BACKGROUND: A designer has pointed out an inconsistency in the approach slab thicknesses shown on the “Approach Slab” drawing sheets. BDTD contacted the original developer of this standard to confirm what had been the intent regarding the thickness of the bridge approach slab.

Shts. AS-1 & AS-2 - SECTION D-D (OPTIONS 1 & 2), B-B, E-E & F-F: replaced approach slab thickness of 13” with “SEE NOTE 1” or “SEE NOTE 2” and added the statement shown below as a note on the right hand side of the sheets.

Shts. AS-3 & AS-4 – SECTIONS A-A: replaced approach slab thickness of 1’-3” with “SEE NOTE 5” and added the statement shown below as a note on the right hand side of the sheets.

Sht. AS-5 - SECTION A-A & TYPICAL TRANSVERSE SECTION: replaced approach slab thickness of 13” with “SEE NOTE 1” and added the statement shown below as a note on the right hand side of the sheet.

NOTE:

APPROACH SLAB THICKNESS IN ACCORDANCE WITH BD-628M OR A SMALLER THICKNESS MAY BE USED IF CONFIRMED BY DESIGN COMPUTATIONS WHICH TAKE INTO ACCOUNT THE HIGHER CONCRETE STRENGTH OF PRECAST CONCRETE.

Changes made to details are indicated with yellow highlighting on the five (5) attached pages and the following statement has been added to the bottom of each drawing sheet:
CORRECTIONS TO THE SLAB THICKNESS INDICATED WITH YELLOW HIGHLIGHTING MADE BY BRIDGE DESIGN AND TECHNOLOGY DIVISION ON 7-30-14 AFTER COMMUNICATION WITH STANDARD DEVELOPER.

Please note that implementation of these corrections is immediate.

Direct any questions concerning the above issue to:

Guozhou Li, P.E.
PennDOT, Bureau of Project Delivery
Bridge Design and Technology Division
Phone: (717) 214-8773 Fax: (717) 787-2882
guli@pa.gov

Archived copies of all previously distributed e-Notifications can be obtained from the PennDOT Bridge Standards website at
http://www.penndot.gov/ProjectAndPrograms/Bridges/Pages/Plans-and-Specifications.aspx
SECTION D-D:
LONGITUDINAL JOINT OPTION 1

SECTION D-D:
LONGITUDINAL JOINT OPTION 2
SECTION B-B: CANTILEVER ABUTMENT

NOTE: CONCRETE GIRDER SHOWN
STEEL BEAM SIMILAR.

SECTION E-E

PARAPET

PREMOLDED JOINT FILLER
2 LAYERS @ 1/2" THICK

APPROACH SLAB

WINGWALL
12-603-BDTD, Sht. AS-3:

DETAIL 2 & DETAIL 3 to have similar correction
12-603-BDTD, Sht. AS-4:

DETAIL 4 & DETAIL 5 to have similar correction

12-603-BDTD, Sht. AS-5:

SECTION A-A: TYPICAL LONGITUDINAL APPROACH SLAB DRAIN
12-603-BDTD, Sht. AS-5 (cont.):

Notes added to Sheets AS-1 thru AS-5:

NOTE: APPROACH SLAB THICKNESS IN ACCORDANCE WITH BD-628M OR A SMALLER THICKNESS MAY BE USED IF CONFIRMED BY DESIGN COMPUTATIONS WHICH TAKE INTO ACCOUNT THE HIGHER CONCRETE STRENGTH OF PRECAST CONCRETE.

CORRECTIONS TO THE SLAB THICKNESS INDICATED WITH YELLOW HIGHLIGHTING MADE BY BRIDGE DESIGN AND TECHNOLOGY DIVISION ON 7-30-14 AFTER COMMUNICATION WITH STANDARD DEVELOPER.
BACKGROUND: A request for post construction tolerance and bolt tightening method in Acrylite Soundstop Structure Mounted Sound Barrier System from standard developer has been reviewed. The following items have been accepted by BDTD and added to Sheet 1 of the above drawings.

