THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY UNITS

FINAL PLANS

CONSTRUCTION PLANS FOR:

ROAD A / SR 7 / CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT NUMBER: T201309003

FEDERAL AID PROJECT NUMBER: ESTP-N 336(9)

COUNTY: NEW CASTLE **M.R. #: N336A**

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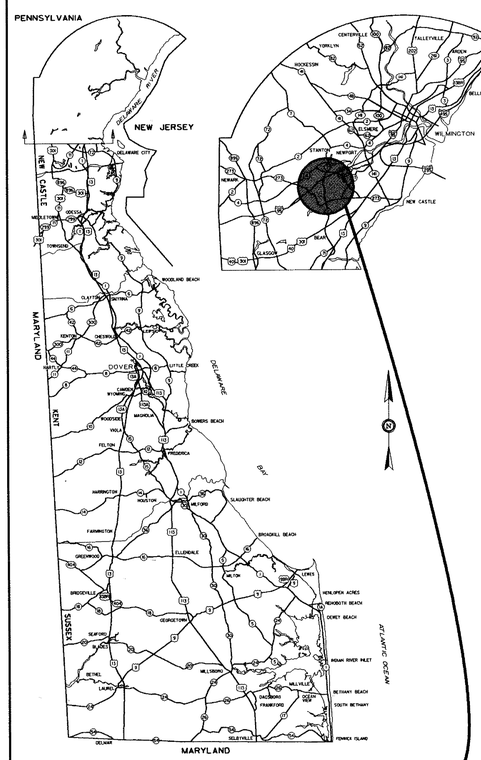
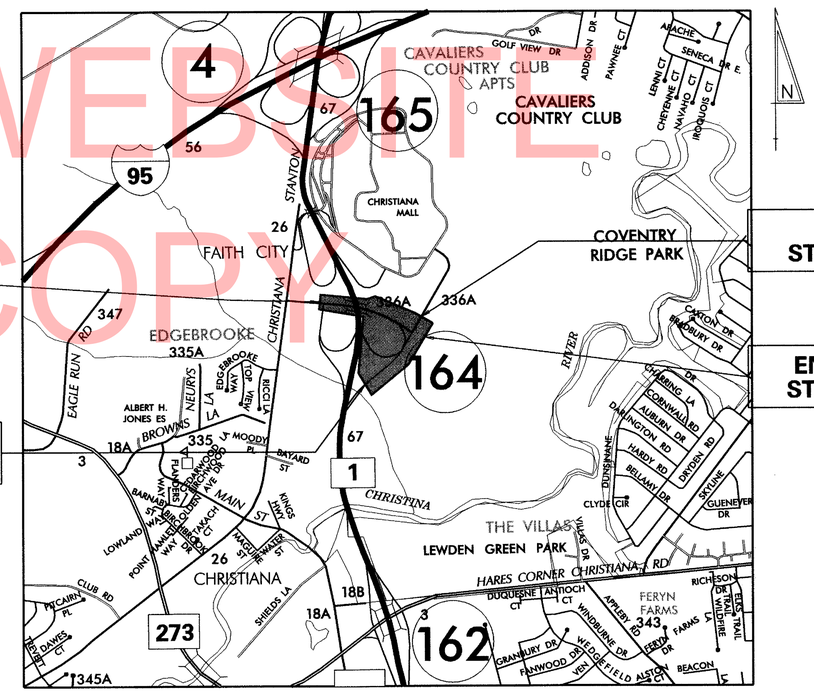


GENERAL LOCATION OF CONTRACT



BEGIN CONTRACT STATION 234+00

LIMITS STATION 111+50

LIMITS STATION 124+00

END CONTRACT STATION 250+56

DESIGN DESIGNATION

FUNCTIONAL CLASS: MAJOR COLLECTOR	D.H.V. PROJECTED: 5755	YEAR: 2030
TYPE OF CONSTRUCTION: INTERSECTION IMPROVEMENTS	DESIGN SPEED: VARIES, 40 M.P.H MAX	
A.A.D.T. CURRENT: 9950 YEAR: 2008	TRUCKS: 2%	
A.A.D.T. PROJECTED: 10150 YEAR: 2030	DIRECTION OF DISTRIBUTION: 50/50%	

INDEX OF SHEETS

SHEET Nº	TABLE OF CONTENTS
1	TITLE
2	PLAN SHEET INDEX
3	LEGEND
4	NOTES
5-12	TYPICAL SECTIONS
13-14	HORIZONTAL AND VERTICAL CONTROL
15-18	CONSTRUCTION PLANS
19-25	PROFILES
26-29	GRADES AND GEOMETRICS
30	CONSTRUCTION DETAILS
31	RETAINING WALL PLANS
32	ENVIRONMENTAL COMPLIANCE PLANS
33-39	CONSTRUCTION PHASING, MOT, AND EROSION CONTROL PLANS
40-41	DETOUR PLANS
42	LIGHTING PLANS
43-46	SIGNING, STRIPING, AND CONDUIT PLANS
47-48	SIGNALIZATION PLANS

TOTAL SHEETS: 48

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
T201309001	FASHION CENTER ENTRANCE, ROAD A AND CENTER BLVD
28-090-03	SR1 / I-95 INTERCHANGE

RECOMMENDED

SQUAD MANAGER, CONSTRUCTION — DATE 9/3/13

GROUP ENGINEER, CONSTRUCTION — DATE 8/30/13

N/A
ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS (CONSTRUCTION) — DATE

RECOMMENDED

STORMWATER ENGINEER

DATE 11 SEP 2013

VINCENT W. DAVIS REGISTERED No. 12898 DELAWARE PROFESSIONAL ENGINEER — SEAL

RECOMMENDED

SQUAD MANAGER, TRANSPORTATION SOLUTIONS (PROJECT DEVELOPMENT OR BRIDGE DESIGN)

DATE 08/28/2013

JERRY K. LOVELL LICENSE No. 16257 DELAWARE PROFESSIONAL ENGINEER — SEAL

RECOMMENDED

BRIDGE DESIGN ENGINEER

DATE 9/6/13

JASON W. HASTINGS REGISTERED No. 13545 DELAWARE PROFESSIONAL ENGINEER — SEAL

RECOMMENDED

GROUP ENGINEER, PROJECT DEVELOPMENT

DATE August 28, 2013

DARREN M. O'NEILL REGISTERED No. 10857 DELAWARE PROFESSIONAL ENGINEER — SEAL

RECOMMENDED

ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS

DATE Sep 11, 2013

MARK CHRISTOPHER TULL REGISTERED No. 10803 DELAWARE PROFESSIONAL ENGINEER — SEAL

APPROVED

CHIEF ENGINEER (ACTING)

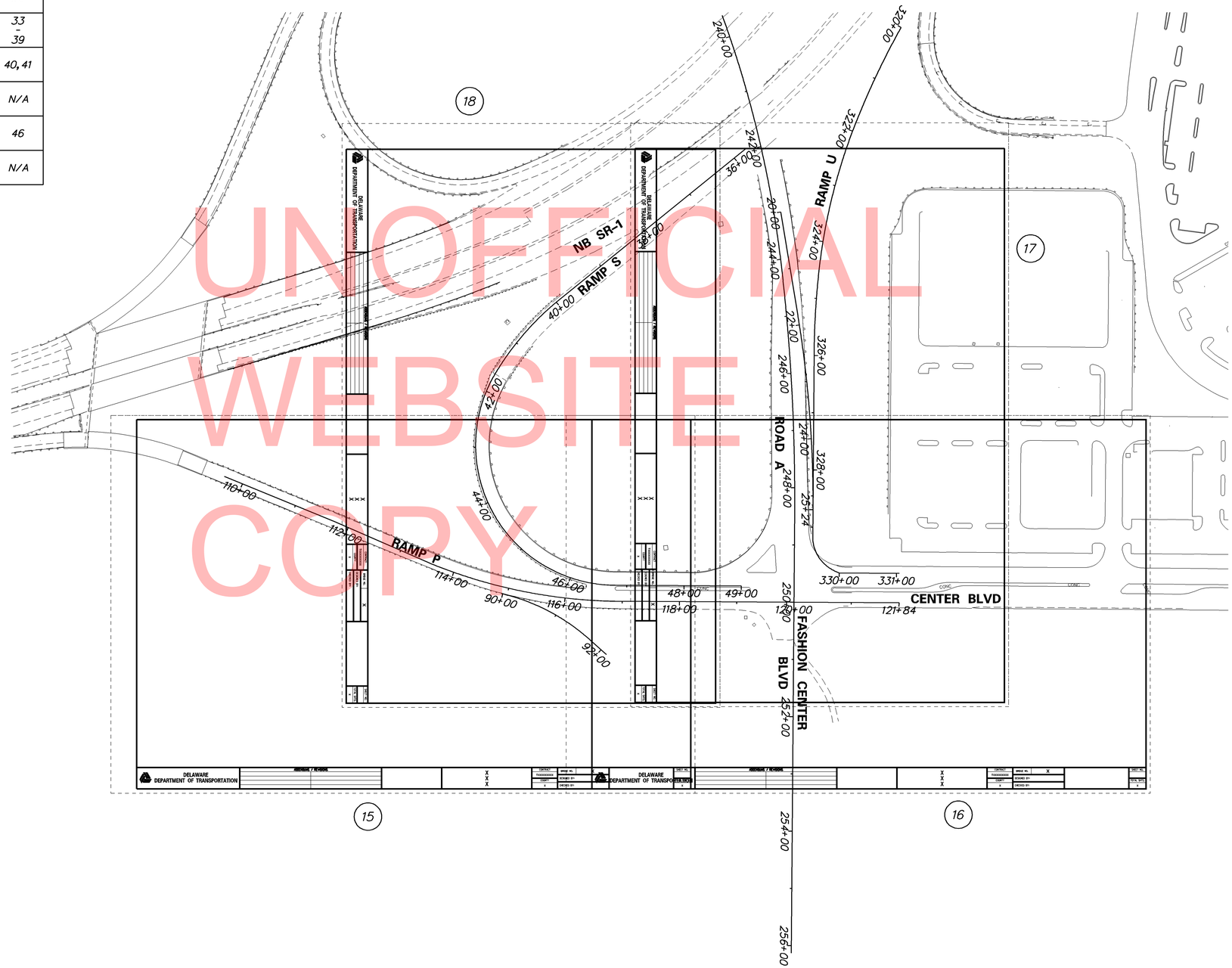
DATE SEPTEMBER 11, 2013

BARRY A. BENTON REGISTERED No. 10774 DELAWARE PROFESSIONAL ENGINEER — SEAL

LAST REVISED: 03/03/2011
Y:\NEWCASTL\336A\ROAD\T201309002\PLANS\TCROADA.DGN

CONSTRUCTION PLAN	15	16	17	18
PROFILES	19, 25	20, 22, 23 & 25	21, 23 & 24	24
GRADES AND GEOMETRICS	26	27	28	29
ENVIRONMENTAL COMPLIANCE	32	32	N/A	32
CONSTRUCTION PHASING, M.O.T. AND E&S	33 - 39	33 - 39	33 - 39	33 - 39
DETOUR PLAN	40, 41	40, 41	40, 41	40, 41
LIGHTING PLAN	N/A	42	42	N/A
SIGNING, STRIPING AND CONDUIT PLAN	43	44	45	46
SIGNALIZATION PLAN	N/A	47, 48	N/A	N/A

PLAN SHEET INDEX CROSS REFERENCE



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 100 200 300 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

PLAN SHEET INDEX

SHEET NO. 2

TOTAL SHTS. 48

W:\MSV8\CELLS\PROJDEV\SB.CEL

EXISTING SYMBOLS

DRAINAGE

	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
C.B. / D.I.	DRAINAGE INLET
J.B.	DRAINAGE JUNCTION BOX
D	DRAINAGE MANHOLE
SIZE/TYPE LABEL	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES

	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
(TYPE LABEL)	CURB
(TYPE LABEL)	CURB AND GUTTER
	FENCE - CHAINLINK OR STRANDED
	FENCE - STOCKADE OR SPLIT RAIL
FP	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
LAMP	LAMP AND POST - RESIDENTIAL
MB	MAILBOX
PM	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
WL	DELINEATED WETLAND BOUNDARY LINE
	WOODS LINE BOUNDARY

RIGHT-OF-WAY SYMBOLS

C.M.	PROPERTY MARKER - CONCRETE MON.
I.P.	PROPERTY MARKER - IRON PIPE
100+00	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING RIGHT-OF-WAY
PB	EXISTING PROPERTY LINE
EASEMENT TYPE	EXISTING EASEMENT
DA	EXISTING DENIAL OF ACCESS
R/W-DA	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION

B.M.	SURVEY BENCHMARK LOCATION
T.P.	SURVEY TIE POINT LOCATION
	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY

	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
TV	CABLE TV DISTRIBUTION BOX
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
E	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
G	GAS MANHOLE
G.M.	GAS METER
G.V.	GAS VALVE
G.P.	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
S	SANITARY SEWER MANHOLE
S.V.	SANITARY SEWER VALVE
VENT	SANITARY SEWER VENT OR CLEANOUT
S.D.F.	SEPTIC DRAIN FIELD
B	TELEPHONE BOOTH
T	TELEPHONE MANHOLE
T	TELEPHONE TEST POINT
J.W.	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
U	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
F.H.	WATER - FIRE HYDRANT
W.M.	WATER METER
W.V.	WATER VALVE
WELL	WELL HEAD
?	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES

-DOT-E-DUCT-	DELDOT ELECTRIC DUCT
—DOT-E-UG—	DELDOT ELECTRIC DUCT (UNDERGROUND)
—DOT-TC-UG—	DELDOT TRAFFIC CONDUIT (UNDGRD)
DP-G	DELMARVA POWER - GAS
-VER-T-DUCT-	VERIZON

PROPOSED SYMBOLS

CONSTRUCTION

	CONCRETE SAFETY BARRIER - PERMANENT
BFS	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
100+00	CONSTRUCTION BASELINE
CSF	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
CZ	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
HC	HORIZONTAL CLEARANCE
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
LOC	LIMIT OF CONSTRUCTION
MB	MAILBOX
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK - 4"
	P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)
	UNDERDRAIN
	UNDERDRAIN OUTLET

RIGHT-OF-WAY SYMBOLS

	PROPOSED RIGHT-OF-WAY MONUMENT
DA	PROPOSED DENIAL OF ACCESS
PE	PROPOSED PERMANENT EASEMENT
R/W	PROPOSED RIGHT-OF-WAY
R/W-DA	PROPOSED R/W & DENIAL OF ACCESS
TCE	TEMPORARY CONSTRUCTION EASEMENT
100+00	PROPOSED RIGHT-OF-WAY BASELINE

IDENTIFIERS

A/C	ADJUST BY CONTRACTOR
A/O	ADJUST BY OTHERS
B	CONCRETE SAFETY BARRIER
C	CURB OR CURB & GUTTER
C.J.B.	CONVERT TO JUNCTION BOX
C.M.H.	CONVERT TO DRAINAGE MANHOLE
C/O	CURB OPENING
CR	CURB RAMP / TYPE
CR-N	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
CSF	CONSTRUCTION SAFETY FENCE
DI	DRAINAGE INLET
DND	DO NOT DISTURB
ED	ENERGY DISSIPATOR
F	FENCE
FES	FLARED END SECTION
FF/C	FILL WITH FLOWABLE FILL
FS	FILTRATION STRUCTURE
GR	GUARDRAIL
JB	JUNCTION BOX
MH	MANHOLE
M	MONUMENT - RIGHT-OF-WAY
P	PIPE
RL/C	RELOCATE BY CONTRACTOR
RL/O	RELOCATE BY OTHERS
RM/C	REMOVE BY CONTRACTOR
RM/O	REMOVE BY OTHERS
UD	UNDERDRAIN / LENGTH
UOP	UNDERDRAIN OUTLET PIPE

LANDSCAPING

LS	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC

ITMS-CON	ITMS CONDUIT
SIG-CON	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN

PAVEMENT SECTION(S)

	OVERLAY PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS
	RECONSTRUCTED PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS
	DRIVEWAY AND ENTRANCE PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS

UTILITY COMPANY FACILITIES

—DOT-TC-UG—	DELDOT TRAFFIC CONDUIT (UNDGRD)

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GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2001 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2001, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2. THE CONTRACTOR SHALL GIVE TWO (2) WEEKS NOTICE TO THE PROPERTY OWNER WHEN ANY FIXTURE, SHRUB OR OTHER OBJECT MUST BE REMOVED FROM THE RIGHT OF WAY OR EASEMENT AREA. IF THE OWNER HAS NOT ATTEMPTED TO SALVAGE THIS PROPERTY, THE CONTRACTOR SHALL REMOVE IT WITHOUT OBLIGATION. COMPENSATION SHALL BE INCIDENTAL TO THE CONTRACT.

3. THE ENDS OF ALL CURBS SHALL BE DEPRESSED FLUSH WITH THE PAVEMENT AT A RATIO OF TWELVE TO ONE (12:1) UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

4. THE CONTRACTOR SHALL PROVIDE AND INSTALL PVC SLEEVES (4" INSIDE MINIMUM DIAMETER, 6" INSIDE MAXIMUM DIAMETER) IN PROPOSED CONCRETE SIDEWALKS, ISLANDS, AND MEDIANS FOR FUTURE TRAFFIC SIGN POSTS AS DIRECTED BY THE ENGINEER. THE LOWER END OF THE SLEEVE SHALL SIT ON THE TOP OF THE SUBBASE MATERIAL. THE COST SHALL BE INCIDENTAL TO THE CONTRACT.

5. STAGING AREAS - PROPER EROSION AND SEDIMENT CONTROL MEASURES AS DETERMINED BY THE ENGINEER SHALL BE INSTALLED IN ALL STAGING AREAS. ALL AREAS USED BY THE CONTRACTOR FOR STAGING OPERATIONS SHALL BE FULLY RESTORED BY THE CONTRACTOR UPON COMPLETION OF THE CONTRACT. IF THE STAGING AREA IS PAVED, IT SHALL BE RESTORED TO ITS ORIGINAL CONDITION. IF THE AREA IS UNPAVED, IT SHALL BE RE-GRADED, TOPSOILED, SEEDED AND MULCHED IN ACCORDANCE WITH DELAWARE STANDARD SPECIFICATIONS 732, 734 AND 735, FOR TOPSOIL, SEED AND MULCH RESPECTIVELY, TO THE SATISFACTION OF THE ENGINEER. THE SEED SHALL ADHERE TO THE SPECIFICATIONS OF SECTION 734 FOR PERMANENT GRASS SEEDING - DRY GROUND. ALL COSTS ASSOCIATED WITH RESTORATION OF THE STAGING AREA SHALL BE AT THE CONTRACTOR'S EXPENSE. IF THE ENGINEER DETERMINES THAT A SATISFACTORY STAND OF GRASS DOES NOT EXIST AT THE TIME OF FINAL INSPECTION, ALL COSTS ASSOCIATED WITH REESTABLISHING A SATISFACTORY STAND OF GRASS SHALL BE AT THE CONTRACTOR'S EXPENSE.

6. SITE REVIEWER - AN EROSION CONTROL SITE REVIEWER SHALL BE A PERSON FROM THE CONTRACTOR'S STAFF ASSIGNED TO EROSION AND SEDIMENT CONTROL IMPLEMENTATION AND MAINTENANCE AND SHALL BE REQUIRED ON SPECIFIC PROJECTS. THE NAME AND DNREC CERTIFICATION NUMBER OF EACH SITE REVIEWER SO REQUIRED SHALL BE SUBMITTED TO THE DEPARTMENT AT THE TIME OF BID. THE NAME OF THE DELAWARE REGISTERED PROFESSIONAL ENGINEER PROVIDING DIRECTION AND SUPERVISION OF THE SITE REVIEWER, AS REQUIRED IN SECTION 12.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, SHALL ALSO BE SUBMITTED TO THE DEPARTMENT AT THE TIME OF BID. THE SITE REVIEWER REQUIREMENTS IN EFFECT ON THIS PROJECT SHALL BE MARKED WITH AN "X" BELOW:

EROSION POTENTIAL FOR THIS PROJECT	SITE REVIEWER REQUIREMENT
( ) INSIGNIFICANT	NONE
( ) MINOR	CONTRACTOR CERTIFICATION COURSE TRAINING ONLY, AS DEFINED IN SECTION 13 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
(X) MEDIUM	AT THE TIME OF BID OF THE CONTRACT, EITHER THE SUPERINTENDENT OR A SEPARATE INDIVIDUAL FROM THE CONTRACTOR'S STAFF SHALL BE A CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 12 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
( ) MAJOR	SUPERINTENDENT AND AN INDIVIDUAL FROM CONTRACTOR'S STAFF SHALL BE CCR. ONE INDIVIDUAL FROM THE CONTRACTOR'S STAFF MUST BE A CCR AT THE TIME OF BID OF THE CONTRACT. THE SUPERINTENDENT MUST BECOME A CCR WITHIN ONE YEAR AFTER THE AWARD OF CONTRACT.

7. ELECTRONIC PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE CONTRACTOR INCLUDE:

( )	NONE
(X)	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
(X)	RASTER FILES, IN .CAL FILE FORMAT, FOR ALL PLAN SHEETS.
( )	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 .DGN 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.

8. 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.
( )	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 743000.
(X)	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 743031.

9. THE DISTURBED AREA FOR THIS PROJECT IS _3.08_ ACRES.

10. 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.

11. 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 THREE 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 THREE 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

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

SECTION 200

2. THE ENGINEER MAY REQUIRE THE CONTRACTOR TO EXCAVATE TEST PITS ALONG PROPOSED DRAINAGE RUNS, AT POINTS OF POSSIBLE UTILITY CONFLICTS, TO DETERMINE IF A CONFLICT EXISTS. ANY CONFLICTS SHALL BE COORDINATED BY THE CONTRACTOR, WITH THE ENGINEER AND THE UTILITY COMPANY INVOLVED. THE ENGINEER SHALL ULTIMATELY DETERMINE THE SOLUTION TO THE UTILITY CONFLICT. TEST HOLES SHALL BE MEASURED AND PAID FOR IN ACCORDANCE WITH ITEM 208000 - EXCAVATION AND BACKFILL FOR PIPE TRENCHES, BUT ONLY TO THE ACTUAL DEPTH EXCAVATED.

3. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
   - GUARDRAIL -SIGNAL FOUNDATIONS -PIPE
   - DRAINAGE STRUCTURES -EXISTING CONCRETE HEADWALLS

4. THIS PROJECT IS COVERED UNDER AN 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.

SECTION 300

5. A. THE CONTRACTOR MAY ELECT TO USE ANY OF THE FOLLOWING MATERIALS TO MEET THE REQUIREMENTS OF ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B':
   a. CRUSHED STONE (PER STANDARD SPECIFICATION 821)
   b. CRUSHED CONCRETE (PER STANDARD SPECIFICATION 821)
   c. HOT-MIX MILLINGS (PER SPECIAL PROVISION 302514 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 302007 - 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 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

   C. 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.

   D. HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
   a. MATERIAL MADE AVAILABLE WHEN MILLED ON THIS CONTRACT UNDER ITEM 760507.
   b. MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
   c. 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 302514 - MILLED HOT-MIX BASE COURSE.

   E. PAYMENT CLARIFICATION:
   a. MILLINGS GENERATED UNDER ITEM 760502 - PAVEMENT MILLINGS, TAPERCUT 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.

   b. 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.

   c. MILLINGS USED FOR BASE COURSE SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIAL PROVISION 302514 - 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 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

   d. 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.

   e. SPECIAL PROVISION 302514 - 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 - 302514 MILLED HOT-MIX BASE COURSE ARE INCIDENTAL TO ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'. NO PAYMENT WILL BE MADE FOR ITEM 302514 - MILLED HOT-MIX BASE COURSE. THE QUANTITY OF MILLINGS USED FOR BASE COURSE WILL BE PAID FOR UNDER ITEM 302007 - GRADED AGGREGATE BASE COURSE.

SECTION 600

6. THE DEPARTMENT AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES AND DRAINAGE STRUCTURES TO BE USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON THE CONDITION PRIOR TO THE START OF CONSTRUCTION. EXISTING PIPES AND DRAINAGE STRUCTURES DAMAGED DUE TO CONTRACTOR OPERATIONS SHALL BE REPAIRED OR REPLACED IN-KIND AT THE CONTRACTOR'S EXPENSE. THE DEPARTMENT WILL VIDEO INSPECT NEW PIPE RUNS TO CONFIRM CONDITION PRIOR TO ACCEPTANCE. PIPE CLEANING PRIOR TO VIDEO INSPECTION AND MAINTENANCE OF TRAFFIC DURING THE VIDEO INSPECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR AND INCIDENTAL TO THE PIPE ITEM THAT IS BEING VIDEO INSPECTED.

SECTION 700

7. 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 762002 - SAWCUTTING, CONCRETE, FULL DEPTH.

8. PORTLAND CEMENT CONCRETE CHANNELIZING ISLANDS THAT ARE LESS THAN 75 SQ FT MAY BE POURED MONOLITHICALLY, OR AS DIRECTED BY THE ENGINEER.

9. STATION AND ELEVATION DATA GIVEN FOR DRAINAGE STRUCTURES ARE TO BE APPLIED TO THE CENTER OF THE GRATE FOR INLETS, AND TO THE CENTER OF THE STRUCTURE FOR JUNCTION BOXES AND MANHOLES.

10. DRAINAGE INLET GRATES ADJACENT TO THE ROAD, WITHIN THE PROJECT LIMITS, WHICH ARE NOT TYPE 1 SHALL BE REPLACED. THE ACTUAL LOCATIONS, THE NEED FOR ANY GRATE MODIFICATIONS OR FOR NEW FRAMES SHALL BE DETERMINED BY THE ENGINEER. ALL REPLACED GRATES/FRAMES SHALL BE DELIVERED TO THE NEAREST DISTRICT MAINTENANCE YARD WITH THE COST OF DELIVERY INCIDENTAL TO ITEM 708060 - REPLACING CATCH BASIN GRATES. FINAL PAYMENT FOR REPLACED GRATES/FRAMES SHALL NOT BE MADE UNTIL RECEIPT OF DELIVERED MATERIALS IS PRODUCED, SIGNED BY A DELDOT MAINTENANCE YARD SUPERVISOR.

11. ALL PAVED AREAS TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT.

MISCELLANEOUS

12. THE CONTRACTOR SHALL CONTACT MICHAEL ELLER, THE CHIEF OF SCHEDULING FOR DART FIRST STATE, 14 DAYS PRIOR TO THE START OF CONSTRUCTION AT 302-576-6061.

EARTHWORK SUMMARY

EXCAVATION	
EXCAVATION FROM CROSS SECTIONS	3,048 C.Y.
ROCK EXCAVATION FOR ROADWAY AND TRENCHES	5 C.Y.
TOPSOIL STRIPPING	1,993 C.Y.
TOTAL EXCAVATION	5,046 C.Y.
EXCAVATION AVAILABLE FOR EMBANKMENT	
EXCAVATION MEETING BORROW TYPE 'A'	0 C.Y.
EXCAVATION MEETING BORROW TYPE 'F'	2,677 C.Y.
EXCAVATION MEETING TOPSOIL	1,594 C.Y.
EMBANKMENT REQUIREMENTS	
BORROW TYPE 'A' REQUIRED (INCLUDING UNDERCUT)	3,197 C.Y.
BORROW TYPE 'F' REQUIRED	6,672 C.Y.
TOPSOIL REQUIRED	1,295 C.Y.
MATERIAL BALANCE ("+"= EXCESS, "-"= NEED)	
BORROW TYPE 'A'	-3,197 C.Y.
BORROW TYPE 'F'	-3,995 C.Y.
TOPSOIL	+299 C.Y.
UNSUITABLE MATERIAL	+775 C.Y.

NOTES:
1) THE VALUES LISTED IN THE EARTHWORK SUMMARY ARE APPROXIMATE AND ARE NOT TO BE USED AS A BASIS OF PAYMENT. THE EARTHWORK SUMMARY IS CONSIDERED FOR INFORMATIONAL PURPOSES ONLY.

2) OTHER SOURCES OF EXCAVATION MAY INCLUDE PIPE TRENCH EXCAVATION, STRUCTURE EXCAVATION, UNDERCUT EXCAVATION, STORMWATER MANAGEMENT POND EXCAVATION, ENVIRONMENTAL SITE EXCAVATION, MAINTENANCE OF TRAFFIC EXCAVATION, ETC.

3) UNSUITABLE MATERIALS INCLUDE UNDERCUT SOILS, BITUMINOUS PAVEMENT, ETC.

13. DELDOT PLANS TO MEET THE NEEDED BORROW REQUIREMENTS FOR THE PROJECT FROM THE DELDOT OWNED STOCKPILE LOCATED NORTHEAST OF THE FASHION CENTER SITE. MATERIAL SOURCED FROM THIS SITE SHALL BE PAID UNDER 202000. THE CONTRACTOR SHALL USE BORROW MATERIAL FROM THIS SITE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

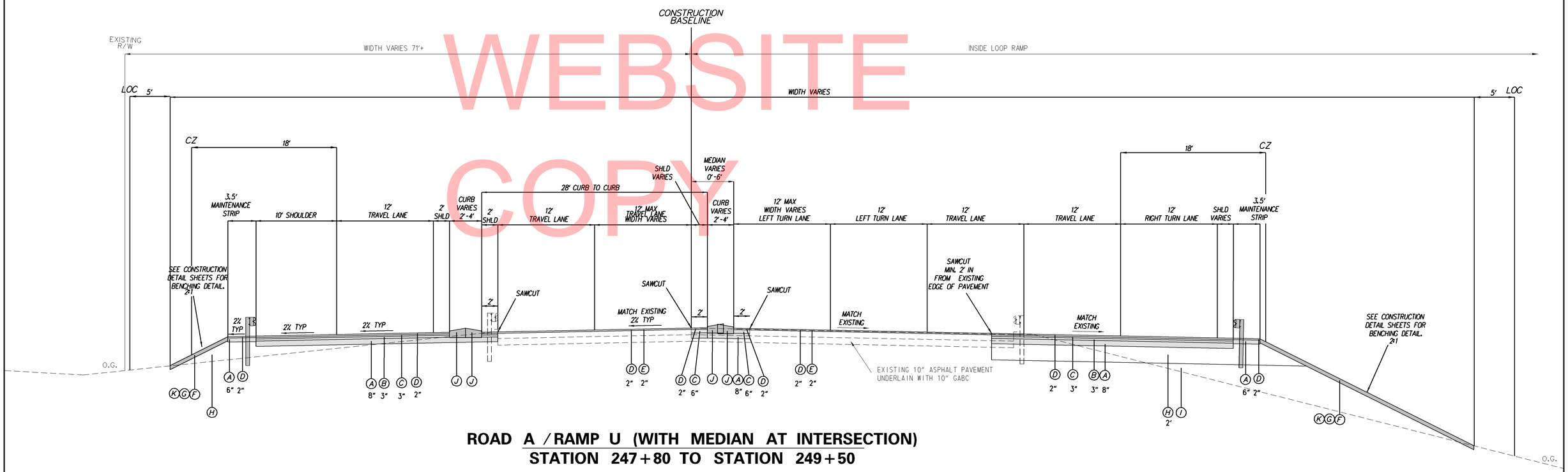
UNOFFICIAL WEBSITE COPY

LEGEND

- (A) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (B) ITEM 401819 - WMA, SUPERPAVE, BCBC, 160 GYR., PG 64-22
- (C) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22
- (D) ITEM 401827 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, NON-CARB.
- (E) ITEM 760507 - PROFILE MILLING, 2"
- (F) ITEM 733002 - TOPSOILING 6"
- (G) ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (H) ITEM 209001 - BORROW, TYPE A
- (I) ITEM 209006 - BORROW, TYPE F
- (J) ITEM 701011 - PORTLAND CEMENT CONCRETE CURB, TYPE 2
- (K) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	3"	8"

UNOFFICIAL WEBSITE COPY



ROAD A / RAMP U (WITH MEDIAN AT INTERSECTION)
STATION 247+80 TO STATION 249+50

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 6 12 18 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	TYPICAL SECTIONS	SHEET NO. 5
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

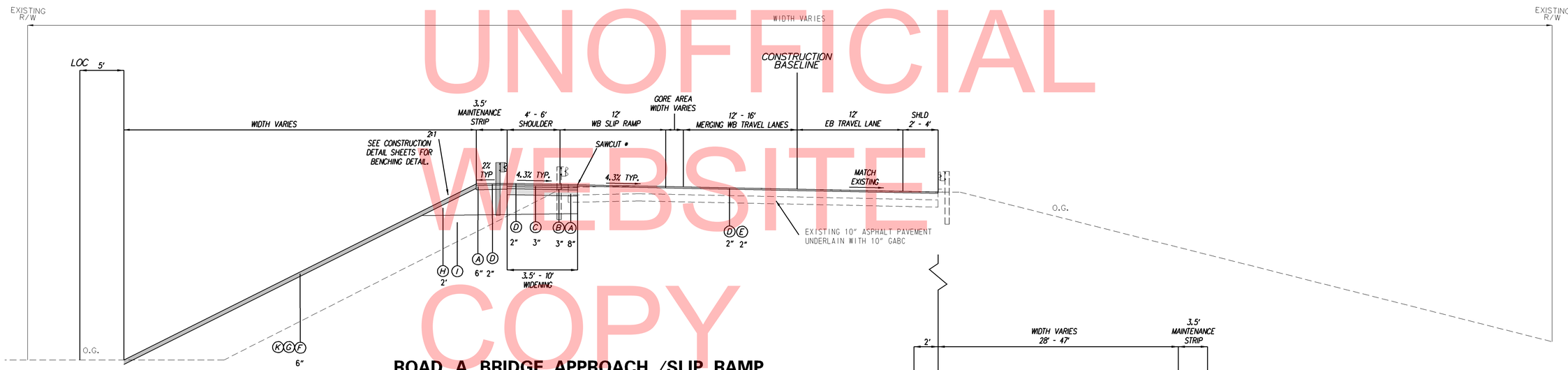
LEGEND

- (A) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (B) ITEM 401819 - WMA, SUPERPAVE, BCBC, 160 GYR., PG 64-22
- (C) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22
- (D) ITEM 401827 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, NON-CARB.
- (E) ITEM 760507 - PROFILE MILLING, 2"
- (F) ITEM 733002 - TOPSOILING 6"
- (G) ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (H) ITEM 209001 - BORROW, TYPE A
- (I) ITEM 209006 - BORROW, TYPE F
- (J) ITEM 701011 - PORTLAND CEMENT CONCRETE CURB, TYPE 2
- (K) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

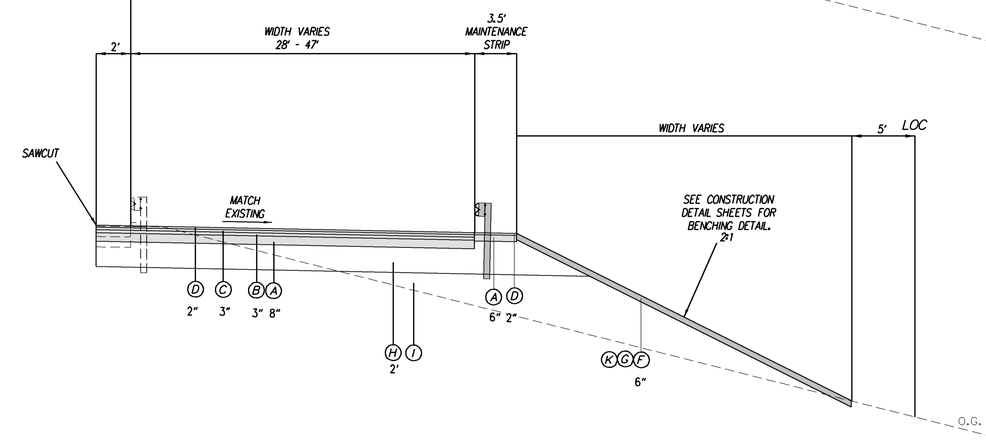
MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	3"	8"

* SAWCUT OFFSET:
USE GREATER OF
2' INSIDE EXISTING EDGE OF PAVEMENT OR
2' OFFSET PROPOSED FACE OF CURB

UNOFFICIAL WEBSITE COPY



ROAD A BRIDGE APPROACH /SLIP RAMP
STATION 242+10 TO STATION 245+60



ROAD A EB WIDENING (SECTION WITHOUT MEDIAN)
STATION 245+10 TO STATION 247+80

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 6 12 18 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	TYPICAL SECTIONS	SHEET NO. 6
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

