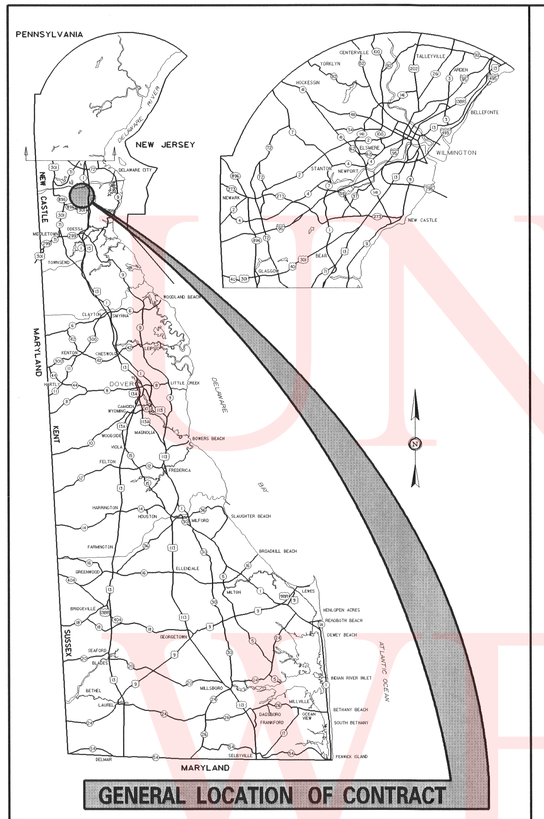
THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY UNITS



CONSTRUCTION PLANS FOR:

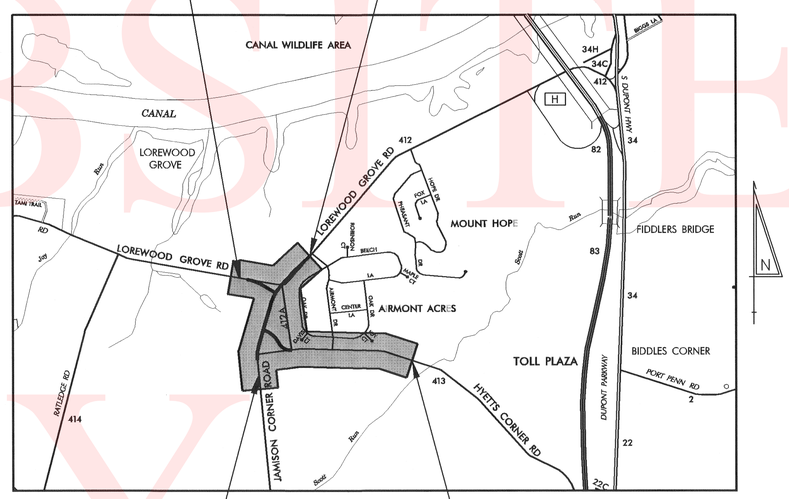
N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT NUMBER: T200912001
FEDERAL AID PROJECT NUMBER: N/A

COUNTY: NEW CASTLE **M.R. #:** N412A

LIMIT OF CONSTRUCTION
CONTRACT #T200912001
STATION 118+10

END CONSTRUCTION
CONTRACT #T200912001
STATION 48+54



BEGIN CONSTRUCTION
CONTRACT #T200912001
STATION 20+00

LIMIT OF CONSTRUCTION
CONTRACT #T200912001
STATION 836+00

PROJECT LOCATION

DESIGN DESIGNATION

FUNCTIONAL CLASS: MAJOR COLLECTOR		D.H.V. PROJECTED: 2740	YEAR: 2030
TYPE OF CONSTRUCTION: NEW CONSTRUCTION		DESIGN SPEED: 45 M.P.H.	
A.A.D.T. CURRENT: 188	YEAR: 2009	TRUCKS: 15 %	
A.A.D.T. PROJECTED: 20,000	YEAR: 2030	DIRECTION OF DISTRIBUTION: 65 %	

INDEX OF SHEETS

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TOTAL SHEETS: 86

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
T200712003	JAMISON CORNER RD, FROM BOYDS CORNER RD TO HYETTS CORNER RD
T200911301	US 301, NORFOLK SOUTHERN RR TO SR 1

RECOMMENDED

SQUAD MANAGER, CONSTRUCTION — DATE 11/3/11

GROUP ENGINEER, CONSTRUCTION — DATE 11/3/11

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

RECOMMENDED
STORMWATER ENGINEER
DATE 16 Nov 2011
VINCENT W. DAVIS REGISTERED No. 12898 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED
SQUAD MANAGER, TRANSPORTATION SOLUTIONS (PROJECT DEVELOPMENT OR BRIDGE DESIGN)
DATE 11/02/11
JERRY K. LOVELL LICENSE No. 16257 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED
BRIDGE DESIGN ENGINEER
DATE
SEAL

RECOMMENDED
GROUP ENGINEER, PROJECT DEVELOPMENT
DATE 11/7/11
DARREN M. O'NEILL REGISTERED No. 10857 DELAWARE PROFESSIONAL ENGINEER
SEAL

RECOMMENDED
ASSISTANT DIRECTOR, TRANSPORTATION SOLUTIONS
DATE 11/8/11
DREW A. BOYCE REGISTERED No. 9670 DELAWARE PROFESSIONAL ENGINEER
SEAL

APPROVED
CHIEF ENGINEER
DATE 11/17/11
NATALIE M. BARNHART REGISTERED No. 9629 DELAWARE PROFESSIONAL ENGINEER
SEAL

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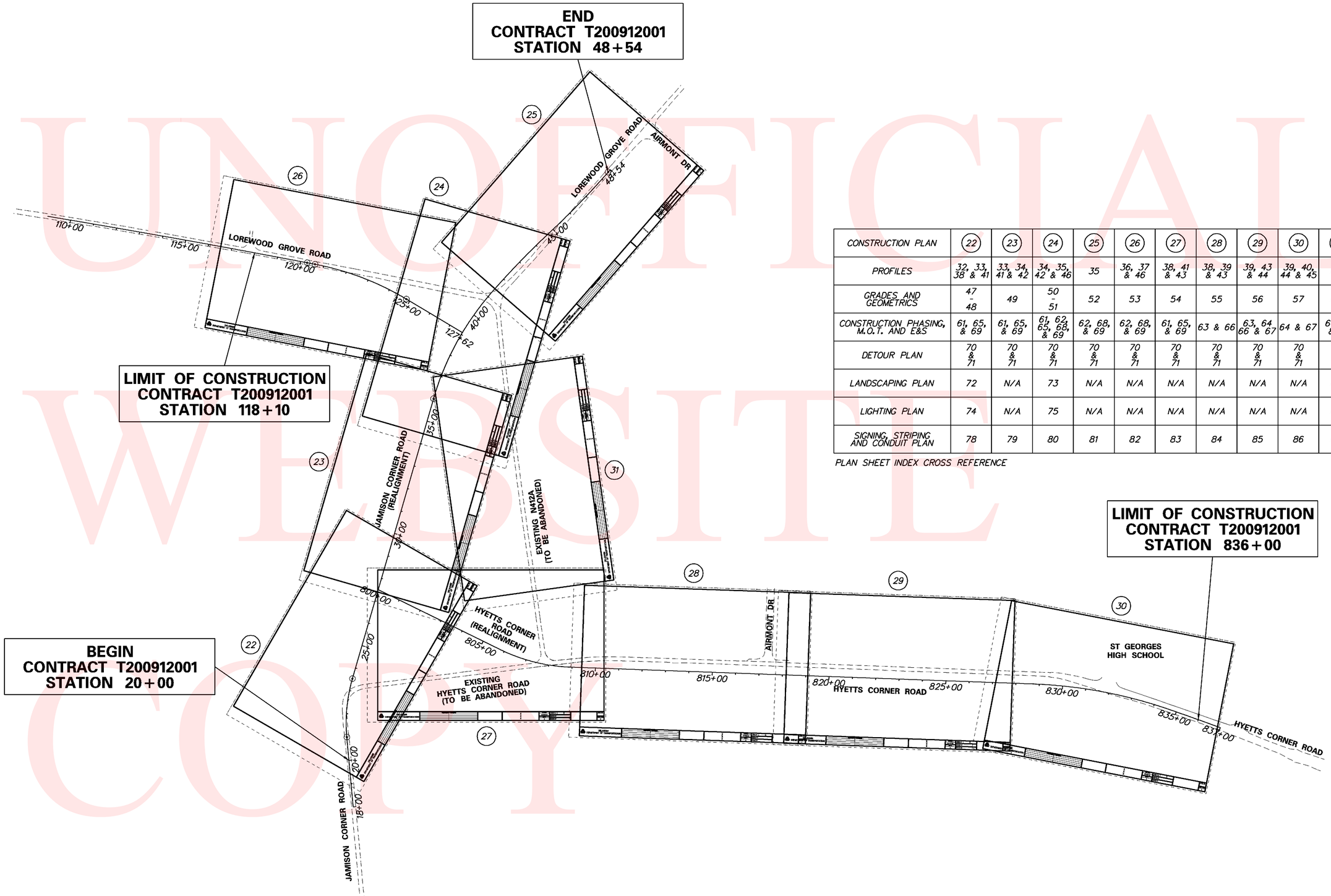

CONSTRUCTION PLAN	22	23	24	25	26	27	28	29	30	31
PROFILES	32, 33, 38 & 41	33, 34, 41 & 42	34, 35, 42 & 46	35	36, 37 & 46	38, 41 & 43	38, 39 & 43	39, 43 & 44	39, 40, 44 & 45	N/A
GRADES AND GEOMETRICS	47 - 48	49	50 - 51	52	53	54	55	56	57	N/A
CONSTRUCTION PHASING, M.O.T. AND E&S	61, 65, & 69	61, 65, & 69	61, 62, 65, 68, & 69	62, 68, & 69	62, 68, & 69	61, 65, & 69	63 & 66	63, 64 66 & 67	64 & 67	61, 65, & 69
DETOUR PLAN	70 & 71	70 & 71	70 & 71	70 & 71	70 & 71	70 & 71	70 & 71	70 & 71	70 & 71	70 & 71
LANDSCAPING PLAN	72	N/A	73	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LIGHTING PLAN	74	N/A	75	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SIGNING, STRIPING AND CONDUIT PLAN	78	79	80	81	82	83	84	85	86	N/A

PLAN SHEET INDEX CROSS REFERENCE

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 200 400 600
FEET

N412A, HYETTS CORNER ROAD
TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

PLAN SHEET INDEX

SHEET NO.
2
TOTAL SHTS.
86

EXISTING SYMBOLS

DRAINAGE	
	DITCH OR STREAM CENTERLINE
	DIRECTIONAL STREAM FLOW ARROW
C.B.	DRAINAGE CATCH BASIN
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	
(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

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
C.M.	PROPERTY MARKER - CONCRETE MON.
I.P.	PROPERTY MARKER - IRON PIPE

UTILITY	
	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
TV	CABLE TV DISTRIBUTION BOX
E	ELECTRIC MANHOLE
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

UTILITY COMPANY FACILITIES	
VER-C	VERIZON
DP-E	DELMARVA POWER- ELECTRIC
AW-W	ARTESIAN WATER COMPANY

PROPOSED SYMBOLS

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
BFS	BIOFILTRATION SWALE
	BUTT JOINT
100+00	CONSTRUCTION BASELINE
	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, TYPES 1 & 3
	GUARDRAIL, TYPE 2
	GUARDRAIL END TREATMENT - PARALLEL
	GUARDRAIL END TREATMENT - PARABOLIC
HC	HORIZONTAL CLEARANCE
	JUNCTION BOX - DRAINAGE
LOC	LIMIT OF CONSTRUCTION
	MANHOLE
	PAVEMENT PATCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK @ 4"
	P.C.C. SIDEWALK @ 6" OR P.C.C. PAVEMENT @ 8" (SEE TYPICALS)
	UNDERDRAIN
	UNDERDRAIN OUTLET

CONSTRUCTION PHASING SYMBOLS	
	BARRICADE, TYPE 3
	CONCRETE SAFETY BARRIER - PORTABLE
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	CRASH CUSHION ARRAY
	DRUM - TRAFFIC CONTROL
	PHASING TRAFFIC FLOW ARROW

LANDSCAPING	
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

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

IDENTIFIERS	
A/C	ADJUST BY CONTRACTOR
A/O	ADJUST BY OTHERS
B	CONCRETE SAFETY BARRIER
C	CURB OR CURB & GUTTER
C/JB	CONVERT TO JUNCTION BOX
C/MH	CONVERT TO DRAINAGE MANHOLE
C/O	CURB OPENING
CR	CURB RAMP / TYPE
CR-W	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
DI	DRAINAGE INLET
DND	DO NOT DISTURB
FES	FLARED END SECTION
FS	FILTRATION STRUCTURE
GR	GUARDRAIL
JB	JUNCTION BOX
LS	LANDSCAPE PLANTINGS
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
ST	SEDIMENT TRAP
SF	SILT FENCE
UD	UNDERDRAIN

PAVEMENT SECTION(S)	
	N/A
	2" SUPERPAVE, TYPE C WARM-MIX 3" SUPERPAVE, TYPE B WARM-MIX 4-1/2" WMA, SUPERPAVE, BCBC 8" GRADED AGGREGATE BASE COURSE, TYPE B
	2" SUPERPAVE, TYPE C HOT-MIX 8" GRADED AGGREGATE BASE COURSE, TYPE B

RIGHT-OF-WAY SYMBOLS	
	PROPOSED RIGHT-OF-WAY MONUMENT
PB	EXISTING PROPERTY LINE
EASEMENT TYPE	EXISTING EASEMENT
	EXISTING RIGHT-OF-WAY
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
100+00	HISTORIC RIGHT-OF-WAY BASELINE

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

UTILITY COMPANY FACILITIES	
DP-E	DELMARVA POWER - ELECTRIC
DP-G	DELMARVA POWER - GAS
VER-C	VERIZON
	PROPOSED UTILITY POLE

MISCELLANEOUS	
	PAVEMENT REMOVAL, GRADE, TOPSOIL, SEED AND MULCH
AB/O	ABANDON BY OTHERS

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LAST REVISED: 3/12/2008
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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NOT TO SCALE

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

LEGEND

SHEET NO. 3
TOTAL SHTS. 86

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. 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	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. 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.
(X)	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
(X)	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
(X)	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.

(X)	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.
( )	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.

9. THE DISTURBED AREA FOR THIS PROJECT IS 18.4 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.

2. UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL, AS PART OF HIS PROJECT SCHEDULE, SUBMIT TO THE ENGINEER AN ESTIMATE OF THE MONTHLY PAYMENTS EXPECTED TO BE RECEIVED ON THE CONTRACT. THIS WILL BE REFERENCED AS THE "MONTHLY PAYMENT CHART".

   A CHART IN MICROSOFT EXCEL, MICROSOFT WORD, OR HAND WRITTEN FORMAT WILL BE ACCEPTABLE FOR THIS PURPOSE. THE CHART SHOULD INCLUDE, AS A MINIMUM, COLUMNS FOR THE MONTH, YEAR AND ESTIMATED MONTHLY PAYMENTS. THE TOTAL OF ALL ESTIMATED MONTHLY PAYMENTS SHOULD EQUAL THE AWARDED CONTRACT TOTAL BID PRICE.

   THE ENGINEER MAY REQUEST AN UPDATED "MONTHLY PAYMENT CHART" AT HIS DISCRETION, DEPENDING ON THE ACCURACY OF THE INITIAL ESTIMATES AND ACCORDING TO THE OVERALL NEEDS OF THE DEPARTMENT.

   THE "MONTHLY PAYMENT CHART" WILL NOT BE CONSIDERED A BINDING DOCUMENT BY EITHER THE CONTRACTOR OR THE DEPARTMENT AND IS CONSIDERED SOLELY INFORMATIONAL.

   ON PROJECTS REQUIRING CPM SCHEDULES, THE CONTRACTOR MAY, BUT IS NOT REQUIRED TO, "COST LOAD" THE CPM SCHEDULE IN ORDER TO GENERATE THE MONTHLY SPEND PAYMENT CHART.

   COSTS TO PREPARE AND/OR UPDATE THE "MONTHLY PAYMENT CHART" ARE ADDRESSED AS FOLLOWS:

   A. ON CONTRACTS REQUIRING CPM SCHEDULES AND UPDATES, PREPARATION OF THE INITIAL CHART SHALL BE INCIDENTAL TO ITEM 763508. UPDATES SHALL BE INCIDENTAL TO ITEM 763509.

   B. ON CONTRACTS NOT REQUIRING CPM SCHEDULES, THE COST TO PREPARE AND UPDATE THE "MONTHLY PAYMENT CHART" SHALL BE INCLUDED IN ITEM 763000 - INITIAL EXPENSE.

SECTION 200

3. THE CONTRACTOR SHALL REMOVE AND RESET ALL MAILBOXES TO MAINTAIN MAIL SERVICE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL RELOCATE MAILBOXES AS REQUIRED BY THE PROPOSED GEOMETRICS AND AS DIRECTED BY THE ENGINEER. WHEN RELOCATING MAILBOXES IN CURBED SECTIONS, THE FACE OF THE MAILBOX SHALL BE FLUSH WITH THE BACK EDGE OF CURB. WHEN RELOCATING MAILBOXES IN OPEN SECTIONS, THE FACE OF THE MAILBOX SHALL SET BACK 8 INCHES FROM THE EDGE OF THE PAVED SHOULDER. THE BOTTOM OF THE MAILBOX SHALL BE SET 46 INCHES ABOVE THE ROADWAY SURFACE. MAILBOXES LOCATED AT DRIVEWAY ENTRANCES SHALL BE PLACED ON THE FAR SIDE OF THE DRIVEWAY IN THE DIRECTION OF TRAVEL. POSTS BEING RESET IN CONCRETE SIDEWALK SHALL BE PLACED IN AN APPROPRIATE SIZE PVC SLEEVE. COST FOR ALL WORK AND MATERIALS SHALL BE PAID UNDER ITEM 201000 - CLEARING AND GRUBBING.

4. IN AREAS WHERE TREES OR SHRUBS WILL BE OVERHANGING THE PROPOSED SIDEWALK, PRUNING MAY BE NECESSARY TO ACHIEVE A VERTICAL CLEAR SPACE OF 10 FEET ABOVE THE PROPOSED SIDEWALK ELEVATION. THE CONTRACTOR SHALL PRUNE EXISTING TREE AND SHRUB BRANCHES, WHICH OVERHANG THE SIDEWALK, IN ACCORDANCE WITH I.S.A. STANDARDS. THE CONTRACTOR SHALL NOTIFY DELDOT'S ROADSIDE ENVIRONMENTALIST ADMINISTRATOR, EUGENE 'CHIP' ROSAN, JR. AT (302) 760-2185 AND/OR HIS DESIGNEE, AT LEAST TWO (2) DAYS PRIOR TO THE PRUNING OPERATION. ALL COSTS ASSOCIATED WITH THE ABOVE WORK TO BE PAID UNDER ITEM 201000 - CLEARING AND GRUBBING.

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 DELDOT'S PROJECT 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 MEETING THE ADVERTISED QUANTITY OF 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 MILLING MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.

   D. HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
      a. MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
      b. 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. SHOULD THE CONTRACTOR ELECT TO MILL PORTIONS OF HOT-MIX SHOWN ON THE PLANS TO BE REMOVED UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT THE COST OF MILLING THIS HOT-MIX WILL BE PAID AS ITEM 202000 - EXCAVATION AND EMBANKMENT. THE MILLINGS GENERATED MAY BE RECYCLED INTO HOT-MIX, UTILIZED FOR BASE COURSE, OR DISPOSED OF TO AN APPROVED SITE. HAULING COSTS FOR DISPOSAL AND/OR RECYCLING ARE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

      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 IN PLACE 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 400

6. THE PAVEMENT SECTION FOR HOT-MIX RESIDENTIAL DRIVEWAYS SHALL BE 2" HOT-MIX, TYPE 'C' OVER 8" GRADED AGGREGATE BASE COURSE, TYPE 'B', UNLESS OTHERWISE NOTED ON THE PLANS.

SECTION 600

7. 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 CONTRACTOR IS REQUIRED TO VIDEO INSPECT NEW PIPE RUNS TO CONFIRM CONDITION PRIOR TO ACCEPTANCE. PAYMENT FOR VIDEO INSPECTION OF NEW PIPES WILL BE MADE UNDER ITEM 612529 - VIDEO INSPECTION.

SECTION 700

8. IN AREAS WHERE PROPOSED CURB MEETS EXISTING CURB AND THE TWO CURB TYPES ARE NOT SIMILAR, THE PROPOSED CURB SHALL BE TRANSITIONED IN 10 LINEAR FEET, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK, INCLUDING SAW CUTTING EXISTING CURB SHALL BE INCIDENTAL TO THE PROPOSED CURB ITEM.

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. 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.

11. ALL HOT-MIX SAW CUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

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.

13. CROSS SECTIONS USED IN THE PREPARATION OF THIS CONTRACT ARE AVAILABLE FROM THE DEPARTMENT.

14. RIGHT-OF-WAY PLANS FOR RIGHT-OF-WAY OR EASEMENT STAKEOUT PURPOSES ARE AVAILABLE FROM THE DEPARTMENT.

15. THERE ARE NO ENVIRONMENTAL PERMITS ASSOCIATED WITH THIS PROJECT. AS SUCH, AN ENVIRONMENTAL COMPLIANCE SHEET WAS NOT PREPARED.

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PROJECT NOTES

EARTHWORK SUMMARY	
EXCAVATION	
EXCAVATION FROM CROSS SECTIONS	34,500 C.Y.
ROCK EXCAVATION FOR ROADWAY AND TRENCHES	0 C.Y.
TOPSOIL STRIPPING	14,700 C.Y.
TOTAL EXCAVATION	49,200 C.Y.
EXCAVATION AVAILABLE FOR EMBANKMENT	
EXCAVATION MEETING BORROW TYPE 'A'	0 C.Y.
EXCAVATION MEETING BORROW TYPE 'F'	20,700 C.Y.
EXCAVATION MEETING TOPSOIL	14,700 C.Y.
EMBANKMENT REQUIREMENTS	
BORROW TYPE 'A' REQUIRED (INCLUDING UNDERCUT)	3,800 C.Y.
BORROW TYPE 'F' REQUIRED	20,200 C.Y.
TOPSOIL REQUIRED	11,700 C.Y.
MATERIAL BALANCE ("+"= EXCESS, "-"= NEED)	
BORROW TYPE 'A'	-3,800 C.Y.
BORROW TYPE 'F'	+500 C.Y.
TOPSOIL	+3,000 C.Y.
UNSUITABLE MATERIAL	+13,800 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.

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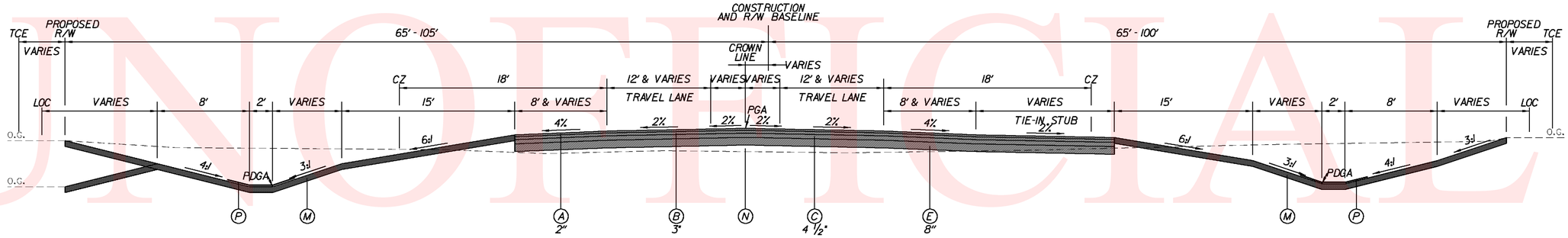
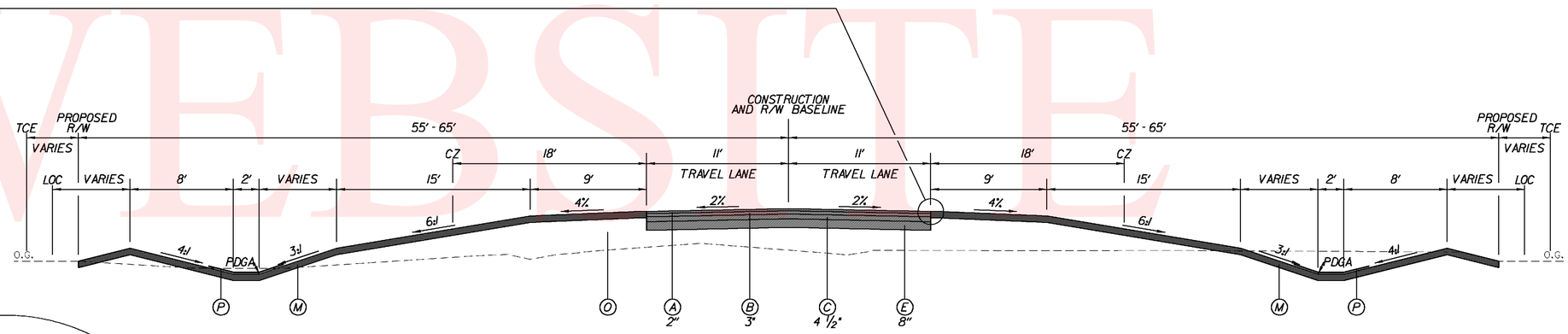
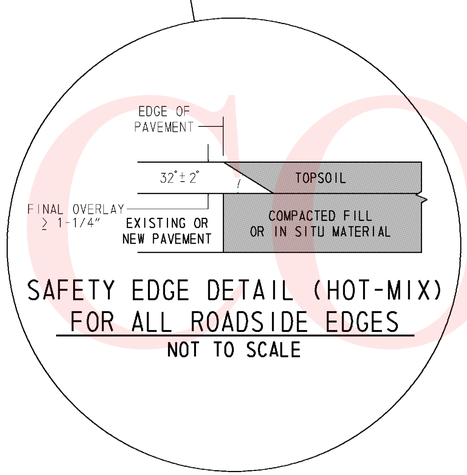


SOUTH ROUNDABOUT APPROACH
JAMISON CORNER ROAD
STATION 24+50 TO STATION 26+86



SOUTH TRANSITION
JAMISON CORNER ROAD
STATION 20+00 TO STATION 24+50



SAFETY EDGE DETAIL (HOT-MIX)
FOR ALL ROADSIDE EDGES
NOT TO SCALE

LEGEND

- (A) ITEM 401801 - WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22
- (C) ITEM 401819 - WMA, SUPERPAVE, BITUMINOUS BASE COURSE, 160 GYRATIONS, PG 64-22
- (D) ITEM 501001 - PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- (E) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (F) ITEM 701010 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-8
- (G) ITEM 701022 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 3-8
- (H) ITEM 701016 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-4
- (I) ITEM 701025 - PORTLAND CEMENT CONCRETE CURB, TYPE 2 MODIFIED
- (J) ITEM 701013 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-2
- (K) ITEM 715001 - PERFORATED PIPE UNDERDRAIN, 6"
- (L) ITEM 705001 - P.C.C. SIDEWALK, 4"
- (M) ITEM 733002 - TOPSOILING, 6" DEPTH
- ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (N) ITEM 209001 - BORROW, TYPE A
- (O) ITEM 209006 - BORROW, TYPE F
- (P) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. NA	TYPICAL SECTIONS	SHEET NO. 6
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

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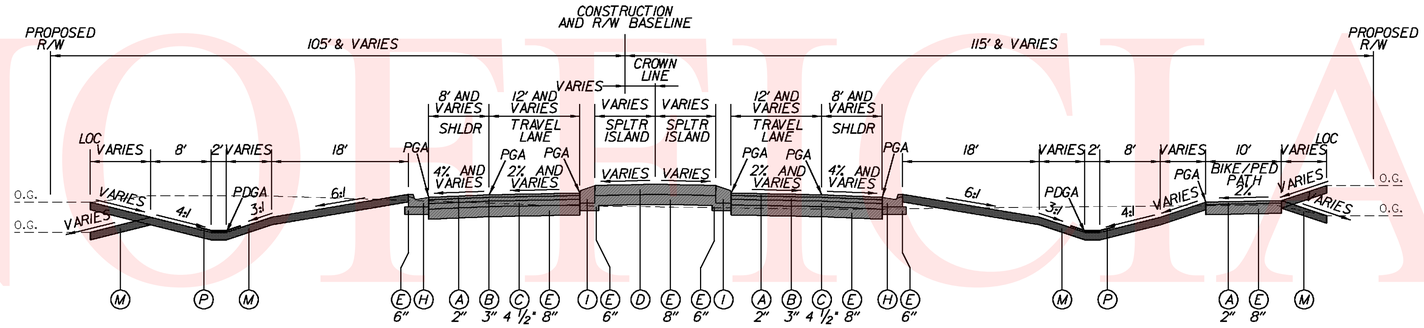
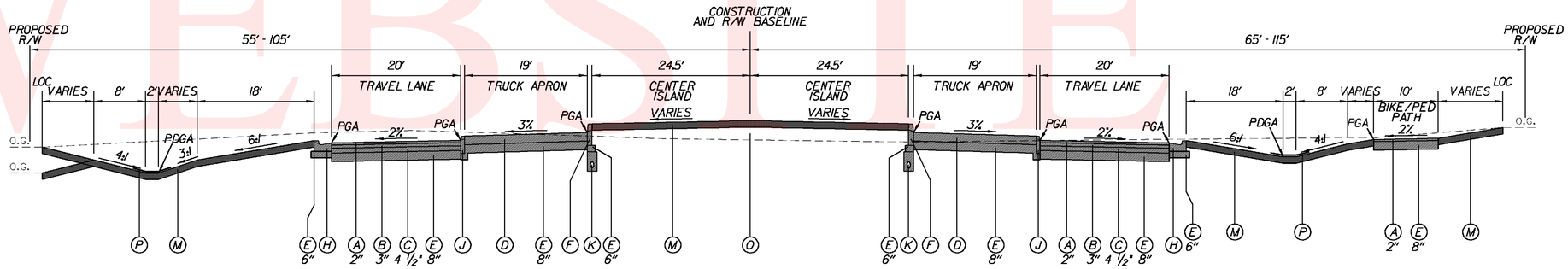


ROUNDABOUT APPROACH
JAMISON CORNER ROAD

STATION 28+13 TO STATION 30+25
STATION 36+00 TO STATION 38+13
STATION 39+40 TO STATION 41+91



TYPICAL ROUNDABOUT SECTION
JAMISON CORNER ROAD

STATION 26+86 TO STATION 28+13
STATION 38+13 TO STATION 39+40

LEGEND

- (A) ITEM 401801 - WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22
- (C) ITEM 401819 - WMA, SUPERPAVE, BITUMINOUS BASE COURSE, 160 GYRATIONS, PG 64-22
- (D) ITEM 501001 - PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- (E) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (F) ITEM 701010 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-8
- (G) ITEM 701022 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 3-8
- (H) ITEM 701016 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-4
- (I) ITEM 701025 - PORTLAND CEMENT CONCRETE CURB, TYPE 2 MODIFIED
- (J) ITEM 701013 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-2
- (K) ITEM 715001 - PERFORATED PIPE UNDERDRAIN, 6"
- (L) ITEM 705001 - P.C.C. SIDEWALK, 4"
- (M) ITEM 733002 - TOPSOILING, 6" DEPTH
  ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (N) ITEM 209001 - BORROW, TYPE A
- (O) ITEM 209006 - BORROW, TYPE F
- (P) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. NA	TYPICAL SECTIONS	SHEET NO. 7
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

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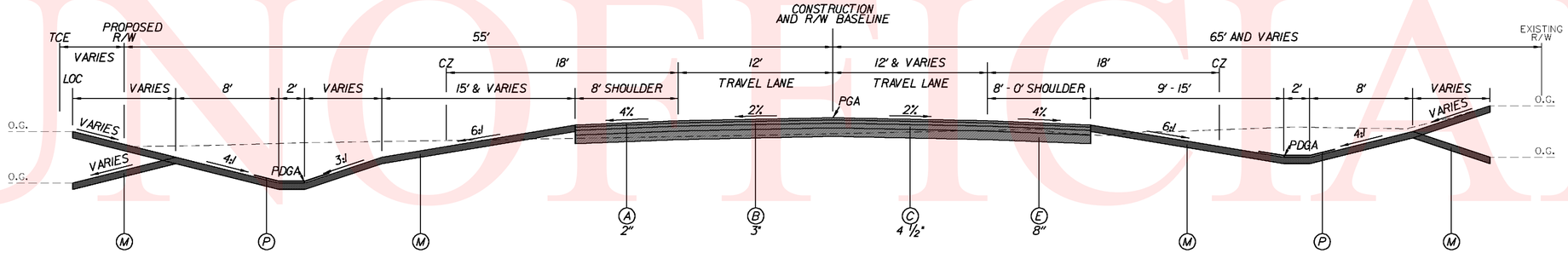
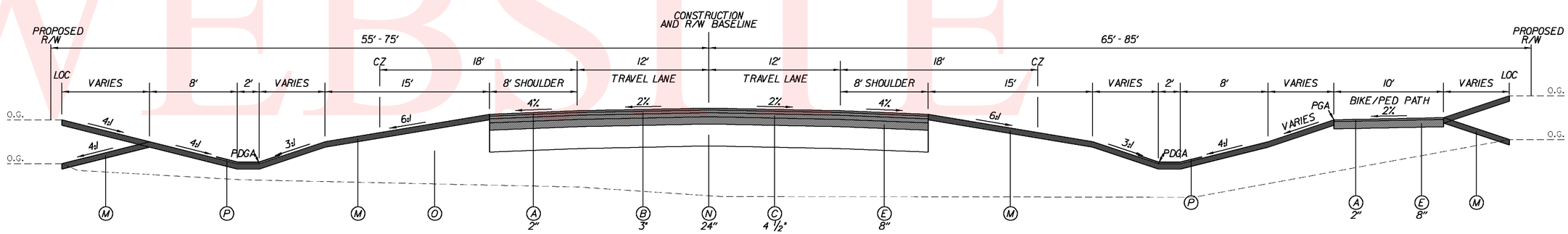


NORTH TRANSITION
JAMISON CORNER ROAD
STATION 41+91 TO STATION 48+54



JAMISON CORNER ROAD
STATION 30+25 TO STATION 36+00

LEGEND

- (A) ITEM 401801 - WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22
- (C) ITEM 401819 - WMA, SUPERPAVE, BITUMINOUS BASE COURSE, 160 GYRATIONS, PG 64-22
- (D) ITEM 501001 - PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- (E) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (F) ITEM 701010 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-8
- (G) ITEM 701022 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 3-8
- (H) ITEM 701016 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-4
- (I) ITEM 701025 - PORTLAND CEMENT CONCRETE CURB, TYPE 2 MODIFIED
- (J) ITEM 701013 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-2
- (K) ITEM 715001 - PERFORATED PIPE UNDERDRAIN, 6"
- (L) ITEM 705001 - P.C.C. SIDEWALK, 4"
- (M) ITEM 733002 - TOPSOILING, 6" DEPTH
  ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (N) ITEM 209001 - BORROW, TYPE A
- (O) ITEM 209006 - BORROW, TYPE F
- (P) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

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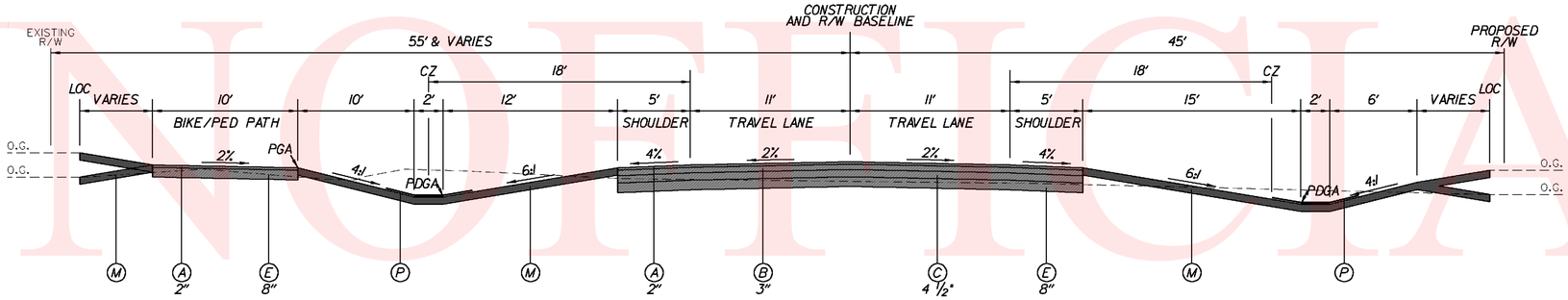
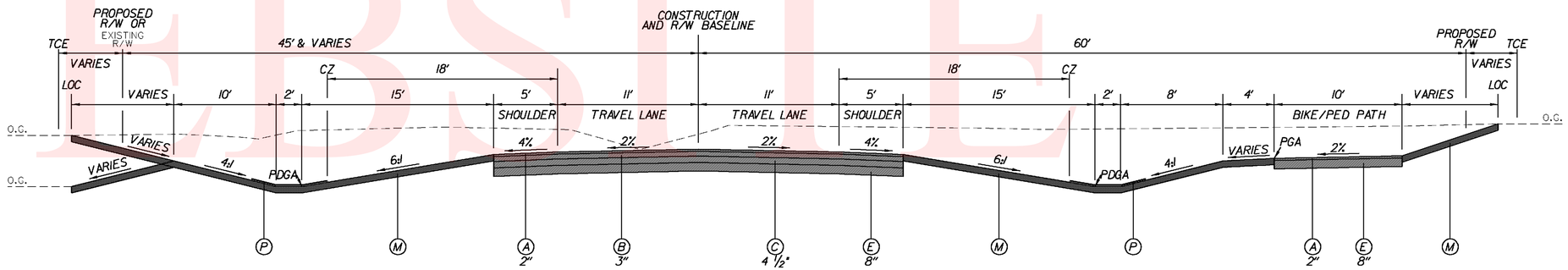
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. NA	TYPICAL SECTIONS	SHEET NO. 8
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



HYETTS CORNER ROAD

STATION 802+08 TO STATION 804+30
STATION 809+99 TO STATION 815+03



TYPICAL NORMAL SECTION
LOREWOOD GROVE ROAD

STATION 119+00 TO STATION 127+54

LEGEND

- (A) ITEM 401801 - WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22
- (C) ITEM 401819 - WMA, SUPERPAVE, BITUMINOUS BASE COURSE, 160 GYRATIONS, PG 64-22
- (D) ITEM 501001 - PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- (E) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (F) ITEM 701010 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-8
- (G) ITEM 701022 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 3-8
- (H) ITEM 701016 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-4
- (I) ITEM 701025 - PORTLAND CEMENT CONCRETE CURB, TYPE 2 MODIFIED
- (J) ITEM 701013 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-2
- (K) ITEM 715001 - PERFORATED PIPE UNDERDRAIN, 6"
- (L) ITEM 705001 - P.C.C. SIDEWALK, 4"
- (M) ITEM 733002 - TOPSOILING, 6" DEPTH
  ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (N) ITEM 209001 - BORROW, TYPE A
- (O) ITEM 209006 - BORROW, TYPE F
- (P) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. NA	TYPICAL SECTIONS	SHEET NO. 9
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

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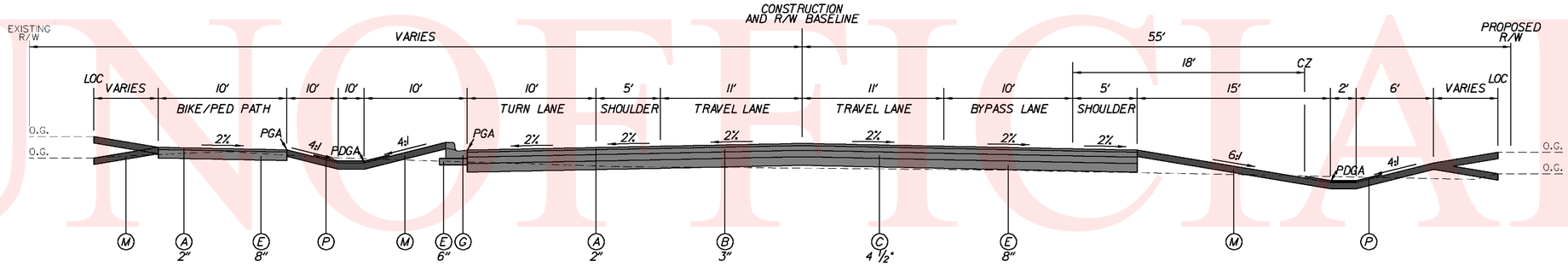
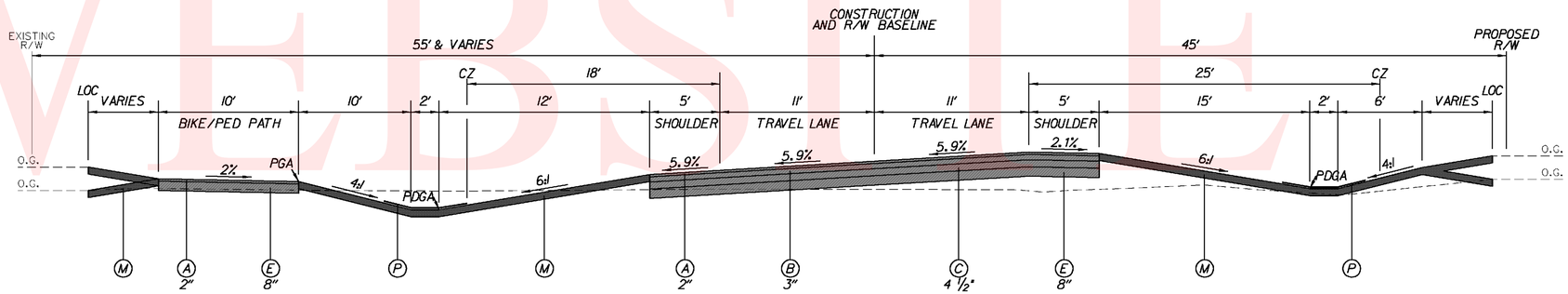


HYETTS CORNER ROAD
STATION 815+03 TO STATION 820+54



HYETTS CORNER ROAD
STATION 804+30 TO STATION 809+99

LEGEND

- (A) ITEM 401801 - WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22
- (C) ITEM 401819 - WMA, SUPERPAVE, BITUMINOUS BASE COURSE, 160 GYRATIONS, PG 64-22
- (D) ITEM 501001 - PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- (E) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (F) ITEM 701010 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-8
- (G) ITEM 701022 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 3-8
- (H) ITEM 701016 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-4
- (I) ITEM 701025 - PORTLAND CEMENT CONCRETE CURB, TYPE 2 MODIFIED
- (J) ITEM 701013 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-2
- (K) ITEM 715001 - PERFORATED PIPE UNDERDRAIN, 6"
- (L) ITEM 705001 - P.C.C. SIDEWALK, 4"
- (M) ITEM 733002 - TOPSOILING, 6" DEPTH
- ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (N) ITEM 209001 - BORROW, TYPE A
- (O) ITEM 209006 - BORROW, TYPE F
- (P) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. NA	TYPICAL SECTIONS	SHEET NO. 10
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

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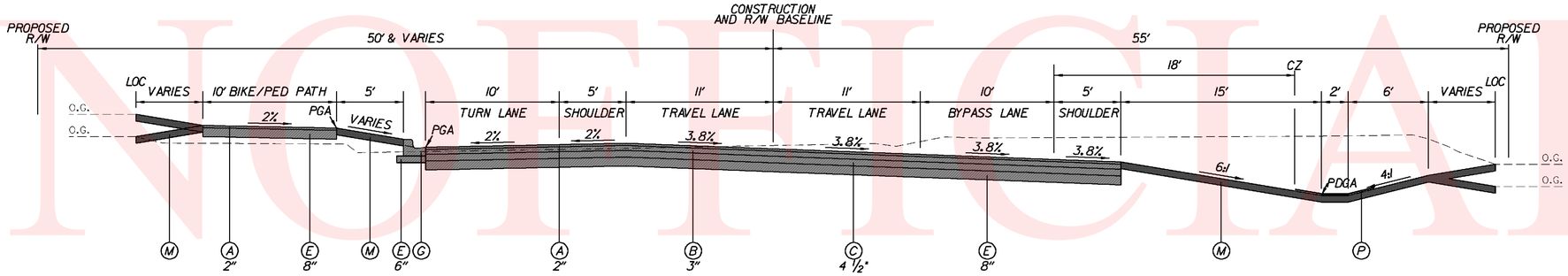
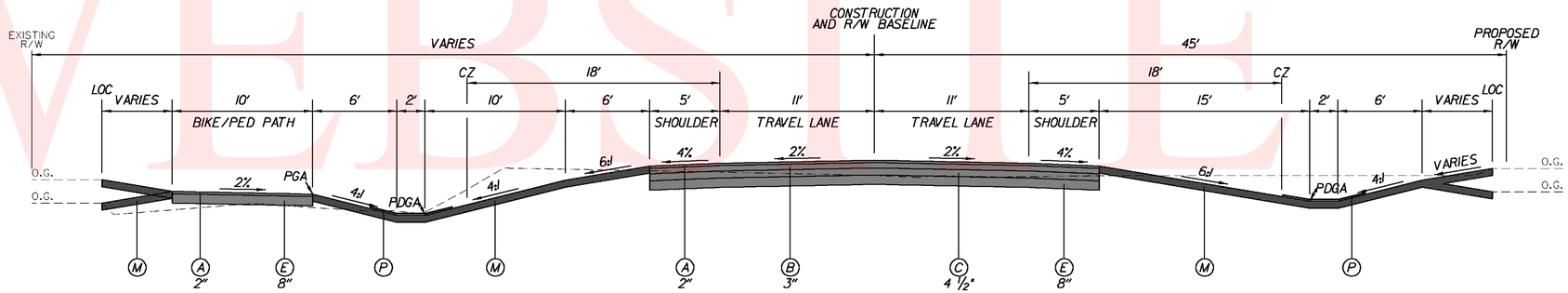


EAST TRANSITION
HYETTS CORNER ROAD
STATION 829+52 TO STATION 836+00



HYETTS CORNER ROAD
STATION 820+54 TO STATION 829+52

LEGEND

- (A) ITEM 401801 - WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)
- (B) ITEM 401810 - WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22
- (C) ITEM 401819 - WMA, SUPERPAVE, BITUMINOUS BASE COURSE, 160 GYRATIONS, PG 64-22
- (D) ITEM 501001 - PORTLAND CEMENT CONCRETE PAVEMENT, 8"
- (E) ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE B
- (F) ITEM 701010 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-8
- (G) ITEM 701022 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 3-8
- (H) ITEM 701016 - INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-4
- (I) ITEM 701025 - PORTLAND CEMENT CONCRETE CURB, TYPE 2 MODIFIED
- (J) ITEM 701013 - PORTLAND CEMENT CONCRETE CURB, TYPE 1-2
- (K) ITEM 715001 - PERFORATED PIPE UNDERDRAIN, 6"
- (L) ITEM 705001 - P.C.C. SIDEWALK, 4"
- (M) ITEM 733002 - TOPSOILING, 6" DEPTH
- ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
- (N) ITEM 209001 - BORROW, TYPE A
- (O) ITEM 209006 - BORROW, TYPE F
- (P) ITEM 735535 - SOIL RETENTION BLANKET MULCH, TYPE 5

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. NA	TYPICAL SECTIONS	SHEET NO. 11
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

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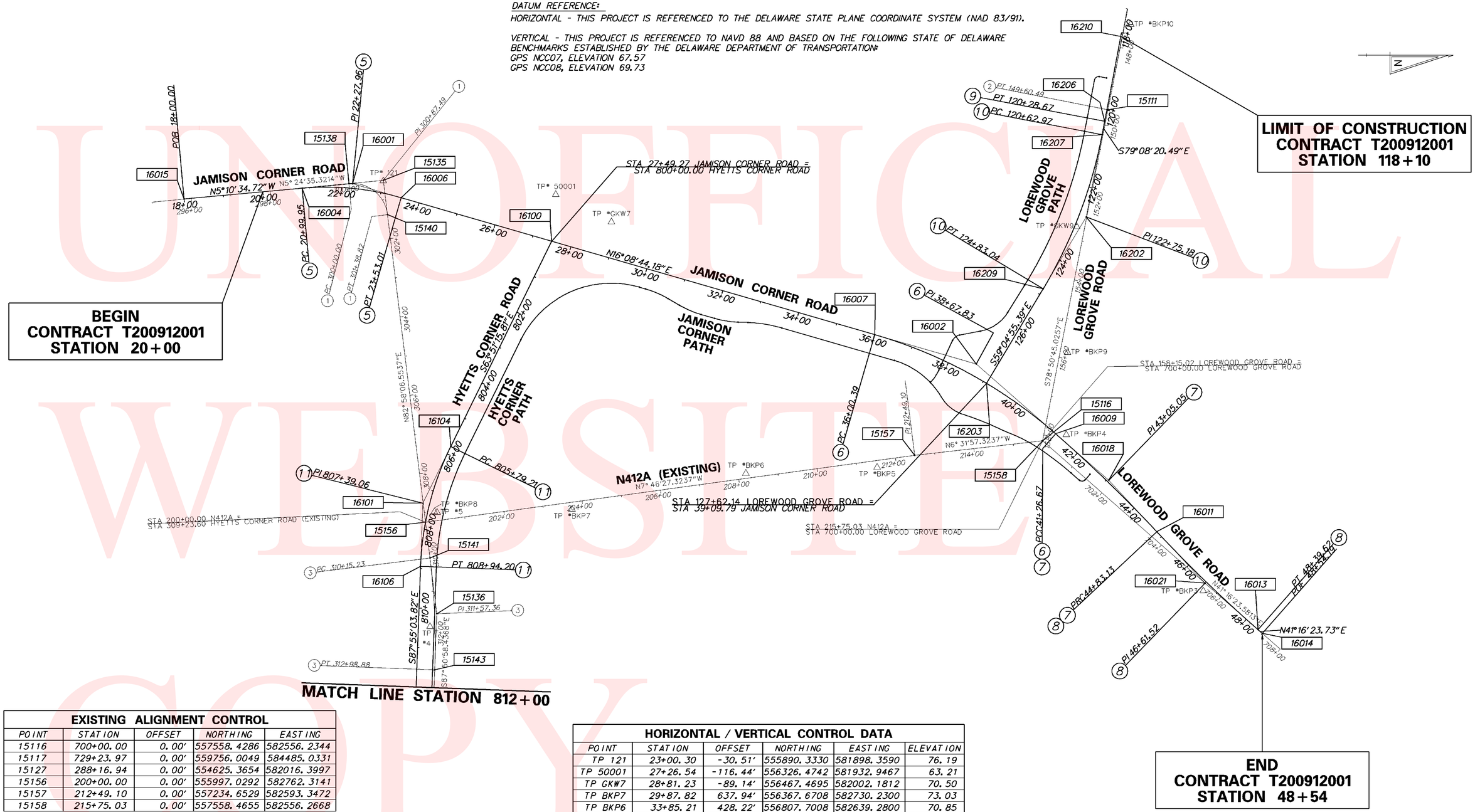
DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).

VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88 AND BASED ON THE FOLLOWING STATE OF DELAWARE BENCHMARKS ESTABLISHED BY THE DELAWARE DEPARTMENT OF TRANSPORTATION:
GPS NCC07, ELEVATION 67.57
GPS NCC08, ELEVATION 69.73



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EXISTING ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
15116	700+00.00	0.00'	557558.4286	582556.2344
15117	729+23.97	0.00'	559756.0049	584485.0331
15127	288+16.94	0.00'	554625.3654	582016.3997
15156	200+00.00	0.00'	555997.0292	582762.3141
15157	212+49.10	0.00'	557234.6529	582593.3472
15158	215+75.03	0.00'	557558.4655	582556.2668

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
16015	18+00.00	0.00'	555386.1164	581943.9323
16100	27+49.27	0.00'	556315.9202	582051.1092
16203	39+09.79	0.00'	557416.3565	582410.9757
16014	48+54.19	0.00'	558114.2014	583044.0327
16210	118+10.00	0.00'	557755.9359	581532.5393

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP 121	23+00.30	-30.51'	555890.3330	581898.3590	76.19
TP 50001	27+26.54	-116.44'	556326.4742	581932.9467	63.21
TP GKW7	28+81.23	-89.14'	556467.4695	582002.1812	70.50
TP BKP7	29+87.82	637.94'	556367.6708	582730.2300	73.03
TP BKP6	33+85.21	428.22'	556807.7008	582639.2800	70.85
TP BKP5	37+35.67	315.57'	557139.7308	582623.9700	72.91
TP BKP4	41+48.56	-15.82'	557618.2750	582541.2420	64.84
TP BKP3	46+72.05	21.77'	557964.8100	582936.6940	68.78
TP BKP10	117+75.42	-19.24'	557781.1890	581502.0630	56.42
TP GKW9	123+04.57	-5.36'	557644.7160	582014.2270	65.92
TP BKP9	125+89.97	-136.03'	557621.5210	582333.1660	72.13
TP BKP8	807+49.93	-17.01'	556020.0473	582735.3633	72.29
TP 5	807+51.03	-23.74'	556026.3558	582737.9282	72.29
TP 4	810+45.96	-29.58'	556008.4881	583027.0280	71.02

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 120 240 360
FEET

N412A, HYETTS CORNER ROAD
TO LOREWOOD GROVE ROAD

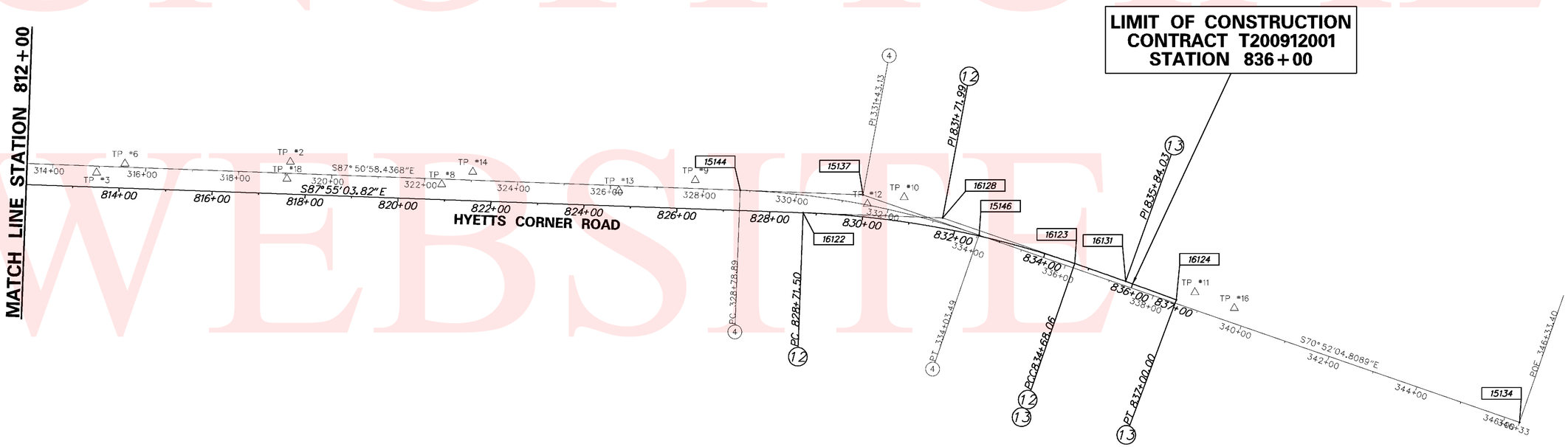
CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

HORIZONTAL AND
VERTICAL CONTROL

SHEET NO.
12
TOTAL SHTS.
86

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

VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88 AND BASED ON THE FOLLOWING STATE OF DELAWARE BENCHMARKS ESTABLISHED BY THE DELAWARE DEPARTMENT OF TRANSPORTATION:
GPS NCC07, ELEVATION 67.57
GPS NCC08, ELEVATION 69.73



EXISTING ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
15134	346+33.40	0.00'	555461.4100	586390.9139

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP 3	813+50.47	-31.19'	555999.0352	583331.3959	70.59
TP 6	814+10.76	-52.74'	556018.3795	583392.4291	69.51
TP 18	817+60.09	-32.71'	555985.6637	583740.8043	67.80
TP 2	817+66.05	-69.43'	556022.1490	583748.0919	67.66
TP 8	820+92.96	-32.88'	555973.7408	584073.4575	66.21
TP 14	821+58.81	-62.29'	556000.7459	584140.3339	66.36
TP 13	824+74.03	-33.74'	555960.7519	584454.3064	61.23
TP 9	826+37.55	-61.72'	555982.7810	584618.7329	59.29
TP 12	830+07.26	-28.67'	555931.6071	584988.6660	46.35
TP 10	830+82.63	-52.53'	555945.8691	585067.8932	43.59
TP 11			555741.5601	585692.9156	35.95

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

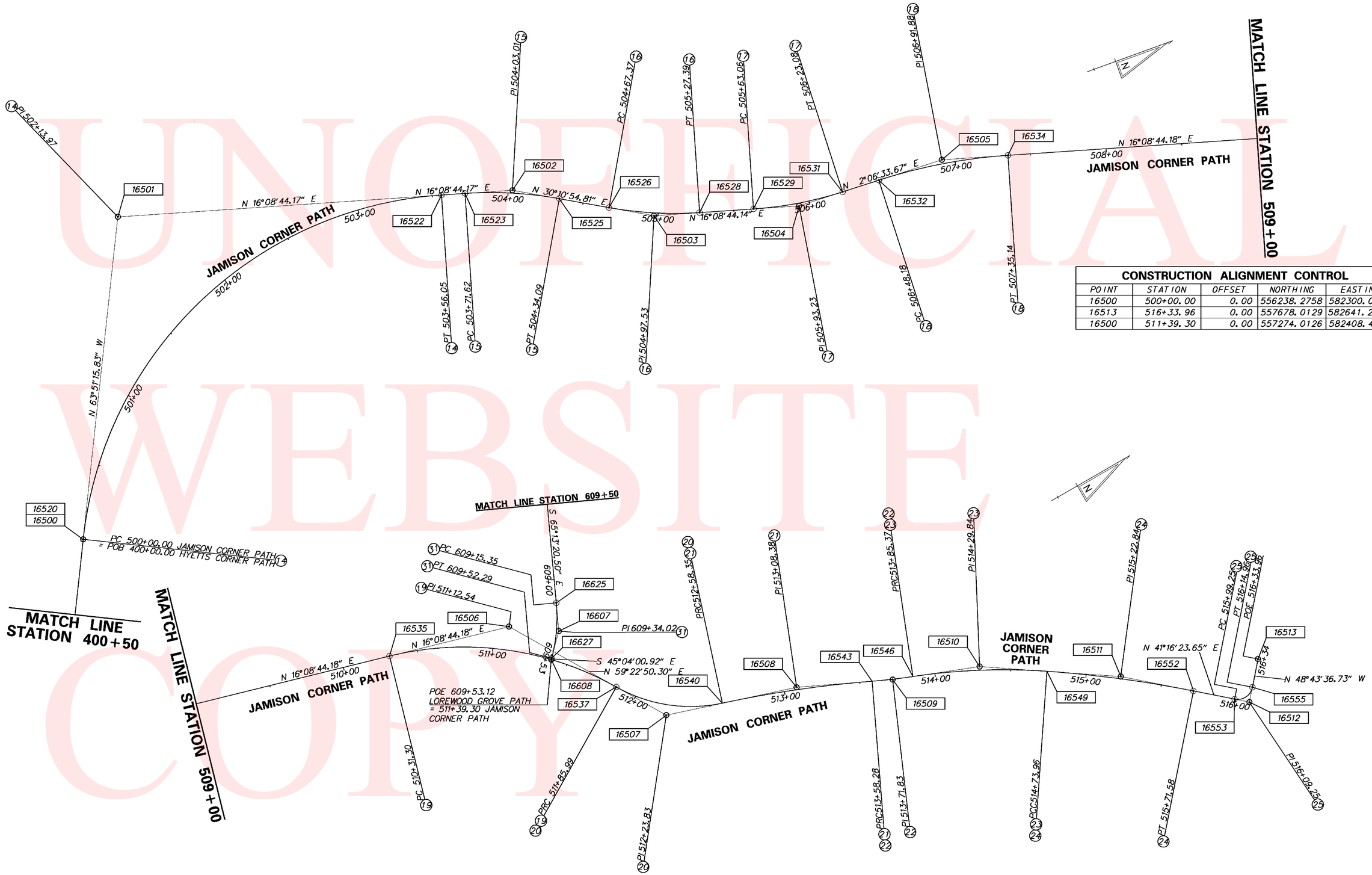
SCALE 0 120 240 360 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

HORIZONTAL AND VERTICAL CONTROL

SHEET NO. 13
TOTAL SHTS. 86



CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
16500	500+00.00	0.00	556238.2758	582300.0566
16513	516+33.96	0.00	557678.0129	582641.2347
16500	511+39.30	0.00	557274.0126	582408.4245

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

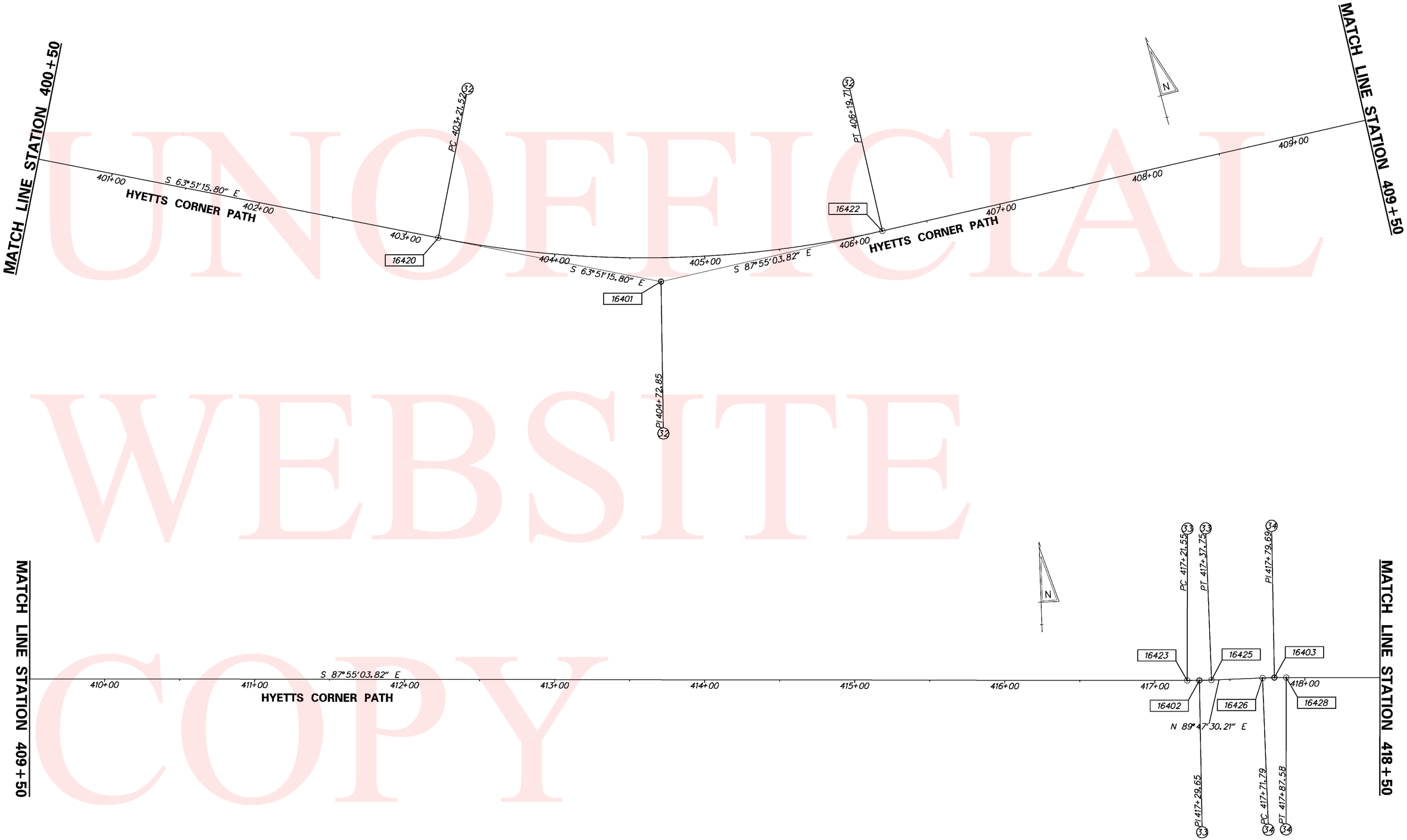
N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

HORIZONTAL AND VERTICAL CONTROL

SHEET NO. 14

TOTAL SHTS. 86



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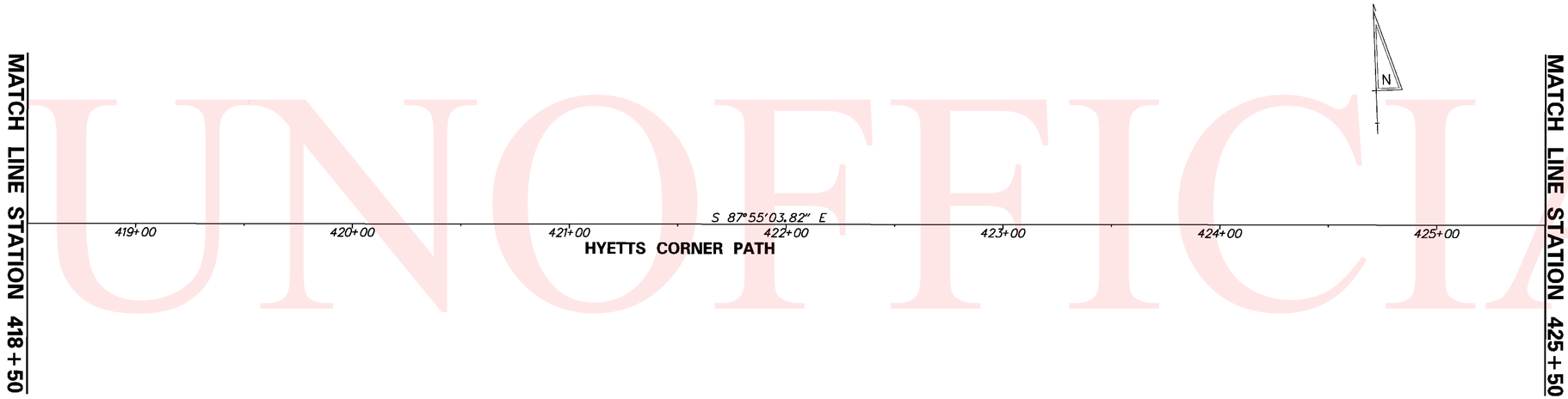
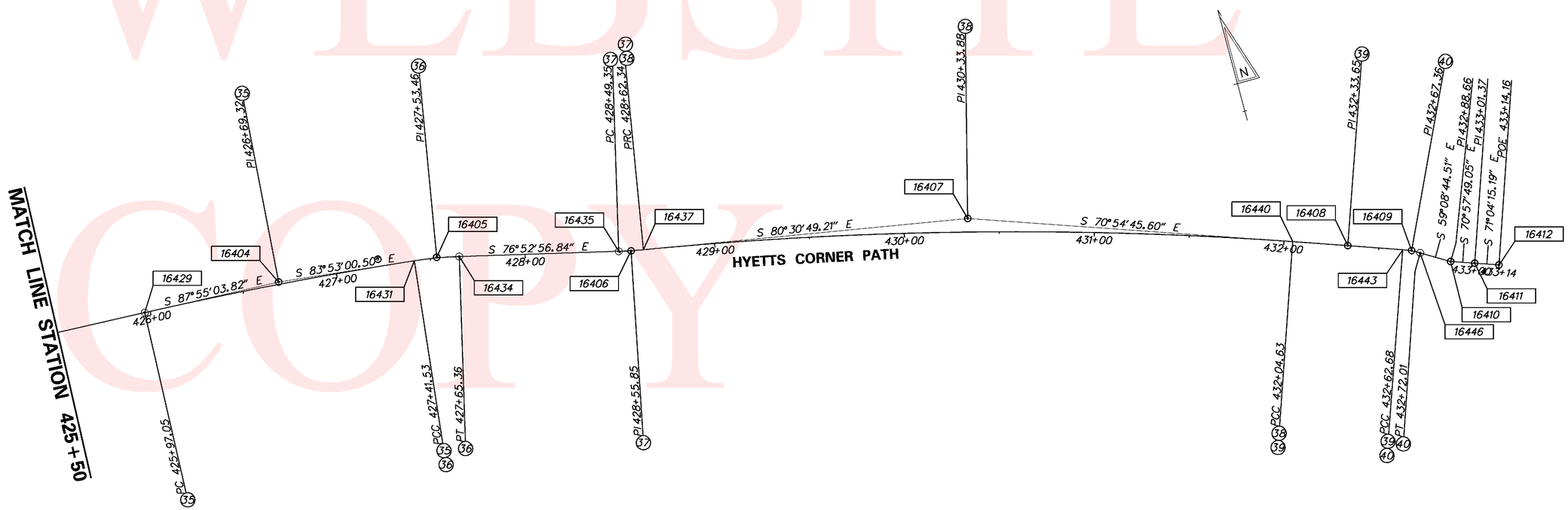
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	HORIZONTAL AND VERTICAL CONTROL	SHEET NO. 15
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
16410	432+88.66	0.00	555802.6628	585522.7611
16411	433+01.37	0.00	555798.5161	585534.7792
16412	433+14.16	0.00	555794.3686	585546.8730



DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	HORIZONTAL AND VERTICAL CONTROL	SHEET NO. 16
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

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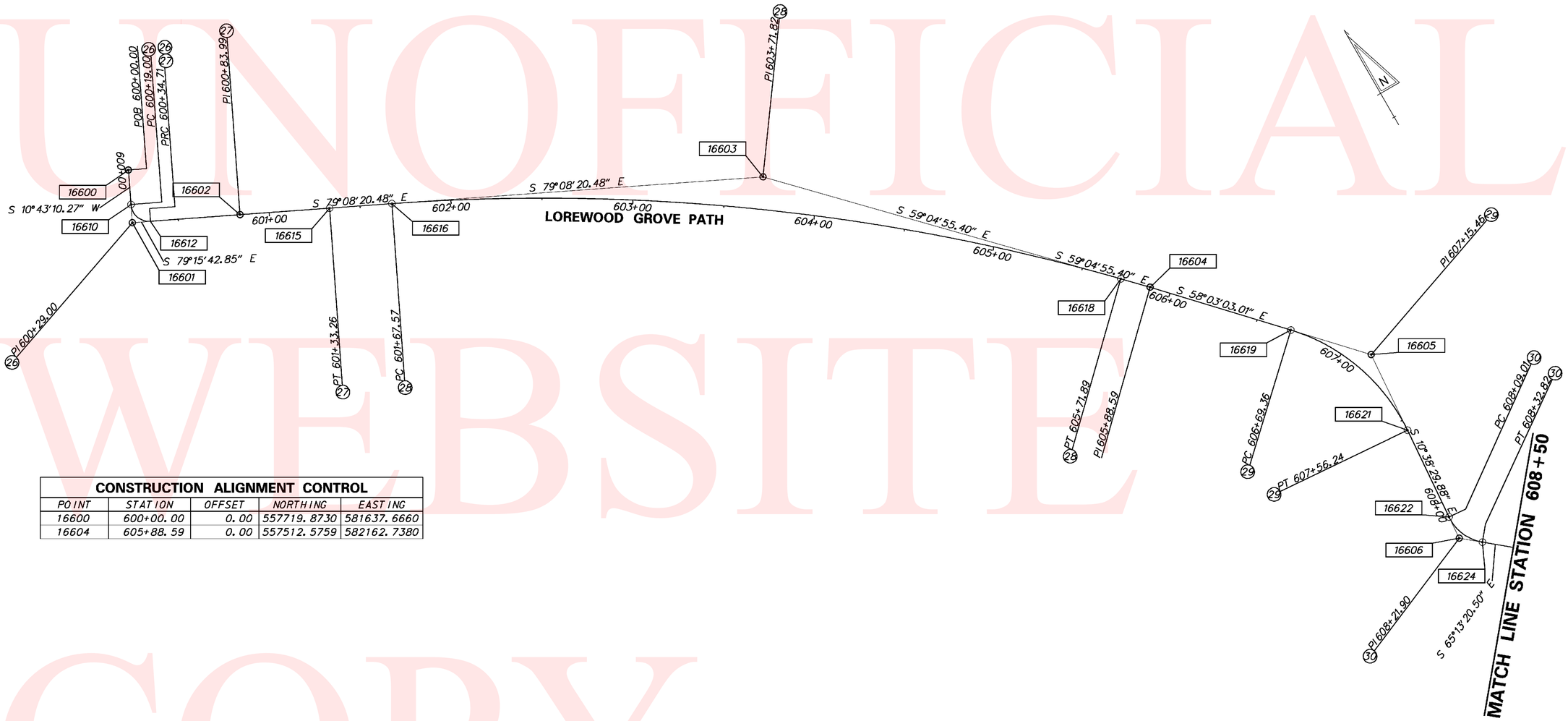

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
16600	600+00.00	0.00	557719.8730	581637.6660
16604	605+88.59	0.00	557512.5759	582162.7380

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY	CHECKED BY: JKL	
NEW CASTLE		

HORIZONTAL AND VERTICAL CONTROL

SHEET NO. 17
TOTAL SHTS. 86

CIRCULAR CURVE NO. 1

	STATION	NORTHING	EASTING
Element: Circular			
PC (15138)	300+00.00	555803.1529	581904.8625
PI (15135)	300+87.49	555890.2513	581896.6143
CC (15139)		555811.6380	581994.4617
PT (15140)	301+38.82	555900.9611	581983.4443

Radius: 90.0000
Delta: 88° 22' 41.8752" Right
Degree of Curvature(Arc): 63° 39' 43.1181"
Length: 138.8243
Tangent: 87.4880
Chord: 125.4653
Middle Ordinate: 25.4662
External: 35.5156
Tangent Direction: N 5° 24' 35.3214" W
Radial Direction: N 84° 35' 24.6786" E
Chord Direction: N 38° 46' 45.6162" E
Radial Direction: S 7° 01' 53.4463" E
Tangent Direction: N 82° 58' 06.5537" E

CIRCULAR CURVE NO. 2

	STATION	NORTHING	EASTING
Element: Circular			
PC (15109)	142+46.29	557850.9553	581015.1164
PI (15108)	146+03.42	557792.8194	581367.4836
CC (15110)		535238.3422	577284.3333
PT (15111)	149+60.49	557723.7326	581717.8683

Radius: 22918.3118
Delta: 1° 47' 07.8344" Right
Degree of Curvature(Arc): 0° 15' 00.0000"
Length: 714.2038
Tangent: 357.1308
Chord: 714.1749
Middle Ordinate: 2.7820
External: 2.7824
Tangent Direction: S 80° 37' 52.8601" E
Radial Direction: S 9° 22' 07.1399" W
Chord Direction: S 79° 44' 18.9429" E
Radial Direction: S 11° 09' 14.9743" W
Tangent Direction: S 78° 50' 45.0257" E

CIRCULAR CURVE NO. 3

	STATION	NORTHING	EASTING
Element: Circular			
PC (15141)	310+15.23	556008.2461	582853.2549
PI (15136)	311+57.36	556025.6450	582994.3161
CC (15142)		554251.5583	583069.9299
PT (15143)	312+98.88	556020.3118	583136.3462

Radius: 1770.0000
Delta: 9° 10' 55.0095" Right
Degree of Curvature(Arc): 3° 14' 13.3789"
Length: 283.6517
Tangent: 142.1302
Chord: 283.3483
Middle Ordinate: 5.6790
External: 5.6973
Tangent Direction: N 82° 58' 06.5537" E
Radial Direction: S 7° 01' 53.4463" E
Chord Direction: N 87° 33' 34.0585" E
Radial Direction: S 2° 09' 01.5632" W
Tangent Direction: S 87° 50' 58.4368" E

CIRCULAR CURVE NO. 4

	STATION	NORTHING	EASTING
Element: Circular			
PC (15144)	328+78.89	555961.0244	584715.2456
PI (15137)	331+43.13	555951.1094	584979.2966
CC (15145)		554192.2710	584648.8293
PT (15146)	334+03.49	555864.5068	585228.9389

Radius: 1770.0000
Delta: 16° 58' 53.6278" Right
Degree of Curvature(Arc): 3° 14' 13.3789"
Length: 524.6000
Tangent: 264.2371
Chord: 522.6820
Middle Ordinate: 19.3999
External: 19.6148
Tangent Direction: S 87° 50' 58.4368" E
Radial Direction: S 2° 09' 01.5632" W
Chord Direction: S 79° 21' 31.6228" E
Radial Direction: S 19° 07' 55.1911" W
Tangent Direction: S 70° 52' 04.8089" E

CIRCULAR CURVE NO. 5

	STATION	NORTHING	EASTING
Element: Circular			
PC (16004)	20+99.95	555684.8458	581916.8703
PI (16001)	22+27.96	555812.3313	581905.3214
CC (16005)		555746.1960	582594.0972
PT (16006)	23+53.01	555935.2899	581940.9176

Radius: 680.0000
Delta: 21° 19' 18.8973" Right
Degree of Curvature(Arc): 8° 25' 33.0597"
Length: 253.0536
Tangent: 128.0075
Chord: 251.5959
Middle Ordinate: 11.7374
External: 11.9436
Tangent Direction: N 5° 10' 34.7167" W
Radial Direction: N 84° 49' 25.2833" E
Chord Direction: N 5° 29' 04.7320" E
Radial Direction: S 73° 51' 15.8194" E
Tangent Direction: N 16° 08' 44.1806" E

CIRCULAR CURVE NO. 6

	STATION	NORTHING	EASTING
Element: Circular			
PC (16007)	36+00.39	557133.4722	582287.7886
PI (16002)	38+67.83	557390.3676	582362.1592
CC (16008)		556799.7770	583440.4583
PCC (16009)	41+26.67	557591.3689	582538.5812

Radius: 1200.0000
Delta: 25° 07' 42.0000" Right
Degree of Curvature(Arc): 4° 46' 28.7339"
Length: 526.2866
Tangent: 267.4439
Chord: 522.0788
Middle Ordinate: 28.7364
External: 29.4414
Tangent Direction: N 16° 08' 44.1806" E
Radial Direction: S 73° 51' 15.8194" E
Chord Direction: N 28° 42' 35.1806" E
Radial Direction: S 48° 43' 33.8194" E
Tangent Direction: N 41° 16' 26.1806" E

CIRCULAR CURVE NO. 7

	STATION	NORTHING	EASTING
Element: Circular			
PCC (16009)	41+26.67	557591.3689	582538.5812
PI (16018)	43+05.05	557725.4263	582656.2455
CC (16010)		555197.7299	585265.7040
PRC (16011)	44+83.13	557847.2972	582786.4905

Radius: 3628.5956
Delta: 5° 37' 42.4400" Right
Degree of Curvature(Arc): 1° 34' 44.4253"
Length: 356.4554
Tangent: 178.3712
Chord: 356.3121
Middle Ordinate: 4.3762
External: 4.3815
Tangent Direction: N 41° 16' 26.1806" E
Radial Direction: S 48° 43' 33.8194" E
Chord Direction: N 44° 05' 17.4006" E
Radial Direction: S 43° 05' 51.3794" E
Tangent Direction: N 46° 54' 08.6206" E

CIRCULAR CURVE NO. 8

	STATION	NORTHING	EASTING
Element: Circular			
PRC (16011)	44+83.13	557847.2972	582786.4905
PI (16021)	46+61.52	557969.1796	582916.7478
CC (16012)		560496.7937	580307.3432
PT (16013)	48+39.62	558103.2510	583034.4216

Radius: 3628.4988
Delta: 5° 37' 44.8900" Left
Degree of Curvature(Arc): 1° 34' 44.5769"
Length: 356.4890
Tangent: 178.3880
Chord: 356.3456
Middle Ordinate: 4.3771
External: 4.3824
Tangent Direction: N 46° 54' 08.6206" E
Radial Direction: S 43° 05' 51.3794" E
Chord Direction: N 44° 05' 16.1756" E
Radial Direction: S 48° 43' 36.2694" E
Tangent Direction: N 41° 16' 23.7306" E

CIRCULAR CURVE NO. 9

	STATION	NORTHING	EASTING
Element: Circular			
PC (16204)	106+17.18	557959.8986	580357.3166
PI (16201)	113+22.98	557848.2356	581054.2276
CC (16205)		512539.2292	573079.7623
PT (16206)	120+28.67	557715.2441	581747.3848

Radius: 46000.0000
Delta: 1° 45' 29.1424" Right
Degree of Curvature(Arc): 0° 07' 28.4018"
Length: 1411.4892
Tangent: 705.8000
Chord: 1411.4338
Middle Ordinate: 5.4138
External: 5.4144
Tangent Direction: S 80° 53' 49.6317" E
Radial Direction: S 9° 06' 10.3683" W
Chord Direction: S 80° 01' 05.0605" E
Radial Direction: S 10° 51' 39.5107" W
Tangent Direction: S 79° 08' 20.4893" E

CIRCULAR CURVE NO. 10

	STATION	NORTHING	EASTING
Element: Circular			
PC (16207)	120+62.97	557708.7800	581781.0758
PI (16202)	122+75.18	557668.7945	581989.4822
CC (16208)		556530.2753	581554.9639
PT (16209)	124+83.04	557559.7601	582171.5359

Radius: 1200.0000
Delta: 20° 03' 25.0964" Right
Degree of Curvature(Arc): 4° 46' 28.7339"
Length: 420.0722
Tangent: 212.2076
Chord: 417.9307
Middle Ordinate: 18.3344
External: 18.6189
Tangent Direction: S 79° 08' 20.4893" E
Radial Direction: S 10° 51' 39.5107" W
Chord Direction: S 69° 06' 37.9411" E
Radial Direction: S 30° 55' 04.6071" W
Tangent Direction: S 59° 04' 55.3929" E

CIRCULAR CURVE NO. 11

	STATION	NORTHING	EASTING
Element: Circular			
PC (16104)	805+79.21	556060.6881	582571.0547
PI (16101)	807+39.06	555990.2493	582714.5490
CC (16105)		556733.9460	582901.5451
PT (16106)	808+94.20	555984.4412	582874.2942

Radius: 750.0000
Delta: 24° 03' 48.0039" Left
Degree of Curvature(Arc): 7° 38' 21.9742"
Length: 314.9883
Tangent: 159.8507
Chord: 312.6784
Middle Ordinate: 16.4756
External: 16.8457
Tangent Direction: S 63° 51' 15.8132" E
Radial Direction: S 26° 08' 44.1868" W
Chord Direction: S 75° 53' 09.8152" E
Radial Direction: S 2° 04' 56.1829" W
Tangent Direction: S 87° 55' 03.8171" E

CIRCULAR CURVE NO. 12

	STATION	NORTHING	EASTING
Element: Circular			
PC (16122)	828+71.50	555912.5970	584850.2869
PI (16128)	831+71.99	555901.6789	585150.5758
CC (16120)		553903.9242	584777.2545
PCC (16123)	834+68.06	555803.4169	585434.5427

Radius: 2010.0000
Delta: 17° 00' 18.2267" Right
Degree of Curvature(Arc): 2° 51' 01.9307"
Length: 596.5566
Tangent: 300.4873
Chord: 594.3695
Middle Ordinate: 22.0912
External: 22.3367
Tangent Direction: S 87° 55' 03.8171" E
Radial Direction: S 2° 04' 56.1829" W
Chord Direction: S 79° 24' 54.7038" E
Radial Direction: S 19° 05' 14.4096" W
Tangent Direction: S 70° 54' 45.5904" E

CIRCULAR CURVE NO. 13

	STATION	NORTHING	EASTING
Element: Circular			
PCC (16123)	834+68.06	555803.4169	585434.5427
PI (16131)	835+84.03	555765.4914	585544.1432
CC (16117)		545625.5384	581912.6554
PT (16124)	837+00.00	555725.2146	585652.9016

Radius: 10770.0000
Delta: 1° 14' 02.1544" Right
Degree of Curvature(Arc): 0° 31' 55.1793"
Length: 231.9446
Tangent: 115.9768
Chord: 231.9401
Middle Ordinate: 0.6244
External: 0.6244
Tangent Direction: S 70° 54' 45.5904" E
Radial Direction: S 19° 05' 14.4096" W
Chord Direction: S 70° 17' 44.5132" E
Radial Direction: S 20° 19' 16.5640" W
Tangent Direction: S 69° 40' 43.4360" E

CIRCULAR CURVE NO. 14

	STATION	NORTHING	EASTING
Element: Circular			
PC (16520)	500+00.00	556238.2758	582300.0565
PI (16501)	502+13.97	556332.5627	582107.9802
CC (16521)		556467.1835	582412.4233
PT (16522)	503+56.05	556538.0937	582167.4809

Radius: 255.0000
Delta: 80° 00' 00.0003" Right
Degree of Curvature(Arc): 22° 28' 08.1593"
Length: 356.0472
Tangent: 213.9704
Chord: 327.8217
Middle Ordinate: 59.6587
External: 77.8789
Tangent Direction: N 63° 51' 15.8288" W
Radial Direction: N 26° 08' 44.1712" E
Chord Direction: N 23° 51' 15.8287" W
Radial Direction: S 73° 51' 15.8285" E
Tangent Direction: N 16° 08' 44.1715" E

CIRCULAR CURVE NO. 15

	STATION	NORTHING	EASTING
Element: Circular			
PC (16523)	503+71.62	556553.0506	582171.8109
PI (16502)	504+03.01	556583.2045	582180.5404
CC (16524)		556482.1404	582416.7532
PT (16525)	504+34.09	556610.3408	582196.3226

Radius: 255.0000
Delta: 14° 02' 10.6345" Right
Degree of Curvature(Arc): 22° 28' 08.1593"
Length: 62.4698
Tangent: 31.3920
Chord: 62.3137
Middle Ordinate: 1.9106
External: 1.9250
Tangent Direction: N 16° 08' 44.1715" E
Radial Direction: S 73° 51' 15.8285" E
Chord Direction: N 23° 09' 49.4887" E
Radial Direction: S 59° 49' 05.1940" E
Tangent Direction: N 30° 10' 54.8060" E

CIRCULAR CURVE NO. 16

	STATION	NORTHING	EASTING
Element: Circular			
PC (16526)	504+67.37	556639.1078	582213.0533
PI (16503)	504+97.53	556665.1800	582228.2166
CC (16527)		556762.2808	582001.2670
PT (16528)	505+27.39	556694.1514	582236.6037

Radius: 245.0000
Delta: 14° 02' 10.6676" Left
Degree of Curvature(Arc): 23° 23' 09.7168"
Length: 60.0200
Tangent: 30.1610
Chord: 59.8700
Middle Ordinate: 1.8357
External: 1.8495
Tangent Direction: N 30° 10' 54.8060" E
Radial Direction: S 59° 49' 05.1940" E
Chord Direction: N 23° 09' 49.4722" E
Radial Direction: S 73° 51' 15.8616" E
Tangent Direction: N 16° 08' 44.1384" E

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

NOT TO SCALE

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

HORIZONTAL AND VERTICAL CONTROL

SHEET NO.
18
TOTAL SHTS.
86

CIRCULAR CURVE NO. 17

	STATION	NORTHING	EASTING
Element: Circular			
PC (16529)	505+63.06	556728.4223	582246.5251
PI (16504)	505+93.23	556757.3936	582254.9122
CC (16530)		556796.5517	582011.1883
PT (16531)	506+23.08	556787.5340	582256.0223

Radius: 245.0000
Delta: 14° 02' 10.4688" Left
Degree of Curvature(Arc): 23° 23' 09.7168"
Length: 60.0198
Tangent: 30.1609
Chord: 59.8698
Middle Ordinate: 1.8356
External: 1.8495
Tangent Direction: N 16° 08' 44.1384" E
Radial Direction: S 73° 51' 15.8616" E
Chord Direction: N 9° 07' 38.9040" E
Radial Direction: S 87° 53' 26.3304" E
Tangent Direction: N 2° 06' 33.6696" E

CIRCULAR CURVE NO. 18

	STATION	NORTHING	EASTING
Element: Circular			
PC (16532)	506+48.18	556812.6081	582256.9458
PI (16505)	506+91.88	556856.2810	582258.5544
CC (16533)		556799.5417	582611.7053
PT (16534)	507+35.14	556898.2598	582270.7072

Radius: 355.0000
Delta: 14° 02' 10.5128" Right
Degree of Curvature(Arc): 16° 08' 22.7623"
Length: 86.9675
Tangent: 43.7025
Chord: 86.7502
Middle Ordinate: 2.6598
External: 2.6799
Tangent Direction: N 2° 06' 33.6696" E
Radial Direction: S 87° 53' 26.3304" E
Chord Direction: N 9° 07' 38.9259" E
Radial Direction: S 73° 51' 15.8177" E
Tangent Direction: N 16° 08' 44.1823" E

CIRCULAR CURVE NO. 19

	STATION	NORTHING	EASTING
Element: Circular			
PC (16535)	510+31.30	557182.7353	582353.0622
PI (16506)	511+12.54	557260.7689	582375.6527
CC (16536)		557125.7291	582549.9766
PT (16537)	511+85.99	557302.1459	582445.5635

Radius: 205.0000
Delta: 43° 14' 06.1185" Right
Degree of Curvature(Arc): 27° 56' 56.9787"
Length: 154.6917
Tangent: 81.2377
Chord: 151.0476
Middle Ordinate: 14.4189
External: 15.5098
Tangent Direction: N 16° 08' 44.1823" E
Radial Direction: S 73° 51' 15.8177" E
Chord Direction: N 37° 45' 47.2416" E
Radial Direction: S 30° 37' 09.6991" E
Tangent Direction: N 59° 22' 50.3009" E

CIRCULAR CURVE NO. 20

	STATION	NORTHING	EASTING
Element: Circular			
PC (16538)	511+85.99	557302.1459	582445.5634
PI (16507)	512+23.83	557321.4202	582478.1294
CC (16539)		557388.2028	582394.6302
PRC (16540)	512+58.35	557357.4257	582489.7762

Radius: 100.0000
Delta: 41° 27' 20.4364" Left
Degree of Curvature(Arc): 57° 17' 44.8062"
Length: 72.3538
Tangent: 37.8424
Chord: 70.7859
Middle Ordinate: 6.4728
External: 6.9207
Tangent Direction: N 59° 22' 50.3009" E
Radial Direction: S 30° 37' 09.6991" E
Chord Direction: N 38° 39' 10.0827" E
Radial Direction: S 72° 04' 30.1355" E
Tangent Direction: N 17° 55' 29.8645" E

CIRCULAR CURVE NO. 21

	STATION	NORTHING	EASTING
Element: Circular			
PRC (16540)	512+58.35	557357.4257	582489.7762
PI (16508)	513+08.38	557405.0365	582505.1770
CC (16542)		557121.9804	583217.6433
PRC (16543)	513+58.28	557450.2353	582526.6486

Radius: 765.0000
Delta: 7° 29' 05.7148" Right
Degree of Curvature(Arc): 7° 29' 22.7198"
Length: 99.9369
Tangent: 50.0397
Chord: 99.8659
Middle Ordinate: 1.6313
External: 1.6348
Tangent Direction: N 17° 55' 29.9658" E
Radial Direction: S 72° 04' 30.0342" E
Chord Direction: N 21° 40' 02.8232" E
Radial Direction: S 64° 35' 24.3194" E
Tangent Direction: N 25° 24' 35.6806" E

CIRCULAR CURVE NO. 22

	STATION	NORTHING	EASTING
Element: Circular			
PRC (16543)	513+58.28	557450.2353	582526.6486
PI (16509)	513+71.83	557462.4725	582532.4624
CC (16545)		557619.7412	582169.8675
PRC (16546)	513+85.37	557475.0792	582537.4241

Radius: 395.0000
Delta: 3° 55' 43.6974" Left
Degree of Curvature(Arc): 14° 30' 18.9383"
Length: 27.0854
Tangent: 13.5480
Chord: 27.0801
Middle Ordinate: 0.2321
External: 0.2323
Tangent Direction: N 25° 24' 44.2251" E
Radial Direction: S 64° 35' 15.7749" E
Chord Direction: N 23° 26' 52.3738" E
Radial Direction: S 68° 30' 59.4723" E
Tangent Direction: N 21° 29' 00.5277" E

CIRCULAR CURVE NO. 23

	STATION	NORTHING	EASTING
Element: Circular			
PRC (16546)	513+85.37	557475.0792	582537.4241
PI (16510)	514+29.84	557516.4613	582553.7128
CC (16548)		557326.7421	582914.2810
PCC (16549)	514+73.96	557553.3226	582578.5932

Radius: 405.0000
Delta: 12° 31' 58.4665" Right
Degree of Curvature(Arc): 14° 08' 49.5818"
Length: 88.5899
Tangent: 44.4724
Chord: 88.4134
Middle Ordinate: 2.4199
External: 2.4344
Tangent Direction: N 21° 29' 07.5309" E
Radial Direction: S 68° 30' 52.4691" E
Chord Direction: N 27° 45' 06.7647" E
Radial Direction: S 55° 58' 54.0026" E
Tangent Direction: N 34° 01' 05.9974" E

CIRCULAR CURVE NO. 24

	STATION	NORTHING	EASTING
Element: Circular			
PCC (16549)	514+73.96	557553.3226	582578.5932
PI (16511)	515+22.84	557593.8356	582605.9385
CC (16551)		557121.9803	583217.6431
PT (16552)	515+71.58	557630.5709	582638.1809

Radius: 771.0000
Delta: 7° 15' 17.6098" Right
Degree of Curvature(Arc): 7° 25' 52.8932"
Length: 97.6254
Tangent: 48.8780
Chord: 97.5602
Middle Ordinate: 1.5447
External: 1.5478
Tangent Direction: N 34° 01' 06.0419" E
Radial Direction: S 55° 58' 53.9581" E
Chord Direction: N 37° 38' 44.8468" E
Radial Direction: S 48° 43' 36.3483" E
Tangent Direction: N 41° 16' 23.6517" E

CIRCULAR CURVE NO. 25

	STATION	NORTHING	EASTING
Element: Circular			
PC (16553)	515+99.25	557651.3674	582656.4338
PI (16512)	516+09.25	557658.8831	582663.0303
CC (16554)		557657.9639	582648.9181
PT (16555)	516+14.96	557665.4796	582655.5146

Radius: 10.0000
Delta: 90° 00' 00.3811" Left
Degree of Curvature(Arc): 572° 57' 28.0625"
Length: 15.7080
Tangent: 10.0000
Chord: 14.1421
Middle Ordinate: 2.9289
External: 4.1421
Tangent Direction: N 41° 16' 23.6517" E
Radial Direction: S 48° 43' 36.3483" E
Chord Direction: N 3° 43' 36.5388" W
Radial Direction: N 41° 16' 23.2707" E
Tangent Direction: N 48° 43' 36.7293" W

CIRCULAR CURVE NO. 26

	STATION	NORTHING	EASTING
Element: Circular			
PC (16610)	600+19.00	557701.2021	581634.1315
PI (16601)	600+29.00	557691.3798	581632.2721
CC (16611)		557699.3421	581643.9570
PRC (16612)	600+34.71	557689.5172	581642.0938

Radius: 10.0000
Delta: 89° 58' 53.1210" Left
Degree of Curvature(Arc): 572° 57' 28.0625"
Length: 15.7047
Tangent: 9.9968
Chord: 14.1398
Middle Ordinate: 2.9278
External: 4.1398
Tangent Direction: S 10° 43' 10.2681" W
Radial Direction: N 79° 16' 49.7319" W
Chord Direction: S 34° 16' 16.2924" E
Radial Direction: S 10° 44' 17.1471" W
Tangent Direction: S 79° 15' 42.8529" E

CIRCULAR CURVE NO. 27

	STATION	NORTHING	EASTING
Element: Circular			
PRC (16612)	600+34.71	557689.5172	581642.0938
PI (16602)	600+83.99	557680.3356	581690.5098
CC (16614)		512539.2294	573079.7615
PT (16615)	601+33.26	557671.0501	581738.9059

Radius: 45955.0000
Delta: 0° 07' 22.3674" Right
Degree of Curvature(Arc): 0° 07' 28.8408"
Length: 98.5577
Tangent: 49.2789
Chord: 98.5577
Middle Ordinate: 0.0264
External: 0.0264
Tangent Direction: S 79° 15' 42.8512" E
Radial Direction: S 10° 44' 17.1488" W
Chord Direction: S 79° 12' 01.6676" E
Radial Direction: S 10° 51' 39.5161" W
Tangent Direction: S 79° 08' 20.4839" E

CIRCULAR CURVE NO. 28

	STATION	NORTHING	EASTING
Element: Circular			
PC (16616)	601+67.57	557664.5861	581772.5967
PI (16603)	603+71.82	557626.1000	581973.1878
CC (16617)		556530.2753	581554.9640
PT (16618)	605+71.89	557521.1544	582148.4145

Radius: 1155.0000
Delta: 20° 03' 25.0850" Right
Degree of Curvature(Arc): 4° 57' 38.4248"
Length: 404.3195
Tangent: 204.2498
Chord: 402.2582
Middle Ordinate: 17.6469
External: 17.9207
Tangent Direction: S 79° 08' 20.4839" E
Radial Direction: S 10° 51' 39.5161" W
Chord Direction: S 69° 06' 37.9414" E
Radial Direction: S 30° 55' 04.6011" W
Tangent Direction: S 59° 04' 55.3989" E

CIRCULAR CURVE NO. 29

	STATION	NORTHING	EASTING
Element: Circular			
PC (16619)	606+69.36	557469.8320	582231.2779
PI (16605)	607+15.46	557445.4364	582270.3961
CC (16620)		557380.7376	582175.7154
PT (16621)	607+56.24	557400.1274	582278.9095

Radius: 105.0000
Delta: 47° 24' 33.1327" Right
Degree of Curvature(Arc): 54° 34' 02.6726"
Length: 86.8819
Tangent: 46.1018
Chord: 84.4245
Middle Ordinate: 8.8588
External: 9.6751
Tangent Direction: S 58° 03' 03.0144" E
Radial Direction: S 31° 56' 56.9856" W
Chord Direction: S 34° 20' 46.4480" E
Radial Direction: S 79° 21' 30.1183" W
Tangent Direction: S 10° 38' 29.8817" E

CIRCULAR CURVE NO. 30

	STATION	NORTHING	EASTING
Element: Circular			
PC (16622)	608+09.01	557348.2728	582288.6529
PI (16606)	608+21.90	557335.5965	582291.0347
CC (16623)		557352.8894	582313.2229
PT (16624)	608+32.82	557330.1909	582302.7455

Radius: 25.0000
Delta: 54° 34' 50.6221" Left
Degree of Curvature(Arc): 229° 10' 59.2250"
Length: 23.8153
Tangent: 12.8981
Chord: 22.9250
Middle Ordinate: 2.7826
External: 3.1312
Tangent Direction: S 10° 38' 29.8817" E
Radial Direction: S 79° 21' 30.1183" W
Chord Direction: S 37° 55' 55.1927" E
Radial Direction: S 24° 46' 39.4962" W
Tangent Direction: S 65° 13' 20.5038" E

CIRCULAR CURVE NO. 31

	STATION	NORTHING	EASTING
Element: Circular			
PC (16625)	609+15.35	557295.6012	582377.6813
PI (16607)	609+34.02	557287.7803	582394.6246
CC (16626)		557200.2674	582333.6760
PT (16627)	609+52.29	557274.6002	582407.8355

Radius: 105.0000
Delta: 20° 09' 19.5788" Right
Degree of Curvature(Arc): 54° 34' 02.6726"
Length: 36.9368
Tangent: 18.6612
Chord: 36.7466
Middle Ordinate: 1.6200
External: 1.6454
Tangent Direction: S 65° 13' 20.5038" E
Radial Direction: S 24° 46' 39.4962" W
Chord Direction: S 55° 08' 40.7144" E
Radial Direction: S 44° 55' 59.0750" W
Tangent Direction: S 45° 04' 00.9250" E

CIRCULAR CURVE NO. 32

	STATION	NORTHING	EASTING
Element: Circular			
PC (16420)	403+21.52	556096.5952	582588.6809
PI (16401)	404+72.85	556029.9131	582724.5222
CC (16421)		556733.9459	582901.5451
PT (16422)	406+19.71	556024.4148	582875.7477

Radius: 710.0000
Delta: 24° 03' 48.0179" Left
Degree of Curvature(Arc): 8° 04' 11.3812"
Length: 298.1890
Tangent: 151.3254
Chord: 296.0023
Middle Ordinate: 15.5969
External: 15.9472
Tangent Direction: S 63° 51' 15.8049" E
Radial Direction: S 26° 08' 44.1951" W
Chord Direction: S 75° 53' 09.8139" E
Radial Direction: S 2° 04' 56.1772" W
Tangent Direction: S 87° 55' 03.8228" E

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CIRCULAR CURVE NO. 33

	STATION	NORTHING	EASTING
Element: Circular			
PC (16423)	417+21.55	555984.3799	583976.8625
PI (16402)	417+29.65	555984.0857	583984.9537
CC (16424)		556389.1125	583991.5780
PT (16425)	417+37.75	555984.1151	583993.0502

Radius: 405.0000
Delta: 2° 17' 25.9699" Left
Degree of Curvature(Arc): 14° 08' 49.5818"
Length: 16.1909
Tangent: 8.0965
Chord: 16.1898
Middle Ordinate: 0.0809
External: 0.0809
Tangent Direction: S 87° 55' 03.8228" E
Radial Direction: S 2° 04' 56.1772" W
Chord Direction: S 89° 03' 46.8078" E
Radial Direction: S 0° 12' 29.7927" E
Tangent Direction: N 89° 47' 30.2073" E

CIRCULAR CURVE NO. 34

	STATION	NORTHING	EASTING
Element: Circular			
PC (16426)	417+71.79	555984.2389	584027.0968
PI (16403)	417+79.69	555984.2676	584034.9934
CC (16427)		555589.2415	584028.5327
PT (16428)	417+87.58	555983.9807	584042.8848

Radius: 395.0000
Delta: 2° 17' 25.9724" Right
Degree of Curvature(Arc): 14° 30' 18.9383"
Length: 15.7912
Tangent: 7.8966
Chord: 15.7901
Middle Ordinate: 0.0789
External: 0.0789
Tangent Direction: N 89° 47' 30.2073" E
Radial Direction: S 0° 12' 29.7927" E
Chord Direction: S 89° 03' 46.8065" E
Radial Direction: S 2° 04' 56.1797" W
Tangent Direction: S 87° 55' 03.8203" E

CIRCULAR CURVE NO. 35

	STATION	NORTHING	EASTING
Element: Circular			
PC (16429)	425+97.05	555954.5693	584851.8130
PI (16404)	426+69.32	555951.9433	584924.0369
CC (16430)		553903.9242	584777.2546
PCC (16431)	427+41.53	555944.2427	584995.8971

Radius: 2052.0000
Delta: 4° 02' 03.3216" Right
Degree of Curvature(Arc): 2° 47' 31.8911"
Length: 144.4835
Tangent: 72.2716
Chord: 144.4536
Middle Ordinate: 1.2715
External: 1.2723
Tangent Direction: S 87° 55' 03.8203" E
Radial Direction: S 2° 04' 56.1797" W
Chord Direction: S 85° 54' 02.1595" E
Radial Direction: S 6° 06' 59.5013" W
Tangent Direction: S 83° 53' 00.4987" E

CIRCULAR CURVE NO. 36

	STATION	NORTHING	EASTING
Element: Circular			
PCC (16431)	427+41.53	555944.2427	584995.8971
PI (16405)	427+53.46	555942.9717	585007.7577
CC (16433)		555750.3528	584975.1197
PT (16434)	427+65.36	555940.2645	585019.3749

Radius: 195.0000
Delta: 7° 00' 03.7479" Right
Degree of Curvature(Arc): 29° 22' 56.8237"
Length: 23.8273
Tangent: 11.9285
Chord: 23.8125
Middle Ordinate: 0.3638
External: 0.3645
Tangent Direction: S 83° 53' 00.5903" E
Radial Direction: S 6° 06' 59.4097" W
Chord Direction: S 80° 22' 58.7163" E
Radial Direction: S 13° 07' 03.1577" W
Tangent Direction: S 76° 52' 56.8423" E

CIRCULAR CURVE NO. 37

	STATION	NORTHING	EASTING
Element: Circular			
PC (16435)	428+49.35	555921.2031	585101.1732
PI (16406)	428+55.85	555919.7283	585107.5019
CC (16436)		556120.8539	585147.6978
PRC (16437)	428+62.34	555918.6573	585113.9113

Radius: 205.0000
Delta: 3° 37' 52.3682" Left
Degree of Curvature(Arc): 27° 56' 56.9787"
Length: 12.9922
Tangent: 6.4983
Chord: 12.9900
Middle Ordinate: 0.1029
External: 0.1030
Tangent Direction: S 76° 52' 56.8423" E
Radial Direction: S 13° 07' 03.1577" W
Chord Direction: S 78° 41' 53.0264" E
Radial Direction: S 9° 29' 10.7895" W
Tangent Direction: S 80° 30' 49.2105" E

CIRCULAR CURVE NO. 38

	STATION	NORTHING	EASTING
Element: Circular			
PRC (16437)	428+62.34	555918.6573	585113.9113
PI (16407)	430+33.88	555890.3845	585283.1109
CC (16439)		553903.9242	584777.2547
PCC (16440)	432+04.63	555834.2876	585445.2251

Radius: 2042.6667
Delta: 9° 36' 03.6058" Right
Degree of Curvature(Arc): 2° 48' 17.8200"
Length: 342.2878
Tangent: 171.5455
Chord: 341.8875
Middle Ordinate: 7.1654
External: 7.1906
Tangent Direction: S 80° 30' 49.2069" E
Radial Direction: S 9° 29' 10.7931" W
Chord Direction: S 75° 42' 47.4040" E
Radial Direction: S 19° 05' 14.3989" W
Tangent Direction: S 70° 54' 45.6011" E

CIRCULAR CURVE NO. 39

	STATION	NORTHING	EASTING
Element: Circular			
PCC (16440)	432+04.63	555834.2876	585445.2251
PI (16408)	432+33.65	555824.7961	585472.6545
CC (16442)		545625.5380	581912.6565
PCC (16443)	432+62.68	555815.1573	585500.0325

Radius: 10802.6667
Delta: 0° 18' 28.4034" Right
Degree of Curvature(Arc): 0° 31' 49.3879"
Length: 58.0502
Tangent: 29.0252
Chord: 58.0501
Middle Ordinate: 0.0390
External: 0.0390
Tangent Direction: S 70° 54' 45.6111" E
Radial Direction: S 19° 05' 14.3889" W
Chord Direction: S 70° 45' 31.4094" E
Radial Direction: S 19° 23' 42.7923" W
Tangent Direction: S 70° 36' 17.2077" E

CIRCULAR CURVE NO. 40

	STATION	NORTHING	EASTING
Element: Circular			
PCC (16443)	432+62.68	555815.1573	585500.0325
PI (16409)	432+67.36	555813.6024	585504.4492
CC (16445)		555771.1388	585484.5357
PT (16446)	432+72.01	555811.2010	585508.4690

