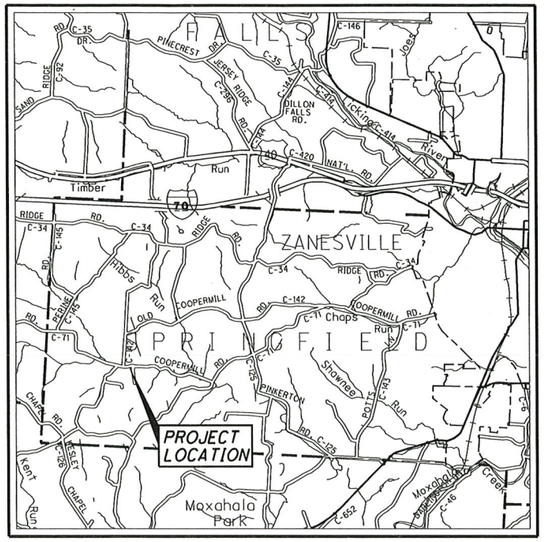


LOCATION MAP

LATITUDE: N39°54'52" LONGITUDE: W82°06'10"

SCALE IN MILES

0 1 2 3 4

N

PORTION TO BE IMPROVED _____

INTERSTATE & DIVIDED HIGHWAY _____

UNDIVIDED STATE & FEDERAL ROUTES _____

OTHER ROADS _____

DESIGN DESIGNATION

CURRENT ADT (2008)	400
DESIGN YEAR ADT (2028)	430
DESIGN HOURLY VOLUME (2028)	47
DIRECTIONAL DISTRIBUTION	52%
TRUCKS (24 HOUR B&C)	5%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	RURAL LOCAL

DESIGN EXCEPTIONS

	APPROVAL DATE	SHEET NO.
BRIDGE WIDTH	12/07/07	2

MUSKINGUM COUNTY

ENGINEER'S OFFICE

(Coopermill Rd. Bridge)

MUS-C.R.71-5.74 PART 3

SPRINGFIELD TOWNSHIP

MUSKINGUM COUNTY

FOR PART 1, SEE MUS-C.R.414-2.40

FOR PART 2, SEE MUS-C.R.6-11.85

INDEX OF SHEETS:

FINAL PLAN SUBMISSION

PROJECT DESCRIPTION

IMPROVEMENT OF 0.03 MILES OF C.R. 71 (COOPERMILL ROAD) BY REPLACING A SINGLE SPAN TRUSS BRIDGE OVER THOMPSON RUN.

PROJECT EARTH DISTURBED AREA:	0.28 ACRES
ESTIMATED CONTRACTOR EARTH DISTRUBED AREA:	0.14 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	NOT REQUIRED

2005 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS APPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 3.

WE THE COMMISSIONERS OF MUSKINGUM COUNTY, IN FORMAL SESSION, HEREBY APPROVE THESE PLANS.

Brian D. Hess — 3-13-08
MUSKINGUM COUNTY COMMISSIONER — DATE

John D. Bates — 3-13-08
MUSKINGUM COUNTY COMMISSIONER — DATE

MUSKINGUM COUNTY COMMISSIONER — DATE

APPROVED _____
DATE 3/13/08 MUSKINGUM COUNTY ENGINEER

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE SERVICE CALL: 1-800-929-0988

PLAN PREPARED BY:

MCEO
MUSKINGUM COUNTY ENGINEER'S OFFICE
DOUG DAVIS - COUNTY ENGINEER
155 REHL ROAD - ZANESVILLE, OHIO 43701

ENGINEERS SEAL:

STATE OF OHIO
DOUGLAS R. DAVIS
#56345
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: _____

DATE: _____

STANDARD CONSTRUCTION DRAWINGS

BP-3.1	10/19/07	DBR-2-73	7/19/02			
DM-1.4	4/21/06	MT-97.11	9/05/06			
DM-4.2	1/21/05	MT-101.60	9/20/06			
DM-4.3	7/19/02	MT-105.10	10/18/02			
DM-4.4	7/19/02	MT-105.11	10/18/02			
GR-1.1	7/16/04	TC-73.10	1/19/01			
GR-2.1	1/16/04					
GR-2.2	1/20/06					
GR-3.4	1/20/06					

SUPPLEMENTAL SPECIFICATIONS

800	1/18/08
832	4/25/06

SPECIAL PROVISIONS

2008-44-MUS

FEDERAL PROJECT NO. NONE

PID NO. 24277

CONSTRUCTION PROJECT NO. ---

RAILROAD INVOLVEMENT NONE

MUS-C.R.71-5.74

1/14

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ELECTRIC: AEP OHIO
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215-2373
PHONE: (800) 277-2177

WATER: MAYSVILLE REGIONAL WATER DISTRICT
6255 MAYSVILLE PIKE
ZANESVILLE, OH 43701
PHONE: (740) 849-2428

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

INDIANA BAT NOTE

CLEARING OF ANY TREES THAT HAVE SUITABLE SUMMER BROOD REARING OR ROOSTING HABITAT FOR THE FEDERALLY ENDANGERED INDIANA BAT (E.G. TREES WITH EXFOLIATING BARK AND/OR CAVITIES), SHALL OCCUR BEFORE APRIL 15 OR AFTER SEPTEMBER 15 WHEN THE BATS WOULD NOT BE USING SUCH HABITAT.

CONTRACTOR'S USE OF RIGHT-OF-WAY

THE CONTRACTOR SHALL NOT USE OR ENTER ANY AREA OUTSIDE OF THE RIGHT-OF-WAY LIMITS THAT ARE SHOWN ON THE PLANS.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, REPAIR SEEDING AND MULCHING	10 SQ. YD
659, COMMERCIAL FERTILIZER	.03 TON
659, LIME	.05 ACRES
659, WATER	1.25 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

DEMOLITION DEBRIS

THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING THE STREAM. ANY MATERIAL THAT DOES FALL INTO THE STREAM SHALL BE REMOVED AS SOON AS POSSIBLE.

BANK STABILIZATION

BANK STABILIZATION WILL BE LIMITED TO WITHIN 50 FEET UPSTREAM AND DOWNSTREAM OF THE EXISTING STRUCTURE. BANK STABILIZATION WILL BE LIMITED TO REGRADING OF THE BANKS FROM TOE-OF-SLOPE (INSTREAM) TO THE TOP OF BANK AND WILL INCLUDE PLACEMENT OF ROCK CHANNEL PROTECTION WHERE REQUIRED. THIS EXCLUDES WORK SUCH AS WIDENING, DEEPENING OR RELOCATION. THE EXTENT OF SUCH STABILIZATION WILL BE KEPT TO A MINIMUM.

WATERWAY PERMIT DETERMINATION (404/401) - LOCAL LET LPA PROJECTS

ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. THE OHIO DEPARTMENT OF TRANSPORTATION - OFFICE OF ENVIRONMENTAL SERVICES (OES) AND/OR THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE) HAS DETERMINED THAT THE PROJECT MEETS THE CRITERIA OF NATIONWIDE PERMIT (NWP) 3 - MAINTENANCE; BASED UPON THE ANTICIPATED IMPACTS TO STREAM(S) AND/OR WETLAND(S). HOWEVER, THIS PERMIT DETERMINATION DID NOT INCLUDE THE USE OF TEMPORARY CONSTRUCTION ACCESS FILLS THAT MAY BE REQUIRED FOR CONSTRUCTION (I.E. CAUSEWAY STREAM CROSSINGS, CONSTRUCTION ACCESS PADS, COFFERDAMS, ETC.). INFORMATION REGARDING THE USE OF TEMPORARY CONSTRUCTION ACCESS FILLS MAY NOT HAVE BEEN KNOWN AT THE TIME OF THE PERMIT DETERMINATION. THE CONTRACTOR SHOULD BE AWARE THAT THE USE OF TEMPORARY FILL BELOW THE ORDINARY HIGH WATER MARK (OHWM), WHICH IS THE USACE'S JURISDICTIONAL LIMITS, WILL REQUIRE A PRE-CONSTRUCTION NOTIFICATION (PCN) AND AUTHORIZATION BY THE USACE UNDER NWP 33 - TEMPORARY CONSTRUCTION ACCESS AND DEWATERING. SHOULD TEMPORARY CONSTRUCTION ACCESS FILL BE REQUIRED, THE CONTRACTOR OR LOCAL PROJECT SPONSOR SHALL COORDINATE SUCH ACTIVITIES, INCLUDING THE PCN, WITH THE APPROPRIATE USACE DISTRICT OFFICE AND ALLOW 60 DAYS MINIMUM FOR PROCESSING WITH THE USACE. THE CONTRACTOR SHALL NOT UTILIZE TEMPORARY FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. SHOULD A PCN BE REQUIRED, THE PCN SHALL INCLUDE PERTINENT INFORMATION (I.E. VOLUME AND SURFACE AREA OF TEMPORARY FILLS) AND DRAWINGS (PLAN AND PROFILE VIEW) OF TEMPORARY FILLS BELOW OHWM. ONLY CLEAN, NON ERODIBLE MATERIALS SHALL BE USED FOR TEMPORARY CONSTRUCTION ACCESS FILLS. ANY TEMPORARY FILLS BELOW OHWM SHALL BE REMOVED FOLLOWING COMPLETION OF THE AUTHORIZED ACTIVITY AND THE AREA OF STREAM WHEREM TEMPORARY FILL WAS LOCATED SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION.

