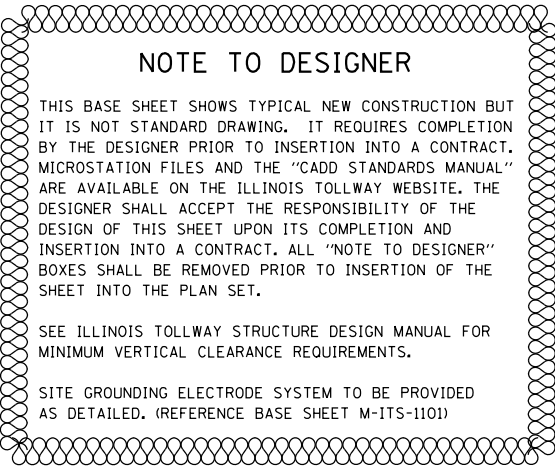



Illinois Tollway Base Sheet Revisions

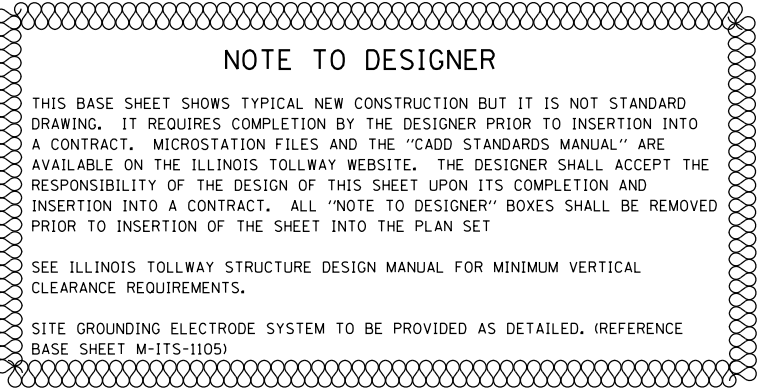
Section M	Base Sheet Drawings	
	Drawing	Modification Summary Effective: 03-01-2020
	Overhead Sign (OHS)-Series 720	
M-OHS-720	OVERHEAD SIGN STRUCTURE SPAN TYPE SUMMARY AND TOTAL BILL OF MATERIAL	
	Removed "Basis of Payment". Removed extra listed payitems "OVERHEAD SIGN STRUCTURE, SPAN TYPE (ALUMINUM)"	
M-OHS-721	OVERHEAD SIGN STRUCTURE CANTILEVER TYPE SUMMARY AND TOTAL BILL OF MATERIAL	
	Removed "Basis of Payment". Removed extra listed payitems "OVERHEAD SIGN STRUCTURE, CANTILEVER TYPE (STEEL)"	
M-OHS-722	OVERHEAD SIGN STRUCTURE ENTRANCE MONOTUBE TYPE (STEEL) MAINLINE SUMMARY AND TOTAL BILL OF MATERIAL	
	Added and modified new handhole openings on each side of all splices along the horizontal beam. Removed "Basis of Payment".	
	Removed extra listed payitems "OVERHEAD SIGN STRUCTURE, MAINLINE ENTRANCE MONOTUBE TYPE (STEEL)"	
M-OHS-723	OVERHEAD SIGN STRUCTURE EXIT MONOTUBE TYPE (STEEL) MAINLINE SUMMARY AND TOTAL BILL OF MATERIAL	
	Added and modified new handhole openings on each side of all splices along the horizontal beam. Removed "Basis of Payment".	
	Removed extra listed payitems "OVERHEAD SIGN STRUCTURE, MAINLINE EXIT MONOTUBE TYPE (STEEL)"	
M-OHS-724	OVERHEAD SIGN STRUCTURE BUTTERFLY TYPE (STEEL) SUMMARY AND TOTAL BILL OF MATERIAL	
	Removed "Basis of Payment". Removed extra listed payitems "OVERHEAD SIGN STRUCTURE, BUTTERFLY TYPE (STEEL)"	
M-OHS-725	OVERHEAD SIGN STRUCTURE ENTRANCE MONOTUBE TYPE (STEEL) AET RAMP SUMMARY AND TOTAL BILL OF MATERIAL	
	Added and modified new handhole openings on each side of all splices along the horizontal beam. Removed "Basis of Payment".	
M-OHS-726	OVERHEAD SIGN STRUCTURE EXIT MONOTUBE TYPE (STEEL) AET RAMP SUMMARY AND TOTAL BILL OF MATERIAL	
	Added and modified new handhole openings on each side of all splices along the horizontal beam. Removed "Basis of Payment".	
M-OHS-727	OVERHEAD SIGN STRUCTURE MONOTUBE TYPE (STEEL) CASH-IPO RAMP SUMMARY AND TOTAL BILL OF MATERIAL	
	Added and modified new handhole openings on each side of all splices along the horizontal beam. Removed "Basis of Payment".	
M-OHS-728	OVERHEAD SIGN STRUCTURE SPAN TYPE (STEEL) SUMMARY AND TOTAL BILL OF MATERIAL	
	Removed "Basis of Payment". Added note to designer regarding payitem.	
	Revised F15 reference in table to F17	
M-OHS-729	OVERHEAD SIGN STRUCTURE ITS GANTRY FRAME (STEEL) SINGLE-SPAN STRUCTURE DETAILS SHEET 1	
	Revised Note to Designer to clarify when to use Shoulder Foundation Type I and II barrier. Removed "Basis of Payment".	
	Added and modified new handhole openings on each side of all splices along the horizontal beam.	
M-OHS-729	OVERHEAD SIGN STRUCTURE ITS GANTRY FRAME (STEEL) SINGLE-SPAN STRUCTURE DETAILS SHEET 2	
	Revised base plate size in plan to match Section B-B. Removed "Basis of Payment"	
	Added heavy hex lock nut to the anchor. Removed "Base Plate Table - Type E"	
M-OHS-729	OVERHEAD SIGN STRUCTURE ITS GANTRY FRAME (STEEL) SINGLE-SPAN STRUCTURE DETAILS SHEET 3	
	Added handhole on Detail A.	
	Added callout for washers and nuts in the column base section.	
	Revised note 3 for splice bolt and anchor bolt installation requirement.	
	Added callout to the anchor hole to refer to note 3 in View F-F	
M-OHS-729	OVERHEAD SIGN STRUCTURE ITS GANTRY FRAME (STEEL) SINGLE-SPAN STRUCTURE DETAILS SHEET 5	
	Added heavy hex locknut in the anchor bolt detail.	
M-OHS-730	OVERHEAD SIGN STRUCTURE ITS GANTRY FRAME (STEEL) TWO-SPAN STRUCTURE DETAILS SHEET 1	
	Revised Note to Designer when to use Shoulder Foundation Type I and II barrier. Removed "Basis of Payment".	
	Added and modified new handhole openings on each side of all splices along the horizontal beam. Revised Steel Tube Frame ASTM.	
M-OHS-730	OVERHEAD SIGN STRUCTURE ITS GANTRY FRAME (STEEL) TWO-SPAN STRUCTURE DETAILS SHEET 2	
	Revised base plate size in plan to match Section B-B	
	Added heavy hex lock nut to the anchor.	
M-OHS-730	OVERHEAD SIGN STRUCTURE ITS GANTRY FRAME (STEEL) TWO-SPAN STRUCTURE DETAILS SHEET 3	
	Added handhole on Detail A.	
	Added callout for washers and nuts in the column base section.	
	Revised Note 3 for splice and anchor bolt installation requirement.	
	Added callout to the anchor hole to refer to note 3 in View F-F	
M-OHS-730	OVERHEAD SIGN STRUCTURE ITS GANTRY FRAME (STEEL) TWO-SPAN STRUCTURE DETAILS SHEET 6	
	Added heavy hex locknut in the anchor bolt detail.	



TOTAL BILL OF MATERIAL			
PAY ITEM	DESCRIPTION	UNIT	TOTAL
	OVERHEAD SIGN STRUCTURE, MAINLINE EXIT MONOTUBE TYPE (STEEL)	FOOT	
	FOUNDATION FOR OVERHEAD SIGN STRUCTURE, MAINLINE MONOTUBE TYPE	CU YD	
	CONCRETE STRUCTURES	CU YD	
	REINFORCEMENT BARS, EPOXY COATED	POUND	
	PROTECTIVE COAT	SQ YD	

NOTE:
WORK THIS SHEET WITH STANDARD F13

	
<p>OVERHEAD SIGN STRUCTURE EXIT MONOTUBE TYPE (STEEL) MAINLINE SUMMARY AND TOTAL BILL OF MATERIAL</p>	
<p>DATE</p>	
<p>3-01-2020</p>	



TOTAL BILL OF MATERIAL			
PAY ITEM	DESCRIPTION	UNIT	TOTAL
	OVERHEAD SIGN STRUCTURE, BUTTERFLY TYPE (STEEL)	FOOT	
	FOUNDATION FOR OVERHEAD SIGN STRUCTURE, BUTTERFLY TYPE	CU YD	
	REINFORCEMENT BARS, EPOXY COATED	POUND	
	PROTECTIVE COAT	SQ YD	

NOTE:
WORK THIS SHEET WITH STANDARD F14

SUMMARY																										
STRUCTURE NUMBER	STATION	ELEV. A ₁	ELEV. A ₂	ELEV. B	ELEV. C	ELEV. D	ELEV. X	ELEV. Y	PROPOSED MINIMUM VERTICAL CLEARANCE	D ₁	D ₂	L	SHEET 2 OF STANDARD F14				SHEET 8 OF STANDARD F14			DMS CABINET		FOUNDATION FOR OVERHEAD SIGN STRUCTURE		REINFORCEMENT BARS, EPOXY COATED (POUND)	PROTECTIVE COAT (SQ YD)	
													L ₁	L ₂	P ₁	P ₂	I	J	K	TOTAL AREA (SQ FT)	TOTAL WEIGHT (POUND)	CLASS SI CONCRETE (CU YD)	CLASS DS CONCRETE (CU YD)			
																					TOTAL					



SITE GROUNDING ELECTRODE SYSTEM TO BE PROVIDED AS DETAILED. (REFERENCE
BASE SHEET M-ITS-1101)

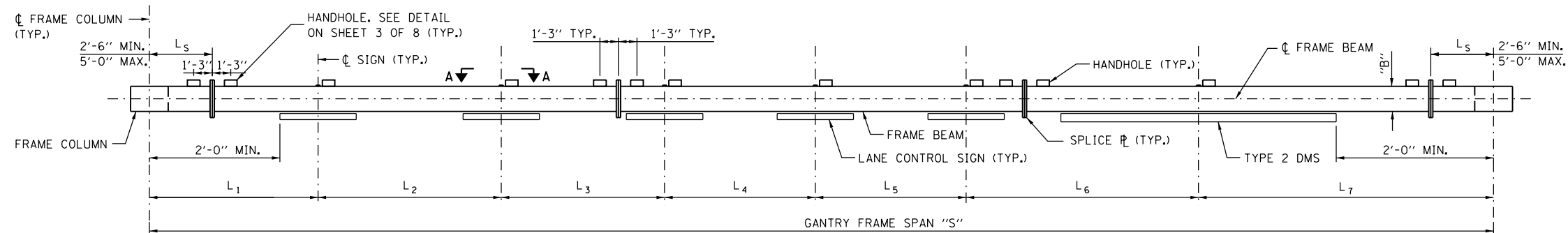
SUMMARY

TOTAL

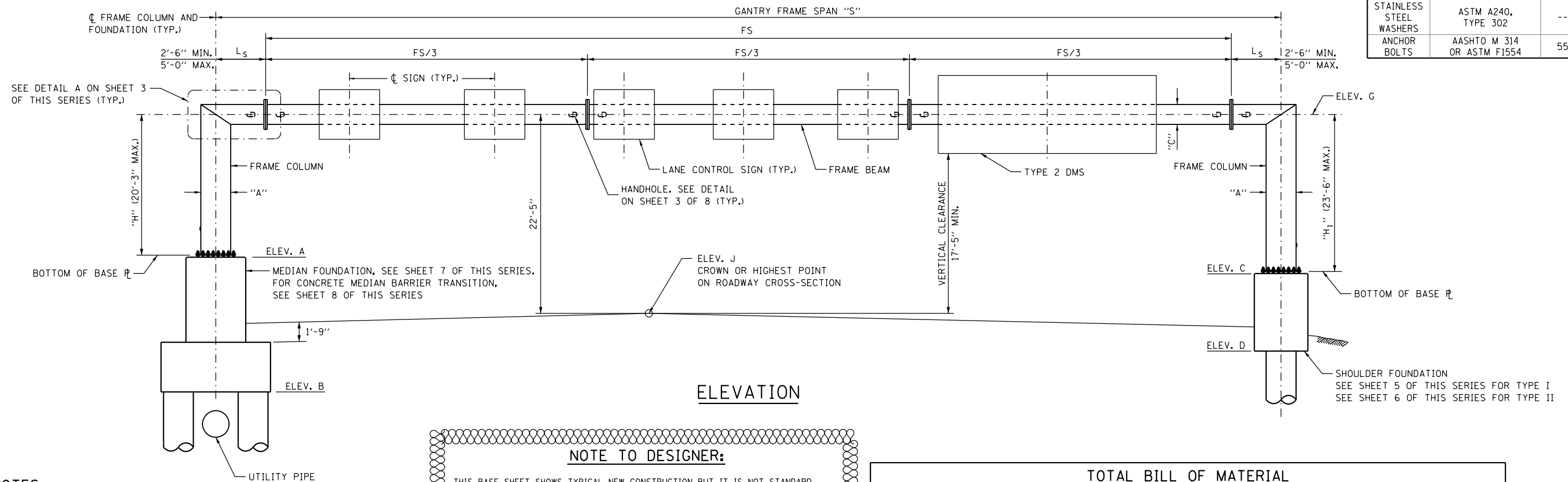
DATE
3-01-2020

MATERIAL SPECIFICATIONS FOR STRUCTURAL STEEL AND FASTENERS

ELEMENT OF STRUCTURE	SPECIFICATION	F _y (KSI)	F _u (KSI)
STRUCTURAL STEEL TUBE FRAME (HSS)	ASTM A618 GRADE III	50	62
STRUCTURAL STEEL TUBE MOUNTING BEAMS (HSS)	ASTM A500 GRADE B	46	58
STEEL SHAPES	ASTM A709 GRADE 50	50	65
STEEL PLATES	ASTM A572 GR. 50 OR ASTM A709 GR. 50	50	65
STEEL BOLTS	ASTM 325 TYPE 1	--	105
SIGN BRACKET RODS	ASTM A307	--	60
LOCK NUTS	ASTM A194 GR. 8F OR ASTM A194 GR. 2H	--	--
NUTS	ASTM A563 GRADE DH	--	--
STEEL WASHERS	ASTM F436	--	--
STAINLESS STEEL WASHERS	ASTM A240, TYPE 302	--	--
ANCHOR BOLTS	AASHTO M 314 OR ASTM F1554	55	75



PLAN



NOTES:

1. SEE SHEET 2 OF THIS SERIES FOR VIEW A-A AND DESIGN SUMMARY TABLE.
2. CAMBER IS PROVIDED AT MIDSPAN OF STRUCTURE.
3. PRIOR TO FABRICATING GANTRY FRAME, THE CONTRACTOR SHALL VERIFY LOCATIONS OF LANE CONTROL SIGNS AND TYPE 2 DMS WITH ENGINEER. (DIMENSIONS L₁ THROUGH L₇)
4. FRAME SPAN SHALL BE IN THE CONFIGURATION SHOWN WITH 2 COLUMNS AND 3 FIELD SECTIONS.
5. PRIOR TO FABRICATING GANTRY FRAME, THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF EACH FOUNDATION, ANCHOR BOLTS AND DETAILS AFFECTING GANTRY FRAME FABRICATION AND CONSTRUCTION. NOTIFY THE ENGINEER OF ANY VARIATIONS FROM CONTRACT PLANS AND MAKE NECESSARY APPROVED ADJUSTMENTS. SUCH VARIATIONS DO NOT CONSTITUTE ADDITIONAL COMPENSATION FOR CHANGE IN SCOPE OF WORK. CONTRACTOR WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
6. WHEN REQUIRED FOR ADJUSTMENT, A MAX. OF TWO 1/4" SHIM PLATES SHALL BE PROVIDED AT EACH FIELD SPLICE LOCATION IN BETWEEN SPLICE PLATES.

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS SHEET UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET

PROVIDE APPROPRIATE PROTECTION FOR SHOULDER FOUNDATION.

USE SHOULDER FOUNDATION TYPE I WHEN FOUNDATION IS PLACED IN LINE WITH SINGLE FACE CONCRETE BARRIER. THIS FOUNDATION REQUIRES MINIMUM 35 FT OF BARRIER ON EACH SIDE OF THE FOUNDATION TO RESIST LONGITUDINAL FORCE FROM THE GANTRY COLUMN.

USE SHOULDER FOUNDATION TYPE II WHEN FOUNDATION IS PLACED OUTSIDE CLEAR
ZONE OR BEHIND GUARDRAIL.

PROVIDE SITE GROUNDING ELECTRODE SYSTEM DETAIL ACCORDING TO THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS SECTION 734.

REFERENCE BASE SHEET M-ITS-1101.

DIFFERENCE BETWEEN ELEV. A AND ELEV. C SHOULD NOT EXCEED 5'-0".

TOTAL BILL OF MATERIAL

PAY ITEM	ITEM	UNIT	TOTAL
	FOUNDATION FOR ITS GANTRY FRAME	CU YD	
	ITS GANTRY FRAME (STEEL), SPANS LESS THAN OR EQUAL TO 110'	FOOT	
	ITS GANTRY FRAME (STEEL), SPANS GREATER THAN 110' AND LESS THAN OR EQUAL TO 130'	FOOT	
	ITS GANTRY FRAME (STEEL), SPANS GREATER THAN 130' AND LESS THAN OR EQUAL TO 150'	FOOT	
	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12"x12"x6"	EACH	
	REINFORCEMENT BARS, EPOXY COATED	POUND	
	PROTECTIVE COAT	SQ YD	

STRUCTURAL STEEL TUBE (HSS) FRAME TABLE

SPAN "S"	FRAME COLUMN	FRAME BEAM	CAMBER	"A"	"B"	"C"
<=110'	HSS 28x24x0.625	HSS 28x24x0.500	3/2"	2'-0"	2'-4"	2'-0"
110'<"S"<=130'	HSS 28x28x0.625	HSS 28x24x0.625	5"	2'-4"	2'-4"	2'-0"
130'<"S"<=150'	HSS 30x30x0.625	HSS 30x30x0.625	5/2"	2'-6"	2'-6"	2'-6"

BASE DRAWING M-OHS-729

SHEET 1 OF 8



OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
SINGLE SPAN
STRUCTURE DETAILS

DATE
3-01-2020

ALL EXPOSED CONCRETE EDGES SHALL HAVE A $\frac{3}{4}$ " x 45° CHAMFER, EXCEPT WHERE SHOWN OTHERWISE. CHAMFER ON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW FINISHED GROUND LEVEL.

- REINFORCEMENT BARS, INCLUDING REINFORCEMENT BARS, EPOXY-COATED SHALL CONFORM TO THE REQUIREMENTS OF IDOT STANDARD SPECIFICATIONS SECTION 508 AND ARTICLE 1006.10.
- REINFORCEMENT BARS DESIGNATED "(E)" SHALL BE EPOXY-COATED.
- REINFORCEMENT BENDING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
- REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT-TO-OUT.

1. ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS ISSUED MARCH, 2015 TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. ILLINOIS DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS ADOPTED JANUARY 1, 2015.
3. ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2012.



1. A BORING IS REQUIRED AT EACH FOUNDATION LOCATION.
2. NO STANDARD DRILLED SHAFT FOUNDATIONS WERE DESIGNED OR DETAILED FOR COHESIONLESS SOIL CONDITIONS. REGARDLESS, THE DESIGNER MUST CONDUCT A SUBSURFACE INVESTIGATION AT EACH OVERHEAD SIGN STRUCTURE FOUNDATION TO DETERMINE THE ACTUAL SOIL PROPERTIES. SHOULD THE INVESTIGATION REVEAL THE PRESENCE OF COHESIONLESS SOIL OR COHESIVE SOILS WITH PROPERTIES LESS THAN THE AVERAGES INDICATED IN THIS STANDARD, THE DESIGNER SHALL DESIGN AND DETAIL THE DRILLED SHAFT FOUNDATIONS TO MEET THE ACTUAL SOIL CONDITIONS.
3. DESIGN AND CONSTRUCTION SPECIFICATIONS: THE DESIGNER IS RESPONSIBLE FOR UPDATING THE EDITION OF SPECIFICATIONS AND THE DATE OF PUBLICATION TO THE EDITION OF SPECIFICATIONS AND THE DATE OF PUBLICATION USED IN DESIGN.
4. DESIGNER TO ENSURE ALL LATEST CODE REQUIREMENTS ARE MET.
5. DESIGNER TO DETERMINE THAT APPLIED LOADS DO NOT EXCEED DESIGN VALUES.



SEE SHEET 1 OF THIS SERIES FOR DIMENSIONS "A" AND "B"

WIND LOAD CRITERIA			
SIGN PANEL	40 P.S.F.	BASIC WIND SPEED	90 M.P.H.
COLUMN/BEAM	40 P.S.F.	G	1.14
TYPE 2 DMS	42 P.S.F.	I _r (WIND IMPORTANCE FACTOR)	1.0
		K _z	1.0

ITS GANTRY FRAMES ARE DESIGNED FOR MAX. LOADING OF 2-TYPE 2 DMS AND 4-LANE CONTROL SIGNS.
ITS GANTRY FOUNDATIONS ARE DESIGNED FOR MAX. LOADING OF 3-TYPE 2 DMS AND 1-LANE CONTROL SIGN IN EACH ADDITIONAL 12' LANE.

f'_c = COMPRESSIVE STRENGTH OF CONCRETE (CLASS BS) = 4,000 P.S.I.
 f'_c = COMPRESSIVE STRENGTH OF CONCRETE (CLASS DS) = 4,000 P.S.I.
 f_y = YIELD STRENGTH OF REINFORCEMENT BARS (GRADE 60) = 60,000 P.S.I.

1. ILLINOIS TOLLWAY STRUCTURE DESIGN MANUAL ISSUED MARCH, 2019.
2. AASHTO STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES AND TRAFFIC SIGNALS, SIXTH EDITION.
3. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SIXTH EDITION WITH CURRENT INTERIMS.
4. ILLINOIS DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL, JANUARY 2012.
5. ILLINOIS TOLLWAY GEOTECHNICAL ENGINEER MANUAL DATED MARCH 2019.



THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS SHEET UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET

TOTAL

SPAN "S"	"D"	"E"	N ₁	X ₁	N ₂	X ₂	ANCHOR BOLT DIAMETER	NO. ANCHOR BOLT
<=110'	3'-2"	3'-5"	4	8"	5	7"	1 $\frac{3}{4}$ "	18
110'<"S"<=130'	3'-5"	3'-6"	5	7"	6	6"	1 $\frac{3}{4}$ "	22
130'<"S"<=150'	3'-7 $\frac{1}{2}$ "	3'-6"	5	7 $\frac{1}{2}$ "	6	6"	1 $\frac{3}{4}$ "	22



DATE
3-01-2020

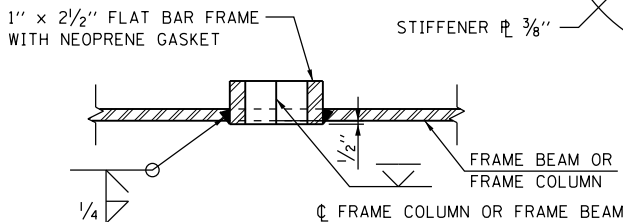


NOTE:

1. SEE SHEET 1 OF THIS SERIES FOR DIMENSIONS "A", "B" AND "C".
2. SEE SHEET 2 OF THIS SERIES FOR DIMENSIONS "D" AND "E".
3. INSTALLATION AND INSPECTION OF SPLICE BOLTS AND ANCHOR BOLTS SHALL COMPLY WITH ILLINOIS TOLLWAY SPECIAL PROVISION "INTELLIGENT TRANSPORTATION SYSTEMS GANTRY FRAME (STEEL)".
4. SHOULDER FOUNDATION SHOWN. VERIFY HANDHOLE AND INSPECTION HOLES PLACEMENT ON MEDIAN FRAME COLUMN WITH THE ENGINEER.



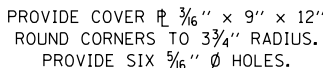
BASE Φ SHOWN (SPLICE Φ SIM.)



