

DESCRIPTION

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DRAWING NUMBER

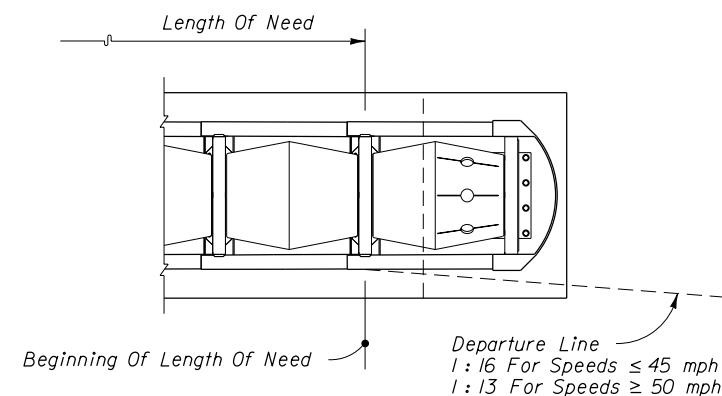
|   |  |
|---|--|
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UNIVERSAL TAU-II GENERAL NOTES

- The energy absorbing system represented on this Qualified Products List (QPL) drawing is a proprietary design by Barrier Systems, Inc. and marketed under the trade name Universal TAU-II. Any infringement on the rights of the designer shall be the sole responsibility of the user.
- The Universal TAU-II is a redirective, non-gating crash cushion designed to shield hazards up to 8.5 feet in width.
- The Universal TAU-II shall be assembled in accordance with the manufacturer's details, procedures, specifications and the details shown in these drawings.
- The Universal TAU-II shall be constructed parallel to the approach travel lane and on cross slopes 1:10 or flatter.
- All metallic components shall meet the galvanizing requirements for guardrail, Index No. 400.
- A yellow Type I Object Marker shall be centered 3' in front of the nose of the Universal TAU-II. Mounting hardware shall be in conformance with Index No. 11860. As an alternative the contractor has the option to install reflective sheeting on the nose of the crash cushion in lieu of the yellow Type I Object Marker. The sheeting must be solid yellow, Type III or better, and must be a product listed on the Department's Qualified Products List (QPL). The sheeting to be applied to the nose of the crash cushion shall be a minimum of 360 square inches with a minimum height of 15 inches. The cost of the Object Marker or sheeting shall be included in the cost of the Universal TAU-II system.
- Quantity for payment is based on each independent location as called for in the plans or as directed by the Engineer. The cost for manufacturer's transition hardware, foundations and subgrade preparation will be included in the cost for the Universal TAU-II system.
- Permanent systems will be paid for under the contract unit price for Impact Attenuator Vehicular (TAU-II), EA; temporary units, when used as an option in accordance with Index No. 415, will be paid for under the contract unit price for Vehicular Impact Attenuator (Redirective Option) (Temporary), LO.

DESIGN NOTES AND GUIDELINES

- The beginning length of need shall be at the point of intersection between the face of the cushion and the transverse centerline of the diaphragm back of the first cartridge. See detail below.
- The Universal TAU-II System is designed to cushion automobile end-on hits and to redirect automobiles from side hits. The Universal TAU-II is designed to shield fixed hazards or the ends of other temporary and permanent barrier systems. The number of bays to be used in a specific unit will be determined by the design speed, except where the Engineer determines that another speed is more applicable.
- The Universal TAU-II is a restorable system that is particularly suited to shielding hazards subject to high speed traffic, high volume traffic, and/or traffic with a history of frequent errant vehicle departures from the roadway or the potential exists for such departures. The Universal TAU-II is particularly suited to shielding hazards where the approach space is limited; and, is particularly suited to conditions where the terminal must be located close to the traffic lane.
- Currently the Department does not recognize other proprietary items as being equally suitable alternatives to the Universal TAU-II, and until such alternatives are available, the Universal TAU-II need not be bid against other proprietary items. However, for temporary use where the Universal TAU-II and other approved redirective crash cushions meet or exceed the minimum requirements for a specific location, the approved crash cushions will be considered optional systems and paid for as described in General Note 8 above.



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

UNIVERSAL TAU-II

| REVISIONS |      |  |
|-----------|------|--|
| DATE      | BY   | DESCRIPTION  |
| 06/01/09  | B.S. | Extensive revisions- Sheets deleted, new sheets added, notes and details clarified |
| 10/27/09  | A.K. | Added Drawing AP090806 for shoulder walls.   |

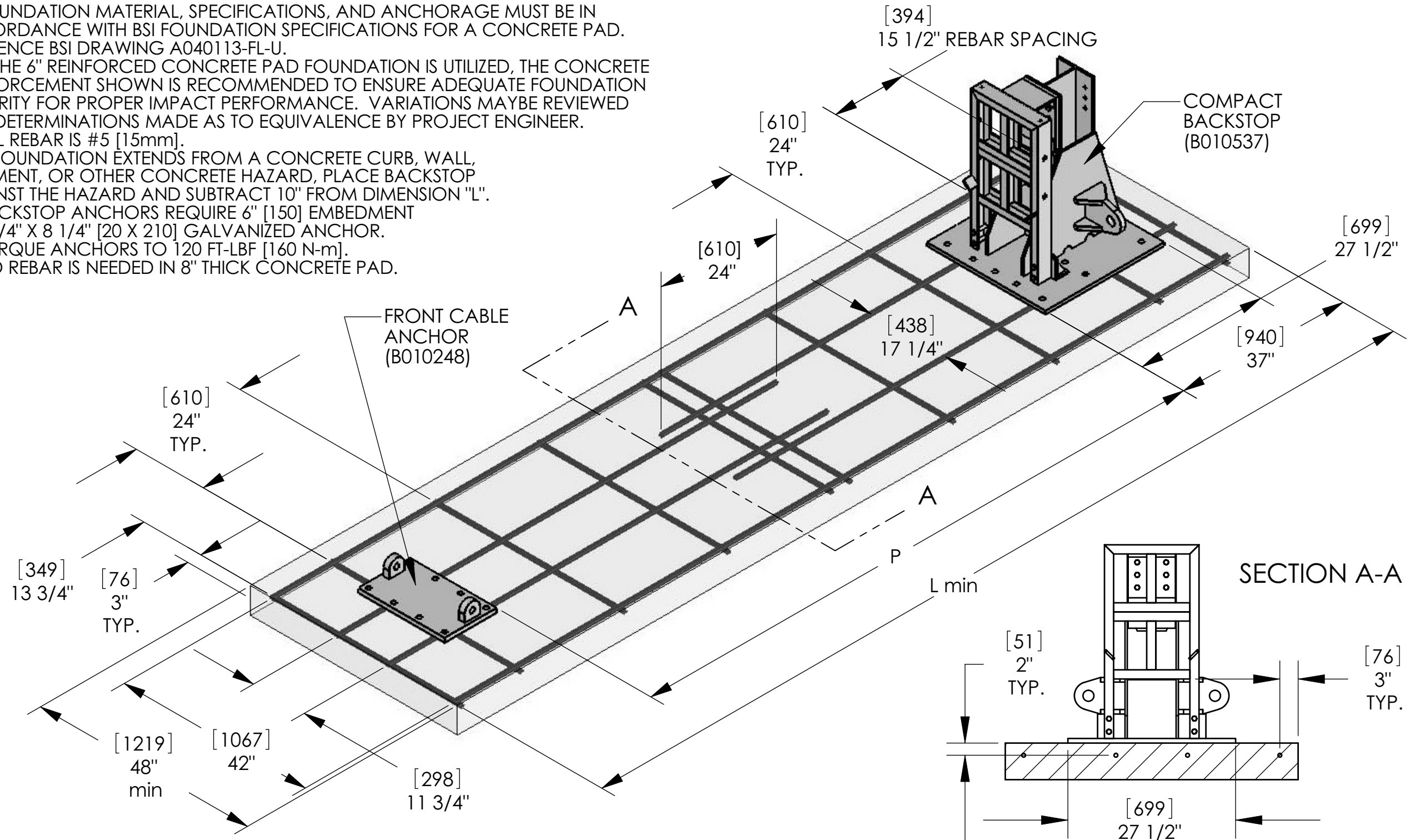
DATE:

08/31/05

QPL No. S544-0029

NOTES:

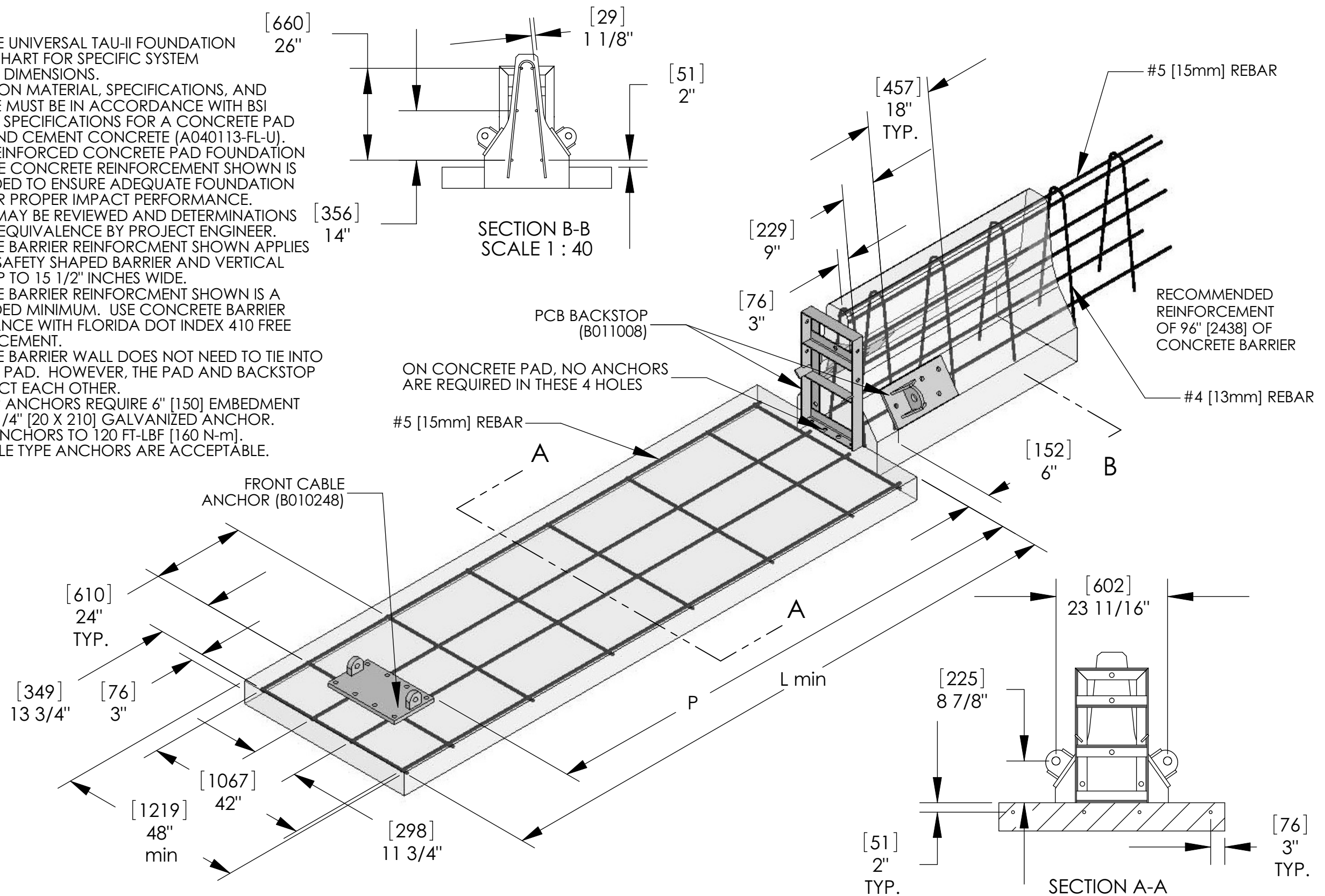
- 1.) REFERENCE UNIVERSAL TAU-II FOUNDATION DIMENSION CHART FOR SPECIFIC SYSTEM FOUNDATION DIMENSIONS.
- 2.) FOUNDATION MATERIAL, SPECIFICATIONS, AND ANCHORAGE MUST BE IN ACCORDANCE WITH BSI FOUNDATION SPECIFICATIONS FOR A CONCRETE PAD. REFERENCE BSI DRAWING A040113-FL-U.
- 3.) IF THE 6" REINFORCED CONCRETE PAD FOUNDATION IS UTILIZED, THE CONCRETE REINFORCEMENT SHOWN IS RECOMMENDED TO ENSURE ADEQUATE FOUNDATION INTEGRITY FOR PROPER IMPACT PERFORMANCE. VARIATIONS MAYBE REVIEWED AND DETERMINATIONS MADE AS TO EQUIVALENCE BY PROJECT ENGINEER.
- 4.) ALL REBAR IS #5 [15mm].
- 5.) IF FOUNDATION EXTENDS FROM A CONCRETE CURB, WALL, ABUTMENT, OR OTHER CONCRETE HAZARD, PLACE BACKSTOP AGAINST THE HAZARD AND SUBTRACT 10" FROM DIMENSION "L".
- 6.) BACKSTOP ANCHORS REQUIRE 6" [150] EMBEDMENT FOR 3/4" X 8 1/4" [20 X 210] GALVANIZED ANCHOR.
- 7.) TORQUE ANCHORS TO 120 FT-LBF [160 N-m].
- 8.) NO REBAR IS NEEDED IN 8" THICK CONCRETE PAD.



|      |             |          |    |       |            |      |   |          |  |       |                |      |
|------|-------------|----------|----|-------|------------|------|---|----------|--|-------|----------------|------|
|      |             |          |    |       |            |      | SCALE: 1:24   |          | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. .XXX= +/- .010<br>Dec. .XX= +/- .030 |       |                |      |
|      |             |          |    |       |            |      | DRAWN BY  | DATE     | INIT.  |       |                |      |
|      |             |          |    |       |            |      | APP'R'D BY  | 01/08/04 | GAD  |       |                |      |
|      |             |          |    |       |            |      | TITLE :   |          |  | MODEL | DRAWING NUMBER | REV. |
|      |             |          |    |       |            |      | UNIVERSAL TAU-II FOUNDATION,<br>PCC PAD, COMPACT BACKSTOP |          |  |       | A040102-FL     | 0    |
| 0    | NEW DRAWING | 10/16/08 | JR | 1     | B010708    | 1    |   |          |  |       |                |      |
| REV. | CHANGES     | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |   |          |  |       |                |      |

NOTES:

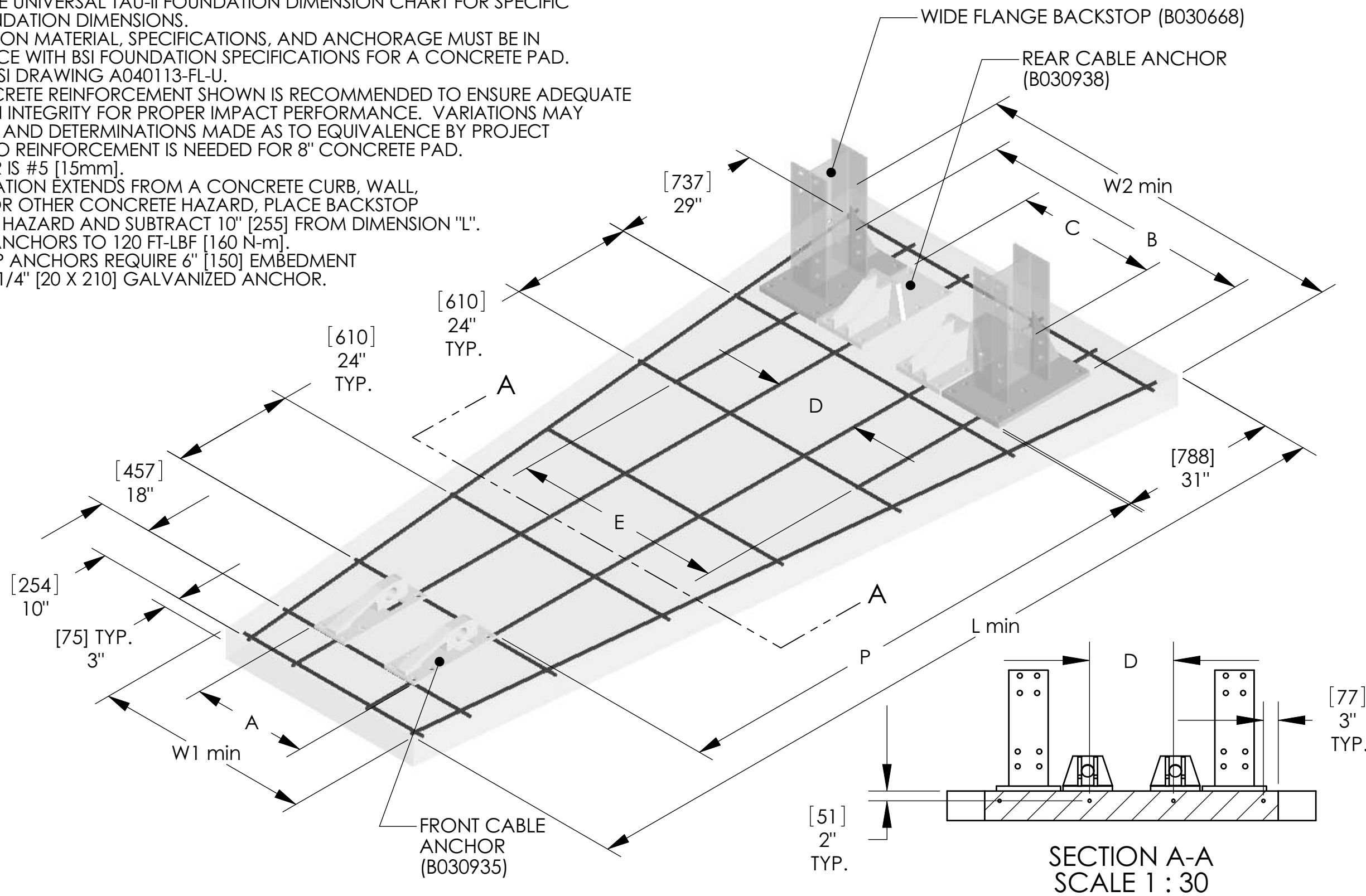
- 1.) REFERENCE UNIVERSAL TAU-II FOUNDATION DIMENSION CHART FOR SPECIFIC SYSTEM FOUNDATION DIMENSIONS.
- 2.) FOUNDATION MATERIAL, SPECIFICATIONS, AND ANCHORAGE MUST BE IN ACCORDANCE WITH BSI FOUNDATION SPECIFICATIONS FOR A CONCRETE PAD AND PORTLAND CEMENT CONCRETE (A040113-FL-U).
- 3.) IF THE 6" REINFORCED CONCRETE PAD FOUNDATION IS UTILIZED, THE CONCRETE REINFORCEMENT SHOWN IS RECOMMENDED TO ENSURE ADEQUATE FOUNDATION INTEGRITY FOR PROPER IMPACT PERFORMANCE. VARIATIONS MAY BE REVIEWED AND DETERMINATIONS MADE AS TO EQUIVALENCE BY PROJECT ENGINEER.
- 4.) CONCRETE BARRIER REINFORCEMENT SHOWN APPLIES TO VARIOUS SAFETY SHAPED BARRIER AND VERTICAL CONCRETE UP TO 15 1/2" INCHES WIDE.
- 5.) CONCRETE BARRIER REINFORCEMENT SHOWN IS A RECOMMENDED MINIMUM. USE CONCRETE BARRIER IN ACCORDANCE WITH FLORIDA DOT INDEX 410 FREE END REINFORCEMENT.
- 6.) CONCRETE BARRIER WALL DOES NOT NEED TO TIE INTO FOUNDATION PAD. HOWEVER, THE PAD AND BACKSTOP MUST CONTACT EACH OTHER.
- 7.) BACKSTOP ANCHORS REQUIRE 6" [150] EMBEDMENT FOR 3/4" X 8 1/4" [20 X 210] GALVANIZED ANCHOR.
- 8.) TORQUE ANCHORS TO 120 FT-LBF [160 N-m].
- 9.) REMOVABLE TYPE ANCHORS ARE ACCEPTABLE.



|      |  |          |    |       |            |  |          |       |  |                |      |
|------|--|----------|----|-------|------------|--|----------|-------|--|----------------|------|
|      |  |          |    |       |            | SCALE: 1:30  |          |       | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. .XXX= +/- .010<br>Dec. .XX= +/- .030 |                |      |
|      |  |          |    |       |            | DRAWN BY   | DATE     | INIT. |  |                |      |
|      |  |          |    |       |            | APPR'D BY  | 01/07/04 | GAD   |  |                |      |
|      |  |          |    |       |            | TITLE :  |          |       | MODEL  | DRAWING NUMBER | REV. |
|      |  |          |    |       |            | UNIVERSAL TAU-II FOUNDATION,<br>PCC PAD, P.C.B. BACKSTOP |          |       |  | A040105-FL-U   | A    |
| REV. | CHANGES                                | DATE     | BY | REQ'D | NEXT ASSY. | ITEM   |          |       |  |                |      |
| A    | CHANGED NOTES 3 & 6, ADDED NOTES 7 - 9 | 10/16/08 | JR |       |            |  |          |       |  |                |      |

NOTES:

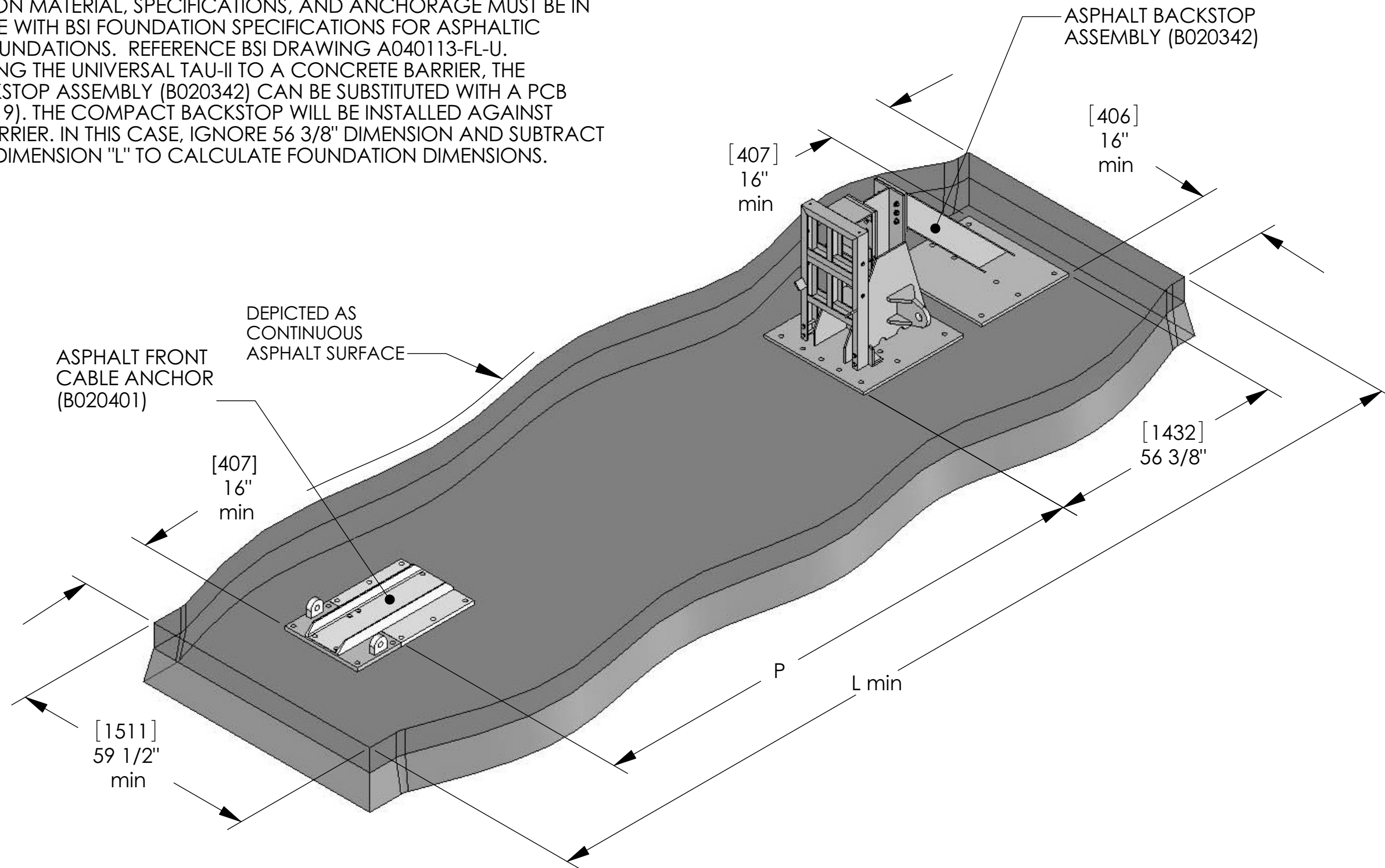
- 1.) REFERENCE UNIVERSAL TAU-II FOUNDATION DIMENSION CHART FOR SPECIFIC SYSTEM FOUNDATION DIMENSIONS.
- 2.) FOUNDATION MATERIAL, SPECIFICATIONS, AND ANCHORAGE MUST BE IN ACCORDANCE WITH BSI FOUNDATION SPECIFICATIONS FOR A CONCRETE PAD. REFERENCE BSI DRAWING A040113-FL-U.
- 3.) THE CONCRETE REINFORCEMENT SHOWN IS RECOMMENDED TO ENSURE ADEQUATE FOUNDATION INTEGRITY FOR PROPER IMPACT PERFORMANCE. VARIATIONS MAY BE REVIEWED AND DETERMINATIONS MADE AS TO EQUIVALENCE BY PROJECT ENGINEER. NO REINFORCEMENT IS NEEDED FOR 8" CONCRETE PAD.
- 4.) ALL REBAR IS #5 [15mm].
- 5.) IF FOUNDATION EXTENDS FROM A CONCRETE CURB, WALL, ABUTMENT, OR OTHER CONCRETE HAZARD, PLACE BACKSTOP AGAINST THE HAZARD AND SUBTRACT 10" [255] FROM DIMENSION "L".
- 6.) TORQUE ANCHORS TO 120 FT-LBF [160 N-m].
- 7.) BACKSTOP ANCHORS REQUIRE 6" [150] EMBEDMENT FOR 3/4" X 8 1/4" [20 X 210] GALVANIZED ANCHOR.



