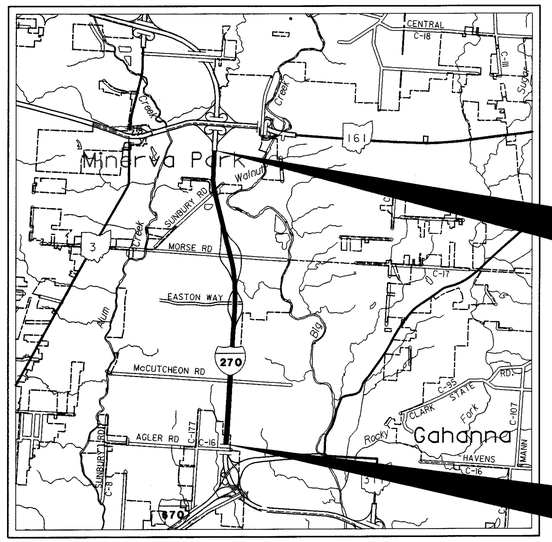


BEGIN PROJECT
STA. 1283+32
S.L.M. 30.88

END PROJECT
STA. 1481+43
S.L.M. 34.63

LOCATION MAP

LATITUDE: N40°02'30" LONGITUDE: W82°54'00"

SCALE: 1" = 1 MILE

0 1 2

N

PORTION TO BE IMPROVED
INTERSTATE & DIVIDED HIGHWAY (75, 35)
UNDIVIDED STATE & FEDERAL ROUTES (49)
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2002)	84,790
DESIGN YEAR ADT (2022)	152,500
DESIGN HOURLY VOLUME	12,960
DIRECTIONAL DISTRIBUTION	55%
TRUCKS (24 HOUR B&C)	4%
DESIGN SPEED	70 MPH
LEGAL SPEED	65 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
URBAN INTERSTATE

DESIGN EXCEPTIONS
NONE

PLAN PREPARED BY:

[redacted]

BURGESS & NIPLE
5085 Reed Road
Columbus, Ohio 43220

ENGINEERS SEAL:

STATE OF OHIO
THOMAS A. BOLTE
E-48045
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: Thomas A. Bolte
DATE: 2-13-03

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
FRA-270-30.88
CITY OF COLUMBUS
CITY OF GAHANNA
BLENDON & MIFFLIN TOWNSHIPS
FRANKLIN COUNTY

INDEX OF SHEETS:

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE AESTHETIC REHABILITATION OF EXISTING NOISE BARRIERS ALONG IR-270 INCLUDING THE REPLACEMENT AND ADDITION OF CONCRETE PANELS, STEEL POST EXTENSIONS, SEALING CONCRETE PANELS, PAINTING STEEL POSTS AND EXTENDING CONCRETE BARRIER.

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2002 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.

MAINTENANCE OF TRAFFIC ENDORSEMENT

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF I-270 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

PLANS CERTIFIED BY:

Bruce Birch 2-20-03

STANDARD CONSTRUCTION DRAWINGS

F-1.1	7-28-00	MT-35.10	4-20-01			843	4-19-02
F-3.2	7-28-00	MT-95.30	4-19-02				
F-3.3	7-28-00	MT-95.31	4-19-02				
F-3.4	7-28-00	MT-95.40	4-19-02				
GR-1.1M	10-21-97	MT-101.70	10-18-02				
GR-1.2M	10-21-97						
GR-1.3M	10-21-97	MT-102.20	10-18-02				
GR-2.1M	10-21-97	MT-105.10	10-18-02				
GR-3.1M	10-21-97						
GR-3.2M	10-21-97	MT-105.11	10-18-02				
I-2.3	7-19-02	RM-4.3M	10-21-97				
		RM-4.5M	10-21-97				
LA-1.1	7-28-00						

SUPPLEMENTAL SPECIFICATIONS

SPECIAL PROVISIONS

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

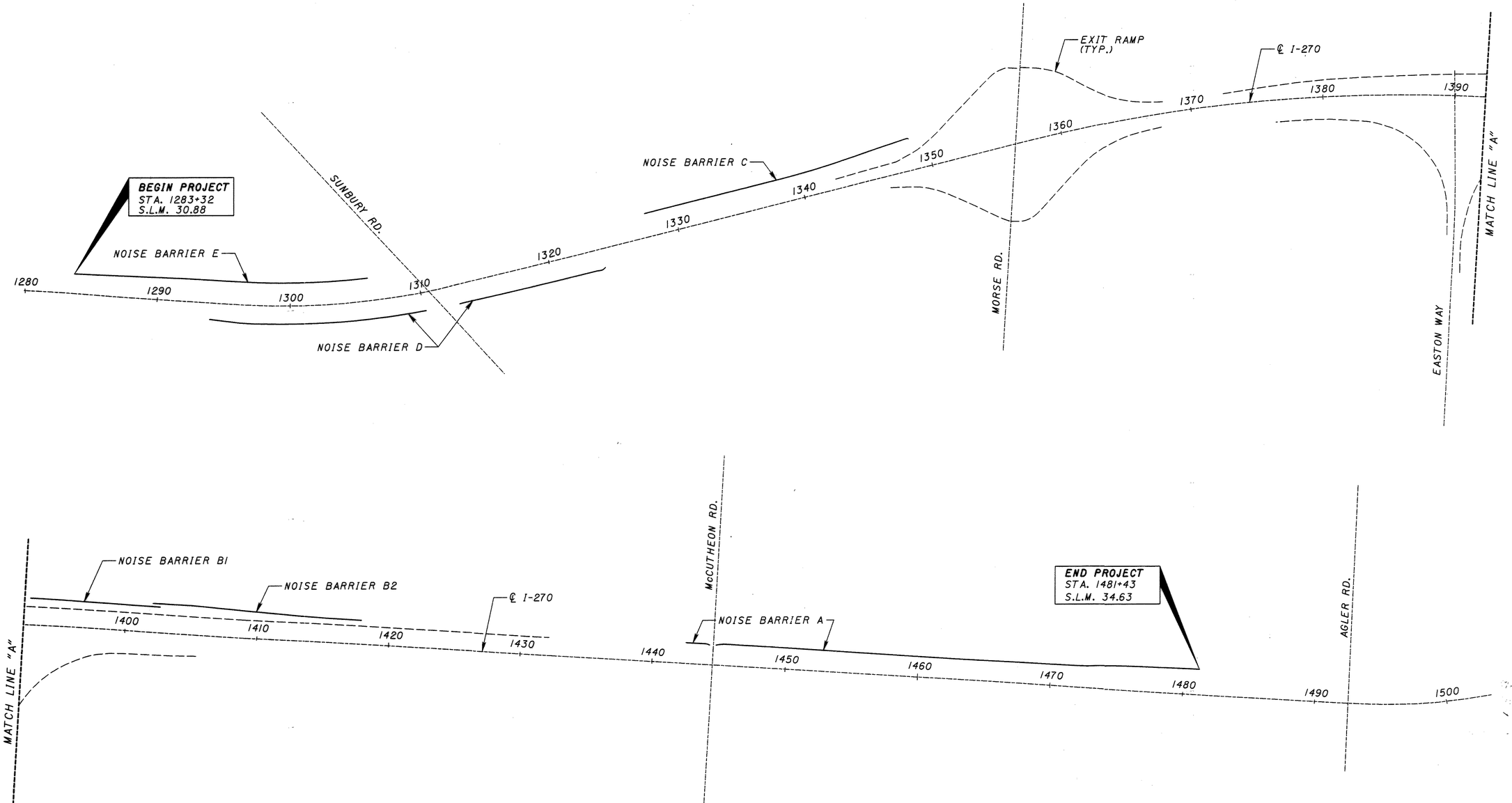
APPROVED Jack R Marshall
DATE 2/20/03 DISTRICT DEPUTY DIRECTOR

APPROVED Gordon Proctor
DATE 3-3-03 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. NON-FEDERAL
PID NO. 75082
STATE JOB NO.
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
FRA-270-30.88
1 / 16

FRA-IR 270-30.88
030305 PID-75082
Dist 6 5/21/2003

P:/PR32227/CADD/GT100.DGN



0 200 400 800 SCALE IN FEET

CALCULATED JPS CHECKED CAS

SCHEMATIC PLAN

FRA-270-30.88

2/16

P:\PR32227\CADD\GB100.DGN

CALCULATED JPS | CHECKED CAS

GENERAL NOTES 1

WORK LIMITS

NO PHYSICAL WORK LIMITS ARE SHOWN ON THESE PLANS, BUT THE WORK SHALL STAY WITHIN THE EXISTING RIGHT OF WAY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

EXISTING NOISE BARRIER CONSTRUCTION PLANS

CONSTRUCTION PLANS SHOWING THE ORIGINAL ALIGNMENT AND PROFILE OF THE EXISTING NOISE BARRIERS ARE AVAILABLE FOR INSPECTION AT THE DISTRICT 6 OFFICE.

FRA-270-31.01, 33.64 (1995)
FRA-270-32.46 (1995)

RIGHT OF WAY

ALL WORK SHALL BE PERFORMED FROM THE ROADWAY SIDE OF THE WALL, AND DONE WITHIN THE EXISTING RIGHT OF WAY OR EASEMENT.

UTILITIES

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

UTILITY	OWNER	TELEPHONE
SANITARY SEWER & STORM SEWER	CITY OF GAHANNA DIVISION OF WATER & SEWERS 200 S. HAMILTON RD. GAHANNA, OH. 43230	(614)342-4440
	CITY OF COLUMBUS (DIV. OF SEWER & DRAINAGE) 910 DUBLIN ROAD, 3rd FLOOR COLUMBUS, OH. 43215 ATTN: MR. THOMAS RUSSELL STORM WATER PROGRAM MANAGER	(614)645-6311
WATER	CITY OF COLUMBUS (DIV. OF WATER) 910 DUBLIN ROAD COLUMBUS, OH. 43215	(614)645-7677
GAS	COLUMBIA GAS TRANSMISSION CORP. P.O. BOX 330 SUGAR GROVE, OH. 43155	(614)746-8366
	COLUMBIA GAS OF OHIO 920 GOODALE BLVD. COLUMBUS, OH. 43212	(614)460-2170
ELECTRIC FACILITIES	CITY OF COLUMBUS (DIV. OF ELECTRICITY) 3500 INDIANOLA AVE. COLUMBUS, OH. 43214	(614)645-7627
	AMERICAN ELECTRIC POWER 850 TECH CENTER DR. GAHANNA, OH. 43230	(614)883-6829
COMMUNICATIONS	AMERITECH ATTN: LARRY GIBSON 150 E. GAY ST. COLUMBUS, OH. 43215	(614)223-7162
	XO COMMUNICATIONS ATTN: MR. DALE FERGUSON OSP ENGINEER TWO EASTON OVAL, SUITE 300 COLUMBUS, OH. 43219	(614)416-1169
	TIME WARNER COMMUNICATIONS ATTN: KEVIN D. RICH P.O. BOX 2553 COLUMBUS, OH. 43216	(614)481-5263
	INSIGHT COMMUNICATIONS 3770 EAST LIVINGSTON AVE. COLUMBUS, OH. 43227	(614)236-1292 EXT.453
TRAFFIC	CITY OF COLUMBUS - TRAFFIC ENGINEERING 109 NORTH FRONT ST., 2nd FLOOR COLUMBUS, OH. 43215-9024	(614)645-7790

THERE ARE NO UNDERGROUND OR OVERHEAD UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, ANY POWER-OPERATED CONSTRUCTION-TYPE DEVICE SHALL NOT BE OPERATED BETWEEN THE HOURS OF 8 P.M. AND 6 A.M. IN ADDITION, ANY SUCH DEVICE SHALL NOT BE OPERATED AT ANY TIME IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2002 CONSTRUCTION AND MATERIAL SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A "W-BEAM RAIL SPLICE" AS SHOWN IN AASHTO M 180. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 67 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, THE CONTRACTOR IS ADVISED THAT COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA) WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO FAA. A COPY OF THE SUBMISSION AND TWO COPIES OF FORM 7460-1 SHALL BE FORWARDED TO THE ODOT OFFICE OF AVIATION. THE CONTRACTOR IS ADVISED THAT NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

THE FEDERAL AVIATION ADMINISTRATION
GREAT LAKES REGIONAL OFFICE
AIR TRAFFIC DIVISION AGL-530
2300 EAST DEVON AVENUE
DES PLAINES, ILLINOIS 60018
847-294-7566

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OHIO 43235
614-793-5046

ACCEPTANCE REQUIREMENTS

BEFORE CONSENT IS GIVEN TO THE SUPPLIERS TO PRODUCE THE NEW CONCRETE NOISE PANELS, THE CONTRACTOR SHALL DELIVER TO THE JOB SITE FULL SIZE NOISE PANELS REPRESENTATIVE OF THE PRODUCTS THE CONTRACTOR IS GOING TO SUPPLY. THE NOISE PANELS SHALL MATCH THE DIMENSIONS AND TEXTURE (BOTH SIDES) OF THE EXISTING CONCRETE NOISE BARRIER PANELS. ANY DELIVERED OR ERECTED PANEL THAT DOES NOT MATCH THE CONTROL PANEL OR CONFORM WITH THE DIMENSIONS MENTIONED ABOVE SHALL BE REMOVED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR.

ITEM 201 - CLEARING AND GRUBBING

DISTRICT 6, DEPARTMENT OF TRANSPORTATION, TAKES A SENSITIVE APPROACH TO REGRADING, CLEARING AND GRUBBING. CARE SHALL BE TAKEN TO REMOVE ONLY THOSE TREES THAT ARE ABSOLUTELY NECESSARY TO PERFORM THE WORK. IF NECESSARY, A CAREFUL TRIMMING CAN BE DONE, AS LONG AS CARE IS TAKEN NOT TO HARM THE FUTURE GROWTH OF THE TREES. IF THE TREES TO BE REMOVED, TRIMMED, OR COVERED ARE NOT MARKED IN THE FIELD, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ENGINEER BEFORE ANY WORK IS DONE. ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PERFORM THIS WORK SHALL BE INCLUDED IN THE PRICE BID PER LUMP SUM FOR ITEM 201 - CLEARING AND GRUBBING.

REMOVAL MISC.: TERMINAL ASSEMBLY, REMOVED FOR REUSE, AND REINSTALLATION

THE TERMINAL ASSEMBLY AT THE EXISTING END OF NOISE BARRIER B1 IS TO BE REMOVED AND REUSED AT THE CONNECTION TO THE NEW CONCRETE BARRIER END TRANSITION AT THE PROPOSED END OF NOISE BARRIER B1. THIS WORK SHALL BE DONE IN ACCORDANCE WITH PERTINENT REQUIREMENTS OF CMS 202 AND 606, AND STANDARD DRAWING GR 3.1M. ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO REMOVE AND REINSTALL THE EXISTING TERMINAL ASSEMBLY SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM 202 - REMOVAL MISC.: TERMINAL ASSEMBLY REMOVED FOR REUSE.

REMOVAL MISC.: W-BEAM TERMINAL CONNECTOR, REMOVED FOR REUSE, AND REINSTALLATION

THE W-BEAM TERMINAL CONNECTOR AT THE EXISTING BEGINNING OF NOISE BARRIER C IS TO BE REMOVED AND REUSED AT THE CONNECTION TO BE NEW CONCRETE BARRIER END TRANSITION AT THE PROPOSED BEGINNING OF NOISE BARRIER C. THIS WORK SHALL BE DONE IN ACCORDANCE WITH PERTINENT REQUIREMENTS OF CMS 202 AND 606, AND STANDARD DRAWING GR 3.2M. ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO REMOVE AND REINSTALL THE EXISTING TERMINAL ASSEMBLY SHALL BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM 202 - REMOVAL MISC.: TERMINAL ASSEMBLY REMOVED FOR REUSE.

