

GENERAL LOCATION OF CONTRACT

THE STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

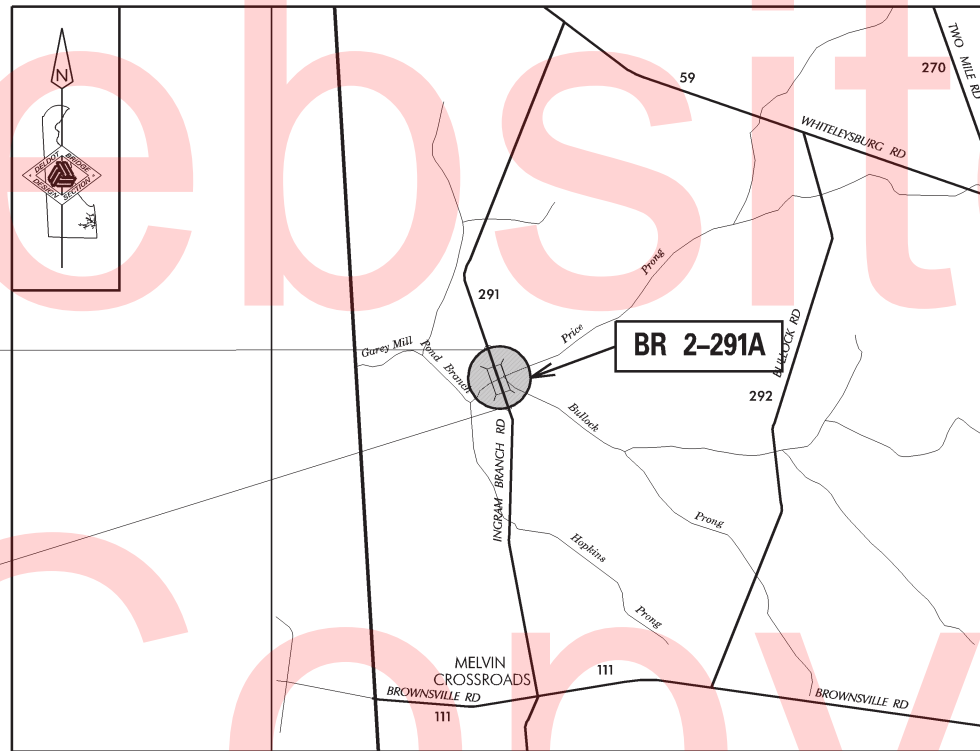
U.S. CUSTOMARY
UNITS



CONSTRUCTION AND RIGHT-OF-WAY PLANS FOR: BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG

CONTRACT NUMBER: **T201407205**
FEDERAL AID PROJECT NUMBER: **EBROS-K291(02)**

COUNTY: **KENT** M.R. #: **K291**



END CONTRACT
STATION 12+00

BEGIN CONTRACT
STATION 8+50

DESIGN DESIGNATION		
FUNCTIONAL CLASS: RURAL LOCAL ROAD	D.H.V. PROJECTED: 20	YEAR: 2040
TYPE OF CONSTRUCTION: PIPE REPLACEMENT	DESIGN SPEED: 55 M.P.H.	
A.A.D.T. CURRENT: 211	YEAR: 2012	TRUCKS: 8%
A.A.D.T. PROJECTED: 300	YEAR: 2040	DIRECTION OF DISTRIBUTION: 60%
INDEX OF SHEETS		
SHEET NO	TABLE OF CONTENTS	
1	TITLE	
2	LEGEND	
3	NOTES	
4	TYPICAL SECTIONS	
5	CONSTRUCTION PLAN	
6	PROFILE	
7	BRIDGE PLAN, SECTION, & ELEVATION	
8	SOIL BORING LOG	
9	ENVIRONMENTAL COMPLIANCE NOTES	
10	ENVIRONMENTAL COMPLIANCE PLAN	
11	CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLAN	
12	DETOUR PLAN	
13	SIGNING, STRIPING, AND CONDUIT PLANS	
14	RIGHT-OF-WAY PLAN	
15	RIGHT-OF-WAY DATA SHEET	
16	RIGHT-OF-WAY TABULATION	

TOTAL SHEETS: 16

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA & REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
1608	PAVE AND REHAB CONTRACT

RECOMMENDED

Manuel Bassillo 08/12/2016
SQUAD MANAGER, CONSTRUCTION DATE

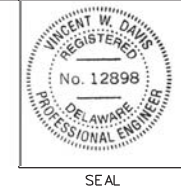
Bradford L. Schmitz 08/12/2016
GROUP ENGINEER, CONSTRUCTION DATE

James A. Givins 08/12/2016
ASSISTANT DIRECTOR, CONSTRUCTION DATE

RECOMMENDED

Vincent W. Davis
STORMWATER ENGINEER

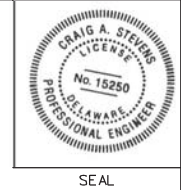
DATE 08/11/2016



RECOMMENDED

[Signature]
SQUAD MANAGER, BRIDGE DESIGN

DATE 08/11/2016



RECOMMENDED

[Signature]
BRIDGE DESIGN ENGINEER

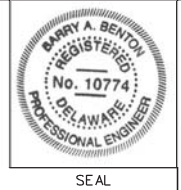
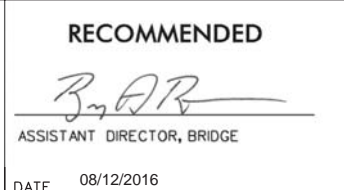
DATE 08/12/2016



RECOMMENDED

[Signature]
ASSISTANT DIRECTOR, BRIDGE

DATE 08/12/2016



APPROVED

Robert Brian McClary
CHIEF ENGINEER

DATE 08/12/2016



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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

CONSTRUCTION	
	CONCRETE SAFETY BARRIER - PERMANENT
	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
	CONSTRUCTION BASELINE
	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
	CLEAR ZONE
	DRAINAGE INLET
	DITCH
	FENCE - METAL
	FENCE - WOOD
	FLARED END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
	HORIZONTAL CLEARANCE
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
	LIMIT OF CONSTRUCTION
	MAILBOX
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK - 4"
	P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)
	UNDERDRAIN
	UNDERDRAIN OUTLET

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

PROPOSED SYMBOLS

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

LANDSCAPING	
	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

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

PAVEMENT SECTION(S)	
	1.25" WMA SUPERPAVE TYPE 'C' OVER 2.25" WMA SUPERPAVE TYPE 'B' OVER 8" GRADED AGGREGATE BASE COURSE

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

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GENERAL NOTES

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

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

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

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

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

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

5. 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 743000.
()	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.

6. THE DISTURBED AREA FOR THIS PROJECT IS 0.711 ACRES.

7. THE ADDITIONAL IMPERVIOUS AREA FOR THIS PROJECT IS 696.96 S.F.

8. THE SEDIMENT AND STORMWATER MANAGEMENT PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE SEDIMENT AND STORMWATER MANAGEMENT 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 WILL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS. THE STORMWATER ENGINEER WILL REVIEW THE CURRENT SEDIMENT AND STORMWATER MANAGEMENT PLAN AND ISSUE AN EXTENSION WITH ANY APPROPRIATE MODIFICATIONS.

PROJECT NOTES

SECTION 100

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

SECTION 200

2. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - EXISTING 3 - 6'-9" x 4'-11" ARCH CMP PIPES
 - EXISTING RIPRAP

3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE DRY HYDRANT LOCATED ON THE WEST SIDE OF THE EXCAVATION. IF THE CONTRACTOR NEEDS TO REMOVE THE DRY HYDRANT FOR THE SAKE OF PROGRESS, THE LOCAL FIRE DEPARTMENT MUST BE NOTIFIED AND THE HYDRANT SHALL BE REMOVED AND REPLACED UPON IMMEDIATE COMPLETION OF WORK IN THE AREA. PAYMENT INCIDENTAL TO ITEM 211000-REMOVAL OF STRUCTURES AND OBSTRUCTIONS.

SECTION 300

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

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

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

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

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

D. HOT-MIX MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
 a. MATERIAL 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 FOR AT THE UNIT BID PRICE FOR ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

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

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

SECTION 700

5. MAINTENANCE OF TRAFFIC SHALL BE PER DETOUR. THE DETOUR SHALL REMAIN IN EFFECT UNTIL THE FINAL BITUMINOUS CONCRETE IS PLACED. ALL M.O.T. ITEMS WITH THE EXCEPTION OF CHANGEABLE MESSAGE BOARDS AND FLAGGERS WILL BE INCLUDED IN ITEM #763643 - MAINTENANCE OF TRAFFIC, ALL INCLUSIVE.

6. 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 SAWCUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

SECTION 900

7. THIS PROJECT IS COVERED UNDER AN NDPES GENERAL PERMIT FOR CONSTRUCTION. UNDER THE GENERAL PERMIT, THE COMPLIANCE WITH DELDOT'S APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS WILL CONSTITUTE COMPLIANCE WITH THE NDPES INDUSTRIAL PERMITTING REQUIREMENTS FOR THIS CONSTRUCTION PROJECT. A COPY OF THE NDPES GENERAL PERMIT AND NOIS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S TEAM SUPPORT SECTION. A COPY OF THE GENERAL PERMIT OR THE NOICAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.

MISCELLANEOUS

8. HYDRAULIC DATA
 -DRAINAGE AREA = 3.17 SQ. MILES -DESIGN DISCHARGE = 427.83 CFS
 -DESIGN FREQUENCY = 25 YEARS -25 YEAR FLOOD ELEVATION = 48.68 FT

9. SCOUR ANALYSIS
 THE PROPOSED STRUCTURE HAS BEEN ANALYZED FOR THE EFFECTS OF SCOUR IN ACCORDANCE WITH HEC-14-HYDRAULIC DESIGN OF ENERGY DISSIPATORS FOR CULVERTS AND CHANNELS, THIRD EDITION. SCOUR COUNTERMEASURES HAVE BEEN DESIGNED FOR THE WORST CASE OF THE OVERTOPPING FLOOD OR THE 100-YR FLOOD EVENT.
 -DESIGN EVENT = OVERTOPPING EVENT -DESIGN VELOCITY = 7.49 FT/S
 -DESIGN DISCHARGE = 850.00 CFS -TAILWATER DEPTH = 7.67 FT

10. ENVIRONMENTAL COMPLIANCE
 SEE ENVIRONMENTAL COMPLIANCE PLAN FOR FURTHER RESTRICTIONS /GUIDANCE ASSOCIATED WITH THIS PROJECT.

ADDENDUMS / REVISIONS

NOT TO SCALE

BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG

CONTRACT

T201407205

COUNTY

KENT

BRIDGE NO.