SECTION E-E

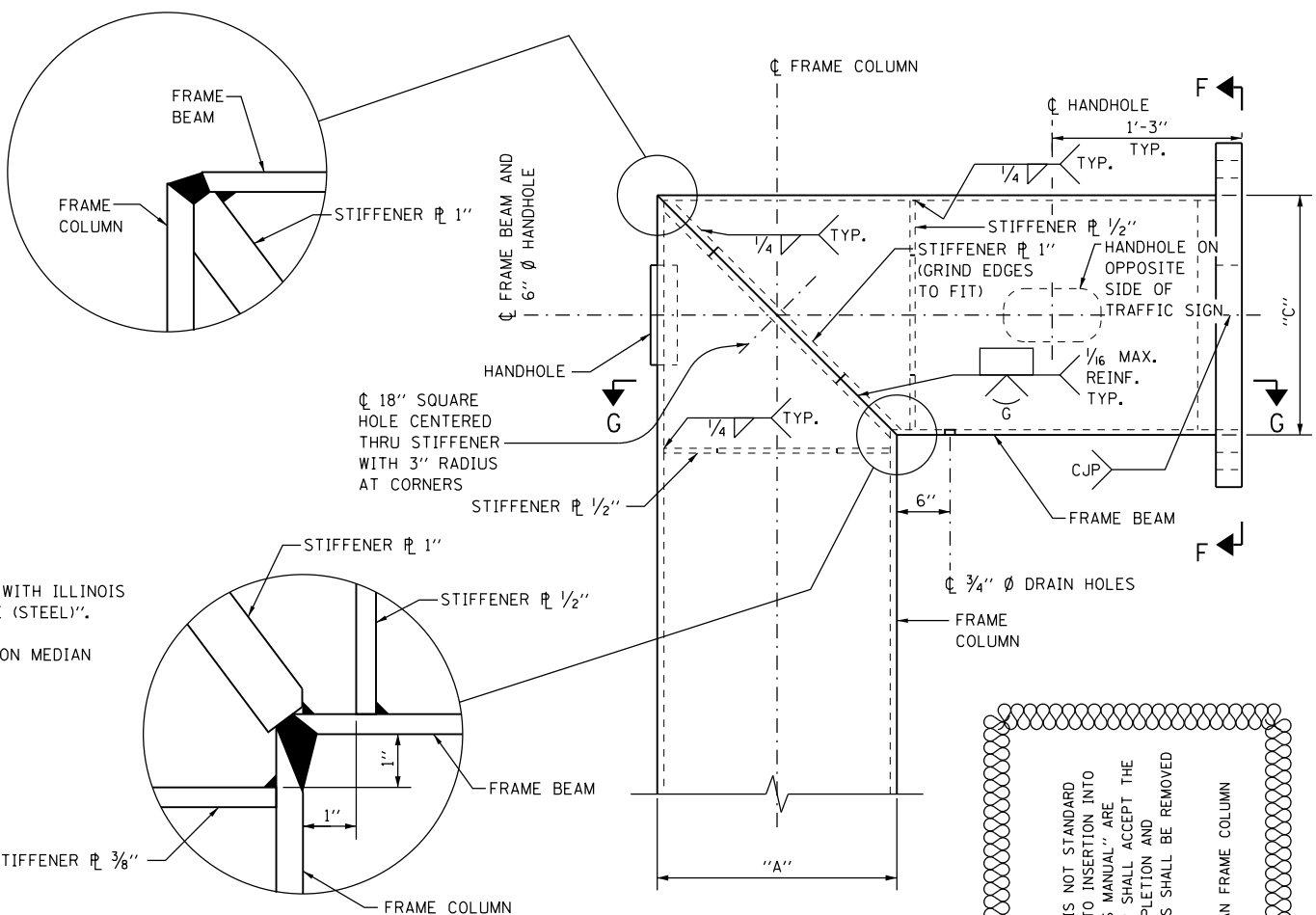


DRILL & TAP 6 HOLES
FOR 1/4"-20 ROUND
HEAD BRASS SCREWS.
CHASE THREAD AFTER
GALVANIZING.

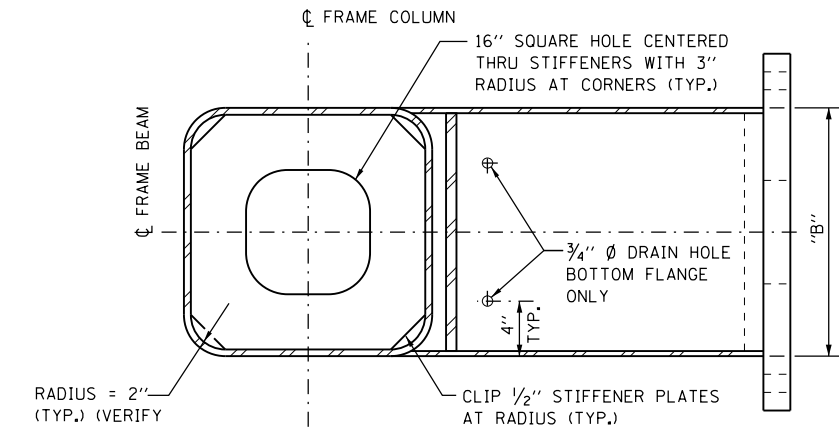


VIEW D-D

HANDHOLE DETAIL



DETAIL A



SECTION G-G

1" STIFFENER Φ NOT SHOWN

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS SHEET UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET

VERIFY" HANDHOLE AND INSPECTION HOLES PLACEMENT ON MEDIAN FRAME COLUMN WITH ILLINOIS TOLLWAY ITS.

VERIFY HANDHOLE AND INSPECTION HOLES PLACEMENT ON MEDIAN FRAME COLUMN WITH ILLINOIS TOLLWAY ITS



D₁ + 1/16" DIA. HOLE FOR
D₁ H.S. SPLICE BOLT
(TYP.). SEE NOTE 3 FOR
SPLICE BOLT
INSTALLATION.

SPLICE PLATE TABLE

SPAN "S"	"F"	"G"	"H"	"J"	N ₃	X ₃	N ₄	X ₄	SPLICE BOLT DIAMETER (D ₁)	NO. SPLICE BOLT
<=110'	3'-1"	2'-8 1/2"	1'-6"	2 1/4"	6	5 1/2"	6	4 3/4"	1"	24
110'<"S"<=130'	3'-0 1/2"	2'-10"	1'-6"	2 1/4"	5	6 1/2"	5	6"	1 1/4"	20
130'<"S"<=150'	3'-4"	3'-4"	1'-9"	2 3/8"	6	6"	6	6"	1 1/4"	24

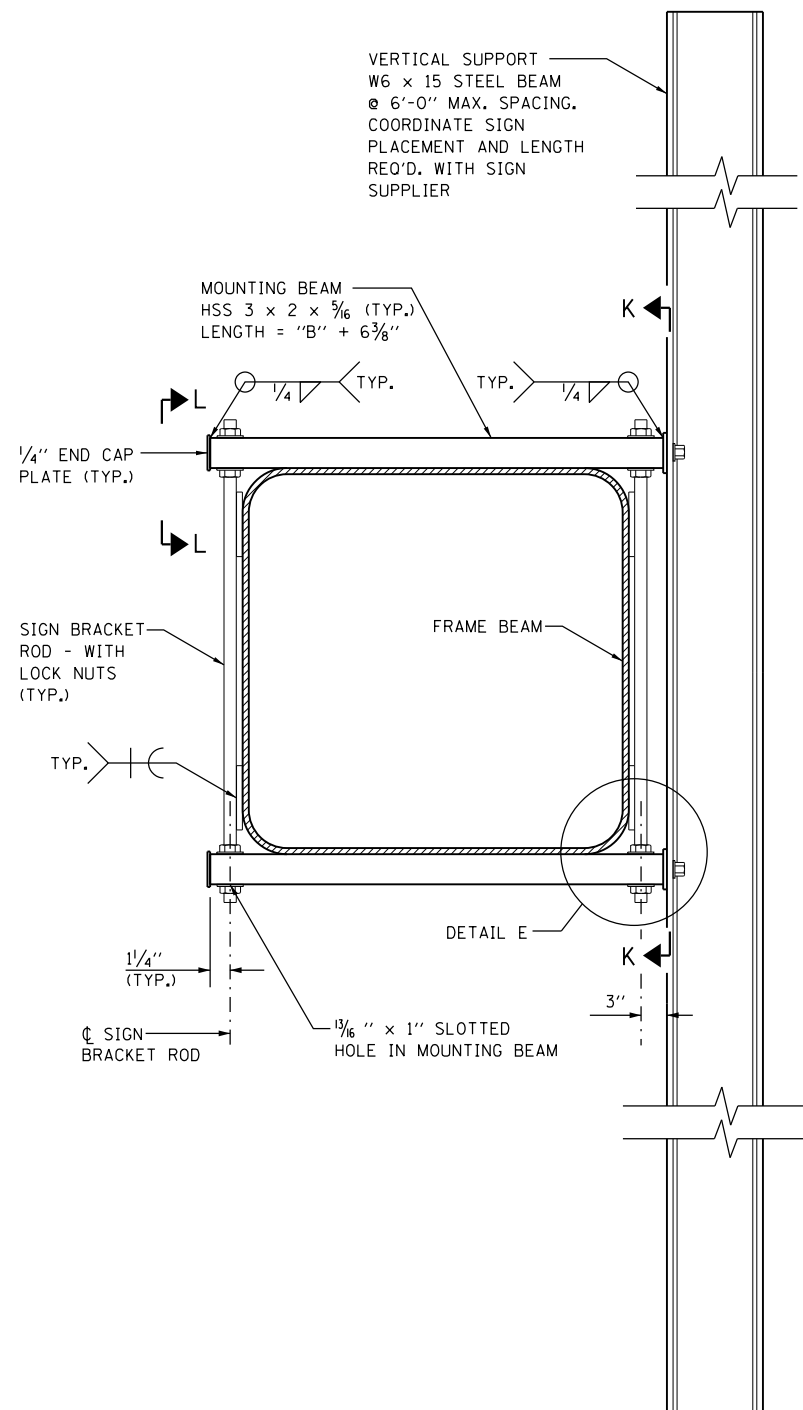
BASE DRAWING M-OHS-729

SHEET 3 OF 8



OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
SINGLE SPAN
STRUCTURE DETAILS

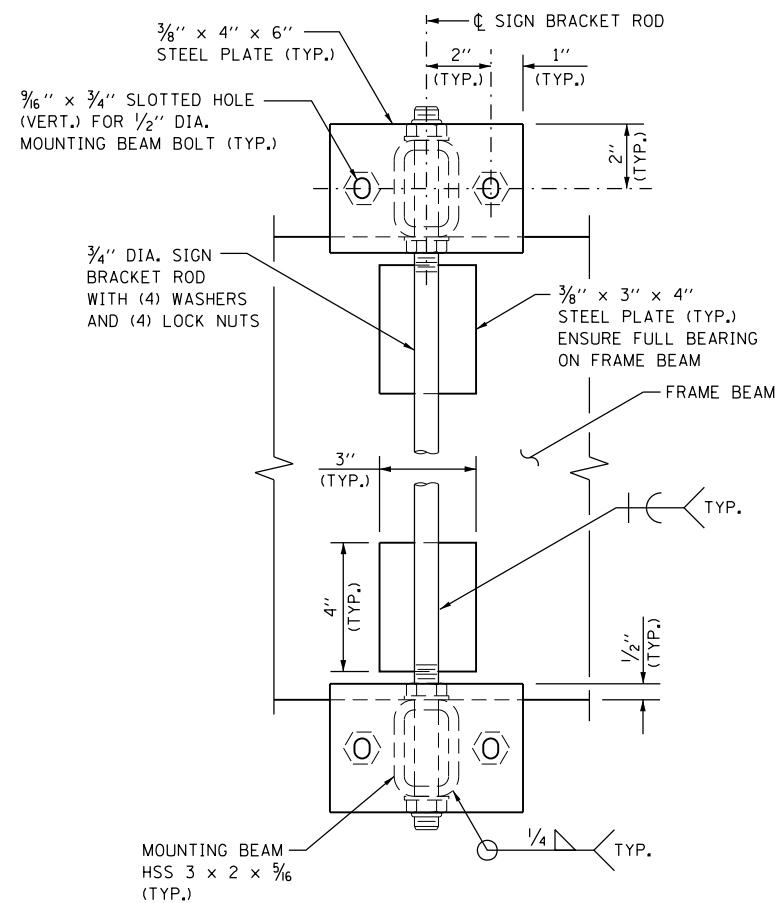
DATE
-01-2020



CONNECTION SIDE VIEW

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS SHEET UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET



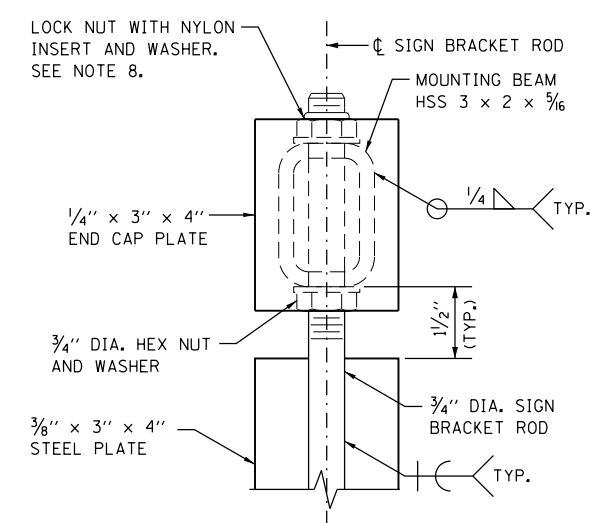
SECTION K-K

VERTICAL SUPPORT TABLE

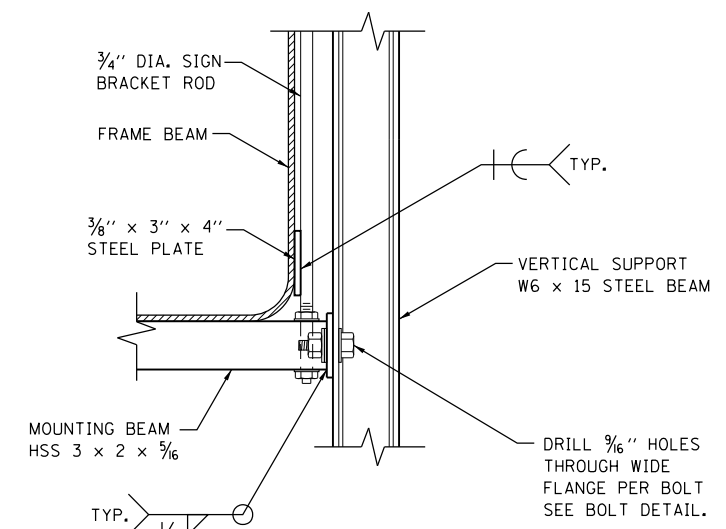
W6x15		
SIGN WIDTH		NUMBER OF VERTICAL SUPPORTS REQUIRED
GREATER THAN	LESS THAN OR EQUAL TO	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5

NOTES:

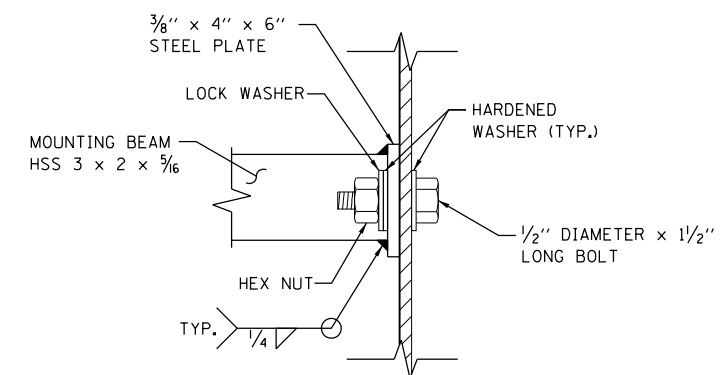
1. CONNECTION DETAIL IS APPLICABLE TO DMS AND LANE CONTROL SIGN.
2. VERIFY VERTICAL SUPPORT MEMBER LENGTH PRIOR TO FABRICATION.
3. DMS MANUFACTURER AND LANE CONTROL SIGN MANUFACTURER SHALL DESIGN, PROVIDE AND INSTALL HORIZONTAL MOUNTING MEMBERS. VERTICAL SPACING OF HORIZONTAL MEMBERS SHALL BE DESIGNED BY MANUFACTURER. VERIFY VERTICAL SPACING WITH HOLES ON W6x15 VERTICAL SUPPORT.
4. PROVIDE HIGH STRENGTH BOLTS WITH WASHERS AND LOCK NUTS TO FASTEN DMS AND LANE CONTROL SIGN TO VERTICAL SUPPORT MEMBERS.
5. GALVANIZE ALL NON-STAINLESS STEEL PARTS.
6. SIGN BRACKET RODS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307.
7. LOCK NUTS SHALL BE STAINLESS STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A194 GRADE 8F OR ASTM A194 GRADE 2H.



VIEW L-L



DETAIL E



BOLT DETAIL

SIGN BRACKET ROD NOT SHOWN FOR CLARITY

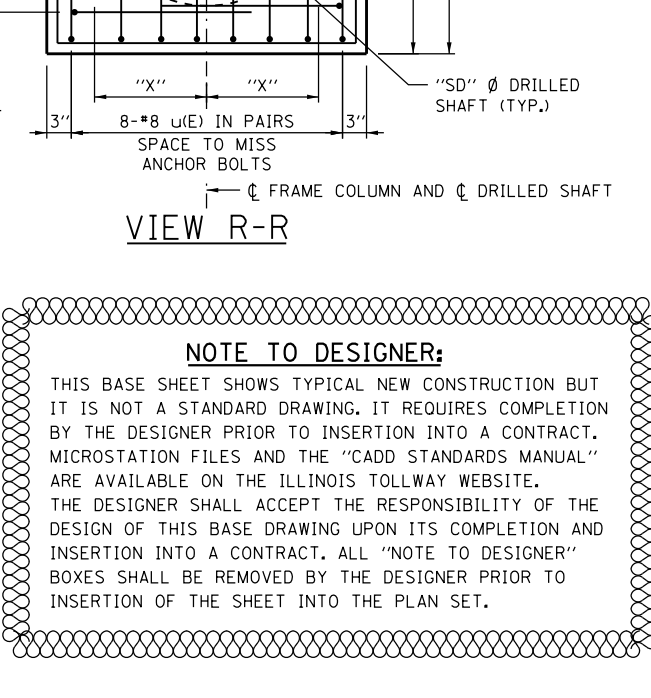
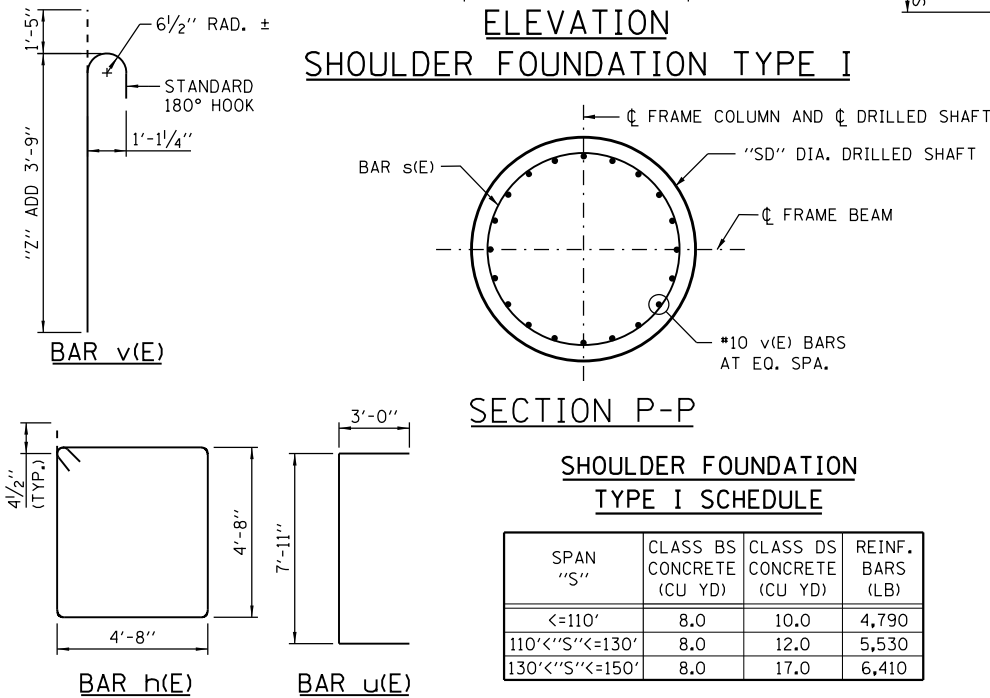
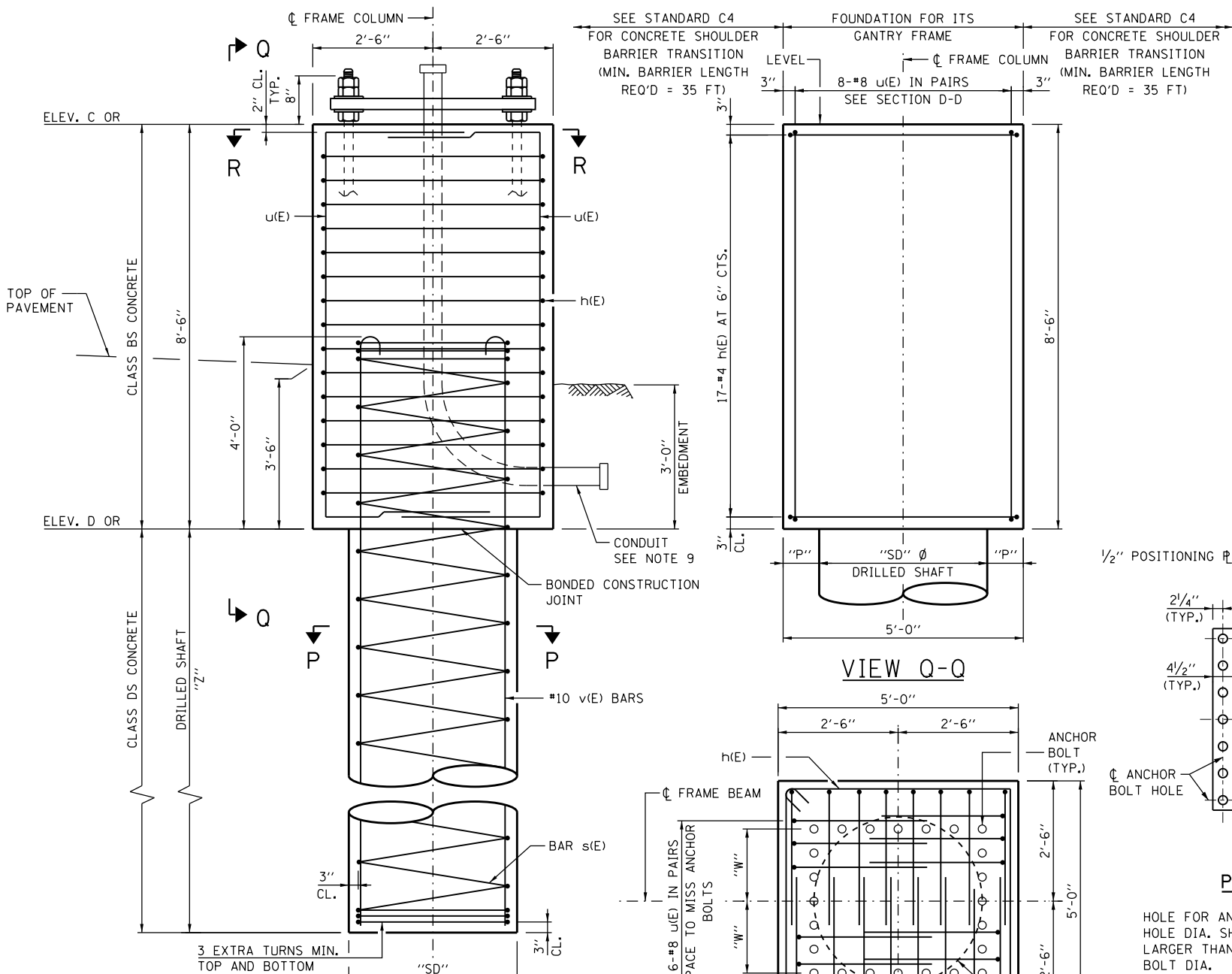
BASE DRAWING M-OHS-729

SHEET 4 OF 8



OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
SINGLE SPAN
STRUCTURE DETAILS

