

ITEM 614 - MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED 120 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 10. LIQUIDATED DAMAGES SHALL BE ASSESSED IN ACCORDANCE WITH CMS 108.07 FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND CONTROLLING TRAFFIC ON ALL STREETS AND ROADS AFFECTED BY CONSTRUCTION AND SHALL, PRIOR TO CONSTRUCTION, SUBMIT A CONSTRUCTION SCHEDULE TO THE VILLAGE OF PLYMOUTH FOR APPROVAL INDICATING DATES AND DURATION OF EACH STAGE/PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE VILLAGE OF PLYMOUTH IN WRITING A MINIMUM OF 14 DAYS IN ADVANCE OF THE FIRST ANTICIPATED IMPACT TO THROUGH TRAFFIC OF A PORTION OF THE BASELINE RD./BROADWAY ST. RECONSTRUCTION.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES CURRENT EDITION WITH THE LATEST REVISIONS. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC & ADJACENT PROPERTY OWNERS. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

LOCAL ACCESS TO BASELINE RD./BROADWAY ST. SHALL BE MAINTAINED AT ALL TIMES AS APPROVED BY THE ENGINEER. ACCESS SHALL BE MAINTAINED AT ALL TIMES, EXCEPT AS PERMITTED IN THE SEQUENCE OF OPERATIONS, THROUGH THE USE OF THE STAGED/PHASED CONSTRUCTION, EXISTING PAVEMENT, NEW PAVEMENT, PART WIDTH CONSTRUCTION, OR TEMPORARY SURFACE USING 410 OR 614 IN ACCORDANCE WITH ODOT CMS.

THERE ARE SIDEROADS, COMMERCIAL BUSINESS AND RESIDENCES WITHIN THE PROJECT LIMITS THAT SHALL HAVE ACCESS MAINTAINED AT ALL TIMES THROUGH THE USE OF THE STAGED/PHASED CONSTRUCTION, EXISTING PAVEMENT, NEW PAVEMENT, PART WIDTH CONSTRUCTION, OR TEMPORARY SURFACE EXCEPT AS PERMITTED IN THE SEQUENCE OF OPERATIONS. THE CONTRACTOR SHALL GIVE NOTICE TO PROPERTY OWNERS BEFORE CLOSING DRIVEWAYS. NO DRIVEWAYS SHALL BE COMPLETELY CLOSED UNTIL ACCESS AND PARKING ARRANGEMENTS HAVE BEEN MADE WITH THE PROPERTY OWNER. WRITTEN DOCUMENTATION INCLUDING PROPOSED CONSTRUCTION, TIME FRAME AND POTENTIAL ACCESS RESTRICTIONS SHALL BE PREPARED AND COPIES PROVIDED TO THE PROPERTY OWNER, VILLAGE OF PLYMOUTH, AND PROJECT FILES PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL PROVIDE ADDITIONAL WORK INCLUDING LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NOT SPECIFICALLY ITEMIZED BUT REQUIRED TO MAINTAIN ACCESS FOR PROPERTY OWNERS WITH SPECIAL ACCESS REQUIREMENTS AS APPROVED BY THE ENGINEER. WHERE POSSIBLE, PART WIDTH DRIVE CONSTRUCTION SHOULD BE USED TO MAINTAIN ACCESS AT ALL TIMES.

A MINIMUM OF TWO "OPEN TO BUSINESSES" SIGNS, AS DETAILED IN THESE PLANS, SHALL BE FURNISHED, ERECTED, MAINTAINED, AND RELOCATED FOR EACH STAGE/PHASE BY THE CONTRACTOR AT LEAST ONE WEEK IN ADVANCE OF THE SCHEDULED ROAD CLOSURE. AT THE INTERSECTION WITH STATE ROUTE 61 DURING CONSTRUCTION. THE SIGNS SHALL BE ERECTED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS ON ROADWAYS. SEE DETAIL ON SHEET 10.

THE CONTRACTOR SHALL PROVIDE TEMPORARY BARRICADES, STEEL PLATES OR OTHER ACCEPTABLE MEANS ON THE SIDES OF THE PROPOSED CONSTRUCTION TO ADEQUATELY PROVIDE SAFETY FOR HIS OPERATIONS DURING CONSTRUCTION IN COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS INCLUDING SAFETY FOR POTENTIAL UNAUTHORIZED PEDESTRIAN USAGE. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO ERECT, MAINTAIN, ADJUST, AND REMOVE THE SAFETY DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

IT IS THE INTENT OF THIS PROJECT TO MINIMIZE IMPACT TO THE EXISTING UTILITIES. IN ADDITION TO ODOT CMS 107.16 AND THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES TO LIMIT THE ACTUAL TIME THAT ANY UTILITY ADJUSTMENT, TO CONSTRUCT THE PROPOSED WORK, IS NECESSARY. THIS COORDINATION SHOULD PREVENT ADVERSE IMPACTS TO THE UTILITY. THIS COORDINATION SHALL BE INCLUDED IN THE UNIT COST FOR ITEM 614 - MAINTAINING TRAFFIC, LUMP SUM AND SHALL BE INCLUSIVE OF ALL MATERIALS, LABOR AND INCIDENTALS TO COORDINATE WITH AND LIMIT CONFLICTS IN ACCORDANCE WITH THE UTILITY REQUIREMENTS AND BE RESPONSIBLE FOR ANY COMPENSABLE COST DUE TO THE UTILITY.

DURING THE PLACEMENT OF THE PROPOSED FINAL SURFACE COURSE, TWO-WAY ONE LANE TRAFFIC MAY BE MAINTAINED USING FLAGGERS AS PER STANDARD DRAWING MT-97.10 DURING WORKING HOURS ONLY.

