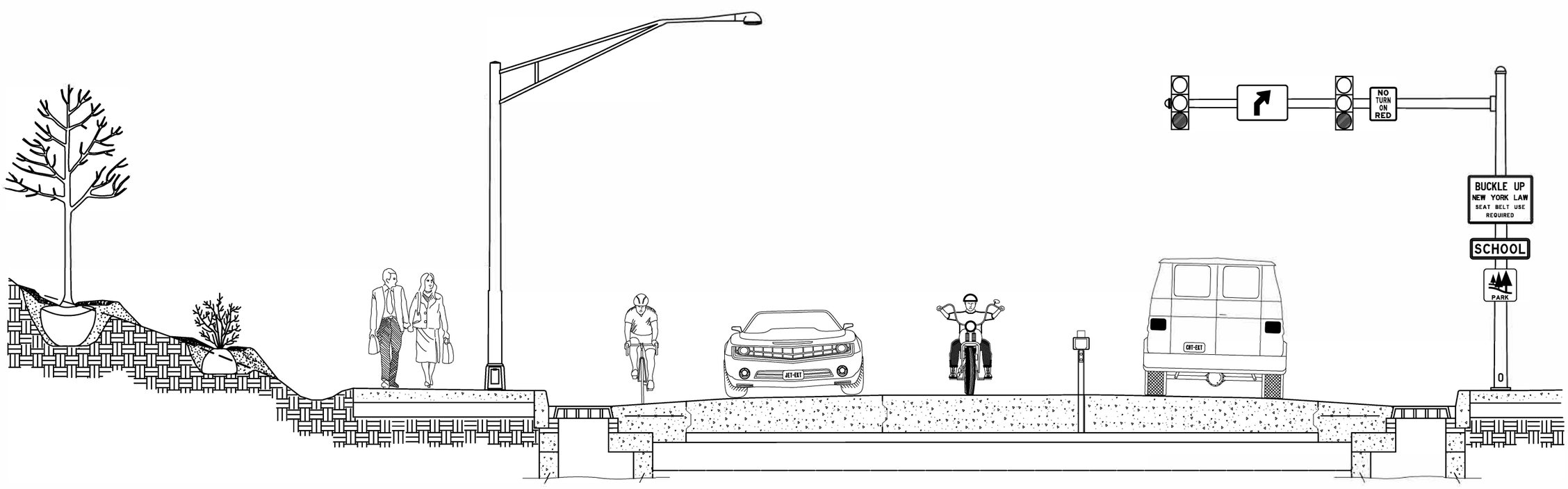
NEW YORK STATE STANDARD SHEETS

BOOK 3 of 4

SHEETS 608-01 THRU 632-01



NEW YORK STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY UNITS
ENGINEERING DIVISION, OFFICE OF DESIGN

JANUARY 01, 2020

NOTE: INDIVIDUAL STANDARD SHEETS IN THIS BOOK BECOME PART OF A CONTRACT BY REFERENCE TO THE SHEET NUMBER IN THE PROJECT PLANS OR PROPOSAL. THIS ENTIRE SET OF 4 BOOKS IS OFFICIALLY FINALIZED AND ADOPTED AS OF THE DATE SHOWN ON THIS COVER.

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209-05	CONSTRUCTION ENTRANCES	EB 09-036	09/02/10
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209-07	SEDIMENT TRAPS	EB 09-036	09/02/10
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502-04	LONGITUDINAL JOINT TIES	EB 08-036	01/08/09
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	PROPRIETARY FILL TYPE RETAINING WALLS - SHEET 4 OF 5 TYP. SECTIONS FOR MECH. STABILIZED WALL SYSTEMS	EB 10-041	05/05/11
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	GEOSYNTHETICALLY REINFORCED SOIL SYSTEMS SHEET 2 OF 6 - WALLS - TYPICAL SECTIONS	EB 10-041	05/05/11
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STANDARD SHEETS (USC), January 01, 2020

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606-10	HEAVY POST BLOCKED-OUT (MOD.) CORRUGATED-BEAM MEDIAN BARRIER (ERRATA ISSUED BY EB 18-003)	EB 13-028	05/08/14
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645-10	MULTIPLE POST SIGN INSTALLATION USING TYPE B SIGN POSTS (ERRATA ISSUED BY EB 12-026)	EB 09-025	01/07/10
645-11	BI-DIRECTIONAL BREAKAWAY BASE AND HINGE ASSEMBLY	EB 09-025	01/07/10
645-12	OMNI-DIRECTIONAL BREAKAWAY BASE AND HINGE ASSEMBLY	EB 09-025	01/07/10
645-14	POLE MOUNTED SIGNS (ERRATA ISSUED BY EB 14-025)	EB 08-045	05/07/09
646-11	REFERENCE MARKER DETAILS (ERRATA ISSUED BY EB 14-025 AND EB 19-023)	EB 11-006	09/01/11
646-12	DELINEATOR MOUNTING ON CONCRETE MEDIAN BARRIER DETAILS	EB 10-020	01/06/11
646-13	STANDARD AND LARGE DELINEATOR PANEL DETAILS	EB 10-020	01/06/11
646-14	STANDARD DELINEATOR BRACKET AND FASTENER DETAILS	EB 10-020	01/06/11
646-15	**DELINEATOR SNOWPLOWING MARKER AND SUPPLEMENTARY SNOWPLOWING MARKER DETAILS AND NOTES (ERRATA ISSUED BY EB XX-XXX)**	**EB 11-006**	**09/01/11**
646-16	REFERENCE MARKER LARGE DELINEATOR SNOWPLOWING AND SUPPLEMENTARY SNOWPLOWING MARKER LAYOUT ON FREEWAYS AND EXPRESSWAYS	EB 10-020	01/06/11
649-02	MILLED-INAUDIBLE ROADWAY DELINEATORS	EB 13-040	01/09/14
649-03	CENTERLINE AUDIBLE ROADWAY DELINEATORS	EB 13-040	01/09/14
649-04	SECONDARY HIGHWAY AUDIBLE ROADWAY DELINEATORS	EB 16-030	01/01/17
655-01	RECTANGULAR GRATES	EB 08-036	01/08/09
655-02	PARALLEL BAR FRAMES AND GRATES (ERRATA ISSUED BY EB 14-025)	EB 08-049	05/07/09
655-04	RETICULINE GRATES (ERRATA ISSUED BY EB 16-008 & EB 18-003)	EB 12-031	01/10/13
655-06	PROOF LOADED CAST STEEL OR IRON MANHOLE FRAMES, GRATES AND COVERS (ERRATA ISSUED BY EB 14-025)	EB 08-036	01/08/09
655-07	WELDED FRAMES AND PROOF LOADED CAST STEEL OR IRON FRAMES AND CURB BOXES (ERRATA ISSUED BY EB 16-008 & 18-023)	EB 08-049	05/07/09
655-08	TELESCOPING MANHOLE CASTING AND RING	EB 08-036	01/08/09
663-01	WATER MAIN PIPE INSTALLATION DETAILS (ERRATA ISSUED BY EB 18-003)	EB 13-038	01/09/14
663-02	WATER MAIN HORIZONTAL THRUST RESTRAINT DETAILS	EB 11-025	05/03/12
663-03	WATER MAIN THRUST RESTRAINT DETAILS	EB 11-025	05/03/12
663-04	WATER MAIN UTILITY CROSSING RELOCATION DETAILS	EB 08-036	01/08/09
663-05	WATER MAIN HYDRANT AND VALVE DETAILS	EB 08-036	01/08/09
663-06	WATER MAIN HYDRANT FENDER DETAILS	EB 08-036	01/08/09
663-07	WATER MAIN SERVICE CONNECTION DETAILS	EB 08-036	01/08/09
664-01	SANITARY SEWER MAIN PIPE INSTALLATION DETAILS (ERRATA ISSUED BY EB 18-003)	EB 13-038	01/09/14
670-01	LAMPPOST FOUNDATIONS	EB 08-036	01/08/09
670-02	LIGHT STANDARD DETAILS	EB 08-036	01/08/09
670-03	DAVIT ARM, WOOD POLE BRACKET ARM AND DEEP FOUNDATIONS (ERRATA ISSUED BY EB 12-026)	EB 08-036	01/08/09

SHEET NO.	SUBJECT	ISSUED BY	EFFECTIVE
680-01	**TRAFFIC SIGNAL POLE FOUNDATIONS (ERRATA ISSUED BY EB XX-XXX)**	**EB 17-027**	**01/01/18**
680-02	PRECAST STANDARD RECTANGULAR PULLBOXES, FRAMES AND COVERS	EB 11-013	01/12/12
680-03	STANDARD CIRCULAR PULLBOXES, FRAMES AND COVERS	EB 11-013	01/12/12
680-04	PULLBOX, CONDUIT AND GROUND ROD INSTALLATION DETAILS	EB 18-041	01/01/18
680-05	BASE - AND POLE - MOUNTED CABINET INSTALLATION DETAILS	EB 18-041	01/01/18
680-06	STANDARD TRAFFIC SIGNAL POLES (SHEET 1 OF 2)	EB 08-036	01/08/09
	STANDARD TRAFFIC SIGNAL POLES (SHEET 2 OF 2)	EB 08-036	01/08/09
680-07	SPAN WIRE MOUNTED TRAFFIC SIGNAL INSTALLATION DETAILS	EB 13-045	05/08/14
680-08	MAST ARM AND POLE MOUNTED TRAFFIC SIGNAL INSTALLATION DETAILS	EB 18-041	01/01/18
680-10	**PEDESTRIAN SIGNALS AND FLASHING BEACON INSTALLATION DETAILS (ERRATA ISSUED BY EB XX-XXX)**	**EB 08-036**	**01/08/09**
680-11	SIGNAL HEAD ASSEMBLY DETAILS	EB 13-045	05/08/14
680-12	SINGLE SPAN WIRE MOUNTED SIGN INSTALLATION DETAILS	EB 18-041	01/01/18
680-13	DUAL SPAN WIRE AND MAST ARM SIGN INSTALLATION DETAILS	EB 18-041	01/01/18
680-14	INDUCTANCE LOOP VEHICLE DETECTOR INSTALLATION DETAILS	EB 18-041	01/01/18
680-15	MAGNETIC VEHICLE DETECTOR INSTALLATION DETAILS (DISAPPROVED)	EB 18-041	01/01/18
680-16	WOOD POLE DETAILS	EB 18-041	01/01/18
680-17	UTILITY CLEARANCES TOO TRAFFIC SIGNALS	EB 18-041	01/01/18
685-01	PAVEMENT MARKING DETAILS (SHEET 1 OF 9) (ERRATA ISSUED BY EB 13-041)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 2 OF 9)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 3 OF 9)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 4 OF 9)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 5 OF 9)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 6 OF 9) (ERRATA ISSUED BY EB 13-042)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 7 OF 9) (ERRATA ISSUED BY EB 17-041)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 8 OF 9) (ERRATA ISSUED BY EB 17-041)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 9 OF 9) (ERRATA 1 ISSUED BY EB 13-041) (ERRATA 2 ISSUED BY EB XX-XXX)	**EB 12-036**	**05/03/13**

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

INDEX OF SHEETS EFFECTIVE
01/01/2020
(LATEST CHANGES HIGHLIGHTED)
BOOK4

STANDARD SHEETS (USC), January 01, 2020

STANDARD SHEETS (USC), January 01, 2020

FILE NAME = 608-0101.050116_e1.dgn
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GENERAL NOTES:

1. THESE SHEETS ARE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA), AND THE REQUIREMENTS OF THE 2011 PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY (PROWAG).

2. DIMENSIONS SHOWN IN THE DETAILS AS MINIMUMS AND MAXIMUMS ARE THE LIMITS FOR DESIGN AND FIELD LAYOUT. FACILITIES SHALL NOT BE CONSTRUCTED WITH VALUES OUTSIDE THE LIMITS FOR WORK ACCEPTANCE. SEE TABLE "DESIGN ELEMENT TOLERANCES" ON THIS SHEET. FURTHER INFORMATION IS PROVIDED ON "CRITICAL ELEMENTS FOR THE DESIGN, LAYOUT, AND ACCEPTANCE OF PEDESTRIAN FACILITIES" AVAILABLE ON THE NYSDOT HIGHWAY DESIGN MANUAL CHAPTER 18 WEBSITE.

   A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL ELEVATIONS AND DIMENSIONS TO ENSURE THAT THE FINAL LAYOUT OF SIDEWALK AND CURB RAMPS MEETS ADA REQUIREMENTS. ANY SURVEY WORK NECESSARY TO MEET THESE REQUIREMENTS SHALL BE PAID FOR UNDER ITEM 625.01 - SURVEY OPERATIONS.

3. NOT ALL FACILITIES CAN BE CONSTRUCTED TO MEET THE DESIGN STANDARDS. FACILITIES THAT CANNOT BE CONSTRUCTED TO MEET THE DESIGN STANDARDS SHALL BE CONSTRUCTED TO MEET THE STANDARDS TO THE GREATEST EXTENT PRACTICABLE. NON-STANDARD FEATURES SHALL BE JUSTIFIED PER HIGHWAY DESIGN MANUAL CHAPTER 2, EXHIBIT 2-15A.

4. TO CHECK FIELD LAYOUT AND TO VERIFY WORK ACCEPTANCE, ALL SLOPES AND GRADES WILL BE MEASURED WITH A 4 FOOT LONG DIGITAL LEVEL USING AT LEAST TWO READINGS. WHERE THE READINGS VARY, THE MEASUREMENTS WILL BE AVERAGED. GRADE (RUNNING SLOPE) WILL BE MEASURED ALONG THE CENTERLINE AND OFFSET 12" TO 18" FROM THE CENTERLINE. CROSS SLOPES WILL BE MEASURED PERPENDICULAR TO CENTERLINE AT 5' TO 10' INTERVALS.

5. GRADES (RUNNING SLOPES) ARE MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL. CROSS SLOPES ARE MEASURED PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

6. JOINTS BETWEEN SIDEWALKS, CURB RAMPS, TURNING SPACES AND ROADWAYS SHALL BE FLUSH AND FREE FROM ABRUPT VERTICAL CHANGES GREATER THAN ¼". VERTICAL SURFACE DISCONTINUITIES BETWEEN ¼" AND ½" SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2. THE BEVEL SHALL BE APPLIED ACROSS THE ENTIRE JOINT. SEE DETAIL ON SHEET 2 OF 9.

7. SIDEWALKS ARE CONNECTED TO ROADWAYS BY EITHER BLENDED TRANSITIONS OR CURB RAMPS. BLENDED TRANSITIONS ARE CONNECTIONS BETWEEN THE SIDEWALK LEVEL AND THE ROADWAY LEVEL THAT HAVE A MAXIMUM GRADE (RUNNING SLOPE) OF 5%, AND TRANSITIONS GREATER THAN 5% ARE CONSIDERED CURB RAMPS.

8. CURB RAMPS AND BLENDED TRANSITIONS MAY REQUIRE THE INSTALLATION OF DETECTABLE WARNINGS. SEE ADDITIONAL "DETECTABLE WARNING NOTES" ON THIS SHEET, AND DETAILS ON SHEET 2 OF 9 FOR DIMENSIONS, ORIENTATION AND INSTALLATION.

9. VERTICAL ALIGMENT SHALL BE GENERALLY PLANAR. GRADE BREAKS WITHIN THE PEDESTRIAN ACCESS ROUTE SHALL BE PERPENDICULAR TO THE DIRECTION OF TRAVEL AND SHALL NOT BE ROUNDED.

10. MATERIAL DEPTHS SHOWN ON THESE SHEETS ARE TYPICAL MINIMUM VALUES AND MAY BE DIFFERENT IN THE CONTRACT DOCUMENTS.

11. SIDEWALK GRADE (RUNNING SLOPE) SHALL NOT BE DESIGNED TO EXCEED 4.5%, EXCEPT WHEN MATCHING INTO EXISTING SIDEWALK OR WHEN THE HIGHWAY GRADE IS STEEPER. WHEN HIGHWAY GRADE IS GREATER THAN 5%, THE SIDEWALK GRADE SHALL NOT EXCEED THE HIGHWAY GRADE.

12. THE CROSS SLOPE OF PEDESTRIAN ACCESS ROUTES SHALL BE 1.5% MAXIMUM FOR DESIGN AND LAYOUT, AND 2% MAXIMUM FOR WORK ACCEPTANCE. THE FOLLOWING EXCEPTIONS ARE ALLOWED:

   A. WHERE PEDESTRIAN STREET CROSSINGS ARE PROVIDED AT INTERSECTIONS WITHOUT YIELD OR STOP CONTROL OR WHERE THERE IS ANY TRAFFIC SIGNAL WITHOUT A FLASHING RED, THE CROSS SLOPE OF A PEDESTRIAN ACCESS ROUTE CONTAINED WITHIN A STREET CROSSING SHALL BE 4.5% MAXIMUM FOR DESIGN AND LAYOUT, AND 5% MAXIMUM FOR WORK ACCEPTANCE.

   B. WHERE MIDBLOCK PEDESTRIAN STREET CROSSINGS ARE PROVIDED, THE CROSS SLOPE OF A PEDESTRIAN ACCESS ROUTE CONTAINED WITHIN A MIDBLOCK STREET CROSSING SHALL BE PERMITTED TO EQUAL THE STREET OR HIGHWAY GRADE.

13. THE MINIMUM CLEAR WIDTH FOR PEDESTRIAN ACCESS ROUTES IS 4'-0", EXCLUSIVE OF THE CURB. WHEN WALKWAY WIDTHS ARE LESS THAN 5'-0", 5'-0" x 5'-0" PASSING SPACES (SHOWN IN DETAIL A OR B), OR A FEATURE OF EQUAL OR GREATER DIMENSIONS (E.G., DRIVEWAYS) THAT MEET THE SLOPE CRITERIA, SHALL BE PROVIDED AT A MAXIMUM INTERVAL OF 200'. EXISTING DRIVEWAYS AND STREET CROSSING MAY ALSO SERVE AS PASSING SPACES.

14. THE BUFFER ZONE IS A PHYSICAL DISTANCE SEPARATING THE PEDESTRIAN ACCESS ROUTE FROM THE VEHICLE TRAVELED WAY. THE BUFFER ZONE MAY BE PLANTED OR PAVED. WHERE THE BUFFER ZONE WIDTH, EXCLUSIVE OF CURB, IS LESS THAN 3'-0" THE SURFACE SHOULD BE PAVED OR CONSTRUCTED WITH HARDSCAPE MATERIALS.

15. THE MAXIMUM RECOMMENDED CROSS SLOPE OF A TURF BUFFER ZONE OR SLOPE TRANSITION BEHIND SIDEWALK IS 25%. BUFFER ZONES WITH A CROSS SLOPE GREATER THAN 25% SHOULD BE PAVED, PLANTED OR CONSTRUCTED WITH HARDSCAPE MATERIALS.

16. WHEN CROSSING DRIVEWAYS, THE WORK SHALL BE IN CONFORMANCE WITH STANDARD SHEET 608-03.

17. FOR PEDESTRIAN SIGNALS AND PEDESTRIAN PUSH BUTTONS, REFER TO STANDARD SHEET 680-10 FOR DETAILS.

18. WHERE EXISTING ROADWAYS ARE SAWCUT TO INSTALL CURBING AND/OR SIDEWALK, THE ROADWAY SHOULD BE SAWCUT AT LEAST 2'-0" FROM THE PROPOSED CURB LINE TO ALLOW FOR ADEQUATE COMPACTION OF ASPHALT. IF SAWCUT IS LESS THAN 2'-0" FROM PROPOSED CURB LINE, THEN THE ROADWAY SHALL BE REBUILT USING CLASS C CONCRETE. SEE DETAILS ON SHEET 9 OF 9.

CURB RAMP NOTES:

19. THE MINIMUM WIDTH OF A CURB RAMP SHALL BE 4'-0".

20. THE GRADE (RUNNING SLOPE) OF A CURB RAMP SHALL BE A MINIMUM OF 5%. THE GRADE FOR DESIGN AND LAYOUT SHALL BE A MAXIMUM OF 7.5%. THE GRADE FOR ADA ACCESSIBILITY AND WORK ACCEPTANCE SHALL BE A MAXIMUM OF 8.3%.

21. WHERE EXISTING CONDITIONS DO NOT ALLOW THE CONSTRUCTION OF A CURB RAMP WITH A GRADE (RUNNING SLOPE) OF 8.3% OR LESS, THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15'-1" FOR DESIGN AND FIELD LAYOUT. THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15'-0" FOR WORK ACCEPTANCE.

22. THE CROSS SLOPE OF THE CURB RAMP SHALL BE AS FLAT AS POSSIBLE AND STILL PROVIDE POSITIVE DRAINAGE. THE CROSS SLOPE OF A CURB RAMP SHALL BE 1.5% MAXIMUM FOR DESIGN AND LAYOUT, AND 2% MAXIMUM FOR WORK ACCEPTANCE. SEE NOTE 12 FOR EXCEPTIONS. WHERE THE EXISTING ROADWAY GRADE EXCEEDS 2%, THE CURB RAMP MAY BE WARPED ACCORDING TO THE DETAIL ON SHEET 8 OF 9 TO TIE INTO THE DROP CURB.

23. RAMP SIDE OPTIONS ARE DETAILED ON SHEET 3 OF 9 FOR USE WITHIN THE BUFFER ZONE. WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP, FLARED SIDES SHALL BE INSTALLED WITH A MAXIMUM SLOPE OF 9.5% FOR DESIGN AND LAYOUT, AND 10% MAXIMUM FOR WORK ACCEPTANCE. THE SLOPE OF FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE.

24. THE BACKSIDE OF A PARALLEL RAMP SHOULD BE GRADED TO A MAXIMUM SLOPE OF 25% TO MATCH EXISTING TERRAIN, UNLESS OTHERWISE SHOWN IN THE CONTRACT DOCUMENTS. WHERE GRADING IS NOT FEASIBLE DUE TO LIMITED ROW OR PHYSICAL CONSTRAINTS, A BACK CURB MAY BE INSTALLED. SEE DETAILS ON SHEET 3 OF 9 AND SHEET 9 OF 9.

25. DEPARTMENT PREFERENCE IS TO INSTALL TWO CURB RAMPS AT A STREET CORNER THAT SERVES BOTH CROSSINGS. WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT TWO CURB RAMPS FROM BEING INSTALLED AT A STREET CORNER THAT SERVES BOTH CROSSINGS, A SINGLE DIAGONAL CURB RAMP WILL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS.

TURNING SPACE AND CLEAR SPACE NOTES:

26. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.

27. WHERE THERE ARE NO VERTICAL CONSTRAINTS AT THE BACK OF SIDEWALK, (E.G., VERTICAL CURB, BUILDINGS, FENCES) THE TURNING SPACE DIMENSIONS SHALL BE 4'-0" x 4'-0" MINIMUM. WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK, THE TURNING SPACE SHALL BE 4'-0" X 5'-0" MINIMUM. THE 5'-0" DIMENSION SHALL BE PROVIDED PERPENDICULAR TO THE CONSTRAINT.

28. TURNING SPACES SHALL NOT BE DESIGNED WITH CROSS SLOPE GREATER THAN 1.5% IN ANY DIRECTION, WHILE PROVIDING POSITIVE DRAINAGE. THE MAXIMUM CROSS SLOPE FOR WORK ACCEPTANCE IS 2.0%. A NONSTANDARD FEATURE JUSTIFICATION IS REQUIRED WHERE TURNING SPACES EXCEED 2.0% IN ANY DIRECTION.

29. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" x 4'-0" MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.

DETECTABLE WARNING NOTES:

30. DETECTABLE WARNING SURFACES SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS ON PEDESTRIAN ACCESS ROUTES:

   A. CURB RAMPS AND BLENDED TRANSITIONS AT PEDESTRIAN STREET CROSSINGS.

   B. PEDESTRIAN REFUGE ISLANDS (WHERE THE LENGTH OF THE PEDESTRIAN ACCESS ROUTE ACROSS THE REFUGE ISLAND IS GREATER THAN OR EQUAL TO 6 FEET).

   C. PEDESTRIAN AT-GRADE RAIL CROSSINGS NOT LOCATED WITHIN A STREET OR HIGHWAY.

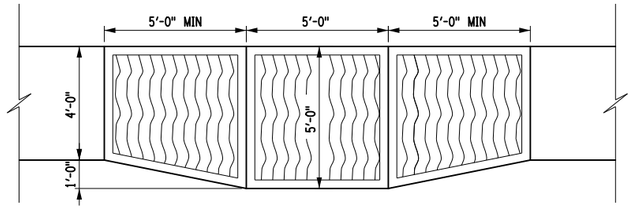
31. DETECTABLE WARNING SURFACES SHALL BE PROVIDED WHERE THE PEDESTRIAN ACCESS ROUTE CROSSES DRIVEWAYS WITH SIGNAL, YIELD OR STOP CONTROL. DETECTABLE WARNING SURFACES SHALL NOT BE PROVIDED AT CROSSINGS OF UNCONTROLLED DRIVEWAY APRONS.

32. SOME DETECTABLE WARNING PRODUCTS REQUIRE A CONCRETE BORDER FOR PROPER INSTALLATION. IF REQUIRED, THE BORDER SHALL NOT EXCEED 2". WHERE THE BACK OF CURB EDGE IS TOOLED TO PROVIDE A RADIUS, THE BORDER DIMENSION SHALL BE MEASURED FROM THE INSIDE EDGE OF THE CURB RADIUS.

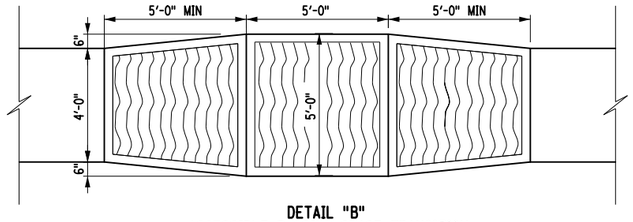
33. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING UNIT IS FOR ILLUSTRATION ONLY. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE, EXCLUDING ANY FLARED SIDES. THE WIDTH OF THE DETECTABLE WARNING FIELD INCLUDES A CONCRETE BORDER, IF PROVIDED.

34. ON SLOPES OF 5% OR GREATER, THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE LOWER GRADE BREAK ON THE RAMP RUN. WHERE DOMES ARE ARRAYED RADIALLY THEY MAY DIFFER IN DOME DIAMETER AND CENTER-TO-CENTER SPACING WITHIN THE RANGES SPECIFIED ON SHEET 2. ON SLOPES LESS THAN 5%, DOME ORIENTATION IS LESS CRITICAL AND MAY DIFFER FROM PERPENDICULAR OR RADIAL ALIGNMENT TO THE GRADE BREAK.

35. THE DETECTABLE WARNING FIELD SHALL BE THE COLOR SPECIFIED IN THE CONTRACT DOCUMENTS OR MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT GUTTER, STREET OR HIGHWAY, OR PEDESTRIAN ACCESS ROUTE SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT.



DETAIL "A"
ACCESSIBLE PASSING SPACE TRANSITION
ONE SIDE TAPERS



DETAIL "B"
ACCESSIBLE PASSING SPACE TRANSITION
BOTH SIDES TAPER

DESIGN ELEMENT TOLERANCES

ELEMENT	DESIGN AND FIELD LAYOUT LIMIT	LIMIT FOR WORK ACCEPTANCE
SIDEWALK CROSS SLOPE - SEE NOTE 12	1.5% MAX.	2.0% MAX.
SIDEWALK GRADE (RUNNING SLOPE) - SEE NOTE 11	4.5% MAX.	5.0% MAX.
CURB RAMP GRADE (RUNNING SLOPE) - SEE NOTE 21	7.5% MAX.	8.3% MAX.
BLENDED TRANSITION GRADE (RUNNING SLOPE) - SEE NOTE 7	4.5% MAX.	5.0% MAX.

ALL VALUES SHOWN ON THE 608-01 STANDARD SHEETS REFER TO DESIGN AND FIELD LAYOUT LIMITS.

FOR ADDITIONAL REQUIREMENTS AND TOLERANCES, SEE "CRITICAL ELEMENTS FOR THE DESIGN, LAYOUT, AND CONSTRUCTION OF PEDESTRIAN FACILITIES" AVAILABLE ON THE NYSDOT HIGHWAY DESIGN MANUAL CHAPTER 18 WEBSITE.

ERRATA 1 01/01/2020
ISSUED WITH EB 19-041

NEW YORK STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

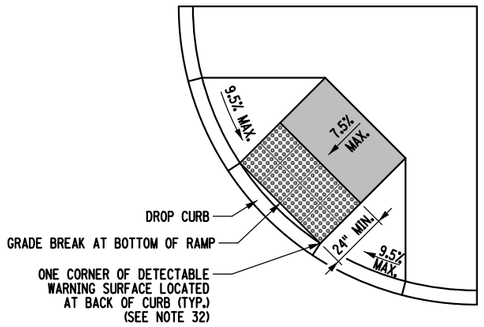
SIDEWALK AND CURB RAMP DETAILS (SHEET 1 OF 9)

APPROVED MARCH 07, 2016

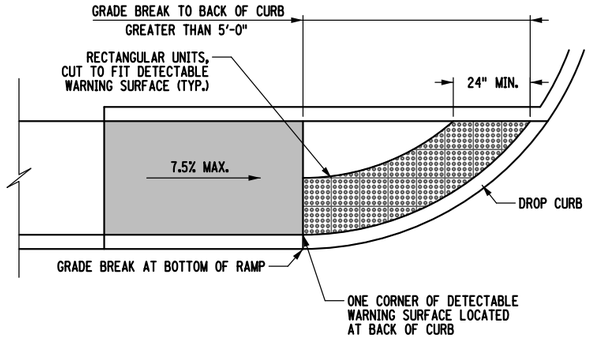
/S/ RICHARD W. LEE, P.E.
DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 16-012

608-01



OPTION 1



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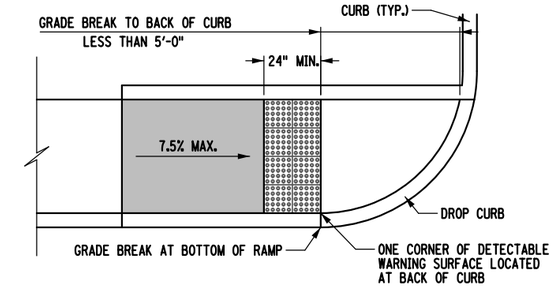

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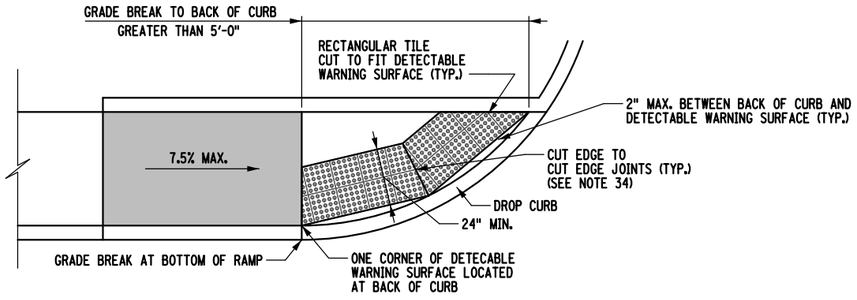
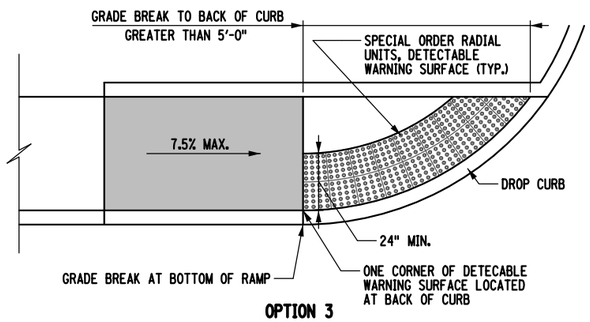


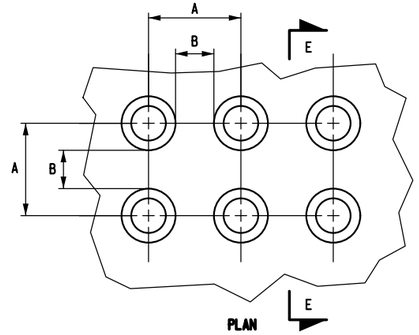
OPTION 6

NOTE: OPTION 5 HAS BEEN REMOVED

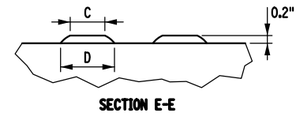


OPTION 3

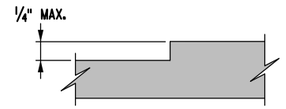
DETECTABLE WARNING SURFACE (DWS) PLACEMENT OPTION DETAILS

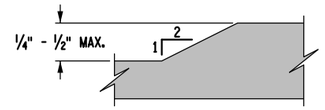


TRUNCATED DOME DIMENSIONS		
DIM.	MIN. (IN)	MAX. (IN)
A	1.6"	2.4"
B	0.65"	1.5"
C	50% - 65% OF D DIM.	
D	0.9"	1.4"



DETECTABLE WARNING SURFACE (DWS) TRUNCATED DOME DETAILS





VERTICAL SURFACE DISCONTINUITIES

SEE NOTE 6 ON SHEET 1 OF 9

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-01, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK AND CURB RAMP DETAILS (SHEET 2 OF 9)

APPROVED OCTOBER 05, 2017	ISSUED UNDER EB 17-042
/S/ RICHARD D. WILDER, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-01

STANDARD SHEETS (USC), January 01, 2020

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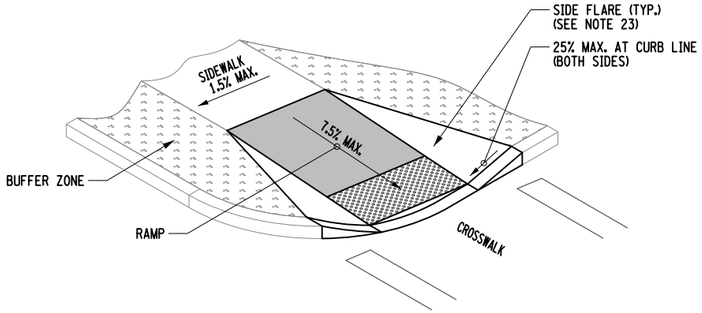
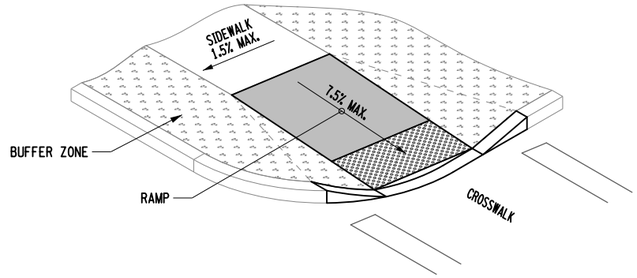
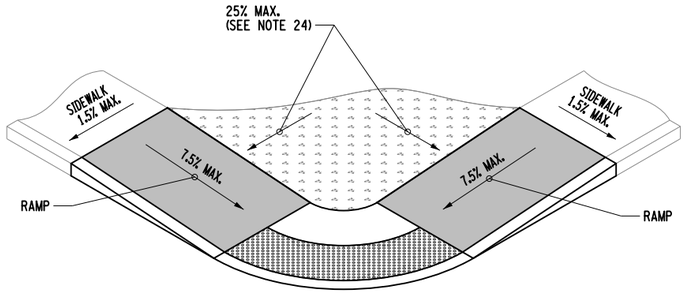


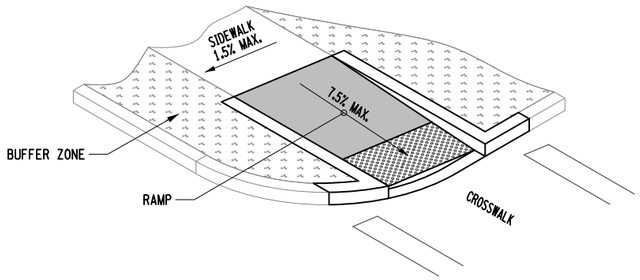
OPTION A: FLARED CONCRETE



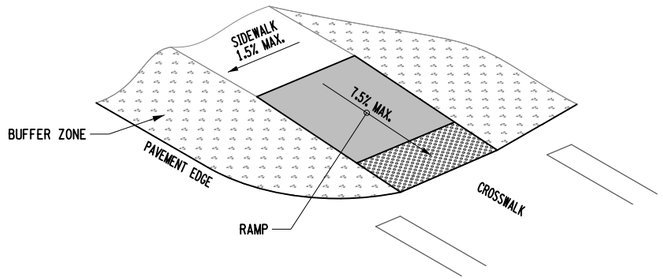
OPTION B: GRADED EARTH



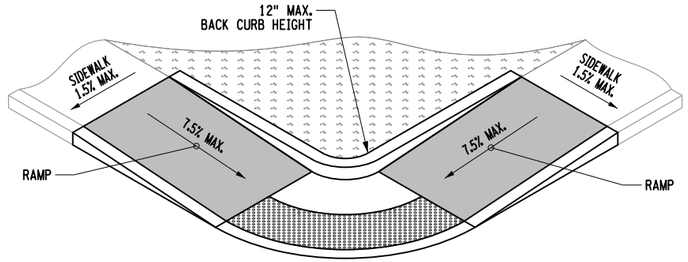
OPTION A: GRADED EARTH AND TURF



OPTION C: RETURN CURB



OPTION D: UNCURBED INTERSECTION



OPTION B: BACK CURB

PARALLEL RAMP BACK TREATMENTS

RAMP SIDE CONFIGURATIONS

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-01, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK AND CURB RAMP DETAILS
(SHEET 3 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-01

STANDARD SHEETS (USC), January 01, 2020

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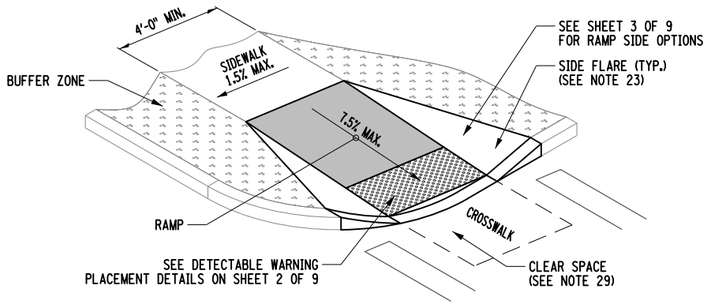
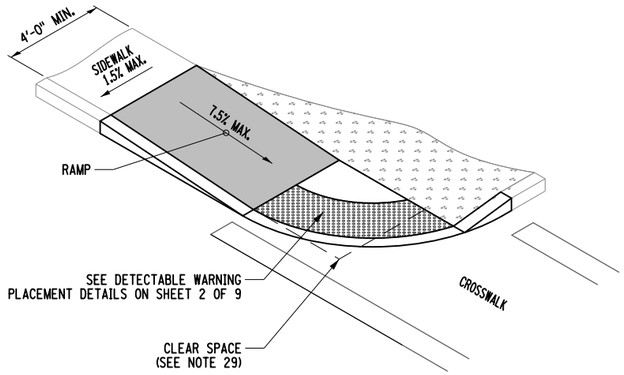
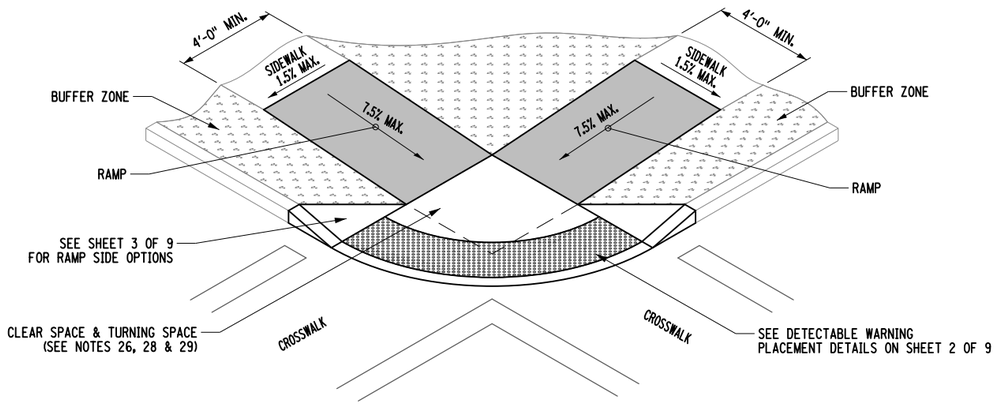


CURB RAMP CONFIGURATION: TYPE 1



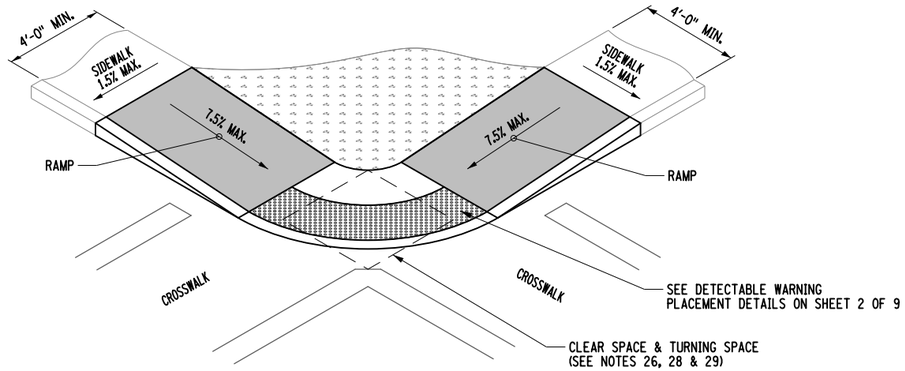
CURB RAMP CONFIGURATION: TYPE 2



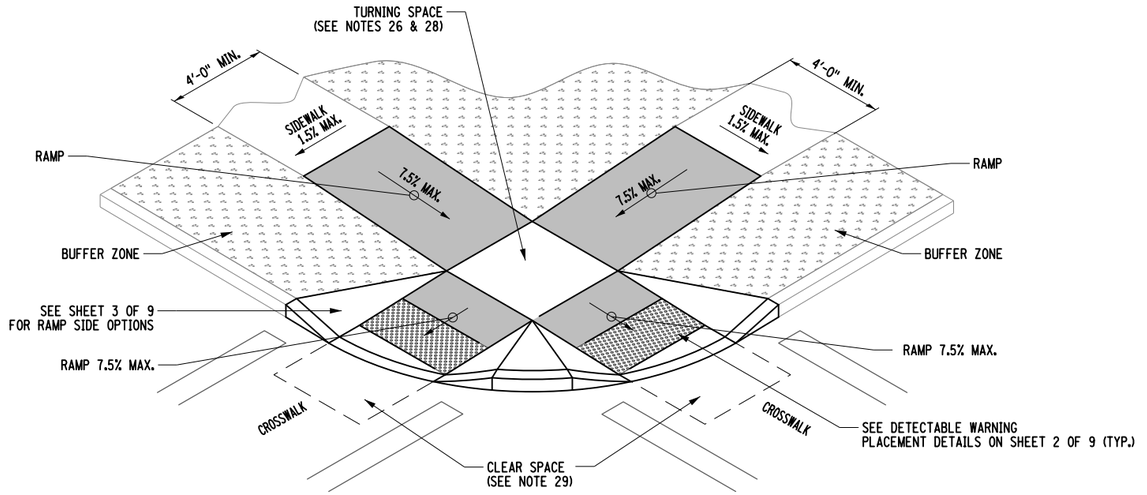
CURB RAMP CONFIGURATION: TYPE 3

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-01, SHEET 1 OF 9.



CURB RAMP CONFIGURATION: TYPE 4



CURB RAMP CONFIGURATION: TYPE 5

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK AND CURB RAMP DETAILS (SHEET 4 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-01

STANDARD SHEETS (USC), January 01, 2020

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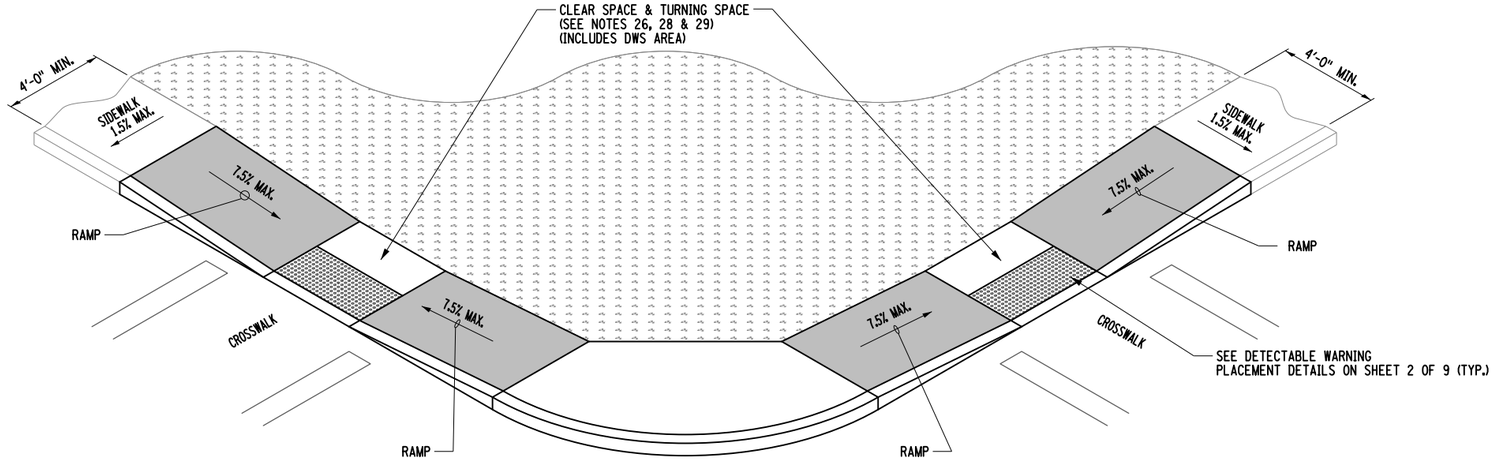
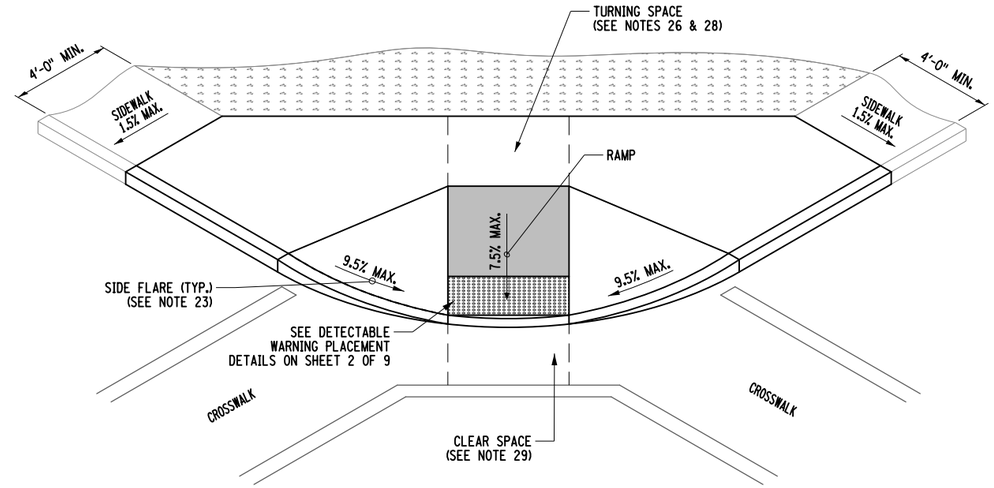
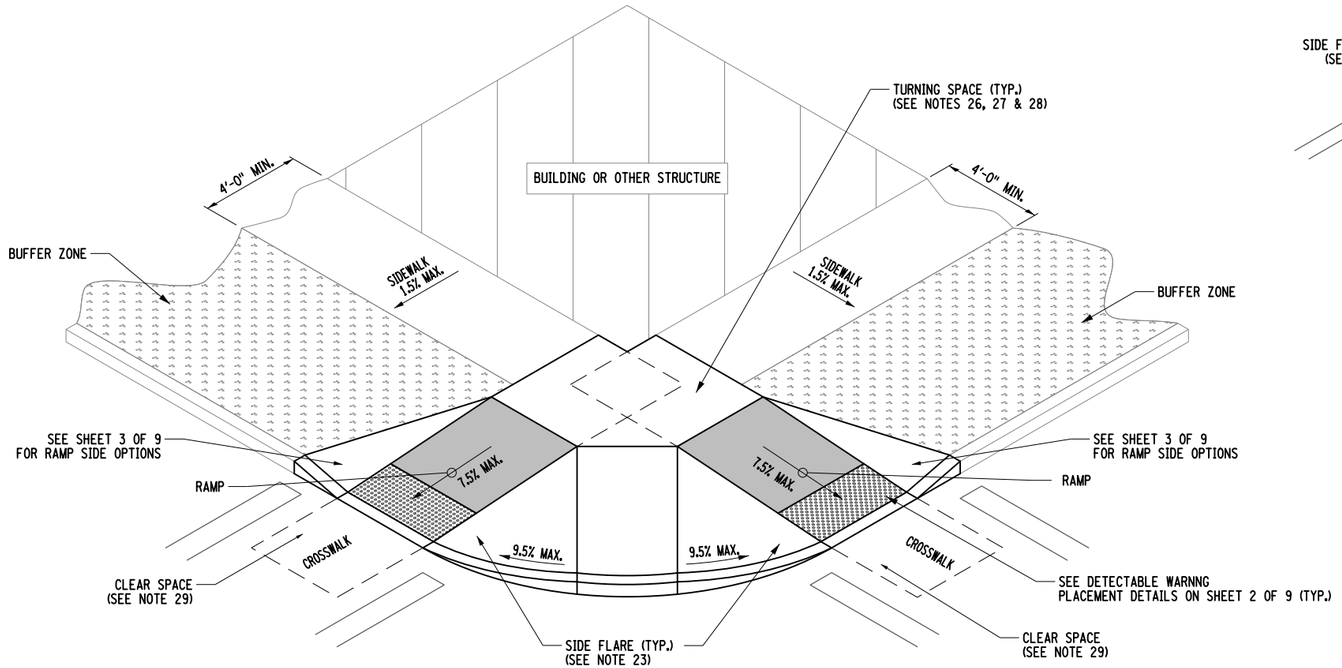


CURB RAMP CONFIGURATION: TYPE 6



CURB RAMP CONFIGURATION: TYPE 8



CURB RAMP CONFIGURATION: TYPE 7

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-01, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK AND CURB RAMP DETAILS (SHEET 5 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-01

STANDARD SHEETS (USC), January 01, 2020

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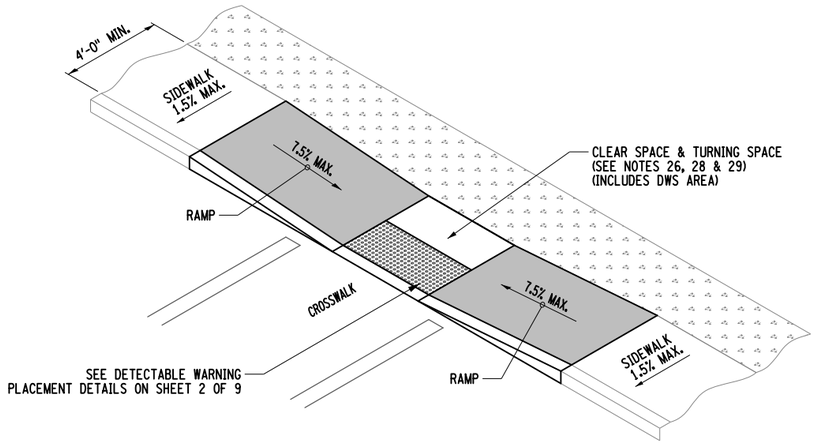
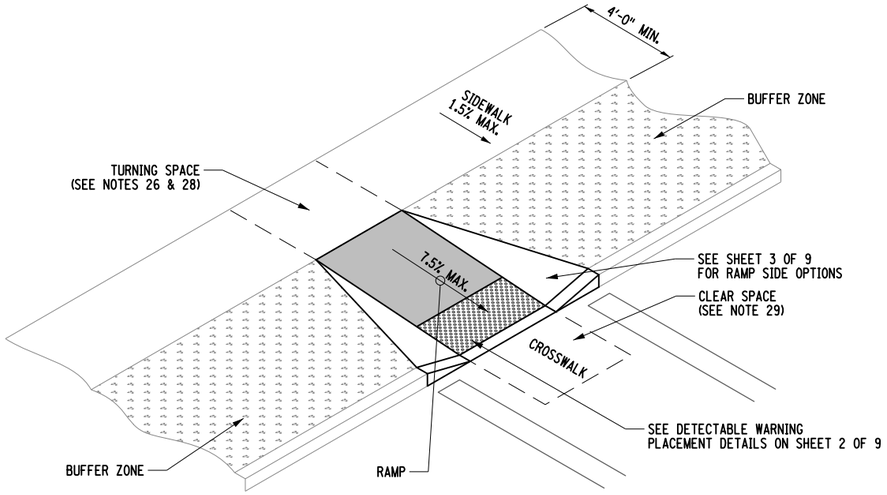
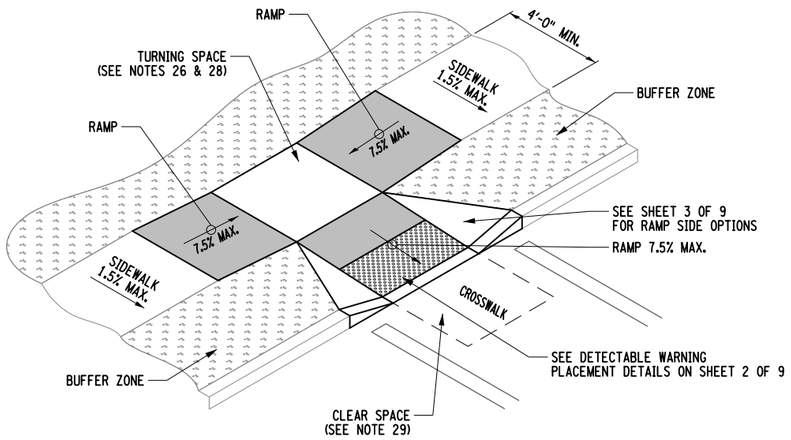


CURB RAMP CONFIGURATION: TYPE 9
MID BLOCK CROSSING OR T INTERSECTION



CURB RAMP CONFIGURATION: TYPE 11
MID BLOCK CROSSING OR T INTERSECTION



CURB RAMP CONFIGURATION: TYPE 10
MID BLOCK CROSSING OR T INTERSECTION

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-01, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK AND CURB RAMP DETAILS
(SHEET 6 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-01

STANDARD SHEET (USC), January 01, 2020

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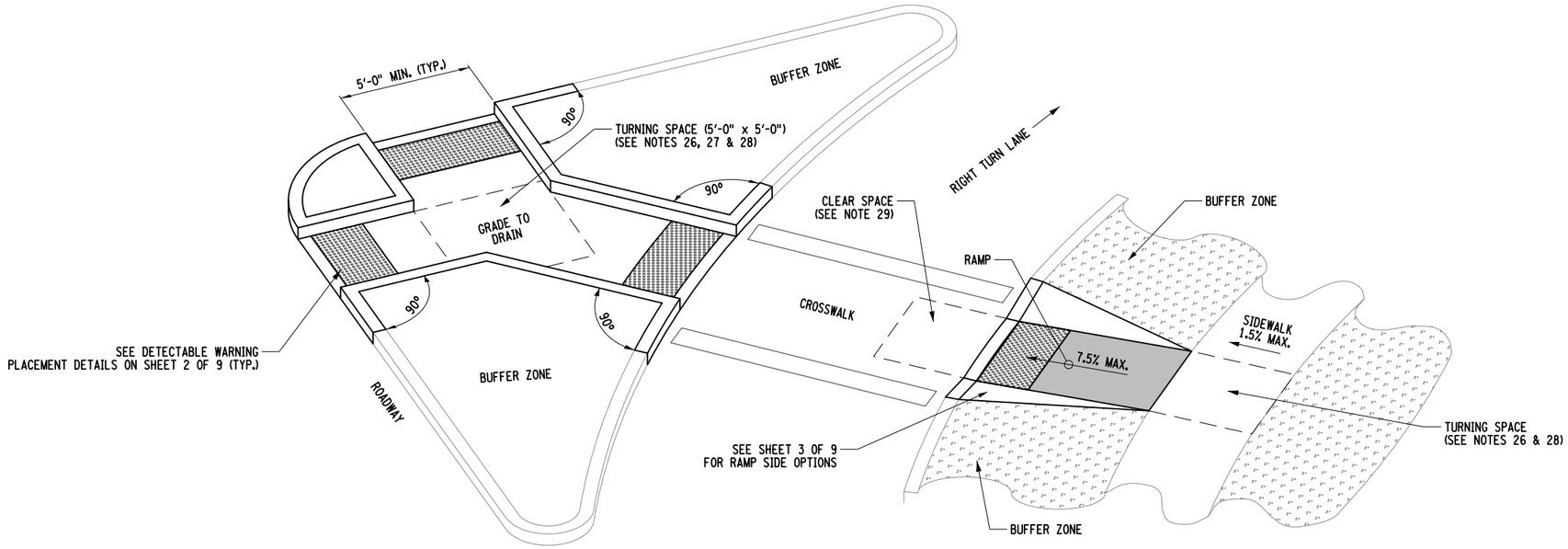
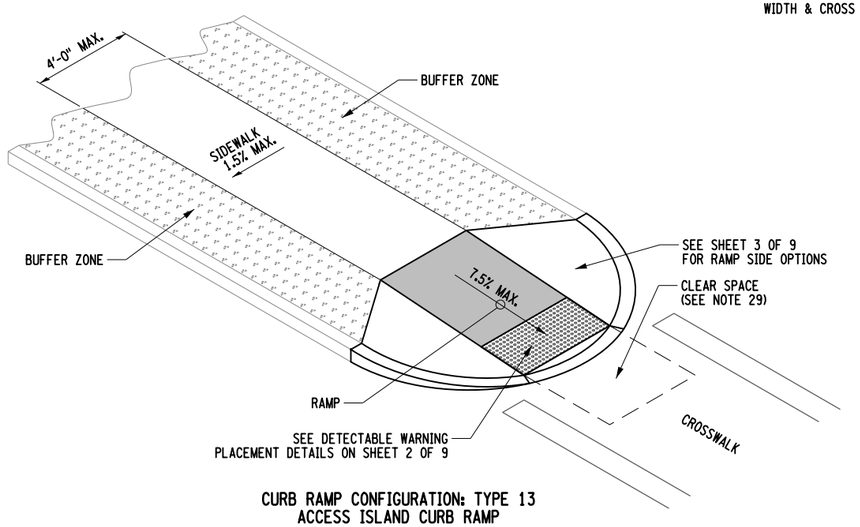
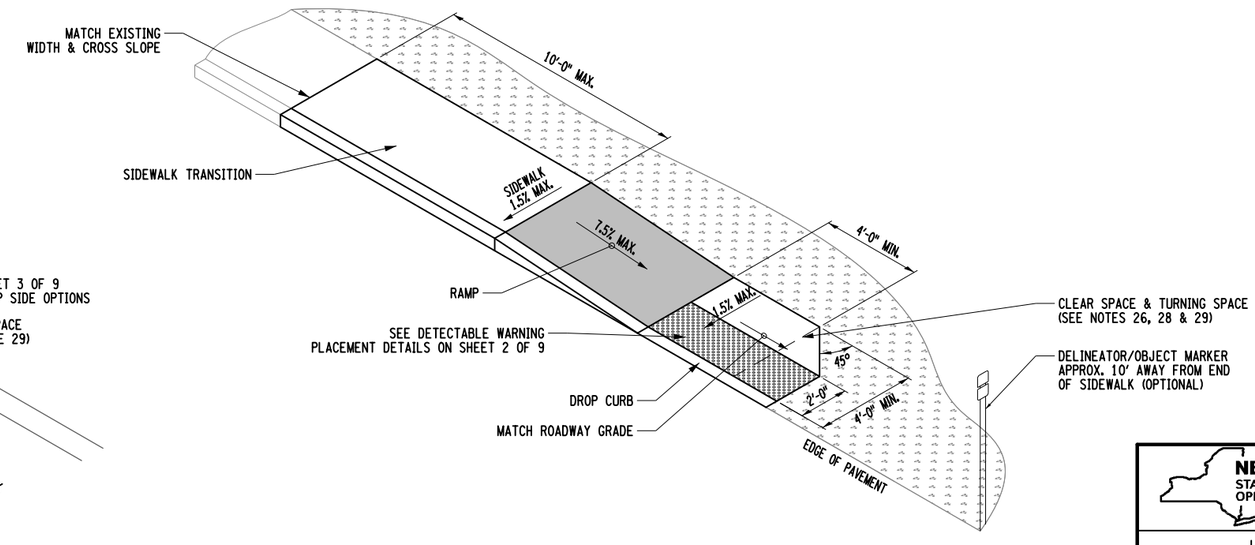


CURB RAMP CONFIGURATION: TYPE 12
RIGHT TURN ISLAND CUT THROUGH



CURB RAMP CONFIGURATION: TYPE 13
ACCESS ISLAND CURB RAMP



CURB RAMP CONFIGURATION: TYPE 14
SHOULDER TO SIDEWALK TRANSITION

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-01, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK AND CURB RAMP DETAILS (SHEET 7 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-01

STANDARD SHEETS (USC), January 01, 2020

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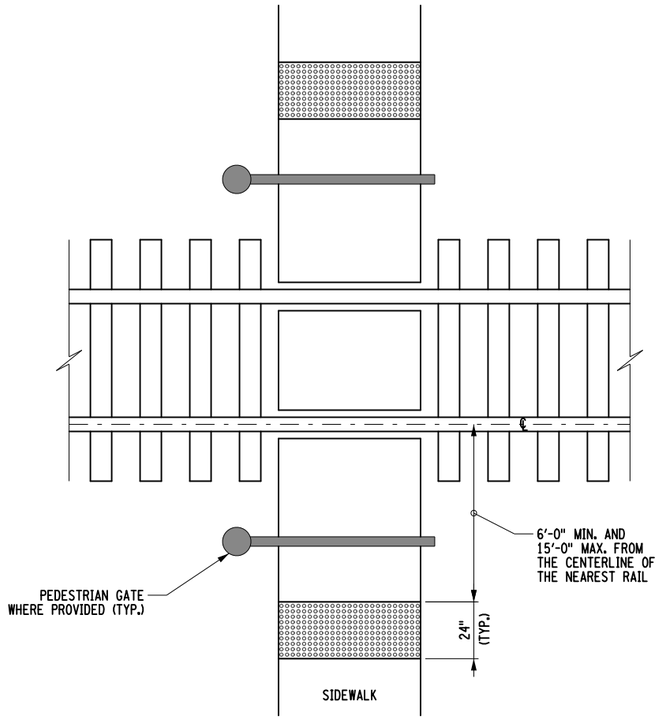
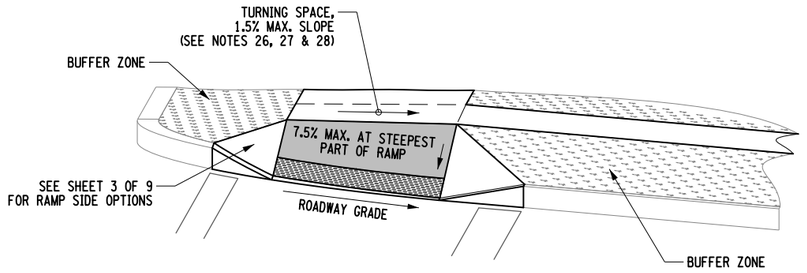
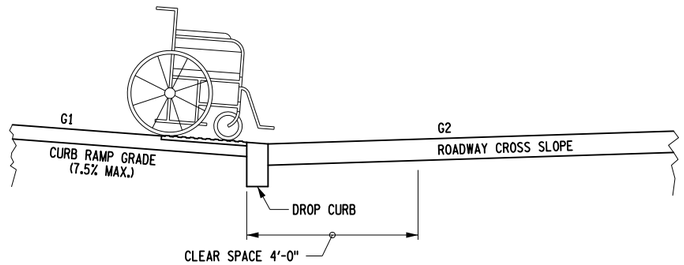


DETECTABLE WARNINGS AT RAILROAD CROSSING



CURB RAMP CROSS SLOPE TRANSITION

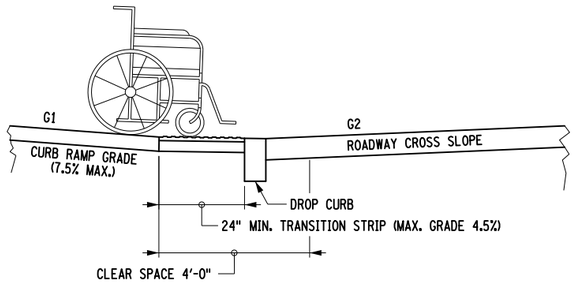
REFER TO NOTE 22 ON SHEET 1 OF 9
FOR CROSS SLOPE REQUIREMENTS



COUNTER SLOPE CONDITION 1

A = | G2 - G1 |

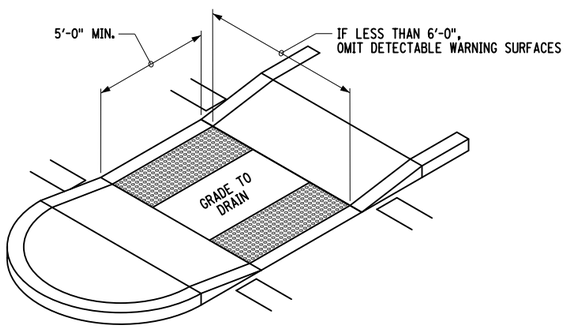
ALGEBRAIC DIFFERENCE BETWEEN ROADWAY CROSS SLOPE
AND CURB RAMP GRADE IS LESS THAN 12.5%.