|      |                     |          |    |       |            |      |  |          |  |  |                |      |
|------|---------------------|----------|----|-------|------------|------|--|----------|--|--|----------------|------|
|      |                     |          |    |       |            |      | SCALE: 1:24  |          | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. .XXX= +/- .010<br>Dec. .XX= +/- .030 |  |                |      |
|      |                     |          |    |       |            |      | DRAWN BY   | DATE     | INIT.  |  |                |      |
|      |                     |          |    |       |            |      | APPR'D BY  | 01/07/04 | GAD  |  |                |      |
|      |                     |          |    |       |            |      | TITLE :  |          | MODEL  |  | DRAWING NUMBER | REV. |
|      |                     |          |    |       |            |      | UNIVERSAL TAU-II FOUNDATION,<br>WIDE FLANGE BACKSTOP |          |  |  | A040108-FL     | A    |
| A    | CHANGED NOTES 3 & 7 | 10/16/08 | JR | 1     | B033000    | 1    |  |          |  |  |                |      |
| REV. | CHANGES             | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |  |          |  |  |                |      |

NOTES:

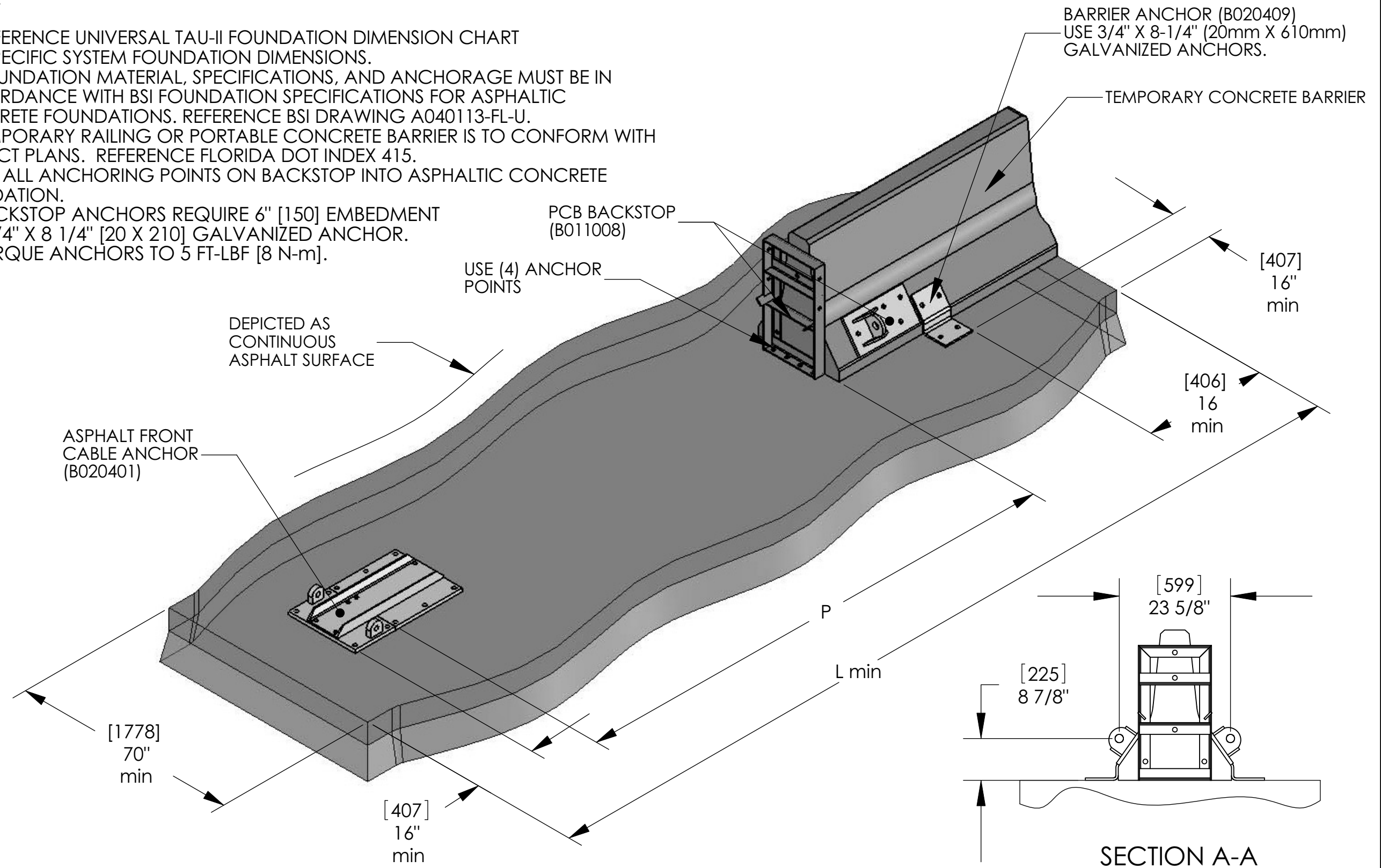
- 1.) REFERENCE UNIVERSAL TAU-II FOUNDATION DIMENSION CHART FOR SPECIFIC SYSTEM FOUNDATION DIMENSIONS.
- 2.) FOUNDATION MATERIAL, SPECIFICATIONS, AND ANCHORAGE MUST BE IN ACCORDANCE WITH BSI FOUNDATION SPECIFICATIONS FOR ASPHALTIC CONCRETE FOUNDATIONS. REFERENCE BSI DRAWING A040113-FL-U.
- 3.) IF ATTACHING THE UNIVERSAL TAU-II TO A CONCRETE BARRIER, THE ASPHALT BACKSTOP ASSEMBLY (B020342) CAN BE SUBSTITUTED WITH A PCB BRACE (B040319). THE COMPACT BACKSTOP WILL BE INSTALLED AGAINST CONCRETE BARRIER. IN THIS CASE, IGNORE 56 3/8" DIMENSION AND SUBTRACT 44 7/8" FROM DIMENSION "L" TO CALCULATE FOUNDATION DIMENSIONS.



|      |              |          |    |       |            |      |  |          |  |       |                |      |  |
|------|--------------|----------|----|-------|------------|------|--|----------|--|-------|----------------|------|--|
|      |              |          |    |       |            |      | SCALE: 1:30  |          | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. .XXX= +/- .010<br>Dec. .XX= +/- .030 |       |                |      |  |
|      |              |          |    |       |            |      | DRAWN BY   | DATE     | INIT.  |       |                |      |  |
|      |              |          |    |       |            |      | APP'R'D BY   | 01/08/04 | GAD  |       |                |      |  |
|      |              |          |    |       |            |      | TITLE :  |          |  | MODEL | DRAWING NUMBER | REV. |  |
|      |              |          |    |       |            |      | UNIVERSAL TAU-II FOUNDATION,<br>AC PAD, COMPACT BACKSTOP |          |  |       | A040110-FL     | A    |  |
| A    | ADDED NOTE 3 | 05/13/09 | JR | 1     | B010708    | 1    |  |          |  |       |                |      |  |
| REV. | CHANGES      | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |  |          |  |       |                |      |  |

NOTES:

- 1.) REFERENCE UNIVERSAL TAU-II FOUNDATION DIMENSION CHART FOR SPECIFIC SYSTEM FOUNDATION DIMENSIONS.
- 2.) FOUNDATION MATERIAL, SPECIFICATIONS, AND ANCHORAGE MUST BE IN ACCORDANCE WITH BSI FOUNDATION SPECIFICATIONS FOR ASPHALTIC CONCRETE FOUNDATIONS. REFERENCE BSI DRAWING A040113-FL-U.
- 3.) TEMPORARY RAILING OR PORTABLE CONCRETE BARRIER IS TO CONFORM WITH PROJECT PLANS. REFERENCE FLORIDA DOT INDEX 415.
- 4.) USE ALL ANCHORING POINTS ON BACKSTOP INTO ASPHALTIC CONCRETE FOUNDATION.
- 5.) BACKSTOP ANCHORS REQUIRE 6" [150] EMBEDMENT FOR 3/4" X 8 1/4" [20 X 210] GALVANIZED ANCHOR.
- 6.) TORQUE ANCHORS TO 5 FT-LBF [8 N-m].

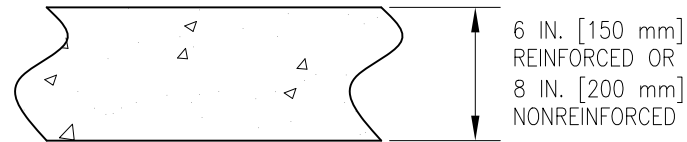


|      |   |  |      |      |       |            |             |   |       |  |                |            |   |
|------|---|--|------|------|-------|------------|-------------|---|-------|--|----------------|------------|---|
|      |   |  |      |      |       |            | SCALE: 1:30 |   |       | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. . XXX= +/- .010<br>Dec. . XX= +/- .030 |                |            |   |
|      |   |  |      |      |       |            | DRAWN BY    | DATE  | INIT. |  |                |            |   |
|      |   |  |      |      |       |            | APPR'D BY   | 1/8/04  | GAD   |  |                |            |   |
|      |   |  |      |      |       |            | TITLE :     |   |       | MODEL  | DRAWING NUMBER | REV.       |   |
| A    | ADDED NOTES 5 & 6 & CALLOUT FOR GALV. ANCHORS |  | REV. | REV. | 1     | B010708    | 1           | UNIVERSAL TAU-II FOUNDATION, AC PAD, PCB BACKSTOP |       |  |                | A040112-FL | A |
| REV. | CHANGES                                       |  | DATE | BY   | REQ'D | NEXT ASSY. | ITEM        |   |       |  |                |            |   |

# FOUNDATION SPECIFICATIONS:

THE UNIVERSAL TAU-II CRASH CUSHION SYSTEM HAS BEEN DESIGNED TO ATTACH TO CONCRETE OR ASPHALT FOUNDATIONS. USE THE ANCHORAGE SPECIFIED BELOW DEPENDING ON THE FOUNDATION AT THE JOB SITE. REFERENCE TAU-II FOUNDATION DRAWINGS FOR FURTHER DETAIL.

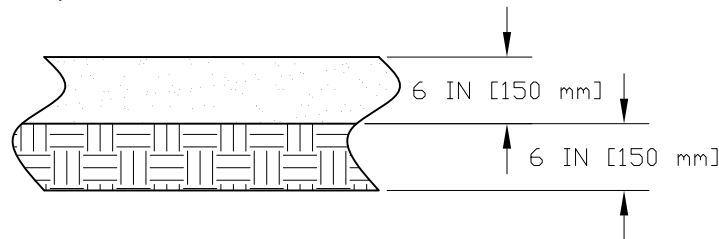
## 1.) CONCRETE PAD



**FOUNDATION:** MINIMUM 6 IN. [150 mm] REINFORCED PCC PAD OR 8 IN. [200 mm] NONREINFORCED PCC PAD

**ANCHORAGE:** 3/4 IN. [20 mm] X 8 1/4 IN. [210 mm] GALVANIZED ANCHOR WITH 6 IN. [150 mm] EMBEDMENT OR 3/4" MECHANICAL ANCHORS WITH AN EMBEDMENT THAT IS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

## 2.) ASPHALT OVER SUBBASE



**FOUNDATION:** MINIMUM 6 IN [150 mm] AC OVER 6 IN. [150 mm] COMPACTED DGA SUBBASE

**ANCHORAGE:** 3/4 IN. [20 mm] X 18 IN. [460 mm] GALVANIZED ANCHORS WITH 16 IN. [410 mm] EMBEDMENT.

ASPHALT ANCHORING KIT REQUIRED

## 3.) ASPHALT ONLY

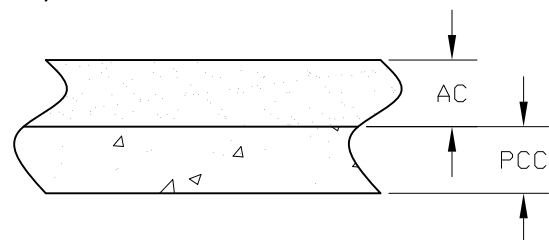


**FOUNDATION:** MINIMUM 8 IN. [200 mm] AC

**ANCHORAGE:** 3/4 IN. [20 mm] X 18 IN. [460 mm] GALVANIZED ANCHORS WITH 16 IN. [410 mm] EMBEDMENT.

ASPHALT ANCHORING KIT REQUIRED

## 4.) ASPHALT OVER P.C. CONCRETE



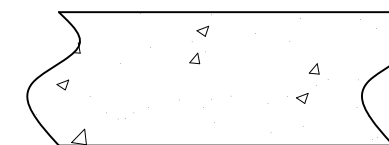
**FOUNDATION:** AC OVER PCC.

**ANCHORAGE:** 3/4 IN. [20 mm] GALVANIZED ANCHORS WITH MINIMUM 6 IN. [150 mm] EMBEDMENT IN PCC - NO ASPHALT ANCHORING KIT REQUIRED

OR  
3/4 IN. [20 mm] X 18 IN. [460 mm] GALVANIZED ANCHORS WITH 16 IN. [410 mm] EMBEDMENT - ASPHALT ANCHORING KIT REQUIRED

## MATERIAL SPECIFICATIONS

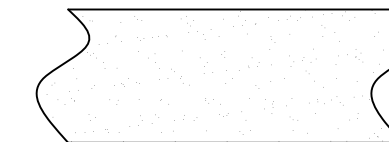
### PORTLAND CEMENT CONCRETE (PCC)



STONE AGGREGATE CONCRETE MIX, 4,000 PSI [28 MPa] MINIMUM COMPRESSIVE STRENGTH (SAMPLING PER ASTM C31-84 OR ASTM C42-84A, TESTING PER ASTM C39-84)

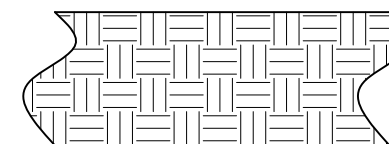
THE CONTRACTOR IS TO FURNISH A CERTIFICATION THAT THE CONCRETE INSTALLED MEETS THE REQUIRED STRENGTH AND TESTING REQUIREMENTS

### ASPHALTIC CONCRETE (AC)



ASPHALT CONCRETE TYPE SP 12.5 TRAFFIC LEVEL C OR HIGHER (FDOT SPECIFICATION 334)

### COMPACTED SUBBASE (DGA)

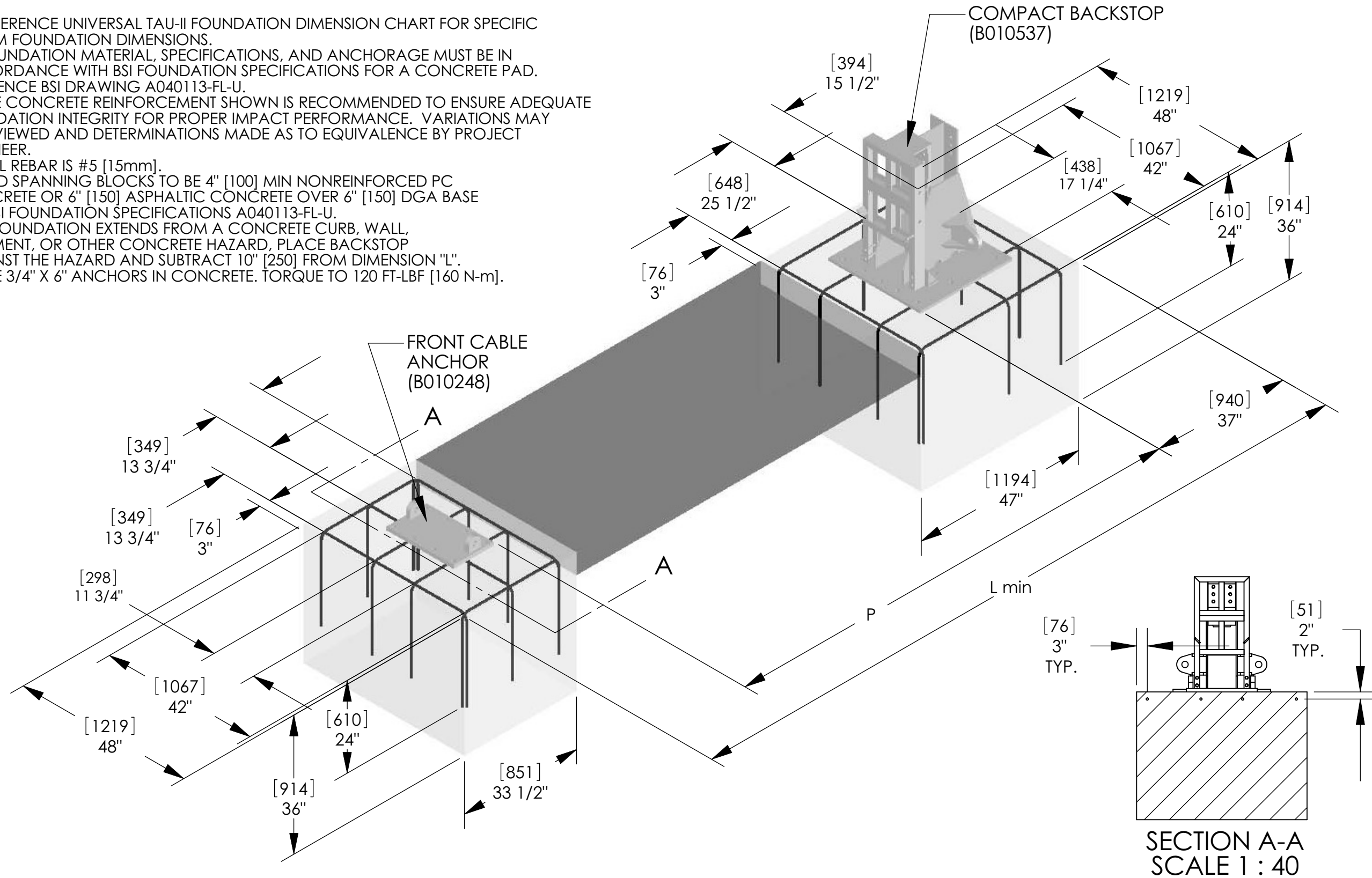


ROCK BASE (FDOT SPECIFICATION 200) OR GRADED AGGREGATE BASE (FDOT SPECIFICATION 204)

|      |                                      |          |    |       |            |      |                           |                                      |                |
|------|--------------------------------------|----------|----|-------|------------|------|---------------------------|--------------------------------------|----------------|
|      |                                      |          |    |       |            |      | SCALE: FULL               | Standard Tolerance<br>Angular ± 1/2" |                |
|      |                                      |          |    |       |            |      | DATE 01/09/04             | Fractional ± 1/16                    |                |
|      |                                      |          |    |       |            |      | INIT. GAD                 | Dec .XXX= ± .010                     |                |
|      |                                      |          |    |       |            |      | APPR'D BY JSM             | Dec .XX= ± .030                      |                |
|      |                                      |          |    |       |            |      | TITLE:                    | MODEL                                | DRAWING NUMBER |
|      |                                      |          |    |       |            |      | FOUNDATION SPECIFICATIONS |                                      | A040113-FL-U   |
| REV. | CHANGES                              | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |                           |                                      | REV. A         |
| A    | ADDED NOTE TO CONCRETE PAD ANCHORAGE | 10/21/08 | JR |       |            |      |                           |                                      |                |

NOTES:

- 1.) REFERENCE UNIVERSAL TAU-II FOUNDATION DIMENSION CHART FOR SPECIFIC SYSTEM FOUNDATION DIMENSIONS.
- 2.) FOUNDATION MATERIAL, SPECIFICATIONS, AND ANCHORAGE MUST BE IN ACCORDANCE WITH BSI FOUNDATION SPECIFICATIONS FOR A CONCRETE PAD. REFERENCE BSI DRAWING A040113-FL-U.
- 3.) THE CONCRETE REINFORCEMENT SHOWN IS RECOMMENDED TO ENSURE ADEQUATE FOUNDATION INTEGRITY FOR PROPER IMPACT PERFORMANCE. VARIATIONS MAY BE REVIEWED AND DETERMINATIONS MADE AS TO EQUIVALENCE BY PROJECT ENGINEER.
- 4.) ALL REBAR IS #5 [15mm].
- 5.) PAD SPANNING BLOCKS TO BE 4" [100] MIN NONREINFORCED PC CONCRETE OR 6" [150] ASPHALTIC CONCRETE OVER 6" [150] DGA BASE PER BSI FOUNDATION SPECIFICATIONS A040113-FL-U.
- 6.) IF FOUNDATION EXTENDS FROM A CONCRETE CURB, WALL, ABUTMENT, OR OTHER CONCRETE HAZARD, PLACE BACKSTOP AGAINST THE HAZARD AND SUBTRACT 10" [250] FROM DIMENSION "L".
- 7.) USE 3/4" X 6" ANCHORS IN CONCRETE. TORQUE TO 120 FT-LBF [160 N-m].