SURFACES REQUIRED FOR MAINTAINING ACCESS WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE PROJECT SHALL BE MAINTAINED IN A CONDITION WHICH IS SMOOTH AND FREE FROM RUTS, RIDGES, BUMPS, DUST & STANDING WATER AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC.

ITEM 410 - TRAFFIC COMPACTED SURFACE, TYPE A OR B	<u>10</u> CY
ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	<u>10</u> CY
ITEM 616 - WATER	<u>1</u> M GAL

THE REQUIRED TRAFFIC CONTROL ITEMS SHALL BE IN PLACE BEFORE REOPENING A SECTION OF THE ROAD TO TRAFFIC.

PEDESTRIAN TRAFFIC WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES. WHEN WORK WILL RESTRICT A SIDEWALK AREA, PEDESTRIAN TRAFFIC WILL BE DETOURED TO THE OPPOSITE SIDE OF THE STREET AS PER ODOT STD. DWG. MT-110.10 OR DETOURED TO ANOTHER FACILITY AS PER ODOT STD. DWG. MT-110.30. EACH CLOSURE SHALL BE HELD TO A MINIMUM AS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN, RELOCATE FOR EACH STAGE/PHASE OF CONSTRUCTION, AND SUBSEQUENTLY REMOVE STANDARD 48" X 30" "ROAD CLOSED" SIGNS, SIGN SUPPORTS, BARRICADES, GATES AND LIGHTS, AS DETAILED ON ODOT SCD MT-101.60 AT RAILROAD STREET AND NEW STREET DURING PERIODS IN WHICH THE AFFECTED PORTIONS OF ROADS ARE CLOSED TO TRAFFIC.

ASHLAND RAILWAY TRAFFIC WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE RAILROAD AND ENGINEER.

MAINTAIN A CONSTRUCTION CLEARANCE OF 6'-0" FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 18'-0" FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6'-0" FEET FROM THE CENTER OF TRACKS, AT ALL TIMES.

IT IS THE INTENT OF THIS PROJECT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. ADDITIONAL TRAFFIC CONTROL ITEMS (SIGNS, DRUMS, CONES, BARRICADES, PORTABLE CONCRETE BARRIER, ETC. IN ACCORDANCE WITH THE OMUTCD) MAY BE DEEMED NECESSARY BY THE ENGINEER TO ENSURE SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF WORKERS WITHIN THE CONSTRUCTION ZONE. ANY ADDITIONAL WORK INCLUDING LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NOT SPECIFICALLY ITEMIZED BUT REQUIRED FOR MAINTAINING TRAFFIC AND SAFETY DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC.

THE CONTRACTOR MAY SUBMIT ALTERNATE PLANS AND METHODS FOR MAINTENANCE OF TRAFFIC PROVIDING THAT THE INTENT OF THE ABOVE IS ACCOMPLISHED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THERE FROM. ANY ALTERNATE PLAN MUST BE SUBMITTED FOR APPROVAL TO THE VILLAGE OF PLYMOUTH AT LEAST 14 DAYS PRIOR TO THE ANTICIPATED CLOSING OF A PORTION OF BROADWAY STREET. NO ALTERNATE PLAN WILL BE PUT IN EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE VILLAGE OF PLYMOUTH.

THE WORK ZONES AND CONTRACTOR'S EQUIPMENT SHALL BE SET UP AND OPERATED IN SUCH A MANNER THAT VEHICULAR INGRESS AND EGRESS SHALL BE PROVIDED AT ALL TIMES FOR PROPERTIES ADJACENT TO THE WORK. FOR ADDITIONAL REQUIREMENTS, SEE ITEM 104.04 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ROAD WORK AHEAD (W20-1-36) SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT AND ON ALL SIDE ROADS THAT INTERSECT THE PROPOSED EXTENSION APPROXIMATELY 50 FEET IN ADVANCE OF THE INTERSECTION.

END ROAD WORK (G20-2-36) SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT AND ON ALL SIDE ROADS APPROXIMATELY 50 FEET FROM EACH INTERSECTION FACING TRAFFIC GOING AWAY FROM THE INTERSECTION.

ALL WORK AND TRAFFIC CONTROL 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. PAYMENT FOR ALL LABOR, TOOLS, EQUIPMENT, MATERIALS AND INCIDENTALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614 - MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLAN.

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (Hauling.Permits@dot.ohio.gov) AND THE **DISTRICT PUBLIC INFORMATION OFFICE (PIO)**. THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	≥ 2 WEEKS > 12 HOURS & < 2 WEEKS ≤ 12 HOURS	21 CALENDAR DAYS PRIOR TO CLOSURE 14 CALENDAR DAYS PRIOR TO CLOSURE 4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	≥ 2 WEEKS < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE 5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

THE CONTRACTOR SHALL NOTIFY THE VILLAGE OF PLYMOUTH A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE OF THE PROPOSED WORK.

HURON COUNTY / RICHLAND COUNTY ENGINEER'S OFFICE
LOCAL POLICE, FIRE AND EMERGENCY MEDICAL SERVICES
LOCAL SCHOOL DISTRICTS
HURON COUNTY / RICHLAND COUNTY SHERIFF'S OFFICE
VILLAGE OF PLYMOUTH
ASHLAND RAILWAY

ADDENDUM		
1	2/10/26	ADD NOTES, REVISE CONTACT NOTE
2	4/29/26	VERTICAL CLEARANCE

SUSPENSION OF WORK

IF THE CONTRACTOR FAILS TO COMPLY WITH THE PROVISIONS FOR MAINTENANCE OF TRAFFIC AS SET FORTH IN THESE PLANS OR WITH PROVISIONS OF THE OMUTCD, THE ENGINEER MAY SUSPEND WORK UNTIL THE CONTRACTOR COMPLIES WITH THE NECESSARY REQUIREMENTS. NO COMPENSATION WILL BE PAID FOR SUSPENSION OF WORK.