COUNTER SLOPE CONDITION 2

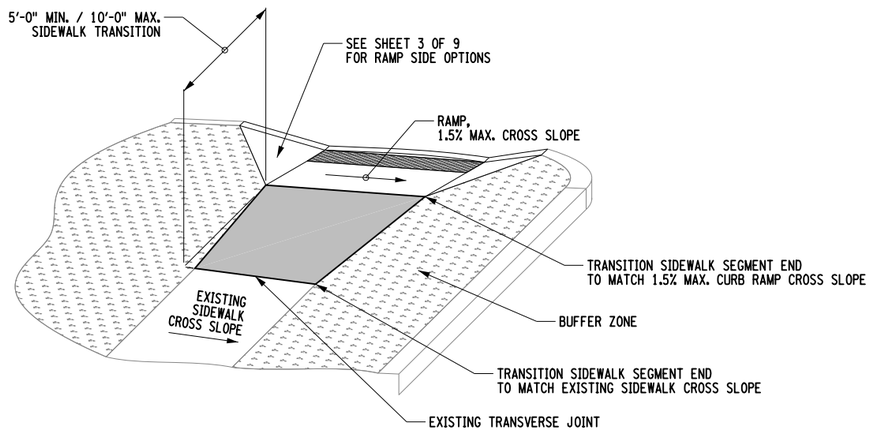
A = | G2 - G1 |

ALGEBRAIC DIFFERENCE BETWEEN ROADWAY SLOPE
AND CURB RAMP GRADE IS GREATER THAN 12.5%.
TRANSITION STRIP REQUIRED (MAX. GRADE 4.5%)



DETECTABLE WARNINGS AT
PEDESTRIAN REFUGE ISLANDS

NON-ELEVATED CROSSING



TRANSITION BETWEEN CURB RAMP
AND EXISTING SIDEWALK

USE FOR CROSS SLOPE AND WIDTH TRANSITIONS

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-01, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK AND CURB RAMP DETAILS
(SHEET 8 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-01

STANDARD SHEETS (USC), January 01, 2020

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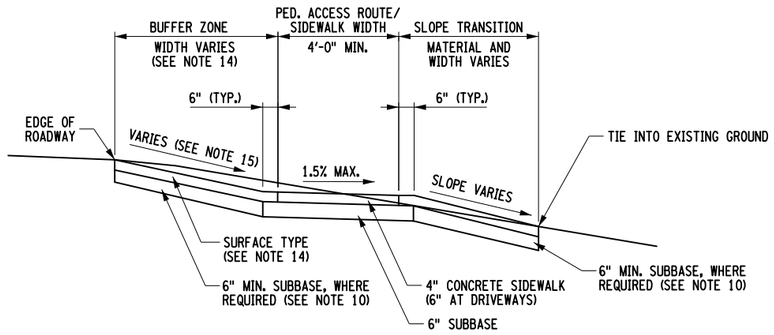
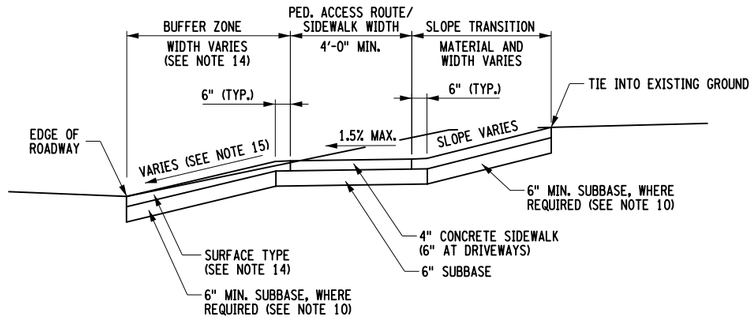
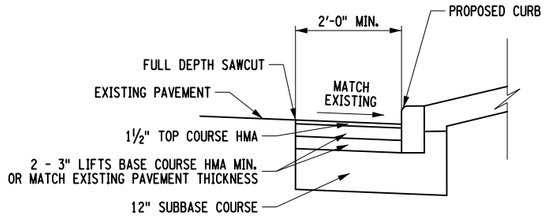


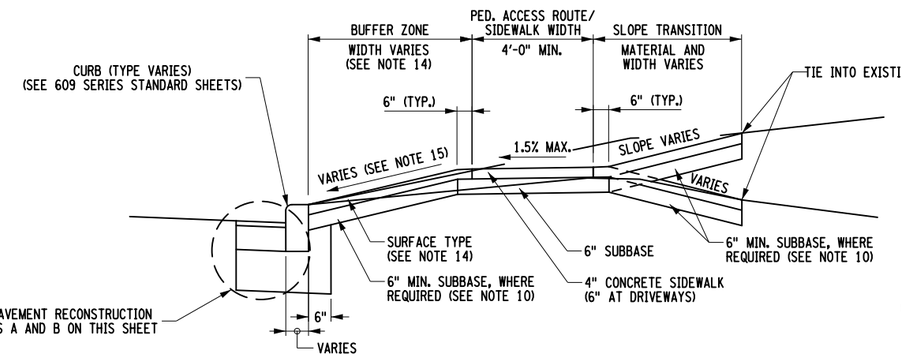
TYPICAL SIDEWALK CROSS SECTION
NO CURB WITH BUFFER ZONE
IN A FILL SECTION



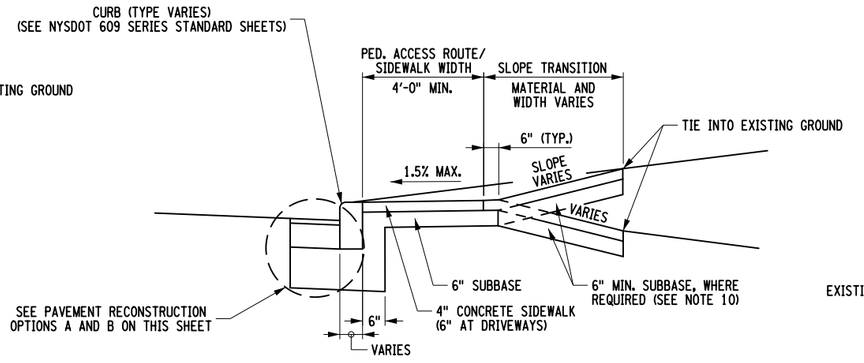
TYPICAL SIDEWALK CROSS SECTION
NO CURB WITH BUFFER ZONE
IN A CUT SECTION



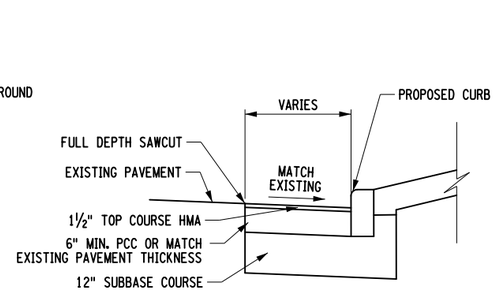
PAVEMENT RECONSTRUCTION OPTION A:
HOT MIX ASPHALT
SEE NOTE 18



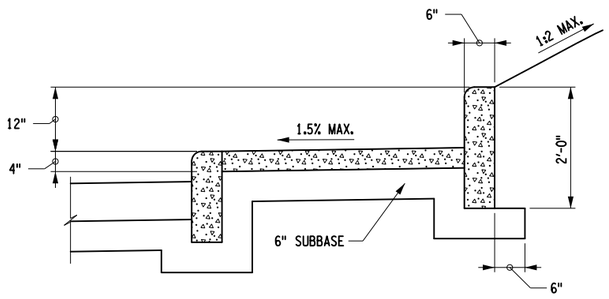
TYPICAL SIDEWALK CROSS SECTION
CURBED WITH BUFFER ZONE



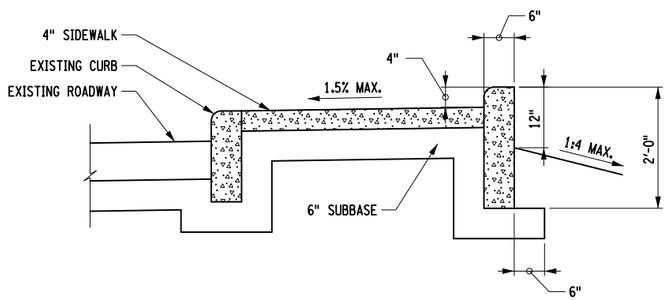
TYPICAL SIDEWALK CROSS SECTION
CURBED WITHOUT BUFFER ZONE



PAVEMENT RECONSTRUCTION OPTION B:
PORTLAND CEMENT CONCRETE
SEE NOTE 18



BACK OF CURB DETAIL
USE IN CUT SECTIONS WITH LIMITED
RIGHT-OF-WAY OR STEEP SLOPES



BACK OF CURB DETAIL
USE ON FILL SECTIONS WITH
LIMITED RIGHT-OF-WAY

NOTE:

ALL NOTES REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-01, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK AND CURB RAMP DETAILS
(SHEET 9 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-01

STANDARD SHEETS (USC), January 01, 2020

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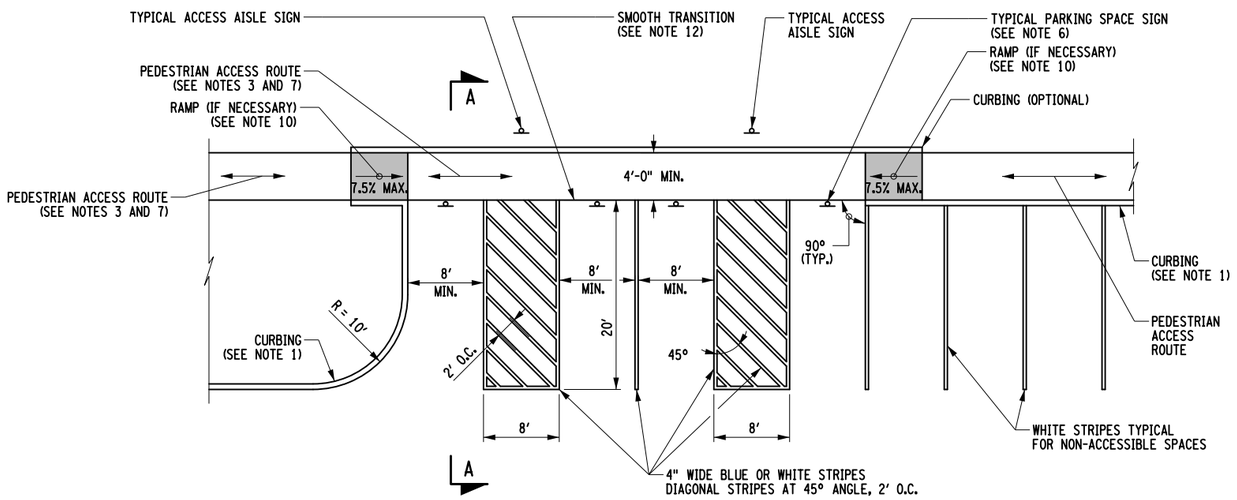
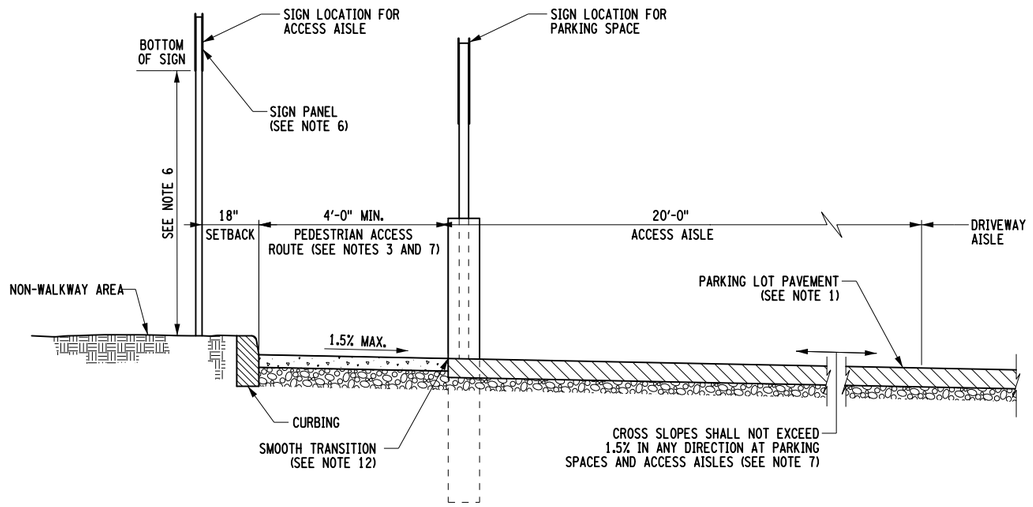
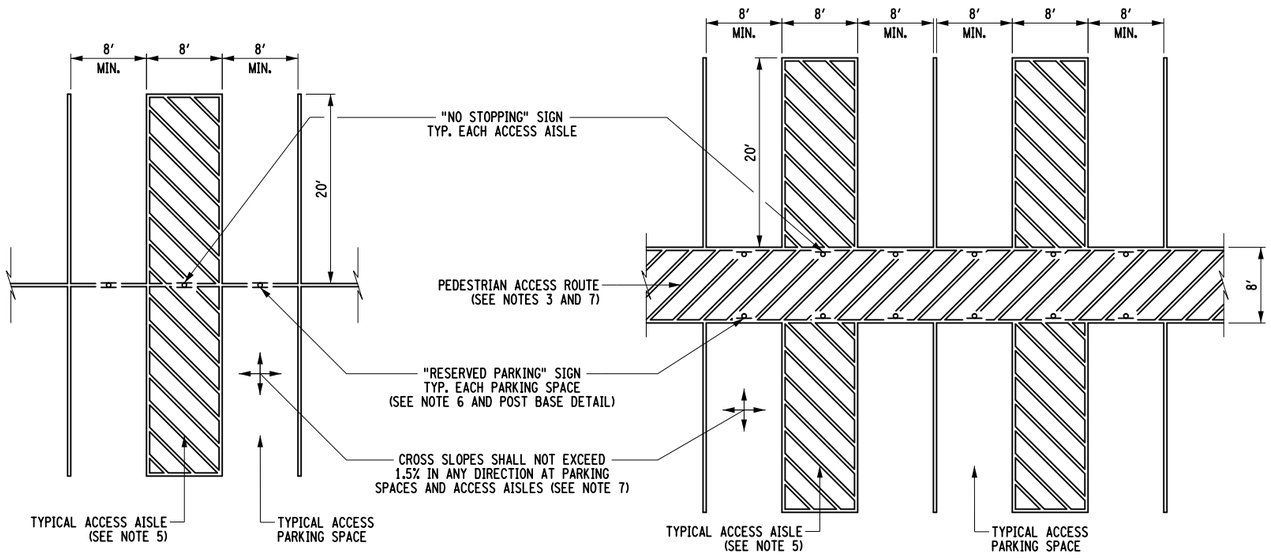


TYPICAL ACCESSIBLE PARKING LOT LAYOUT

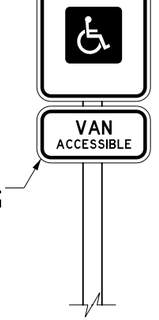


TYPICAL SECTION (SECTION A-A)



TYPICAL ACCESSIBLE PARKING LOT LAYOUTS

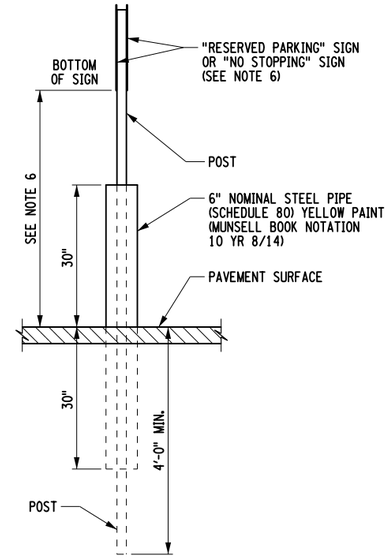
SIGN NO. R7-8



TYPICAL FOR PARKING SPACE

SIGN NO. NYP1-7

TYPICAL FOR ACCESS AISLE



POST BASE DETAIL
(SEE NOTE 6)

NOTES:

1. THIS SHEET IS INTENDED TO DEPICT THE DIMENSIONAL REQUIREMENTS OF TYPICAL ACCESSIBLE PARKING LOT SPACES. THE SIDEWALK, CURBING, AND PAVEMENT MATERIALS SHALL BE AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.

2. MINIMUM NUMBER OF ACCESSIBLE SPACES:

TOTAL SPACES IN LOT	MINIMUM NUMBER OF ACCESSIBLE SPACES	TOTAL SPACES IN LOT	MINIMUM NUMBER OF ACCESSIBLE SPACES
1 TO 25	1	201 TO 300	7
26 TO 50	2	301 TO 400	8
51 TO 75	3	401 TO 500	9
75 TO 100	4	501 TO 1,000	2% OF TOTAL
101 TO 150	5	1,001 AND OVER	20, PLUS ONE FOR EACH 100, OR FRACTION THEREOF, OVER 1,000
151 TO 200	6		

EXCEPTION: PARKING AREAS ON THE PREMISES OF, OR IMMEDIATELY ADJACENT TO, MEDICAL SERVICES FACILITIES PROVIDING TREATMENT FOR MOBILITY IMPAIRED PERSONS AND OTHER SIMILAR LOCATIONS MAY REQUIRE A GREATER NUMBER OF ACCESSIBLE PARKING SPACES THAN INDICATED ABOVE. REFER TO THE APPLICABLE ACCESSIBILITY STANDARD.

3. LOCATION - PARKING SPACES FOR USE BY PERSONS WITH DISABILITIES SHALL BE IN THE SPACES CLOSEST TO THE NEAREST ACCESSIBLE BUILDING OR FACILITY ENTRANCE ON AN ACCESSIBLE ROUTE.

4. DIMENSIONS - ACCESSIBLE PARKING SPACES SHALL BE AT LEAST 8' WIDE AND SHALL HAVE AN ADJACENT ACCESS AISLE 8' WIDE MEASURED PERPENDICULAR TO THE STALL STRIPE TO ACCOMMODATE VANS WITH LIFTS.

5. COMMON ACCESS AISLES FOR 90° PARKING - TWO ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE. FOR ACUTE ANGLED PARKING, SUCH AS 60° PARKING, OR WHERE ONE WAY DRIVEWAY AISLES WOULD PREVENT VANS WITH PASSENGER SIDE LIFTS FROM BACKING INTO ACCESSIBLE SPACES, AN ACCESSIBLE ACCESS AISLE MUST BE PROVIDED FOR EACH ACCESSIBLE PARKING SPACE. WIDTH OF ACCESS AISLES AND PARKING SPACES ARE MEASURED PERPENDICULAR TO THE STRIPING.

6. SIGNING - EACH ACCESSIBLE PARKING SPACE SHALL BE MARKED BY PERMANENTLY INSTALLED GROUND MOUNTED SIGNS WHICH DISPLAY THE INTERNATIONAL SYMBOL FOR ACCESS. EACH ACCESS AISLE SHALL BE MARKED BY PERMANENTLY INSTALLED GROUND MOUNTED SIGNS INDICATING THAT STOPPING IS NOT PERMITTED IN THE AISLE. SIGNS SHALL NOT BLOCK THE ACCESSIBLE CLEAR WIDTH OF ADJACENT WALKWAYS. SIGNS LOCATED WHERE THEY MAY BE HIT BY VEHICLES BEING PARKED SHALL BE INSTALLED AS SHOWN IN THE POST BASE DETAIL. THE BOTTOMS OF THE SIGNS LOCATED ON POSTS INSTALLED IN PAVED AREAS SHALL BE 7' MINIMUM ABOVE THE WALKWAY SURFACE. THE BOTTOMS OF SIGNS LOCATED IN UNPAVED AREAS SHALL BE 7' MINIMUM ABOVE THE PAVEMENT SURFACE.

7. SURFACE SLOPES - SLOPES AT ACCESSIBLE PARKING SPACES, ACCESS AISLES, AND ADJOINING WALKWAYS SHALL NOT EXCEED 1.5% MAXIMUM IN ANY DIRECTION FOR DESIGN AND LAYOUT, AND 2.0% MAXIMUM FOR WORK ACCEPTANCE, WHILE PROVIDING POSTIVE DRAINAGE.

8. OVERHEAD CLEARANCE - VEHICLE ACCESS ROUTES TO AND FROM ACCESSIBLE PARKING SPACES, INCLUDING IN GARAGES AND OPEN PARKING STRUCTURES, SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 8'-2".

9. PAVEMENT MARKING COLORS - REQUIRED ACCESSIBLE PARKING SPACE AND ACCESS AISLE STRIPING AND OTHER OPTIONAL PAVEMENT MARKINGS, SUCH AS THE INTERNATIONAL ACCESS SYMBOL, SHALL BE PAINTED WHITE OR BLUE.

10. REFER TO STANDARD SHEETS 608-01 TITLED "SIDEWALK AND CURB RAMP DETAILS" FOR CURB RAMP REQUIREMENTS. DETECTABLE WARNING SURFACES ARE NOT REQUIRED.

11. A SMOOTH, FLUSH TRANSITION MUST BE PROVIDED BETWEEN ALL PEDESTRIAN WALKWAYS, ACCESSIBLE PARKING SPACES AND AISLES.

12. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE 4'-0" x 4'-0" MINIMUM SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP, AS APPLICABLE. THE CROSS SLOPE OF TURNING SPACES SHALL NOT EXCEED 1.5% IN ANY DIRECTION FOR DESIGN AND LAYOUT, AND 2.0% FOR WORK ACCEPTANCE, WHILE PROVIDING POSITIVE DRAINAGE.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

ACCESSIBLE PARKING FOR PERSONS WITH DISABILITIES DETAILS

APPROVED MARCH 07, 2016

/S/ RICHARD W. LEE, P.E.

DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 16-012

608-02

STANDARD SHEETS (USC), January 01, 2020

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DEFINITION OF TERMS:

DRIVEWAY - EVERY ENTRANCE OR EXIT USED BY VEHICULAR TRAFFIC TO AND FROM LANDS OR BUILDINGS ABUTTING A HIGHWAY.

RESIDENTIAL DRIVEWAY - A DRIVEWAY SERVING FOUR OR FEWER PRIVATE HOMES OR AN APARTMENT BUILDING FOR FOUR OR FEWER FAMILY UNITS.

COMMERCIAL DRIVEWAY - A DRIVEWAY SERVING A COMMERCIAL ESTABLISHMENT, INDUSTRY, GOVERNMENTAL OR EDUCATIONAL INSTITUTION, PRIVATE UTILITY, HOSPITAL, CHURCH, APARTMENT BUILDING, OR OTHER COMPARABLE TRAFFIC GENERATOR.

MAJOR COMMERCIAL DRIVEWAY - ANY COMMERCIAL DRIVEWAY WHERE THE ACTUAL OR ANTICIPATED TRAFFIC VOLUME ON A TYPICAL DAY IS DEFINED BY THE DRIVEWAY POLICY AS DEFINED IN THE HIGHWAY DESIGN MANUAL (HDM) CHAPTER 5 APPENDIX 5A.

MINOR COMMERCIAL DRIVEWAY - ANY COMMERCIAL DRIVEWAY WHERE THE ACTUAL OR ANTICIPATED TRAFFIC VOLUMES ON A TYPICAL DAY ARE LESS THAN THE VALUES STIPULATED FOR A MAJOR COMMERCIAL DRIVEWAY.

FIELD ENTRANCE - A DRIVEWAY SERVING A FARMYARD, CULTIVATED OR UNCULTIVATED FIELD, TIMBERLAND, OR UNDEVELOPED LAND NOT USED FOR INDUSTRIAL, COMMERCIAL, OR RESIDENTIAL PURPOSES.

URBAN / RURAL - THE AREA CHARACTER BASED ON NYSDOT HIGHWAY DESIGN MANUAL CHAPTER 2, SECTION 2.4.

DRIVEWAY OFFSET - THE DISTANCE IN FEET MEASURED FROM THE INSIDE EDGE OF THE OUTERMOST TRAVEL LANE, OR TURNING LANE, TO THE HIGHWAY EDGE OF PAVEMENT. THE DISTANCE IS EQUAL TO THE WIDTH OF THE OUTERMOST LANE AND THE WIDTH OF THE PAVED SHOULDER, OR CURB OFFSET.

HIGHWAY EDGE OF PAVEMENT - THE OUTSIDE EDGE OF THE PAVED HIGHWAY SURFACE.

SHOULDER WIDTH - THE WIDTH IN FEET OF PAVED SHOULDER INCLUDING A PARKING LANE, BIKE LANE, CURB OFFSET, OR OTHER PAVED AREA OUTSIDE OF THE TRAVEL LANE.

MINIMUM PAVING LIMIT (MPL) - THE MINIMUM DISTANCE IN FEET MEASURED ALONG THE CENTERLINE OF A DRIVEWAY FROM THE OUTSIDE EDGE OF THE OUTERMOST TRAVEL LANE THAT A DRIVEWAY MUST BE PAVED (INCLUDES THE SHOULDER WIDTH).

PAVEMENT LENGTH (PL) - THE DISTANCE IN FEET MEASURED ALONG THE CENTERLINE OF A DRIVEWAY FROM THE HIGHWAY EDGE OF PAVEMENT TO THE END OF PROPOSED DRIVEWAY PAVEMENT.

TRANSITION LENGTH (TL) - THE DISTANCE IN FEET MEASURED ALONG THE CENTERLINE OF A DRIVEWAY BEYOND THE DRIVEWAY PAVEMENT LENGTH (PL) TO THE END OF PROPOSED DRIVEWAY WORK. THE TRANSITION LENGTH (TL) IS TYPICALLY USED FOR GRADING, LAYOUT, OR TRANSITION REASONS. THE TRANSITION LENGTH (TL) ONLY APPLIES TO DRIVEWAYS THAT ARE UNPAVED.

BUFFER ZONE - A PHYSICAL DISTANCE SEPARATING THE PEDESTRIAN ACCESS ROUTE AND THE VEHICLE TRAVELED WAY. THE BUFFER ZONE BUFFERS PEDESTRIANS FROM TRAFFIC AND PROVIDES SPACE FOR SNOW STORAGE, UTILITIES, PLANTS, AND OTHER STREET APPURTENANCES. THE BUFFER ZONE MAY BE PLANTED OR PAVED.

SHARED-USE-PATH (SUP) - A BICYCLE AND PEDESTRIAN FACILITY, TYPICALLY WITHIN THE RIGHT-OF-WAY, SEPARATED FROM MOTORIZED VEHICULAR TRAFFIC BY A BUFFER ZONE OR BARRIER. REFER TO HIGHWAY DESIGN MANUAL CHAPTER 17 AND AASHTO GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES FOR GUIDANCE ON BUFFER ZONE WIDTH AND SEPARATION OF SHARED USE PATHS FROM ROADWAYS.

SIDEWALK - A SMOOTH, STABLE AND SLIP RESISTANT EXTERIOR PATHWAY INTENDED FOR PEDESTRIAN USE ALONG A VEHICULAR WAY SEPARATED WITH A CURB OFFSET.

HMA - HOT MIX ASPHALT

PCC - PORTLAND CEMENT CONCRETE

GENERAL NOTES FOR DRIVEWAY STANDARD SHEETS:

1. THE DRIVEWAY STANDARD SHEETS APPLY TO FIELD ENTRANCES, RESIDENTIAL DRIVEWAYS AND MINOR COMMERCIAL DRIVEWAYS. FIELD ENTRANCES AND RESIDENTIAL DRIVEWAYS ACCOMMODATE AN AASHTO PASSENGER CAR DESIGN VEHICLE. MINOR COMMERCIAL DRIVEWAYS ACCOMMODATE AN AASHTO SINGLE UNIT TRUCK DESIGN VEHICLE.
2. DRIVEWAY WORK PERFORMED OFF THE RIGHT-OF-WAY REQUIRES AN EASEMENT OR A DRIVEWAY RELEASE. A DRIVEWAY RELOCATION WILL REQUIRE A TEMPORARY EASEMENT MAP.
3. IF COMMERCIAL PROPERTY DEVELOPMENT PLANS INVOLVE NEW OR MODIFIED ACCESS TO A STATE HIGHWAY A COMMERCIAL HIGHWAY WORK PERMIT APPLICATION (FORM PERM 33-COM) MUST BE FILLED OUT AND SUBMITTED TO THE REGIONAL PERMIT COORDINATOR.
4. SEE THE DRIVEWAY TABLE IN THE CONTRACT PLANS FOR SPECIFIC DRIVEWAY LOCATIONS, WIDTHS ("W"), CORNER ANGLES, LENGTHS ("L"), MATERIAL, AND ENTRANCE TYPE.
5. DETECTABLE WARNING SURFACES SHALL BE PROVIDED WHERE THE PEDESTRIAN ACCESS ROUTE CROSSES DRIVEWAYS WITH SIGNAL, YIELD OR STOP CONTROL. DETECTABLE WARNING SURFACES SHALL NOT BE PROVIDED AT CROSSINGS OF UNCONTROLLED DRIVEWAY APRONS.
6. THE TAPER METHOD IS GENERALLY NOT RECOMMENDED FOR DRIVEWAYS WITH A DRIVEWAY OFFSET LESS THAN 16 FEET, UNLESS IT CAN BE FIELD VERIFIED THAT THE DRIVEWAY ENTRANCE WIDTH WILL ACCOMMODATE THE VEHICLES THAT USE THE DRIVEWAY ON A REGULAR BASIS.
7. TYPE 3 AND TYPE 4 DRIVEWAY ENTRANCES CAN BE USED WITHOUT CURB IF A TAPER STYLE ENTRANCE BETTER MATCHES THE HIGHWAY CORRIDOR AESTHETICS OR SPECIFIC SITE CONDITIONS THAN A RADIUS STYLE ENTRANCE.
8. UP TO 10" OF HMA MAY BE REQUIRED FOR HEAVY TRUCKS PER CONTRACT DOCUMENTS.
9. UP TO 9" OF PCC MAY BE REQUIRED FOR HEAVY TRUCKS PER CONTRACT DOCUMENTS.
10. UP TO 12" OF SUBBASE MAY BE REQUIRED FOR HEAVY TRUCKS PER CONTRACT DOCUMENTS.
11. THE DETAILS SHOW THE PAVEMENT LENGTH ("PL") EXTENDING TO THE MINIMUM PAVING LIMIT ("MPL"). HOWEVER, THE "PL" CAN EXTEND BEYOND THE "MPL" AS SPECIFIED IN THE CONTRACT DOCUMENTS.
12. A DRIVEWAY TIP-UP SECTION SHOULD EXTEND TO A LOGICAL TERMINI (EXAMPLE: SIDEWALK EDGE, WHERE THE DRIVEWAY GRADE MATCHES EXISTING GROUND, OR LAYOUT POINT). FOR REFERENCE, A REASONABLE LENGTH FOR TAPERING THE TIP-UP SECTION BACK TO THE EDGE OF DRIVEWAY IS 3 TO 4 TIMES THE LENGTH OF CURB DROP. THE TIP-UP SECTION IS NOT PART OF THE DRIVEWAY OPENING WIDTH. REFER TO NYSDOT STANDARD SHEET 609-02 "MISCELLANEOUS CURB DETAILS" FOR THE CURB TRANSITION.
13. TO DETERMINE THE LIMITS OF SHOULDER RECONSTRUCTION, REFER TO THE DRIVEWAY OPENING TABLES ON SHEET 4 FOR NO SHOULDER (0' OFFSET).
14. FOR PCC SHOULDERS, SEE STANDARD SHEET 502-02 FOR LONGITUDINAL JOINT TIE DETAILS.
15. DIMENSIONS AND ANGLES MAY BE INTERPOLATED FOR VALUES OTHER THAN THOSE SHOWN IN THE TABLES.
16. THE SHOULDER PAVEMENT THICKNESSES SHOWN ARE DEFAULT VALUES UNLESS OTHERWISE SHOWN IN THE PLANS. MATERIALS SHALL BE AS SPECIFIED IN THE CONTRACT DOCUMENTS.

WIDTH / LENGTH:

17. WHERE THERE ARE CONSTRAINTS THAT PREVENT THE CONSTRUCTION OF THE DRIVEWAY OPENING USING EITHER OF THE LAYOUT METHODS, THE ENGINEER MAY SPECIFY A SMALL CORNER CURB RADIUS OF 2' (OR A "1/2 BULL NOSE" CURB ALONG LOW SPEED HIGHWAYS), PROVIDED THE DRIVEWAY OPENING MEETS THE REQUIREMENTS OF THE "DRIVEWAY OPENING" TABLES ON SHEET 4.
18. FOR RESIDENTIAL DRIVEWAYS, THE MINIMUM PAVING LIMIT SHALL BE 10' FROM THE OUTSIDE EDGE OF TRAVEL LANE OR 2' BEHIND ANY SIDEWALK, IF PRESENT, WHICHEVER IS GREATER. FOR MINOR COMMERCIAL DRIVEWAYS, THE MINIMUM PAVING LIMIT SHALL BE 30' FROM THE OUTSIDE EDGE OF TRAVEL LANE, OR 2' BEHIND ANY SIDEWALK, IF PRESENT, OR EXTEND TO THE RIGHT-OF-WAY LINE, WHICHEVER IS GREATER. THE PAVING LIMIT MAY EXTEND BEYOND THE MINIMUM PAVING LIMIT FOR NEW DRIVEWAYS AND TO TRANSITION TO EXISTING PAVED DRIVEWAYS. THE PAVING LIMIT WILL BE NOTED IN THE DRIVEWAY TABLE OF THE CONTRACT PLANS.
19. FOR GRADING AND CONSTRUCTION REQUIREMENTS OF TRANSITIONS FROM PLACED HMA TO EXISTING HMA DRIVEWAYS, REFER TO DETAIL 9 - "TIE-IN TO EXISTING DRIVEWAYS" ON SHEET 9, AND TABLE 3 - "DRIVEWAY MATERIALS AND THICKNESS" ON SHEET 2.
20. FOR PCC DRIVEWAYS, REFER TO THE 502 SERIES STANDARD SHEETS FOR METAL REINFORCEMENT, JOINT TIES, SAWING AND SEALING, ETC.
21. A 5' MINIMUM BUFFER ZONE SHALL BE USED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

SITE CONDITIONS (SIDEWALK / CURB):

22. ANY PCC SIDEWALK WHICH CROSSES A DRIVEWAY SHALL HAVE A MINIMUM THICKNESS OF 6" AND INCLUDE STEEL MESH REINFORCEMENT WITH 3" OF TOP COVER.
23. FOR GRADE CHANGES REFER TO THE DRIVEWAY PROFILES ON SHEET 8. VERTICAL CURVES ARE RECOMMENDED TO CONNECT TANGENTS. SEE TABLE 5 - 'MINIMUM LENGTH OF VERTICAL CURVE' ON SHEET 2 FOR TYPICAL VERTICAL CURVE LENGTHS "L".
24. WHERE THE EXISTING GRADE OF THE DRIVEWAY PROFILE IS LESS THAN OR EQUAL TO 2%, MATCH THE CROSS SLOPE OF THE SIDEWALK TO THE EXISTING DRIVEWAY PROFILE GRADE.
25. WHERE THE EXISTING GRADE OF THE DRIVEWAY PROFILE EXCEEDS 2% SAWCUT THE DRIVEWAY AND RECONSTRUCT A MINIMUM OF 2' ON BOTH SIDES OF THE SIDEWALK, TO TRANSITION FROM THE EXISTING GRADE OF THE DRIVEWAY PROFILE TO THE SIDEWALK CROSS SLOPE.
26. TO PREVENT DRIVEWAY GRADES FROM EXCEEDING THE VALUES IN TABLE 2 - 'MAXIMUM DRIVEWAY SLOPE' ON SHEET 2, IT MAY BE NECESSARY TO DEPRESS THE SIDEWALK ACROSS THE DRIVEWAY. SIDEWALK RAMPS SHALL HAVE THE LEAST RUNNING SLOPE POSSIBLE, WITH A MAXIMUM DESIGN AND LAYOUT SLOPE OF 7.5%. THE RUNNING SLOPE FOR WORK ACCEPTANCE SHALL BE A MAXIMUM OF 8.3%. WHERE EXISTING CONDITIONS DO NOT ALLOW THE CONSTRUCTION OF A SIDEWALK RAMP AT 8.3% OR LESS RUNNING SLOPE, THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15'-1" FOR DESIGN AND LAYOUT. THE RAMP LENGTH SHALL NOT BE REQUIRED TO EXCEED 15'-0" FOR WORK ACCEPTANCE.
27. WHERE DRAINAGE IS CARRIED ALONG THE CURB, CONSTRUCT THE DRIVEWAY WITH A SHORT UPGRADE TO PREVENT RUNOFF FROM PONDING AT THE DRIVEWAY ENTRANCE (FLAT DRIVEWAY) OR RUNNING DOWN THE DRIVEWAY (DOWNHILL DRIVEWAY SLOPE). IF CONDITIONS MAKE THE ADDITION OF A SHORT UPGRADE IMPRACTICAL, USE 1" CURB REVEAL AND CONTINUE CURB ACROSS THE DRIVEWAY OPENING. TYPICALLY, CURB REVEAL WILL NOT BE CONSTRUCTED IN RURAL AREAS. IF CURB REVEAL IS SPECIFIED FOR A SPECIFIC DRIVEWAY, IT WILL BE NOTED IN THE DRIVEWAY TABLE OF THE CONTRACT PLANS IN THE 'COMMENTS' COLUMN.

ENTRANCE TYPE:

28. THE ENGINEER MAY INTERCHANGE TYPE 1, TYPE 3 AND TYPE 4 RESIDENTIAL DRIVEWAYS TO BETTER MATCH THE EXISTING ENTRANCE TYPES ALONG THE HIGHWAY CORRIDOR WHILE CONSIDERING AVAILABLE SPACE, CONSTRUCTABILITY, SAFETY, AND FUNCTIONALITY. THE DRIVEWAY TYPE SHALL COMPLY WITH TABLE 4 - 'DRIVEWAY ENTRANCE TYPE SELECTION' ON SHEET 2.
29. FOR DRIVEWAYS WITH VARYING WIDTHS AND/OR CURVED ALIGNMENTS, DETERMINE THE DRIVEWAY WIDTH AND CORNER ANGLE 20'-0" FROM THE EDGE OF TRAVEL LANE.
30. FOR A ONE-WAY DRIVEWAY ENTRANCE OR EXIT, THE DRIVEWAY ENTRANCE WIDENING IS ONLY NECESSARY ON ONE SIDE OF THE DRIVEWAY TO ACCOMMODATE THE SHARPER TURNING MOVEMENT. ONE-WAY DRIVEWAYS WILL BE IDENTIFIED ON THE DRIVEWAY TABLE OF THE CONTRACT PLANS UNDER 'COMMENTS'. FOR CURBED HIGHWAYS, A SMALL CORNER CURB RADIUS OF 2' (OR '1/2 BULLNOSE' CURB ALONG LOW SPEED HIGHWAYS) SHALL BE CONSTRUCTED TO ELIMINATE A SHARP CORNER BEND IN THE CURB LINE (WHICH IS SAFER FOR SNOWPLOW OPERATIONS).

MATERIAL:

31. FOR DRIVEWAY MATERIAL REQUIREMENTS, USE TABLE 3 - 'DRIVEWAY MATERIALS AND THICKNESS' ON SHEET 2.
32. FOR FIELD ENTRANCES, THE MATERIAL WITHIN THE PAVEMENT LENGTH ("PL") CAN CONSIST OF GRAVEL OR STONE AND BE CONNECTED TO THE EDGE OF THE HIGHWAY SHOULDER WITHOUT REMOVING ANY OF THE EXISTING SHOULDER MATERIAL.

DESIGN ELEMENT TOLERANCES

ELEMENT	DESIGN AND FIELD LAYOUT LIMIT	LIMIT FOR WORK ACCEPTANCE
SIDEWALK CROSS SLOPE - SEE NOTE 12	1.5% MAX.	2.0% MAX.
SIDEWALK GRADE (RUNNING SLOPE) - SEE NOTE 11	4.5% MAX.	5.0% MAX.
CURB RAMP GRADE (RUNNING SLOPE) - SEE NOTE 21	7.5% MAX.	8.3% MAX.
BLENDED TRANSITION GRADE (RUNNING SLOPE) - SEE NOTE 7	4.5% MAX.	5.0% MAX.

NOTES REFERENCED IN THE TABLE ABOVE CAN BE FOUND ON STANDARD SHEET 608-01 SHEET 1 OF 9.

ALL VALUES SHOWN ON THE 608-03 STANDARD SHEETS REFER TO DESIGN AND FIELD LAYOUT LIMITS.

FOR ADDITIONAL REQUIREMENTS AND TOLERANCES, SEE "CRITICAL ELEMENTS FOR THE DESIGN, LAYOUT, AND CONSTRUCTION OF PEDESTRIAN FACILITIES" AVAILABLE ON THE NYSDOT HIGHWAY DESIGN MANUAL CHAPTER 18 WEBSITE.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 1 OF 9)

APPROVED MARCH 07, 2016

/S/ RICHARD W. LEE, P.E.

DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 16-012

608-03

STANDARD SHEETS (USC), January 01, 2020

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TABLE 1
RECOMMENDED DRIVEWAY WIDTH "W"

DRIVEWAY CLASSIFICATION	PERMISSIBLE RANGE OF WIDTHS (FT.) WITHIN 30 FT. OF TRAVELED WAY FOR ROADS POSTED 40 MPH OR LESS	PERMISSIBLE RANGE OF WIDTHS (FT.) WITHIN 30 FT. OF TRAVELED WAY FOR ROADS POSTED 45 MPH OR MORE
RESIDENTIAL LESS THAN 50 FT. IN LENGTH MEASURED ALONG THE CENTERLINE	9 TO 12	10 TO 24
RESIDENTIAL GREATER THAN 50 FT. IN LENGTH MEASURED ALONG THE CENTERLINE	9 TO 12	10 TO 14
MINOR COMMERCIAL SHARED TWO-WAY DRIVEWAY	22 TO 30	28 TO 35
MINOR COMMERCIAL DIVIDED OR ONE-WAY DRIVEWAY	12 TO 24	12 TO 24
MINOR COMMERCIAL MULTI-LANE DRIVEWAY	12 TO 15 EACH LANE	14 TO 16 EACH LANE

TABLE 2
MAXIMUM DRIVEWAY SLOPE

ROADWAY CLASSIFICATION	MINOR COMMERCIAL DRIVEWAY	RESIDENTIAL DRIVEWAY
RURAL	10%	12%
URBAN	6%	8%

TABLE 3
DRIVEWAY MATERIALS AND THICKNESS

PROPOSED OR EXISTING DRIVE	WITHIN DRIVEWAY PAVEMENT LENGTH ("PL")			WITHIN TRANSITION LENGTH ("TL")		
	MATERIAL	THICKNESS FOR RESIDENTIAL (IN.)	THICKNESS FOR MINOR COMMERCIAL (IN.)	MATERIAL	THICKNESS FOR RESIDENTIAL (IN.)	THICKNESS FOR MINOR COMMERCIAL (IN.)
DIRT, GRASS, OR GRAVEL	HMA	3	4	SUBBASE COURSE, EXCAVATE AS NECESSARY	6	9
	SUBBASE COURSE	6	8			
STONE	HMA	3	4	STONE, EXCAVATE AS NECESSARY	8	11
	SUBBASE COURSE	6	8			
HMA (RESURFACING)	HMA	1½	1½	NOT APPLICABLE - ALL WORK ON AN EXISTING PAVED DRIVEWAY IS WITHIN THE DRIVEWAY PAVEMENT LENGTH		
	TRUE AND LEVELING COURSE	AS NECESSARY	AS NECESSARY			
HMA (RECONSTRUCTION)	HMA	3	4 (SEE NOTE 8)	NOT APPLICABLE - ALL WORK ON AN EXISTING PAVED DRIVEWAY IS WITHIN THE DRIVEWAY PAVEMENT LENGTH		
	SUBBASE COURSE	6	8 (SEE NOTE 10)			
PCC	PCC	6	6 (SEE NOTE 9)	NOT APPLICABLE - ALL WORK ON AN EXISTING PAVED DRIVEWAY IS WITHIN THE DRIVEWAY PAVEMENT LENGTH		
	SUBBASE COURSE	6	8 (SEE NOTE 10)			

TABLE 4
DRIVEWAY ENTRANCE TYPE SELECTION

DRIVEWAY ENTRANCE TYPE	ENTRANCE WIDENING METHOD	CONDITIONS FOR USE						
		DRIVEWAY CLASSIFICATION (NOTE 1)	CORNER ANGLE	TRAVEL LANE AND SHOULDER WIDTH	CURB	SIDEWALK	HIGHWAY DESIGN SPEED	RECOMMENDED USE
TYPE 1	RADIUS	RESIDENTIAL OR MINOR COMMERCIAL	60° TO 120°	ANY	USE WITH OR WITHOUT CURB	USE WITHOUT SIDEWALK	ANY SPEED	RECOMMENDED FOR ALL LOCATIONS (EXCEPT FOR MINOR COMMERCIAL WITH CURB)
TYPE 2	RADIUS	MINOR COMMERCIAL ONLY	60° TO 120°	ANY	USE ONLY WITH CURB	USE WITH OR WITHOUT SIDEWALK	ANY SPEED	RECOMMENDED ONLY FOR MINOR COMMERCIAL WITH CURB
TYPE 3	TAPER	RESIDENTIAL OR MINOR COMMERCIAL	80° TO 100°	16' OR GREATER (SEE NOTE 6)	USE ONLY WITH CURB (SEE NOTE 7)	USE ONLY WITH SIDEWALK OFFSET A MIN. OF 2' FROM THE EDGE OF PAVEMENT OR WITHOUT SIDEWALK	ONLY LOW SPEED (45 MPH OR LESS)	ALTERNATIVE ENTRANCE TYPE (TYPICALLY FOR URBAN AREA USE)
TYPE 4	TAPER	RESIDENTIAL OR MINOR COMMERCIAL	80° TO 100°	16' OR GREATER (SEE NOTE 6)	USE ONLY WITH CURB (SEE NOTE 7)	USE ONLY WITH SIDEWALK LESS THAN 2' FROM OR ADJACENT TO THE EDGE OF PAVEMENT	ONLY LOW SPEED (45 MPH OR LESS)	ALTERNATIVE ENTRANCE TYPE (TYPICALLY FOR URBAN AREA USE)

TABLE 4 ONLY APPLIES TO RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS, FOR OTHER DRIVEWAY CLASSIFICATIONS (MAJOR COMMERCIAL, FIELD ENTRANCE, ETC.), REFER TO THE NYSDOT HIGHWAY DESIGN MANUAL CHAPTER 5, APPENDIX 5A "POLICY AND STANDARDS FOR THE DESIGN OF ENTRANCES TO STATE HIGHWAYS".

TABLE 5
MINIMUM LENGTH OF VERTICAL CURVE, L, FOR CHANGE IN GRADE IN DRIVEWAY PROFILE

CHANGES IN GRADE A= | G2-G1 |	CREST, Lc (FT.)	SAG, Ls (FT.)
4-6%	5	6
6-8%	5	7
8-10%	6	8
10-12%	6	8
12-14%	7	8
14-16%	7	8
16-18%	8	8
18-20%	8	8

LENGTH OF VERTICAL CURVE BASED ON 35' CURVE RADIUS AND THE AASHTO PASSENGER VEHICLE AND SINGLE UNIT TRUCK CLEARANCES.

NOTE:

ALL GENERAL NOTES AND ABBREVIATIONS REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-03, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS
(SHEET 2 OF 9)

APPROVED MARCH 07, 2016

/S/ RICHARD W. LEE, P.E.

DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 16-012

608-03

DRIVEWAY OPENING LAYOUT:

THERE ARE TWO RECOMMENDED DRIVEWAY OPENING WIDENING METHODS:
(1.) THE RADIUS METHOD, WHICH UTILIZES A CIRCULAR ARC TO WIDEN THE DRIVEWAY, AND
(2.) THE TAPER METHOD, WHICH UTILIZES A STRAIGHT TAPER WIDENING OUT AT AN ESTABLISHED FLARE RATE.

THE RADIUS METHOD IS THE TYPICAL METHOD, ALTHOUGH THE TAPER METHOD IS A REASONABLE ALTERNATIVE FOR URBAN AREAS AND OTHER AREAS WHERE IT MIGHT BETTER MATCH THE HIGHWAY CORRIDOR AESTHETICS AND FUNCTIONALITY. SEE TABLE 4 - 'DRIVEWAY ENTRANCE TYPE SELECTION' ON SHEET 2 FOR ADDITIONAL VARIABLES CONCERNING THE SELECTION OF A DRIVEWAY OPENING WIDENING METHOD.

RADIUS METHOD OF LAYOUT:

STEP 1. LOCATE AN OFFSET LINE 11' PARALLEL FROM THE INSIDE EDGE OF THE OUTERMOST TRAVEL LANE.

STEP 2. SCRIBE A LINE PARALLEL TO THE OFFSET LINE, OFFSET "R" FEET (SEE TABLE 6).

STEP 3. SCRIBE A LINE PARALLEL TO THE EDGE OF DRIVEWAY (NEAR SIDE), OFFSET "R" FEET.

STEP 4. FIND THE CENTER POINT OF THE CORNER RADIUS ARC, WHICH IS LOCATED AT THE INTERSECTION OF THE LINES FROM STEPS 2 AND 3.

STEP 5. FROM THE CENTER POINT, SCRIBE AN ARC WITH RADIUS "R", WHICH IS TANGENT TO BOTH THE OFFSET LINE AND THE EDGE OF DRIVEWAY. THE ARC SHOULD INTERSECT THE LINES AT THE DISTANCES "X" LISTED IN TABLE 7. DISTANCES IN TABLE 7 ARE AS MEASURED FROM THE INTERSECTION POINT OF THE OFFSET LINE (NOT THE EDGE OF TRAVEL LANE) AND THE PROJECTED EDGE OF DRIVEWAY TO EITHER OF THE ARC TANGENT POINTS (SAME DISTANCE ALONG THE OFFSET LINE OR ALONG THE PROJECTED EDGE OF DRIVEWAY).

STEP 6. FIND THE DRIVEWAY OPENING LIMIT POINT WHICH IS WHERE THE ARC INTERSECTS THE HIGHWAY EDGE OF PAVEMENT.

STEP 7. REPEAT STEPS 1 - 6 FOR THE OTHER SIDE OF THE DRIVEWAY OPENING.

FIELD LAYOUT NOTES:

FOR THE RADIUS METHOD OF LAYOUT, IF OBSTRUCTIONS HINDER THE ABILITY TO SCRIBE THE CORNER ANGLE ARC FROM THE CENTER POINT, LOCATE POINTS ALONG THE ARC BY USING "Y" VALUES FROM TABLES 9 THROUGH 11 ON SHEET 4 AT VARIOUS DRIVEWAY OFFSETS ("Y" IS MEASURED FROM THE PROJECTED EDGE OF DRIVEWAY TO THE ARC).

TAPER METHOD OF LAYOUT:

TAPER METHOD OF LAYOUT IS NOT RECOMMENDED FOR DRIVEWAYS WITH CORNER ANGLES LESS THAN 80° OR GREATER THAN 100°, NOR IS IT RECOMMENDED FOR DRIVEWAYS WITH A DRIVEWAY OFFSET (OUTER TRAVEL LANE + PAVED SHOULDER) LESS THAN 16', UNLESS IT CAN BE FIELD VERIFIED THAT THE DRIVEWAY ENTRANCE WIDTH WILL ACCOMMODATE THE VEHICLES THAT USE THE DRIVEWAY ON A REGULAR BASIS.

STEP 1. SCRIBE A LINE (LAYOUT LINE) OFFSET THE APPROPRIATE 'LAYOUT DISTANCE' (SEE TABLE 8) FROM THE INSIDE EDGE OF THE OUTERMOST TRAVEL LANE.

STEP 2. LOCATE THE TAPER LAYOUT POINT, WHICH IS AT THE INTERSECTION OF THE EDGE OF DRIVEWAY AND THE LAYOUT LINE.

STEP 3. SCRIBE A 1:'T' (SEE TABLE 8) TAPER FROM THE LAYOUT POINT TO THE EDGE OF PAVEMENT (WITH 'T' BEING PERPENDICULAR TO THE EDGE OF TRAVEL LANE).

STEP 4. FIND THE DRIVEWAY OPENING LIMIT POINT WHICH IS WHERE THE TAPER INTERSECTS THE EDGE OF PAVEMENT.

STEP 5. REPEAT STEPS 1 - 4 FOR THE OTHER SIDE OF THE DRIVEWAY OPENING.

ALTERNATE TAPER METHOD OF LAYOUT:

FOLLOW THE STEPS AS PER THE ABOVE TAPER LAYOUT METHOD, EXCEPT FOR STEPS 3 AND 4. LOCATE THE DRIVEWAY OPENING LIMIT BY USING THE APPROPRIATE "Y" VALUE FROM EITHER TABLE 12 OR 13 ON SHEET 4. "Y" IS THE DISTANCE BETWEEN THE DRIVEWAY OPENING LIMIT AND THE INTERSECTION POINT OF THE PROJECTED EDGE OF DRIVEWAY AND THE EDGE OF PAVEMENT.

TABLE 6
RADIUS METHOD - CORNER RADIUS

DRIVEWAY CLASSIFICATION	"R"
RESIDENTIAL "W" ≤ 13'	16'
RESIDENTIAL "W" > 13'	13'
MINOR COMMERCIAL (ALL WIDTHS)	33'

TABLE 7
RADIUS METHOD - DISTANCE FROM INTERSECTION POINT TO ARC TANGENT POINT

CORNER ANGLE	"X" FT.		
	RESIDENTIAL DRIVEWAY ≤ 13' WIDE (R=16')	RESIDENTIAL DRIVEWAY > 13' WIDE (R=13')	MINOR COMMERCIAL DRIVEWAY (R=33')
60°	27.7	22.5	57.2
65°	25.1	20.4	51.8
70°	22.8	18.6	47.1
75°	20.8	16.9	43.0
80°	19.1	15.5	39.3
85°	17.5	14.2	36.0
90°	16.0	13.0	33.0
95°	14.7	11.9	30.2
100°	13.4	10.9	27.7
105°	12.3	10.0	25.3
110°	11.2	9.1	23.1
115°	10.2	8.3	21.0
120°	9.2	7.5	19.0

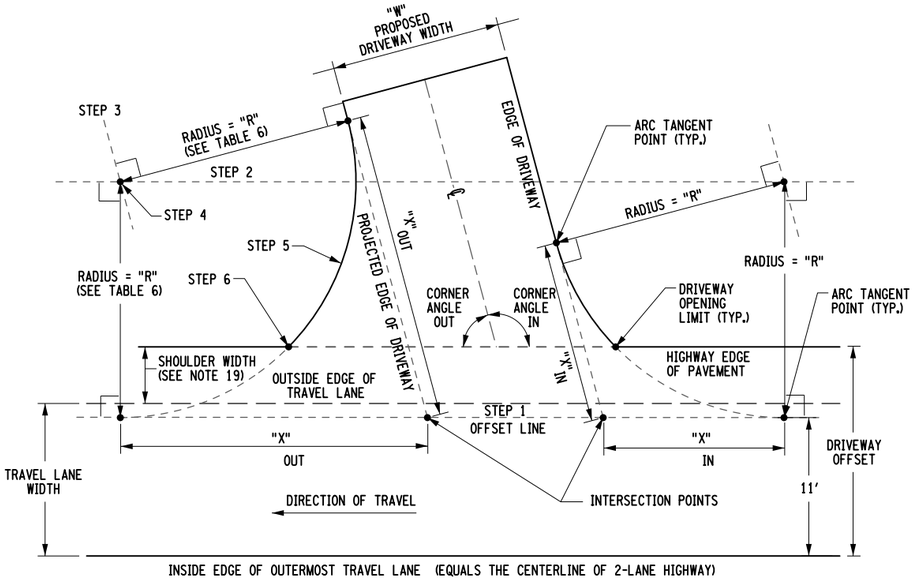
SEE GENERAL NOTE 15.

"X" REFERS TO EITHER "X"$_{IN}$ OR "X"$_{OUT}$. THE CORNER ANGLE FOR "X"$_{IN}$ + "X"$_{OUT}$ IS EQUAL TO 180°.

TABLE 8
TAPER METHOD VALUES

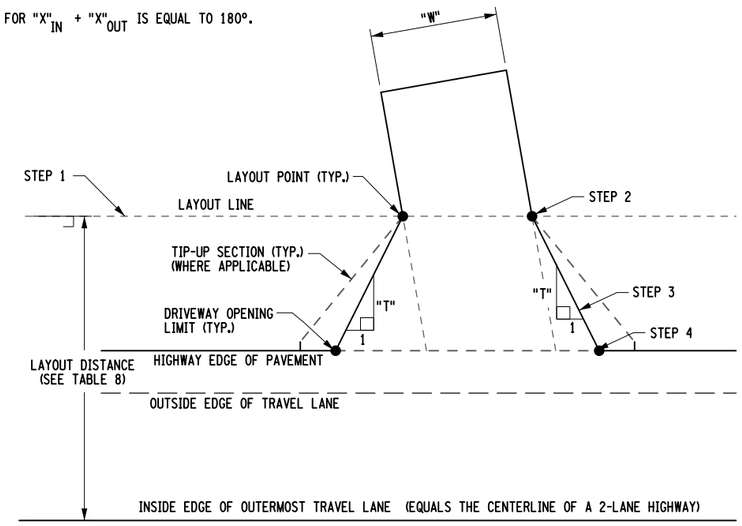
DRIVEWAY CLASSIFICATION	TAPER (1:'T')	LAYOUT DISTANCE
RESIDENTIAL	1:2	28'
MINOR COMMERCIAL	1:1½	41'

LAYOUT DISTANCE IS MEASURED FROM THE INSIDE EDGE OF OUTERMOST TRAVEL LANE, TO THE LAYOUT LINE.



RADIUS LAYOUT

VALID FOR RESIDENTIAL OR MINOR COMMERCIAL DRIVEWAYS
(FOR THE VALUES OF "R" AND "X" SEE TABLES 6 AND 7, RESPECTIVELY)



TAPER LAYOUT

VALID FOR RESIDENTIAL OR MINOR COMMERCIAL DRIVEWAYS
(FOR THE VALUE OF "T" SEE TABLE 8)

NOTE:

ALL GENERAL NOTES AND ABBREVIATIONS REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-03, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS
(SHEET 3 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E.	608-03
DEPUTY CHIEF ENGINEER (DESIGN)	

STANDARD SHEETS (USC), January 01, 2020

FILE NAME = 608-0303.dgn
DATE/TIME = 08-MAR-2016 14:45
USER = lmontgomery

TABLE 9
DRIVEWAY OPENING "Y" (FT.) VALUES FOR RADIUS METHOD
RESIDENTIAL DRIVEWAYS ≤ 13′ WIDE (R=16′)

CORNER ANGLE	DRIVEWAY OFFSET FROM INSIDE EDGE OF TRAVEL LANE (OR OFFSET FROM OUTSIDE EDGE OF A 12′ TRAVEL LANE)										
	12′ (0′)	13′ (1′)	14′ (2′)	15′ (3′)	16′ (4′)	17′ (5′)	18′ (6′)	19′ (7′)	20′ (8′)	21′ (9′)	22′ (10′)
60°	22.3	19.7	17.4	15.7	14.1	12.5	11.2	9.8	8.9	7.9	6.9
65°	19.7	17.1	15.1	13.5	11.8	10.5	9.2	8.2	7.2	6.2	5.2
70°	17.7	15.1	13.1	11.5	10.2	8.9	7.9	6.6	5.9	4.9	4.3
75°	15.7	13.1	11.5	9.8	8.5	7.2	6.2	5.2	4.6	3.9	3.3
80°	14.1	11.5	9.8	8.5	7.2	5.9	5.2	4.3	3.6	3.0	2.3
85°	12.5	10.2	8.5	6.9	5.9	4.9	3.9	3.3	2.6	2.0	1.6
90°	10.8	8.9	7.2	5.9	4.9	3.9	3.3	2.6	2.0	1.6	1.0
95°	9.5	7.5	5.9	4.9	3.9	3.0	2.3	2.0	1.3	1.0	0.7
100°	8.5	6.6	4.9	3.9	3.0	2.3	1.6	1.3	1.0	0.7	0.3
105°	7.2	5.6	4.3	3.0	2.3	1.6	1.3	0.7	0.7	0.3	0.0
110°	6.6	4.6	3.3	2.3	1.6	1.0	0.7	0.3	0.3	0.0	0.0
115°	5.6	3.6	2.6	1.6	1.0	0.7	0.3	0.3	0.0	0.0	0.0
120°	4.6	3.0	2.0	1.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0

TABLE 10
DRIVEWAY OPENING "Y" (FT.) VALUES FOR RADIUS METHOD
RESIDENTIAL DRIVEWAYS > 13′ WIDE (R=16′)

CORNER ANGLE	DRIVEWAY OFFSET FROM INSIDE EDGE OF TRAVEL LANE (OR OFFSET FROM OUTSIDE EDGE OF A 12′ TRAVEL LANE)										
	12′ (0′)	13′ (1′)	14′ (2′)	15′ (3′)	16′ (4′)	17′ (5′)	18′ (6′)	19′ (7′)	20′ (8′)	21′ (9′)	22′ (10′)
60°	17.4	14.8	12.8	11.2	9.8	8.5	7.2	6.2	5.2	4.6	3.6
65°	15.4	12.8	11.2	9.5	8.2	6.9	5.9	4.9	4.3	3.3	2.6
70°	13.5	11.2	9.5	8.2	6.9	5.9	4.9	3.9	3.3	2.6	2.0
75°	12.1	9.8	8.2	6.9	5.6	4.6	3.9	3.0	2.3	2.0	1.3
80°	10.8	8.5	6.9	5.9	4.6	3.6	3.0	2.3	2.0	1.3	1.0
85°	9.2	7.2	5.9	4.6	3.6	3.0	2.3	1.6	1.3	1.0	0.7
90°	8.2	6.2	4.9	3.9	3.0	2.3	1.6	1.3	1.0	0.7	0.3
95°	7.2	5.2	4.3	3.3	2.3	1.6	1.3	0.7	0.3	0.3	0.0
100°	6.2	4.6	3.3	2.3	1.6	1.3	0.7	0.3	0.3	0.0	0.0
105°	5.6	3.9	2.6	2.0	1.3	0.7	0.3	0.3	0.0	0.0	0.0
110°	4.6	3.3	2.0	1.3	1.0	0.3	0.3	0.0	0.0	0.0	0.0
115°	3.9	2.6	1.6	1.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0
120°	3.3	2.0	1.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0

TABLE 11
DRIVEWAY OPENING "Y" (FT.) VALUES FOR RADIUS METHOD
MINOR COMMERCIAL DRIVEWAYS (R=33′)

CORNER ANGLE	DRIVEWAY OFFSET FROM INSIDE EDGE OF TRAVEL LANE (OR OFFSET FROM OUTSIDE EDGE OF A 12′ TRAVEL LANE)										
	12′ (0′)	13′ (1′)	14′ (2′)	15′ (3′)	16′ (4′)	17′ (5′)	18′ (6′)	19′ (7′)	20′ (8′)	21′ (9′)	22′ (10′)
60°	48.2	44.6	41.7	39.0	36.7	34.8	32.8	31.2	29.5	27.9	26.2
65°	43.3	39.4	36.7	34.1	32.2	30.2	28.2	26.6	24.9	23.6	22.3
70°	38.7	35.1	32.2	29.9	27.9	25.9	24.3	22.6	21.3	20.0	18.7
75°	34.8	31.2	28.5	26.2	24.3	22.6	21.0	19.4	18.0	16.7	15.7
80°	31.2	27.6	24.9	23.0	21.0	19.4	17.7	16.4	15.1	14.1	12.8
85°	27.9	24.6	22.0	20.0	18.0	16.7	15.1	13.8	12.8	11.5	10.5
90°	24.9	21.7	19.4	17.4	15.7	14.1	12.8	11.5	10.5	9.5	8.5
95°	22.3	19.0	16.7	14.8	13.5	11.8	10.5	9.5	8.5	7.5	6.9
100°	19.7	16.7	14.4	12.8	11.2	9.8	8.9	7.5	6.6	5.9	5.2
105°	17.7	14.8	12.5	10.8	9.2	8.2	6.9	5.9	5.2	4.6	3.9
110°	15.4	12.5	10.5	8.9	7.5	6.6	5.6	4.6	3.9	3.3	2.6
115°	13.5	10.8	8.9	7.2	5.9	4.9	4.3	3.3	2.6	2.3	1.6
120°	11.5	8.9	7.2	5.6	4.6	3.6	3.0	2.3	1.6	1.3	1.0

TABLE 12
DRIVEWAY OPENING "Y" (FT.) VALUES FOR TAPER METHOD
RESIDENTIAL DRIVEWAYS

CORNER ANGLE	DRIVEWAY OFFSET FROM INSIDE EDGE OF TRAVEL LANE (OR OFFSET FROM OUTSIDE EDGE OF A 12′ TRAVEL LANE)										
	12′ • (0′)	13′ • (1′)	14′ • (2′)	15′ • (3′)	16′ (4′)	17′ (5′)	18′ (6′)	19′ (7′)	20′ (8′)	21′ (9′)	22′ (10′)
80°	11.2	10.5	9.8	9.2	8.5	7.9	7.2	6.6	5.9	5.2	4.6
85°	9.8	9.2	8.5	7.9	7.5	6.9	6.2	5.6	5.2	4.6	3.9
90°	8.2	7.9	7.2	6.9	6.2	5.9	5.2	4.9	4.3	3.9	3.3
95°	6.9	6.6	6.2	5.6	5.2	4.9	4.3	3.9	3.6	3.3	3.0
100°	5.6	5.2	4.9	4.6	4.3	3.9	3.6	3.3	3.0	2.6	2.3

• SEE NOTE 6

TABLE 13
DRIVEWAY OPENING "Y" (FT.) VALUES FOR TAPER METHOD
MINOR COMMERCIAL DRIVEWAYS

CORNER ANGLE	DRIVEWAY OFFSET FROM INSIDE EDGE OF TRAVEL LANE (OR OFFSET FROM OUTSIDE EDGE OF A 12′ TRAVEL LANE)										
	12′ • (0′)	13′ • (1′)	14′ • (2′)	15′ • (3′)	16′ (4′)	17′ (5′)	18′ (6′)	19′ (7′)	20′ (8′)	21′ (9′)	22′ (10′)
80°	24.9	24.3	23.3	22.6	21.7	21.0	20.0	19.4	18.4	17.4	16.7
85°	22.3	21.7	21.0	20.0	19.4	18.7	18.0	17.1	16.4	15.7	15.1
90°	19.7	19.0	18.4	17.7	17.1	16.4	15.7	15.1	14.4	13.8	13.1
95°	17.4	16.7	16.1	15.4	15.1	14.4	13.8	13.1	12.8	12.1	11.5
100°	14.8	14.1	13.8	13.1	12.8	12.1	11.8	11.2	10.8	10.2	9.8

• SEE NOTE 6

TABLE 14
DRIVEWAY OPENING WIDTH CALCULATION

DRIVEWAY OPENING WIDTH = "Y_{IN}" + ("W x "SK") + "Y_{OUT}"

CORNER ANGLE	60°/120°	65°/115°	70°/110°	75°/105°	80°/100°	85°/95°	90°
SKEW FACTOR "SK"	1.16	1.10	1.07	1.04	1.02	1.01	1.00

IF THE DRIVEWAY IS A ONE-WAY ENTRANCE OR EXIT, THEN "Y" OUT OR "Y" IN, RESPECTIVELY, IS NOT INCLUDED IN THE EQUATION. HOWEVER FOR CURBED HIGHWAYS, ADDITIONAL DRIVEWAY OPENING WIDTH SHOULD BE ADDED TO ALLOW FOR A SMALL CORNER CURB RADIUS. THIS ELIMINATES SHARP CORNER BENDS IN THE CURB LINE, WHICH IS SAFER FOR SNOWPLOW OPERATIONS.