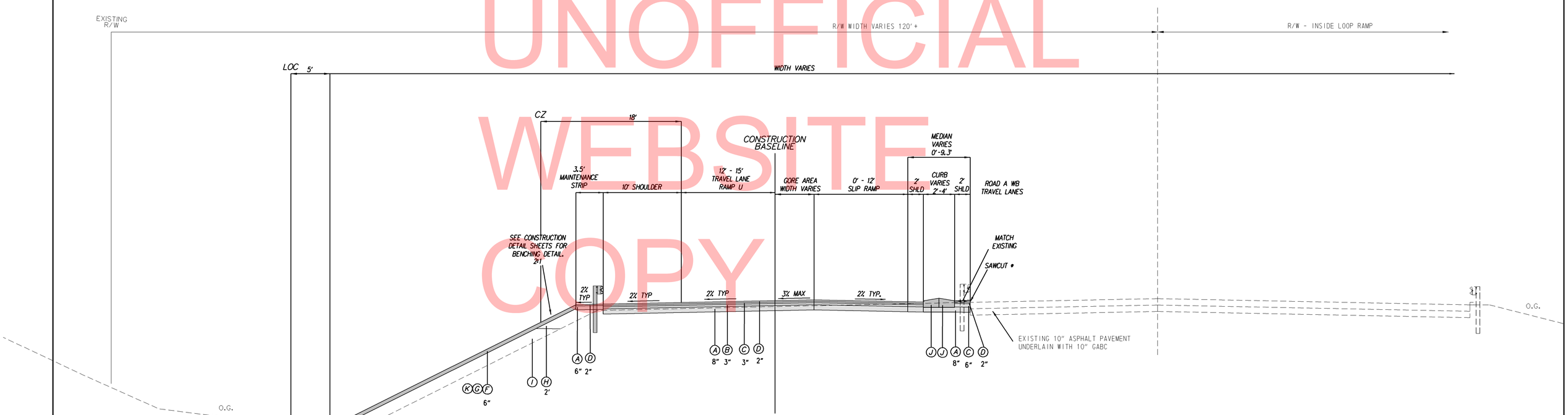
LEGEND

- (A) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (B) ITEM 401819 - WMA, SUPERPAVE, BCBC, 160 GYR., PG 64-22
- (C) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22
- (D) ITEM 401827 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, NON-CARB.
- (E) ITEM 760507 - PROFILE MILLING, 2"
- (F) ITEM 733002 - TOPSOILING 6"
- (G) ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (H) ITEM 209001 - BORROW, TYPE A
- (I) ITEM 209006 - BORROW, TYPE F
- (J) ITEM 701011 - PORTLAND CEMENT CONCRETE CURB, TYPE 2
- (K) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	3"	8"

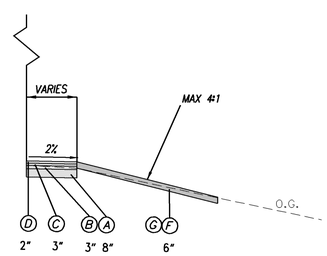
* SAWCUT OFFSET:
USE GREATER OF
2' INSIDE EXISTING EDGE OF PAVEMENT OR
2' OFFSET PROPOSED FACE OF CURB

UNOFFICIAL WEBSITE COPY



RAMP U

STATION 325+20 TO STATION 329+50



RAMP U

STATION 323+00 TO STATION 325+20

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 6 12 18 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	TYPICAL SECTIONS	SHEET NO. 7
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

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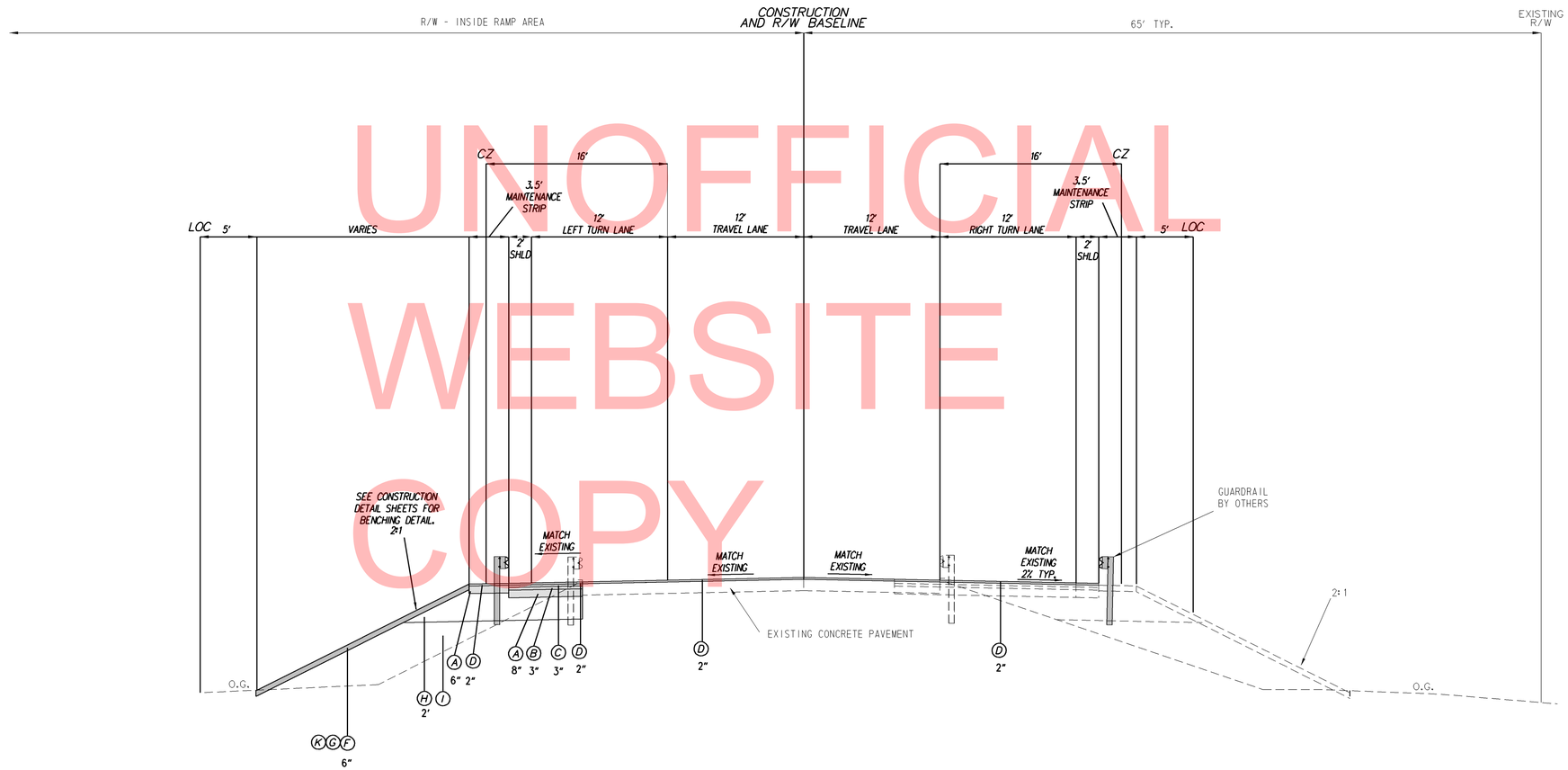
LEGEND

- (A) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (B) ITEM 401819 - WMA, SUPERPAVE, BCBC, 160 GYR., PG 64-22
- (C) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22
- (D) ITEM 401827 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, NON-CARB.
- (E) ITEM 760507 - PROFILE MILLING, 2"
- (F) ITEM 733002 - TOPSOILING 6"
- (G) ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (H) ITEM 209001 - BORROW, TYPE A
- (I) ITEM 209006 - BORROW, TYPE F
- (J) ITEM 701011 - PORTLAND CEMENT CONCRETE CURB, TYPE 2
- (K) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	3"	8"



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RAMP P
STATION 112+00 TO STATION 116+40

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 6 12 18 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	TYPICAL SECTIONS	SHEET NO. 8
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

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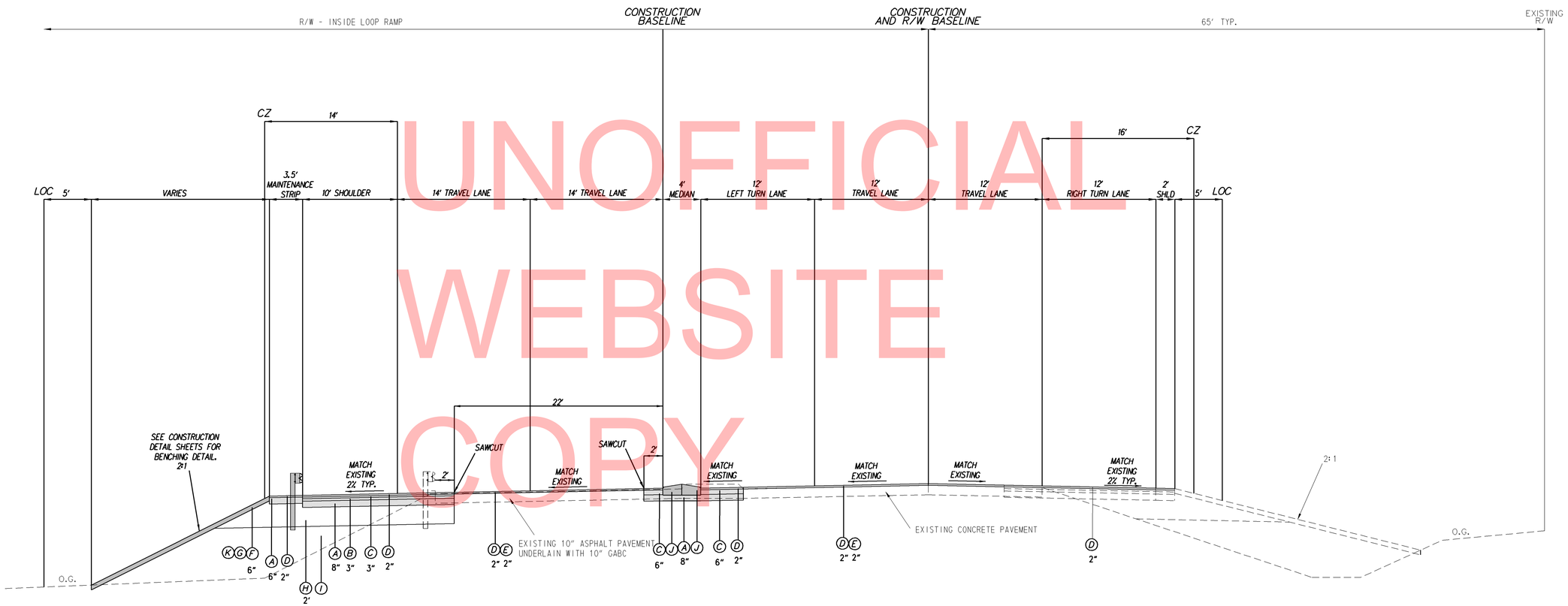
MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	3"	8"

LEGEND

- (A) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (B) ITEM 401819 - WMA, SUPERPAVE, BCBC, 160 GYR., PG 64-22
- (C) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22
- (D) ITEM 401827 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, NON-CARB.
- (E) ITEM 760507 - PROFILE MILLING, 2"
- (F) ITEM 733002 - TOPSOILING 6"
- (G) ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (H) ITEM 209001 - BORROW, TYPE A
- (I) ITEM 209006 - BORROW, TYPE F
- (J) ITEM 701011 - PORTLAND CEMENT CONCRETE CURB, TYPE 2
- (K) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5



UNOFFICIAL WEBSITE COPY

RAMP S /RAMP P
STATION 116+40 TO STATION 119+10

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 6 12 18 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	TYPICAL SECTIONS	SHEET NO. 9
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

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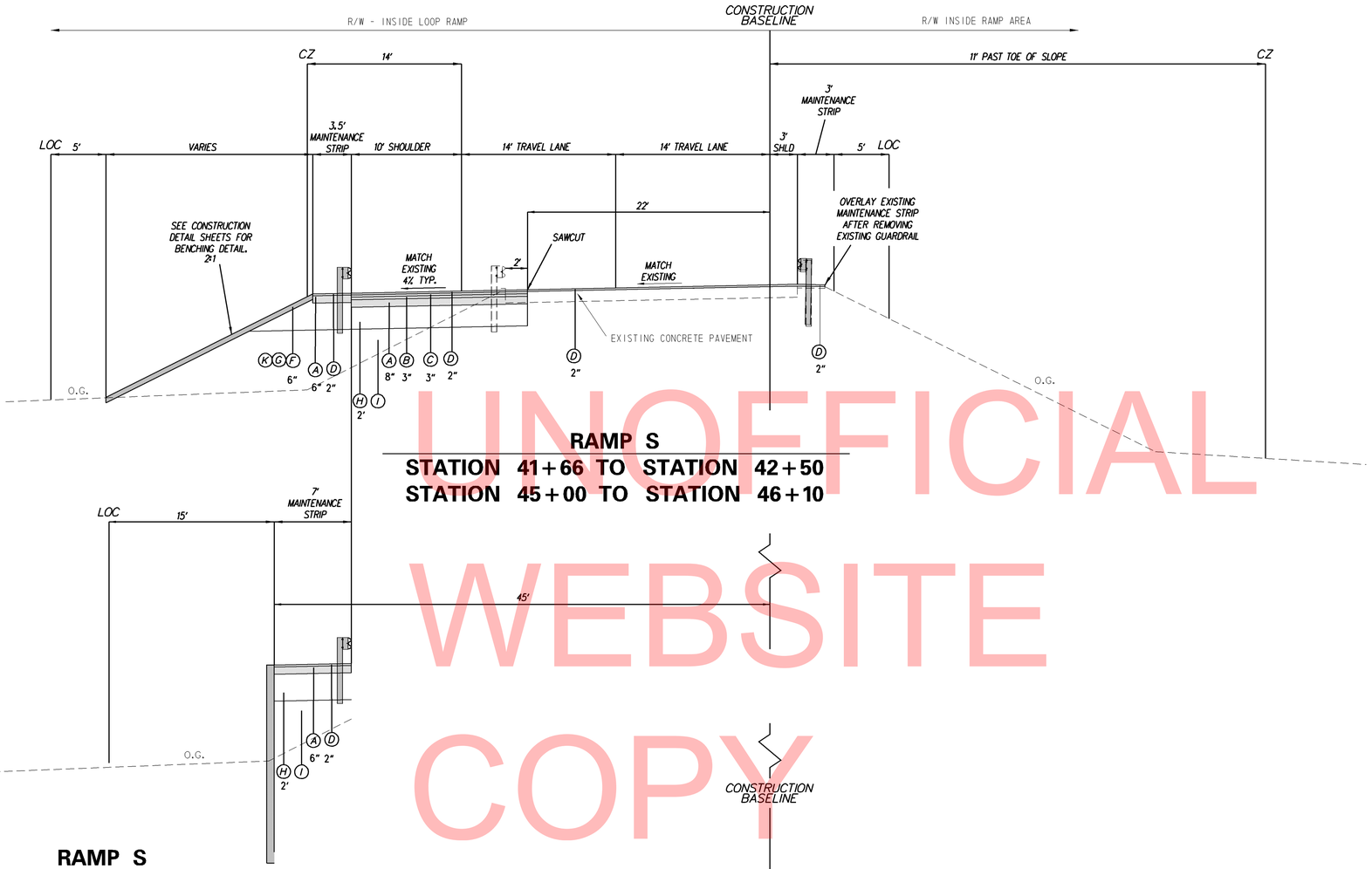


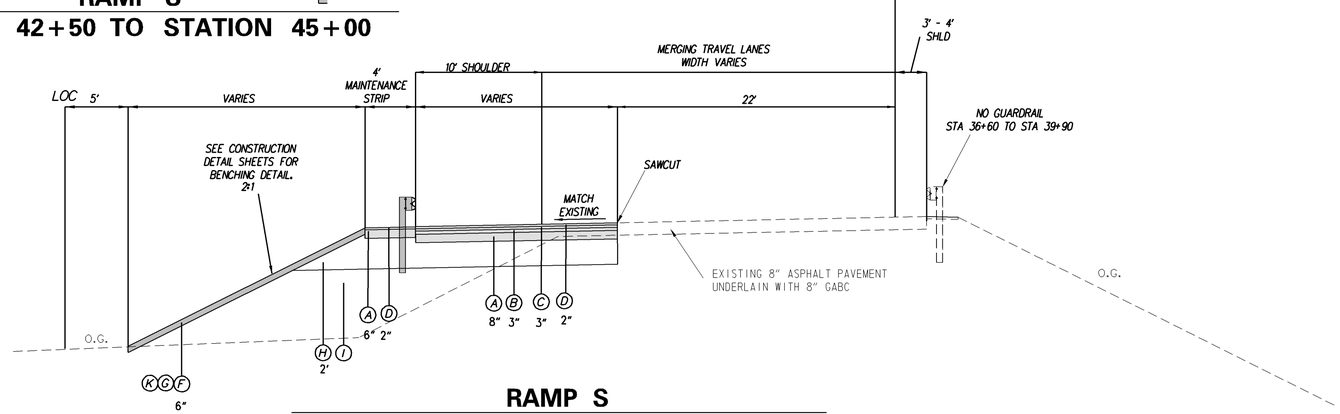
RAMP S

STATION 41+66 TO STATION 42+50

STATION 45+00 TO STATION 46+10

RAMP S

STATION 42+50 TO STATION 45+00



RAMP S

STATION 37+60 TO STATION 41+66

LEGEND

- (A) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (B) ITEM 401819 - WMA, SUPERPAVE, BCBC, 160 GYR., PG 64-22
- (C) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22
- (D) ITEM 401827 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, NON-CARB.
- (E) ITEM 760507 - PROFILE MILLING, 2"
- (F) ITEM 733002 - TOPSOILING 6"
- (G) ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (H) ITEM 209001 - BORROW, TYPE A
- (I) ITEM 209006 - BORROW, TYPE F
- (J) ITEM 701011 - PORTLAND CEMENT CONCRETE CURB, TYPE 2
- (K) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	3"	8"

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 6 12 18 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

TYPICAL SECTIONS

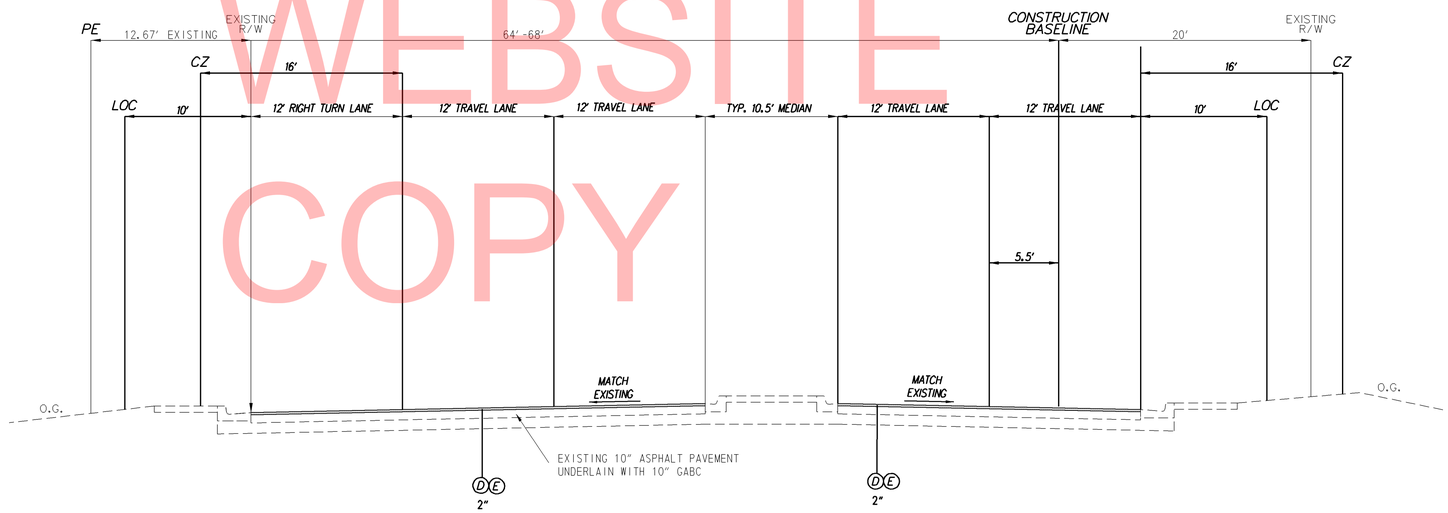
SHEET NO.
10
TOTAL SHTS.
48

LEGEND

- (A) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (B) ITEM 401819 - WMA, SUPERPAVE, BCBC, 160 GYR., PG 64-22
- (C) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22
- (D) ITEM 401827 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, NON-CARB.
- (E) ITEM 760507 - PROFILE MILLING, 2"
- (F) ITEM 733002 - TOPSOILING 6"
- (G) ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (H) ITEM 209001 - BORROW, TYPE A
- (I) ITEM 209006 - BORROW, TYPE F
- (J) ITEM 701011 - PORTLAND CEMENT CONCRETE CURB, TYPE 2
- (K) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	3"	8"

UNOFFICIAL WEBSITE COPY



CENTER BLVD
STATION 120+00 TO STATION 121+84

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 6 12 18 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	TYPICAL SECTIONS	SHEET NO. 11
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

LEGEND

- (A) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (B) ITEM 401819 - WMA, SUPERPAVE, BCBC, 160 GYR., PG 64-22
- (C) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYR., PG 64-22
- (D) ITEM 401827 - WMA, SUPERPAVE, TYPE C, 160 GYR., PG 64-22, NON-CARB.
- (E) ITEM 760507 - PROFILE MILLING, 2"
- (F) ITEM 733002 - TOPSOILING 6"
- (G) ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (H) ITEM 209001 - BORROW, TYPE A
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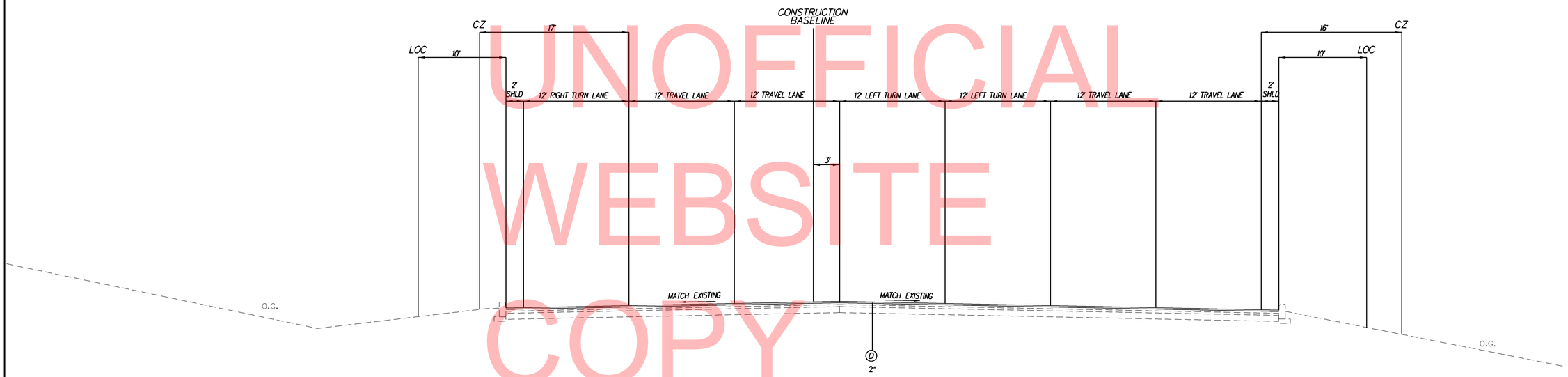
- (J) ITEM 701011 - PORTLAND CEMENT CONCRETE CURB, TYPE 2
- (K) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
WARM-MIX, TYPE 'C'	1.25"	2"
WARM-MIX, TYPE 'B'	2.25"	3"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	3"	8"



UNOFFICIAL WEBSITE COPY

FASHION CENTER BLVD

STATION 250+00 TO STATION 250+56

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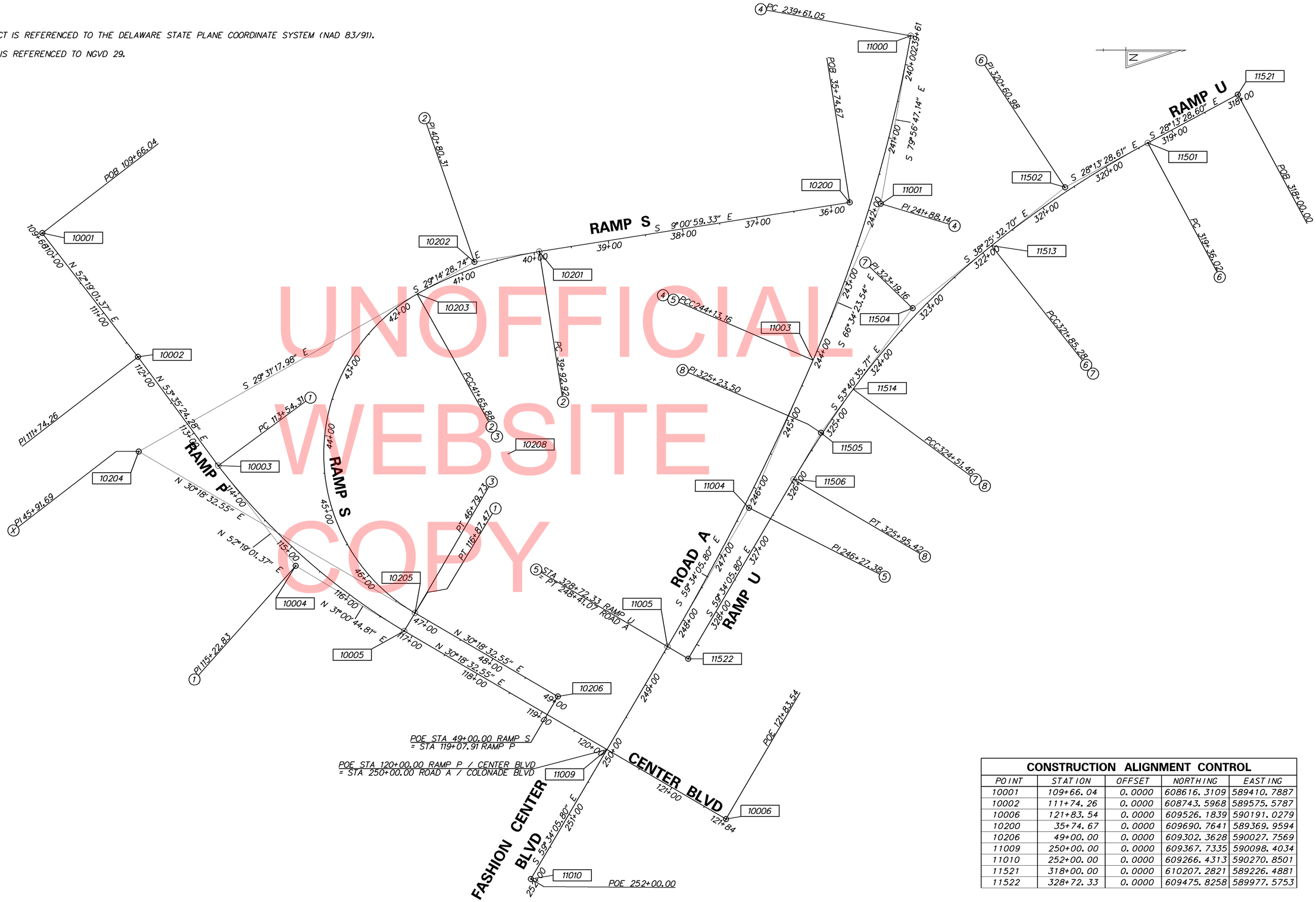
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 6 12 18 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	TYPICAL SECTIONS	SHEET NO. 12
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).

VERTICAL - THIS PROJECT IS REFERENCED TO NGVD 29.



UNOFFICIAL WEBSITE COPY

CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
10001	109+66.04	0.0000	608616.3109	589410.7887
10002	111+74.26	0.0000	608743.5968	589575.5787
10006	121+83.54	0.0000	609526.1839	590191.0279
10200	35+74.67	0.0000	609690.7641	589369.9594
10206	49+00.00	0.0000	609302.3628	590027.7569
11009	250+00.00	0.0000	609367.7335	590098.4034
11010	252+00.00	0.0000	609266.4313	590270.8501
11521	318+00.00	0.0000	610207.2821	589226.4881
11522	328+72.33	0.0000	609475.8258	589977.5753

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 60 120 180 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT T201009002 | COUNTY NEW CASTLE | BRIDGE NO. N/A | DESIGNED BY: RPM | CHECKED BY: JKL

HORIZONTAL AND VERTICAL CONTROL

SHEET NO. 13 | TOTAL SHTS. 48

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CIRCULAR CURVE NO. 1

	STATION	NORTHING	EASTING
Element: Circular			
PC (10003)	113+54.31	608850.4637	589720.4769
PI (10004)	115+22.83	608953.4838	589853.8512
CC (10007)		609559.5630	589172.7596
PT (10005)	116+87.47	609097.9220	589940.6812

Radius: 896.00
Delta: 21°18′16.5603″ Left
Degree of Curvature(Arc): 6°23′40.6257″
Length: 333.16
Tangent: 168.53
Chord: 331.25
Middle Ordinate: 15.44
External: 15.71
Tangent Direction: N 52°19′01.3706″ E
Radial Direction: S 37°40′58.6294″ E
Chord Direction: N 41°39′53.0904″ E
Radial Direction: S 58°59′15.1897″ E
Tangent Direction: N 31°00′44.8103″ E

CIRCULAR CURVE NO. 2

	STATION	NORTHING	EASTING
Element: Circular			
PC (10201)	39+92.92	609277.6880	589435.5060
PI (10202)	40+80.31	609191.3760	589449.2019
CC (10207)		609354.4801	589919.4512
PCC (10203)	41+65.88	609115.1205	589491.8919

Radius: 490.00
Delta: 20°13′29.4067″ Left
Degree of Curvature(Arc): 11°41′34.8584″
Length: 172.97
Tangent: 87.39
Chord: 172.07
Middle Ordinate: 7.61
External: 7.73
Tangent Direction: S 9°00′59.3284″ E
Radial Direction: S 80°59′00.6716″ W
Chord Direction: S 19°07′44.0317″ E
Radial Direction: S 60°45′31.2649″ W
Tangent Direction: S 29°14′28.7351″ E

CIRCULAR CURVE NO. 3

	STATION	NORTHING	EASTING
Element: Circular			
PCC (10203)	41+65.88	609115.1205	589491.8919
PI (10204)	45+91.69	608744.5988	589701.7079
CC (10208)		609235.8448	589705.0834
PT (10205)	46+79.73	609112.2022	589916.5958

Radius: 245.00
Delta: 120°10′09.4699″ Left
Degree of Curvature(Arc): 23°23′09.7168″
Length: 513.85
Tangent: 425.80
Chord: 424.71
Middle Ordinate: 122.81
External: 246.26
Tangent Direction: S 29°31′17.9757″ E
Radial Direction: S 60°28′42.0243″ W
Chord Direction: S 89°36′22.7106″ E
Radial Direction: S 59°41′27.4456″ E
Tangent Direction: N 30°18′32.5544″ E

CIRCULAR CURVE NO. 4

	STATION	NORTHING	EASTING
Element: Circular			
PC (11000)	239+61.05	609771.8349	589148.1305
PI (11001)	241+88.14	609732.1927	589371.7299
CC (11007)		607864.5776	588809.9906
PCC (11003)	244+13.16	609641.9084	589580.0973

Radius: 1937.00
Delta: 13°22′23.6006″ Right
Degree of Curvature(Arc): 2°57′28.6735″
Length: 452.11
Tangent: 227.09
Chord: 451.08
Middle Ordinate: 13.18
External: 13.27
Tangent Direction: S 79°56′47.1432″ E
Radial Direction: S 10°03′12.8568″ W
Chord Direction: S 73°15′35.3429″ E
Radial Direction: S 23°25′36.4574″ W
Tangent Direction: S 66°34′23.5426″ E

CIRCULAR CURVE NO. 5

	STATION	NORTHING	EASTING
Element: Circular			
PCC (11003)	244+13.16	609641.9084	589580.0973
PI (11004)	246+27.38	609556.7393	589776.6591
CC (11008)		606430.4176	588188.5777
PT (11005)	248+41.07	609448.2344	589961.3670

Radius: 3500.00
Delta: 7°00′17.7412″ Right
Degree of Curvature(Arc): 1°38′13.2802″
Length: 427.91
Tangent: 214.22
Chord: 427.64
Middle Ordinate: 6.54
External: 6.55
Tangent Direction: S 66°34′23.5426″ E
Radial Direction: S 23°25′36.4574″ W
Chord Direction: S 63°04′14.6720″ E
Radial Direction: S 30°25′54.1986″ W
Tangent Direction: S 59°34′05.8014″ E

CIRCULAR CURVE NO. 6

	STATION	NORTHING	EASTING
Element: Circular			
PC (11501)	319+36.02	610087.4370	589290.8147
PI (11502)	320+60.98	609977.3341	589349.9123
CC (11516)		610749.5381	590524.3552
PCC (11513)	321+85.28	609879.4382	589427.5753

Radius: 1400.00
Delta: 10°12′04.0916″ Left
Degree of Curvature(Arc): 4°05′33.2004″
Length: 249.26
Tangent: 124.96
Chord: 248.93
Middle Ordinate: 5.54
External: 5.57
Tangent Direction: S 28°13′28.6055″ E
Radial Direction: S 61°46′31.3945″ W
Chord Direction: S 33°19′30.6512″ E
Radial Direction: S 51°34′27.3030″ W
Tangent Direction: S 38°25′32.6970″ E

CIRCULAR CURVE NO. 7

	STATION	NORTHING	EASTING
Element: Circular			
PCC (11513)	321+85.28	609879.4382	589427.5753
PI (11504)	323+19.16	609774.5546	589510.7817
CC (11517)		610500.9381	590210.9895
PCC (11514)	324+51.46	609695.2518	589618.6471

Radius: 1000.00
Delta: 15°15′03.0091″ Left
Degree of Curvature(Arc): 5°43′46.4806″
Length: 266.18
Tangent: 133.88
Chord: 265.39
Middle Ordinate: 8.84
External: 8.92
Tangent Direction: S 38°25′32.6970″ E
Radial Direction: S 51°34′27.3030″ W
Chord Direction: S 46°03′04.2016″ E
Radial Direction: S 36°19′24.2939″ W
Tangent Direction: S 53°40′35.7061″ E

CIRCULAR CURVE NO. 8

	STATION	NORTHING	EASTING
Element: Circular			
PCC (11514)	324+51.46	609695.2518	589618.6471
PI (11505)	325+23.50	609652.5770	589676.6920
CC (11518)		610823.2126	590447.9265
PT (11506)	325+95.42	609616.0859	589738.8108

Radius: 1400.00
Delta: 5°53′30.0953″ Left
Degree of Curvature(Arc): 4°05′33.2004″
Length: 143.96
Tangent: 72.04
Chord: 143.90
Middle Ordinate: 1.85
External: 1.85
Tangent Direction: S 53°40′35.7061″ E
Radial Direction: S 36°19′24.2939″ W
Chord Direction: S 56°37′20.7538″ E
Radial Direction: S 30°25′54.1986″ W
Tangent Direction: S 59°34′05.8014″ E

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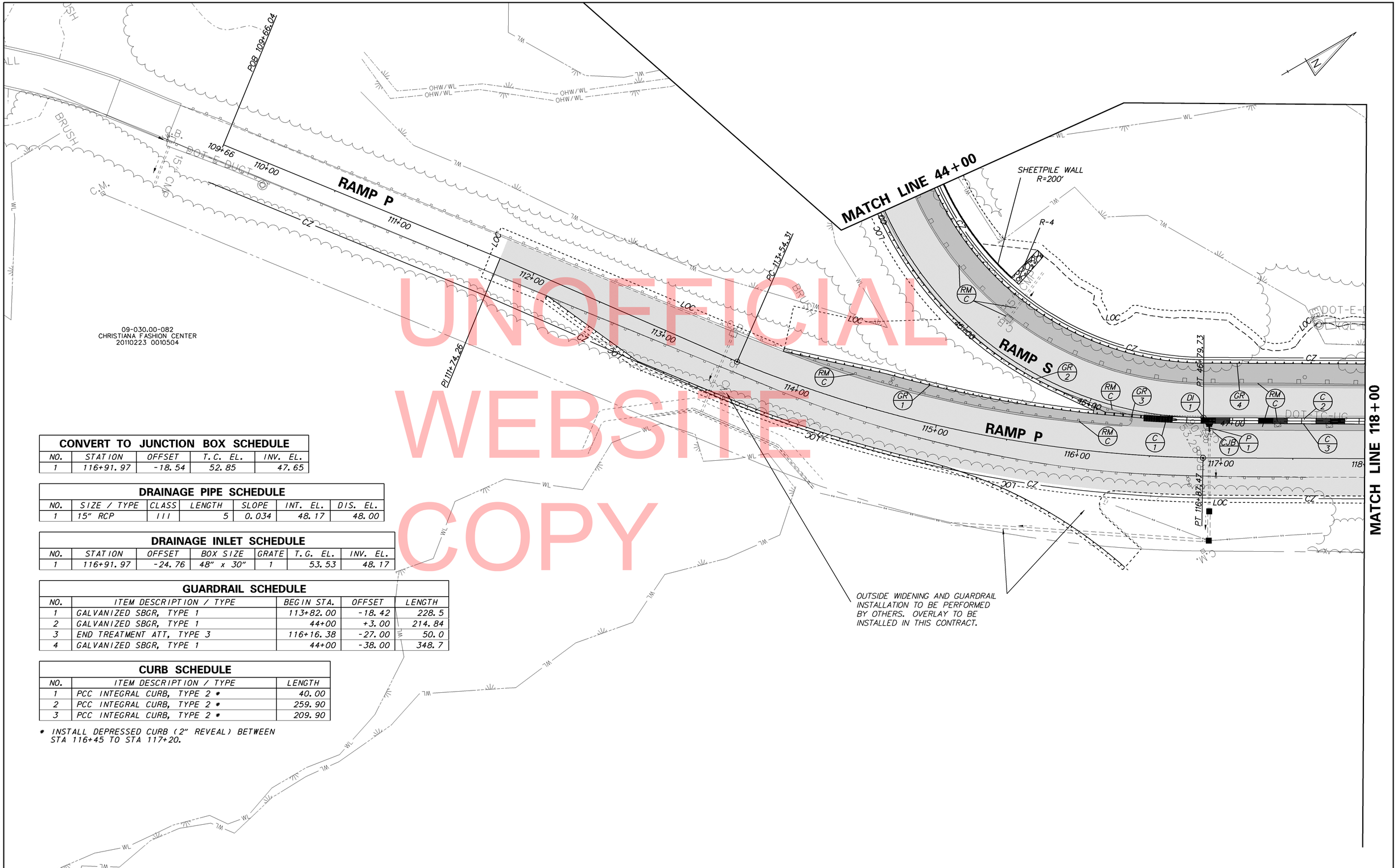

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CONVERT TO JUNCTION BOX SCHEDULE				
NO.	STATION	OFFSET	T.C. EL.	INV. EL.
1	116+91.97	-18.54	52.85	47.65

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
1	15" RCP	III	5	0.034	48.17	48.00

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
1	116+91.97	-24.76	48" x 30"	1	53.53	48.17

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
1	GALVANIZED SBGR, TYPE 1	113+82.00	-18.42	228.5
2	GALVANIZED SBGR, TYPE 1	44+00	+3.00	214.84
3	END TREATMENT ATT, TYPE 3	116+16.38	-27.00	50.0
4	GALVANIZED SBGR, TYPE 1	44+00	-38.00	348.7

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	PCC INTEGRAL CURB, TYPE 2 *	40.00
2	PCC INTEGRAL CURB, TYPE 2 *	259.90
3	PCC INTEGRAL CURB, TYPE 2 *	209.90

* INSTALL DEPRESSED CURB (2" REVEAL) BETWEEN STA 116+45 TO STA 117+20.