USACE DEFINITION OF OHWM - THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANK; SHELVING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

CENTERLINE REFERENCES C.R. 71

STATION	OFFSET (FT.)	SIDE	NORTHING	EASTING	ELEVATION	DESCRIPTION
0+74.47	0.00	℄	697527.45	2079815.62		P.C.
1+17.43	0.00	℄	697537.45	2079857.41		P.I.
1+58.53	0.00	℄	697366.98	2079854.02		P.T.
2+38.53	0.00	℄	697504.11	2079975.76		P.C.
2+74.58	0.00	℄	697494.33	2080010.47		P.I.
3+10.29	0.00	℄	697792.87	2080057.10		P.T.

CALCULATED SEJ CHECKED ---

GENERAL NOTES

MUS-C.R.71-5.74

ITEM 614 - MAINTAINING TRAFFIC

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48"x30" ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES, GATES AND LIGHTS AS SHOWN ON SCD MT-101.60 AT THE LOCATIONS SHOWN DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATION AS SHOWN ON THE PLANS.

ALL WORK AND TRAFFIC DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

DETOUR SIGNAGE

THE COUNTY SHALL ERECT AND MAINTAIN DETOUR SIGNAGE AS SHOWN ON THE PLANS.

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE COUNTY EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. THE COUNTY SHALL THEN PROVIDE AND INSTALL ALL DEVICES NECESSARY TO DEFINE THE ROUTE OF THE DETOUR AND SHALL MAINTAIN THE SAME THROUGHOUT THE DETOUR LIMITATION DATES. ALL TRAFFIC CONTROL DEVICES REQUIRED, OTHER THAN FOR THE DETOUR, SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR.

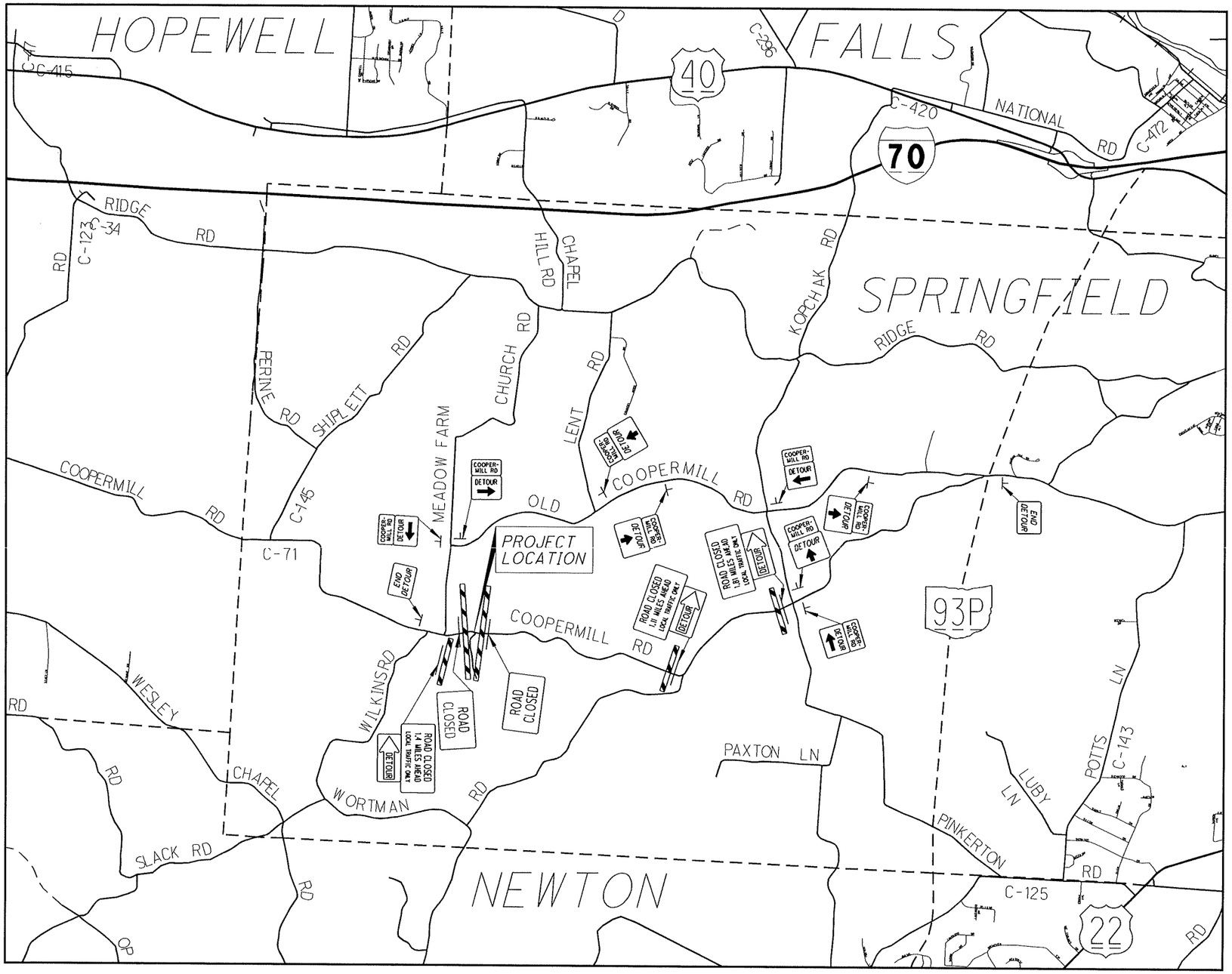
DETOUR LIMITATION

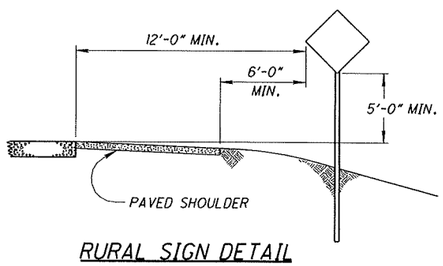
THE MAXIMUM LENGTH OF TIME FOR THE DETOUR ROUTE TO BE IN EFFECT SHALL BE NINETY (90) CONSECUTIVE DAYS. CONSTRUCTION WORK MAY BE PERFORMED BEFORE AND AFTER THE DETOUR LIMITATION DATES, BUT THERE SHALL BE NO RESTRICTIONS TO THROUGH OR LOCAL TRAFFIC. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND PERFORM THE CONSTRUCTION WORK WITHIN THE DETOUR LIMITATION TIME. THE FAILURE OF THE CONTRACTOR TO MEET THE DETOUR LIMITATION DATES WILL CAUSE SEPARATE LIQUIDATED DAMAGES IN ACCORDANCE WITH 108.07 TO BE ASSESSED. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF 108.07 OF THE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER 2 M. GAL.





RURAL SIGN DETAIL

SIGN KEY

END DETOUR
M4-8A (30"x24")

COOPER-MILL RD DETOUR
SPECIAL (30"x12")
M4-9C (30"x24")

COOPER-MILL RD DETOUR
SPECIAL (30"x12")
M4-9L (30"x24")

COOPER-MILL RD DETOUR
SPECIAL (30"x12")
M4-9R (30"x24")

ROAD CLOSED X.X MILES AHEAD LOCAL TRAFFIC ONLY DETOUR
R11-3a (60"x30")
M4-10L (48"x18")

ROAD CLOSED X.X MILES AHEAD LOCAL TRAFFIC ONLY DETOUR
R11-3a (60"x30")
M4-10R (48"x18")

ROAD CLOSED
R11-2 (48"x30")

LEGEND

GATES AND BARRICADES AS SHOWN ON SCD MT-101.60

TYPE III BARRICADE

TYPICAL POST MOUNTED SIGN (SEE RURAL SIGN DETAIL)