2-291A

DESIGNED BY: KRK

CHECKED BY: KRL

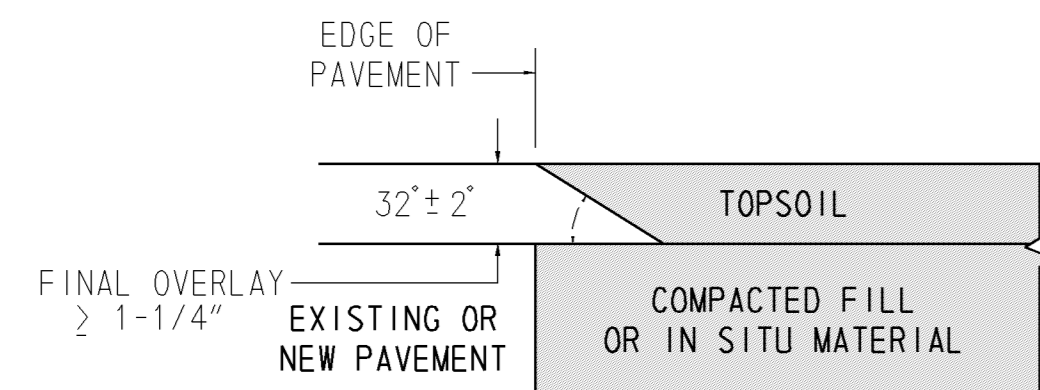
NOTES

SHEET NO.

3

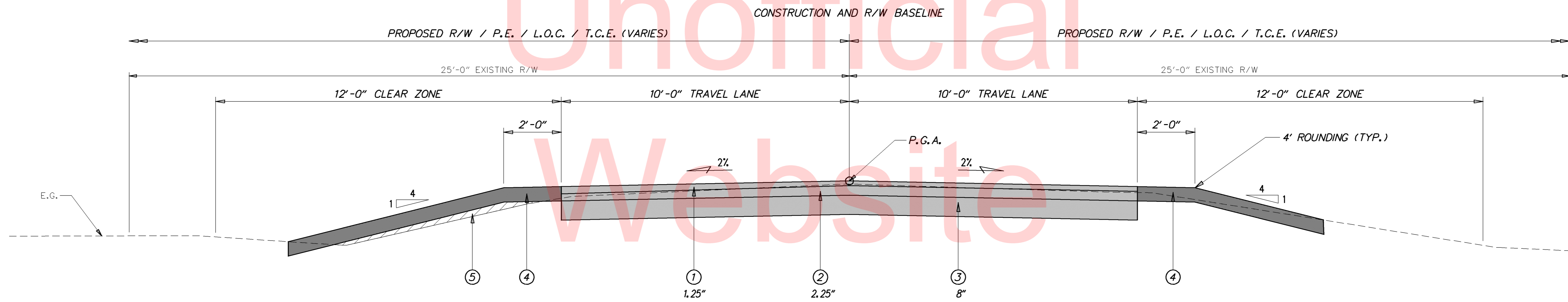
TOTAL SHTS.

16



HOT-MIX PAVEMENTS AND OVERLAYS
NOT TO SCALE
SAFETY EDGE DETAIL
NOT TO SCALE

LEGEND	
①	ITEM 401801 - BITUMINOUS CONCRETE, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22, (CARBONATE STONE)
②	ITEM 401810 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
③	ITEM 302007 - GRADED AGGREGATE BASE COURSE, TYPE 'B'
④	ITEM 908004 - TOPSOIL, 6" DEPTH ITEM 908019 - STREAMBANK SEED MIX, SEEDING
⑤	ITEM 209003 - BORROW TYPE "C"

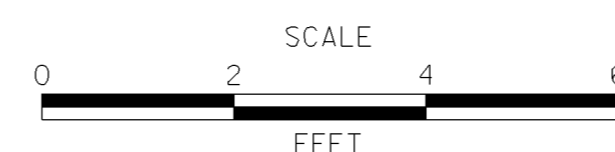


TYPICAL ROADWAY SECTION
STA 8+50 TO STA 12+00

NOTE: EXISTING ROAD PAVEMENT BOX CONSISTS OF 3" ASPHALT ON SUBGRADE

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	-	8"

ADDENDUMS / REVISIONS



BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG

CONTRACT	BRIDGE NO.	2-291A
T201407205	DESIGNED BY:	KRK
COUNTY	CHECKED BY:	KRL
KENT		

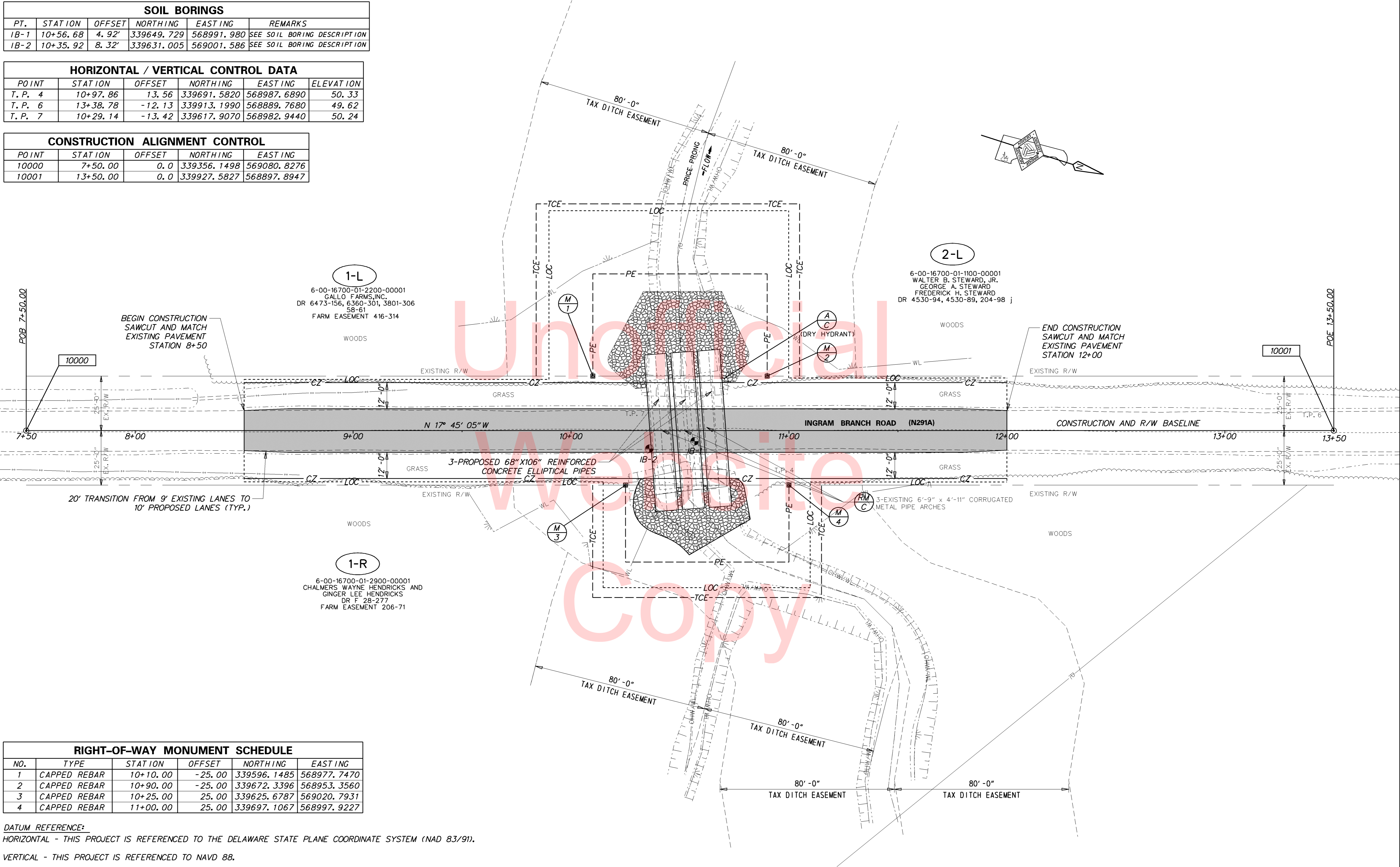
TYPICAL SECTIONS

SHEET NO.	4
TOTAL SHTS.	16

SOIL BORINGS					
PT.	STATION	OFFSET	NORTHING	EASTING	REMARKS
IB-1	10+56.68	4.92'	339649.729	568991.980	SEE SOIL BORING DESCRIPTION
IB-2	10+35.92	8.32'	339631.005	569001.586	SEE SOIL BORING DESCRIPTION

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
T.P. 4	10+97.86	13.56	339691.5820	568987.6890	50.33
T.P. 6	13+38.78	-12.13	339913.1990	568889.7680	49.62
T.P. 7	10+29.14	-13.42	339617.9070	568982.9440	50.24

CONSTRUCTION ALIGNMENT CONTROL					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
10000	7+50.00	0.0	339356.1498	569080.8276	
10001	13+50.00	0.0	339927.5827	568897.8947	

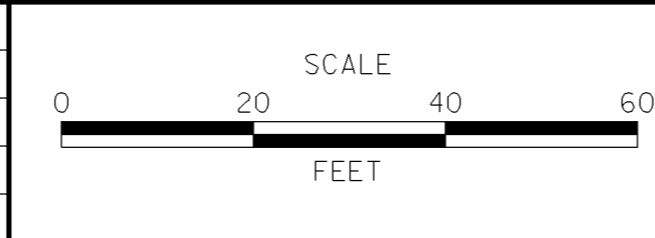


RIGHT-OF-WAY MONUMENT SCHEDULE					
NO.	TYPE	STATION	OFFSET	NORTHING	EASTING
1	CAPPED REBAR	10+10.00	-25.00	339596.1485	568977.7470
2	CAPPED REBAR	10+90.00	-25.00	339672.3396	568953.3560
3	CAPPED REBAR	10+25.00	25.00	339625.6787	569020.7931
4	CAPPED REBAR	11+00.00	25.00	339697.1067	568997.9227

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.



ADDENDUMS / REVISIONS	



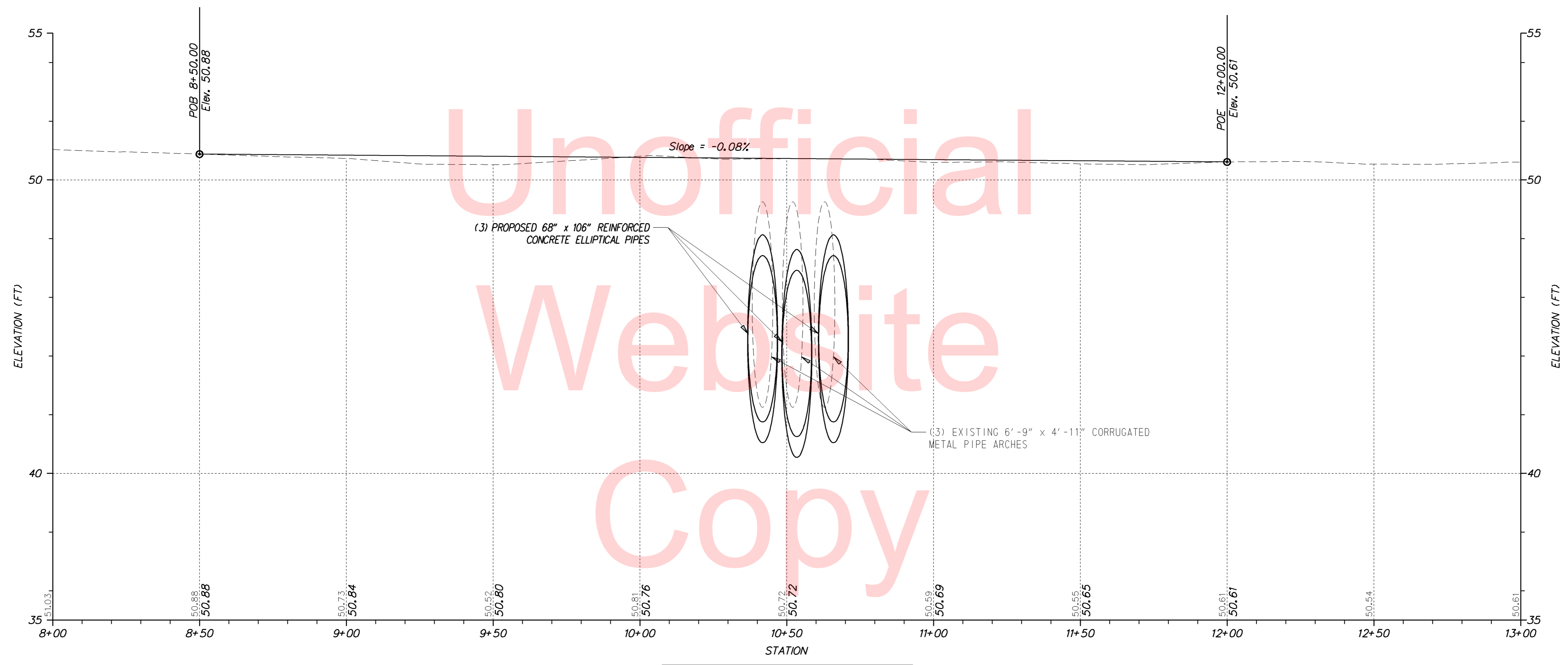
BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG

CONTRACT	BRIDGE NO.	2-291A
T201407205	DESIGNED BY:	KRK
COUNTY	CHECKED BY:	KRL
KENT		

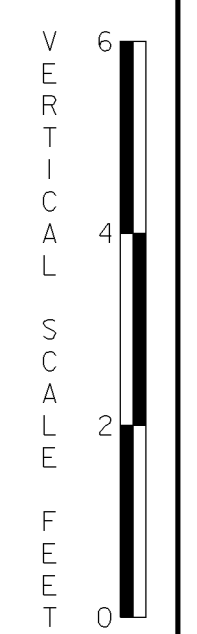
CONSTRUCTION PLAN	SHEET NO.	5
	TOTAL SHTS.	16

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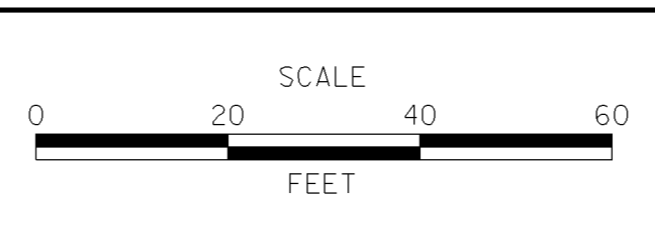
291A - INGRAM BRANCH ROAD



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ADDENDUMS / REVISIONS	

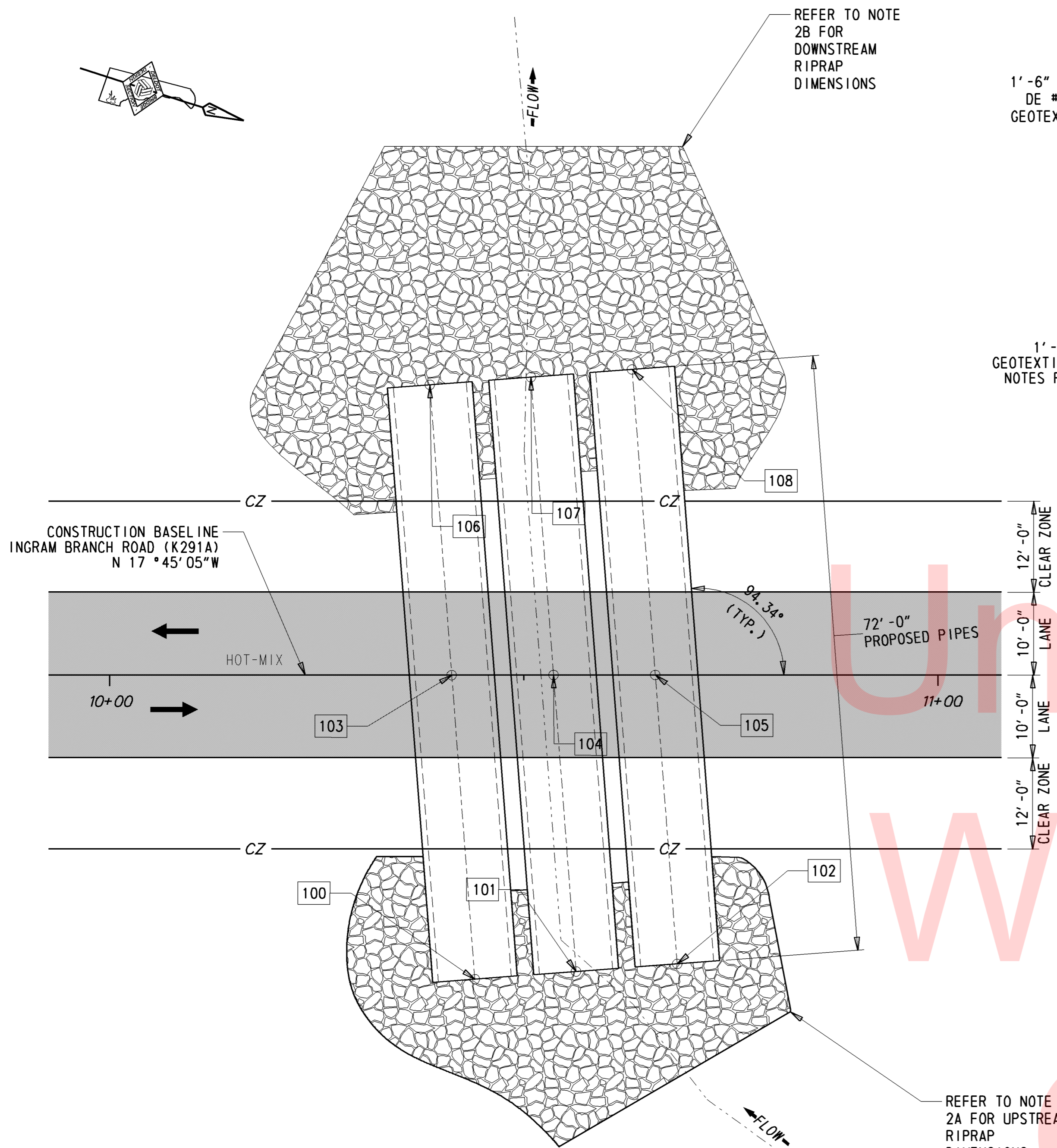
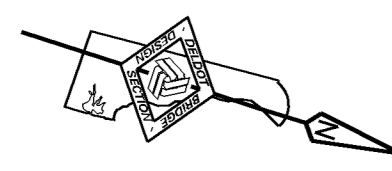


BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG

CONTRACT	BRIDGE NO.	2-291A
T201407205	DESIGNED BY:	KRK
COUNTY	CHECKED BY:	KRL
KENT		

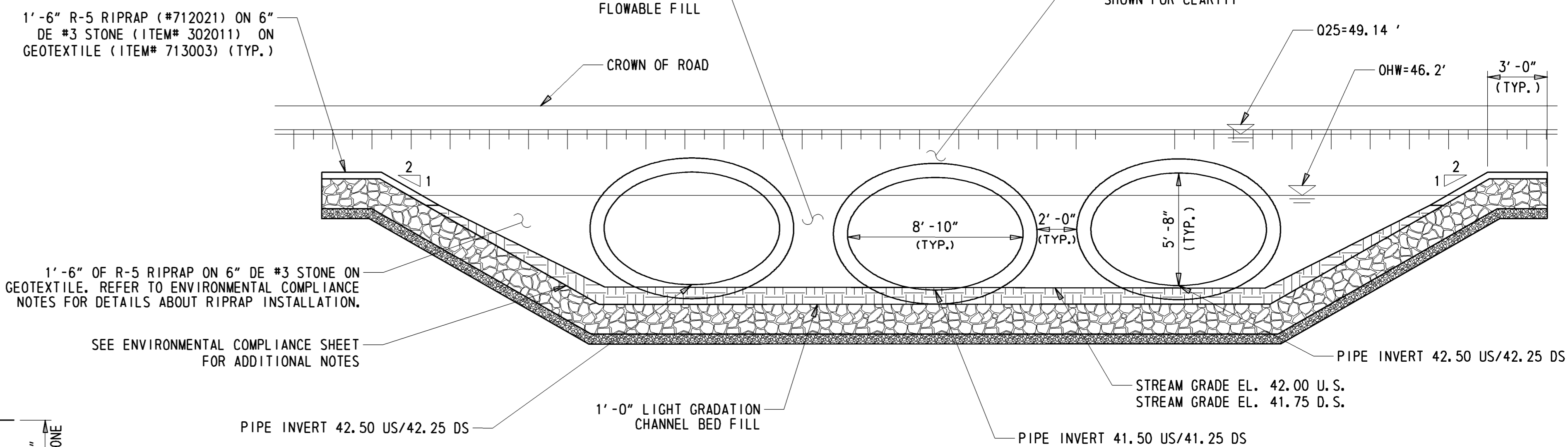
PROFILE

SHEET NO.	6
TOTAL SHTS.	16

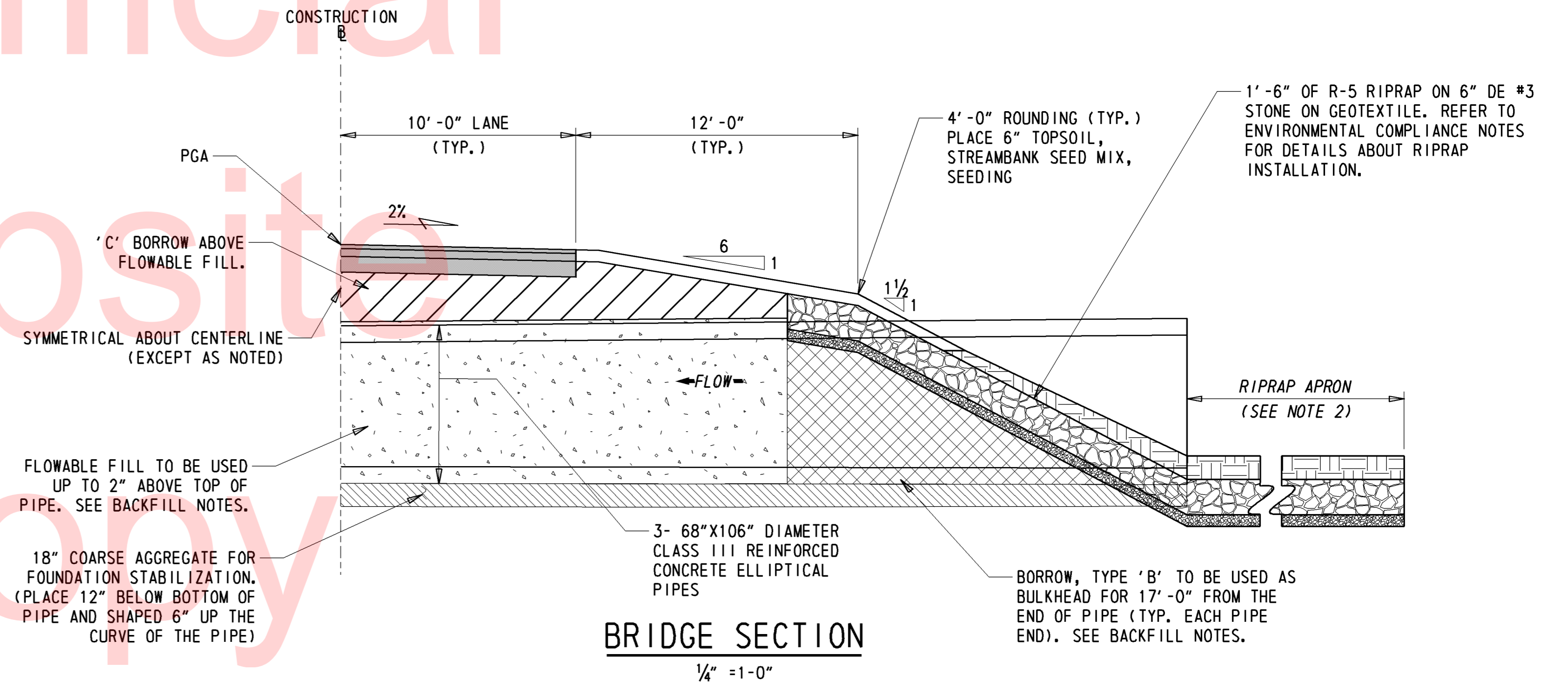


WORKING POINTS				
PT.	STATION	OFFSET	NORTHING	EASTING
100	10+44.09	36.76	339647.45	569026.18
101	10+56.30	35.84	339658.80	569021.57
102	10+68.52	34.91	339670.15	569016.96
103	10+41.30	00.00	339633.58	568992.01
104	10+53.59	00.00	339645.28	568988.27
105	10+65.87	00.00	339656.98	568984.52
106	10+38.65	35.03	339620.37	568959.46
107	10+50.86	35.96	339631.72	568954.85
108	10+63.08	36.88	339643.07	568950.25

PLAN
1" = 10'-0"



ELEVATION
1/4" = 1'-0"



BRIDGE SECTION
1/4" = 1'-0"

BACKFILL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZING THE PIPES IN ORDER TO PREVENT ANY MOVEMENT DURING THE POUR OF FLOWABLE FILL (ITEM #208001).
2. THE MAXIMUM DIFFERENCE IN SURFACE LEVELS OF THE FLOWABLE FILL ON OPPOSITE SIDES OF A PIPE SHALL NOT EXCEED 1'-0" DURING POUR.
3. THE CONTRACTOR SHALL DETERMINE THE NEED TO POUR FLOWABLE FILL IN LIFTS DUE TO BUOYANCY. THE CONTRACTOR SHALL SUBMIT BUOYANCY CALCULATIONS TO THE ENGINEER FOR APPROVAL. POURING OF FLOWABLE FILL SHALL TERMINATE 2" ABOVE THE TOP OF THE OUTSIDE PIPES.
4. THE LIMITS OF THE FLOWABLE FILL IS AS SHOWN IN THE BRIDGE SECTION ON THIS SHEET. THE TYPE OF BACKFILL SHALL BE BORROW, TYPE 'B' UNDER THE SLOPES AT BOTH ENDS OF THE PIPES, PAYMENT UNDER ITEM #209002. THE CONTRACTOR HAS THE OPTION TO USE FLOWABLE FILL IN LIEU OF BORROW, TYPE 'B' FOR THE SLOPES. HOWEVER, PAYMENT WILL BE MADE AT THE UNIT PRICE FOR ITEM #209002 - BORROW, TYPE 'B'.
5. THE LIMITS OF THE FLOWABLE FILL SHALL BE AT THE #207000 OR #211000 LIMITS PERPENDICULAR TO THE LENGTH OF THE PIPE, WHICHEVER GOVERNS.
6. IF THE CONTRACTOR CHOOSES TO USE CLASS 'C' CONCRETE IN LIEU OF FLOWABLE FILL, PAYMENT WILL BE MADE AT THE UNIT PRICE FOR ITEM #208001 - FLOWABLE FILL.

- NOTES:**
1. PROPOSED PIPES
THE EXISTING (3) 81" X 59" DIA. CORRUGATED METAL PIPE ARCHES SHALL BE REPLACED WITH (3) 68"X106" REINFORCED CONCRETE ELLIPTICAL PIPES (72'-0" LONG).
 2. RIPRAP PLACEMENT
 - A. UPSTREAM-RIPRAP SHALL BE PLACED IN THE CHANNEL BOTTOM 20'-0" FROM THE CENTER PIPE INLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANK
 - B. DOWNSTREAM- RIPRAP SHALL BE PLACED IN THE CHANNEL BOTTOM 28'-0" FROM THE CENTER PIPE OUTLET ALONG THE STREAM CENTERLINE AND SHALL BE PLACED TO CREATE A SMOOTH BEND THAT MATCHES THE EXISTING STREAM BANKS.

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BORING: IB-1		DATE DRILLED: 5/21/14			
STATION: 10+56.68	OFFSET: 4.92	ELEVATION: 50.72	NORTHING: 339649.729		
EASTING: 568991.998					
COMMENTS: N/A					
SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6'	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	14	MOIST MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME SILT, TRACE OF FINE GRAVEL.	A-2-4(0)	3" HOT-MIX
		8			
		4			
	2.0	4			
2	2.0	3	WET LOOSE BROWN SILTY FINE TO COARSE SAND W/TRACE FINE GRAVEL.	A-2-4(0)	
		2			
		3			
	4.0	2			
U-1	4.0				SHELBY TUBE- PRESS SAMPLE
	6.0				
4	6.0	3	WET LOOSE GRAY COARSE TO FINE SAND W/TRACE FINE GRAVEL AND SILT.	A-1-B	
		4			
		3			
	8.0	3			
5	8.0	2	WET VERY LOOSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		2			
		2			
	10.0	2			
6	14.0	2	WET VERY LOOSE BROWN COARSE SAND W/SOME SILT AND FINE GRAVEL, TRACE OF FINE SAND.	A-1-B	BOTTOM OF COARSE AGGREGATE FOR PROPOSED PIPES
		2			
		2			
	16.0	2			
7	19.0	3	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND AND FINE GRAVEL, TRACE OF SILT.	A-1-B	
		5			
		6			
	21.0	6			
8	24.0	3	WET LOOSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT.	A-1-B	
		4			
		4			
	26.0	4			
9	29.0	4	WET LOOSE BROWN FINE GRAVELLY COARSE TO FINE SAND W/TRACE SILT.	A-1-B	
		4			
		5			
	31.0	6			
10	34.0	6	WET MEDIUM DENSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
		7			
		7			
	36.0	8			
11	39.0	23	WET DENSE BROWN FINE GRAVELLY COARSE SAND W/TRACE FINE SAND AND SILT.	A-1-B	
		15			
		16			
	41.0	15			
12	44.0	15	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-3	
		5			
		11			
	46.0	13			
13	48.0	13	WET MEDIUM DENSE BROWN FINE TO COARSE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	
		6			
		11			
	50.0	18			
	50.6		END BORING		

BORING: IB-2		DATE DRILLED: 5/21/14			
STATION: 10+35.92	OFFSET: 8.32	ELEVATION: 50.72	NORTHING: 339631.005		
EASTING: 569001.586					
COMMENTS: N/A					
SAMPLE INFORMATION					
NO.	DEPTH	BLOWS /6'	DESCRIPTION	CLASS /G.I.	REMARKS
1	0.0	1	NO SIEVE ANALYSIS - INDICATION OF MOIST MEDIUM DENSE GRAY FINE GRAVEL W/SOME COARSE SAND, TRACE OF FINE SAND.		
		9			
		11			
	2.0	7			
2	2.0	5	MOIST MEDIUM DENSE GRAY FINE GRAVEL W/SOME COARSE SAND, TRACE OF FINE SAND AND SILT.	A-1-A	
		5			
		8			
	4.0	4			
3	4.0	8	MOIST LOOSE GRAY SILTY FINE TO COARSE SAND AND FINE GRAVEL.	A-2-4(0)	
		3			
		3			
	6.0	2			
4	6.0	1	MOIST VERY LOOSE BROWN FINE TO COARSE SAND AND FINE GRAVEL W/SOME SILT.	A-1-B	
		2			
		2			
	8.0	1			
5	8.0	4	WET VERY LOOSE GRAY COARSE TO FINE SAND W/SOME FINE GRAVEL AND SILT.	A-2-4(0)	
		2			
		3			
	10.0	3			
6	14.0	3	WET VERY LOOSE BROWN COARSE TO FINE SAND W/SOME FINE GRAVEL, TRACE OF SILT.	A-1-B	BOTTOM OF COARSE AGGREGATE FOR PROPOSED PIPES
		1			
		1			
	16.0	4			
7	19.0	6	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE GRAVEL, TRACE OF FINE SAND AND SILT.	A-1-B	
		6			
		8			
	24.0	7			
8	24.0	10	WET MEDIUM DENSE BROWN FINE GRAVELLY COARSE SAND W/TRACE FINE SAND AND SILT.	A-1-B	
		11			
		12			
	26.0	8			
9	29.0	10	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND AND FINE GRAVEL, TRACE OF SILT.	A-1-B	
		5			
		7			
	31.0	10			
10	34.0	7	WET MEDIUM DENSE BROWN COARSE SAND W/SOME FINE SAND, TRACE OF FINE GRAVEL AND SILT.	A-1-B	
		7			
		7			
	36.0	13			
11	39.0	33	WET DENSE BROWN COARSE SANDY FINE GRAVEL W/TRACE FINE SAND AND SILT.	A-1-A	
		22			
		18			
	41.0	20			
12	44.0	6	WET MEDIUM DENSE BROWN FINE GRAVELLY COARSE TO FINE SAND W/TRACE OF SILT.	A-1-B	
		8			
		11			
		15			
	48.0	16	WET VERY DENSE BROWN FINE GRAVELLY COARSE SAND W/TRACE FINE SAND AND SILT.	A-1-B	
		27			
		24			
	50.0	22			
	50.6		END BORING		

- NOTES:
- BORING LOGS CREATED BY THE DELAWARE DEPARTMENT OF TRANSPORTATION. SUBSURFACE EXPLORATION COMPLETED BY HILLIS-CARNESENGINEERING ASSOCIATES(HCEA)
 - REFER TO CONSTRUCTION PLAN SHEET FOR APPROXIMATE BORING LOCATIONS. BORING LOGS ARE LABELED AS B-1 AND B-2.
 - SOIL SAMPLING: 2 IN. OUTSIDE DIA. SPLIT BARREL SAMPLER, DRIVEN WITH 140 LB. HAMMER FALLING 30 IN.
 - ALL DEPTHS GIVEN IN FEET.
 - BORING LOGS ARE FOR INFORMATIONAL PURPOSES ONLY.

