



AECOM  
100 S. Wacker Drive, Suite 500  
Chicago, Illinois 60606

312-939-1000 tel  
312-939-4198 fax

January 22, 2018

Mr. Alex Ohlson  
City Lights, Ltd.  
9993 Virginia Ave.  
Chicago Ridge, IL 60415

RE: Installation of Red Light Cameras – 615-640 N. Michigan Ave. and 101-155 E. Ontario  
Permit No.: DOT901137  
Permit Address: 615-640 N. Michigan Ave. and 101-155 E. Ontario, Chicago, Illinois  
AECOM Project No. 60513867

Dear Mr. Ohlson:

Pursuant to conditions specified in the permit (see attached) issued by the City of Chicago, radiation monitoring was required to be performed at the above referenced site. AECOM Technical Services, Inc. (AECOM) provided the required radiation surveillance on January 9 and 10, 2018 for excavations and directional boring to install red light cameras and conduit.

Surveying was performed on the fill soil removed at 615-640 North Michigan Avenue (see sketch) required for the installation of red light cameras foundations and conduit on January 9, 2018. The USEPA removal action level for Chicago's Streeterville area is 7.1 picocuries per gram (pCi/g) total radium (Ra-226 + Ra-228). Gamma radiation count measurements for the project were recorded using Ludlum Models 2221 survey meter and a shielded 2 x 2 inch Nal probe (Model 44-10). For the instrument used, the gamma count threshold indicative of the 7.1 pCi/g removal action level is 7,293 (S/N: 326720) counts per minute (cpm) shielded. The field instrument background from a nearby tree planter was 3,100 cpm.

The initial work consisted of two excavations and associated horizontal boring. The first excavation located on North Michigan Avenue about 70 feet north of East Ontario Street was 10 foot by 6 foot wide where the sidewalk was removed (refer to attached photos). The western half of this excavation only required that the surface be screened after the removal of the 6 inch thick sidewalk concrete, since no excavation was required. In the center of the east half of the excavation was a 2.5 by 2.5 foot area that was excavated to approximately 5 feet below ground surface (bgs) for installation of the camera foundation. Upon removing the upper 6 inches of fill soil beneath the concrete for the foundation, elevated readings above the removal action level were observed on the southern end of this excavation (southeast corner). These values averaged 7,500 counts per minute (cpm) to 8,500 cpm, with a maximum of 10,300 shielded. While attempting to determine the extent of these readings, fill soil was removed in 2 to 3 inch lifts and screened within the bucket as well as on the spoil pile. This process continued until the final depth of five feet bgs was reached. The readings from the bucket ranged from a minimum of 2,000 cpm to a maximum of 4,400 cpm shielded. The spoil was stockpiled and screened again, ranging from 2,600 to 5,200 cpm shielded.

As the excavating continued, the in situ southern sidewall of the excavation was observed to have elevated readings of up to 11,800 cpm shielded approximately 12 inches beneath the top of the sidewalk. Base on the readings observed, it is believed that the contaminated fill soil was present farther to the south and that the readings observed on the excavation sidewall were shine from that undisturbed contaminated material. Since no further excavation to the south was necessary, the contaminated fill was left in place and the southern excavation sidewall was covered with a layer of plastic prior to backfilling the excavation. No radiologically contaminated fill soil above the USEPA removal action level was removed from the excavation. See the attached photos and sketch for the location of this excavation.

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Page 2

The north wall of the excavation was approximately 3 feet south of the existing light pole and the excavation extended south an additional 6 feet (southern edge about 9 feet south of the light pole). Refer to the annotated drawing on which the light pole and camera foundation are indicated. This area is located approximate 23 feet south of the information sign foundation location where elevated gamma readings were identified previously by Stan Huber (October 2011) and again by AECOM (July 2017). However, neither of these previous projects conducted subsurface excavation activities at the traffic camera location.

The second excavation to the south was 11.5 foot by 5 foot, with a smaller trench within this excavation, and another camera foundation excavated to 5 feet bgs. Surveying did not indicate the presence of any fill soil above the removal action level (refer to the attached sketch).