CONTRACTOR COORDINATION

THERE WILL BE OTHER MAJOR CONSTRUCTION PROJECTS, PUBLIC AND PRIVATE, UNDERWAY CONCURRENTLY WITH THIS PROJECT. THE CONTRACTOR IS REQUIRED TO COORDINATE HIS/HER CONSTRUCTION ACTIVITIES WITH THE ADJACENT PROJECTS TO MINIMIZE COMPLICATIONS AND DELAYS. ALL COSTS ASSOCIATED WITH COORDINATION SHALL BE INCLUDED UNDER ITEM 614 - MAINTAINING TRAFFIC.

MAINTENANCE OF TRAFFIC NOTES

HUR-CR11-2.96

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 4/30/2026 TIME: 10:29:25 AM PLTDRY: OHDOT_PDF.plt PENTBL: OHDOT_Pen.tbl USER: RBrokaw@mannitsmithgroup.com WORKSPACE: OHDOTDev02 WORKSET: 120504_PRODUCT: MicroStation 10.17.02.61 F:\2023\22105 VAR-Statewide Engineering\Muni Bridge\Task 7 RIC-Baseline Road Plymouth\120504-Engineering\WOT\Sheets\120504_MN001.dgn

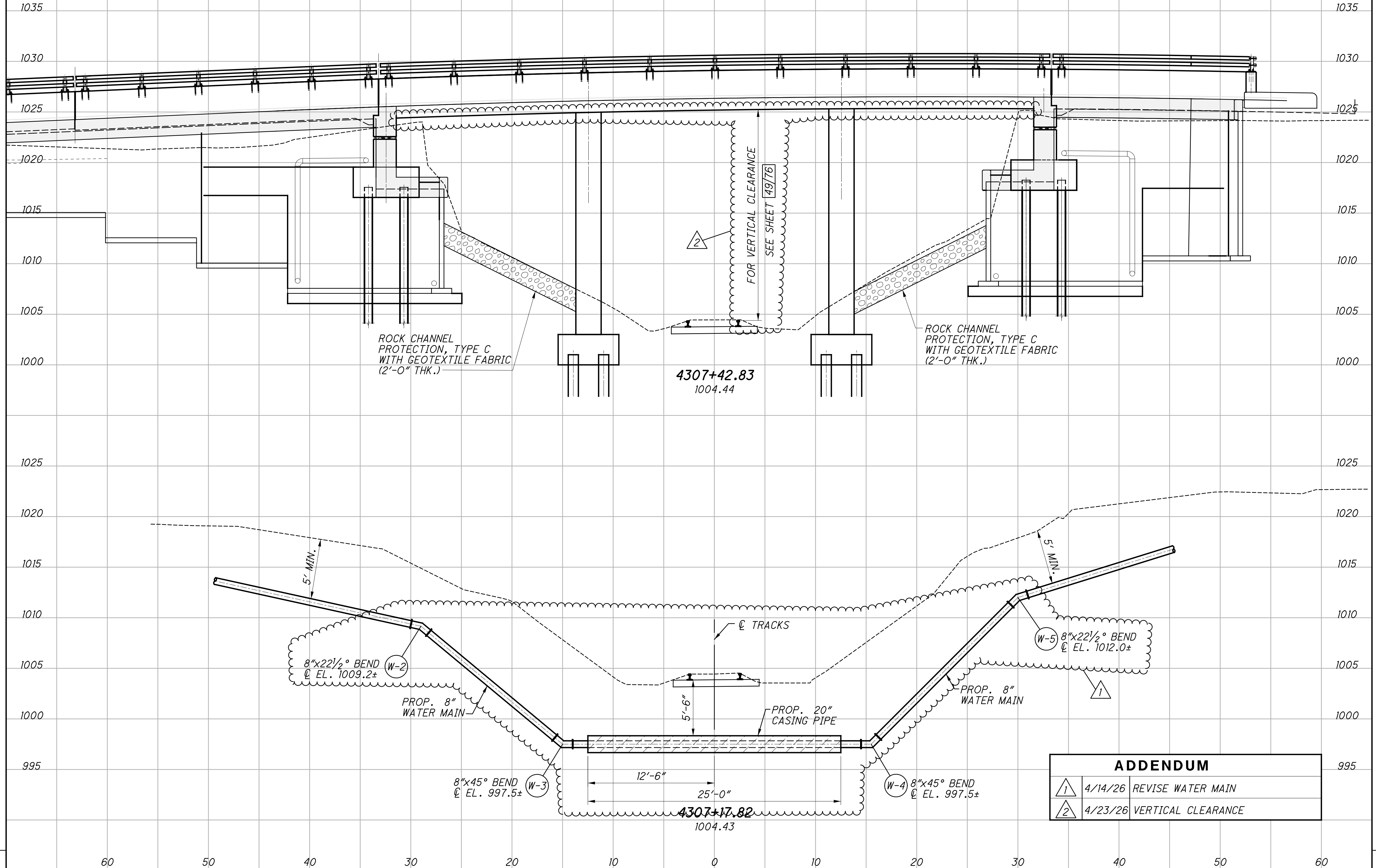
DESIGN AGENCY



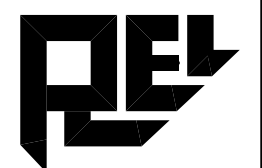
DESIGNER	PRS
REVIEWER	TJF
PROJECT ID	8-29-25
SHEET	120504
TOTAL	P.9
	76

SEEDING	
END WIDTH	SO. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

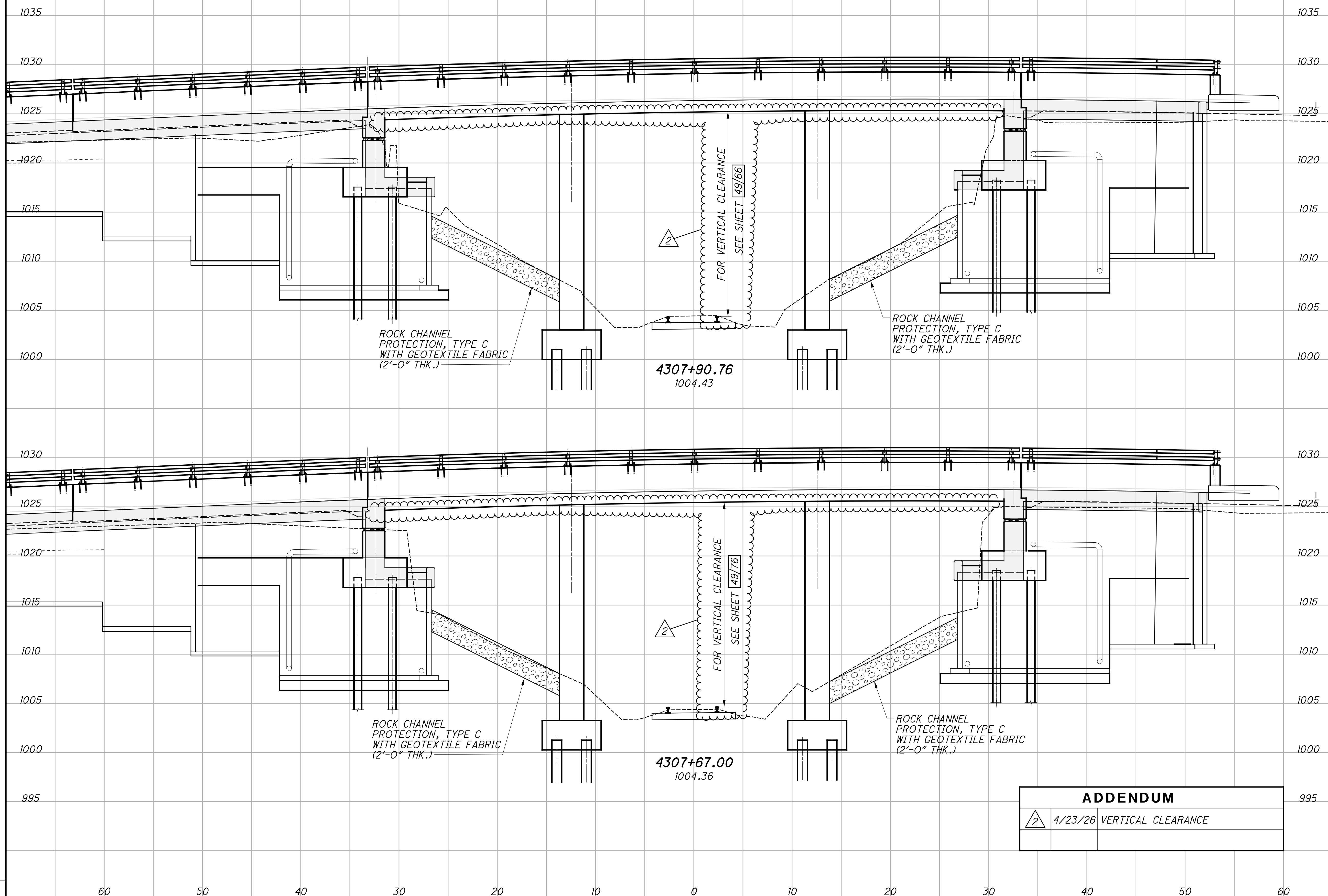


ADDENDUM		
1	4/14/26	REVISE WATER MAIN
2	4/23/26	VERTICAL CLEARANCE



SEEDING	
END WIDTH	SO. YDS.

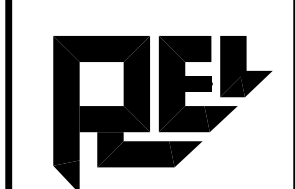
END AREA		VOLUME	
CUT	FILL	CUT	FILL



ADDENDUM		
2	4/23/26	VERTICAL CLEARANCE

CROSS SECTIONS - ASHLAND RAILWAY
STA. 4307+67.00 TO STA. 4307+90.76

