

SECTION C: TRAFFIC CONTROL PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C1	C23

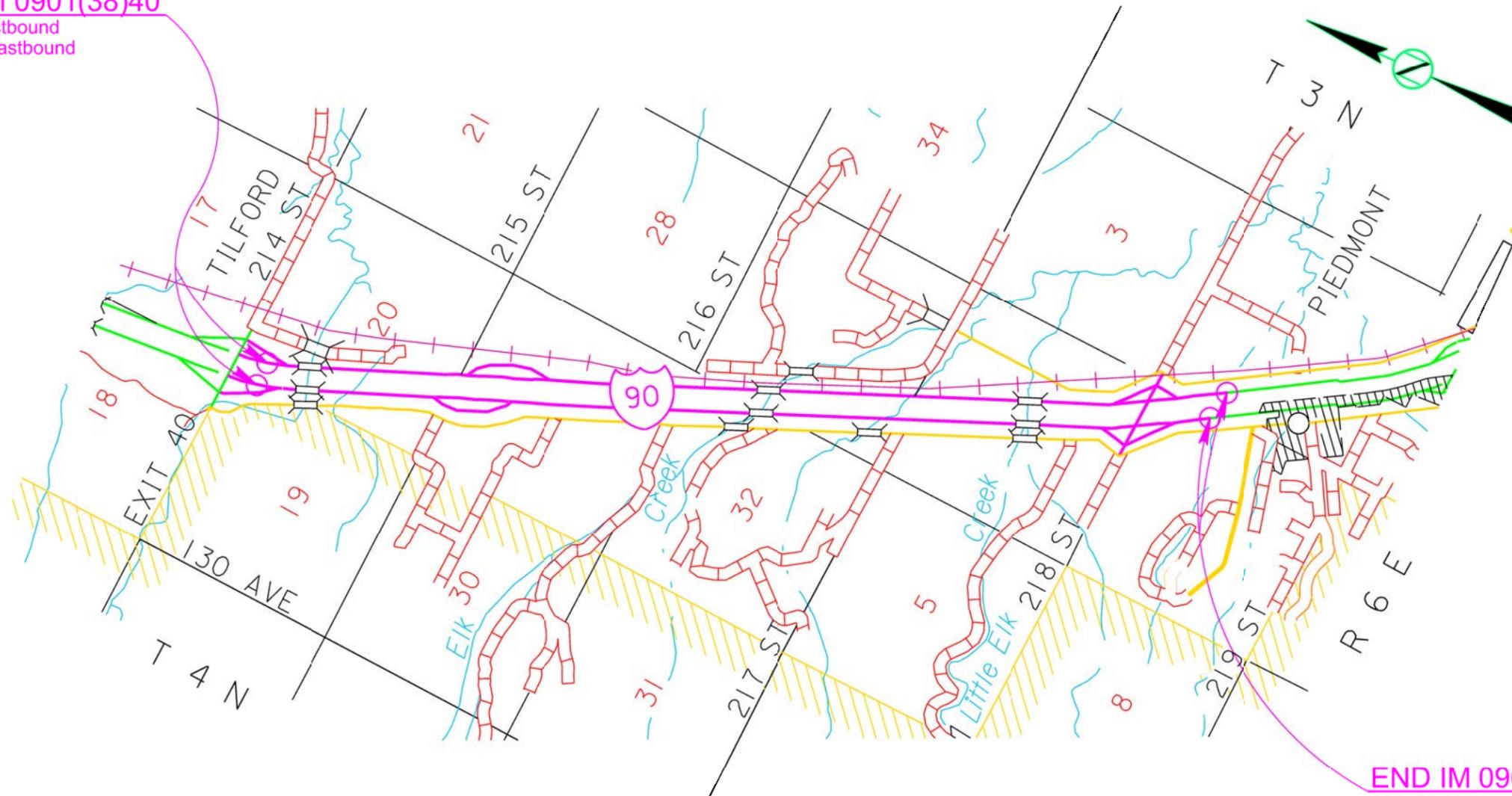
Plotting Date: 06/30/2016

INDEX OF SHEETS

- C1 General Layout W/Index
- C2-C4 Estimate w/General Notes & Tables
- C5 Phasing Layout
- C6-C9 Detour Signing
- C10 Overwidth Detour Signing
- C11-C13 Typical Ramp Signing Details
- C14 Concrete Barrier Layout
- C15 Overwidth Detour Special Sign Details
- C16-C18 Special Sign Details
- C19-C23 Standard Plates

BEGIN IM 0901(38)40

10+00.00 Westbound
1010+00.00 Eastbound



END IM 0901(38)40

265+77.66 Westbound
1262+12.95 Eastbound

SECTION C ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	2,000.0	Hour
634E0110	Traffic Control Signs	1,143.3	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	12	Each
634E0330	Temporary Raised Pavement Markers	105,912	Ft
634E0380	Tubular Marker	874	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	10	Each
634E0560	Remove Pavement Marking, 4" or Equivalent	2,000	Ft
634E0640	Temporary Pavement Marking	312,884	Ft
634E0700	Traffic Control Movable Concrete Barrier	27	Each
634E0750	Temporary Concrete Barrier End Protection	1	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	1	Each
634E1002	Detour Signing	938.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	4	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each

TRAFFIC CONTROL – GENERAL NOTES

- Requests to deviate from the sequence of operations shall be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence shall be submitted for review a minimum of one week prior to potential implementation.
- Unless otherwise stated in these plans, no work will be allowed during hours of darkness.
- Existing guide, route, informational logo, regulatory, warning signs and delineation shall be temporarily reset and maintained during construction as directed by the Engineer. Removing, relocating, salvaging and resetting of the above items shall be the responsibility of the Contractor.
- Non-applicable traffic control devices shall be completely covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 2 calendar days.
- Construction signing mounted on portable supports shall not be used for a duration of more than 3 days, unless approved by the Engineer. Construction signing that remains in the same location for more than 3 days shall be mounted on fixed location, ground mounted, breakaway supports. All regulatory signs shall have a minimum mounting height of 5' in rural locations, even when mounted on portable supports.
- All materials and equipment shall be stored a minimum distance of 30' from the traveled way during nonworking hours.

- The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.
- All haul trucks shall be equipped with a second flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights shall be incidental to the various related contract bid items.
- All construction operations shall be conducted in the general direction of traffic movement.
- If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD – whichever is more stringent shall be used, as determined by the Engineer.
- Temporary Flexible Vertical Markers (Tabs) shall be used for lane closure tapers or lane shift tapers and shall be installed at 5' spacing. Tabs used for tapers and shifts will not be measured for payment. All costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove all markers will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.
- Applicable permanent pavement markings, signs, and delineation shall be installed prior to opening the completed roadway to traffic, as directed by the Engineer.
- I-90 traffic shall not be stopped at any time.
- Guardrail must be installed prior to restoring traffic to their respective lanes.
- The Contractor's employee vehicles will not be allowed to park on the interstate median at any time.
- The Interstate shall be kept open to one lane of traffic at all times in each direction.
- Construction equipment shall not be unloaded from the shoulders of I-90 while under two-way traffic.
- Speed limit on I-90 during two way traffic shall be 65 mph.
- Within lane closures with active work and construction workers present, traffic shall be restricted to 45 MPH. During non-work hours when construction activities are shut down, the speed limit shall be returned to 65 MPH.
- Exit Gore signs shall be a 7' minimum height to the bottom of the sign.
- A 14' width restriction will be needed on I-90 when two way traffic is in place.
- Construction traffic shall only enter and exit I-90 by the use of existing interchanges.
- The maximum length of lane closures shall be 3 miles, and the minimum length between lane closures shall be 3 miles.
- The Contractor shall provide a 4:1 minimum inslope adjacent to the traveled way during periods of inactivity and at night. No separate payment will be made for providing the 4:1 minimum inslopes.

Revised 9-20-16 - BP

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C2	C23

25. All earthwork shall be completed in such a manner that drainage is continuous throughout the project. The Contractor shall coordinate embankment operations and pipe installations so that drainage is continuous, but does not damage new or existing grading sections. If necessary, temporary pipe, temporary connections, plugs, and channels may be used to avoid damage to new or existing grade or partial omission of permanent drainage features may be required. In addition, permanent drainage features may need to be installed in phases to match sequencing. The cost to install, maintain, and remove temporary items and any incidentals necessary for partial installations of permanent drainage features shall be incidental to the various pipe bid items.

SEQUENCE OF OPERATIONS

The Contractor shall provide a Sequence of Operations, at least two weeks in advance of the preconstruction meeting, to the Engineer for approval. The following requirements/restrictions shall apply:

- Phase 1 – Box culvert extensions (Str. No.'s 47-091-553, 47-071-511, 47-070-511, 47-073-518, 47-078-529, 47-083-539, and 47-084-541), guardrail/barrier temporary protection, and work on Str. No. 47-085-545 outside the clear zone.
 - Standard Plate No. 634.03 shall be used for traffic control on I-90.
 - Standard Plate No. 634.69 shall be used for traffic control at Exit 40 Ramp B.
 - Standard Plate No. 634.63 may be used as needed on I-90, during daylight hours only, for equipment/materials delivery.
 - Temporary concrete barriers shall be used at Sta.257+38.93 for the box culvert extension.
 - Box culvert extensions shall be backfilled to a point at least 30' from the edgeline.
 - Temporary guardrail (see section B for guardrail layouts) shall be installed for two way traffic for the remaining phases.
 - No box culvert extensions will be allowed in two way traffic areas
- Phase 2 – I-90 westbound from Sta. 265+77.66 to Sta. 165+00 including Structure No.'s 47-088-550 and 47-085-545, Exit 44 Ramps A and B, and XR 236 (Deerview Road) from Sta. 196+00 to Sta. 206+00
 - Standard Plate No. 634.66 shall be used for traffic control on I-90.
 - Exit 44 westbound ramp traffic shall be detoured as shown in these plans.
 - The Rest Area and Exit 40 shall remain open during this phase.
 - Sta. 165+00 to Sta. 10+00 may also be closed (westbound driving lane only) during this phase by extending the 42" cones from the median crossover closure at Sta. 165+00. The existing asphalt shoulder shall remain in place until after the Sturgis Rally. If this section is closed, the Ramp Entrance and Exit Details shall be used for traffic control at the Rest Area and Exit 40.
 - Do not obliterate the existing service road or complete grading between Sta. 255+81 to Sta. 265+78 Lt.

SEQUENCE OF OPERATIONS, CONTINUED

- The area from Sta. 159+00 to 165+00 shall be graded and temporary surfaced to allow a transition from the new pavement to the existing pavement.
- Complete Phase 3 micropile outside the clear zone. Refer to Section E regarding protection of work.
- Phase 3 – I-90 westbound from Sta. 165+00 to Sta. 10+00 including Structure No. 47-080-534, Rest Area Ramps A and B, and Exit 40 Ramp B
 - Standard Plate No. 634.66 shall be used for traffic control on I-90.
 - Exit 40 westbound off ramp traffic shall be detoured as shown in these plans.
 - Exit 44 shall remain open during this phase.
 - The Rest Area and the Exit 40 westbound off ramp may be closed during this phase.
 - Do not obliterate the existing service road or complete grading between Sta. 255+81 to Sta. 265+78 Lt.
- Phase 4 – I-90 eastbound from Sta. 1165+16.43 to Sta. 1262+12.95 including Structure No.'s 47-085-546 and 47-088-551, Exit 44 Ramps C and D, XR 236 (Deerview Road) from Sta. 187+82 to Sta. 196+0, and XR 1177 (Culdesac)
 - Standard Plate No. 634.66 shall be used for traffic control on I-90.
 - Exit 44 eastbound ramp traffic shall be detoured as shown in these plans.
 - The Rest Area and Exit 40 shall remain open during this phase.
 - Sta. 1010+00 to Sta. 1165+16.43 may also be closed (eastbound driving lane only) during this phase by starting the lane closure at Sta. 1010+00 +/- and extend it to the median crossover closure. The existing asphalt shoulder shall remain in place until after the Sturgis Rally. If this section is closed, the Ramp Entrance and Exit Details shall be used for traffic control at the Rest Area and Exit 40.
 - The area from Sta. 1159+16.43 to Sta. 1165+16.43 shall be graded and temporary surfaced to allow a transition from the new pavement to the existing pavement.
 - Do not obliterate the existing service road or complete grading between Sta. 255+81 to Sta. 265+78 Lt.
 - Complete Phase 5 micropile outside the clear zone. Refer to Section E regarding protection of work.
- Phase 5 – I-90 eastbound from Sta. 1010+00 to Sta. 1165+16.43 including Structure No. 47-080-535, Exit 40 Ramp C, Rest Area Ramps C and D, XR 1118 (Culdesac), obliterate and grade the existing service road between Sta. 255+81 to 265+78 Lt.
 - Standard Plate No. 634.66 shall be used for traffic control on I-90.
 - Exit 40 eastbound on ramp traffic shall be detoured as shown in these plans.
 - Exit 44 shall remain open during this phase.
 - The Rest Area and the Exit 40 eastbound on ramp may be closed during this phase.

TEMPORARY RAISED PAVEMENT MARKERS

Temporary raised pavement markers shall be used for marking temporary centerline during two way traffic flows on I-90 as shown on Standard Plate No. 634.66, the Ramp Entrance Signing Detail (Two Way Traffic) sheet, and as directed by the Engineer.

Temporary raised pavement markers shall be installed at 5-foot spacing and will be measured and paid for at the contract unit price per foot per 4" line. The contract unit price per foot for Temporary Raised Pavement Markers will be full compensation for all costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), removal, and disposal of all markers.

Quantity of Temporary Raised Pavement Markers consists of:

1. Phase 2 – 21,056'
2. Phase 3 – 31,900'
3. Phase 4 – 21,056'
4. Phase 5 – 31,900'

TUBULAR MARKERS

Tubular markers shall be used for marking temporary centerline during two way traffic flows on I-90 as shown on Standard Plate No. 634.66, the Ramp Entrance Signing Detail (Two Way Traffic) sheet, and as directed by the Engineer.

The markers shall be securely attached to the roadway surface. The method of attachment shall be resistant to the effects of weather, and capable of retaining the marker in position under traffic during the interval of time it is required to function.

4 tubular markers, spaced at 50', shall be placed in front of all crash attenuators.

White tubular markers shall be placed on the shoulders at a 264' alternate spacing and set at 2' offset from the edgeline for both eastbound and westbound lanes during two way traffic flows on I-90.

Tubular markers shall be spaced at 25' on centerline through the ramp merge areas.

Payment for tubular markers will be at the contract unit price per each. Payment shall be full compensation for furnishing, installing, maintaining (including replacement as required by the Engineer at no added cost to the Department), removal, and disposal of all markers.

Quantity of Tubular Markers consists of:

1. Phase 2 – 174
2. Phase 3 – 263
3. Phase 4 – 174
4. Phase 5 – 263

BARRIER MOUNTED LINEAR DELINEATION SYSTEM PANELS

A linear delineation system panel shall be attached to each side of the barrier section. One panel shall be white and the other panel shall be yellow. The color shall be the same as the nearest pavement marking, white along outside edgelines or yellow for the left side on one way traffic sections. The linear delineation system shall be 34 inches long and 6 inches in height and be constructed of aluminum formed into a shape to provide retroreflective properties across a wide range of angles. It shall be sheeted with super high or very high intensity sheeting. The panels shall be installed at the center of

Revised 9-20-16 - BP

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C3	C23

the barrier when measured along the length, with the top of the panel 4 inches below the top of the barrier. Installation shall be as per the manufacturer's recommendation using stainless steel inserts and bolts. This will allow for easy removal for replacement of damaged panels or to replace with an alternate color. The Contractor shall furnish, and install one panel along each side of the barrier if any panels are missing from the barriers. Replacement of damaged linear delineation system panels shall be furnished and replaced by the Contractor. All costs associated with furnishing, and installing the linear delineation system shall be included in the contract unit price per each for Linear Delineation System Panel, Barrier Mounted.