SAMPLE CALCULATION:

A 10′ WIDE RESIDENTIAL DRIVEWAY CONNECTS WITH A CORNER ANGLE OF 70° TO A HIGHWAY WITH A 12′ WIDE TRAVEL LANE AND 4′ PAVED SHOULDER. THE CORNER ANGLE IS OUTSIDE OF THE RANGE FOR THE TAPER METHOD, THEREFORE THE RADIUS METHOD IS USED. IN THIS INSTANCE, THE DRIVEWAY OFFSET EQUALS 16′. THIS WOULD REQUIRE A DRIVEWAY OPENING WIDTH = "$Y_{70°}$" + ("W" x "SK") + "$Y_{110°}$"

= 10.2′ + (10′ x 1.07) + 1.6′ = 22.5′

FIELD LAYOUT:

STEP 1. LOCATE THE INTERSECTION POINTS OF THE PROJECTED EDGES OF DRIVEWAY AND THE EDGE OF PAVEMENT.

STEP 2. ALONG THE EDGE OF PAVEMENT, MEASURE OUT FROM THE INTERSECTION POINTS AT DISTANCES "Y_{IN}" AND "Y_{OUT}" RESPECTIVELY TO LOCATE THE DRIVEWAY OPENING LIMITS.

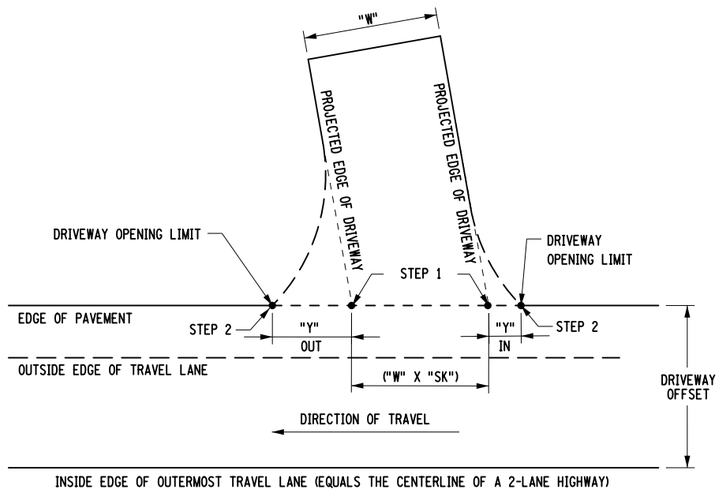
NOTES SPECIFIC TO TABLES 9 THROUGH 14:

TABLES 9 THROUGH 14 ARE FOR PRELIMINARY CURB LINE LAYOUT OF THE DRIVEWAY OPENING WIDTHS. USE THE LAYOUT METHOD DESCRIBED ON SHEET 3 FOR FINAL DRIVEWAY LAYOUT (ALTHOUGH THE DRIVEWAY OPENING LIMITS SHOULD MATCH BETWEEN THE PRELIMINARY AND FINAL LAYOUT TECHNIQUES).

THE DRIVEWAY OPENING WIDTH VARIES DEPENDING ON THE DRIVEWAY ENTRANCE WIDENING METHOD USED (RADIUS OR TAPER). THE TAPER METHOD GENERALLY WILL PROVIDE A MORE NARROW DRIVEWAY WIDTH.

"Y" REFERS TO EITHER "Y_{IN}" OR "Y_{OUT}".

SEE GENERAL NOTE 15.



PRELIMINARY DRIVEWAY OPENING LAYOUT

ALTHOUGH THE DETAIL ONLY SHOWS A RADIUS ENTRANCE TYPE, THE DETAIL APPLIES TO BOTH RADIUS AND TAPER METHODS OF LAYOUT. FOR THE VALUES OF "Y" REFER TO TABLES 9 THROUGH 13. FOR THE VALUE OF "SK" REFER TO TABLE 14.

NOTE:

ALL GENERAL NOTES AND ABBREVIATIONS REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-03, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 4 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-03

STANDARD SHEETS (USC), January 01, 2020

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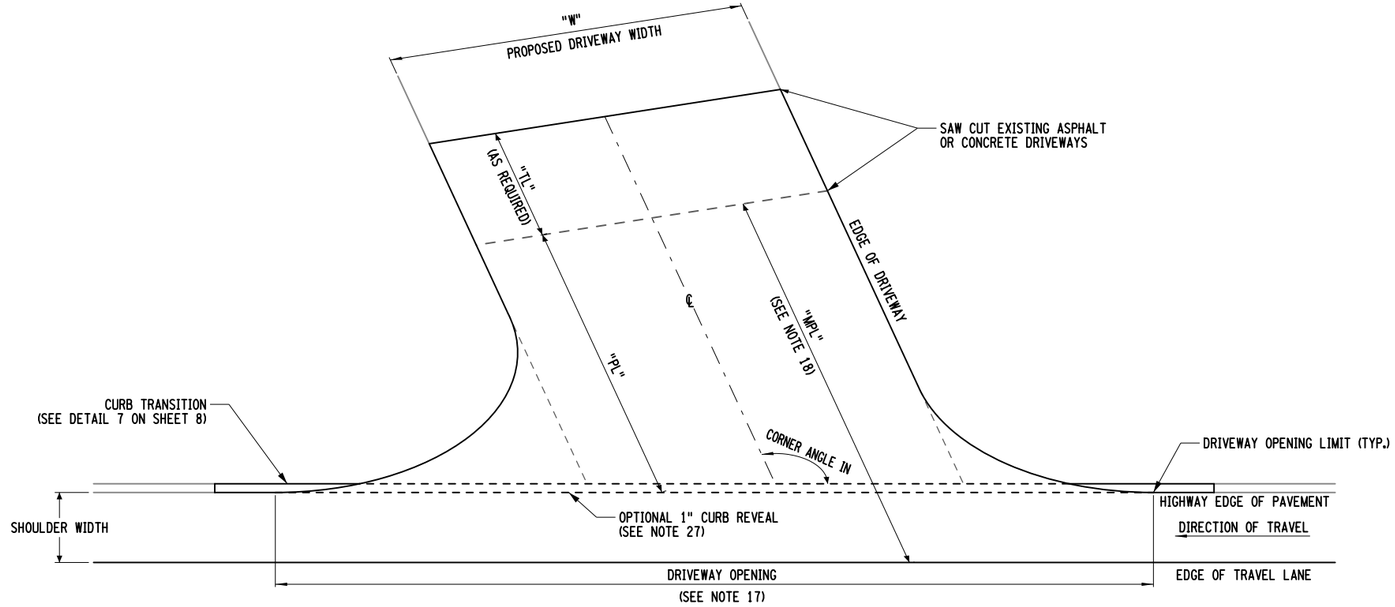
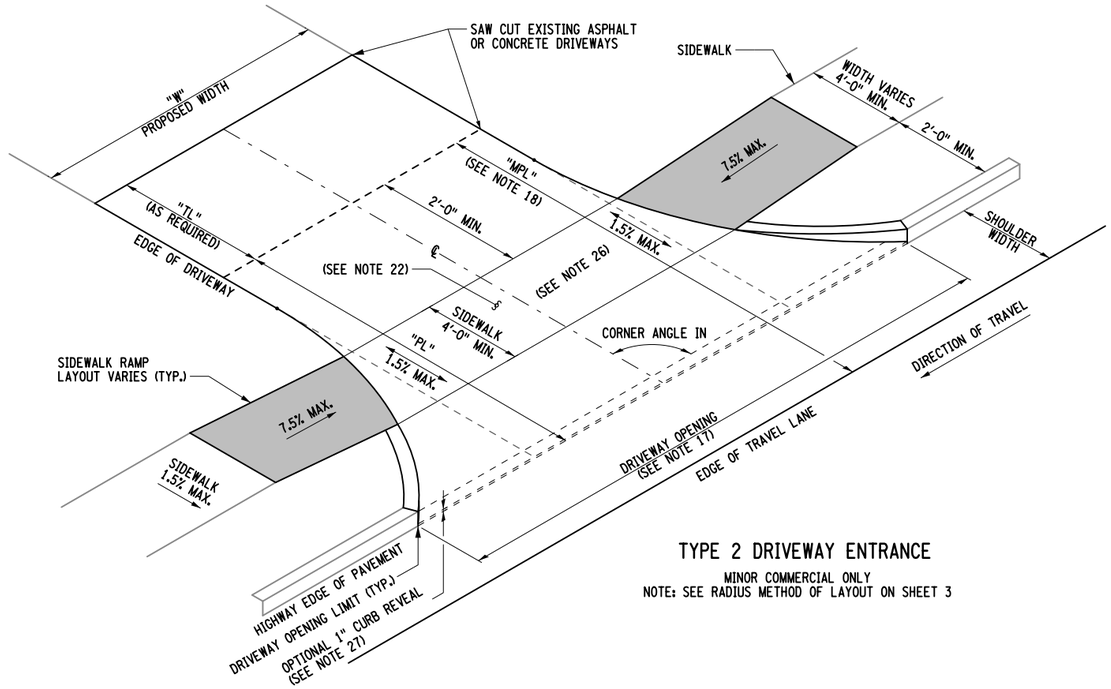


TYPE 1 DRIVEWAY ENTRANCE

NOTE: SEE RADIUS METHOD OF LAYOUT ON SHEET 3



TYPE 2 DRIVEWAY ENTRANCE

MINOR COMMERCIAL ONLY
NOTE: SEE RADIUS METHOD OF LAYOUT ON SHEET 3

NOTE:

ALL GENERAL NOTES AND ABBREVIATIONS REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-03, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 5 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEEER (DESIGN)	608-03

STANDARD SHEETS (USC), January 01, 2020

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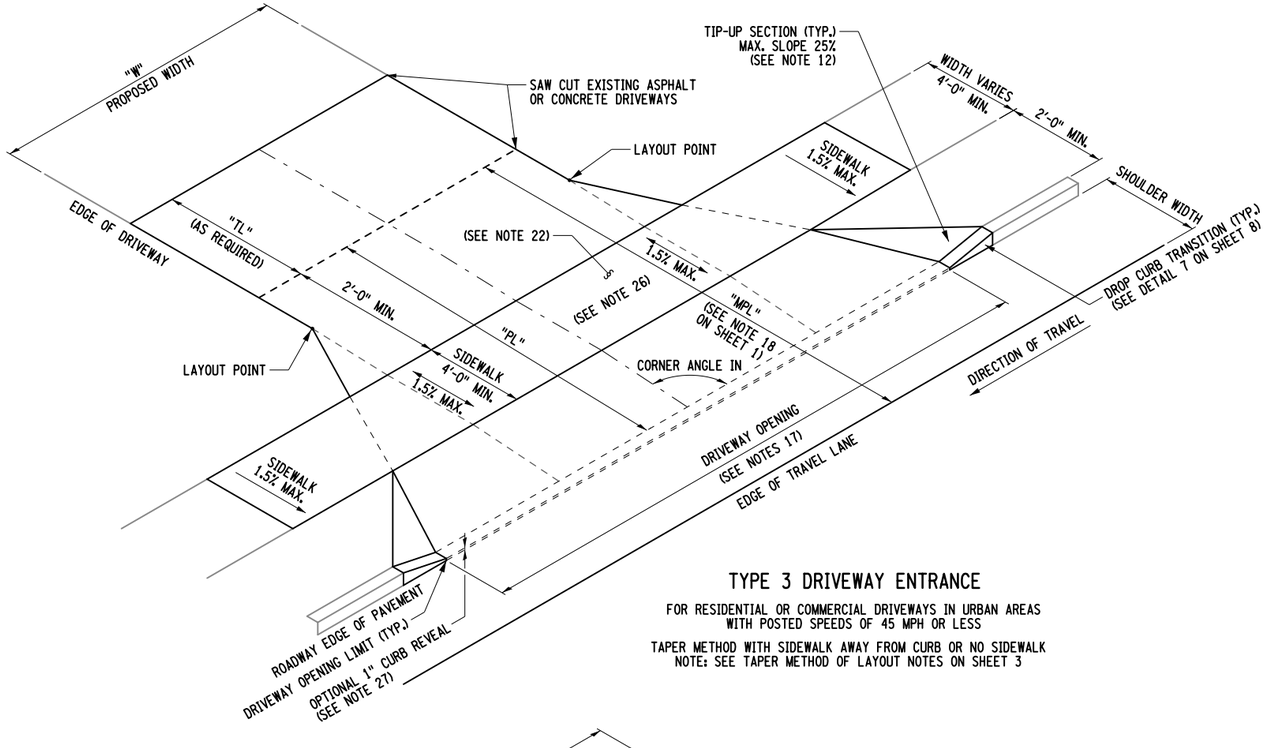
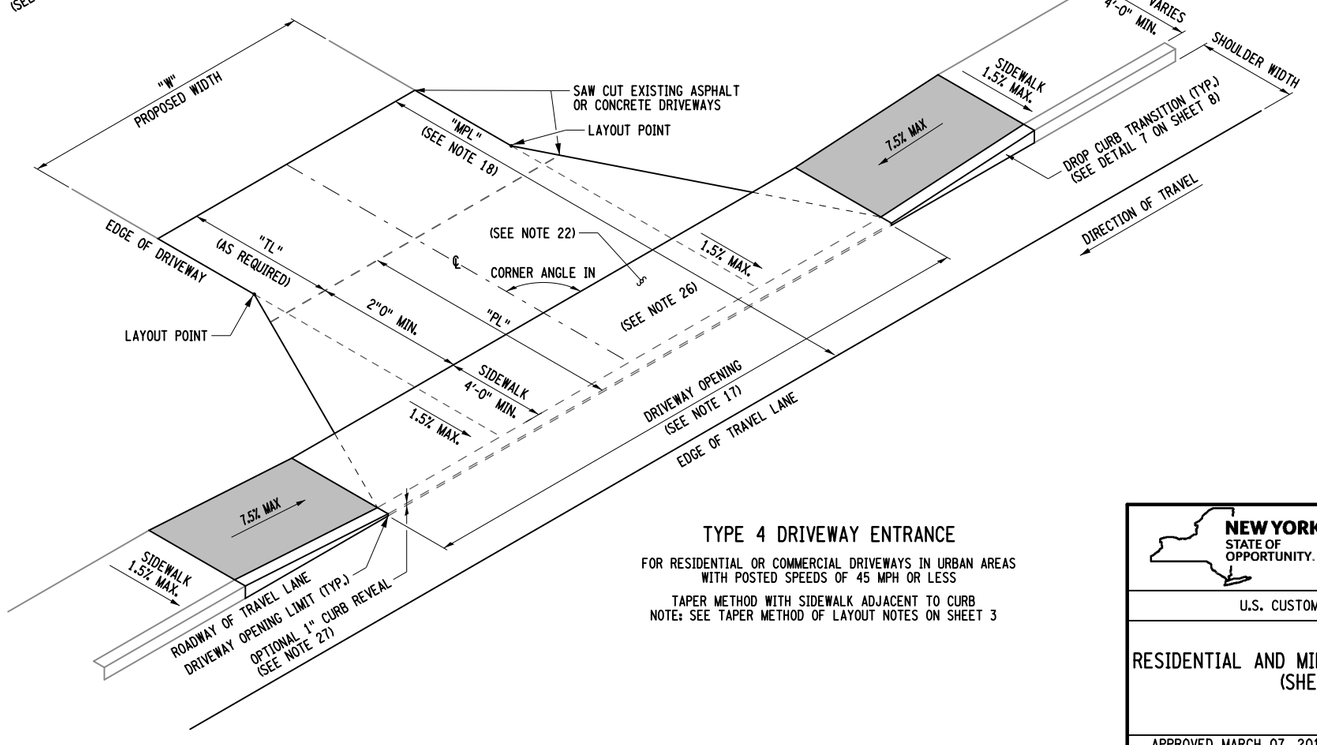


TYPE 3 DRIVEWAY ENTRANCE

FOR RESIDENTIAL OR COMMERCIAL DRIVEWAYS IN URBAN AREAS
WITH POSTED SPEEDS OF 45 MPH OR LESS

TAPER METHOD WITH SIDEWALK AWAY FROM CURB OR NO SIDEWALK
NOTE: SEE TAPER METHOD OF LAYOUT NOTES ON SHEET 3



TYPE 4 DRIVEWAY ENTRANCE

FOR RESIDENTIAL OR COMMERCIAL DRIVEWAYS IN URBAN AREAS
WITH POSTED SPEEDS OF 45 MPH OR LESS

TAPER METHOD WITH SIDEWALK ADJACENT TO CURB
NOTE: SEE TAPER METHOD OF LAYOUT NOTES ON SHEET 3

NOTE:

ALL GENERAL NOTES AND ABBREVIATIONS REFERENCED ON THIS SHEET
CAN BE FOUND ON STANDARD SHEET 608-03, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 6 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-03

STANDARD SHEETS (USC), January 01, 2020

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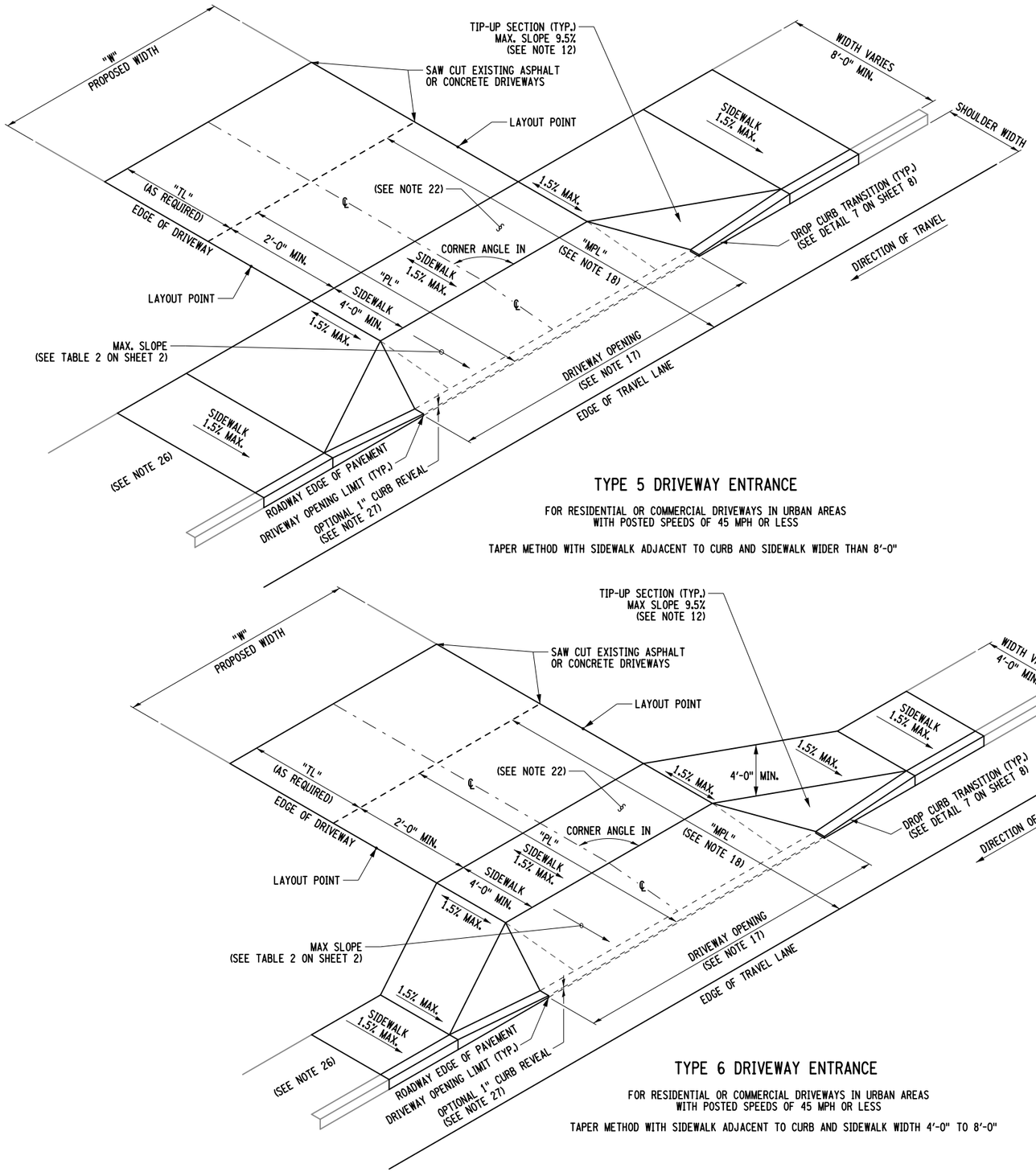
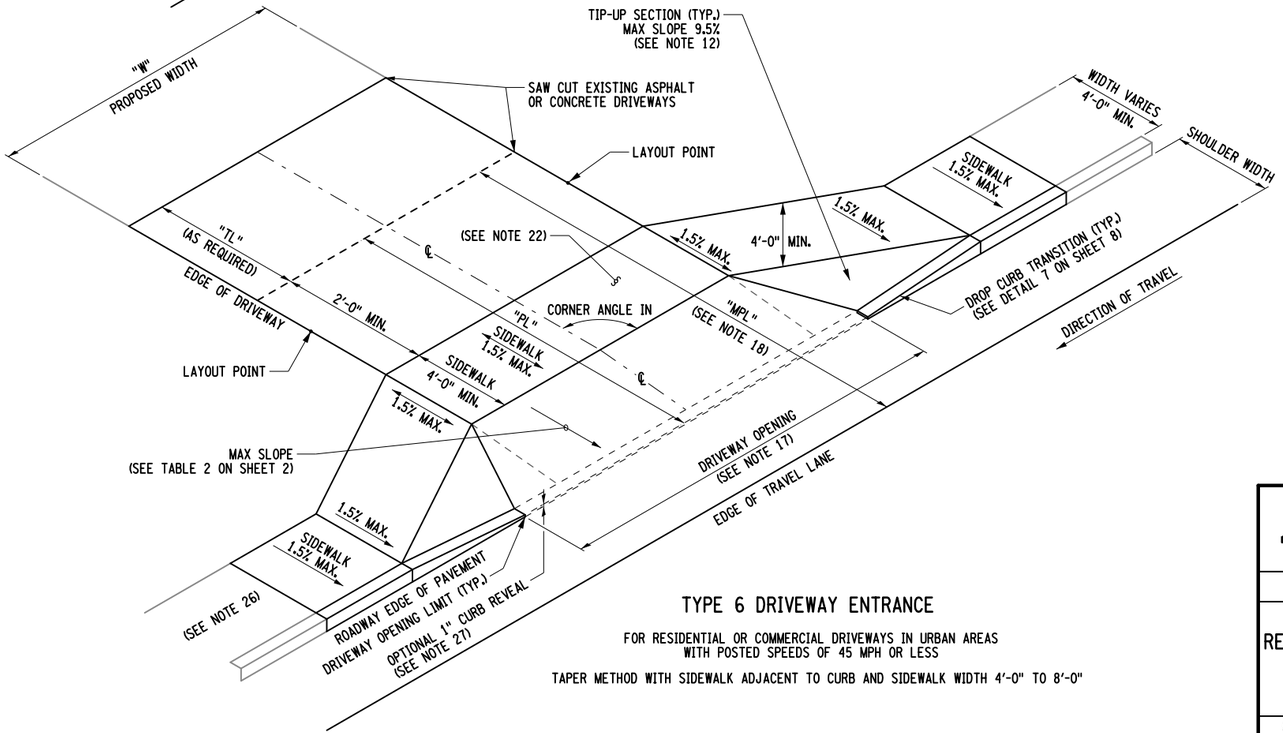


TYPE 5 DRIVEWAY ENTRANCE

FOR RESIDENTIAL OR COMMERCIAL DRIVEWAYS IN URBAN AREAS
WITH POSTED SPEEDS OF 45 MPH OR LESS

TAPER METHOD WITH SIDEWALK ADJACENT TO CURB AND SIDEWALK WIDER THAN 8'-0"



TYPE 6 DRIVEWAY ENTRANCE

FOR RESIDENTIAL OR COMMERCIAL DRIVEWAYS IN URBAN AREAS
WITH POSTED SPEEDS OF 45 MPH OR LESS

TAPER METHOD WITH SIDEWALK ADJACENT TO CURB AND SIDEWALK WIDTH 4'-0" TO 8'-0"

NOTE:

ALL GENERAL NOTES AND ABBREVIATIONS REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-03, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS
(SHEET 7 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-03

STANDARD SHEETS (USC), January 01, 2020

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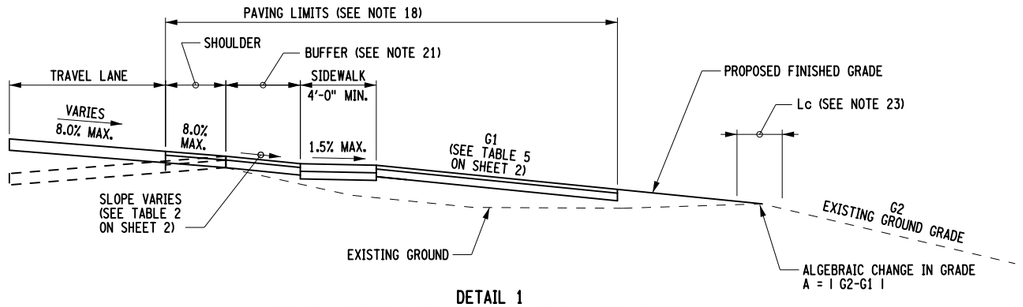
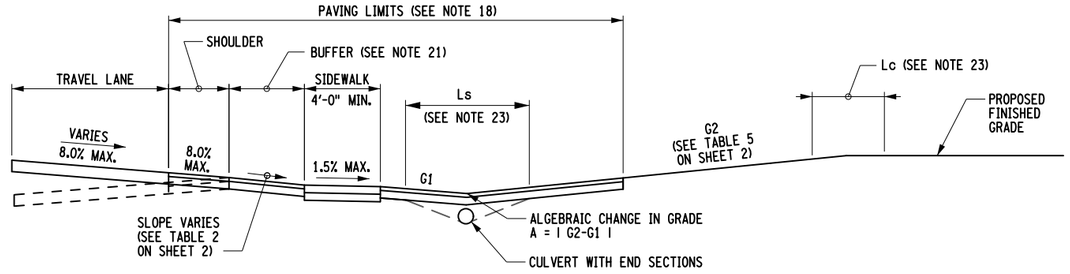
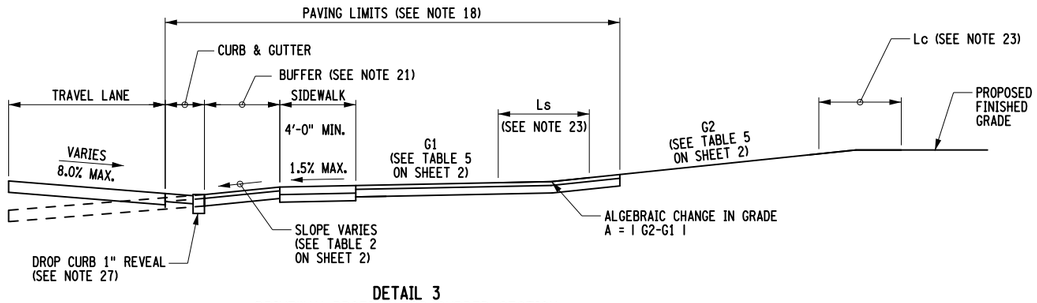


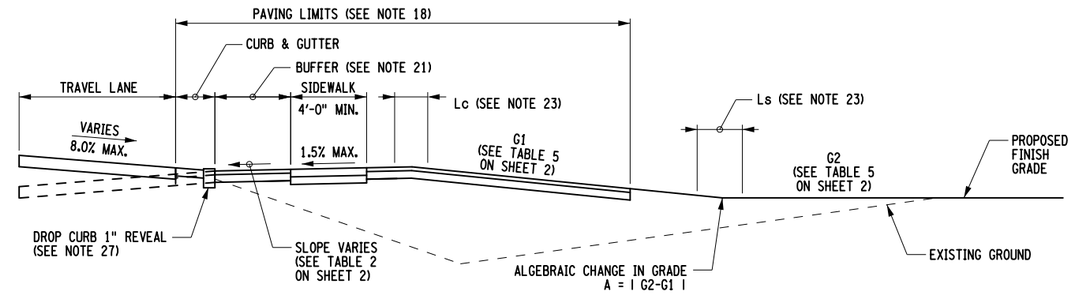
DETAIL 1
DRIVEWAY PROFILE FOR UNCURBED HIGHWAY WITH SIDEWALK
IN FILL SECTION WITHOUT ROADSIDE DITCH



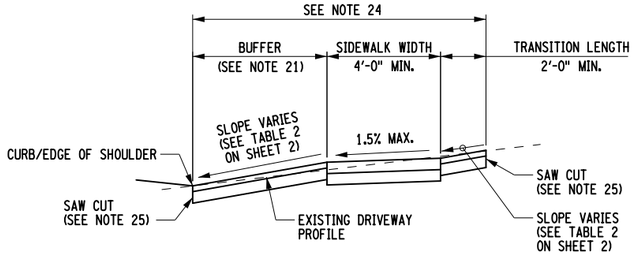
DETAIL 2
DRIVEWAY PROFILE FOR UNCURBED HIGHWAY WITH SIDEWALK
IN CUT SECTION WITH ROADSIDE DITCH



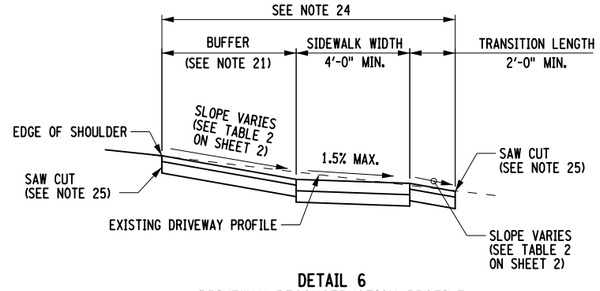
DETAIL 3
DRIVEWAY PROFILE FOR CURBED SECTION
WITH SIDEWALK IN CUT SECTION



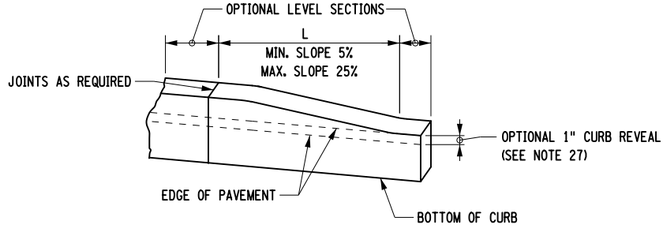
DETAIL 4
DRIVEWAY PROFILE FOR CURBED HIGHWAY SECTION WITH SIDEWALK
AND CLOSED DRAINAGE IN FILL SECTION



DETAIL 5
DRIVEWAY RECONSTRUCTION PROFILE
FOR NEW SIDEWALK CONSTRUCTION ACROSS EXISTING DRIVEWAY
IN CUT SECTION OR WITH CURB AND CLOSED DRAINAGE



DETAIL 6
DRIVEWAY RECONSTRUCTION PROFILE
FOR NEW SIDEWALK CONSTRUCTION ACROSS EXISTING DRIVEWAY
IN FILL SECTION WITHOUT CLOSED DRAINAGE



DETAIL 7
DRIVEWAY DROP
CURB TRANSITION

SEE STANDARD SHEET 609-02 FOR
COMPLETE CURB TRANSITION DETAILS

NOTES:

ALL GENERAL NOTES AND ABBREVIATIONS REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-03, SHEET 1 OF 9.

DETAILS SHOWN ON THIS SHEET SHALL BE USED FOR RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS ONLY, CURB RAMPS SHALL BE USED AT MAJOR COMMERCIAL DRIVEWAYS, PUBLIC HIGHWAYS, AND STREETS. REFER TO SHEET 1 FOR THE DEFINITION OF MAJOR AND MINOR COMMERCIAL DRIVEWAYS.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS
(SHEET 8 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-03

STANDARD SHEETS (USC), January 01, 2020

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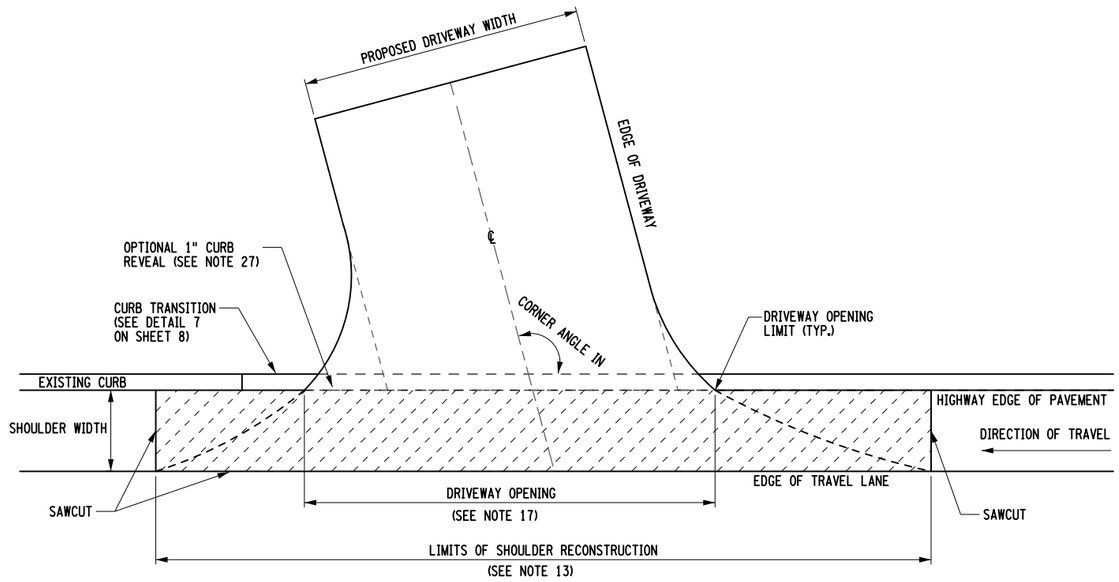
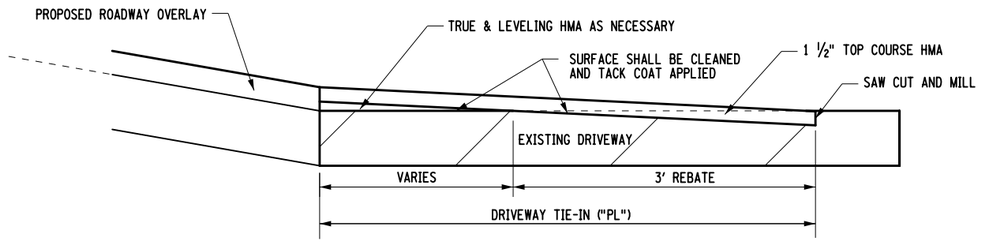
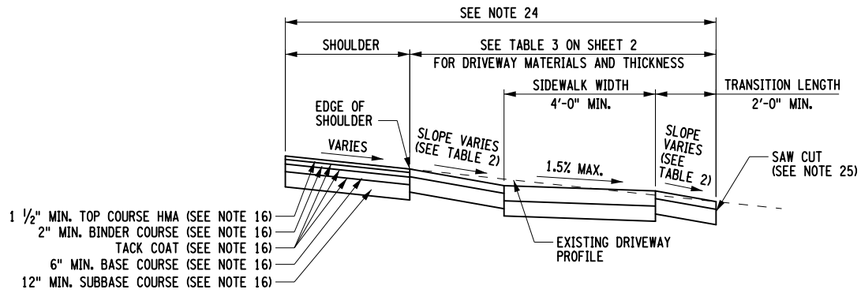


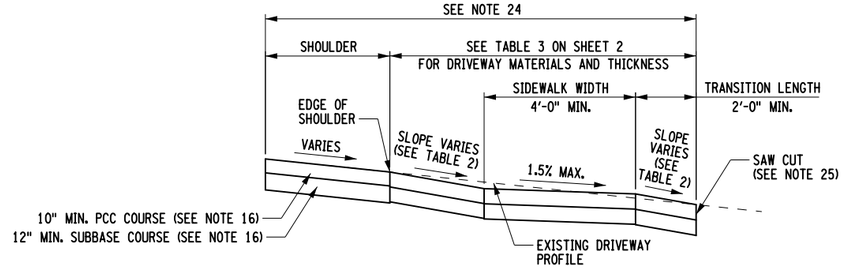
DETAIL 8
TYPICAL DRIVEWAY ENTRANCE
LIMITS OF SHOULDER RECONSTRUCTION



DETAIL 9
TIE-IN TO EXISTING DRIVEWAYS
FOR HOT MIX ASPHALT (HMA)



DETAIL 10
SHOULDER AND DRIVEWAY RECONSTRUCTION
PROFILE FOR HOT MIX ASPHALT (HMA) SHOULDER



DETAIL 11
SHOULDER AND DRIVEWAY RECONSTRUCTION
PROFILE FOR PCC SHOULDER

NOTE:

ALL GENERAL NOTES AND ABBREVIATIONS REFERENCED ON THIS SHEET CAN BE FOUND ON STANDARD SHEET 608-03, SHEET 1 OF 9.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS
(SHEET 9 OF 9)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-03

STANDARD SHEETS (USC), January 01, 2020

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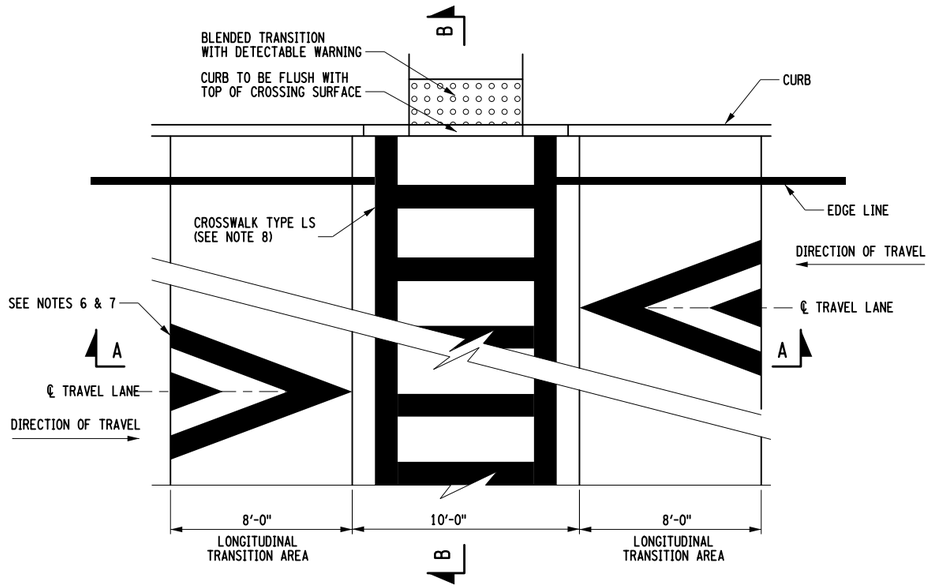
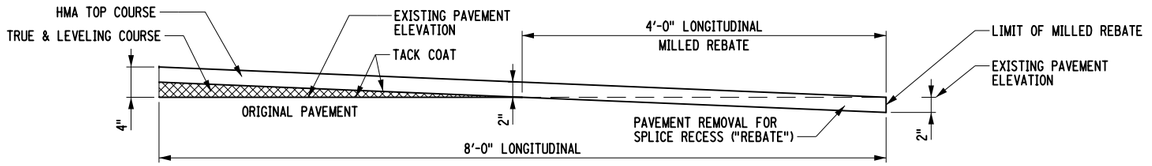
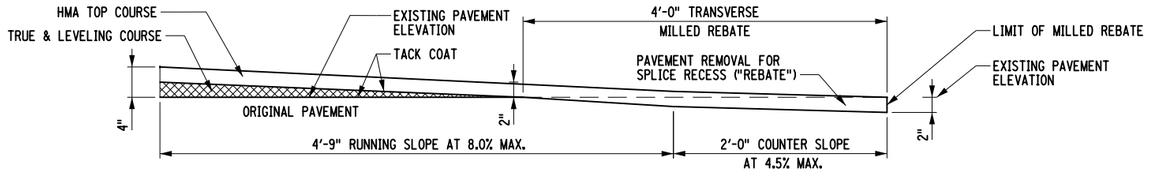


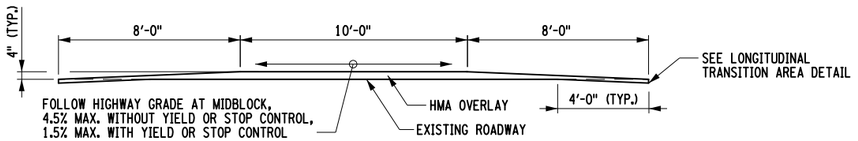
PLAN VIEW WITHOUT OPTIONAL DRAINAGE TREATMENT



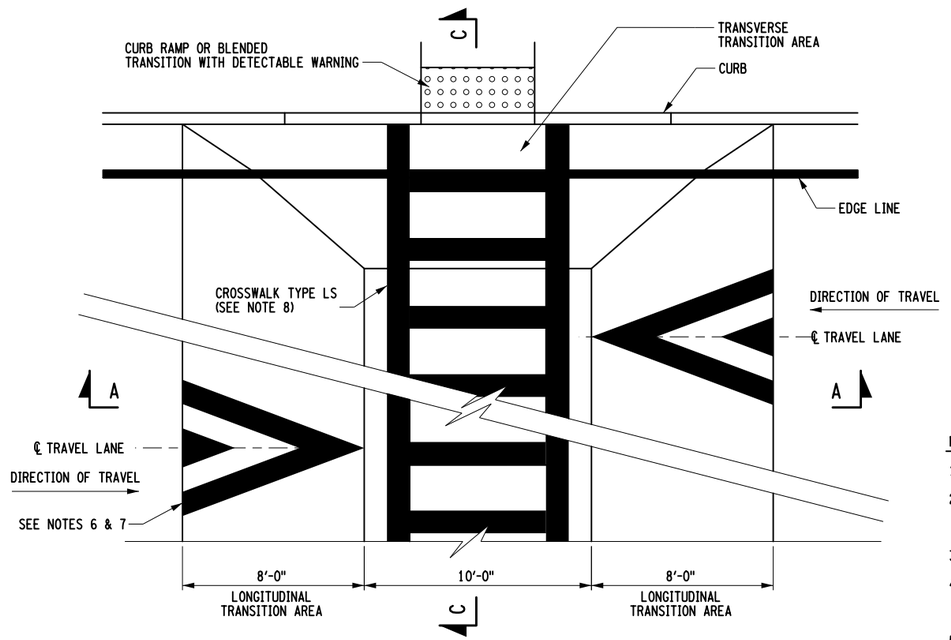
LONGITUDINAL TRANSITION AREA - HOT MIX ASPHALT OVERLAY SPLICE



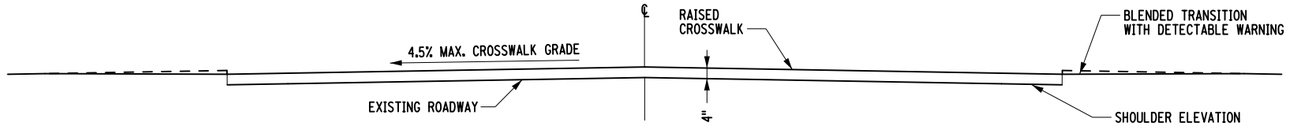
TRANSVERSE TRANSITION AREA - HOT MIX ASPHALT OVERLAY SPLICE
(SEE NOTE 2)



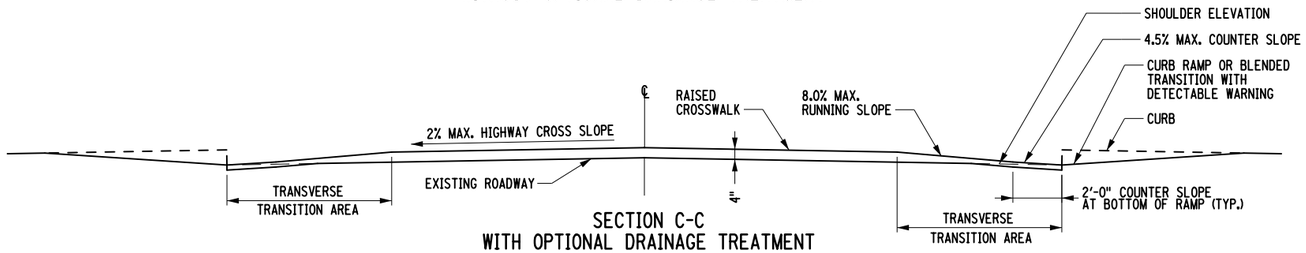
SECTION A-A
WITH OR WITHOUT OPTIONAL DRAINAGE TREATMENT



PLAN VIEW WITH OPTIONAL DRAINAGE TREATMENT
(SEE NOTE 2)



SECTION B-B
WITHOUT OPTIONAL DRAINAGE TREATMENT



SECTION C-C
WITH OPTIONAL DRAINAGE TREATMENT
(SEE NOTE 2)

NOTES:

1. RAISED CROSSWALK REQUIRES STORM WATER TO BE COLLECTED AND CONVEYED TO AN APPROPRIATE LOCATION.
2. THE OPTIONAL DRAINAGE TREATMENT SHALL ONLY BE USED IN RETROFIT SITUATIONS. THE TRANSVERSE TRANSITION AREA DETAIL ABOVE IS FOR USE ON HIGHWAYS WITH CROSS SLOPES. RETROFIT RAISED CROSSWALKS ON ROADWAYS THAT EXCEED THIS LIMIT SHALL BE DETAILED IN THE PLANS.
3. THE TRANSITION AREA MAY BE CONCRETE OR HMA, AND WILL BE AS SHOWN ON THE PLANS.
4. ALL SURFACES OF THE MILLED TRANSITION AREA SHALL BE CLEANED. TACK-COAT SHALL BE APPLIED PRIOR TO HMA PLACEMENT. THE COST OF MILLING REBATES AND TACK COAT IN THE HMA OVERLAY SPLICE TRANSITION AREA SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS. THE COST OF LEAVING A NEAT EDGE SHALL BE INCLUDED IN THE MILLING ITEM.
5. SEE SHEET 2 OF 3 FOR PCC RAISED CROSSWALK DETAILS.
6. SEE SHEET 3 OF 3 FOR SIGNING AND PAVEMENT MARKING DETAILS.
7. SIGNING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD.
8. FOR CONTRAST OR AESTHETICS, A TYPE S CROSSWALK PAVEMENT MARKING MAY BE USED WITH A COLORED OR TEXTURED CROSSWALK SURFACE.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

RAISED CROSSWALK DETAILS (SHEET 1 OF 3)

APPROVED MARCH 07, 2016
/S/ RICHARD W. LEE, P.E.
DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 16-012

608-07

STANDARD SHEETS (USC), January 01, 2020
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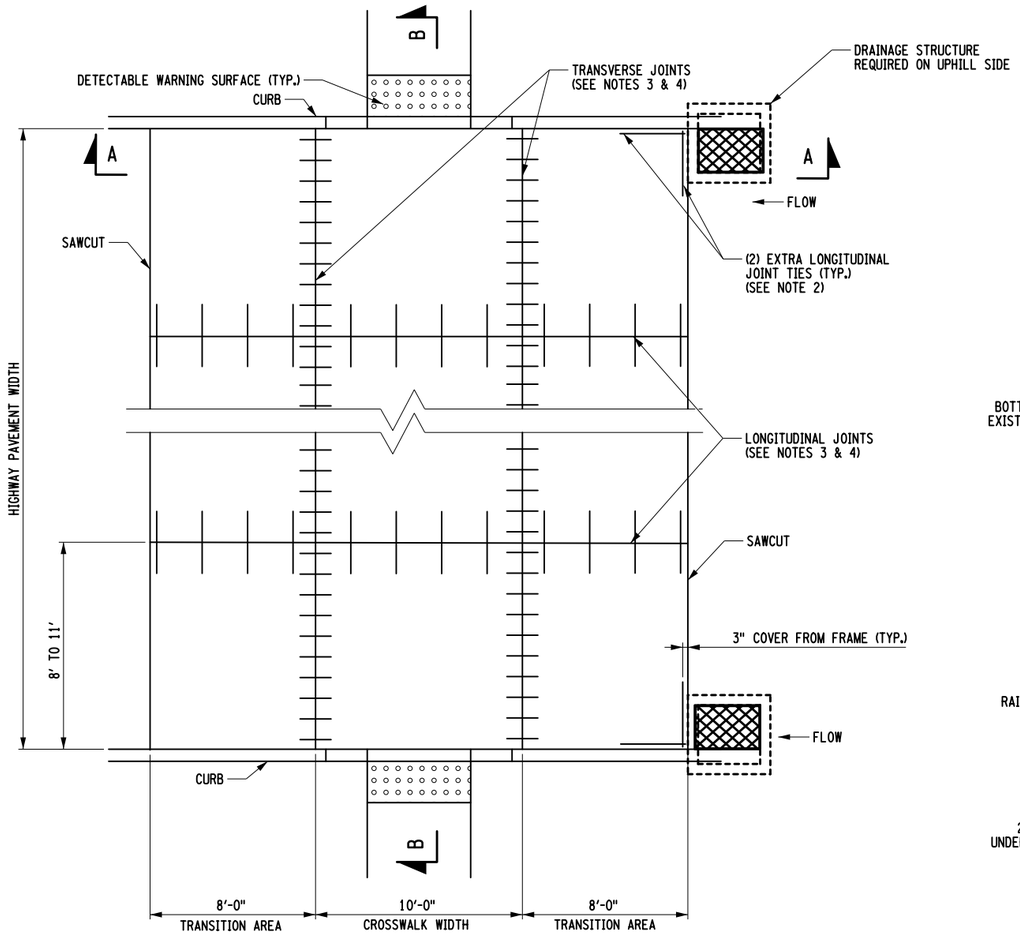
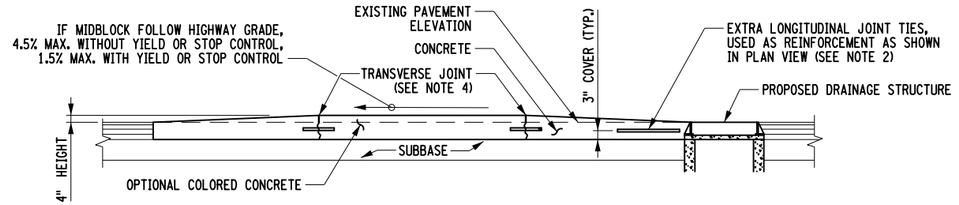
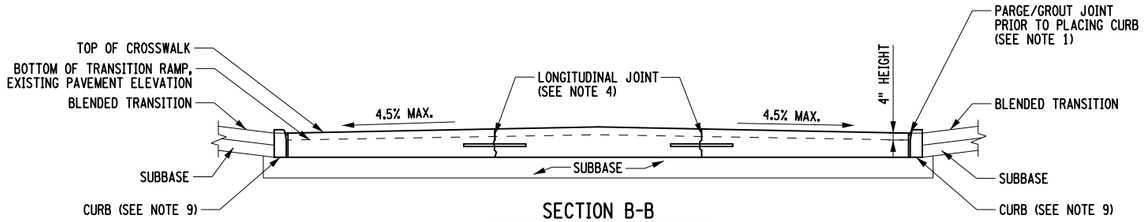
USER = lmontgomery



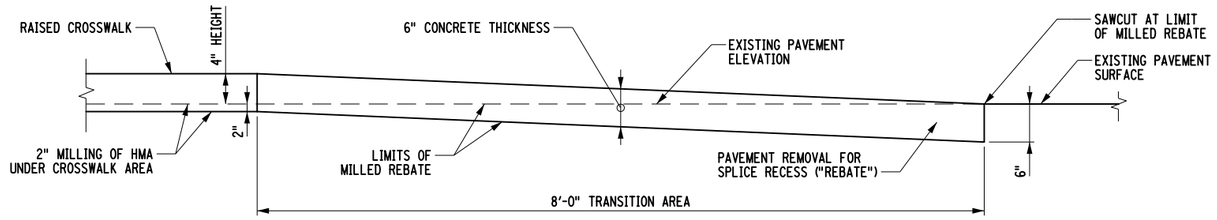
CAST IN PLACE CONCRETE
RAISED CROSSWALK REINFORCEMENT PLAN
(SEE NOTE 9)



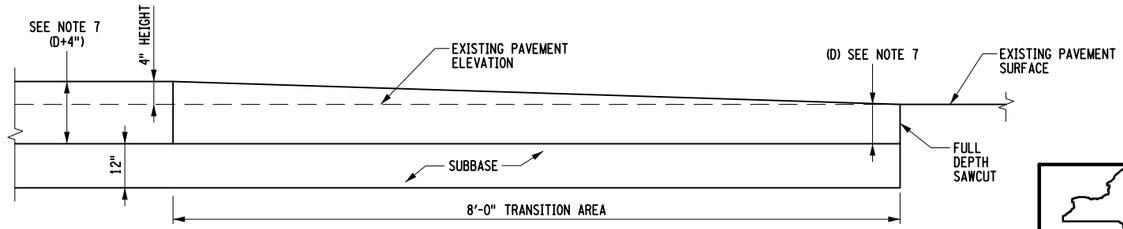
SECTION A-A
HIGHWAY PROFILE



SECTION B-B
HIGHWAY CROSS SECTION



OPTIONAL TRANSITION AREA
FOR PCC OVERLAY SPLICE ON FULL DEPTH HMA
(SEE NOTE 6)



TRANSITION AREA - FULL DEPTH
(SEE NOTE 8)

NOTES:

1. GROUT BETWEEN GRANITE/PRECAST CURBS AND CONCRETE PAVEMENT SHALL MEET STANDARD SPECIFICATION 705.21 FOR TYPE S MASONRY MORTAR. CAULKING SHALL CONFORM TO REQUIREMENTS OF CAULKING COMPOUND FOR DRAINAGE STRUCTURES.
2. EXTRA LONGITUDINAL JOINT TIES, USED AS REINFORCEMENT, ARE NEEDED ONLY WHEN DRAINAGE STRUCTURES ARE PRESENT.
3. SEE NYSDOT STANDARD SHEET 502-02 FOR PROPER DOWEL BAR/TIE BAR SPACING.
4. SEE NYSDOT STANDARD SHEETS 502-03 THROUGH 502-07 FOR LONGITUDINAL AND TRANSVERSE JOINT DETAILS.
5. SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MUTCD. SEE STANDARD SHEET 608-07 SHEET 3 OF 3 FOR SIGNING AND PAVEMENT MARKING DETAILS.
6. MAY BE USED FOR HIGHWAYS WITH ≤ 20,000 ADT, ≤ 5% TRUCKS, AND A PAVEMENT SURFACE SCORE OF 7 OR GREATER.
7. DETERMINE PCC THICKNESS (D) FROM THE CONTRACT DOCUMENTS.
8. FOR PCC PAVEMENT, COMPOSITE PAVEMENTS, AND HMA PAVEMENTS NOT MEETING NOTE 6, FULL DEPTH REPLACEMENT IS REQUIRED.
9. SEE CURB & GUTTER STANDARD SHEETS FOR ANCHOR REQUIREMENTS, IF APPLICABLE.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RAISED CROSSWALK DETAILS
(SHEET 2 OF 3)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-07

STANDARD SHEETS (USC), January 01, 2020

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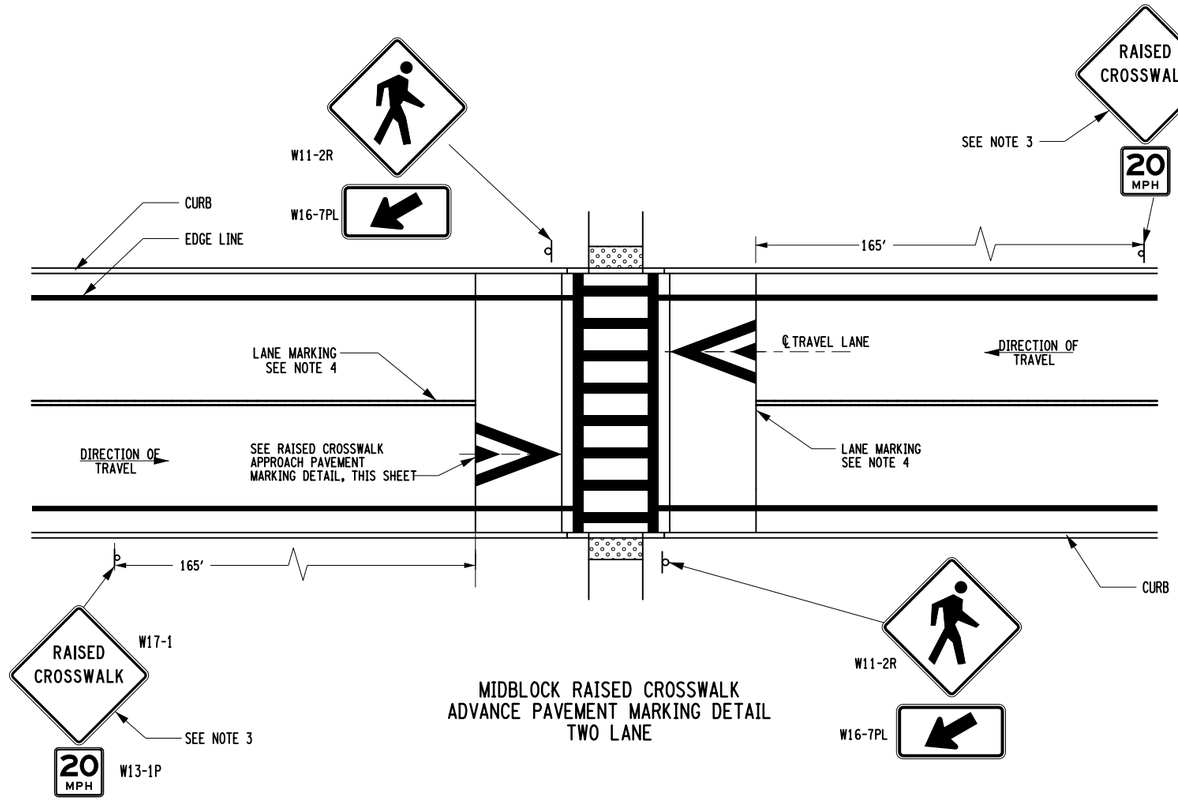
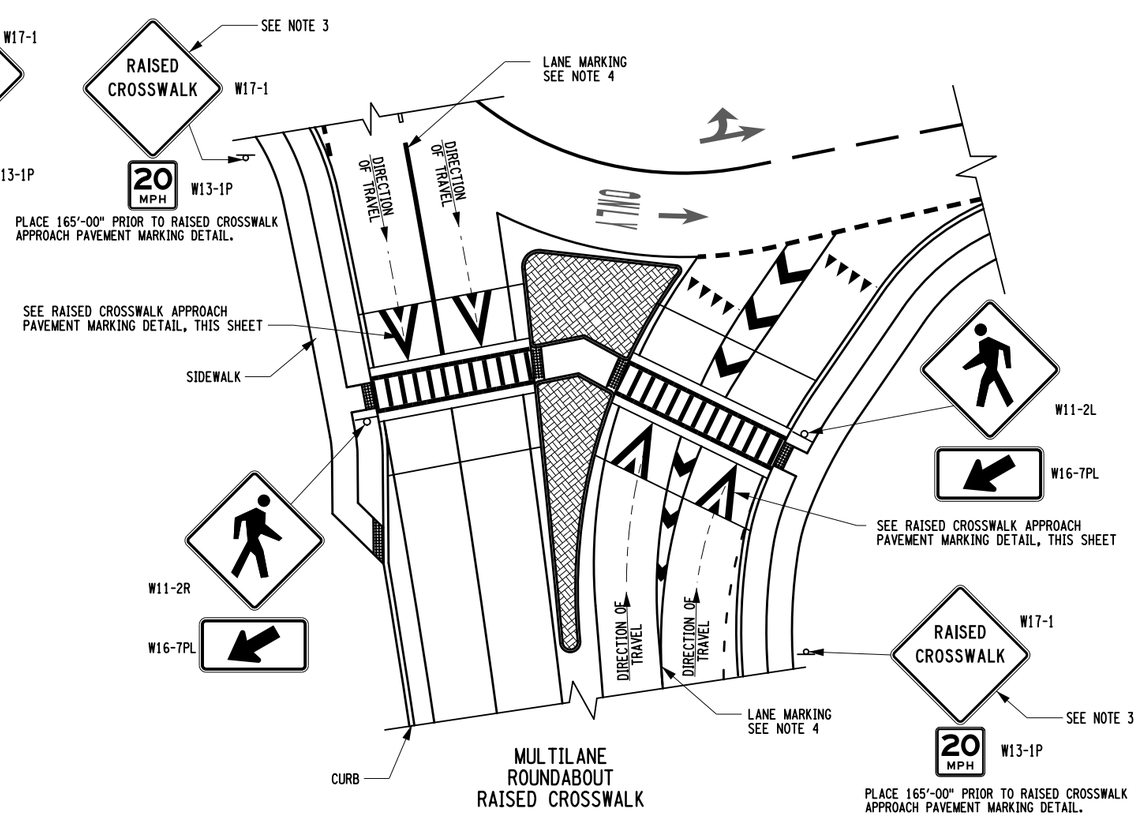
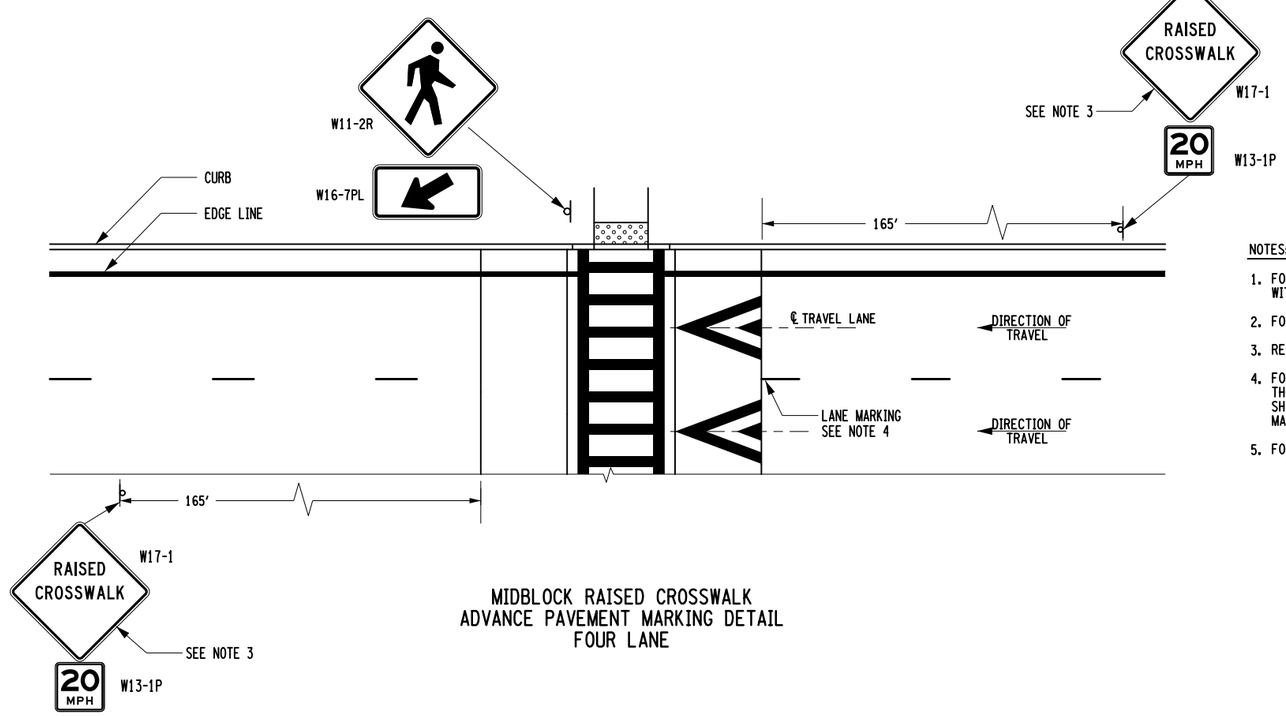


MIDBLOCK RAISED CROSSWALK
ADVANCE PAVEMENT MARKING DETAIL
TWO LANE



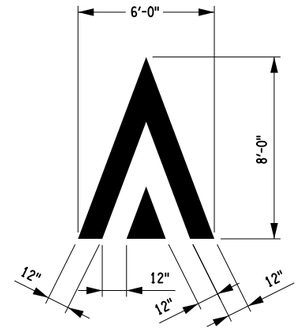
MULTILANE
ROUNDABOUT
RAISED CROSSWALK



MIDBLOCK RAISED CROSSWALK
ADVANCE PAVEMENT MARKING DETAIL
FOUR LANE

NOTES:

1. FOR CONTRAST OR AESTHETICS, TYPE S CROSSWALK PAVEMENT MARKING MAY BE USED WITH A COLORED OR TEXTURED CROSSWALK SURFACE.
2. FOR ONE-WAY TRAFFIC, PAVEMENT MARKING SHALL BE PLACED ON APPROACH SIDE ONLY.
3. REFER TO THE MUTCD FOR ADDITIONAL ADVANCED WARNING SIGNS, TYPE AND LOCATION.
4. FOR CONCRETE RAISED CROSSWALKS, TERMINATE LANE MARKINGS AT THE BEGINNING OF THE LINEAR TRANSITION FOR CONCRETE, EXCEPT AT ROUNDABOUTS, WHERE LANE MARKINGS SHALL TERMINATE AT THE CROSSWALK MARKING. FOR HMA RAISED CROSSWALKS, LANE MARKINGS SHALL TERMINATE AT THE CROSSWALK MARKING.
5. FOR CROSSWALK MARKING DETAILS, REFER TO STANDARD SHEET 685-01, SHEET 2 OF 9.



