

SEQUENCE OF CONSTRUCTION - STAGE 1

NOTES:

- REFER TO CORRESPONDING PRELOAD STAGE BRIDGE PLANS FOR BRIDGE BR 1-436, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG A TRIBUTARY OF SCOTT RUN. REFER TO CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS FOR INFORMATION ON EROSION AND SEDIMENT CONTROLS SHOWN HEREON BUT NOT REFERRED TO IN THIS SEQUENCE OF CONSTRUCTION. THE ENVIRONMENTAL MONITOR SHALL BE CONSULTED AND INCLUDED IN ANY REVISIONS IN THE SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- THE TEMPORARY CROSSING FOR HAUL ROAD ACTIVITIES SHALL BE CONSTRUCTED PER DETAIL, THIS SHEET. THE CONTRACTOR SHALL NOT ACCESS THE STREAM, IMPACT THE STREAM, NOR CHANGE THE STREAM PROFILE DURING CONSTRUCTION ACTIVITIES.
- CLEAR AND GRUB AS NECESSARY TO INSTALL STABILIZED CONSTRUCTION ENTRANCES, SCE-1 AND SCE-2, SUMP PITS, REINFORCED SILT FENCE AND EARTH DIKES. INSTALL SANDBAG DIVERSIONS AS SHOWN. CLEAR AND GRUB FOR ACCESS ROAD AND PRELOAD FILL PLACEMENT.
- PROCEED WITH INSTALLATION OF SHEET PILING AND PRELOAD FILL PLACEMENT. THE CONTRACTOR IS ALERTED TO THE SETTLEMENT QUARANTINE PERIOD SPECIFIED FOR PRELOAD FILL PLACEMENT BEFORE PROCEEDING WITH FURTHER BRIDGE CONSTRUCTION.
- PROCEED WITH STAGE 2 OF SEQUENCE OF CONSTRUCTION AFTER SETTLEMENT QUARANTINE PERIOD.

STABILIZED CONSTRUCTION ENTRANCE (SCE)

NO.	STATION, OFFSET	TONS	REMARKS
SCE 1	828+38, 164' RT.	60	@ US 301
SCE 2	830+66, 164' RT.	60	@ US 301

SUMP PIT (SP)

SUMP PITS SHALL BE USED FOR DEWATERING WORK AREA AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SUMP PITS AND PROVIDING ADEQUATE PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

EARTH DIKE SCHEDULE

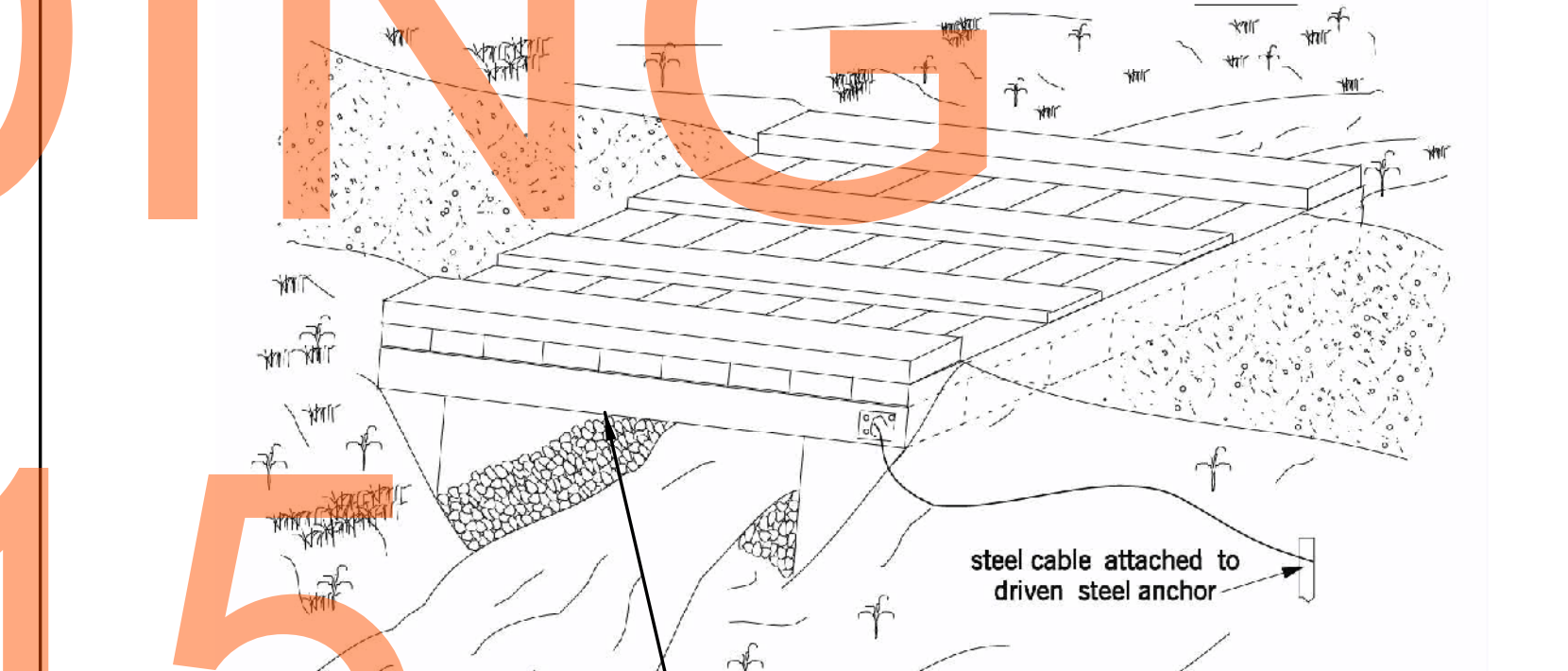
NO.	BEGIN STA.	END STA.	OFFSET	LENGTH	TYPE
72	827+86	828+92	130.00 RT	322'	A-1
73	831+31	831+28	142.00 RT	300'	A-1

SANDBAG DIVERSION (SB)

NO.	STATION-OFFSET	L. F.	REMARKS
SB 1	829+33, 142' RT. TO 828+92, 148' LT.	445	@ US 301
SB 2	829+75, 147' RT. TO 831+28, 137' LT.	345	@ US 301

DETAIL: TEMPORARY STREAM CROSSING FOR HAUL ROAD

SEE SEQUENCE OF CONSTRUCTION - TEMPORARY CROSSING ON SHEET MS-02.



COST OF TEMPORARY CROSSING SHALL BE INCIDENTAL TO COST OF WETLAND ACCESS ROAD, TYPE II. WETLAND ACCESS ROAD, TYPE II AT THIS LOCATION IS INDEPENDENT OF BRIDGE 1-436 CONSTRUCTION AND SHALL BE PAID FOR AS SEPARATE ITEM NO. 202508.

ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET, WITH THE EXCEPTION OF THE TEMPORARY CROSSING FOR THE WETLAND ACCESS ROAD, TYPE II, SHALL BE PAID FOR UNDER ITEM 601506 FOR MAINTENANCE OF STREAM FLOW FOR BRIDGE BR 1-436.

SIZING OF HYDRAULIC OPENING OF TEMPORARY CROSSING

MINIMUM AREA REQUIRED: 40.0 SF
MINIMUM TOP WIDTH ELEVATION: 28.0

ACCESS ROAD

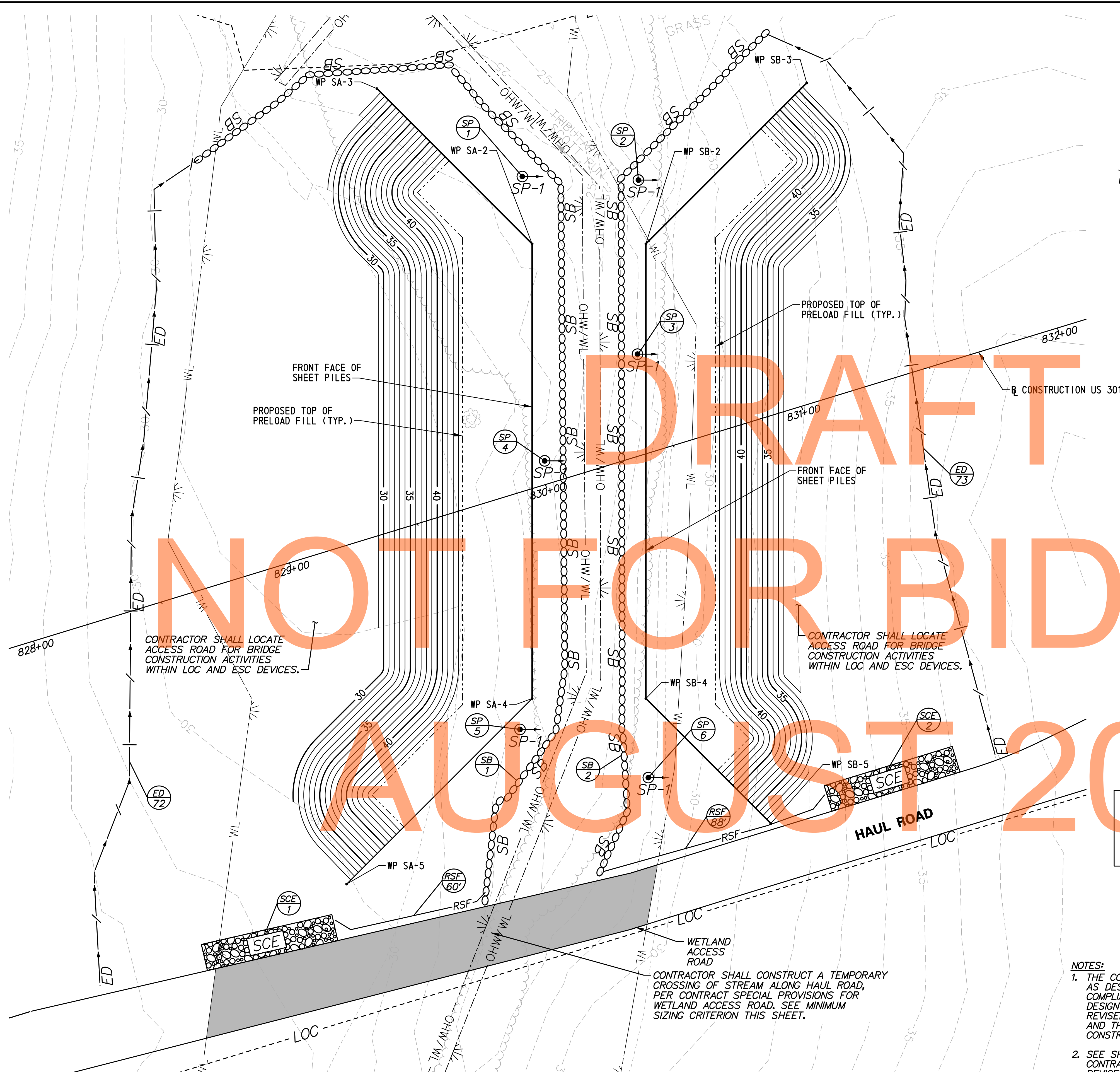
TYPE	S. Y.
WETLAND ACCESS ROAD	425

COMPUTED FLOWRATE

STORM EVENT	CFS
2-YEAR	100 +/-

NOTES:

- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGE BR 1-436, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE, APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- SEE SHEETS CS-40, CS-41, GR-02 AND GR-03 OF THE CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS - PHASE 2 AND BORROW SITE GRADING PLANS FOR ADJACENT EROSION AND SEDIMENT CONTROL DEVICES AND COORDINATION OF ACTIVITIES.



