

U.S. CUSTOMARY
UNITS

THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION



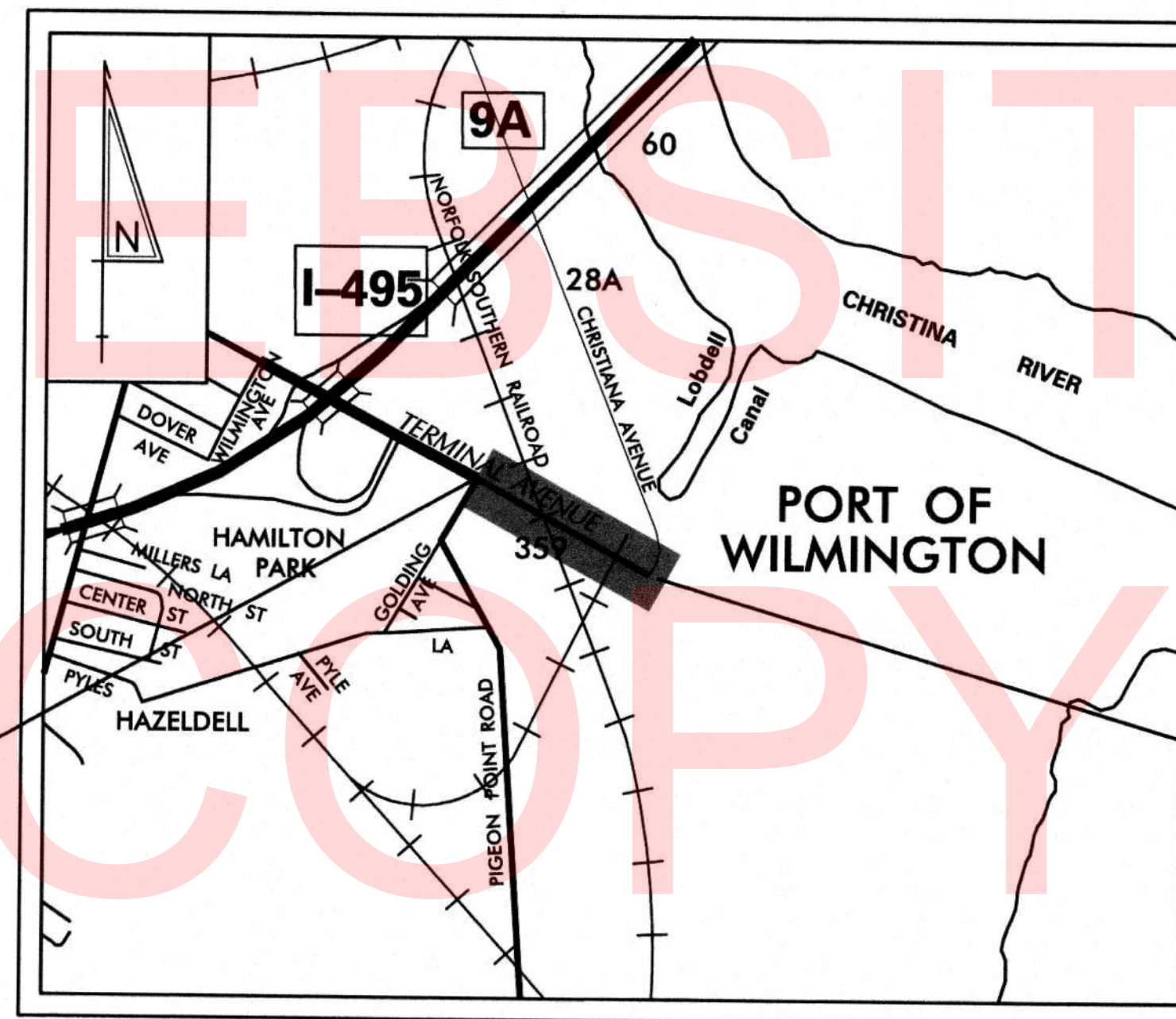
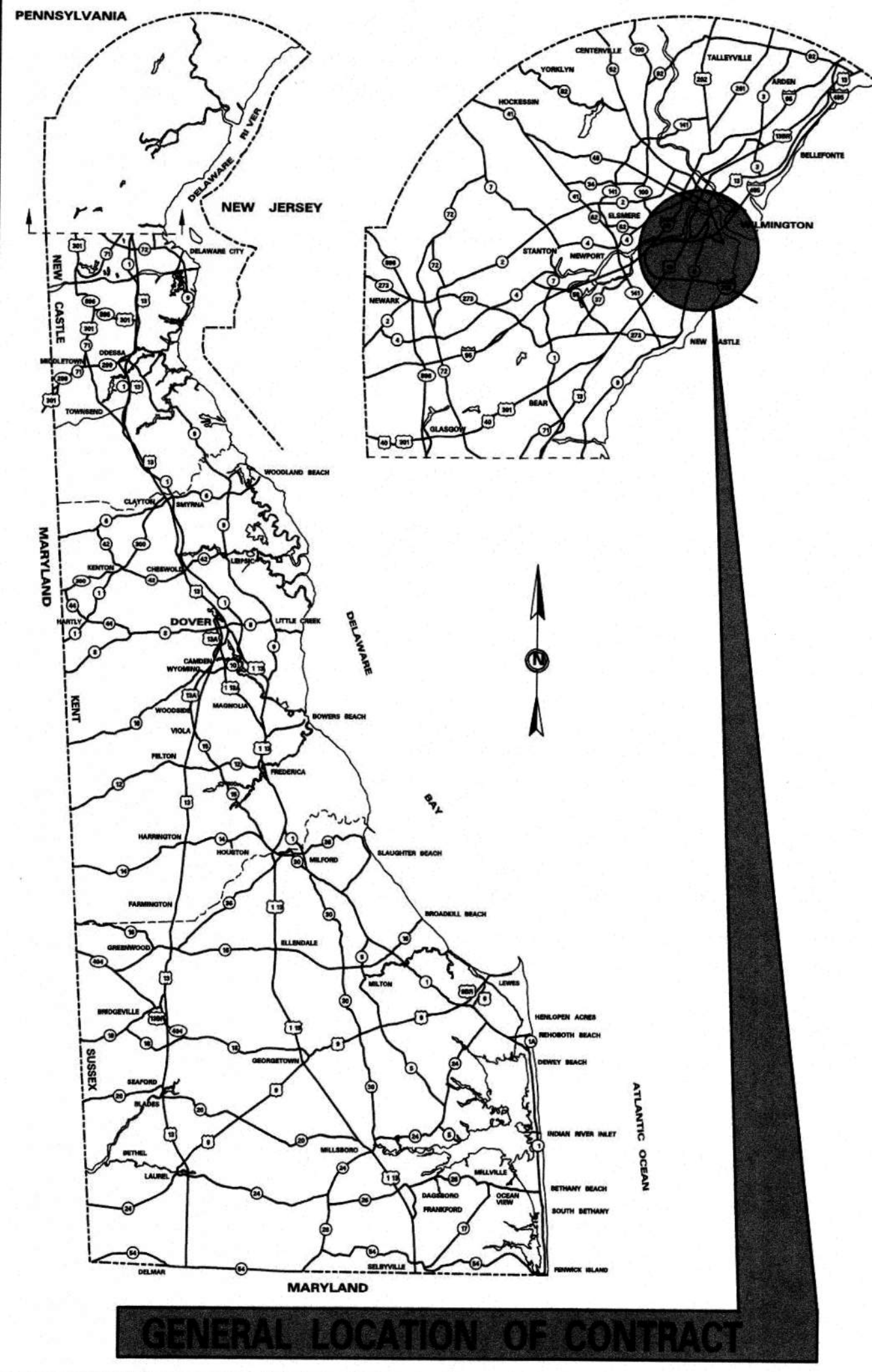
CONSTRUCTION & RIGHT-OF-WAY PLANS FOR:

TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

CONTRACT NO. T201500509

FEDERAL AID PROJECT NUMBER: ESTP-N359(02)

COUNTY: NEW CASTLE M.R. #: N359



BEGIN CONTRACT
STATION 63+15.00

END CONTRACT
STATION 79+58.08

PROJECT LOCATION
NOT TO SCALE

DESIGN DESIGNATION

FUNCTIONAL CLASS: OTHER PRINCIPAL ARTERIAL	D.H.V. PROJECTED: N/A	YEAR: N/A
TYPE OF CONSTRUCTION: PAVEMENT REHABILITATION	DESIGN SPEED: 40 MPH	
A.A.D.T. CURRENT: 8151	YEAR: 2016	TRUCKS: 42%
A.A.D.T. PROJECTED: N/A	YEAR: N/A	DIRECTION OF DISTRIBUTION: 48%

INDEX OF SHEETS

SHEET NO	TABLE OF CONTENTS
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31	SIGNING SCHEDULE PLAN
32-34	RIGHT-OF-WAY PLANS

TOTAL SHEETS: 34

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

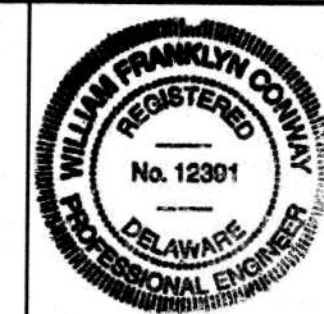
ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
C.D. 85019	CONTAINER PORT OF WILMINGTON, ENTRANCE GATE PAVEMENT REHABILITATION
78-021-24	TERMINAL AVENUE
93-061-18	TERMINAL AVE, 1-495 TO CHRISTINA AVE

PREPARED BY
THE CONSULTING FIRM OF
MM CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901
(302) 734-9188



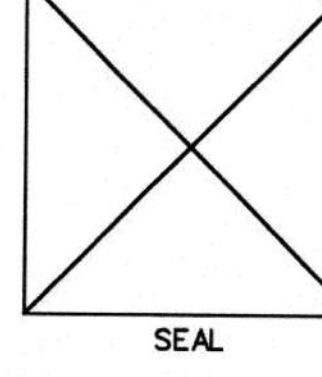
William F. Conroy
RECOMMENDED
DATE 1/10/18

RECOMMENDED
Mark S. Buntala
SQUAD MANAGER, CONSTRUCTION
DATE 1/17/18
John F. Zick
GROUP ENGINEER, CONSTRUCTION
DATE 1/17/18
John A. Zick
ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS (CONSTRUCTION)
DATE 1/17/18

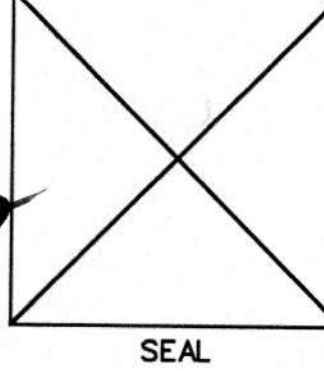
RECOMMENDED
Andrew N. Ford
STORMWATER ENGINEER
DATE January 10, 2018



RECOMMENDED
Zoltan J. ...
RAILROAD ENGINEER
DATE 19 JAN 2018



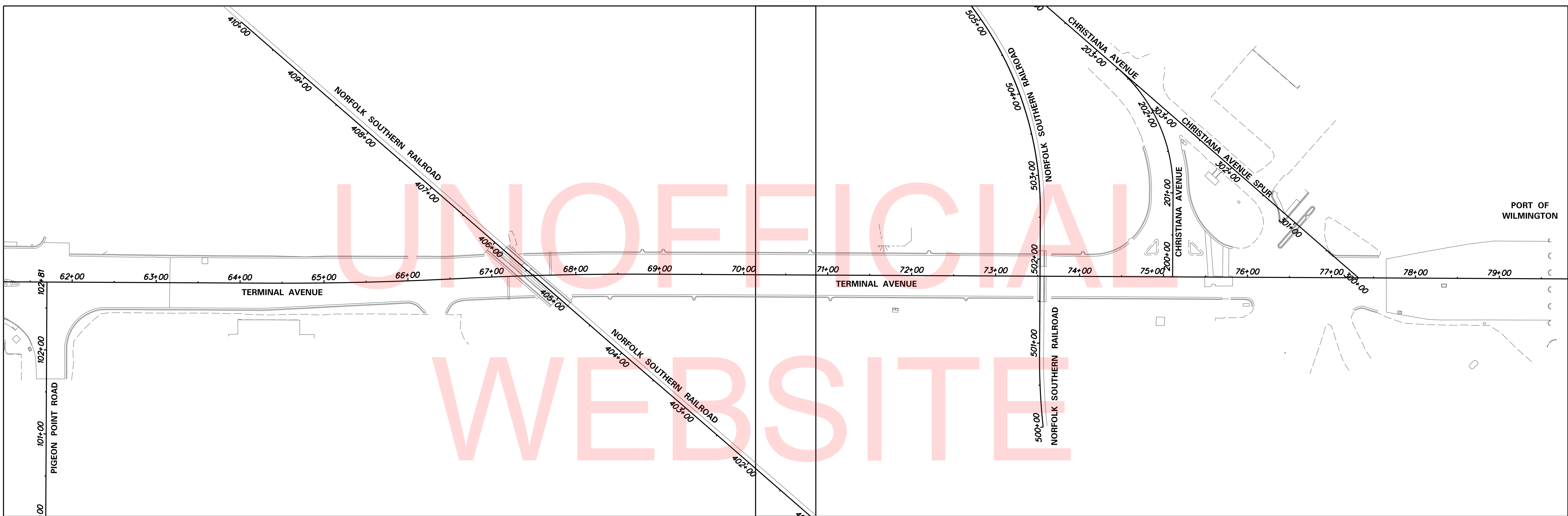
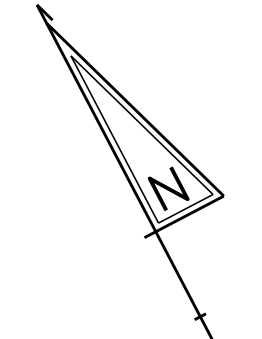
APPROVED
AS TO PROCESS
Robert B. McElroy
CHIEF ENGINEER
DATE 01/12/2018



1/8/2018 10:47:35 AM \\vmdof\snop\PROJECTS\115013.00 (DelDOT Agrmt 1583 DOTs Open-End)\115013.14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\c01_Term.dgn

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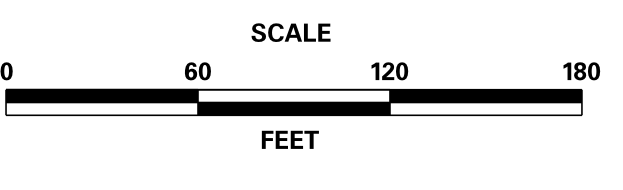
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PLAN SHEET INDEX CROSS REFERENCE		
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GRADES AND GEOMETRICS	12	13
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1/18/2018 \\vmdof\file\sanap\PROJECTS\115013\00 (DelDOT Agrmt 1583 DOTS Open-End)\115013\14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\101L_Term.dgn 9:23:30 AM



ADDENDUMS / REVISIONS	



**TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS**

CONTRACT	BRIDGE NO.	NA
T201500509	DESIGNED BY:	MEC
COUNTY	CHECKED BY:	TMB
NEW CASTLE		

PLAN SHEET INDEX

SHEET NO.	2
TOTAL SHTS.	34

EXISTING SYMBOLS

DRAINAGE	
	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
	DRAINAGE INLET
	DRAINAGE JUNCTION BOX
	DRAINAGE MANHOLE
	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES	
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	CURB
	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
	LAMP AND POST - RESIDENTIAL
	MAILBOX
	PARKING METER AND POST
	PAVEMENT - FLEXIBLE
	PAVEMENT - RIGID
	PILE - BRIDGE
	PILLAR OR MISCELLANEOUS POST
	TRAFFIC SIGN AND POST
	WALL - BRICK OR BLOCK
	WALL - STONE

NATURAL ROADSIDE FEATURES	
	GRASS LAWN
	HEDGEROW OR THICKET
	MARSH BOUNDARY LINE
	TREE - CONIFEROUS
	TREE - DECIDUOUS
	TREE STUMP
	SHRUBBERY
	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS	
	PROPERTY MARKER - CONCRETE MON.
	PROPERTY MARKER - IRON PIPE
	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING DENIAL OF ACCESS
	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION	
	SURVEY BENCHMARK LOCATION
	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY	
	SOIL BORING/PAVEMENT CORE LOCATION
	UTILITY TEST HOLE LOCATION
	CABLE TV DISTRIBUTION BOX
	ELECTRIC MANHOLE
	ELECTRIC METER
	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
	GAS MANHOLE
	GAS METER
	GAS VALVE
	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
	SANITARY SEWER MANHOLE
	SANITARY SEWER VALVE
	SANITARY SEWER VENT OR CLEANOUT
	SEPTIC DRAIN FIELD
	TELEPHONE BOOTH
	TELEPHONE MANHOLE
	TELEPHONE TEST POINT
	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
	WATER - FIRE HYDRANT
	WATER METER
	WATER VALVE
	WELL HEAD
	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES	
	DELMARVA POWER - GAS
	CITY OF WILMINGTON - WATER
	NEW CASTLE COUNTY - SEWER
	AT&T - FIBER OPTIC
	MAGELLAN - PETROLEUM
	SUEZ - WATER
	CHERRY ISLAND - GAS
	DELAWARE PIPELINE CO. - GAS
	CITY OF WILMINGTON - SEWER

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CONSTRUCTION BASELINE
	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
	CLEAR ZONE
	DRAINAGE INLET
	DITCH
	FENCE - METAL
	FENCE - WOOD
	FLARED END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LATERAL OFFSET
	LIMIT OF CONSTRUCTION
	MAILBOX
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	4" P.C.C. SIDEWALK OVER 4" GABC, TYPE B
	8" P.C.C. SIDEWALK OVER 8" GABC, TYPE B
	UNDERDRAIN
	UNDERDRAIN OUTLET

	PROPOSED RIGHT-OF-WAY MONUMENT
	PROPOSED DENIAL OF ACCESS
	PROPOSED PERMANENT EASEMENT
	PROPOSED RIGHT-OF-WAY
	PROPOSED R/W & DENIAL OF ACCESS
	TEMPORARY CONSTRUCTION EASEMENT
	PROPOSED RIGHT-OF-WAY BASELINE

PROPOSED SYMBOLS

IDENTIFIERS	
	ADJUST BY CONTRACTOR
	ADJUST BY OTHERS
	CONCRETE SAFETY BARRIER
	CURB OR CURB & GUTTER
	CONVERT TO JUNCTION BOX
	CONVERT TO DRAINAGE MANHOLE
	CURB OPENING
	CURB RAMP / TYPE
	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
	CONSTRUCTION SAFETY FENCE
	DRAINAGE INLET
	DO NOT DISTURB
	ENERGY DISSIPATOR
	FENCE
	FLARED END SECTION
	FILL WITH FLOWABLE FILL
	FILTRATION STRUCTURE
	GUARDRAIL
	JUNCTION BOX
	MANHOLE
	MONUMENT - RIGHT-OF-WAY
	PIPE
	RELOCATE BY CONTRACTOR
	RELOCATE BY OTHERS
	REMOVE BY CONTRACTOR
	REMOVE BY OTHERS
	UNDERDRAIN / LENGTH
	UNDERDRAIN OUTLET PIPE

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC	
	ITMS CONDUIT
	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

PAVEMENT SECTION(S)	
	PAVEMENT MILLING, VARIABLE DEPTH, 12" PORTLAND CEMENT CONCRETE PAVEMENT
	FULL DEPTH PATCHING: 2" BIT. CONC. SUPERPAVE, TYPE C 3" BIT. CONC. SUPERPAVE, TYPE B PATCHING 6" BIT. CONC. SUPERPAVE, BCBC PATCHING 6" GABC, TYPE B, PATCHING
	MILL & OVERLAY PAVEMENT: 2" BIT. CONC. SUPERPAVE, TYPE C (WEDGE AS REQUIRED)

EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	COMPOST FILTER LOG

GENERAL NOTES

- THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2016 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2014, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

EROSION POTENTIAL FOR THIS PROJECT	CONTRACTOR ESC SUPERVISOR REQUIREMENT
() INSIGNIFICANT	NONE
(X) MINOR	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
() MAJOR	CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 6.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

3. ELECTRONIC PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR, INCLUDE:

()	NONE
()	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	ALL PLAN SHEETS, IN PDF FORMAT.
()	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
()	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
()	DESIGN FILE, IN .DCN FILE FORMAT, CONTAINING ONLY THE PROPOSED 3D TRIANGLES OF THE PROPOSED DIGITAL TERRAIN MODEL (DTM).

NOTE: THE DOCUMENT ENTITLED "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" MUST BE SIGNED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILES.

4. PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE CONTRACTOR, INCLUDE:

()	CROSS SECTIONS
(X)	RIGHT-OF-WAY PLANS (WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR)

- THE ADDITIONAL IMPERVIOUS AREA CREATED BY THIS PROJECT IS 0.20 ACRES.
- THE DISTURBED AREA FOR THIS PROJECT IS 0.26 ACRES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO THE CONSTRUCTION SITE POLLUTION PREVENTION SPECIFICATIONS AS DETAILED IN SECTION 3.6 OF THE "DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK". ALL COSTS ASSOCIATED WITH ADHERING TO THE STANDARDS SHALL BE INCIDENTAL TO THE OVERALL CONTRACT COSTS.
- THE EROSION AND SEDIMENT CONTROL PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE EROSION AND SEDIMENT CONTROL PLANS ARE VALID FOR A FIVE YEAR PERIOD, BEGINNING ON THE DATE THE STORMWATER ENGINEER SIGNED THE CONSTRUCTION TITLE SHEET. IF THE FINAL ACCEPTANCE OF THE PROJECT IS ANTICIPATED TO EXTEND BEYOND THE FIVE YEARS, THE CONTRACTOR SHALL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE EROSION AND SEDIMENT CONTROL PLAN APPROVAL. DELDOT WILL REVIEW THE CURRENT EROSION AND SEDIMENT CONTROL PLAN AND ISSUE AN EXTENSION WITH ANY APPROPRIATE MODIFICATIONS.

PROJECT NOTES

SECTION 100

- ANY DAMAGE DONE BY THE CONTRACTOR TO ITEMS NOTED TO BE RELOCATED OR RESET BY OTHERS OR BY THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, SHALL BE REPAIRED AND/OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

SECTION 200

- UNSUITABLE MATERIALS FROM ROADWAY AND UNDERCUT EXCAVATION SHALL NOT BE USED AS FILL AND SHALL BE LEGALLY DISPOSED OF OUTSIDE THE PROJECT AREA. ALL COSTS ASSOCIATED WITH THE REMOVAL AND DISPOSAL OF THIS MATERIAL SHALL BE INCIDENTAL TO THE ITEM BEING REMOVED.
- ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
FENCES, BOLLARDS, AND TRAFFIC STRUCTURES WHICH ARE NOT DESIGNATED TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION.

SECTION 300

- A. THE CONTRACTOR MAY ELECT TO USE ANY OF THE FOLLOWING MATERIALS TO MEET THE REQUIREMENTS OF ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE 'B':
 - CRUSHED STONE (PER STANDARD SPECIFICATION 1005)
 - CRUSHED CONCRETE (PER STANDARD SPECIFICATION 1005)
 - HOT-MIX MILLINGS (PER SPECIAL PROVISION 301500 MILLED HOT-MIX BASE COURSE)

THE CONTRACTOR WILL NOT BE ALLOWED TO MIX DIFFERENT MATERIALS (OR SIMILAR MATERIALS FROM DIFFERENT SOURCES) TO MEET THE REQUIREMENTS OF ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

ALL OF THE ABOVE LISTED MATERIALS ARE PERMITTED FOR USE ON THE JOB, PROVIDED THEY ARE SEPARATED INTO APPROVED AREAS. EACH AREA OF BASE COURSE MUST BE CONSTRUCTED USING MATERIALS FROM A SINGULAR SOURCE, FULL DEPTH, IN ORDER THAT PROPER TESTING MAY BE ACCOMPLISHED. THE CONTRACTOR AND ENGINEER SHALL AGREE ON THE LIMITS OF EACH SOURCE OF MATERIAL PRIOR TO PLACEMENT.

B. THE QUANTITY USED FOR BASE OF EACH OF THE ABOVE LISTED MATERIALS WILL BE THE CONTRACTOR'S CHOICE, WITH THE TOTAL BEING EQUAL TO THE ACTUAL QUANTITY USED UNDER ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

PROJECT NOTES (CONT'D.)

- THE CONTRACTOR MAY ALSO ELECT TO RECYCLE MILLINGS FOR USE IN HOT-MIX AS PERMITTED BY THE STANDARD SPECIFICATIONS. THE CHOICE OF THE QUANTITY OF MILLINGS USED FOR THIS PURPOSE, OR FOR BASE COURSE, LIES WITH THE CONTRACTOR. ALL EXCESS MILLING MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.

- HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
 - MATERIAL MADE AVAILABLE WHEN MILLED ON THIS CONTRACT UNDER ITEM 760012.
 - MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
 - MILLED MATERIAL FURNISHED ON THE JOB FROM THE CONTRACTOR'S YARD OR OTHER OUTSIDE SOURCE. ALL MILLED MATERIALS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM 301500 - MILLED HOT-MIX BASE COURSE.

- PAYMENT CLARIFICATION
 - SHOULD THE CONTRACTOR ELECT TO MILL PORTIONS OF HOT-MIX SHOWN ON THE PLANS TO BE REMOVED UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT THE COST OF MILLING THIS HOT-MIX WILL BE PAID AS ITEM 202000 - EXCAVATION AND EMBANKMENT. THE MILLINGS GENERATED MAY BE RECYCLED INTO HOT-MIX, UTILIZED FOR BASE COURSE, OR DISPOSED OF TO AN APPROVED SITE. HAULING COSTS FOR DISPOSAL AND/OR RECYCLING ARE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

- MILLINGS GENERATED UNDER ITEM UTILIZED FOR THE CONTRACT MAY BE RECYCLED INTO HOT-MIX, UTILIZED FOR BASE COURSE OR DISPOSED OF BY THE CONTRACTOR TO AN APPROVED SITE. NO SEPARATE PAYMENT WILL BE MADE FOR TRANSPORTING MILLINGS ON SITE OR TO AN APPROVED DISposal SITE.

- SHOULD THE CONTRACTOR ELECT TO TEMPORARILY STOCKPILE MILLINGS ON THE JOB SITE FOR LATER USE, ALL COSTS FOR STOCKPILING AND SUBSEQUENT REHANDLING SHALL BE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

- MILLINGS USED FOR BASE COURSE SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIAL PROVISION 301500 - MILLED HOT-MIX BASE COURSE. NO SEPARATE PAYMENT WILL BE MADE TO FURNISH MILLINGS FROM AN OUTSIDE SOURCE OR TRANSPORT MILLINGS WITHIN THE PROJECT LIMITS. MILLINGS USED FOR BASE COURSE WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

- ALL COSTS TO UTILIZE MILLINGS IN RECYCLED HOT-MIX WILL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE HOT-MIX ITEM USING THE RECYCLED MATERIAL.

- SPECIAL PROVISION 301500 - MILLED HOT-MIX BASE COURSE IS PROVIDED TO SPECIFY THE MEANS OF LAY DOWN AND COMPACTION AS WELL AS THE MATERIAL REQUIREMENTS FOR MILLINGS USED AS BASE COURSE. ALL COSTS TO BRING THE MILLINGS INTO COMPLIANCE WITH THE REQUIREMENTS OF ITEM - 301500 MILLED HOT-MIX BASE COURSE ARE INCIDENTAL TO ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'. NO PAYMENT WILL BE MADE FOR ITEM 301500 - MILLED HOT-MIX BASE COURSE. THE QUANTITY OF MILLINGS USED FOR BASE COURSE WILL BE PAID FOR UNDER ITEM 301001 - GRADED AGGREGATE BASE COURSE.

SECTION 500

- THE CONTRACTOR SHALL USE 12 HOUR CONCRETE IN PHASES 1 THROUGH 6. PAYMENT SHALL BE INCIDENTAL TO ITEM 501006, PORTLAND CEMENT CONCRETE PAVEMENT, 12". CONCRETE SHALL REACH 2000 P.S.I. IN THE FIRST 12 HOUR PERIOD.
- THE CONTRACTOR SHALL SAW CUT JOINTS AND SEAL P.C.C. PAVEMENT BEFORE IT IS OPENED TO TRAFFIC. P.C.C. PAVEMENT SHALL NOT BE OPENED TO TRAFFIC BEFORE REACHING A COMPRESSIVE STRENGTH OF 3,500 P.S.I..
- ALL CLOSURE POURS SHALL BE PAID FOR UNDER ITEM 501006, PORTLAND CEMENT CONCRETE PAVEMENT, 12".

SECTION 700

- THE NEW CASTLE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL SUPPLY AND THE STATE'S CONTRACTOR SHALL INSTALL NEW SELF SEALING MANHOLE FRAMES AND COVERS ON ALL COUNTY SEWER MANHOLES THAT ARE NOT BEING RELOCATED, WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH THE COUNTY'S STANDARD SPECIFICATIONS. THE EXISTING MANHOLE FRAMES AND COVERS THAT ARE REMOVED SHALL BECOME THE PROPERTY OF THE STATE'S CONTRACTOR. PAYMENT SHALL BE INCIDENTAL TO ITEM 711500 - ADJUST AND REPAIR EXISTING SANITARY MANHOLE.
- SAWCUTTING CONCRETE, ITEM 762001 SHALL BE PAID ONLY AT LOCATIONS NOTED ON THE PLANS. SAWCUTTING TRANSVERSE JOINTS IN NEW PAVEMENT FOR CRACK CONTROL IS INCIDENTAL TO ITEM 501006.
- WHERE PROPOSED CONCRETE SIDEWALK IS CONSTRUCTED TO MEET EXISTING SIDEWALK, THE EXISTING SIDEWALK SHALL BE SAWCUT AT THE TIE-IN POINT OR MEET THE NEAREST EXISTING SIDEWALK JOINT. ALL SAW CUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER AND SHALL BE PAID FOR UNDER ITEM 762001 - SAWCUTTING, CONCRETE, FULL DEPTH.
- ALL DISTURBED AREAS WITHIN THE LIMIT OF CONSTRUCTION, SHALL BE TOPSOILED (6" MINIMUM), AND SEEDED AS DIRECTED BY THE ENGINEER. ALL COSTS ARE PAID UNDER THE RESPECTIVE ITEMS BEING INSTALLED.
- ALL PAVED AREAS (INCLUDING DRIVEWAYS) TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT.
- DURING CONSTRUCTION OF THE SIDEWALK ALL BARE AREAS SHALL BE STABILIZED AT THE END OF EACH WORK DAY. BARE AREAS SHALL BE EITHER PERMANENTLY STABILIZED OR COVERED WITH GABC.

SECTION 800

- THE EXISTING JUNCTION WELL AT STA. 65+13.4, 30.1' RIGHT IS TO BE RELOCATED TO BEHIND THE PROPOSED SIDEWALK. ALL COST TO RELOCATE AND TIE-IN EXISTING HARDWARE ARE INCIDENTAL TO ITEM 830009.

SECTION 900

- THIS PROJECT IS COVERED UNDER A "NPDES" GENERAL PERMIT FOR CONSTRUCTION, UNDER THE GENERAL PERMIT, COMPLIANCE WITH DELDOT'S APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS WILL CONSTITUTE COMPLIANCE WITH THE NPDES INDUSTRIAL PERMITTING REQUIREMENTS FOR THIS CONSTRUCTION PROJECT. A COPY OF THE NPDES GENERAL PERMIT AND NOI IS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S TEAM SUPPORT SECTION. A COPY OF THE GENERAL PERMIT OR THE NOI CAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN AREA SUITABLE FOR STOCKPILING BORROW, TOPSOIL, AND OTHER FILL MATERIAL REQUIRED FOR THE PROJECT IN ACCORDANCE WITH SECTION 908.01 OF THE STANDARD SPECIFICATIONS. SUBJECT TO THE APPROVAL OF THE ENGINEER, STOCKPILE AREA MAY BE LOCATED OUTSIDE OF THE PROJECT LIMITS, IF NECESSARY, NO ADDITIONAL PAYMENT WILL OCCUR FOR OFFSITE STOCKPILING.

PROJECT NOTES (CONT'D.)