ITEM 622 - BARRIER, MISC.: CONCRETE BARRIER, TYPE D50

IN ADDITION TO THE REQUIREMENTS OF CMS 622, THIS ITEM SHALL INCLUDE NEW CONCRETE BARRIER SHOWN ON THE PLANS AS DETAIL A, DETAIL B AND CONCRETE BARRIER END TRANSITIONS. ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL NEW CONCRETE BARRIER AS SHOWN ON THE PLANS AND TO THE SATISFACTION OF THE ENGINEER INCLUDING EPOXY COATED REINFORCING STEEL, CONCRETE FOOTINGS, SLEEVES FOR GUARD RAIL ATTACHMENT, REFLECTORS AND DRAINAGE INLET SHALL BE INCLUDED IN THE CONTRACT PRICE PER FOOT FOR ITEM 622 - BARRIER MISC.: CONCRETE BARRIER, TYPE D50, FOR PAYMENT.

ITEM 514 - FIELD PAINTING, MISC.: STEEL POSTS

ALONG WITH THE PERTINENT REQUIREMENTS OF CMS 514, THIS ITEM SHALL INCLUDE FIELD PAINTING ALL EXISTING, NEW AND EXTENDED POSTS TO THE LIMITS SHOWN ON THE PLANS. PRIOR TO PAINTING, ALL SURFACES TO RECEIVE PAINT SHALL BE ABRASIVE BLASTED PER SSPC-SP7 BRUSH-OFF BLAST CLEANING. THE BLASTING OPERATION SHALL ROUGHEN THE GALVANIZED SURFACE TO AN ANGULAR SURFACE PROFILE OF 0.25 TO 0.50 MILS. THE BLASTING EQUIPMENT, TECHNIQUE AND ABRASIVE MATERIAL SHALL BE SELECTED TO PROVIDE FOR THE SPECIFIED SURFACE PROFILE WITHOUT REMOVAL OF ZINC LAYERS. THE FINAL ZINC MILAGE SHALL NOT BE LESS THAN 3.0 MILS. ALL ABRASIVE RESIDUE SHALL BE REMOVED WITH CLEAN COMPRESSED AIR OR OTHER METHODS ACCEPTABLE TO THE DEPARTMENT.

AFTER OBTAINING AN ACCEPTABLE SURFACE PROFILE, FIELD APPLY A TWO COAT PAINT SYSTEM CONSISTING OF EPOXY INTERMEDIATE COAT AND A URETHANE FINISH COAT MEETING THE REQUIREMENTS OF CMS 708.02. THE FINISH COAT SHALL MATCH FEDERAL COLOR STANDARD 17778 (LIGHT NEUTRAL). SEE FIELD PAINTING LIMITS DETAIL ON SHEET 15 OF 16.

THE EPOXY INTERMEDIATE COATING SHALL BE APPLIED WITHIN 24 HOURS OF THE BRUSH-OFF BLASTING. THE COATINGS SHALL BE APPLIED PER CMS 514 EXCEPT THAT REQUIREMENTS FOR SURFACE PREPARATION AND PRIMING SHALL NOT BE PERFORMED. THE COATING SHALL BE FIELD APPLIED AS SPECIFIED IN THESE NOTES WITHOUT THE WORK LIMITATION SPECIFIED IN CMS 514.05. FIELD REPAIRS AND TOUCH-UPS SHALL FOLLOW WORK LIMITATIONS SPECIFIED PER CMS 514 AND BE AS DIRECTED BY THE ENGINEER. CARE SHALL BE TAKEN TO PROTECT CONCRETE PANELS FROM PAINT SPRAY DURING BOTH PAINT APPLICATIONS.

ITEM SPECIAL - NOISE BARRIER, MISC.: REMOVAL AND REUSE OF EXISTING PANELS

THIS ITEM SHALL INCLUDE REMOVAL, STORAGE AND RE-INSTALLATION OF EXISTING CONCRETE NOISE BARRIER PANELS. PANELS MARKED ON NOISE BARRIER ELEVATION SHEETS AS "REMOVE AND SALVAGE" SHALL BE CAREFULLY REMOVED AND TEMPORARILY STORED (ON SITE) TO BE USED AT A LOCATION CALLING FOR AN "ADD" PANEL OF THE SAME DIMENSIONS. CARE SHALL BE TAKEN TO NOT DAMAGE PANELS DURING REMOVAL, STORAGE AND REPLACEMENT. ANY DAMAGE TO PANELS DURING THIS PROCEDURE SHALL BE REPAIRED OR REPLACED AT THE EXPENSE OF THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL - NOISE BARRIER, MISC.: STEEL POST EXTENSION

THIS ITEM SHALL INCLUDE FURNISHING AND INSTALLING GALVANIZED STEEL POSTS ON TOP OF THE EXISTING NOISE BARRIER POSTS. STEEL POST EXTENSIONS SHALL HAVE IDENTICAL DIMENSIONS AND PROPERTIES AS THE POSTS THEY ARE BEING JOINED TO, AS VERIFIED IN THE FIELD BY THE CONTRACTOR. W14x38 EXTENSIONS SHALL INCLUDE 4"x3"x⅜" ANGLES TO CONTAIN BARRIER PANELS. STEEL POST EXTENSIONS SHALL BE GALVANIZED PER CMS 711.02.

PRIOR TO GALVANIZING, ALL CORNERS OF THERMALLY CUT OR SHEARED EDGES SHALL HAVE A 1/16-INCH RADIUS OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE.

AFTER GALVANIZATION, ZINC HIGH SPOTS SUCH AS METAL DRIP LINE AND OTHERS THAT WOULD DETRACT FROM THE PAINT APPEARANCE SHALL BE MADE FLUSH WITH THE SURROUNDING SURFACE BY SSPC SP2 OR SP3. CARE SHALL BE TAKEN THAT THE BASE GALVANIZED COATING IS NOT REMOVED. REPAIRED AREAS SHALL BE CHECKED FOR REQUIRED COATING THICKNESS.

GALVANIZED COATINGS DAMAGED IN THE SHOP SHALL BE REPAIRED PER ASTM A780 METHOD A3. GALVANIZED COATINGS DAMAGED IN THE FIELD SHALL BE REPAIRED PER ASTM A780 METHOD A1.

THE STEEL POST EXTENSIONS SHALL BE ATTACHED TO THE EXISTING POSTS BY GROOVE WELDING THE EXPOSED FACE OF BOTH FLANGES AS DETAILED IN THESE PLANS. AFTER WELDING, THE AREA ADJACENT TO THE WELDS SHALL BE PRIMED WITH A ZINC PRIMER OF A COLOR MATCHING THE GALVANIZED FINISH. ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL NEW POST EXTENSIONS INCLUDING FIELD VERIFICATION, 4"x3"x⅜" ANGLES, WELDING, GRINDING AND PRIMING WELD AREA IS TO BE INCLUDED IN THE CONTRACT PRICE PER EACH FOR ITEM SPECIAL - NOISE BARRIER, MISC.: STEEL POST EXTENSION.

Construction Noise

Hours of operation shall conform with any local ordinances.

FRA-270-30.88

P:/PR32227/CADD/GN100.DGN

ITEM SPECIAL - NOISE BARRIER, MISC.: ADDITIONAL CONCRETE PANELS

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO FABRICATE AND INSTALL NEW CONCRETE NOISE BARRIER PANELS ON TOP OF EXISTING NOISE BARRIERS. ALL NEW CONCRETE NOISE BARRIER PANELS SHALL BE FURNISHED BY SOUNDCORE, INC., AMHERST, NEW YORK. SEE TYPICAL NOISE BARRIER DETAILS ON SHEETS 10 THROUGH 15 OF 16 FOR DETAILS. ALL NEW CONCRETE PANELS SHALL MATCH THE FINISH PATTERN, TEXTURE AND WIDTH OF THE EXISTING NOISE BARRIER PANELS. BOTH SIDES OF THE EXISTING NOISE BARRIER PANELS EXHIBIT THE ARCHITECTURAL STONE FINISH OF ASHLAR STONE (FIELD VERIFY TO MATCH BOTH SIDES OF EXISTING PANELS) AND WERE FURNISHED BY SOUNDCORE, INC., CONTACT BRUCE BARIT (716) 833-7651.

PRECAST CONCRETE CAPS, CONCRETE SEALING, FIELD PAINTING OF STEEL AND STEEL POST EXTENSIONS ARE SEPARATELY ITEMIZED FOR PAYMENT.

ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL NEW CONCRETE PANELS INCLUDING SLEEVES OR FIELD DRILLED HOLES FOR CAP ATTACHMENT AND OTHER DETAILS AS SHOWN ON THE PLANS AND TO THE SATISFACTION OF THE ENGINEER SHALL BE INCLUDED IN ITEM SPECIAL - NOISE BARRIER, MISC.: ADDITIONAL CONCRETE PANELS.

ITEM SPECIAL - NOISE BARRIER, MISC.: NOISE BARRIER EXTENSION

THIS ITEM SHALL INCLUDE ALL WORK NECESSARY TO CONSTRUCT NEW NOISE BARRIER WITH CONCRETE PANELS AND GALVANIZED STEEL POSTS ON DRILLED SHAFT FOUNDATIONS ADJACENT TO THE EXISTING NOISE BARRIERS (NOTE THAT ONE POST ON SHEET 15 OF 16 IS ATTACHED TO THE BACK OF CONCRETE BARRIER). ALL NEW CONCRETE NOISE BARRIER PANELS SHALL BE FURNISHED BY SOUNDCORE, INC., AMHERST, NEW YORK. SEE TYPICAL NOISE BARRIER DETAILS ON SHEETS 11 THROUGH 14 OF 16 AND NOISE BARRIER EXTENSION DETAIL ON SHEET 15 OF 16. ALL NEW CONCRETE PANELS SHALL MATCH THE FINISH PATTERN, TEXTURE AND WIDTH OF THE EXISTING NOISE BARRIER PANELS. BOTH SIDES OF THE EXISTING NOISE BARRIER PANELS EXHIBIT THE ARCHITECTURAL STONE FINISH OF ASHLAR STONE (FIELD VERIFY TO MATCH BOTH SIDES OF EXISTING PANELS) AND WERE FURNISHED BY SOUNDCORE, INC., CONTACT BRUCE BARIT (716) 833-7651.

PRECAST CONCRETE CAPS, CONCRETE SEALING AND FIELD PAINTING OF STEEL ARE SEPARATELY ITEMIZED FOR PAYMENT.

ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL NEW CONCRETE PANELS, GALVANIZED STEEL POSTS, SLEEVES OR FIELD DRILLED HOLES FOR CAP ATTACHMENT, DRILLED SHAFT FOUNDATIONS, BARRIER MOUNTED POSTS AND OTHER ITEMS NECESSARY TO CONSTRUCT NEW NOISE BARRIER AS SHOWN ON THE PLANS AND TO THE SATISFACTION OF THE ENGINEER SHALL BE INCLUDED IN ITEM SPECIAL - NOISE BARRIER, MISC.: NOISE BARRIER EXTENSION.

ITEM SPECIAL - NOISE BARRIER, MISC.: PRECAST CONCRETE CAP

THIS ITEM SHALL INCLUDE THE FABRICATION, DELIVERY AND ERECTION OF PRECAST CONCRETE CAPS ON EXISTING AND NEW NOISE BARRIER PANELS. ALL NEW PRECAST CONCRETE CAPS SHALL BE FURNISHED BY SOUNDCORE, INC., AMHERST, NEW YORK. THE PURCHASE, DELIVERY, AND ERECTION OF THE NEW CONCRETE CAPS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CARE SHALL BE TAKEN NOT TO DAMAGE THE STEEL POSTS, NEW CONCRETE CAPS, OR ANY OF THE EXISTING PANELS TO REMAIN IN PLACE. ANY DAMAGE CAUSED BY THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO PERFORM THIS WORK, WHICH INCLUDES BUT IS NOT LIMITED TO FABRICATION OF THE CAP, NO. 4 NON-EPOXY REINFORCING BARS, FIELD DRILLING HOLES FOR REINFORCING BARS IN EXISTING BARRIER PANELS, NON-SHRINK MORTAR AND PRECAST CONCRETE CAP INSTALLATION SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT FOR ITEM SPECIAL - NOISE BARRIER, MISC.: PRECAST CONCRETE CAP.

SEALING OF PRECAST CONCRETE CAPS IS SEPARATELY ITEMIZED FOR PAYMENT.

ITEM 607 - FENCE REBUILT, TYPE CL

THIS ITEM SHALL INCLUDE THE CAREFUL RECONDITIONING AND RE-ERECTION OF FENCE AND COMPONENT PARTS AS DIRECTED BY THE ENGINEER. FENCE OR COMPONENT PARTS WHICH ARE DAMAGED OR ARE OTHERWISE UNSATISFACTORY FOR REUSE SHALL BE REPLACED IN KIND BY THE CONTRACTOR. ANY NEW PARTS WHICH ARE NEEDED, AS DETERMINED BY THE ENGINEER, SHALL BE SUPPLIED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

THE AMOUNT OF REBUILT FENCE TO BE PAID FOR WILL BE THE NUMBER OF FEET REBUILT, COMPLETE IN PLACE AND MEASURED AS PROVIDED FOR IN 607.09.

PAYMENT FOR THE ABOVE WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 607, FENCE REBUILT, TYPE CL.

THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER, ITEM 607 FENCE REBUILT, TYPE CL 100 FEET.

ITEM 843 - PATCHING CONCRETE STRUCTURES WITH TROWELABLE MORTAR

THE ESTIMATED QUANTITY OF 100 SQUARE FEET HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER FOR THE REPAIR OF SPALLED AND/OR DELAMINATED AREAS FOUND IN THE CONCRETE NOISE BARRIER PANELS. ALL PATCHING SHALL BE COMPLETE AND APPROVED BY THE PROJECT ENGINEER PRIOR TO SEALING CONCRETE.

RESTORATION OF WORK AREAS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE PROJECT ENGINEER FOR THE REPAIR TO ORIGINAL CONDITION OF THE AREAS DISTURBED BY THE WORK. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO CONFINE THE WORK IN ORDER TO MINIMIZE THE DAMAGED AREA.

ITEM 207 - PERIMETER FILTER FABRIC FENCE	2100 FT
ITEM 209 - LINEAR GRADING	21 STATION
ITEM 659 - SEEDING AND MULCHING, CLASS 2	4000 SQ YD
ITEM 659 - SEEDING AND MULCHING, CLASS 3C	3000 SQ YD
ITEM 659 - COMMERCIAL FERTILIZER	0.7 TON
ITEM 659 - WATER	20 M GAL

ITEM 209 LINEAR GRADING

GRADED SHOULDERS ALONG EFFECTED LENGTHS OF I-270 AND THE RAMPS SHALL BE RESHAPED AS SHOWN ON THE TYPICAL SECTIONS FOR THE ORIGINAL NOISE BARRIER CONSTRUCTION PLANS REFERENCED BELOW:

FRA-270-31.01, 33.64 (1995)
FRA-270-32.46 (1995)

EXCESS EXCAVATION RESULTING FROM RESHAPING SHOULDERS SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER. AREAS REQUIRING BACKFILL SHALL BE RAISED TO GRADE USING 617 COMPACTED AGGREGATE, TYPE A, AT THE CONTRACTORS EXPENSE. ALL THE ABOVE SHALL BE INCLUDED FOR PAYMENT IN ITEM 209, LINEAR GRADING.

ITEM SPECIAL - NOISE BARRIER, MISC.: SEALING OF CONCRETE, EPOXY-URETHANE

DESCRIPTION

APPLY A SEALER/COATING TO THE FOLLOWING CONCRETE SURFACE AREAS OF THE NOISE BARRIER AND CONCRETE TRAFFIC BARRIER: ROADWAY FACE OF NOISE BARRIER FROM TOP DOWN TO GROUND OR SIX INCHES BELOW TOP OF CONCRETE BARRIER, NOISE BARRIER CAP FROM TOP BACK CORNER TO BOTTOM CORNER ADJACENT TO FRONT OF BARRIER AND CONCRETE BARRIER FROM TOP BACK CORNER TO SIX INCHES ON TOP OF FOOTING IN FRONT OF BARRIER. THERE ARE TWO LOCATIONS WHERE THE CONCRETE TRAFFIC BARRIER EXTENDS BEYOND THE LIMITS OF THE NOISE BARRIER AND NEEDS TO BE SEALED. THOSE TWO LOCATIONS ARE: STA. 1348+58 (END NOISE BARRIER C) TO STA. 1392+74 (BEGIN NOISE BARRIER B1) AND STA. 1310+18 TO STA. 1312+71 (BRIDGE PARAPET OVER SUNBURY ROAD). AN ESTIMATED QUANTITY OF 2,150 SQUARE YARDS HAS BEEN INCLUDED IN ITEM SPECIAL - NOISE BARRIER, MISC.: SEALING OF CONCRETE, EPOXY-URETHANE FOR THIS WORK. SEE LIMITS SHOWN ON PLANS FOR ADDITIONAL INFORMATION.

