

SYRACUSE DIVISION
PLANS FOR THE
REPAIR OF THREE IMPACT DAMAGED
BRIDGES
AT
VARIOUS MILEPOSTS
IN
VARIOUS COUNTIES

31 SHEETS

TAS 11-44B

D214102

BIN 5510090	M.P. 278.93
BIN 5510160	M.P. 283.79
BIN 5510960	M.P. 337.47

TYPE OF CONSTRUCTION:
STEEL REPAIRS TO IMPACT DAMAGED BRIDGES.

STANDARD SHEETS:
NA

BRIDGE MAINTENANCE GUIDELINES

UPON COMPLETION OF THIS PROJECT, THE BRIDGE STRUCTURES REPAIRED, REHABILITATED OR RECONSTRUCTED HEREUNDER SHALL BE MAINTAINED IN ACCORDANCE WITH THE CURRENT AASHTO MANUAL FOR BRIDGE MAINTENANCE, AND THE NEW YORK STATE THRUWAY AUTHORITY MAINTENANCE DIRECTIVES: BRIDGE MANAGEMENT PROGRAM MD 05-16, BRIDGE MANAGEMENT ACTIVITIES MD 05-3, AND BRIDGE INSPECTION PROGRAM MD 95-5.

SPECIAL MAINTENANCE REQUIREMENTS: NONE

NOTES:

THESE PLANS WERE PREPARED IN ENGLISH UNITS. ALL WORK CONTEMPLATED UNDER THIS CONTRACT IS TO BE GOVERNED BY AND IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS - CONSTRUCTION AND MATERIALS U.S. CUSTOMARY UNITS" ADOPTED MAY 1, 2008 EXCEPT AS MODIFIED IN THESE PLANS AND BY THE PROPOSAL.

WARNING: IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW FOR ANY PERSON UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM ON THESE PLANS IN ANY WAY. IF ALTERATIONS TO THESE PLANS ARE REQUIRED, THE ALTERATIONS SHALL BE MADE IN ACCORDANCE WITH ARTICLE 145 - SUBSECTION 7209 OF THE NEW YORK STATE EDUCATION LAW.

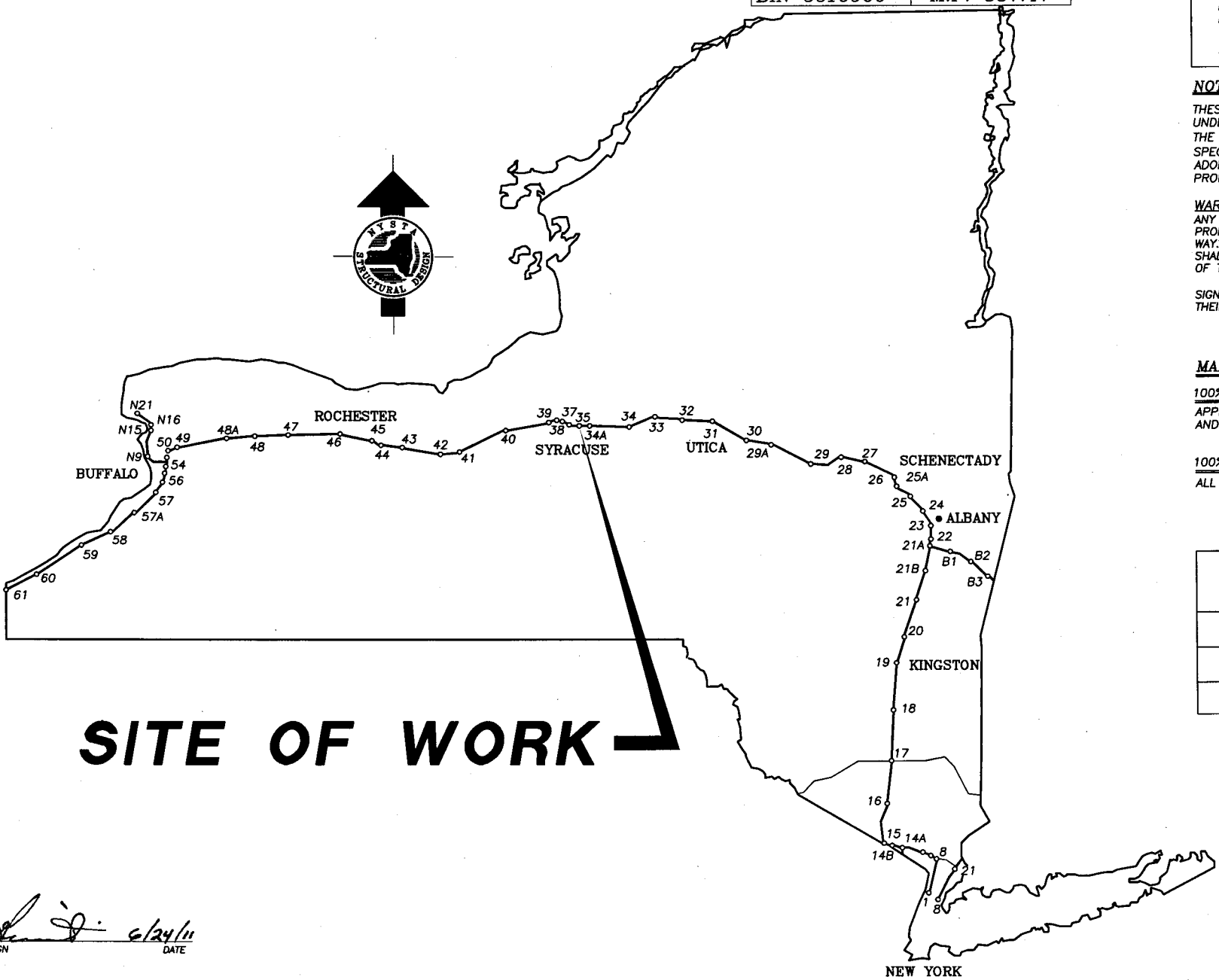
SIGNATURES HEREON HAVE BEEN AFFIXED BY PERSONS ACTING IN THEIR OFFICIAL CAPACITY AS INDICATED.

MAINTENANCE JURISDICTION

100% MUNICIPALITY
APPROACH GUIDE RAILING, APPROACH PAVEMENT, APPROACH SLAB AND SHOULDERS, WEARING COURSE AND BRIDGE FENCING.

100% AUTHORITY
ALL OTHER BRIDGE ELEMENTS NOT LISTED ABOVE.

MILE POST	PROJECT LIMITS	
	FROM M.P.	TO M.P.
278.93	277.9	279.0
283.79	282.8	283.9
337.47	336.4	338.6

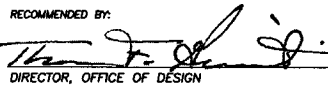



SITE OF WORK

CONTRACTOR'S NAME: _____
AWARD DATE: _____
COMPLETION DATE: _____
FINAL ACCEPTANCE DATE: _____
INSPECTION FIRM'S NAME: _____
RESIDENT ENG./EIC: _____
FINAL COST TOTAL: _____

FISCAL SHARE	COST(S)

INSPECTION FIRM
CONSULTANT STAMP:

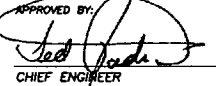
RECOMMENDED BY: 
DIRECTOR, OFFICE OF DESIGN
DATE: 6/24/11

RECOMMENDED BY: 
DIVISION DIRECTOR
DATE: 6/27/11

RECOMMENDED BY: 
TRAFFIC ENGINEER
DATE: 6/27/11

RECOMMENDED BY: 
DIRECTOR, OFFICE OF CONSTRUCTION MANAGEMENT
DATE: 6-27-11

RECOMMENDED BY: 
DIRECTOR OF MAINTENANCE AND OPERATIONS
DATE: 6-27-11

APPROVED BY: 
CHIEF ENGINEER
DATE: 6/27/11

DATE	DESCRIPTION	BY	S		
REVISIONS					
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209					
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION					
LOCATION OF PROJECT MP 278.93 MP 283.79 MP 337.47					
TITLE OF DRAWING INDEX OF DRAWINGS					
		CONTRACT NUMBER: TAS 11-44B			
		DATE: 04/11			
		DRAWING NUMBER: I			

IN CHARGE OF: M. GIOFFI
DESIGNED BY: K. KAYSER
DRAFTED BY: J. DISHON
CHECKED BY: MC

DESCRIPTION:

THE WORK SHALL INCLUDE REPAIR OF DAMAGE TO STRUCTURAL STEEL COMPONENTS OF PRIMARY AND SECONDARY STRUCTURAL MEMBERS RESULTING FROM IMPACT, CORROSION LOSS, FATIGUE CRACKS, ETC., INCLUDING REPAIRS TO STRINGERS, GIRDERS, FLOOR BEAMS, COLUMNS, BENTS, STEEL PIER CAPS, DIAPHRAGMS, CROSS FRAMES, ETC. AS IDENTIFIED AND AS LOCATED ON THE PLANS OR OTHER CONTRACT DOCUMENTS. ALL WORK SHALL BE INCLUDED IN THE SPECIFIC STEEL REPAIR ITEM FOR THAT SITE.

UNDEFINED DAMAGE:

THE CONTRACTOR SHALL NOTE THAT ADDITIONAL REPAIR WORK MAY BE NECESSARY AS THE CONTRACT PROGRESSES. PRIOR TO MAKING ANY REPAIRS NOT IDENTIFIED ON THE CURRENT CONTRACT DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SUBMIT A DESCRIPTION OF THE DAMAGE TO THE AUTHORITY FOR EVALUATION AND PREPARATION OF REPAIR METHODS.

CONTRACTOR SUBMITTALS REQUIRING APPROVAL PRIOR TO THE START OF WORK:

1. WELDING PROCEDURE SPECIFICATIONS AND WHEN REQUIRED BY SECTION 8 OF THE NYSSCM, WELDING PROCEDURE QUALIFICATION RECORDS.
2. EVIDENCE THAT ALL WELDERS/WELDING OPERATORS ARE QUALIFIED TO PROCESS AND POSITION ETC. IN ACCORDANCE WITH SECTION 8 OF THE NYSSCM.
3. PAINT TYPE AND THE MANUFACTURER'S RECOMMENDED PAINT APPLICATION INSTRUCTIONS
4. CERTIFICATIONS OF ALL PERSONNEL ENGAGED IN NONDESTRUCTIVE TESTING.
5. CONTRACTOR PROPOSED FLAME STRAIGHTENING JACKING AND RESTRAINING PROCEDURES STAMPED BY AN ENGINEER LICENSED TO PRACTICE IN THE STATE OF NEW YORK. INCLUDE SPECIFIC DETAILS OF ALL EQUIPMENT, BRACING DEVICES, JACKING PRESSURES AND LATERAL MOVEMENT DIMENSIONS EXPECTED AS A RESULT OF APPLIED RESTRAINING LOADS.

GENERAL REQUIREMENTS:

1. ALL STRUCTURAL STEEL FABRICATION, ERECTION, WELDING, HEATING, NONDESTRUCTIVE TESTING, ETC. SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (NYSSCM) WITH CURRENT ADDENDA, EXCEPT AS MODIFIED HEREIN.
2. ALL REPAIRS TO IMPACT DAMAGED STRUCTURES SHALL BE DONE USING THE GUIDELINES PROVIDED IN THE "U. S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, HEAT-STRAIGHTENING REPAIRS OF DAMAGED STEEL BRIDGES, A TECHNICAL GUIDE AND MANUAL PRACTICE", REPORT NO. FHWA-1F-99-004, OCTOBER 1998.
3. ONLY FLAME STRAIGHTENING PROCEDURES MAY BE USED, AS DESCRIBED IN THE ABOVE DOCUMENT UNLESS OTHERWISE MODIFIED BY THE CONTRACT DOCUMENTS. EXCEPTIONS MAY BE MADE TO ALLOW HOT MECHANICAL STRAIGHTENING SUBJECT TO APPROVAL OF THE DIRECTOR OF ENGINEERING SERVICES. COLD MECHANICAL STRAIGHTENING WILL NOT BE ALLOWED.
4. PRELOAD COMPRESSIVE STRESS WILL BE PERMITTED UP TO A MAXIMUM OF 20,000 PSI. PRELOAD STRESS IS INTENDED TO REDUCE THE NUMBER OF HEATING PATTERNS REQUIRED TO STRAIGHTEN DAMAGED MEMBERS.
5. HEATING, INCLUDING PREHEATING, MAINTENANCE OF INTERPASS TEMPERATURE, POST-HEATING, FLAME STRAIGHTENING, ETC. SHALL BE CONTROLLED BY THE USE OF TEMPERATURE INDICATING CRAYONS. CRAYONS MANUFACTURED FOR 250°F (120°C), 400°F (200°C), 600°F (316°C), 1150°F (620°C) AND 1250°F (677°C) SHALL BE AVAILABLE AT THE WORK SITE. ANY HEATING PROCEDURE THAT CAUSES A PORTION OF THE STEEL TO BE HEATED IN EXCESS OF 1250°F SHALL BE CONSIDERED DESTRUCTIVE HEATING AND SHALL BE CAUSE FOR REPAIR OR REPLACEMENT OF THE STEEL AT THE CONTRACTOR'S EXPENSE.
6. WHEN THE DAMAGED FLANGE IS GREATER THAN 1 INCH IN THICKNESS OR A COVER PLATE IS ATTACHED TO THE DAMAGED FLANGE, HEAT SHALL BE APPLIED TO THE TOP AND BOTTOM OF THE DAMAGED MEMBER (S) USING TWO TORCHES SIMULTANEOUSLY.
7. CONTRACTOR PERSONNEL ENGAGED IN HEATING OPERATIONS SHALL HAVE IN THEIR POSSESSION, TEMPERATURE INDICATION CRAYONS IN THE FOLLOWING INCREMENTS: 600°F, 1050°F, 1150°F, 1200°F, AND 1250°F.
8. QUENCHING WITH WATER, OR WATER AND AIR, OR OTHER COOLING MEDIUM WILL NOT BE ALLOWED. COOLING WITH DRY COMPRESSED AIR WILL BE PERMITTED AFTER THE STEEL HAS COOLED TO 600°F.
9. THE MANUAL SHIELDED METAL ARC WELDING (SMAW) PROCESS SHALL BE USED FOR ALL FIELD REPAIR WELDING. THE FLUX CORED ARC WELDING (FCAW) PROCESS WITH EXTERNAL GAS SHIELDING OR THE SUBMERGED ARC WELDING (SAW) PROCESS MAY BE USED AS APPROPRIATE, SUBJECT TO APPROVAL OF THE DIRECTOR OF ENGINEERING SERVICES, AND SUBJECT TO QUALIFICATION AS REQUIRED BY THE NYS STEEL CONSTRUCTION MANUAL. ALL COSTS ASSOCIATED WITH THE QUALIFICATION OF THE FCAW AND SAW PROCESSES SHALL BE BORNE BY THE CONTRACTOR.
10. ALL NEW WELDS IN TENSION AREAS OF MAIN MEMBERS MUST BE TESTED FOR SOUNDNESS USING THE APPROPRIATE TEST METHOD, AS SHOWN IN THE CONTRACT DOCUMENTS. EXISTING WELDS IN TENSION AREAS; WELDS IN COMPRESSION AREAS OF MAIN MEMBERS; BASE METAL; AND SECONDARY MEMBERS MAY REQUIRE TESTING, AS SHOWN IN THE CONTRACT DOCUMENTS.
11. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, A MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED ON AND WITHIN 12" OF ANY AREAS THAT WERE HEATED, STRAIGHTENED, GROUND TO REMOVE SCRAPES AND GOUGES OR WELDED.

MATERIALS:

1. RECORD DRAWINGS INDICATE THAT EXISTING STRUCTURAL STEEL IS ASTM A7 (FY=33 KSI), UNLESS NOTED OTHERWISE.
2. ALL NEW STEEL COMPONENTS SHALL BE OF DOMESTIC ORIGIN. THIS SHALL INCLUDE STRUCTURAL STEEL SHAPES, PLATES, FASTENERS ETC.
3. NEW MATERIALS FOR THIS WORK MUST CONFORM TO THE LATEST EDITION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, OFFICE OF ENGINEERING, INCLUDING CURRENT ADDENDA, OTHERWISE SHOWN IN THE CONTRACT DOCUMENTS OR OTHERWISE DESCRIBED HEREIN, AS FOLLOWS: (ALL REFERENCES TO METRIC DIMENSIONS SHALL BE CONVERTED TO ENGLISH)
4. TWO COPIES OF CERTIFIED MILL TEST REPORTS FOR ALL STRUCTURAL STEEL AND FASTENERS SHALL BE PROVIDED TO THE ENGINEER.
5. TWO COPIES OF CERTIFICATES OF CONFORMANCE FROM THE GALVANIZER FOR ALL GALVANIZED SURFACES SHALL BE PROVIDED TO THE ENGINEER.

A. STRUCTURAL STEEL - STANDARD SPECIFICATION 715-01

ALL NEW STRUCTURAL STEEL SHAPES AND PLATES SHALL BE ASTM A709 GR 36, UNLESS NOTED OTHERWISE. THE CONTRACTOR MAY SUBSTITUTE ASTM A709 GR 50 OR GR 50W. IF MATERIAL SUBSTITUTIONS ARE MADE, THE CONTRACTOR SHALL NOTIFY THE AUTHORITY PRIOR TO THEIR PURCHASE.

ALL NEW STRUCTURAL STEEL SHAPES AND PLATES USED IN AREAS SUBJECT TO TENSILE STRESS (GIRDER WEBS, FLANGES, COVER PLATES ETC.) SHALL BE FURNISHED TO MEET MINIMUM CVN-TOUGHNESS REQUIREMENTS (15 FT.LBS. @ 40°F). THE DIRECTION OF ROLLING MUST BE PARALLEL TO THE DIRECTION OF PRIMARY STRESS. STRUCTURAL STEEL USED FOR REPLACEMENT CONNECTION PLATES AND DIAPHRAGMS SHALL NOT REQUIRE CVN TOUGHNESS TESTING.

B. HIGH STRENGTH BOLTS, NUTS AND WASHERS - STANDARD SPECIFICATION 715-14

ALL PLAIN FASTENERS SHALL BE ASTM A325 TYPE 1 HIGH STRENGTH BOLTS WITH ASTM A563 GR C, D, DH OR ASTM A194 GR 2, 2H NUTS AND TWO ASTM F436 WASHERS.

WHEN SHOWN ON THE CONTRACT DRAWINGS, GALVANIZED FASTENERS SHALL BE ASTM A325 TYPE 1 HIGH STRENGTH BOLTS WITH ASTM A563 GR DH OR ASTM A194 GR 2H NUTS AND TWO ASTM F436 WASHERS. GALVANIZING SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 719-01, GALVANIZED COATINGS AND REPAIR METHODS, TYPE II, ASTM A153, ZINC COATING (HOT DIP) ON IRON AND STEEL HARDWARE OR ASTM B695 COATING OF ZINC MECHANICALLY DEPOSITED ON IRON AND STEEL.

WASHERS SHALL BE INSTALLED UNDER BOTH THE BOLT HEAD AND NUT.

C. STAINLESS STEEL CONNECTING PRODUCTS - STANDARD SPECIFICATION 715-18

STAINLESS STEEL CONNECTING PRODUCTS SHALL BE OF THE SIZE, TYPE AND GRADE SHOWN ON THE CONTRACT DRAWINGS.

D. PAINTING METAL STRUCTURES - STANDARD SPECIFICATION 740-01

ALL PAINT MUST BE EXTERIOR GRADE, ABRASION RESISTANT, LEAD AND CHROMATE FREE, AND COMPATIBLE WITH THE EXISTING PAINT SYSTEM.

THE PAINT AND PAINT SYSTEM MUST BE SELECTED FROM THE LATEST NYS DOT MATERIALS BUREAU APPROVED LIST, AND APPROVED BY THE ENGINEER IN THE FIELD. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH TWO COPIES OF THE MANUFACTURER'S CERTIFICATION STATING THAT THE PAINT MEETS THE ABOVE REQUIREMENTS, AND THAT IT IS APPROPRIATE FOR THE INTENDED APPLICATION.

THE CONTRACTOR MUST PROVIDE A WRITTEN PROCEDURE PREPARED BY THE MANUFACTURER DESCRIBING THE PROPER SURFACE PREPARATION, APPLICATION AND CURING OF THE NEW PAINT SYSTEM, PLUS ANY NECESSARY INSPECTION EQUIPMENT AS RECOMMENDED BY THE PAINT MANUFACTURER.

E. GALVANIZING - STANDARD SPECIFICATION 719-01

MATERIAL SHALL BE GALVANIZED WHEN SPECIFIED ON THE CONTRACT PLANS.

F. ANCHOR BOLTS (NON-STAINLESS STEEL) STANDARD SPECIFICATION 723-60

ANCHOR BOLTS SHALL BE OF THE DIAMETER, TYPE AND GRADE SPECIFIED ON THE CONTRACT PLANS

LOCALIZED CLEANING OF EXISTING STEEL:

1. EXISTING PAINT AND PAINT CHIPS:
BE ADVISED THAT ALL EXISTING PAINT AND PAINT CHIPS MAY CONTAIN LEAD, UNLESS SPECIFICALLY STATED OTHERWISE IN THE CONTRACT DOCUMENTS. THE FOLLOWING REGULATIONS WILL APPLY AS APPROPRIATE:

A. FEDERAL REGULATIONS FOR TRANSPORT, TREATMENT AND DISPOSAL OF HAZARDOUS WASTE INCLUDE 40CFR 263, 264, 265, AND 268.

B. NEW YORK STATE REGULATIONS FOR TRANSPORT, TREATMENT AND DISPOSAL OF HAZARDOUS WASTE INCLUDE 6NYCRR 364, 370, 371, 372, 373-3 AND 376.
2. HAZARDOUS WASTE MATERIALS:
SHALL INCLUDE EXISTING PAINT, OLD PAINT CHIPS, CORROSION RESIDUE, AND USED OR SPENT ABRASIVES THAT RESULT FROM BLASTING AND OTHER CLEANING AND COATING OPERATIONS PERFORMED IN THE FIELD, UNLESS STATED OTHERWISE IN THE CONTRACT DOCUMENTS.
3. COMMERCIAL BLAST CLEANING:
SHALL MEAN THAT ALL SURFACES MUST BE CLEANED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR COMMERCIAL BLAST CLEANING, SSPC-SP6, AS PUBLISHED BY THE STEEL STRUCTURES PAINTING COUNCIL.
4. THE CONTRACTOR MUST CONFORM TO ALL FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS DURING PERFORMANCE OF THE WORK.
5. ALL EQUIPMENT TO BE USED IN THE WORK MUST BE IN GOOD OPERATING CONDITION AND MUST BE APPROVED BY THE ENGINEER PRIOR TO PLACING IT IN SERVICE.
6. ALL PAINT, DIRT, CORROSION, OIL, GREASE AND OTHER FOREIGN MATERIALS MUST BE REMOVED WITHIN 12 INCHES OF ANY REPAIR AREA BY COMMERCIAL BLAST CLEANING OR OTHER APPROVED MEANS PRIOR TO BEGINNING THE REPAIR WORK. A REPAIR AREA IS DEFINED AS ANY LOCATION THAT HAS BEEN DISTORTED AS A RESULT OF IMPACT; WELDS JOINING MEMBER COMPONENTS WITHIN THE DISTORTED AREA, INCLUDING CONNECTION PLATES AT LOCATIONS WHERE FASTENERS ARE TO BE REPLACED; AND ANY BASE METAL THAT IS TO BE HEATED, FLAME CUT, WELDED, GROUND OR TESTED. WHEN CLEANING AREAS TO BE HEATED OR WELDED, IT IS INTENDED THAT BOTH SIDES OF THE MEMBER BE CLEANED: I.E. BOTH SIDES OF THE WEB, FLANGE, CONNECTION PLATE, ETC.

A. THE CLEANING METHOD MUST BE DRY ABRASIVE BLASTING USING A CLOSED CYCLE, RECIRCULATING, ABRASIVE SYSTEM WITH COMPRESSED AIR BLAST NOZZLE AND ABRASIVE, WITH A VACUUM FOR DUST, PAINT WASTE AND ABRASIVE RECOVERY. COMMERCIAL BLAST CLEANED SURFACES MUST CONFORM TO SSPC-SP6/SSPC VIS. 1-89 SPECIFICATIONS. ALTERNATELY, VACUUM POWER TOOLS MAY BE USED IN LIEU OF THE DRY ABRASIVE BLAST SYSTEM, PROVIDING THE CLEANED SURFACES CONFORM TO SSPC-SP 11/SSPC VIS. 3 SPECIFICATIONS FOR POWER TOOL CLEANING TO BARE METAL.

B. ALL ABRASIVES SHALL BE FREE OF CORROSION PRODUCING CONTAMINANTS, OIL, GREASE, SOLUBLE SALTS, OR OTHER DELETERIOUS CONTAMINANTS. SILICA SAND WILL NOT BE ALLOWED FOR BLAST CLEANING PURPOSES. THE ABRASIVE MUST BE OF SUCH SIZE AS TO PRODUCE A UNIFORM SURFACE PROFILE THAT IS SUITABLE FOR THE APPLICATION OF THE SPECIFIED PAINT. THE ABRASIVE MAY BE RECYCLED A MAXIMUM OF FIVE TIMES. THE TYPE OF ABRASIVE MATERIAL MAY BE SELECTED BY THE CONTRACTOR PROVIDING ALL OF THE ABOVE REQUIREMENTS ARE MET.

C. THE VACUUM BLAST CLEANING MUST REMOVE ALL EXISTING COATINGS; CAPTURE A MINIMUM OF 95% OF THE ABRASIVE; RECYCLE THE ABRASIVE; PRODUCE A CLEAN SURFACE IN ACCORDANCE WITH THIS SPECIFICATION; AND MEET CURRENT EPA REGULATIONS.

