

TERMINATE FIBER OPTIC CABLE

FIBER HUB OR EQUIPMENT CABINET- (LOCATION VARIES)

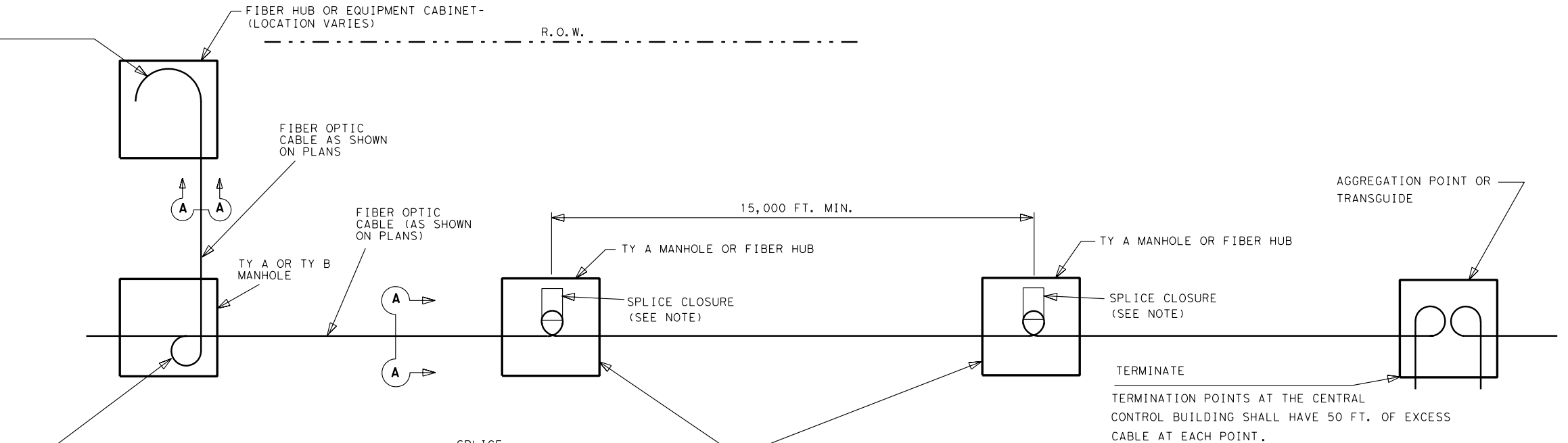
R. O. W.

NOTE:

**SPLICE CLOSURE**

- SPLICE CLOSURE SHALL BE DESIGNED TO SEAL, BOND, ANCHOR, AND PROTECT FIBER OPTIC CABLE SPLICES. CLOSURE SHALL BE DESIGNED TO HANDLE MECHANICAL AND FUSION-TYPE SPLICES. SPLICE CLOSURE SHALL HAVE A MINIMUM OF SIX PORTS.
- SPLICE CLOSURE SHALL BE WATERTIGHT WITH AT LEAST TWO PROTECTION BARRIERS AGAINST WATER. CLOSURE SHALL BE CONSTRUCTED OF A THERMO-PLASTIC STAND-ALONE ENVELOPE WITH CORROSION RESISTANT HARDWARE. SPLICE CLOSURE SHALL HAVE A MINIMUM CAPACITY OF UP TO 144 SPLICES.
- SPLICE CLOSURE SHALL BE DESIGNED FOR UNDERGROUND PLACEMENT WITH A SEALING SYSTEM PROVIDING PROTECTION REQUIRED TO MEET A 10 FT. WATER HEAD REQUIREMENT.
- SPLICE CLOSURE INCLUDING CLOSURE ORGANIZER TRAYS AND SPLICING SHALL MEET BELLCORE SPECIFICATIONS.
- SPLICE CLOSURE SHALL REQUIRE NO HEAT, SPECIAL TOOLS, OR ELECTRICAL POWER TO SEAL CLOSURE.
- CONTRACTOR SHALL SUBMIT FIBER OPTIC SPLICE CLOSURES FOR APPROVAL PRIOR TO ORDERING MATERIALS.
- SPLICE CLOSURE SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS AND NO DIRECT PAYMENT FOR LABOR OR MATERIALS SHALL BE MADE.

