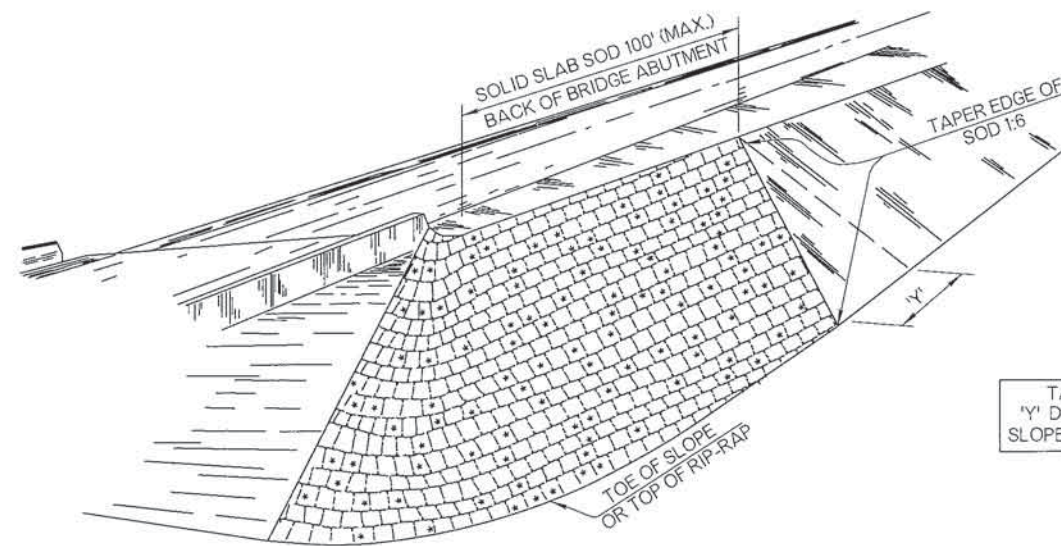
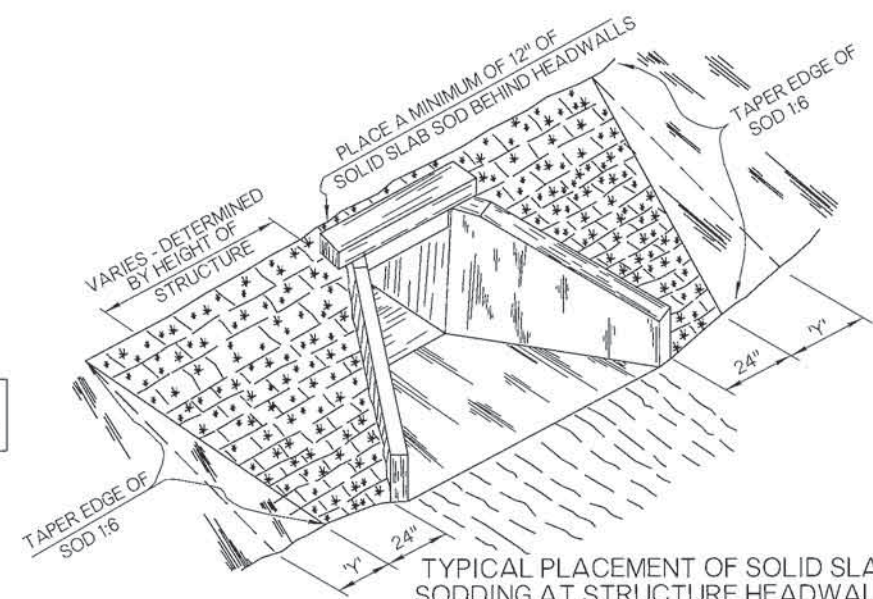


OKLAHOMA DEPARTMENT OF TRANSPORTATION	
STANDARD REVISIONS	
DESCRIPTION	DATE



TYPICAL PLACEMENT OF SOLID SLAB SODDING ON FILL SLOPES, APPROACHES TO OVERPASSES AND BRIDGES.

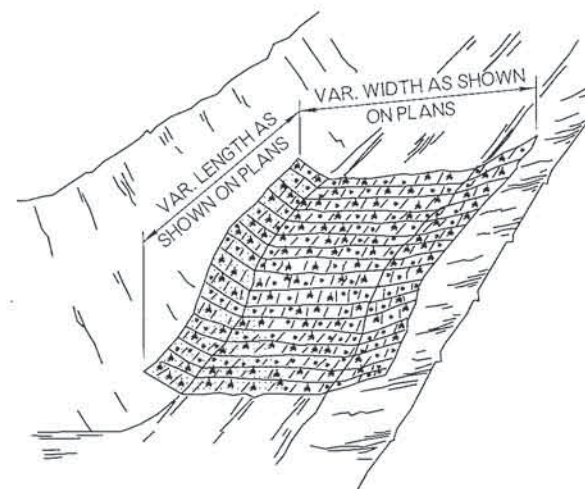
TAPER NOTE
 'Y' DIMENSION =
 SLOPE LENGTH x 0.17



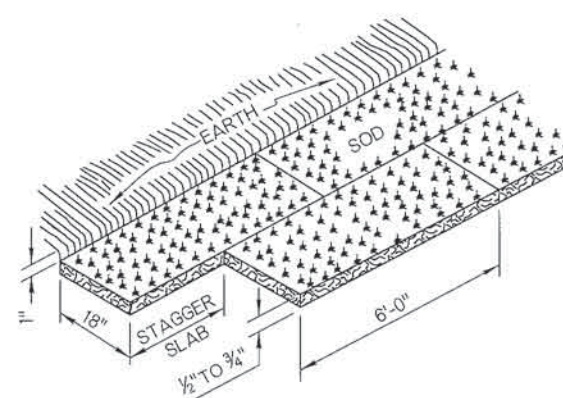
TYPICAL PLACEMENT OF SOLID SLAB SODDING AT STRUCTURE HEADWALLS

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
2. SOLID SLAB SOD SHALL BE PLACED IN HORIZONTAL ROWS WITH THE LONGEST SIDE OF EACH SLAB RUNNING PARALLEL TO THE ROADWAY, AND THE SLABS IN ALTERNATE ROWS STAGGERED HALF THE LENGTH OF EACH INDIVIDUAL SLAB. ENSURE THE ROWS RUN PARALLEL TO THE ROADWAY.
3. SLABS SHALL BE CUT AND HARVESTED WITH A COMMERCIAL SOD CUTTER TO THE DIMENSIONS SHOWN, THEN LOADED, TRANSPORTED AND HANDLED ON PALLETS.
4. AFTER PLACEMENT OF SOLID SLAB SOD, EARTH AT THE OUTER EDGES OF THE PLACEMENT SHALL BE BACKFILLED AND LOOSELY COMPACTED TO AT LEAST 1" ABOVE THE TOP OF THE SOLID SLAB SODDING.
5. STAKE SOD ON ALL SLOPES 1:2 OR STEEPER, AND ON ANY AREAS THAT ARE IN SUCH CONDITION THAT THERE IS DANGER OF SOD SLIPPING. PERFORM STAKING CONCURRENTLY WITH SOD PLACEMENT AND PRIOR TO TAMPING WITH SOUND WOODEN STAKES APPROXIMATELY 1 INCH SQUARE OR 1 INCH IN DIAMETER AND NOT LESS THAN 12 INCHES IN LENGTH, OR USE METAL STAPLES IN PLACE OF WOODEN STAKES. PLACE, STAKE AND STAPLE THE SOD WHERE NECESSARY, AND AS DETERMINED BY THE ENGINEER.



TYPICAL PLACEMENT OF SOLID SLAB SODDING IN DITCHES



SOLID SLAB SODDING
 (MARCH 1 THRU AUGUST 31)

THE PLACEMENT OF SOLID SLAB SOD SHALL BE RESTRICTED TO THE PERIOD FROM MARCH 1 THRU AUGUST 31, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

BASIS OF PAYMENT

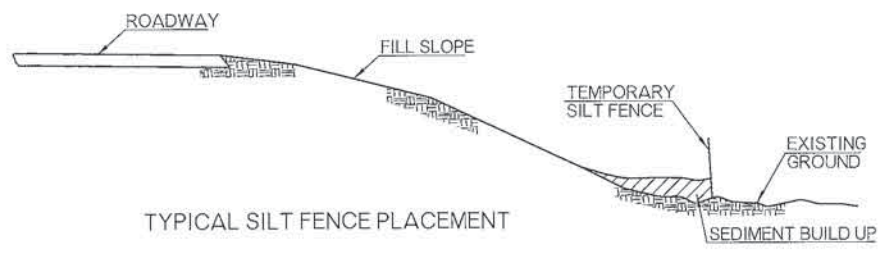
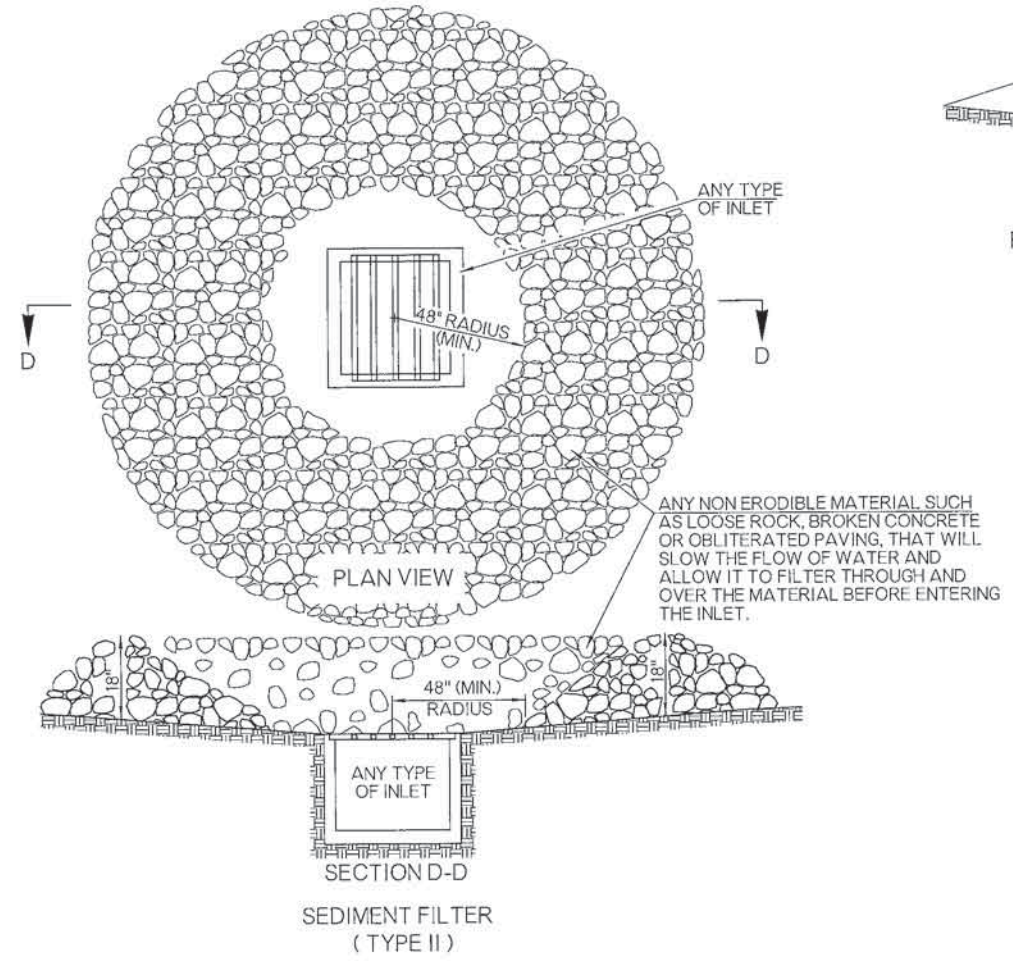
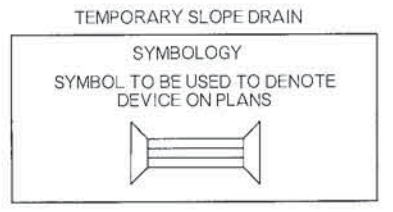
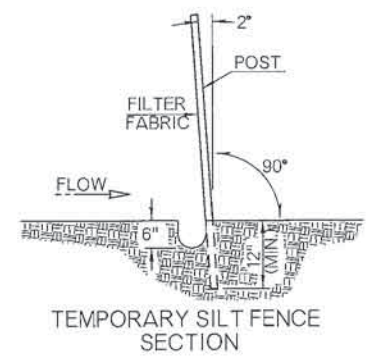
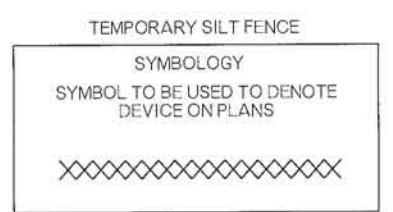
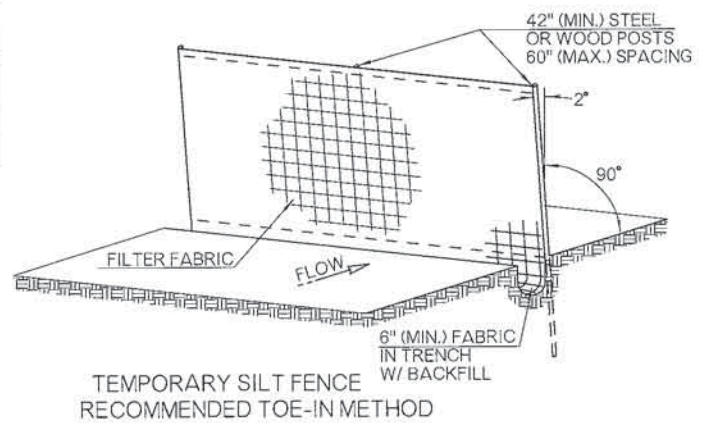
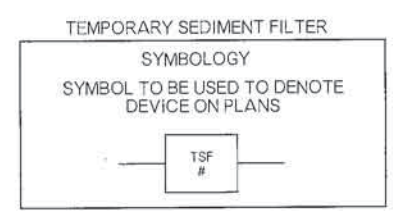
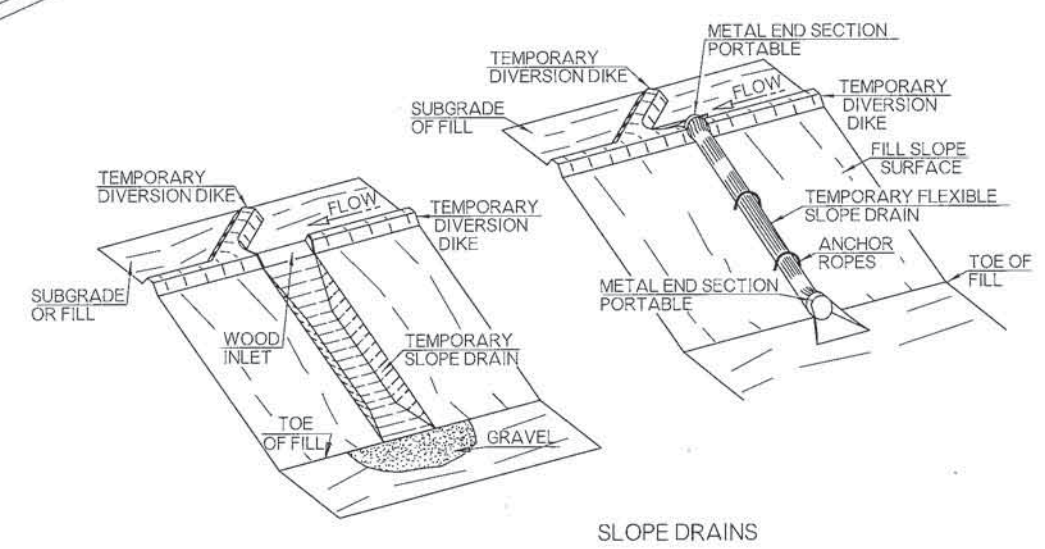
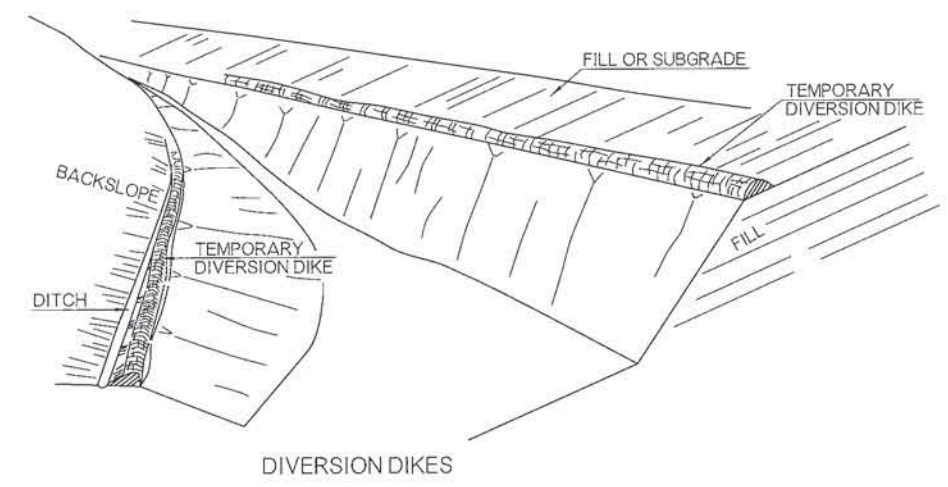
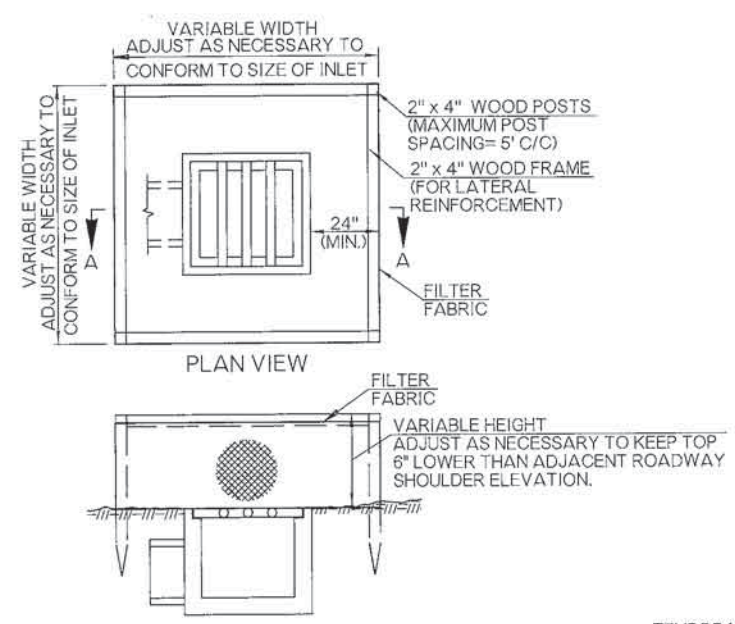
ITEM NO.	ITEM	UNIT
230(A)	SOLID SLAB SODDING	SY



APPROVED BY ROADWAY ENGINEER: *Calvin F. A.* DATE: *01/14/15*
 ROADWAY DESIGN DIVISION STANDARD

SOLID SLAB SODDING

OKLAHOMA DEPARTMENT OF TRANSPORTATION		
STANDARD REVISIONS		
DESCRIPTION	DATE	



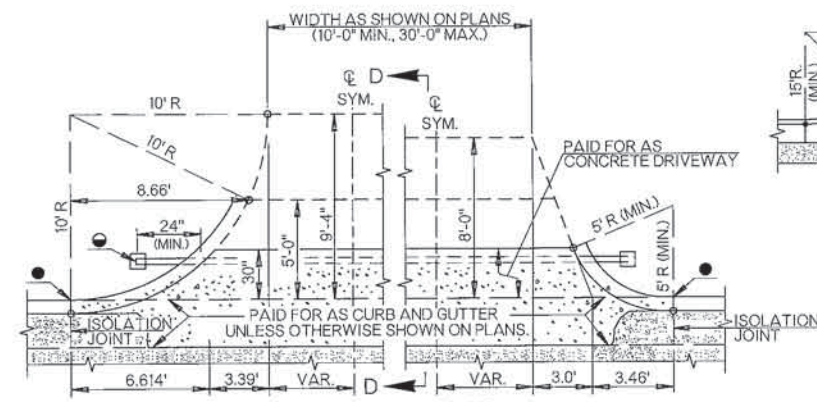
- GENERAL NOTES
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
 2. COST OF TEMPORARY DIVERSION DIKES TO BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
221 (A)	TEMPORARY SLOPE DRAINS	LF
221 (C)	TEMPORARY SILT FENCE	LF
221 (D)	TEMPORARY SEDIMENT FILTER	EA

APPROVED BY ROADWAY ENGINEER: *Calvin F. A.* DATE: *01/16/15*

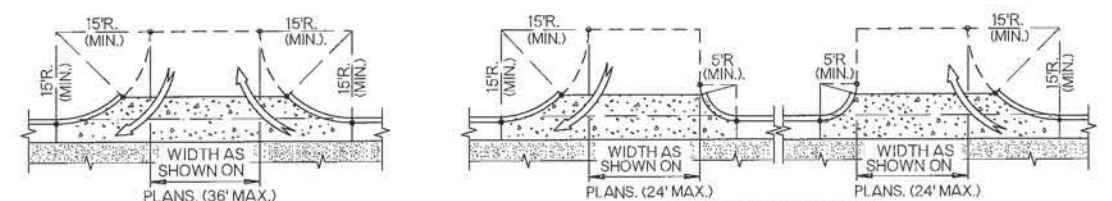
ROADWAY DESIGN DIVISION STANDARD

TEMPORARY SEDIMENT CONTROLS



TYPE I DRIVEWAYS
(PRIVATE OR RESIDENTIAL)

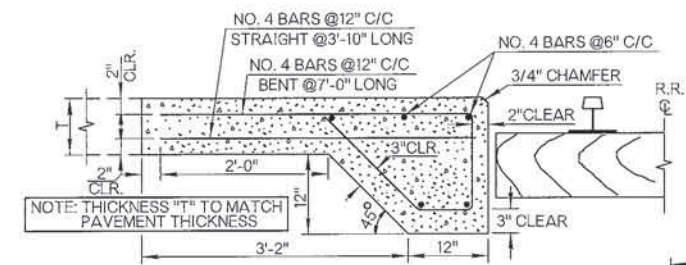
- IF SPECIFIED IN THE PLANS, CONSTRUCT CONDUIT CROSSING OF THE SPECIFIC SIZE AND TYPE AT APPROXIMATELY 30" BELOW FINISHED GRADE OF THE RAMP. SEE GENERAL NOTES FOR DETAILS.
- BEGIN ROLL CURB. TERMINATE CURB & GUTTER.