Sheet 1 has been revised as follows:

- REV. 1 added to Drawing Number and along with Approval Date of 4/10/15 entered into Revision Table.
- NOTE 10: Added “POSTS MUST BE SET WITH \( \pm \frac{1}{4} \)” OF PLAN. VARIANCES FROM POST CANNOT ADD UP TO MORE THAN \( \pm \frac{1}{4} \)” .
- NOTE 11 is replaced with: “ALL BOLTS ARE \( \frac{5}{8} \)” DIA. ASTM A325 OR A325T UNLESS INDICATED OTHERWISE. BOLTS SHALL BE PRETENSIONED WITH THE TURN OF NUT METHOD PER THE LATEST VERSION OF THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS BY THE RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS.”.

Changes made to drawing are indicated with yellow highlighting. Please note that implementation of these corrections is immediate. Direct any questions concerning the above issue to:

Guozhou Li, P.E.
PennDOT, Bureau of Project Delivery
Bridge Design and Technology Division
Phone: (717) 214-8773 Fax: (717) 787-2882
guli@pa.gov

Archived copies of all previously distributed e-Notifications can be obtained from the PennDOT Bridge Standards website at
http://www.penndot.gov/ProjectAndPrograms/Bridges/Pages/Plans-and-Specifications.aspx
**PennDOT e-Notification No. 55**

**May 22, 2015**

<table>
<thead>
<tr>
<th>Interim Revision to Bridge Standard Drawing(s)</th>
<th>Precast Concrete Substructure Standards, PennDOT Drawing 12-603-BDTD, March 18, 2013 (New Product No. 56), Sheets IA-2 and IA-5, Integral Abutment’s Pile to Pipe Cap Connection Detail revisions.</th>
</tr>
</thead>
</table>

**BACKGROUND:** Pile to pile cap connection showed 8 rebars inserted through the top of the pile’s web. The original developer of this standard was asked to add two details for the H-Pile and Pipe Pile connection to an integral abutment’s pile cap.

Sht. IA-2 - NOTES: Added Note 4: REFER TO SHEET IA-5 FOR DETAILS OF PILE CONNECTION IN PRECAST PILE CAP FOR INTEGRAL ABUTMENT. This addition has a Rev.1 triangle placed next to it.

Sht. IA-2 – WINGWALL SECTION D-D: removed indication of the 8 rebars or studs in the top of the pile which is located within the corrugated metal pipe. Also, removed 1'-0" MIN. pile insertion dimension.

Sht. IA-5 – Pile Connection to Pile Cap Details: added H-PILE CONNECTION TO PILE CAP and PIPE PILE CONNECTION TO PILE CAP details both indicate a 2'-0" MIN. insertion of pile into pile cap. (see attached sheets).

Changes made to details are indicated with revision 1 symbols and are highlighted in yellow on the three (3) attached 8.5”x11” pages. Revision 1, entitled “PILE CONNECTION”, was entered in the revision tables on these two drawing sheets.

Please note that implementation of these corrections is immediate.

Direct any questions concerning the above issue to:

Guozhou Li, P.E.
PennDOT, Bureau of Project Delivery
Bridge Design and Technology Division
Phone: (717) 214-8773 Fax: (717) 787-2882
guli@pa.gov
Archived copies of all previously distributed e-Notifications can be obtained from the PennDOT Bridge Standards website at http://www.penndot.gov/ProjectAndPrograms/Bridges/Pages/Plans-and-Specifications.aspx
NOTES:
1. ALL REINFORCING NOT SHOWN FOR CLARITY.
2. PROVIDE TEMPORARY BRACING/SHORING UNTIL CONNECTION HAS ACHIEVED ADEQUATE STRENGTH.
3. INSTALL DEEP FOUNDATION PRIOR TO SETTING WINGWALL ELEMENTS.
4. REFER TO SHEET IA-5 FOR DETAILS OF PILE CONNECTION IN PRECAST PILE CAP FOR INTEGRAL ABUTMENT.