MISCELLANEOUS

- THE CONTRACTOR SHALL INSTALL ALL SIDEWALKS TO CONFORM TO CURRENT ADA STANDARDS. ALL SIDEWALK CROSS SLOPES SHALL BE A MAXIMUM OF 2% ALONG THE PROPOSED CONSTRUCTION. ALL DRIVEWAY CROSSING AND CURB RAMPS SHALL CONFORM TO CURRENT DEPARTMENT AND ADA STANDARDS. ALL COSTS ARE INCIDENTAL TO THE ITEMS BEING INSTALLED.
- THE CONTRACTOR SHALL CONTACT THE CHIEF OF SCHEDULING FOR DART FIRST STATE, 14 DAYS TO THE START OF CONSTRUCTION AT 302-576-6191.
- ALL CURB OPENINGS UNDER SIDEWALK SHALL HAVE A 2' THROAT UNLESS OTHERWISE NOTED.
- THERE ARE NO ENVIRONMENTAL PERMITS ASSOCIATED WITH THIS PROJECT. AS SUCH, AN ENVIRONMENTAL COMPLIANCE SHEET WAS NOT PREPARED.
- ALL EXISTING UTILITIES AND DRAINAGE PIPES ARE TO REMAIN. THE CONTRACTOR SHALL UTILIZE CAUTION AS TO NOT DISTURB.
- THE CONTRACT TIME AND PHASING HAVE BEEN SET UP WITH THE EXPECTATION THAT THE CONTRACTOR WILL WORK CONTINUOUSLY, 24 HOURS PER DAY AND 7 DAYS PER WEEK. THE CONTRACTOR IS REQUIRED TO FOLLOW THE CONSTRUCTION PHASES INCLUDED IN THIS PLAN SET IN ORDER, STARTING WITH PHASE 1 AND FINISHING WITH PHASE 6, AND SHALL NOT PROCEED TO THE NEXT PHASE BEFORE THE CURRENT PHASE IS COMPLETE. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL ACCESS IN PHASES 1 THRU 6, AND TO COORDINATE WITH THE PORT OF WILMINGTON REGARDING ACCESS AT THE PORT'S MAIN GATE. THE CONTRACTOR SHALL COMPLETE ALL WORK WITHIN 49 CALENDAR DAYS. EACH 12 HOUR PERIOD PAST DAY 49 THAT THE CONTRACTOR SPENDS WORKING WILL RESULT IN A ROAD USER COST TO THE CONTRACTOR OF \$5,500, AND LIQUIDATED DAMAGES OF \$5.30, AS DIRECTED BY THE ENGINEER. ANY PORTION OF A 12 HOUR PERIOD THAT THE CONTRACTOR WORKS PAST DAY 49 WILL BE ASSESSED THE FULL USER COST OF \$5,500 AND LIQUIDATED DAMAGES OF \$5.30. EACH WORK DAY BEGINS AT 12:00 a.m. AND ENDS AT 12 p.m.. IN THE EVENT THAT THE RAILROAD CONTRACTOR'S ACTIVITIES PROHIBIT THE ROADWAY CONTRACTOR FROM WORKING, THIS PENALTY WILL BE WAIVED FOR THE AFFECTED 12 HOUR PERIOD, AS DIRECTED BY THE ENGINEER. PORT OF WILMINGTON CONTACT INFORMATION IS AS FOLLOWS:

FRANK VIGNULI - DIRECTOR OF OPERATIONS
PHONE: (302) 472-7695
CELL: (302) 650-7587

RANDALL HORNE - DIRECTOR OF MAINTENANCE AND ENGINEERING
PHONE: (302) 472-7827
CELL: (302) 893-5618

- THERE ARE 6 WEATHER DAYS INCLUDED IN THIS CONTRACT. WEATHER EVENTS WILL BE EVALUATED IN 12 HOUR INCREMENTS, AS DIRECTED BY THE ENGINEER. LOSS OF A 12 HOUR SHIFT DUE TO A WEATHER EVENT WILL EQUAL 0.5 CALENDAR DAYS AGAINST THE TOTAL OF 6 WEATHER DAYS. MORE THAN 12 - 12 HOUR SHIFTS WILL HAVE TO BE LOST TO WEATHER EVENTS BEFORE THE CONTRACTOR WILL BE GRANTED AN EXTENSION. EXTENSIONS WILL BE GRANTED IN 12 HOUR SHIFTS.
- IT SHALL BE NOTED THAT THERE ARE AERIAL POWER TRANSMISSION AND DISTRIBUTION LINES OVER BOTH NORFOLK SOUTHERN CROSSINGS ON TERMINAL AVENUE. THE CONTRACTOR SHALL PROVIDE ANY EQUIPMENT NECESSARY TO MAINTAIN REQUIRED CLEARANCE FROM ALL OVERHEAD UTILITIES. ALL COSTS ARE INCIDENTAL TO THE CONTRACT.
- AS IDENTIFIED IN THE PHASING PLANS, THE RAILROAD CONTRACTOR'S WORK IS LIMITED TO THREE (3) CONSECUTIVE WORK DAYS BEGINNING ON A FRIDAY AND ENDING ON A SUNDAY AND THEIR WORK IS TO OCCUR ON CONSECUTIVE WEEKENDS. ANTICIPATING A PROJECT NTP ON MAY 22, 2018, NORFOLK SOUTHERN IS SCHEDULED TO WORK ON THE FOLLOWING DATES:

RAILROAD PORTION OF PHASE 8: JUNE 22, 2018, JUNE 23, 2018, AND JUNE 24, 2018
RAILROAD PORTION OF PHASE 9: JUNE 29, 2018, JUNE 30, 2018, AND JULY 1, 2018

DELDOT'S CONTRACTOR SHALL NOT PERFORM ANY WORK WITHIN THE RAILROAD LIMITS OR IMPEDE THE RAILROAD CONTRACTOR'S ACCESS DURING THESE TIMES UNLESS OTHERWISE APPROVED CONCURRENTLY BETWEEN DELDOT AND NORFOLK SOUTHERN. THIS WORK SHALL BE CLEARLY IDENTIFIED IN THE ROADWAY CONTRACTOR'S SCHEDULE.

- THE CONTRACTOR SHALL TAKE NOTE OF THE REQUIREMENTS IN THE MAINTENANCE OF RAILROAD TRAFFIC (NS) SPECIFICATION (ITEM 801501) TO ENSURE THAT SUFFICIENT TIME IS ALLOTTED TO OBTAIN THE REQUIRED RAILROAD INSURANCE.
- IN THE AREA BETWEEN STA. 77+65.28 AND STA. 79+58.08, FOR THE FULL WIDTH OF THE EXISTING CONCRETE PAVEMENT, THE CONTRACTOR SHALL REMOVE THE EXISTING PAVEMENT AND REGRADE THE EXISTING BASE COURSE TO PREPARE THE SUBGRADE FOR PLACEMENT OF THE NEW 12" PCC PAVEMENT. IN ORDER TO AVOID ANY CONFLICTS WITH THE EXISTING DRAINAGE OR UTILITIES, THE CONTRACTOR SHALL NOT REMOVE ANY EXISTING BASE COURSE BELOW THE REQUIRED SUBGRADE ELEVATION. ANY DAMAGE TO THE EXISTING UNDERDRAIN, DRAINAGE, OR UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE WITH NO TIME EXTENSION GRANTED.
- IT IS ANTICIPATED THAT THE CONTRACTOR WILL LAY OUT MILLING CONTROL BY CONVENTIONAL SURVEY METHODS EVERY 25' ALONG EACH LANE EDGE. ALL COST ARE INCIDENTAL TO ITEM 763501, CONSTRUCTION ENGINEERING.
- ALL CURB RAMPS ARE TO BE 8" PCC SIDEWALK OVER 8" GRADED AGGREGATE BASE COURSE, TYPE B.
- ITEM 727000, CHAIN LINK FENCE SHALL INCLUDE ALL BARBED WIRE, TERMINAL POSTS, AND CONNECTING HARDWARE REQUIRED TO INSTALL AND TIE INTO AND MATCH EXISTING FENCE.
- ITEM 710003, ADJUST FIRE HYDRANTS SHALL INCLUDE ANY ITEMS REQUIRED TO RELOCATE FIRE HYDRANTS HORIZONTALLY OR VERTICALLY.
- THE CONTRACTOR SHALL NOTE THAT THE EXISTING PCC PAVEMENT TO BE REMOVED BETWEEN CHRISTIANA AVENUE AND THE PORT OF WILMINGTON TERMINAL CONTAINS WIRE MESH. ALL COSTS TO REMOVE EXISTING PCC PAVEMENT ARE INCIDENTAL TO ITEM 211001, REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT, CURB AND SIDEWALK.
- ON TERMINAL AVENUE, AFTER PERFORMING VARIABLE DEPTH PAVEMENT MILLING AND BEFORE PLACING PCC PAVEMENT, 12", THE CONTRACTOR SHALL PLACE GEOTEXTILE STABILIZATION ON THE ENTIRE MILLED HOT MIX SURFACE, TO BE PAID FOR UNDER ITEM 708001, GEOTEXTILES, STABILIZATION. PLACEMENT OF GEOTEXTILE, STABILIZATION IS NOT REQUIRED ON THE MILLED SURFACE OF CHRISTIANA AVENUE.
- THE CONTRACTOR SHALL MAINTAIN FENCING ON PROJECT PARCEL 204, PIGEON POINT RD, LLC AT ALL TIMES.

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CIRCULAR CURVE ①

	STATION	NORTHING	EASTING
PC (11002)	64+30.37	625774.8112	622557.4691
PI (11003)	65+44.44	625721.3830	622658.2459
CC (11008)		629308.8640	624431.0942
PRC (11004)	66+58.44	625673.7845	622761.9036
Radius:	4000.0000		
Delta:	3°16'00.4767" LEFT		
Degree of Curvature(Arc):	1°25'56.6202"		
Length:	228.0656		
Tangent:	114.0637		
Chord:	228.0347		
Middle Ordinate:	1.6253		
External:	1.6260		
Tangent Direction:	S 62°04'08.7804" E		
Radial Direction:	S 27°55'51.2196" W		
Chord Direction:	S 63°42'09.0187" E		
Radial Direction:	S 24°39'50.7429" W		
Tangent Direction:	S 65°20'09.2571" E		

CIRCULAR CURVE ②

	STATION	NORTHING	EASTING
PRC (11004)	66+58.44	625673.7845	622761.9036
PI (11005)	67+72.50	625626.1860	622865.5612
CC (11009)		622038.7051	621092.7129
PT (11006)	68+86.51	625572.7579	622966.3380
Radius:	4000.0000		
Delta:	3°16'00.4767" RIGHT		
Degree of Curvature(Arc):	1°25'56.6202"		
Length:	228.0656		
Tangent:	114.0637		
Chord:	228.0347		
Middle Ordinate:	1.6253		
External:	1.6260		
Tangent Direction:	S 65°20'09.2571" E		
Radial Direction:	S 24°39'50.7429" W		
Chord Direction:	S 63°42'09.0187" E		
Radial Direction:	S 27°55'51.2196" W		
Tangent Direction:	S 62°04'08.7804" E		

DATUM REFERENCE:

ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM (NAVD 1988) AND HORIZONTAL DATUM NORTH AMERICAN DATUM NAD 83 (2007).

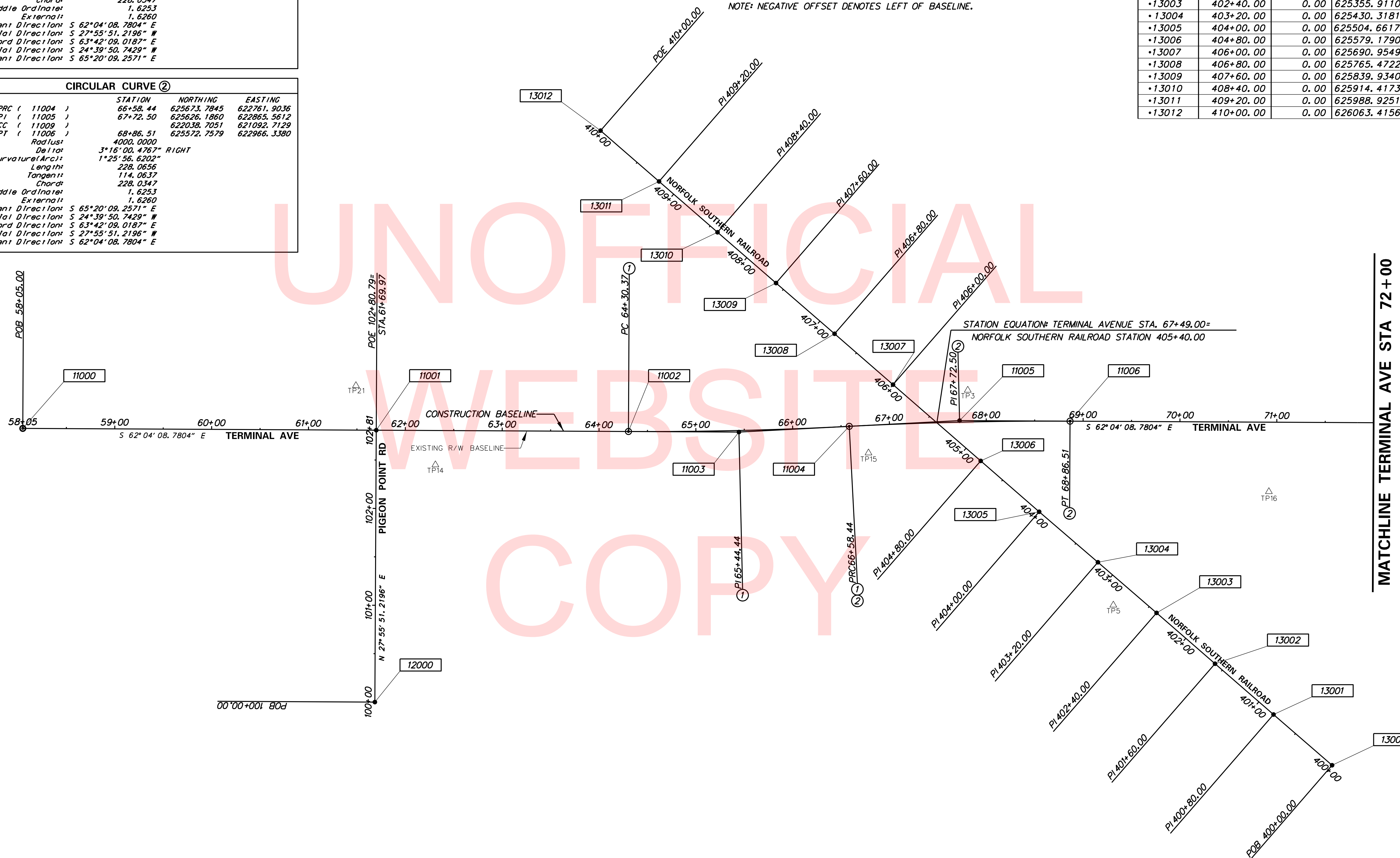
HORIZONTAL / VERTICAL CONTROL DATA

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
• TP3	67+81.59	-32.80'	625650.0530	622887.6088	6.6210
• TP5	69+32.19	189.72'	625383.7394	622917.8323	6.3640
• TP14	62+31.21	35.45'	625836.7781	622364.9011	11.6140
• TP15	66+77.00	28.44'	625640.2071	622766.7655	8.1015
• TP16	70+92.19	71.73'	625413.0452	623114.4648	7.2910
• TP21	61+48.73	-45.94'	625947.3205	622330.1466	10.4592

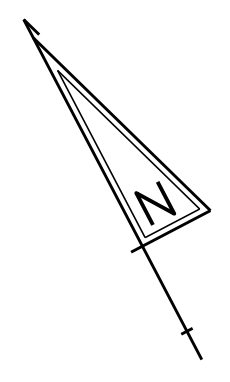
NOTE: NEGATIVE OFFSET DENOTES LEFT OF BASELINE.

CONSTRUCTION ALIGNMENT CONTROL

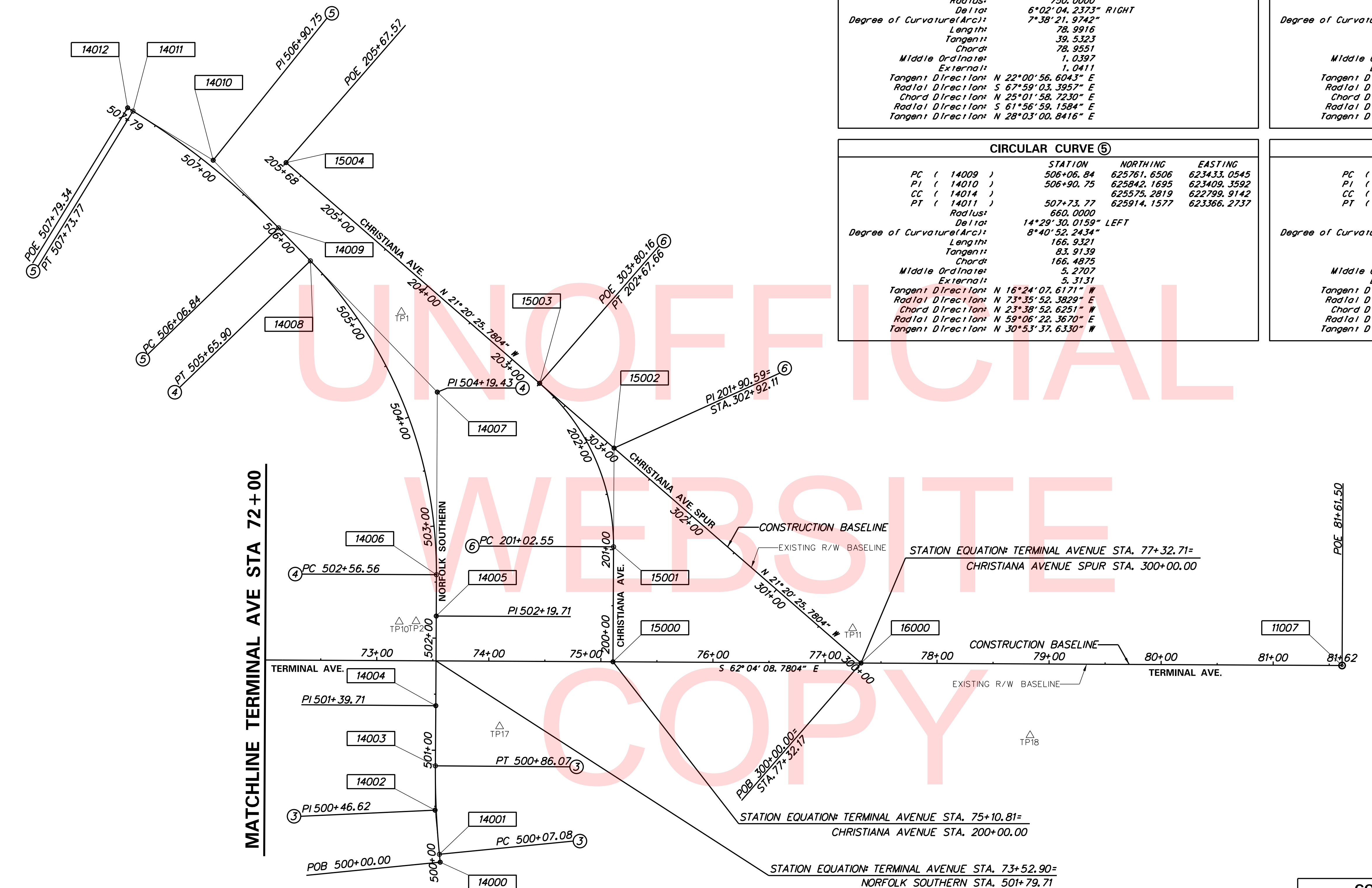
POINT	STATION	OFFSET	NORTHING	EASTING
•11000	58+05.00	0.00	626067.7407	622004.9422
•11001	61+69.97	0.00	625896.7865	622327.3980
•12000	100+00.00	0.00	625648.7087	622195.8763
•13000	400+00.00	0.00	625132.4513	623041.1886
•13001	400+80.00	0.00	625206.9078	623011.9271
•13002	401+60.00	0.00	625281.4007	622982.7585
•13003	402+40.00	0.00	625355.9110	622953.6342
•13004	403+20.00	0.00	625430.3181	622924.2475
•13005	404+00.00	0.00	625504.6617	622894.7004
•13006	404+80.00	0.00	625579.1790	622865.5941
•13007	406+00.00	0.00	625690.9549	622821.9347
•13008	406+80.00	0.00	625765.4722	622792.8285
•13009	407+60.00	0.00	625839.9340	622763.5805
•13010	408+40.00	0.00	625914.4173	622734.3876
•13011	409+20.00	0.00	625988.9251	622705.2569
•13012	410+00.00	0.00	626063.4156	622676.0823



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CIRCULAR CURVE ④

	STATION	NORTHING	EASTING
PC (14006)	502+56.56	625422.2106	623414.3767
PI (14007)	504.19.43	625566.1377	623490.6049
CC (14015)		625609.4262	623060.8935
PT (14008)	505+65.90	625722.3769	623444.6150
Radius:	400.0000		
Delta:	44°18'33.0759" LEFT		
Degree of Curvature(Arc):	14°19'26.2016"		
Length:	309.3365		
Tangent:	162.8673		
Chord:	301.6855		
Middle Ordinate:	29.5321		
External:	31.8863		
Tangent Direction:	N 27°54'25.4585" E		
Radial Direction:	S 62°05'34.5415" E		
Chord Direction:	N 5°45'08.9206" E		
Radial Direction:	N 73°35'52.3826" E		
Tangent Direction:	N 16°24'07.6174" W		

CIRCULAR CURVE ⑤

	STATION	NORTHING	EASTING
PC (14009)	506+06.84	625761.6506	623433.0545
PI (14010)	506+90.75	625842.1695	623409.3592
CC (14014)		625575.2819	622799.9142
PT (14011)	507+73.77	625914.1577	623366.2737
Radius:	660.0000		
Delta:	14°29'30.0159" LEFT		
Degree of Curvature(Arc):	8°40'52.2434"		
Length:	166.9321		
Tangent:	83.9139		
Chord:	166.4875		
Middle Ordinate:	5.2707		
External:	5.3131		
Tangent Direction:	N 16°24'07.6171" W		
Radial Direction:	N 73°35'52.3829" E		
Chord Direction:	N 23°38'52.6251" W		
Radial Direction:	N 59°06'22.3670" E		
Tangent Direction:	N 30°53'37.6330" W		

CIRCULAR CURVE ⑥

	STATION	NORTHING	EASTING
PC (15001)	201+02.55	625370.9316	623565.9492
PI (15002)	201+90.59	625448.7242	623607.1919
CC (15005)		625460.8656	623396.3146
PT (15003)	202+67.66	625530.7363	623575.1500
Radius:	192.0000		
Delta:	49°16'17.0000" LEFT		
Degree of Curvature(Arc):	29°50'29.5866"		
Length:	165.1100		
Tangent:	88.0492		
Chord:	160.0693		
Middle Ordinate:	17.4765		
External:	19.2266		
Tangent Direction:	N 27°55'51.2196" E		
Radial Direction:	S 62°04'08.7804" E		
Chord Direction:	N 3°17'42.7196" E		
Radial Direction:	N 68°39'34.2196" E		
Tangent Direction:	N 21°20'25.7804" W		

DATUM REFERENCE:
 ALL ELEVATIONS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM (NAVD 1988)
 AND HORIZONTAL DATUM NORTH AMERICAN DATUM NAD 83 (2007).

HORIZONTAL / VERTICAL CONTROL DATA

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP1	73+20.41	-311.02'	625664.3082	623495.3796	6.0450'
TP2	73+34.89	-35.18'	625393.8161	623378.9729	6.5070'
TP10	73+19.86	-34.72'	625400.4449	623365.4727	6.3210'
TP11	77+24.58	-30.94'	625207.5348	623721.2808	8.5730'
TP17	74+09.93	58.18'	625276.1776	623401.5358	7.5950'
TP18	78+83.37	63.72'	625049.5290	623817.2342	10.2590'

NOTE: NEGATIVE OFFSET DENOTES LEFT OF BASELINE.

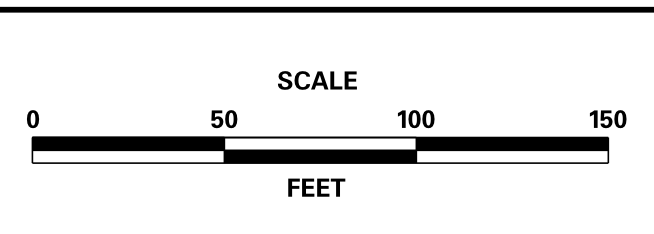
CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
11007	81+61.50	0.00	624975.5426	624092.8121
14000	500+00.00	0.00	625193.5080	623298.3997
14004	501+39.71	0.00	625318.9461	623359.6846
14005	502+19.71	0.00	625389.6427	623397.1277
14012	507+79.34	0.00	625918.9397	623363.4125
15000	75+10.81	0.00	625280.3313	623517.9162
15003	303+80.16	0.00	625530.7363	623575.1500
15004	205+67.57	0.00	625810.0916	623466.0064
16000	77+32.71	0.00	625176.6435	623713.4934



ADDENDUMS / REVISIONS

NO.	DATE	DESCRIPTION

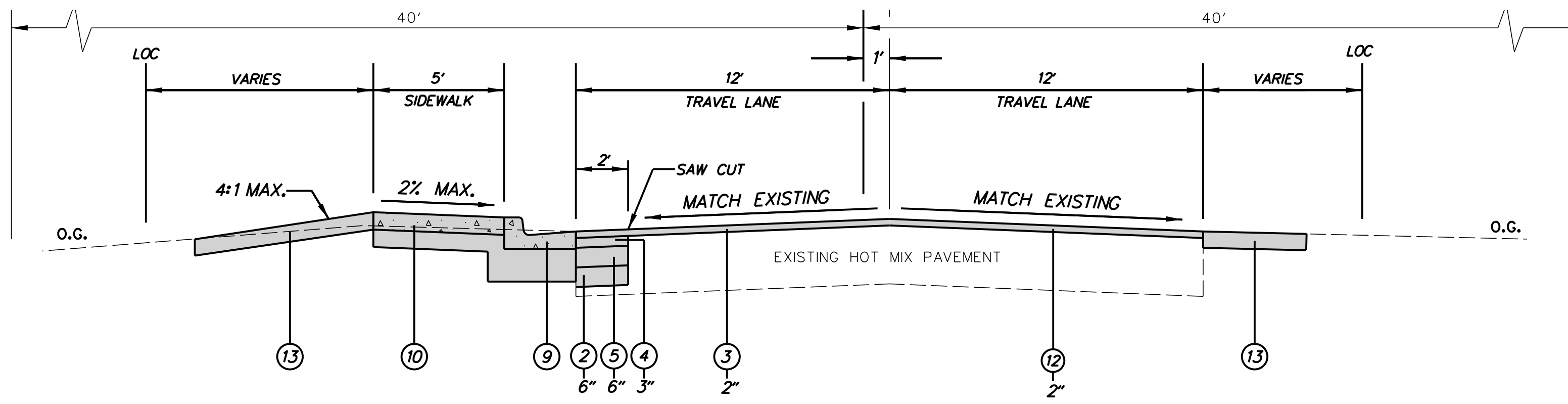


**TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS**

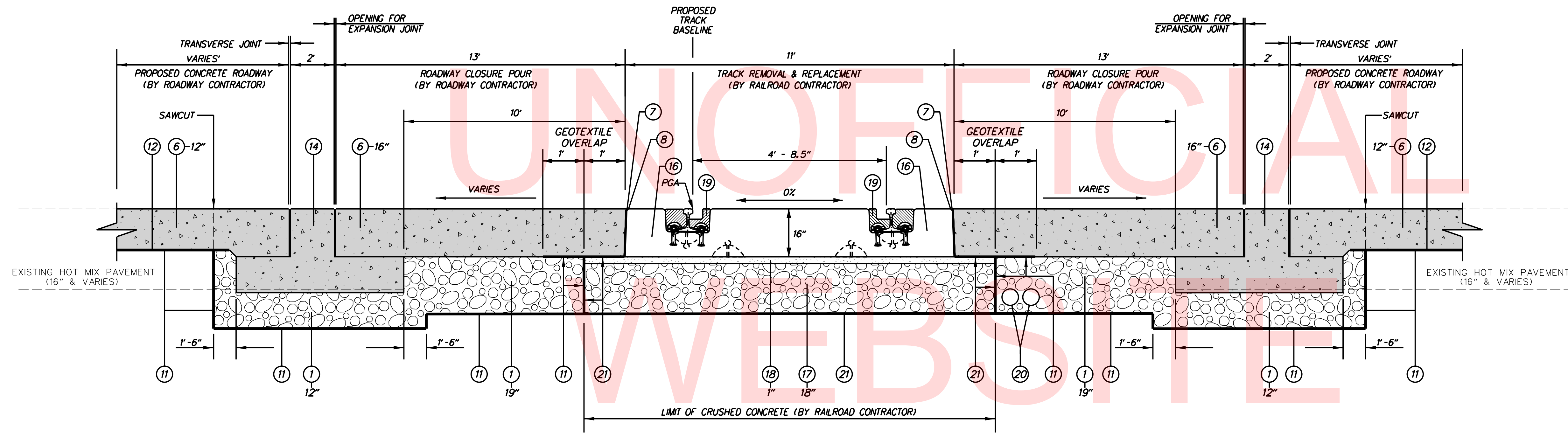
CONTRACT	T201500509	BRIDGE NO.	NA
COUNTY	NEW CASTLE	DESIGNED BY:	TMB
		CHECKED BY:	WFC

HORIZONTAL AND VERTICAL CONTROL

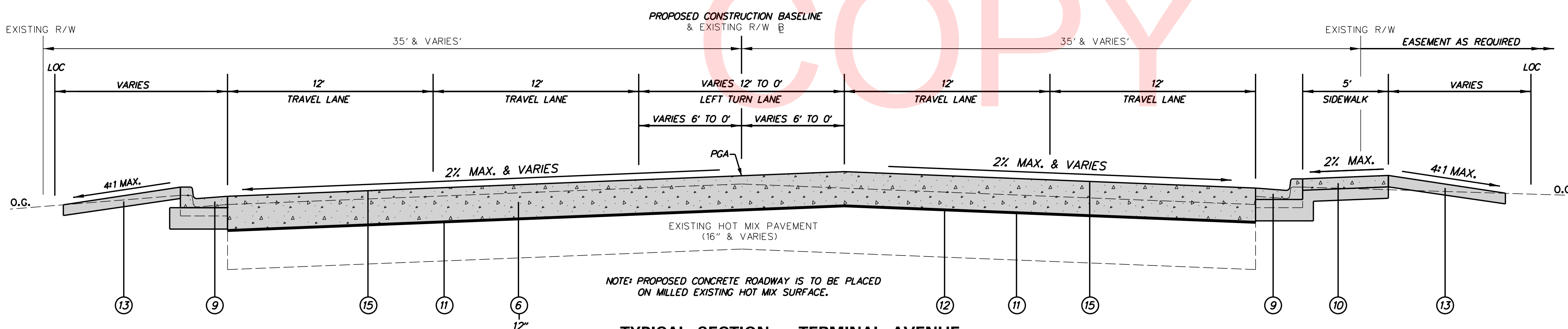
SHEET NO.	6
TOTAL SHTS.	34



TYPICAL SECTION - CHRISTIANA AVENUE SPUR ROAD
STA. 301+56.52 TO STA. 302+50.00



**TYPICAL SECTION - NORFOLK SOUTHERN RAILROAD
PRECAST CONCRETE TRACK BOX**



TYPICAL SECTION - TERMINAL AVENUE
STA. 63+15.00 TO STA. 79+58.08

NOTE: PROPOSED CONCRETE ROADWAY IS TO BE PLACED ON MILLED EXISTING HOT MIX SURFACE.

- ① ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
 - ② ITEM 301002 - GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING
 - ③ ITEM 401007 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (CARBONATE STONE)
 - ④ ITEM 401027 - BITUMINOUS CONCRETE SUPERPAVE TYPE B, 160 GYRATIONS PG 64-22 PATCHING
 - ⑤ ITEM 401028 - BITUMINOUS CONCRETE SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS PG 64-22 PATCHING
 - ⑥ ITEM 501006, PORTLAND CEMENT CONCRETE PAVEMENT
 - ⑦ RUBBER AND BOND BREAKER - INCIDENTAL TO ITEM 501006
 - ⑧ ITEM 504001 - CRACK AND JOINT SEALING, LESS THAN 3/4" WIDE
 - ⑨ ITEM 701018 - I.P.C.C. CURB & GUTTER, TYPE 1-B OVER 6" GRADED AGGREGATE BASE COURSE, TYPE B
 - ⑩ ITEM 705001 - P.C.C. SIDEWALK, 4" OVER 4" GRADED AGGREGATE BASE COURSE, TYPE B
 - ⑪ ITEM 708001 - GEOTEXTILES, STABILIZATION
 - ⑫ ITEM 760012 - PAVEMENT MILLING, BIT. CONC. PAVEMENT, VARIABLE DEPTH
 - ⑬ ITEM 908004 - TOPSOIL, 6" DEPTH
ITEM 908014 - GRASS SEEDING, DRY GROUND
ITEM 908020 - EROSION CONTROL BLANKET MULCH
 - ⑭ SLEEPER SLAB (SEE CONSTRUCTION DETAIL)
 - ⑮ ITEM 501502 - DIAMOND GRINDING P.C.C. PAVEMENT AND PRECAST PAVEMENT
- NORFOLK SOUTHERN ITEMS**
- ⑯ CONCRETE HIGHWAY/RAIL AT-GRADE CROSSING SYSTEM (PRECAST CONCRETE TRACK BOX)
 - ⑰ USE CRUSHED CONCRETE
 - ⑱ DELAWARE NO. 10 STONE
 - ⑲ RUBBER PANELS
 - ⑳ FURNISH AND INSTALL 6" SCHEDULE 80 PVC CONDUIT
 - ㉑ GEOTEXTILES, STABILIZATION

NOTES

1. MAXIMUM ALGEBRAIC DIFFERENCE OF CROSS SLOPES SHALL NOT EXCEED 8%.
2. THE CONTRACTOR SHALL SAWCUT 2' (+/-) INTO THE EXISTING TRAVEL LANE FOR CONSTRUCTION OF THE PROPOSED FULL DEPTH PAVEMENT OR AS DIRECTED BY ENGINEER IN THE FIELD.
3. SEE GRADES AND GEOMETRICS FOR FURTHER DETAILS.
4. DELAWARE NO. 3 STONE SHALL BE UTILIZED FOR ALL UNDERCUT LOCATIONS AS DIRECTED BY ENGINEER IN THE FIELD.
5. HORIZONTAL CLEARANCE IS MEASURED TO THE POINT 1.5 FT. BEHIND THE BACK OF THE CURB, WHERE APPLICABLE.
6. PATCHING DETAIL IN TYPICAL SECTION FOR CHRISTIANA AVENUE SPUR ROAD APPLIES TO ALL PATCHES FOR NEW CURB AGAINST EXISTING HOT MIX.