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

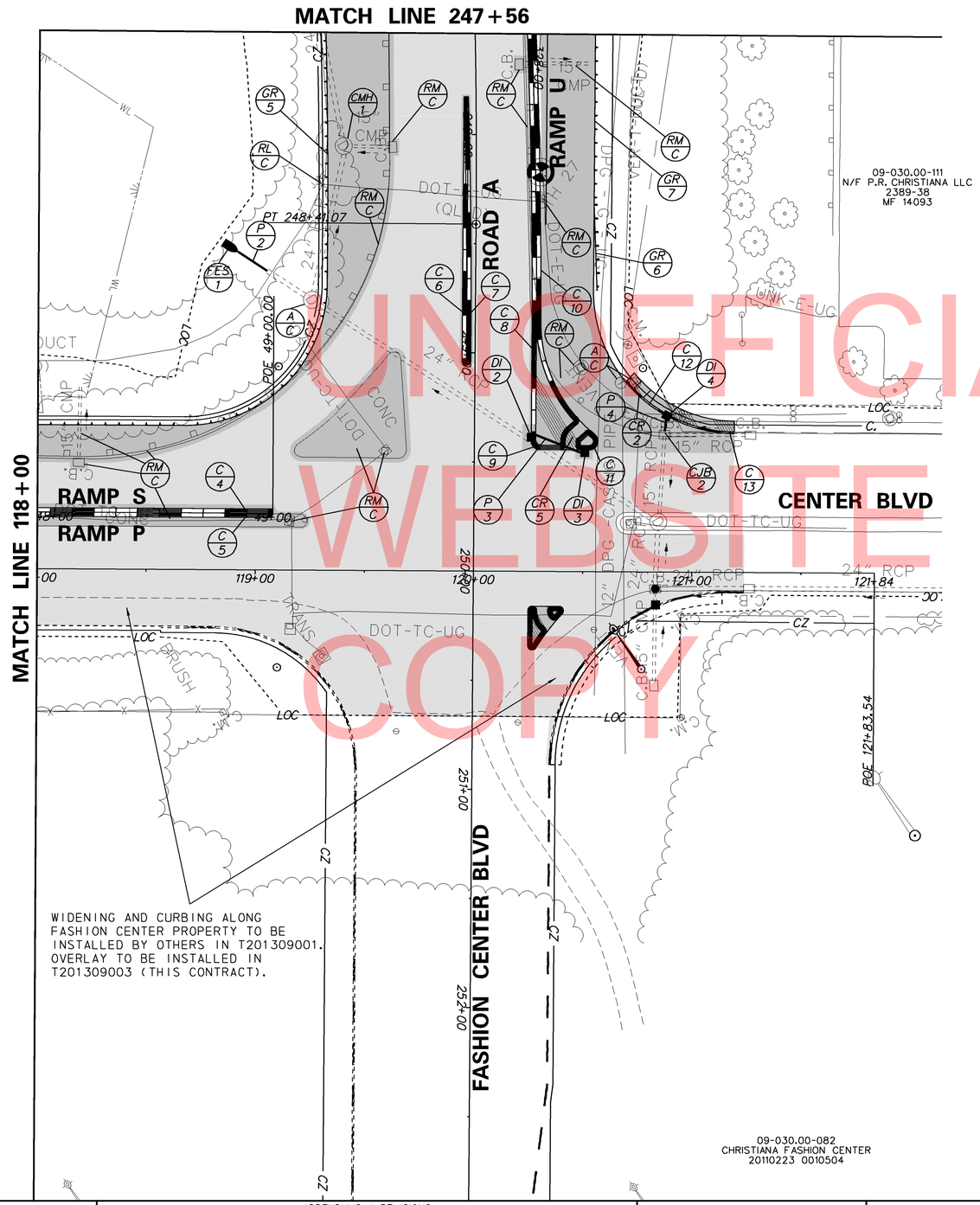
SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT T201309003 | COUNTY NEW CASTLE | BRIDGE NO. N/A | DESIGNED BY: RPM | CHECKED BY: JKL

CONSTRUCTION PLAN

SHEET NO. 15 | TOTAL SHTS. 48



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CONVERT TO JUNCTION BOX SCHEDULE				
NO.	STATION	OFFSET	T.C. EL.	INV. EL.
2	330+08.47	-11.28	57.84	52.48

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
4	PCC INTEGRAL CURB, TYPE 2	109.10
5	PCC INTEGRAL CURB, TYPE 2	109.10
6	PCC INTEGRAL CURB, TYPE 2	124.09
7	PCC INTEGRAL CURB, TYPE 2	124.11
8	PCC INTEGRAL CURB, TYPE 2	174.50
9	PCC INTEGRAL CURB, TYPE 2	33.95
10	PCC INTEGRAL CURB, TYPE 2	179.25
11	PCC INTEGRAL CURB, TYPE 2	31.06
12	PCC INTEGRAL CURB, TYPE 1-8	21.00
13	PCC INTEGRAL CURB, TYPE 1-8	23.99

CONVERT TO MANHOLE SCHEDULE					
NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INV. EL.
1	248+05.03	+60.69	ROUND 48"	53.00	46.00

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
1	24" RCP	M. EX.	NO

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
2	24" RCP	III	16.00	M. EX.	M. EX.	M. EX.
3	18" RCP	III	22.00	-0.02	55.00	54.55
4	15" RCP	III	6.00	-0.02	53.86	53.74

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
2	249+38.53	-26.02	96" x 48"	2x T1	60.08	48.90
3	249+45.39	-50.51	48" x 30"	T1	59.50	55.00
4	249+28.27	-88.05	34" x 24"	T1	58.36	53.86

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
5	GALVANIZED SBGR, TYPE 1	47+92.09	-38.00	284.85
6	END TREATMENT ATT, TYPE 1	327+84.93	-22.00	50.00
7	GALVANIZED SBGR, TYPE 1	328+62.84	-22.00	65.40

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

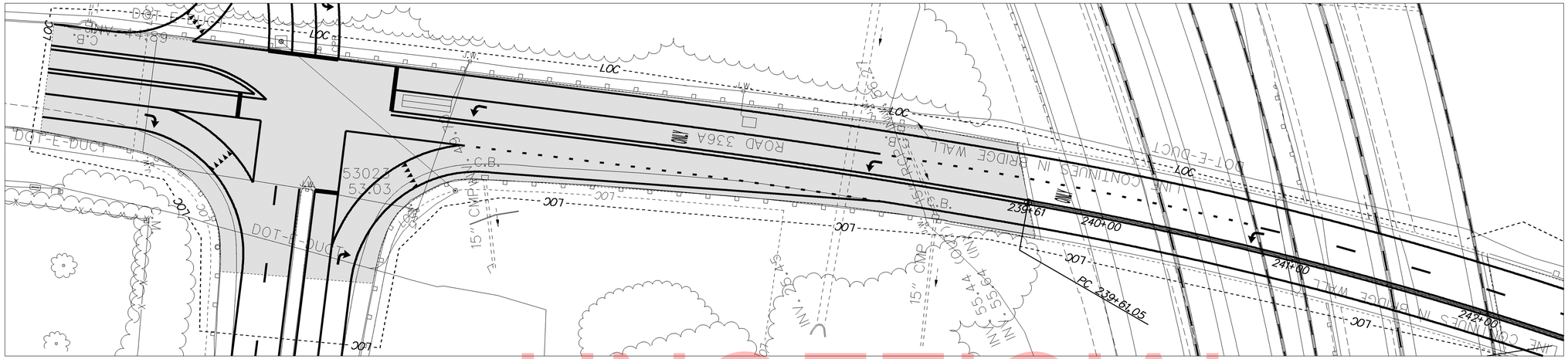
SCALE
0 30 60 90
FEET

ROAD A /SR 7 /CENTER BLVD
INTERSECTION IMPROVEMENTS

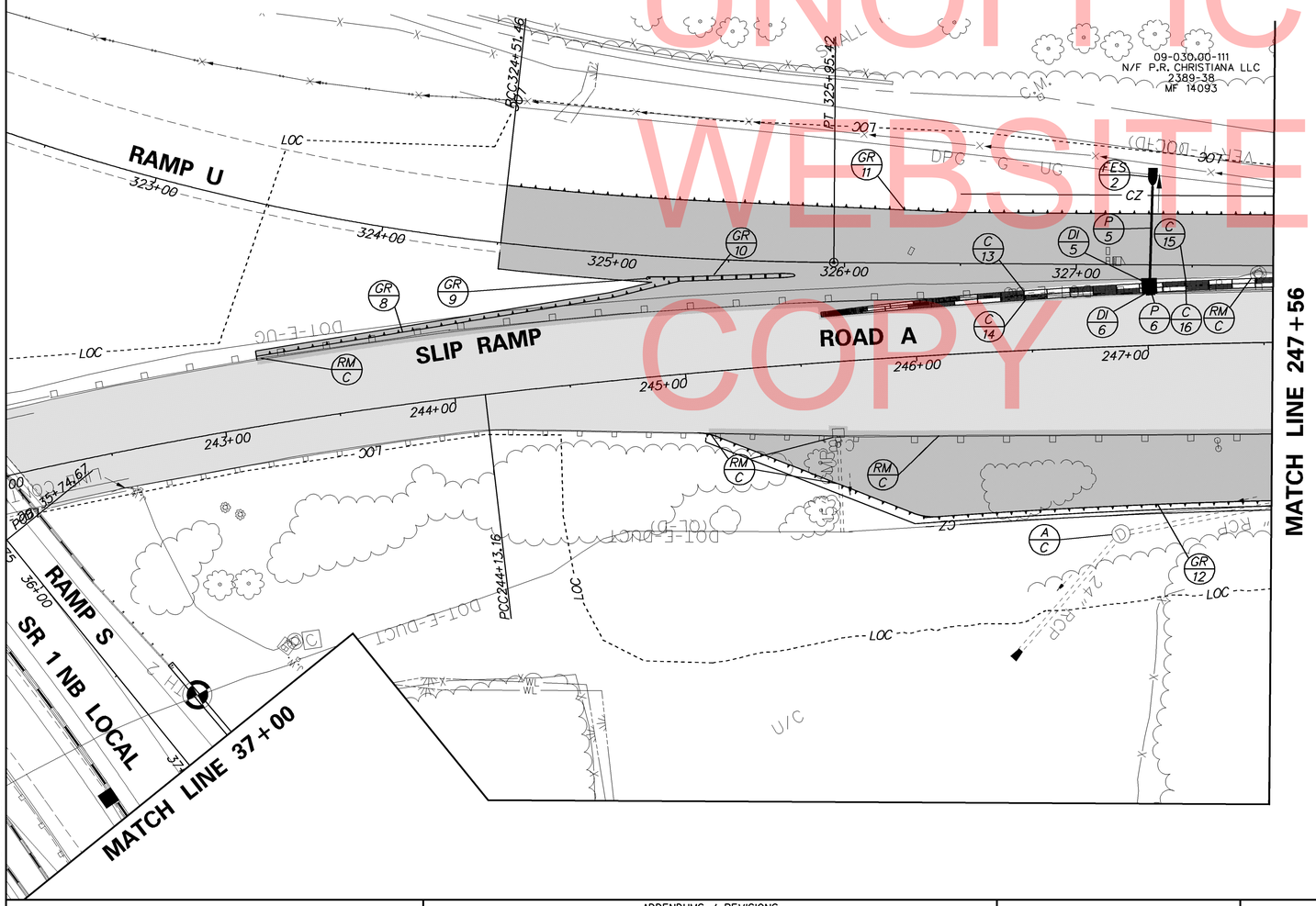
CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

CONSTRUCTION PLAN

SHEET NO. 16
TOTAL SHTS. 48



PROJECT TO INCLUDE 2" PROFILE MILL AND OVERLAY OF ROAD A ON WEST SIDE OF ROAD A BRIDGE THRU THE SR1 SB RAMPS INTERSECTION.



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FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
2	18" RCP	-.0233	NO

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
13	PCC INTEGRAL CURB, TYPE 2	136.87
14	PCC INTEGRAL CURB, TYPE 2	136.48
15	PCC INTEGRAL CURB, TYPE 2	47.82
16	PCC INTEGRAL CURB, TYPE 2	47.59

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
5	18" RCP	III	41.00	-0.0233	59.28	58.32
6	18" RCP	III	1.00	-0.02	59.40	59.38

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
5	247+01.71	-26.15	34" x 18"	T1	63.28	59.28
6	247+01.71	-23.63	34" x 18"	T1	63.28	59.40

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
8	GALVANIZED SBGR, TYPE 1	243+18.41	-29.71 *	184.88
9	END ANCHORAGE	324+78.32	+10.66 *	50.00
10	END TREATMENT ATT, TYPE 3	325+28.56	+8.41 *	50.00
11	GALVANIZED SBGR, TYPE 1	324+51.46	-50.00	330.91
12	GALVANIZED SBGR, TYPE 1	245+10.00	+26.50 *	249.57

* GUARDRAIL OFFSET VARIES. OFFSET AT BEGINNING OF SECTION LISTED.

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

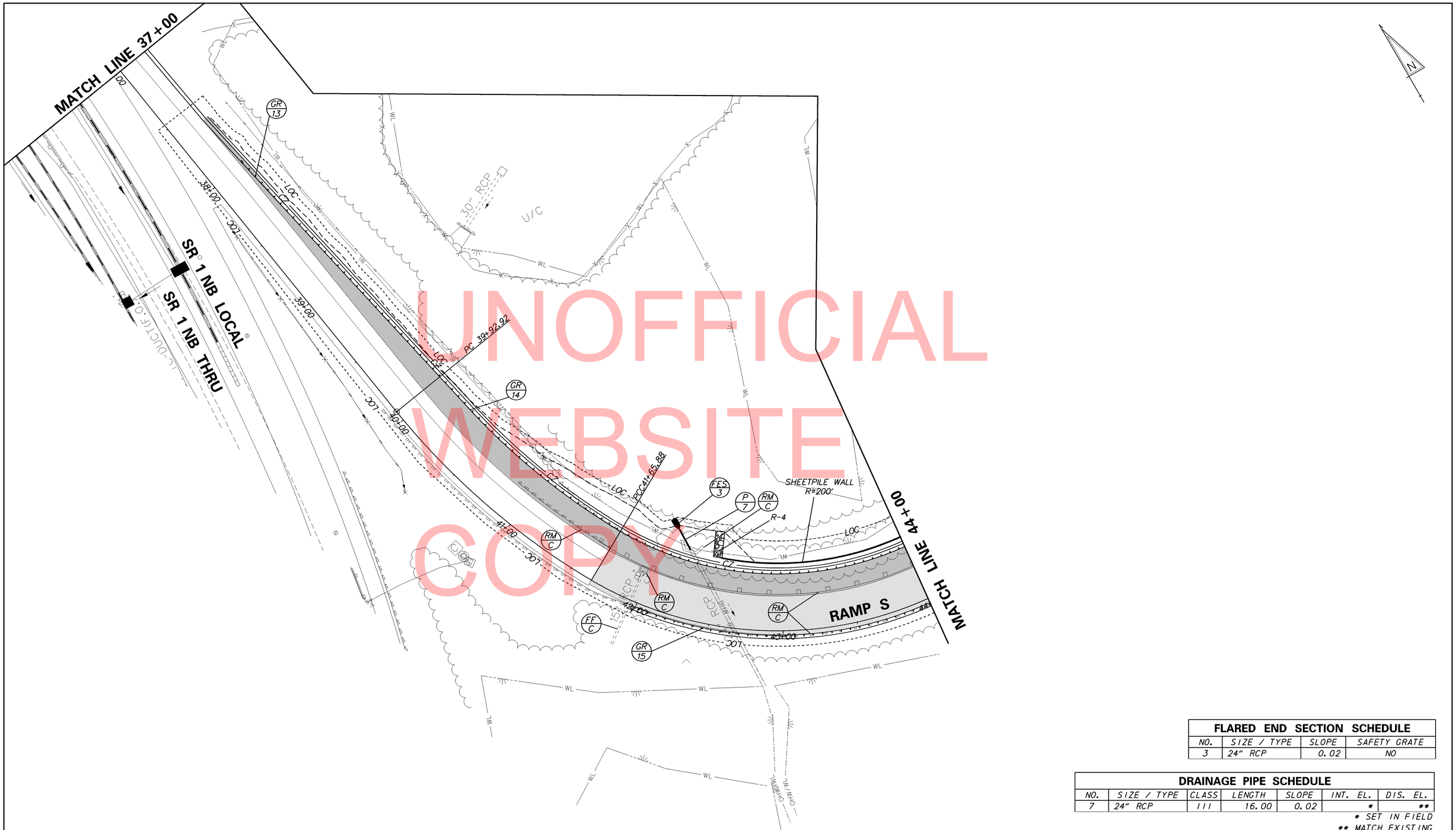
ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

CONSTRUCTION PLAN

SHEET NO. 17

TOTAL SHTS. 48



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FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
3	24" RCP	0.02	NO

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
7	24" RCP	III	16.00	0.02	*	**

* SET IN FIELD
** MATCH EXISTING

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
13	END ANCHORAGE	37+61.12	-25.10	50.00
14	GALVANIZED SBGR, TYPE 1	38+10.56	-25.30	590.00
15	GALVANIZED SBGR, TYPE 1	41+97.45	+3.00	205.00

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 30 60 90
FEET

ROAD A /SR 7 /CENTER BLVD
INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

CONSTRUCTION PLAN

SHEET NO. 18
TOTAL SHTS. 48

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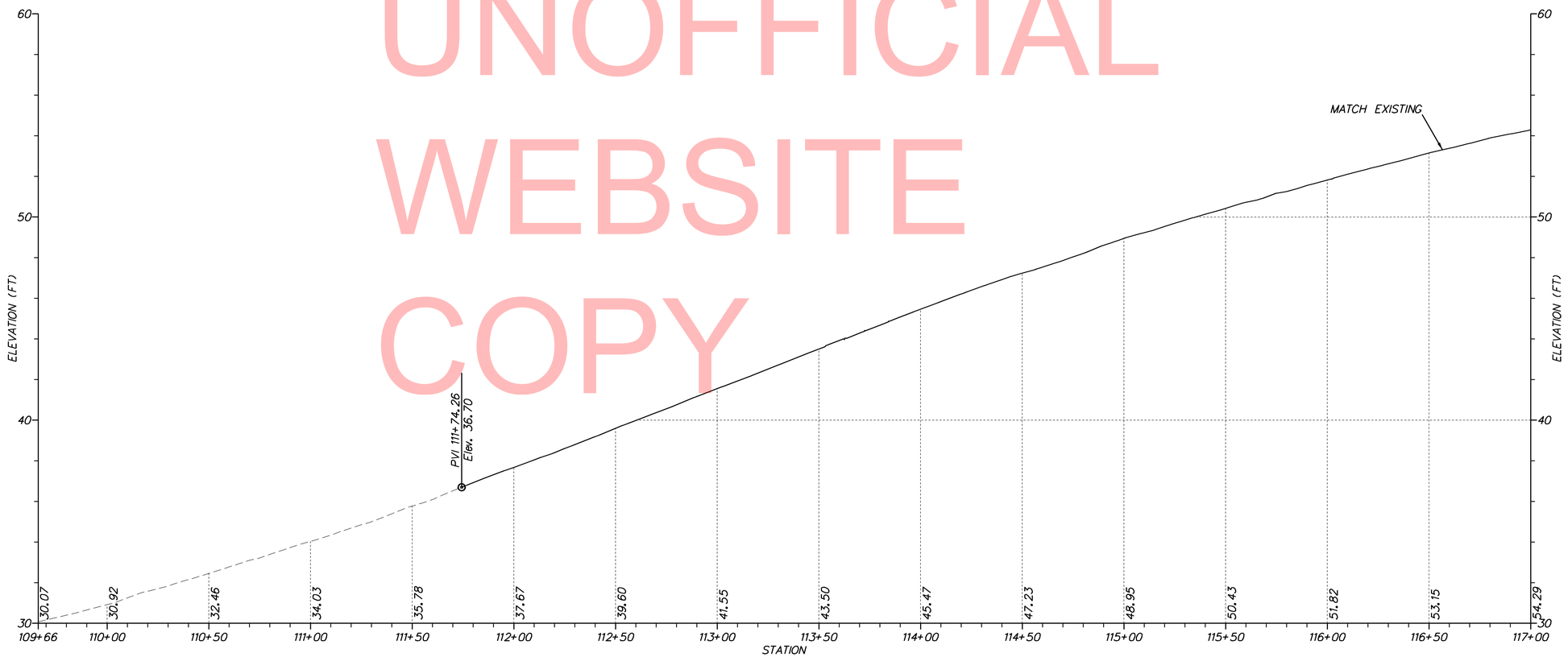

Ramp P

VERTICAL SCALE FEET 9 6 3 0

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	**ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS**	CONTRACT T201309003	BRIDGE NO. N/A	**PROFILES**	SHEET NO. 19
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

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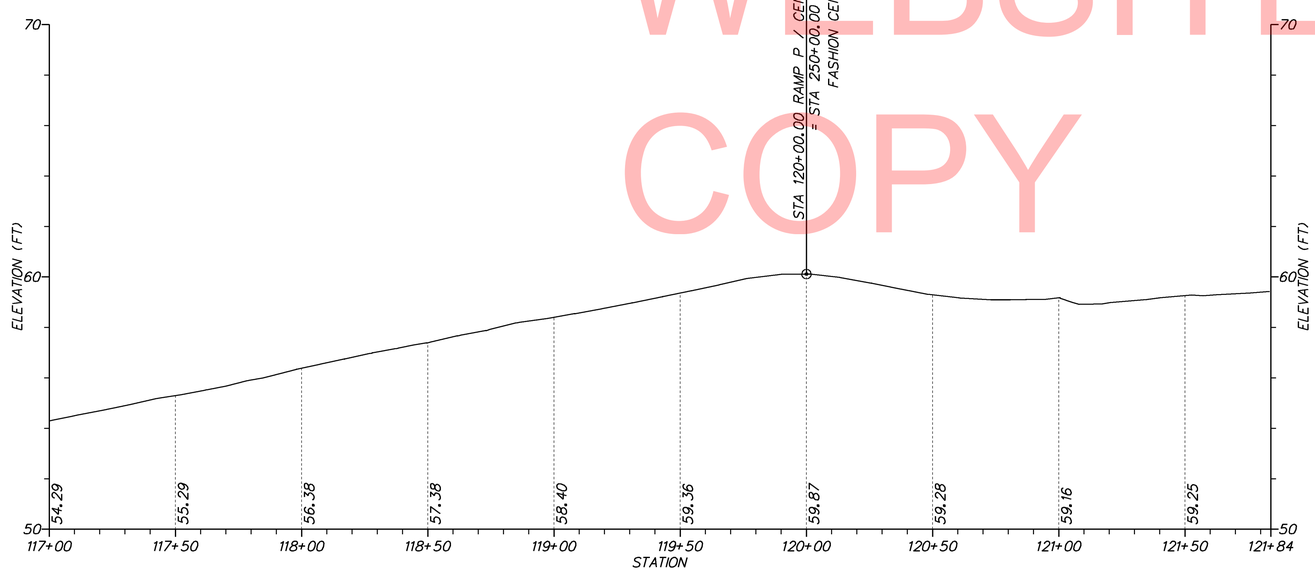

Ramp P

VERTICAL SCALE FEET 0 3 6 9

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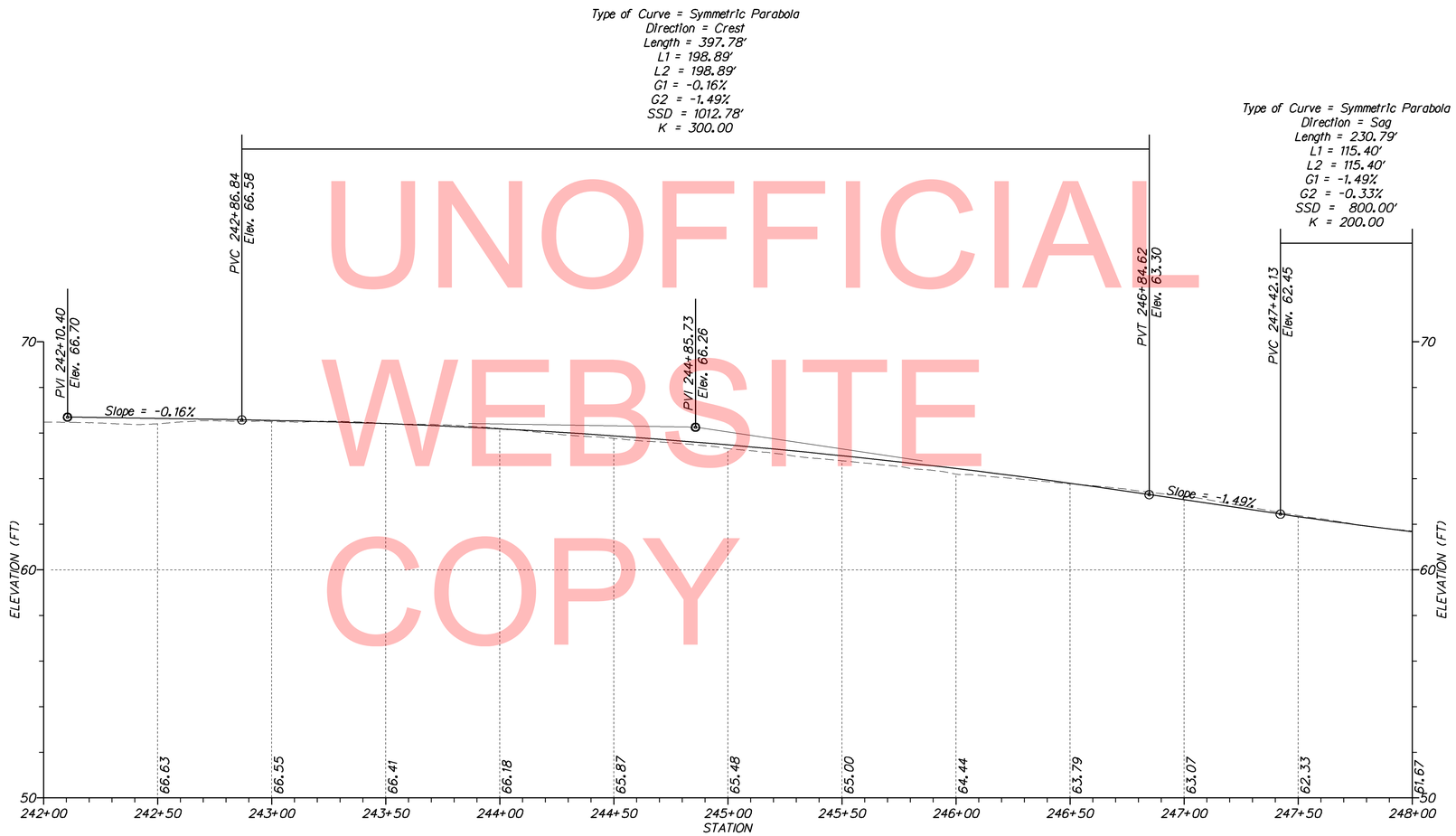
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	**ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS**	CONTRACT T201309003 / COUNTY NEW CASTLE	BRIDGE NO. N/A / DESIGNED BY: RPM / CHECKED BY: JKL

PROFILES

SHEET NO. 20 / TOTAL SHTS. 48



Road A Mainline

UNOFFICIAL WEBSITE COPY

VERTICAL SCALE FEET 9 6 3 0

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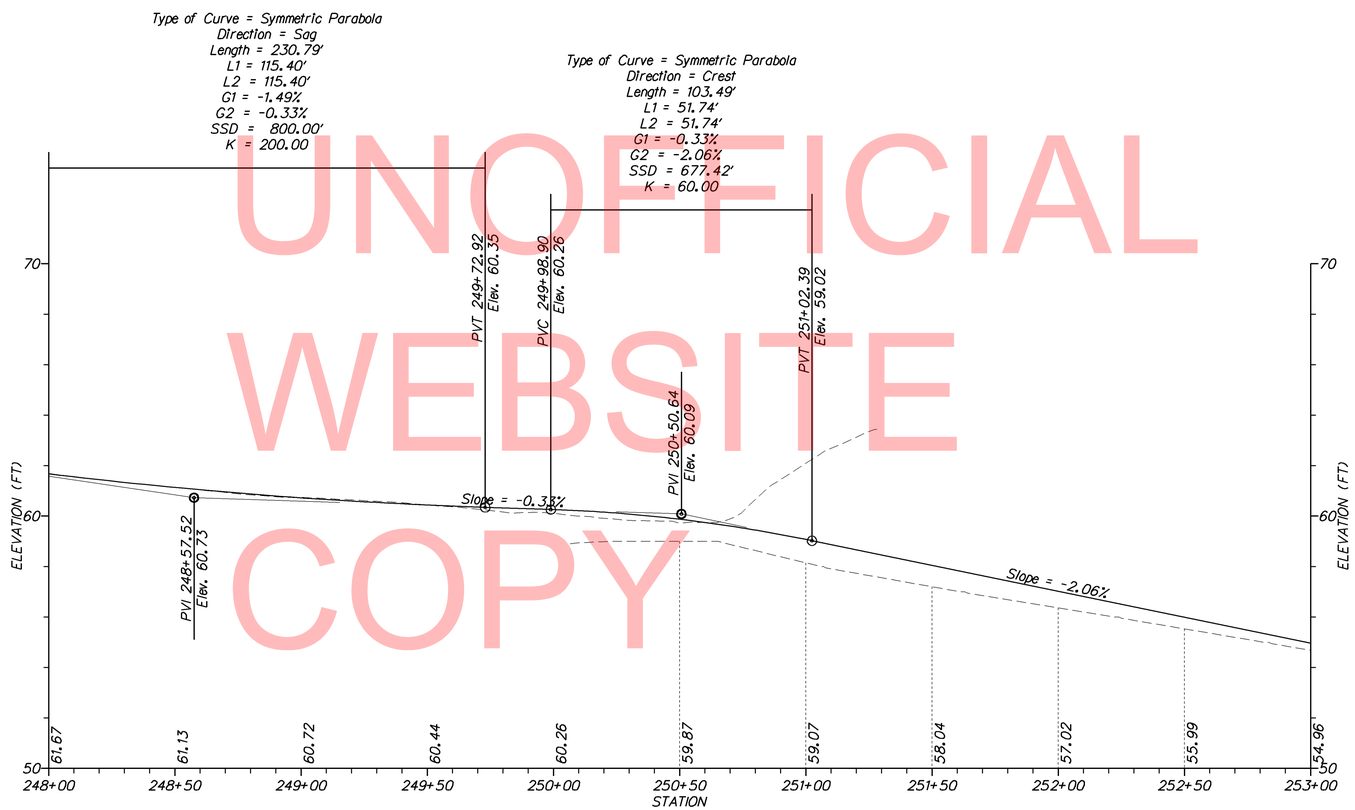
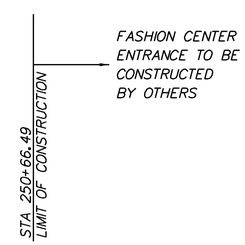
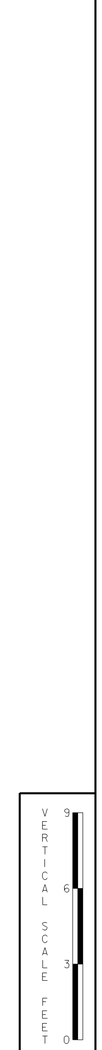
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003 / COUNTY NEW CASTLE	BRIDGE NO. N/A / DESIGNED BY: RPM / CHECKED BY: JKL	PROFILES

SHEET NO. 21
TOTAL SHTS. 48



Road A Mainline





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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