WINGWALL SECTION D-D
12-603-BDTD, Sht. IA-5 (New Detail):

H-PILE CONNECTION TO PILE CAP

NOTES: 1. IN LIEU OF (6) STUDS, (3) \( \frac{3}{8} \)" Ø x 1'-0" LONG, THREADED F1554 GRADE 36 ANCHOR RODS WITH (4) A563 GRADE A HEX NUTS MAY BE USED. HOLES SHALL BE DRILLED OR PUNCHED IN ACCORDANCE WITH 1105.03(c) OF PUB 408.
PIPE PILE CONNECTION TO PILE CAP
Bureau of Project Delivery
Bridge Design and Technology Division

PennDOT e-Notification No. 57

June 6, 2016

| Interim Revision to Bridge Standard Drawing(s) | Folded Steel Plate Girder System, PennDOT Drawing No. 14-604-BDTD, Sept. 2, 2014 (New Product No. 71), Sheets 1 & 2 – Folded Steel Plate Girder System – Correction of Steel Hardware Galvanization Notes. |

BACKGROUND: It was recently pointed out to BDTD that the notes for galvanizing the steel hardware needed to be corrected since they were requiring hardware to be hot dipped galvanized instead of mechanically galvanized in both the Design and Construction Specifications.

Sheets 1 – Design Specifications: In third column, 4\textsuperscript{th} paragraph; replace HOT DIP GALVANIZED with EITHER HOT DIP GALVANIZED OR MECHANICALLY GALVANIZED. Also added (MECHANICALLY GALVANIZED) or (HOT DIP GALVANIZED) after the four hardware items listed. The corrected text is indicated with clouding in the attached 8\frac{1}{2}''x11'' sheet.

Sheets 2 – Construction Specifications: In first column, 5\textsuperscript{th} paragraph; replace HOT DIP GALVANIZED with EITHER HOT DIP GALVANIZED OR MECHANICALLY GALVANIZED. Also added (MECHANICALLY GALVANIZED) or (HOT DIP GALVANIZED) after four hardware items listed. The corrected text is indicated with clouding in the attached 8\frac{1}{2}''x11'' sheet.

Please note that implementation of these corrections is immediate.

Direct any questions concerning the above issue to:

Guozhou Li, P.E.
PennDOT, Bureau of Project Delivery
Bridge Design and Technology Division
Phone: (717) 214-8773 Fax: (717) 787-2882
guli@pa.gov

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DESIGN SPECIFICATIONS

ALL STRUCTURAL STEEL HARDWARE SHALL BE HOT-DIP GALVANIZED OR MECHANICALLY GALVANIZED.

HIGH STRENGTH BOLTS: ASTM A325, TYPE 1 (MECHANICALLY GALVANIZED)
ANCHOR BOLTS: ASTM F1554, GRADE 55 (HOT-DIP GALVANIZED)
NUTS: ASTM A563/A563M, GRADE DH (MECHANICALLY GALVANIZED)
WASHERS: ASTM F436/F436M, TYPE 1 (MECHANICALLY GALVANIZED)

SEPARATOR PLATES SHALL BE SPACED BY DESIGN.

- STRUCTURAL DESIGN.
CONSTRUCTION

1.0 GENERAL

Provide materials and perform work in accordance with specifications, publication 408, current version, AASHTO/AMERICAN 0.15/0.15: 2008 bridge welding code, and the contract special provisions.

Steel and concrete fabricators must be Bulletin 15 (PennDOT PUB. 35) approved.

Provide structural steel conforming to AASHTO M270/M270W, Grade 50 (ASTM A709/A709M, Grade 50) designation, except when noted otherwise. All structural steel shall be hot dip galvanized.

Provide fabricated structural steel in accordance with publication 408 section 1050 and 1105, as modified by the contract special provisions.

All structural steel hardware shall be hot dip either hot dip galvanized or mechanically galvanized.

High strength bolts: ASTM A325, TYPE 1 (MECHANICALLY GALVANIZED)

Anchor bolts: ASTM F1554, Grade 55 (HOT DIP GALVANIZED)

Nuts: ASTM A563/A563M, Grade DH (MECHANICALLY GALVANIZED)

Washers: ASTM F436/F436M, TYPE 1 (MECHANICALLY GALVANIZED)

Provide 2" concrete cover on reinforcement bars, except as noted.

Deck slab thickness includes a 1/8" in. integral wearing surface, epoxy overlay, or latex modified concrete (LMC) overlay.

Superstructure dimensions shown are for a normal temperature of 68°F.