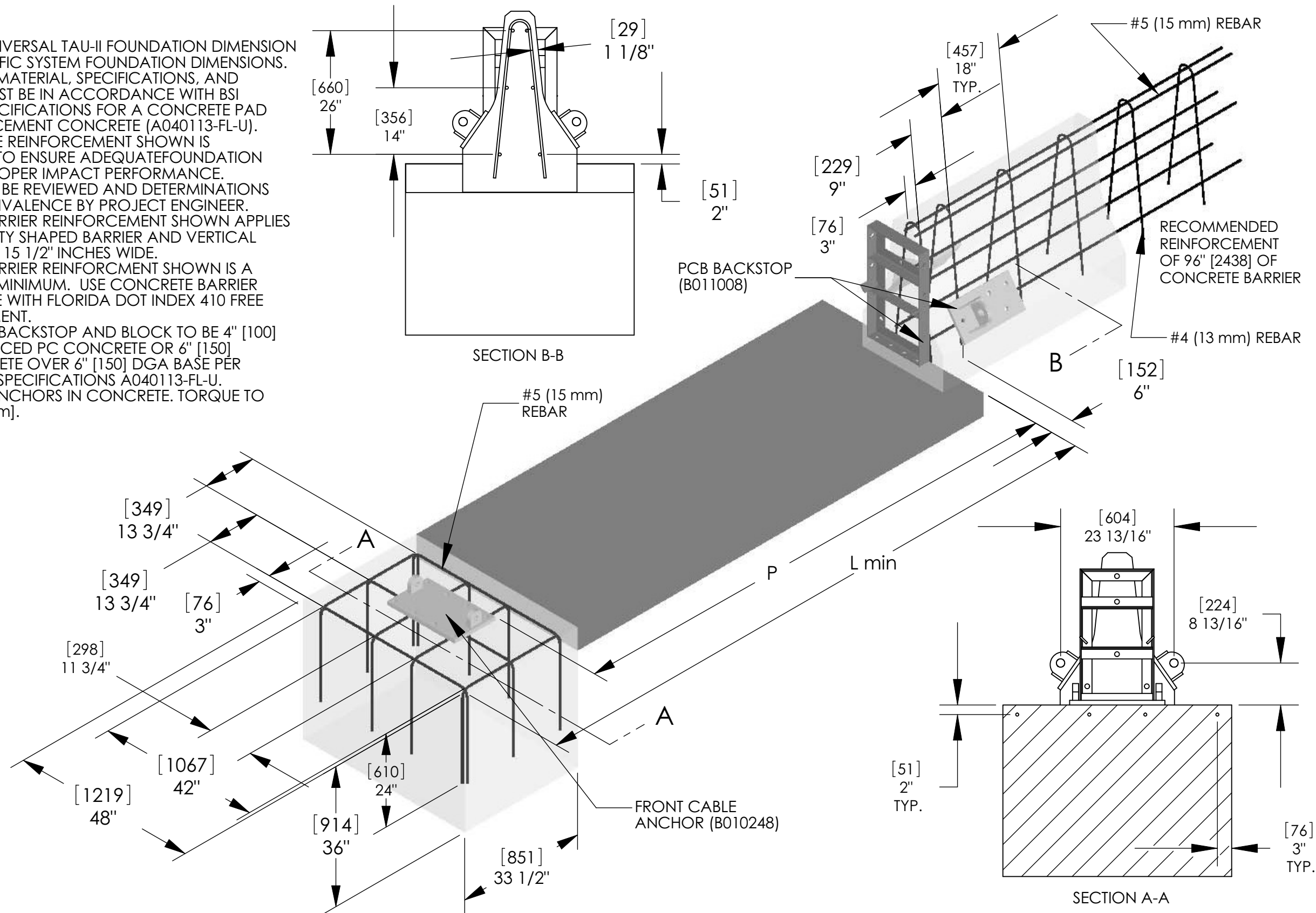


|      |                               |          |    |       |            |  |      |  |  |       |                |      |
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|      |                               |          |    |       |            | SCALE: 1:30  |      | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. .XXX= +/- .010<br>Dec. .XX= +/- .030 |  |       |                |      |
|      |                               |          |    |       |            | DRAWN BY   | DATE | INIT.  |  |       |                |      |
|      |                               |          |    |       |            | APP'R'D BY   |      | JSM  |  |       |                |      |
|      |                               |          |    |       |            | TITLE :  |      |  |  | MODEL | DRAWING NUMBER | REV. |
|      |                               |          |    |       |            | UNIVERSAL TAU-II FOUNDATION,<br>PCC BLOCKS, COMPACT BACKSTOP |      |  |  |       | A040115-FL     | A    |
| A    | CHANGED NOTE 6 & ADDED NOTE 7 | 10/16/08 | JR |       |            |  |      |  |  |       |                |      |
| REV. | CHANGES                       | DATE     | BY | REQ'D | NEXT ASSY. | ITEM   |      |  |  |       |                |      |



NOTES:

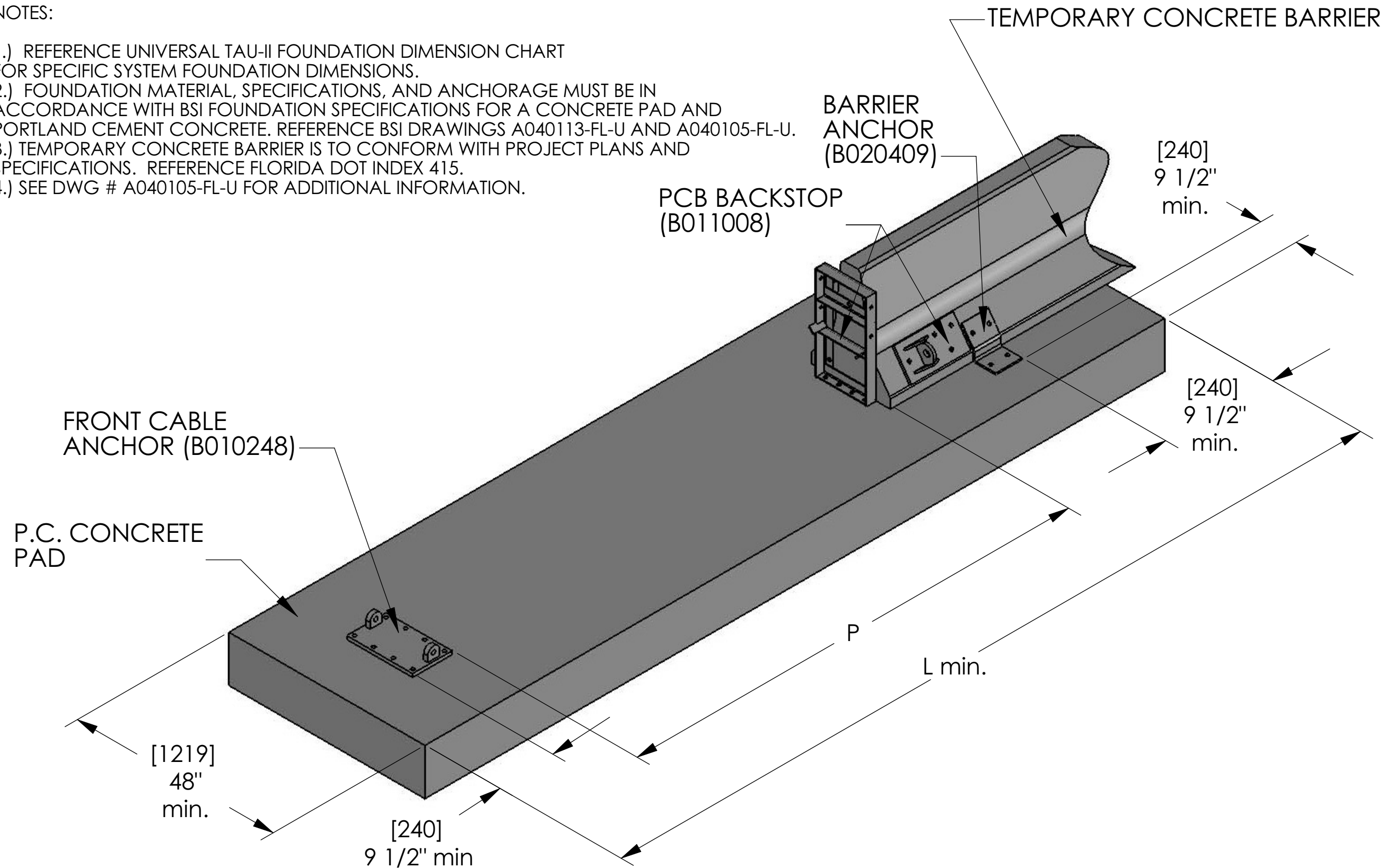
- 1.) REFERENCE UNIVERSAL TAU-II FOUNDATION DIMENSION CHART FOR SPECIFIC SYSTEM FOUNDATION DIMENSIONS.
- 2.) FOUNDATION MATERIAL, SPECIFICATIONS, AND ANCHORAGE MUST BE IN ACCORDANCE WITH BSI FOUNDATION SPECIFICATIONS FOR A CONCRETE PAD AND PORTLAND CEMENT CONCRETE (A040113-FL-U).
- 3.) THE CONCRETE REINFORCEMENT SHOWN IS RECOMMENDED TO ENSURE ADEQUATE FOUNDATION INTEGRITY FOR PROPER IMPACT PERFORMANCE. VARIATIONS MAY BE REVIEWED AND DETERMINATIONS MADE AS TO EQUIVALENCE BY PROJECT ENGINEER.
- 4.) CONCRETE BARRIER REINFORCEMENT SHOWN APPLIES TO VARIOUS SAFETY SHAPED BARRIER AND VERTICAL CONCRETE UP TO 15 1/2" INCHES WIDE.
- 5.) CONCRETE BARRIER REINFORCEMENT SHOWN IS A RECOMMENDED MINIMUM. USE CONCRETE BARRIER IN ACCORDANCE WITH FLORIDA DOT INDEX 410 FREE END REINFORCEMENT.
- 6.) PAD BETWEEN BACKSTOP AND BLOCK TO BE 4" [100] MIN NONREINFORCED PC CONCRETE OR 6" [150] ASPHALTIC CONCRETE OVER 6" [150] DGA BASE PER BSI FOUNDATION SPECIFICATIONS A040113-FL-U.
- 7.) USE 3/4" X 6" ANCHORS IN CONCRETE. TORQUE TO 120 FT-LBF [160 N-m].



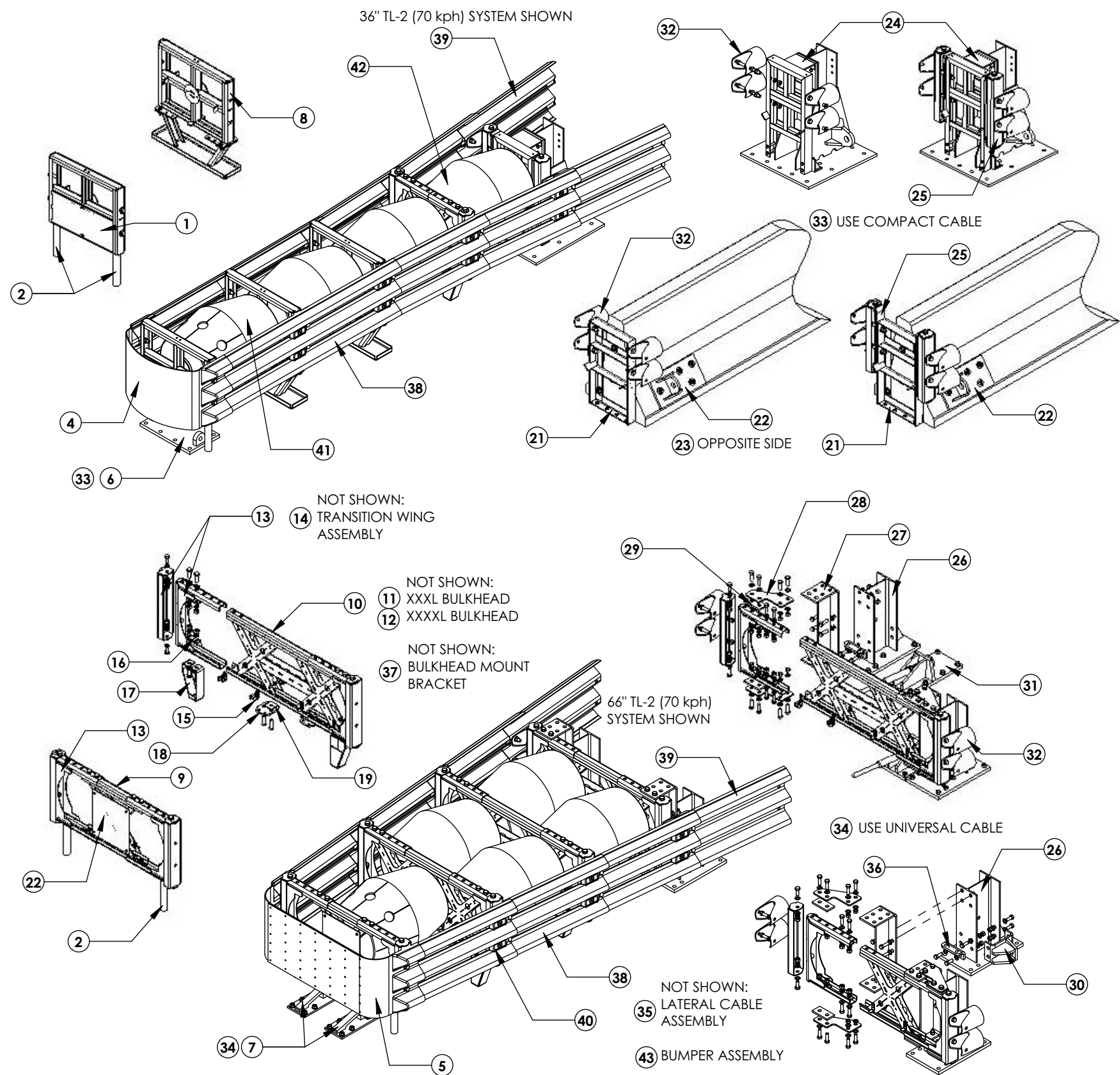
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|      |              |          |    |       |            | SCALE: 1:30 |          | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. .XXX= +/- .010<br>Dec. .XX= +/- .030 |  |       |                |      |
|      |              |          |    |       |            | DRAWN BY    | DATE     | INIT.  |  |       |                |      |
|      |              |          |    |       |            | APPR'D BY   | 01/12/04 | GAD  |  |       |                |      |
|      |              |          |    |       |            | TITLE :     |          | UNIVERSAL TAU-II FOUNDATION,<br>PCC BLOCK, PCB BACKSTOP  |  | MODEL | DRAWING NUMBER | REV. |
| A    | ADDED NOTE 7 | 10/16/08 | JR |       |            |             |          |  |  |       | A040117-FL-U   | A    |
| REV. | CHANGES      | DATE     | BY | REQ'D | NEXT ASSY. | ITEM        |          |  |  |       |                |      |

NOTES:

- 1.) REFERENCE UNIVERSAL TAU-II FOUNDATION DIMENSION CHART FOR SPECIFIC SYSTEM FOUNDATION DIMENSIONS.
- 2.) FOUNDATION MATERIAL, SPECIFICATIONS, AND ANCHORAGE MUST BE IN ACCORDANCE WITH BSI FOUNDATION SPECIFICATIONS FOR A CONCRETE PAD AND PORTLAND CEMENT CONCRETE. REFERENCE BSI DRAWINGS A040113-FL-U AND A040105-FL-U.
- 3.) TEMPORARY CONCRETE BARRIER IS TO CONFORM WITH PROJECT PLANS AND SPECIFICATIONS. REFERENCE FLORIDA DOT INDEX 415.
- 4.) SEE DWG # A040105-FL-U FOR ADDITIONAL INFORMATION.



|      |              |          |    |       |            |      |   |      |       |  |                |      |
|------|--------------|----------|----|-------|------------|------|---|------|-------|--|----------------|------|
|      |              |          |    |       |            |      | SCALE: 1:30   |      |       | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. .XXX= +/- .010<br>Dec. .XX= +/- .030 |                |      |
|      |              |          |    |       |            |      | DRAWN BY  | DATE | INIT. |  |                |      |
|      |              |          |    |       |            |      | APPR'D BY   |      | OSD   |  |                |      |
|      |              |          |    |       |            |      | TITLE : UNIVERSAL TAU-II<br>FOUNDATION, PCC PAD, PCB<br>BACKSTOP, TEMPORARY PCB |      |       | MODEL  | DRAWING NUMBER | REV. |
| A    | ADDED NOTE 4 | 10/16/08 | JR | 1     | A040105    | 1    |   |      |       | A040206-FL-U   | A              |      |
| REV. | CHANGES      | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |   |      |       |  |                |      |



| ITEM | PART DESCRIPTION                 | PART #  |
|------|----------------------------------|---------|
| 1    | FRONT SUPPORT                    | B010528 |
| 2    | FRONT SUPPORT LEG KIT            | K001005 |
| 3    | FRONT COLLISION PLATE            | B030801 |
| 4    | NOSE PIECE, NARROW               | B010711 |
| 5    | NOSE PIECE WIDE                  | B030902 |
| 6    | FRONT CABLE ANCHOR, COMPACT      | B010248 |
| 7    | FRONT CABLE ANCHOR, UNIVERSAL    | B010935 |
| 8    | MIDDLE SUPPORT ASSEMBLY          | B010530 |
| 9    | XL BULKHEAD                      | B030521 |
| 10   | XXL BULKHEAD                     | B030528 |
| 11   | XXXL BULKHEAD                    | B030529 |
| 12   | XXXXL BULKHEAD                   | B030532 |
| 13   | WING ASSEMBLY                    | B030509 |
| 14   | TRANSITION WING ASSEMBLY         | B030910 |
| 15   | EAC LOCATING TAB                 | B031112 |
| 16   | BACKING PLATE                    | B030543 |
| 17   | LEG                              | B030425 |
| 18   | CABLE GUIDE MOUNT                | B030411 |
| 19   | LEVEL SPACER                     | B030551 |
| 20   | CABLE GUIDE ASSEMBLY KIT         | K001004 |
| 21   | PCB BACKSTOP                     | B011007 |
| 22   | REAR CABLE ANCHOR "R" (PCB)      | B010929 |
| 23   | REAR CABLE ANCHOR "L" (PCB)      | B011041 |
| 24   | COMPACT BACKSTOP                 | B010537 |
| 25   | 36" ADAPTER (PCB & COMPACT)      | B031201 |
| 26   | WIDE FLANGE BACKSTOP             | B030668 |
| 27   | BACKSTOP BLOCKOUT (WF)           | B030713 |
| 28   | WING BRACE (WF)                  | B030821 |
| 29   | WING BRACE SPACER (WF)           | B030823 |
| 30   | REAR CABLE ANCHOR, WF            | B031020 |
| 31   | REAR CABLE ANCHOR, IND (WF)      | B030938 |
| 32   | PIPE PANEL MOUNT                 | B010651 |
| 33   | CABLE, COMPACT                   | TBD     |
| 34   | CABLE, UNIVERSAL                 | TBD     |
| 35   | LATERAL CABLE ASSEMBLY           | B031034 |
| 36   | LATERAL SUPPORT MOUNT (WF)       | B031011 |
| 37   | BULKHEAD MOUNT BRACKET           | B031010 |
| 38   | SLIDING PANEL                    | B010202 |
| 39   | END PANEL                        | B010659 |
| 40   | SLIDING BOLT ASSEMBLY            | K001003 |
| 41   | ENERGY ABSORBING CARTRIDGE, TYPE | B010802 |
| 42   | ENERGY ABSORBING CARTRIDGE, TYPE | B010722 |
| 43   | BUMPER ASSEMBLY                  | B031035 |

| REV. | CHANGES     | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |
|------|-------------|----------|----|-------|------------|------|
| 0    | NEW DRAWING | 10/16/08 | JR |       |            |      |

|            |          |       |
|------------|----------|-------|
| SCALE: 1:1 |          |       |
| DRAWN BY   | DATE     | INIT. |
| APPR'D BY  | 04/22/04 | GAD   |
|            |          | JSM   |

Standard Tolerance  
 Angular +/- 1/2 Deg.  
 Fractional +/- 1/16  
 Dec. .XXX= +/- .010  
 Dec. .XX= +/- .030

TITLE :  
 UNIVERSAL TAU-II PARTS LIST

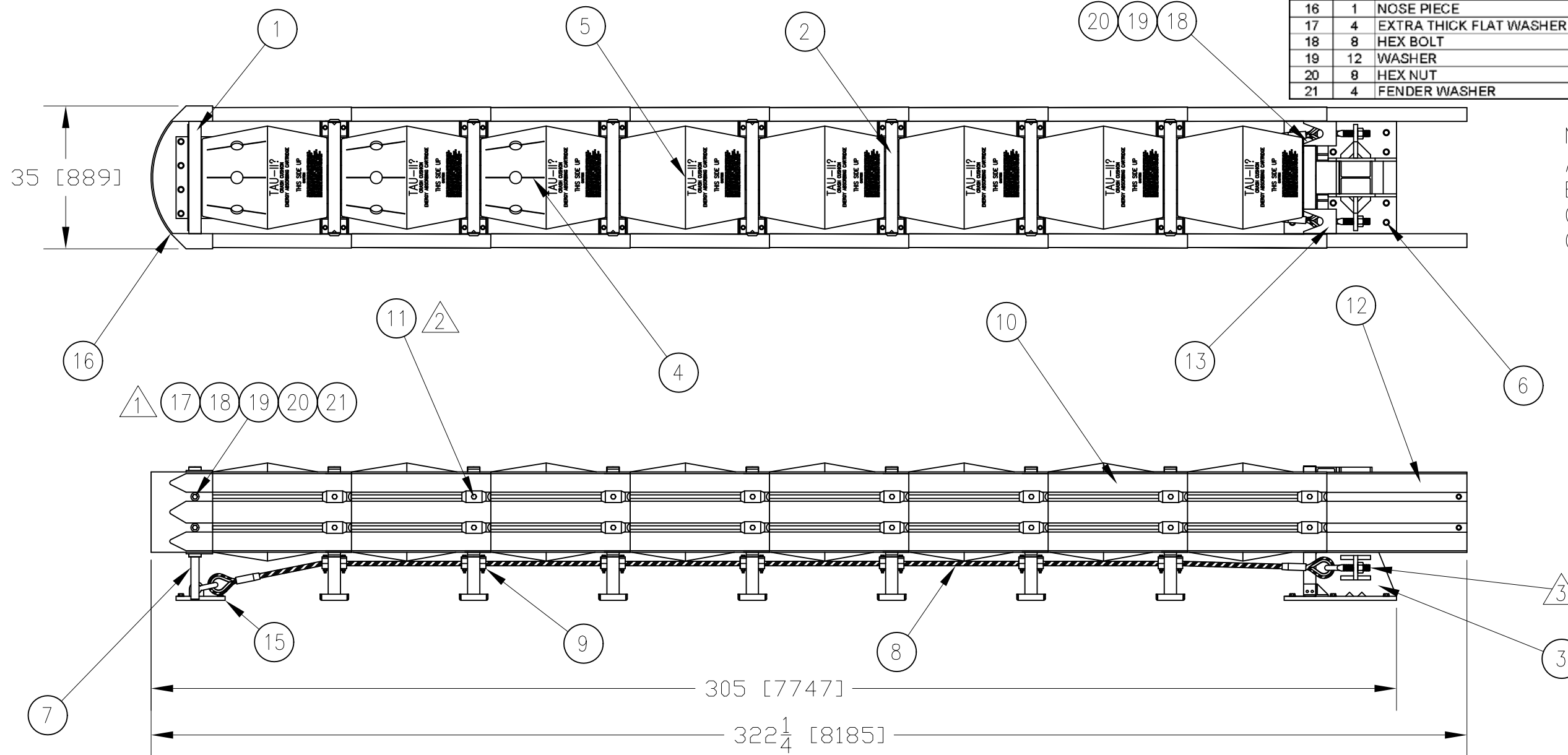
| MODEL | DRAWING NUMBER | REV. |
|-------|----------------|------|
|       | A040416-FL     | 0    |