ABBREVIATIONS

- PR - POINT OF ROTATION
- PGA - PROFILE DITCH GRADE APPLICATION
- PGA - PROFILE GRADE APPLICATION

PAVEMENT MATERIAL LIFT THICKNESS

MATERIAL	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE C	1.25"	2"
BITUMINOUS CONCRETE, TYPE B	2.25"	4"
BITUMINOUS CONCRETE, BCBC	3"	6"
GABC	--	8"

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ADDENDUMS / REVISIONS

NOT TO SCALE

**TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS**

CONTRACT	T201500509	BRIDGE NO.	N/A
COUNTY	NEW CASTLE	DESIGNED BY:	TMB
		CHECKED BY:	WFC

TYPICAL SECTIONS

SHEET NO.	7
TOTAL SHTS.	34

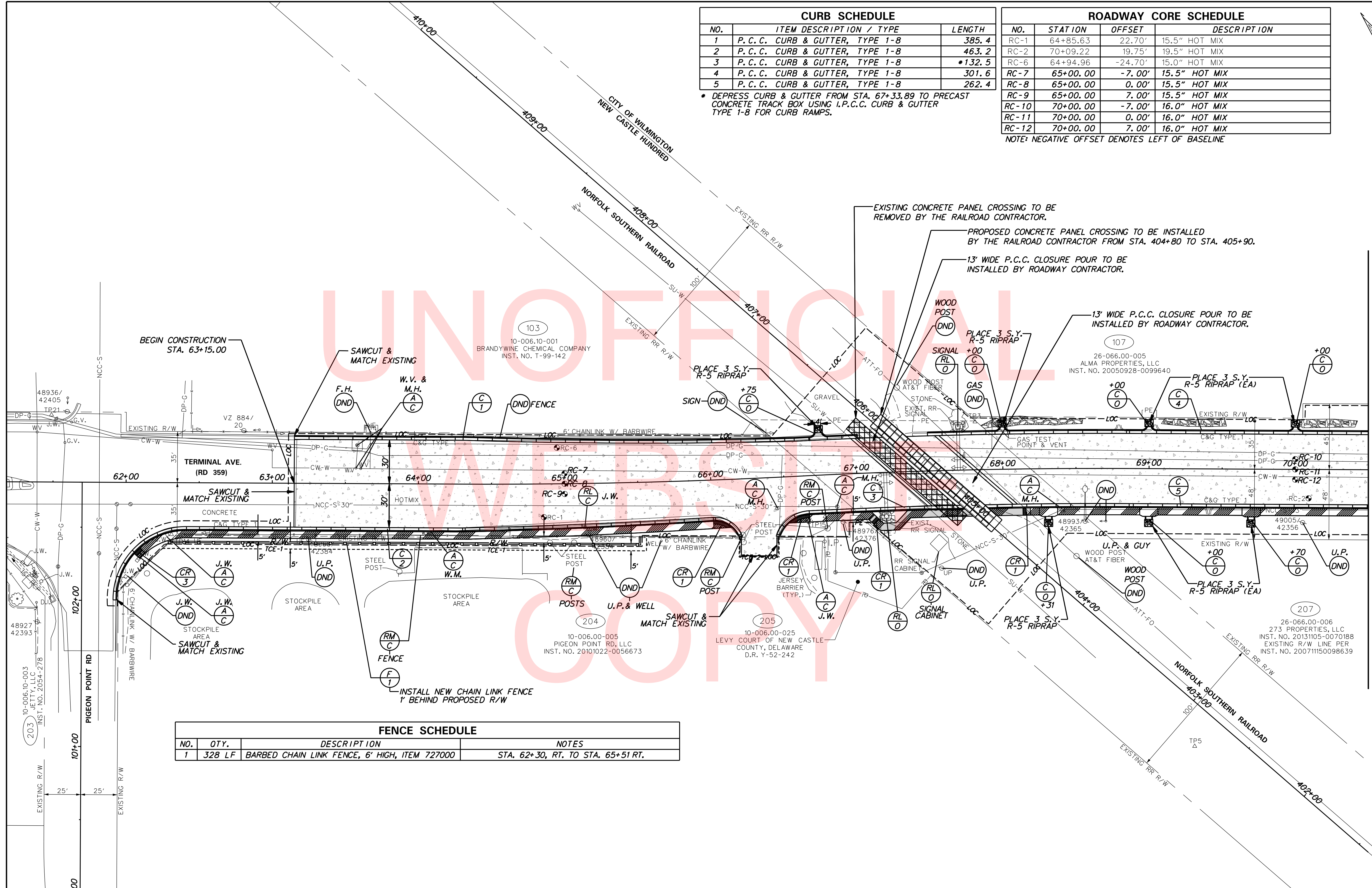
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CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	P. C. C. CURB & GUTTER, TYPE 1-8	385.4
2	P. C. C. CURB & GUTTER, TYPE 1-8	463.2
3	P. C. C. CURB & GUTTER, TYPE 1-8	*132.5
4	P. C. C. CURB & GUTTER, TYPE 1-8	301.6
5	P. C. C. CURB & GUTTER, TYPE 1-8	262.4

* DEPRESS CURB & GUTTER FROM STA. 67+33.89 TO PRECAST CONCRETE TRACK BOX USING I.P.C.C. CURB & GUTTER TYPE 1-8 FOR CURB RAMPS.

ROADWAY CORE SCHEDULE			
NO.	STATION	OFFSET	DESCRIPTION
RC-1	64+85.63	22.70'	15.5" HOT MIX
RC-2	70+09.22	19.75'	19.5" HOT MIX
RC-6	64+94.96	-24.70'	15.0" HOT MIX
RC-7	65+00.00	-7.00'	15.5" HOT MIX
RC-8	65+00.00	0.00'	15.5" HOT MIX
RC-9	65+00.00	7.00'	15.5" HOT MIX
RC-10	70+00.00	-7.00'	16.0" HOT MIX
RC-11	70+00.00	0.00'	16.0" HOT MIX
RC-12	70+00.00	7.00'	16.0" HOT MIX

NOTE: NEGATIVE OFFSET DENOTES LEFT OF BASELINE

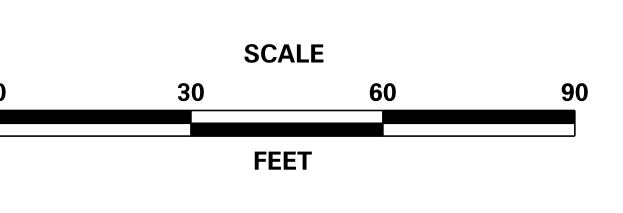


FENCE SCHEDULE			
NO.	QTY.	DESCRIPTION	NOTES
1	328 LF	BARBED CHAIN LINK FENCE, 6' HIGH, ITEM 727000	STA. 62+30, RT. TO STA. 65+51 RT.

MATCHLINE TERMINAL AVE STA 70+50



ADDENDUMS / REVISIONS	



**TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS**

CONTRACT T201500509	BRIDGE NO. N/A
COUNTY NEW CASTLE	DESIGNED BY: TMB CHECKED BY: WFC

CONSTRUCTION PLAN

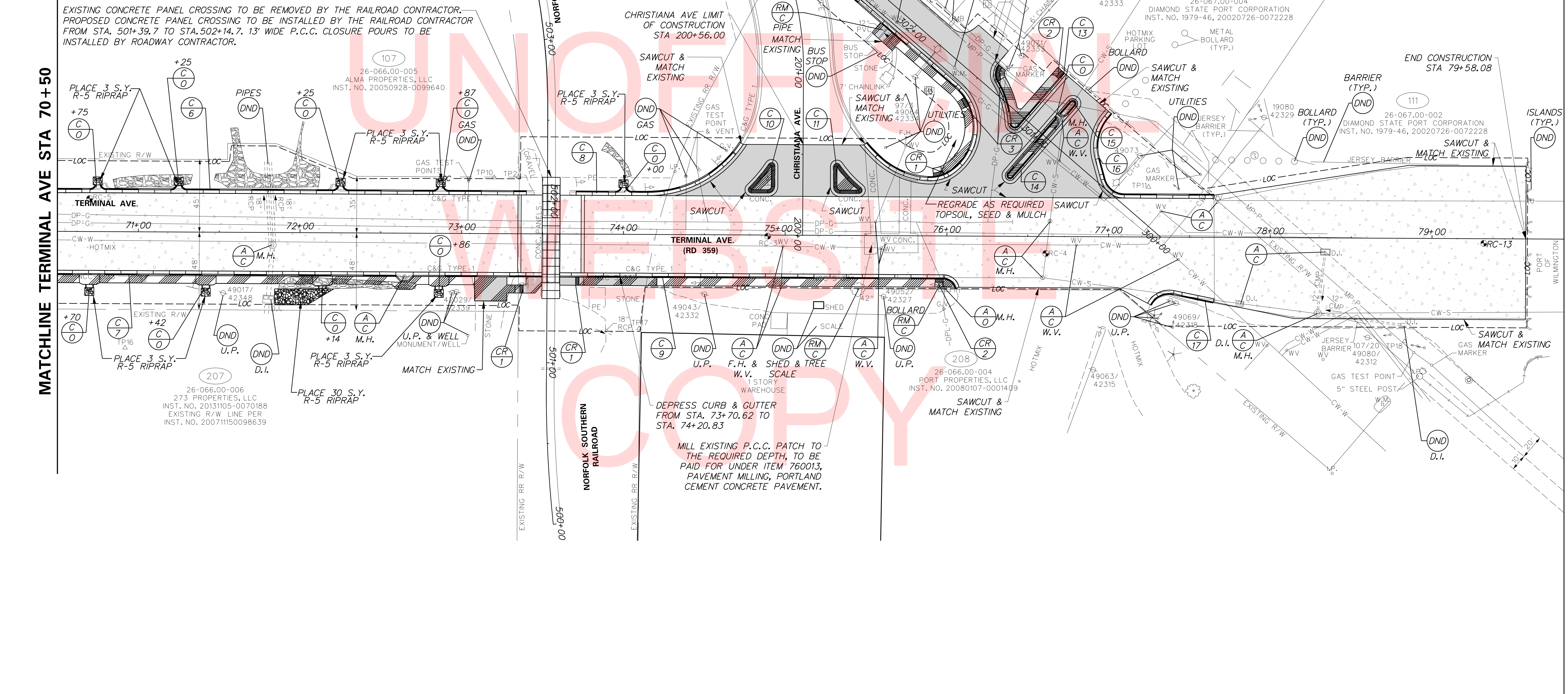
SHEET NO. 8
TOTAL SHTS. 34

3/1/2018 \\vmdofiles\anap\PROJECTS\115013.00 (DelDOT Agrmt 1583 DOTs Open-End)\115013.14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\cp02_Term_30.dgn

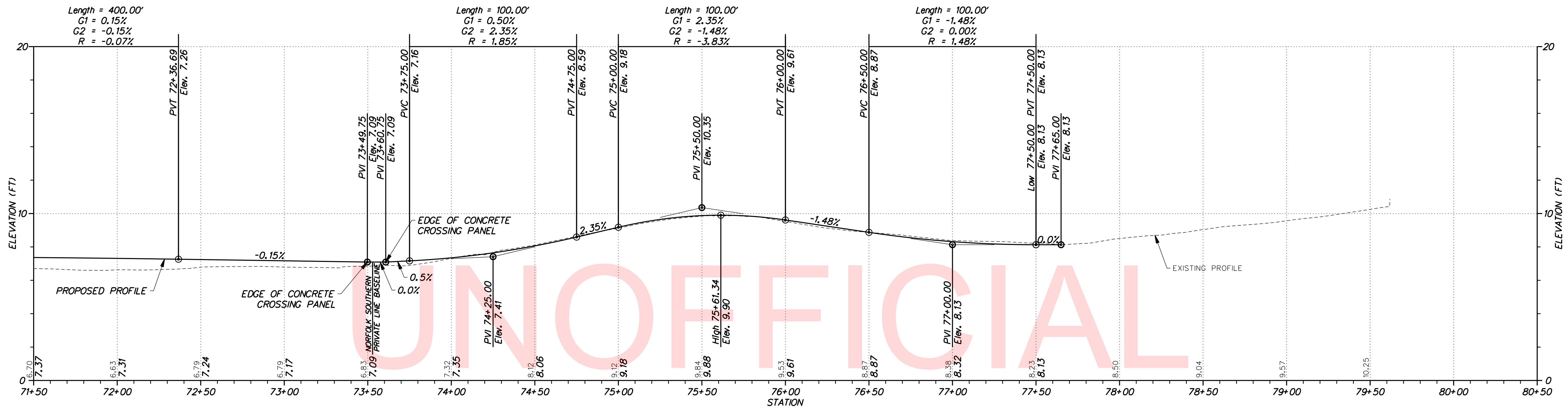
CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
6	P. C. C. CURB & GUTTER, TYPE 1-8	290.0
7	P. C. C. CURB & GUTTER, TYPE 1-8	299.6
8	P. C. C. CURB & GUTTER, TYPE 1-8	114.1
9	P. C. C. CURB & GUTTER, TYPE 1-8	250.5
10	P. C. C. CURB, TYPE 2	57.9
11	P. C. C. CURB, TYPE 2	59.9
12	P. C. C. CURB & GUTTER, TYPE 3-8	228.6
13	P. C. C. CURB & GUTTER, TYPE 3-8	92.5
14	P. C. C. CURB & GUTTER, TYPE 3-8	107.4
15	P. C. C. CURB & GUTTER, TYPE 3-8	36.9
16	P. C. C. CURB & GUTTER, TYPE 3-8	120.5
17	P. C. C. CURB & GUTTER, TYPE 1-8	44.7

ROADWAY CORE SCHEDULE			
NO.	STATION	OFFSET	DESCRIPTION
RC-3	74+89.22	0.73'	15.5"
RC-4	76+61.22	10.50'	13.0" HOT MIX
RC-5	70+69.91	-20.41'	15.0" HOT MIX
RC-13	79+30.00	2.0'	11.75" CONCRETE

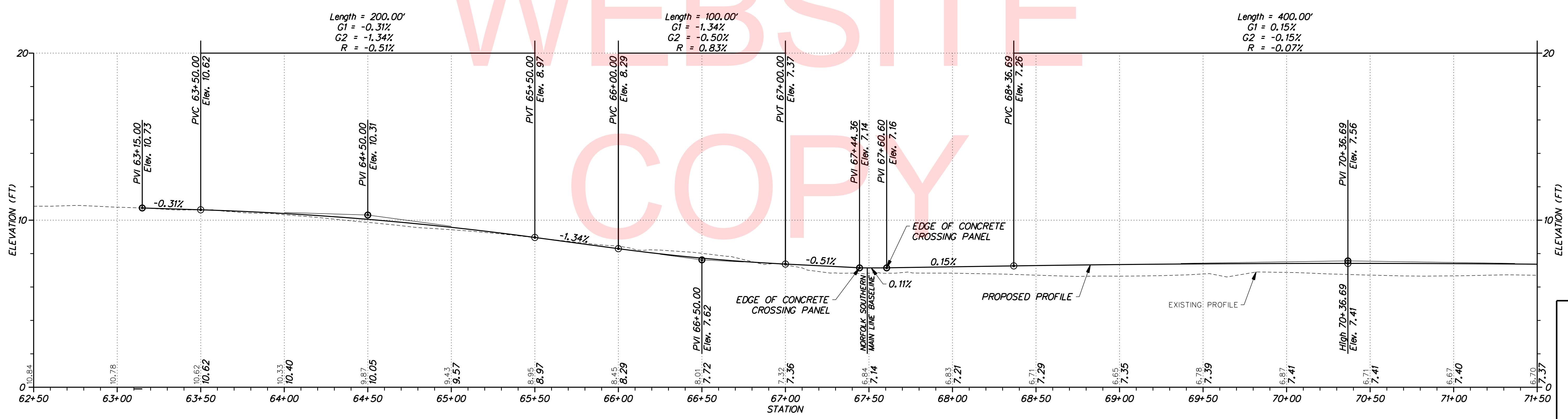
NOTE: NEGATIVE OFFSET DENOTES LEFT OF BASELINE



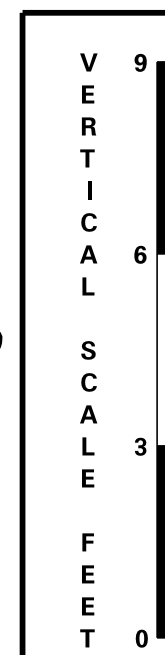
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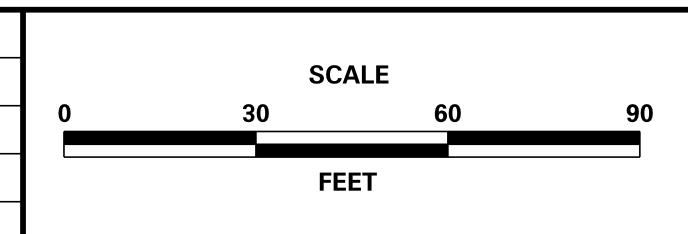
TERMINAL AVENUE



TERMINAL AVENUE



ADDENDUMS / REVISIONS	



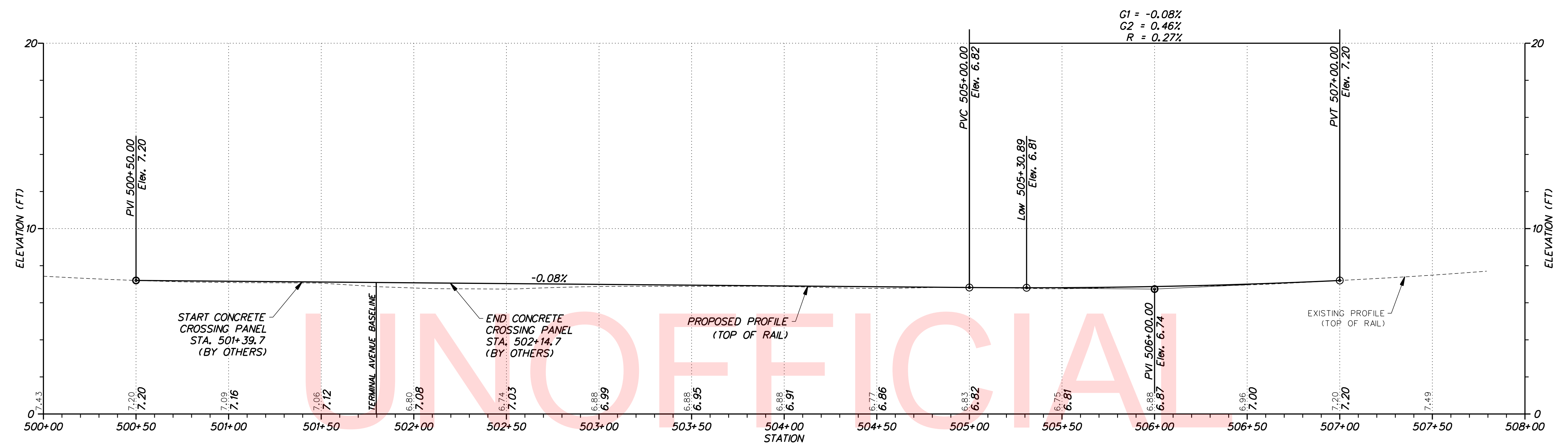
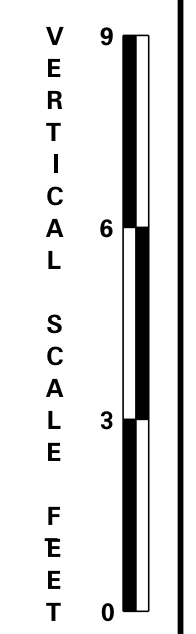
**TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS**

CONTRACT	BRIDGE NO.	NA
T201500509	DESIGNED BY:	TMB
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

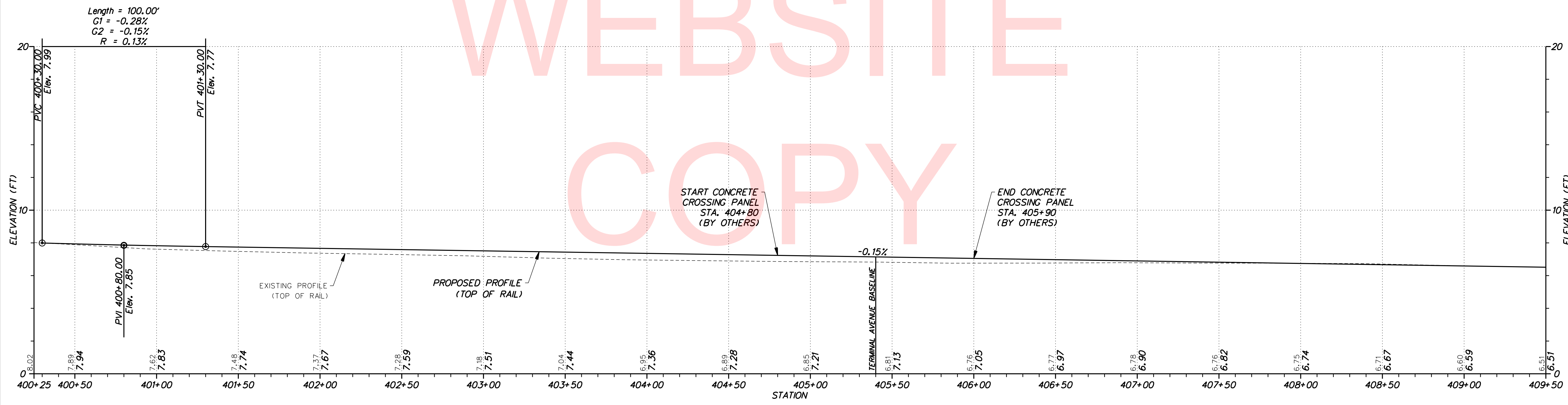
PROFILES

SHEET NO.	10
TOTAL SHTS.	34

1/18/2018 \\vmd\file\snop\PROJECTS\115013.00 (DelDOT Agrmt 1583 DOTS Open-End)\115013.14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\p100_Term.dgn 9:45:53 AM

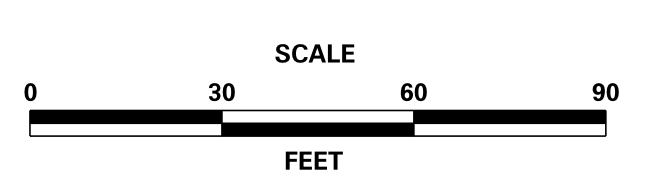


NORFOLK SOUTHERN PRIVATE LINE



NORFOLK SOUTHERN MAIN LINE

ADDENDUMS / REVISIONS



**TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS**

CONTRACT	BRIDGE NO.	NA
T201500509	DESIGNED BY:	TMB
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

PROFILES

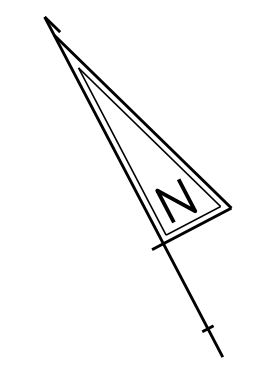
SHEET NO.	11
TOTAL SHTS.	34



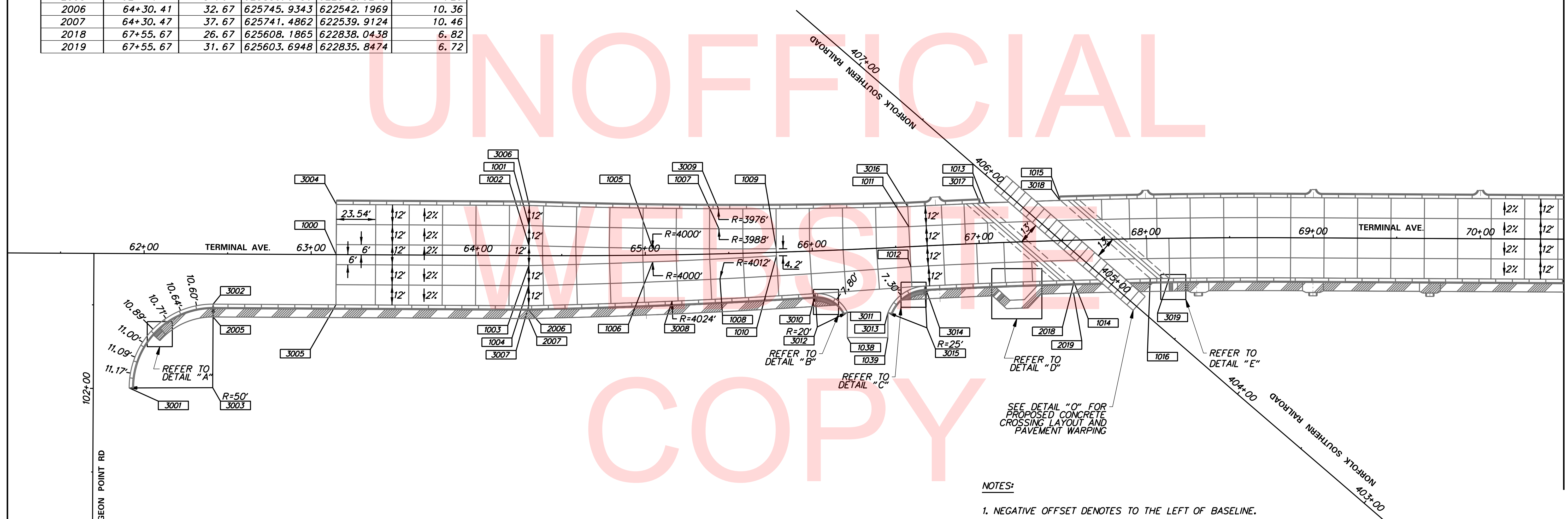
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POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
1000	63+15.00	0.00	625828.8535	622455.5339	10.73
1001	64+30.37	-18.00	625790.7144	622565.9004	9.84
1002	64+30.37	-6.00	625780.1123	622560.2795	10.08
1003	64+30.37	6.00	625769.5101	622554.6587	10.32
1004	64+30.37	18.00	625758.9080	622549.0378	10.08
1005	65+04.45	-4.05	625744.3356	622625.0678	9.44
1006	65+04.42	4.05	625737.1214	622621.3723	9.60
1007	65+44.45	-15.00	625736.2700	622665.6504	8.74
1008	65+44.37	15.00	625709.4105	622652.2817	8.86
1009	65+78.50	-2.10	625709.7637	622690.5069	8.54
1010	65+78.50	2.10	625705.9752	622688.6745	8.62
1011	66+58.44	-12.00	625684.6898	622766.9111	7.41
1012	66+58.44	12.00	625662.8793	622756.8960	7.41
1013	67+04.15	-24.00	625676.1673	622813.5977	6.88
1014	67+55.67	24.00	625610.5822	622839.2150	6.91
1015	67+49.32	-24.00	625656.5049	622854.5586	7.02
1016	68+02.03	24.00	625590.1002	622880.4961	7.04
1038	66+18.74	52.49	625643.0448	622703.5332	8.73
1039	66+42.70	53.71	625631.6600	622725.0074	8.59
2005	62+41.47	37.67	625830.0156	622372.9273	11.20
2006	64+30.41	32.67	625745.9343	622542.1969	10.36
2007	64+30.47	37.67	625741.4862	622539.9124	10.46
2018	67+55.67	26.67	625608.1865	622838.0438	6.82
2019	67+55.67	31.67	625603.6948	622835.8474	6.72

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
3001	61+91.47	80.42	625815.6663	622308.7295	11.25
3002	62+41.47	30.00	625836.7893	622376.5184	10.58
3003	62+41.47	80.00	625792.6136	622353.0981	N/A
3004	63+15.00	-30.00	625855.3589	622469.5861	10.21
3005	63+15.00	30.00	625802.3481	622441.4817	10.32
3006	64+30.37	-30.00	625801.3166	622571.5213	9.60
3007	64+30.37	30.00	625748.3058	622543.4169	9.84
3008	65+15.56	27.76	625710.9188	622620.6691	8.99
3009	65+44.45	-27.00	625747.0280	622670.9668	8.50
3010	66+00.78	25.52	625675.1878	622698.7011	7.77
3011	66+19.44	37.51	625656.2975	622710.5593	8.07
3012	66+01.30	45.51	625656.9158	622690.5688	N/A
3013	66+43.49	38.73	625644.9127	622732.0335	7.93
3014	66+66.22	24.00	625648.7419	622758.9093	7.11
3015	66+66.22	49.00	625626.0430	622748.4327	N/A
3016	66+58.44	-24.00	625695.5950	622771.9187	7.17
3017	67+01.56	-24.00	625677.2828	622811.2378	6.98
3018	67+49.10	-24.00	625656.5991	622854.3653	7.02
3019	68+13.44	23.96	625585.0208	622890.6346	6.90



UNOFFICIAL COPY



MATCHLINE TERMINAL AVE STA 70+50

NOTES:

1. NEGATIVE OFFSET DENOTES TO THE LEFT OF BASELINE.
2. PROPOSED CONCRETE PANELS ARE 20' IN LENGTH UNLESS OTHERWISE NOTED.
3. PROPOSED CONCRETE PANEL WIDTH FROM STA 65+78.44 TO STA 66+58.44 VARY FROM 14.10' TO 12.00' RESPECTIVELY AND REMAIN 20' IN LENGTH.
4. CLOSURE POUR THROUGH PEDESTRIAN PATHWAY SHALL MEET ADA REQUIREMENTS.
5. POINT NUMBERING METHODOLOGY IS AS FOLLOWS:
 1000'S: ROADWAY
 2000'S: SIDEWALK
 3000'S: TOE OF GUTTER
 4000'S: EDGE OF PRECAST CONCRETE TRACK BOX AT NORFOLK SOUTHERN WEST CROSSING
 5000'S: EDGE OF PRECAST CONCRETE TRACK BOX AT NORFOLK SOUTHERN EAST CROSSING
 6000'S: BOTTOM OF FACE OF CURB (FLOW LINE)

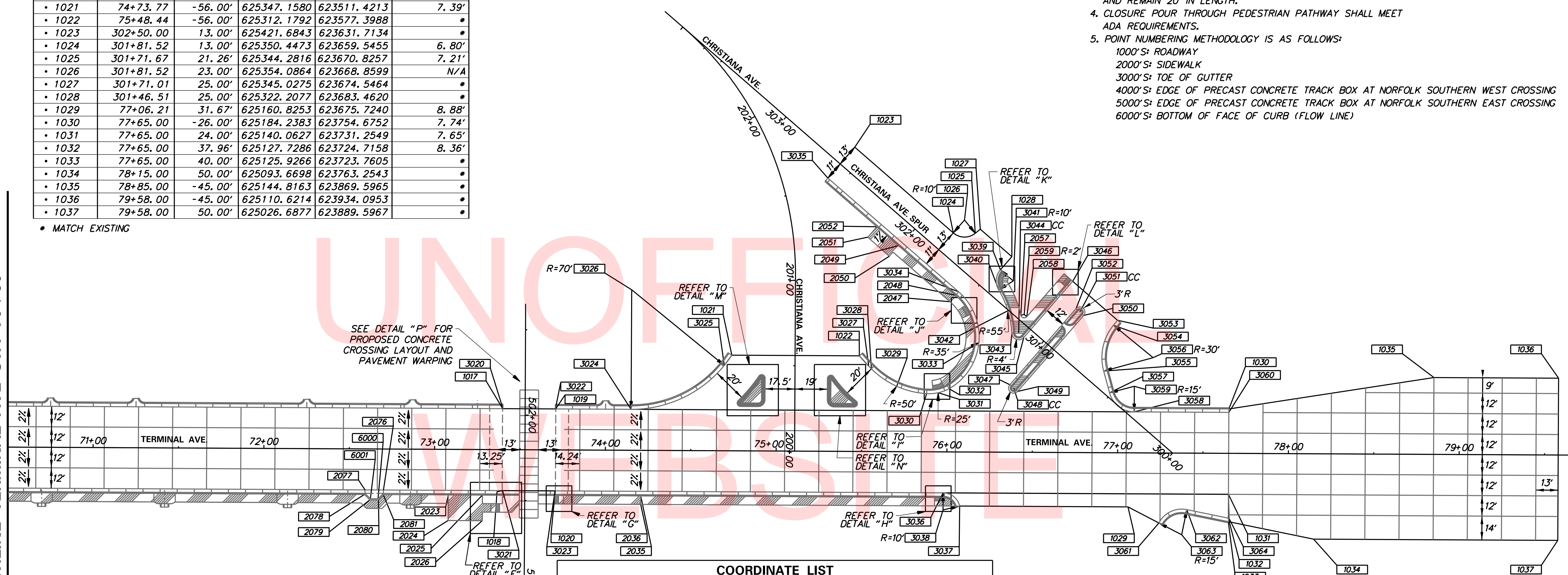
COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
• 1017	73+39.76	-24.00'	625381.6563	623378.0334	7.01'
• 1018	73+39.77	24.00'	625339.2430	623355.5587	7.06'
• 1019	73+70.76	-24.00'	625367.1357	623405.4223	6.99'
• 1020	73+70.76	24.00'	625324.7271	623382.9388	7.03'
• 1021	74+73.77	-56.00'	625347.1580	623511.4213	7.39'
• 1022	75+48.44	-56.00'	625312.1792	623577.3988	*
• 1023	302+50.00	13.00'	625421.6843	623631.7134	*
• 1024	301+81.52	13.00'	625350.4473	623659.5455	6.80'
• 1025	301+71.67	21.26'	625344.2816	623670.8257	7.21'
• 1026	301+81.52	23.00'	625354.0864	623668.8599	N/A
• 1027	301+71.01	25.00'	625345.0275	623674.5464	*
• 1028	301+46.51	25.00'	625322.2077	623683.4620	*
• 1029	77+06.21	31.67'	625160.8253	623675.7240	8.88'
• 1030	77+65.00	-26.00'	625184.2383	623754.6752	7.74'
• 1031	77+65.00	24.00'	625140.0627	623731.2549	7.65'
• 1032	77+65.00	37.96'	625127.7286	623724.7158	8.36'
• 1033	77+65.00	40.00'	625125.9266	623723.7605	*
• 1034	78+15.00	50.00'	625093.6698	623763.2543	*
• 1035	78+85.00	-45.00'	625144.8163	623869.5965	*
• 1036	79+58.00	-45.00'	625110.6214	623934.0953	*
• 1037	79+58.00	50.00'	625026.6877	623889.5967	*

* MATCH EXISTING

NOTES:

1. NEGATIVE OFFSET DENOTES TO THE LEFT OF BASELINE.
2. PROPOSED CONCRETE PANELS ARE 20' IN LENGTH UNLESS OTHERWISE NOTED.
3. PROPOSED CONCRETE PANEL WIDTH FROM STA 65+78.44 TO STA 66+58.44 VARY FROM 14.10' TO 12.00' RESPECTIVELY AND REMAIN 20' IN LENGTH.
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 1000'S: ROADWAY
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 3000'S: TOE OF GUTTER
 4000'S: EDGE OF PRECAST CONCRETE TRACK BOX AT NORFOLK SOUTHERN WEST CROSSING
 5000'S: EDGE OF PRECAST CONCRETE TRACK BOX AT NORFOLK SOUTHERN EAST CROSSING
 6000'S: BOTTOM OF FACE OF CURB (FLOW LINE)

MATCHLINE TERMINAL AVE STA 70+50



COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
• 2023	73+08.11	26.67'	625351.7145	623326.3418	6.74'
• 2024	73+08.11	41.67'	625338.4618	623319.3157	7.39'
• 2025	73+28.11	26.67'	625342.3461	623344.0119	6.85'
• 2026	73+28.11	41.67'	625329.0937	623336.9860	7.42'
• 2035	74+20.83	26.67'	625298.9148	623425.9326	7.63'
• 2036	74+20.83	31.67'	625294.4972	623423.5905	7.73'
• 2047	301+56.52	-18.67'	625315.6399	623639.1469	7.52'
• 2048	301+56.52	-13.67'	625317.4594	623643.8041	7.42'
• 2049	302+06.71	-13.67'	625358.7300	623627.6798	7.37
• 2050	302+06.71	-21.99'	625355.7019	623619.9291	*
• 2051	302+11.71	-21.75'	625371.4614	623614.0320	*
• 2052	302+11.71	-13.67'	625374.4014	623621.5570	7.35
• 2057	301+20.03	2.60'	625289.3854	623672.2349	7.95'
• 2058	301+16.84	4.21'	625287.0009	623674.8935	8.07'
• 2059	301+18.84	4.21'	625288.8638	623674.1657	N/A
• 2076	72+70.14	26.0'	625371.8571	623294.0416	6.73'
• 2077	72+59.36	26.0'	625376.9074	623284.5158	6.75'
• 2078	72+59.08	26.67'	625374.6829	623283.0185	7.27'
• 2079	72+62.23	29.82'	625370.4185	623284.3279	7.26'
• 2080	72+67.27	29.82'	625368.0602	623288.7763	7.26'
• 2081	72+70.14	26.67'	625369.3695	623293.0407	7.25'
• 6000	72+66.99	29.15'	625368.7281	623288.8449	6.84'
• 6001	72+62.51	29.15'	625370.8805	623284.8869	6.84'