Provide minimum embedment and splice lengths in accordance with Standard Drawing BC-736M, unless otherwise indicated.

2.0 NOTES FOR STEEL GIRDER

Shop or field splices will not be permitted.

Do not use form support systems that will cause unacceptable overstress or deformation to permanent bridge members.

All fasteners are 7/8 in. diameter HS bolts, except as noted.

Prepare bearing areas as specified in Publication 408, Section 1001.3(k) 9.

Do not weld permanent metal deck forms or other attachments to girder top flanges in tension areas. (Tension areas of top flanges are designated on the plans.) Threaded studs for the support of the overhang deck forming bracket are permitted provided...
PennDOT e-Notification No. 70

Aug. 23, 2017

| Interim Revision to Bridge Standard Drawing(s) | PREFABRICATED T-WALL RETAINING WALL SYSTEM, PennDOT Drawing No. 87-402 PE, April 13, 2017 (New Product No. 76), Sheet 1 – Correction of Note regarding LRFD Specifications. |

BACKGROUND: The general note which lists the AASHTO LRFD Specifications was listing a specific Edition and Interim revisions which might cause an inconsistency with other documents.

Sheet 1, T-WALL Design Specifications:

Revise 3.0 Design section note 3.0.d(4) as indicated below:

Current appearance:

(4) AASHTO LRFD Bridge Design Specifications, fifth edition with 2010 revisions

New appearance:

(4) AASHTO LRFD Bridge Design Specifications

A text box describing this correction with yellow highlighting is being added next to the drawing border.

The above referenced modification is provided on the attached 8½"x11" sheet.

Please note to implement this change immediately. Direct any questions concerning the above issue to:

Guozhou Li, P.E.
PennDOT, Bureau of Project Delivery / Bridge Design and Technology Division
Phone: (717) 214-8773 Fax: (717) 787-2882
guli@pa.gov

Archived copies of all previously distributed e-Notifications can be obtained from the PennDOT Bridge Standards website at http://www.penndot.gov/ProjectAndPrograms/Bridges/Pages/Plans-and-Specifications.aspx
d. In the event that certain design Parameters, Stresses or Specifications are in conflict, the following order of precedence governs:

1. Design requirements listed in “Special Drawings and Special Design Requirements” of the special provisions.
2. Pennsylvania Department of Transportation current Design Manual Part 4
3. Pennsylvania Department of Transportation standard drawings.
4. AASHTO LRFD Bridge Design Specifications.

I CERTIFY THAT ALL ASSUMPTIONS MADE IN DESIGNING THIS WALL HAVE BEEN VALIDATED THROUGH CONSTRUCTION DETAILS, SPECIAL NOTES AND/OR INSTRUCTIONS TO THE FABRICATOR, INSTRUCTOR, AND CONTRACTOR.

Thomas B. Mackler
Chief Bridge Engineer
4/13/2017

LRFD SPECIFICATIONS NOTE MODIFIED TO PERMIT CONSISTENCY WITH OTHER DOCUMENTS BY BRIDGE DESIGN & TECHNOLOGY DIVISION ON 8-23-17.

THE NEEL COMPANY
3500 TRANSAMERICA PLAZA
22100 Northwestern Hwy.
Highland Park, MI 48269

DESIGNER: CAA
DRAWN: CAACW
CHECKED: CCGRD

TNC JOB #: TM604
TNC SHT #: 1 OF 67
BACKGROUND: Unintended changes and errors were found in the recently released Change #2 of the April 2016 Edition of the Bridge Design (BD) Standards (Publication 218M) and need to be corrected.

**BD-601M, Sheet 1 – NOTES:** Several inadvertent changes need to be undone. In Note 4, correct the barrier concrete cover from 2½" to 2", correct the sidewalk top cover from 2" to 2½", and correct the minimum transverse reinforcement bar spacing from 5" to 5½". Also, return the sentence “SEE DESIGN MANUAL PART 4, SECTION D5.4.3.1.” from the end of Note 5 to the end of Note 6.