APPLY THE COLOR DEFINED BY THE FEDERAL COLOR STANDARD 17778 (LIGHT NEUTRAL).

MATERIALS

ONE COAT OF THE SEALER/COATING SHALL MEET THE FOLLOWING PERFORMANCE REQUIREMENTS:

1. FREEZE-THAW TEST. THE APPLIED FINISH COATING SHALL BE SUBJECTED TO FREEZE-THAW CYCLE TESTS AS FOLLOWS:

   A. THREE CONCRETE SPECIMENS, NOT LESS THAN 4" X 6" BY 6", MINIMUM 5000 P.S.I. @ 28 DAYS, SHALL BE CAST AND CURED. FOURTEEN DAYS MOIST CURING WITH A DRYING PERIOD AT ROOM TEMPERATURE, 60° TO 80° F, FOR 24 HOURS WILL BE REQUIRED BEFORE THE SPECIMENS ARE COATED WITH THE APPLIED FINISH. CAUTION SHALL BE TAKEN THAT THERE BE NO EXCESSIVE OIL ON SPECIMEN FORMS. THE FINISH COATING SHALL BE APPLIED TO THE SIDES OF SPECIMENS AT A SPREADING RATE OF 50 +/- 10 SQUARE FEET PER GALLON (1.2 +/- .2 SQUARE METERS PER LITER). BRUSH APPLICATION WILL BE PERMITTED. CEMENTITIOUS COATING SHALL BE CURED AT ROOM TEMPERATURE AND 50 PERCENT RELATIVE HUMIDITY FOR 24 HOURS, AT ROOM TEMPERATURE AND 90 PERCENT RELATIVE HUMIDITY FOR 48 HOURS, AT ROOM TEMPERATURE AND 50 PERCENT RELATIVE HUMIDITY FOR FOUR DAYS FOR A TOTAL CURING TIME OF SEVEN DAYS. OTHER COATINGS SHALL BE CURED AT ROOM TEMPERATURE FOR 48 HOURS AFTER COMPLETING OF CURING.

   B. THE SPECIMENS SHALL BE IMMERSED IN WATER AT ROOM TEMPERATURE FOR THREE HOURS, THEN REMOVED.

   C. THE SPECIMENS SHALL BE PLACED IN COLD STORAGE AT -15° F(-26° C) FOR ONE HOUR, THEN REMOVED.

   D. THE SPECIMENS SHALL BE THAWED AT ROOM TEMPERATURE FOR ONE HOUR.

   E. STEPS C AND D ABOVE SHALL BE REPEATED FOR A TOTAL OF 300 CYCLES. AT THE END OF 300 CYCLES THE SPECIMENS SHALL SHOW NO VISIBLE DEFECTS.

2. ACCELERATED WEATHERING. THE APPLIED COATING SHALL BE SUBJECTED TO A 5,000 HOUR EXPOSURE TEST IN A TWIN-CARBON-ARC-WEATHEROMETER, ASTM G 23, TYPE D, AT AN OPERATING TEMPERATURE OF 145° F. THE TEST SHALL BE MADE AT 20-MINUTE CYCLES CONSISTING OF 17 MINUTES OF LIGHT AND 3 MINUTES OF WATER SPRAY PLUS LIGHT. AT THE END OF THE EXPOSURE TEST, THE EXPOSED SAMPLES SHALL SHOW NO CHIPPING, FLAKING, OR PEELING. THE PANELS FOR THIS TEST SHALL BE PREPARED BY APPLYING THE COASTING AT A SPREADING RATE OF 50 +/- 10 SQ FEET PER GALLON TO BOTH SIDES AND EDGES OF PANELS CUT FROM ASBESTOS CEMENT SHINGLES IN ACCORDANCE WITH FEDERAL SPECIFICATION SS-S-346, TYPE I. CURING TIME SHALL BE IN ACCORDANCE WITH (1).

3. FUNGUS GROWTH RESISTANCE. THE APPLIED FINISH COATING SHALL PASS THE FUNGUS RESISTANCE TEST IN ACCORDANCE WITH FEDERAL SPECIFICATION TT-P-29G. FUNGUS GROWTH SHALL NOT BE INDICATED AFTER A MINIMUM INCUBATION PERIOD OF 21 DAYS.

4. IMPACT RESISTANCE. THE COATING SHALL BE APPLIED TO A CONCRETE PANEL PREPARED ACCORDING TO FEDERAL TEST METHOD STANDARD 141S, METHOD 2051, AT A SPREADING RATE OF 50 +/- 10 SQUARE FEET PER GALLON (1.2 +/- 0.2 SQUARE METERS PER LITER), AND ALLOWED TO CURE FOR 21 DAYS AT ROOM TEMPERATURE. THE TEST SHALL THEN BE RUN USING THE GARDNER MANDREL IMPACT TESTER IN ACCORDANCE WITH ASTM D 2794 USING A ½ OF AN INCH INDENTER WITH AN IMPACT LOAD OF 6 INCH-POUNDS. THE COATING SHALL SHOW NO CHIPPING UNDER THIS IMPACT LOAD.

5. SALT-SPRAY RESISTANCE TEST. A CONCRETE SPECIMEN SHALL BE COATED AT THE RATE OF 50 +/- 10 SQUARE FEET PER GALLON (1.2 +/- 0.2 SQUARE METERS PER LITER) AND CURED FOR 21 DAYS AT ROOM TEMPERATURE. THE COATED SPECIMEN SHALL BE EXPOSED TO A 5% SALT SOLUTION IN ACCORDANCE WITH ASTM B117 FOR 2000 HOURS WHERE THE ATMOSPHERIC TEMPERATURE IS MAINTAINED AT 90° +/- 2°F. AT THE END OF 2000 HOURS OF EXPOSURE, THE COATING SHALL SHOW NO ILL EFFECTS, LOSS OF ADHESION, OR DETERIORATION.

6. FLEXIBILITY TEST. A SHEET METAL SPECIMEN SHALL BE COATED WITH THE APPLIED FINISH COATING AT A RATE OF 50 +/- 10 SQUARE FEET PER GALLON (1.2 +/- 0.2 SQUARE METERS PER LITER) AND ALLOWED TO CURE FOR 48 HOURS AT ROOM TEMPERATURE. THE COATED SPECIMEN SHALL BE BENT 180 DEGREES OVER A ONE(1) INCH ROUND MANDREL. AFTER BENDING, THE COATING SHALL SHOW NO BREAKING.

7. ABSORPTION - THE ABSORPTION OF TREATED CONCRETE UNDER TOTAL IMMERSION SHALL NOT EXCEED 1.0% AFTER 48 HOURS OR 2.0% AFTER 50 DAYS (ASTM C642, NON-AIR ENTRAINED CONCRETE). CONCRETE SHOULD BE PROPORTIONED AND MIXED IN ACCORDANCE WITH ASTM C672.

8. SCALING RESISTANCE - TREATED CONCRETE SHALL PASS ASTM C672, SCALING RESISTANCE TEST WITH A RATING OF "NO SCALING" AFTER 50 CYCLES (NON-AIR ENTRAINED CONCRETE) AS COMPARED TO "SEVERE SCALING" ON UNTREATED CONCRETE.

9. NCHRP 244, SERIES IV - SOUTHERN EXPOSURE
   4.1 ABSORBED CHLORIDE - NOT TO EXCEED 10% OF UNTREATED CONCRETE

MATERIALS APPROVAL

SUBMIT CERTIFIED TEST DATA TO THE ENGINEER THAT SHOWS THE SEALER/COATING MEETS THE MATERIAL PROPERTIES.

THESE PRODUCTS ARE PRE-APPROVED:

PRE-APPROVED PRODUCTS AND COVERAGE THICKNESS FOR THE PRODUCT

1. TAMMSCOAT FINE ODOT
   TAMMS INDUSTRIES COMPANY
   61 AMERICAN STREET
   CHAGRIN FALLS, OHIO 44022

   APPLICATION DRY FILM THICKNESS 20 MILS (380 :M)
   SMOOTH SURFACE - RATE OF 50 SQ FT/GAL
   TEXTURED SURFACE (ASHLAR STONE) - RATE OF 40 SQ. FT./GAL
   TEXTURED SURFACE (3/4 FLUTED) - 25 SQ. FT./GAL

2. BRIDGE COTE XL-70 W/SILANE (FINE TEXTURE) BY TEX COTE
   OR BRIDGE COTE XL-70 BY TEX COTE
   TEXTURED COATINGS OF AMERICA
   4101 RAVENSWOOD RD.
   SUITE 101A
   FT. LAUDERDALE, FLORIDA 33312-5371

   APPLICATION DRY FILM THICKNESS 15 MILS (380 :M)
   SMOOTH SURFACE - RATE OF 50 SQ FT/GAL
   TEXTURED SURFACE (ASHLAR STONE) - RATE OF 40 SQ. FT./GAL
   TEXTURED SURFACE (3/4 FLUTED) - 25 SQ. FT./GAL

3. TEXTUREDOT BY CHEMMASTERS
   300 EDWARDS STREET
   MADISON, OHIO 44057

   APPLICATION DRY FILM THICKNESS 15 MILS (380 :M)
   SMOOTH SURFACE - RATE OF 50 SQ FT/GAL
   TEXTURED SURFACE (ASHLAR STONE) - RATE OF 40 SQ. FT./GAL
   TEXTURED SURFACE (3/4 FLUTED) - 25 SQ. FT./GAL

TAKE A VERIFICATION SAMPLE DURING THE COATING OPERATION BY COLLECTING A QUART (1 LITER) SAMPLE FROM THE SPRAY GUN DURING APPLICATION. SEND THE SAMPLE TO MATERIALS MANAGEMENT FOR TESTING. THIS SAMPLE IS FOR VERIFICATION OF MATERIALS NOT ACCEPTANCE.

CONTRACTOR TESTING EQUIPMENT

PROVIDE, IN GOOD WORKING ORDER, THE FOLLOWING TESTING EQUIPMENT:

1. ONE SLING PSYCHROMETER INCLUDING PSYCHOMETRIC TABLES - USED TO RELATIVE HUMIDITY AND DEW POINT TEMPERATURE.

2. TWO STEEL SURFACE THERMOMETERS ACCURATE WITHIN 1° C (2° F) OR ONE PORTABLE INFRARED THERMOMETER AVAILABLE FROM:
   MODEL: RAYNGER ST SERIES (-18° C TO 400° C)
   MANUFACTURER: RAYTEK INC.
   SANTA CRUZ, CA.
   (800)227-8074
   OR APPROVED EQUAL TO THE PORTABLE INFRARED THERMOMETER

3. SSPC VISUAL STANDARD FOR ABRASIVE BLAST CLEANED STEEL SSPC-VIS 1-89

4. ONE RECORDER THERMOMETER CAPABLE OF RECORDING THE DATE, TIME, AND TEMPERATURE OVER A PERIOD OF AT LEAST 12 HOURS.

CALCULATED JPS
CHECKED CAS

GENERAL NOTES 2

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SURFACE PREPARATION:

THOROUGHLY CLEAN ALL CONCRETE SURFACES. REMOVE DUST, DIRT, OIL, WAX, CURING COMPONENTS, EFFLORESCENCE, LAITANCE, COATINGS AND OTHER FOREIGN MATERIALS. PROVIDE WRITTEN ACCEPTANCE FROM THE SEALER/COATING MANUFACTURER FOR ANY CHEMICALS AND OTHER CLEANING COMPOUNDS USED TO HELP REMOVE FOREIGN MATERIALS. APPLY THE SEALER/COATING WITHIN 48 HOURS AFTER SURFACE PREPARATION.

USE CLEANING EQUIPMENT FITTED WITH SUITABLE TRAPS, FILTERS, DRIP PANS AND OTHER DEVICES TO PREVENT OIL OR OTHER FOREIGN MATERIAL BEING DEPOSITED ON THE SURFACE.

CLEAN THE CONCRETE AS FOLLOWS:

WATER CURED NEW CONCRETE SURFACES.

WATER BLAST WITH 48 MPA (7,000 P.S.I.) MINIMUM

NEW CONCRETE SURFACES WITH CURING COMPOUNDS OR CONCRETE SURFACES EXPOSED TO A HIGHWAY ENVIRONMENT FOR MORE THAN 180 DAYS.

A WATER BLAST AT 48 MPA (7,000 P.S.I.) MINIMUM OR
A SANDBLAST FOLLOWED BY AIR BROOMING OR POWER SWEEPING TO REMOVE DUST AND SAND FROM THE SURFACES AND OPENED PORES.

APPLY THE SEALER/COATING AFTER NEW CONCRETE HAS AIR DRIED FOR AT LEAST THREE (3) DAYS IN ADDITION TO THE REQUIRED CURING TIME. ANY GROUT FILLED CAVITIES WILL BE CURED THE SAME TIME AS THE NEW CONCRETE AND AIR-DRIED FOR THREE DAYS.

APPLY THE SEALER/COATING TO ACCELERATED CURED PRECAST CONCRETE AFTER THE CONCRETE HAS REACHED ITS REQUIRED 28 DAY DESIGN STRENGTH, ANY CAVITIES HAVE BEEN GROUT FILLED AND CURED; AND THE TOTAL COMPONENT IS AIR-DRIED FOR THREE(3) DAYS.

BLAST CLEAN ANY RUST STAINED AREAS ON THE CONCRETE TWICE.

IF EXPOSED REINFORCING STEEL CHAIR LEGS OR OTHER BARE SUPPORT STEEL IS VISIBLE, SANDBLAST CLEAN THAT LOCATION TO A SSPC-SP6 COMMERCIAL BLAST. CONTACT THE ENGINEER TO DETERMINE IF THE CONCRETE COMPONENT IS STILL ACCEPTABLE. IF THE EXPOSED STEEL IS REINFORCING, AT THE APPROVAL OF THE ENGINEER, THE CONCRETE COMPONENT SHALL BE PATCHED WITH TROWELABLE MORTAR OR REMOVED AND REPLACED. IF THE ENGINEER APPROVES THE PIECE, RE-CLEAN THE AREA OF ANY RUST BEFORE APPLYING THE SEALER/COATING.

GIVE THE ENGINEER AN APPLICATION PROCEDURE THAT DESCRIBES HOW ALL CONCRETE SURFACES ARE COATED AND ANY DAMAGED AREAS ARE TOUCHED UP. PRE-COATING IN THE PRECASTER'S YARD, WHETHER PARTIAL OR TOTAL, IS ACCEPTABLE. THE ENGINEER CAN REQUIRE ADDITIONAL FIELD APPLICATION BEFORE FINAL ACCEPTANCE.

EQUIPMENT

USE APPLICATION EQUIPMENT RECOMMENDED BY THE SEALER/COATING MANUFACTURER. SPRAY EQUIPMENT, TANKS, HOSES, ROLLERS, ETC., SHALL BE THOROUGHLY CLEAN, FREE OF FOREIGN MATTER, OIL RESIDUE AND WATER PRIOR TO APPLYING THE CONCRETE SEALER/COATING.

APPLICATION TEMPERATURES

MINIMUM AMBIENT TEMPERATURE: 40° F (5° C)
MAXIMUM AMBIENT TEMPERATURE 100° F (38° C)

DO NOT APPLY SEALER/COATING IF THE EXPECTED AMBIENT TEMPERATURE IS EXPECTED TO BE BELOW OR ABOVE THE ABOVE TEMPERATURE RANGE FOR UP TO 12 HOURS AFTER APPLICATION. DO NOT APPLY THE SEALER/COATING IF RAIN IS ANTICIPATED WITHIN 4 HOURS AFTER APPLICATION.