NOT FOR BIDDING

AUGUST 2015

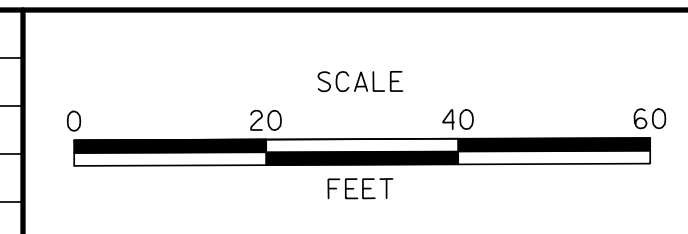
CONTRACTOR SHALL LOCATE ACCESS ROAD FOR BRIDGE CONSTRUCTION ACTIVITIES WITHIN LOC AND ESC DEVICES.

CONTRACTOR SHALL LOCATE ACCESS ROAD FOR BRIDGE CONSTRUCTION ACTIVITIES WITHIN LOC AND ESC DEVICES.

CONTRACTOR SHALL CONSTRUCT A TEMPORARY CROSSING OF STREAM ALONG HAUL ROAD, PER CONTRACT SPECIAL PROVISIONS FOR WETLAND ACCESS ROAD. SEE MINIMUM SIZING CRITERION THIS SHEET.

NO. 31653-0000, CONTRACT 1A-CADD, Environmental Maintenance of Streamflow\BR 1-436\MS01\BR 1-436-MS-01.dgn, 08/27/2015 10:27:53 AM

ADDENDUMS / REVISIONS

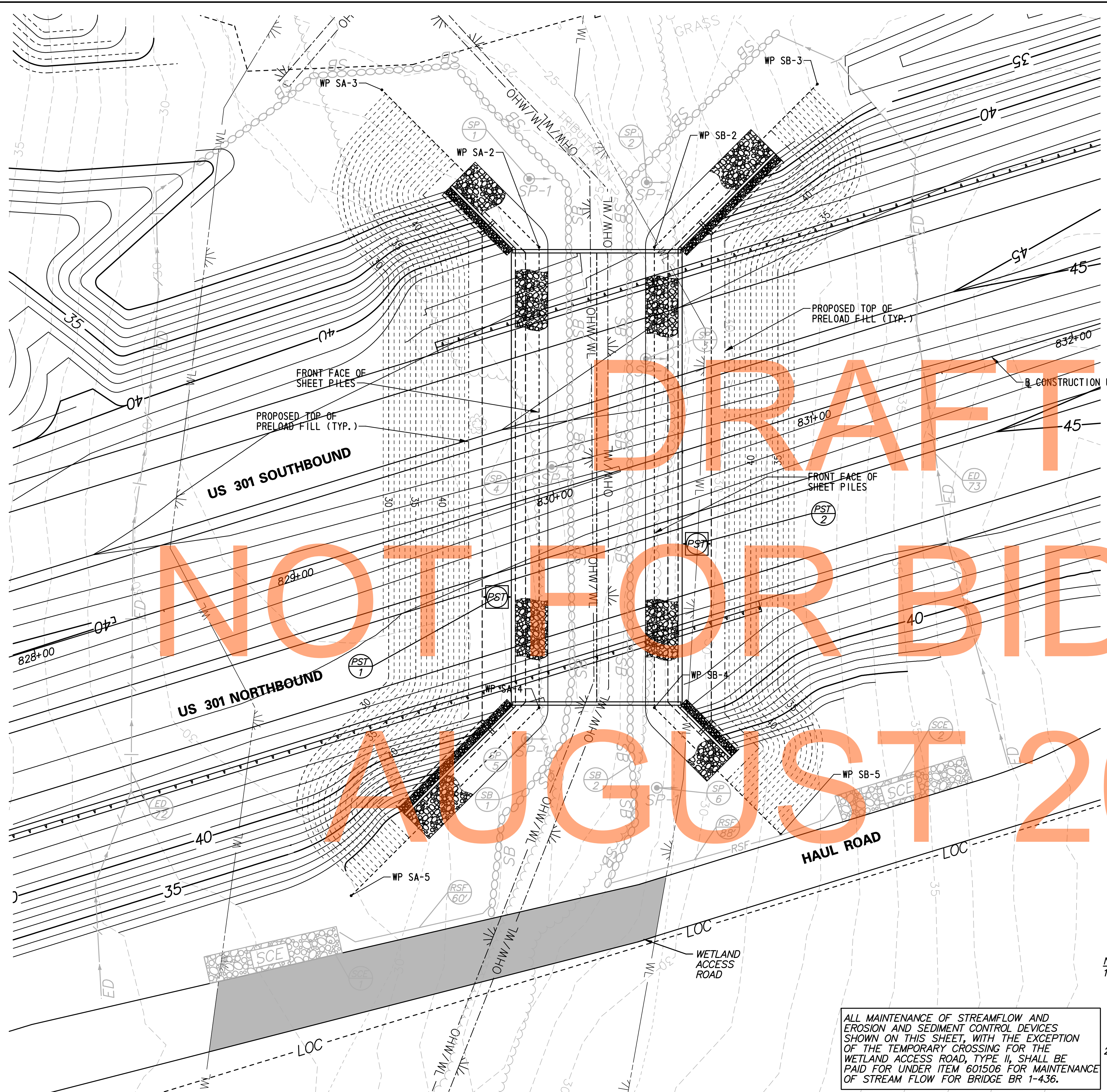


US 301, SR 896 TO SR 1

CONTRACT	BRIDGE NO.	BR 1-436
T200911308	DESIGNED BY:	D.B.R.
COUNTY	CHECKED BY:	J.D.C.
NEW CASTLE		

MAINTENANCE OF STREAM FLOW PLAN STAGE 1

SHEET NO.	595
TOTAL SHTS.	875



- SEQUENCE OF CONSTRUCTION - STAGE 2
- NOTES:**
- REFER TO CORRESPONDING PRELOAD STAGE PLANS BRIDGE PLANS FOR BRIDGE BR 1-436, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG A TRIBUTARY OF SCOTT RUN. REFER TO CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS FOR INFORMATION ON EROSION AND SEDIMENT CONTROLS SHOWN HEREON BUT NOT REFERRED TO IN THIS SEQUENCE OF CONSTRUCTION. THE ENVIRONMENTAL MONITOR SHALL BE CONSULTED AND INCLUDED IN ANY REVISIONS IN THE SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
 - SEE NOTES ON SHEET ST-02 FOR REMOVAL OF SHEET PILE AND PRELOAD FILL EXCAVATION. PROCEED WITH SUBSTRUCTURE CONSTRUCTION OF BRIDGE BR 1-436 FOOTINGS AND WINGWALLS.
 - PROCEED WITH INSTALLATION OF SCOUR COUNTERMEASURES. SUMP PITS MAY BE REMOVED UNDER THE DIRECTION OF THE ENGINEER AND ESC INSPECTOR TO ALLOW FOR INSTALLATION OF RIPRAP TO FINAL GRADE. SEE NOTES ON SHEET BR1-4/PE-01 FOR REQUIREMENTS FOR RIPRAP PLACEMENT.
 - PROCEED WITH SUPERSTRUCTURE CONSTRUCTION OF BRIDGE BR 1-436.
 - PROCEED WITH FINAL GRADING AT WINGWALLS AND TIE INTO PROPOSED GRADING AND CONSTRUCTION OF US 301 NB AND SB ROADWAYS.
 - UPON COMPLETION OF GRADING ACTIVITIES, ALL EROSION AND SEDIMENT CONTROL DEVICES MAY BE REMOVED UNDER THE DIRECTION OF THE ENGINEER AND ESC INSPECTOR. ANY AREAS DISTURBED IN THE PROCESS SHALL BE IMMEDIATELY STABILIZED PER NOTE THIS SHEET.
 - SEE ADDITIONAL ENVIRONMENTAL GUIDELINES ON SHEET EC-04 IN THE CONTRACT DOCUMENTS FOR FINAL STABILIZATION AND VEGETATIVE PLANTINGS REQUIRED WITHIN THE DISTURBED AREAS OF THE LOC.

PORTABLE SEDIMENT TANK (PST)

PORTABLE SEDIMENT TANK (PST) SHALL BE USED FOR DEWATERING SEDIMENT LADEN RUNOFF AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE QUANTITY OF PSTS AND PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

SAME DAY STABILIZATION NOTE

WHERE NOTED, AREAS SHALL BE STABILIZED WITHIN THE SAME WORKING DAY. NO AREA SHALL REMAIN UNSTABILIZED OVERNIGHT UNLESS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.

- TEMPORARY STREAM CROSSING - CONSTRUCTION NOTES
SEE DETAIL ON SHEET MS-01
- THE TEMPORARY CROSSING FOR HAUL ROAD ACTIVITIES SHALL BE CONSTRUCTED PER DETAIL AND NOTES, SHEET MS-01. THE CONTRACTOR SHALL NOT ACCESS THE STREAM, IMPACT THE STREAM, NOR CHANGE THE STREAM PROFILE DURING CONSTRUCTION ACTIVITIES.
 - ABUTMENTS SHALL BE PLACED PARALLEL TO, AND ON, STABLE BANKS SUCH THAT THE BOTTOM OF THE STRUCTURE IS AT OR ABOVE MINIMUM TOP WIDTH ELEVATION PER CONTRACT SPECIAL PROVISIONS.
 - TEMPORARY ACCESS BRIDGE SHOULD BE CONSTRUCTED TO SPAN THE ENTIRE CHANNEL (OHW/WL). IF THE BANKFULL CHANNEL WIDTH EXCEEDS 8 FEET, THEN A FOOTING, PIER, OR OTHER SUPPORT MAY BE CONSTRUCTED WITHIN THE WATERWAY. NO SUPPORT WILL BE PERMITTED WITHIN THE CHANNEL FOR WATERWAYS LESS THAN 8 FEET WIDE. ONE ADDITIONAL BRIDGE SUPPORT WILL BE PERMITTED FOR EACH ADDITIONAL 8-FOOT WIDTH OF CHANNEL.
 - ALL DECKING MEMBERS SHOULD BE PLACED PERPENDICULARLY TO THE STRINGERS, BUTTED TIGHTLY, AND SECURELY FASTENED TO THE STRINGERS. DECKING MATERIALS MUST BE BUTTED TIGHTLY TO PREVENT ANY SOIL MATERIAL TRACKED ONTO THE BRIDGE FROM FALLING INTO THE WATERWAY.
 - ALTHOUGH RUN PLANKS ARE OPTIONAL, THEY MAY BE NECESSARY TO PROPERLY DISTRIBUTE LOADS. ONE RUN PLANK SHOULD BE PROVIDED FOR EACH TRACK OF THE EQUIPMENT WHEELS AND SHOULD BE SECURELY FASTENED TO THE LENGTH OF THE SPAN.
 - CURBS OR FENDERS MAY BE INSTALLED ALONG THE OUTER SIDES OF THE DECK TO PROVIDE ADDITIONAL SAFETY.
 - BRIDGE SHOULD BE SECURELY ANCHORED AT ONE END USING A STEEL CABLE OR CHAIN TO PREVENT THE BRIDGE FROM FLOATING DOWNSTREAM AND POSSIBLY CAUSING AN OBSTRUCTION TO THE FLOW. ANCHORING AT ONLY ONE END WILL PREVENT CHANNEL OBSTRUCTION IN THE EVENT THAT FLOOD WATERS FLOAT THE BRIDGE. ACCEPTABLE ANCHORS ARE LARGE TREES, BOULDERS, OR DRIVEN STEEL ANCHORS.
 - ALL AREAS DISTURBED DURING INSTALLATION SHALL BE STABILIZED WITHIN 14 CALENDAR DAYS OF REMOVAL.
 - INSPECTION AND MAINTENANCE SHALL BE PERFORMED ON A DAILY BASIS AND AFTER ALL STORM EVENTS TO ENSURE THAT THE STRUCTURE COMPLIES WITH ALL STANDARDS AND SPECIFICATIONS. THIS INCLUDES BRIDGE AND STREAMBANK STABILITY AND REMOVAL OF TRAPPED SEDIMENT AND DEBRIS WHICH SHALL BE DISPOSED OF IN A STABILIZED AREA OUTSIDE OF THE FLOODPLAIN.
 - REMOVAL OF THE TEMPORARY BRIDGE SHALL INCLUDE ALL BRIDGE MATERIALS AND STRUCTURES WITHIN 14 CALENDAR DAYS OF START OF DEMOLITION. AREAS DISTURBED IN THE PROCESS SHALL BE PERMANENTLY STABILIZED PER NOTE THIS SHEET AND PER ENVIRONMENTAL COMPLIANCE GUIDELINES OF THE CONTRACT DOCUMENTS.