TYPE 2 DRIVEWAY
(TWO-WAY OPERATION)

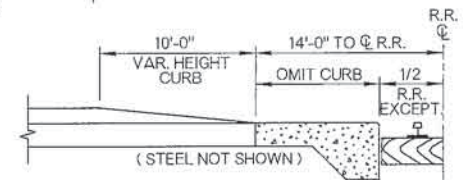
TYPE 2A DRIVEWAYS
(ONE-WAY OPERATIONS)

- IF SPECIFIED IN THE PLANS, CONSTRUCT CONDUIT CROSSING OF THE SPECIFIC SIZE AND TYPE AT APPROXIMATELY 30" BELOW FINISHED GRADE OF THE RAMP. SEE GENERAL NOTES FOR DETAILS.
- BEGIN ROLL CURB. TERMINATE CURB & GUTTER.

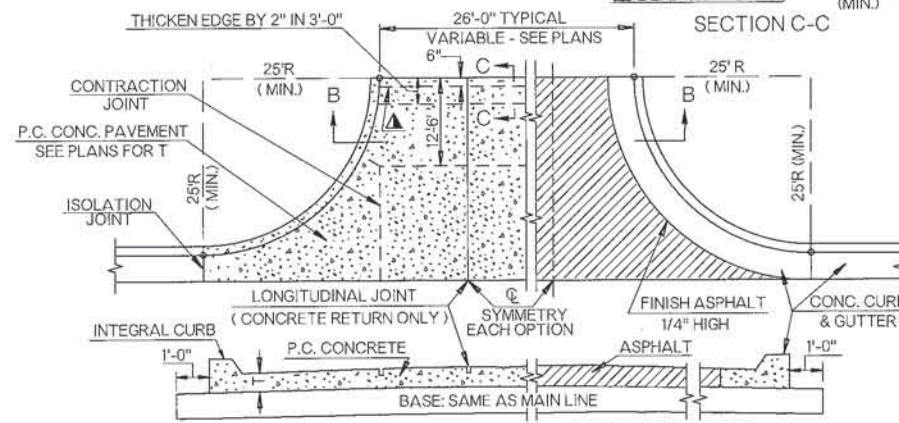


P. C. RAILROAD APPROACH SLAB WITH THICKENED EDGE AT RAILROAD CROSSING

THICKENED EDGE OF CONCRETE RAILROAD APPROACH SLAB SHALL EXTEND FROM OUTSIDE TO OUTSIDE OF SHOULDERS. COST OF CLASS A CONCRETE & REINFORCING STEEL TO BE INCLUDED IN THE PRICE BID FOR RAILROAD APPROACH SLAB.



DETAIL OF CURBS ADJACENT TO RAILROAD CROSSINGS



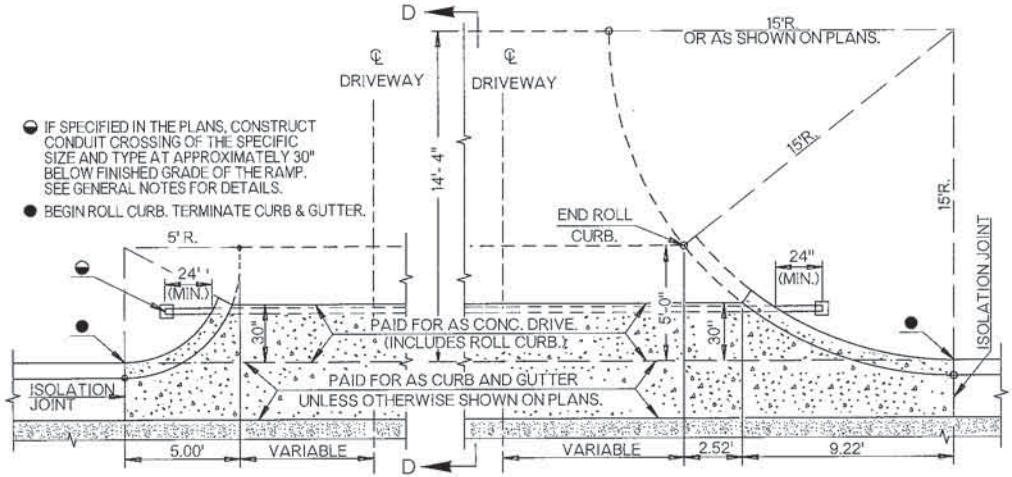
SECTION C-C



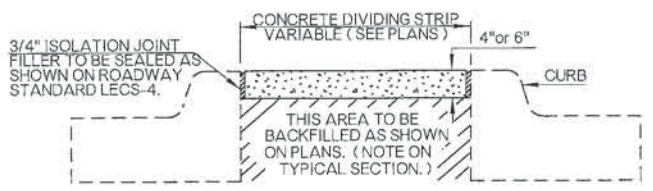
ALT. SECTION B-B
CONCRETE RETURN



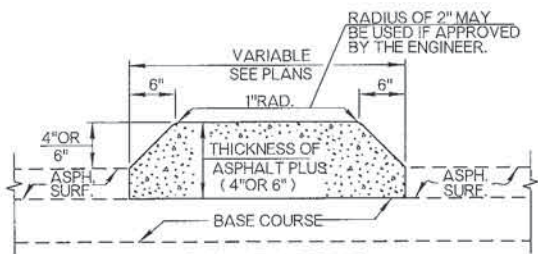
ALT. SECTION B-B
ASPHALT RETURN
(WHERE CURB AND GUTTER IS USED)



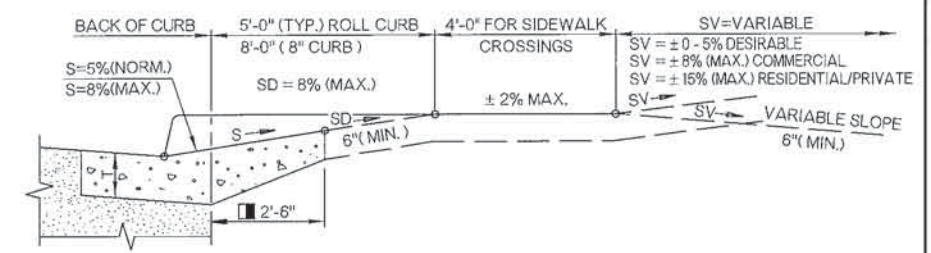
TYPE 2 & 2A COMMERCIAL DRIVEWAYS



CONCRETE DIVIDING STRIP



CONCRETE MEDIAN MOUNTABLE CURB TYPE
(TO BE PAID FOR AS CLASS A CONCRETE.)

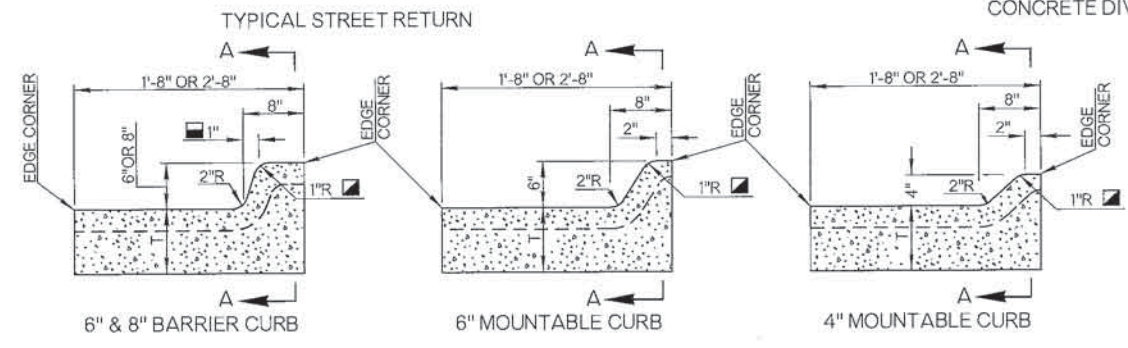


SECTION D-D ALONG DRIVE

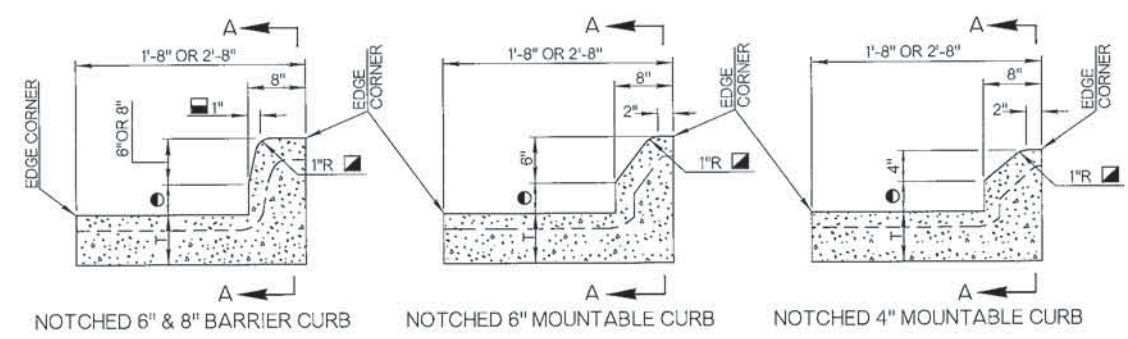
WHEN SIDEWALK IS BUILT DIRECTLY BEHIND CURB, THE CONCRETE DRIVEWAY SHOULD BE CONSTRUCTED & EXTENDED TO THE BACK EDGE OF SIDEWALK.

GENERAL NOTES

- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
- COST OF JOINT FILLERS, SEALING AND REINFORCING STEEL SHALL BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.
- TRANSVERSE ISOLATION JOINTS FOR CONCRETE DIVIDING STRIP AND CONCRETE MEDIAN (MOUNTABLE CURB TYPE) TO BE 1/2" ISOLATION JOINT FILLER AT 50' C/C. 1/4" ISOLATION JOINT MATERIAL AT 1/3 POINTS BETWEEN 1/2" ISOLATION JOINTS. FILLER MATERIAL TO BE PREMOULDED AND JOINTS TO BE SEALED AS SHOWN ON ROADWAY STANDARD LECS-4.
- COMBINED CURB & GUTTER SHALL HAVE 3/4" ISOLATION JOINTS AT DRAINAGE STRUCTURES, STREET CURB RETURNS AND AT THOSE LOCATIONS SHOWN ON THE PLANS. BUTT OR SAWED JOINTS SHALL BE SPACED AT 20'-0" CENTERS MAX. JOINT FILLER IN THE CURBS SHALL EXTEND TO WITHIN 2" OF THE FACE & TOP OF CURB. ALL JOINTS SHALL BE SEALED AS SHOWN ON ROADWAY STANDARD LECS-4.
- ALL CONDUIT CROSSINGS ARE TO BE TRENCHED, PLACED, BACKFILLED AND COMPACTED PRIOR TO SURFACING. BORING OR PUSHING PROCEDURES MAY BE USED WHERE SURFACING IS ALREADY IN PLACE AND IF APPROVED BY THE ENGINEER.
- IF CONDUIT IS NOT CONTINUOUS BETWEEN DRIVEWAYS OR RAMP, GAP BOTH ENDS OF EACH CONDUIT CROSSING AND PLACE MARKER TO PREVENT DAMAGE DURING CONSTRUCTION.
- CONDUIT SHALL NOT TERMINATE BELOW A SURFACED AREA, BUT SHALL EXTEND A MINIMUM OF 2'-0" PAST EDGE OF PAVING.
- FOR FULL BOX INSTALLATION DETAILS, SEE TRAFFIC STANDARD PBD1-1 (PULL BOX DETAILS).

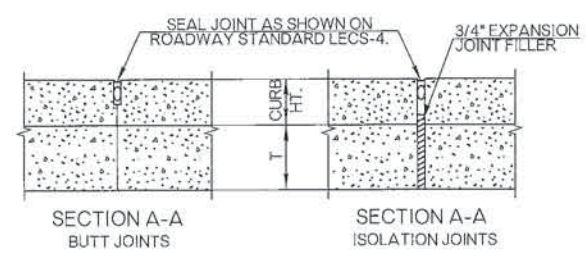


TYPICAL STREET RETURN



COMBINED CURB & GUTTER TYPICAL SECTIONS

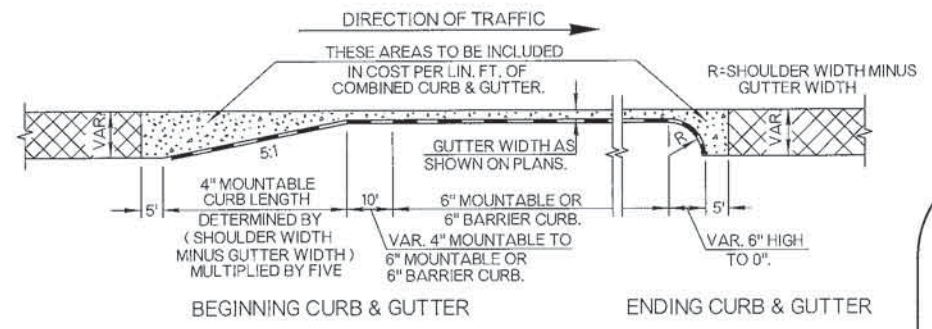
- NOTE: T DIMENSION EQUALS THE THICKNESS SHOWN ON TYPICAL SECTION. (MIN.=6")
- DIMENSION EQUALS THE THICKNESS ASPHALT CONC. SHOWN ON TYPICAL SECTION. (MIN.=2"; MAX.=4")
 - RADIUS OF 2" MAY BE USED IF APPROVED BY THE ENGINEER.
 - BATTER OF 2" MAY BE USED IF APPROVED BY THE ENGINEER.



SECTION A-A BUTT JOINTS

SECTION A-A ISOLATION JOINTS

CURB & GUTTER JOINTS
BUTT & ISOLATION JOINTS TO EXTEND THROUGH CURB & GUTTER TO BACK OF CURB



BEGINNING CURB & GUTTER

ENDING CURB & GUTTER

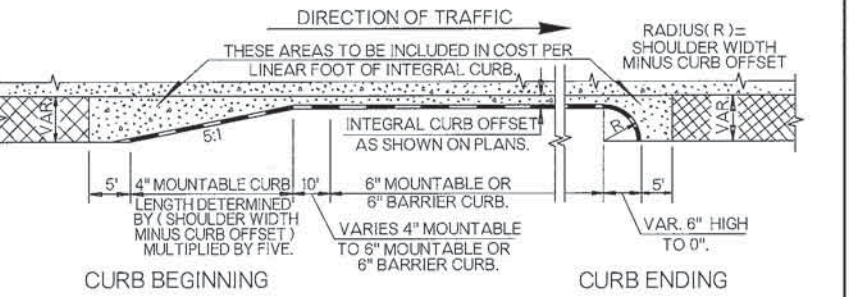
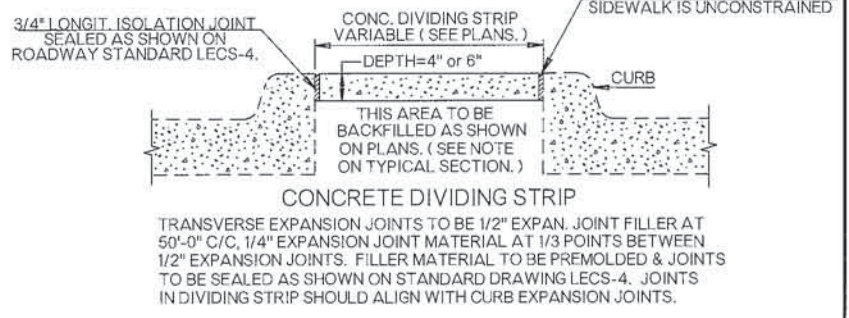
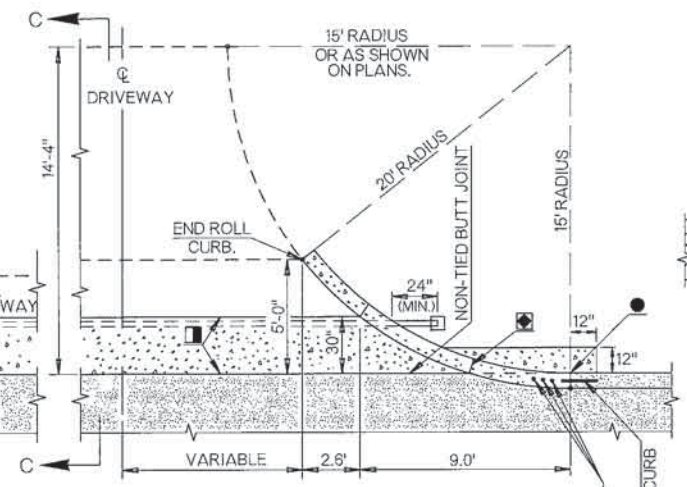
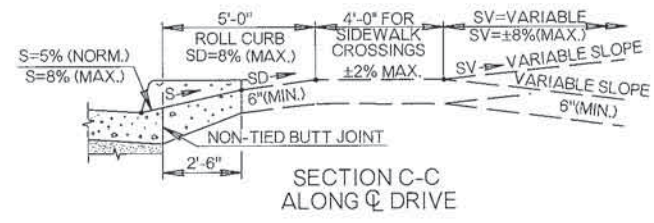
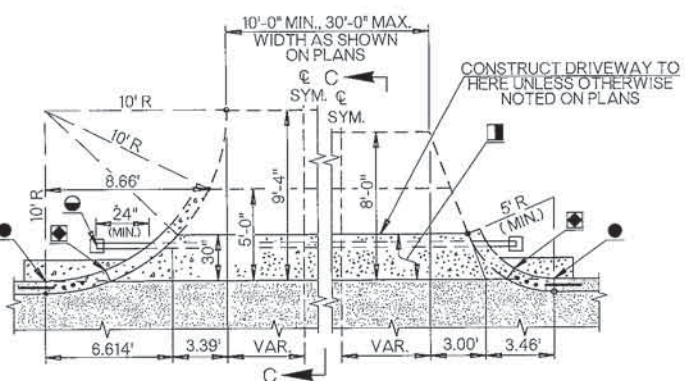
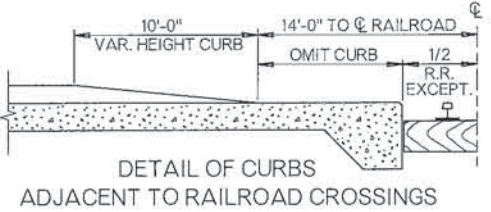
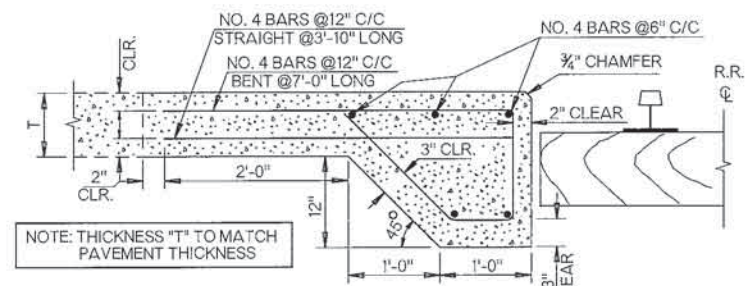
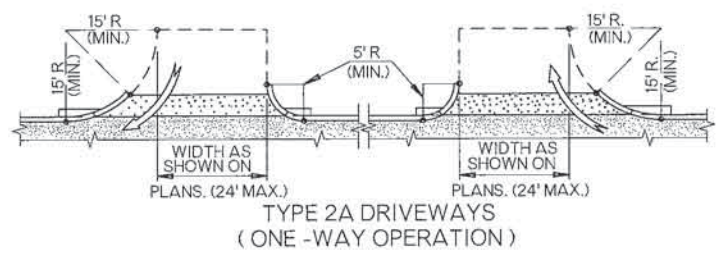
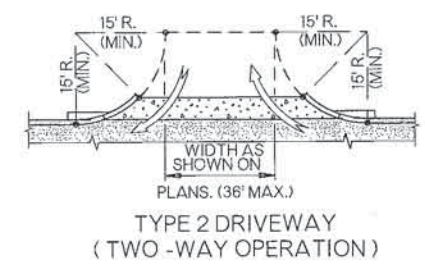
BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
414 (H)	P. C. RAILROAD APPROACH SLABS	SY
509 (B)	CLASS A CONCRETE	CY
609 (B)	COMBINED CURB & GUTTER (▲)	LF
610 (B)	CONCRETE DRIVEWAY	SY
610 (C)	CONCRETE DIVIDING STRIP	SY
610 (H)	ASPHALT DIVIDING STRIP	SY