Surveying also occurred at 101-155 East Ontario Street on January 10, 2018 for the installation of another red light camera and supporting conduit. This work consisted of four excavations. The excavations, going from east to west were the follow dimensions, 7 by 13 foot, 7 by 4 foot, 7 by 4 foot, and 15 by 4 foot. The first excavation was surface screened beneath approximately 6 inches of concrete sidewalk removed. The second excavation was screened down to 12 inches bgs, with the southern edge being removed to 30 inches bgs. The third area was excavated to 12 inches bgs. The fourth and final area was excavated to 30 inches bgs (refer to the attached sketch)

Other than the in situ gamma readings observed within the excavation along N. Michigan Avenue discussed above, the rest of the monitoring did not observe fill soils that were above the removal action level established by the USEPA for the Streeterville area of Chicago. The field gamma measurements for the spoil and within the remaining excavations did not exceed the instrument threshold previously stated, and ranged from a minimum of 1,400 cpm to a maximum of 4,000 cpm shielded. The general subsurface stratigraphy was composed of urban fill and potentially native sand toward the base of the deeper excavations. A copy of the permit and a field sketch documenting the area where work was performed, have been included as attachments.

As part of the permit conditions, this letter has been forwarded to:

Chicago Department of Public Health  
Attention: Mr. Terry Sheahan  
333 South State Street, Room 200  
Chicago, Illinois 60604

Please contact us with any questions you have regarding this letter or the reported results.

Regards,



Kyle Korczak  
Geologist



Steven C. Kornder, Ph.D.  
Senior Project Geoscientist

cc: Terry Sheahan, Chicago Department of Public Health  
Verneta Simon, USEPA

Attachments: Permit  
Annotated Drawing and Sketch  
Photos

**PERMIT**



DEPARTMENT OF PUBLIC HEALTH  
CITY OF CHICAGO

**(STREETERVILLE Right-of-Way)**

Notice is hereby given that the site you have requested a permit for is recorded with the City of Chicago Department of Public Health (CDPH) as potentially having environmental contamination on the site and adjacent right-of way. This environmental contamination could present a threat to human health and safety in connection with work performed at the site, or in the adjacent right-of-way, if proper safeguards are not employed.

A file containing detailed information regarding the aforementioned environmental contamination is available for review at CDPH at 333 S. State St., Room 200, Chicago, Illinois 60604 during normal business hours (8:30AM-4:30PM, Monday through Friday). Contact (312) 745-3152 for an appointment. This file must be reviewed and the remainder of this form completed before the permit can be issued if the ground is exposed or excavated. **Please note that for some locations, additional health and safety procedures may be required by law.**

Please complete the following:

I have reviewed and understand the documents, maintained by CDPH, regarding environmental contamination of the site and adjacent right-of-way. Further, I will ensure that all work at the subject site and adjacent right-of-way, and any monitoring required including but not limited to radiation monitoring, will be performed in a manner that is protective of human health and the environment and in compliance with all applicable local, state, and federal laws, rules, and regulations, especially those pertaining to worker safety and waste management. I will ensure that the results of any radiation monitoring and/or surveying conducted shall be provided to the CDPH and the United States Environmental Protection Agency **within two (2) weeks of their completion.** If any elevated levels of radioactive material are detected, I will immediately contact the United States Environmental Protection Agency at (800) 424-8802.

Applicant Name (print): Alex Ohlson Signature: Alex Ohlson

Site Address and Work Location (Describe exact site location and attach map): 615 - 640 W Michigan  
101 - 155 E Ontario

Nature of Work: Install red light cameras & conduit

Company Name, Address, Phone No.: City Lights, Ltd 9993 Virginia Ave Chicago Ridge  
60445

General / Prime Contractor Name, Address, Phone No.: 773-626-9162  
*Include subcontractor information if applicable*

Safety Officer / Phone No. Steve Hoffman 708 581 7124

Radiation Contractor / Phone No. and email address (if applicable) AECOM Steve Kornder 262-515-7700

Check if City Department Work  Department Name: \_\_\_\_\_

CDOT Permit No.: DOT 201137

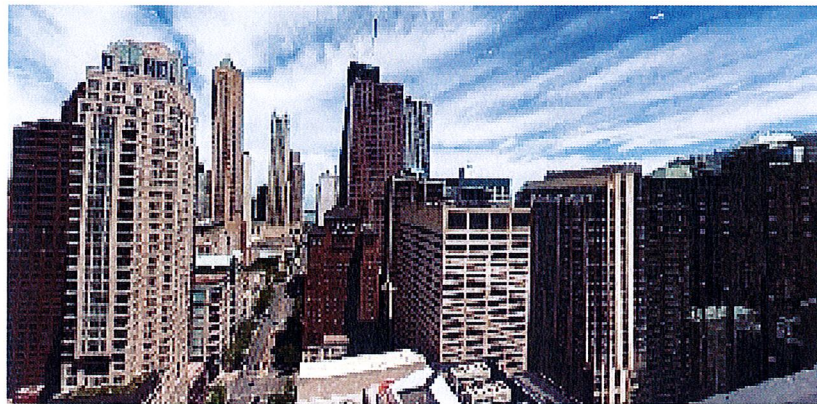
Today's Date: 12/27/17 Expected Start Date: 1/2/18 CDPH Approval / Date \_\_\_\_\_