D. POTENTIAL HAZARDOUS WASTE GENERATED DURING CLEANING OPERATIONS SHALL BE COLLECTED AND THEN STORED IN RESEALABLE (55) GALLON (250 LITER) BARRELS. THE BARRELS SHALL BE PROPERLY LABELED IN ACCORDANCE WITH FEDERAL DOT REGULATIONS AND STORED ON SITE. THE CONTRACTOR SHALL OFFICIALLY RECORD THE WEIGHT OF WASTE GENERATED AT EACH SITE.

E. THE CONTRACTOR SHALL NOTIFY THE ENGINEER ONCE A BARREL IS FULL OR IF NO MORE WASTE WILL BE ADDED TO THE BARREL. THE ENGINEER SHALL ARRANGE FOR TRANSPORTATION AND DISPOSAL OF THE WASTE UNDER THE PROVISIONS OF A SEPARATE CONTRACT THAT THE AUTHORITY HAS WITH A WASTE DISPOSAL CONTRACTOR.

CONSTRUCTION DETAILS:

1. ALL REPAIR WORK SHALL BE PERFORMED TO THE STRUCTURAL STEEL AS LOCATED AND/OR SHOWN IN THE CONTRACT DOCUMENTS AND ON THE APPROVED REPAIR DRAWINGS. COPIES OF ORIGINAL SHOP DRAWINGS FOR IMPACT DAMAGED MEMBERS AND EXAMPLES OF VARIOUS IMPACT DAMAGE REPAIR DETAILS CAN BE FURNISHED TO THE CONTRACTOR UPON REQUEST.
2. CERTAIN SPECIALTY WORK MAY REQUIRE SPECIFIC PERSONNEL QUALIFICATION, AS IDENTIFIED IN THE CONTRACT DOCUMENTS.
3. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL SUBMIT A COMPLETE DESCRIPTION OF THEIR PROPOSED PLANS AND PROCEDURES FOR ACCOMPLISHING THE WORK SHOWN ON THE CONTRACT DOCUMENTS TO THE AUTHORITY FOR PRIOR REVIEW AND APPROVAL FOR EACH REPAIR TO BE MADE. THE SUBMITTAL MUST BE PREPARED ON FULL SIZE DRAWINGS AS DEFINED BY THE NYS STEEL CONSTRUCTION MANUAL IN ACCORDANCE WITH THE ABOVE SPECIFICATIONS. ONCE APPROVED, THE CONTRACTOR SHALL NOT DEVIATE FROM SAME WITHOUT SPECIFIC APPROVAL FROM THE DIRECTOR OF ENGINEERING SERVICES. ALL DRAWING SUBMITTALS SHALL BE TRANSMITTED TO THE NEW YORK STATE THRUWAY AUTHORITY METALS ENGINEERING UNIT THRU THE RESIDENT ENGINEER USING PROCESSING ENGINEERING CONTRACT SUBMITTALS # 430-010, FORM TA-4011. THESE DRAWINGS MUST SHOW SPECIFIC INFORMATION, INCLUDING:

- A. THE EXISTING CONDITION OF THE DAMAGED MEMBERS.
- B. THE LOCATION OF PAINT OR COATING REMOVAL.
- C. INITIAL NONDESTRUCTIVE TESTS TO BE PERFORMED, IF REQUIRED.
- D. LIFTING AND TEMPORARY SUPPORT DETAILS, IF APPLICABLE.
- E. PRELOAD JACKING DETAILS AND MEMBER DISPLACEMENT DIMENSIONS, IF APPLICABLE.
- F. DETAILS OF COMPONENTS TO BE STRAIGHTENED, IF APPLICABLE.
- G. DETAILS OF COMPONENTS TO BE REPLACED, IF APPLICABLE.
- H. WELDING PROCESSES AND WELDING PROCEDURE SPECIFICATIONS TO BE USED, IF APPLICABLE.
- I. DETAILS FOR COMPLETE PENETRATION GROOVE WELDING, OR PARTIAL PENETRATION GROOVE WELDING, IF APPLICABLE, INCLUDING THE CONTRACTOR'S PREFERRED JOINT DESIGNATION.
- J. FINAL NONDESTRUCTIVE TESTS.
- K. FINAL PROTECTIVE COATINGS.
- L. FOR REPAIR OF IMPACT DAMAGED STRUCTURES, DETAILS OF HEATING PROCEDURES, INCLUDING AREAS TO BE HEATED AND METHOD OF HEATING, MUST BE SHOWN.
- M. FOR IMPACT DAMAGED STRUCTURES, OR WHEN REQUIRED BY THE CONTRACT DOCUMENTS, THE PROPOSED REPAIR DRAWINGS MUST BE SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN NEW YORK STATE, UNLESS THIS REQUIREMENT IS EXCLUDED IN THE PLANS OR BY SPECIAL NOTE.


4. PRIOR TO THE START OF WORK ANY LOOSE OR DAMAGED CONCRETE WHICH MAY POSE A HAZARD SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER.
5. FLAME STRAIGHTENING OPERATIONS SHALL NOT BEGIN UNTIL ALL BLAST CLEANED AREAS HAVE BEEN VISUALLY INSPECTED AND MAGNETIC PARTICLE TESTED TO IDENTIFY ANY CRACKS. CRACKS FOUND SHALL BE REPORTED TO THE METALS ENGINEERING UNIT FOR DISPOSITION.

6. ALL NICKS, GOUGES, TEARS, CRACKS ETC. SHALL BE REPAIRED AND TESTED PRIOR TO FLAME STRAIGHTENING. ALL DAMAGED CONNECTION PLATES SHALL BE REMOVED AND REMOVAL AREAS TESTED PRIOR TO FLAME STRAIGHTENING.

7. DURING FLAME STRAIGHTENING PROCEDURES, THE ROADWAY ABOVE SHALL HAVE A SHOULDER AND/OR LANE CLOSURE TO REDUCE LIVE LOADS.

8. AT THE END OF DAILY WORK OPERATIONS, ALL EQUIPMENT OVER HEAD AND ADJACENT TO TRAVEL LANES SHALL BE REMOVED FROM THE STRUCTURE TO THE SATISFACTION OF THE ENGINEER. THIS SHALL INCLUDE BUT NOT BE LIMITED TO THE REMOVAL OF JACKING DEVICES, TEMPORARY BRACING, COME-ALONGS, STEEL SHIMS, WOOD BLOCKING, BEAM CLAMPS, DRILLING EQUIPMENT, LOSE MISCELLANEOUS IRON, FASTENERS ETC.

CONTINUED ON SHEET 4

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 MP 283.79 MP 337.47			
TITLE OF DRAWING GENERAL NOTES - 1			
		CONTRACT NUMBER: TAS 11-44B	
		DATE: 04/11	
		DRAWING NUMBER: GN-1	

[illegible]

IN CHARGE OF: M. CIOFFI
DESIGNED BY: K. KAYSER
DRAFTED BY: J. DISHON
CHECKED BY: M. CIOFFI
DATE: 11-08-11

WORK TO BE DONE

THE FOLLOWING WORK SHALL BE PERFORMED UNDER THE PROVISIONS OF ITEM 564.85011725

ALL PROVISIONS OF THE CURRENT NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SHALL APPLY FOR THIS REPAIR WORK.

PROPOSED TEMPORARY SUPPORT DETAILS WITH CALCULATIONS, JACKING DETAILS WITH CALCULATIONS, AND WELDING PROCEDURES SHALL BE PREPARED AND SUBMITTED AS DESCRIBED IN CONSTRUCTION DETAILS ON GENERAL NOTES-1 SHEET 3. ALL DIMENSIONS MUST BE FIELD VERIFIED.

THE FOLLOWING IS A GENERAL DESCRIPTION OF THE WORK TO BE DONE UNDER THIS CONTRACT. THIS LIST IS INTENDED TO GIVE THE CONTRACTOR A GENERAL DESCRIPTION OF THE WORK INVOLVED IN THIS CONTRACT AND IS NOT A COMPLETE LISTING OF ALL WORK TO BE DONE. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THIS LIST.

UNDER THIS CONTRACT, IT IS PROPOSED TO PERFORM STEEL REPAIRS TO THE BRIDGE AT MILE POST MP 278.93 INTERCHANGE 35 BRIDGE OVER THE THRUWAY.

THE WORK SHALL GENERALLY CONSIST OF THE FOLLOWING:

MILEPOST 278.93 -- INTERCHANGE 35 BRIDGE OVER THE THRUWAY

DAMAGE SUMMARY : FASCIA GIRDER G6 WESTBOUND ACCELERATION LANE:


1. THE POINT OF IMPACT IS LOCATED ABOVE THE WESTBOUND ACCELERATION LANE (SPAN 3 OF BRIDGE). IT IS APPROXIMATELY 13'-0" SOUTH OF THE CENTERLINE OF BEARING AT PIER 3.
2. THERE IS APPROXIMATELY 11" OF SWEEP IN THE WEST DIRECTION.
3. THE EXTERIOR EDGE OF THE BOTTOM FLANGE IS ROTATED UPWARD APPROXIMATELY 4" AT THE POINT OF IMPACT.
4. THE WEB HAS A 6'-0"± LONG X 5" DEEP X FULL HEIGHT BULGE AT THE POINT OF IMPACT.
5. THE CONNECTION PLATES ON GIRDERS 5 & 6 LOCATED AT 21'-7" AND 43'-2" SOUTH OF THE CENTERLINE OF BEARING AT PIER 3 SHALL BE REMOVED AND REPLACED.
6. THE INTERMEDIATE DIAPHRAGMS BETWEEN GIRDERS 5 AND 6 AT THE ABOVE MENTIONED LOCATIONS SHALL BE REMOVED AND STORED, THEN REINSTALLED.

DAMAGE SUMMARY GIRDER G5 WESTBOUND ACCELERATION LANE:

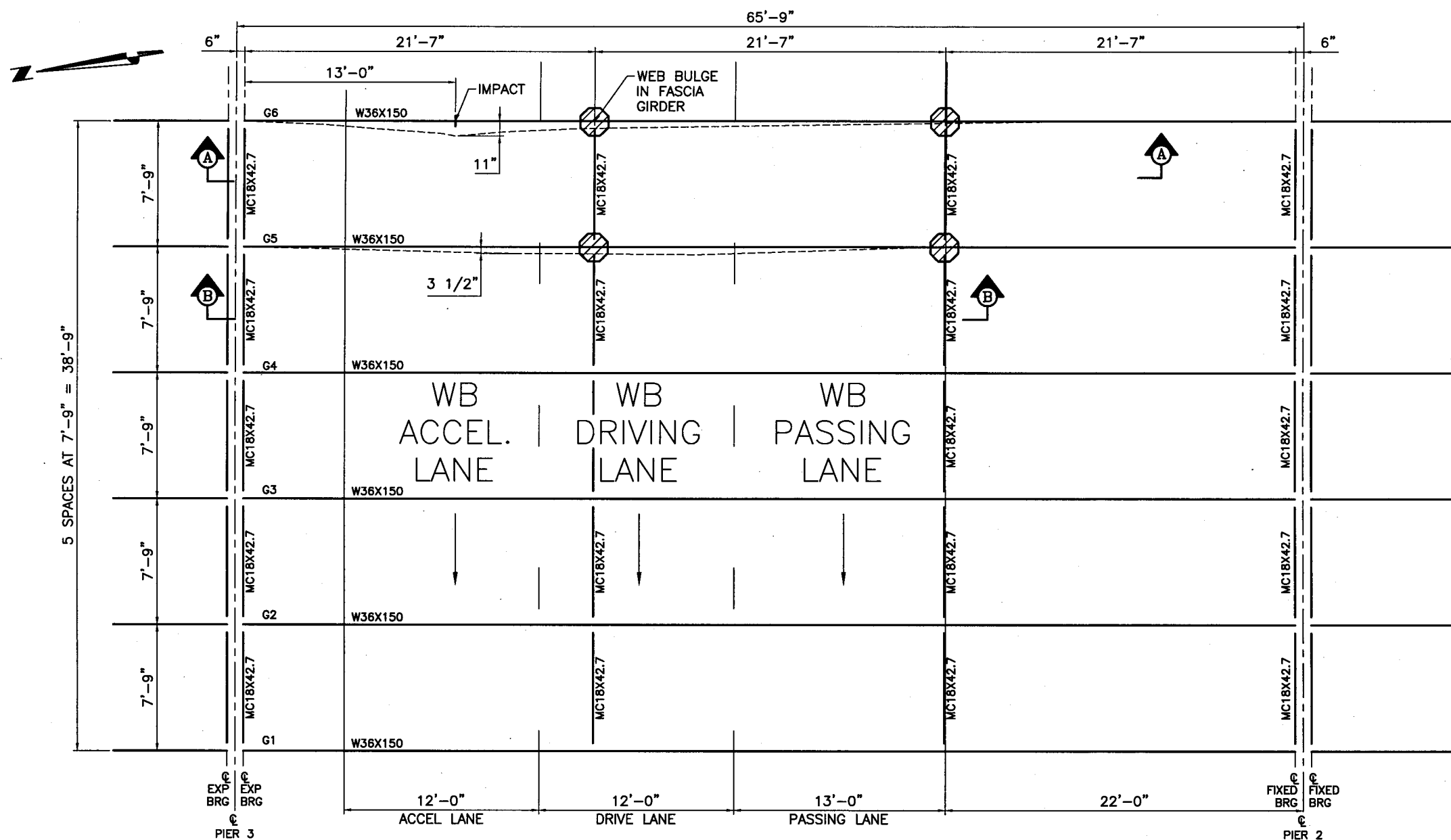
1. THE POINT OF IMPACT IS LOCATED ABOVE THE WESTBOUND ACCELERATION LANE (SPAN 3 OF BRIDGE). IT IS APPROXIMATELY 13'-0" SOUTH OF THE CENTERLINE OF BEARING AT PIER 3.
2. THERE IS APPROXIMATELY 3 1/2" OF SWEEP IN THE WEST DIRECTION.
3. THE EXTERIOR EDGE OF THE BOTTOM FLANGE IS ROTATED UPWARD APPROXIMATELY 3/4" AT THE POINT OF IMPACT.

REPAIR PROCEDURE FOR GIRDERS 5 AND 6:

1. REMOVE PAINT AS SHOWN ON DRAWING 278FP SHEET.
2. GRIND ALL MISCELLANEOUS SCRAPES AND GOUGES AS ORDERED BY THE ENGINEER IN CHARGE. REPAIR OF SCRAPES AND GOUGES SHOULD BE DONE IN ACCORDANCE WITH DIRECTIONS GIVEN IN REPAIR OF NICKS, SCRAPES AND GOUGES ON GENERAL NOTES - 2.
3. THE BENT PORTION OF CONNECTION PLATE LOCATED 21'-7" SOUTH OF CENTERLINE OF BEARING PIER 3 HAS BEEN REMOVED. THE DIAPHRAGM SHALL REMAIN ATTACHED UNTIL THE GIRDER HAS BEEN HEAT STRAIGHTENED. THE PURPOSE OF LEAVING THE DIAPHRAGM IS TO AID IN THE RESTRAINT OF THE GIRDER.
4. REMOVE AND STORE THE DIAPHRAGM AND REMOVE THE CONNECTION PLATES ON GIRDER G6 AND G5 CONNECTING THE DIAPHRAGM LOCATED AT 43'-2" SOUTH OF PIER 3 BY AIR CARBON ARC GOUGING AND/OR BY FLAME CUTTING THE CONNECTION PLATES TO WITHIN 1/8" OF THE WEB. THE REMAINING CONNECTION PLATE AND WELD METAL SHALL BE REMOVED BY GRINDING FLUSH AND SMOOTH WITH THE WEB SURFACE.
5. PERFORM INITIAL MAGNETIC PARTICLE TESTS AS SHOWN ON DRAWING 278FP AND WITHIN 12 INCHES OF THE ABOVE REPAIR AREAS, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. IF CRACKS ARE FOUND AND CONFIRMED, FLAME-STRAIGHTENING OPERATIONS WILL NOT BE ALLOWED TO BEGIN UNTIL THE CRACKS HAVE BEEN REPAIRED TO THE SATISFACTION OF THE ENGINEER. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
6. CORRECT SWEEP AND FLANGE TILT ON GIRDERS 5 AND 6 USING HEATING METHODS DESCRIBED IN GENERAL REQUIREMENTS ON GENERAL NOTES -1 AND DRAWING HD. DIMENSIONAL TOLERANCES FOR HEAT STRAIGHTENING SHALL BE AS DESCRIBED IN REPAIR TOLERANCES ON GENERAL NOTES - 2.
7. HEAT STRAIGHTEN THE WEB BULGE NOTED ON DRAWING 278FP USING HEATING METHODS DESCRIBE ON DRAWING HD.
8. AFTER ALL HEAT STRAIGHTENING OPERATIONS HAVE BEEN COMPLETED REMOVE AND STORE THE DIAPHRAGM AND REMOVE THE PARTIAL CONNECTION PLATES ON GIRDERS 5 AND 6 LOCATED AT 21'-7" SOUTH OF CENTERLINE OF BEARING OF PIER 3 (AS NOTED ON DRAWING 278FP). REMOVE THE PARTIAL CONNECTION PLATES BY AIR CARBON ARC GOUGING AND/OR BY FLAME CUTTING THE CONNECTION PLATE TO WITHIN 1/8" OF THE WEB. THE REMAINING CONNECTION PLATE AND WELD METAL SHALL BE REMOVED BY GRINDING FLUSH AND SMOOTH WITH THE WEB SURFACE.
9. PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF THE ABOVE REPAIR AREAS, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. IF CRACKS ARE FOUND AND CONFIRMED, THEY SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
10. INSTALL (4) NEW FULL DEPTH CONNECTION PLATES THAT WERE REMOVED IN NOTES 4 AND 8. SEE DRAWING 278G6RD FOR DETAILS.
11. INSTALL THE EXISTING DIAPHRAGMS THAT WERE REMOVED IN NOTES 4 AND 8. SEE DIAPHRAGM DETAILS DRAWING 278G6RD.
12. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF ALL AREAS THAT WERE: A) HEATED, B) STRAIGHTENED, C) GROUND TO REMOVE SCRAPES AND GOUGES, OR D) WELDED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
13. BLAST CLEAN AND PAINT ALL REPAIR AREAS AS DESCRIBED IN FINAL PAINTING ON GENERAL NOTES-2, WITH 3 COATS OF PAINT.

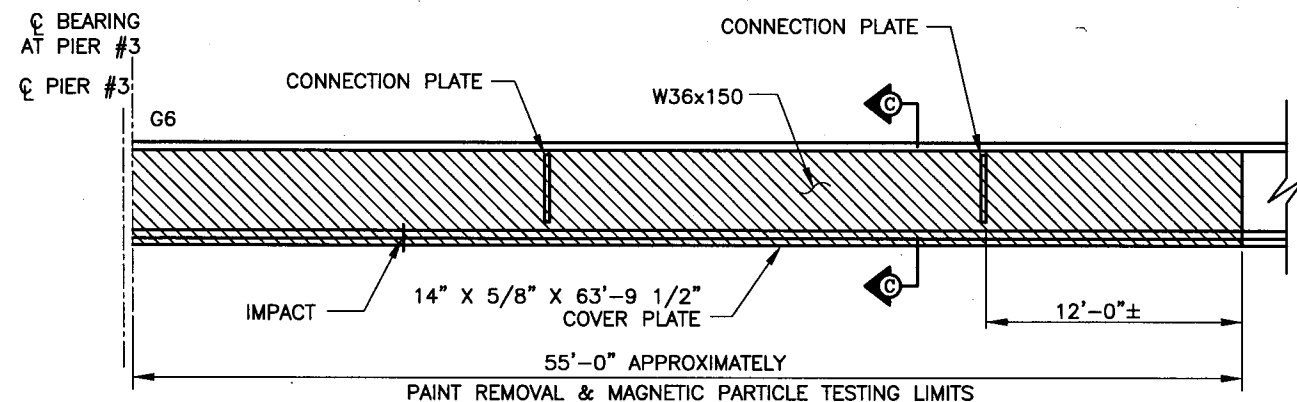
DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT INTERCHANGE 35 BRIDGE OVER THRUWAY M.P. 278.93			
TITLE OF DRAWING WORK TO BE DONE			
	CONTRACT NUMBER: TAS 11-44B		
	DATE: 04/11		
	DRAWING NUMBER: 278WD		

DESIGNED BY: M. GIOFFI
IN CHARGE OF: M. GIOFFI
DESIGNED BY: K. KAYSER
DRAFTED BY: J. DISHON
CHECKED BY: MC
SYRACUSE, NEW YORK 13209

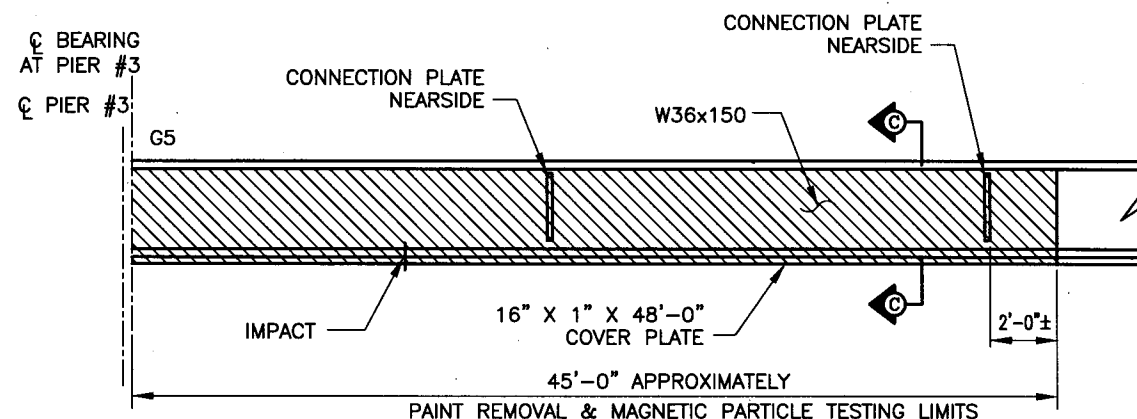


EXISTING FRAMING PLAN
SPAN 3
NOT TO SCALE

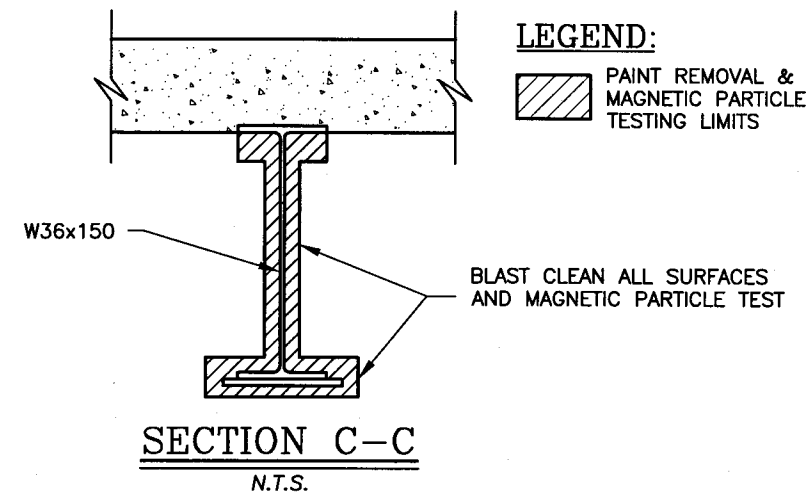
NOTE:
ALL WORK ON THIS SHEET TO BE PAID
UNDER ITEM 564.86011725.



VIEW "A"
N.T.S.



VIEW "B"
N.T.S.



LEGEND:

REPLACE CONNECTION PLATE (SEE DWG 278G6RD)
AND FASTENERS WITH NEW A325
FASTENERS.

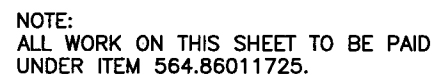
LEGEND:

PAINT REMOVAL &
MAGNETIC PARTICLE
TESTING LIMITS

BLAST CLEAN ALL SURFACES
AND MAGNETIC PARTICLE TEST

SECTION C-C
N.T.S.


DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT INTERCHANGE 35 BRIDGE OVER THRUWAY M.P. 278.93			
TITLE OF DRAWING FRAMING PLAN - SPAN 3 WITH PAINT REMOVAL DETAILS			
CONTRACT NUMBER: TAS 11-44B		DATE: 04/11	
DRAWING NUMBER: 278FP			

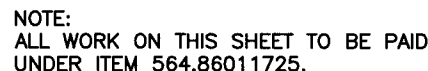


N.T.S.
ALL DIMENSIONS SHOWN ARE APPROXIMATE




DISTANCE SOUTH OF PIER 3 (ft.)	SWEEP MEASUREMENT (in.)
5	6
9	9 1/2
13	11
17	9 1/4
22	6 1/4
26	3 7/8
30	2 3/4
37	1 1/4
43	1/2
47	1/4
51	0

DATE	DESCRIPTION	BY	S	
REVISIONS				
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209				
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION				
LOCATION OF PROJECT INTERCHANGE 35 BRIDGE OVER THRUWAY M.P. 278.93				
TITLE OF DRAWING SWEEP DETAILS				
		CONTRACT NUMBER: TAS 11-44E		
		DATE: 04/11		
		DRAWING NUMBER: 278SD		



1. REMOVE PAINT AS SHOWN ON DRAWING 278FP SHEET.
2. GRIND ALL MISCELLANEOUS SCRAPES AND GOUGES AS ORDERED BY THE ENGINEER IN CHARGE. REPAIR OF SCRAPES AND GOUGES SHOULD BE DONE IN ACCORDANCE WITH DIRECTIONS GIVEN IN REPAIR OF NICKS, SCRAPES AND GOUGES ON GENERAL NOTES - 2.
3. THE BENT PORTION OF CONNECTION PLATE LOCATED 21'-7" SOUTH OF CENTERLINE OF BEARING PIER 3 HAS BEEN REMOVED. THE DIAPHRAGM SHALL REMAIN ATTACHED UNTIL THE GIRDER HAS BEEN HEAT STRAIGHTENED. THE PURPOSE OF LEAVING THE DIAPHRAGM IS TO AID IN THE RESTRAINT OF THE GIRDER.
4. REMOVE AND STORE THE DIAPHRAGM AND REMOVE THE CONNECTION PLATES ON GIRDER G6 AND G5 CONNECTING THE DIAPHRAGM LOCATED AT 43'-2" SOUTH OF PIER 3 BY AIR CARBON ARC GOUGING AND/OR BY FLAME CUTTING THE CONNECTION PLATES TO WITHIN 1/8" OF THE WEB. THE REMAINING CONNECTION PLATE AND WELD METAL SHALL BE REMOVED BY GRINDING FLUSH AND SMOOTH WITH THE WEB SURFACE.
5. PERFORM INITIAL MAGNETIC PARTICLE TESTS AS SHOWN ON DRAWING 278FP AND WITHIN 12 INCHES OF THE ABOVE REPAIR AREAS, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. IF CRACKS ARE FOUND AND CONFIRMED, FLAME-STRAIGHTENING OPERATIONS WILL NOT BE ALLOWED TO BEGIN UNTIL THE CRACKS HAVE BEEN REPAIRED TO THE SATISFACTION OF THE ENGINEER. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
6. CORRECT SWEEP AND FLANGE TILT ON GIRDERS 5 AND 6 USING HEATING METHODS DESCRIBED IN GENERAL REQUIREMENTS ON GENERAL NOTES -1 AND DRAWING HD. DIMENSIONAL TOLERANCES FOR HEAT STRAIGHTENING SHALL BE AS DESCRIBED IN REPAIR TOLERANCES ON GENERAL NOTES - 2.
7. HEAT STRAIGHTEN THE WEB BULGE NOTED ON DRAWING 278FP USING HEATING METHODS DESCRIBE ON DRAWING HD.
8. AFTER ALL HEAT STRAIGHTENING OPERATIONS HAVE BEEN COMPLETED REMOVE AND STORE THE DIAPHRAGM AND REMOVE THE PARTIAL CONNECTION PLATES ON GIRDERS 5 AND 6 LOCATED AT 21'-7" SOUTH OF CENTERLINE OF BEARING OF PIER 3 (AS NOTED ON DRAWING 278FP). REMOVE THE PARTIAL CONNECTION PLATES BY AIR CARBON ARC GOUGING AND/OR BY FLAME CUTTING THE CONNECTION PLATE TO WITHIN 1/8" OF THE WEB. THE REMAINING CONNECTION PLATE AND WELD METAL SHALL BE REMOVED BY GRINDING FLUSH AND SMOOTH WITH THE WEB SURFACE.
9. PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF THE ABOVE REPAIR AREAS, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. IF CRACKS ARE FOUND AND CONFIRMED, THEY SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
10. INSTALL (4) NEW FULL DEPTH CONNECTION PLATES THAT WERE REMOVED IN NOTES 4 AND 8. SEE DRAWING 278G6RD FOR DETAILS.
11. INSTALL THE EXISTING DIAPHRAGMS THAT WERE REMOVED IN NOTES 4 AND 8. SEE DIAPHRAGM DETAILS DRAWING 278G6RD.
12. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF ALL AREAS THAT WERE: A) HEATED, B) STRAIGHTENED, C) GROUND TO REMOVE SCRAPES AND GOUGES, OR D) WELDED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
13. BLAST CLEAN AND PAINT ALL REPAIR AREAS AS DESCRIBED IN FINAL PAINTING ON GENERAL NOTES-2. WITH 3 COATS OF PAINT.

DATE	DESCRIPTION	BY	S		
REVISIONS					
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN RD., ALBANY, N.Y. 12209					
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION					
LOCATION OF PROJECT INTERCHANGE 35 BRIDGE OVER THRUWAY M.P. 278.93					
TITLE OF DRAWING GIRDERS G5 & G6 REPAIR DETAILS					
		CONTRACT NUMBER: TAS 11-44E			
		DATE: 04/11			
		DRAWING NUMBER: 278G6RD			

IN CHARGE OF: M. CIOFFI
DESIGNED BY: K. KAYSER
DRAFTED BY: J. DISHON
CHECKED BY: MC
PROJECT: 283.79 COUNTY ROUTE 33 INTERCHANGE 37 RAMP OVER THE THRUWAY

WORK TO BE DONE

THE FOLLOWING WORK SHALL BE PERFORMED UNDER THE PROVISIONS OF ITEM 564.85010825

ALL PROVISIONS OF THE CURRENT NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SHALL APPLY FOR THIS REPAIR WORK.

PROPOSED TEMPORARY SUPPORT DETAILS WITH CALCULATIONS, JACKING DETAILS WITH CALCULATIONS, AND WELDING PROCEDURES SHALL BE PREPARED AND SUBMITTED AS DESCRIBED IN CONSTRUCTION DETAILS ON GENERAL NOTES-1 SHEET 3. ALL DIMENSIONS MUST BE FIELD VERIFIED.

THE FOLLOWING IS A GENERAL DESCRIPTION OF THE WORK TO BE DONE UNDER THIS CONTRACT. THIS LIST IS INTENDED TO GIVE THE CONTRACTOR A GENERAL DESCRIPTION OF THE WORK INVOLVED IN THIS CONTRACT AND IS NOT A COMPLETE LISTING OF ALL WORK TO BE DONE. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THIS LIST.

UNDER THIS CONTRACT, IT IS PROPOSED TO REPAIR IMPACT DAMAGE TO THE BRIDGE AT MILEPOST 283.79 - COUNTY ROUTE 33 INTERCHANGE 37 RAMP OVER THE THRUWAY.

THE WORK SHALL GENERALLY CONSIST OF THE FOLLOWING:

MILEPOST 283.79 COUNTY ROUTE 33 INTERCHANGE 37 RAMP OVER THE THRUWAY

DAMAGE SUMMARY WEST FASCIA GIRDER G6 WESTBOUND DRIVING LANE:

1. THE POINT OF IMPACT IS LOCATED ABOVE THE WESTBOUND DRIVING LANE. IT IS AT APPROXIMATELY 24'-10" SOUTH OF PIER 3 ON FASCIA GIRDER G6 SPAN 3.
2. THERE IS APPROXIMATELY 2 3/8" OF SWEEP IN THE WEST DIRECTION.
3. THE EXTERIOR EDGE OF THE BOTTOM FLANGE IS ROTATED UPWARD APPROXIMATELY 1/2" AT THE POINT OF IMPACT.
4. THERE ARE SEVERAL DENTS IN THE BOTTOM FLANGE NEAR THE IMPACT THAT HAVE BEEN GROUND SMOOTH.
5. THE CONNECTION PLATE ON G6 LOCATED AT 22'-1" SOUTH OF PIER 3 IS DISTORTED.

DAMAGE SUMMARY WEST FASCIA GIRDER G5 WESTBOUND DRIVING LANE:


1. THERE ARE SEVERAL SCRAPES AND GOUGES ON G5.

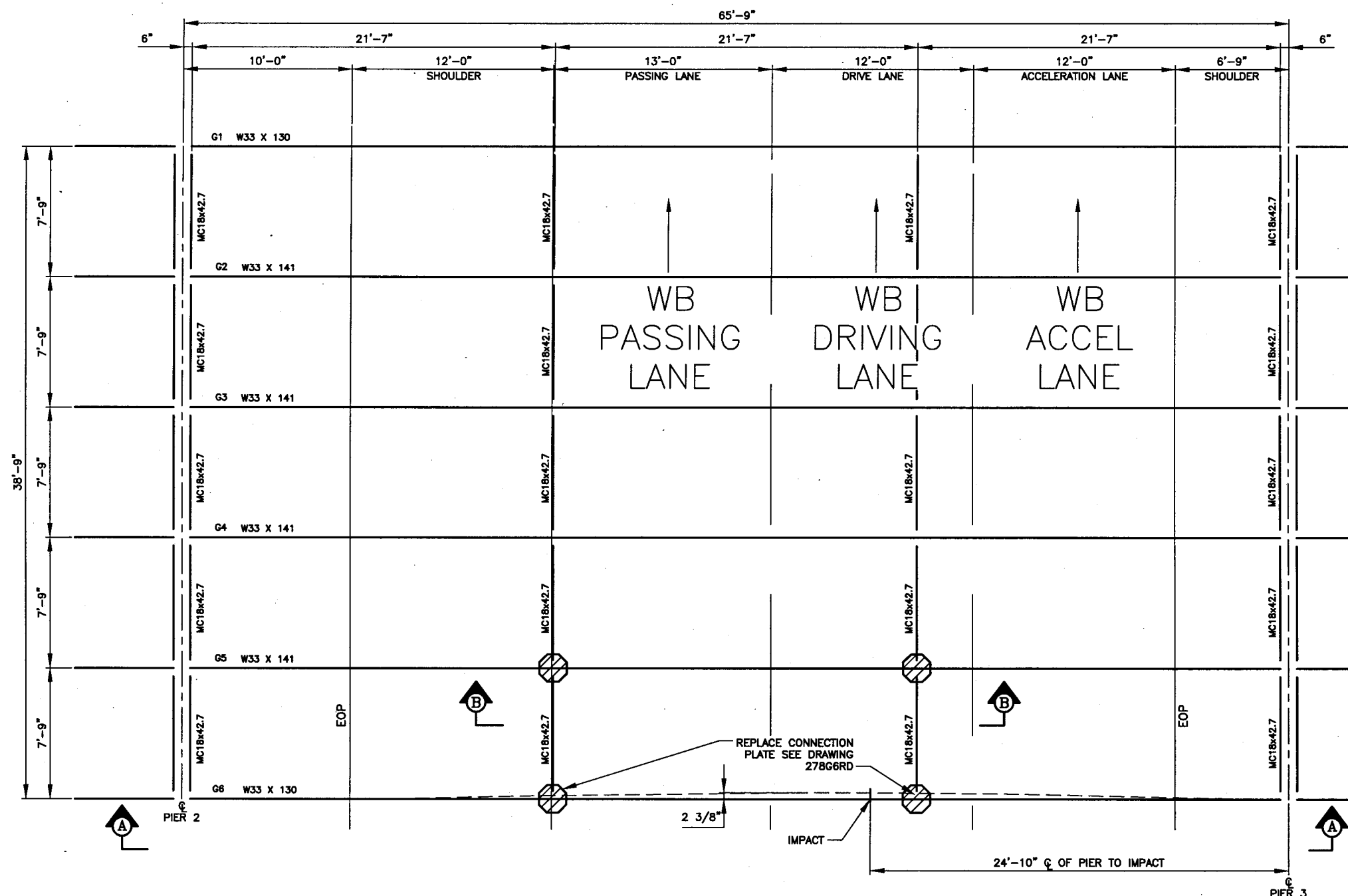
REPAIR PROCEDURE FOR FASCIA GIRDER G6:

1. REMOVE PAINT AS SHOWN ON DRAWING 283FP.
2. REMOVE DIAPHRAGM LOCATED AT 21'-7" SOUTH OF PIER 3 ON GIRDER G6 SPAN 3. BLAST CLEAN DIAPHRAGM AND MAGNETIC PARTICLE TEST HOLES AND FAYING SURFACES OF THE DIAPHRAGM.
3. REMOVE THE CONNECTION PLATE ON FASCIA GIRDER G6 CONNECTING DIAPHRAGM LOCATED AT 21'-7" SOUTH OF PIER 3 BY AIR CARBON ARC GOUGING AND/OR BY FLAME CUTTING THE CONNECTION PLATE TO WITHIN 1/8" OF THE WEB. THE REMAINING CONNECTION PLATE AND WELD METAL SHALL BE REMOVED BY GRINDING FLUSH AND SMOOTH WITH THE WEB SURFACE.
4. GRIND ALL MISCELLANEOUS SCRAPES AND GOUGES AS ORDERED BY THE ENGINEER IN CHARGE. REPAIR OF SCRAPES AND GOUGES SHOULD BE DONE IN ACCORDANCE WITH DIRECTIONS GIVEN IN REPAIR OF NICKS, SCRAPES AND GOUGES ON GENERAL NOTES - 2.
5. PERFORM INITIAL MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF THE ABOVE REPAIR AREAS AND AS NOTED ON 283FP DRAWING, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. IF CRACKS ARE FOUND AND CONFIRMED, FLAME STRAIGHTENING OPERATIONS WILL NOT BE ALLOWED TO BEGIN UNTIL THE CRACKS HAVE BEEN REPAIRED TO THE SATISFACTION OF THE ENGINEER. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
6. CORRECT FLANGE DAMAGE USING HEATING METHODS DESCRIBED IN GENERAL REQUIREMENTS ON GENERAL NOTES -1 SHEET 3 (AND DRAWING HD). DIMENSIONAL TOLERANCES FOR HEAT STRAIGHTENING SHALL BE AS DESCRIBED IN REPAIR TOLERANCES ON GENERAL NOTES -2.
7. CORRECT SWEEP AND FLANGE TILT USING HEATING METHODS DESCRIBED IN GENERAL REQUIREMENTS ON GENERAL NOTES -1 SHEET 3 (AND DRAWING HD). DIMENSIONAL TOLERANCES FOR HEAT STRAIGHTENING SHALL BE AS DESCRIBED IN REPAIR TOLERANCES ON GENERAL NOTES -2.
8. INSTALL NEW FULL DEPTH CONNECTION PLATE ON FASCIA GIRDER G6 CONNECTING DIAPHRAGMS LOCATED AT 21'-7" SOUTH OF PIER 3 AS SHOWN ON DRAWING 283G6RD.
9. INSTALL DIAPHRAGM REMOVED IN NOTE 2 USING NEW 7/8" A325 BOLTS, NUTS AND 2 WASHERS.
10. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF ALL AREAS THAT WERE: A) HEATED, B) STRAIGHTENED, C) GROUND TO REMOVE SCRAPES AND GOUGES, OR D) WELDED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
11. BLAST CLEAN AND PAINT ALL REPAIR AREAS AS DESCRIBED IN FINAL PAINTING ON GENERAL NOTES-2, WITH 2 COATS OF PAINT.

REPAIR PROCEDURE FOR GIRDER G5:

1. REMOVE PAINT AROUND CONNECTION PLATES LOCATED AT 22'-1" AND 43'-8" SOUTH OF THE CENTERLINE OF PIER 3 ON GIRDER 5 SPAN 3 (SEE 283FP DRAWING).
2. PERFORM MAGNETIC PARTICLE TESTS AS NOTED ON 283FP DRAWING, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
3. GRIND ALL MISCELLANEOUS SCRAPES AND GOUGES AS ORDERED BY THE ENGINEER IN CHARGE. REPAIR OF SCRAPES AND GOUGES SHOULD BE DONE IN ACCORDANCE WITH DIRECTIONS GIVEN IN REPAIR OF NICKS, SCRAPES AND GOUGES ON GENERAL NOTES - 2.
4. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF ALL AREAS THAT WERE: A) HEATED, B) STRAIGHTENED, C) GROUND TO REMOVE SCRAPES AND GOUGES, OR D) WELDED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
5. BLAST CLEAN AND PAINT ALL REPAIR AREAS AS DESCRIBED IN FINAL PAINTING ON GENERAL NOTES-2, WITH 2 COATS OF PAINT.

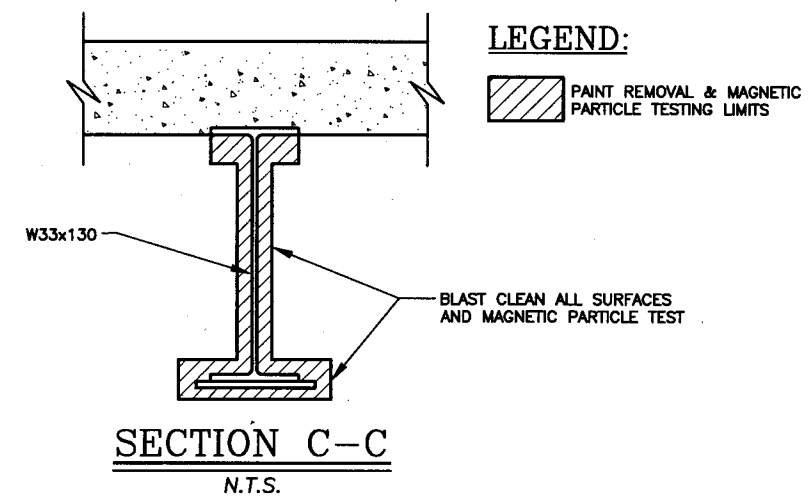
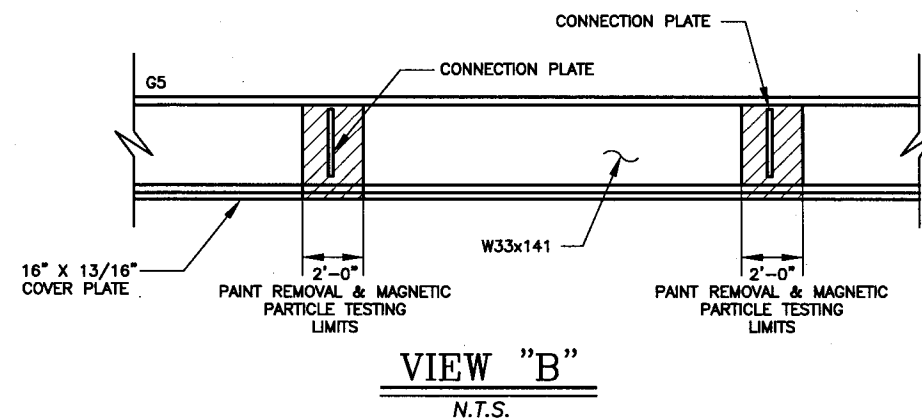
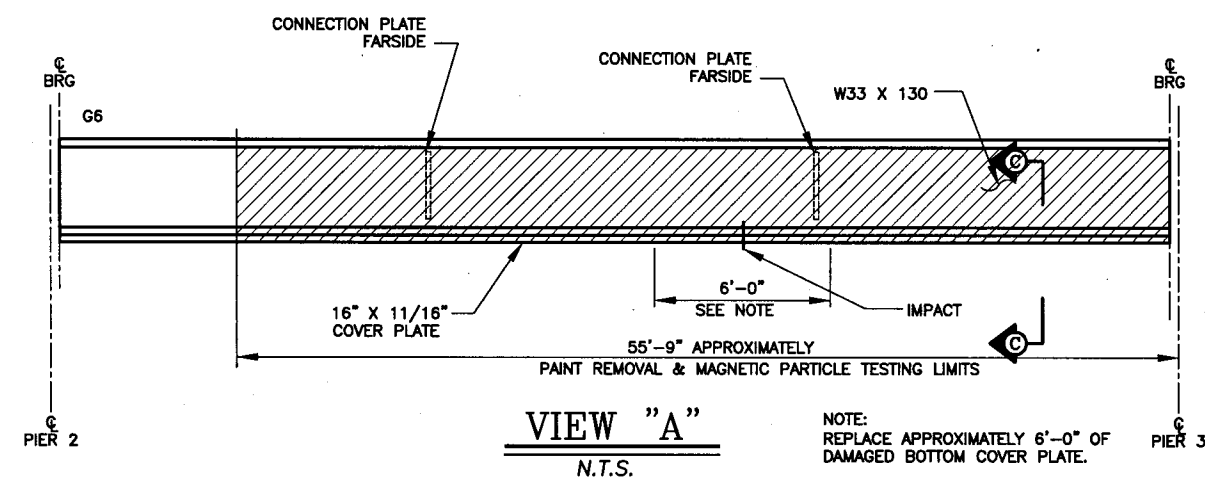
DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT COUNTY ROUTE 33 EXIT 37 RAMP OVER THRUWAY M.P. 283.79			
TITLE OF DRAWING WORK TO BE DONE			
	CONTRACT NUMBER: TAS 11-44B		
	DATE: 04/11		
	DRAWING NUMBER: 283WD		



EXISTING FRAMING PLAN
SPAN 3

NOT TO SCALE


NOTE:
ALL WORK ON THIS SHEET TO BE PAID
UNDER ITEM 564.86011825.



LEGEND:

 BLAST CLEAN & MAGNETIC
PARTICLE TEST 12" EACH SIDE
OF CONNECTION PLATES AND
CONNECTION PLATES AND REPLACE
FASTENERS WITH NEW A325 FASTENERS.

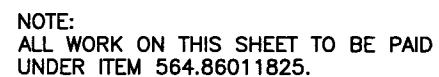
DATE	DESCRIPTION	BY	SYM
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT COUNTY ROUTE 33 EXIT 37 RAMP OVER THRUWAY M.P. 283.79			
TITLE OF DRAWING FRAMING PLAN - SPAN 3 WITH PAINT REMOVAL DETAILS			



CONTRACT NUMBER:
TAS 11-44B

DATE:
04/11

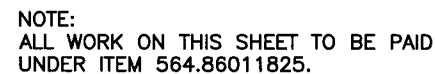
DRAWING NUMBER:
283FP



N.T.S.
ALL DIMENSIONS SHOWN ARE APPROXIMATE



CONTRACT NUMBER:	TAS 11-44B
DATE:	04/11
DRAWING NUMBER:	283SD




N.T.S.

1. REMOVE PAINT AS SHOWN ON DRAWING 283FP.

- ### REPAIR PROCEDURE FOR GIRDER G5:

1. REMOVE PAINT AND SURROUND CONNECTION PLATES LOCATED AT 22'-1" AND 43'-8" SOUTH OF THE CENTERLINE OF PIER 3 ON GIRDER 5 SPAN 3 (SEE 283FP DRAWING).
2. PERFORM MAGNETIC PARTICLE TESTS AS NOTED ON 283FP DRAWING, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
3. GRIND ALL MISCELLANEOUS SCRAPES AND GOUGES AS ORDERED BY THE ENGINEER IN CHARGE. REPAIR OF SCRAPES AND GOUGES SHOULD BE DONE IN ACCORDANCE WITH DIRECTIONS GIVEN IN REPAIR OF NICKS, SCRAPES AND GOUGES ON GENERAL NOTES - 2.
4. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF ALL AREAS THAT WERE: A) HEATED, B) STRAIGHTENED, C) GROUND TO REMOVE SCRAPES AND GOUGES, OR D) WELDED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
5. BLAST CLEAN AND PAINT ALL REPAIR AREAS AS DESCRIBED IN FINAL PAINTING ON GENERAL NOTES-2. WITH 2 COATS OF PAINT.

DATE	DESCRIPTION	BY	SHEET NO.	TOTAL SHEETS
REVISIONS				
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209				
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION				
LOCATION OF PROJECT COUNTY ROUTE 33 EXIT 37 RAMP OVER THRUWAY M.P. 283.79				
TITLE OF DRAWING GIRDER 6 REPAIR DETAILS				
		CONTRACT NUMBER: TAS 11-44B		
		DATE: 04/11		
		DRAWING NUMBER: 283G6RD		

IN CHARGE OF: M. CIOFFI
DESIGNED BY: K. KATSER
DRAFTED BY: J. DISHON
CHECKED BY: M. CIOFFI
SYNOPSIS: 337FP
11-44B 3 Bridges/100013 337FP.dwg

WORK TO BE DONE

THE FOLLOWING WORK SHALL BE PERFORMED UNDER THE PROVISIONS OF ITEM 564.85011925

ALL PROVISIONS OF THE CURRENT NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SHALL APPLY FOR THIS REPAIR WORK.

PROPOSED TEMPORARY SUPPORT DETAILS WITH CALCULATIONS, JACKING DETAILS WITH CALCULATIONS, AND WELDING PROCEDURES SHALL BE PREPARED AND SUBMITTED AS DESCRIBED IN CONSTRUCTION DETAILS ON GENERAL NOTES-1 SHEET 3. ALL DIMENSIONS MUST BE FIELD VERIFIED.

THE FOLLOWING IS A GENERAL DESCRIPTION OF THE WORK TO BE DONE UNDER THIS CONTRACT. THIS LIST IS INTENDED TO GIVE THE CONTRACTOR A GENERAL DESCRIPTION OF THE WORK INVOLVED IN THIS CONTRACT AND IS NOT A COMPLETE LISTING OF ALL WORK TO BE DONE. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THIS LIST.

UNDER THIS CONTRACT, IT IS PROPOSED TO PERFORM REPAIRS ON THE FOLLOWING NYSTA BRIDGE:

MP 337.47 PORT GIBSON ROAD OVER THE THRUWAY

THE WORK SHALL GENERALLY CONSIST OF THE FOLLOWING:

MILEPOST 337.47 - PORT GIBSON ROAD BRIDGE OVER THE THRUWAY

DAMAGE SUMMARY : FACSIA GIRDER G1 EASTBOUND DRIVING LANE:

1. THE POINT OF IMPACT IS LOCATED ABOVE THE EASTBOUND DRIVING LANE (SPAN 2 OF BRIDGE). IT IS APPROXIMATELY $\pm 20'-0"$ NORTH OF THE CENTERLINE OF BEARING AT PIER 1.
2. THERE IS APPROXIMATELY 7 1/4" SWEEP IN THE NORTH DIRECTION.
3. THE EXTERIOR EDGE OF THE BOTTOM FLANGE IS ROTATED UPWARD APPROXIMATELY 1 1/2" AT THE POINT OF IMPACT.
4. THE CONNECTION PLATE LOCATED AT 20'-0" NORTH OF THE CENTERLINE OF BEARING AT PIER 1 IS DAMAGED AND WILL BE REMOVED DURING THIS REPAIR. THE DIAPHRAGM BETWEEN GIRDERS 1 AND 2 WILL NEED TO BE REPLACED.

DAMAGE SUMMARY : FACSIA GIRDER G2 EASTBOUND DRIVING LANE:


1. THE POINT OF IMPACT IS LOCATED ABOVE THE EASTBOUND DRIVING LANE (SPAN 2 OF BRIDGE). IT IS APPROXIMATELY $\pm 20'-0"$ NORTH OF THE CENTERLINE OF BEARING AT PIER 1.
2. THERE IS NO SWEEP IN THE NORTH DIRECTION.