APPROVED BY ROADWAY ENGINEER: *Calvin A. [Signature]* DATE: 04/14/15
ROADWAY DESIGN DIVISION STANDARD

ASPHALT SURFACING CONSTRUCTION DETAILS

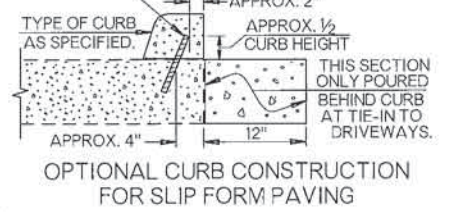
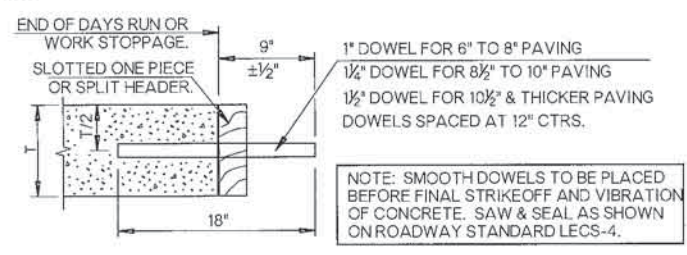
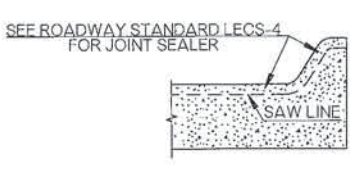
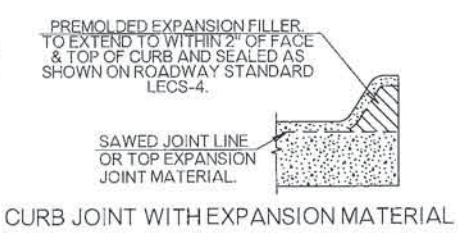
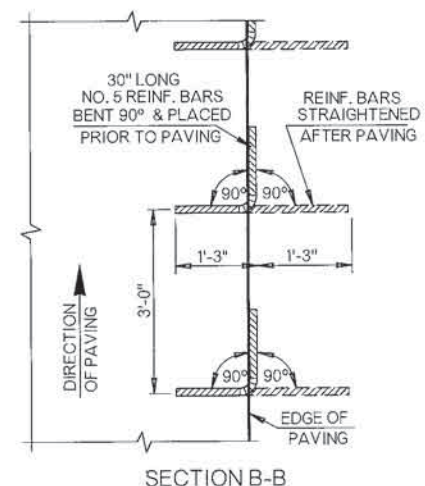
OKLAHOMA DEPARTMENT OF TRANSPORTATION		
STANDARD REVISIONS		
DESCRIPTION	DATE	



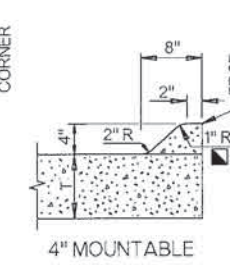
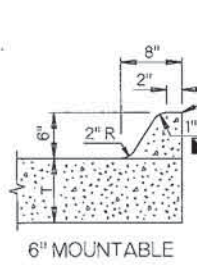
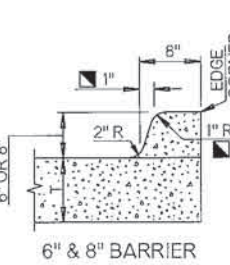
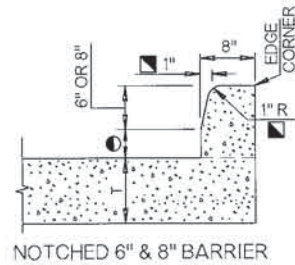
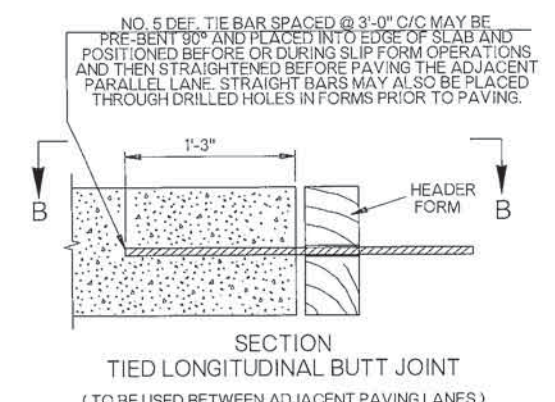
- 3/4" EXPANSION JOINT NO LOAD TRANSFER DEVICES
- PAID FOR AS CONCRETE DRIVEWAY (INCLUDES CURB)
- BEGIN ROLL CURB & TERMINATE INTEGRAL CURB, POUR APRON & CURB INTEGRAL WITH DRIVEWAY
- IF SPECIFIED IN THE PLANS, CONSTRUCT CONDUIT CROSSING OF THE SAME SIZE & TYPE SPECIFIED AT APPROXIMATELY 30" BELOW FINISHED GRADE OF RAMP. SEE GENERAL NOTES FOR DETAILS.

- 3/4" EXPANSION JOINT NO LOAD TRANSFER DEVICES
- PAID FOR AS CONCRETE DRIVEWAY (INCLUDES CURB)
- BEGIN ROLL CURB & TERMINATE INTEGRAL CURB, POUR APRON & CURB INTEGRAL WITH DRIVEWAY
- IF SPECIFIED IN THE PLANS, CONSTRUCT CONDUIT CROSSING OF THE SAME SIZE & TYPE SPECIFIED AT APPROXIMATELY 30" BELOW FINISHED GRADE OF RAMP. SEE GENERAL NOTES FOR DETAILS.

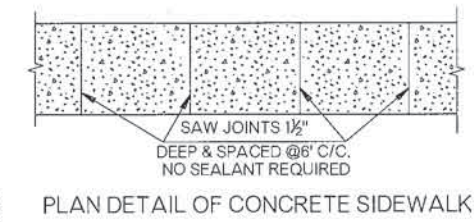
NOTE: WHEN SIDEWALK IS BUILT DIRECTLY BEHIND THE CURB THE CONCRETE DRIVEWAY SHOULD BE CONSTRUCTED AND EXTENDED TO THE BACK EDGE OF SIDEWALK.



- GENERAL NOTES**
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 DOT STANDARD SPECIFICATIONS.
 2. ALL COST OF CLASS A CONCRETE & REINFORCING STEEL IN THICKENED EDGE AT RAILROAD CROSSINGS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR APPROACH SLAB-RAILROAD.
 3. COST OF JOINT FILLERS, SEALING AND REINFORCING STEEL SHALL BE INCLUDED IN PRICE BID FOR OTHER ITEMS OF WORK.
 4. CONTRACTION JOINTS IN JOINTED P.C. PAVEMENT SHALL BE AT APPROXIMATELY 15'-0" CENTERS, UNLESS OTHERWISE SHOWN ON THE PLANS.
 5. CURB & GUTTER SHALL BE PLACED INTEGRAL WITH THE PAVING SLAB UNLESS OTHERWISE SHOWN IN THE PLANS. TRANSVERSE JOINTS SHALL MATCH PAVEMENT JOINTS AND PLACED AT DRAINAGE STRUCTURES. LONGITUDINAL JOINTS SHALL BE TIED WITH #5 DEFORMED TIE BARS 2'-6" LONG AT 3'-0" CTRS. SEE TIED BUTT AND LONGITUDINAL CONSTRUCTION JOINT DETAIL ON ROADWAY STANDARD LECS-4.
 6. ALL CONDUIT CROSSINGS ARE TO BE TRENCHED, PLACED, BACKFILLED, AND COMPACTED PRIOR TO SURFACING. BORING OR PUSHING PROCEDURES MAY BE USED WHERE SURFACING IS ALREADY IN PLACE AND IF APPROVED BY THE ENGINEER.
 7. IF CONDUIT IS NOT CONTINUOUS BETWEEN DRIVEWAYS/RAMPS, CAP BOTH ENDS OF EACH CONDUIT CROSSING AND PLACE MARKER TO PREVENT DAMAGE DURING CONSTRUCTION.
 8. CONDUIT SHALL NOT TERMINATE BELOW A SURFACED AREA, BUT SHALL EXTEND MINIMUM OF 24" PAST EDGE OF PAVING.
 9. FOR PULL BOX INSTALLATION DETAILS, SEE TRAFFIC STANDARD PBD1-1.



INTEGRAL CURB TYPICAL SECTIONS



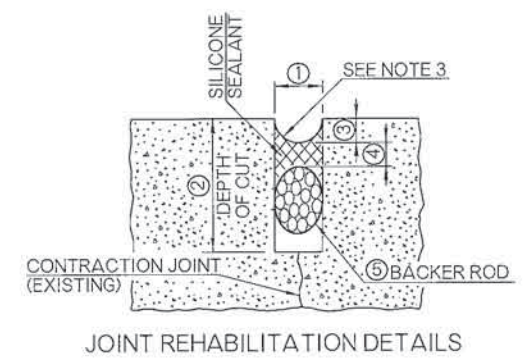
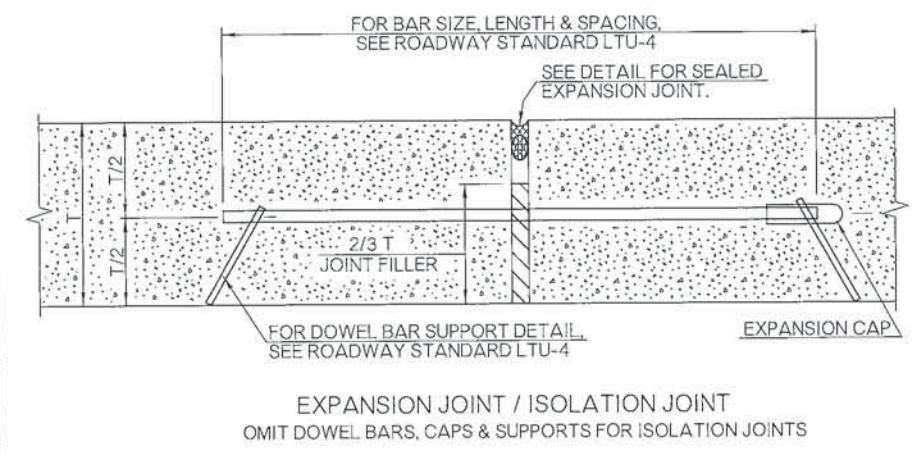
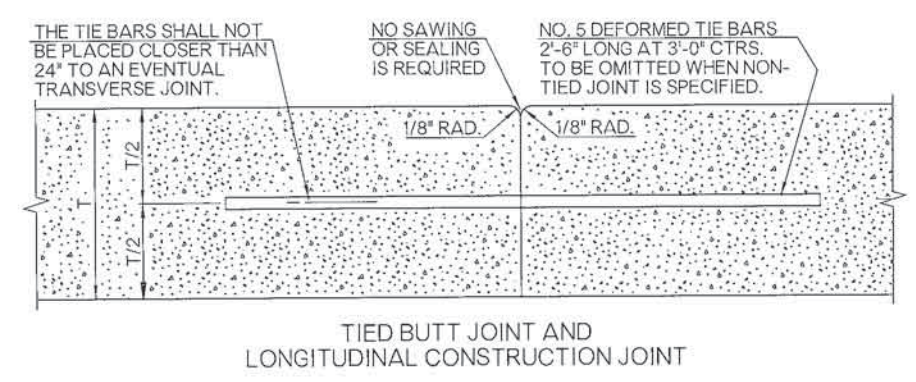
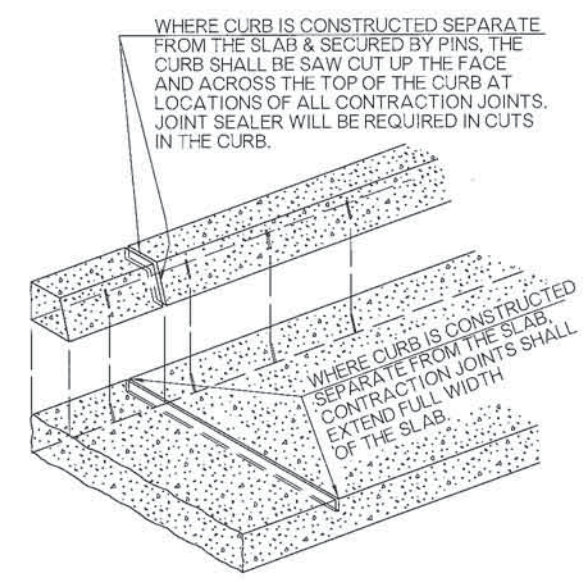
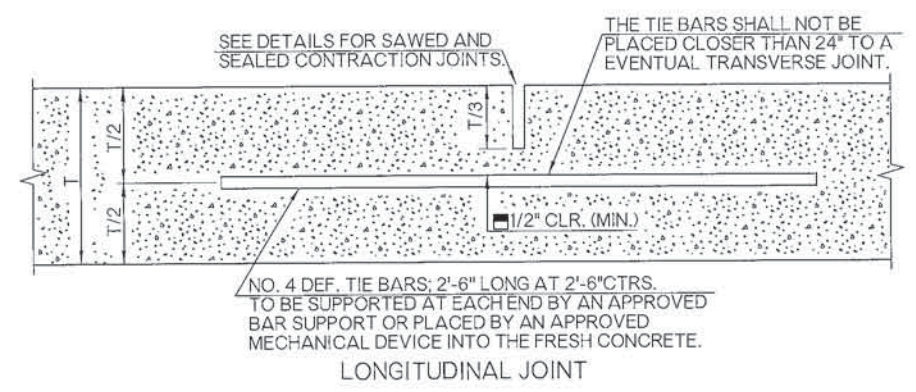
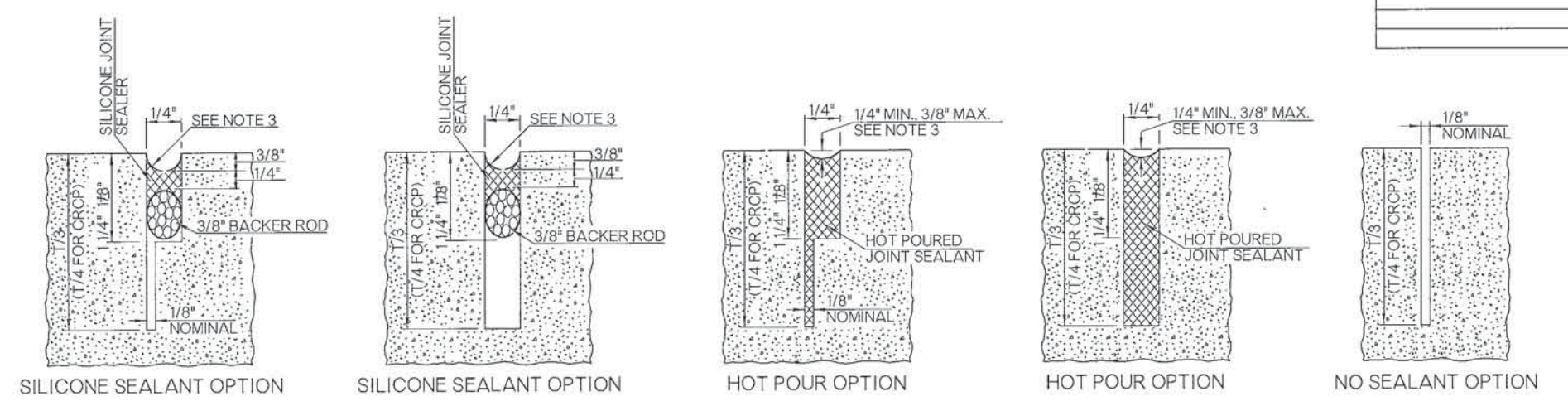
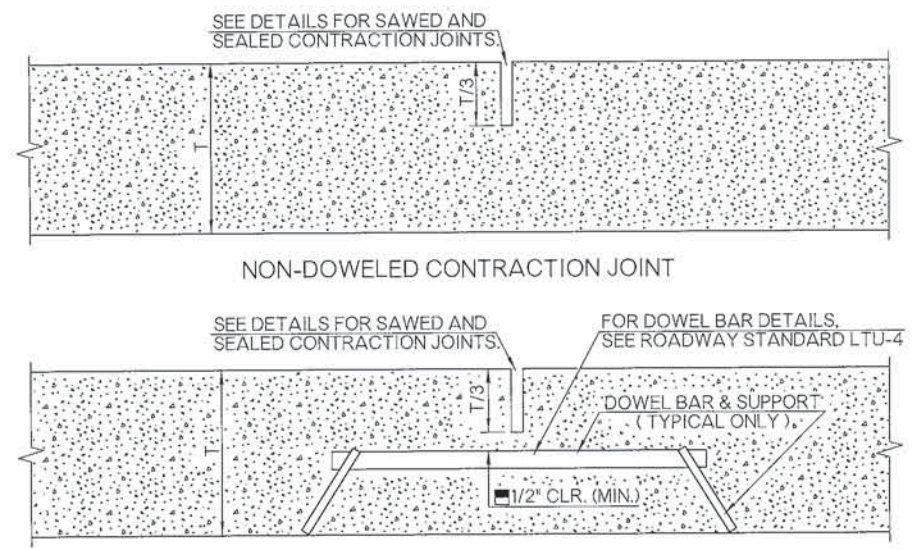
BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
414 (H)	P. C. RAILROAD APPROACH SLABS	SY
609 (A)	CONCRETE CURB (INTEGRAL)	LF
610 (A)	CONCRETE SIDEWALK	SY
610 (B)	CONCRETE DRIVEWAY	SY
610 (C)	CONCRETE DIVIDING STRIP	SY

■ HEIGHT & TYPE OF CURB SHALL BE SPECIFIED.
▼ THICKNESS SHALL BE SPECIFIED IN INCHES.

APPROVED BY ROADWAY ENGINEER *Calaf* DATE: 04/14/15
ROADWAY DESIGN DIVISION STANDARD

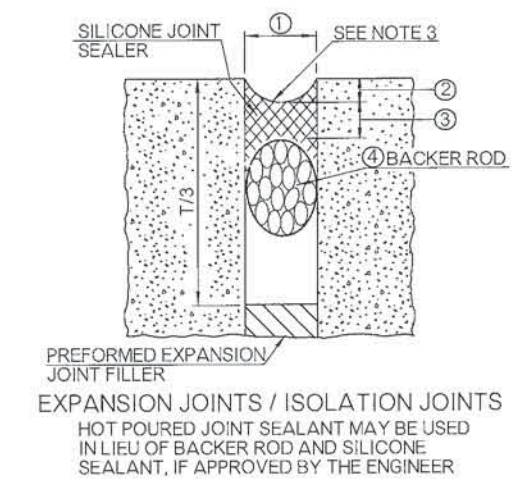
DOT

CONCRETE SURFACING CONSTRUCTION DETAILS



JOINT REHABILITATION TREATMENT TABLE

SILICONE SEALANT				
JOINT WIDTH	DEPTH OF CUT	SEALANT RECESS DEPTH	SEALANT THICKNESS	BACKER ROD DIAMETER
①	②	③	④	⑤
3/8"	1 1/4"	3/8"	3/16"	1/2"
1/2"	1 3/4"	3/8"	1/4"	5/8"
3/4"	1 3/4"	3/8"	3/8"	7/8"
7/8"	1 3/4"	1/2"	7/16"	1"
1"	2"	1/2"	1/2"	1 1/8"
OVER 1"	OVER 2"	1/2"	1/2"	1 1/4"



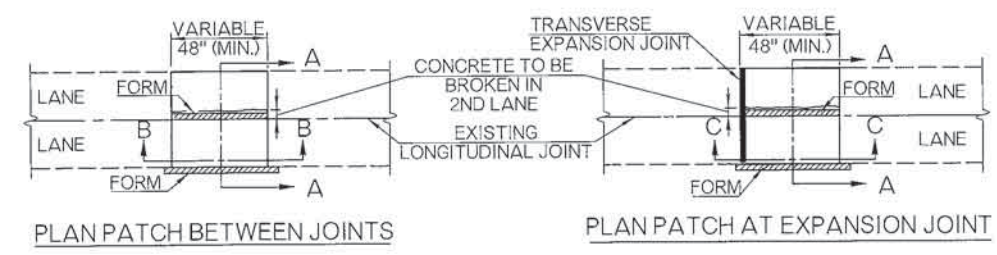
EXPANSION JOINT / ISOLATION JOINT TREATMENT TABLE

JOINT WIDTH	SEALANT RECESS DEPTH	SILICONE SEALANT THICKNESS	BACKER ROD DIAMETER
①	②	③	④
1/2"	3/8"	1/4"	5/8"
3/4"	3/8"	3/8"	7/8"
1"	3/8"	1/2"	1 1/4"
1 1/2"	1/2"	3/4"	2"
2"	1/2"	3/4"	2 1/2"

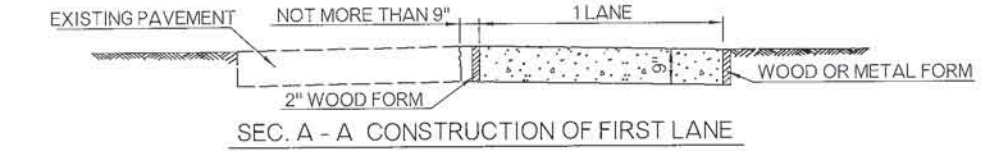
EXPANSION OR ISOLATION JOINT WIDTH SHALL BE 1/2", UNLESS OTHERWISE SPECIFIED ON THE PLANS. TABLE VALUES, AS SHOWN THIS TABLE, SHALL BE USED IN THOSE SPECIFIED CASES.