DESIGN AGENCY



DESIGNER	PRS
REVIEWER	TJF
PROJECT ID	120504
SHEET	P.39
TOTAL	76

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	REVISED	1/20/2023
AS-2-15	REVISED	7/21/2023
BR-2-15	REVISED	7/19/2024
CS-1-24	REVISED	7/19/2024
HL-50.21	REVISED	7/15/2022

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:

SS800	DATED	1/07/25
SS840	DATED	1/17/25
SS846	DATED	4/17/15

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 10TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, EFFECTIVE 2024 AND THE ODOT BRIDGE DESIGN MANUAL, 2020, EFFECTIVE JULY 2025.

OPERATIONAL IMPORTANCE:

A LOAD MODIFIER OF 1.00 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN LOADING:

VEHICULAR LIVE LOAD: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

GALVANIZED STEEL REINFORCEMENT- MINIMUM YIELD STRENGTH 60 KSI

STEEL H PILES - ASTM A572 - YIELD STRENGTH 50 KSI

STEEL SHEET PILING - ASTM A572 GRADE 50 - YIELD STRENGTH 50 KSI

DECK PROTECTION METHOD:

MONOLITHIC WEARING SURFACE:

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

PILES TO BEDROCK:

DRIVE PILES TO REFUSAL ON BEDROCK. THE DEPARTMENT WILL CONSIDER REFUSAL TO BE OBTAINED WHEN THE PILE PENETRATION IS AN INCH OR LESS AFTER RECEIVING AT LEAST 20 BLOWS FROM THE PILE HAMMER. SELECT THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO THE BEDROCK AND REFUSAL.

