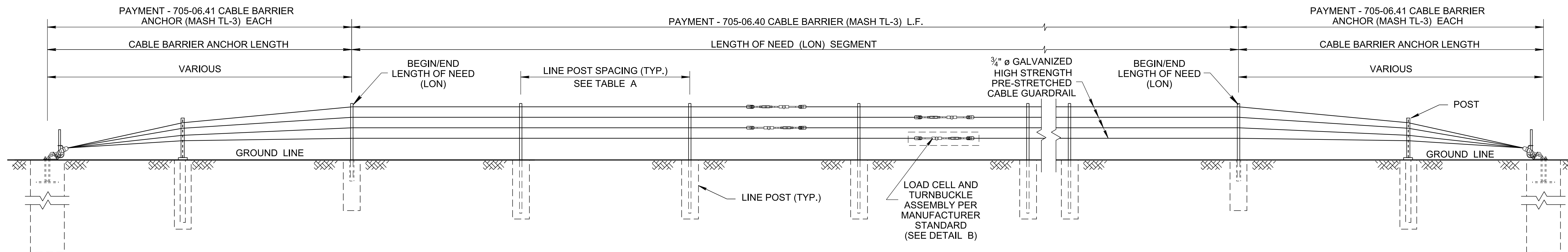
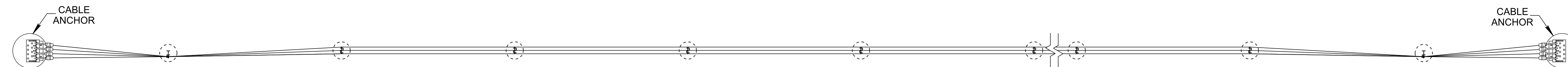


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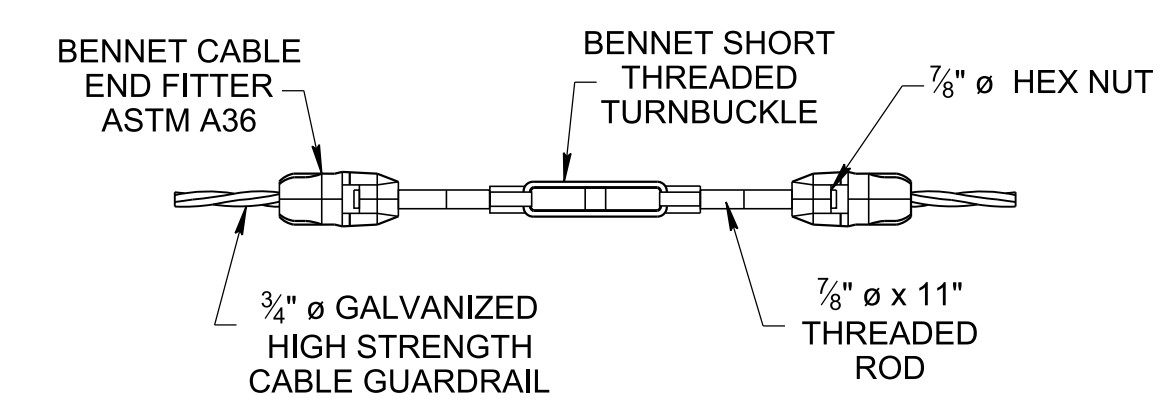
REV. 07-07-2023: REVISED ELEVATION AND PLAN VIEWS. REMOVED CABLE SPLICE AND MEDIAN CABLE BARRIER PLACEMENT DETAILS. DELETED GENERAL NOTES (B), (C) AND (N). ADJUSTED GENERAL NOTE NUMBERS AND ADDED GENERAL NOTES (B), (C), (D), (E), (F) AND (G).