1 TORQUE TO 200 FT-LBF

3 TORQUE TO 500 FT-LBF

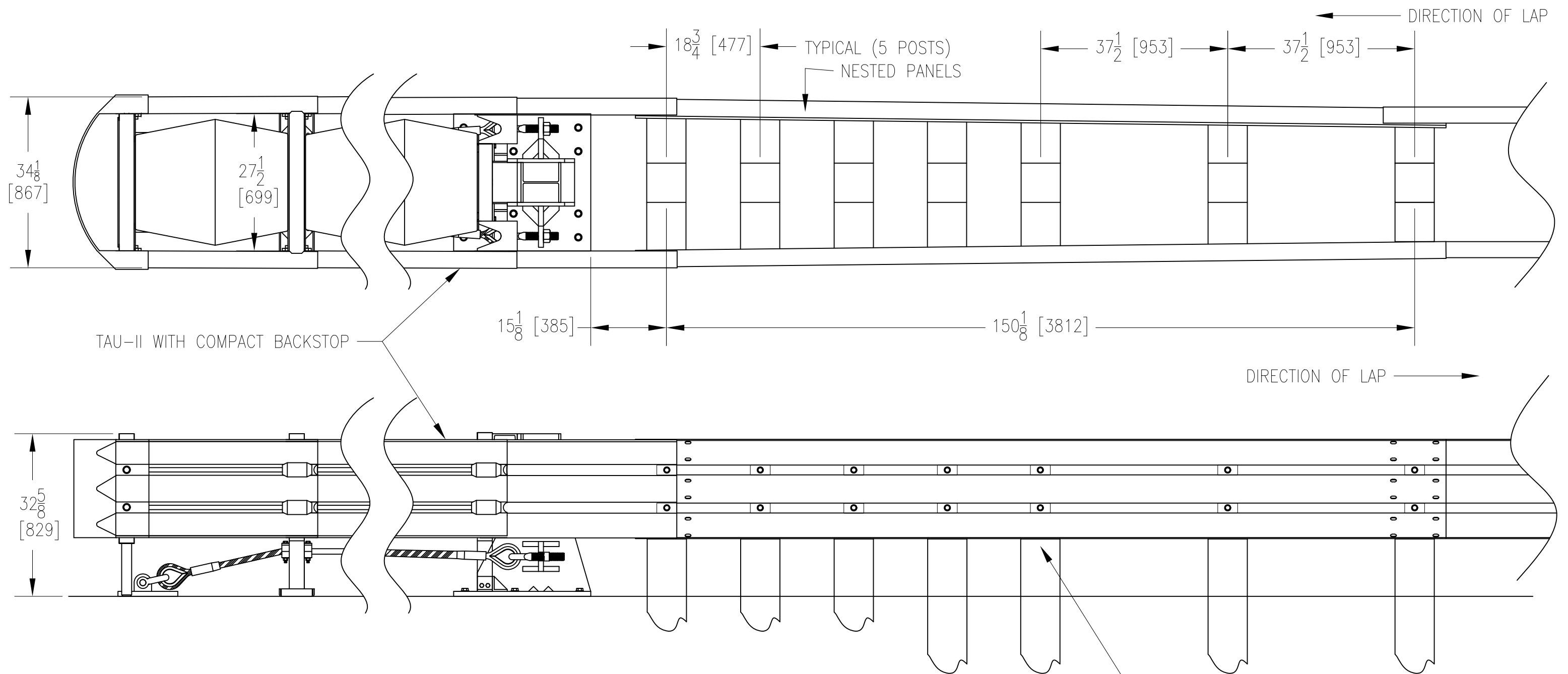
2 TORQUE TO 20 FT-LBF

| ITEM | QTY / DWG | PART DESCRIPTION                   | SPECIFICATION                    | PART #  |
|------|-----------|------------------------------------|----------------------------------|---------|
| 1    | 1         | FRONT SUPPORT ASSEMBLY             | NA                               | B010528 |
| 2    | 7         | MID SUPPORT ASSEMBLY               | NA                               | B010530 |
| 3    | 1         | COMPACT END SUPPORT ASSEMBLY       | NA                               | B010537 |
| 4    | 3         | ENERGY ABSORBING CARTRIDGE, TYPE A | NA                               | B010802 |
| 5    | 5         | ENERGY ABSORBING CARTRIDGE, TYPE B | NA                               | B010722 |
| 6    | 1         | ANCHORING PACKAGE                  | NA                               | B010713 |
| 7    | 2         | FRONT SUPPORT LEG                  | NA                               | B010712 |
| 8    | 2         | COMPACT CABLE                      | NA                               | B010916 |
| 9    | 14        | CABLE GUIDE ASSEMBLY               | NA                               | B010721 |
| 10   | 16        | SLIDING PANEL                      | NA                               | B010202 |
| 11   | 32        | SLIDING BOLT                       | NA                               | B010842 |
| 12   | 2         | END PANEL                          | NA                               | B010659 |
| 13   | 4         | PIPE PANEL MOUNT                   | NA                               | B010651 |
| 14   | -         | NA                                 | NA                               | NA      |
| 15   | 1         | FRONT CABLE ANCHOR                 | NA                               | B010248 |
| 16   | 1         | NOSE PIECE                         | NA                               | B010711 |
| 17   | 4         | EXTRA THICK FLAT WASHER            | SS - 1 1/2"OD X 13/16"ID X 7/32" | 2001009 |
| 18   | 8         | HEX BOLT                           | MECH GALV-20MM-2.5 X 50MM        | 2001449 |
| 19   | 12        | WASHER                             | MECH GALV-20MM                   | 2001450 |
| 20   | 8         | HEX NUT                            | MECH GALV-20MM-2.5               | 2001451 |
| 21   | 4         | FENDER WASHER                      | SS-13/16"ID X 1 7/8"OD           | 2001009 |



NOTE: THIS DRAWING ILLUSTRATES AN 8 BAY TAU-II W/COMPACT BACKSTOP TO DEPICT THE GENERIC LAYOUT OF THE SYSTEM COMPONENTS.

|  |   |             |          |    |       |            |                        |       |  |  |                |      |
|--|---|-------------|----------|----|-------|------------|------------------------|-------|--|--|----------------|------|
| © 2001 Barrier Systems, Inc.   |   |             |          |    |       |            | SCALE: 1:30            |       | Standard Tolerance<br>Angular ± 1/2°<br>Fractional ± 1/16<br>Dec .XXX = ± .010<br>Dec .XX = ± .030 |  |                |      |
| The information heron is proprietary to Barrier Systems Inc. and shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc. |   |             |          |    |       |            | DATE                   | INIT. |  |  |                |      |
|  |   |             |          |    |       |            | 07/09/01               | GAD   |  |  |                |      |
|  |   |             |          |    |       |            | TITLE :                |       | MODEL  |  | DRAWING NUMBER | REV. |
|  |   |             |          |    |       |            | TAU-II PARALLEL SYSTEM |       |  |  | B010708-FL     | 0    |
| REV.   | 0 | NEW DRAWING | 10/16/08 | JR | REQ'D | NEXT ASSY. | ITEM                   |       |  |  |                |      |

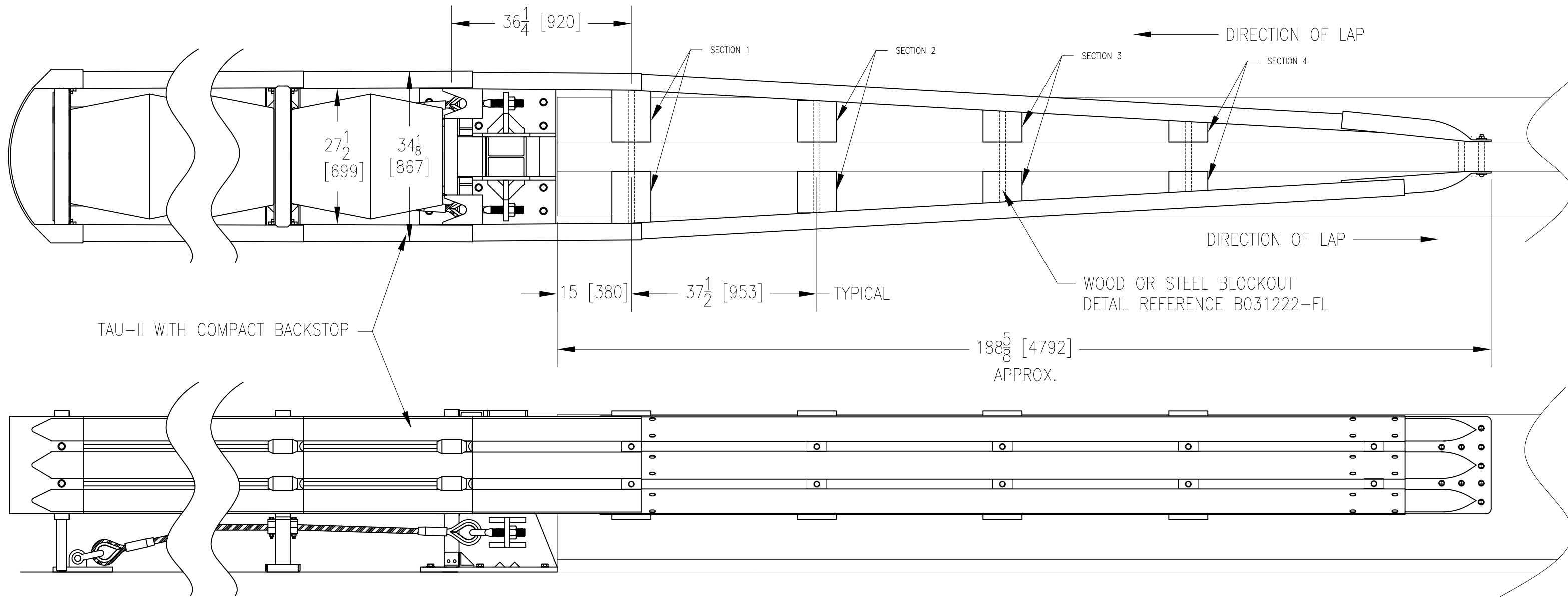


**NOTES:**

- 1.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS. REFER TO BSI SPECIFICATION B010714 OR B010819 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE, POSTS AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. SUPPORT POSTS AND BLOCKOUTS SHALL MEET REQUIREMENTS OF FLORIDA DOT INDEX 400 AND FLORIDA DOT SPECIFICATIONS.
- 3.) 4-SPACE THRIE BEAM GUARDRAIL PER AASHTO HARDWARE SPECIFICATION RTM01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) TWO (2) 4-SPACED THRIE BEAM GUARDRAIL (RTM04) PANELS NESTED ONE SET INSIDE THE OTHER FOR BI-DIRECTIONAL TRAFFIC CONDITIONS. ONLY NEEDED ON SIDE WHERE TAU-II SYSTEM IS DOWNSTREAM OF TRANSITION.
- 5.) 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. BOLT LENGTH DETERMINED BY SECTION WIDTH.

- 6.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 7.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.

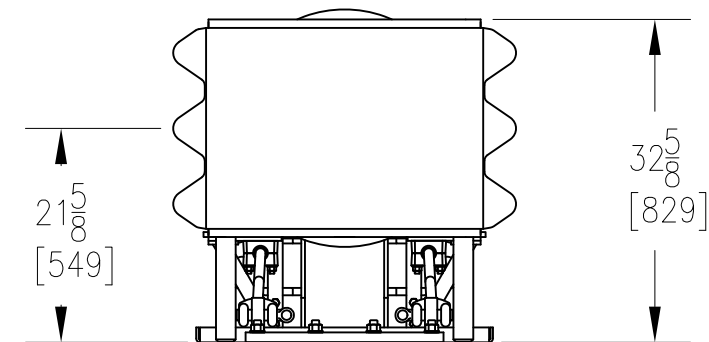
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| © 2001 Barrier Systems, Inc.   | C    | SEE ECN 00569 | 1/16/04  | GAD |       |            |      |  | SCALE: 1=20   | Standard Tolerance<br>Angular ± 1/2'<br>Fractional ± 1/16<br>Dec .XXX= ± .010<br>Dec .XX= ± .030 | MODEL | DRAWING NUMBER | REV. |
|  | B    | SEE ECN 00368 | 4/26/02  | GAD |       |            |      |  | TITLE: TAU-II WITH COMPACT BACKSTOP, TRANSITION TO THRIE BEAM GUARDRAIL |  |       |                |      |
| The information heron is proprietary to Barrier Systems Inc. and shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc. | A    | RELEASE PREP. | 11/19/01 | GAD |       |            |      |  |   |  |       |                |      |
|  | REV. | CHANGES       | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |  |   |  |       |                |      |



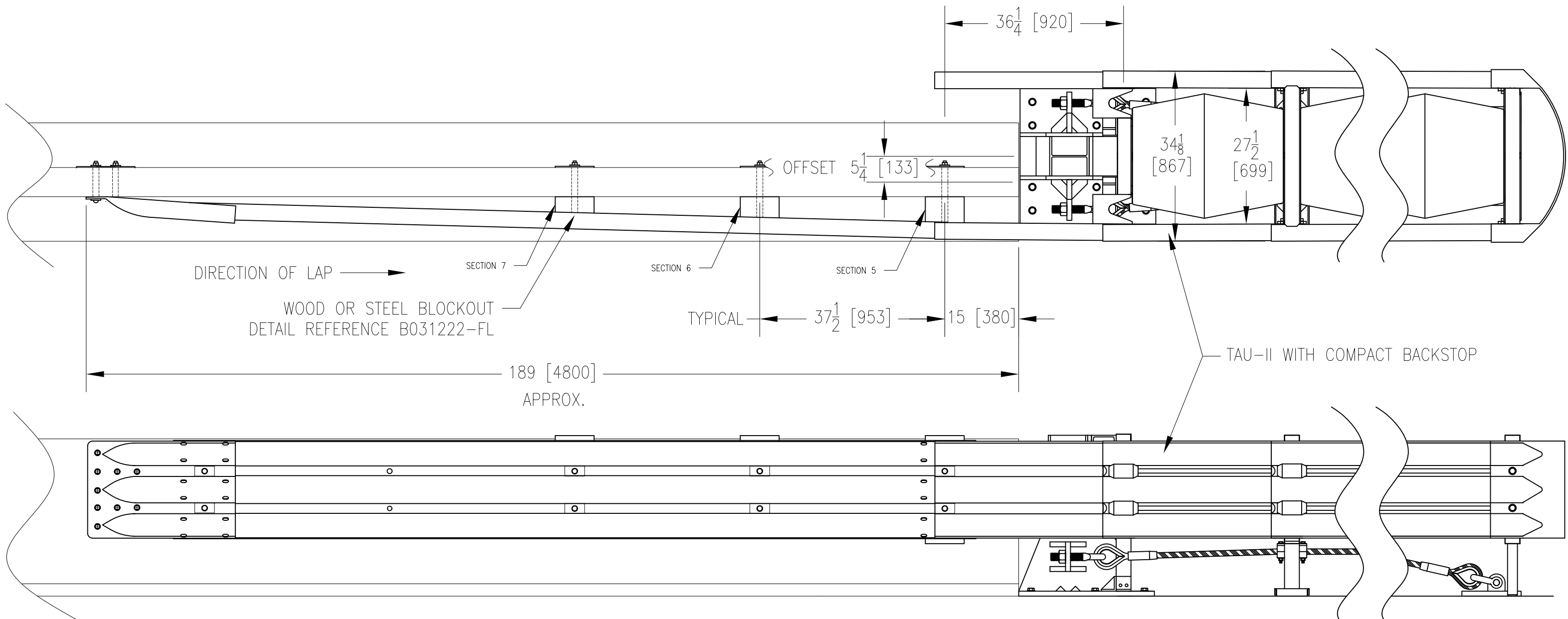
**NOTES:**

- 1.) REINFORCEMENT OF SAFETY SHAPED BARRIER END MAY BE NEEDED. REFER TO BSI SPECIFICATION B010714 OR B010819 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400 DETAIL J AND INDEX 410 'GUARDRAIL CONNECTION TO CONCRETE BARRIER WALL APPROACH ENDS'.
- 3.) 4-SPACE THRIE BEAM GUARDRAIL PER AASHTO HARDWARE SPECIFICATION RTM01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) THRIE BEAM TERMINAL CONNECTOR PER AASHTO HARDWARE SPECIFICATION RTE01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 5.) STANDARD TIMBER OR PLASTIC OFFSET BLOCKS FIELD TRIMMED FOR USE AT SECTIONS 1-4. REFERENCE BSI DRAWING B031222-FL FOR BLOCKOUT DETAILS. BLOCKOUTS SHALL MEET REQUIREMENTS OF FLORIDA DOT INDEX 400, 410, AND FLORIDA DOT SPECIFICATIONS.
- 6.) 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. BOLT LENGTH DETERMINED BY SECTION WIDTH: 1-28 1/2", 2-24 1/2", 3-20 1/2", AND 4-16 1/2". LENGTHS MAY VARY WITH DIFFERENT BARRIER SHAPES. HOLES DRILLED THROUGH CONCRETE BARRIER ARE 3/4" DIA.

- 7.) ATTACH THRIE BEAM TERMINAL CONNECTOR TO MEDIAN BARRIER WALL WITH (5) 7/8" X 15" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS. ATTACH TO SHOULDER BARRIER WALL WITH A 21" X 12" X 5/8" THRIE BEAM TERMINAL CONNECTOR PLATE AND (5) 7/8" X 12" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS.
- 8.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 9.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 10.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS.



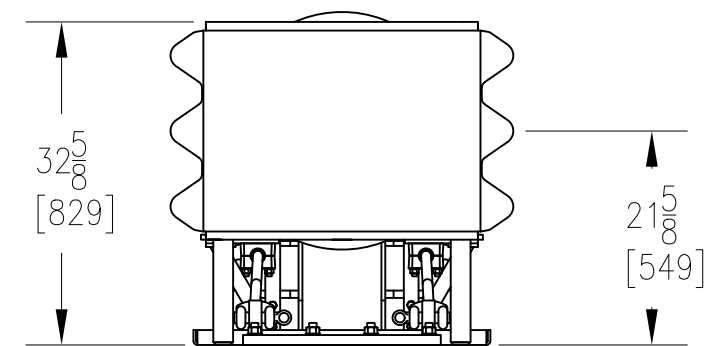
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|---|------|---------------|----------|-----|-------|------------|------|---|--|------------|----------------|------|
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|   | C    | SEE ECN 00557 | 12/29/03 | GAD |       |            |      |   |  |            |                |      |
|   | B    | SEE ECN 00368 | 4/25/02  | GAD |       |            |      | TITLE: TAU-II WITH COMPACT BACKSTOP, TRANSITION TO SAFETY SHAPE P.C.B |  | B010725-FL | D              |      |
|   | A    | RELEASE PREP. | 11/19/01 | GAD | NA    | NA         | NA   |   |  |            |                |      |
|   | REV. | CHANGES       | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |   |  |            |                |      |



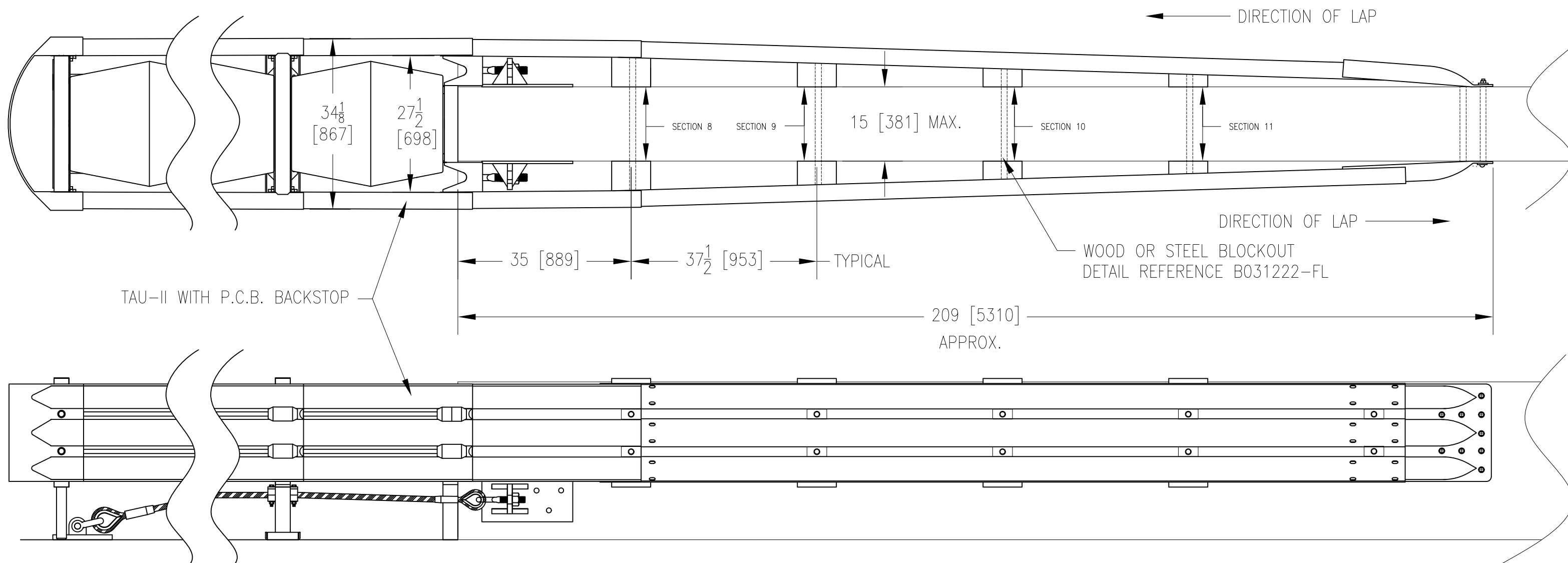
**NOTES:**

- 1.) REINFORCEMENT OF SAFETY SHAPED BARRIER END MAY BE NEEDED. REFER TO BSI SPECIFICATION B010714 OR B010819 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400 DETAIL J AND INDEX 410 'GUARDRAIL CONNECTION TO CONCRETE BARRIER WALL APPROACH ENDS'.
- 3.) 4-SPACE THRIE BEAM GUARDRAIL PER AASHTO HARDWARE SPECIFICATION RTM01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) THRIE BEAM TERMINAL CONNECTOR PER AASHTO HARDWARE SPECIFICATION RTE01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 5.) STANDARD TIMBER OR PLASTIC OFFSET BLOCKS FIELD TRIMMED FOR USE AT SECTIONS 5,6, AND 7. REFERENCE BSI DRAWING B031222-FL FOR BLOCKOUT DETAILS. BLOCKOUTS SHALL MEET REQUIRMENTS OF FLORIDA DOT INDEX 400, 410, AND FLORIDA DOT SPECIFICATIONS.
- 6.) 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. BOLT LENGTH DETERMINED BY SECTION WIDTH: 5-14 3/4", 6-12 3/4", AND 7-10 3/4". LENGTHS MAY VARY WITH DIFFERENT BARRIER SHAPES. A 12" X 12" X 1/4" BACK-UP PLATE WITH 3/4" DIA HOLES IS REQUIRED. HOLES DRILLED THROUGH CONCRETE BARRIER ARE 3/4" DIA.

- 7.) ATTACH THRIE BEAM TERMINAL CONNECTOR TO MEDIAN BARRIER WALL WITH (5) 7/8" X 15" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS. ATTACH TO SHOULDER BARRIER WALL WITH A 21" X 12" X 5/8" THRIE BEAM TERMINAL CONNECTOR PLATE AND (5) 7/8" X 12" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS.
- 8.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 9.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 10.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS.



