

EXISTING SYMBOLS

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

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

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

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

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

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

UTILITY COMPANY FACILITIES	
	DELAWARE ELECTRIC COOPERATIVE
	VERIZON

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CONSTRUCTION BASELINE
	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
	CLEAR ZONE
	DRAINAGE INLET
	DITCH
	FENCE - METAL
	FENCE - WOOD
	FLARED END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
	HORIZONTAL CLEARANCE
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LIMIT OF CONSTRUCTION
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK @ 4"
	P.C.C. SIDEWALK @ 6"
	UNDERDRAIN
	UNDERDRAIN OUTLET

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

PROPOSED SYMBOLS

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

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

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

PAVEMENT SECTION(S)	
	N/A
	1.25" WMA SUPERPAVE TYPE 'C' OVER 2.25" WMA SUPERPAVE TYPE 'B' OVER 6" GRADED AGGREGATE BASE COURSE
	N/A

UTILITY COMPANY FACILITIES	
	DELAWARE ELECTRIC COOPERATIVE
	VERIZON

EROSION & SEDIMENT CONTROL	
	DEWATERING BASIN
	EROSION CONTROL BLANKET
	EARTH DIKE
	INLET SEDIMENT CONTROL
	PERIMETER DIKE/SWALE
	PORTABLE SEDIMENT TANK
	REINFORCED SILT FENCE
	SANDBAG DIKE
	SANDBAG DIVERSION
	STONE CHECK DAM
	STABILIZED CONSTRUCTION ENTRANCE
	SILT FENCE
	SUMP PIT, TYPE 1
	SUMP PIT, TYPE 2
	SEDIMENT TRAP
	SEDIMENT TRAP WITH INLET AS OUTLET
	SEDIMENT TRAP PIPE OUTLET
	STILLING WELL
	TEMPORARY SWALE
	TEMPORARY SLOPE DRAIN

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GENERAL NOTES

- 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.
- 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.
- 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.
- 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.
- 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.
- 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. 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	AT THE TIME OF BID OF THE CONTRACT, EITHER THE SUPERINTENDENT OR A SEPARATE INDIVIDUAL FROM THE CONTRACTOR'S STAFF SHALL BE A CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 12 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
() MAJOR	SUPERINTENDENT AND AN INDIVIDUAL FROM CONTRACTOR'S STAFF SHALL BE CCR. ONE INDIVIDUAL FROM THE CONTRACTOR'S STAFF MUST BE A CCR AT THE TIME OF BID OF THE CONTRACT. THE SUPERINTENDENT MUST BECOME A CCR WITHIN ONE YEAR AFTER THE AWARD OF CONTRACT.

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

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

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

- 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. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM #743031.
()	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM #743031.

- THE DISTURBED AREA FOR THIS PROJECT IS 0.546 ACRES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO THE CONSTRUCTION SITE POLLUTION PREVENTION SPECIFICATIONS AS DETAILED IN SECTION 3.6 OF THE "DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK". ALL COSTS ASSOCIATED WITH ADHERING TO THE STANDARDS SHALL BE INCIDENTAL TO THE OVERALL CONTRACT COSTS.
- THE EROSION AND SEDIMENT CONTROL PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE EROSION AND SEDIMENT CONTROL PLANS ARE VALID FOR A 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

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

SECTION 200

- ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - REMOVAL OF THREE EXISTING CORRUGATED METAL PIPES
 - REMOVAL OF PREVIOUS TIMBER BRIDGE ABUTMENTS

SECTION 300

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

THE CONTRACTOR WILL NOT BE ALLOWED TO MIX DIFFERENT MATERIALS (OR SIMILAR MATERIALS FROM DIFFERENT SOURCES) TO MEET THE REQUIREMENTS OF ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

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

- THE QUANTITY USED FOR BASE OF EACH OF THE ABOVE LISTED MATERIALS WILL BE THE CONTRACTOR'S CHOICE, WITH THE TOTAL BEING EQUAL TO THE ACTUAL QUANTITY USED UNDER ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

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

- HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
 - MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
 - MILLED MATERIAL FURNISHED ON THE JOB FROM THE CONTRACTOR'S YARD OR OTHER OUTSIDE SOURCE.
 ALL MILLED MATERIALS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM 302514 - MILLED HOT-MIX BASE COURSE.

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

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

- MILLINGS USED FOR BASE COURSE SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE. NO SEPARATE PAYMENT WILL BE MADE TO FURNISH MILLINGS FROM AN OUTSIDE SOURCE OR TRANSPORT MILLINGS WITHIN THE PROJECT LIMITS. MILLINGS USED FOR BASE COURSE WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

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

- SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE IS PROVIDED TO SPECIFY THE MEANS OF LAY DOWN AND COMPACTION AS WELL AS THE MATERIAL REQUIREMENTS FOR MILLINGS USED AS BASE COURSE. ALL COSTS TO BRING THE MILLINGS INTO COMPLIANCE WITH THE REQUIREMENTS OF ITEM - 302514 MILLED HOT-MIX BASE COURSE ARE INCIDENTAL TO ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'. NO PAYMENT WILL BE MADE FOR ITEM 302514 - MILLED HOT-MIX BASE COURSE. THE QUANTITY OF MILLINGS USED FOR BASE COURSE WILL BE PAID FOR UNDER ITEM 302007 - GRADED AGGREGATE BASE COURSE.

SECTION 600

- BAR REINFORCEMENT
REINFORCING STEEL SHALL CONFORM TO AASHTO M31 (ASTM A615), GRADE 60. ALL REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2" MINIMUM, UNLESS OTHERWISE SPECIFIED ON PLANS. ALL REINFORCING STEEL SHALL BE PROTECTED WITH FUSION BONDED EPOXY. EPOXY COATED REINFORCING STEEL SHALL CONFORM TO AASHTO M284 (ASTM D3963).

- PORTLAND CEMENT CONCRETE
STRUCTURAL ELEMENTS OF PORTLAND CEMENT CONCRETE SHALL BE AS NOTED: (F'c = 28 DAY COMPRESSIVE STRENGTH)
ITEM #623000 - PRESTRESSED REINFORCED CONCRETE MEMBERS - F'c = 8 KSI
ITEM #602016 - P.C.C MASONRY, CLASS C (CAST-IN-PLACE) - F'c = 2 KSI
MIX REQUIREMENTS SHALL CONFORM TO SECTION 812 OF THE SPECIFICATIONS WITH THE FOLLOWING EXCEPTIONS:
ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

- WATERPROOFING MEMBRANE
MEMBRANE SHALL BE INSTALLED ACROSS THE TOP OF BEAMS AND BE LAPPED DOWN TO THE BOTTOM OF EACH BEAM ON EACH END. MEMBRANE SHALL ALSO EXTEND 2" UP INSIDE FACE OF THE CURB ON EXTERIOR BEAMS. PAYMENT SHALL BE UNDER ITEM #602547 - WATERPROOFING BRIDGE DECKS

SECTION 700

- 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. ALL HOT-MIX SAW CUTTING SHALL BE FULL DEPTH UNLESS OTHERWISE NOTED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
- SIGNING
EXISTING YELLOW DIAMOND ROADWAY SIGN SHALL REMAIN AS IS UPON PROJECT COMPLETION, TO AVOID DAMAGE TO THE SIGN, IT MAY BE REMOVED DURING CONSTRUCTION IF NEEDED, BUT MUST BE REPLACED TO MATCH EXISTING CONDITIONS BEFORE REOPENING THE ROADWAY. ALL WORK RELATED TO MOVING AND REINSTALLING THE SIGN SHALL BE INCIDENTAL TO ITEM #211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS. IF THE SIGN IS DAMAGED, THE SIGN MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE.

MISCELLANEOUS

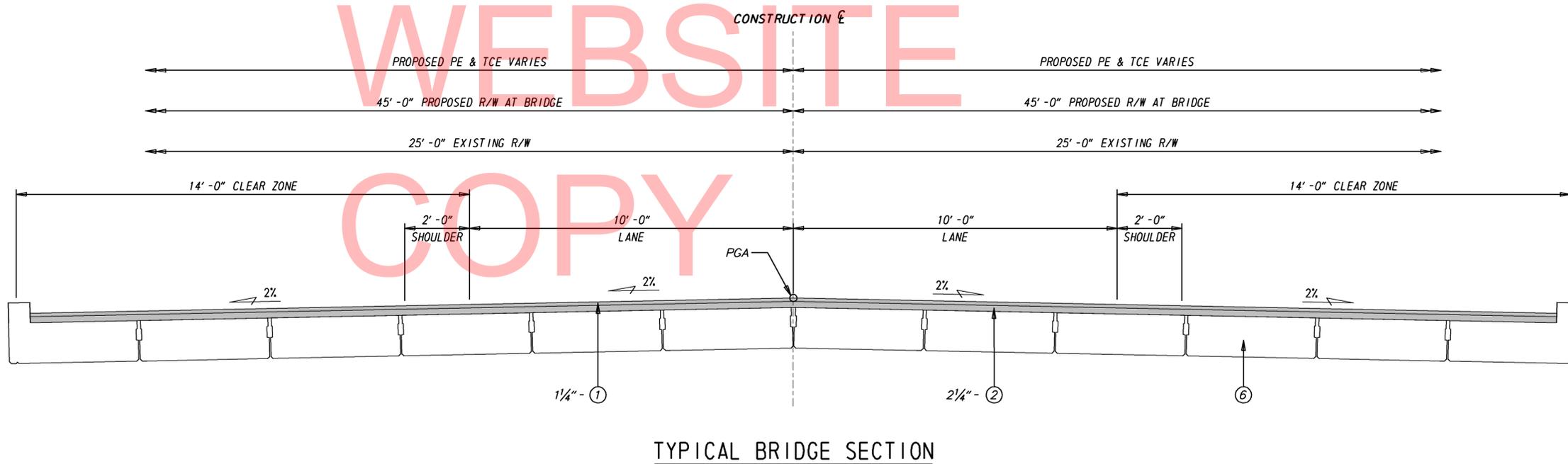
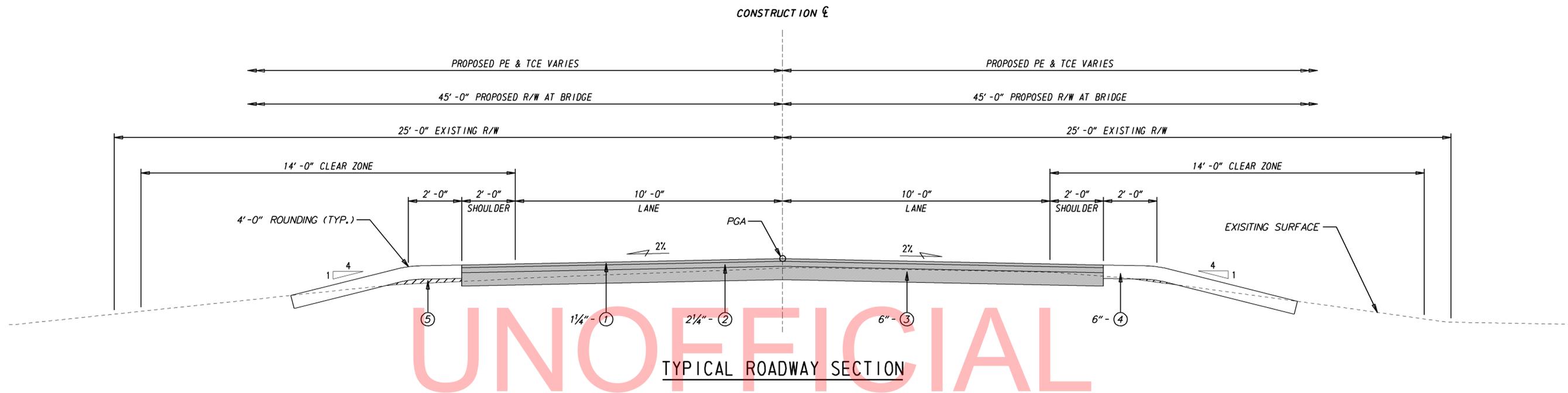
- DESIGN CRITERIA
2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION.
- LOADING
AASHTO HL-93 FOR LIVE LOAD
25 PSF DEAD LOAD HAS BEEN INCLUDED FOR FUTURE OVERLAY.
- HYDRAULIC DATA
DRAINAGE AREA = 9.28 SQ. MILES
DESIGN FREQUENCY = 25 YEARS
DESIGN DISCHARGE = 558.0 CFS
25 YEAR FLOOD ELEVATION = 35.15 FT

SCOUR ANALYSIS

THE PROPOSED STRUCTURE HAS BEEN ANALYZED FOR THE EFFECTS OF SCOUR IN ACCORDANCE WITH HEC-18 - 'EVALUATING SCOUR AT BRIDGES' AND HEC-14 - 'HYDRAULIC DESIGN OF ENERGY DISSIPATORS FOR CULVERTS AND CHANNELS.' SCOUR COUNTERMEASURES HAVE BEEN DESIGNED FOR THE WORST CASE OF THE OVERTOPPING FLOOD OR THE 500-YR FLOOD EVENT.

DESIGN EVENT: 500-YR
DESIGN DISCHARGE: 1228.0 CFS
DESIGN VELOCITY: 3.46 FT/S
TAILWATER DEPTH: 6.50 FT

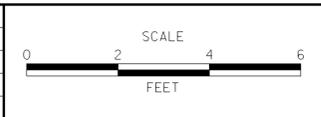
- MAINTENANCE OF TRAFFIC
PRIOR TO THE START OF THE PROJECT, THE CONTRACTOR SHALL CONTACT DELDOT AREA SUPERVISORS KYLE BANKS OR KEVIN BAILEY AT (302) 856-5205 (AREA 20 YARD) TO COORDINATE THE REMOVAL OF EXISTING MAINTENANCE OF TRAFFIC ITEMS. BEGINNING ON THE FIRST DAY OF THE CONTRACT, THE CONTRACTOR SHALL TAKE OVER ALL RESPONSIBILITIES FOR THE MAINTENANCE OF TRAFFIC. PAYMENT SHALL BE INCLUDED UNDER ITEM #763643 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE. REFER TO THE DETOUR PLAN FOR FURTHER GUIDANCE ON THE MAINTENANCE OF TRAFFIC.
- ENVIRONMENTAL COMPLIANCE
REFER TO THE ENVIRONMENTAL COMPLIANCE PLAN FOR FURTHER RESTRICTIONS/GUIDANCE ASSOCIATED WITH THIS PROJECT.
- UTILITIES
SEE UTILITY STATEMENT FOR FULL DETAILS.
- LOAD RATINGS FOR BR 3-140 HAVE BEEN PERFORMED BY DELDOT'S BRIDGE MANAGEMENT SECTION IN ACCORDANCE WITH THE 2012 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE MANUAL FOR BRIDGE EVALUATION. ALL CURRENT AASHTO, DELAWARE LEGAL AND PERMIT LOADS HAVE BEEN CONFIRMED TO HAVE A MINIMUM LOAD RATING FACTOR OF 1.0 IN ACCORDANCE WITH DELDOT'S BRIDGE DESIGN MANUAL.