FOLLOW THE MANUFACTURER'S RECOMMENDED TEMPERATURES IF MORE RESTRICTIVE THAN SPECIFIED ABOVE.

CLEANLY NOTE WHERE APPLICATION HAS STOPPED IF UNABLE TO COMPLETE THE ENTIRE APPLICATION CONTINUOUSLY. RE-INSPECT AND REBLAST AT THE NEW START POINT TO MEET SPECIFICATIONS.

MIXING

MIX SEALER/COATING ACCORDING TO THE MANUFACTURER'S RECOMMENDED WRITTEN PROCEDURES. MIX TO A UNIFORM CONSISTENCY AND MAINTAIN THAT DURING THE APPLICATION.

TEST APPLICATION

APPLY THE SEALER/COATING TO A MEASURED TEST COVERAGE AREA OF DIFFERENT NOISE WALL COMPONENTS TO DEMONSTRATE THE DESIRED PHYSICAL AND VISUAL EFFECT OF THE SEALER/COATING AND TO SHOW THE ENGINEER COVERAGE IS ACHIEVED.

APPEARANCE

APPLY THE SEALER/COATING TO ACHIEVE A UNIFORM APPEARANCE.

STORAGE

STORE SEALER/COATING COMPONENTS IN TIGHTLY SEALED CONTAINERS, IN A DRY LOCATION, AND AS RECOMMENDED BY THE MANUFACTURER. PROVIDE THE ENGINEER WITH THE MANUFACTURER'S WRITTEN DOCUMENTATION ON STORAGE AND REQUIRED TEMPERATURE.

PROTECTION OF ADJOINING SURFACES AND THE PUBLIC

WHEN APPLYING A SEALER/COATING, PROTECT ADJOINING SURFACES THAT SHOULDN'T COATED BY MASKING OFF, OR BY OTHER MEANS. PROTECT THE PUBLIC WHEN APPLYING SEALER/COATING IN AN AREA USED BY THE PUBLIC.

PROTECT ASPHALT AND MASTIC TYPE SURFACES FROM SPILLAGE AND HEAVY OVER SPRAY. DON'T APPLY THE SEALER/COATING ON JOINT SEALANTS WHICH HAVE NOT CURED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS. JOINT SEALANTS, MAY BE APPLIED TO THE COATED SURFACES AFTER THE SEALER/COATING HAS BEEN APPLIED AND IS DRY TO THE TOUCH.

ENVIRONMENTAL REQUIREMENTS

PROTECT PLANTS AND VEGETATION FROM OVER SPRAY BY COVERING WITH DROP CLOTHS. COMPLY WITH ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL RESTRICTIONS.

PRECAUTIONS

FOLLOW PRECAUTIONS ON THE MANUFACTURER'S MSDS.

BASIS OF PAYMENT

PAYMENT WILL BE MADE FOR COMPLETE AND ACCEPTED WORK, INCLUDING SURFACE PREPARATION, MATERIALS, LABOR, APPLICATION AND TESTING UNDER THE FOLLOWING:

ITEM	UNIT	DESCRIPTION
SPECIAL	SQUARE YARD	NOISE BARRIER, MISC.: SEALING OF CONCRETE, EPOXY-URETHANE

CALCULATED JPS
CHECKED CAS

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GENERAL REQUIREMENTS

IT IS THE INTENTION TO PERFORM THE REQUIRED WORK WITHIN THESE PLANS WITH THE LEAST INCONVENIENCE TO AND THE MAXIMUM SAFETY OF THE CONTRACTOR AND THE TRAVELING PUBLIC. THE REQUIREMENTS FOR MAINTAINING TRAFFIC AS SPECIFIED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (CURRENT EDITION, LATEST REVISION), PERTINENT PROVISIONS OF THE "OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS" (INCLUDING SUPPLEMENTAL SPECIFICATIONS) AND APPLICABLE STANDARD DRAWINGS SHALL APPLY TO THIS PROJECT IN ADDITION TO THE FOLLOWING NOTES AND DETAILS.

ITEM 614, MAINTAINING TRAFFIC

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SAFE AND EFFECTIVE TRAFFIC CONTROL 24 HOURS A DAY FOR THE DURATION OF THIS PROJECT. THIS WILL INCLUDE PROVIDING, PLACING, MAINTAINING AND SUBSEQUENTLY REMOVING ALL NECESSARY TRAFFIC CONTROL MEASURES FOR ALL PROPOSED CONSTRUCTION.

BEFORE ANY WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAME(S) AND TELEPHONE NUMBER(S) OF A PERSON OR PERSONS WHO CAN BE CONTACTED TWENTY-FOUR (24) HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION, THE HIGHWAY PATROL OR ANY OTHER INTERESTED POLICE AGENCY.

THIS PERSON(S) SHALL BE RESPONSIBLE FOR REPAIRING AND/OR REPLACING ALL TRAFFIC CONTROL DEVICES NEEDED TO MAINTAIN THE SAFETY OF THE TRAVELED PAVEMENT FOR THE DURATION OF THIS PROJECT. THIS PERSON(S) SHALL HAVE AVAILABLE ALL MATERIALS, EQUIPMENT AND INCIDENTALS NECESSARY TO PERFORM THE REQUIRED REPAIRS WITHIN A REASONABLE PERIOD OF TIME AS PER C.M.S. 614.04.

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON I-270 AND ALL RAMPS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

NO WORK SHALL OCCUR AND NO LANE CLOSURES OR RESTRICTIONS SHALL BE IN PLACE BETWEEN THE HOURS OF 6:00 AM AND 9:00 AM OR 3:00 PM AND 7:00 PM ON WEEKDAYS.

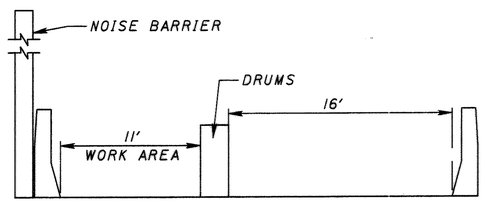
EQUIPMENT AND MATERIALS SHALL NOT BE STORED WITHIN 30' OF AN ACTIVE TRAFFIC LANE DURING NON-WORKING HOURS UNLESS THEY ARE ADEQUATELY PROTECTED BY GUARDRAIL OR BARRIER.

BARRIER A

IF NECESSARY, ONE LANE OF TRAFFIC MAY BE CLOSED PER MT-95.31.

BARRIER B1

TRAFFIC SHALL BE MAINTAINED AS SHOWN IN THE FOLLOWING TYPICAL SECTION. NO LANE CLOSURES WILL BE PERMITTED FOR THE CONSTRUCTION OF BARRIER B1. IN ADDITION TO THE WEEKDAY HOUR RESTRICTIONS, NO WORK SHALL OCCUR AND NO LANE RESTRICTIONS SHALL BE IN PLACE BETWEEN THE HOURS OF 10:00 AM AND 9:00 PM ON WEEKENDS.



BARRIER B2

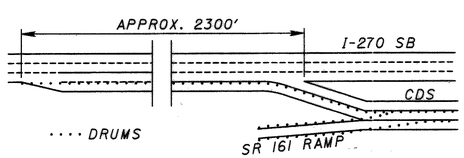
NO WORK SHALL ENCROACH UPON I-270 OR RAMP TRAVEL LANES. NO LANE CLOSURES OR RESTRICTIONS WILL BE PERMITTED FOR THE CONSTRUCTION OF THIS BARRIER.

BARRIER C

IF NECESSARY, ONE LANE OF TRAFFIC MAY BE CLOSED BETWEEN PER MT-95.31 IN ADVANCE OF THE EXISTING 3 LANE TO 2 LANE MERGE. IN THE AREA WHERE THE EXISTING ROADWAY IS TWO LANES, THE CONTRACTOR SHALL NOT ENCROACH UPON THE TRAVEL LANES.

BARRIER D

IF NECESSARY, THE ADD LANE THAT DEVELOPS ON I-270 APPROXIMATELY 2300' NORTH OF THE EXIT GORE MAY BE CLOSED WITH DRUMS (SEE BELOW SCHEMATIC).



BARRIER E

WORK SHALL BE PERFORMED BEHIND EXISTING PCB WHERE POSSIBLE. NO WORK SHALL ENCROACH UPON THE RAMP TRAVEL LANE. NO LANE CLOSURES OR RESTRICTIONS WILL BE PERMITTED FOR THE CONSTRUCTION OF THIS BARRIER.

THE CONTRACTOR SHALL SUBMIT A PLAN FOR MAINTAINING TRAFFIC FOR APPROVAL BY THE ENGINEER 14 DAYS PRIOR TO PERFORMING ANY WORK ON OR ADJACENT TO ANY ROADWAY. THE CONTRACTOR SHALL NOT COMMENCE ANY PORTION OF THE WORK WITHOUT WRITTEN APPROVAL OF A MAINTENANCE OF TRAFFIC PLAN.

THE CONTRACTOR SHALL FURNISH AND INSTALL ADVANCE WARNING "ROAD CONSTRUCTION AHEAD" (OW-128) SIGNS AND "END CONSTRUCTION" (OC-8) SIGNS ON IR-270 AND RAMPS. THE SIGNS SHALL BE DUAL INSTALLATIONS AND THE ACTUAL LOCATION SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL ALSO FURNISH 4 ADDITIONAL SETS OF ADVANCE WARNING "ROAD CONSTRUCTION" (OW-128) TO BE USED AS DIRECTED BY THE ENGINEER.

VEHICLES AND OTHER EQUIPMENT SHALL NOT BE PERMITTED TO STOP OR TO BE PARKED ALONG THE ROADWAY EXCEPT WITHIN DESIGNATED WORK AREAS AND SHALL NOT ENTER OR LEAVE WORK AREAS IN A MANNER WHICH WILL BE HAZARDOUS TO, OR INTERFERE WITH THE NORMAL FLOW OF TRAFFIC. PERSONAL VEHICLES WILL NOT BE PERMITTED TO PARK WITHIN THE RIGHT-OF-WAY EXCEPT WITHIN SPECIFIC AREAS DESIGNATED BY THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY INTENDED CHANGES TO ANY EXISTING OR TEMPORARY TRAFFIC CONTROL DEVICES AND SHALL OBTAIN THE ENGINEER'S APPROVAL PRIOR TO MAKING THE CHANGES. THE CONTRACTOR SHALL ALSO NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY INTENDED LANE CLOSURES, OR LANE SHIFTS.

ACCESS TO AND FROM ALL RAMPS WITHIN THE LIMITS OF THIS PROJECT SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

A MINIMUM LANE WIDTH OF 12 FEET, WITH A MINIMUM OF 2' OFFSET TO BARRIERS, SHALL BE PROVIDED ON I-270 AND RAMPS FOR MAINTENANCE OF TRAFFIC PURPOSES AT ALL TIMES UNLESS OTHERWISE STATED IN THESE PLANS OR AS DIRECTED BY THE ENGINEER.

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

LABOR DAY	MEMORIAL DAY
FOURTH OF JULY	NOVEMBER 15 - JANUARY 5

THE PERIOD OF TIME THAT LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 NOON FRIDAY THROUGH 12:00 NOON MONDAY
MONDAY	12:00 NOON FRIDAY THROUGH 12:00 NOON TUESDAY
TUESDAY	12:00 NOON MONDAY THROUGH 12:00 NOON WEDNESDAY
WEDNESDAY	12:00 NOON TUESDAY THROUGH 12:00 NOON THURSDAY
THURSDAY	12:00 NOON WEDNESDAY THROUGH 12:00 NOON MONDAY
FRIDAY	12:00 NOON THURSDAY THROUGH 12:00 NOON MONDAY
SATURDAY	12:00 NOON FRIDAY THROUGH 12:00 NOON MONDAY

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES, UNLESS SUCH DELAYS ARE INDUSTRY WIDE, OR FOR LABOR STRIKES, UNLESS SUCH STRIKES ARE AREA-WIDE.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPERATELY ITEMIZED IN THE PLAN.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED FOR DUST CONTROL PURPOSES:

616, WATER	2 M. GAL.

ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR)

IN ADDITION TO THE REQUIREMENTS OF 614 AND THE CURRENT VERSION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), A UNIFORMED LAW ENFORCEMENT OFFICER (AND OFFICIAL PATROL CAR WITH WORKING TOP MOUNTED EMERGENCY FLASHING LIGHTS) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC DURING THE SET-UP AND TEAR-DOWN OF LANE CLOSURES AND RESTRICTIONS.

LAW ENFORCEMENT OFFICERS (LEO'S) SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED. THE LEO'S ARE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE PROJECT ENGINEER SHALL HAVE CONTROL OVER THEIR PLACEMENT. THE OFFICIAL PATROL CAR SHALL BE A PUBLIC SAFETY VEHICLE AS REQUIRED BY THE OHIO REVISED CODE.

THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THESE SERVICES WITH:

OHIO HIGHWAY PATROL 660 E. MAIN ST. COLUMBUS, OH (614) 466-2660	CITY OF COLUMBUS POLICE 120 MARCONI BLVD COLUMBUS, OH (614) 645-4661

LAW ENFORCEMENT OFFICERS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614 - LAW ENFORCEMENT OFFICER (WITH PATROL CAR). THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR 240 HOURS

THE HOURS PAID SHALL INCLUDE MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S FOR FLAGGING AND TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THESE PLANS, HE MAY DO SO HIS OWN EXPENSE. PAYMENT FOR THE EXCESS ABOVE THE CONTRACT REQUIREMENTS WILL BE INCLUDED UNDER ITEM 614 MAINTAINING TRAFFIC.

ALTERNATE METHODS

IF THE CONTRACTOR ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC, PROVIDED THE INTENT OF THE ABOVE PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE ODOT DISTRICT DIRECTOR.