RAISED CROSSWALK APPROACH
PAVEMENT MARKING DETAIL

NEW YORK STATE OF OPPORTUNITY.
Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

RAISED CROSSWALK DETAILS
(SHEET 3 OF 3)

APPROVED MARCH 07, 2016	ISSUED UNDER EB 16-012
/S/ RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER (DESIGN)	608-07

STANDARD SHEETS (USC), January 01, 2020

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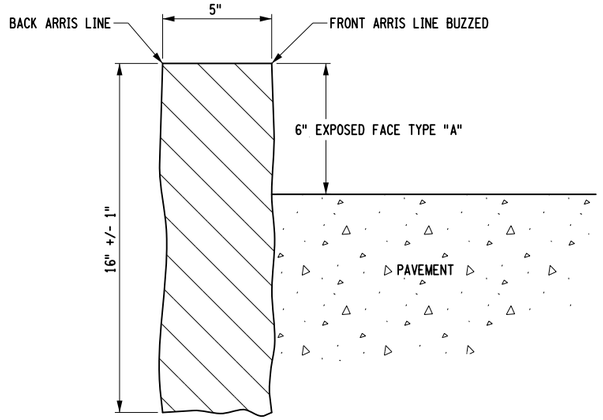
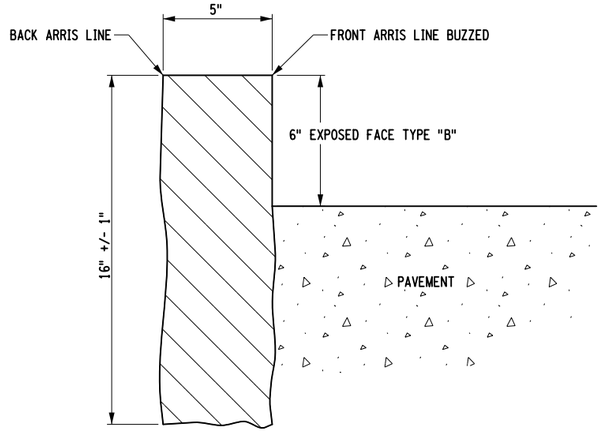
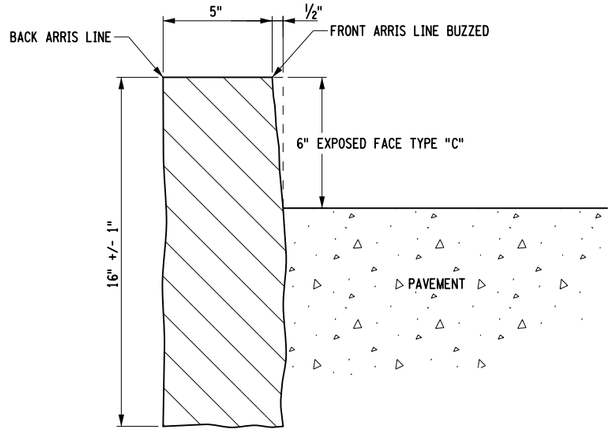


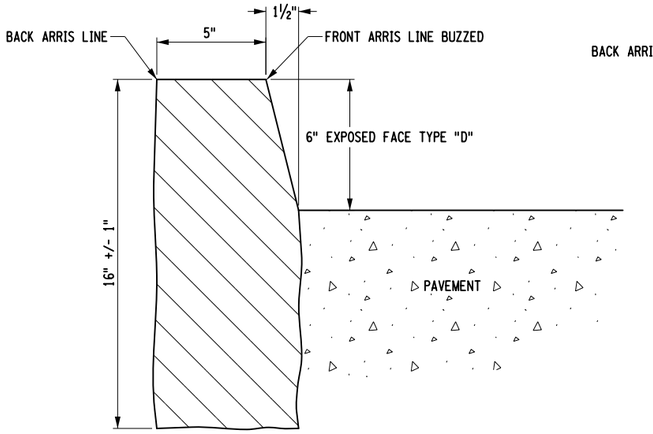
TYPE "A" CURB
SAWED, HAMMERED OR THERMAL FINISH TOP, QUARRY SPLIT FACE



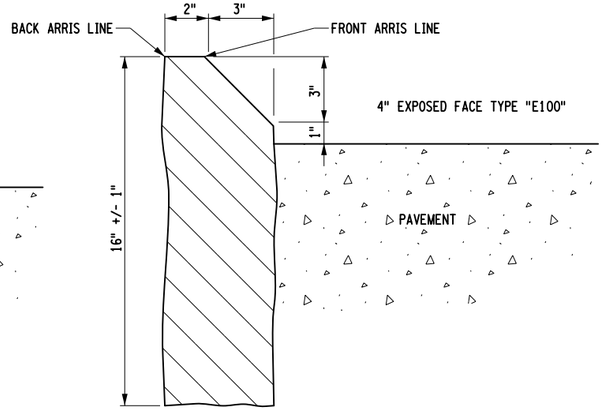
TYPE "B" CURB
SAWED, HAMMERED OR THERMAL FINISH TOP AND FACE



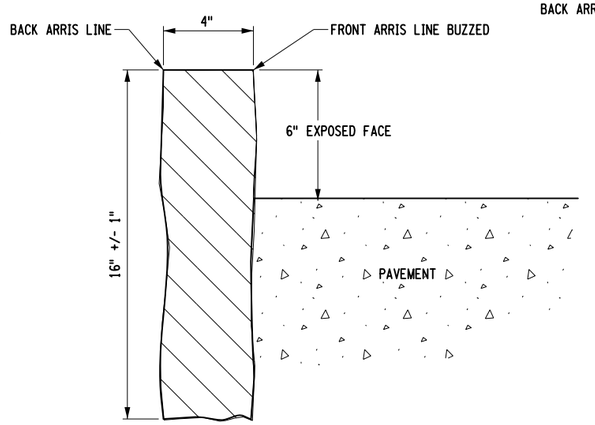
TYPE "C" CURB
SAWED, HAMMERED OR THERMAL FINISH TOP, QUARRY SPLIT, SAWED, HAMMERED OR THERMAL FINISH FACE



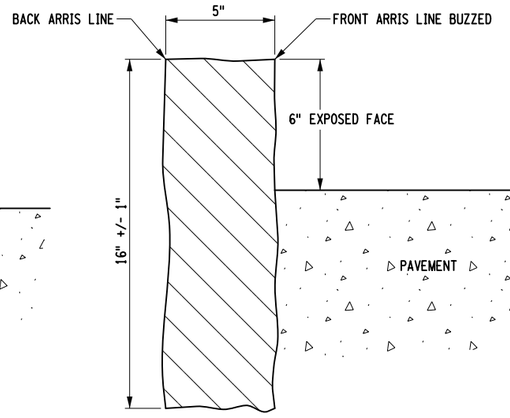
TYPE "D" CURB
SAWED, HAMMERED OR THERMAL FINISH TOP AND FACE



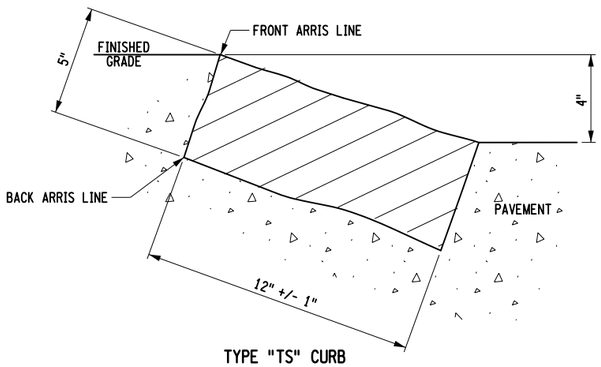
TYPE "E100" CURB
SAWED, HAMMERED OR THERMAL FINISH TOP AND FACE



LIGHT DUTY CURB
SAWED, HAMMERED OR THERMAL FINISH TOP, QUARRY SPLIT, SAWED, HAMMERED OR THERMAL FINISH FACE



LANDSCAPING CURB
QUARRY SPLIT TOP AND FACE



TYPE "TS" CURB
QUARRY SPLIT, HAMMERED OR THERMAL FINISH FACE

NOTES:

1. AS MARKED IN THE DETAILS ABOVE, THE FRONT ARRIS LINE FOR VERTICAL-FACED AND NEAR-VERTICAL STONE AND GRANITE CURBS SHALL BE BUZZED TO REMOVE A MINIMUM OF 1/8 INCH; MAXIMUM OF 3/8 INCH ALL ALONG THE EXPOSED EDGE.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

STONE CURB AND GRANITE CURB

APPROVED: MAY 12, 2016
/S/ RICHARD W. LEE, P.E.
DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 16-019

609-01

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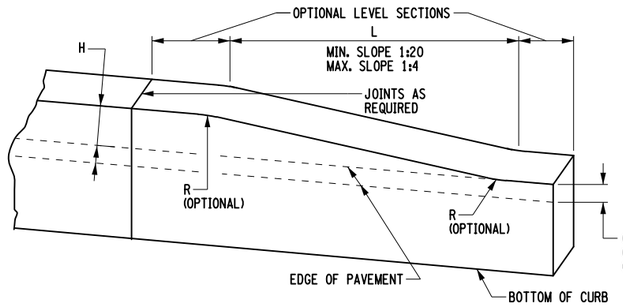
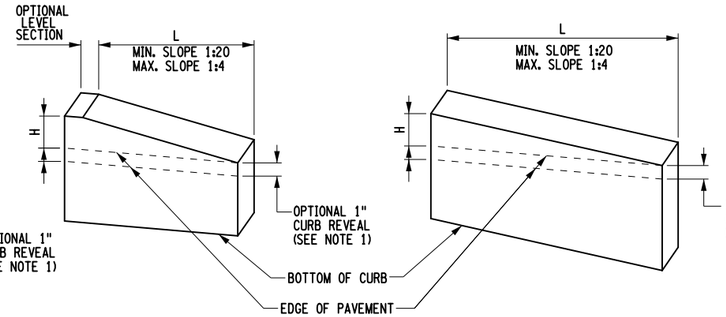
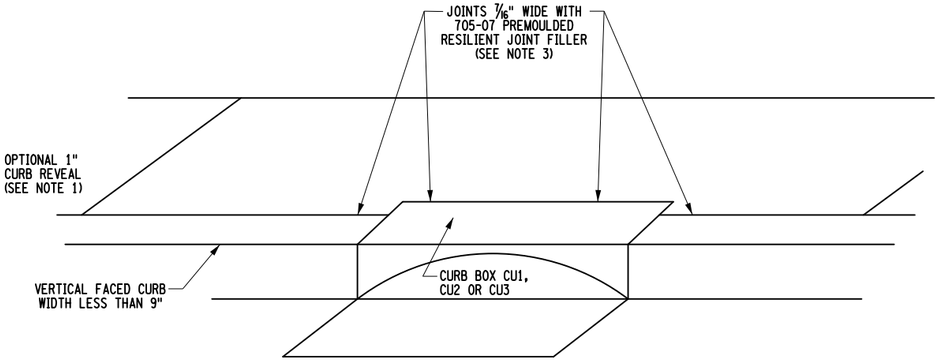


CAST-IN-PLACE CONCRETE
CURB TRANSITIONS
(SEE NOTE 2)



PRECAST CONCRETE, STONE, AND GRANITE
CURB TRANSITIONS
(SEE NOTE 2)



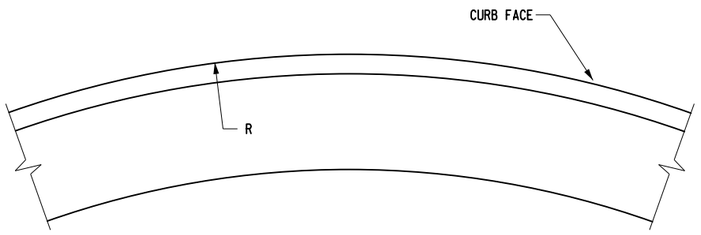
CURB AND CURB BOX ADJACENT
TO CONCRETE SIDEWALK
(NOT ON STRUCTURES)

CURB TRANSITION LENGTHS (L)			
H \ SLOPE	1:4	1:12	1:20
4"	16"	48"	80"
6"	24"	72"	120"

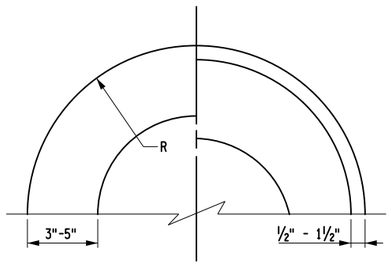
CURB TRANSITION LENGTHS (L) WITH CURB REVEAL			
H \ SLOPE	1:4	1:12	1:20
4"	12"	36"	60"
6"	20"	60"	100"

STANDARD PRECAST CURB RADII IN INCHES
12" BULLNOSE *
18" BULLNOSE *
24" HALF BULLNOSE*
30" HALF BULLNOSE
60"
72" *
120"
180"
240"
300"
360"
420" *
480"
540" *
600"
720"
840"
960"
1080"

* NOT ALL PRECASTERS MANUFACTURE THESE RADII

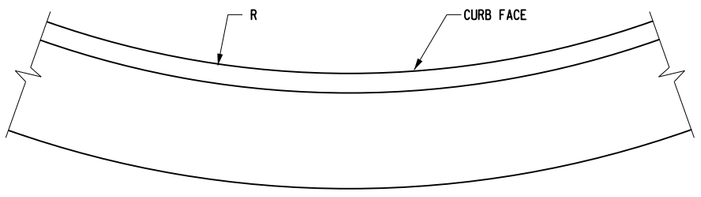


CURVED CURB (CONVEX)

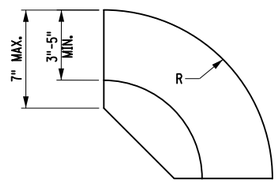


BULLNOSE

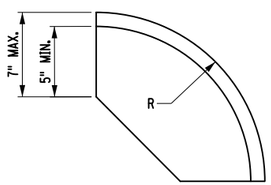
MOUNTABLE CURB VERTICAL FACED CURB



CURVED CURB (CONCAVE)



½ BULLNOSE
MOUNTABLE CURB



½ BULLNOSE
VERTICAL FACED CURB

NOTES:

1. USE 1" REVEAL AND CONTINUE CURB ACROSS DRIVEWAY ENTRANCES ONLY IF SHOWN IN THE CONTRACT DOCUMENTS, OR DIRECTED BY THE ENGINEER AS A FIELD CONDITION.
2. TERMINATE CURB, CURB AND GUTTER AND ASPHALT CURB BY TRANSITIONING ON A MAXIMUM SLOPE OF 1:12 TO PAVEMENT SURFACE, EXCEPT WHEN BEHIND GUIDE RAIL.
3. EXTEND JOINT FILLER 6" MINIMUM BEHIND CURB ON BOTH SIDES OF CURB BOX. 705-07 NOT NEEDED WHEN VERTICAL FACED CURB WIDTH EQUAL TO WIDTH OF CURB BOX.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

MISCELLANEOUS CURB DETAILS

APPROVED: JUNE 14, 2013

/S/ RICHARD W. LEE, P.E.
ACTING DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 13-007

609-02

EFFECTIVE DATE: 01/09/14

STANDARD SHEETS (USC), January 01, 2020

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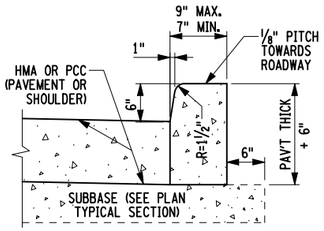
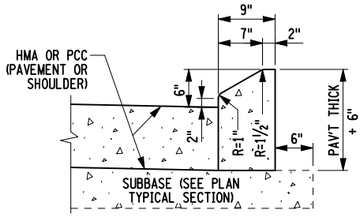
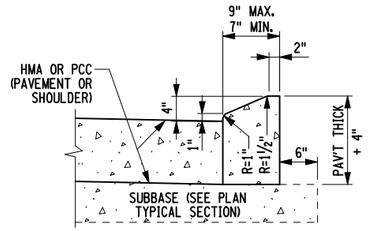


TYPE VF150
(VERTICAL FACED CURB WITHOUT CURB ANCHOR)
(SEE NOTE 4)



TYPE M150
(MOUNTABLE CURB WITHOUT CURB ANCHOR)
(SEE NOTE 5)



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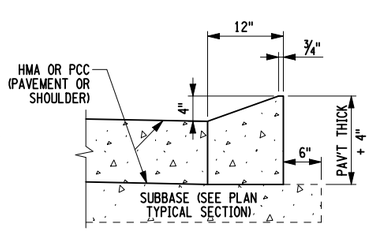
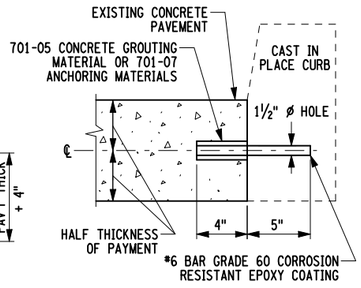
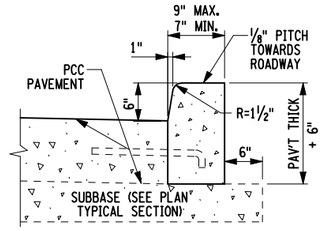


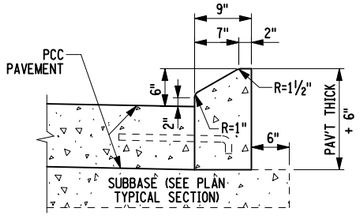
TYPE T100
(TRAVERSABLE CURB)



CURB ANCHOR
(NEW CURB BY EXISTING PAVEMENT)



TYPE VF 150A
(VERTICAL FACED CURB WITH CURB ANCHOR)
(SEE CURB ANCHOR DETAILS)
(SEE NOTE 4)



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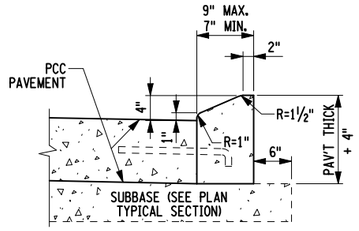
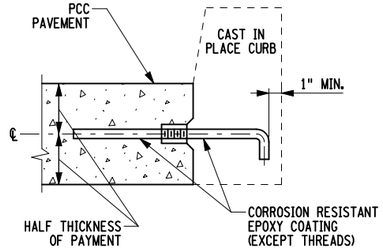
(VERTICAL FACED CURB WITH CURB ANCHOR)
(SEE CURB ANCHOR DETAILS)
(SEE NOTE 5)

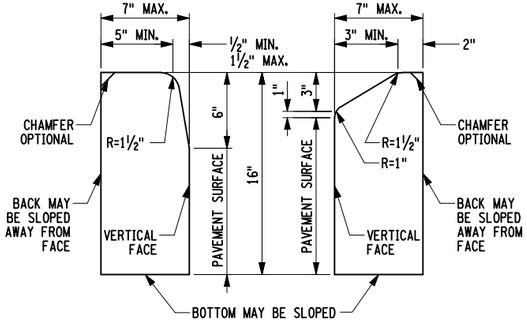


TYPE M 100A
(MOUNTABLE CURB WITH CURB ANCHOR)
(SEE CURB ANCHOR DETAILS)



CURB ANCHOR
(NEW CONSTRUCTION)
(SEE NOTE 2)

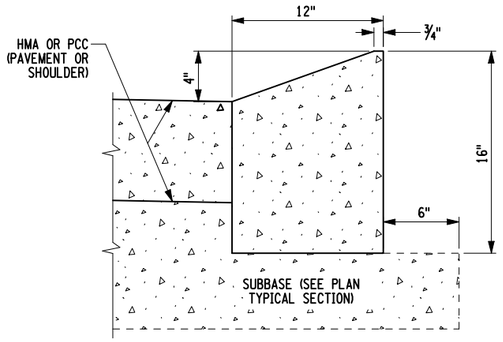
CAST-IN-PLACE CONCRETE CURB



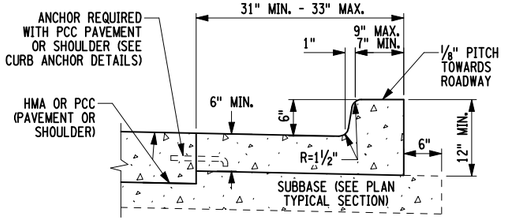
TYPE PVF150
(VERTICAL FACED CURB)

TYPE PM100
(MOUNTABLE CURB)

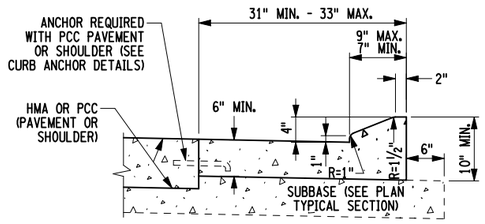
PRECAST CONCRETE CURB



TYPE PT 100
(TRAVERSABLE CURB)
PRECAST CONCRETE CURB

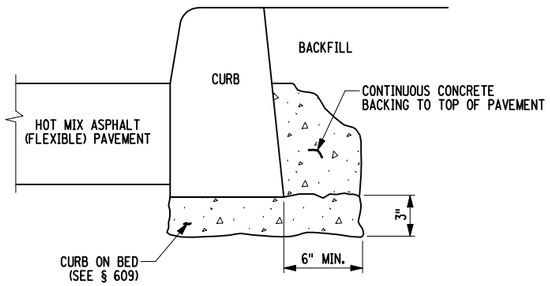


TYPE VF150G
(VERTICAL FACED CURB AND GUTTER)

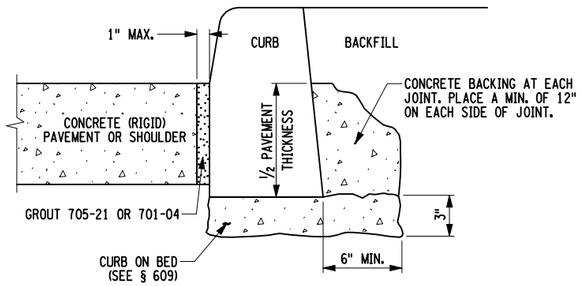


TYPE M100G
(MOUNTABLE CURB AND GUTTER)

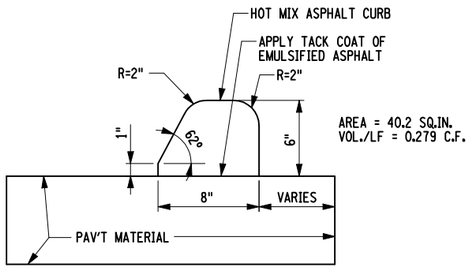
CAST-IN-PLACE CONCRETE CURB AND GUTTER



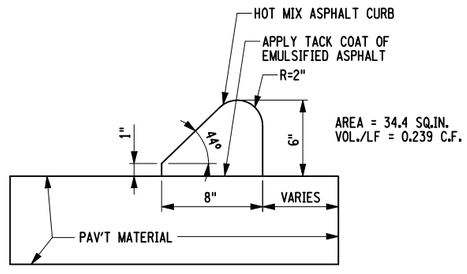
PRECAST CONCRETE, STONE, AND GRANITE CURB WITH FLEXIBLE PAVEMENT BEDDING AND BACKFILL



PRECAST CONCRETE, STONE, AND GRANITE CURB WITH RIGID PAVEMENT BEDDING AND BACKFILL



VERTICAL FACED TYPE



MOUNTABLE TYPE

HOT MIX ASPHALT CURB

NOTES:

1. USE CURB AND CURB AND GUTTER MEETING THE MATERIAL AND CONSTRUCTION REQUIREMENTS OF SECTION 609 OF THE STANDARD SPECIFICATIONS.
2. CURB ANCHOR (NEW CONSTRUCTION). THIS DETAIL SHOWS PLACEMENT OF CURB ANCHORS. PUSH-IN TYPE ANCHORS MAY BE USED (SHOWN ON THE STANDARD SHEET FOR LONGITUDINAL TIES).
3. CURB TYPES M150A, VF150A AND M100A REQUIRE CURB ANCHOR. CURB AND GUTTER TYPES VF150G AND M100G REQUIRE ANCHORS WHEN PLACED ADJACENT TO CONCRETE PAVEMENT OR SHOULDER.
4. WHEN VERTICAL FACED CURB LESS THAN 9" WIDE IS USED WITH CURB BOXES CU1, CU2, AND CU3 AND CONCRETE SIDEWALK IS PLACED ADJACENT TO THIS CURB, SEE STANDARD SHEET MISCELLANEOUS CURB DETAILS FOR CURB BOX JOINTS.
5. USE WITH CURB BOXES, CM1, CM2, AND CM3.

EFFECTIVE DATE: 01/08/09

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

CONCRETE CURB, CURB AND GUTTER, AND HOT MIX ASPHALT CURB

APPROVED SEPTEMBER 19, 2008
/S/ DANIEL D'ANGELO, P.E.
DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 08-036

609-03

STANDARD SHEETS (USC), January 01, 2020

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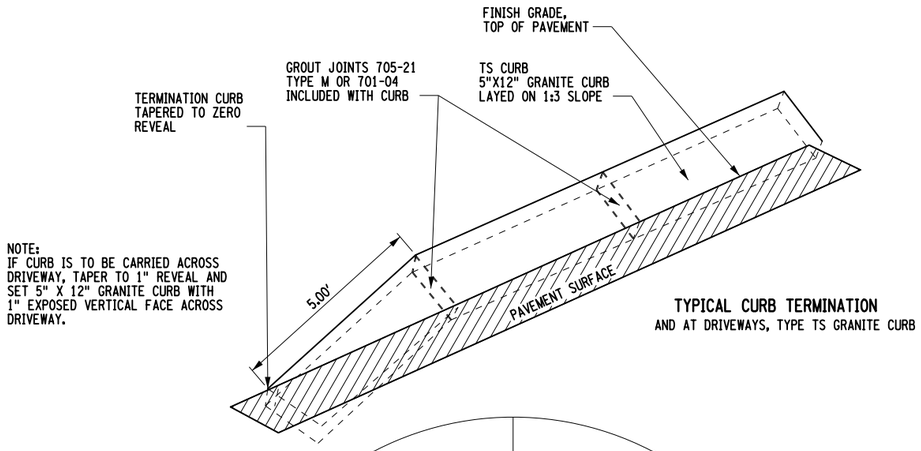
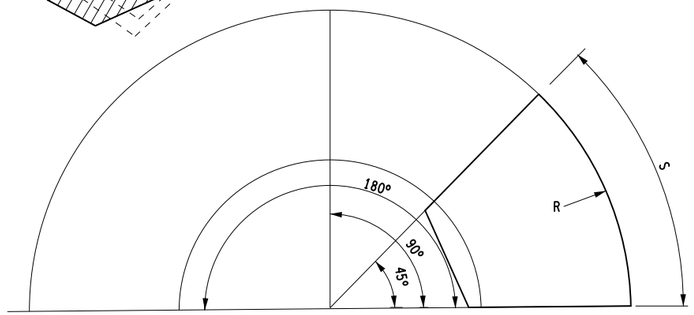
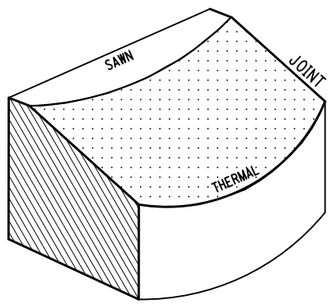
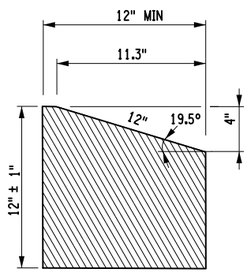


NOTE:
IF CURB IS TO BE CARRIED ACROSS DRIVEWAY, TAPER TO 1" REVEAL AND SET 5" X 12" GRANITE CURB WITH 1" EXPOSED VERTICAL FACE ACROSS DRIVEWAY.

TYPICAL CURB TERMINATION
AND AT DRIVEWAYS, TYPE TS GRANITE CURB

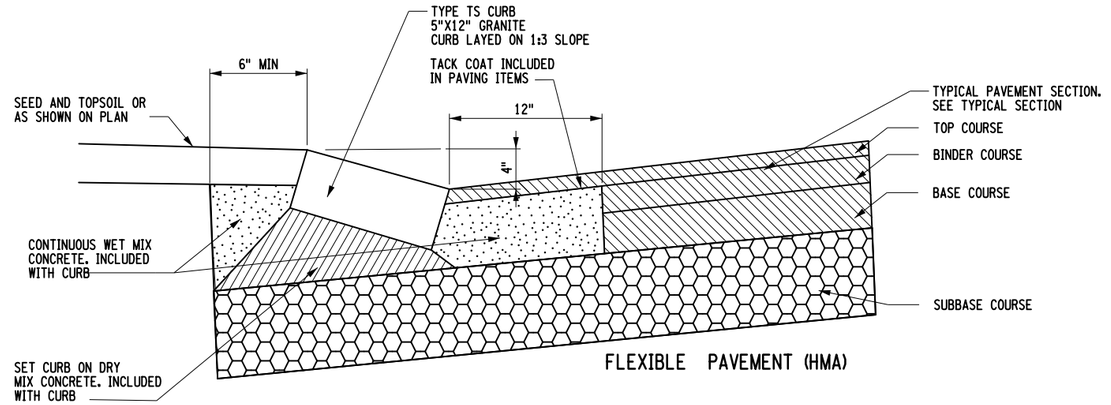




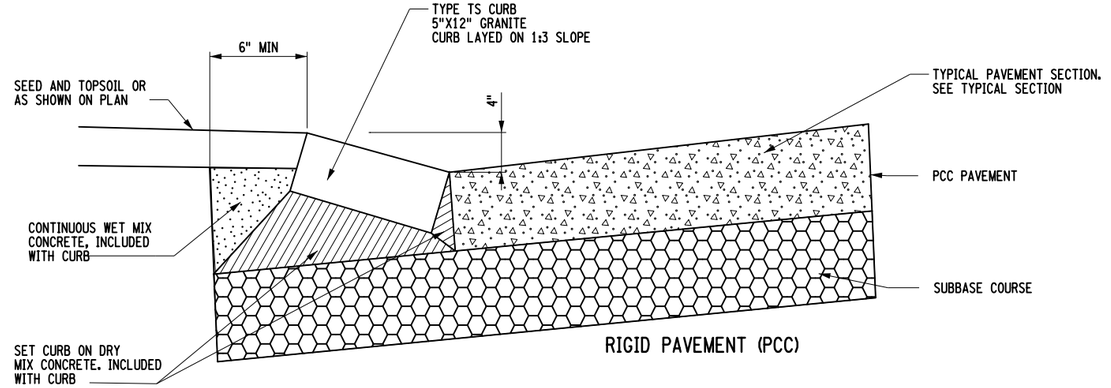


BULLNOSE DETAIL

RADIUS R (ft)	BULLNOSE (BN)	ARC LENGTH S (ft)
<1	BN	VARIES
1	½ BN	1.57
1.5	½ BN	2.36
2	¼ BN	1.57
3	¼ BN	2.36
4	¼ BN	3.14
5	¼ BN	3.93
6	¼ BN	4.71
7	¼ BN	5.50
8	¼ BN	6.28



FLEXIBLE PAVEMENT (HMA)



RIGID PAVEMENT (PCC)

CURB LENGTHS PER RADII

RADII (R)	LENGTH (L)
FEET.	FEET.
100	10
90	9
80	8
70	7
60	6
50	5
40	4
35	3.5
30	3
25	2.5
20	2
15	1.5
10-8	1

NOTE:
GRANITE SLOPED CURB LENGTH END JOINTS SHALL BE CUT AT APPROPRIATE ANGLES TO ACCOMODATE CORRECT FIT WITH PARALLEL JOINTS. JOINTS SHALL BE 1/4" TO 3/4" WIDE.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

GRANITE SLOPED CURB DETAILS TYPE TS

APPROVED: JUNE 14, 2013
/S/ RICHARD W. LEE, P.E.
ACTING DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 13-007

609-04

EFFECTIVE DATE: 01/09/14

STANDARD SHEETS (USC), January 01, 2020
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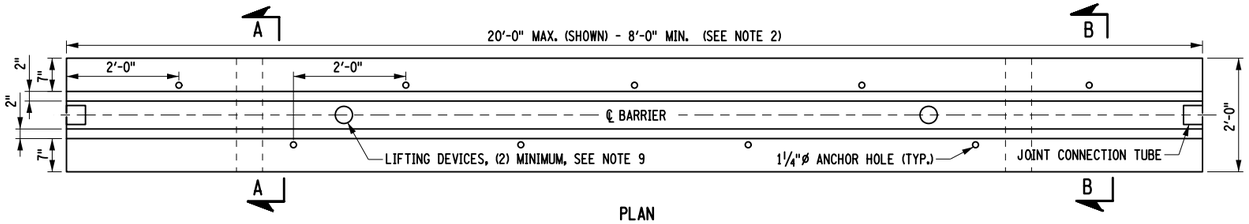
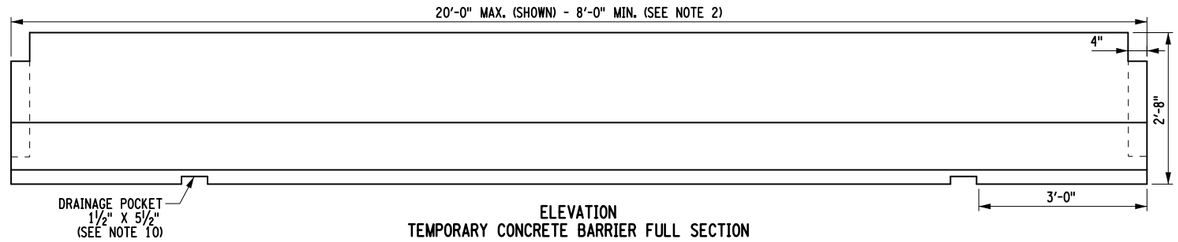
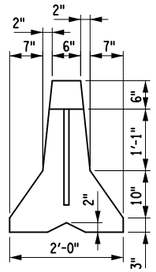


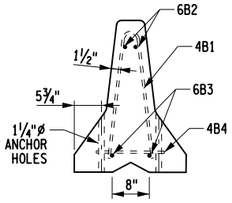
PLAN



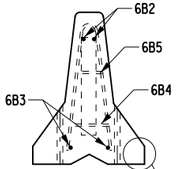
ELEVATION
TEMPORARY CONCRETE BARRIER FULL SECTION



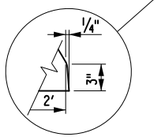
END VIEW



SECTION A-A



SECTION B-B

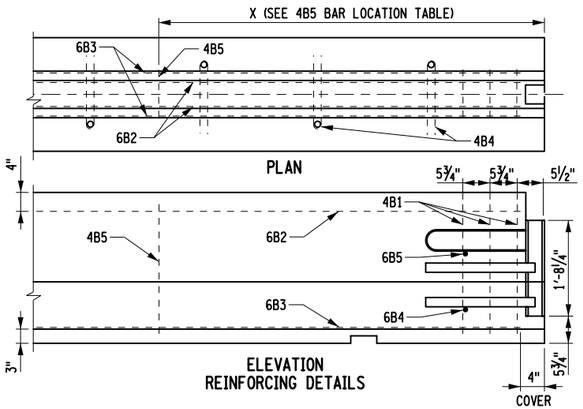


OPTIONAL BATTERED BOTTOM
CORNER DETAIL

NOTES:

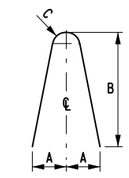
1. TEMPORARY CONCRETE BARRIER SHALL BE PRECAST IN ACCORDANCE WITH THE REQUIREMENTS OF §704-05 PRECAST CONCRETE BARRIER.
2. TEMPORARY CONCRETE BARRIER SHALL BE PRECAST UNITS OF ONE OF THE FOLLOWING NOMINAL LENGTHS 8', 10', 12', 14', 16', 18', 20'.
3. STEEL PLATE REINFORCEMENT SHALL BE ASTM A36M, A572M, GRADE 345 STEEL, TUBE REINFORCEMENT SHALL BE ASTM A500, GRADE B OR C, AND REINFORCING BARS SHALL BE A615, GRADE 420. EPOXY BARS ARE NOT REQUIRED.
4. ALL WELDING SHALL BE PERFORMED BY A WELDER QUALIFIED IN ACCORDANCE WITH SECTION 8 OF THE NYS STEEL CONSTRUCTION MANUAL.
5. SURFACES TO BE WELDED SHALL BE FREE OF SLAG, RUST, MOISTURE, GREASE OR ANY OTHER MATERIAL THAT WILL PREVENT PROPER WELDING OR PRODUCE OBJECTIONABLE FUMES.
6. WELDING SHALL BE SHIELDED METAL ARC WELDING USING PROPERLY DRIED 5/32" E7018 ELECTRODES CONFORMING TO THE REQUIREMENTS OF SECTION 7 OF THE NYS STEEL CONSTRUCTION MANUAL.
7. THE LENGTH OF THE 6B2 AND 6B3 BARS WILL VARY WITH THE LENGTH OF THE BARRIER SEGMENT.
8. CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 1½" (MIN.) UNLESS OTHERWISE SPECIFIED.
9. A MINIMUM OF (2) TWO RECESSED LIFTING DEVICES, EACH WITH THE CAPACITY TO LIFT A MASS OF 6 TONS (MINIMUM), SHALL BE INSTALLED ON EACH SEGMENT. SEGMENT MASS IS APPROXIMATELY 400 LBS/FT.
10. ONE DRAINAGE POCKET SHALL BE INCLUDED IN THE CENTER OF 8'-0" AND 10'-0" SEGMENTS, TWO DRAINAGE POCKETS IN ALL OTHER SEGMENTS.
11. CONNECTION KEY COVER PLATE SHALL BE INSTALLED FLUSH WITH THE BARRIER TOP.
12. 1"ø ASTM A36M ANCHOR PINS SHALL BE PLACED IN FOUR ANCHOR HOLES OF EACH SEGMENT TO BE PINNED. PINS SHALL BE PLACED ON THE WORKZONE SIDE OF THE BARRIER.
13. BASED ON SEGMENT LENGTH AND MAXIMUM JOINT ROTATION, TEMPORARY CONCRETE BARRIER CANNOT BE INSTALLED ON RADII TIGHTER THAN THE FOLLOWING MINIMUMS: 8' - 92', 10' - 115', 12' - 138', 14' - 161', 16' - 184', 18' - 207', 20' - 230'.

FULL SECTION BAR LIST								
MARK	SIZE	NUMBER PER SECTION	LENGTH	TYPE	A	B	C	LOCATION
4B1	4	6	4'-11"	I	5"	28"	1"	STIRRUPS
4B4	4	1 PER RECESS	3'-1"	II	4"	15½"		ANCHOR RECESS HOOPS
4B5	4	SEE TABLE	4'-11"	I	5"	28"	1"	STIRRUPS
6B2	6	2	SEE NOTE 7	STR.				LONGITUDINAL (TOP)
6B3	6	2	SEE NOTE 7	STR.				LONGITUDINAL (BOTTOM)
6B4	6	2	1'-2"	STR.				TRANSVERSE (BOTTOM)
6B5	6	2	6"	STR.				TRANSVERSE (TOP)

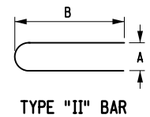


ELEVATION
REINFORCING DETAILS

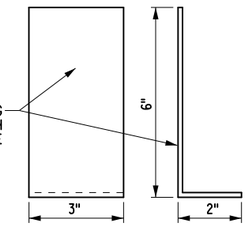
4B5 BAR LOCATION TABLE		
NOMINAL LENGTH OF BARRIER UNIT	X	NO. EACH SECTION
20'	6'-11"	2
18'	6'-5"	2
16'	5'-11"	2
14'	7'	1
12'	6'	1
10'	5'	1
8'	N/A	0
"X" DISTANCE FROM END OF BARRIER TO 4B5 BAR		



TYPE "I" BAR



TYPE "II" BAR



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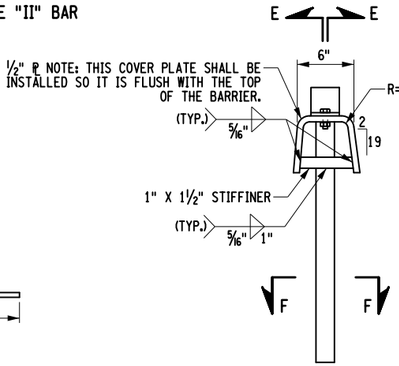
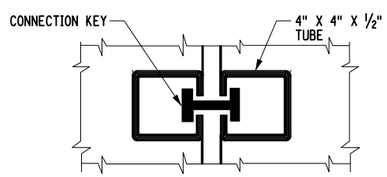
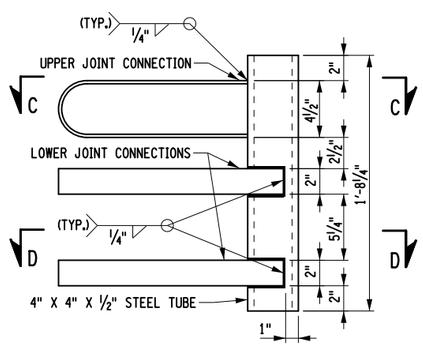


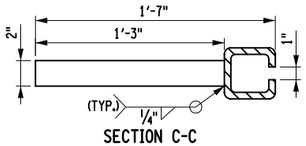
END VIEW SECTION E-E SECTION F-F



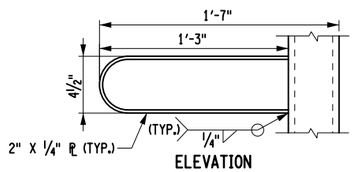
CONNECTION KEY



JOINT CONNECTION TUBE



SECTION C-C



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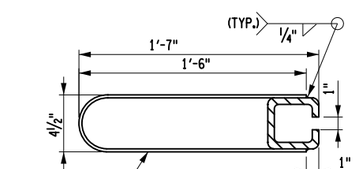
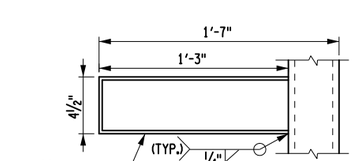
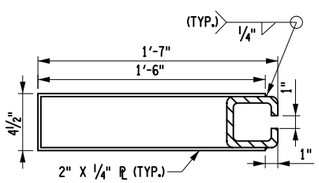


SECTION D-D
LOWER JOINT CONNECTION



ELEVATION
UPPER JOINT CONNECTION (ALTERNATE)



SECTION D-D
LOWER JOINT CONNECTION (ALTERNATE)

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

TEMPORARY CONCRETE BARRIER
(SHEET 1 OF 6)

APPROVED OCTOBER 10, 2019
/S/ SCOTT C. GEIGER, P.E.
DEPUTY CHIEF ENGINEER
(CONSTRUCTION)

ISSUED UNDER EB 19-045

619-01

STANDARD SHEETS (USC), January 01, 2020

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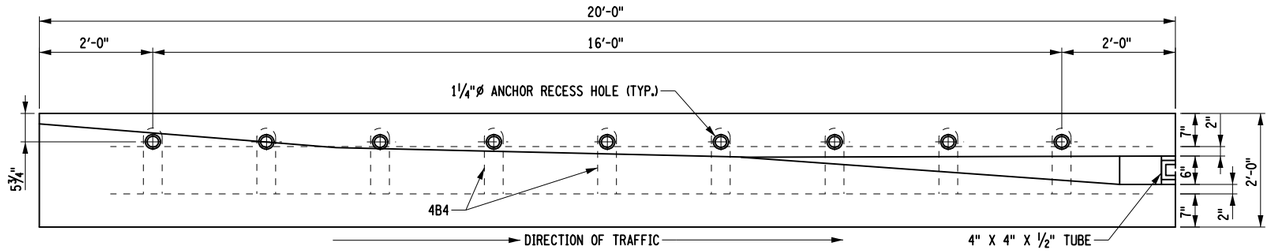

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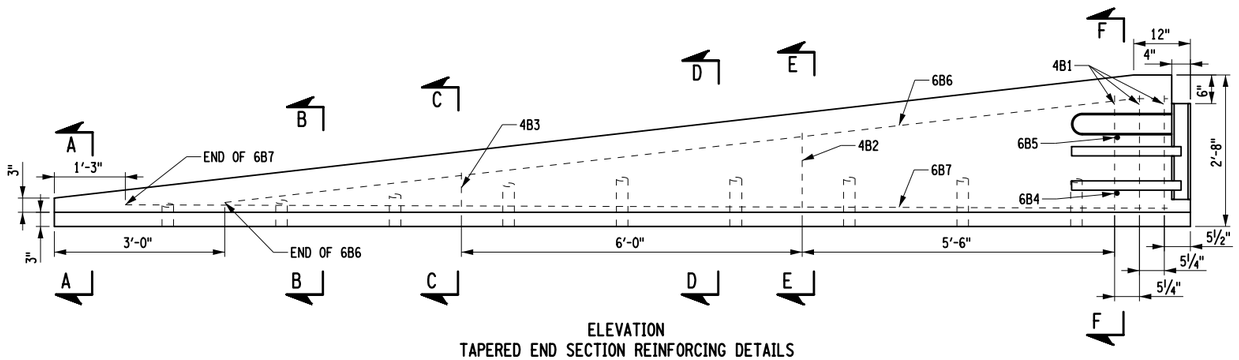
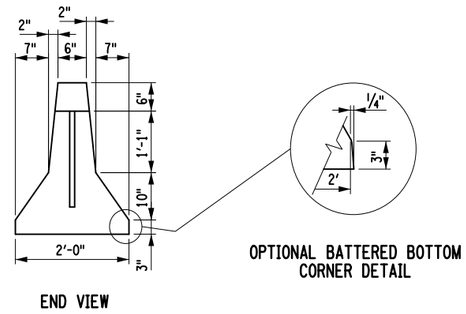


ELEVATION
TAPERED END SECTION REINFORCING DETAILS



END VIEW

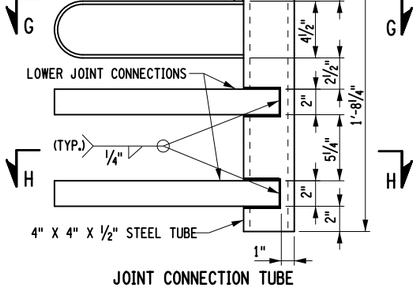
OPTIONAL BATTERED BOTTOM
CORNER DETAIL

NOTES:

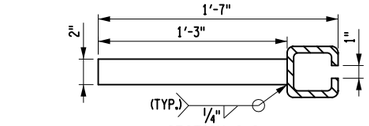
1. STEEL PLATE SHALL BE ASTM A36M, A572M, GRADE 345, TUBE STEEL SHALL BE ASTM A500 GRADE B OR C, AND REINFORCING BARS SHALL BE A615 GRADE 420.

3. ALL CORNERS ON THE TOP OF THE SEGMENT SHALL BE ROUNDED TO A 1" RADIUS. THE SEGMENT SHALL HAVE A SMOOTH TRANSITION TO A 6" END-OF-SECTION HEIGHT. ALL END SECTIONS SHALL BE PINNED UNLESS OTHERWISE NOTED.

3. THE DETAILS SHOWN FOR THE END SECTIONS ON THIS SHEET ARE FOR APPROACH ENDS WHICH ARE TO BE LOCATED TO THE LEFT OF THE TRAFFIC FLOW ON ONE-WAY OPERATIONS OR BETWEEN OPPOSING FLOWS OF TRAFFIC ON TWO-WAY OPERATIONS. WHEN AN APPROACH END IS TO BE LOCATED TO THE RIGHT OF THE TRAFFIC FLOW, THE END SEGMENT SHALL BE CONSTRUCTED SO THAT IT IS OPPOSITE-HAND (REVERSED IN ALL CONFIGURATIONS, ANCHOR HOLE LOCATIONS AND REINFORCEMENT).



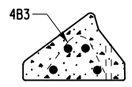
JOINT CONNECTION TUBE



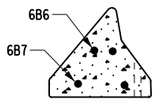
SECTION G-G

SECTION A-A

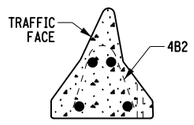
SECTION B-B



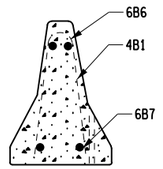
SECTION C-C



SECTION D-D

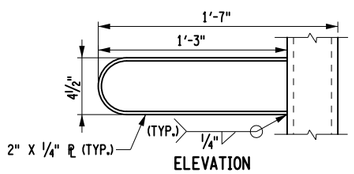


SECTION E-E

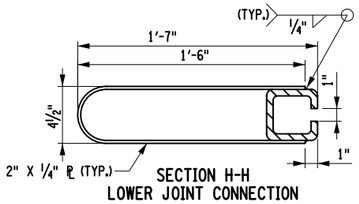


SECTION F-F

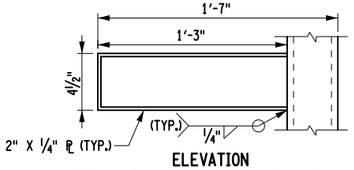
TRANSITION SECTIONS



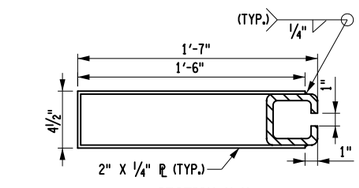
ELEVATION



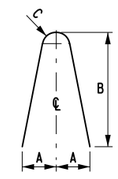
SECTION H-H
LOWER JOINT CONNECTION



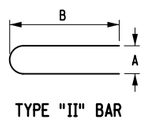
ELEVATION
UPPER JOINT CONNECTION (ALTERNATE)



SECTION H-H
LOWER JOINT CONNECTION (ALTERNATE)



TYPE "I" BAR



TYPE "II" BAR

TAPERED END SECTION BAR LIST								
MARK	SIZE	NUMBER PER SECTION	LENGTH	TYPE	A	B	C	LOCATION
4B1	13	3	4'-11"	I	5"	28"	1"	STIRRUPS
4B2	13	1	3'-3"	I	5"	18"	1"	STIRRUPS
4B3	13	1	1'-8"	I	5"	8"	1"	STIRRUPS
4B4	13	9	3'-1"	II	4"	15½"		HOOPS
6B4	19	1	1'-2"	STR.				
6B5	19	1	6"	STR.				
6B6	19	2	16'-7"	STR.				TRANSVERSE (TOP)
6B7	19	2	18'-2"	STR.				TRANSVERSE (BOTTOM)

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

TEMPORARY CONCRETE BARRIER
(SHEET 2 OF 6)

APPROVED OCTOBER 10, 2019
/S/ SCOTT C. GEIGER, P.E.
DEPUTY CHIEF ENGINEER
(CONSTRUCTION)

ISSUED UNDER EB 19-045

619-01

STANDARD SHEETS (USC), January 01, 2020

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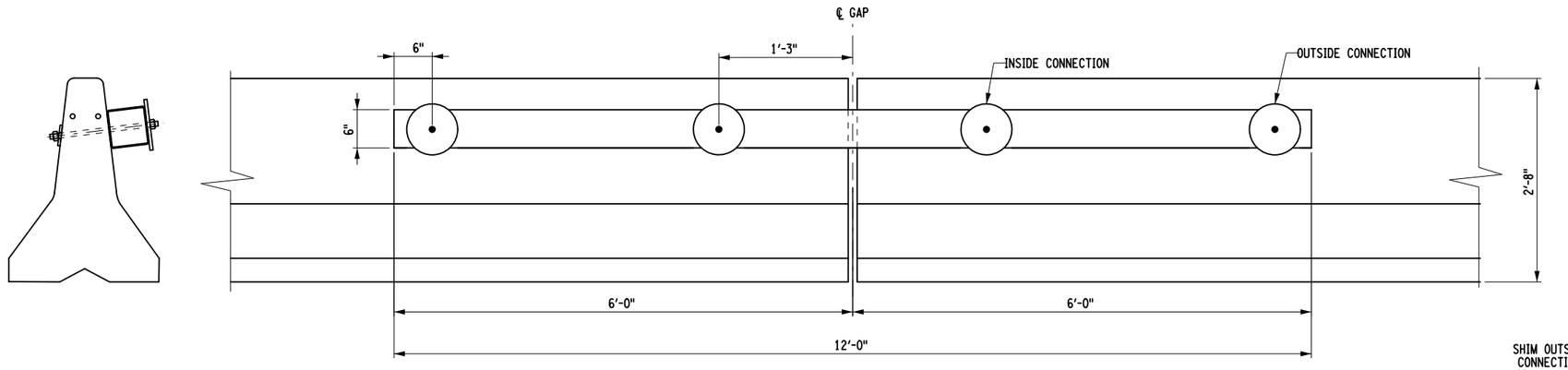
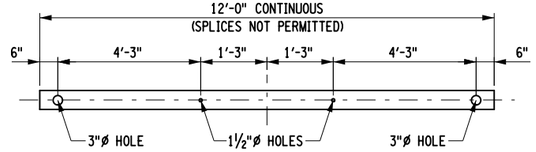
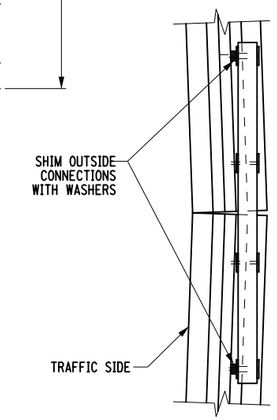


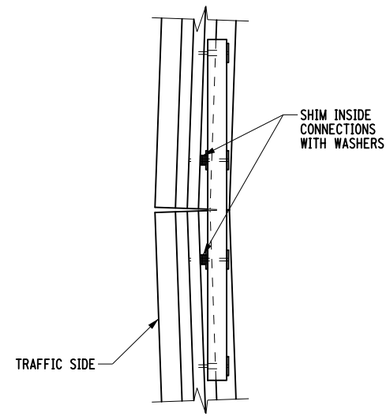
SIDE VIEW
(CONSTRUCTION SIDE)



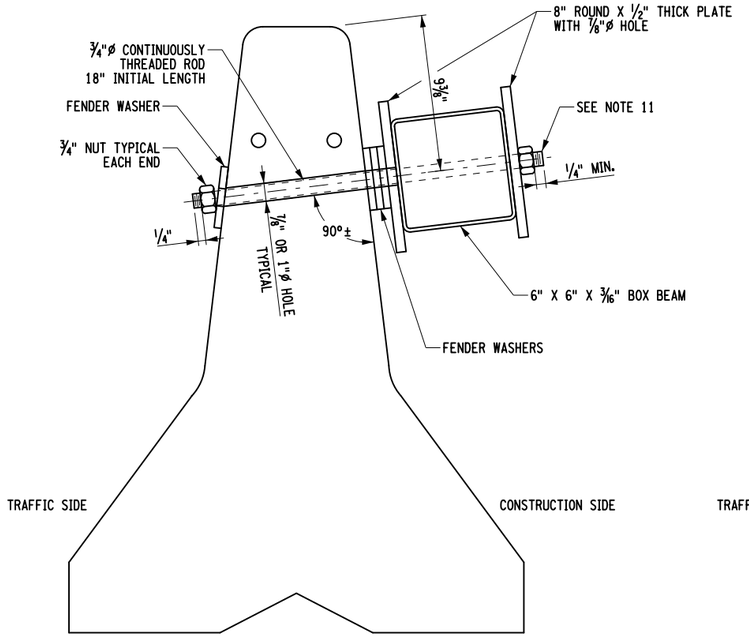
BOX BEAM GUIDE RAIL
HOLE LAYOUT DETAIL



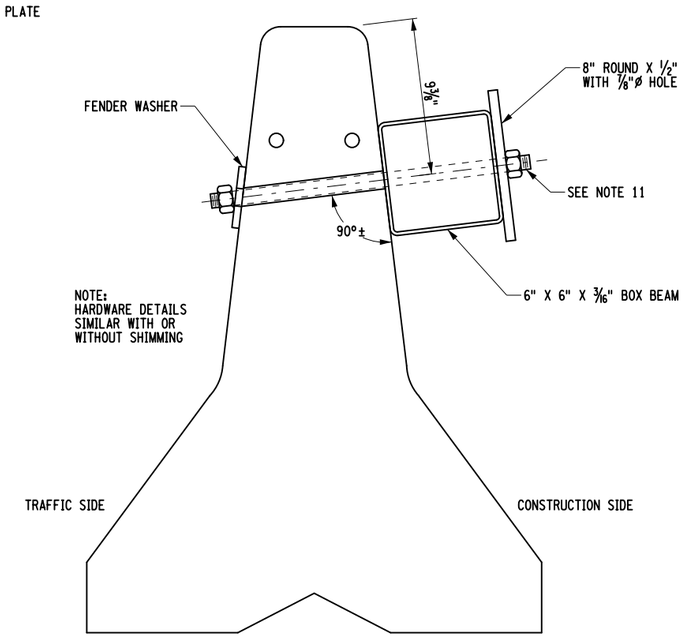
PLAN VIEW
TCB CURVING
TOWARD TRAFFIC



PLAN VIEW
TCB CURVING
AWAY FROM TRAFFIC



SECTION WITH SHIMMING



SECTION WITHOUT SHIMMING

BOX BEAM STIFFENING OF TEMPORARY CONCRETE BARRIER

NOTES:

1. TEMPORARY CONCRETE BARRIER (TCB) SHALL BE PRECAST IN ACCORDANCE WITH THE REQUIREMENTS OF § 704-05 PRECAST CONCRETE BARRIER AND STANDARD SHEET TITLED "TEMPORARY CONCRETE BARRIER - SHEET 1 OF 6" AND "TEMPORARY CONCRETE BARRIER - SHEET 2 OF 6".
2. BOX BEAM SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF §710-21, BOX BEAM RAILING AND MEDIAN BARRIER, RAILS.
   A. HOWEVER, THE BOX BEAM NEED NOT BE NEW.
   B. THE GALVANIZING REMAINING ON THE OLD PIECES SHALL BE SUFFICIENT TO ENSURE THE STEEL IS STRUCTURALLY INTACT.
3. TCB WITH BOX BEAM STIFFENER SHALL BEGIN AT LEAST 50'-0" PRIOR TO, BE CONTINUOUS THROUGH AND EXTEND AT LEAST 50'-0" BEYOND THE AREA REQUIRING LIMITED DEFLECTIONS. WHERE SPACE LIMITS SUCH EXTENSIONS, THE FIRST/LAST TCB SEGMENT SHOULD BE PINNED WITH 4 PINS ON THE CONSTRUCTION SIDE.
4. TEMPORARY CONCRETE BARRIER WITH BOX BEAM STIFFENER MAY ONLY BE USED WITH TCB SEGMENTS 14'-0" OR LONGER.
5. WHERE TEMPORARY CONCRETE BARRIERS ARE PLACED ON A RADIUS, THE RESULTING GAPS BETWEEN THE BOX BEAM AND CONCRETE BARRIER SHALL BE SHIMMED.
6. THE SHIMMING SHALL CONSIST OF 8" X 1#2" ROUND PLATE, AND FENDER WASHERS AS NEEDED TO SNUG THE BOX BEAM STIFFENER TO THE TCB.
7. FENDER WASHERS SHALL BE 3" NOMINAL O.D.
8. HARDWARE OTHER THAN THE BOX BEAM NEED NOT BE GALVANIZED.
9. THE PRESENCE OF NORMAL HOLES DRILLED PER THIS SHEET WILL NOT AFFECT THE REUSABILITY OF THE CONCRETE SEGMENTS.
10. GRIND EXPOSED EDGES OF STEEL TO REMOVE SHARP EDGES.
11. COVER THREADED ROD END WITH ¾" PLASTIC BOLT CAP ON CONSTRUCTION SIDE.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

TEMPORARY CONCRETE BARRIER (SHEET 3 OF 6)

APPROVED OCTOBER 10, 2019
/S/ SCOTT C. GEIGER, P.E.
DEPUTY CHIEF ENGINEER
(CONSTRUCTION)

ISSUED UNDER EB 19-045

619-01

STANDARD SHEETS (USC), January 01, 2020

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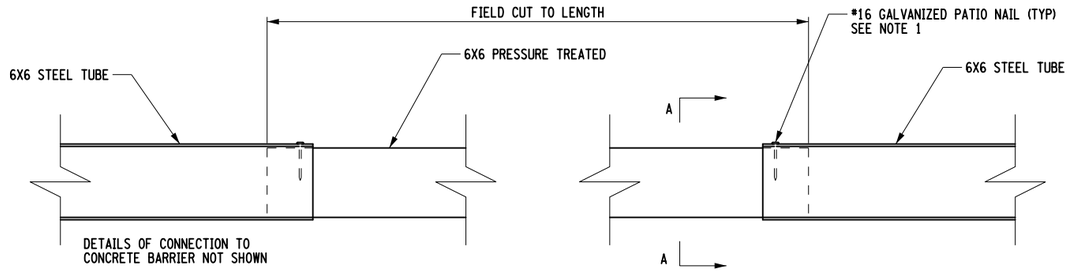
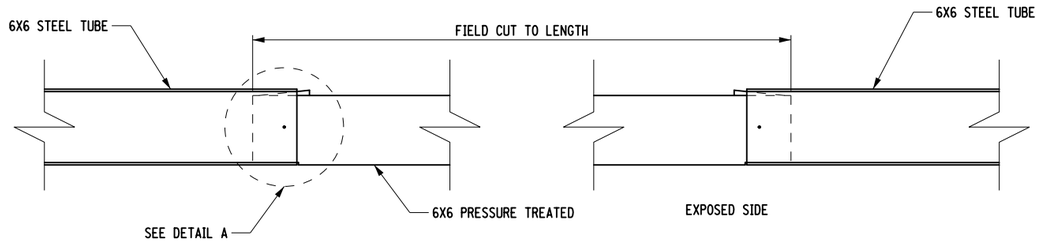
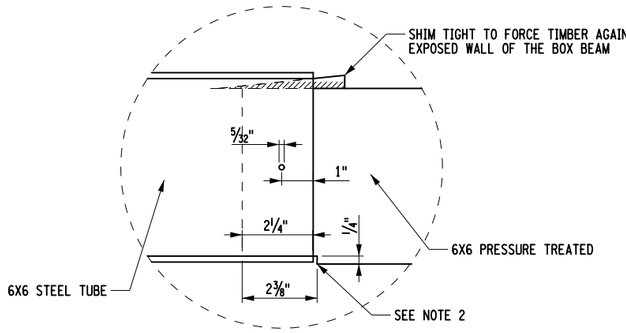