N

0 750 1500 3000 HORIZONTAL SCALE IN FEET

CALCULATED SEJ
CHECKED ---

MAINTENANCE OF TRAFFIC DETOUR PLAN AND GENERAL NOTES

MUS-C.R.71-5.74

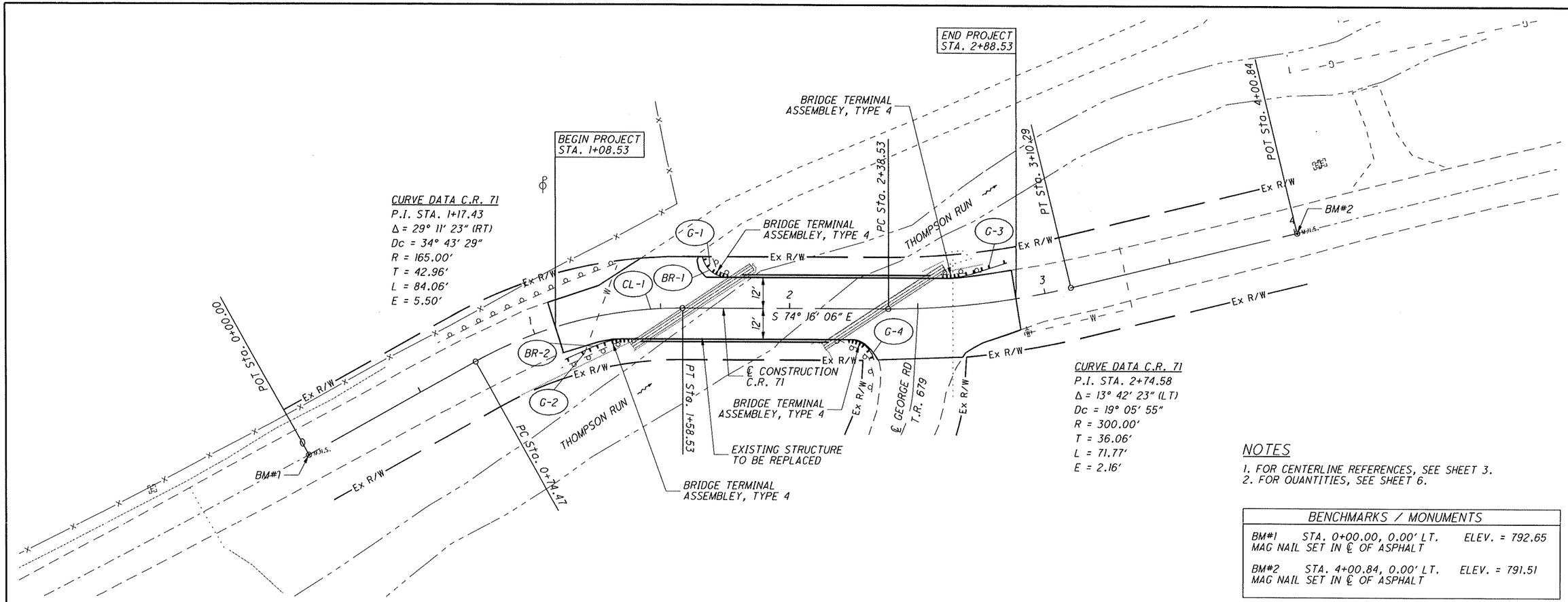
3
14

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
								OFFICE CALCS			3	4	6						
																		ROADWAY	
												LUMP		201	11000	LUMP		CLEARING AND GRUBBING	
								318						254	01000	318	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
													75	606	13000	75	FT	GUARDRAIL, TYPE 5	
													2	606	25000	2	EACH	ANCHOR ASSEMBLY, TYPE A	
													4	606	35140	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4	
																		EROSION CONTROL	
												10		659	14000	10	SQ YD	REPAIR SEEDING AND MULCHING	
												0.03		659	20000	0.03	TON	COMMERCIAL FERTILIZER	
												0.05		659	31000	0.05	ACRE	LIME	
												1.25		659	35000	1.25	M GAL	WATER	
														832	30000	500	EACH	EROSION CONTROL	
																		PAVEMENT	
								32						407	10000	32	GALLON	TACK COAT	
								18						448	47020	18	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22	
																		TRAFFIC CONTROL	
													8	626	00100	8	EACH	BARRIER REFLECTOR, TYPE A	
													0.03	642	00290	0.03	MILE	CENTER LINE	
																		MAINTENANCE OF TRAFFIC	
											2			616	10000	2	M GAL	WATER	
																		STRUCTURES (OVER 20')	
																		FOR BRIDGE NO. MUS-CR71-0574	10
														614	11000	LUMP		MAINTAINING TRAFFIC	
														623	10000	LUMP		CONSTRUCTION LAYOUT STAKES	
														624	10000	LUMP		MOBILIZATION	

CALCULATED SEJ CHECKED

GENERAL SUMMARY

MUS-C.R.71-5.74


BEGIN PROJECT
STA. 1+08.53
END PROJECT
STA. 2+88.53
CURVE DATA C.R. 71
P.I. STA. 1+17.43
Δ = 29° 11' 23" (RT)
Dc = 34° 43' 29"
R = 165.00'
T = 42.96'
L = 84.06'
E = 5.50'
CURVE DATA C.R. 71
P.I. STA. 2+74.58
Δ = 13° 42' 23" (LT)
Dc = 19° 05' 55"
R = 300.00'
T = 36.06'
L = 71.77'
E = 2.16'
BRIDGE TERMINAL ASSEMBLEY, TYPE 4
BRIDGE TERMINAL ASSEMBLEY, TYPE 4
BRIDGE TERMINAL ASSEMBLEY, TYPE 4
BRIDGE TERMINAL ASSEMBLEY, TYPE 4
PC Sta. 2+38.53
PT Sta. 3+10.29
POT Sta. 4+00.84
POT Sta. 0+00.00
PC Sta. 0+74.47
PT Sta. 1+58.53
EXISTING STRUCTURE TO BE REPLACED
℄ CONSTRUCTION C.R. 71
℄ GEORGE RD T.R. 679
THOMPSON RUN
THOMPSON RUN
Ex R/W
G-1
G-2
G-3
G-4
BR-1
BR-2
CL-1
12'
12'
S 74° 16' 06" E
BM#1
BM#2
M.H.S.
NOTES
1. FOR CENTERLINE REFERENCES, SEE SHEET 3.
2. FOR QUANTITIES, SEE SHEET 6.
BENCHMARKS / MONUMENTS
BM#1 STA. 0+00.00, 0.00' LT. ELEV. = 792.65
MAG NAIL SET IN ℄ OF ASPHALT
BM#2 STA. 4+00.84, 0.00' LT. ELEV. = 791.51
MAG NAIL SET IN ℄ OF ASPHALT
HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED SEJ
CHECKED ---
PLAN AND PROFILE
STA. 0+00.00 TO STA. 4+00.00
MUS-C.R.71-5.74
5
14
BEGIN PROJECT
STA. 1+08.53
BUTT JOINT TYPE
END PROJECT
STA. 2+88.53
BUTT JOINT TYPE
STA 1+58.53
STA 2+38.53
BRIDGE LIMITS = 80.00'
+0.00%
HW100 = 792.00
HW10 = 789.89
NORMAL WATER = 786.35±
815
810
805
800
795
790
785
780
792.65
792.99
793.46
794.07
794.81
795.66
796.32
796.71
796.92
796.92
796.92
796.92
796.92
796.57
796.01
795.09
794.07
793.22
792.53
791.96
791.53
0
1
2
3
4

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	606 GUARDRAIL, TYPE 5 FT	606 BRIDGE TERMINAL ASSEMBLY, TYPE 4 EACH	606 ANCHOR ASSEMBLY, TYPE A EACH	626 BARRIER REFLECTOR, TYPE A EACH	642 CENTER LINE DOUBLE SOLID MILE													
G-1	5	1+66.64	1+76.07	LT	12.5	1																
G-2	5	1+09.31	1+35.88	RT	25	1	1															
G-3	5	2+60.50	2+86.29	LT	25	1	1															
G-4	5	2+23.24	2+32.67	RT	12.5	1																
BR-1	5	1+66.64	2+86.29	LT				4														
BR-2	5	1+09.31	2+32.67	RT				4														
CL-1	5	1+08.53	2+88.53	℄					0.03													
TOTALS CARRIED TO GENERAL SUMMARY					75	4	2	8	0.03													