THE TOTAL FACTORED LOAD IS 75 KIPS PER PILE FOR THE REAR AND FORWARD ABUTMENT PILES. THE TOTAL FACTORED LOAD IS 125 KIPS PER PILE FOR THE PIER 1 AND PIER 2 PILES.

REAR ABUTMENT PILES :
HP10X42 PILES 90 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES:
HP10X42 PILES 85 FEET LONG, ORDER LENGTH

PIER 1 PILES:
HP10X42 PILES 75 FEET LONG, ORDER LENGTH

PIER 2 PILES:
HP10X42 PILES 70 FEET LONG, ORDER LENGTH

PILE DRIVING CONSTRAINTS:

PRIOR TO DRIVING ABUTMENT PILES TO REFUSAL ON BEDROCK, CONSTRUCT THE MSE WALL AND THE BRIDGE APPROACH EMBANKMENT BEHIND THE ABUTMENT UP TO THE BOTTOM OF THE FOOTING FOR A MINIMUM DISTANCE OF 200 FEET BEHIND EACH ABUTMENT. THE CONTRACTOR MAY PRE-DRIVE ABUTMENT PILES BEFORE CONSTRUCTING MSE WALLS. PRE-DRIVING CONSISTS OF INSTALLING THE ABUTMENT PILES INTO SOIL ONLY AS FAR AS NECESSARY SO THAT THE PILE WILL REMAIN VERTICAL DURING MSE WALL CONSTRUCTION. IF PRE-DRIVING PILES, INSTALL PILE SLEEVES AROUND PILES BEFORE CONSTRUCTING THE MSE WALL. PROVIDE AT LEAST 3-FT OF PILE ABOVE THE TOP OF THE PILE SLEEVE TO MEET REQUIREMENTS OF C&MS 507.09 REGARDING SPLICES. DO NOT DRIVE ABUTMENT PILES TO REFUSAL ON BEDROCK UNTIL AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED. DRIVE ABUTMENT PILES TO REFUSAL ON BEDROCK. DRIVE EACH ABUTMENT PILE A DISTANCE OF AT LEAST 0.5-IN.

IF NOT PRE-DRIVING ABUTMENT PILES, INSTALL THE ABUTMENT PILES THROUGH PILE SLEEVES (SEE SS840) AFTER THE ABOVE REQUIRED MSE WALL AND EMBANKMENT HAVE BEEN CONSTRUCTED.

CONSTRUCTION CLEARANCE:

MAINTAIN A CONSTRUCTION CLEARANCE OF 6'-0" FEET HORIZONTALLY FROM THE CENTER OF TRACKS AND 18'-0" FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AND 6'-0" FEET FROM THE CENTER OF TRACKS, AT ALL TIMES.

ITEM 504 - STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN

TO SUPPORT THE EXCAVATION FOR THE BRIDGE PIERS AND TO PROTECT THE ASHLAND RAILROAD TRACK PERMANENT STEEL SHEET PILING WILL BE INSTALLED IN FRONT OF THE PIERS. IT IS TO REMAIN IN PLACE TO RESIST HORIZONTAL EARTH PRESSURE FROM STEEP EMBANKMENT SLOPE.

STEEL SHEET PILING SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS

SECTION MODULUS = 18 IN³

THICKNESS T=0.375 IN

HEIGHT = 9 IN

TOP ELEVATION = 1004.00

DRIVEN ELEVATION = 985.0

FOR FURTHER INFORMATION SEE SHEET 4/21

PAYMENT WILL BE PER ITEM 504 STEEL SHEET PILING LEFT IN PLACE, AS PER PLAN PER SQUARE FOOT INSTALLED.

PILE SPLICES:

IN LIEU OF USING FULL PENETRATION BUTT WELDS SPECIFIED IN C&MS 507.09 TO SPLICE STEEL H-PILES, THE CONTRACTOR MAY USE A MANUFACTURED H-PILE SPLICER. FURNISH SPLICERS FROM THE FOLLOWING MANUFACTURER:

ASSOCIATED PILE AND FITTING CORPORATION

8 WOOD HOLLOW RD. PLAZA 1

PARSIPPANY, NEW JERSEY 07054

INSTALL AND WELD THE SPLICER TO THE PILE SECTIONS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN ASSEMBLY PROCEDURE SUPPLIED TO THE ENGINEER BEFORE THE WELDING IS PERFORMED

ITEM 530 SPECIAL - STRUCTURAL SURVEY AND MONITORING OF VIBRATION

MONITOR GROUND VIBRATIONS CAUSED BY PILE DRIVING TO MINIMIZE THE POTENTIAL FOR DAMAGE TO OCCUPIED STRUCTURES ON THE NORTHWEST AND SOUTHWEST CORNERS AND THE RAILROAD TRACK ADJACENT TO THE PIERS.