* MATCH EXISTING

COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
• 3020	73+39.89	-24.00'	625381.5932	623378.1525	7.01'
• 3021	73+39.91	24.00'	625339.1747	623355.6876	7.06'
• 3022	73+70.60	-24.00'	625367.2087	623405.2847	6.99'
• 3023	73+70.62	24.00'	625324.7902	623382.8198	7.03'
• 3024	74+14.93	-24.00'	625346.4445	623444.4504	7.03'
• 3025	74+69.37	-50.00'	625343.9145	623504.7298	7.33'
• 3026	74+14.93	-94.00'	625408.2904	623477.2389	N/A
• 3027	75+53.96	-50.00'	625304.2925	623579.4653	*
• 3028	75+55.53	-48.45'	625302.1897	623580.1237	8.80'
• 3029	75+70.42	-38.30'	625286.2436	623588.5193	9.01'
• 3030	75+87.94	-34.08'	625274.3097	623602.0228	8.88'
• 3031	75+94.73	-34.63'	625271.6177	623608.2893	8.75'
• 3032	76+01.13	-37.01'	625270.7196	623615.0501	8.55'
• 3033	76+18.39	-64.04'	625286.5210	623642.9697	7.25'
• 3034	76+06.38	-93.79'	625318.4299	623646.2880	6.90'
• 3035	302+50.00	-11.00'	625412.9505	623609.3589	6.50
• 3036	75+97.91	24.00'	625218.3270	623583.6320	9.96'
• 3037	76+07.64	31.67'	625206.9983	623588.6320	10.09'
• 3038	75+97.91	34.00'	625209.4918	623578.9479	N/A
• 3039	301+46.51	14.80'	625318.4941	623673.9570	7.28'
• 3040	301+39.61	5.29'	625308.6087	623667.6124	7.23'
• 3041	301+36.51	14.80'	625309.1798	623677.5961	N/A
• 3042	301+27.46	-0.40'	625295.2244	623666.7399	7.32'
• 3043	301+17.05	-8.85'	625282.4492	623662.6537	7.33'
• 3044	301+14.17	-6.08'	625280.7752	623666.2865	7.90'
• 3045	301+10.17	-6.08	625277.0494	623667.7422	7.37'

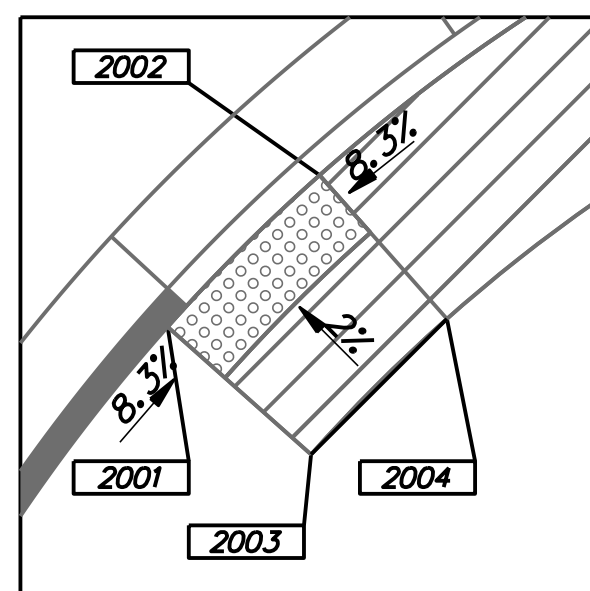
* MATCH EXISTING

COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
• 3046	301+10.17	37.50'	625292.9070	623708.3299	8.07'
• 3047	300+98.17	-32.36'	625256.3087	623647.6310	7.98'
• 3048	300+95.17	-32.36'	625253.5144	623648.7228	8.52'
• 3049	300+92.17	-32.36'	625250.7201	623649.8145	8.09'
• 3050	300+92.17	26.64'	625272.1908	623704.7691	7.76'
• 3051	300+95.17	26.64'	625274.9851	623703.6774	8.32'
• 3052	300+98.17	26.64'	625277.7794	623702.5857	7.83'
• 3053	300+75.37	37.50'	625260.4888	623720.9957	*
• 3054	300+75.25	33.75'	625259.0146	623717.5403	8.06'
• 3055	300+61.96	9.74'	625237.8986	623700.0201	7.75'
• 3056	300+45.26	34.67'	625231.4208	623729.3124	N/A
• 3057	300+51.02	2.42'	625225.0421	623697.1769	7.76'
• 3058	300+32.78	3.44'	625208.4324	623704.7704	7.77'
• 3059	300+42.57	14.81'	625221.6851	623711.7965	N/A
• 3060	77+65.00	-24.00'	625182.4713	623753.7384	7.89'
• 3061	77+24.37	40.99'	625144.0793	623687.3978	9.20'
• 3062	77+40.67	33.10'	625143.4196	623705.5045	8.54'
• 3063	77+37.73	47.80'	625131.8021	623696.0159	N/A
• 3064	77+65.39	38.04'	625127.4756	623725.0256	7.37'

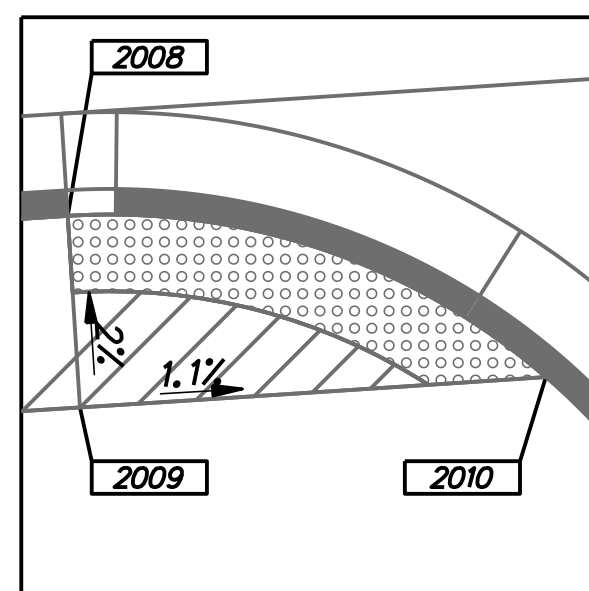
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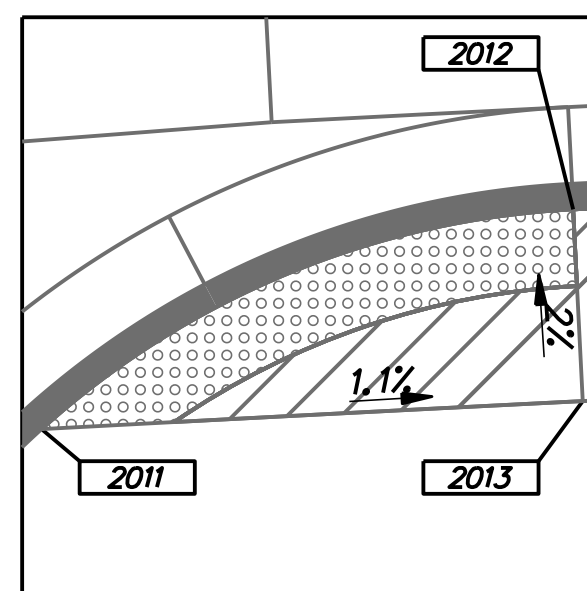
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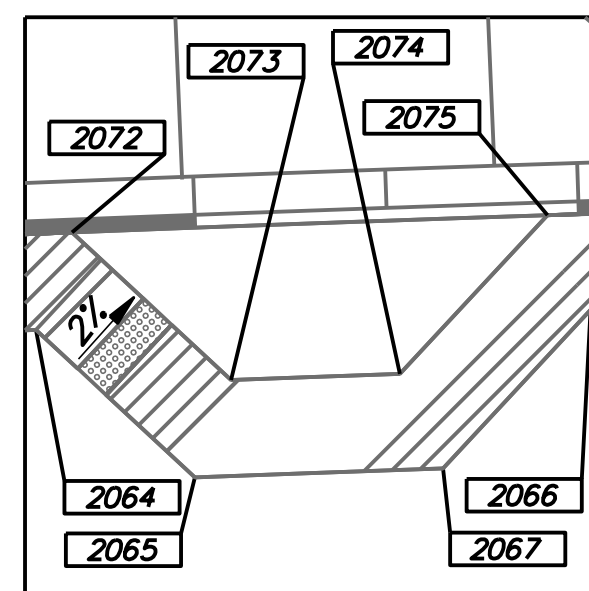
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SCALE 1:5



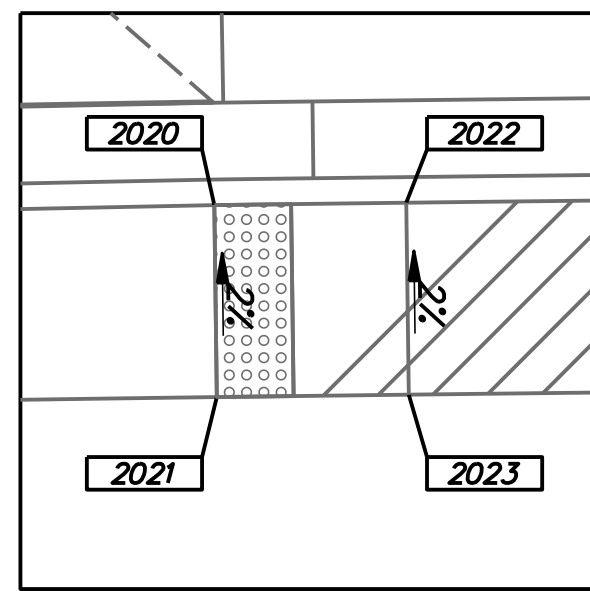
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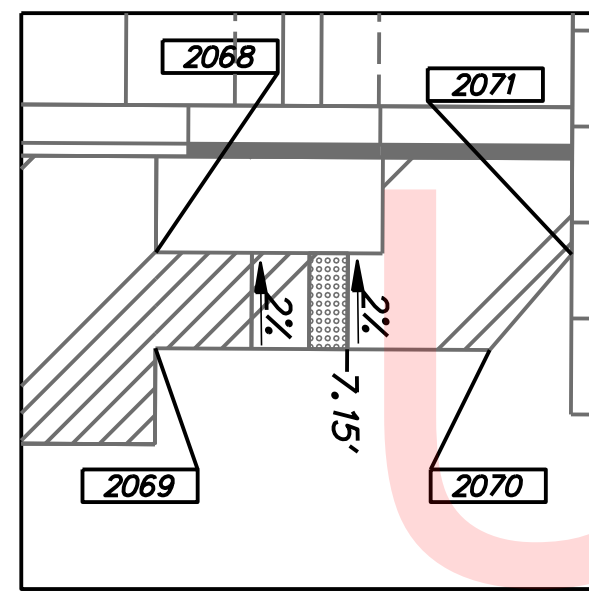
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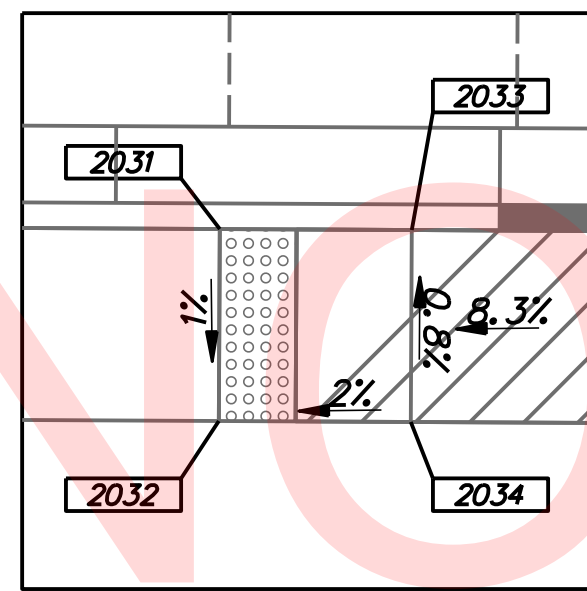
DETAIL "D"
SCALE 1:10



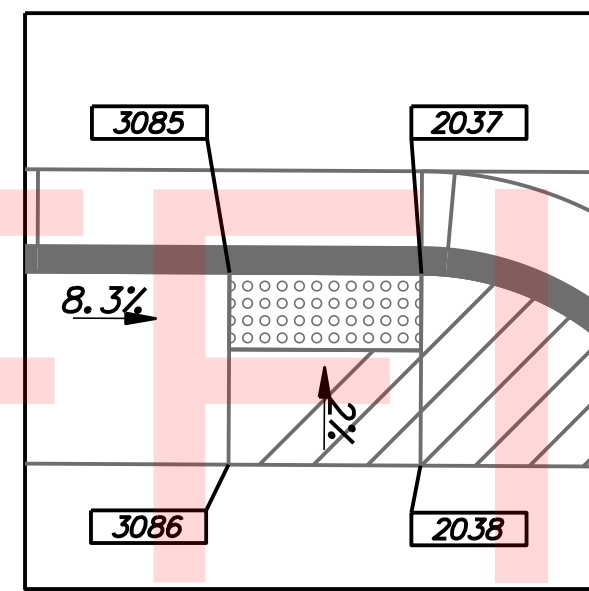
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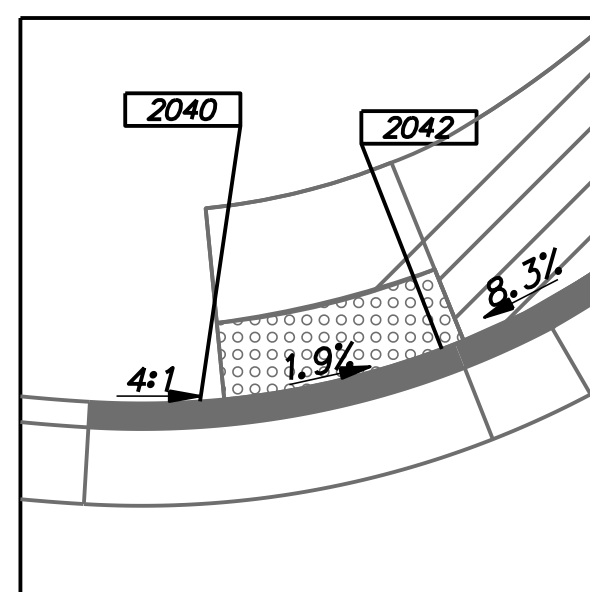
DETAIL "F"
SCALE 1:10



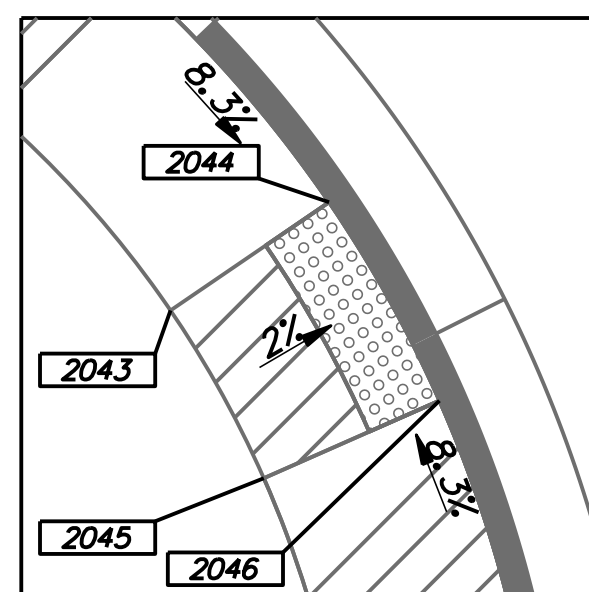
DETAIL "G"
SCALE 1:5



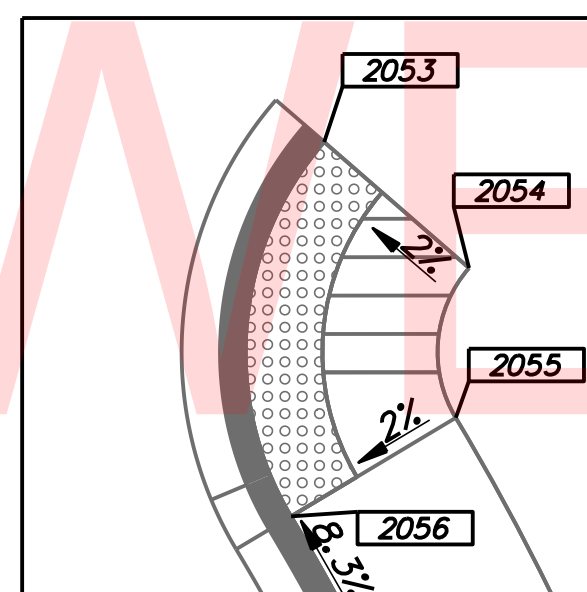
DETAIL "H"
SCALE 1:5



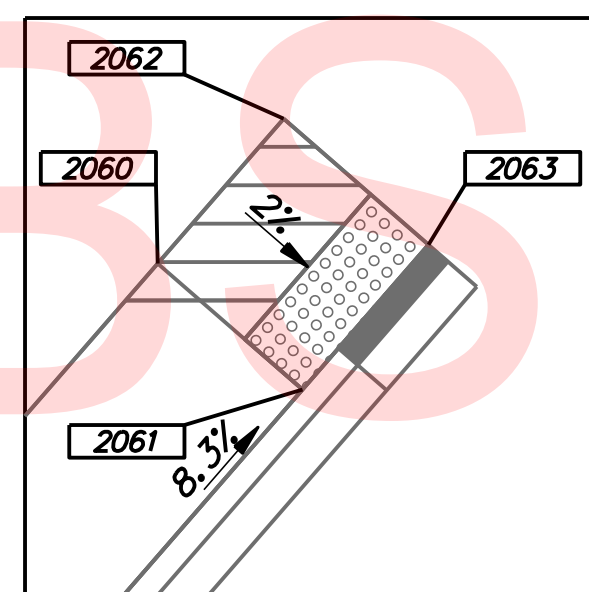
DETAIL "I"
SCALE 1:5



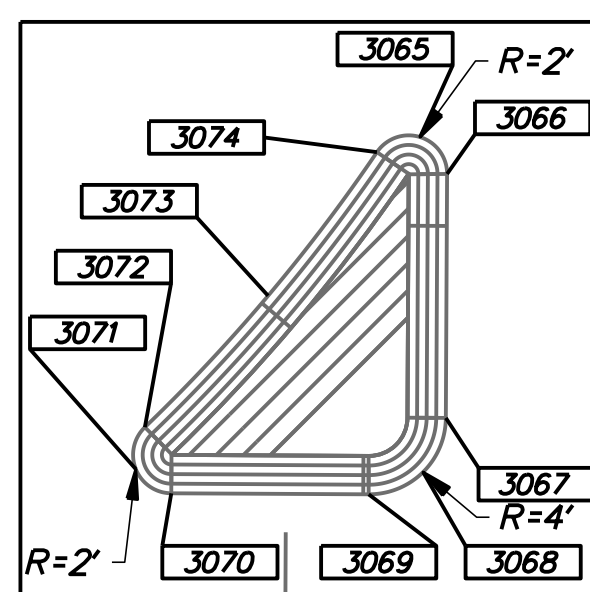
DETAIL "J"
SCALE 1:5



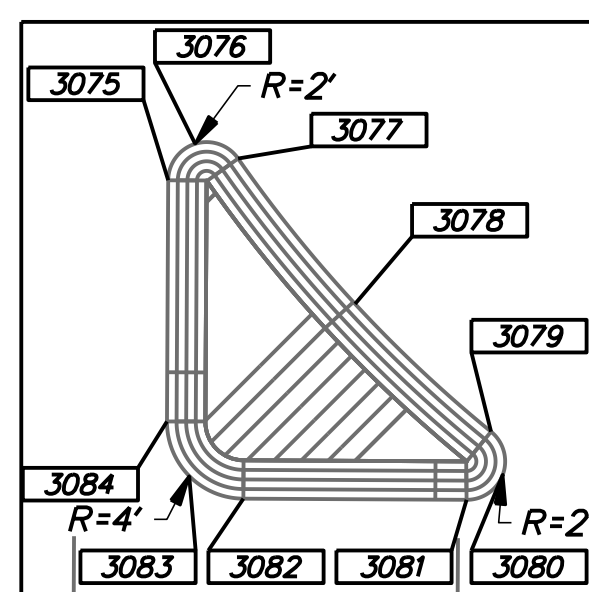
DETAIL "K"
SCALE 1:5



DETAIL "L"
SCALE 1:5



DETAIL "M"
SCALE 1:10



DETAIL "N"
SCALE 1:10

NOTES:

1. NEGATIVE OFFSET DENOTES TO THE LEFT OF BASELINE.
2. PROPOSED CONCRETE PANELS ARE 20' IN LENGTH UNLESS OTHERWISE NOTED.
3. PROPOSED CONCRETE PANEL WIDTH FROM STA 65+78.44 TO STA 66+58.44 VARY FROM 14.10' TO 12.00' RESPECTIVELY AND REMAIN 20' IN LENGTH.
4. CLOSURE POUR THROUGH PEDESTRIAN PATHWAY SHALL MEET ADA REQUIREMENTS.
5. POINT NUMBERING METHODOLOGY IS AS FOLLOWS:
 1000'S: ROADWAY
 2000'S: SIDEWALK
 3000'S: TOE OF GUTTER
 4000'S: EDGE OF PRECAST CONCRETE TRACK BOX AT NORFOLK SOUTHERN WEST CROSSING
 5000'S: EDGE OF PRECAST CONCRETE TRACK BOX AT NORFOLK SOUTHERN EAST CROSSING
 6000'S: BOTTOM OF FACE OF CURB (FLOW LINE)

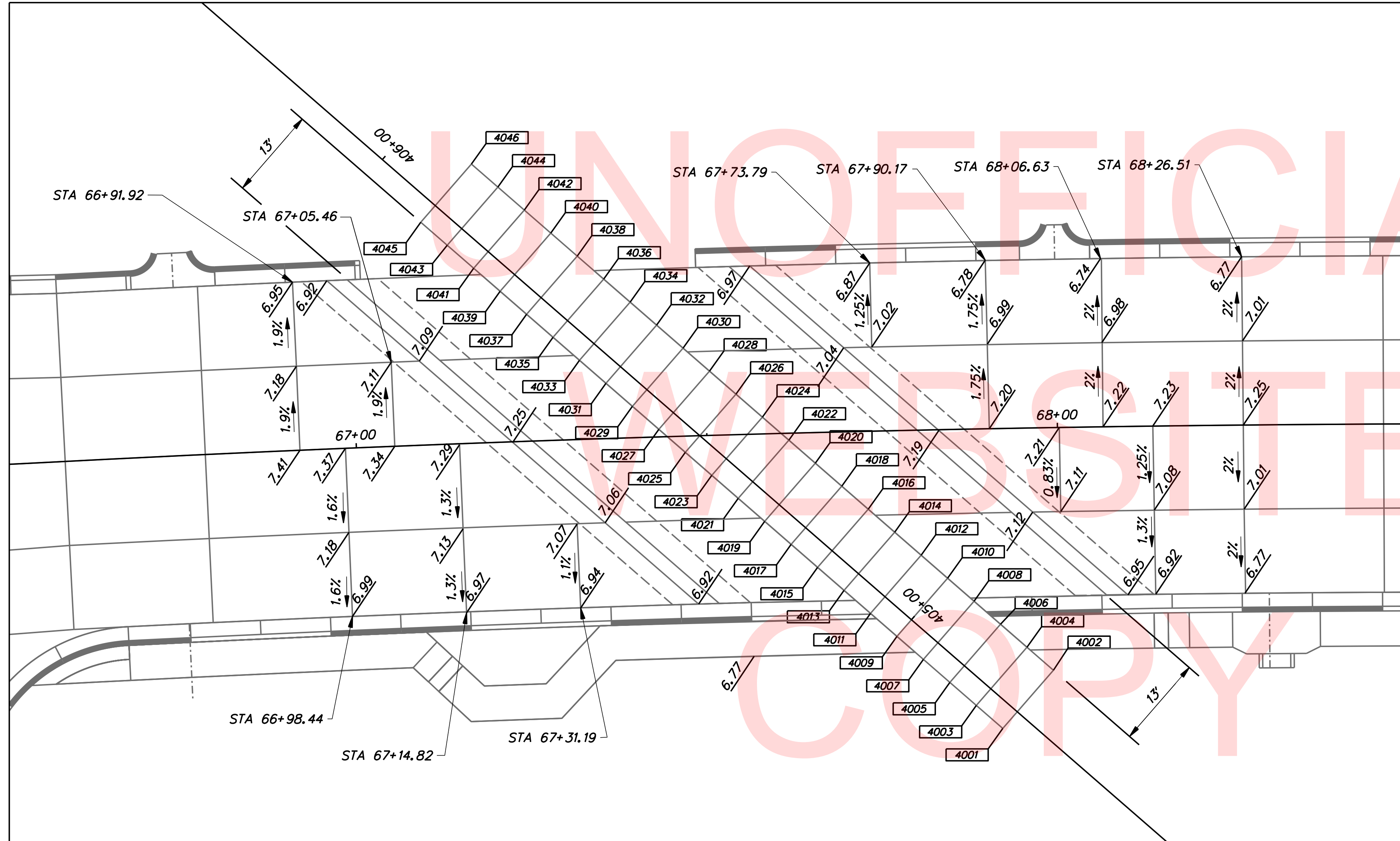
COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
• 2001	62+05.95	48.71	625836.8934	622336.3727	10.87
• 2002	62+09.89	44.74	625838.5566	622341.7102	10.75
• 2003	62+09.71	52.02	625832.2160	622338.1395	10.97
• 2004	62+13.23	48.47	625833.7034	622342.9131	10.85
• 2008	66+00.85	28.18	625672.7515	622697.6168	7.68
• 2009	66+00.98	33.18	625668.1835	622695.5837	7.78
• 2010	66+13.04	32.86	625663.2556	622706.7011	7.71
• 2011	66+52.09	31.68	625647.6726	622742.8712	7.34
• 2012	66+66.22	26.67	625646.3207	622757.7918	7.02
• 2013	66+66.22	31.67	625641.7808	622755.6964	7.12
• 2020	68+13.44	26.67	625582.6058	622889.4168	6.83
• 2021	68+13.44	31.67	625578.1462	622887.1559	6.93
• 2022	68+18.47	26.67	625580.3421	622893.8750	6.78
• 2023	68+18.48	31.67	625575.8825	622891.6141	6.88
• 2031	73+70.62	26.67	625322.4339	623381.5705	6.94
• 2032	73+70.62	31.67	625318.0163	623379.2285	6.89
• 2033	73+75.62	26.67	625320.0919	623385.9881	6.95
• 2034	73+75.62	31.67	625315.6743	623383.6461	6.99
• 2037	75+97.23	26.67	625216.2878	623581.7850	9.17
• 2038	75+97.23	31.67	625211.8700	623579.4429	9.27
• 2040	75+90.96	-36.77	625275.2695	623605.9544	8.72
• 2042	75+97.25	-38.16	625273.5579	623612.1652	8.60
• 2043	301+49.61	-19.56	625308.8746	623640.8353	6.93
• 2044	301+48.34	-14.72	625309.4566	623645.8013	6.83
• 2045	301+44.90	-21.26	625303.8762	623640.9606	6.94
• 2046	301+42.78	-16.73	625303.5438	623645.9496	6.84
• 2053	301+44.85	14.80	625316.9417	623674.5635	7.27
• 2054	301+39.85	14.80	625312.2845	623676.3831	7.37
• 2055	301+37.55	11.63	625308.9894	623674.2683	7.32
• 2056	301+39.10	6.87	625308.7039	623669.2764	7.22
• 2060	301+16.84	32.50	625297.2971	623701.2467	8.06
• 2061	301+11.84	32.50	625292.6399	623703.0662	7.96
• 2062	301+16.84	37.50	625299.1166	623705.9039	8.16
• 2063	301+11.84	37.50	625294.4594	623707.7234	8.06
• 2064	67+06.85	31.67	625624.7028	622792.2098	7.50
• 2065	67+14.89	39.67	625614.0545	622795.9795	7.73
• 2066	67+35.99	31.67	625612.2267	622818.2889	6.74
• 2067	67+27.96	39.67	625608.4724	622807.6477	7.68
• 2068	73+28.11	31.67	625337.9288	623341.6701	6.96
• 2069	73+28.11	36.67	625333.5112	623339.3280	7.06
• 2070	73+45.53	36.67	625325.3545	623354.7133	7.06
• 2071	73+49.77	31.67	625327.7839	623360.8056	7.13
• 2072	67+08.94	26.67	625628.3302	622796.2298	7.50
• 2073	67+16.99	34.67	625617.6762	622800.0014	7.65
• 2074	67+25.86	34.67	625613.8779	622807.9410	7.63
• 2075	67+33.89	26.67	625617.6343	622818.5877	6.85
• 3065	74+91.89	-44.62	625328.6168	623522.1041	8.03
• 3066	74+93.31	-42.71	625326.2627	623522.4600	8.11
• 3067	74+93.31	-30.00	625315.0338	623516.5069	8.27
• 3068	74+92.14	-27.17	625313.0837	623514.1470	8.32
• 3069	74+89.31	-26.00	625313.3734	623511.0992	8.36
• 3070	74+79.02	-26.00	625318.1896	623502.0148	8.12
• 3071	74+77.17	-27.25	625320.1605	623500.9621	8.02
• 3072	74+77.63	-29.43	625321.8769	623502.3927	7.92
• 3073	74+84.01	-36.32	625324.9665	623511.2555	7.96
• 3074	74+89.65	-43.82	625328.9623	623519.7483	7.98
• 3075	75+29.81	-42.57	625309.0386	623554.6408	8.60
• 3076	75+31.20	-44.47	625310.0691	623556.7676	8.59
• 3077	75+33.44	-43.72	625308.3525	623558.3920	8.63
• 3078	75+39.57	-36.17	625298.8174	623560.2772	8.83
• 3079	75+46.69	-29.56	625289.6354	623563.4650	9.17
• 3080	75+47.32	-27.33	625287.3776	623562.9794	9.23
• 3081	75+45.43	-26.00	625287.0828	623560.6889	9.29
• 3082	75+33.81	-26.00	625292.5293	623550.4156	9.20
• 3083	75+30.98	-27.17	625294.8893	623548.4654	9.05
• 3084	75+29.81	-30.00	625297.9370	623548.7551	8.90
• 3085	75+92.91	26.67	625218.2853	623577.9507	9.22
• 3086	75+92.91	31.67	625213.8951	623575.6231	9.32

UNOFFICIAL WEBSITE COPY

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 5000'S: EDGE OF PRECAST CONCRETE TRACK BOX AT NORFOLK SOUTHERN EAST CROSSING
 6000'S: BOTTOM OF FACE OF CURB (FLOW LINE)

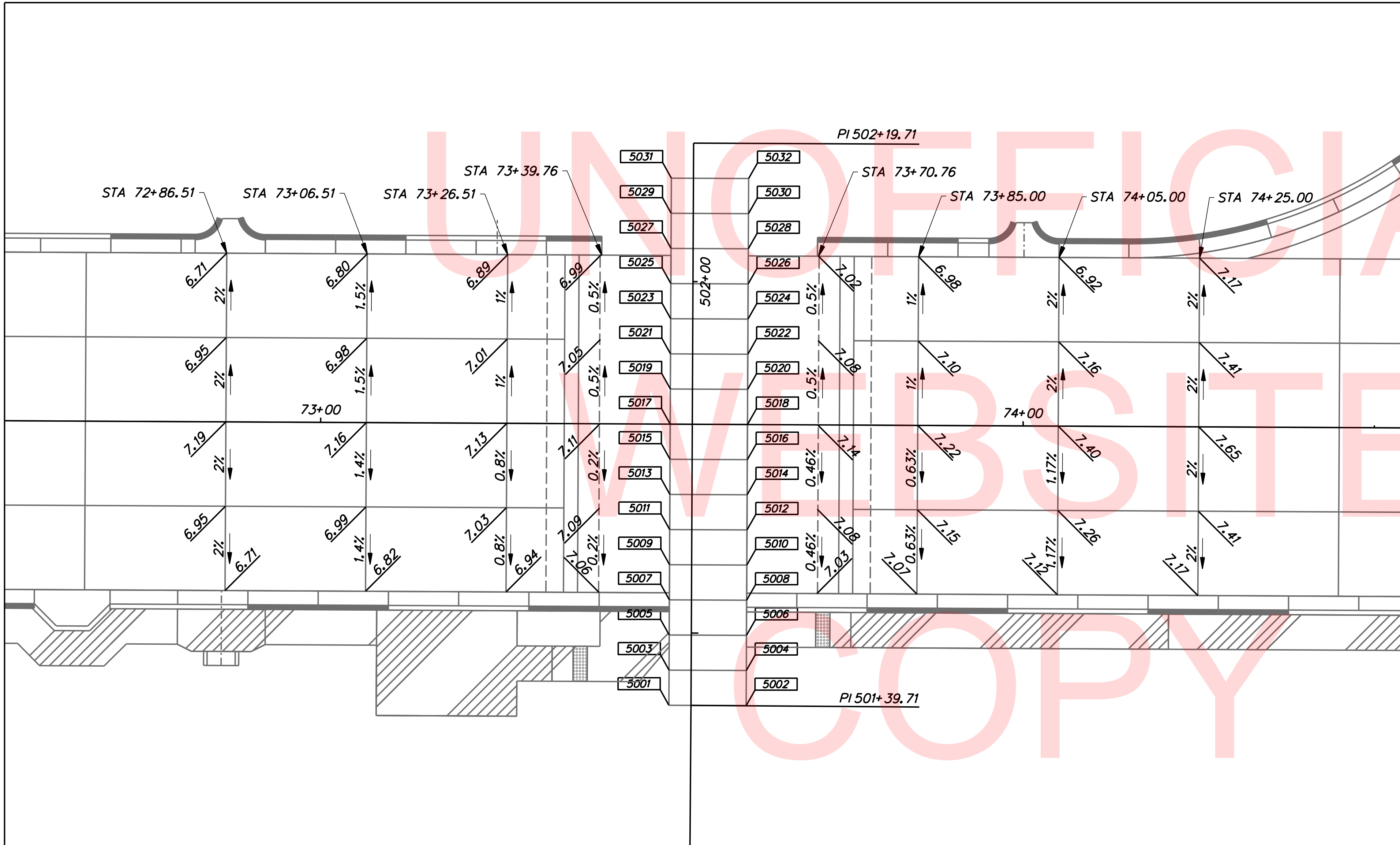


DETAIL "O"

COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
4001	404+80.00	-3.15	625578.0344	622862.6639	7.24
4002	404+80.00	7.85	625582.0365	622872.9100	7.24
4003	404+85.00	-3.15	625582.6918	622860.8448	7.23
4004	404+85.00	7.85	625586.6939	622871.0909	7.23
4005	404+90.00	-3.15	625587.3491	622859.0256	7.22
4006	404+90.00	7.85	625591.3512	622869.2717	7.22
4007	404+95.00	-3.15	625592.0064	622857.2065	7.22
4008	404+95.00	7.85	625596.0085	622867.4526	7.22
4009	405+00.00	-3.15	625596.6637	622855.3873	7.21
4010	405+00.00	7.85	625600.6659	622865.6335	7.21
4011	405+05.00	-3.15	625601.3211	622853.5682	7.20
4012	405+05.00	7.85	625605.3232	622863.8143	7.20
4013	405+10.00	-3.15	625605.9784	622851.7490	7.19
4014	405+10.00	7.85	625609.9805	622861.9952	7.19
4015	405+15.00	-3.15	625610.6357	622849.9299	7.19
4016	405+15.00	7.85	625614.6378	622860.1760	7.19
4017	405+20.00	-3.15	625615.2931	622848.1108	7.18
4018	405+20.00	7.85	625619.2952	622858.3569	7.18
4019	405+25.00	-3.15	625619.9504	622856.2916	7.17
4020	405+25.00	7.85	625623.9525	622856.5378	7.17
4021	405+30.00	-3.15	625624.6077	622844.4725	7.16
4022	405+30.00	7.85	625628.6098	622854.7186	7.16
4023	405+35.00	-3.15	625629.2651	622842.6533	7.16
4024	405+35.00	7.85	625633.2672	622852.8995	7.16
4025	405+40.00	-3.15	625633.9224	622840.8342	7.15
4026	405+40.00	7.85	625637.9245	622851.0803	7.15
4027	405+45.00	-3.15	625638.5797	622839.0151	7.14
4028	405+45.00	7.85	625642.5818	622849.2612	7.14
4029	405+50.00	-3.15	625643.2370	622837.1959	7.13
4030	405+50.00	7.85	625647.2392	622847.4420	7.13
4031	405+55.00	-3.15	625647.8944	622835.3768	7.12
4032	405+55.00	7.85	625651.8965	622845.6229	7.12
4033	405+60.00	-3.15	625652.5517	622833.5576	7.12
4034	405+60.00	7.85	625656.5538	622843.8038	7.12
4035	405+65.00	-3.15	625657.2090	622831.7385	7.11
4036	405+65.00	7.85	625661.2112	622841.9846	7.11
4037	405+70.00	-3.15	625661.8664	622829.9194	7.10
4038	405+70.00	7.85	625665.8685	622840.1655	7.10
4039	405+75.00	-3.15	625666.5237	622828.1002	7.09
4040	405+75.00	7.85	625670.5258	622838.3463	7.09
4041	405+80.00	-3.15	625671.1810	622826.2811	7.09
4042	405+80.00	7.85	625675.1831	622836.5272	7.09
4043	405+85.00	-3.15	625675.8384	622824.4619	7.08
4044	405+85.00	7.85	625679.8405	622834.7081	7.08
4045	405+90.00	-3.15	625680.4957	622822.6428	7.07
4046	405+90.00	7.85	625684.4978	622832.8889	7.07

NOTES:

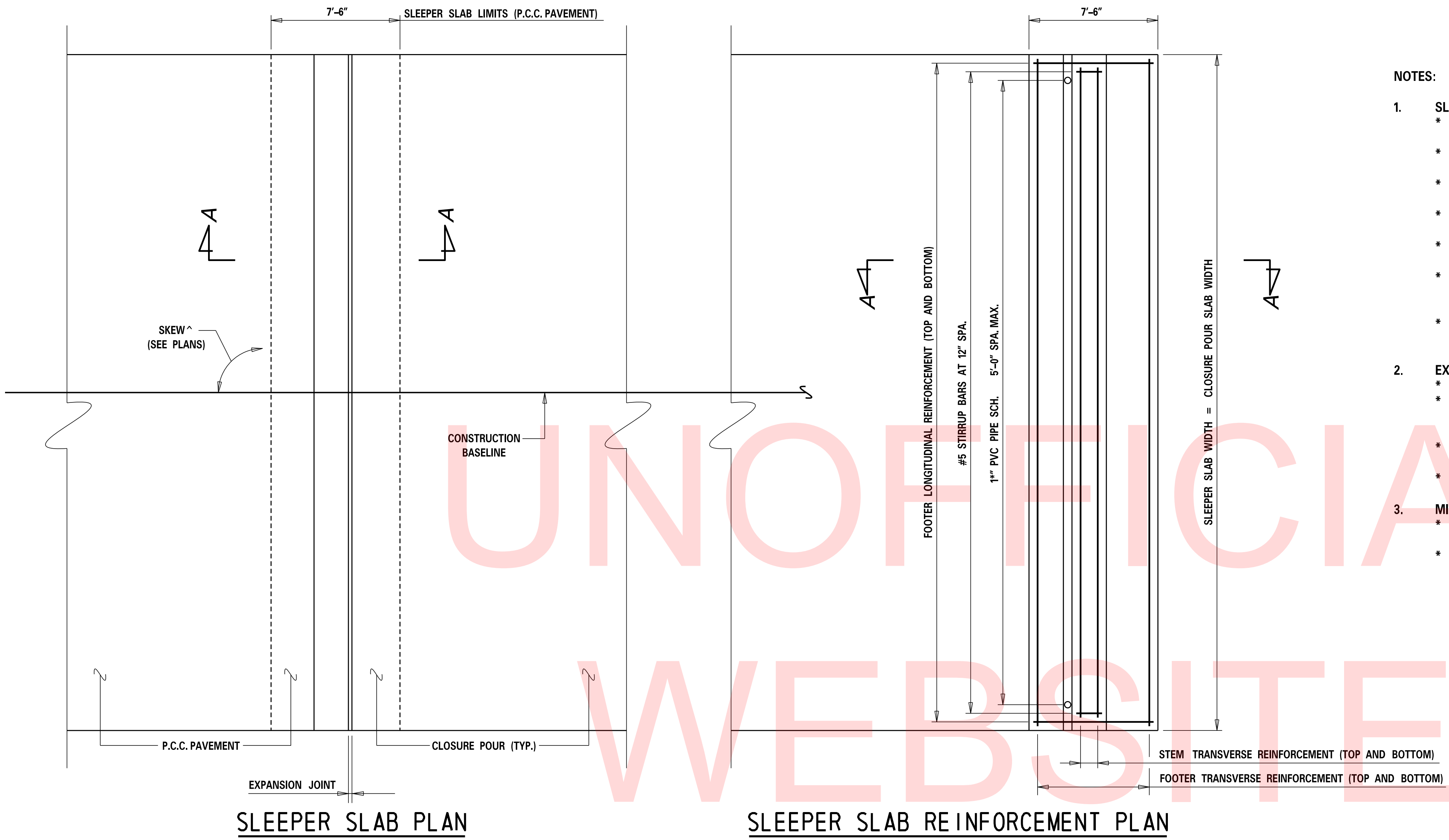
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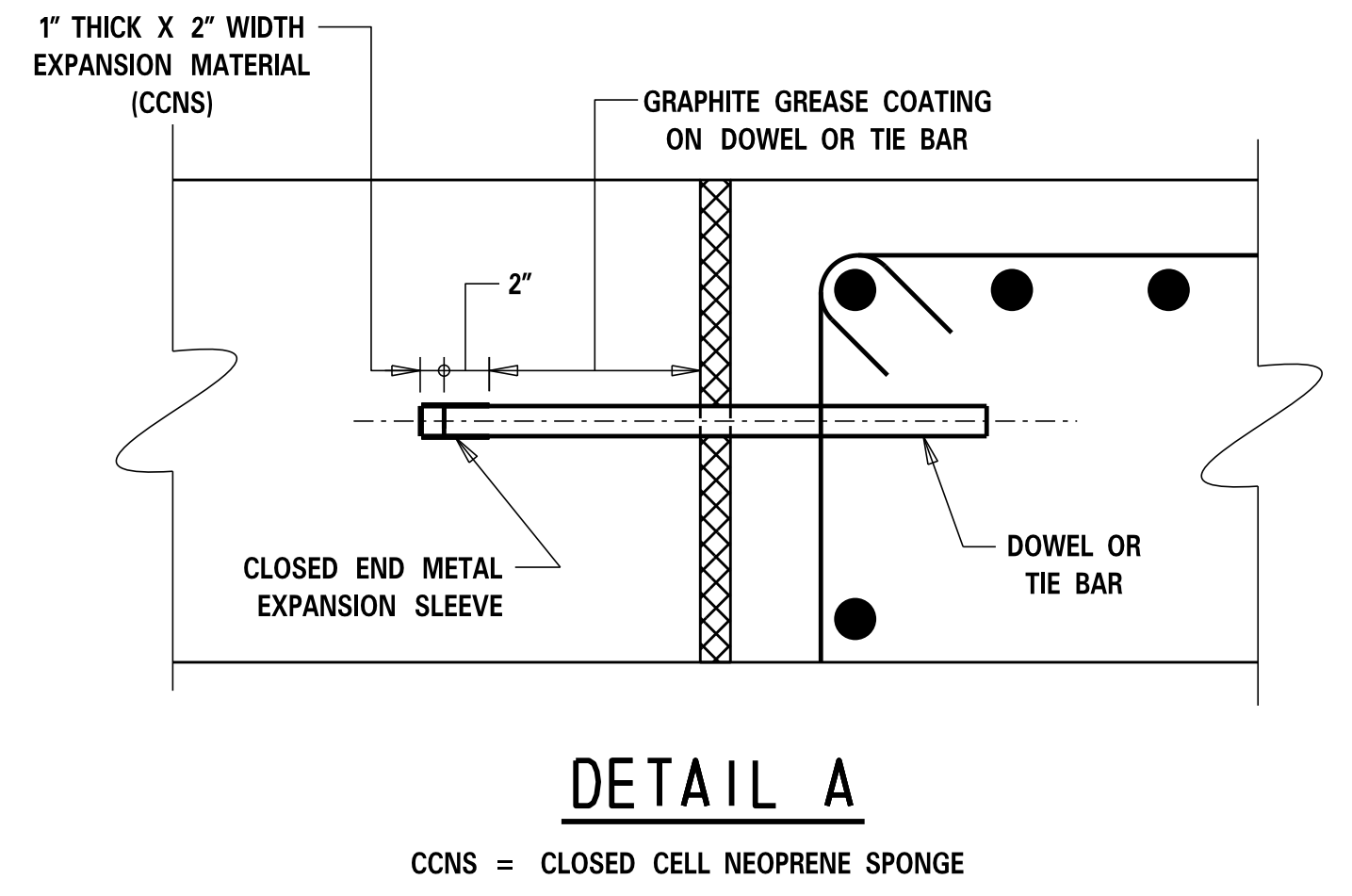
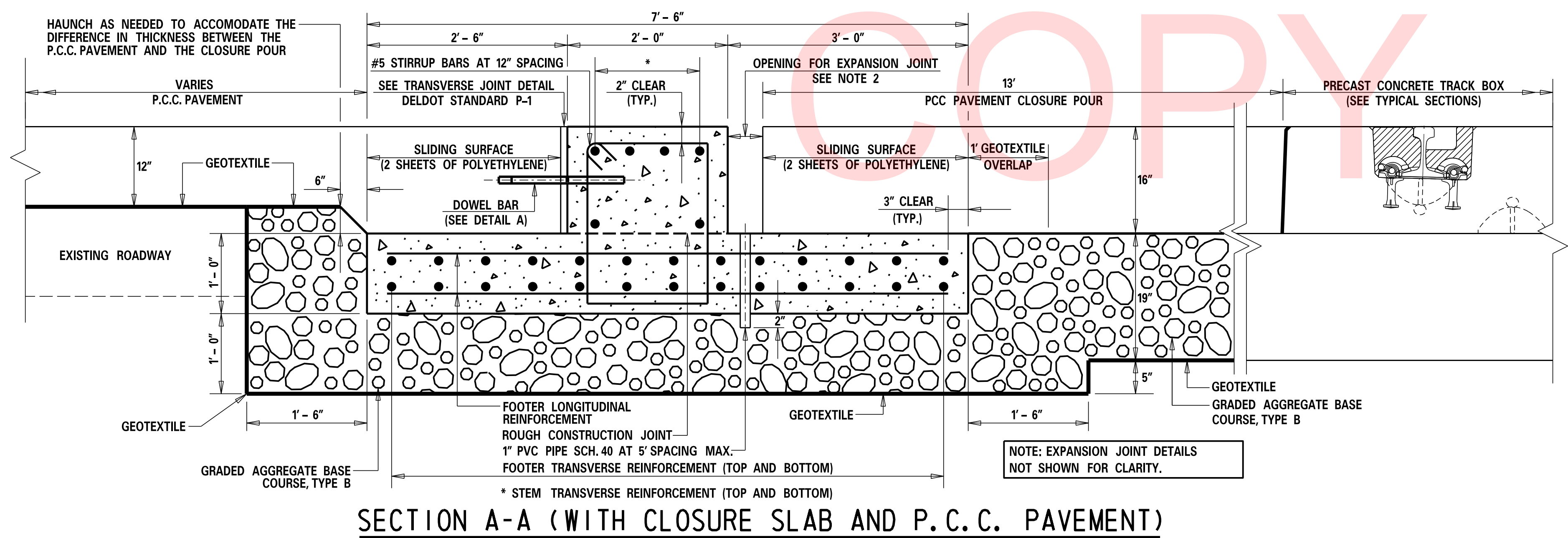
DETAIL "P"

COORDINATE LIST					
POINT NO.	STATION	OFFSET	NORTHING	EASTING	ELEVATION
5001	501+39.70	-3.15	625320.4185	623356.9046	7.13
5002	501+39.71	7.85	625315.2701	623366.6254	7.13
5003	501+44.71	-3.15	625324.8370	623359.2448	7.12
5004	501+44.71	7.85	625319.6886	623368.9656	7.12
5005	501+49.71	-3.15	625329.2556	623361.5850	7.12
5006	501+49.71	7.85	625324.1071	623371.3058	7.12
5007	501+54.71	-3.15	625333.6741	623363.9252	7.11
5008	501+54.71	7.85	625328.5257	623373.6460	7.11
5009	501+59.71	-3.15	625338.0926	623366.2654	7.11
5010	501+59.71	7.85	625332.9442	623375.9862	7.11
5011	501+64.71	-3.15	625342.5112	623368.6056	7.11
5012	501+64.71	7.85	625337.3627	623378.3264	7.11
5013	501+69.71	-3.15	625346.9297	623370.9458	7.10
5014	501+69.71	7.85	625341.7813	623380.6666	7.10
5015	501+74.71	-3.15	625351.3483	623373.2860	7.10
5016	501+74.71	7.85	625346.1998	623383.0068	7.10
5017	501+79.71	-3.15	625355.7668	623375.6262	7.09
5018	501+79.71	7.85	625350.6184	623385.3470	7.09
5019	501+84.71	-3.15	625360.1853	623377.9664	7.09
5020	501+84.71	7.85	625355.0369	623387.6872	7.09
5021	501+89.71	-3.15	625364.6039	623380.3066	7.09
5022	501+89.71	7.85	625359.4554	623390.0274	7.09
5023	501+94.71	-3.15	625369.0224	623382.6468	7.08
5024	501+94.71	7.85	625363.8740	623392.3676	7.08
5025	501+99.71	-3.15	625373.4410	623384.9870	7.08
5026	501+99.71	7.85	625368.2925	623394.7078	7.08
5027	502+04.71	-3.15	625377.8595	623387.3272	7.07
5028	502+04.71	7.85	625372.7111	623397.0479	7.07
5029	502+09.71	-3.15	625382.2780	623389.6674	7.07
5030	502+09.71	7.85	625377.1296	623399.3881	7.07
5031	502+14.71	-3.15	625386.6966	623392.0075	7.06
5032	502+14.71	7.85	625381.5481	623401.7283	7.06

2/12/2018 9:50:45 AM \\vmdofiles\snop\PROJECTS\115013\00 (DelDOT Agrmt 1583 DOTs Open-End)\115013\14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\td01_Term.dgn



- NOTES:**
- SLEEPER SLAB:**
 - * SLEEPER SLAB SHALL BE PRECAST AND MEET THE APPLICABLE REQUIREMENTS OF SECTION 612, PRECAST CONCRETE.
 - * PROVIDE DESIGN AND WORKING DRAWINGS FOR SLEEPER SLAB IN ACCORDANCE WITH SECTION 612.03 A AND B.
 - * DESIGN SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF DELAWARE.
 - * PORTLAND CEMENT CONCRETE SHALL BE CLASS A ($f'_c = 4500$ psi) AND SHALL MEET THE REQUIREMENTS OF SECTION 1022, PORTLAND CEMENT CONCRETE PRODUCTION.
 - * BAR REINFORCEMENT SHALL BE GRADE 60, EPOXY COATED AND SHALL MEET THE REQUIREMENTS OF SECTION 1037, EMBEDDED REINFORCEMENT AND HARDWARE.
 - * SLEEPER SLAB MAY BE FABRICATED IN 4 SECTIONS. IF 4 SECTIONS ARE USED, PROVIDE A 12" JOINT BETWEEN SLEEPER SLAB ELEMENTS AT THE PROPOSED LONGITUDINAL CONCRETE PAVEMENT JOINT LOCATIONS. SEAL THE JOINT WITH SILICON JOINT SEALER SYSTEM.
 - * PAYMENT FOR ALL WORK LISTED UNDER NOTE 1 SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 610000 PORTLAND CEMENT CONCRETE MASONRY, CLASS A.
 - EXPANSION JOINTS:**
 - * JOINT OPENING SHALL BE 1" AT 68°F.
 - * EXPANSION JOINT MATERIAL SHALL CONFORM TO WABO FS BRIDGE SEAL, AS MANUFACTURED BY WATSON BOWMAN ACME CORPORATION OR BEJS SEAL, AS MANUFACTURED BY EMSEAL JOINT SYSTEMS LTD., OR APPROVED EQUAL.
 - * EXPANSION JOINT MATERIAL INSTALLATION SHALL CONFORM TO THE MANUFACTURERS SPECIFICATIONS.
 - * PAYMENT SHALL BE UNDER ITEM 624008 - CLOSED-CELL JOINT SEAL.
 - MISCELLANEOUS:**
 - * DOWELS FOR PCC PAVEMENT/SLEEPER SLAB JOINT SHALL BE INCIDENTAL TO ITEM 501000 PORTLAND CEMENT CONCRETE PAVEMENT, 12".
 - * POLYETHYLENE SLIDING SURFACES SHALL BE INCIDENTAL TO ITEM 610000 PORTLAND CEMENT CONCRETE MASONRY, CLASS A.



SECTION A-A (WITH CLOSURE SLAB AND P.C.C. PAVEMENT)

ADDENDUMS / REVISIONS	

NOT TO SCALE

TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

CONTRACT T201500509	BRIDGE NO. NA
COUNTY NEW CASTLE	DESIGNED BY: TMB CHECKED BY: WFC

CONSTRUCTION DETAILS

SHEET NO. 17
TOTAL SHTS. 34

TRAFFIC CONTROL NOTES

- AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

()	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
(X)	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 801000.
()	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM 801000.

- THIS PROJECT IS CONSIDERED A SIGNIFICANT PROJECT AS DEFINED BY DELDOT'S WORK ZONE MOBILITY PROCEDURES AND GUIDELINES. A TYPE B TRANSPORTATION MANAGEMENT PLAN (TMP) HAS BEEN PREPARED AND IS AVAILABLE FOR VIEWING BY CONTACTING THE DEPARTMENT'S SAFETY PROGRAMS MANAGER AT (302)659-4060. ALL MONITORING REQUIREMENTS OF THE TMP SHALL BE CONDUCTED BY DELDOT FORCES UNLESS OTHERWISE DIRECTED BY THE ENGINEER. MODIFICATIONS TO THE TMP SHALL BE COMPLETED BY THE CONTRACTOR IF CHANGES TO THE TIME RESTRICTIONS OR THE TRAFFIC CONTROL PLAN ARE DESIRED. THE MODIFIED TMP SHALL BE PREPARED BY A PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF DELAWARE.
- THE USE OF MILLINGS AND GRADED AGGREGATE BASE COURSE (GABC) IN THE TRAVEL WAY, TEMPORARY TRAVEL WAY, HIGH VOLUME ENTRANCES AND ACCESS RAMP FOR THE PURPOSE OF PROVIDING A TEMPORARY ROADWAY SURFACE, POTHOLE REPAIR, TAPERED EDGE FOR UTILITIES, BUTT JOINTS, AND LONGITUDINAL DROP-OFFS (MILLING AND PAVING OPERATIONS) IS PROHIBITED UNLESS IT IS OTHERWISE DESIGNATED TO BE USED IN THE CONTRACT PLANS. USE COLD PATCH, BITUMINOUS CONCRETE, BITUMINOUS CONCRETE WEDGE, OR TAPER MILL, AS NOTED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE ENGINEER. PAYMENT FOR COLD PATCH, BITUMINOUS CONCRETE OR BITUMINOUS CONCRETE WEDGE SHALL BE PAID AS NOTED IN THE CONTRACT DOCUMENTS. TAPER MILL BITUMINOUS CONCRETE SHALL BE PAID UNDER THE BITUMINOUS CONCRETE MILLING ITEM.

MILLINGS OR GABC SHALL BE USED AT THE FOLLOWING LOCATIONS WHERE ACCESS TO A BUSINESS, RESIDENCE, OR EDGE DROP OFF NEEDS TO BE MAINTAINED UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE ENGINEER TO USE BITUMINOUS CONCRETE OR COLD PATCH. ALL MILLINGS AND GABC WILL BE ROLLED AND COMPACTED TO HELP PREVENT THE MATERIAL FROM UNRAVELLING:

- DRIVEWAYS
- ENTRANCES
- LOW VOLUME ACCESS RAMPS (IDENTIFIED IN THE CONTRACT DOCUMENTS)
- EDGE DROP-OFFS ADJACENT TO LIVE ROADWAY(LANES AND SHOULDER) AND THE PROPOSED ROAD CONSTRUCTION
- EDGE OF ROADWAY DROP-OFF

GRADING AND MAINTAINING BASE COURSE THAT IS BEING USED FOR ROADWAY WEDGE/FILLET BETWEEN TRAVEL LANES AND PAVEMENT BOX, EDGE OF TRAVELWAY, DRIVEWAY OR ENTRANCE ACCESS SHALL BE INCIDENTAL TO ITEM NO. 801000 - MAINTENANCE OF TRAFFIC. THE BASE COURSE MATERIAL SHALL BE PLACED AT NO GREATER THAN THE SLOPE SPECIFIED IN TABLE 6G-1 AND SHALL BE COMPACTED. EXCESS BASE COURSE MATERIAL SHALL BE PUSHED AHEAD AND USED IN THE NEXT SEGMENT AND SHALL BE INCIDENTAL TO THE PARTICULAR BASE COURSE PAY ITEM. NO SEPARATE PAYMENT SHALL BE MADE FOR MILLINGS OR GABC TEMPORARY ROADWAY MATERIAL (TRM) USED TO PROTECT EDGE DROP-OFFS, UNLESS THE MATERIAL IS EVENTUALLY UTILIZED AS PART OF A PERMANENT ROADWAY AT WHICH TIME THE MATERIAL WOULD BE PAID FOR UNDER THE RESPECTIVE CONTRACT MATERIAL ITEM.

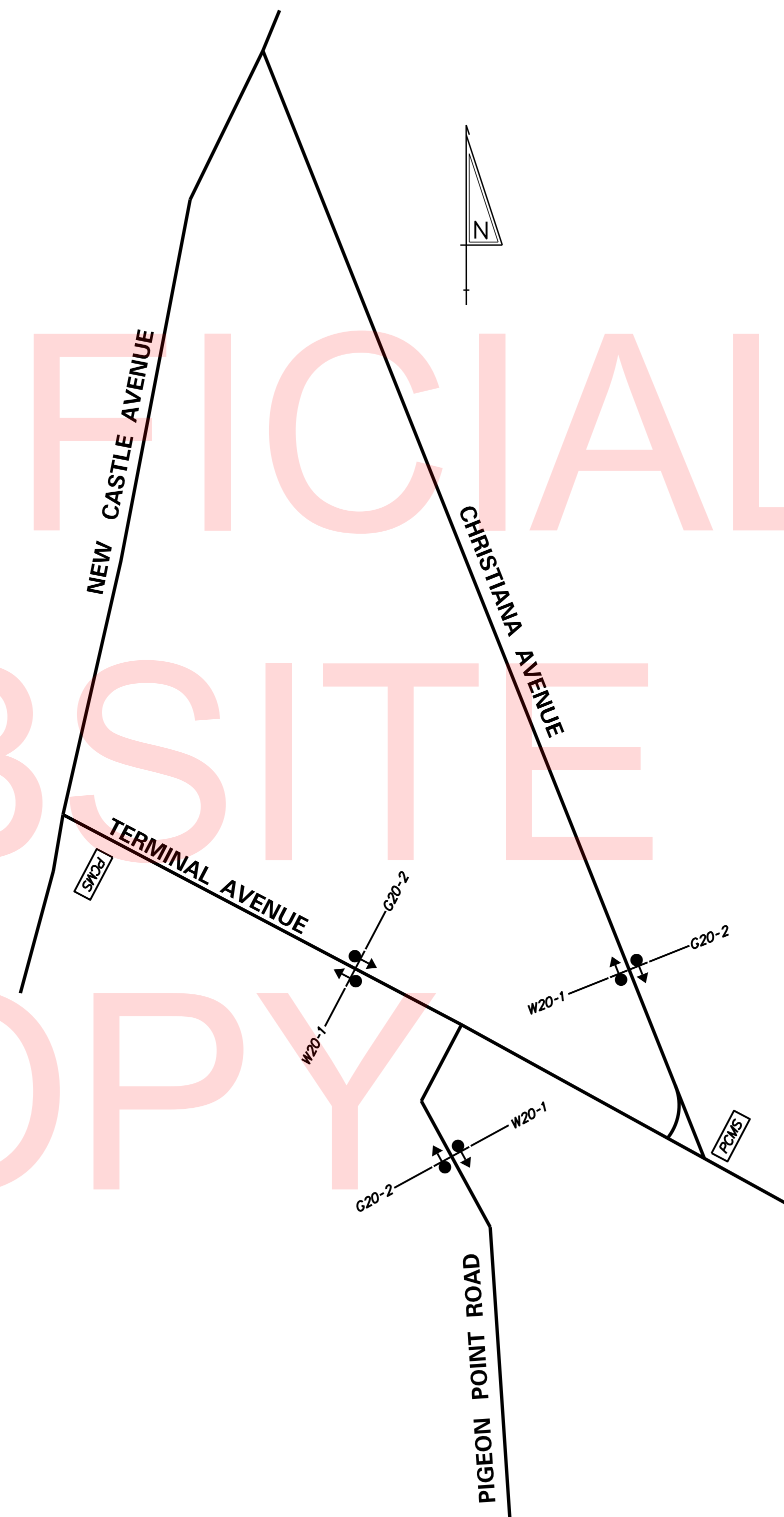
- CONTACT THE HAULING PERMIT OFFICE AT (302) 744-2700 FOR DELDOT'S OVERSIZE OVERWEIGHT PERMIT SYSTEM (OOPS) TO REQUEST POSTING ANY LANE RESTRICTIONS OR ROAD CLOSURES ON THE TEMPORARY ROUTE RESTRICTIONS WEBPAGE AT LEAST TWO WEEKS IN ADVANCE OF NEW TRAFFIC PATTERNS.
- THE CONTRACTOR MUST SUBMIT A CONCRETE POURING SCHEDULE ONE WEEK BEFORE THE FIRST DAY OF WORK. THE POURING SCHEDULE SHALL INCLUDE CALENDAR DATES OF HARDWARE PLACEMENT, POURING, CURING, AND SAW CUTTING OF JOINTS FOR EACH POUR IN EACH PHASE. COST IS INCIDENTAL TO ITEM 763501, CONSTRUCTION ENGINEERING.
- ALL DRUMS SHALL BE PLACED 25' ON CENTER UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- IN ORDER TO MAINTAIN TRAFFIC, THE CONTRACTOR SHALL NOT POUR CONCRETE PANELS WIDER THAN 12' IN PHASES 1 THROUGH 6, OR AS DIRECTED BY THE ENGINEER.

EROSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR SHALL INSTALL SILT FENCE AND INLET PROTECTION AS SHOWN ON PHASING SHEETS.

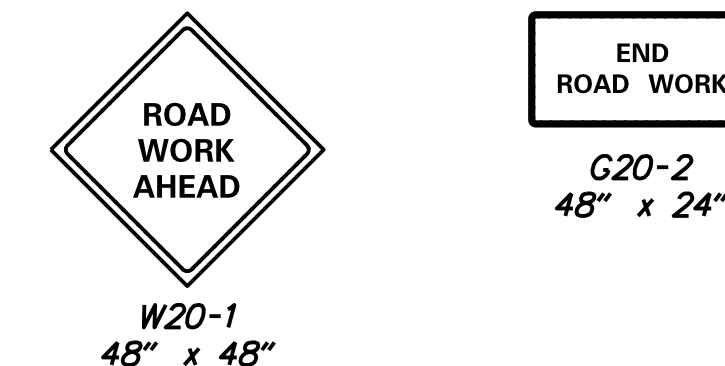
PROJECT NOTES FOR SEDIMENT AND STORMWATER MANAGEMENT

- EXISTING INLETS AND PIPES: ALL EXISTING INLETS AND PIPES WITHIN THE PROJECT LIMITS TO REMAIN SHALL BE CLEANED OUT. THE COST OF CLEANING OUT THE EXISTING PIPES TO REMAIN IS INCIDENTAL TO ITEM #201000.



ADVANCED WARNING SIGN LAYOUT

CONSTRUCTION ZONE WARNING SIGNS

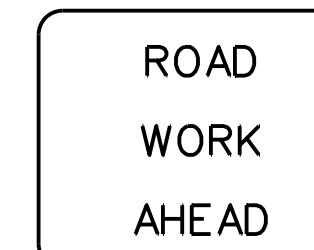


PCMS PORTABLE CHANGEABLE MESSAGE SIGN LOCATION

10 DAYS PRIOR TO CONSTRUCTION:



5 DAYS AFTER CONSTRUCTION HAS BEGUN:



- WARNING SIGN NOTES:**
- THE CONTRACTOR SHALL LAYOUT SIGNS PRIOR TO INSTALLATION FOR APPROVAL BY THE ENGINEER.
 - PERMANENT CHANGEABLE MESSAGE SIGNS SHALL BE PLACED 10 DAYS PRIOR TO AND REMAIN 5 DAYS AFTER CONSTRUCTION BEGINS.
 - MESSAGE BOARD MESSAGE AND LOCATIONS SHALL BE COORDINATED WITH AND APPROVED BY THE DISTRICT TRAFFIC SAFETY OFFICER.
 - ALL WARNING SIGNS TO BE PAID UNDER ITEM #810001.

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ADDENDUMS / REVISIONS	

NOT TO SCALE

TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

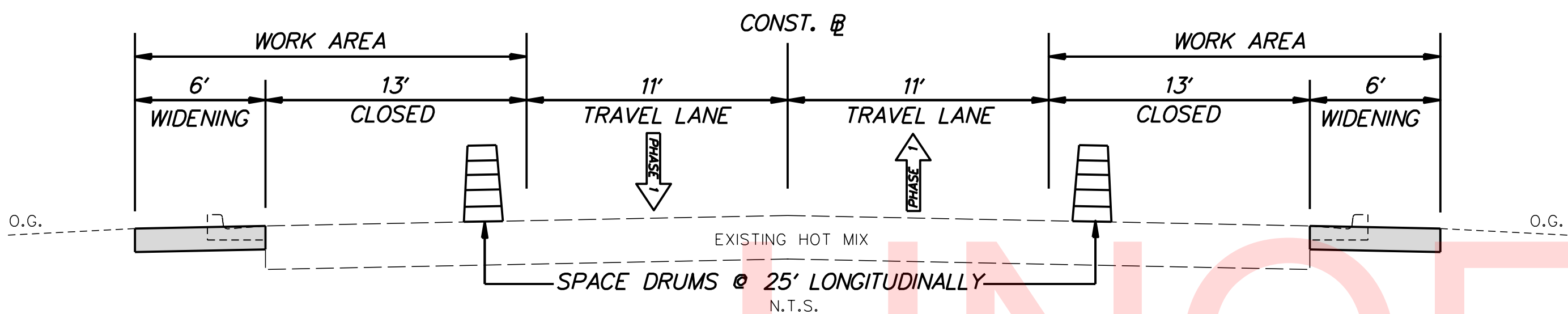
CONTRACT	BRIDGE NO.	NA
T201500509	DESIGNED BY: TMB	
COUNTY	CHECKED BY: WFC	
NEW CASTLE		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL NOTES	SHEET NO.	18
	TOTAL SHTS.	34

PHASE 1 NOTES

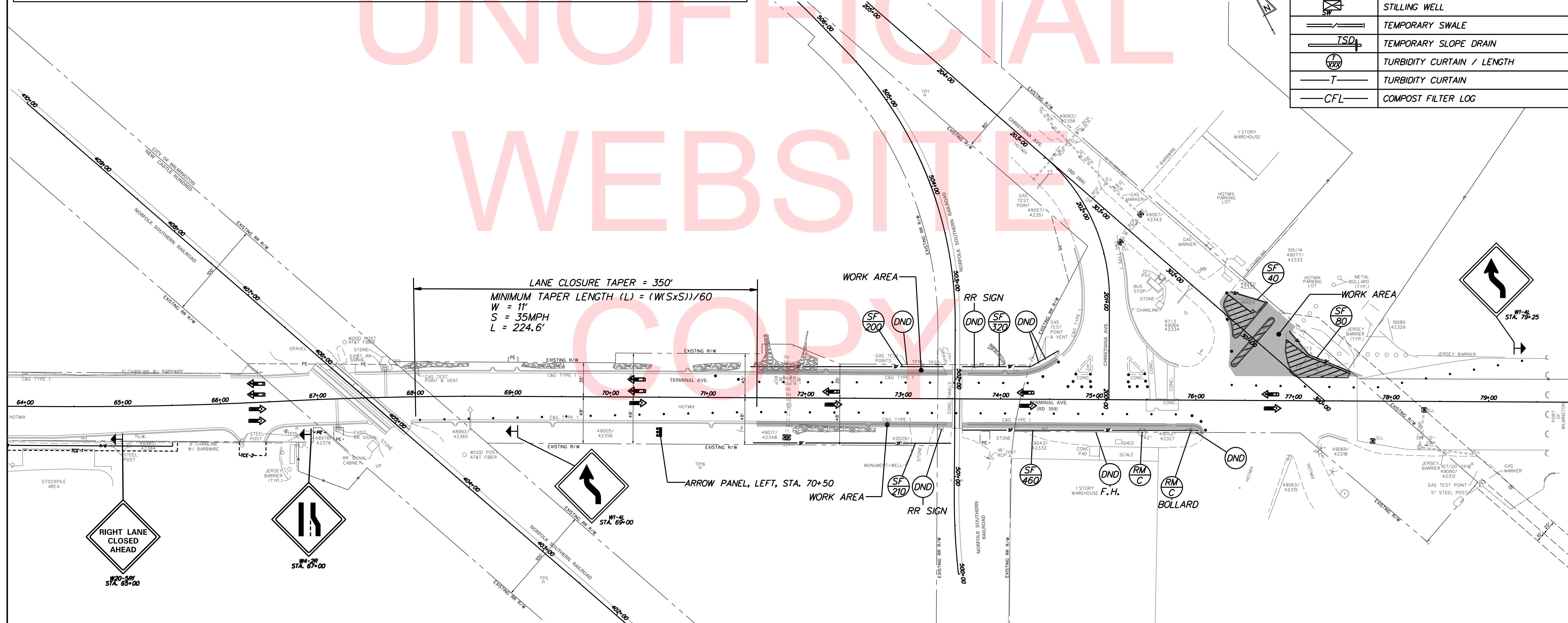
1. SET UP TRAFFIC CONTROL AND EROSION CONTROL MEASURES AS SHOWN. MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION ON TERMINAL AVENUE AS SHOWN, USING EXISTING CENTERLINE STRIPING. MAINTAIN LOCAL TRAFFIC INCLUDING DART SERVICE ON CHRISTIANA AVENUE WITH FLAGGERS. THE WORK AREA SHALL BE CLOSED TO TRAFFIC IN THIS PHASE.
2. REMOVE EXISTING TREE AT STA. 75+45.29, 32' RIGHT. REMOVE EXISTING CURB AND GUTTER ON EASTBOUND TERMINAL AVENUE FROM STA. 71+50 TO STA. 76+08, AND WESTBOUND TERMINAL AVENUE FROM STA. 71+50 TO STA. 74+60, AND WIDEN BOTH AREAS BY 6' WITH 2" BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 70-22 (CARBONATE STONE) OVER 3" BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 70-22, OVER 8" BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS PG 64-22. MATCH EXISTING ROADWAY SLOPE AND GRADE.
3. REMOVE EXISTING CONCRETE AND GRASSY AREAS IN HATCHED AREA AND PAVE WITH 2" BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 70-22 (CARBONATE STONE) OVER 3" BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 70-22, OVER 8" BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS PG 64-22. MATCH EXISTING ROADWAY SLOPE AND GRADE.