CALCULATED SEJ CHECKED ---

ESTIMATED QUANTITIES

MUS-C.R.71-5.74

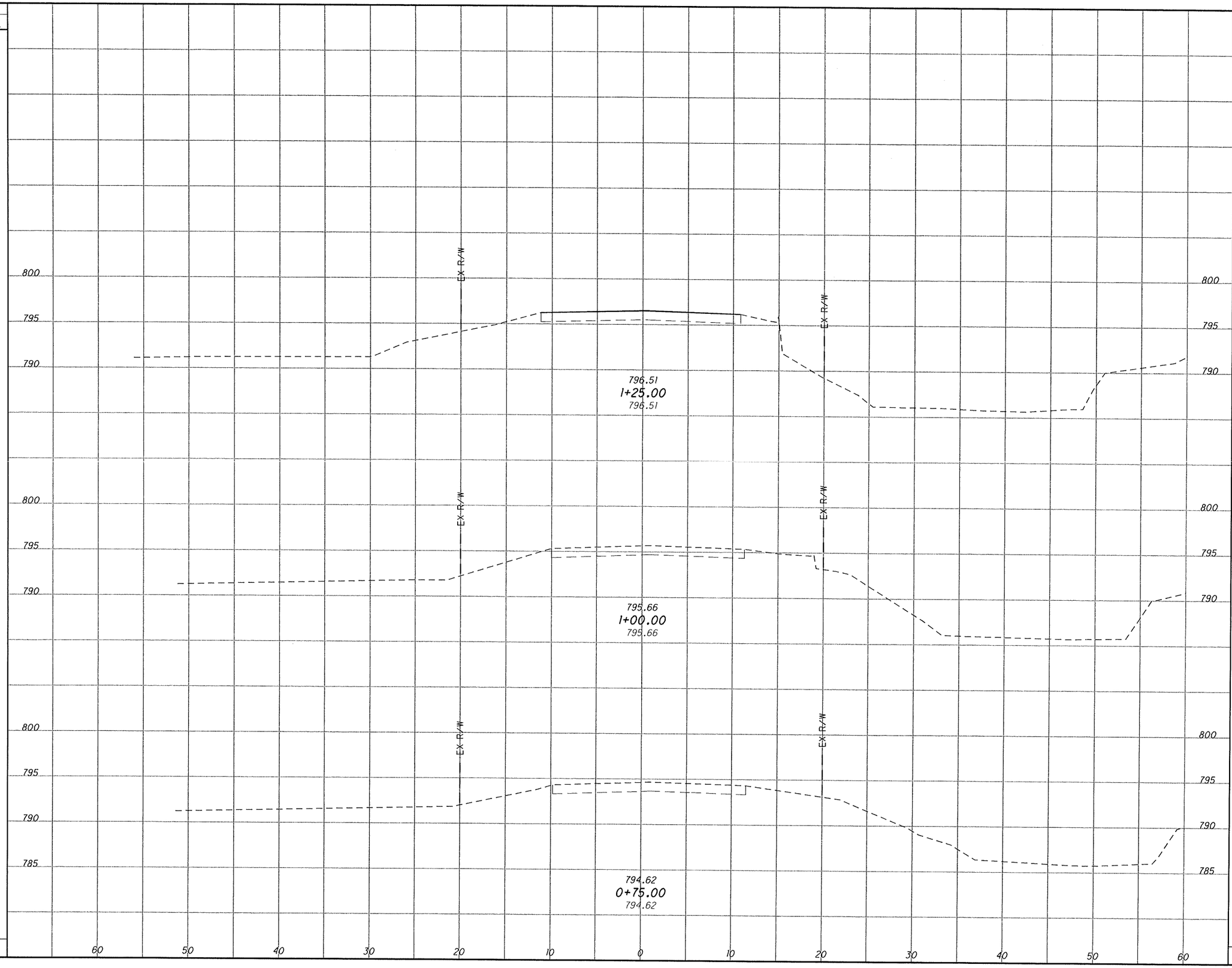
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED SEJ

CHECKED ---



CROSS SECTIONS
STA. 0+75.00 TO STA. 1+25.00

MUS-C.R.71-5.74

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SEJ
CHECKED ---

CROSS SECTIONS
STA. 1+58.53 TO STA. 2+75.00

EX R/W

805
800
795
790
785

796.22
2+75.00
796.22

796.92
2+38.53 (SKEWED 57°00'00" L.F.)
796.92
END PROJECT (BRIDGE LIMITS)

796.92
1+58.53 (SKEWED 57°00'00" L.F.)
796.92
BEGIN PROJECT (BRIDGE LIMITS)

60 50 40 30 20 10 0 10 20 30 40 50 60

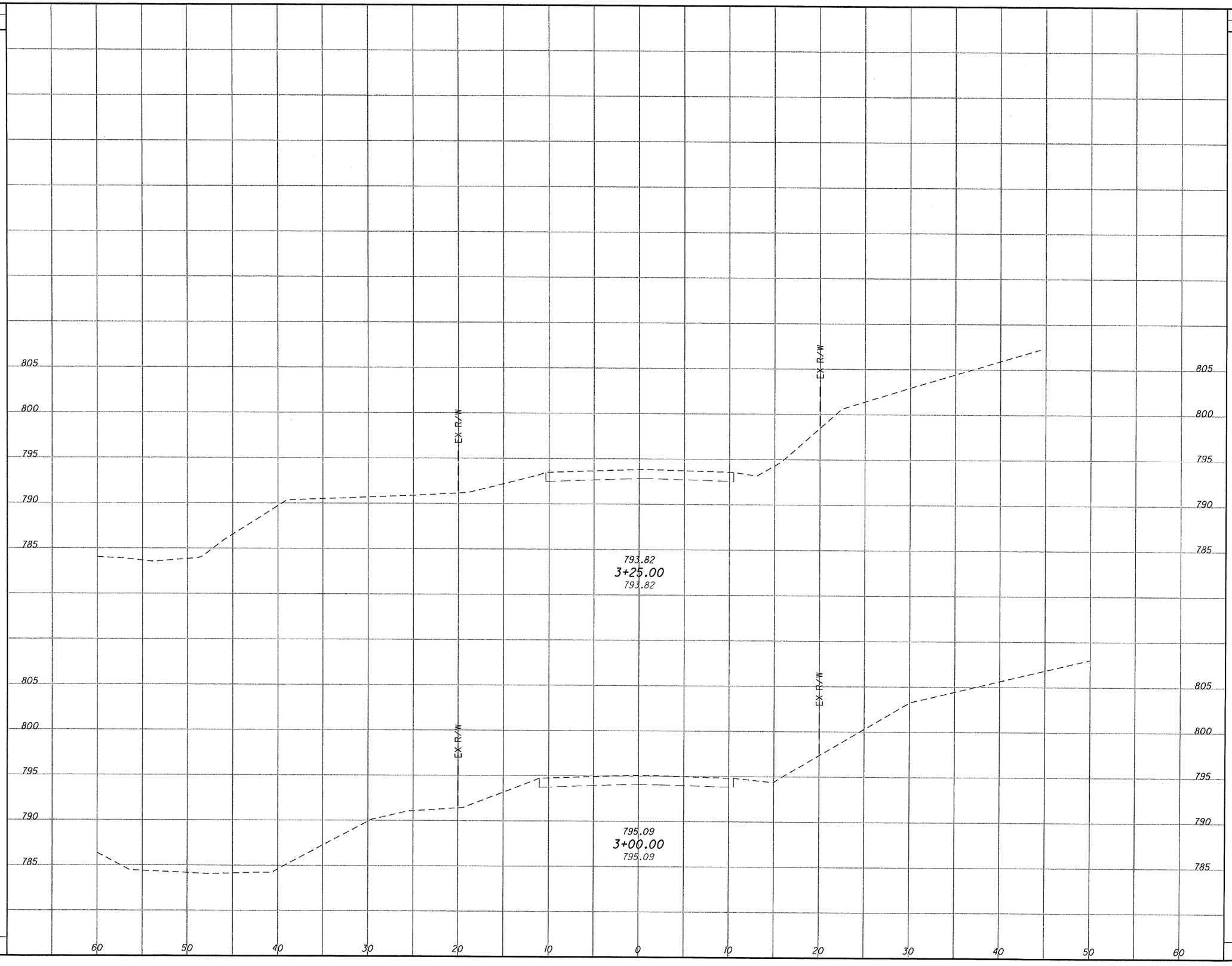
MUS-C.R.71-5.74

8
14

SEEDING	
END WIDTH	SQ. YDS.