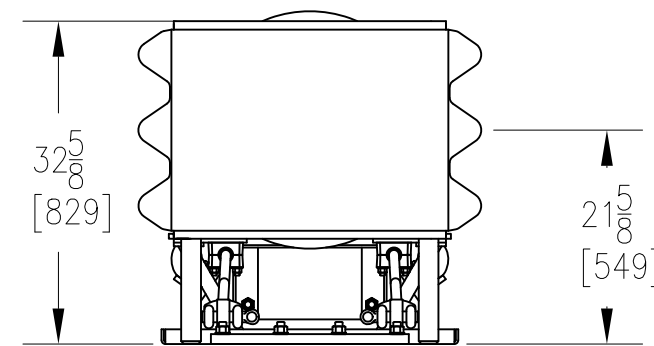
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|--|------|---------------|----------|-----|-------|------------|------|---|--|------------|----------------|------|
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|  | C    | SEE ECN 00557 | 12/29/03 | GAD |       |            |      |   |  |            |                |      |
|  | B    | SEE ECN 00368 | 4/26/02  | GAD |       |            |      | TITLE :TAU-II WITH COMPACT BACKSTOP, TRANSITION TO SAFETY SHAPE P.C.B, OFFSET |  | B010726-FL | D              |      |
|  | A    | RELEASE PREP. | 11/19/01 | GAD | NA    | NA         | NA   |   |  |            |                |      |
|  | REV. | CHANGES       | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |   |  |            |                |      |



**NOTES:**

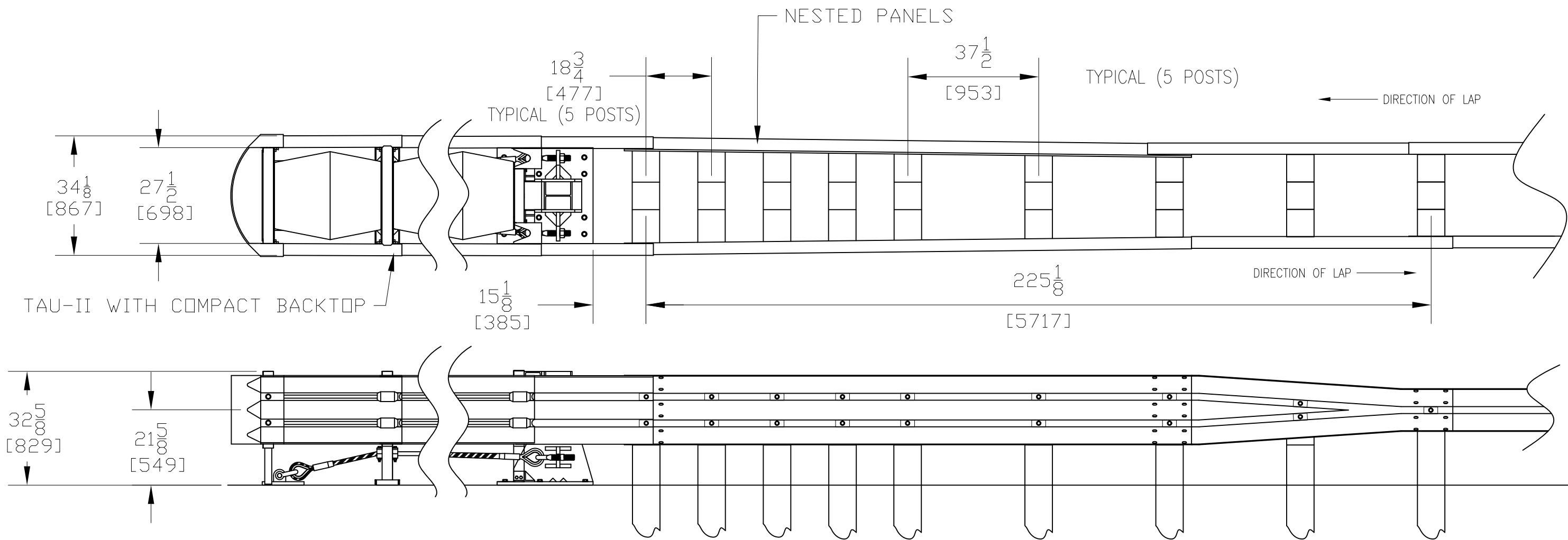
- 1.) REINFORCEMENT OF SAFETY SHAPED BARRIER END MAY BE NEEDED. REFER TO BSI SPECIFICATION B011044 OR B011045 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400 DETAIL J AND INDEX 410 'GUARDRAIL CONNECTION TO CONCRETE BARRIER WALL APPROACH ENDS'.
- 3.) 4-SPACE THRIE BEAM GUARDRAIL PER AASHTO HARDWARE SPECIFICATION RTM01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) THRIE BEAM TERMINAL CONNECTOR PER AASHTO HARDWARE SPECIFICATION RTE01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 5.) STANDARD TIMBER OR PLASTIC OFFSET BLOCKS FIELD TRIMMED FOR USE AT SECTIONS 8-11. REFERENCE BSI DRAWING B031222-FL FOR BLOCKOUT DETAILS. BLOCKOUTS SHALL MEET REQUIREMENTS OF FLORIDA DOT INDEX 400, 410, AND FLORIDA DOT SPECIFICATIONS.
- 6.) 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. BOLT LENGTH DETERMINED BY SECTION WIDTH: 8-28 1/2", 9-26", 10-24", AND 11-22". LENGTHS MAY VARY WITH DIFFERENT BARRIER WIDTHS. HOLES DRILLED THROUGH CONCRETE BARRIER ARE 3/4" DIA.

- 7.) ATTACH THRIE BEAM TERMINAL CONNECTOR TO MEDIAN BARRIER WALL WITH (5) 7/8" X 15" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS. ATTACH TO SHOULDER BARRIER WALL WITH A 21" X 12" X 5/8" THRIE BEAM TERMINAL CONNECTOR PLATE AND (5) 7/8" X 12" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS.
- 8.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 9.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 10.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS.



|  |      |               |          |     |       |            |      |  |  |            |                |      |
|--|------|---------------|----------|-----|-------|------------|------|--|--|------------|----------------|------|
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|  | C    | SEE ECN 00557 | 12/29/03 | GAD |       |            |      |  |  |            |                |      |
|  | B    | SEE ECN 00368 | 4/25/02  | GAD |       |            |      | TITLE: TAU-II WITH PCB BACKSTOP<br>TRANSITION TO VERTICAL<br>CONCRETE        |  | B010727-FL | D              |      |
|  | A    | RELEASE PREP. | 11/19/01 | GAD | NA    | NA         | NA   |  |  |            |                |      |
|  | REV. | CHANGES       | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |  |  |            |                |      |



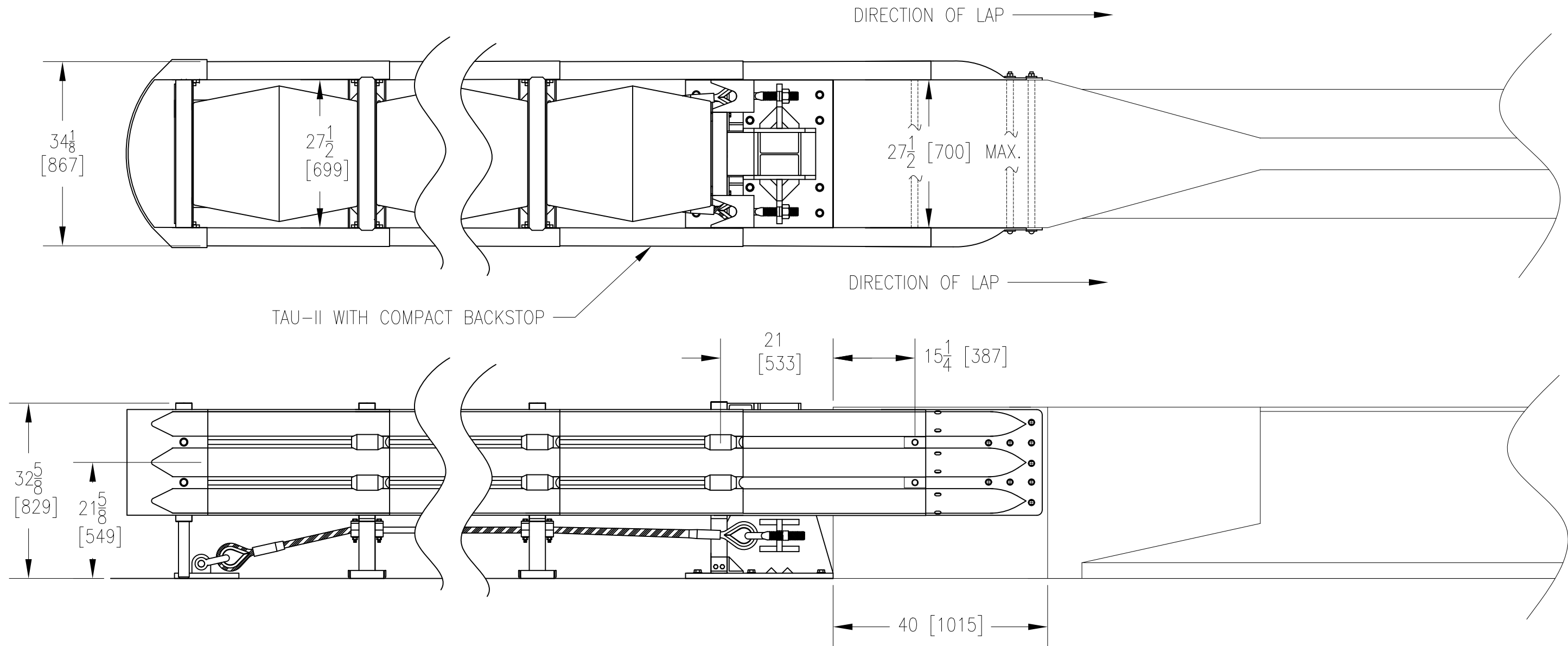


**NOTES:**

- 1.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS. REFER TO BSI SPECIFICATION B010714 OR B010819 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE, POSTS AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. SUPPORT POSTS AND BLOCKOUTS SHALL MEET REQUIREMENTS OF FLORIDA DOT INDEX 400 AND FLORIDA DOT SPECIFICATIONS.
- 3.) 4-SPACE THRIE BEAM GUARDRAIL PER AASHTO HARDWARE SPECIFICATION RTM01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) TWO (2) 4-SPACED THRIE BEAM GUARDRAIL (RTM04) PANELS NESTED ONE SET INSIDE THE OTHER FOR BI-DIRECTIONAL TRAFFIC CONDITIONS. ONLY NEEDED ON SIDE WHERE TAU-II SYSTEM IS DOWNSTREAM OF TRANSITION.
- 5.) W-THRIE BEAM TRANSITION SECTION PER AASHTO HARDWARE SPECIFICATION RWTD1. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 6.) FLORIDA DOT W-BEAM GUARDRAIL.
- 7.) 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. BOLT LENGTH DETERMINED BY SECTION WIDTH.

- 8.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 9.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.

|  |      |               |          |     |       |            |      |  |  |  |       |                |      |
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|  | B    | SEE ECN 00368 | 4/26/02  | GAD |       |            |      |  | TITLE : TAU-II WITH COMPACT BACKSTOP, TRANSITION TO W-BEAM |  |       |                |      |
|  | A    | RELEASE PREP. | 11/20/01 | GAD |       |            |      |  |  |  |       |                |      |
|  | REV. | CHANGES       | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |  |  |  |       |                |      |



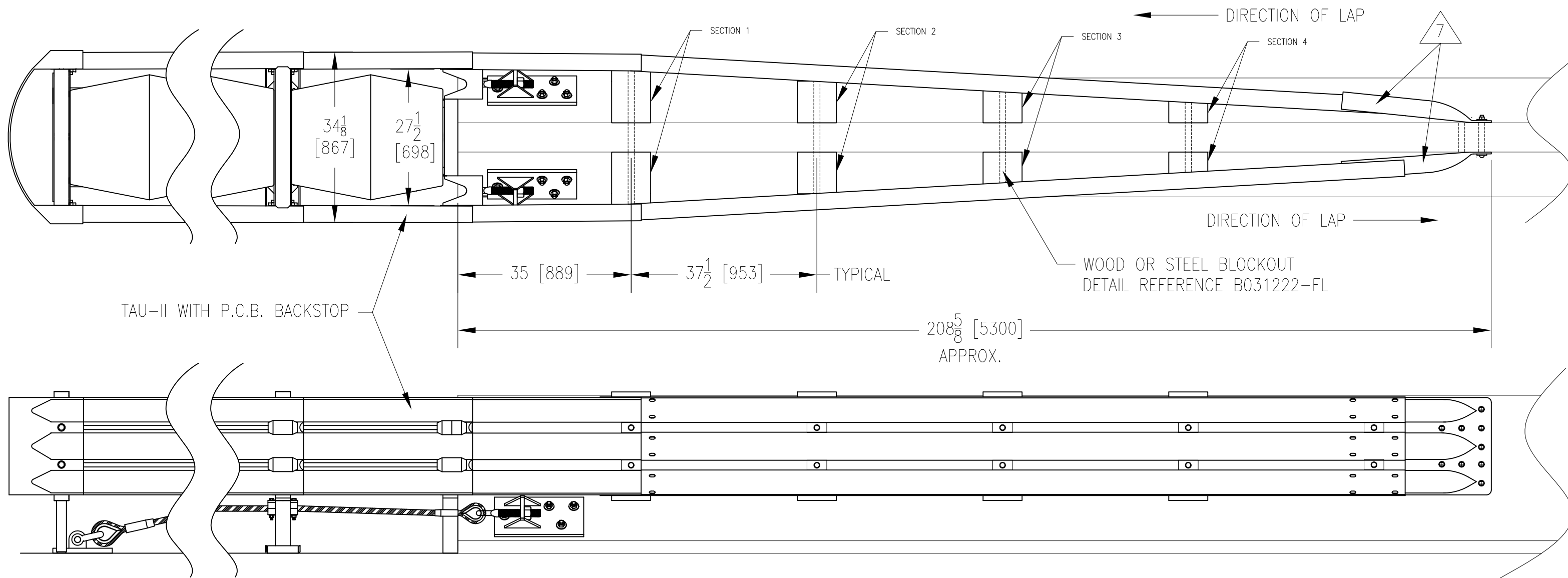
TAU-II WITH COMPACT BACKSTOP

**NOTES:**

- 1.) REINFORCEMENT OF SAFETY SHAPED BARRIER END MAY BE NEEDED. REFER TO BSI SPECIFICATION B010714 OR B010819 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400 DETAIL J AND INDEX 410 'GUARDRAIL CONNECTION TO CONCRETE BARRIER WALL APPROACH ENDS'.
- 3.) THREE BEAM TERMINAL CONNECTOR PER AASHTO HARDWARE SPECIFICATION RTE01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) ATTACH THREE BEAM TERMINAL CONNECTOR TO MEDIAN BARRIER WALL WITH (7) 7/8" X 28 1/2" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS OR USE 3/4" THREADED ANCHORS AND EPOXY WITH MINIMUM 6" EMBEDMENT.

- 5.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 6.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 7.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS.

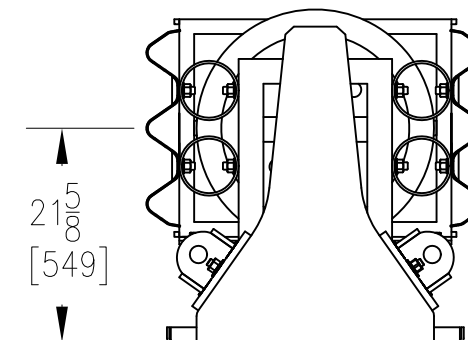
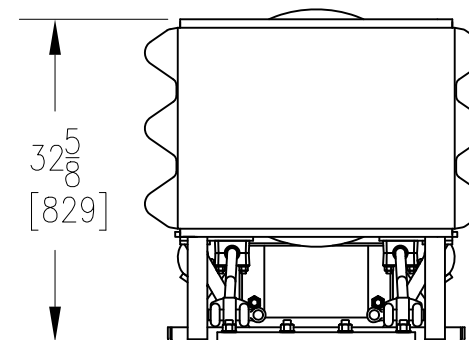
|   |      |               |          |     |       |            |      |  |  |            |                |      |
|---|------|---------------|----------|-----|-------|------------|------|--|--|------------|----------------|------|
| © 2001 Barrier Systems, Inc.  | D    | SEE ECN 00569 | 1/16/04  | GAD |       |            |      | SCALE: 1=20  | Standard Tolerance<br>Angular ± 1/2°<br>Fractional ± 1/16<br>Dec .XXX= ± .010<br>Dec .XX= ± .030 | MODEL      | DRAWING NUMBER | REV. |
|   | C    | SEE ECN 00557 | 12/29/03 | GAD |       |            |      |  |  |            |                |      |
| The information hereon is proprietary to Barrier Systems Inc. and shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc. | B    | SEE ECN 00368 | 4/26/02  | GAD |       |            |      | TITLE: TAU-II WITH COMPACT BACKSTOP, TRANSITION TO CONCRETE END SHOE |  | B010806-FL | D              |      |
|   | A    | RELEASE PREP. | 11/19/01 | GAD | NA    | NA         | NA   |  |  |            |                |      |
|   | REV. | CHANGES       | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |  |  |            |                |      |



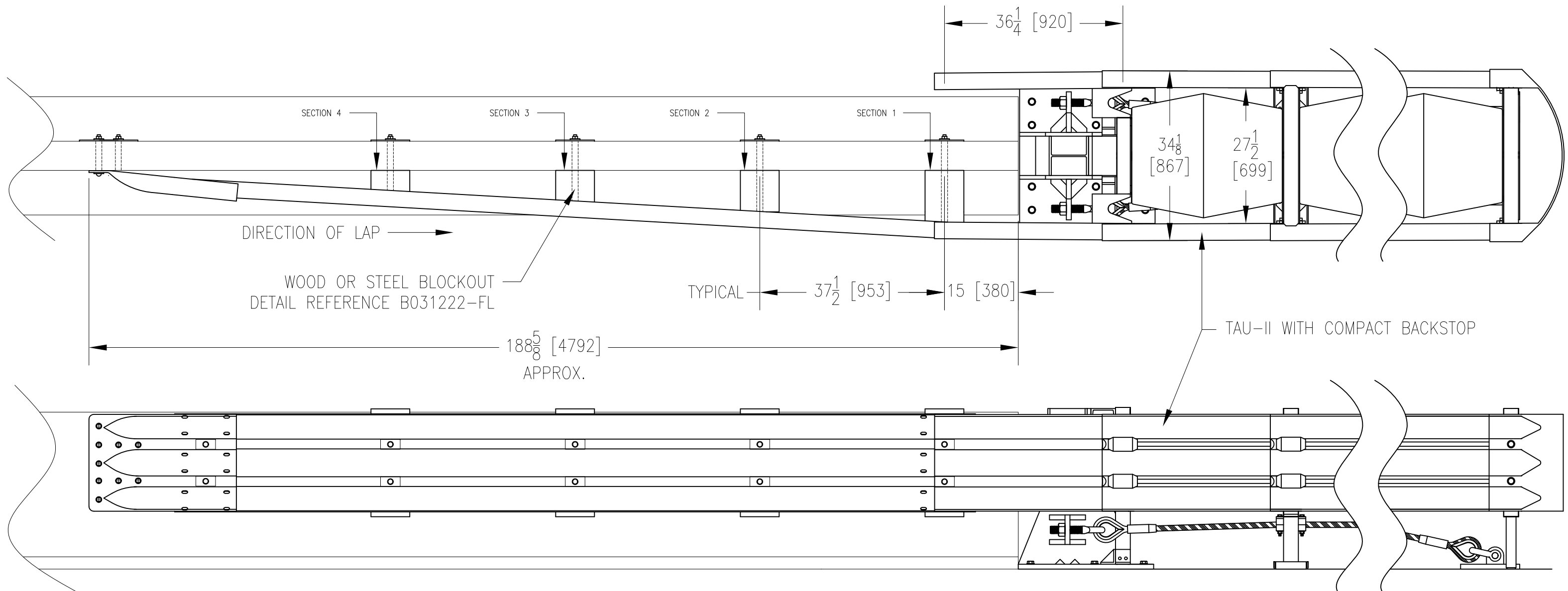
**NOTES:**

- 1.) REINFORCEMENT OF SAFETY SHAPED BARRIER END MAY BE NEEDED. REFER TO BSI SPECIFICATION B011044 OR B011045 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400 DETAIL J AND INDEX 410 'GUARDRAIL CONNECTION TO CONCRETE BARRIER WALL APPROACH ENDS'.
- 3.) 4-SPACE THRIE BEAM GUARDRAIL PER AASHTO HARDWARE SPECIFICATION RTM01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) THRIE BEAM TERMINAL CONNECTOR PER AASHTO HARDWARE SPECIFICATION RTE01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 5.) STANDARD TIMBER OR PLASTIC OFFSET BLOCKS FIELD TRIMMED FOR USE AT SECTIONS 1-4. REFERENCE BSI DRAWING B031222-FL FOR BLOCKOUT DETAILS. BLOCKOUTS SHALL MEET REQUIREMENTS OF FLORIDA DOT INDEX 400, 410, AND FLORIDA DOT SPECIFICATIONS.
- 6.) 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. BOLT LENGTH DETERMINED BY SECTION WIDTH: 1-28 1/2", 2-24 1/2", 3-20 1/2", AND 4-16 1/2". LENGTHS MAY VARY WITH DIFFERENT BARRIER SHAPES. HOLES DRILLED THROUGH CONCRETE BARRIER ARE 3/4" DIA.

- 7.) ATTACH THRIE BEAM TERMINAL CONNECTOR TO MEDIAN BARRIER WALL WITH (5) 7/8" X 15" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS. ATTACH TO SHOULDER BARRIER WALL WITH A 21" X 12" X 5/8" THRIE BEAM TERMINAL CONNECTOR PLATE AND (5) 7/8" X 12" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS.
- 8.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 9.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 10.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS.



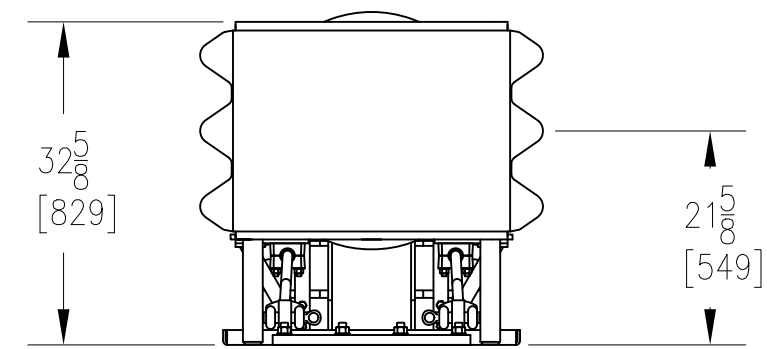
|   |      |               |          |     |       |            |      |   |  |            |                |      |
|---|------|---------------|----------|-----|-------|------------|------|---|--|------------|----------------|------|
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|   | C    | SEE ECN 00557 | 12/29/03 | GAD |       |            |      |   |  |            |                |      |
|   | B    | SEE ECN 00368 | 4/25/02  | GAD |       |            |      | TITLE: TAU-II WITH PCB BACKSTOP<br>TRANSITION TO SAFETY<br>SHAPE P.C.B. |  | B010809-FL | D              |      |
|   | A    | RELEASE PREP. | 11/19/01 | GAD | NA    | NA         | NA   |   |  |            |                |      |
|   | REV. | CHANGES       | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |   |  |            |                |      |



**NOTES:**

- 1.) REINFORCEMENT OF SAFETY SHAPED BARRIER END MAY BE NEEDED. REFER TO BSI SPECIFICATION B010714 OR B010819 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400 DETAIL J AND INDEX 410 'GUARDRAIL CONNECTION TO CONCRETE BARRIER WALL APPROACH ENDS'.
- 3.) 4-SPACE THRIE BEAM GUARDRAIL PER AASHTO HARDWARE SPECIFICATION RTM01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) THRIE BEAM TERMINAL CONNECTOR PER AASHTO HARDWARE SPECIFICATION RTE01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 5.) STANDARD TIMBER OR PLASTIC OFFSET BLOCKS FIELD TRIMMED FOR USE AT SECTIONS 1-4. REFERENCE BSI DRAWING B031222-FL FOR BLOCKOUT DETAILS. BLOCKOUTS SHALL MEET REQUIREMENTS OF FLORIDA DOT INDEX 400, 410, AND FLORIDA DOT SPECIFICATIONS.
- 6.) 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. BOLT LENGTH DETERMINED BY SECTION WIDTH: 1-20", 2-18", 3-16", AND 4-14". LENGTHS MAY VARY WITH DIFFERENT BARRIER SHAPES. A 12" X 12" X 1/4" BACK-UP PLATE WITH 3/4" DIA HOLES IS REQUIRED. HOLES DRILLED THROUGH CONCRETE BARRIER ARE 3/4" DIA.

- 7.) ATTACH THRIE BEAM TERMINAL CONNECTOR TO MEDIAN BARRIER WALL WITH (5) 7/8" X 15" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS. ATTACH TO SHOULDER BARRIER WALL WITH A 21" X 12" X 5/8" THRIE BEAM TERMINAL CONNECTOR PLATE AND (5) 7/8" X 12" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS.
- 8.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 9.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 10.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS.