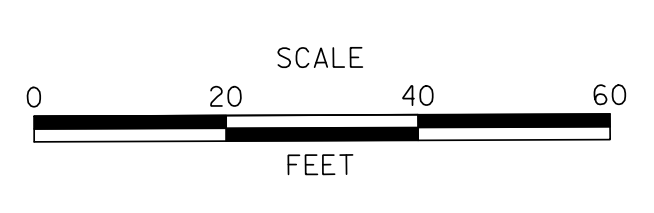
ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET, WITH THE EXCEPTION OF THE TEMPORARY CROSSING FOR THE WETLAND ACCESS ROAD, TYPE II, SHALL BE PAID FOR UNDER ITEM 601506 FOR MAINTENANCE OF STREAM FLOW FOR BRIDGE BR 1-436.

- NOTES:**
- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGE BR 1-436, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE, APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
 - SEE SHEETS CS-40, CS-41, GR-02 AND GR-03 OF THE CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS - PHASE 2 AND BORROW SITE GRADING PLANS FOR ADJACENT EROSION AND SEDIMENT CONTROL DEVICES AND COORDINATION OF ACTIVITIES.

NOT FOR BIDDING
AUGUST 2015

NO 31653-0000 CONTRACT 1A-CADD-Environmental Maintenance of Streamflow BR 1-4 MS02U301-br1-4-1A.dgn 08/31/2015 10:35:55 AM

ADDENDUMS / REVISIONS	



**US 301,
SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO. BR 1-436
COUNTY NEW CASTLE	DESIGNED BY: D.B.R. CHECKED BY: J.D.C.

MAINTENANCE OF STREAM FLOW PLAN STAGE 2
--

MS-02
SHEET NO. 596
TOTAL SHTS. 875

TEMPORARY PIPE (TP)				
NO.	STATION	SIZE	L. F.	REMARKS
TP 1	910+00, 14' RT. TO 909+90, 67' RT.	48" DIA., MIN.	54	@ HYETTS CORNER RD
TP 2	910+10, 14' RT. TO 909+96, 69' RT.	48" DIA., MIN	56	@ HYETTS CORNER RD

PORTABLE SEDIMENT TANK (PST)
 PORTABLE SEDIMENT TANK (PST) SHALL BE USED FOR DEWATERING SEDIMENT LADEN RUNOFF AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE QUANTITY OF PSTS AND PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

EARTH DIKE SCHEDULE					
NO.	BEGIN STA.	END STA.	OFFSET	LENGTH	TYPE
75	911+83	913+52	84.00 LT	266'	A-1

SANDBAG DIKE (SB)			
NO.	STATION-OFFSET	L. F.	REMARKS
SB 1	909+84, 66' RT.	17'	@ HYETTS CORNER RD

ACCESS ROAD	
TYPE	S. Y.
WETLAND ACCESS ROAD	1437

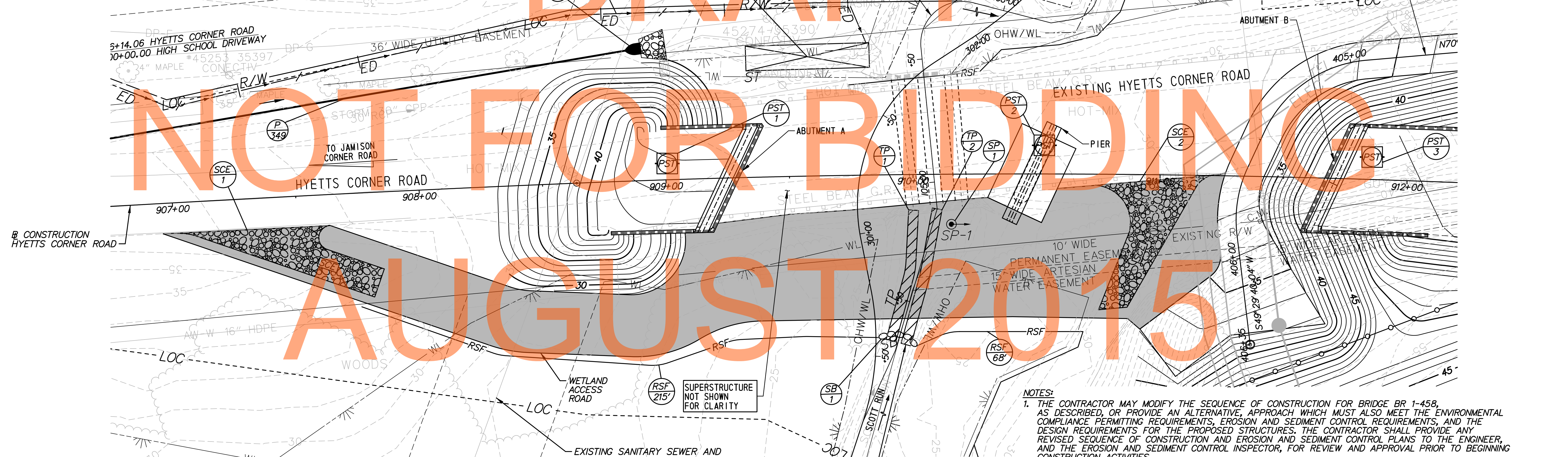
SEDIMENT TRAP SCHEDULE										
NO.	D. AREA	LENGTH	WIDTH	DEPTH	OUT. TYPE	WEIR EL.	CLEAN EL.	WEIR LENGTH	EMBANK. EL.	
61	0.46 AC	34'	12'	2.00'	STONE	28.85	26.00	2.00	30.00	

SEQUENCE OF CONSTRUCTION - STAGE 1

NOTES:

- REFER TO CORRESPONDING STREAM RESTORATION PLANS, BRIDGE PLANS FOR BRIDGE BR 1-458, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG SCOTT RUN. REFER TO CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS FOR INFORMATION ON EROSION AND SEDIMENT CONTROLS SHOWN HEREON BUT NOT REFERRED TO IN THIS SEQUENCE OF CONSTRUCTION.
- CLEAR AS NECESSARY TO INSTALL STABILIZED CONSTRUCTION ENTRANCES, SCE-1 AND SCE-2 AND REINFORCED SILT FENCE. CLEAR AND CUT VEGETATION FLUSH TO GROUND. NO GRUBBING IS PERMITTED WITHIN WETLAND BOUNDARIES. INSTALL WETLAND ACCESS ROAD, TEMPORARY PIPES, TP-1 AND TP-2, AND SANDBAG DIKE, SB-1 AS SHOWN. TEMPORARY PIPES SHALL BE INSTALLED DURING DRY WEATHER FORECAST UTILIZING A PUMP-AROUND AND SUMP PIT SP-1 TO DEWATER AREA OF PIPE INSTALLATION.
- PROCEED WITH CONSTRUCTION ON BRIDGE BR 1-458 ABUTMENTS AND PIER. THE CONTRACTOR IS ALERTED TO THE POSSIBILITY THAT SHEETING OR OTHER ACCEPTABLE SUPPORT OF EXCAVATION/EMBANKMENT MAY BE NECESSARY TO PREVENT SUBSTRUCTURE CONSTRUCTION FROM CONFLICTING WITH MAINTENANCE OF STREAM FLOW AND CONSTRUCTION ACCESS. THE COST OF SUCH MEANS AND METHODS SHALL BE INCIDENTAL TO THE OVERALL CONSTRUCTION OF BRIDGE BR 1-458.
- PROCEED WITH SUPERSTRUCTURE CONSTRUCTION AND STAGE 2 OF SEQUENCE OF CONSTRUCTION.

ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202508 FOR WETLAND ACCESS ROAD, TYPE II, FOR BRIDGE BR 1-458.



SUMP PIT (SP)
 SUMP PITS SHALL BE USED FOR DEWATERING WORK AREA AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SUMP PITS AND PROVIDING ADEQUATE PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

STABILIZED CONSTRUCTION ENTRANCE (SCE)			
NO.	STATION, OFFSET	TONS	REMARKS
SCE 1	907+36, 13' RT.	60	@ HYETTS CORNER RD
SCE 1	911+00, 2' RT.	60	@ HYETTS CORNER RD

SIZING OF HYDRAULIC OPENING OF TEMPORARY CROSSING	
MINIMUM AREA REQUIRED:	120.0 SF
MINIMUM TOP WIDTH ELEVATION:	25.0

COMPUTED FLOWRATE	
STORM EVENT	CFS
2-YEAR	420 +/-

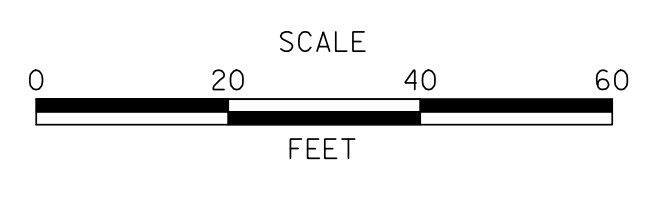
NOTES:

- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGE BR 1-458, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE, APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE EXISTING UTILITIES DURING WETLAND ACCESS ROAD AND BRIDGE CONSTRUCTION. THE TOTAL LOAD APPLIED TO THE EXISTING CASED SANITARY SEWER AND FORCE MAIN DUE TO THE CONTRACTOR'S WETLAND ACCESS ROAD AND EQUIPMENT SHALL NOT EXCEED 2,400 PSF AT THE TOP OF THE STEEL SLEEVE. THE DEPTH OF COVER TO THE EXISTING STEEL SLEEVE IN THE AREA OF THE WETLAND ACCESS ROAD IS APPROXIMATELY 8 FEET, AND SHALL BE VERIFIED BY TEST PIT BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION OF THE WETLAND ACCESS ROAD. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
- SEE SHEETS CS-38, CS-39, CS-61, AND CS-62 OF THE CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS - PHASES 2 AND 4 FOR ADJACENT EROSION AND SEDIMENT CONTROL DEVICES AND COORDINATION OF ACTIVITIES.