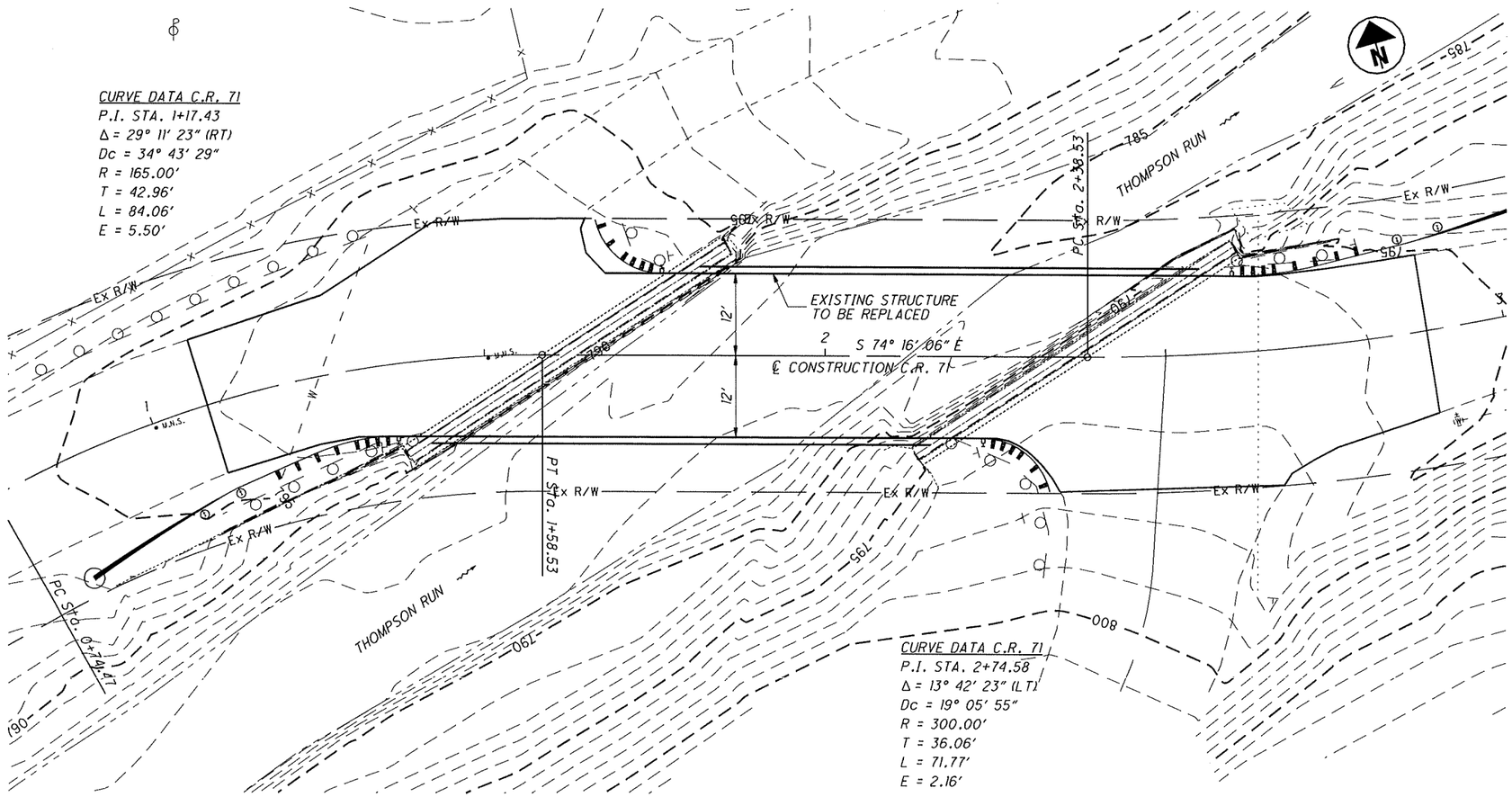
END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SEJ
CHECKED ---

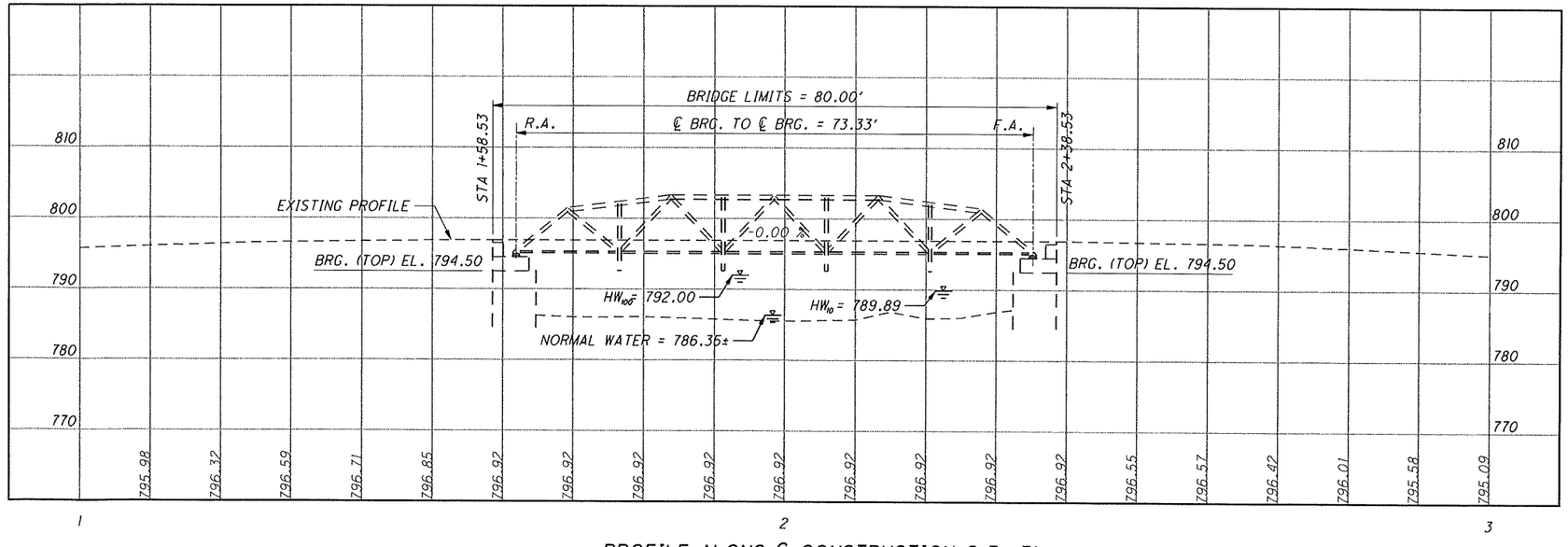


CROSS SECTIONS
STA. 3+00.00 TO STA. 3+25.00

MUS-C.R.71-5.74



PLAN



PROFILE ALONG ℄ CONSTRUCTION C.R. 71

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC:
2008 ADT = 400 2008 ADTT = 20
2028 ADT = 430 2028 ADTT = 21
DIRECTIONAL DISTRIBUTION = 52%

HYDRAULIC DATA

DRAINAGE AREA = 7 SQ. MILES
Q (10) = 910 CFS V (10) = 10.78 FT/S
Q (100) = 1570 CFS V (100) = 9.81 FT/S
STRUCTURE CLEARS THE 10 YEAR DESIGN HW BY 2.94 FEET.

EXISTING STRUCTURE

TYPE: SINGLE SPAN STEEL TRUSS BRIDGE SUPPORTED ON CONCRETE ABUTMENT CAPS

SPANS: 73'-4" ± C/C BEARINGS
ROADWAY: 24'-0" ± F/F GUARDRAIL
LOADING: HS20-44
SKEW: 57°00'00" L.F.
WEARING SURFACE: ASPHALT CONCRETE
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
STRUCTURAL FILE NUMBER: 6038158
DATE BUILT: 1983
DISPOSITION: TO BE REPLACED

PROPOSED STRUCTURE

TYPE: SINGLE SPAN STEEL TRUSS BRIDGE SUPPORTED ON CONCRETE ABUTMENT CAPS

SPANS: 73'-4" C/C BEARINGS
ROADWAY: 24'-0" ± F/F GUARDRAIL
LOADING: HS25 AND ALTERNATE MILITARY LOADING
SKEW: 57°00'00" L.F.
WEARING SURFACE: ASPHALT CONCRETE
FUTURE WEARING SURFACE: 60 PSF
APPROACH SLABS: NONE
ALIGNMENT: TANGENT
CROWN: 0.016 FT/FT
COORDINATES: LATITUDE 39°54'52" N
LONGITUDE 82°06'10" W

MUSKINGUM COUNTY ENGINEER'S OFFICE
155 REHL ROAD
ZANESVILLE, OHIO 43701

REVIEWED	DATE
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STRUCTURE FILE NUMBER	
6038158	
DRAWN	
SEJ	
REVISED	
DESIGNED	
DRD	
CHECKED	

STA. 1+58.53
STA. 2+38.53

SITE PLAN
BRIDGE NO. MUS-071-0574
OVER THOMPSON RUN

MUS-C.R.71-5.74
PID No. 24277

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

DBR-2-73 REVISED 07-19-02

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 INCLUDING THE 2003 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING: HS25 AND THE ALTERNATE MILITARY LOADING.
FUTURE WEARING SURFACE: 60 PSF.