All linear delineation system panels shall remain attached to the barrier sections and shall become the property of the State of South Dakota upon completion of the project.

The Contractor shall verify the number of LDS panels that will need to be installed or replaced on the Traffic Control Movable Concrete Barriers. The contract amount of LDS panels is an estimate and the full contract amount may not be required.

Maintaining the linear delineation system, including moving LDS panels from one side of the barrier to the other side of barrier to match the applicable color of the nearest pavement marking shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

TEMPORARY PAVEMENT MARKING (PAINT)

Temporary pavement marking paint shall be used to mark edgelines (including ramps), centerline skips, lane lines, and gore lines for the entire project length as directed by the Engineer.

The Contractor shall be responsible for maintaining visible and reflective pavement markings throughout the project. Any pavement marking covered or damaged shall be replaced prior to the end of the day, as required by the Engineer at no added cost to the Department.

Temporary Pavement Marking (Paint) will be measured and paid for at the contract unit price per foot per 4" line or equivalent.

All costs for furnishing, applying, and maintaining the temporary pavement marking paint shall be included in the contract unit price per foot for Temporary Pavement Marking.

Quantity of Temporary Pavement Marking (Paint) consists of:

1. Detour route – 20,460' – completely repaint all markings
2. Phase 2 - 57,238'
3. Phase 3 – 84,574'
4. Phase 4 – 57,366'
5. Phase 5 – 86,046'
6. X-road – 7,200'

Total – 312,884'

Phases 2 thru 5 consist of the following: two edge lines on existing I-90 pavement for two way traffic, two edge lines and skips on the new pavement, ramp edge lines on new pavement, and one edgeline on existing I-90 to get back to normal traffic flows.

TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS

Concrete barriers will be provided by the State and are available for pickup from the SDDOT Maintenance Yard located adjacent to Hwy 79 approximately two miles south of Rapid City. The barriers shall be hauled back to the same SDDOT Maintenance Yard in which the barriers were picked up when they are no longer needed on the project.

Barriers to be adjusted or moved shall be disconnected from adjacent barriers to minimize damage to connecting pins. Pins damaged by the Contractor shall be replaced at no cost to the Department.

Concrete barrier sections shall be placed as depicted in the plans to comply with clear zone requirements and as required by the Engineer. The barriers shall be pinned and bolted together as directed by the Engineer.

TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS, CONTINUED

Concrete barriers shall, at all times, be set on a flat surface for a minimum of 4' behind the barrier. Where 4' of flat surfacing is not attainable behind the barriers due to steep inslopes, the Contractor shall furnish and install

Guardrail Post and Block behind the barriers at 6'-3" spacing. All costs associated with furnishing and installing Guardrail Post and Block shall be included in the contract unit price per each for Traffic Control Moveable Concrete Barriers.

All costs associated with picking up from the SDDOT Maintenance Yard, transporting, setting, connecting, and hauling back to the SDDOT Maintenance Yard shall be included in the contract unit price per each for Traffic Control Movable Concrete Barrier.

TEMPORARY CONCRETE BARRIER END PROTECTION

Crash attenuators meeting the requirements of TL-3 for NCHRP 350 or MASH shall be furnished and installed by the Contractor. Attachment of the attenuators to the concrete barriers shall be by approved methods.

All costs associated with furnishing, transporting, initial setup, connecting, maintaining, and removal shall be incidental to the contract unit price per each for Temporary Concrete Barrier End Protections.

The Contractor shall have replacement hardware available so that, in the event that an attenuator is hit and made unusable, the attenuator can be made functional within 24 hours. The cost of replacement is included in the contract unit price per each for Temporary Concrete Barrier End Module Set or Repair Kit. No payment will be made for the Concrete Barrier End Module Set or Repair Kit in the event that no repairs are necessary. Upon completion of the project, crash attenuators shall remain the property of the Contractor.

CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

The Contractor shall furnish portable changeable message signs to be used for the duration of the project. Message signs shall be installed to inform the traveling public of when construction will begin for each phase (2 week advance notice), advising the general public of the conditions ahead, and as directed by the Engineer.

CONTRACTOR FURNISHED SPEED MONITORING RADAR TRAILER

The Contractor shall provide 2 speed trailers to monitor traffic speeds on I-90 at locations specified in the field by the Engineer.

The radar speed feedback sign assembly shall include a speed limit sign mounted in conjunction with the radar speed feedback display. The speed display shall not flash vehicle speeds exceeding the speed limit or any other messages.

All costs associated with furnishing, maintaining, transporting, relocating if necessary, and removing the speed trailers from locations specified by the Engineer shall be included in the contract unit price per each for Contractor Furnished Speed Monitoring Radar Trailer.

PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a Press Release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The SDDOT will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor shall provide the Engineer with pertinent information 7 days prior to any phase change or any other major changes that affect traffic flow.

DETOUR SIGNING

Details of the approximate location of the Detour Signing are as shown in these plans. Prior to installing the signs, the Contractor shall mark out the sign locations and review them with the Engineer.

Detour Signing shall be furnished and installed by the Contractor as detailed in these plans. It will be the responsibility of the Contractor to maintain and reinstall these signs during the project as required by the construction progress. Upon completion of the project, the Contractor shall remove the Detour Signing. Detour Signing shall be installed on fixed location, ground mounted, breakaway supports.

Payment for furnishing, installing, maintaining and removing the signs and the hardware shall be incidental to the contract unit price per square foot for "Detour Signing"

SIGN CODE	SIGN DESCRIPTION	EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
M4-9	DETOUR w ith ARROW (L or R)	4	48" x 36"	12.0	48.0
SPECIAL	OVERWIDTH VEHICLES W/ ARROW	14	60" x 48"	20.0	280.0
SPECIAL	VEHICLES OVER ___ FT WIDE EXIT HERE	2	84" x 36"	21.0	42.0
SPECIAL	WIDTH RESTRICTION ___ FT WIDE ___ MILES AHEAD	5	96" x 84"	56.0	280.0
SPECIAL	DEERVIEW ROAD CLOSED AT EXIT 44 USE EXIT 46	1	48" x 54"	18.0	18.0
SPECIAL	EXIT 44 DETOUR TRUCKS/ALL OTHER VEHICLES	3	48" x 72"	24.0	72.0
SPECIAL	EXIT 44 DEERVIEW ROAD	1	48" x 54"	18.0	18.0
SPECIAL	EXIT 44 CLOSED USED EXIT 46	1	48" x 54"	18.0	18.0
SPECIAL	EXIT 44 CLOSED EXIT HERE	1	48" x 54"	18.0	18.0
SPECIAL	EXIT 44 CLOSED AHEAD USE EXIT 46	1	48" x 54"	18.0	18.0
SPECIAL	SIDNEY STAGE ROAD	2	48" x 24"	8.0	16.0
SPECIAL	DEERVIEW ROAD	3	48" x 24"	8.0	24.0
SPECIAL	EXIT 40 CLOSED EXIT HERE	1	48" x 54"	18.0	18.0
SPECIAL	EXIT 40 CLOSED AHEAD USE EXIT 44	1	48" x 54"	18.0	18.0
SPECIAL	TILFORD ROAD	2	48" x 24"	8.0	16.0
SPECIAL	EXIT 44 DETOUR EXIT HERE	1	48" x 54"	18.0	18.0
SPECIAL	EXIT 40 DETOUR I-90 EASTBOUND	1	48" x 48"	16.0	16.0
EXPRESSWAY / INTERSTATE DETOUR SIGNING SQFT					938.0

ITEMIZED LIST FOR TRAFFIC CONTROL DEVICES

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-2	YIELD	1	36"	3.9	3.9
R2-1	SPEED LIMIT ___	12	36" x 48"	12.0	144.0
R2-6aP	FINES DOUBLE (plaque)	6	36" x 24"	6.0	36.0
R4-1	DO NOT PASS	2	36" x 48"	12.0	24.0
R4-7	KEEP RIGHT (symbol)	1	36" x 48"	12.0	12.0
R5-1	DO NOT ENTER	1	36" x 36"	9.0	9.0
R11-2	ROAD CLOSED	2	48" x 30"	10.0	20.0
W1-4	REVERSE CURVE (L or R)	3	48" x 48"	16.0	48.0
W1-6	LARGE ARROW (one direction)	1	60" x 30"	12.5	12.5
W3-2	YIELD AHEAD (symbol)	1	48" x 48"	16.0	16.0
W3-5	SPEED REDUCTION AHEAD (___ MPH)	6	48" x 48"	16.0	96.0
W4-1	MERGE (symbol)	2	48" x 48"	16.0	32.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)	4	48" x 48"	16.0	64.0
W5-4	RAMP NARROWS	1	48" x 48"	16.0	16.0
W6-3	TWO WAY TRAFFIC (symbol)	4	48" x 48"	16.0	64.0
W7-3aP	NEXT ___ MILES (plaque)	4	36" x 30"	7.5	30.0
W13-1P	ADVISORY SPEED (plaque)	3	30" x 30"	6.3	18.9
W13-4P	ON RAMP (plaque)	1	36" x 36"	9.0	9.0
W20-1	ROAD WORK AHEAD	13	48" x 48"	16.0	208.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	8	48" x 48"	16.0	128.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-5	SHOULDER WORK	1	48" x 48"	16.0	16.0
SPECIAL	EXIT WITH 45° ARROW	1	36" x 32"	8.0	8.0
G20-1	ROAD WORK NEXT ___ MILES	4	48" x 24"	8.0	32.0
G20-2	END ROAD WORK	4	48" x 24"	8.0	32.0
EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS					1143.3
SQFT					

TYPE 3 BARRICADES

ITEM DESCRIPTION	QUANTITY
Type 3 Barricade, 8' Double Sided	12 Each

ARROW BOARDS

ITEM DESCRIPTION	QUANTITY
Type C Advance Warning Arrow Board	2 Each

TRAFFIC CONTROL PHASING LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C5	C23