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GENERAL 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): *3(A) AND (C) (NO PCN)

DNREC - WETLANDS & SUBAQUEOUS LANDS (WLSL): PROJECT CONSISTENT WITH DEL. CODE CH. 72, SECTION 7217, SPECIAL EXEMPTION (B)
 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: NONE

ENDANGERED SPECIES: LEAST BROOK LAMPREY - NO IN-STREAM WORK FROM MARCH 15 - APRIL 30 (INCLUSIVE), ANY CALENDAR YEAR
 MIGRATORY BIRDS: NONE

3. CULTURAL RESOURCE ISSUES:

A. AS A RESULT OF THE CURRENT PROJECT COORDINATION, THIS PROJECT IS CONSISTENT WITH STIPULATION II.B.2 OF DELDOT'S PROGRAMMATIC AGREEMENT WITH DE STATE HISTORIC PRESERVATION OFFICE (DE SHPO), FEDERAL HIGHWAY ADMINISTRATION (FHWA) AND ADVISORY COUNCIL ON HIST

4. STREAM RESTORATION AND SLOPE RIPRAP TREATMENT

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. ALL RIPRAP 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 RIPRAP ARE FILLED WITH MATERIAL. PAYMENT UNDER ITEM *209002 - BORROW TYPE 'B'. THE RIPRAP SHALL THEN BE COVERED WITH 12" CHANNEL BED FILL TO MATCH EXISTING ELEVATIONS. 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 RIPRAP (I.E. THE FLOW CANNOT BE "LOST" IN THE RIPRAP 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 RIPRAP ON THE STREAM BANK, OUTSIDE THE CHANNEL BED, SHALL BE CHOKED WITH DELAWARE *57 STONE, FILLED WITH TOPSOIL, SEEDED AND MULCHED WITH EROSION CONTROL BLANKET MULCH, TYPE 5 (ITEM 908020). PLACE JUST ENOUGH CHOKE MATERIAL TO PREVENT THE LOSS OF TOPSOIL THROUGH THE RIPRAP, AND THEN FINISH FILLING THE VOIDS WITH TOPSOIL SO THAT THE RIPRAP PEAKS ARE BARELY VISIBLE. AN ADDITIONAL 4" TOPSOIL LAYER SHALL BE PLACED ON TOP OF THE RIPRAP. SEEDING SHALL BE STREAMBANK SEED MIX, SEEDING (ITEM NO. 908019) FROM STREAM BASE FLOW ELEVATION TO 2' UP THE SLOPE AND STREAMBANK SEED MIX, SEEDING (ITEM NO. 908019) ON THE REMAINING SLOPE. ALL WORK, STARTING WITH THE INITIAL CHOKING WITH TOPSOIL THROUGH THE SEEDING AND MULCHING, SHALL BE COMPLETED PRIOR TO ANY RAIN EVENT. PAYMENT FOR RIPRAP AND DELAWARE *57 STONE SHALL BE PAID FOR UNDER THE RIPRAP ITEM. ALL OTHER ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEMS.

E. THE TOPSOIL/SEED/MULCH CAN BE PLACED BEFORE OR AFTER THE REMOVAL OF THE STREAM DIVERSION. IF IT OCCURS AFTER STREAM DIVERSION REMOVAL, A TURBIDITY CURTAIN SHALL BE USED TO MINIMIZE IN-STREAM SEDIMENTATION. PAYMENT SHALL BE INCIDENTAL TO ITEM *909005-STREAM DIVERSION.

5. PROTECTION OF RESOURCES:

A. 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. TEMPORARILY DISTURBED WETLAND AREAS SHALL BE RESTORED TO GRADE AND SEEDED WITH TEMPORARY GRASS SEEDING - DRY GROUND (PAYMENT UNDER ITEM 908017).

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

C. SILT FENCE INSTALLATION ADJACENT TO WOODED UPLANDS/WETLANDS: SANDBAGS SHALL BE USED TO SECURE SILT FENCE IN LIEU OF TRENCHING PROVIDED PROPER EROSION & SEDIMENT CONTROL CAN BE MAINTAINED. SANDBAGS USED TO SECURE SILT FENCE SHALL BE INCIDENTAL TO ITEM NUMBER 905001 - SILT FENCE. THE ENVIRONMENTAL STUDIES SECTION (CAROL SULLIVAN, 302-760-2129) CAN PROVIDE FURTHER GUIDANCE REGARDING THIS METHOD OF INSTALLATION.

D. ALL TREES TO BE REMOVED SHALL BE CLEARLY MARKED WITH PAINT PRIOR TO THE E&S SEDIMENT CONTROL MEETING.

6. PLANTING GUIDANCE

A. PLANTING GUIDANCE, WORK DONE BY DELDOT-PLANTING GUIDANCE (INFORMATIONAL ONLY, WORK TO BE DONE BY OTHERS. THERE SHALL BE NO PAYMENT FOR PLANTING ON THIS CONTRACT.) UPON FINAL ACCEPTANCE OF THE CONTRACT, APPROPRIATE TREES AND/OR SHRUBS SHALL BE PLANTED IN A NATURALIZED PATTERN (MINIMUM 8', MAXIMUM 12' CENTERS) IN TEMPORARILY DISTURBED WOODED WETLAND AREAS WITHIN THE LOC. FINAL PLANT COUNTS WILL BE BASED ON FIELD CONDITIONS AND DETERMINED BY THE ROADSIDE ENVIRONMENTAL ADMINISTRATOR OR HIS DESIGNEE. SPECIFIC PLANT SELECTION IS ALSO AT HIS DISCRETION BUT SHALL BE A NATIVE SPECIES APPROVED BY THE DELAWARE DEPARTMENT OF NATURAL RESOURCES.

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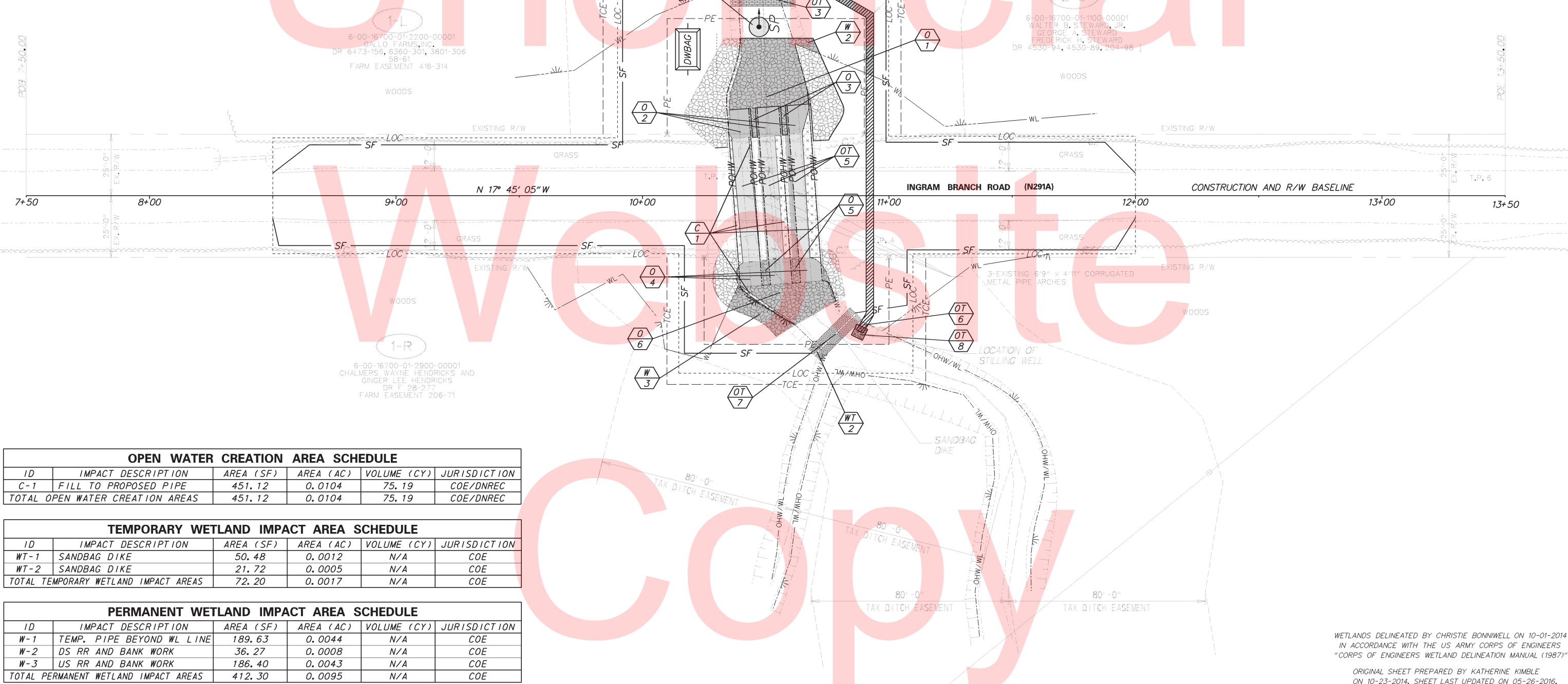
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 DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS		NOT TO SCALE	BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG	CONTRACT	BRIDGE NO.	2-291A	ENVIRONMENTAL COMPLIANCE NOTES	SHEET NO.
					T201407205	DESIGNED BY: KRK	9		
					COUNTY	CHECKED BY: KRL	TOTAL SHTS.		
					KENT		16		

PERMANENT OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
0-1	DS RIPRAP	747.00	0.0171	41.50	COE/DNREC
0-2	PROPOSED PIPE	320.62	0.0074	53.44	COE/DNREC
0-3	RR BETWEEN PIPE	47.42	0.0010	2.63	COE/DNREC
0-4	PROPOSED PIPE	300.07	0.0068	50.01	COE/DNREC
0-5	RR BETWEEN PIPE	41.17	0.0010	2.29	COE/DNREC
0-6	US RIPRAP	391.19	0.0090	21.73	COE/DNREC
TOTAL PERMANENT OPEN WATER IMPACTS		1847.47	0.0423	171.60	COE/DNREC

TEMPORARY OPEN WATER IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
OT-1	TEMPORARY OUTFALL	25.00	0.0006	1.39	COE/DNREC
OT-2	DS TEMP. PIPE IN STREAM	17.05	0.0004	2.84	COE/DNREC
OT-3	DS SANDBAG DIKE	168.83	0.0039	28.14	COE/DNREC
OT-4	SUMP PIT	50.27	0.0012	8.38	COE/DNREC
OT-5	EX. PIPE TO PROP. PIPE	924.64	0.0212	154.11	COE/DNREC
OT-6	US TEMP. PIPE IN STREAM	5.42	0.0001	0.90	COE/DNREC
OT-7	US SANDBAG DIKE	118.55	0.0027	19.76	COE/DNREC
OT-8	US TEMP. INTAKE	25.00	0.0006	1.39	COE/DNREC
TOTAL TEMPORARY OPEN WATER IMPACTS		1334.76	0.0307	216.91	COE/DNREC

LEGEND	
	CREATION AREA
	PERMANENT IMPACT AREA
	TEMPORARY IMPACT AREA
	OHW - ORDINARY HIGH WATER
	OHW/WL - ORD. HIGH WATER / WETLAND
	WL - WETLAND BOUNDARY
	POHW - PROPOSED ORDINARY HIGH WATER
	LOC - LIMIT OF CONSTRUCTION
T = TEMPORARY IMPACT C = CREATION AREA	
O = OPEN WATER IMPACT W = WETLAND IMPACT	