NO. 31653-000-CONTRACT 1A-CADD-Environmental Maintenance of Streamflow\BR 1-458\MS0101-1-6-1A.dgn
 3/2/2012 10:40:47 AM



ADDENDUMS / REVISIONS	



US 301,
SR 896 TO SR 1

CONTRACT	BRIDGE NO.	BR 1-458
T200911308	DESIGNED BY:	D.B.R.
COUNTY	CHECKED BY:	J.D.C.
NEW CASTLE		

MAINTENANCE OF STREAM FLOW PLAN STAGE 1

MS-03
SHEET NO.
597
TOTAL SHTS.
875

SUMP PIT (SP)

SUMP PITS SHALL BE USED FOR DEWATERING WORK AREA AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SUMP PITS AND PROVIDING ADEQUATE PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

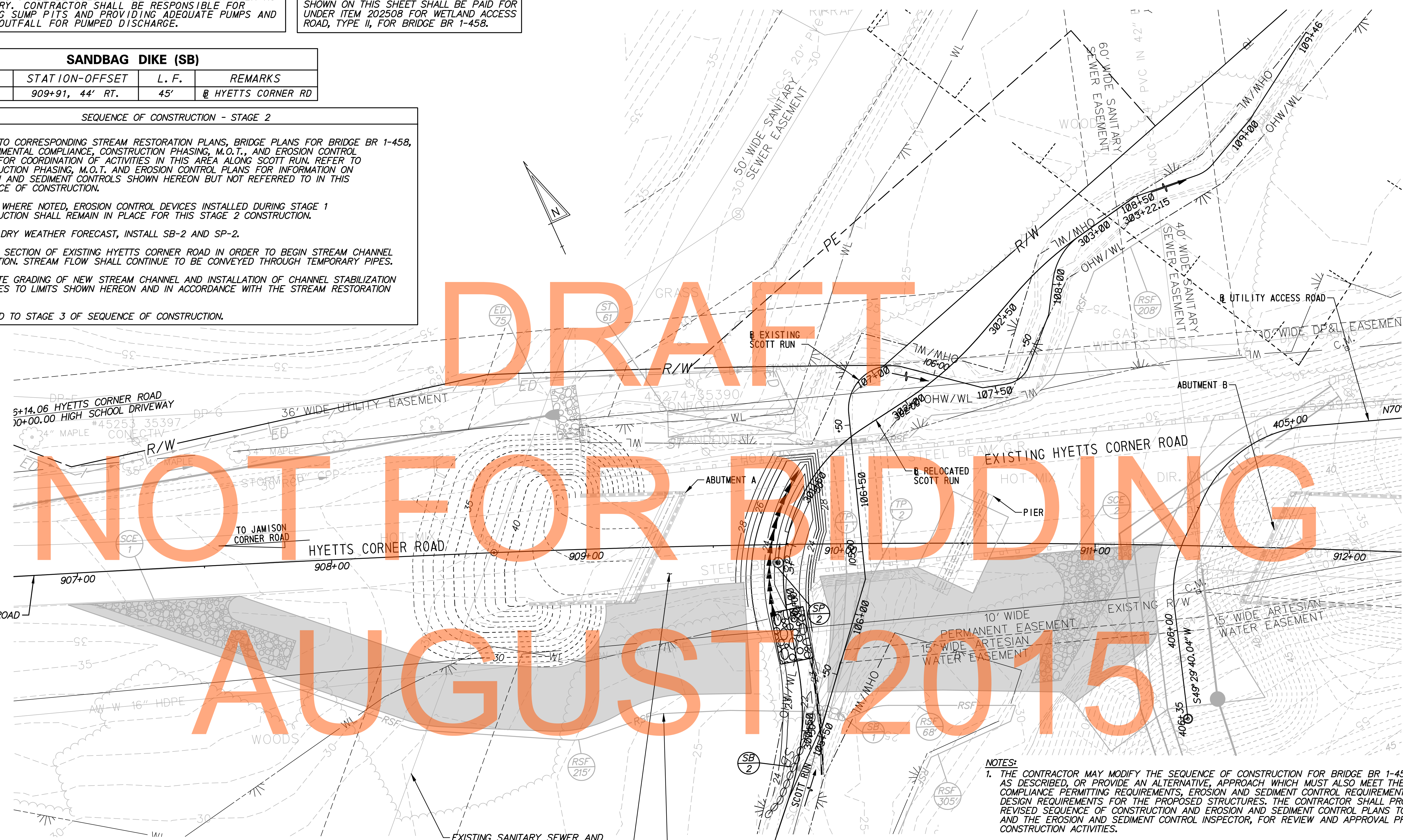
ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202508 FOR WETLAND ACCESS ROAD, TYPE II, FOR BRIDGE BR 1-458.

SANDBAG DIKE (SB)

NO.	STATION-OFFSET	L. F.	REMARKS
SB 2	909+91, 44' RT.	45'	@ HYETTS CORNER RD

SEQUENCE OF CONSTRUCTION - STAGE 2

- NOTES:**
- REFER TO CORRESPONDING STREAM RESTORATION PLANS, BRIDGE PLANS FOR BRIDGE BR 1-458, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG SCOTT RUN. REFER TO CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS FOR INFORMATION ON EROSION AND SEDIMENT CONTROLS SHOWN HEREON BUT NOT REFERRED TO IN THIS SEQUENCE OF CONSTRUCTION.
 - EXCEPT WHERE NOTED, EROSION CONTROL DEVICES INSTALLED DURING STAGE 1 CONSTRUCTION SHALL REMAIN IN PLACE FOR THIS STAGE 2 CONSTRUCTION.
 - DURING DRY WEATHER FORECAST, INSTALL SB-2 AND SP-2.
 - REMOVE SECTION OF EXISTING HYETTS CORNER ROAD IN ORDER TO BEGIN STREAM CHANNEL RELOCATION. STREAM FLOW SHALL CONTINUE TO BE CONVEYED THROUGH TEMPORARY PIPES.
 - COMPLETE GRADING OF NEW STREAM CHANNEL AND INSTALLATION OF CHANNEL STABILIZATION FEATURES TO LIMITS SHOWN HEREON AND IN ACCORDANCE WITH THE STREAM RESTORATION PLANS.
 - PROCEED TO STAGE 3 OF SEQUENCE OF CONSTRUCTION.



- NOTES:**
- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGE BR 1-458, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE, APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
 - THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE EXISTING UTILITIES DURING WETLAND ACCESS ROAD AND BRIDGE CONSTRUCTION. THE TOTAL LOAD APPLIED TO THE EXISTING CASED SANITARY SEWER AND FORCE MAIN DUE TO THE CONTRACTOR'S WETLAND ACCESS ROAD AND EQUIPMENT SHALL NOT EXCEED 2,400 PSF AT THE TOP OF THE STEEL SLEEVE. THE DEPTH OF COVER TO THE EXISTING STEEL SLEEVE IN THE AREA OF THE WETLAND ACCESS ROAD IS APPROXIMATELY 8 FEET, AND SHALL BE VERIFIED BY TEST PIT BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION OF THE WETLAND ACCESS ROAD. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
 - SEE SHEETS CS-38, CS-39, CS-61, AND CS-21 OF THE CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS - PHASES 2 AND 4 FOR ADJACENT EROSION AND SEDIMENT CONTROL DEVICES AND COORDINATION OF ACTIVITIES.

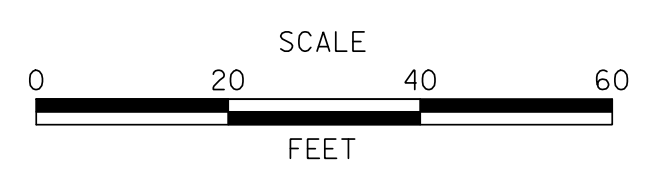
EXISTING SANITARY SEWER AND FORCE MAIN IN 60" DIAMETER STEEL SLEEVE TO REMAIN, SEE NOTE 2

REMOVE STAGE 1 RSF AS NECESSARY TO ALLOW FOR CHANNEL GRADING.

SUPERSTRUCTURE NOT SHOWN FOR CLARITY

NO. 31653-000-000-CONTRACT 14-CADD-Environmental Maintenance of Streamflow\BR 1-458\MS02\30_Lbr1-6_1A.dgn
 20 3/25/12 10:54:52 AM

ADDENDUMS / REVISIONS



US 301, SR 896 TO SR 1

CONTRACT	BRIDGE NO.	BR 1-458
T200911308	DESIGNED BY:	D.B.R.
COUNTY	CHECKED BY:	J.D.C.
NEW CASTLE		

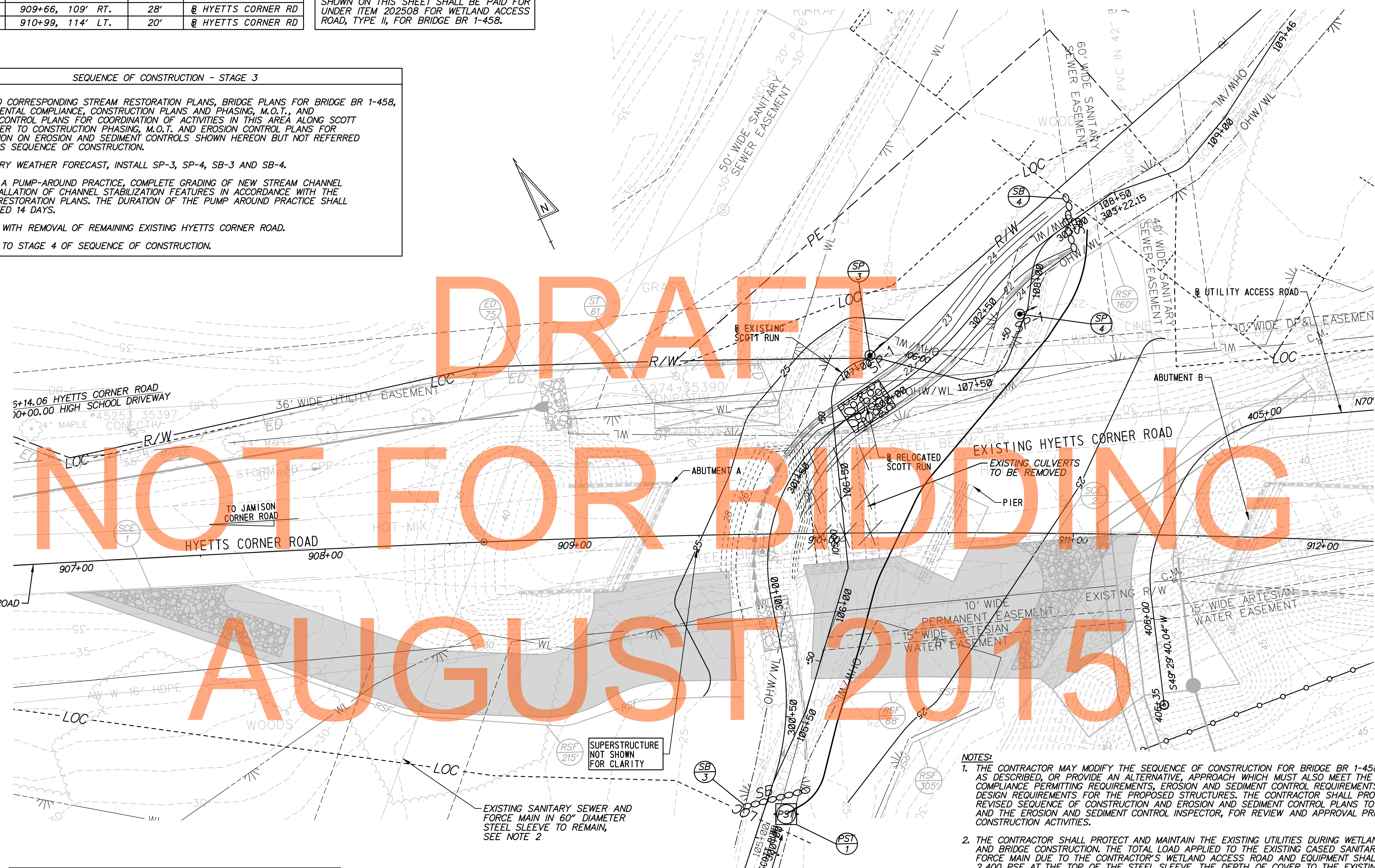
MAINTENANCE OF STREAM FLOW PLAN STAGE 2

MS-04
SHEET NO.
598
TOTAL SHTS.
875

SANDBAG DIKE (SB)			
NO.	STATION-OFFSET	L. F.	REMARKS
SB 3	909+66, 109' RT.	28'	@ HYETTS CORNER RD
SB 4	910+99, 114' LT.	20'	@ HYETTS CORNER RD

ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202508 FOR WETLAND ACCESS ROAD, TYPE II, FOR BRIDGE BR 1-458.