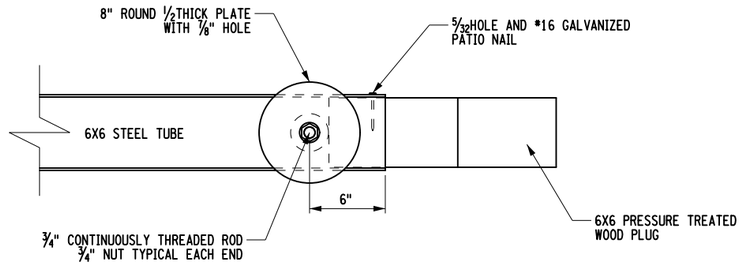
ELEVATION
CONTINUOUS BEAM OPTION



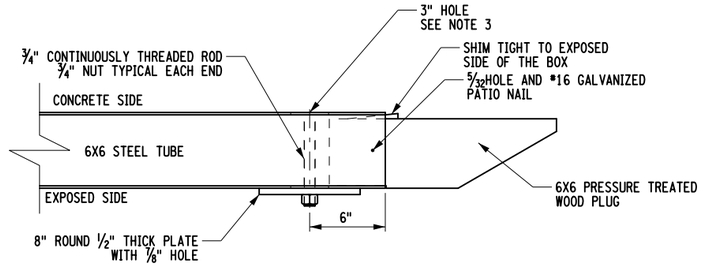
PLAN
CONTINUOUS BEAM OPTION



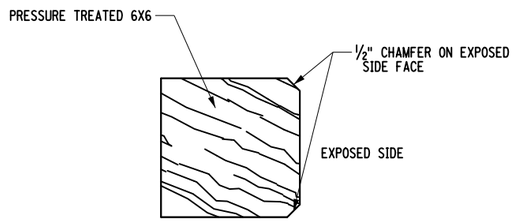
DETAIL A



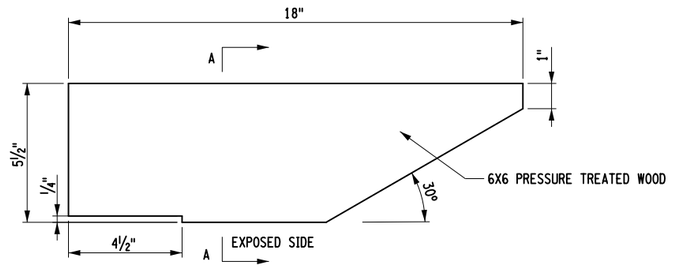
ELEVATION
PLUG OPTION



PLAN
PLUG OPTION



SECTION A-A



PLUG DETAIL

NOTES:

1. THE FOLLOWING MODIFICATIONS SHOULD BE MADE TO THE BOX-BEAM-STIFFENING DETAILS ON SHEET 3 OF 6.
   - A. THE EDGES OF THE PLATES FACING THE EXPOSED SIDE SHALL BE GROUND TO REMOVE SHARP EDGES AND BURRS.
   - B. THE ENDS OF THE RODS HOLDING THE BOX BEAM TO THE CONCRETE BARRIER SHALL BE COVERED WITH PLASTIC BOLT CAPS.
   - C. THE ENDS OF THE BOX BEAM SHALL HAVE THE EXPOSED EDGES GROUND TO ELIMINATE SHARP EDGES AND BURRS.
   - D. THE ENDS OF THE BOX BEAM SHALL BE PLUGGED WITH ONE OF THE TWO OPTIONS SHOWN ON THIS SHEET.
2. RABBET FACE 1/4" DEEP AND 2 3/8" ON EACH END OF EXPOSED SIDE.
3. FOR CONNECTION WITH THE CONCRETE BARRIER SEE STANDARD SHEET 619-01, SHEET 3 OF 6.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

TEMPORARY CONCRETE BARRIER
(SHEET 4 OF 6)

APPROVED OCTOBER 10 , 2019	ISSUED UNDER EB 19-045
/S/ SCOTT C. GEIGER, P.E. DEPUTY CHIEF ENGINEER (CONSTRUCTION)	619-01

STANDARD SHEETS (USC), January 01, 2020

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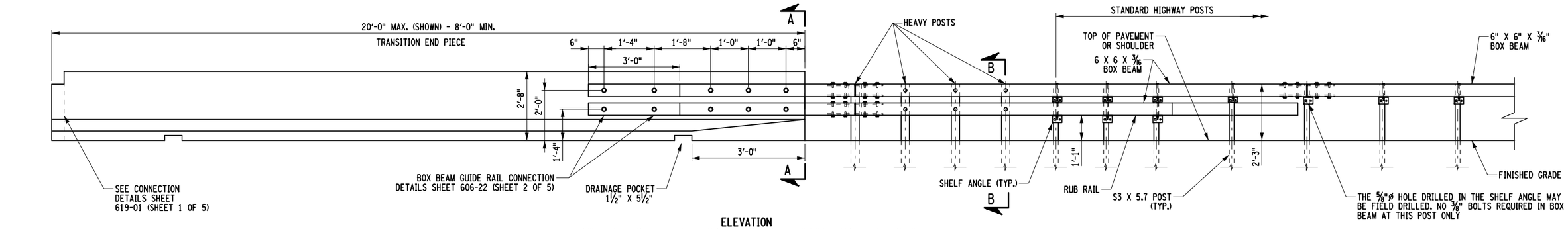
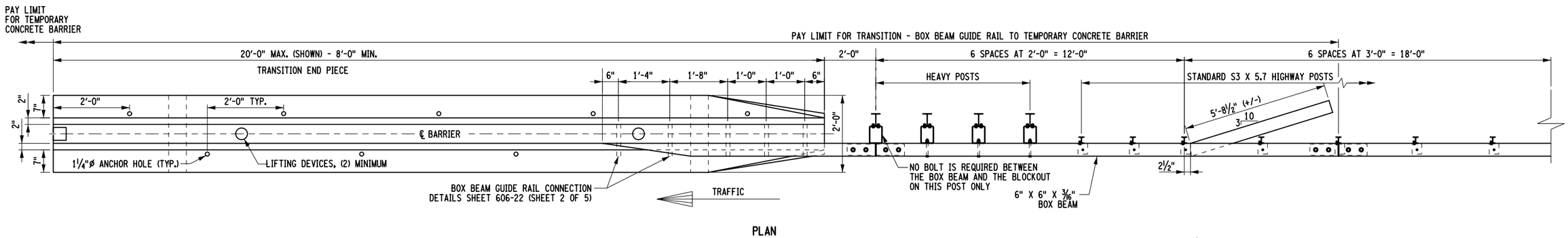
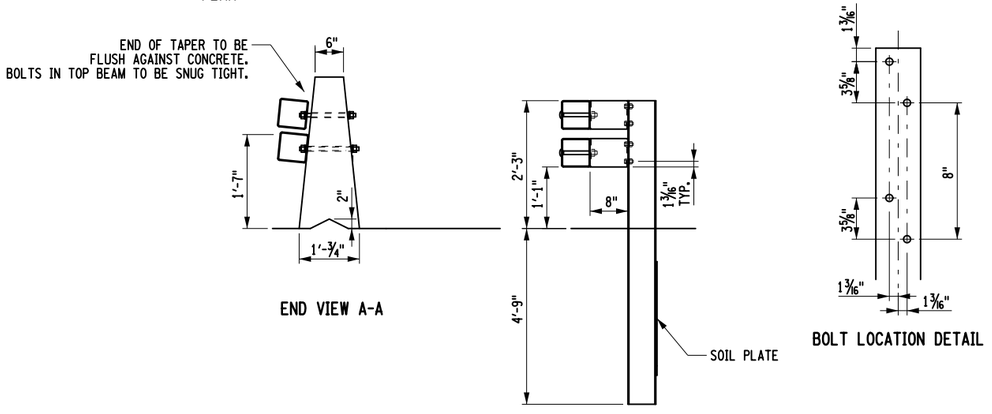


ELEVATION
BOX BEAM TO UNFLARED TCB TRANSITION (LEADING END) - OPTION A



PLAN



END VIEW A-A

SECTION B-B
SEE 606-22 FOR BLOCKOUT AND POST DETAILS

BOLT LOCATION DETAIL

NOTES:

1. THE DETAILS SHOWN ON THIS SHEET REPRESENT AN ACCEPTABLE MEANS OF TRANSITIONING FROM BOX BEAM TO TEMPORARY CONCRETE BARRIER (TCB). OTHER MEANS MAY ALSO BE ACCEPTABLE IF APPROVED BY NYSDOT DESIGN ENGINEER.
2. REFER TO SHEET 619-01, (SHEET 1) FOR ADDITIONAL NOTES.
3. THE 6B2 AND 6B3 BARS SHALL BE 1'-0" SHORTER THAN THE NOMINAL LENGTH OF THE BARRIER SEGMENTS.
4. AT A MINIMUM, 1"ø ASTM A36 ANCHOR PINS SHALL BE PLACED IN FOUR WORKERS-SIDE ANCHOR HOLES AT EACH END OF TCB RUN. EMBEDMENT LENGTH SHALL BE AS REQUIRED BY THE STANDARD SPECIFICATION SECTION 619.
5. RAILS THROUGH SECTION B-B MAY NOT BE RE-USED IN REGULAR RUNS.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

TEMPORARY CONCRETE BARRIER
(SHEET 5 OF 6)
TRANSITION FROM BOX BEAM - OPTION A

APPROVED OCTOBER 10, 2019
/S/ SCOTT C. GEIGER, P.E.
DEPUTY CHIEF ENGINEER (CONSTRUCTION)

ISSUED UNDER EB 19-045
619-01

STANDARD SHEETS (USC), January 01, 2020

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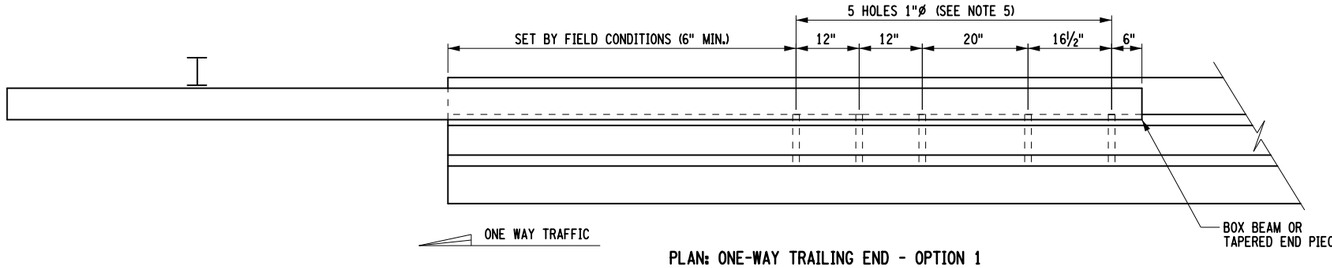
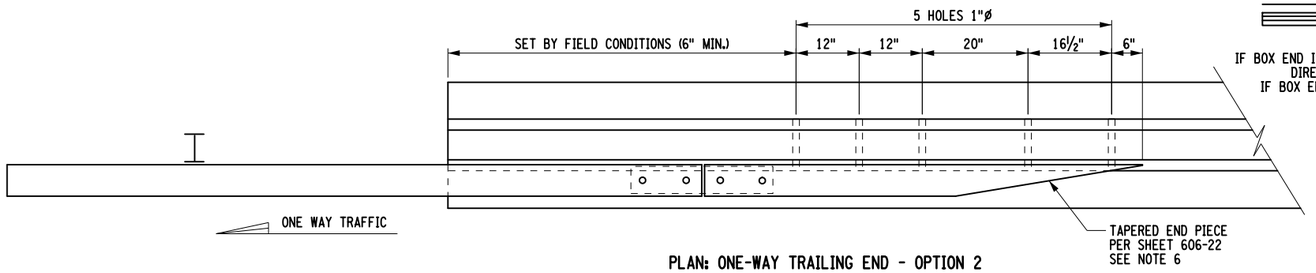
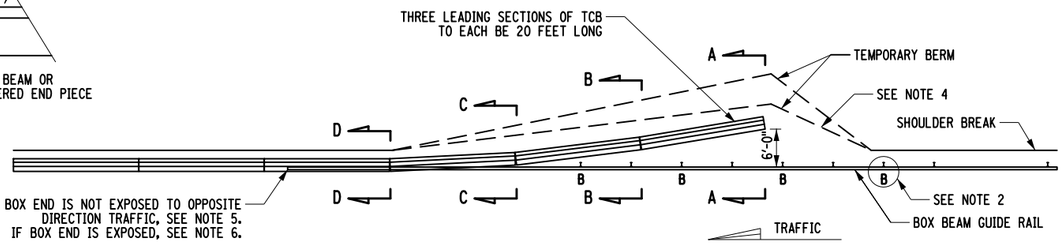


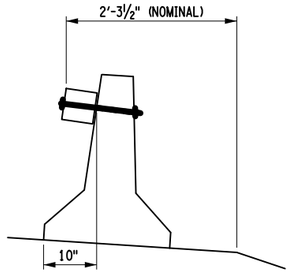
PLAN: ONE-WAY TRAILING END - OPTION 1
TEMPORARY CONCRETE BARRIER BACK TO BOX BEAM TRANSITION



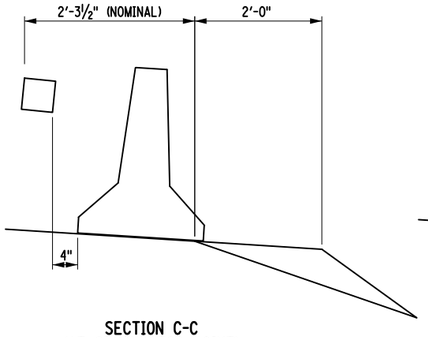
PLAN: ONE-WAY TRAILING END - OPTION 2
TEMPORARY CONCRETE BARRIER FACE TO BOX BEAM TRANSITION



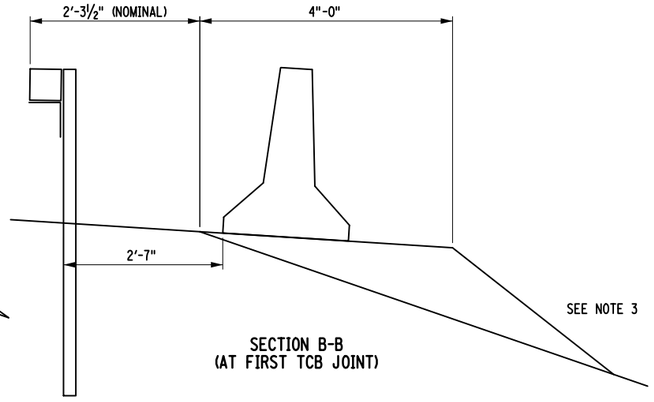
BOX BEAM TO FLARED TCB TRANSITION (LEADING END) - OPTION B
PLAN



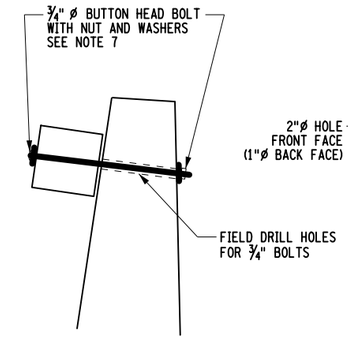
SECTION D-D
(AT THIRD TCB JOINT)



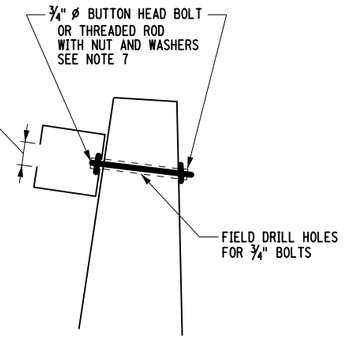
SECTION C-C
(AT SECOND TCB JOINT)



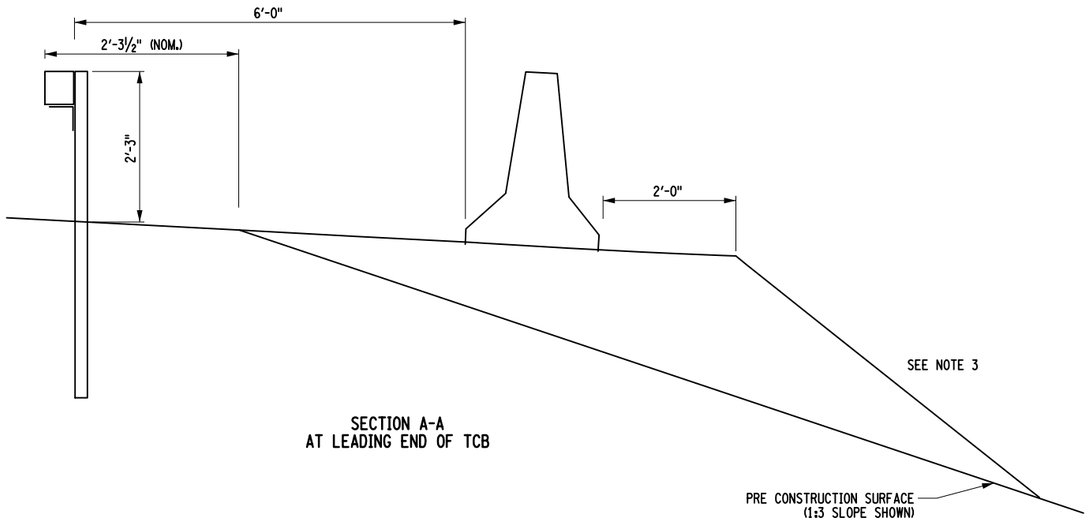
SECTION B-B
(AT FIRST TCB JOINT)



BOLTING OPTION A



BOLTING OPTION B



SECTION A-A
AT LEADING END OF TCB

NOTES:

1. THE DETAILS SHOWN ON THIS SHEET REPRESENT ACCEPTABLE MEANS OF TRANSITIONING FROM BOX BEAM TO TEMPORARY CONCRETE BARRIER (TCB) AND BACK. OTHER MEANS MAY ALSO BE ACCEPTABLE, IF APPROVED BY THE DESIGNER.
2. BACKUP POSTS SHALL BE ADDED AS NEEDED TO ENSURE THAT POST SPACING WITHIN 15 FEET OF THE UPSTREAM END OF THE TCB DOES NOT EXCEED 3 FEET.
3. THE BERM'S TOP SLOPE SHALL BE THE SAME AS THE SLOPE OF THE SHOULDER. THE FACE OF THE BERM SHALL BE NO STEEPER THAN A 1:2 SLOPE, UNLESS THE HEIGHT IS 3 FEET OR LESS, WHICH MAY BE PLACED AS A 1:1.5. BERM MATERIAL SHALL SATISFY 203.03 EMBANKMENT IN PLACE. ALL BERM MATERIAL SHALL BE REMOVED WHEN TCB IS REMOVED AND SLOPE SHALL BE SEEDED.
4. THE LEADING TOP EDGE OF THE BERM SHALL DIVERGE FROM THE SHOULDER BREAK ON A 1:2 OR LONGER FLARE.
5. BOX BEAM END MAY BE BOLTED TO TCB, OR MAY BE SUPPORTED ON JUST POSTS WITH A MINIMUM OVERLAP OF 80 FEET. AT UPSTREAM END OF TCB, OVERLAP SHALL EXTEND DOWNSTREAM FROM POINT OF TANGENCY. WHERE BOX BEAM RESUMES BEHIND THE TCB, OVERLAP SHALL EXTEND UPSTREAM FROM END OF TCB. SECTIONS OF BOX BEAM THAT ARE DRILLED FOR HORIZONTAL BOLTS SHALL BE REPLACED WITH INTACT SECTIONS WHEN THE TCB IS REMOVED.
6. LEADING BOX BEAM END SHALL BE FASTENED TO TCB WITH A 7'-11½" TAPERED END CONNECTION USING FIVE ¾" BOLTS AS SHOWN ON 606-22.
7. ALL-THREAD BAR WITH NUTS AND WASHERS MAY BE USED IN LIEU OF HEX BOLTS. END OF BAR ON TRAFFIC SIDE TO BE FLUSH WITH NUT.
8. AT A MINIMUM, 1" ø ASTM A36 ANCHOR PINS SHALL BE PLACED IN FOUR WORKERS-SIDE ANCHOR HOLES AT EACH END OF TCB RUN. EMBEDMENT LENGTH SHALL BE AS REQUIRED BY THE STANDARD SPECIFICATIONS (SECTION 619).

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

TEMPORARY CONCRETE BARRIER (SHEET 6 OF 6) TRANSITIONS TO AND FROM BOX BEAM

APPROVED OCTOBER 10, 2019
/S/ SCOTT C. GEIGER, P.E.
DEPUTY CHIEF ENGINEER (CONSTRUCTION)

ISSUED UNDER EB 19-045

619-01

STANDARD SHEETS (USC), January 01, 2020

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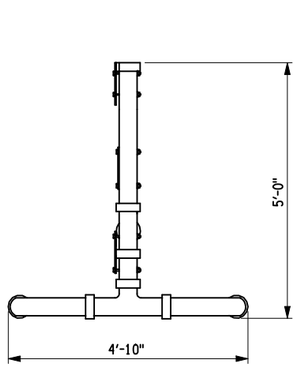

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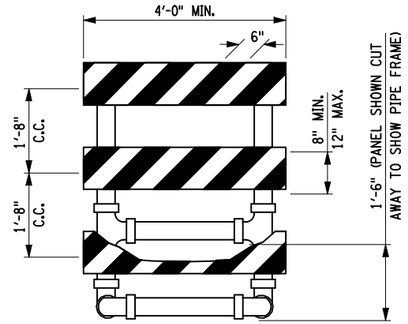

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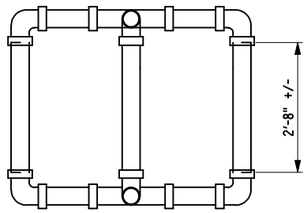
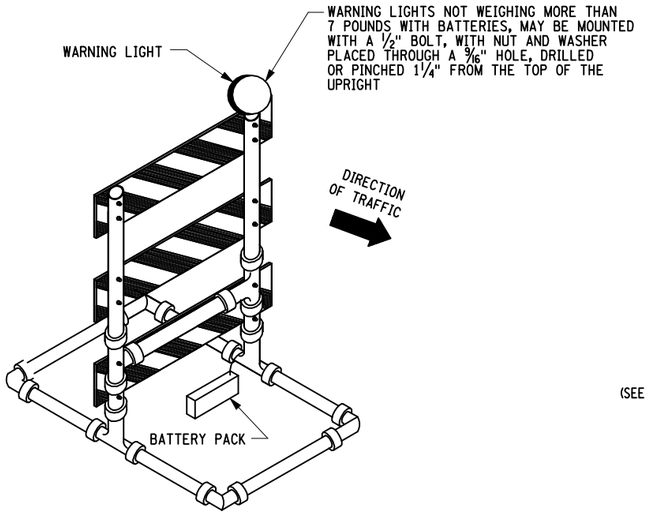


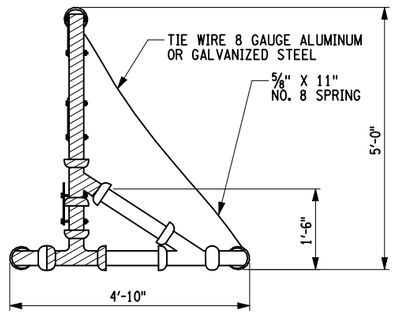
TYPE III CONSTRUCTION BARRICADE
ALTERNATE "A"

NOTES:

1. THE DETAILS AND MATERIALS FOR TYPE III CONSTRUCTION BARRICADES ARE NCHRP 350 APPROVED. IF THE CONTRACTOR ELECTS TO USE AN ALTERNATE DESIGN OR MATERIALS, THE ALTERNATIVE SHALL BE NCHRP 350 APPROVED.
2. THE ALTERNATES SHOWN ON THIS SHEET ARE EQUALLY ACCEPTABLE AND THE CONTRACTOR MAY USE ANY ONE OR A MIXTURE OF TYPES.
3. PANELS SHALL HAVE 6" WIDE REFLECTORIZED ORANGE AND WHITE DIAGONAL STRIPES OF TYPE 1 OR TYPE III SHEETING SLOPING AT AN ANGLE OF 45°, IN ACCORDANCE WITH §729-08. THE STRIPES SHALL SLOPE DOWNWARD TOWARD THE SIDE ON WHICH TRAFFIC IS TO PASS.
4. BALLAST MAY BE PLACED ON THE BASE MEMBERS OF THE BARRICADE. BALLAST SHALL NOT EXTEND INTO THE ACCESSIBLE PASSAGE WIDTH OF 5' WHERE BARRICADES ARE USED TO CHANNELIZE PEDESTRIANS.
5. PANELS FOR BARRICADES MAY BE WOOD, PLASTIC, OR ALUMINUM. PIPE FOR BARRICADES SHALL USE SDR SIZES 21 TO 32.5.
6. WHEN THE BATTERY AND LIGHT WEIGH MORE THAN 7 LBS, THE BATTERY SHALL BE MOUNTED ON THE BOTTOM OF THE BARRICADE.
7. ALL PIPES SHALL BE WHITE. WHITE FITTINGS ARE PREFERRED, BLACK MAY BE USED. ALL JOINTS IN ALTERNATE "A" SHALL BE GLUED WITH A SOLVENT CEMENT COMPATIBLE WITH THE P.V.C. PIPE.
8. ALL JOINTS IN ALTERNATE "B" SHALL BE FREE TO SEPARATE UPON VEHICLE IMPACT. SHADED PIPES AND FITTINGS SHALL BE TIED TOGETHER WITH A MINIMUM 3/16" DIA. NYLON, OR EQUIVALENT ROPE THREADED INTO THE PIPE AND FITTING INTERIOR.
9. IF BARRICADES ARE USED TO TEMPORARILY CHANNELIZE PEDESTRIANS, THERE SHALL BE A CONTINUOUS DETECTABLE BOTTOM AND TOP RAILS WITH NO GAP BETWEEN INDIVIDUAL BARRICADES TO BE DETECTABLE TO BLIND OR VISUALLY IMPAIRED USERS OF LONG CANES. THE BOTTOM OF THE BOTTOM RAIL SHALL BE NO HIGHER THAN 6" ABOVE THE GROUND AND THE TOP OF THE TOP RAIL SHALL BE NO LOWER THAN 3' ABOVE THE GROUND.



DETAILS FOR FASTENING LIGHTS ON TOP OF BARRICADE



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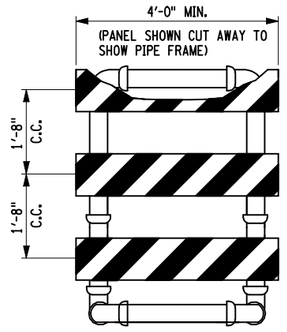

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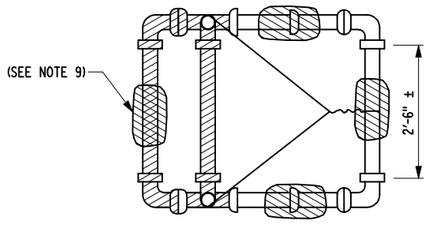

TYPE III CONSTRUCTION BARRICADE
ALTERNATE "B"

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

TYPE III CONSTRUCTION BARRICADES
(SHEET 1 OF 2)

APPROVED OCTOBER 06, 2008	ISSUED UNDER EB 08-036
/S/ J. F. TYNAN, P.E. DEPUTY CHIEF ENGINEER (CONSTRUCTION)	619-02

EFFECTIVE DATE: 01/08/09

STANDARD SHEETS (USC), January 01, 2020

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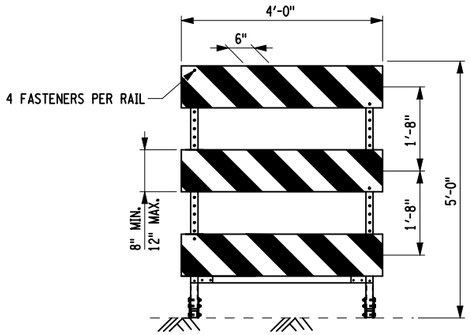

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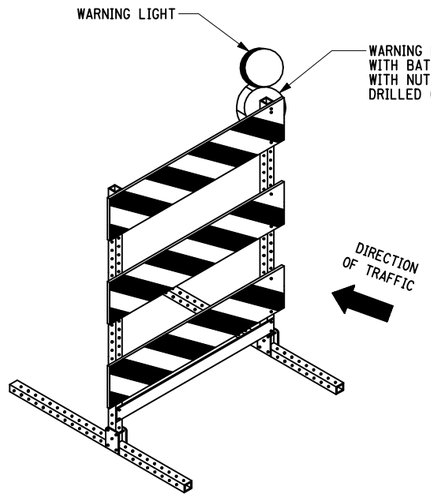


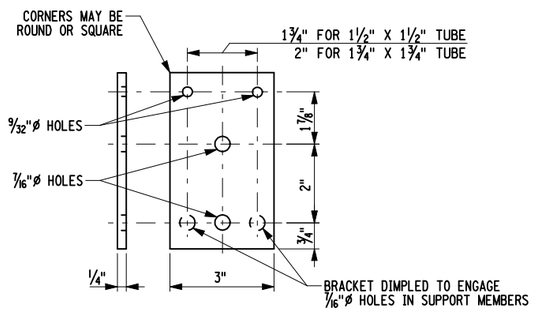
DETAIL FOR FASTENING LIGHT ON TOP OF BARRICADE

NOTES:

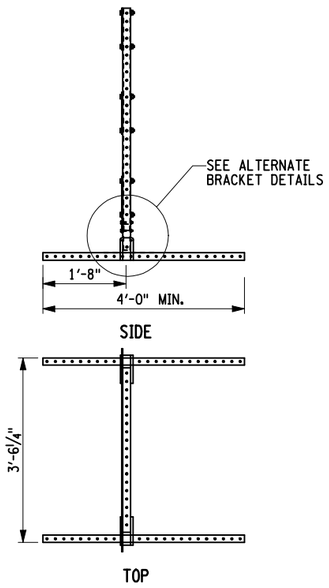
1. THE DETAILS AND MATERIALS FOR TYPE III CONSTRUCTION BARRICADES ARE NCHRP 350 APPROVED. IF THE CONTRACTOR ELECTS TO USE AN ALTERNATE DESIGN OR MATERIALS, THE ALTERNATIVE SHALL BE NCHRP 350 APPROVED.
2. THE ALTERNATES SHOWN ON THIS SHEET ARE EQUALLY ACCEPTABLE AND THE CONTRACTOR MAY USE ANY ONE OR A MIXTURE OF TYPES.
3. PANELS SHALL HAVE 6" WIDE REFLECTORIZED ORANGE AND WHITE DIAGONAL STRIPES OF TYPE I OR TYPE III SHEETING SLOPING AT AN ANGLE OF 45°, IN ACCORDANCE WITH §729-08. THE STRIPES SHALL SLOPE DOWNWARD TOWARD THE SIDE ON WHICH TRAFFIC IS TO PASS.
4. BALLAST MAY BE PLACED ON THE BASE MEMBERS OF THE BARRICADE. BALLAST SHALL NOT EXTEND INTO THE ACCESSIBLE PASSAGE WIDTH OF 5' WHERE BARRICADES ARE USED TO CHANNELIZE PEDESTRIANS.
5. PANELS FOR BARRICADES MAY BE WOOD, PLASTIC, OR ALUMINUM.
6. WHEN THE BATTERY AND LIGHT WEIGH MORE THAN 7 LBS, THE BATTERY SHALL BE MOUNTED AT THE BOTTOM OF THE BARRICADE.
7. ALTERNATE "M" BARRICADES SHALL BE EXTENDED WITH INTERNAL SPLICE MEMBERS. THE INTERNAL SPLICE MEMBERS SHALL BE ONE 1 FOOT LENGTHS OF SQUARE STEEL TUBING INSERTED 6" INTO EACH UPRIGHT. THE EXTENSION SHALL THEN BE PLACED OVER THE TOP OF THE INTERNAL SPLICE MEMBER. THE EXTENSION AND INTERNAL SPLICE MEMBER SHALL BE HELD IN PLACE WITH 3/8" BOLTS WITH NUTS AND WASHERS PLACED 4"(±1") ABOVE AND BELOW THE JOINT FORMED BY THE EXTENSION. THE INTERNAL SPLICE MEMBERS SHALL BE ONE OF THE FOLLOWING SIZES DEPENDING UPON THE TUBING USED TO FABRICATE THE BARRICADE. GAUGES FOR SQUARE TUBES SHALL BE UNITED STATES STANDARD GAUGE.

BARRICADE MEMBERS	INTERNAL SPLICE MEMBERS
12 GAUGE 1 3/4" X 1 3/4"	12 GAUGE 1 1/2" X 1 1/2"
14 GAUGE 1 3/4" X 1 3/4"	14 GAUGE 1 1/2" X 1 1/2"
12 GAUGE 1 1/2" X 1 1/2"	12 GAUGE 1 1/4" X 1 1/4"

8. IF BARRICADES ARE USE TO TEMPORALLY CHANNELIZE PEDESTRIANS, THERE SHALL BE CONTINUOUS DETECTABLE BOTTOM AND TOP RAILS WITH NO GAP BETWEEN INDIVIDUAL BARRICADES, TO BE DETECTABLE TO BLIND OR VISUALLY IMPAIRED USERS OF LONG CANES. THE BOTTOM OF THE BOTTOM RAIL SHALL BE NO LOWER THAN 6" ABOVE THE GROUND SURFACE. THE TOP OF THE TOP RAIL SHALL BE NO LOWER THAN 3' ABOVE THE GROUND SURFACE.



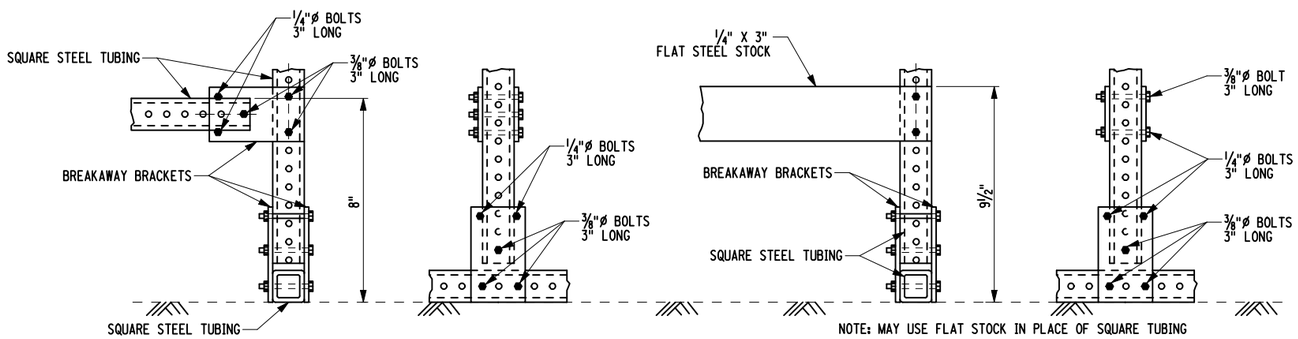
BRACKET DETAIL



SIDE

TOP

TYPE III CONSTRUCTION BARRICADE ALTERNATE "M"



ALTERNATE BRACKET DETAIL

NOTE: SQUARE STEEL TUBING SHALL MEET ONE OF THE FOLLOWING MATERIAL REQUIREMENTS:

12 GAUGE 1 3/4" X 1 3/4", ASTM A653
12 GAUGE 1 1/2" X 1 1/2", ASTM A653
14 GAUGE 1 3/4" X 1 3/4", ASTM A1011
ALL BOLTS ARE A325 OR EQUIVALENT BOLTS

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

TYPE III CONSTRUCTION BARRICADES
(SHEET 2 OF 2)

APPROVED OCTOBER 06, 2008
/S/ J. F. TYNAN, P.E.
DEPUTY CHIEF ENGINEER (CONSTRUCTION)

ISSUED UNDER EB 08-036
619-02

EFFECTIVE DATE: 01/08/09

STANDARD SHEETS (USC), January 01, 2020

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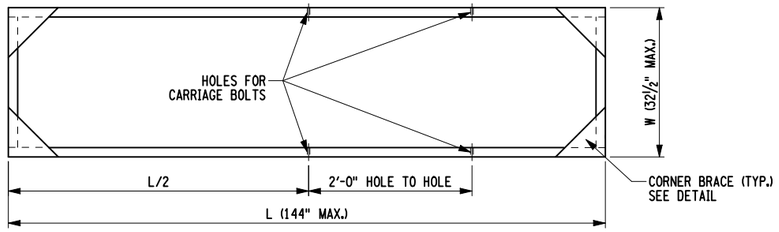
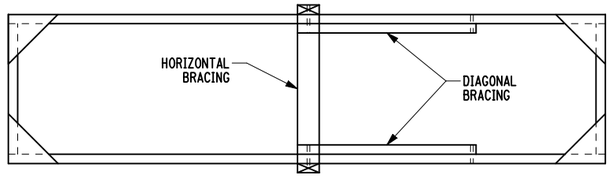
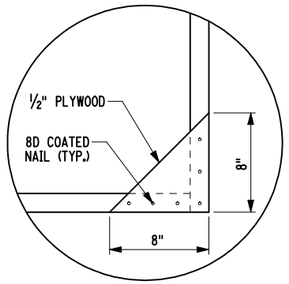


BOTTOM FRAME
TOP VIEW



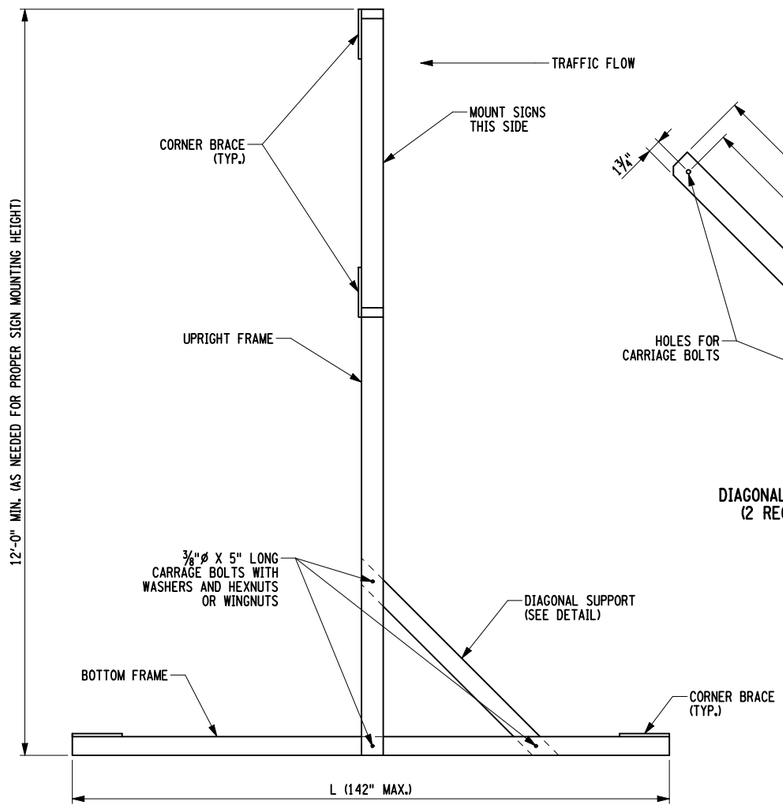
TEMPORARY WOODEN SIGN STAND
TOP VIEW



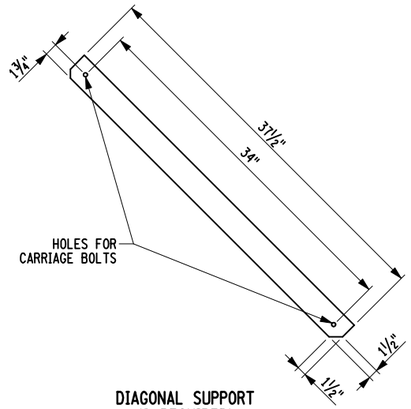
CORNER BRACE DETAIL
(TO BE USED ON UPRIGHT AND BOTTOM FRAMES)

NOTES:

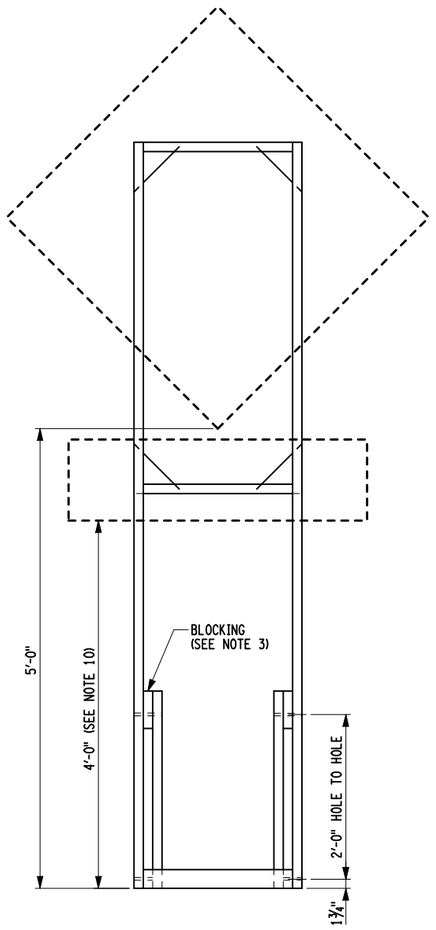
1. ALL LUMBER SHALL BE 2 X 4 DIMENSIONAL LUMBER. CONNECT FRAME MEMBERS WITH 2 EACH 12D COATED NAILS.
2. ALL HOLES SHALL BE DRILLED IN CENTERLINE OF FRAME MEMBERS AND DIAGONAL BRACES.
3. 6" BLOCK SPACER MAY BE USED BETWEEN DIAGONAL BRACE AND VERTICAL SUPPORT.
4. CONNECT FRAME CORNER BRACES TO FRAME MEMBERS WITH 6 EACH - 8D COATED NAILS. (3 NAILS INTO EACH FRAME MEMBER).
5. UPRIGHT FRAME MOUNTS ON THE OUTSIDE OF THE BOTTOM FRAME.
6. PAINT SIGN SUPPORT WITH 2 COATS OF WHITE PAINT.
7. DIAGONAL SUPPORTS MOUNT INSIDE BOTH UPRIGHT AND BOTTOM FRAMES. ALL UPRIGHT DIAGONAL BRACING SHALL BE SLOPED SUCH THAT BRACING COLLAPSES DOWNWARD UPON IMPACT BY A VEHICLE.
8. A SINGLE LAYER OF BALLAST PLACED ON THE BOTTOM FRAME MAY BE USED TO PREVENT SIGNS FROM TIPPING OVER FROM WIND AND VEHICLE GUSTS.
9. NO HORIZONTAL BRACING ALLOWED BETWEEN 2' AND 5' ON UPRIGHT VERTICALS, MEASURED FROM THE BOTTOM OF THE SKID BASE.
10. 5' MINIMUM SIGN MOUNTING HEIGHT, MEASURED FROM THE BOTTOM OF THE SKID BASE TO THE BOTTOM OF THE SIGN. VERTICAL SUPPORTS SHALL BE TALL ENOUGH TO ALLOW FOR HIGHER MOUNTING HEIGHTS FOR THOSE LOCATIONS REQUIRED BY THE MUTCD (I.E. SIDEWALKS, ROADSIDE PARKING AND EMBANKMENTS).
11. CONNECTIONS ALLOW FOR THE FOLDING, TRANSPORT AND STORAGE OF THE SUPPORT. WHEN FOLDED IN THE DOWN POSITION WITHIN THE CLEAR ZONE, THE MAXIMUM ASSEMBLY HEIGHT SHALL NOT EXCEED 4". SIMILAR NON-FOLDING SUPPORTS SHALL BE STORED OUTSIDE THE CLEAR ZONE OR BEHIND A BARRIER.
12. L = LENGTH OF BOTTOM FRAME.
    W = WIDTH OF BOTTOM FRAME.



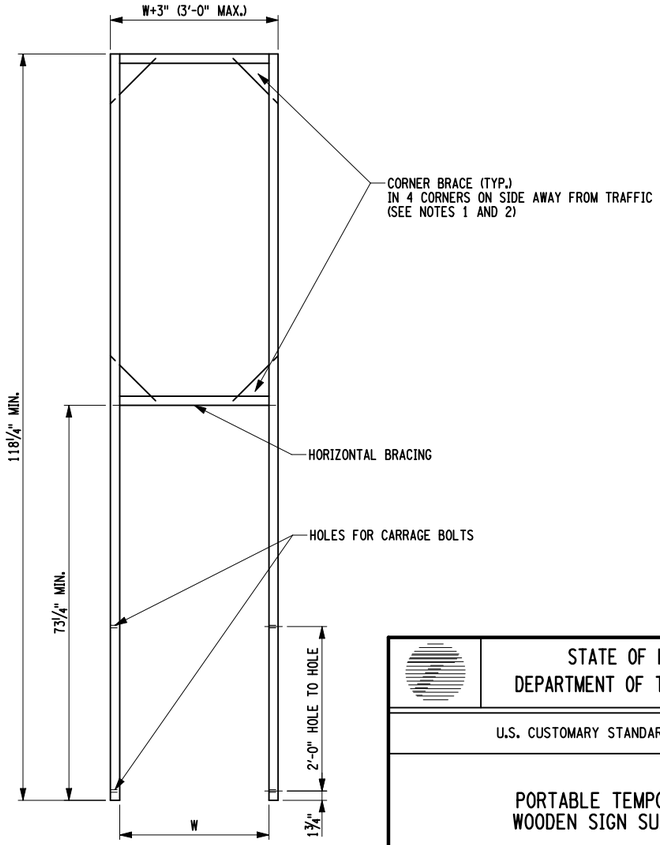
TEMPORARY WOODEN SIGN STAND
SIDE VIEW



DIAGONAL SUPPORT
(2 REQUIRED)



TEMPORARY WOODEN SIGN STAND
FRONT VIEW



UPRIGHT FRAME
FRONT VIEW

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

PORTABLE TEMPORARY
WOODEN SIGN SUPPORT

APPROVED OCTOBER 06, 2008	ISSUED UNDER EB 08-036
/S/ J. F. TYNAN, P.E. DEPUTY CHIEF ENGINEER (CONSTRUCTION)	619-04

EFFECTIVE DATE: 01/08/09

STANDARD SHEETS (USC), January 01, 2020

FILE NAME = IP_PWP:d0109553\619-04.dgn
DATE/TIME = 20-NOV-2008 14:06
USER = jturley

GENERAL NOTES

1. THE TYPICAL DETAILS DEPICTED ON THE STANDARD SHEETS AND IN THE MUTCD, REFLECT THE MINIMUM REQUIREMENTS.

2. THE CONTRACTOR MUST SUBMIT TO THE ENGINEER, IN WRITING, PROPOSED REVISIONS TO THE TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE FIVE (5) WORK DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE SCOPE OF THE TRAFFIC CONTROL PLAN. SUCH CHANGES IN SCOPE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE THIRTY (30) WORKING DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISIONS.

3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER, IN WRITING, WITH THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF STAFF WHO ARE AUTHORIZED TO SECURE LABOR, MATERIALS, AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE NORMAL WORKING HOURS. THE ENGINEER WILL PROVIDE THE SUBMITTED INFORMATION TO REGIONAL MANAGEMENT, THE NEW YORK STATE POLICE, THE RESIDENT ENGINEER, AND THE LOCAL POLICE.

ACTIVITY AREA

1. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 500' LONGITUDINAL DISTANCE BETWEEN CONSTRUCTION OPERATIONS ON ALTERNATE SIDES OF THE ROADWAY, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

2. WHEN TWO OR MORE AREAS ARE ADJACENT, OVERLAP, OR ARE IN CLOSE PROXIMITY, THE CONTRACTOR SHALL ENSURE THERE ARE NO CONFLICTING SIGNS AND THAT LANE CONTINUITY IS MAINTAINED THROUGHOUT ALL WORK AREAS.

SIGNS

1. THE LOCATIONS OF THE SIGNS SHOWN ON THE WORK ZONE TRAFFIC CONTROL PLANS AND DETAILS MAY BE ADJUSTED BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS. THE FINAL LOCATIONS OF SIGNS ARE SUBJECT TO APPROVAL OF THE ENGINEER.

2. ANY EXISTING SIGNS, INCLUDING OVERHEAD SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGN LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET, AS APPROVED BY THE ENGINEER. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THIS CONTRACT.

3. SIGNS AT OR NEAR INTERSECTIONS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT A MOTORIST'S LINE OF SIGHT.

4. ALL WARNING AND REGULATORY SIGNS SHALL BE POSTED ON BOTH SIDES OF MULTI-LANE DIVIDED HIGHWAYS, MULTI-LANE RAMPS, AND ONE-WAY STREETS. IN CASES WHERE LANE RESTRICTIONS REDUCE THE TRAVEL LANE TO ONE LANE, SIGNS SHALL BE POSTED ON THE RIGHT SIDE OF THE ACTIVE TRAVEL LANE, UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

5. SIGNS MOUNTED ON THE MEDIAN OF DIVIDED HIGHWAYS WHERE MEDIAN BARRIER IS IN PLACE MAY BE MOUNTED ON THE BARRIER WITH A SADDLE TYPE BRACKET. LAYING THE SIGN DOWN IN A HORIZONTAL POSITION IS NOT PERMITTED.

6. THE DIMENSIONS OF WORK ZONE TRAFFIC CONTROL SIGNS ARE DESCRIBED IN THE MUTCD. ANY CHANGES TO THE DIMENSIONS SHALL BE APPROVED BY THE REGIONAL DIRECTOR OR BY HIS/HER DESIGNEE.

7. NYR9-12 MAY BE USED IN PLACE OF NYR9-11.

CHANNELIZING DEVICES

1. WHERE POSSIBLE ALL CHANNELIZING AND GUIDING DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM 2' LATERAL CLEARANCE TO THE TRAVELED WAY.

PUBLIC ACCESS

1. PROPERTY OWNERS WHOSE DRIVEWAYS WILL BE MADE INACCESSIBLE SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 24 HOURS PRIOR TO RESTRICTING USE OF THE DRIVEWAY. FOR MULTIPLE ACCESS PROPERTIES, AT LEAST ONE DRIVEWAY SHALL BE OPEN AT ALL TIMES. ACCESS SHALL BE RESTORED TO ALL DRIVEWAYS AS SOON AS POSSIBLE.

2. SUITABLE RAMPS SHALL BE INSTALLED TO MAINTAIN SMOOTH TRANSITIONS FROM RESIDENTIAL AND COMMERCIAL DRIVEWAYS TO AND FROM THE WORK AREA.

LANE CLOSURES

1. THE CONTRACTOR SHALL LOCATE LANE CLOSURES TO PROVIDE OPTIMUM VISIBILITY, I.E. BEFORE CURVES AND CRESTS, TO THE EXTENT CONDITIONS PERMIT.

2. THE ENGINEER MAY REQUIRE THAT ALL LANES BE RE-OPENED AT ANY TIME IF THE ROUTE IS NEEDED FOR EMERGENCY PURPOSES. THIS COULD INCLUDE INCIDENTS AT LOCATIONS OUTSIDE THE CONTRACT LIMITS.

LANE WIDTHS

1. UNLESS AUTHORIZED BY THE ENGINEER, THE MINIMUM LANE WIDTHS FOR WORK ZONE TRAVEL LANES SHALL BE AS FOLLOWS: FREEWAYS AND/OR EXPRESSWAYS IS 11'. THE MINIMUM LANE WIDTH FOR ALL OTHER TYPES OF ROADWAYS IS 10'.

2. THE CONTRACTOR SHALL PROVIDE A WRITTEN NOTICE TO THE ENGINEER, A MINIMUM OF 21 CALENDAR DAYS IN ADVANCE OF PERFORMING ANY WORK THAT RESULTS IN THE REDUCED WIDTH OF AN EXISTING ROADWAY, SO THAT THE ENGINEER MAY NOTIFY THE REGIONAL PERMIT ENGINEER IN A TIMELY MANNER.

BARRIER/SHADOW VEHICLES

1. BARRIER AND SHADOW VEHICLES SHALL BE REQUIRED AS PER STANDARD SHEET TITLED "WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES".

2. NO WORK ACTIVITY, EQUIPMENT, VEHICLES AND/OR MATERIALS SHALL BE LOCATED BETWEEN THE BARRIER OR SHADOW VEHICLE AND THE ACTIVE WORK AREA (ROLL AHEAD DISTANCE).

3. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE A BARRIER VEHICLE IN CONJUNCTION WITH POLICE PRESENCE IN THE WORK ZONE, TO BE INCLUDED IN THE UNIT BID PRICE FOR BASIC WORK ZONE TRAFFIC CONTROL.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL GENERAL NOTES

APPROVED SEPTEMBER 18, 2008

/S/ DAVID J. CLEMENTS, P.E.
DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 08-036

619-10

EFFECTIVE DATE: 01/08/09

STANDARD SHEETS (USC), January 01, 2020
FILE NAME = IP_PWP:d0109553\619-10.dgn
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TABLE NY1-A
BARRIER VEHICLE USE REQUIREMENTS
(LONG TERM, INTERMEDIATE TERM, AND 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 PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE 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, BUT THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE6C-2) SHALL BE PROVIDED.

TABLE NY1-B
SHADOW VEHICLE USE REQUIREMENTS
(MOBILE CLOSURES)

CLOSURE TYPE	EXPOSURE CONDITION	USE REQUIREMENTS			
		FREEWAY	NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT)		
			≥ 45 MPH	35-40 MPH	≤ 30 MPH
LANE CLOSURE	WHEN ANY WORKER, VEHICLE, OR OTHER HAZARD IS EXPOSED TO TRAFFIC	REQUIRED [2,4]	REQUIRED [2,4]	REQUIRED [2,4]	REQUIRED [2,4]
SHOULDER CLOSURE	WHEN ANY WORKER, VEHICLE, OR OTHER HAZARD IS EXPOSED TO TRAFFIC	REQUIRED [2,4]	REQUIRED [2,4]	REQUIRED [2,4]	REQUIRED [2,4]

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 PAVED SHOULDER 8' 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE.

TABLE 6H-4 FORMULAS FOR DETERMINING TAPER LENGTHS

SPEED LIMIT (S) (MPH)	TAPER LENGTH (L) (FT.)
(40 MPH) OR LESS	$L = WS^2/60$
(45 MPH) OR MORE	$L = WS$

L = TAPER LENGTH
W = WIDTH OF OFFSET (FT.)
S = PRECONSTRUCTION POSTED SPEED LIMIT (MPH)

STANDARD TAPER LENGTHS

LATERAL SHIFT OF TRAFFIC FLOW PATH	TEMPORARY TRAFFIC CONTROL ZONE POSTED SPEED LIMIT									
	(25 MPH)	(30 MPH)	(35 MPH)	(40 MPH)	(45 MPH)	(50 MPH)	(55 MPH)	(60 MPH)	(65 MPH)	(70 MPH)
4	45	60	85	110	180	200	220	240	260	280
5	55	75	105	135	225	250	275	300	325	350
6	65	90	125	160	270	300	330	360	390	420
7	75	105	145	190	315	350	385	420	455	490
8	85	120	165	215	360	400	440	480	520	560
9	95	135	185	240	405	450	495	540	585	630
10	105	150	205	270	450	500	550	600	650	700
11	115	165	225	295	495	550	605	660	715	770
12	125	180	245	320	540	600	660	720	780	840

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 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.	85 FT.	165 FT.
< 45	85 FT.	165 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
> 55	230 FT.	330 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 6C-3
TAPER LENGTH FOR TEMPORARY TRAFFIC CONTROL 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 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 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	1000	1500	2640	1 MILE	½ MILE

• PRECONSTRUCTION POSTED SPEED LIMIT

URBAN: (MEETS MORE THAN 1 OF THE FOLLOWING CRITERIA) 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, 85TH PERCENTILE SPEEDS OF 45 MPH OR LESS.

RURAL: ANY AREA NOT EXHIBITING MORE THAN ONE OF THE ABOVE CHARACTERISTICS.

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

FREEWAYS/INTERSTATE: LOCAL OR INTER REGIONAL HIGH-SPEED, DIVIDED, HIGH-VOLUME FACILITIES WITH FULL OR PARTIAL CONTROL OF ACCESS.

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 FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

WORK ZONE TRAFFIC CONTROL LEGEND

SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL TRAILER OR SUPPORT
	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 WITH TRUCK MOUNTED ATTENUATOR

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES

APPROVED SEPTEMBER 18, 2008

/S/ DAVID J. CLEMENTS, P.E.
DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 08-036

619-11

EFFECTIVE DATE: 01/08/09

STANDARD SHEETS (USC), January 01, 2020

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USER = jturley

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
EXIT	E5-1	C	-------	72"X60"	72"X60"
ROAD WORK NEXT X MILES	G20-1	A	36"X18"	48"X24"	48"X24"
END ROAD WORK	G20-2	A	36"X18"	48"X24"	48"X24"
PILOT CAR FOLLOW ME	G20-4	A	36"X18"	-------	-------
WORK ZONE	G20-5aP	A	24"X18"	36"X24"	36"X24"
AHEAD X / NEXT XX	M1-1	G	1 OR 2 DIGITS 24"X24"	36"X36"	36"X36"
NEXT STATE XXX	M1-1†	G	3 DIGITS 30"X24"	45"X36"	45"X36"
X XX	M1-4	B	1 OR 2 DIGITS 24"X24"	36"X36"	36"X36"
XXX	M1-4†	B	3 DIGITS 30"X24"	45"X36"	45"X36"
NORTH	M3-1	SEE NOTE 3	24"X12"	36"X18"	36"X18"
EAST	M3-2				
SOUTH	M3-3				
WEST	M3-4				
DETOUR	M4-8	A	24"X12"	36"X18"	36"X18"
END DETOUR	M4-8a	A	24"X18"	24"X18"	24"X18"
DETOUR ← DETOUR →	M4-9 M4-9L M4-9R	A	30"X24"	48"X36"	48"X36"
DETOUR ← DETOUR →	M4-9a	A	30"X24"	30"X24"	-------
DETOUR ← DETOUR →	M4-9b	A	30"X24"	30"X24"	-------
DETOUR ← DETOUR →	M4-9c	A	30"X24"	30"X24"	-------
DETOUR	M4-10L	A	48"X18"	48"X18"	48"X18"
DETOUR	M4-10R				
↰ ↱	M5-1	SEE NOTE 3	21"X15"	30"X21"	30"X21"
↖ ↗	M5-2	SEE NOTE 3	21"X15"	30"X21"	30"X21"
← →	M6-1	SEE NOTE 3	21"X15"	30"X21"	30"X21"
↖ ↗	M6-2				
↑	M6-3				
↔	M6-4				
X XX	NYM3-1	B	24"X24"	36"X36"	36"X36"
XXX	NYM3-2	B	30"X24"	45"X36"	45"X36"
XXXA	NYM3-3	B	30"X24"	45"X36"	45"X36"

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
STATE LAW LICENSE SUSPENDED AFTER TWO WORK ZONE SPEEDING TICKETS	NYR9-11	B	24"X42"	48"X84"	48"X84"
STATE LAW FINES DOUBLED FOR SPEEDING IN WORK ZONES	NYR9-12	B	24"X36"	36"X54"	48"X72"
RUMBLE STRIPS	NYW4-17	A	36"X36"	48"X48"	48"X48"
WET PAINT	NYW8-30	A	48"X24"	48"X24"	48"X24"
STAY IN LANE	NYW8-31	A	48"X24"	48"X24"	48"X24"
DO NOT PASS	NYW8-32	A	48"X24"	48"X24"	48"X24"
LANE CLOSED	NYW8-33	A	48"X24"	48"X24"	48"X24"
STOP	R1-1	D	36"X36"	36"X36"	48"X48"
YIELD	R1-2	E	36"X36"X36"	48"X48"X48"	60"X60"X60"
SPEED LIMIT XX	R2-1	B	24"X30" OR 30"X36" (SEE NOTE 5)	36"X48"	36"X48"
END HIGHER FINES ZONE	R2-11	B	24"X30"	36"X48"	36"X48"
END WORK ZONE SPEED LIMIT	R2-12	B	24"X36"	36"X54"	36"X54"
DO NOT PASS	R4-1	B	24"X30"	36"X48"	36"X48"
	R4-7	B	24"X30"	36"X48"	36"X48"
	R4-7c NARROW	B	18"X30"	-------	-------
	R4-8	B	24"X30"	36"X48"	36"X48"
	R4-8c NARROW	B	18"X30"	-------	-------
STAY IN LANE	R4-9	B	24"X30"	36"X48"	36"X48"
DO NOT ENTER	R5-1	E	36"X36"	36"X36"	48"X48"
PEDESTRIAN CROSSWALK	R9-8	B	36"X18"	36"X18"	-------
SIDEWALK CLOSED	R9-9	B	24"X12"	24"X12"	-------
SIDEWALK CLOSED ← USE OTHER SIDE / SIDEWALK CLOSED → USE OTHER SIDE	R9-10L R9-10R	B	24"X12"	24"X12"	-------
SIDEWALK CLOSED AHEAD ← CROSS HERE / SIDEWALK CLOSED AHEAD → CROSS HERE	R9-11L R9-11R	B	24"X18"	24"X18"	-------
SIDEWALK CLOSED ← CROSS HERE / SIDEWALK CLOSED → CROSS HERE	R9-11aL R9-11aR	B	24"X12"	24"X12"	-------
STOP HERE ON RED	R10-6	B	24"X36"	24"X36"	-------
ROAD CLOSED	R11-2	B	48"X30"	48"X30"	48"X30"

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	R11-3a	B	60"X30"	60"X30"	-------
	W1-4L W1-4R	A	36"X36"	48"X48"	48"X48"
	W1-4bL W1-4bR	A	36"X36"	48"X48"	48"X48"
	W1-4cL W1-4cR	A	36"X36"	48"X48"	48"X48"
	W1-6L	A	48"X24"	60"X30"	60"X30"
	W1-6R	A			
	W1-8L	A (NO BORDER)	18"X24"	30"X36"	30"X36"
	W1-8R	A (NO BORDER)			
	W3-1	A[4]	36"X36"	48"X48"	48"X48"
	W3-2	A[4]	36"X36"	48"X48"	48"X48"
	W3-3	A[4]	36"X36"	48"X48"	48"X48"
BE PREPARED TO STOP	W3-4	A	36"X36"	48"X48"	48"X48"
SPEED LIMIT XX	W3-5	A[4]	36"X36"	48"X48"	48"X48"
	W4-1L W4-1R	A	36"X36"	48"X48"	48"X48"
	W4-2L W4-2R	A	36"X36"	48"X48"	48"X48"

ROADWAY DEFINITIONS:

CONVENTIONAL ROAD - A STREET OR HIGHWAY OTHER THAN A FREEWAY, OR EXPRESSWAY.

EXPRESSWAY - A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.