PHASE 1 TYPICAL SECTION - TERMINAL AVENUE



CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	ARROW PANEL
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE(S)

EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG

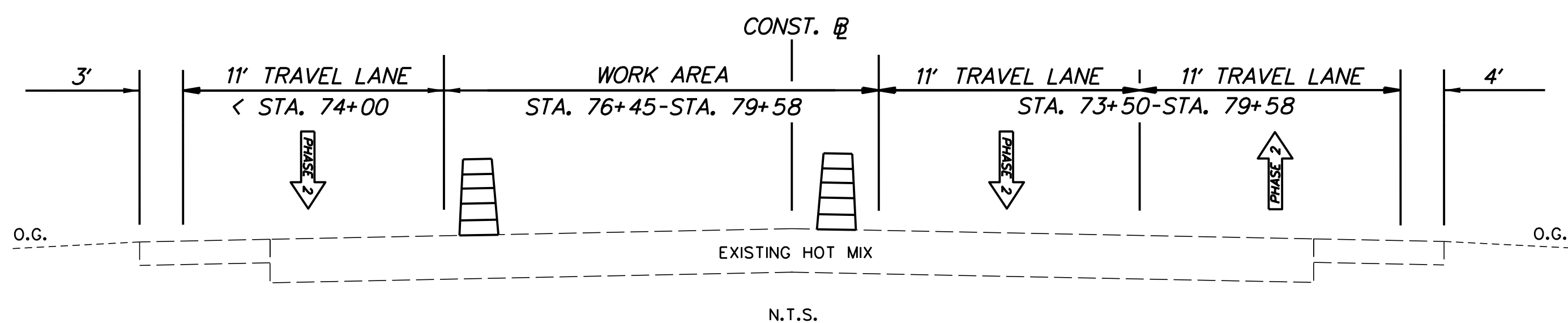


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PHASE 2 NOTES

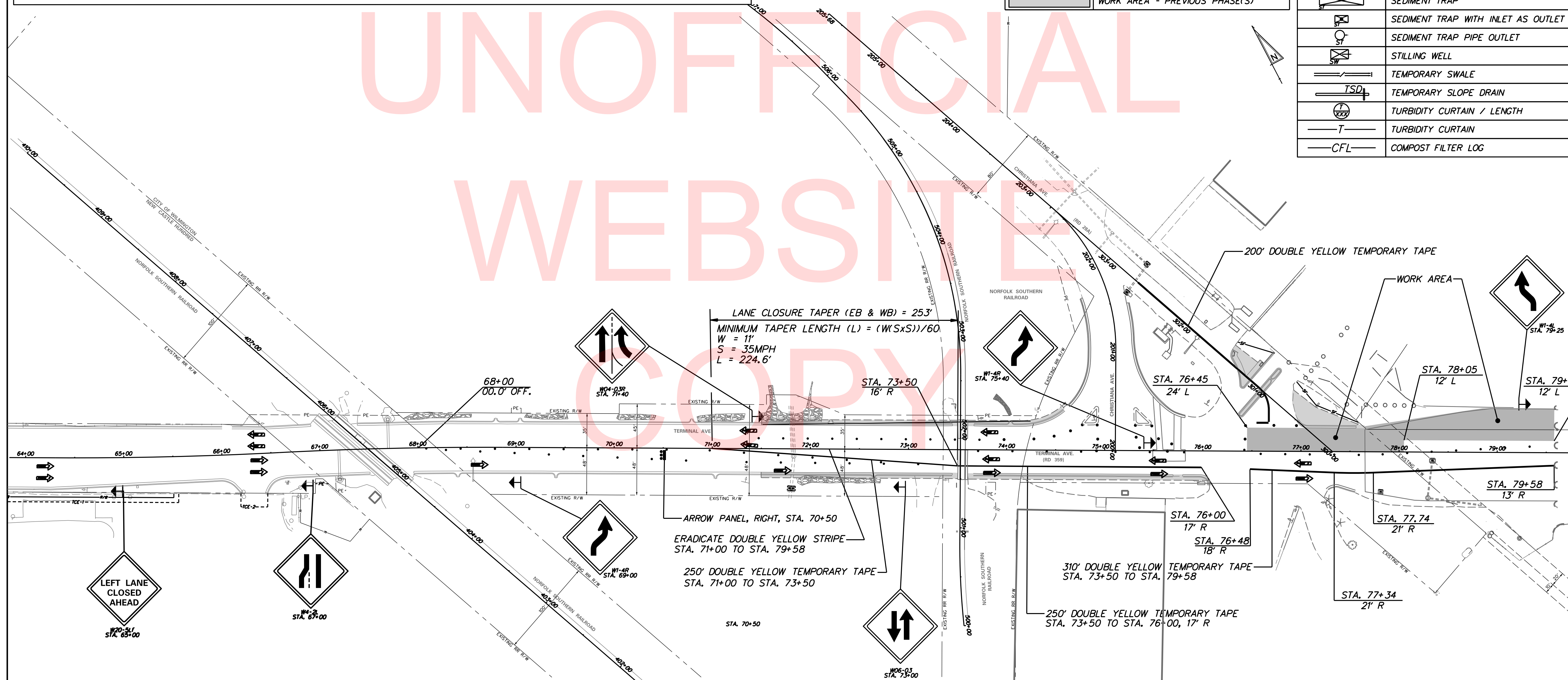
1. INSTALL TEMPORARY STRIPING AND MOT AS SHOWN. MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION ON TERMINAL AVENUE AS SHOWN. MAINTAIN LOCAL TRAFFIC INCLUDING DART SERVICE ON CHRISTIANA AVENUE STUB ROAD WITH FLAGGERS. THE WORK AREA SHALL BE CLOSED TO TRAFFIC IN THIS PHASE. ERADICATE EXISTING CENTERLINE STRIPING FROM STA. 68+00 TO STA. 79+58.
2. IN THE WORK AREA, MILL EXISTING HOT MIX OF THE TWO WESTBOUND LANES (24' WIDE) FOR 120' ALONG TERMINAL AVENUE FROM THE WESTERN LIMIT OF CONCRETE PAVEMENT AT THE WILMINGTON PORT GATE, (STA. 77+65.00) AND REPLACE WITH PORTLAND CEMENT CONCRETE PAVEMENT, 12", PER TYPICAL SECTION AND PROFILE.
3. FROM STA. 77+65 TO STA. 79+58 REMOVE EXISTING PCC PAVEMENT AND REPLACE WITH PCC PAVEMENT, 12". MATCH EXISTING SLOPES AND NEW AND EXISTING PCC PAVEMENT AT TIE-INS.
4. PLACE 200' TEMPORARY DOUBLE YELLOW STRIPING, TEMPORARY STOP BAR, AND TEMPORARY STOP SIGN ON CHRISTIANA AVENUE STUB ROAD.

PHASE 2 TYPICAL SECTION - TERMINAL AVENUE



CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	ARROW PANEL
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE(S)

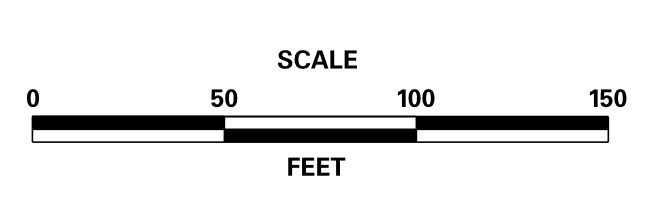
EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG



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ADDENDUMS / REVISIONS



TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

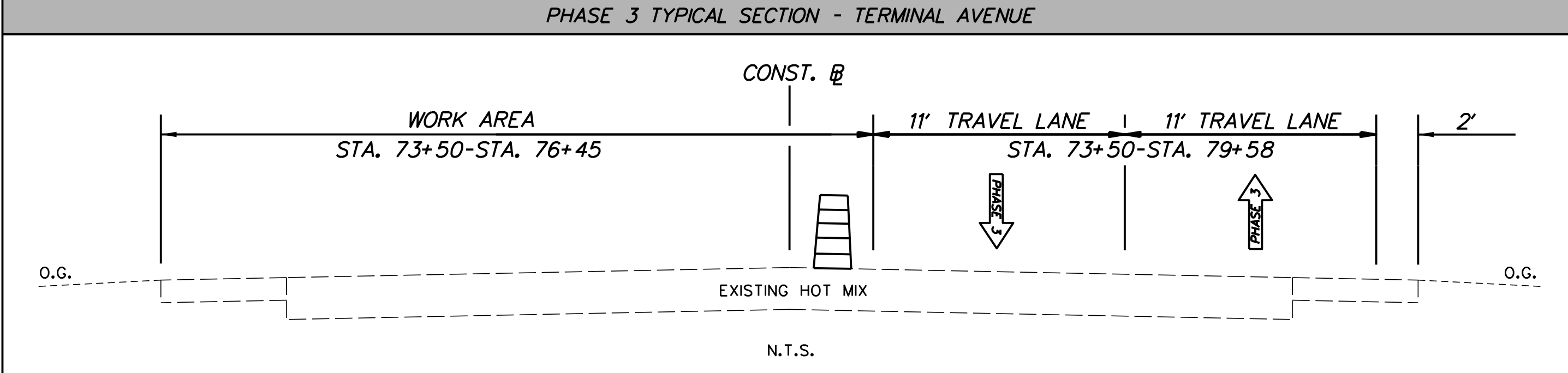
CONTRACT	T201500509	BRIDGE NO.	N/A
COUNTY	NEW CASTLE	DESIGNED BY:	TMB
		CHECKED BY:	WFC

CONSTRUCTION PHASING, M.O.T., & EROSION CONTROL PLAN	SHEET NO. 20
	TOTAL SHTS. 34

PHASE 3 NOTES

1. PLACE TYPE 3 BARRICADES ON CHRISTIANA AVENUE AS SHOWN, AND MAINTAIN TRAFFIC ON TERMINAL AVENUE USING TEMPORARY STRIPING SET UP IN PHASE 2. MAINTAIN TRAFFIC ON CHRISTIANA AVENUE STUB ROAD WITH FLAGGERS. THE WORK AREA SHALL BE CLOSED TO TRAFFIC IN THIS PHASE.
2. IN THE WORK AREA, MILL EXISTING HOT MIX OF THE TWO WESTBOUND LANES (24' WIDE) FOR 260' ALONG TERMINAL AVENUE FROM THE WESTERN LIMIT OF CONCRETE PAVEMENT PLACED IN PHASE 2 TO STA. 73+85, AND REPLACE WITH PORTLAND CEMENT CONCRETE PAVEMENT, 12", PER TYPICAL SECTION AND PROFILE. USE PCC MILLING ON THE EXISTING PCC PATCH IN THE CROSS HATCHED AREA. HOT MIX WEDGE FROM EXISTING HOT MIX TO NEW PCC PAVEMENT AT STA. 73+85.
3. REMOVE TWO TRIANGULAR CONCRETE ISLANDS AT THE TERMINAL AVENUE/CHRISTIANA AVENUE INTERSECTION AND TEMPORARILY PATCH WITH 2" BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 70-22 (CARBONATE STONE) OVER 3" BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 70-22, OVER 8" BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS PG 64-22. MATCH EXISTING ROADWAY SLOPE AND GRADE.

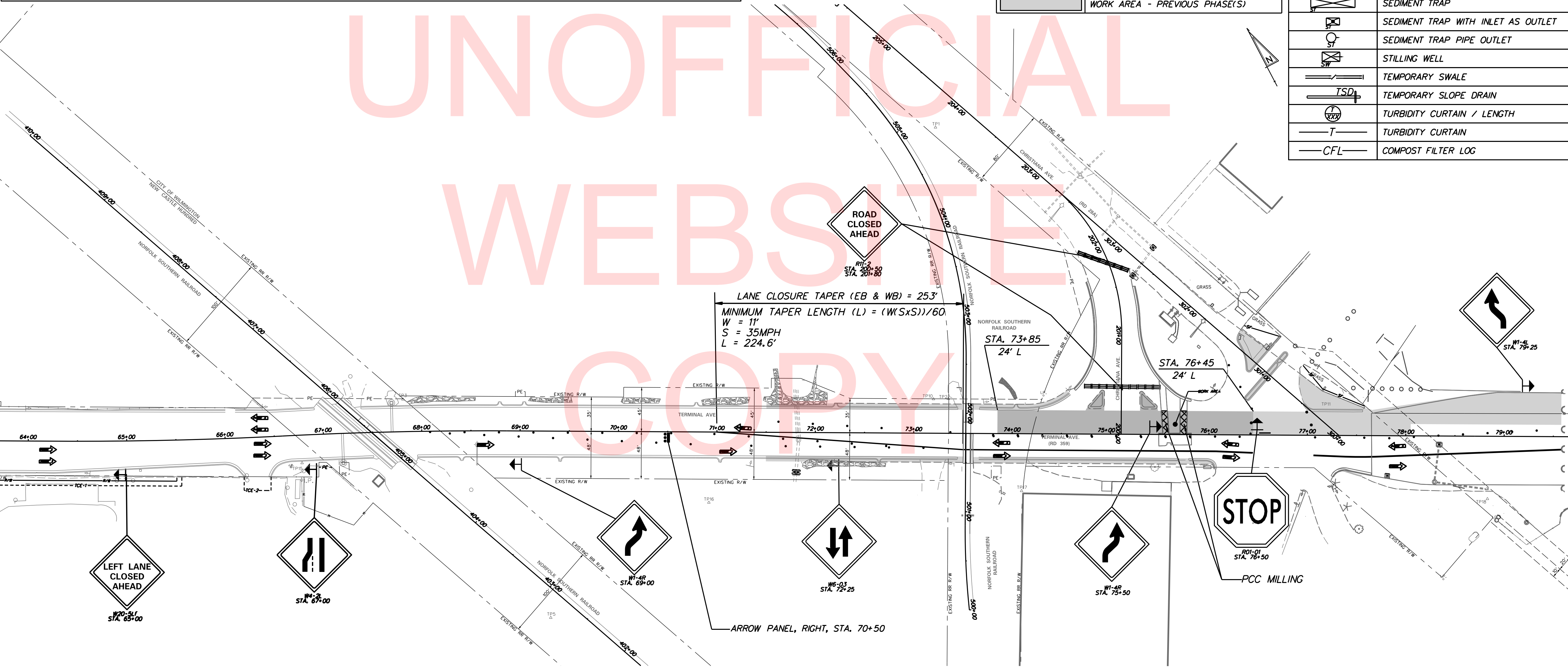
PHASE 3 TYPICAL SECTION - TERMINAL AVENUE



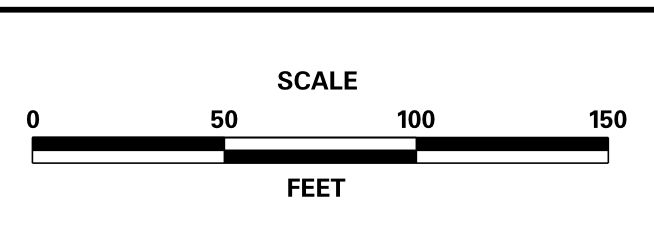
CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	ARROW PANEL
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE(S)

EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG

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ADDENDUMS / REVISIONS



TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

CONTRACT	T201500509	BRIDGE NO.	N/A
COUNTY	NEW CASTLE	DESIGNED BY:	TMB
		CHECKED BY:	WFC

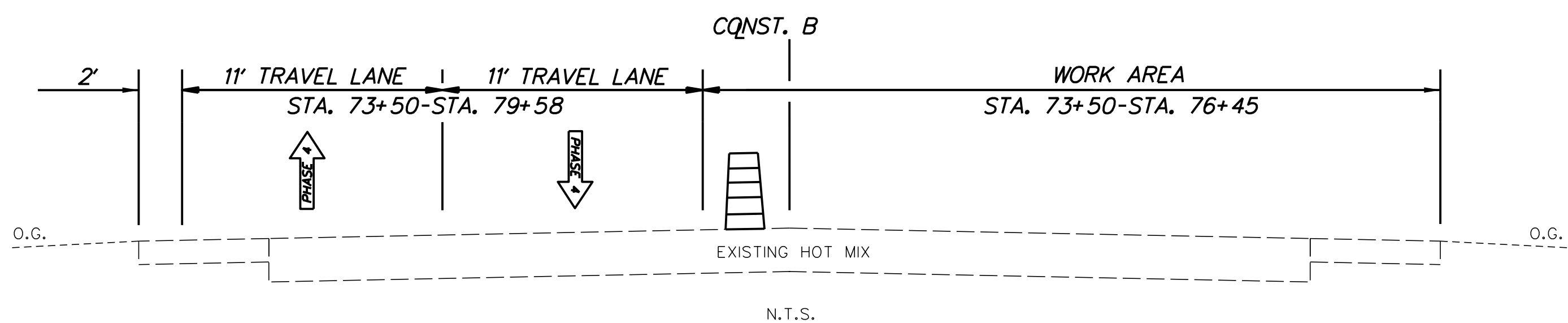
CONSTRUCTION PHASING, M.O.T., & EROSION CONTROL PLAN	SHEET NO. 21
	TOTAL SHTS. 34

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PHASE 4 NOTES

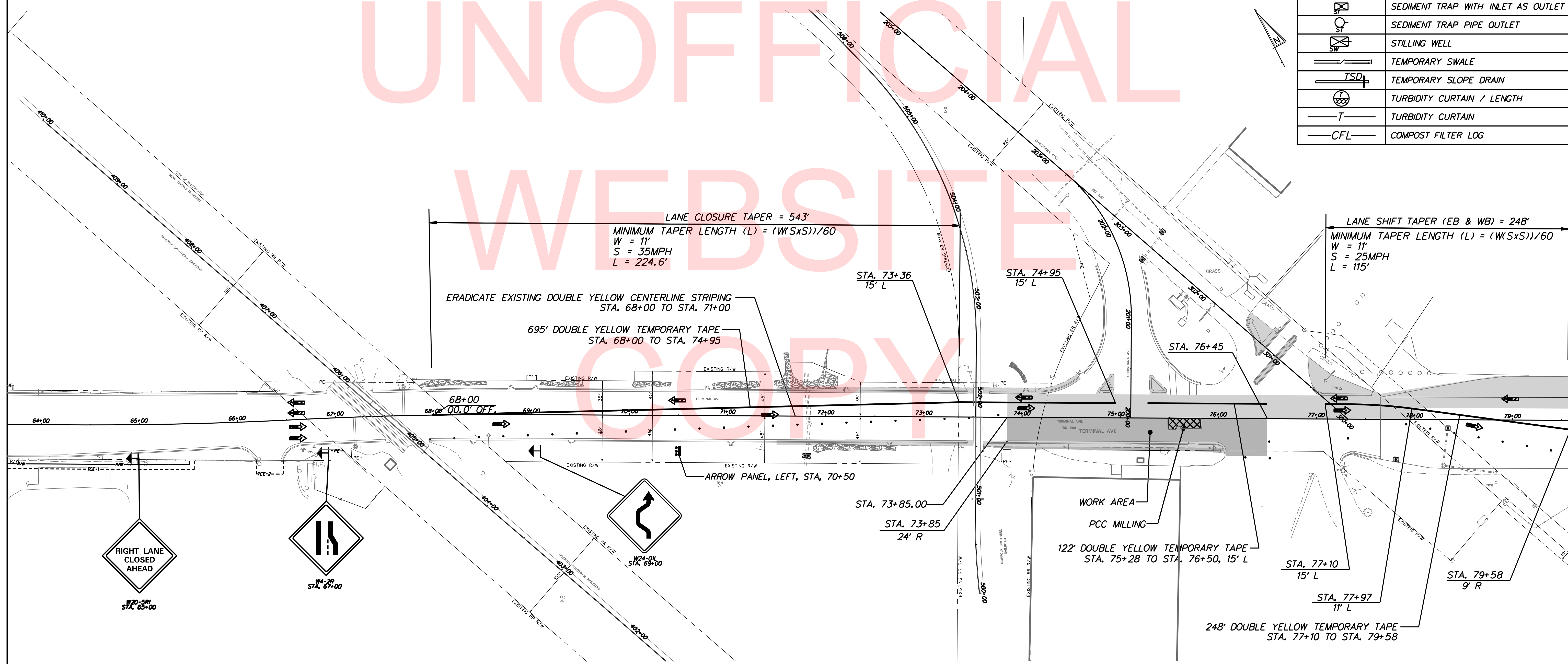
1. ERADICATE TEMPORARY STRIPING PLACED IN PHASE 2 AND INSTALL TEMPORARY STRIPING AND MOT AS SHOWN. MAINTAIN TWO LANES OF TRAFFIC ON TERMINAL AVENUE AND LOCAL TRAFFIC ON CHRISTIANA AVENUE STUB ROAD INCLUDING DART SERVICE WITH FLAGGERS. THE WORK AREA SHALL BE CLOSED TO TRAFFIC IN THIS PHASE.
2. IN THE WORK AREA, USE PCC MILLING ON THE EXISTING PCC PATCH IN THE CROSS HATCHED AREA AND MILL TO THE REQUIRED DEPTH. MILL EXISTING HOT MIX OF THE TWO EASTBOUND LANES (24' WIDE) OF TERMINAL AVENUE USING THE STATIONING GIVEN, AND REPLACE WITH PCC PAVEMENT, 12" PER TYPICAL SECTION AND PROFILE. HOT MIX WEDGE FROM EXISTING HOT MIX TO NEW PCC PAVEMENT AT STA. 73+85.
3. REMOVE TEMPORARY WIDENING FROM STA. 73+70.6 TO STA. 76+07.6, RIGHT, AND CONSTRUCT CURB & GUTTER AND SIDEWALK.

PHASE 4 TYPICAL SECTION - TERMINAL AVENUE



CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	ARROW PANEL
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE(S)

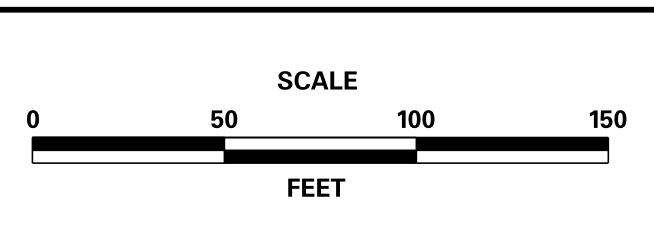
EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG



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ADDENDUMS / REVISIONS



TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

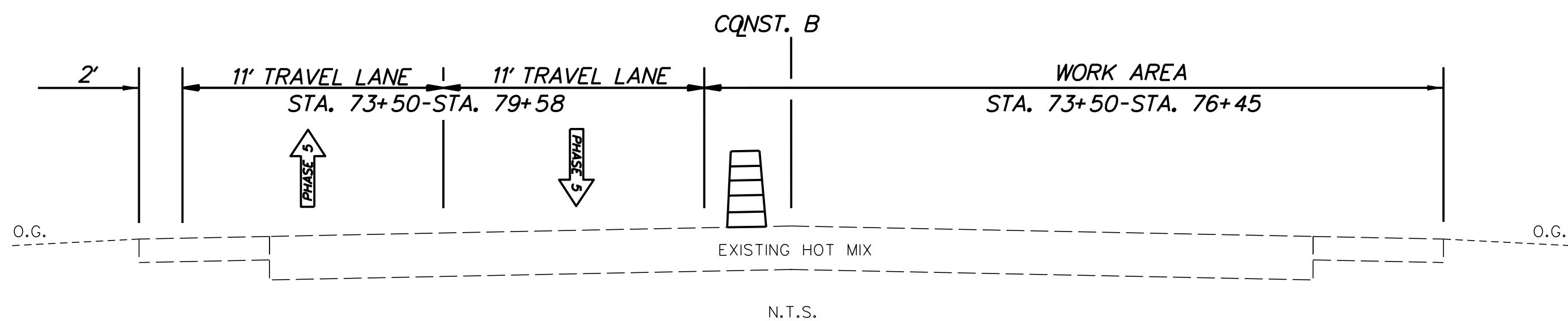
CONTRACT	T201500509	BRIDGE NO.	N/A
COUNTY	NEW CASTLE	DESIGNED BY:	TMB
		CHECKED BY:	WFC

CONSTRUCTION PHASING, M.O.T., & EROSION CONTROL PLAN	SHEET NO.	22
	TOTAL SHTS.	34

PHASE 5 NOTES

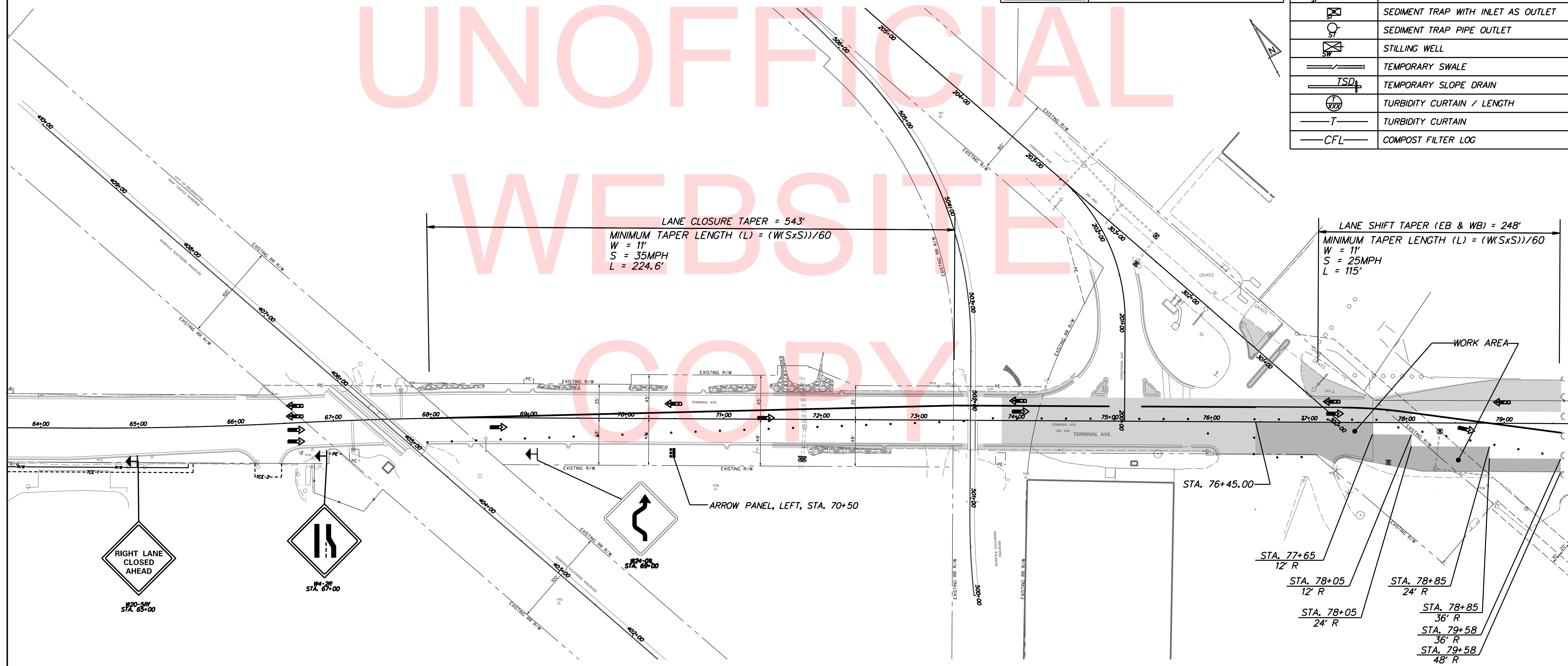
1. USING TEMPORARY STRIPING AND MOT INSTALLED IN PHASE 4, MAINTAIN TWO LANES OF TRAFFIC ON TERMINAL AVENUE AND LOCAL TRAFFIC ON CHRISTIANA AVENUE STUB ROAD INCLUDING DART SERVICE WITH FLAGGERS. THE WORK AREA SHALL BE CLOSED TO TRAFFIC IN THIS PHASE.
2. IN THE WORK AREA, MILL EXISTING HOT MIX OF THE TWO EASTBOUND LANES (24' WIDE) OF TERMINAL AVENUE USING THE STATIONING GIVEN, AND REPLACE WITH PCC PAVEMENT, 12" PER TYPICAL SECTION AND PROFILE. REMOVE EXISTING PCC PAVEMENT IN THE WORK AREA USING THE STATIONING GIVEN, AND REPLACE WITH PCC PAVEMENT, 12".

PHASE 5 TYPICAL SECTION - TERMINAL AVENUE



CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	ARROW PANEL
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE(S)

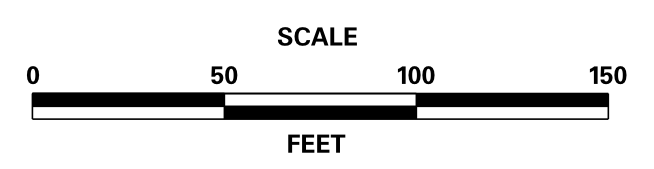
EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG



1/18/2018 10:23:55 AM \\vmdofiles\anap\PROJECTS\115013.00 (DelDOT Agrmt 1583 DOTs Open-End)\115013.14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\cs05_Term_50.dgn

UNOFFICIAL WEBSITE COPY

ADDENDUMS / REVISIONS



TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

CONTRACT	T201500509	BRIDGE NO.	N/A
COUNTY	NEW CASTLE	DESIGNED BY:	TMB
		CHECKED BY:	WFC

CONSTRUCTION PHASING, M.O.T., & EROSION CONTROL PLAN

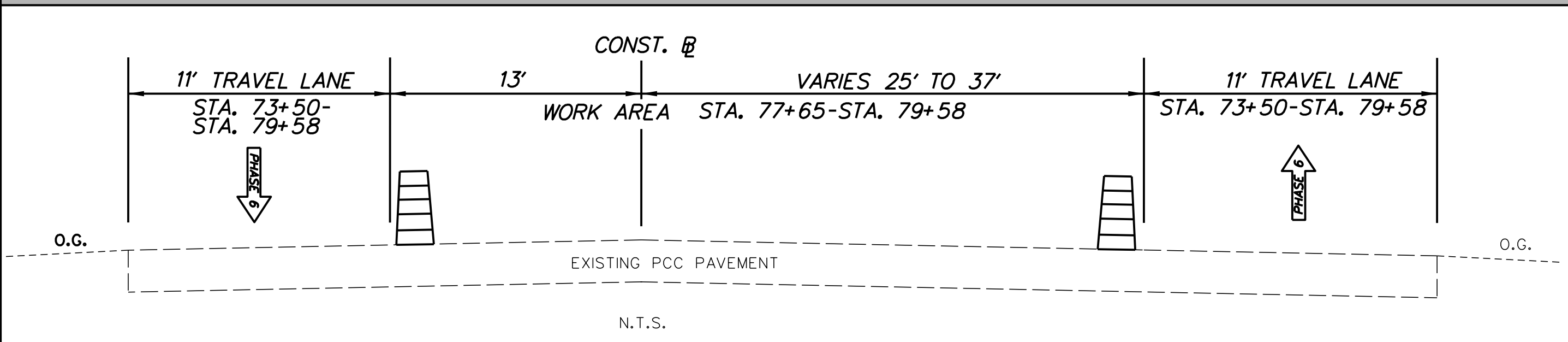
SHEET NO.	23
TOTAL SHTS.	34

1/18/2018 10:24:28 AM \\vmdofle\snap\PROJECTS\115013.00 (DelDOT Agrmt 1583 DOTS Open-End)\115013.14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\cs06_Term_50.dgn

PHASE 6 NOTES

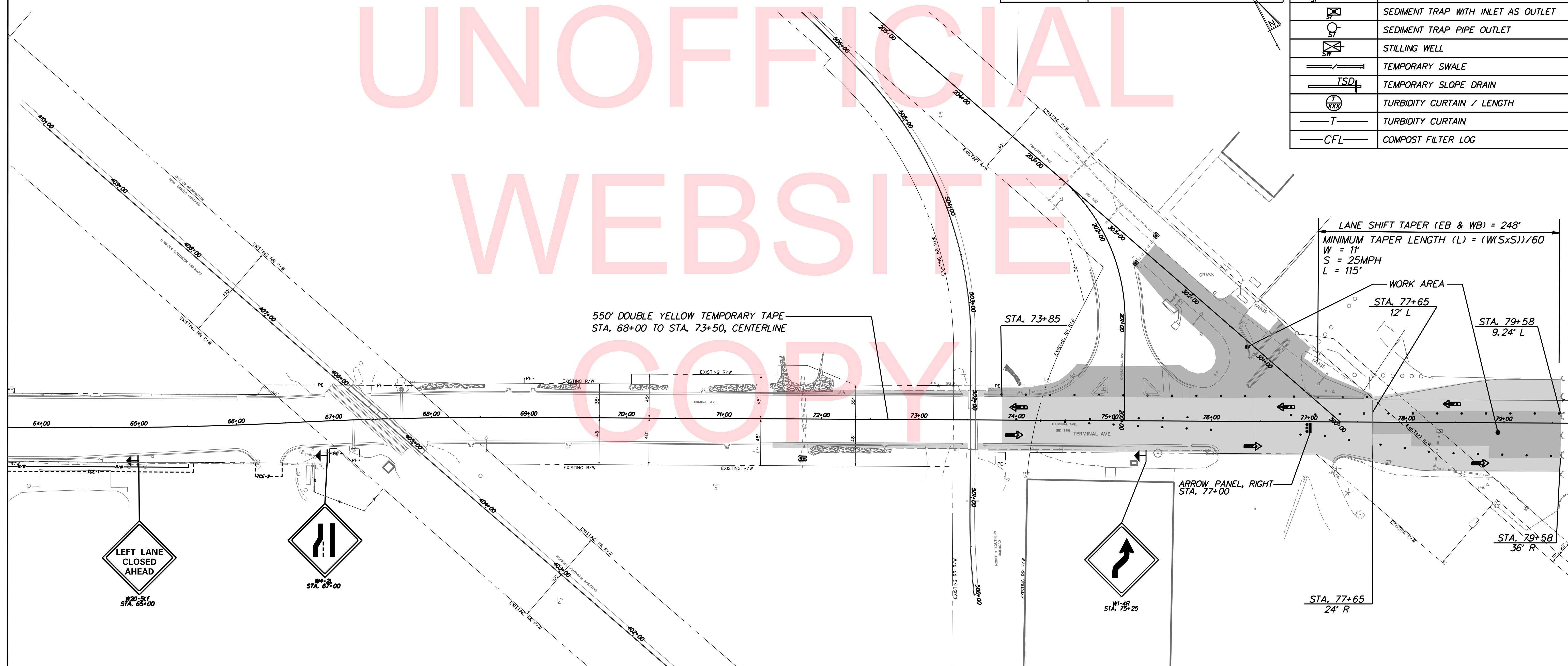
1. ERADICATE TEMPORARY STRIPING FROM THE PREVIOUS PHASE AND INSTALL TEMPORARY STRIPING AND TRAFFIC CONTROL MEASURES AS SHOWN.
2. MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION ON TERMINAL AVENUE AS SHOWN. MAINTAIN LOCAL TRAFFIC INCLUDING DART SERVICE ON CHRISTIANA AVENUE WITH FLAGGERS. THE WORK AREA ON TERMINAL AVENUE SHALL BE CLOSED TO TRAFFIC IN THIS PHASE.
3. IN THE WORK AREA ON TERMINAL AVENUE, REMOVE EXISTING PCC PAVEMENT AND REPLACE WITH PCC PAVEMENT, 12". MATCH EXISTING SLOPES AND GRADES. IN THE WORK AREA ON CHRISTIANA AVENUE, PLACE CURB & GUTTER AND ISLANDS PER PLAN, AND MILL AND OVERLAY 2" PER TYPICAL SECTIONS. MAINTAIN TRAFFIC WITH FLAGGERS.
4. REMOVE TEMPORARY WIDENING ON WESTBOUND TERMINAL AVENUE PLACED IN PHASE 1 FROM STA. 73+60 TO STA. 74+60, AND INSTALL CURB AND GUTTER. MATCH ROADWAY SLOPE AND GRADE.
5. ERADICATE TEMPORARY STRIPING AND PLACE PERMANENT STRIPING.