DECK PROTECTION METHOD

ASPHALT CONCRETE OVERLAY
IPONEX WATERPROOFING

ITEM 202 - STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

THE EXISTING STEEL TRUSS AND GUARDRAIL SHALL BE REMOVED FOR STORAGE AND SHALL BECOME PROPERTY OF MUSKINGUM COUNTY. THE EXISTING TRUSS SHALL BE CUT INTO MANAGEABLE PIECES AS DIRECTED BY THE COUNTY ENGINEER. BOTH THE TRUSS AND GUARDRAIL SHALL BE DELIVERED TO A LOCATION DESIGNATED BY THE MUSKINGUM COUNTY ENGINEER. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

CONTACT DOUG DAVIS AT THE MUSKINGUM COUNTY ENGINEER'S OFFICE AT (740) 454-0155 TO ARRANGE FOR MATERIALS TO BE RECEIVED BY THE COUNTY.

ITEM SPECIAL - STRUCTURE, MISC.: PRE-ENGINEERED SUPERSTRUCTURE

DESCRIPTION. THIS ITEM SHALL CONSIST OF FURNISHING, TRANSPORTING. ERECTING AND INSTALLING IN PLACE THE COMPLETE PRE-ENGINEERED SUPERSTRUCTURE, INCLUDING ALL FRAMING, RAILINGS, FLOOR SYSTEM, BEARINGS AND ALL INCIDENTALS, IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS AND THESE SPECIFICATIONS.

SEPARATE PAYMENT WILL BE MADE FOR SUBSTRUCTURE ITEMS LISTED ON THE ESTIMATED QUANTITIES SHEET. HOWEVER. ALL OTHER WORK OR ITEMS NECESSARY TO PROVIDE THE COMPLETED IN-PLACE SUPERSTRUCTURE ARE INCIDENTAL TO AND INCLUDED FOR PAYMENT WITH THIS ITEM.

THESE SPECIFICATIONS ARE FOR A FULLY ENGINEERED CLEAR SPAN TRUSS STRUCTURE OF WELDED STEEL CONSTRUCTION AND SHALL BE REGARDED AS MINIMUM STANDARDS FOR DESIGN AND CONSTRUCTION. ALL STEEL WORK SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ODOT CMS SECTION 513.

THE PRE-ENGINEERED SUPERSTRUCTURE SHALL BE MANUFACTURED BY ONE OF THE FOLLOWING OR AN APPROVED EQUAL:

CONTINENTAL BRIDGE
8301 STATE HWY 29 NORTH 208
ALEXANDRIA, MINNESOTA 56308
PHONE 1-800-328-2047
OR (320) 852-7500
FAX (320) 852-7067

MARINE BRIDGE AND IRON
208 WEST CHURCH STREET
UTICA, IN 47130
PHONE 1-800-822-4535
OR (8121 283-7932
FAX (812) 282-1485

OHIO BRIDGE
203 WHEELING AVE.
P. O. BOX 757
CAMBRIDGE, OHIO 43725-0757
PHONE (740) 432-6334
FAX (952) 929-2909

STEADFAST BRIDGES
119 40TH STREET N.E.
FORT PAYNE, ALABAMA 35967
PHONE 1-800-749-7515
OR (256) 845-0154
FAX (256) 845-9750

THE BRIDGE MANUFACTURER SHALL HAVE BEEN IN THE BUSINESS OF DESIGN AND FABRICATION OF BRIDGES FOR A MINIMUM OF FIVE YEARS AND PROVIDE A LIST OF FIVE SUCCESSFUL BRIDGE PROJECTS. OF SIMILAR CONSTRUCTION. EACH OF WHICH HAS BEEN IN SERVICE AT LEAST THREE YEARS.

THE SPECIFIC TYPE OF PRE-ENGINEERED SUPERSTRUCTURE REQUIRED WILL BE A TRUSS WITH BOTTOM LATERAL BRACING AS SHOWN IN THE PLANS.

THE MANUFACTURER SHALL PROVIDE THE ENGINEER WITH SHOP DRAWINGS STAMPED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO.

THE SUBSTRUCTURE HAS BEEN DESIGNED BASED ON THE DESIGN LOADS FROM OHIO BRIDGE CORP AS SHOWN IN THE PRE-ENGINEERED SUPERSTRUCTURE DETAILS PLANS. THE DESIGN OF THE PRE-ENGINEERED SUPERSTRUCTURE, INCLUDING ALL FRAMING, RAILINGS, FLOOR SYSTEM, BEARINGS AND ALL INCIDENTALS. IN ACCORDANCE WITH THE DETAILS SHOWN IN THE PLANS IS THE RESPONSIBILITY OF THE MANUFACTURER/SUPPLIER OF THE PRE-ENGINEERED SUPERSTRUCTURE UNIT.

ESTIMATED QUANTITIES

CALCULATED: SEJ DATE: 08/23/07 CHECKED: DRD DATE: 08/23/07

ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTS.	SUPER	GEN'L	SPEC & AS PER PLAN SHEET NO.
202	11003	LUMP		STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LUMP	2
448	47020	12	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22		12		
511	34435	9	CU YD	CLASS S CONCRETE, BRIDGE DECK, AS PER PLAN		9		2
606	13040	170	EACH	GUARDRAIL, NESTED TYPE 5 WITH TUBULAR BACKUP			170	
530	00400	1	EACH	STRUCTURE, MISC.: PRE-ENGINEERED SUPERSTRUCTURE			1	

ITEM 511 - CLASS S CONCRETE, BRIDGE DECK, AS PER PLAN

THE CONTRACTOR SHALL ENSURE THAT IPANEX WATERPROOFING IS ADDED TO THE CONCRETE MIXTURE AS REQUIRED BY THE ENGINEER. STANDARD CLASS S CONCRETE SHALL BE USED WITH THE ADDITION OF IPANEX WATERPROOFING AT A RATE OF 13.8 OZ PER 100 LB OF CEMENT OR CEMENTATIOUS MATERIAL. THIS COST SHALL BE INCLUDED IN ITEM 511-CLASS S CONCRETE, BRIDGE DECK, AS PER PLAN.