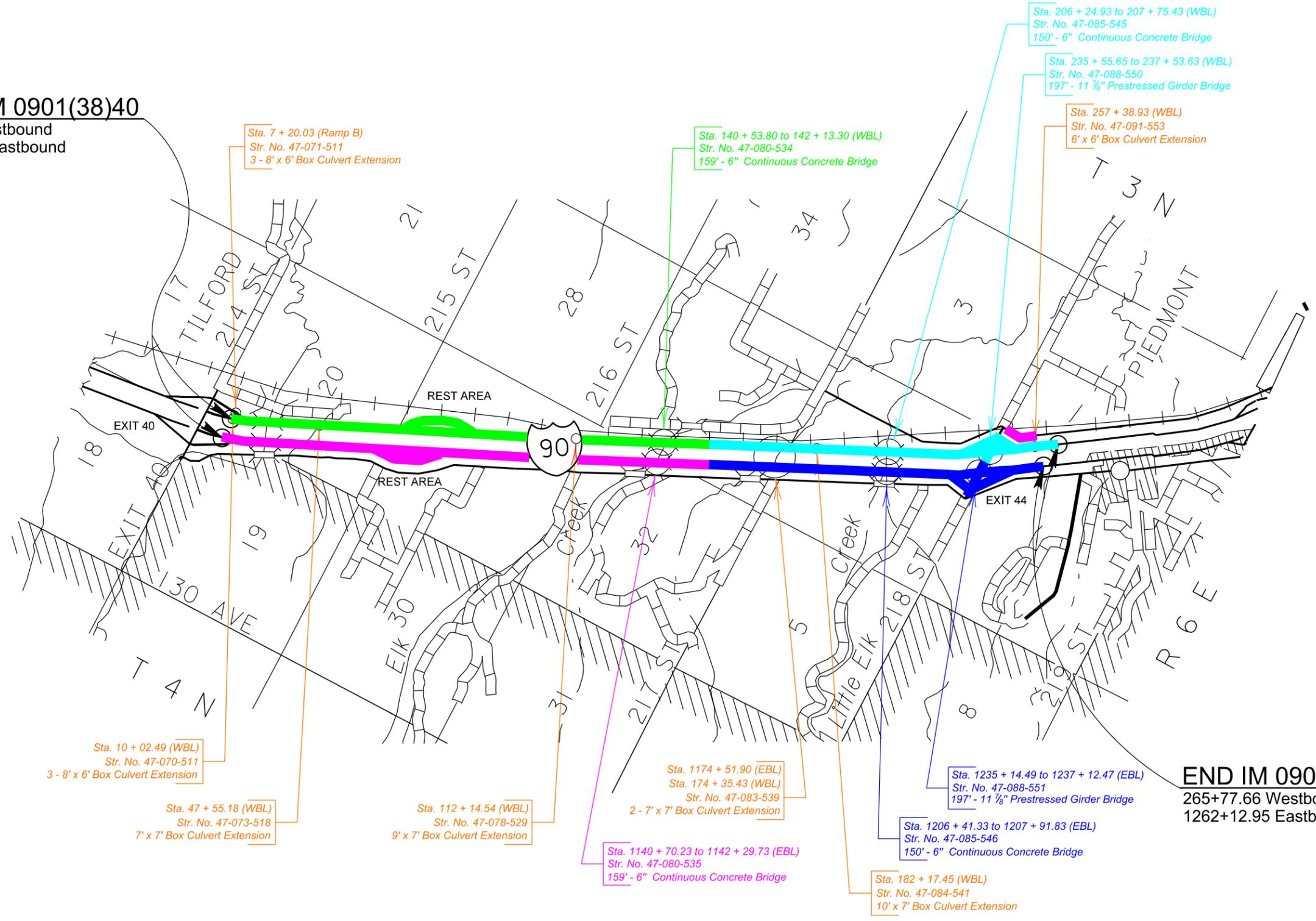
Plotting Date: 06/28/2016



BEGIN IM 0901(38)40
10+00.00 Westbound
1010+00.00 Eastbound

END IM 0901(38)40
265+77.66 Westbound
1262+12.95 Eastbound

- = PHASE 1
- = PHASE 2
- = PHASE 3
- = PHASE 4
- = PHASE 5



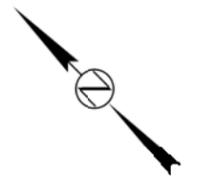
Plot Scale - 1:40

Plotted From - Irrc11640

File - ...Traffic ControlPhase2.dgn

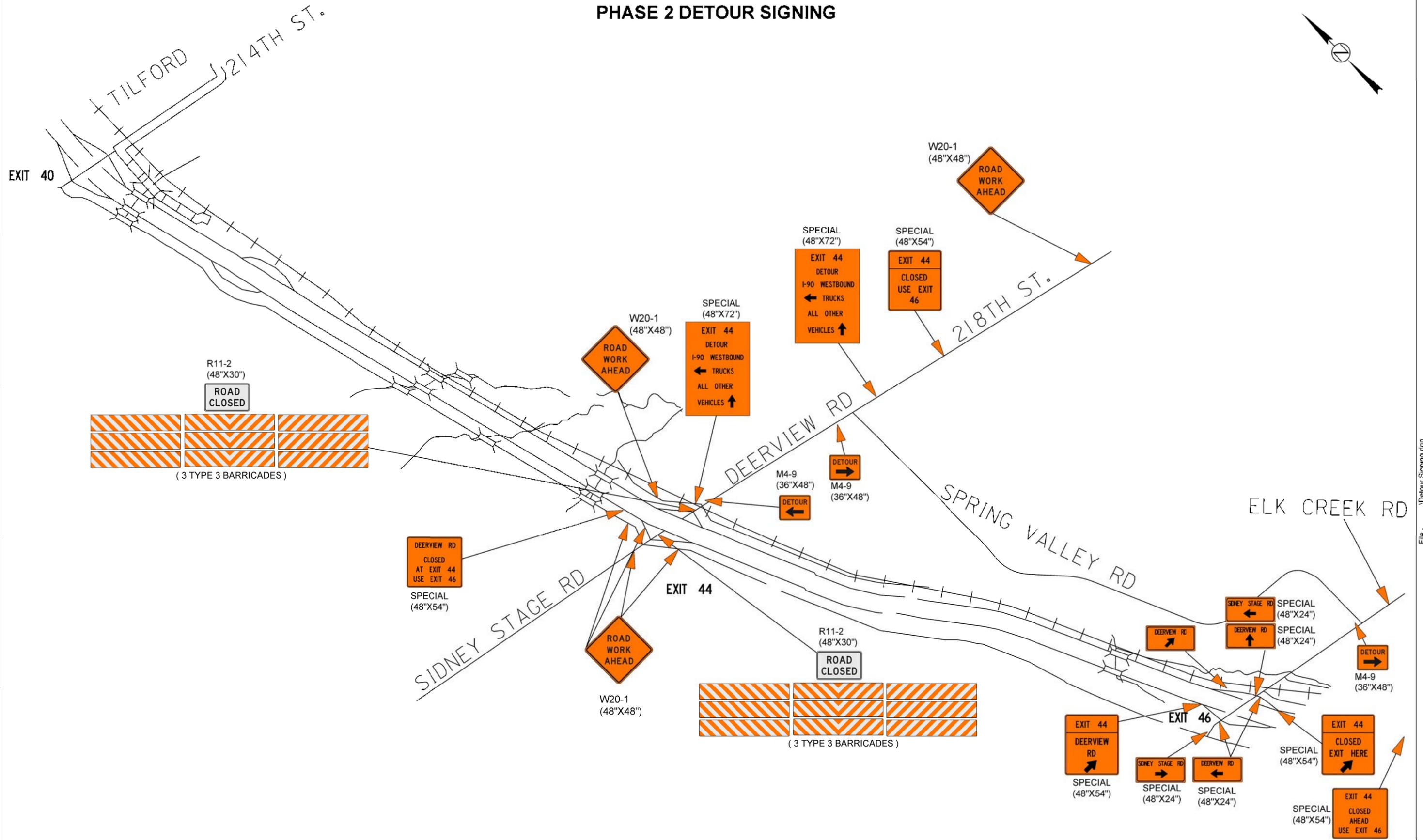
TRAFFIC CONTROL

PHASE 2 DETOUR SIGNING



Plot Scale - 1:40

Plotted From - trc11640



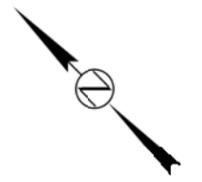
File - ...Detour Signing.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C7	C23

Plotting Date: 06/30/2016

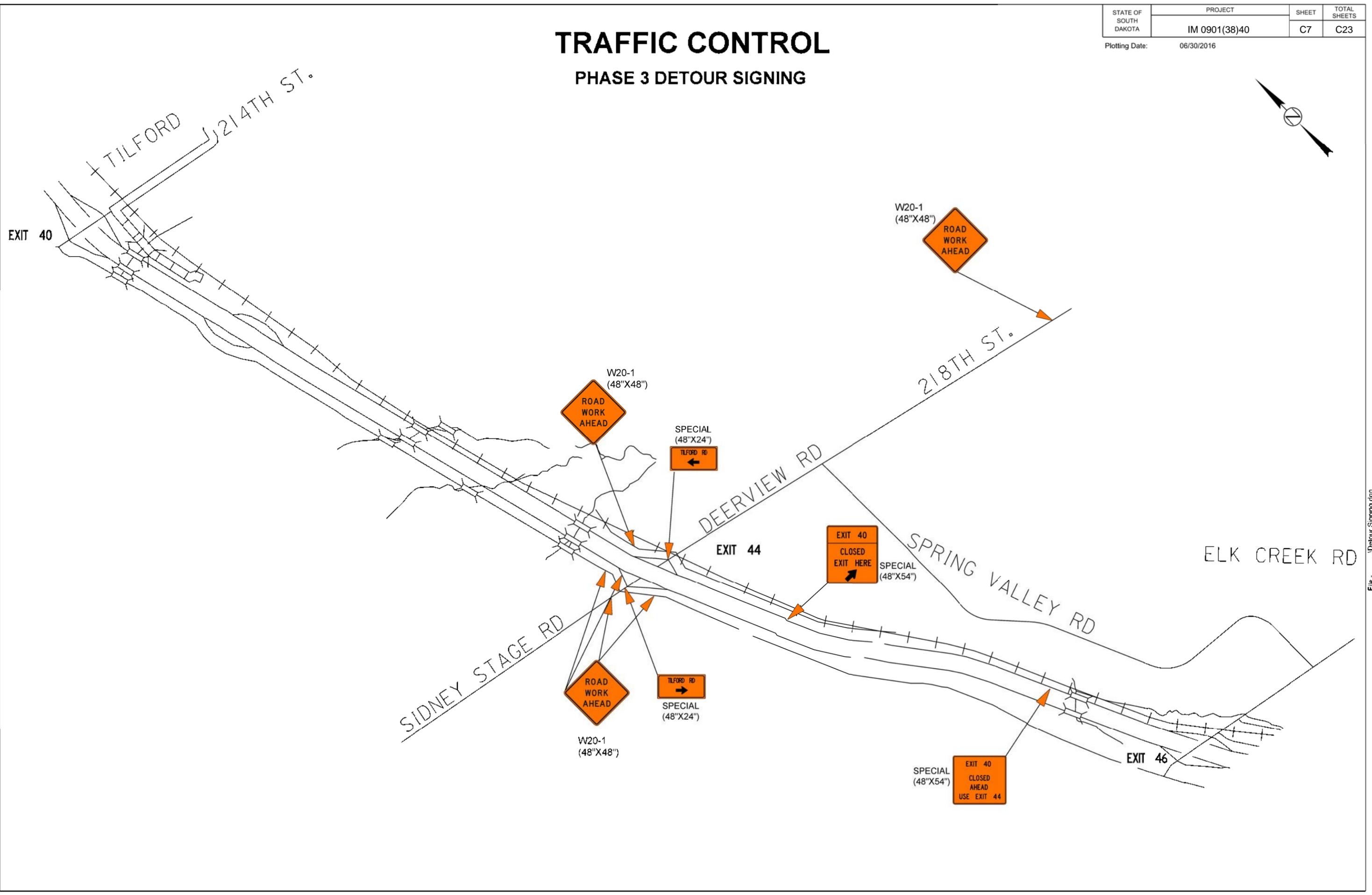
TRAFFIC CONTROL

PHASE 3 DETOUR SIGNING



Plot Scale - 1:40

Plotted From - trc11640



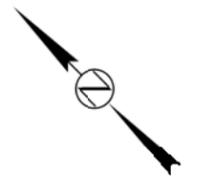
File - ...Detour Signing.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C8	C23

Plotting Date: 06/30/2016

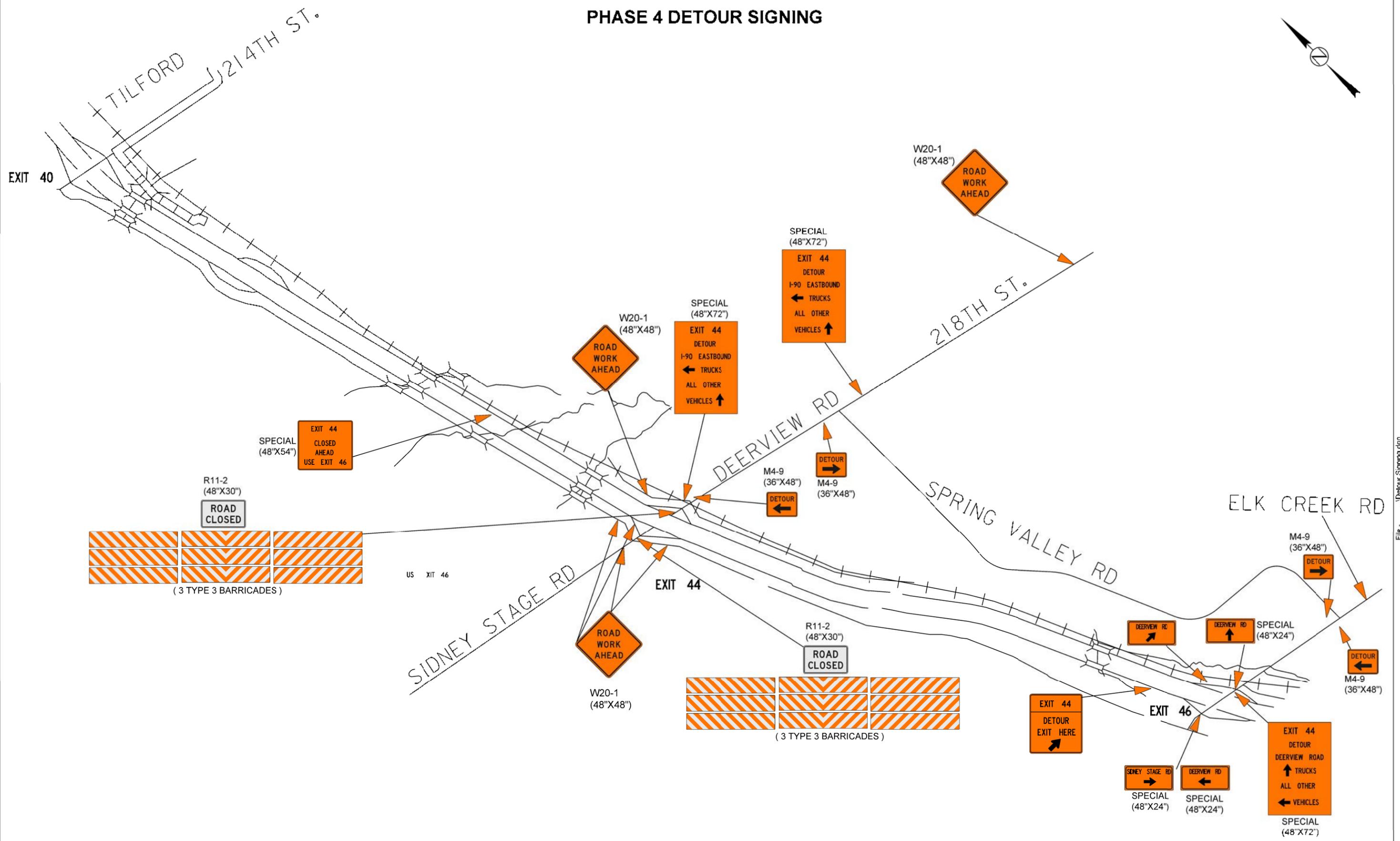
TRAFFIC CONTROL

PHASE 4 DETOUR SIGNING



Plot Scale - 1:40

Plotted From - trc11640



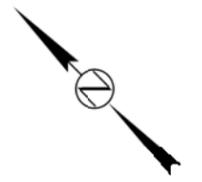
File - ...Detour Signing.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C9	C23

Plotting Date: 06/30/2016

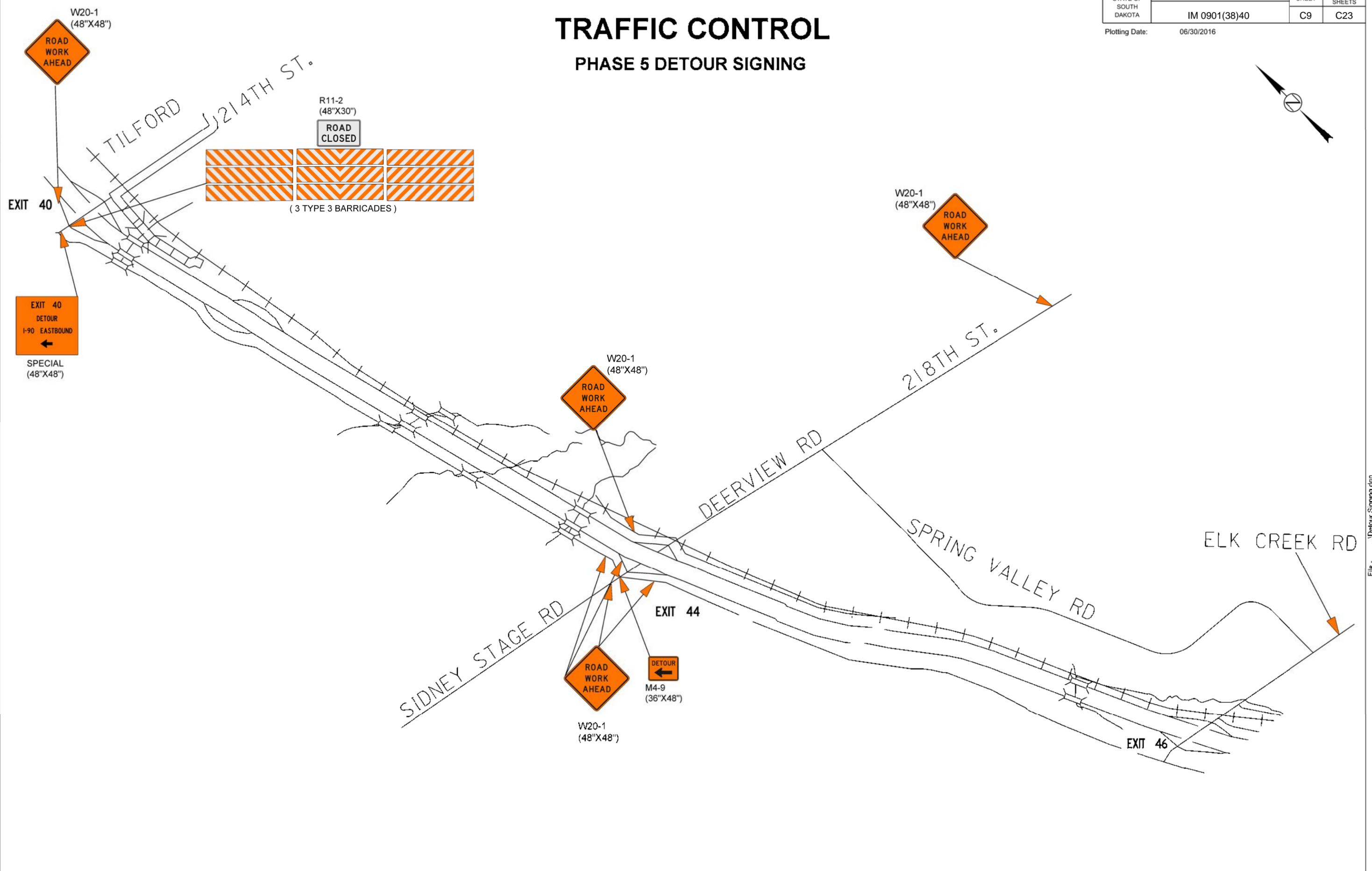
TRAFFIC CONTROL

PHASE 5 DETOUR SIGNING



Plot Scale - 1:40

Plotted From - Ircs11640



File - ...Ircs11640.dgn

TRAFFIC CONTROL

OVERWIDTH DETOUR SIGNING



WIDTH RESTRICTION
90 WEST
OVER 14 FT WIDE
98 MILES AHEAD
USE NEXT EXIT

(A) (96"x84")

WIDTH RESTRICTION
90 EAST
OVER 14 FT WIDE
11 MILES AHEAD
USE NEXT EXIT

(B) (96"x84")