REPAIR PROCEDURE FOR FASCIA GIRDER G1:

1. REMOVE PAINT AS SHOWN ON DRAWING 337FP.
2. REMOVE DIAPHRAGM LOCATED AT 20'-0" NORTH OF PIER 1 ON GIRDER G1 SPAN 2. BLAST CLEAN DIAPHRAGM AND MAGNETIC PARTICLE TEST HOLES AND FAYING SURFACES OF THE DIAPHRAGM.
3. REMOVE THE CONNECTION PLATE ON FASCIA GIRDER G1 CONNECTING DIAPHRAGM LOCATED AT 20'-0" NORTH OF PIER 1 BY AIR CARBON ARC GOUGING AND/OR BY FLAME CUTTING THE CONNECTION PLATE TO WITHIN 1/8" OF THE WEB. THE REMAINING CONNECTION PLATE AND WELD METAL SHALL BE REMOVED BY GRINDING FLUSH AND SMOOTH WITH THE WEB SURFACE.
4. GRIND ALL MISCELLANEOUS SCRAPES AND GOUGES AS ORDERED BY THE ENGINEER IN CHARGE. REPAIR OF SCRAPES AND GOUGES SHOULD BE DONE IN ACCORDANCE WITH DIRECTIONS GIVEN IN REPAIR OF NICKS, SCRAPES AND GOUGES ON GENERAL NOTES - 2.
5. PERFORM INITIAL MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF THE ABOVE REPAIR AREAS AND AS NOTED ON 337FP DRAWING, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. IF CRACKS ARE FOUND AND CONFIRMED, FLAME STRAIGHTENING OPERATIONS WILL NOT BE ALLOWED TO BEGIN UNTIL THE CRACKS HAVE BEEN REPAIRED TO THE SATISFACTION OF THE ENGINEER. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
6. CORRECT FLANGE DAMAGE USING HEATING METHODS DESCRIBED IN GENERAL REQUIREMENTS ON GENERAL NOTES -1 AND DRAWING HD. DIMENSIONAL TOLERANCES FOR HEAT STRAIGHTENING SHALL BE AS DESCRIBED IN REPAIR TOLERANCES ON GENERAL NOTES -2.
7. CORRECT SWEEP AND FLANGE TILT USING HEATING METHODS DESCRIBED IN GENERAL REQUIREMENTS ON GENERAL NOTES -1 AND DRAWING HD. DIMENSIONAL TOLERANCES FOR HEAT STRAIGHTENING SHALL BE AS DESCRIBED IN REPAIR TOLERANCES ON GENERAL NOTES -2.
8. INSTALL NEW FULL DEPTH CONNECTION PLATES ON FASCIA GIRDER G1 CONNECTING DIAPHRAGMS LOCATED AT 20'-0" NORTH OF PIER 1 AS SHOWN ON DRAWING 337G1RD.
9. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF ALL AREAS THAT WERE: A) HEATED, B) STRAIGHTENED, C) GROUND TO REMOVE SCRAPES AND GOUGES, OR D) WELDED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
10. BLAST CLEAN AND PAINT ALL REPAIR AREAS AS DESCRIBED IN FINAL PAINTING ON GENERAL NOTES-2, WITH 2 COATS OF PAINT.

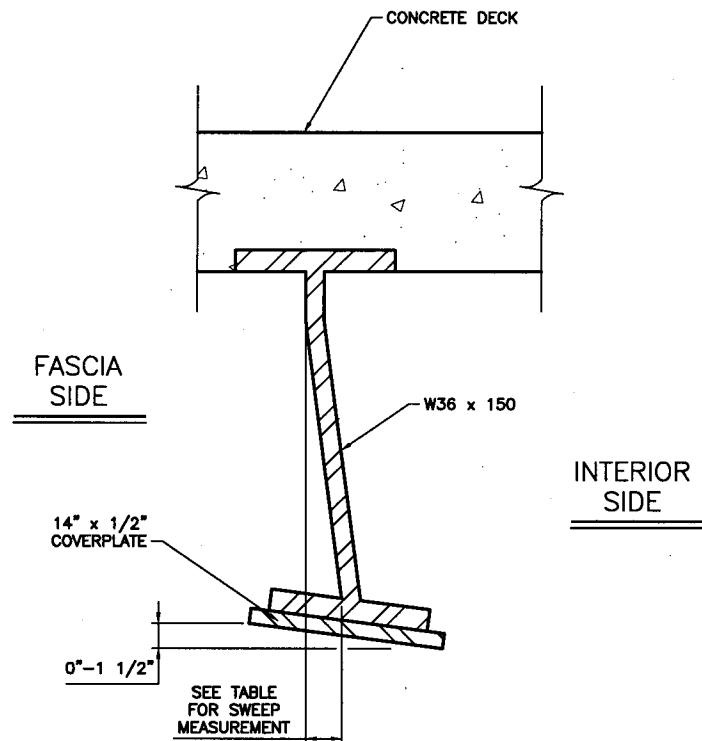
REPAIR PROCEDURE INTERIOR GIRDER G2:

1. IF NOT PREVIOUSLY REMOVED, REMOVE PAINT AS SHOWN ON DRAWING 337FP.
2. GRIND ALL MISCELLANEOUS SCRAPES AND GOUGES AS ORDERED BY THE ENGINEER IN CHARGE. REPAIR OF SCRAPES AND GOUGES SHOULD BE DONE IN ACCORDANCE WITH DIRECTIONS GIVEN IN REPAIR OF NICKS, SCRAPES AND GOUGES ON GENERAL NOTES - 2.
3. PERFORM INITIAL MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF THE ABOVE REPAIR AREAS, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. IF CRACKS ARE FOUND AND CONFIRMED, CONNECTION PLATE INSTALLATION WILL NOT BE ALLOWED TO BEGIN UNTIL THE CRACKS HAVE BEEN REPAIRED TO THE SATISFACTION OF THE ENGINEER. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
4. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF ALL AREAS THAT WERE: A) HEATED, B) STRAIGHTENED, C) GROUND TO REMOVE SCRAPES AND GOUGES, OR D) WELDED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
5. INSTALL NEW DIAPHRAGM AT 20'-0" NORTH OF CENTERLINE OF BEARING LOCATED AT PIER 1. SEE DIAPHRAGM DETAIL DRAWING 337SD.
6. BLAST CLEAN AND PAINT ALL REPAIR AREAS AS DESCRIBED IN FINAL PAINTING ON GENERAL NOTES-2 WITH 2 COATS OF PAINT.

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT PORT GIBSON ROAD OVER THRUWAY M.P. 337.47			
TITLE OF DRAWING WORK TO BE DONE			
		CONTRACT NUMBER:	TAS 11-44B
		DATE:	04/11
		DRAWING NUMBER:	337WD



IN CHARGE OF: M. CIOFFI
DESIGNED BY: K. KAYSER
DRAFTED BY: J. DISHON
CHECKED BY: MC



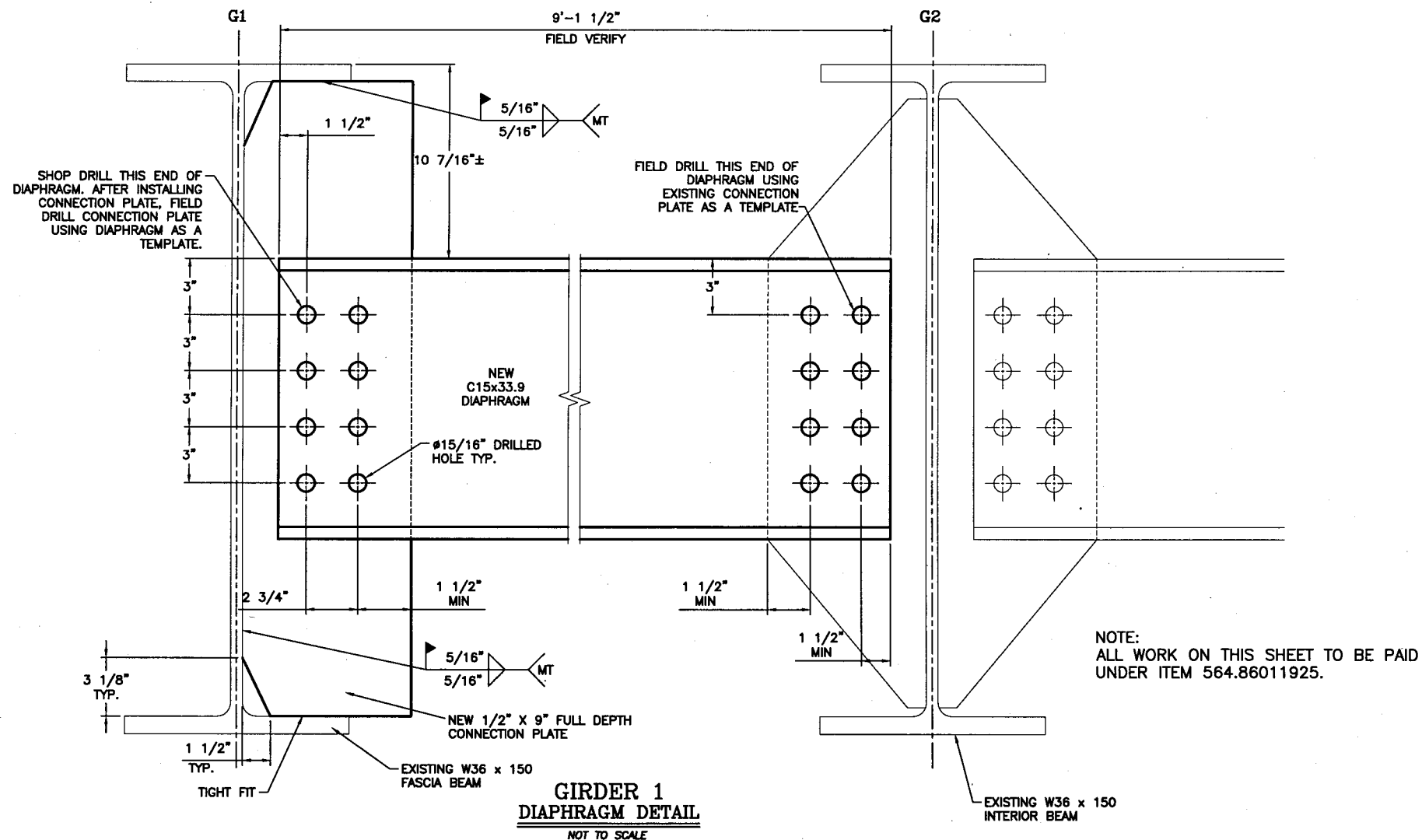
DISTANCE NORTH OF PIER 1 (ft.)	SWEEP MEASUREMENT (in.)
10	5 5/8
11	5 7/8
12	6
13	6 1/4
14	6 1/2
15	6 3/4
16	6 7/8
17	7
18	7 1/4
19	7 1/8
20	6 7/8
21	6 5/8
22	6 1/4
23	6 1/8
24	5 7/8
25	5 3/4
26	5 1/2

NOTE:
ALL WORK ON THIS SHEET TO BE PAID
UNDER ITEM 564.86011925.

G1 - SWEEP & FLANGE TILT MEASUREMENTS

N.T.S.
ALL DIMENSIONS SHOWN ARE APPROXIMATE

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT PORT GIBSON ROAD OVER THRUWAY M.P. 337.47			
TITLE OF DRAWING SWEEP DETAILS			
	CONTRACT NUMBER: TAS 11-44B		
	DATE: 04/11		
	DRAWING NUMBER: 337SD		



REPAIR PROCEDURE FOR FASCIA GIRDER G1:

1. REMOVE PAINT AS SHOWN ON DRAWING 337FP.
2. REMOVE DIAPHRAGM LOCATED AT 20'-0" NORTH OF PIER 1 ON GIRDER G1 SPAN 2. BLAST CLEAN DIAPHRAGM AND MAGNETIC PARTICLE TEST HOLES AND FAYING SURFACES OF THE DIAPHRAGM.
3. REMOVE THE CONNECTION PLATE ON FASCIA GIRDER G1 CONNECTING DIAPHRAGM LOCATED AT 20'-0" NORTH OF PIER 1 BY AIR CARBON ARC GOUGING AND/OR BY FLAME CUTTING THE CONNECTION PLATE TO WITHIN 1/8" OF THE WEB. THE REMAINING CONNECTION PLATE AND WELD METAL SHALL BE REMOVED BY GRINDING FLUSH AND SMOOTH WITH THE WEB SURFACE.
4. GRIND ALL MISCELLANEOUS SCRAPES AND GOUGES AS ORDERED BY THE ENGINEER IN CHARGE. REPAIR OF SCRAPES AND GOUGES SHOULD BE DONE IN ACCORDANCE WITH DIRECTIONS GIVEN IN REPAIR OF NICKS, SCRAPES AND GOUGES ON GENERAL NOTES - 2.
5. PERFORM INITIAL MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF THE ABOVE REPAIR AREAS AND AS NOTED ON 337FP DRAWING, INCLUDING WELDS AND BASE METAL, TO DETERMINE THE PRESENCE OF CRACKS. IF CRACKS ARE FOUND AND CONFIRMED, FLAME STRAIGHTENING OPERATIONS WILL NOT BE ALLOWED TO BEGIN UNTIL THE CRACKS HAVE BEEN REPAIRED TO THE SATISFACTION OF THE ENGINEER. MAGNETIC PARTICLE INSPECTION SHALL BE PERFORMED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
6. CORRECT FLANGE DAMAGE USING HEATING METHODS DESCRIBED IN GENERAL REQUIREMENTS ON GENERAL NOTES -1 AND DRAWING HD. DIMENSIONAL TOLERANCES FOR HEAT STRAIGHTENING SHALL BE AS DESCRIBED IN REPAIR TOLERANCES ON GENERAL NOTES -2.
7. CORRECT SWEEP AND FLANGE TILT USING HEATING METHODS DESCRIBED IN GENERAL REQUIREMENTS ON GENERAL NOTES -1 AND DRAWING HD. DIMENSIONAL TOLERANCES FOR HEAT STRAIGHTENING SHALL BE AS DESCRIBED IN REPAIR TOLERANCES ON GENERAL NOTES -2.
8. INSTALL NEW FULL DEPTH CONNECTION PLATES ON FASCIA GIRDER G1 CONNECTING DIAPHRAGMS LOCATED AT 20'-0" NORTH OF PIER 1 AS SHOWN ON DRAWING 337G1RD.
9. AFTER ALL REQUIRED REPAIRS ARE COMPLETE, PERFORM MAGNETIC PARTICLE TESTS WITHIN 12 INCHES OF ALL AREAS THAT WERE: A) HEATED, B) STRAIGHTENED, C) GROUND TO REMOVE SCRAPES AND GOUGES, OR D) WELDED AS DESCRIBED IN INSPECTION AND NONDESTRUCTIVE TESTING ON GENERAL NOTES - 2.
10. BLAST CLEAN AND PAINT ALL REPAIR AREAS AS DESCRIBED IN FINAL PAINTING ON GENERAL NOTES-2, WITH 2 COATS OF PAINT.

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT PORT GIBSON ROAD OVER THRUWAY M.P. 337.47			
TITLE OF DRAWING GIRDER 1 REPAIR DETAILS			
		CONTRACT NUMBER: TAS 11-44B	
		DATE: 04/11	
		DRAWING NUMBER: 337G1RD	

RECOMMENDED MINOR COVER PLATE REPAIR PROCEDURE

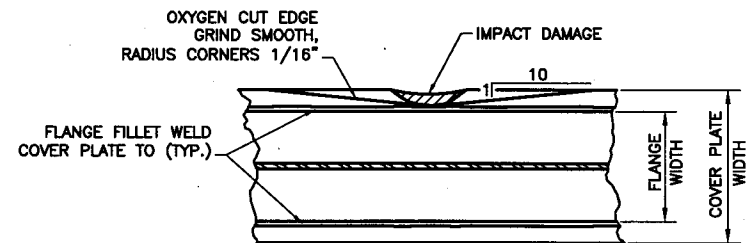
1. NICKS, SCRAPES AND GOUGES IN COMPONENTS OF STEEL MEMBERS MAY BE REPAIRED BY GRINDING TO A SLOPE OF 1 ON 10, AND BLENDING IN SMOOTHLY TO ADJACENT BASE METAL, PROVIDING:

- A. THE THICKNESS OF THE MATERIAL IS NOT REDUCED BY MORE THAN 20% OF THE ORIGINAL NOMINAL THICKNESS.
- B. THE WIDTH OF THE FLANGE OR COVER PLATE IS NOT REDUCED BY MORE THAN 5% OF THE ORIGINAL NOMINAL WIDTH.
- C. THE GOUGE DOES NOT REDUCE THE NOMINAL CROSS SECTIONAL AREA OF THE COMPONENT BY MORE THAN 5% OF THE ORIGINAL NOMINAL CROSS SECTION. A COMPONENT IS DEFINED AS A WEB OR FLANGE OF A PLATE GIRDER, A WEB OR FLANGE OF A ROLLED BEAM GIRDER, A COVER PLATE EXCLUSIVE OF WELDS, A LEG OF AN ANGLE, ETC.

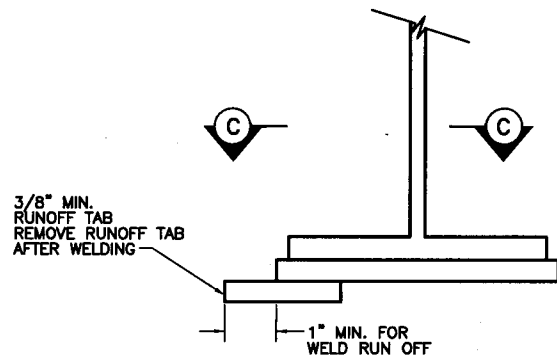
2. NICKS, SCRAPES AND GOUGES THAT EXCEED THE ABOVE LIMITS MUST BE REPAIRED USING AN APPROVED PROCEDURE SIMILAR TO THE FOLLOWING:

- A. PREPARE THE SURFACE BY GRINDING.
- B. WELD WITH APPROVED PROCEDURES TO COMPLETELY FILL THE GOUGE.
- C. GRIND FLUSH AND SMOOTH WITH THE ADJACENT BASE METAL.
- D. ULTRASONIC TEST THE REPAIR WELD.

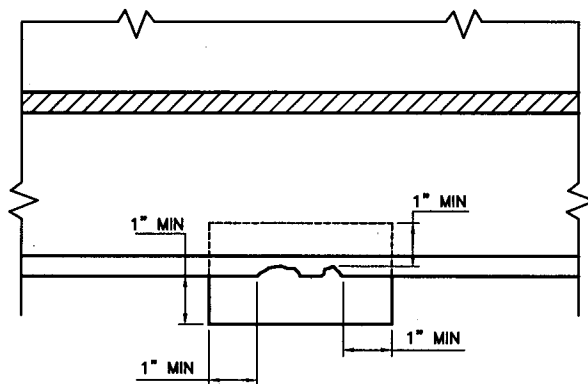
3. ALL FINAL GRINDING MUST BE PARALLEL TO THE DIRECTION OF APPLIED STRESS IN THE MEMBER UNLESS THE SURFACE ROUGHNESS MEETS OR EXCEEDS AN ANSI 125 FINISH.



GRIND DETAIL
N.T.S.

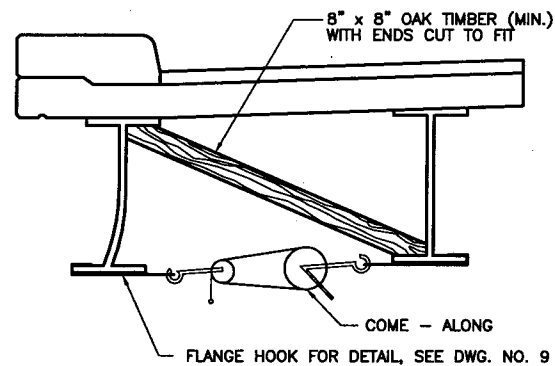


MINOR
COVER PLATE REPAIR DETAIL
N.T.S.

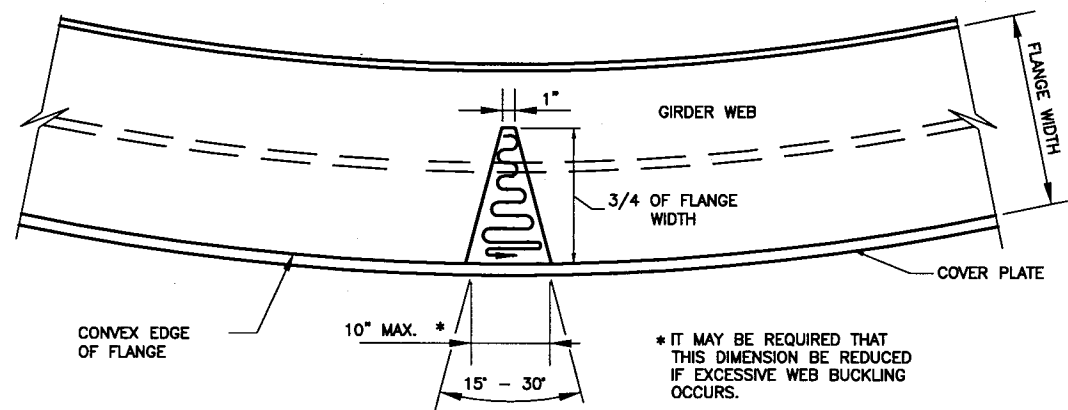
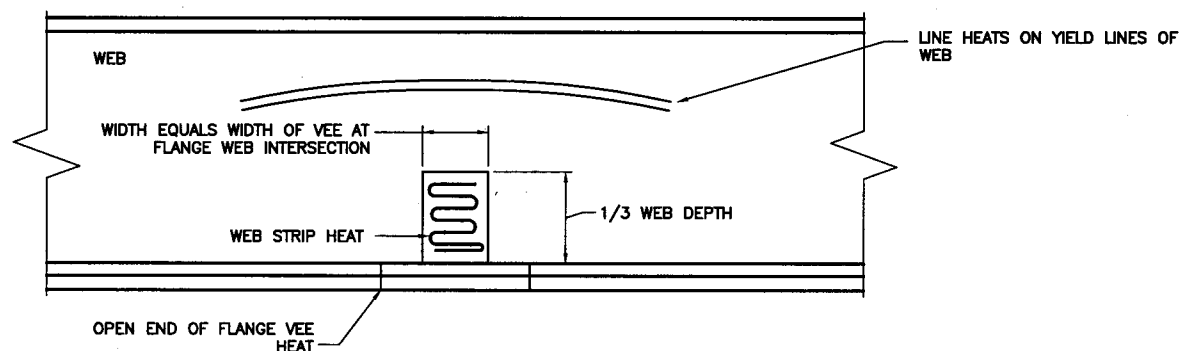
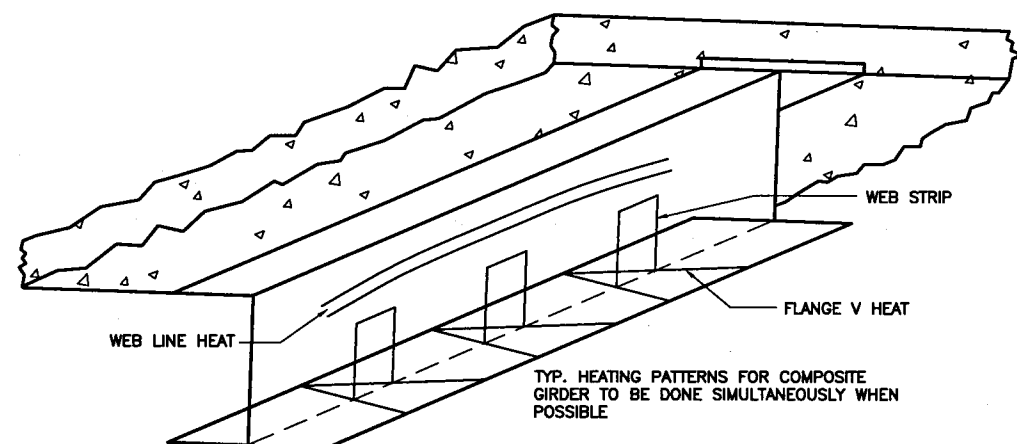


SECTION C-C
N.T.S.

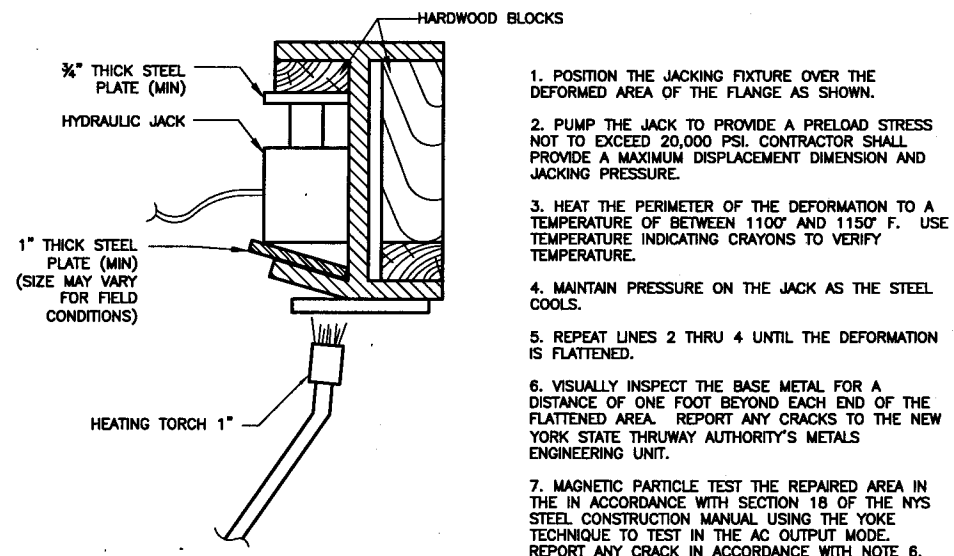
DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 MP 283.79 MP 337.47			
TITLE OF DRAWING COVER PLATE REPAIR DETAILS			
CONTRACT NUMBER: TAS 11-44B			
DATE: 04/11			
DRAWING NUMBER: CPR			



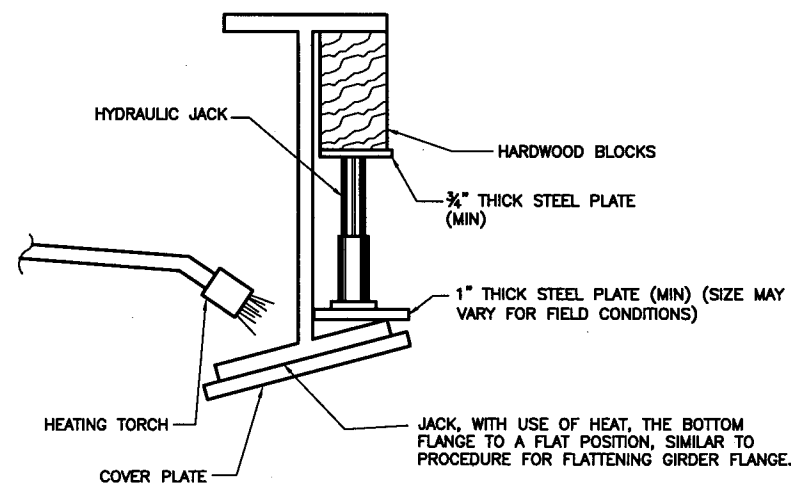
JACKING OF BOTTOM FLANGE
N.T.S.



