STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0684-01	2019	7	109

From Device No. — To Device No. — Device Center to Center Distance — Size, Color, and Number of Conduits in Trench — Size, Color, and Number of Conduits in Bore — Size and Number of Conduits on Structure — Fiber Optic Cable Fiber Count — Total Length of Category 6 Cable — Power Cable Size

CONDUIT AND CABLE ROUTING TABLE

CONDUIT (FT)																							CABLE (FT)										
			TRENCHED											BORED									ON STRUCTURE	COMM.							COMM.	POWER
			1						2		3	ST		5					6		7	SB		8	FIBER OPTIC								
			1.25 IN						2 IN		3 IN	SPARE 2 IN		1.25 IN					2 IN		3 IN	SPARE 2 IN		2 IN RMC	(12)	(48)	(96)	(144)	(144 A)	(288)	(PT)	CAT 6 CABLE	3-#0 AWG
FROM	TO	CTR TO CTR DISTANCE (FT)	GREEN	ORANGE	YELLOW	WHITE	BLACK	GRAY	GREEN	ORANGE	ORANGE	BLACK	GRAY	GREEN	ORANGE	YELLOW	WHITE	BLACK	GRAY	GREEN	ORANGE	ORANGE	BLACK	GRAY		12 SMFO	48 SMFO	96 SMFO	144 SMFO	144 SMFO (ARMORED)	288 SMFO	12 SMFO PRETERM.		
TOTAL																																	

NOTES:

1. ALL LENGTHS IN TABLES ARE MEASURED IN FEET.
2. TRENCHED CONDUIT SHALL BE HDPE, AND CONDUIT ON STRUCTURES SHALL BE RIGID METAL (RMC), UNLESS OTHERWISE NOTED. PVC MAY BE USED IN LIEU OF HDPE FOR SHORT DISTANCES (<10').
3. CTR TO CTR HORIZONTAL DISTANCES ARE ROUNDED UP TO THE NEAREST WHOLE FOOT. GRADE ELEVATION CHANGES ARE NOT ACCOMMODATED IN CABLE QUANTITIES AND ARE INCIDENTAL.
4. TOTAL LENGTHS OF CONDUIT AND CABLE INCLUDE ADDITIONAL QUANTITIES AS GIVEN ON THIS SHEET, AND ARE ROUNDED UP TO THE NEAREST WHOLE FOOT.
5. AFTER PULLING FIBER OPTIC CABLE THROUGH THE BOXES, THE CONTRACTOR SHALL CUT OFF AND DISCARD THE FIRST 10 FT OF THE CABLE. THIS 10 FT IS CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
6. ALL CONDUIT SIZES ARE INDUSTRY STANDARD ENGLISH SIZE CONDUIT DESIGNATED BY THEIR ROUNDED NOMINAL INCH (IN) DIAMETER EQUIVALENT.
7. GROUND WIRE IS REQUIRED TO BE INSTALLED. THE NUMBER OF CONDUCTORS LISTED IN THE TABLE DOES NOT INCLUDE THE REQUIRED GROUND WIRE. GROUND WIRE IS CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.
8. ALL ETHERNET CABLE SHALL BE CATEGORY 6 CABLE UNLESS SPECIFIED OTHERWISE IN THE PLAN. CABLE SHALL BE GEL-FREE.
9. PRETERMINATED FIBER CONNECTOR INCLUDES MANUFACTURE SUPPLIED 12 SMFO PIGTAIL WITH ENOUGH LENGTH TO CONNECT TO THE SPLICE VAULT. THE UNIT COST FOR 12 SMFO SHALL BE SUBSIDIARY TO THE PRETERMINATED FIBER CONNECTOR. CONTRACTOR SHALL FIELD VERIFY LENGTH PRIOR TO ORDERING PRETERMINATED FIBER CONNECTOR WITH PIGTAIL.
10. ARMORED CABLE, WHERE USED, SHALL BE SINGLE-ARMORED CABLE AND MEET ALL APPLICABLE SPECIFICATIONS OUTLINED IN SECTION 15.0 OF THE ITS EQUIPMENT SPECIFICATIONS.
11. IN AREAS WITH NEW CONDUIT, KDOT & CITY OF WICHITA FIBER SHALL BE LOCATED IN SEPARATE CONDUITS. KDOT CONDUIT SHALL BE GREEN & CITY OF WICHITA CONDUIT SHALL BE ORANGE.
12. IN AREAS WITH EXISTING CONDUIT OR DUCT BANKS, KDOT & CITY OF WICHITA INSTALLED FIBER SHALL SHARE THE SAME EXISTING CONDUIT(S) OR DUCT BANKS.
13. FIBER SHALL BE LABELED WITH THE RESPECTIVE AGENCY AT ALL SPLICE VAULTS, SERVICE BOXS, ETC. REGARDLESS OF BEING LOCATED IN NEW OR EXISTING STRUCTURES.