- SEQUENCE OF CONSTRUCTION - STAGE 3
- NOTES:
- REFER TO CORRESPONDING STREAM RESTORATION PLANS, BRIDGE PLANS FOR BRIDGE BR 1-458, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG SCOTT RUN. REFER TO CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS FOR INFORMATION ON EROSION AND SEDIMENT CONTROLS SHOWN HEREON BUT NOT REFERRED TO IN THIS SEQUENCE OF CONSTRUCTION.
 - DURING DRY WEATHER FORECAST, INSTALL SP-3, SP-4, SB-3 AND SB-4.
 - UTILIZING A PUMP-AROUND PRACTICE, COMPLETE GRADING OF NEW STREAM CHANNEL AND INSTALLATION OF CHANNEL STABILIZATION FEATURES IN ACCORDANCE WITH THE STREAM RESTORATION PLANS. THE DURATION OF THE PUMP AROUND PRACTICE SHALL NOT EXCEED 14 DAYS.
 - PROCEED WITH REMOVAL OF REMAINING EXISTING HYETTS CORNER ROAD.
 - PROCEED TO STAGE 4 OF SEQUENCE OF CONSTRUCTION.



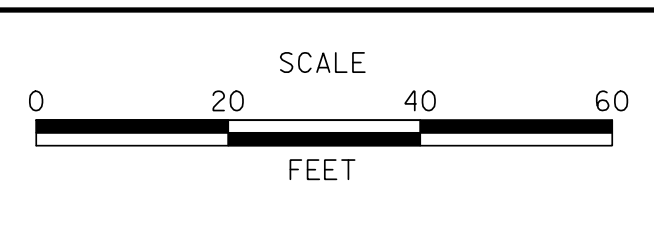
SUMP PIT (SP)

SUMP PITS SHALL BE USED FOR DEWATERING WORK AREA AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SUMP PITS AND PROVIDING ADEQUATE PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

- NOTES:
- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGE BR 1-458, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
 - THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE EXISTING UTILITIES DURING WETLAND ACCESS ROAD AND BRIDGE CONSTRUCTION. THE TOTAL LOAD APPLIED TO THE EXISTING CASED SANITARY SEWER AND FORCE MAIN DUE TO THE CONTRACTOR'S WETLAND ACCESS ROAD AND EQUIPMENT SHALL NOT EXCEED 2,400 PSF AT THE TOP OF THE STEEL SLEEVE. THE DEPTH OF COVER TO THE EXISTING STEEL SLEEVE IN THE AREA OF THE WETLAND ACCESS ROAD IS APPROXIMATELY 8 FEET, AND SHALL BE VERIFIED BY TEST PIT BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION OF THE WETLAND ACCESS ROAD. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
 - SEE SHEETS CS-38, CS-39, CS-61, AND CS-62 OF THE CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS - PHASES 2 AND 4 FOR ADJACENT EROSION AND SEDIMENT CONTROL DEVICES AND COORDINATION OF ACTIVITIES.

NO. 31653-000-000 CONTRACT 1A-CADD Environmental Maintenance of Streamflow BR 1-458 MS03030 L-br1-6-1A.dgn 03/21/2012 10:44:53 AM

ADDENDUMS / REVISIONS



US 301, SR 896 TO SR 1

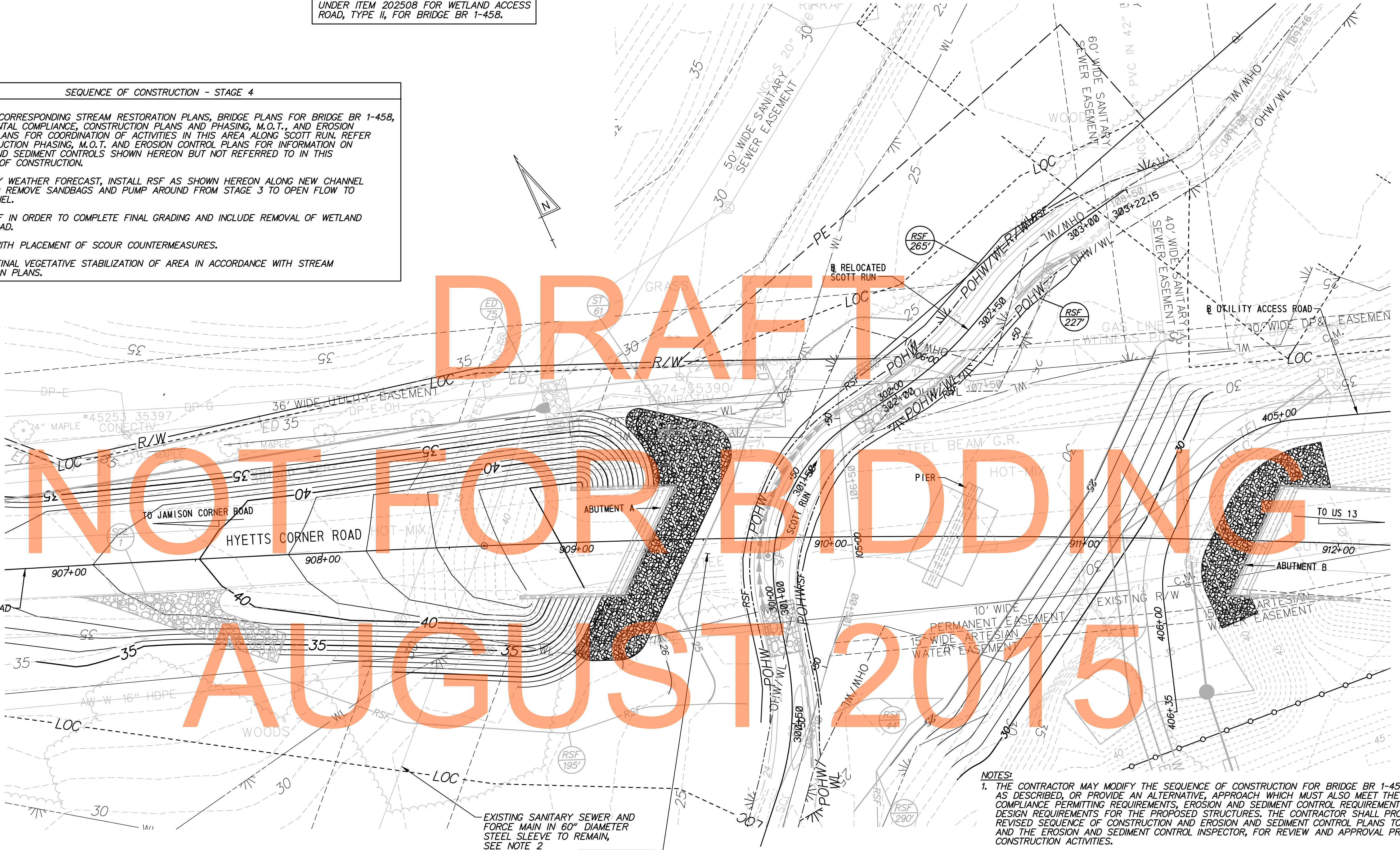
CONTRACT	BRIDGE NO.	BR 1-458
T200911308	DESIGNED BY:	D.B.R.
COUNTY	CHECKED BY:	J.D.C.
NEW CASTLE		

MAINTENANCE OF STREAM FLOW PLAN STAGE 3

MS-05
SHEET NO.
599
TOTAL SHTS.
875

ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202508 FOR WETLAND ACCESS ROAD, TYPE II, FOR BRIDGE BR 1-458.

- SEQUENCE OF CONSTRUCTION - STAGE 4**
- NOTES:**
- REFER TO CORRESPONDING STREAM RESTORATION PLANS, BRIDGE PLANS FOR BRIDGE BR 1-458, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG SCOTT RUN. REFER TO CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLANS FOR INFORMATION ON EROSION AND SEDIMENT CONTROLS SHOWN HEREON BUT NOT REFERRED TO IN THIS SEQUENCE OF CONSTRUCTION.
 - DURING DRY WEATHER FORECAST, INSTALL RSF AS SHOWN HEREON ALONG NEW CHANNEL BANKS AND REMOVE SANDBAGS AND PUMP AROUND FROM STAGE 3 TO OPEN FLOW TO INTO CHANNEL.
 - ADJUST RSF IN ORDER TO COMPLETE FINAL GRADING AND INCLUDE REMOVAL OF WETLAND ACCESS ROAD.
 - PROCEED WITH PLACEMENT OF SCOUR COUNTERMEASURES.
 - PERFORM FINAL VEGETATIVE STABILIZATION OF AREA IN ACCORDANCE WITH STREAM RESTORATION PLANS.



DRAFT
NOT FOR BIDDING
AUGUST 2015

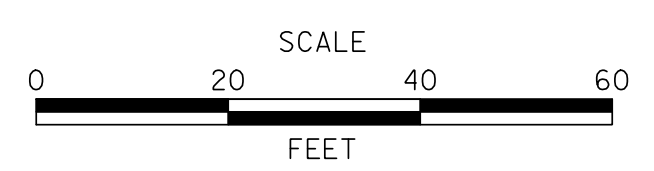
- NOTES:**
- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGE BR 1-458, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
 - THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE EXISTING UTILITIES DURING WETLAND ACCESS ROAD AND BRIDGE CONSTRUCTION. THE TOTAL LOAD APPLIED TO THE EXISTING CASED SANITARY SEWER AND FORCE MAIN DUE TO THE CONTRACTOR'S WETLAND ACCESS ROAD AND EQUIPMENT SHALL NOT EXCEED 2,400 PSF AT THE TOP OF THE STEEL SLEEVE. THE DEPTH OF COVER TO THE EXISTING STEEL SLEEVE IN THE AREA OF THE WETLAND ACCESS ROAD IS APPROXIMATELY 8 FEET, AND SHALL BE VERIFIED BY TEST PIT BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION OF THE WETLAND ACCESS ROAD. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.
 - SEE SHEETS CS-38, CS-39, CS-61, AND CS-62 OF THE CONSTRUCTION PHASING, M.O.T., AND EROSION CONTROL PLANS - PHASES 2 AND 4 FOR ADJACENT EROSION AND SEDIMENT CONTROL DEVICES AND COORDINATION OF ACTIVITIES.