CITY OF COLUMBUS PERMITS

OCCUPANCY PERMITS MUST BE OBTAINED BY THE CONTRACTOR 5 DAYS PRIOR TO BEGINNING WORK FROM THE CITY OF COLUMBUS DIVISION OF ENGINEERING AND CONSTRUCTION (614) 645-5660

CALCULATED RMK CHECKED SLT

MAINTENANCE OF TRAFFIC GENERAL NOTES

FRA-270-30.88

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SHEET NUMBER										ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	5	7	8	9			15							
														ROADWAY	
LUMP										201	11000	LUMP		CLEARING AND GRUBBING	
								28		202	30700	28	FT	CONCRETE BARRIER REMOVED	
								146		202	38100	146	FT	GUARDRAIL REMOVED FOR STORAGE	
								12.5		202	38200	12.5	FT	GUARDRAIL REMOVED FOR REUSE	
			36							202	75000	36	FT	FENCE REMOVED	
			100							202	75200	100	FT	FENCE REMOVED FOR REUSE	
								1		202	98100	1	EACH	REMOVAL MISC.: TERMINAL ASSEMBLY, REMOVED FOR REUSE AND REINSTALLATION	3
								1		202	98100	1	EACH	REMOVAL MISC.: W-BEAM TERMINAL CONNECTOR, REMOVED FOR REUSE AND REINSTALLATION	3
								12.5		606	16500	12.5	FT	GUARDRAIL REBUILT, TYPE 5	
	100									607	22000	100	FT	FENCE REBUILT, TYPE CL	
								240		622	90000	240	FT	BARRIER, MISC.: CONCRETE BARRIER, TYPE D50	3
														NOISE BARRIERS	
			2,417	722	1150					514	27700	4289	SQ FT	FIELD PAINTING, MISC.: STEEL POSTS	3
			6	8	35					SPECIAL	60610810	49	EACH	NOISE BARRIER, MISC.: REMOVAL AND REUSE OF EXISTING PANELS	3
			58	55	96					SPECIAL	60610810	209	EACH	NOISE BARRIER, MISC.: STEEL POST EXTENSION	3
			1920	3584	3990					SPECIAL	60610920	9,494	SQ FT	NOISE BARRIER, MISC.: ADDITIONAL CONCRETE PANELS	4
			2,216	448	208					SPECIAL	60610920	2872	SQ FT	NOISE BARRIER, MISC.: NOISE BARRIER EXTENSION	4
			6643	2124	5028					SPECIAL	60610930	13,795	FT	NOISE BARRIER, MISC.: PRECAST CONCRETE CAP	4
			10,650	4,196	7,495					SPECIAL	60610940	22,341	SQ YD	NOISE BARRIER, MISC.: SEALING OF CONCRETE, EPOXY-URETHANE	4
	100									843	50000	100	SQ FT	PATCHING CONCRETE STRUCTURE WITH TROWELABLE MORTAR	
														MAINTENANCE OF TRAFFIC	
		240								614	11100	240	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR	
		2								616	10000	2	M GAL	WATER	
														RESTORATION OF WORK AREA	
	2100									207	30100	2,100	FT	PERIMETER FILTER FABRIC FENCE	
	21									209	60200	21	STATION	LINEAR GRADING	
	4000									659	00510	4,000	SQ YD	SEEDING AND MULCHING, CLASS 2	
	3000									659	00540	3,000	SQ YD	SEEDING AND MULCHING, CLASS 3C	
	0.7									659	20000	0.7	TON	COMMERCIAL FERTILIZER	
	20									659	35000	20	M GAL	WATER	
										SPECIAL	10305000	LUMP		PREMIUM FOR CONTRACT PERFORMANCE BOND AND FOR PAYMENT BOND	
										614	11000	LUMP		MAINTAINING TRAFFIC	
										619	16010	12	MONTH	FIELD OFFICE, TYPE B	
										624	10000	LUMP		MOBILIZATION	

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GENERAL SUMMARY

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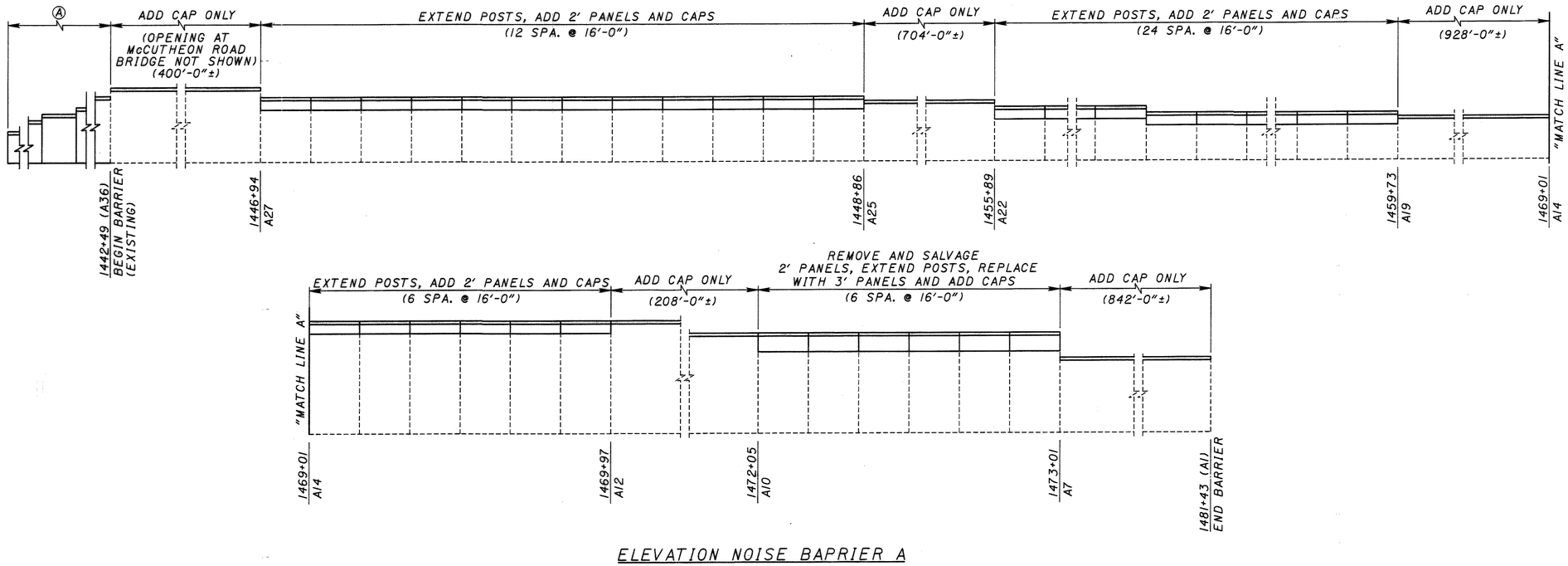
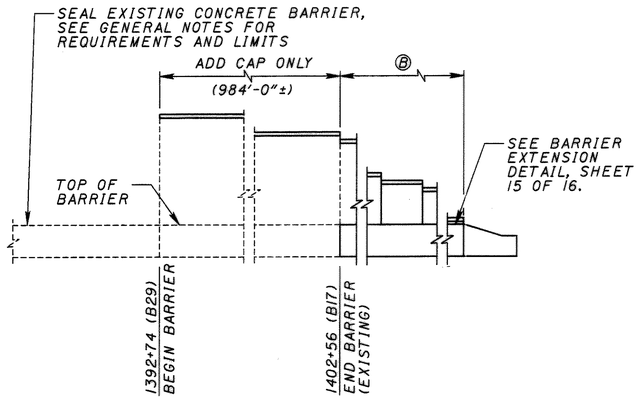


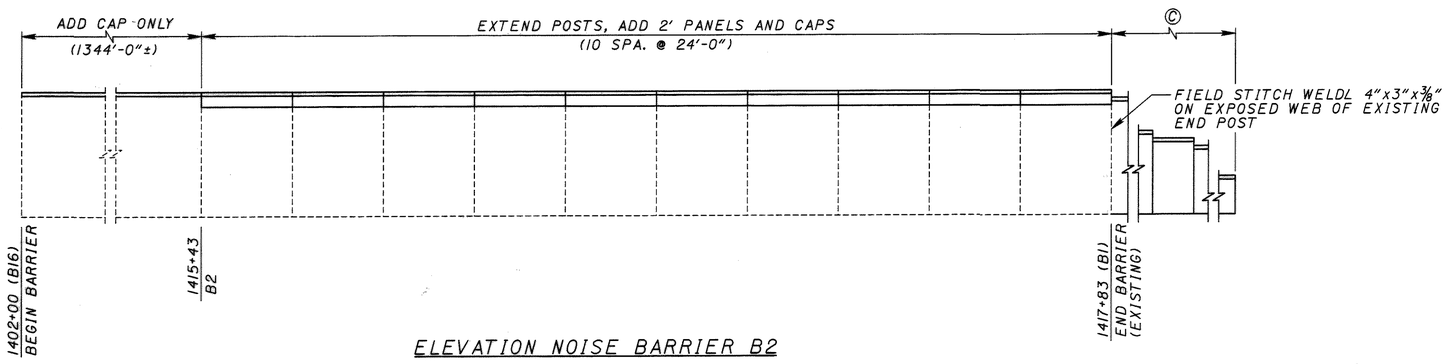
ELEVATION NOISE BAPRIER A

(WEST FACE SHOWN)



ELEVATION NOISE BARRIER B1

(WEST FACE SHOWN)



ELEVATION NOISE BARRIER B2

(WEST FACE SHOWN)

Ⓐ 56'-0"± (FIELD VERIFY, SEE NOTE 1 ON SHEET 10 OF 16) CONSTRUCT NEW POSTS, PANELS AND CAPS, SEE NOISE BARRIER EXTENSION DETAIL, SHEET 10 OF 16. REMOVE EXISTING FENCE, TYPE CL.

Ⓑ 96'-0"± (FIELD VERIFY, SEE NOTE 1 ON SHEET 10 OF 16) CONSTRUCT NEW BARRIER, POSTS, PANELS AND CAPS, SEE NOISE BARRIER EXTENSION DETAIL, SHEET 10 OF 16.

Ⓒ 80'-0"± (FIELD VERIFY, SEE NOTE 1 ON SHEET 10 OF 16) CONSTRUCT NEW POSTS, PANELS AND CAPS, SEE NOISE BARRIER EXTENSION DETAIL, SHEET 10 OF 16. REMOVE EXISTING FENCE, TYPE CL.

NOTES:

1. ALL STATIONS SHOWN IN THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LENGTHS OF PRE-CAST CONCRETE PANELS PRIOR TO HAVING THEM FABRICATED.
2. VERTICAL SCALE IS APPROXIMATE. MANY STEPS IN TOP OF NOISE BARRIERS ARE NOT SHOWN. IT IS THE REPONSIBILITY OF THE CONTRACTOR TO DETERMINE QUANTITY AND LOCATION OF STEPS IN TOP OF NOISE BARRIERS PRIOR TO FABRICATING NEW COMPONENTS.
3. NUMBERS PROVIDED BELOW STATION (ie. A27) REPRESE.,T STEP LOCATIONS ALONG THE TOP OF EXISTING NOISE BARRIER. NUMBERS ARE WRITTEN ON POSTS IN FIELD WITH BLACK MARKER. STATIONING IS ALSO PROVIDED IN THE EVENT POST NUMBER IS NO LONGER LEGIBLE WHEN WORK BEGINS.
4. SEAL EXISTING AND NEW NOISE BARRIERS AND CONCRETE BARRIERS AND PAINT EXISTING STEEL POSTS AND POST EXTENSIONS AS DESCRIBED IN THE GENERAL NOTES ON SHEETS 3 AND 4 OF 16.

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NOISE BARRIER A & B ELEVATION

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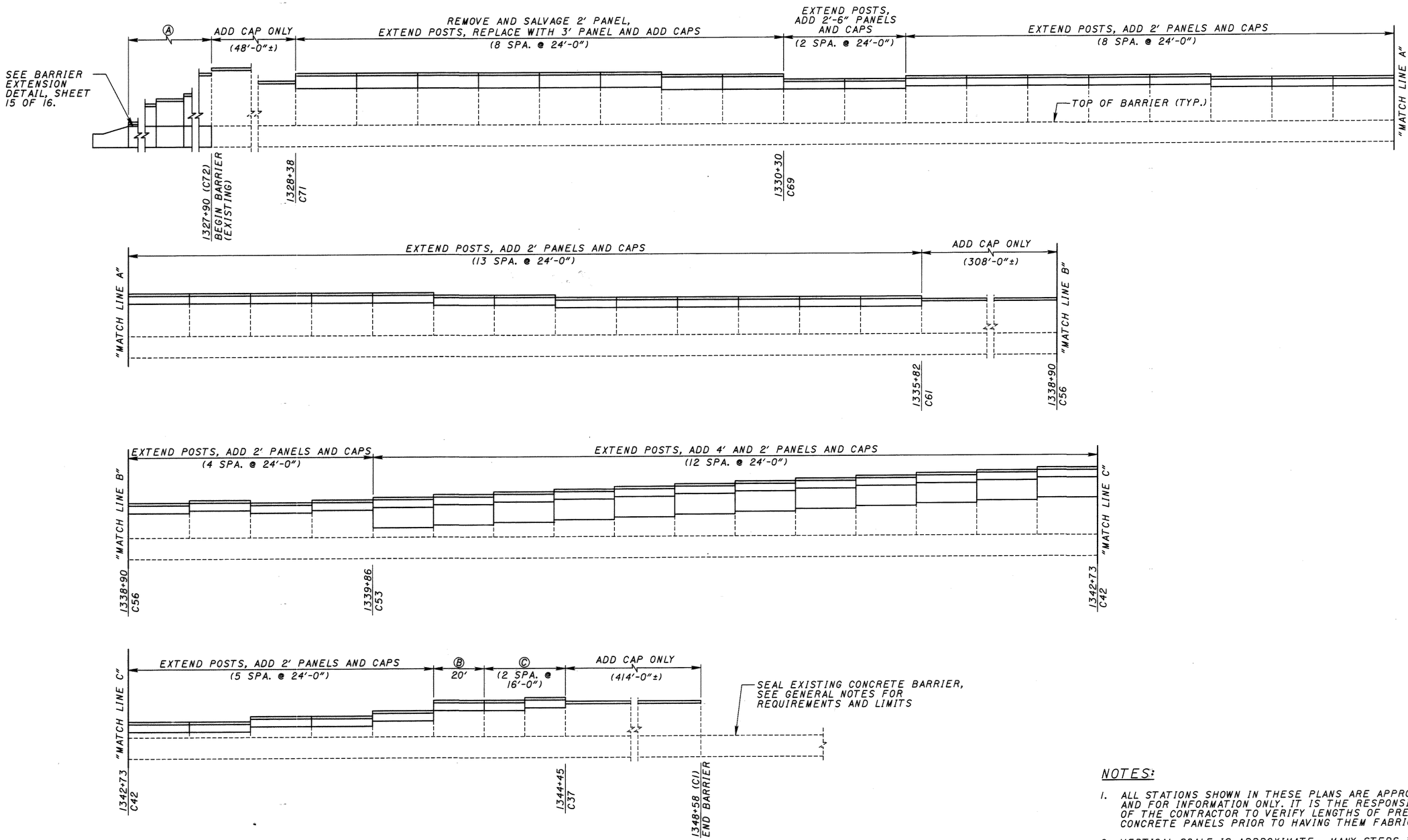

ELEVATION NOISE BARRIER C
(WEST FACE SHOWN)

Ⓐ 56'-0"± (FIELD VERIFY, SEE NOTE 1 ON SHEET 10 OF 16) CONSTRUCT NEW BARRIER, POSTS, PANELS AND CAPS, SEE NOISE BARRIER EXTENSION DETAIL, SHEET 10 OF 16.

Ⓑ EXTEND POSTS, ADD 2' PANEL AND CAP

Ⓒ EXTEND POSTS, ADD 2' PANELS AND CAPS

NOTES:

1. ALL STATIONS SHOWN IN THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LENGTHS OF PRE-CAST CONCRETE PANELS PRIOR TO HAVING THEM FABRICATED.
2. VERTICAL SCALE IS APPROXIMATE. MANY STEPS IN TOP OF NOISE BARRIERS ARE NOT SHOWN. IT IS THE REPONSIBILITY OF THE CONTRACTOR TO DETERMINE QUANTITY AND LOCATION OF STEPS IN TOP OF NOISE BARRIERS PRIOR TO FABRICATING NEW COMPONENTS.
3. NUMBERS PROVIDED BELOW STATION (ie. C69) REPRESENT STEP LOCATIONS ALONG THE TOP OF EXISTING NOISE BARRIER. NUMBERS ARE WRITTEN ON POSTS IN FIELD WITH BLACK MARKER. STATIONING IS ALSO PROVIDED IN THE EVENT POST NUMBER IS NO LONGER LEGIBLE WHEN WORK BEGINS.
4. SEAL EXISTING AND NEW NOISE BARRIERS AND CONCRETE BARRIERS AND PAINT EXISTING STEEL POSTS AND POST EXTENSIONS AS DESCRIBED IN THE GENERAL NOTES ON SHEETS 3 AND 4 OF 16.