Radius: 46.6667
Delta: 11° 27' 34.6058" Right
Degree of Curvature(Arc): 122° 46' 35.6977"
Length: 9.3337
Tangent: 4.6825
Chord: 9.3182
Middle Ordinate: 0.2332
External: 0.2343
Tangent Direction: S 70° 36' 19.1138" E
Radial Direction: S 19° 23' 40.8862" W
Chord Direction: S 64° 52' 31.8109" E
Radial Direction: S 30° 51' 15.4920" W
Tangent Direction: S 59° 08' 44.5080" E

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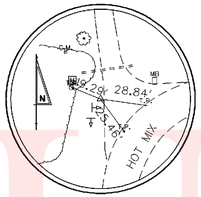
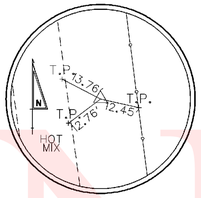


TRAVERSE POINT *121
JMT CAP



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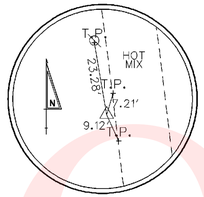

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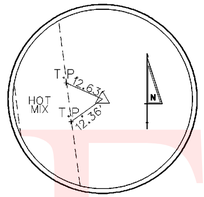

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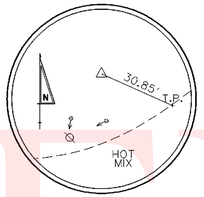
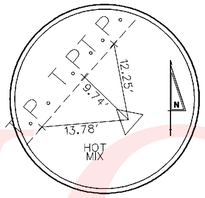
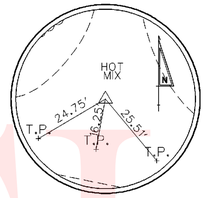
JMT CAP



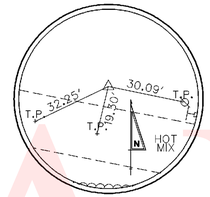
TRAVERSE POINT *BKP4
JMT CAP



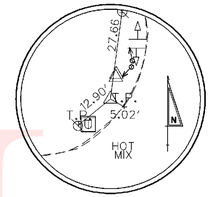
TRAVERSE POINT *BKP3
JMT CAP



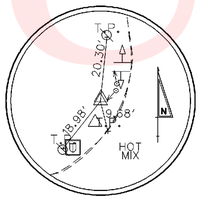
TRAVERSE POINT *BKP10
JMT CAP



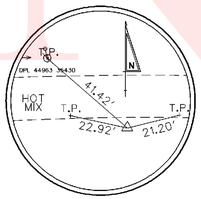
TRAVERSE POINT *BKP9
JMT CAP



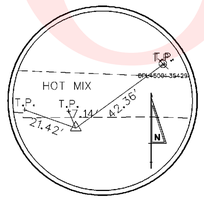
TRAVERSE POINT *BKP8
JMT CAP



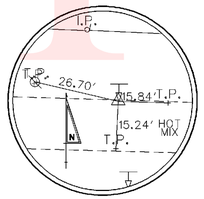
TRAVERSE POINT *5
DELDOT DISC



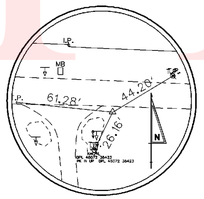
TRAVERSE POINT *4
DELDOT CAP



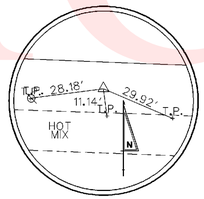
TRAVERSE POINT *3
DELDOT CAP



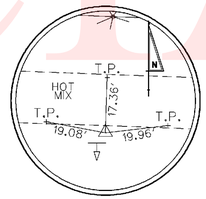
TRAVERSE POINT *6
PK NAIL



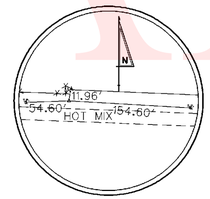
TRAVERSE POINT *8
DELDOT CAP



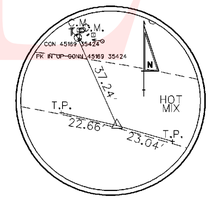
TRAVERSE POINT *14
DELDOT CAP



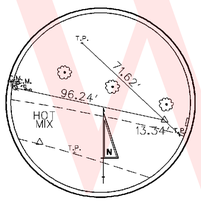
TRAVERSE POINT *13
DELDOT CAP



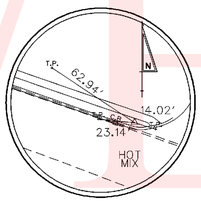
TRAVERSE POINT *9
DELDOT CAP



TRAVERSE POINT *12
DELDOT CAP



TRAVERSE POINT *10
DELDOT CAP



TRAVERSE POINT *11
DELDOT CAP

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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	HORIZONTAL AND VERTICAL CONTROL	SHEET NO. 21
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	STATION	OFFSET	NORTHING	EASTING
1	20+00.00	-20.39	555583.4609	581905.5780
2	20+00.00	-55.00	555580.3386	581871.1125
3	20+00.00	44.61	555589.3253	581970.3135
4	20+00.00	55.00	555590.2629	581980.6639
5	20+99.95	-55.00	555679.8837	581862.0946
6	20+99.95	55.00	555689.8080	581971.6460
7	23+53.01	-65.00	555953.3651	581878.4814
8	25+80.00	-65.00	556171.4057	581941.6036
9	26+02.52	100.00	556147.1507	582106.3570
10	801+92.90	45.00	556190.5225	582204.4418

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	INT PCC CURB AND GUTTER, TYPE 1-4	51'
2	INT PCC CURB AND GUTTER, TYPE 1-4	212'
3	INT PCC CURB AND GUTTER, TYPE 1-4	72'
4	PCC CURB, TYPE 2 MODIFIED*	147'
5	INT PCC CURB AND GUTTER, TYPE 1-4	128'
6	PCC CURB, TYPE 2 MODIFIED*	46'
7	PCC CURB, TYPE 2 MODIFIED*	148'
8	PCC CURB, TYPE 1-8	159'
9	PCC CURB, TYPE 1-2	283'

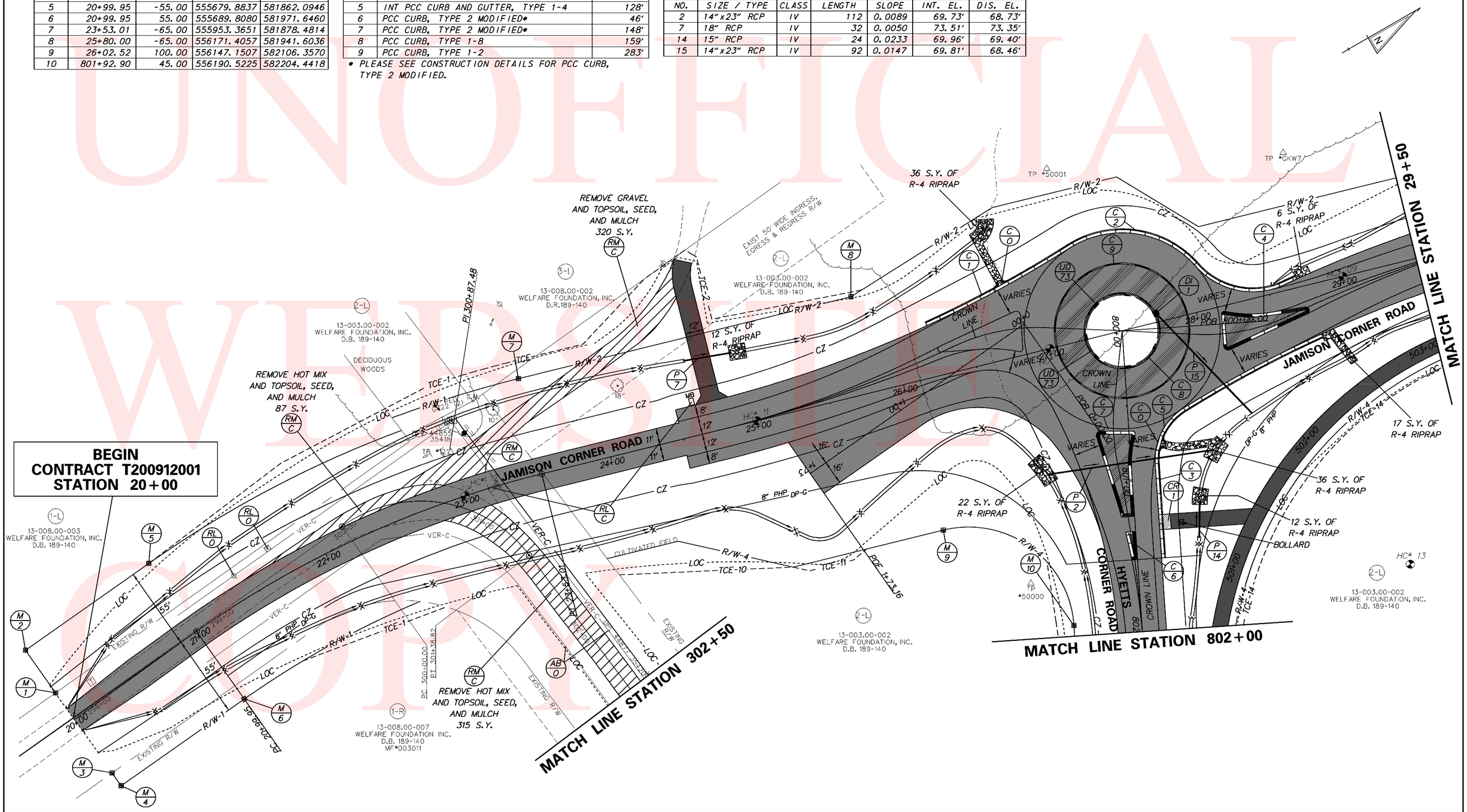
* PLEASE SEE CONSTRUCTION DETAILS FOR PCC CURB, TYPE 2 MODIFIED.

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
1	27+73.78	-6.03	48" x 48"	3	72.92	69.81

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
2	14"x23" RCP	IV	112	0.0089	69.73'	68.73'
7	18" RCP	IV	32	0.0050	73.51'	73.35'
14	15" RCP	IV	24	0.0233	69.96'	69.40'
15	14"x23" RCP	IV	92	0.0147	69.81'	68.46'



DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

CONSTRUCTION PLAN

SHEET NO. 22

TOTAL SHTS. 86

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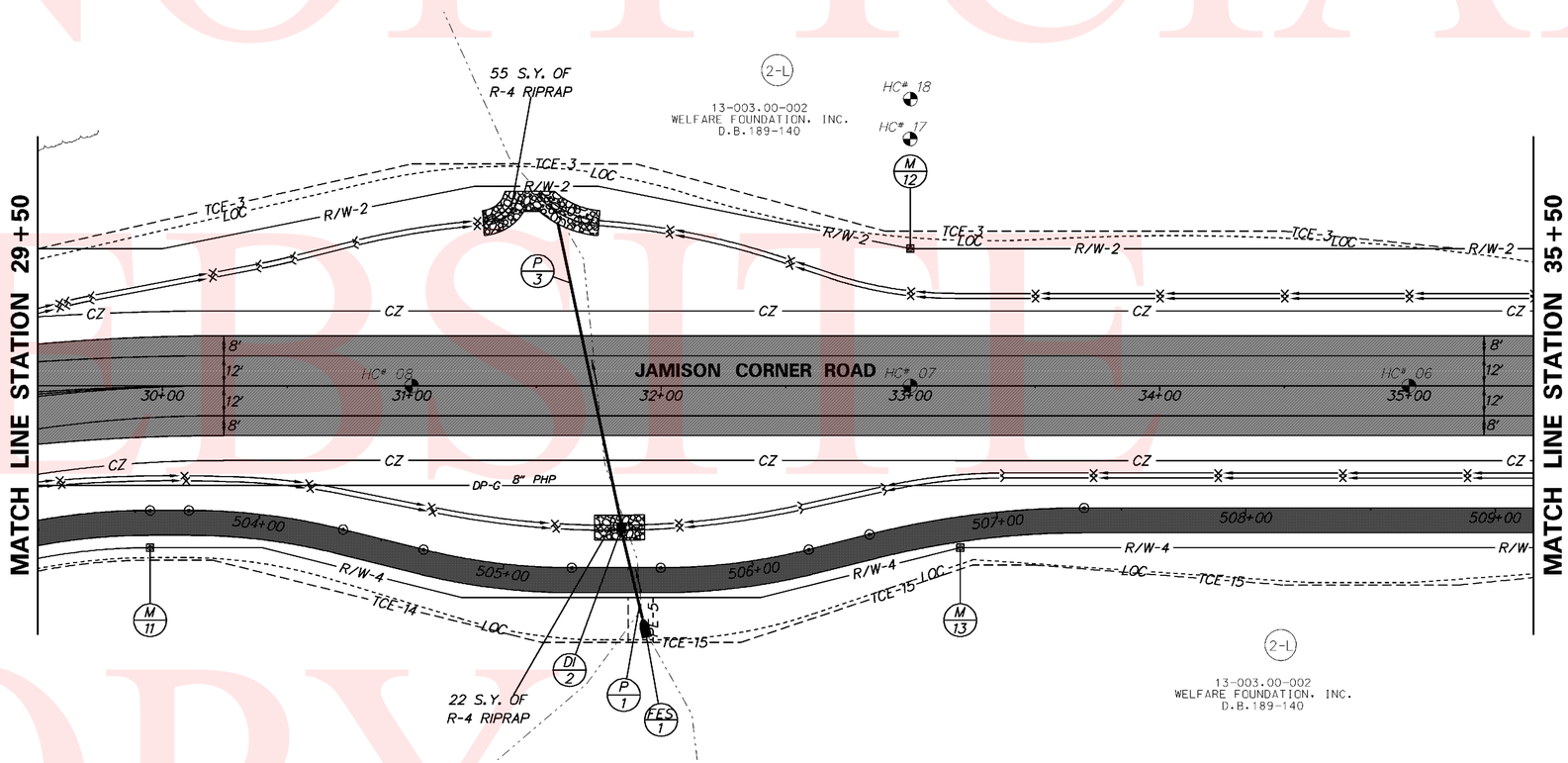
RIGHT-OF-WAY MONUMENT SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
11	29+95.04	65.00	556533.9225	582181.8893
12	33+00.00	-55.00	556860.2268	582151.4263
13	33+20.00	65.00	556846.0684	582272.2549

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
1	24" RCP	IV	36	0.0114	54.98'	54.57'
3	24" RCP	IV	124	0.0205	54.57'	52.03'

FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
1	24" RCP	0.0113	YES

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
2	31+84.09	56.98	48" x 30"	2	58.20	54.57



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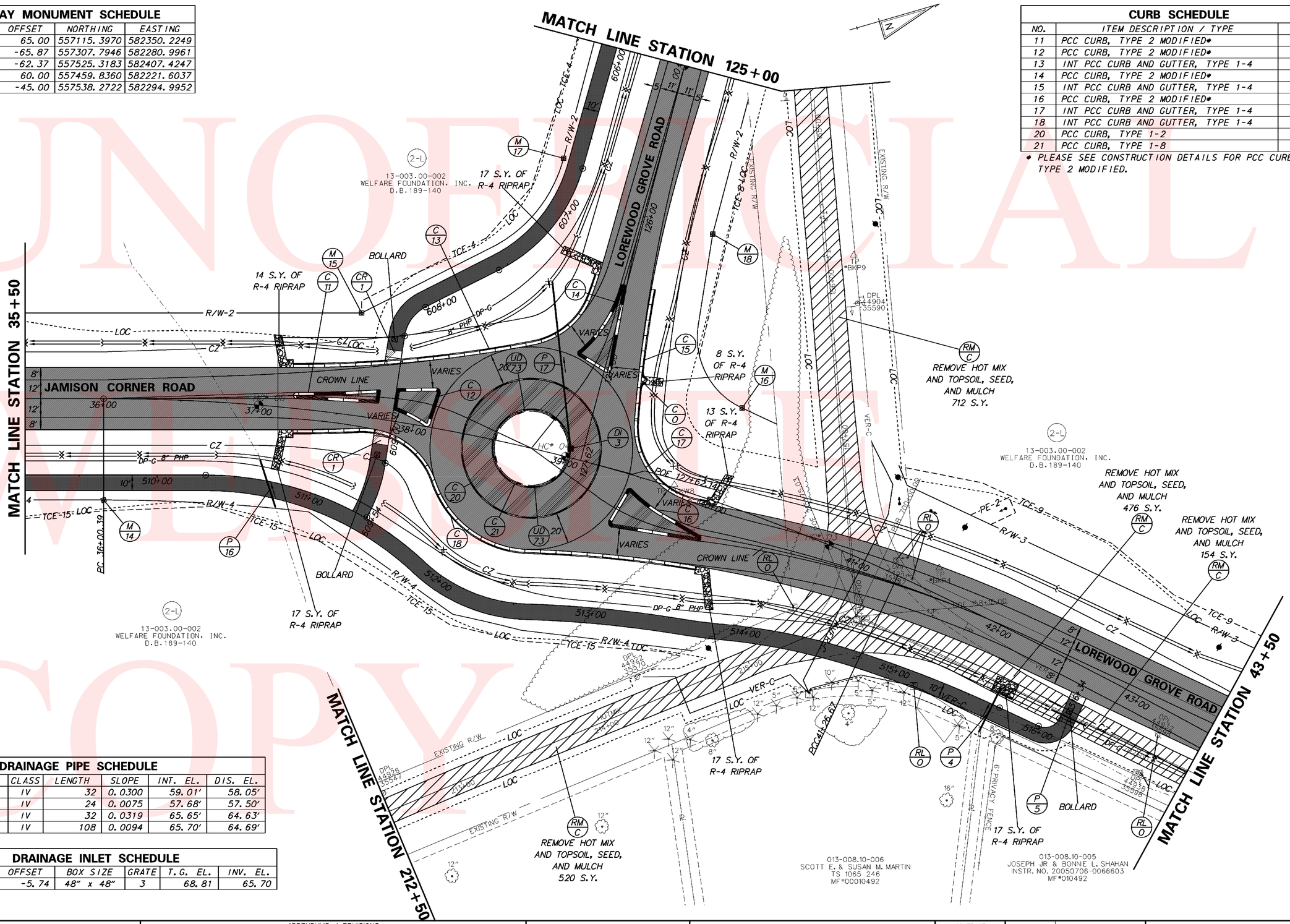
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PLAN	SHEET NO. 23
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

RIGHT-OF-WAY MONUMENT SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
14	36+00.39	65.00	557115.3970	582350.2249
15	37+57.78	-65.87	557307.7946	582280.9961
16	39+96.99	-62.37	557525.3183	582407.4247
17	125+77.34	60.00	557459.8360	582221.6037
18	126+00.00	-45.00	557538.2722	582294.9952

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
11	PCC CURB, TYPE 2 MODIFIED*	121'
12	PCC CURB, TYPE 2 MODIFIED*	91'
13	INT PCC CURB AND GUTTER, TYPE 1-4	220'
14	PCC CURB, TYPE 2 MODIFIED*	137'
15	INT PCC CURB AND GUTTER, TYPE 1-4	54'
16	PCC CURB, TYPE 2 MODIFIED*	146'
17	INT PCC CURB AND GUTTER, TYPE 1-4	100'
18	INT PCC CURB AND GUTTER, TYPE 1-4	293'
20	PCC CURB, TYPE 1-2	283'
21	PCC CURB, TYPE 1-8	159'

* PLEASE SEE CONSTRUCTION DETAILS FOR PCC CURB, TYPE 2 MODIFIED.



DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
4	14"x23" RCP	IV	32	0.0300	59.01'	58.05'
5	19"x30" RCP	IV	24	0.0075	57.68'	57.50'
16	15" RCP	IV	32	0.0319	65.65'	64.63'
17	14"x23" RCP	IV	108	0.0094	65.70'	64.69'

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
3	39+01.76	-5.74	48" x 48"	3	68.81	65.70

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

CONSTRUCTION PLAN

SHEET NO. 24

TOTAL SHTS. 86

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
6	24"x38" RCP	IV	88	0.0200	56.36'	54.60'

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
1	66'	56.52

RIGHT-OF-WAY MONUMENT SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
19	47+50.00	-38.91	558063.0111	582945.8816
20	47+50.00	-88.92	558096.9220	582909.1178

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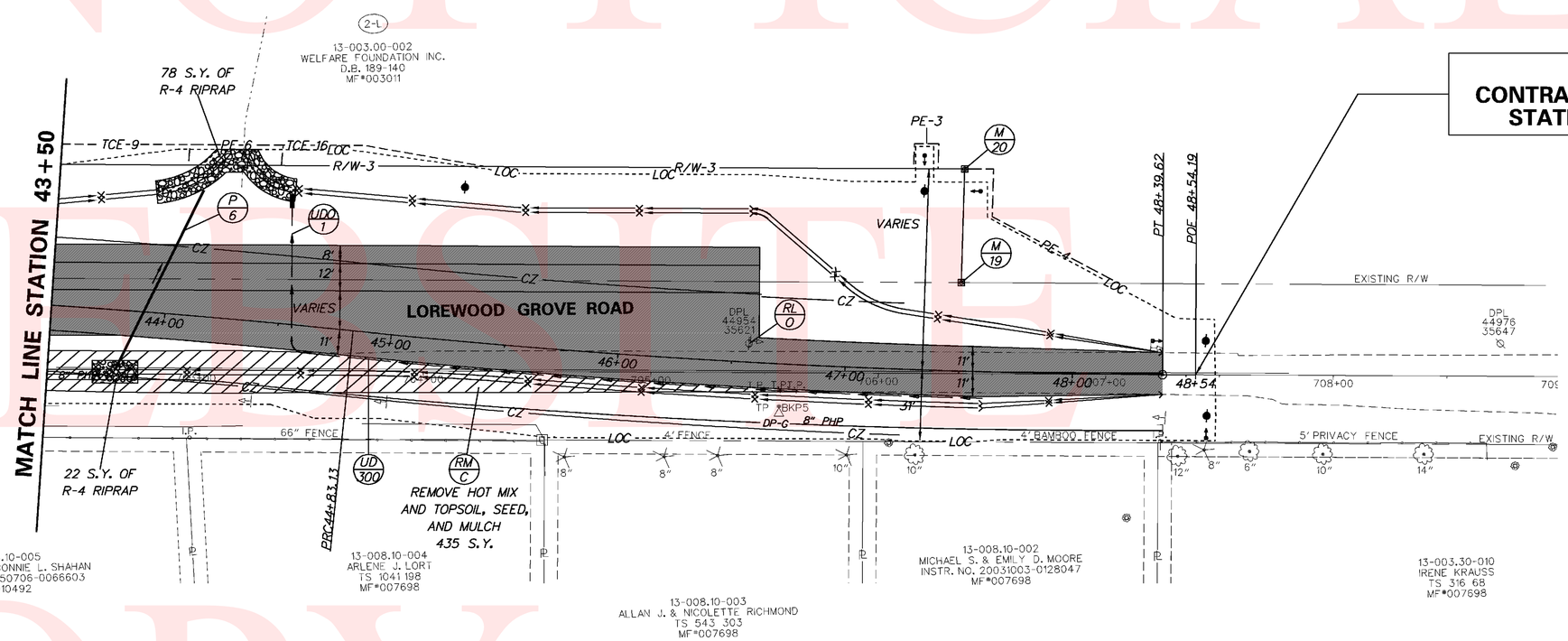

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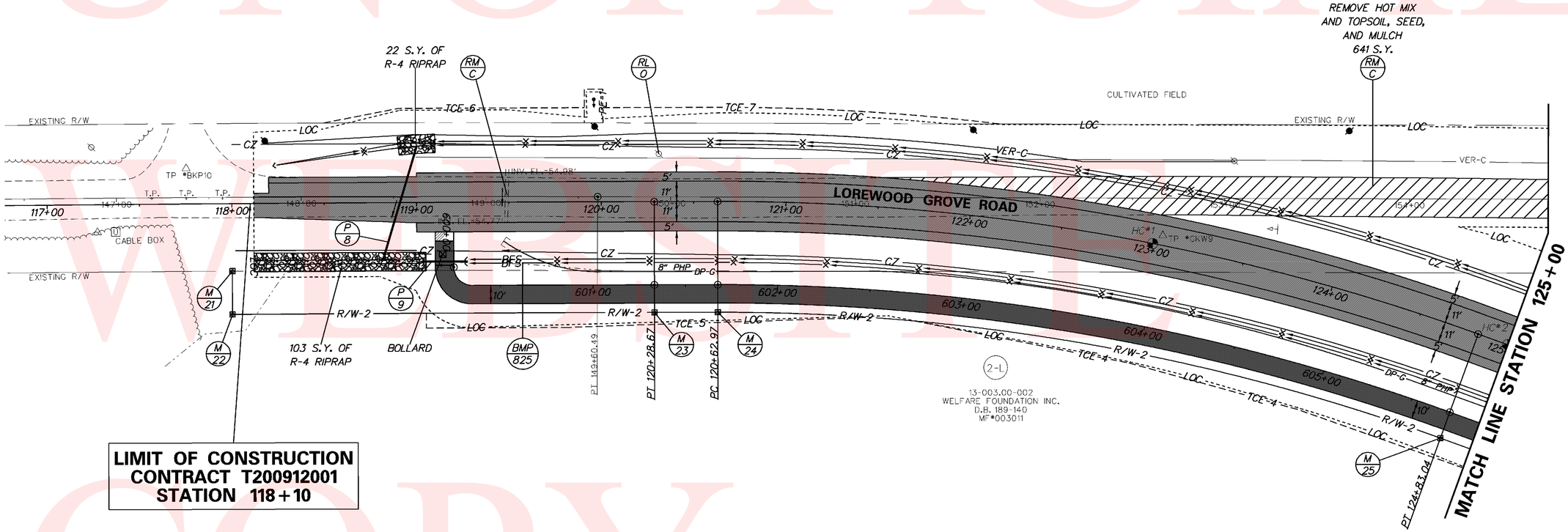
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PLAN	SHEET NO. 25
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

RIGHT-OF-WAY MONUMENT SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
21	118+00.00	36.50	557721.8931	581516.0102
22	118+00.00	60.00	557698.7917	581511.6968
23	120+28.67	60.00	557656.3189	581736.0792
24	120+62.97	60.00	557649.8548	581769.7702
25	124+83.04	60.00	557508.2859	582140.7073

BEST MANAGEMENT PRACTICE SCHEDULE		
NO.	TYPE / DESCRIPTION	LOCATION
825	BIOFILTRATION SWALE	STA. 119+27 RT. TO STA. 120+27 RT.

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
8	18" RCP	IV	64	0.0289	55.32'	53.47'
9	15" RCP	IV	24	0.0137	55.68'	55.35'



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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PLAN	SHEET NO. 26
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

RIGHT-OF-WAY MONUMENT SCHEDULE

NO.	STATION	OFFSET	NORTHING	EASTING
26	802+57.69	-55.00	556251.7409	582306.6664
27	805+79.21	-55.00	556110.0604	582595.2906
28	805+79.21	45.00	556020.2927	582551.2252
29	808+94.20	45.00	555939.4709	582872.6591

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
10	15" RCP	IV	24	0.0333	72.35'	71.55'

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

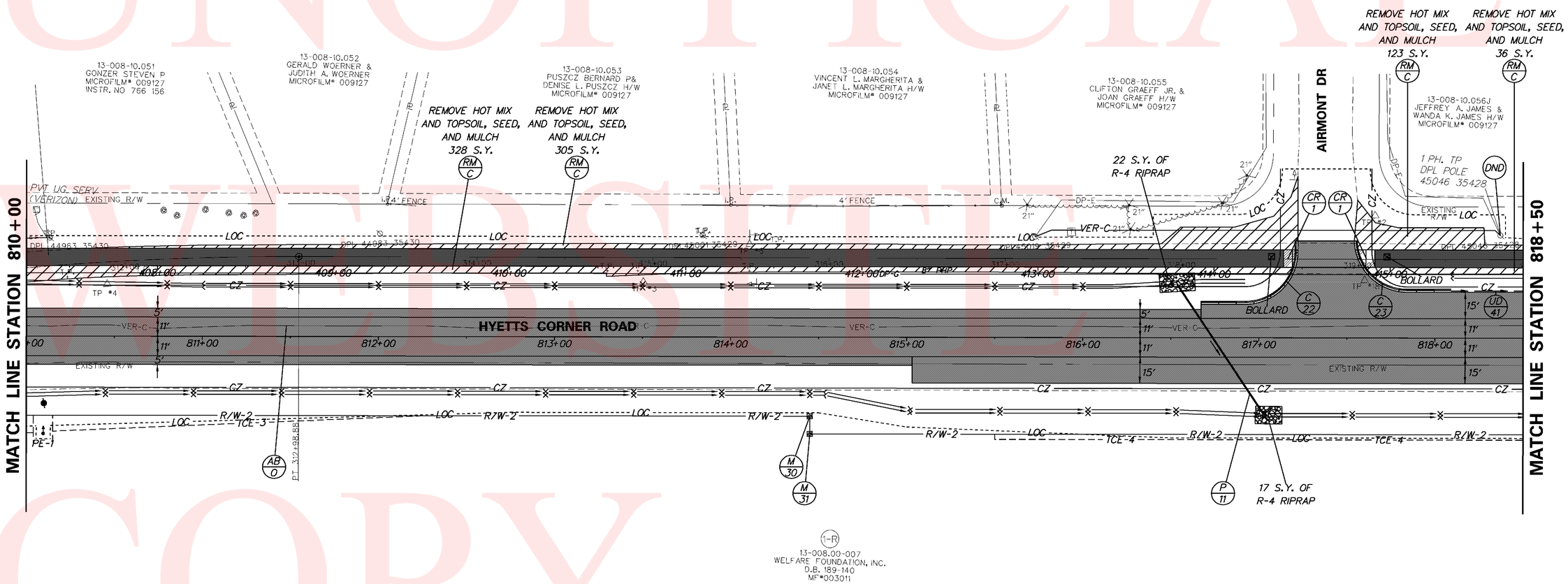
CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

CONSTRUCTION PLAN

RIGHT-OF-WAY MONUMENT SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
30	814+45.00	45.00	555919.4579	583423.0950
31	814+45.00	55.00	555909.4645	583422.7316

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
22	INT PCC CURB AND GUTTER, TYPE 3-8	78'
23	INT PCC CURB AND GUTTER, TYPE 3-8	71'

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
11	14"x23" RCP	IV	88	0.0100	67.02'	66.14'



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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PLAN	SHEET NO. 28
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

RIGHT-OF-WAY MONUMENT SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
32	819+35.00	45.00	555901.6540	583912.7714
33	819+35.00	55.00	555891.6606	583912.4081

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
12	18" RCP	IV	24	0.0050	64.77'	64.65'

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
2	54	64.96

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

CONSTRUCTION PLAN

SHEET NO.
29
TOTAL SHTS.
86

RIGHT-OF-WAY MONUMENT SCHEDULE				
NO.	STATION	OFFSET	NORTHING	EASTING
34	828+71.50	45.00	555867.6268	584848.6490
35	831+88.58	-50.00	555925.2431	585174.5833
36	836+00.00	-50.00	555806.5543	585575.8938

CURB SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
24	INT PCC CURB AND GUTTER, TYPE 3-8	95'
25	PCC CURB, TYPE 2	20'
26	INT PCC CURB AND GUTTER, TYPE 3-8	343'

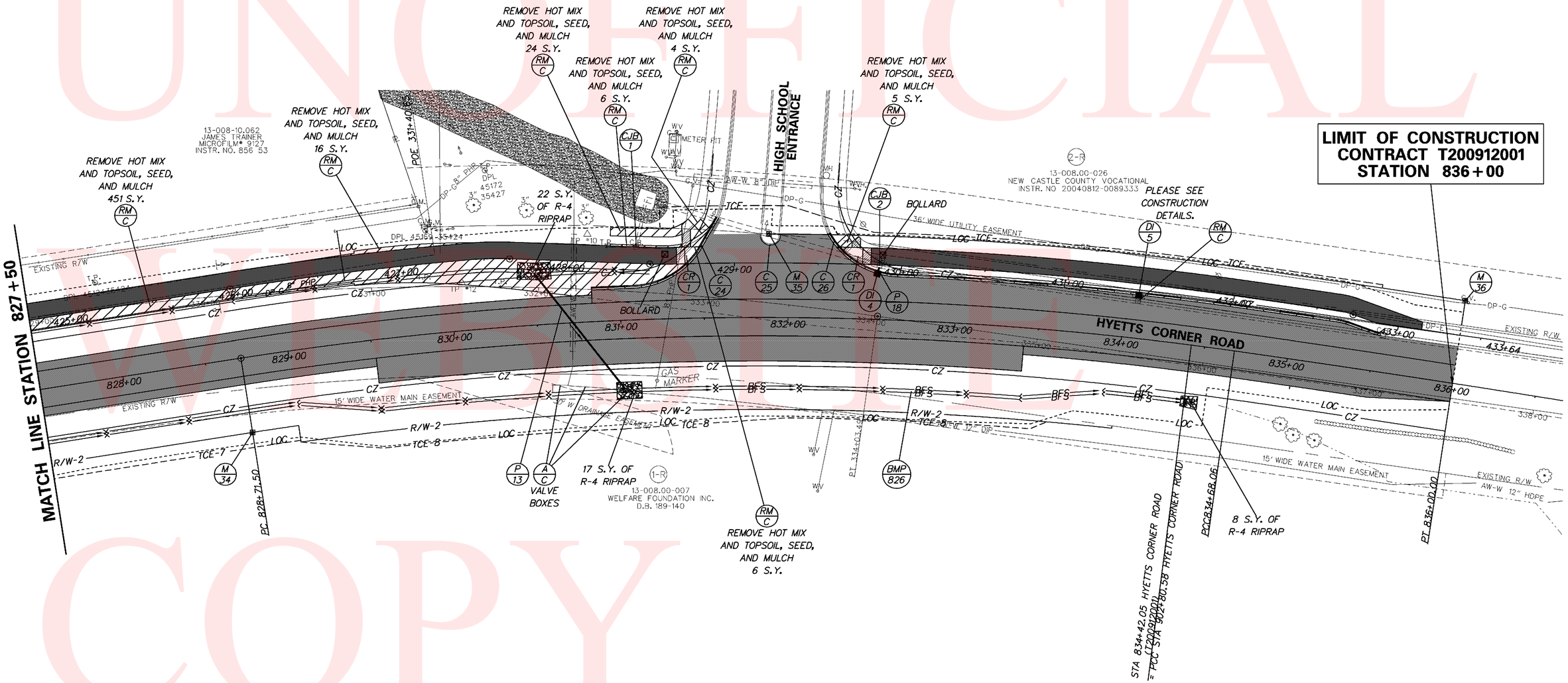
DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
4	832+52.62	-27.52	34" x 24"	1	41.07	38.55
5	832+52.62	-27.52	66" x 96"*	1	41.07	38.55

* DRAINAGE INLET NO. 5 SHALL BE PAID UNDER ITEM 708512, DRAINAGE INLET, SPECIAL 1. PLEASE SEE CONSTRUCTION DETAILS.

CONVERT TO JUNCTION BOX SCHEDULE				
NO.	STATION	OFFSET	T.C. EL.	INV. EL.
1	831+10.92	-56.67	43.80	36.75
2	832+53.82	-52.14	40.91	34.23

BEST MANAGEMENT PRACTICE SCHEDULE		
NO.	TYPE / DESCRIPTION	LOCATION
826	BIOFILTRATION SWALE	STA. 831+11 RT. TO STA. 834+40 RT.

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INT. EL.	DIS. EL.
13	14"x23" RCP	IV	88'	0.0216	42.92'	41.02'
18	15" RCP	IV	3'	0.0500	38.55'	38.40'



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

CONSTRUCTION PLAN

SHEET NO.
30
TOTAL SHTS.
86

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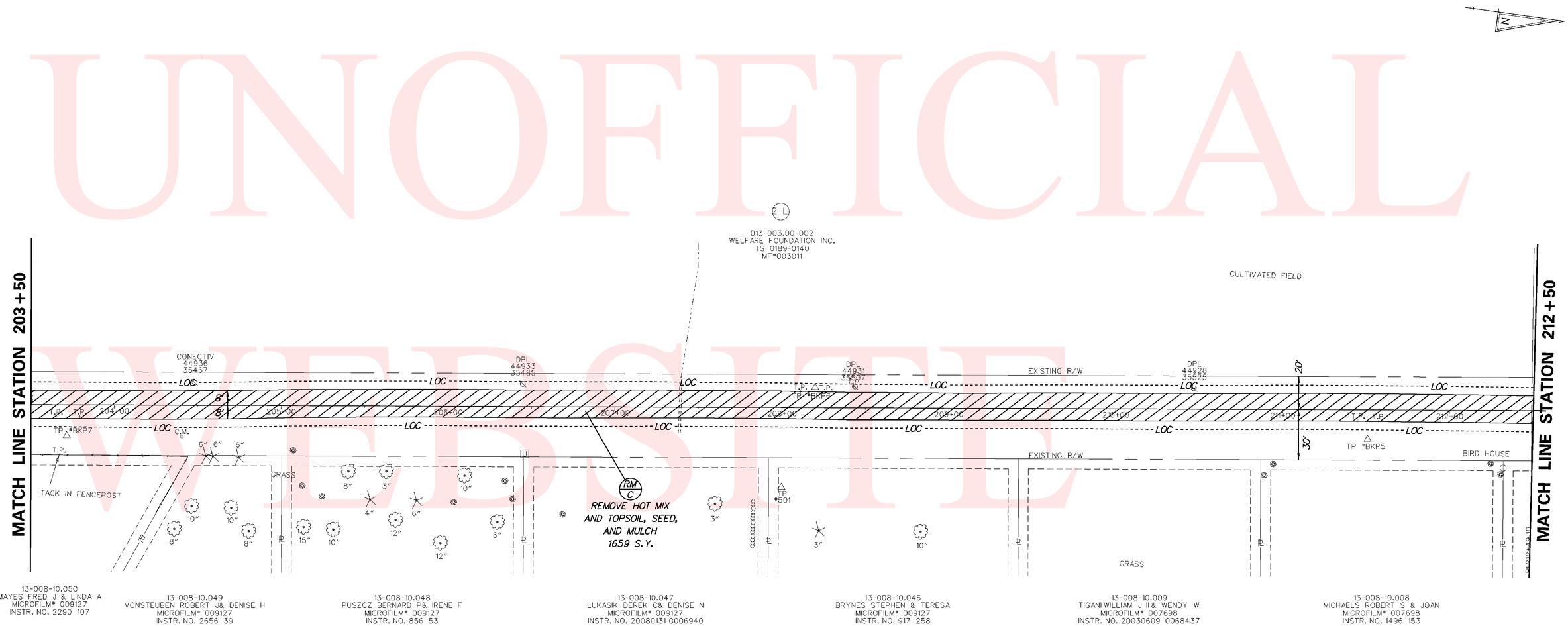

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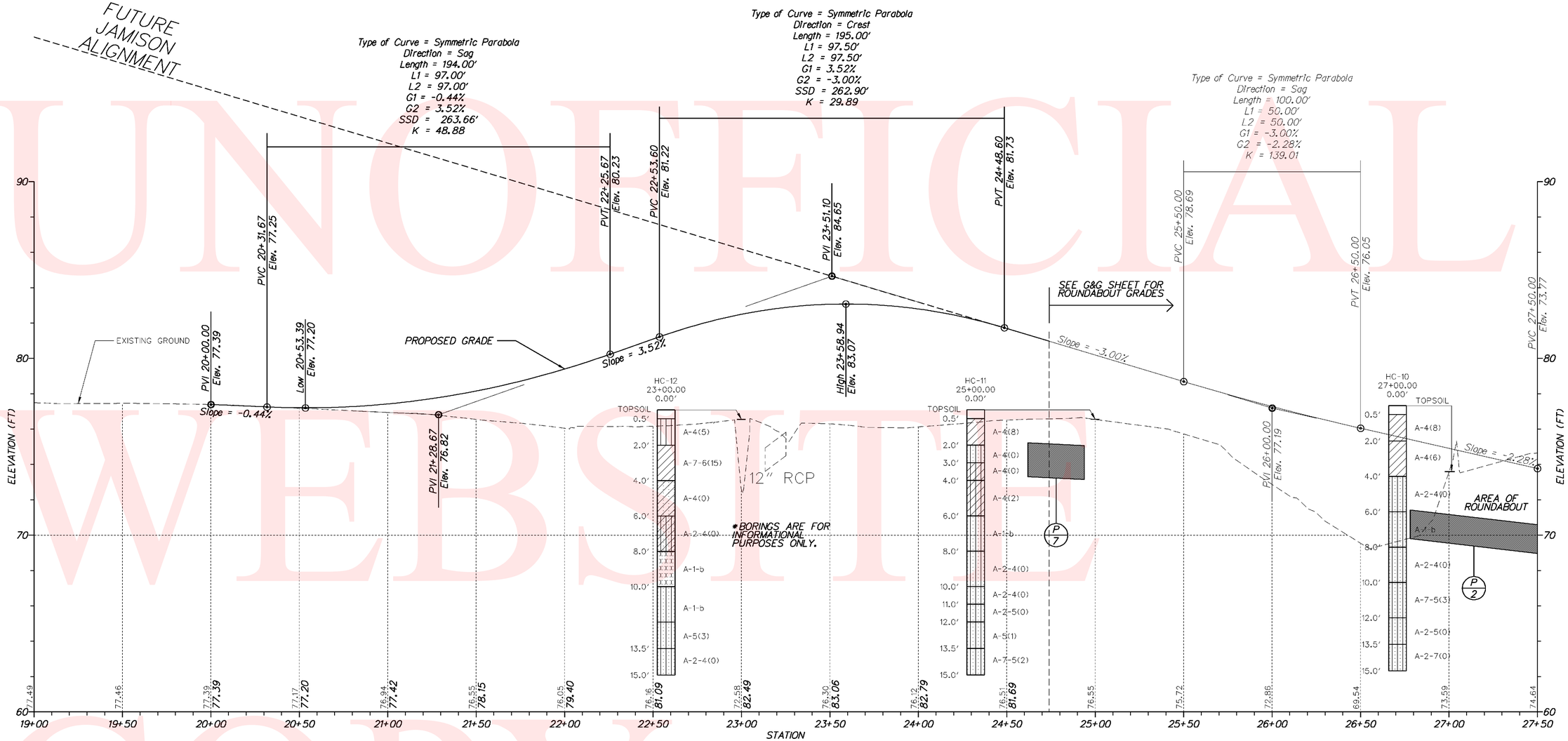
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PLAN	SHEET NO. 31
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



UNOFFICIAL WEBSITE COPY

VERTICAL SCALE FEET 0 3 6 9

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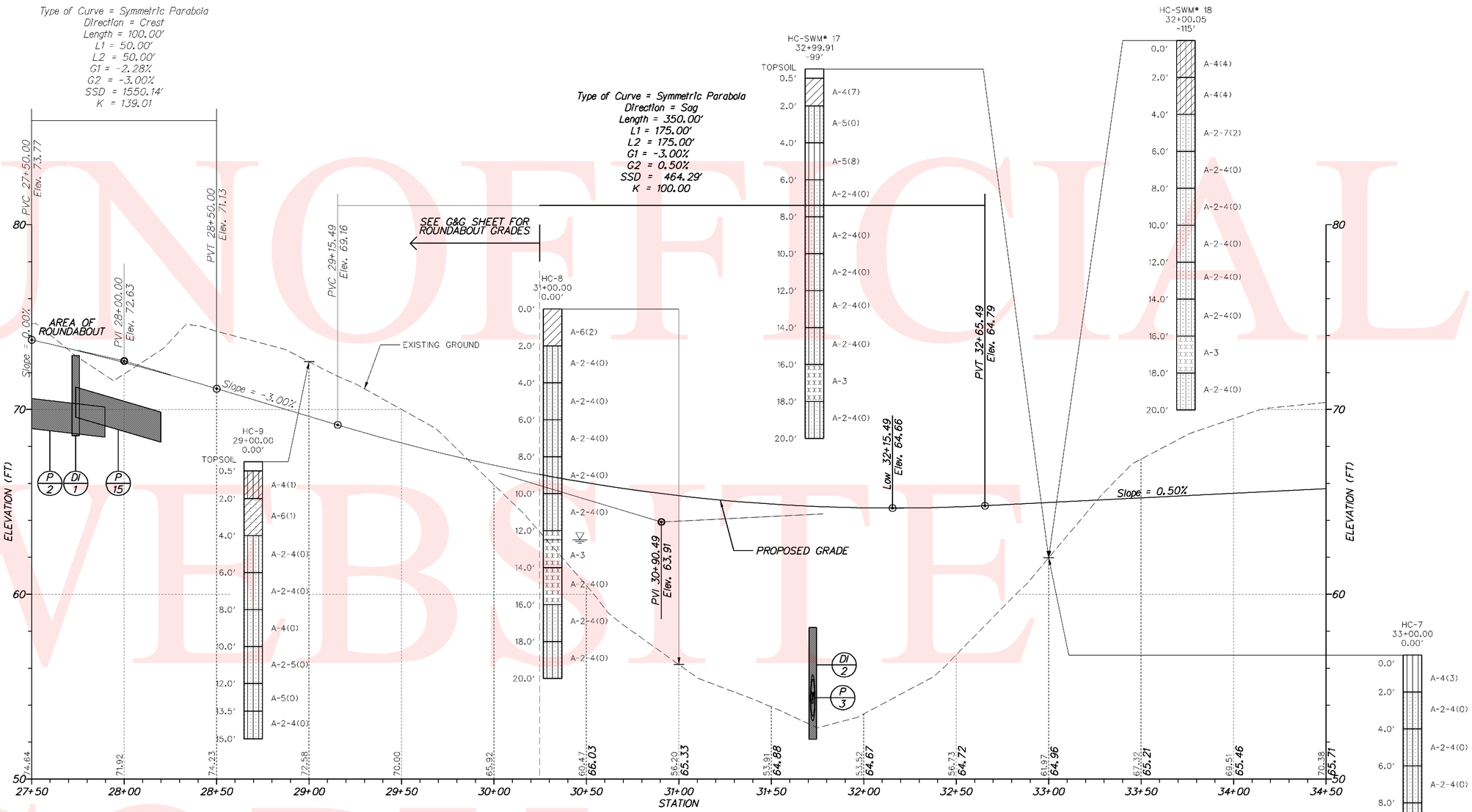
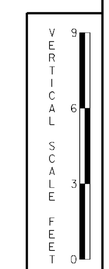
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 32
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



JAMISON CORNER ROAD



UNOFFICIAL WEBSITE COPY

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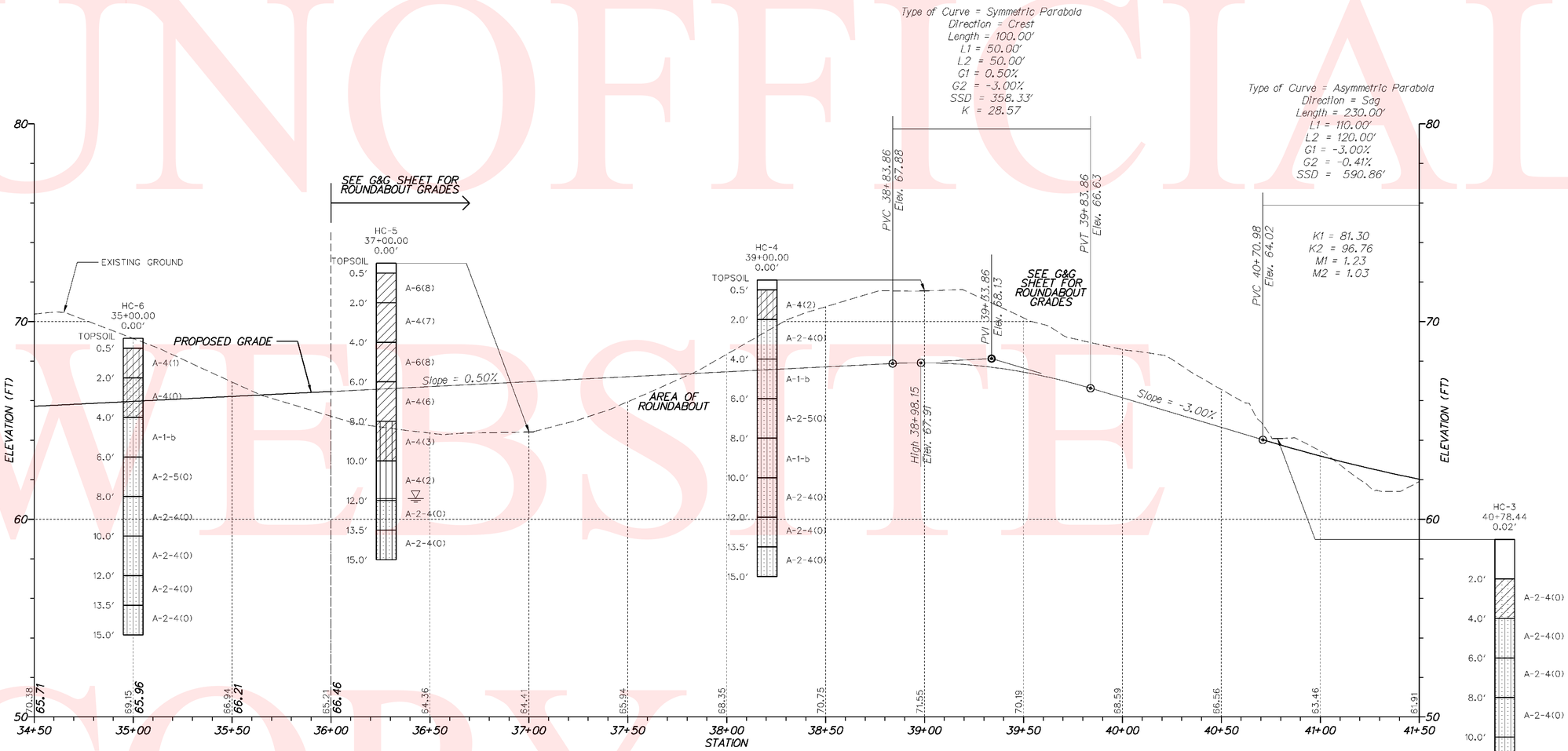
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 33
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

UNOFFICIAL WEBSITE COPY



JAMISON CORNER ROAD /LOREWOOD GROVE ROAD

VERTICAL SCALE FEET 0 3 6 9

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

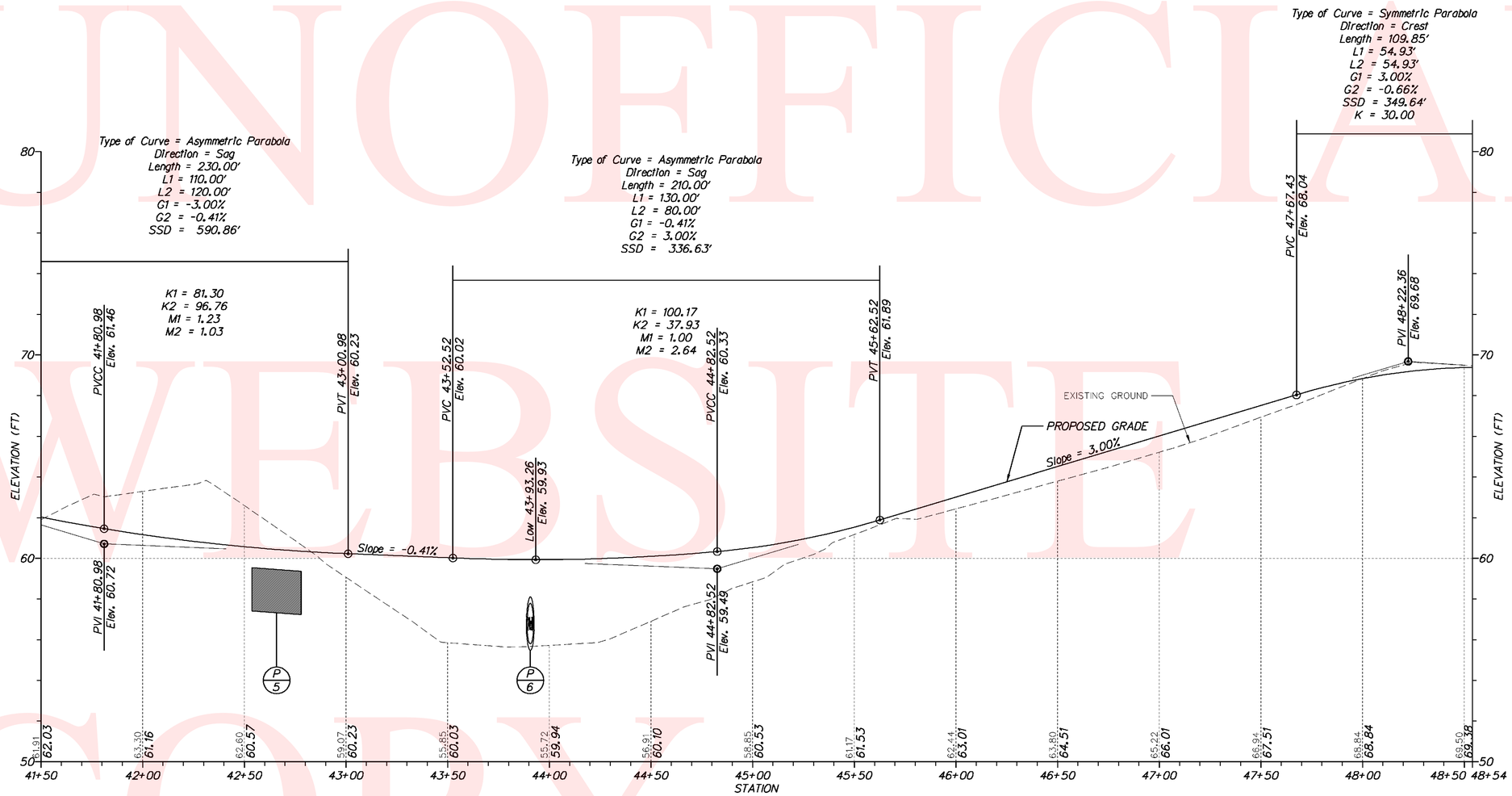
CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