EXISTING SANITARY SEWER AND FORCE MAIN IN 60" DIAMETER STEEL SLEEVE TO REMAIN, SEE NOTE 2

SUPERSTRUCTURE NOT SHOWN FOR CLARITY



ADDENDUMS / REVISIONS	



US 301,
SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO. BR 1-458
COUNTY NEW CASTLE	DESIGNED BY: D.B.R. CHECKED BY: J.D.C.

**MAINTENANCE OF
STREAM FLOW
PLAN
STAGE 4**

MS-06
SHEET NO. 600
TOTAL SHTS. 875

M:\31653\000\CONTRACT 1A\CADD\Environmental\Maintenance of Streamflow\BR 1-458\MS04\301_Lbr1-6_1A.dgn 7/27/2015 8:00:35 AM



SUMP PIT (SP)
 SUMP PITS SHALL BE USED FOR DEWATERING WORK AREA AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SUMP PITS AND PROVIDING ADEQUATE PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

PORTABLE SEDIMENT TANK (PST)
 PORTABLE SEDIMENT TANKS (PST) SHALL BE USED FOR FILTERING SEDIMENT LADEN RUNOFF AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE QUANTITY OF PSTS AND PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

SANDBAG DIKE (SB)			
NO.	STATION-OFFSET	L. F.	REMARKS
SB 1	808+39, 35' RT.	111'	@ US 301
SB 2	808+49, 24' RT.	92'	@ US 301

STABILIZED CONSTRUCTION ENTRANCE (SCE)			
NO.	STATION, OFFSET	TONS	REMARKS
SCE 1	55+18, 25' LT.	60	@ HYETTS CORNER RD

- SEQUENCE OF CONSTRUCTION - STAGE 1
- NOTES:**
- REFER TO CORRESPONDING STREAM RESTORATION PLANS, BRIDGE PLANS FOR BRIDGES BR 1-460N AND BR 1-460S, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG SCOTT RUN.
 - CLEAR AND GRUB AS NECESSARY TO INSTALL STABILIZED CONSTRUCTION ENTRANCE, SCE-1. ENTRY VIA SCE-1 AT HYETTS CORNER ROAD ALLOWS ACCESS TO THE PROJECT AREA ALONG AN EXISTING DIRT ROAD.
 - INSTALL EROSION CONTROL DEVICES, INCLUDING RSF, SB-1, SB-2, SP-1, AND SP-2. SANDBAG DIKES, SB-1 AND SB-2, SBDS SHALL BE PLACED TO ELEVATION 28, MIN. AND BE LOCATED ALONG TOE OF BANK SO AS TO MAINTAIN THE EXISTING FLOW PATH OF SCOTT RUN DURING GRADING OF NEW CHANNEL.
 - GRADE NEW CHANNEL TO ALIGNMENT AND ELEVATIONS BETWEEN SANDBAG DIVERSIONS, AS SHOWN HEREON. UTILIZE PST-1 TO FILTER SEDIMENT-LADEN WATER IN WORK AREA. DISCHARGE TO A STABILIZED LOCATION DOWNSTREAM.
 - SEE STREAM RESTORATION PLANS AND DETAILS FOR FINAL CONSTRUCTION OF STABILIZATION DEVICES ALONG NEW CHANNEL.
 - PROCEED TO STAGE 2 OF SEQUENCE OF CONSTRUCTION FOR STREAM RE-ALIGNMENT.

DRAFT

NOT FOR BIDDING

AUGUST 2015

- NOTES:**
- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGES BR 1-460N AND BR 1-460S, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE, APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
 - DURING CONSTRUCTION OF THE MSE WALLS, ABUTMENTS, AND WETLAND ACCESS ROAD, THERE WILL BE SIGNIFICANT VERTICAL GRADE DIFFERENCES BETWEEN EXISTING AND PROPOSED GRADING. IT WILL BE THE RESPONSIBILITY OF THE CONTRACT TO DEVISE A PLAN TO PROVIDE STABILIZATION AND SUPPORT OF EMBANKMENT DURING INTERIM CONDITIONS BETWEEN THE SUBSTRUCTURES, WETLAND ACCESS ROAD, AND EXISTING GRADE. THE CONTRACTOR SHALL PROVIDE THIS PLAN TO THE ENGINEER AND DELDOT FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.

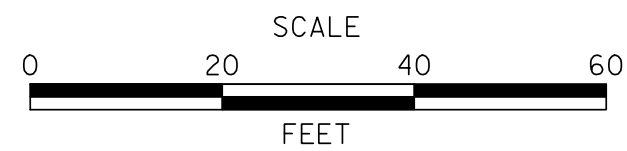
ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202508 FOR WETLAND ACCESS ROAD, TYPE II, FOR BRIDGE BR 1-460 N/S.

COMPUTED FLOWRATE	
STORM EVENT	CFS
2-YEAR	420 +/-

NO. 31653-000-CONTRACT 14\CADD\Environmental\Maintenance of Streamflow\BR 1-7\MSOU301.br1-7_1A.dgn
 3/2/2012 10:48:50 AM



ADDENDUMS / REVISIONS	



US 301,
SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO. BR 1-460 NS
COUNTY NEW CASTLE	DESIGNED BY: D.B.R. CHECKED BY: J.D.C.

MAINTENANCE OF
STREAM FLOW
PLAN
STAGE 1

MS-07
SHEET NO. 601
TOTAL SHTS. 875



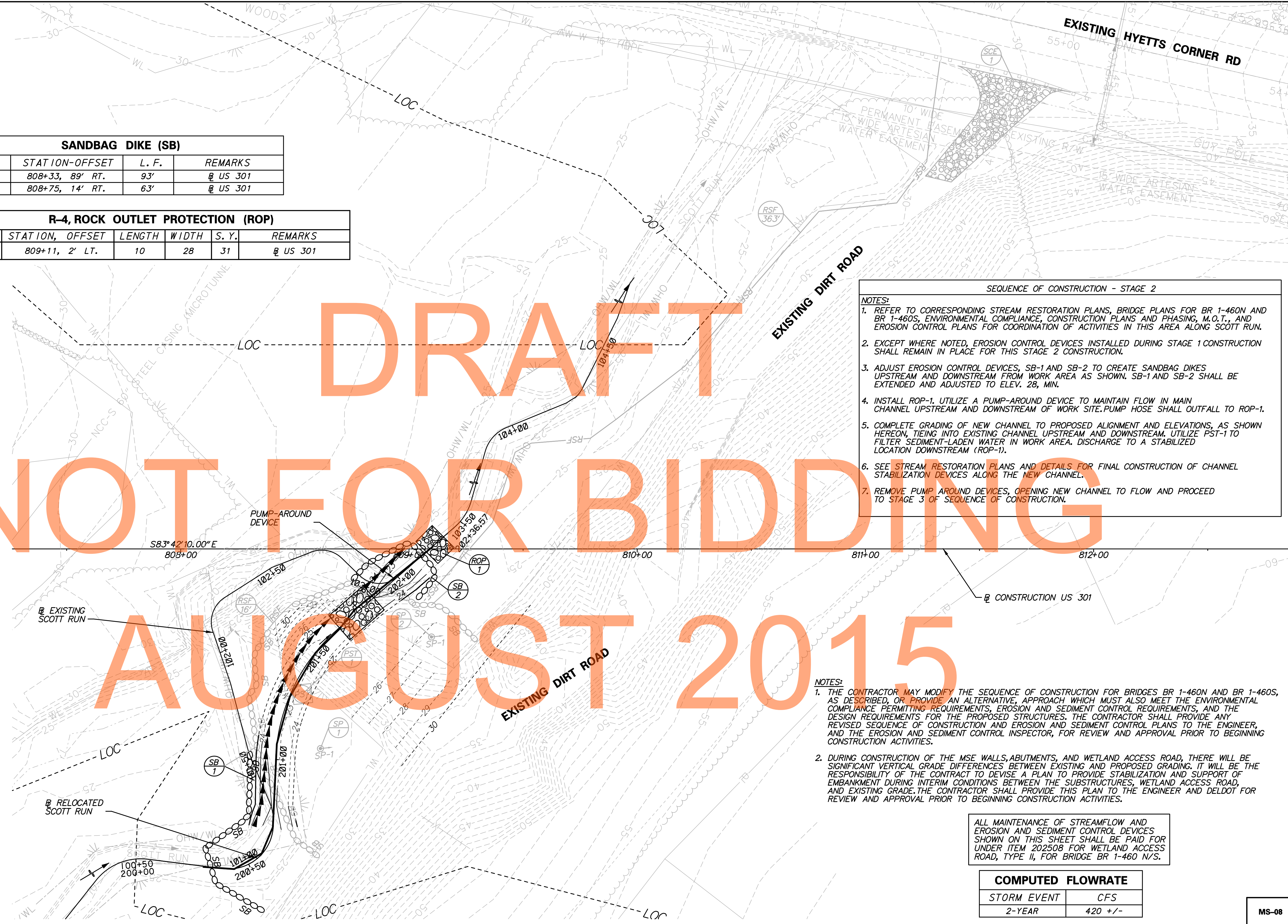
SANDBAG DIKE (SB)			
NO.	STATION-OFFSET	L. F.	REMARKS
SB 1	808+33, 89' RT.	93'	@ US 301
SB 2	808+75, 14' RT.	63'	@ US 301

R-4, ROCK OUTLET PROTECTION (ROP)					
NO.	STATION, OFFSET	LENGTH	WIDTH	S. Y.	REMARKS
ROP 1	809+11, 2' LT.	10	28	31	@ US 301

DRAFT

NOT FOR BIDDING

- SEQUENCE OF CONSTRUCTION - STAGE 2
- NOTES:
- REFER TO CORRESPONDING STREAM RESTORATION PLANS, BRIDGE PLANS FOR BR 1-460N AND BR 1-460S, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG SCOTT RUN.
 - EXCEPT WHERE NOTED, EROSION CONTROL DEVICES INSTALLED DURING STAGE 1 CONSTRUCTION SHALL REMAIN IN PLACE FOR THIS STAGE 2 CONSTRUCTION.
 - ADJUST EROSION CONTROL DEVICES, SB-1 AND SB-2 TO CREATE SANDBAG DIKES UPSTREAM AND DOWNSTREAM FROM WORK AREA AS SHOWN. SB-1 AND SB-2 SHALL BE EXTENDED AND ADJUSTED TO ELEV. 28, MIN.
 - INSTALL ROP-1. UTILIZE A PUMP-AROUND DEVICE TO MAINTAIN FLOW IN MAIN CHANNEL UPSTREAM AND DOWNSTREAM OF WORK SITE. PUMP HOSE SHALL OUTFALL TO ROP-1.
 - COMPLETE GRADING OF NEW CHANNEL TO PROPOSED ALIGNMENT AND ELEVATIONS, AS SHOWN HEREON, TIEING INTO EXISTING CHANNEL UPSTREAM AND DOWNSTREAM. UTILIZE PST-1 TO FILTER SEDIMENT-LADEN WATER IN WORK AREA. DISCHARGE TO A STABILIZED LOCATION DOWNSTREAM (ROP-1).
 - SEE STREAM RESTORATION PLANS AND DETAILS FOR FINAL CONSTRUCTION OF CHANNEL STABILIZATION DEVICES ALONG THE NEW CHANNEL.
 - REMOVE PUMP AROUND DEVICES, OPENING NEW CHANNEL TO FLOW AND PROCEED TO STAGE 3 OF SEQUENCE OF CONSTRUCTION.