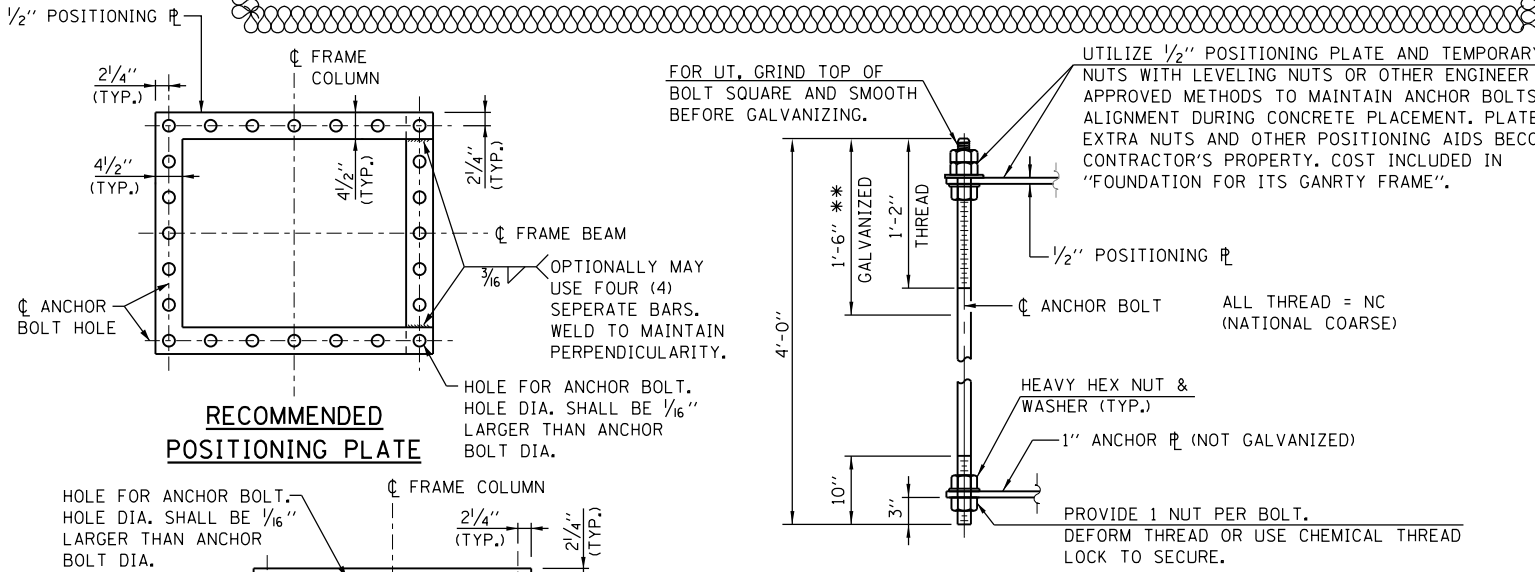
DATE
3-31-2017



- NOTES:**
1. THE FOUNDATION DETAILS SHOWN ARE BASED ON THE PRESENCE OF MOSTLY COHESIVE SOIL CONDITIONS (SILTY OR SANDY CLAY), WITH AN AVERAGE UNCONFINED COMPRESSIVE STRENGTH (QU) > 1.25 TON/SQ. FT. WHICH MUST BE DETERMINED BY PREVIOUS SOIL INVESTIGATIONS AT THE JOBSITE. WHEN OTHER CONDITIONS ARE INDICATED, THE BORING DATA SHALL BE INCLUDED IN THE PLANS AND THE FOUNDATION DIMENSIONS SHOWN SHALL BE THE RESULT OF SITE SPECIFIC DESIGNS. IF CONDITIONS ENCOUNTERED IN THE FIELD ARE DIFFERENT THAN THOSE INDICATED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE IF THE FOUNDATION DIMENSIONS NEED TO BE MODIFIED.
 2. ALL MATERIAL, FABRICATION, AND CONSTRUCTION REQUIREMENTS FOR THE FOUNDATIONS SHALL BE IN ACCORDANCE WITH SECTION 734 OF THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS.
 3. CONCRETE SHALL BE PLACED MONOLITHICALLY, WITHOUT CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
 4. BACKFILL SHALL BE PLACED PER SECTION 502 OF THE IDOT STANDARD SPECIFICATION AND PRIOR TO ERECTION OF GANTRY FRAME.
 5. PROVIDE NORMAL SURFACE FINISH, FOLLOWED BY PROTECTIVE COAT APPLICATION ON ALL CONCRETE SURFACES ABOVE ELEV. D. COST INCLUDED IN THE COST OF "FOUNDATION FOR ITS GANTRY FRAME".
 6. ALL REINFORCEMENT BAR DESIGNATED (E) SHALL BE EPOXY COATED. REINFORCEMENT BAR SHALL BE POSITIONED SO THAT THERE WILL BE NO INTERFERENCE BETWEEN VERTICAL REINFORCEMENT AND ANCHOR BOLTS.
 7. FURNISHING AND INSTALLING ALL CONDUIT, FITTINGS AND GROUNDING SYSTEM ARE INCLUDED IN THE COST OF "FOUNDATION FOR ITS GANTRY FRAME".
 8. NO SONOTUBES OR DECOMPOSABLE FORMS SHALL BE USED 1'-0" BELOW THE FINISHED GROUND LINE. PERMANENT METAL FORMS OR OTHER SHIELDING MAY NOT BE LEFT IN PLACE WITHOUT THE ENGINEER'S WRITTEN PERMISSION. EXCAVATIONS SHALL BE DEWATERED BEFORE CONCRETE PLACEMENT AT NO ADDITIONAL COST.
 9. COORDINATE STAINLESS STEEL RIGID CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. CONDUITS SHALL BE PLACED TO MISS REINFORCEMENT BARS. DO NOT CUT REINFORCEMENT BARS.

NOTE TO DESIGNER:

DESIGNER TO COORDINATE CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. REMOVE THIS "NOTE TO DESIGNER" PRIOR TO INSERTION INTO THE PLAN SET.



ANCHOR BOLT DETAIL

ANCHOR BOLTS SHALL CONFORM TO AASHTO M314 OR ASTM F1554 GRADE 55 AND MEET CHARPY V-NOTCH (CVN) ENERGY OF 15 LB.-FT. AT 40° F. GALVANIZE UPPER 18" PER AASHTO M 232. NO WELDING SHALL BE PERMITTED ON ANCHOR BOLTS.

* 18" IS MINIMUM TO BE GALVANIZED. ENTIRE BOLT MAY BE GALVANIZED AT CONTRACTOR'S OPTION.

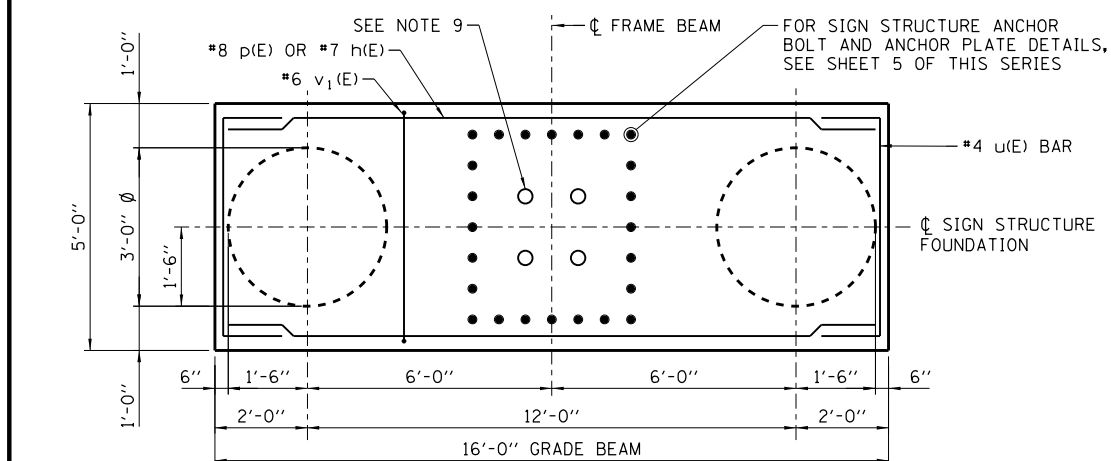
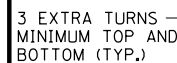
SHOULDER FOUNDATION TYPE I TABLE

SPAN "S"	"W"	"X"	"Z"	"SD"	"P"	BAR s(E) PITCH	NO. ANCHOR BOLT
<=110'	1'-5 1/2"	1'-4"	28'-0"	3'-6"	9"	6"	18
110'<"S"<=130'	1'-6"	1'-5 1/2"	32'-0"	3'-6"	9"	6"	22
130'<"S"<=150'	1'-6"	1'-6 3/4"	35'-0"	4'-0"	6"	6"	22

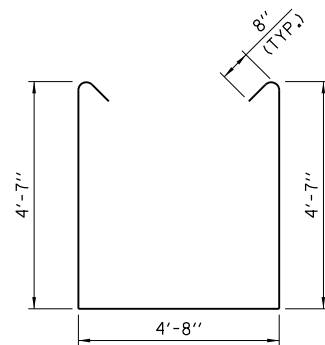
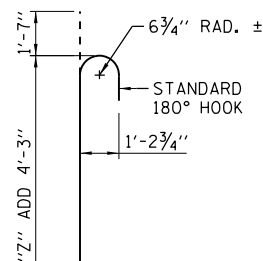
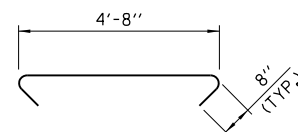
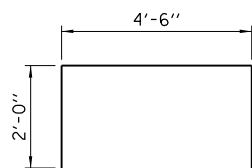
REINFORCEMENT BAR SCHEDULE FOR ONE FOUNDATION

SPAN "S"	BAR	NO.	SIZE	LENGTH	SHAPE
<=110'	h(E)	17	#4	19'-5"	□
	s(E)	1	#4	31'-9"	▬▬▬
	v(E)	20	#10	33'-2"	▬▬▬
	u(E)	28	#8	13'-11"	▬▬▬
110'<"S"<=130'	h(E)	17	#4	19'-5"	□
	s(E)	1	#6	31'-9"	▬▬▬
	v(E)	20	#10	37'-2"	▬▬▬
	u(E)	28	#8	13'-11"	▬▬▬
130'<"S"<=150'	h(E)	17	#4	19'-5"	□
	s(E)	1	#6	38'-9"	▬▬▬
	v(E)	22	#10	40'-2"	▬▬▬
	u(E)	28	#8	13'-11"	▬▬▬

* THE LENGTH OF SPIRAL SHOWN IS THE HEIGHT OF SPIRAL.



SPAN "S"	"Z"	"W"	"X"	CLASS DS CONCRETE (CU YD)	REINF. BARS (LB)
<=110'	38'-0"	1'-5 1/2"	1'-4"	35.0	10,190
110'<"S"<=130'	42'-0"	1'-8"	1'-5 1/2"	37.0	10,950
130'<"S"<=150'	46'-0"	1'-8"	1'-6 3/4"	39.0	11,720



NOTES:

1. THE FOUNDATION DETAILS SHOWN ARE BASED ON COMMON COHESIVE SOIL CONDITIONS (SILTY OR SANDY CLAY), WITH AN AVERAGE UNCONFINED COMPRESSIVE STRENGTH (QU) > 1.25 TON/SQ. FT. WHICH MUST BE DETERMINED BY PREVIOUS SOIL INVESTIGATIONS AT THE JOBSITE. WHEN OTHER CONDITIONS ARE INDICATED, THE BORING DATA SHALL BE INCLUDED IN THE PLANS AND THE FOUNDATION DIMENSIONS SHOWN SHALL BE THE RESULT OF SITE SPECIFIC DESIGNS. IF CONDITIONS ENCOUNTERED IN THE FIELD ARE DIFFERENT THAN THOSE INDICATED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE IF THE FOUNDATION DIMENSIONS NEED TO BE MODIFIED.
2. ALL MATERIAL, FABRICATION, AND CONSTRUCTION REQUIREMENTS FOR THE FOUNDATION SHALL BE IN ACCORDANCE WITH SECTION 734 OF THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS.
3. CONCRETE SHALL BE PLACED MONOLITHICALLY, WITHOUT CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
4. BACKFILL SHALL BE PLACED PER SECTION 502 OF THE STANDARD SPECIFICATION AND PRIOR TO ERECTION OF GANTRY FRAME.
5. PROVIDE NORMAL SURFACE FINISH, FOLLOWED BY PROTECTIVE COAT APPLICATION ON ALL CONCRETE SURFACES ABOVE ELEV. D. COST INCLUDED IN THE COST OF "FOUNDATION FOR ITS GANTRY FRAME".
6. ALL REINFORCEMENT BAR DESIGNATED (E) SHALL BE EPOXY COATED. REINFORCEMENT BAR SHALL BE POSITIONED SO THAT THERE WILL BE NO INTERFERENCE BETWEEN VERTICAL REINFORCEMENT AND ANCHOR BOLTS.
7. FURNISHING AND INSTALLING ALL CONDUIT, FITTINGS AND GROUNDING SYSTEM ARE INCLUDED IN THE COST OF "FOUNDATION FOR ITS GANTRY FRAME".
8. NO SONOTUBES OR DECOMPOSABLE FORMS SHALL BE USED 1'-0" BELOW THE FINISHED GROUND LINE. PERMANENT METAL FORMS OR OTHER SHIELDING MAY NOT BE LEFT IN PLACE WITHOUT THE ENGINEER'S WRITTEN PERMISSION. EXCAVATIONS SHALL BE DEWATERED BEFORE CONCRETE PLACEMENT AT NO ADDITIONAL COST.
9. COORDINATE STAINLESS STEEL RIGID CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. CONDUITS SHALL BE PLACED TO MISS REINFORCEMENT BARS. DO NOT CUT REINFORCEMENT BARS.

NOTE TO DESIGNER:

DESIGNER TO COORDINATE CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. MODIFY DRAWING AS NECESSARY. REMOVE THIS "NOTE TO DESIGNER" PRIOR TO INSERTION INTO THE PLAN SET.

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

REINFORCEMENT BAR SCHEDULE

(2 DRILLED SHAFTS AND 1 GRADE BEAM)

SPAN "S"	BAR	NO.	SIZE	LENGTH	SHAPE
"S" <= 110'	h(E)	10	#7	15'-8"	
	p(E)	14	#8	15'-8"	
	t(E)	24	#6	6'-0"	
	s(E)	2	#4	42'-3"	
	v(E)	32	#11	43'-10"	
	v ₁ (E)	24	#6	15'-2"	
	u(E)	24	#4	8'-6"	
110' < "S" <= 130'	h(E)	10	#7	15'-8"	
	p(E)	14	#8	15'-8"	
	t(E)	24	#6	6'-0"	
	s(E)	2	#4	46'-3"	
	v(E)	32	#11	47'-10"	
	v ₁ (E)	24	#6	15'-2"	
	u(E)	24	#4	8'-6"	
130' < "S" <= 150'	h(E)	10	#7	15'-8"	
	p(E)	14	#8	15'-8"	
	t(E)	24	#6	6'-0"	
	s(E)	2	#4	50'-3"	
	v(E)	32	#11	51'-10"	
	v ₁ (E)	24	#6	15'-2"	
	u(E)	24	#4	8'-6"	

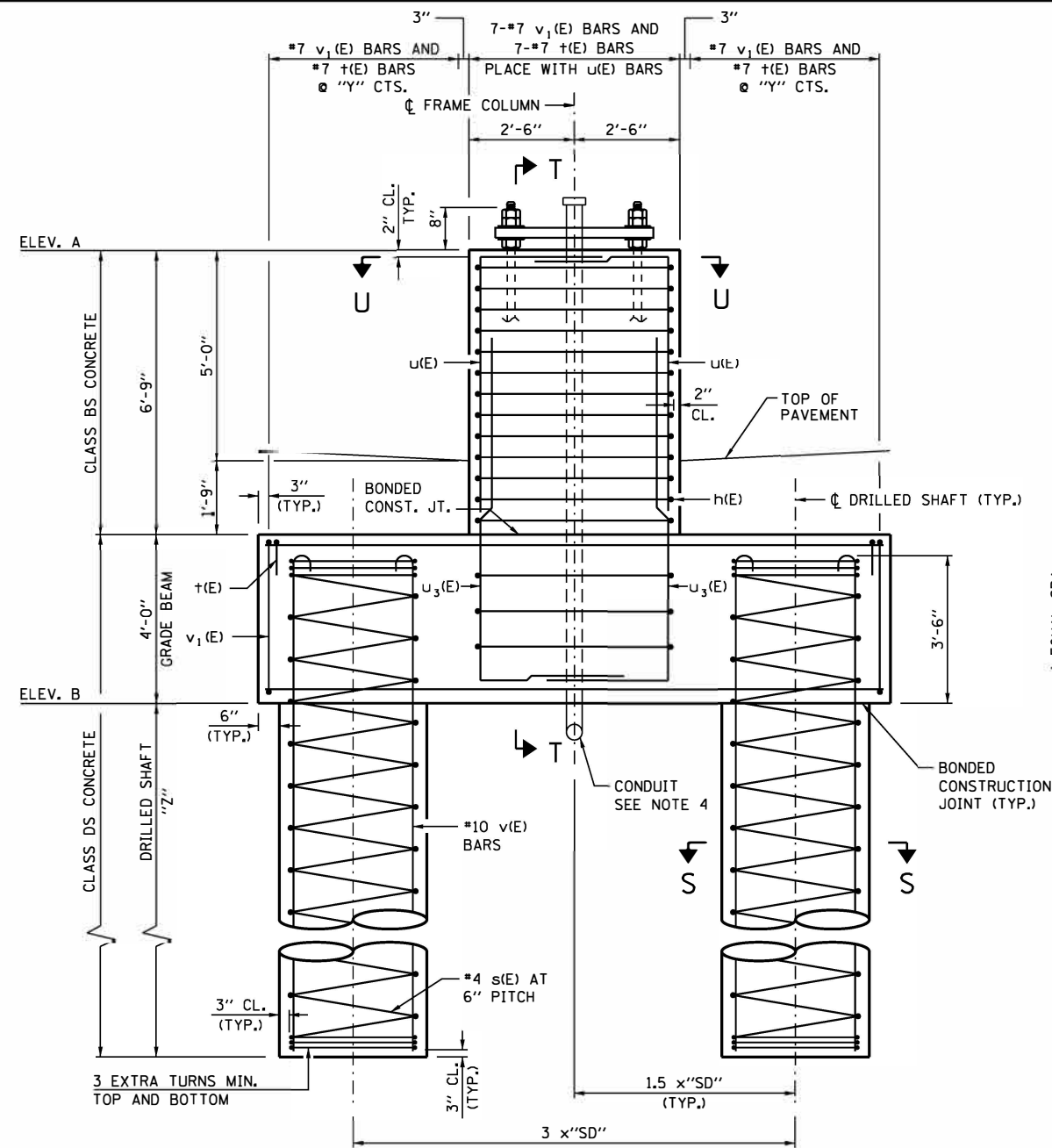
* THE LENGTH OF SPIRAL SHOWN IS THE HEIGHT OF SPIRAL.

BASE DRAWING M-OHS-729
SHEET 6 OF 8



OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
SINGLE SPAN
STRUCTURE DETAILS

DATE
3-01-2019

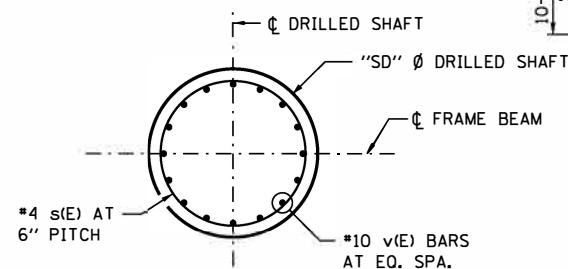


ELEVATION
MEDIAN FOUNDATION

REINFORCEMENT BAR SCHEDULE
FOR ONE FOUNDATION

MAX. SPAN "S ₁ " OR "S ₂ "	BAR	NO.	SIZE	LENGTH	SHAPE
<=110'	h ₁ (E)	6	#6	12'-8"	***
	p(E)	12	#8	12'-8"	
	t(E)	23	#7	6'-2"	
	s(E)	2	#4	33'-3"	
	v(E)	32	#10	34'-8"	
	v ₁ (E)	23	#7	13'-4"	
110'<"S"<=130'	h ₁ (E)	6	#6	14'-8"	***
	p(E)	12	#8	14'-8"	
	t(E)	27	#7	6'-2"	
	s(E)	2	#4	31'-3"	
	v(E)	32	#10	32'-8"	
	v ₁ (E)	27	#7	13'-4"	
130'<"S"<=150'	h ₁ (E)	6	#6	14'-8"	***
	p(E)	12	#8	14'-8"	
	t(E)	31	#7	6'-2"	
	s(E)	2	#4	31'-3"	
	v(E)	40	#10	32'-8"	
	v ₁ (E)	31	#7	13'-4"	

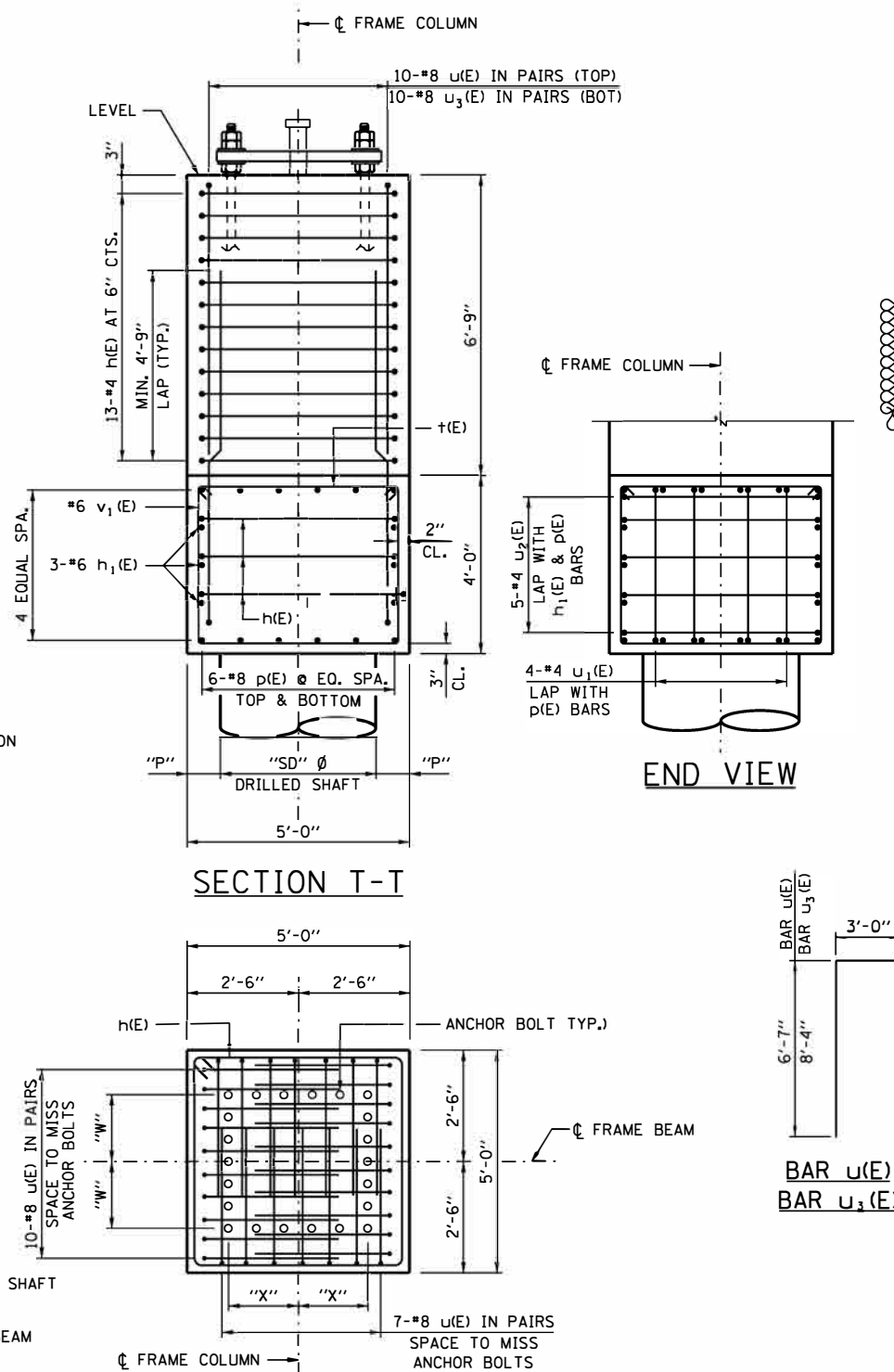
* THE LENGTH OF SPIRAL SHOWN IS THE HEIGHT OF SPIRAL.



