



Wisconsin Department of Transportation

August 23, 2021

Division of Transportation Systems Development

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #09: 1360-11-70, WISC 2021477
Fond du Lac Ave (STH 145)
Grantosa, Flagg/Florist Bridges
STH 145
Milwaukee County

1360-15-70, WISC 2021478
Fond du Lac Ave (STH 145)
Good Hope Rd I/C to 68th St
STH 145
Milwaukee County

1360-16-70
Fond du Lac Ave (STH 145)
Good Hope Rd to W County Line
STH 145
Milwaukee County

1360-17-60
Various Bridge Locations
STH 145/STH 175/STH 181
Var Hwy
Milwaukee County

Letting of September 14, 2021

This is Addendum No. 01, which provides for the following:

Plan Sheets:

Added Plan Sheets – 1360-15-70	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
330A-330F	SDD 14B32-08 Series; Concrete Barrier Single Slope (CBSS)

Deleted Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)
331-335	SDD 14B32-07 series; Concrete Barrier Single Slope (CBSS)

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

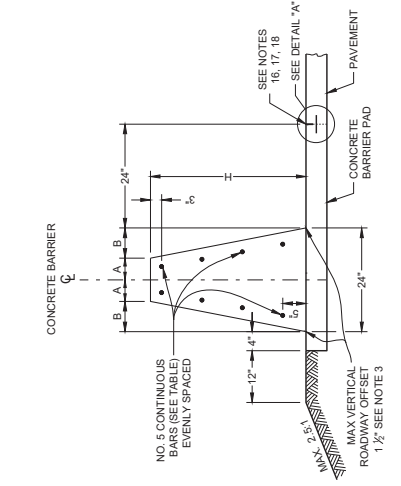
Mike Coleman

Proposal Development Specialist
Proposal Management Section

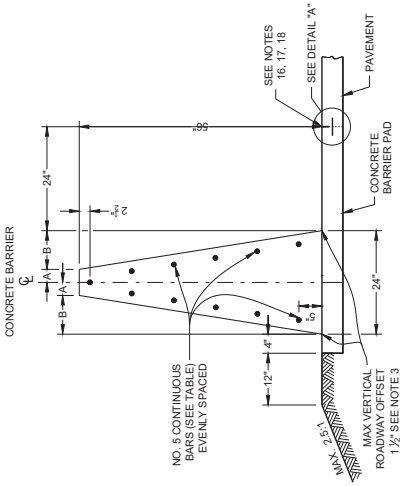
END OF ADDENDUM



SDD 14B32-a Concrete Barrier Single Slope (CBSS)



32 - INCH, 36 - INCH OR 42 - INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, TYPE S42)



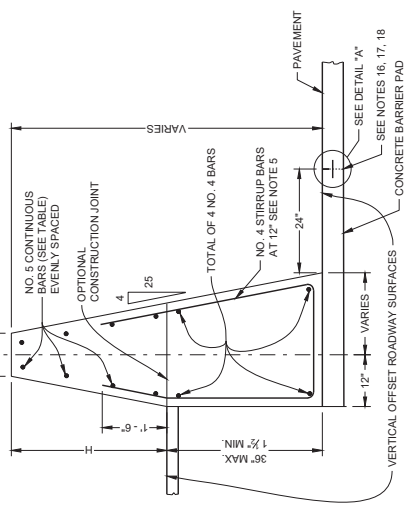
56 - INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)

BARRIER HEIGHT INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6 1/2	5 1/2	8
42	5 1/2	6 1/2	10
56	3	9	11

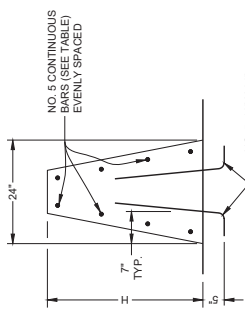
ADDENDUM to this SDD 8/4/2021: DELETE GENERAL NOTES 13 AND 14