- 50 FT. OF EXCESS CABLE SHALL BE PLACED IN EVERY MANHOLE.
- CABLE SHALL BE RACKED TO SIDE OF MANHOLE.



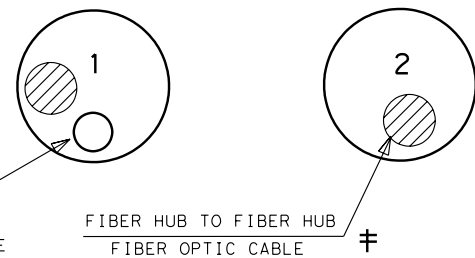
**SPLICE**

- SPLICE SHALL NOT BE AT LESS THAN 15,000 FT. INTERVALS UNLESS APPROVED BY THE ENGINEER.
- SPLICE SHALL BE A WATERTIGHT CLOSURE IF THE SPLICE IS IN MANHOLES AT LOCATIONS WHERE FIBER HUBS DO NOT EXIST.
- SPLICE LOCATION SHALL HAVE AMOUNT OF EXCESS CABLE SLACK AS SHOWN ON PLANS
- CABLE SHALL BE RACKED TO SIDE OF MANHOLE.

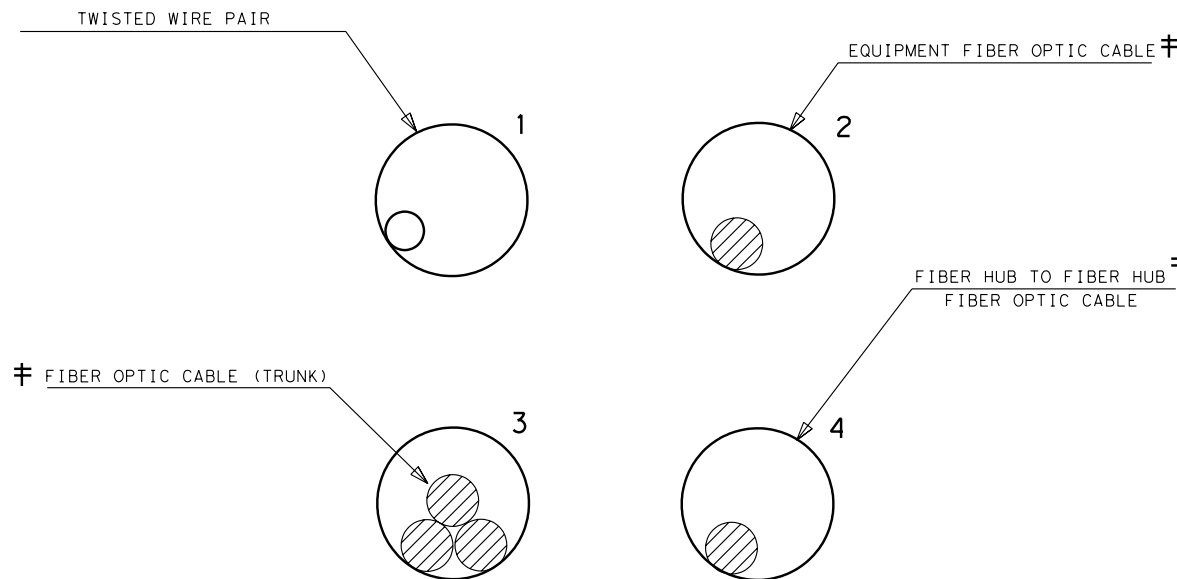
**GENERAL NOTES:**

1. SUBMIT ALL SPLICE LOCATIONS TO ENGINEER FOR APPROVAL BEFORE BEGINNING WORK.
2. CLEARLY LABEL ALL CABLE IN EACH MANHOLE AND GROUND BOX.
3. INSTALL PULL ROPE IN ALL CONDUIT HAVING TENSILE STRENGTH OF 800 LBS. MIN. AND USE COLOR-CODED PULL ROPES FOR CONDUIT IDENTIFICATION, SUBSIDIARY TO THE VARIOUS BID ITEMS.
4. ALL CABLE SHALL HAVE SIX (6) OR TWELVE (12) FIBERS PER BUNDLE. COLOR CODE EACH BUNDLE. INSTALL SO THAT GROUPS OF FIBERS CAN BE EASILY IDENTIFIED AND REMOVED FROM THE CABLE WITHOUT DAMAGE TO THE REMAINING FIBERS.
5. TERMINATE FIBERS AT PANELS WITH ST CONNECTORS.
6. ALL FIBER OPTIC CABLE SHALL INCLUDE, BUT NOT BE LIMITED TO THE PANELS, SPLICE TRAYS, ST CONNECTORS, INTERCONNECT CABLES, BARREL BUILD-OUT AND SPLICES (FUSION).
7. ALL CONDUIT SHALL BE CAULKED AROUND THE TOP OF THE CABLE DUCTS WITH B CAULKING COMPOUND OR APPROVED EQUAL TO SEAL CLEARANCE BETWEEN THE CABLES AND DUCTS. CONDUIT PLUGS SHALL BE PLACED IN THE VACANT CONDUIT DUCTS.
8. ALL INCIDENTAL EQUIPMENT SHALL BE SUBSIDIARY TO THE VARIOUS BID ITEMS.