SECTION S-S

REINFORCEMENT BAR SCHEDULE
FOR ONE FOUNDATION

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	16	#4	19'-1"	***
u(E)	34	#8	9'-7"	
u ₁ (E)	8	#4	4'-11"	
u ₂ (E)	10	#4	5'-10"	
u ₃ (E)	34	#8	11'-4"	



SECTION U-U

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

NOTES:

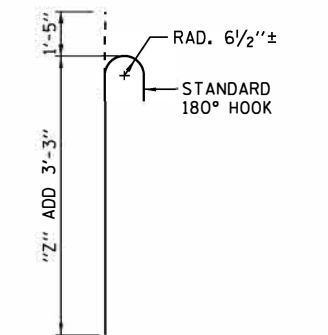
- SEE SHEET 5 OF THIS SERIES FOR FOUNDATION NOTES, DESIGN CRITERIA, ANCHOR BOLT DETAIL AND ANCHOR PLATE DETAIL.
- PROVIDE NORMAL SURFACE FINISH, FOLLOWED BY PROTECTIVE COAT APPLICATION ON ALL CONCRETE SURFACES ABOVE TOP OF GRADE BEAM. COST INCLUDED IN THE COST OF "FOUNDATION FOR ITS GANTRY FRAME".
- SEE SHEET 8 OF THIS SERIES FOR CONCRETE MEDIAN BARRIER TRANSITION. COST OF BARRIER TRANSITION INCLUDED IN COST OF "CONCRETE MEDIAN BARRIER TRANSITION, TYPE V-F".
- COORDINATE STAINLESS STEEL RIGID CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. CONDUITS SHALL BE PLACED TO MISS REINFORCEMENT BARS. DO NOT CUT REINFORCEMENT BARS.
- PROTECTIVE COAT SHALL BE APPLIED TO TRAFFIC AND TOP FACES OF CONCRETE CRASHWALL.

NOTE TO DESIGNER:

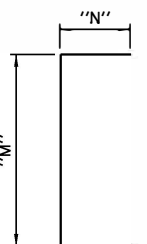
DESIGNER TO COORDINATE CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. MODIFY DRAWING AS NECESSARY. REMOVE THIS "NOTE TO DESIGNER" PRIOR TO INSERTION INTO THE PLAN SET.

MEDIAN FOUNDATION TABLE

SPAN "S"	"Z"	"SD"	"P"	"W"	"X"	"Y"	NO. ANCHOR BOLT
<=110'	30'-0"	3'-0"	1'-0"	1'-5/2"	1'-4"	6"	18
110'<"S"<=130'	28'-0"	3'-6"	9"	1'-6"	1'-5/2"	6"	22
130'<"S"<=150'	28'-0"	3'-6"	9"	1'-6"	1'-6 3/4"	5"	22

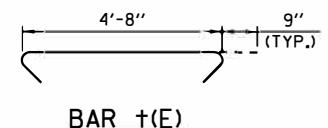


BAR v(E)

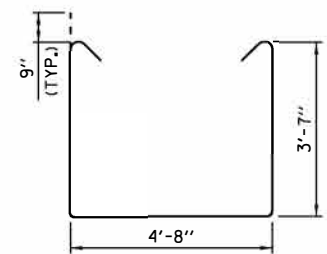


BAR u₁(E)
BAR u₂(E)

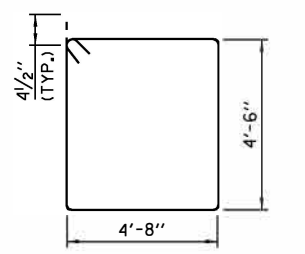
BAR	"M"	"N"
u ₁ (E)	3'-7"	8"
u ₂ (E)	4'-6"	8"



BAR t(E)



BAR v₁(E)



BAR h(E)

MEDIAN FOUNDATION SCHEDULE

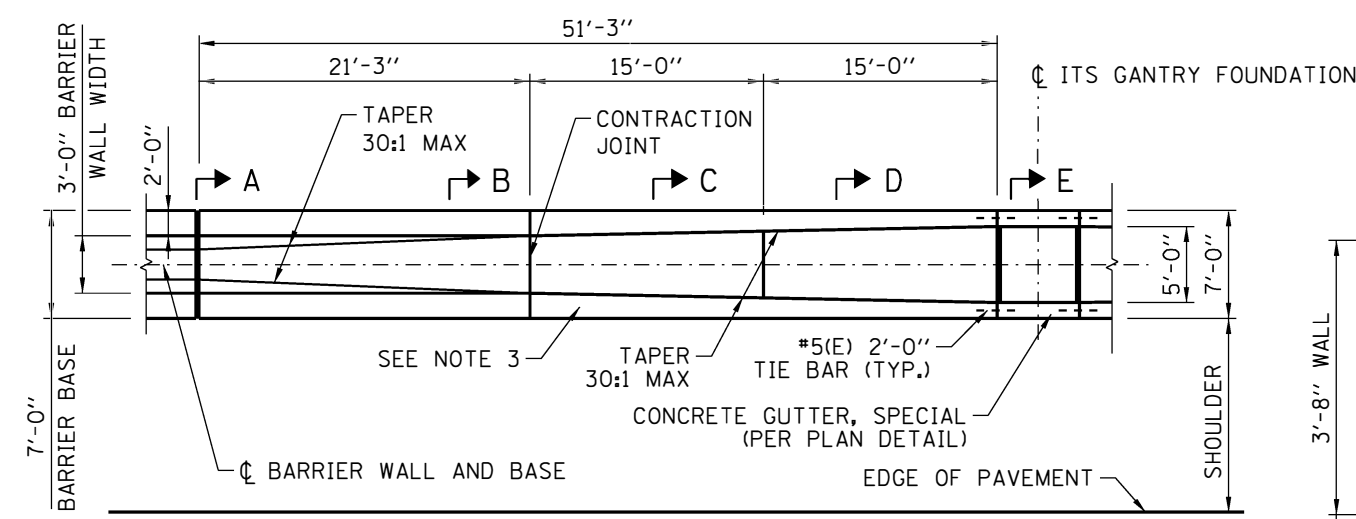
SPAN "S"	CLASS BS CONCRETE (CU YD)	CLASS DS CONCRETE (CU YD)	REINF. BARS (LB)	PROTECTIVE COAT (SQ YD)
<=110'	7.0	26.0	9,120	9
110'<"S"<=130'	7.0	32.0	9,190	9
130'<"S"<=150'	7.0	32.0	10,480	9

BASE DRAWING M-OHS-729
SHEET 7 OF 8

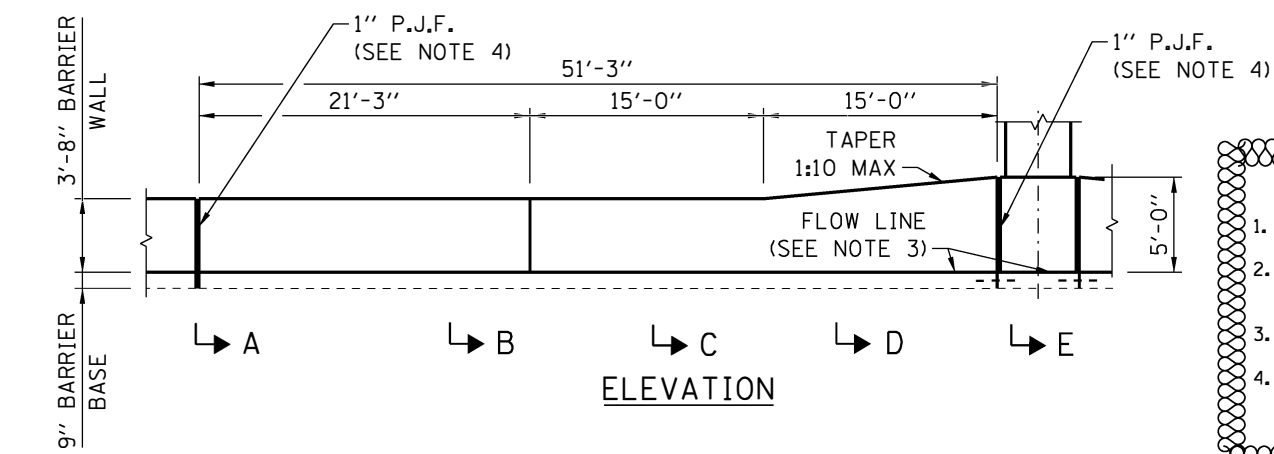


OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
SINGLE SPAN
STRUCTURE DETAILS

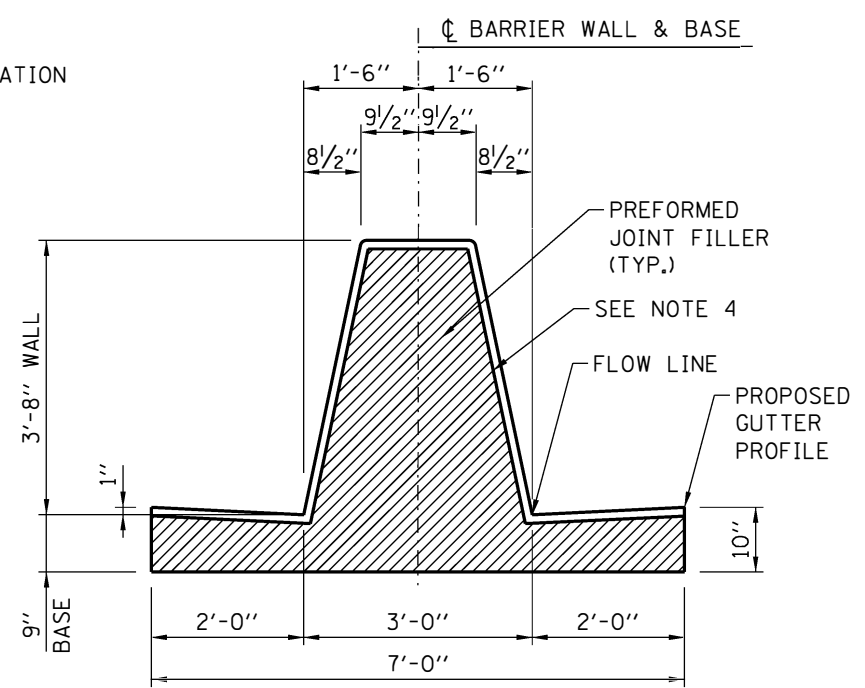
DATE
3-01-2020



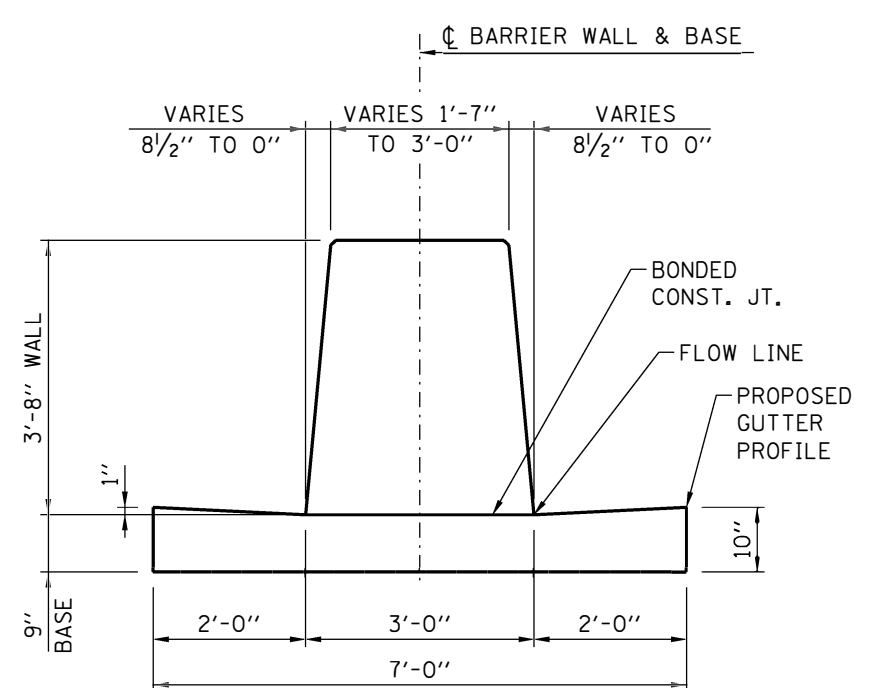
PLAN



ELEVATION



SECTION A-A



SECTION B-B

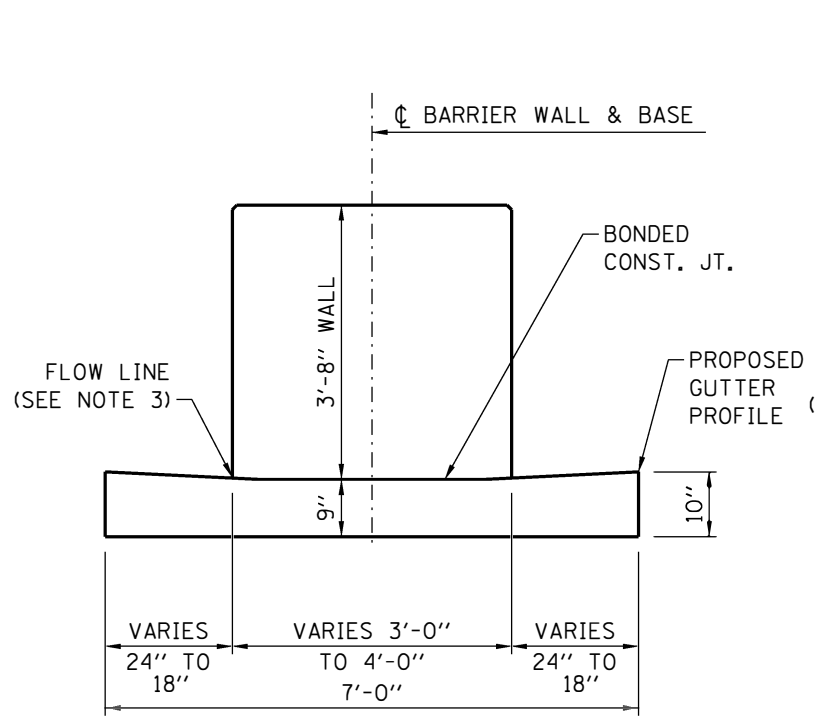
NOTE TO DESIGNER:

1. WITHIN SECTION B-B, THE GUTTER PORTION OF THE BARRIER BASE REMAINS 2'-0"; THEREFORE, STANDARD TYPE 20A F&G SHALL BE USED.
2. WITHIN SECTION C-C & D-D, THE GUTTER PORTION OF THE BARRIER BASE IS LESS THAN 2'-0"; THEREFORE, NON-ILLINOIS TOLLWAY STD. F&G SHALL BE USED.
3. WITHIN SECTION B-B & C-C, THE BARRIER HEIGHT REMAINS 44", THIS ALLOWS THE PLACEMENT OF LIGHT POLE FOUNDATIONS WITHIN THIS AREA.
4. WITHIN SECTION D-D, THE BARRIER HEIGHT IS INCREASING FROM 44" TO 60", THE LIGHT POLE FOUNDATIONS SHALL NOT BE PLACED WITHIN THIS AREA.

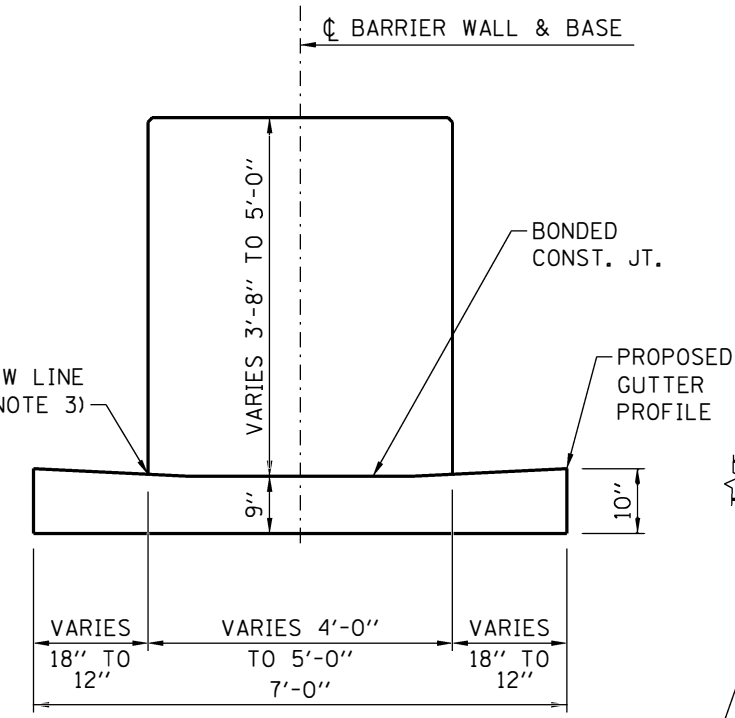
NOTES:

1. 2" DEEP CONTRACTION JOINTS SHALL BE CONSTRUCTED IN THE CONCRETE BARRIER WALL AND IN THE CONCRETE BARRIER BASE. CONTRACTION JOINTS SHALL ALSO BE CONSTRUCTED AT BOTH SIDES OF ALL DRAINAGE STRUCTURES. MAXIMUM JOINT SPACING SHALL BE 30'.
2. THE FORMING OF CONTRACTION JOINTS SHALL BE DONE BY SAWING.
3. GUTTER PROFILE IN THE VICINITY OF SAG VERTICAL CURVES, ALONG FLAT GRADES AND AT THE MEETING OF PROPOSED AND EXISTING GUTTER, SHALL BE CAREFULLY CONTROLLED AND FIELD ADJUSTED IF NECESSARY TO ENSURE POSITIVE DRAINAGE AND AVOID PONDING.
4. PROVIDE NON-STAINING GRAY ONE COMPONENT NON-SAG ELASTOMETRIC GUN GRADE POLYURETHANE SEALANT WITH BACKER ROD.

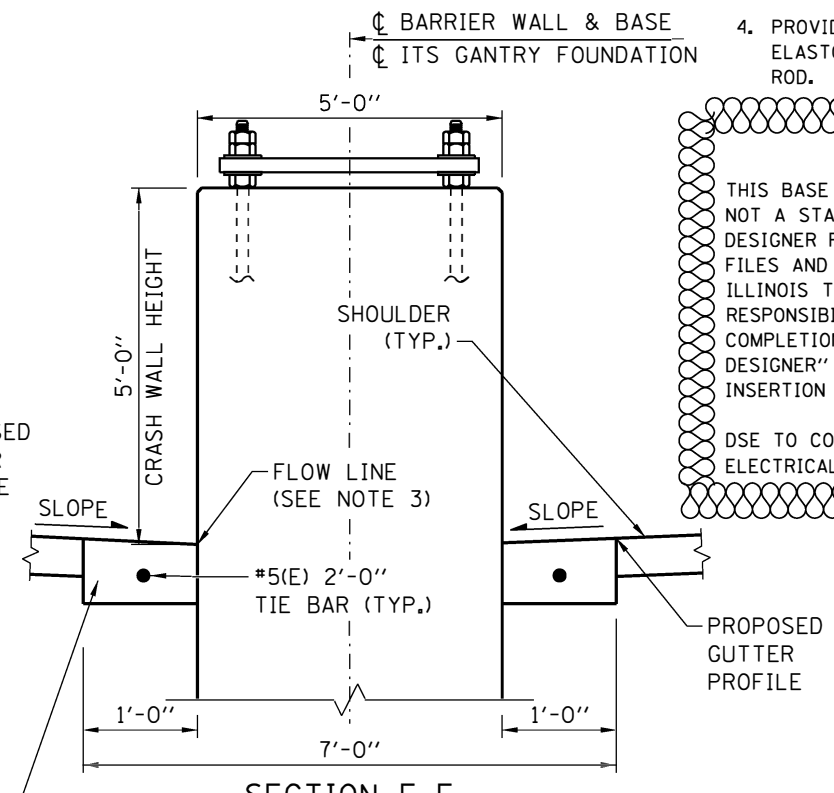
CONCRETE MEDIAN BARRIER TRANSITION, TYPE V-DF AT ITS GANTRY



SECTION C-C



SECTION D-D



SECTION E-E

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

DSE TO COORDINATE CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. MODIFY DRAWING AS NECESSARY.

BASE DRAWING M-OHS-729
SHEET 8 OF 8



OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
SINGLE SPAN
STRUCTURE DETAILS

DATE
3-01-2020

MATERIAL SPECIFICATIONS FOR
STRUCTURAL STEEL AND FASTENERS

ELEMENT OF STRUCTURE	SPECIFICATION	F _y (KSI)	F _u (KSI)
STRUCTURAL STEEL TUBE FRAME (HSS)	ASTM A618 GRADE III	50	62
STRUCTURAL STEEL TUBE MOUNTING BEAMS (HSS)	ASTM A500 GRADE B	46	58
STEEL SHAPES	ASTM A709 GRADE 50	50	65
STEEL PLATES	ASTM A572 GR. 50 OR ASTM A709 GR. 50	50	65
STEEL BOLTS	ASTM 325 TYPE 1	--	105
SIGN BRACKET RODS	ASTM A307	--	60
LOCK NUTS	ASTM A194 GR. 8F OR ASTM A194 GR. 2H	--	--
NUTS	ASTM A563 GRADE DH	--	--
STEEL WASHERS	ASTM F436	--	--
STAINLESS STEEL WASHERS	ASTM A240, TYPE 302	--	--
ANCHOR BOLTS	AASHTO M 314 OR ASTM F1554	55	75

SEE DETAIL A ON SHEET 3
OF THIS SERIES (TYP.)
(OPPOSITE SIDE SHOWN)

CAMBER TABLE

SPAN "S ₁ " OR "S ₂ "	CAMBER
<=110'	3/4"
110'<"S"<=130'	4/2"
130'<"S"<=150'	5"

SHOULDER FOUNDATION
SEE SHEET 6 OF THIS SERIES FOR TYPE I
SEE SHEET 7 OF THIS SERIES FOR TYPE II

TOTAL BILL OF MATERIAL

PAY ITEM	ITEM	UNIT	TOTAL
	FOUNDATION FOR ITS GANTRY FRAME	CU YD	
	ITS GANTRY FRAME (STEEL), SPANS LESS THAN OR EQUAL TO 110'	FOOT	
	ITS GANTRY FRAME (STEEL), SPANS GREATER THAN 110' AND LESS THAN OR EQUAL TO 130'	FOOT	
	ITS GANTRY FRAME (STEEL), SPANS GREATER THAN 130' AND LESS THAN OR EQUAL TO 150'	FOOT	
	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12"x12"x6"	EACH	
	REINFORCEMENT BARS, EPOXY COATED	POUND	
	PROTECTIVE COAT	SQ YD	

STRUCTURAL STEEL TUBE (HSS) FRAME TABLE

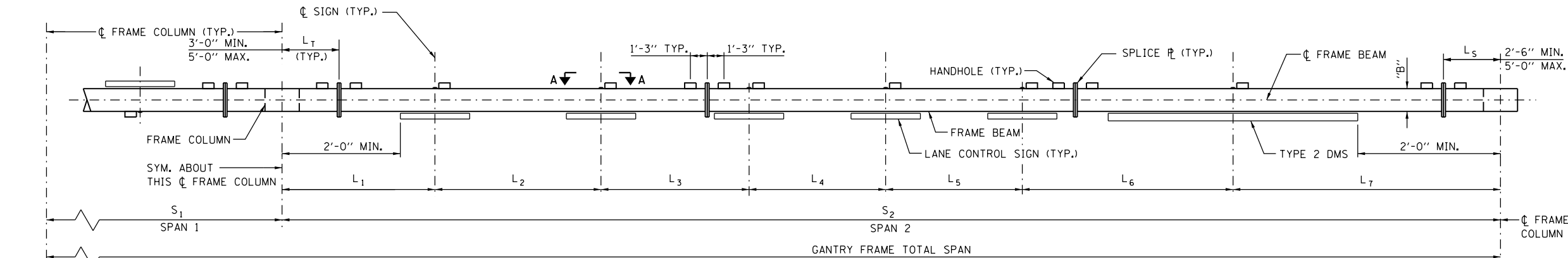
MAX. SPAN "S ₁ " OR "S ₂ "	FRAME COLUMN	FRAME BEAM	"A"	"B"	"C"
<=110'	HSS 28x24x0.625	HSS 28x24x0.500	2'-0"	2'-4"	2'-0"
110'<"S"<=130'	HSS 28x28x0.625	HSS 28x24x0.625	2'-4"	2'-4"	2'-0"
130'<"S"<=150'	HSS 30x30x0.625	HSS 30x30x0.625	2'-6"	2'-6"	2'-6"

BASE DRAWING M-OHS-730
SHEET 1 OF 9

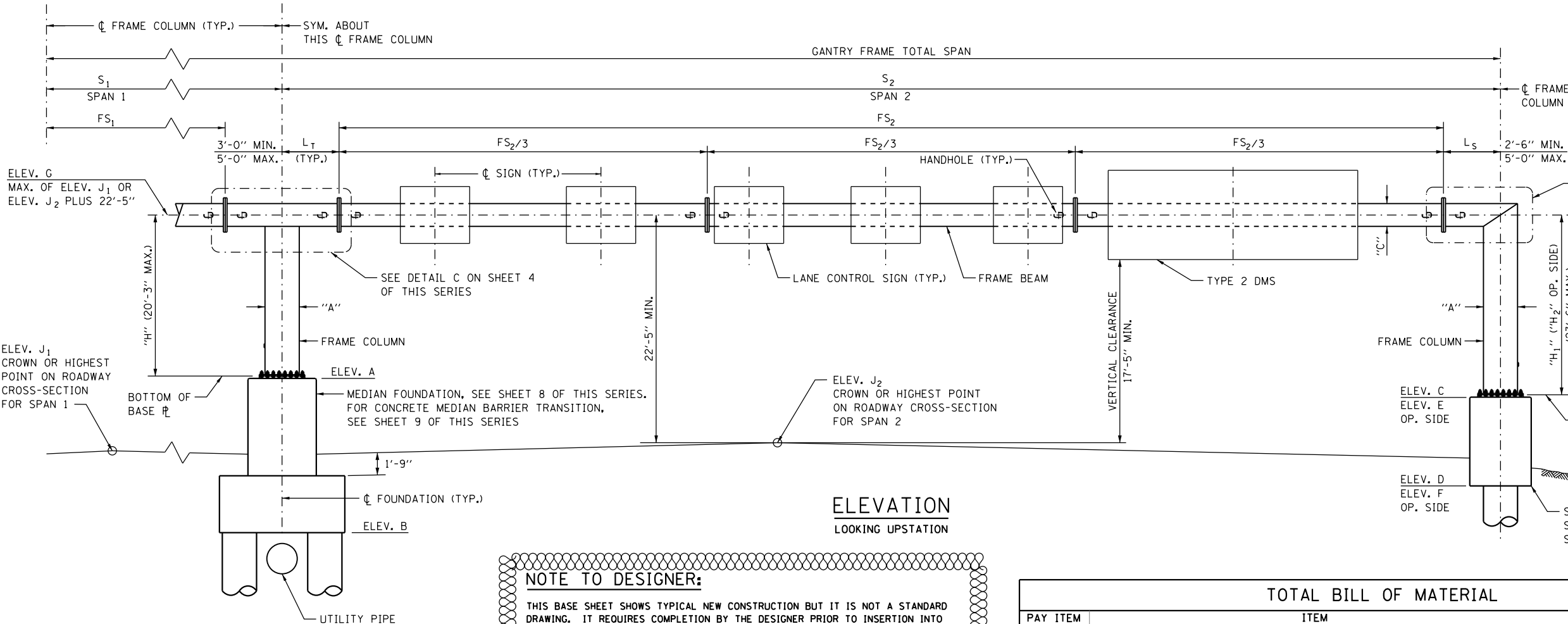


OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
TWO-SPAN
STRUCTURE DETAILS

DATE
3-01-2020



PLAN



ELEVATION
LOOKING UPSTATION

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

PROVIDE APPROPRIATE PROTECTION FOR SHOULDER FOUNDATION.

