

**TRUNK MOUNTED ATTENUATOR**

WHEN THE CONTRACTOR IS SETTING SHORT TERM WORK ZONES AND THE SHOULDERS (RIGHT OR LEFT SHOULDER) ARE LESS THAN 10 FEET IN WIDTH AND ARE ON A ROAD WITH SPEEDS 45 MPH OR HIGHER, A TRUCK MOUNTED ATTENUATOR (TMA) MUST TRAIL THE OPERATION OF SETTING THE ADVANCE WARNING SIGNS UP OR TAKING THEM DOWN. THIS SAME TRUCK MUST HAVE A TYPE B FLASHING ARROW PANEL MOUNTED ON IT FACING THE REAR OF THE TRUCK.

THE TMA MUST BRING A VEHICLE WEIGHING 1800 TO 4500 POUNDS AND TRAVELING AT 60 MPH TO A SAFE, CONTROLLED STOP, PER NCHRP 350 CRITERIA. THE MANUFACTURER'S SPECIFICATION MUST BE FOLLOWED CONCERNING THE SIZE OF THE TRUCK AND THE CONNECTIONS TO THE TMA.

**TRUCK ENTRY AND EGRESS FROM THE WORK ZONE**

THE CONTRACTOR SHALL DESIGN A PLAN FOR TRUCKS TO ENTER AND EXIT THE WORK ZONE. ANY TIME MORE THAN 10 TRUCKS PER HOUR ENTER OR LEAVE THE WORK ZONE A LANE MUST BE CLOSED OR A 1200' ACCELERATION / DECELERATION LANE MUST BE PROVIDED. THE TRUCKS ENTERING OR EXITING ARE TO USE THIS CLOSED LANE FOR ACCELERATION AND DECELERATION.

THE CONTRACTOR SHALL HAVE A PROFESSIONAL ENGINEER DRAW UP THE TRUCK ENTRY AND EGRESS PLAN. THE PLAN MUST BE STAMPED AND PRESENTED TO THE ODOT PROJECT ENGINEER FOR ACCEPTANCE. LANES CAN ONLY BE CLOSED PER THE PERMITTED LANE CLOSURE NOTE ON SHEET 49.

**COORDINATION WITH ADJACENT PROJECTS**

THE CONSTRUCTION AT EITHER TERMINI OF THIS PROJECT MAY REQUIRE THE CONTRACTOR TO COORDINATE CONSTRUCTION WITH AN ADJACENT CONSTRUCTION PROJECT. IF COORDINATION IS NECESSARY, THE CONTRACTORS MUST COORDINATE THEIR WORK SCHEDULES AND SUBMIT TO THE DISTRICT CONSTRUCTION ENGINEER WHO WILL ESTABLISH THE FINAL APPROVED COORDINATED WORK SCHEDULE.

**FINAL PAVEMENT MARKINGS/ RUMBLE STRIPS/ RAISED PAVEMENT MARKERS**

PLACEMENT OF RUMBLE GROOVES AND RAISED PAVEMENT MARKERS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE "PERMITTED LANE CLOSURE" NOTE ON SHEET 49.

FINAL PAVEMENT MARKING MAY BE INSTALLED AS A MOVING OPERATION. THE CONTRACTOR SHALL PROVIDE TWO (2) TRAILING VEHICLES AS PER MT-99.20M FOLLOWING THE PAVEMENT MARKING EQUIPMENT. THE TWO (2) TRAILING VEHICLES SHALL TRAVEL 500 FEET APART WITH THE REMOTE VEHICLE TRAVELING ON THE SHOULDER (LEFT OR RIGHT AS APPLICABLE) WHERE USABLE SHOULDER IS AVAILABLE. THE FIRST TRAIL VEHICLE IN A TRAFFIC LANE SHALL BE EQUIPPED WITH A TRUCK MOUNTED ATTENUATOR MEETING NCHRP 350 REQUIREMENTS. THE INTERMEDIATE TRAILING VEHICLE SHALL TRAVEL IN THE CLOSED LANE 500 FEET BEHIND THE PAVEMENT MARKING EQUIPMENT.

THE ABOVE WORK ITEMS MAY BE PLACED, WHEREVER PRACTICAL, DURING THE END OF THE PHASE 4 WORK (AFTER THE FINAL SURFACE COURSE HAD BEEN PLACED).