PROFILES

SHEET NO. 34

TOTAL SHTS. 86

UNOFFICIAL WEBSITE COPY



LOREWOOD GROVE ROAD

VERTICAL SCALE FEET 0 3 6 9

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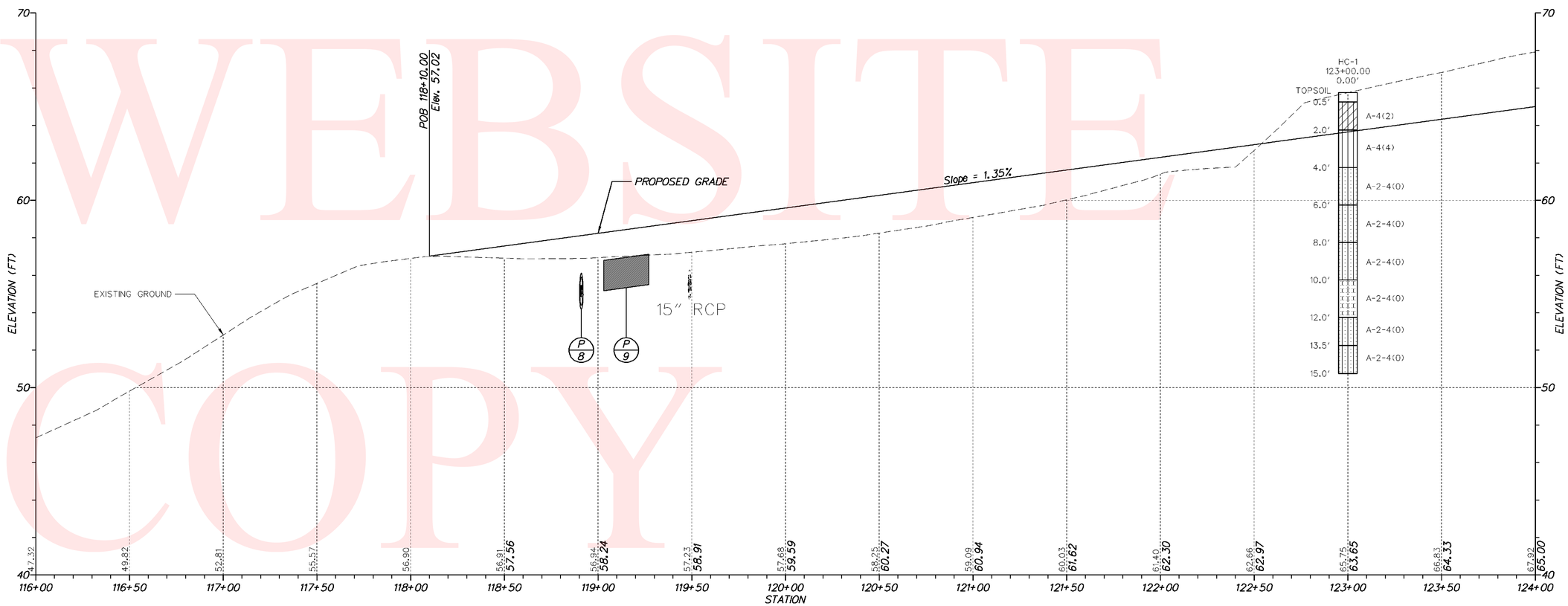
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 35
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

UNOFFICIAL WEBSITE COPY



LOREWOOD GROVE ROAD

VERTICAL SCALE FEET 0 3 6 9

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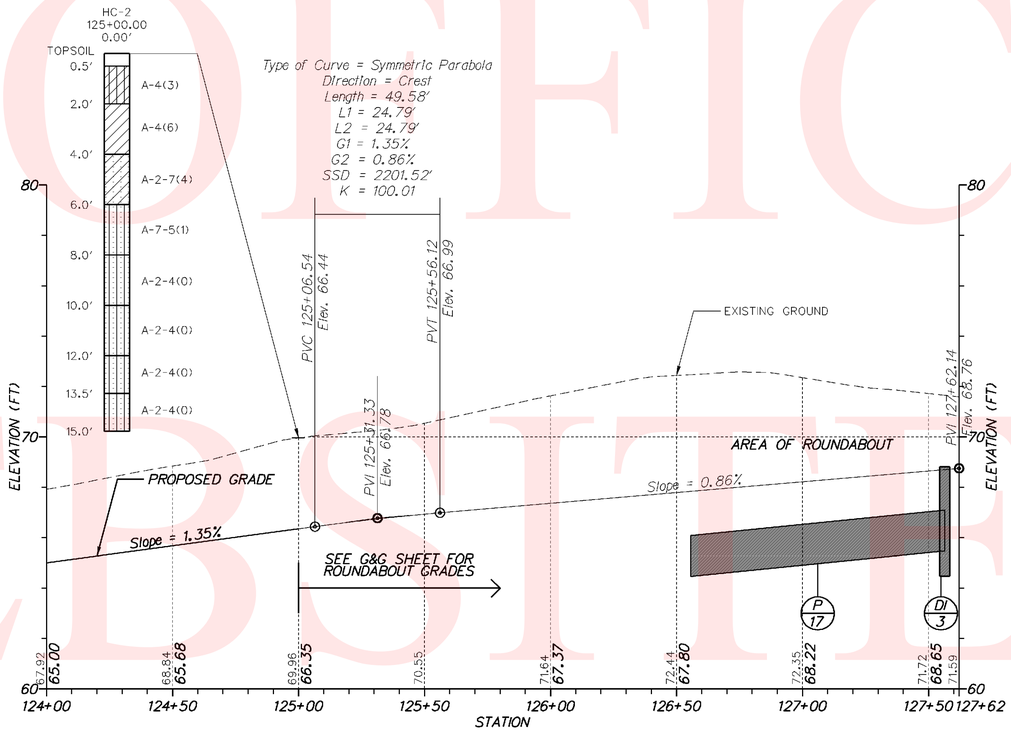
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 36
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

UNOFFICIAL WEBSITE COPY



LOREWOOD GROVE ROAD

VERTICAL SCALE FEET 9 6 3 0

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001 / COUNTY NEW CASTLE	BRIDGE NO. N/A / DESIGNED BY: SHB / CHECKED BY: JKL	PROFILES	SHEET NO. 37 / TOTAL SHTS. 86

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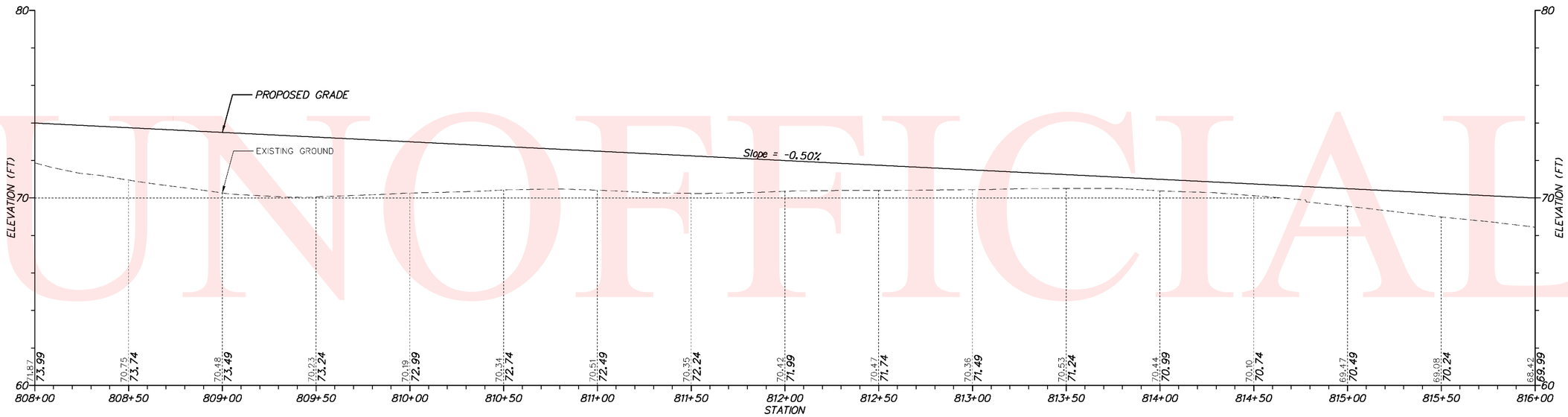
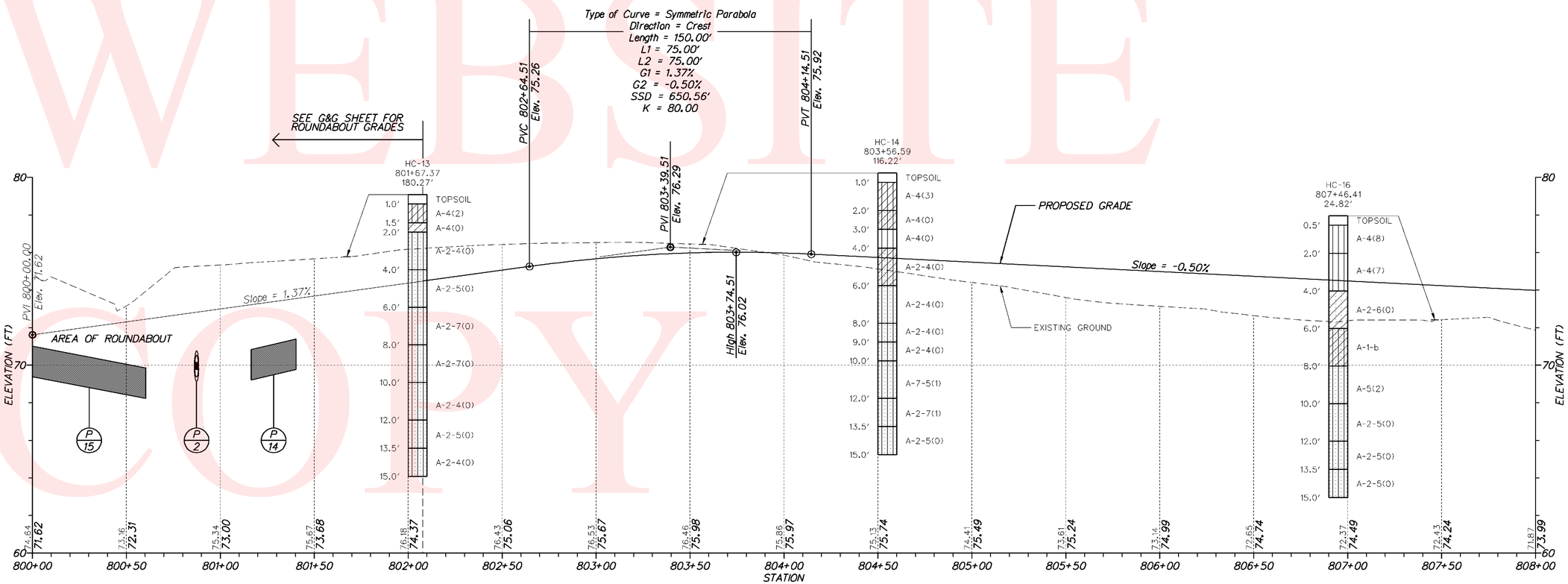


HYETTS CORNER ROAD



HYETTS CORNER ROAD

VERTICAL SCALE FEET 0 3 6 9

UNOFFICIAL WEBSITE COPY

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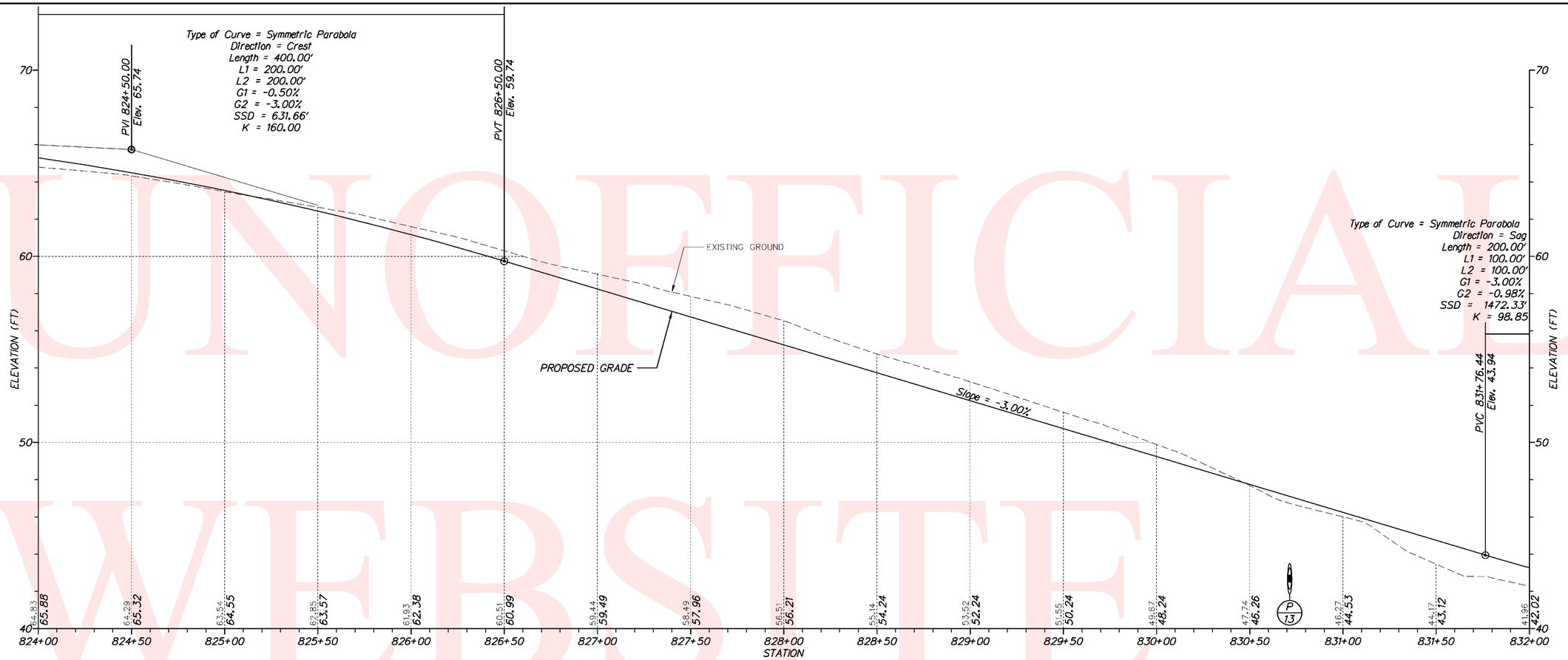
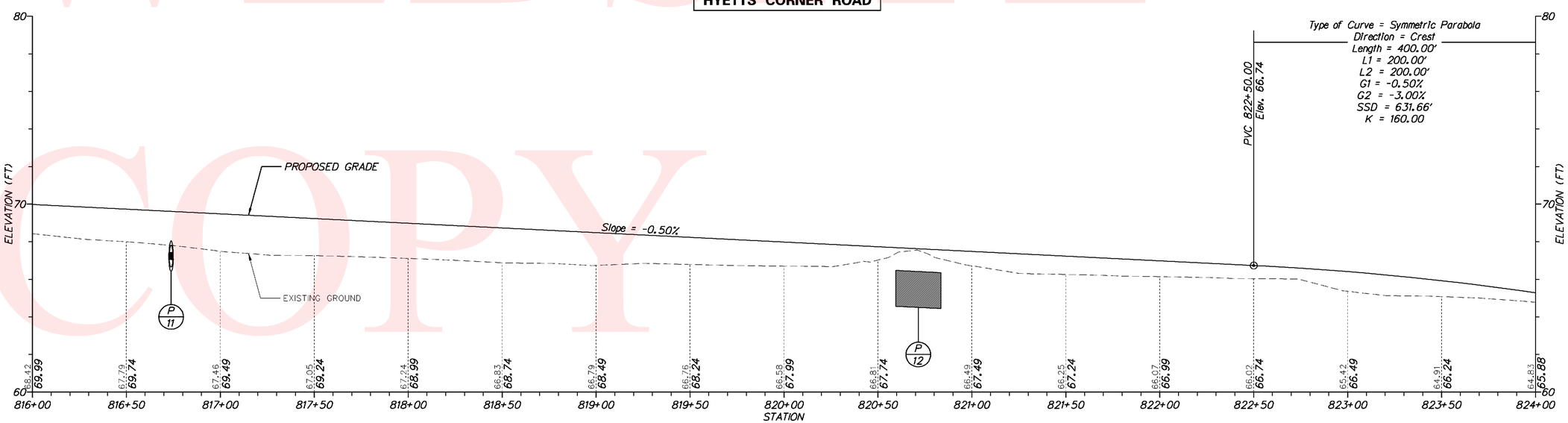
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 38
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



HYETTS CORNER ROAD



HYETTS CORNER ROAD

VERTICAL SCALE FEET 0 3 6 9

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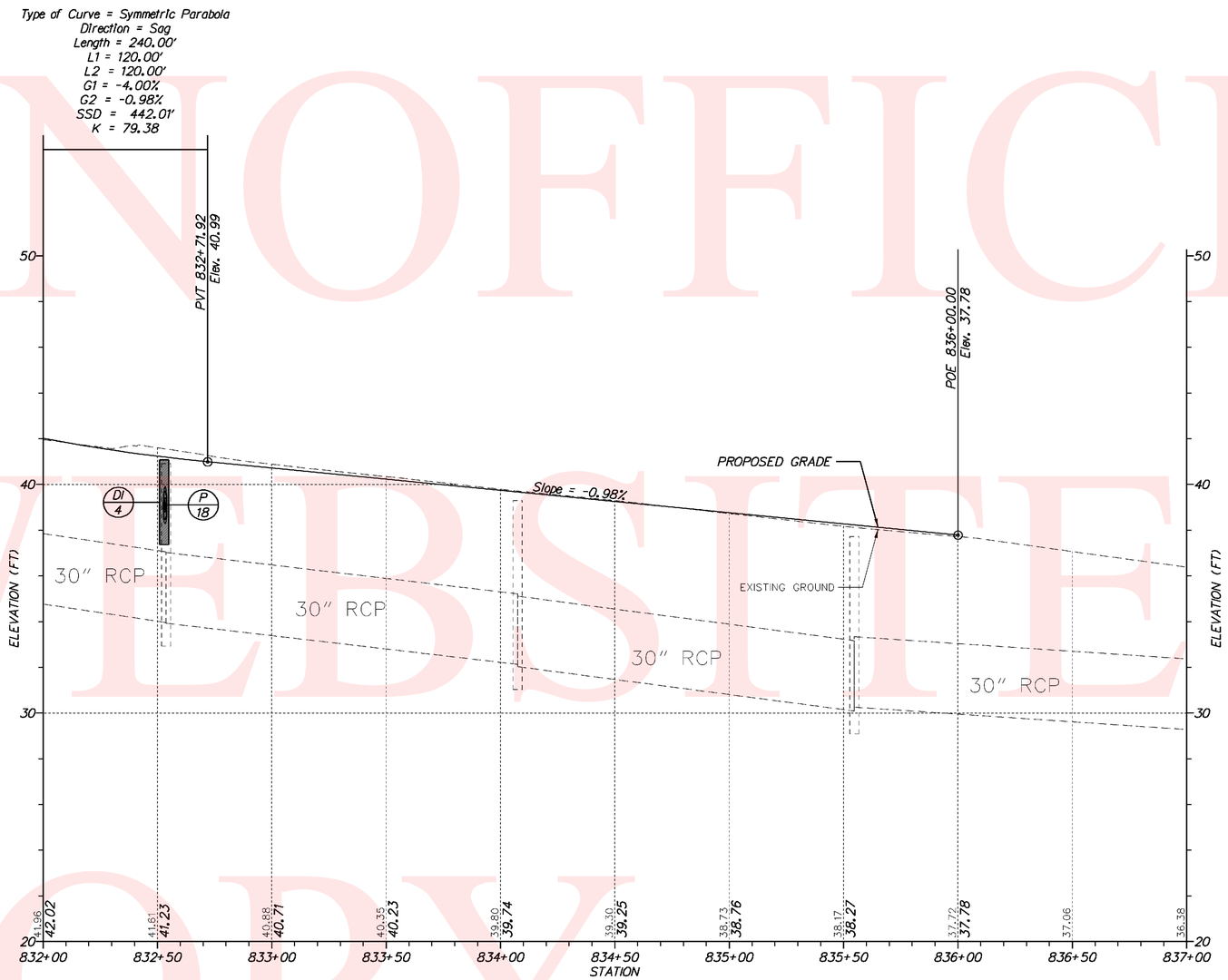
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	**N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD**	CONTRACT T200912001	BRIDGE NO. N/A	**PROFILES**	SHEET NO. 39
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



HYETTS CORNER ROAD

UNOFFICIAL WEBSITE COPY

VERTICAL SCALE FEET 0 3 6 9

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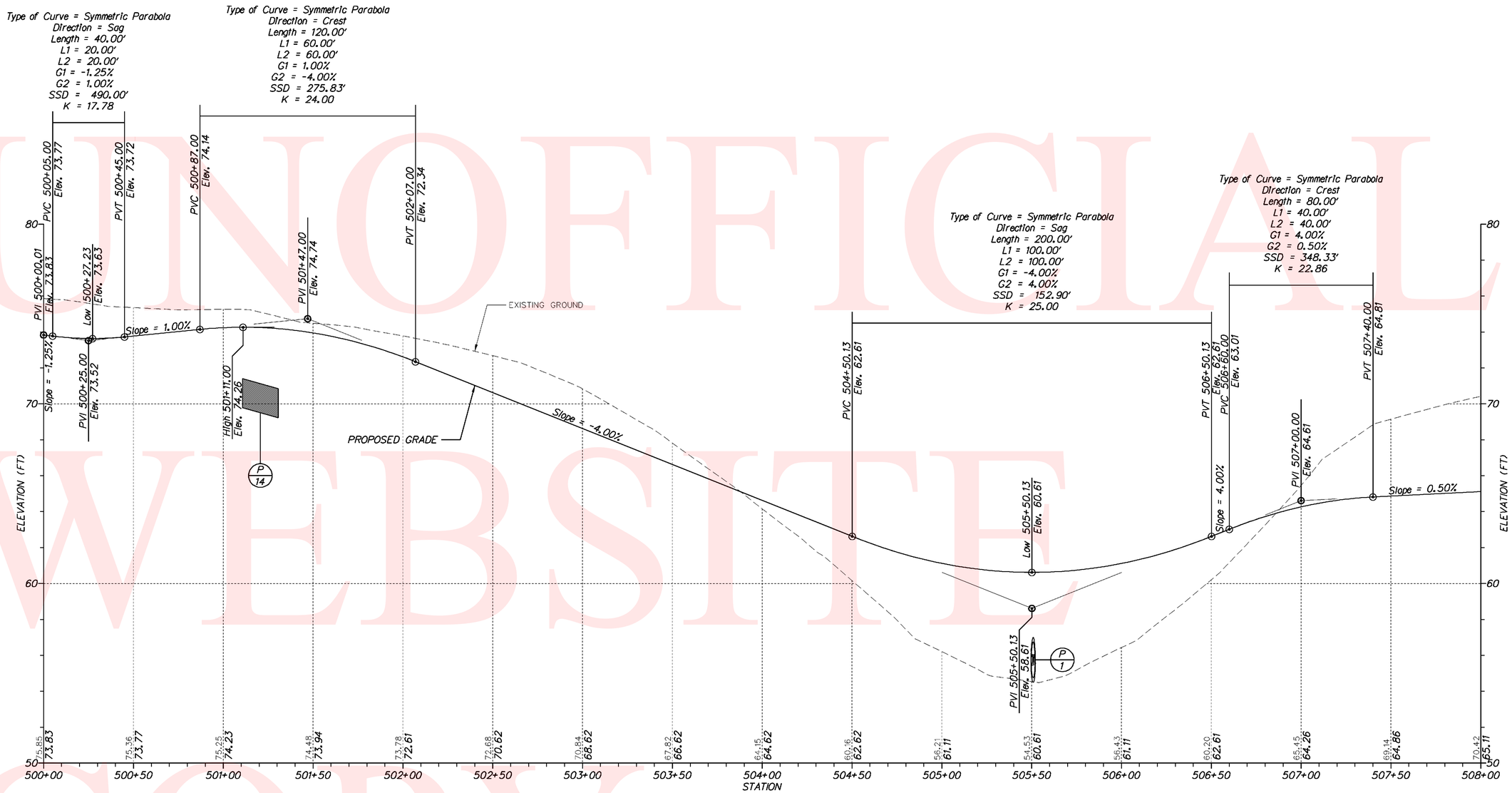
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 40
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



JAMISON CORNER ROAD BIKE PATH

UNOFFICIAL WEBSITE COPY

VERTICAL SCALE FEET 9 6 3 0

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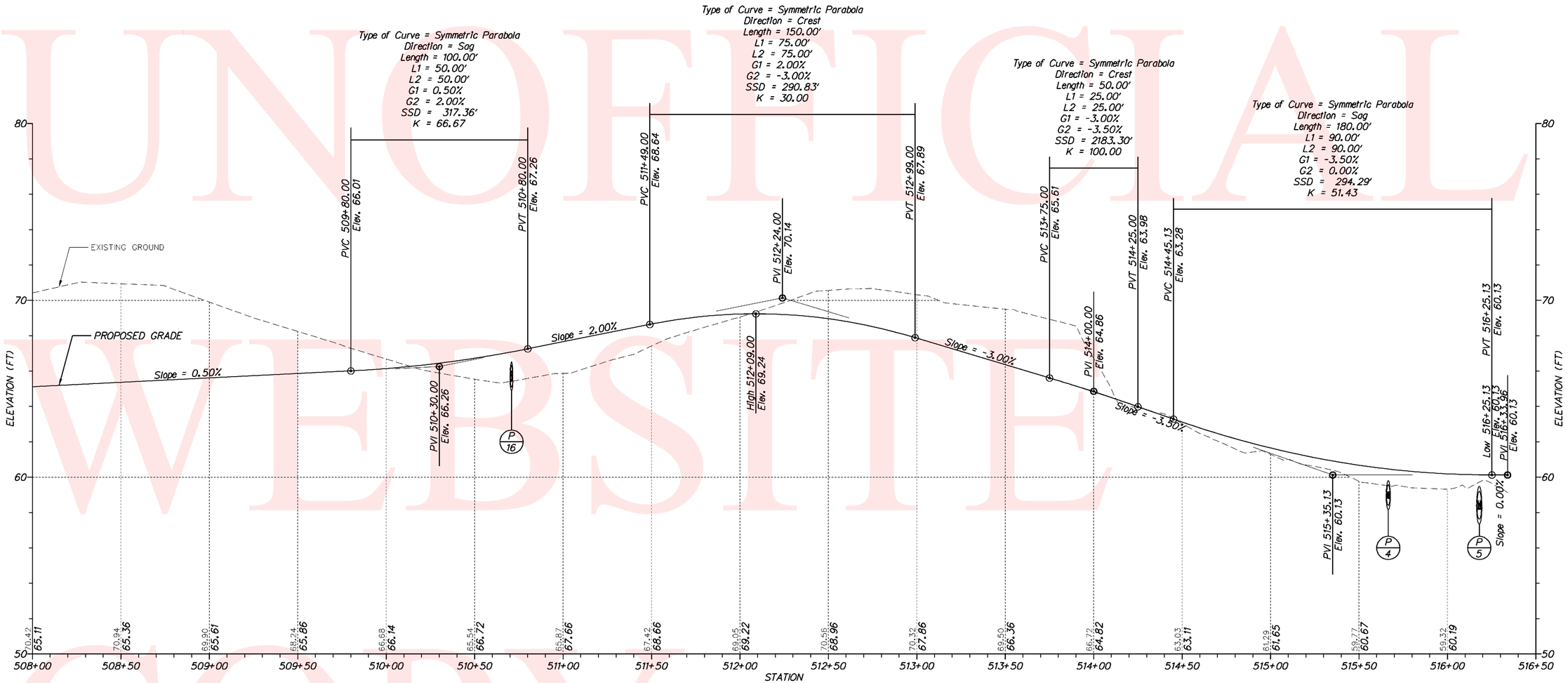
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 41
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



JAMISON CORNER ROAD /LOREWOOD GROVE ROAD BIKE PATH

UNOFFICIAL WEBSITE COPY

VERTICAL SCALE FEET 0 3 6 9

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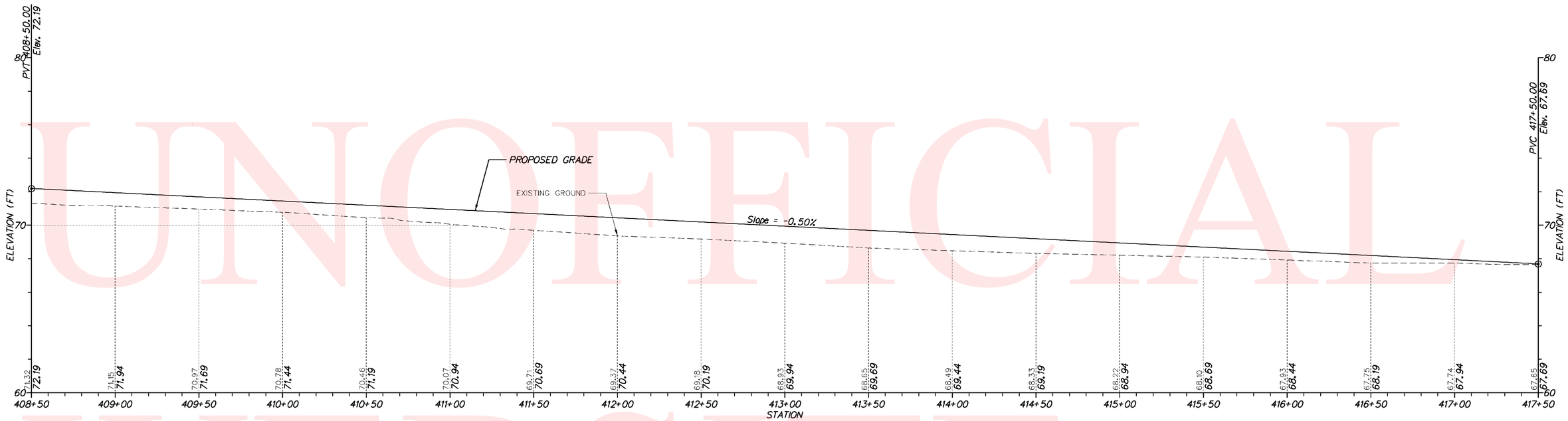
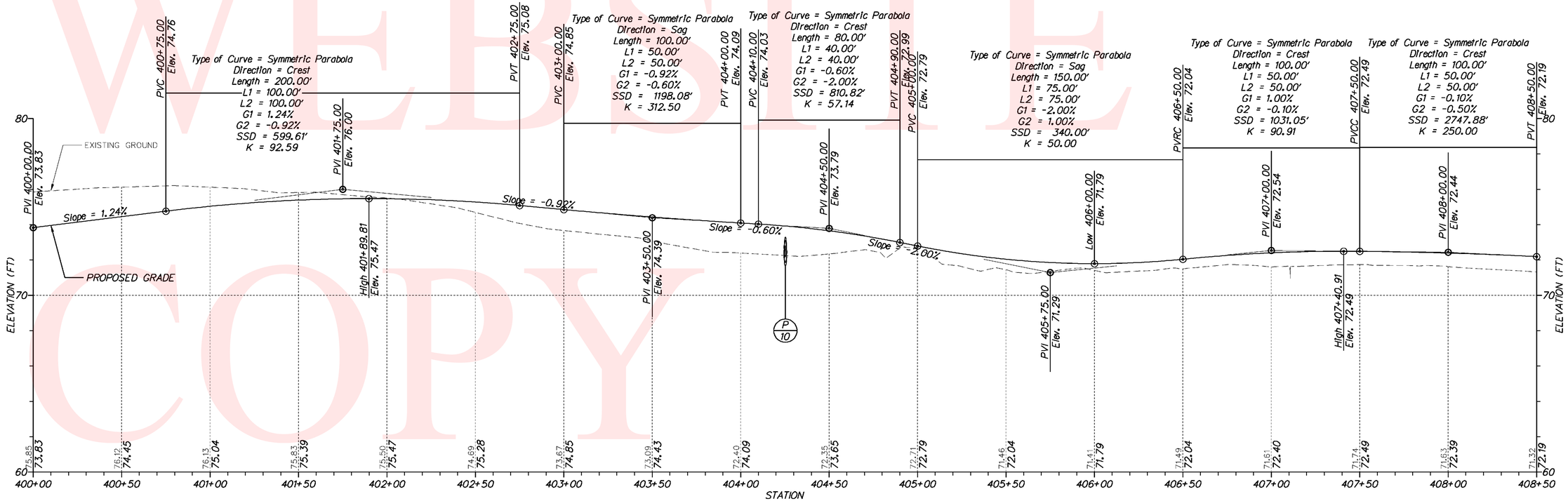
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 42
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



HYETTS CORNER ROAD BIKE PATH



HYETTS CORNER ROAD BIKE PATH

VERTICAL SCALE FEET 9 6 3 0

UNOFFICIAL WEBSITE COPY

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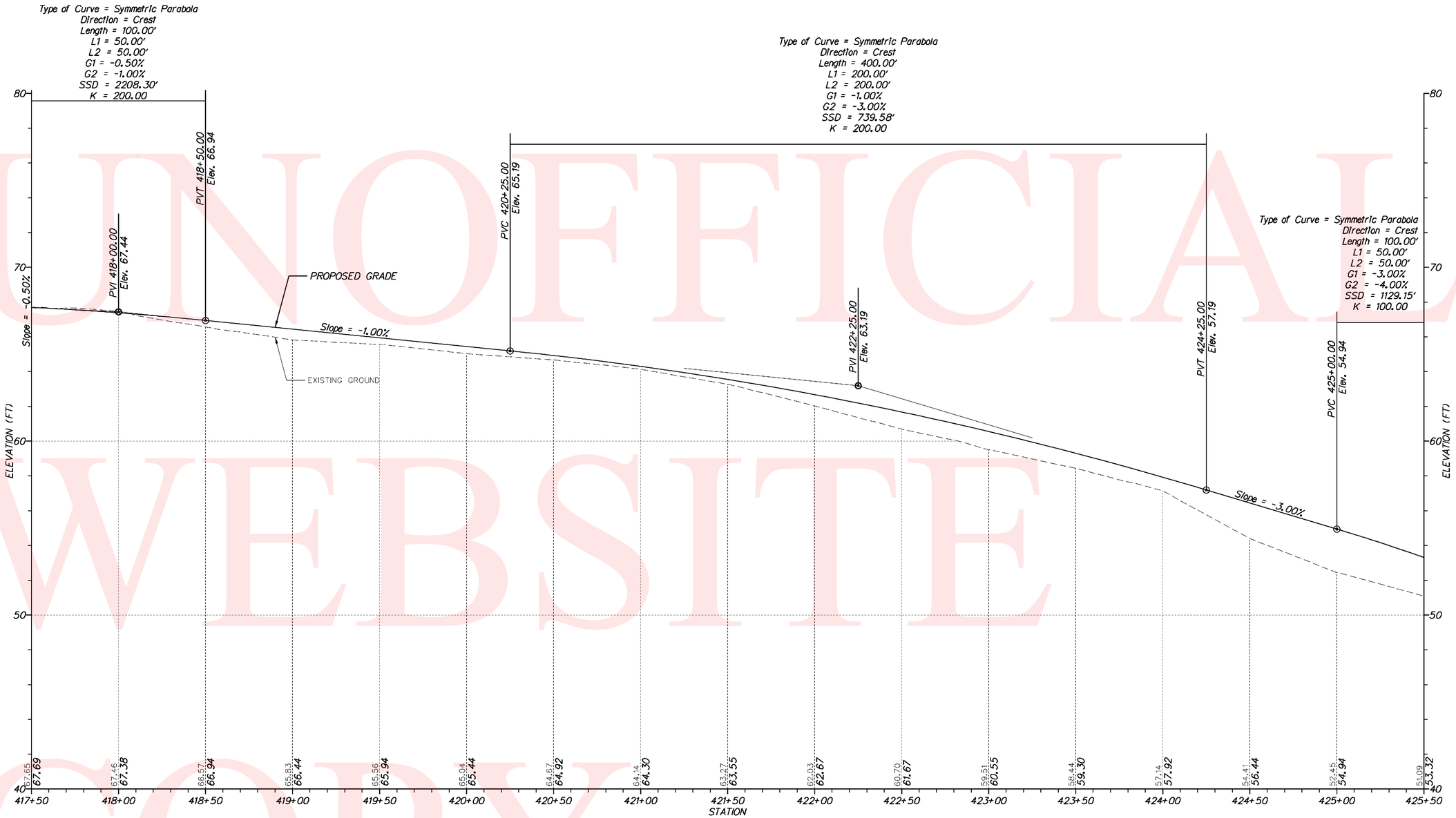
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 43
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



HYETTS CORNER ROAD BIKE PATH

UNOFFICIAL WEBSITE COPY

VERTICAL SCALE FEET 9 6 3 0

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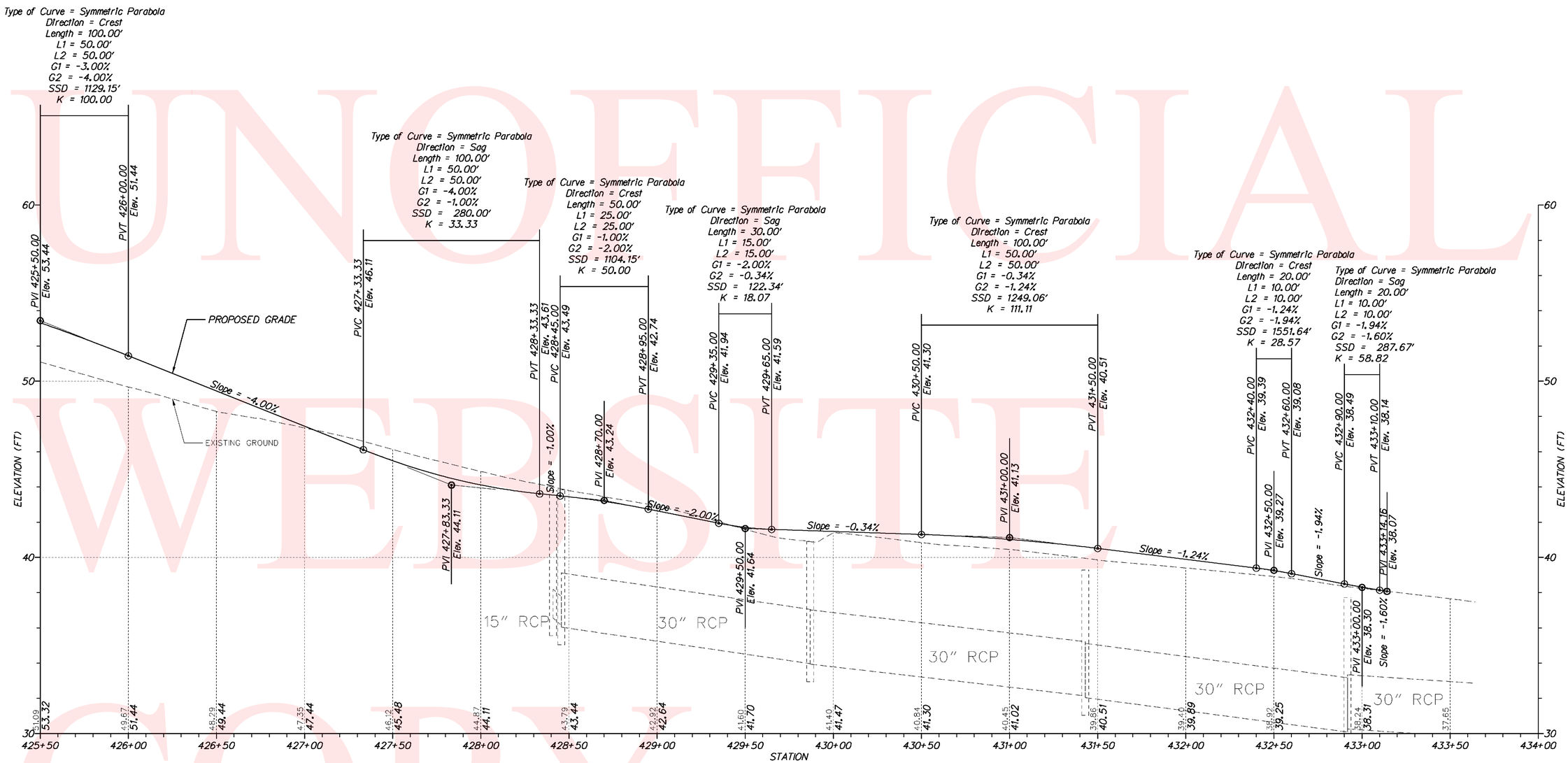
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 44
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



HYETTS CORNER ROAD BIKE PATH

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VERTICAL SCALE FEET 9 6 3 0

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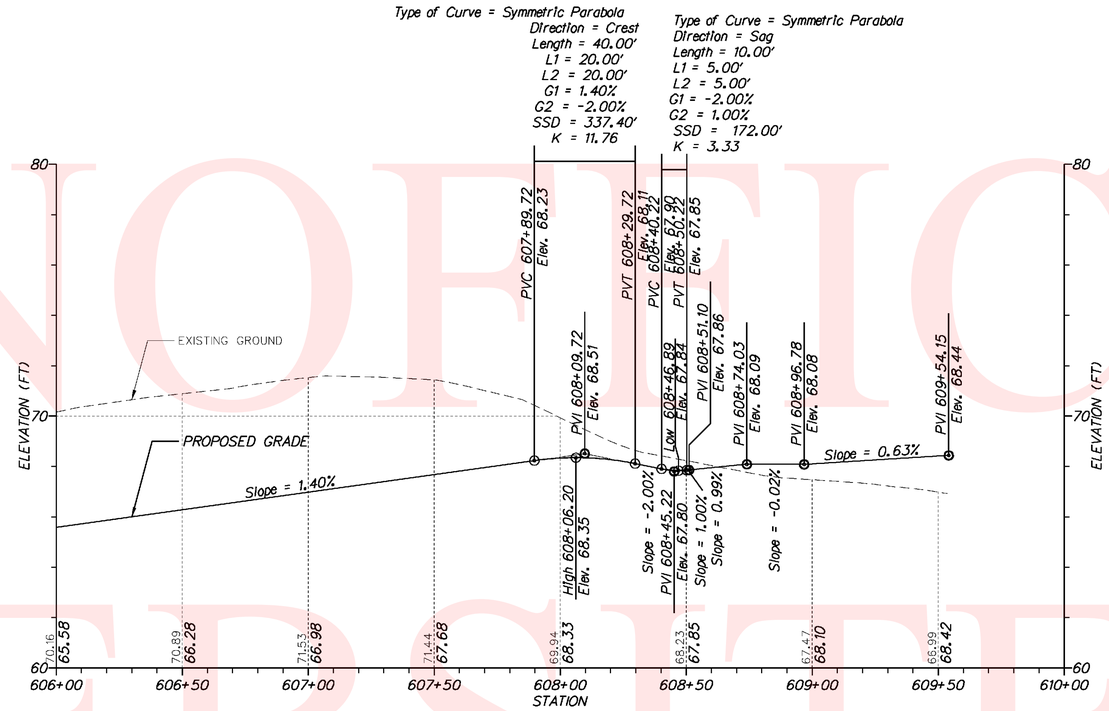
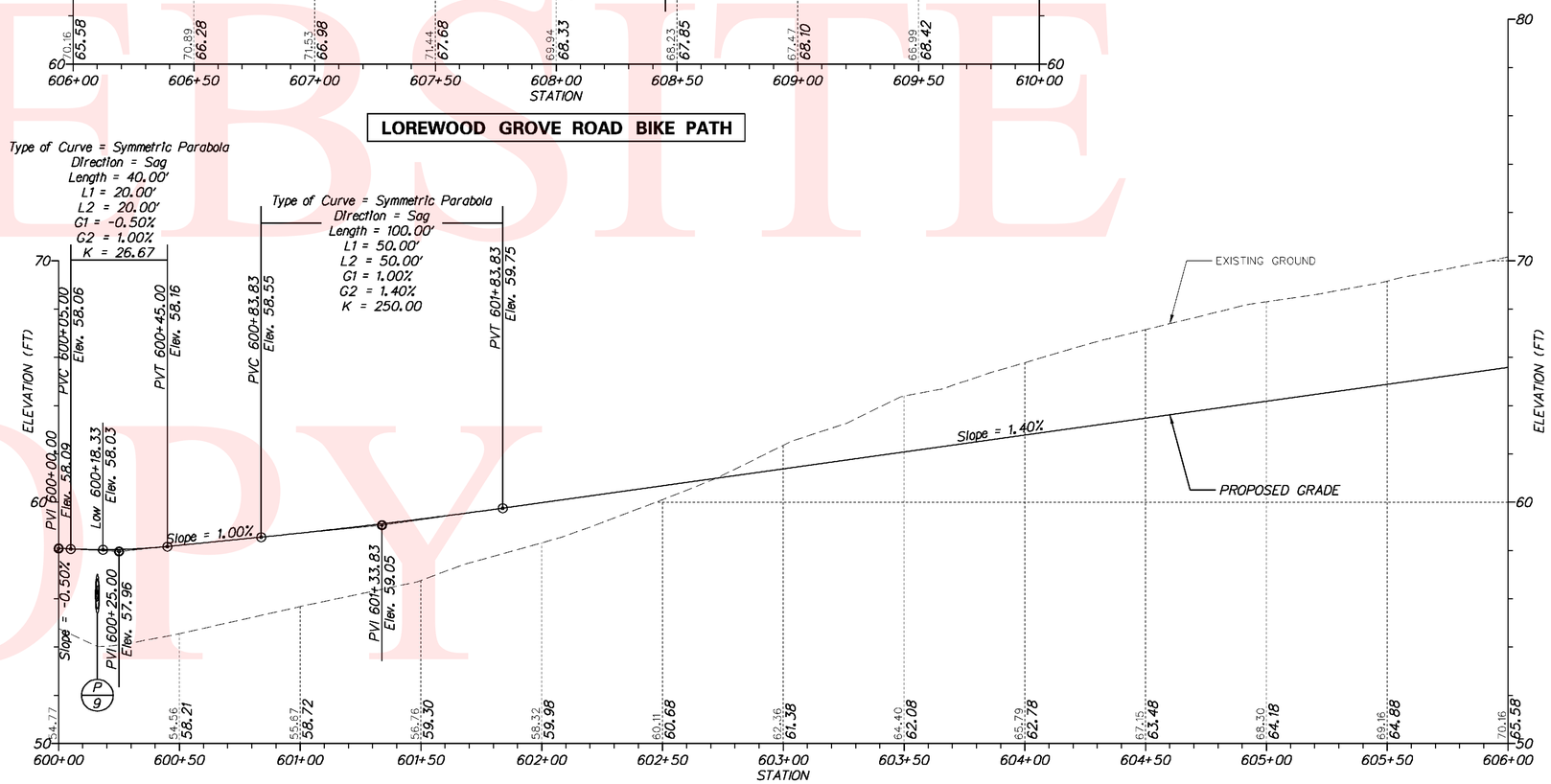
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	PROFILES	SHEET NO. 45
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



LOREWOOD GROVE ROAD BIKE PATH



LOREWOOD GROVE ROAD BIKE PATH

VERTICAL SCALE FEET 0 3 6 9

UNOFFICIAL WEBSITE COPY

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

PROFILES

SHEET NO.
46
TOTAL SHTS.
86

DITCH GRADES

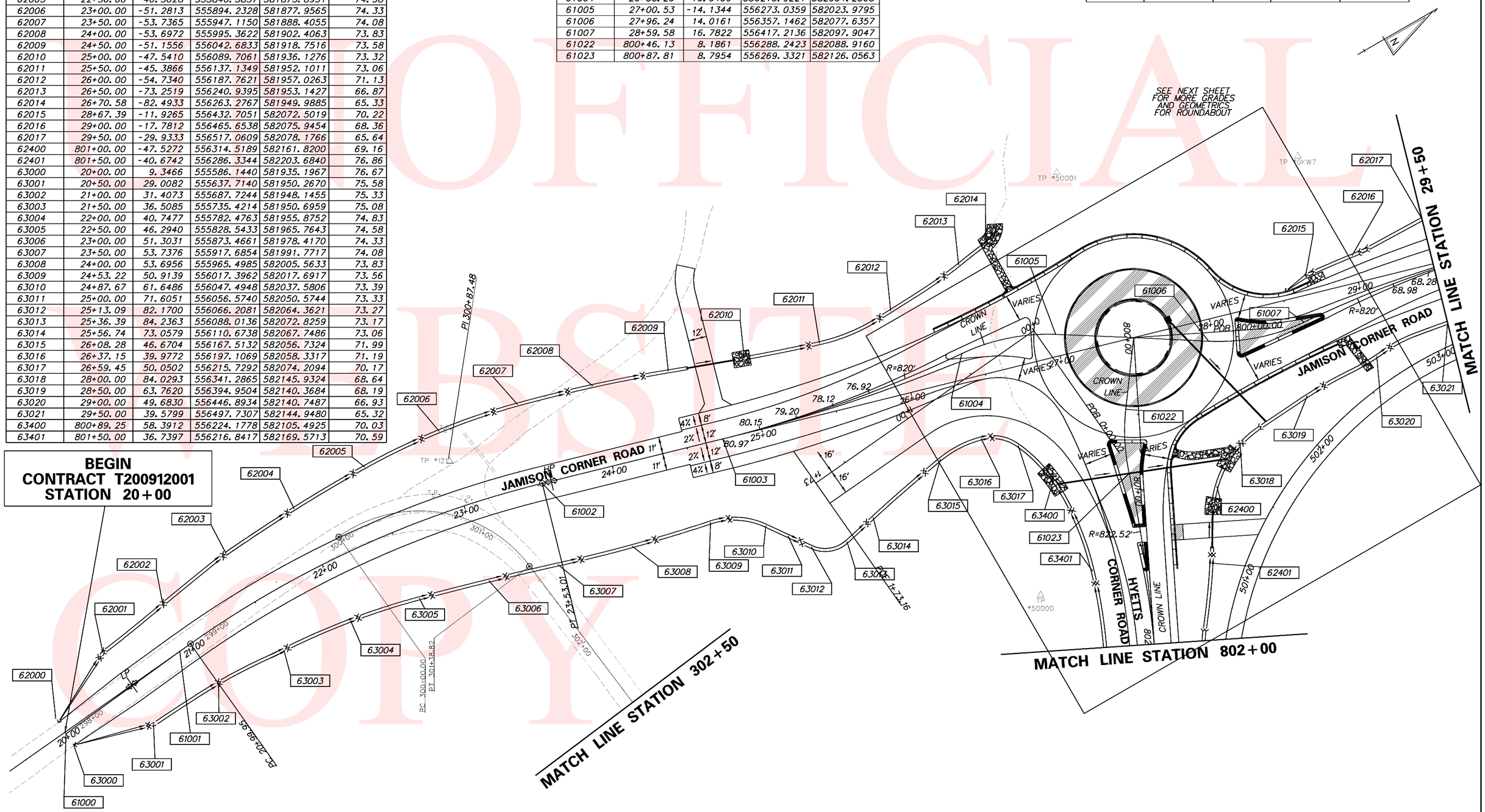
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62000	20+00.13	-10.5940	555584.4696	581915.3260	76.61
62001	20+50.00	-28.1204	555632.5598	581893.3714	75.57
62002	21+00.00	-31.4098	555682.0613	581885.5842	75.33
62003	21+50.00	-36.4368	555734.2000	581877.7608	75.08
62004	22+00.00	-40.7436	555787.1012	581874.5152	74.83
62005	22+50.00	-46.3628	555840.5837	581873.8931	74.58
62006	23+00.00	-51.2813	555894.2328	581877.9565	74.33
62007	23+50.00	-53.7365	555947.1150	581888.4055	74.08
62008	24+00.00	-53.6972	555995.3622	581902.4063	73.83
62009	24+50.00	-51.1556	556042.6833	581918.7516	73.58
62010	25+00.00	-47.5410	556089.7061	581936.1276	73.32
62011	25+50.00	-45.3866	556137.1349	581952.1011	73.06
62012	26+00.00	-54.7340	556187.7621	581957.0263	71.13
62013	26+50.00	-73.2519	556240.9395	581953.1427	66.87
62014	26+70.58	-82.4933	556263.2767	581949.9885	65.33
62015	28+67.39	-11.9265	556432.7051	582072.5019	70.22
62016	29+00.00	-17.7812	556465.6538	582075.9454	68.36
62017	29+50.00	-29.9333	556517.0609	582078.1766	65.64
62400	801+00.00	-47.5272	556314.5189	582161.8200	69.16
62401	801+50.00	-40.6742	556286.3344	582203.6840	76.86
63000	20+00.00	9.3466	555586.1440	581935.1967	76.67
63001	20+50.00	29.0082	555637.7140	581950.2670	75.58
63002	21+00.00	31.4073	555687.7244	581948.1455	75.33
63003	21+50.00	36.5085	555735.4214	581950.6959	75.08
63004	22+00.00	40.7477	555782.4763	581955.8752	74.83
63005	22+50.00	46.2940	555828.5433	581965.7643	74.58
63006	23+00.00	51.3031	555873.4661	581978.4170	74.33
63007	23+50.00	53.7376	555917.6854	581991.7717	74.08
63008	24+00.00	53.6956	555965.4985	582005.5633	73.83
63009	24+53.22	50.9139	556017.3962	582017.6917	73.56
63010	24+87.67	61.6486	556047.4948	582037.5806	73.39
63011	25+00.00	71.6051	556056.5740	582050.5744	73.33
63012	25+13.09	82.1700	556066.2081	582064.3621	73.27
63013	25+36.39	84.2363	556088.0136	582072.8259	73.17
63014	25+56.74	73.0579	556110.6738	582067.7486	73.06
63015	26+08.28	46.6704	556167.5132	582056.7324	71.99
63016	26+37.15	39.9772	556197.1069	582058.3317	71.19
63017	26+59.45	50.0502	556215.7292	582074.2094	70.17
63018	28+00.00	84.0293	556341.2865	582145.9324	68.64
63019	28+50.00	63.7620	556394.9504	582140.3684	68.19
63020	29+00.00	49.6830	556446.8934	582140.7487	66.93
63021	29+50.00	39.5799	556497.7307	582144.9480	65.32
63400	800+89.25	58.3912	556224.1778	582105.4925	70.03
63401	801+50.00	36.7397	556216.8417	582169.5713	70.59

