

**TRAFFIC OPERATIONS GENERAL  
CONSTRUCTION NOTES:**

ANY SIGNS AND/OR DELINEATORS WHICH ARE TO BE REMOVED DURING THIS PROJECT WILL BE STORED IN A PROTECTED AREA DESIGNATED BY THE RESIDENT ENGINEER, UNTIL SUCH A TIME THAT THEY ARE TO BE RESET BY THE CONTRACTOR. COST OF THIS WORK TO BE INCLUDED IN OTHER ITEMS OF WORK.

EXISTING ROADWAY SHALL REMAIN OPEN DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER BARRICADES, LIGHTS, AND SIGNING WITHIN THE LIMITS OF CONSTRUCTION. ALL CONSTRUCTION SIGNING WILL BE IMPLEMENTED ACCORDING TO CONSTRUCTION PLANS. CONSTRUCTION TRAFFIC CONTROL WILL BE INSTALLED IN A MANNER APPROVED BY THE ENGINEER, IN ACCORDANCE WITH CHAPTER VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION) AND COMPLIANT WITH APPLICABLE ODOT STANDARD DRAWINGS.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING TRAFFIC ON CROSS STREETS. A MINIMUM OF ONE LANE IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES.

THE STRUCTURAL DESIGN OF ALL POLES, MAST ARMS, HIGH-MAST POLES, AND OTHER SUPPORTS FOR SIGNS, LUMINAIRES, AND SIGNALS, AS WELL AS THEIR CONNECTIONS, SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS. THE MANUFACTURER SHALL ENSURE THE FOLLOWING ARE APPLIED TO THE DESIGN:

THE MINIMUM DESIGN WIND SPEED AND DESIGN LIFE AS REQUIRED IN THE AASHTO SPECIFICATIONS;

THE CALCULATED STRESSES AND FORCES FROM THE DESIGN LOADINGS DO NOT EXCEED THOSE REQUIRED IN THE AASHTO SPECIFICATIONS;

A CATEGORY I FATIGUE IMPORTANCE FACTOR (IF) FOR ALL STRUCTURES; NO VIBRATORY MITIGATION SHALL BE ALLOWED. TRUCK-INDUCED GUSTS SHALL BE APPLIED TO ALL OVERHEAD TRAFFIC SIGNAL SUPPORTS;

ALL MEMBERS ARE AT LEAST THE MINIMUM THICKNESS AS REQUIRED IN THE AASHTO SPECIFICATIONS;

LUMINAIRE MAST ARMS SHALL BE DESIGNED TO SUPPORT AT LEAST A 50 LB. (22.7 KG) LUMINAIRE WITH AN EFFECTIVE PROJECTED AREA OF 2.5 FT<sup>2</sup> (0.23 M<sup>2</sup>);

THE ANCHOR BOLT DESIGN AND AMOUNT OF ANCHOR BOLTS TO BE USED SHALL BE AS REQUIRED IN THE AASHTO SPECIFICATIONS.

SIGNAL MAST ARMS AND POLES SHALL BE DESIGNED FOR SPECIFIC SIGNAL HEAD AND SIGN PLACEMENT.

UNLESS SITE SPECIFIC GEOTECHNICAL DATA IS AVAILABLE, FOUNDATIONS SHALL BE DESIGNED UTILIZING THESE PARAMETERS: SHEAR STRENGTH OF COHESIVE SOIL (C) OF 500 PSF, ANGLE OF INTERNAL FRICTION ( $\phi$ ) OF 22 DEGREES, AND EFFECTIVE UNIT WEIGHT OF SOIL ( $\gamma$ ) OF 120 PCF. MINIMUM HAND HOLE SIZE OF 3-INCH WIDTH BY 5-INCH HEIGHT.