Please return this completed form to the Chicago Department of Transportation, Division of Infrastructure Management, Public Way Permit Office, City Hall - Room 905, 121 N. LaSalle St., Chicago, Illinois 60602 during normal business hours (8:30 AM - 4:30 PM, Monday through Friday)

For CDPH Use Only



# Google Maps Michigan & Ontario



## Michigan & Ontario

Stop ID: 1124

Bus Station

Chicago, IL 60611

Buses

- |   |    |     |     |     |     |     |     |     |     |     |     |
|---|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3 | 26 | 125 | 143 | 146 | 147 | 148 | 151 | 850 | 851 | 855 | 856 |
|---|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Departure board

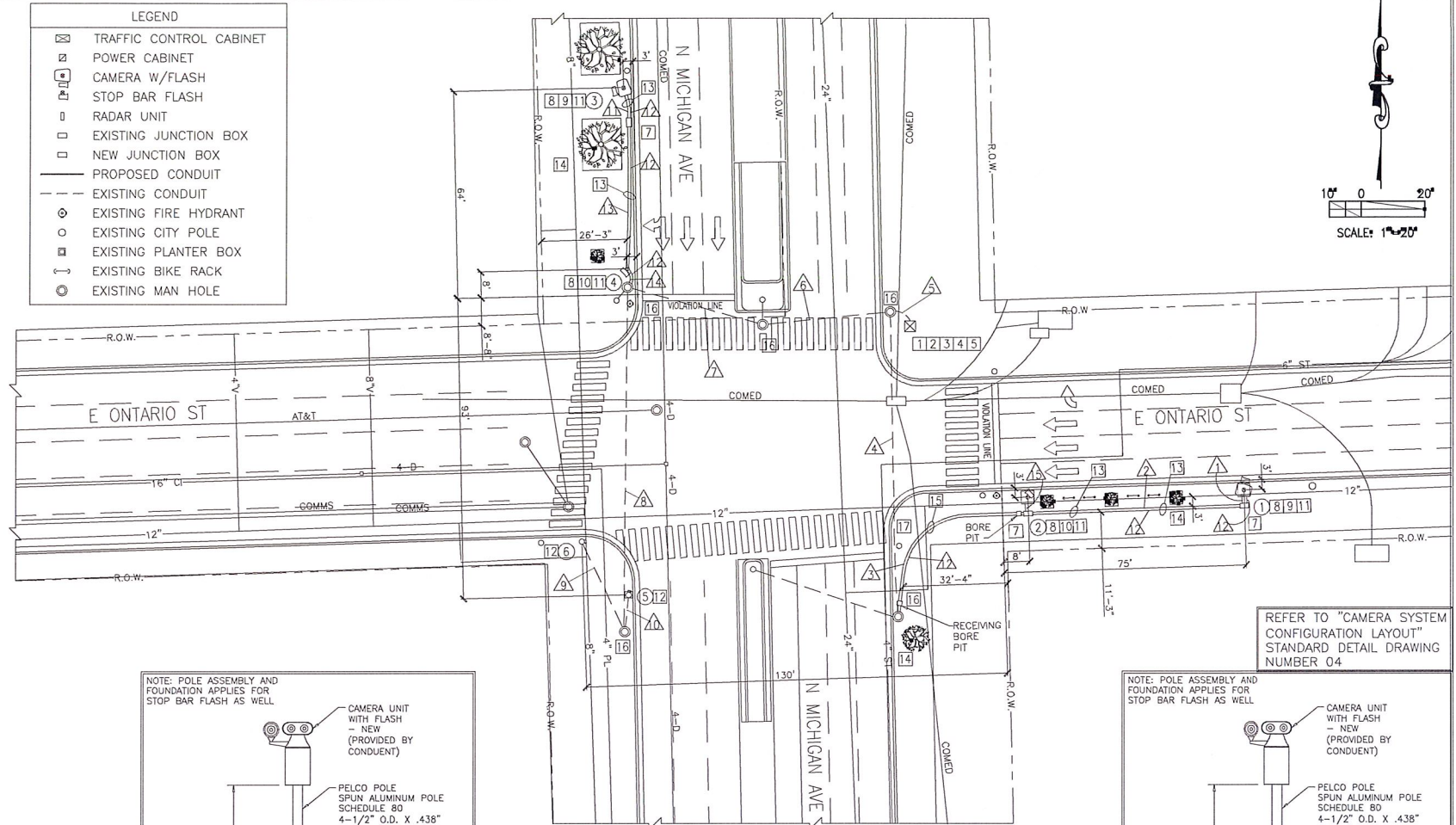
pacebus.com  
transitchicago.com - Ticket prices