OPEN WATER CREATION AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
C-1	FILL TO PROPOSED PIPE	451.12	0.0104	75.19	COE/DNREC
TOTAL OPEN WATER CREATION AREAS		451.12	0.0104	75.19	COE/DNREC

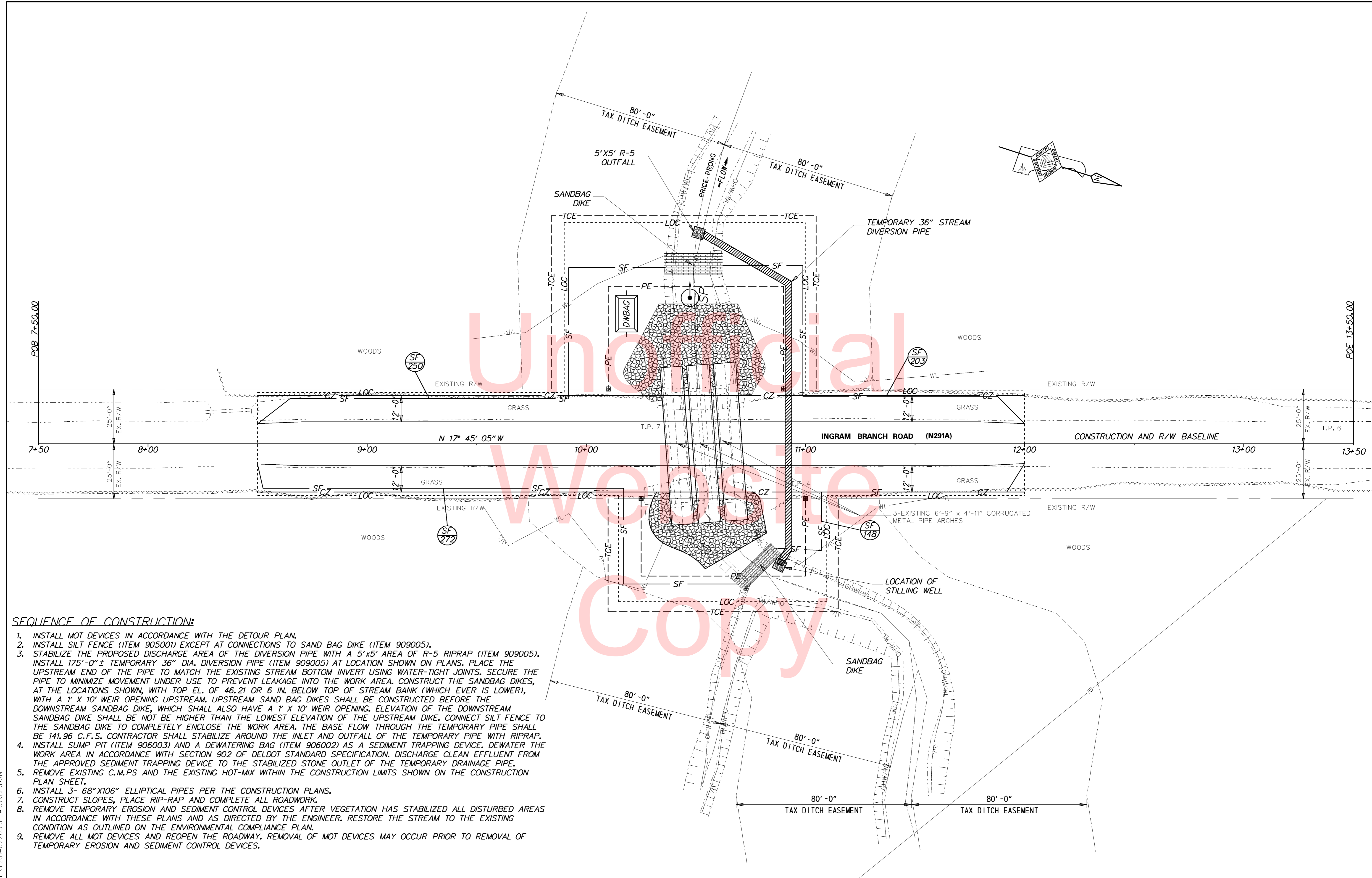
TEMPORARY WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
WT-1	SANDBAG DIKE	50.48	0.0012	N/A	COE
WT-2	SANDBAG DIKE	21.72	0.0005	N/A	COE
TOTAL TEMPORARY WETLAND IMPACT AREAS		72.20	0.0017	N/A	COE

PERMANENT WETLAND IMPACT AREA SCHEDULE					
ID	IMPACT DESCRIPTION	AREA (SF)	AREA (AC)	VOLUME (CY)	JURISDICTION
W-1	TEMP. PIPE BEYOND WL LINE	189.63	0.0044	N/A	COE
W-2	DS RR AND BANK WORK	36.27	0.0008	N/A	COE
W-3	US RR AND BANK WORK	186.40	0.0043	N/A	COE
TOTAL PERMANENT WETLAND IMPACT AREAS		412.30	0.0095	N/A	COE

WETLANDS DELINEATED BY CHRISTIE BONNIWELL ON 10-01-2014 IN ACCORDANCE WITH THE US ARMY CORPS OF ENGINEERS "CORPS OF ENGINEERS WETLAND DELINEATION MANUAL (1987)". ORIGINAL SHEET PREPARED BY KATHERINE KIMBLE ON 10-23-2014. SHEET LAST UPDATED ON 05-26-2016.

Y:\KENT\291\BRIDGE\T201407205\PLANS\CP.DGN

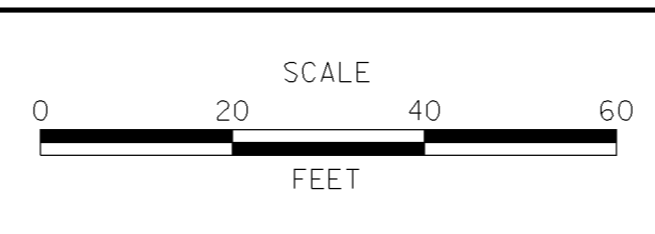
	ADDENDUMS / REVISIONS			BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG		CONTRACT	BRIDGE NO.	2-291A	ENVIRONMENTAL COMPLIANCE PLAN	SHEET NO.	10	
				COUNTY			T201407205	DESIGNED BY: KRK		TOTAL SHTS.	16	
				KENT				CHECKED BY: KRL				



SEQUENCE OF CONSTRUCTION:

1. INSTALL MOT DEVICES IN ACCORDANCE WITH THE DETOUR PLAN.
2. INSTALL SILT FENCE (ITEM 905001) EXCEPT AT CONNECTIONS TO SAND BAG DIKE (ITEM 909005).
3. STABILIZE THE PROPOSED DISCHARGE AREA OF THE DIVERSION PIPE WITH A 5'X5' AREA OF R-5 RIPRAP (ITEM 909005). INSTALL 175'-0" ± TEMPORARY 36" DIA. DIVERSION PIPE (ITEM 909005) AT LOCATION SHOWN ON PLANS. PLACE THE UPSTREAM END OF THE PIPE TO MATCH THE EXISTING STREAM BOTTOM INVERT USING WATER-TIGHT JOINTS. SECURE THE PIPE TO MINIMIZE MOVEMENT UNDER USE TO PREVENT LEAKAGE INTO THE WORK AREA. CONSTRUCT THE SANDBAG DIKES, AT THE LOCATIONS SHOWN, WITH TOP EL. OF 46.21 OR 6 IN. BELOW TOP OF STREAM BANK (WHICH EVER IS LOWER), WITH A 1' X 10' WEIR OPENING UPSTREAM. UPSTREAM SANDBAG DIKES SHALL BE CONSTRUCTED BEFORE THE DOWNSTREAM SANDBAG DIKE, WHICH SHALL ALSO HAVE A 1' X 10' WEIR OPENING. ELEVATION OF THE DOWNSTREAM SANDBAG DIKE SHALL BE NOT BE HIGHER THAN THE LOWEST ELEVATION OF THE UPSTREAM DIKE. CONNECT SILT FENCE TO THE SANDBAG DIKE TO COMPLETELY ENCLOSE THE WORK AREA. THE BASE FLOW THROUGH THE TEMPORARY PIPE SHALL BE 141.96 C.F.S. CONTRACTOR SHALL STABILIZE AROUND THE INLET AND OUTFALL OF THE TEMPORARY PIPE WITH RIPRAP.
4. INSTALL SUMP PIT (ITEM 906003) AND A DEWATERING BAG (ITEM 906002) AS A SEDIMENT TRAPPING DEVICE. DEWATER THE WORK AREA IN ACCORDANCE WITH SECTION 902 OF DELDOT STANDARD SPECIFICATION. DISCHARGE CLEAN EFFLUENT FROM THE APPROVED SEDIMENT TRAPPING DEVICE TO THE STABILIZED STONE OUTLET OF THE TEMPORARY DRAINAGE PIPE.
5. REMOVE EXISTING C.M.P.S AND THE EXISTING HOT-MIX WITHIN THE CONSTRUCTION LIMITS SHOWN ON THE CONSTRUCTION PLAN SHEET.
6. INSTALL 3- 68"X106" ELLIPTICAL PIPES PER THE CONSTRUCTION PLANS.
7. CONSTRUCT SLOPES, PLACE RIP-RAP AND COMPLETE ALL ROADWORK.
8. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER VEGETATION HAS STABILIZED ALL DISTURBED AREAS IN ACCORDANCE WITH THESE PLANS AND AS DIRECTED BY THE ENGINEER. RESTORE THE STREAM TO THE EXISTING CONDITION AS OUTLINED ON THE ENVIRONMENTAL COMPLIANCE PLAN.
9. REMOVE ALL MOT DEVICES AND REOPEN THE ROADWAY. REMOVAL OF MOT DEVICES MAY OCCUR PRIOR TO REMOVAL OF TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.