(84"x36")
VEHICLES OVER 14 FT WIDE
EXIT HERE

(C)

(60"x48")
OVERWIDTH VEHICLES
 ←

(D)

(60"x48")
OVERWIDTH VEHICLES
 →

(E)

(60"x48")
OVERWIDTH VEHICLES
 ↑

(F)

WIDTH RESTRICTION
90 WEST
OVER 14 FT WIDE
XX MILES AHEAD
USE SD 34 WEST

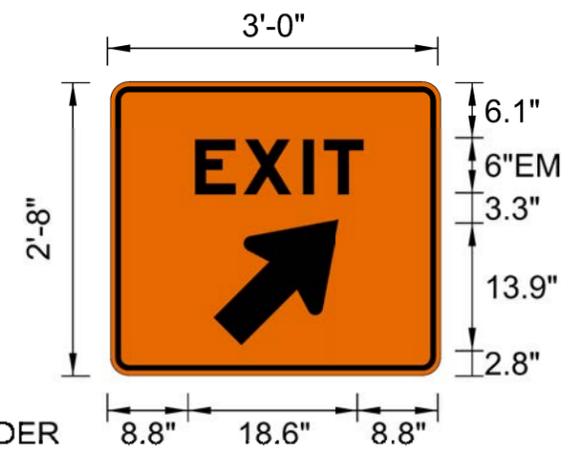
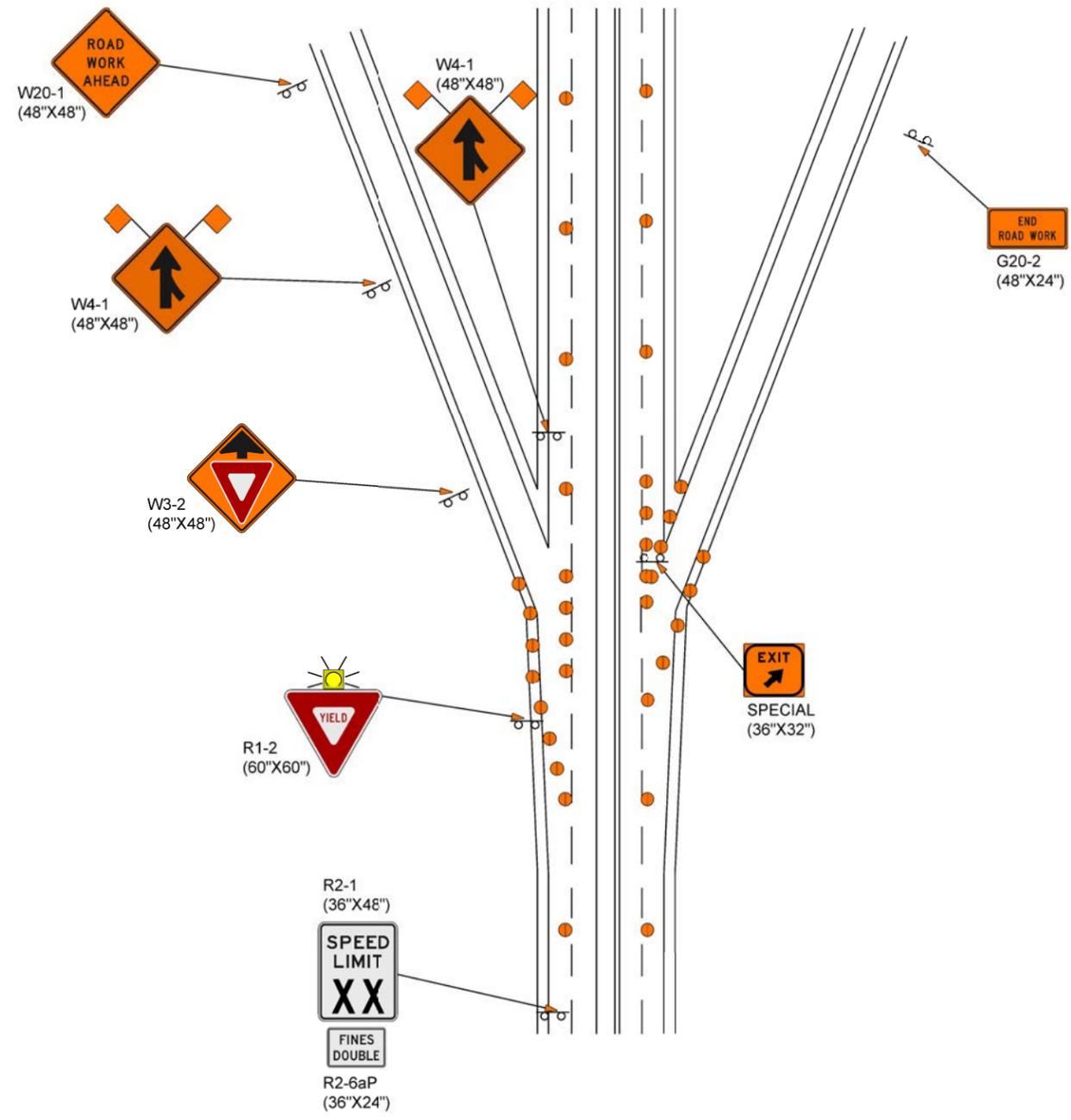
(G) (96"x84")

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C11	C23

Plotting Date: 06/30/2016

TRAFFIC CONTROL

RAMP ENTRANCE AND EXIT SIGNING DETAILS #1



BORDER
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

USE APPROPRIATE SPEED LIMIT

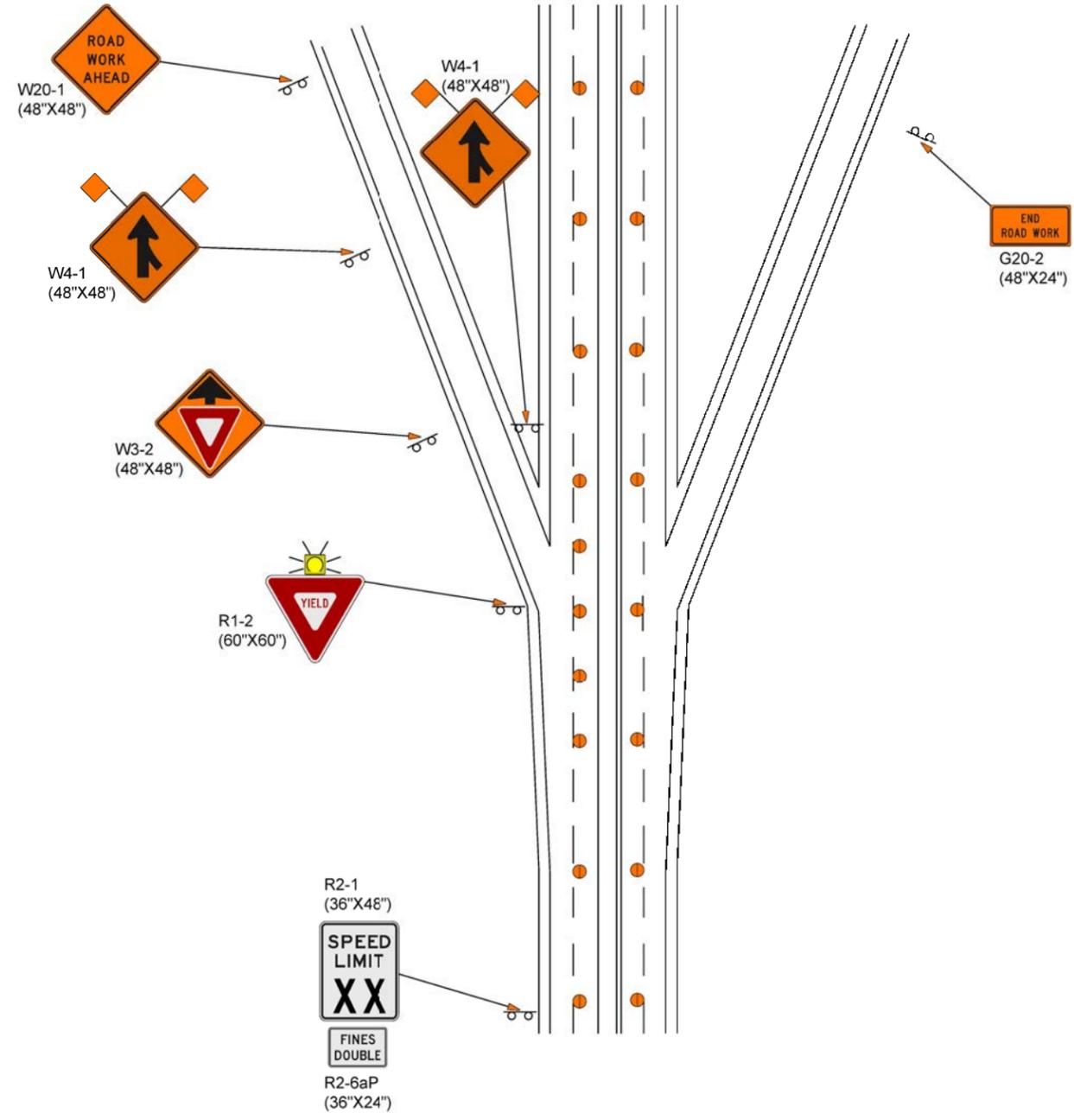
 -- THE WARNING LIGHT SHALL BE A SHIELDED TYPE B. IN ACCORDANCE WITH THE MUTCD

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C12	C23

Plotting Date: 06/30/2016

TRAFFIC CONTROL

RAMP ENTRANCE AND EXIT SIGNING DETAILS #2



USE APPROPRIATE SPEED LIMIT

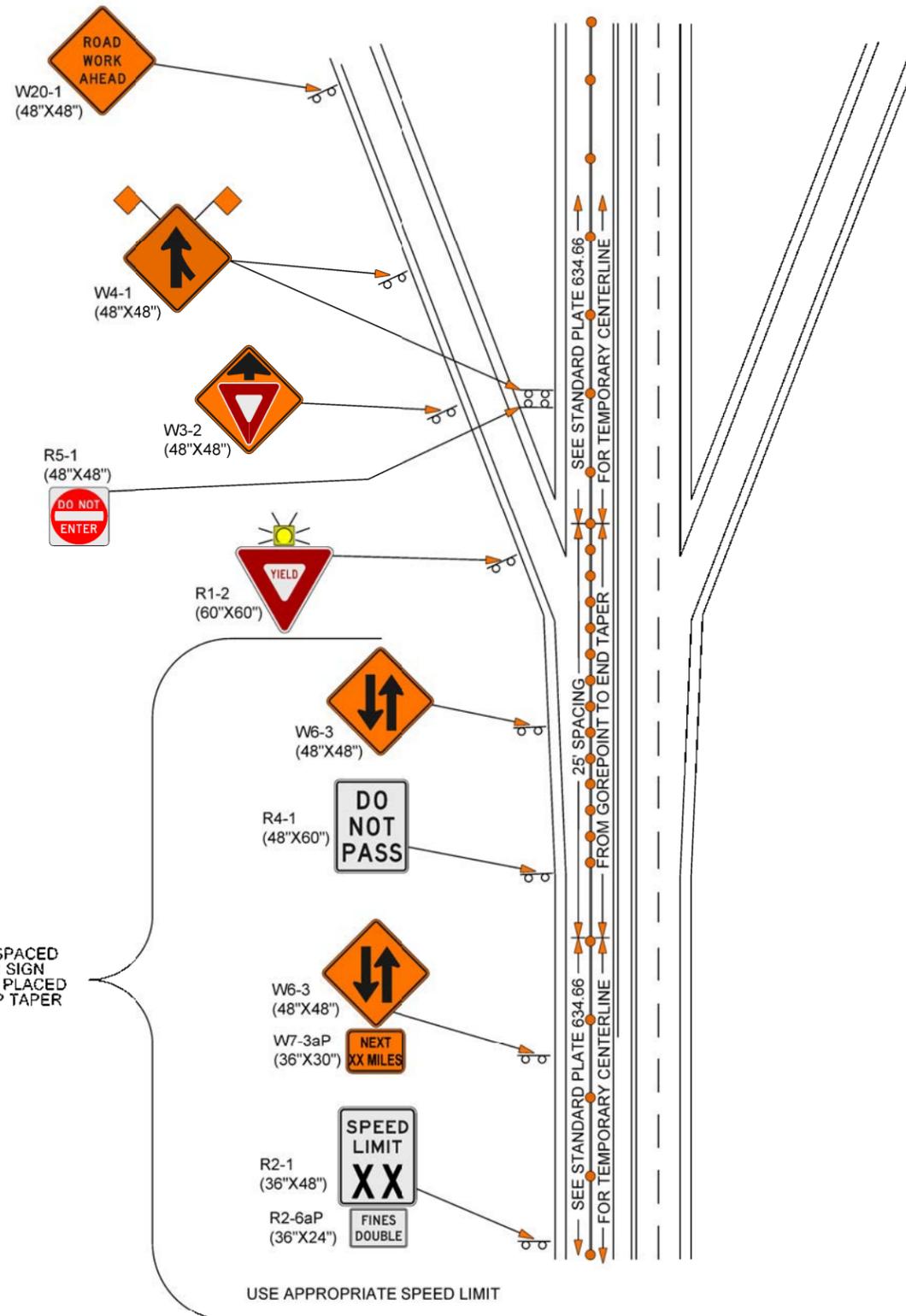
 -- THE WARNING LIGHT SHALL BE A SHIELDED TYPE B, IN ACCORDANCE WITH THE MUTCD

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C13	C23

Plotting Date: 06/30/2016

TRAFFIC CONTROL

RAMP ENTRANCE SIGNING DETAILS (TWO WAY TRAFFIC)