- GENERAL NOTES
- ALL CONSTRUCTION AND MATERIALS REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
 - ALL CONCRETE JOINT SEALING SHALL BE IN ACCORDANCE WITH SECTION 415 OF THE SPECIFICATIONS.
 - THE SHAPE FACTOR, COMBINED WITH THE JOINT CLEANLINESS, IS THE CRITICAL COMBINATION NECESSARY TO GUARANTEE DESIRED BONDING AND FUNCTION OF SEALED JOINTS. THE JOINT SHAPE FACTOR IS DEFINED AS THE FINAL PRESSED SHAPE OF THE SILICONE MATERIAL. THE TOOLING OPERATION WILL FIRMLY PRESS THE FRESHLY APPLIED MATERIAL INTIMATELY AGAINST THE CUT SIDES OF THE RECESS AND THE BACKER ROD SURFACES. THE ROUNDED SHAPE ON TOP AND BOTTOM OF THE SILICONE ALLOWS THE SEALANT TO PROPERLY FLEX BUT MAINTAIN ADHERENCE TO THE PAVING. SELF LEVELING SEALANTS WILL BE INSTALLED TO BE FLUSH WITH THE PAVEMENT SURFACE.
 - ON JOINTED PORTLAND CEMENT CONCRETE PAVEMENTS, DOWELED CONTRACTION JOINTS SHALL BE USED ON DRIVING LANES ONLY. CONCRETE SHOULDERS SHALL NOT BE DOWELED UNLESS SPECIFIED ON THE PLANS.
 - LONGITUDINAL JOINTS BETWEEN PAVEMENT AND TIED CONCRETE SHOULDERS SHALL NOT BE SAWED OR SEALED UNLESS OTHERWISE SHOWN ON THE PLANS.
 - ON ALL SAWED JOINTS, THE KERF DEPTH SHALL CLEAR DOWEL BARS, TIE BARS AND/OR REINFORCING STEEL BY A MINIMUM OF 1/2".
 - CONTRACTION JOINTS IN JOINTED P. C. PAVEMENT SHALL BE AT APPROXIMATELY 15'-0" CENTERS, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
 - TRANSVERSE GROOVING SHALL BE CONSTRUCTED TO THE FOLLOWING DIMENSIONS: 1/8" TO 3/8" WIDE, 1/8" TO 3/8" DEEP, AND EQUALLY SPACED AT 1/2" TO 1" APART. GROOVES SHALL BE NEAT IN APPEARANCE, OF UNIFORM DEPTH, AND LOCATED 1" TO 3" FROM NEAREST CONTRACTION JOINTS.

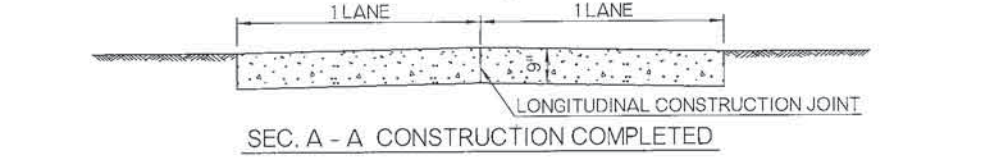
OKLAHOMA DEPARTMENT OF TRANSPORTATION		
STANDARD REVISIONS		
DESCRIPTION	DATE	



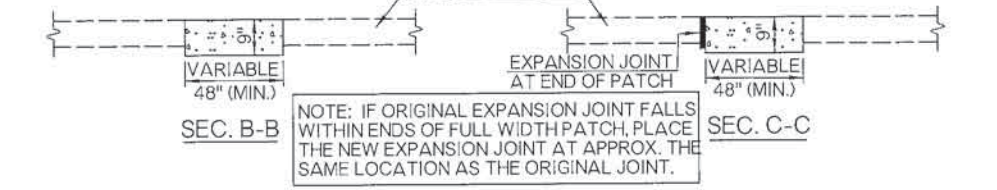
PLAN PATCH BETWEEN JOINTS PLAN PATCH AT EXPANSION JOINT



SEC. A - A CONSTRUCTION OF FIRST LANE

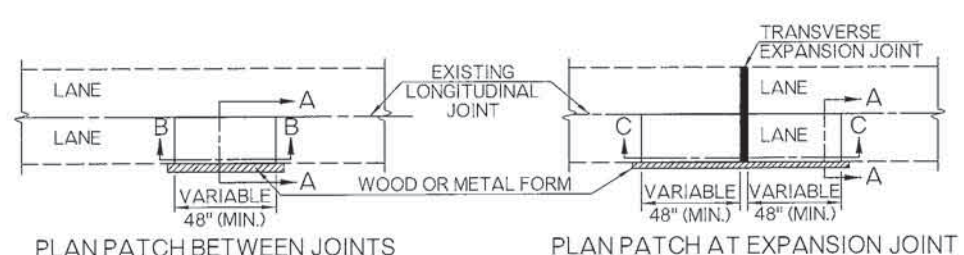


SEC. A - A CONSTRUCTION COMPLETED

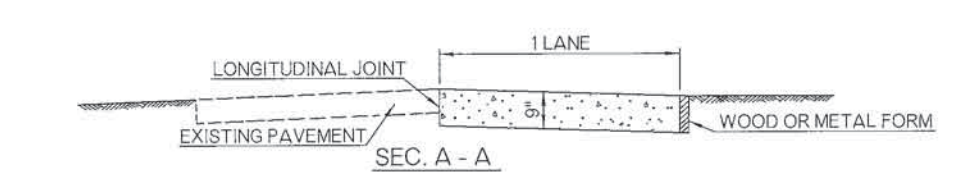


SEC. B - B SEC. C - C

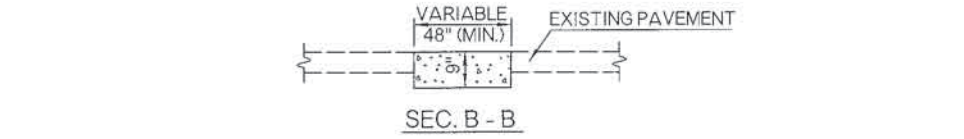
MULTI LANE PATCH (CONSTRUCTED ONE LANE AT A TIME)



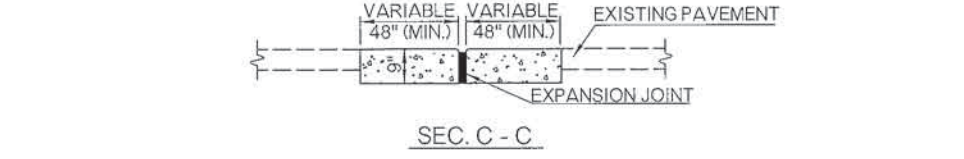
PLAN PATCH BETWEEN JOINTS PLAN PATCH AT EXPANSION JOINT



SEC. A - A

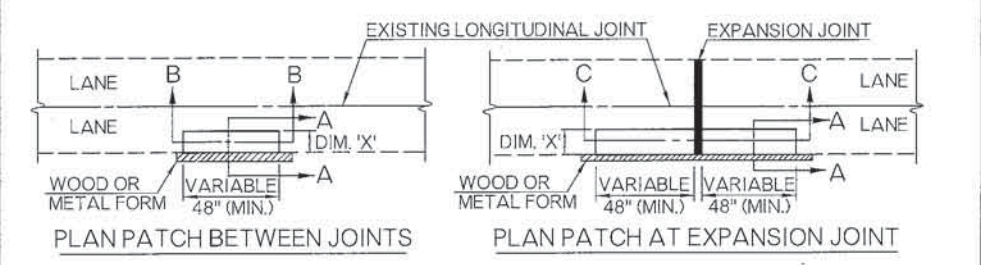


SEC. B - B

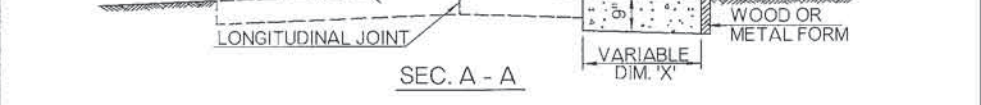


SEC. C - C

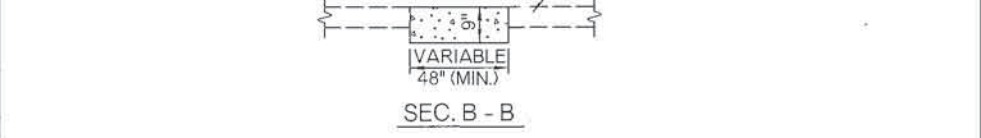
SINGLE LANE PATCH



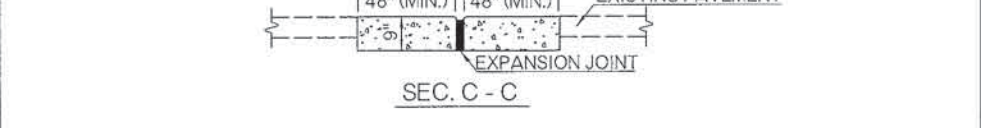
PLAN PATCH BETWEEN JOINTS PLAN PATCH AT EXPANSION JOINT



SEC. A - A

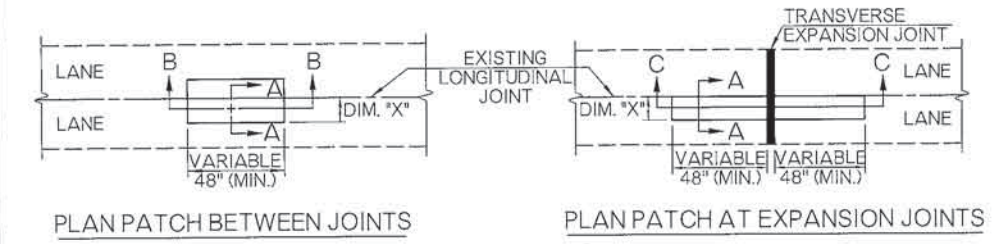


SEC. B - B

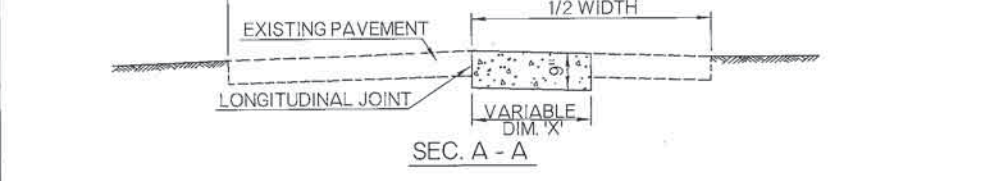


SEC. C - C

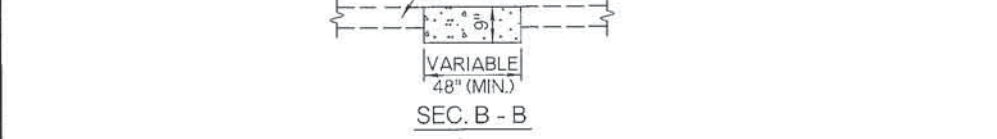
EXTERIOR EDGE PATCH



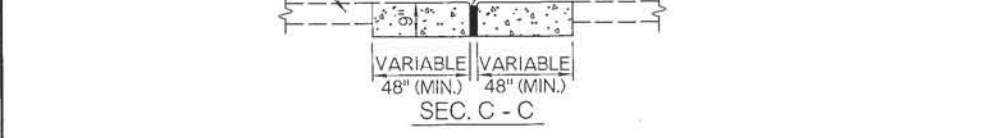
PLAN PATCH BETWEEN JOINTS PLAN PATCH AT EXPANSION JOINTS



SEC. A - A

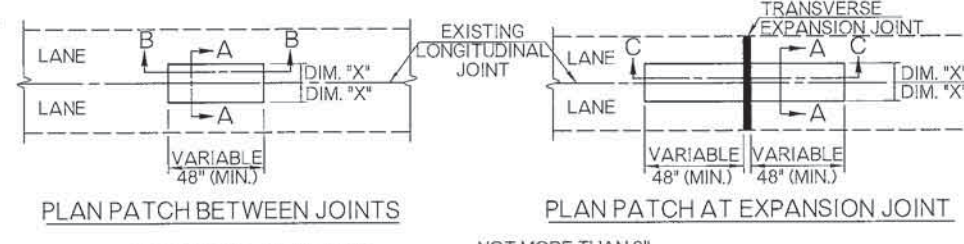


SEC. B - B



SEC. C - C

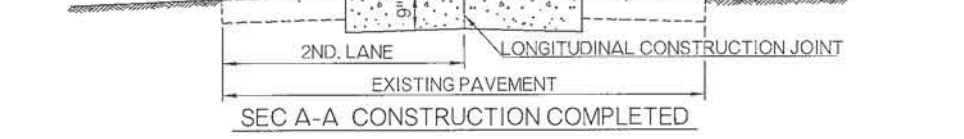
INTERIOR EDGE PATCH



PLAN PATCH BETWEEN JOINTS PLAN PATCH AT EXPANSION JOINT



SEC. A - A CONSTRUCTION OF FIRST LANE



SEC. A - A CONSTRUCTION COMPLETED



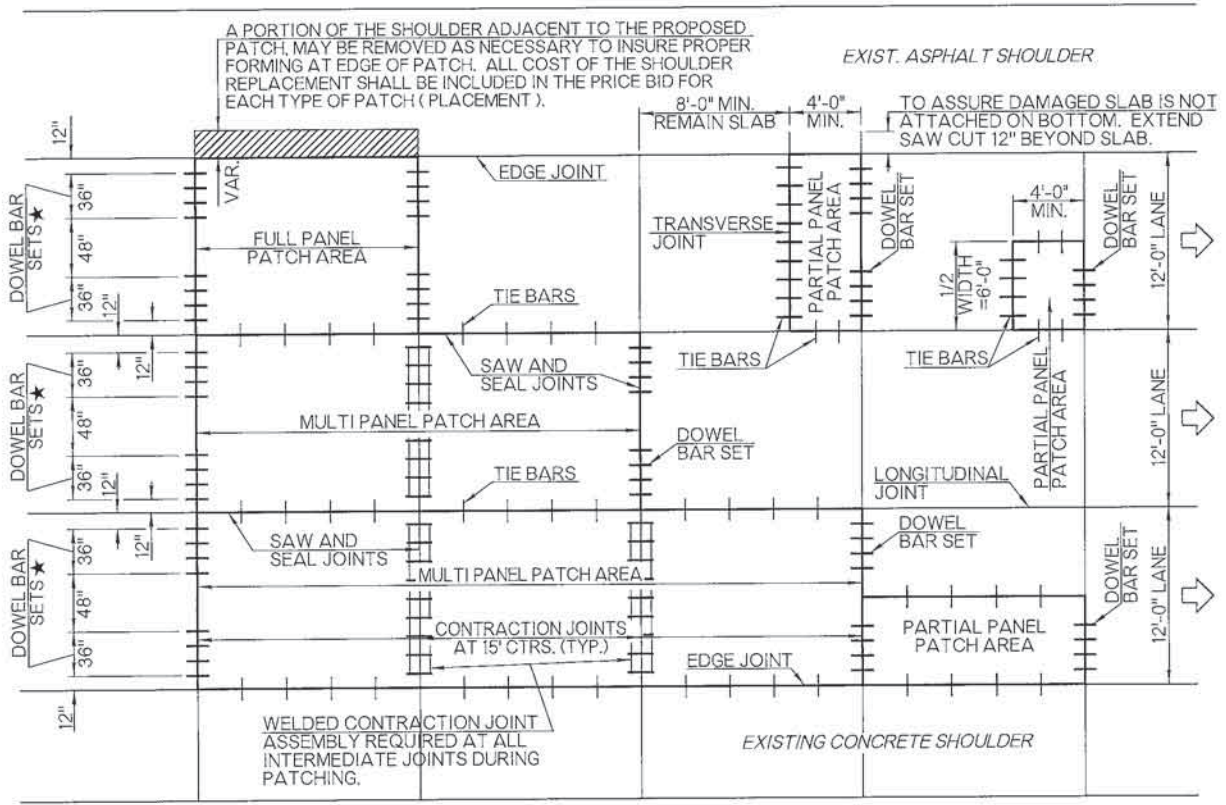
SEC. B - B SEC. C - C

RECTANGULAR PLUG PATCH

GENERAL NOTES

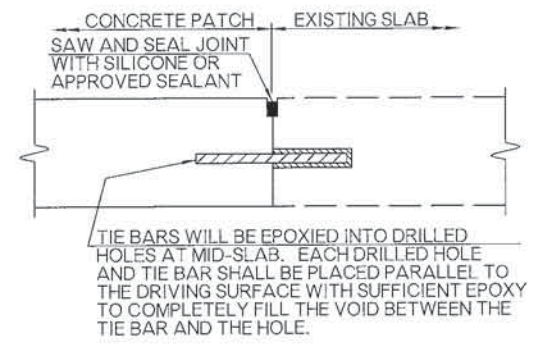
1. CROWN OF PATCH TO MATCH CROWN OF EXISTING PAVEMENT.
2. EDGES OF PAVEMENT SLAB, OPEN JOINTS AND CONSTRUCTION JOINTS SHALL BE EDGED WITH AN EDGER HAVING A 1/2" RADIUS. JOINT ALONG A BROKEN EDGE OF THE EXISTING PAVEMENT SHALL NOT BE EDGED.
3. CONCRETE FOR PATCHES SHALL BE HIGH-EARLY-STRENGTH CONCRETE PAVEMENT MADE WITH THE USE OF HIGH-EARLY-STRENGTH PORTLAND CEMENT OR 25% ADDITIONAL STANDARD PORTLAND CEMENT. TRAFFIC SHALL NOT BE ALLOWED ON THE PATCH FOR THE FIRST 24 HOURS, OR FOR LONGER WHEN DIRECTED BY THE RESIDENT ENGINEER.
4. DIMENSION 'X' TO BE NOT LESS THAN 4 FEET, NOR SHALL IT EXCEED 5 FEET FOR 18 FOOT PAVEMENT OR EXCEED 6 FEET FOR 20 FOOT PAVEMENT. IF EITHER OF THESE LIMITS ARE EXCEEDED USE A HALF WIDTH PATCH.
5. PAVEMENT SECTION DEPTH TO BE SHOWN ON PLANS.
6. IN AREAS WHERE PATCHING IS REQUIRED, UNDERCUTTING AND BACK FILLING OF SUBGRADE SHALL BE DONE IN A MANNER APPROVED BY THE ENGINEER. BACKFILL SHALL BE COMPACTED TO NOT LESS THAN 95% OF STANDARD DENSITY. COST OF UNDERCUTTING AND BACKFILLING TO BE INCLUDED IN OTHER ITEMS OF WORK.
7. FOR DETAILS OF JOINTS AND SEALERS, SEE ROADWAY STANDARD LECS-4.

APPROVED BY ROADWAY ENGINEER: *Calvin A. [Signature]* DATE: *04/14/15*
 ROADWAY DESIGN DIVISION STANDARD
DOT PAVEMENT RECONSTRUCTION DETAILS



* DOWEL BAR SETS (FOUR BARS AT 12" CTRS.) SHALL BE USED AS SHOWN FOR ALL CONTRACTION JOINTS. IF PATCH EXTENDS IN BOTH DIRECTIONS, FROM A CONTRACTION JOINT, THEN APPROVED LOAD TRANSFER DEVICES MEETING THE REQUIREMENTS OF SECTION 414.04, AND AS SHOWN ON ROADWAY STANDARD LTU-4 SHALL BE USED IN LIEU OF DOWEL BAR SETS. IF PARTIAL PANEL PATCH IS GOING TO EXCEED 7' (FOR 15' JOINTED PAVEMENT) OR 15' (FOR 62' JOINTED PAVEMENT), THEN USE A FULL PANEL PATCH.

FULL DEPTH PATCHING DETAIL

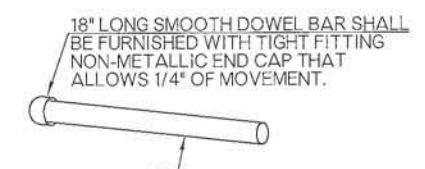


NOTE

LONGITUDINAL JOINT - TIE BARS - NO. 5 DEFORMED REINFORCING STEEL BARS, 2'-6" LONG, SHALL BE EPOXIED INTO 3/4" DIA. (MAX.) DRILLED HOLES AT 3'-0" CTRS. TIED LONGITUDINALLY. JOINT SHALL BE SAWS AND SEALED.

TRANSVERSE JOINT - TIE BARS - NO. 10 DEFORMED REINFORCING STEEL BARS, 1'-6" LONG, SHALL BE EPOXIED INTO 1 3/8" DIA. (MAX.) DRILLED HOLES AT 18" CTRS. FULL WIDTH, TRANSVERSE, TIED JOINTS SHALL NOT BE SAWS OR SEALED.

DETAIL OF TIE BAR JOINT



1" DIA. DOWELS FOR 6" TO 8" PAVEMENTS
1 1/2" DIA. DOWELS FOR 8 1/2" TO 10" PAVEMENTS
1 3/4" DIA. DOWELS FOR 10 1/2" PAVEMENTS OR THICKER.

DETAIL OF DOWEL BAR WITH CAP

GENERAL SEQUENCE OF PAVEMENT REPAIR
STEP 1 CONCRETE PATCHING

- (1) AREAS TO BE PATCHED WILL BE DESIGNATED BY THE ENGINEER
- (2) FOR REMOVAL OF FULL DEPTH PATCHES, SAWING IS TO BE FULL DEPTH. LIFT OUT DAMAGED PAVEMENT WHENEVER PRACTICAL.
- (3) THE FLOW OF TRAFFIC MAY BE RESTRICTED TO ONE LANE DUE TO PATCHING OPERATION FOR A MAXIMUM DISTANCE OF ONE MILE.

STEP 2 DOWEL BAR RETROFIT INSTALLATION

- (1) INSTALL DOWEL BARS AS SHOWN. BAR PLACEMENT SHALL CONSIST OF 3 BARS PER WHEEL PATH, PLACED 12" TO 15" APART, AND 18" FROM EDGE OF DRIVING LANE.
- (2) DOWEL BARS SHALL NOT BE PLACED ON TOP OF A LONGITUDINAL CRACK.
- (3) PAYMENT FOR 'DOWEL BAR RETROFIT' SHALL ONLY BE MADE FOR DOWELS PLACED BY THE PROCESS OF CUTTING A SLOT.
- (4) IF SLOTS ARE SAWS BUT NOT RETROFITTED WITH A BAR, THE SAW CUTS SHALL BE CLEANED AND SEALED WITH AN EPOXY RESIN.

STEP 3 DIAMOND GRINDING CONCRETE PAVEMENT

- (1) AFTER SLAB STABILIZATION AND/OR DOWEL BAR RETROFIT INSTALLATION, & APPROPRIATE CURE TIME HAS BEEN DETERMINED, GRINDING OPERATIONS MAY BEGIN.