**TRAFFIC SIGNING GENERAL  
CONSTRUCTION NOTES:**

REMOVED MATERIAL TO BECOME PROPERTY OF CONTRACTOR AND IT SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE ODOT STANDARDS AND DETAIL DRAWINGS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

ANY DAMAGE CAUSED BY THE CONTRACTOR TO ANY STRUCTURES, ROADWAY SURFACES, STRIPING, RAISED PAVEMENT MARKERS, GUARDRAIL, SLOPES, AND SIGNS SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.

THE STATIONS AND LOCATIONS OF THE SIGN PLACEMENT, AS SHOWN ON THE PLAN SHEETS, ARE APPROXIMATE. EXACT STATIONS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR SO THAT THE SIGN IS INSTALLED IN ACCORDANCE WITH DEPARTMENT STANDARDS AND THE MUTCD IN ORDER TO PROVIDE OPTIMUM VISIBILITY TO THE ONCOMING/APPROACHING MOTORIST. IF A PROPOSED LOCATION CONFLICTS WITH OTHER SIGNS, UTILITIES, OR OTHER ROADWAY FEATURES, THE ENGINEER SHALL BE NOTIFIED.

THE COST OF REPLACEMENT OF MISSING OR DAMAGED EDGE STRIP ON EXISTING SIGNS SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ALL REGULATORY SIGNS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956--(LATEST REVISION) FOR TYPE III SHEETING.

ALL WARNING SIGNS SHALL HAVE FLUORESCENT YELLOW SHEETING. THE FLUORESCENT YELLOW SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956--(LATEST REVISION) REQUIREMENTS FOR TYPE VIII SHEETING.

ALL GREEN AND BLUE SIGNS ON CONVENTIONAL HIGHWAYS SHALL HAVE HIGH INTENSITY SHEETING. THE HIGH INTENSITY SHEETING SHALL MEET THE REQUIREMENTS OF ASTM D4956--(LATEST REVISION) FOR TYPE III SHEETING.

ALL PANEL AND OVERHEAD SIGNS SHALL HAVE TYPE III HIGH INTENSITY BACKGROUND WITH TYPE VIII LEGENDS AND BORDERS. THE TYPE III BACKGROUND AND THE TYPE VIII LEGENDS AND BORDERS SHALL MEET THE REQUIREMENTS OF ASTM D4956--(LATEST REVISION).

THE MANUFACTURER SHALL FURNISH A TYPE "A" CERTIFICATION IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS, LATEST EDITION, SUBSECTION 106.04. THE CERTIFICATION SHALL INCLUDE TEST RESULTS ON THE MATERIAL SUBMITTED FOR APPROVAL.

ALL BROKEN CONCRETE, INCLUDING OLD SIGN FOOTINGS WITH STUBS, WASTE MATERIAL, AND DEBRIS, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN AN AREA APPROVED BY THE ENGINEER. NO PAYMENT SHALL BE MADE FOR THE DISPOSAL OF THIS MATERIAL. ANY PIPE POST OR WIDE-FLANGE POST ABOVE THE OLD SIGN FOOTINGS SHALL BE CUT AND HANDLED AS PROPERTY OF THE STATE AND SHALL BE NEATLY STACKED ON THE JOB SITE AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

ALL ANCHOR BOLTS SHALL BE GRADE A-36 STEEL.

POST LENGTHS SHOWN ON THE SIGN SUMMARY SHEETS ARE APPROXIMATE. EXACT LENGTHS SHALL BE DETERMINED BY FIELD SURVEY BY THE CONTRACTOR.

ALL REMOVED SIGNS, SIGN POSTS, BOLTS, MISCELLANEOUS HARDWARE, AND DELINEATORS SHALL REMAIN THE PROPERTY OF THE STATE. THE CONTRACTOR SHALL NEATLY STACK SUCH REMOVED MATERIAL AT A LOCATION ON THE JOB SITE AS DESIGNATED BY THE ENGINEER UNTIL SUCH TIME AS DIVISION PERSONNEL CAN REMOVE THE MATERIAL FROM THE JOB SITE.