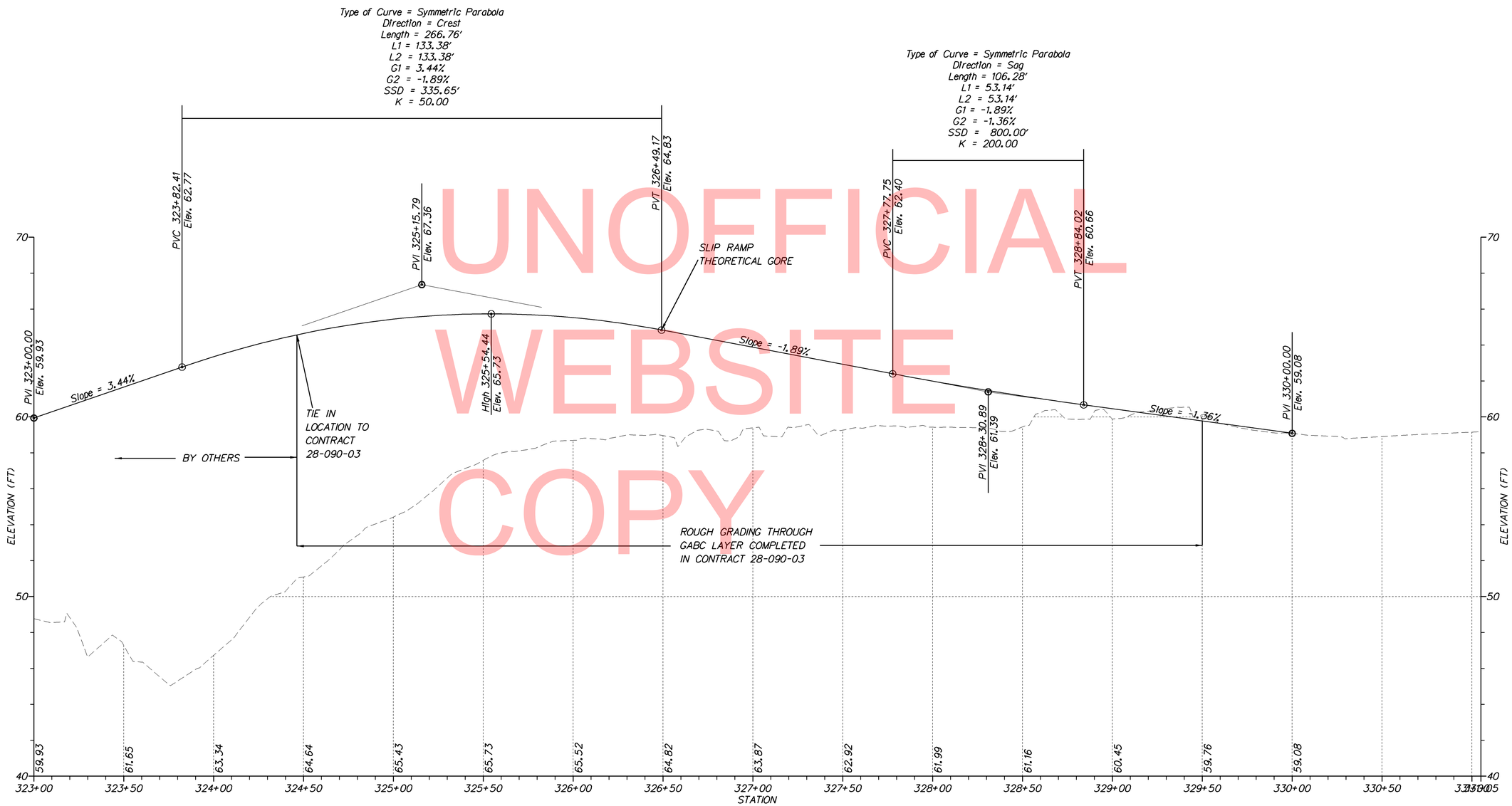
SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY	CHECKED BY: JKL	
NEW CASTLE		

PROFILES

SHEET NO.
22
TOTAL SHTS.
48



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Ramp U

VERTICAL SCALE FEET 0 3 6 9

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	PROFILES	SHEET NO. 23
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

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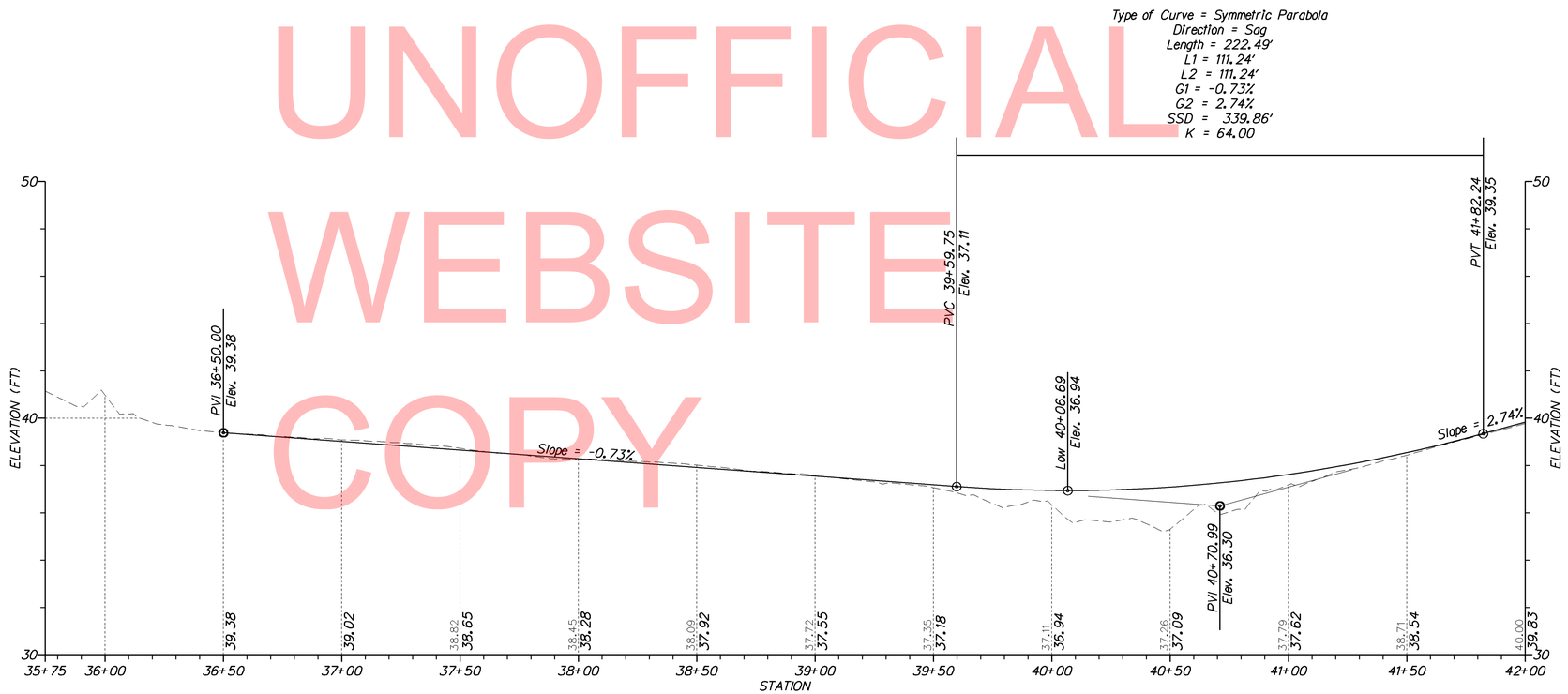

Ramp S

VERTICAL SCALE FEET 9 6 3 0

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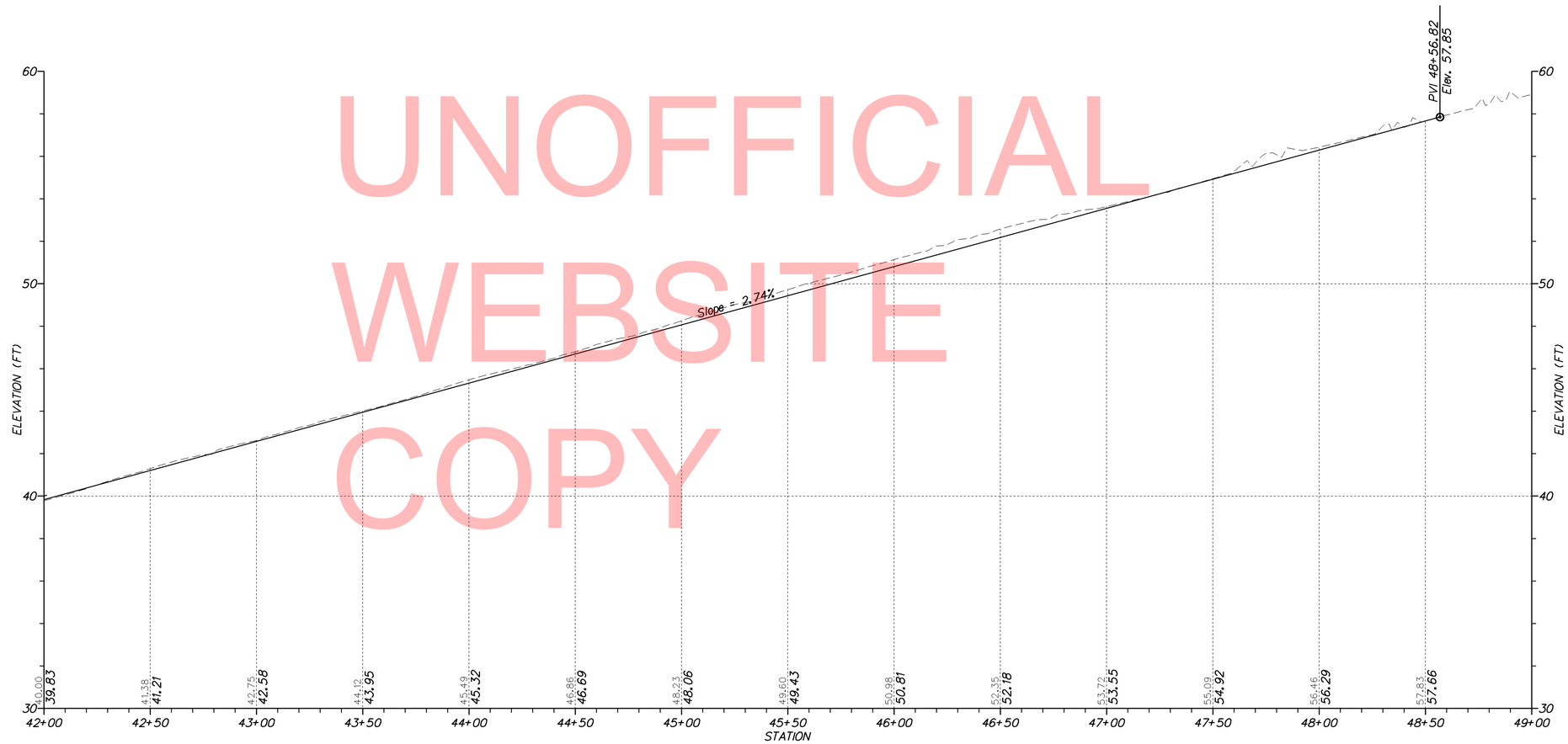
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	**ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS**	CONTRACT T201309003	BRIDGE NO. N/A	**PROFILES**	SHEET NO. 24
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		



Ramp S

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VERTICAL SCALE FEET 9 6 3 0

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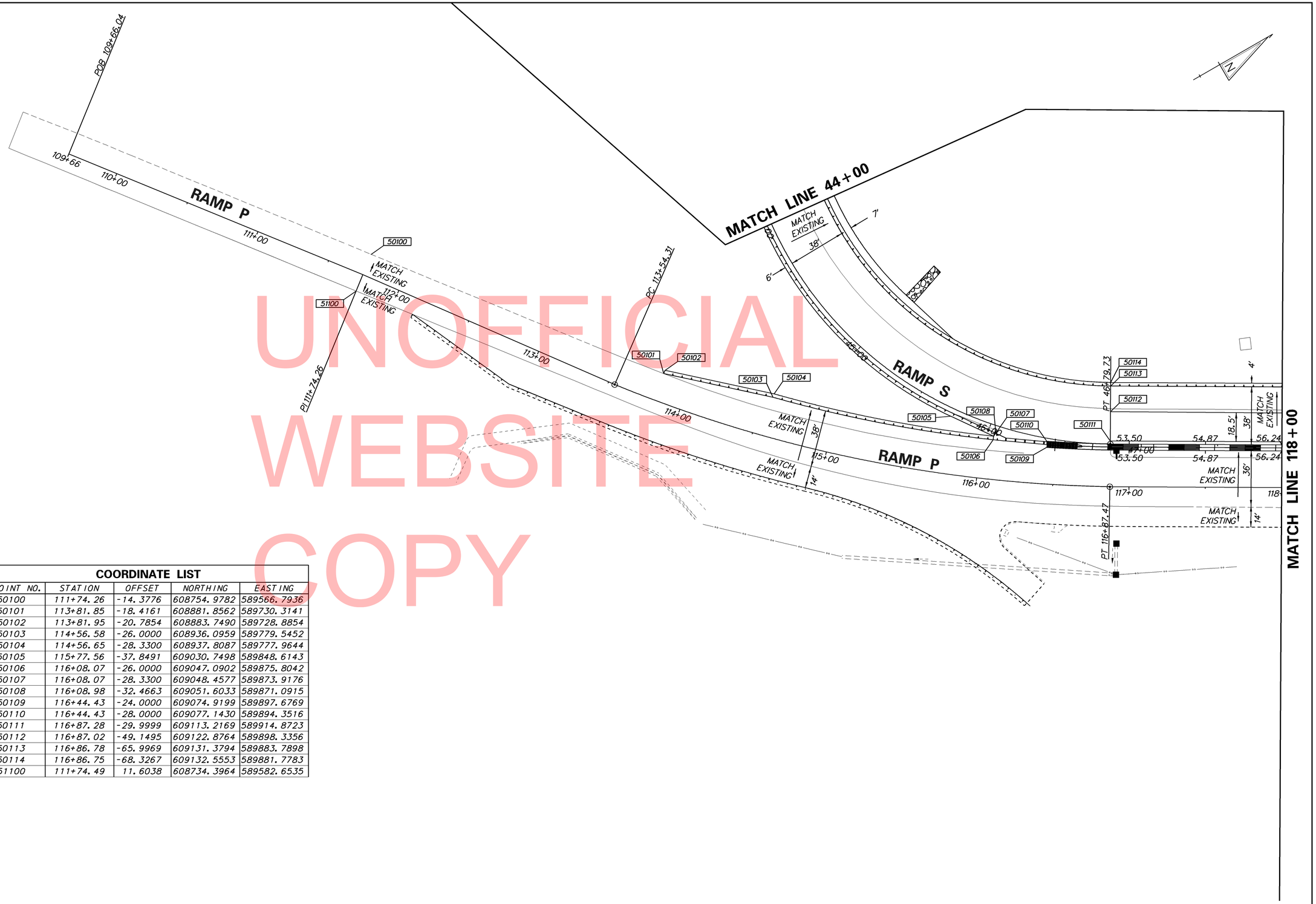
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	PROFILES	SHEET NO. 25
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		



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COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
50100	111+74.26	-14.3776	608754.9782	589566.7936
50101	113+81.85	-18.4161	608881.8562	589730.3141
50102	113+81.95	-20.7854	608883.7490	589728.8854
50103	114+56.58	-26.0000	608936.0959	589779.5452
50104	114+56.65	-28.3300	608937.8087	589777.9644
50105	115+77.56	-37.8491	609030.7498	589848.6143
50106	116+08.07	-26.0000	609047.0902	589875.8042
50107	116+08.07	-28.3300	609048.4577	589873.9176
50108	116+08.98	-32.4663	609051.6033	589871.0915
50109	116+44.43	-24.0000	609074.9199	589897.6769
50110	116+44.43	-28.0000	609077.1430	589894.3516
50111	116+87.28	-29.9999	609113.2169	589914.8723
50112	116+87.02	-49.1495	609122.8764	589898.3356
50113	116+86.78	-65.9969	609131.3794	589883.7898
50114	116+86.75	-68.3267	609132.5553	589881.7783
51100	111+74.49	11.6038	608734.3964	589582.6535

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

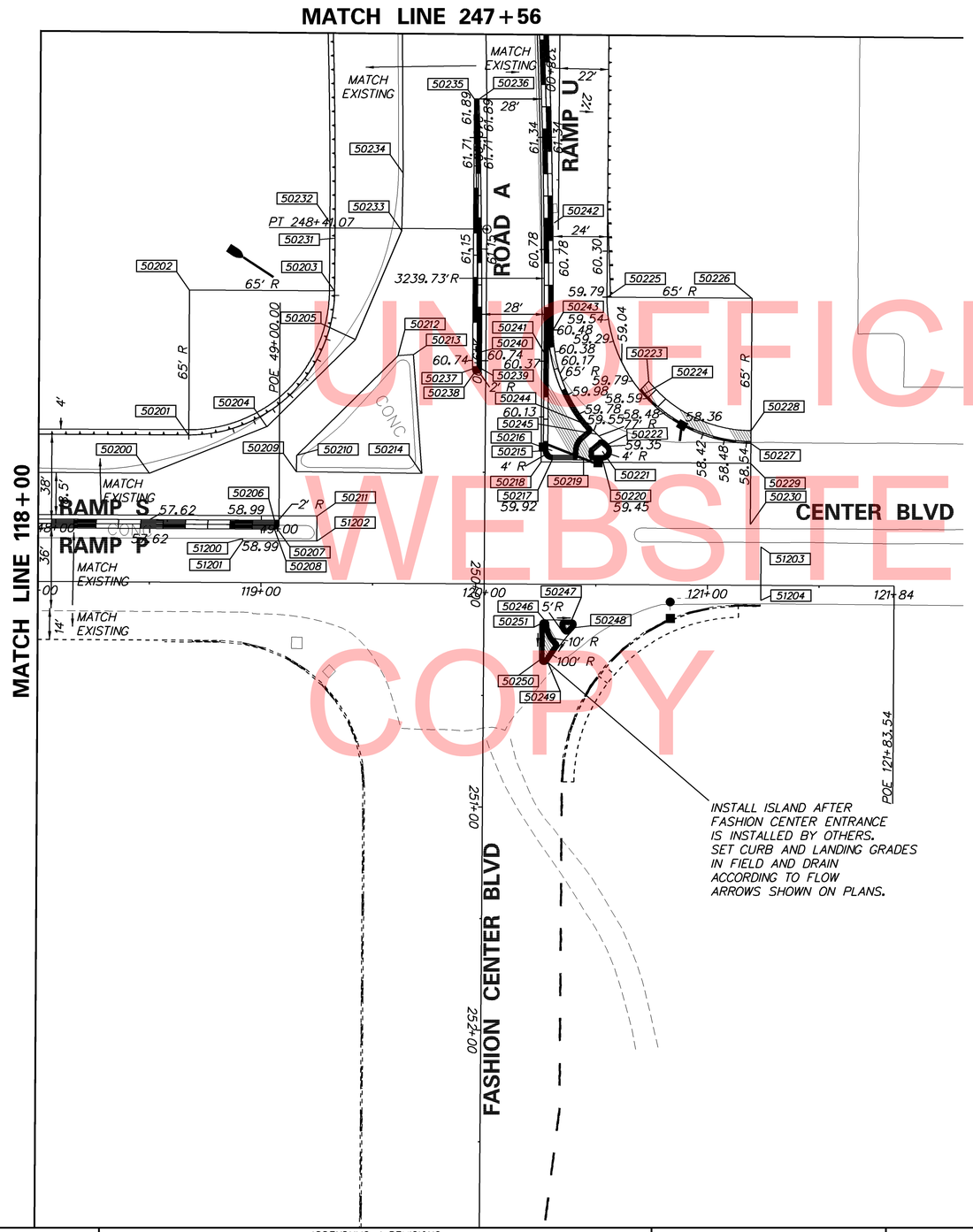
SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

GRADES AND GEOMETRICS

SHEET NO.
26
TOTAL SHTS.
48



UNOFFICIAL WEBSITE COPY

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
50200	118+49.76	-48.7161	609262.6149	589980.5257
50201	118+67.28	-66.0000	609286.4589	589974.4438
50202	118+67.28	-131.0000	609319.2621	589918.3282
50203	119+32.28	-130.8708	609375.3123	589951.2429
50204	119+02.32	-69.9930	609318.7240	589988.6796
50205	119+41.69	-109.1280	609372.4639	589974.7630
50206	119+05.91	-28.0000	609300.6362	590026.7476
50207	119+05.91	-26.0000	609299.6268	590028.4742
50208	119+05.91	-24.0000	609298.6175	590030.2009
50209	119+15.57	-49.8144	609319.9871	590012.7913
50210	119+15.64	-57.1494	609323.7423	590006.4903
50211	119+24.87	-30.0000	609318.0152	590034.5901
50212	119+60.80	-102.0404	609385.3864	589990.5268
50213	119+67.75	-102.5705	609391.6512	589993.5750
50214	119+71.81	-49.3385	609368.2932	590041.5806
50215	120+26.13	-59.8331	609420.4860	590059.9345
50216	120+30.13	-59.8246	609423.9349	590061.9605
50217	120+30.12	-55.8246	609421.9079	590065.4089
50218	120+25.12	-54.8368	609417.0920	590063.7378
50219	120+44.14	-55.7904	609433.9933	590072.5132
50220	120+52.64	-55.7696	609441.3210	590076.8207
50221	120+52.65	-59.7696	609443.3481	590073.3724
50222	120+55.19	-62.8545	609447.1032	590071.9942
50223	120+73.22	-91.2269	609476.9825	590056.5961
50224	120+70.82	-85.2967	609471.9234	590060.5079
50225	120+54.28	-128.7655	609479.5740	590014.6292
50226	121+19.28	-128.6263	609535.6192	590047.5524
50227	121+19.10	-63.6265	609502.6627	590103.5781
50228	121+19.11	-69.2965	609505.5375	590098.6909
50229	121+19.08	-54.6075	609498.0921	590111.3532
50230	121+19.01	-27.2718	609484.2391	590134.9189
51200	118+91.66	-19.7255	609284.1609	590026.7013
51201	118+91.67	-18.7255	609283.6576	590027.5655
51202	119+24.87	-18.7813	609312.3535	590044.2754
51203	121+23.85	-17.2330	609483.3506	590146.0277
51204	121+23.85	6.7277	609471.2585	590166.7133
50231	248+45.63	68.0074	609387.2839	589930.8564
50232	248+38.50	70.3376	609388.8631	589923.5659
50233	248+42.04	38.1253	609414.8685	589942.8953
50234	248+15.77	37.6744	609428.3498	589920.6576
50235	247+82.63	5.5130	609472.6108	589908.0253
50236	247+82.67	3.5133	609474.3352	589909.0383
50237	249+03.67	6.0000	609411.3520	590012.3061
50238	249+03.67	4.0000	609413.0764	590013.3191
50239	249+03.67	2.0000	609414.8009	590014.3321
50240	248+96.02	2.0000	609418.6764	590007.7349
50241	248+96.02	-26.0000	609442.8186	590021.9177
50242	248+38.00	-30.0014	609475.6707	589973.8909
50243	248+85.96	-30.0000	609451.3639	590015.2684
50244	249+28.84	-46.5304	609443.8944	590060.6193
50245	249+32.62	-50.1389	609445.0949	590065.7000
50246	250+15.94	-27.04	609382.9716	590125.8443
50247	250+15.92	-39.25	609393.5165	590132.0084
50248	250+19.28	-40.72	609393.0757	590135.6490
50249	250+34.96	-28.75	609374.8133	590143.1050
50250	250+33.90	-25.05	609372.1563	590140.3229
50251	250+17.94	-25.04	609380.2375	590126.5583

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO. N/A
T201309003	DESIGNED BY: RPM
COUNTY	
NEW CASTLE	CHECKED BY: JKL

GRADES AND GEOMETRICS

SHEET NO. 27

TOTAL SHTS. 48

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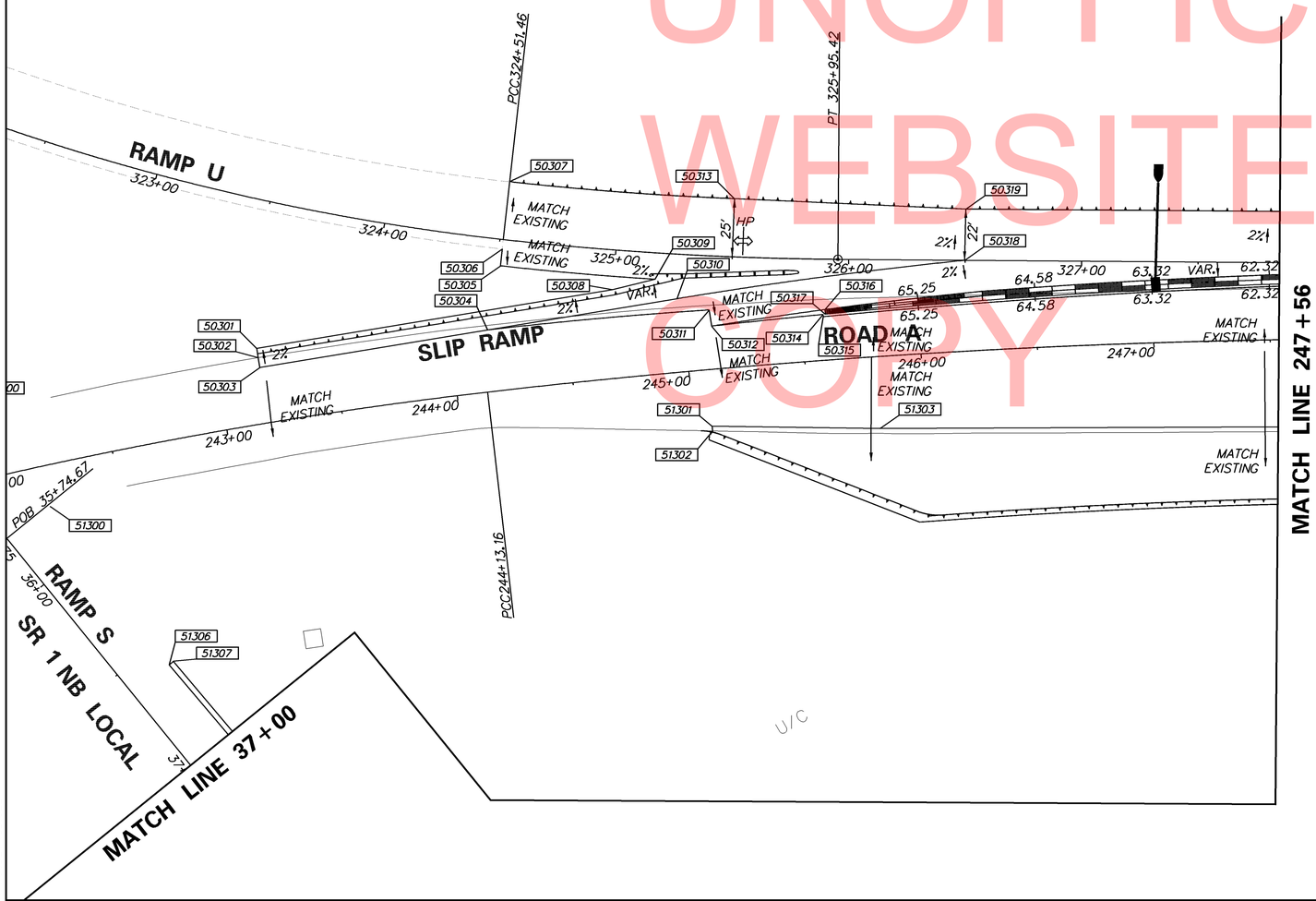

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
50300	241+94.95	-27.9576	609743.9554	589383.5738
50301	243+18.33	-32.3300	609707.7244	589503.5830
50302	243+18.33	-28.3370	609703.9873	589502.1767
50303	243+18.33	-24.0000	609699.9282	589500.6492
50304	244+16.18	-26.5026	609665.0167	589593.4226
50305	324+51.46	11.3300	609686.1234	589611.9358
50306	324+51.46	4.0000	609692.0291	589616.2777
50307	324+51.46	-25.0000	609715.3940	589633.4556
50308	244+70.75	-38.0237	609653.2134	589648.4401
50309	325+17.59	11.3300	609647.9148	589666.5639
50310	244+97.71	-31.5619	609636.0107	589670.5028
50311	245+10.93	-25.5347	609624.9269	589680.0552
50312	245+11.42	-18.5204	609618.3617	589677.5365
50313	325+50.00	-25.0000	609660.8548	589713.3862
50314	245+59.27	-19.7077	609598.7800	589721.4906
50315	245+59.29	-18.7080	609597.8697	589721.0766
50316	245+60.21	-21.7288	609600.1844	589723.2280
50317	245+60.26	-19.7318	609598.3661	589722.4010
50318	326+49.82	0.0000	609588.5321	589785.7156
50319	326+50.19	-22.0000	609607.3131	589797.1791
51300	242+18.89	17.5243	609693.3872	589392.9507
51301	245+07.88	24.3371	609581.0171	589656.2134
51302	245+07.92	26.3509	609579.1774	589655.3938
51303	245+80.16	30.8910	609544.1586	589718.0659

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

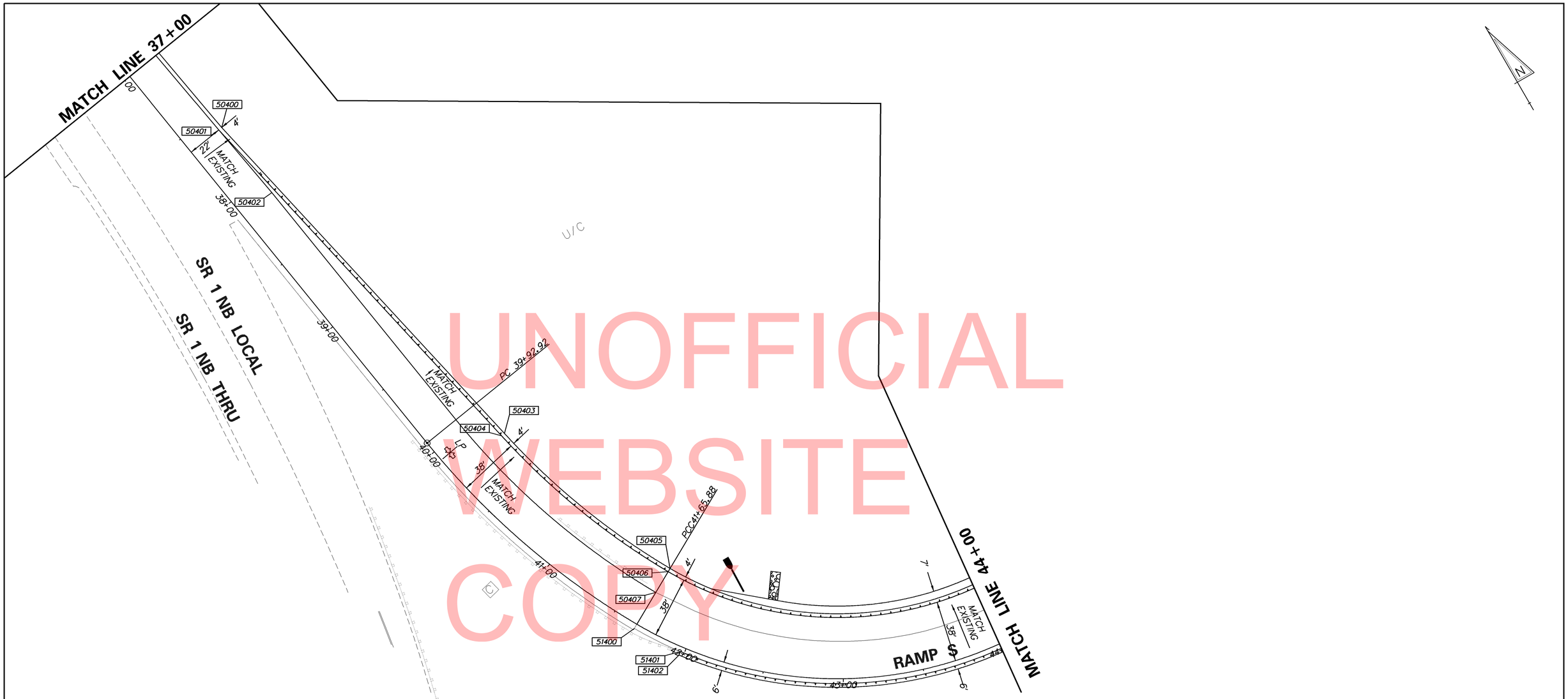
ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

GRADES AND GEOMETRICS

SHEET NO. 28

TOTAL SHTS. 48



UNOFFICIAL WEBSITE COPY

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
50400	37+60.49	-24.3300	609511.0565	589423.1096
50401	37+60.56	-22.0000	609510.6169	589420.8202
50402	38+11.49	-23.0000	609460.4783	589429.7887
50403	40+20.83	-40.3300	609258.8389	589480.0700
50404	40+20.83	-38.0000	609258.3438	589477.7932
50405	41+65.77	-40.3300	609134.9093	589527.0333
50406	41+65.78	-38.0000	609133.7660	589525.0031
50407	41+66.01	-22.9997	609126.3557	589511.9610
51400	41+65.88	3.0000	609113.6550	589489.2741
51401	41+97.45	3.0000	609086.9264	589506.7723
51402	41+97.45	5.3300	609085.5273	589504.9091

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

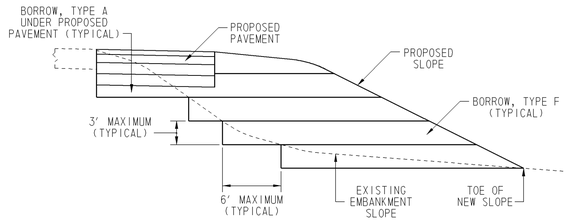
SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT T201309003
COUNTY NEW CASTLE
BRIDGE NO. N/A
DESIGNED BY: RPM
CHECKED BY: JKL

GRADES AND GEOMETRICS

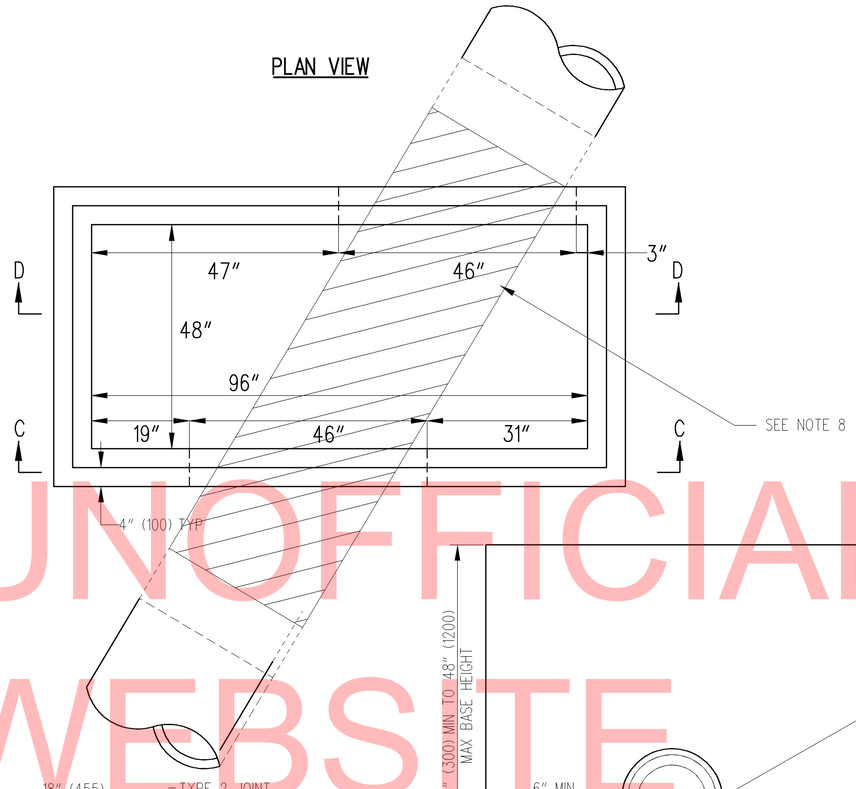
SHEET NO. 29
TOTAL SHTS. 48



NOTE:
BENCHING SHALL CONFORM TO THIS DETAIL AT ALL LOCATIONS WHERE EXISTING EMBANKMENTS ARE WIDENED.