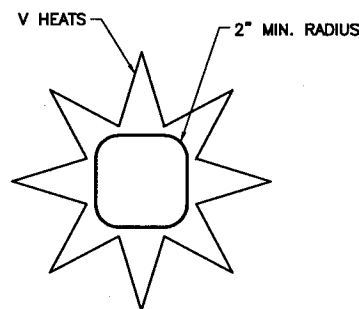
TYPICAL VEE HEATING PATTERN & PROGRESSION OF HEATING TORCH
N.T.S.



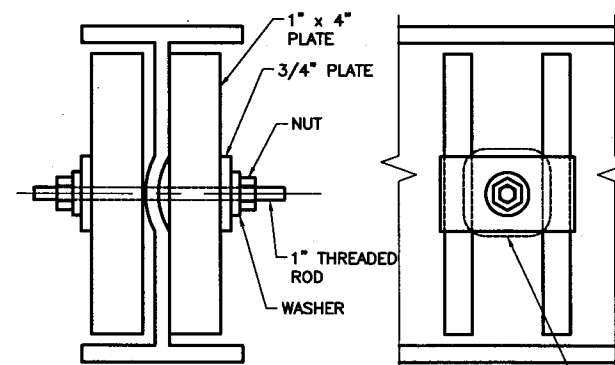
PROCEDURE FOR FLATTENING FLANGE AT IMPACT AREA
N.T.S.



PROCEDURE FOR REMOVING GIRDER FLANGE TILT
N.T.S.



DETAIL 'A'
N.T.S.



PROCEDURE FOR FLATTENING WEB BUCKLE AT PUNCTURE
N.T.S.

HEATING NOTES:

VEE HEATS

1. THE INITIAL SEQUENCE OF HEATS SHALL BE APPLIED TO THE CONVEX SIDE OF THE BENT MEMBER AT THE POINT OF IMPACT.
2. HEATING PATTERNS SHALL BE LOCATED AND SPACED BY THE CONTRACTOR TO SUIT FIELD CONDITIONS.
3. WHEN AN APPLIED PRELOAD IS USED, ADJUSTMENT TO THE JACKING DEVICES OR COME-LONGS SHALL NOT BE MADE UNTIL THE STEEL HAS COOLED TO 200°F.
4. WHEN THE DAMAGED FLANGE IS GREATER THAN 1 INCH IN THICKNESS OR A COVER PLATE IS ATTACHED TO THE DAMAGED FLANGE, HEAT SHALL BE APPLIED TO THE TOP AND BOTTOM OF THE DAMAGED MEMBER (S) USING TWO TORCHES SIMULTANEOUSLY.
5. IN GENERAL HEATING SHALL BE PERFORMED USING SINGLE ORIFICE TORCHES. THE CONTRACTOR SHALL SELECT TIP SIZES BASED UPON FIELD CONDITIONS WHICH WILL PROMOTE HEATING EFFICIENCY AND PREVENT UNNECESSARY DISTORTION. SEE SUGGESTED TORCH TIPS FOR VARIOUS MATERIAL THICKNESS.
6. BEGINNING AT THE TRUNCATED END OF THE TRIANGLE, BRING THE STEEL TO A TEMPERATURE BETWEEN 1100°F. AND 1150°F. AS RAPIDLY AS POSSIBLE. HEATING SHOULD PROGRESS SLOWLY TOWARDS THE BASE OF THE TRIANGLE IN A SERPENTINE PATTERN. ONCE HEATING BEGINS TO PROGRESS TOWARDS THE BASE OF THE PATTERN, THE HEATING TORCH SHALL NOT RETURN TO THE APEX OF THE TRIANGLE.

LINE HEAT, STRIP HEATS, SPOT HEATS

1. WHEN REQUIRED, THE CONTRACTOR SHALL USE LINE HEATS, STRIP HEATS, SPOT HEATS IN CONJUNCTION WITH VEE HEATS TO HEAT STRAIGHTEN MEMBERS.
2. ALL LINE HEATING SHALL BE PERFORMED USING SINGLE ORIFICE TORCH TIPS.
3. TORCH TIP SIZE SHALL BE SELECTED BY THE CONTRACTOR TO PROMOTE HEATING EFFICIENCY AND PREVENT DISTORTION. SEE SUGGESTED TORCH TIPS FOR VARIOUS MATERIAL THICKNESS.
4. HEATING PATTERNS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR TO SUIT FIELD CONDITIONS.
5. THE STEEL SHALL BE BROUGHT TO A TEMPERATURE OF BETWEEN 1100°F. AND 1150°F. AS QUICKLY AS POSSIBLE. ONCE AN AREA HAS BEEN HEATED THE TORCH SHALL NOT RETURN TO THE AREA.

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING SERVICES 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 MP 283.79 MP 337.47			
TITLE OF DRAWING HEATING DETAILS			
CONTRACT NUMBER: TAS 11-44B		DATE: 04/11	
DRAWING NUMBER: HD			

TABLE NY1-A BARRIER VEHICLE USE REQUIREMENTS (LONG TERM, INTERMEDIATE TERM & SHORT TERM STATIONARY CLOSURES)					
CLOSURE TYPE	EXPOSURE CONDITION ¹	USE REQUIREMENTS ^{4,5}			
		FREEWAY	NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT)		
			≥45 MPH	35-40 MPH	≤30 MPH
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³	REQUIRED ³	REQUIRED ³	OPTIONAL ²
	NON-TRAVERSABLE HAZARD (IE. EQUIPMENT, MATERIALS, EXCAVATION) ONLY NO WORKERS EXPOSED	REQUIRED ³	REQUIRED ³	OPTIONAL ²	OPTIONAL ²
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³	REQUIRED ³	OPTIONAL ²	OPTIONAL ²
	NON-TRAVERSABLE HAZARD (IE. EQUIPMENT, MATERIALS, EXCAVATION) ONLY NO WORKERS EXPOSED	REQUIRED ³	OPTIONAL ²	OPTIONAL ²	OPTIONAL ²

1. THE EXPOSURE CONDITIONS DESCRIBED IN TABLE NY1-A ASSUMES THERE IS NO POSITIVE PROTECTION (TEMPORARY TRAFFIC BARRIER) PRESENT. WHERE WORKERS OR HAZARDS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER, BARRIER VEHICLES ARE NOT REQUIRED.
2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.
3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED SHOULDER 8 FEET OR GREATER IN WIDTH. IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES PROTECTING NON-TRAVERSABLE HAZARDS SHALL REMAIN IN PLACE DURING BOTH WORKING AND NON-WORKING HOURS UNTIL THE HAZARD NO LONGER EXISTS. EXCEPTIONS TO THESE REQUIREMENTS MAY BE MADE, AS APPROVED BY THE ENGINEER, WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.
4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.
5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS.

TABLE NY1-B SHADOW VEHICLE USE REQUIREMENTS (MOBILE CLOSURES ¹)					
CLOSURE TYPE	EXPOSURE CONDITION	USE REQUIREMENTS			
		FREEWAY	NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT)		
			≥45 MPH	35-40 MPH	≤30 MPH
LANE CLOSURE	WHEN ANY WORKERS, VEHICLES, OR OTHER HAZARD IS EXPOSED TO TRAFFIC	REQUIRED ^{2,4}	REQUIRED ^{2,4}	REQUIRED ^{2,4}	REQUIRED ^{3,4}
SHOULDER CLOSURE	WHEN ANY WORKERS, VEHICLES, OR OTHER HAZARD IS EXPOSED TO TRAFFIC	REQUIRED ^{2,4}	REQUIRED ^{2,4}	REQUIRED ^{3,4}	REQUIRED ^{3,4}

1. A MOBILE CLOSURE SHALL BE USED FOR ANY WORK ACTIVITY THAT MOVES CONTINUOUSLY OR INTERMITTENTLY ALONG THE TRAVELED WAY OR SHOULDER SLOWER THAN THE PREVAILING SPEED OF TRAFFIC. CHANNELIZING DEVICES ARE NOT USED FOR MOBILE CLOSURES.
2. SHADOW VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED ATTENUATOR (TRUCK-MOUNTED OR TRAILER MOUNTED) FOR THE FOLLOWING MOBILE CLOSURES: LANE CLOSURES ON FREEWAYS, LANE CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION POSTED SPEED LIMIT OF 35 MPH OR MORE, SHOULDER CLOSURES ON FREEWAYS, AND SHOULDER CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE.
3. FOR MOBILE LANE CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION POSTED SPEED LIMIT OF 30 MPH OR LESS AND MOBILE SHOULDER CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION SPEED LIMIT OF 40 MPH OR LESS, SHADOW VEHICLES ARE NOT REQUIRED TO BE EQUIPPED WITH A REAR MOUNTED ATTENUATOR.
4. A SHADOW VEHICLE IS USED TO PROTECT EXPOSED WORKERS (ON FOOT OR IN A VEHICLE) AND SHALL BE REQUIRED FOR ALL MOBILE CLOSURES. SHADOW VEHICLE REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE SHADOW VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED SHOULDER 8 FEET OR GREATER IN WIDTH. ADDITIONAL SHADOW VEHICLES MAY BE REQUIRED TO PROMOTE THE SAFE OPERATION OF TRAFFIC AND THE INCREASED PROTECTION OF EXPOSED WORKERS, AS DIRECTED BY THE ENGINEER.

TABLE NY2-A PLACEMENT DISTANCE FOR BARRIER VEHICLES				
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	PLACEMENT DISTANCE (FT)			
	BARRIER VEHICLES			
	18000 LBS.		24000 LBS.	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
> 55	100 FT	200 FT	100 FT	200 FT
45 - 55	100 FT	200 FT	80 FT	160 FT
< 45	80 FT	160 FT	50 FT	100 FT

AS DEFINED IN NYSDOT STANDARD SPECIFICATION 619:

BARRIER VEHICLE: VEHICLE USED FOR STATIONARY SHOULDER CLOSURES, LANE CLOSURES AND OTHER STATIONARY WORK ZONES.

MINIMUM DISTANCE SHOWN REFLECTS THE ACTUAL ROLL AHEAD DISTANCE FROM MANUFACTURER.

TABLE NY2-B PLACEMENT DISTANCE FOR SHADOW VEHICLES					
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	PLACEMENT DISTANCE (FT)				
	SHADOW VEHICLES				
	18000 LBS.		24000 LBS.		
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM	MAXIMUM
> 55	230 FT	325 FT	180 FT	280 FT	
45 - 55	180 FT	280 FT	150 FT	250 FT	
< 45	100 FT	200 FT	100 FT	200 FT	

AS DEFINED IN NYSDOT STANDARD SPECIFICATION 619:

SHADOW VEHICLE: VEHICLE USED FOR MOBILE OR SHORT DURATION WORK OPERATIONS.

MINIMUM DISTANCE SHOWN REFLECTS THE ACTUAL ROLL AHEAD DISTANCE FROM MANUFACTURER.

TABLE NY6H-3 ADVANCE WARNING SIGN SPACING						
ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND		
	A (FT)	B (FT)	C (FT)	XX	YY	
URBAN (≤30 MPH*)	100	100	100	AHEAD	AHEAD	
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD	
URBAN (≥45 MPH*)	350	350	350	1000 FT	AHEAD	
RURAL	500	500	500	1500 FT	1000 FT	
EXPRESSWAY/FREEWAY	1,000	1,500	2,640	1 MILE	1/2 MILE	

* PRECONSTRUCTION POSTED SPEED LIMIT

URBAN:
ANY AREA EXHIBITING AT LEAST TWO OF THE FOLLOWING CHARACTERISTICS: SIDEWALKS, BICYCLE USAGE, CURBING, CLOSED DRAINAGE SYSTEMS, DRIVEWAY DENSITIES GREATER THAN 24 DRIVEWAYS PER MILE, MINOR COMMERCIAL DRIVEWAY DENSITIES OF 10 DRIVEWAYS PER MILE OR GREATER, MAJOR COMMERCIAL DRIVEWAYS, NUMEROUS RIGHT-OF-WAY CONSTRAINTS, HIGH DENSITY OF CROSS STREETS, OPERATING SPEEDS OF 45 MPH OR LESS.

RURAL:
ANY AREA EXHIBITING NO MORE THAN ONE OF ABOVE CHARACTERISTICS.

EXPRESSWAY:
DIVIDED HIGHWAYS FOR THROUGH TRAFFIC WITH FULL OR PARTIAL CONTROL OF ACCESS AND GENERALLY WITH GRADE SEPARATIONS AT MAJOR CROSSROADS.

FREEWAY/INTERSTATE:
LOCAL OR INTERREGIONAL HIGH-SPEED, DIVIDED, HIGH-VOLUME FACILITIES WITH FULL OR PARTIAL CONTROL OF ACCESS.

THRUWAY WORK DURATION DEFINITIONS

LONG-TERM STATIONARY IS WORK THAT OCCUPIES A LOCATION MORE THAN 3 CONSECUTIVE DAYS.

INTERMEDIATE-TERM STATIONARY IS WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR.

SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION WITHIN A SINGLE DAYLIGHT PERIOD.

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 2 HOURS

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

TABLE 619-4 FLARE RATES FOR POSITIVE BARRIER					
TYPE OF POSITIVE BARRIER	POSTED SPEED LIMIT				
	30 MPH	40 MPH	50 MPH	55 MPH	65 MPH
TEMPORARY CONCRETE BARRIER	8:1	11:1	14:1	16:1	20:1
BOX BEAM OR HEAVY POST CORRUGATED BEAM	7:1	9:1	11:1	12:1	15:1

TABLE 6C-2
LONGITUDINAL BUFFER SPACE

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE
25	155 FT
30	200 FT
35	250 FT
40	305 FT
45	360 FT
50	425 FT
55	495 FT
60	570 FT
65	645 FT

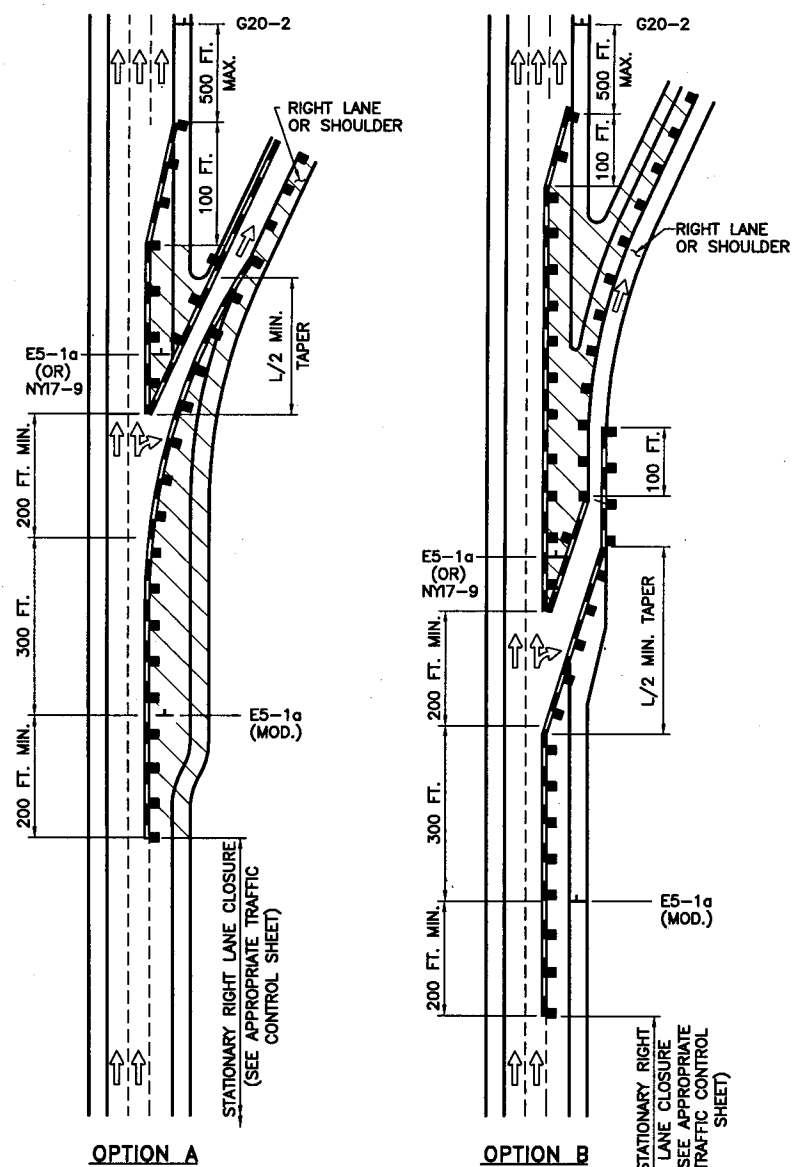
TABLE 6C-3
TAPER LENGTH CRITERIA
FOR WORK ZONES

TYPE OF TAPER	TAPER LENGTH (L)
MERGING TAPER	L
SHIFTING TAPER	L/2
SHOULDER TAPER	L/3
ONE-LANE, TWO-WAY TRAFFIC TAPER	100 FT MAXIMUM
DOWNSTREAM TAPER	100 FT PER LANE

TABLE 6H-4 FORMULAS FOR DETERMINING TAPER LENGTHS												
SPEED LIMIT (S) (MPH)	TAPER LENGTH (L) (FEET)		L = TAPER LENGTH (FEET) W = WIDTH OF OFFSET (FEET) S = PRE-CONSTRUCTION POSTED SPEED LIMIT (MPH)									
	40 MPH OR LESS	L = WS ² /60										
45 MPH OR MORE	L = WS											
STANDARD TAPER LENGTHS												
LATERAL SHIFT OF TRAFFIC FLOW PATH	WORK ZONE PRE-CONSTRUCTION POSTED SPEED LIMIT											
	25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH	60 MPH	65 MPH	70 MPH	75 MPH	80 MPH
	4 FT	40 FT	60 FT	80 FT	105 FT	180 FT	200 FT	220 FT	240 FT	260 FT	280 FT	300 FT
	5 FT	50 FT	75 FT	100 FT	135 FT	225 FT	250 FT	275 FT	300 FT	325 FT	350 FT	375 FT
	6 FT	65 FT	90 FT	125 FT	160 FT	270 FT	300 FT	330 FT	360 FT	390 FT	420 FT	450 FT
	7 FT	75 FT	105 FT	145 FT	185 FT	315 FT	350 FT	385 FT	420 FT	455 FT	490 FT	525 FT
	8 FT	85 FT	120 FT	165 FT	215 FT	360 FT	400 FT	440 FT	480 FT	520 FT	560 FT	600 FT
	9 FT	95 FT	135 FT	185 FT	240 FT	405 FT	450 FT	495 FT	540 FT	585 FT	630 FT	675 FT
	10 FT	105 FT	150 FT	205 FT	265 FT	450 FT	500 FT	550 FT	600 FT	650 FT	700 FT	750 FT
	11 FT	115 FT	165 FT	225 FT	295 FT	495 FT	550 FT	605 FT	660 FT	715 FT	770 FT	825 FT
	12 FT	125 FT	180 FT	245 FT	320 FT	540 FT	600 FT	660 FT	720 FT	780 FT	840 FT	900 FT

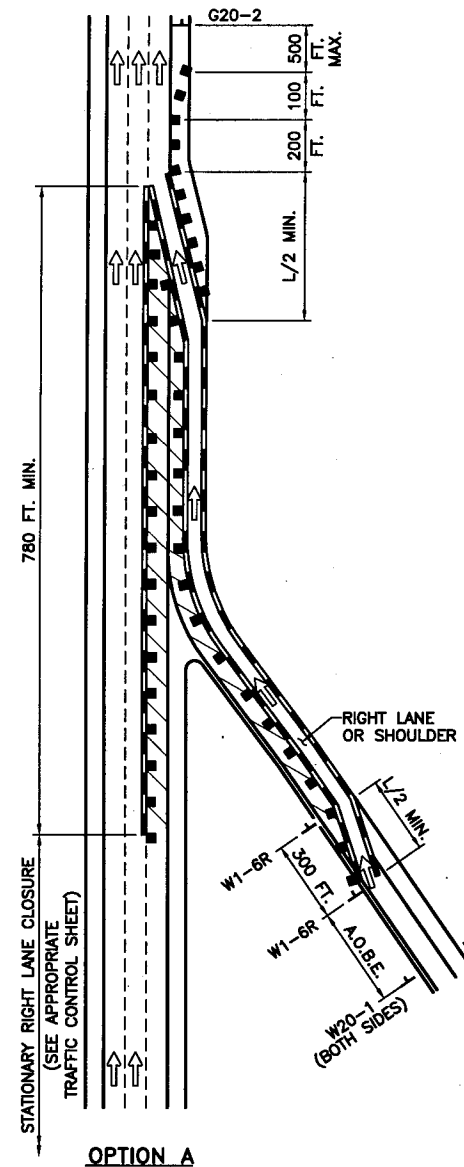
WORK ZONE TRAFFIC CONTROL LEGEND	
SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL SUPPORT OR TRAILER
	CHANGEABLE MESSAGE SIGN (Pvms)
	CHANNELIZING DEVICE
	CRASH CUSHION/TEMPORARY IMPACT ATTENUATOR
	DIRECTION OF TEMPORARY TRAFFIC DETOUR
	DIRECTION OF TRAFFIC
	FLAGGER
	FLAG TREE
	LUMINAIRE
	PAVEMENT MARKINGS THAT SHALL BE REMOVED FOR A LONG TERM PROJECT
	SIGN, TEMPORARY
	TEMPORARY BARRIER
	TEMPORARY BARRIER WITH WARNING LIGHTS
	TRAFFIC OR PEDESTRIAN SIGNAL
	TYPE III BARRICADE
	WARNING LIGHTS
	WORK SPACE
	WORK VEHICLE
	WORK VEHICLE W/ TRUCK MOUNTED ATTENUATOR

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 MP 283.79 MP 337.47			
TITLE OF DRAWING WORK ZONE TRAFFIC CONTROL TABLES AND LEGEND			
		CONTRACT NUMBER:	TAS 11-44B
		DATE:	2/09
		DRAWING NUMBER:	TL



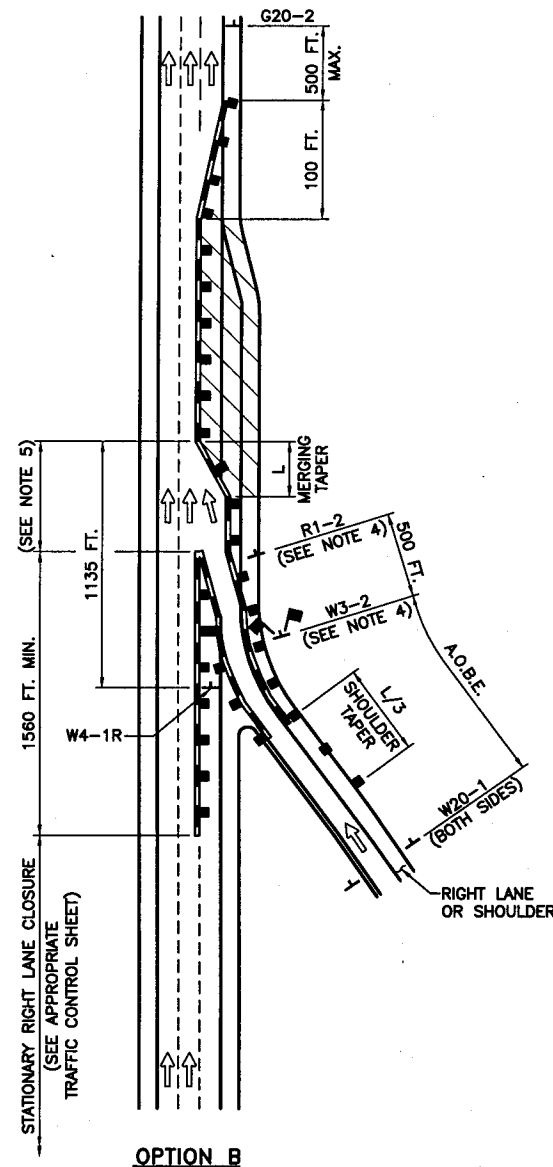
TYPICAL DECELERATION LANE

N.T.S.



TYPICAL ACCELERATION LANE

N.T.S.