FREEWAY - A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

COLOR CODE LEGEND

CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
C	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
F	BLACK LEGEND AND BORDER ON A FLOURESCENT YELLOW GREEN BACKGROUND
G	WHITE LEGEND AND BORDER ON A BLUE AND RED BACKGROUND

NOTES:

1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
3. COLORS FOR DIRECTION PLAQUES, ADVANCE TURN ARROWS, AND DIRECTIONAL ARROWS SHALL MATCH THE ROUTE OR INTERSTATE SIGN THAT THEY SUPPLEMENT AS PER THE M.U.T.C.D.
4. MULTICOLORED SYMBOL IMPOSED ON SIGN WITH BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND.
5. FOR R2-1 SIGN LARGER DIMENSIONS SHALL BE USED WHEN SIGN FACES MULTIPLE LANES ON A CONVENTIONAL ROAD.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

SIGN TABLE
(SHEET 1 OF 2)

APPROVED APRIL 1, 2012

/S/ TODD WESTHUIS, P.E.
DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 12-010

619-12

EFFECTIVE DATE: 05/03/2012

STANDARD SHEETS (USC), January 01, 2020

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USER = rlohse

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
ROAD NARROWS	W5-1	A	36"X36"	48"X48"	48"X48"
RAMP NARROWS	W5-4	A	36"X36"	48"X48"	48"X48"
	W6-3	A	36"X36"	48"X48"	48"X48"
NEXT X MILES	W7-3aP	A	24"X18"	36"X30"	36"X30"
BUMP	W8-1	A	36"X36"	48"X48"	48"X48"
PAVEMENT ENDS	W8-3	A	36"X36"	48"X48"	48"X48"
LOOSE GRAVEL	W8-7	A	36"X36"	48"X48"	48"X48"
ROUGH ROAD	W8-8	A	36"X36"	48"X48"	48"X48"
LOW SHOULDER	W8-9	A	36"X36"	48"X48"	48"X48"
NO CENTER LINE	W8-12	A	36"X36"	-------	-------
FALLEN ROCKS	W8-14	A	36"X36"	48"X48"	48"X48"
GROOVED PAVEMENT	W8-15	A	36"X36"	48"X48"	48"X48"
	W8-17	A	36"X36"	48"X48"	48"X48"
SHOULDER DROP-OFF	W8-17p	A	24"X18"	30"X24"	30"X24"
NO SHOULDER	W8-23	A	36"X36"	48"X48"	48"X48"
STEEL PLATE ON PAVEMENT	W8-24	A	36"X36"	48"X48"	48"X48"
CENTER LANE CLOSED AHEAD	W9-3	A	36"X36"	48"X48"	48"X48"
	W11-1L W11-1R	A OR F	36"X36"	36"X36"	-------
	W11-2L W11-2R	F	36"X36"	36"X36"	-------
	W11-15L W11-15R	F	36"X36"	36"X36"	-------

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
XX MPH	W13-1P	A	24"X24"	30"X30"	30"X30"
ON RAMP	W14-3	A	36"X36"	36"X36"	36"X36"
NO PASSING ZONE	W13-4P	A	48"X48"X36"	-------	-------
SHARE THE ROAD	W16-1P	SEE NOTE 3 A OR F	18"X24"	24"X30"	-------
XXX FEET	W16-2P	A	24"X18"	30"X24"	-------
NEXT XXX FT	W16-4P	SEE NOTE 3 A OR F	30"X24"	-------	-------
	W16-5PL W16-5PR	A	24"X18"	-------	-------
	W16-7PL W16-7PR	SEE NOTE 3 A OR F	24"X12"	30"X18"	-------
AHEAD	W16-9P	SEE NOTE 3 A OR F	24"X12"	30"X18"	-------
ROAD WORK AHEAD / ROAD WORK XXX FT / ROAD WORK X MILE	W20-1	A	36"X36"	48"X48"	48"X48"
DETOUR AHEAD / DETOUR XXX FT / DETOUR X MILE	W20-2	A	36"X36"	48"X48"	48"X48"
ROAD CLOSED AHEAD / ROAD CLOSED XXX FT / ROAD CLOSED X MILE	W20-3	A	36"X36"	48"X48"	48"X48"
ONE LANE ROAD AHEAD / ONE LANE ROAD XXX FT / ONE LANE ROAD X MILE	W20-4	A	36"X36"	48"X48"	48"X48"
LEFT LANE CLOSED AHEAD / LEFT LANE CLOSED 1500 FT / LEFT LANE CLOSED 1 MILE; RIGHT LANE CLOSED AHEAD / RIGHT LANE CLOSED 1500 FT / RIGHT LANE CLOSED 1 MILE	W20-5	A	36"X36"	48"X48"	48"X48"
2 LEFT LANES CLOSED AHEAD / 2 LEFT LANES CLOSED XXXX FT / 2 LEFT LANES CLOSED X MILE; 2 RIGHT LANES CLOSED AHEAD / 2 RIGHT LANES CLOSED XXXX FT / 2 RIGHT LANES CLOSED X MILE	W20-5a	A	36"X36"	48"X48"	48"X48"
	W20-7	A	36"X36"	48"X48"	48"X48"

WORK ZONE TRAFFIC CONTROL SIGN TABLE

SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
	W21-1	A	36"X36"	48"X48"	48"X48"
SLOW MOVING VEHICLE	W21-4	A	36"X18"	48"X24"	48"X24"
SHOULDER WORK	W21-5	A	36"X36"	48"X48"	48"X48"
LEFT SHOULDER CLOSED / RIGHT SHOULDER CLOSED	W21-5aL W21-5aR	A	36"X36"	48"X48"	48"X48"
LEFT SHOULDER CLOSED AHEAD / LEFT SHOULDER CLOSED XXX FT / LEFT SHOULDER CLOSED X MILE; RIGHT SHOULDER CLOSED AHEAD / RIGHT SHOULDER CLOSED XXX FT / RIGHT SHOULDER CLOSED X MILE	W21-5bL W21-5bR	A	36"X36"	48"X48"	48"X48"
MOWING AHEAD	W21-8	A	36"X36"	48"X48"	48"X48"
BLASTING ZONE AHEAD / BLASTING ZONE 1500 FT / BLASTING ZONE 1/2 MILE	W22-1	A	36"X36"	48"X48"	48"X48"
TURN OFF 2-WAY RADIO AND CELL PHONE	W22-2	A	42"X36"	42"X36"	42"X36"
END BLASTING ZONE	W22-3	A	42"X36"	42"X36"	42"X36"
NEW TRAFFIC PATTERN AHEAD	W23-2	A	36"X36"	48"X48"	48"X48"
	W24-1L W24-1R	A	36"X36"	48"X48"	48"X48"
	W24-1aL W24-1aR	A	36"X36"	48"X48"	48"X48"
	W24-1bL W24-1bR	A	36"X36"	48"X48"	48"X48"

ROADWAY DEFINITIONS:

CONVENTIONAL ROAD - A STREET OR HIGHWAY OTHER THAN A FREEWAY, OR EXPRESSWAY.

EXPRESSWAY - A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.

FREEWAY - A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

COLOR CODE LEGEND

CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
C	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
F	BLACK LEGEND AND BORDER ON A FLOURESCENT YELLOW GREEN BACKGROUND
G	WHITE LEGEND AND BORDER ON A BLUE AND RED BACKGROUND

NOTES:

1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
3. WHEN USED IN CONJUNCTION WITH A BICYCLE SIGN (W11-1) OR PEDESTRIAN CROSSING (W11-2) COLOR CODE SHALL MATCH.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

SIGN TABLE
(SHEET 2 OF 2)

APPROVED APRIL 1, 2012

/S/ TODD WESTHUIS, P.E.
DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 12-010

619-12

EFFECTIVE DATE: 05/03/2012

STANDARD SHEETS (USC), January 01, 2020

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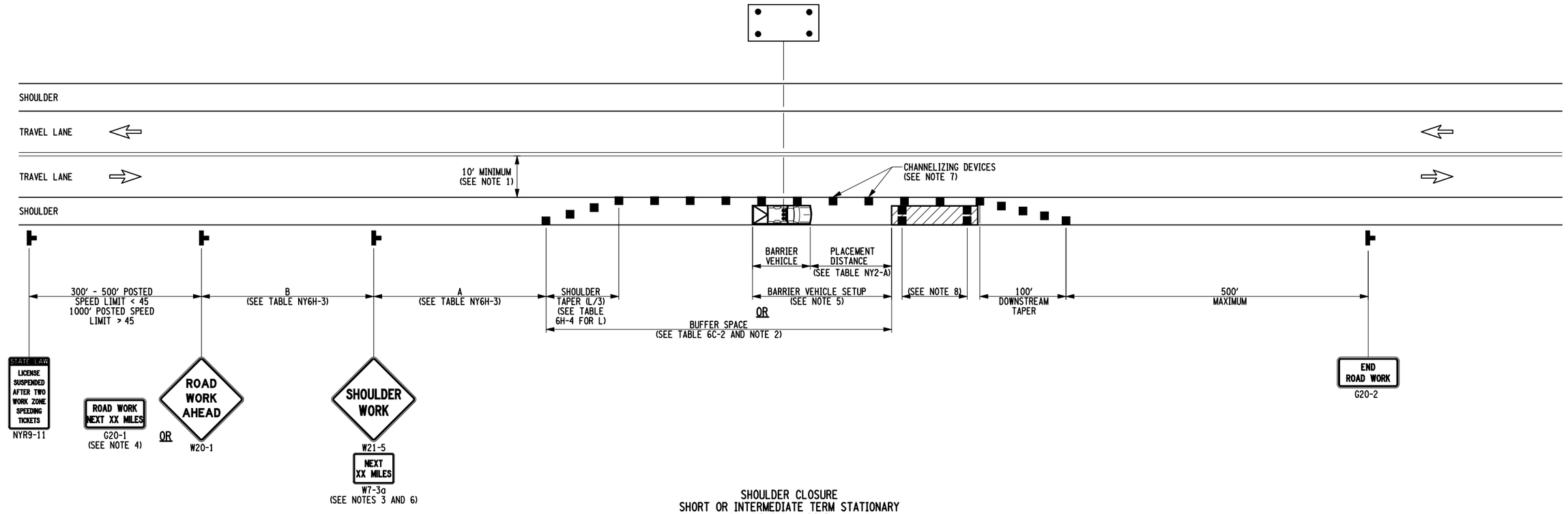

SHOULDER CLOSURE
SHORT OR INTERMEDIATE TERM STATIONARY
2-LANE 2-WAY ROADWAY
(NOT TO SCALE)

NOTES:

1. WHEN THE MINIMUM LANE WIDTH OF 10′ CANNOT BE MAINTAINED DUE TO A SHOULDER CLOSURE, USE THE DETAIL FOR SHORT OR INTERMEDIATE TERM STATIONARY FLAGGING OPERATION.
2. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
3. WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING SIGNS AND WORK IS 2 MILES TO 5 MILES, A SUPPLEMENTAL DISTANCE PLAQUE (W7-3a) SHOULD BE USED WITH THE SHOULDER WORK SIGN (W21-5).
4. THE ROAD WORK NEXT XX MILES SIGN (G20-1) MAY BE USED INSTEAD OF THE ROAD WORK AHEAD SIGN (W20-1) IF WORK LOCATIONS OCCUR OVER A DISTANCE OF MORE THAN 2 MILES.
5. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES NY1-A AND NY2-A ON THE STANDARD SHEET TITLED "WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES".
6. IN THOSE SITUATIONS WHERE MULTIPLE WORK LOCATIONS EXIST WITHIN A LIMITED DISTANCE MAKE IT PRACTICAL TO PLACE STATIONARY SIGNS, THE DISTANCE BETWEEN THE ADVANCE WARNING SIGN AND WORK SHALL NOT EXCEED 5 MILES.
7. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40′ IN THE ACTIVE WORK SPACE.
8. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8′ OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500′.

NOTE: SEE STANDARD SHEET TITLED "WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES" FOR LEGEND OF SYMBOLS AND/OR LETTER CODES USED IN THIS DRAWING.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

SHOULDER CLOSURE
2-LANE 2-WAY ROADWAY

APPROVED SEPTEMBER 15, 2009

/S/ DAVID J. CLEMENTS, P.E.

DIRECTOR, OFFICE OF
TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 09-025

619-20

EFFECTIVE DATE: 01/07/10

STANDARD SHEETS (USC), January 01, 2020

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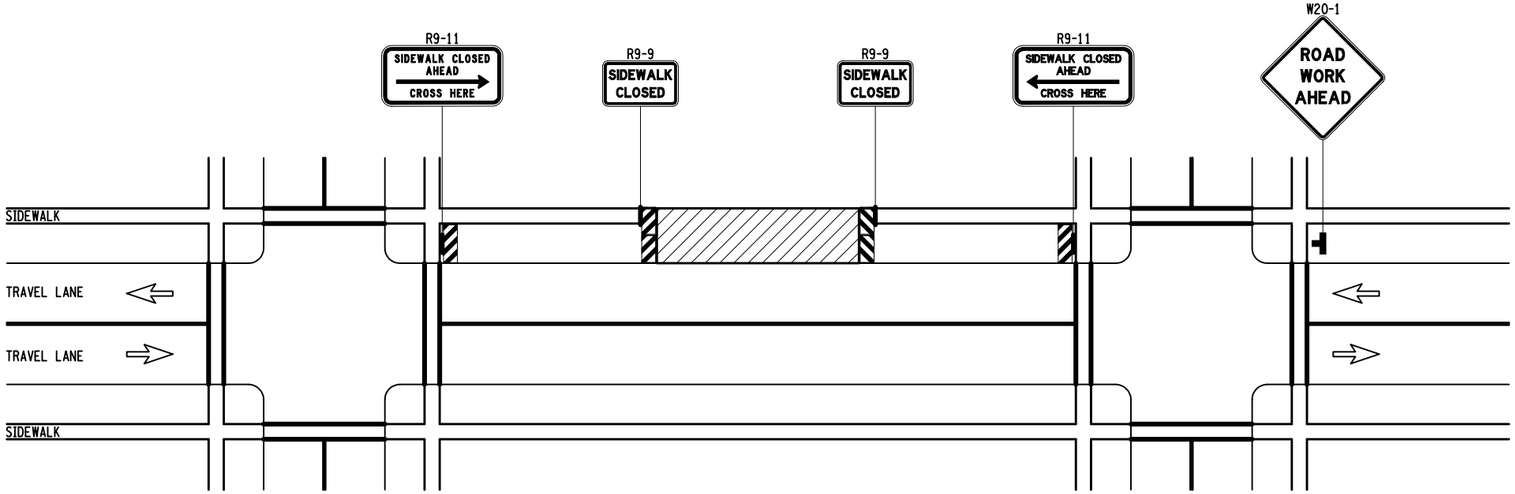
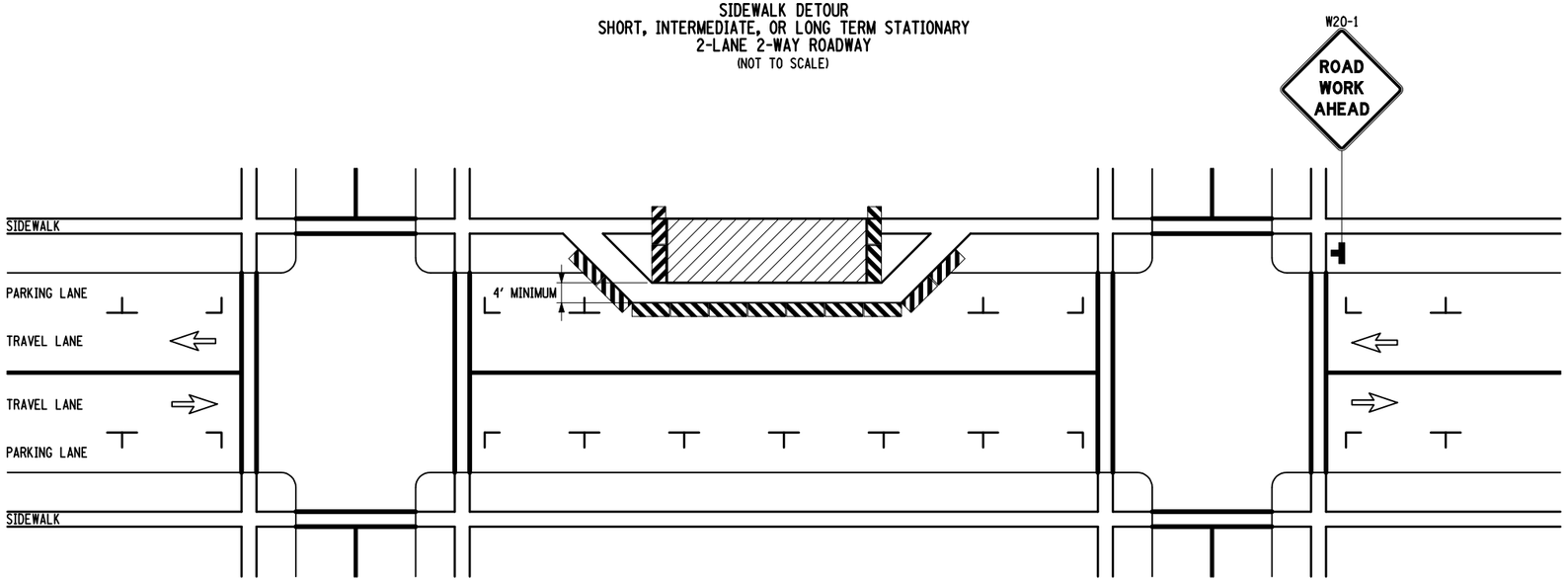


SIDEWALK DETOUR
SHORT, INTERMEDIATE, OR LONG TERM STATIONARY
2-LANE 2-WAY ROADWAY
(NOT TO SCALE)



SIDEWALK DIVERSION
SHORT, INTERMEDIATE, OR LONG TERM STATIONARY
2-LANE 2-WAY ROADWAY
(NOT TO SCALE)

NOTES:

1. WHEN CROSSWALKS OR OTHER PEDESTRIAN FACILITIES ARE CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING FACILITY.
2. WHERE HIGH SPEEDS ARE ANTICIPATED, A TEMPORARY TRAFFIC BARRIER AND TEMPORARY IMPACT ATTENUATOR SHOULD BE USED TO SEPARATE THE TEMPORARY SIDEWALKS FROM VEHICULAR TRAFFIC.
3. ONLY THE WORK ZONE TRAFFIC CONTROL DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS (W5-4), MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
4. FOR NIGHTTIME CLOSURES, FLASHING WARNING LIGHTS SHALL BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING SIDEWALKS.
5. SIGNS SUCH AS KEEP RIGHT (LEFT) SHALL BE PLACED ALONG A TEMPORARY SIDEWALK, WHERE APPLICABLE AND ACCORDING TO AMERICAN WITH DISABILITIES STANDARDS, TO GUIDE OR DIRECT PEDESTRIANS.
6. TYPE II BARRICADES MAY BE SUBSTITUTED FOR TYPE III BARRICADES AS PER 619 STANDARD SPECIFICATIONS.

NOTE: SEE STANDARD SHEET TITLED "WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES" FOR LEGEND OF SYMBOLS AND/OR LETTER CODES USED IN THIS DRAWING.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

SIDEWALK DETOUR OR DIVERSION

APPROVED SEPTEMBER 15, 2009

/S/ DAVID J. CLEMENTS, P.E.

DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 09-025

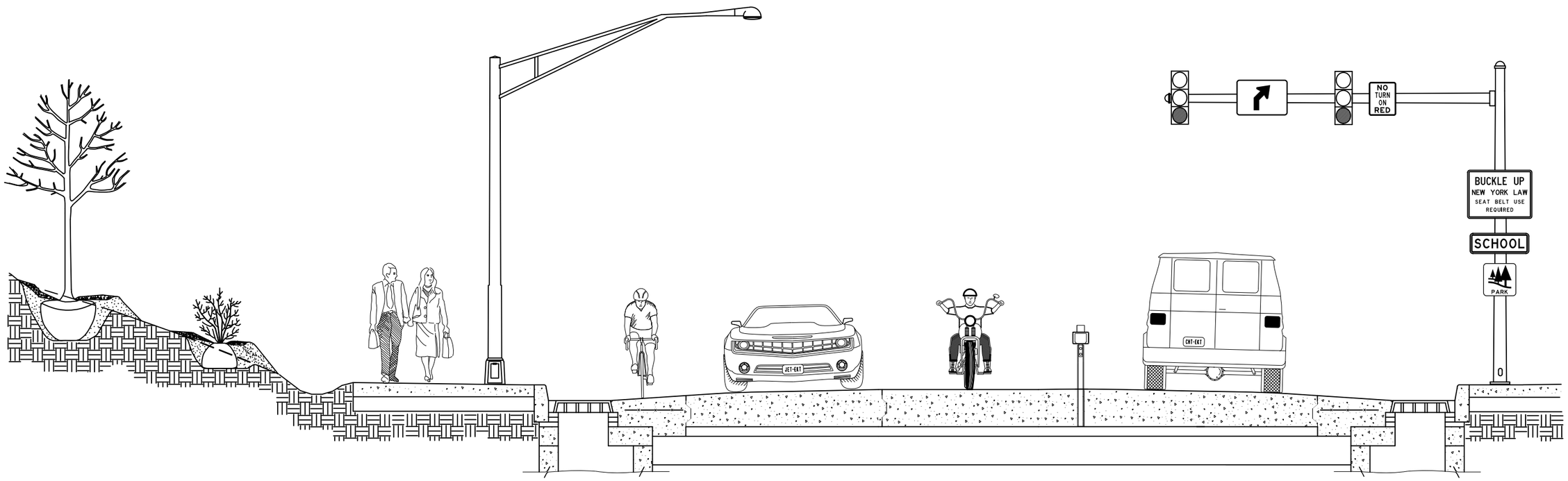
619-50

EFFECTIVE DATE: 01/07/10

NEW YORK STATE STANDARD SHEETS

BOOK 4 of 4

SHEETS 645-01 THRU 685-01



NEW YORK STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY UNITS
ENGINEERING DIVISION, OFFICE OF DESIGN

JANUARY 01, 2020

NOTE: INDIVIDUAL STANDARD SHEETS IN THIS BOOK BECOME PART OF A CONTRACT BY REFERENCE TO THE SHEET NUMBER IN THE PROJECT PLANS OR PROPOSAL. THIS ENTIRE SET OF 4 BOOKS IS OFFICIALLY FINALIZED AND ADOPTED AS OF THE DATE SHOWN ON THIS COVER.

SHEET NO.	SUBJECT	ISSUED BY	EFFECTIVE
	BOOK 1 of 4		
203-01	CONSTRUCTION DETAILS UNSUITABLE MATERIAL EXCAVATION AND BACKFILL	EB 08-036	01/08/09
203-02	EARTHWORK TRANSITION AND BENCHING DETAILS (ERRATA ISSUED BY EB 14-025)	EB 08-036	01/08/09
203-03	INSTALLATION DETAILS FOR GRANULAR FILL-SLOPE PROTECTION	EB 08-036	01/08/09
203-04	INSTALLATION DETAILS FOR REINFORCED CONCRETE PIPES	EB 13-038	01/09/14
203-05	INSTALLATION DETAILS FOR CORRUGATED AND STRUCTURAL PLATE PIPE AND PIPE ARCHES	EB 16-020	09/01/16
204-01	CONTROLLED LOW STRENGTH MATERIAL (CLSM) INSTALLATION DETAILS FOR CIRCULAR AND ELLIPTICAL CORRUGATED METAL PIPES, STRUCTURAL PLATE PIPES AND PIPE-ARCHES, AND REINFORCED CONCRETE AND OTHER "RIGID" PIPES	EB 08-036	01/08/09
209-01	LINEAR MEASURES	EB 09-036	09/02/10
209-02	CHECK DAMS (SHEET 1 OF 2) (ERRATA ISSUED BY EB 13-042)	EB 09-036	09/02/10
	CHECK DAMS (SHEET 2 OF 2)	EB 09-036	09/02/10
209-03	DRAINAGE STRUCTURE INLET PROTECTION (SHEET 1 OF 2)	EB 09-036	09/02/10
	DRAINAGE STRUCTURE INLET PROTECTION (SHEET 2 OF 2)	EB 09-036	09/02/10
209-04	PIPE INLET/OUTLET PROTECTION PIPE SLOPE DRAIN	EB 09-036	09/02/10
209-05	CONSTRUCTION ENTRANCES	EB 09-036	09/02/10
209-06	TURBIDITY CURTAIN	EB 09-036	09/02/10
209-07	SEDIMENT TRAPS	EB 09-036	09/02/10
212-01	WIRE ROPE ROCK CATCHMENT FENCE (SHEET 1 OF 3)	EB 10-004	05/06/10
	WIRE ROPE ROCK CATCHMENT FENCE (SHEET 2 OF 3)	EB 10-004	05/06/10
	WIRE ROPE ROCK CATCHMENT FENCE (SHEET 3 OF 3)	EB 10-004	05/06/10
212-02	CHAIN LINK ROCK CATCHMENT FENCE (SHEET 1 OF 2)	EB 10-004	05/06/10
	CHAIN LINK ROCK CATCHMENT FENCE (SHEET 2 OF 2)	EB 10-004	05/06/10
212-03	WIRE MESH SLOPE PROTECTION (SHEET 1 OF 2)	EB 10-004	05/06/10
	WIRE MESH SLOPE PROTECTION (SHEET 2 OF 2)	EB 10-004	05/06/10
212-04	WIRE MESH DRAPE (ERRATA ISSUED BY EB 13-042)	EB 10-004	05/06/10
212-05	TEMPORARY ROCK CATCHMENT BARRIER (SHEET 1 OF 2)	EB 10-004	05/06/10
	TEMPORARY ROCK CATCHMENT BARRIER (SHEET 2 OF 2)	EB 10-004	05/06/10
402-01	HOT MIX ASPHALT OVERLAY SPLICE (PAVEMENT TERMINATION DETAIL)	EB 08-036	01/08/09
502-01	METAL REINFORCEMENT FOR CONCRETE PAVEMENT	EB 08-036	01/08/09
502-02	TYPICAL PLAN, CROSS SECTION AND JOINT LAYOUT	EB 08-036	01/08/09
502-03	LONGITUDINAL JOINTS	EB 08-036	01/08/09
502-04	LONGITUDINAL JOINT TIES	EB 08-036	01/08/09
502-05	LONGITUDINAL JOINT SAWING AND SEALING	EB 08-036	01/08/09
502-06	TRANSVERSE JOINTS	EB 08-036	01/08/09
502-07	TRANSVERSE JOINT SAWING AND SEALING	EB 08-036	01/08/09
502-08	UTILITY ISOLATION AND JOINT LAYOUT GENERAL NOTES	EB 08-036	01/08/09
502-09	UTILITY ISOLATION GUIDELINES	EB 08-036	01/08/09
502-10	TELESCOPING MANHOLE CASTING LAYOUT	EB 08-036	01/08/09
502-11	NON-TELESCOPING MANHOLE CASTING LAYOUT	EB 08-036	01/08/09
502-12	SHALLOW STRUCTURE ISOLATION	EB 08-036	01/08/09
502-13	DRAINAGE STRUCTURE ISOLATION	EB 08-036	01/08/09
502-14	DRAINAGE STRUCTURE ISOLATION NEAR MANHOLE CASTINGS	EB 08-036	01/08/09
502-15	MULTIPLE UTILITIES ISOLATION	EB 08-036	01/08/09
554-01	PROPRIETARY FILL TYPE RETAINING WALLS - SHEET 1 OF 5 GENERAL NOTES (ERRATA ISSUED BY EB 13-042)	EB 10-041	05/05/11
	PROPRIETARY FILL TYPE RETAINING WALLS - SHEET 2 OF 5 GENERAL DETAILS	EB 10-041	05/05/11
	PROPRIETARY FILL TYPE RETAINING WALLS - SHEET 3 OF 5 TYP. SECTIONS FOR MECH. STABILIZED EARTH SYSTEMS	EB 10-041	05/05/11
	PROPRIETARY FILL TYPE RETAINING WALLS - SHEET 4 OF 5 TYP. SECTIONS FOR MECH. STABILIZED WALL SYSTEMS	EB 10-041	05/05/11
	PROPRIETARY FILL TYPE RETAINING WALLS - SHEET 5 OF 5 TYP. SECTIONS FOR PREFABRICATED WALL SYSTEMS	EB 10-041	05/05/11
554-02	GEOSYNTHETICALLY REINFORCED SOIL SYSTEMS SHEET 1 OF 6 - WALLS - GENERAL NOTES AND DETAILS	EB 10-041	05/05/11
	GEOSYNTHETICALLY REINFORCED SOIL SYSTEMS SHEET 2 OF 6 - WALLS - TYPICAL SECTIONS	EB 10-041	05/05/11
	GEOSYNTHETICALLY REINFORCED SOIL SYSTEMS SHEET 3 OF 6 - SLOPES - GENERAL NOTES AND DETAILS	EB 10-041	05/05/11
	GEOSYNTHETICALLY REINFORCED SOIL SYSTEMS SHEET 4 OF 6 - SLOPES - TYPICAL SECTIONS	EB 10-041	05/05/11
	GEOSYNTHETICALLY REINFORCED SOIL SYSTEMS SHEET 5 OF 6 - FACING DETAILS	EB 10-041	05/05/11
	GEOSYNTHETICALLY REINFORCED SOIL SYSTEMS SHEET 6 OF 6 - FACING DETAILS	EB 10-041	05/05/11
601-01	PRECAST CONCRETE STREET PAVING LAYOUT DETAILS	EB 12-009	09/06/12
603-01	REINFORCED CONCRETE PIPE END SECTIONS AND CONCRETE COLLARS	EB 08-036	01/08/09
603-02	ALUMINUM AND STEEL END SECTIONS FOR CORRUGATED PIPE AND PIPE-ARCH	EB 08-036	01/08/09
603-03	CATTLE PASS	EB 08-036	01/08/09
603-04	CUT-OFF WALLS FOR END SECTIONS	EB 11-013	01/12/12
603-05	CULVERT-END SAFETY GRATE	EB 08-036	01/08/09
604-01	PRE-CAST CONCRETE TRANSVERSE DRAINAGE INTERCEPTOR (ERRATA ISSUED BY EB 14-025)	EB 08-036	01/08/09
604-02	DRAINAGE STRUCTURE DETAILS (SHEET 1 OF 4)	EB 12-044	05/02/13
	DRAINAGE STRUCTURE DETAILS (SHEET 2 OF 4)	EB 08-036	01/08/09
	DRAINAGE STRUCTURE DETAILS (SHEET 3 OF 4)	EB 08-036	01/08/09
	DRAINAGE STRUCTURE DETAILS (SHEET 4 OF 4)	EB 08-036	01/08/09
605-01	POROUS CONCRETE PIPE UNDERDRAIN	EB 08-036	01/08/09

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

INDEX OF SHEETS EFFECTIVE
01/01/2020
(LATEST CHANGES HIGHLIGHTED)
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STANDARD SHEETS (USC), January 01, 2020

STANDARD SHEETS (USC), January 01, 2020

SHEET NO.	SUBJECT	ISSUED BY	EFFECTIVE
	BOOK 2 of 4		
606-01	CABLE GUIDE RAIL (SHEET 1 OF 3) (ERRATA ISSUED BY EB 18-003)	EB 12-003	09/06/12
	CABLE GUIDE RAILING (SHEET 2 OF 3)	EB 12-003	09/06/12
	CABLE GUIDE RAILING (SHEET 3 OF 3)	EB 12-003	09/06/12
606-02	CABLE MEDIAN BARRIER (SHEET 1 OF 2) (ERRATA ISSUED BY EB 18-003)	EB 12-003	09/06/12
	CABLE MEDIAN BARRIER (SHEET 2 OF 2) (ERRATA ISSUED BY EB 18-003)	EB 12-003	09/06/12
	CABLE MEDIAN BARRIER (SHEET 3 OF 3)	EB 12-003	09/06/12
606-04	**BOX BEAM GUIDE RAIL (SHEET 1 OF 5) (ERRATA ISSUED BY EB 19-041)**	**EB 11-013**	**01/12/12**
	BOX BEAM GUIDE RAIL (SHEET 2 OF 5) (ERRATA ISSUED BY EB 14-025 & EB 18-003)	EB 11-013	01/12/12
	BOX BEAM GUIDE RAIL (SHEET 3 OF 5)	EB 11-013	01/12/12
	BOX BEAM GUIDE RAIL (SHEET 4 OF 5)	EB 11-013	01/12/12
	BOX BEAM GUIDE RAIL (SHEET 5 OF 5) PEDESTRIAN BREAK	**EB 19-041**	**01/01/20**
606-05	BOX BEAM MEDIAN BARRIER	EB 08-036	01/08/09
606-06	BOX BEAM END ASSEMBLY TYPE III GRADING, PAYMENT, AND LAYOUT DETAILS	EB 09-025	01/07/10
606-07	WEAK POST CORRUGATED-BEAM GUIDE RAILING SHEET 1 OF 3 (ERRATA ISSUED BY EB 14-025 & EB 18-003)	EB 13-028	05/08/14
	WEAK POST CORRUGATED-BEAM GUIDE RAILING SHEET 2 OF 3 (ERRATA ISSUED BY EB 14-025 & EB 18-003)	EB 13-028	05/08/14
	WEAK POST CORRUGATED-BEAM GUIDE RAILING SHEET 3 OF 3 (ERRATA ISSUED BY EB 14-025 & EB 18-003)	EB 13-028	05/08/14
606-08	WEAK POST W-BEAM MEDIAN BARRIER (ERRATA ISSUED BY EB 14-025 & EB 18-003)	EB 11-013	01/12/12
606-09	HEAVY POST BLOCKED-OUT (MOD.) CORRUGATED-BEAM GUIDE RAILING (SHEET 1 OF 2) (ERRATA ISSUED BY EB 16-008 & EB 18-023)	EB 13-028	05/08/14
	HEAVY POST BLOCKED-OUT (MOD.) CORRUGATED-BEAM GUIDE RAILING (SHEET 2 OF 2) (ERRATA ISSUED BY EB 14-025)	EB 13-028	05/08/14
606-10	HEAVY POST BLOCKED-OUT (MOD.) CORRUGATED-BEAM MEDIAN BARRIER (ERRATA ISSUED BY EB 18-003)	EB 13-028	05/08/14
606-11	GRADING DETAILS FOR PROPRIETARY HPBO (MOD.) TERMINALS	EB 13-028	05/08/14
606-13	SINGLE-SLOPE CONCRETE HALF SECTION BARRIER	EB 13-028	05/08/14
606-14	SINGLE-SLOPE CONCRETE MEDIAN BARRIER AND SINGLE-SLOPE CONCRETE WIDE BARRIER (ERRATA ISSUED BY EB 12-026)	EB 08-036	01/08/09
606-15	SINGLE-SLOPE CONCRETE BARRIER TERMINAL SECTION - RAMPED TERMINAL (ERRATA ISSUED BY EB 12-026)	EB 08-036	01/08/09
606-19	TRANSITION: BOX - CABLE	EB 12-003	09/06/12
606-20	TRANSITION: BOX - W-BEAM (MOD.) (ERRATA ISSUED BY EB 16-008 & EB 18-003)	EB 08-036	01/08/09
606-21	TRANSITION: BOX - HPBO (MOD.) (ERRATA ISSUED BY EB 18-003)	EB 13-028	05/08/14
606-22	TRANSITION: BOX - SINGLE SLOPE (SHEET 1 OF 3) (ERRATA ISSUED BY EB 13-042)	EB 08-036	01/08/09
	TRANSITION: BOX - SINGLE SLOPE (SHEET 2 OF 3) (ERRATA ISSUED BY EB 14-025 & EB 18-003)	EB 08-036	01/08/09
	TRANSITION: BOX - SINGLE SLOPE (SHEET 3 OF 3)	EB 13-028	05/08/14
606-24	TRANSITION: BOX MEDIAN - WEAK POST AND HPBO (MOD.) MEDIAN (SHEET 1 OF 2) (ERRATA ISSUED BY EB 18-003)	EB 13-028	05/08/14
	TRANSITION: BOX MEDIAN - WEAK POST AND HPBO (MOD.) MEDIAN (SHEET 2 OF 2) (ERRATA ISSUED BY EB 14-025 & EB 18-023)	EB 13-028	05/08/14
606-25	TRANSITION: BOX MEDIAN - SINGLE SLOPE MEDIAN (SHEET 1 OF 3) (ERRATA ISSUED BY EB 13-042)	EB 08-036	01/08/09
	TRANSITION: BOX MEDIAN - SINGLE SLOPE MEDIAN (SHEET 2 OF 3)	EB 08-036	01/08/09
	TRANSITION: BOX MEDIAN - SINGLE SLOPE MEDIAN (SHEET 3 OF 3)	EB 08-036	01/08/09
606-27	TRANSITION: WEAK POST - HPBO (MOD.) GUIDE RAIL AND MEDIAN BARRIER (ERRATA ISSUED BY EB 18-023)	EB 13-028	05/08/14
		EB 13-028	05/08/14

SHEET NO.	SUBJECT	ISSUED BY	EFFECTIVE
606-28	TRANSITION: HPBO (MOD.) - SINGLE SLOPE HALF SECTION (SHEET 1 OF 3)	EB 13-028	05/08/14
	TRANSITION: HPBO (MOD.) - SINGLE SLOPE HALF SECTION (SHEET 2 OF 3)	EB 13-028	05/08/14
	TRANSITION: HPBO (MOD.) - SINGLE SLOPE HALF SECTION (SHEET 3 OF 3)	EB 13-028	05/08/14
606-29	TRANSITION: HPBO (MOD.) MEDIAN - SINGLE SLOPE MEDIAN (SHEET 1 OF 3) (ERRATA ISSUED BY EB 14-025 & EB 18-023)	EB 13-028	05/08/14
	TRANSITION: HPBO (MOD.) MEDIAN - SINGLE SLOPE MEDIAN (SHEET 2 OF 3) (ERRATA ISSUED BY EB 18-023)	EB 13-028	05/08/14
	TRANSITION: HPBO (MOD.) MEDIAN - SINGLE SLOPE MEDIAN (SHEET 3 OF 3)	EB 13-028	05/08/14
606-31	TRANSITION: WIDE - NORMAL WIDTH SINGLE SLOPE MEDIAN (ERRATA ISSUED BY EB 12-026)	EB 08-036	01/08/09
606-32	TRANSITION: HALF-SECTION TO FULL-SECTION SINGLE SLOPE CONCRETE BARRIER	EB 13-049	05/08/14
606-33	W-BEAM GUIDE RAILING (SHEET 1 OF 2) (MAINTENANCE SUPPORT)	EB 08-036	01/08/09
	W-BEAM GUIDE RAILING (SHEET 2 OF 2) (MAINTENANCE SUPPORT) (ERRATA ISSUED BY EB 18-023)	EB 08-036	01/08/09
606-35	CONCRETE BARRIER (CAST-IN-PLACE) (MAINTENANCE SUPPORT)	EB 08-036	01/08/09
606-36	PRECAST CONCRETE BARRIER	EB 11-013	01/12/12
606-37	MACHINE FORMED CONCRETE BARRIER	EB 08-036	01/08/09
606-38	TRANSITION: BOX BEAM - W-BEAM (MAINTENANCE SUPPORT)	EB 08-036	01/08/09
606-40	TRANSITION: HPBO - JERSEY SHAPE (MAINTENANCE SUPPORT)	EB 08-036	01/08/09
606-41	TRANSITION: CONCRETE WALL - JERSEY MEDIAN (MAINTENANCE SUPPORT)	EB 08-036	01/08/09
606-42	TRANSITION: CONCRETE BARRIER BETWEEN STANDARD (NJ) AND SINGLE SLOPE CONCRETE SHAPES	EB 08-036	01/08/09
606-43	HPBO GUIDE RAILING AND TRANSITIONS (8 SHEETS) (MAINTENANCE SUPPORT) (ERRATA ISSUED BY EB 18-023)	EB 13-028	05/08/14
606-44	HPBO MEDIAN BARRIER AND TRANSITIONS (5 SHEETS) (MAINTENANCE SUPPORT) (ERRATA ISSUED BY EB 18-023)	EB 13-028	05/08/14
607-01	R.O.W. FENCING	EB 08-036	01/08/09
607-04	CHAIN LINK FENCE WITH TOP RAIL (ERRATA ISSUED BY EB 13-042)	EB 08-036	01/08/09
607-05	CHAIN LINK FENCE WITH TOP TENSION WIRE (ERRATA ISSUED BY EB 13-042)	EB 08-036	01/08/09
607-06	GATES AND CHAIN LINK FENCE ADJACENT TO GATES	EB 08-036	01/08/09

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

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	BOOK 3 of 4		
	SIDEWALK CURB RAMP DETAILS (SHEET 1 OF 9) ERRATA ISSUED BY EB 19-041	**EB 16-012**	**05/01/16**
	SIDEWALK CURB RAMP DETAILS (SHEET 2 OF 9)	EB 17-042	10/05/17
	SIDEWALK CURB RAMP DETAILS (SHEET 3 OF 9)	EB 16-012	05/01/16
	SIDEWALK CURB RAMP DETAILS (SHEET 4 OF 9)	EB 16-012	05/01/16
608-01	SIDEWALK CURB RAMP DETAILS (SHEET 5 OF 9)	EB 16-012	05/01/16
	SIDEWALK CURB RAMP DETAILS (SHEET 6 OF 9)	EB 16-012	05/01/16
	SIDEWALK CURB RAMP DETAILS (SHEET 7 OF 9)	EB 16-012	05/01/16
	SIDEWALK CURB RAMP DETAILS (SHEET 8 OF 9)	EB 16-012	05/01/16
	SIDEWALK CURB RAMP DETAILS (SHEET 9 OF 9)	EB 16-012	05/01/16
608-02	ACCESSIBLE PARKING FOR PERSONS WITH DISABILITIES DETAILS	EB 16-012	05/01/16
	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 1 OF 9)	EB 16-012	05/01/16
	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 2 OF 9)	EB 16-012	05/01/16
	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 3 OF 9)	EB 16-012	05/01/16
	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 4 OF 9)	EB 16-012	05/01/16
608-03	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 5 OF 9)	EB 16-012	05/01/16
	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 6 OF 9)	EB 16-012	05/01/16
	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 7 OF 9)	EB 16-012	05/01/16
	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 8 OF 9)	EB 16-012	05/01/16
	RESIDENTIAL AND MINOR COMMERCIAL DRIVEWAYS (SHEET 9 OF 9)	EB 16-012	05/01/16
	RAISED CROSSWALK DETAILS (SHEET 1 OF 3)	EB 16-012	05/01/16
608-07	RAISED CROSSWALK DETAILS (SHEET 2 OF 3)	EB 16-012	05/01/16
	RAISED CROSSWALK DETAILS (SHEET 3 OF 3)	EB 16-012	05/01/16
609-01	STONE CURB AND GRANITE CURB	EB 16-019	09/01/16
609-02	MISCELLANEOUS CURB DETAILS	EB 13-007	01/09/14
609-03	CONCRETE CURB, CURB AND GUTTER, AND HOT MIX ASPHALT CURB	EB 08-036	01/08/09
609-04	GRANITE SLOPED CURB DETAILS, TYPE S	EB 13-007	01/09/14
611-01	LANDSCAPE PLANTING DETAILS (SHEET 1 OF 2) (ERRATA ISSUED BY EB 13-042)	EB 12-011	09/06/12
	LANDSCAPE PLANTING DETAILS (SHEET 2 OF 2)	EB 12-011	09/06/12
619-01	**TEMPORARY CONCRETE BARRIER**	**EB 19-045**	**10/10/19**
619-02	TYPE III CONSTRUCTION BARRICADES (SHEET 1 OF 2)	EB 08-036	01/08/09
	TYPE III CONSTRUCTION BARRICADES (SHEET 2 OF 2)	EB 08-036	01/08/09
619-04	PORTABLE TEMPORARY WOODEN SIGN SUPPORT	EB 08-036	01/08/09
619-10	WORK ZONE TRAFFIC CONTROL GENERAL NOTES	EB 08-036	01/08/09
619-11	WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES	EB 08-036	01/08/09
619-12	SIGN TABLE (SHEET 1 OF 2)	EB 12-010	05/03/12
	SIGN TABLE (SHEET 2 OF 2)	EB 12-010	05/03/12
619-20	SHOULDER CLOSURE 2-LANE 2-WAY ROADWAY	EB 09-025	01/07/10
619-21	SHOULDER CLOSURE 2-LANE 2-WAY ROADWAY MULTIPLE WORK LOCATIONS	EB 09-025	01/07/10
619-22	SHOULDER CLOSURE EXPRESSWAY / FREEWAY	EB 08-036	01/08/09
619-23	SHOULDER CLOSURE EXPRESSWAY / FREEWAY RAMP APPROACH	EB 08-036	01/08/09
619-24	PARTIAL EXIT RAMP CLOSURE EXPRESSWAY / FREEWAY	EB 09-025	01/07/10
619-30	SINGLE LANE CLOSURE MULTI LANE HIGHWAY	EB 08-036	01/08/09
619-31	SINGLE LANE CLOSURE MULTI LANE DIVIDED HIGHWAY	EB 08-036	01/08/09
619-32	SINGLE LANE CLOSURE MULTI LANE HIGHWAY / EXPRESSWAY / FREEWAY	EB 08-036	01/08/09
619-33	SINGLE LANE CLOSURE NEAR ENTRANCE RAMP EXPRESSWAY / FREEWAY	EB 09-025	01/07/10
619-34	SINGLE LANE CLOSURE NEAR EXIT RAMP EXPRESSWAY / FREEWAY	EB 09-025	01/07/10
619-40	DOUBLE LANE CLOSURE EXPRESSWAY / FREEWAY	EB 08-036	01/08/09
619-41	DOUBLE INTERIOR LANE CLOSURE MULTI LANE HIGHWAY	EB 08-036	01/08/09
619-50	SIDEWALK DETOUR OR DIVERSION	EB 09-025	01/07/10
619-51	CROSSWALK CLOSURE AND PEDESTRIAN DETOUR	EB 08-036	01/08/09
619-60	FLAGGING OPERATION 2-LANE 2-WAY ROADWAY	EB 09-025	01/07/10
619-61	FLAGGING OPERATION 2-LANE 2-WAY ROADWAY INTERSECTION	EB 08-036	01/08/09
619-62	TEMPORARY TRAFFIC SIGNAL 2-LANE 2-WAY ROADWAY	EB 08-036	01/08/09
619-63	SINGLE LANE SHIFT 2-LANE 2-WAY ROADWAY WITH CENTER TURN LANE	EB 08-036	01/08/09
619-64	CENTER TURN LANE CLOSURE 2-LANE 2-WAY ROADWAY WITH CENTER TURN LANE	EB 08-036	01/08/09
619-65	MULTI LANE SHIFT EXPRESSWAY / FREEWAY	EB 08-036	01/08/09
619-66	ROAD CLOSURE WITH OFF SITE DETOUR 2-LANE 2-WAY ROADWAY	EB 08-036	01/08/09
624-01	CONCRETE GUTTER (ERRATA ISSUED BY EB 17-041)	EB 11-013	01/12/12
625-01	R.O.W. AND SURVEY MARKERS	EB 17-047	05/01/18
630-01	HIGHWAY BARRIER AND HIGHWAY-RAILROAD BARRICADE	EB 08-036	01/08/09
632-01	PRECAST MODULAR WALLS (SHEET 1 OF 2)	EB 08-036	01/08/09
	PRECAST MODULAR WALLS (SHEET 2 OF 2)	EB 08-036	01/08/09

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645-01	STANDARD SIGN BLANK DETAILS (SHEET 1 OF 2) ERRATA ISSUED BY EB 18-003	EB 09-025	01/07/10
	STANDARD SIGN BLANK DETAILS (SHEET 2 OF 2) ERRATA ISSUED BY EB 18-003	EB 09-025	01/07/10
645-02	ROUTE MARKER ASSEMBLIES	EB 09-025	01/07/10
645-03	POSITIONING OF TRAFFIC SIGNS (SHEET 1 OF 2)	EB 09-025	01/07/10
	POSITIONING OF TRAFFIC SIGNS (SHEET 2 OF 2)	EB 09-025	01/07/10
645-05	TOURIST, BUSINESS, AND RAMP SERVICE SIGNS (SHEET 1 OF 2)	EB 09-025	01/07/10
	TOURIST, BUSINESS, AND RAMP SERVICE SIGNS (SHEET 2 OF 2)	EB 09-025	01/07/10
645-06	TOURIST ORIENTED BUSINESS SIGNS (SHEET 1 OF 2)	EB 09-025	01/07/10
	TOURIST ORIENTED BUSINESS SIGNS (SHEET 2 OF 2)	EB 09-025	01/07/10
645-07	SPECIFIC SERVICES SIGNS (SHEET 1 OF 2) (ERRATA ISSUED BY EB 12-026)	EB 09-025	01/07/10
	SPECIFIC SERVICES SIGNS (SHEET 2 OF 2)	EB 08-036	01/08/09
645-09	SIGN PANEL DETAILS FOR GUIDE, INFORMATION, AND OTHER SIGNS (ERRATA ISSUED BY EB 13-042 & 18-023)	EB 12-040	05/02/13
645-10	MULTIPLE POST SIGN INSTALLATION USING TYPE B SIGN POSTS (ERRATA ISSUED BY EB 12-026)	EB 09-025	01/07/10
645-11	BI-DIRECTIONAL BREAKAWAY BASE AND HINGE ASSEMBLY	EB 09-025	01/07/10
645-12	OMNI-DIRECTIONAL BREAKAWAY BASE AND HINGE ASSEMBLY	EB 09-025	01/07/10
645-14	POLE MOUNTED SIGNS (ERRATA ISSUED BY EB 14-025)	EB 08-045	05/07/09
646-11	REFERENCE MARKER DETAILS (ERRATA ISSUED BY EB 14-025 AND EB 19-023)	EB 11-006	09/01/11
646-12	DELINEATOR MOUNTING ON CONCRETE MEDIAN BARRIER DETAILS	EB 10-020	01/06/11
646-13	STANDARD AND LARGE DELINEATOR PANEL DETAILS	EB 10-020	01/06/11
646-14	STANDARD DELINEATOR BRACKET AND FASTENER DETAILS	EB 10-020	01/06/11
646-15	**DELINEATOR SNOWPLOWING MARKER AND SUPPLEMENTARY SNOWPLOWING MARKER DETAILS AND NOTES (ERRATA ISSUED BY EB XX-XXX)**	**EB 11-006**	**09/01/11**
646-16	REFERENCE MARKER LARGE DELINEATOR SNOWPLOWING AND SUPPLEMENTARY SNOWPLOWING MARKER LAYOUT ON FREEWAYS AND EXPRESSWAYS	EB 10-020	01/06/11
649-02	MILLED-INAUDIBLE ROADWAY DELINEATORS	EB 13-040	01/09/14
649-03	CENTERLINE AUDIBLE ROADWAY DELINEATORS	EB 13-040	01/09/14
649-04	SECONDARY HIGHWAY AUDIBLE ROADWAY DELINEATORS	EB 16-030	01/01/17
655-01	RECTANGULAR GRATES	EB 08-036	01/08/09
655-02	PARALLEL BAR FRAMES AND GRATES (ERRATA ISSUED BY EB 14-025)	EB 08-049	05/07/09
655-04	RETICULINE GRATES (ERRATA ISSUED BY EB 16-008 & EB 18-003)	EB 12-031	01/10/13
655-06	PROOF LOADED CAST STEEL OR IRON MANHOLE FRAMES, GRATES AND COVERS (ERRATA ISSUED BY EB 14-025)	EB 08-036	01/08/09
655-07	WELDED FRAMES AND PROOF LOADED CAST STEEL OR IRON FRAMES AND CURB BOXES (ERRATA ISSUED BY EB 16-008 & 18-023)	EB 08-049	05/07/09
655-08	TELESCOPING MANHOLE CASTING AND RING	EB 08-036	01/08/09
663-01	WATER MAIN PIPE INSTALLATION DETAILS (ERRATA ISSUED BY EB 18-003)	EB 13-038	01/09/14
663-02	WATER MAIN HORIZONTAL THRUST RESTRAINT DETAILS	EB 11-025	05/03/12
663-03	WATER MAIN THRUST RESTRAINT DETAILS	EB 11-025	05/03/12
663-04	WATER MAIN UTILITY CROSSING RELOCATION DETAILS	EB 08-036	01/08/09
663-05	WATER MAIN HYDRANT AND VALVE DETAILS	EB 08-036	01/08/09
663-06	WATER MAIN HYDRANT FENDER DETAILS	EB 08-036	01/08/09
663-07	WATER MAIN SERVICE CONNECTION DETAILS	EB 08-036	01/08/09
664-01	SANITARY SEWER MAIN PIPE INSTALLATION DETAILS (ERRATA ISSUED BY EB 18-003)	EB 13-038	01/09/14
670-01	LAMPPOST FOUNDATIONS	EB 08-036	01/08/09
670-02	LIGHT STANDARD DETAILS	EB 08-036	01/08/09
670-03	DAVIT ARM, WOOD POLE BRACKET ARM AND DEEP FOUNDATIONS (ERRATA ISSUED BY EB 12-026)	EB 08-036	01/08/09

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680-01	**TRAFFIC SIGNAL POLE FOUNDATIONS (ERRATA ISSUED BY EB XX-XXX)**	**EB 17-027**	**01/01/18**
680-02	PRECAST STANDARD RECTANGULAR PULLBOXES, FRAMES AND COVERS	EB 11-013	01/12/12
680-03	STANDARD CIRCULAR PULLBOXES, FRAMES AND COVERS	EB 11-013	01/12/12
680-04	PULLBOX, CONDUIT AND GROUND ROD INSTALLATION DETAILS	EB 18-041	01/01/18
680-05	BASE - AND POLE - MOUNTED CABINET INSTALLATION DETAILS	EB 18-041	01/01/18
680-06	STANDARD TRAFFIC SIGNAL POLES (SHEET 1 OF 2)	EB 08-036	01/08/09
	STANDARD TRAFFIC SIGNAL POLES (SHEET 2 OF 2)	EB 08-036	01/08/09
680-07	SPAN WIRE MOUNTED TRAFFIC SIGNAL INSTALLATION DETAILS	EB 13-045	05/08/14
680-08	MAST ARM AND POLE MOUNTED TRAFFIC SIGNAL INSTALLATION DETAILS	EB 18-041	01/01/18
680-10	**PEDESTRIAN SIGNALS AND FLASHING BEACON INSTALLATION DETAILS (ERRATA ISSUED BY EB XX-XXX)**	**EB 08-036**	**01/08/09**
680-11	SIGNAL HEAD ASSEMBLY DETAILS	EB 13-045	05/08/14
680-12	SINGLE SPAN WIRE MOUNTED SIGN INSTALLATION DETAILS	EB 18-041	01/01/18
680-13	DUAL SPAN WIRE AND MAST ARM SIGN INSTALLATION DETAILS	EB 18-041	01/01/18
680-14	INDUCTANCE LOOP VEHICLE DETECTOR INSTALLATION DETAILS	EB 18-041	01/01/18
680-15	MAGNETIC VEHICLE DETECTOR INSTALLATION DETAILS (DISAPPROVED)	EB 18-041	01/01/18
680-16	WOOD POLE DETAILS	EB 18-041	01/01/18
680-17	UTILITY CLEARANCES TOO TRAFFIC SIGNALS	EB 18-041	01/01/18
685-01	PAVEMENT MARKING DETAILS (SHEET 1 OF 9) (ERRATA ISSUED BY EB 13-041)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 2 OF 9)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 3 OF 9)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 4 OF 9)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 5 OF 9)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 6 OF 9) (ERRATA ISSUED BY EB 13-042)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 7 OF 9) (ERRATA ISSUED BY EB 17-041)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 8 OF 9) (ERRATA ISSUED BY EB 17-041)	EB 12-036	05/03/13
	PAVEMENT MARKING DETAILS (SHEET 9 OF 9) (ERRATA 1 ISSUED BY EB 13-041) (ERRATA 2 ISSUED BY EB XX-XXX)	**EB 12-036**	**05/03/13**

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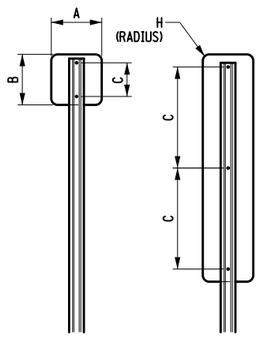
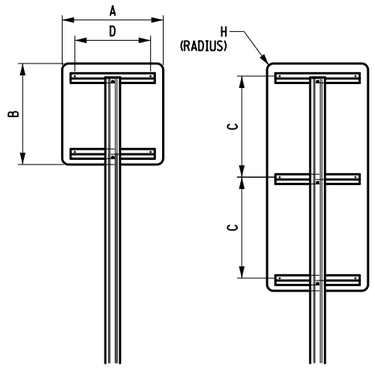
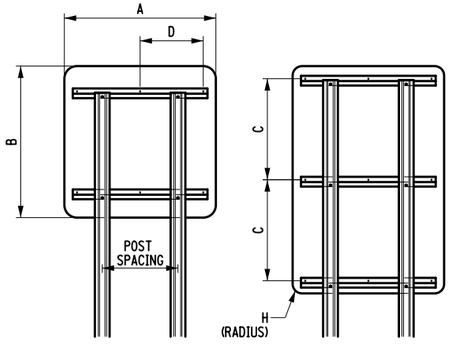
A	B	C	H	AREA (SQ. FT.)	SEE NOTE
12"	12"	8"	1½"	1.0	
18"	18"	12"	1½"	2.3	
12"	6"	4"	1½"	0.5	
12"	8"	4"	1½"	0.7	
12"	9"	4"	1½"	0.8	
18"	6"	4"	1½"	0.8	
18"	12"	6"	1½"	1.5	
6"	12"	6"	1½"	0.5	
8"	16"	10"	1½"	0.9	
9"	12"	6"	1½"	0.8	
12"	18"	12"	1½"	1.5	
12"	24"	18"	1½"	2.0	
12"	30"	24"	1½"	2.5	
12"	36"	14"	1½"	3.0	2
12"	48"	18"	1½"	4.0	2
12"	54"	24"	1½"	4.5	2
12"	60"	24"	1½"	5.0	2
18"	24"	18"	1½"	3.0	
18"	30"	24"	1½"	3.8	
18"	36"	14"	1½"	4.5	2
18"	48"	18"	1½"	6.0	2
18"	54"	24"	1½"	6.8	2
18"	60"	24"	1½"	7.5	2



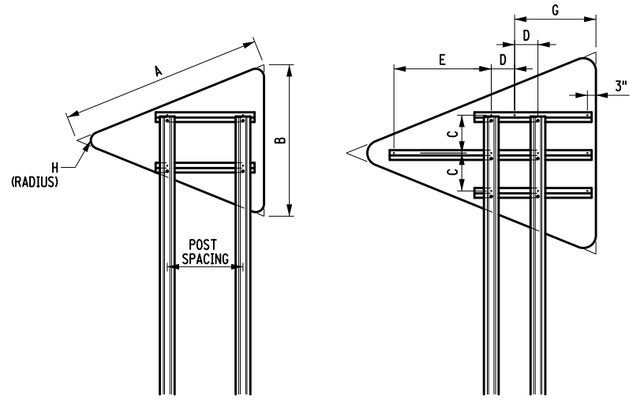
A	B	C	D	H	AREA (SQ. FT.)	SEE NOTE
21"	21"	15"	15"	1½"	3.1	
24"	24"	18"	18"	1½"	4.0	
30"	30"	24"	24"	1½"	6.3	
20"	18"	12"	15"	1½"	2.5	
21"	15"	9"	15"	1½"	2.2	
24"	6"	3"	18"	1½"	1.0	
24"	8"	4"	18"	1½"	1.3	
24"	12"	6"	18"	1½"	2.0	
24"	15"	9"	18"	1½"	2.5	
24"	18"	12"	18"	1½"	3.0	
30"	10"	6"	24"	1½"	2.1	
30"	15"	9"	24"	1½"	3.1	
30"	18"	12"	24"	1½"	3.8	
30"	21"	15"	24"	1½"	4.4	
30"	24"	18"	24"	1½"	5.0	
24"	30"	22"	18"	1½"	5.0	
24"	36"	24"	18"	1½"	6.0	
30"	36"	24"	24"	1½"	7.5	
24"	54"	24"	18"	1½"	9.0	2
30"	42"	18"	24"	1½"	8.8	2



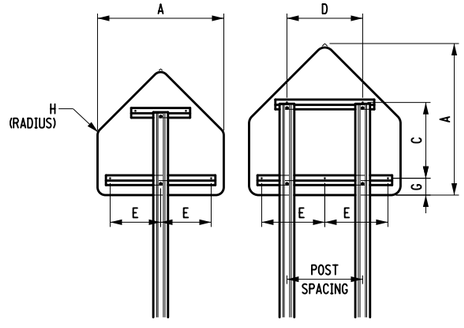
A	B	C	D	H	POST SPACING	AREA (SQ. FT.)	SEE NOTE
36"	12"	6"	15"	1½"	18"	3.0	
36"	18"	12"	15"	1½"	18"	4.5	
36"	20"	12"	15"	1½"	18"	5.0	
36"	24"	18"	15"	1½"	18"	6.0	
36"	30"	24"	15"	1½"	18"	7.5	
36"	36"	24"	15"	3"	18"	9.0	
42"	21"	12"	18"	1½"	18"	6.1	
42"	26"	18"	18"	1⅞"	18"	7.6	
42"	30"	24"	18"	1⅞"	18"	8.8	
45"	36"	24"	19½"	2¼"	24"	11.3	
48"	18"	12"	21"	1½"	24"	6.0	
48"	24"	18"	21"	1⅞"	24"	8.0	
48"	30"	24"	21"	2¼"	24"	10.0	
48"	36"	24"	21"	2¼"	24"	12.0	
54"	18"	12"	24"	1⅞"	24"	6.8	
60"	24"	18"	27"	1½"	30"	10.0	
60"	30"	24"	27"	2¼"	30"	12.5	
36"	48"	18"	15"	2¼"	18"	12.0	2
36"	54"	24"	15"	2¼"	18"	13.5	2
36"	60"	24"	15"	2¼"	18"	15.0	2
42"	60"	24"	18"	3"	24"	17.5	2
48"	60"	24"	21"	3"	24"	20.0	2
42"	42"	18"	21"	3"	24"	12.3	2
48"	48"	18"	21"	3"	24"	16.0	2
60"	48"	18"	27"	3"	30"	20.0	2
64"	42"	18"	27"	3"	30"	18.7	2



A	B	C	D	E	G	H	POST SPACING	AREA (SQ. FT.)	PAYMENT AREA (SQ. FT.)
40"	30"	10"				1⅞"	9"	3.9	7.9
48"	36"	12"				2"	12"	5.6	11.1
64"	48"	11"	6"	18"	17"	3"	12"	9.9	19.8



A	C	D	E	G	H	POST SPACING	AREA (SQ. FT.)	PAYMENT AREA (SQ. FT.)
30"	16"	12"	12"	4"	1⅞"		5.2	6.3
36"	18"	18"	15"	4"	2¼"	18"	7.3	9.0
48"	24"	24"	21"	6"	3"	24"	13.0	16.0



NOTES:

1. SIGN BLANKS SHALL BE 10 GAUGE THICK ALUMINUM. FIBERGLASS REINFORCED PLASTIC MAY BE USED FOR SIGN PANELS UP TO 48" X 48".
2. THESE PANELS USE THE "C" DIMENSION TWICE FOR EITHER MOUNTING HOLES OR HORIZONTAL Z BARS.
3. THE "PAYMENT AREA", WHICH INCLUDES FABRICATION WASTAGE, SHALL BE USED ONLY FOR DETERMINING PAYMENT FOR NON-RECTANGULAR SIGN BLANKS.
4. INTERMEDIATE SIZE SIGN BLANKS THAT ARE NOT SHOWN, SHALL BE FABRICATED SIMILAR TO THE CLOSEST SHOWN SIZE.
5. SIGN PANELS WIDER THAN SHOWN SHALL BE FABRICATED AS SHOWN ON THE CURRENT "LARGE GUIDE SIGNS" STANDARD SHEET.
6. ADDITIONAL SIGN BLANK DIMENSIONS ARE GIVEN IN "STANDARD HIGHWAY SIGNS", FEDERAL HIGHWAY ADMINISTRATION.
7. THE HORIZONTAL Z BAR LENGTH SHALL BE A MINIMUM OF 1" LONGER THAN THE CENTER TO CENTER DISTANCE BETWEEN EXTREME MOUNTING HOLES. WHERE POSTS ARE LOCATED AT THE END OF HORIZONTAL Z BAR, THE HORIZONTAL Z BAR SHALL EXTEND BEYOND THE SIDE OF THE POST A MINIMUM OF ONE ½" AND A MAXIMUM OF 2".
8. ALUMINUM Z BARS WEIGHING ONE POUND PER FOOT AND MEASURING Z 2⅜" X 1¼" X 3⁄16" MAY BE PREPUNCHED WITH 5⁄16"Ø HOLES AT 1" CENTERS ALONG THE ENTIRE LENGTH.
9. POST AND HORIZONTAL Z BAR ARRANGEMENTS ARE SHOWN FOR COMMON BLANKS. THESE ARRANGEMENTS MAY BE ADJUSTED AS NECESSARY WHERE A NUMBER OF SIGN BLANKS ARE GROUPED IN SIGN ASSEMBLIES OR WHERE ADDITIONAL POSTS ARE REQUIRED DUE TO POST CAPACITY LIMITATIONS.
10. MATERIALS ARE PER SUBSECTIONS:
    730-01 ALUMINUM SIGN PANELS
    730-22 STIFFENERS, OVERHEAD BRACKETS AND MISCELLANEOUS HARDWARE
    730-23 FIBERGLASS REINFORCED PLASTIC SIGN PANELS
11. WHERE 730-05.02 REFLECTIVE SHEETING (CLASS B) OR TYPE IX IS REQUIRED, NYLON OR PLASTIC WASHERS SHALL BE INSTALLED BETWEEN FASTENER BOLT HEADS (OR NUTS) AND THE REFLECTIVE SHEETING ON THE SIGN FACE.
12. POSTS AND POST FOOTINGS SHALL BE INSTALLED AS SPECIFIED ON THE APPROPRIATE STANDARD SHEETS OR AS PER MANUFACTURERS INSTRUCTIONS.
13. THE TOP HOLES SHOWN ON THE HORIZONTAL Z BARS ARE FOR THE PANEL TO HORIZONTAL Z BAR CONNECTIONS. THE BOTTOM HOLES ON THE HORIZONTAL Z BARS ARE FOR THE HORIZONTAL Z BAR TO SIGN POST CONNECTIONS. THE HOLES SHOWN ON PANELS WITHOUT HORIZONTAL Z BARS ARE FOR PANEL TO POST CONNECTIONS.

ERRATA 1
ISSUED WITH EB 18-003

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

SIGN BLANK DETAILS (SHEET 1 OF 2)

APPROVED OCTOBER 05, 2009

/S/ RICHARD W. LEE, P.E.