LEGEND	
①	ITEM 401800 - WMA, SUPERPAVE TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)
②	ITEM 401809 - WMA, SUPERPAVE TYPE B, 115 GYRATIONS, PG 64-22
③	ITEM 302007 - GRADED AGGREGATE BASE COURSE
④	ITEM 732004 - TOPSOIL ITEM 734013 - PERMANENT GRASS SEEDING, DRY GROUND
⑤	ITEM 209006 - BORROW, TYPE F
⑥	ITEM 623000 - PRESTRESSED REINFORCED CONCRETE MEMBERS

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ADDENDUMS / REVISIONS



BR 3-140 ON S597
TUCKERS ROAD OVER
TOMS DAM BRANCH

CONTRACT	BRIDGE NO.	3-140
T201347201	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	EM
SUSSEX		

TYPICAL SECTIONS

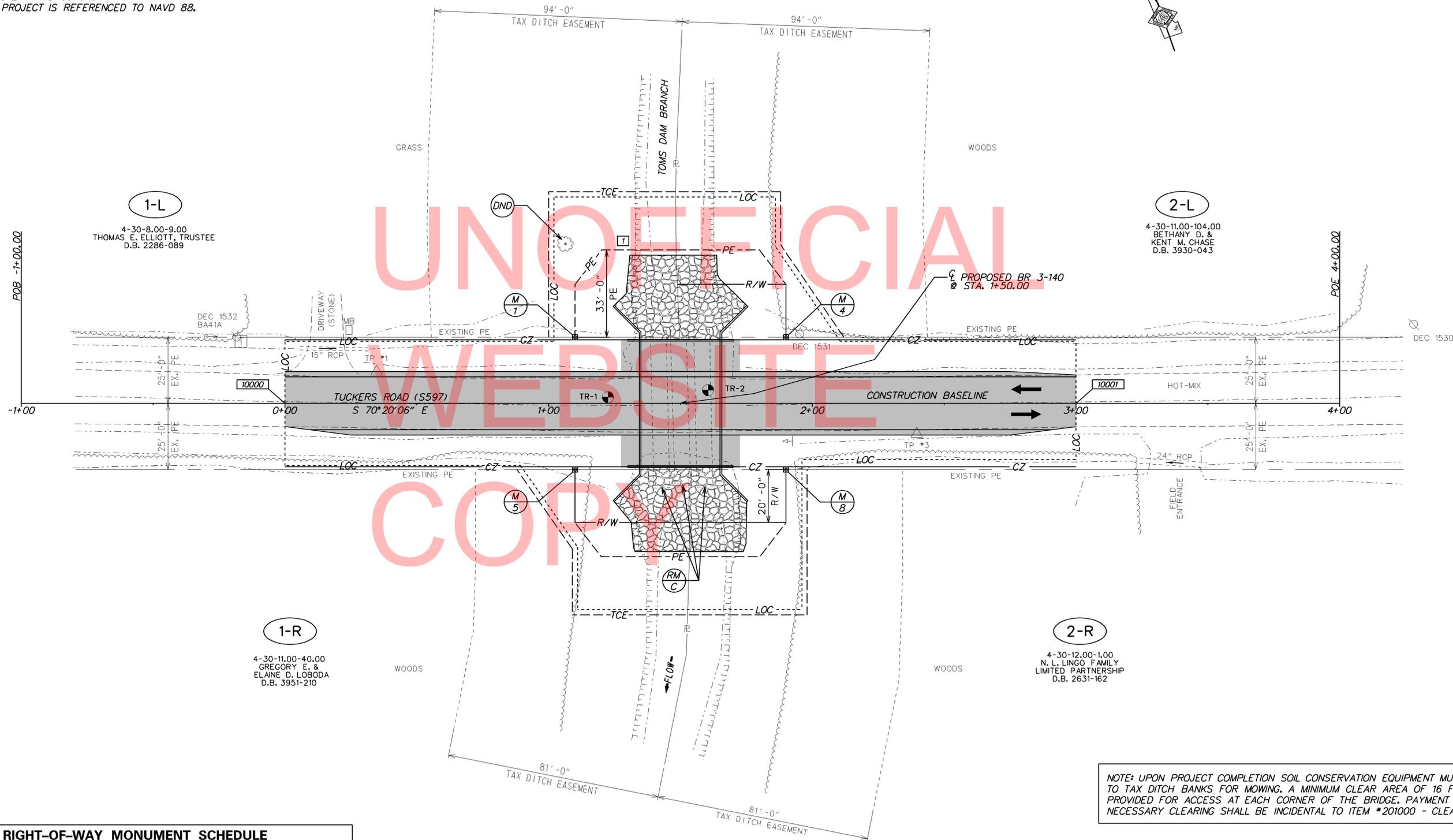
HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
TP #1	0+34.78	-12.01	282677.24	617209.68	37.06
TP #3	2+39.65	11.51	282586.15	617394.68	37.14

CONSTRUCTION ALIGNMENT CONTROL					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
10000	0+00.00	0.00	282677.63	617172.88	
10001	3+00.00	0.00	282576.67	617455.38	

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.



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NOTE: UPON PROJECT COMPLETION SOIL CONSERVATION EQUIPMENT MUST HAVE ACCESS TO TAX DITCH BANKS FOR MOWING. A MINIMUM CLEAR AREA OF 16 FEET MUST BE PROVIDED FOR ACCESS AT EACH CORNER OF THE BRIDGE. PAYMENT FOR ANY NECESSARY CLEARING SHALL BE INCIDENTAL TO ITEM *201000 - CLEARING AND GRUBBING.

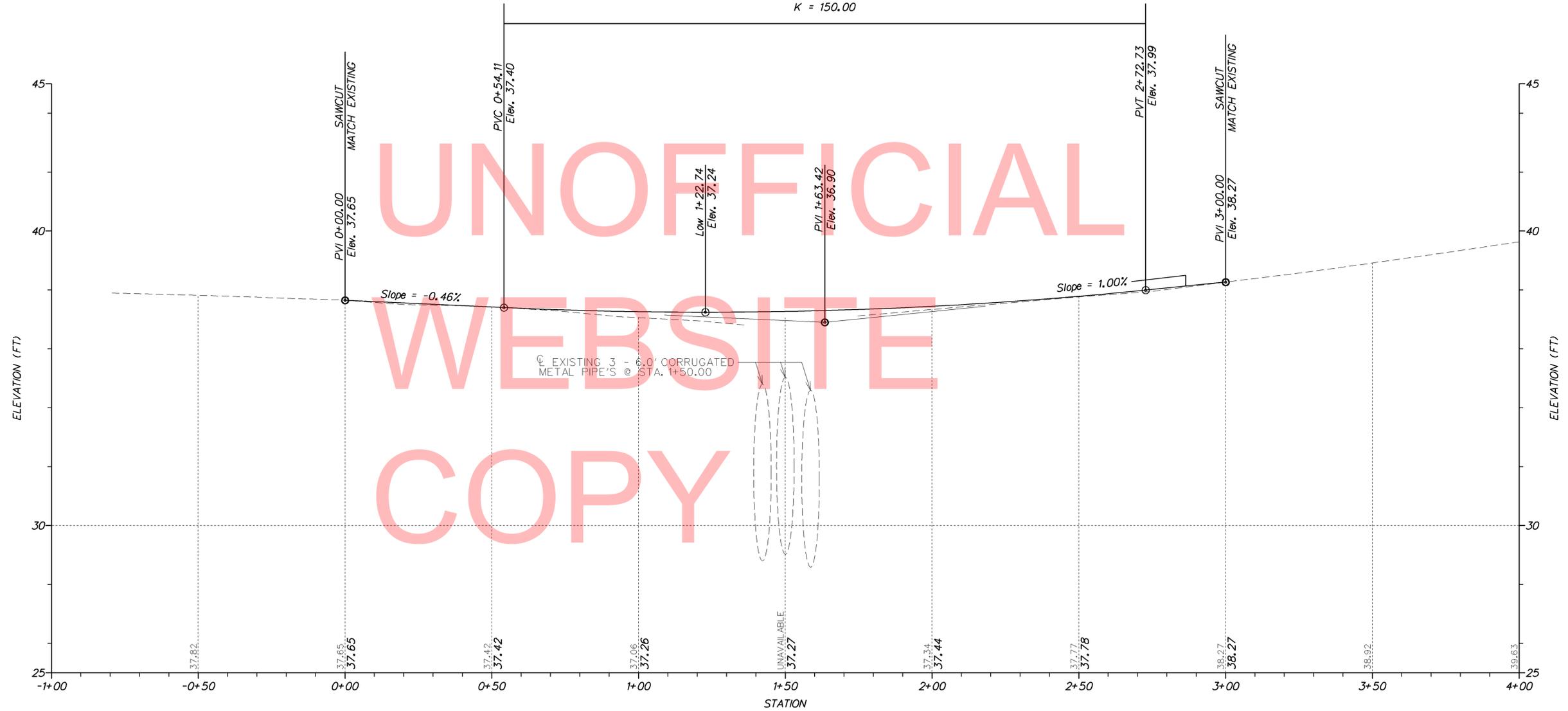
RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
M-1	CAPPED REBAR	1+10.00	-25.00	282664.15	617284.88
M-2	CAPPED REBAR	1+10.00	-45.00	282682.99	617291.61
M-3	CAPPED REBAR	1+90.00	-45.00	282656.07	617366.94
M-4	CAPPED REBAR	1+90.00	-25.00	282637.23	617360.21

SOIL BORING SCHEDULE					
NO.	STATION	ELEVATION	OFFSET	NORTHING	EASTING
TR-1	1+22.52	36.98	-2.35	282638.62	617289.02
TR-2	1+60.51	36.65	-5.03	282628.34	617325.75

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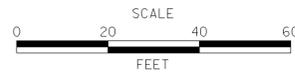
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		BR 3-140 ON S597 TUCKERS ROAD OVER TOMS DAM BRANCH	CONTRACT T201347201	BRIDGE NO. 3-140	CONSTRUCTION PLAN	SHEET NO. 5	
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; font-size: x-small;">1 MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED R/W AND ADJUSTED PE AREA</td> <td style="width: 50%; font-size: x-small;">SMW 7/29/13</td> </tr> </table>			1 MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED R/W AND ADJUSTED PE AREA	SMW 7/29/13		DESIGNED BY: SMW	TOTAL SHTS. 17
	1 MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED R/W AND ADJUSTED PE AREA			SMW 7/29/13				
COUNTY SUSSEX	CHECKED BY: EM							

Type of Curve = Symmetric Parabola
 Direction = Sag
 Length = 218.62'
 L1 = 109.31'
 L2 = 109.31'
 G1 = -0.46%
 G2 = 1.00%
 SSD = 621.54'
 K = 150.00



S597 - TUCKERS ROAD

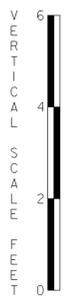
ADDENDUMS / REVISIONS



**BR 3-140 ON S597
 TUCKERS ROAD OVER
 TOMS DAM BRANCH**

CONTRACT	BRIDGE NO.	3-140
T201347201	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	EM
SUSSEX		

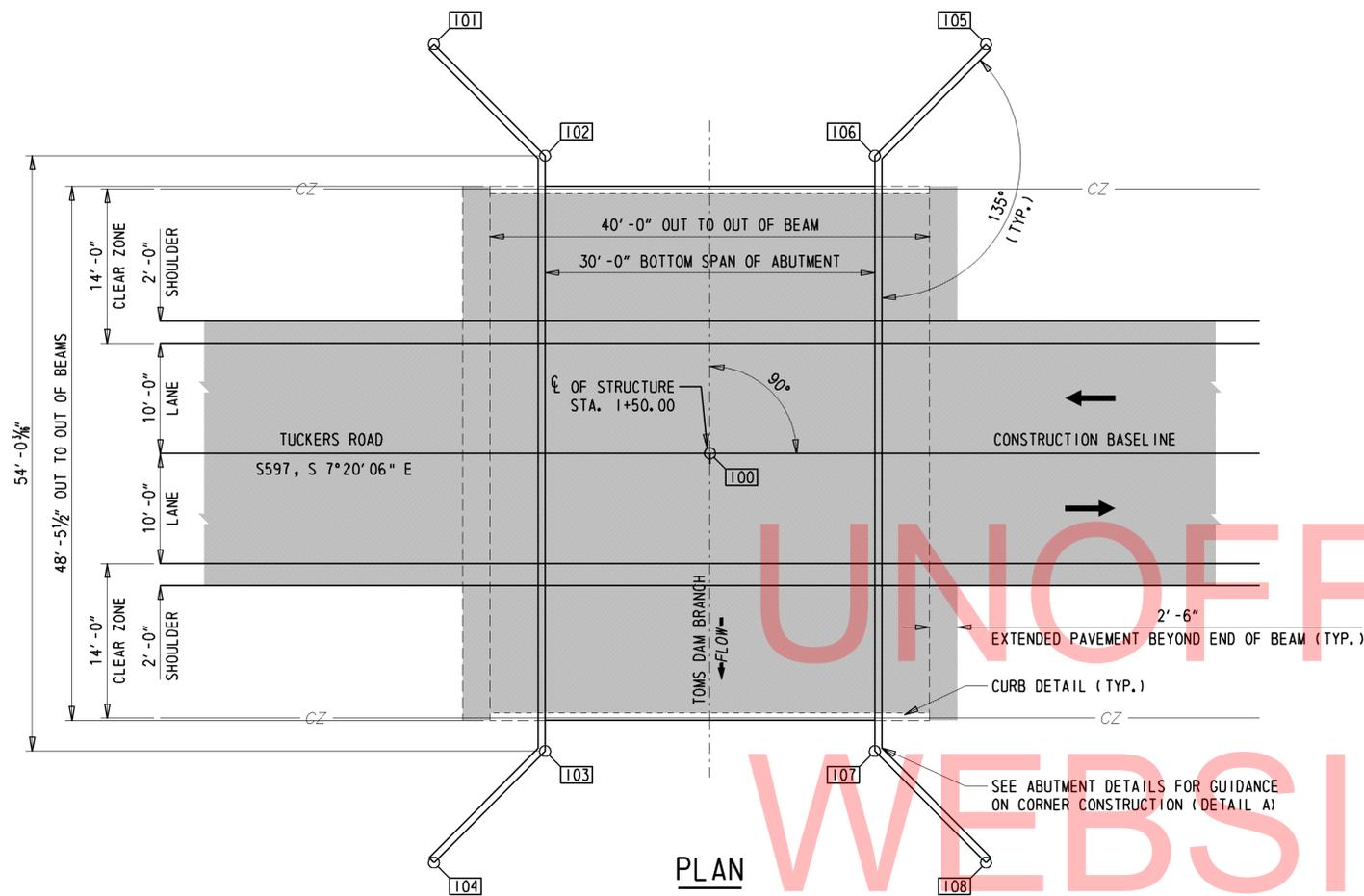
PROFILE



SHEET NO.	6
TOTAL SHTS.	17

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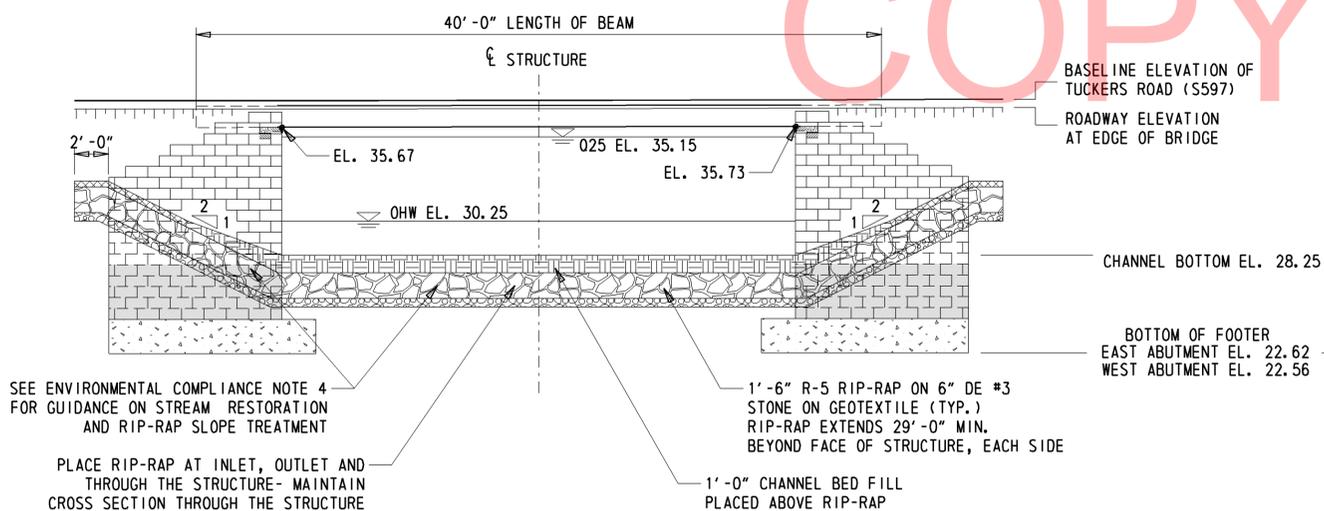




WORKING POINTS				
POINT	STATION	OFFSET	NORTHING	EASTING
100	1+50.00	0.00	282627.15	617314.13
101	1+24.89	-37.12	282670.56	617302.98
102	1+35.00	-27.01	282657.63	617309.10
103	1+35.00	27.01	282606.77	617290.92
104	1+24.89	37.12	282600.65	617277.99
105	1+75.11	-37.12	282653.65	617350.27
106	1+65.00	-27.01	282647.54	617337.35
107	1+65.00	27.01	282596.67	617319.17
108	1+75.11	37.12	282583.75	617325.29