THESE SIGNS SHALL BE SPACED
AT 500' BETWEEN EACH SIGN
THE FIRST SIGN SHALL BE PLACED
AT THE END OF THE RAMP TAPER

USE APPROPRIATE SPEED LIMIT

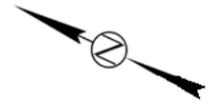
 -- THE WARNING LIGHT SHALL BE A SHIELDED TYPE B. IN ACCORDANCE WITH THE MUTCD

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0901(38)40	C14	C23

Plotting Date: 02/19/2016

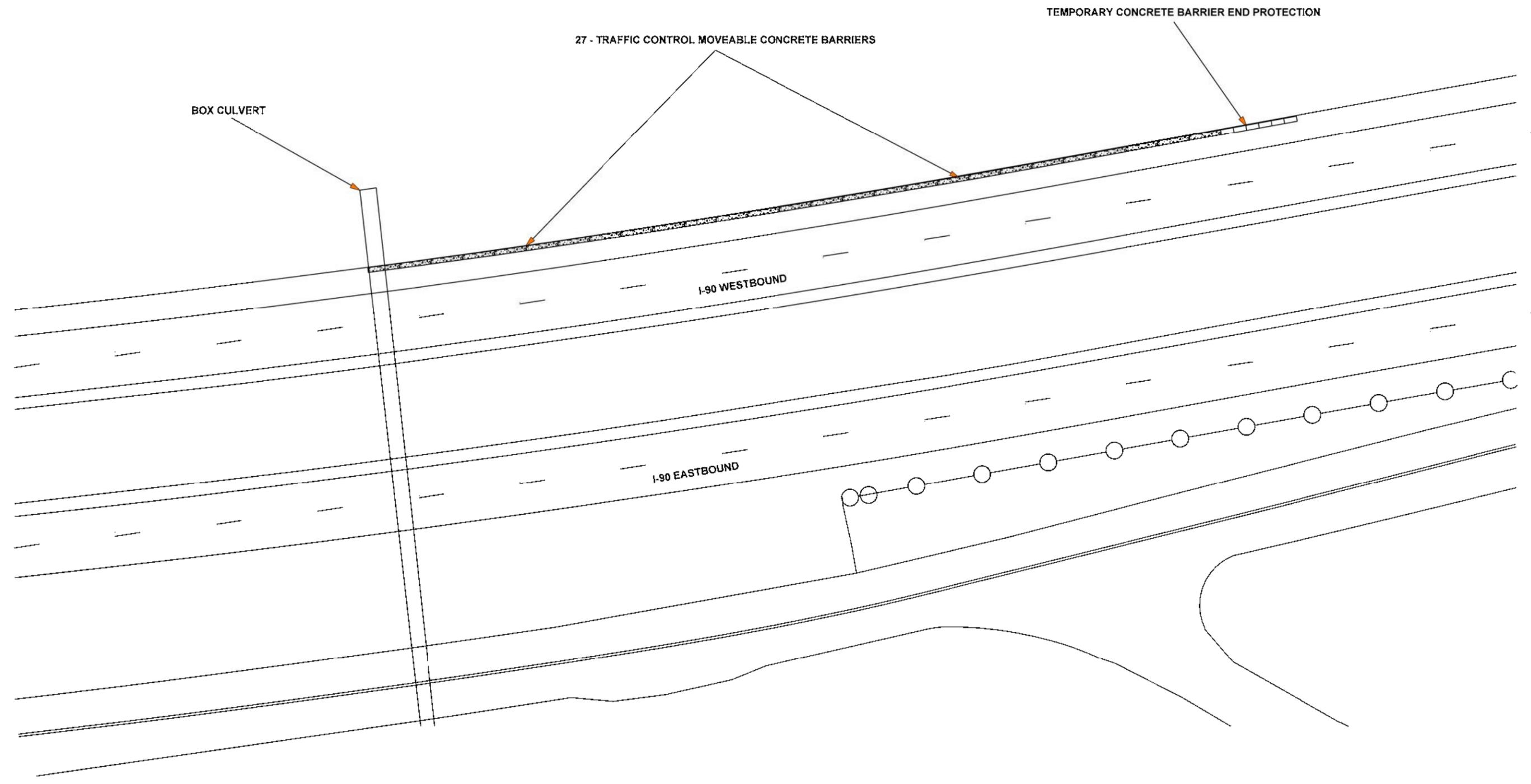
TRAFFIC CONTROL

TRAFFIC CONTROL MOVEABLE CONCRETE BARRIER LAYOUT STA. 257+38.93 BOX CULVERT EXTENSION



Plot Scale - 1:40

Plotted From - irrc11640

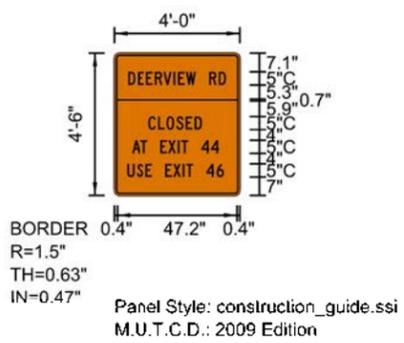


File - ...IBarrier/layout.dgn

TRAFFIC CONTROL SPECIAL SIGN DETAILS

PLOT SCALE - 1:5.83

SIGN DETAIL
150



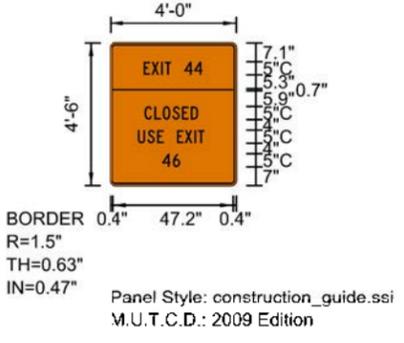
SIGN NUMBER	1
WIDTH x HEIGHT	4' 0" x 4' 6"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT

Panel Style: construction_guide.ssi
Dimensions are in inches/ tenths
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIESIZE	
E	X	I	T	A	A								C 2000	22.5	5
12.9	15.9	19.6	21	23.5	26.5	32.2									
C	L	O	S	E	D								C 2000	20.5	5
13.3	17.1	20.3	24	27.6	31										
A	T	E	X	I	T	A	A						C 2000	33.5	5
6.8	10.3	12.9	17.9	20.9	24.5	25.9	28.5	33.5	37.2						
U	S	E	E	X	I	T	A	A					C 2000	37.1	5
4.9	8.6	12.2	14.8	19.8	22.8	26.4	27.8	30.4	35.4	39.4					

SIGN DETAIL
150



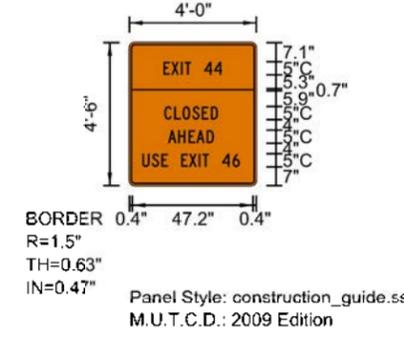
SIGN NUMBER	2
WIDTH x HEIGHT	4' 0" x 4' 6"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT

Panel Style: construction_guide.ssi
Dimensions are in inches/ tenths
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIESIZE	
E	X	I	T	A	A								C 2000	22.5	5
12.9	15.9	19.6	21	23.5	26.5	32.2									
C	L	O	S	E	D								C 2000	20.5	5
13.3	17.1	20.3	24	27.6	31										
U	S	E	E	X	I	T	A	A					C 2000	37.1	5
10.8	14.5	18.1	23.7	26.7	28.7	32.3	33.7								
4	6												C 2000	6.9	5
20.1	24.1														

SIGN DETAIL
150



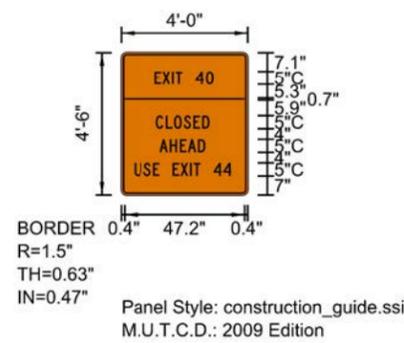
SIGN NUMBER	3
WIDTH x HEIGHT	4' 0" x 4' 6"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT

Panel Style: construction_guide.ssi
Dimensions are in inches/ tenths
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIESIZE	
E	X	I	T	A	A								C 2000	22.5	5
12.9	15.9	19.6	21	23.5	26.5	32.2									
C	L	O	S	E	D								C 2000	20.5	5
13.3	17.1	20.3	24	27.6	31										
A	T	E	A	D									C 2000	17.6	5
11.7	16.6	22.5	25.5	29.4											
U	S	E	E	X	I	T	A	A					C 2000	37.5	5
4.9	8.5	12.2	14.7	19.7	22.7	26.4	27.8	30.3	35.3	39.3					

SIGN DETAIL
150



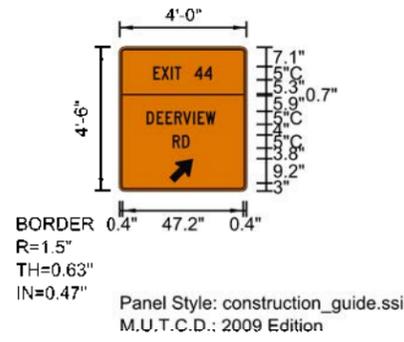
SIGN NUMBER	4
WIDTH x HEIGHT	4' 0" x 4' 6"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT

Panel Style: construction_guide.ssi
Dimensions are in inches/ tenths
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIESIZE	
E	X	I	T	A	A								C 2000	22.5	5
12.9	15.9	19.6	21	23.5	26.5	32.2									
C	L	O	S	E	D								C 2000	20.5	5
13.4	17.2	20.4	24.1	27.7	31.1										
A	T	E	A	D									C 2000	17.5	5
11.9	16.8	22.7	25.7	29.6											
U	S	L	L	X	I	T	A	A					C 2000	37.4	5
5	8.7	12.3	14.9	19.9	22.9	26.5	27.9	30.5	35.5	39.2					

SIGN DETAIL
150



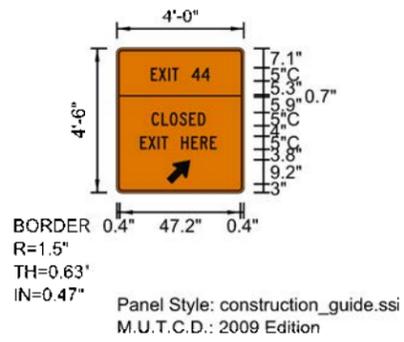
SIGN NUMBER	5
WIDTH x HEIGHT	4' 0" x 4' 6"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	315	18.8	3	7.8	11.6

Panel Style: construction_guide.ssi
Dimensions are in inches/ tenths
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIESIZE	
E	X	I	T	A	A								C 2000	22.5	5
12.9	15.9	19.6	21	23.5	26.5	32.2									
D	L	L	R	V	I	E	W						C 2000	26.4	5
10.4	14.7	17.6	21	24.2	28	29.6	32.8								
R	D												C 2000	6.5	5
20.2	23.9														

SIGN DETAIL
150



SIGN NUMBER	6
WIDTH x HEIGHT	4' 0" x 4' 6"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	315	18.8	3	7.8	11.6

Panel Style: construction_guide.ssi
Dimensions are in inches/ tenths
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)													LENGTH	SERIESIZE	
E	X	I	T	A	A								C 2000	22.5	5
12.9	15.9	19.6	21	23.5	26.5	32.2									
C	L	O	S	E	D								C 2000	20.6	5
13.3	17.1	20.2	23.9	27.6	31										
L	X	I	I	I	L	R	L						C 2000	29.2	5
8.9	11.9	15.6	17	19.5	24.5	26.4	31.6	35.5							

PLOTTED FROM - IPRC12695

PLOT NAME - 1

FILE - ... NTC SIGN DESIGN\HEAD560TC.DGN

SHEET OF SHEETS

TRAFFIC CONTROL SPECIAL SIGN DETAILS

PLOT SCALE - 1:5.83

SIGN DETAIL
1:50

BORDER 0.4" 47.2" 0.4"
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	315	19	3	7.8	11.6

Panel Style: construction_guide.ssi
Dimensions are in inches tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	7
WIDTH x HEIGHT	4' 0" x 4' 6"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SIGN DETAIL
1:50

BORDER 0.4" 47.2" 0.4"
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	315	19	3	7.9	11.6

Panel Style: construction_guide.ssi
Dimensions are in inches tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	8
WIDTH x HEIGHT	4' 0" x 4' 6"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SIGN DETAIL
1:50

BORDER 5.2" 38" 4.8"
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: construction_guide.ssi
Dimensions are in inches tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	9
WIDTH x HEIGHT	4' 0" x 6' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	90	5.3	29.2	5.9	8.8
AR_Type D	0	7.9	10.8	5.9	8.8

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE			
E	X	I	T	A	A						C 2000				
10.7	14.3	18.7	20.3	23.4	29.4	33.9					27	6			
D	E	T	O	U	R						C 2000				
11.8	16.4	20	23.7	28.5	33.2						24.8	6			
I	R	D	E	A	S	T	B	C	U	N	D	C 2000			
6.1	7.7	9	11.8	14.7	18.2	20.6	23.5	26.1	28.7	31.5	34.7	37.8	40.9	37.1	4
T	R	U	C	K	S									C 2000	
26.6	29.2	32.1	35.2	38.2	40.9									16.6	4
A	L	L	O	I	H	L	R							C 2000	
17.9	21	23.6	25.7	29.7	32.5	35.1	38.2	40.9						25.3	4
V	E	H	I	C	L	I	S							C 2000	
20.2	23.2	26	29.1	30.4	33.5	36.1	38.6							20.7	4

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE
E	X	I	T	A	A						C 2000	
10.7	14.3	18.7	20.3	23.4	29.4	33.9					27.4	5
D	E	T	O	U	R						C 2000	
11.8	17	20	23.7	28.1	33						20.6	5
E	X	I	T	H	E	R	E				C 2000	
9	12	15.8	17	19.6	24.6	26.5	31.9	35.5			29.2	5

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE			
E	X	I	T	A	A						C 2000				
10.7	14.3	18.7	20.3	23.4	29.4	33.9					27	6			
D	E	T	O	U	R						C 2000				
11.8	16.4	20	23.7	28.5	33.2						24.8	6			
I	R	D	E	A	S	T	B	C	U	N	D	C 2000			
5.2	6.4	8.1	11	13.3	17.3	20.3	23.4	26	28.6	31.5	34.6	37.8	40.9	38	4
T	R	U	C	K	S									C 2000	
26.6	29.2	32.1	35.1	38.2	40.9									16.6	4
A	L	L	O	I	H	L	R							C 2000	
17.9	21	23.6	25.7	29.7	32.5	35.1	38.2	40.9						25.3	4
V	E	H	I	C	L	I	S							C 2000	
20.2	23.2	26	29.1	30.4	33.5	36.1	38.6							20.7	4

SIGN DETAIL
1:50

BORDER 5.3" 37.9" 4.8"
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: construction_guide.ssi
Dimensions are in inches tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	10
WIDTH x HEIGHT	4' 0" x 6' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	90	5.3	29.4	5.9	8.8
AR_Type D	0	7.9	10.8	5.9	8.8

SIGN DETAIL
1:50

BORDER 4.1" 39.1" 4.8"
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: construction_guide.ssi
Dimensions are in inches tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	11
WIDTH x HEIGHT	4' 0" x 6' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	0	4.1	32.6	5.9	8.8
AR_Type D	93	5	13.8	5.9	8.8

SIGN DETAIL
1:50

BORDER 3.3" 41.6" 3.1"
R=1.5"
TH=0.63"
IN=0.47"

Panel Style: construction_guide.ssi
M.U.T.C.D.: 2009 Edition

Panel Style: construction_guide.ssi
Dimensions are in inches tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	12
WIDTH x HEIGHT	4' 0" x 2' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5'
MOUNTING	Ground
BACKGROUND	TYPE: Reflective COLOR: Orange
LEGEND/BORDER	TYPE: Reflective COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	93	19.7	5.1	3.9	8.8

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE			
E	X	I	T	A	A						C 2000				
10.7	14.3	18.7	20.3	23.4	29.4	33.9					27	6			
D	E	T	O	U	R						C 2000				
11.8	16.4	20	23.8	28.5	33.2						24.8	6			
I	R	D	E	A	S	T	B	C	U	N	D	C 2000			
6.1	7.7	9	11.8	14.7	18.2	20.6	23.5	26.1	28.7	31.5	34.7	37.8	40.9	37.1	4
T	R	U	C	K	S									C 2000	
26.6	29.2	32.1	35.2	38.2	40.9									16.6	4
A	L	L	O	I	H	L	R							C 2000	
17.9	21	23.6	25.7	29.7	32.5	35.1	38.2	40.9						25.3	4
V	E	H	I	C	L	I	S							C 2000	
20.2	23.2	26	29.1	30.4	33.5	36.1	38.6							20.7	4

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE			
E	X	I	T	A	A						C 2000				
10.7	14.3	18.7	20.3	23.4	29.4	33.9					27	6			
D	E	T	O	U	R						C 2000				
11.8	16.4	20	23.8	28.5	33.2						24.8	6			
I	R	D	E	A	S	T	B	C	U	N	D	C 2000			
13.1	16.1	18.8	21.5	24.1	27.2	28.6	31	34.1	38.1	41			C 2000		
T	R	U	C	K	S									C 2000	
26.6	29.2	32.1	35.2	38.2	40.9									16.6	4
A	L	L	O	I	H	L	R							C 2000	
17.9	21	23.6	25.7	29.7	32.5	35.1	38.2	41						25.3	4
V	E	H	I	C	L	I	S							C 2000	
20.2	23.2	26	29.1	30.4	33.5	36.1	38.6							20.7	4