9. ALL FIBER OPTIC CABLE SHALL BE IDENTIFIED WITH TAGS WHICH SHALL BE STAMPED WITH HWY #, CABLE COUNT AND CABLE TYPE (E.G.: IH37 48 FOC-LUCENT). 6-STRAND FIBER OPTIC CABLE FOR FIBER HUBS SHALL BE LABELED AS TO FIBER HUBS IT CONNECTS TO, CABLE COUNT AND CABLE TYPE (E.G.: FH55 6 FOC-LUCENT). 12 STRAND FIBER OPTIC CABLE FOR CCTV'S SHALL BE LABELED AS TO CCTV IT CONNECTS TO, CABLE COUNT AND CABLE TYPE (E.G.: CCTV0037N136.333 12 FOC-LUCENT). TAGS SHALL BE 15 MIL PVC, LAMINATED WITH 2 MIL POLYESTER (-50F TO 200F). INFO SHALL BE HOT STAMPED ON TAGS.
10. PROVIDE A LIST SHOWING CABLE NUMBERS AND HIGHWAY THAT CABLE SERVICES.
11. INSTALL A SINGLE 1/8 #14 AWG INSULATED WIRE IN ALL CONDUIT RUNS THAT DO NOT HAVE COPPER WIRES. TERMINATE IN GROUND BOXES OR MANHOLES AT EACH END OF RUN.

TERMINATE  
TERMINATION POINTS AT THE CENTRAL CONTROL BUILDING SHALL HAVE 50 FT. OF EXCESS CABLE AT EACH POINT.



**DETAIL A-A**  
(2 CONDUITS)



**DETAIL A-A**  
(4 CONDUITS)

≠ NUMBER OF FIBER CABLE SHALL BE AS SHOWN ON THE PLANS.

**FIBER TYPES**

NOTE: 12 OR 6 FIBERS PER BUNDLE. NUMBER OF FIBERS PER CABLE SHALL BE AS FOLLOWS:

TYPE A: 144 FIBER COUNT	TYPE G: 24 FIBER COUNT
TYPE B: 72 FIBER COUNT	TYPE H: 84 FIBER COUNT
TYPE C: 36 FIBER COUNT	TYPE I: 96 FIBER COUNT
TYPE D: 12 FIBER COUNT	TYPE J: 336 FIBER COUNT
TYPE E: 6 FIBER COUNT	TYPE K: 216 FIBER COUNT
TYPE F: 48 FIBER COUNT	TYPE L: 288 FIBER COUNT

\$TIME \$  
\$DATE \$  
\$FILES

ACC:  
FILE: .DGN

LEVELS DISPLAYED  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63  
FTM: \standard\fordet.dgn

REAR: [317310]TRAFFIC.DGN; 1  
SPL DES

**FIBER OPTIC CABLE MISCELLANEOUS DETAILS**

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REVISION DATE	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
05-11-99	6		
12-07-98	STATE	DIST.	COUNTY
09-11-97	TEXAS	15	BEXAR
07-11-97	03-30-04	CONT.	SECT. JOB HIGHWAY NO.
07-07-97	01-15-02		
08-26-96	10-11-99		
	05-25-99		