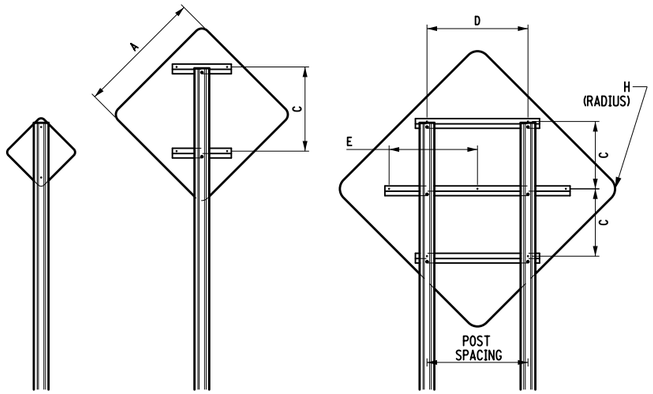
FOR THE DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 09-025

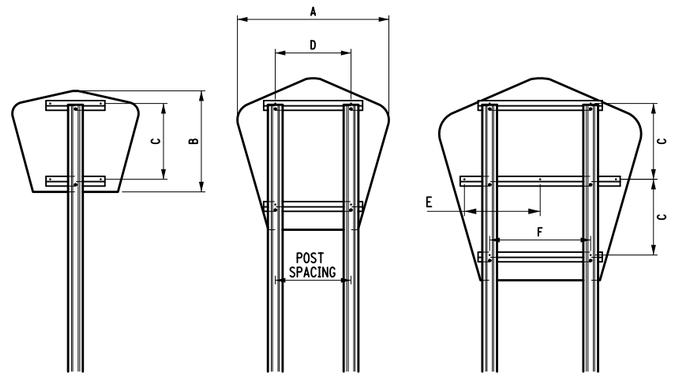
645-01

STANDARD SHEETS (USC), January 01, 2020
FILE NAME = 645-0101.010710_e1.dgn
DATE/TIME = 25-JAN-2018 09:02
USER = rfoote

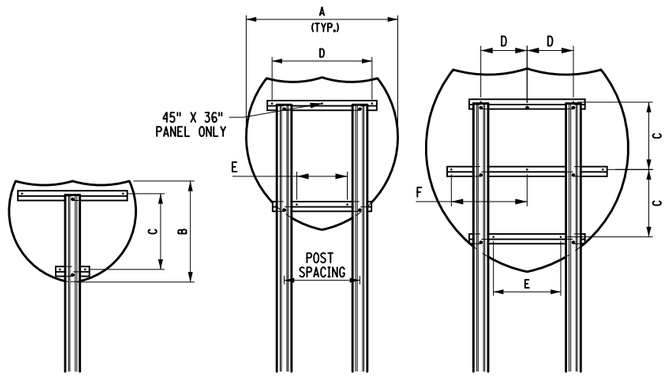
A	C	D	E	H	POST SPACING	AREA (SQ. FT.)
24"	12"			1"		4.0
30"	18"			1"		6.3
24"	16"	12"		1½"		4.0
30"	20"	15"		1⅞"		6.3
36"	12"	18"	15"	2½"	18"	9.0
48"	16"	24"	21"	3"	24"	16.0



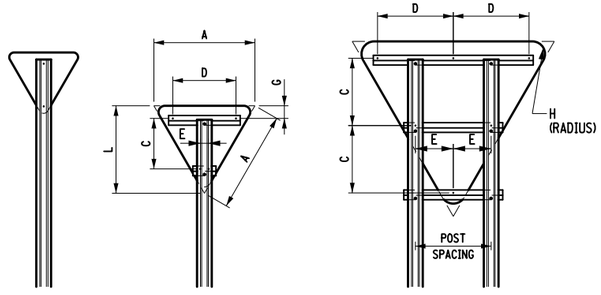
A	B	C	D	E	F	POST SPACING	AREA (SQ. FT.)	PAYMENT AREA (SQ. FT.)
24"	24"	18"	12"				3.0	4.0
30"	24"	18"	12"				4.0	5.0
36"	36"	24"	18"			18"	6.8	9.0
45"	36"	24"	18"			18"	9.1	11.3
48"	48"	18"	18"	18"	12"	24"	12.1	16.0
60"	48"	18"	18"	24"	12"	24"	16.2	20.0



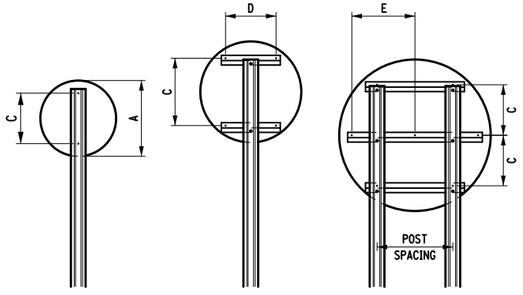
A	B	C	D	E	F	POST SPACING	AREA (SQ. FT.)	PAYMENT AREA (SQ. FT.)
24"	24"	18"	18"	6"			3.2	4.0
30"	24"	18"	24"	12"			3.8	5.0
36"	36"	24"	24"	12"		18"	7.0	9.0
45"	36"	24"	18"	18"		18"	8.8	11.3
48"	48"	16"	10"	16"	19"	24"	12.4	16.0
60"	48"	16"	10"	16"	25"	24"	15.5	20.0



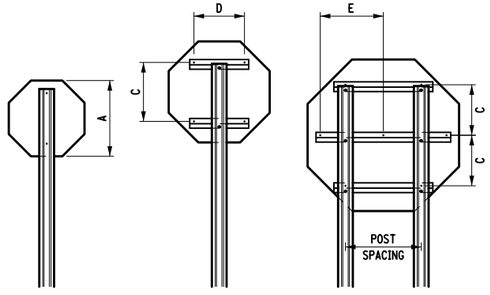
A	L	C	D	E	G	H	POST SPACING	AREA (SQ. FT.)	PAYMENT AREA (SQ. FT.)
18"	15"	12"				1½"		1.0	1.9
24"	21"	12"	15"	2"	3"	1½"		1.8	3.5
30"	27"	14"	18"	4"	4"	1½"		2.7	5.7
36"	31"	18"	24"	4"	4"	2"		3.9	7.8
48"	41.5	16"	18"	9"	4"	3"	18"	7.0	13.9
60"	52	21"	24"	12"	4"	4"	24"	10.9	21.7



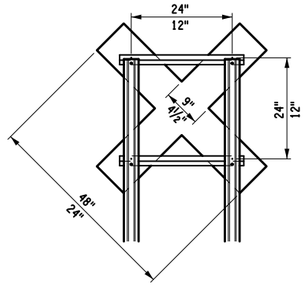
A	C	D	E	POST SPACING	AREA (SQ. FT.)	PAYMENT AREA (SQ. FT.)
15"	9"				1.3	1.6
18"	12"				1.8	2.3
24"	16"	12"			3.1	4.0
30"	20"	15"			4.9	6.3
36"	12"	18"	15"	18"	7.1	9.0
48"	16"	24"	21"	24"	12.6	16.0



A	C	D	E	POST SPACING	AREA (SQ. FT.)	PAYMENT AREA (SQ. FT.)
18"	12"				1.8	2.3
24"	14"	12"			3.1	4.0
30"	18"	15"			5.0	6.3
36"	12"	18"	15"	18"	7.0	9.0
48"	16"	24"	21"	24"	12.5	16.0



AREA (SQ. FT.)	
5.4	1.3
PAYMENT AREA (SQ. FT.)	
16.0	4.0
POST SPACING	
24"	12"



NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

SIGN BLANK DETAILS
(SHEET 2 OF 2)

APPROVED OCTOBER 05, 2009

/S/ RICHARD W. LEE, P.E.

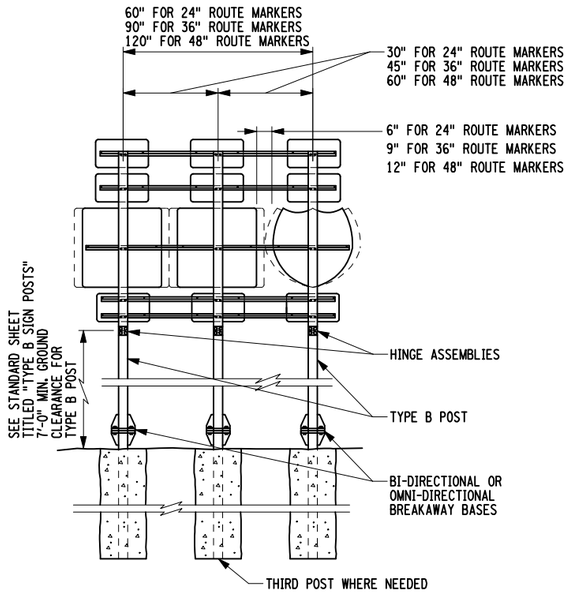
FOR THE DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 09-025

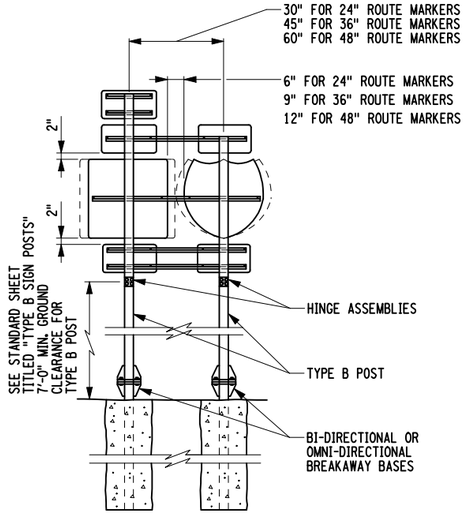
645-01

ERRATA 1
ISSUED WITH EB 18-003

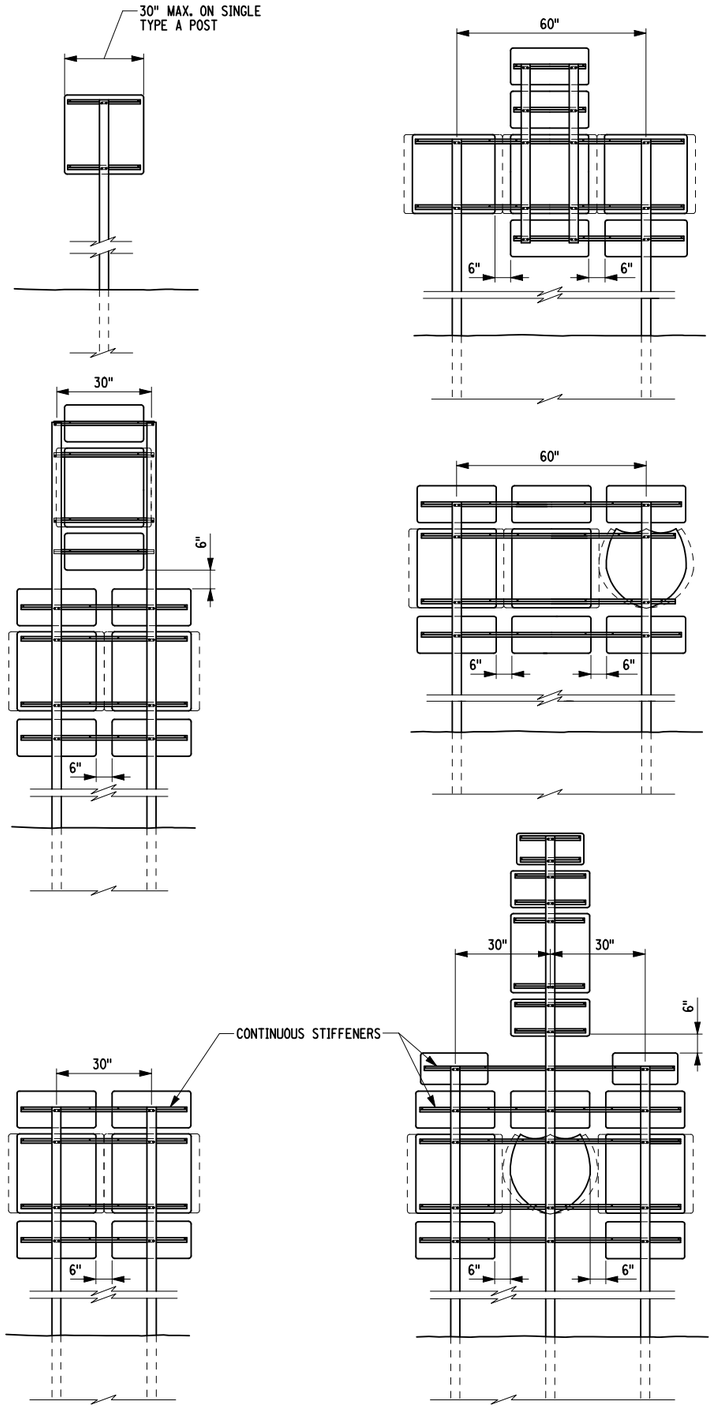
STANDARD SHEETS (USC), January 01, 2020



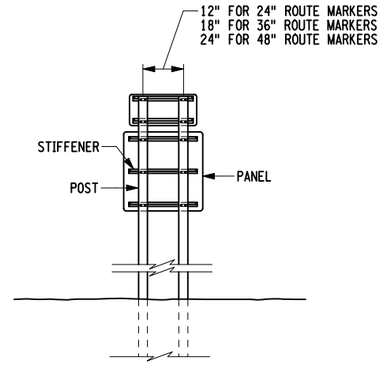
NOTE: VERTICAL SPACING BETWEEN ROUTE MARKER GROUPS SHALL BE THE SAME AS HORIZONTAL SPACING.

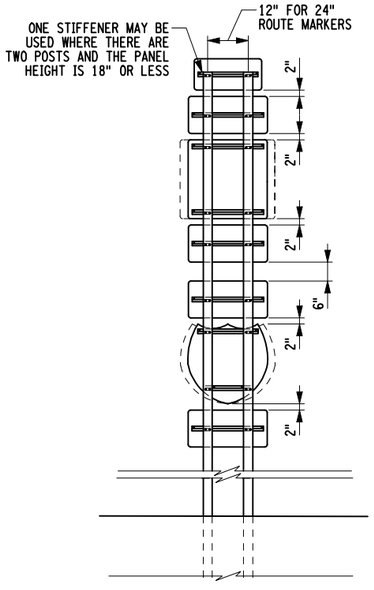


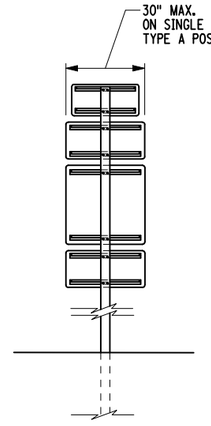
TYPICAL ROUTE MARKER ASSEMBLIES ON TYPE B POSTS



TYPICAL ROUTE MARKER ASSEMBLIES ON TYPE A POSTS







NOTES:

1. THESE DETAILS ARE TYPICAL ONLY AND ARE TO BE USED BY THE CONTRACTOR AS GUIDES IN INSTALLING THE SIGN ARRANGEMENT SHOWN ON THE PLANS.
2. THE VERTICAL AND HORIZONTAL SPACING BETWEEN GROUPS SHALL BE MAINTAINED AS SHOWN. A GROUP IS THOSE PANELS AND SUPPLEMENTARY PANELS ASSOCIATED WITH A ROUTE.
3. THE STANDARD POSTS FOR 24" SERIES ROUTE MARKERS ARE TYPE A POSTS. TYPE B OR TYPE A HIGH-CAPACITY POSTS SHALL BE USED WHERE SIGN ASSEMBLY AREA AND MOUNTING HEIGHT EXCEED THE CAPACITY OF TYPE A POSTS.
4. THE STANDARD POSTS FOR 36" AND 48" SERIES ROUTE MARKERS ARE TYPE B OR TYPE A HIGH-CAPACITY POSTS. TYPE A POSTS MAY BE USED SUBJECT TO THE SIGN AREA AND MOUNTING HEIGHT LIMITATIONS OF THE POSTS.
5. POST SIZE SHALL BE BASED ON THE SIGN AREA AND MOUNTING HEIGHT TABLES ON THE APPROPRIATE POST STANDARD SHEET OR APPROVED MATERIALS DETAILS. POST INSTALLATION DETAILS SHALL BE AS SHOWN ON THE APPROPRIATE POST STANDARD SHEET OR APPROVED MATERIALS DETAILS.
6. PANEL DIMENSIONS, STIFFENER DIMENSIONS, PANEL TO STIFFENER CONNECTION DETAILS AND SPACING SHALL BE AS SHOWN ON THE STANDARD SHEET TITLED "SIGN BLANK DETAILS". WHERE GROUPS ARE MOUNTED SIDE BY SIDE, THE STIFFENER SHALL BE CONTINUOUS.
7. NOTES ON STANDARD SHEET TITLED "SIGN BLANK DETAILS" ALSO APPLY.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

ROUTE MARKER ASSEMBLIES

APPROVED OCTOBER 05, 2009
/S/ RICHARD W. LEE, P.E.
FOR THE DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 09-025

645-02

EFFECTIVE DATE: 01/07/10

STANDARD SHEETS (USC), January 01, 2020

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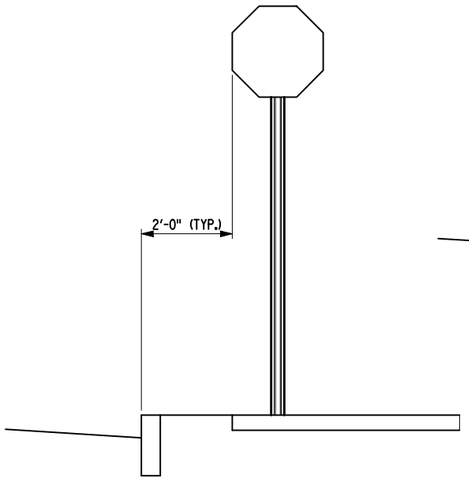
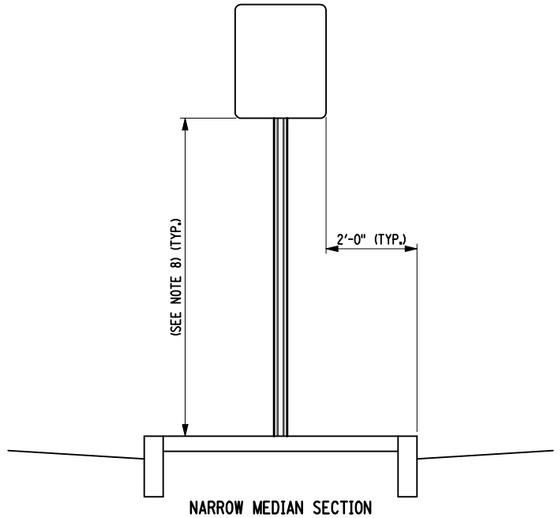
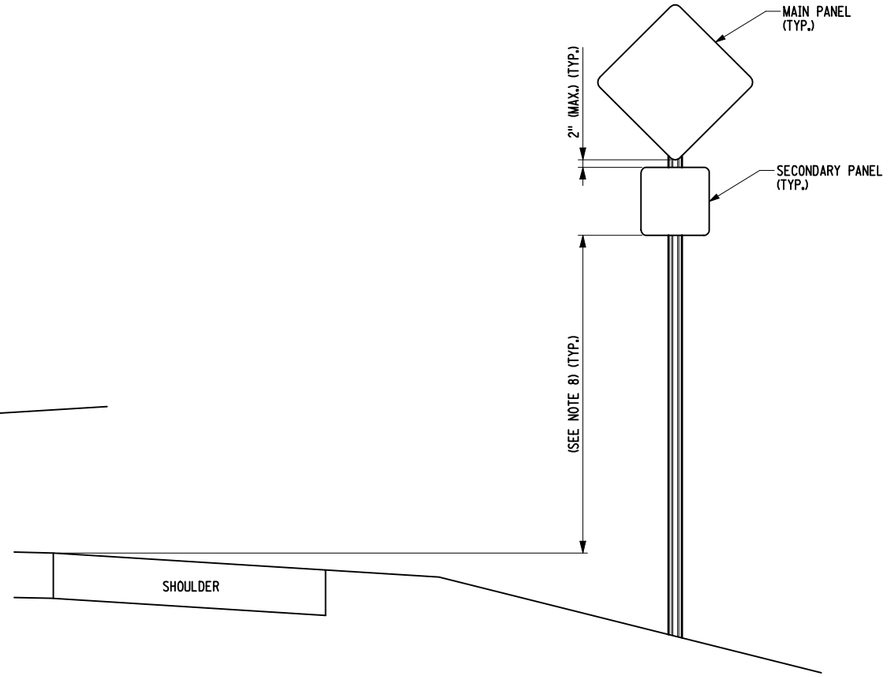
DATE/TIME = 09-OCT-2009 10:47
USER = jturley



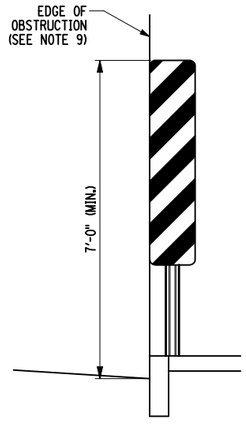
CURBED SECTION



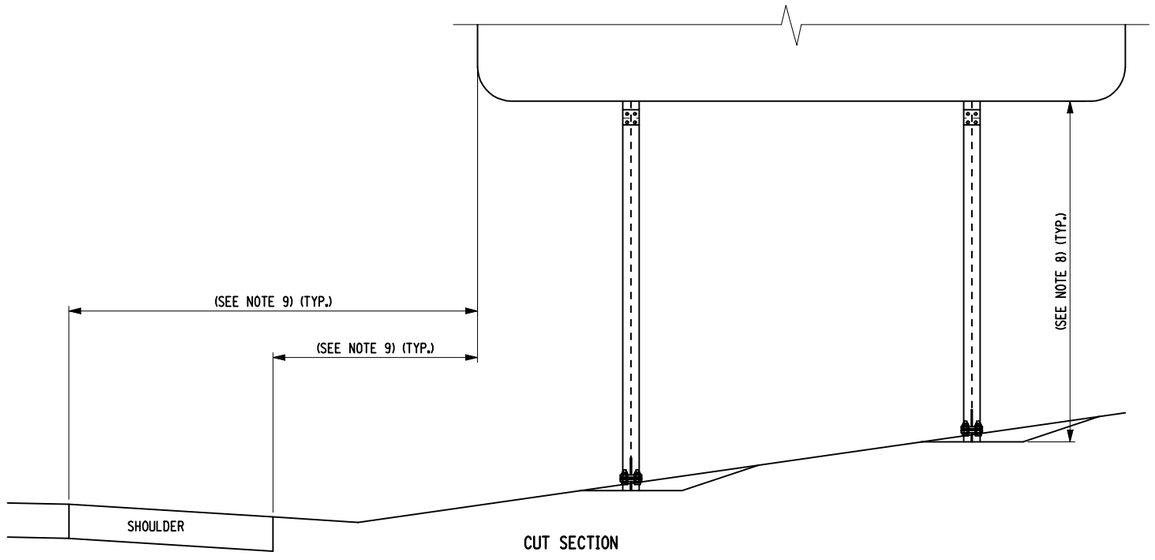
NARROW MEDIAN SECTION



FILL SECTION (WITH SUPPLEMENTARY PANEL)



TYPE B OBJECT MARKER POSITIONING



CUT SECTION

NOTES:

1. THESE DETAILS ARE TYPICAL ONLY AND ARE TO BE USED BY THE CONTRACTOR AS GUIDES IN INSTALLING THE SIGN ARRANGEMENTS SHOWN ON THE PLANS.
2. THE POST TYPE (TYPE A WITH OR WITHOUT SOIL PLATES OR EXTRA EMBEDMENT, HIGH CAPACITY TYPE A OR TYPE B) AND SIZE SHALL BE BASED ON THE SIGN AREA AND MOUNTING HEIGHT AS FOUND ON THE CURRENT MATERIALS DETAILS OR STANDARD SHEETS.
3. POSTS SHALL BE ERECTED AS SHOWN ON THE CURRENT MATERIALS DETAILS OR STANDARD SHEETS. POSTS SHOULD NOT BE ERECTED IN OR STRADDLING THE DITCH LINE.
4. HORIZONTAL Z BAR DIMENSIONS AND SPACING SHALL BE AS SHOWN ON THE CURRENT "SIGN BLANK DETAILS" STANDARD SHEETS. PANEL TO HORIZONTAL Z BAR CONNECTION DETAILS SHALL BE AS SHOWN ON THE CURRENT "SIGN PANEL DETAILS FOR INFO, GUIDE, AND OTHER SIGNS" STANDARD SHEET.
5. SIGN ASSEMBLIES HAVING SIGN PANELS MOUNTED SIDE-BY-SIDE SHALL HAVE CONTINUOUS HORIZONTAL Z BARS.
6. SIGNS WIDER THAN 30" SHALL USE TWO OR MORE POSTS.
7. THE VERTICAL SPACING BETWEEN PANELS SHALL BE AS SHOWN (2" MAX.).
8. THE VERTICAL DISTANCE TO THE BOTTOM OF THE SIGN SHALL BE DETERMINED AS FOLLOWS:
   A. CLEARANCE - 7' FROM THE GROUND TO THE BOTTOM OF THE SIGN.
   B. HEIGHT (ABOVE NEAR EDGE OF TRAVEL LANE OR ABOVE TOP OF CURB)
      - 7' (6' WITH SUPPLEMENTARY PANEL) ON CONVENTIONAL HIGHWAYS AND EXPRESSWAYS WHERE PARKED VEHICLES OR PEDESTRIAN ARE PRESENT.
      - 5' (4' WITH SUPPLEMENTARY PANEL) ON CONVENTIONAL HIGHWAYS AND EXPRESSWAYS WHERE NO PARKED VEHICLES OR PEDESTRIANS ARE PRESENT.
      - 7' (5' WITH LATERAL CLEARANCE GREATER THAN 30' ON FREEWAYS FOR GUIDE SIGNS. (WHERE FEASIBLE, A 30' MINIMUM LATERAL CLEARANCE IS REQUIRED FOR LARGE GUIDE SIGNS).
      - 7' ON FREEWAYS FOR REGULATORY, WARNING AND SMALL GUIDE SIGNS.
      - 5' (4' WITH SUPPLEMENTARY PANEL) ON RAMPS. (DIRECT CONNECT ROADWAYS SHALL BE CONSIDERED TO BE FREEWAYS, NOT RAMPS).
      - 4' MINIMUM ON BICYCLE PATHS. (5' MAX)
   C. WHERE THERE ARE PHYSICAL LIMITATIONS OR VISIBILITY CONSIDERATIONS, THE SIGNS SHALL BE LOCATED AS ORDERED BY THE ENGINEER-IN-CHARGE.
9. THE LATERAL CLEARANCE TO THE EDGE OF THE SIGN SHALL BE DETERMINED AS FOLLOWS:
   A. SHOULDER WIDTH OF LESS THAN 6', 12' MINIMUM FROM THE EDGE OF TRAVEL LANE.
   B. SHOULDER WIDTH OF 6' OR GREATER, 6' MINIMUM FROM THE EDGE OF SHOULDER.
   C. CURBED SECTIONS, 2' TYP. FROM THE FACE OF CURB.
   D. BICYCLE PATHS, 3' MINIMUM FROM THE EDGE OF PATH (6' MAX).
   E. TYPE B OBJECT MARKERS SHOULD BE PLACED WITH THE NEAR EDGE OF THE MARKER IN LINE WITH THE EDGE OF THE OBSTRUCTION CLOSEST TO TRAFFIC.
   F. WHERE THERE ARE PHYSICAL LIMITATIONS OR VISIBILITY CONSIDERATIONS, THE SIGNS SHALL BE LOCATED AS ORDERED BY THE ENGINEER-IN-CHARGE.
   G. SEE STANDARD SHEET TITLED "POSITIONING OF TRAFFIC SIGNS (SHEET 2 OF 2)" WHEN GUIDE RAIL IS PRESENT.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

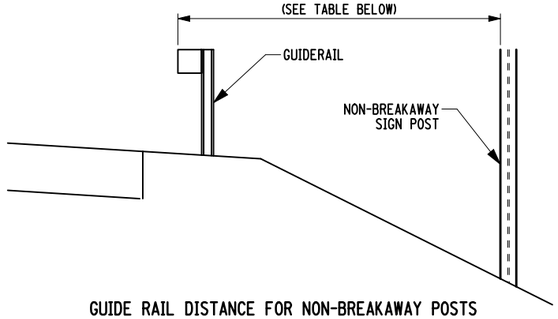
U.S. CUSTOMARY STANDARD SHEET

POSITIONING OF TRAFFIC SIGNS (SHEET 1 OF 2)

APPROVED OCTOBER 05, 2009	ISSUED UNDER EB 09-025
/S/ RICHARD W. LEE, P.E. FOR THE DEPUTY CHIEF ENGINEER (DESIGN)	645-03

EFFECTIVE DATE: 01/07/10

STANDARD SHEETS (USC), January 01, 2020
FILE NAME = 645-030L_010710.dgn
DATE/TIME = 09-OCT-2009 10:47
USER = jturley

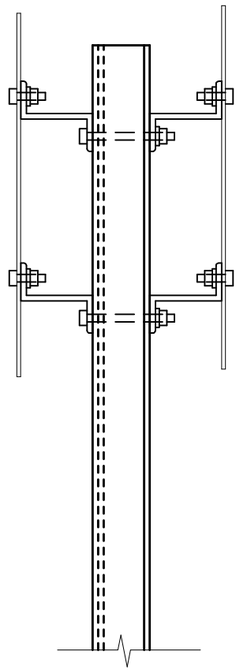


GUIDE RAIL DISTANCE FOR NON-BREAKAWAY POSTS

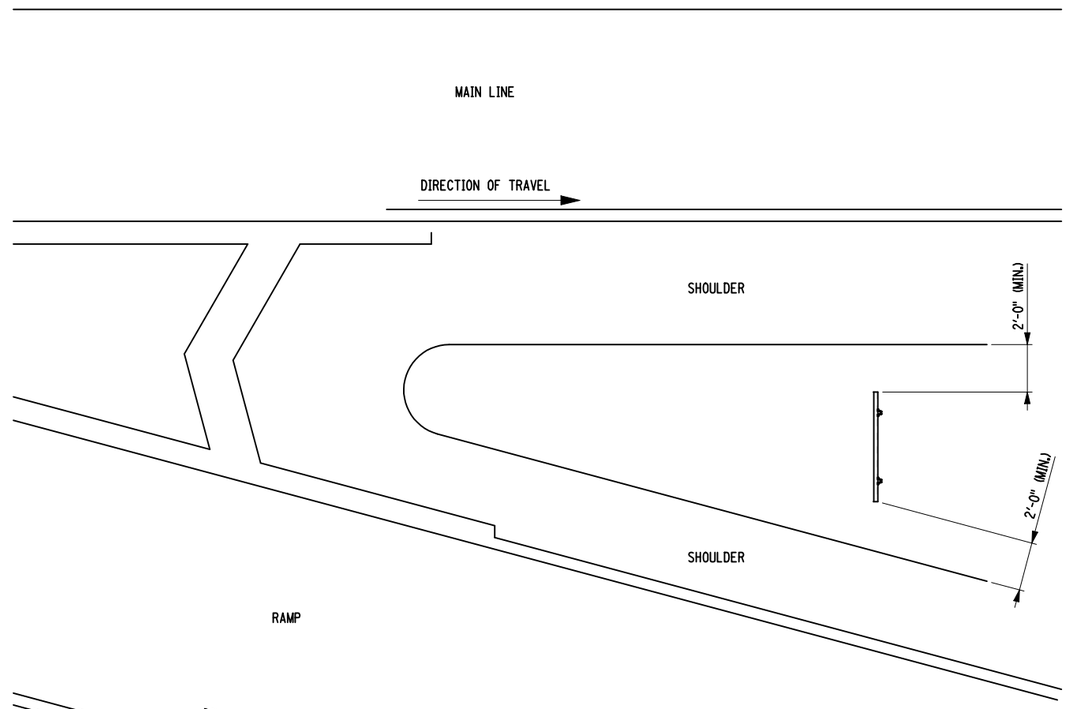
GUIDE RAIL TYPE / POST SPACING	MINIMUM DISTANCE
CABLE (POST 16'-0" O.C.)	12'-0"
CABLE (POST 12'-0" O.C.)	11'-0"
CABLE (POST 8'-0" O.C.)	9'-0"
CORRUGATED BEAM (POST 12'-6" O.C.)	9'-0"
CABLE (POST 4'-0" O.C.)	8'-0"
CORRUGATED BEAM (POST 6'-3" O.C.)	7'-0"
CORRUGATED BEAM (POST 4'-2" O.C.)	6'-0"
6" X 6" BOX BEAM (POST 6'-0" O.C.)	6'-0"
HEAVY POST BLOCKED OUT CORRUGATED (POST 6'-3" O.C.)	5'-6"
6" X 6" BOX BEAM (POST 3'-0" O.C.)	5'-0"
HEAVY POST BLOCKED OUT CORRUGATED (POST 3'-1½" O.C.)	3'-6"

NOTE: IN ADDITION TO MEETING THE OFFSET REQUIREMENTS ON STANDARD SHEET TITLED "POSITIONING OF TRAFFIC SIGNS (SHEET 1 OF 2)" THE POST SHALL BE OFFSET FROM THE FACE OF THE GUIDE RAIL BY THE AMOUNT SHOWN IN THE TABLE ABOVE.

NOTE: ALL BACK TO BACK SIGNS SHALL BE MOUNTED AS SHOWN, INCLUDING STREET NAME SIGNS.

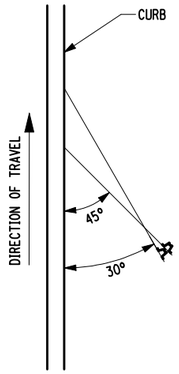


BACK TO BACK SIGN POSITIONING

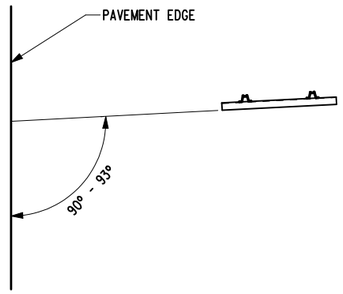


PAVEMENT MARKINGS SHALL BE AS SHOWN IN THE CURRENT M.U.T.C.D. AND STANDARD SHEETS

GORE EXIT SIGN POSITIONING



PARKING SIGN POSITIONING



STANDARD SIGN POSITIONING

FOR LATERAL CLEARANCE < 30'
FOR > 30', SHOULD BE < 90°

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

POSITIONING OF TRAFFIC SIGNS (SHEET 2 OF 2)

APPROVED OCTOBER 05, 2009

/S/ RICHARD W. LEE, P.E.

FOR THE DEPUTY CHIEF ENGINEER (DESIGN)

ISSUED UNDER EB 09-025

645-03

EFFECTIVE DATE: 01/07/10

STANDARD SHEETS (USC), January 01, 2020

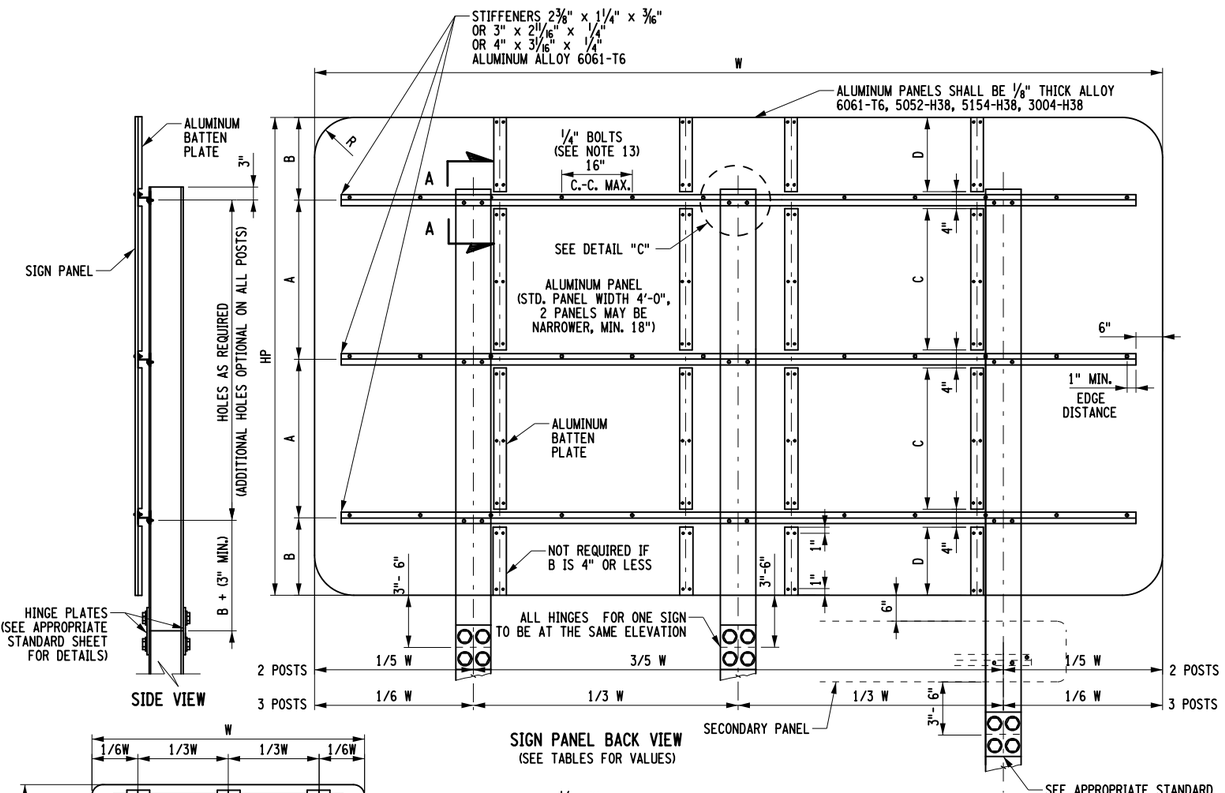
FILE NAME = 645-0302_010710.dgn
DATE/TIME = 09-OCT-2009 10:47
USER = jturley

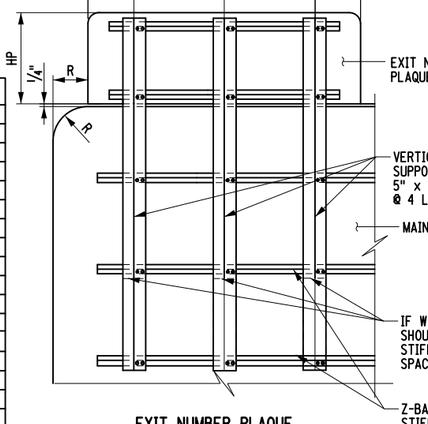
VERTICAL POST SPACING AND HORIZONTAL STIFFENER SIZES				
WITH (2 POSTS)			STIFFENERS	
W	3/5 W	1/5 W	WIND ZONE 70 MPH	WIND ZONE 80 MPH
3'-0" - 4'-0"	2'-0"	6" - 1'-0"	Z 2⅜" x 1¼" x 3/16" @ 1.00 LB/FT	
4'-6" - 5'-6"	3'-0"	9" - 1'-3"		
6'-0" - 7'-0"	4'-0"	1'-0" - 1'-6"		
7'-6" - 9'-0"	5'-0"	1'-3" - 1'-9"		
9'-6" - 10'-6"	6'-0"	1'-9" - 2'-3"		
11'-0" - 12'-0"	7'-0"	2'-0" - 2'-6"		
12'-6" - 14'-0"	8'-0"	2'-3" - 3'-0"		
14'-6" - 15'-6"	9'-0"	2'-9" - 3'-3"		
16'-0" - 17'-0"	10'-0"	3'-0" - 3'-6"		
17'-6" - 19'-0"	11'-0"	3'-3" - 4'-0"		
19'-6" - 20'-6"	12'-0"	3'-9" - 4'-3"		Z 3" x 2 11/16" x ¼" @ 2.33 LB/FT
21'-0" - 22'-0"	13'-0"	4'-0" - 4'-6"	Z 3" x 2 11/16" x ¼" @ 2.33 LB/FT	
22'-6" - 24'-0"	14'-0"	4'-3" - 5'-0"		
24'-6" - 25'-6"	15'-0"	4'-9" - 5'-3"		
26'-0" - 28'-0"	16'-0"	5'-0" - 6'-0"		
28'-6" - 31'-6"	18'-0"	5'-3" - 6'-9"		
32'-0" - 34'-6"	20'-0"	6'-0" - 7'-3"		
35'-0" - 38'-0"	22'-0"	6'-6" - 8'-0"		Z 4" x 3 3/16" x ¼" @ 2.85 LB/FT
38'-6" - 41'-6"	24'-0"	7'-3" - 8'-9"		
42'-0" - 44'-6"	26'-0"	8'-0" - 9'-3"	Z 4" x 3 3/16" x ¼" @ 2.85 LB/FT	
45'-0" - 48'-0"	28'-0"	8'-6" - 10'-0"		
WITH (3 POSTS)			STIFFENERS	
W	1/3 W 2 SPAC.	1/6 W	WIND ZONE 70 MPH	WIND ZONE 80 MPH
13'-6" - 16'-0"	5'-0"	1'-9" - 3'-0"	Z 2⅜" x 1¼" x 3/16" @ 1.00 LB/FT	
16'-6" - 19'-0"	6'-0"	2'-3" - 3'-6"		
19'-6" - 22'-0"	7'-0"	2'-9" - 4'-0"		
22'-6" - 25'-0"	8'-0"	3'-3" - 4'-6"		
25'-6" - 28'-0"	9'-0"	3'-9" - 5'-0"		Z 3" x 2 11/16" x ¼" @ 2.33 LB/FT
28'-6" - 31'-0"	10'-0"	4'-3" - 5'-6"	Z 3" x 2 11/16" x ¼" @ 2.33 LB/FT	
31'-6" - 34'-0"	11'-0"	4'-9" - 6'-0"		
34'-6" - 37'-0"	12'-0"	5'-3" - 6'-6"		
37'-6" - 40'-0"	13'-0"	5'-9" - 7'-0"		
40'-6" - 43'-0"	14'-0"	6'-3" - 7'-6"		
43'-6" - 46'-0"	15'-0"	6'-9" - 8'-0"		*
46'-6" - 49'-0"	16'-0"	7'-3" - 8'-6"		

* Z 4" x 3 3/16" x ¼" @ 2.85 LB/FT

HORIZONTAL STIFFENER SPACING				
HP	A	B	C	D
TWO STIFFENERS				
1'-6"	12"	3"	8"	-
2'-0"	18"	3"	14"	-
2'-6"	18"	6"	14"	4"
3'-0", 3'-6"	24"	6", 9"	20"	4", 7"
4'-0", 4'-6"	30"	9", 12"	26"	7", 10"
5'-0", 5'-6", 6'-0"	36"	12", 15", 18"	32"	10", 13", 16"
THREE STIFFENERS				
6'-6"	36"	3"	32"	-
7'-0', 7'-6"	36"	6", 9"	32"	4", 7"
8'-0", 8'-6"	36"	12", 15"	32"	10", 13"
9'-0", 9'-6"	36"	18", 21"	32"	16", 19"
FOUR STIFFENERS				
10'-0", 10'-6"	36"	6", 9"	32"	4", 7"
11'-0", 11'-6"	36"	12", 15"	32"	10", 13"
12'-0", 12'-6"	36"	18", 21"	32"	16", 19"
FIVE STIFFENERS				
13'-0", 13'-6"	36"	6", 9"	32"	4", 7"
14'-0", 14'-6"	36"	12", 15"	32"	10", 13"
15'-0", 15'-6"	36"	18", 21"	32"	16", 19"
SIX STIFFENERS				
16'-0", 16'-6"	36"	6", 9"	32"	4", 7"

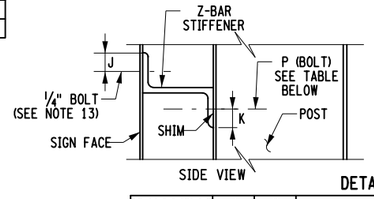
NOTE:
AS PER BD-OS2E, THE MAX HEIGHT OF THE MAIN SIGN PANEL IS 16'-6" AND THE MAX HEIGHT OF THE SUPPLEMENTAL SIGN PANEL ABOVE IS 3'-0".





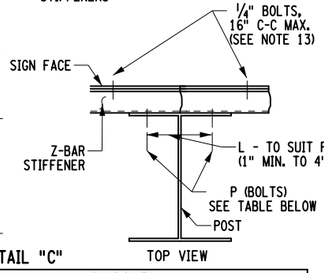
EXIT NUMBER PLAQUE MOUNTING DETAILS - RIGHT EXIT

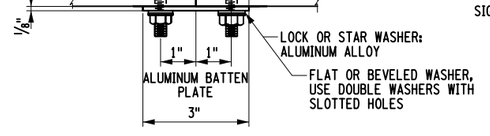
(RIGHT EXIT SHOWN, MOUNT EXIT PANEL ON LEFT SIDE OF MAIN PANEL FOR LEFT EXIT)



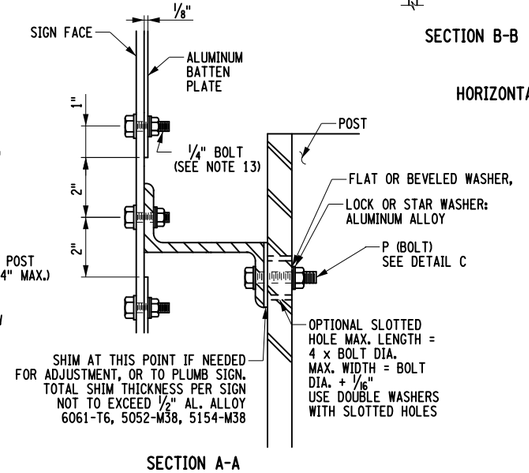
DETAIL "C"

STIFFENER	J	K	P (BOLT)
2⅜"	½"	½"	⅜" STAINLESS STEEL OR ⅜" ALUMINUM IN 7/16" DIA. HOLE
3"	1⅜"	1"	½" STAINLESS STEEL OR ½" ALUMINUM IN 9/16" DIA. HOLE
4"	1⅜"	1"	½" STAINLESS STEEL OR ½" ALUMINUM IN 9/16" DIA. HOLE

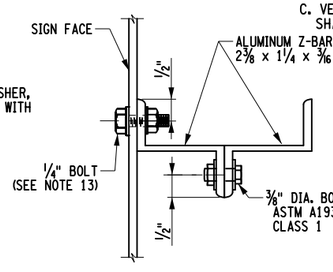




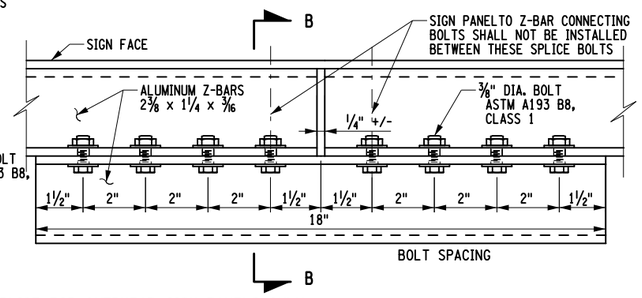
NOTE: BOLTS VERTICALLY SPACED 1" FROM EACH END. WHEN LENGTH IS > 18", A THIRD BOLT SHALL BE INSTALLED AT CENTER.



SECTION A-A



SECTION B-B



HORIZONTAL Z-BAR SPLICE FOR OVERHEAD SIGN PANELS ONLY

NOTES:

1. AT THE CONTRACTOR'S OPTION, PANELS LARGER THAN STANDARD SIZE MAY BE USED TO MINIMIZE OR ELIMINATE JOINTS.
2. UNLESS OTHERWISE SHOWN, ALL HARDWARE SHALL BE ALUMINUM ALLOY 6061-T6, 6262-T9, 2024-T4 OR 7075-T6 ASTM F468M OR STAINLESS STEEL ASTM A193M-B8 & A194M-8.
3. ALL 2024-T4 HARDWARE SHALL BE COATED WITH TYPE 205 FINISH IN ACCORDANCE WITH §719-02 OF THE STANDARD SPECS.
4. COMPONENTS OF LOCK BOLTS MAY HAVE MODIFIED TEMPERS IN COLD-FORMED ELEMENTS.
5. STIFFENERS FOR GROUND-MOUNTED SIGNS SHALL BE CONTINUOUS. (SPLICES NOT ALLOWED.)
6. SIGNS OVER ONE STANDARD PANEL HEIGHT (12'-0" FOR ALUMINUM) MAY BE CONSTRUCTED AS TWO SEPARATE SIGNS OF APPROXIMATELY EQUAL HEIGHT WITH A HORIZONTAL CONSTRUCTION JOINT SIMILAR TO THE VERTICAL JOINTS DETAILED ON THIS SHEET. THE HORIZONTAL JOINT SHALL FALL BETWEEN LINES OF LEGEND, SPAN THE ENTIRE WIDTH OF THE PANELS, AND HAVE A BOLT SPACING OF 16" MAX C-C WITH A 1" EDGE DISTANCE THE VERTICAL PLATE LENGTHS SHOULD BE ADJUSTED, IF NEEDED.
7. SECONDARY PANELS AND EXIT NUMBER PLAQUES SHALL BE FABRICATED IN THE SAME MANNER AS THE MAIN PANEL.
8. SECONDARY PANELS (BELOW THE MAIN PANEL) SHALL BE ATTACHED EITHER AS SHOWN FOR THE EXIT NUMBER PLAQUE OR TO THE POSTS. WHEN ATTACHED TO THE POSTS, THE SECONDARY PANEL SHALL BE FASTENED ABOVE THE HINGE PLATES.
9. UNLESS OTHERWISE SHOWN, HOLES SHALL NOT BE MORE THAN 1/16" LARGER IN DIAMETER THAN THE NOMINAL DIAMETER OF THE FASTENER.
10. POST SPACING'S OF 7'-0" OR LESS SHALL BE USED ONLY WITH POSTS THAT ARE ACCEPTABLE AT THAT SPACING. SEE STANDARD SHEET FOR "MULTIPLE POST SIGN INSTALLATION USING TYPE B SIGN POSTS".
11. ALUMINUM Z BARS WEIGHING 1.00 LB/FT AND MEASURING 2⅜" x 1¼" x 3/16" MAY BE PRE-PUNCHED WITH 5/16" DIAMETER. HOLES AT 1" CENTERS ALONG THE ENTIRE LENGTH. THE 16 HOLES FOR THE 8 BOLTS IN THE Z-BAR SPLICES SHALL BE 7/16".
12. SEE STANDARD SHEET "POSITIONING OF TRAFFIC SIGNS" FOR HEIGHT AND LATERAL LOCATION OF SIGNS.
13. ALL SIGN PANEL TO Z-BAR CONNECTING BOLTS, AND ALUMINUM BATTEN PLATE BOLTS SHALL BE ¼" HEX HEAD BOLT ALUMINUM 2024-T4 OR ¼" BRAZIER HEAD LOCK BOLT, ALUMINUM 2024 WITH ALUMINUM 6061-T67 COLLAR F468M 5/16" DIAMETER HOLES). WITH PLASTIC OR NYLON WASHERS. FLAT OR BEVELED WASHERS SHALL BE USED, DOUBLE WASHERS WITH SLOTTED HOLES WITH ALUMINUM ALLOY LOCK OR STAR WASHERS.
14. OVERHEAD PANELS SHALL BE CONSTRUCTED AS SHOWN EXCEPT:
    A. ALL LOCK BOLTS, BOLTS, NUTS & WASHERS SHALL BE STAINLESS STEEL. AFTER TIGHTENING, THREADS ON THREADED BOLTS MUST BE BURRED OR TACK WELDED USING TYPE E410 WELDING RODS TO PREVENT LOOSENING. ALUMINUM BATTEN PLATE BOLTS MAY BE ALUMINUM PER NOTE 13.
    B. ALL HORIZONTAL STIFFENERS SHALL BE Z 2⅜" x 1¼" x 3/16".
    C. VERTICAL Z-BAR SUPPORTS, UNLESS OTHERWISE SHOWN ON THE CONTRACT DOCUMENTS, SHALL SUPPORT NOT MORE THAN 6'-0" OF SIGN WIDTH.

NEW YORK STATE OF OPPORTUNITY. **Department of Transportation**

U.S. CUSTOMARY STANDARD SHEET

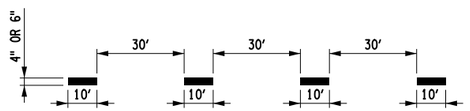
SIGN PANEL DETAILS FOR GUIDE, INFORMATION, AND OTHER SIGNS

ERRATA X EFF. 09/01/2018 ISSUED WITH EB 18-023	
ERRATA 1 EFF. 01/09/2014 ISSUED WITH EB 13-042	
APPROVED: NOVEMBER 4, 2013	ISSUED UNDER EB 12-040
RICHARD W. LEE, P.E. DEPUTY CHIEF ENGINEER, DESIGN (ACTING)	645-09

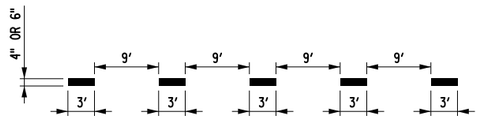
STANDARD SHEETS (USC), January 01, 2020

FILE NAME = 645-09_050213e1.dgn
DATE/TIME = 23-MAY-2018 13:36
USER = wdavies

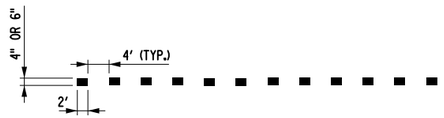
NORMAL LANE LINE (xLL)
NORMAL EDGE LINE (xEL)



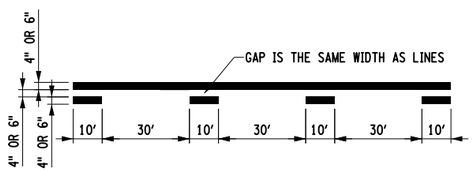
NORMAL BROKEN LANE LINE (xBLL)



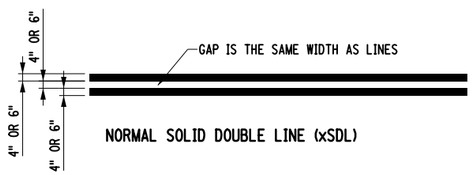
NORMAL DOTTED LANE LINE (xDLL)



NORMAL DOTTED EXTENSION LINE (xDEL)



NORMAL SOLID LINE AND NORMAL BROKEN LINE (ySBL)
(ONLY ALLOWED IN YELLOW)



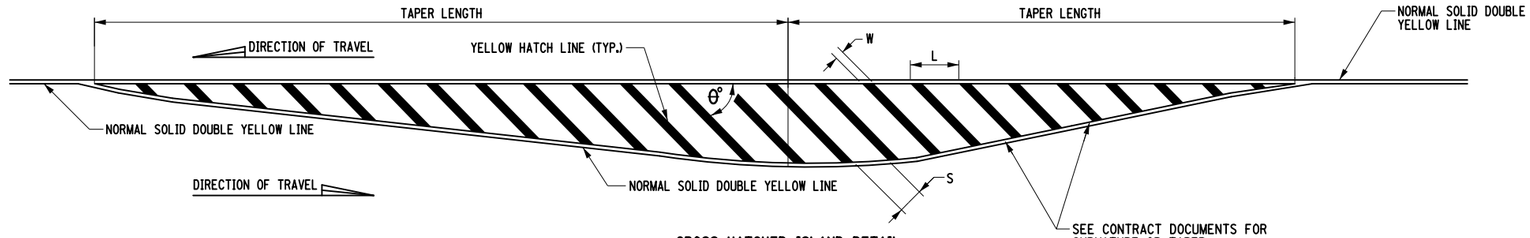
NORMAL SOLID DOUBLE LINE (xSDL)

PAVEMENT MARKING LINE NOTES:

L1. EDGE LINES ON ALL RURAL, HIGH SPEED HIGHWAY SEGMENTS WITH POSTED SPEEDS OF 45 MPH OR MORE SHALL BE 6". ALSO, NORMAL PAVEMENT MARKING LINES SHALL BE 6" ON FREEWAYS AND EXPRESSWAYS AND ON RAMPS TO AND FROM FREEWAYS AND EXPRESSWAYS, AND WHERE SPECIFIED IN THE CONTRACT DOCUMENTS. AT ALL OTHER LOCATIONS NORMAL PAVEMENT MARKING LINES SHALL BE 4". WIDE PAVEMENT MARKING LINES SHALL BE TWICE AS WIDE AS NORMAL LINES ON THE SAME HIGHWAY. CHANNELIZING LINES ARE THE SAME WIDTH AS WIDE LINES.

L2. PAVEMENT MARKING LINE CODES MAY BE SHOWN ON THE PLANS. DESIGNATIONS:

"W"=WHITE "Y"=YELLOW "WIDE"=WIDE

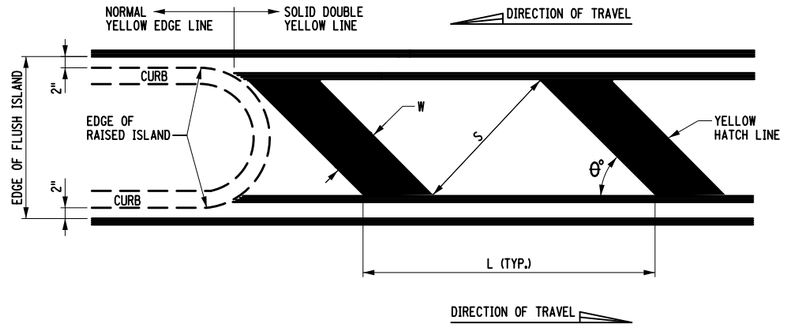


CROSS HATCHED ISLAND DETAIL
SHOWN FOR RADIUS TAPER
STRAIGHT TAPER STRIPING SIMILAR

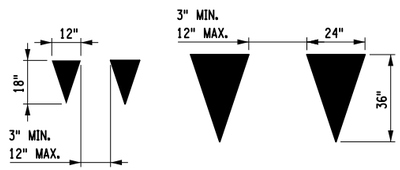
POSTED SPEED ≥ 45 MPH				
TYPE	W	θ°	S	L
A	1′	30°	3′	8′
B	1′	35°	3′	7′
C	2′	45°	6′	11′-4"

POSTED SPEED < 45 MPH				
TYPE	W	θ°	S	L
A	8"	30°	2′	5′-4"
B	1′	35°	3′	7′
C	2′	45°	6′	11′-4"

CROSS HATCH LINE DIMENSIONS
NOTE: TYPE SHALL BE AS PER PLAN. DEFAULT VALUE IS TYPE C UNLESS OTHERWISE SHOWN.



TYPICAL CROSS HATCH LINE DETAIL AT FLUSH OR RAISED ISLANDS AND AT MEDIAN AREAS



YIELD LINE MARKINGS
(EACH TRIANGLE PAID FOR SEPARATELY)

GENERAL PAVEMENT MARKING NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE MUTCD AND NYS SUPPLEMENT.
2. EDGE LINES SHALL BE YELLOW ON THE LEFT SIDE AND WHITE ON THE RIGHT SIDE IN THE DIRECTION OF TRAVEL UNLESS OTHERWISE SHOWN ON THE PLANS. IF THE CURB OFFSET IS LESS THAN 2′-0", NO EDGE LINE SHALL BE APPLIED ADJACENT TO CURBS UNLESS OTHERWISE SHOWN ON THE PLANS. EDGE LINES SHALL BE PROVIDED AT THE CURB ADJACENT TO RAISED ISLANDS (SEE DETAIL).
3. WHERE MARKINGS NORMALLY FOLLOW A PAVEMENT JOINT, SINGLE LINE MARKINGS SHALL BE PLACED ALONG ONE SIDE OF THE JOINT. DOUBLE LINE MARKINGS SHALL STRADDLE THE JOINT. LANE LINES ON ROADWAYS WHICH ARE MORE THAN TWO LANES WIDE AND HAVE LONGITUDINAL JOINTS BETWEEN ADJACENT LANES, SHALL BE PLACED ON THE SIDE OF THE JOINT WHICH WILL OBTAIN OPTIMUM LANE WIDTHS.

   AT THE JUNCTION OF SINGLE AND DOUBLE LINE MARKINGS WHICH FOLLOW A PAVEMENT JOINT, THE SINGLE LINE SHALL BE AN EXTENSION OF EITHER OF THE DOUBLE LINES AND NOT THE SPACE BETWEEN THEM. AT THE JUNCTION OF SINGLE AND DOUBLE LINE MARKINGS WHICH DO NOT FOLLOW A PAVEMENT JOINT, THE SINGLE LINE MAY BE ALIGNED WITH THE CENTER OF THE DOUBLE LINE MARKING OR WITH EITHER LINE OF THE DOUBLE LINE.
4. ALL DIMENSIONS AND THE PLACEMENT OF ARROWS, SYMBOLS, AND TEXT SHOWN ARE TYPICAL AND SHALL APPLY UNLESS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.
5. THE REGIONAL TRAFFIC ENGINEER WILL REVIEW AND APPROVE ANY CHANGES TO THE PAVEMENT MARKING PLANS PRIOR TO FINAL INSTALLATION. CHANGES SHALL BE SUBMITTED TWO WEEKS PRIOR TO INSTALLATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

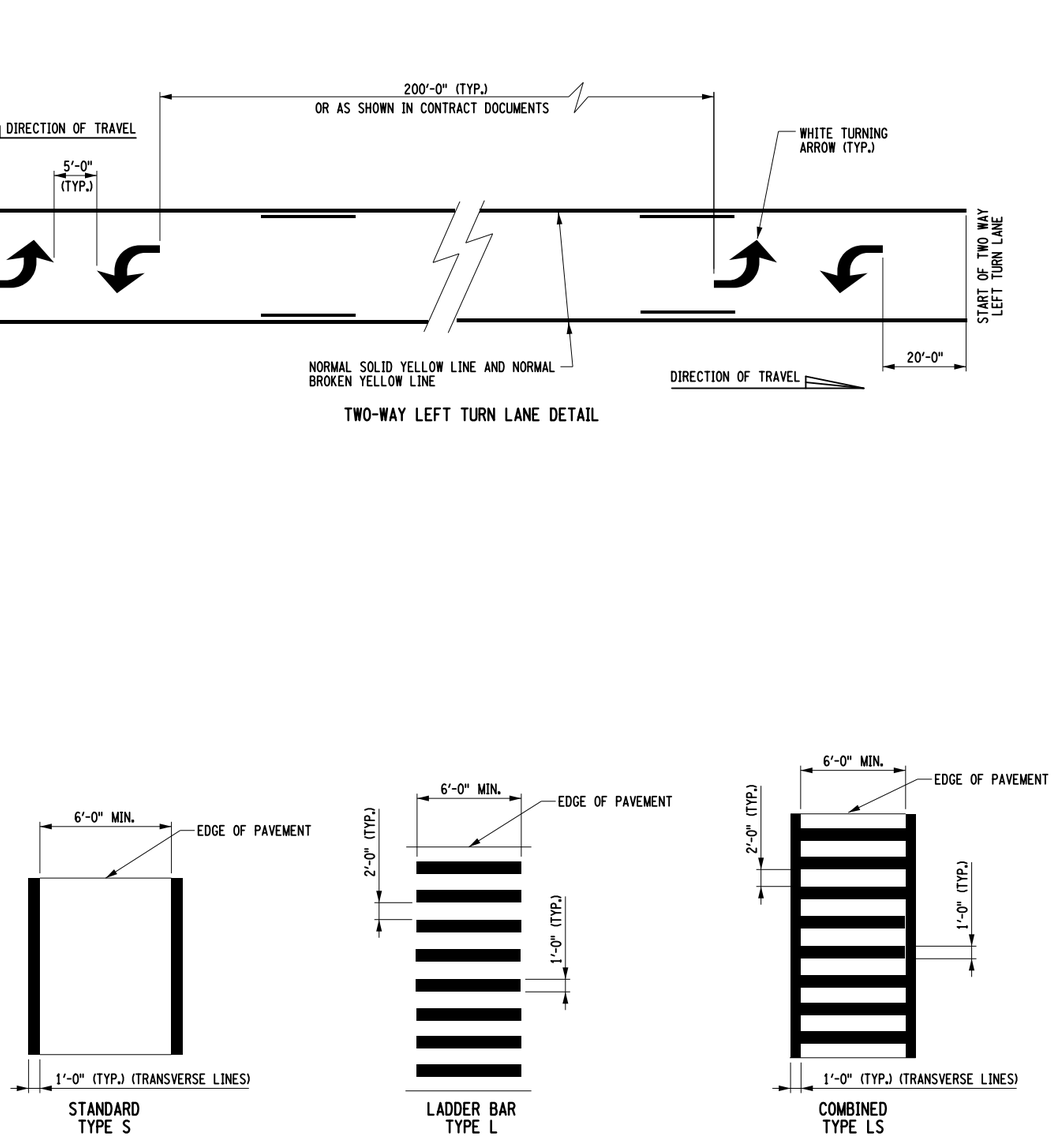
PAVEMENT_MARKING_DETAILS
(SHEET 1 OF 9)

APPROVED AUGUST 21, 2018	ISSUED UNDER EI 18-008
/S/ ROBERT LIMOGES P.E. DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	685-01

STANDARD SHEETS (USC), January 01, 2020

FILE NAME = 685-0101.010119.dgn
DATE/TIME = 01-OCT-2018 12:16
USER = rfoote

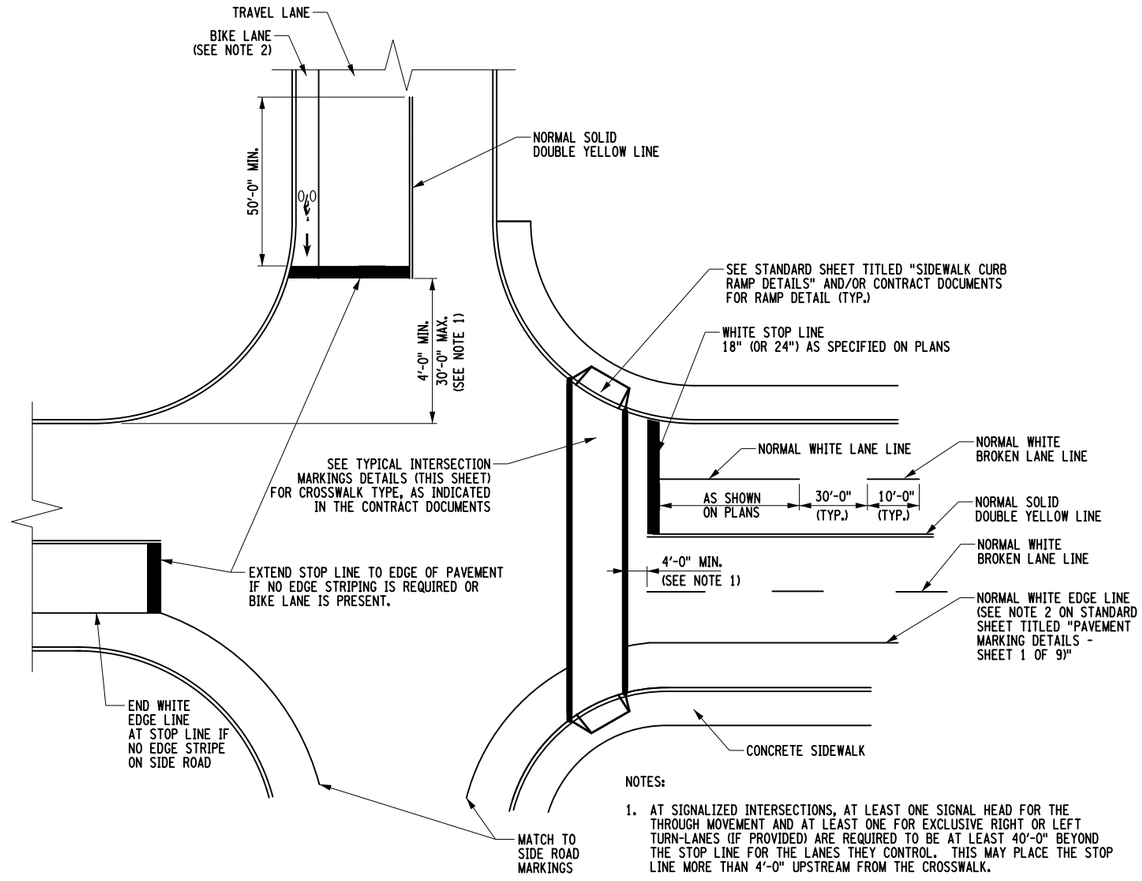
TWO-WAY LEFT TURN LANE DETAIL



TYPICAL CROSSWALK DETAILS

NOTES:

1. ALL CROSSWALK MARKINGS SHALL BE WHITE.
2. TYPE "L" AND TYPE "LS" CROSSWALKS SHALL HAVE THE LONGITUDINAL LINES PARALLEL TO THE LANE LINES.