**BD-620M, Sheet 4 – TOP FLANGE LATERAL BRACING CONNECTIONS:** The note under the detail title was incorrectly replaced to be consistent with the 2014 Edition of the Design Manual, Part (DM-4). This change should not have occurred because the DM-4 was already being revised in the forthcoming edition to be consistent with BD-620M. The preferred arrangement remains to attach lateral bracing to the bottom flange as shown on BC-754M because oversized holes are specified for the installation of the bracing to prevent pseudo-box girder behavior. Revert back to the previous note that stated this preference.

**BD-624M, Sheet 2 – SECTION C-C and ALTERNATE SECTION C-C:** In the call-out of the class of concrete to be used in the lower portion of the flared safety wings, correct “VERTICAL CONSTRUCTION JOINT” to “HORIZONTAL CONSTRUCTION JOINT”.

**BD-627M, Sheet 3 – REINFORCEMENT FOR BARRIER WITH ASPHALT-PAVED CONCRETE SHOULDER:** In the detail title, delete “CONCRETE” which was intended to be deleted when the terminology was changed from “BITMUMINOUS CONCRETE” to “ASPHALT-PAVED”.

**BD-628M, Sheet 24 – TYPE 3 APPROACH SLAB - DETAIL 19:** The #6 transverse bar passing through the adjacent box beams and placed inside the hook of the approach slab anchor bar was incorrectly deleted and shall be provided.

In Note 1, after “WORK QUALITY” delete “MANSHIP” which was intended to be deleted when the terminology was changed from “WORKMANSHIP” to “WORK QUALITY”.

These corrections are indicated with red markups on the six attached 8½”x11” sheets.

Please note that implement of these corrections is immediate. Direct any questions concerning the above issue to:

Guozhou Li, P.E.
PennDOT, Bureau of Project Delivery / Bridge Design and Technology Division
Phone: (717) 214-8773 Fax: (717) 787-2882
guli@pa.gov

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4. DESIGN CONTROLS:

**CONCRETE COVER**
- DECK TOTAL TOP COVER = 2 1/2"
- DECK BOTTOM COVER = 1"
- BARRIER = 2 1/2"
- SIDEWALK TOP COVER = 2"
- ALTERNATE SIDEWALK DETAIL BARRIER = 2"

**MIN. VERTICAL CLEAR DISTANCE BETWEEN LONGITUDINAL REINFORCEMENTS IN TOP MAT AND LONGITUDINAL REINFORCEMENTS IN THE BOTTOM MAT = 2"**

**MIN. VERTICAL CLEAR DISTANCE BETWEEN TRANSVERSE REINFORCEMENTS IN TOP MAT AND TRANSVERSE REINFORCEMENTS IN THE BOTTOM MAT = 2"**

**BARS**
- MAXIMUM BAR SIZE: 5/8" except for bars designed to meet 3
- MINIMUM BAR SIZE: S1, S2, S3, and S4 bars = 5/8"
- S4, S5, S6, and ST bars = 3/4" (3"

**BAR SPACINGS**
- MAXIMUM SPACING IN SLAB AND BARRIERS = 32"
- MINIMUM TRANSVERSE REINFORCEMENT SPACING = 2 1/2"
- SPACING INCREMENTS = 1/4"

*The top 1/2" of the slab is considered to be an integral wearing surface.

*Stagger longitudinal rebar such that no rebar in the top mat is directly above a rebar in the bottom mat.

**DECK THICKNESS**: Minimum thickness including 1/4" integral wearing surface = 1" + (DISTANCE BETWEEN DESIGN SECTIONS FOR NEGATIVE MOMENT + 120") / (30 + 1/2") = 6", THICKNESS INCREMENTS = 1/4"

**Z FACTOR FOR CRACK CONTROL** = 130 KPSI IN.

5. USE ONLY FUSION BONDED EPOXY COATED REINFORCEMENT IN ACCORDANCE WITH PUBLICATION 406, SECTION 705. SEE DESIGN MANUAL PART 4, SECTION D5.4.3.1.

6. FOR ALL BARRIER REINFORCEMENT AND FOR HOOKED OR BENT BARS IN THE DECK SLAB, DO NOT USE RAIL STEEL (A 956).
TOP FLANGE LATERAL BRACING CONNECTIONS

NOTE: PREFERRED ARRANGEMENT IS TO ATTACH LATERAL BRACING TO THE TOP FLANGE, ATTACHING THE LATERAL BRACING TO THE BOTTOM FLANGE OR STRAIGHT JUMPER BRIDGES WITH NARROW TOP FLANGE WIDTH IS PERMITTED PER BC-745M.