STEP 4 CONCRETE JOINT SEALING

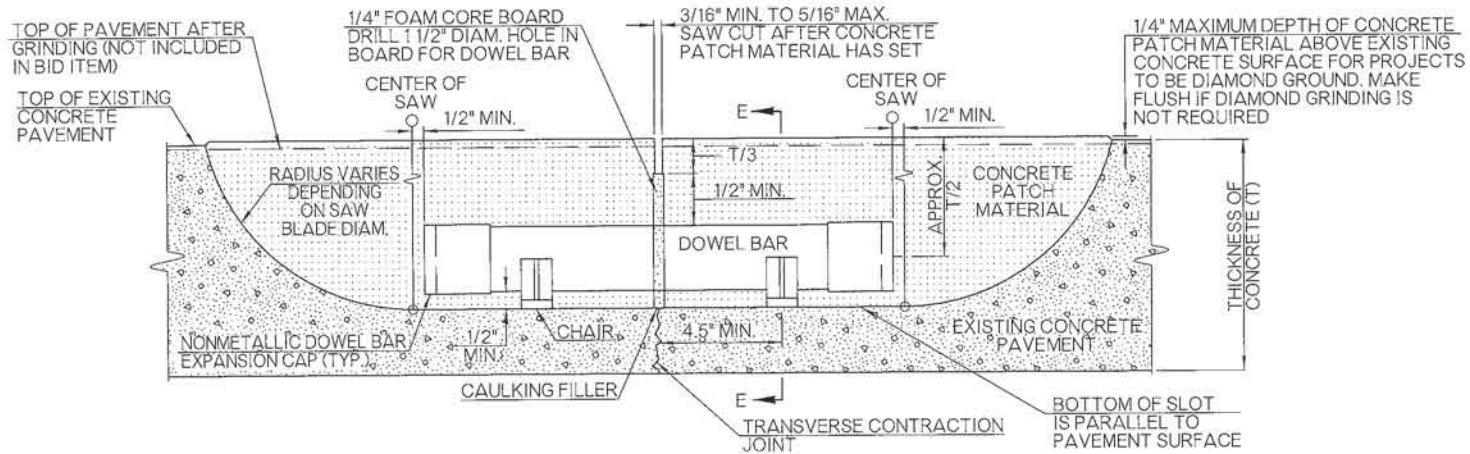
- (1) CUT SHALL BEGIN AT THE LOW EDGE OF THE DRIVING LANES AND MOVE TOWARD THE INITIAL JOINT.
- (2) INSTALLATION OF BOND BREAKER AND SILICONE JOINT SEALANT SHALL BE FROM THE END OF THE INITIAL JOINT TO THE LOW EDGE OF THE DRIVING LANES.

GENERAL NOTES

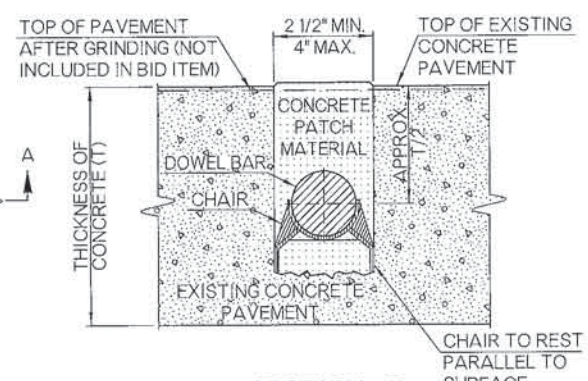
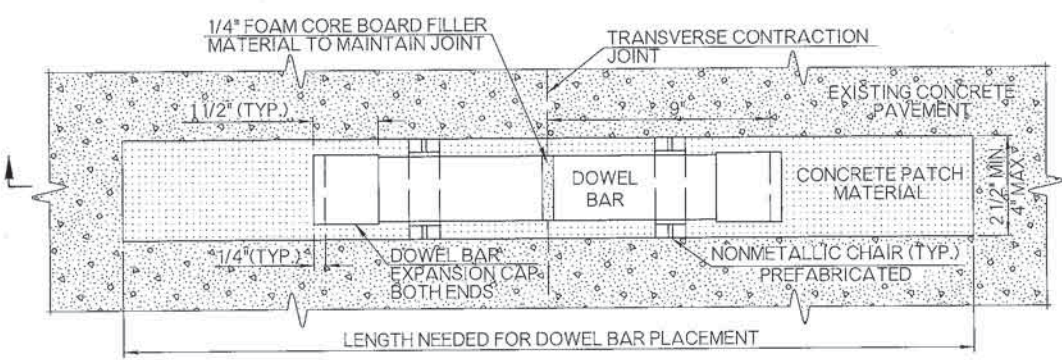
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
2. COST OF SAWING AND REMOVAL OF PAVEMENT FOR FULL DEPTH PATCHING, COST OF DOWEL BARS, TIE BARS AND ANY/ALL INCIDENTALS REQUIRED FOR INSTALLATION SHALL BE INCLUDED IN THE PRICE BID FOR FULL DEPTH PCC PATCH (PLACEMENT), UNLESS OTHERWISE SHOWN ON THE PLANS.
3. HIGH EARLY STRENGTH (HES) CONCRETE, WHEN USED FOR FULL DEPTH PATCHING, WILL BE PAID FOR AS PC CONCRETE FOR PAVEMENT.
4. BID ITEM FOR CONCRETE JOINT SEALING (JOINT REHABILITATION) WILL INCLUDE SAWING, CLEANING OF JOINT, BACKER ROD, SILICONE SEALANT AND ANY/ALL INCIDENTALS REQUIRED TO COMPLETE THE WORK.
5. FOR SKEWED TRANSVERSE JOINTS, DOWEL BARS SHALL ALWAYS BE PLACED PARALLEL TO THE ROADWAY.

BASIS OF PAYMENT

ITEM NO.	ITEM	UNIT
202 (A)	UNCLASSIFIED EXCAVATION	CY
414 (E)	FULL DEPTH P. C. C. PATCH (PLACEMENT)	SY
414 (G)	P. C. CONCRETE FOR PAVEMENT	CY
415	CONCRETE JOINT SEALING	LF
416	DOWEL BAR RETROFIT	EA
425	DIAMOND GRINDING CONCRETE PAVEMENT	SY



SECTION - A
DOWEL BAR RETROFIT PLACEMENT DETAIL



BASE REPAIR AND PREPARATION

IN AREAS WHERE PATCHING IS REQUIRED, THE REMOVAL OF THE DAMAGED PAVEMENT SHALL BE PERFORMED IN A MANNER THAT WOULD MINIMIZE FURTHER DAMAGE TO THE UNDERLYING SUBBASE (S), SUBGRADE OR ADJACENT PAVEMENT(S). NO COMPENSATION WILL BE MADE TO CONTRACTOR FOR REPAIRING DAMAGE SUSTAINED DURING THE REMOVAL PROCESS.

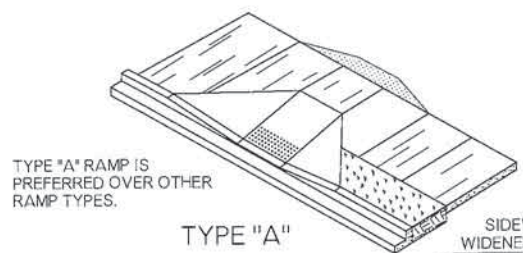
COST OF ANY INCIDENTAL BASE REPAIR, LEVELING OR BACKFILLING, UP TO 2", WILL BE INCLUDED IN FULL DEPTH PCC PATCH (PLACEMENT) PAY ITEM. INCIDENTAL REPAIR, LEVELING AND BACKFILLING MATERIAL SHALL CONSIST OF SAME MATERIAL ENCOUNTERED, CRUSHED LIMESTONE OR BY THICKENING THE FULL DEPTH PATCH.

BASE REPAIR, LEVELING AND RELATED BACKFILLING OF SUBBASE (S) OR SUBGRADE IN EXCESS OF 2" SHALL BE PAID FOR AS UNCLASSIFIED EXCAVATION WITH QUANTITIES COMPUTED FROM BOTTOM OF SLAB DOWNWARD TO LIMITS OF REMOVAL.

APPROVED BY ROADWAY ENGINEER *Calderon* DATE *04/16/15*

ROADWAY DESIGN DIVISION STANDARD

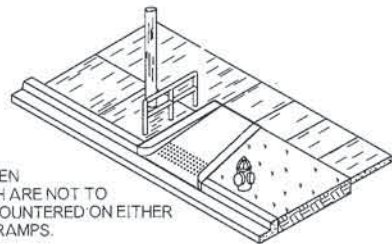
DOT PORTLAND CEMENT CONCRETE PAVEMENT REPAIR



TYPE "A" RAMP IS PREFERRED OVER OTHER RAMP TYPES.

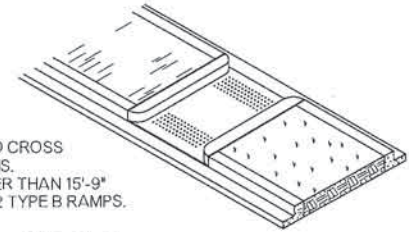
TYPE "A"

SIDEWALK MAY BE WIDENED TO CONFORM TO A.D.A. REQUIREMENTS



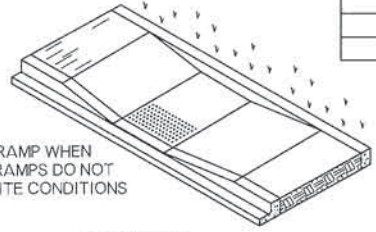
USE TYPE "B" RAMP WHEN OBSTRUCTIONS, WHICH ARE NOT TO BE REMOVED, ARE ENCOUNTERED ON EITHER SIDE OF WHEELCHAIR RAMPS.

TYPE "B"



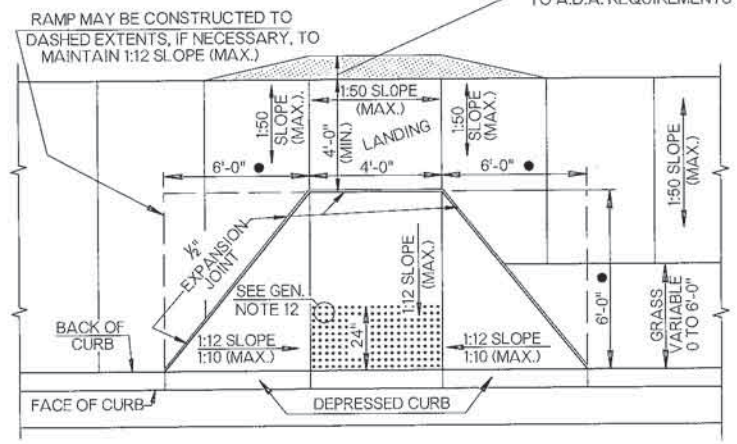
USE TYPE "C" RAMP TO CROSS 15'-9" OR LESS MEDIANS. FOR MEDIANS GREATER THAN 15'-9" USE SIDEWALK WITH 2 TYPE B RAMPS.

TYPE "C"

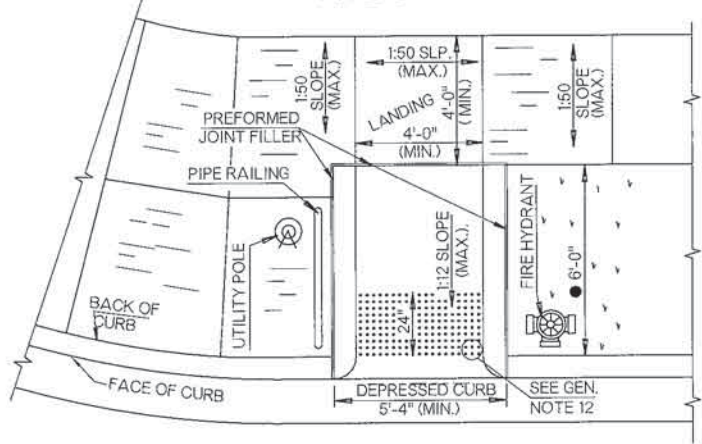


USE TYPE "D" RAMP WHEN OTHER TYPE RAMPS DO NOT WORK WITH SITE CONDITIONS

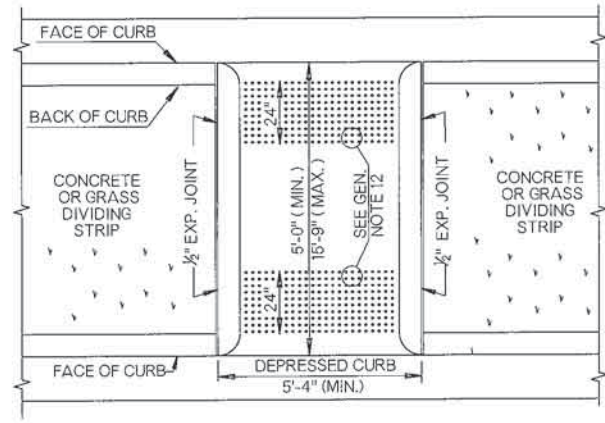
TYPE "D"



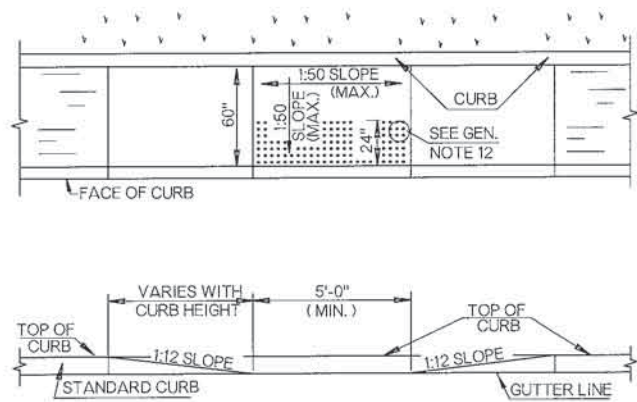
ELEVATION



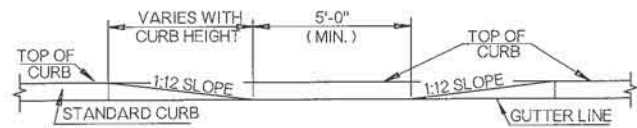
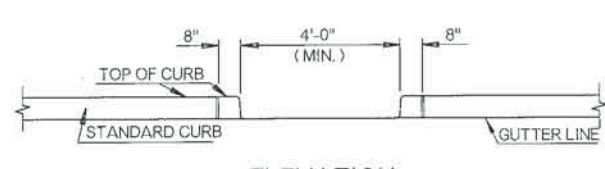
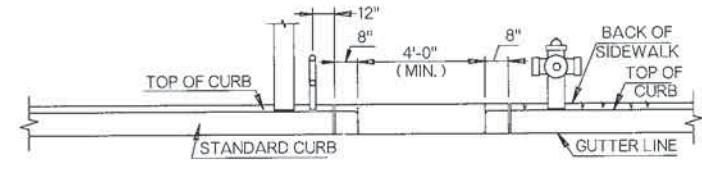
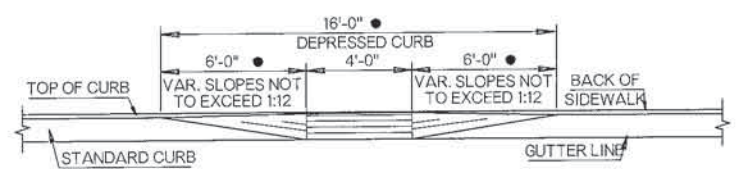
ELEVATION



ELEVATION

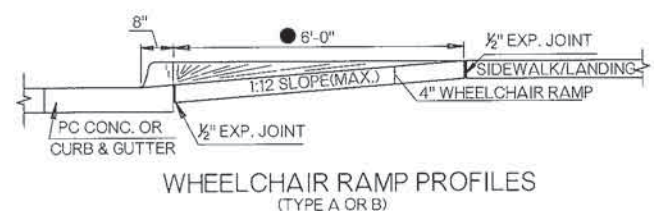


ELEVATION

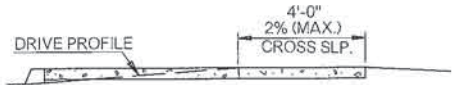


GENERAL NOTES

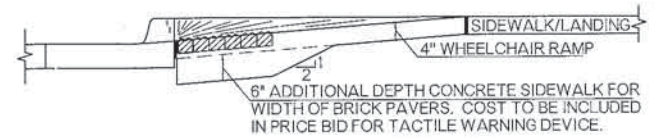
- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
- THERE WILL BE NO DEDUCTION OF PAYMENT FOR CONCRETE CURB & GUTTER AND/OR INTEGRAL CURB FOR THE LENGTH OF THE DEPRESSED CURB.
- RAMP DIMENSIONS SHOWN ARE BASED ON A CURB HEIGHT OF SIX INCHES. THE DIMENSIONS SHOULD BE ADJUSTED FOR OTHER CURB HEIGHTS. THE MAXIMUM PERMISSIBLE SLOPES OF THE WHEELCHAIR RAMPS IS 8.33% (1:12). RAMP SLOPE MAY BE 1:10 (MAX.) ALONG FACE OF TAPERED CURB.
- DRAINAGE STRUCTURES SHALL NOT BE PLACED IN LINE WITH THE RAMPS.
- THE NORMAL GUTTER LINE PROFILE SHALL BE MAINTAINED THROUGH THE AREA OF THE RAMP WITH A 1:50 SLOPE (MAX.), SEE NOTE NO. 10.
- WHEELCHAIR RAMPS SHOULD BE LOCATED SO THAT THE RAMP WILL BE ON THE TRAFFIC APPROACH SIDE OF ANY OBSTACLE.
- WHEELCHAIR RAMPS SHOULD BE BUILT AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE TYPE OF RAMP WILL BE DESIGNATED ON THE PLANS. IF A RAMP IS TO BE CONSTRUCTED AS A COMBINATION OF TWO TYPES, (ONE SIDE TYPE A AND ONE SIDE TYPE B) THE RAMP SHALL BE DESIGNATED AS TYPE A-B.
- PIPE RAILING CONSTRUCTION DETAILS, WHEN REQUIRED AT TYPE B WHEELCHAIR RAMPS, WILL BE SHOWN ON THE PLANS.
- EXCAVATION, BACKFILL, EXPANSION JOINT MATERIAL, SEALERS, AND OTHER RELATED MISCELLANEOUS ITEMS WILL NOT BE PAID FOR SEPARATELY BUT THE COST THEREOF SHALL BE INCLUDED IN THE COST OF THE SIDEWALK.
- ALL FEATURES OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, SIDEWALKS, CURB RAMPS AND CROSSWALK MARKINGS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES (ADAAG), WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THE ADAAG, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURE(S). THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK WHICH IS NOT IN FULL COMPLIANCE WITH THE ADAAG WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADAAG, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- ALL WHEELCHAIR RAMP CURBS SHALL BE INCLUDED IN COST OF SIDEWALK.
- FOR DETAILS OF TACTILE WARNING DEVICES, SEE STANDARD TWD-1.



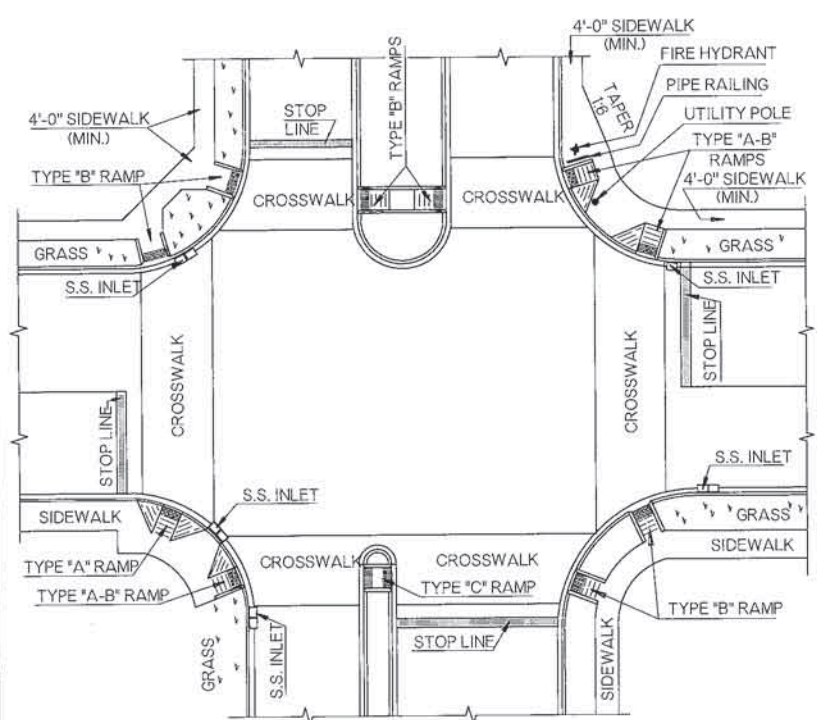
WHEELCHAIR RAMP PROFILES (TYPE A OR B)



AT DRIVEWAY LOCATIONS, THE NORMAL 4'-0" SIDEWALK MUST BE WIDENED SO THAT A 4' PORTION OF SIDEWALK IS ALIGNED WITH SIDEWALK CROSSING SHELVE IN THE DRIVEWAY PROFILE. A WIDER SIDEWALK (5'-0" TYP.) SHALL ALSO BE USED AT INTERVALS LESS THAN 200 FEET, TO ASSURE WHEELCHAIR PASSAGE.



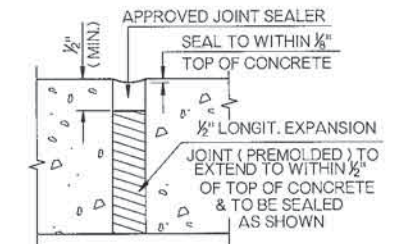
SIDEWALK THICKENING FOR TYPE A TACTILE WARNING DEVICES



THE ABOVE EXAMPLES ARE TYPICAL ONLY AND ARE SHOWN TO ILLUSTRATE POSSIBLE RAMP TYPES, POSSIBLE RAMP LOCATIONS, POSSIBLE INLET LOCATIONS, AND HOW THE RAMP WILL BE DESIGNATED ON THE PLANS. CARE SHOULD BE EXERCISED TO ASSURE THAT MEDIAN RAMP AND CURB RAMP LINE UP, AND THAT RAMPS THROUGHOUT A PROJECT ARE LOCATED WITH SOME DEGREE OF UNIFORMITY.