RETAIN AN EXPERIENCED VIBRATION SPECIALIST TO ESTABLISH THE ACCEPTABLE VIBRATION LIMITS AND TO PERFORM THE VIBRATION MONITORING. USE A VIBRATION SPECIALIST THAT IS AN EXPERT IN THE INTERPRETATION OF VIBRATION DATA, AND WHO MEETS ONE OF THE FOLLOWING CRITERIA: 1) IS A REGISTERED ENGINEER WITH AT LEAST TWO YEARS OF PROVEN EXPERIENCE IN MONITORING VIBRATIONS ON SIMILAR CONSTRUCTION PROJECTS, OR 2) HAS AT LEAST FIVE YEARS OF PROVEN EXPERIENCE IN MONITORING VIBRATIONS ON SIMILAR CONSTRUCTION PROJECTS. DO NOT USE A VIBRATION SPECIALIST THAT IS AN EMPLOYEE OF THE CONTRACTOR.

SUBMIT A RESUME OF THE CREDENTIALS OF THE PROPOSED VIBRATION SPECIALIST AT, OR BEFORE, THE PRECONSTRUCTION MEETING. INCLUDE IN THE RESUME A LIST OF CONSTRUCTION PROJECTS ON WHICH THE VIBRATION SPECIALIST WAS RESPONSIBLY IN CHARGE OF MONITORING THE VIBRATIONS. LIST A DESCRIPTION OF THE PROJECTS, WITH DETAILS OF THE VIBRATION INTERPRETATIONS MADE ON THE PROJECT. LIST THE NAMES AND TELEPHONE NUMBERS OF PROJECT OWNERS WITH SUFFICIENT KNOWLEDGE OF THE PROJECTS TO VERIFY THE SUBMITTED INFORMATION. OBTAIN THE ENGINEER'S ACCEPTANCE OF THE VIBRATION SPECIALIST BEFORE BEGINNING ANY PILE DRIVING WORK. ALLOW 30 DAYS FOR THE REVIEW OF THIS DOCUMENTATION.

USE SEISMOGRAPHS CAPABLE OF CONTINUOUSLY RECORDING THE PEAK PARTICLE VELOCITY FOR THREE MUTUALLY PERPENDICULAR COMPONENTS OF VIBRATION, AND OF PROVIDING A PERMANENT RECORD OF THE ENTIRE VIBRATION EVENT. USE A SUFFICIENT NUMBER OF SEISMOGRAPHS TO PROVIDE REDUNDANCY IN CASE ONE DEVICE SHOULD FAIL. SUBMIT A PLAN OF THE PROPOSED SEISMOGRAPH LOCATIONS TO THE ENGINEER FOR REVIEW.

THE VIBRATION SPECIALIST SHALL PERFORM THE FOLLOWING:

- MEASURE THE AMBIENT GROUND VIBRATIONS NEAR EXISTING STRUCTURES BEFORE PILE DRIVING BEGINS.
- ESTABLISH VIBRATION LIMITS TO MINIMIZE POTENTIAL DAMAGE TO EXISTING STRUCTURES AND EXPLAIN WHY THEY ARE BEING USED TO THE ENGINEER BEFORE DRIVING PILES NEAR EXISTING STRUCTURES.
- MONITOR GROUND VIBRATIONS DURING PILE DRIVING.
- IMMEDIATELY INFORM THE CONTRACTOR AND ENGINEER IF THE VIBRATION LIMITS ARE REACHED OR EXCEEDED.
- FURNISH THE DATA RECORDED AND INCLUDE THE FOLLOWING:
 - IDENTIFICATION OF SEISMOGRAPH.
 - DISTANCE AND DIRECTION OF SEISMOGRAPH FROM PILE DRIVING.
 - START TIME AND DURATION OF PILE DRIVING.
 - LIST OF PILES DRIVEN DURING EACH MONITORING INTERVAL.

IMMEDIATELY SUSPEND ALL PILE DRIVING IF THE VIBRATION LIMITS ARE REACHED OR EXCEEDED. EVALUATE ALTERNATIVE CONSTRUCTION PROCEDURES, SUCH AS PREBORED HOLES, TO REDUCE THE VIBRATIONS.

SUBMIT THREE COPIES OF THE FINAL REPORT WHICH CONTAINS ALL MEASUREMENTS, INTERPRETATIONS, AND RECOMMENDATIONS TO THE ENGINEER.

THE DEPARTMENT WILL PAY FOR THIS ITEM AT THE CONTRACT LUMP SUM PRICE FOR ITEM 530 SPECIAL - STRUCTURAL SURVEY AND MONITORING OF VIBRATION. THE DEPARTMENT WILL PAY THE FINAL TWENTY PERCENT AFTER THE ENGINEER RECEIVES THE FINAL REPORT.

THE DEPARTMENT WILL PAY ACCORDING TO C&MS 109.05 FOR ALTERNATIVE CONSTRUCTION PROCEDURES THAT THE ENGINEER DETERMINES ARE NECESSARY TO REDUCE VIBRATIONS.

BEFORE PILE DRIVING BEGINS, CONDUCT A CONDITION SURVEY OF ALL EXISTING BUILDINGS, STRUCTURES, AND UTILITIES WITHIN 200-FT OF THE PILE DRIVING WORK. THE PURPOSE OF THE SURVEY IS TO DOCUMENT THE CONDITION OF THE BUILDINGS, STRUCTURES, OR UTILITIES PRIOR TO PILE DRIVING, SO THAT CLAIMS OF DAMAGE CAUSED BY THE PILE DRIVING CAN BE VERIFIED.

RETAIN AN EXPERIENCED VIBRATION SPECIALIST TO PERFORM OR SUPERVISE THE CONDITION SURVEY. USE A VIBRATION SPECIALIST THAT MEETS THE QUALIFICATION REQUIREMENTS FOR VIBRATION MONITORING.