**PUBLIC SAFETY**

THE FOLLOWING PROVISIONS "A", "B", AND "C" SHALL APPLY WHEN THE LANE ADJACENT TO THE GUARDRAIL IS OPEN TO TRAFFIC:

THE PERIOD OF TIME THAT A HAZARD IS LEFT UNPROTECTED BY THE REMOVAL OF GUARDRAIL SHALL BE HELD TO AN ABSOLUTE MINIMUM AND IN NO CASE SHALL SUCH A PERIOD BE LONGER THAN ONE WORKING DAY. IF, AFTER ONE DAY, THE ENTIRE RUN OF GUARDRAIL CONSTRUCTION IS NOT COMPLETE THE FOLLOWING SHALL APPLY:

A. IN AREAS WHERE EXISTING GUARDRAIL HAS BEEN REMOVED OR THE GUARDRAIL IS IN A PARTIAL STAGE OF COMPLETION, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TYPE II BARRICADES WITH TYPE C (STEADY BURNING) WARNING LIGHTS WITHIN THE LIMITS OF THE UNPROTECTED AREA. THE BARRICADES SHALL BE PLACED AT 50' INTERVALS AND OFFSET AT LEAST TWO FEET FROM THE EDGE OF THE TRAVELED ROADWAY AND IN CLOSE PROXIMITY TO THE CONSTRUCTION.

B. IF THE EXISTING GUARDRAIL IS FOR THE PROTECTION OF AN OBSTACLE (I.E. SIGN SUPPORT, BRIDGE PARAPET, ETC.) THE CONTRACTOR SHALL ERECT CONCRETE BARRIER IN THE DIRECTION OF TRAFFIC. THE REQUIREMENTS OF PARAGRAPH "A" SHALL APPLY TO THE REMAINING GUARDRAIL WITHIN THE RUN. PORTABLE BARRIER SHALL BE FLARED AT A 20:1 TAPER RATE AND SHALL INCLUDE A TEMPORARY END TERMINAL AS PER RM-4.2.

**PUBLIC SAFETY (CONTINUED)**

C. THE REQUIREMENTS STATED IN "A" SHALL APPLY FOR A PERIOD NOT TO EXCEED ONE WEEK. WHERE THE REBUILDING OR CONSTRUCTION OF ANY RUN OF GUARDRAIL CANNOT BE ACCOMPLISHED WITHIN ONE WEEK, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN PORTABLE CONCRETE BARRIER IN THE INTERIM TIME IT TAKES TO COMPLETE THE WORK. (SEE DETAIL BELOW) THE APPROACH END OF THE PORTABLE CONCRETE BARRIER SHALL BE FLARED 8 FT (160' AT 20:1 TAPER) AND SHALL INCLUDE A WORK ZONE IMPACT ATTENUATOR. IN ADDITION, A TYPE II BARRICADE WITH A TYPE B (HIGH INTENSITY FLASHER) WARNING LIGHT SHALL BE PLACED IN FRONT OF THIS INITIAL SECTION OF PORTABLE CONCRETE BARRIERS TO PROVIDE FOREWARNING TO THE APPROACHING TRAFFIC.

WHEN THE LANE ADJACENT TO THE GUARDRAIL IS CLOSED TO TRAFFIC, THE PROVISIONS OF PARAGRAPH "A" ABOVE SHALL APPLY AFTER 1 DAY, THE PROVISIONS OF PARAGRAPH "B" SHALL APPLY AFTER 10 DAYS, AND THE PROVISIONS OF PARAGRAPH "C" SHALL APPLY AFTER 15 DAYS.

THE TERM "GUARDRAIL" AS USED HEREIN SHALL BE UNDERSTOOD TO COVER ALL TYPES OF GUARDRAIL, EXISTING OR PROPOSED FOR THE PROJECT, INCLUDING BARRIER DESIGN GUARDRAIL, BRIDGE WINGWALL PARAPETS, AND CONCRETE BARRIER.

THE COST OF COMPLYING WITH THESE SAFETY PROCEDURES SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

**PORTABLE CONCRETE BARRIER (PUBLIC SAFETY)**

PORTABLE CONCRETE BARRIER SECTIONS (10' LONG) AS REQUIRED BY THE PUBLIC SAFETY NOTE SHALL BE SUPPLIED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LOADING, UNLOADING, AND TRANSPORTATION OF THE BARRIER.