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
61000	20+00.00	1.2183	555585.4107	581927.1015
61001	20+91.29	0.0552	555676.2231	581917.7069
61002	23+53.01	0.0000	555935.2899	581940.9176
61003	24+73.90	0.0000	556051.4177	581974.5363
61004	26+38.26	-16.6409	556213.9221	582004.2568
61005	27+00.53	-14.1344	556273.0359	582023.9795
61006	27+96.24	14.0161	556357.1462	582077.6357
61007	28+59.58	16.7822	556417.2136	582097.9047
61022	800+46.13	8.1861	556288.2423	582088.9160
61023	800+87.81	8.7954	556269.3321	582126.0563

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
60206	27+88.94	97.47	556326.9290	582155.7666
60207	27+89.88	97.91	556327.7066	582156.4519
60208	30+24.63	820.00	556352.3977	582915.3397



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

GRADES & GEOMETRICS

SHEET NO. 47 TOTAL SHTS. 86

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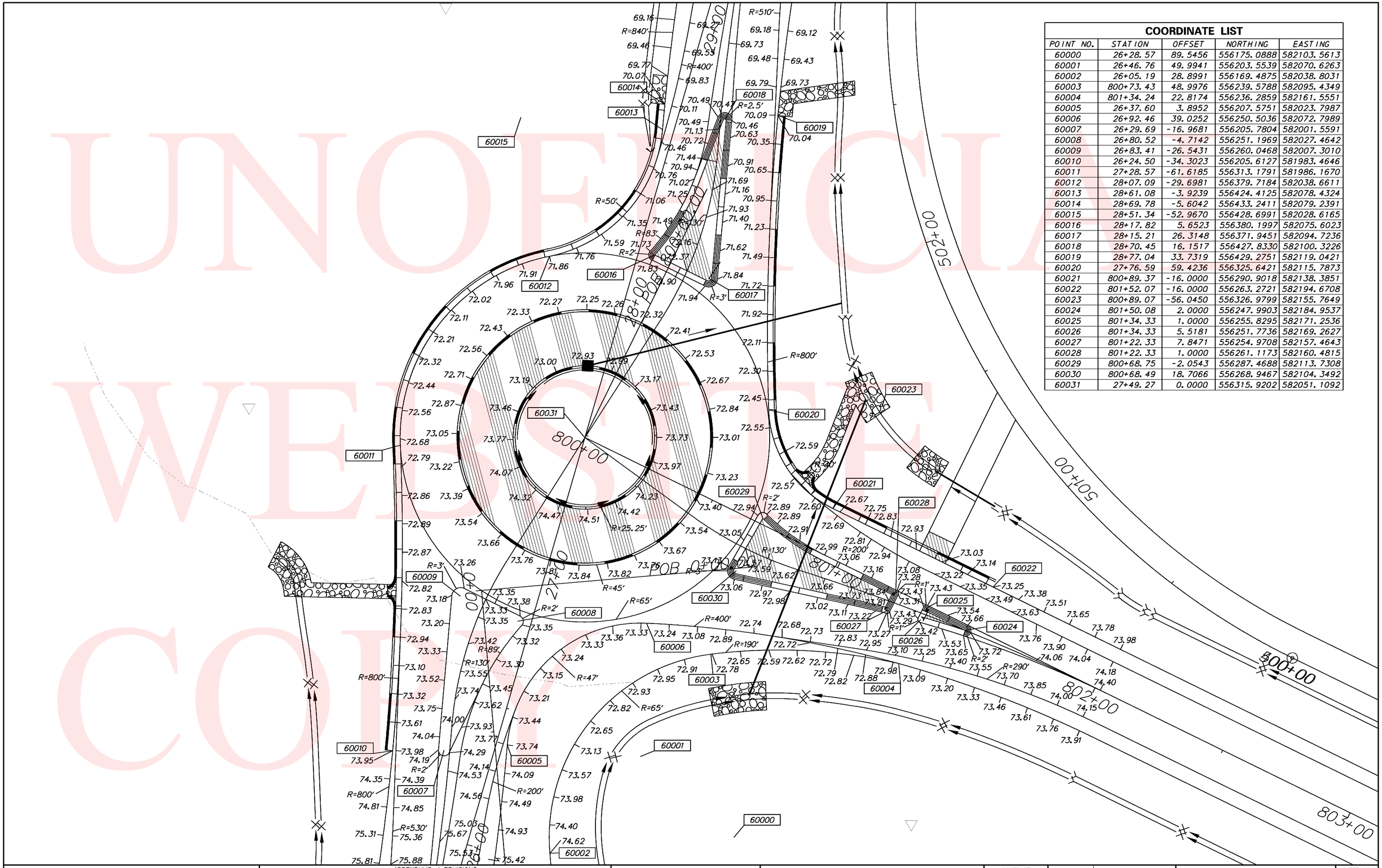

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
60000	26+28.57	89.5456	556175.0888	582103.5613
60001	26+46.76	49.9941	556203.5539	582070.6263
60002	26+05.19	28.8991	556169.4875	582038.8031
60003	800+73.43	48.9976	556239.5788	582095.4349
60004	801+34.24	22.8174	556236.2859	582161.5551
60005	26+37.60	3.8952	556207.5751	582023.7987
60006	26+92.46	39.0252	556250.5036	582072.7989
60007	26+29.69	-16.9681	556205.7804	582001.5591
60008	26+80.52	-4.7142	556251.1969	582027.4642
60009	26+83.41	-26.5431	556260.0468	582007.3010
60010	26+24.50	-34.3023	556205.6127	581983.4646
60011	27+28.57	-61.6185	556313.1791	581986.1670
60012	28+07.09	-29.6981	556379.7184	582038.6611
60013	28+61.08	-3.9239	556424.4125	582078.4324
60014	28+69.78	-5.6042	556433.2411	582079.2391
60015	28+51.34	-52.9670	556428.6991	582028.6165
60016	28+17.82	5.6523	556380.1997	582075.6023
60017	28+15.21	26.3148	556371.9451	582094.7236
60018	28+70.45	16.1517	556427.8330	582100.3226
60019	28+77.04	33.7319	556429.2751	582119.0421
60020	27+76.59	59.4236	556325.6421	582115.7873
60021	800+89.37	-16.0000	556290.9018	582138.3851
60022	801+52.07	-16.0000	556263.2721	582194.6708
60023	800+89.07	-56.0450	556326.9799	582155.7649
60024	801+50.08	2.0000	556247.9903	582184.9537
60025	801+34.33	1.0000	556255.8295	582171.2536
60026	801+34.33	5.5181	556251.7736	582169.2627
60027	801+22.33	7.8471	556254.9708	582157.4643
60028	801+22.33	1.0000	556261.1173	582160.4815
60029	800+68.75	-2.0543	556287.4688	582113.7308
60030	800+68.49	18.7066	556268.9467	582104.3492
60031	27+49.27	0.0000	556315.9202	582051.1092

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 15 30 45 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

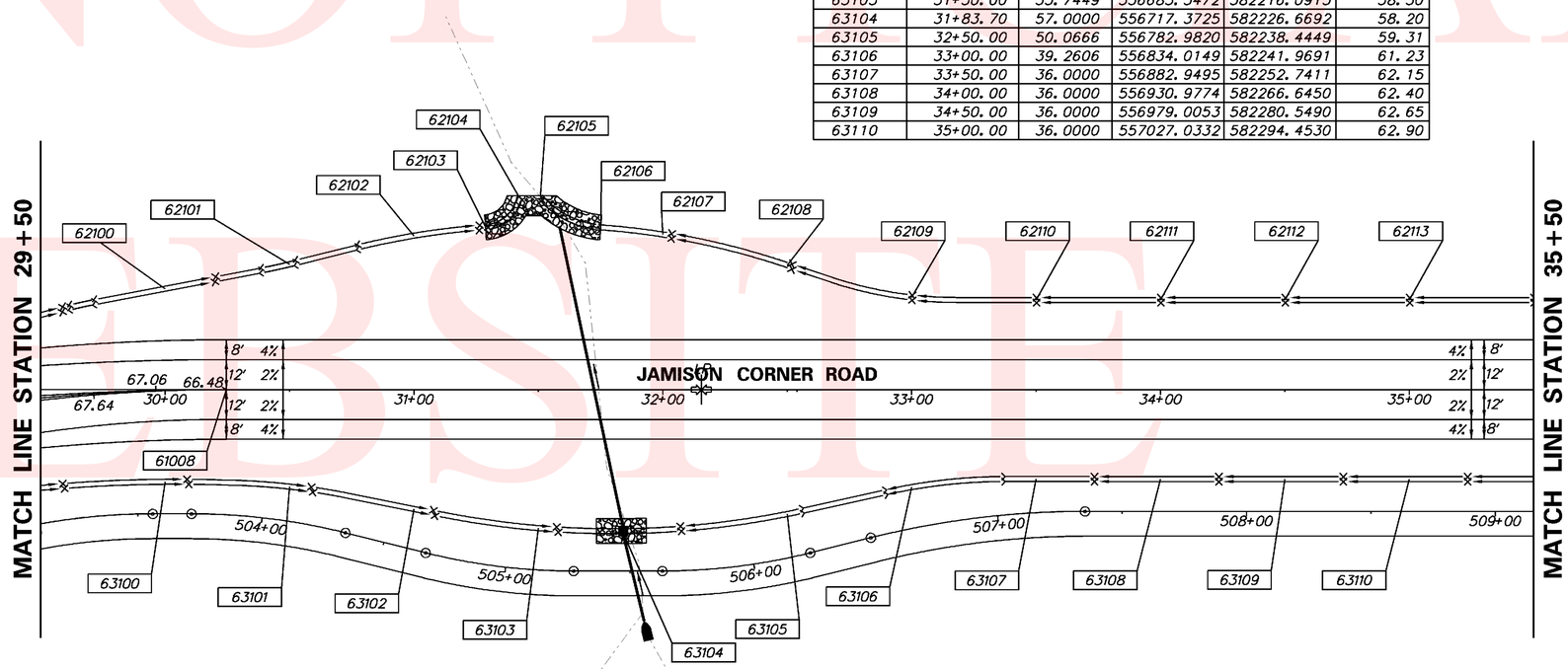
GRADES & GEOMETRICS

SHEET NO. 48

TOTAL SHTS. 86

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
61008	30+24.63	-0.0000	556580.4196	582127.6811

DITCH GRADES					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62100	30+00.00	-40.5379	556568.0377	582081.8942	62.29
62101	30+50.00	-50.3571	556618.7962	582086.3662	58.17
62102	31+00.00	-61.8766	556670.0274	582089.2051	53.83
62103	31+28.76	-65.2744	556698.6025	582093.9401	52.51
62104	31+42.41	-77.1916	556715.0247	582086.2878	51.85
62105	31+50.82	-77.5743	556723.2084	582088.2586	51.65
62106	31+75.06	-65.2136	556743.0560	582106.8727	51.96
62107	32+00.00	-62.3578	556766.2170	582116.5508	52.86
62108	32+50.00	-50.0541	556810.8235	582142.2732	57.17
62109	33+00.00	-37.0181	556855.2264	582168.6990	61.57
62110	33+50.00	-36.0000	556902.9712	582183.5809	62.15
62111	34+00.00	-36.0000	556950.9991	582197.4848	62.40
62112	34+50.00	-36.0000	556999.0270	582211.3888	62.65
62113	35+00.00	-36.0000	557047.0549	582225.2928	62.90
63100	30+00.00	37.0982	556546.4487	582156.4682	63.76
63101	30+50.00	39.0482	556593.9344	582172.2452	62.13
63102	31+00.00	48.0198	556639.4675	582194.7669	60.03
63103	31+50.00	55.7449	556685.3472	582216.0913	58.50
63104	31+83.70	57.0000	556717.3725	582226.6692	58.20
63105	32+50.00	50.0666	556782.9820	582238.4449	59.31
63106	33+00.00	39.2606	556834.0149	582241.9691	61.23
63107	33+50.00	36.0000	556882.9495	582252.7411	62.15
63108	34+00.00	36.0000	556930.9774	582266.6450	62.40
63109	34+50.00	36.0000	556979.0053	582280.5490	62.65
63110	35+00.00	36.0000	557027.0332	582294.4530	62.90



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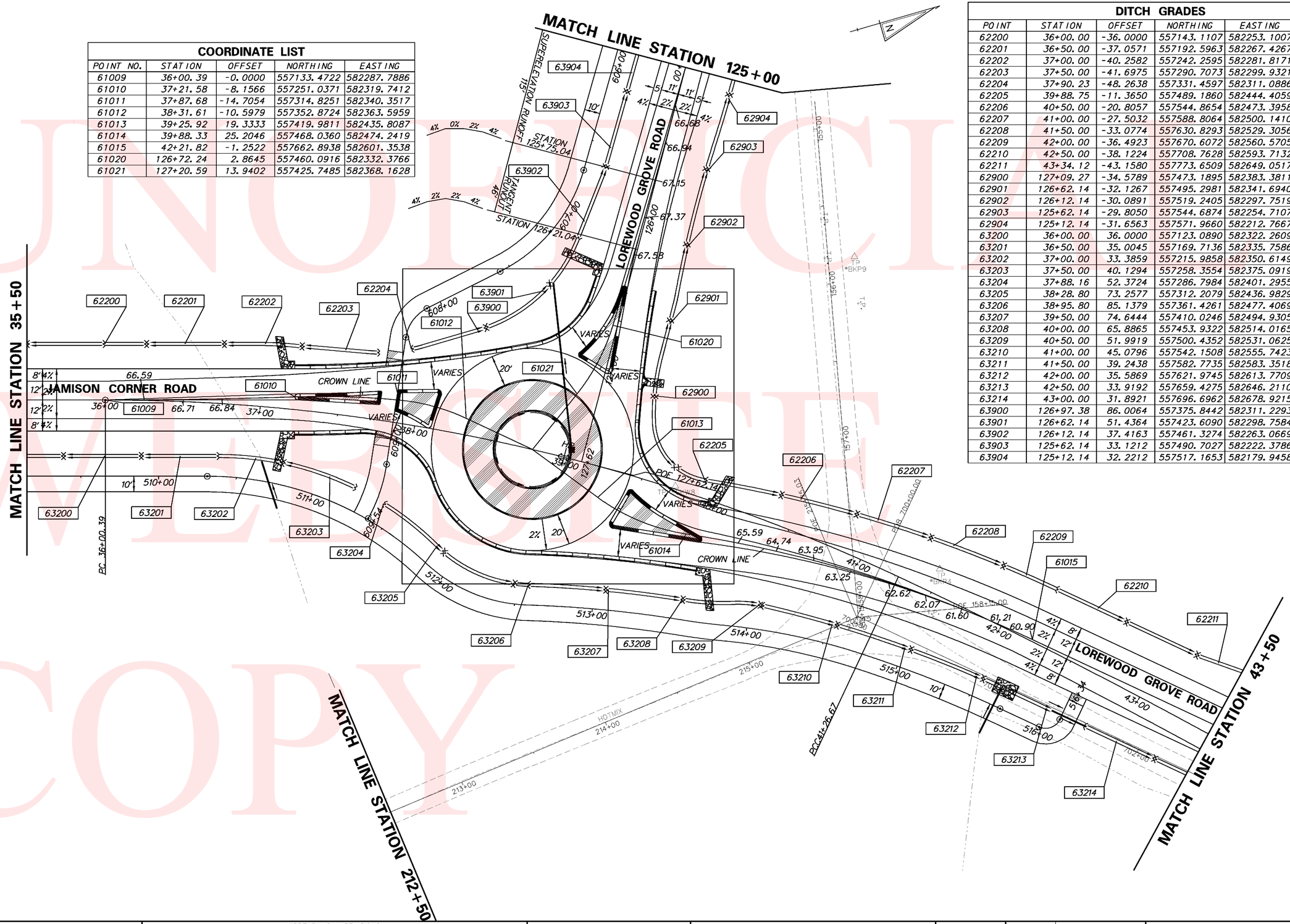
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	GRADES & GEOMETRICS	SHEET NO. 49
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
61009	36+00.39	-0.0000	557133.4722	582287.7886
61010	37+21.58	-8.1566	557251.0371	582319.7412
61011	37+87.68	-14.7054	557314.8251	582340.3517
61012	38+31.61	-10.5979	557352.8724	582363.5959
61013	39+25.92	19.3333	557419.9811	582435.8087
61014	39+88.33	25.2046	557468.0360	582474.2419
61015	42+21.82	-1.2522	557662.8938	582601.3538
61020	126+72.24	2.8645	557460.0916	582332.3766
61021	127+20.59	13.9402	557425.7485	582368.1628



DITCH GRADES					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62200	36+00.00	-36.0000	557143.1107	582253.1007	63.40
62201	36+50.00	-37.0571	557192.5963	582267.4267	63.50
62202	37+00.00	-40.2582	557242.2595	582281.8171	64.50
62203	37+50.00	-41.6975	557290.7073	582299.9321	66.57
62204	37+90.23	-48.2638	557331.4597	582311.0886	67.89
62205	39+88.75	-11.3650	557489.1860	582444.4059	64.72
62206	40+50.00	-20.8057	557544.8654	582473.3958	62.26
62207	41+00.00	-27.5032	557588.8064	582500.1410	60.30
62208	41+50.00	-33.0774	557630.8293	582529.3056	58.89
62209	42+00.00	-36.4923	557670.6072	582560.5705	58.09
62210	42+50.00	-38.1224	557708.7628	582593.7132	57.54
62211	43+34.12	-43.1580	557773.6509	582649.0517	56.86
62900	127+09.27	-34.5789	557473.1895	582383.3811	66.91
62901	126+62.14	-32.1267	557495.2981	582341.6940	66.43
62902	126+12.14	-30.0891	557519.2405	582297.7519	65.76
62903	125+62.14	-29.8050	557544.6874	582254.7107	65.07
62904	125+12.14	-31.6563	557571.9660	582212.7667	64.41
63200	36+00.00	36.0000	557123.0890	582322.2609	63.40
63201	36+50.00	35.0045	557169.7136	582335.7586	63.64
63202	37+00.00	33.3859	557215.9858	582350.6149	64.52
63203	37+50.00	40.1294	557258.3554	582375.0919	66.40
63204	37+88.16	52.3724	557286.7984	582401.2955	67.58
63205	38+28.80	73.2577	557312.2079	582436.9829	67.11
63206	38+95.80	85.1379	557361.4261	582477.4069	66.33
63207	39+50.00	74.6444	557410.0246	582494.9305	65.19
63208	40+00.00	65.8865	557453.9322	582514.0165	63.68
63209	40+50.00	51.9919	557500.4352	582531.0625	61.94
63210	41+00.00	45.0796	557542.1508	582555.7423	60.34
63211	41+50.00	39.2438	557582.7735	582583.3518	59.06
63212	42+00.00	35.5869	557621.9745	582613.7709	58.27
63213	42+50.00	33.9192	557659.4275	582646.2110	57.71
63214	43+00.00	31.8921	557696.6962	582678.9215	57.41
63900	126+97.38	86.0064	557375.8442	582311.2293	66.78
63901	126+62.14	51.4364	557423.6090	582298.7584	65.10
63902	126+12.14	37.4163	557461.3274	582263.0669	64.24
63903	125+62.14	33.1212	557490.7027	582222.3786	63.89
63904	125+12.14	32.2212	557517.1653	582179.9458	63.22

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

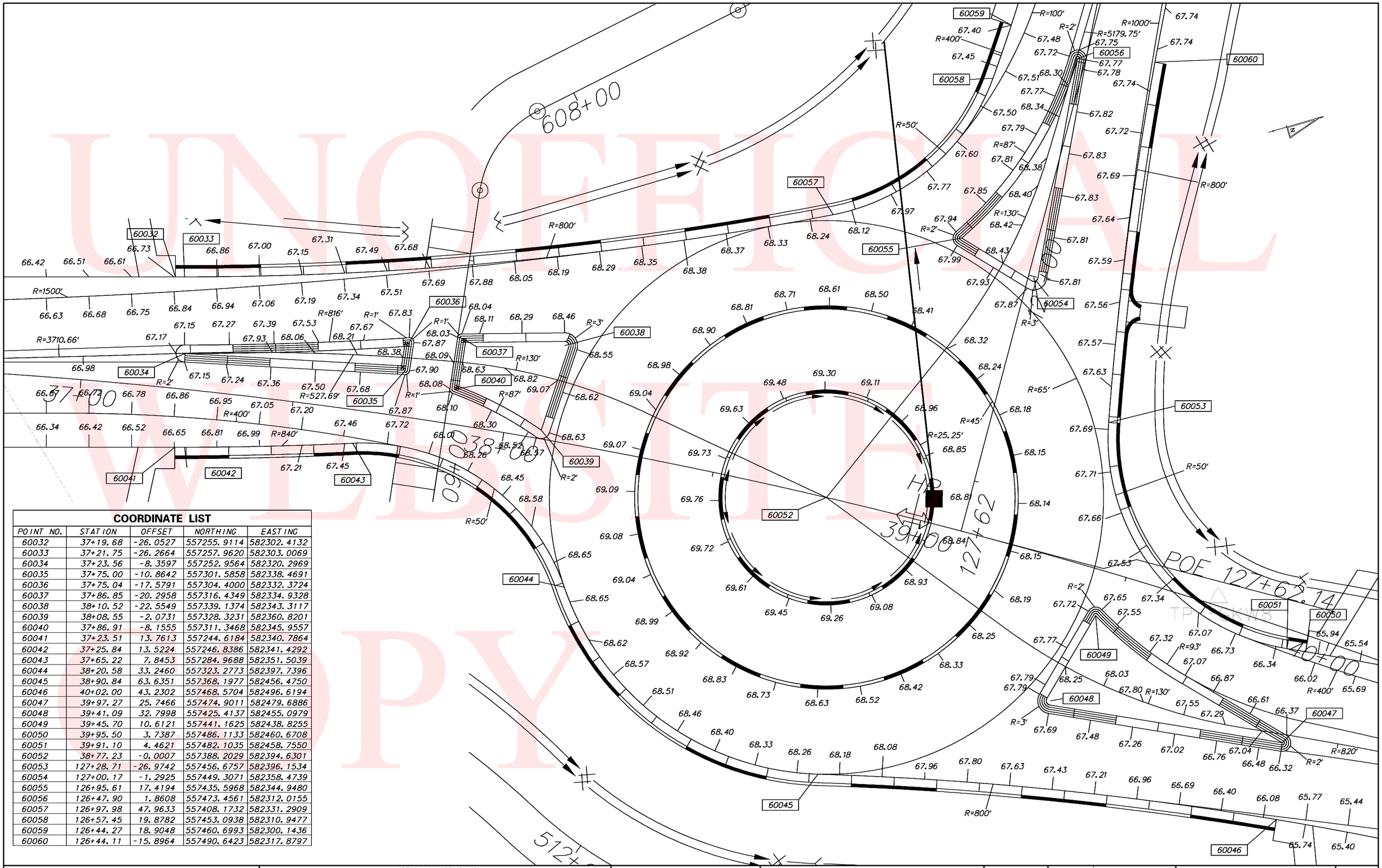
N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

GRADES & GEOMETRICS

SHEET NO. 50

TOTAL SHTS. 86



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
60032	37+19.68	-26.0527	557255.9114	582302.4132
60033	37+21.75	-26.2664	557257.9620	582303.0069
60034	37+23.56	-8.3597	557252.9564	582320.2969
60035	37+75.00	-10.8642	557301.5858	582338.4691
60036	37+75.04	-17.5791	557304.4000	582332.3724
60037	37+86.85	-20.2958	557316.4349	582334.9328
60038	38+10.52	-22.5549	557339.1374	582343.3117
60039	38+08.55	-2.0731	557328.3231	582360.8201
60040	37+86.91	-8.1555	557311.3468	582345.9557
60041	37+23.51	13.7613	557244.6184	582340.7864
60042	37+25.84	13.5224	557246.8386	582341.4292
60043	37+65.22	7.8453	557284.9688	582351.5039
60044	38+20.58	33.2460	557323.2773	582397.7396
60045	38+90.84	63.6351	557368.1977	582456.4750
60046	40+02.00	43.2302	557468.5704	582496.6194
60047	39+97.27	25.7466	557474.9011	582479.6886
60048	39+41.09	32.7998	557425.4137	582455.0979
60049	39+45.70	10.6121	557441.1625	582438.8255
60050	39+95.50	3.7387	557486.1133	582460.6708
60051	39+91.10	4.4621	557482.1035	582458.7550
60052	38+77.23	-0.0007	557388.2029	582394.6301
60053	127+28.71	-26.9742	557456.6757	582396.1534
60054	127+00.17	-1.2925	557449.3071	582358.4739
60055	126+95.61	17.4194	557435.5968	582344.9480
60056	126+47.90	1.8608	557473.4561	582312.0155
60057	126+97.98	47.9633	557408.1732	582331.2909
60058	126+57.45	19.8782	557453.0938	582310.9477
60059	126+44.27	18.9048	557460.6993	582300.1436
60060	126+44.11	-15.8964	557490.6423	582317.8797

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 10 20 30 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

GRADES & GEOMETRICS

SHEET NO. 51

TOTAL SHTS. 86

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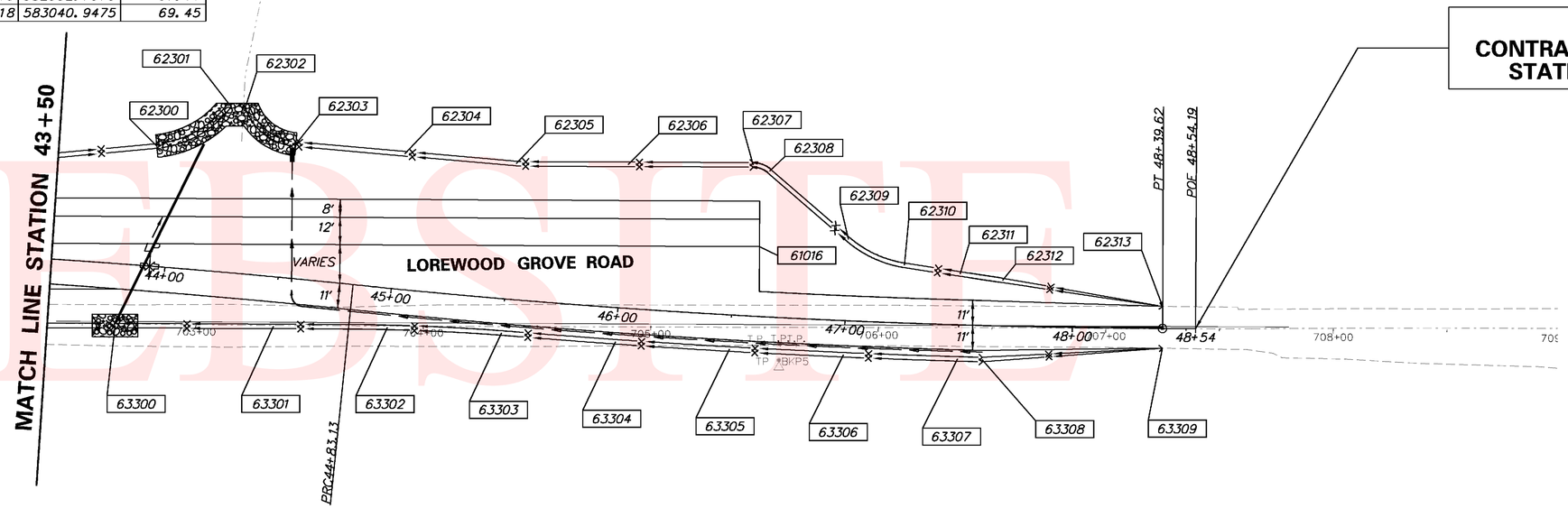
DITCH GRADES					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62300	43+92.36	-52.9763	557822.2217	582683.8414	55.30
62301	44+22.24	-73.6942	557858.2830	582691.1347	54.11
62302	44+29.39	-74.5915	557863.9969	582695.7594	53.86
62303	44+52.22	-59.0022	557868.8192	582723.3312	55.33
62304	45+00.00	-59.5551	557902.1492	582757.8899	56.87
62305	45+50.00	-59.7305	557936.2884	582793.2876	58.99
62306	46+00.00	-63.2286	557973.2622	582825.8627	60.57
62307	46+55.89	-66.4344	558014.5863	582862.1326	62.29
62308	46+63.31	-64.1421	558018.2203	582868.8490	62.50
62309	47+00.00	-35.7389	558024.7062	582914.3927	63.70
62310	47+25.23	-25.3396	558035.7932	582939.1169	64.65
62311	47+50.00	-22.3569	558051.7912	582958.0454	65.67
62312	47+68.75	-20.0370	558063.9577	582972.3583	66.43
62313	48+39.58	-9.6427	558109.5831	583027.1493	69.19
63300	43+80.11	27.2105	557756.5187	582731.4241	57.21
63301	44+50.00	21.6833	557808.8544	582777.3621	58.26
63302	45+00.00	17.1493	557846.3847	582810.5575	59.45
63303	45+50.00	15.0395	557882.6428	582845.3712	60.81
63304	46+00.00	15.0009	557917.8907	582881.1243	62.29
63305	46+50.00	15.0010	557953.6005	582916.4157	63.79
63306	47+00.00	15.0010	557989.7933	582951.2116	65.29
63307	47+50.00	15.0009	558026.4623	582985.5053	66.79
63308	47+60.73	15.0008	558034.3910	582992.7970	67.11
63309	48+39.58	8.7169	558097.4718	583040.9475	69.45

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
61016	46+60.73	-30.6282	557993.0781	582891.1546



END
CONTRACT T200912001
STATION 48+54

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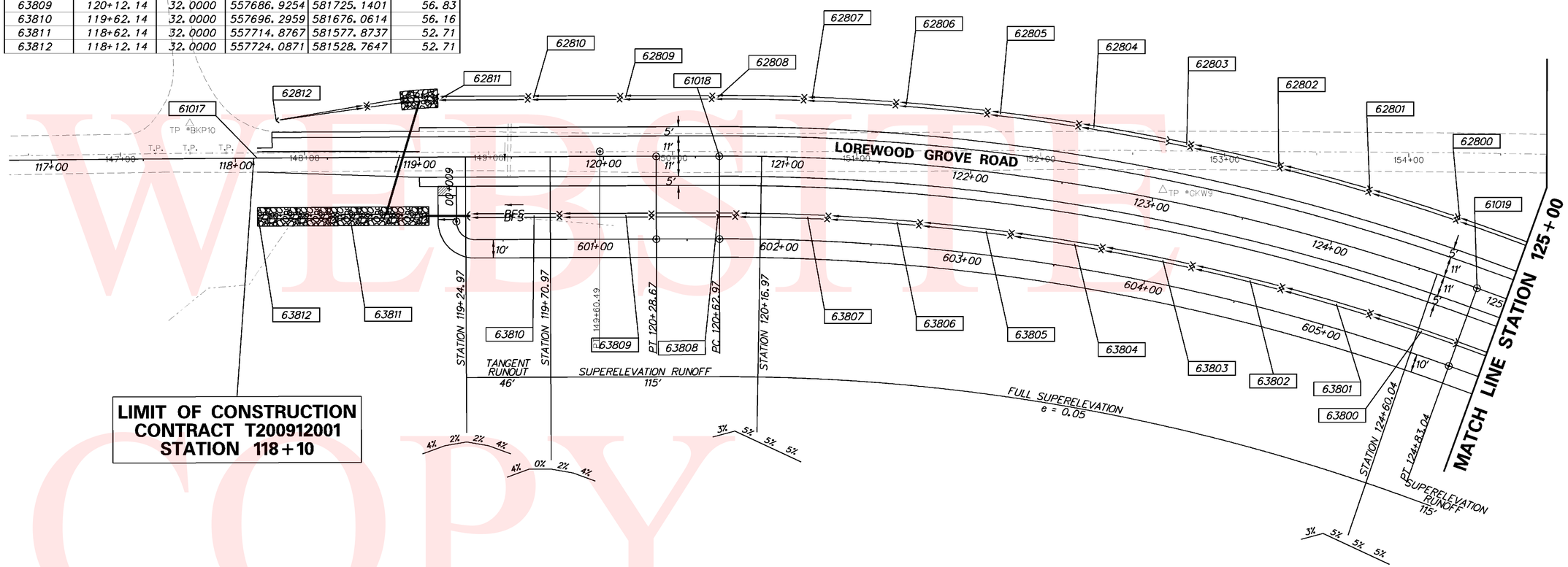
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	GRADES & GEOMETRICS	SHEET NO. 52
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

DITCH GRADES					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62800	124+62.14	-32.0000	557598.0769	582169.4749	63.73
62801	124+12.14	-32.0000	557622.7474	582124.4627	63.07
62802	123+62.14	-32.0000	557645.5214	582078.4619	62.39
62803	123+12.14	-32.0000	557666.3596	582031.5524	61.71
62804	122+62.14	-32.0000	557685.2256	581983.8156	61.04
62805	122+12.14	-32.0000	557702.0869	581935.3343	60.36
62806	121+62.14	-32.0000	557716.9140	581886.1929	59.68
62807	121+12.14	-32.0000	557729.6813	581836.4764	59.01
62808	120+62.14	-32.0000	557740.3627	581786.2930	58.17
62809	120+12.14	-32.0000	557749.7833	581737.1768	57.25
62810	119+62.14	-32.0000	557759.1668	581688.0298	56.33
62811	119+12.14	-31.9942	557768.4912	581638.8716	55.48
62812	118+22.33	-20.4217	557773.7408	581548.4212	57.05
63800	124+62.14	32.0000	557542.6067	582137.5523	62.56
63801	124+12.14	32.0000	557565.9955	582094.8784	61.87
63802	123+62.14	32.0000	557587.5865	582051.2673	61.19
63803	123+12.14	32.0000	557607.3422	582006.7946	60.51
63804	122+62.14	32.0000	557625.2282	581961.5377	59.84
63805	122+12.14	32.0000	557641.2135	581915.5749	59.16
63806	121+62.14	32.0000	557655.2704	581868.9863	58.48
63807	121+12.14	32.0000	557667.3745	581821.8525	57.81
63808	120+62.14	32.0000	557677.5091	581774.2337	57.29
63809	120+12.14	32.0000	557686.9254	581725.1401	56.83
63810	119+62.14	32.0000	557696.2959	581676.0614	56.16
63811	118+62.14	32.0000	557714.8767	581577.8737	52.71
63812	118+12.14	32.0000	557724.0871	581528.7647	52.71

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
61017	118+11.87	0.0000	557755.5920	581534.3785
61018	120+62.97	0.0000	557708.7800	581781.0758
61019	124+83.04	0.0000	557559.7601	582171.5359



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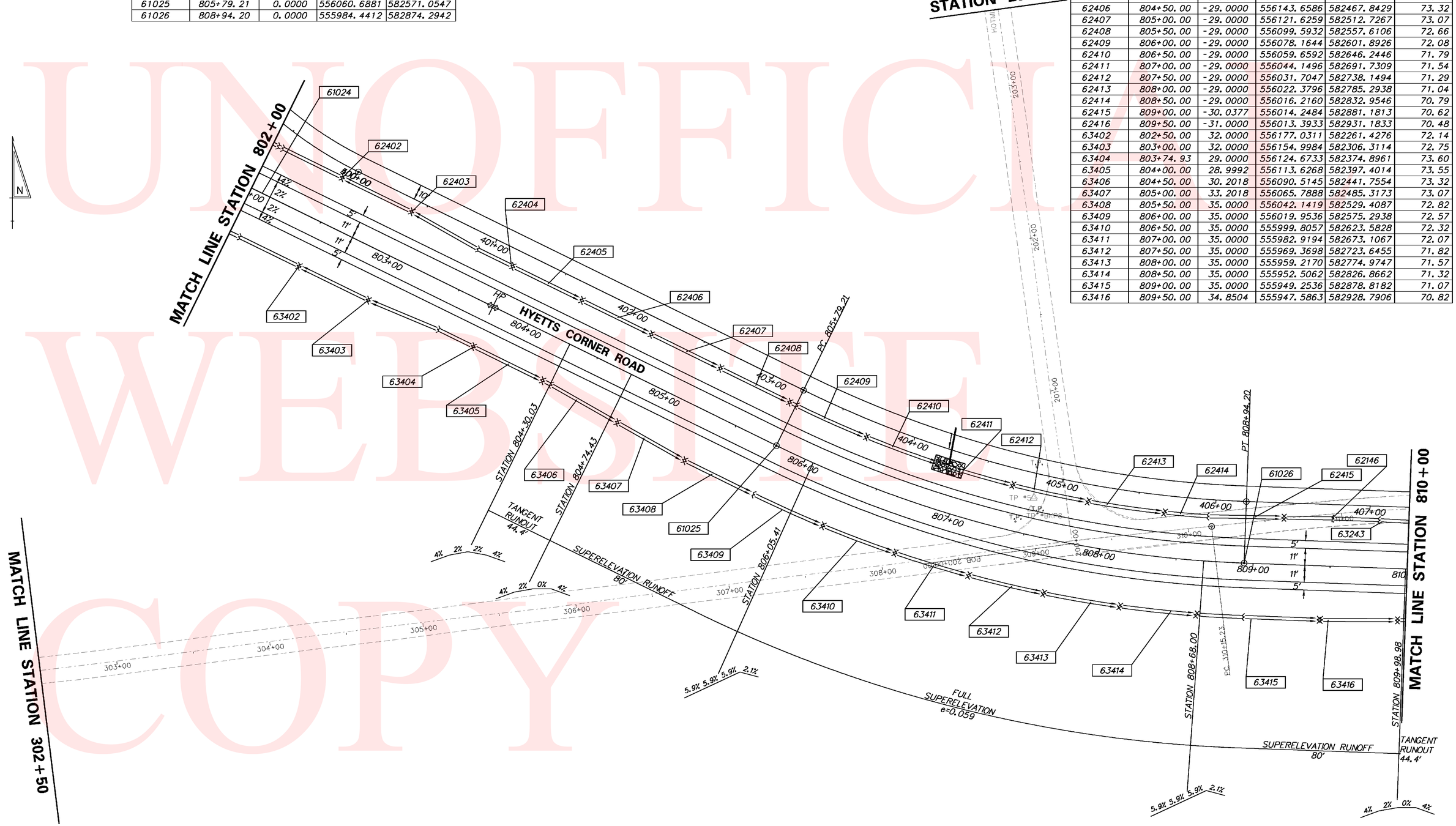
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	GRADES & GEOMETRICS	SHEET NO. 53
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
61024	802+07.77	0.0000	556224.3649	582237.6209
61025	805+79.21	0.0000	556060.6881	582571.0547
61026	808+94.20	0.0000	555984.4412	582874.2942

DITCH GRADES					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62402	802+50.00	-32.0000	556234.4824	582289.6294	72.14
62403	803+00.00	-32.0000	556212.4497	582334.5133	72.75
62404	803+73.51	-29.0000	556177.3642	582399.1795	73.60
62405	804+00.00	-29.0000	556165.6913	582422.9590	73.55
62406	804+50.00	-29.0000	556143.6586	582467.8429	73.32
62407	805+00.00	-29.0000	556121.6259	582512.7267	73.07
62408	805+50.00	-29.0000	556099.5932	582557.6106	72.66
62409	806+00.00	-29.0000	556078.1644	582601.8926	72.08
62410	806+50.00	-29.0000	556059.6592	582646.2446	71.79
62411	807+00.00	-29.0000	556044.1496	582691.7309	71.54
62412	807+50.00	-29.0000	556031.7047	582738.1494	71.29
62413	808+00.00	-29.0000	556022.3796	582785.2938	71.04
62414	808+50.00	-29.0000	556016.2160	582832.9546	70.79
62415	809+00.00	-30.0377	556014.2484	582881.1813	70.62
62416	809+50.00	-31.0000	556013.3933	582931.1833	70.48
63402	802+50.00	32.0000	556177.0311	582261.4276	72.14
63403	803+00.00	32.0000	556154.9984	582306.3114	72.75
63404	803+74.93	29.0000	556124.6733	582374.8961	73.60
63405	804+00.00	28.9992	556113.6268	582397.4014	73.55
63406	804+50.00	30.2018	556090.5145	582441.7554	73.32
63407	805+00.00	33.2018	556065.7888	582485.3173	73.07
63408	805+50.00	35.0000	556042.1419	582529.4087	72.82
63409	806+00.00	35.0000	556019.9536	582575.2938	72.57
63410	806+50.00	35.0000	555999.8057	582623.5828	72.32
63411	807+00.00	35.0000	555982.9194	582673.1067	72.07
63412	807+50.00	35.0000	555969.3698	582723.6455	71.82
63413	808+00.00	35.0000	555959.2170	582774.9747	71.57
63414	808+50.00	35.0000	555952.5062	582826.8662	71.32
63415	809+00.00	35.0000	555949.2536	582878.8182	71.07
63416	809+50.00	34.8504	555947.5863	582928.7906	70.82



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY	CHECKED BY: JKL	
NEW CASTLE		

GRADES & GEOMETRICS

SHEET NO. 54

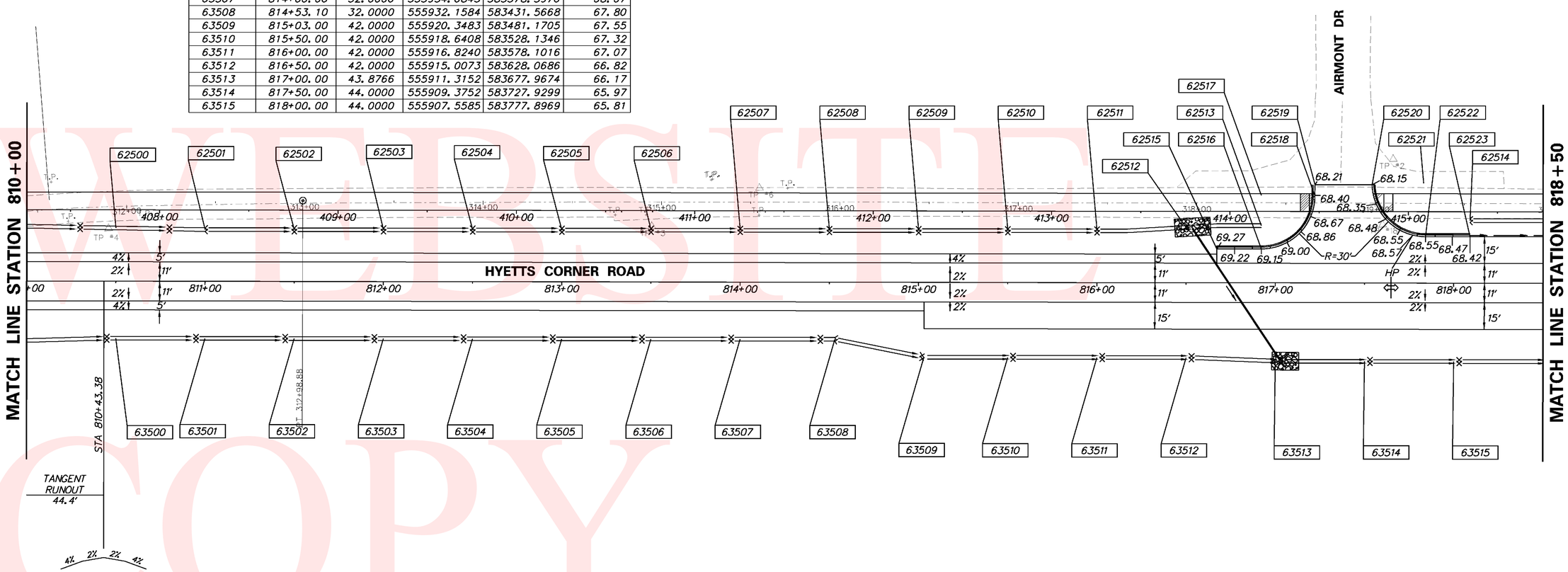
TOTAL SHTS. 86

DITCH GRADES

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62500	810+50.00	-29.8335	556008.5941	583031.0748	70.21
62501	811+00.00	-29.0001	556005.9446	583081.0115	70.07
62502	811+50.00	-29.0000	556004.1277	583130.9785	69.82
62503	812+00.00	-29.0000	556002.3110	583180.9455	69.57
62504	812+50.00	-29.0000	556000.4942	583230.9125	69.32
62505	813+00.00	-29.0000	555998.6775	583280.8795	69.07
62506	813+50.00	-29.0000	555996.8608	583330.8465	68.82
62507	814+00.00	-29.0000	555995.0441	583380.8134	68.57
62508	814+50.00	-29.0000	555993.2273	583430.7804	68.32
62509	815+00.00	-29.0000	555991.4106	583480.7474	68.07
62510	815+50.00	-29.0000	555989.5939	583530.7144	67.82
62511	816+00.00	-29.0000	555987.7772	583580.6814	67.57
62512	816+50.00	-30.9734	555987.9326	583630.7201	67.34
62513	816+92.13	-32.0000	555987.4277	583672.8609	68.03
62514	818+09.14	-35.0000	555986.1742	583789.9008	67.97
63500	810+50.00	32.0000	555946.8014	583028.8281	69.82
63501	811+00.00	32.0000	555944.9847	583078.7951	69.57
63502	811+50.00	32.0000	555943.1680	583128.7621	69.32
63503	812+00.00	32.0000	555941.3513	583178.7291	69.07
63504	812+50.00	32.0000	555939.5345	583228.6961	68.82
63505	813+00.00	32.0000	555937.7178	583278.6631	68.57
63506	813+50.00	32.0000	555935.9011	583328.6301	68.32
63507	814+00.00	32.0000	555934.0843	583378.5970	68.07
63508	814+53.10	32.0000	555932.1584	583431.5668	67.80
63509	815+03.00	42.0000	555920.3483	583481.1705	67.55
63510	815+50.00	42.0000	555918.6408	583528.1346	67.32
63511	816+00.00	42.0000	555916.8240	583578.1016	67.07
63512	816+50.00	42.0000	555915.0073	583628.0686	66.82
63513	817+00.00	43.8766	555911.3152	583677.9674	66.17
63514	817+50.00	44.0000	555909.3752	583727.9299	65.97
63515	818+00.00	44.0000	555907.5585	583777.8969	65.81

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
62515	816+67.14	-19.0000	555975.3443	583647.4132
62516	816+92.13	-19.0000	555974.4363	583672.3883
62517	816+92.13	-49.0000	556004.4164	583673.4784
62518	817+22.13	-48.9643	556003.2907	583703.4572
62519	817+22.14	-55.0000	556009.3222	583703.6837
62520	817+54.16	-55.0000	556008.1588	583735.6805
62521	817+83.05	-55.9637	556008.0720	583764.5903
62522	817+84.14	-26.0000	555978.0885	583764.5903
62523	818+09.14	-26.0000	555977.1802	583789.5738



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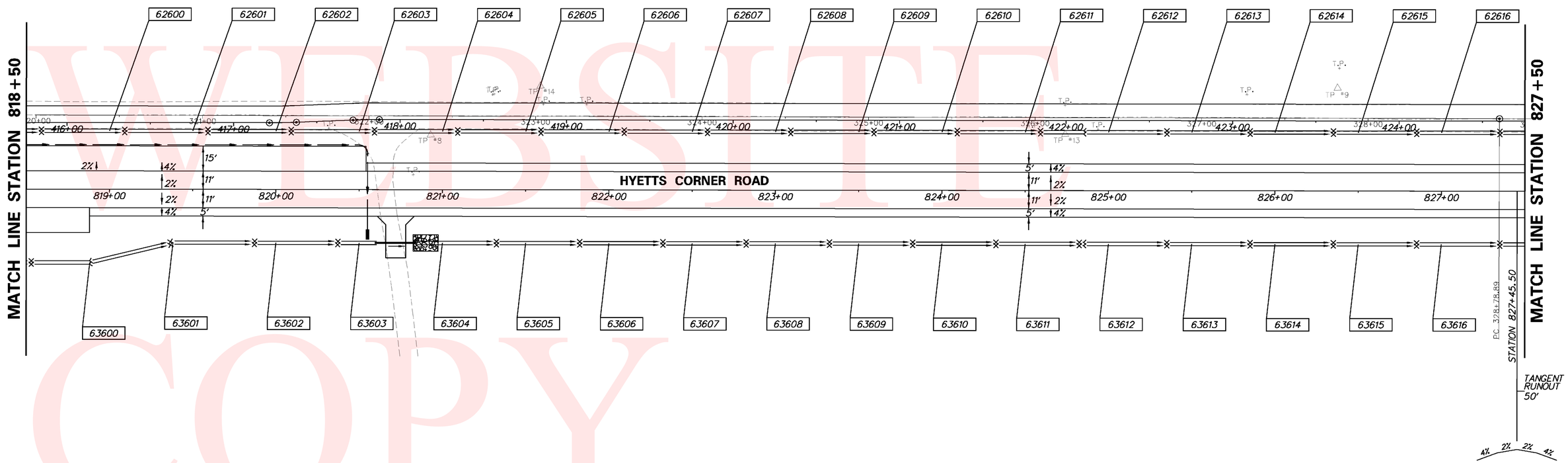
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	GRADES & GEOMETRICS	SHEET NO. 55
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

DITCH GRADES					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
63600	818+88.22	44.0000	555904.3530	583866.0608	65.53
63601	819+38.22	32.0000	555914.5283	583916.4638	65.37
63602	820+00.00	32.0000	555912.2836	583978.2008	65.07
63603	820+50.00	32.0000	555910.4669	584028.1678	64.82
63604	821+00.00	32.0000	555908.6502	584078.1348	64.57
63605	821+50.00	32.0000	555906.8335	584128.1018	64.32
63606	822+00.00	32.0000	555905.0167	584178.0688	64.07
63607	822+50.00	32.0000	555903.2000	584228.0358	63.82
63608	823+00.00	32.0000	555901.3833	584278.0028	63.57
63609	823+50.00	32.0000	555899.5666	584327.9697	63.32
63610	824+00.00	32.0000	555897.7498	584377.9367	62.96
63611	824+50.00	32.0000	555895.9331	584427.9037	62.40
63612	825+00.11	31.9744	555894.1164	584477.8707	61.63
63613	825+50.47	31.5172	555892.2996	584527.8377	60.65
63614	826+00.82	30.4879	555890.4829	584577.8047	59.46
63615	826+51.13	28.8869	555888.6662	584627.7716	58.07
63616	827+01.40	26.7147	555886.8495	584677.7386	56.57

DITCH GRADES					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62600	819+00.00	-35.0000	555982.8728	583880.7015	67.52
62601	819+50.00	-35.0000	555981.0561	583930.6685	67.27
62602	820+00.00	-35.0000	555979.2394	583980.6353	67.02
62603	820+50.00	-35.0000	555977.4227	584030.6025	66.77
62604	821+00.00	-35.0000	555975.6059	584080.5695	65.69
62605	821+50.00	-35.0000	555973.7892	584130.5365	65.02
62606	822+00.00	-35.0000	555971.9725	584180.5035	64.52
62607	822+50.00	-35.0000	555970.1558	584230.4705	64.02
62608	823+00.00	-35.0000	555968.3390	584280.4372	63.52
62609	823+50.00	-35.0000	555966.5223	584330.4041	62.95
62610	824+00.00	-35.0000	555964.7056	584380.3711	62.26
62611	824+50.00	-35.0000	555962.8889	584430.3381	61.45
62612	825+00.00	-35.0000	555961.0721	584480.3051	60.51
62613	825+50.00	-35.0000	555959.2554	584530.2721	59.45
62614	826+00.00	-35.0000	555957.4387	584580.2390	58.26
62615	826+50.00	-35.0000	555955.6220	584630.2061	56.95
62616	827+00.00	-35.0000	555953.8052	584680.1730	55.51