- NOTES:
- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGES BR 1-460N AND BR 1-460S, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE, APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
 - DURING CONSTRUCTION OF THE MSE WALLS, ABUTMENTS, AND WETLAND ACCESS ROAD, THERE WILL BE SIGNIFICANT VERTICAL GRADE DIFFERENCES BETWEEN EXISTING AND PROPOSED GRADING. IT WILL BE THE RESPONSIBILITY OF THE CONTRACT TO DEVISE A PLAN TO PROVIDE STABILIZATION AND SUPPORT OF EMBANKMENT DURING INTERIM CONDITIONS BETWEEN THE SUBSTRUCTURES, WETLAND ACCESS ROAD, AND EXISTING GRADE. THE CONTRACTOR SHALL PROVIDE THIS PLAN TO THE ENGINEER AND DELDOT FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.

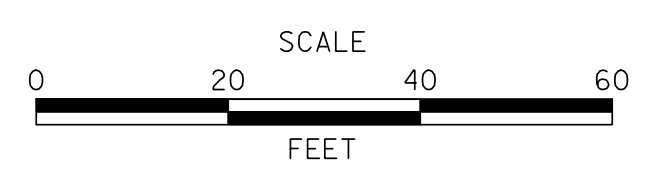
ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202508 FOR WETLAND ACCESS ROAD, TYPE II, FOR BRIDGE BR 1-460 N/S.

COMPUTED FLOWRATE	
STORM EVENT	CFS
2-YEAR	420 +/-

NO. 31653-000-CONTRACT 1A\CADD\Environmental\Maintenance of Streamflow\BR 1-7\MS02U301_Lbr17-1A.dgn
 PD 3/25/12 10:49:51 AM



ADDENDUMS / REVISIONS	



US 301,
SR 896 TO SR 1

CONTRACT T200911308	BRIDGE NO. BR 1-460 NS
COUNTY NEW CASTLE	DESIGNED BY: D.B.R.
	CHECKED BY: J.D.C.

MAINTENANCE OF
STREAM FLOW
PLAN
STAGE 2

MS-08
SHEET NO. 602
TOTAL SHTS. 875

ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202508 FOR WETLAND ACCESS ROAD, TYPE II, FOR BRIDGE BR 1-460 N/S.

SUMP PIT (SP)
 SUMP PIT (SP-3) SHALL BE USED FOR DEWATERING SEDIMENT LADEN RUNOFF AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING SP-3 IN THE SCOUR HOLE LOCATED IN THE EXISTING CHANNEL AND PROVIDING ADEQUATE PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

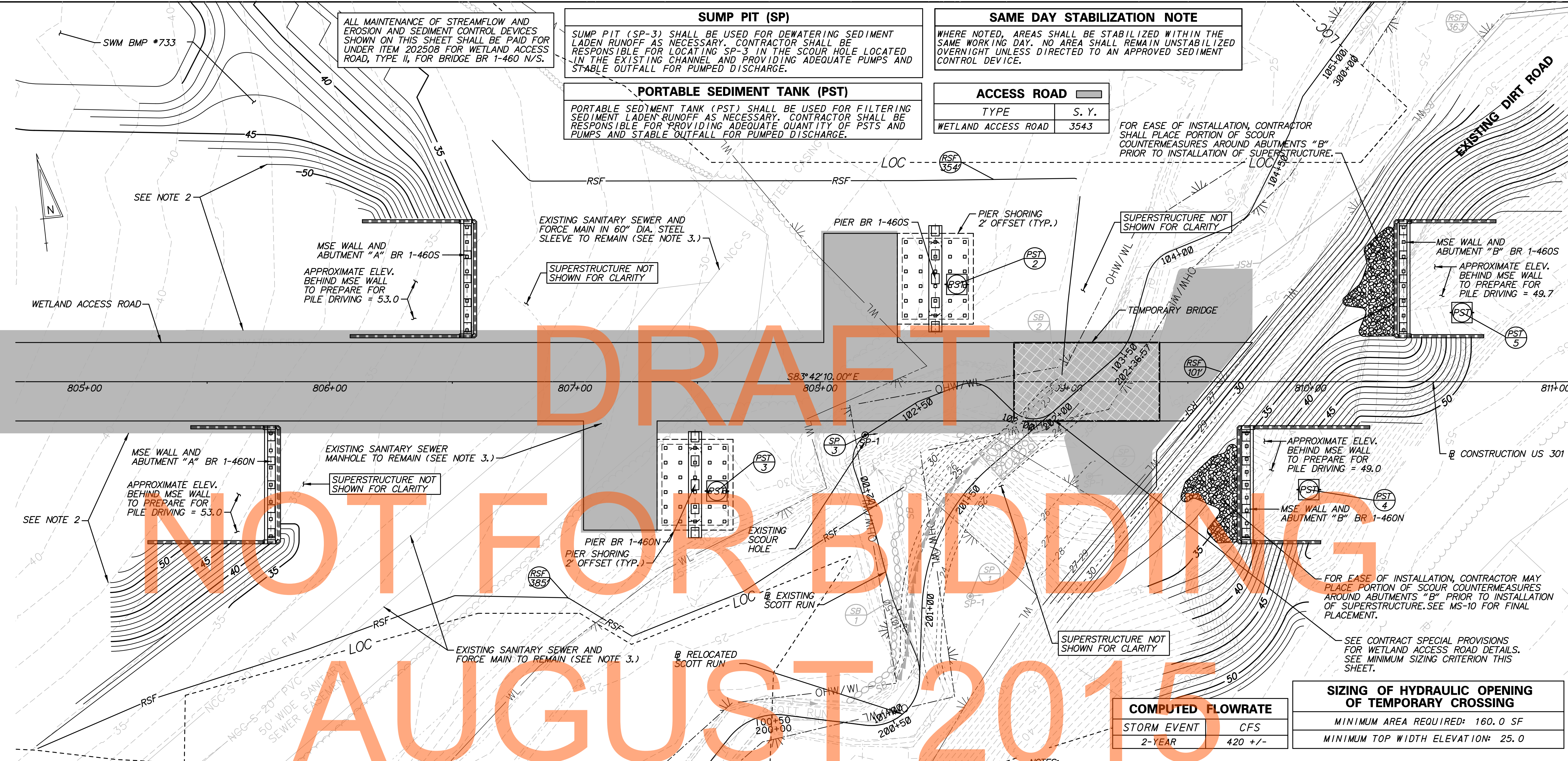
SAME DAY STABILIZATION NOTE
 WHERE NOTED, AREAS SHALL BE STABILIZED WITHIN THE SAME WORKING DAY. NO AREA SHALL REMAIN UNSTABILIZED OVERNIGHT UNLESS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.

PORTABLE SEDIMENT TANK (PST)
 PORTABLE SEDIMENT TANK (PST) SHALL BE USED FOR FILTERING SEDIMENT LADEN RUNOFF AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE QUANTITY OF PSTS AND PUMPS AND STABLE OUTFALL FOR PUMPED DISCHARGE.

ACCESS ROAD

TYPE	S. Y.
WETLAND ACCESS ROAD	3543

FOR EASE OF INSTALLATION, CONTRACTOR SHALL PLACE PORTION OF SCOUR COUNTERMEASURES AROUND ABUTMENTS "B" PRIOR TO INSTALLATION OF SUPERSTRUCTURE.



DRAFT
NOT FOR BIDDING
AUGUST 2015

SEQUENCE OF CONSTRUCTION - STAGE 3

NOTES:

- REFER TO CORRESPONDING STREAM RESTORATION PLANS, BRIDGE PLANS FOR BR 1-460N AND BR 1-460S, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG SCOTT RUN.
- EXCEPT WHERE NOTED, EROSION CONTROL DEVICES INSTALLED DURING STAGES 1 AND 2 CONSTRUCTION SHALL REMAIN IN PLACE FOR THIS STAGE 3 CONSTRUCTION.
- STAGE 3 CONSTRUCTION SHALL BE CONDUCTED FROM THE WETLAND ACCESS ROAD ACCESSED VIA A STABILIZED CONSTRUCTION ENTRANCE (SCE) FROM THE CONTRACT HALL ROAD. CONTRACTOR UNDER DIRECTION OF ENGINEER SHALL LOCATE THIS SCE IN FIELD. SCE-1 SHALL REMAIN IN PLACE FOR AVAILABLE ACCESS TO CONSTRUCT MSE WALLS AND ABUTMENTS "B".
- INSTALL EROSION CONTROL DEVICES, SP-3 AND PSTS.
- CLEAR AND CUT VEGETATION FLUSH TO GROUND FOR WETLAND ACCESS ROAD. NO GRUBBING WITHIN WETLAND BOUNDARIES IS PERMITTED. CONSTRUCT AND GRADE WETLAND ACCESS ROAD AS SHOWN FOR PIER AND ABUTMENT CONSTRUCTION AND TO PREPARE FOR STAGE 4 SUPERSTRUCTURE CONSTRUCTION.
- PROCEED WITH PIER CONSTRUCTION PER BRIDGE BR 1-460N AND BR 1-460S PIER PLANS.

SEQUENCE OF CONSTRUCTION - STAGE 3

NOTES:

- REMOVE SP-3 AND FILL AND GRADE SCOUR HOLE IN EXISTING CHANNEL TO INTERIM GRADE OF WETLAND ACCESS ROAD AS SHOWN OR AS APPROVED BY THE ENGINEER. ADJUST SB-2 AND RSF TO ALLOW FOR CONSTRUCTION OF TEMPORARY BRIDGE.
- CONSTRUCT TEMPORARY BRIDGE CROSSING AT ELEV. 25 (MIN.) AND COMPLETE GRADING OF WETLAND ACCESS ROAD TO LIMITS AS SHOWN OR AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS FOR THE TEMPORARY CROSSING TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- PROCEED WITH MSE WALL CONSTRUCTION AND ABUTMENT "B" CONSTRUCTION PER BRIDGE BR 1-7N AND BR 1-7S CONSTRUCTION PLANS. TO FACILITATE RIPRAP PLACEMENT, THE CONTRACTOR MAY PLACE PORTIONS OF THE FINAL SCOUR COUNTERMEASURES ALONG "B" ABUTMENTS PRIOR TO SUPERSTRUCTURE INSTALLATION.
- PROCEED WITH MSE WALL CONSTRUCTION AND ABUTMENT "A" CONSTRUCTION AND GRADING PER BRIDGE BR 1-460N AND BR 1-460S CONSTRUCTION PLANS. INSTALL SUPERSTRUCTURE OF BOTH SPANS.
- PROCEED TO STAGE 4 OF SEQUENCE OF CONSTRUCTION FOR FINAL BRIDGE GRADING AND STREAM VALLEY RE-CONSTRUCTION.