BENCHING DETAIL
NOT TO SCALE

PLAN VIEW



DOGHOUSE BOX NOTES:

1). SEE DETAIL D-4, SHEET 1 OF 1 FOR BOX DETAILS AND NOTES.
2). ALL REINFORCEMENT SHALL HAVE A MINIMUM COVER OF 1 ½" (38) UNLESS NOTED OTHERWISE.
3). PIPE SHALL BE SUPPORTED ON BOTH ENDS DURING THE CONSTRUCTION OF THE BASE.
4). VERTICAL WALL REINFORCEMENT SHALL COMPLY WITH A.S.T.M. A615, 0.12 IN/FT IN EACH DIRECTION, VERTICALLY AND HORIZONTALLY.
5). DOGHOUSE OPENING SHALL BE FILLED WITH HIGH STRENGTH, NON-SHRINK GROUT MIXED WITH COARSE AGGREGATE IN A 1:1 RATION BY WEIGHT.
6). THE TOP OF THE DOGHOUSE OPENING SHALL, IN NO CIRCUMSTANCES, BE LESS THAN 4" (100) FROM THE TOP OF THE BOX.
7). DOGHOUSE OPENING WIDTH SHALL BE BETWEEN 3" (75) AND 4" (100) LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE AND SHALL NOT ENCROACH ON THE ADJACENT WALL.
8). EXISTING PIPE IS TO EITHER BE COMPLETELY REMOVED BY SAWCUTTING AS CLOSE TO THE INSIDE BOX WALL AS POSSIBLE, OR BY REMOVING THE TOP PORTION OF THE PIPE AND USING THE REMAINING PIPE SECTION AS THE BOTTOM OF THE FLOW CHANNEL, AS SHOWN IN SECTION D-D.
9). APPROPRIATE OPENINGS FOR PIPE RUNS IN RISER SECTIONS SHALL BE ADDED AS NEEDED.

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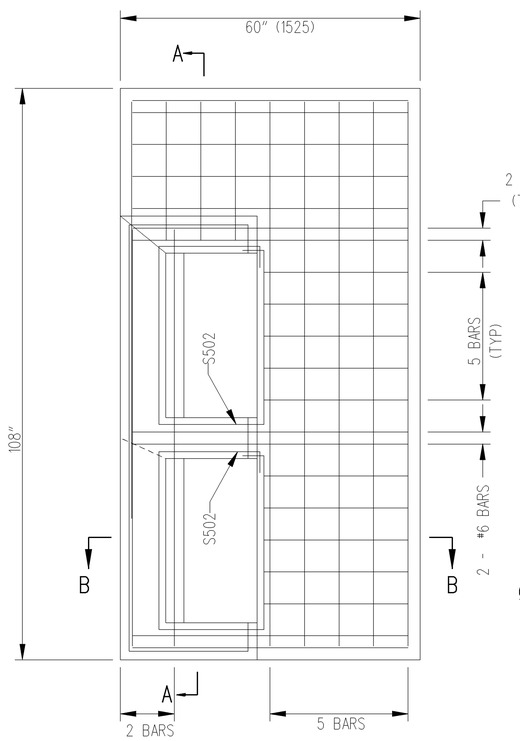
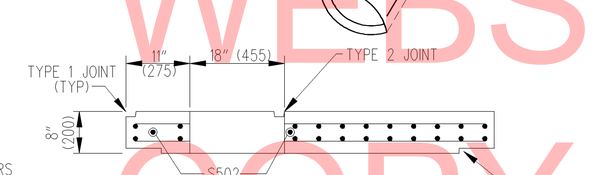
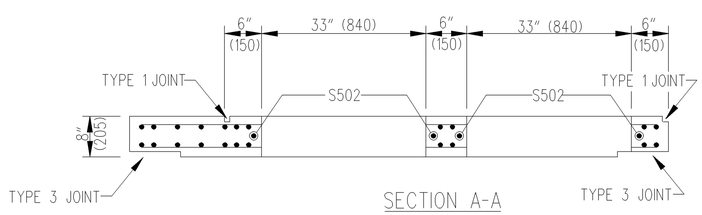


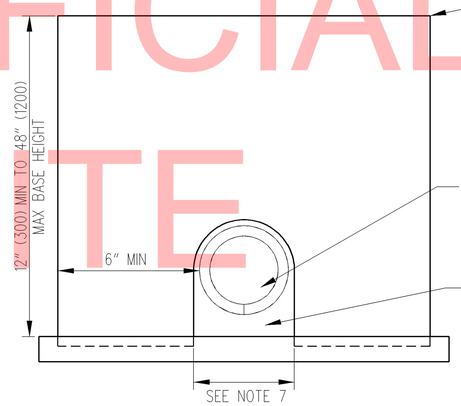
96" x 48" INLET



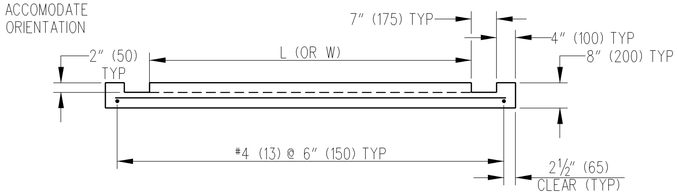
SECTON B-B
FOR TYPES A, C, D, & E TOP UNITS



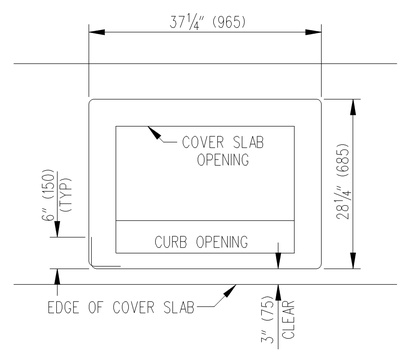
SECTION A-A



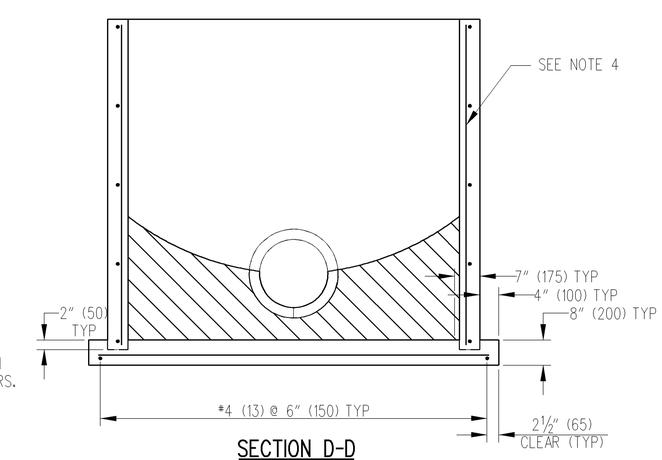
SECTION C-C



CAST-IN-PLACE BOTTOM SECTION VIEW



S502 BENDING DIAGRAM
S502 IS NOT REQUIRED TO BE ONE CONTINUOUS BAR. IF MORE THAN ONE BAR IS USED, THERE MUST BE A 12" (300) OVERLAP BETWEEN BARS.



SECTION D-D

COVERSLAB NOTES :

1). RELOCATE ENCROACHING REINFORCING BARS WHEN USING TYPE B TOP UNIT.
2). COVER SLABS ARE TO BE PRECAST AND MUST BE SIZED TO FIT INLET BOX DIMENSIONS.
3). ALL BARS ARE TO BE #5 (#16) SPACED @ 6" (150) UNLESS NOTED OTHERWISE. TOP REINFORCEMENT SHALL BE 0.11 IN^2 (70 mm^2) MIN. HORIZONAL REINFORCEMENT PER FOOT IN BOTH DIRECTIONS.
4). MINIMUM BAR COVER = 1 ½" (38).

708512 - DRAINAGE INLET, SPECIAL I

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 6 12 18 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	CONSTRUCTION DETAILS	SHEET NO. 30
				COUNTY NEW CASTLE	DESIGNED BY: RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

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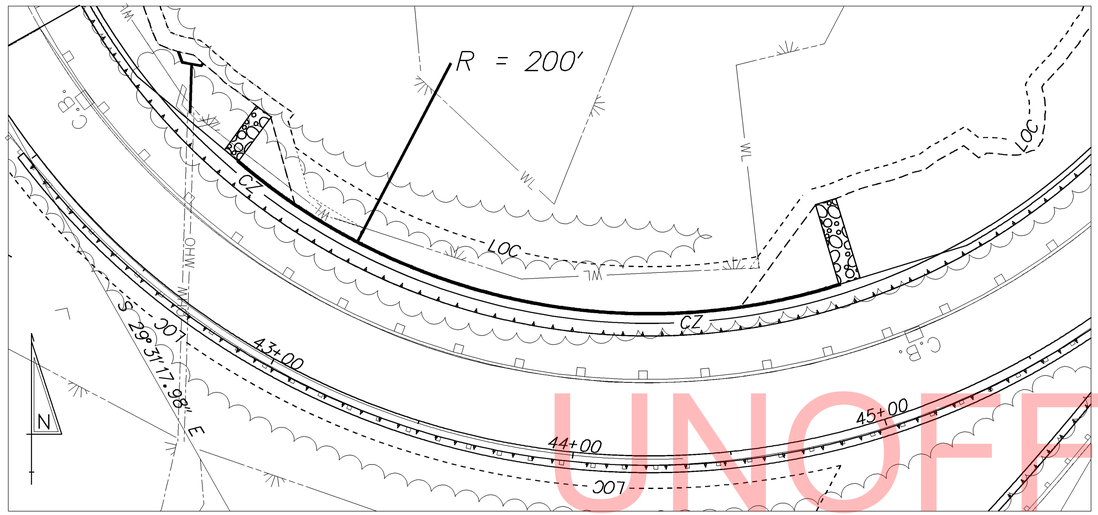


SCALE
0 30 60 90
FEET

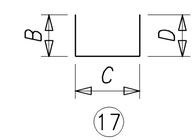
SHEET PILE NOTES:

1. PZC13 SHAPES ARE DEPICTED IN THESE DETAILS. PZ SHAPES ARE ALSO ACCEPTABLE FOR USE. IF PZ SHAPES ARE USED, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE ALTERNATE LAYOUT, CORNER PIECES, ETC.
2. SHEET PILES SHALL BE 18 FEET IN LENGTH AND DRIVEN TO ELEVATION AS SHOWN ON PLANS.
3. PAYMENT FOR ALL MATERIALS AND LABOR USED IN THE CONCRETE CAP EXCEPT FOR PCC MASONRY & REINFORCING BARS (JOINTS, STRUCTURAL L'S, HARDWARE, ETC) SHALL BE INCLUDED IN THE ITEM #622015-STEEL SHEET PILES, PZC 13.
4. ALL STEEL SHEET PILES AND FABRICATED PIECES SHALL CONFORM TO ASTM A572 GRADE 345 (50 KSI) PAYMENT UNDER ITEM #622015-STEEL SHEET PILES, PZC 13.
5. ALL CONNECTION UNITS SHALL BE COMPATIBLE WITH THE UNITS THEY CONNECT, PERTAINING TO THE ASTM DESIGNATIONS.
6. PLACE 1 TON OF R-4 ON GEOTEXTILE FABRIC AT BOTH ENDS OF THE WALL FOR SCOUR PROTECTION. PAYMENT IS INCIDENTAL TO ITEM 622015.
7. SHEET PILE SHALL MAINTAIN A CONSTANT RADIUS AND OFFSET FROM THE ROADWAY ALIGNMENT.

REINFORCING BAR LIST

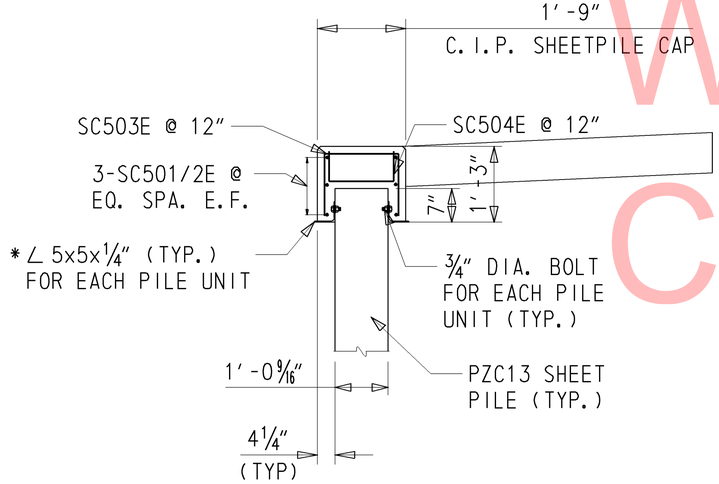
MARK	LENGTH	NO. BARS	TYPE	A	B	C	D	SIZE
SC501E	60'-0"	18	STR		60'-0"			#5
SC502E	33'-0"	6	STR		33'-0"			#5
SC503E	3'-3"	206	17		0'-11"	1'-05"	0'-11"	#5
SC504E	2"-3"	206	17		0'-05"	1'-05"	0'-05"	#5

ALL DIMENSIONS ARE OUT TO OUT.



SHEETPILE CAP TOP ELEVATION

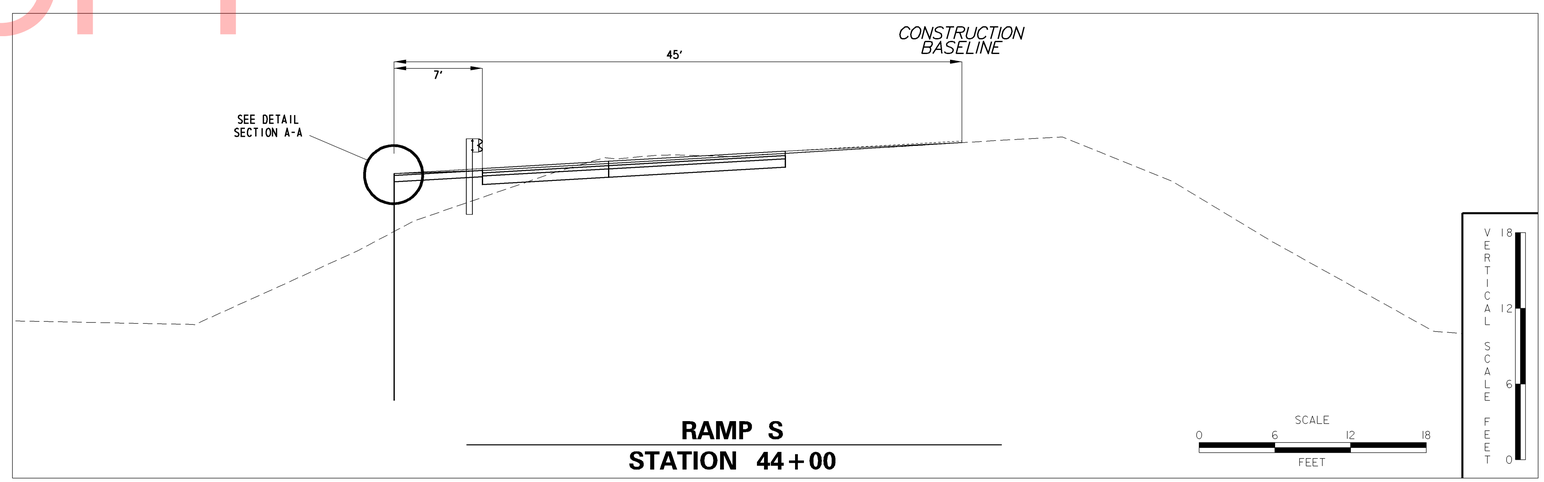
PT.	STATION	OFFSET	ELEV.	NORTHING	EASTING
1	42+50	-45.00	38.79	609084.540	589574.451
2	43+00	-45.00	40.40	609061.206	589607.827
3	43+50	-45.00	41.72	609045.116	589645.238
4	44+00	-45.00	43.04	609036.940	589685.134
5	44+50	-45.00	44.36	609037.019	589725.860
6	45+00	-45.00	45.69	609045.352	589765.726



SECTION A-A

N.T.S.

* ∠S 5"x5"x1#4' ARE OPTIONAL. THEY ARE FOR SUPPORTING THE TEMPORARY FORMWORK ONLY. PAYMENT INCIDENTAL TO ITEM 622015



RAMP S
STATION 44+00

RAMP S WALL
STATION 42+50 TO STATION 45+00

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE AS NOTED	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	RETAINING WALL PLANS	SHEET NO. 31
				COUNTY NEW CASTLE	DESIGNED BY: PM / RPM		TOTAL SHTS. 48
					CHECKED BY: JKL		

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ENVIRONMENTAL COMPLIANCE NOTES:

1. GENERAL NOTES:
A. THE PURPOSE OF THIS SHEET IS TO IDENTIFY THOSE ITEMS ASSOCIATED WITH ENVIRONMENTAL COMPLIANCE. IMPACT CALCULATIONS ARE FOR AGENCY PERMIT REPORTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.
B. IF A DEPARTURE FROM THE APPROVED PLANS (WHICH WOULD AFFECT ANY NATURAL AND/OR CULTURAL RESOURCES) IS NECESSARY, THE ENVIRONMENTAL STUDIES SECTION SHALL BE CONTACTED AT (302) 760-2264 TO ALLOW THEM TO COORDINATE WITH THE APPROPRIATE RESOURCE AGENCIES FOR APPROVAL.
C. USE OF THIS SHEET DOES NOT ALLEVIATE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE ENVIRONMENTAL STATEMENT AND PERMITS.

2. NATURAL RESOURCES:
A. PERMIT REQUIREMENTS / APPROVALS*:
CORPS - NWP 23 (PCN REQUIRED)**
DNREC SUBAQUEOUS - NONE
DNREC WQC & CZM - ISSUED (PROJECT IS NOT LOCATED IN CRW)
NCC - NONE

*THE PERMITS/APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING/OBTAINING THIS APPROVAL.
**THE CONTRACTOR MUST ENSURE THAT THESE PERMITS/APPROVALS (CORP NWP 23) ARE IN THEIR POSSESSION PRIOR TO BEGINNING CONSTRUCTION IN THE PERMITTED AREA(S) AND ENSURE IT IS DISPLAYED ON-SITE DURING THE ENTIRE CONSTRUCTION PERIOD.

B. CONSTRUCTION RESTRICTIONS:
FISHERIES - NONE
ENDANGERED SPECIES - NONE
(USFWS WERE REQUERIED 5/29/13)
MIGRATORY BIRDS - NONE

3. CULTURAL RESOURCE ISSUES:
SHOULD FURTHER STAGING OR STOCKPILING BE REQUIRED, THE DISTRICT ENGINEER AND CONTRACTOR WILL COORDINATE WITH DELDOT ENVIRONMENTAL STUDIES OFFICE TO DETERMINE AND CONFIRM THAT CULTURAL RESOURCE ELEMENTS OR IMPACTS WOULD NOT OCCUR.

4. SILT FENCE AND/OR CONSTRUCTION SAFETY FENCE SHALL BE USED ALONG THE LIMITS OF CONSTRUCTION IN ALL AREAS WHERE WATER/WETLANDS ARE BEING IMPACTED (AS SHOWN ON EC SHEETS), AND ALSO IN ANY AREA WHERE WATER/WETLANDS EXIST WITHIN 20 FEET OF THE LOC (AS SHOWN ON CONSTRUCTION PLANS). CONTRACTOR ACCESS BEYOND THE LOC IS STRICTLY PROHIBITED.

5. WET GROUND EROSION CONTROL GRASS SEEDING FLATS SHALL BE PLACED IN DISTURBED WETLAND AREAS. PAYMENT UNDER ITEM #734552 WET GROUND EROSION CONTROL SEEDING - FLATS

SHEET PREPARED BY: ROBERT MCGURK, DATE: 5/8/13 UPDATED: 8/14/13

WETLANDS INSIDE OF RAMP P AND RAMP S DELINEATED BY RK&K IN MAY 2012, IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND REGIONAL SUPPPLEMENTS.

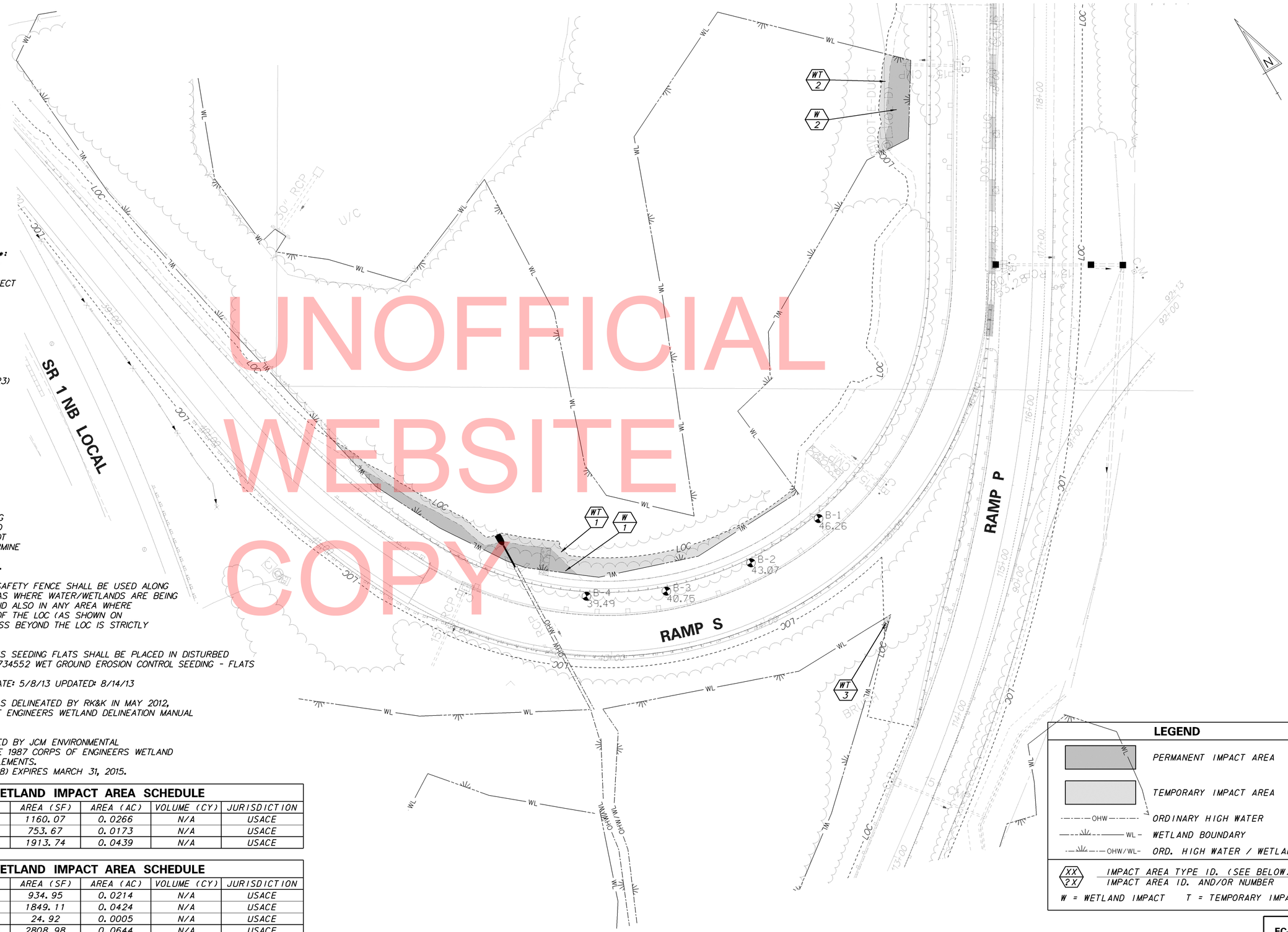
WETLANDS OUTSIDE OF RAMP P DELINEATED BY JCM ENVIRONMENTAL IN MARCH 2008 IN ACCORDANCE WITH THE 1987 CORPS OF ENGINEERS WETLAND DELINEATION MANUAL AND REGIONAL SUPPLEMENTS.
CENAP-OP-R-2009-0027-1 (NWP 12, NWP 18) EXPIRES MARCH 31, 2015.

PERMANENT WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
W-1	EMBANKMENT/FILL	1160.07	0.0266	N/A	USACE
W-2	EMBANKMENT/FILL	753.67	0.0173	N/A	USACE
TOTAL PERMANENT WETLAND IMPACT AREAS		1913.74	0.0439	N/A	USACE

TEMPORARY WETLAND IMPACT AREA SCHEDULE

ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	WORK AREA	934.95	0.0214	N/A	USACE
WT-2	WORK AREA	1849.11	0.0424	N/A	USACE
WT-3	WORK AREA	24.92	0.0005	N/A	USACE
TOTAL TEMPORARY WETLAND IMPACT AREAS		2808.98	0.0644	N/A	USACE



LEGEND

PERMANENT IMPACT AREA
TEMPORARY IMPACT AREA
OHW — ORDINARY HIGH WATER
WL — WETLAND BOUNDARY
OHW/WL — ORD. HIGH WATER / WETLAND
XX / 2X — IMPACT AREA TYPE ID. (SEE BELOW) / IMPACT AREA ID. AND/OR NUMBER
W = WETLAND IMPACT T = TEMPORARY IMPACT

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT T201309003
COUNTY NEW CASTLE
BRIDGE NO. N/A
DESIGNED BY: RPM
CHECKED BY: JKL

ENVIRONMENTAL COMPLIANCE PLAN

EC-01
SHEET NO. 32
TOTAL SHTS. 48

NOTES:

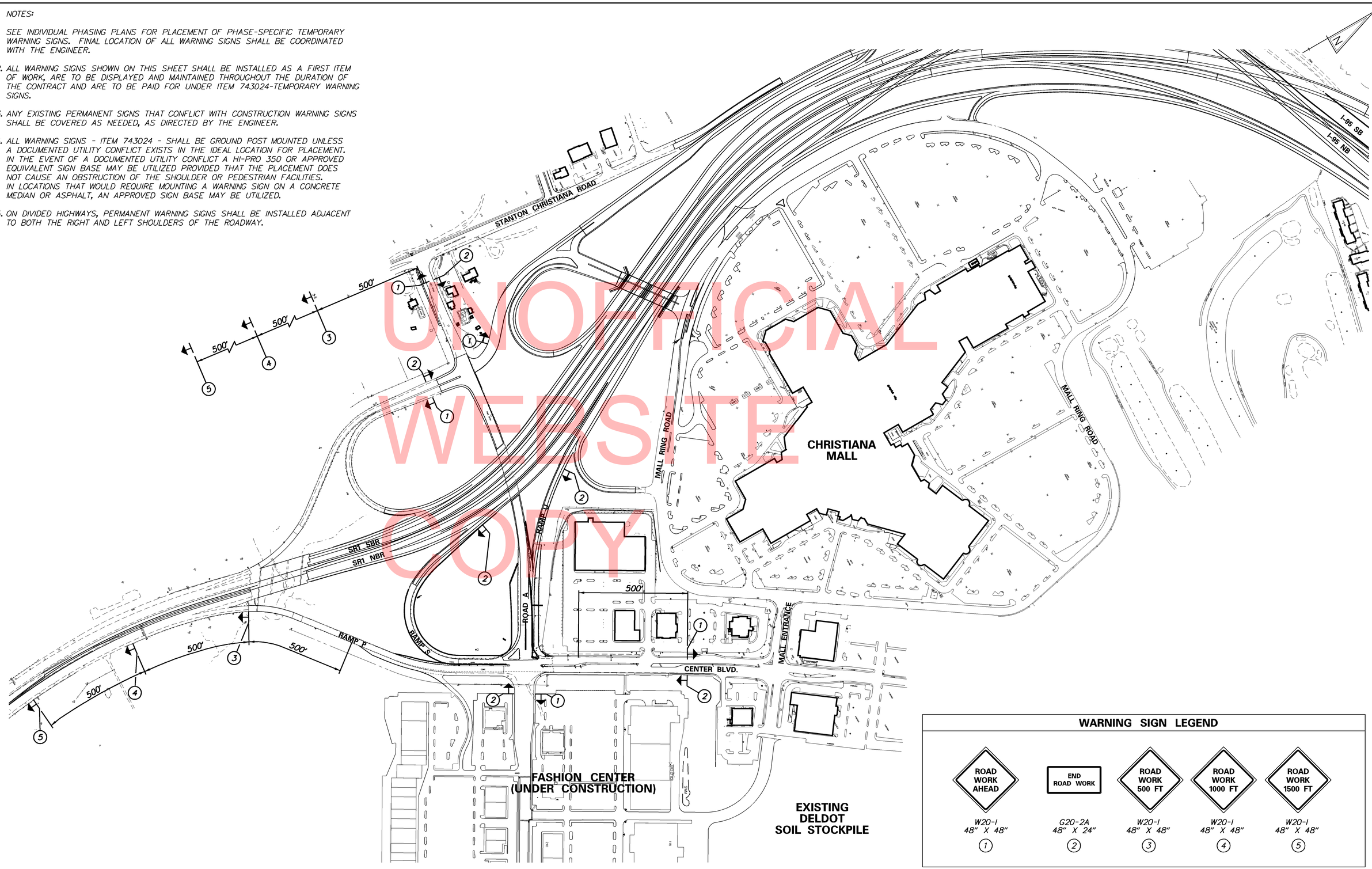
1. SEE INDIVIDUAL PHASING PLANS FOR PLACEMENT OF PHASE-SPECIFIC TEMPORARY WARNING SIGNS. FINAL LOCATION OF ALL WARNING SIGNS SHALL BE COORDINATED WITH THE ENGINEER.

2. ALL WARNING SIGNS SHOWN ON THIS SHEET SHALL BE INSTALLED AS A FIRST ITEM OF WORK, ARE TO BE DISPLAYED AND MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT AND ARE TO BE PAID FOR UNDER ITEM 743024-TEMPORARY WARNING SIGNS.

3. ANY EXISTING PERMANENT SIGNS THAT CONFLICT WITH CONSTRUCTION WARNING SIGNS SHALL BE COVERED AS NEEDED, AS DIRECTED BY THE ENGINEER.

4. ALL WARNING SIGNS - ITEM 743024 - SHALL BE GROUND POST MOUNTED UNLESS A DOCUMENTED UTILITY CONFLICT EXISTS IN THE IDEAL LOCATION FOR PLACEMENT. IN THE EVENT OF A DOCUMENTED UTILITY CONFLICT A HI-PRO 350 OR APPROVED EQUIVALENT SIGN BASE MAY BE UTILIZED PROVIDED THAT THE PLACEMENT DOES NOT CAUSE AN OBSTRUCTION OF THE SHOULDER OR PEDESTRIAN FACILITIES. IN LOCATIONS THAT WOULD REQUIRE MOUNTING A WARNING SIGN ON A CONCRETE MEDIAN OR ASPHALT, AN APPROVED SIGN BASE MAY BE UTILIZED.

5. ON DIVIDED HIGHWAYS, PERMANENT WARNING SIGNS SHALL BE INSTALLED ADJACENT TO BOTH THE RIGHT AND LEFT SHOULDERS OF THE ROADWAY.



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WARNING SIGN LEGEND

ROAD WORK AHEAD	END ROAD WORK	ROAD WORK 500 FT	ROAD WORK 1000 FT	ROAD WORK 1500 FT
W20-1 48" X 48"	G20-2A 48" X 24"	W20-1 48" X 48"	W20-1 48" X 48"	W20-1 48" X 48"
1	2	3	4	5

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 200 400 600 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RK&K	
COUNTY		
NEW CASTLE	CHECKED BY: RK&K	

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL- ADVANCE WARNING SIGN PLAN

SHEET NO. 33

TOTAL SHTS. 48

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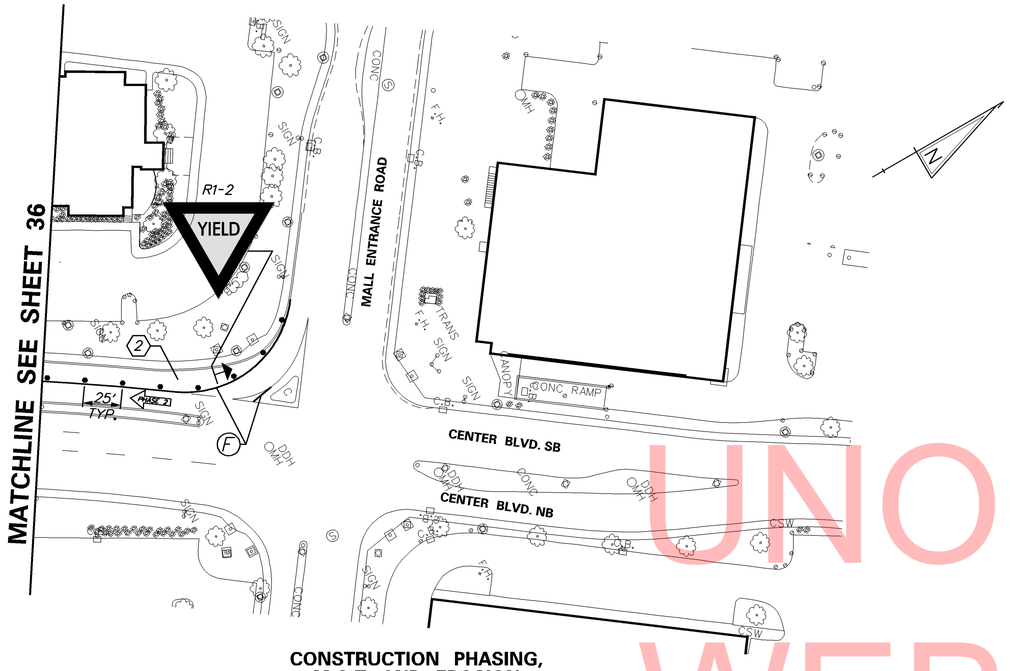
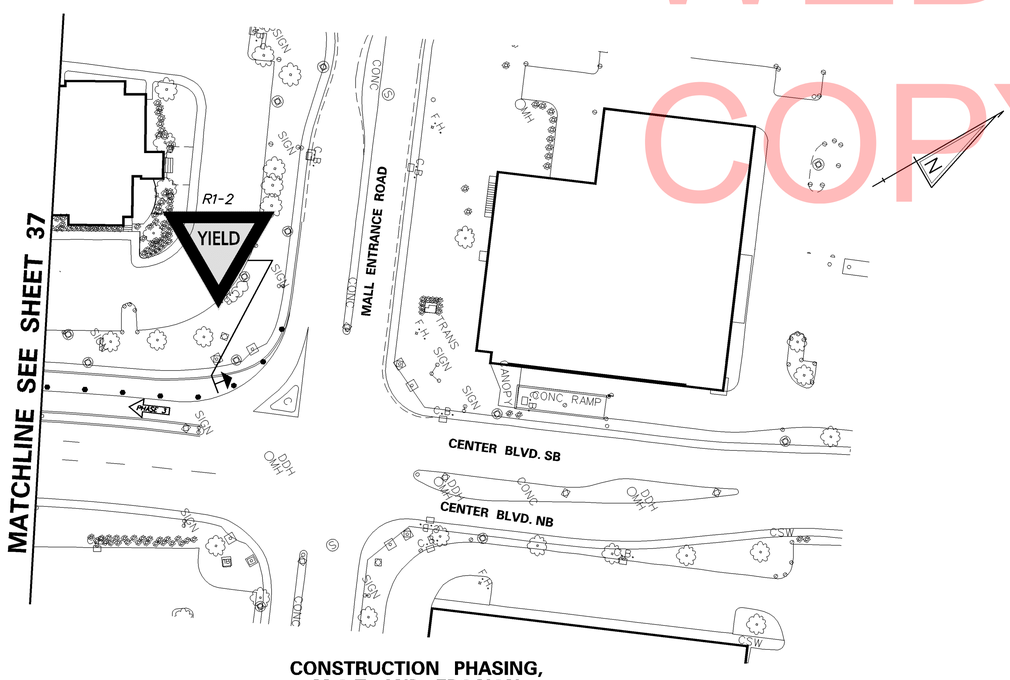


CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 2



CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 3

TRAFFIC CONTROL- GENERAL NOTES

1. MAINTENANCE OF TRAFFIC SHALL CONFORM TO TYPICAL APPLICATIONS 10 AND 33 OF THE DELAWARE MUTCD.
2. ON ALL INTERSECTING STREETS APPROACHING THE WORK AREA, "ROAD WORK 1,500 FT." "ROAD WORK 1,000 FT." AND "ROAD WORK 500 FT." PERMANENT SIGNS SHALL BE PLACED AS SHOWN ON THESE PLANS OR AS DIRECTED BY THE ENGINEER. AN "END ROAD WORK" SIGN SHALL BE PLACED ACROSS THE STREET FROM THE "ROAD WORK 500 FT." SIGN, VISIBLE TO TRAFFIC OPERATING THE WORK ZONE. GRADING AND MAINTAINING BASE COURSE THAT IS BEING USED AS A TRAVELWAY, DRIVEWAY, ACCESS RAMP, ETC. SHALL
3. BE INCIDENTAL TO ITEM 743000 - MAINTENANCE OF TRAFFIC. 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 PAYMENT SHALL BE MADE FOR 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. CONSTRUCTION OF A PLANNED RUNAROUND OR DETOUR WOULD BE ELIGIBLE FOR PAYMENT AS SPECIFIED IN THE CONTRACT.
4. 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.
5. A TYPE II TRUCK MOUNTED ATTENUATOR (TMA) SHALL BE REQUIRED ON THIS PROJECT DURING THE FOLLOWING PAVEMENT OPERATIONS: TEMPORARY/PERMANENT PAVEMENT MARKINGS, ROADSIDE SPRAYING, PATCHING, MILLING, SWEEPING, TEMPORARY TRAFFIC BARRIER PLACEMENT OR AS DIRECTED BY THE ENGINEER. THE ROLL AHEAD DISTANCE SHALL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS. THE TMA SHALL CONFORM TO THE REQUIREMENTS OF SECTION 6F OF THE DELAWARE MUTCD.
6. ACCEPTABLE MATERIALS FOR TEMPORARY PEDESTRIAN PATHS SHALL INCLUDE CONCRETE, HOT-MIX, COMPACTED MILLINGS OR PLYWOOD WALKWAY STRUCTURE. PLYWOOD WALKWAY STRUCTURES SHALL ALSO INCLUDE DETECTABLE EDGING AND RAILINGS IN ACCORDANCE WITH ADA GUIDELINES AND THE DELAWARE MUTCD. TEMPORARY PEDESTRIAN PATHS SHALL BE IN COMPLIANCE WITH SPECIAL PROVISION 743553, AND PAYMENT SHALL BE INCIDENTAL TO ITEM 743000 UNLESS OTHERWISE SPECIFIED IN THE PLANS. STONE OR GRADED AGGREGATE BASE COURSE SHALL NOT BE USED FOR TEMPORARY PEDESTRIAN PATHS. CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH THE FASHION CENTER DEVELOPMENT AND CABELA'S DEVELOPMENT
7. RELATED TO ALL CONSTRUCTION IMPROVEMENTS.