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

GRADES & GEOMETRICS

SHEET NO. 56

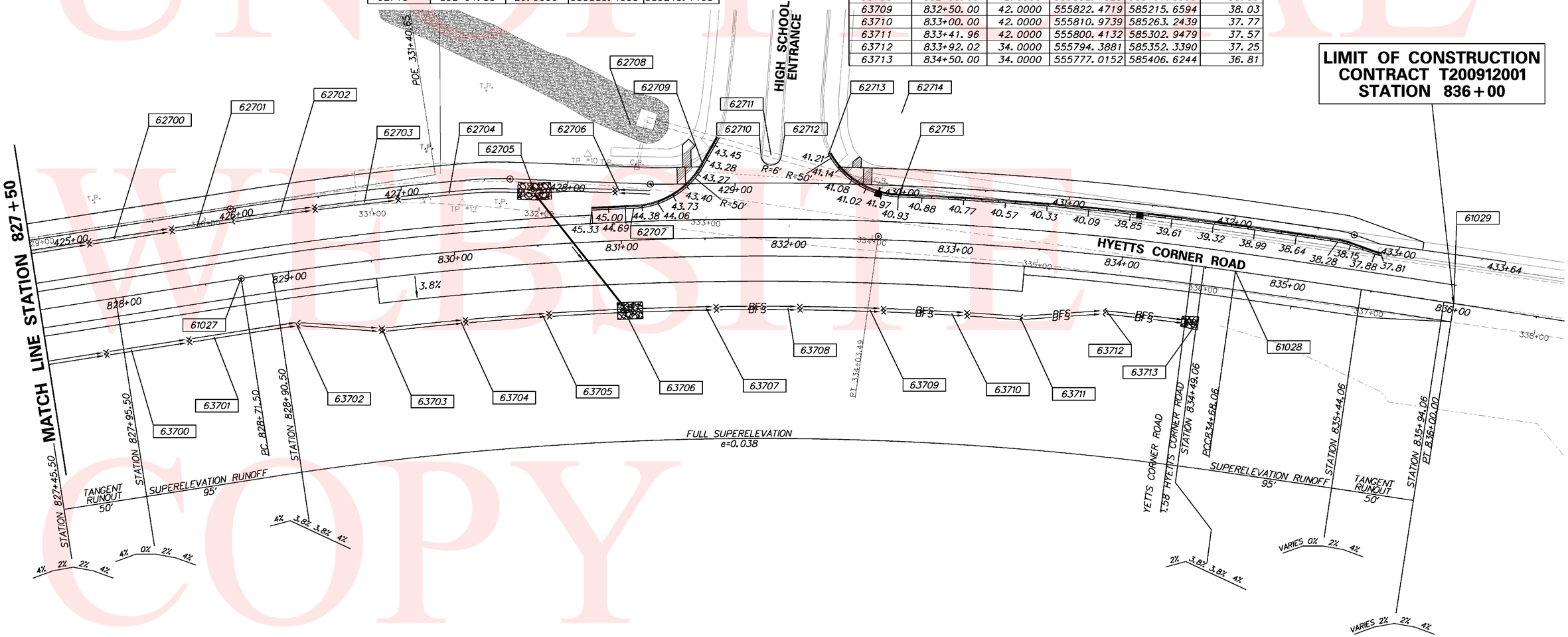
TOTAL SHTS. 86

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
61027	828+71.50	0.0000	555912.5970	584850.2869
61028	834+68.06	0.0008	555803.4161	585434.5424
61029	836+00.00	0.0000	555759.5071	585558.9657
62707	831+08.12	-19.0000	555908.8924	585088.6124
62708	831+08.12	-69.0000	555958.3002	585096.2851
62709	831+49.75	-43.1397	555925.7856	585134.2693
62710	831+83.53	-49.8465	555926.0844	585169.4737
62711	831+89.39	-49.3578	555924.4527	585175.2737
62712	831+95.27	-49.0935	555923.0215	585181.1264
62713	832+23.00	-50.2054	555918.3447	585209.1764
62714	832+64.53	-76.0000	555934.0953	585256.6308
62715	832+64.53	-26.0000	555885.4335	585245.1405

DITCH GRADES

POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
62700	828+00.00	-35.0000	555950.1718	584780.1070	52.47
62701	828+50.00	-35.0000	555948.3550	584830.0740	50.72
62702	829+00.00	-35.0000	555946.3149	584880.5285	48.73
62703	829+50.00	-35.0000	555943.1143	584931.2970	46.69
62704	830+00.00	-35.0000	555938.6519	584981.9700	44.64
62705	830+50.04	-32.0728	555930.0207	585032.1947	42.92
62706	831+00.00	-29.5022	555920.5175	585082.0837	43.10
63700	828+00.00	32.0000	555883.2160	584777.6726	53.29
63701	828+50.00	32.0000	555881.3993	584827.6395	51.32
63702	829+01.26	32.0000	555879.3373	584878.3847	49.26
63703	829+51.92	42.0000	555866.1908	584927.3681	46.67
63704	830+00.00	42.0000	555862.0387	584974.2620	44.75
63705	830+50.00	42.0000	555856.5327	585022.9055	42.77
63706	831+00.00	42.0000	555849.8185	585071.3965	41.04
63707	831+50.00	42.0000	555841.9002	585119.7062	39.63
63708	832+00.00	42.0000	555832.7828	585167.8036	38.55
63709	832+50.00	42.0000	555822.4719	585215.6594	38.03
63710	833+00.00	42.0000	555810.9739	585263.2439	37.77
63711	833+41.96	42.0000	555800.4132	585302.9479	37.57
63712	833+92.02	34.0000	555794.3881	585352.3390	37.25
63713	834+50.00	34.0000	555777.0152	585406.6244	36.81



DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	GRADES & GEOMETRICS	SHEET NO. 57
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

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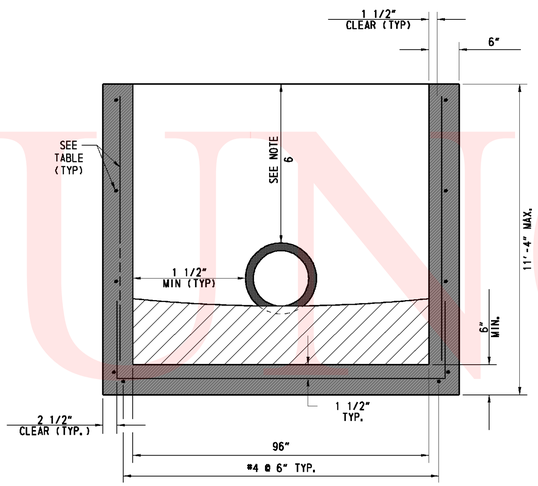
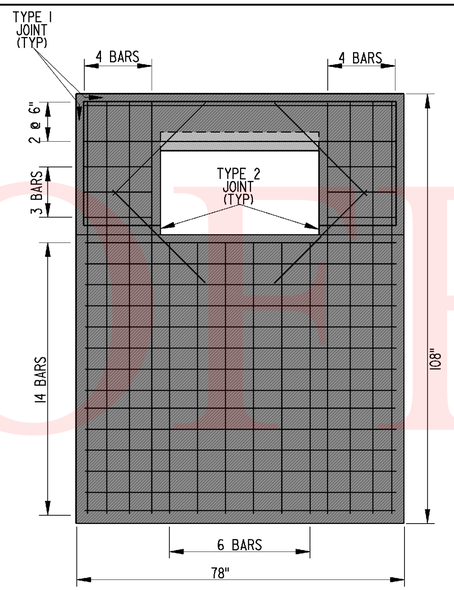
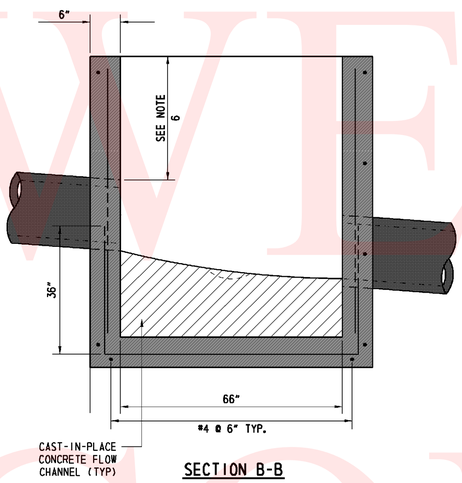


SECTION A-A

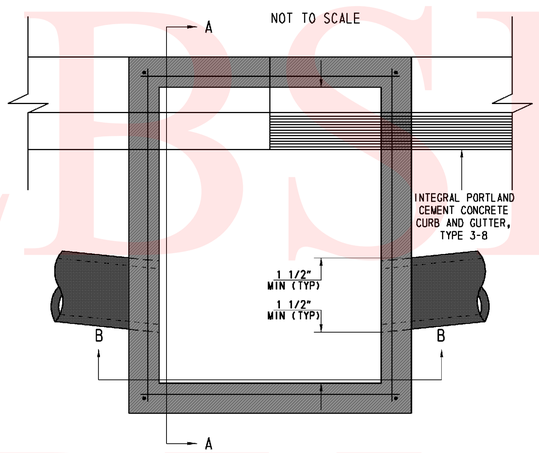


66" X 96" INLET

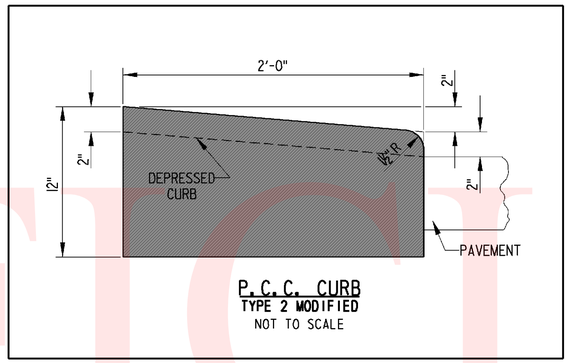
NOT TO SCALE



SECTION B-B



TOP VIEW



P.C.C. CURB
TYPE 2 MODIFIED
NOT TO SCALE

NOTES:

1. INLET BOXES SHALL BE PRECAST OR CAST-IN-PLACE.
2. PIPES SHALL NOT BE INSTALLED THROUGH ANY CORNER OF THE INLET BOX.
3. RISER SECTIONS MAY BE USED FOR DEEP INLET BOXES.
4. PIPES MAY BE INSTALLED NEAR OR THROUGH JOINTS FOR RISER SECTIONS.
5. CONCRETE FLOW CHANNEL SHALL BE WARPED FOR POSITIVE DRAINAGE.

NOTES:

6. WHEN THE COVER ABOVE THE PIPE IS LESS THAN 4" TO THE COVER SLAB OR TOP UNIT OPENING, THE PORTION OF BOX WALL ABOVE THE PIPE MAY BE REMOVED AS SHOWN IN THE OPTIONAL PIPE OPENING DETAIL. THE AREA ABOVE THE PIPE SHALL THEN BE FORMED AND FILLED WITH HIGH-STRENGTH, NON-SHRINK GROUT MIXED WITH COARSE AGGREGATE IN A 1:1 RATIO BY WEIGHT.

7. WHEN INLET BOX IS PRECAST, PIPE OPENING SHALL BE BETWEEN 3" AND 4" LARGER THAN OUTSIDE DIAMETER OF PIPE AND SHALL NOT ENCROACH ON ADJACENT WALL.

DRAINAGE INLET, SPECIAL 1 DETAIL FOR 66" X 96" INLET

NOT TO SCALE

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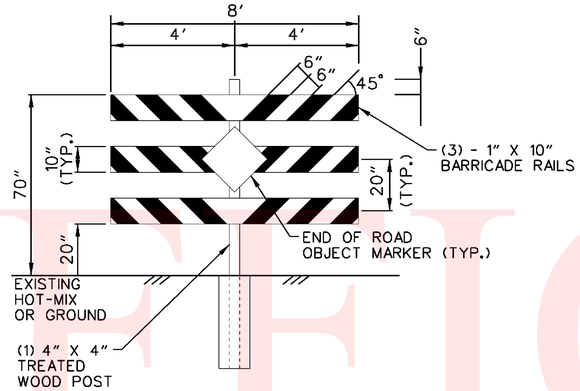
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION DETAILS	SHEET NO. 58
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

NOTES

1. 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.
2. GRADING AND MAINTAINING BASE COURSE THAT IS BEING USED AS A TRAVELWAY, DRIVEWAY, ACCESS RAMP, ETC. SHALL BE INCIDENTAL TO ITEM 763500 - 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.
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 763500-MAINTENANCE OF TRAFFIC.
4. 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 401801 - WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22.
5. NO WORK WILL BE PERMITTED BETWEEN 8:00 P.M. AND 6:00 A.M. WITHOUT DELDOT OR NEW CASTLE COUNTY APPROVAL.



1 – POST PERMANENT WOOD BARRICADE DETAIL
(NOT TO SCALE)

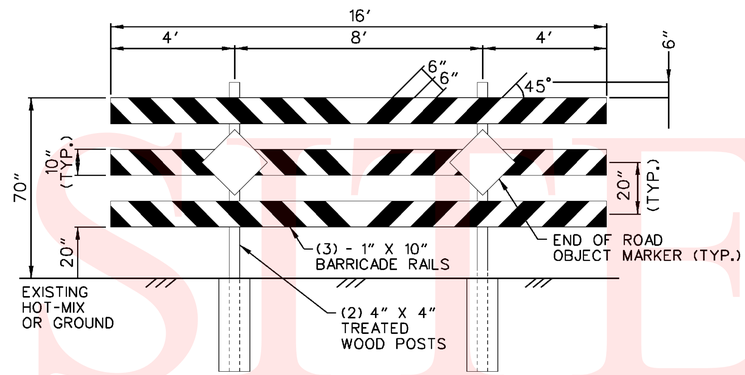
NOTES:

1. BARRICADES SHALL BE PLACED COMPLETELY ACROSS THE ROADWAY FROM EDGE OF ROAD TO EDGE OF ROAD. IF NECESSARY, THE BARRICADE OVERHANG BEYOND THE OUTSIDE POSTS (TYPICALLY 4') MAY BE REDUCED IF OBSTACLES ARE PRESENT BEYOND THE ROADWAY EDGE.
2. MARKINGS FOR BARRICADE RAILS SHALL BE ALTERNATING FLUORESCENT RED AND WHITE STRIPES, SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES, USING PRISMATIC, RETROREFLECTIVE SHEETING. STRIPES SHALL SLOPE DOWNWARD TOWARDS THE CENTER OF THE CLOSURE.
3. ATTACH BARRICADE RAIL AND OBJECT MARKER TO THE 4"X4" PRESSURE TREATED WOOD POST USING LAG BOLTS (2" LONG, MINIMUM) WITH WASHERS. TWO BOLTS PER RAIL PER POST SHALL BE REQUIRED.
4. ALL WOOD SHALL BE PRESSURE TREATED.
5. THE END OF ROAD OBJECT MARKER (MUTCD CODE OM4-3) SHALL BE 18" X 18" WITH RED PRISMATIC, RETROREFLECTIVE SHEETING.
6. TREATED WOOD POST SHALL BE PLACED IN PRE-DUG HOLE, BACKFILLED USING SUITABLE MATERIAL, AND TAMPERED THOROUGHLY TO PROVIDE A RIGID SUB-SURFACE CONDITION AROUND THE POST.
7. BARRICADE RAILS MAY BE CONSTRUCTED USING PLASTIC OR WOOD AND SHOULD NOT BE METAL.

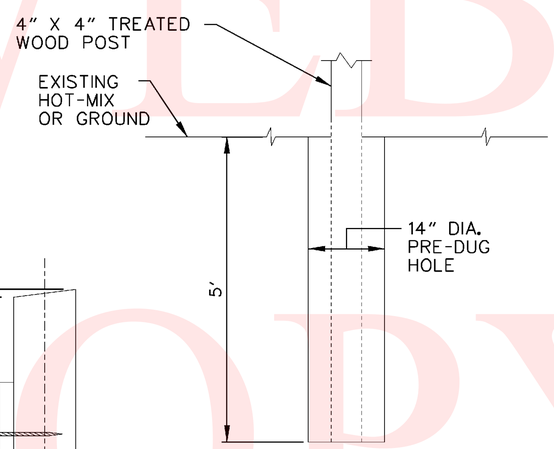
WOOD BARRICADE POST CHART

Roadway Width (ft)	Number of Barricades	Type of Post ***	Outside ** Overhang (ft)
4	1	1 - Post	2
6	1	1 - Post	3
8	1	1 - Post	4
10	1	2 - Post	1
12	1	2 - Post	2
14	1	2 - Post	3
16	1	2 - Post	4
18	1	3 - Post	1
20	1	3 - Post	2
22	1	3 - Post	3
24	1	3 - Post	4
26	2	2 - Post	1
28	2	2 - Post	2
30	2	2 - Post	3
32	2	2 - Post	4
34	2	2 - Post 3 - Post	1
36	2	2 - Post 3 - Post	2
38	2	2 - Post 3 - Post	3
40	2	2 - Post 3 - Post	4
42	2	3 - Post	1
44	2	3 - Post	2
46	2	3 - Post	3
48	2	3 - Post	4
50	3	(2) 2-Post <Ends> (1) 3-Post <Center>	1

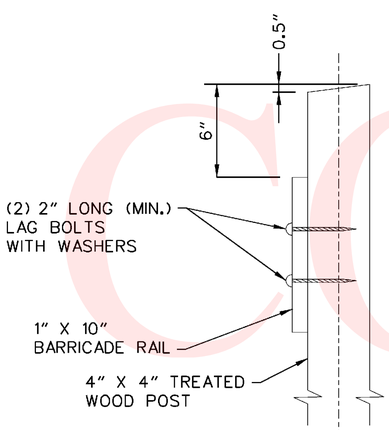
** ONLY REDUCE OVERHANG IF NEEDED DUE TO OBSTACLES OUTSIDE OF ROADWAY EDGE
*** LONGER WIDTH CLOSURES CAN BE ACCOMMODATED BY VARIOUS COMBINATIONS OF 2-POST AND 3-POST BARRICADES



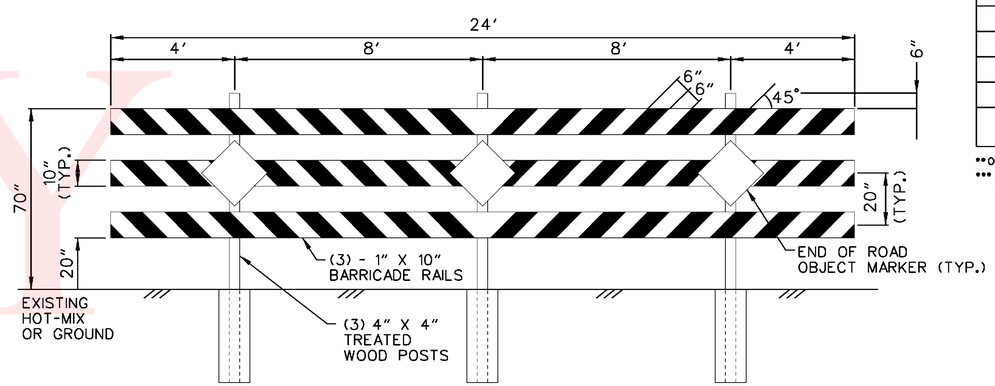
2 – POST PERMANENT WOOD BARRICADE DETAIL
(NOT TO SCALE)



FOOTING DETAIL
(NOT TO SCALE)



CONNECTION DETAIL
(NOT TO SCALE)



3 – POST PERMANENT WOOD BARRICADE DETAIL
(NOT TO SCALE)

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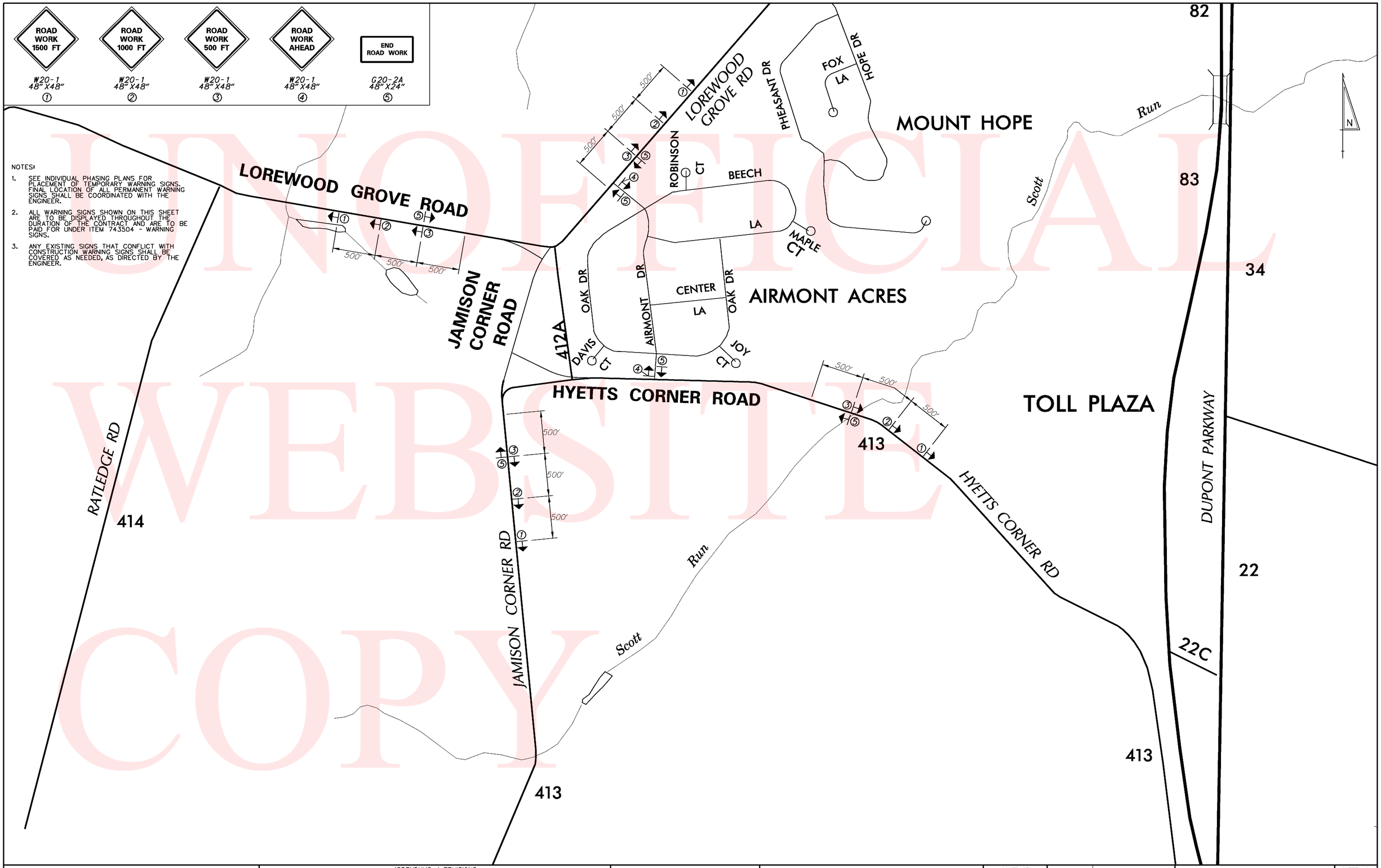
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT 29-120-01 / COUNTY NEW CASTLE	BRIDGE NO. NA / DESIGNED BY: SHB / CHECKED BY: JKL	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	SHEET NO. 59 / TOTAL SHTS. 86



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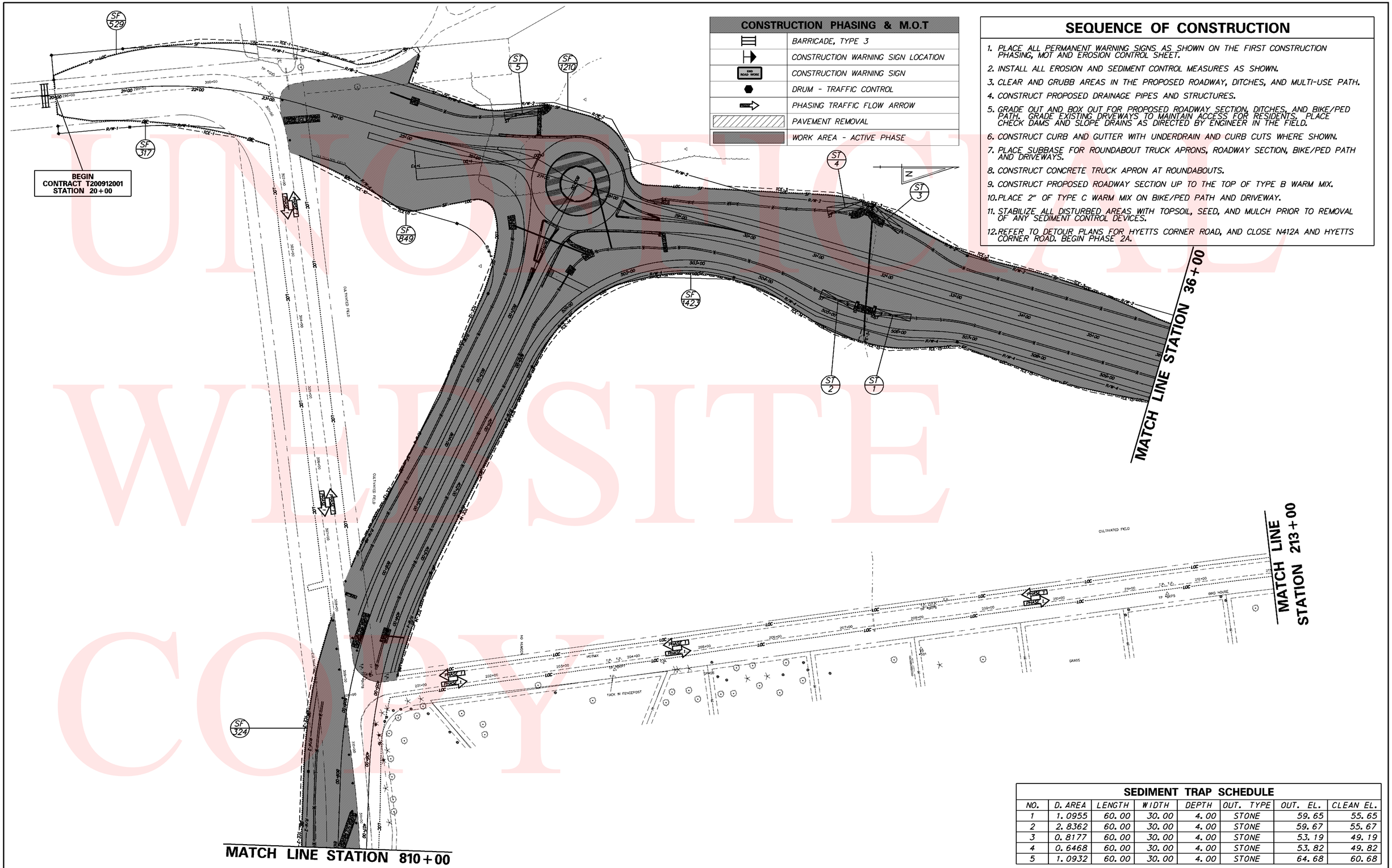
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 500 1000 1500 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	SHEET NO. 60
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 88
					CHECKED BY: JKL		



CONSTRUCTION PHASING & M.O.T

	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE

SEQUENCE OF CONSTRUCTION

1. PLACE ALL PERMANENT WARNING SIGNS AS SHOWN ON THE FIRST CONSTRUCTION PHASING, MOT AND EROSION CONTROL SHEET.
2. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. CLEAR AND GRUBB AREAS IN THE PROPOSED ROADWAY, DITCHES, AND MULTI-USE PATH.
4. CONSTRUCT PROPOSED DRAINAGE PIPES AND STRUCTURES.
5. GRADE OUT AND BOX OUT FOR PROPOSED ROADWAY SECTION, DITCHES, AND BIKE/PED PATH. GRADE EXISTING DRVEWAYS TO MAINTAIN ACCESS FOR RESIDENTS. PLACE CHECK DAMS AND SLOPE DRAINS AS DIRECTED BY ENGINEER IN THE FIELD.
6. CONSTRUCT CURB AND GUTTER WITH UNDERDRAIN AND CURB CUTS WHERE SHOWN.
7. PLACE SUBBASE FOR ROUNDABOUT TRUCK APRONS, ROADWAY SECTION, BIKE/PED PATH AND DRIVEWAYS.
8. CONSTRUCT CONCRETE TRUCK APRON AT ROUNDABOUTS.
9. CONSTRUCT PROPOSED ROADWAY SECTION UP TO THE TOP OF TYPE B WARM MIX.
10. PLACE 2" OF TYPE C WARM MIX ON BIKE/PED PATH AND DRIVEWAY.
11. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH PRIOR TO REMOVAL OF ANY SEDIMENT CONTROL DEVICES.
12. REFER TO DETOUR PLANS FOR HYETTS CORNER ROAD, AND CLOSE N412A AND HYETTS CORNER ROAD. BEGIN PHASE 2A.

SEDIMENT TRAP SCHEDULE

NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	OUT. EL.	CLEAN EL.
1	1.0955	60.00	30.00	4.00	STONE	59.65	55.65
2	2.8362	60.00	30.00	4.00	STONE	59.67	55.67
3	0.8177	60.00	30.00	4.00	STONE	53.19	49.19
4	0.6468	60.00	30.00	4.00	STONE	53.82	49.82
5	1.0932	60.00	30.00	4.00	STONE	64.68	60.68

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

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

SHEET NO. 61

TOTAL SHTS. 86

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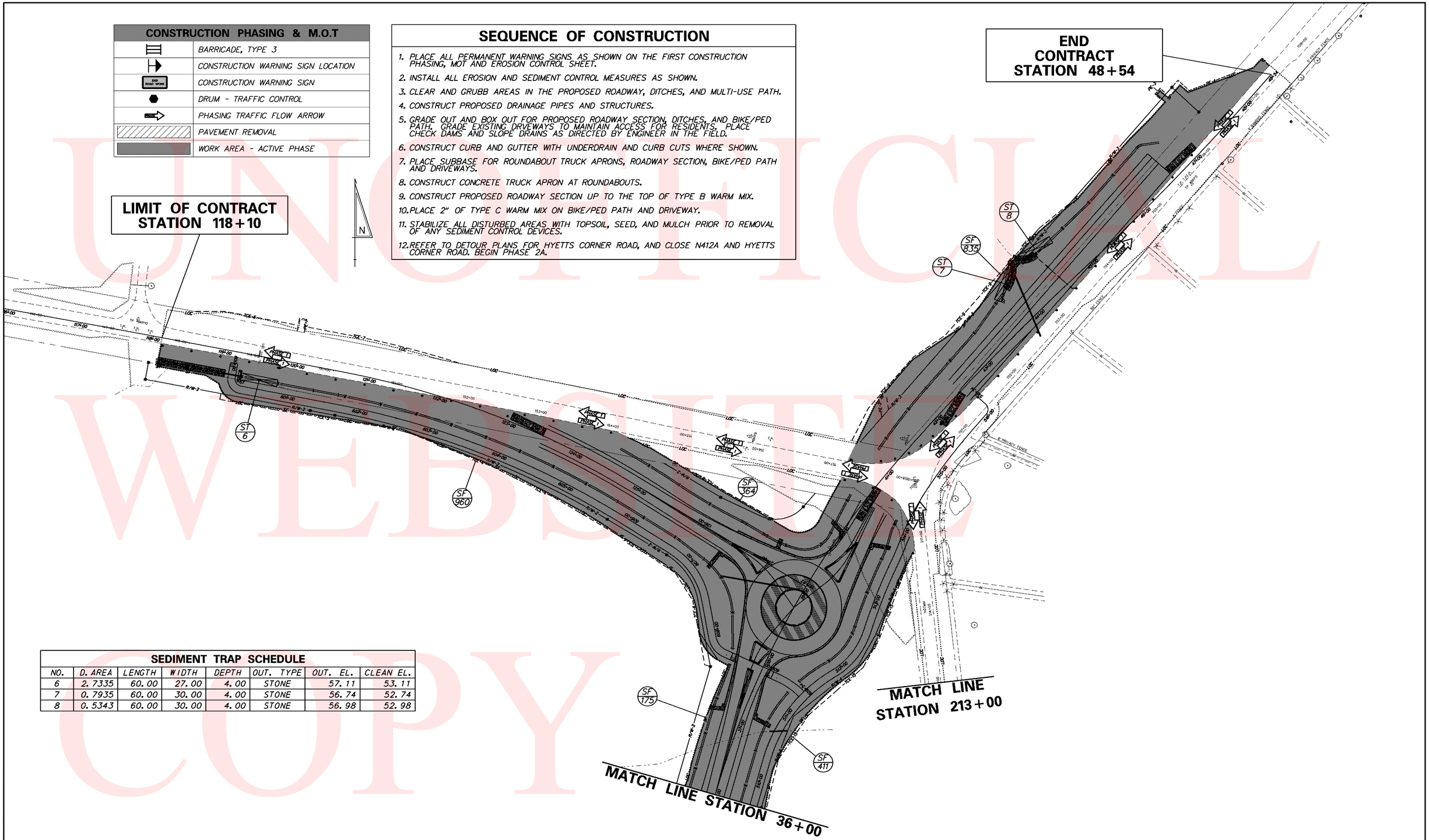
CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
PHASE	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE

SEQUENCE OF CONSTRUCTION

1. PLACE ALL PERMANENT WARNING SIGNS AS SHOWN ON THE FIRST CONSTRUCTION PHASING, MOT AND EROSION CONTROL SHEET.
2. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. CLEAR AND GRUBB AREAS IN THE PROPOSED ROADWAY, DITCHES, AND MULTI-USE PATH.
4. CONSTRUCT PROPOSED DRAINAGE PIPES AND STRUCTURES.
5. GRADE OUT AND BOX OUT FOR PROPOSED ROADWAY SECTION, DITCHES, AND BIKE/PED PATH. GRADE EXISTING DRVEWAYS TO MAINTAIN ACCESS FOR RESIDENTS. PLACE CHECK DAMS AND SLOPE DRAINS AS DIRECTED BY ENGINEER IN THE FIELD.
6. CONSTRUCT CURB AND GUTTER WITH UNDERDRAIN AND CURB CUTS WHERE SHOWN.
7. PLACE SUBBASE FOR ROUNDABOUT TRUCK APRONS, ROADWAY SECTION, BIKE/PED PATH AND DRIVEWAYS.
8. CONSTRUCT CONCRETE TRUCK APRON AT ROUNDABOUTS.
9. CONSTRUCT PROPOSED ROADWAY SECTION UP TO THE TOP OF TYPE B WARM MIX.
10. PLACE 2" OF TYPE C WARM MIX ON BIKE/PED PATH AND DRIVEWAY.
11. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH PRIOR TO REMOVAL OF ANY SEDIMENT CONTROL DEVICES.
12. REFER TO DETOUR PLANS FOR HYETTS CORNER ROAD, AND CLOSE N412A AND HYETTS CORNER ROAD. BEGIN PHASE 2A.



SEDIMENT TRAP SCHEDULE							
NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	OUT. EL.	CLEAN EL.
6	2.7335	60.00	27.00	4.00	STONE	57.11	53.11
7	0.7935	60.00	30.00	4.00	STONE	56.74	52.74
8	0.5343	60.00	30.00	4.00	STONE	56.98	52.98

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

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

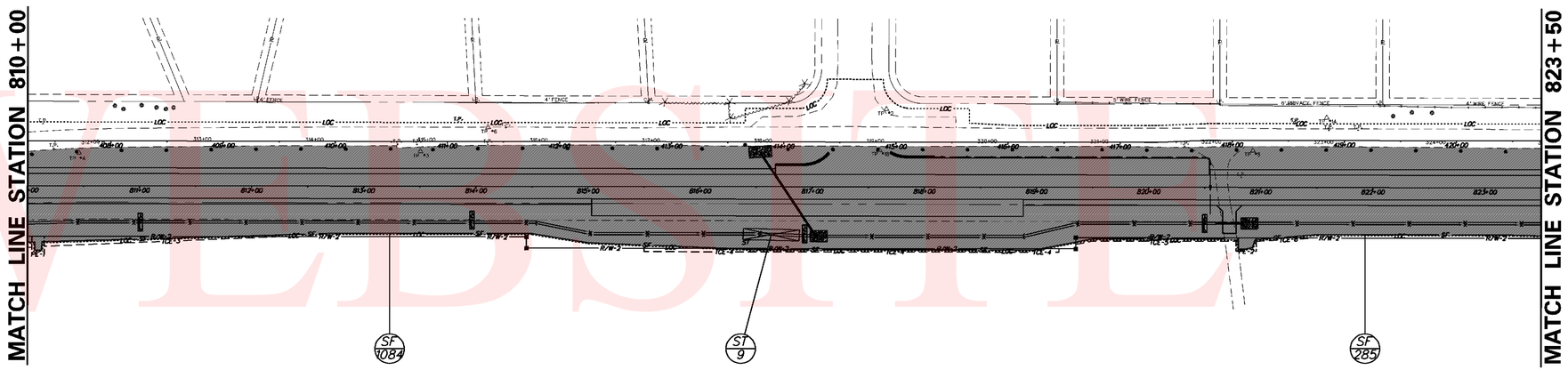
SHEET NO. 62
TOTAL SHTS. 86

SEDIMENT TRAP SCHEDULE							
NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	OUT. EL.	CLEAN EL.
9	1.8446	60.00	20.00	4.00	STONE	66.80	62.80

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE

SEQUENCE OF CONSTRUCTION

1. PLACE ALL PERMANENT WARNING SIGNS AS SHOWN ON THE FIRST CONSTRUCTION PHASING, MOT AND EROSION CONTROL SHEET.
2. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. CLEAR AND GRUBB AREAS IN THE PROPOSED ROADWAY, DITCHES, AND MULTI-USE PATH.
4. CONSTRUCT PROPOSED DRAINAGE PIPES AND STRUCTURES.
5. GRADE OUT AND BOX OUT FOR PROPOSED ROADWAY SECTION, DITCHES, AND BIKE/PED PATH. GRADE EXISTING DRVEWAYS TO MAINTAIN ACCESS FOR RESIDENTS. PLACE CHECK DAMS AND SLOPE DRAINS AS DIRECTED BY ENGINEER IN THE FIELD.
6. CONSTRUCT CURB AND GUTTER WITH UNDERDRAIN AND CURB CUTS WHERE SHOWN.
7. PLACE SUBBASE FOR ROUNDABOUT TRUCK APRONS, ROADWAY SECTION, BIKE/PED PATH AND DRIVEWAYS.
8. CONSTRUCT CONCRETE TRUCK APRON AT ROUNDABOUTS.
9. CONSTRUCT PROPOSED ROADWAY SECTION UP TO THE TOP OF TYPE B WARM MIX.
10. PLACE 2" OF TYPE C WARM MIX ON BIKE/PED PATH AND DRIVEWAY.
11. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH PRIOR TO REMOVAL OF ANY SEDIMENT CONTROL DEVICES.
12. REFER TO DETOUR PLANS FOR HYETTS CORNER ROAD, AND CLOSE N412A AND HYETTS CORNER ROAD. BEGIN PHASE 2A.



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

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

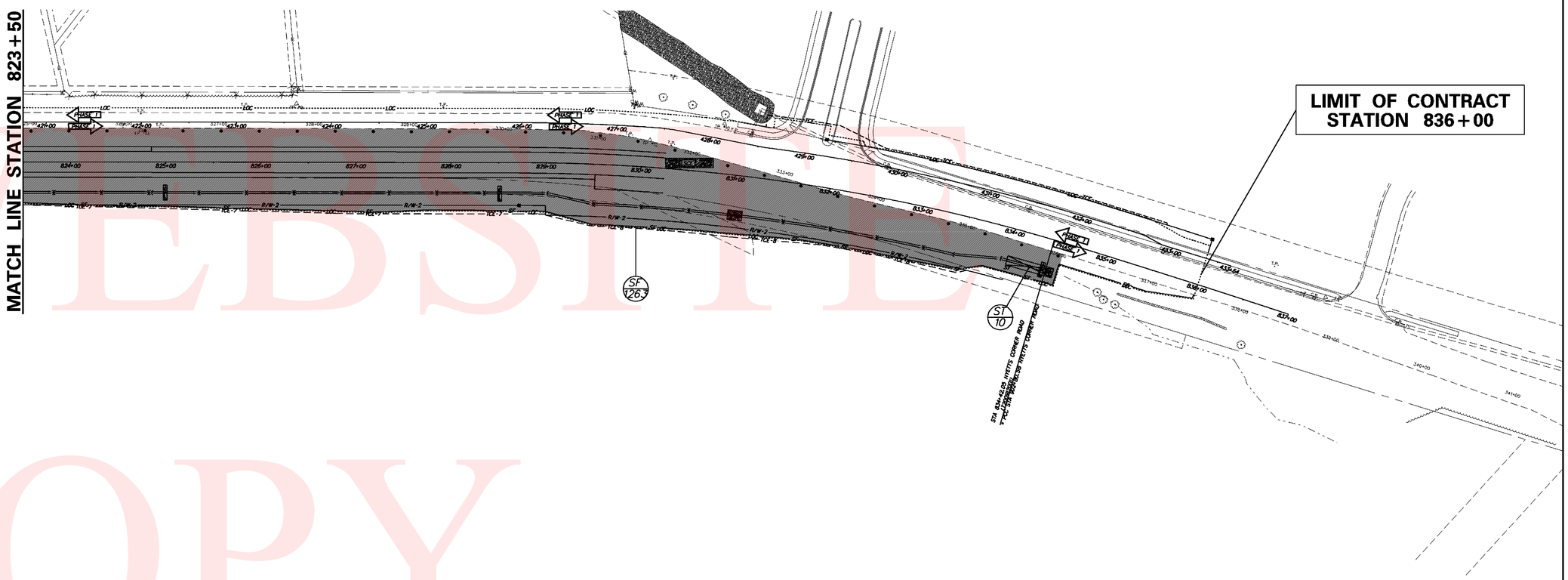
SHEET NO.
63
TOTAL SHTS.
86

SEDIMENT TRAP SCHEDULE							
NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	OUT. EL.	CLEAN EL.
10	2.1709	60.00	24.00	4.00	STONE	37.73	33.73

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE

SEQUENCE OF CONSTRUCTION

1. PLACE ALL PERMANENT WARNING SIGNS AS SHOWN ON THE FIRST CONSTRUCTION PHASING, MOT AND EROSION CONTROL SHEET.
2. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
3. CLEAR AND GRUBB AREAS IN THE PROPOSED ROADWAY, DITCHES, AND MULTI-USE PATH.
4. CONSTRUCT PROPOSED DRAINAGE PIPES AND STRUCTURES.
5. GRADE OUT AND BOX OUT FOR PROPOSED ROADWAY SECTION, DITCHES, AND BIKE/PED PATH. GRADE EXISTING DRVEWAYS TO MAINTAIN ACCESS FOR RESIDENTS. PLACE CHECK DAMS AND SLOPE DRAINS AS DIRECTED BY ENGINEER IN THE FIELD.
6. CONSTRUCT CURB AND GUTTER WITH UNDERDRAIN AND CURB CUTS WHERE SHOWN.
7. PLACE SUBBASE FOR ROUNDABOUT TRUCK APRONS, ROADWAY SECTION, BIKE/PED PATH AND DRIVEWAYS.
8. CONSTRUCT CONCRETE TRUCK APRON AT ROUNDABOUTS.
9. CONSTRUCT PROPOSED ROADWAY SECTION UP TO THE TOP OF TYPE B WARM MIX.
10. PLACE 2" OF TYPE C WARM MIX ON BIKE/PED PATH AND DRIVEWAY.
11. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED, AND MULCH PRIOR TO REMOVAL OF ANY SEDIMENT CONTROL DEVICES.
12. REFER TO DETOUR PLANS FOR HYETTS CORNER ROAD, AND CLOSE N412A AND HYETTS CORNER ROAD. BEGIN PHASE 2A.



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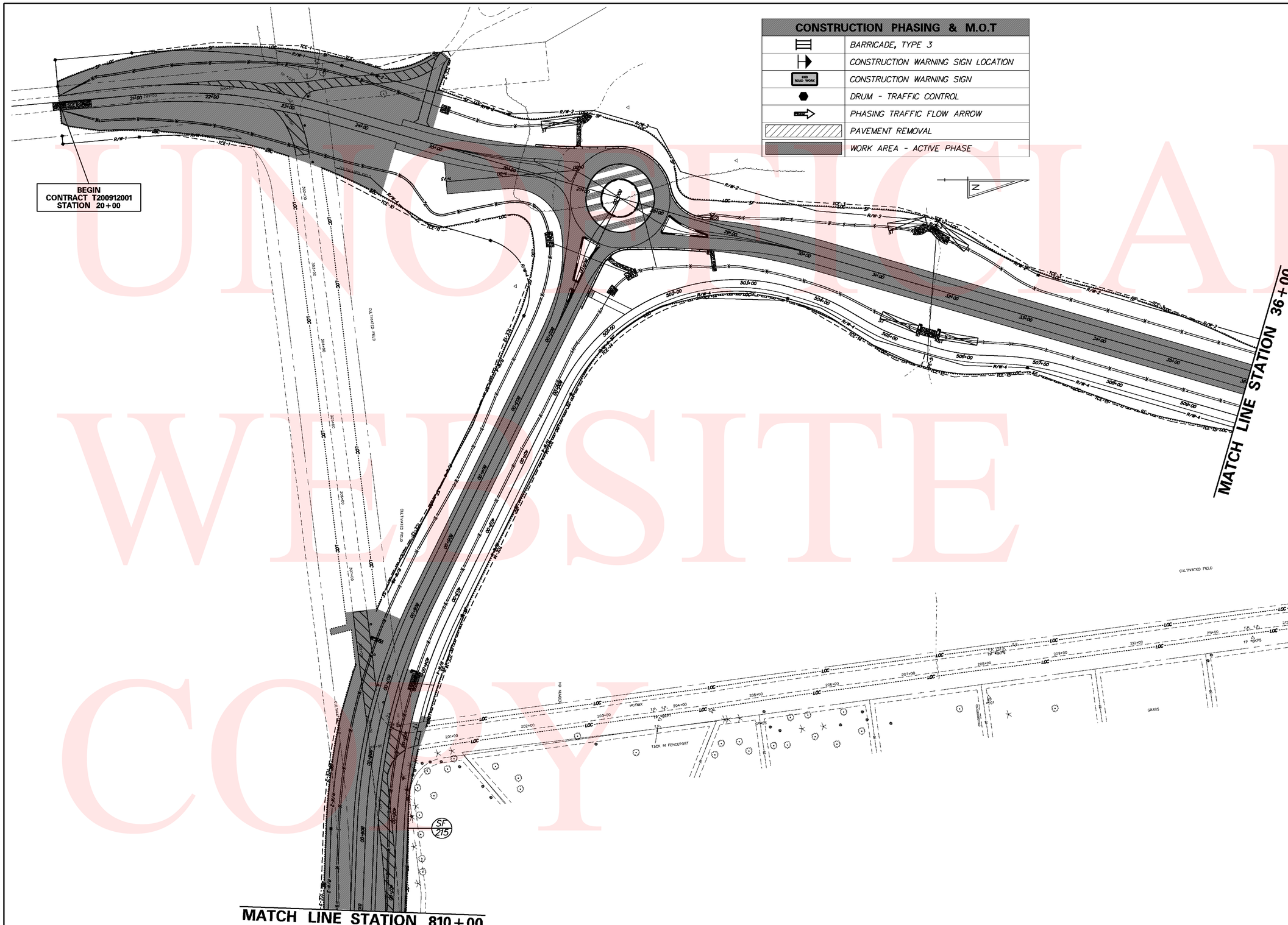
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 1	SHEET NO. 64
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		



CONSTRUCTION PHASING & M.O.T

	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE

SEQUENCE OF CONSTRUCTION

1. ENSURE ALL EXISTING EROSION AND SEDIMENT CONTROL MEASURES FROM PHASE 1 ARE STILL IN PLACE. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
2. EXCAVATE EXISTING PAVEMENT AND CURB SECTIONS.
3. CONVERT ONE EXISTING DRAINAGE INLET TO JUNCTION BOX AND REMOVE ANOTHER EXISTING DRAINAGE INLET.
4. CONSTRUCT PROPOSED DRAINAGE PIPES AND STRUCTURES.
5. CONSTRUCT CURB AND GUTTER WITH UNDERDRAIN AND CURB CUTS WHERE SHOWN.
6. GRADE OUT FOR PROPOSED PAVEMENT SECTION, ROADSIDE DITCHES, AND BIKE/PED PATH. GRADE EXISTING DRIVEWAYS TO MAINTAIN ACCESS FOR RESIDENTS. PLACE CHECK DAMS AS DIRECTED BY ENGINEER IN THE FIELD.
7. PLACE SUBBASE FOR ROADWAY SECTION, BIKE PED PATH, AND DRIVEWAYS.
8. CONSTRUCT PROPOSED ROADWAY SECTION UP TO THE TOP OF WARM MIX B.
9. PLACE 2" OF TYPE C WARM MIX ON ROADWAY SECTION, BIKE/PED PATH AND DRIVEWAYS.
10. INSTALL SIGNING AND STRIPING AS SHOWN ON SIGNING AND STRIPING PLANS.
11. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED AND MULCH PRIOR TO REMOVAL OF SEDIMENT CONTROL DEVICES.
12. REFER TO DETOUR PLANS FOR LOREWOOD GROVE ROAD, AND CLOSE N412A AND LOREWOOD GROVE ROAD.
13. REMOVE ALL BARRICADES AND DETOUR SIGNS FOR HYETTS CORNER ROAD DETOUR. BEGIN PHASE 2B.

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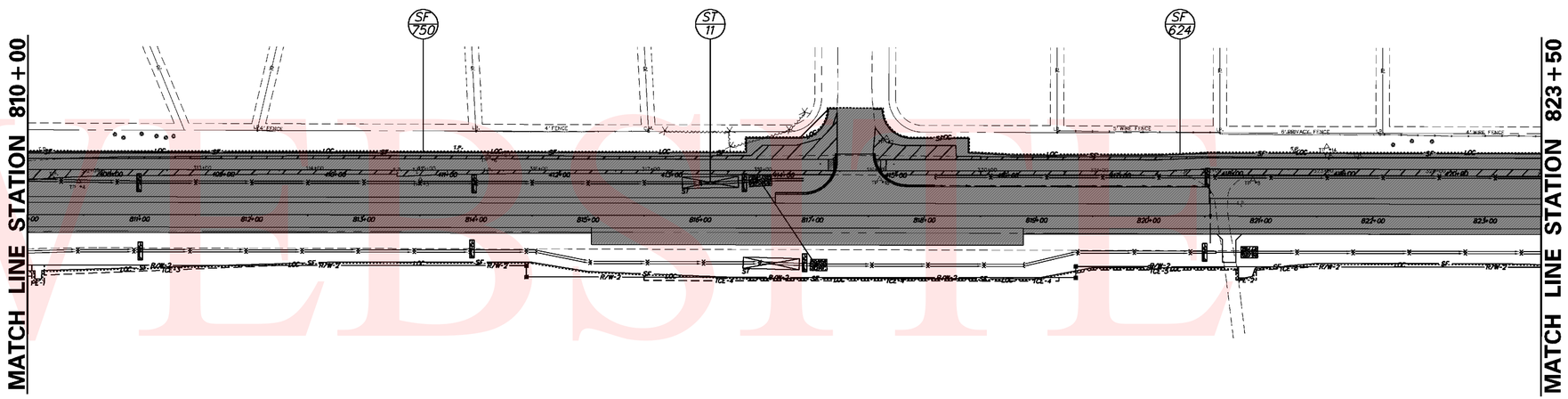
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 2A	SHEET NO. 65
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

SEDIMENT TRAP SCHEDULE							
NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	OUT. EL.	CLEAN EL.
11	1.6442	60.00	22.00	4.00	STONE	68.43	64.43

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE

SEQUENCE OF CONSTRUCTION

1. ENSURE ALL EXISTING EROSION AND SEDIMENT CONTROL MEASURES FROM PHASE 1 ARE STILL IN PLACE. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
2. EXCAVATE EXISTING PAVEMENT AND CURB SECTIONS.
3. CONVERT ONE EXISTING DRAINAGE INLET TO JUNCTION BOX AND REMOVE ANOTHER EXISTING DRAINAGE INLET.
4. CONSTRUCT PROPOSED DRAINAGE PIPES AND STRUCTURES.
5. CONSTRUCT CURB AND GUTTER WITH UNDERDRAIN AND CURB CUTS WHERE SHOWN.
6. GRADE OUT FOR PROPOSED PAVEMENT SECTION, ROADSIDE DITCHES, AND BIKE/PED PATH. GRADE EXISTING DRIVEWAYS TO MAINTAIN ACCESS FOR RESIDENTS. PLACE CHECK DAMS AS DIRECTED BY ENGINEER IN THE FIELD.
7. PLACE SUBBASE FOR ROADWAY SECTION, BIKE PED PATH, AND DRIVEWAYS.
8. CONSTRUCT PROPOSED ROADWAY SECTION UP TO THE TOP OF WARM MIX B.
9. PLACE 2" OF TYPE C WARM MIX ON ROADWAY SECTION, BIKE/PED PATH AND DRIVEWAYS.
10. INSTALL SIGNING AND STRIPING AS SHOWN ON SIGNING AND STRIPING PLANS.
11. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED AND MULCH PRIOR TO REMOVAL OF SEDIMENT CONTROL DEVICES.
12. REFER TO DETOUR PLANS FOR LOREWOOD GROVE ROAD, AND CLOSE N412A AND LOREWOOD GROVE ROAD.
13. REMOVE ALL BARRICADES AND DETOUR SIGNS FOR HYETTS CORNER ROAD DETOUR. BEGIN PHASE 2B.