LETTER POSITIONS (X)											LENGTH	SERIES/SIZE				
S	I	D	N	L	V						C 2000					
3.3	6.2	7.6	10.7	13.8	16.2	18.8	22.8	25.4	27.6	30.7	33.7	36.8	39.8	42.7	41.7	4

PLOTTED FROM - IPRC12695

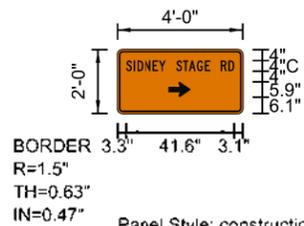
PLOT NAME - 2

FILE - ... NTC SIGN DESIGN\HEAD560TC.DGN

SHEET OF SHEETS

SIGN NUMBER	13
WIDTH x HEIGHT	4' 0" x 2' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND BORDER	TYPE: Reflective
	COLOR: Black/Black

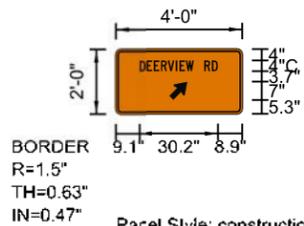
SYMBOL	ROT	X	Y	WD	HT
AR_Type D	270	19.7	6.2	5.9	8.8



LETTER POSITIONS (X)													LENGTH	SERIESIZE		
S	I	D	N	E	Y		S	T	A	G	E	R	D		C 2000	
3.3	6.2	7.0	13.7	13.8	16.2	19.7	22.7	26.3	27.6	30.7	33.7	35.7	39.7	42.7	41.7	4

SIGN NUMBER	16
WIDTH x HEIGHT	4' 0" x 2' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND BORDER	TYPE: Reflective
	COLOR: Black/Black

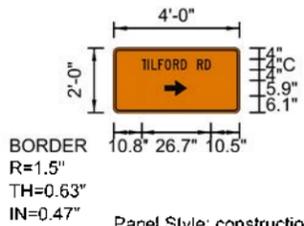
SYMBOL	ROT	X	Y	WD	HT
AR_Type D	315	29.6	6.3	5.9	8.8



LETTER POSITIONS (X)													LENGTH	SERIESIZE		
D	E	E	R	V	I	E	W		P	D					C 2000	
9.1	12.1	14.9	17.6	20.2	23.2	24.7	27.1	30.1	31.1	37					30.3	4

SIGN NUMBER	18
WIDTH x HEIGHT	4' 0" x 2' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WD	HT
AR_Type D	270	19.7	6.1	5.9	8.8

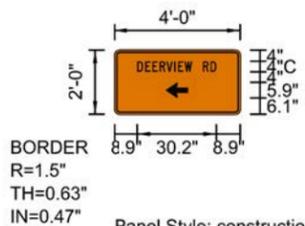


LETTER POSITIONS (X)													LENGTH	SERIESIZE		
T	I	L	F	O	R	D		R	D						C 2000	
10.8	13.4	14.8	17.4	19.9	23.1	26	28.2	32.2	35.2						26.7	4

TRAFFIC CONTROL SPECIAL SIGN DETAILS

SIGN NUMBER	14
WIDTH x HEIGHT	4' 0" x 2' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND BORDER	TYPE: Reflective
	COLOR: Black/Black

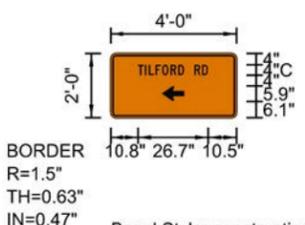
SYMBOL	ROT	X	Y	WD	HT
AR_Type D	90	19.7	6.2	5.9	8.8



LETTER POSITIONS (X)													LENGTH	SERIESIZE		
D	E	E	R	V	I	E	W		R	D					C 2000	
8.9	12	14.7	17.4	20	23.1	24.5	26.9	29.9	31.9	36.9					30.2	4

SIGN NUMBER	17
WIDTH x HEIGHT	4' 0" x 2' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND BORDER	TYPE: Reflective
	COLOR: Black/Black

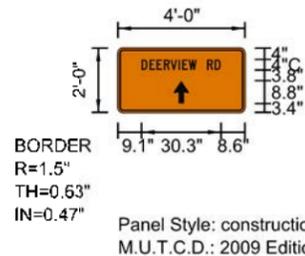
SYMBOL	ROT	X	Y	WD	HT
AR_Type D	90	19.7	6	5.9	8.8



LETTER POSITIONS (X)													LENGTH	SERIESIZE		
T	I	L	F	O	R	D		R	D						C 2000	
10.8	13.4	14.8	17.4	19.9	23.1	26	28.2	32.2	35.2						26.7	4

SIGN NUMBER	15
WIDTH x HEIGHT	4' 0" x 2' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND BORDER	TYPE: Reflective
	COLOR: Black/Black

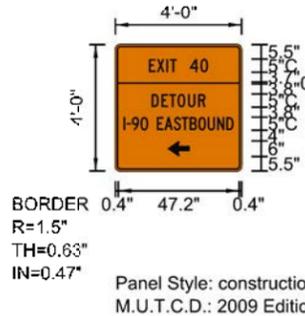
SYMBOL	ROT	X	Y	WD	HT
AR_Type D	0	21.2	3.4	5.9	8.8



LETTER POSITIONS (X)													LENGTH	SERIESIZE		
D	E	E	R	V	I	E	W		R	D					C 2000	
9.1	12.1	14.8	17.5	20.1	23.2	24.6	27	30.1	31.1	37					30.3	4

SIGN NUMBER	19
WIDTH x HEIGHT	4' 0" x 4' 0"
BORDER WIDTH	0.63
CORNER RADIUS	1.5
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Orange
LEGEND BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WD	HT
AR_Type D	90	19.8	5.5	5.9	8.8



LETTER POSITIONS (X)													LENGTH	SERIESIZE		
E	X	I	I		4	0									C 2000	
12.9	15.9	18.6	21	23.5	28.5	32.5									22.6	5
D	I	I	O	J	H										C 2000	
13.9	17.7	20.7	23.8	27.6	31.7										20.7	5
I		9	0		E	A	S	T	B	O	J	N	D		C 2000	
3.7	4.3	6.4	9.7	12.6	15.9	18.8	22.3	25.4	28.4	31.7	35.3	38.8	42.4	42.1	5	

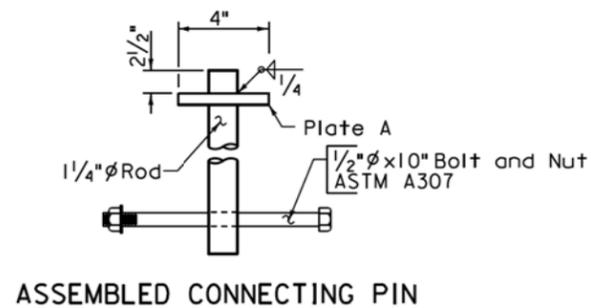
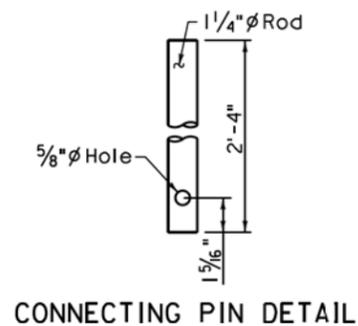
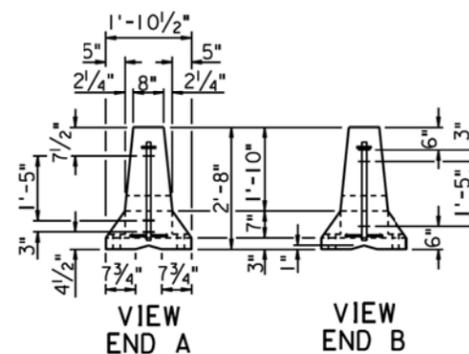
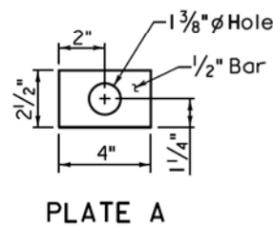
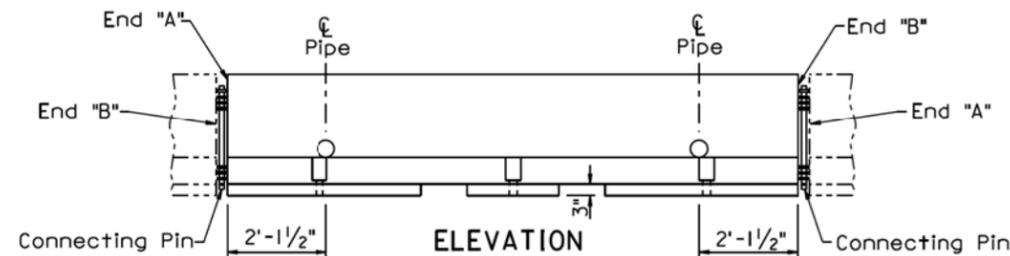
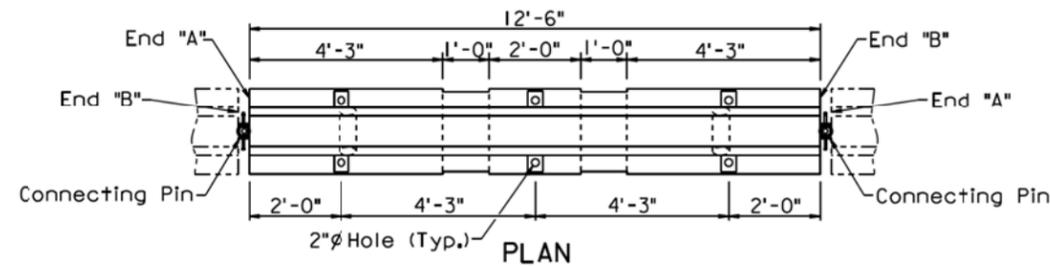
PLOT SCALE - 1:15.83

PLOTTED FROM - IPRC12895

PLOT NAME - 3

FILE - ... NTC SIGN DESIGN\HEAD560TC.DGN

SHEET OF SHEETS



GENERAL NOTES:

The detailed drawings are for illustrative purpose and depicts the current version of the F shape concrete barrier. If new movable concrete barriers are requested on a project, they shall be constructed according to the F shape movable concrete barrier details on standard plate 628.10.

Each movable concrete barrier section weighs 5030 \pm pounds.

Each movable concrete barrier section is detailed to provide end "A" to end "B" connection by insertion of a pin through steel loops.

The Jersey shape or any version of the F shape traffic control movable concrete barriers may be used on a project, however, only the same type or version shall be used for each run of barriers.

Movable concrete barrier sections shall be placed to provide uniform bearing of the sections with the paved surface as approved by the Engineer.

Movable concrete barrier sections shall never be moved or lifted using the end loops.

Movable concrete barrier sections that have been damaged shall not be used. Barrier sections are considered damaged if the loops are end welded onto existing damaged loops, loops are fractured, or there is exposed rebar from fractured concrete.

All cost for transporting the barriers from the specified location to the project site, installing, and returning the barriers to the specified location shall be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier".

If the concrete barriers need to be moved and reset on the project, requiring the barriers to be transported by truck, all cost for removing, transporting, and resetting the barriers shall be incidental to the contract unit price per each for "Remove and Reset Traffic Control Movable Concrete Barrier". All cost for small shifts in alignment of the barriers, not requiring the barriers to be transported by truck, shall be incidental to various contract items.

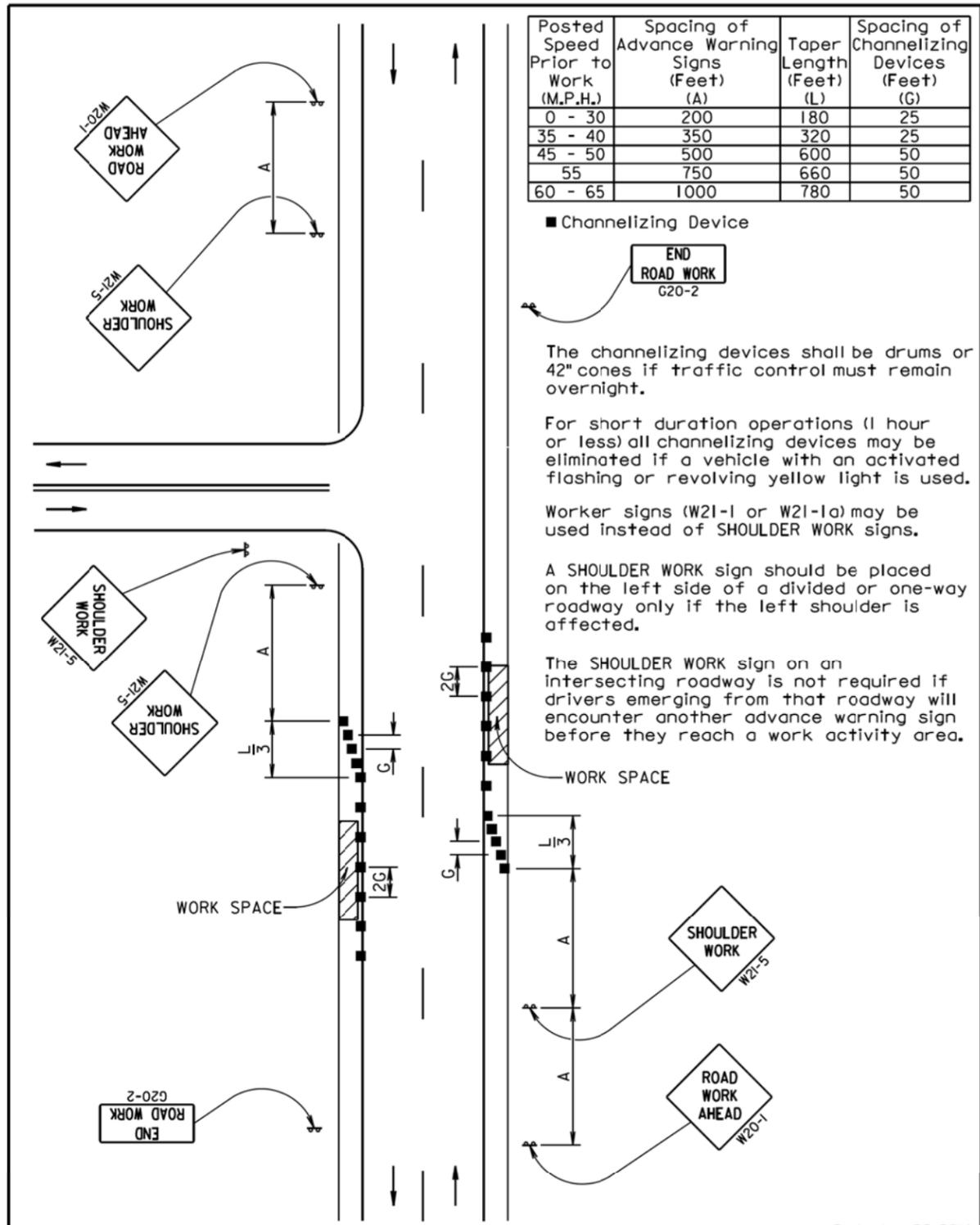
June 26, 2009

June 26, 2009

Published Date: 2nd Qtr. 2016	S D D O T	TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)	PLATE NUMBER 628.01
			Sheet 1 of 2

Published Date: 2nd Qtr. 2016	S D D O T	TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)	PLATE NUMBER 628.01
			Sheet 2 of 2

Plot Scale - 1:200



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45 - 50	500	600	50
55	750	660	50
60 - 65	1000	780	50

Channelizing Device

END ROAD WORK G20-2

The channelizing devices shall be drums or 42" cones if traffic control must remain overnight.