USE SHOULDER FOUNDATION TYPE I WHEN FOUNDATION IS PLACED IN LINE WITH SINGLE FACE CONCRETE BARRIER. THIS FOUNDATION REQUIRES MINIMUM 35 FT OF BARRIER ON EACH SIDE OF THE FOUNDATION TO RESIST LONGITUDINAL FORCE FROM THE GANTRY COLUMN.

USE SHOULDER FOUNDATION TYPE II WHEN FOUNDATION IS PLACED OUTSIDE CLEAR ZONE OR BEHIND GUARDRAIL.

PROVIDE SITE GROUNDING ELECTRODE SYSTEM DETAIL ACCORDING TO THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS SECTION 734.

REFERENCE BASE SHEET M-ITS-1101.

PAY ITEM FOR ITS GANTRY FRAME SHALL BE BASED ON THE LONGER SPAN LENGTH.

DIFFERENCE BETWEEN ELEV. A AND ELEV. C (OR ELEV. E) SHALL NOT EXCEED 5'-0".

NOTES:

- SEE SHEET 2 OF THIS SERIES FOR VIEW A-A AND DESIGN SUMMARY TABLE.
- CAMBER IS PROVIDED AT MIDSPAN OF EACH SPAN OF STRUCTURE.
- PRIOR TO FABRICATING GANTRY FRAME, THE CONTRACTOR SHALL VERIFY LOCATIONS OF LANE CONTROL SIGNS AND TYPE 2 DMS WITH ENGINEER. (DIMENSIONS L₁ THROUGH L₇)
- FRAME SPAN SHALL BE IN THE CONFIGURATION SHOWN WITH 3 COLUMNS AND 6 FIELD SECTIONS.
- PRIOR TO FABRICATING GANTRY FRAME, THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF EACH FOUNDATION, ANCHOR BOLTS AND DETAILS AFFECTING GANTRY FRAME FABRICATION AND CONSTRUCTION. NOTIFY THE ENGINEER OF ANY VARIATIONS FROM CONTRACT PLANS AND MAKE NECESSARY APPROVED ADJUSTMENTS. SUCH VARIATIONS DO NOT CONSTITUTE ADDITIONAL COMPENSATION FOR CHANGE IN SCOPE OF WORK. CONTRACTOR WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
- WHEN REQUIRED FOR ADJUSTMENT, A MAX. OF TWO 1/4" SHIM PLATES SHALL BE PROVIDED AT EACH FIELD SPLICE LOCATION IN BETWEEN SPLICE PLATES.

ALL EXPOSED CONCRETE EDGES SHALL HAVE A $\frac{3}{4}$ " x 45° CHAMFER, EXCEPT WHERE SHOWN OTHERWISE. CHAMFER ON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW FINISHED GROUND LEVEL.

- REINFORCEMENT BARS, INCLUDING REINFORCEMENT BARS, EPOXY-COATED SHALL CONFORM TO THE REQUIREMENTS OF IDOT STANDARD SPECIFICATIONS SECTION 508 AND ARTICLE 1006.10.
- REINFORCEMENT BARS DESIGNATED "(E)" SHALL BE EPOXY-COATED.
- REINFORCEMENT BENDING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
- REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT-TO-OUT.

- ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS ISSUED MARCH, 2015 TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- ILLINOIS DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS ADOPTED JANUARY 1, 2015.
- ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2012.



THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT
REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION
FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE
DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS
COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED
BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

1. A BORING IS REQUIRED AT EACH FOUNDATION LOCATION.
2. NO STANDARD DRILLED SHAFT FOUNDATIONS WERE DESIGNED OR DETAILED FOR COHESIONLESS SOIL CONDITIONS. REGARDLESS, THE DESIGNER MUST CONDUCT A SUBSURFACE INVESTIGATION AT EACH OVERHEAD SIGN STRUCTURE FOUNDATION TO DETERMINE THE ACTUAL SOIL PROPERTIES. SHOULD THE INVESTIGATION REVEAL THE PRESENCE OF COHESIONLESS SOIL OR COHESIVE SOILS WITH PROPERTIES LESS THAN THE AVERAGES INDICATED IN THIS STANDARD, THE DESIGNER SHALL DESIGN AND DETAIL THE DRILLED SHAFT FOUNDATIONS TO MEET THE ACTUAL SOIL CONDITIONS.
3. DESIGN AND CONSTRUCTION SPECIFICATIONS: THE DESIGNER IS RESPONSIBLE FOR UPDATING THE EDITION OF SPECIFICATIONS AND THE DATE OF PUBLICATION TO THE EDITION OF SPECIFICATIONS AND THE DATE OF PUBLICATION USED IN DESIGN.
4. DESIGNER TO ENSURE ALL LATEST CODE REQUIREMENTS ARE MET.
5. DESIGNER TO DETERMINE THAT APPLIED LOADS DO NOT EXCEED DESIGN VALUES.



SEE SHEET 1 OF THIS SERIES FOR DIMENSIONS "A" AND "B"

[illegible][illegible]

WIND LOAD CRITERIA			
SIGN PANEL	40 P.S.F.	BASIC WIND SPEED	90 M.P.H.
COLUMN/BEAM	40 P.S.F.	G	1.14
TYPE 2 DMS	42 P.S.F.	I_r (WIND IMPORTANCE FACTOR)	1.0
		K_z	1.0

f'c = COMPRESSIVE STRENGTH OF CONCRETE (CLASS BS) = 4,000 P.S.I.
f'c = COMPRESSIVE STRENGTH OF CONCRETE (CLASS DS) = 4,000 P.S.I.
fy = YIELD STRENGTH OF REINFORCEMENT BARS (GRADE 60) = 60,000 P.S.I.

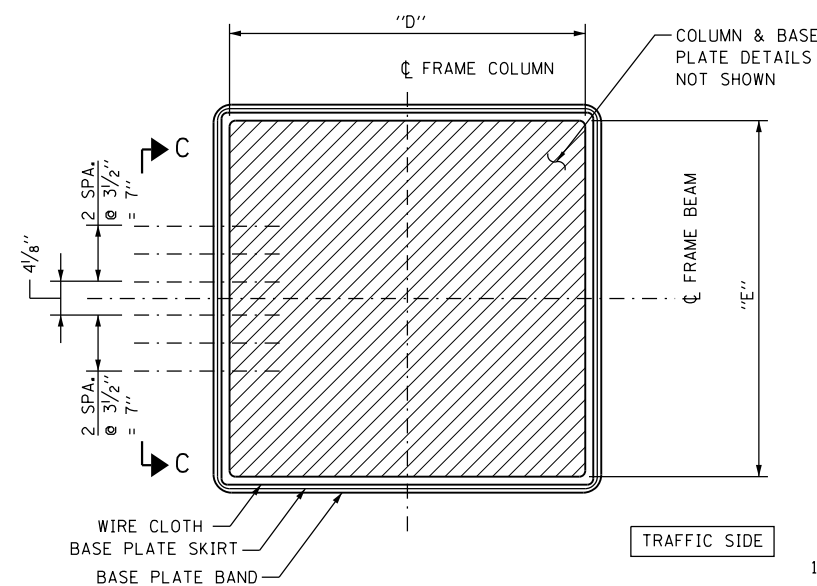
1. ILLINOIS TOLLWAY STRUCTURE DESIGN MANUAL ISSUED MARCH, 2019.
2. AASHTO STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, SIXTH EDITION.
3. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SIXTH EDITION WITH CURRENT INTERIMS.
4. ILLINOIS DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL, JANUARY 2012.
5. ILLINOIS TOLLWAY GEOTECHNICAL ENGINEER MANUAL DATED MARCH 2019.

MAX. SPAN "S ₁ " OR "S ₂ "	"D"	"E"	N ₁	X ₁	N ₂	X ₂	ANCHOR BOLT DIAMETER	NO. ANCHOR BOLT
<=110'	3'-2"	3'-5"	4	8"	5	7"	1¾"	18
110'<"S" =130'	3'-5"	3'-6"	5	7"	6	6"	1¾"	22
130'<"S" =150'	3'-7½"	3'-6"	5	7½"	6	6"	1¾"	22



OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
TWO-SPAN
STRUCTURE DETAILS

DATE
3-01-2020

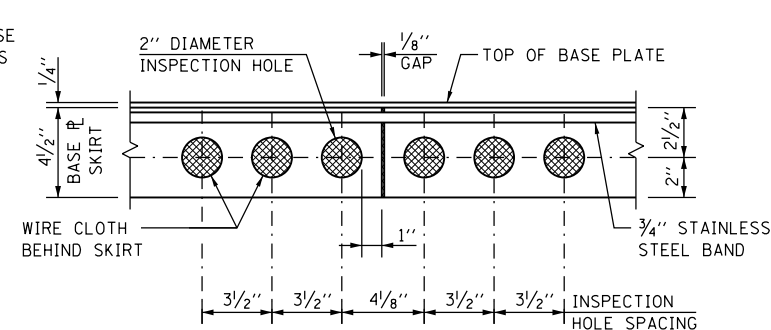


COLUMN BASE PLATE PLAN

SEE NOTE 5

NOTE:

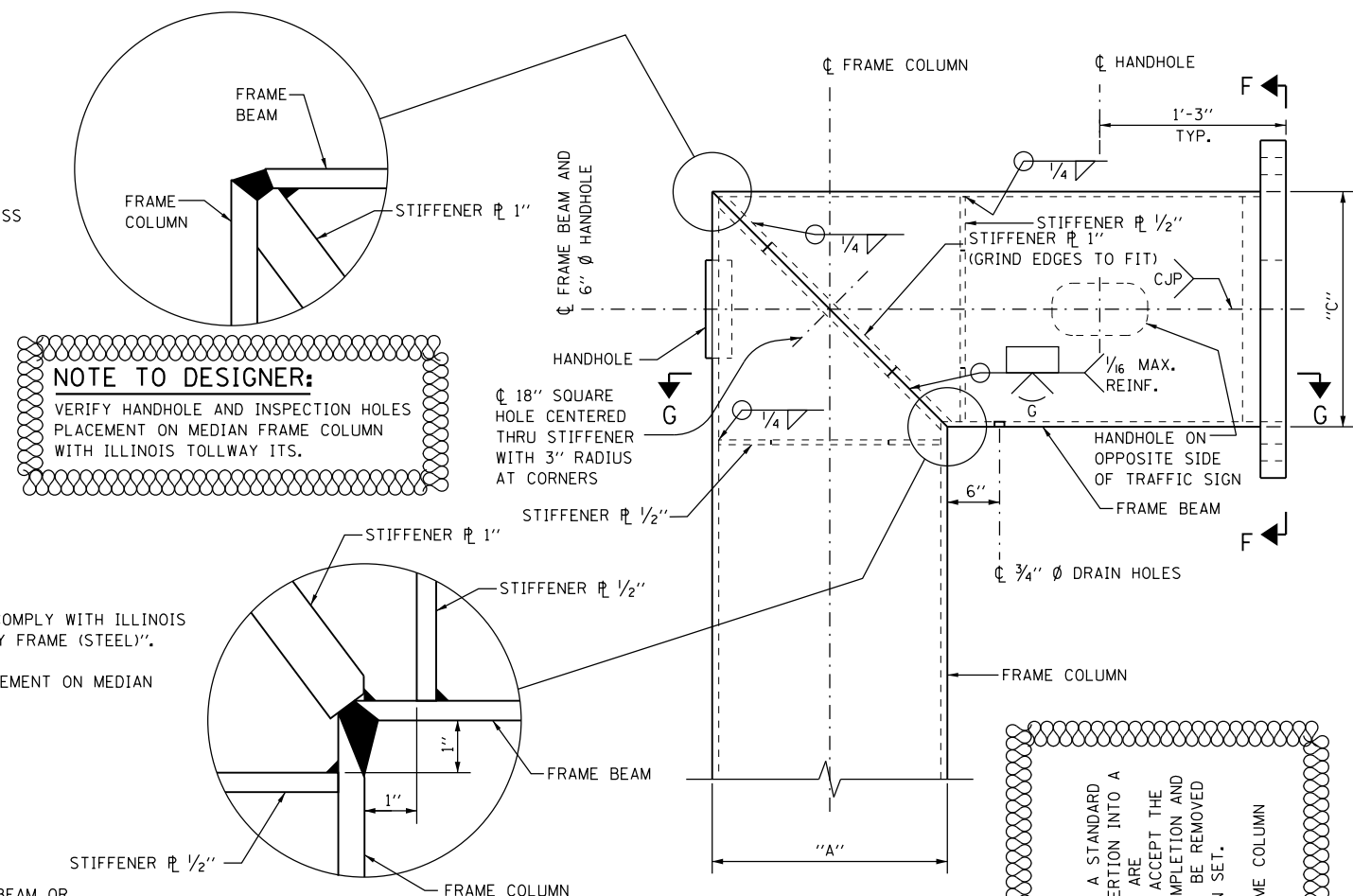
1. SEE SHEET 1 OF THIS SERIES FOR DIMENSIONS "A", "B" AND "C".
2. SEE SHEET 2 OF THIS SERIES FOR DIMENSIONS "D" AND "E".
3. INSTALLATION AND INSPECTION OF SPLICE BOLTS AND ANCHOR BOLTS SHALL COMPLY WITH ILLINOIS TOLLWAY SPECIAL PROVISION "INTELLIGENT TRANSPORTATION SYSTEMS GANTRY FRAME (STEEL)".
4. SHOULDER FOUNDATION SHOWN. VERIFY HANDHOLE AND INSPECTION HOLES PLACEMENT ON MEDIAN FRAME COLUMN WITH THE ENGINEER.



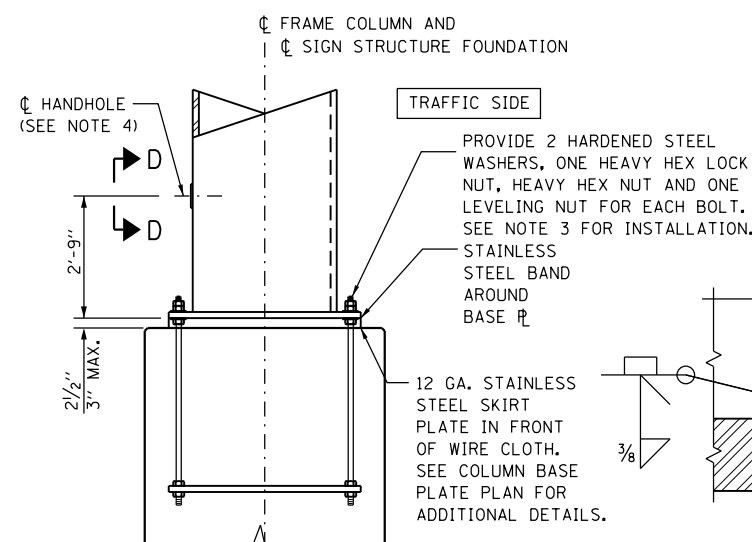
VIEW C-C (BASE PLATE SKIRT)

NOTE TO DESIGNER:

VERIFY HANDHOLE AND INSPECTION HOLES PLACEMENT ON MEDIAN FRAME COLUMN WITH ILLINOIS TOLLWAY ITS.

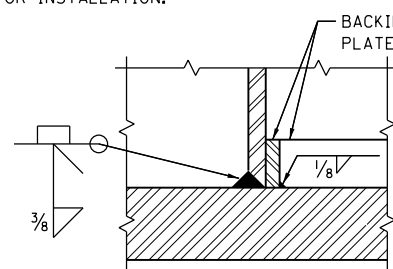


DETAIL A



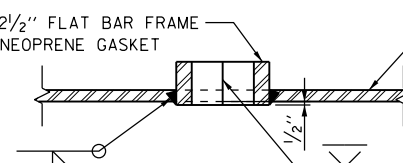
COLUMN BASE

REINFORCING NOT SHOWN



DETAIL B

BASE PLATE SHOWN (SPLICE PLATE SIM.)

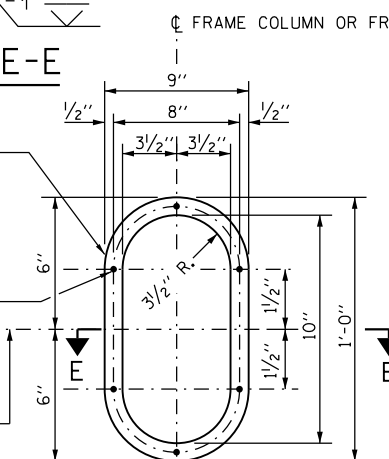


SECTION E-E

1" x 2 1/2" FLAT BAR FRAME WITH NEOPRENE GASKET

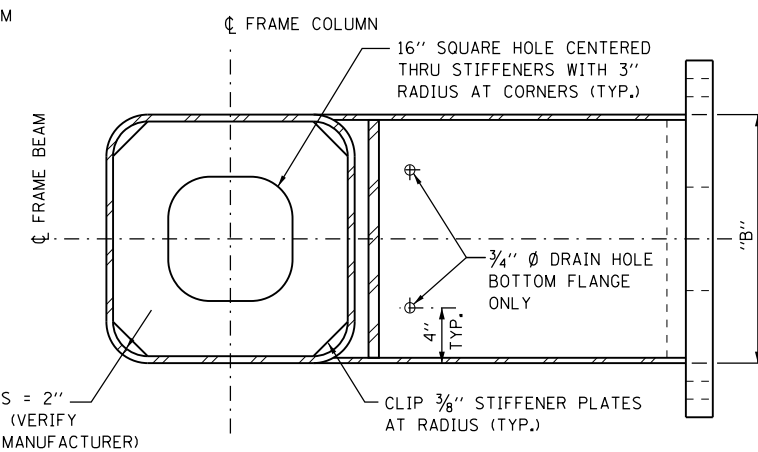
DRILL & TAP 6 HOLES FOR 1/4"-20 ROUND HEAD BRASS SCREWS. CHASE THREAD AFTER GALVANIZING.

HANDHOLE



PROVIDE COVER PLATE 3/16" x 9" x 12" ROUND CORNERS TO 3 3/4" RADIUS. PROVIDE SIX 5/16" Ø HOLES.

**VIEW D-D
HANDHOLE DETAIL**



SECTION G-G

1" STIFFENER PLATE NOT SHOWN

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET. VERIFY HANDHOLE AND INSPECTION HOLES PLACEMENT ON MEDIAN FRAME COLUMN WITH ILLINOIS TOLLWAY ITS.