PHASE 6 TYPICAL SECTION - TERMINAL AVENUE

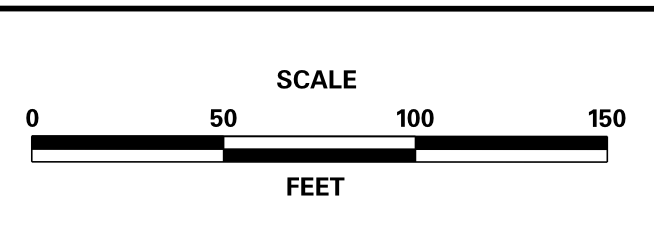


CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	ARROW PANEL
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE(S)

EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG



ADDENDUMS / REVISIONS



TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201500509	DESIGNED BY:	TMB
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

CONSTRUCTION PHASING, M.O.T., & EROSION CONTROL PLAN	SHEET NO.	24
	TOTAL SHTS.	34

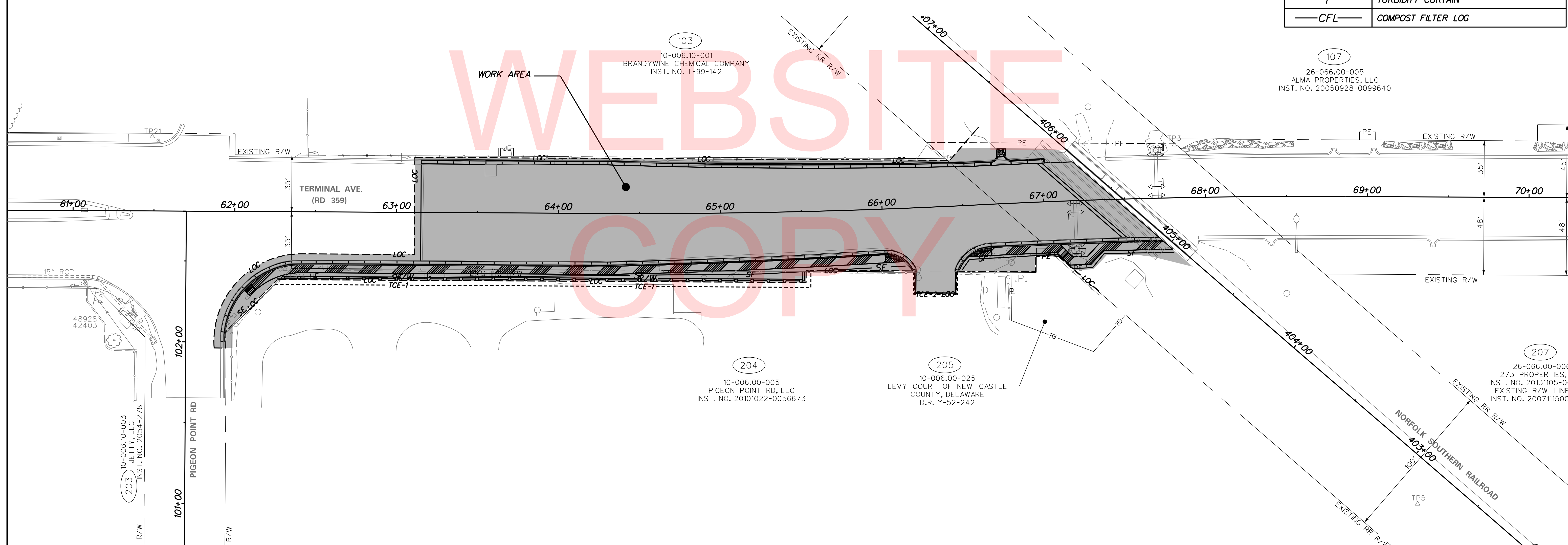
PHASE 7 NOTES

1. CONSTRUCT PHASE 7 CONCURRENTLY WITH PHASE 8. IMPLEMENT DETOUR AND SET UP TRAFFIC CONTROL MEASURES AS SHOWN. THE WORK AREA IS CLOSED TO TRAFFIC IN PHASES 7 THROUGH 9. MAINTAIN TRAFFIC ON PIGEON POINT ROAD WITH FLAGGERS.
2. IN THE SHADED AREA, REMOVE AND REPLACE EXISTING CURB & GUTTER PER PROFILE AND TYPICAL SECTION. PLACE SLEEPER SLAB, MILL EXISTING HOT AND REPLACE WITH PORTLAND CEMENT CONCRETE PAVEMENT, 12" UP TO THE SLEEPER SLAB, PER DETAIL AND TYPICAL SECTION. AFTER THE RAILROAD CONTRACTOR HAS PLACED NEW PRECAST CROSSING, PLACE CLOSURE POUR ON THE WEST SIDE OF THE RAILROAD CROSSING. REMOVE EXISTING FENCE ON SOUTH SIDE OF ROAD, PLACE NEW PCC SIDEWALK AND FENCE PER PLAN.

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE(S)

EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG

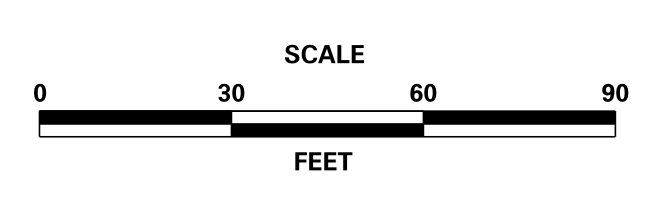
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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS



TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

CONTRACT	BRIDGE NO.	NA
T201500509	DESIGNED BY: TMB	
COUNTY	CHECKED BY: WFC	
NEW CASTLE		

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS

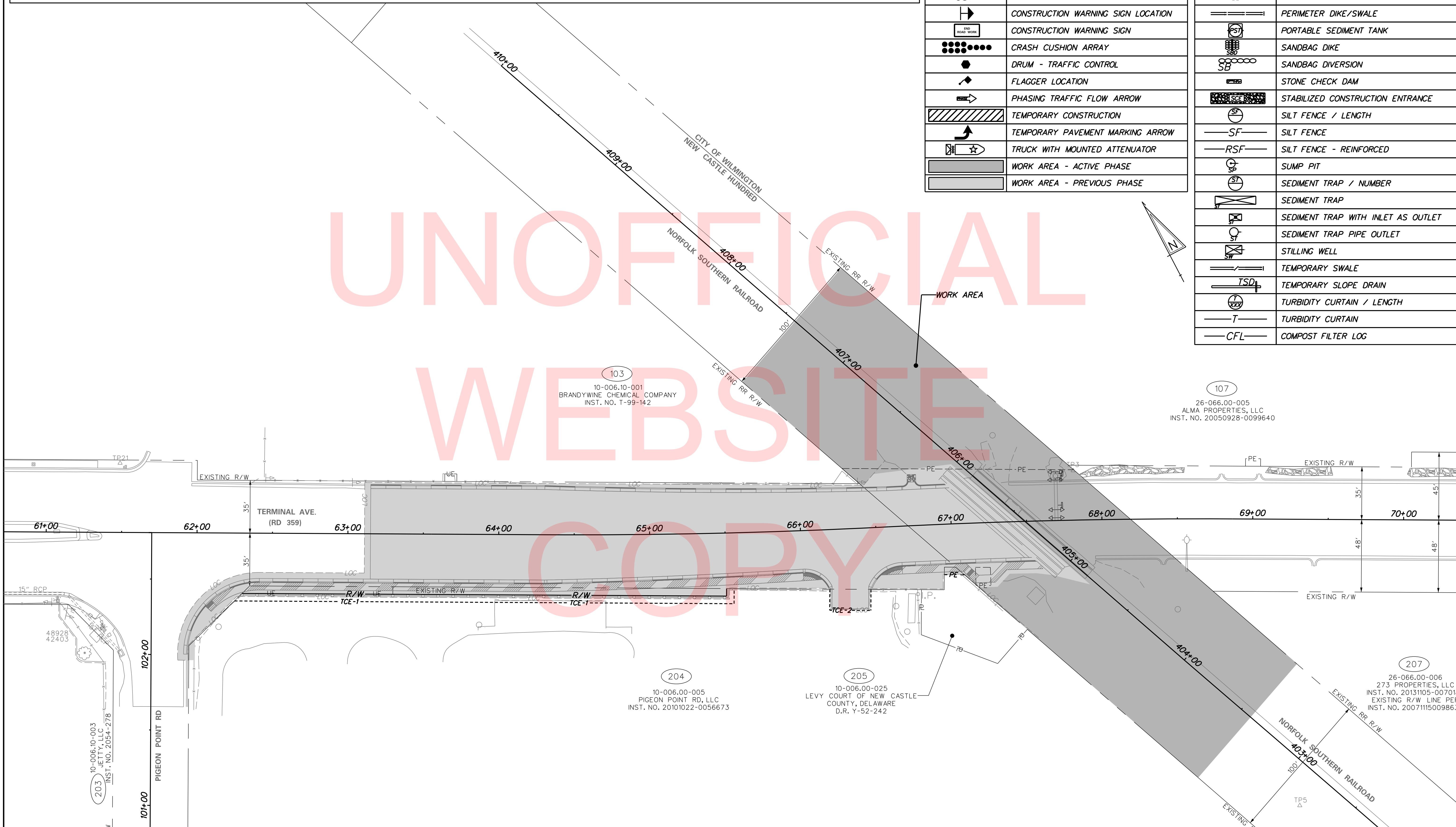
SHEET NO.	25
TOTAL SHTS.	34

PHASE 8 NOTES

1. PHASE 8 WILL BE CONSTRUCTED UNDER THE DETOUR IMPLEMENTED IN PHASE 7. THE WORK AREA IS CLOSED TO TRAFFIC IN THIS PHASE.
2. NORFOLK SOUTHERN WILL REPLACE THE SHADED RAILROAD CROSSING IN THIS PHASE. AFTER THE CROSSING HAS BEEN REPLACED, THE ROADWAY CONTRACTOR WILL COMPLETE THE CLOSURE POUR ON THE WEST SIDE OF THE CROSSING. THE CLOSURE POUR ON THE EAST SIDE OF THE CROSSING WILL BE COMPLETED IN PHASE 9.

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE

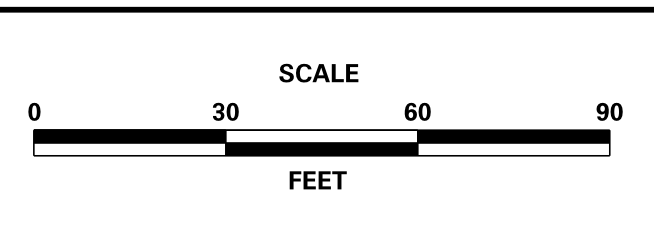
EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG



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1/18/2018 \\vmdofilesnap\PROJECTS\115013.00 (DelDOT Agrmt 1583 DOTS Open-End)\115013.14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\cs08_Term_30.dgn 10:31:40 AM

ADDENDUMS / REVISIONS



CONTRACT	BRIDGE NO.	NA
T201500509	DESIGNED BY:	TMB
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

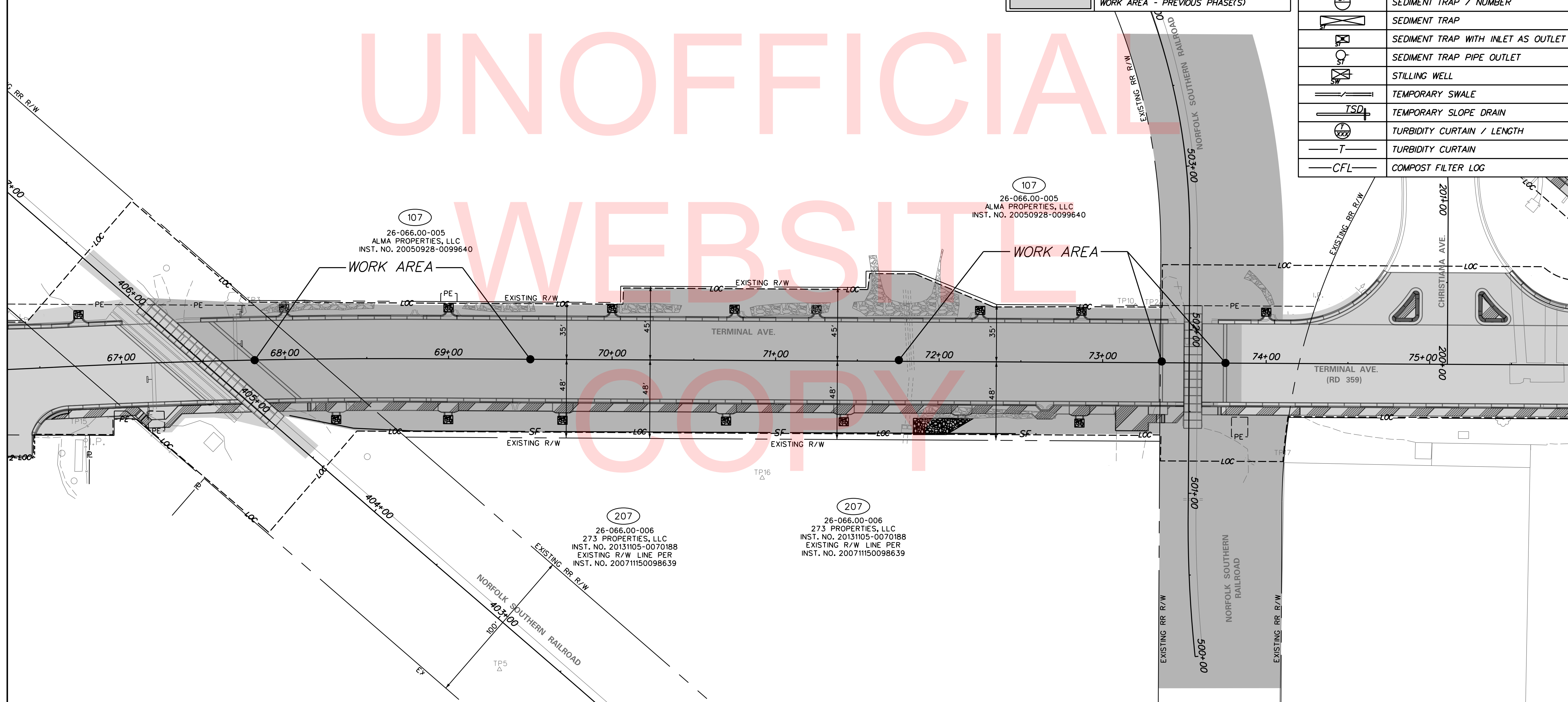
PHASE 9 NOTES

1. PHASE 9 WILL BE CONSTRUCTED UNDER THE DETOUR IMPLEMENTED IN PHASE 7.
2. IN THE WORK AREA, REMOVE AND REPLACE EXISTING CURB & GUTTER PER PROFILE AND TYPICAL SECTION. PLACE SLEEPER SLAB AT STA. 67+81, THEN PLACE THE CLOSURE POUR BETWEEN THE SLEEPER SLAB AND WESTERLY RAILROAD CROSSING. PLACE SLEEPER SLAB AT STA. 73+36. COORDINATE WITH RAILROAD CONTRACTOR ON TIMING OF WORK. PER TYPICAL SECTIONS AND DETAILS, MILL EXISTING ROADWAY AND REPLACE WITH PORTLAND CEMENT CONCRETE PAVEMENT, 12" UP TO THE SLEEPER SLAB AT STA. 73+32. PLACE PROPOSED SIDEWALK. AFTER THE RAILROAD CONTRACTOR HAS PLACED THE EASTERLY PRECAST CROSSING, PLACE CLOSURE POUR ON THE WEST SIDE OF THE EASTERLY RAILROAD CROSSING. PLACE SLEEPER SLAB AT STA. 73+75, THEN PLACE CLOSURE POUR BETWEEN THAT SLEEPER SLAB AND THE EASTERLY CROSSING. PLACE LAST SEGMENT OF 12" PCC PAVEMENT BETWEEN SLEEPER SLAB AND PCC PAVEMENT POURED IN PHASES 3 AND 4. DIAMOND GRIND NEW PCC PAVEMENT IN DETOURED AREA, THEN AT THE INTERSECTION OF CHRISTIANA AVENUE AND TERMINAL AVENUE AT THE PORT TERMINAL, TO MEET SPECIFICATIONS.
3. PERFORM FINAL SIGNING AND STRIPING, AND REMOVE DETOUR.

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION SAFETY FENCE / LENGTH
	CONSTRUCTION SAFETY FENCE
	CONSTRUCTION WARNING SIGN LOCATION
	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	FLAGGER LOCATION
	PHASING TRAFFIC FLOW ARROW
	TEMPORARY CONSTRUCTION
	TEMPORARY PAVEMENT MARKING ARROW
	TRUCK WITH MOUNTED ATTENUATOR
	WORK AREA - ACTIVE PHASE
	WORK AREA - PREVIOUS PHASE(S)

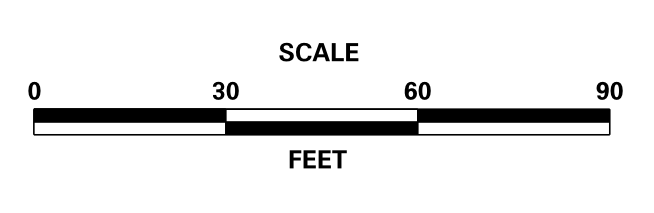
EROSION & SEDIMENT CONTROL	
	DEWATERING BAG
	DEWATERING BASIN
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE / LENGTH
	SILT FENCE
	SILT FENCE - REINFORCED
	SUMP PIT
	SEDIMENT TRAP / NUMBER
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN
	TURBIDITY CURTAIN / LENGTH
	TURBIDITY CURTAIN
	COMPOST FILTER LOG

UNOFFICIAL WEBSITE COPY



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ADDENDUMS / REVISIONS



TERMINAL AVENUE (N-359) RAILROAD CROSSING SAFETY IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201500509	DESIGNED BY:	TMB
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

CONSTRUCTION PHASING, M.O.T., & EROSION CONTROL PLAN

SHEET NO.	27
TOTAL SHTS.	34

V:\MIDFILE\SMART PROJECTS\15015.00 (DELDOT AGRMT 1583 DOTS OPEN-END)\15015.14 (TASK 12, RAILROAD DESIGN SERVICES)\TRAFFIC\DETOUR PLANS\BASE\DP_BORDER_34X22.DGN

PORTABLE CHANGEABLE MESSAGE SIGNS

PRIOR TO DETOUR
(30 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

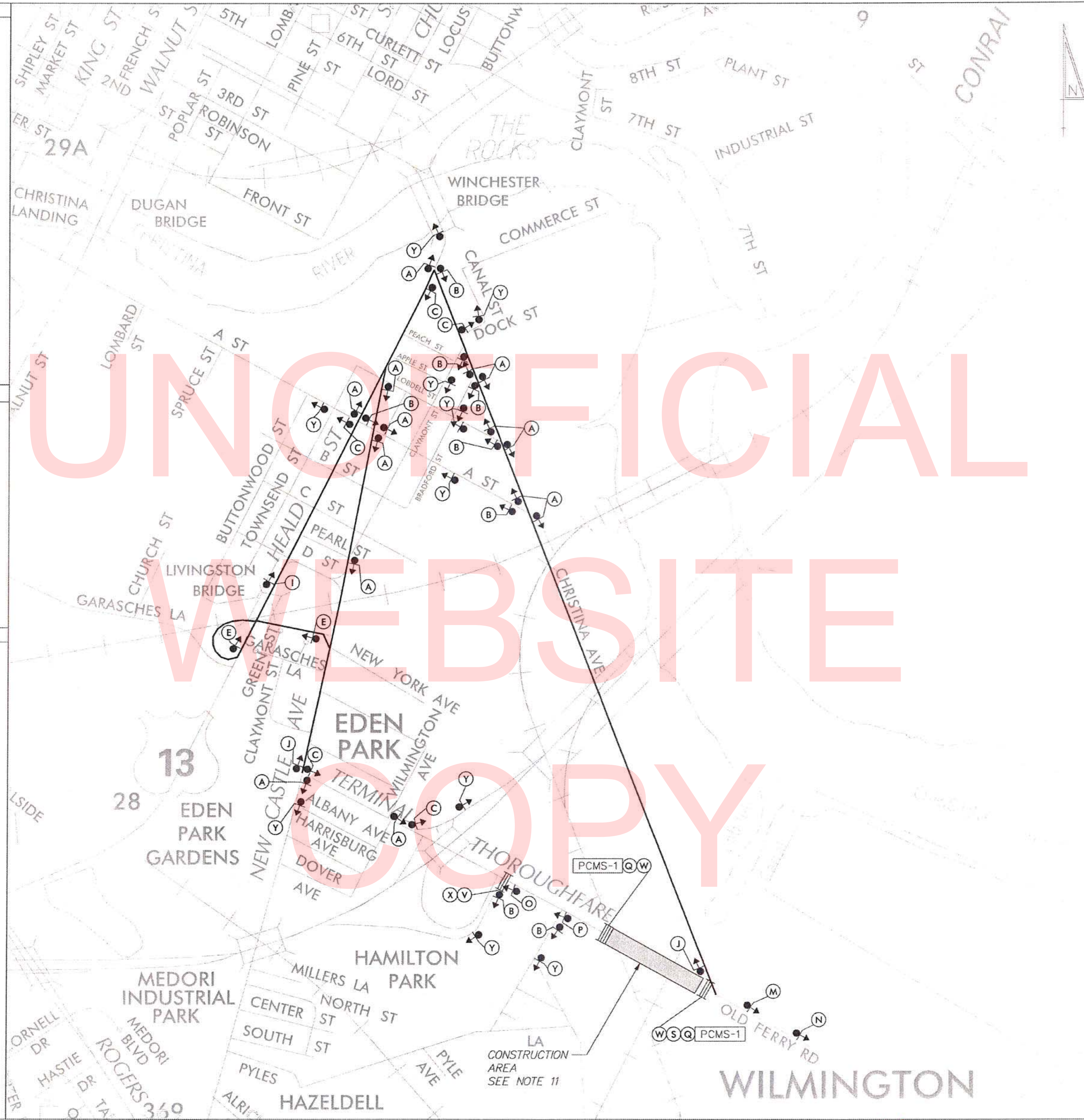
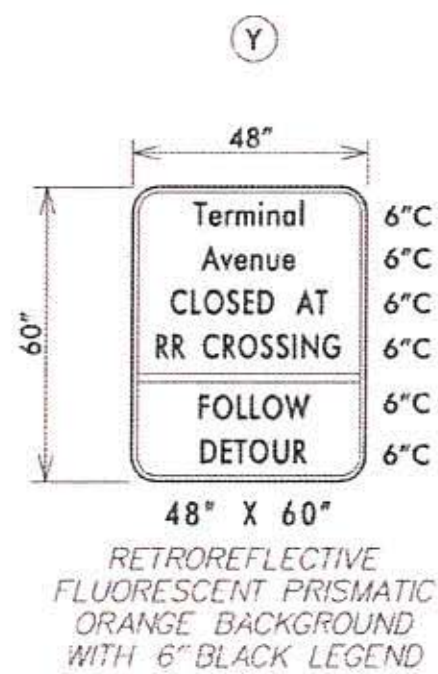
**TERMINAL
AVE
RR XING**

**TO CLOSE
STARTING
XXXXXX**

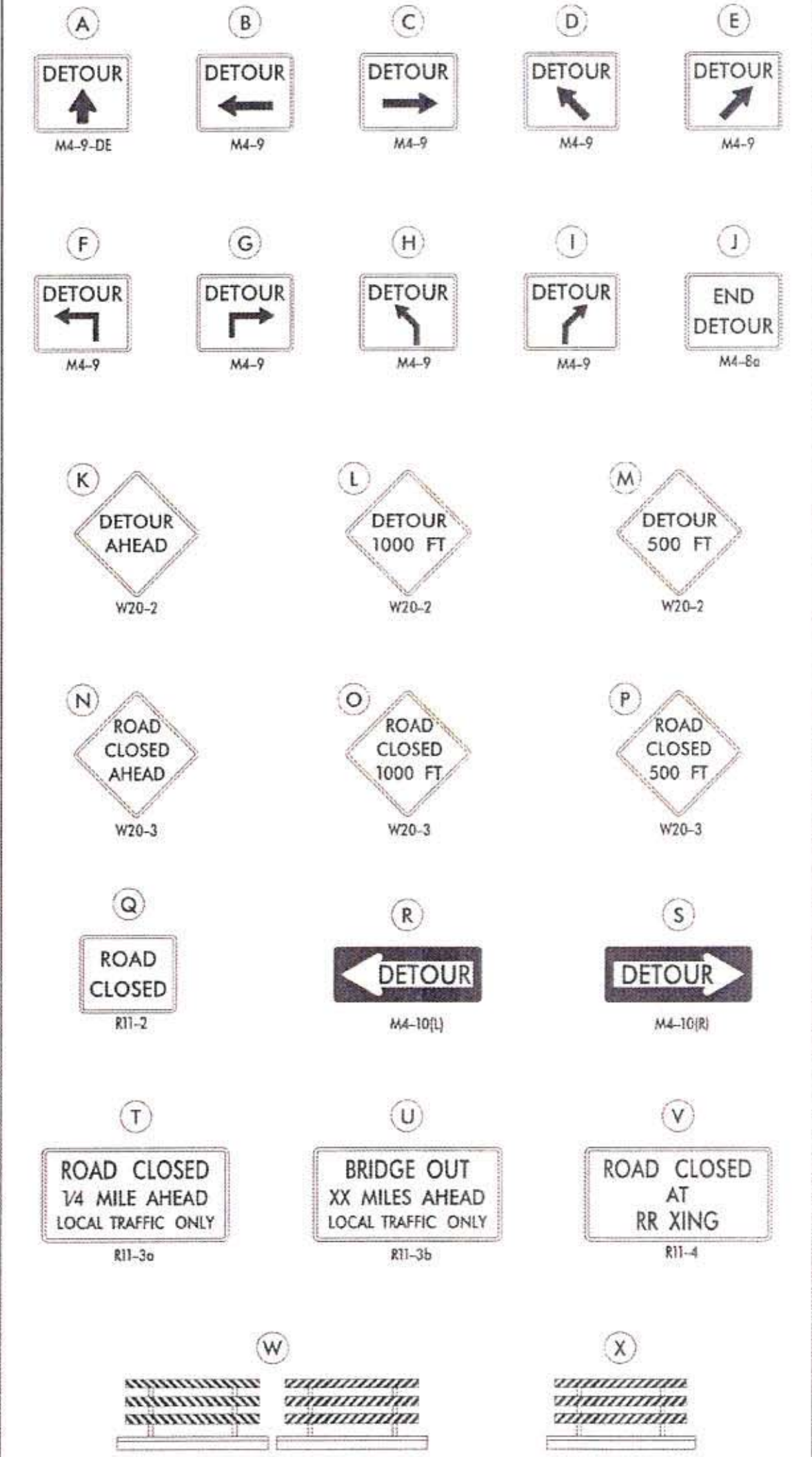
ADDITIONAL NOTES

11. CONTRACTOR SHALL ALLOW ACCESS TO ADJACENT DRIVEWAYS AT ALL TIMES.

SPECIAL SIGNS



LEGEND



GENERAL NOTES

1. ALL DETOUR SIGNING, INCLUDING TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
2. THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD PART 5) FOR BARRICADES AND SIGNS (AS PER LATEST REVISION.)
3. DESIGN OF ALL SIGNS SHALL BE IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS BOOK.
4. SIZES OF ALL SIGNS SHALL BE IN ACCORDANCE WITH "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.) SIZE OF SIGN SHALL BE BASED ON TYPE OF ROADWAY ON WHICH THE SIGN IS INSTALLED.
5. SIGNS NO LONGER IN USE SHALL BE COMPLETELY COVERED WITH NO RETROREFLECTIVE MATERIAL SHOWING, OR SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
6. FIELD CONDITIONS MAY DICTATE CHANGES AT SOME TIME DURING THE LIFE OF THE CONTRACT. IN THE EVENT OF OMISSIONS OR CORRECTIONS, THE SIGNING PROVISIONS OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD) WILL PREVAIL.
7. SIGNS "N" THROUGH "O" AND "T" AND "V"; THE WORD "ROAD" SHOULD BE CHANGED TO "RAMP", "RR XING", OR "BRIDGE" WHERE APPLICABLE.
8. WARNING SIGNS AND DETOUR TRAILBLAZERS SHALL BE MOUNTED ON THEIR OWN BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT ORANGE SHEETING.
9. "W" BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF THE ROADWAY.
10. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

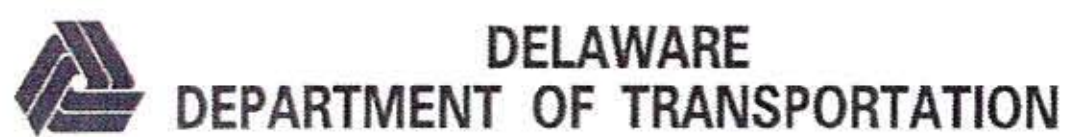
RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

RECOMMENDED *[Signature]* DATE: 3/10/16

APPROVED CHIEF SAFETY OFFICER *[Signature]* DATE: 3-21-16

APPROVED TRAFFIC ENGINEER *[Signature]* DATE: 3/21/16



ADDENDUM / REVISIONS	

NOT TO SCALE

**TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS**

CONTRACT	ROAD NO.	N359
COUNTY	DESIGNED BY:	DS (CFD)
NEW CASTLE	CHECKED BY:	BAM (CFD)

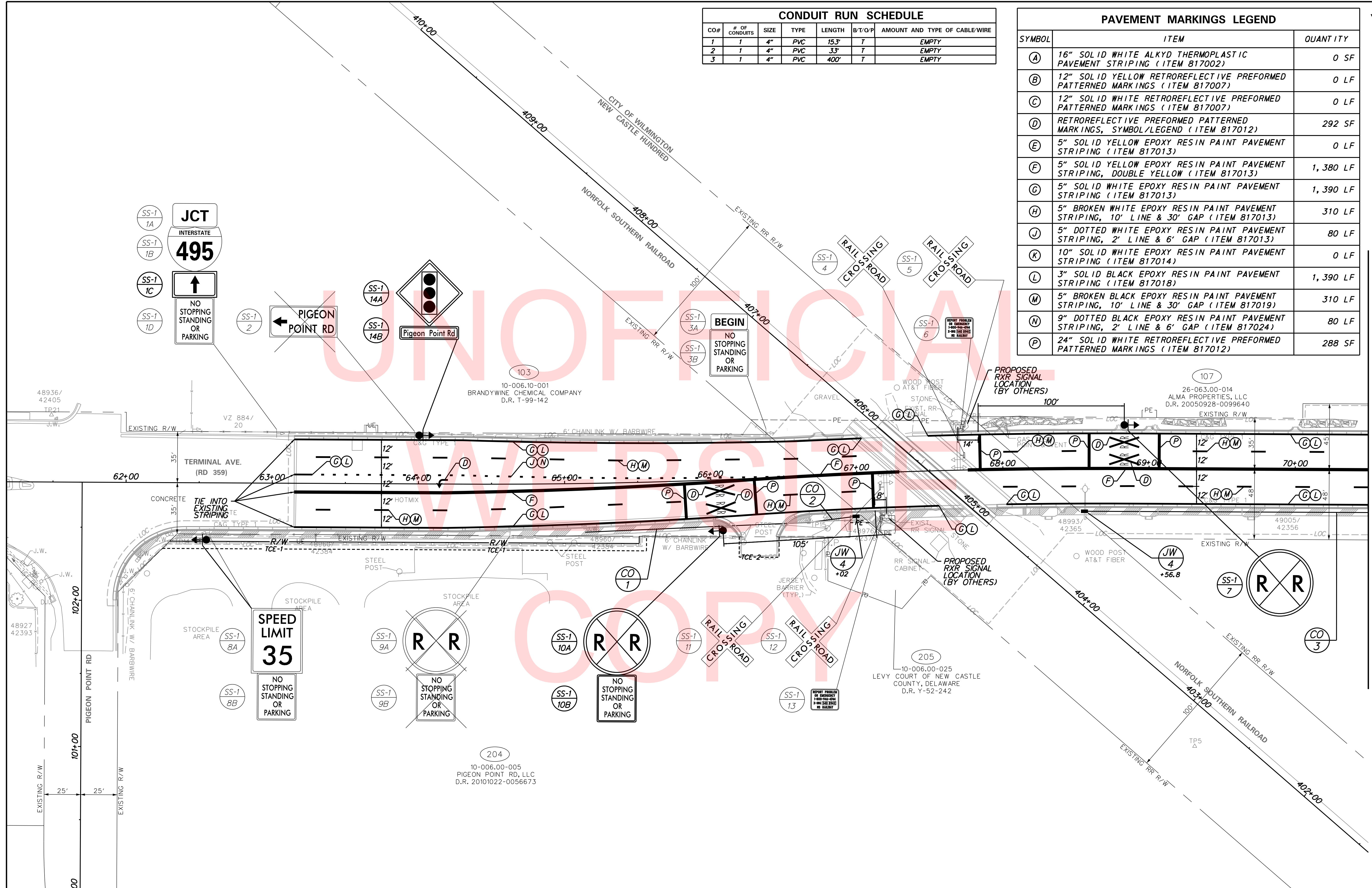
**VEHICULAR DETOUR PLAN
TERMINAL AVENUE
AT RR CROSSING**

SHEET NO.	28
TOTAL SHEETS	34

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CONDUIT RUN SCHEDULE						
CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
1	1	4"	PVC	153'	T	EMPTY
2	1	4"	PVC	33'	T	EMPTY
3	1	4"	PVC	400'	T	EMPTY