CALCULATED JPS CHECKED CAS

NOISE BARRIER C ELEVATION

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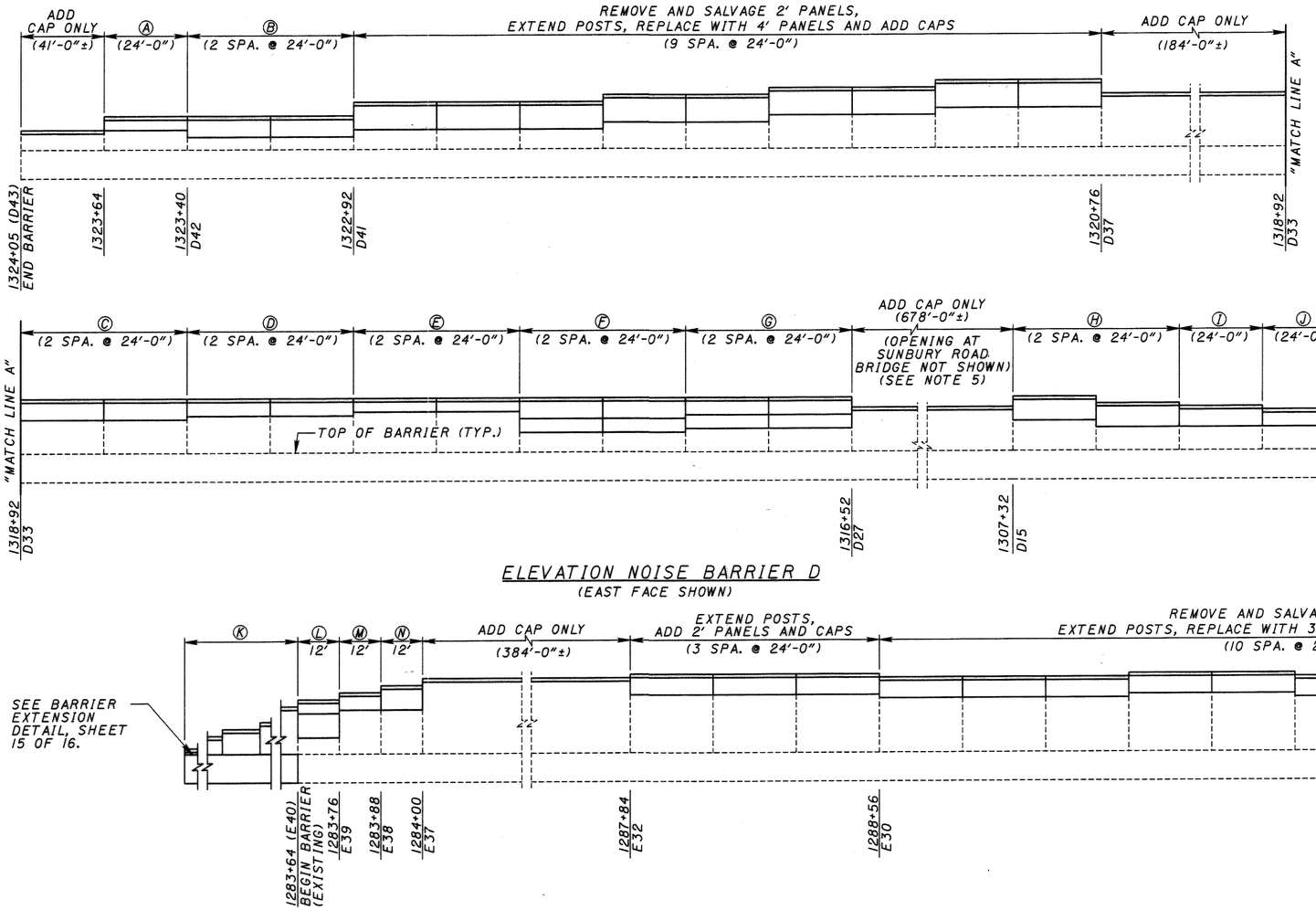
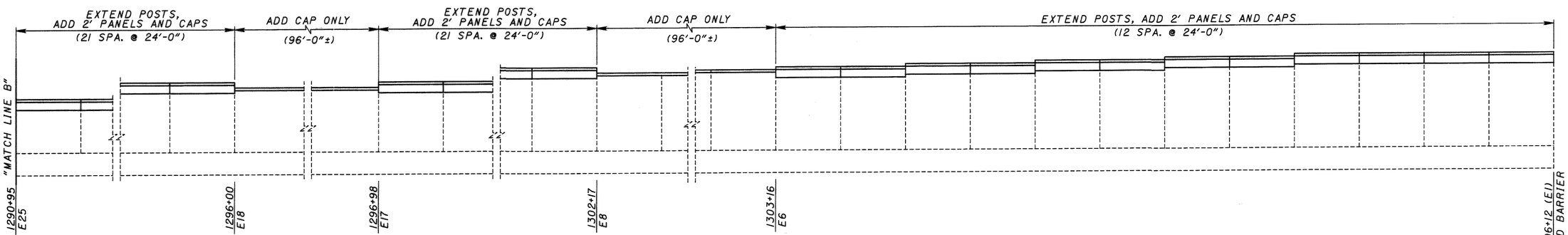


ELEVATION NOISE BARRIER D

(EAST FACE SHOWN)



ELEVATION NOISE BARRIER E

(WEST FACE SHOWN)

Ⓐ EXTEND POSTS, ADD 2'-0" PANEL AND ADD CAP

Ⓑ REMOVE AND SALVAGE 2' PANELS, EXTEND POSTS, REPLACE WITH 3'-0" PANELS AND ADD CAPS

Ⓒ REMOVE AND SALVAGE 2' PANELS, EXTEND POSTS, ADD 3'-0" PANELS AND ADD CAPS

Ⓓ REMOVE AND SALVAGE 2' PANELS, EXTEND POSTS, ADD 2'-6" PANELS AND ADD CAPS

Ⓔ EXTEND POSTS, ADD 2' PANELS AND ADD CAPS

Ⓕ REMOVE AND SALVAGE 4' PANELS, EXTEND POSTS, ADD 3'-6" & 2'-0" PANELS AND ADD CAPS

Ⓖ REMOVE AND SALVAGE 4' PANELS, EXTEND POSTS, ADD 2'-6" & 2'-0" PANELS AND ADD CAPS

Ⓗ REMOVE AND SALVAGE 2' PANELS, EXTEND POSTS, REPLACE WITH 3'-6" PANELS AND ADD CAPS

Ⓘ REMOVE AND SALVAGE 2' PANELS, EXTEND POSTS, REPLACE WITH 3'-0" PANELS AND ADD CAPS

Ⓙ REMOVE AND SALVAGE 2' PANELS, EXTEND POSTS, REPLACE WITH 2'-6" PANELS AND ADD CAPS

Ⓚ 32'-0"± (FIELD VERIFY, SEE NOTE 1 ON SHEET 10 OF 16) CONSTRUCT NEW BARRIER, POSTS, PANELS AND CAPS, SEE NOISE BARRIER EXTENSION DETAIL, SHEET 10 OF 16.

Ⓛ REMOVE AND SALVAGE 2' PANEL, EXTEND POSTS, REPLACE WITH 3'-6" & 2'-0" PANELS AND ADD CAPS

Ⓜ EXTEND POST, ADD 2'-6" PANEL AND ADD CAP

Ⓝ REMOVE AND DISCARD 2' PANEL, EXTEND POSTS, REPLACE WITH 3'-6" PANEL AND ADD CAP. INCLUDE DISCARDING OF 2'x12' PANEL WITH ITEM SPECIAL - NOISE BARRIER, MISC.: REMOVAL AND REUSE OF EXISTING PANELS, FOR PAYMENT.

NOTES:

1. ALL STATIONS SHOWN IN THESE PLANS ARE APPROXIMATE AND FOR INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY LENGTHS OF PRE-CAST CONCRETE PANELS PRIOR TO HAVING THEM FABRICATED.
2. VERTICAL SCALE IS APPROXIMATE. MANY STEPS IN TOP OF NOISE BARRIERS ARE NOT SHOWN. IT IS THE REPONSIBILITY OF THE CONTRACTOR TO DETERMINE QUANTITY AND LOCATION OF STEPS IN TOP OF NOISE BARRIERS PRIOR TO FABRICATING NEW COMPONENTS.
3. NUMBERS PROVIDED BELOW STATION (ie. D42) REPRESENT STEP LOCATIONS ALONG THE TOP OF EXISTING NOISE BARRIER. NUMBERS ARE WRITTEN ON POSTS IN FIELD WITH BLACK MARKER. STATIONING IS ALSO PROVIDED IN THE EVENT POST NUMBER IS NO LONGER LEGIBLE WHEN WORK BEGINS.
4. SEAL EXISTING AND NEW NOISE BARRIERS AND CONCRETE BARRIERS AND PAINT EXISTING STEEL POSTS AND POST EXTENSIONS AS DESCRIBED IN THE GENERAL NOTES ON SHEETS 3 AND 4 OF 16.
5. SEAL EXISTING CONCRETE BARRIER, SEE GENERAL NOTES FOR REQUIREMENTS.

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NOISE BARRIER D & E ELEVATION

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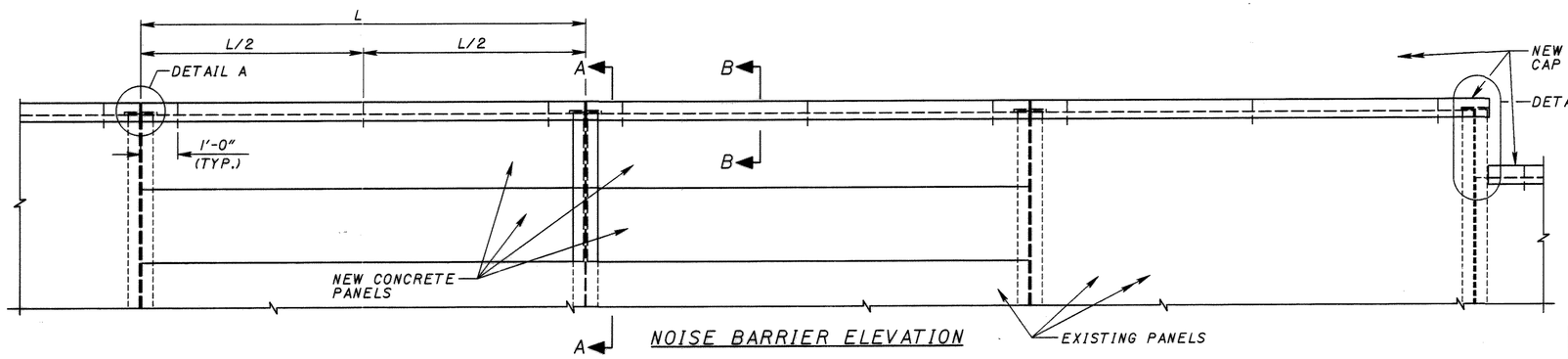
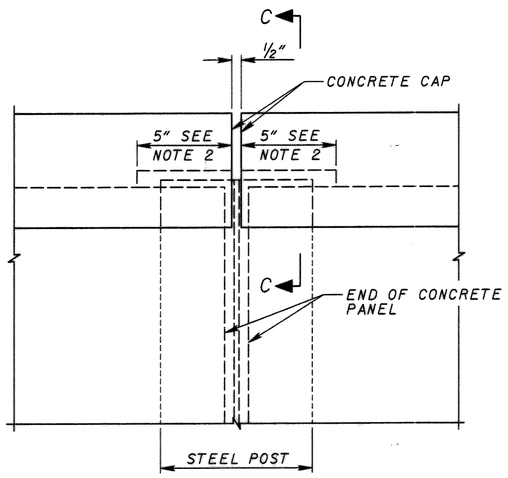
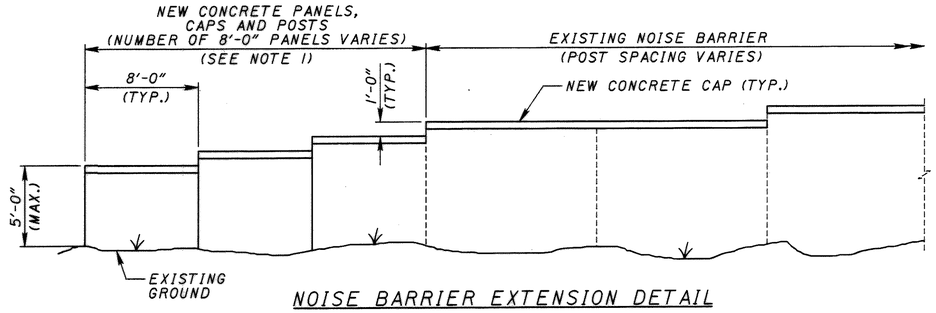


NOISE BARRIER ELEVATION

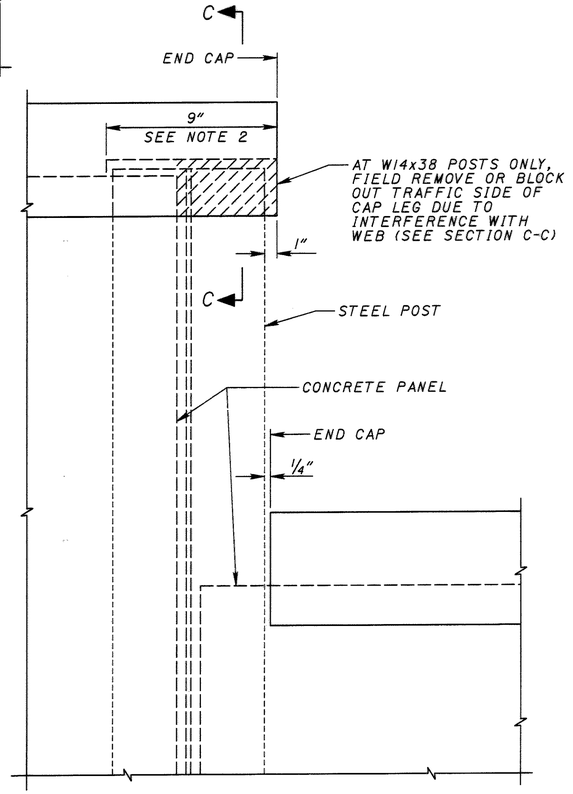


DETAIL A

TOP OF PANELS FLUSH EACH SIDE OF POST

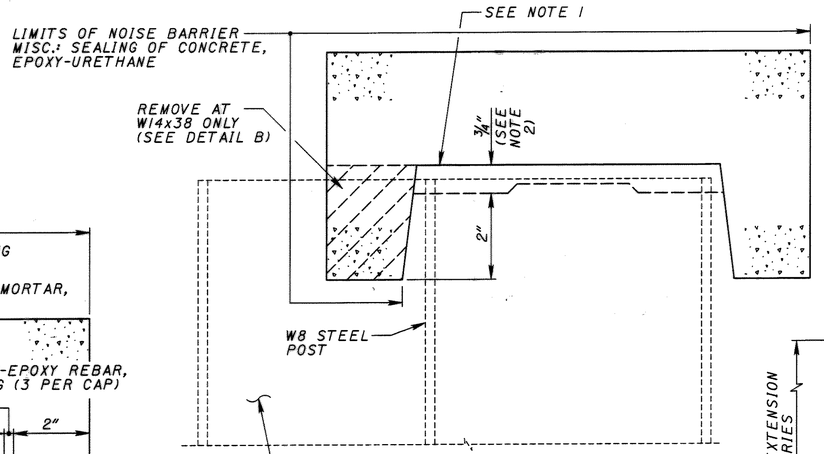


NOISE BARRIER EXTENSION DETAIL

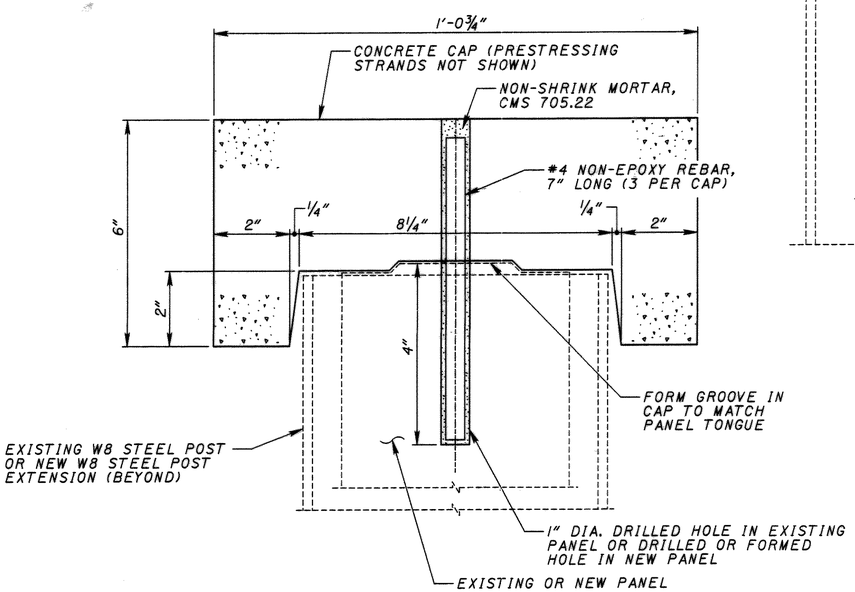


DETAIL B

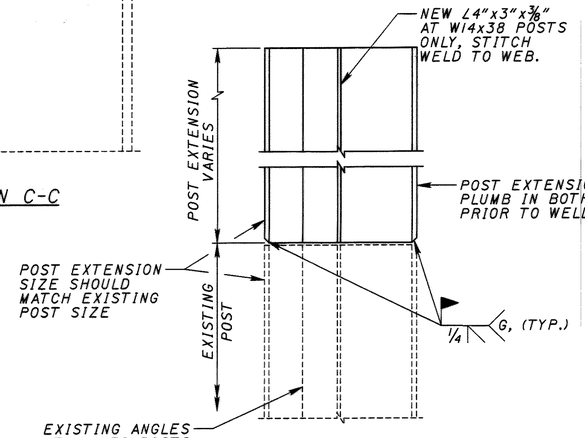
TOP OF PANELS OFFSET EACH SIDE OF POST



SECTION C-C



SECTION B-B - CAP ATTACHMENT DETAIL



SECTION A-A

POST EXTENSION DETAIL

SEE GENERAL NOTES FOR WELDING REQUIREMENTS

W14 POST SHOWN, W8 POST SIMILAR WITHOUT L4"x3"x3/8"

NOTES:

1. CONSTRUCT NEW NOISE BARRIER IN 8'-0" PANELS TO STEP WALL DOWN TO 5'-0" HEIGHT MEASURED FROM EXISTING GROUND. STEPS TO BE 1'-0" DECREMENTS STARTING AT THE TOP OF THE EXISTING NOISE BARRIER. ADD NEW 8'-0" PANELS UNTIL NOISE BARRIER IS LESS THAN OR EQUAL TO 5'-0" IN HEIGHT. NOISE BARRIER EXTENSIONS SHALL BE ON SAME ALIGNMENT AS ADJACENT EXISTING NOISE BARRIERS.
2. BLOCK OUT CAP END 5"x3/4" OR 9"x3/4" DURING FABRICATION TO CLEAR STEEL POST. IT IS THE RESPONSIBLITY OF THE CONTRACTOR TO FIELD VERIFY THE HEIGHT OF THE POSTS ABOVE THE PANELS (I.E 3/4" DIMENSION MAY HAVE TO BE INCREASED).