TYPICAL SIDEWALK WIDENING AT DRIVEWAY



1/2" EXPANSION JOINT

JOINT FILLER SHALL MEET THE REQUIREMENTS OF SECTION 701.08 OF THE SPECIFICATIONS.

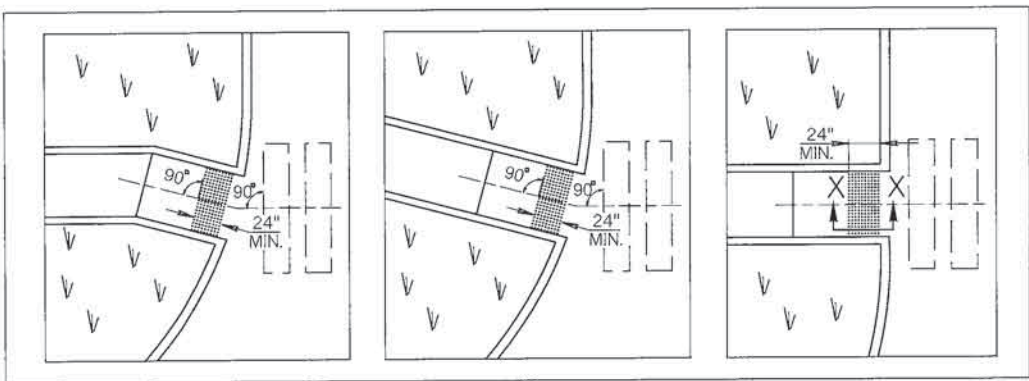
JOINT FILLER SHALL BE USED BETWEEN SIDEWALK AND CURBS, WHEELCHAIR RAMPS, DRIVEWAYS, STREETS, RETAINING WALLS, ETC.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
610 (A)	CONCRETE SIDEWALK	SY
622 (A)	PIPE RAILING	LF

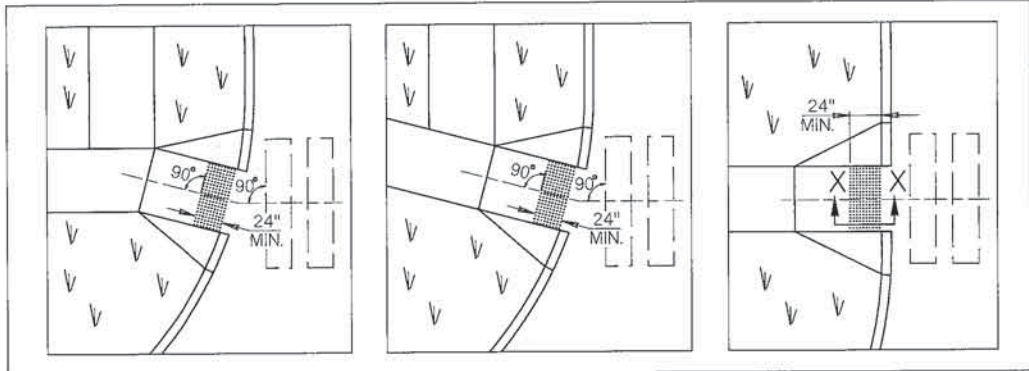
■ SIDEWALK THICKNESS SHALL BE SPECIFIED IN INCHES.

APPROVED BY ROADWAY ENGINEER: *Calvin A. [Signature]* DATE: *04/14/15*
ROADWAY DESIGN DIVISION STANDARD

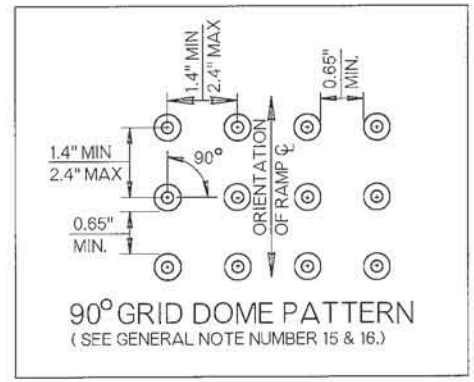
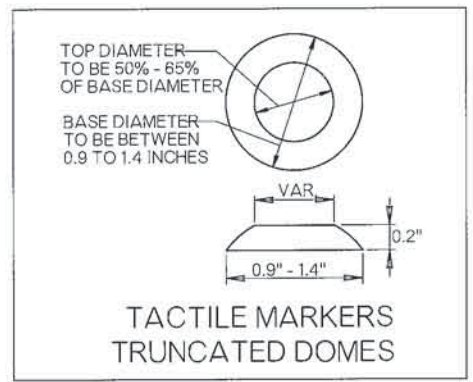
DOT WHEELCHAIR RAMPS



TACTILE SYSTEM ORIENTATION - TYPICAL CURBED RAMPS

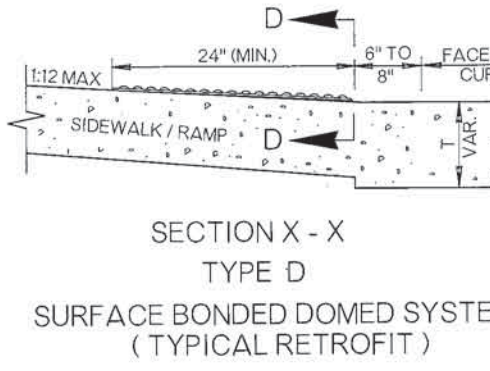
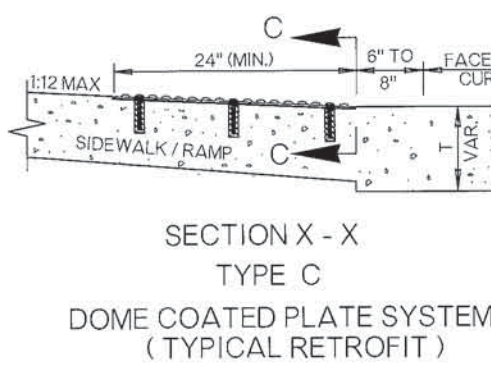
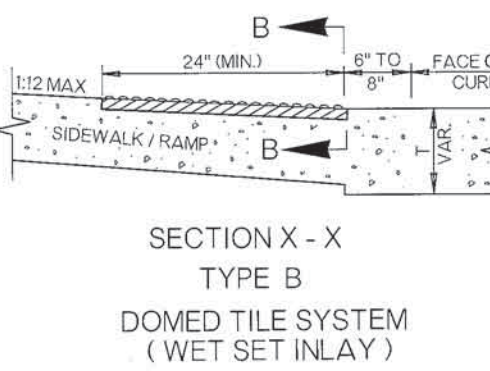
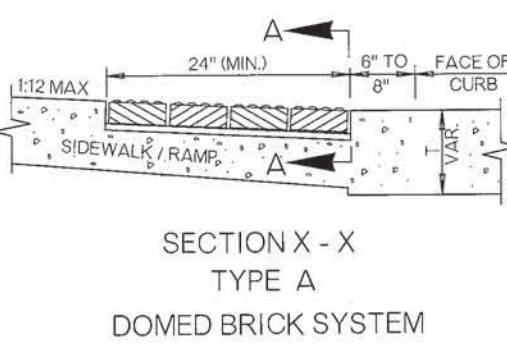
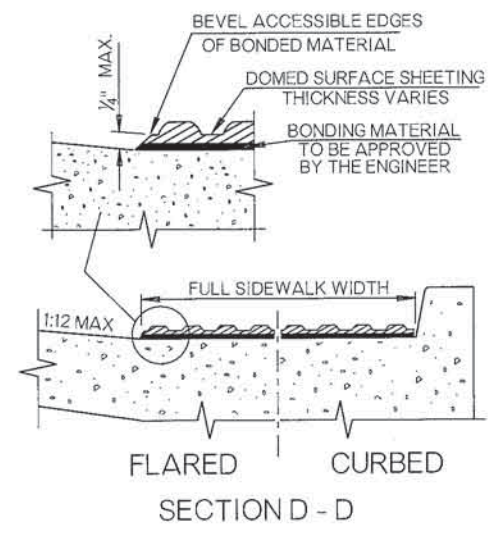
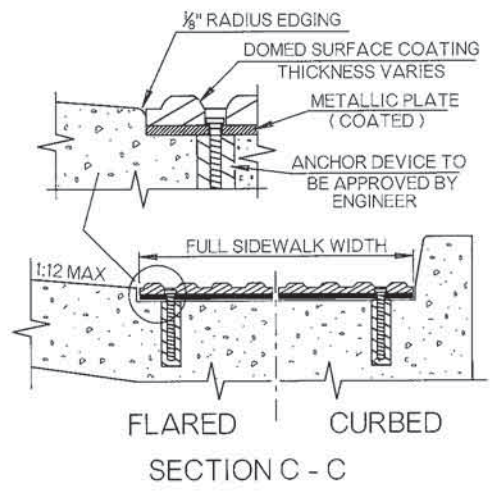
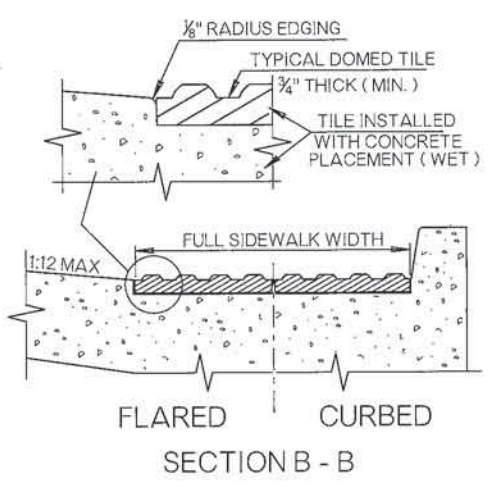
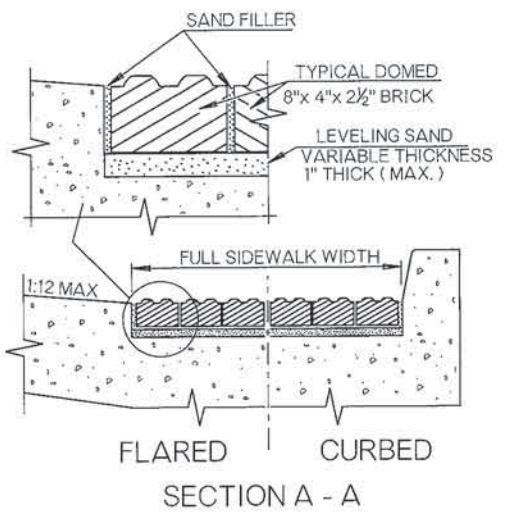


TACTILE SYSTEM ORIENTATION - TYPICAL FLARED RAMPS



GENERAL NOTES

- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
- ALL FEATURES OF TACTILE WARNING DEVICE DESIGN AND FINAL INSTALLATION SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES (ADAAG), WHERE SPATIAL LIMITATIONS OR EXISTING FEATURES WITHIN THE LIMITS OF THE PROJECT PREVENT FULL COMPLIANCE WITH THE ADAAG, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER UPON DISCOVERY OF SUCH FEATURE(S). THE CONTRACTOR SHALL NOT PROCEED WITH ANY ASPECT OF THE WORK WHICH IS NOT IN FULL COMPLIANCE WITH THE ADAAG WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER. ANY WORK WHICH IS NOT PERFORMED WITHIN THE GUIDELINES OF THE ADAAG, FOR WHICH THE CONTRACTOR DOES NOT HAVE WRITTEN APPROVAL, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- TACTILE WARNING SURFACE SHALL EXTEND FROM EDGE TO EDGE OF WALKWAY ENTERING THE CROSSWALK, AT STREET LEVEL.
- CURB IS NOT SHOWN IN THE SECTION X-X DETAIL ON THIS SHEET.
- THICKNESS 'T' OF PAVEMENT ABUTTING SIDEWALK/RAMP VARIES.
- SIDEWALK, RAMP AND FLARE THICKNESS SHALL BE 4" MINIMUM THICKNESS AFTER INSTALLATION OF TACTILE WARNING TREATMENT.
- TRUNCATED DOME SURFACE SHALL CONTRAST VISUALLY WITH THE ADJOINING WALKING SURFACES EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE TRUNCATED SURFACE.
- LEVELING SAND FOR DOMED BRICK SYSTEMS SHALL MEET THE REQUIREMENTS OF SECTION 703.06B(2) OF THE SPECIFICATIONS.
- SURFACE BONDED TACTILE SYSTEMS MAY ONLY BE PLACED ON NEWLY POURED CONCRETE AFTER AN APPROPRIATE PERIOD OF CURING, IN ACCORDANCE WITH MANUFACTURE'S SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
- ROWS OF TACTILE DOME TREATMENT SHOULD BE ORIENTED PARALLEL WITH CENTERLINE OF SIDEWALK/RAMP OR TOWARD THE CENTERLINE OF MARKED CROSSWALK.
- EXPANSION JOINTS DEEMED NECESSARY, BUT NOT SHOWN ON THE PLANS, MAY BE ADDED AND PLACED DURING CONSTRUCTION, AS DIRECTED BY THE ENGINEER.
- TACTILE SYSTEMS, DOME PATTERNS OR FEATURES DIFFERING FROM THOSE SHOWN ON THIS DETAIL, BUT MEETING CURRENT ADAAG SPECIFICATIONS, SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER BEFORE INSTALLATION.
- THE SAME TACTILE DOME PATTERN AND COLOR SHALL BE USED THROUGHOUT ANY NEW OR RETROFIT PROJECT. DOME PATTERN & LOCATION OF EXISTING RAMPS TO BE RETROFIT WITH TACTILE DEVICES SHALL BE DESIGNATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- RETROFIT INSTALLATIONS WILL NOT REQUIRE REPLACING EXISTING DEPRESSED CURBING. A NOMINAL 6 TO 8 INCH SETBACK FROM FACE OF CURB SHALL BE ENFORCED FOR NEAR EDGE OF TACTILE DOMES.
- TYPES A & B TACTILE SYSTEMS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 10,000 PSI. TYPES C & D SYSTEMS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI. COMPRESSIVE TESTS MEET ASTM D695.
- WET OR DRY STATIC COEFFICIENT OF FRICTION SHALL BE 0.7 FOR TACTILE SURFACES AND MEET ASTM C1028.
- TACTILE WARNING SURFACES MAY NOT BE STAMPED IN WET CONCRETE.

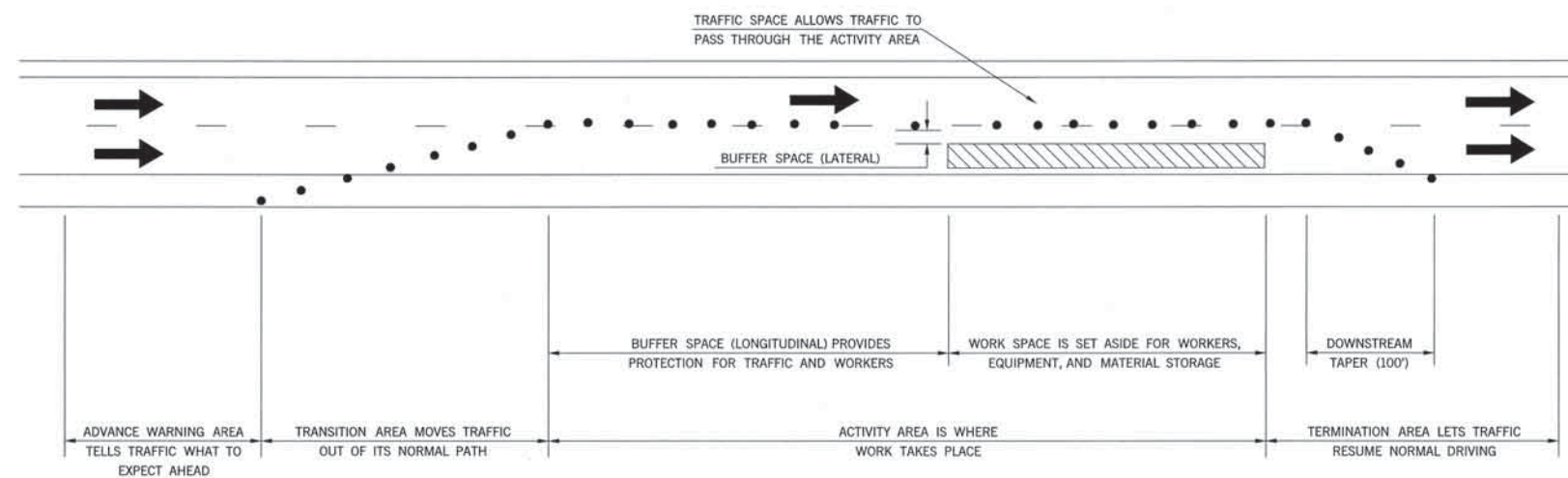


BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
610 (1)	TACTILE WARNING DEVICE - NEW	SF
610 (1)	TACTILE WARNING DEVICE - RETROFIT	SF

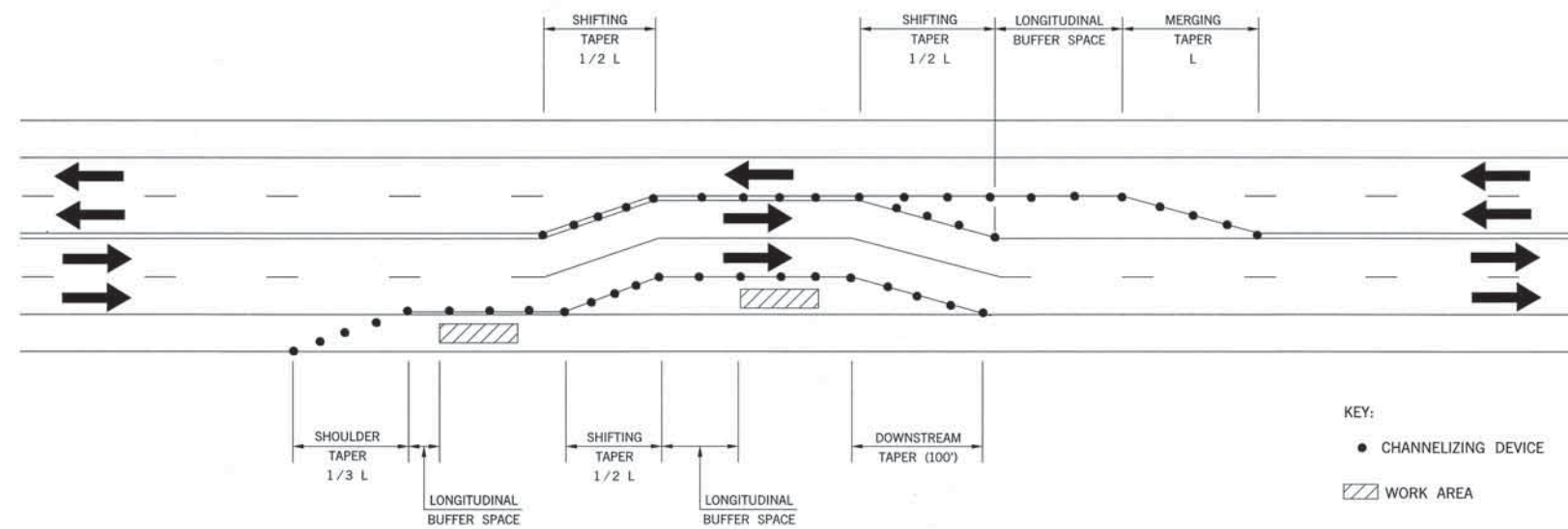
NOTE: TYPE A OR B TACTILE WARNING DEVICE SHALL BE SPECIFIED ON THE PLANS FOR NEW CONSTRUCTION & TYPE C OR D SHALL BE SPECIFIED ON THE PLANS FOR RETROFIT CONSTRUCTION.