TYPICAL WORK ZONE ON RAMP

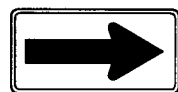
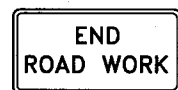
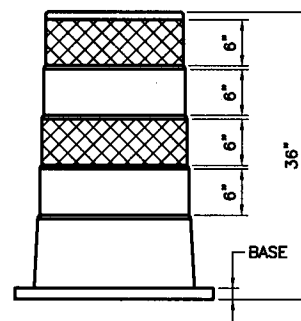
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NOTES:

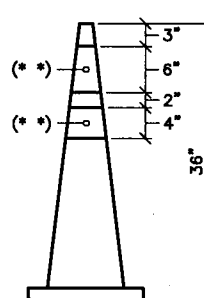
- ALL SIGNS SHALL CONFORM TO THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (NMUTCD) AND NEW YORK STATE SUPPLEMENT. ORANGE SIGNS ON RIGID PANELS SHALL BE FLUORESCENT-ORANGE ASTM TYPE IX (CLASS E) RETROREFLECTIVE SHEETING. ALL OTHER COLORS OF CONSTRUCTION SIGN FACES ON RIGID PANELS SHALL BE ASTM TYPE III (CLASS B) REFLECTIVE SHEETING.
- THE ENGINEER SHALL APPROVE THE CONDITION OF ALL TRAFFIC CONTROL DEVICES PRIOR TO USE. THE ENGINEER SHALL ALSO REVIEW THE PROPOSED WORK ZONE TRAFFIC CONTROL PLAN FOR PRECISE DEVICE POSITIONING PRIOR TO INSTALLATION.
- CHANNELIZING DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE NMUTCD AND SECTION 729 OF THE STANDARD SPECIFICATIONS WITH THE EXCEPTION THAT SHEETING REQUIREMENTS SHALL BE AS SPECIFIED ON THIS DRAWING. CHANNELIZING DEVICE TYPE AND SPACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 619 OF THE STANDARD SPECIFICATIONS.
- "YIELD" (R1-2) AND "YIELD AHEAD" (W3-2) SIGNS ARE REQUIRED WHENEVER A MAINLINE LANE ADJACENT TO AN ACCELERATION LANE (ENTRANCE RAMP) IS CLOSED. IN AREAS WHERE THE MAINLINE ADJACENT TO AN ACCELERATION LANE (ENTRANCE RAMP) IS REDUCED TO A SINGLE THROUGH LANE, A FLAGGER WITH ACCOMPANYING "FLAGGER AHEAD" (W20-7a) SIGN MAY BE USED IN LIEU OF THE "YIELD" AND "YIELD AHEAD" SIGNS. THE FLAGGER WITH ACCOMPANYING "FLAGGER AHEAD" SIGN SHALL BE PLACED ON THE ACCELERATION LANE (ENTRANCE RAMP) IN ACCORDANCE WITH THE GUIDELINES ESTABLISHED IN THE MUTCD. THIS SUBSTITUTION IS NOT PERMITTED IN AREAS WHERE THE ACCELERATION LANE (ENTRANCE RAMP) IS A HIGH-SPEED FREEWAY-TO-FREEWAY CONNECTION RAMP.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE ACCELERATION DISTANCE FOR THE YIELD CONDITION AS PER THE CONTRACT PLANS OR AS APPROVED BY THE ENGINEER.
- THE "FLAGGER AHEAD" (W20-7a) SIGN SHALL BE USED WHENEVER THE FLAGGER IS ON DUTY AT THE FLAGGING STATION. THE "FLAGGER AHEAD" SIGN SHALL BE PROMPTLY REMOVED, COVERED, TURNED AWAY FROM TRAFFIC, OR CHANGED TO ANOTHER APPROPRIATE LEGEND WHENEVER THE FLAGGER IS NOT AT THE FLAGGING STATION.
- EXISTING PAVEMENT MARKINGS SHALL BE MAINTAINED BY THE CONTRACTOR WITHIN THE PROJECT LIMITS. IF THE CONTRACTOR'S OPERATIONS IN ANY WORK SPACE WILL EXCEED A PERIOD OF 2 (TWO) WEEKS, OR IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL COMPLETELY REMOVE OR COVER PORTIONS OF THE EXISTING MARKINGS AND INSTALL TEMPORARY MARKINGS AS DETAILED ON THIS SHEET. TEMPORARY MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE MUTCD, CONTRACT PLANS AND/OR PROPOSAL. WHEN ALL WORK IS COMPLETED IN THE WORK SPACE(S), OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE THE TEMPORARY MARKINGS AND RESTORE THE EXISTING MARKINGS.

* USE ONLY WHEN FLAGGER IS ON DUTY

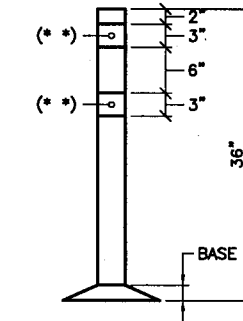
NOTE:
ADJUST CHANNELIZING DEVICES AND SIGNS TO LOCATION OF WORK ON RAMP.

R1-2
60" x 60" x 60"W1-6R
48" x 24"W3-2
48" x 48"W4-1R
48" x 48"W20-1
48" x 48"W20-7a
48" x 48"G20-2
48" x 24"E5-1a
72" x 60"E5-1a (MOD)
72" x 60"
(8" SERIES F)NY17-9
60" x 54"

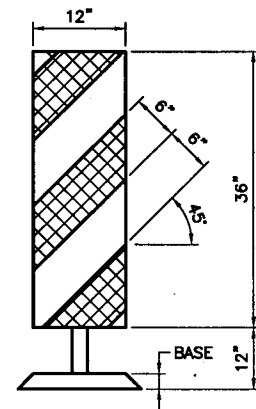
DRUM



TALL CONE



TUBULAR MARKER

OVERSIZED
VERTICAL PANEL

CHANNELIZING DEVICE

LEGEND

WHITE RETROREFLECTORIZED SHEETING,
ASTM TYPE IX (CLASS E)

ORANGE RETROREFLECTORIZED SHEETING,
ASTM TYPE IX (CLASS E)

NON-REFLECTORIZED ORANGE

(*) WHITE REFLECTIVE SHEETING,
ASTM TYPE III (CLASS B) OR
ASTM TYPE V (CLASS C)

LEGEND



WORK SPACE



CHANNELIZING DEVICE



DIRECTION OF TRAFFIC



TEMPORARY SIGN

WARNING FLAGS
MIN. 18 x 18 IN.

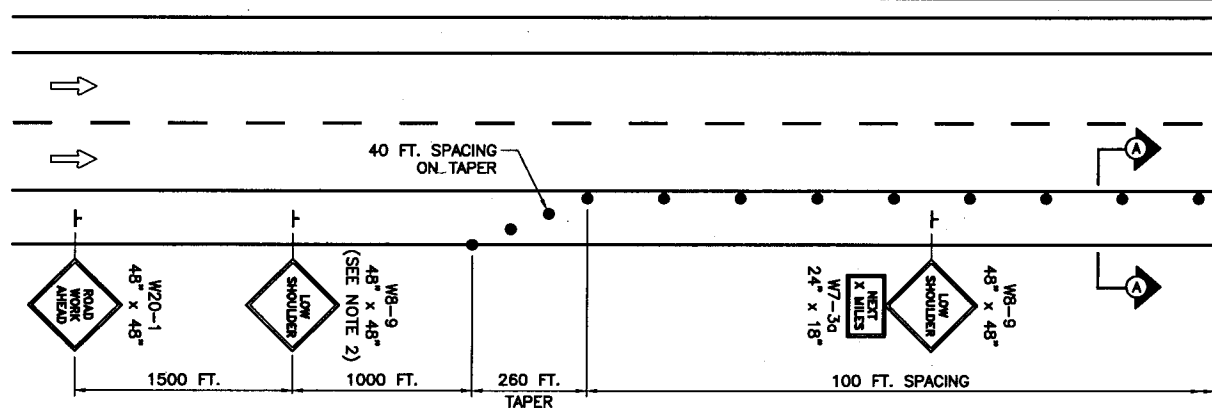
FLAGGER

TEMPORARY
PAVEMENT MARKING

NOTE:

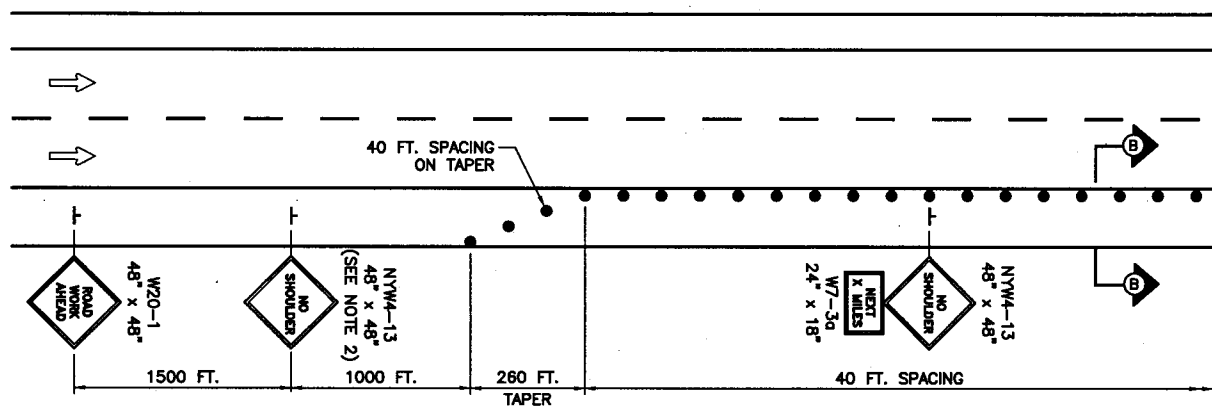
IF NECESSARY, CONSULT THE
DIVISION TRAFFIC SUPERVISOR
FOR OTHER TRAFFIC CONTROL
OPTIONS.

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 MP 283.79 MP 337.47			
TITLE OF DRAWING WORK ZONE TRAFFIC CONTROL AT INTERCHANGES, SERVICE AREAS AND PARKING AREAS			
CONTRACT NUMBER: TAS 11-44B		DATE: 2/09	
DRAWING NUMBER: INT			



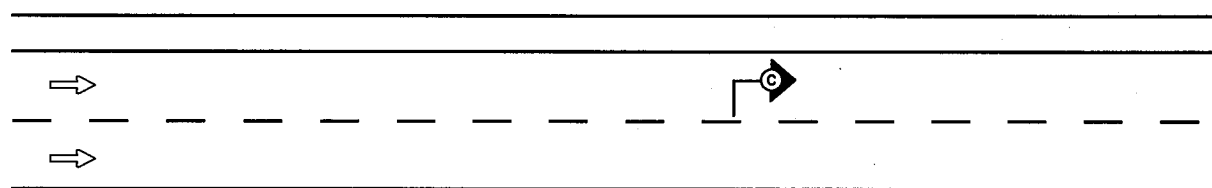
DROP-OFF AT EDGE OF TRAVELED WAY
DEPTH 2 INCHES TO 4 INCHES

N.T.S.



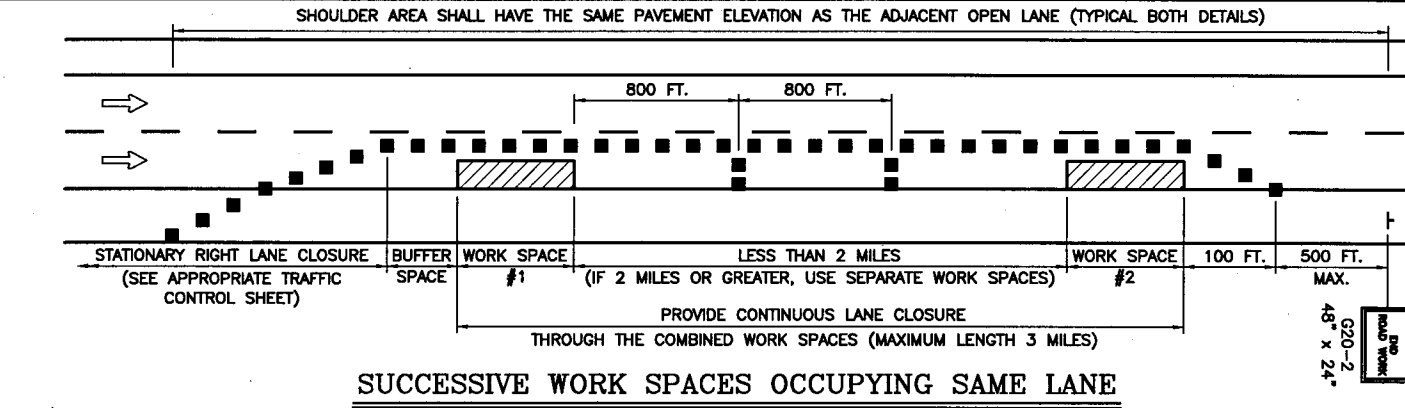
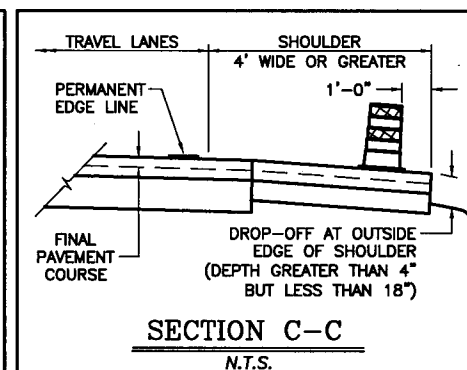
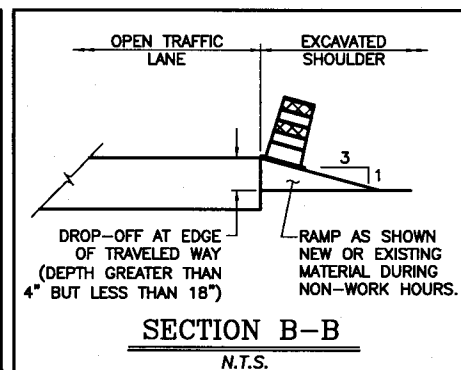
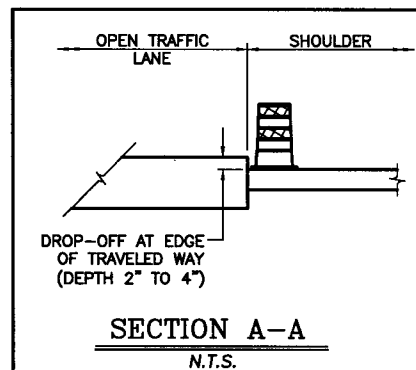
DROP-OFF AT EDGE OF TRAVELED WAY
DEPTH GREATER THAN 4 INCHES, BUT LESS THAN 18 INCHES

N.T.S.



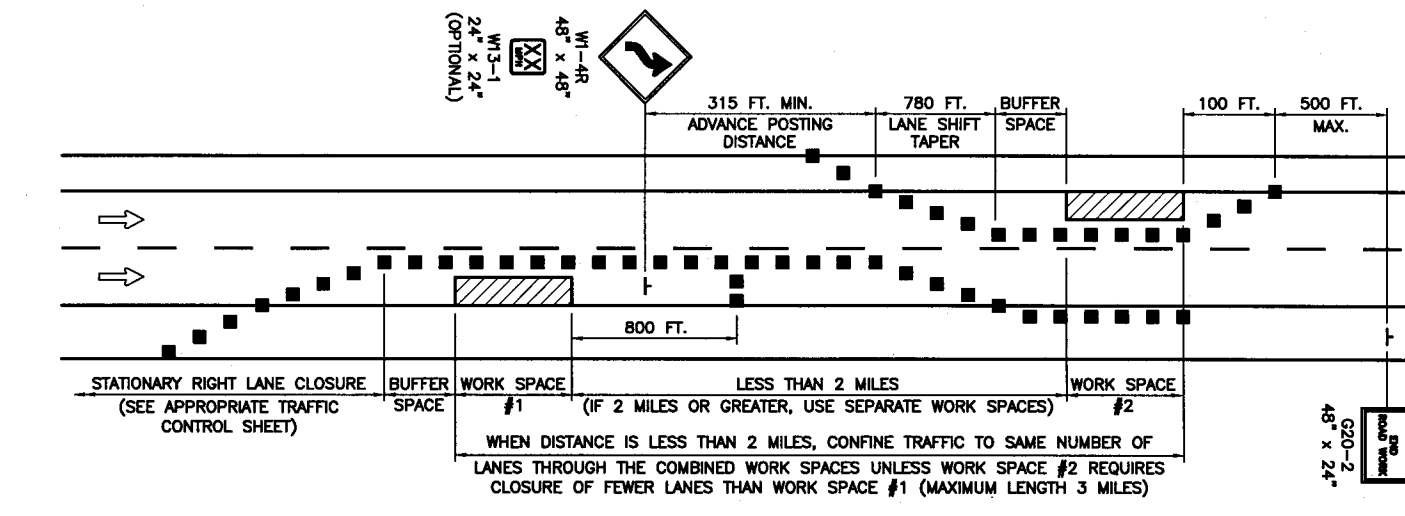
DROP-OFF AT OUTSIDE EDGE OF SHOULDER
DEPTH GREATER THAN 4 INCHES, BUT LESS THAN 18 INCHES
AND SHOULDER WIDTH 4 FEET OR GREATER

N.T.S.



SUCCESSIVE WORK SPACES OCCUPYING SAME LANE

N.T.S.

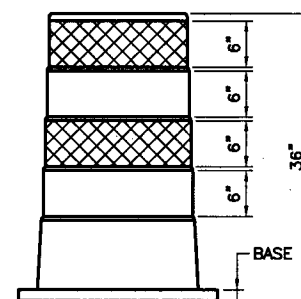


SUCCESSIVE WORK SPACES OCCUPYING DIFFERENT LANES

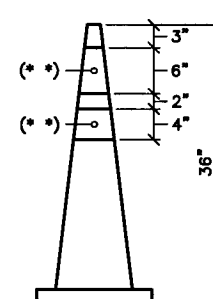
N.T.S.

DROP-OFF DELINEATION NOTES:

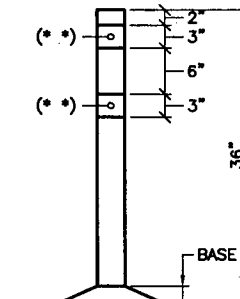
- SIGNING AND DELINEATION ARE SHOWN ALONG THE RIGHT SHOULDER. SIGNING AND DELINEATION FOR THE LEFT SHOULDER SHALL BE THE MIRROR IMAGE OF THE SAME DETAILS.
- THE "LOW SHOULDER" (W8-9) SIGN OR "NO SHOULDER" (NYW4-13) SIGN SHALL BE PLACED IN ADVANCE OF THE DRUM TAPER AS SHOWN. SIGNING SHALL BE REPEATED EVERY 1/2 MILE WITH "NEXT X MILES" (W7-3a) SUPPLEMENTAL PLAQUES.
- VERTICAL PANELS (12 x 36 IN.) MAY BE SUBSTITUTED FOR DRUMS. DRUMS OR VERTICAL PANELS SHALL BE PLACED AND MAINTAINED SUCH THAT AT LEAST TWO-THIRDS OF THEIR HEIGHT IS EXPOSED ABOVE THE PAVEMENT.
- IF THE DEPTH OF EXCAVATION EXCEEDS 18 INCHES, THE ADJACENT LANE SHALL BE CLOSED OR TEMPORARY CONCRETE BARRIER SHALL BE USED TO PROTECT THE CONDITION.



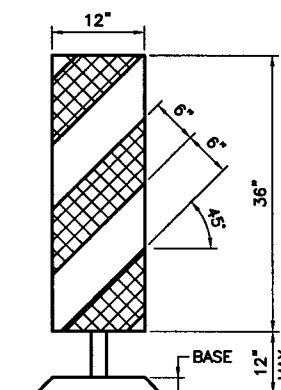
DRUM



TALL CONE



TUBULAR MARKER



OVERSIZED VERTICAL PANEL

CHANNELIZING DEVICE

LEGEND

- WHITE RETROREFLECTORIZED SHEETING, ASTM TYPE IX (CLASS E)
- ORANGE RETROREFLECTORIZED SHEETING, ASTM TYPE IX (CLASS E)
- NON-REFLECTORIZED ORANGE
- (* *) WHITE REFLECTIVE SHEETING, ASTM TYPE III (CLASS B) OR ASTM TYPE V (CLASS C)

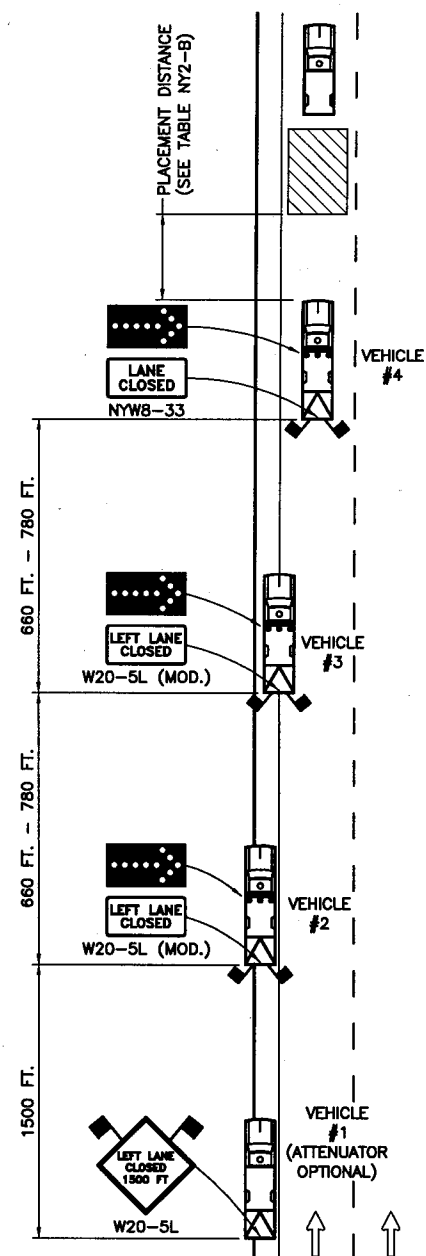
SUCCESSIVE WORK SPACE NOTE:

EXISTING PAVEMENT MARKINGS SHALL BE MAINTAINED BY THE CONTRACTOR WITHIN THE PROJECT LIMITS. IF THE CONTRACTOR'S OPERATIONS IN ANY WORK SPACE WILL EXCEED A PERIOD OF 2 (TWO) WEEKS, OR IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL COMPLETELY REMOVE OR COVER PORTIONS OF THE EXISTING MARKINGS AND INSTALL TEMPORARY MARKINGS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHEN ALL WORK IS COMPLETED IN THE WORK SPACE(S), OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE THE TEMPORARY MARKINGS AND RESTORE THE EXISTING MARKINGS.

LEGEND:

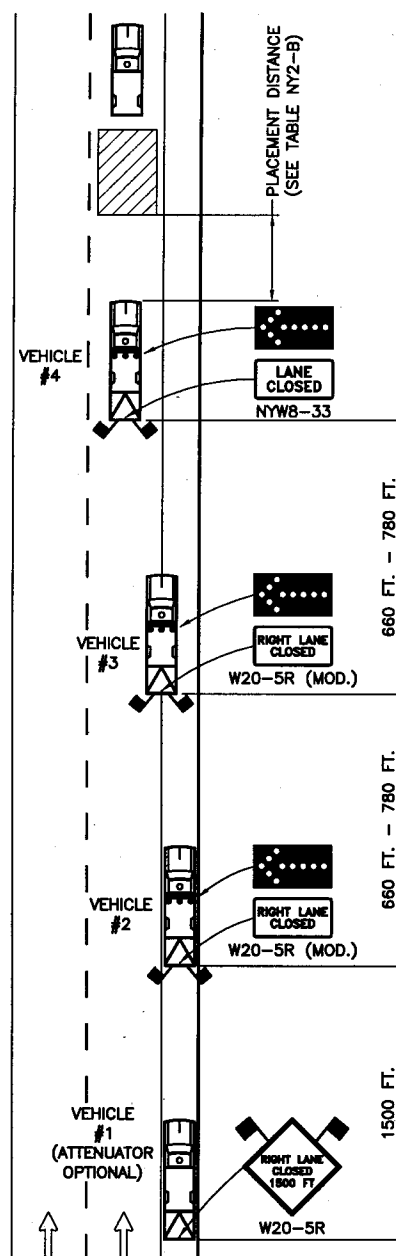
- WORK SPACE
- DIRECTION OF TRAFFIC
- DRUM
- CHANNELIZING DEVICE
- TEMPORARY SIGN

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12208			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 MP 283.79 MP 337.47			
TITLE OF DRAWING WORK ZONE TRAFFIC CONTROL FOR MISCELLANEOUS OPERATIONS			
CONTRACT NUMBER: TAS 11-44B		DATE: 2/09	
DRAWING NUMBER: MO			



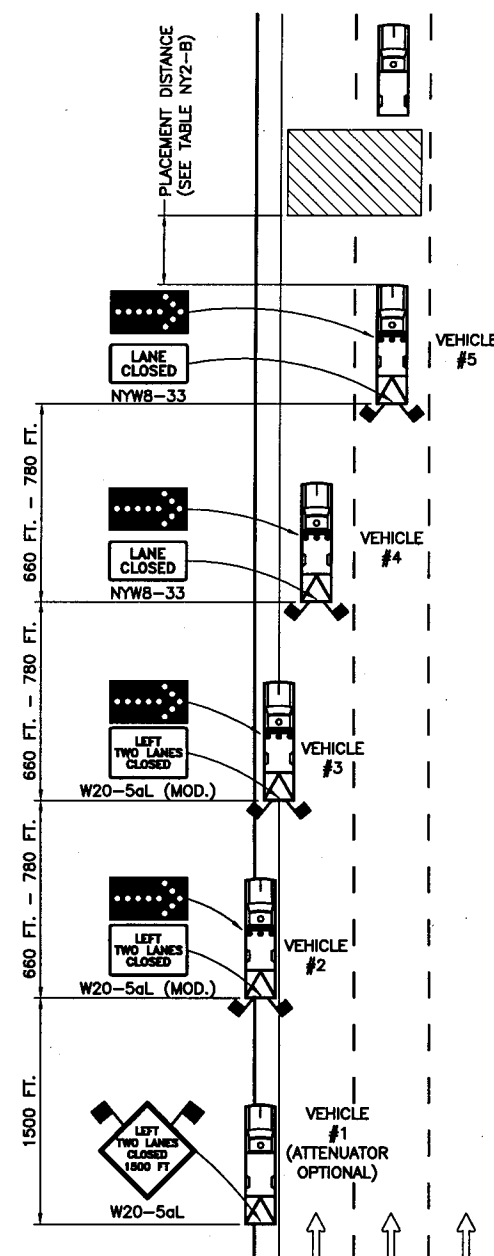
MOBILE OPERATION LEFT LANE CLOSURE

N.T.S.