THE BARRIER SECTIONS SHALL BE BOLTED TOGETHER WITH STEEL CONNECTIONS AS PER SCD RM-4.1 AND 4.2.

ALL COSTS FOR FURNISHING, INSTALLING, REINSTALLING AND SUBSEQUENT REMOVAL OF THE PORTABLE CONCRETE BARRIER AS DESCRIBED UNDER PUBLIC SAFETY, WILL BE INCLUDED UNDER ITEM 614 - MAINTAINING TRAFFIC.

THE INSTALLATION OF LONG TERM MAINTENANCE OF TRAFFIC SHIFTS (THOSE USING TRANSITION AREA DELINEATION AND PORTABLE CONCRETE BARRIERS) IS RESTRICTED TO THE TIMES PROVIDED BY THE PERMITTED LANE CLOSURE NOTE ON SHEET 48.

**DRAINAGE ITEMS DURING CONSTRUCTION**

DURING CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN DRAINAGE THROUGHOUT THE PROJECT AT ALL TIMES. BELOW ARE ITEMS THAT SHALL BE AS DIRECTED BY THE ENGINEER FOR MAINTAINING DRAINAGE DURING CONSTRUCTION OR CONSTRUCTING DRAINAGE ITEMS UNDER TRAFFIC LANES.

DURING STAGE CONSTRUCTION SOME LATERALS ARE REQUIRED TO BE BORED OR JACKED FROM BORING PIT TO BORING PIT OR BORING PIT UNTIL THE PIPE DAYLIGHTS FROM AN EXISTING SLOPE. THESE OPERATIONS MAY REQUIRE THE USE OF ADDITIONAL LENGTH OF CONDUIT AND LENGTH OF BORING OR JACKING THAN THE REQUIRED LENGTH IN THE PLANS. BELOW ARE ADDITIONAL QUANTITIES TO BE AS DIRECTED BY THE ENGINEER FOR CONSTRUCTION OF THE PROPOSED DRAINAGE SYSTEM.

ITEM 603 - CONDUIT BORED OR JACKED, 15" TYPE B	510 FT.
ITEM 603 - CONDUIT BORED OR JACKED, 18" TYPE B	70 FT.
ITEM 603 - CONDUIT BORED OR JACKED, 21" TYPE B	30 FT.
ITEM 603 - CONDUIT BORED OR JACKED, 24" TYPE B	15 FT.
ITEM 603 - CONDUIT BORED OR JACKED, 27" TYPE B	15 FT.
ITEM 604 - CATCH BASIN, NO. 2-2B	9 EA.
ITEM 604 - CATCH BASIN ADJUSTED TO GRADE	2 EA.
ITEM 604 - MANHOLE, NO. 3	4 EA.
ITEM 604 - MANHOLE ADJUSTED TO GRADE	2 EA.

**SIDE ROAD MAINTENANCE OF TRAFFIC FOR BRIDGE CONSTRUCTION**

EAST 361st STREET PIER AND ABUTMENT CONSTRUCTION SHALL CLOSE ONE LANE OF THE TWO LANE ROADWAY. TWO WAY TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWING MT-96.10. THIS WORK SHALL NOT LAST LONGER THAN 30 CALENDAR DAYS PER PHASE.