GENERAL NOTES

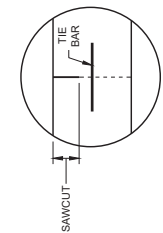
- WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
- EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OF 1/2" MINIMUM.
- WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1", USE TYPE A.
- PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
- EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1" - 0".
- FOR TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 MONOLITHIC FOOTING OR DOWELED FOOTING 2' - 0" X 8' @ 2' - 0".
- STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
- 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
- WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP FORMING CUT-OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
- USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
- 2" CLEAR COVER TYPICAL
- COLD JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
- IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL IS NEEDED. IN TYPE S34, TYPE S39A, TYPE S40A AND TYPE S56A, REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
- IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56, THE DEPTH OF FOOTING "C" AT TYPE S32, TYPE S36A, TYPE S39A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
- FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON SDD 14B33. ANCHORS INCIDENTAL TO CBSS.
- CONCRETE BARRIER PAD UNDER CBSS MAY BE PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED 1/2" DEPTH. CONCRETE BARRIER PAD AND SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE BARRIER PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
- CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10'.
- SEE SDD 18C1 FOR DETAILS TYING CONCRETE BARRIER PAD TO ADJACENT CONCRETE.
- PROVIDE A 1" DEEP CONTRACTION JOINT IN BARRIER PAD AND BARRIER. JOINT IS TO MATCH TO CONCRETE BARRIER. CONTRACTION JOINT REQUIRED FOR BARRIER PAD. IF ADJACENT TO ASPHALT, CONTRACTION JOINT IS REQUIRED EVERY 15'.



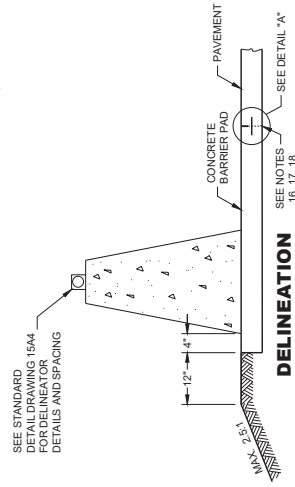
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE (NON OUTER PARAPET APPLICATION)



SINGLE SLOPE CONCRETE BARRIER ON BRIDGE (NON OUTER PARAPET APPLICATION)



DETAIL "A"



DELINEATION

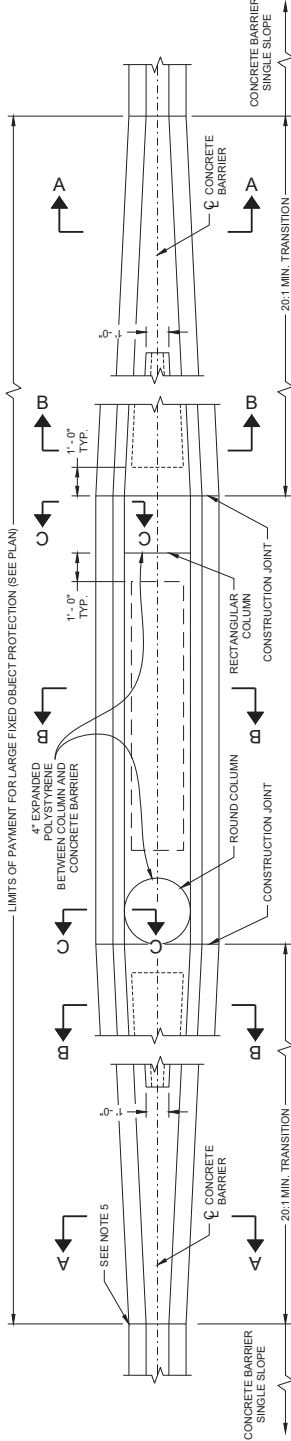
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A) (BETWEEN ADJACENT ROADWAYS)

**Addendum No. 01
ID 1360-15-70
Added Sheets 330A
August 23, 2021**

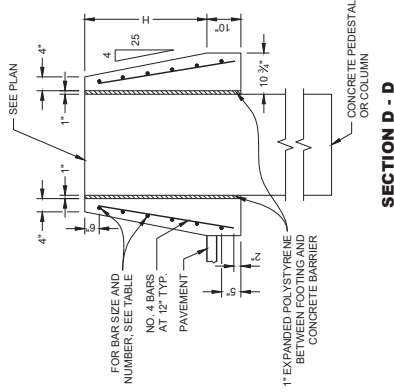
**CONCRETE BARRIER
SINGLE SLOPE (CBSS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