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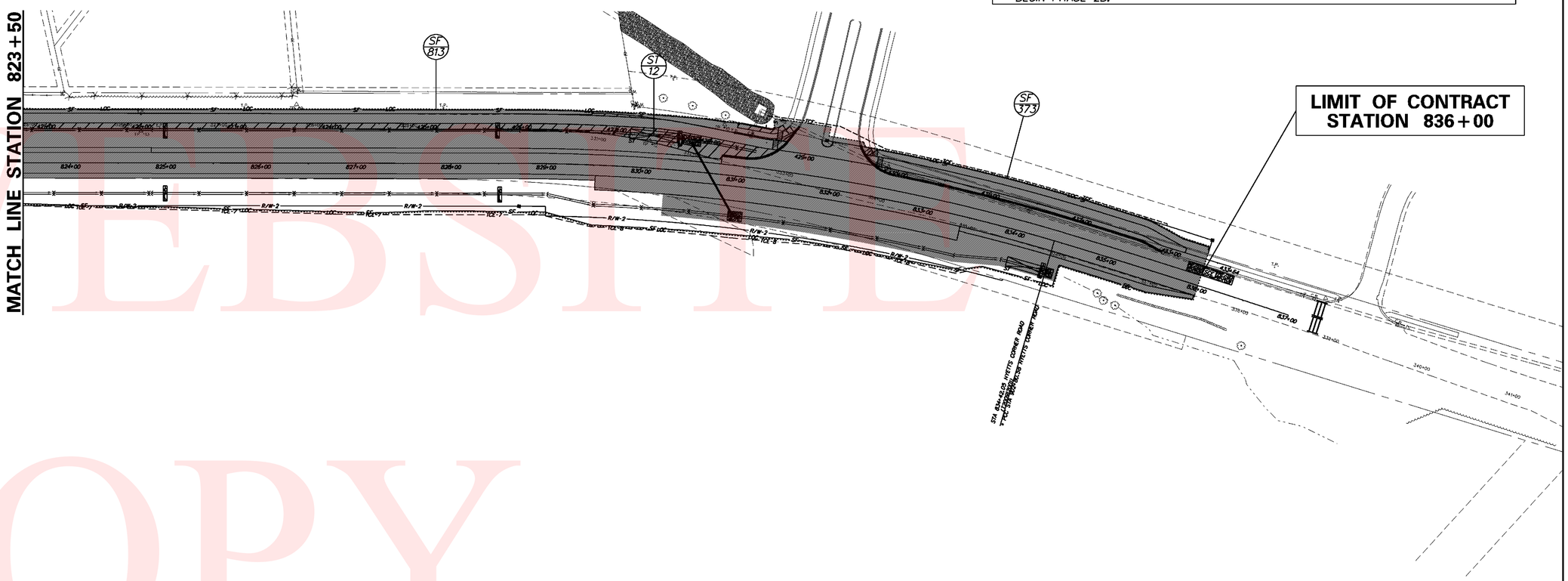
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 2A	SHEET NO. 66
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

SEDIMENT TRAP SCHEDULE							
NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	OUT. EL.	CLEAN EL.
12	1.6622	60.00	20.00	4.00	STONE	44.02	40.02

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE

SEQUENCE OF CONSTRUCTION

1. ENSURE ALL EXISTING EROSION AND SEDIMENT CONTROL MEASURES FROM PHASE 1 ARE STILL IN PLACE. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
2. EXCAVATE EXISTING PAVEMENT AND CURB SECTIONS.
3. CONVERT ONE EXISTING DRAINAGE INLET TO JUNCTION BOX AND REMOVE ANOTHER EXISTING DRAINAGE INLET.
4. CONSTRUCT PROPOSED DRAINAGE PIPES AND STRUCTURES.
5. CONSTRUCT CURB AND GUTTER WITH UNDERDRAIN AND CURB CUTS WHERE SHOWN.
6. GRADE OUT FOR PROPOSED PAVEMENT SECTION, ROADSIDE DITCHES, AND BIKE/PED PATH. GRADE EXISTING DRIVEWAYS TO MAINTAIN ACCESS FOR RESIDENTS. PLACE CHECK DAMS AS DIRECTED BY ENGINEER IN THE FIELD.
7. PLACE SUBBASE FOR ROADWAY SECTION, BIKE PED PATH, AND DRIVEWAYS.
8. CONSTRUCT PROPOSED ROADWAY SECTION UP TO THE TOP OF WARM MIX B.
9. PLACE 2" OF TYPE C WARM MIX ON ROADWAY SECTION, BIKE/PED PATH AND DRIVEWAYS.
10. INSTALL SIGNING AND STRIPING AS SHOWN ON SIGNING AND STRIPING PLANS.
11. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED AND MULCH PRIOR TO REMOVAL OF SEDIMENT CONTROL DEVICES.
12. REFER TO DETOUR PLANS FOR LOREWOOD GROVE ROAD, AND CLOSE N412A AND LOREWOOD GROVE ROAD.
13. REMOVE ALL BARRICADES AND DETOUR SIGNS FOR HYETTS CORNER ROAD DETOUR. BEGIN PHASE 2B.



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

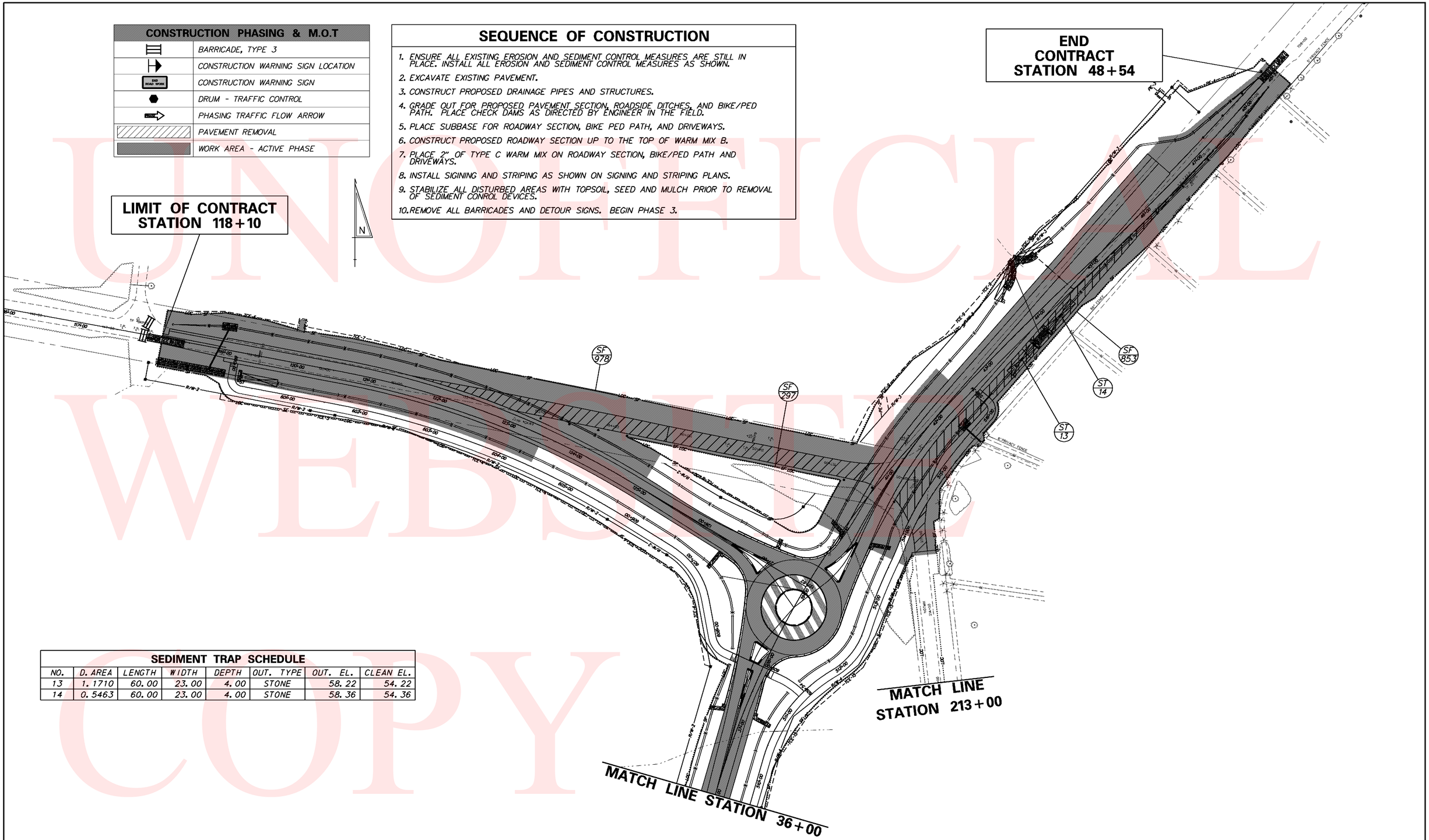
CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 2A

SHEET NO.
67
TOTAL SHTS.
86

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
FLOW	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE

SEQUENCE OF CONSTRUCTION

1. ENSURE ALL EXISTING EROSION AND SEDIMENT CONTROL MEASURES ARE STILL IN PLACE. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN.
2. EXCAVATE EXISTING PAVEMENT.
3. CONSTRUCT PROPOSED DRAINAGE PIPES AND STRUCTURES.
4. GRADE OUT FOR PROPOSED PAVEMENT SECTION, ROADSIDE DITCHES, AND BIKE/PED PATH. PLACE CHECK DAMS AS DIRECTED BY ENGINEER IN THE FIELD.
5. PLACE SUBBASE FOR ROADWAY SECTION, BIKE PED PATH, AND DRIVEWAYS.
6. CONSTRUCT PROPOSED ROADWAY SECTION UP TO THE TOP OF WARM MIX B.
7. PLACE 2" OF TYPE C WARM MIX ON ROADWAY SECTION, BIKE/PED PATH AND DRIVEWAYS.
8. INSTALL SIGINING AND STRIPING AS SHOWN ON SIGNING AND STRIPING PLANS.
9. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED AND MULCH PRIOR TO REMOVAL OF SEDIMENT CONROL DEVICES.
10. REMOVE ALL BARRICADES AND DETOUR SIGNS. BEGIN PHASE 3.



SEDIMENT TRAP SCHEDULE

NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	OUT. EL.	CLEAN EL.
13	1.1710	60.00	23.00	4.00	STONE	58.22	54.22
14	0.5463	60.00	23.00	4.00	STONE	58.36	54.36

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DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

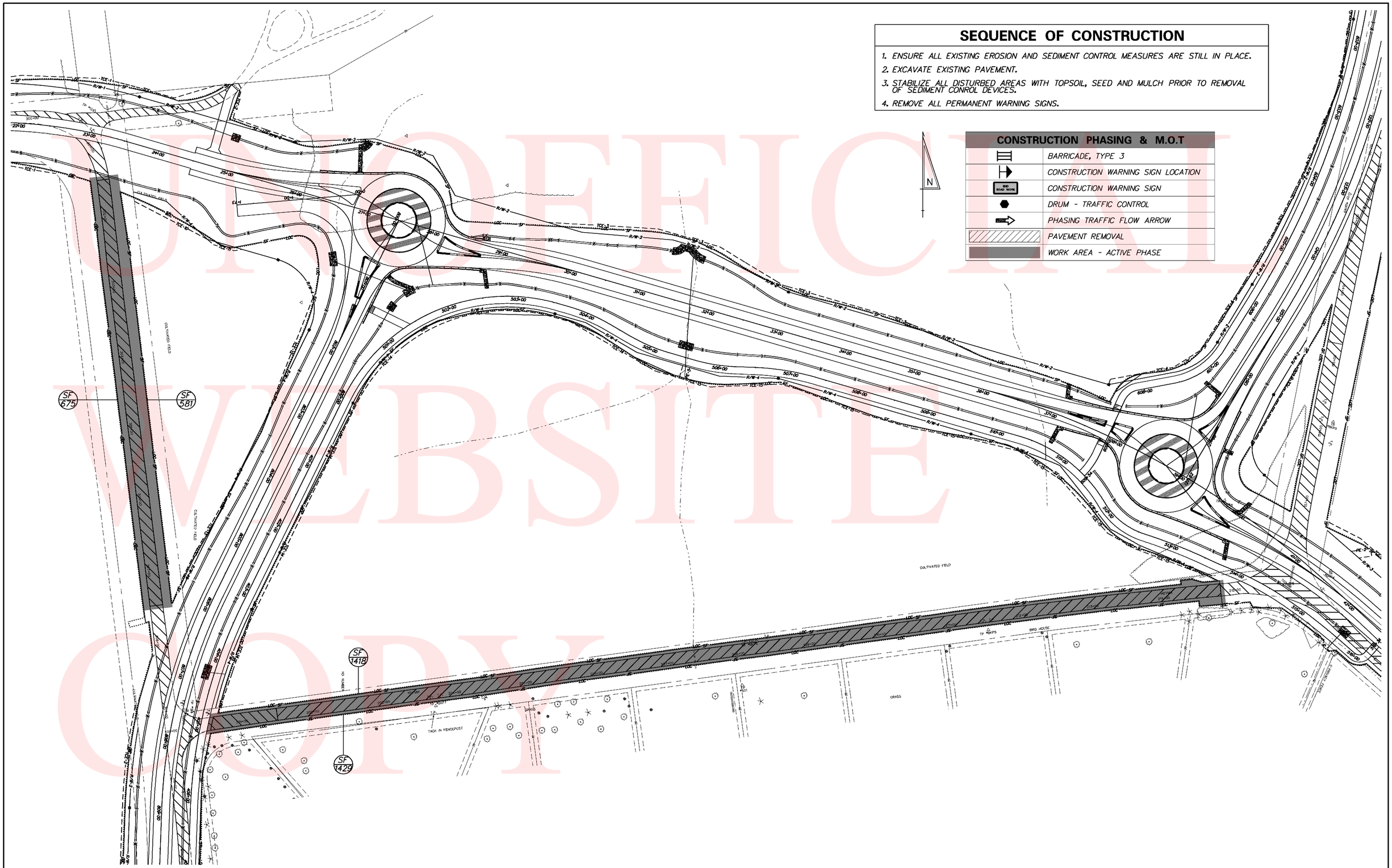
CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN – PHASE 2B

SHEET NO. 68
TOTAL SHTS. 86

SEQUENCE OF CONSTRUCTION

1. ENSURE ALL EXISTING EROSION AND SEDIMENT CONTROL MEASURES ARE STILL IN PLACE.
2. EXCAVATE EXISTING PAVEMENT.
3. STABILIZE ALL DISTURBED AREAS WITH TOPSOIL, SEED AND MULCH PRIOR TO REMOVAL OF SEDIMENT CONROL DEVICES.
4. REMOVE ALL PERMANENT WARNING SIGNS.

CONSTRUCTION PHASING & M.O.T	
	BARRICADE, TYPE 3
	CONSTRUCTION WARNING SIGN LOCATION
END ROAD WORK	CONSTRUCTION WARNING SIGN
	DRUM - TRAFFIC CONTROL
	PHASING TRAFFIC FLOW ARROW
	PAVEMENT REMOVAL
	WORK AREA - ACTIVE PHASE



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

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

SHEET NO.
69
TOTAL SHTS.
86

CHANGEABLE MESSAGE BOARDS

CMS-1

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

HYETT'S CRNR RD TO CLOSE	@ N412A STARTING XX/XX/XX

CMS-1

DURING DETOUR

HYETT'S CRNR RD CLOSED	@ N412A FOLLOW DETOUR

CMS-2

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

XXXXXXXX XXXXXXXX XXXXXXXX	XXXXXXXX XXXXXXXX XXXXXXXX

CMS-2

DURING DETOUR

XXXXXXXX XXXXXXXX XXXXXXXX	XXXXXXXX XXXXXXXX XXXXXXXX

SPECIAL SIGNS

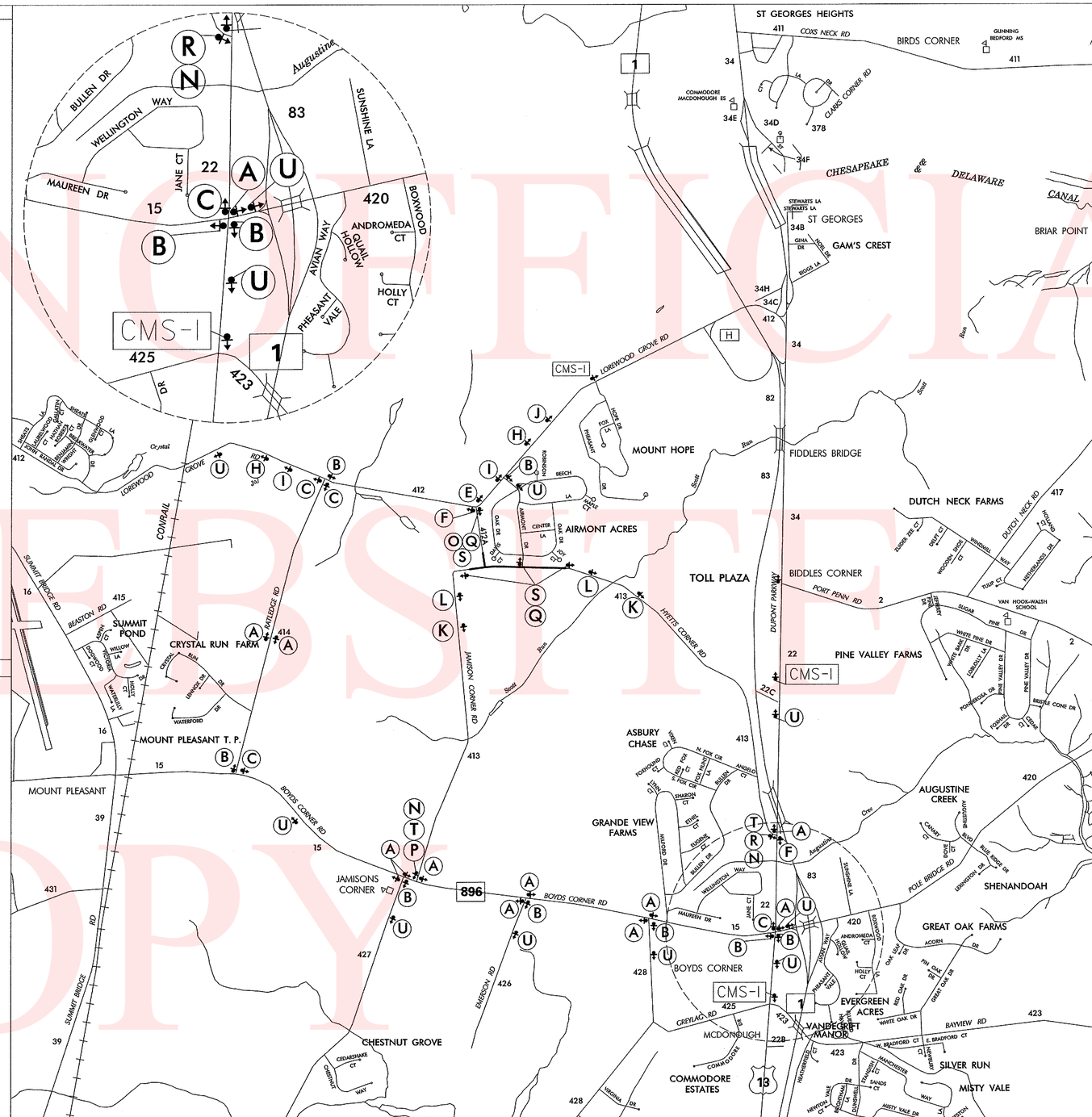
U

48"

72"

Hyett's	6"D
Corner Rd	6"D
CLOSED at	6"D
Rd 412A	6"D
FOLLOW	6"D
DETOUR	6"D

H/I ORANGE – BLACK LEGEND



LEGEND

A DETOUR ↑	B DETOUR ←	C DETOUR →
D DETOUR ↖	E DETOUR ↗	F END DETOUR
G DETOUR AHEAD	H DETOUR 1000 FT	I DETOUR 500 FT
J ROAD CLOSED AHEAD	K ROAD CLOSED 1000 FT	L ROAD CLOSED 500 FT
M Hyetts / Corner Rd	N ◄ DETOUR	O DETOUR ►
P ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	Q ROAD CLOSED	R ROAD CLOSED TO THRU TRAFFIC
S	T	

GENERAL NOTES

1. ALL DETOUR SIGNING INCLUDING, TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE TO THE DE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN *THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE- MUTCD PART 6) FOR LIGHTS, BARRICADES AND SIGNS.(AS PER LATEST REVISION)
3. 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 WILL PREVAIL.
4. SIGNS J THROUGH L AND P THROUGH R ,THE WORD (ROAD) SHOULD BE CHANGED TO RAMP, R/R OR BRIDGE WHERE APPLICABLE.
5. WARNING SIGNS SHOULD BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT SHEETING.
6. 'S' BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF ROADWAY.
7. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 7-26-11

APPROVED CHIEF SAFETY OFFICER _____ DATE: 7-26-11

APPROVED TRAFFIC ENGINEER _____ DATE: 7/26/11

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

NOT TO SCALE

N412A, HYETT'S CORNER RD TO LOREWOOD GROVE RD

CONTRACT	PERMIT NO.	NA
29-120-01	DESIGNED BY: SKG	
COUNTY		
NC	CHECKED BY: ASW	

DETOUR PLAN
HYETT'S CORNER RD

SHEET NO. 70
TOTAL SHTS. 86

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CHANGEABLE MESSAGE BOARDS

CMS-1

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

LOREWOOD GROVE RD TO CLOSE	@ N412A STARTING XX/XX/XX

CMS-1

DURING DETOUR

LOREWOOD GROVE RD CLOSED	@ N412A FOLLOW DETOUR

CMS-2

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

XXXXXXXX XXXXXXXX XXXXXXXX	XXXXXXXX XXXXXXXX XXXXXXXX

CMS-2

DURING DETOUR

XXXXXXXX XXXXXXXX XXXXXXXX	XXXXXXXX XXXXXXXX XXXXXXXX

SPECIAL SIGNS

PRIOR TO DETOUR

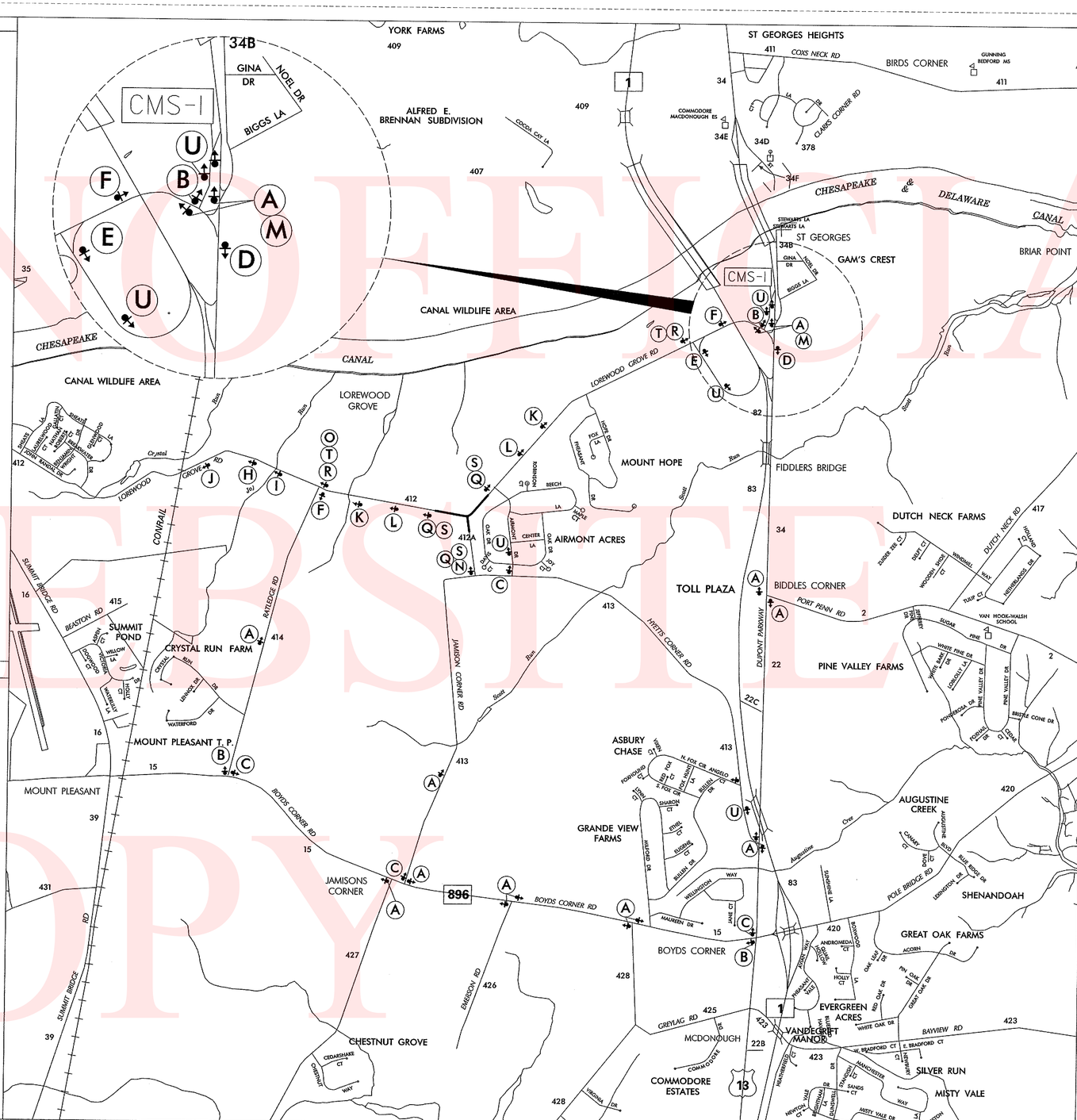
U

48"

72"

Lorewood	6"D
Grove Rd	6"D
CLOSED at	6"D
RD 412A	6"D
FOLLOW	6"D
DETOUR	6"D

H/I ORANGE – BLACK LEGEND



LEGEND

A DETOUR	B DETOUR	C DETOUR
D DETOUR	E DETOUR	F END DETOUR
G DETOUR AHEAD	H DETOUR 1000 FT	I DETOUR 500 FT
J ROAD CLOSED AHEAD	K ROAD CLOSED 1000 FT	L ROAD CLOSED 500 FT
M Lorewood Grove Rd	N DETOUR	O DETOUR
P ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	Q ROAD CLOSED	R ROAD CLOSED TO THRU TRAFFIC
S	T	

GENERAL NOTES

1. ALL DETOUR SIGNING INCLUDING, TRAILBLAZERS, ARE TO BE SUPPLIED AND MAINTAINED BY THE GENERAL CONTRACTOR IN COMPLIANCE TO THE DE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. THE CONTRACTOR SHALL COMPLY WITH GUIDELINES IN 'THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (DE- MUTCD PART 6) FOR LIGHTS, BARRICADES AND SIGNS.(AS PER LATEST REVISION)
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4. SIGNS J THROUGH L AND P THROUGH R ,THE WORD (ROAD) SHOULD BE CHANGED TO RAMP, R/R OR BRIDGE WHERE APPLICABLE.
5. WARNING SIGNS SHOULD BE MOUNTED ON BREAKAWAY POSTS AND HAVE RETROREFLECTIVE FLUORESCENT SHEETING.
6. 'S' BARRICADES SHALL COMPLETELY RUN THE FULL WIDTH OF ROADWAY.
7. BARRICADES SHALL BE A MINIMUM OF 6 FEET WIDE UNLESS DIRECTED BY THE ENGINEER.

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: _____

RECOMMENDED _____ DATE: 7-26-11

APPROVED CHIEF SAFETY OFFICER _____ DATE: 7-26-11

APPROVED TRAFFIC ENGINEER _____ DATE: 7/26/11

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

NOT TO SCALE

N412A, HYETT'S CORNER RD TO LOREWOOD GROVE RD

CONTRACT	PERMIT NO.	NA
29-120-01	DESIGNED BY: SKG	
COUNTY		
NC	CHECKED BY: ASW	

DETOUR PLAN

LOREWOOD GROVE RD

SHEET NO. 71

TOTAL SHTS. 86

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LANDSCAPE LEGEND

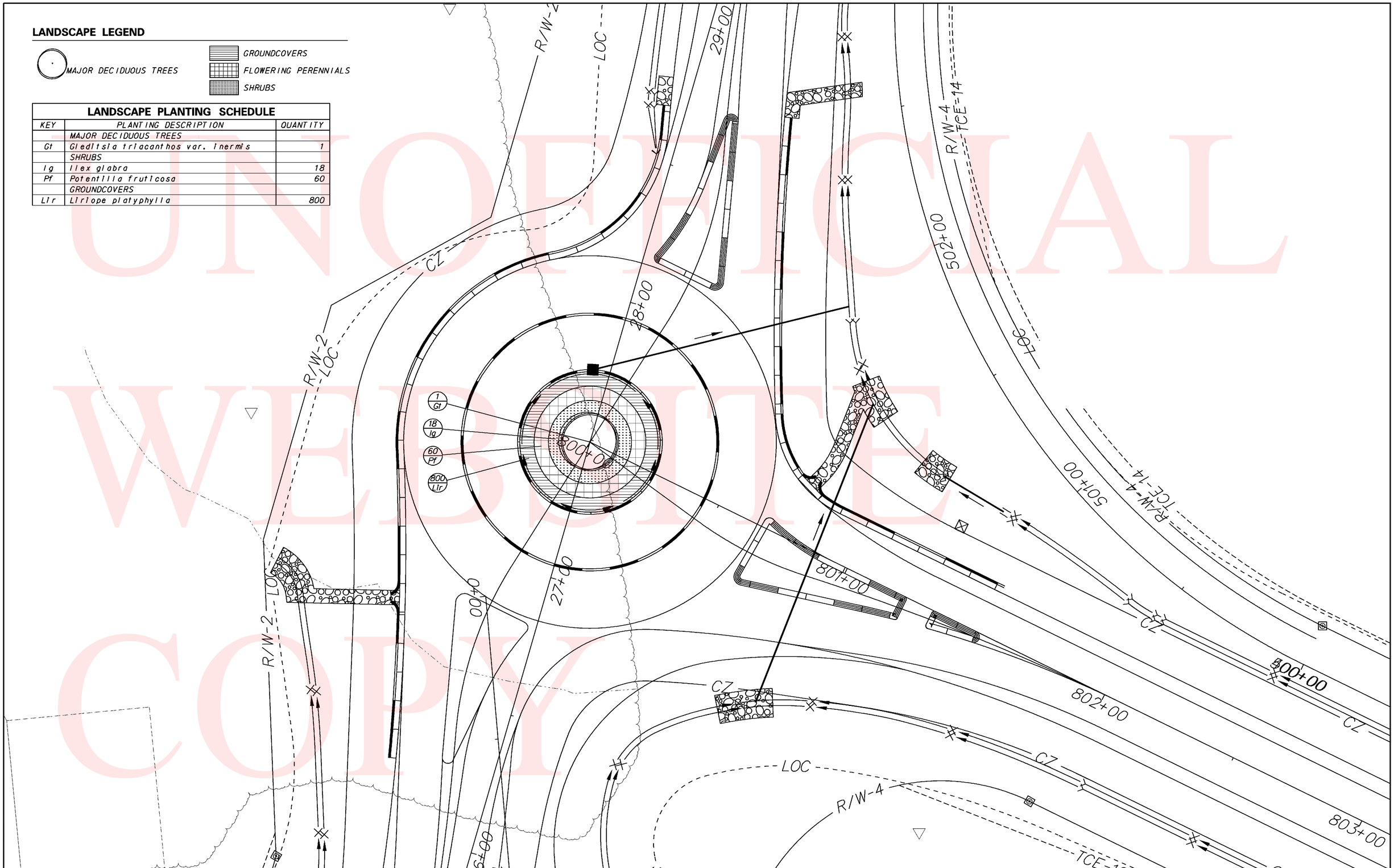
MAJOR DECIDUOUS TREES

GROUNDCOVERS

FLOWERING PERENNIALS

SHRUBS

LANDSCAPE PLANTING SCHEDULE		
KEY	PLANTING DESCRIPTION	QUANTITY
	MAJOR DECIDUOUS TREES	
Gt	Gleditsia triacanthos var. inermis	1
	SHRUBS	
Ig	Ilex glabra	18
Pf	Potentilla fruticosa	60
	GROUNDCOVERS	
Lir	Liriope platyphylla	800



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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 15 30 45 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	LANDSCAPING PLAN	SHEET NO. 72
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

LANDSCAPE LEGEND

MAJOR DECIDUOUS TREES

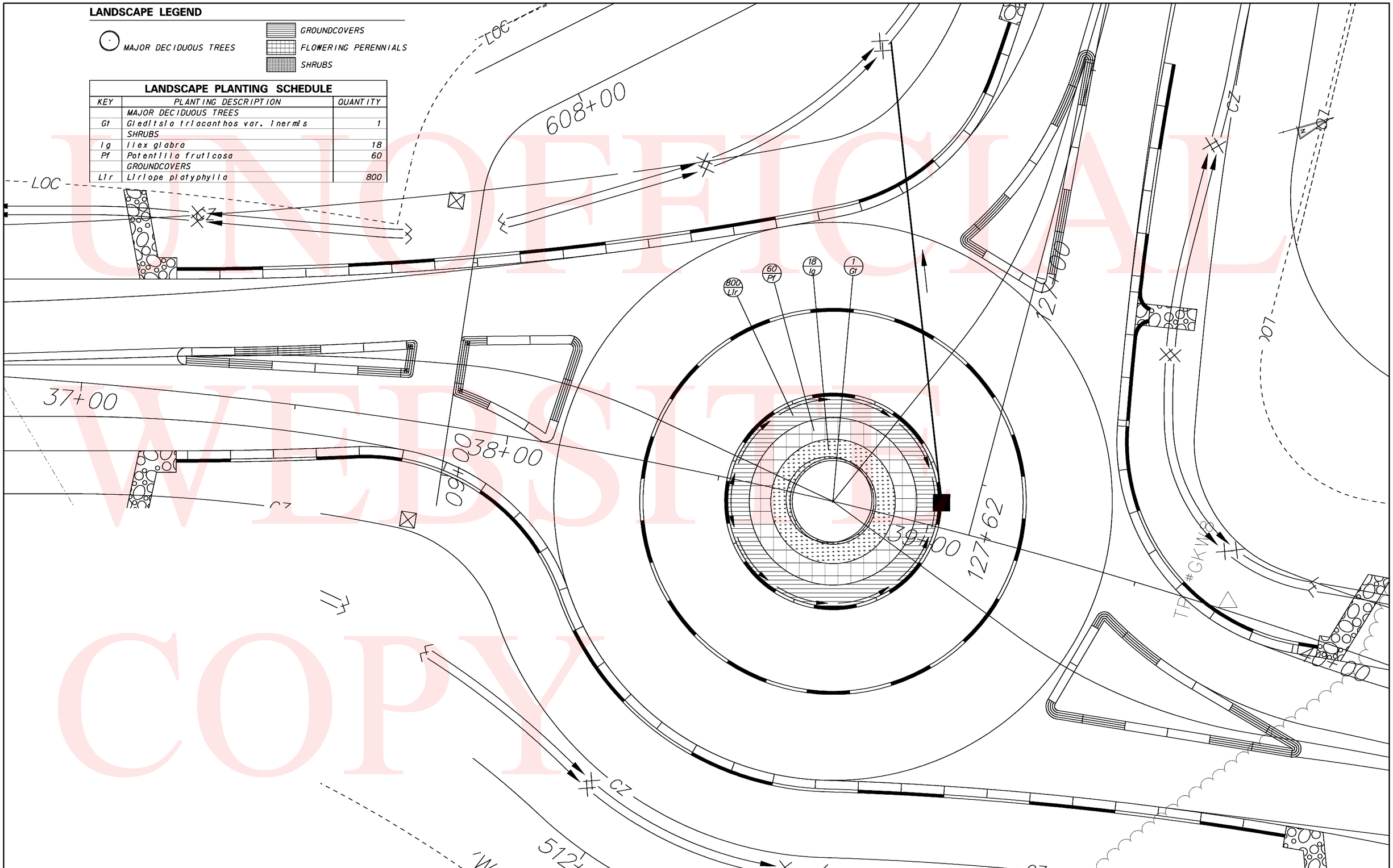
GROUNDCOVERS

FLOWERING PERENNIALS

SHRUBS

LANDSCAPE PLANTING SCHEDULE

KEY	PLANTING DESCRIPTION	QUANTITY
	MAJOR DECIDUOUS TREES	
Gt	Gleditsia triacanthos var. inermis	1
	SHRUBS	
Ig	Ilex glabra	18
Pf	Potentilla fruticosa	60
	GROUNDCOVERS	
Llr	Liriope platyphylla	800



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 10 20 30 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY		
NEW CASTLE	CHECKED BY: JKL	

LANDSCAPING PLAN

SHEET NO.
73
TOTAL SHTS.
86

LIGHTING STANDARD SCHEDULE

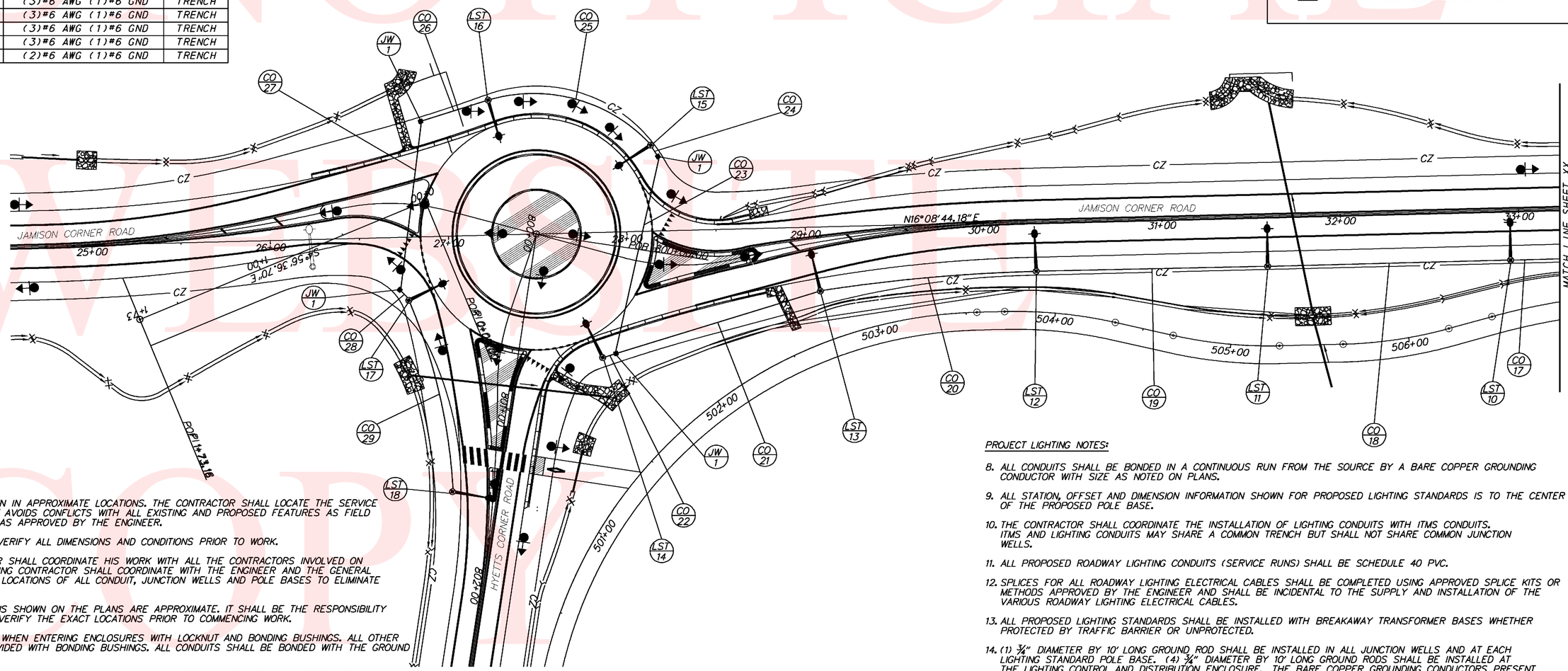
NO.	CIRCUIT NO.	STATION	OFFSET	ARM	LUMINAIRE MOUNTING HEIGHT	POLE BASE	LUMINAIRE
10	1	32+94.86	28.12' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
11	3	31+58.63	28.21' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
12	1	30+28.84	27.81' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
13	3	29+07.60	35.85' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
14	1	27+84.67	70.14' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
15	3	28+14.49	48.22' LT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
16	1	27+24.07	75.80' LT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
17	3	26+76.83	35.36' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
18	1	801+49.91	24.92' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION

CONDUIT RUN SCHEDULE

CR#	# OF CONDUITS	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE/WIRE	INSTALLATION
17	1	3.0"	137'	(3)#6 AWG (1)#6 GND	TRENCH
18	1	3.0"	133'	(3)#6 AWG (1)#6 GND	TRENCH
19	1	3.0"	127'	(3)#6 AWG (1)#6 GND	TRENCH
20	1	3.0"	119'	(3)#6 AWG (1)#6 GND	TRENCH
21	1	3.0"	118'	(3)#6 AWG (1)#6 GND	TRENCH
22	1	3.0"	6'	(2)#6 AWG (1)#6 GND	TRENCH
23	1	3.0"	112'	(3)#6 AWG (1)#6 GND	TRENCH
24	1	3.0"	5'	(3)#6 AWG (1)#6 GND	TRENCH
25	1	3.0"	97'	(3)#6 AWG (1)#6 GND	TRENCH
26	1	3.0"	37'	(3)#6 AWG (1)#6 GND	TRENCH
27	1	3.0"	94'	(3)#6 AWG (1)#6 GND	TRENCH
28	1	3.0"	6'	(3)#6 AWG (1)#6 GND	TRENCH
29	1	3.0"	108'	(2)#6 AWG (1)#6 GND	TRENCH

LIGHTING LEGEND

- LST X — PROPOSED LUMINAIRE IDENTIFIER (#OF LUMINAIRE)
- CO X — PROPOSED CONDUIT RUN (#OF CONDUIT RUN)
- PROPOSED COBRAHEAD LUMINAIRE, SINGLE DAVIT ARM POLE
- JW X — PROPOSED JUNCTION WELL TYPE OF JUNCTION WELL
- PROPOSED 120/240V SINGLE PHASE LIGHTING CONTROL CABINET
- PROPOSED LIGHTING CONDUIT
- PROPOSED JUNCTION WELL
- P — PROPOSED METERED SERVICE CABINET



PROJECT LIGHTING NOTES:

1. CONDUIT RUNS ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL LOCATE THE SERVICE RUNS IN A MANNER THAT AVOIDS CONFLICTS WITH ALL EXISTING AND PROPOSED FEATURES AS FIELD CONDITIONS DICTATE AND AS APPROVED BY THE ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO WORK.
3. THE LIGHTING CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL THE CONTRACTORS INVOLVED ON THIS PROJECT. THE LIGHTING CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND THE GENERAL SUPERINTENDENT ON THE LOCATIONS OF ALL CONDUIT, JUNCTION WELLS AND POLE BASES TO ELIMINATE CONSTRUCTION CONFLICTS.
4. EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATIONS PRIOR TO COMMENCING WORK.
5. TERMINATE ALL CONDUITS WHEN ENTERING ENCLOSURES WITH LOCKNUT AND BONDING BUSHINGS. ALL OTHER CONDUITS SHALL BE PROVIDED WITH BONDING BUSHINGS. ALL CONDUITS SHALL BE BONDED WITH THE GROUND WIRE.
6. COLOR CODING SHALL BE PROVIDED THROUGHOUT THE ENTIRE NETWORK FOR SERVICE, FEEDER, BRANCH AND CONTROL CONDUCTORS. EACH PHASE SHALL BE AN INDEPENDENT COLOR. CONDUCTORS SHALL HAVE FACTORY IMPREGNATED COLOR THROUGHOUT THEIR ENTIRE LENGTH.
7. ALL FUSED CONNECTIONS SHALL BE MADE IN THE POLE BASE. SPLICES IN JUNCTION BOXES OR PULL BOXES SHALL NOT BE FUSED.

PROJECT LIGHTING NOTES:

8. ALL CONDUITS SHALL BE BONDED IN A CONTINUOUS RUN FROM THE SOURCE BY A BARE COPPER GROUNDING CONDUCTOR WITH SIZE AS NOTED ON PLANS.
9. ALL STATION, OFFSET AND DIMENSION INFORMATION SHOWN FOR PROPOSED LIGHTING STANDARDS IS TO THE CENTER OF THE PROPOSED POLE BASE.
10. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF LIGHTING CONDUITS WITH ITMS CONDUITS. ITMS AND LIGHTING CONDUITS MAY SHARE A COMMON TRENCH BUT SHALL NOT SHARE COMMON JUNCTION WELLS.
11. ALL PROPOSED ROADWAY LIGHTING CONDUITS (SERVICE RUNS) SHALL BE SCHEDULE 40 PVC.
12. SPLICES FOR ALL ROADWAY LIGHTING ELECTRICAL CABLES SHALL BE COMPLETED USING APPROVED SPLICE KITS OR METHODS APPROVED BY THE ENGINEER AND SHALL BE INCIDENTAL TO THE SUPPLY AND INSTALLATION OF THE VARIOUS ROADWAY LIGHTING ELECTRICAL CABLES.
13. ALL PROPOSED LIGHTING STANDARDS SHALL BE INSTALLED WITH BREAKAWAY TRANSFORMER BASES WHETHER PROTECTED BY TRAFFIC BARRIER OR UNPROTECTED.
14. (1) ¾" DIAMETER BY 10' LONG GROUND ROD SHALL BE INSTALLED IN ALL JUNCTION WELLS AND AT EACH LIGHTING STANDARD POLE BASE. (4) ¾" DIAMETER BY 10' LONG GROUND RODS SHALL BE INSTALLED AT THE LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE. THE BARE COPPER GROUNDING CONDUCTORS PRESENT AT EACH JUNCTION WELL, LIGHTING STANDARD POLE BASE OR LIGHTING CONTROL AND DISTRIBUTION ENCLOSURE SHALL BE CONNECTED TO THE GROUND ROD.
15. CONTRACTOR SHALL PROVIDE ADDITIONAL #6 GROUND WIRE IN EACH JUNCTION WELL (MAX. 10') FOR FUTURE GROUNDING/BONDING PURPOSES.

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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: GG	
COUNTY		
NEW CASTLE	CHECKED BY:	

LIGHTING PLAN

SHEET NO. 74

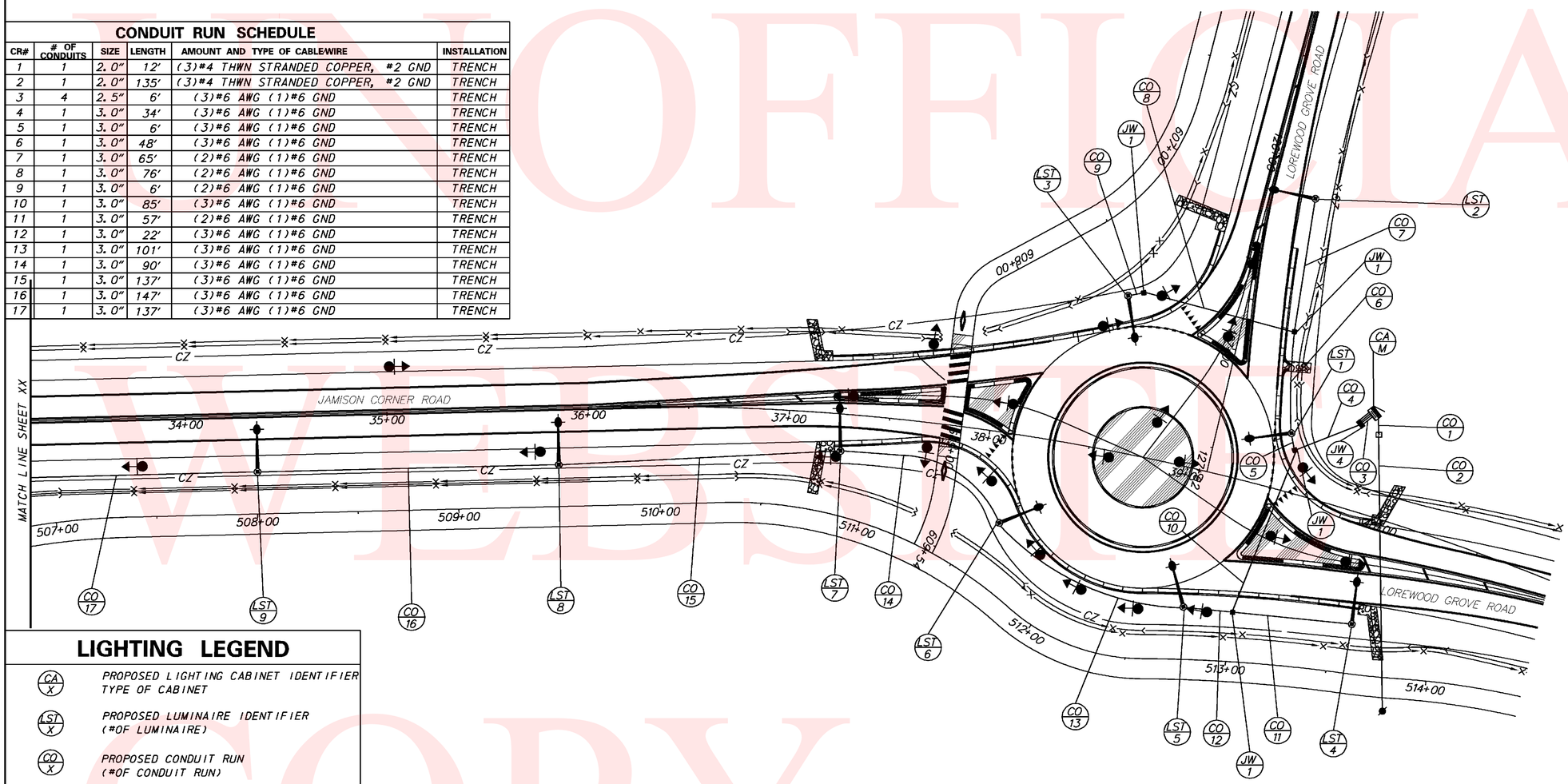
TOTAL SHTS. 86

LIGHTING STANDARD SCHEDULE

NO.	CIRCUIT NO.	STATION	OFFSET	ARM	LUMINAIRE MOUNTING HEIGHT	POLE BASE	LUMINAIRE
1	3	39. 46. 47	28. 82' LT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
2	3	126+17. 80	21. 14' LT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
3	1	38+58. 58	77. 33' LT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
4	1	39+96. 79	53. 74' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
5	3	39+13. 36	68. 04' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
6	1	38+11. 15	44. 73' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
7	3	37+26. 48	18. 33' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
8	1	35+84. 72	28. 23' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION
9	3	34+35. 09	28. 09' RT	12'	30'	TYPE 6	150 W HPS, IES TYPE 2 DISTRIBUTION

CONDUIT RUN SCHEDULE

CR#	# OF CONDUITS	SIZE	LENGTH	AMOUNT AND TYPE OF CABLE/WIRE	INSTALLATION
1	1	2. 0"	12'	(3)#4 THWN STRANDED COPPER, #2 GND	TRENCH
2	1	2. 0"	135'	(3)#4 THWN STRANDED COPPER, #2 GND	TRENCH
3	4	2. 5"	6'	(3)#6 AWG (1)#6 GND	TRENCH
4	1	3. 0"	34'	(3)#6 AWG (1)#6 GND	TRENCH
5	1	3. 0"	6'	(3)#6 AWG (1)#6 GND	TRENCH
6	1	3. 0"	48'	(3)#6 AWG (1)#6 GND	TRENCH
7	1	3. 0"	65'	(2)#6 AWG (1)#6 GND	TRENCH
8	1	3. 0"	76'	(2)#6 AWG (1)#6 GND	TRENCH
9	1	3. 0"	6'	(2)#6 AWG (1)#6 GND	TRENCH
10	1	3. 0"	85'	(3)#6 AWG (1)#6 GND	TRENCH
11	1	3. 0"	57'	(2)#6 AWG (1)#6 GND	TRENCH
12	1	3. 0"	22'	(3)#6 AWG (1)#6 GND	TRENCH
13	1	3. 0"	101'	(3)#6 AWG (1)#6 GND	TRENCH
14	1	3. 0"	90'	(3)#6 AWG (1)#6 GND	TRENCH
15	1	3. 0"	137'	(3)#6 AWG (1)#6 GND	TRENCH
16	1	3. 0"	147'	(3)#6 AWG (1)#6 GND	TRENCH
17	1	3. 0"	137'	(3)#6 AWG (1)#6 GND	TRENCH



LIGHTING LEGEND

- (CA X) PROPOSED LIGHTING CABINET IDENTIFIER TYPE OF CABINET
- (LST X) PROPOSED LUMINAIRE IDENTIFIER (#OF LUMINAIRE)
- (CO X) PROPOSED CONDUIT RUN (#OF CONDUIT RUN)
- PROPOSED COBRAHEAD LUMINAIRE, SINGLE DAVIT ARM POLE
- (JW X) PROPOSED JUNCTION WELL TYPE OF JUNCTION WELL
- PROPOSED 120/240V SINGLE PHASE LIGHTING CONTROL CABINET
- PROPOSED LIGHTING CONDUIT
- PROPOSED JUNCTION WELL
- (P) PROPOSED METERED SERVICE CABINET

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Y:\TRAFFIC\USERS\GEORGE\29-120-01 - 412A ROUNDABOUTS\LIGHTING\T200912001_L_02.DGN

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUM / REVISIONS

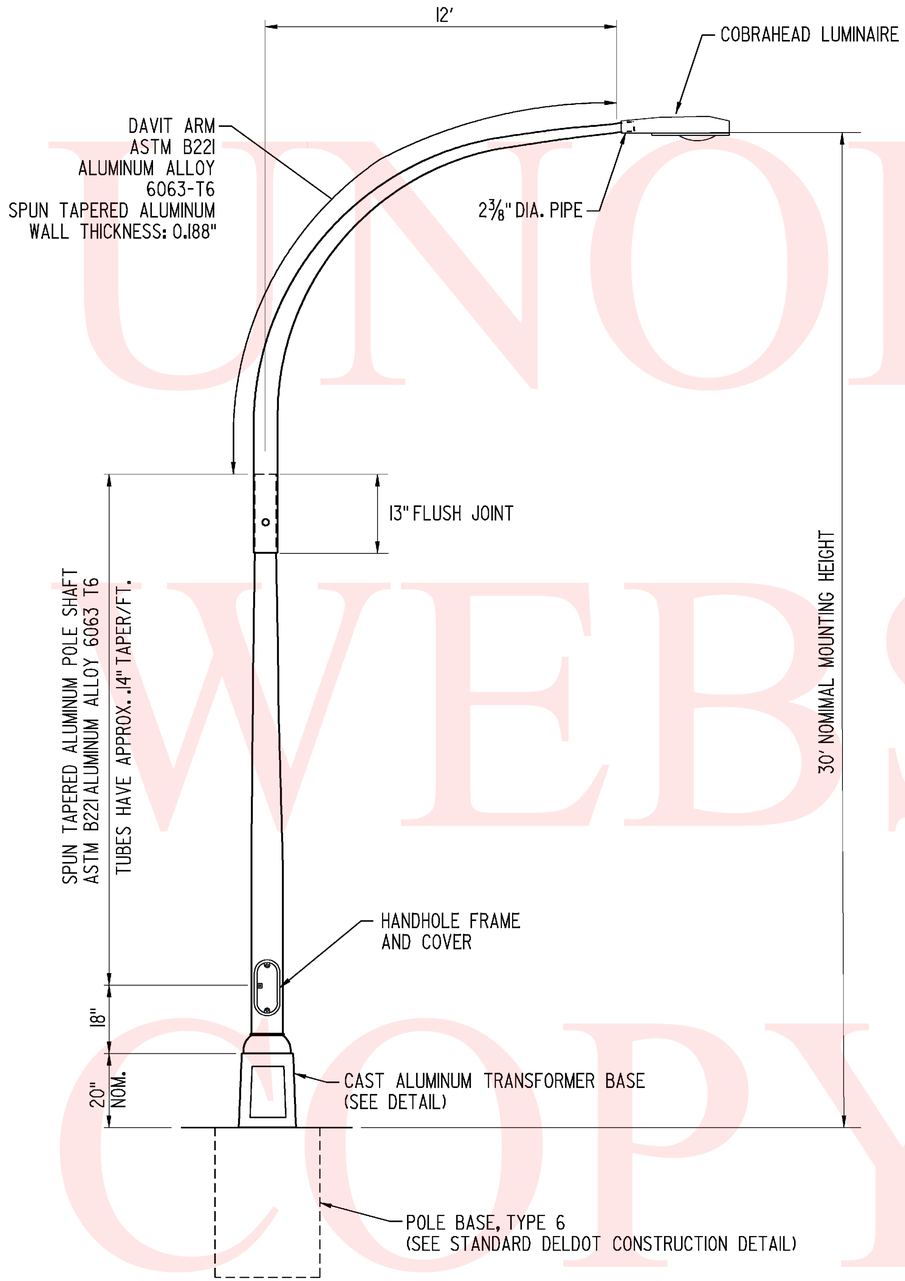
SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: CG	
COUNTY		
NEW CASTLE	CHECKED BY:	

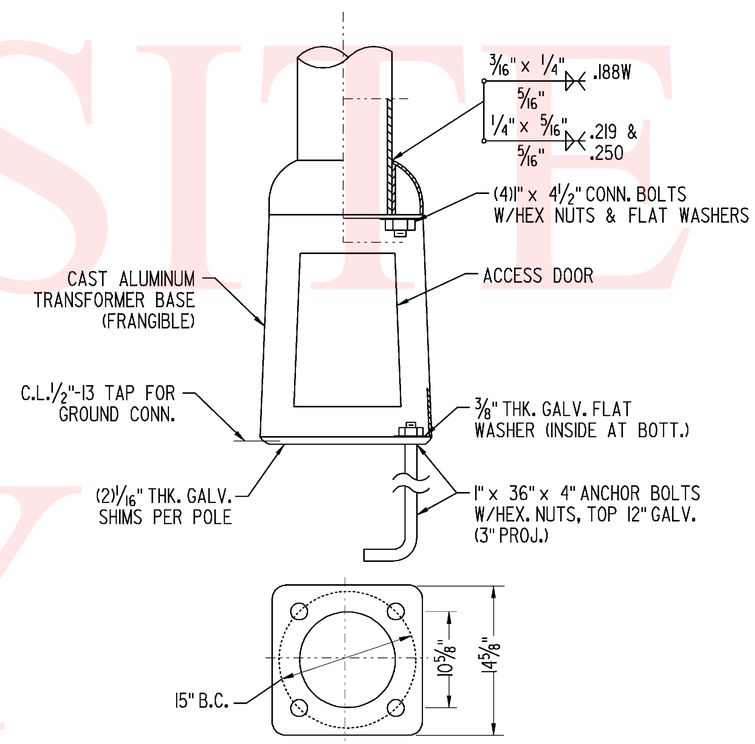
LIGHTING PLAN

SHEET NO.
75
TOTAL SHTS.
86



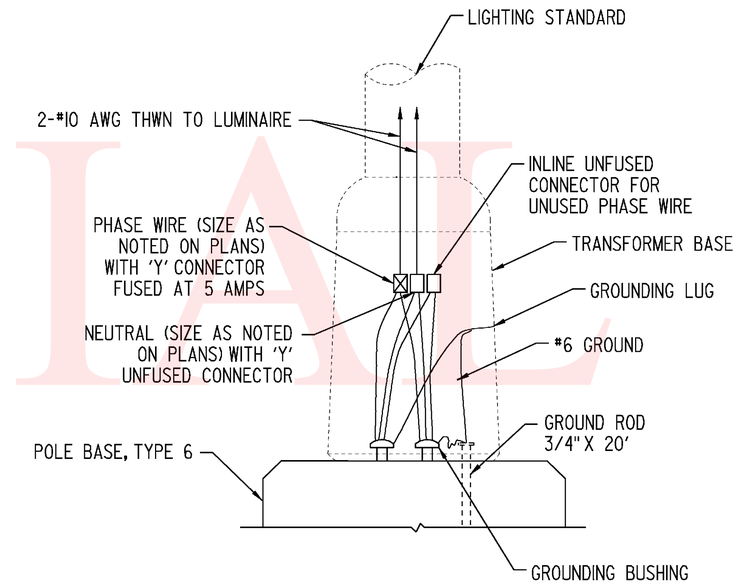
LIGHT POLE DETAIL

NOT TO SCALE



TRANSFORMER BASE DETAIL

NOTE: 1. TRANSFORMER BASE SHALL BE PROVIDED WITH ALL LIGHT POLES, WHETHER PROTECTED OR UNPROTECTED, UNLESS OTHERWISE NOTED.