ADDENDUMS / REVISIONS	



CONTRACT	BRIDGE NO.	2-291A
T201407205	DESIGNED BY:	KRK
COUNTY	CHECKED BY:	KRL
KENT		

PORTABLE CHANGEABLE MESSAGE SIGNS

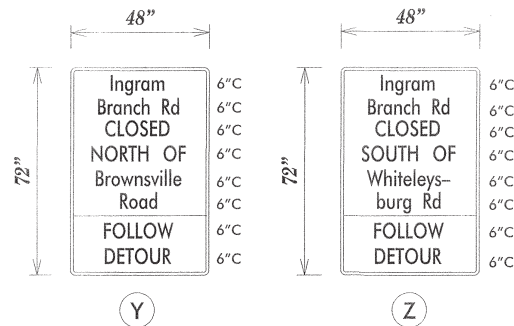
PRIOR TO DETOUR
(10 DAYS PRIOR TO BEGINNING OF DETOUR)

PCMS-1

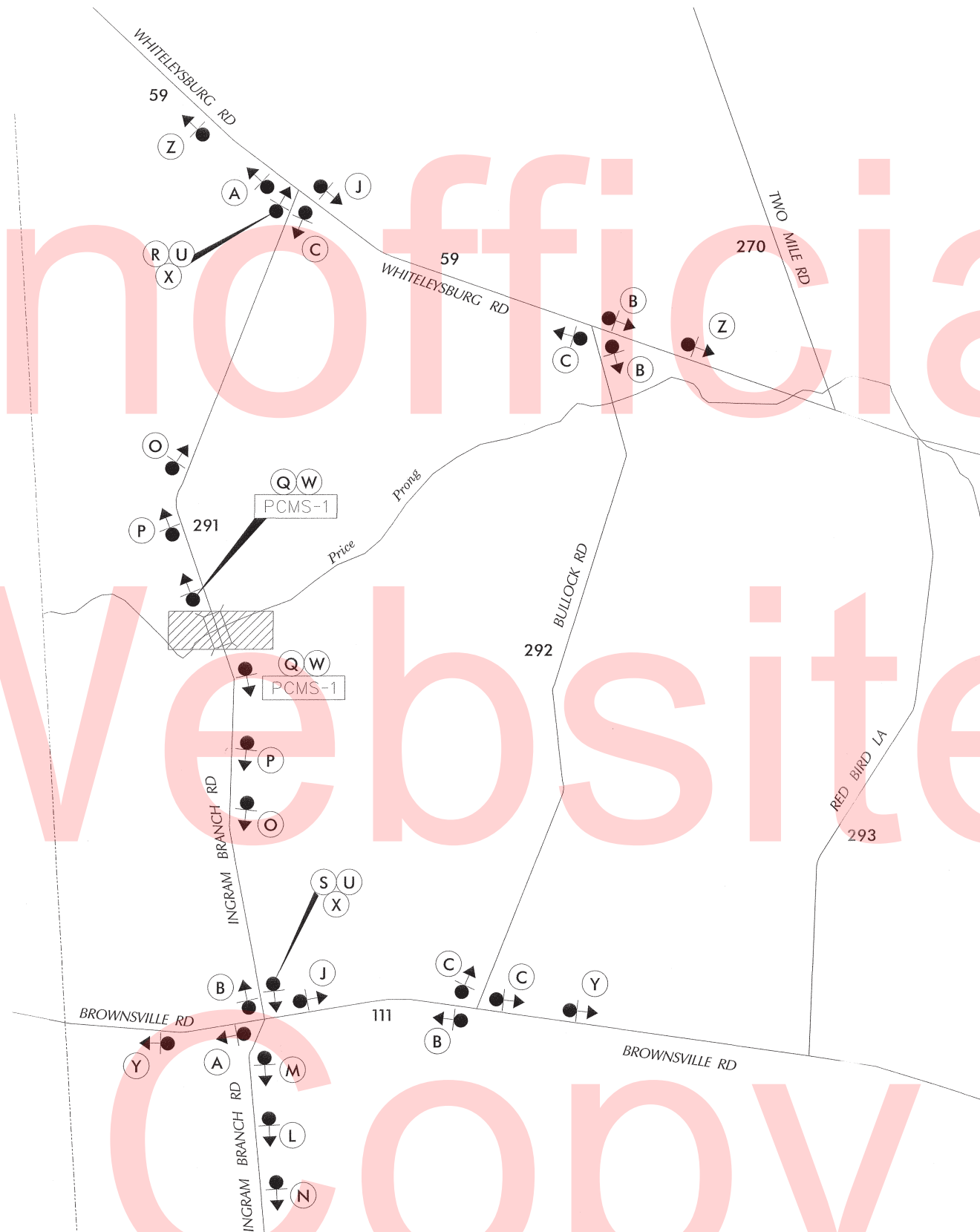
INGRAM
BRANCH
ROAD

TO CLOSE
STARTING
XXXXXX

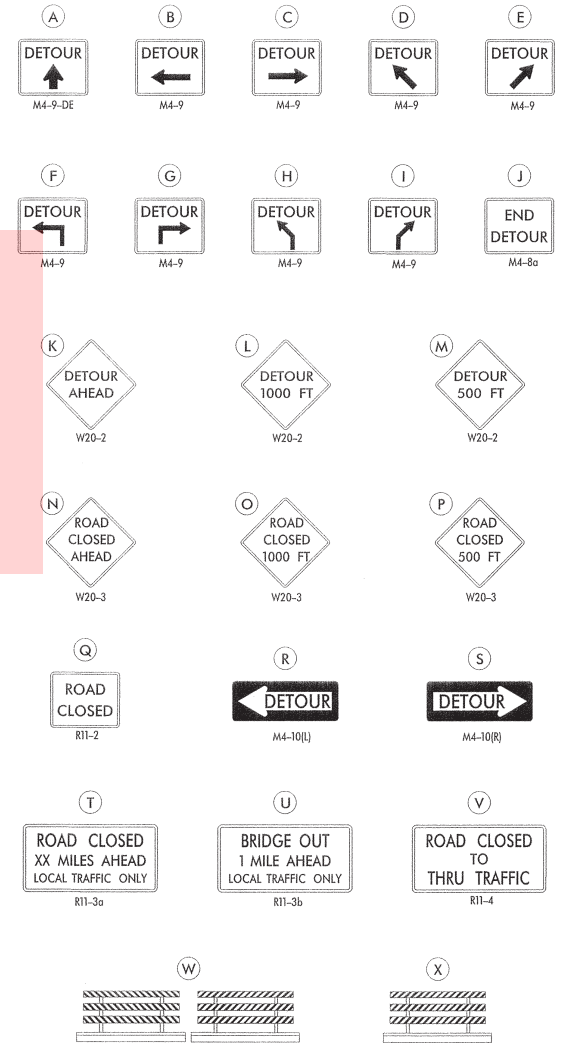
SPECIAL SIGNS



***DG 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.

RECOMMENDED *Madd* DATE: 11-5-14

RECOMMENDED *Am 7/2014* DATE: 11-14-14

RECOMMENDED *Paul Post* DATE: 11/6/14

APPROVED CHIEF SAFETY OFFICER *Michael Meyer* DATE: 11-14-14

APPROVED TRAFFIC ENGINEER *John* DATE: 11/14/2014

DELAWARE DEPARTMENT OF TRANSPORTATION

NOT TO SCALE

BR 2-291A ON INGRAM BRANCH RD (K291) OVER PRICE PRONG

CONTRACT	ROAD NO.	K291
T201407202	DESIGNED BY: MFR	
COUNTY	CHECKED BY: ASW	
KENT		

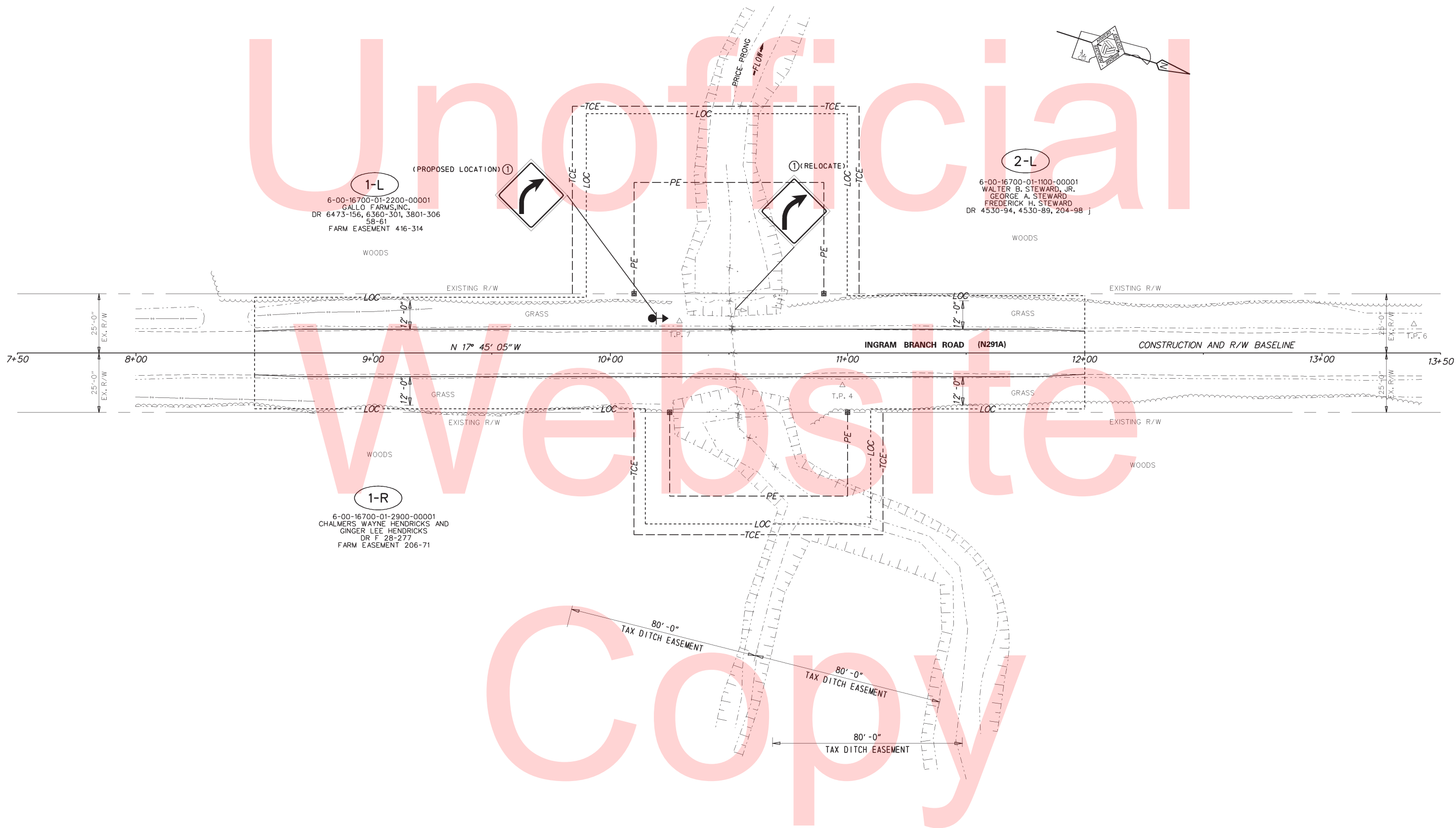
VEHICULAR DETOUR PLAN INGRAM BRANCH RD

SHEET NO.	12
TOTAL SHTS.	16

W:\MSVB\CELLS\PROJ\DEV\ASB.CEL

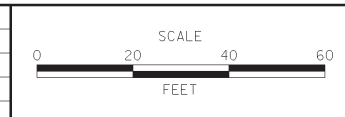
SIGN SCHEDULE																				
NO.	SHT. NO.	PLAN I. D.	CODE	QTY.	DESCRIPTION	ASSY. NO.	WIDTH (IN.)	HEIGHT (IN.)	AREA (SF)	ITEM 749687 ~ SINGLE POST (EA)			ITEM 749690 MULTI-POST (SF)			POST INSTALL TYPE	CODE X11 12' POST (W/ BASEPOST)	ITEM 749688 4" HOLE, 0-6" (EA)	ITEM 749689 4" HOLE, >6" (EA)	REMARKS
										DISPOSITION	REMOVE	INSTALL	DISPOSITION	REMOVE	INSTALL					
1	13	1	W1-2..R(30)	1	CURVE(RIGHT)-30X30	1	30	30	6.25	REPOSITION	1	1								