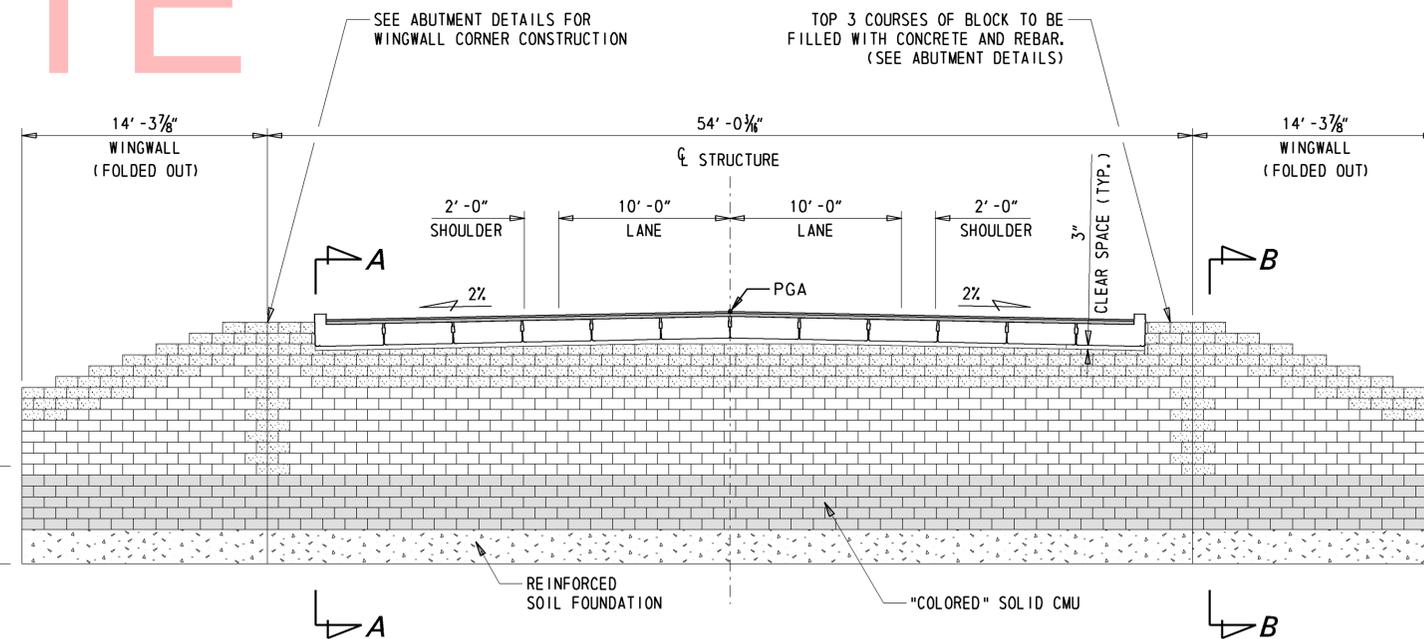
PLAN
1/4" = 1'-0"

UNOFFICIAL
WEBSITE
COPY



BRIDGE ELEVATION
3/8" = 1'-0"

NOTE: BEAM SEAT ELEVATIONS GIVEN ARE FOR CENTER OF BEAMS LOCATED ON EITHER SIDE OF BRIDGE CENTERLINE.



BRIDGE SECTION
3/8" = 1'-0"

NOTE: RIP-RAP NOT SHOWN ON THIS VIEW FOR CLARITY

REFER TO ABUTMENT DETAILS FOR SECTION A-A AND SECTION B-B

ADDENDUMS / REVISIONS

SCALE AS NOTED

BR 3-140 ON S597
TUCKERS ROAD OVER
TOMS DAM BRANCH

CONTRACT T201347201	BRIDGE NO. 3-140
COUNTY SUSSEX	DESIGNED BY: SMW
	CHECKED BY: EM

BRIDGE PLAN, SECTION
AND ELEVATION

SHEET NO. 7
TOTAL SHTS. 17

ITEM #602690 - SOLID CONCRETE MASONRY BLOCK: THIS ITEM SHALL CONSIST OF FURNISHING AND PLACING SOLID CONCRETE MASONRY UNITS (CMU) COLORED RED. THIS BLOCK IS DESIGNATED TO BE USED IN ZONE A AS SHOWN ON THIS SHEET. IN ADDITION THE 4"x8" SOLID CMU'S USED IN THE BEAM SEATS ARE MEASURED AND PAID FOR UNDER THIS ITEM. ALSO INCIDENTAL ARE THE MATERIALS AND LABOR NECESSARY TO CONSTRUCT THE REMAINDER OF THE BEAM SEAT DETAIL, AS SHOWN ON THIS SHEET.

ITEM #602691 - VOIDED CONCRETE MASONRY BLOCK: THIS ITEM SHALL CONSIST OF FURNISHING AND PLACING SPLIT-FACE HOLLOW CORE CONCRETE MASONRY UNITS (CMU). THIS BLOCK IS DESIGNATED TO BE USED IN ZONE B AS SHOWN ON THIS SHEET. TOP AND BOTTOM EDGE OF BLOCK SHALL BE ROUGH IN ORDER TO PROVIDE FRICTION AGAINST GEOSYNTHETIC REINFORCEMENT.

ITEM #713501 - GEOSYNTHETIC REINFORCEMENT: THE GEOSYNTHETIC REINFORCEMENT SHALL BE PLACED AS SHOWN ON THIS SHEET. THE WIDTH AND LENGTH VARY AS SHOWN. REQUIRED ULTIMATE TENSILE STRENGTH MUST BE 4800 LB/FT. TENSILE STRENGTH AT 2 PERCENT STRAIN MUST EQUAL 1370 LB/FT IN THE STRONG DIRECTION. GEOTEXTILE SHALL BE BIAXIAL REINFORCEMENT. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING ALL GEOSYNTHETIC REINFORCEMENT AND THEIR RESPECTIVE LENGTHS FOR APPROVAL. PRIMARY REINFORCEMENT EXTENDS DIRECTLY BENEATH EACH LAYER OF CMU BLOCK, COVERING GREATER THAN 85 PERCENT OF THE FULL WIDTH OF THE BLOCK TO THE FRONT FACE OF THE WALL.

ITEM #302521 - GRANULAR EMBANKMENT: THIS ITEM SHALL INCLUDE FURNISHING AND PLACING COARSE AGGREGATE. THE STONE BACKFILL SHALL BE PLACED BEHIND EACH CMU BLOCK IN A COMPACTED LIFT THICKNESS NOT TO EXCEED THE CMU BLOCK HEIGHT. PLACEMENT OF THE AGGREGATE SHALL BE FROM THE WALL FACE BACKWARD, TO PREVENT THE FORMATION OF AND TO REMOVE ANY WRINKLES IN THE GEOTEXTILE. FILL SHALL BE PLACED IN A MANNER TO AVOID WRINKLING OF THE GEOSYNTHETIC REINFORCEMENT. THE BACKFILL SHALL BE COMPLETELY COMPACTED AS PER 302.04. THIS IS GENERALLY ACHIEVED BY:

- 1) RODDING THE AGGREGATE FILL BEHIND EACH CMU BLOCK APPROXIMATELY EVERY FOOT WHILE EXERTING DOWNWARD PRESSURE ON THE CMU BLOCK TO PREVENT LATERAL MOVEMENT.
- 2) USING A VIBRATORY PLATE COMPACTOR DIRECTLY BEHIND THE CMU BLOCK WHILE EXERTING DOWNWARD PRESSURE ON THE CMU BLOCK TO PREVENT LATERAL MOVEMENT.
- 3) LARGER VIBRATORY COMPACTORS MAY BE USED FOR THE BALANCE OF THE AREA, MORE THAN 3- FEET BEHIND THE CMU BLOCK. MULTIPLE PASSES OF A VIBRATORY PLATE COMPACTOR CAN ALSO ACHIEVE THE PROPER DENSITY. AT THE END OF A DAY'S OPERATIONS, SLOPE THE LAST LIFT OF BACKFILL AWAY FROM THE WALL FACE TO DIRECT SURFACE RUNOFF AWAY FROM THE WALL. DO NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION AREA.

ITEM #302522 - REINFORCED SOIL FOUNDATION (RSF): THIS ITEM SHALL INCLUDE FURNISHING AND PLACING COARSE AGGREGATE CONFORMING TO THE DELAWARE #57 GRADATION. THE STONE BACKFILL SHALL BE PLACED IN COMPACTED LIFTS NOT TO EXCEED 6", BE COMPACTED AS PER 302.04 AND BE ENCAPSULATED WITH GEOTEXTILE. THE BOTTOM OF THE EXCAVATION SHALL BE SOUND SOIL AS DETERMINED BY THE ENGINEER. THIS ITEM SHALL BE PAID AS PLACED. AN INTERMEDIATE LAYER OF GEOTEXTILE SHALL BE PLACED AT 12" SPACING.

ITEM #602016 - PCC MASONRY CLASS C: THIS ITEM SHALL INCLUDE PROVIDING AND PLACING CLASS C CONCRETE AS PER PLANS AND SPECIFICATIONS. ALL CMU BLOCKS IN THE TOP THREE ROWS SHALL HAVE THE FABRIC REMOVED TO ALLOW THE VOIDS TO BE TIED TOGETHER. ENSURE GEOTEXTILE EXTENDS ACROSS THE TOP OF THE CMU AS DESCRIBED ABOVE. A PIECE OF #4 REBAR SHALL BE PLACED IN EACH BLOCK. THIS WILL LIKELY HAVE TO BE DONE IN AT LEAST 2 SEPARATE POURS AS THE VOIDS BELOW THE BEAMS MUST BE FILLED BEFORE BEAM PLACEMENT AND THE VOIDS IN THE BALANCE MUST BE POURED AFTER BEAM PLACEMENT. AFTER THE VOIDS ARE FILLED, A THIN LAYER OF THE SAME CONCRETE MIX SHALL BE PLACED ON TOP OF THE BLOCK TO FORM THE COPING. THE COPING IS THEN HAND-TROWELED EITHER SQUARE OR ROUND AND SLOPED TO DRAIN. PLACE 4" ALUMINUM FLASHING ALONG THE SLOPE OF THE ABUTMENT BETWEEN BOTTOM OF BEAMS AND FOAM BOARD ON ABUTMENT WALL. THE COST FOR THIS CONCRETE, FURNISHING AND PLACING REBAR, ALUMINUM FLASHING AND FABRIC PREPARATION SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM #602016 - PCC MASONRY CLASS C.

WINGWALL CORNERS:
TWO OPTIONS HAVE BEEN PROVIDED TO CONSTRUCT A 45 DEGREE WINGWALL. DETAIL A.1 SHOWS A PREFABRICATED 45 DEGREE CMU THAT SHALL BE USED IN ALTERNATING COURSES. PCC, CLASS C SHALL FILL THE VOIDS OF EACH CORNER BLOCK AND TWO #4 STRAIGHT REBAR PIECES SHALL BE PLACED IN EACH BLOCK AND EXTENDED INTO THE COURSE OF BLOCK BELOW TO TIE EACH ROW TOGETHER. ALTERNATIVELY, DETAIL A.2 SHOWS CMU BLOCKS TO BE CUT TO FORM A 45 DEGREE ANGLE WITH THE ABUTMENT WALL. INTERMEDIATE PARTS OF THE BLOCK SHALL BE REMOVED FROM THE INSIDE TO ALLOW FOR A SINGLE OPEN CAVITY. TWO PIECES OF #4 REBAR SHALL BE BENT AND PLACED IN EACH ROW AND EXTENDED INTO THE ROW BELOW. VOIDS SHALL THEN BE FILLED WITH PCC, CLASS C. WINGWALL CORNERS, REGARDLESS OF OPTION SELECTED, SHALL BE CONSTRUCTED BY THAT METHOD FOR THE FULL HEIGHT OF VOIDED CMU BLOCKS. PCC, CLASS C USED IN THE WINGWALL CORNERS SHALL CONFORM TO ITEM #602016 - PCC MASONRY CLASS C. CONSTRUCTION OF THE WINGWALL CORNERS AND FURNISHING AND PLACING #4 REBAR AND PCC, CLASS C FOR THE WINGWALL CORNERS SHALL BE INCLUDED IN THE UNIT PRICE OF BID ITEM #602016 - PCC MASONRY CLASS C.

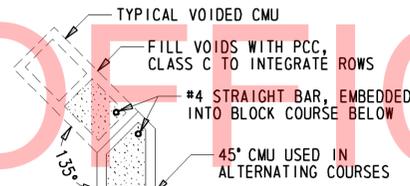
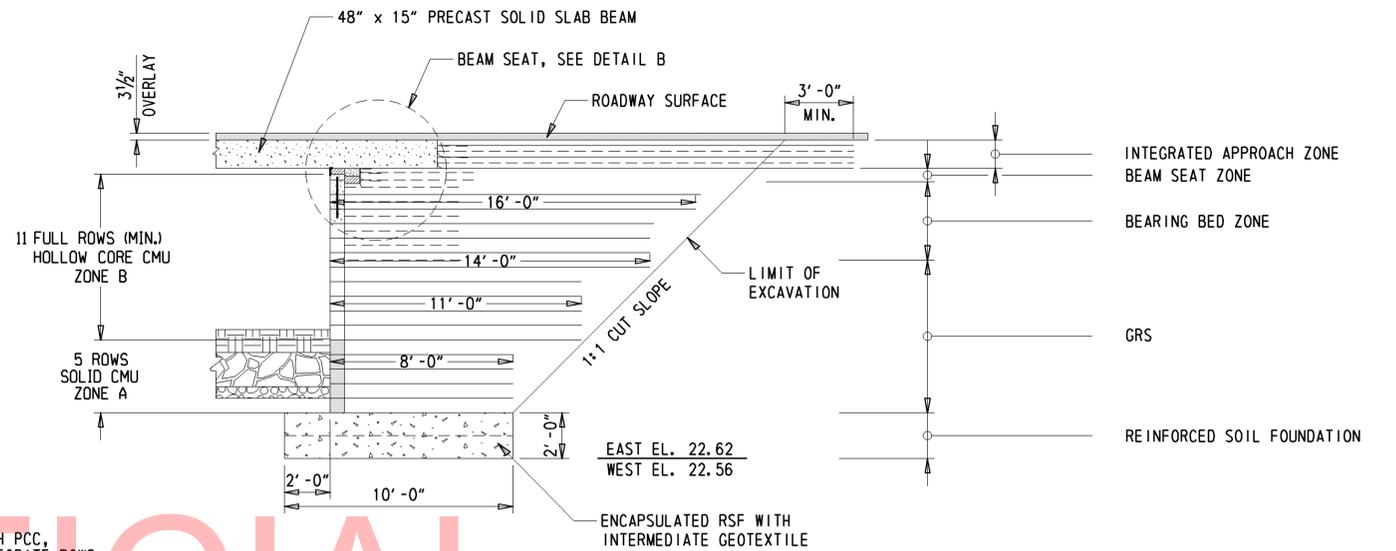
BEAM SEAT PLACEMENT:
THICKNESS OF THE BEAM SEAT IS APPROXIMATELY 12 INCHES AND CONSISTS OF A MINIMUM OF THREE 4-INCH LIFTS OF WRAPPED- FACE GRS. CUT CMU AT A 2% SLOPE TO MAINTAIN A MINIMUM OF 3" CLEAR SPACE BELOW THE BOTTOM OF THE PRECAST SOLID SLAB BEAM. PLACE 4-INCH THICK FOAM BOARD ON TOP OF THE BEARING BED REINFORCEMENT BUT AGAINST THE BACK FACE OF THE CMU BLOCK. SET HALF- HEIGHT SOLID CMU BLOCKS ON TOP OF THE FOAM BOARD. WRAP TWO 4-INCH LIFTS ACROSS THE BEAM SEAT. BEFORE FOLDING THE FINAL WRAP, IT MAY BE NECESSARY TO GRADE THE SURFACE AGGREGATE OF THE BEAM SEAT SLIGHTLY HIGH, TO ABOUT 0.5 INCHES, TO AID IN SEATING THE SUPERSTRUCTURE, MAXIMIZE CONTACT WITH THE BEARING AREA AND ENSURE THE PROPER CROWN IN THE BRIDGE.

POLYSTYRENE FOAM BOARD:
PROVIDE POLYSTYRENE FOAM BOARD CONFORMING TO AASHTO M230, TYPE VI. FOAM BOARD SHALL BE PLACED AGAINST THE BACK FACE OF THE CMU BLOCK BEFORE PLACEMENT OF THE 4"x8" SOLID BLOCK. FOAM BOARD SHALL ALSO BE PLACED IN THE 3" CLEAR SPACE BETWEEN THE TOP ROW OF CMU BLOCK AND THE BEAM. SEE DETAIL B ON THIS SHEET FOR FURTHER CLARIFICATION. PAYMENT INCIDENTAL TO ITEM 602016-PCC MASONRY CLASS C.