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NOISE BARRIER DETAILS

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NOISE BARRIER - GENERAL NOTES

Item Special-Noise Barrier

I. Description

This work shall consist of furnishing and installing noise barriers including all material, labor and equipment required in accordance with these provisions and applicable standards and in conformity with the dimensions, lines and grades shown on the plans.

No mixing of barrier material types or colors at any one noise barrier unless otherwise specified in the plans will be allowed, except where a run of noise barrier includes placement on a bridge.

Barrier material type supplied for reflective noise barrier projects shall be any listed on sheets 12 of 16 unless otherwise specified.

Individual barrier fabrication and erection details, except for posts and foundations, shall be as per approved Manufacturer's drawings listed on sheets 12 of 16. Posts and foundations shall be as detailed in these plans. Project plan post and foundation details govern over manufacturer's drawings.

The contractor shall locate utilities prior to constructing post foundations. If a conflict occurs the Engineer shall be consulted prior to construction regarding any changes in the 8'-0" post spacing.

Copies of the Manufacturer's drawings listed on sheets 12 of 16 shall be furnished the Engineer before any work is initiated. All project specific details not covered by the plans or the Manufacturer's drawings shall be approved by the Engineer before work is initiated.

The barrier and the associated work shall conform to sections 499 and 501 of the CMS as appropriate.

II. Posts

A. STEEL POSTS

Steel posts shall be ASTM A572, grade 50, steel, galvanized in accordance with ASTM A123 and manufactured in accordance with item 513 of the CMS unless otherwise specified. Exposed portions of the posts shall be painted to the limits shown on the plans to match the noise panel's color.

B. CONCRETE NOISE BARRIER PANELS

The concrete supplied for concrete panels shall be as specified by the supplier on their ODOT approved plan sheets. The concrete panels shall not exhibit any efflorescence for a period of 3 years after the completion of the project. The contractor will be held responsible for the repair of efflorescence on the sound wall for this period of time at no expense to ODOT.

Concrete noise barrier panels require a reinforced non-integral cap on the top of the noise barrier panels as per BDM Section 802.2.

C. DRILLED SHAFTS

Drilled shafts shall be constructed as per CMS Item 524.

III. Barrier Materials

Acceptable Noise panel designs are listed on sheet 12 of 16. Materials shall either meet the manufacturer's requirements listed on their approved drawings or CMS requirements if not listed on manufacturer's approved drawings.

IV. Construction Methcds

A. Noise barriers shall be installed in accordance with the plans. Joints and connections shall be secured in such a manner as to be structurally sound with no visible openings for sound transmission. Noise panel attachments to posts and installation methods shall be structurally sound, give adequate support to the noise panels, and be secured to the post or adequately blocked between the post's flanges to eliminate movement at tie support and eliminate any possible vibration.

B. Marred, chipped, scratched, spalled, or any other damage deemed detrimental to the noise barriers by the Engineer shall be replaced, as approved by the Engineer, at the Contractor's expense.

C. All excess excavation shall be disposed of in a manner satisfactory to the Engineer.

D. After erection of the noise barrier, the disturbed area shall be left in a finished condition at the direction of the Engineer and a growth of grass established, at the Contractor's expense, in accordance with CMS Item 659.

E. Tolerances

1. Posts (measured at top)
   a. Vertical alignment shall be within 0.05 inch/ft. of height.
   b. Posts shall be set within +/- ½ inch of their specified location.

2. Noise barriers
   a. Vertical alignment shall be within 0.05 inch/ft. of height.

F. Stainless Steel unless otherwise specified, shall be ASTM F593 Austentitic Alloy Groups 1,2, or 3, except the free-machining grades 303 or 303Se used to make fasteners. All stainless steel used in ODOT noise walls shall be capable of passing the test for susceptibility to intergranular corrosion as specified in Practice E of ASTM Practices A 262.

V. Acceptance Requirements

In addition to conforming with the structural requirements as shown in the plans, it is also necessary to comply with the following aesthetic requirements.

The Contractor shall deliver to the job site one full size noise panel, and one full size post extension representative of the product the contractor is going to supply. The newly fabricated concrete panels are to match the existing barrier in texture, width and pattern on both sides. If either the noise panel or post do not meet the plan requirements the Contractor shall have another noise panel or post manufactured and delivered to the job site for approval by the Engineer.

The sample post and panel will become the control post and panel with which all subsequent posts and panels will be compared. This control post and panel shall be delivered to, and if necessary, moved to different locations to facilitate comparisons with the remaining posts and panels.

Any delivered and/or erected posts and panels which do not match the control post and panel or do not conform with the structural requirements as shown in the plans shall be removed and replaced at no additional costs.

VI. Method of Measurement

Noise barrier plan quantities are measured in square feet of acceptable barrier using a height from bottom of wall to top of wall and a length from post to post as detailed in the plans. Where a noise barrier is constructed behind a concrete parapet the bottom of the wall shall be defined as the top of the parapet for measurement purposes.

Final plan quantities of noise barrier in square feet shall not include any addition for noise barrier heights greater than plan requirements. Square feet of noise barrier constructed below the ground line shall also not be included for payment.

VII. Basis of Payment

See General Notes, sheet 4 of 16.

ITEM	DESCRIPTION	UNIT
SPECIAL	NOISE BARRIER, MISC.: ADDITIONAL CONCRETE PANELS	9,494 SQ FT
SPECIAL	NOISE BARRIER, MISC.: NOISE BARRIER EXTENSION	2,872 SQ FT

ABBREVIATIONS

ASTM	American Society for Testing and Materials
BIA	Brick Institute of America
CCA	Cromated Copper Arsenate
CMS	Construction and Materials Specifications of ODOT
ILI	Indiana Limestone Institute
LPG	Volatile Petroleum Solvent (liquid propane gas)
SSPC	Structural Steel Painting Council
VPS	Voluntary Product Standard

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NOISE BARRIER GENERAL NOTES

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APPROVED REFLECTIVE BARRIER SUPPLIERS

	SUPPLIERS	DRAWINGS & NOTES	VARIABLES COLOR TEXTURE PATTERN BRICK STYLE
CONCRETE	Soundcore 4043 Maple Road, Suite 106 Amherst, NY 14226 Telephone: (716) 833-7651	Soundcore - Standard Hollowcore Precast Noise Barriers Drawing No. DET-1 (2-12-97)	COLOR = NATURAL CONCRETE TEXTURE = ASHLAR STONE TEXTURE (MATCH EXISTING BOTH SIDES)

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NOISE BARRIER GENERAL NOTES

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NOISE BARRIER TABLE (POST AND PANEL CONSTRUCTION)						
	POST SPACING (feet)	PANEL GROUP	POST SIZE	SOIL TYPE	FOUNDATION DEPTH (feet)	
	8 & UNDER					
BARRIER HEIGHT (feet)	12 & LESS	I	STEEL W8x13	TRANSVERSE GROUND SLOPE	LEVEL	7'-0" (1)
					SLOPED (5)	9'-0" (2)
	GREATER THAN 12 THRU 16	II	STEEL W8x18		LEVEL	7'-0" (1)
					SLOPED (5)	9'-0" (2)
	GREATER THAN 16 THRU 20	III	STEEL W8x28		LEVEL	9'-0" (3)
					SLOPED (5)	12'-0" (4)

NOTES:

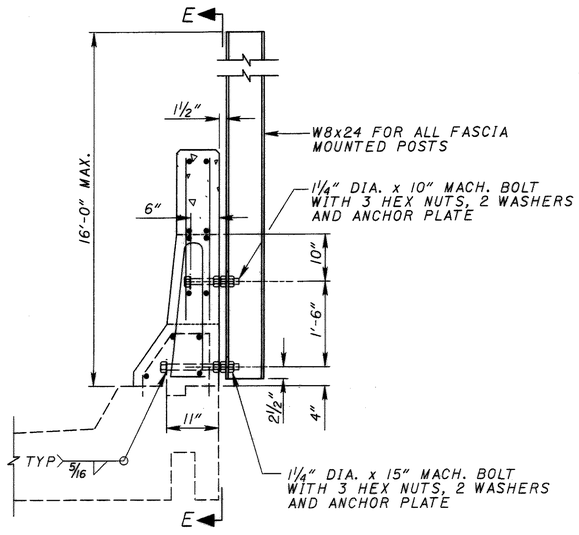
1. If bedrock is encountered, the minimum bedrock socket length shall be 2.5 ft. except that the total depth of the shaft shall be no less than 5 ft.
2. If bedrock is encountered, the minimum bedrock socket length shall be 3.5 ft. except that the total depth of the shaft shall be no less than 6.5 ft.
3. If bedrock is encountered, the minimum bedrock socket length shall be 5.5 ft. except that the total depth of the shaft shall be no less than 8 ft.
4. If bedrock is encountered, the minimum bedrock socket length shall be 7 ft. except that the total depth of the shaft shall be no less than 10 ft.
5. Embankment with a slope equal to or steeper that 4:1 is considered "sloped". All other embankment is considered "level"

PARTIAL POST EMBEDMENT:
Embedment of posts into the drilled shafts shall not be less than 3'-6".

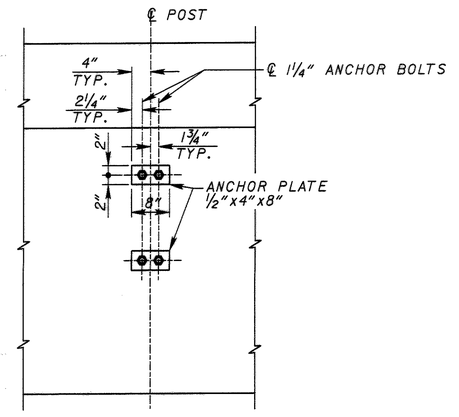
All machine bolts, nuts, washers and plates shall conform to the physical properties of ASTM A325 except that the minimum elongation shall be 10%. The chemical properties are waived.

Noise barrier hieght is the distance from the top of drilled shaft to the top of the higher barrier wall at that post, rounded to the nearest foot.

All posts and panel noise barriers shall utilize drill shaft foundations unless otherwise indicated on the plans or directed by the Engineer.



FASCIA MOUNTED POST
(SEE DETAIL A, SHEET 16 OF 16 FOR REINFORCING STEEL CALLOUTS)



VIEW E-E

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NOISE BARRIER DETAILS

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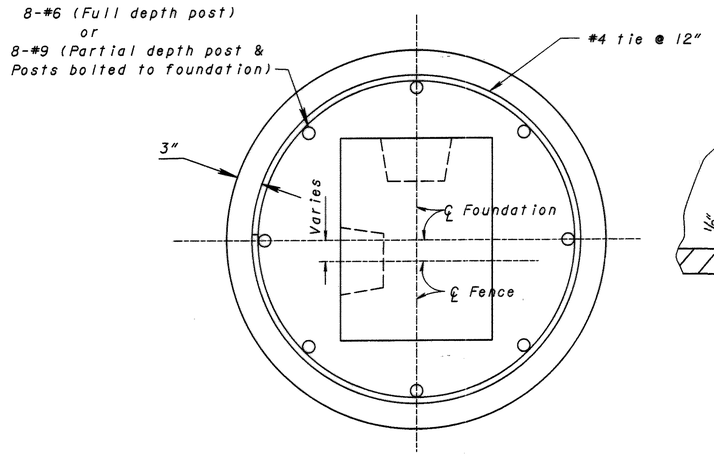
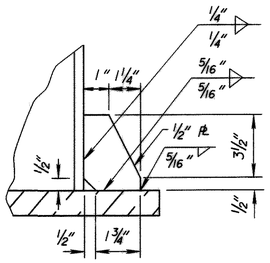
TABLE - OPTIONAL POST MOUNTING DETAILS
BOLTED CONNECTION

Steel Post	Base Plate	Dim. A	Dim. B	Min. Weld Size	Anchor Bolts	Proj.	Threaded Length	Base ℄ Hole Dim. H
W 8x13	12"x14"x5/8"	4"	5"	1/4"	4 - 5/8"Ø x 12"	2"	4"	7/8"
W 8x18	12"x14"x1"	4"	5"	1/4"	4 - 7/8"Ø x 14"	2 1/2"	4 1/2"	1 1/4"
W 8x28	14"x14"x1 3/8"	5"	5"	5/16"	4- 1 1/4"Ø x 17"	3 1/4"	5 1/4"	1 3/4"

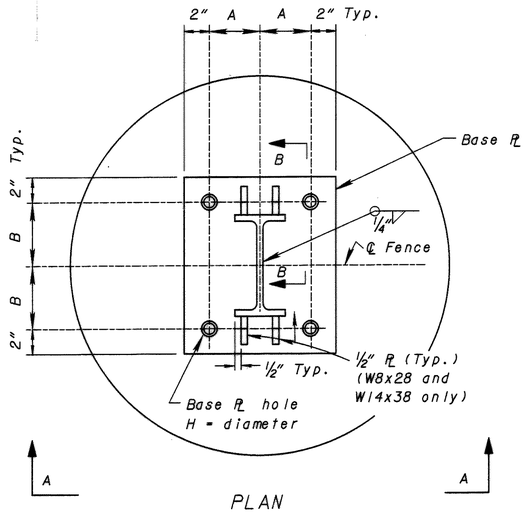
Note: All anchor bolts, nuts, plain washers and lock washers shall be galvanized and conform to the physical properties of ASTM A325 except that the minimum elongation shall be 10%. The chemical properties are waived.