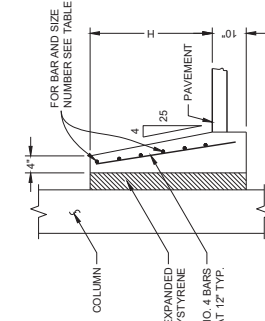
BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	6



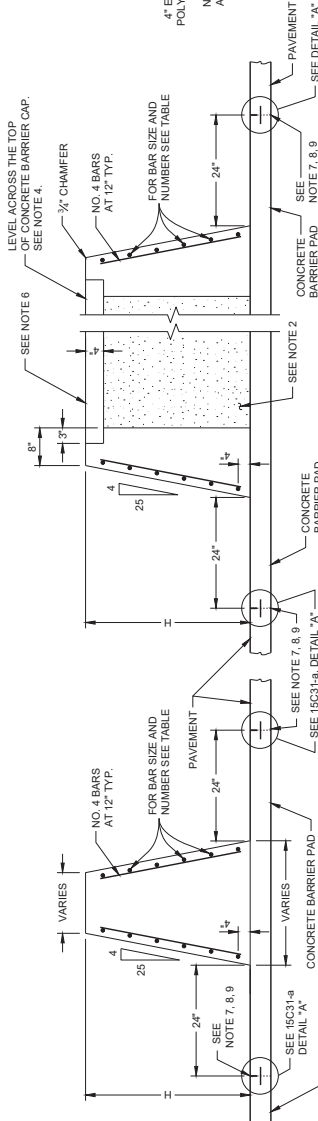
**LARGE FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)**



SECTION D - D



SECTION C - C

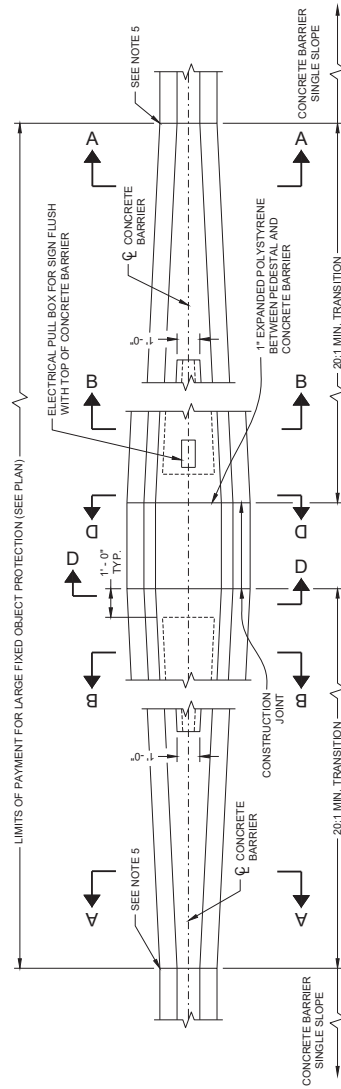


SECTION B - B

SECTION A - A

GENERAL NOTES

1. INSTALL 1 INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B - B. MINIMUM ONE DRAIN CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH FOUNDATION BACKFILL.
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSB PLACED FIRST, USE EXPANSION JOINT.
6. USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.
7. CONCRETE BARRIER PAD UNDER CBSB MAY BE PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED 1/2 DEPTH. CONCRETE BARRIER PAD AND SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE BARRIER PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
8. CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10'.
9. SEE SDD 13C1 FOR DETAILS TYING CONCRETE BARRIER PAD TO ADJACENT CONCRETE.