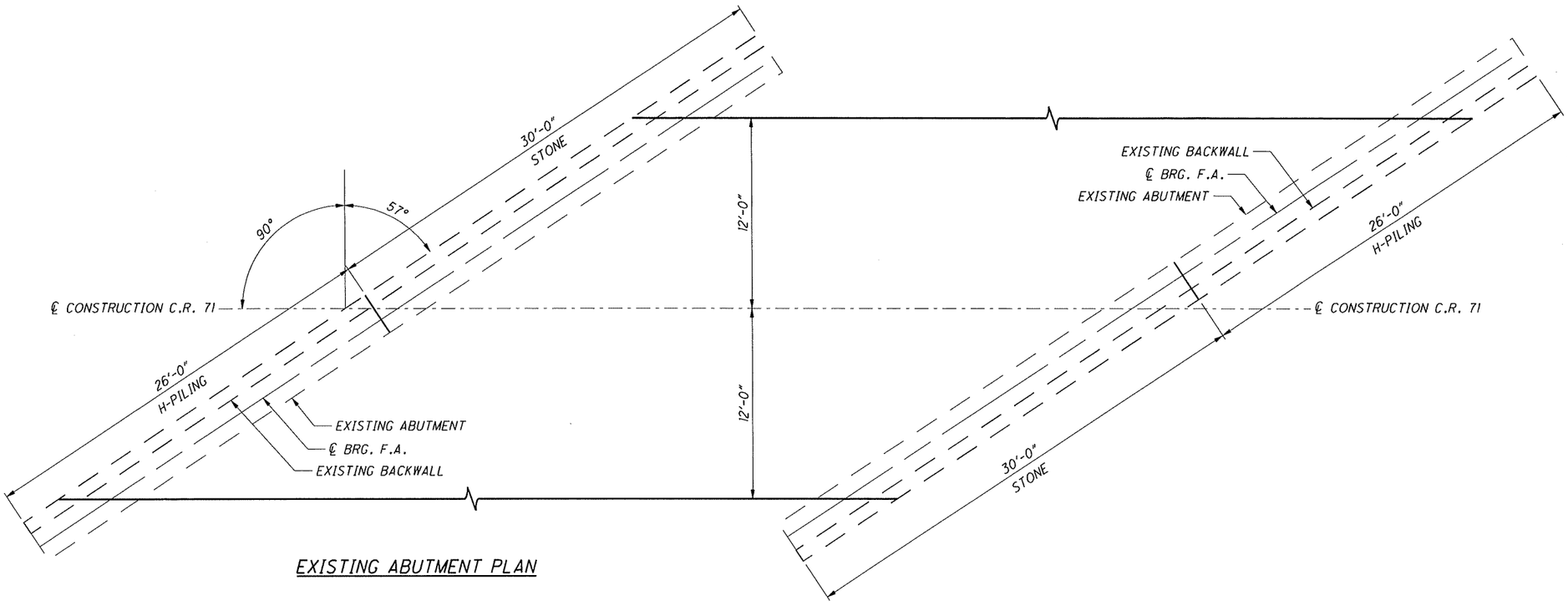
MUSKINGUM COUNTY ENGINEER'S OFFICE
155 REHL ROAD
ZANESVILLE, OHIO 43701

DESIGNED DRD | DRAWN SEJ | CHECKED --- | REVIEWED --- | DATE --- | REVISED --- | STRUCTURE FILE NUMBER 6038158

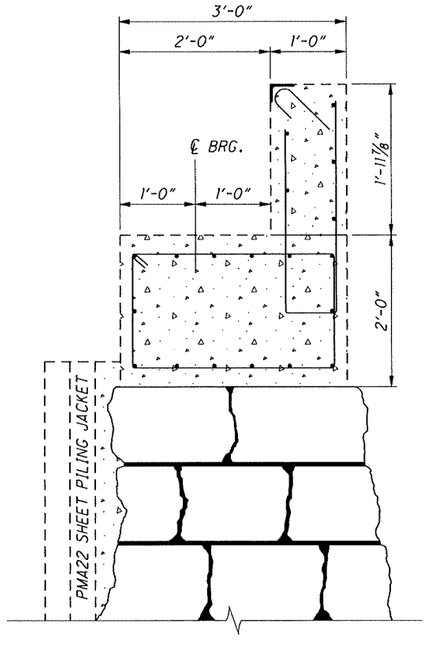
SUPERSTRUCTURE DETAILS

BRIDGE NO. MUS-071-0574
OVER THOMPSON RUN

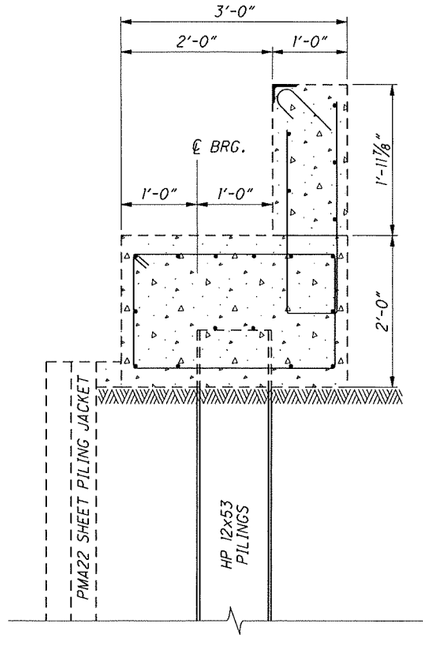
MUS-C.R.71-5.74
PID No. 24277



EXISTING ABUTMENT PLAN



EXISTING CONCRETE CAP OVER STONE



EXISTING CONCRETE CAP OVER H-PILING

MUSKINGUM COUNTY
ENGINEER'S OFFICE
155 REHL ROAD
ZANESVILLE, OHIO 43701

MCE0

DESIGNED	DRAWN	REVIEWED	DATE
DRD	SEJ	---	---
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---	---	6038158	

ABUTMENT DETAILS

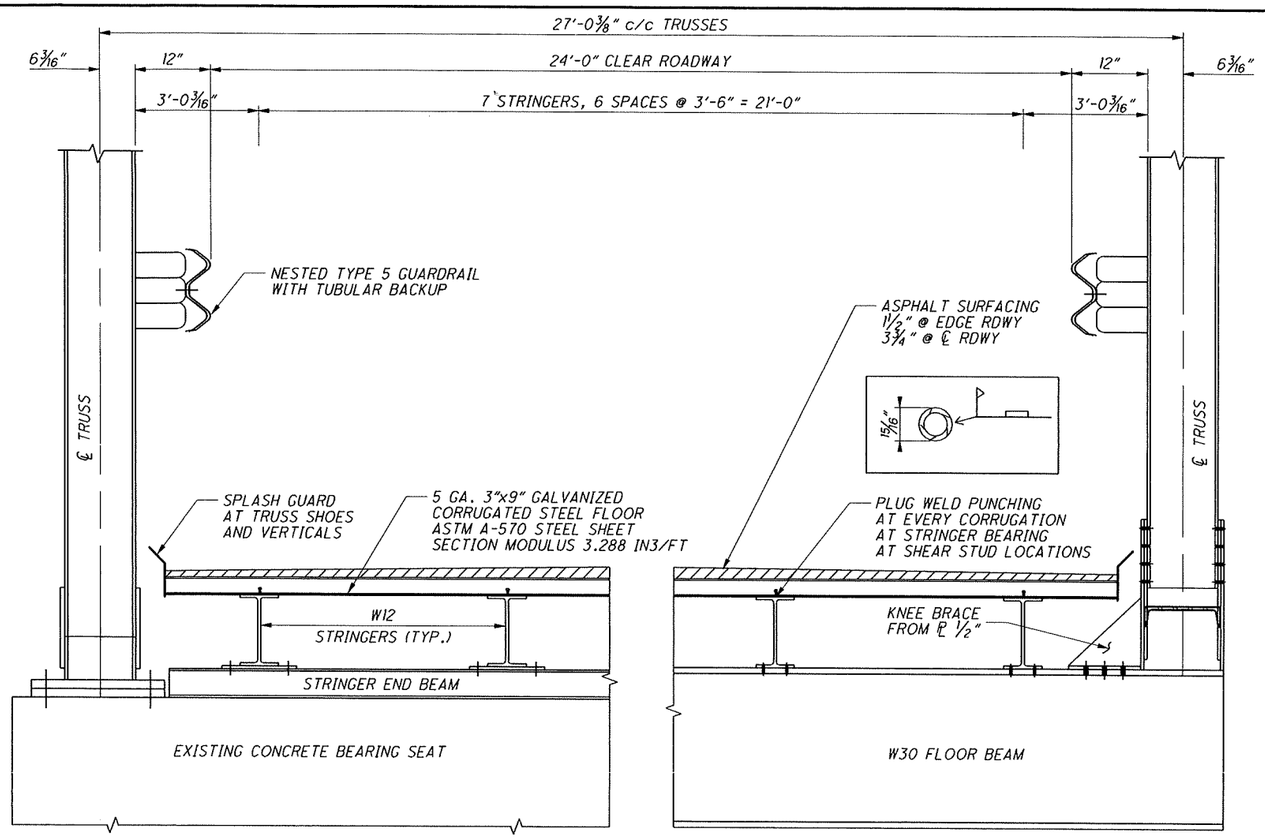
BRIDGE NO. MUS-71-0240
OVER THOMPSON RUN