PREFERRED ARRANGEMENT IS TO ATTACH LATERAL BRACING TO BOTTOM FLANGE PER BC-754M. THE TOP FLANGE ATTACHMENT DETAILS ARE SHOWN FOR THE INFREQUENT SITUATIONS THAT NECESSITATE ATTACHMENT TO THE TOP FLANGE.
e-Notification No. 74, BD-624M, Sheet 2 – Correction of construction joint referenced in concrete call-outs:
e-Notification No. 74, BD-627M, Sheet 3 – Correction of Detail Title:

REINFORCEMENT FOR BARRIER WITH ASPHALT-PAVED CONCRETE SHOULDER
e-Notification No. 74, BD-628M, Sheet 24 – Correction of incorrectly deleted bar:

TYPE 3 APPROACH SLAB – DETAIL 19
APPROACH SLAB CONNECTED TO PRESTRESSED CONCRETE ADJACENT BOX BEAMS WITH BACKWALL, FOR BEAM DEPTHS 33° AND GREATER
e-Notification No. 74, BD-660M, Sheet 1 – Correction of Note 1:

NOTES:

1. PROVIDE MATERIAL AND WORK QUALITY IN ACCORDANCE WITH THE APPROPRIATE SPECIFICATIONS AS OUTLINED IN THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408.
BACKGROUND: Precast R.C. Box Culvert Segment Joint Details were added to BD-632M in Change No. 2 to the April 2016 Edition of the Standards. The configuration with squared segment joints was labeled as being a second option for culverts with skew angles less than 75°. However, squared joints may be considered for all culverts, limited only by the minimum skew angle for which the end segments can be fabricated. In fact, due to post-tensioning effects, squared joints are preferred though not required.

Additionally, clarification is added to indicate that the fabricator may submit shop drawings for any of the options on this standard that meet the design.

SKEW ANGLE < 75° - OPTION 2 detail: Renamed detail “SQUARED JOINT OPTION (ALL SKEW ANGLES)”.

SKEW ANGLE ≥ 75° detail: Added “SKEWED JOINT OPTION” to detail name.

SKEW ANGLE < 75° - OPTION 1 detail: Added “SKEWED JOINT OPTION” to beginning of detail name and removed “- OPTION 1”.

DESIGN INSTRUCTIONS table: Revised the column headings to correct the applicability of the three options; corrected the segment descriptions for the Squared Joint Option; and expanded the note to clarify the fabricator’s options.

These updates are indicated with red markups on the attached 8½”x11” sheets.

Please note that implementation of these updates is immediate. Direct any questions concerning the above issue to:

Guozhou Li, P.E.
PennDOT, Bureau of Project Delivery / Bridge Design and Technology Division
Phone: (717) 214-8773 | Fax: (717) 787-2882
guli@pa.gov

Archived copies of all previously distributed e-Notifications can be obtained from the Bridge “Plans, Standards and Specifications” page on the Department’s website: https://www.penndot.gov/ProjectAndPrograms/Bridges/Pages/Plans,-Standards-and-Specifications.aspx
e-Notification No. 75, BD-632M, Sheet 14 – Revisions to the detail names of the culvert configuration options:

**SKEW ANGLE < 75 DEGREES**

**OPTION 1**

**SQUARED JOINT OPTION (ALL SKEW ANGLES)**

**SKEWED JOINT OPTION**

**SKEW ANGLE ≥ 75 DEGREES**

**SKEWED JOINT OPTION**

**SKEW ANGLE < 75 DEGREES**
**DESIGN INSTRUCTIONS:**

<table>
<thead>
<tr>
<th>SKewed Joint Option **</th>
<th>Squared Joint Option **</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CULVERT SKEw ≥ 75°</strong></td>
<td><strong>CULVERT SKEw &lt; 75°</strong></td>
</tr>
<tr>
<td>CULVERT SKEw &gt; 75°</td>
<td>CULVERT SKEw &lt; 75°</td>
</tr>
<tr>
<td>INTERMEDIATE SEGMENTS</td>
<td>END SEGMENTS</td>
</tr>
<tr>
<td>WALL FACES, TOP SLAB FACES AND BOTTOM FACES ALONG THE JOINT ARE SKEWED WITH CULVERT SKEW ANGLE.</td>
<td>WALL FACES, TOP SLAB FACES AND BOTTOM FACES ALONG THE JOINT ARE SKEWED WITH CULVERT SKEW ANGLE.</td>
</tr>
<tr>
<td>WALL FACES ARE SQUARED OFF ALONG JOINT. TOP SLAB FACES AND BOTTOM FACES ALONG THE JOINT ARE SKEWED WITH CULVERT SKEW ANGLE.</td>
<td>WALL FACES, TOP SLAB FACES AND BOTTOM FACES AT END SECTION SIDE ARE SKEWED WITH CULVERT SKEW ANGLE.</td>
</tr>
</tbody>
</table>

**BRIDGE**

**TO BE DETERMINED BY DISTRICT ENGINEER. AT SHOP DRAWING STAGE, FABRICATOR MAY SUBMIT ANY OPTION ON THIS STANDARD. IF THE OPTION SUBMITTED MEETS THE DESIGN, THE OPTION SHOULD BE ACCEPTED.**
**PennDOT e-Notification No. 76**

**June 26, 2020**

| Interim Revision to Bridge Standard Drawing(s) | New e-Notification Server and Email Addresses; Subscription Renewal Required |

**BACKGROUND:** On June 26, 2020 the PennDOT Bridge Publications e-Notification system will be switched to a new server. This is the last e-Notification you will receive from the old server penndot-bqad-pubs@listserver.bakerprojects.com.

The new e-Notification server will use the following email addresses:

Send questions to the list: penndot-BdtdPubs@listserv.bakerprojects.com

Send blank email to subscribe: penndot-BdtdPubs-subscribe-request@listserv.bakerprojects.com

Send blank email to unsubscribe: penndot-BdtdPubs-unsubscribe-request@listserv.bakerprojects.com

In the new email addresses, “bqad-pubs” now becomes “BdtdPubs” and “listserver” becomes “listserv”.

**ACTION ITEMS:** Starting on June 26, 2020, if you want to continue to receive e-Notifications you will need to renew your subscription by sending a blank email to penndot-BdtdPubs-subscribe-request@listserv.bakerprojects.com to subscribe to the new server. You must then reply to the confirmation email with “OK” in the body of the message to complete your subscription.

If you do not see the confirmation email in your inbox, please look for it in your spam or junk folder. If you locate the confirmation email in your spam or junk folder, then it is recommended that you add a rule to your email software to allow all emails from “@listserv.bakerprojects.com” to be delivered to your inbox.

Direct any questions concerning the above issue to:

Nikki Krise
PennDOT, Bureau of Project Delivery / Bridge Design and Technology Division
Phone: (717) 783-6416 | Fax: (717) 787-2882
nkrise@pa.gov

Archived copies of all previously distributed e-Notifications can be obtained from the Bridge “Plans, Standards and Specifications” page on the Department’s website: https://www.penndot.gov/ProjectAndPrograms/Bridges/Pages/Plans,-Standards-and-Specifications.aspx
BACKGROUND: GRS-IBS bridge abutment technology has been utilized in Pennsylvania since 2011. GRS-IBS bridges are constructed differently than conventional bridges and the construction and utility communities are just beginning to experience and encounter the technology in real world situations. Recently, a utility project, unknowingly adjacent to a GRS-IBS bridge, performed excavation that intercepted and damaged the integrated approach and back of the GRS structure of the bridge. This incident prompted investigation into a method of marking the limits of GRS-IBS abutments. Treating the bridge abutment similar to an underground utility and properly marking its location was developed for inclusion in the BD-697M standard.

NEW SHEET / DETAILS: The new details shown on the attached 11” x 17” sheet require the use of customized detectable underground warning tape. This tape is similar to underground utility marking tape but can be customized in color and wording. Wording on the tape directs any contractor uncovering the tape to notify the bridge owner so care can be taken to either avoid the reinforcement of the GRS-IBS or to investigate how work can be done without causing damage to the structure. There are various manufacturers of this material eliminating sole sourcing concerns.