**SMALL FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)**

Addendum No. 01
ID 1360-15-70
Added Sheets 330B
August 23, 2021

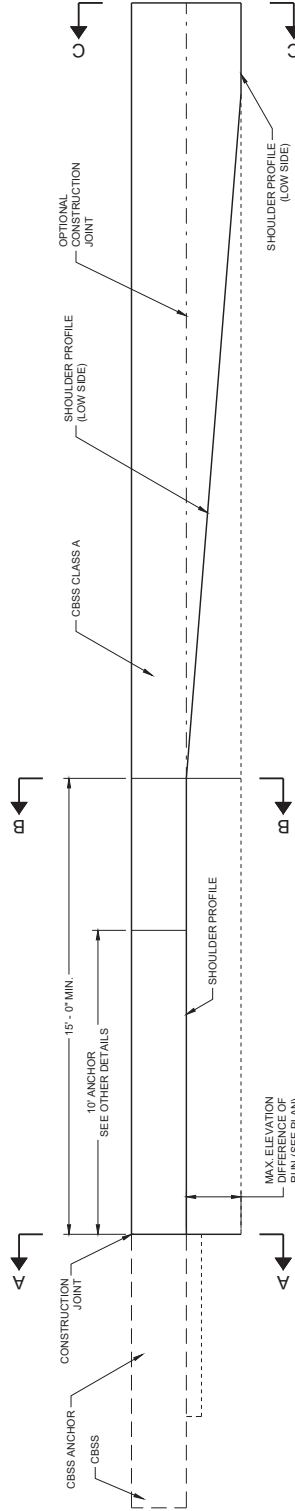
**CONCRETE BARRIER
SINGLE SLOPE (CBSB)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

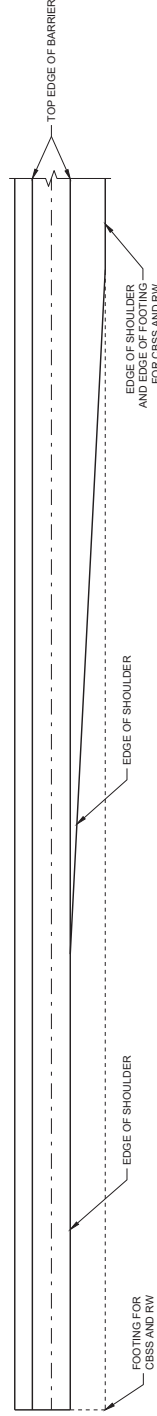
330B

GENERAL NOTES

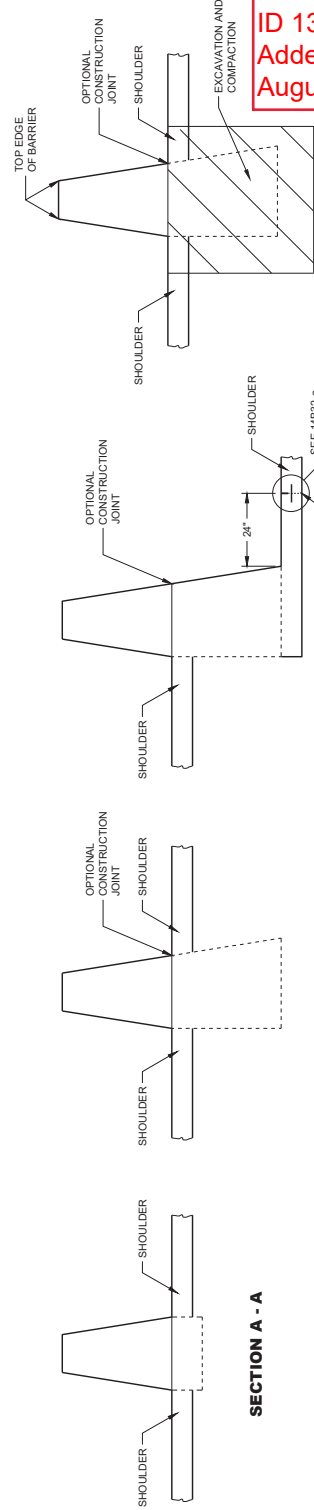
1. SAVING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER RISE ITEM. SEE SDD 14B32 FOR JOINT DEPTH AND WIDTH, CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
2. CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAN 10'.
3. SEE SDD 14B32 FOR DETAILS TYING BARRIER FOOTING TO ADJACENT CONCRETE.



**ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)**



**PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)**

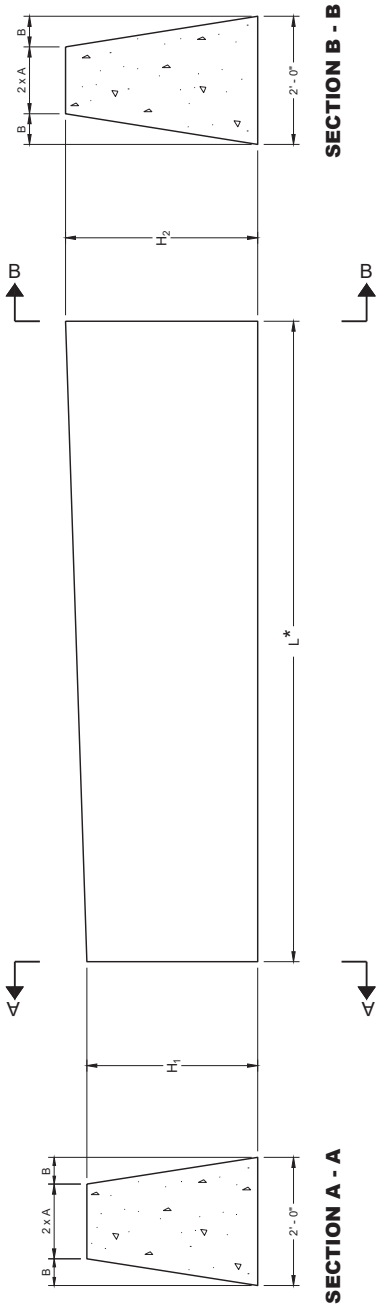


Addendum No. 01
ID 1360-15-70
Added Sheets 330C
August 23, 2021

**CONCRETE BARRIER SINGLE SLOPE
(CBSS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

330C



BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 1/2
42	5 1/4	6 3/4
56	3	9

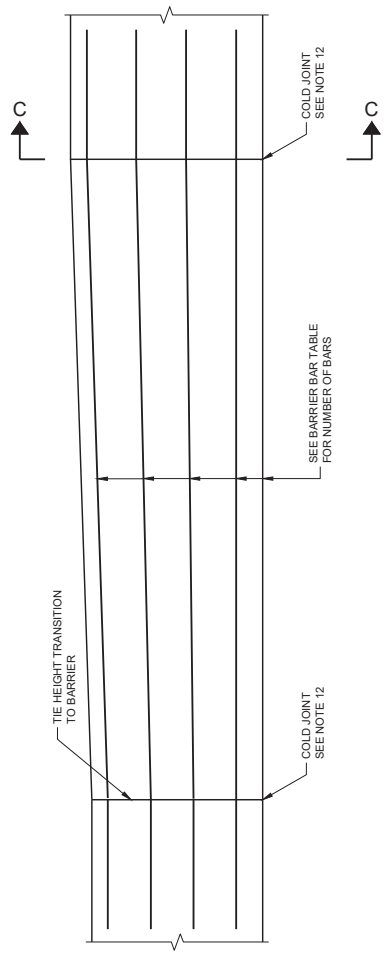
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT. USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

DOUBLE COLD JOINT HEIGHT TRANSITION

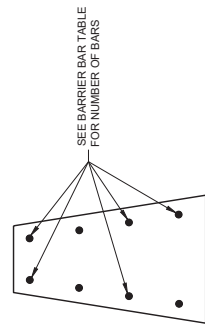
BARRIER BARS

H ₁	H ₂	L*	NUMBER OF NUMBER BARS
32"	36"	10' - 0"	8
36"	42"	10' - 6"	10
42"	56"	24' - 6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.



STEEL REINFORCEMENT DETAIL



SECTION C-C

Addendum No. 01
ID 1360-15-70
Added Sheets 330D
August 23, 2021

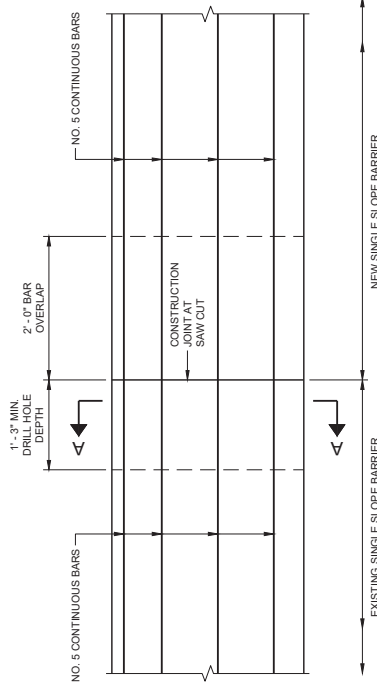
**CONCRETE BARRIER
SINGLE SLOPE (CBSS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