TRAFFIC CONTROL- PROJECT NOTES

1. AS THE FIRST ORDER OF WORK, PRIOR TO ANY CONSTRUCTION, THE ADVANCE SIGNING WILL BE ERECTED AS SHOWN ON THE WARNING SIGN PLAN. THE WARNING SIGNS SHALL REMAIN IN PLACE THROUGHOUT CONSTRUCTION AND MAINTAINED IN SATISFACTORY CONDITION IN ACCORDANCE WITH THE SPECIFICATIONS AND ATSSA'S QUALITY GUIDELINES FOR TEMPORARY TRAFFIC CONTROL DEVICES.
2. THE CONTRACTOR SHALL SUPPLY CHANGEABLE MESSAGE SIGNS UNDER ITEM 743004 - FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN, MOVING THE MESSAGE SIGNS TO DIFFERENT LOCATIONS DURING CONSTRUCTION WILL BE INCIDENTAL TO ITEM 743004. AT A MINIMUM, MESSAGE SIGNS SHALL BE POSTED TWO WEEKS PRIOR TO THE START OF CONSTRUCTION AND CHANGES IN TRAFFIC PATTERNS. SIX PLASTIC DRUMS SHALL BE PLACED IN FRONT OF THE MESSAGE SIGN. LOCATION AND MESSAGE OF MESSAGE SIGNS SHALL BE APPROVED BY DISTRICT TRAFFIC SAFETY OFFICER.
3. ROADWAY AND SHOULDER WORK SHALL BE PERFORMED IN A MANNER SUCH THAT POSITIVE DRAINAGE OF THE ROADWAY SURFACE IS MAINTAINED THROUGHOUT CONSTRUCTION. ALL WORK AND MATERIALS TO PROVIDE AND MAINTAIN THIS DRAINAGE SHALL BE INCIDENTAL TO ITEM 743000 - MAINTENANCE OF TRAFFIC.
4. FLOODLIGHTING SHALL BE PAID AS OUTLINED IN ITEM 743005, FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY-THE ATSSA SUPERVISOR SHALL APPROVE THE POSITION OF THE LIGHT ASSEMBLY. SHOULD THE NIGHT TIME OPERATIONS REQUIRE FLAGGER STATIONS OR LANE TAPERS, THE FLAGGERS AND LANE TAPERS AND WORK AREA SHALL BE ILLUMINATED AS DIRECTED BY THE ENGINEER.
5. ENTRANCE AND SIDE ROAD TIE-IN AREAS SHALL BE CONSTRUCTED ONLY TO THE EXTENT THAT CAN BE PAVED OR TEMPORARILY STABILIZED WITH HOT-MIX TRM AT THE END OF A WORK DAY.
6. THE CONTRACTOR SHALL PLACE A WEDGE OF HOT-MIX AT 20:1 AROUND CONSTRUCTED DRAINAGE INLETS PRIOR TO PLACEMENT OF FINAL HOT-MIX TYPE C PAVING. THE CONTRACTOR SHALL NOTCH DRAINAGE INLETS TO MAINTAIN POSITIVE DRAINAGE CONDITIONS ALONG THE ROADWAY PRIOR TO PLACEMENT OF TYPE C FINAL HOT-MIX PAVING. NOTCHES SHALL BE REPAIRED TO PROPER CONDITION PRIOR TO OVERLAY. COST OF THIS WORK SHALL BE INCIDENTAL TO ITEM 710001 - ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET.
7. ALL EXISTING PUBLIC ROADWAY LIGHTING, PARKING LOT LIGHTING AND PRIVATE LIGHTING WITHIN THE PROJECT LIMITS NOT DIRECTLY IMPACTED BY CONSTRUCTION SHALL REMAIN OPERATIONAL AT ALL TIMES THROUGHOUT THE CONSTRUCTION.
8. TRAFFIC OFFICERS (743007) SHALL BE UNIFORMED AND EQUIPPED WITH MARKED DELAWARE STATE POLICE VEHICLES WHICH SHALL INCLUDE A SPEED MEASURING DEVICE. THE ATSSA SUPERVISOR SHALL INFORM THE STATE TROOPER OF THE OVERALL MOT SCHEME, AS WELL AS THE SPECIFICS OF HIS/HER FUNCTION.
9. THE CONTRACTOR SHALL BE REQUIRED TO RESTORE AREAS UTILIZED AS STAGING AREAS, MATERIALS/ EQUIPMENT STORAGE, FIELD OFFICE, ETC. DURING THE PROJECT'S CONSTRUCTION TO ITS ORIGINAL CONDITION. ALL COSTS SHALL BE INCIDENTAL TO ALL OF THE CONTRACT BID ITEMS.

SEDIMENT & STORMWATER MANAGEMENT NOTES

1. CONSTRUCTION ENTRANCES. IT IS INTENDED THAT MUD TRACKING BE ELIMINATED ON ALL STATE MAINTAINED ROADWAYS ADJOINING THE PROJECT. EACH POINT OF INGRESS AND EGRESS FROM THE PROJECT SHALL HAVE INSTALLED A STABILIZED CONSTRUCTION ENTRANCE (SCE), ITEM 268000. ALL PAVED SURFACES ADJOINING THE PROJECT SHALL BE LEFT IN A BROOM CLEAN CONDITION AT THE END OF EACH WORKDAY. STABILIZED CONSTRUCTION ENTRANCES SHALL BE DRESSED WITH TWO (2) INCHES OF CLEAN DE NO. 3 STONE WHEN THE VOIDS BECOME CLOGGED OR AS DIRECTED BY THE ENGINEER. ADDITIONAL STONE REQUIRED TO MAINTAIN THE ENTRANCES SHALL BE PAID UNDER THE SAME ITEM NO. 268000.
2. SOIL STOCKPILES. STOCKPILES OF SOIL SHALL BE STABILIZED WITH ITEM 734017, TEMPORARY GRASS SEEDING, DRY GROUND. CONTRACTOR SHALL COORDINATE WITH DELDOT CONSTRUCTION ENGINEER TO ACCESS EXISTING DELDOT-OWNED STOCKPILE LOCATED NORTHEAST OF THE FASHION CENTER SITE. EROSION AND SEDIMENT CONTROL SHALL BE INSTALLED AND MAINTAINED AT THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL ANTICIPATE THE FOLLOWING ITEMS AND APPROXIMATE QUANTITIES WILL BE REQUIRED IN ADDITION TO TEMPORARY SEED:

- REINFORCED SILT FENCE	1,800	LF
- PERMANENT GRASS SEEDING, DRY GROUND	4,500	SY
- TEMPORARY GRASS SEEDING, DRY GROUND	4,500	SY
- STABILIZED CONSTRUCTION ENTRANCE	80	TON
- INLET SEDIMENT CONTROL	2	EA

3. SEDIMENT REMOVAL. SILT FENCE, REINFORCED SILT FENCE, AND SEDIMENT CONTROL DIKES SHALL HAVE SEDIMENT REMOVED WHEN IT REACHES 50 PERCENT OF THE HEIGHT OF THE DIKE OR FENCE. SEDIMENT REMOVAL SHALL BE PAID FOR UNDER ITEM 250000, SEDIMENT REMOVAL. REMOVAL AND BACK FILLING OF TEMPORARY SEDIMENT CONTROLS WHEN THEY ARE NO LONGER NEEDED SHALL BE INCIDENTAL TO THEIR INITIAL CONSTRUCTION.

TRAFFIC RESTRICTIONS

1. RAMP CLOSURES OR DETOURS TO OR FROM THE MALL OR ROAD A SHALL NOT BE PERMITTED BEGINNING THE FRIDAY PRIOR TO THANKSGIVING THROUGH JANUARY 3.
2. CONSTRUCTION IMPACTING THE RAMPS PROVIDING ACCESS TO OR FROM SR 1/7 AND THE MALL SHALL NOT BE PERMITTED BEGINNING THE FRIDAY PRIOR TO THANKSGIVING THROUGH JANUARY 3.
3. RAMP S AND PROPOSED RAMP U PROVIDE ACCESS FROM ROAD A TO SR 1/7. AT LEAST ONE OF THESE RAMPS SHALL BE MAINTAINED OPEN TO TRAFFIC AT ALL TIMES THROUGHOUT THE PROJECT'S CONSTRUCTION.
4. RAMP S SHALL NOT BE CLOSED PRIOR TO THE OPENING OF RAMP U.
5. THE EXISTING MALL RING ROAD IS A PRIVATE ROAD AND IS NOT AVAILABLE FOR CONSTRUCTION VEHICLES OR PUBLIC DETOURS.
6. RAMP P CLOSURE TO PLACE OR REMOVE BARRIER ONLY SHALL OCCUR AT NIGHT BETWEEN 9:00 PM AND 5:00 AM.
7. ROAD A BARRIER PLACEMENT SHALL OCCUR AT NIGHT BETWEEN 10:00 PM AND 5:00 AM.

EROSION & SEDIMENT CONTROL	
DWBAG	DEWATERING BAG
DWB	DEWATERING BASIN
ED	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
PST	PORTABLE SEDIMENT TANK
SBD	SANDBAG DIKE
SB	SANDBAG DIVERSION
	STONE CHECK DAM
SCE	STABILIZED CONSTRUCTION ENTRANCE
SF	SILT FENCE / LENGTH
SF	SILT FENCE
RSF	SILT FENCE - REINFORCED
SP-1	SUMP PIT, TYPE 1
SP-2	SUMP PIT, TYPE 2
ST	SEDIMENT TRAP
ST	SEDIMENT TRAP
ST	SEDIMENT TRAP WITH INLET AS OUTLET
ST	SEDIMENT TRAP PIPE OUTLET
SW	STILLING WELL
	TEMPORARY SWALE
TSD	TEMPORARY SLOPE DRAIN
T XXX	TURBIDITY CURTAIN / LENGTH
T	TURBIDITY CURTAIN

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

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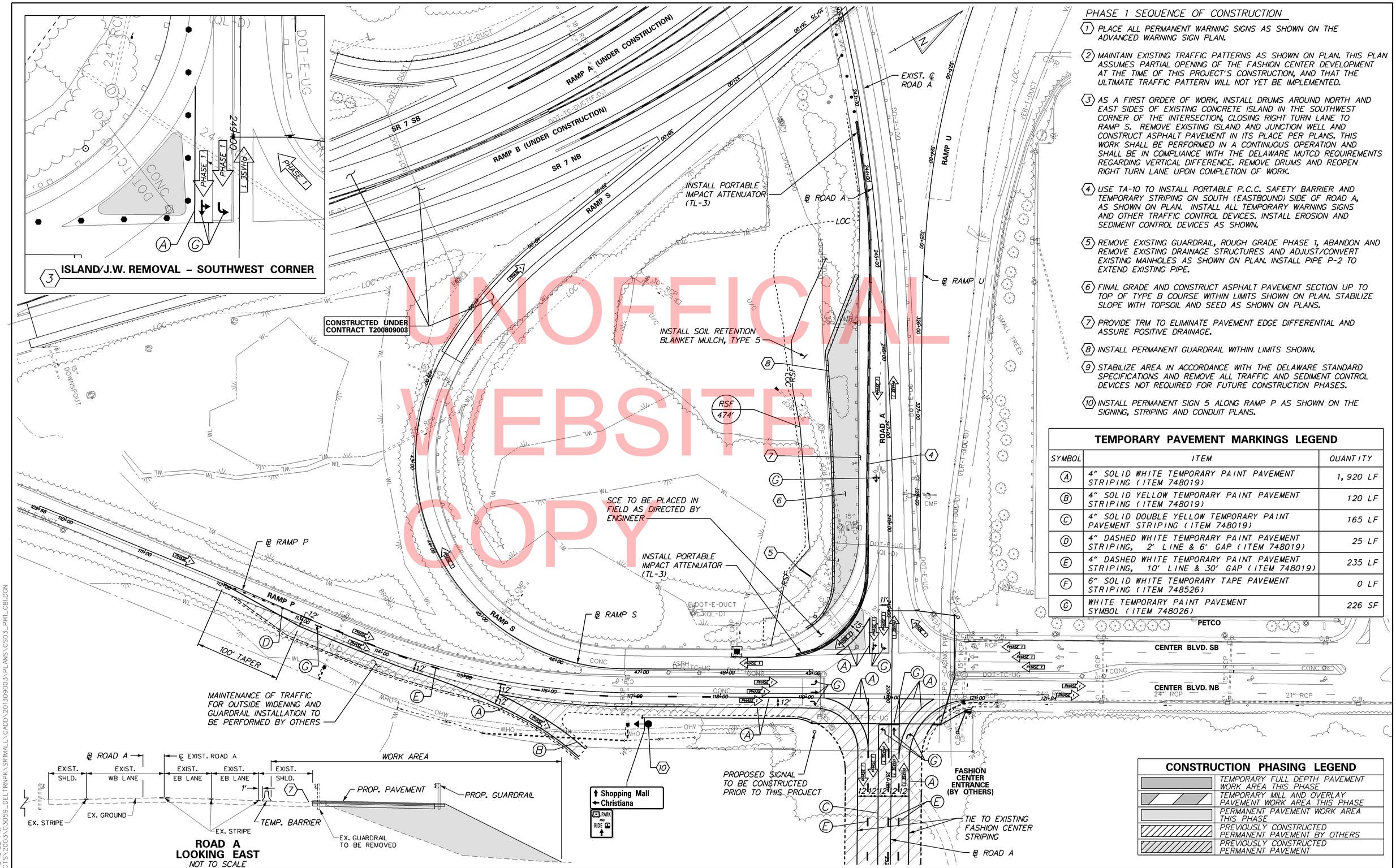
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 50 100 150 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 2, PHASE 3 AND NOTES	SHEET NO. 34
				COUNTY NEW CASTLE	DESIGNED BY: RK&K		TOTAL SHTS. 48
					CHECKED BY: RK&K		



PHASE 1 SEQUENCE OF CONSTRUCTION

1. PLACE ALL PERMANENT WARNING SIGNS AS SHOWN ON THE ADVANCED WARNING SIGN PLAN.
2. MAINTAIN EXISTING TRAFFIC PATTERNS AS SHOWN ON PLAN. THIS PLAN ASSUMES PARTIAL OPENING OF THE FASHION CENTER DEVELOPMENT AT THE TIME OF THIS PROJECT'S CONSTRUCTION, AND THAT THE ULTIMATE TRAFFIC PATTERN WILL NOT YET BE IMPLEMENTED.
3. AS A FIRST ORDER OF WORK, INSTALL DRUMS AROUND NORTH AND EAST SIDES OF EXISTING CONCRETE ISLAND IN THE SOUTHWEST CORNER OF THE INTERSECTION, CLOSING RIGHT TURN LANE TO RAMP S. REMOVE EXISTING ISLAND AND JUNCTION WELL AND CONSTRUCT ASPHALT PAVEMENT IN ITS PLACE PER PLANS. THIS WORK SHALL BE PERFORMED IN A CONTINUOUS OPERATION AND SHALL BE IN COMPLIANCE WITH THE DELAWARE MUTCD REQUIREMENTS REGARDING VERTICAL DIFFERENCE. REMOVE DRUMS AND REOPEN RIGHT TURN LANE UPON COMPLETION OF WORK.
4. USE TA-10 TO INSTALL PORTABLE P.C.C. SAFETY BARRIER AND TEMPORARY STRIPING ON SOUTH (EASTBOUND) SIDE OF ROAD A, AS SHOWN ON PLAN. INSTALL ALL TEMPORARY WARNING SIGNS AND OTHER TRAFFIC CONTROL DEVICES. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN.
5. REMOVE EXISTING GUARDRAIL, ROUGH GRADE PHASE 1, ABANDON AND REMOVE EXISTING DRAINAGE STRUCTURES AND ADJUST/CONVERT EXISTING MANHOLES AS SHOWN ON PLAN. INSTALL PIPE P-2 TO EXTEND EXISTING PIPE.
6. FINAL GRADE AND CONSTRUCT ASPHALT PAVEMENT SECTION UP TO TOP OF TYPE B COURSE WITHIN LIMITS SHOWN ON PLAN. STABILIZE SLOPE WITH TOPSOIL AND SEED AS SHOWN ON PLANS.
7. PROVIDE TRM TO ELIMINATE PAVEMENT EDGE DIFFERENTIAL AND ASSURE POSITIVE DRAINAGE.
8. INSTALL PERMANENT GUARDRAIL WITHIN LIMITS SHOWN.
9. STABILIZE AREA IN ACCORDANCE WITH THE DELAWARE STANDARD SPECIFICATIONS AND REMOVE ALL TRAFFIC AND SEDIMENT CONTROL DEVICES NOT REQUIRED FOR FUTURE CONSTRUCTION PHASES.
10. INSTALL PERMANENT SIGN 5 ALONG RAMP P AS SHOWN ON THE SIGNING, STRIPING AND CONDUIT PLANS.

TEMPORARY PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	4" SOLID WHITE TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	1,920 LF
B	4" SOLID YELLOW TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	120 LF
C	4" SOLID DOUBLE YELLOW TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	165 LF
D	4" DASHED WHITE TEMPORARY PAINT PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748019)	25 LF
E	4" DASHED WHITE TEMPORARY PAINT PAVEMENT STRIPING, 10' LINE & 30' GAP (ITEM 748019)	235 LF
F	6" SOLID WHITE TEMPORARY TAPE PAVEMENT STRIPING (ITEM 748526)	0 LF
G	WHITE TEMPORARY PAINT PAVEMENT SYMBOL (ITEM 748026)	226 SF

CONSTRUCTION PHASING LEGEND

- TEMPORARY FULL DEPTH PAVEMENT WORK AREA THIS PHASE
- TEMPORARY MILL AND OVERLAY PAVEMENT WORK AREA THIS PHASE
- PERMANENT PAVEMENT WORK AREA THIS PHASE
- PREVIOUSLY CONSTRUCTED PERMANENT PAVEMENT BY OTHERS
- PREVIOUSLY CONSTRUCTED PERMANENT PAVEMENT

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

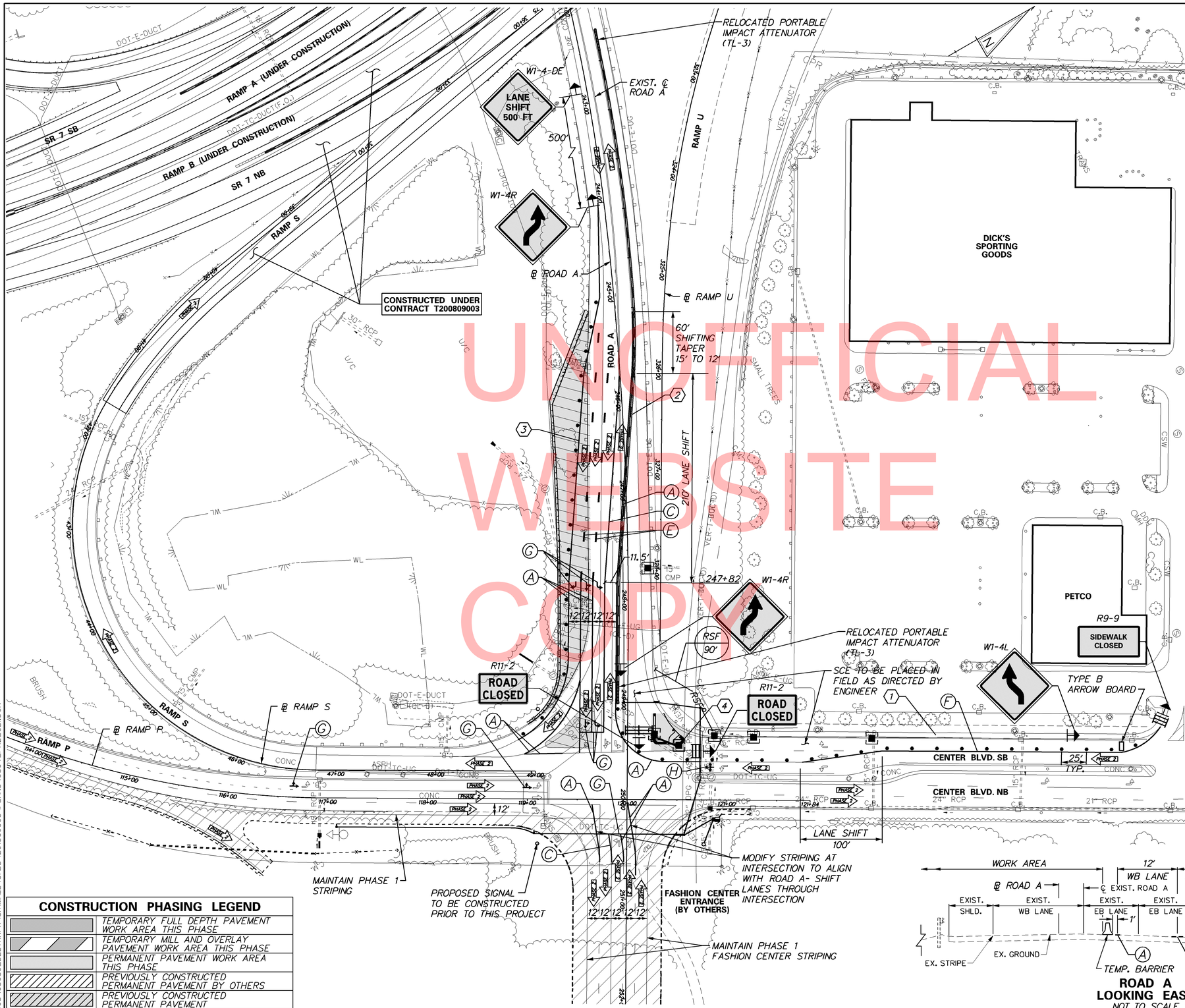
SCALE 0 50 100 150 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RK&K	
COUNTY		
NEW CASTLE	CHECKED BY: RK&K	

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 1

SHEET NO. 35
TOTAL SHTS. 48



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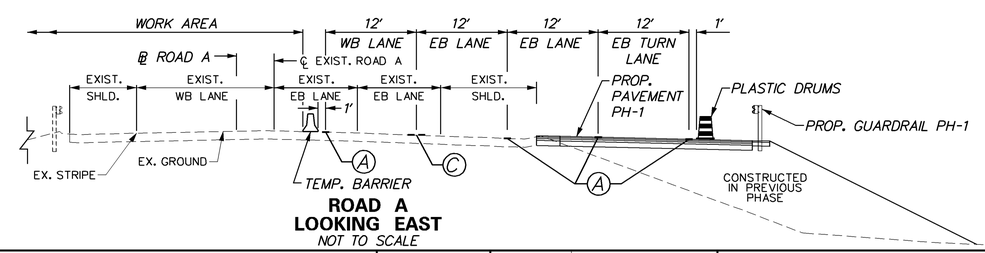
PHASE 2 SEQUENCE OF CONSTRUCTION

1. CLOSE SIDEWALK ON WEST SIDE OF CENTER BOULEVARD BETWEEN PETCO ENTRANCE AND ROAD A.
2. USE TA-33 TO CLOSE RIGHT SOUTHBOUND LANE ON CENTER BOULEVARD BETWEEN ROAD A AND THE NEXT SIGNALIZED INTERSECTION TO THE NORTH. CONVERT RIGHT TURN AT NORTHERN SIGNAL INTO A YIELD CONTROL. SHIFT LEFT LANE PRIOR TO INTERSECTION AND PROVIDE BUS PULL-OFF AS SHOWN ON PLAN. INSTALL ALL TEMPORARY STRIPING, WARNING SIGNS AND OTHER TRAFFIC CONTROL DEVICES ON CENTER BOULEVARD AND ROAD A, INCLUDING RELOCATED PORTABLE BARRIER AND IMPACT ATTENUATORS.
3. SHIFT TRAFFIC TO PHASE 2 CONFIGURATION AND INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN.
4. CONSTRUCT DRAINAGE STRUCTURES DI-2 AND DI-3 AND CURB/PORTION OF ISLAND AS SHOWN.
5. STABILIZE AREA IN ACCORDANCE WITH THE DELAWARE STANDARD SPECIFICATIONS AND REMOVE ALL TRAFFIC AND SEDIMENT CONTROL DEVICES NOT REQUIRED FOR FUTURE CONSTRUCTION PHASES.

TEMPORARY PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	4" SOLID WHITE TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	1,760 LF
B	4" SOLID YELLOW TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	0 LF
C	4" SOLID DOUBLE YELLOW TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	660 LF
D	4" DASHED WHITE TEMPORARY PAINT PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748019)	0 LF
E	4" DASHED WHITE TEMPORARY PAINT PAVEMENT STRIPING, 10' LINE & 30' GAP (ITEM 748019)	130 LF
F	6" SOLID WHITE TEMPORARY TAPE PAVEMENT STRIPING (ITEM 748526)	1,000 LF
G	WHITE TEMPORARY PAINT PAVEMENT SYMBOL (ITEM 748026)	216 SF
H	WHITE TEMPORARY MARKINGS, TAPE (ITEM 748527)	29 SF



ROAD A LOOKING EAST
NOT TO SCALE

CONSTRUCTION PHASING LEGEND

- TEMPORARY FULL DEPTH PAVEMENT WORK AREA THIS PHASE
- TEMPORARY MILL AND OVERLAY PAVEMENT WORK AREA THIS PHASE
- PERMANENT PAVEMENT WORK AREA THIS PHASE
- PREVIOUSLY CONSTRUCTED PERMANENT PAVEMENT BY OTHERS
- PREVIOUSLY CONSTRUCTED PERMANENT PAVEMENT

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 50 100 150 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RK&K	
COUNTY		
NEW CASTLE	CHECKED BY: RK&K	

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 2

SHEET NO. 36
TOTAL SHTS. 48

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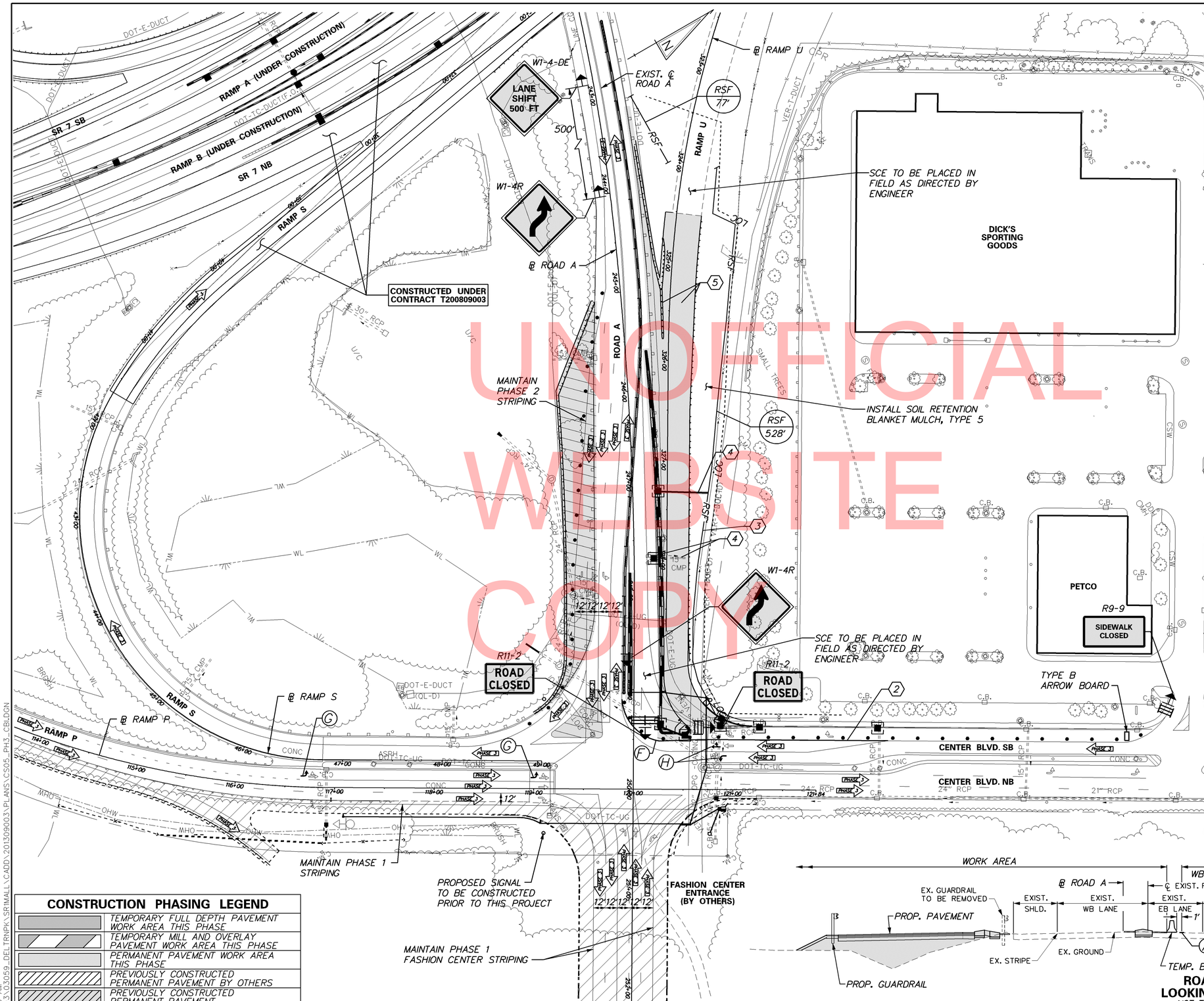
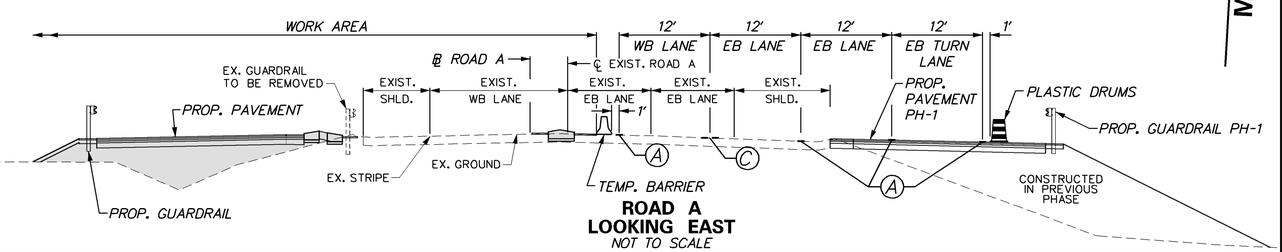


PHASE 3 SEQUENCE OF CONSTRUCTION

1. MAINTAIN PHASE 2 TRAFFIC PATTERN ON ROAD A. MAINTAIN SIDEWALK CLOSURE ON WEST SIDE OF CENTER BOULEVARD BETWEEN PETCO ENTRANCE AND ROAD A.
2. RELOCATE DRUMS AND CONSTRUCT TEMPORARY STRIPING ON CENTER BOULEVARD TO MAINTAIN SINGLE RIGHT LANE CLOSURE AND TO REOPEN CENTER LANE AT INTERSECTION AS SHOWN ON PLAN. INSTALL ALL TEMPORARY WARNING SIGNS AND OTHER TRAFFIC CONTROL DEVICES.
3. SHIFT TRAFFIC TO PHASE 3 CONFIGURATION ON CENTER BOULEVARD AND INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN.
4. ROUGH GRADE PHASE 3, ABANDON AND REMOVE EXISTING DRAINAGE STRUCTURES, GUARDRAIL AND LIGHTING AS SHOWN ON PLAN. CONSTRUCT DRAINAGE PIPE P-5.
5. FINAL GRADE PHASE 3 AND CONSTRUCT CURB, ISLAND AND ASPHALT PAVEMENT SECTION UP TO TOP OF TYPE B COURSE, WITHIN LIMITS SHOWN ON PLAN. PERFORM REMAINING CONSTRUCTION OF SIDEWALKS, DRAINAGE, LIGHTING AND GUARDRAIL/ATTENUATOR INSTALLATION.
6. STABILIZE AREA IN ACCORDANCE WITH THE DELAWARE STANDARD SPECIFICATIONS AND REMOVE ALL TRAFFIC AND SEDIMENT CONTROL DEVICES NOT REQUIRED FOR FUTURE CONSTRUCTION PHASES.