Please note that implementation of this update is immediate.

ACTION ITEMS: Starting immediately, the following items should be incorporated on any new GRS-IBS structures or when any rehabilitation work involving the unearthing of top layers of geotextiles is anticipated or performed:

- Include Customized Detectable Underground Warning Tape in the Special Provisions as part of the Component Items Schedule. The Special Provision should include the wording to be called out on the tape. The suggested wording is: STOP DIGGING-GRS ABUTMENT-CALL <BRIDGE OWNER>. Insert the name of the township or PennDOT District for Bridge Owner. See sample below.

  STOP DIGGING-GRS ABUTMENT-CALL BRIDGE OWNER

- On contract drawings, delineate where the caution tape should be located as shown in the new details in BD-697M.
As part of the preliminary design discussion, designers should discuss with owners the potential for future utilities in the project site. Owners of GRS-IBS bridges should be very aware of utility work in the vicinity of the bridge and advise the excavation company accordingly in order to protect the structure.

Direct any questions concerning the above issue to:
Kristin Langer, P.E.
PennDOT, Bureau of Project Delivery / Bridge Design and Technology Division
Phone: (717) 787-7506
klanger@pa.gov

Archived copies of all previously distributed e-Notifications can be obtained from the Bridge “Plans, Standards and Specifications” page on the Department’s website:
https://www.penndot.gov/ProjectAndPrograms/Bridges/Pages/Plans,-Standards-and-Specifications.aspx
NOTE 1: GRS CAUTION TAPE IS PLACED ON THE TOP LAYER OF MOLDED PILOTES AT THE END OF THE INDICATED LENGTH.

NOTE 2: STOP DIGGING - GRAY JACKET CALL OWNER

NOTE 3: GRS CAUTION TAPE IS TO BE CUSTOMER ORDER GRAY JACKET UNDERGROUND WORKING LOCATION AS SHOWN BELOW.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
SUBDIVISION OF PROJECT DELIVERY

STANDARD
GEOSYNTHETIC REINFORCED SOIL INTEGRATED BRIDGE SYSTEM CAUTION TAPE PLACEMENT

RECOMMENDED 2010-01-30
RECOMMENDED 2010-02-02

SHEET 1 OF 3
BD-697M
Interim Revision to Bridge Standard Drawing(s) | Revisions to the BD Standards (Pub. 218M) and BC Standards (Pub. 219M) for MASH 2016 compliance

The Bureau of Project Delivery has released Change 3 to the April 2016 Edition of the Bridge Design Standards, BD-600M Series (Pub. 218M) and Change 3 to the September 2016 Edition of the Bridge Construction Standards, BC-700M Series (Pub. 219M), both dated February 19, 2021. (Note: Change 7 to June 2010 Edition of Roadway Construction Standards (Pub. 72M) was also part of this release.)

These changes contain revisions related to compliance with the AASHTO Manual for Assessing Safety Hardware (MASH).

The revised standards have been incorporated into the updated publications that are available from the PennDOT website on either the Forms, Publications, and Maps webpage or the Bridge Plans, Standards and Specifications webpage. The index sheets in these Publications indicate which standards have been revised as part of Change 3. The transmittal letters for these Publications include a description of the changes and Change 3 revisions are indicated by light blue highlighting.

These standards may be used immediately and can be adopted as soon as practical on new and existing designs without affecting letting schedules. However, projects with T.S.&L. submissions after July 1, 2021 and projects let after April 1, 2022 shall incorporate these standards.

NOTE: Revisions to Bridge Structure Mounted Guiderail (SMGR) will be issued in a later change package. Therefore, continue to use the current standards for projects that use SMGR.

Direct any questions concerning the above issue to:
Guozhou Li, P.E.
PennDOT, Bureau of Project Delivery / Bridge Design and Technology Division
Phone: (717) 214-8773 | gull@pa.gov

Archived copies of all previously distributed e-Notifications can be obtained from the Bridge Plans, Standards and Specifications page on the Department’s website: https://www.penndot.gov/ProjectAndPrograms/Bridges/Pages/Plans,-Standards-and-Specifications.aspx