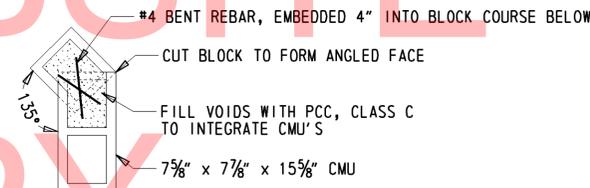
INTEGRATED APPROACH ZONE:
FOLLOWING THE PLACEMENT OF THE SUPERSTRUCTURE, WRAPPED FACE GEOTEXTILE REINFORCEMENT LAYERS ARE PLACED ALONG THE BACK FACE OF THE GRS SUPERSTRUCTURE, BUILT IN MAXIMUM WRAPPED LIFT HEIGHTS OF 6 INCHES. THE TOP OF THE FINAL WRAP SHOULD ALLOW AT LEAST 2-INCHES OF AGGREGATE BASE COVER OVER THE GEOSYNTHETIC TO PROTECT IT FROM WARM-MIX ASPHALT. PAYMENT UNDER THEIR RESPECTIVE ITEMS.

COMPACTION:
COMPACT BACKFILL TO A MINIMUM OF 95 PERCENT OF THE MAXIMUM DRY DENSITY ACCORDING TO AASHTO-T-99 AND +/- 2 PERCENT OPTIMUM MOISTURE CONTENT. IN THE BEARING REINFORCEMENT ZONE, COMPACT TO 100 PERCENT OF THE MAXIMUM DRY DENSITY ACCORDING TO AASHTO-T-99. ONLY HAND OPERATED EQUIPMENT IS ALLOWED WITHIN 3- FEET OF THE WALL FACE. BACKFILL SHALL COMPACT TO NON-MOVEMENT OR NO APPRECIABLE DISPLACEMENT AND ASSESS WITH VISUAL INSPECTION. ALL COMPACTED LIFTS SHALL BE APPROVED BY THE ENGINEER FOR COMPACTNESS BEFORE THE NEXT LIFT WILL BE PERMITTED TO START.

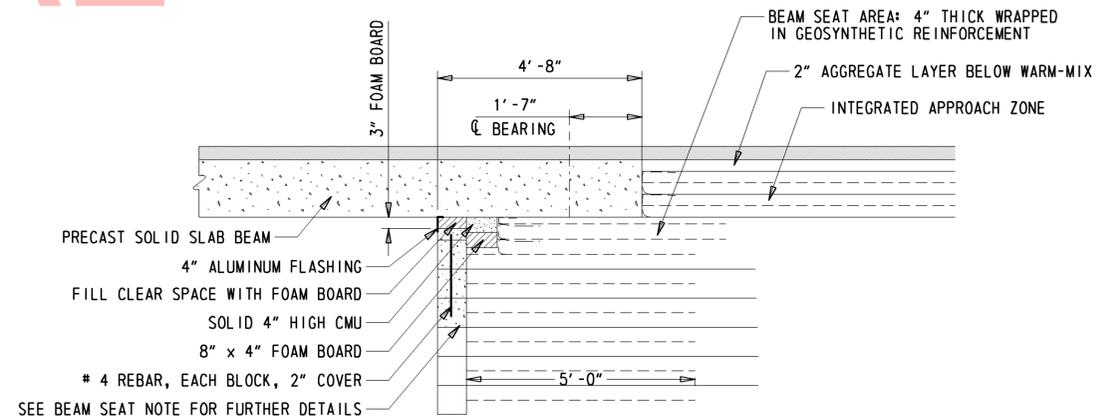
EQUIPMENT PLACEMENT:
EQUIPMENT CAN BE POSITIONED ON THE GRS ABUTMENT PROVIDED THE OUTRIGGER PADS ARE SIZED FOR LESS THAN 4000 PSF NEAR THE FACE OF THE ABUTMENT WALL.



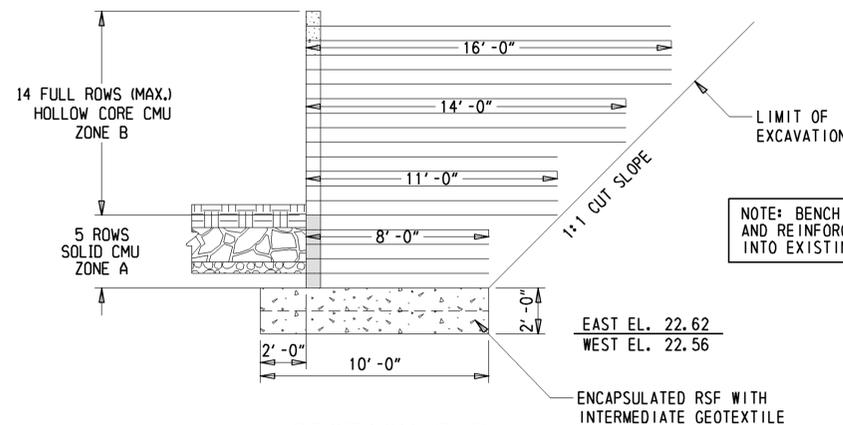
DETAIL A.1
WINGWALL CORNER'S
1" = 1'-0"



DETAIL A.2
WINGWALL CORNER'S
1" = 1'-0"



DETAIL B
1" = 1'-0"

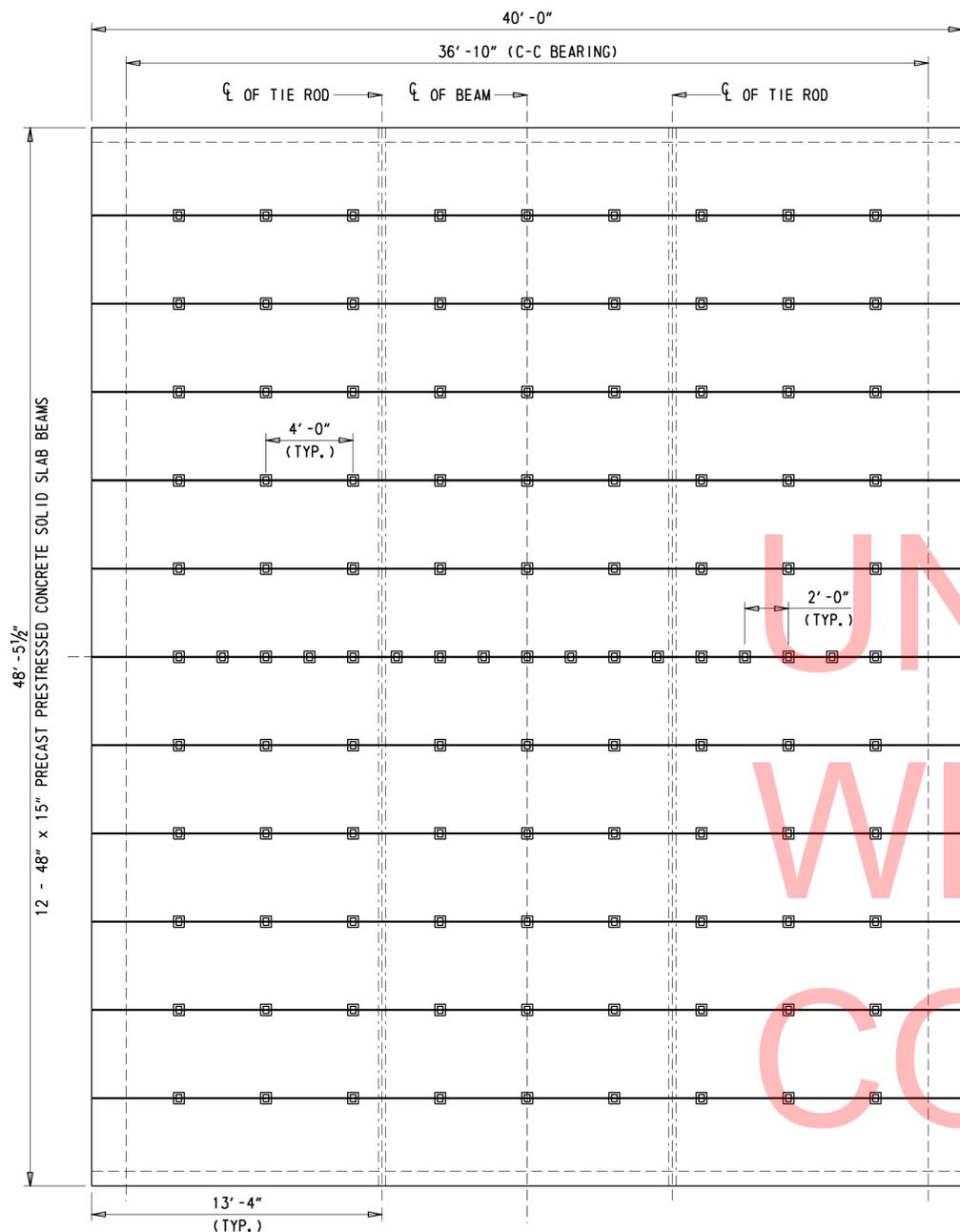


SECTION B-B
WINGWALL
1/4" = 1'-0"

LEGEND	
CMU	CONCRETE MASONRY UNIT
GRS	GEOSYNTHETIC REINFORCED SOIL
IBS	INTEGRATED BRIDGE SYSTEM
—	PRIMARY GEOSYNTHETIC REINFORCEMENT
- - -	INTERMEDIATE GEOSYNTHETIC REINFORCEMENT

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	ADDENDUMS / REVISIONS		SCALE AS NOTED	BR 3-140 ON S597 TUCKERS ROAD OVER TOMS DAM BRANCH	CONTRACT	BRIDGE NO.	3-140	SHEET NO. 8
					T201347201	DESIGNED BY: SMW	TOTAL SHTS. 17	
					COUNTY	CHECKED BY: EM		
					SUSSEX		ABUTMENT DETAILS	



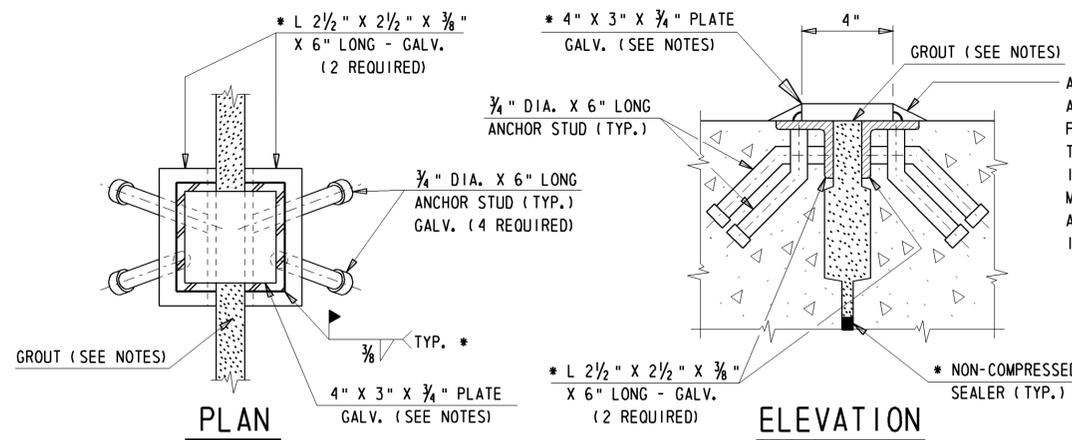
FRAMING PLAN

1/4" = 1'-0"

FRAMING PLAN NOTES:

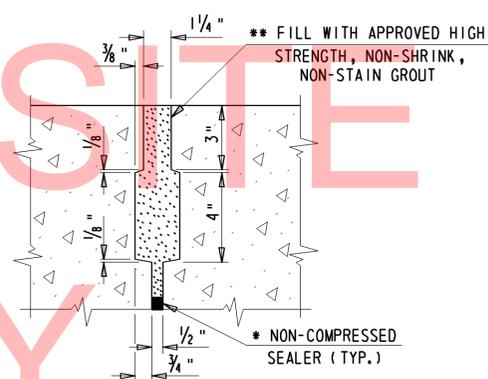
- 107 SHEAR CONNECTORS ARE REQUIRED. SEE FRAMING PLAN ABOVE FOR SPACING AND LOCATION.
- ANGLES AND PLATES ARE TO BE STRUCTURAL STEEL CONFORMING TO AASHTO M270 GRADE 50 AND SHALL BE GALVANIZED. ANCHOR STUDS ARE TO BE AUTOMATIC END-WELDED TYPE.
- INSTALL AND TIGHTEN TIE RODS IN ACCORDANCE WITH SPECIFICATIONS AFTER ERECTION OF PRESTRESSED BEAMS. FIELD WELD PLATE TO SHEAR CONNECTOR ANGLES AND GALVANIZE. FILL ALL KEYWAYS AND CAVITIES WITH APPROVED HIGH STRENGTH, NON-SHRINK, NON-STAIN GROUT. **
- GROUTING BETWEEN BEAM SECTIONS SHALL BE DONE WHEN AIR TEMPERATURE IS ABOVE 40°F OR AS PER MANUFACTURER'S RECOMMENDATION, WHICHEVER IS HIGHER. NO TRAFFIC OR EQUIPMENT SHALL BE PERMITTED ON THE BRIDGE UNTIL THE GROUT HAS CURED FOR AT LEAST 72 HOURS.
- ADJUST BAR SPACING TO CLEAR SHEAR CONNECTORS. SHEAR CONNECTIONS SHALL NOT COME IN CONTACT WITH REINFORCING STEEL.
- WATERPROOFING MEMBRANE SHALL BE INSTALLED ACROSS THE TOP OF BEAMS AND LAPPED DOWN TO THE BOTTOM OF EACH BEAM ON EACH END. MEMBRANE SHALL ALSO EXTEND 2" UP INSIDE FACE OF CURB DETAIL ON EXTERIOR BEAMS. PAYMENT SHALL BE UNDER ITEM #602547 - WATERPROOFING BRIDGE DECK.

* PAYMENT FOR MATERIAL AND LABOR SHALL BE INCIDENTAL TO ITEM #623000 - PRESTRESSED REINFORCED CONCRETE MEMBERS.
 ** GROUT SHALL BE QUIKRETE, L & M CRYSTEX OR APPROVED EQUAL.



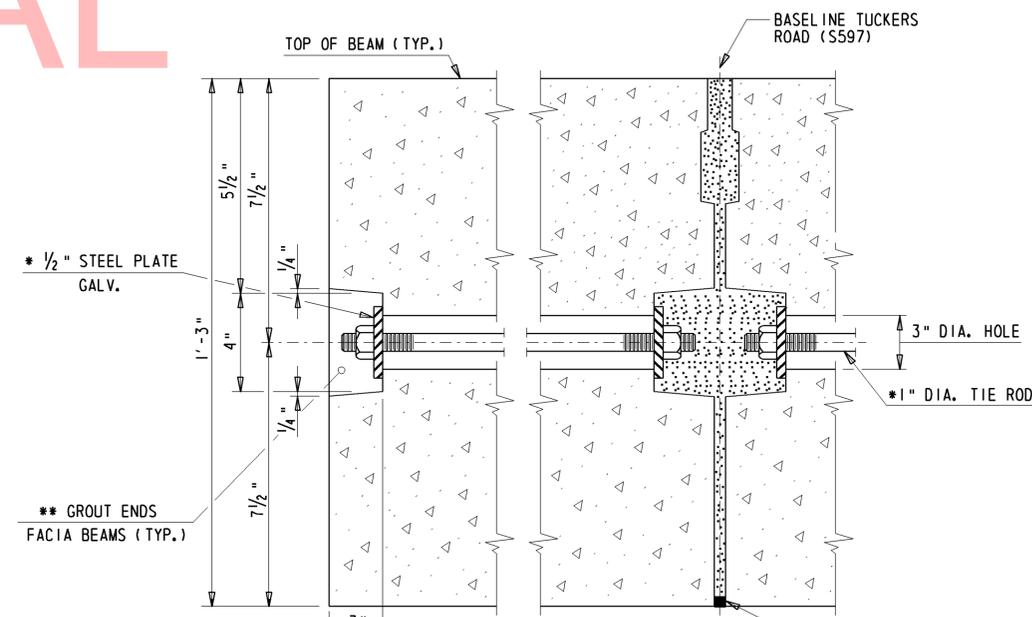
SHEAR CONNECTION

SCALE : N. T. S.