BASE DRAWING M-OHS-730
SHEET 3 OF 9

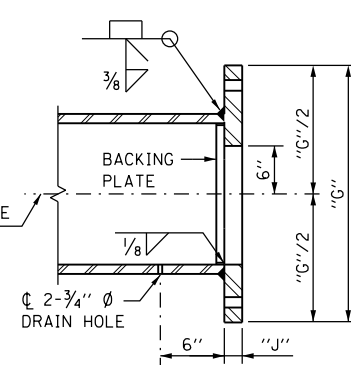


OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
TWO-SPAN
STRUCTURE DETAILS

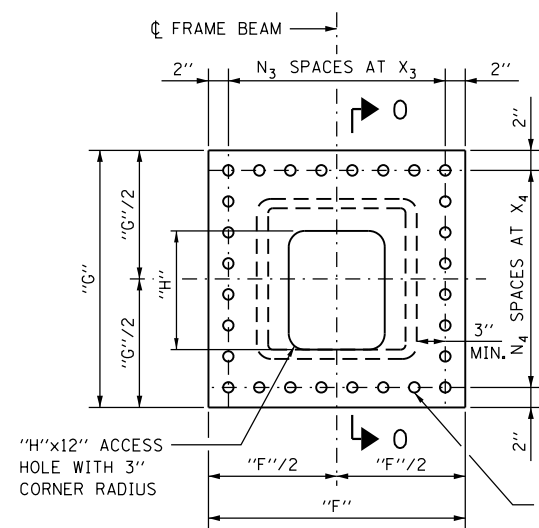
DATE
3-01-2020

SPLICE PLATE TABLE

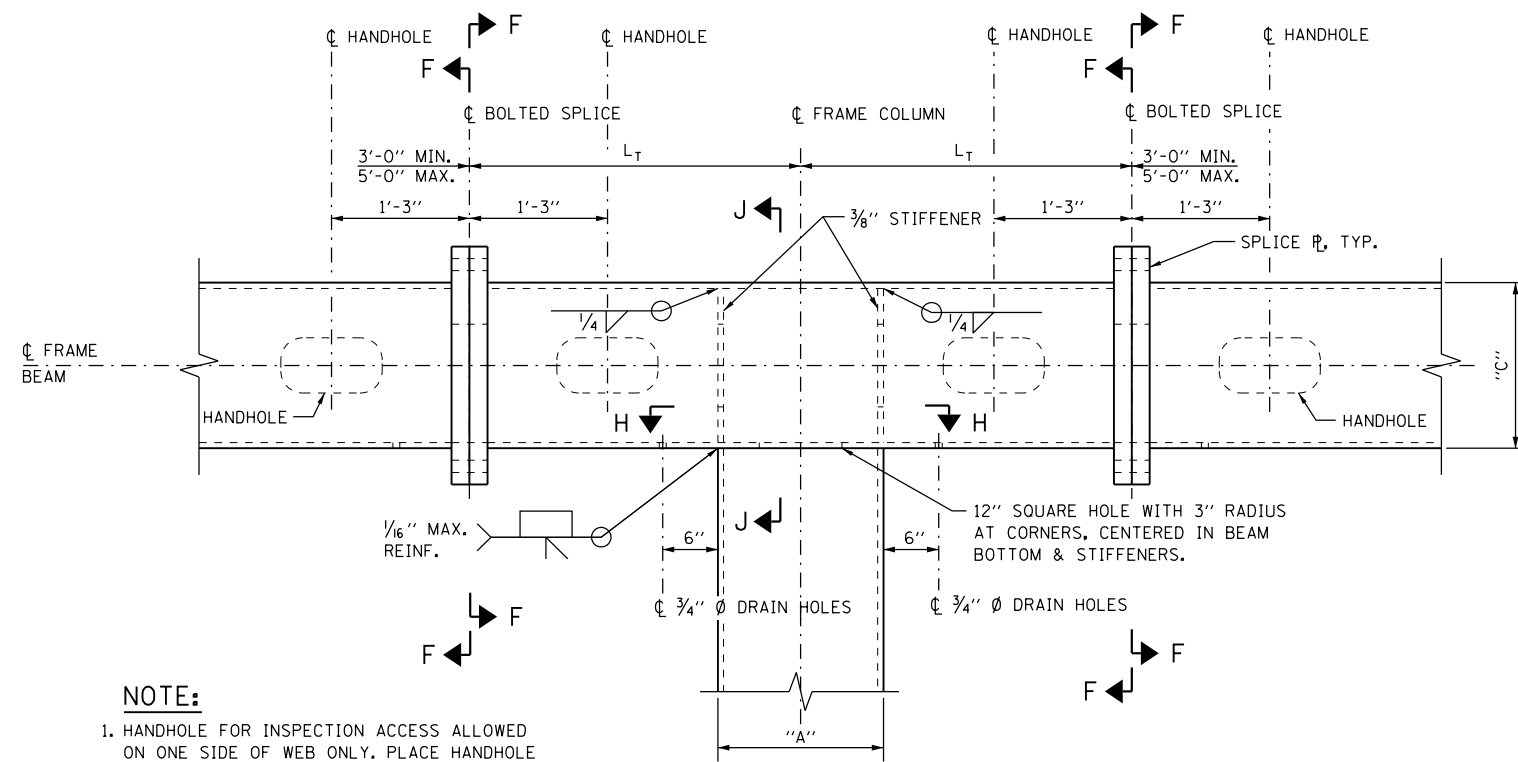
MAX. SPAN "S ₁ " OR "S ₂ "	"F"	"G"	"H"	"J"	N ₃	X ₃	N ₄	X ₄	SPLICE BOLT DIAMETER (D ₁)	NO. SPLICE BOLT
<=110'	3'-1"	2'-8 1/2"	1'-6"	2 1/4"	6	5 1/2"	6	4 3/4"	1"	24
110'<"S"<=130'	3'-0 1/2"	2'-10"	1'-6"	2 1/4"	5	6 1/2"	5	6"	1 1/4"	20
130'<"S"<=150'	3'-4"	3'-4"	1'-9"	2 3/8"	6	6"	6	6"	1 1/4"	24



**SECTION O-O
SPLICE PLATE DETAIL**

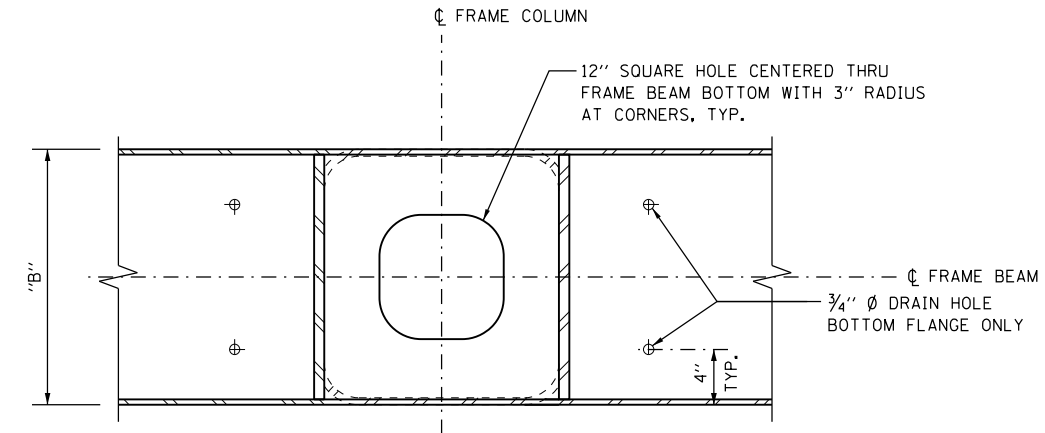


SECTION F-F



- NOTE:**
1. HANDHOLE FOR INSPECTION ACCESS ALLOWED ON ONE SIDE OF WEB ONLY. PLACE HANDHOLE ON SAME SIDE AS OTHER HANDHOLES.
 2. SEE SHEET 1 OF THIS SERIES FOR DIMENSIONS "A", "B" AND "C".
 3. SEE SHEET 3 OF THIS SERIES FOR SECTION F-F.

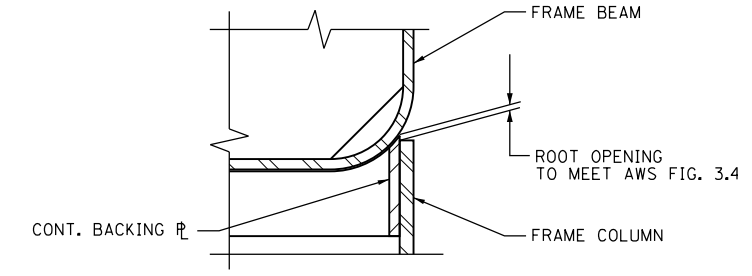
DETAIL C



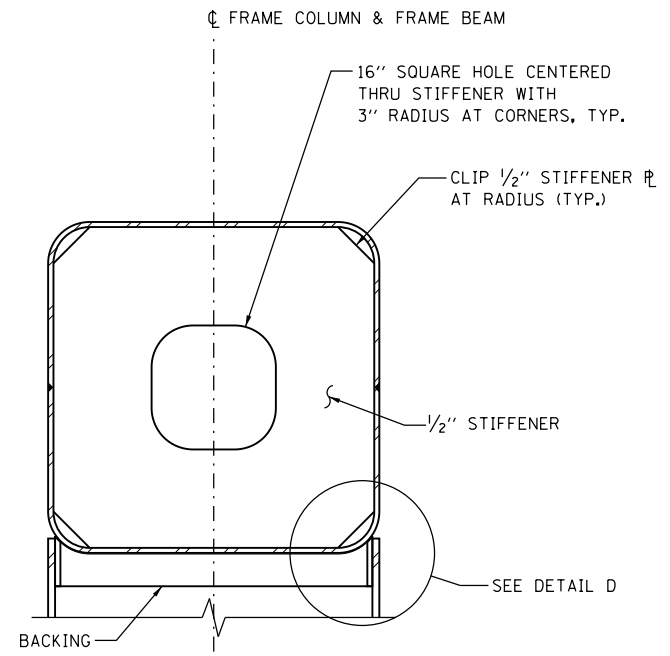
SECTION H-H

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.



DETAIL D



SECTION J-J

AWS FIG. 3.6 MAY BE USED AT THE FABRICATOR'S OPTION.

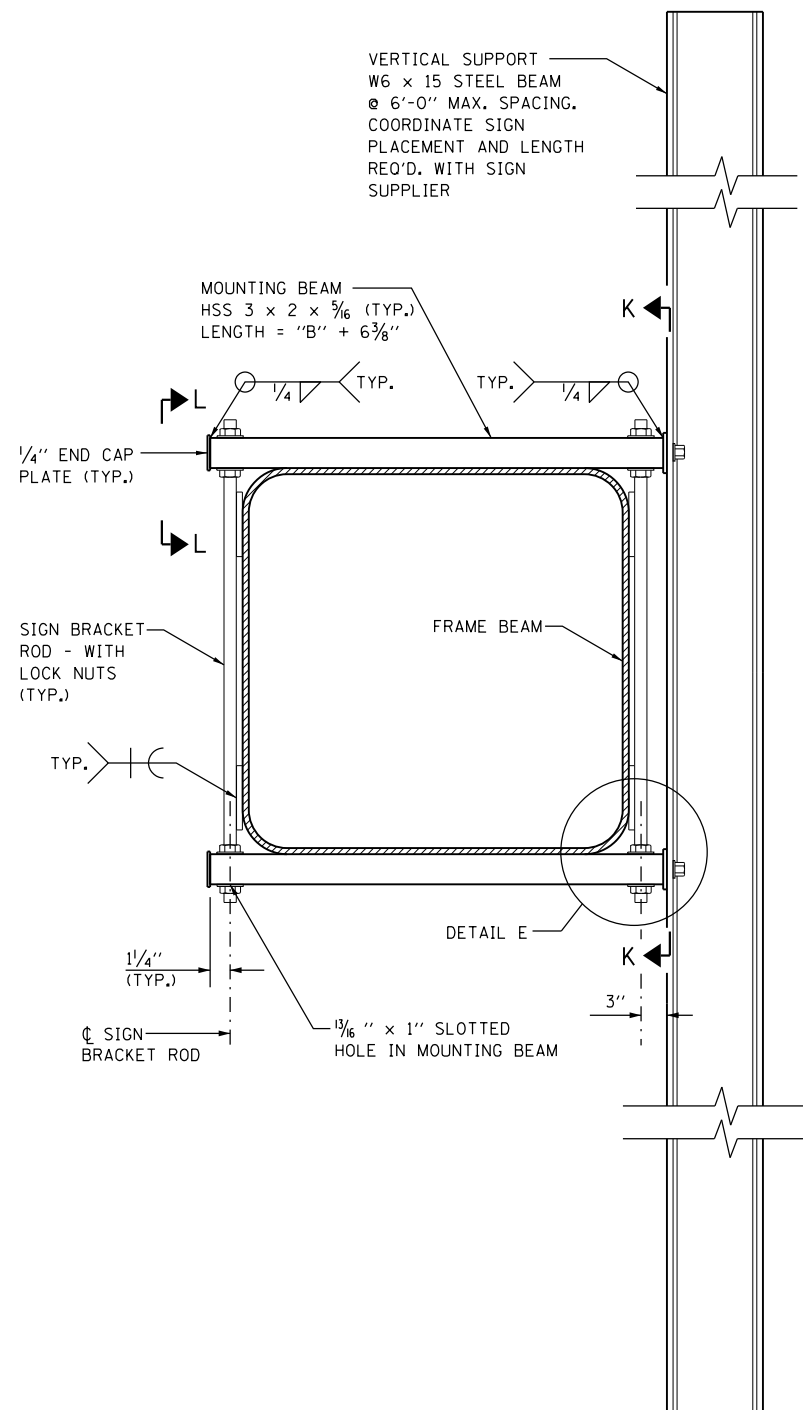
WELDING SHALL NOT BEGIN UNTIL THE ENGINEER HAS INSPECTED AND APPROVED FIT-UP OF THE JOINT.

BASE DRAWING M-OHS-730
SHEET 4 OF 9



OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
TWO-SPAN
STRUCTURE DETAILS

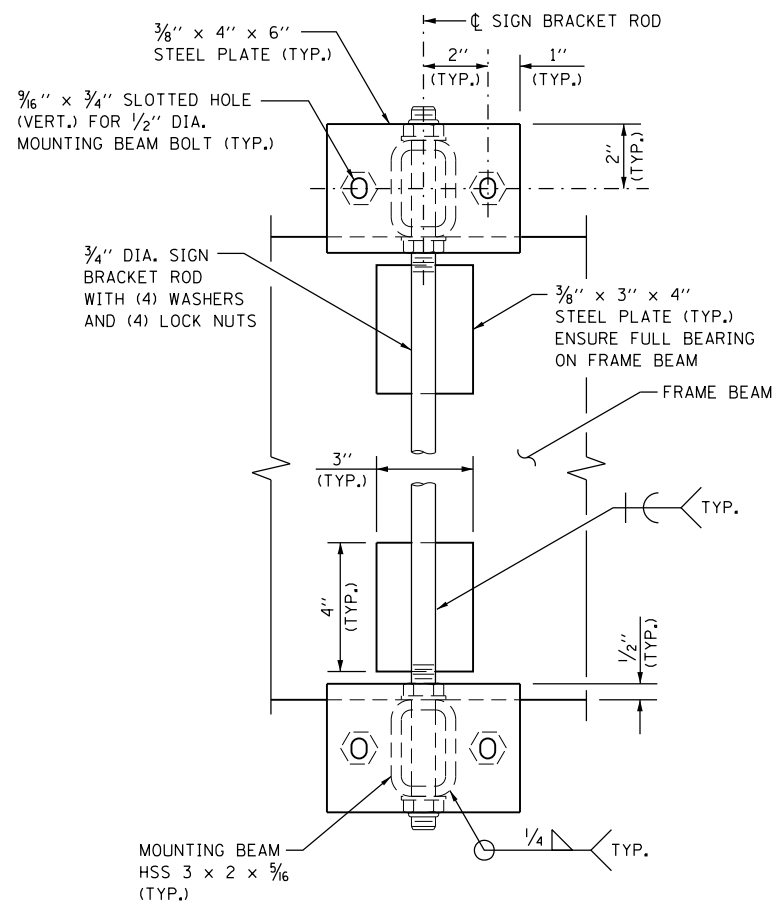
DATE
3-01-2020



CONNECTION SIDE VIEW

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.



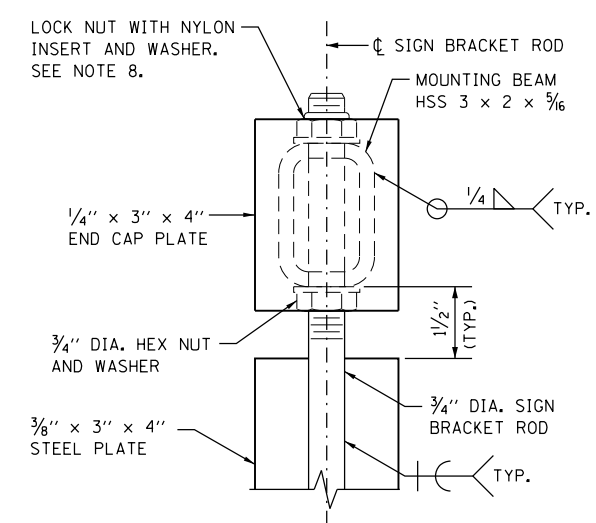
SECTION K-K

VERTICAL SUPPORT TABLE

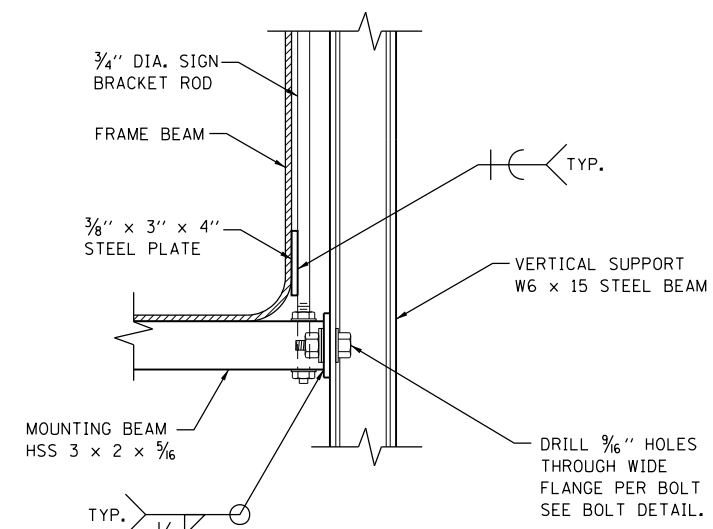
W6x15		
SIGN WIDTH		NUMBER OF VERTICAL SUPPORTS REQUIRED
GREATER THAN	LESS THAN OR EQUAL TO	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5

NOTES:

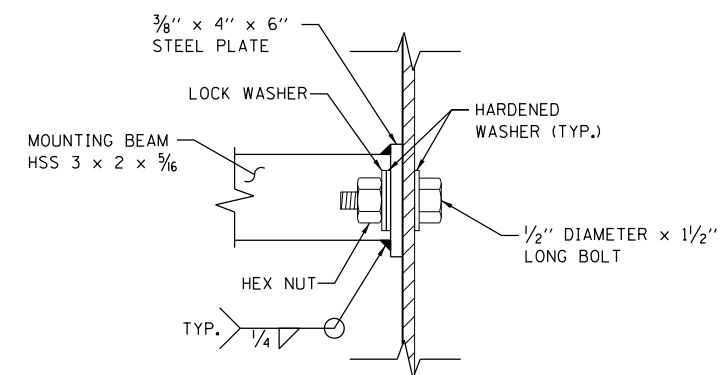
1. CONNECTION DETAIL IS APPLICABLE TO DMS AND LANE CONTROL SIGN.
2. VERIFY VERTICAL SUPPORT MEMBER LENGTH PRIOR TO FABRICATION.
3. DMS MANUFACTURER AND LANE CONTROL SIGN MANUFACTURER SHALL DESIGN, PROVIDE AND INSTALL HORIZONTAL MOUNTING MEMBERS. VERTICAL SPACING OF HORIZONTAL MEMBERS SHALL BE DESIGNED BY MANUFACTURER. VERIFY VERTICAL SPACING WITH HOLES ON W6x15 VERTICAL SUPPORT.
4. PROVIDE HIGH STRENGTH BOLTS WITH WASHERS AND LOCK NUTS TO FASTEN DMS AND LANE CONTROL SIGN TO VERTICAL SUPPORT MEMBERS.
5. GALVANIZE ALL NON-STAINLESS STEEL PARTS.
6. SIGN BRACKET RODS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A307.
7. LOCK NUTS SHALL BE STAINLESS STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A194 GRADE 8F OR ASTM A194 GRADE 2H.



VIEW L-L



DETAIL E



BOLT DETAIL

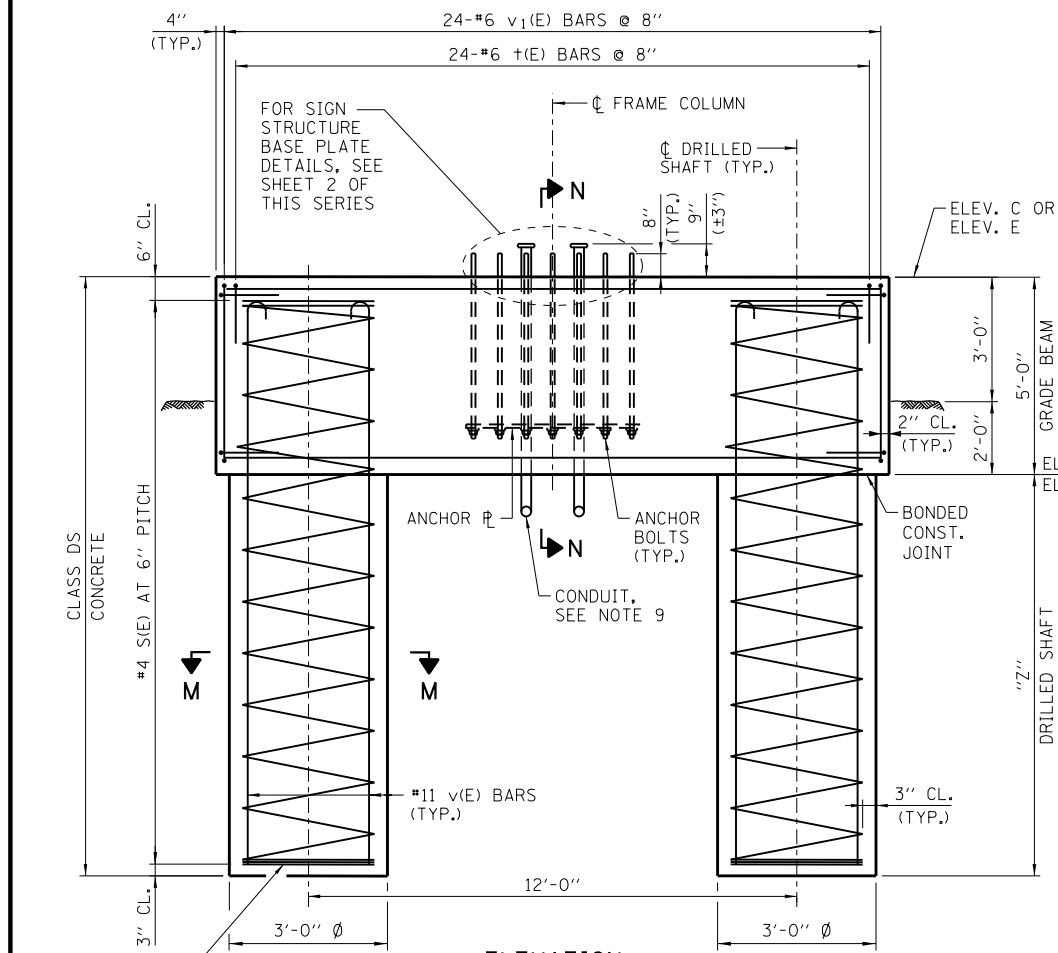
SIGN BRACKET ROD NOT SHOWN FOR CLARITY

BASE DRAWING M-OHS-730
SHEET 5 OF 9



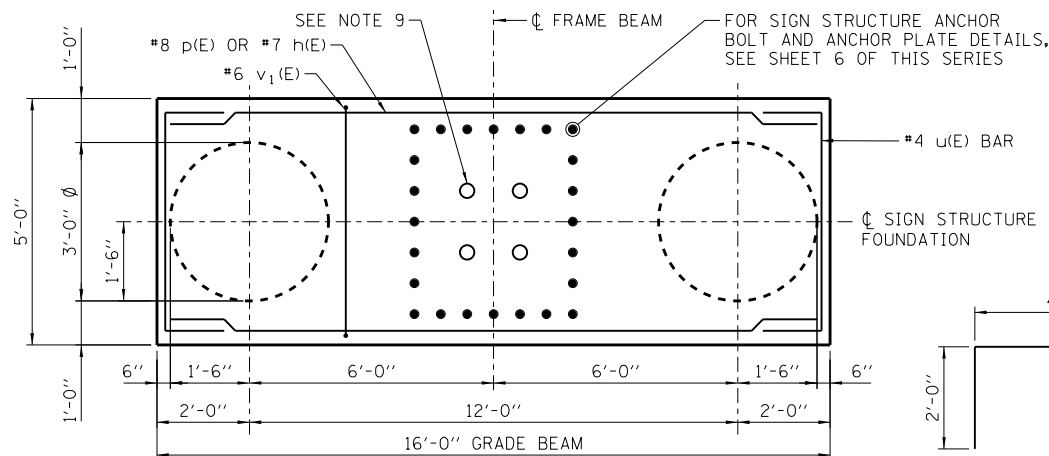
OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
TWO-SPAN
STRUCTURE DETAILS

DATE
3-31-2017

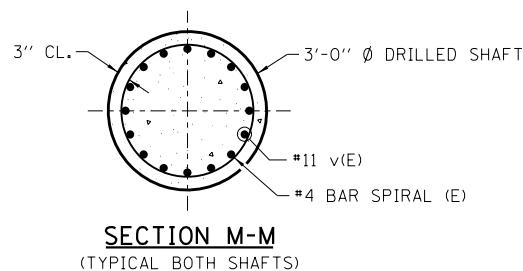


ELEVATION
SHOULDER FOUNDATION TYPE II

3 EXTRA TURNS
MINIMUM TOP AND
BOTTOM (TYP.)

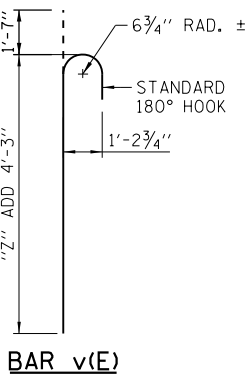
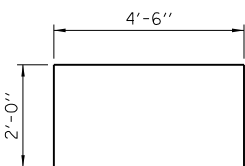


PLAN
SHOULDER FOUNDATION TYPE II



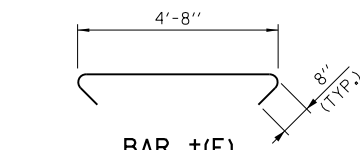
SECTION M-M
(TYPICAL BOTH SHAFTS)