ADDITIONAL CONDUIT QUANTITIES INCLUDED IN TABLE

3 FT AT EACH POWER SUPPLY ASSEMBLY (LOAD AND SERVICE SIDE)
3 FT AT EACH ITS CABINET ASSEMBLY
3 FT AT EACH CCTV
3 FT AT EACH DMS
3 FT AT EACH POWER POLE OR POWER PEDESTAL FOR POWER CO. SERVICE

CONDUIT SYMBOL LEGEND

- 1 — 1.25 IN (HDPE) — TRENCHED
- 2 — 2 IN (HDPE) — TRENCHED
- 3 — 3 IN (HDPE) — TRENCHED
- ST — 2 IN SPARE (HDPE) — TRENCHED
- 5 — 1.25 IN (HDPE) — BORED
- 6 — 2 IN (HDPE) — BORED
- 7 — 3 IN (HDPE) — BORED
- SB — 2 IN SPARE (HDPE) — BORED
- 8 — 2 IN RMC — ON STRUCTURE

ADDITIONAL CABLE QUANTITIES INCLUDED IN TABLE

POWER CABLES

36 FT AT EACH TYPE 1 POWER SUPPLY ASSEMBLY
8 FT AT EACH TYPE 2 POWER SUPPLY ASSEMBLY (LOAD SIDE)
8 FT AT EACH TYPE 2 POWER SUPPLY ASSEMBLY (SERVICE SIDE) PLUS DISTANCE TO POWER CO. SERVICE PLUS 36 FT IF SERVICE POLE, OR 8 FT IF SERVICE PEDESTAL
8 FT AT EACH TRANSFORMER
8 FT COIL AT EACH ITS CABINET ASSEMBLY
6 FT COIL AT EACH PULL BOX
50 FT AT EACH OVERHEAD DMS
25 FT AT EACH ROADSIDE DMS

FIBER OPTIC TRUNKLINE CABLES (XX SMFO)

50 FT FROM EACH DIRECTION AT EACH SPLICE VAULT WHEN SPLICING
100 FT AT EACH SPLICE VAULT WHEN NOT SPLICING
25 FT AT EACH PULL BOX (WHEN NOT SPLICING)
200 FT (MINIMUM) BETWEEN CITY BLOCKS WHEN USING EXISTING CONDUIT & MANHOLES.

FIBER OPTIC BRANCH CABLES (XX SMFO)

50 FT AT EACH ITS CABINET LOCATION
- STORE 40 FT AT THE PULL BOX OR SPLICE VAULT NEAREST ITS CABINET
- STORE 10 FT AT ITS CABINET

100 FT FROM EACH DIRECTION AT EACH KDOT SPLICE VAULT WHEN SPLICING
25 FT AT EACH PULL BOX OR SPLICE VAULT WHEN NOT SPLICING

CATEGORY 6 CABLE

8 FT COIL AT EACH ITS CABINET
3 FT COIL AT PULL BOX WHERE SPLICED TO LOOP WIRE
6 FT COIL AT EACH MID-RUN PULL BOX

CCTV/DMS/VDS CABLES

8 FT COIL AT EACH ITS CABINET
3 FT AT DEVICE
6 FT COIL AT EACH PULL BOX
POLE HEIGHT (VARIES) AT EACH POLE

ITS EQUIPMENT/CABINET LABELING EXAMPLE

SITE NAME / INTERSECTION
SWITCH IP ADDRESS & VLAN
SWITCH PORT ASSIGNMENTS/CONFIGURATIONS/VLAN

DEVICE IP ADDRESS(S)
DEVICE IP ADDRESS(S)
DEVICE IP ADDRESS(S)

NOTES

EACH SITE LOCATION SHALL BE APPROPRIATELY LABELED WITH SITE AND DEVICE INFORMATION. SEE ITS EQUIPMENT SPECIFICATIONS, INCLUDING SECTION 10.0 FOR ADDITIONAL DETAILS.

DEVICE ID CODE LEGEND

SV-A-01 — SV - A - 01
- SV: Device: PB - Pull Box; SV - Splice Vault; HB - Fiber Hub
- A: Route: A
- 01: *Splice Vault No.

*EX01 REPRESENTS AN EXISTING STRUCTURE/SPLICE VAULT USED TO IDENTIFY A LOCATION ON THE FIBER OPTIC SCHEMATICS. NOT ALL EXISTING STRUCTURES OR SPLICE VAULTS ARE CALLED OUT.

- 2 ST (96) — KDOT CONDUIT/FIBER
- 2 ST (96) — CITY OF WICHITA CONDUIT/FIBER

KDOT CONDUIT SHALL BE GREEN & CITY OF WICHITA CONDUIT SHALL BE ORANGE. SPARE CONDUITS SHALL BE BLACK AND GRAY, RESPECTIVELY. VERIFY CONDUIT COLORS WITH ENGINEER PRIOR TO PLACEMENT.

ALL CONDUITS TO TRAFFIC SIGNALS, INCLUDING WITH PRETERMINATED FIBER, IS CITY OF WICHITA AND SHALL BE ORANGE IN COLOR.

DASHED DESIGNATIONS SIMILAR TO BELOW SHALL BE ASSOCIATED WITH ADD. ALT.

(96) — FIBER ASSOCIATED WITH ADD. ALT.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

CABLE, CONDUIT, AND DEVICE LEGEND FOR PROJECT INSTALLATIONS

~~ITS-D03A~~ VERSION DATE: 05-29-17

APP'D			
DESIGNED	DETAILED	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.

Plotted : 23-JUL-2019 11:13
Drawn By : Road
File : ITS-D03A.dgn