APPROVED BY ROADWAY ENGINEER: *Calvin A.* DATE: *04/14/15*
 ROADWAY DESIGN DIVISION STANDARD
 TACTILE WARNING DEVICES

DESCRIPTION	REVISIONS	DATE
CHANGED TRANSITION NOTATION		5/31/2011



COMPONENT PARTS OF A TEMPORARY TRAFFIC CONTROL ZONE



TAPERS AND BUFFER SPACE

TEMPORARY TRAFFIC CONTROL ELEMENTS



APPROVED BY TRAFFIC ENGINEER: *David G. Smith* DATE: 5/31/2011

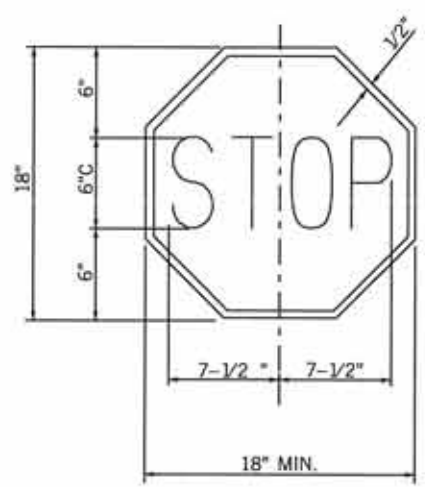
TRAFFIC STANDARD
TRAFFIC CONTROL STANDARD
TEMPORARY TRAFFIC CONTROL ELEMENTS

2009 SPECIFICATIONS

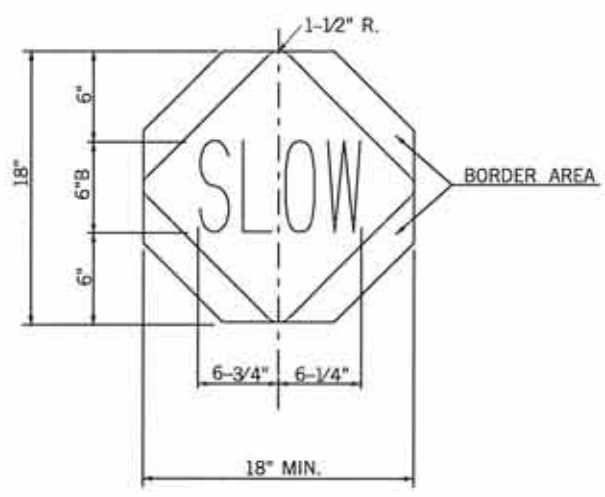
TCS3-1	01
T-503	

\$\$\$date\$\$\$

DESCRIPTION	REVISIONS	DATE

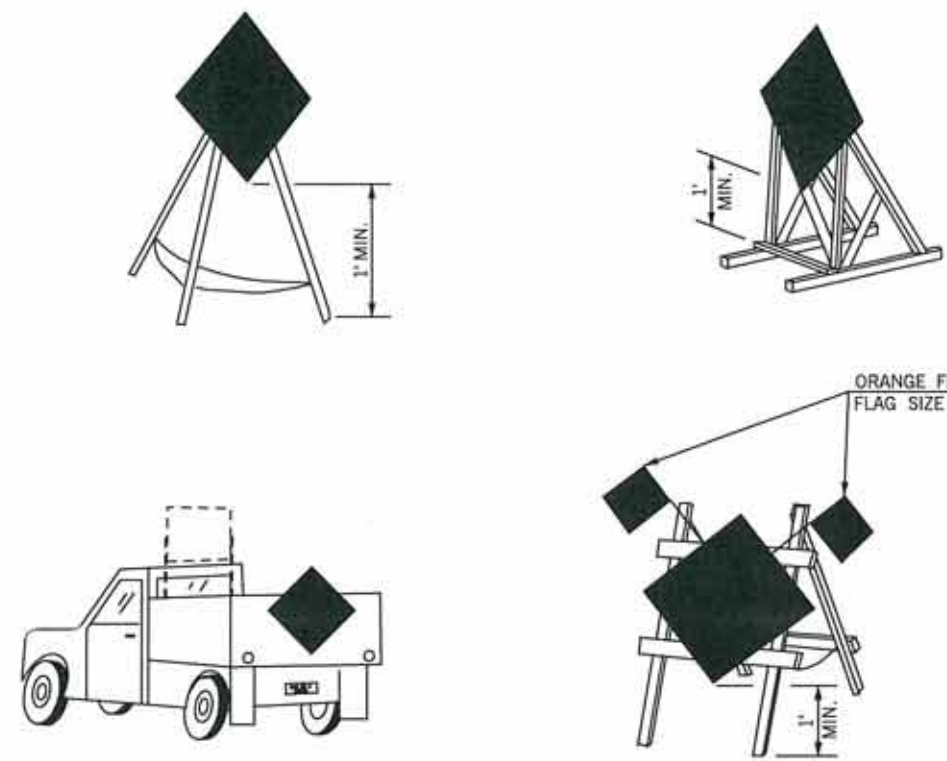


STOP:
LEGEND AND BORDER: WHITE (REFLECTORIZED)
BACKGROUND: RED (REFLECTORIZED)



SLOW:
LEGEND AND BORDER AREA: BLACK (NON-REFLECTORIZED)
BACKGROUND: ORANGE (REFLECTORIZED)

STOP-SLOW PADDLE

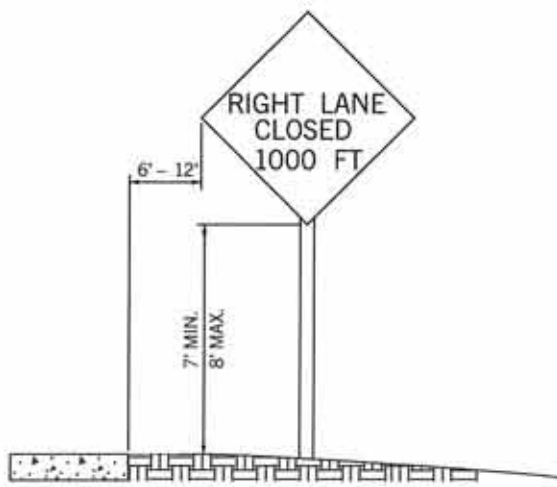


NOTE:
THE BOTTOM OF SIGNS MOUNTED ON BARRICADES OR TEMPORARY SUPPORTS SHALL NOT BE LESS THAN 1 FOOT ABOVE THE TRAVELED WAY.

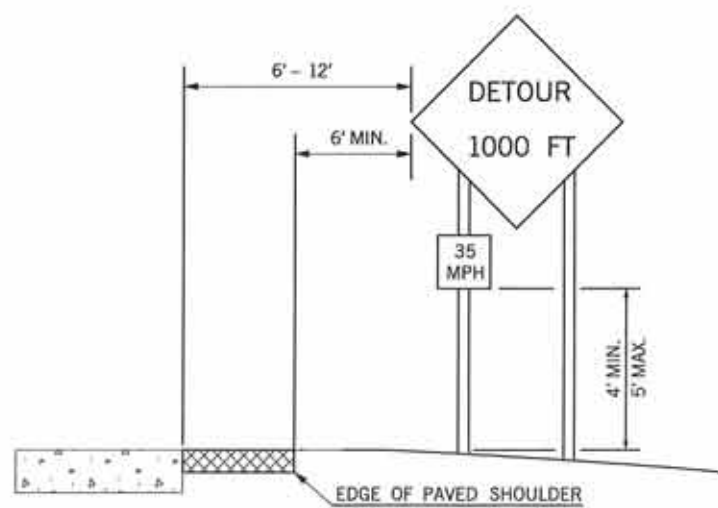
PORTABLE AND TEMPORARY MOUNTINGS
METHODS OF MOUNTING SIGNS OTHER THAN ON POSTS



URBAN DISTRICT
(WITH CURB)



URBAN DISTRICT
(WITHOUT CURB)



RURAL DISTRICT WITH
ADVISORY SPEED PLATE



RURAL DISTRICT

HEIGHT AND LATERAL LOCATIONS OF SIGNS - TYPICAL INSTALLATIONS

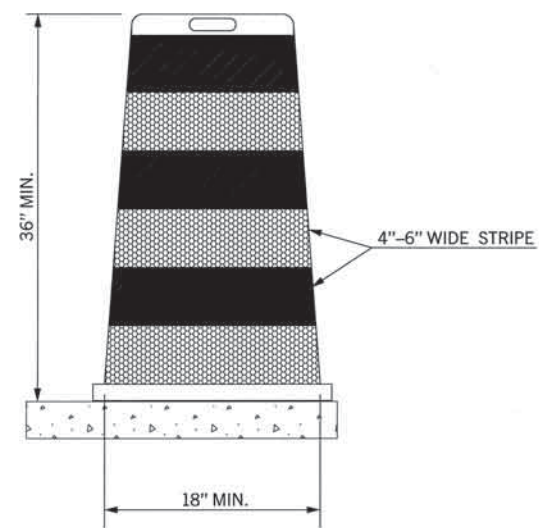


APPROVED BY
TRAFFIC ENGINEER: *Cheryl Smith* DATE: 6/23/10
TRAFFIC STANDARD

TRAFFIC CONTROL STANDARD
TYPICAL SIGN INSTALLATION

TRFPC36 M:\2009_Standards_TC\505.dgn 8:16:51 AM 6/2/2010 d:\usr2\flib\leroyh.psn R:\TRAF_FLOT\bw.tbl

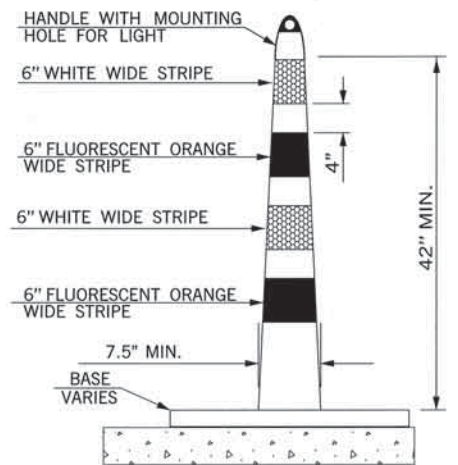
DESCRIPTION	REVISIONS	DATE
ADD NOTE TO VERTICAL PANEL		07/19/10
CHANGED TYPE 'C' LIGHT TO OPTIONAL		3/15/2011



DRUM

NOTES:

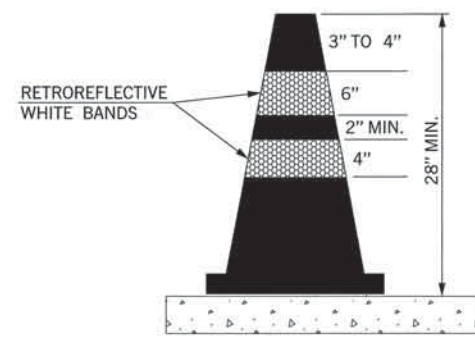
METAL DRUMS SHALL NOT BE USED.
 EACH DRUM SHALL HAVE A MINIMUM OF TWO (2) FLUORESCENT ORANGE STRIPES ALTERNATING WITH A MINIMUM OF TWO (2) WHITE STRIPES. THESE STRIPES SHALL CONSIST OF RETROREFLECTIVE SHEETING.
 BALLAST SHALL NOT BE PLACED ON TOP OF A DRUM.
 DRUMS SHALL NOT BE USED TO DELINEATE AN EDGE DROP OFF IF THEY MUST BE PLACED IN THE DROP OFF AREA BELOW THE LEVEL OF THE DRIVING SURFACE.



CHANNELIZER CONE

NOTES:

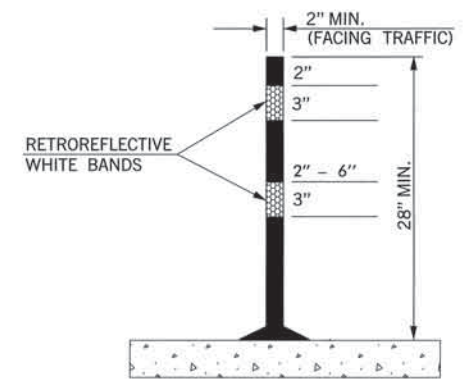
CHANNELIZER CONES USED ON HIGH SPEED ROADWAYS, ON ALL HIGHWAYS DURING NIGHTTIME, OR WHENEVER MORE CONSPICUOUS GUIDANCE IS NEEDED SHALL BE A MINIMUM OF 42 INCHES HIGH.
 EACH CHANNELIZER CONES SHALL HAVE A MINIMUM OF TWO (2) FLUORESCENT ORANGE STRIPES ALTERNATING WITH A MINIMUM OF TWO (2) WHITE STRIPES. THESE STRIPES SHALL CONSIST OF RETROREFLECTIVE SHEETING.
 BASE SHALL WEIGH 30 LBS. OR MORE.



CONE

NOTES:

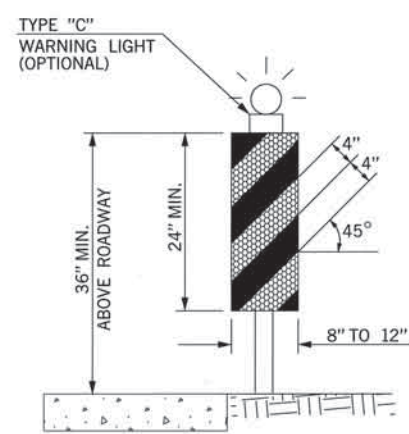
CONES USED ON HIGH SPEED ROADWAYS, ON ALL HIGHWAYS DURING NIGHTTIME, OR WHENEVER MORE CONSPICUOUS GUIDANCE IS NEEDED SHALL BE A MINIMUM OF 28 INCHES HIGH.
 CONES SHALL BE PREDOMINANTLY ORANGE, WITH WHITE RETROREFLECTIVE SHEETING.



TUBE CHANNELIZER

NOTES:

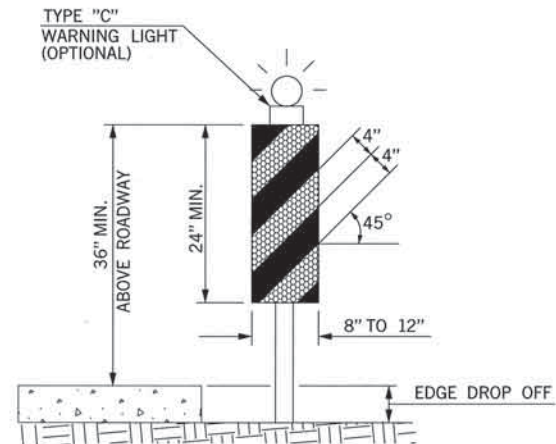
TUBE CHANNELIZERS USED ON HIGH SPEED ROADWAYS, ON ALL HIGHWAYS DURING NIGHTTIME, OR WHENEVER MORE CONSPICUOUS GUIDANCE IS NEEDED SHALL BE A MINIMUM OF 28 INCHES HIGH.
 TUBE CHANNELIZERS SHALL BE PREDOMINANTLY ORANGE, WITH WHITE RETROREFLECTIVE SHEETING.



**VERTICAL PANEL
W/O DROP OFF**

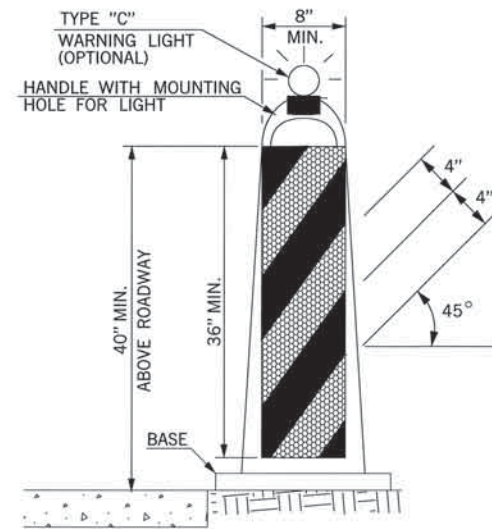
NOTES:

PANEL STRIPE WIDTHS SHALL BE 6 INCHES EXCEPT WHERE PANEL LENGTHS ARE LESS THAN 36 INCHES, THEN 4 INCH WIDE STRIPES MAY BE USED.
 MARKINGS FOR VERTICAL PANELS SHALL BE ALTERNATING FLUORESCENT ORANGE AND WHITE RETROREFLECTORIZED STRIPES (SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS).
 SHALL HAVE A MINIMUM OF TWO (2) FULL FLUORESCENT ORANGE STRIPES.



**VERTICAL PANEL
W/DROP OFF**

ON UNDIVIDED HIGHWAYS, VERTICAL PANELS SHALL HAVE A MINIMUM OF 192 SQUARE INCHES OF RETROREFLECTIVE SHEETING ON EACH PANEL (FRONT AND BACK). WHEN USED ON HIGH SPEED ROADWAYS, VERTICAL PANELS SHALL HAVE MINIMUM OF 270 SQUARE INCHES OF RETROREFLECTIVE SHEETING ON EACH PANEL (FRONT AND BACK). THIS SHALL CONSTITUTE ONE (1) COMPLETE VERTICAL PANEL.
 ON DIVIDED HIGHWAYS A VERTICAL PANEL MAY HAVE SHEETING ON ONLY ONE SIDE.



STACKABLE VERTICAL PANEL

NOTES:

(1) VERTICAL PANEL SIGNS SHALL BE MOUNTED BACK TO BACK WHEN USED FOR TWO-WAY TRAFFIC.
 (2) BASE SHALL BE NO LARGER THAN 28" LONG BY 20" WIDE, AND 2" THICK.
 (3) BASE SHALL WEIGHT 30 LBS. OR MORE.
 (4) THESE DEVICES SHALL BE CONSTRUCTED OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING VEHICLES ON IMPACT.

KEY:

	FLUORESCENT ORANGE (REFLECTORIZED)
	WHITE (REFLECTORIZED)

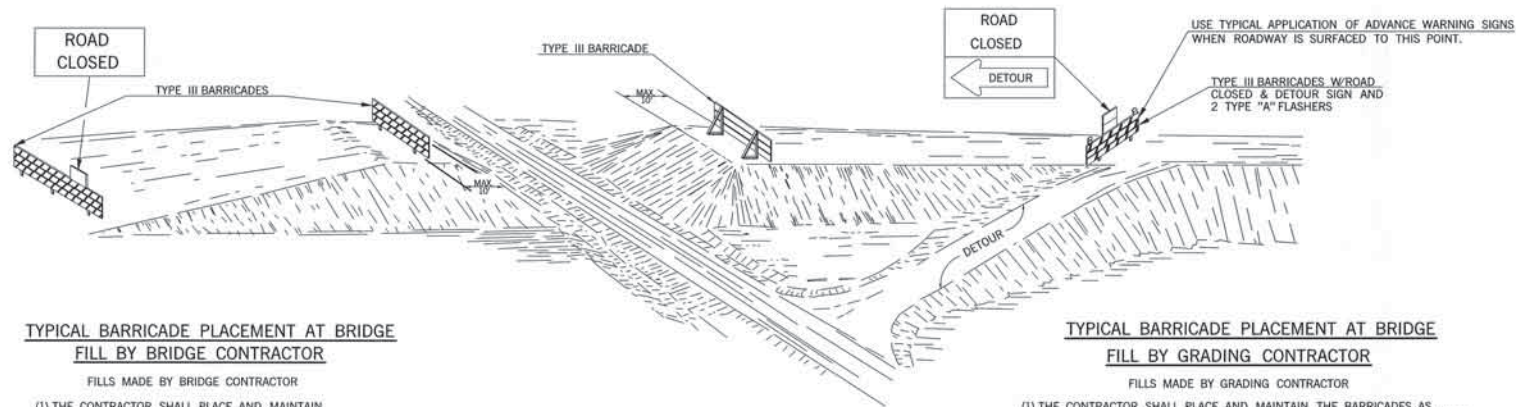
BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
880(D)	VERTICAL PANEL	SD
880(E)	WARNING LIGHTS	SD
880(F)	DRUMS	SD
880(G)	TUBE CHANNELIZERS	SD
880(H)	CONES	SD
880(I)	CHANNELIZER CONES	SD



APPROVED BY TRAFFIC ENGINEER: *[Signature]* DATE: 3/21/11

TRAFFIC STANDARD
CHANNELIZING DEVICES

\$\$\$date\$\$\$

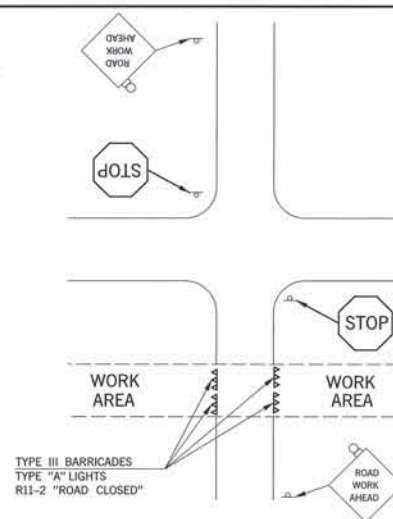


TYPICAL BARRICADE PLACEMENT AT BRIDGE FILL BY BRIDGE CONTRACTOR

- FILLS MADE BY BRIDGE CONTRACTOR
- (1) THE CONTRACTOR SHALL PLACE AND MAINTAIN THE BARRICADES AS SHOWN UNTIL THEY ARE NO LONGER NEEDED.
 - (2) THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO REMOVAL OF THE BARRICADES.
 - (3) THE ENGINEER SHALL NOTIFY THE GRADING CONTRACTOR TO FURNISH AND ERECT HIS BARRICADES "IMMEDIATELY" AFTER THE BRIDGE CONTRACTOR REMOVES HIS BARRICADES. THE GRADING CONTRACTOR SHALL MAINTAIN HIS BARRICADES UNTIL FINAL INSPECTION OR UNTIL THEY ARE NO LONGER NEEDED.
 - (4) BARRICADES AT BRIDGE FILL SHALL BE IN PLACE AND MAINTAINED AT ALL TIMES UNTIL OPENED TO TRAFFIC. HOWEVER, BARRICADES MAY BE REMOVED OR ADJUSTED, AS NEEDED, TO ALLOW ACCESS TO THE WORK AREA.

TYPICAL BARRICADE PLACEMENT AT BRIDGE FILL BY GRADING CONTRACTOR

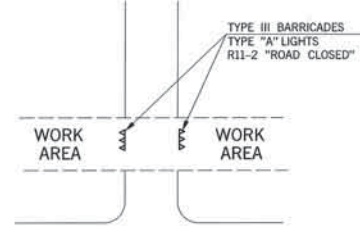
- FILLS MADE BY GRADING CONTRACTOR
- (1) THE CONTRACTOR SHALL PLACE AND MAINTAIN THE BARRICADES AS SHOWN UNTIL FINAL INSPECTION OR UNTIL THEY ARE NO LONGER NEEDED.
 - (2) THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO REMOVAL OF THE BARRICADES.
 - (3) IF THE BRIDGE WORK ORDER IS ISSUED PRIOR TO COMPLETION OF THE GRADING CONTRACT, THE BRIDGE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE GRADING CONTRACTOR TO ASSUME RESPONSIBILITY FOR PROTECTION OF THE BRIDGE WORK AREA. THIS WILL INCLUDE FURNISHING, INSTALLING, AND MAINTAINING ALL BARRICADES AND SIGNS NECESSARY TO PROVIDE THAT PROTECTION UNTIL THE BRIDGE IS COMPLETED AND THE FINAL INSPECTION IS COMPLETED.
 - (4) IF THE BRIDGE WORK ORDER HAS NOT BEEN ISSUED PRIOR TO THE FINAL INSPECTION OF THE GRADING, THEN THE GRADING CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION FOR STATE FORCES TO SUPPLY, INSTALL AND MAINTAIN ANY NECESSARY TRAFFIC CONTROL DEVICES NEEDED TO PROTECT THE WORK AREA. THESE STATE OWNED DEVICES SHALL REMAIN IN PLACE UNTIL SUCH TIME THAT THE BRIDGE WORK ORDER IS ISSUED. AT THAT TIME THE BRIDGE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR TRAFFIC CONTROL AND REPLACE THE STATE OWNED DEVICES WITH HIS OWN.
 - (5) SUFFICIENT NUMBER OF TYPE II BARRICADES WITH SIGNS SHALL BE USED TO COMPLETELY CLOSE THE WORK AREA TO THROUGH TRAFFIC.
 - (6) BARRICADES AT BRIDGE FILL SHALL BE IN PLACE AND MAINTAINED AT ALL TIMES UNTIL OPENED TO TRAFFIC. HOWEVER, BARRICADES MAY BE REMOVED OR ADJUSTED, AS NEEDED, TO ALLOW ACCESS TO THE WORK AREA.