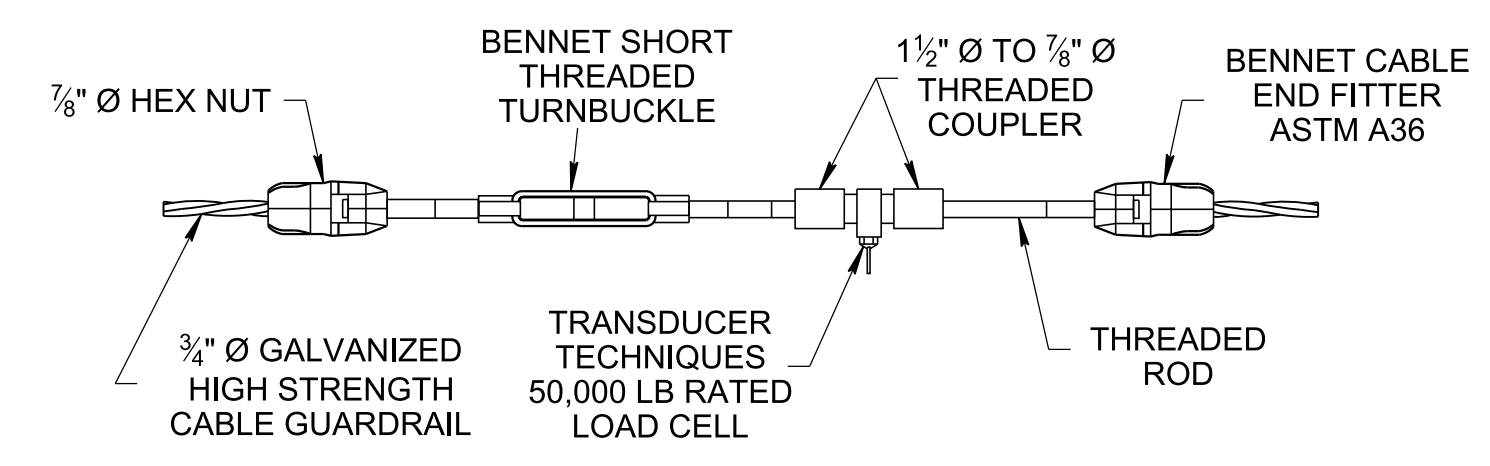
ELEVATION VIEW



PLAN VIEW



**DETAIL A
CABLE SPLICE**
(SEE NOTE (G))



**DETAIL B
CELL AND TURNBUCKLE**
(THREADED TERMINAL TURNBUCKLES AND FITTINGS SHALL BE GALVANIZED AFTER TREADING AND MEET THE REQUIREMENTS OF ASTM A-153. TURNBUCKLES SHALL BE INSTALLED AT A MAXIMUM SPACING OF 1000 FT INTERVALS.)

TABLE A	
POST SPACING (LF)	DEFLECTION (LF)
8	7
10	8.5
16*	11

* ONLY AT LOCATIONS WHERE EXPECTED SAFETY PERFORMANCE ALLOWS.

TABLE B PRE-STRETCHED CABLE TENSION CHART	
AMBIENT TEMPERATURE (° F)	MIN. REQUIRED CABLE TENSION (LB)
110	2240
100	2500
90	2760
80	3021
70	3281
60	3541
50	3801
40	4062
30	4322
20	4582
10	4842
0	5102
-10	5363
-20	5623