BAR u(E)

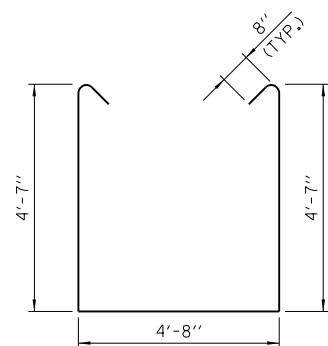


BAR v(E)

BAR t(E)



BAR v₁(E)



SHOULDER FOUNDATION TYPE II SCHEDULE

SPAN "S ₁ " OR "S ₂ "	"Z"	"W"	"X"	CLASS DS CONCRETE (CU YD)	REINF. BARS (LB)
<=110'	38'-0"	1'-5 1/2"	1'-4"	35.0	10,190
110'<"S"<=130'	42'-0"	1'-8"	1'-5 1/2"	37.0	10,950
130'<"S"<=150'	46'-0"	1'-8"	1'-6 3/4"	39.0	11,720

NOTES:

- THE FOUNDATION DETAILS SHOWN ARE BASED ON COMMON COHESIVE SOIL CONDITIONS (SILTY OR SANDY CLAY), WITH AN AVERAGE UNCONFINED COMPRESSIVE STRENGTH (QU) > 1.25 TON/SQ. FT. WHICH MUST BE DETERMINED BY PREVIOUS SOIL INVESTIGATIONS AT THE JOBSITE. WHEN OTHER CONDITIONS ARE INDICATED, THE BORING DATA SHALL BE INCLUDED IN THE PLANS AND THE FOUNDATION DIMENSIONS SHOWN SHALL BE THE RESULT OF SITE SPECIFIC DESIGNS. IF CONDITIONS ENCOUNTERED IN THE FIELD ARE DIFFERENT THAN THOSE INDICATED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER TO DETERMINE IF THE FOUNDATION DIMENSIONS NEED TO BE MODIFIED.
- ALL MATERIAL, FABRICATION, AND CONSTRUCTION REQUIREMENTS FOR THE FOUNDATION SHALL BE IN ACCORDANCE WITH SECTION 734 OF THE ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS.
- CONCRETE SHALL BE PLACED MONOLITHICALLY, WITHOUT CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
- BACKFILL SHALL BE PLACED PER SECTION 502 OF THE IDOT STANDARD SPECIFICATION AND PRIOR TO ERECTION OF GANTRY FRAME.
- PROVIDE NORMAL SURFACE FINISH, FOLLOWED BY PROTECTIVE COAT APPLICATION ON ALL CONCRETE SURFACES ABOVE ELEV. D (OR ELEV. F). COST INCLUDED IN THE COST OF "FOUNDATION FOR ITS GANTRY FRAME".
- ALL REINFORCEMENT BAR DESIGNATED (E) SHALL BE EPOXY COATED. REINFORCEMENT BAR SHALL BE POSITIONED SO THAT THERE WILL BE NO INTERFERENCE BETWEEN VERTICAL REINFORCEMENT AND ANCHOR BOLTS.
- FURNISHING AND INSTALLING ALL CONDUIT, FITTINGS AND GROUNDING SYSTEM ARE INCLUDED IN THE COST OF "FOUNDATION FOR ITS GANTRY FRAME".
- NO SONOTUBES OR DECOMPOSABLE FORMS SHALL BE USED 1'-0" BELOW THE FINISHED GROUND LINE. PERMANENT METAL FORMS OR OTHER SHIELDING MAY NOT BE LEFT IN PLACE WITHOUT THE ENGINEER'S WRITTEN PERMISSION. EXCAVATIONS SHALL BE DEWATERED BEFORE CONCRETE PLACEMENT AT NO ADDITIONAL COST.
- COORDINATE STAINLESS STEEL RIGID CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. CONDUITS SHALL BE PLACED TO MISS REINFORCEMENT BARS. DO NOT CUT REINFORCEMENT BARS.

NOTE TO DESIGNER:

DESIGNER TO COORDINATE CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. MODIFY DRAWING AS NECESSARY. REMOVE THIS "NOTE TO DESIGNER" PRIOR TO INSERTION INTO THE PLAN SET.

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

REINFORCEMENT BAR SCHEDULE

(2 DRILLED SHAFTS AND 1 GRADE BEAM)

MAX. SPAN "S ₁ " OR "S ₂ "	BAR	NO.	SIZE	LENGTH	SHAPE
"S"<=110'	h(E)	10	#7	15'-8"	***
	p(E)	14	#8	15'-8"	
	t(E)	24	#6	6'-0"	
	s(E)	2	#4	42'-3"	
	v(E)	32	#11	43'-10"	
	v ₁ (E)	24	#6	15'-2"	
110'<"S"<=130'	u(E)	24	#4	8'-6"	***
	h(E)	10	#7	15'-8"	
	p(E)	14	#8	15'-8"	
	t(E)	24	#6	6'-0"	
	s(E)	2	#4	46'-3"	
	v(E)	32	#11	47'-10"	
130'<"S"<=150'	v ₁ (E)	24	#6	15'-2"	***
	u(E)	24	#4	8'-6"	
	h(E)	10	#7	15'-8"	
	p(E)	14	#8	15'-8"	
	t(E)	24	#6	6'-0"	
	s(E)	2	#4	50'-3"	
	v(E)	32	#11	51'-10"	
	v ₁ (E)	24	#6	15'-2"	
	u(E)	24	#4	8'-6"	

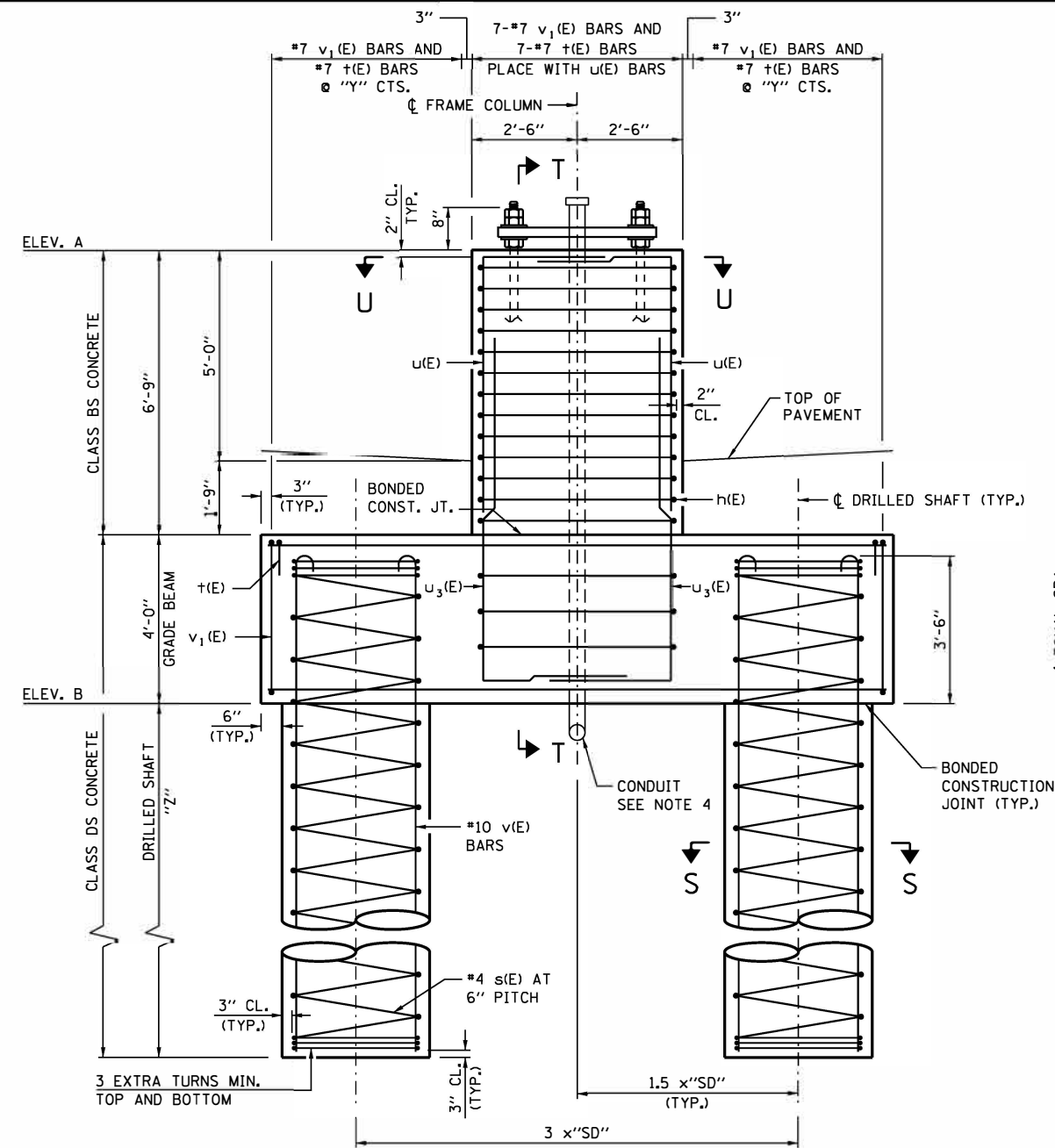
* THE LENGTH OF SPIRAL SHOWN IS THE HEIGHT OF SPIRAL.

BASE DRAWING M-OHS-730
SHEET 7 OF 9



OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
TWO-SPAN
STRUCTURE DETAILS

DATE
3-01-2019

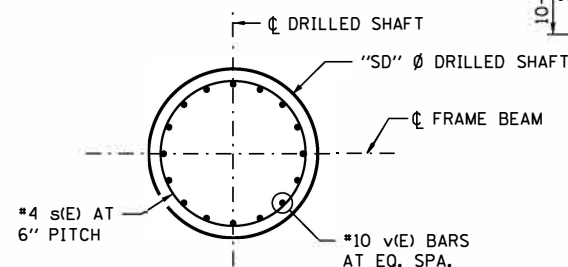


ELEVATION
MEDIAN FOUNDATION

REINFORCEMENT BAR SCHEDULE
FOR ONE FOUNDATION

MAX. SPAN "S ₁ " OR "S ₂ "	BAR	NO.	SIZE	LENGTH	SHAPE
<=110'	h ₁ (E)	6	#6	12'-8"	
	p(E)	12	#8	12'-8"	
	t(E)	23	#7	6'-2"	
	s(E)	2	#4	33'-3"	
	v(E)	32	#10	34'-8"	
110'<"S"≤130'	v ₁ (E)	23	#7	13'-4"	
	h ₁ (E)	6	#6	14'-8"	
	p(E)	12	#8	14'-8"	
	t(E)	27	#7	6'-2"	
	s(E)	2	#4	31'-3"	
130'<"S"≤150'	v(E)	32	#10	32'-8"	
	v ₁ (E)	27	#7	13'-4"	
	h ₁ (E)	6	#6	14'-8"	
	p(E)	12	#8	14'-8"	
	t(E)	31	#7	6'-2"	
>150'	s(E)	2	#4	31'-3"	
	v(E)	40	#10	32'-8"	
	v ₁ (E)	31	#7	13'-4"	
	h ₁ (E)	6	#6	14'-8"	
	p(E)	12	#8	14'-8"	

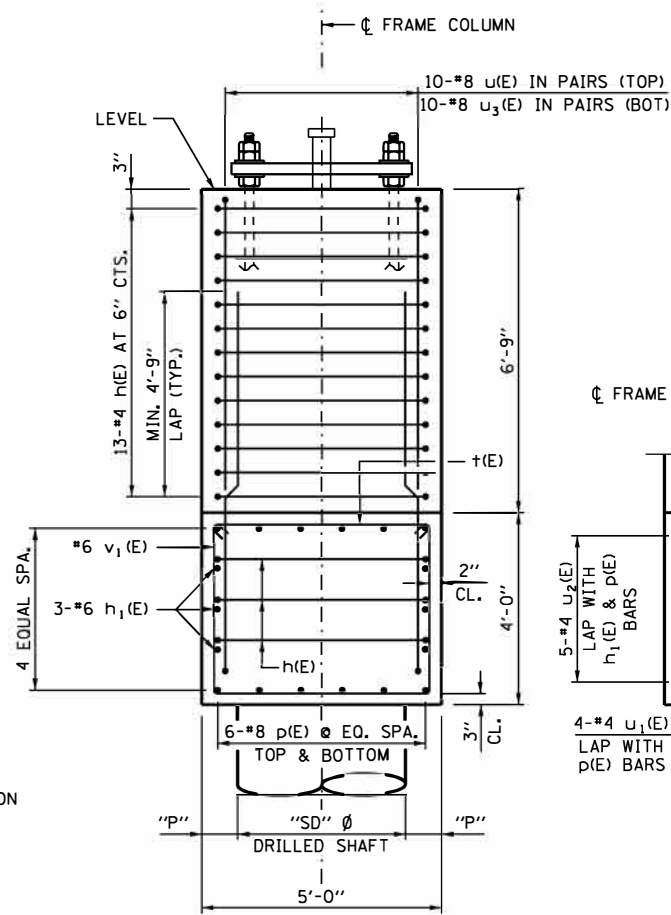
* THE LENGTH OF SPIRAL SHOWN IS THE HEIGHT OF SPIRAL.



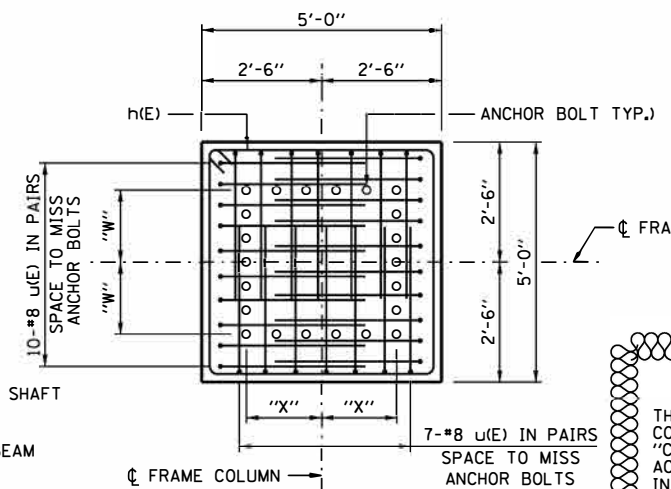
SECTION S-S

REINFORCEMENT BAR SCHEDULE
FOR ONE FOUNDATION

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	16	#4	19'-1"	
u(E)	34	#8	9'-7"	
u ₁ (E)	8	#4	4'-11"	
u ₂ (E)	10	#4	5'-10"	
u ₃ (E)	34	#8	11'-4"	



SECTION T-T



SECTION U-U

MEDIAN FOUNDATION SCHEDULE

MAX. SPAN "S ₁ " OR "S ₂ "	CLASS BS CONCRETE (CU YD)	CLASS DS CONCRETE (CU YD)	REINF. BARS (LB)	PROTECTIVE COAT (SQ YD)
<=110'	7.0	26.0	9,120	9
110'<"S"≤130'	7.0	32.0	9,190	9
130'<"S"≤150'	7.0	32.0	10,480	9

MEDIAN FOUNDATION TABLE

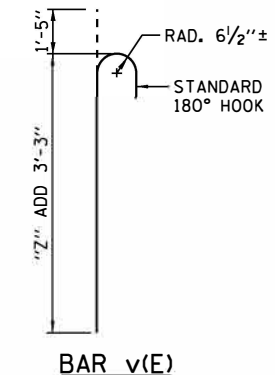
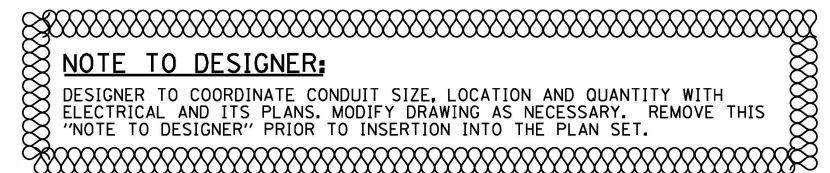
MAX. SPAN "S ₁ " OR "S ₂ "	"Z"	"SD"	"P"	"W"	"X"	"Y"	NO. ANCHOR BOLT
<=110'	30'-0"	3'-0"	1'-0"	1'-5/2"	1'-4"	6"	18
110'<"S"≤130'	28'-0"	3'-6"	9"	1'-6"	1'-5/2"	6"	22
130'<"S"≤150'	28'-0"	3'-6"	9"	1'-6"	1'-6 3/4"	5"	22

NOTES:

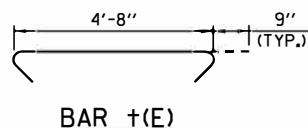
- SEE SHEET 6 OF THIS SERIES FOR FOUNDATION NOTES, DESIGN CRITERIA, ANCHOR BOLT DETAIL AND ANCHOR PLATE DETAIL.
- PROVIDE NORMAL SURFACE FINISH, FOLLOWED BY PROTECTIVE COAT APPLICATION ON ALL CONCRETE SURFACES ABOVE TOP OF GRADE BEAM. COST INCLUDED IN THE COST OF "FOUNDATION FOR ITS GANTRY FRAME".
- SEE SHEET 9 OF THIS SERIES FOR CONCRETE MEDIAN BARRIER TRANSITION. COST OF BARRIER TRANSITION INCLUDED IN COST OF "CONCRETE MEDIAN BARRIER TRANSITION, TYPE V-F".
- COORDINATE STAINLESS STEEL RIGID CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. CONDUITS SHALL BE PLACED TO MISS REINFORCEMENT BARS. DO NOT CUT REINFORCEMENT BARS.
- PROTECTIVE COAT SHALL BE APPLIED TO TRAFFIC AND TOP FACES OF CONCRETE CRASHWALL.

NOTE TO DESIGNER:

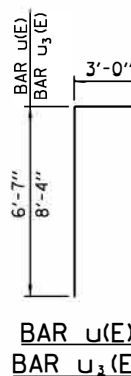
DESIGNER TO COORDINATE CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. MODIFY DRAWING AS NECESSARY. REMOVE THIS "NOTE TO DESIGNER" PRIOR TO INSERTION INTO THE PLAN SET.



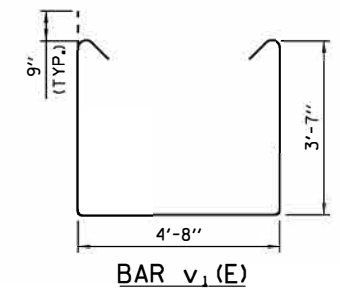
BAR v(E)



BAR t(E)

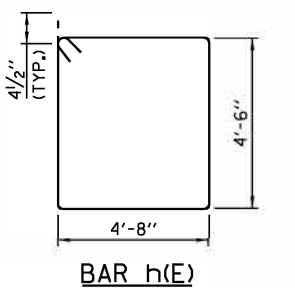


BAR u(E)
BAR u₃(E)



BAR v₁(E)

BAR	"M"	"N"
u ₁ (E)	3'-7"	8"
u ₂ (E)	4'-6"	8"



BAR h(E)

NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

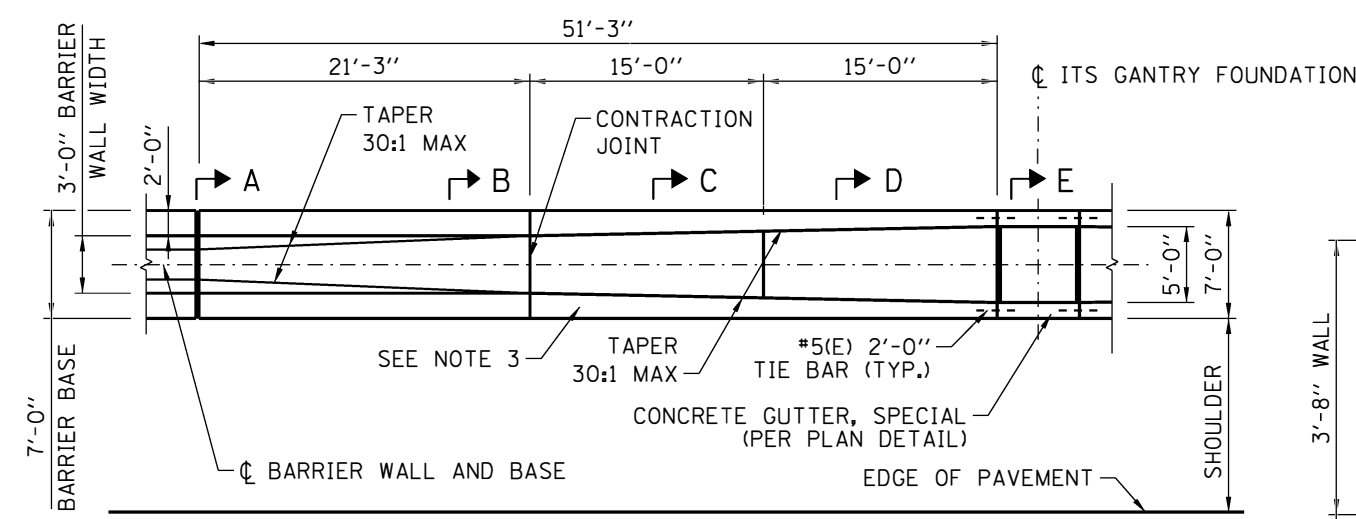
DESIGNER TO COORDINATE CONDUIT SIZE, LOCATION AND QUANTITY WITH ELECTRICAL AND ITS PLANS. MODIFY DRAWING AS NECESSARY.