# CONSTRUCTION NOTES

- 1 EXISTING TRAFFIC CONTROL CABINET.
- 2 CONTRACTOR SHALL TERMINATE ALL POWER CIRCUITS INTO TRAFFIC CONTROL CABINET.
- 3 USE EXISTING IN LINE FUSE HOLDER ON RED, AMBER AND GREEN PHASE CONDUCTOR WITH 5 AMP FUSE INSIDE CITY TRAFFIC CABINET.
- 4 USE EXISTING 40 AMP CIRCUIT BREAKER IN EXISTING POWER PANEL FOR 120V SUPPLY TO CAMERA POLE JUNCTION BOX.
- 5 TERMINATE (1) 7/C #14 WIRE TO RED, AMBER, GREEN PHASE AND NEUTRAL INSIDE TRAFFIC CABINET FOR EACH APPROACH. SEE CONDUCTOR SCHEDULE FOR APPROACHES.
- 6 EXISTING JUNCTION BOX.
- 7 NEW JUNCTION BOX.
- 8 INSTALL FOUNDATION AND POLE FOR CONDUENT EQUIPMENT. SEE DRAWING FOR LOCATION. SEE POLE DETAIL FOR POLE INSTALLATION.
- 9 INSTALL CAMERA WITH FLASH ENCLOSURE ON NEW 10' POLE ASSEMBLY.
- 10 INSTALL FLASH UNIT ON NEW 10' POLE ASSEMBLY.
- 11 CONNECT POLE TO SOLID BARE BOND GROUND, CREATING ONE SYSTEM GROUND.
- 12 INSTALL RADAR UNIT A MINIMUM OF 13' FROM GROUND LEVEL ON EXISTING TRAFFIC SIGNAL POLE.
- 13 INSTALL 2" CONDUIT BY MEANS OF OPEN TRENCH (SEE TRENCH DETAIL).
- 14 LANDSCAPED AREA TO BE UNDISTURBED.
- 15 INSTALL 2" CONDUIT BY MEANS OF DIRECTIONAL BORE.
- 16 EXISTING MAN HOLE.
- 17 CONTRACTOR SHALL MAINTAIN AN 18" CLEARANCE FROM ANY COMED FACILITY.