NOTES:

- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGES BR 1-460N AND BR 1-460S, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE, APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- DURING CONSTRUCTION OF THE MSE WALLS, ABUTMENTS, AND WETLAND ACCESS ROAD, THERE WILL BE SIGNIFICANT VERTICAL GRADE DIFFERENCES BETWEEN EXISTING AND PROPOSED GRADING. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DEVISE A PLAN TO PROVIDE STABILIZATION AND SUPPORT OF EMBANKMENT DURING INTERIM CONDITIONS BETWEEN THE SUBSTRUCTURES, WETLAND ACCESS ROAD, AND EXISTING GRADE. THE CONTRACTOR SHALL PROVIDE THIS PLAN TO THE ENGINEER AND DELDOT FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE EXISTING UTILITIES DURING WETLAND ACCESS ROAD AND BRIDGE CONSTRUCTION. THE TOTAL LOAD APPLIED TO THE EXISTING SANITARY MANHOLE DUE TO THE CONTRACTOR'S WETLAND ACCESS ROAD AND EQUIPMENT SHALL NOT EXCEED THE EQUIVALENT PRESSURE OF AASHTO HS-20 LOADING AT THE EXISTING GROUND SURFACE. THE TOTAL LOAD APPLIED TO THE EXISTING SANITARY SEWER AND FORCE MAIN DUE TO THE CONTRACTOR'S WETLAND ACCESS ROAD AND EQUIPMENT SHALL NOT EXCEED 2,400 PSF AT THE TOP OF THE PIPE. THE DEPTH OF COVER TO THE EXISTING SANITARY FORCE MAIN IN THE AREA OF THE WETLAND ACCESS ROAD IS APPROXIMATELY 6 FEET, AND SHALL BE VERIFIED BY TEST PIT BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION OF THE WETLAND ACCESS ROAD. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

COMPUTED FLOWRATE

STORM EVENT	CFS
2-YEAR	420 +/-

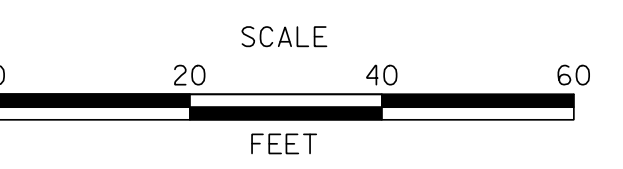
SIZING OF HYDRAULIC OPENING OF TEMPORARY CROSSING

MINIMUM AREA REQUIRED:	160.0 SF
MINIMUM TOP WIDTH ELEVATION:	25.0

NO. 31653-0000 CONTRACT 1A-CADD-Environmental Maintenance of Streamflow BR 1-7-MS030301 BR17-1A.dgn 08/27/2012 10:50:53 AM

ADDENDUMS / REVISIONS

NO.	DESCRIPTION



US 301,
SR 896 TO SR 1

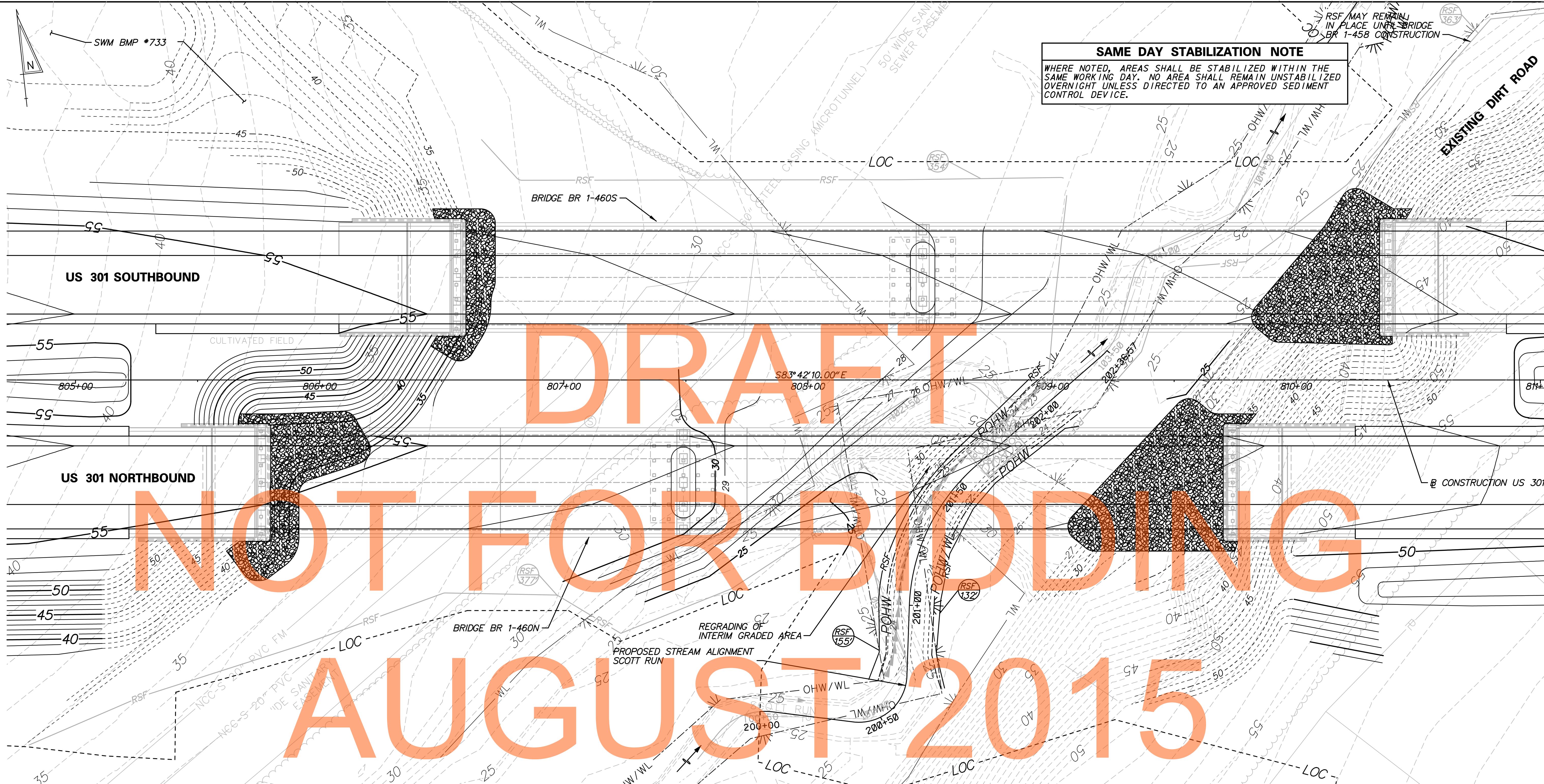
CONTRACT	T200911308	BRIDGE NO.	BR 1-460 N/S
COUNTY	NEW CASTLE	DESIGNED BY:	D.B.R.
		CHECKED BY:	J.D.C.

MAINTENANCE OF STREAM FLOW PLAN STAGE 3

MS-09	SHEET NO.	603
	TOTAL SHTS.	875

SAME DAY STABILIZATION NOTE
 WHERE NOTED, AREAS SHALL BE STABILIZED WITHIN THE SAME WORKING DAY. NO AREA SHALL REMAIN UNSTABILIZED OVERNIGHT UNLESS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.

DRAFT
NOT FOR BIDDING
AUGUST 2015



SEQUENCE OF CONSTRUCTION - STAGE 4

NOTES:

- REFER TO CORRESPONDING STREAM RESTORATION PLANS, BRIDGE PLANS FOR BR 1-460N AND BR 1-460S, ENVIRONMENTAL COMPLIANCE, CONSTRUCTION PLANS AND PHASING, M.O.T., AND EROSION CONTROL PLANS FOR COORDINATION OF ACTIVITIES IN THIS AREA ALONG SCOTT RUN.
- EXCEPT WHERE NOTED, EROSION CONTROL DEVICES INSTALLED DURING STAGES 1, 2, AND 3 CONSTRUCTION SHALL REMAIN IN PLACE FOR THIS STAGE 4 CONSTRUCTION.
- STAGE 4 CONSTRUCTION SHALL INVOLVE REMOVAL OF TEMPORARY BRIDGE AND WETLAND ACCESS ROAD, FINAL GRADING, AND FINAL PLACEMENT OF SCOUR COUNTERMEASURES AS SHOWN.
- UNDER DIRECTION OF ENGINEER, REMOVE ALL SUMP PITS (SPS), PORTABLE SEDIMENT TANKS (PSTS), AND SANDBAG DIVERSIONS (SBS). STABILIZE ALL AREAS DISTURBED IN THE PROCESS.
- INSTALL REINFORCED SILT FENCE ALONG TOP OF BANK OF NEW STREAM CHANNEL AS SHOWN.
- PROCEED WITH FINAL GRADING OPERATIONS.

SEQUENCE OF CONSTRUCTION - STAGE 4

NOTES:

- PROCEED WITH PLACEMENT OF SCOUR COUNTERMEASURES. REFER TO BRIDGE PLANS FOR DETAILS AT PIERS AND ABUTMENTS.
- FINAL GRADING ALONG PROPOSED MEDIAN SHALL TIE INTO PROPOSED GRADING FOR US 301 ROADWAY CONSTRUCTION.
- UPON COMPLETION OF GRADING ACTIVITIES, ALL EROSION AND SEDIMENT CONTROL DEVICES MAY BE REMOVED UNDER THE DIRECTION OF THE ENGINEER AND ES INSPECTOR. ANY AREAS DISTURBED IN THE PROCESS SHALL BE IMMEDIATELY STABILIZED PER NOTE THIS SHEET.
- SEE LANDSCAPE AND STREAM RESTORATION PLAN SHEETS FOR FINAL STABILIZATION AND VEGETATIVE PLANTINGS.

ALL MAINTENANCE OF STREAMFLOW AND EROSION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202508 FOR WETLAND ACCESS ROAD, TYPE II, FOR BRIDGE BR 1-460 N/S.

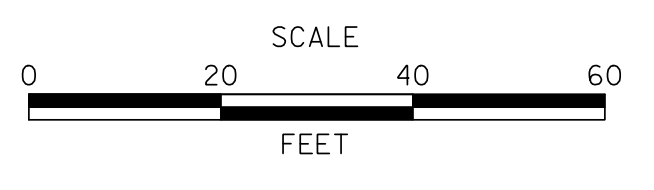
NOTES:

- THE CONTRACTOR MAY MODIFY THE SEQUENCE OF CONSTRUCTION FOR BRIDGES BR 1-460N AND BR 1-460S, AS DESCRIBED, OR PROVIDE AN ALTERNATIVE, APPROACH WHICH MUST ALSO MEET THE ENVIRONMENTAL COMPLIANCE PERMITTING REQUIREMENTS, EROSION AND SEDIMENT CONTROL REQUIREMENTS, AND THE DESIGN REQUIREMENTS FOR THE PROPOSED STRUCTURES. THE CONTRACTOR SHALL PROVIDE ANY REVISED SEQUENCE OF CONSTRUCTION AND EROSION AND SEDIMENT CONTROL PLANS TO THE ENGINEER, AND THE EROSION AND SEDIMENT CONTROL INSPECTOR, FOR REVIEW AND APPROVAL PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.

M:\31653\000\CONTRACT 1A\CADD\Environmental\Maintenance of Streamflow\BR 1-7\MS04\0301\br1-7_1A.dgn
 7/29/2015 8:46:26 AM



ADDENDUMS / REVISIONS



**US 301,
 SR 896 TO SR 1**

CONTRACT T200911308	BRIDGE NO. BR 1-460 N/S
COUNTY NEW CASTLE	DESIGNED BY: D.B.R. CHECKED BY: J.D.C.

**MAINTENANCE OF
 STREAM FLOW
 PLAN
 STAGE 4**

MS-10
SHEET NO. 604
TOTAL SHTS. 875