BASE DRAWING M-OHS-730
SHEET 8 OF 9

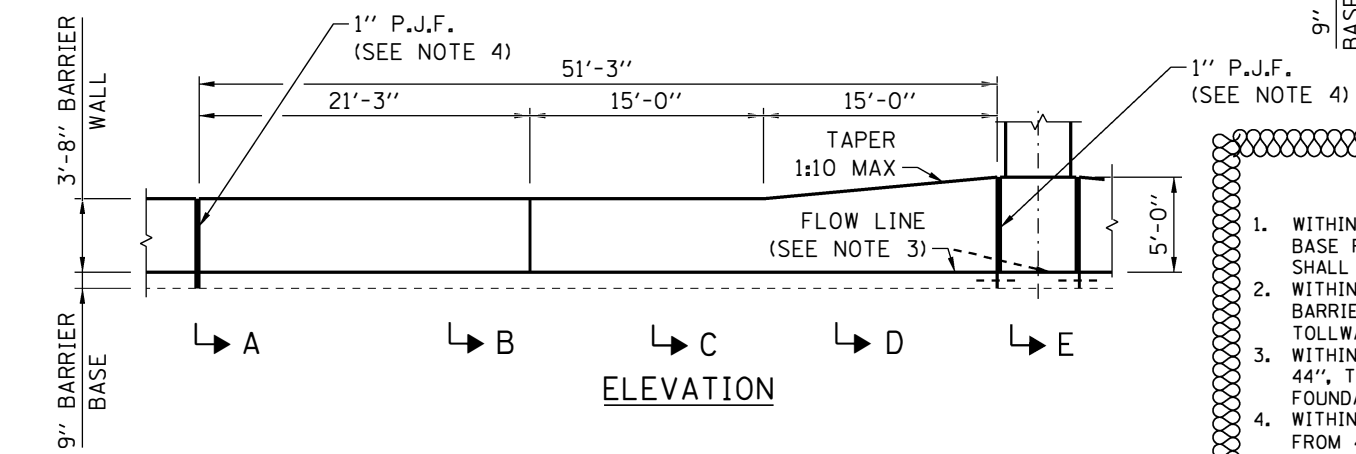


OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
TWO-SPAN
STRUCTURE DETAILS

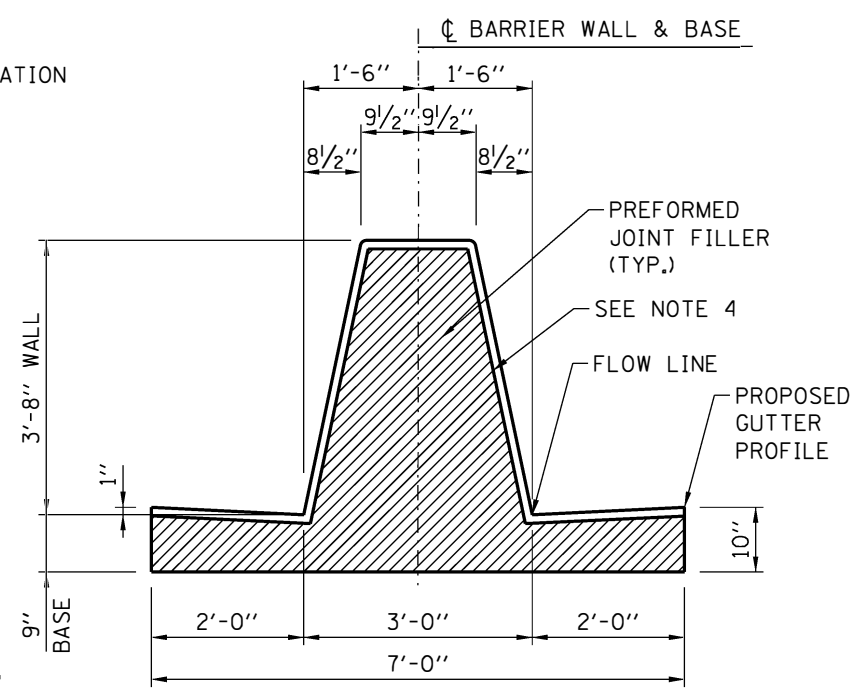
DATE
3-01-2020



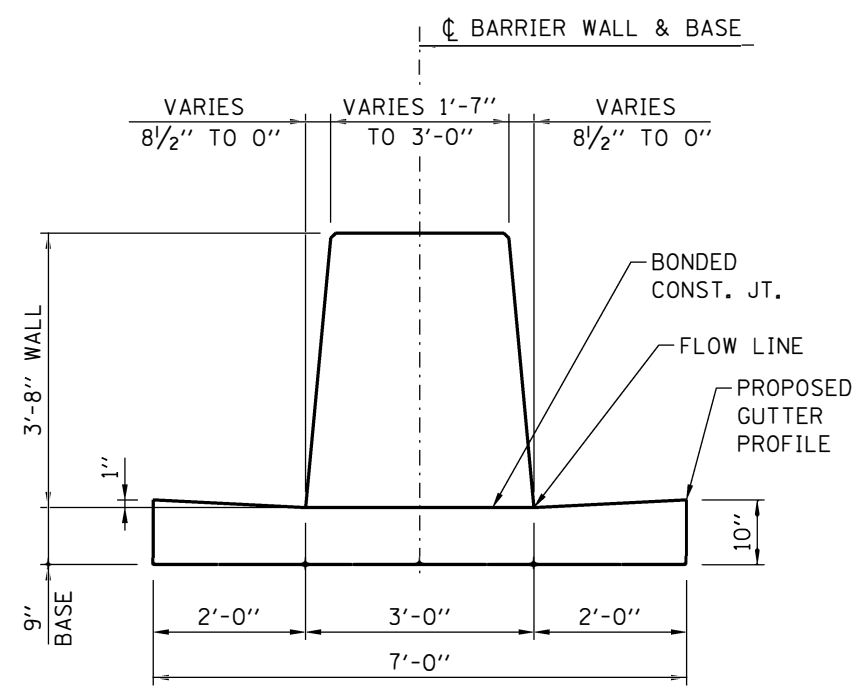
PLAN



ELEVATION



SECTION A-A



SECTION B-B

NOTE TO DESIGNER:

1. WITHIN SECTION B-B, THE GUTTER PORTION OF THE BARRIER BASE REMAINS 2'-0"; THEREFORE, STANDARD TYPE 20A F&G SHALL BE USED.
2. WITHIN SECTION C-C & D-D, THE GUTTER PORTION OF THE BARRIER BASE IS LESS THAN 2'-0"; THEREFORE, NON-ILLINOIS TOLLWAY STD. F&G SHALL BE USED.
3. WITHIN SECTION B-B & C-C, THE BARRIER HEIGHT REMAINS 44", THIS ALLOWS THE PLACEMENT OF LIGHT POLE FOUNDATIONS WITHIN THIS AREA.
4. WITHIN SECTION D-D, THE BARRIER HEIGHT IS INCREASING FROM 44" TO 60", THE LIGHT POLE FOUNDATIONS SHALL NOT BE PLACED WITHIN THIS AREA.

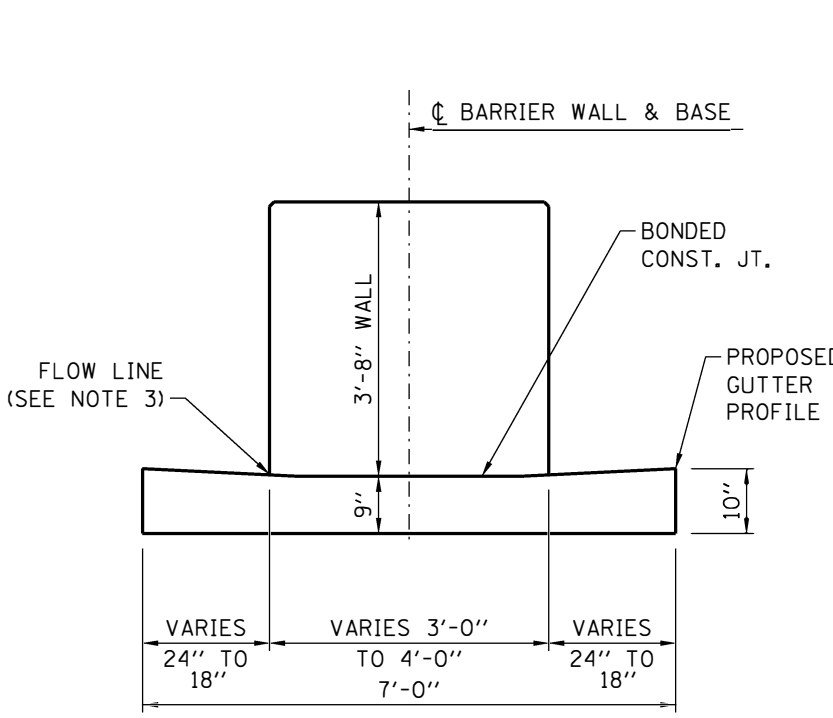
NOTE TO DESIGNER:

THIS BASE SHEET SHOWS TYPICAL NEW CONSTRUCTION BUT IT IS NOT A STANDARD DRAWING. IT REQUIRES COMPLETION BY THE DESIGNER PRIOR TO INSERTION INTO A CONTRACT. MICROSTATION FILES AND THE "CADD STANDARDS MANUAL" ARE AVAILABLE ON THE ILLINOIS TOLLWAY WEBSITE. THE DESIGNER SHALL ACCEPT THE RESPONSIBILITY OF THE DESIGN OF THIS BASE DRAWING UPON ITS COMPLETION AND INSERTION INTO A CONTRACT. ALL "NOTE TO DESIGNER" BOXES SHALL BE REMOVED BY THE DESIGNER PRIOR TO INSERTION OF THE SHEET INTO THE PLAN SET.

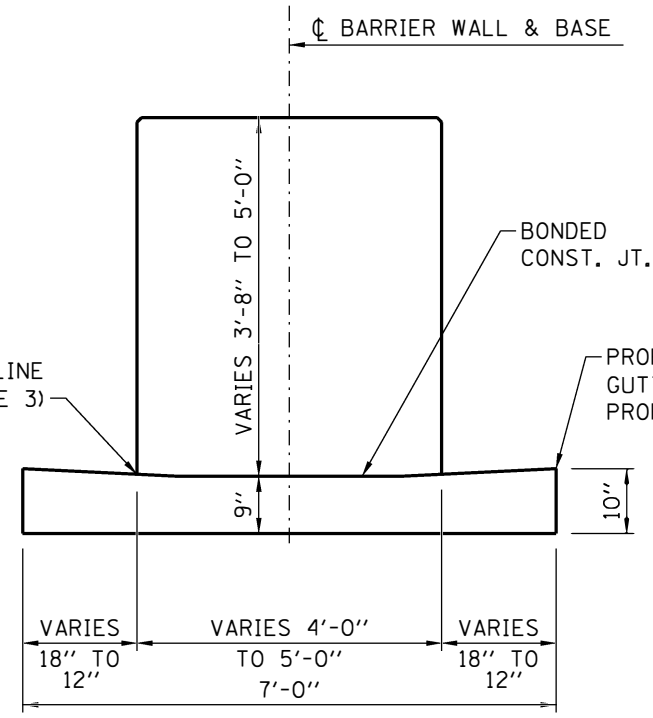
NOTES:

1. 2" DEEP CONTRACTION JOINTS SHALL BE CONSTRUCTED IN THE CONCRETE BARRIER WALL AND IN THE CONCRETE BARRIER BASE. CONTRACTION JOINTS SHALL ALSO BE CONSTRUCTED AT BOTH SIDES OF ALL DRAINAGE STRUCTURES. MAXIMUM JOINT SPACING SHALL BE 30'.
2. THE FORMING OF CONTRACTION JOINTS SHALL BE DONE BY SAWING.
3. GUTTER PROFILE IN THE VICINITY OF SAG VERTICAL CURVES, ALONG FLAT GRADES AND AT THE MEETING OF PROPOSED AND EXISTING GUTTER, SHALL BE CAREFULLY CONTROLLED AND FIELD ADJUSTED IF NECESSARY TO ENSURE POSITIVE DRAINAGE AND AVOID PONDING.
4. PROVIDE NON-STAINING GRAY ONE COMPONENT NON-SAG ELASTOMETRIC GUN GRADE POLYURETHANE SEALANT WITH BACKER ROD.

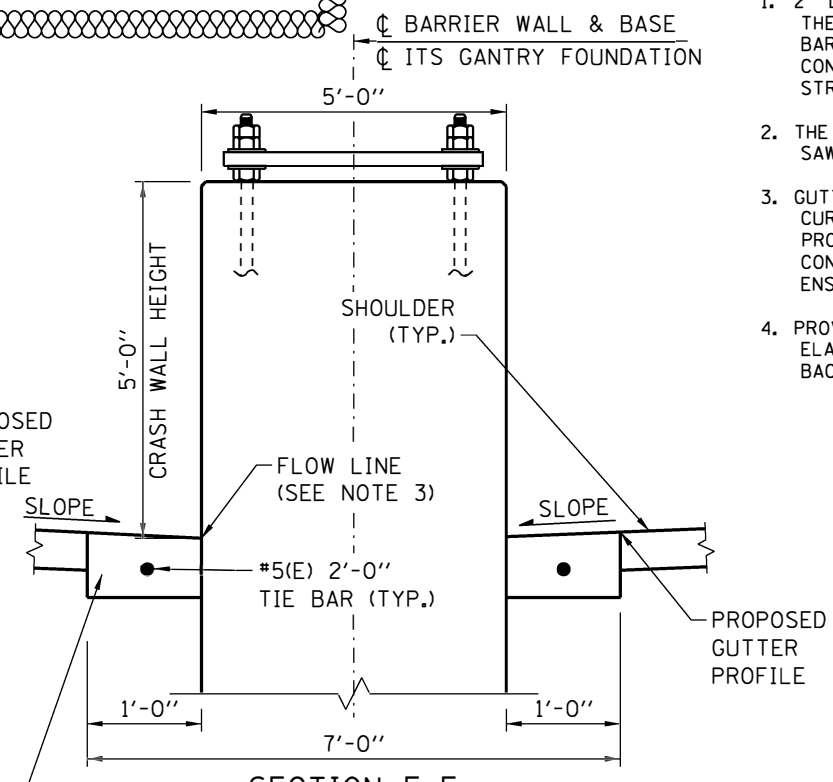
CONCRETE MEDIAN BARRIER TRANSITION, TYPE V-DF AT ITS GANTRY



SECTION C-C



SECTION D-D



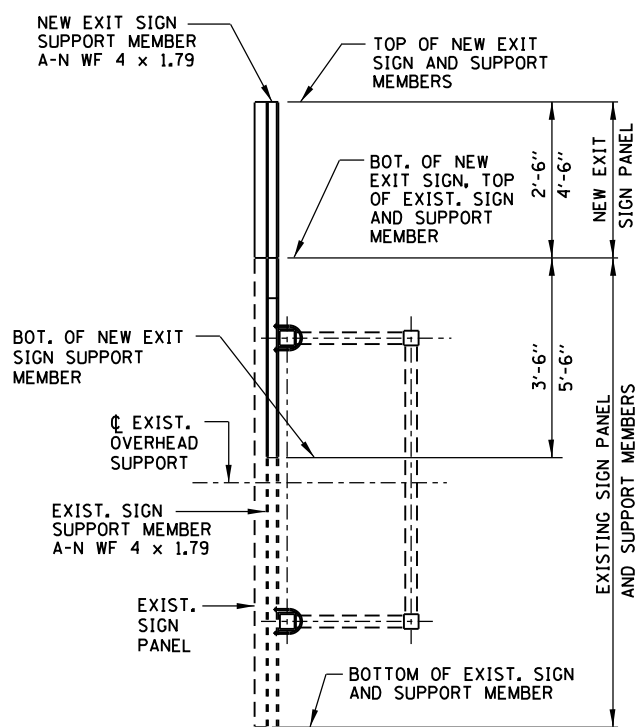
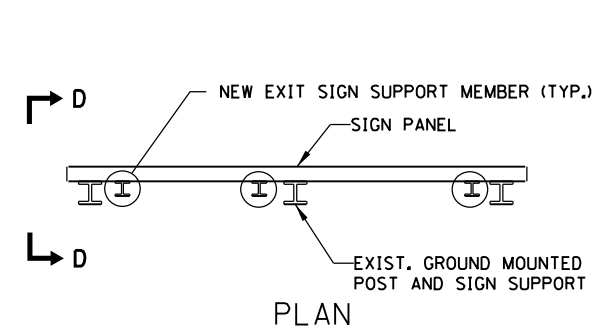
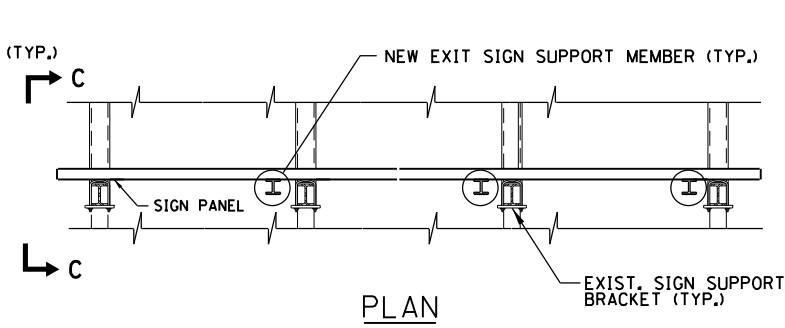
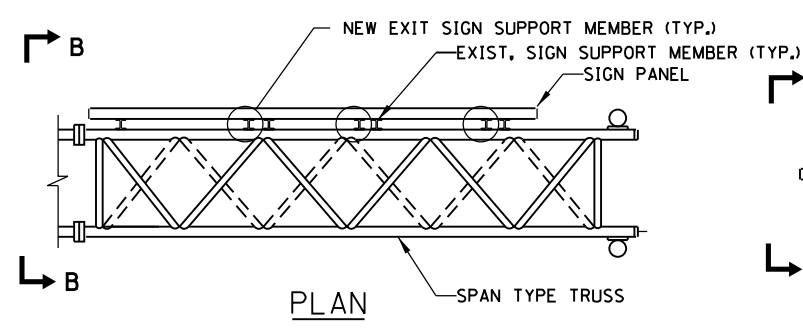
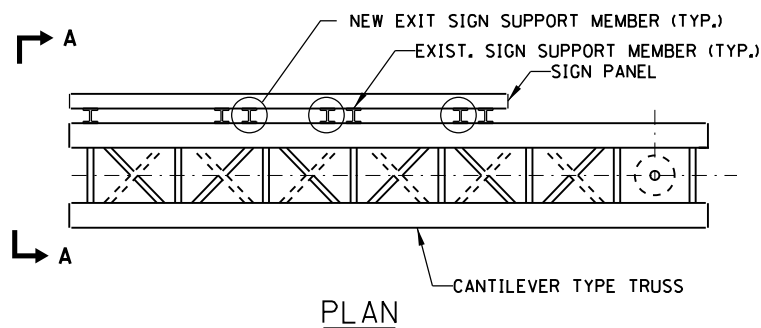
SECTION E-E

BASE DRAWING M-OHS-730
SHEET 9 OF 9



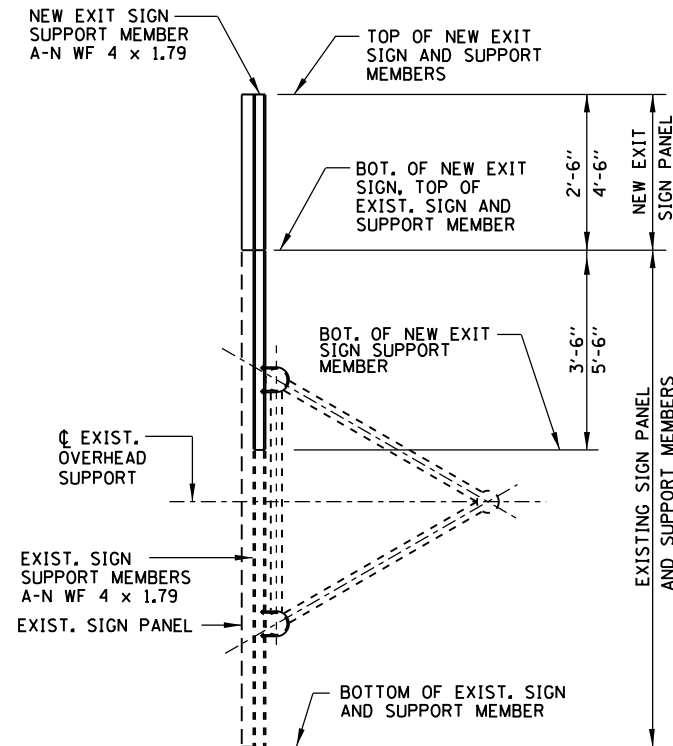
OVERHEAD SIGN STRUCTURE
ITS GANTRY FRAME (STEEL)
TWO-SPAN
STRUCTURE DETAILS

DATE
3-01-2020



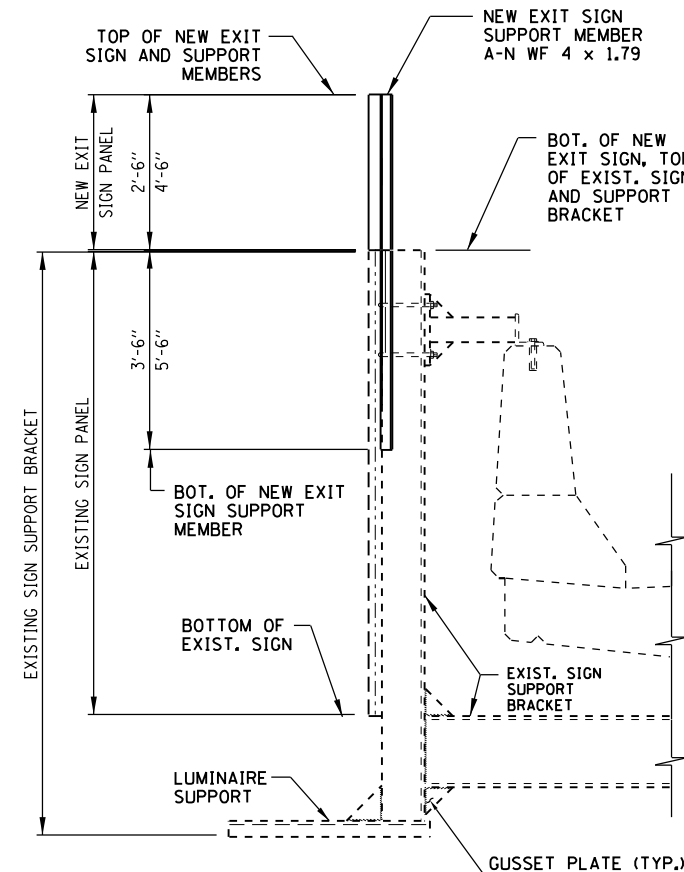
SECTION A-A

OVERHEAD CANTILEVER TYPE SIGN SUPPORT



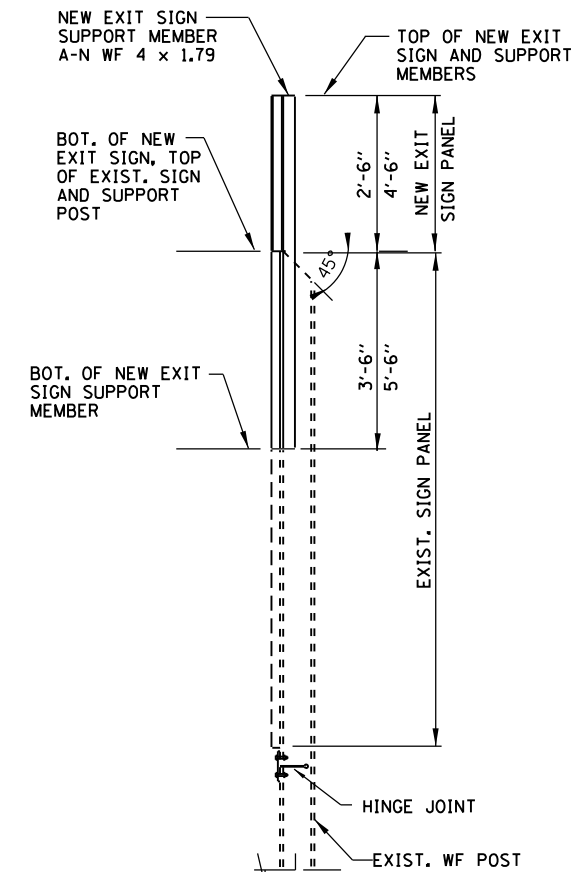
SECTION B-B

OVERHEAD SPAN TYPE SIGN SUPPORT



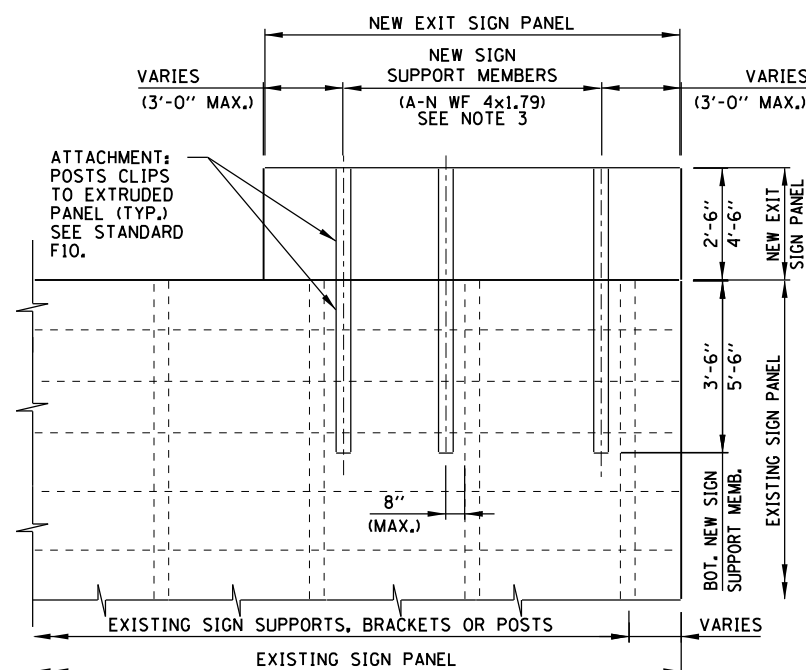
SECTION C-C

BRIDGE MOUNTED SIGN SUPPORT



SECTION D-D

GROUND MOUNTED SIGN SUPPORT



PARTIAL REAR ELEVATION OF SIGN PANELS AND SUPPORT MEMBERS

DETAILS FOR RETROFITTING NEW EXIT SIGN

NOTES:

1. ALL MATERIAL IS ALUMINUM IN ACCORDANCE WITH SECTION 733 OF THE LATEST IDOT STANDARD SPECIFICATIONS. (UNLESS OTHERWISE NOTED).
2. NEW SIGN SUPPORT MEMBERS SHALL BE SPACED WITH EXISTING SIGN SUPPORTS. SPACING SHALL NOT EXCEED 6'-0".
3. STANDARD SHALL ALSO BE UTILIZED FOR RETROFITTING OTHER SIGN PANELS WITH EXISTING SIGN SUPPORTS THAT DO NOT CONFORM TO STANDARD F8. NEW SIGN SUPPORT MEMBERS SHALL BE TWICE THE UNSUPPORTED HEIGHT PLUS ONE FOOT.

NOTE TO DESIGNER:

EXISTING TRUSS AND SUPPORT MEMBERS SHALL BE CHECKED FOR STRUCTURAL ADEQUACY TO SUPPORT THE ADDITIONAL SIGN PANEL AREA.

M-OHS-731



MOUNTING DETAILS FOR
RETROFITTING NEW
EXIT SIGN PANELS

DATE
3-01-2019