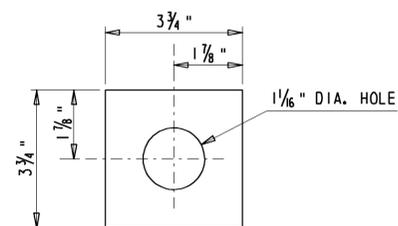
SHEAR KEY DETAIL

SCALE : N. T. S.



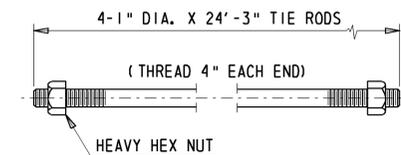
TIE ROD END DETAIL

SCALE : N. T. S.



*** 1/2" THICK PLATE
WASHER (A572)**

(PROTECTED WITH FUSION BONDED EPOXY)
SCALE : N. T. S.

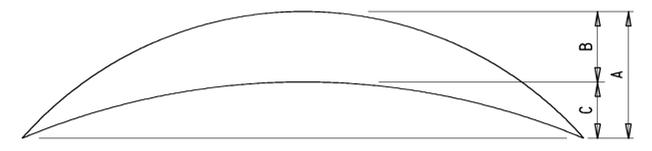
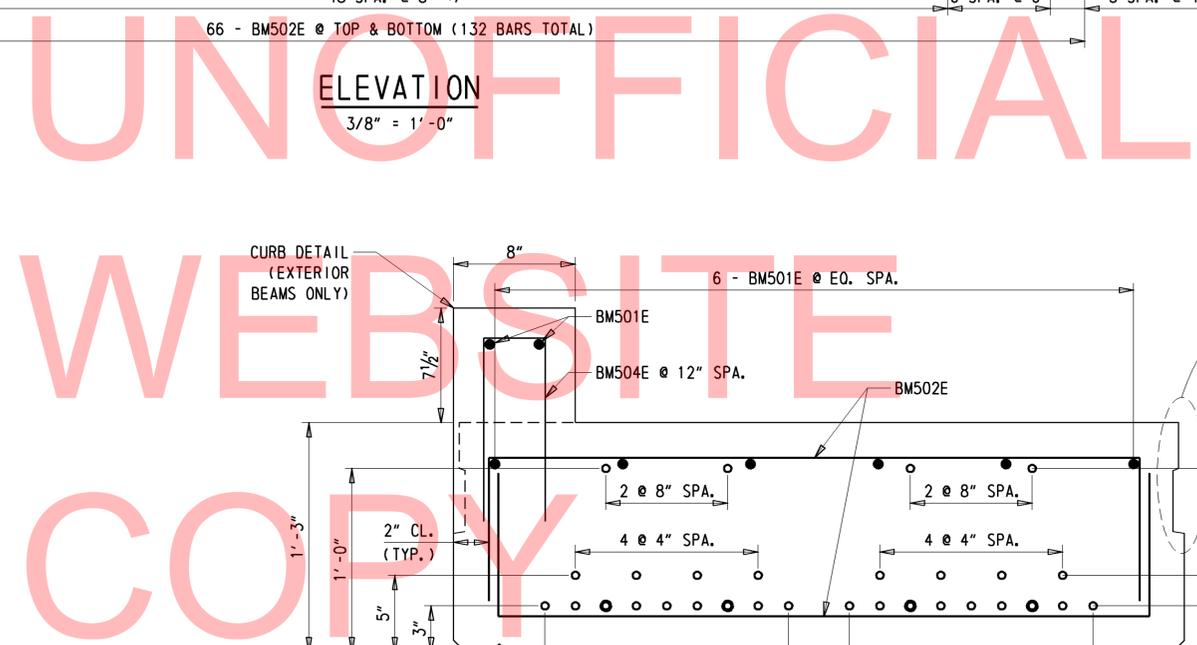
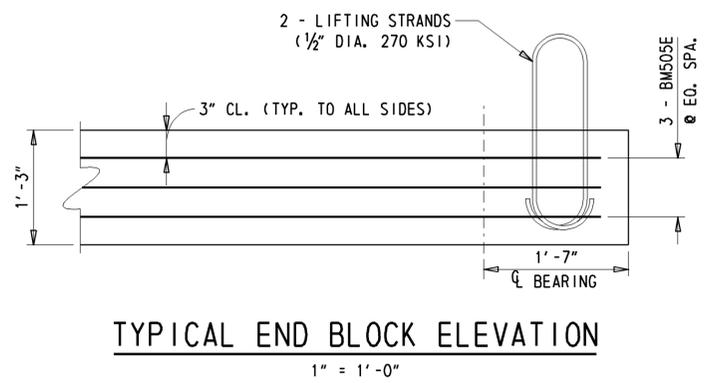
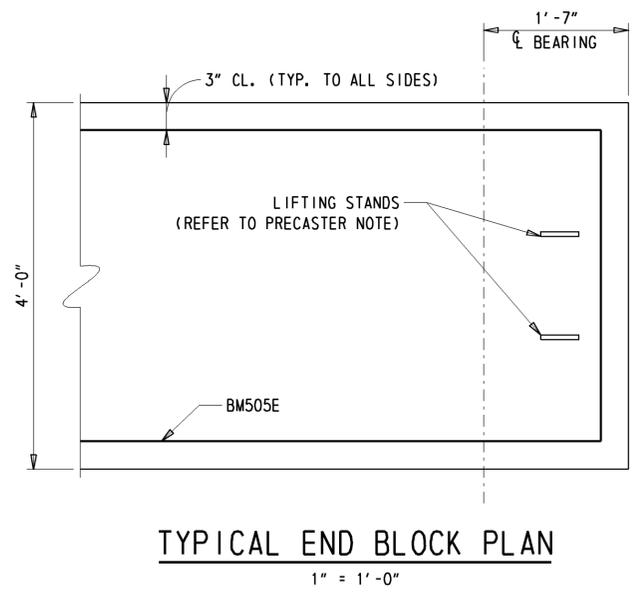
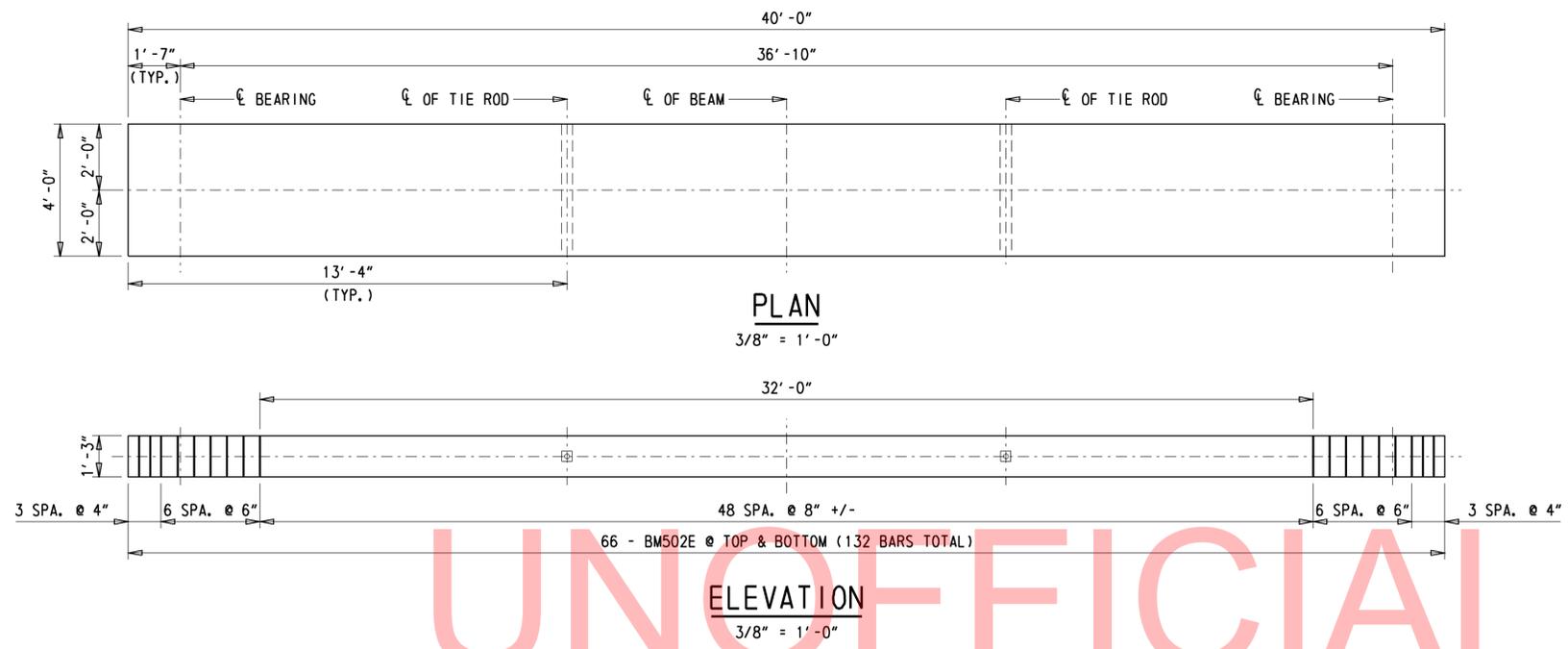


*** 1" DIA. TIE ROD**

TIE RODS TO BE A. S. T. M. A572 STEEL AND PROTECTED WITH FUSION BONDED EPOXY.
SCALE : N. T. S.

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	ADDENDUMS / REVISIONS		SCALE AS NOTED	BR 3-140 ON S597 TUCKERS ROAD OVER TOMS DAM BRANCH	CONTRACT	BRIDGE NO.	3-140	FRAMING PLAN	SHEET NO.
					T201347201	DESIGNED BY:	SMW		TOTAL SHTS.
					COUNTY	CHECKED BY:	EM		17
					SUSSEX				

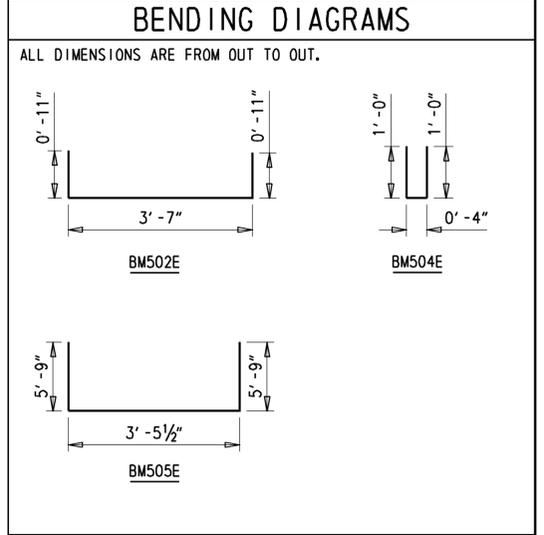


A = ESTIMATED PRESTRESS CAMBER LESS DEFLECTION DUE TO DEAD LOAD OF BEAM AT TIME OF TRANSFER = 0.984"
 B = DEFLECTION DUE TO DEAD LOAD OF WARM-MIX OVERLAY AND CURB = 0.189"
 C = A - B = NET CAMBER AT TIME OF CONSTRUCTION = 0.795"

- 1/2" DIA., 270 KSI PRESTRESSING STRAND (26 STRANDS TOTAL)
- 1/2" DIA., 270 KSI PRESTRESSING STRAND TO BE DEBONDED FOR 5'-0" @ EACH END (4 STRANDS TOTAL)

NOTE TO PRECASTER:
 LIFTING STRANDS SHALL BE SPACED SO THAT THEY DO NOT INTERFERE WITH STRAND SPACING. THE PRECASTER SHALL INCLUDE DETAILS OF THE PLACEMENT OF THESE ITEMS IN THEIR SUBMITTED SHOP DRAWINGS.

REINFORCING BAR LIST							
STRAIGHT BARS				BENT BARS			
MARK	SIZE	QTY.	LENGTH	MARK	SIZE	QTY.	LENGTH
BM501E	5	8	39'-8"	BM502E	5	132	5'-5"
				BM504E	5	40	2'-4"
				BM505E	5	6	14'-11 1/2"



PRESTRESSED BEAM NOTES (48" x 15")

DESIGN PLANS - WORKING DRAWINGS
 INFORMATION PERTAINING TO THE PRESTRESSED PRECAST REINFORCED CONCRETE SOLID SLAB BEAMS IS INTENDED TO SERVE AS AN INDICATION OF THE TYPE OF CONSTRUCTION ACCEPTABLE FOR USE. THE CONTRACTOR WILL BE REQUIRED TO PREPARE AND SUBMIT, FOR APPROVAL, A COMPLETE SET OF DETAILED SHOP DRAWINGS FOR THE PRESTRESSED PRECAST CONCRETE UNITS THEY PROPOSE TO FURNISH.

HANDLING
 PRESTRESSED BEAMS SHALL BE HANDLED ONLY BY LIFTING STRANDS PROVIDED ESPECIALLY FOR THIS PURPOSE. THE APPROXIMATE DEAD WEIGHT OF EACH UNIT IS 15.2 TONS (INTERIOR BEAMS) AND 16.4 TONS FOR (EXTERIOR BEAMS).

CONCRETE STRESSES
 THE MINIMUM COMPRESSIVE STRENGTH AT TIME OF INITIAL PRESTRESS EQUALS 6400 PSI.
 THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS EQUALS 8000 PSI.

BAR REINFORCEMENT
 MATERIALS REQUIREMENT: ASTM M31 - GRADE 60
 ALL BAR REINFORCEMENT TO HAVE 2" MINIMUM COVER EXCEPT AS NOTED OR DETAILED.
 ALL BAR REINFORCEMENT AND CHAIR SUPPORTS SHALL BE PROTECTED WITH FUSION BONDED EPOXY.
 PAYMENT FOR REINFORCING BARS IS INCIDENTAL TO ITEM #623000 - PRESTRESSED REINFORCED CONCRETE MEMBERS.

STRAND
 INITIAL PRESTRESS ON EACH 1/2" DIA. 270 KSI LOW RELAXATION STRAND EQUALS 30975 LBS MINIMUM ULTIMATE STRENGTH EQUALS 41310 LBS PER STRAND.

CONCRETE FINISH
 TOP OF BEAMS ARE TO HAVE A SMOOTH FINISH. BOTTOM AND SIDES OF BEAMS SHALL BE PROTECTED WITH A WATER MISCIBLE, PENETRATING ALKYL ALKOXY SILANE SEALER. PAYMENT INCIDENTAL TO ITEM #623000 - PRESTRESSED REINFORCED CONCRETE MEMBERS.

NOTE: 12 TOTAL BEAMS REQUIRED
 10 INTERIOR AND 2 EXTERIOR
 EXTERIOR BEAMS TO INCLUDE DRIP EDGE AND CURB DETAIL

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BORING: TR-1		DATE DRILLED: 12/18/12			
STATION: 1+22.52	OFFSET: -2.35	ELEVATION: 36.98	NORTHING: 282638.62		
EASTING: 617289.02					
COMMENTS: N/A					
SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	2.0	2	MOIST LOOSE GRAY FINE TO COARSE SAND W/TRACE OF SILT.	A-3	4" HOT MIX
		5			
		3			
2	4.0	4	WET VERY LOOSE GRAY FINE TO COARSE SAND W/SOME FINE GRAVEL AND SILT.	A-2-4(0)	
		1			
		1			
3	6.0	9	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/TRACE OF SILT.	A-3	DEPTH TO WATER: 7.5 FT
		10			
		9			
4	8.0	4	WET VERY LOOSE LIGHT GRAY COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
		2			
		2			
5	10.0	3	WET LOOSE LIGHT GRAY COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		3			
		5			
6	12.0	3	WET LOOSE LIGHT GRAY COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		4			
		5			
7	14.0	1	WET LOOSE LIGHT GRAY COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	APPROX. BOTTOM OF FOOTER: EL. 22.56 FT
		2			
		5			
8	16.0	2	WET LOOSE LIGHT GRAY COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		2			
		5			
9	18.0	5	WET MEDIUM DENSE LIGHT GRAY COARSE SAND W/SOME FINE GRAVEL, TRACE OF FINE SAND AND SILT.	A-1-B	
		6			
		8			
10	23.0	9	WET MEDIUM DENSE LIGHT GRAY COARSE SAND W/SOME FINE GRAVEL AND FINE SAND, TRACE OF SILT.	A-1-B	
		7			
		10			
11	28.0	6	WET MEDIUM DENSE LIGHT GRAY COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		6			
		9			
12	33.0	3	WET MEDIUM DENSE TAN FINE GRAVELLY COARSE SAND W/SOME FINE SAND, TRACE OF SILT.	A-1-B	
		9			
		10			
13	38.0	13	WET MEDIUM DENSE TAN FINE TO COARSE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-3	
		8			
		9			
14	43.0	8	WET MEDIUM DENSE TAN FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-3	
		11			
		12			
15	48.0	10	WET MEDIUM DENSE TAN FINE GRAVELLY COARSE SAND W/TRACE OF FINE SAND AND SILT.	A-1-B	
		13			
		15			
16	53.0	18	WET DENSE TAN FINE SAND W/SOME COARSE SAND AND SILT.	A-2-4(0)	
		14			
		22			
17	58.0	14	WET DENSE TAN FINE SAND W/SOME COARSE SAND, TRACE OF SILT.	A-3	
		18			
		24			
		60.0	END OF BORING.		