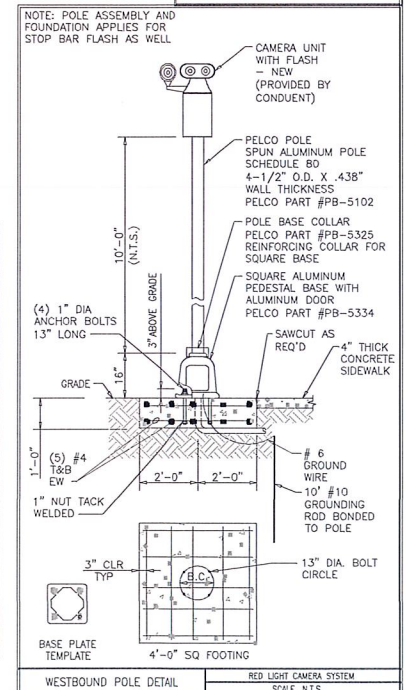
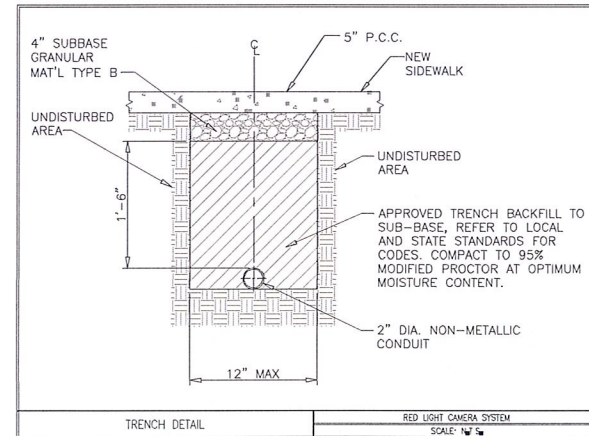
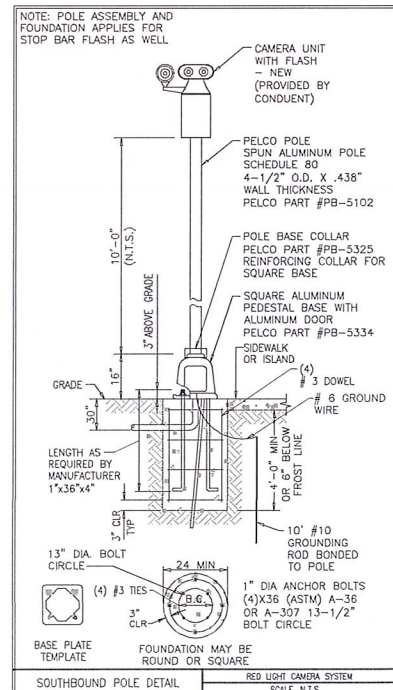
LEGEND	
	TRAFFIC CONTROL CABINET
	POWER CABINET
	CAMERA W/FLASH
	STOP BAR FLASH
	RADAR UNIT
	EXISTING JUNCTION BOX
	NEW JUNCTION BOX
	PROPOSED CONDUIT
	EXISTING CONDUIT
	EXISTING FIRE HYDRANT
	EXISTING CITY POLE
	EXISTING PLANTER BOX
	EXISTING BIKE RACK
	EXISTING MAN HOLE



POLE SCHEDULE			
NO.	TYPE	HEIGHT	NEW/EXISTING
1	CONDUENT	10'	NEW
2	CONDUENT	10'	NEW
3	CONDUENT	10'	NEW
4	CONDUENT	10'	NEW
5	SIGNAL	-	EXISTING
6	SIGNAL	-	EXISTING

**MUST VERIFY EXISTING UTILITY INFO AND LOCATION**

CONDUCTORS	SOURCE	AWG #	CONDUITS															TERMINATION
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
POLE 1 (4 CABLE CONDUCTOR)	#18	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 2 FLASH UNIT
POLE 1	#14	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 2 FLASH UNIT
POLE 1 (4 CABLE CONDUCTOR)	#18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	POLE 5 RADAR UNIT
POLE 1	CAT5a	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 2 FLASH UNIT
CITY POWER PEDESTAL (120V)	#8	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	POLE 1
TRAFFIC SIGNAL RED, AMBER, GREEN PHASE (7 CABLE CONDUCTOR)	#14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	POLE 1
POLE 3 (4 CABLE CONDUCTOR)	#18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 4 FLASH UNIT
POLE 3	#14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 4 FLASH UNIT
POLE 3 (4 CABLE CONDUCTOR)	#18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 5 RADAR UNIT
POLE 3	CAT5a	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	POLE 2 FLASH UNIT
CITY POWER PEDESTAL (120V)	#8	-	-	-	-	3	3	3	-	-	-	-	-	-	-	-	-	POLE 3
TRAFFIC SIGNAL RED, AMBER, GREEN PHASE (7 CABLE CONDUCTOR)	#14	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	POLE 3
SOLID BARE BOND	#6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLES 1,2,3,4
TELCO POINT OF SERVICE (TBD)	TBD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 1
TELCO POINT OF SERVICE (TBD)	TBD	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 3
CONDUIT SIZE (INCHES)		2"	2"	2"	-	-	-	-	-	-	-	-	-	-	2"	2"	2"	2"
NEW/EXISTING CONDUIT		N	N	N	E	E	E	E	E	E	E	E	E	N	N	N	N	N



SEAL	DATE	INITIAL	REVISIONS	RELAY SCHEDULE	DESIGNED BY: QH	DEPARTMENT: PUBLIC WORKS (OPER)	APPROVED BY:	CITY OF: CHICAGO	DRAWING NO: 02
					CHECKED BY: JZ	DEPARTMENT: PUBLIC WORKS (MATER)		TITLE: N MICHIGAN AVE SB @ E ONTARIO ST WB	
					RECOMMENDED BY: JZ	DEPARTMENT: PUBLIC WORKS (TRAF)			
					PREP BY: JZ	DEPARTMENT: PUBLIC WORKS (TRAF)			