TYPICAL POLE BASE CONNECTION

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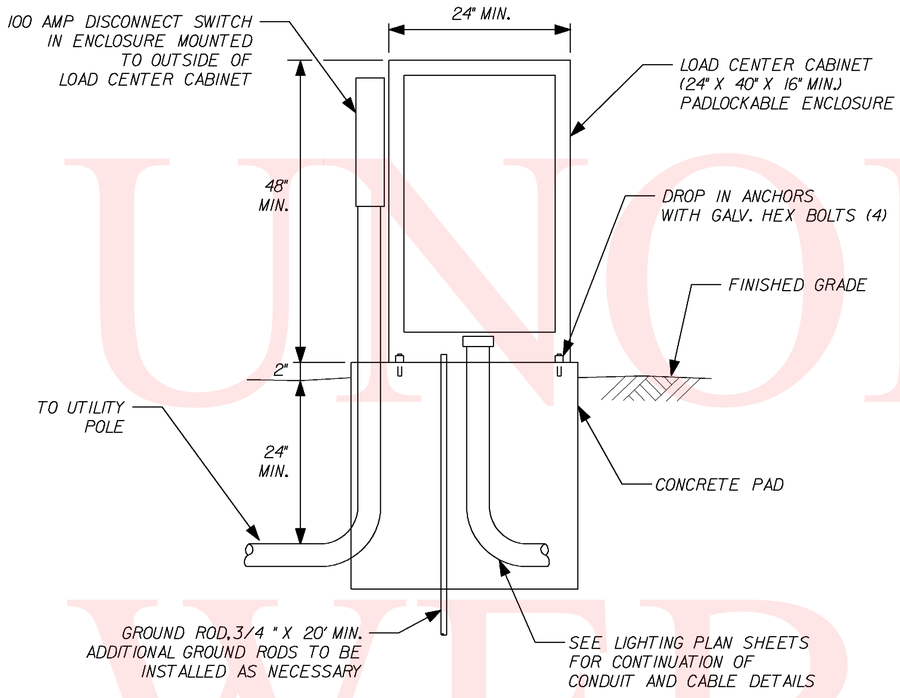
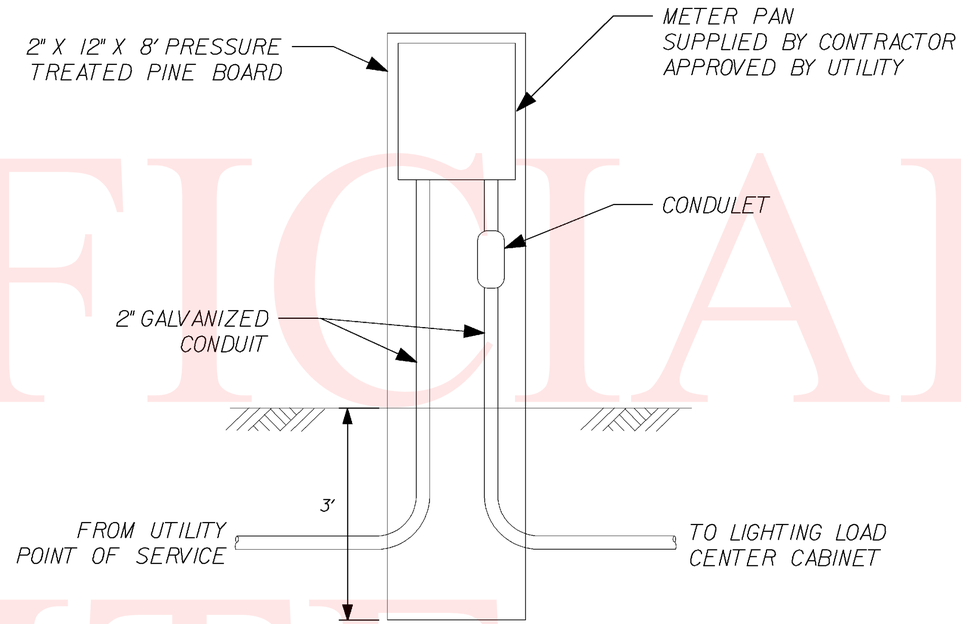
Y:\TRAFFIC\USERS\JASON\CADD FILES\NEW_CADD_2007\SIGNAL\DGN\SIGNAL_BORDER_BASE.DGN

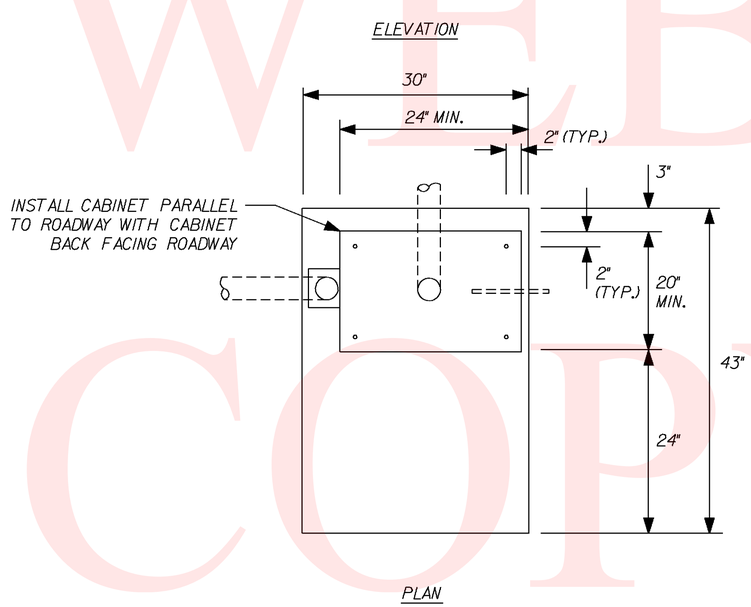
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUM / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	PERMIT NO.	LIGHTING DETAILS	SHEET NO. 76
				COUNTY NEW CASTLE	DESIGNED BY: RM		TOTAL SHTS. 86
					CHECKED BY:		





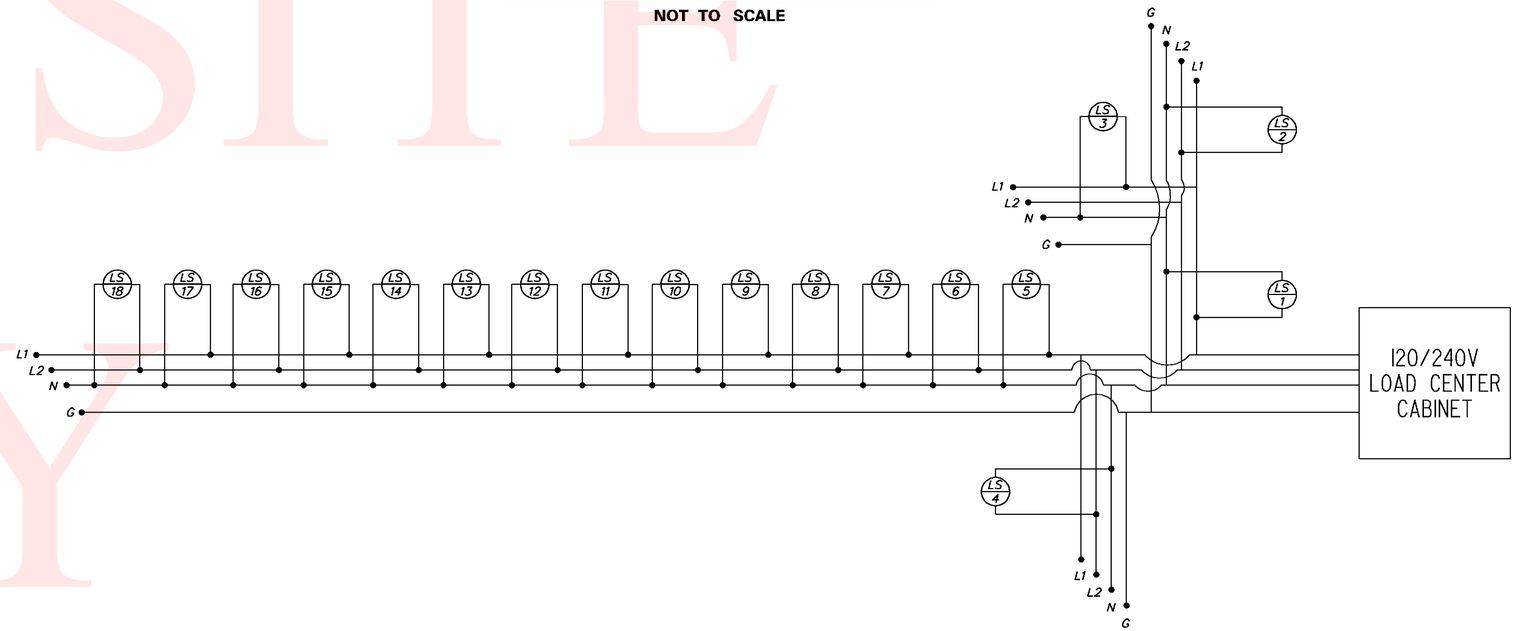
SERVICE METER PEDESTAL DETAIL

NOT TO SCALE



LOAD CENTER CABINET AND PAD

NOT TO SCALE



WIRING SCHEMATIC DIAGRAM

NOT TO SCALE

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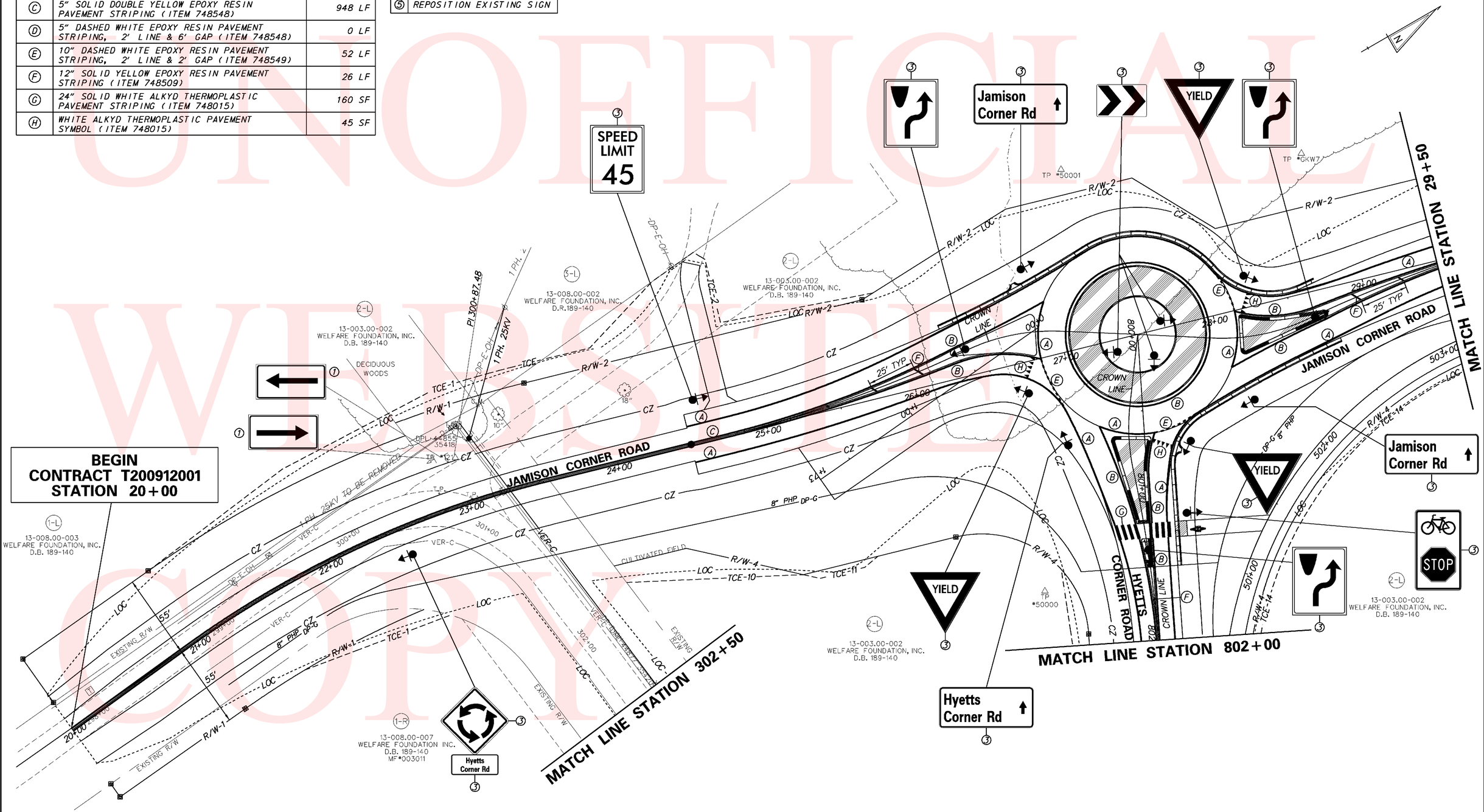
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUM / REVISIONS	NOT TO SCALE	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	PERMIT NO.	LIGHTING DETAILS	SHEET NO. 77
				COUNTY NEW CASTLE	DESIGNED BY: RM		TOTAL SHTS. 86
					CHECKED BY:		

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,311 LF
B	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,302 LF
C	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	948 LF
D	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	0 LF
E	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	52 LF
F	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	26 LF
G	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	160 SF
H	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	45 SF

SIGNING LEGEND

1	REMOVE EXISTING SIGN
2	EXISTING SIGN TO REMAIN
3	PLACE NEW SIGN
4	RENEW EXISTING SIGN
5	REPOSITION EXISTING SIGN



DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	SIGNING, STRIPING & CONDUIT PLAN	SHEET NO. 78
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

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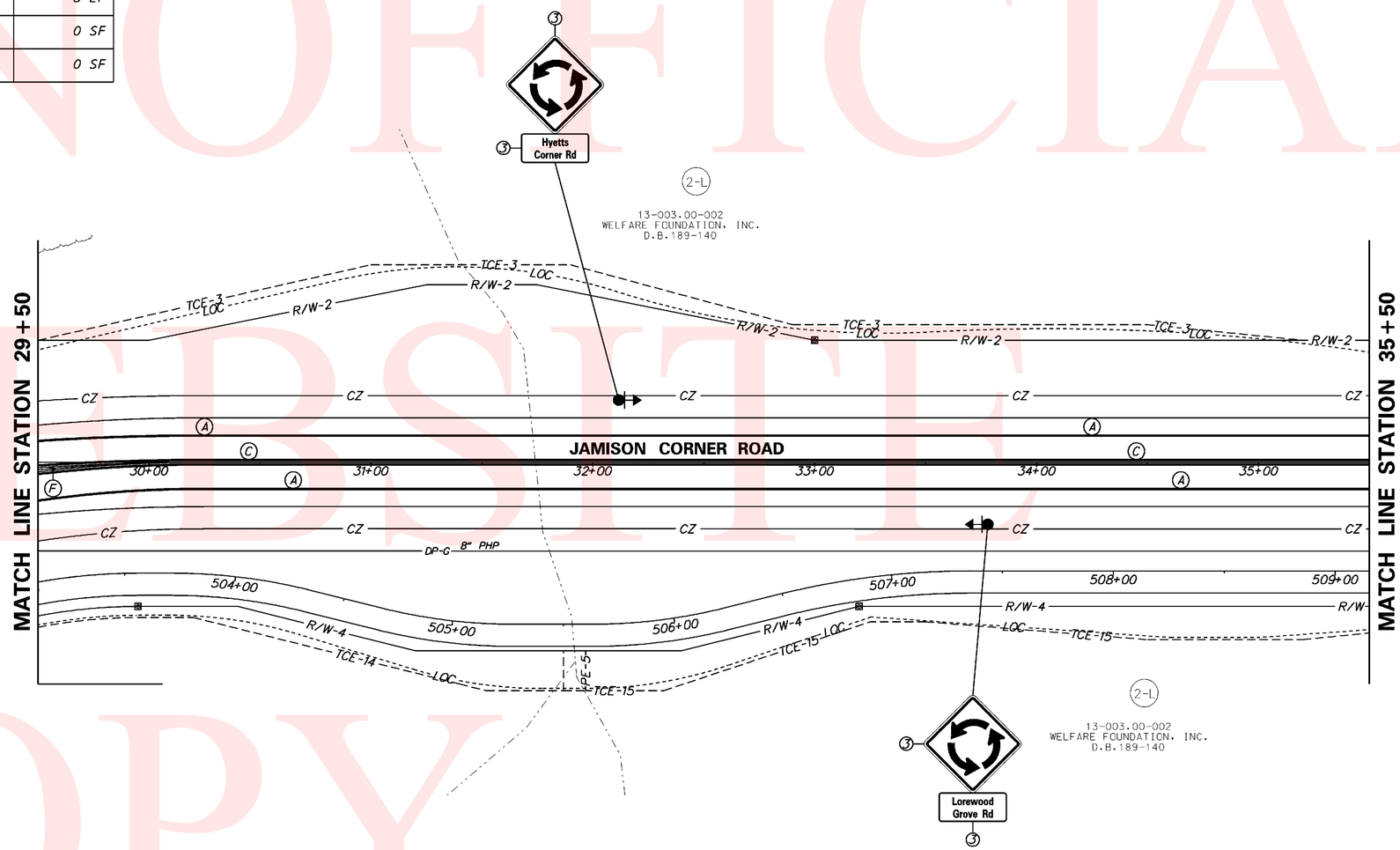
PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
A	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,200 LF
B	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	149 LF
C	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,051 LF
D	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	0 LF
E	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	0 LF
F	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	3 LF
G	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	0 SF
H	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	0 SF

SIGNING LEGEND

1	REMOVE EXISTING SIGN
2	EXISTING SIGN TO REMAIN
3	PLACE NEW SIGN
4	RENEW EXISTING SIGN
5	REPOSITION EXISTING SIGN



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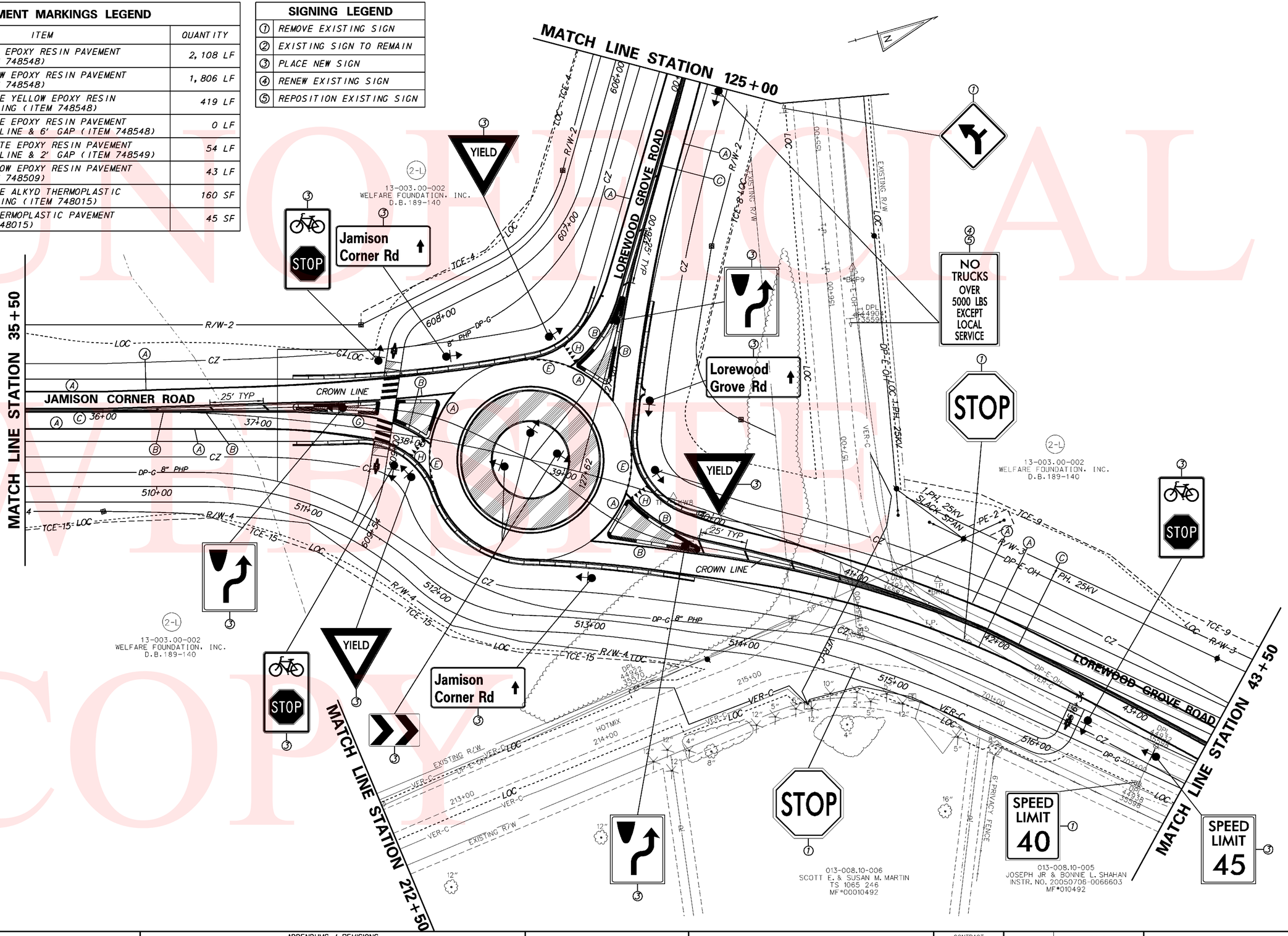
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	SIGNING, STRIPING & CONDUIT PLAN	SHEET NO. 79
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	2,108 LF
(B)	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,806 LF
(C)	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	419 LF
(D)	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	0 LF
(E)	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	54 LF
(F)	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	43 LF
(G)	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	160 SF
(H)	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	45 SF

SIGNING LEGEND

(1)	REMOVE EXISTING SIGN
(2)	EXISTING SIGN TO REMAIN
(3)	PLACE NEW SIGN
(4)	RENEW EXISTING SIGN
(5)	REPOSITION EXISTING SIGN



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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001 / COUNTY NEW CASTLE	BRIDGE NO. N/A / DESIGNED BY: SHB / CHECKED BY: JKL	SIGNING, STRIPING & CONDUIT PLAN	SHEET NO. 80 / TOTAL SHTS. 86

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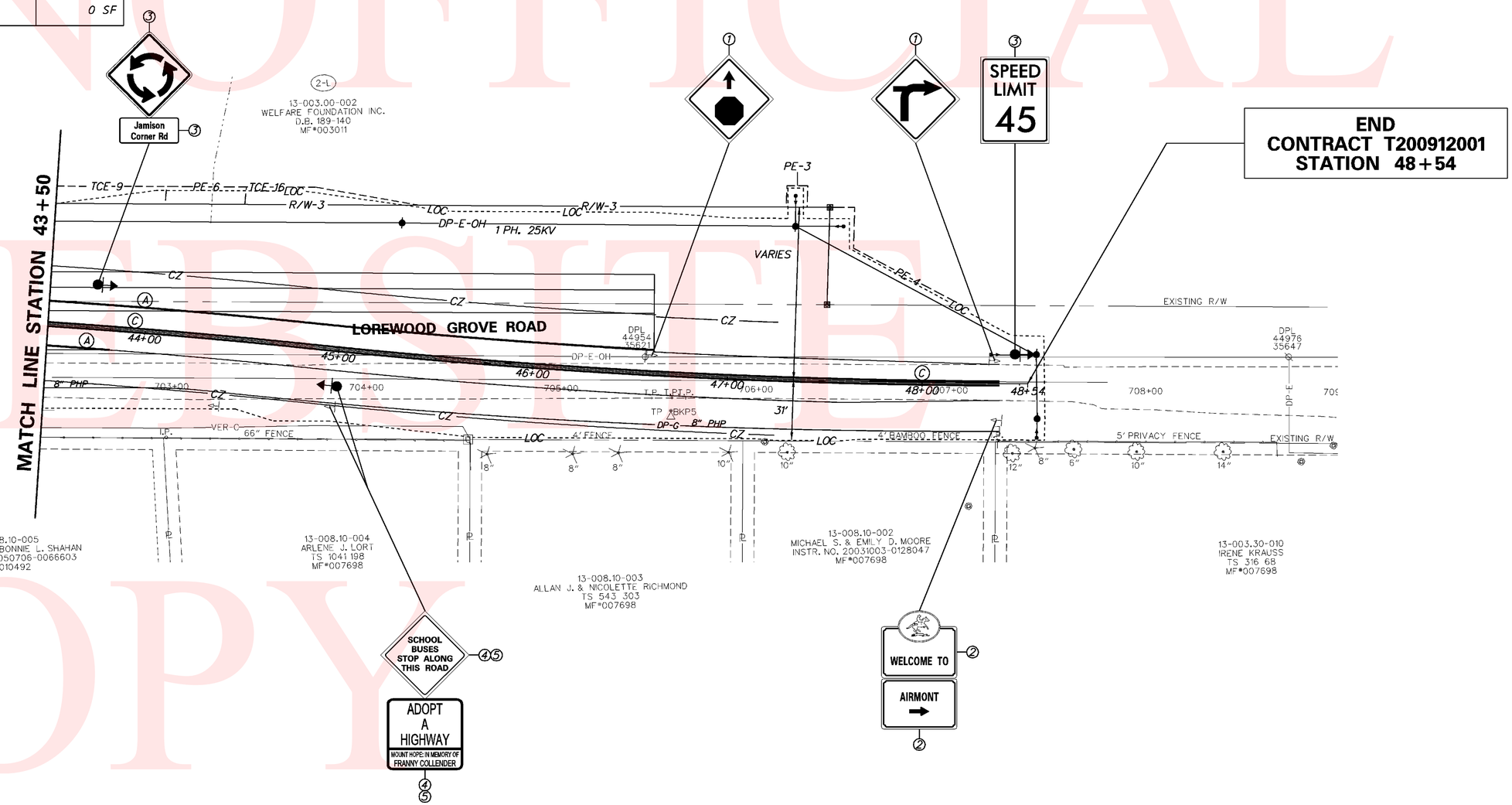
PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	344 LF
(B)	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	0 LF
(C)	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	979 LF
(D)	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	0 LF
(E)	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	0 LF
(F)	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	0 LF
(G)	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	0 SF
(H)	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	0 SF

SIGNING LEGEND

1	REMOVE EXISTING SIGN
2	EXISTING SIGN TO REMAIN
3	PLACE NEW SIGN
4	RENEW EXISTING SIGN
5	REPOSITION EXISTING SIGN



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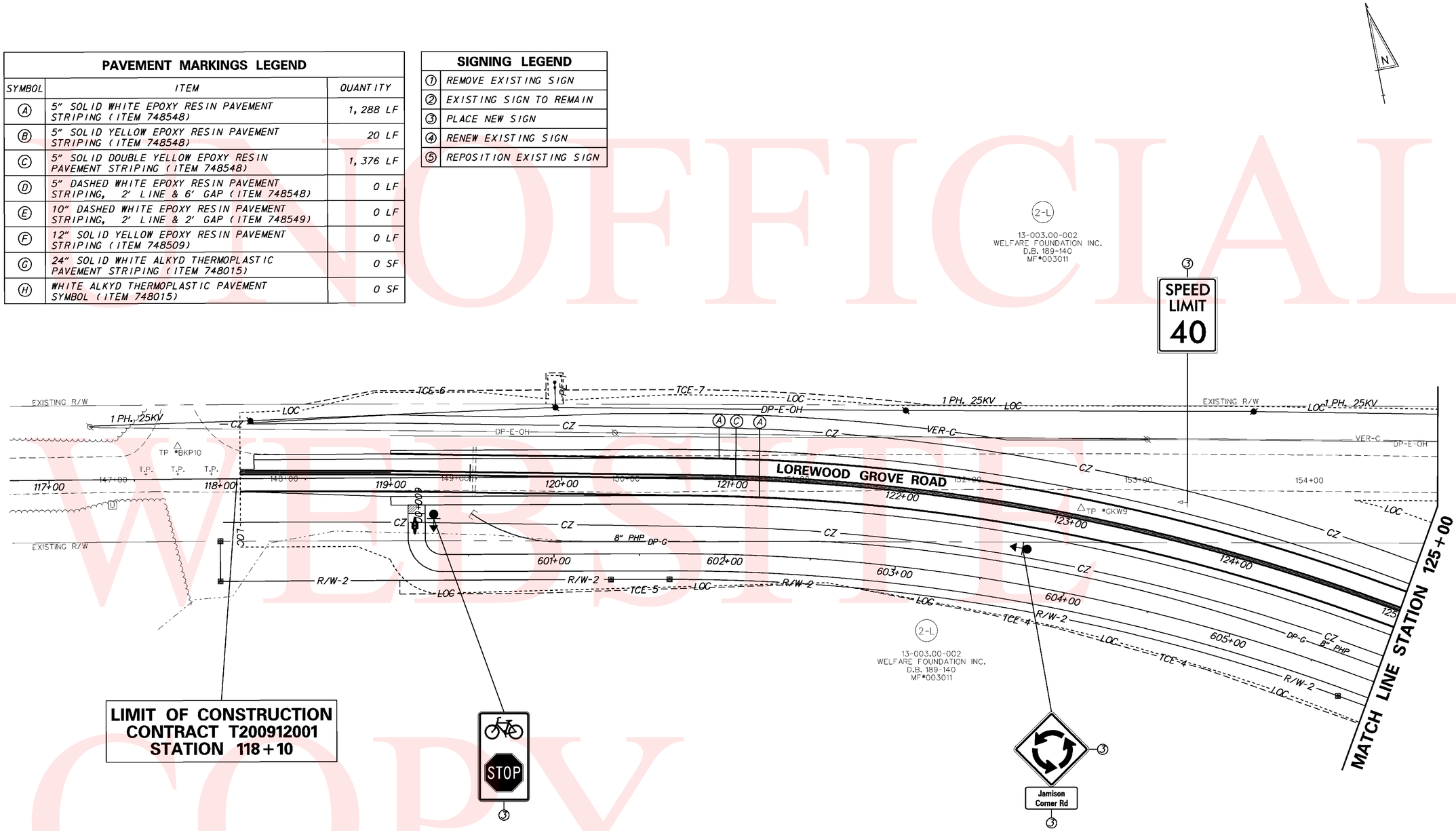
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	SIGNING, STRIPING & CONDUIT PLAN	SHEET NO. 81
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,288 LF
(B)	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	20 LF
(C)	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,376 LF
(D)	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	0 LF
(E)	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	0 LF
(F)	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	0 LF
(G)	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	0 SF
(H)	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	0 SF

SIGNING LEGEND	
(1)	REMOVE EXISTING SIGN
(2)	EXISTING SIGN TO REMAIN
(3)	PLACE NEW SIGN
(4)	RENEW EXISTING SIGN
(5)	REPOSITION EXISTING SIGN



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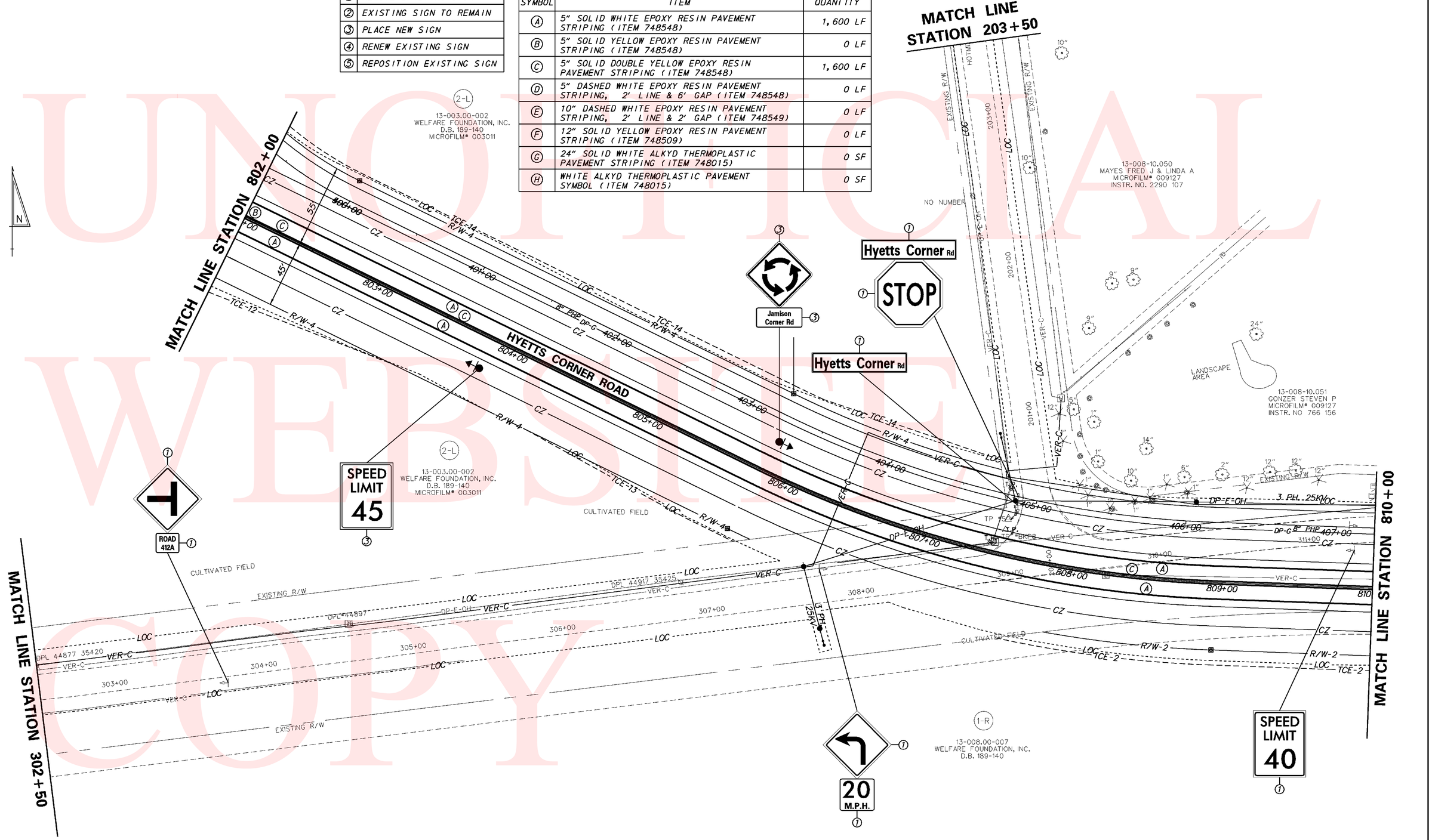
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	SIGNING, STRIPING AND CONDUIT PLAN	SHEET NO. 82
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

SIGNING LEGEND	
1	REMOVE EXISTING SIGN
2	EXISTING SIGN TO REMAIN
3	PLACE NEW SIGN
4	RENEW EXISTING SIGN
5	REPOSITION EXISTING SIGN

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
A	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,600 LF
B	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	0 LF
C	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,600 LF
D	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	0 LF
E	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	0 LF
F	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	0 LF
G	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	0 SF
H	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	0 SF



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD

CONTRACT	BRIDGE NO.	N/A
T200912001	DESIGNED BY: SHB	
COUNTY	CHECKED BY: JKL	
NEW CASTLE		

SIGNING, STRIPING & CONDUIT PLAN

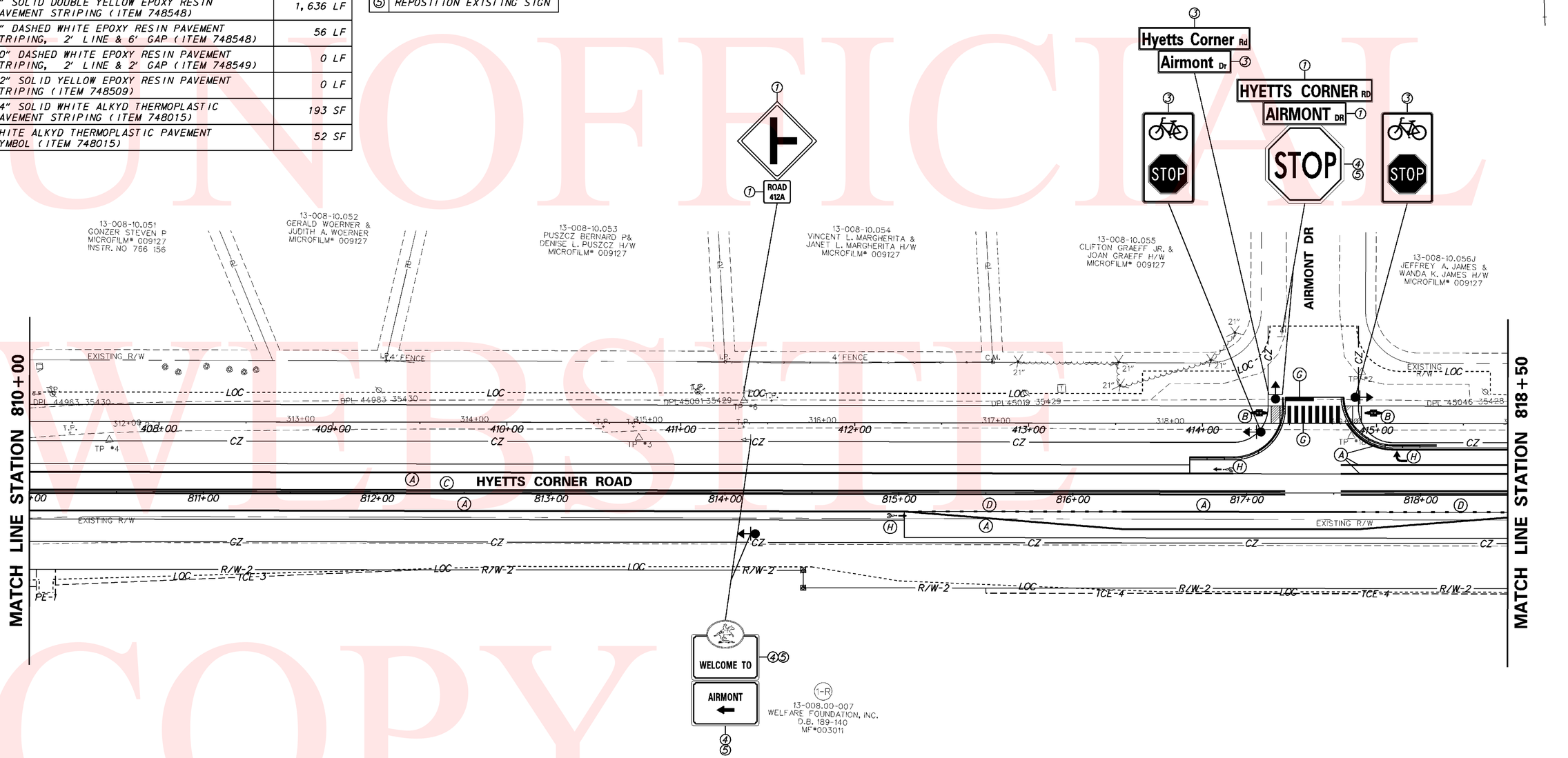
SHEET NO.
83
TOTAL SHTS.
86

PAVEMENT MARKINGS LEGEND

SYMBOL	ITEM	QUANTITY
(A)	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,967 LF
(B)	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	41
(C)	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,636 LF
(D)	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	56 LF
(E)	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	0 LF
(F)	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	0 LF
(G)	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	193 SF
(H)	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	52 SF

SIGNING LEGEND

1	REMOVE EXISTING SIGN
2	EXISTING SIGN TO REMAIN
3	PLACE NEW SIGN
4	RENEW EXISTING SIGN
5	REPOSITION EXISTING SIGN



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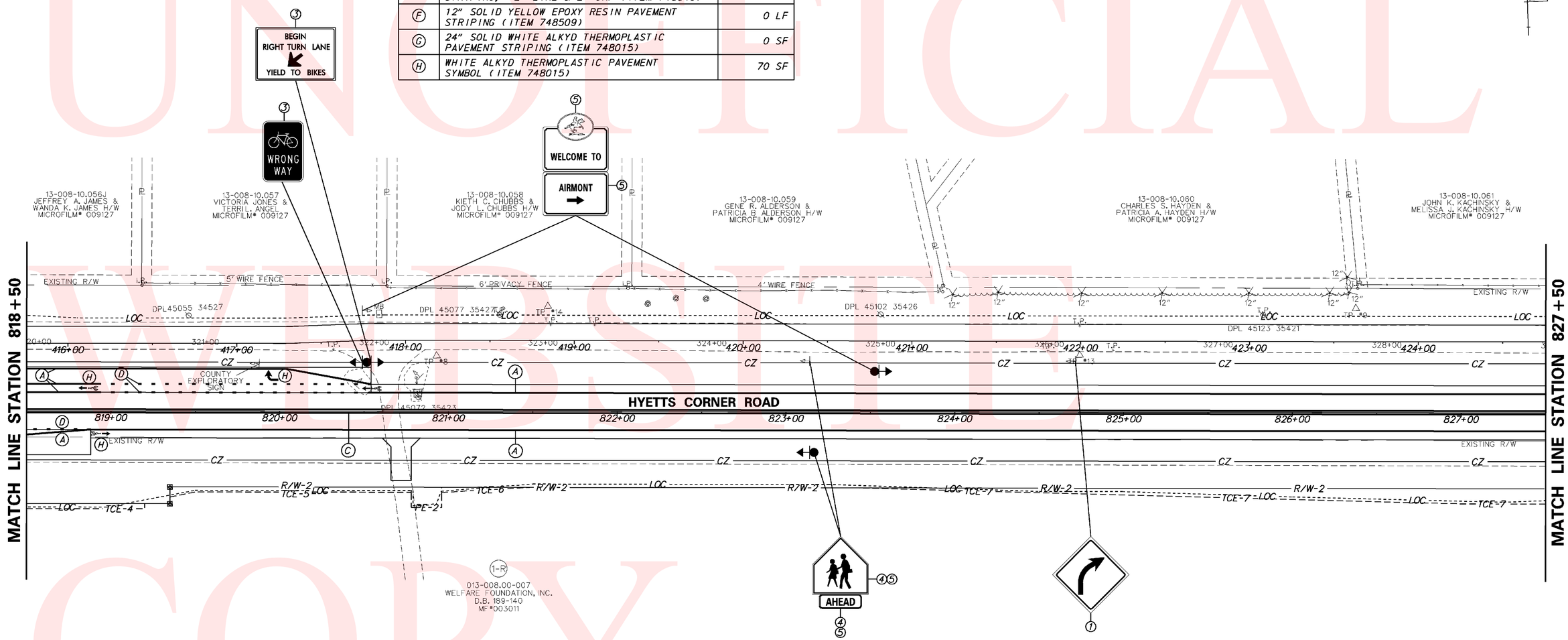
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	SIGNING, STRIPING & CONDUIT PLAN	SHEET NO. 84
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

SIGNING LEGEND	
①	REMOVE EXISTING SIGN
②	EXISTING SIGN TO REMAIN
③	PLACE NEW SIGN
④	RENEW EXISTING SIGN
⑤	REPOSITION EXISTING SIGN

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
Ⓐ	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,889 LF
Ⓑ	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	0 LF
Ⓒ	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,800 LF
Ⓓ	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	90 LF
Ⓔ	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	0 LF
Ⓕ	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	0 LF
Ⓖ	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	0 SF
Ⓗ	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	70 SF



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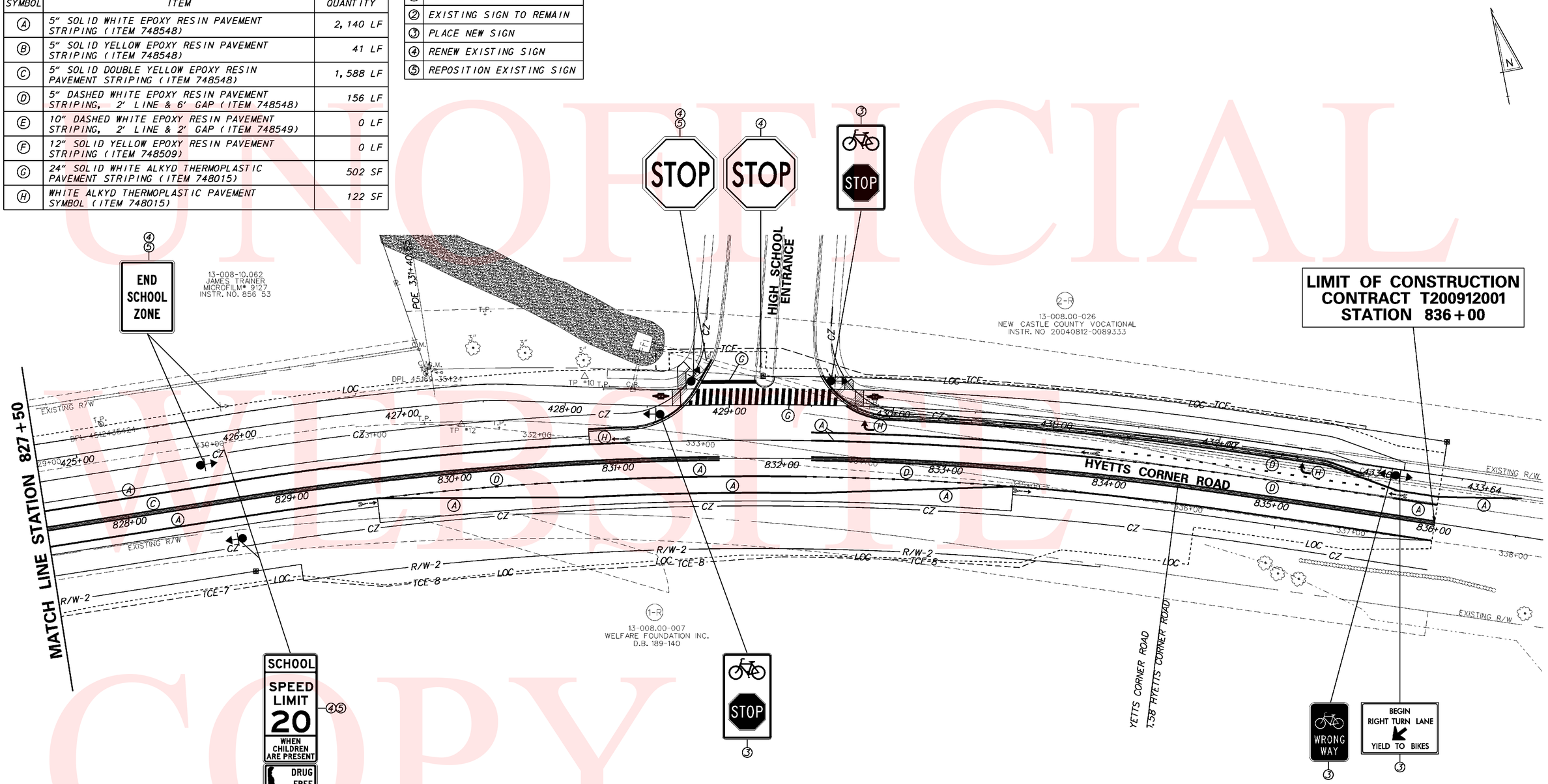
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	SIGNING, STRIPING & CONDUIT PLAN	SHEET NO. 85
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		

PAVEMENT MARKINGS LEGEND		
SYMBOL	ITEM	QUANTITY
(A)	5" SOLID WHITE EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	2,140 LF
(B)	5" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	41 LF
(C)	5" SOLID DOUBLE YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748548)	1,588 LF
(D)	5" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 6' GAP (ITEM 748548)	156 LF
(E)	10" DASHED WHITE EPOXY RESIN PAVEMENT STRIPING, 2' LINE & 2' GAP (ITEM 748549)	0 LF
(F)	12" SOLID YELLOW EPOXY RESIN PAVEMENT STRIPING (ITEM 748509)	0 LF
(G)	24" SOLID WHITE ALKYD THERMOPLASTIC PAVEMENT STRIPING (ITEM 748015)	502 SF
(H)	WHITE ALKYD THERMOPLASTIC PAVEMENT SYMBOL (ITEM 748015)	122 SF

SIGNING LEGEND	
(1)	REMOVE EXISTING SIGN
(2)	EXISTING SIGN TO REMAIN
(3)	PLACE NEW SIGN
(4)	RENEW EXISTING SIGN
(5)	REPOSITION EXISTING SIGN



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DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	N412A, HYETTS CORNER ROAD TO LOREWOOD GROVE ROAD	CONTRACT T200912001	BRIDGE NO. N/A	SIGNING, STRIPING & CONDUIT PLAN	SHEET NO. 86
				COUNTY NEW CASTLE	DESIGNED BY: SHB		TOTAL SHTS. 86
					CHECKED BY: JKL		