 1520 Case (18.06" x 12.89" x 6.72") Includes 12v Conversion	\$250.0	\$250
1	Misc hardware	\$100.0	\$100
1	WiFi Station	\$200.0	\$200
1	WiFi Antenna 5 db omni	\$75.0	\$75
		Equipment	\$625
1	Integration and Training (Laptop not included) Training included	1250	\$1,250
		Shipping	\$-
		Labor	\$1,250
	Maintenance	5%	\$94
		Total	\$1,875
		Location	
		Total	\$1,969

Qty	Description	Price	Total
	Head-end upgrade to handle the additional cameras		
1	Pivot 3 Virtual Server and storage	17000	17000
		Equipment	17000
1	Engineering services for site engineering, design, deployment, or documentation	4500	\$4,500
	Maintenance	5%	\$1,075
		Total	\$21,500
		Location	
		Total	\$22,575

Total Equipment and Installation 274,646.27

Power Installation Budget \$38,463

Tax to be paid in full by the city

** Includes all costs to provide turnkey solution. In addition, includes year 1 Maintenance and Support -- 24x7/2 hour response, extended warranties on all product and Tier 2 field support at no additional charge.