RECORD THE CONDITION OF EXISTING STRUCTURES AND BUILDING MATERIALS, USING WRITTEN TEXT, PHOTOGRAPHS, AND VIDEO RECORDINGS. INSPECT INTERIOR WALLS, CEILINGS, AND FLOORS THAT ARE ACCESSIBLE. INSPECT THE EXTERIOR OF THE BUILDING THAT IS VISIBLE FROM GROUND LEVEL. ALSO RECORD THE LOCATION, SIZE, AND TYPE OF ALL CRACKS AND OTHER STRUCTURAL DEFICIENCIES.

IF OWNERS OR OCCUPANTS FAIL TO ALLOW ACCESS TO THE PROPERTY FOR THE PRECONSTRUCTION CONDITION SURVEY, SEND A CERTIFIED LETTER TO THE OWNER OR OCCUPANT. DOCUMENT THE NOTIFICATION EFFORT AND THE CERTIFIED LETTER IN THE REPORT.

SUBMIT THREE COPIES OF A REPORT TO THE ENGINEER THAT SUMMARIZES THE PRECONSTRUCTION CONDITION OF THE BUILDINGS, STRUCTURES, AND UTILITIES, AND THAT IDENTIFIES AREAS OF CONCERN.

PAYMENT FOR THE PRECONSTRUCTION CONDITION SURVEY IS INCLUSIVE OF THE CONTRACT LUMP SUM PRICE FOR ITEM 530 SPECIAL - STRUCTURAL SURVEY AND MONITORING OF VIBRATION.

ITEM 511 - CLASS QC2 CONCRETE, SIDEWALK, AS PER PLAN

THE CONCRETE ITEM CONSISTS OF THE 18 INCH THICK SIDEWALK MOMENT SLAB PLACED ON THE MSE WALL FILL MATERIAL SUPPORTING THE CONCRETE PARAPET WITH (TWIN STEEL TUBE RAILING) AT THE REAR APPROACH. THE CONCRETE SHALL BE PER CUBIC YARD WITH THE REINFORCING TABULATED IN THE REINFORCING LIST BUT INCLUDED WITH THE CONCRETE FOR PAYMENT.

ITEM 526 - REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN

PAYMENT FOR THE CONCRETE SIDEWALK ON THE APPROACH SLABS (INCLUDING REINFORCING) SHALL BE INCLUDED WITH THE APPROACH SLAB PER SQUARE YARD.

ABBREVIATIONS

ABUT. - ABUTMENT	JT. - JOINT
APPROX. - APPROXIMATELY	LT. - LEFT
BRG. - BEARING	MAX. - MAXIMUM
BOT. - BOTTOM	MID - MIDDLE
B/W - BETWEEN	MIN. - MINIMUM
C.A.S.P. - CRUSHED AGGREGATE SLOPE PROTECTION	MSE - MECHANICALLY STABILIZED EARTH
C/C - CENTER TO CENTER	NB - NORTHBOUND
C.I.P - CAST IN PLACE	NF - NEAR FACE
CJ - CONSTRUCTION JOINT	NO. - NUMBER
CLR. - CLEAR	O/O - OUT TO OUT
CONC. - CONCRETE	PCPP - PERFORATED CORRUGATED PLASTIC PIPE
CPP - CORRUGATED PLASTIC PIPE	PEJF - PREFORMED EXPANSION JOINT FILLER
DIA. - DIAMETER	PG - PROFILE GRADE
DIM. - DIMENSION	PROP. - PROPOSED
D.O. - DITTO	RA - REAR ABUTMENT
DWG. - DRAWING	RT. - RIGHT
EF - EACH FACE	SB - SOUTHBOUND
EL. OR ELEV. - ELEVATION	S.O. - SERIES OF
EOD - EDGE OF DECK	SHLDR. - SHOULDER
EOP - EDGE OF PAVEMENT	SPA. - SPACE OR SPACES
EQ. - EQUAL	STA. - STATION
EX. OR EXIST. - EXISTING	STD. - STANDARD
EXP. - EXPANSION	TEMP. - TEMPORARY
FA - FORWARD ABUTMENT	TOR - TOP OF ROCK
FF - FAR FACE	T/T - TOE TO TOE
FS - FIELD SPLICE	TYP. - TYPICAL
FWD. - FORWARD	VAR. - VARIES
INV. - INVERT	

1	1/23/26	REVISE NOTE
2	4/29/26	VERTICAL CLEARANCE



MARK	RIGHT RAILING	LEFT RAILING	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS										
							A	B	C	D	E	R	INC				
MOMENT SLAB RAILING (FOR REFERENCE ONLY)							CALCULATED <u>DPH</u> DATE <u>10/25</u> CHECKED <u>BLN</u> DATE <u>10/25</u>										
MSR501	16	16	32	3'-5"	114	STR											
MSR502	20	20	40	5'-2"	216	STR											
MSR503	16	16	32	5'-3"	175	STR											
MSR504	4	4	8	7'-11"	66	STR											
MSR505	4	4	8	30'-0"	250	STR											
MSR506	4	4	8	29'-7"	247	STR											
MSR507	83	83	166	7'-10"	1356	30	1'-6"	0'-8"	2'-5"	2'-3"							
				TOTAL		2424**											



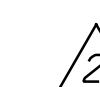
MARK	RIGHT RAILING	LEFT RAILING	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS										
							A	B	C	D	E	R	INC				
SUPERSTRUCTURE RAILING (FOR REFERENCE ONLY)							CALCULATED <u>DPH</u> DATE <u>10/25</u> CHECKED <u>BLN</u> DATE <u>10/25</u>										
DR501	8	8	16	3'-10"	64	STR											
DR502	36	36	72	6'-1"	457	STR											
DR503	8	8	16	30'-0"	501	STR											
DR504	4	4	8	12'-4"	103	STR											
DR505	93	93	186	7'-10"	1520	30	1'-6"	0'-8"	2'-5"	2'-3"							
				TOTAL		2645**											