TYPICAL INTERSECTION MARKINGS

NOTES:

1. AT SIGNALIZED INTERSECTIONS, AT LEAST ONE SIGNAL HEAD FOR THE THROUGH MOVEMENT AND AT LEAST ONE FOR EXCLUSIVE RIGHT OR LEFT TURN-LANES (IF PROVIDED) ARE REQUIRED TO BE AT LEAST 40'-0" BEYOND THE STOP LINE FOR THE LANES THEY CONTROL. THIS MAY PLACE THE STOP LINE MORE THAN 4'-0" UPSTREAM FROM THE CROSSWALK.
2. DISCONTINUE BIKE LANE MARKINGS AT LEAST 100'-0" BEFORE INTERSECTION IF NO MARKED BIKE LANE IS PRESENT DOWNSTREAM.

1. SEE STANDARD SHEET 685-01 (SHEET 1 OF 9) FOR LINE LAYOUT AND DIMENSIONS (EXCEPT AS NOTED).
2. REFER TO STANDARD SHEET 685-01 (SHEET 1 OF 9) FOR GENERAL NOTES.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS
(SHEET 2 OF 9)

APPROVED SEPTEMBER 24, 2012

/S/ TODD B. WESTHUIS, P.E.

ACTING DIRECTOR, OFFICE OF
TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 12-036

685-01

EFFECTIVE DATE: 05/02/2013

STANDARD SHEETS (USC), January 01, 2020

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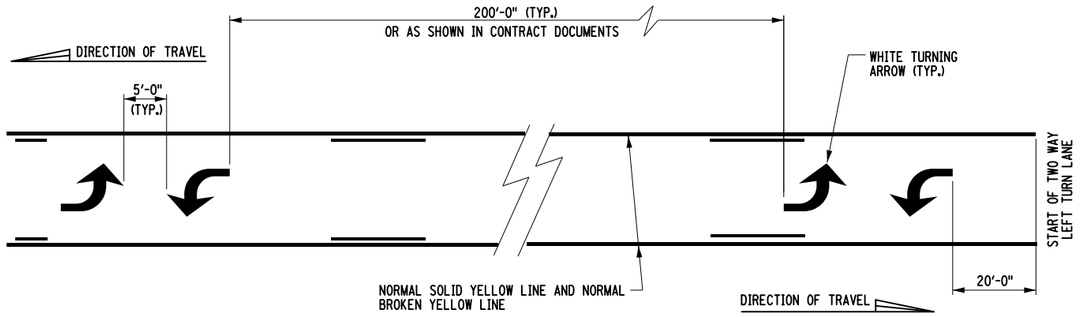
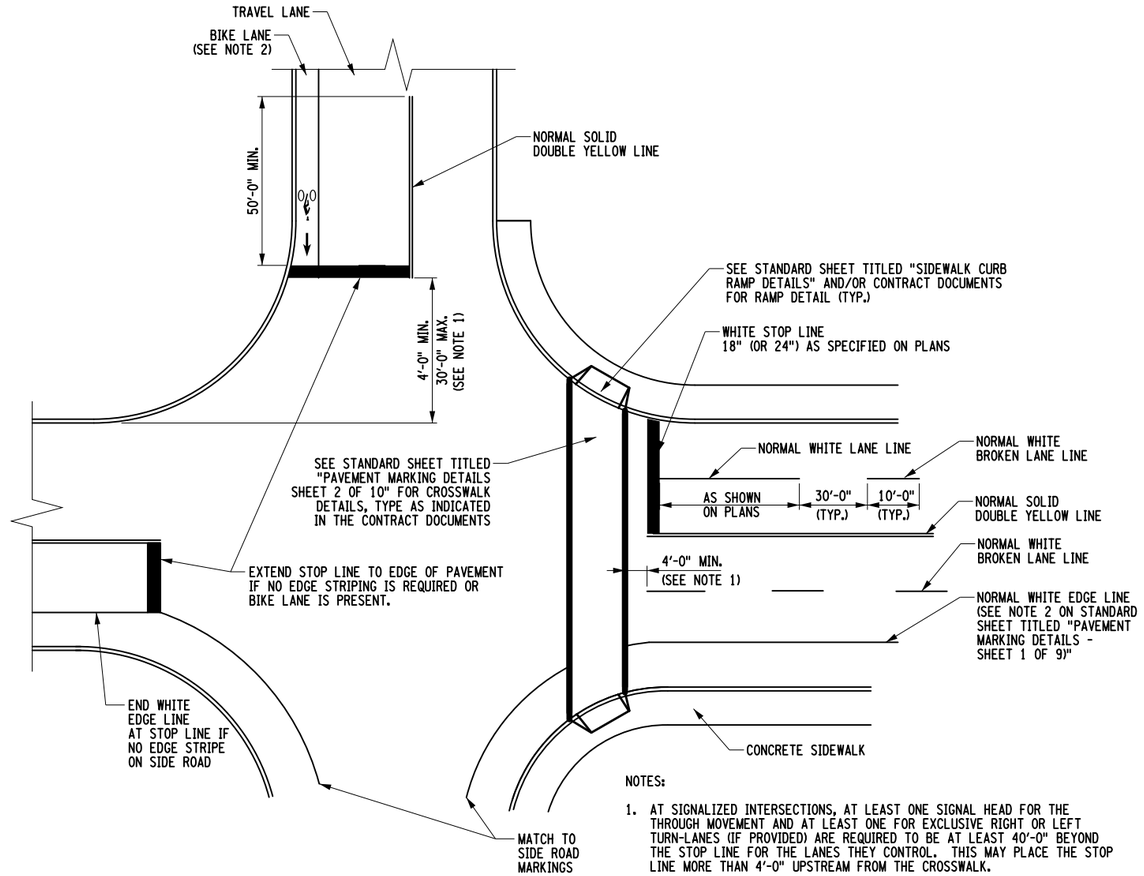


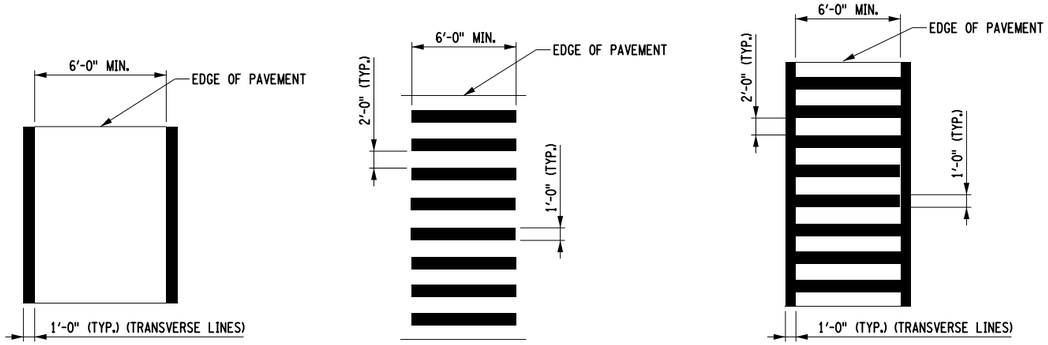
TWO-WAY LEFT TURN LANE DETAIL



TYPICAL INTERSECTION MARKINGS

NOTES:

1. AT SIGNALIZED INTERSECTIONS, AT LEAST ONE SIGNAL HEAD FOR THE THROUGH MOVEMENT AND AT LEAST ONE FOR EXCLUSIVE RIGHT OR LEFT TURN-LANES (IF PROVIDED) ARE REQUIRED TO BE AT LEAST 40'-0" BEYOND THE STOP LINE FOR THE LANES THEY CONTROL. THIS MAY PLACE THE STOP LINE MORE THAN 4'-0" UPSTREAM FROM THE CROSSWALK.
2. DISCONTINUE BIKE LANE MARKINGS AT LEAST 100'-0" BEFORE INTERSECTION IF NO MARKED BIKE LANE IS PRESENT DOWNSTREAM.



TYPICAL CROSSWALK DETAILS

NOTES:

1. ALL CROSSWALK MARKINGS SHALL BE WHITE.
2. TYPE "L" AND TYPE "LS" CROSSWALKS SHALL HAVE THE LONGITUDINAL LINES PARALLEL TO THE LANE LINES.

1. SEE STANDARD SHEET 685-01 (SHEET 1 OF 9) FOR LINE LAYOUT AND DIMENSIONS (EXCEPT AS NOTED).
2. REFER TO STANDARD SHEET 685-01 (SHEET 1 OF 9) FOR GENERAL NOTES.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS
(SHEET 2 OF 9)

APPROVED SEPTEMBER 24, 2012
/S/ TODD B. WESTHUIS, P.E.
ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 12-036

685-01

EFFECTIVE DATE: 05/02/2013

STANDARD SHEETS (USC), January 01, 2020

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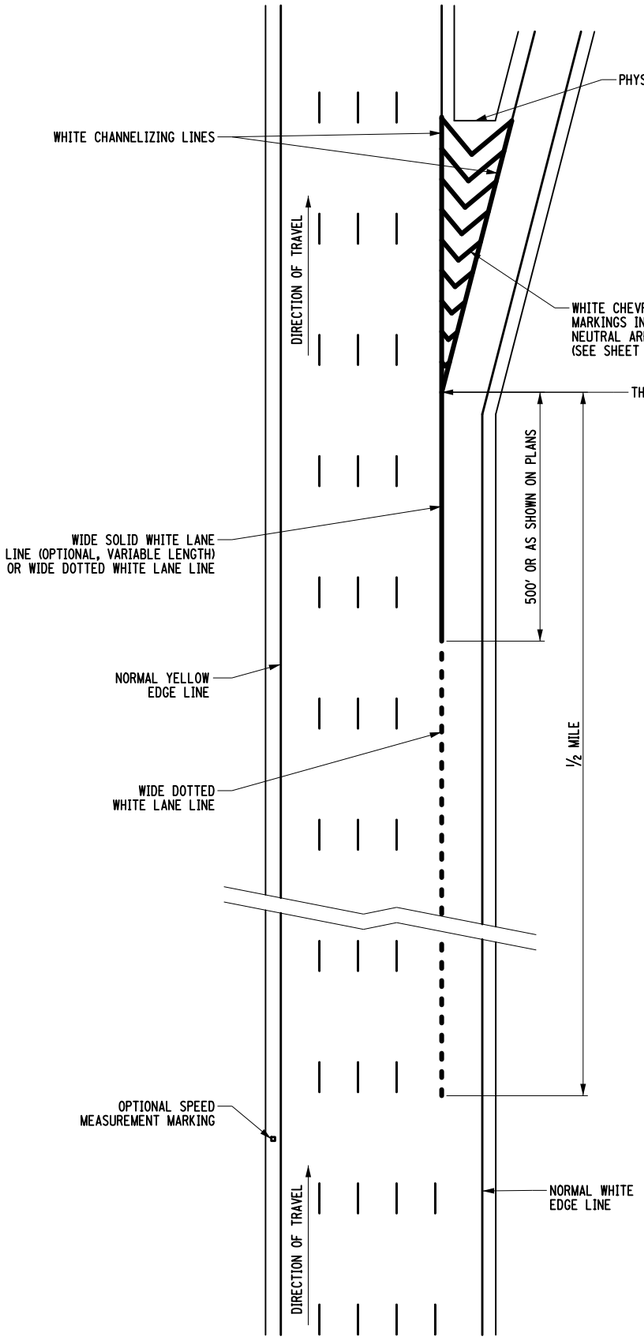
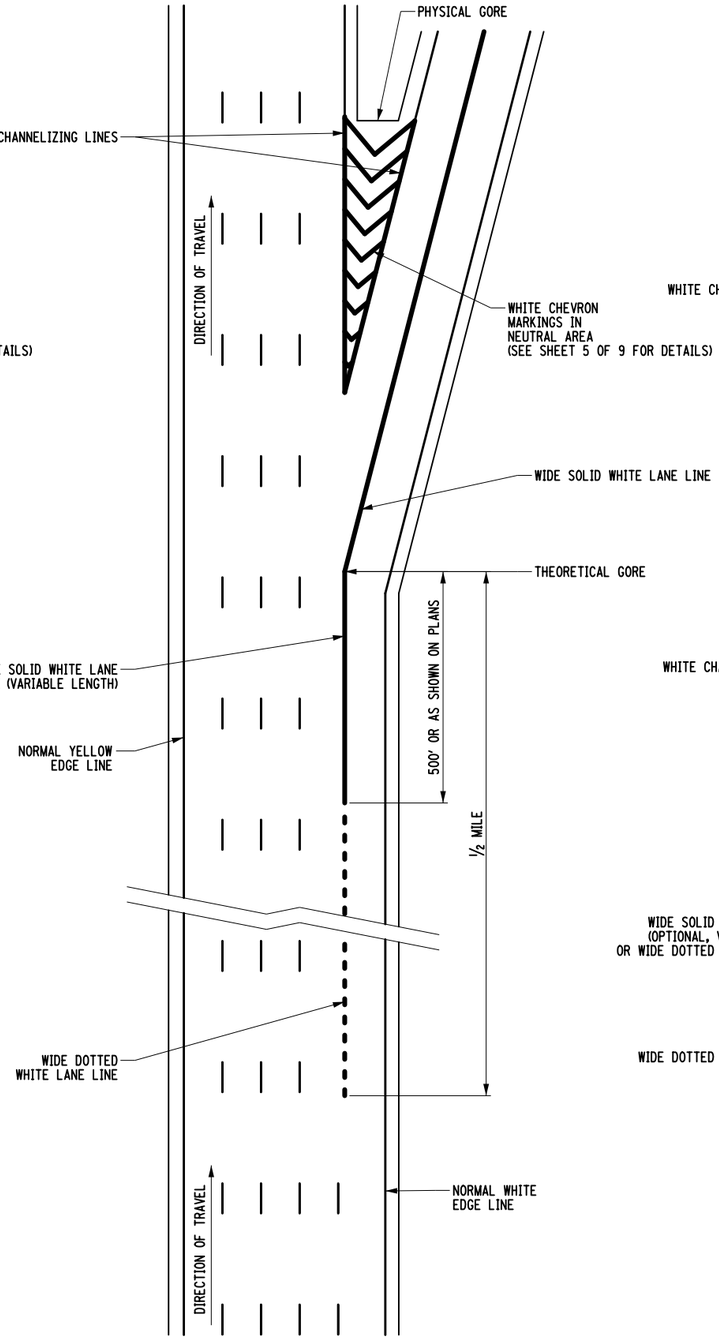
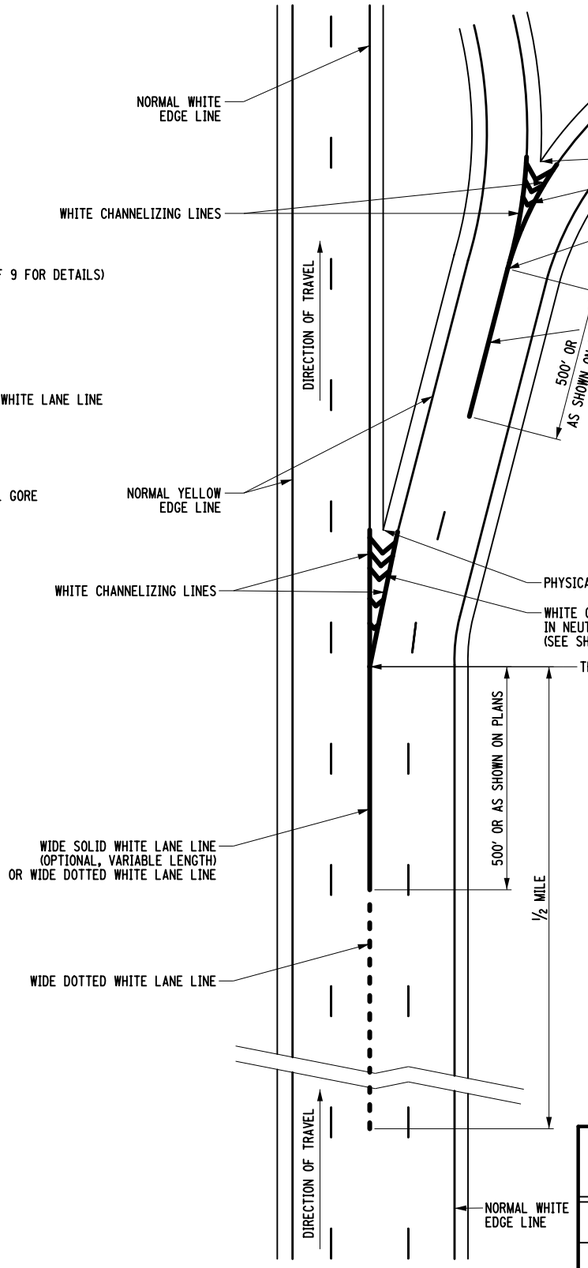


LANE DROP AT A SINGLE LANE EXIT RAMP



LANE DROP AT A MULTI-LANE EXIT RAMP WITH OPTION LANE



TWO-LANE DROP AT AN EXIT RAMP

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS (SHEET 3 OF 9)

APPROVED SEPTEMBER 24, 2012

/S/ TODD B. WESTHUIS, P.E.
ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 12-036

685-01

EFFECTIVE DATE: 05/02/2013

STANDARD SHEETS (USC), January 01, 2020

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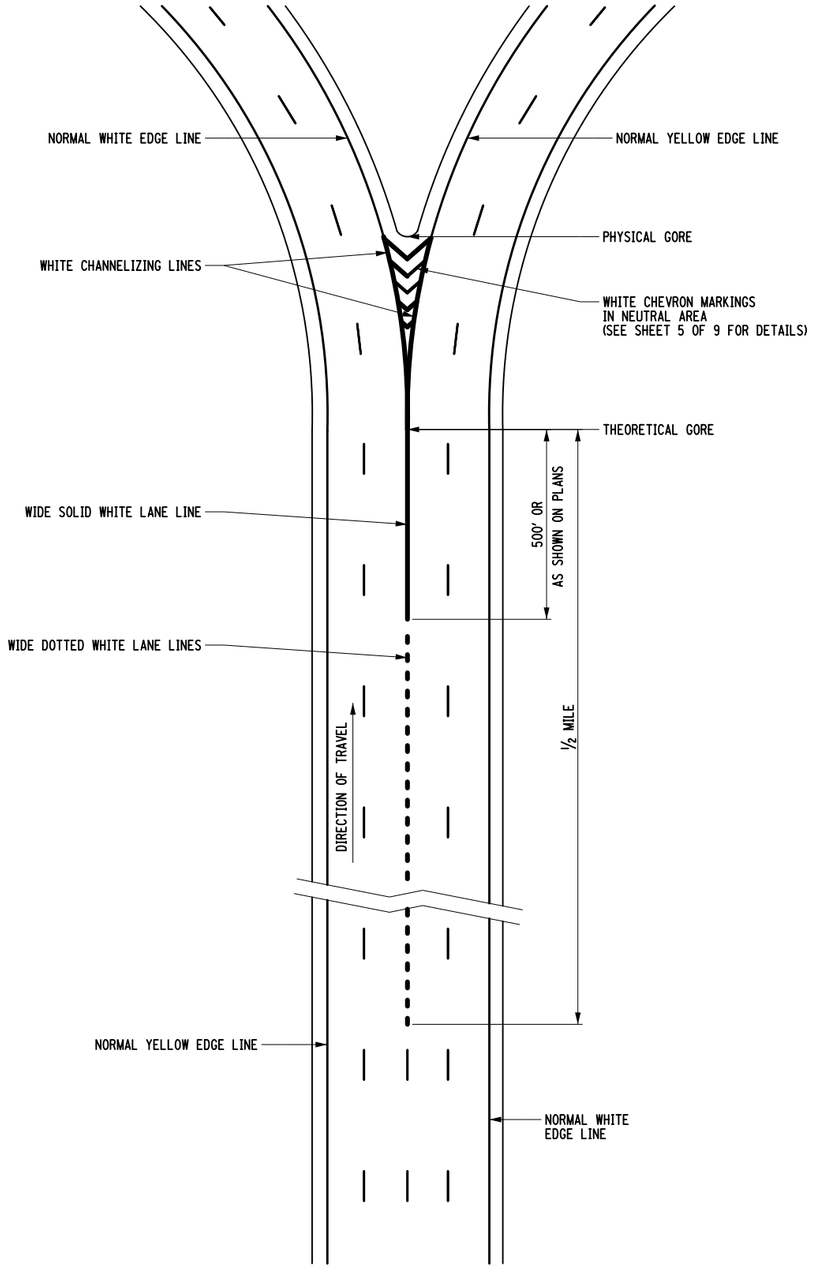
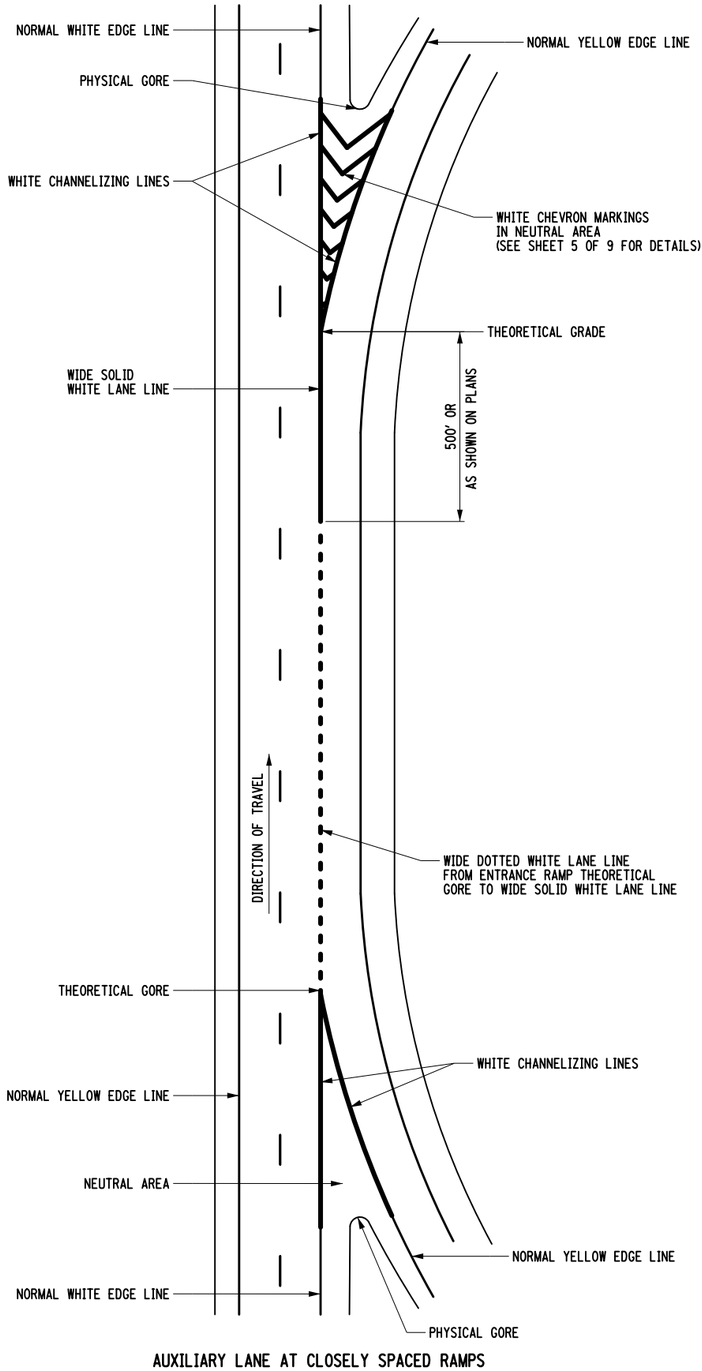


ROUTE SPLIT WITH DEDICATED LANES



AUXILIARY LANE AT CLOSELY SPACED RAMPS

NOTE: USE THIS DETAIL WHERE DISTANCE FROM THEORETICAL GORE OF ENTRANCE RAMP TO THEORETICAL GORE OF EXIT RAMP IS LESS THAN OR EQUAL TO ¾ MILE.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS
(SHEET 4 OF 9)

APPROVED SEPTEMBER 24, 2012

/S/ TODD B. WESTHUIS, P.E.

ACTING DIRECTOR, OFFICE OF
TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 12-036

685-01

EFFECTIVE DATE: 05/02/2013

STANDARD SHEETS (USC), January 01, 2020

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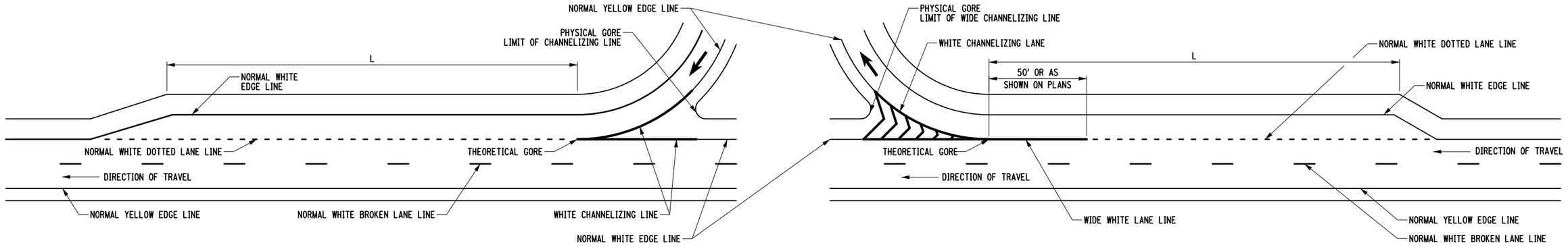
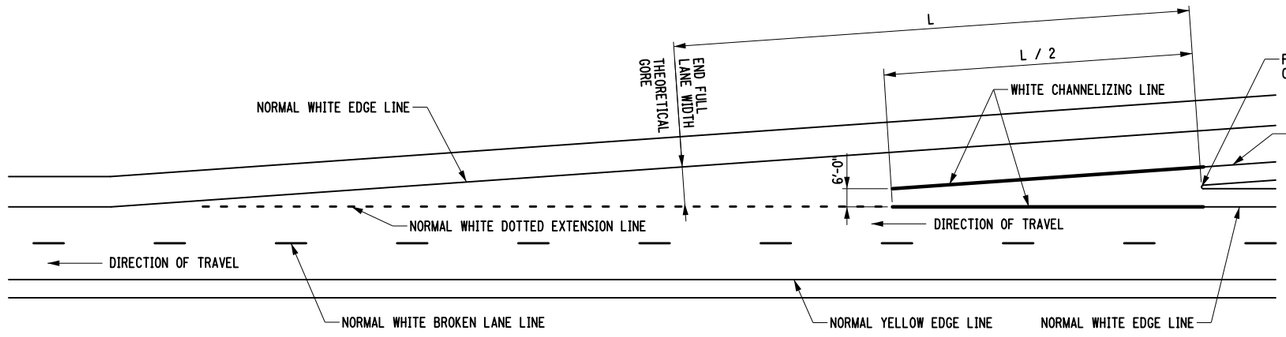


PARALLEL ACCELERATION LANE

PARALLEL DECELERATION LANE



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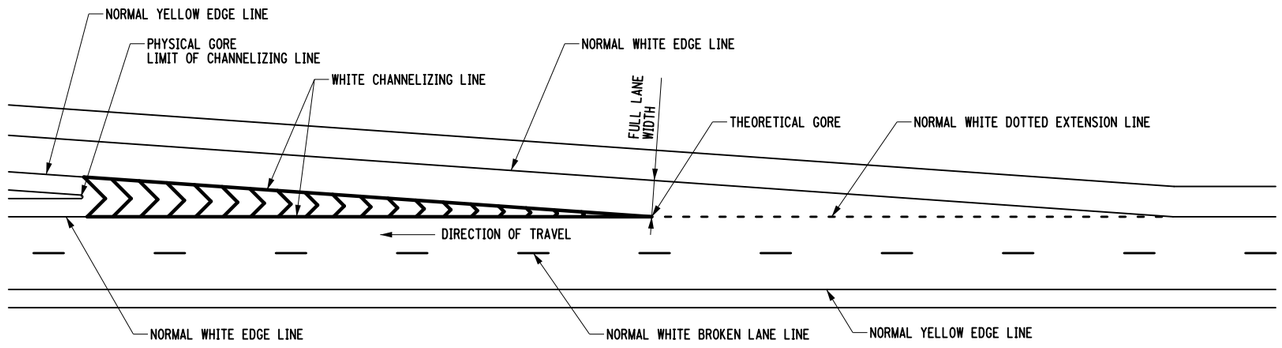

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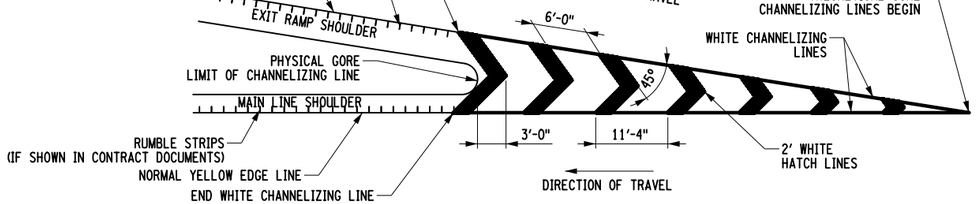

EXIT / DIVERGE
TYPICAL HATCH LINE AT GORE

1. SEE STANDARD SHEET TITLED "PAVEMENT MARKING DETAILS - SHEET 1 OF 9" FOR LINE LAYOUT AND DIMENSIONS. (EXCEPT AS NOTED)
2. REFER TO STANDARD SHEET TITLED "PAVEMENT MARKING DETAILS - SHEET 1 OF 9" FOR GENERAL NOTES.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS
(SHEET 5 OF 9)

APPROVED SEPTEMBER 24, 2012

/S/ TODD B. WESTHUIS, P.E.

ACTING DIRECTOR, OFFICE OF
TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB 12-036

685-01

EFFECTIVE DATE: 05/02/2013

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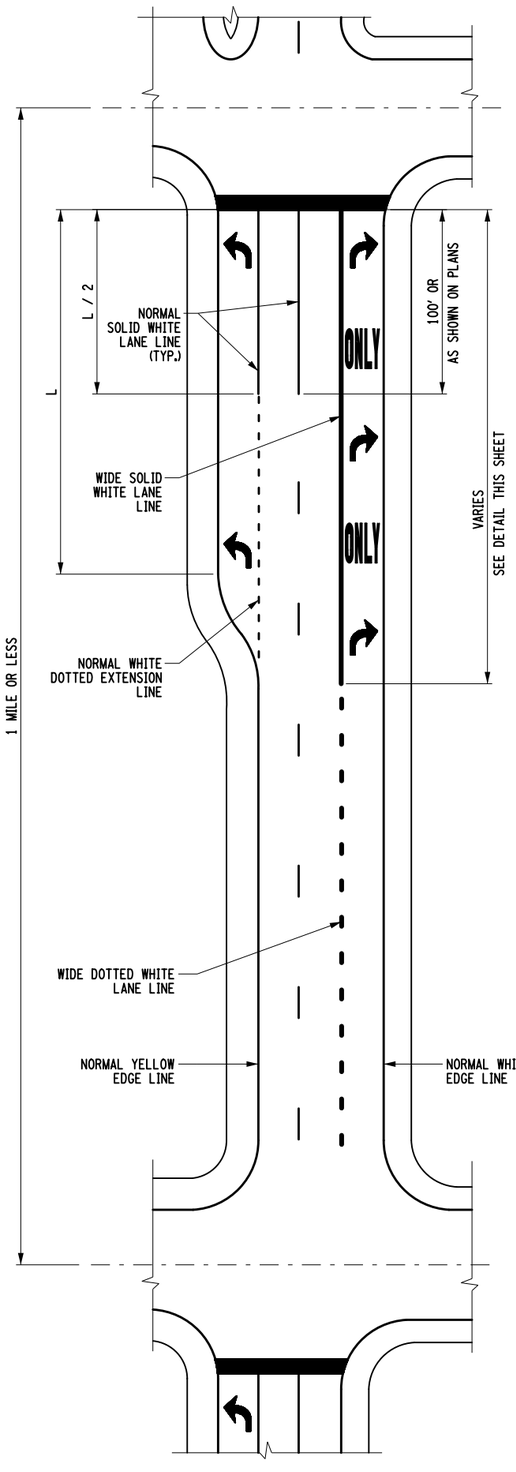
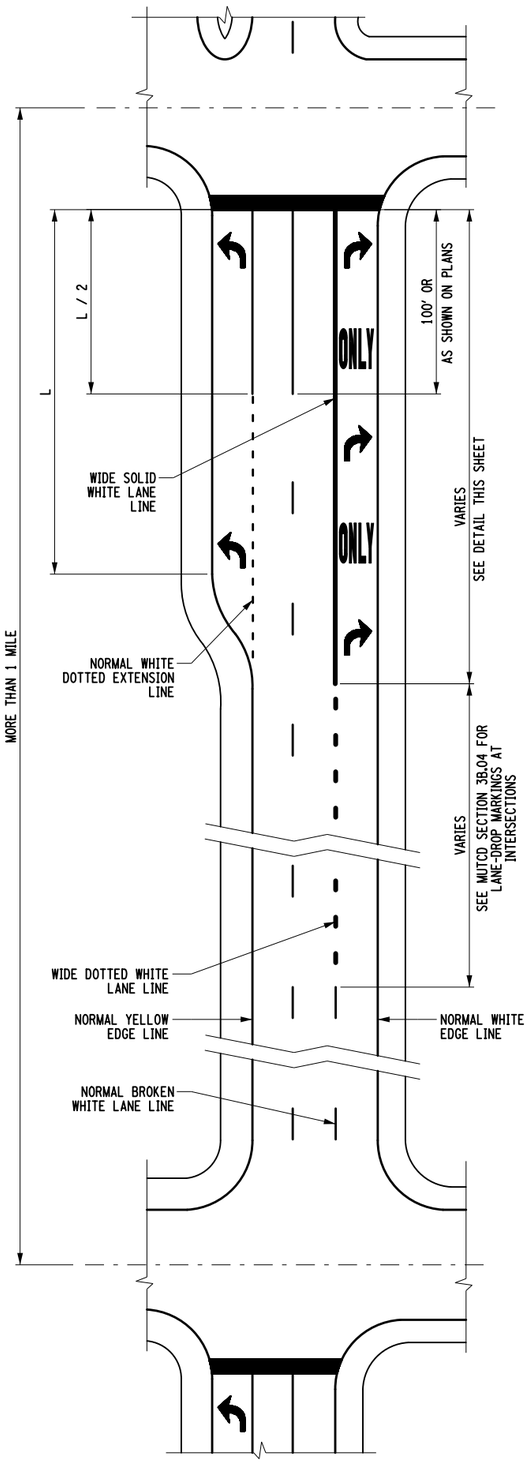
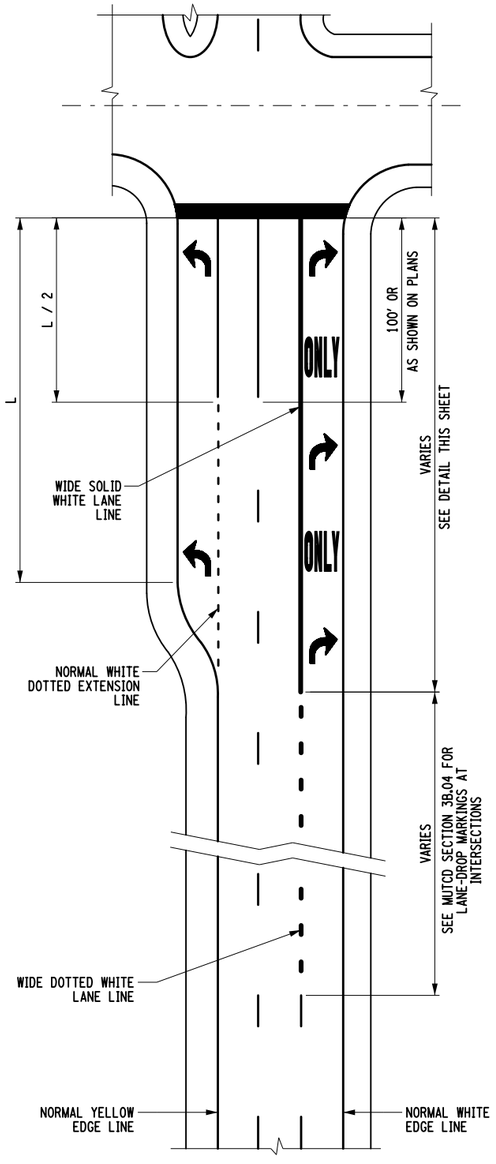


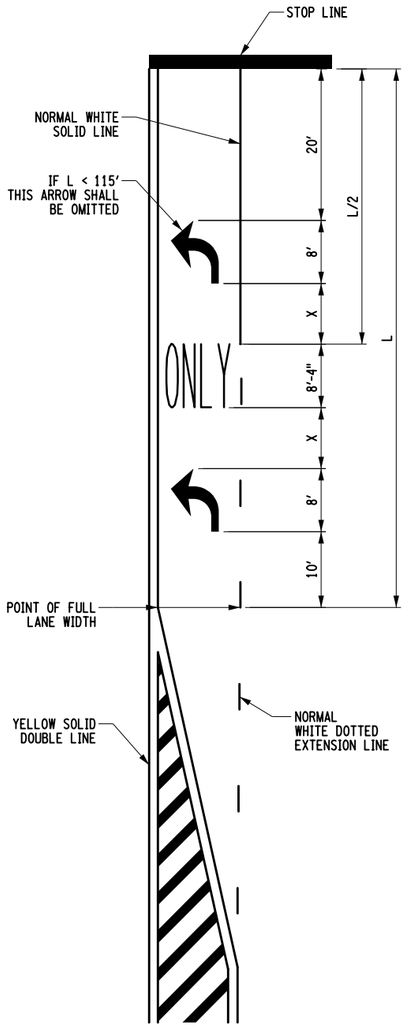
AUXILIARY LANE BETWEEN INTERSECTIONS
LESS THAN OR EQUAL TO 1 MILE APART



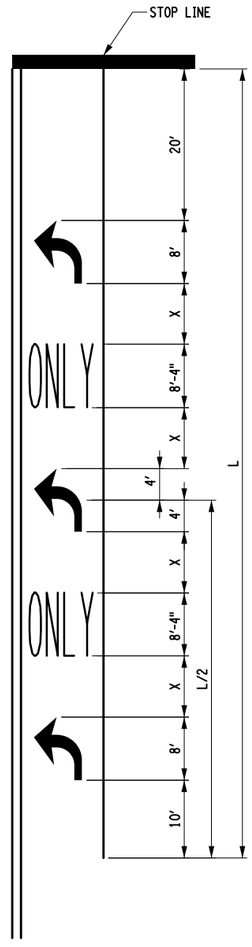
AUXILIARY LANE BETWEEN INTERSECTIONS
GREATER THAN 1 MILE APART



LANE DROP AT INTERSECTION



LANE USE ARROW PLACEMENT
L ≤ 200'



LANE USE ARROW PLACEMENT
200' < L ≤ 400'

SYMBOL SPACING NOTES:

S1. SPACING BETWEEN ARROWS AND "ONLY" (X) IS 32' MIN. AND 80' MAX. LOWER SPEED ROADS SHOULD HAVE CLOSER SPACING THAN HIGHER SPEED ROADS.

S2. IF L < 75' OR L > 400', REFER TO CONTRACT DOCUMENTS OR REGIONAL TRAFFIC SAFETY AND MOBILITY GROUP FOR GUIDANCE ON SPACING OF ARROWS AND "ONLY".

S3. ON AN UNCONTROLLED APPROACH (NO STOP SIGN, YIELD SIGN, OR TRAFFIC SIGNAL) OMIT STOP LINE.

S4. IF INTERSECTION LANE CONTROL SIGNS (EG. R3-5) ARE NOT PROVIDED FOR THE LANE, THE "ONLY" MARKINGS SHALL BE DELETED.

S5. ARROWS AND "ONLY" TO BE CENTERED IN THE LANE.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS (SHEET 6 OF 9)

ERRATA 1 EFF. 01/09/2014
ISSUED WITH EB 13-042

EFFECTIVE DATE: 05/02/2013

APPROVED: OCTOBER 23, 2013

/S/ TODD B. WESTHUIS, P.E.
DEPUTY CHIEF ENGINEER: TRAFFIC, SAFETY AND MOBILITY (ACTING)

ISSUED UNDER EB 12-036

685-01

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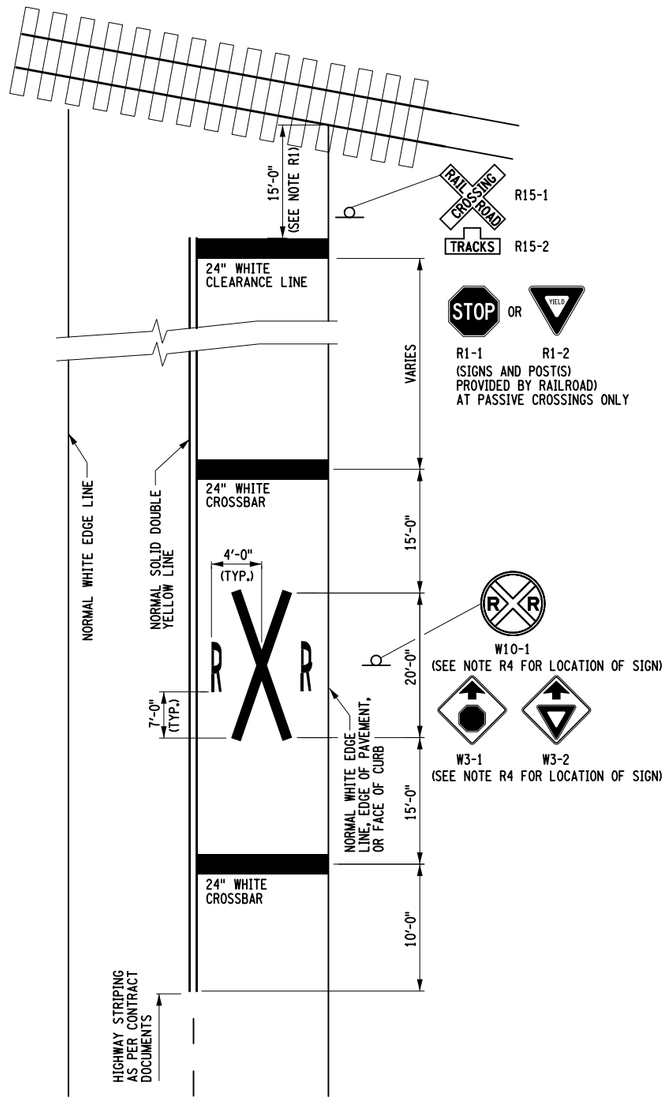
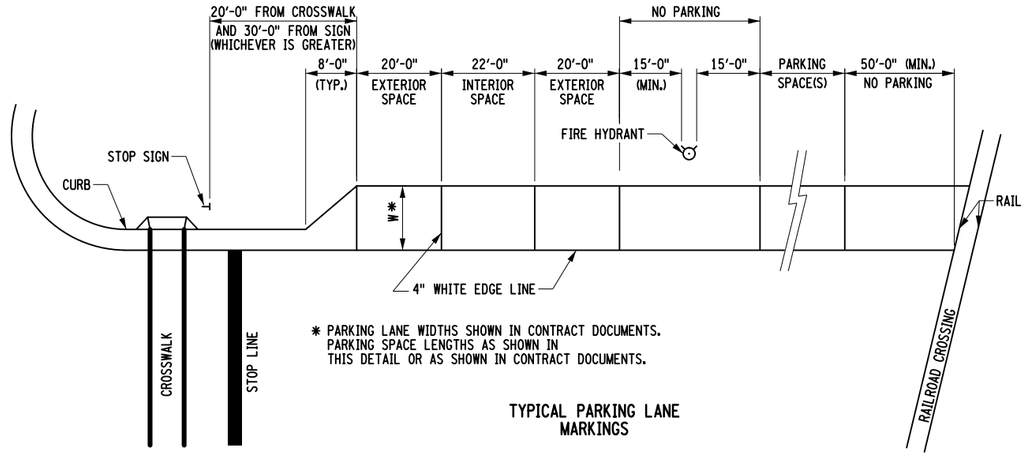
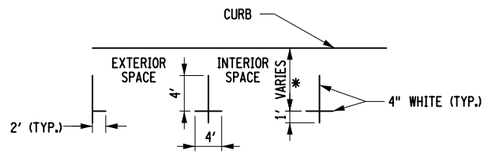


RAILROAD GRADE CROSSING MARKINGS AND LAYOUT PLAN



* PARKING LANE WIDTHS SHOWN IN CONTRACT DOCUMENTS.
PARKING SPACE LENGTHS AS SHOWN IN THIS DETAIL OR AS SHOWN IN CONTRACT DOCUMENTS.

TYPICAL PARKING LANE MARKINGS



ALTERNATE PARKING LANE MARKINGS
(NO EDGE LINE)
(NOT TO SCALE)

(PAID AS LINEAR FEET)
(TOTAL LENGTH IS
43.0' x 16/4 = 172 LF)

(PAID AS ONE SYMBOL)

RAILROAD GRADE CROSSING

RAILROAD GRADE CROSSING NOTES:

R1. WHERE THERE IS NO RAILROAD CROSSING GATE, THE CLEARANCE LINE SHOULD BE PERPENDICULAR TO THE ROADWAY, AND 15'-0" FROM THE NEAREST RAIL AT ITS CLOSEST POINT. WHERE THERE IS A GATE, THE CLEARANCE LINE SHOULD BE PARALLEL TO THE GATE IN ITS LOWERED POSITION, AND EITHER 15'-0" FROM THE NEAREST RAIL OR 8'-0" FROM THE GATE, WHICHEVER PLACES THE LINE FURTHER FROM THE CROSSING.

R2. ON A MULTI-LANE APPROACH, THE CLEARANCE LINE AND CROSSBARS SHALL EXTEND ACROSS ALL LANES, AND A "RXR" SYMBOL SHALL BE PLACED IN EACH LANE.

R3. REFER TO STANDARD SHEET TITLED "PAVEMENT MARKING DETAILS - SHEET 1 OF 9" FOR GENERAL NOTES.

R4. IF A W3-1 OR W3-2 SIGN IS NOT REQUIRED IN ADVANCE OF THE GRADE CROSSING, THE W10-1 SHALL BE LOCATED IN ACCORDANCE WITH TABLE NY2C-4. IF A W3-1 OR W3-2 SIGN IS REQUIRED IN ADVANCE OF A GRADE CROSSING, IT SHALL BE LOCATED IN ACCORDANCE WITH TABLE NY2C-4 AND THE W10-1 SIGN SHALL BE LOCATED APPROXIMATELY 200'-0" IN ADVANCE OF THE W3-1 OR W3-2 SIGN.

R5. A PORTION OF THE "RXR" MARKING MUST BE OPPOSITE THE W10-1 SIGN. 24" WHITE CROSS BARS ARE PLACED IN RELATION TO "RXR" MARKING. THE DISTANCE TO CLEARANCE LINE WILL VARY.

R6. NORMAL SOLID DOUBLE YELLOW LINE TO BEGIN A MINIMUM OF 10'-0" UPSTREAM OF FIRST 24" WHITE CROSS BAR.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS
(SHEET 7 OF 9)

ERRATA 2 EFF. 01/01/2020 ISSUED WITH EB 19-041	APPROVED SEPTEMBER 24, 2012 /S/ TODD B. WESTHUIS, P.E. ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	ISSUED UNDER EB 12-036 685-01
ERRATA 1 EFF. 01/01/2018 ISSUED WITH EB 17-041		

STANDARD SHEETS (USC), January 01, 2020
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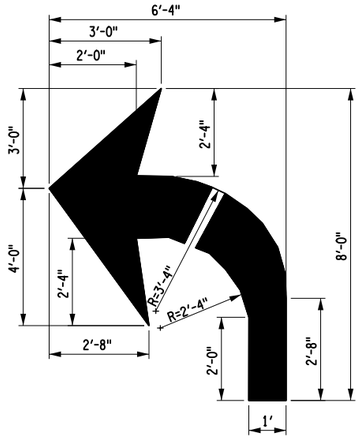
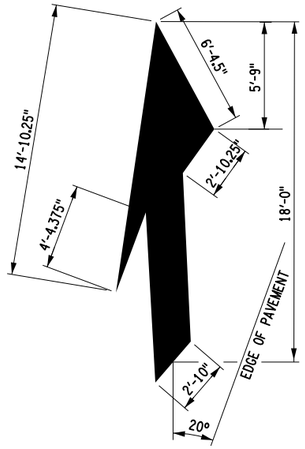
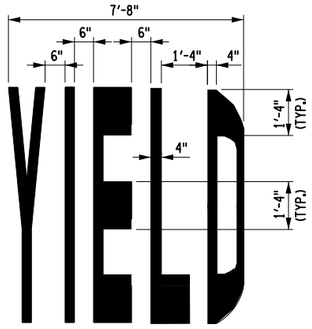


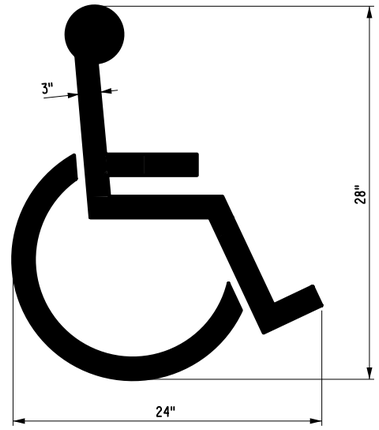
TURNING ARROW
(PAID AS ONE SYMBOL)



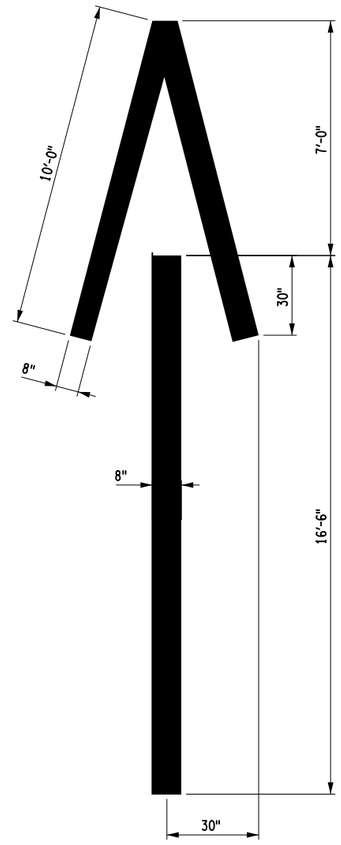
LANE REDUCTION ARROW
(PAID AS ONE SYMBOL)



"YIELD" LETTERS
SEE NOTE
(PAID AS FIVE LETTERS)



HANDICAPPED PARKING SYMBOL
(PAID AS ONE SYMBOL)



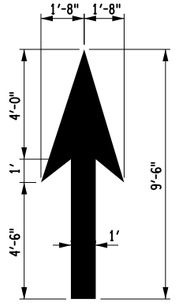
RAMP ARROW
(PAID BY LINEAR FEET)
(TOTAL 73'x8/4"=146 LF)

TURNING/STRAIGHT ARROW
FOR SHARED LANE
(PAID AS ONE SYMBOL)

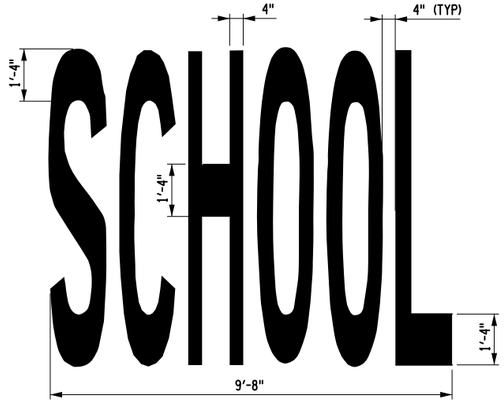
DIVERGE ARROW
(PAID AS ONE SYMBOL)

"STOP" LETTERS
SEE NOTE
(PAID AS FOUR LETTERS)

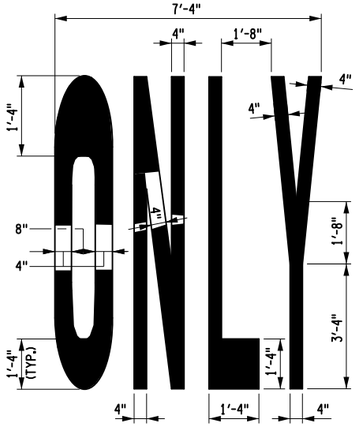
PREFERENTIAL LANE SYMBOL
(PAID BY LINEAR FEET)
(TOTAL IS 35'x5/4"=52.5 LF)



STRAIGHT ARROW
(PAID AS ONE SYMBOL)



"SCHOOL" LETTERS
SEE NOTE
(PAID AS SIX LETTERS)



"ONLY" LETTERS
SEE NOTE
(PAID AS FOUR LETTERS)

NOTES:

UNLESS OTHERWISE SHOWN:
LETTER HEIGHT = 8'-4"
LETTER WIDTH = 1'-4"
SPACING = 8"
(USE EQUAL SPACING BETWEEN LETTERS AND CENTER ENTIRE SYMBOL IN LANE)

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT MARKING DETAILS
(SHEET 8 OF 9)

ERRATA 2 EFF. 01/01/2020 ISSUED WITH EB 19-041	APPROVED SEPTEMBER 24, 2012	ISSUED UNDER EB 12-036
ERRATA 1 EFF. 01/01/2018 ISSUED WITH EB 17-041	/S/ TODD B. WESTHUIS, P.E. ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	685-01

STANDARD SHEETS (USC), January 01, 2020

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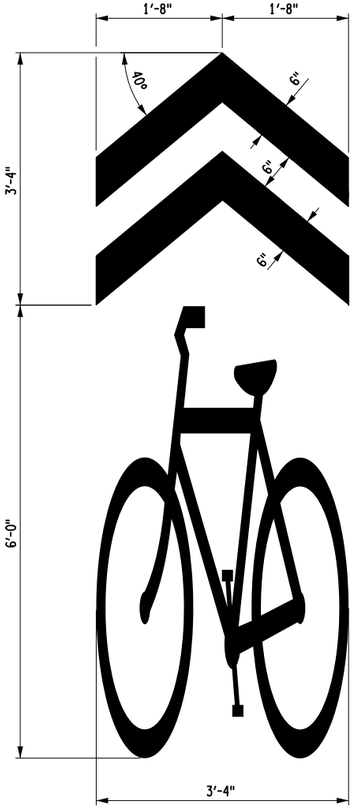
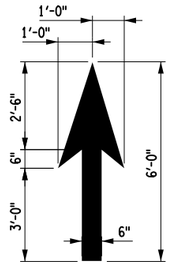
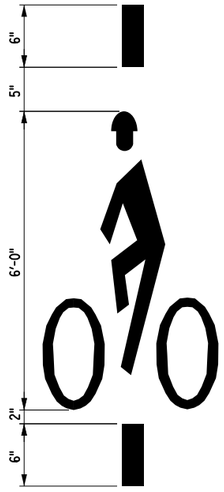


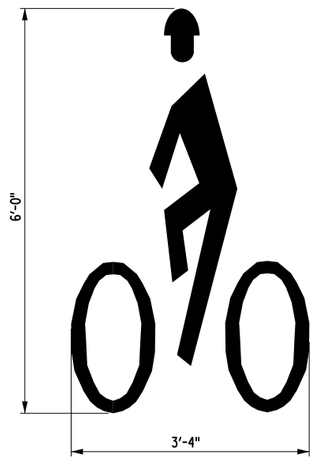
SHARED LANE USE MARKING DETAIL
(CHEVRON PAID BY LINEAR FEET)
TOTAL LENGTH 17'-6"x12"=52'-6"
(BICYCLE PAID AS ONE SYMBOL)



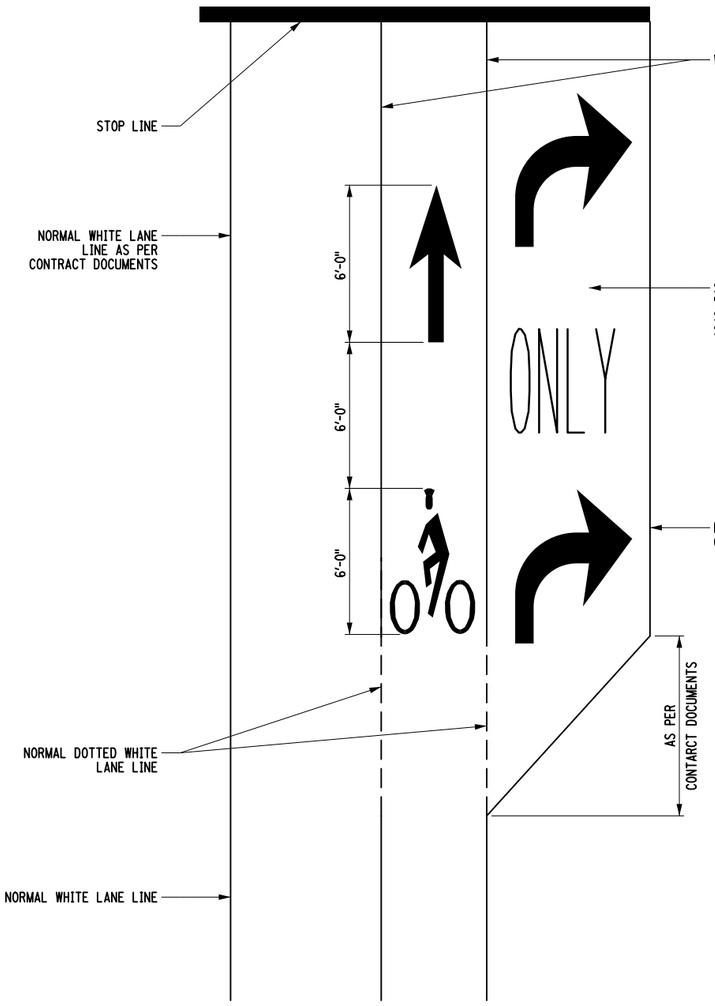
BICYCLE ARROW



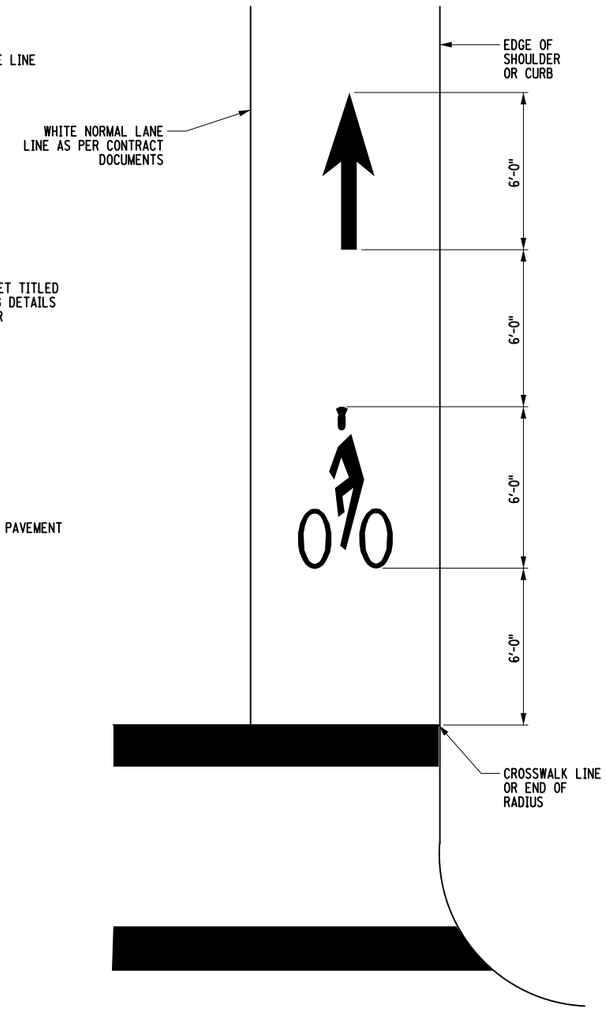
BICYCLE DETECTOR
MARKER
(PAID AS ONE SYMBOL)



BICYCLE SYMBOL
(PAID AS ONE SYMBOL)



BICYCLE LANE MARKING
ADJACENT TO RIGHT TURN LANE



BICYCLE LANE MARKING

BICYCLE LANE MARKING NOTES:

B1. CENTER SYMBOL IN BICYCLE LANE OR SHOULDER.

B2. PLACE BICYCLE LANE ARROW AND SYMBOL DOWNSTREAM OF MAJOR OR SIGNALIZED INTERSECTIONS.

- PLACE BICYCLE SYMBOL AT 1320'-0" SPACING ALONG BICYCLE LANE OR AS INDICATED IN THE CONTRACT DOCUMENTS.

- PLACE BICYCLE LANE ARROW AND SYMBOL 200'-0" UPSTREAM OF MAJOR OR SIGNALIZED INTERSECTIONS.

B3. MARKINGS AS PER THE DIRECTIONS OF THE REGIONAL OFFICE OF TRAFFIC SAFETY AND MOBILITY GROUP OR AS PER PLAN. SIGNS SHALL BE USED WITH THE BICYCLE LANE.

ERRATA 2 EFF. 01-01-2020 ISSUED WITH EB 19-041	
ERRATA 1 EFF. 01-01-2018 ISSUED WITH EB 17-041	

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

PAVEMENT_MARKING_DETAILS (SHEET 9 OF 9)

APPROVED SEPTEMBER 24, 2012 /S/ TODD B. WESTHUIS, P.E. ACTING DIRECTOR, OFFICE OF TRAFFIC SAFETY AND MOBILITY	ISSUED UNDER EB 12-036 685-01

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