## ANNOTATED DRAWING AND SKETCH

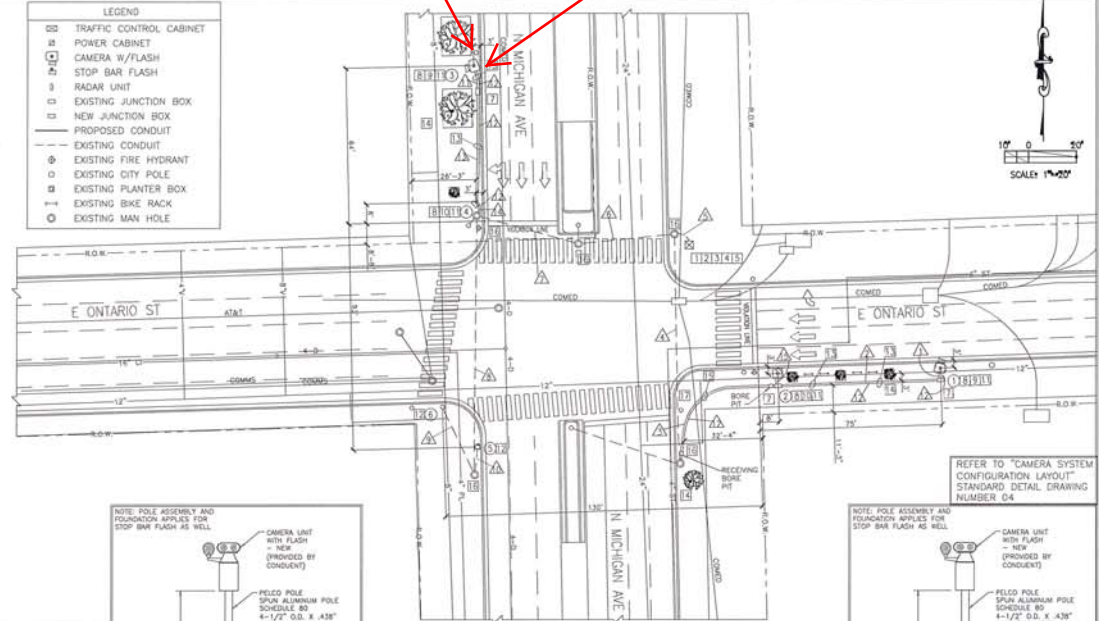


**CONSTRUCTION NOTES**

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- 5) TERMINATE (1) 7/C #14 WIRE TO RED, AMBER, GREEN PHASE AND NEUTRAL INSIDE TRAFFIC CABINET FOR EACH APPROACH. SEE CONDUCTOR SCHEDULE FOR APPROACHES.
- 6) EXISTING JUNCTION BOX.
- 7) NEW JUNCTION BOX.
- 8) INSTALL FOUNDATION AND POLE FOR CONDUENT EQUIPMENT. SEE DRAWING FOR LOCATION. SEE POLE DETAIL FOR POLE INSTALLATION.
- 9) INSTALL CAMERA WITH FLASH ENCLOSURE ON NEW 10' POLE ASSEMBLY.
- 10) INSTALL FLASH UNIT ON NEW 10' POLE ASSEMBLY.
- 11) CONNECT POLE TO SOLID BARE BOND GROUND, CREATING ONE SYSTEM GROUND.
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- 14) LANDSCAPED AREA TO BE UNDISTURBED.
- 15) INSTALL 2" CONDUIT BY MEANS OF DIRECTIONAL BORE.
- 16) EXISTING MAN HOLE.
- 17) CONTRACTOR SHALL MAINTAIN AN 18" CLEARANCE FROM ANY COMED FACILITY.