For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

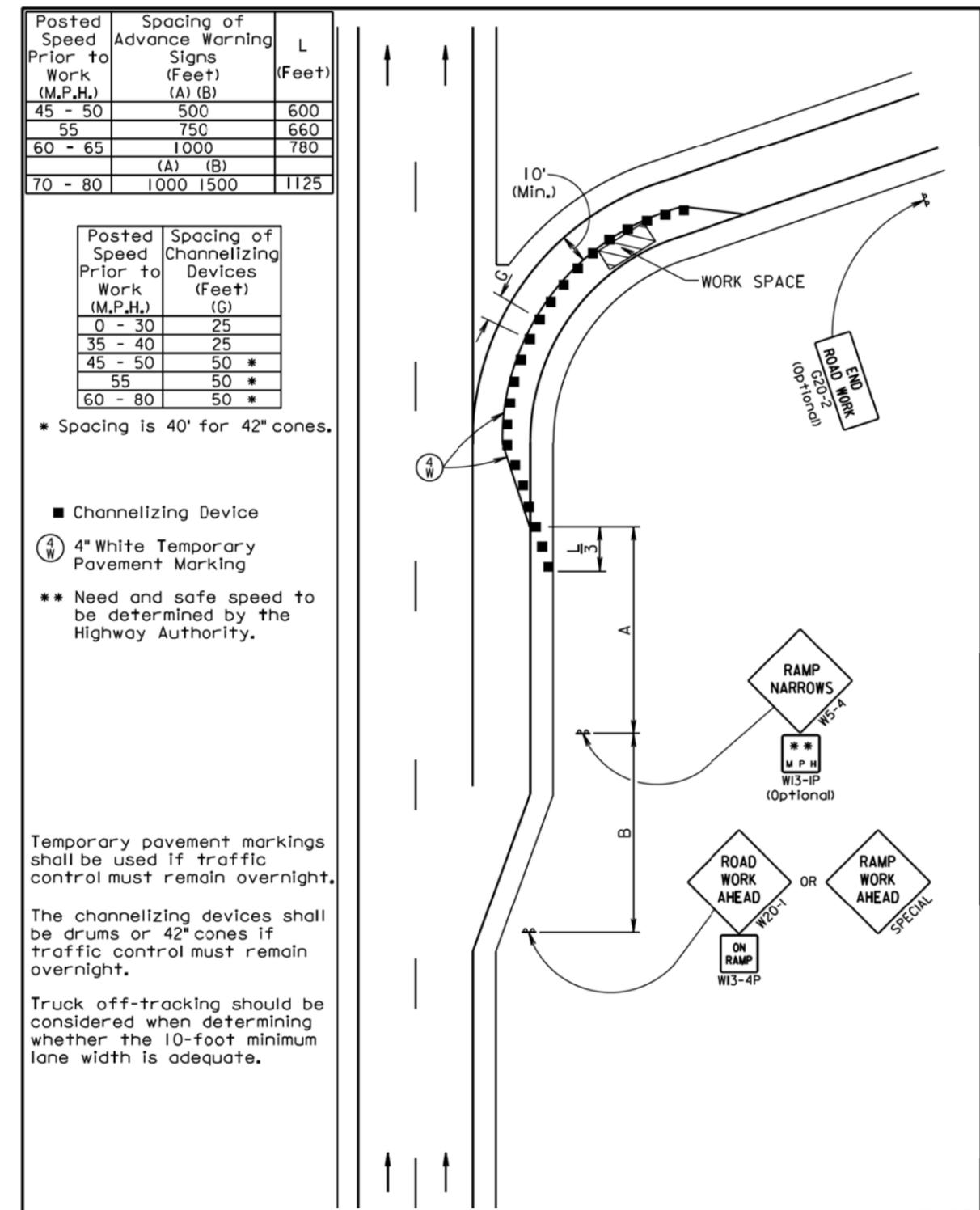
Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

September 22, 2014

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES WORK ON SHOULDERS	PLATE NUMBER 634.03
	Published Date: 2nd Qtr. 2016	Sheet 1 of 1



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B)	L (Feet)
45 - 50	500	600
55	750	660
60 - 65	1000	780
	(A) (B)	
70 - 80	1000 1500	1125

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	25
35 - 40	25
45 - 50	50 *
55	50 *
60 - 80	50 *

* Spacing is 40' for 42" cones.

Channelizing Device

④ 4" White Temporary Pavement Marking

** Need and safe speed to be determined by the Highway Authority.

Temporary pavement markings shall be used if traffic control must remain overnight.

The channelizing devices shall be drums or 42" cones if traffic control must remain overnight.

Truck off-tracking should be considered when determining whether the 10-foot minimum lane width is adequate.

April 15, 2015

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES PARTIAL EXIT RAMP CLOSURE	PLATE NUMBER 634.69
	Published Date: 2nd Qtr. 2016	Sheet 1 of 1

- Plotted From - Irrc11640

File - ...Standard Plates.dgn

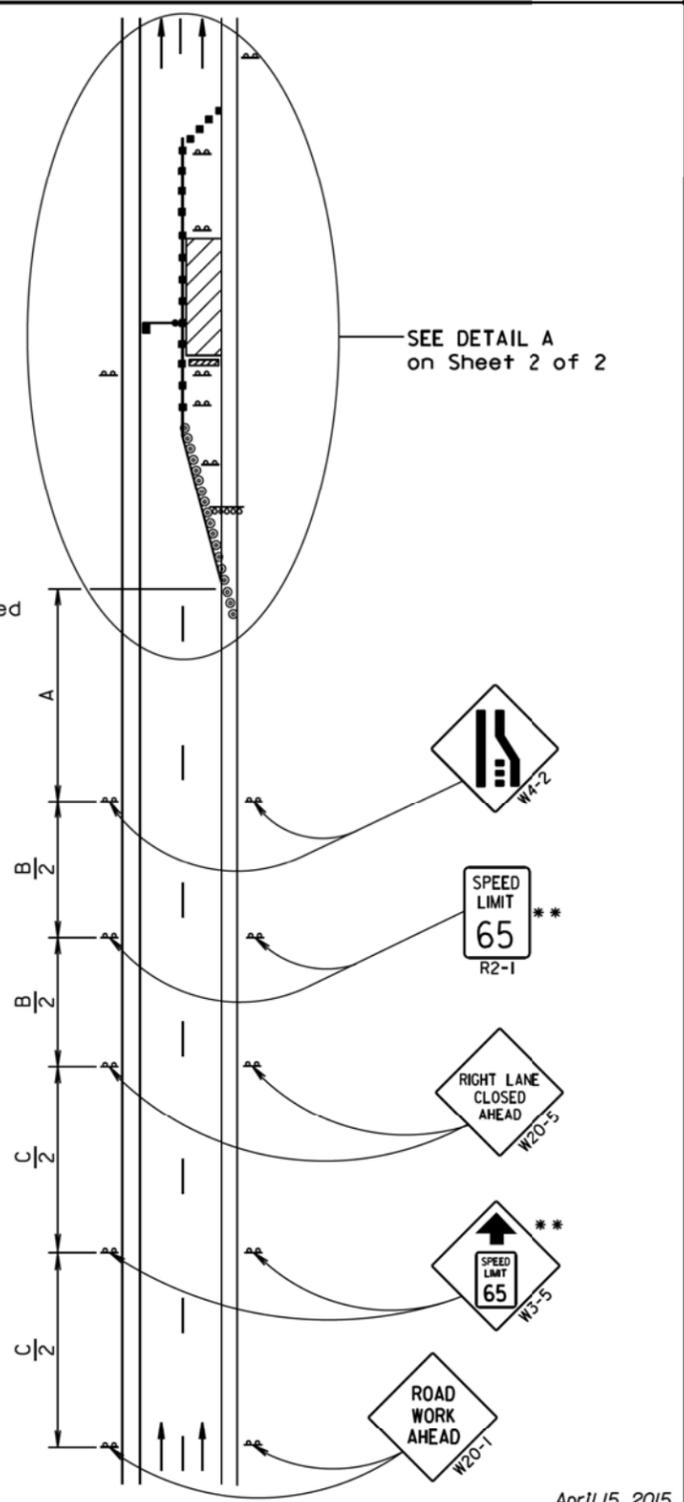
Plot Scale - 1:200

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet)		
	(A)	(B)	(C)
0 - 30	200		
35 - 40	350		
45 - 50	500		
55	750		
60 - 65	1000		
	(A)	(B)	(C)
70 - 80	1000	1500	2640

- ** Speed appropriate for location.
- ⊙ Reflectorized Drum
- Channelizing Device

ROAD WORK AHEAD sign is only required in advance of the first lane closure.

High speed is defined as having a posted speed limit greater than 45 mph.



SEE DETAIL A on Sheet 2 of 2

April 15, 2015

S D D O T	WORK ZONE SPEED REDUCTION FOR INTERSTATE AND HIGH SPEED MULTI-LANE HIGHWAYS	PLATE NUMBER 634.63
	Published Date: 2nd Qtr. 2016	Sheet 1 of 2

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)	Taper Length (Feet) (L)
0 - 30	25	180
35 - 40	25	320
45 - 50	50 *	600
55	50 *	660
60 - 65	50 *	780
70 - 80	50 *	960

- * Spacing is 40' for 42" cones.
- ** Speed appropriate for location.
- *** Use speed limit designated for the condition when workers are present in the work space. Signs shall be covered or removed when workers are not present.

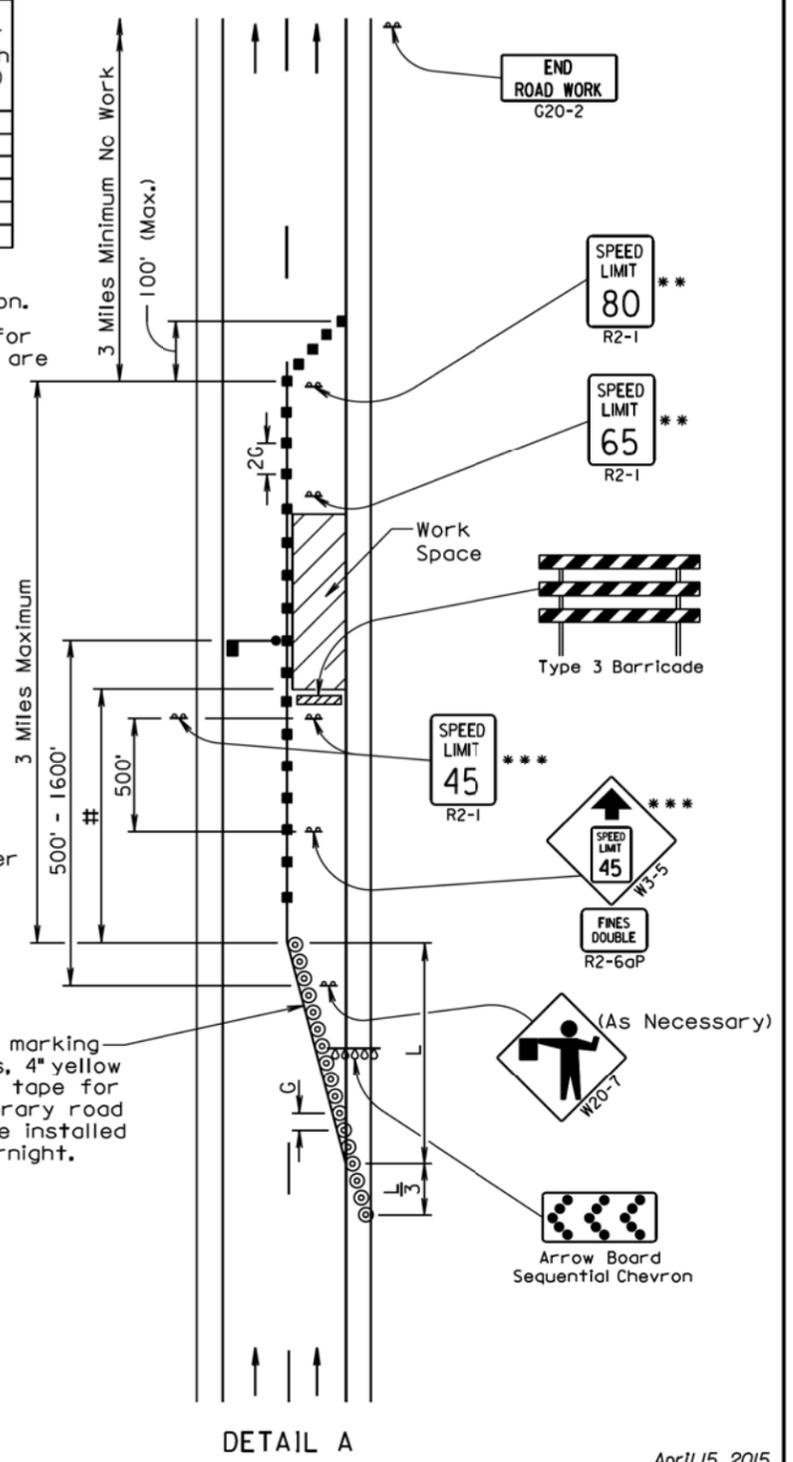
- Flagger (As Necessary)
- ⊙ Reflectorized Drum
- Channelizing Device
- # The Work Space shall be a minimum of 500' from the end of the taper.

The FLAGGER sign shall be used whenever there is a Flagger present.

The channelizing devices shall be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

4" white temporary pavement marking tape for right lane closures, 4" yellow temporary pavement marking tape for left lane closures, or temporary road markers at 5' spacing shall be installed when the lane is closed overnight.