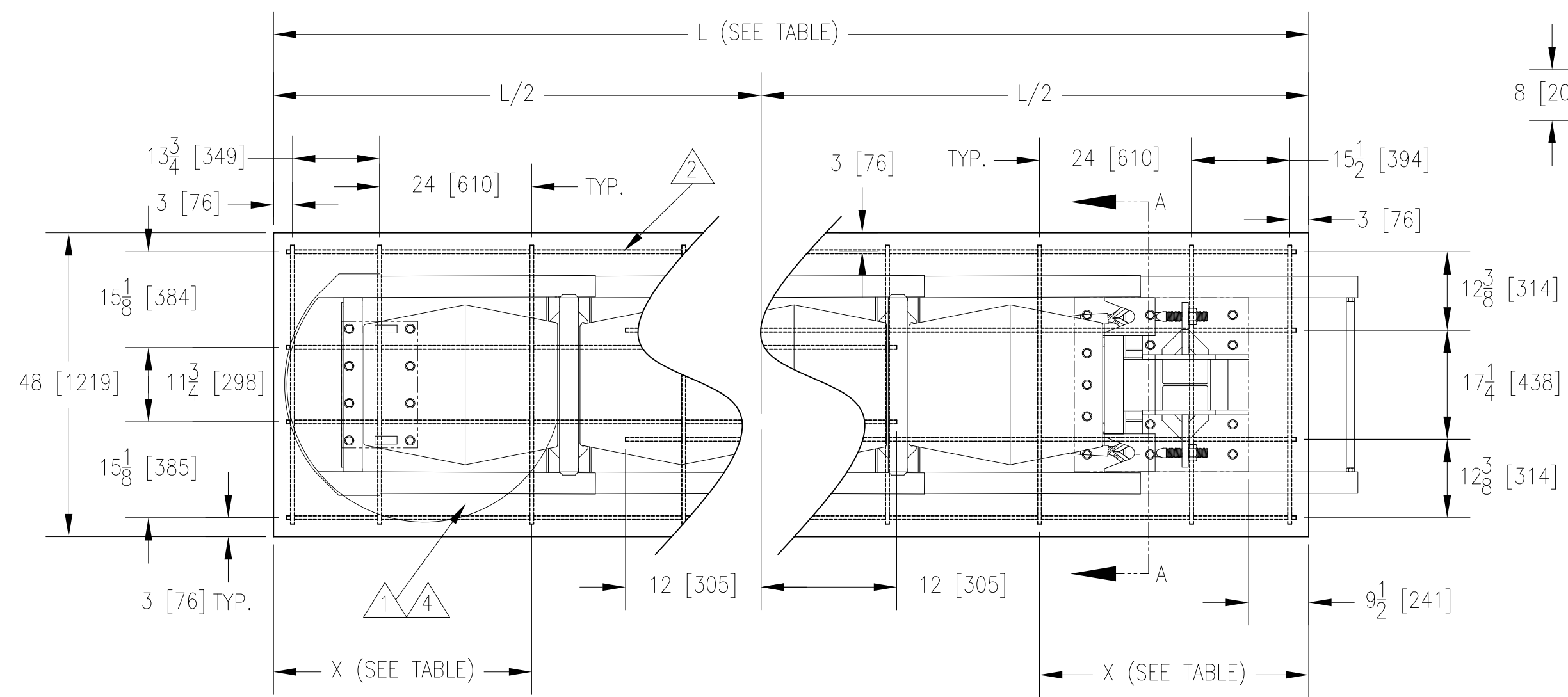
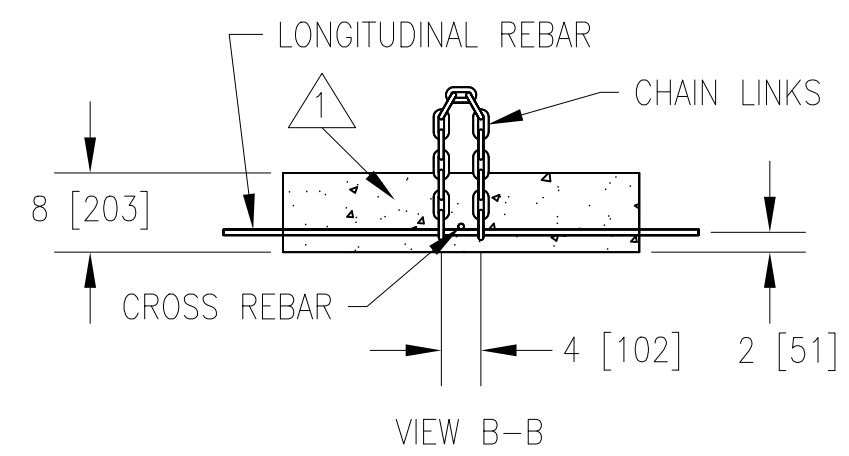
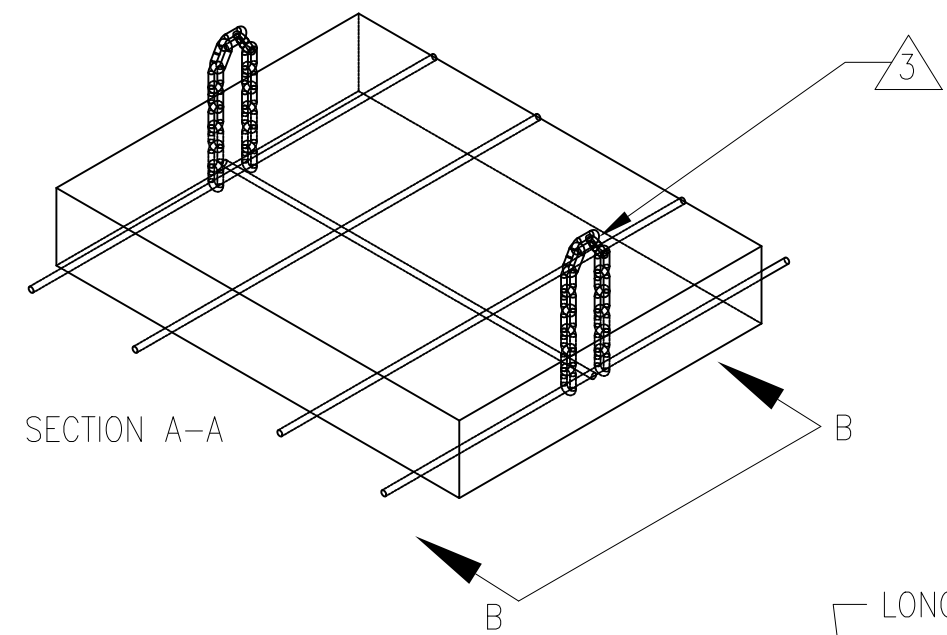
|   |      |               |          |     |       |            |      |   |  |            |                |      |
|---|------|---------------|----------|-----|-------|------------|------|---|--|------------|----------------|------|
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|   | C    | SEE ECN 00557 | 12/29/03 | GAD |       |            |      |   |  |            |                |      |
|   | B    | SEE ECN 00368 | 4/25/02  | GAD |       |            |      | TITLE: TAU-II WITH COMPACT BACKSTOP, TRANSITION TO SAFETY SHAPE P.C.B, ONE SIDE |  | B010811-FL | D              |      |
|   | A    | RELEASE PREP. | 11/19/01 | GAD | NA    | NA         | NA   |   |  |            |                |      |
|   | REV. | CHANGES       | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |   |  |            |                |      |

| TABLE       |                   |                          |
|-------------|-------------------|--------------------------|
| No. OF BAYS | PAD LENGTH, L     | PICKUP POINTS, X         |
| 2           | 9' 7 1/2" [2934]  | 40 3/4" [1035] ± 2" [51] |
| 3           | 12' 5 1/2" [3797] | 40 3/4" [1035] ± 2" [51] |
| 4           | 15' 3 1/2" [4661] | 40 3/4" [1035] ± 2" [51] |
| 5           | 18' 1 1/2" [5525] | 64 3/4" [1645] ± 2" [51] |
| 7           | 23' 10" [7264]    | 64 3/4" [1645] ± 2" [51] |
| 8           | 26' 8" [8128]     | 64 3/4" [1645] ± 2" [51] |
| 9           | 29' 6" [8992]     | 88 3/4" [2254] ± 2" [51] |
| 10          | 32' 4 1/2" [9879] | 88 3/4" [2254] ± 2" [51] |

1 8 IN [200 MM] MIN REINFORCED 4000 PSI [28 MPa] STONE AGGREGATE CONCRETE 145 LBS/CU.FT [2324 KG/CU.M].

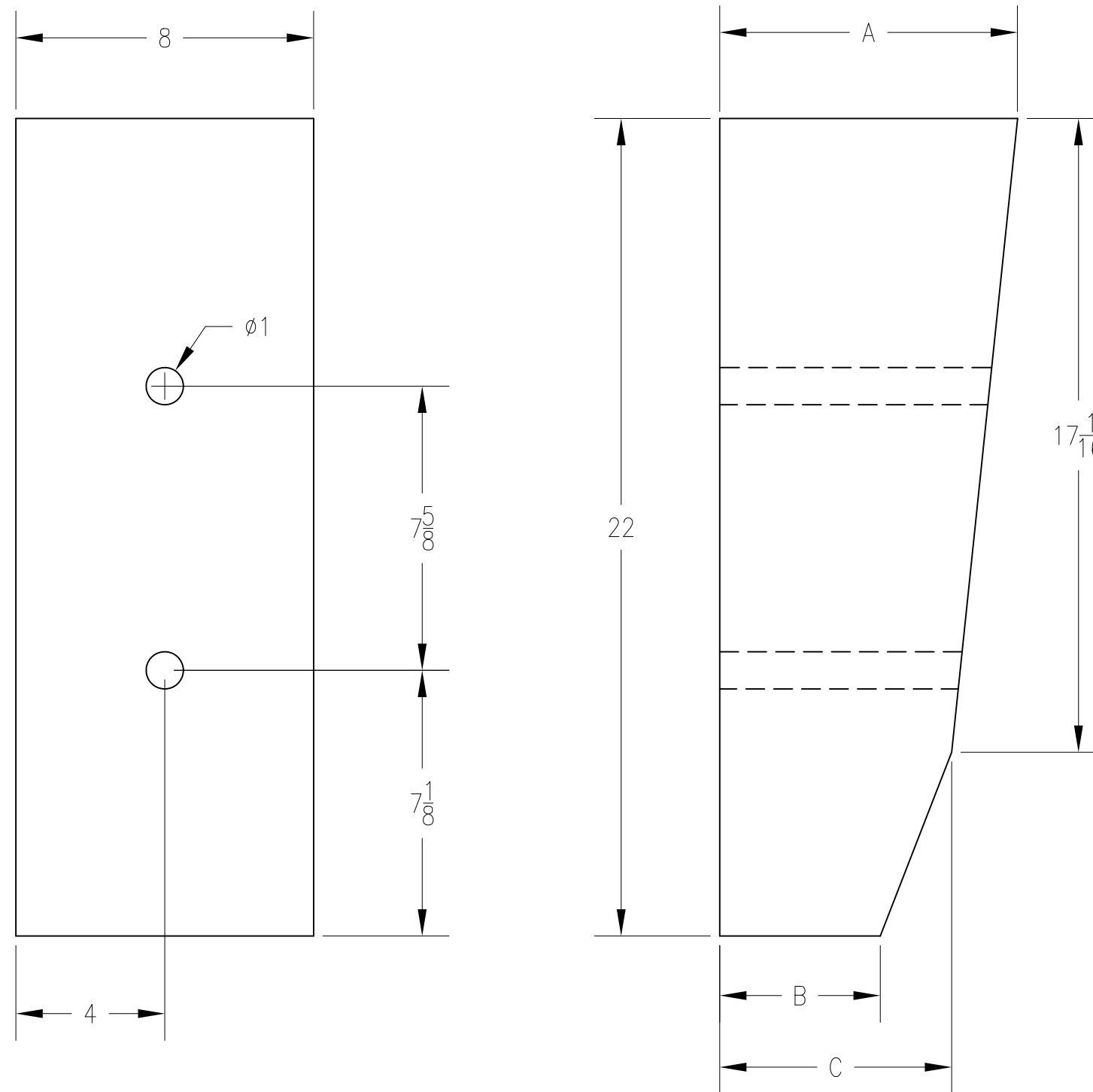
2 #5 [15MM] REBAR

3 LIFTING POINTS: USE 1/2" [13mm] PROOF COIL CHAIN. CHAIN MUST MEET THE REQUIREMENTS OF ASTM A-413 GRADE 28. THE MINIMUM LENGTH CHAIN IS 15 LINKS AND THE REBAR WILL BE INSERTED THROUGH BOTH ENDS AS SHOWN.



4 THE CONTRACTOR IS TO FURNISH A CERTIFICATION THAT THE CONCRETE INSTALLED MEETS THE REQUIRED STRENGTH AND TESTING REQUIREMENTS.

|   |      |                       |          |     |       |            |      |             |  |       |                |      |
|---|------|-----------------------|----------|-----|-------|------------|------|-------------|--|-------|----------------|------|
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|   | B    | FLDOT SPECS           | 8/22/03  | GAD |       |            |      | DATE        |  | INIT. |                |      |
|   | A    | SEE ECN 00409         | 11/7/02  | GAD |       |            |      | TITLE :     | PRE-CAST PADS,<br>REINFORCED P.C. CONCRETE<br>WITH COMPACT BACKSTOP                              | MODEL | DRAWING NUMBER | REV. |
|   | REV. | CHANGES               | DATE     | BY  | REQ'D | NEXT ASSY. | ITEM |             |  |       | B020516-FL     | C    |

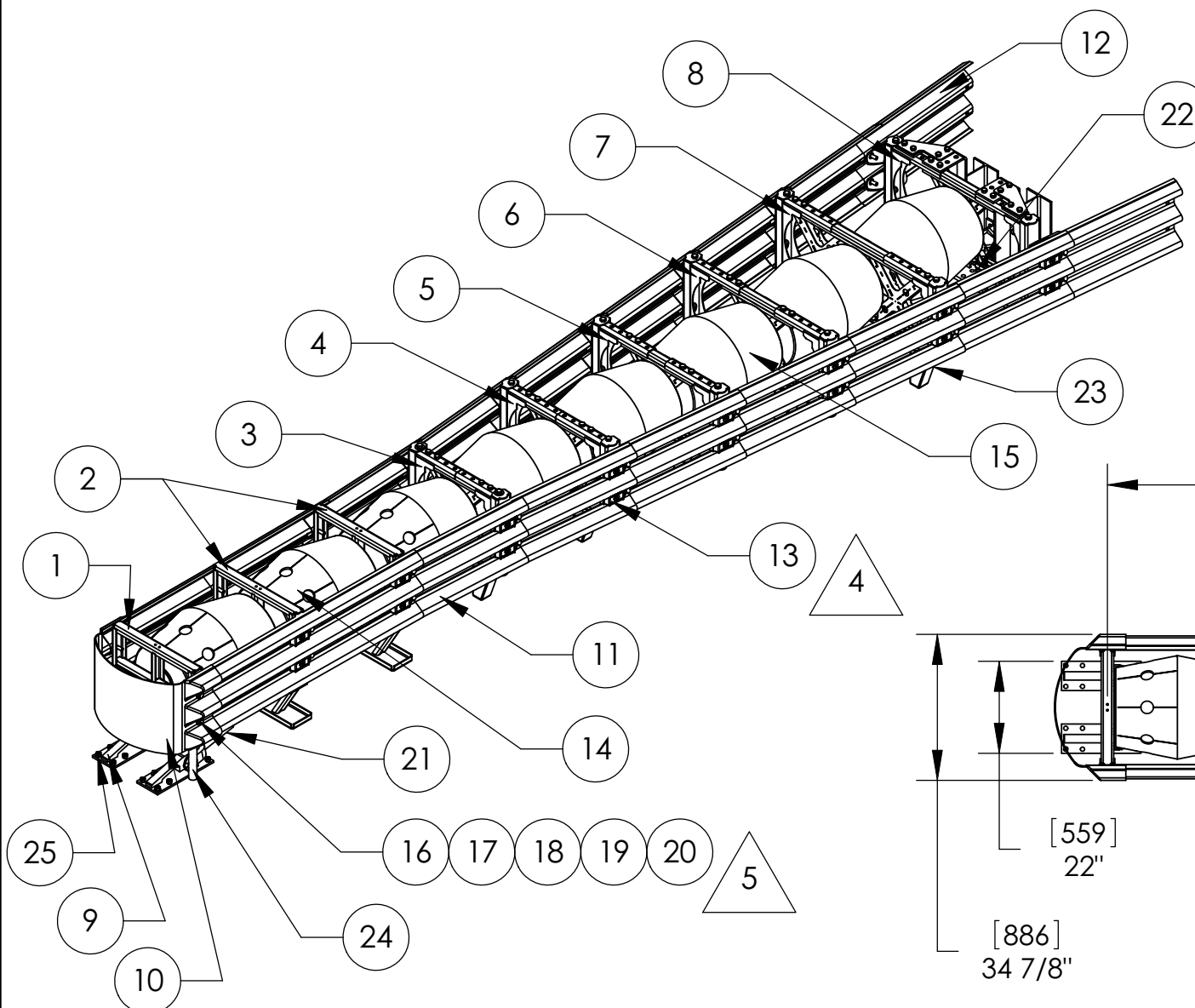


| TRANSITION BLOCKOUT DIMENSIONS in [mm] |              |               |             |
|--|--------------|---------------|-------------|
| SECTION                                | A            | B             | C           |
| 1                                      | 10 3/4 [273] | 7 1/16 [180]  | 9 [230]     |
| 2                                      | 8 5/8 [220]  | 4 15/16 [125] | 6 7/8 [175] |
| 3                                      | 6 1/2 [165]  | 2 13/16 [72]  | 4 3/4 [120] |
| 4                                      | 4 3/8 [112]  | 1 1/16 [18]   | 2 5/8 [67]  |
| 5                                      | 5 1/2 [140]  | 1 13/16 [46]  | 3 3/4 [95]  |
| 6                                      | 3 3/8 [86]   | NA            | 1 5/8 [42]  |
| 7                                      | 1 1/4 [32]   | NA            | 3/4 [20]    |
| 8                                      | 5 3/4 [146]  | 5 3/4 [146]   | 5 3/4 [146] |
| 9                                      | 4 5/8 [118]  | 4 5/8 [118]   | 4 5/8 [118] |
| 10                                     | 3 1/2 [89]   | 3 1/2 [89]    | 3 1/2 [89]  |
| 11                                     | 2 5/8 [67]   | 2 5/8 [67]    | 2 5/8 [67]  |

NOTES:

- 1.) BLOCKOUTS SHALL MEET THE REQUIREMENTS OF FLORIDA DOT INDEX 400 AND FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400, DETAIL J AND INDEX 410 'GUARDRAIL CONNECTIONS TO CONCRETE BARRIER WALL APPROACH ENDS.
- 2.) BSI DRAWING REFERENCES: B010811-FL, B010809-FL, B010725-FL, B010726-FL, & B010727-FL
- 3.) THRIE BEAM OFFSET BLOCKS FIELD TRIMMED FOR USE AT SECTIONS 1 THROUGH 11.

|  |                |         |      |    |       |            |      |  |  |       |                |      |
|--|----------------|---------|------|----|-------|------------|------|--|--|-------|----------------|------|
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|  | REV.           | CHANGES | DATE | BY | REQ'D | NEXT ASSY. | ITEM | TITLE : TRANSITION BLOCKOUT  |  | MODEL | DRAWING NUMBER | REV. |
| A  | SEE ECN 00569  | 1/16/04 | GAD  |    |       |            |      |  |  |       | B031222-FL     | A    |



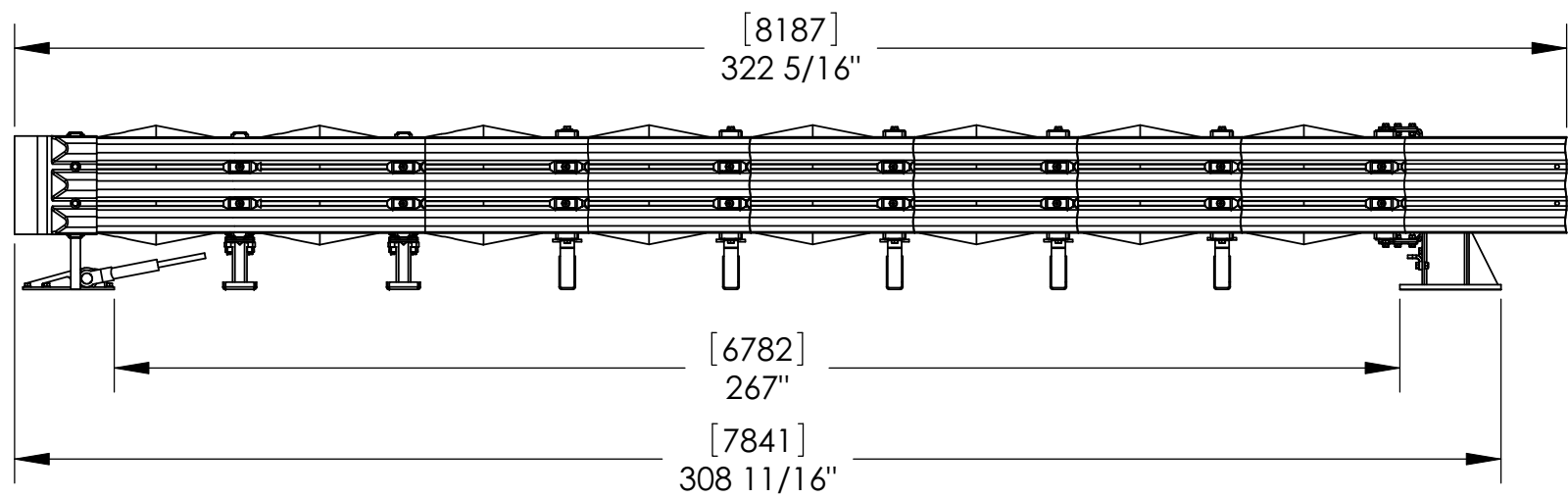
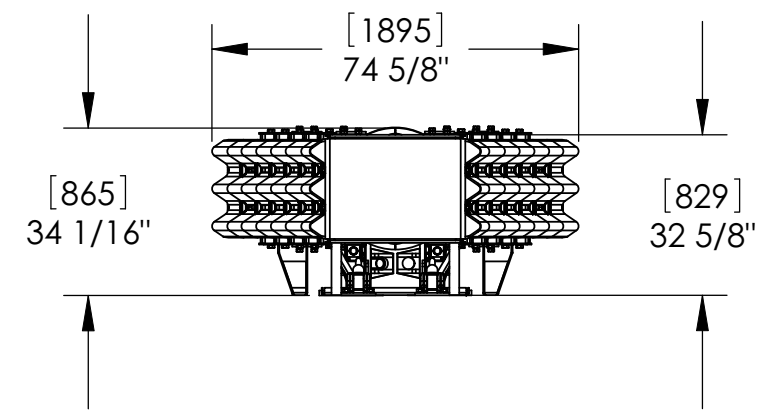
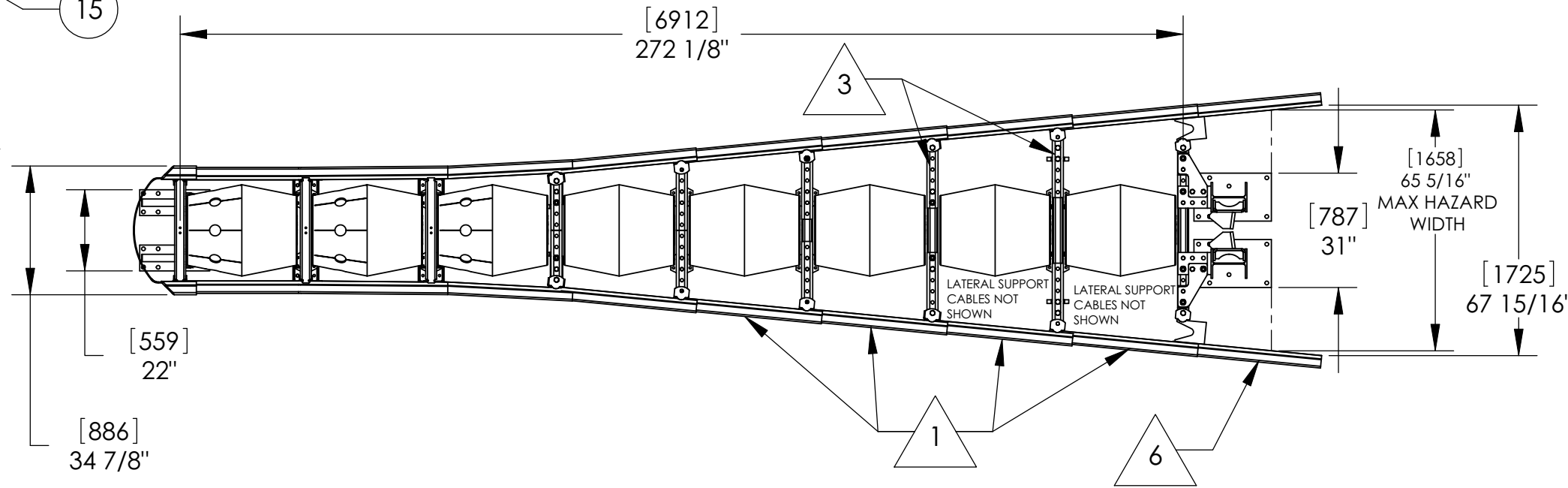
NOTES:

- 1.) NEST (2) PANELS ON LAST (4) BAYS.
- 2.) TENSION CABLE TO APPROXIMATELY 20,000 LBF [89 KN]. FOR 2.0" - 6.0 THREAD, TORQUE NUT TO 500 FT-LBF [680 N-m].
- 3.) LATERAL RESTRAINT CABLES (NOT SHOWN) CONNECT THE BACKSTOPS TO THE OPPOSITE ENDS OF THE LAST (2) BULKHEADS. SEE LATERAL SUPPORT KIT B031027 FOR DETAILS AND SPECIFIC BULKHEAD ASSEMBLYS FOR MOUNTING LOCATIONS.
- 4.) TORQUE SLIDER BOLTS TO 20 FT-LBF [27 N-m]
- 5.) TORQUE NOSE PIECE ATTACHMENT HARDWARE TO 200 FT-LBF [270 N-m]
- 6.) TRANSITIONS MUST NOT CREATE AN EDGE CAPABLE OF SNAGGING A VEHICLE AND SHOULD REMAIN PARALLEL TO THE END PANELS AT THE CONNECTIONS. FOR BI-DIRECTIONAL TRAFFIC A STANDARD AASHTO THRIE BEAM TRANSITION SHOULD BE USED TO PREVENT SNAGGING OF THE END PANELS. THE LATERAL STIFFNESS OF THE TRANSITION SHOULD BE EQUAL TO OR STRONGER THAN THAT OF THE TAU-II SYSTEM.