*NOTE: THERE IS NO STRIPING ON THIS PROJECT TO MATCH EXISTING ROAD



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ADDENDUMS / REVISIONS



CONTRACT T201407205	BRIDGE NO. 2-291A
COUNTY KENT	DESIGNED BY: KRK
	CHECKED BY: KRL

SHEET NO. 13
TOTAL SHTS. 16

Unofficial

1-L
6-00-16700-01-2200-00001
GALLO FARMS, INC.
DR 6473-156, 6360-301, 3801-306
58-61
FARM EASEMENT 416-314

2-L
6-00-16700-01-1100-00001
WALTER B. STEWARD, JR.
GEORGE A. STEWARD
FREDERICK H. STEWARD
DR 4530-94, 4530-89, 204-98

1-R
6-00-16700-01-2900-00001
CHALMERS W. HENDRICKS AND
GINGER L. HENDRICKS
DR F 28-277
FARM EASEMENT 206-71

RECOMMENDED AS TO ENGINEERING NEED	
<i>Mano C. Harty III</i> MANAGER, TEAM SUPPORT	2/9/16 DATE
<i>Stacy Chandler</i> PROGRAM MANAGER, TEAM SUPPORT	2/9/16 DATE
<i>Robert A. Reed</i> TECHNICAL REVIEWER, TEAM SUPPORT	2/9/16 DATE

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<p>DELAWARE DEPARTMENT OF TRANSPORTATION</p>	ADDENDUMS / REVISIONS	<p>SCALE</p>	<p>CONTRACT T201407205</p> <p>COUNTY KENT</p>	<p>BRIDGE NO. 2-291A</p> <p>DESIGNED BY: KRK</p> <p>CHECKED BY: KRL</p>	<p>RIGHT-OF-WAY PLAN SHEET 1 OF 3</p>	<p>SHEET NO. 14</p> <p>TOTAL SHTS. 16</p>
	<p>BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG</p>					

ASSESSMENT NUMBER	OWNERSHIP OF RECORD						TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)		
6-00-16700-01-2200-00001	(1-L) GALLO FARMS, INC.						P/E	6473-156, 6360-301, 3801-306	85.840		
ALIGNMENT NUMBER & DESCRIPTION: 10000 - INGRAM BRANCH ROAD R/W BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
40001	10000	10+10.00	-25.00	339596.1485	568977.7470	S 72°14' 54.83" W	46.89				
40002	10000	10+10.00	-71.89	339581.8511	568933.0857	N 17°44' 43.67" W	39.16				
40003	10000	10+49.16	-71.89	339619.1479	568921.1501	N 70°13' 08.85" E	46.92				
40004	10000	10+50.82	-25.00	339635.0265	568965.3010	S 17°45' 05.17" E	40.82				
40001	10000	10+10.00	-25.00	339596.1485	568977.7470						
FIGURE 40000 AREA = 1875.2490 SQ. FT. (0.0430 ACRES)											
ASSESSMENT NUMBER	OWNERSHIP OF RECORD						TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)		
6-00-16700-01-2200-00001	(1-L) GALLO FARMS, INC.						TCE	6473-156, 6360-301, 3801-306	85.840		
ALIGNMENT NUMBER & DESCRIPTION: 10000 - INGRAM BRANCH ROAD R/W BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
41001	10000	9+84.88	-25.00	339572.2247	568985.4058	S 72°14' 54.83" W	79.47				
41002	10000	9+84.88	-104.47	339547.9946	568909.7174	N 17°44' 38.09" W	70.10				
41003	10000	10+54.98	-104.46	339614.7598	568888.3535	N 85°55' 57.35" E	25.76				
41004	10000	10+48.89	-79.43	339616.5872	568914.0528	N 70°09' 39.94" E	7.55				
40003	10000	10+49.16	-71.89	339619.1479	568921.1501	S 17°44' 43.67" E	39.16				
40002	10000	10+10.00	-71.89	339581.8511	568933.0857	N 72°14' 54.83" E	46.89				
40001	10000	10+10.00	-25.00	339596.1485	568977.7470	S 17°45' 05.17" E	25.12				
41001	10000	9+84.88	-25.00	339572.2247	568985.4058						
FIGURE 41000 AREA = 3340.2693 SQ. FT. (0.0767 ACRES)											
ASSESSMENT NUMBER	OWNERSHIP OF RECORD						TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)		
6-00-16700-01-1100-00001	(2-L) WALTER B. STEWARD, JR. GEORGE A. STEWARD, FREDERICK H. STEWARD						P/E	4530-94, 4530-89, 204-98	127.900		
ALIGNMENT NUMBER & DESCRIPTION: 10000 - INGRAM BRANCH ROAD R/W BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
40004	10000	10+50.82	-25.00	339635.0265	568965.3010	S 70°13' 08.85" W	46.92				
40003	10000	10+49.16	-71.89	339619.1479	568921.1501	N 17°45' 25.78" W	40.84				
42001	10000	10+90.00	-71.89	339658.0421	568908.6946	N 72°14' 56.31" E	46.89				
42002	10000	10+90.00	-25.00	339672.3392	568953.3561	S 17°45' 05.17" E	39.18				
40004	10000	10+50.82	-25.00	339635.0265	568965.3010						
FIGURE 42000 AREA = 1876.1038 SQ. FT. (0.0431 ACRES)											
ASSESSMENT NUMBER	OWNERSHIP OF RECORD						TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)		
6-00-16700-01-1100-00001	(2-L) WALTER B. STEWARD, JR. GEORGE A. STEWARD, FREDERICK H. STEWARD						TCE	4530-94, 4530-89, 204-98	127.900		
ALIGNMENT NUMBER & DESCRIPTION: 10000 - INGRAM BRANCH ROAD R/W BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
42002	10000	10+90.00	-25.00	339672.3392	568953.3561	S 72°14' 56.31" W	46.89				
42001	10000	10+90.00	-71.89	339658.0421	568908.6946	S 17°45' 25.78" E	40.84				
40003	10000	10+49.16	-71.89	339619.1479	568921.1501	S 70°09' 39.94" W	7.55				
41004	10000	10+48.89	-79.43	339616.5872	568914.0528	S 85°55' 57.35" W	25.76				
41003	10000	10+54.98	-104.46	339614.7598	568888.3535	N 17°45' 43.20" W	49.90				
43001	10000	11+04.88	-104.47	339662.2811	568873.1309	N 72°14' 54.83" E	79.47				
43002	10000	11+04.88	-25.00	339686.5112	568948.8192	S 17°45' 05.17" E	14.88				
42002	10000	10+90.00	-25.00	339672.3392	568953.3561						
FIGURE 43000 AREA = 2444.4810 SQ. FT. (0.0561 ACRES)											
ASSESSMENT NUMBER	OWNERSHIP OF RECORD						TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)		
6-00-16700-01-2900-00001	(1-R) CHALMERS WAYNE HENDRICKS AND GINGER LEE HENDRICKS						P/E	28-277	104.000		
ALIGNMENT NUMBER & DESCRIPTION: 10000 - INGRAM BRANCH ROAD R/W BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
50001	10000	10+25.00	25.00	339625.6787	569020.7931	N 17°45' 15.97" W	75.00				
50002	10000	11+00.00	25.00	339697.1067	568997.9227	N 72°14' 54.83" E	35.32				
50003	10000	11+00.00	60.31	339707.8739	569031.5568	S 17°45' 05.17" E	75.00				
50004	10000	10+25.00	60.31	339636.4448	569054.4235	S 72°14' 54.83" W	35.31				
50001	10000	10+25.00	25.00	339625.6787	569020.7931						
FIGURE 50000 AREA = 2648.5175 SQ. FT. (0.0608 ACRES)											
ASSESSMENT NUMBER	OWNERSHIP OF RECORD						TYPE OF ACQUISITION	TITLE SOURCE	PARCEL AREA (ACRES)		
6-00-16700-01-2900-00001	(1-R) CHALMERS WAYNE HENDRICKS AND GINGER LEE HENDRICKS						TCE	28-277	104.000		
ALIGNMENT NUMBER & DESCRIPTION: 10000 - INGRAM BRANCH ROAD R/W BASELINE											
PT. NO.	ALIGN. NO.	STATION	OFFSET *	NORTH	EAST	BEARING	DISTANCE	CHORD BEARING	CHORD LENGTH	ARC LENGTH	RADIUS **
51001	10000	10+09.95	25.00	339611.3476	569025.3768	N 17°44' 11.33" W	15.05				
50001	10000	10+25.00	25.00	339625.6787	569020.7931	N 72°14' 54.83" E	35.31				
50004	10000	10+25.00	60.31	339636.4448	569054.4235	N 17°45' 05.17" W	75.00				
50003	10000	11+00.00	60.31	339707.8739	569031.5568	S 72°14' 54.83" W	35.32				
50002	10000	11+00.00	25.00	339697.1067	568997.9227	N 17°45' 05.17" W	14.95				
51002	10000	11+14.95	25.00	339711.3484	568993.3635	N 72°14' 54.83" E	51.63				
51003	10000	11+14.95	76.62	339727.0883	569042.5308	S 17°45' 05.17" E	105.00				
51004	10000	10+09.95	76.62	339627.0876	569074.5441	S 72°14' 54.83" W	51.63				
51001	10000	10+09.95	25.00	339611.3476	569025.3768						
FIGURE 51000 AREA = 2771.9562 SQ. FT. (0.0636 ACRES)											

LEGEND	
FEF	AREA OF ACQUISITION
RW	AREA OCCUPIED BY EXISTING RW
PE	PERMANENT EASEMENT
TCE	TEMPORARY CONSTRUCTION EASEMENT
*	OFFSET IS LEFT OF BASELINE
**	CURVE TURNS TO THE LEFT

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ADDENDUMS / REVISIONS

BR 2-291A ON INGRAM BRANCH ROAD OVER PRICE PRONG

CONTRACT	BRIDGE NO.	2-291A
T201407205	DESIGNED BY:	KRK
COUNTY	CHECKED BY:	KRL
KENT		

RIGHT-OF-WAY DATA SHEET SHEET 2 OF 3	SHEET NO.	15
	TOTAL SHTS.	16

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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)			
6-00-16700-01-2200-00001	14	(1-L) GALLO FARMS, INC.	6473-156, 6360-301 3801-306	A - 85.84	P/E TCE			1875.249 / 0.04	3340.2693 / 0.08	3739190.40 / 85.84		
6-00-16700-01-1100-00001	14	(2-L) WALTER B. STEWARD, JR. GEORGE A. STEWARD, FREDERICK H. STEWARD	4530-94, 4530-89, 204-98	A - 127.90	P/E TCE			1876.1038 / 0.04	2444.481 / 0.06	5571324.00 / 127.90		
6-00-16700-01-2900-00001	14	(1-R) CHALMERS WAYNE HENDRICKS AND GINGER LEE HENDRICKS	28-277	A - 104.00	P/E TCE			2648.5175 / 0.06	2771.9562 / 0.06	4530240.00 / 104.00		

Unofficial
 Website
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ADDENDUMS / REVISIONS	

**BR 2-291A ON INGRAM BRANCH
ROAD OVER PRICE PRONG**

CONTRACT T201407205	BRIDGE NO. 2-291A
COUNTY KENT	DESIGNED BY: KRK
	CHECKED BY: KRL

**RIGHT-OF-WAY
TABULATION SHEET
SHEET 3 OF 3**

SHEET NO. 16
TOTAL SHTS. 16

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