BORING: TR-2		DATE DRILLED: 12/18/12			
STATION: 1+60.51	OFFSET: -5.03	ELEVATION: 36.65	NORTHING: 282628.34		
EASTING: 617325.75					
COMMENTS: N/A					
SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6"	DESCRIPTION	CLASS /G.I.	REMARKS
1	2.0	18	MOIST DENSE TAN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	4" HOT MIX, 4" CRUSH AND RUN
		22			
		12			
2	4.0	12	MOIST LOOSE TAN FINE SAND W/SOME SILT, TRACE OF COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
		5			
		4			
3	6.0	3	MOIST VERY LOOSE GRAY FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		2			
		2			
4	8.0	3	WET VERY LOOSE DARK BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	DEPTH TO WATER: 7.2 FT
		2			
		1			
5	10.0	WH	WET VERY LOOSE TAN COARSE TO FINE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		1			
		3			
6	12.0	3	WET LOOSE TAN COARSE TO FINE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		2			
		3			
7	14.0	4	WET MEDIUM DENSE TAN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	APPROX. BOTTOM OF FOOTER: EL. 22.62 FT
		5			
		6			
8	16.0	3	WET LOOSE WHITE COARSE TO FINE SAND W/ SOME SILT, TRACE OF FINE GRAVEL.	A-1-B	
		4			
		6			
9	18.0	9	WET MEDIUM DENSE WHITE COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT.	A-1-B	
		9			
		9			
10	23.0	6	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		11			
		12			
11	28.0	4	WET MEDIUM DENSE WHITE FINE GRAVEL AND COARSE TO FINE SAND W/SOME SILT.	A-1-B	
		6			
		6			
12	33.0	11	WET MEDIUM DENSE TAN COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		14			
		15			
13	38.0	8	WET MEDIUM DENSE TAN COARSE TO FINE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-1-B	
		10			
		12			
14	43.0	8	WET MEDIUM DENSE ORANGE FINE TO COARSE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-3	
		12			
		12			
15	48.0	6	WET MEDIUM DENSE ORANGE FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	
		8			
		13			
16	53.0	11	WET DENSE ORANGE COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		16			
		17			
17	58.0	11	WET MEDIUM DENSE TAN FINE TO COARSE SAND W/TRACE OF FINE GRAVEL AND SILT.	A-3	
		12			
		13			
18	60.0	20	WET VERY DENSE ORANGE FINE TO COARSE SAND W/TRACE OF SILT AND FINE GRAVEL.	A-3	
		26			
		28			
		60.0	END OF BORING.		

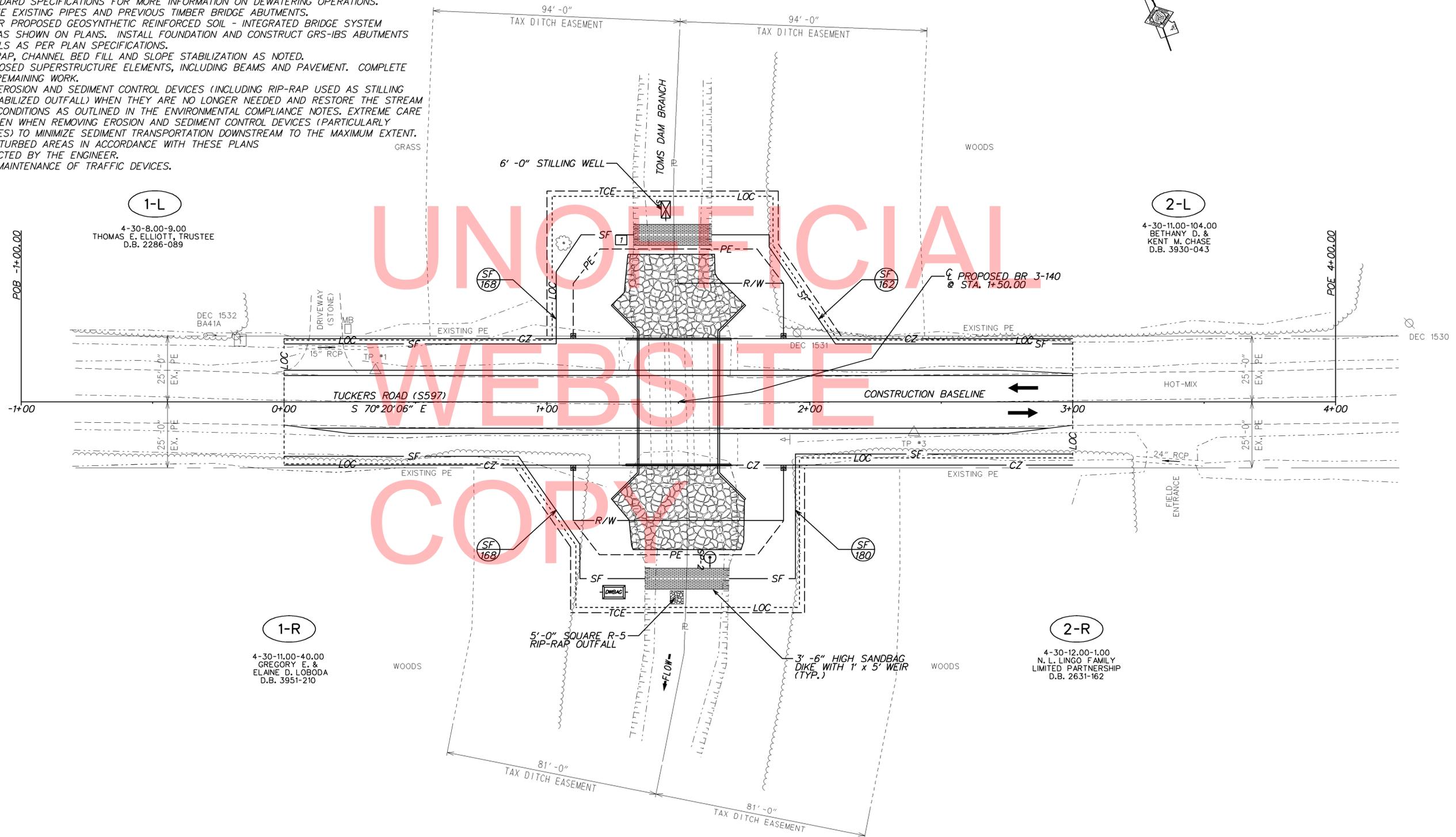
UNOFFICIAL
WEBSITE
COPY

- NOTES:
- BORING LOGS CREATED BY THE DELAWARE DEPARTMENT OF TRANSPORTATION. SUBSURFACE EXPLORATION COMPLETED BY THE WALTON CORPORATION.
 - REFER TO CONSTRUCTION PLAN SHEET (PAGE 5) FOR APPROXIMATE BORING LOCATIONS. BORING LOGS ARE LABELED AS TR-1 AND TR-2.
 - SOIL SAMPLING: 2 IN. OUTSIDE DIA. SPLIT BARREL SAMPLER, DRIVEN WITH A 140 LB. HAMMER FALLING 30 IN.
 - ALL DEPTHS GIVEN ARE IN FEET.

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SEQUENCE OF CONSTRUCTION:

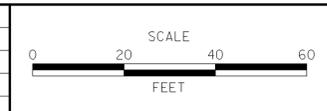
1. TUCKERS ROAD (S597) HAS BEEN CLOSED DUE TO PIPE FAILURE. INSTALL MOT ITEMS IN ACCORDANCE WITH THE DETOUR PLAN AND COORDINATE THE REMOVAL OF THE EXISTING SIGNAGE AS PER THE PROJECT NOTES.
2. INSTALL SILT FENCE AS SHOWN ON THE PLAN, EXCEPT AT CONNECTION TO SANDBAG DIKES. CONSTRUCT UPSTREAM AND DOWNSTREAM SANDBAG DIKES IN THE EXISTING CHANNEL. CONNECT SILT FENCE TO THE SANDBAG DIKES, ENCLOSING THE WORK AREA. INSTALL STABILIZED OUTFALL USING R-5 RIP-RAP. TO MAINTAIN STREAM FLOW, INSTALL PUMPS TO DIVERT FLOW AROUND THE WORK AREA. STREAM DIVERSION SHALL BE INSTALLED AS PER ITEM #265500 - STREAM DIVERSION. INSTALL SUMP PIT AND DEWATERING BAG FOR USE IN DEWATERING THE WORK AREA. SEE SECTION 111 OF THE STANDARD SPECIFICATIONS FOR MORE INFORMATION ON DEWATERING OPERATIONS.
3. REMOVE THREE EXISTING PIPES AND PREVIOUS TIMBER BRIDGE ABUTMENTS.
4. EXCAVATE FOR PROPOSED GEOSYNTHETIC REINFORCED SOIL - INTEGRATED BRIDGE SYSTEM FOUNDATION AS SHOWN ON PLANS. INSTALL FOUNDATION AND CONSTRUCT GRS-IBS ABUTMENTS AND WINGWALLS AS PER PLAN SPECIFICATIONS.
5. INSTALL RIP-RAP, CHANNEL BED FILL AND SLOPE STABILIZATION AS NOTED.
6. INSTALL PROPOSED SUPERSTRUCTURE ELEMENTS, INCLUDING BEAMS AND PAVEMENT. COMPLETE ANY OTHER REMAINING WORK.
7. REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES (INCLUDING RIP-RAP USED AS STILLING WELL AND STABILIZED OUTFALL) WHEN THEY ARE NO LONGER NEEDED AND RESTORE THE STREAM TO EXISTING CONDITIONS AS OUTLINED IN THE ENVIRONMENTAL COMPLIANCE NOTES. EXTREME CARE MUST BE TAKEN WHEN REMOVING EROSION AND SEDIMENT CONTROL DEVICES (PARTICULARLY SANDBAG DIKES) TO MINIMIZE SEDIMENT TRANSPORTATION DOWNSTREAM TO THE MAXIMUM EXTENT.
8. STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER.
9. REMOVE ALL MAINTENANCE OF TRAFFIC DEVICES.



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DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	
7	MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED R/W AND ADJUSTED PE AREA
	SMW 7/29/13



**BR 3-140 ON S597
TUCKERS ROAD OVER
TOMS DAM BRANCH**

CONTRACT	BRIDGE NO.	3-140
T201347201	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	EM
SUSSEX		

CONSTRUCTION SEQUENCE AND EROSION AND SEDIMENT CONTROL PLAN	SHEET NO.	12
	TOTAL SHTS.	17

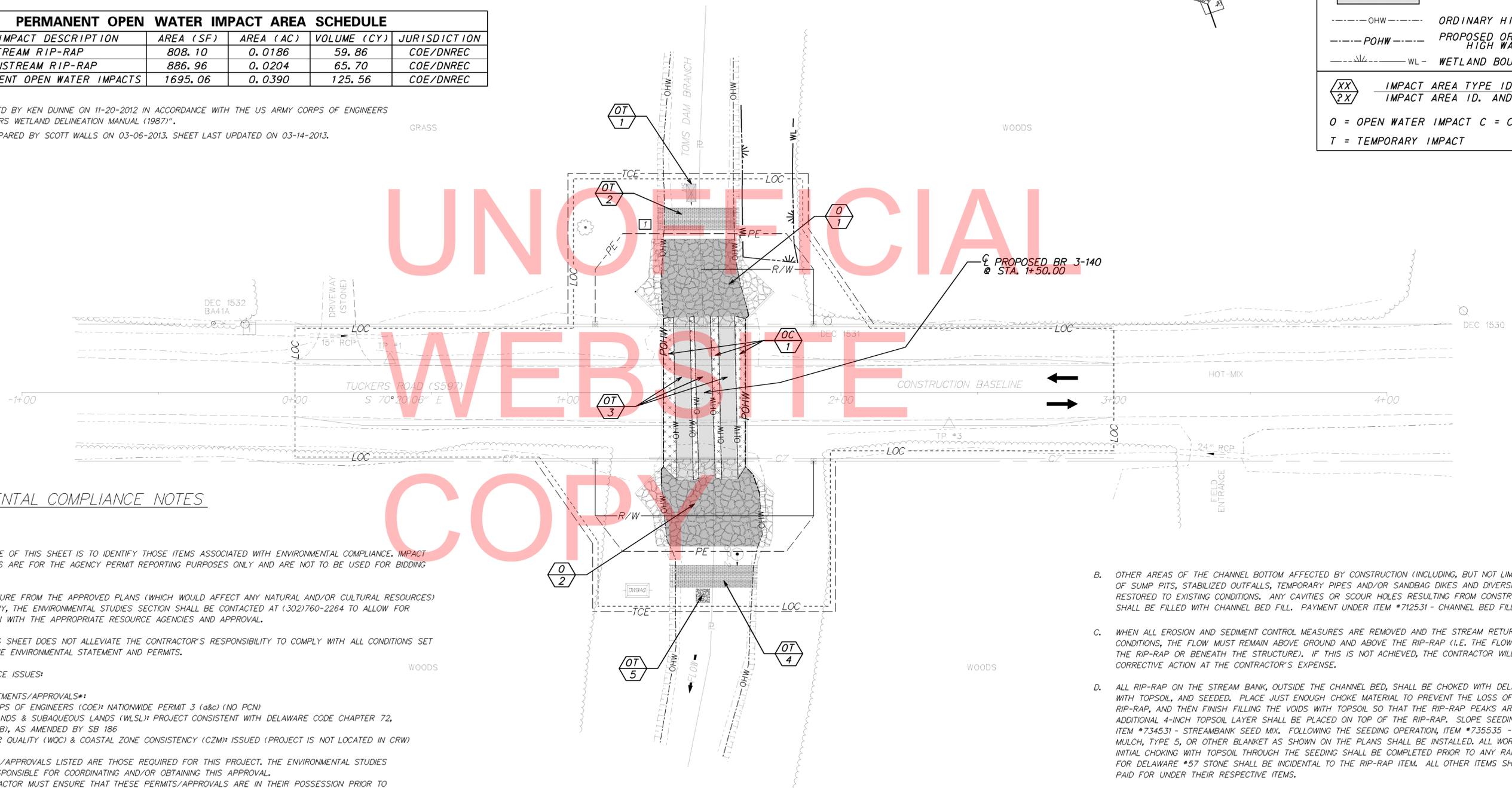
TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	STILLING WELL	22.30	0.0005	1.24	COE/DNREC
OT-2	UPSTREAM SANDBAGS	203.84	0.0047	13.21	COE/DNREC
OT-3	EX. PIPE TO PRO. RIP-RAP	1068.66	0.0245	79.16	COE/DNREC
OT-4	DOWNSTREAM SANDBAGS	227.34	0.0052	14.74	COE/DNREC
OT-5	STABILIZED OUTFALL	25.00	0.0006	1.39	COE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		1547.14	0.0355	109.74	COE/DNREC

PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
O-1	UPSTREAM RIP-RAP	808.10	0.0186	59.86	COE/DNREC
O-2	DOWNSTREAM RIP-RAP	886.96	0.0204	65.70	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		1695.06	0.0390	125.56	COE/DNREC

OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OC-1	FILL TO PROPOSED BRIDGE	692.80	0.0159	224.52	COE/DNREC
TOTAL OPEN WATER CREATION AREAS		692.80	0.0159	224.52	COE/DNREC

LEGEND	
	CREATION AREA
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
--- OHW ---	ORDINARY HIGH WATER
--- POHW ---	PROPOSED ORDINARY HIGH WATER
--- WL ---	WETLAND BOUNDARY
	IMPACT AREA TYPE ID. (SEE BELOW)
	IMPACT AREA ID. AND/OR NUMBER
O = OPEN WATER IMPACT C = CREATION AREA	
T = TEMPORARY IMPACT	

WETLANDS DELINEATED BY KEN DUNNE ON 11-20-2012 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)".
ORIGINAL SHEET PREPARED BY SCOTT WALLS ON 03-06-2013. SHEET LAST UPDATED ON 03-14-2013.