TYPICAL DRILLED SHAFT CROSS-SECTION

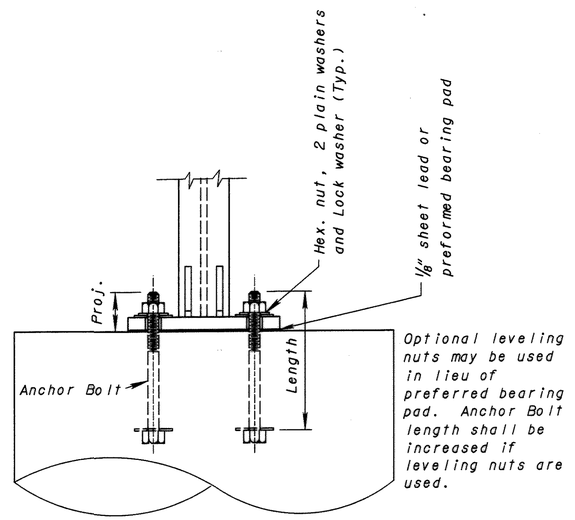


SECTION B-B

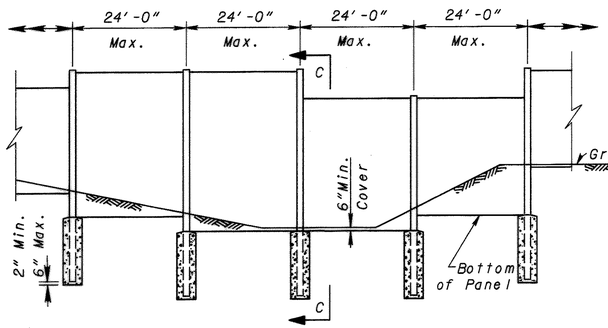


PLAN

OPTIONAL POST ATTACHMENT



PARTIAL ELEVATION A-A



Note: Maximum step in top elevation will be 12 inches for aesthetic purposes.

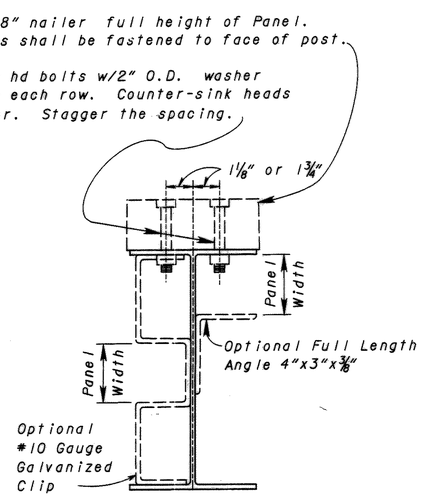
Note: All noise wall designs will be required to have a cap on top of the wall for aesthetic purposes.

Note: A noise barrier alignment which encounters an obstruction in its path will be required to veer 30° from its original alignment to avoid the obstruction. It should continue at least 10 feet parallel to the original alignment and then return 30° back to the original alignment after having cleared the obstruction. (i.e. light posts, sign supports ect.)

SECTION C-C

If a front mounted noise barrier panel is required to be cut or physically altered in some other manner that will structurally damage the manufacturer's standard panel section, the details shall be submitted to the engineer for approval.

For installation of posts behind traffic barriers with noise barrier panels that are installed inside the post's flanges, the noise barrier panels shall extend down to the top of the footer or be embedded a minimum of 6 inches below the finished grade line.



STEEL

LINE POST DETAILS

NOTE: For post sizes , see Noise Barrier Table on Sheet 13 of 16.

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NOISE BARRIER DETAILS

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14
16

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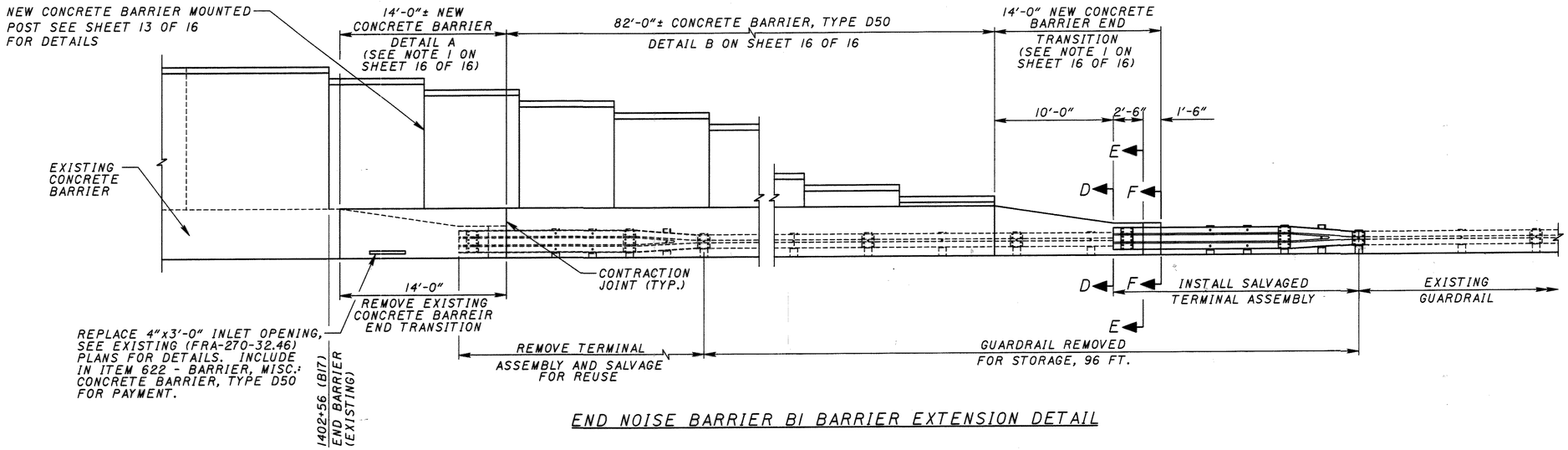
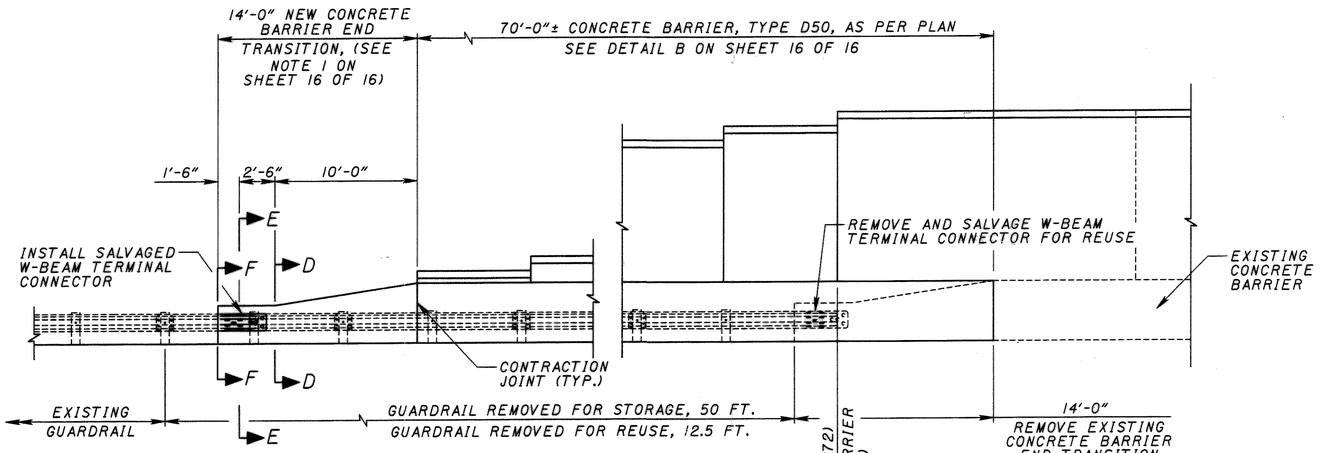
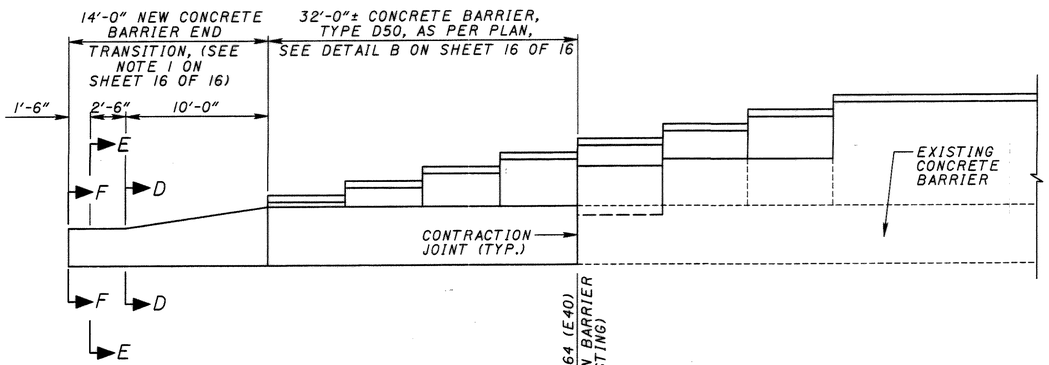


END NOISE BARRIER B1 BARRIER EXTENSION DETAIL



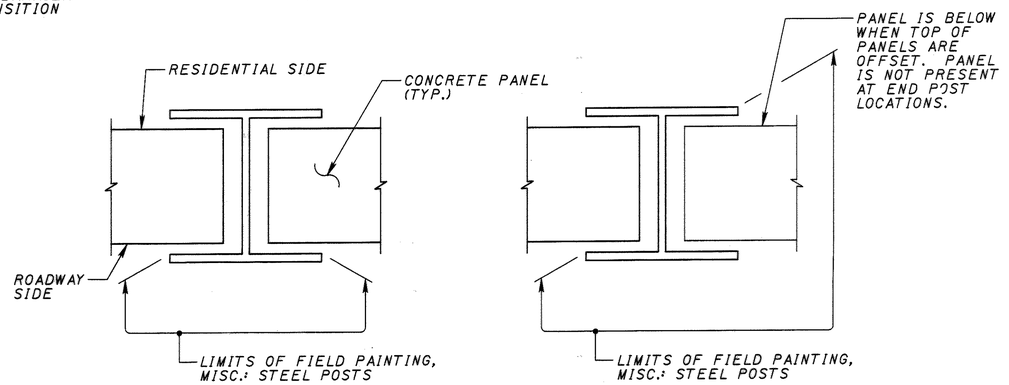
BEGIN NOISE BARRIER C BARRIER EXTENSION DETAIL



BEGIN NOISE BARRIER E BARRIER EXTENSION DETAIL

NOTES:

1. FOR NOTES, DETAIL A, DETAIL B, SECTIONS D-D, E-E AND F-F, SEE SHEET 16 OF 16.



TOP OF PANELS FLUSH EACH SIDE OF POST

TOP OF PANELS OFFSET EACH SIDE OF POST & END POSTS

FIELD PAINTING LIMITS

VERTICAL PAINT LIMITS: TOP OF GROUND OR 6" BELOW TOP OF CONCRETE TRAFFIC BARRIER TO TOP OF POST.

CALCULATED JPS | CHECKED CAS

NOISE BARRIER & CONCRETE BARRIER DETAILS

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15
16

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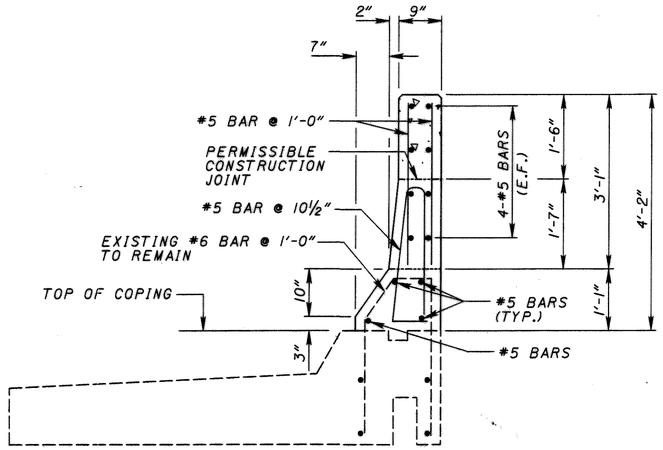
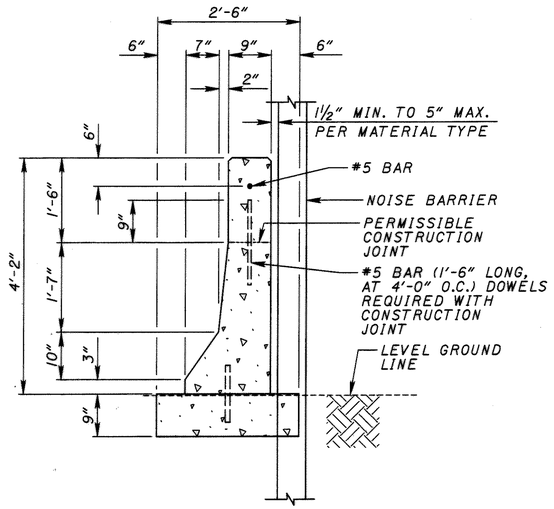


DETAIL A

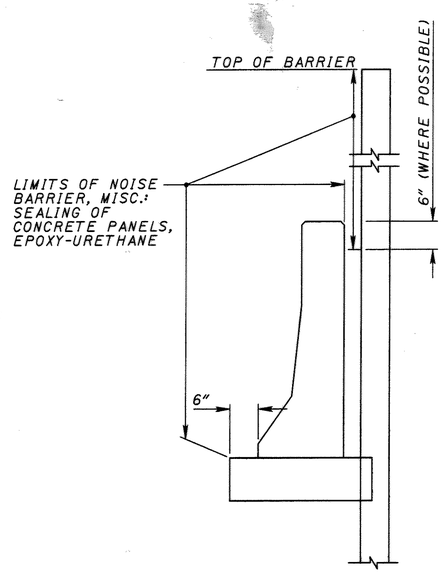
NOTE: NOISE BARRIER NOT SHOWN FOR CLARITY SEE SHEET 13 OF 16 FOR FASCIA MOUNTED POST DETAIL.



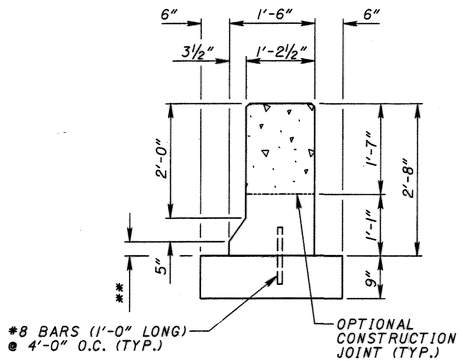
DETAIL B

(CONCRETE BARRIER, TYPE D50)

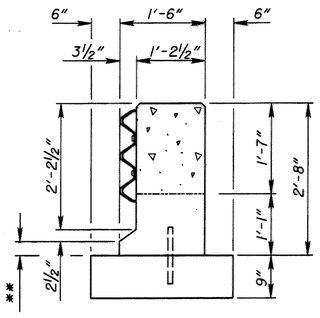
CONCRETE BARRIER SHALL BE CONSTRUCTED IN CONFORMANCE WITH ITEM 622 AND STANDARD CONSTRUCTION DRAWING RM-4.3M EXCEPT AS SHOWN ABOVE.



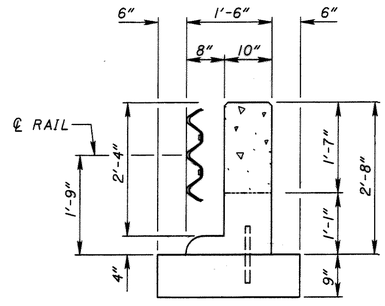
CONCRETE SEALING DETAIL



SECTION D-D



SECTION E-E



SECTION F-F

** = VARIES 3" TO 5"

NOTES:

1. NEW CONCRETE BARRIER DETAIL A AND CONCRETE END TRANSITION LABOR & MATERIALS (INCLUDING REINFORCING STEEL IN DETAIL A AND B) TO BE PAID FOR WITH ITEM 622 BARRIER, MISC.: CONCRETE BARRIER, TYPE D50.
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND SHALL MEET THE REQUIREMENTS OF CMS 509.
3. SEAL BARRIER AS DESCRIBED IN THE GENERAL NOTES ON SHEET 4 OF 16 AND SPECIAL PROVISIONS.

CALCULATED JPS CHECKED CAS

CONCRETE BARRIER DETAILS

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16 / 16

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