MUS-C.R. 71-5.74

PID No. 24277

3 / 5

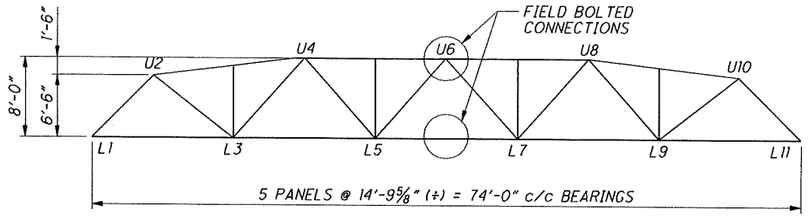
12 / 14



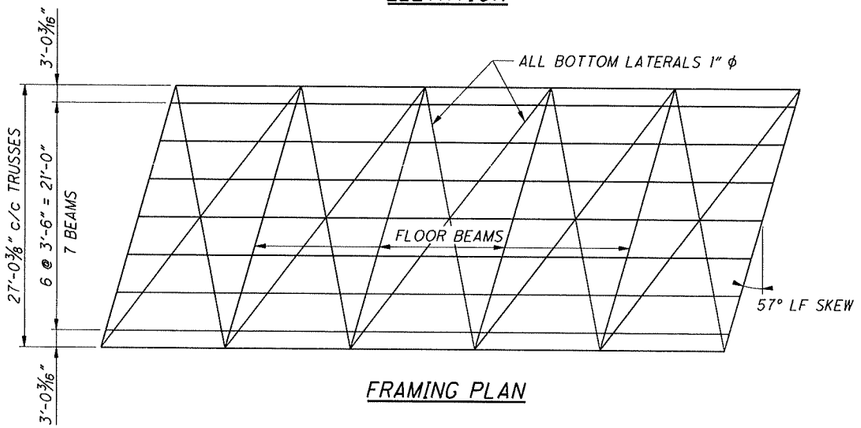
SECTION AT ABUTMENT

SECTION AT FLOORBEAM

ROADWAY SECTION VIEW



ELEVATION



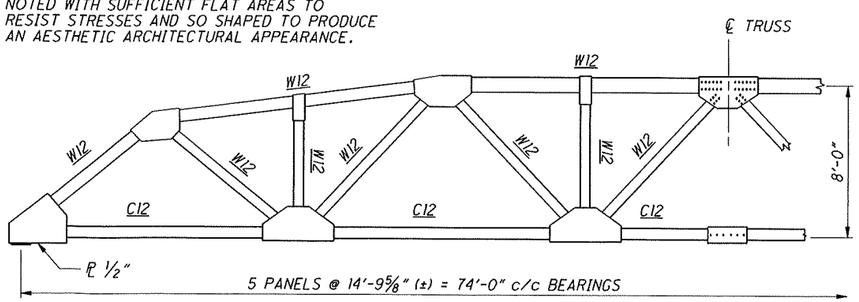
FRAMING PLAN

TRUSS SHOE REACTION

LIVE LOAD	68.0 K
IMPACT	17.0 K
DEAD LOAD	63.22 K
TOTAL	148.22 K

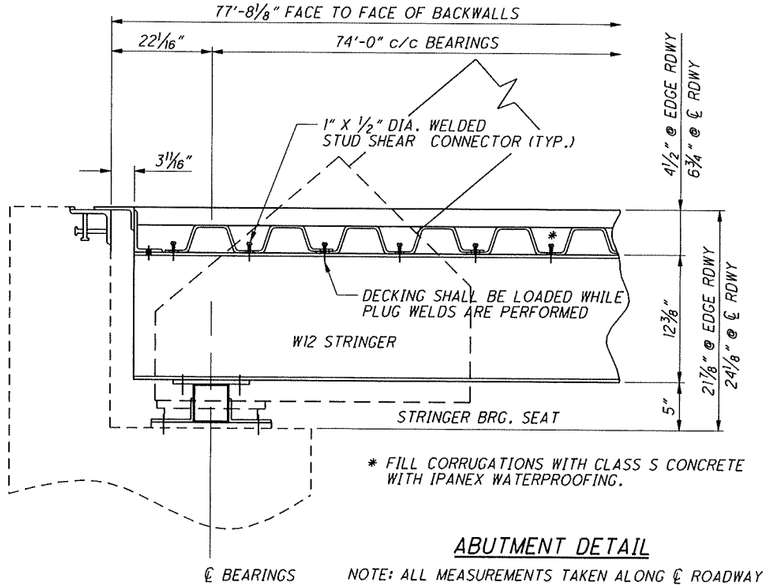
WELD MEMBERS TO GUSSET PLATES WITH MINIMUM 5/16" FILLET WELDS AT EACH END OF EACH MEMBER.

ALL GUSSET PLATES 1/2" THICK EXCEPT AS NOTED WITH SUFFICIENT FLAT AREAS TO RESIST STRESSES AND SO SHAPED TO PRODUCE AN AESTHETIC ARCHITECTURAL APPEARANCE.



TRUSS BRIDGE DETAIL

TRUSS LIFTING WEIGHT = 39.6 K



ABUTMENT DETAIL

NOTE: ALL MEASUREMENTS TAKEN ALONG ℄ ROADWAY

DESIGN SPECIFICATIONS

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17th EDITION (2002), DIVISION I, WITH ALL INTERIM SPECIFICATIONS IN EFFECT.

LIVE LOAD

AASHTO HS25

MATERIAL

ALL SUPERSTRUCTURE STEEL SHALL BE ASTM A709, GRADE 50 (A572), GALVINIZED AFTER FABRICATION PER ASTM A123.

ALL FASTENERS UNLESS NOTED OTHERWISE, SHALL BE 7/8" ϕ HIGH STRENGTH BOLTS, ASTM A325 TYPE 1 (GALV) WITH ASTM A563 GRADE C NUT AND ONE ASTM F436 WASHER PER BOLT. FASTENERS SHALL BE FURNISHED WITH ROTATIONAL CAPACITY TESTS.

CONSTRUCTION/FABRICATION

AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 17th EDITION (2002), DIVISION II, WITH ALL INTERIM SPECIFICATIONS IN EFFECT. ALL CUT ENDS TO BE GROUND TO 1/8" RADIUS BEFORE FABRICATION.

WELDING

ALL WELDING SHALL BE IN ACCORDANCE WITH ODOT CMS 513. WELDING SHALL BE DONE PRIOR TO GALVANIZATION AND FIELD WELDING IS NOT PERMITTED WITH THE EXCEPTION TO THE SHEAR STUDS AND THE DECK PLUG WELDING.

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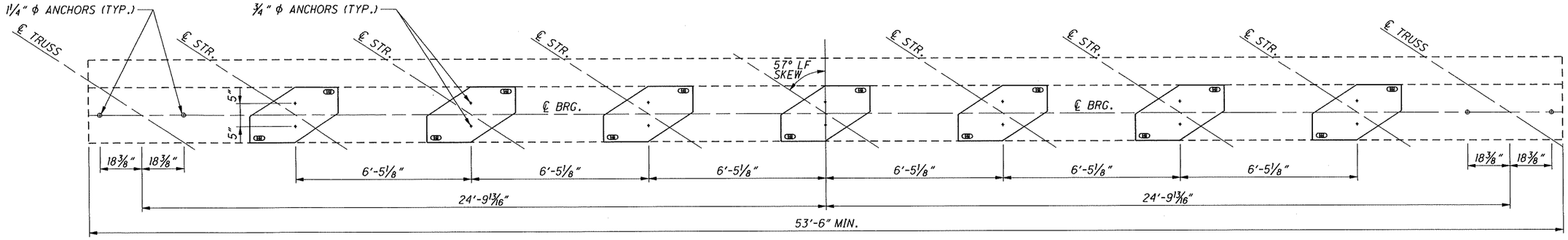
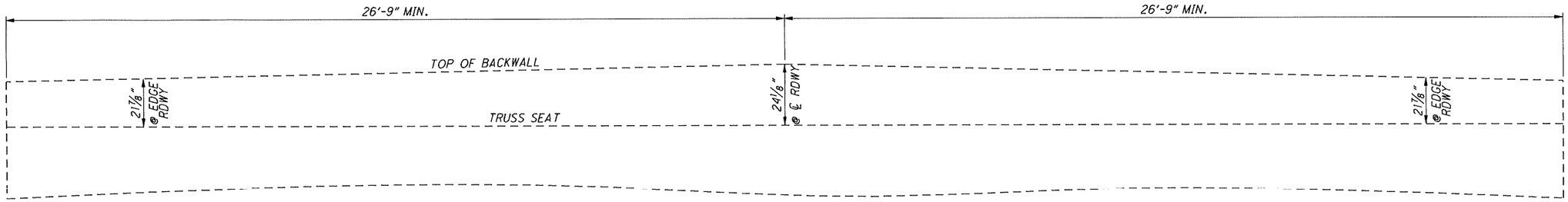
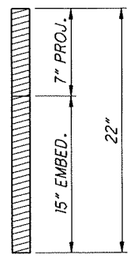


ABUTMENT ANCHOR BOLT LAYOUT



ABUTMENT ELEVATION VIEW

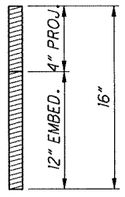
1½" ϕ A449
ALL THREAD GALV.
ROD WITH 2 NUTS
& ONE PL ¼" x 4" x 6" WASHER



TRUSS ANCHOR BOLT DETAIL

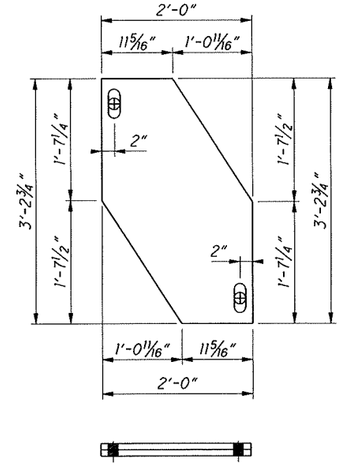
8 PCS

¾" ϕ A449
ALL THREAD GALV.
ROD WITH 2 NUTS
& ONE PL ¼" x 3½" x 3½" WASHER



STRINGER ANCHOR BOLT DETAIL

28 PCS



FIXED ABUTMENT EXP BEARING
4 - PL ¾" x 24" x 3'-2¾" WITH 1⅝" ϕ HOLES (TOP AND BOTTOM PS)
2 - PL ¾" x 24" x 3'-2¾" WITH 1⅝" x 4½" HOLES (TOP PS)
2 - BRONZE PL ¼" x 22" x 3'-2¾" WITH 1⅝" ϕ HOLES (MIDDLE PS)
2 - PL ½" x 24" x 3'-2¾" WITH 1⅝" ϕ HOLES (BOTTOM PS)

TRUSS BEARING PLATES

MUSKINGUM COUNTY
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