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	0 SF
(B)	12" SOLID YELLOW RETROREFLECTIVE PREFORMED PATTERNED MARKINGS (ITEM 817007)	0 LF
(C)	12" SOLID WHITE RETROREFLECTIVE PREFORMED PATTERNED MARKINGS (ITEM 817007)	0 LF
(D)	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND (ITEM 817012)	292 SF
(E)	5" SOLID YELLOW EPOXY RESIN PAINT PAVEMENT STRIPING (ITEM 817013)	0 LF
(F)	5" SOLID YELLOW EPOXY RESIN PAINT PAVEMENT STRIPING, DOUBLE YELLOW (ITEM 817013)	1,380 LF
(G)	5" SOLID WHITE EPOXY RESIN PAINT PAVEMENT STRIPING (ITEM 817013)	1,390 LF
(H)	5" BROKEN WHITE EPOXY RESIN PAINT PAVEMENT STRIPING, 10' LINE & 30' GAP (ITEM 817013)	310 LF
(J)	5" DOTTED WHITE EPOXY RESIN PAINT PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 817013)	80 LF
(K)	10" SOLID WHITE EPOXY RESIN PAINT PAVEMENT STRIPING (ITEM 817014)	0 LF
(L)	3" SOLID BLACK EPOXY RESIN PAINT PAVEMENT STRIPING (ITEM 817018)	1,390 LF
(M)	5" BROKEN BLACK EPOXY RESIN PAINT PAVEMENT STRIPING, 10' LINE & 30' GAP (ITEM 817019)	310 LF
(N)	9" DOTTED BLACK EPOXY RESIN PAINT PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 817024)	80 LF
(P)	24" SOLID WHITE RETROREFLECTIVE PREFORMED PATTERNED MARKINGS (ITEM 817012)	288 SF



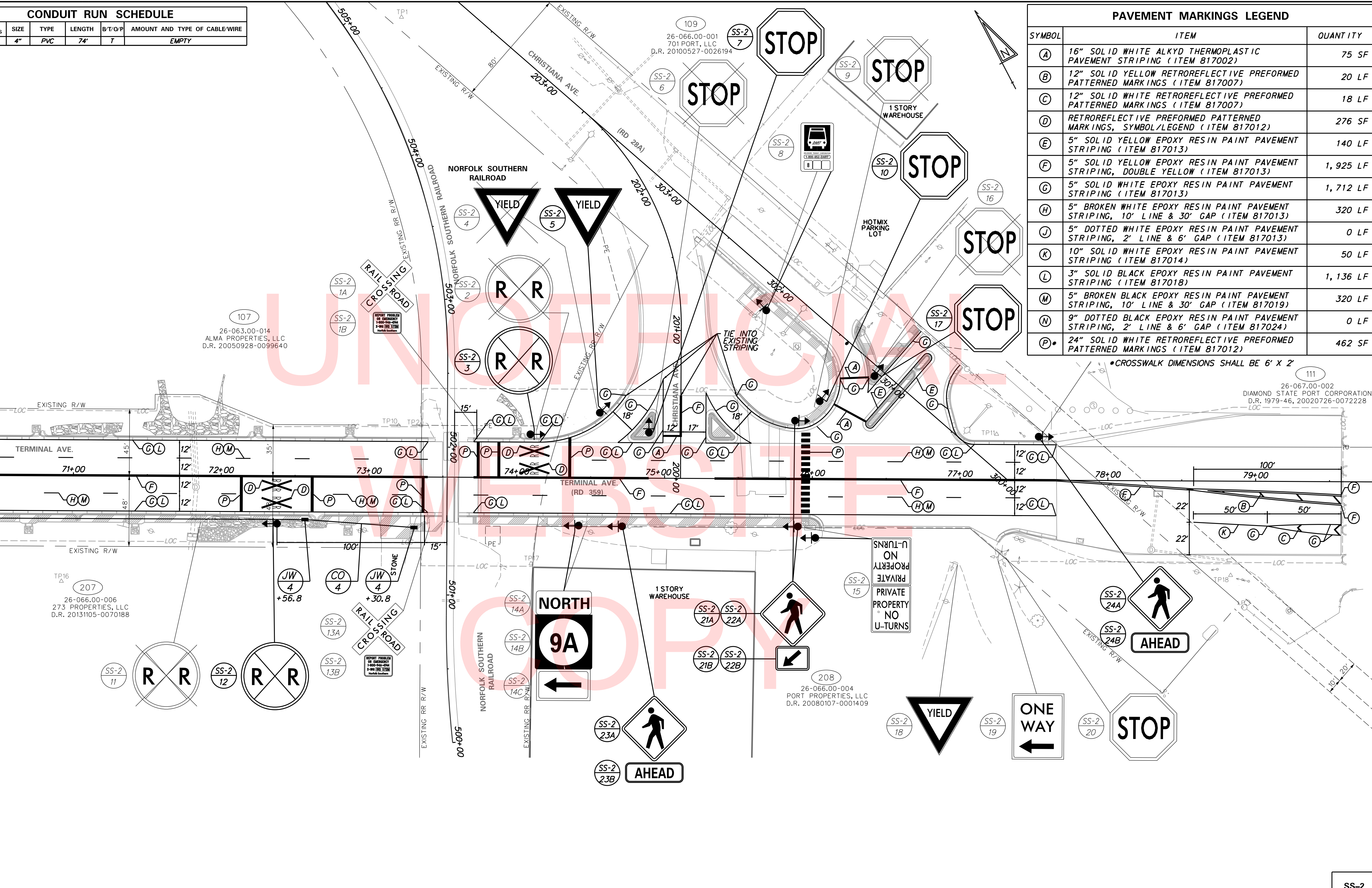
MATCHLINE TERMINAL AVE STA 70+50

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CONDUIT RUN SCHEDULE						
CO#	# OF CONDUITS	SIZE	TYPE	LENGTH	B/T/O/P	AMOUNT AND TYPE OF CABLE/WIRE
4	1	4"	PVC	74'	T	EMPTY

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	16" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 817002)	75 SF
(B)	12" SOLID YELLOW RETROREFLECTIVE PREFORMED PATTERNED MARKINGS (ITEM 817007)	20 LF
(C)	12" SOLID WHITE RETROREFLECTIVE PREFORMED PATTERNED MARKINGS (ITEM 817007)	18 LF
(D)	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND (ITEM 817012)	276 SF
(E)	5" SOLID YELLOW EPOXY RESIN PAINT PAVEMENT STRIPING (ITEM 817013)	140 LF
(F)	5" SOLID YELLOW EPOXY RESIN PAINT PAVEMENT STRIPING, DOUBLE YELLOW (ITEM 817013)	1,925 LF
(G)	5" SOLID WHITE EPOXY RESIN PAINT PAVEMENT STRIPING (ITEM 817013)	1,712 LF
(H)	5" BROKEN WHITE EPOXY RESIN PAINT PAVEMENT STRIPING, 10' LINE & 30' GAP (ITEM 817013)	320 LF
(J)	5" DOTTED WHITE EPOXY RESIN PAINT PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 817013)	0 LF
(K)	10" SOLID WHITE EPOXY RESIN PAINT PAVEMENT STRIPING (ITEM 817014)	50 LF
(L)	3" SOLID BLACK EPOXY RESIN PAINT PAVEMENT STRIPING (ITEM 817018)	1,136 LF
(M)	5" BROKEN BLACK EPOXY RESIN PAINT PAVEMENT STRIPING, 10' LINE & 30' GAP (ITEM 817019)	320 LF
(N)	9" DOTTED BLACK EPOXY RESIN PAINT PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 817024)	0 LF
(P)	24" SOLID WHITE RETROREFLECTIVE PREFORMED PATTERNED MARKINGS (ITEM 817012)	462 SF

MATCHLINE TERMINAL AVE STA 70+50



*CROSSWALK DIMENSIONS SHALL BE 6' X 2'

SS-2

1/18/2018 \\vmdofie\anap\PROJECTS\115013\00 (DelDOT Agrmt) 1583 DOTs Open-End\115013\14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\Cadd\ss03_Term_30.dgn

PERMANENT SIGN SCHEDULE

SHEET NO.	PLAN IDENTIFIER	SIGN DESIGNATION	QTY.	DESCRIPTION	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	SIGN AREA (SF)	ITEM 819018 SINGLE POST (EACH)			ITEM 819019 INSTALLATION OR REMOVAL OF TRAFFIC SIGNS ON MULTIPLE SIGN POSTS (SF)			POST INSTALLATION TYPE	Code X11 12' Post (W/ Basepost)	ITEM 819016 4" HOLE, 0-6" (EACH)	ITEM 819017 4" HOLE, >6" (EACH)	REMARKS	
								SIGN DISPOSITION	REMOVE	INSTALL	SIGN DISPOSITION	REMOVE	INSTALL						
SS-1	1A	M2-1(21)	1	JUNCTION - 21x15	21"	15"		REMAIN											
SS-1	1B	M1-1(30)	1	INTERSTATE ROUTE (3 - Digit Sign) - 30x24	30"	24"		REMAIN										"495"	
SS-1	1C	M6-3(21)	1	DIRECTIONAL ARROW (Up) - 21x15	21"	15"	2.2	ADD TO ASSEMBLY		1								M6 series (blue)	
SS-1	1D	R7-4-DE(12)	1	NO STOPPING, STANDING, OR PARKING - 12x18	12"	18"		REPOSITION	1	1									
SS-1	2	D3-2(30)	1	ADVANCE STREET NAME (2 Line)	30"	16"		REMOVE	1									"<-- PIGEON POINT RD"	
SS-1	3A	R7-202aP-DE	1	BEGIN (plaque - red)	12"	6"		REMAIN											
SS-1	3B	R7-4-DE(12)	1	NO STOPPING, STANDING, OR PARKING - 12x18	12"	18"		REMAIN											
SS-1	4	R15-1	1	HIGHWAY RAIL GRADE CROSSING (Crossbuck)	48"	9"		REMAIN											
SS-1	5	R15-1	1	HIGHWAY RAIL GRADE CROSSING (Crossbuck)	48"	9"		REMAIN											
SS-1	6	I-13	1	EMERGENCY NOTIFICATION SIGN	12"	9"		REMAIN										"540-894E" NS RAILWAY	
SS-1	7	W10-1(36)	1	HIGHWAY-RAIL GRADE CROSSING ADVANCE WARNING 36 Inch	36"	1	7.0	NEW		1			SOIL	1					
SS-1	8A	R2-1-35(30)	1	SPEED LIMIT (35 MPH - 30x36)	30"	36"		REPOSITION	1	1			SOIL	1					
SS-1	8B	R7-4-DE(12)	1	NO STOPPING, STANDING, OR PARKING - 12x18	12"	18"		REPOSITION	1	1									
SS-1	9A	W10-1(36)	1	HIGHWAY-RAIL GRADE CROSSING ADVANCE WARNING 36 Inch	36"	1		REMOVE	1										
SS-1	9B	R7-4-DE(18)	1	NO STOPPING, STANDING, OR PARKING - 18x24	18"	24"		REMOVE	1										
SS-1	10A	W10-1(36)	1	HIGHWAY-RAIL GRADE CROSSING ADVANCE WARNING 36 Inch	36"	1	7.0	NEW		1			SOIL	1					
SS-1	10B	R7-4-DE(12)	1	NO STOPPING, STANDING, OR PARKING - 12x18	12"	18"	1.5	ADD TO ASSEMBLY		1									
SS-1	11	R15-1	1	HIGHWAY RAIL GRADE CROSSING (Crossbuck)	48"	9"		REMAIN											
SS-1	12	R15-1	1	HIGHWAY RAIL GRADE CROSSING (Crossbuck)	48"	9"		REMAIN											
SS-1	13	I-13	1	EMERGENCY NOTIFICATION SIGN	12"	9"		REMAIN										"540-894E" NS RAILWAY	
SS-1	14A	W3-3(30)	1	SIGNAL AHEAD (Symbol) - 30x30	30"	30"	6.3	NEW		1			SOIL	1					
SS-1	14B	W16-8P	1	ADVANCE STREET NAME (1 - 1line plaque)	42"	9"	2.6	ADD TO ASSEMBLY		1								"Pigeon Point Rd"	
SS-2	1A	R15-1	1	HIGHWAY RAIL GRADE CROSSING (Crossbuck)	48"	9"		REMAIN											
SS-2	1B	I-13	1	EMERGENCY NOTIFICATION SIGN	12"	9"		REMAIN										"593-572M" NS RAILWAY	
SS-2	2	W10-1(36)	1	HIGHWAY-RAIL GRADE CROSSING ADVANCE WARNING 36 Inch	36"	1		REMOVE	1										
SS-2	3	W10-1(36)	1	HIGHWAY-RAIL GRADE CROSSING ADVANCE WARNING 36 Inch	36"	1	7.0	NEW		1			SOIL	1					
SS-2	4	R1-2(30)	1	YIELD	30"	30"		REMOVE	1										
SS-2	5	R1-2(36)	1	YIELD	36"	36"	4.5	NEW		1			SOIL	1					
SS-2	6	R1-1(30)	1	STOP	30"	30"		REMOVE	1										
SS-2	7	R1-1(36)	1	STOP	36"	36"	9.0	NEW		1			CONCRETE	1	1				
SS-2	8	D4-3-DE	1	BUS STOP (DART)	12"	18"		REPOSITION	1	1			SOIL	1					
SS-2	9	R1-1(30)	1	STOP	30"	30"		REMOVE	1										
SS-2	10	R1-1(36)	1	STOP	36"	36"	9.0	NEW		1			SOIL	1					
SS-2	11	W10-1(36)	1	HIGHWAY-RAIL GRADE CROSSING ADVANCE WARNING 36 Inch	36"	1		REMOVE	1										
SS-2	12	W10-1(36)	1	HIGHWAY-RAIL GRADE CROSSING ADVANCE WARNING 36 Inch	36"	1	7.0	NEW		1			SOIL	1					
SS-2	13A	R15-1	1	HIGHWAY RAIL GRADE CROSSING (Crossbuck)	48"	9"		REMAIN											
SS-2	13B	I-13	1	EMERGENCY NOTIFICATION SIGN	12"	9"		REMAIN										"593-572M" NS RAILWAY	
SS-2	14A	M3-1(24)	1	CARDINAL DIRECTION - NORTH - 24x12	24"	12"		REPOSITION	1	1			SOIL	1					
SS-2	14B	M1-5(24)	1	STATE ROUTE (2 - Digit Sign) - 24x24	24"	24"		REPOSITION	1	1								"9A"	
SS-2	14C	M6-1_L(21)	1	DIRECTIONAL ARROW (Lef) - 21x15	21"	15"		REPOSITION	1	1									
SS-2	15		2	PRIVATE PROPERTY NO U-TURNS	24"	30"		REPOSITION	2	2			SOIL	1					
SS-2	16	R1-1(30)	1	STOP	30"	30"		REMOVE	1										
SS-2	17	R1-1(36)	1	STOP	36"	36"	9.0	NEW		1			CONCRETE	1	1				
SS-2	18	R1-2(24)	1	YIELD	24"	24"		REMAIN											
SS-2	19	R6-2_L(18)	1	ONE WAY (LEFT ARROW) - 18x24	18"	24"		REMAIN											
SS-2	20	R1-1(24)	1	STOP	24"	24"		REMAIN											
SS-2	21A	W11-2(36)	1	PEDESTRIAN (Symbol) - 36x36	36"	36"	9.0	NEW		1			SOIL	1					
SS-2	21B	W16-7P_L(24)	1	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24"	12"	2.0	ADD TO ASSEMBLY		1									
SS-2	22A	W11-2(36)	1	PEDESTRIAN (Symbol) - 36x36	36"	36"	9.0	NEW		1			SOIL	1					
SS-2	22B	W16-7P_L(24)	1	LEFT DOWNWARD DIAGONAL ARROW (plaque) - 24x12	24"	12"	2.0	ADD TO ASSEMBLY		1									
SS-2	23A	W11-2(36)	1	PEDESTRIAN (Symbol) - 36x36	36"	36"	9.0	NEW		1			SOIL	1					
SS-2	23B	W16-9PY(24)	1	AHEAD (plaque) - 24x12	24"	12"	2.0	ADD TO ASSEMBLY		1									
SS-2	24A	W11-2(36)	1	PEDESTRIAN (Symbol) - 36x36	36"	36"	9.0	NEW		1			SOIL	1					
SS-2	24B	W16-9PY(24)	1	AHEAD (plaque) - 24x12	24"	12"	2.0	ADD TO ASSEMBLY		1									
JOB TOTALS							116			18	29			0	0		17	2	0

NOTE: THE CONTRACTOR SHALL FABRICATE AND SUPPLY ALL POSTS AND SIGNS. SIGNS SHALL BE PAID FOR UNDER ITEM 818003, SUPPLY OF FLAT SHEET ALUMINUM SIGN PANEL, TYPE XI, RETROREFLECTIVE SHEETING, AND POSTS SHALL BE PAID FOR UNDER ITEM 819504, GALVANIZED TELESCOPING STEEL SIGN POSTS, 14' X 2", COMPLETE W/ BASEPOSTS & HARDWARE.



ADDENDUMS / REVISIONS

NOT TO SCALE

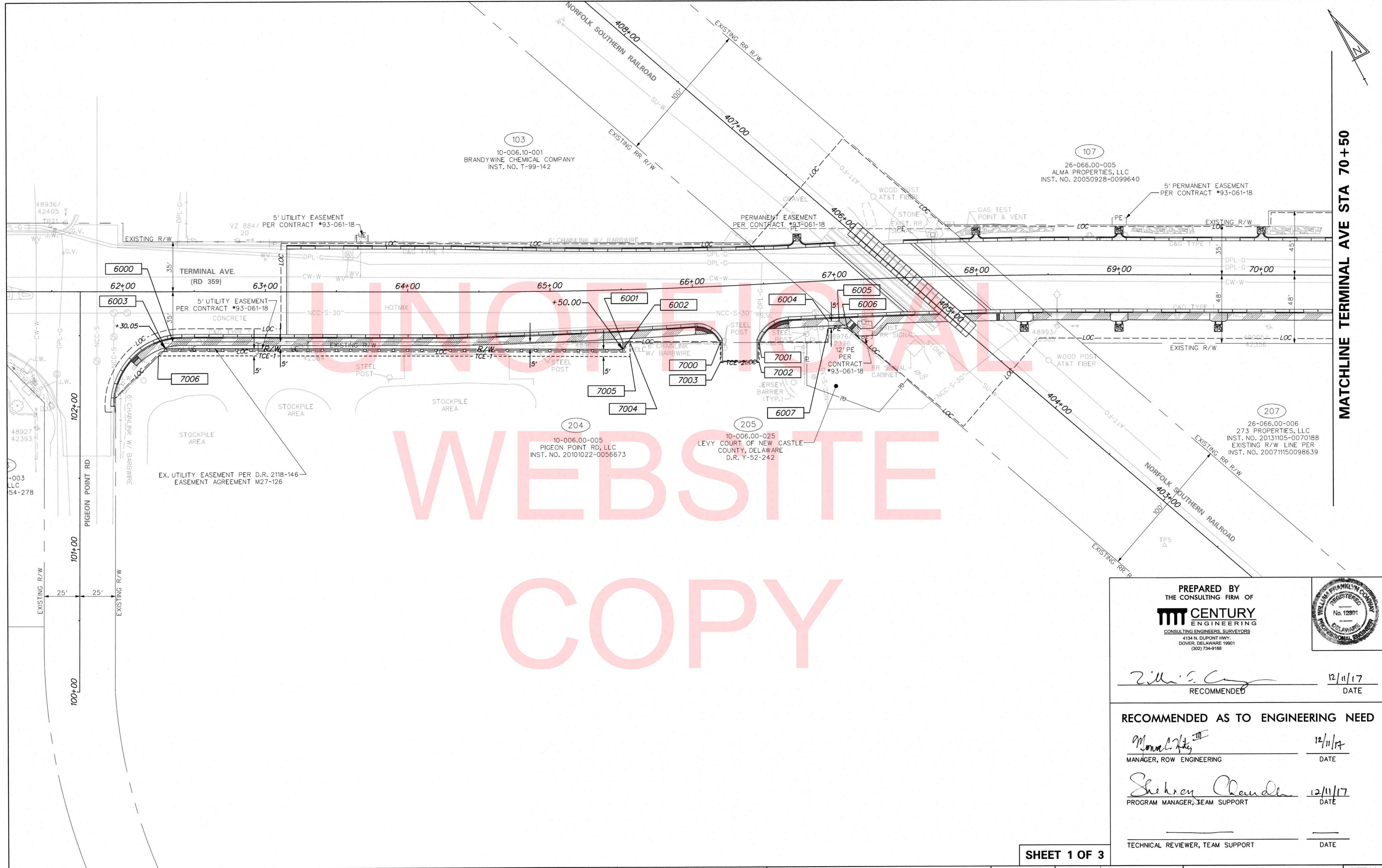
TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS

CONTRACT T201500509	BRIDGE NO. N/A
COUNTY NEW CASTLE	DESIGNED BY: MSK
	CHECKED BY: WFC

SIGNING SCHEDULE

SHEET NO. 31
TOTAL SHTS. 34

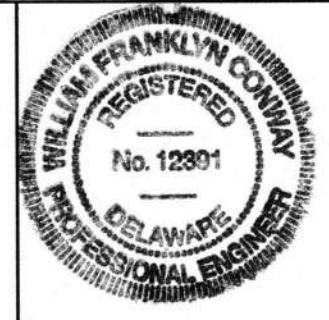
12/7/2017 9:00:16 AM \\vms\dot\map\PROJECTS\115013.00 (DelDOT Agrmt 1583 DOTS Open-End)\115013.14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\rv01_Term_30.dgn



MATCHLINE TERMINAL AVE STA 70+50

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PREPARED BY
THE CONSULTING FIRM OF
MM CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901
(302) 734-9188



William Franklyn Conway 12/11/17
RECOMMENDED DATE

RECOMMENDED AS TO ENGINEERING NEED
Monica L. Kelly III 12/11/17
MANAGER, ROW ENGINEERING DATE

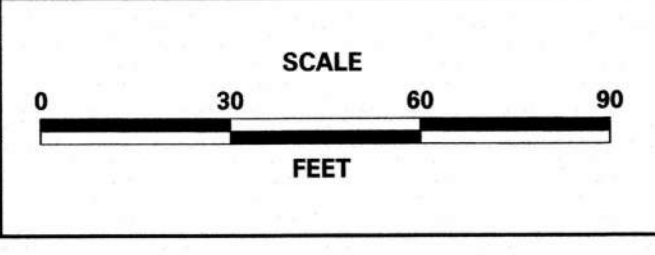
Shehryar Chaudhry 12/11/17
PROGRAM MANAGER, TEAM SUPPORT DATE

TECHNICAL REVIEWER, TEAM SUPPORT DATE

SHEET 1 OF 3

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS



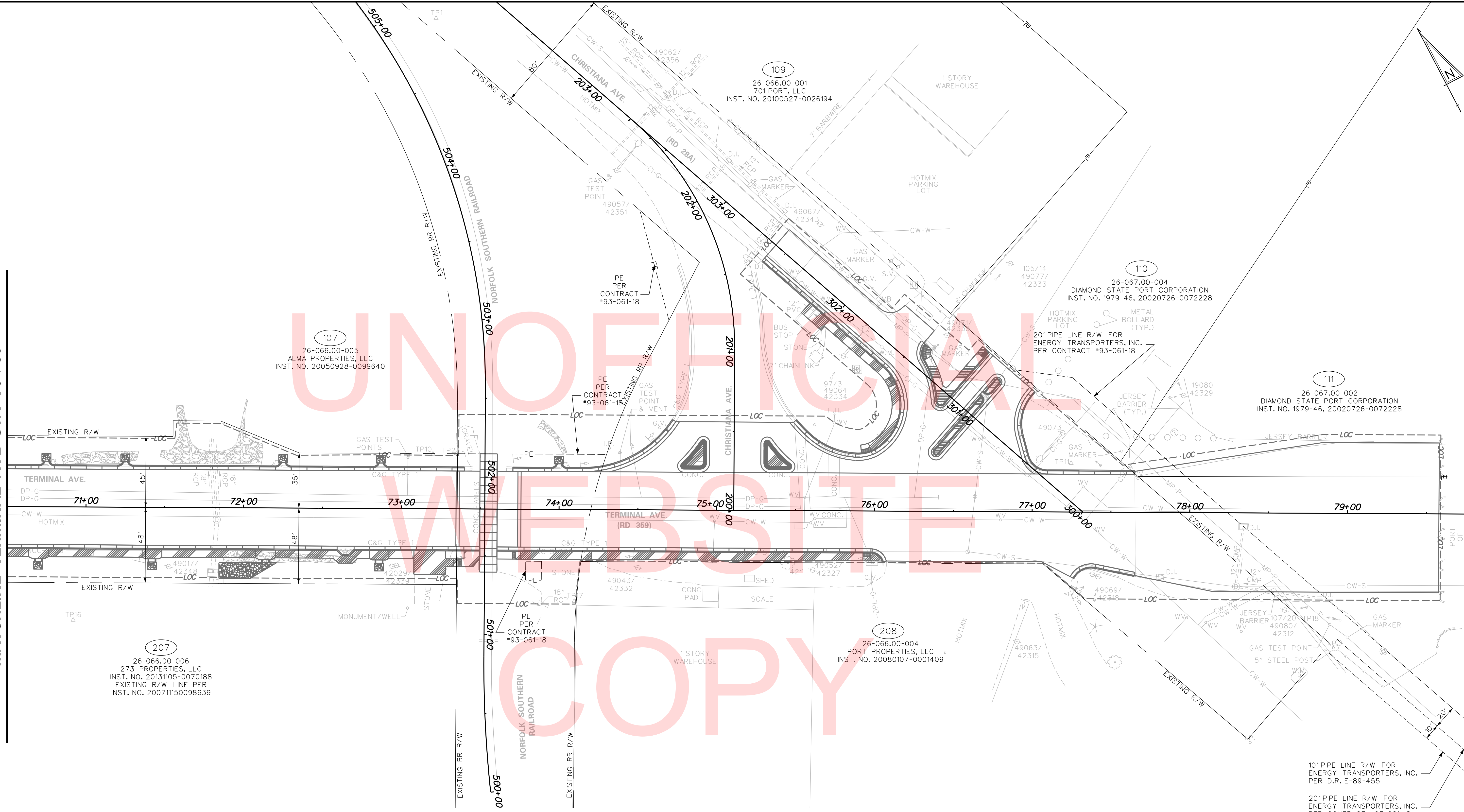
TERMINAL AVENUE (N359) RAILROAD CROSSING SAFETY IMPROVEMENTS

CONTRACT	BRIDGE NO.	NA
T201500509	DESIGNED BY: TMB	RIGHT-OF-WAY PLAN
COUNTY	CHECKED BY: WFC	
NEW CASTLE		

SHEET NO.	32
TOTAL SHTS.	34

1/18/2018 10:35:33 AM \\vmdofiles\anap\PROJECTS\115013.00 (DelDOT Agrmt 1583 DOTS Open-End)\115013.14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\540894E Terminal Ave Active\cadd\rv02_Term_30.dgn

MATCHLINE TERMINAL AVE STA 70+50

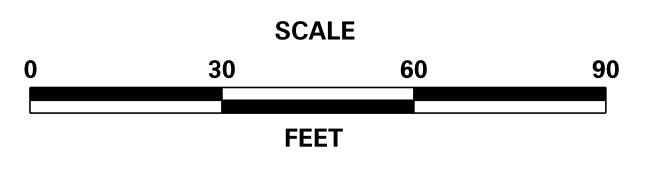


10' PIPE LINE R/W FOR ENERGY TRANSPORTERS, INC. PER D.R. E-89-455
 20' PIPE LINE R/W FOR ENERGY TRANSPORTERS, INC. PER CONTRACT #93-061-18

SHEET 2 OF 3



ADDENDUMS / REVISIONS	



**TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS**

CONTRACT	BRIDGE NO.	NA
T201500509	DESIGNED BY:	TMB
COUNTY	CHECKED BY:	WFC
NEW CASTLE		

RIGHT-OF-WAY PLAN

SHEET NO.	33
TOTAL SHTS.	34

12/14/2017 10:30:53 AM \\vmdof\file\snap\PROJECTS\115013\00 (DelDOT Agrmt 1583 DOTS Open-End)\115013\14 (Task 12, Railroad Design Services)\Crossing Coordination Tasks\34.0894E Terminal Ave Active\Cadd\rvw03_Term_30.dgn

COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESSMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED			PROPERTY AREA REMAINING (SQ. FEET / ACRES)	DEED RECORD OF ACQUISITION	REMARKS
						ACQUISITION (SQ. FEET / ACRES)	EASEMENT				
							AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET / ACRES)	PERMANENT (SQ. FEET / ACRES)			
10-006.00-005	32	(204) PIGEON POINT RD, LLC	INST. NO. 20101022-0056673	D - 7.11	FEE	1593.3465 / 0.04					
					TCE-1			1668.4972 / 0.04			
					TCE-2			382.2761 / 0.01		30811832535 / 7.07	
10-006.00-025	32	(205) LEVY COURT OF NEW CASTLE COUNTY, DELAWARE	D.R. Y-52-242	D - 0.06	P/E					2613.60 / 0.06	

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
10-006.00-005	(204) PIGEON POINT RD, LLC	FEE	INST. NO. 20101022-0056673	7.110

ALIGNMENT NUMBER & DESCRIPTION: 600 - EXISTING TERMINAL AVE.											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	600	62+35.08	35.00	625835.3670	622368.5265	S 62°04'08.78" E	316.16				
6001	600	65+50.15	36.81	625687.2778	622647.8540	S 27°55'05.22" W	5.00				
6002	600	65+50.00	41.81	625682.8598	622645.5130	N 62°04'08.78" W	321.19				
6003	600	62+30.05	40.00	625833.3057	622361.7402	N 73°06'13.47" E	7.09				
6000	600	62+35.08	35.00	625835.3670	622368.5265						

FIGURE 60204 AREA = 1593.3465 SQ. FT. (0.0366 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
10-006.00-005	(204) PIGEON POINT RD, LLC	TCE-1	INST. NO. 20101022-0056673	7.110

ALIGNMENT NUMBER & DESCRIPTION: 600 - EXISTING TERMINAL AVE.											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6003	600	62+30.05	40.00	625833.3057	622361.7402	S 62°04'08.78" E	321.19				
6002	600	65+50.00	41.81	625682.8598	622645.5130	N 27°55'05.22" E	5.00				
6001	600	65+50.15	36.81	625687.2778	622647.8540	S 62°04'08.78" E	5.00				
7004	600	65+55.10	36.96	625684.9358	622652.2716	S 27°55'51.22" W	10.00				
7005	600	65+54.79	46.96	625676.1007	622647.5876	N 62°04'08.78" W	331.22				
7006	600	62+25.02	45.00	625831.2443	622354.9539	N 73°06'13.47" E	7.09				
6003	600	62+30.05	40.00	625833.3057	622361.7402						

FIGURE 61204 AREA = 1668.4972 SQ. FT. (0.0383 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
10-006.00-005	(204) PIGEON POINT RD, LLC	TCE-2	INST. NO. 20101022-0056673	7.110

ALIGNMENT NUMBER & DESCRIPTION: 600 - EXISTING TERMINAL AVE.											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
7000	600	66+17.87	39.44	625655.2331	622708.2972	S 62°04'08.78" E	27.31				
7001	600	66+44.87	40.81	625642.4431	622732.4219	S 27°55'51.22" W	14.00				
7002	600	66+44.13	54.79	625630.0739	622725.8643	N 62°04'08.78" W	27.31				
7003	600	66+17.22	53.42	625642.8639	622701.7395	N 27°55'51.22" E	14.00				
7000	600	66+17.87	39.44	625655.2331	622708.2972						

FIGURE 62204 AREA = 382.2761 SQ. FT. (0.0088 ACRES)

ASSESSMENT NUMBER	OWNERSHIP OF RECORD	TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)
10-006.00-025	(205) LEVY COURT OF NEW CASTLE COUNTY, DELAWARE	P/E	D.R. Y-52-242	0.060

ALIGNMENT NUMBER & DESCRIPTION: 600 - EXISTING TERMINAL AVE.											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6004	600	66+94.32	28.42	625632.9510	622782.3494	S 62°04'08.78" E	7.52				
6005	600	67+01.89	28.77	625629.4269	622788.9967	S 21°26'08.78" E	7.68				
6006	600	67+07.52	34.03	625622.2801	622791.8026	N 62°04'08.78" W	13.35				
6007	600	66+94.07	33.41	625628.5335	622780.0074	N 27°55'50.80" E	5.00				
6004	600	66+94.32	28.42	625632.9510	622782.3494						

FIGURE 60205 AREA = 52.1848 SQ. FT. (0.0012 ACRES)

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LEGEND	
FEE	AREA OF ACQUISITION
R/W	AREA OCCUPIED BY EXISTING RW
P/E	PERMANENT EASEMENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
**	OFFSET IS LEFT OF BASELINE
**	CURVE TURNS TO THE LEFT

SHEET 3 OF 3



ADDENDUMS / REVISIONS

NOT TO SCALE

TERMINAL AVENUE (N-359)
RAILROAD CROSSING
SAFETY IMPROVEMENTS

CONTRACT T201500509	BRIDGE NO. N/A
COUNTY NEW CASTLE	DESIGNED BY: TMB CHECKED BY: WFC

RIGHT-OF-WAY DATA AND TABULATION	
SHEET NO.	34
TOTAL SHTS.	34