**LEGEND**

- TRAFFIC CONTROL CABINET
- POWER CABINET
- CAMERA W/FLASH
- STOP BAR FLASH
- RADAR UNIT
- EXISTING JUNCTION BOX
- NEW JUNCTION BOX
- PROPOSED CONDUIT
- - - EXISTING CONDUIT
- ⊕ EXISTING FIRE HYDRANT
- ⊙ EXISTING CITY POLE
- ⊙ EXISTING PLANTER BOX
- ⊙ EXISTING BIKE RACK
- ⊙ EXISTING MAN HOLE

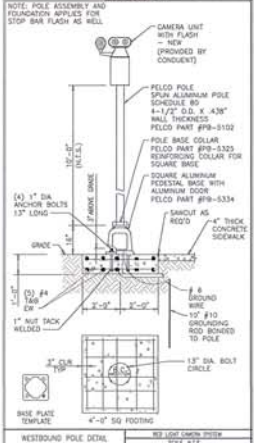
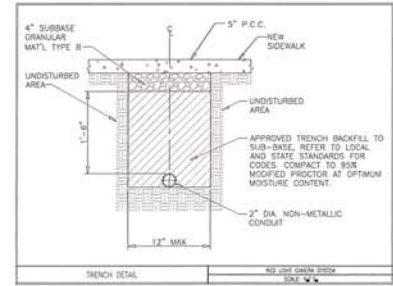
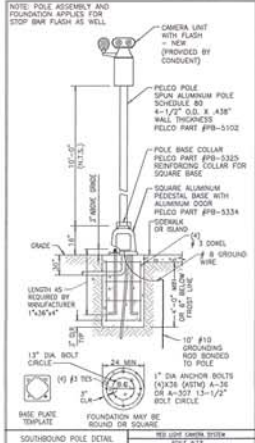


**POLE SCHEDULE**

NO.	TYPE	HEIGHT	NEW/ EXISTING
1	CONDUENT	10'	NEW
2	CONDUENT	10'	NEW
3	CONDUENT	10'	NEW
4	CONDUENT	10'	NEW
5	SIGNAL	-	EXISTING
6	SIGNAL	-	EXISTING

**MUST VERIFY EXISTING UTILITY INFO AND LOCATION**

CONDUCTORS	SOURCE	AHT #	CONDUITS														REMARKS	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14		15
POLE 1 (4 CABLE CONDUCTOR)	#18	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 1 FLASH UNIT
POLE 1	#14	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 1 FLASH UNIT
POLE 1 (4 CABLE CONDUCTOR)	#18	1	1	1	1	-	-	1	1	1	1	-	-	-	-	-	-	POLE 1 FLASH UNIT
POLE 1	64754	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 1 FLASH UNIT
CITY POWER PEDESTAL (120V)	#8	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	POLE 1
TRAFFIC SIGNAL RED, AMBER, GREEN PHASE PHASE II CABLE CONDUCTOR	#14	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	POLE 1
POLE 3 (4 CABLE CONDUCTOR)	#18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 3 FLASH UNIT
POLE 3	#14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 3 FLASH UNIT
POLE 3 (4 CABLE CONDUCTOR)	#18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 3 FLASH UNIT
POLE 3	64754	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 3 FLASH UNIT
CITY POWER PEDESTAL (120V)	#8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 3
TRAFFIC SIGNAL RED, AMBER, GREEN PHASE PHASE II CABLE CONDUCTOR	#14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 1
SOLID BARE BOND	#8	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 3
TELCO POINT OF SERVICE (TPO)	T80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 1
TELCO POINT OF SERVICE (TPO)	T80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	POLE 3
CONDUIT SIZE (INCHES)		2"	2"	2"	-	-	-	-	-	-	-	2"	2"	2"	2"	2"	2"	
NEW/EXISTING CONDUIT		N	N	N	E	E	E	E	E	E	N	N	N	N	N	N	N	