ENVIRONMENTAL COMPLIANCE NOTES

1. GENERAL NOTES:

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

2. NATURAL RESOURCE ISSUES:

- A. PERMIT REQUIREMENTS/APPROVALS**:
U.S. ARMY CORPS OF ENGINEERS (COE): NATIONWIDE PERMIT 3 (a&c) (NO PCN)
DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): PROJECT CONSISTENT WITH DELAWARE CODE CHAPTER 72, SECTION 7217 (B), AS AMENDED BY SB 186
DNREC - WATER QUALITY (WQC) & COASTAL ZONE CONSISTENCY (CZM): ISSUED (PROJECT IS NOT LOCATED IN CRW)

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

B. CONSTRUCTION RESTRICTIONS:

- FISHERIES - IN ORDER TO AVOID ADVERSE EFFECTS TO SPECIES OF STATE RARE FISH LOCATED DOWNSTREAM, SEDIMENTATION MUST BE MINIMIZED TO THE MAXIMUM EXTENT.
- ENDANGERED SPECIES - NONE
- MIGRATORY BIRDS - NONE

3. CULTURAL RESOURCE ISSUES:

- A. NONE

4. STREAM RESTORATION AND RIP-RAP TREATMENTS

- A. THE CONTRACTOR SHALL FOLLOW THE SPECIAL PROVISIONS OF ITEM #712531 - CHANNEL BED FILL IN REGARDS TO THE SALVAGING OF ON-SITE NATURAL STREAM BOTTOM MATERIAL OR THE FURNISHING OF OFF-SITE MATERIAL. IF THE SUFFICIENT SOURCES FOR CHANNEL BED FILL DO NOT EXIST ON-SITE, ANY NEW MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF ITEM #712531 - CHANNEL BED FILL. ALL RIP-RAP IN THE CHANNEL BOTTOM (I.E. BELOW THE WATER LINE) SHALL BE RECESSED ONE FOOT BELOW STREAM BED ELEVATION AND CHOKED WITH BORROW TYPE 'B' SO THAT ALL OF THE VOIDS IN THE RIP-RAP ARE FILLED WITH MATERIAL. PAYMENT UNDER ITEM #209002 - BORROW TYPE 'B'. THE RIP-RAP SHALL THEN BE COVERED WITH A MINIMUM OF 12" CHANNEL BED FILL. FINAL CHANNEL ELEVATIONS SHALL MATCH EXISTING ELEVATIONS AT THE UPSTREAM AND DOWNSTREAM PROJECT LIMITS. THROUGH THE STRUCTURE, ELEVATIONS SHALL BE AS NOTED ON THE PLANS. PAYMENT UNDER ITEM #712531 - CHANNEL BED FILL.

- B. OTHER AREAS OF THE CHANNEL BOTTOM AFFECTED BY CONSTRUCTION (INCLUDING, BUT NOT LIMITED TO, THE LOCATION OF SUMP PITS, STABILIZED OUTFALLS, TEMPORARY PIPES AND/OR SANDBAG DIKES AND DIVERSIONS) SHALL BE RESTORED TO EXISTING CONDITIONS. ANY CAVITIES OR SCOUR HOLES RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE FILLED WITH CHANNEL BED FILL. PAYMENT UNDER ITEM #712531 - CHANNEL BED FILL.
- C. WHEN ALL EROSION AND SEDIMENT CONTROL MEASURES ARE REMOVED AND THE STREAM RETURNS TO ITS NATURAL FLOW CONDITIONS, THE FLOW MUST REMAIN ABOVE GROUND AND ABOVE THE RIP-RAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIP-RAP OR BENEATH THE STRUCTURE). IF THIS IS NOT ACHIEVED, THE CONTRACTOR WILL BE REQUIRED TO TAKE CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.
- D. ALL RIP-RAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE #57 STONE, FILLED WITH TOPSOIL, AND SEEDED. PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIP-RAP, AND THEN FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIP-RAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4-INCH TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIP-RAP. SLOPE SEEDING SHALL BE AS PER ITEM #734531 - STREAMBANK SEED MIX. FOLLOWING THE SEEDING OPERATION, ITEM #735535 - SOIL RETENTION BLANKET MULCH, TYPE 5, OR OTHER BLANKET AS SHOWN ON THE PLANS SHALL BE INSTALLED. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. PAYMENT FOR DELAWARE #57 STONE SHALL BE INCIDENTAL TO THE RIP-RAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.
- 5. CLEARING IN WETLAND AREAS SHALL BE KEPT TO A MINIMUM ABSOLUTELY NECESSARY FOR CONSTRUCTION ACCESS. IN WETLAND AREAS THAT ARE CLEARED, THERE SHALL BE NO GRUBBING EXCEPT WHERE NECESSARY TO CONSTRUCT PROJECT COMPONENTS SUCH AS FOUNDATIONS AND RIPRAP PROTECTION. VEGETATION SHALL BE CUT FLUSH WITH THE GROUND (I.E. NO DISTURBANCE OF THE ROOT MAT).
- 6. IN ORDER TO RESTORE STREAM FLOW, DEBRIS THAT COLLECTED AT THE INLET OF THE THREE EXISTING PIPES DURING HURRICANE SANDY WAS REMOVED AND PLACED IN THE NORTHEAST QUADRANT OF THE CROSSING. THIS DEBRIS SHALL BE REMOVED IN ITS ENTIRETY BY THE CONTRACTOR, PAYMENT INCIDENTAL TO ITEM #201000 - CLEARING AND GRUBBING. IF IT IS NECESSARY TO ENTER THE WETLAND AREA TO REMOVE THE DEBRIS, SPECIAL CARE MUST BE TAKEN TO MINIMIZE ANY DISTURBANCE TO THE WETLAND. ANY WETLAND AREAS DISTURBED BY THIS EFFORT MUST BE RESTORED TO ORIGINAL GRADES AND ELEVATIONS AND THEN STABILIZED WITH ITEM #734552 - WET GROUND SEED MIX.

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	ADDENDUMS / REVISIONS		SCALE 0 20 40 60 FEET	BR 3-140 ON S597 TUCKERS ROAD OVER TOMS DAM BRANCH	CONTRACT	BRIDGE NO.	3-140	ENVIRONMENTAL COMPLIANCE PLAN	SHEET NO.
	7 MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED R/W AND ADJUSTED PE AREA				SMW 7/29/13	T201347201			DESIGNED BY: SMW
						COUNTY	CHECKED BY: EM		TOTAL SHTS.
						SUSSEX			17

PORTABLE CHANGEABLE MESSAGE SIGNS

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

PCMS-1

XXXXXXXX
XXXXXXXX
XXXXXXXX

XXXXXXXX
XXXXXXXX
XXXXXXXX

DURING DETOUR

(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

PCMS-1

XXXXXXXX
XXXXXXXX
XXXXXXXX

XXXXXXXX
XXXXXXXX
XXXXXXXX

PRIOR TO DETOUR

(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

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DURING DETOUR

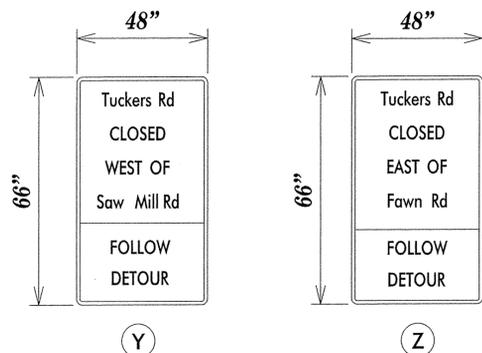
(DISPLAY FOR 5 DAYS AFTER IMPLEMENTATION OF DETOUR)

PCMS-1

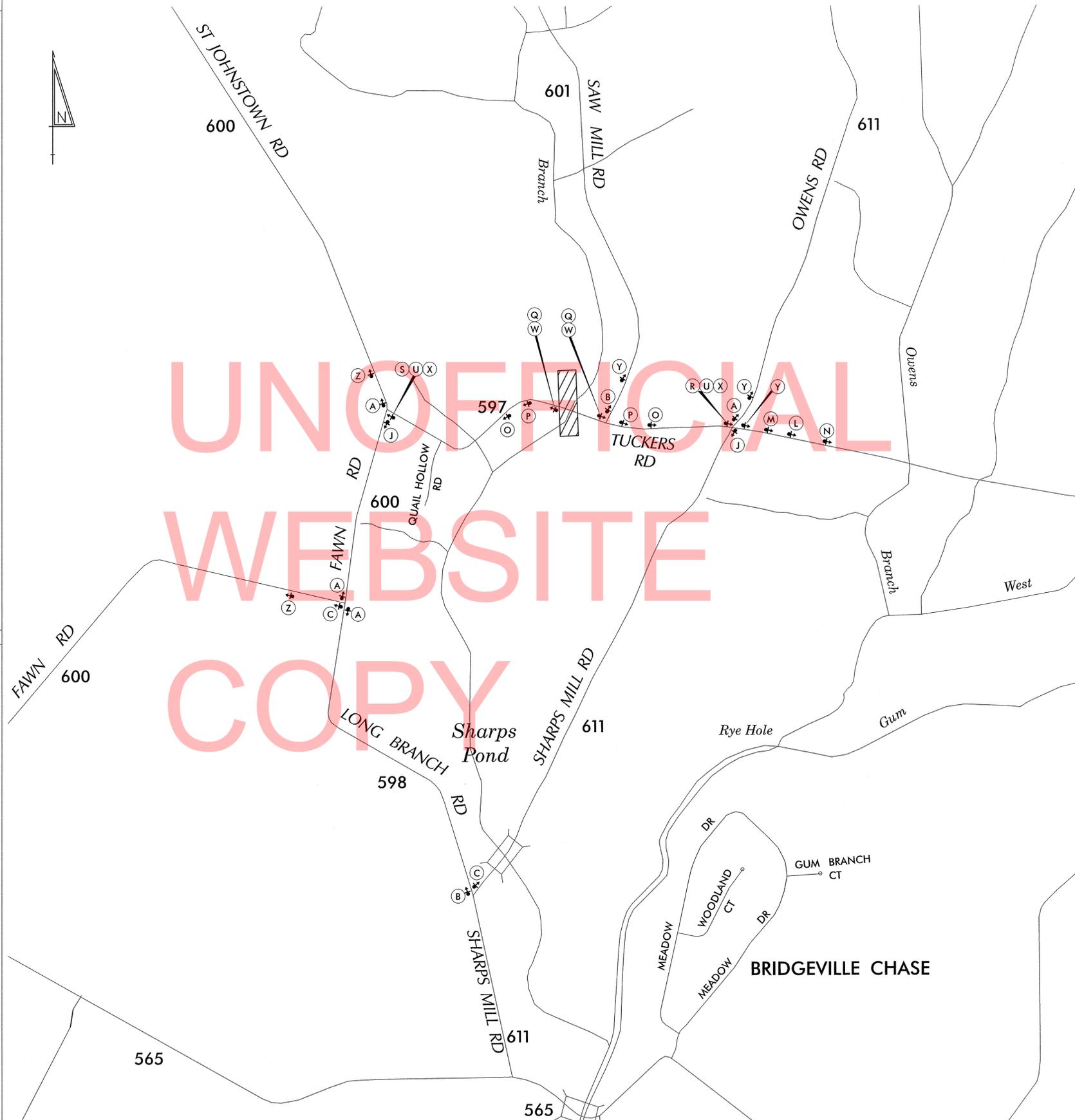
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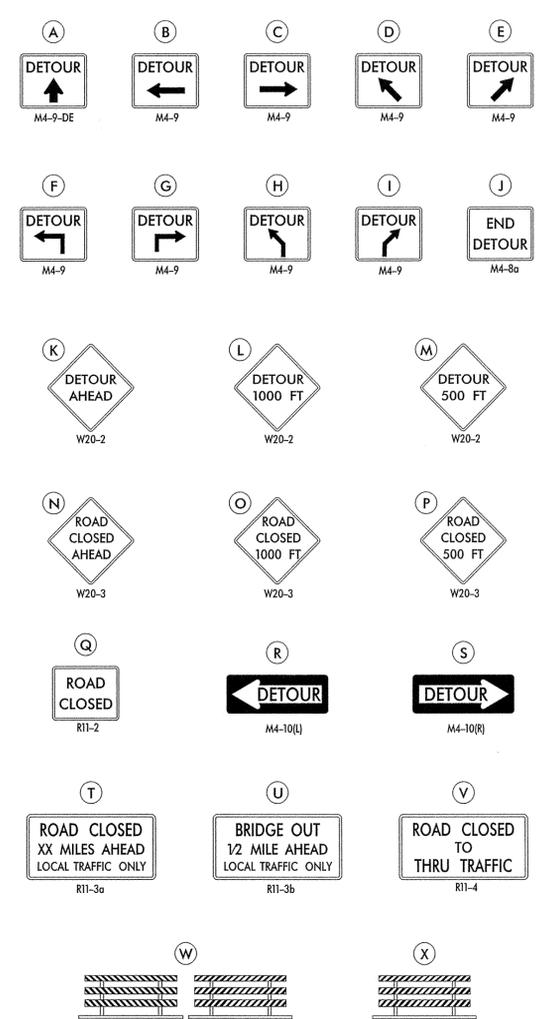
SPECIAL SIGNS



*D/G RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND; BLACK LEGEND



LEGEND



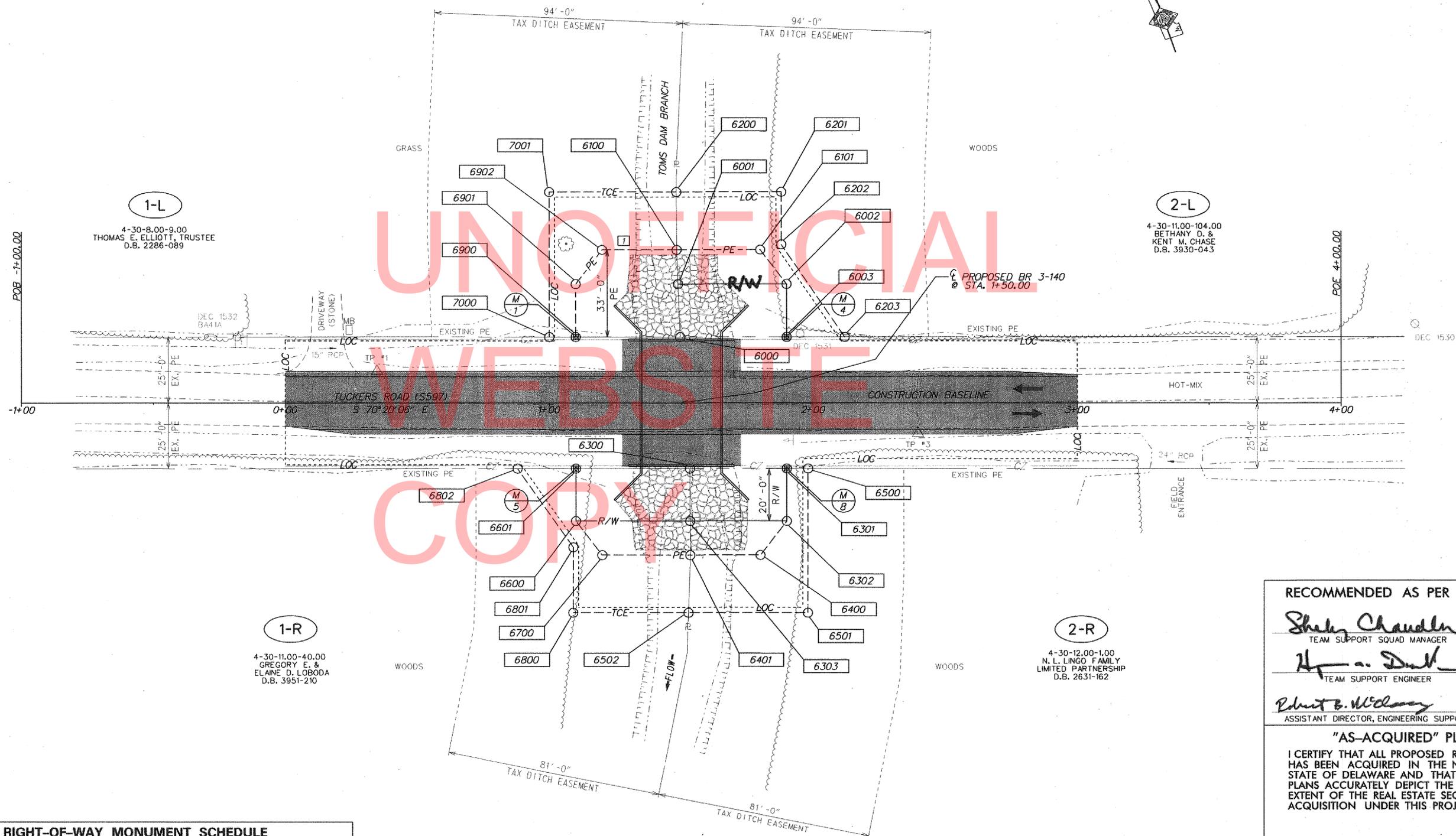
GENERAL NOTES

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

U:\MICROSTATION.DGN\TUCKERS RD (S597).BR 3-140.DGN

RECOMMENDED *Handwritten* DATE: 3-25-13 RECOMMENDED _____ DATE: _____ RECOMMENDED _____ DATE: _____ APPROVED CHIEF SAFETY OFFICER *Handwritten* DATE: 3-26-13 APPROVED TRAFFIC ENGINEER *Handwritten* DATE: 3/26/13