GENERAL NOTES

- (A) HIGH TENSION CABLE BARRIER (HTCB) SYSTEMS CONSIST OF A GENERAL HTCB SEGMENT BETWEEN BEGIN/END LENGTH OF NEED AND CONCRETE ANCHOR ASSEMBLIES OUTSIDE THE LENGTH OF NEED. THE CABLE BARRIER SYSTEM INCORPORATES FOUR EVENLY SPACED CABLES SUPPORTED BY WEAK POSTS AND INSTALLED WITHIN 4H:1V OR FLATTER FILL SLOPE ON MEDIAN DITCH.
- (B) THE HIGH TENSION CABLE BARRIER (HTCB) SYSTEM MEETING THE REQUIREMENTS OF MASH FOR A CABLE BARRIER SYSTEM, END TERMINALS AND APPURTENANCES. IT CONSIST OF PRE-TENSIONED WIRE (CABLE), STEEL LINE POSTS SET IN STEEL SOCKETS IN CONCRETE FOOTINGS, END-ANCHORS AND ALL FITTINGS MEETING MASH TL-3.
- (C) ALL MATERIALS INCLUDING WIRE ROPES, FITTINGS, POSTS, REFLECTORIZED SPACERS OR POST CAPS AND TERMINALS SHALL MEET THE APPROVED MANUFACTURER'S SPECIFICATIONS AND DETAILS.
- (D) ONLY PRODUCTS LISTED ON THE DEPARTMENT QPL SHALL BE USED.
- (E) THE WIRE ROPES SHALL BE INSTALLED AT THE ELEVATIONS AND PROPER HEIGHT AS SHOWN ON SHOP DRAWINGS. THE TENSION SHALL BE APPLIED MEETING MANUFACTURER'S RECOMMENDATION AND TABLE B.
- (F) THE LINE POSTS SHALL MEET THE MANUFACTURER'S SPECIFICATIONS. FURNISH STEEL POSTS MEETING THE REQUIREMENTS OF ASTM A-36 GALVANIZED TO ASTM A-123. POST SHALL BE DESIGNED TO HOLD THE WIRE AT THE DESIGN HEIGHT. THE POST SHALL BE INSTALLED IN GALVANIZED METAL SOCKETS OR SLEEVES CONFORMING TO THE MANUFACTURER'S DESIGN.
- (G) THE NUMBER AND LOCATION OF SPLICES WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. SPLICES SHALL BE STAGGERED AND MADE IN ACCORDANCE WITH THE RECOMMENDATION OF THE CABLE MANUFACTURER.
- (H) TABLE A INDICATES DEFLECTION TO DETERMINE THE REQUIRED POST SPACING. THE POST SPACING VARIES BETWEEN 8 FT TO 16 FT MAXIMUM PER SPECIFIED DEFLECTIONS. 8 FT POST SPACING TO BE USED WITHIN 4:1 SLOPE AND 8 FT OR 10 FT POST SPACING TO BE USED FOR 6:1 SLOPE. THE 16 FT SPACING IS NOT DESIRABLE, MAY BE USED IN THE VICINITY OF THE DITCH SLOPE. POST SPACING MAY VARY WHEN ENCOUNTERING UNDERGROUND CONFLICTS AS LONG AS THE POST SPACING REMAINS BETWEEN 8 FT TO 16 FT.
- (I) HTCB INSTALLATION LENGTH SHALL BE MINIMUM 600 FT TO MAXIMUM 5000 FT.
- (J) CABLE BARRIER SHALL BE 3/4" DIAMETER CLASS A GALVANIZED 3x7 (PRE-STRETCHED) AASHTO M30-92/ASTM A741-98 MINIMUM BREAKING STRENGTH OF 39 KIPS.
- (K) REFER TO STANDARD DRAWING S-CB-1 FOR CABLE BARRIER PLACEMENT DETAILS.
- (L) REFER TO STANDARD DRAWING RD11-TS-SERIES FOR TYPICAL ROADWAY SECTION INFORMATION.
- (M) REFER TO STANDARD DRAWING T-M-18 FOR CABLE BARRIER DELINEATOR. DELINEATOR COST TO BE INCLUDED IN THE COST OF CABLE BARRIER.
- (N) HIGH TENSION CABLE BARRIER SHALL BE PLACED ON A SMOOTH SURFACE. ADDITIONAL COMPACTED FILL MAYBE REQUIRED TO MAINTAIN THE MAXIMUM HEIGHT FROM THE BOTTOM HTCB CABLE TO THE TOP OF THE GROUND.
- (O) BARRIER INSTALLATIONS REQUIRE ADEQUATE CLEAR SPACE BETWEEN THE BARRIER AND OPPOSING HAZARDS TO ACCOMMODATE THE ANTICIPATED DYNAMIC DEFLECTION.
- (P) PAYMENT:
FURNISHING AND INSTALLING CONCRETE ANCHOR AND POST FOUNDATIONS, CABLE BARRIER HARDWARE, INCLUDING BUT NOT LIMITED TO LINE POSTS, SOCKET SLEEVES, TURNBUCKLES, TERMINAL FITTINGS, TERMINAL ANCHORAGE DEVICES, CABLE-TO-LINE POST CONNECTORS, AND SPLICE FITTINGS HARDWARE INCLUDING THREADED RODS, NUTS AND BOLTS, WASHERS AND ALL PLATES SHALL BE PAID UNDER HIGH TENSION CABLE BARRIER ITEM NUMBERS.

PAY ITEMS FOR HIGH TENSION CABLE BARRIER WILL BE UNDER THE FOLLOWING ITEM NUMBERS:

705-06.40 CABLE BARRIER (MASH TL-3) L.F.
705-06.41 CABLE BARRIER ANCHOR (MASH TL-3) EACH

NOT TO SCALE

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

HIGH TENSION
CABLE BARRIER

06-03-2021

S-CB-2