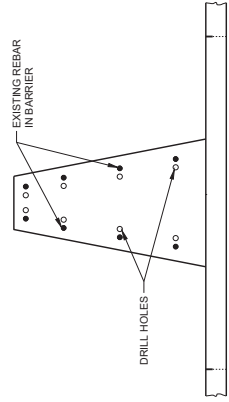
APPROVED _____
DATE _____
ROADWAY DEVELOPMENT
UNIT SUPERVISOR

GENERAL NOTES

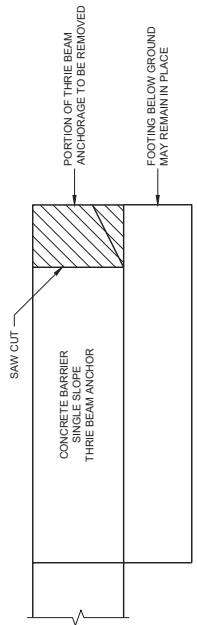
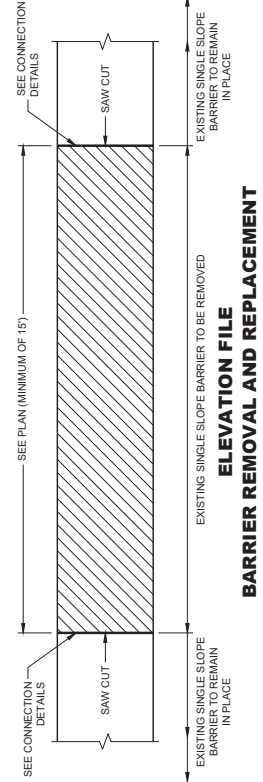
1. THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF REBAR IN BARRIER (SEE OTHER DETAILS).
2. MINIMUM DEPTH OF DRILL HOLES IS 1'-3".
3. DRILL HOLES TO BE A MINIMUM OF 4 INCHES FROM THE EDGE OF CONCRETE
4. INSTALL EPOXY COATED NO. 5 BARS IN DRILL HOLES.
5. END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIERS.
6. REMOVE THRIE BEAM ANCHORAGE AS SHOWN.



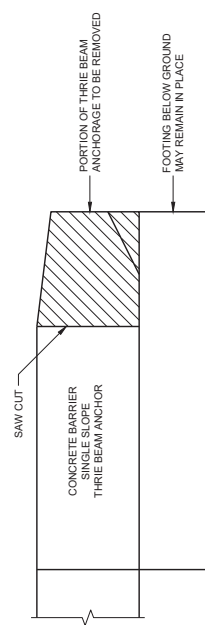
SECTION A-A



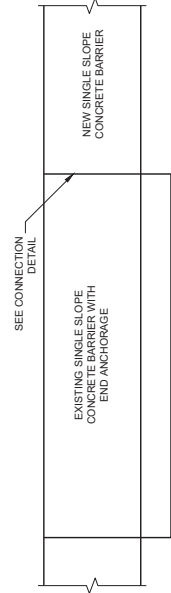
CONNECTION OF EXISTING SINGLE SLOPE CONCRETE BARRIER TO NEW SINGLE SLOPE CONCRETE BARRIER



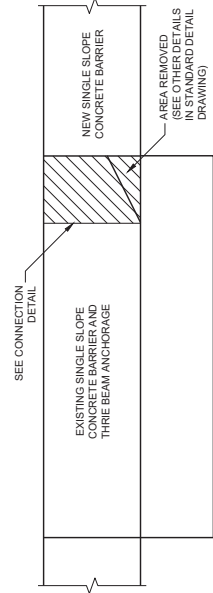
REMOVAL AREA OF 32" CONCRETE THRIE BEAM ANCHORAGE



REMOVAL AREA OF CONCRETE THRIE BEAM ANCHORAGE WITH HEIGHT GREATER THAN 32"