<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUM / REVISIONS	<p>NOT TO SCALE</p>	<p>BR 3-140 ON S597 TUCKERS ROAD OVER TOMS DAM BRANCH</p>	CONTRACT	ROAD NO.	<p>S597</p>	<p>VEHICULAR DETOUR PLAN</p>	SHEET NO.	
					T201347201			DESIGNED BY: MFR	14
					COUNTY			CHECKED BY: ASW	TOTAL SHTS.
				SUSSEX				17	



1-L
4-30-8.00-9.00
THOMAS E. ELLIOTT, TRUSTEE
D.B. 2286-089

2-L
4-30-11.00-104.00
BETHANY D. &
KENT M. CHASE
D.B. 3930-043

1-R
4-30-11.00-40.00
GREGORY E. &
ELAINE D. LOBODA
D.B. 3951-210

2-R
4-30-12.00-1.00
N. L. LINGO FAMILY
LIMITED PARTNERSHIP
D.B. 2631-162

RECOMMENDED AS PER REVISION 1

Shelley Chaudler 8/11/13
TEAM SUPPORT SQUAD MANAGER DATE

John A. Dault 8-12-13
TEAM SUPPORT ENGINEER DATE

Robert B. McElroy 8/12/13
ASSISTANT DIRECTOR, ENGINEERING SUPPORT DATE

"AS-ACQUIRED" PLANS
I CERTIFY THAT ALL PROPOSED RIGHT-OF-WAY HAS BEEN ACQUIRED IN THE NAME OF THE STATE OF DELAWARE AND THAT THESE PLANS ACCURATELY DEPICT THE NATURE AND EXTENT OF THE REAL ESTATE SECTION ACQUISITION UNDER THIS PROJECT.

CHIEF, REAL ESTATE DATE

ORIGINAL SIGNATURE DATE: 3/25/13

RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
M-1	CAPPED REBAR	1+10.00	-25.00	282664.15	617284.88
M-2	CAPPED REBAR	1+10.00	-45.00	282682.99	617291.61
M-3	CAPPED REBAR	1+90.00	-45.00	282656.07	617366.94
M-4	CAPPED REBAR	1+90.00	-25.00	282637.23	617360.21

ADDENDUMS / REVISIONS	
<input checked="" type="checkbox"/>	MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED R/W AND ADJUSTED PE AREA
	SMM 7/29/13



BR 3-140 ON S597
TUCKERS ROAD OVER
TOMS DAM BRANCH

CONTRACT	BRIDGE NO.	3-140
T201347201	DESIGNED BY:	SMW
COUNTY	CHECKED BY:	EM
SUSSEX		

RIGHT-OF-WAY SHEET 1 OF 3	
RIGHT-OF-WAY PLAN	SHEET NO. 15 TOTAL SHTS. 17



Y:\SUSSEX\597 BRIDGE\T201347201\PLANS\CPO1.DGN

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-8.00-9.00	(1-L) THOMAS E. ELLIOTT					P/E	D.B. 2286-089	269.930			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	1000	1+49.64	-25.00	282650.8138	617322.2068	N 70°20'06.20" W	39.64				
6900	1000	1+10.00	-25.00	282664.1534	617284.8788	N 19°39'53.80" E	20.00				
6901	1000	1+10.00	-45.00	282682.9870	617291.6092	N 57°14'00.73" E	16.40				
6902	1000	1+20.00	-58.00	282691.8636	617305.4007	S 70°20'06.20" E	28.29				
6100	1000	1+48.29	-58.00	282682.3435	617332.0407	S 17°19'49.20" W	13.01				
6001	1000	1+48.82	-45.00	282669.9233	617328.1651	S 17°19'01.68" W	20.02				
6000	1000	1+49.64	-25.00	282650.8138	617322.2068						
FIGURE 6900 AREA = 1220.8150 SQ. FT. (0.0280 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-8.00-9.00	(1-L) THOMAS E. ELLIOTT					TCE	D.B. 2286-089	269.930			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6900	1000	1+10.00	-25.00	282664.1534	617284.8788	N 70°20'06.20" W	10.00				
7000	1000	1+10.00	-25.00	282667.5186	617275.4620	N 19°39'53.80" E	55.00				
7001	1000	1+00.00	-80.00	282719.3109	617293.9706	S 70°20'06.20" E	48.17				
6200	1000	1+48.17	-80.00	282703.1007	617339.3311	S 19°21'08.73" W	22.00				
6100	1000	1+48.29	-58.00	282682.3435	617332.0407	N 70°20'06.20" W	28.29				
6902	1000	1+20.00	-58.00	282691.8636	617305.4007	S 57°14'00.73" W	16.40				
6901	1000	1+10.00	-45.00	282682.9870	617291.6092	S 19°39'53.80" W	20.00				
6900	1000	1+10.00	-25.00	282664.1534	617284.8788						
FIGURE 7000 AREA = 1456.0600 SQ. FT. (0.0334 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-11.00-104.00	(2-L) BETHANY D. & KENT M. CHASE					R/W	D.B. 3930-043	3.310			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6000	1000	1+49.64	-25.00	282650.8138	617322.2068	N 17°19'01.68" E	20.02				
6001	1000	1+48.82	-45.00	282669.9233	617328.1651	S 70°20'06.20" E	41.18				
6002	1000	1+90.00	-45.00	282656.0654	617366.9433	S 19°39'53.80" W	20.00				
6003	1000	1+90.00	-25.00	282637.2319	617360.2129	N 70°20'06.20" W	40.36				
6000	1000	1+49.64	-25.00	282650.8138	617322.2068						
FIGURE 6000 AREA = 815.4000 SQ. FT. (0.0187 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-11.00-104.00	(2-L) BETHANY D. & KENT M. CHASE					P/E	D.B. 3930-043	3.310			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6001	1000	1+48.82	-45.00	282669.9233	617328.1651	N 17°19'49.20" E	13.01				
6100	1000	1+48.29	-58.00	282682.3435	617332.0407	S 70°20'06.20" E	31.71				
6101	1000	1+80.00	-58.00	282671.6724	617361.9013	S 17°54'13.13" E	16.40				
6002	1000	1+90.00	-45.00	282656.0654	617366.9433	N 70°20'06.20" W	41.18				
6001	1000	1+48.82	-45.00	282669.9233	617328.1651						
FIGURE 6100 AREA = 473.7850 SQ. FT. (0.0109 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-11.00-104.00	(2-L) BETHANY D. & KENT M. CHASE					TCE	D.B. 3930-043	3.310			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6100	1000	1+48.29	-58.00	282682.3435	617332.0407	N 19°21'08.73" E	22.00				
6200	1000	1+48.17	-80.00	282703.1007	617339.3311	S 70°20'06.20" E	39.83				
6201	1000	1+88.00	-80.00	282689.6972	617376.8381	S 19°39'53.80" W	20.00				
6202	1000	1+88.00	-60.00	282670.8636	617370.1077	S 14°46'26.56" E	42.44				
6203	1000	2+12.00	-25.00	282629.8285	617380.9298	N 70°20'06.20" W	22.00				
6003	1000	1+90.00	-25.00	282637.2319	617360.2129	N 19°39'53.80" E	20.00				
6002	1000	1+90.00	-45.00	282656.0654	617366.9433	N 17°54'13.13" W	16.40				
6101	1000	1+80.00	-58.00	282671.6724	617361.9013	N 70°20'06.20" W	31.71				
6100	1000	1+48.29	-58.00	282682.3435	617332.0407						
FIGURE 6200 AREA = 1293.9400 SQ. FT. (0.0297 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-11.00-40.00	(1-R) GREGORY E. & ELAINE D. LOBODA					R/W	D.B. 3951-210	13.080			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6300	1000	1+53.21	25.00	282602.5286	617308.7427	S 19°26'08.75" W	20.00				
6303	1000	1+53.29	45.00	282583.6682	617302.0876	N 70°20'06.20" W	43.29				
6600	1000	1+10.00	45.00	282598.2361	617261.3224	N 19°39'53.80" E	20.00				
6601	1000	1+10.00	25.00	282617.0696	617268.0528	S 70°20'06.20" E	43.21				
6300	1000	1+53.21	25.00	282602.5286	617308.7427						
FIGURE 6600 AREA = 865.0000 SQ. FT. (0.0199 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-11.00-40.00	(1-R) GREGORY E. & ELAINE D. LOBODA					P/E	D.B. 3951-210	13.080			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6303	1000	1+53.29	45.00	282583.6682	617302.0876	S 19°26'40.48" W	13.00				
6401	1000	1+53.34	58.00	282571.4095	617297.7600	N 70°20'06.20" W	33.34				
6700	1000	1+20.00	58.00	282582.6291	617266.3645	N 17°54'13.13" W	16.40				
6600	1000	1+10.00	45.00	282598.2361	617261.3224	S 70°20'06.20" E	43.29				
6303	1000	1+53.29	45.00	282583.6682	617302.0876						
FIGURE 6700 AREA = 498.0950 SQ. FT. (0.0114 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-11.00-40.00	(1-R) GREGORY E. & ELAINE D. LOBODA					TCE	D.B. 3951-210	13.080			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6401	1000	1+53.34	58.00	282571.4095	617297.7600	S 21°19'52.54" W	22.01				
6502	1000	1+52.70	80.00	282550.9080	617289.7539	N 70°20'06.20" W	43.70				
6800	1000	1+09.00	80.00	282565.6139	617248.6026	N 19°39'53.80" E	25.00				
6801	1000	1+09.00	55.00	282589.1558	617257.0156	N 15°19'37.47" W	36.62				
6802	1000	0+88.00	25.00	282624.4730	617247.3359	S 70°20'06.20" E	22.00				
6601	1000	1+10.00	25.00	282617.0696	617268.0528	S 19°39'53.80" W	20.00				
6600	1000	1+10.00	45.00	282598.2361	617261.3224	S 17°54'13.13" E	16.40				
6700	1000	1+20.00	58.00	282582.6291	617266.3645	S 70°20'06.20" E	33.34				
6401	1000	1+53.34	58.00	282571.4095	617297.7600						
FIGURE 6800 AREA = 1381.4400 SQ. FT. (0.0317 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-12.00-1.00	(2-R) N.L. LINGO FAMILY LIMITED PARTNERSHIP					R/W	D.B. 2631-162	166.500			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6300	1000	1+53.21	25.00	282602.5286	617308.7427	S 70°20'06.20" E	36.79				
6301	1000	1+90.00	25.00	282590.1481	617343.3870	S 19°39'53.80" W	20.00				
6302	1000	1+90.00	45.00	282571.3146	617336.6566	N 70°20'06.20" W	36.71				
6303	1000	1+53.29	45.00	282583.6682	617302.0876	N 19°26'08.75" E	20.00				
6300	1000	1+53.21	25.00	282602.5286	617308.7427						
FIGURE 6300 AREA = 735.0000 SQ. FT. (0.0169 ACRES)											

ASSESSMENT NUMBER	OWNERSHIP OF RECORD					TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)			
4-30-12.00-1.00	(2-R) N.L. LINGO FAMILY LIMITED PARTNERSHIP					P/E	D.B. 2631-162	166.500			
ALIGNMENT NUMBER & DESCRIPTION: 1000 - S597 - TUCKERS ROAD											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
6303	1000	1+53.29	45.00	282583.6682	617302.0876	S 70°20'06.20" E	36.71				
6302	1000	1+90.00	45.00	282571.3146	617336.6566	S 57°14'00.73" W	16.40				
6400	1000	1+80.00	58.00	282562.4379	617322.8651	N 70°20'06.20" W	26.66				
6401	1000	1+53.34	58.00	282571.4095	617297.7600	N 19°26'40.48" E	13.00				
6303	1000	1+53.29	45.00	282583.6682	617302.0876						
FIGURE 6400 AREA = 411.9050 SQ. FT. (0											

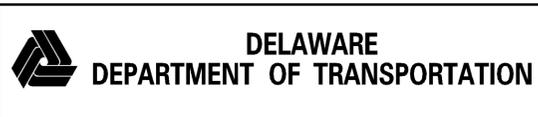
7

COUNTY ASSESSMENT PARCEL NUMBER	PLAN SHEET NUMBER	OWNERSHIP OF RECORD	TITLE SOURCE	PROPERTY AREA BEFORE ACQUISITION (ACRE) D=DEED C=CALCULATED A=ASSESSMENT	ACQUISITION CODE FEE, R/W, P/E, TCE	AREA TO BE ACQUIRED				PROPERTY AREA REMAINING (SQ. FEET /ACRES)	DEED RECORD OF ACQUISITION	REMARKS
						ACQUISITION (SQ. FEET /ACRES)	AREA OCCUPIED BY EXISTING RIGHT OF WAY (SQ. FEET /ACRES)	EASEMENT				
								PERMANENT (SQ. FEET /ACRES)	TEMPORARY (SQ. FEET /ACRES)			
4-30-8.00-9.00	15	(1-L) THOMAS E. ELLIOTT	D.B. 2286-089	A - 269.93	P/E TCE			1220.815 / 0.03	1456.06 / 0.03	11758150.80 / 269.93		PE WITHIN TAX DITCH EASEMENT, REVISION 1 TCE WITHIN TAX DITCH EASEMENT
4-30-11.00-104.00	15	(2-L) BETHANY D. & KENT M. CHASE	D.B. 3930-043	D - 3.31	R/W P/E TCE		815.40 / 0.02	473.785 / 0.01	1293.94 / 0.03	143368.20 / 3.29		R/W WITHIN TAX DITCH EASEMENT PE WITHIN TAX DITCH EASEMENT TCE WITHIN TAX DITCH EASEMENT
4-30-11.00-40.00	15	(1-R) GREGORY E. & ELAINE D. LOBODA	D.B. 3951-210	A - 13.08	R/W P/E TCE		865.00 / 0.02	498.095 / 0.01	1381.44 / 0.03	568899.80 / 13.06		R/W WITHIN TAX DITCH EASEMENT PE WITHIN TAX DITCH EASEMENT TCE WITHIN TAX DITCH EASEMENT
4-30-12.00-1.00	15	(2-R) N.L. LINGO FAMILY LIMITED PARTNERSHIP	D.B. 2631-162	D - 166.50	R/W P/E TCE		735.00 / 0.02	411.905 / 0.01	1318.56 / 0.03	7252005.00 / 166.48		R/W WITHIN TAX DITCH EASEMENT PE WITHIN TAX DITCH EASEMENT TCE WITHIN TAX DITCH EASEMENT

UNOFFICIAL
WEBSITE
COPY

ACQUISITION CODES
FEE - ACQUISITION
R/W - AREA OCCUPIED BY EXISTING R/W
P/E - PERMANENT EASEMENT
TCE - TEMPORARY EASEMENT

RIGHT-OF-WAY SHEET 3 OF 3



ADDENDUMS / REVISIONS

7	MODIFICATION TO RIGHT-OF-WAY FOR PARCEL 1-L REMOVED R/W AND ADJUSTED PE AREA	SMW 7/29/13
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NOT TO SCALE

**BR 3-140 ON S597
TUCKERS ROAD OVER
TOMS DAM BRANCH**

CONTRACT T201347201	BRIDGE NO. 3-140
COUNTY SUSSEX	DESIGNED BY: SMW CHECKED BY: EM

**RIGHT-OF-WAY
TABULATION SHEET**

SHEET NO. 17
TOTAL SHTS. 17

Y:\SUSSEX\597\BRIDGE\T201347201\PLANS\RT-REVISION-1.DGN