DETAIL A

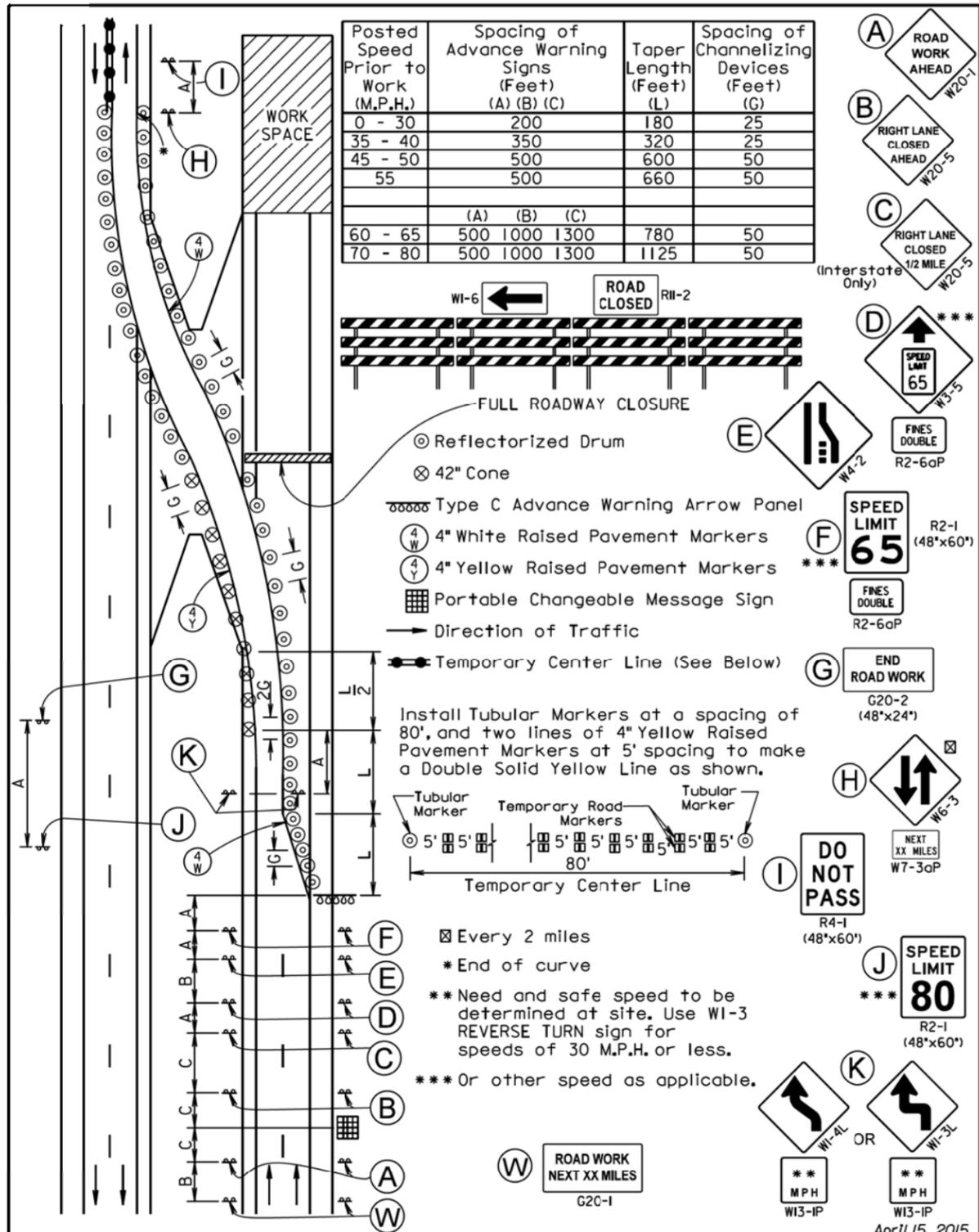
April 15, 2015

S D D O T	WORK ZONE SPEED REDUCTION FOR INTERSTATE AND HIGH SPEED MULTI-LANE HIGHWAYS	PLATE NUMBER 634.63
	Published Date: 2nd Qtr. 2016	Sheet 2 of 2

Plotted From - Irrc11640

File - ...Standard Plates.dgn

Plot Scale - 1:200



SD DOT

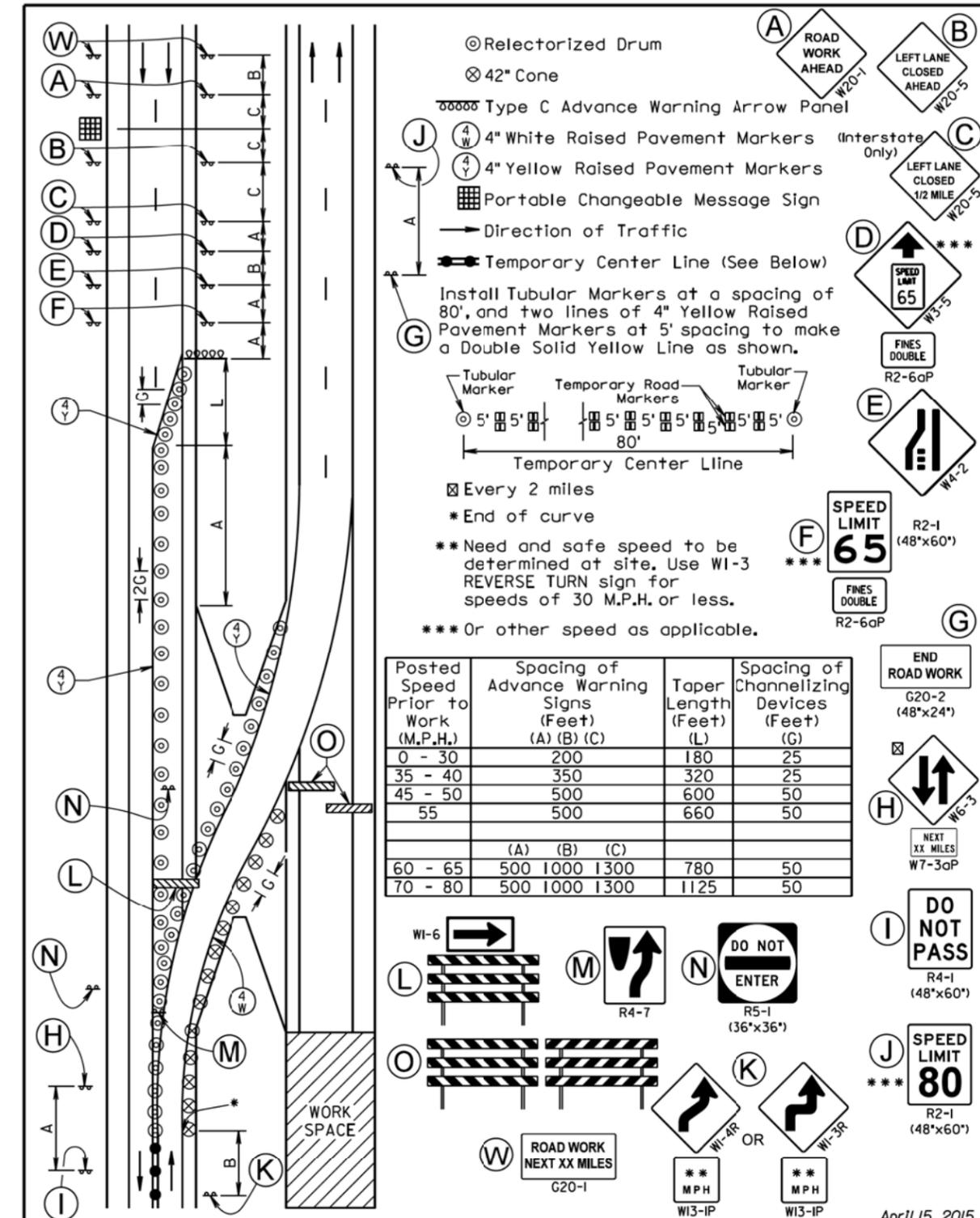
**GUIDES FOR TRAFFIC CONTROL DEVICES
MEDIAN CROSSOVER ON DIVIDED HIGHWAY**

PLATE NUMBER 634.66

Published Date: 2nd Qtr. 2016

Sheet 1 of 2

April 15, 2015



SD DOT

**GUIDES FOR TRAFFIC CONTROL DEVICES
MEDIAN CROSSOVER ON DIVIDED HIGHWAY**

PLATE NUMBER 634.66

Published Date: 2nd Qtr. 2016

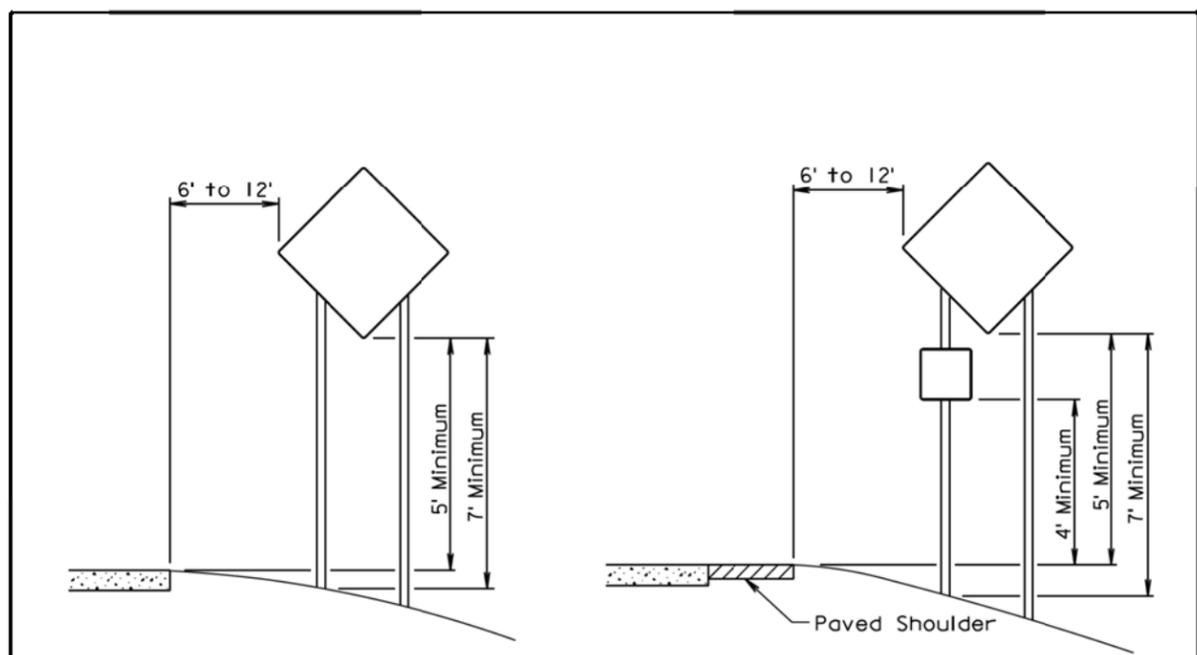
Sheet 2 of 2

April 15, 2015

- Plotted From - Irrc11640

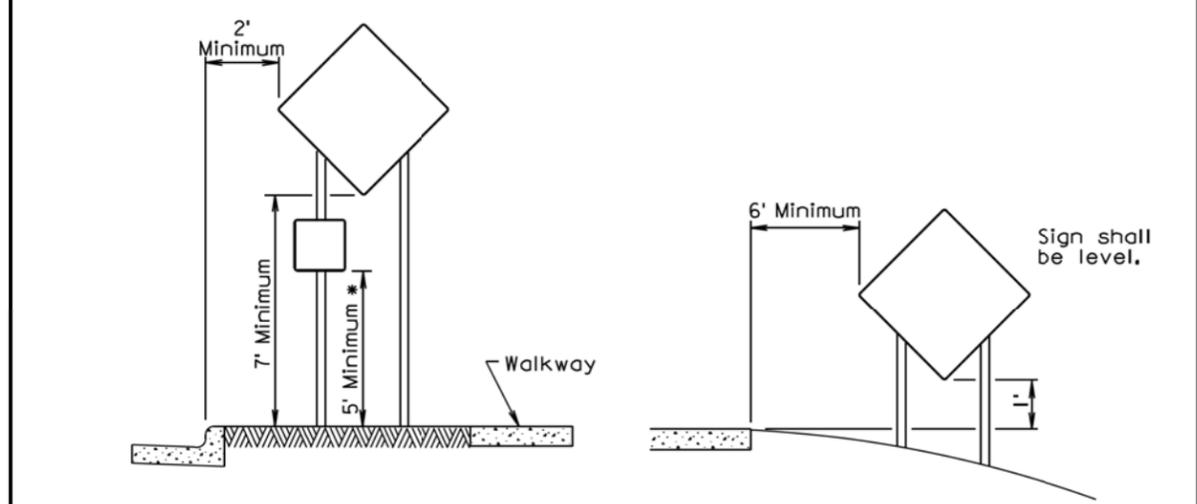
File - ...Standard Plates.dgn

Plot Scale - 1:200



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

RURAL DISTRICT 3 DAY MAXIMUM

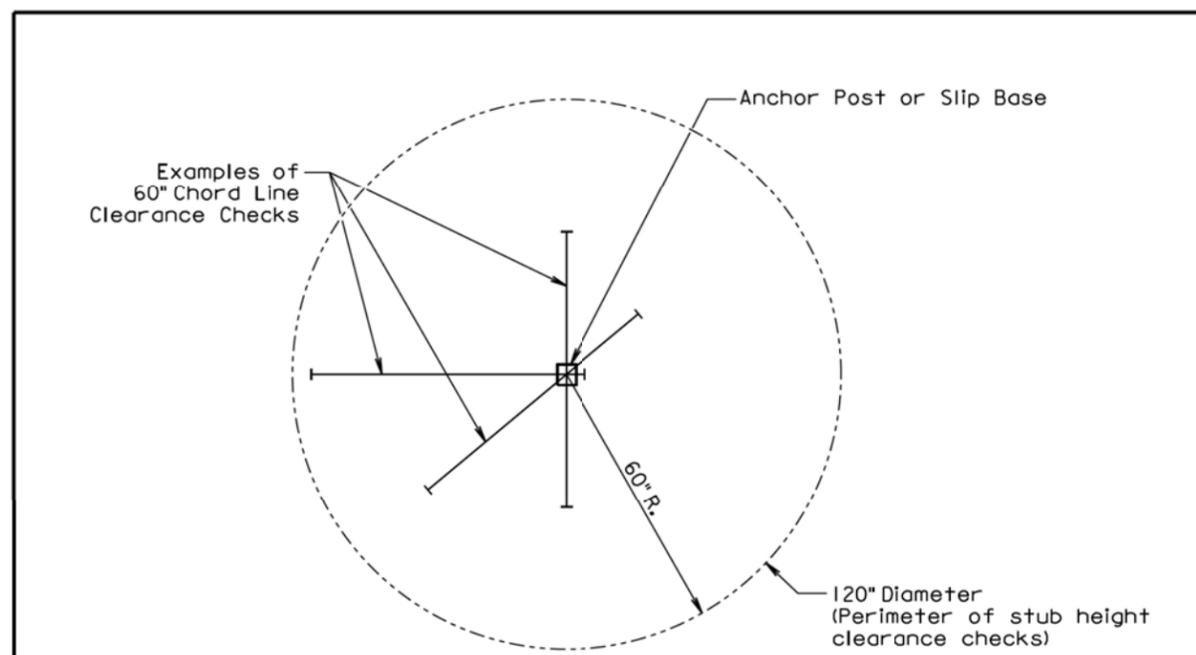
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

(Not applicable to regulatory signs)

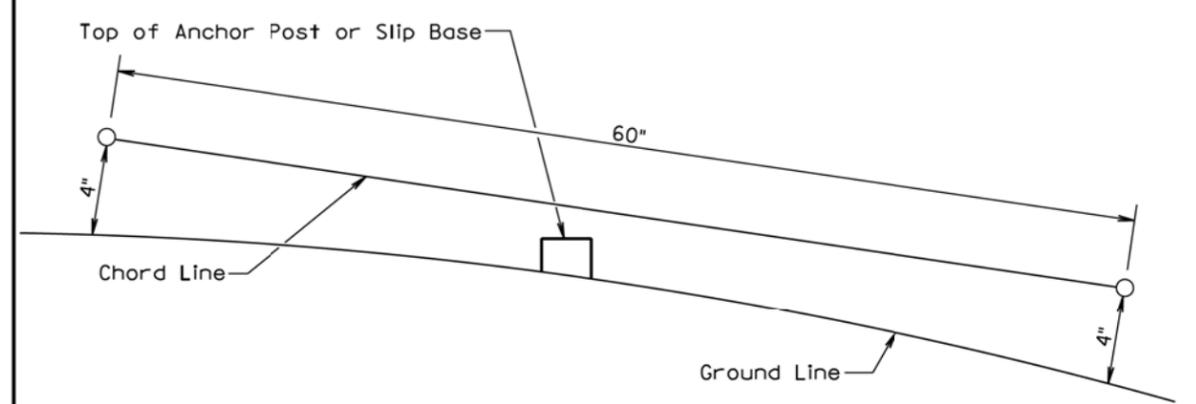
September 22, 2014

S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
		Sheet 1 of 1

Published Date: 2nd Qtr. 2016



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
		Sheet 1 of 1

Published Date: 2nd Qtr. 2016

- Plotted From - Irrc11640

File - ...Standard Plates.dgn