**REVISIONS**

NO.	DATE	BY	REVISION

**CONDUENT**

1510 WASHINGTON CENTER DRIVE  
SEANONIA, MO 65209

DESIGNED BY	REVIEWED BY	DATE

**CHICAGO**

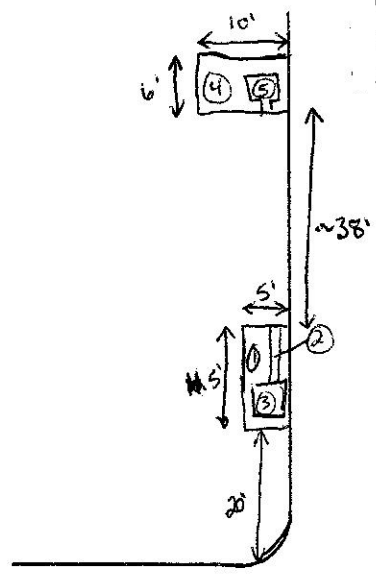
RED LIGHT PHOTO ENFORCEMENT

**TITLE: N MICHIGAN AVE SB @ E ONTARIO ST WB**

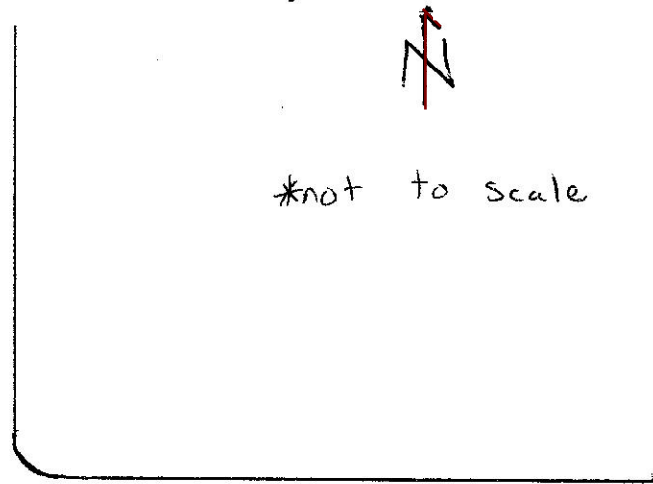
02



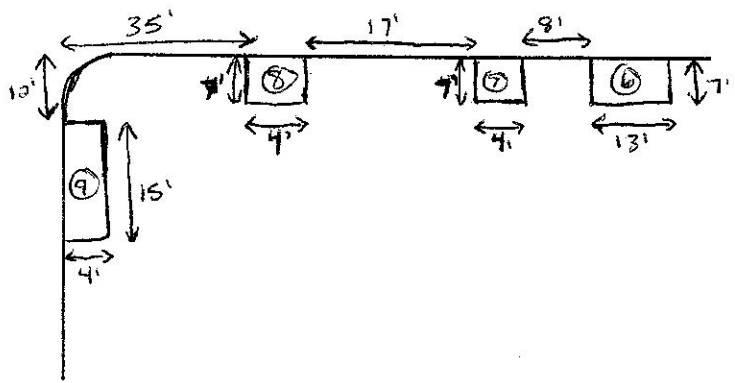
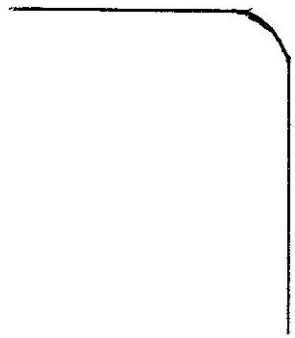
JOB TITLE City Lights 615-40 N Michigan Ave  
 JOB NO. 60513867.200 CALCULATION NO. \_\_\_\_\_  
 ORIGINATOR K. Kowczak DATE 1/23/18  
 REVIEWER S. Kornel DATE 1/23/18  
 SCALE not to scale SHEET NO. 1 OF 1



N. Michigan Ave.



E. Ontario St.



Depth	CPM
① Surface (beneath concrete)	1,500 - 2,500
② Surface (beneath concrete)	1,500 - 2,500
18"	2,200 - 2,800
30"	2,100 - 2,800
③ Surface (beneath concrete)	1,500 - 2,500
18"	2,200 - 2,800
30"	2,100 - 3,000
52-60" (spoil)	1,700 - 2,600
④ Surface (beneath concrete)	2,100 - 4,000
⑤ Surface (beneath concrete)	2,100 - 2,800
6"-5' (spoil in buckets)	2,000 - 4,400
6"-5' (spoil pile)	2,600 - 5,200

Depth	CPM
⑥ Surface (beneath concrete)	1,500 - 2,200
⑦ Surface (beneath conc.)	1,400 - 1,800
18"	1,400 - 1,800
30"	1,800 - 2,200
⑧ Surface (beneath conc.)	1,600 - 2,600
18"	2,200 - 2,300
⑨ Surface (beneath conc.)	1,700 - 2,300
18"	1,800 - 2,600
30"	2,000 - 2,600

Ludlum 2221 SN 326720  
 Shielded Co. AF 7,293 cpm  
 Background 3,100 cpm

## PHOTOS

626 N Michigan Ave



Light Pole

Traffic camera  
excavation location

Information sign in area  
identified previously as  
having elevated gamma  
readings.



626 N Michigan Ave – Traffic Camera Foundation January 9, 2018