TEMPORARY PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	4" SOLID WHITE TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	0 LF
B	4" SOLID YELLOW TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	0 LF
C	4" SOLID DOUBLE YELLOW TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	0 LF
D	4" DASHED WHITE TEMPORARY PAINT PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748019)	0 LF
E	4" DASHED WHITE TEMPORARY PAINT PAVEMENT STRIPING, 10' LINE & 30' GAP (ITEM 748019)	0 LF
F	6" SOLID WHITE TEMPORARY TAPE PAVEMENT STRIPING (ITEM 748526)	290 LF
G	WHITE TEMPORARY PAINT PAVEMENT SYMBOL (ITEM 748026)	31 SF
H	WHITE TEMPORARY MARKINGS, TAPE (ITEM 748527)	41 SF



ROAD A LOOKING EAST
NOT TO SCALE

CONSTRUCTION PHASING LEGEND

- TEMPORARY FULL DEPTH PAVEMENT WORK AREA THIS PHASE
- TEMPORARY MILL AND OVERLAY PAVEMENT WORK AREA THIS PHASE
- PERMANENT PAVEMENT WORK AREA THIS PHASE
- PREVIOUSLY CONSTRUCTED PERMANENT PAVEMENT BY OTHERS
- PREVIOUSLY CONSTRUCTED PERMANENT PAVEMENT

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

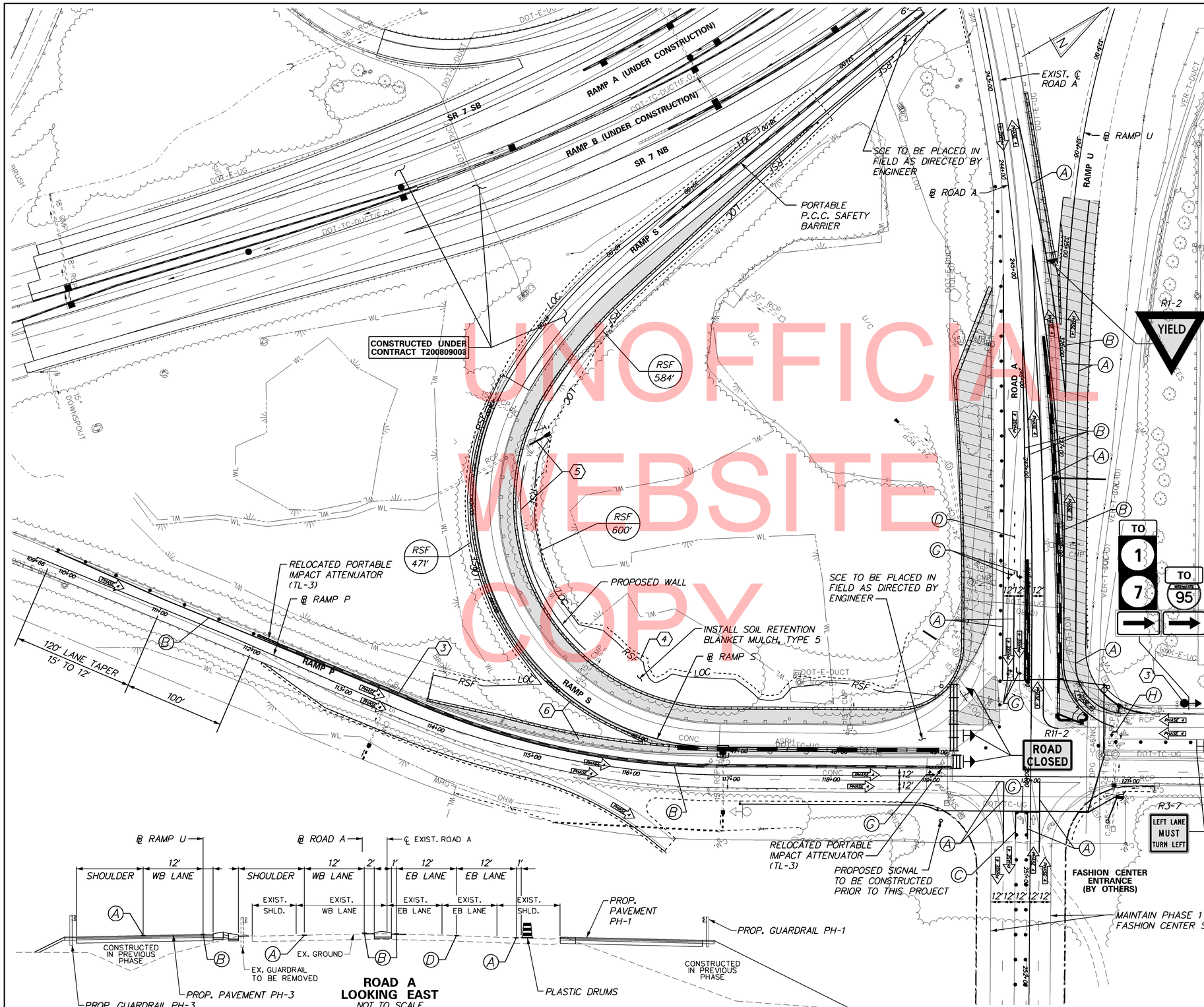
SCALE 0 50 100 150 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RK&K	
COUNTY		
NEW CASTLE	CHECKED BY: RK&K	

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 3

SHEET NO. 37
TOTAL SHTS. 48



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PHASE 4 SEQUENCE OF CONSTRUCTION

1. OPEN RAMP U PRIOR TO CLOSING RAMP S. INSTALL DETOUR SIGNING FOR RAMP S AS SHOWN ON THE DETOUR PLANS. INSTALL PERMANENT DIRECTIONAL SIGN 17 TO I-95, SR1, AND SR7 ON SOUTHBOUND CENTER BOULEVARD AS SHOWN ON THE SIGNING, STRIPING AND CONDUIT PLANS PRIOR TO OPENING RAMP U AND CLOSING RAMP S. SIGNS SHOULD BE BAGGED IF INSTALLED AT THE BEGINNING OF PHASE AND UNBAGGED WHEN RAMP U IS OPENED.
2. DURING THIS PHASE THE LEFT TURN OUT OF THE FASHION CENTER TO RAMP S WILL BE PROHIBITED. ALL TRAFFIC TO NORTHBOUND SR1/SR7 WILL BE DIVERTED WITHIN THE FASHION CENTER SITE TO THE CENTER BOULEVARD/ MALL ENTRANCE INTERSECTION VIA THE FASHION CENTER NORTH EXIT, AND SOUTHBOUND ON CENTER BOULEVARD TO RAMP U. RETURN SOUTHBOUND CENTER BOULEVARD NORTH OF PETCO ENTRANCE TO PRE-CONSTRUCTION LANE AND STRIPING CONFIGURATION.
3. UTILIZE THE RAMP P DETOUR TO INSTALL PORTABLE P.C.C. SAFETY BARRIER AND TEMPORARY STRIPING ON RAMP P AS SHOWN ON PLAN. INSTALL ALL TEMPORARY WARNING SIGNS AND OTHER TRAFFIC CONTROL DEVICES. CLOSE RAMP S TO TRAFFIC AND SHIFT TRAFFIC TO PHASE 4 CONFIGURATION.
4. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN.
5. ROUGH GRADE PHASE 4 AND ABANDON AND REMOVE EXISTING DRAINAGE STRUCTURES AND GUARDRAIL. INSTALL SHEET PILE RETAINING WALL ALONG RIGHT SIDE OF RAMP S AND INSTALL PIPE P-7 AS SHOWN ON PLANS.
6. FINAL GRADE PHASE 4 AND CONSTRUCT ASPHALT PAVEMENT SECTION UP TO TOP OF TYPE B COURSE, WITHIN LIMITS SHOWN ON PLAN. PERFORM REMAINING CONSTRUCTION OF DRAINAGE, GUARDRAIL AND PERMANENT SIGNING INSTALLATION.
7. USE TA-10 TO INSTALL PERMANENT SIGNING ON ROAD A, CENTER BOULEVARD AND RAMP P.
8. AS A FINAL ORDER OF WORK, USE TA-10 AND TA-33 TO MILL AND OVERLAY AS SHOWN ON CONSTRUCTION PLANS. USE TA-10 AND TA-33 TO INSTALL PERMANENT PAVEMENT MARKINGS. ALL FINAL PAVING SHIFTS SHALL BE COMPLETED AFTER PHASE 4.
9. STABILIZE AREA IN ACCORDANCE WITH THE DELAWARE STANDARD SPECIFICATIONS AND REMOVE ALL TRAFFIC AND SEDIMENT CONTROL DEVICES. SHIFT TRAFFIC TO PERMANENT CONFIGURATION.

TEMPORARY PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	4" SOLID WHITE TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	2,000 LF
B	4" SOLID YELLOW TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	2,150 LF
C	4" SOLID DOUBLE YELLOW TEMPORARY PAINT PAVEMENT STRIPING (ITEM 748019)	30 LF
D	4" DASHED WHITE TEMPORARY PAINT PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748019)	22 LF
F	6" SOLID WHITE TEMPORARY TAPE PAVEMENT STRIPING (ITEM 748526)	100 LF
G	WHITE TEMPORARY PAINT PAVEMENT SYMBOL (ITEM 748026)	173 SF
H	WHITE TEMPORARY MARKINGS, TAPE (ITEM 748527)	31 SF

CONSTRUCTION PHASING LEGEND

	TEMPORARY FULL DEPTH PAVEMENT WORK AREA THIS PHASE
	TEMPORARY MILL AND OVERLAY PAVEMENT WORK AREA THIS PHASE
	PERMANENT PAVEMENT WORK AREA THIS PHASE
	PREVIOUSLY CONSTRUCTED PERMANENT PAVEMENT BY OTHERS
	PREVIOUSLY CONSTRUCTED PERMANENT PAVEMENT

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 50 100 150 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RK&K	
COUNTY		
NEW CASTLE	CHECKED BY: RK&K	

CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 4

SHEET NO. 38
TOTAL SHTS. 48

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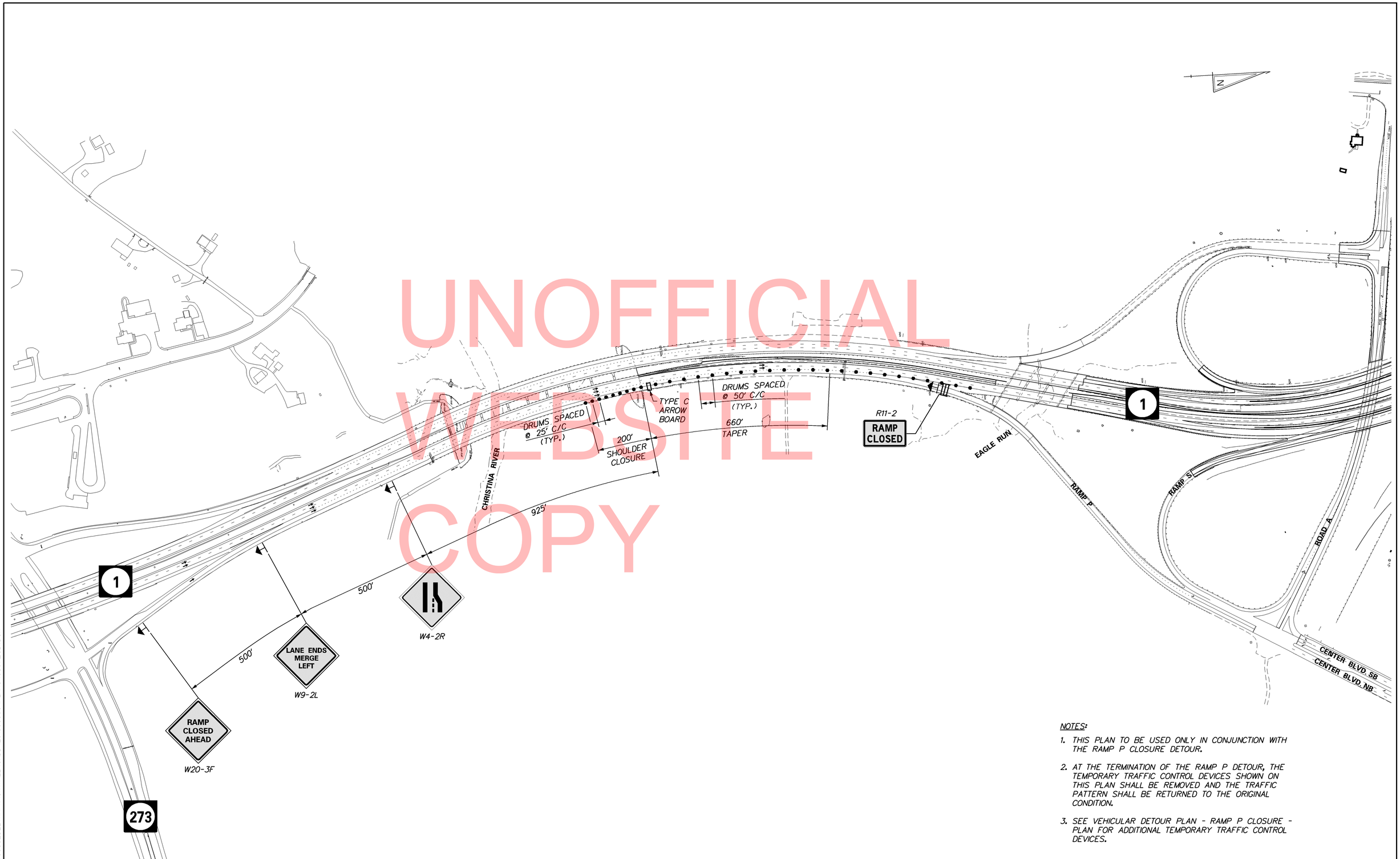

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NOTES:

1. THIS PLAN TO BE USED ONLY IN CONJUNCTION WITH THE RAMP P CLOSURE DETOUR.
2. AT THE TERMINATION OF THE RAMP P DETOUR, THE TEMPORARY TRAFFIC CONTROL DEVICES SHOWN ON THIS PLAN SHALL BE REMOVED AND THE TRAFFIC PATTERN SHALL BE RETURNED TO THE ORIGINAL CONDITION.
3. SEE VEHICULAR DETOUR PLAN - RAMP P CLOSURE - PLAN FOR ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES.

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 150 300 450 FEET	ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	BRIDGE NO. N/A	LANE CLOSURE FOR RAMP P DETOUR	SHEET NO. 39
				COUNTY NEW CASTLE	DESIGNED BY: RK&K		TOTAL SHTS. 48
					CHECKED BY: RK&K		

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PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

EXIT 164 TO CLOSE	STARTING XX/XX

DURING DETOUR

PCMS-1

EXIT 164 CLOSED	FOLLOW DETOUR

DURING DETOUR
(TURN OFF DURING DAY)

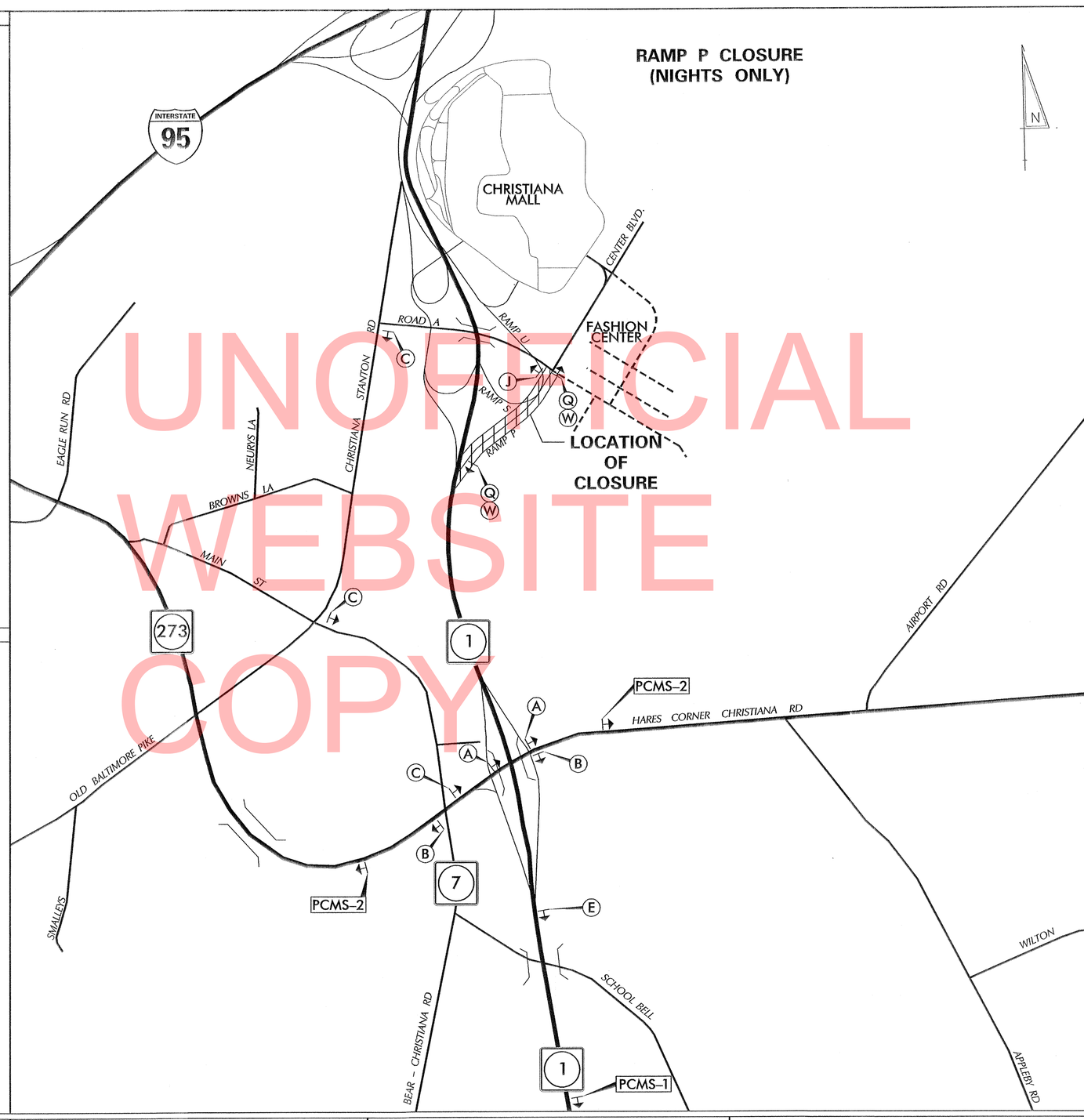
PCMS-2

NB SR 1 EXIT 164 CLOSED	FOLLOW DETOUR

SPECIAL SIGNS

ADDITIONAL NOTES:

1. SIGNS PLACED ON ROADWAYS WITH MORE THAN ONE LANE IN ONE DIRECTION SHALL BE POSTED ON BOTH THE LEFT AND RIGHT SHOULDERS.
2. SEE PREVIOUS SHEET - LANE CLOSURE FOR RAMP P DETOUR - PLAN FOR ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES.



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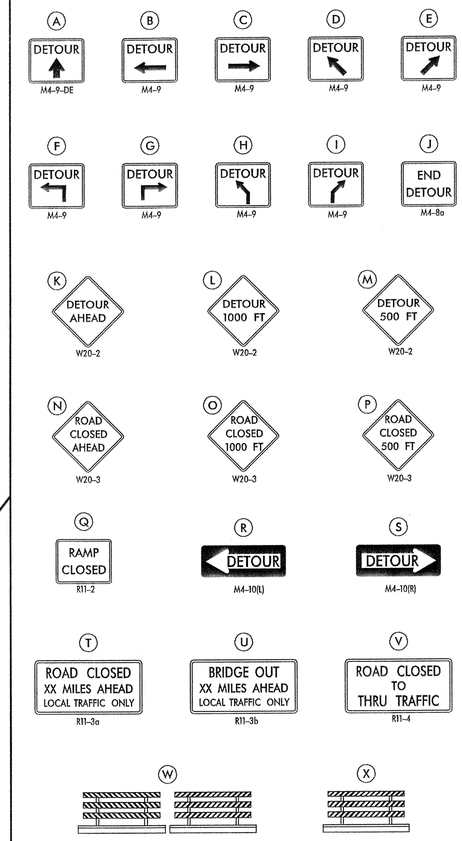
LEGEND



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 6) 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 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 Carey Webb DATE: 8/19/13	RECOMMENDED _____ DATE: _____	RECOMMENDED _____ DATE: _____	APPROVED CHIEF SAFETY OFFICER _____ DATE: 8-20-13	APPROVED TRAFFIC ENGINEER _____ DATE: 8/21/13

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUM / REVISIONS	NOT TO SCALE	ROAD A / SR 7 / CENTER BLVD INTERSECTION IMPROVEMENTS	CONTRACT T201309003	PERMIT NO.	DESIGNED BY: RK&K	CHECKED BY: RK&K	COUNTY NEW CASTLE	VEHICULAR DETOUR PLAN RAMP P CLOSURE	SHEET NO. 40	TOTAL SHTS. 48

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PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

RAMP TO NB1 CLOSING	STARTING XX/XX

DURING DETOUR
(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

PCMS-1

RAMP TO NB1 CLOSED	FOLLOW DETOUR

SPECIAL SIGNS

(Y) NORTH — 24" × 12" — M3-1

(Z) H — 24" × 24" — D9-2 WHITE TEXT ON BLUE BACKGROUND

(AA) — 21" × 15" — M5-1

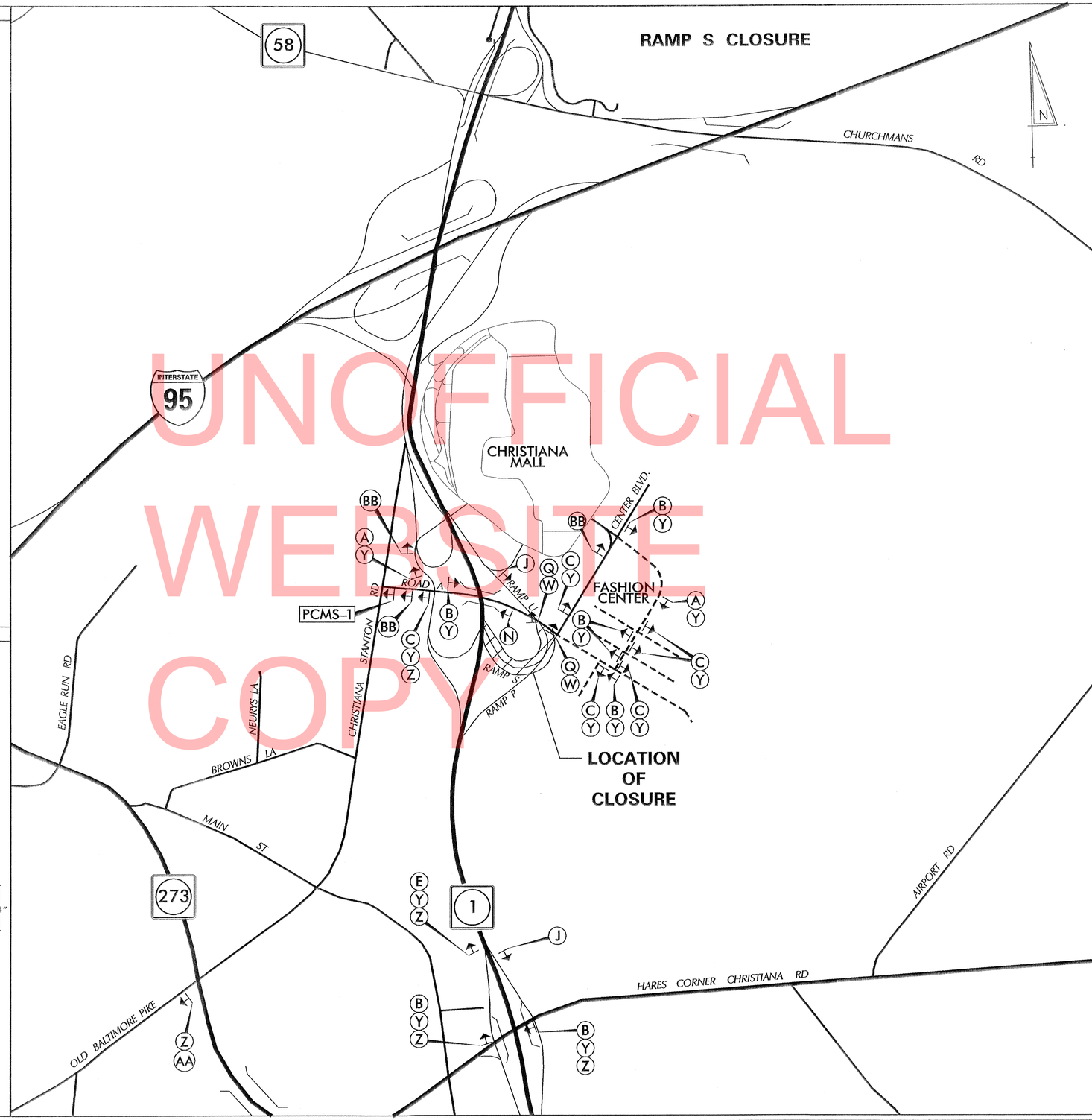
(BB) RAMP TO NB SR 1 CLOSED / FOLLOW DETOUR — 48" × 60", 4.5" / 6"C / 3.25"

STARTING XX/XX/XX — 48" × 24", 3" / 6"C / 4.5"

PLAQUE

ADDITIONAL NOTES:

1. SIGNS PLACED ON ROADWAYS WITH MORE THAN ONE LANE IN ONE DIRECTION SHALL BE POSTED ON BOTH THE LEFT AND RIGHT SHOULDERS.
2. PLAQUE TO BE OVERLAYED ON TOP OF "FOLLOW DETOUR" PORTION OF SIGN.
3. "STARTING XX/XX/XX" PLAQUE TO BE PLACED WITH "RAMP TO NB SR1 CLOSED" SIGN 10 DAYS PRIOR TO BEGINNING OF DETOUR.
4. "FOLLOW DETOUR" PORTION OF SIGN TO BE UNCOVERED 5 DAYS AFTER IMPLEMENTATION OF DETOUR.



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LEGEND

(A) DETOUR 1 — M4-8, M1-5, M6-3
(B) DETOUR 1 — M4-8, M1-5, M6-1(L)
(C) DETOUR 1 — M4-8, M1-5, M6-1(R)
(D) DETOUR 1 — M4-8, M1-5, M6-2(L)
(E) DETOUR 1 — M4-8, M1-5, M6-2(R)
(F) DETOUR 1 — M4-8, M1-5, M5-1(L)
(G) DETOUR 1 — M4-8, M1-5, M5-1(R)
(H) DETOUR 1 — M4-8, M1-5, M5-2(L)
(I) DETOUR 1 — M4-8, M1-5, M5-2(R)
(J) END DETOUR 1 — M4-8a, M1-5
(K) DETOUR AHEAD — W20-2
(L) DETOUR 1000 FT — W20-2
(M) DETOUR 500 FT — W20-2
(N) RAMP CLOSED AHEAD — W20-3
(O) RAMP CLOSED 1000 FT — W20-3
(P) RAMP CLOSED 500 FT — W20-3
(Q) RAMP CLOSED — R11-2
(R) DETOUR — M4-10(L)
(S) DETOUR — M4-10(R)
(T) ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY — R11-3a
(U) BRIDGE OUT XX MILES AHEAD LOCAL TRAFFIC ONLY — R11-3b
(V) ROAD CLOSED TO THRU TRAFFIC — R11-4
(W)
(X)

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 6) 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. THE COLORS, DIMENSIONS, AND CHARACTERISTICS OF ALL INTERSTATE, U.S ROUTE, AND STATE ROUTE SHIELD SIGNS SHALL BE IN ACCORDANCE WITH SECTION 2D.11 OF "THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (DE MUTCD.)
6. SIGNS NO LONGER IN USE SHALL BE COMPLETELY COVERED WITH NO RETROREFLECTIVE MATERIAL SHOWING, OR SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER.
7. 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.
8. SIGNS "N" THROUGH "Q" AND "T" AND "V", THE WORD "ROAD" SHOULD BE CHANGED TO "RAMP", "RR XING", OR "BRIDGE" WHERE APPLICABLE.
9. WARNING SIGNS AND DETOUR TRAILBLAZERS SHALL BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT ORANGE SHEETING.
10. "W" BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF THE ROADWAY.
11. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED Corey Wolfe DATE: 8/19/13 | RECOMMENDED _____ DATE: _____ | RECOMMENDED _____ DATE: _____ | APPROVED CHIEF SAFETY OFFICER _____ DATE: 8-20-13 | APPROVED TRAFFIC ENGINEER _____ DATE: 8/21/13

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

NOT TO SCALE

ROAD A / SR 7 / CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	PERMIT NO.	VEHICULAR DETOUR PLAN	SHEET NO.
T201309003	DESIGNED BY: RK&K	RAMP S CLOSURE	41
COUNTY			TOTAL SHTS.
NEW CASTLE	CHECKED BY: RK&K		48

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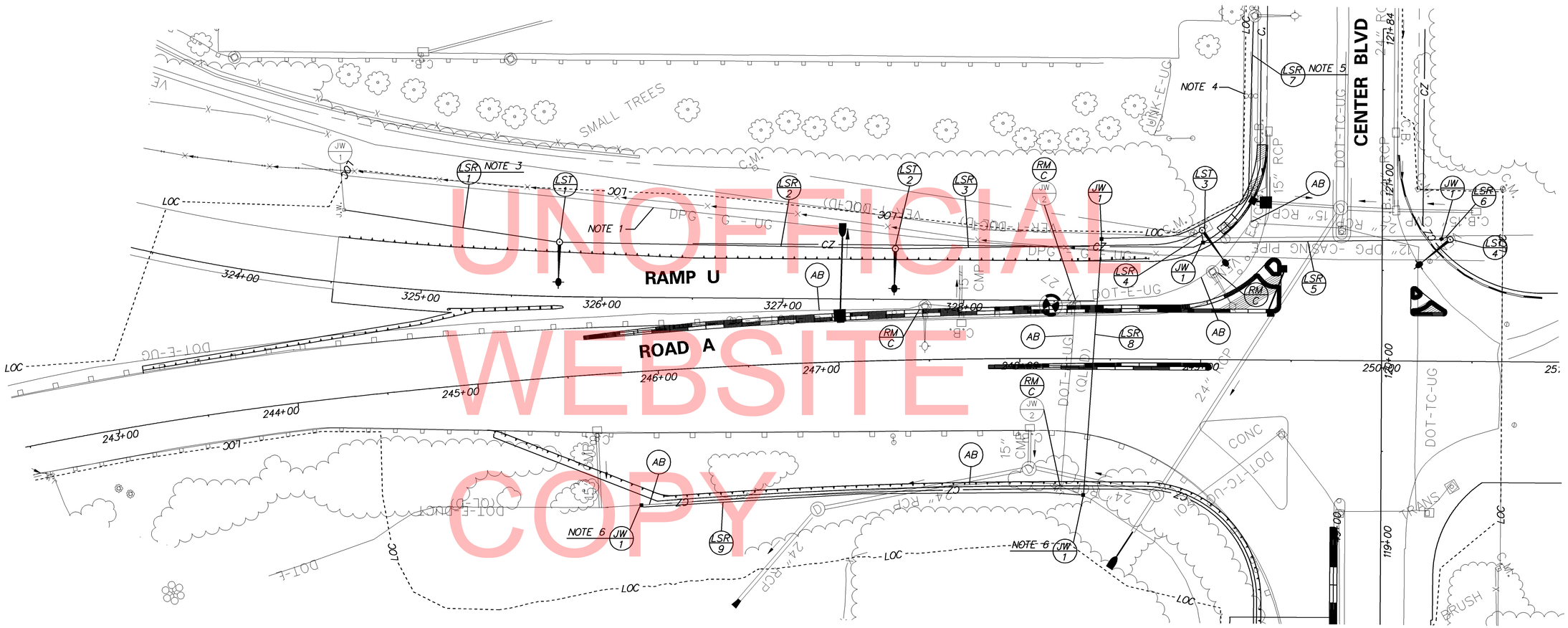

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LIGHTING SERVICE SCHEDULE					
SERVICE RUN	DISTANCE (L.F.)	# OF CONDUITS	SIZE	DESCRIPTION	INSTALLATION
1	125	1	3.0"	(4)#6, #6 GROUND	TRENCH
2	195	1	3.0"	(4)#6, #6 GROUND	TRENCH
3	180	1	3.0"	(3)#6, #6 GROUND	TRENCH
4	8	1	3.0"	(2)#6, #6 GROUND	TRENCH
5	130	1	3.0"	(2)#6, #6 GROUND	TRENCH
6	5	1	3.0"	(2)#6, #6 GROUND	TRENCH
7	200	1	3.0"	(3)#4, #4 GROUND	TRENCH
8	150	1	3.0"	(3)#4, #4 GROUND	TRENCH
9	260	1	3.0"	(3)#2, #2 GROUND	TRENCH

NOTES:

1. PRIOR TO INSTALLING POLE BASES, VERIFY LOCATION OF RECENTLY INSTALLED DPG GAS MAIN ALONG RAMP U.
2. INSTALL BREAKAWAY TRANSFORMER BASE FOR ALL LIGHTING POLES.
3. LSR-1 SHALL TIE INTO EXISTING JUNCTION WELL, INSTALLED UNDER CONTRACT 28-090-03.
4. REMOVE AND RESET SIGN ASSEMBLY AFTER INSTALLATION OF LSR-7.
5. DISCONNECT EXISTING CONDUIT FROM BEND IN EXISTING POLE BASE. CONNECT LSR-7 TO SAME CONDUIT BEND IN EXISTING POLE BASE.
6. INTERCEPT EXISTING UNDERGROUND ELECTRIC CONDUIT WITH NEW TYPE 1 JUNCTION WELL.

LIGHTING STANDARD SCHEDULE								
NO.	CCT NO.	STATION	OFFSET	HEIGHT	ARM	LIGHT STANDARD	DIST. TYPE	WATTAGE/LAMP TYPE
1	10	325+75.9	30.1' LT.	40'	15'	COBRAHEAD, DAVIT ARM POLE	TYPE III	250W HPS
2	12	327+62.1	28.0' LT.	40'	15'	COBRAHEAD, DAVIT ARM POLE	TYPE III	250W HPS
3	8	249+0.4	71.5' LT.	40'	15'	COBRAHEAD, DAVIT ARM POLE	TYPE III	250W HPS
4	10	250+37.5	67.4' LT.	40'	15'	COBRAHEAD, DAVIT ARM POLE	TYPE III	250W HPS

LEGEND

- LST X — LIGHTING STANDARD IDENTIFIER
- LSR X — LIGHTING SERVICE IDENTIFIER

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

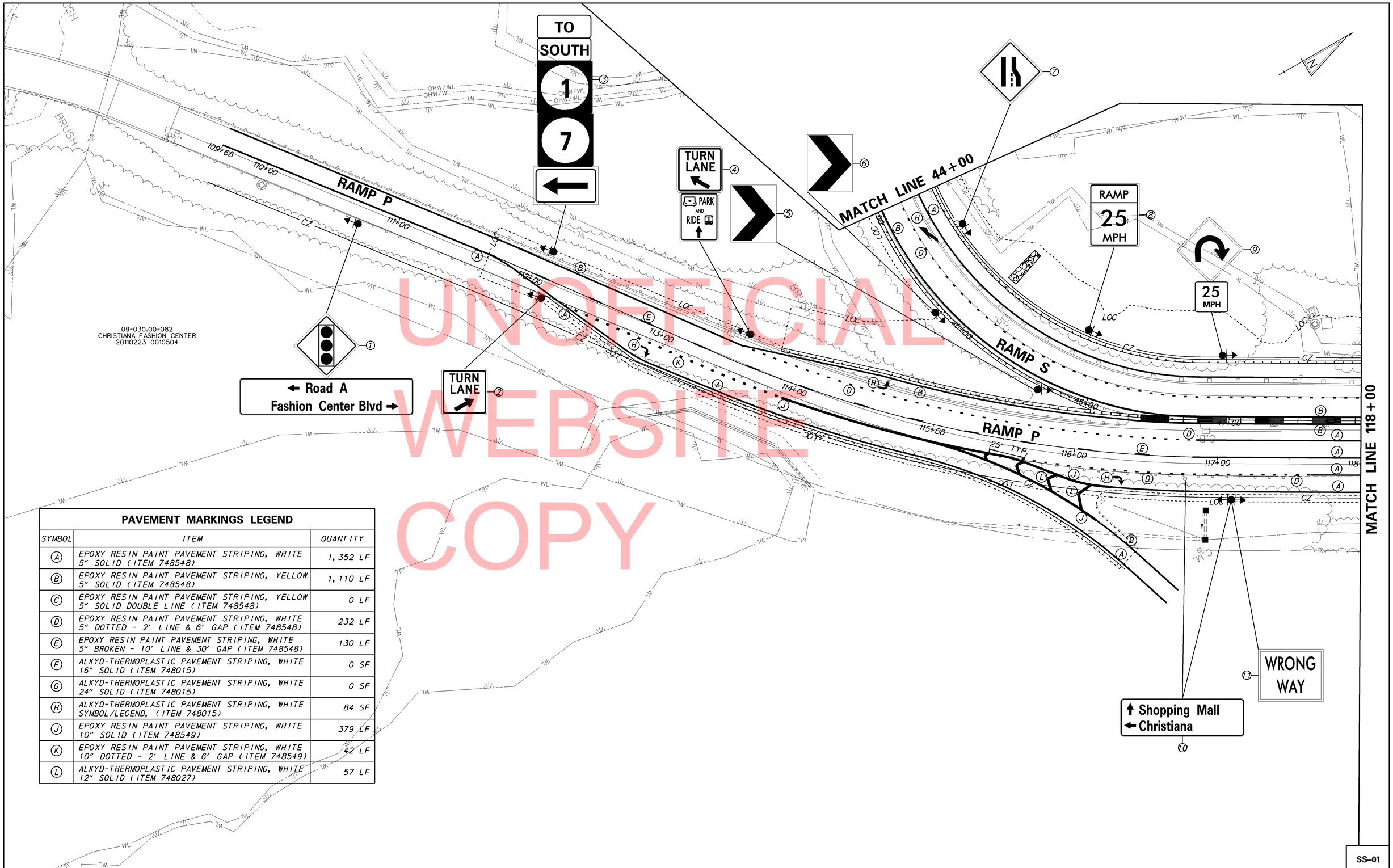
ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

LIGHTING PLAN

SHEET NO. 42

TOTAL SHTS. 48



UNOFFICIAL WEBSITE COPY

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	1,352 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	1,110 LF
C	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 748548)	0 LF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 748548)	232 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 748548)	130 LF
F	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 748015)	0 SF
G	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 748015)	0 SF
H	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 748015)	84 SF
J	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" SOLID (ITEM 748549)	379 LF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 6' GAP (ITEM 748549)	42 LF
L	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 748027)	57 LF

SS-01

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

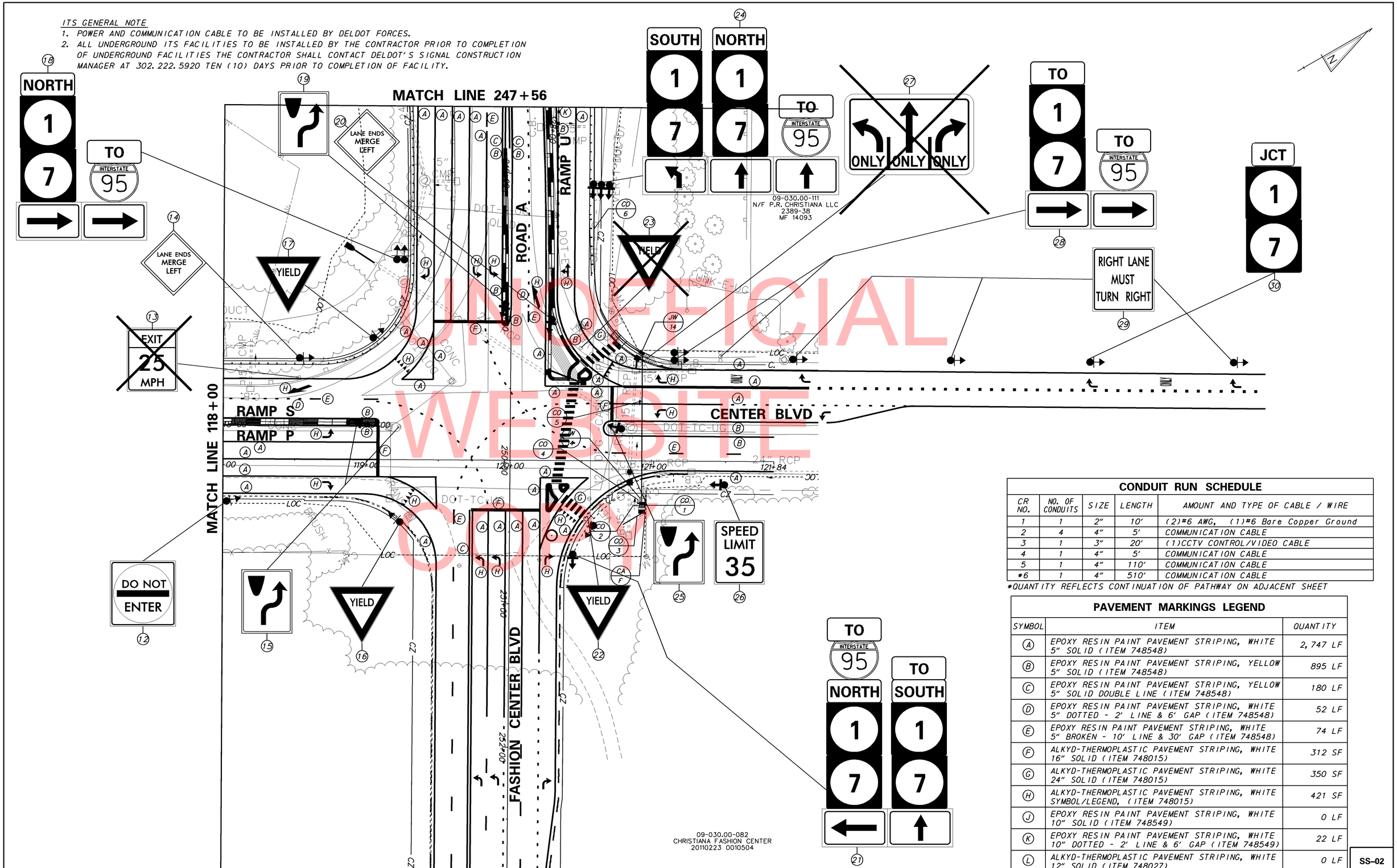
SIGNING, STRIPING AND CONDUIT PLAN

SHEET NO. 43

TOTAL SHTS. 48

W:\MSV8\CELLS\PROJDEV\SB.CEL

ITS GENERAL NOTE
1. POWER AND COMMUNICATION CABLE TO BE INSTALLED BY DELDOT FORCES.
2. ALL UNDERGROUND ITS FACILITIES TO BE INSTALLED BY THE CONTRACTOR PRIOR TO COMPLETION OF UNDERGROUND FACILITIES THE CONTRACTOR SHALL CONTACT DELDOT'S SIGNAL CONSTRUCTION MANAGER AT 302.222.5920 TEN (10) DAYS PRIOR TO COMPLETION OF FACILITY.



CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE / WIRE
1	1	2"	10'	(2)#6 AWG, (1)#6 Bare Copper Ground
2	4	4"	5'	COMMUNICATION CABLE
3	1	3"	20'	(1)CCTV CONTROL/VIDEO CABLE
4	1	4"	5'	COMMUNICATION CABLE
5	1	4"	110'	COMMUNICATION CABLE
*6	1	4"	510'	COMMUNICATION CABLE

*QUANTITY REFLECTS CONTINUATION OF PATHWAY ON ADJACENT SHEET

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	2,747 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	895 LF
C	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 748548)	180 LF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 748548)	52 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 748548)	74 LF
F	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 748015)	312 SF
G	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 748015)	350 SF
H	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 748015)	421 SF
J	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" SOLID (ITEM 748549)	0 LF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 6' GAP (ITEM 748549)	22 LF
L	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 748027)	0 LF

SS-02

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

SIGNING, STRIPING AND CONDUIT PLAN

SHEET NO. 44
TOTAL SHTS. 48

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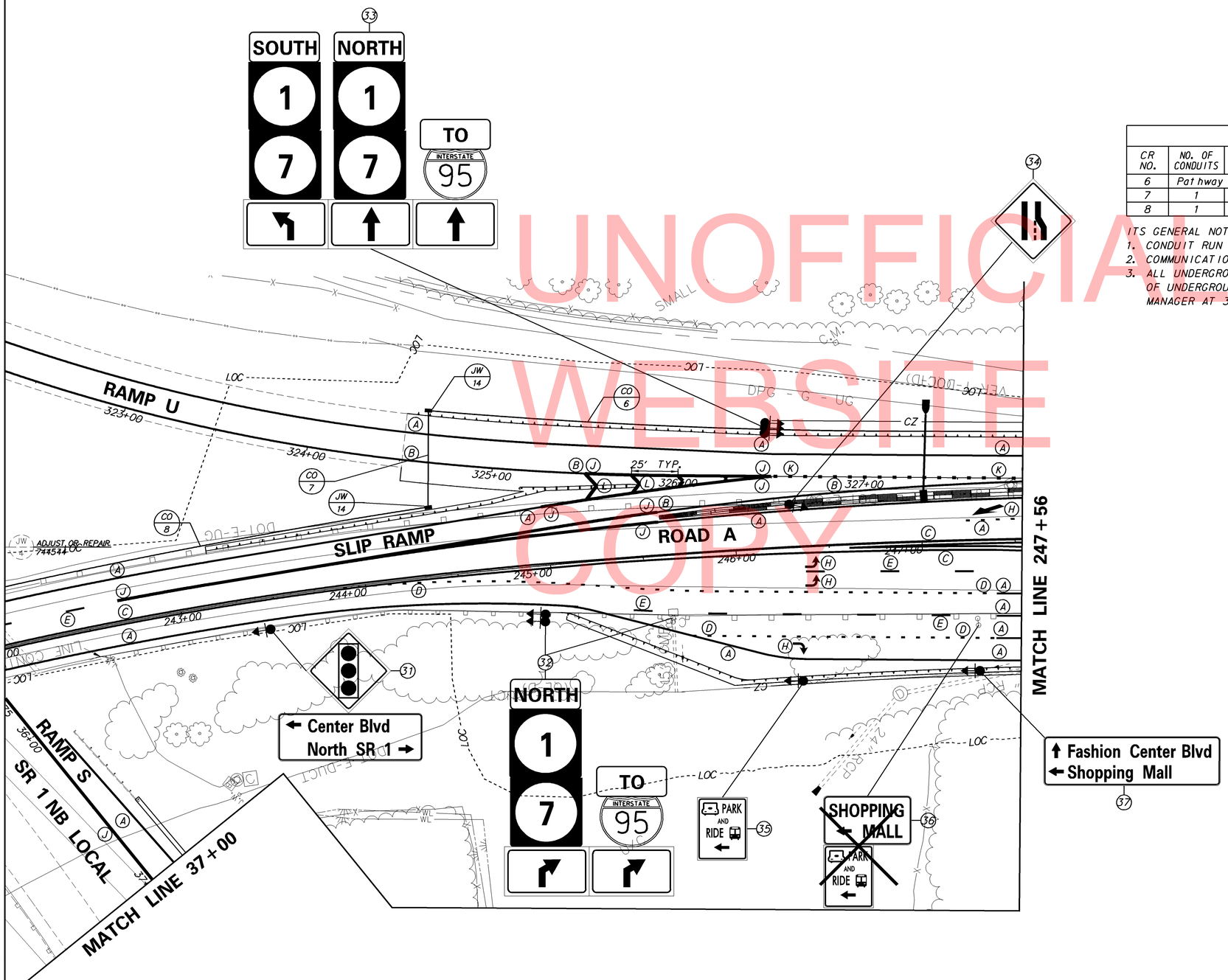

CONDUIT RUN SCHEDULE				
CR NO.	NO. OF CONDUITS	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE / WIRE
6	Pathway Information Shown on Adjacent Sheet			
7	1	4"	55'	COMMUNICATION CABLE
8	1	4'	250'	COMMUNICATION CABLE

ITS GENERAL NOTES

1. CONDUIT RUN 8 TO TIE INTO EXISTING TYPE 4 JUNCTION WELL.
2. COMMUNICATION CABLE TO BE INSTALLED BY DELDOT FORCES.
3. ALL UNDERGROUND ITS FACILITIES TO BE INSTALLED BY THE CONTRACTOR PRIOR TO COMPLETION OF UNDERGROUND FACILITIES THE CONTRACTOR SHALL CONTACT DELDOT'S SIGNAL CONSTRUCTION MANAGER AT 302.222.5920 TEN (10) DAYS PRIOR TO COMPLETION OF FACILITY.

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	1,990 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	296 LF
C	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 748548)	1,887 LF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 748548)	138 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 748548)	170 LF
F	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 748015)	0 SF
G	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 748015)	0 SF
H	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 748015)	84 SF
J	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" SOLID (ITEM 748549)	837 LF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 6' GAP (ITEM 748549)	34 LF
L	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 748027)	43 LF

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

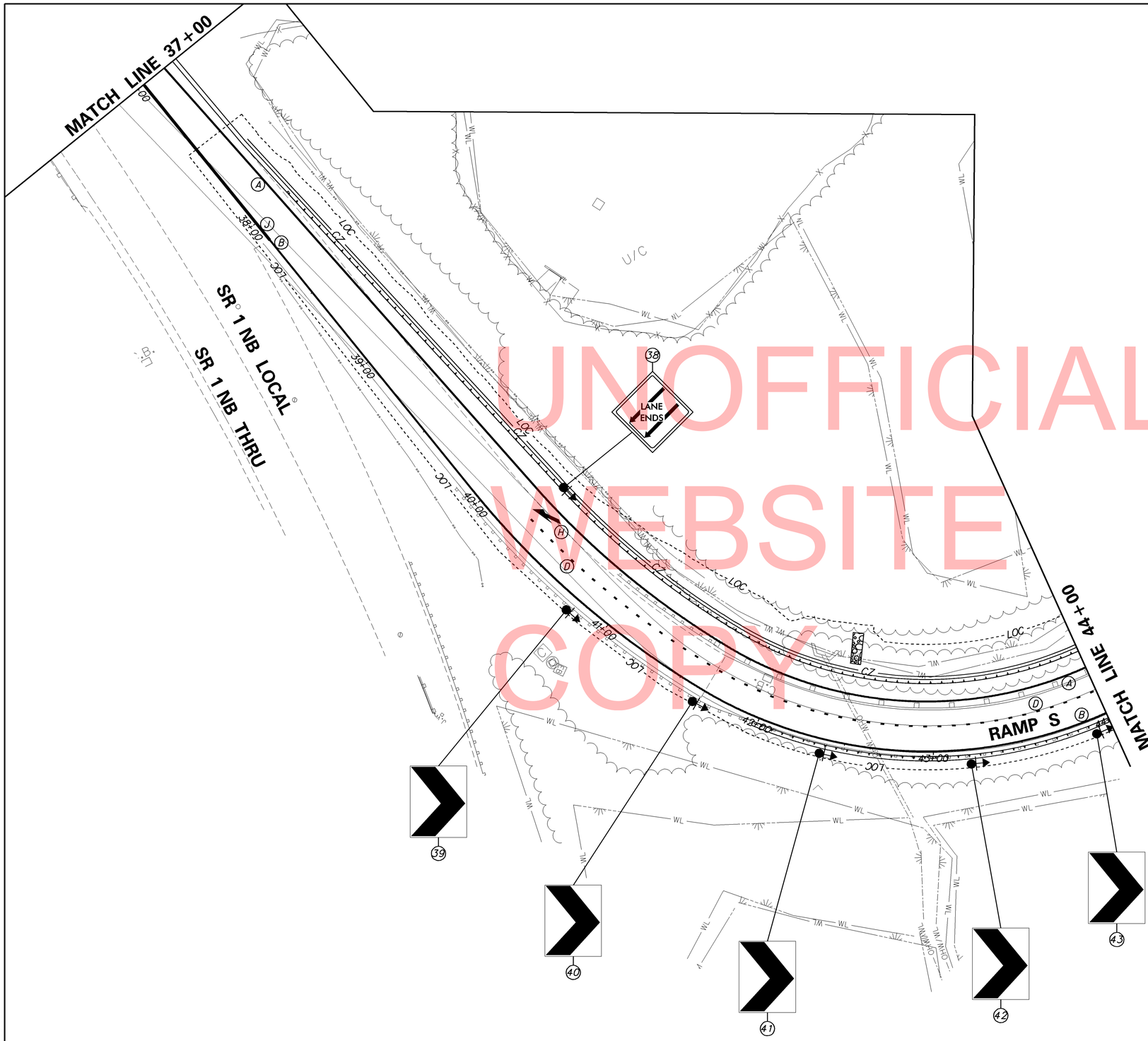
SCALE 0 30 60 90 FEET

ROAD A /SR 7 /CENTER BLVD INTERSECTION IMPROVEMENTS

CONTRACT T201309003
COUNTY NEW CASTLE
BRIDGE NO. N/A
DESIGNED BY: RPM
CHECKED BY: JKL

SIGNING, STRIPING AND CONDUIT PLAN

SS-03
SHEET NO. 45
TOTAL SHTS. 48



UNOFFICIAL WEBSITE COPY

* REPOSITION CHEVRONS AS INDICATED ON PLANS. 80' TYP. SPACING.

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
A	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" SOLID (ITEM 748548)	664 LF
B	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID (ITEM 748548)	588 LF
C	EPOXY RESIN PAINT PAVEMENT STRIPING, YELLOW 5" SOLID DOUBLE LINE (ITEM 748548)	0 LF
D	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" DOTTED - 2' LINE & 6' GAP (ITEM 748548)	90 LF
E	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 5" BROKEN - 10' LINE & 30' GAP (ITEM 748548)	0 LF
F	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 16" SOLID (ITEM 748015)	0 SF
G	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 24" SOLID (ITEM 748015)	0 SF
H	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE SYMBOL/LEGEND, (ITEM 748015)	37 SF
J	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" SOLID (ITEM 748549)	112 LF
K	EPOXY RESIN PAINT PAVEMENT STRIPING, WHITE 10" DOTTED - 2' LINE & 6' GAP (ITEM 748549)	0 LF
L	ALKYD-THERMOPLASTIC PAVEMENT STRIPING, WHITE 12" SOLID (ITEM 748027)	0 LF

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 30 60 90
FEET

ROAD A /SR 7 /CENTER BLVD
INTERSECTION IMPROVEMENTS

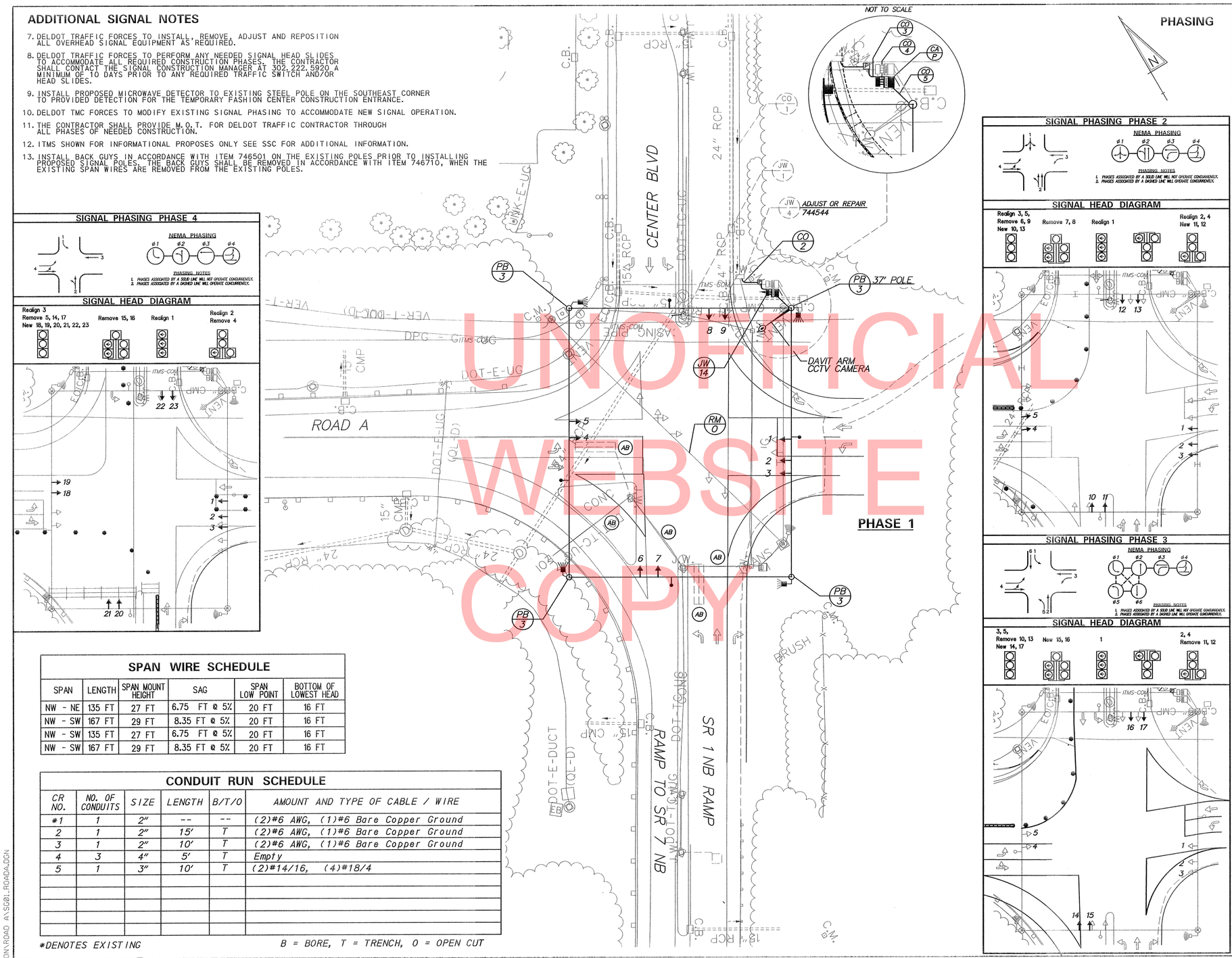
CONTRACT	BRIDGE NO.	N/A
T201309003	DESIGNED BY: RPM	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

SIGNING, STRIPING
AND CONDUIT PLAN

SS-04
SHEET NO.
46
TOTAL SHTS.
48

ADDITIONAL SIGNAL NOTES

7. DELDOT TRAFFIC FORCES TO INSTALL, REMOVE, ADJUST AND REPOSITION ALL OVERHEAD SIGNAL EQUIPMENT AS REQUIRED.
8. DELDOT TRAFFIC FORCES TO PERFORM ANY NEEDED SIGNAL HEAD SLIDES TO ACCOMMODATE ALL REQUIRED CONSTRUCTION PHASES. THE CONTRACTOR SHALL CONTACT THE SIGNAL CONSTRUCTION MANAGER AT 302.222.5920 A MINIMUM OF 10 DAYS PRIOR TO ANY REQUIRED TRAFFIC SWITCH AND/OR HEAD SLIDES.
9. INSTALL PROPOSED MICROWAVE DETECTOR TO EXISTING STEEL POLE ON THE SOUTHEAST CORNER TO PROVIDED DETECTION FOR THE TEMPORARY FASHION CENTER CONSTRUCTION ENTRANCE.
10. DELDOT TMC FORCES TO MODIFY EXISTING SIGNAL PHASING TO ACCOMMODATE NEW SIGNAL OPERATION.
11. THE CONTRACTOR SHALL PROVIDE M.O.T. FOR DELDOT TRAFFIC CONTRACTOR THROUGH ALL PHASES OF NEEDED CONSTRUCTION.
12. ITMS SHOWN FOR INFORMATIONAL PROPOSES ONLY SEE SSC FOR ADDITIONAL INFORMATION.
13. INSTALL BACK GUYS IN ACCORDANCE WITH ITEM 746501 ON THE EXISTING POLES PRIOR TO INSTALLING PROPOSED SIGNAL POLES. THE BACK GUYS SHALL BE REMOVED IN ACCORDANCE WITH ITEM 746710, WHEN THE EXISTING SPAN WIRES ARE REMOVED FROM THE EXISTING POLES.



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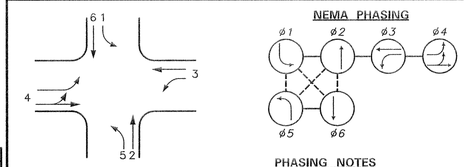
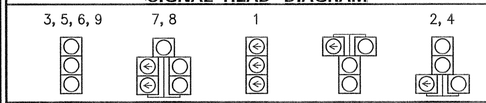
SIGNAL PHASING PHASE 1



PHASING NOTES

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.

SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH #	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO #	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM C	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL POLES WILL BE 32 FEET, EXCEPT WHERE SHOWN.
2. CO #1 IS NOT DRAWN TO SCALE, NOR IS THE DIRECTION NECESSARILY CORRECT.
3. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
4. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
5. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
6. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

SPAN WIRE SCHEDULE

SPAN	LENGTH	SPAN MOUNT HEIGHT	SAG	SPAN LOW POINT	BOTTOM OF LOWEST HEAD
NW - NE	135 FT	27 FT	6.75 FT @ 5%	20 FT	16 FT
NW - SW	167 FT	29 FT	8.35 FT @ 5%	20 FT	16 FT
NW - SW	135 FT	27 FT	6.75 FT @ 5%	20 FT	16 FT
NW - SW	167 FT	29 FT	8.35 FT @ 5%	20 FT	16 FT

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
*1	1	2"	--	--	(2)#6 AWG, (1)#6 Bare Copper Ground
2	1	2"	15'	T	(2)#6 AWG, (1)#6 Bare Copper Ground
3	1	2"	10'	T	(2)#6 AWG, (1)#6 Bare Copper Ground
4	3	4"	5'	T	Empty
5	1	3"	10'	T	(2)#14/16, (4)#18/4

*DENOTES EXISTING

B = BORE, T = TRENCH, O = OPEN CUT

RECOMMENDED _____ DATE: 8.29.13

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 8/29/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 8/30/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

ROAD A /SR7
INTERSECTION IMPROVEMENTS

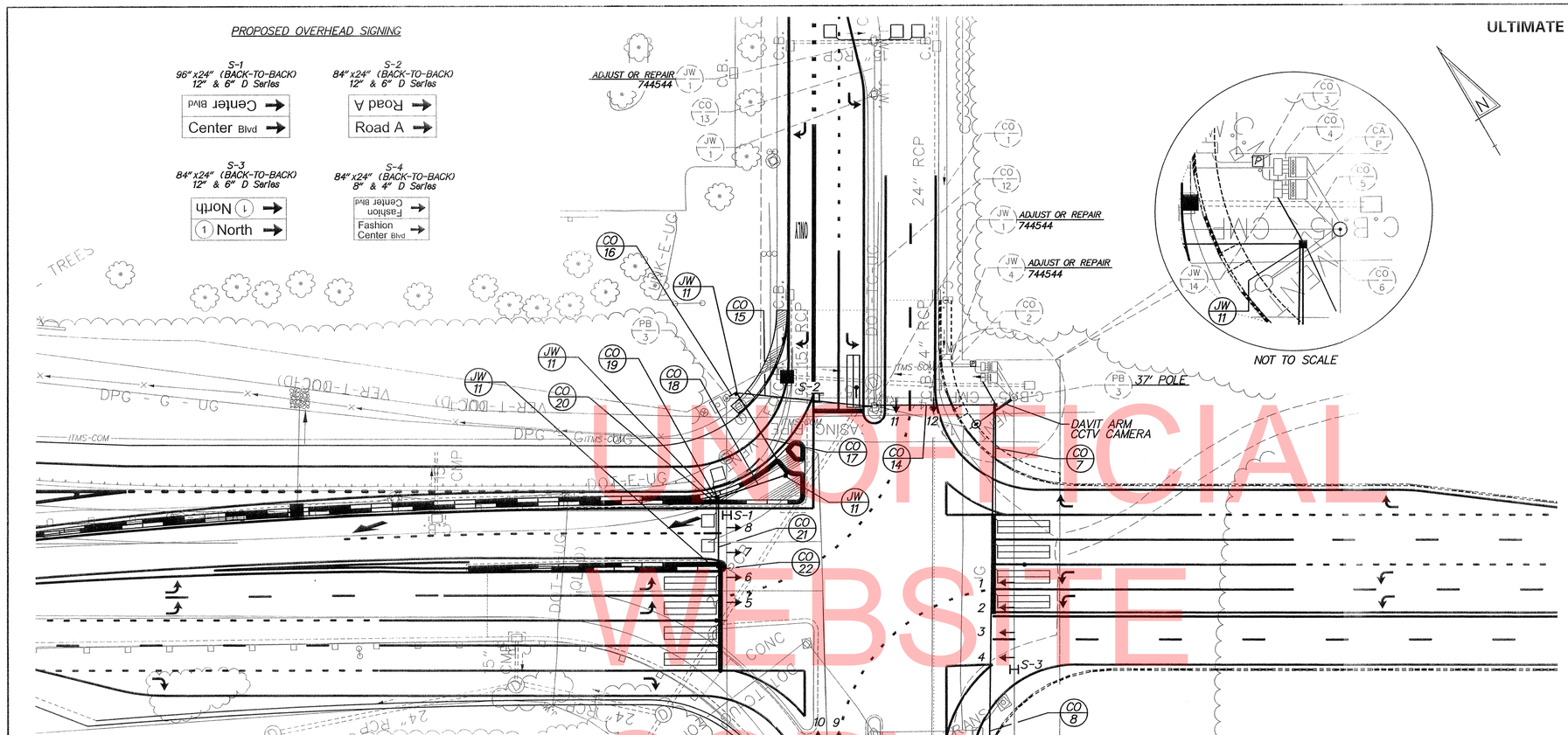
CONTRACT	PERMIT NO.	N538
T201009002	DESIGNED BY: JCR	
COUNTY		
NEW CASTLE	CHECKED BY: MH	

SIGNAL PLAN

DEL RT. 1 NB OFF RAMP
at ROAD A

SHEET NO. 47
TOTAL SHTS. 48

Y:\TRAFFIC\USERS\JASON\ROAD A\SG01_ROADA.DGN



UNOFFICIAL WEBSITE COPY

CONDUIT RUN SCHEDULE

CR NO.	NO. OF CONDUITS	SIZE	LENGTH	B/T/O	AMOUNT AND TYPE OF CABLE / WIRE
*1	1	2"	--	--	(2)#6 AWG, (1)#6 Bare Copper Ground
*2	1	2"	15'	T	(2)#6 AWG, (1)#6 Bare Copper Ground
*3	1	2"	10'	T	(2)#6 AWG, (1)#6 Bare Copper Ground
*4	3	4"	5'	T	Install - (20)#14/2, Comm Cable
*5	1	3"	10'	T	Remove (2)#14/16, (4)#18/4 Install (2)#14/16, (4)#18/4
6	1	4"	15'	T	(20)#14/2
7	1	1"	25'	T	(4)#14/1
8	1	4"	170'	B	(5)#14/2
9	1	4"	60'	B	(5)#14/2
10	1	1"	5'	T	(1)#14/1
11	1	4"	200'	T	(4)#14/2
12	1	1"	5'	T	(2)#14/1
13	1	1"	5'	T	(2)#14/1
14	1	4"	60'	B	(11)#14/2
15	1	4"	72'	B	(7)#14/2
16	1	3"	6'	T	Empty
17	1	4"	46'	B	(7)#14/2
18	1	4"	38'	T	(7)#14/2
19	1	1"	5'	T	(1)#14/1
20	1	1"	5'	T	(2)#14/1
21	1	4"	34'	B	(4)#14/2
22	1	1"	5'	T	(4)#14/1
*23	1	1.5"	150'	--	Remove (1)#18/4 Install (3)#14/2
*24	1	1.5"	25'	--	Remove (1)#18/4 Install (3)#14/2

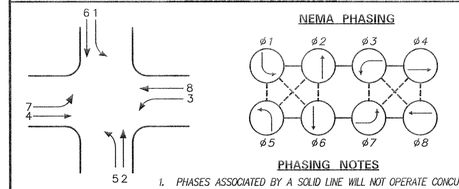
*DENOTES EXISTING

B = BORE, T = TRENCH, O = OPEN CUT

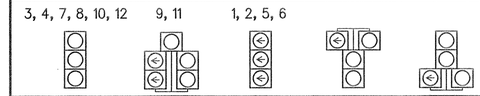
ADDITIONAL SIGNAL NOTES

7. DELDOT TRAFFIC FORCES TO INSTALL, REMOVE, ADJUST AND REPOSITION ALL OVERHEAD SIGNAL EQUIPMENT AS REQUIRED.
8. DELDOT TRAFFIC FORCES TO PERFORM ANY NEEDED SIGNAL HEAD SLIDES TO ACCOMMODATE ALL REQUIRED CONSTRUCTION PHASES. THE CONTRACTOR SHALL CONTACT THE SIGNAL CONSTRUCTION MANAGER AT 302.222.5920 A MINIMUM OF 10 DAYS PRIOR TO ANY REQUIRED TRAFFIC SWITCH AND/OR HEAD SLIDES.
9. CONTRACTOR SHALL RE-INSTALL LOOP DETECTORS AS REQUIRED TO MAINTAIN SIGNAL DETECTION, DURING ALL REQUIRED PHASES OF CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE SIGNAL CONSTRUCTION MANAGER AT 302.222.5920 A MINIMUM OF 10 DAYS PRIOR TO RECUTTING OR DISCONNECTION OF LOOPS.
10. THE CONTRACTOR SHALL PROVIDE M.O.T. FOR DELDOT TRAFFIC CONTRACTOR THROUGH ALL PHASES OF NEEDED CONSTRUCTION.
11. CONTRACTOR SHALL CONTACT THE SIGNAL CONSTRUCTION MANAGER AT 302.222.5920 10 DAYS PRIOR TO ANY TRAFFIC SWITCHES AND/OR SIGNAL ADJUSTMENT NEEDS.
12. THE TRAFFIC CONTRACTOR SHALL INSTALL A DAVIT ARM CCTV CAMERA ON THE PROPOSED 37' SIGNAL POLE AS SHOWN. THE PROPOSED CCTV CONTROL/VIDEO CABLE SHALL BE INSTALLED IN THE PROPOSED SIGNAL POLE VIA THE PROPOSED WEATHERHEAD.
13. ITMS SHOWN FOR INFORMATIONAL PROPOSES ONLY SEE SSC FOR ADDITIONAL INFORMATION.
14. ALL MOT SIGNAL HEADS AND CABLES SHALL BE REMOVED. NEW SIGNAL HEAD AND CABLE SHALL BE INSTALLED PRIOR TO FINAL CONFIGURATION.

SIGNAL PHASING



SIGNAL HEAD DIAGRAM



LEGEND

AB	ABANDON	OH	EXISTING OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	EXISTING CABINET IDENTIFIER (TYPE OF CABINET)	OH	PROPOSED OVERHEAD RUN IDENTIFIER (# OF OVERHEAD RUN)
CA X	PROPOSED CABINET IDENTIFIER (TYPE OF CABINET)	PB X	EXISTING POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	EXISTING CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PB X	PROPOSED POLE BASE IDENTIFIER (TYPE OF POLE BASE)
CO •	PROPOSED CONDUIT RUN IDENTIFIER (# OF CONDUIT RUN)	PL X	EXISTING POLE IDENTIFIER (# OF POLE)
JW X	EXISTING JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	PL X	PROPOSED POLE IDENTIFIER (# OF POLE)
JW X	PROPOSED JUNCTION WELL IDENTIFIER (TYPE OF JUNCTION WELL)	RM G	REMOVE BY CONTRACTOR
MA XX	EXISTING MAST ARM IDENTIFIER (LENGTH OF ARM)	RM O	REMOVE BY OTHERS
MA XX	PROPOSED MAST ARM IDENTIFIER (LENGTH OF ARM)	RM TC	REMOVE BY TRAFFIC CONTRACTOR

	EXISTING SYMBOL	PROPOSED SYMBOL
JUNCTION WELL	J.W.	
LOOP DETECTOR, TYPE 1		
LOOP DETECTOR, TYPE 2		
LUMINAIRE		
MAST ARM		
MICROWAVE DETECTION		
OPTICOM RECEIVER		
OVERHEAD SIGNING		
PEDESTRIAN POLE/BASE		
PEDESTRIAN PUSHBUTTON		
PEDESTRIAN SIGNAL HEAD		
RIGHT-OF-WAY		R/W
SERVICE PEDESTAL		P
SIGNAL CABINET		
SIGNAL HEAD		
SIGNAL POLE/BASE		
SPAN INSULATOR		
SPAN WIRE	XX	
UTILITY POLE		
VIDEO DETECTION		

GENERAL SIGNAL NOTES

1. ALL SIGNAL POLES WILL BE 32 FEET, EXCEPT WHERE SHOWN.
2. CO #1 IS NOT DRAWN TO SCALE, NOR IS THE DIRECTION NECESSARILY CORRECT.
3. ALL SIGNAL EQUIPMENT REMOVED FROM A PROJECT IS TO BE RETURNED TO DELDOT TRAFFIC - DOVER, DELAWARE.
4. POLE BASES, CABINET BASE AND CONDUIT JUNCTION WELLS TO BE REMOVED IN ACCORDANCE WITH SECTION 201 AND 202 OF THE STANDARD SPECIFICATIONS OR AS DIRECTED BY ENGINEER. EXISTING CONDUIT IS TO BE ABANDONED.
5. ALL GALVANIZED CONDUIT (GRC) SHALL BE REAMED AND THREADED. ALL GRC SHALL BE THREADED TOGETHER WITH APPROVED COUPLINGS. SET SCREW, BOLTED, AND COMPRESSION FITTING ARE NOT ACCEPTABLE.
6. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY, AND/OR THE APPROPRIATE UTILITY PRIOR TO THE BEGINNING OF CONSTRUCTION FOR THE UTILITY MARKOUTS. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY DELDOT TRAFFIC IMMEDIATELY BEFORE CONSTRUCTION.

RECOMMENDED _____ DATE: 9.5.13

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

APPROVED TRAFFIC ENGINEER _____ DATE: 9/5/13

APPROVED FOR INSTALLATION
CHIEF TRAFFIC ENGINEER _____ DATE: 9/5/13

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

ROAD A /SR7
INTERSECTION IMPROVEMENTS

CONTRACT	PERMIT NO.	N538
T201009003	DESIGNED BY: JCR	
COUNTY	CHECKED BY: MH	
NEW CASTLE		

SIGNAL PLAN

DEL RT. 1 NB OFF RAMP
at ROAD A

SHEET NO. 48
TOTAL SHTS. 48

Y:\TRAFFIC\PROJECTS\T2013\T201309003\SIGNAL\SG02_ROADA.DGN