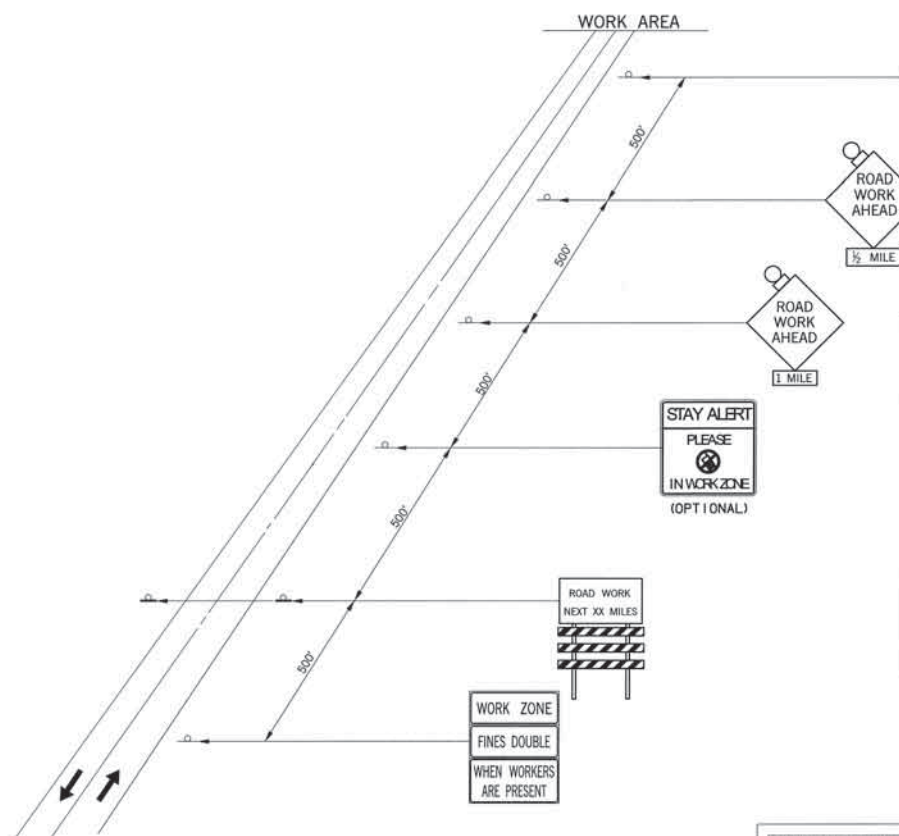
TYPICAL SIGN PLACEMENT FOR INTERSECTING ROADS AND STREETS

DESCRIPTION	REVISIONS	DATE
MODIFIED NOTE		3/16/2011
ADD "NO CELL PHONE" USAGE IN WORK ZONE DISTANCE SIGN TO WARNING SIGNS		4/2/2013

- NOTES:
- (1) SIGNS SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
 - (2) FLASHING WARNING LIGHTS SHALL BE USED TO CALL ATTENTION TO THE EARLY WARNING SIGNS.
 - (3) WARNING LIGHTS SHOULD BE USED TO MARK CHANNELIZING DEVICES AT NIGHT AS NEEDED.
 - (4) PLACEMENT OF TYPE III BARRICADES SHALL BE APPROVED BY THE ENGINEER.
 - (5) TYPE II BARRICADES, DRUMS AND/OR VERTICAL PANELS MAY BE SUBSTITUTED FOR TYPE III BARRICADES TO AVOID OBSTRUCTING THE MOTORIST'S VIEW.
 - (6) IF TWO OR MORE DRIVEWAYS ARE IN CLOSE PROXIMITY, THE BARRICADES BETWEEN THE DRIVEWAYS MAY BE OMITTED AT THE DISCRETION OF THE ENGINEER.
 - (7) THE "ROAD WORK AHEAD" SIGN, WHICH SERVES AS A GENERAL WARNING OF OBSTRUCTIONS OR RESTRICTIONS, SHALL BE LOCATED ON ALL INTERSECTING ROADS AND STREETS.



TYPICAL SIGN PLACEMENT FOR PRIVATE DRIVE OR RESIDENCE



TYPICAL APPLICATION ADVANCE WARNING SIGNS ON 2-LANE HIGHWAY

TYPICAL CONSTRUCTION WARNING SIGNS WITH MESSAGES OTHER THAN DETAILED ON STANDARD DRAWINGS SHALL BE CONSTRUCTED USING THE LARGEST POSSIBLE LETTER SIZE. SIGN SIZE AND COLOR SHALL BE THE SAME AS OTHER CONSTRUCTION WARNING SIGNS USED FOR SIMILAR CONDITIONS.

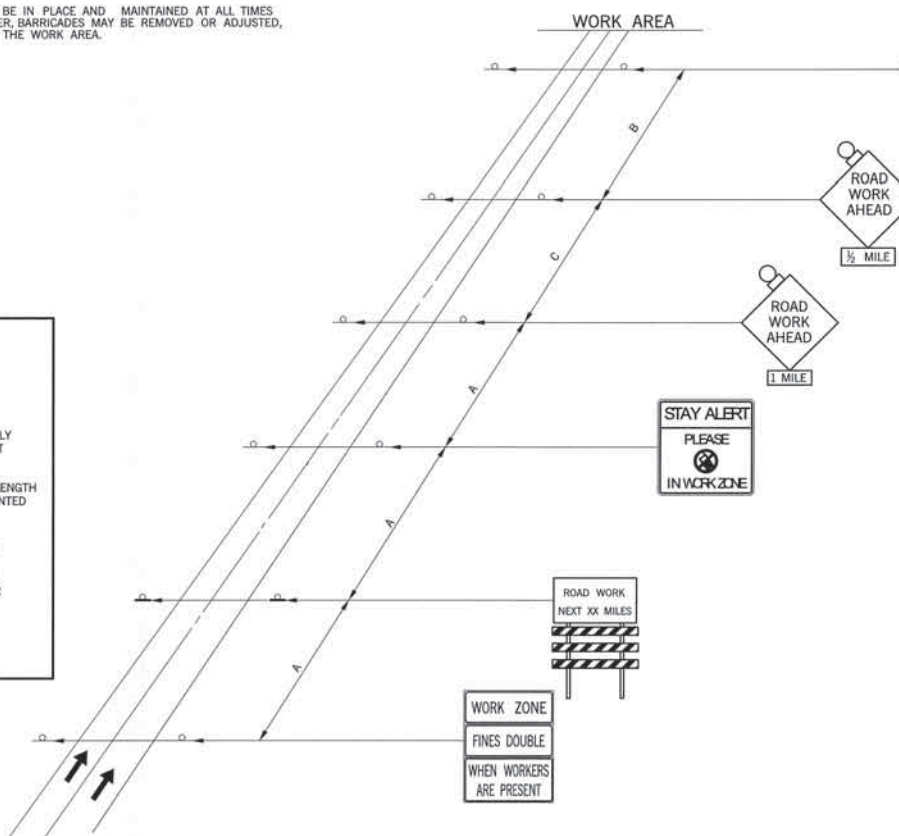
FINES DOUBLE IN WORK ZONE SIGNS ARE TO BE USED ONLY ON STATE OR FEDERAL HIGHWAYS WHERE THE SPEED LIMIT IS REDUCED OR AS DIRECTED BY THE ENGINEER.

PROJECTS WITH WORK LIMITS OF 1.0 MILES OR MORE IN LENGTH WILL REQUIRE THE Q20-1A SIGN. THE SIGN SHALL BE MOUNTED AS SHOWN ON TCS4-1 (LATEST REVISION).

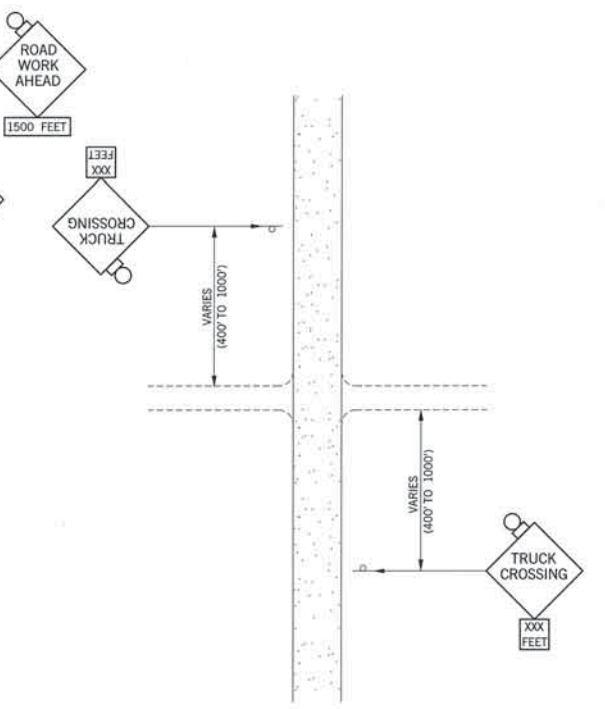
WARNING SIGNS SHOWN ARE "ADVANCE" WARNING SIGNS AND ARE REQUIRED ON ALL STATE HIGHWAYS. ADDITIONAL WARNING SIGNS MAY BE REQUIRED WITHIN THE PROJECT LIMITS TO WARN DRIVERS OF SPECIFIC HAZARDS. ADVANCE "WARNING SIGNS" MAY CHANGE AS CONDITIONS CHANGE OR AS DIRECTED BY THE ENGINEER.

PROJECT WORK OF 1.0 MILE OR MORE IN LENGTH WILL REQUIRE SIGNS CS-14 AND R2-1 TO BE PLACED EVERY 1/2 MILE THROUGH WORK ZONE.

ROAD TYPE	DISTANCE BETWEEN SIGNS SHALL BE A (MIN.)		
	A (FT)	B (FT)	C (FT)
URBAN (LOW SPEED)	100	100	100
URBAN (HIGH SPEED)	350	350	350
RURAL	500	500	500
EXPRESSWAY /FREEWAY	1,000	1,500	2,640



TYPICAL APPLICATION ADVANCE WARNING SIGNS ON A DIVIDED HIGHWAY



TYPICAL APPLICATION ADVANCE SIGNING WHERE TRUCKS ARE CROSSING



APPROVED BY TRAFFIC ENGINEER: *David S. ...* DATE: 4/18/2013

TRAFFIC STANDARD TRAFFIC CONTROL STANDARD PLACEMENT OF ADVANCE WARNING SIGNS

2009 SPECIFICATIONS

TCS7-1	02
	T-507

\$\$\$date\$\$\$



ROAD CLOSED

R11-2 48 x 30 10.00 SF

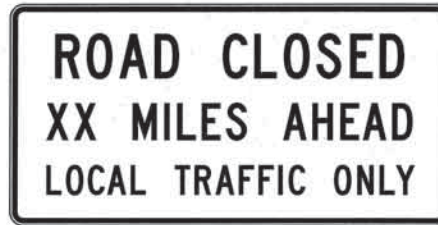
COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
WHITE (REFLECTORIZED)



LANE CLOSED

R11-2(LANE) 48 x 30 10.00 SF

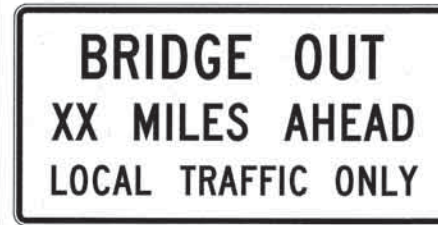
COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
WHITE (REFLECTORIZED)



ROAD CLOSED XX MILES AHEAD

R11-3a 60 x 30 12.50 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
WHITE (REFLECTORIZED)



BRIDGE OUT XX MILES AHEAD

R11-3b 60 x 30 12.50 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
WHITE (REFLECTORIZED)



ROAD CLOSED TO THRU TRAFFIC

R11-4 60 x 30 12.50 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
WHITE (REFLECTORIZED)



DETOUR SIGN

M4-8 24 x 12 2.00 SF
M4-8E 30 x 15 3.13 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)



DETOUR SIGN

M4-9(R) 30 x 24 5.00 SF
M4-9(R)E 48 x 36 12.00 SF
M4-9(R)F 60 x 48 20.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)



DETOUR SIGN

M4-9(L) 30 x 24 5.00 SF
M4-9(L)E 48 x 36 12.00 SF
M4-9(L)F 60 x 48 20.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)



DETOUR SIGN

M4-9(V) 30 x 24 5.00 SF
M4-9(V)E 48 x 36 12.00 SF
M4-9(V)F 60 x 48 20.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)



DETOUR SIGN

M4-10(R) 48 x 18 6.00 SF

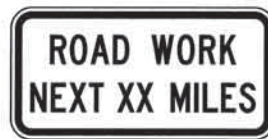
COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)



DETOUR SIGN

M4-10(L) 48 x 18 6.00 SF

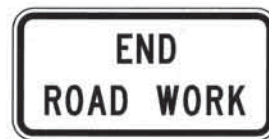
COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)



ROAD WORK NEXT XX MILES SIGN

G20-1A 36 x 18 4.50 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)



END ROAD WORK SIGN

G20-2A 36 x 18 4.50 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)



PILOT CAR FOLLOW ME SIGN

G20-4 36 x 18 4.50 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE
(REFLECTORIZED)

NOTES:
WORD SIGNS MAY BE USED IF SYMBOL SIGNS ARE NOT AVAILABLE EITHER IN "STANDARD HIGHWAY SIGNS MANUAL" OR IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) (CURRENT EDITION).

ALL DIAMOND SHAPE CONSTRUCTION WARNING SIGNS SHALL BE 48 INCHES X 48 INCHES UNLESS OTHERWISE NOTED IN THE PLANS.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
880(B)	CONSTRUCTION SIGNS	SD



APPROVED BY
TRAFFIC ENGINEER: *David Gandy* DATE: 3/21/11

TRAFFIC STANDARD
TRAFFIC CONTROL STANDARD
CONSTRUCTION SIGNS



LOW SHOULDER SIGN

W8-9 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



UNEVEN LANES SIGN

W8-11 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



NO CENTER LINE SIGN

W8-12 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



GROOVED PAVEMENT SIGN

W8-15 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



MOTORCYCLE (PLAQUE) *

W8-15P 18 x 36 4.50 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)

NOTES:
WORD SIGNS MAY BE USED IF SYMBOL SIGNS ARE NOT AVAILABLE EITHER IN "STANDARD HIGHWAY SIGNS MANUAL" OR IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) (CURRENT EDITION).

ALL DIAMOND SHAPE CONSTRUCTION WARNING SIGNS SHALL BE 48 INCHES X 48 INCHES UNLESS OTHERWISE NOTED IN THE PLANS.

* SUPPLEMENTAL SIGNS SHALL ONLY BE USED IN CONJUNCTION WITH DIAMOND SHAPE CONSTRUCTION WARNING SIGNS. THE SIZE OF SUPPLEMENTAL SIGNS SHALL BE APPROPRIATE FOR USE WITH A 48 INCH X 48 INCH WARNING SIGN UNLESS OTHERWISE NOTED IN THE PLANS.



SHOULDER DROP-OFF (SYMBOL)

W8-17 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



SHOULDER DROP-OFF (PLAQUE) *

W8-17P 18 x 36 4.50 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



LANE ENDS MERGE LEFT SIGN

W9-2(L) 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



LANE ENDS MERGE RIGHT SIGN

W9-2(R) 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



TRUCK CROSSING SIGN

W11-10 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



DOUBLE ARROW SIGN

W12-1 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



CLEARANCE SIGN

W12-2 48 x 48 16.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



ADVISORY SPEED SIGN *

W13-1P 18 x 18 2.25 SF
W13-1PE 24 x 24 4.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)



XX FEET SIGN *

W16-2P 24 x 18 3.00 SF
W16-2PE 30 x 24 5.00 SF

COLOR:
LEGEND AND BORDER:
BLACK (NON-REFLECTORIZED)
BACKGROUND:
FLUORESCENT ORANGE (REFLECTORIZED)

BASIS OF PAYMENT

ITEM NO.	ITEM	UNIT
880(B)	CONSTRUCTION SIGNS	SD



APPROVED BY TRAFFIC ENGINEER *David G. Smith* DATE 6/29/10

TRAFFIC STANDARD

TRAFFIC CONTROL STANDARD
CONSTRUCTION SIGNS



Dimensions are in Inches.tenths

SIGN NUMBER	CS-13
WIDTH x HGHT.	2'-0" x 1'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
SIGN AREA	2.0 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: FLO*
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

LETTER POSITIONS (X)					LENGTH	SERIESIZE
B	E	G	I	N		D 2000
4.8	8.2	11.3	14.9	16.5	14.4	



Dimensions are in Inches.tenths

SIGN NUMBER	CS-13E
WIDTH x HGHT.	3'-0" x 1'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
SIGN AREA	3.0 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: FLO*
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

LETTER POSITIONS (X)					LENGTH	SERIESIZE
B	E	G	I	N		D 2000
7.2	12.3	16.9	22.3	24.7	21.6	

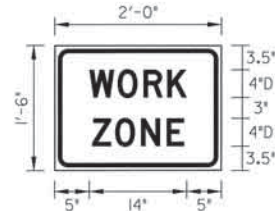


Dimensions are in Inches.tenths

SIGN NUMBER	CS-13F
WIDTH x HGHT.	4'-0" x 1'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
SIGN AREA	6.0 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: FLO*
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

LETTER POSITIONS (X)					LENGTH	SERIESIZE
B	E	G	I	N		E 2000
7.1	15.2	22.6	30.9	34.4	33.8	

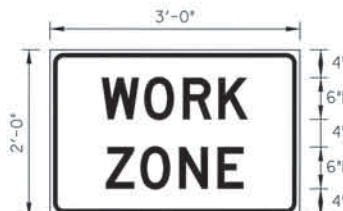
FLO* = FLUORESCENT ORANGE



Dimensions are in Inches.tenths

SIGN NUMBER	CS-14
WIDTH x HGHT.	2'-0" x 1'-6"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
SIGN AREA	3.0 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: FLO*
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

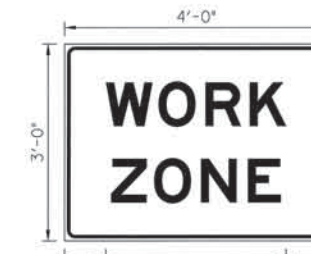
LETTER POSITIONS (X)					LENGTH	SERIESIZE
W	O	R	K			D 2000
5	9.1	12.8	16.2		14	
Z	O	N	E			D 2000
5.4	8.7	12.5	16.1		13.2	



Dimensions are in Inches.tenths

SIGN NUMBER	CS-14E
WIDTH x HGHT.	3'-0" x 2'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
SIGN AREA	6.0 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: FLO*
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

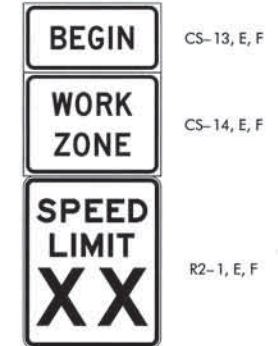
LETTER POSITIONS (X)					LENGTH	SERIESIZE
W	O	R	K			D 2000
7.5	13.6	19.2	24.3		21	
Z	O	N	E			D 2000
8.1	13.1	18.7	24.2		19.8	



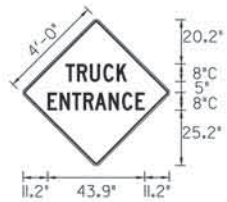
Dimensions are in Inches.tenths

SIGN NUMBER	CS-14F
WIDTH x HGHT.	4'-0" x 3'-0"
BORDER WIDTH	0.63"
CORNER RADIUS	1.5"
MOUNTING	Ground
SIGN AREA	12.0 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: FLO*
LEGEND/BORDER	TYPE: Non-Reflective COLOR: Black

LETTER POSITIONS (X)					LENGTH	SERIESIZE
W	O	R	K			E 2000
7.6	17.2	25.7	33.8		32.9	
Z	O	N	E			E 2000
8.5	16.4	24.9	33.5		31	



CONSTRUCTION
BEGIN WORK ZONE
SPEED LIMIT
ASSEMBLY



Dimensions are in Inches.tenths

SIGN NUMBER	CS-15
WIDTH x HGHT.	4'-0" x 4'-0"
BORDER WIDTH	0.75"
CORNER RADIUS	1.38"
MOUNTING	Ground
SIGN AREA	16.0 Sq.Ft.
BACKGROUND	TYPE: Reflective COLOR: Yellow
LEGEND/BORDER	TYPE: Reflective COLOR: Black

LETTER POSITIONS (X)					LENGTH	SERIESIZE
T	R	U	C	K		C 2000
19.3	24.5	30.4	36.5	42.5	27.7	
E	N	T	R	A	N	C E
11.2	16.7	22.3	27.5	32.7	38.9	45 51.1 43.9

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
880(B)	CONSTRUCTION SIGNS	SD



APPROVED BY
TRAFFIC ENGINEER: *David Gandy* DATE: 3/2/11

TRAFFIC STANDARD
TRAFFIC CONTROL STANDARD
CONSTRUCTION SIGNS