SPECIFICATIONS:

- 1.) ALL STEEL COMPONENTS ARE ASTM A36 OR EQUIVALENT UNLESS OTHERWISE STATED.
- 2.) ALL STEEL COMPONENTS ARE HOT DIPPED GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 3.) ALL FASTENERS ARE GRADE 2 OR EQUIVALENT AND GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967 UNLESS OTHERWISE STATED.
- 4.) STANDARD TORQUE SPECIFICATION FOR 20MM-2.5 FASTENERS WHEN NOT SPECIFIED IS 120 FT-LBF [160 N-M].
- 5.) ALL FASTENERS WILL INCORPORATE A POSITIVE THREAD LOCKING DEVICE.

| ITEM | QTY / DWG | PART DESCRIPTION                   | SPECIFICATION/CONFIGURATION      | PART #  |
|------|-----------|------------------------------------|----------------------------------|---------|
| 1    | 1         | FRONT SUPPORT                      | TAU-II COMPONENT                 | B010528 |
| 2    | 2         | MIDDLE SUPPORT                     | TAU-II COMPONENT                 | B010530 |
| 3    | 1         | XL BULKHEAD                        | MIDDLE, 30", CABLE POSITION #1   | B034004 |
| 4    | 1         | XL BULKHEAD                        | MIDDLE, 36", CABLE POSITION #1   | B034005 |
| 5    | 1         | XL BULKHEAD                        | MIDDLE, 42", CABLE POSITION #1   | B034006 |
| 6    | 1         | XL BULKHEAD                        | MIDDLE, 48", CABLE POSITION #1   | B034007 |
| 7    | 1         | XXL BULKHEAD                       | MIDDLE, 54", CABLE POSITION #1   | B034016 |
| 8    | 1         | 60" BACKSTOP                       | XL BULKHEAD, 48", POSITION #1    | B034011 |
| 9    | 2         | FRONT CABLE ANCHOR                 | NA                               | B030935 |
| 10   | 1         | NOSE / DELINEATION MARKER          | NA                               | B010711 |
| 11   | 24        | SLIDING PANEL                      | NA                               | B010202 |
| 12   | 2         | END PANEL                          | NA                               | B010659 |
| 13   | 32        | SLIDING BOLT                       | NA                               | B010842 |
| 14   | 3         | ENERGY ABSORBING CARTRIDGE, TYPE A | NA                               | B010802 |
| 15   | 5         | ENERGY ABSORBING CARTRIDGE, TYPE B | NA                               | B010722 |
| 16   | 4         | EXTRA THICK FLAT WASHER            | SS - 1 1/2"OD X 13/16"ID X 7/32" | 2001009 |
| 17   | 4         | HEX BOLT                           | MECH GALV-20MM-2.5 X 50MM        | 2001449 |
| 18   | 4         | WASHER                             | MECH GALV-20MM                   | 2001450 |
| 19   | 4         | HEX NUT                            | MECH GALV-20MM-2.5               | 2001451 |
| 20   | 4         | FENDER WASHER                      | SS-13/16"ID X 1 7/8"OD           | 2001009 |
| 21   | 2         | CABLE [8 BAY]                      | NA                               | B034106 |
| 22   | 1         | LATERAL SUPPORT KIT                | NA                               | B031027 |
| 23   | 14        | CABLE GUIDE                        | NA                               | B010721 |
| 24   | 2         | FRONT SUPPORT LEG                  | NA                               | B010712 |
| 25   | 1         | ANCHORING PACKAGE                  | SMALL, WIDE TAU-II               | B031029 |



THIS DRAWING ILLUSTRATES THE GENERAL LAYOUT OF PARALLEL TO 60" WIDE ATTENUATOR

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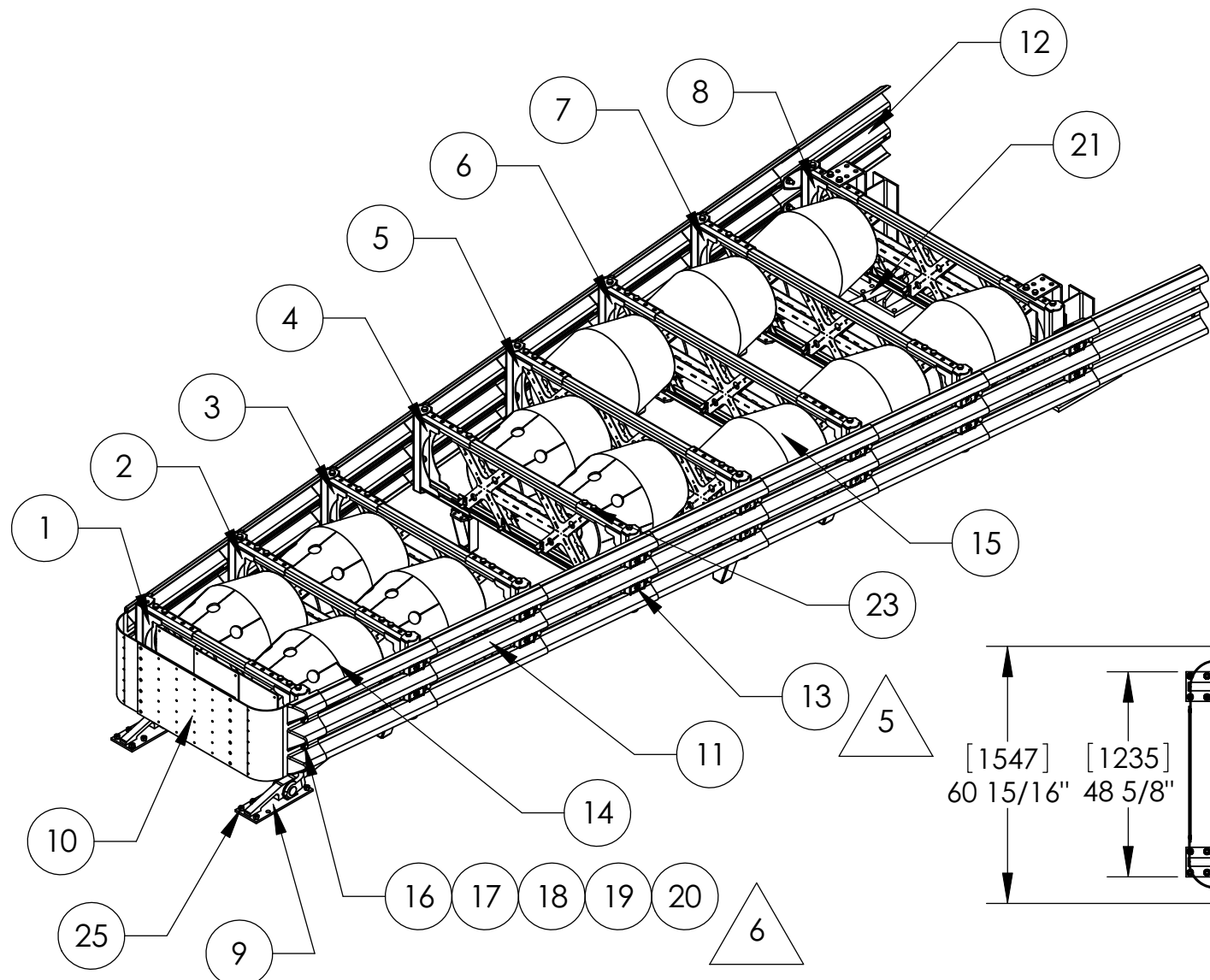
| REV. | CHANGES    | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |
|------|------------|----------|----|-------|------------|------|
| A    | ADDED NOTE | 10/16/08 | JR | 1     | NA         | 1    |

SCALE: 1:40  
DRAWN BY: 10/21/03  
DATE: 10/21/03  
INIT: GAD  
JSM

Standard Tolerance  
Angular +/- 1/2 Deg.  
Fractional +/- 1/16  
Dec. XXX= +/- .010  
Dec. .XX= +/- .030

TITLE:  
UNIVERSAL TAU-II 100 KPH TL-3,  
60" BACKSTOP

| MODEL | DRAWING NUMBER | REV |
|-------|----------------|-----|
|       | B033004-FL     | A   |



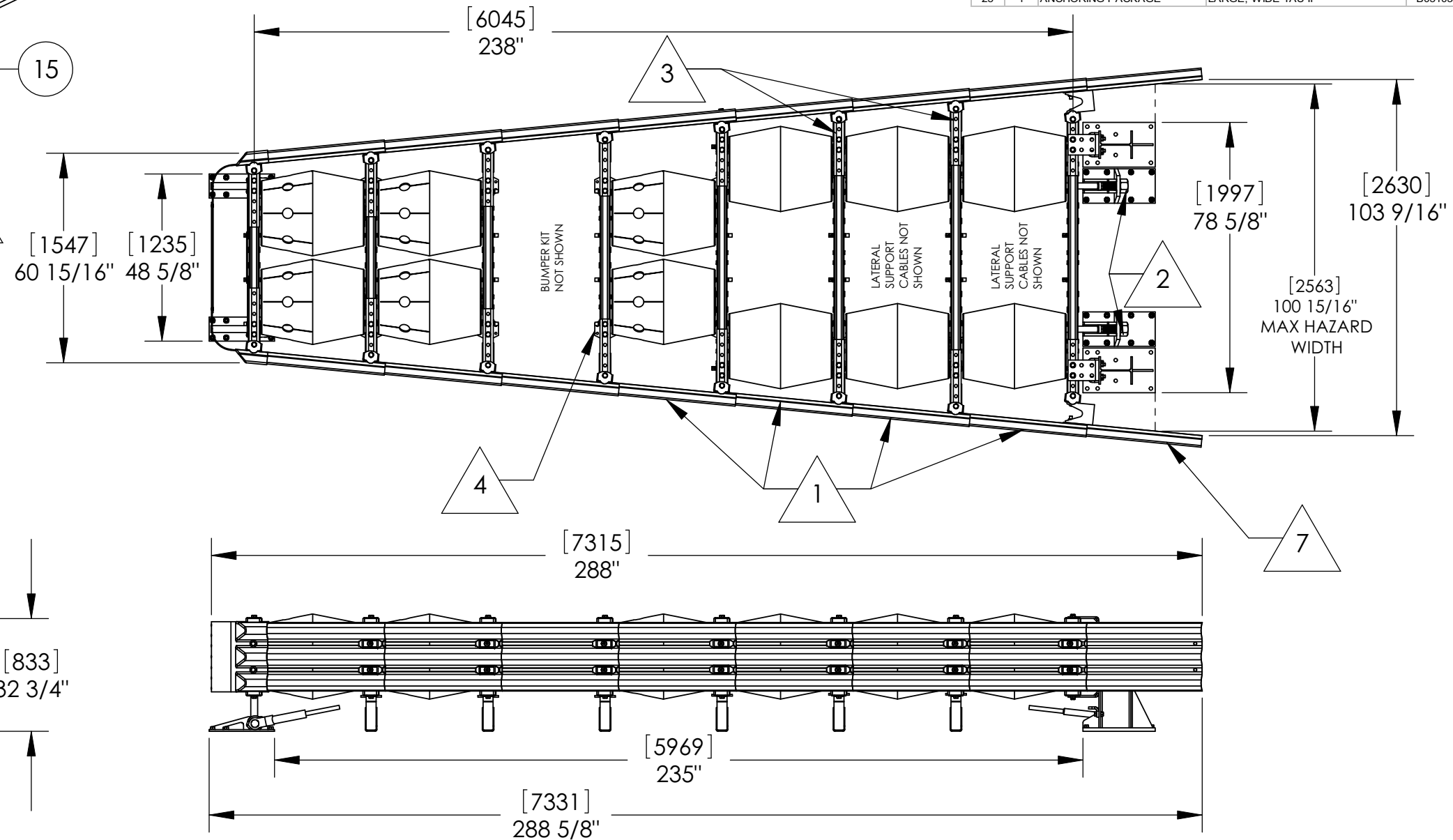
NOTES:

- 1.) NEST (2) PANELS ON LAST (4) BAYS.
- 2.) TENSION CABLE TO APPROXIMATELY 20,000 LBF [89 KN]. FOR 2.0" - 6.0 THREAD, TORQUE NUT TO 500 FT-LBF [680 N-m].
- 3.) LATERAL RESTRAINT CABLES (NOT SHOWN) CONNECT THE BACKSTOPS TO THE OPPOSITE ENDS OF THE LAST (2) BULKHEADS. SEE LATERAL SUPPORT KIT B031027 FOR DETAILS AND SPECIFIC BULKHEAD ASSEMBLYS FOR MOUNTING LOCATIONS.
- 4.) BUMPER KIT MOUNTS IN THE EMPTY BAY. SEE BUMPER KIT B031028 FOR DETAILS AND SPECIFIC BULKHEAD ASSEMBLYS FOR MOUNTING LOCATIONS.
- 5.) TORQUE SLIDER BOLTS TO 20 FT-LBF [27 N-m].
- 6.) TORQUE NOSE PIECE ATTACHMENT HARDWARE TO 200 FT-LBF [270 N-m].
- 7.) TRANSITIONS MUST NOT CREATE AN EDGE CAPABLE OF SNAGGING A VEHICLE AND SHOULD REMAIN PARALLEL TO THE END PANELS AT THE CONNECTIONS. FOR BI-DIRECTIONAL TRAFFIC A STANDARD AASHTO THRIE BEAM TRANSITION SHOULD BE USED TO PREVENT SNAGGING OF THE END PANELS. THE LATERAL STIFFNESS OF THE TRANSITION SHOULD BE EQUAL TO OR STRONGER THAN THAT OF THE TAU-II SYSTEM.
- 8.) ITEM # 22 NOT SHOWN.

SPECIFICATIONS:

- 1.) ALL STEEL COMPONENTS ARE ASTM A36 OR EQUIVALENT UNLESS OTHERWISE STATED.
- 2.) ALL STEEL COMPONENTS ARE HOT DIPPED GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 3.) ALL FASTENERS ARE GRADE 2 OR EQUIVALENT AND GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967 UNLESS OTHERWISE STATED.
- 4.) THE STANDARD TORQUE SPECIFICATION FOR 20MM-2.5 FASTENERS WHEN NOT SPECIFIED IS 120 FT-LBF [160 N-M].
- 5.) ALL FASTENERS WILL INCORPORATE A POSITIVE THREAD LOCKING DEVICE.

| ITEM | QTY / DWG | PART DESCRIPTION                   | SPECIFICATION/CONFIGURATION      | PART #  |
|------|-----------|------------------------------------|----------------------------------|---------|
| 1    | 1         | XXL BULKHEAD                       | FRONT, 54"                       | B034012 |
| 2    | 1         | XXL BULKHEAD                       | MIDDLE, 60", CABLE POSITION #2   | B034021 |
| 3    | 1         | XXL BULKHEAD                       | MIDDLE, 66", CABLE POSITION #2   | B034022 |
| 4    | 1         | XXL BULKHEAD                       | MIDDLE, 72", CABLE POSITION #2   | B034023 |
| 5    | 1         | XXXL BULKHEAD                      | MIDDLE, 78", CABLE POSITION #2   | B034040 |
| 6    | 1         | XXXL BULKHEAD                      | MIDDLE, 84", CABLE POSITION #2,  | B034041 |
| 7    | 1         | XXXL BULKHEAD                      | MIDDLE, 90", CABLE POSITION #2,  | B034042 |
| 8    | 1         | 96" BACKSTOP                       | XXXL BULKHEAD, 84", POSITION #2  | B034053 |
| 9    | 2         | FRONT CABLE ANCHOR                 | NA                               | B030935 |
| 10   | 2         | NOSE / DELINIATION MARKER          | NA                               | B030902 |
| 11   | 22        | SLIDING PANEL                      | NA                               | B010202 |
| 12   | 2         | END PANEL                          | NA                               | B010659 |
| 13   | 28        | SLIDING BOLT                       | NA                               | B010842 |
| 14   | 6         | ENERGY ABSORBING CARTRIDGE, TYPE A | NA                               | B010802 |
| 15   | 6         | ENERGY ABSORBING CARTRIDGE, TYPE B | NA                               | B010722 |
| 16   | 4         | EXTRA THICK FLAT WASHER            | SS - 1 1/2"OD X 13/16"ID X 7/32" | 2001009 |
| 17   | 4         | HEX BOLT                           | MECH GALV-20MM-2.5 X 50MM        | 2001449 |
| 18   | 4         | WASHER                             | MECH GALV-20MM                   | 2001450 |
| 19   | 4         | HEX NUT                            | MECH GALV-20MM-2.5               | 2001451 |
| 20   | 4         | FENDER WASHER                      | SS-13/16"ID X 1 7/8"OD           | 2001009 |
| 21   | 2         | CABLE [7 BAY]                      | NA                               | B034105 |
| 22   | 1         | LATERAL SUPPORT KIT                | NA                               | B031027 |
| 23   | 1         | BUMPER KIT                         | NA                               | B031028 |
| 24   | 12        | CABLE GUIDE                        | NA                               | B010721 |
| 25   | 1         | ANCHORING PACKAGE                  | LARGE, WIDE TAU-II               | B031030 |

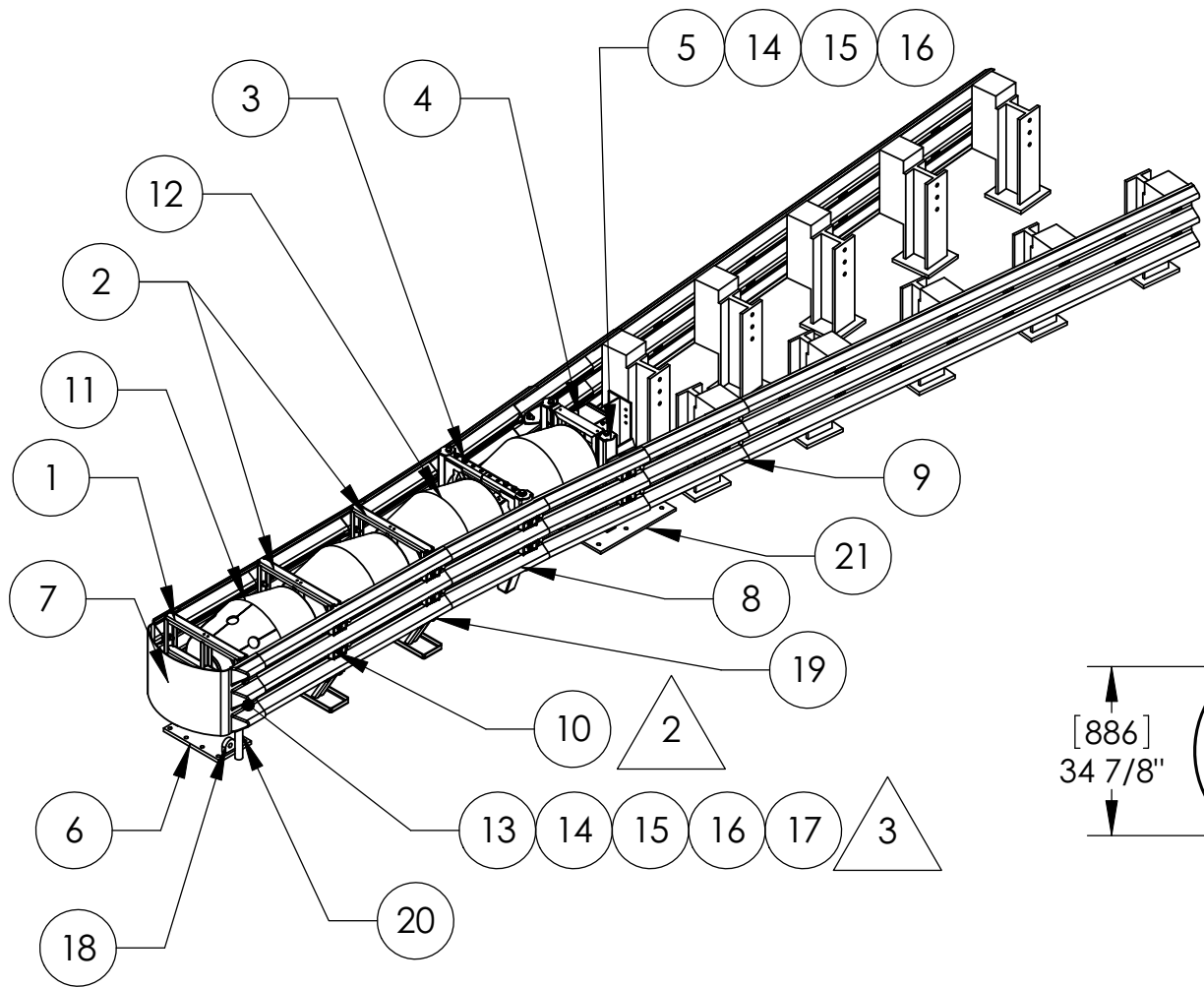


THIS DRAWING ILLUSTRATES THE GENERAL LAYOUT FOR A 96" WIDE 8-BAY TAU-II, 60 MPH RATED UNIT (MODEL # 96T100WBC)

|  |              |          |    |       |            |      |                                       |       |                      |
|--|--------------|----------|----|-------|------------|------|---------------------------------------|-------|----------------------|
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|  |              |          |    |       |            |      | 10/09/03                              | GAD   | Angular +/- 1/2 Deg. |
| REV.   | CHANGES      | DATE     | BY | REQ'D | NEXT ASSY. | ITEM | TITLE: WIDE TAU-II TL-3, 96" BACKSTOP |       |                      |
| B  | CHANGED NOTE | 04/27/09 | JR |       |            |      | MODEL DRAWING NUMBER REV              |       |                      |
| A  | ADDED NOTE   | 10/16/08 | JR | 1     | NA         | 1    | B033010-FL B                          |       |                      |

|                    |  |  |                    |  |  |       |  |  |
|--------------------|--|--|--------------------|--|--|-------|--|--|
| Dec. XXX= +/- .010 |  |  | Dec. .XX= +/- .030 |  |  |       |  |  |
| DRAWN BY           |  |  | DATE               |  |  | INIT. |  |  |
| 10/09/03           |  |  | GAD                |  |  | JSM   |  |  |
| MODEL              |  |  | DRAWING NUMBER     |  |  | REV   |  |  |
| B033010-FL         |  |  | B                  |  |  |       |  |  |