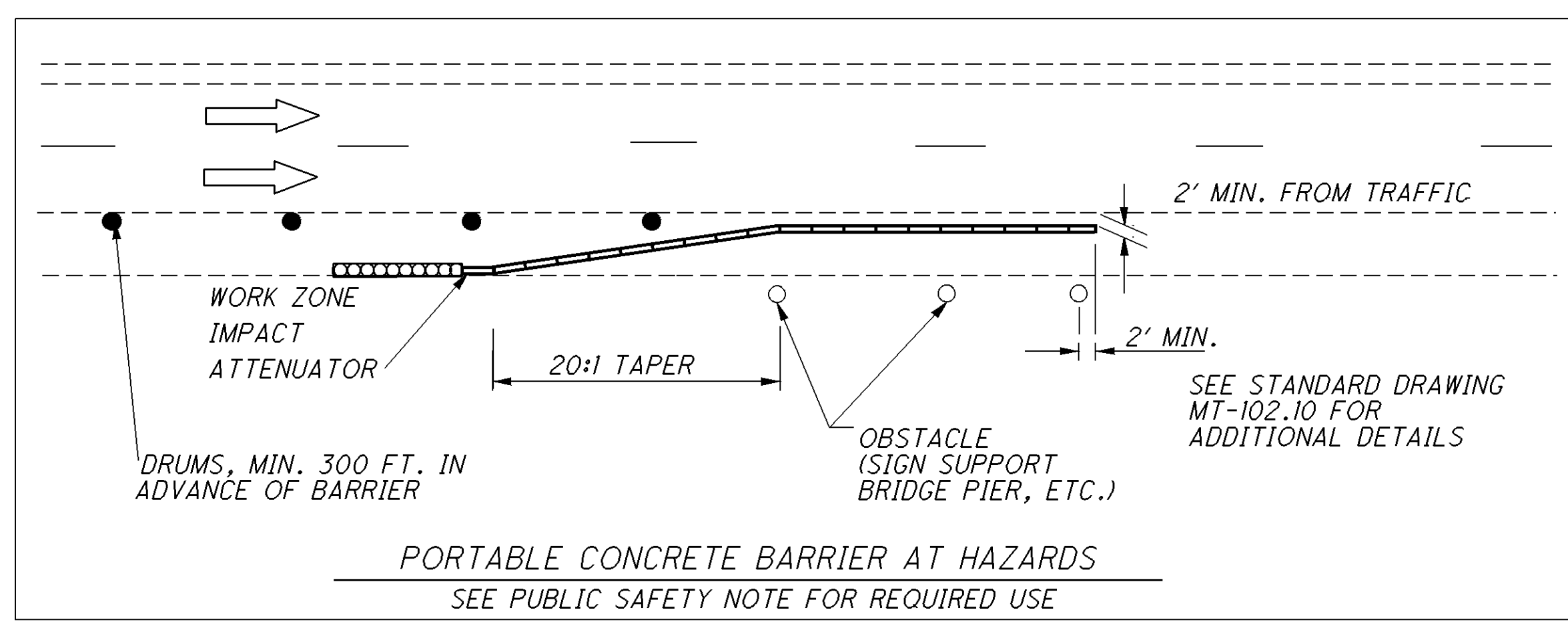
EAST 361st STREET BEAM ERECTION SHALL CLOSE THE ROADWAY ONLY DURING THE TIME OF BEAM ERECTION, ALL OTHER TIMES TWO WAY TRAFFIC SHALL BE MAINTAINED. LOCAL TRAFFIC SHALL BE DETOURED TO VINE STREET, LAKELAND BOULEVARD, CURTIS BOULEVARD AND SOM CENTER ROAD IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. BEAM ERECTION SHALL BE DURING NON PEAK HOURS AND SHALL NOT LAST LONGER THAN 4 HOURS PER PHASE.

VINE STREET PIER AND ABUTMENT CONSTRUCTION SHALL BE COORDINATED WITH THE VINE STREET ROADWAY WORK.

VINE STREET BEAM ERECTION SHALL CLOSE THE ROAD ONLY DURING TIMES OF BEAM ERECTION, TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL OTHER TIMES. SEE SHEET 178 FOR THE VINE STREET DETOUR PLAN. BEAM ERECTION SHALL BE DURING NON PEAK HOURS AND SHALL NOT LAST LONGER THAN 4 HOURS PER PHASE.

ERIE STREET PIER AND ABUTMENT CONSTRUCTION SHALL CLOSE ONE LANE OF THE TWO LANE ROADWAY. TWO WAY TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE STANDARD CONSTRUCTION DRAWING MT-96.10. THIS WORK SHALL NOT LAST LONGER THAN 30 CALENDAR DAYS PER PHASE.

ERIE STREET BEAM ERECTION SHALL CLOSE THE ROAD ONLY DURING TIMES OF BEAM ERECTION, TWO WAY TRAFFIC SHALL BE MAINTAINED AT ALL OTHER TIMES. SEE SHEET FOR THE ERIE STREET DETOUR PLAN. BEAM ERECTION SHALL BE DURING NON PEAK HOURS AND SHALL NOT LAST LONGER THAN 4 HOURS PER PHASE.



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