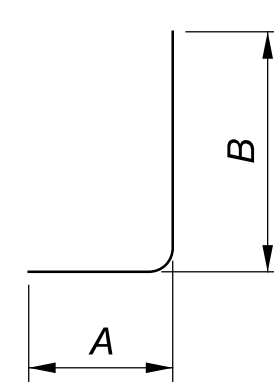
MARK	RIGHT RAILING	LEFT RAILING	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS										
							A	B	C	D	E	R	INC				
REAR APPROACH SLAB RAILING (FOR REFERENCE ONLY)							CALCULATED <u>DPH</u> DATE <u>10/25</u> CHECKED <u>BLN</u> DATE <u>10/25</u>										
RAR501	8	8	16	3'-5"	57	STR											
RAR502	16	16	32	5'-3"	175	STR											
RAR503	4	4	8	29'-7"	247	STR											
RAR504	38	38	76	7'-10"	621	30	1'-6"	0'-8"	2'-5"	2'-3"							
				TOTAL		1100**											



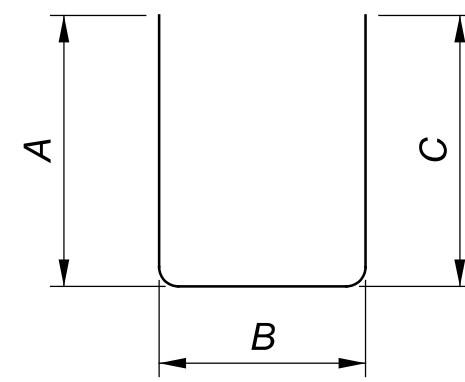
MARK	RIGHT RAILING	LEFT RAILING	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS										
							A	B	C	D	E	R	INC				
FORWARD APPROACH SLAB RAILING (FOR REFERENCE ONLY)							CALCULATED <u>DPH</u> DATE <u>10/25</u> CHECKED <u>BLN</u> DATE <u>10/25</u>										
FAR501	8	8	16	3'-6"	59	STR											
FAR502	4	4	8	5'-6"	46	STR											
FAR503	4	4	8	13'-4"	111	STR											
FAR504	17	17	34	7'-10"	278	30	1'-6"	0'-8"	2'-5"	2'-3"							
				TOTAL		494**											



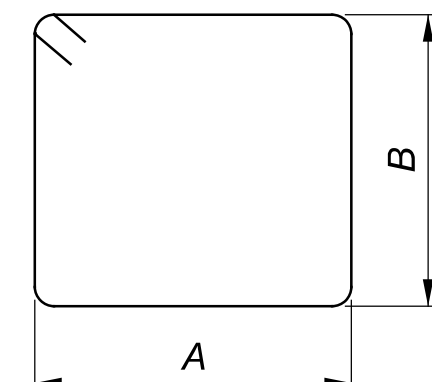
BENDING DIAGRAMS



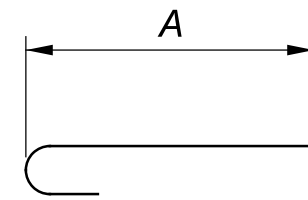
TYPE-1



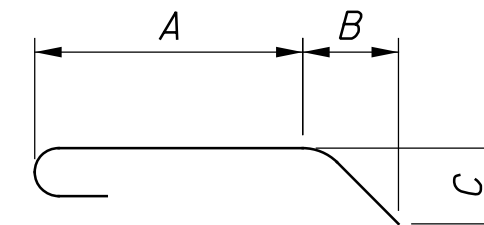
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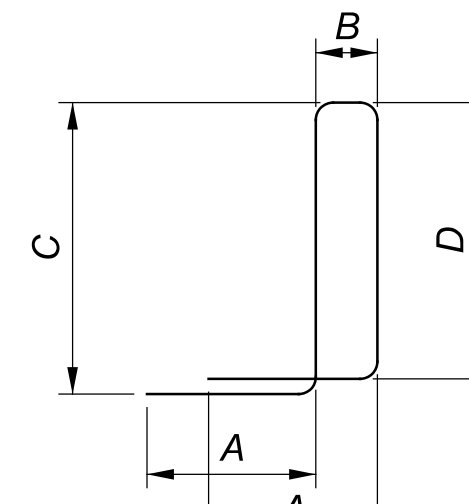
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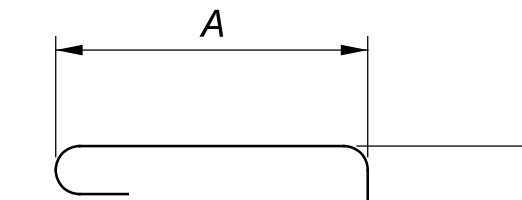
TYPE-16



TYPE-18



TYPE-30



TYPE-39

** - INCLUDED WITH ITEM 517, RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING).

NOTES

BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST LETTER IDENTIFIES BAR LOCATION, THE NEXT DIGIT INDICATES THE BAR SIZE DESIGNATION, THE REMAINING DIGITS STATE THE SEQUENCE NUMBER.

EXAMPLE: A501
 A = LOCATION OF THE BAR IN ABUTMENT
 5 = BAR SIZE DESIGNATION
 01 = SEQUENCE NUMBER

BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.

ALL REINFORCING STEEL TO BE GALVANIZED.

ADDENDUM		
2	4/30/26	REVISE REINFORCING STEEL NOTE REVISE REINFORCING STEEL TOTALS

SFN	3976086
DESIGN AGENCY	
DESIGNER	BLN
CHECKER	DHT
REVIEWER	JRC
DATE	1/6/26
PROJECT ID	120504
SUBSET	18
TOTAL	21
SHEET	P.66
TOTAL	76