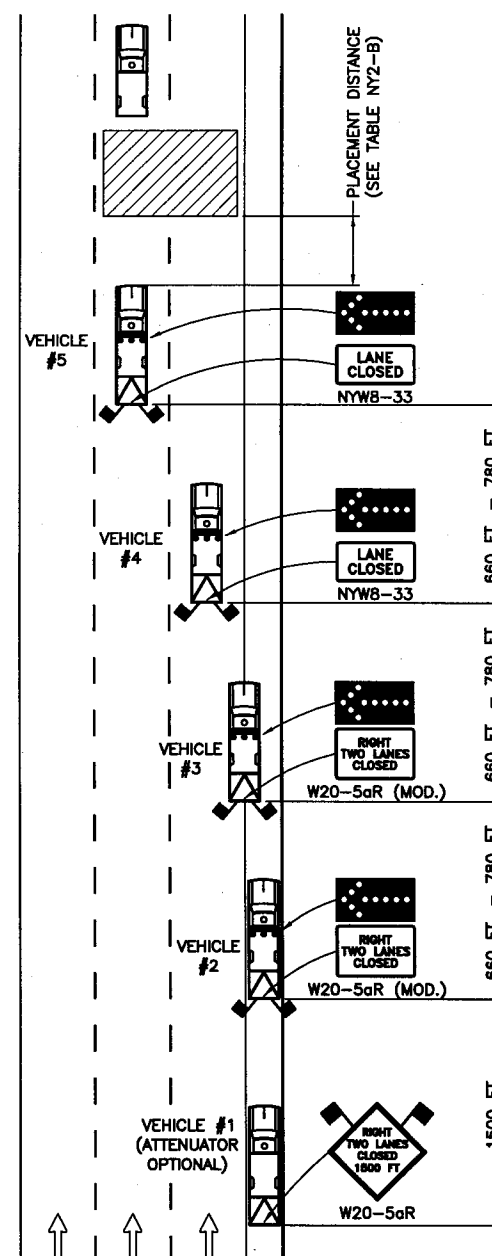
MOBILE OPERATION RIGHT LANE CLOSURE

NTS



MOBILE OPERATION LEFT DOUBLE LANE CLOSURE

NTS



MOBILE OPERATION RIGHT DOUBLE LANE CLOSURE

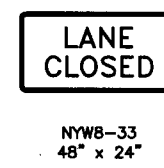
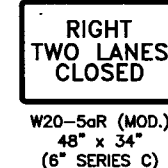
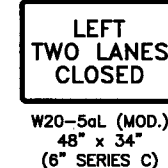
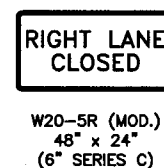
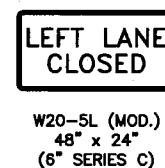
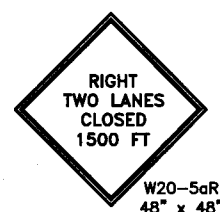
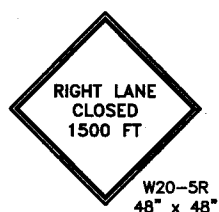
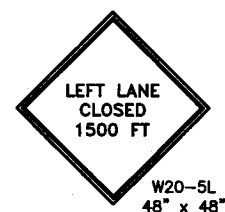
NT:

NOTES:







1. THESE PLANS ARE TO BE UTILIZED ONLY WHEN AUTHORIZED BY THE ENGINEER.
2. MOBILE OPERATIONS ARE WORK ACTIVITIES THAT MOVE CONTINUOUSLY OR STOP INTERMITTENTLY FOR SHORT PERIODS IN THE ROADWAY. THE DURATION FOR EACH INTERMITTENT STOP MAY BE APPROXIMATELY 15 MINUTES BEFORE MOVING TO A NEW LOCATION.
3. VEHICLE #4 (LEFT LANE CLOSURE AND RIGHT LANE CLOSURE PLANS) AND VEHICLE #5 (LEFT DOUBLE LANE CLOSURE AND RIGHT DOUBLE LANE CLOSURE PLANS) SHALL NOT BE USED TO TRANSPORT WORKERS, MATERIALS, AND/OR EQUIPMENT TO THE WORK SITE. A SEPARATE WORK VEHICLE(S) SHALL BE REQUIRED.
4. THESE TEMPORARY TRAFFIC CONTROL PLANS SHALL NOT BE ADVANCED THROUGH AN AREA WHERE THERE IS AN EXIT OR ENTRANCE RAMP.
5. WHERE THE LEFT LANE IS TO BE CLOSED, VEHICLE #1 AND VEHICLE #2 ARE TO BE LOCATED COMPLETELY ON THE LEFT SHOULDER, VEHICLE #3 STRADDLES THE LEFT SHOULDER AND THE LEFT LANE, AND VEHICLE #4 IS IN THE LEFT LANE.

6. WHERE THE RIGHT LANE IS TO BE CLOSED, VEHICLE #1 AND VEHICLE #2 ARE TO BE LOCATED COMPLETELY ON THE RIGHT SHOULDER, VEHICLE #3 STRADDLES THE RIGHT SHOULDER AND THE RIGHT LANE, AND VEHICLE #4 IS IN THE RIGHT LANE.
7. WHERE THE LEFT TWO LANES ARE TO BE CLOSED, VEHICLE #1 AND VEHICLE #2 ARE TO BE LOCATED COMPLETELY ON THE LEFT SHOULDER, VEHICLE #3 STRADDLES THE LEFT SHOULDER AND THE LEFT LANE, VEHICLE #4 IS IN THE LEFT LANE, AND VEHICLE #5 IS IN THE CENTER LANE.
8. WHERE THE RIGHT TWO LANES ARE TO BE CLOSED, VEHICLE #1 AND VEHICLE #2 ARE TO BE LOCATED COMPLETELY ON THE RIGHT SHOULDER, VEHICLE #3 STRADDLES THE RIGHT SHOULDER AND THE RIGHT LANE, VEHICLE #4 IS IN THE RIGHT LANE, AND VEHICLE #5 IS IN THE CENTER LANE.
9. FOR VEHICLE #2, A TRAILER-MOUNTED ARROW PANEL MAY BE SUBSTITUTED FOR THE TRUCK-MOUNTED ARROW PANEL.

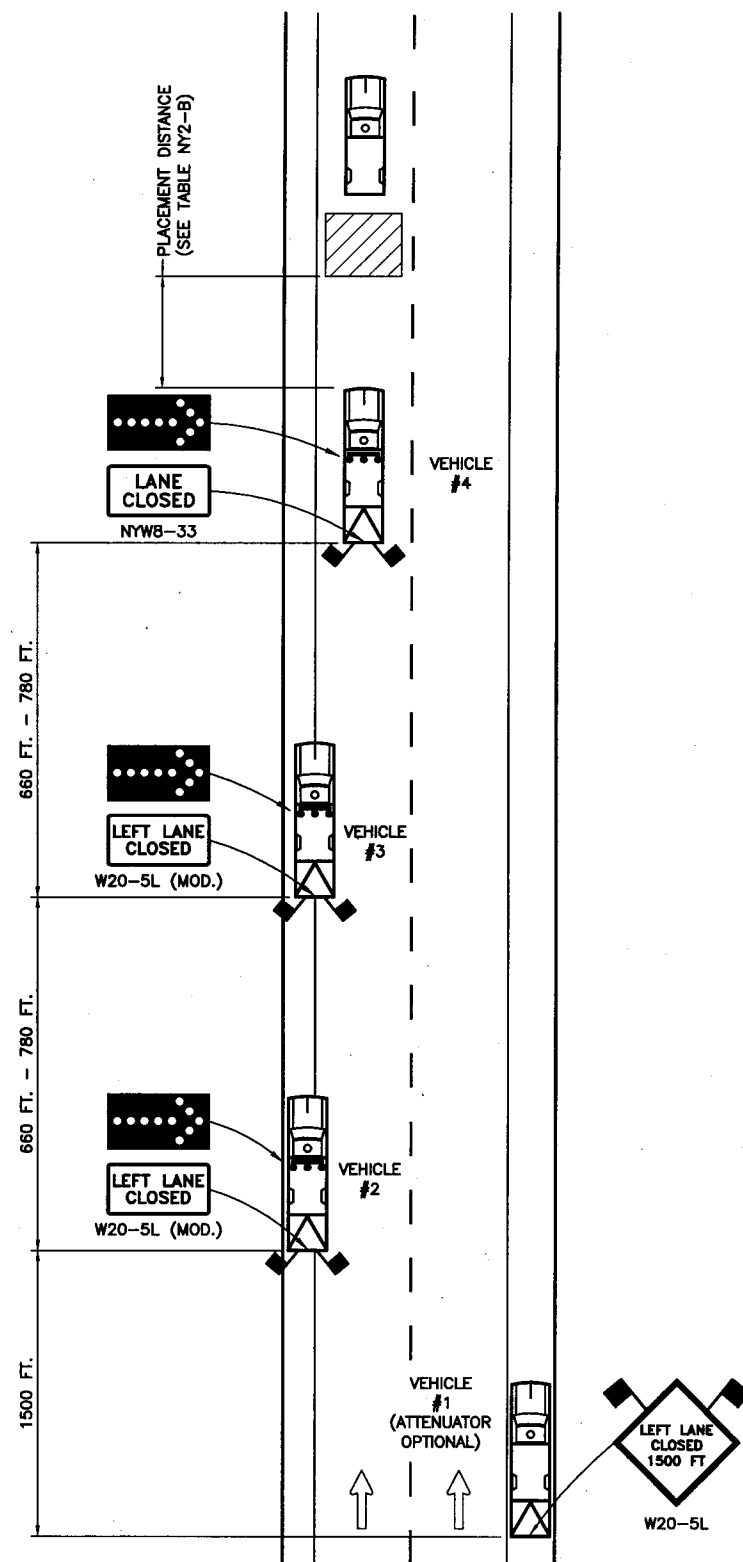
10. FOR VEHICLE #2, THE ATTENUATOR IS OPTIONAL FOR DAYTIME OPERATIONS. FOR NIGHTTIME OPERATIONS, ALL VEHICLES, INCLUDING VEHICLE #1 AND VEHICLE #2 ON THE SHOULDER, SHALL BE EQUIPPED WITH AN ATTENUATOR.
11. ARROW PANELS SHALL CONFORM TO SECTION 729-15 OF THE STANDARD SPECIFICATIONS. THE DISPLAY SHALL BE A FULL FLASHING ARROW ONLY. CHEVRONS AND SEQUENTIAL ARROW DISPLAYS SHALL NOT BE PERMITTED.
12. ALL SIGNS SHALL CONFORM TO THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (NMTUCD) AND NEW YORK STATE SUPPLEMENT. ORANGE SIGNS ON RIGID PANELS SHALL BE FLUORESCENT-ORANGE ASTM TYPE IX (CLASS E) RETROREFLECTIVE SHEETING. ALL SIGNS SHALL BE MOUNTED BELOW THE ARROW PANEL.
13. FOR VEHICLE #1, A TRUCK-MOUNTED OR TRAILER-MOUNTED PORTABLE VARIABLE MESSAGE SIGN (PVMS) MAY BE USED IN LIEU OF THE SIGN SHOWN. THE PVMS UNIT SHALL BE COMPLETELY ON THE SHOULDER AND SHALL HAVE NO PORTION PROTRUDE OVER THE TRAVEL LANE AT ANY TIME. THE MESSAGE DISPLAYED SHALL BE THE SAME AS THAT SHOWN.



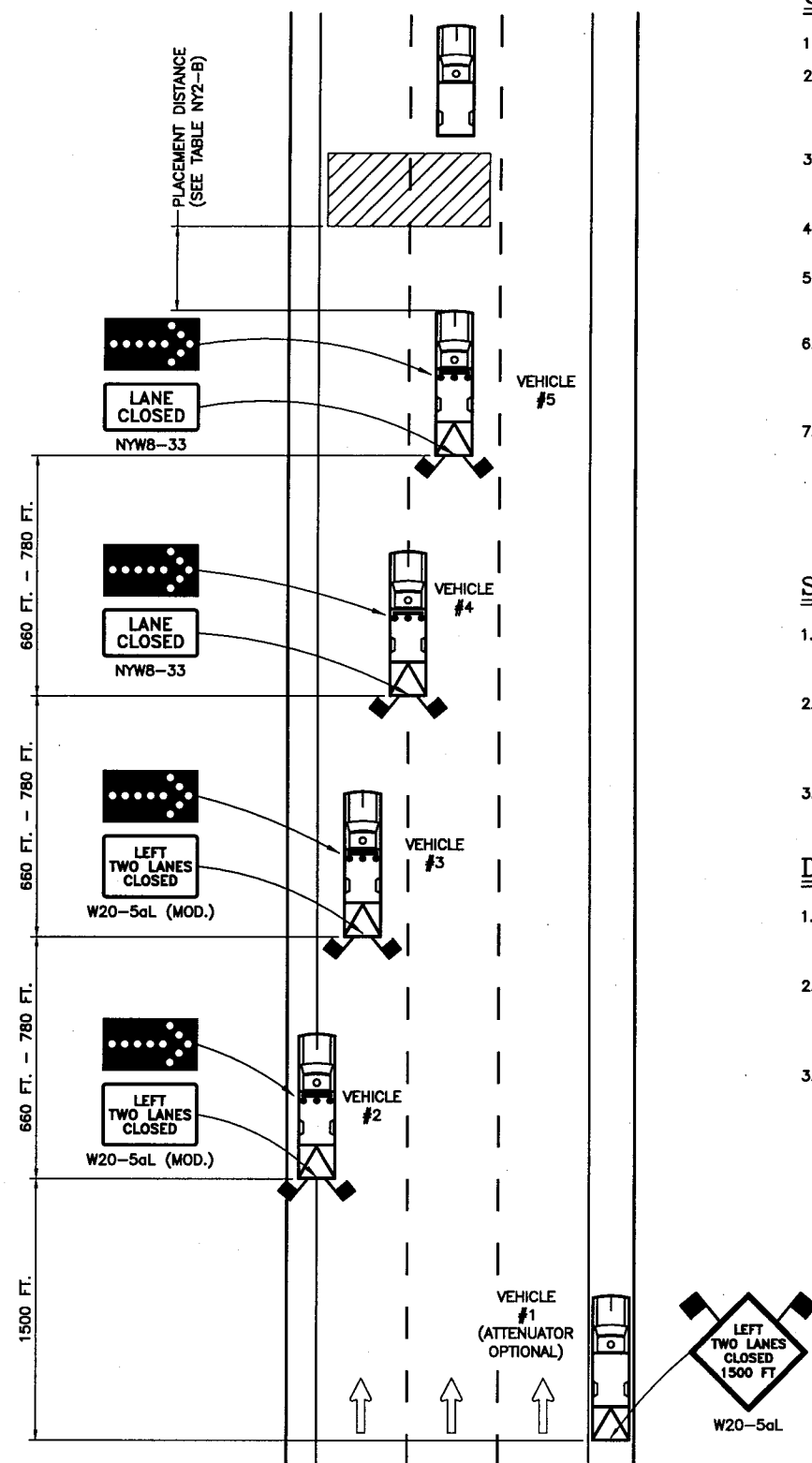
LEGEND

- | | |
|---|---|
|  | MOBILE OPERATION |
|  | ARROW PANEL |
|  | ARROW PANEL
SUPPORT OR TRAILER |
|  | WORK VEHICLE |
|  | SHADOW VEHICLE
WITH ATTENUATOR |
|  | WARNING FLAGS
(OPTIONAL)
MIN. 18 x 18 IN. |

[illegible]



MOBILE OPERATION - SINGLE LANE CLOSURE
IN NARROW SHOULDER AREA
N.T.S.



MOBILE OPERATION - DOUBLE LANE CLOSURE
IN NARROW SHOULDER AREA
N.T.S.

GENERAL NOTES:

1. THESE PLANS ARE TO BE UTILIZED ONLY WHEN AUTHORIZED BY THE ENGINEER.
2. MOBILE OPERATIONS ARE WORK ACTIVITIES THAT MOVE CONTINUOUSLY OR STOP INTERMITTENTLY FOR SHORT PERIODS IN THE ROADWAY. THE DURATION FOR EACH INTERMITTENT STOP MAY BE APPROXIMATELY 15 MINUTES BEFORE MOVING TO A NEW LOCATION.
3. VEHICLE #4 (SINGLE LANE CLOSURE PLAN) AND VEHICLE #5 (DOUBLE LANE CLOSURE PLAN) SHALL NOT BE USED TO TRANSPORT WORKERS, MATERIALS, AND/OR EQUIPMENT TO THE WORK SITE. A SEPARATE WORK VEHICLE(S) SHALL BE REQUIRED.
4. THESE TEMPORARY TRAFFIC CONTROL PLANS SHALL NOT BE ADVANCED THROUGH AN AREA WHERE THERE IS AN EXIT OR ENTRANCE RAMP.
5. ARROW PANELS SHALL CONFORM TO SECTION 729-15 OF THE STANDARD SPECIFICATIONS. THE DISPLAY SHALL BE A FULL FLASHING ARROW ONLY. CHEVRONS AND SEQUENTIAL ARROW DISPLAYS SHALL NOT BE PERMITTED.
6. ALL SIGNS SHALL CONFORM TO THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (NMUTCD) AND NEW YORK STATE SUPPLEMENT. ORANGE SIGNS ON RIGID PANELS SHALL BE FLUORESCENT-ORANGE ASTM TYPE IX (CLASS E) RETROREFLECTIVE SHEETING. ALL SIGNS SHALL BE MOUNTED BELOW THE ARROW PANEL.
7. FOR VEHICLE #1, A TRUCK-MOUNTED OR TRAILER-MOUNTED PORTABLE VARIABLE MESSAGE SIGN (PVMS) MAY BE USED IN LIEU OF THE SIGN SHOWN. THE PVMS UNIT SHALL BE COMPLETELY ON THE SHOULDER AND SHALL HAVE NO PORTION PROTRUDE OVER THE TRAVEL LANE AT ANY TIME. THE MESSAGE DISPLAYED SHALL BE THE SAME AS THAT SHOWN.

SINGLE LANE CLOSURE NOTES:

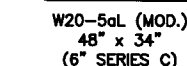
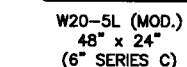
1. THE PLAN SHOWN IS FOR A MOBILE OPERATION INVOLVING A LEFT SINGLE LANE CLOSURE IN AN AREA WHERE THE USABLE LEFT SHOULDER/MEDIAN WIDTH IS LESS THAN 8 FEET.
2. WHERE THE LEFT LANE IS TO BE CLOSED, VEHICLE #1 IS TO BE LOCATED COMPLETELY ON THE RIGHT SHOULDER, VEHICLE #2 IS AS FAR LEFT ON THE LEFT SHOULDER AS CONDITIONS PERMIT, VEHICLE #3 STRADDLES THE LEFT SHOULDER AND THE LEFT LANE, AND VEHICLE #4 IS IN THE LEFT LANE.
3. IN AREAS WHERE THERE IS LITTLE TO NO LEFT SHOULDER/MEDIAN WIDTH, VEHICLE #2 AND VEHICLE #3 SHALL BE IN THE LEFT LANE.

DOUBLE LANE CLOSURE NOTES:

1. THE PLAN SHOWN IS FOR A MOBILE OPERATION INVOLVING A LEFT DOUBLE LANE CLOSURE IN AN AREA WHERE THE USABLE LEFT SHOULDER/MEDIAN WIDTH IS LESS THAN 8 FEET.
2. WHERE THE LEFT TWO LANES ARE TO BE CLOSED, VEHICLE #1 IS TO BE LOCATED COMPLETELY ON THE RIGHT SHOULDER, VEHICLE #2 STRADDLES THE LEFT SHOULDER AND THE LEFT LANE, VEHICLE #3 IS IN THE LEFT LANE, VEHICLE #4 STRADDLES THE LEFT LANE AND THE CENTER LANE, AND VEHICLE #5 IS IN THE CENTER LANE.
3. IN AREAS WHERE THERE IS LITTLE TO NO LEFT SHOULDER/MEDIAN WIDTH, VEHICLE #2 SHALL BE IN THE LEFT LANE.

LEGEND

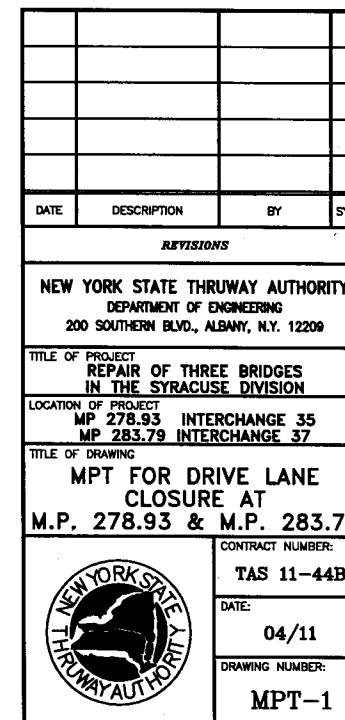
- MOBILE OPERATION
- ARROW PANEL
- ARROW PANEL SUPPORT OR TRAILER
- WORK VEHICLE
- SHADOW VEHICLE WITH ATTENUATOR
- WARNING FLAGS (OPTIONAL) MIN. 18 x 18 IN.

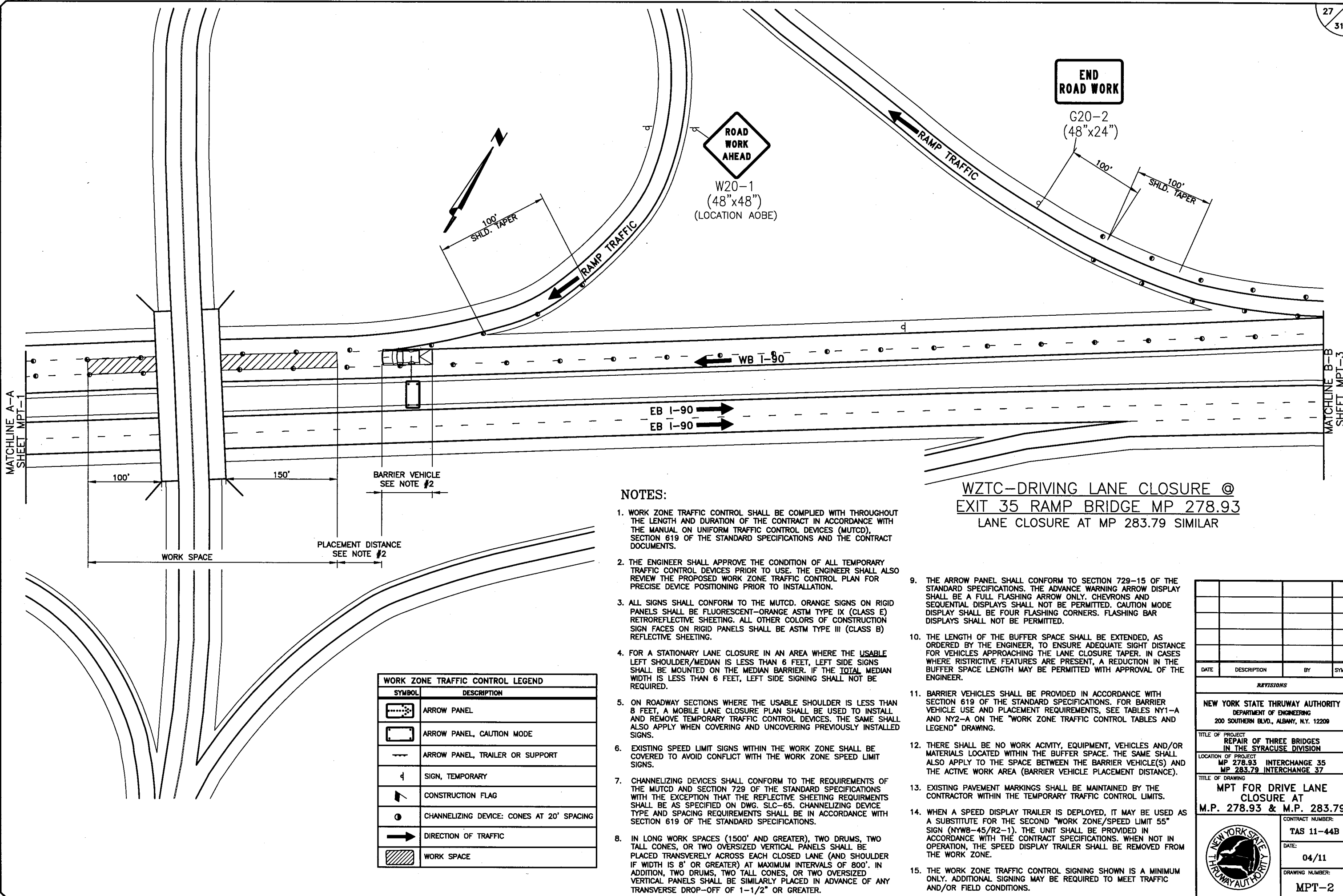


DATE	DESCRIPTION	BY	SYM.