**TRAFFIC SIGNING PAY QUANTITY NOTES:**

(TS-6) SHOP DRAWINGS FOR ATTACHING SIGNS TO LIGHT AND/OR SIGNAL POLES AND MAST ARMS SHALL BE SUBMITTED TO THE TRAFFIC ENGINEER FOR APPROVAL BEFORE FABRICATION. NO HOLES SHALL BE PERMITTED IN ANY LIGHT AND/OR SIGNAL POLE OR MAST ARM. THE PRICE BID SHALL INCLUDE ALL MATERIALS, LABOR, HARDWARE AND INCIDENTALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED.

(TS-19) QUANTITY SHOWN INCLUDES 2,335 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND 4,724 L.F. TRAFFIC STRIPE(PLASTIC)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF FOUR INCH (4") WIDE TRAFFIC STRIPE.

(TS-20) QUANTITY SHOWN INCLUDES 2,613 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.

(TS-21) QUANTITY SHOWN INCLUDES 1,091 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND 593 L.F. TRAFFIC STRIPE(PLASTIC)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF EIGHT INCH (8") WIDE TRAFFIC STRIPE.

(TS-22) QUANTITY SHOWN INCLUDES 102 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND 0 L.F. TRAFFIC STRIPE (PLASTIC)(YELLOW) WILL BE MEASURED BY THE LINEAR FOOT OF TWELVE INCH (12") WIDE TRAFFIC STRIPE.

(TS-23) QUANTITY SHOWN INCLUDES 858 L.F. TRAFFIC STRIPE (PLASTIC)(WHITE) AND WILL BE MEASURED BY THE LINEAR FOOT OF TWENTY-FOUR INCH (24") WIDE TRAFFIC STRIPE.

(TS-33) INCLUDED IN THIS PAY ITEM IS ALL HARDWARE ASSOCIATED WITH PROPERLY ANCHORING AND MOUNTING THE HIGHWAY SIGN IN ACCORDANCE WITH ODOT PLANS AND STANDARD DRAWINGS SSA1-1 AND SSP1-1--(LATEST REVISION).

(TS-39) OVERHEAD SIGN STRUCTURES AND SIGNS THAT ARE TO BE REMOVED, RESET, AND/OR RELOCATED SHALL BE CAREFULLY REMOVED BY THE CONTRACTOR AND STORED AT A SITE SELECTED BY THE ENGINEER. ANY DAMAGE TO THE STRUCTURES OR SIGNS DURING THE REMOVAL, TRANSPORTATION, STORAGE, RESETTING, AND/OR RELOCATION OF THE STRUCTURE OR SIGN SHALL BE REPAIRED BY, AND AT THE EXPENSE OF THE CONTRACTOR.

(TS-41) "REMOVAL OF EXISTING SIGNS" SHALL INCLUDE THE REMOVAL OF A COMPLETE SIGN ASSEMBLY WHICH MAY INCLUDE MULTIPLE SIGNS, POSTS, FOOTINGS, AND ANY FOOTINGS ADJACENT TO THE SIGN ASSEMBLY. WHEN APPROVED BY THE ENGINEER, FOOTINGS MAY BE OBLITERATED TO A POINT BELOW GROUND LEVEL IN LIEU OF BEING COMPLETELY REMOVED. SEE GENERAL CONSTRUCTION NOTES FOR DISPOSAL OF OLD CONCRETE FOOTING MATERIAL.

(1) QUANTITY SHOWN INCLUDES 2,861 L.F. TRAFFIC STRIPE (PLASTIC)(YELLOW) AND WILL BE MEASURED BY THE LINEAR FOOT OF SIX INCH (6") WIDE TRAFFIC STRIPE.

MAIN ST. CUSTER COUNTY

**PAY ITEM NOTES (TRAFFIC)  
1 OF 2**

JOB PIECE NO. 27911(06) SHEET NO. 11