ELEVATION VIEW OF CONCRETE BARRIER EXTENSION NEAR END ANCHORAGE

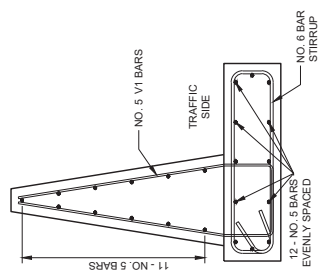


ELEVATION VIEW OF CONCRETE BARRIER EXTENSION NEAR THRIE BEAM TERMINAL

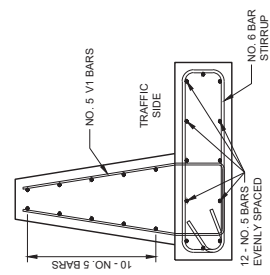
RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

CONCRETE BARRIER SINGLE SLOPE (CBSS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED _____ DATE: May 2021 PROJECT: ROADWAY IMPROVEMENT UNITS SUPERVISOR

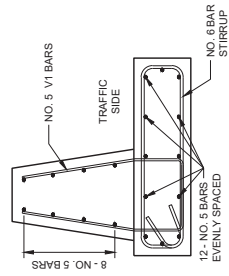
Addendum No. 01
ID 1360-15-70
Added Sheets 330E
August 23, 2021



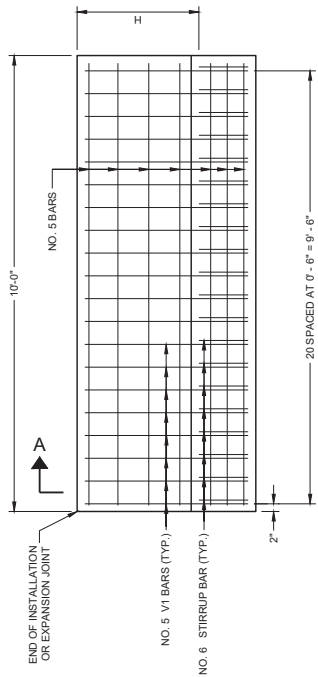
56" CBSS



42" CBSS

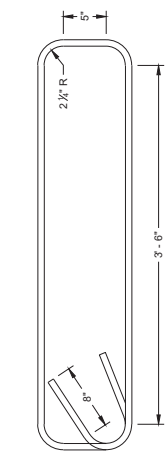


32" AND 36" CBSS



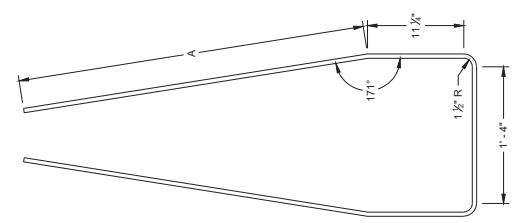
END ANCHOR SINGLE SLOPE CONCRETE BARRIER

BARRIER HEIGHT INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	14	8
36	12 1/2	8
42	10 1/2	10
56	6	11

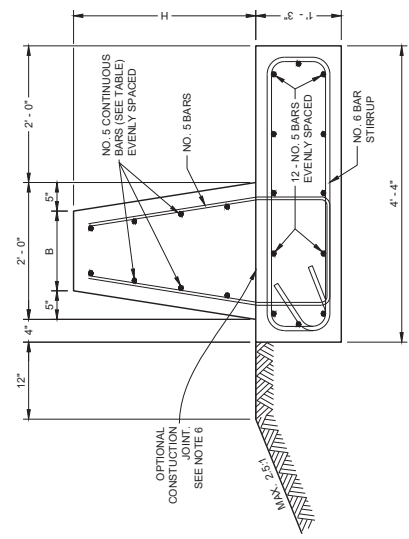


STIRRUP BAR BENDING DETAIL

BARRIER HEIGHT INCHES	A INCHES
32	2'-6"
36	2'-11"
42	3'-4"
56	4'-6 1/2"



V1 BAR BENDING DETAIL



SECTION A - A

Addendum No. 01
ID 1360-15-70
Added Sheets 330F
August 23, 2021

CONCRETE BARRIER
SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: 11/15/2021
BY: Rodney Taylor
ROADWAY DEVELOPMENT
UNIT SUPERVISOR
RW