REVISIONS	
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12209	
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION	
LOCATION OF PROJECT MP 278.93 MP 283.79 MP 337.47	
TITLE OF DRAWING MOBILE LANE CLOSURE (NARROW SHOULDER AREA)	

	CONTRACT NUMBER: TAS 11-44B
	DATE: 2/09
	DRAWING NUMBER: MLC-NS





NOTES:

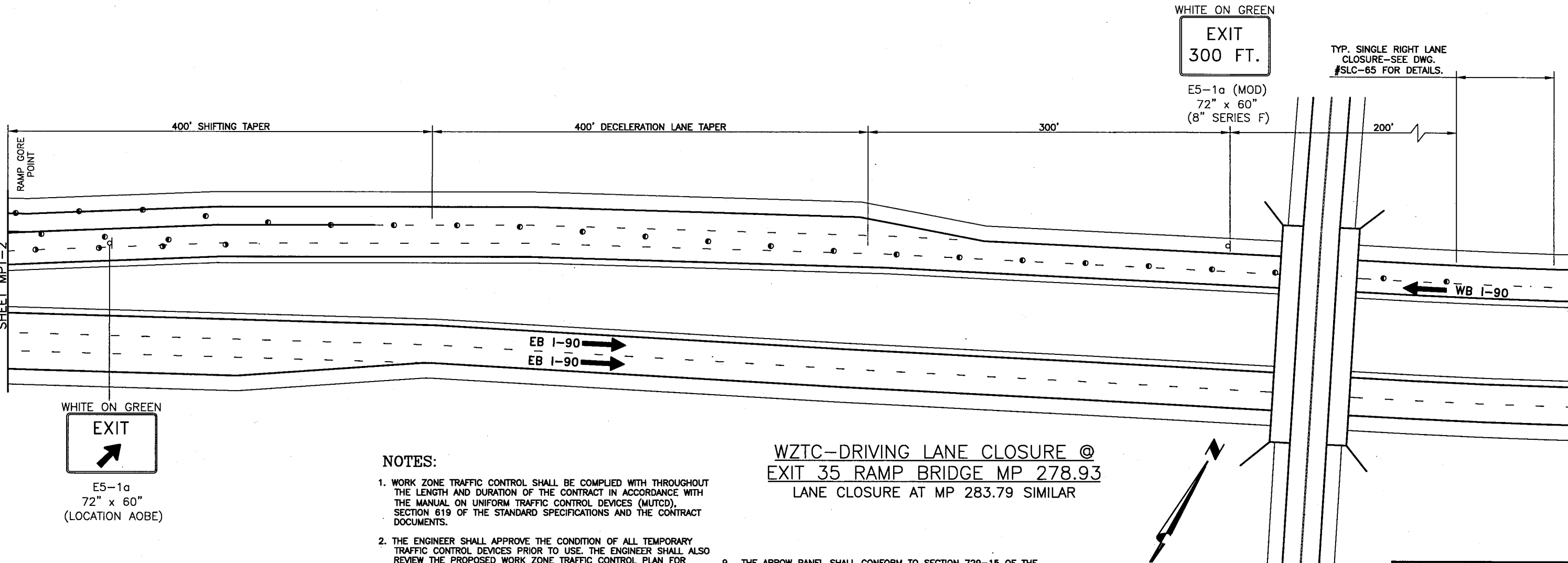
1. WORK ZONE TRAFFIC CONTROL SHALL BE COMPLIED WITH THROUGHOUT THE LENGTH AND DURATION OF THE CONTRACT IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), SECTION 619 OF THE STANDARD SPECIFICATIONS AND THE CONTRACT DOCUMENTS.
2. THE ENGINEER SHALL APPROVE THE CONDITION OF ALL TEMPORARY TRAFFIC CONTROL DEVICES PRIOR TO USE. THE ENGINEER SHALL ALSO REVIEW THE PROPOSED WORK ZONE TRAFFIC CONTROL PLAN FOR PRECISE DEVICE POSITIONING PRIOR TO INSTALLATION.
3. ALL SIGNS SHALL CONFORM TO THE MUTCD. ORANGE SIGNS ON RIGID PANELS SHALL BE FLUORESCENT-ORANGE ASTM TYPE IX (CLASS E) RETROREFLECTIVE SHEETING. ALL OTHER COLORS OF CONSTRUCTION SIGN FACES ON RIGID PANELS SHALL BE ASTM TYPE III (CLASS B) REFLECTIVE SHEETING.
4. FOR A STATIONARY LANE CLOSURE IN AN AREA WHERE THE USABLE LEFT SHOULDER/MEDIAN IS LESS THAN 6 FEET, LEFT SIDE SIGNS SHALL BE MOUNTED ON THE MEDIAN BARRIER. IF THE TOTAL MEDIAN WIDTH IS LESS THAN 6 FEET, LEFT SIDE SIGNING SHALL NOT BE REQUIRED.
5. ON ROADWAY SECTIONS WHERE THE USABLE SHOULDER IS LESS THAN 8 FEET, A MOBILE LANE CLOSURE PLAN SHALL BE USED TO INSTALL AND REMOVE TEMPORARY TRAFFIC CONTROL DEVICES. THE SAME SHALL ALSO APPLY WHEN COVERING AND UNCOVERING PREVIOUSLY INSTALLED SIGNS.
6. EXISTING SPEED LIMIT SIGNS WITHIN THE WORK ZONE SHALL BE COVERED TO AVOID CONFLICT WITH THE WORK ZONE SPEED LIMIT SIGNS.
7. CHANNELIZING DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD AND SECTION 729 OF THE STANDARD SPECIFICATIONS WITH THE EXCEPTION THAT THE REFLECTIVE SHEETING REQUIREMENTS SHALL BE AS SPECIFIED ON DWG. SLC-65. CHANNELIZING DEVICE TYPE AND SPACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 619 OF THE STANDARD SPECIFICATIONS.
8. IN LONG WORK SPACES (1500' AND GREATER), TWO DRUMS, TWO TALL CONES, OR TWO OVERSIZED VERTICAL PANELS SHALL BE PLACED TRANSVERSELY ACROSS EACH CLOSED LANE (AND SHOULDER IF WIDTH IS 8' OR GREATER) AT MAXIMUM INTERVALS OF 800'. IN ADDITION, TWO DRUMS, TWO TALL CONES, OR TWO OVERSIZED VERTICAL PANELS SHALL BE SIMILARLY PLACED IN ADVANCE OF ANY TRANSVERSE DROP-OFF OF 1-1/2" OR GREATER.
9. THE ARROW PANEL SHALL CONFORM TO SECTION 729-15 OF THE STANDARD SPECIFICATIONS. THE ADVANCE WARNING ARROW DISPLAY SHALL BE A FULL FLASHING ARROW ONLY. CHEVRONS AND SEQUENTIAL DISPLAYS SHALL NOT BE PERMITTED. CAUTION MODE DISPLAY SHALL BE FOUR FLASHING CORNERS. FLASHING BAR DISPLAYS SHALL NOT BE PERMITTED.
10. THE LENGTH OF THE BUFFER SPACE SHALL BE EXTENDED, AS ORDERED BY THE ENGINEER, TO ENSURE ADEQUATE SIGHT DISTANCE FOR VEHICLES APPROACHING THE LANE CLOSURE TAPER. IN CASES WHERE RESTRICTIVE FEATURES ARE PRESENT, A REDUCTION IN THE BUFFER SPACE LENGTH MAY BE PERMITTED WITH APPROVAL OF THE ENGINEER.
11. BARRIER VEHICLES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 619 OF THE STANDARD SPECIFICATIONS. FOR BARRIER VEHICLE USE AND PLACEMENT REQUIREMENTS, SEE TABLES NY1-A AND NY2-A ON THE "WORK ZONE TRAFFIC CONTROL TABLES AND LEGEND" DRAWING.
12. THERE SHALL BE NO WORK ACTIVITY, EQUIPMENT, VEHICLES AND/OR MATERIALS LOCATED WITHIN THE BUFFER SPACE. THE SAME SHALL ALSO APPLY TO THE SPACE BETWEEN THE BARRIER VEHICLE(S) AND THE ACTIVE WORK AREA (BARRIER VEHICLE PLACEMENT DISTANCE).
13. EXISTING PAVEMENT MARKINGS SHALL BE MAINTAINED BY THE CONTRACTOR WITHIN THE TEMPORARY TRAFFIC CONTROL LIMITS.
14. WHEN A SPEED DISPLAY TRAILER IS DEPLOYED, IT MAY BE USED AS A SUBSTITUTE FOR THE SECOND "WORK ZONE/SPEED LIMIT 55" SIGN (NYWB-45/R2-1). THE UNIT SHALL BE PROVIDED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. WHEN NOT IN OPERATION, THE SPEED DISPLAY TRAILER SHALL BE REMOVED FROM THE WORK ZONE.
15. THE WORK ZONE TRAFFIC CONTROL SIGNING SHOWN IS A MINIMUM ONLY. ADDITIONAL SIGNING MAY BE REQUIRED TO MEET TRAFFIC AND/OR FIELD CONDITIONS.

WORK ZONE TRAFFIC CONTROL LEGEND	
SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL, TRAILER OR SUPPORT
	SIGN, TEMPORARY
	CONSTRUCTION FLAG
	CHANNELIZING DEVICE: CONES AT 20' SPACING
	DIRECTION OF TRAFFIC
	WORK SPACE

WZTC-DRIVING LANE CLOSURE @
EXIT 35 RAMP BRIDGE MP 278.93
LANE CLOSURE AT MP 283.79 SIMILAR

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 INTERCHANGE 35 MP 283.79 INTERCHANGE 37			
TITLE OF DRAWING MPT FOR DRIVE LANE CLOSURE AT M.P. 278.93 & M.P. 283.79			
CONTRACT NUMBER: TAS 11-44B		DATE: 04/11	
DRAWING NUMBER: MPT-2			

BY CHANGE OF: M. CIOFFI
DESIGNED BY: K. KAYSER
CHECKED BY: J. DISHON
DATE: 11-15-08
PROJECT: 3 BRIDGES VADU MPT.dwg



WHITE ON GREEN
EXIT
E5-1a
72" x 60"
(LOCATION AOB)

NOTES:

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4. FOR A STATIONARY LANE CLOSURE IN AN AREA WHERE THE USABLE LEFT SHOULDER/MEDIAN IS LESS THAN 6 FEET, LEFT SIDE SIGNS SHALL BE MOUNTED ON THE MEDIAN BARRIER. IF THE TOTAL MEDIAN WIDTH IS LESS THAN 6 FEET, LEFT SIDE SIGNING SHALL NOT BE REQUIRED.
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WZTC-DRIVING LANE CLOSURE @
EXIT 35 RAMP BRIDGE MP 278.93
LANE CLOSURE AT MP 283.79 SIMILAR

WORK ZONE TRAFFIC CONTROL LEGEND	
SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL, TRAILER OR SUPPORT
	SIGN, TEMPORARY
	CONSTRUCTION FLAG
	CHANNELIZING DEVICE: CONES AT 20' SPACING
	DIRECTION OF TRAFFIC
	WORK SPACE

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 INTERCHANGE 35 MP 283.79 INTERCHANGE 37			
TITLE OF DRAWING MPT FOR DRIVE LANE CLOSURE AT M.P. 278.93 & M.P. 283.79			
CONTRACT NUMBER: TAS 11-44B		DATE: 04/11	
DRAWING NUMBER: MPT-3			

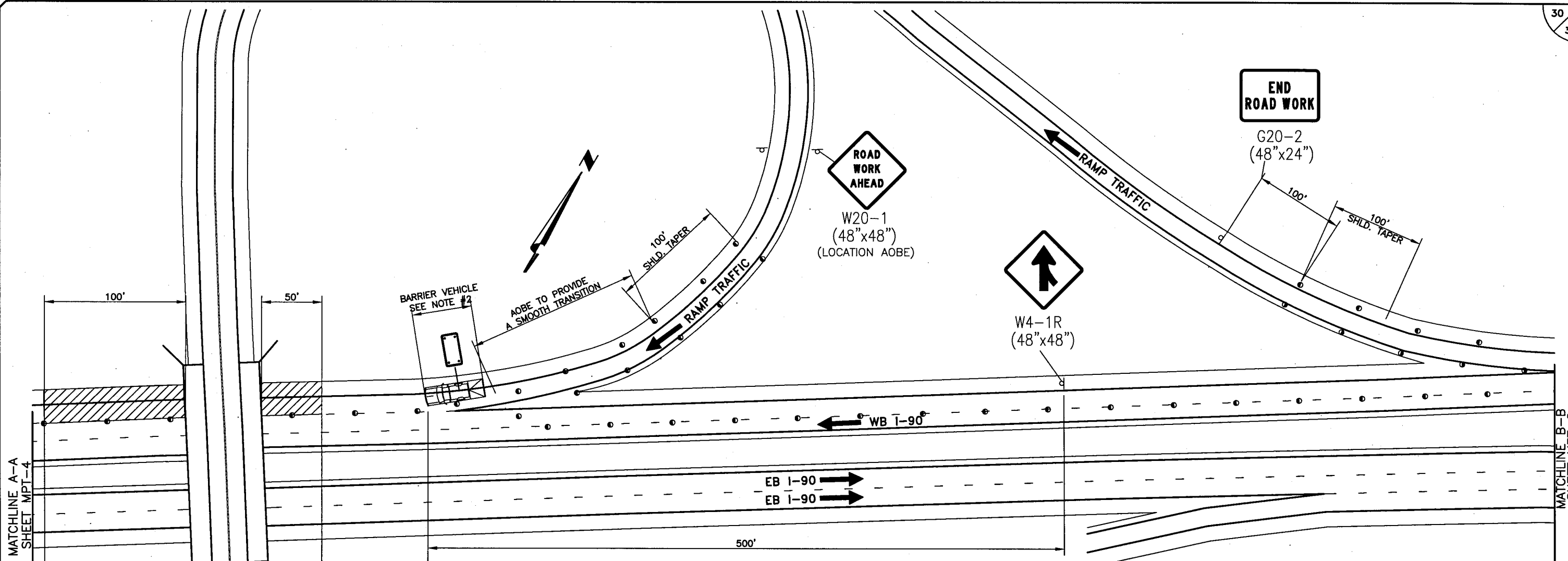
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15. THE WORK ZONE TRAFFIC CONTROL SIGNING SHOWN IS A MINIMUM ONLY. ADDITIONAL SIGNING MAY BE REQUIRED TO MEET TRAFFIC AND/OR FIELD CONDITIONS.

WORK ZONE TRAFFIC CONTROL LEGEND	
SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL, TRAILER OR SUPPORT
	SIGN, TEMPORARY
	CONSTRUCTION FLAG
	CHANNELIZING DEVICE: CONES AT 20' SPACING
	DIRECTION OF TRAFFIC
	WORK SPACE

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 INTERCHANGE 35 MP 283.79 INTERCHANGE 37			
TITLE OF DRAWING MPT FOR DRIVE LANE CLOSURE AT M.P. 278.93 & M.P. 283.79			
CONTRACT NUMBER: TAS 11-44B		DATE: 04/11	
DRAWING NUMBER: MPT-4			



NOTES:

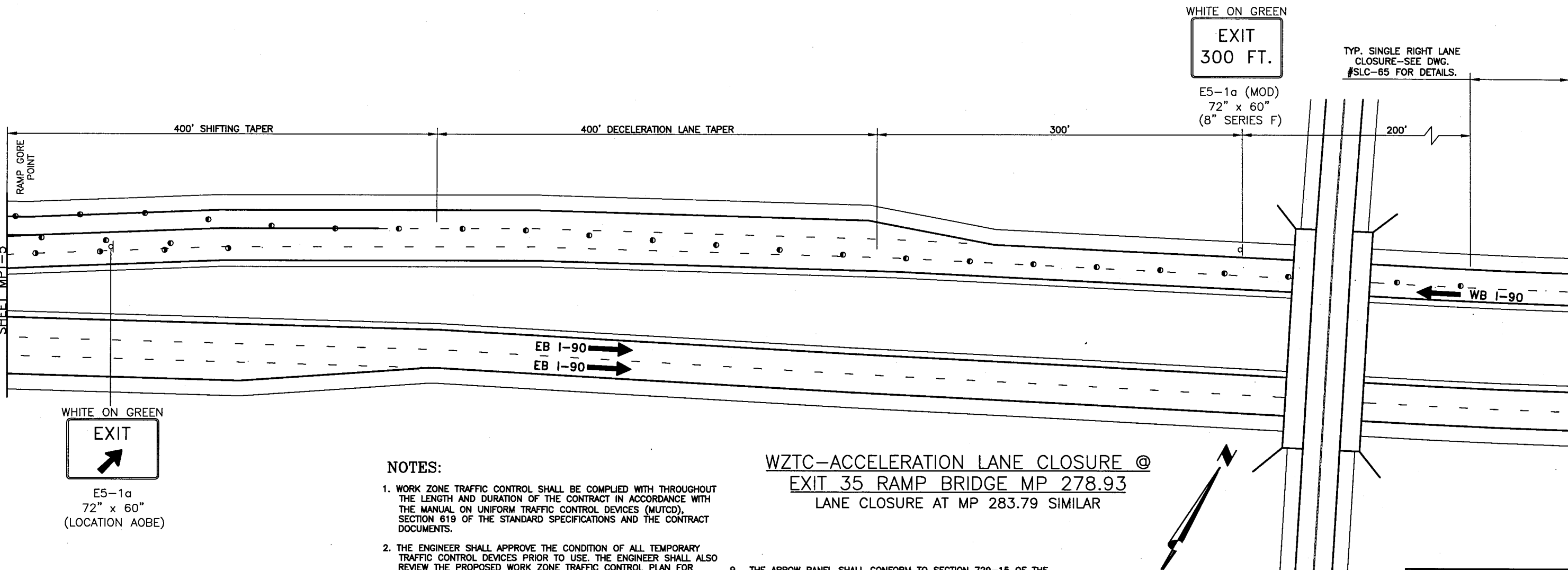
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4. FOR A STATIONARY LANE CLOSURE IN AN AREA WHERE THE USABLE LEFT SHOULDER/MEDIAN IS LESS THAN 6 FEET, LEFT SIDE SIGNS SHALL BE MOUNTED ON THE MEDIAN BARRIER. IF THE TOTAL MEDIAN WIDTH IS LESS THAN 6 FEET, LEFT SIDE SIGNING SHALL NOT BE REQUIRED.
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WZTC-ACCELERATION LANE CLOSURE @ EXIT 35 RAMP BRIDGE MP 278.93 LANE CLOSURE AT MP 283.79 SIMILAR

WORK ZONE TRAFFIC CONTROL LEGEND	
SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL, TRAILER OR SUPPORT
	SIGN, TEMPORARY
	CONSTRUCTION FLAG
	CHANNELIZING DEVICE: CONES AT 20' SPACING
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DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 INTERCHANGE 35 MP 283.79 INTERCHANGE 37			
TITLE OF DRAWING MPT FOR DRIVE LANE CLOSURE AT M.P. 278.93 & M.P. 283.79			
CONTRACT NUMBER: TAS 11-44B		DATE: 04/11	
DRAWING NUMBER: MPT-5			

IN CHARGE OF: M. GIOFFI
DESIGNED BY: K. KAYSER
DRAFTED BY: J. DUSHON
CHECKED BY: MC
FILED: 2011.11.08 3 Bridges\ACD\WZTC.dwg



WHITE ON GREEN
EXIT
E5-1a
72" x 60"
(LOCATION AOB)

NOTES:

1. WORK ZONE TRAFFIC CONTROL SHALL BE COMPLIED WITH THROUGHOUT THE LENGTH AND DURATION OF THE CONTRACT IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), SECTION 619 OF THE STANDARD SPECIFICATIONS AND THE CONTRACT DOCUMENTS.
2. THE ENGINEER SHALL APPROVE THE CONDITION OF ALL TEMPORARY TRAFFIC CONTROL DEVICES PRIOR TO USE. THE ENGINEER SHALL ALSO REVIEW THE PROPOSED WORK ZONE TRAFFIC CONTROL PLAN FOR PRECISE DEVICE POSITIONING PRIOR TO INSTALLATION.
3. ALL SIGNS SHALL CONFORM TO THE MUTCD. ORANGE SIGNS ON RIGID PANELS SHALL BE FLUORESCENT-ORANGE ASTM TYPE IX (CLASS E) RETROREFLECTIVE SHEETING. ALL OTHER COLORS OF CONSTRUCTION SIGN FACES ON RIGID PANELS SHALL BE ASTM TYPE III (CLASS B) REFLECTIVE SHEETING.
4. FOR A STATIONARY LANE CLOSURE IN AN AREA WHERE THE USABLE LEFT SHOULDER/MEDIAN IS LESS THAN 6 FEET, LEFT SIDE SIGNS SHALL BE MOUNTED ON THE MEDIAN BARRIER. IF THE TOTAL MEDIAN WIDTH IS LESS THAN 6 FEET, LEFT SIDE SIGNING SHALL NOT BE REQUIRED.
5. ON ROADWAY SECTIONS WHERE THE USABLE SHOULDER IS LESS THAN 8 FEET, A MOBILE LANE CLOSURE PLAN SHALL BE USED TO INSTALL AND REMOVE TEMPORARY TRAFFIC CONTROL DEVICES. THE SAME SHALL ALSO APPLY WHEN COVERING AND UNCOVERING PREVIOUSLY INSTALLED SIGNS.
6. EXISTING SPEED LIMIT SIGNS WITHIN THE WORK ZONE SHALL BE COVERED TO AVOID CONFLICT WITH THE WORK ZONE SPEED LIMIT SIGNS.
7. CHANNELIZING DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD AND SECTION 729 OF THE STANDARD SPECIFICATIONS WITH THE EXCEPTION THAT THE REFLECTIVE SHEETING REQUIREMENTS SHALL BE AS SPECIFIED ON DWG. SLC-65. CHANNELIZING DEVICE TYPE AND SPACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 619 OF THE STANDARD SPECIFICATIONS.
8. IN LONG WORK SPACES (1500' AND GREATER), TWO DRUMS, TWO TALL CONES, OR TWO OVERSIZED VERTICAL PANELS SHALL BE PLACED TRANSVERSELY ACROSS EACH CLOSED LANE (AND SHOULDER IF WIDTH IS 8' OR GREATER) AT MAXIMUM INTERVALS OF 800'. IN ADDITION, TWO DRUMS, TWO TALL CONES, OR TWO OVERSIZED VERTICAL PANELS SHALL BE SIMILARLY PLACED IN ADVANCE OF ANY TRANSVERSE DROP-OFF OF 1-1/2" OR GREATER.
9. THE ARROW PANEL SHALL CONFORM TO SECTION 729-15 OF THE STANDARD SPECIFICATIONS. THE ADVANCE WARNING ARROW DISPLAY SHALL BE A FULL FLASHING ARROW ONLY. CHEVRONS AND SEQUENTIAL DISPLAYS SHALL NOT BE PERMITTED. CAUTION MODE DISPLAY SHALL BE FOUR FLASHING CORNERS. FLASHING BAR DISPLAYS SHALL NOT BE PERMITTED.
10. THE LENGTH OF THE BUFFER SPACE SHALL BE EXTENDED, AS ORDERED BY THE ENGINEER, TO ENSURE ADEQUATE SIGHT DISTANCE FOR VEHICLES APPROACHING THE LANE CLOSURE TAPER. IN CASES WHERE RESTRICTIVE FEATURES ARE PRESENT, A REDUCTION IN THE BUFFER SPACE LENGTH MAY BE PERMITTED WITH APPROVAL OF THE ENGINEER.
11. BARRIER VEHICLES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 619 OF THE STANDARD SPECIFICATIONS. FOR BARRIER VEHICLE USE AND PLACEMENT REQUIREMENTS, SEE TABLES NY1-A AND NY2-A ON THE "WORK ZONE TRAFFIC CONTROL TABLES AND LEGEND" DRAWING.
12. THERE SHALL BE NO WORK ACTIVITY, EQUIPMENT, VEHICLES AND/OR MATERIALS LOCATED WITHIN THE BUFFER SPACE. THE SAME SHALL ALSO APPLY TO THE SPACE BETWEEN THE BARRIER VEHICLE(S) AND THE ACTIVE WORK AREA (BARRIER VEHICLE PLACEMENT DISTANCE).
13. EXISTING PAVEMENT MARKINGS SHALL BE MAINTAINED BY THE CONTRACTOR WITHIN THE TEMPORARY TRAFFIC CONTROL LIMITS.
14. WHEN A SPEED DISPLAY TRAILER IS DEPLOYED, IT MAY BE USED AS A SUBSTITUTE FOR THE SECOND "WORK ZONE/SPEED LIMIT 55" SIGN (NYW8-45/R2-1). THE UNIT SHALL BE PROVIDED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. WHEN NOT IN OPERATION, THE SPEED DISPLAY TRAILER SHALL BE REMOVED FROM THE WORK ZONE.
15. THE WORK ZONE TRAFFIC CONTROL SIGNING SHOWN IS A MINIMUM ONLY. ADDITIONAL SIGNING MAY BE REQUIRED TO MEET TRAFFIC AND/OR FIELD CONDITIONS.

WZTC-ACCELERATION LANE CLOSURE @ EXIT 35 RAMP BRIDGE MP 278.93 LANE CLOSURE AT MP 283.79 SIMILAR

WORK ZONE TRAFFIC CONTROL LEGEND	
SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL, TRAILER OR SUPPORT
	SIGN, TEMPORARY
	CONSTRUCTION FLAG
	CHANNELIZING DEVICE: CONES AT 20' SPACING
	DIRECTION OF TRAFFIC
	WORK SPACE

DATE	DESCRIPTION	BY	SYM.
REVISIONS			
NEW YORK STATE THRUWAY AUTHORITY DEPARTMENT OF ENGINEERING 200 SOUTHERN BLVD., ALBANY, N.Y. 12209			
TITLE OF PROJECT REPAIR OF THREE BRIDGES IN THE SYRACUSE DIVISION			
LOCATION OF PROJECT MP 278.93 INTERCHANGE 35 MP 283.79 INTERCHANGE 37			
TITLE OF DRAWING MPT FOR DRIVE LANE CLOSURE AT M.P. 278.93 & M.P. 283.79			
CONTRACT NUMBER: TAS 11-44B		DATE: 04/11	
DRAWING NUMBER: MPT-6			