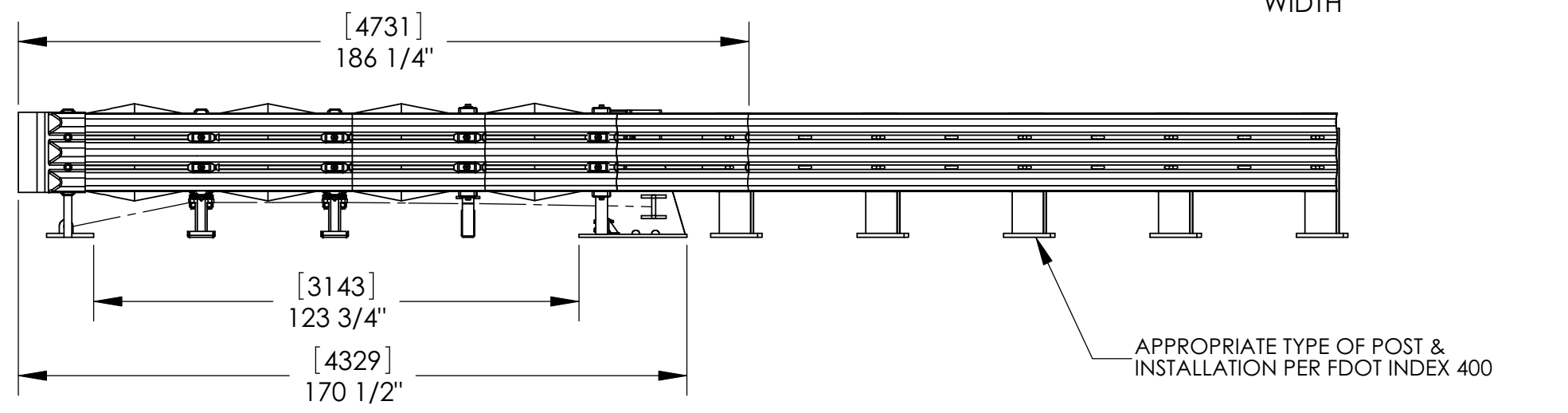
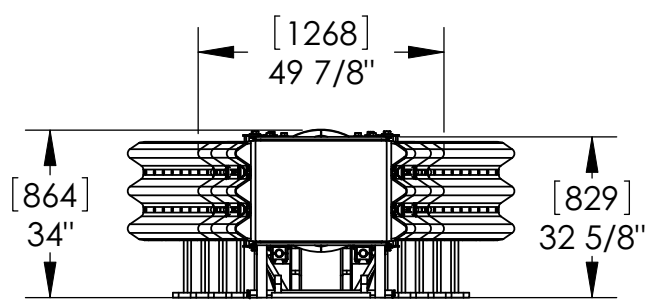
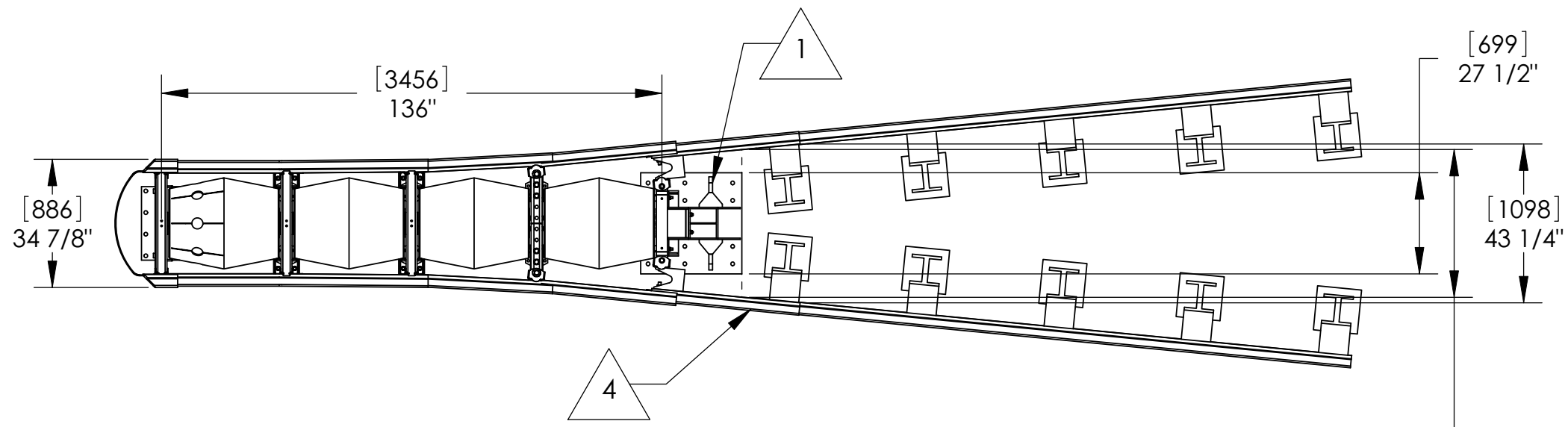
NOTES:

- 1.) TORQUE CABLES TO 500 FT-LBF ( 678 N-m)
- 2.) TORQUE SLIDER BOLTS TO 20 FT-LBF [27 N-m]
- 3.) TORQUE NOSE PIECE ATTACHMENT HARDWARE TO 200 FT-LBF [270 N-m]
- 4.) TRANSITIONS MUST NOT CREATE AN EDGE CAPABLE OF SNAGGING A VEHICLE AND SHOULD REMAIN PARALLEL TO THE END PANELS AT THE CONNECTIONS. FOR BI-DIRECTIONAL TRAFFIC A STANDARD AASHTO THRIE BEAM TRANSITION SHOULD BE USED TO PREVENT SNAGGING OF THE END PANELS. THE LATERAL STIFFNESS OF THE TRANSITION SHOULD BE EQUAL TO OR STRONGER THAN THAT OF THE TAU-II SYSTEM.
- 5.) TRANSITION TO W-BEAM PANELS CAN BE MADE USING A W-THRIE BEAM TRANSITION SECTION AFTER THE FIRST FULL PIECE OF THRIE-BEAM SHOWN BELOW.

SPECIFICATIONS:

- 1.) ALL STEEL COMPONENTS ARE ASTM A36 OR EQUIVALENT UNLESS OTHERWISE STATED.
- 2.) ALL STEEL COMPONENTS ARE HOT DIPPED GALVANIZED PER ASTM A-123 UNLESS OTHERWISE STATED.
- 3.) ALL FASTENERS ARE GRADE 2 OR EQUIVALENT AND GALVANIZED UNLESS OTHERWISE STATED.
- 4.) STANDARD TORQUE SPECIFICATION FOR 20MM-2.5 FASTENERS WHEN NOT SPECIFIED IS 120 FT-LBF [160 N-M].
- 5.) ALL FASTENERS WILL INCORPORATE A POSITIVE THREAD LOCKING DEVICE.

| appr: DGB |           | BILL OF MATERIALS                  | WIDE TAU II, 70 KPH (TL-2), 36" COMPACT BACKSTOP | B033142 |
|-----------|-----------|------------------------------------|--|---------|
| ITEM      | QTY / DWG | PART DESCRIPTION                   | SPECIFICATION/CONFIGURATION                      | PART #  |
| 1         | 1         | FRONT SUPPORT                      | TAU-II COMPONENT                                 | B010528 |
| 2         | 2         | MIDDLE SUPPORT                     | TAU-II COMPONENT                                 | B010530 |
| 3         | 1         | XL BULKHEAD                        | MIDDLE, 30", CABLE POSITION #1                   | B034004 |
| 4         | 1         | COMPACT END SUPPORT ASSEMBLY       | NA   | B010537 |
| 5         | 2         | ADAPTER                            | NA   | B031201 |
| 6         | 1         | FRONT CABLE ANCHOR                 | NA   | B010248 |
| 7         | 1         | NOSE / DELINIATION MARKER          | NA   | B010711 |
| 8         | 8         | SLIDING PANEL                      | NA   | B010202 |
| 9         | 2         | END PANEL                          | NA   | B010659 |
| 10        | 16        | SLIDING BOLT                       | NA   | B010842 |
| 11        | 1         | ENERGY ABSORBING CARTRIDGE, TYPE A | NA   | B010802 |
| 12        | 3         | ENERGY ABSORBING CARTRIDGE, TYPE B | NA   | B010722 |
| 13        | 4         | EXTRA THICK FLAT WASHER            | SS - 1 1/2"OD X 13/16"ID X 7/32"                 | 2001009 |
| 14        | 8         | HEX BOLT                           | MECH GALV-20MM-2.5 X 50MM                        | 2001449 |
| 15        | 8         | WASHER                             | MECH GALV-20MM                                   | 2001450 |
| 16        | 8         | HEX NUT                            | MECH GALV-20MM-2.5                               | 2001451 |
| 17        | 4         | FENDER WASHER                      | SS-13/16"ID X 1 7/8"OD                           | 2001009 |
| 18        | 2         | CABLE [4 BAY]                      | NA   | B010917 |
| 19        | 6         | CABLE GUIDE                        | NA   | B010721 |
| 20        | 2         | FRONT SUPPORT LEG                  | NA   | B010712 |
| 21        | 1         | ANCHORING PACKAGE                  | NA   | B010713 |



THIS DRAWING ILLUSTRATES THE GENERAL LAYOUT FOR A TAU-II 36" WIDE, 45 MPH RATED UNIT (MODEL # 36T070CBC)

|  |  |  |  |                    |  |  |  |
|--|--|--|--|--------------------|--|--|--|
| © 2008 Barrier Sytems Inc.   |  | SCALE: 1:40  |  | Standard Tolerance |  | <b>BARRIER SYSTEMS</b><br>180 RIVER RD, RIO VISTA, CA 94571<br>TEL: 707-374-6800 FAX: 707-374-6801 |  |
| The information here on is proprietary to Barrier Systems Inc. shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc. |  | DRAWN BY: 01/12/04 RGC                                     |  | Angular ± 1/2°     |  |  |  |
| A ADDED NOTES 04/28/09 JR  |  | DATE: 01/12/04 INIT: RGC                                   |  | Fractional ± 1/16" |  | SHEET: DRAWING NUMBER  |  |
| 0 NEW DRAWING 10/16/08 JR  |  | APPR'D BY: JSM   |  | Dec .XXX= ± .010   |  | 1 OF 1 B033142-FL  |  |
| REV. CHANGES DATE BY REQ'D NEXT ASSY. ITEM   |  | TITLE: WIDE TAU-II TL-2 TRANSITION TO CONVERGING GUARDRAIL |  | Dec .XX= ± .030    |  | REV: A   |  |

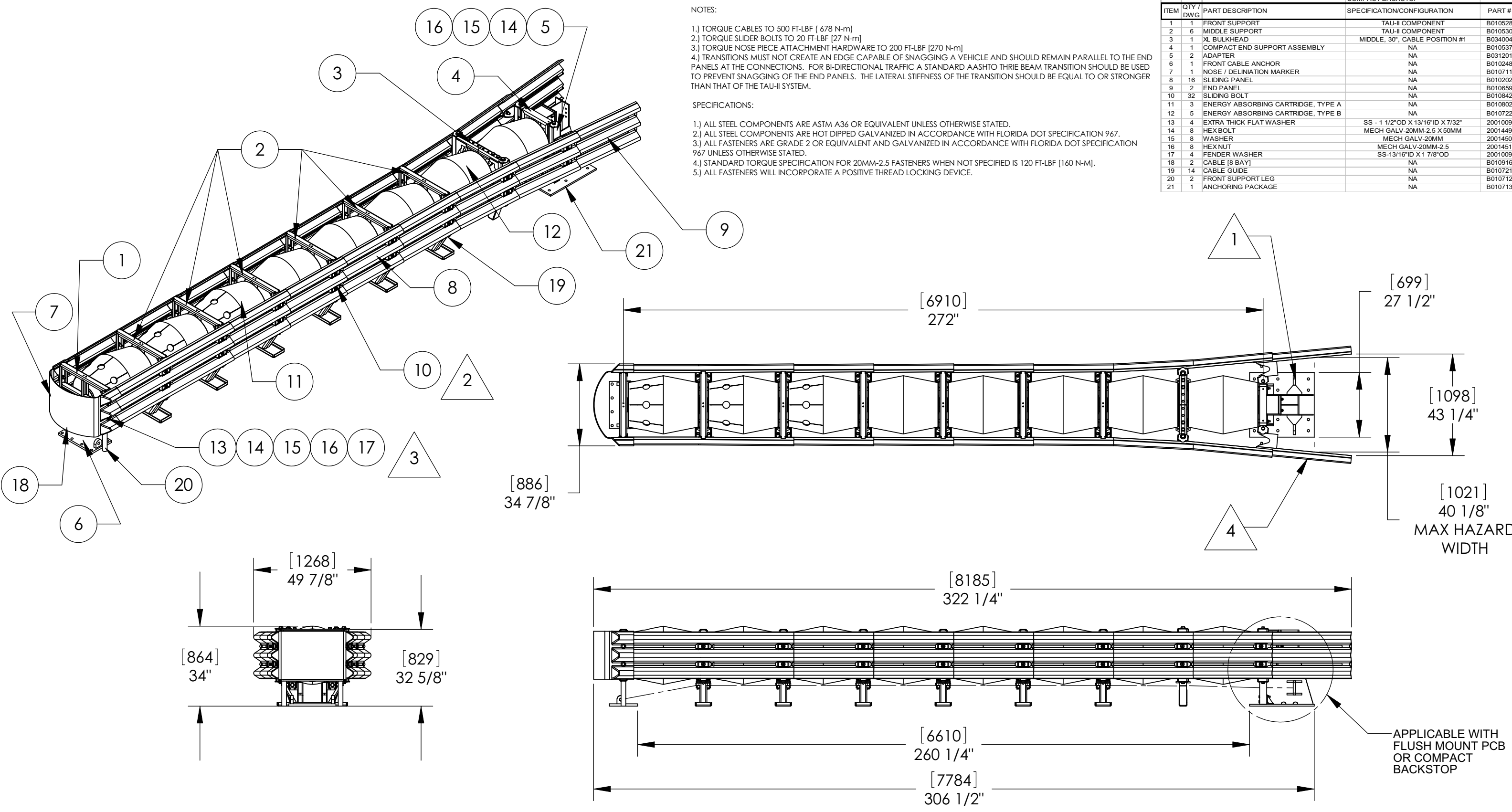
| app: DGB |           | BILL OF MATERIALS                  |                                  | WIDE TAU II, 100 KPH (TL-3), 36" COMPACT BACKSTOP | B033146 |
|----------|-----------|------------------------------------|----------------------------------|---|---------|
| ITEM     | QTY / DWG | PART DESCRIPTION                   | SPECIFICATION/CONFIGURATION      | PART #  |         |
| 1        | 1         | FRONT SUPPORT                      | TAU-II COMPONENT                 | B010528   |         |
| 2        | 6         | MIDDLE SUPPORT                     | TAU-II COMPONENT                 | B010530   |         |
| 3        | 1         | XL BULKHEAD                        | MIDDLE, 30", CABLE POSITION #1   | B034004   |         |
| 4        | 1         | COMPACT END SUPPORT ASSEMBLY       | NA                               | B010537   |         |
| 5        | 2         | ADAPTER                            | NA                               | B031201   |         |
| 6        | 1         | FRONT CABLE ANCHOR                 | NA                               | B010248   |         |
| 7        | 1         | NOSE / DELINEATION MARKER          | NA                               | B010711   |         |
| 8        | 16        | SLIDING PANEL                      | NA                               | B010202   |         |
| 9        | 2         | END PANEL                          | NA                               | B010659   |         |
| 10       | 32        | SLIDING BOLT                       | NA                               | B010842   |         |
| 11       | 3         | ENERGY ABSORBING CARTRIDGE, TYPE A | NA                               | B010802   |         |
| 12       | 5         | ENERGY ABSORBING CARTRIDGE, TYPE B | NA                               | B010722   |         |
| 13       | 4         | EXTRA THICK FLAT WASHER            | SS - 1 1/2"OD X 13/16"ID X 7/32" | 2001009   |         |
| 14       | 8         | HEX BOLT                           | MECH GALV-20MM-2.5 X 50MM        | 2001449   |         |
| 15       | 8         | WASHER                             | MECH GALV-20MM                   | 2001450   |         |
| 16       | 8         | HEX NUT                            | MECH GALV-20MM-2.5               | 2001451   |         |
| 17       | 4         | FENDER WASHER                      | SS-13/16"ID X 1 7/8"OD           | 2001009   |         |
| 18       | 2         | CABLE [8 BAY]                      | NA                               | B010916   |         |
| 19       | 14        | CABLE GUIDE                        | NA                               | B010721   |         |
| 20       | 2         | FRONT SUPPORT LEG                  | NA                               | B010712   |         |
| 21       | 1         | ANCHORING PACKAGE                  | NA                               | B010713   |         |

NOTES:

- 1.) TORQUE CABLES TO 500 FT-LBF ( 678 N-m)
- 2.) TORQUE SLIDER BOLTS TO 20 FT-LBF [27 N-m]
- 3.) TORQUE NOSE PIECE ATTACHMENT HARDWARE TO 200 FT-LBF [270 N-m]
- 4.) TRANSITIONS MUST NOT CREATE AN EDGE CAPABLE OF SNAGGING A VEHICLE AND SHOULD REMAIN PARALLEL TO THE END PANELS AT THE CONNECTIONS. FOR BI-DIRECTIONAL TRAFFIC A STANDARD AASHTO THRIE BEAM TRANSITION SHOULD BE USED TO PREVENT SNAGGING OF THE END PANELS. THE LATERAL STIFFNESS OF THE TRANSITION SHOULD BE EQUAL TO OR STRONGER THAN THAT OF THE TAU-II SYSTEM.

SPECIFICATIONS:

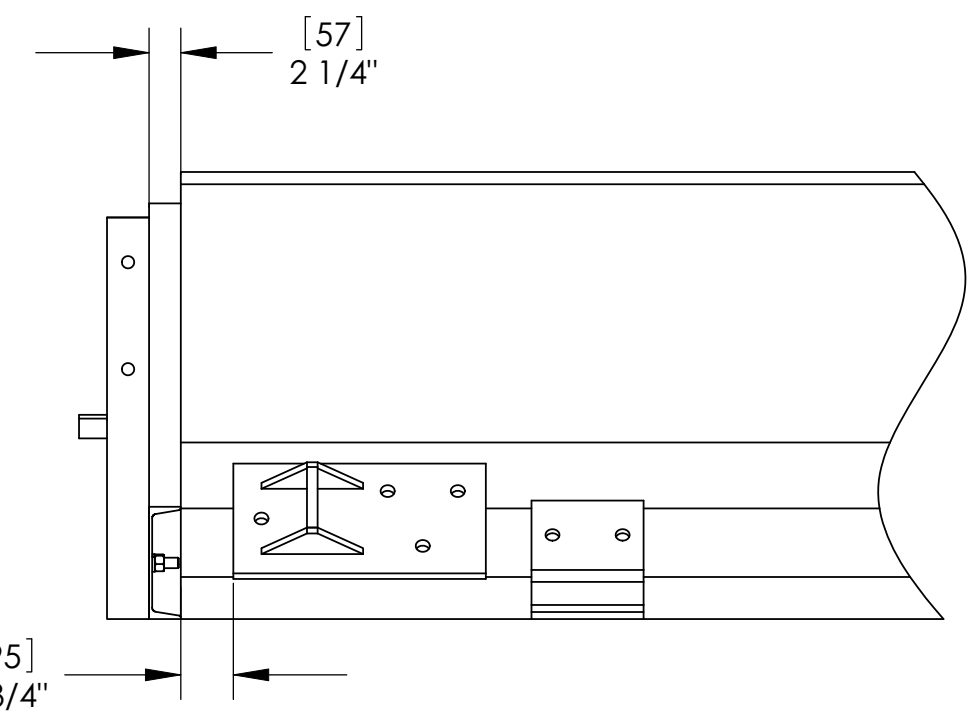
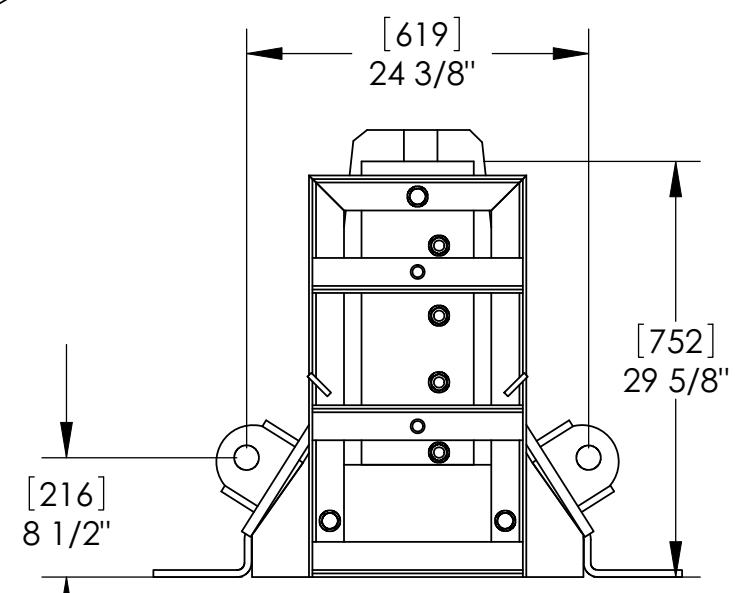
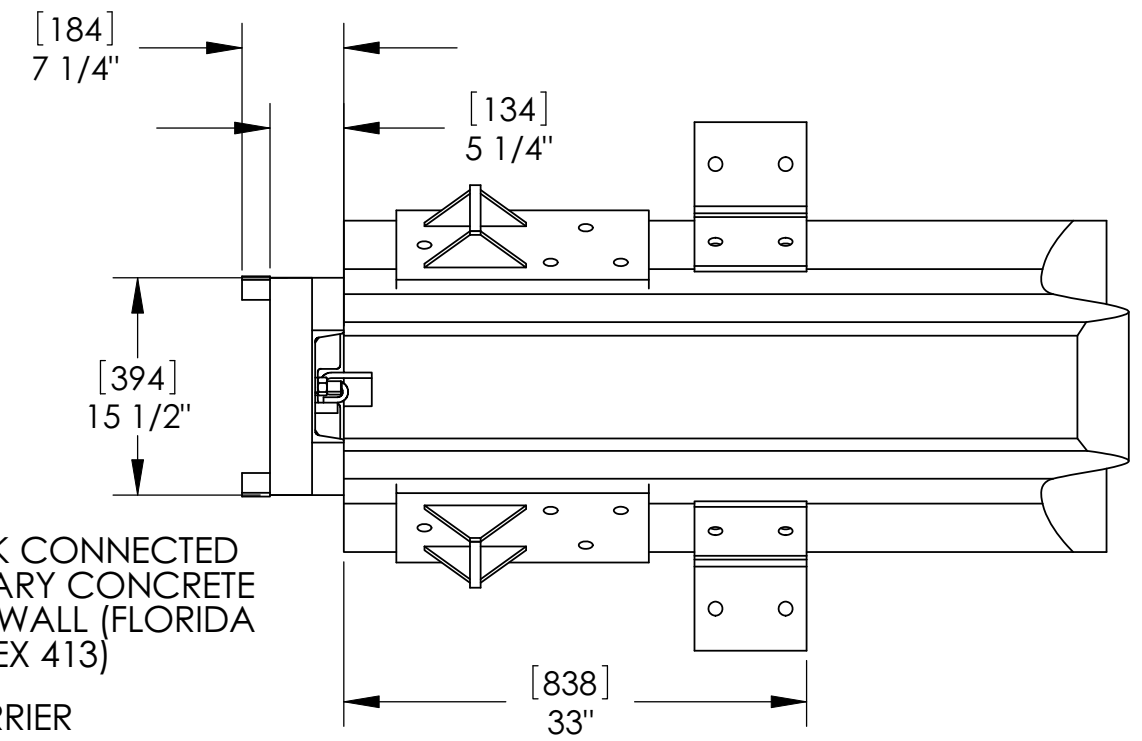
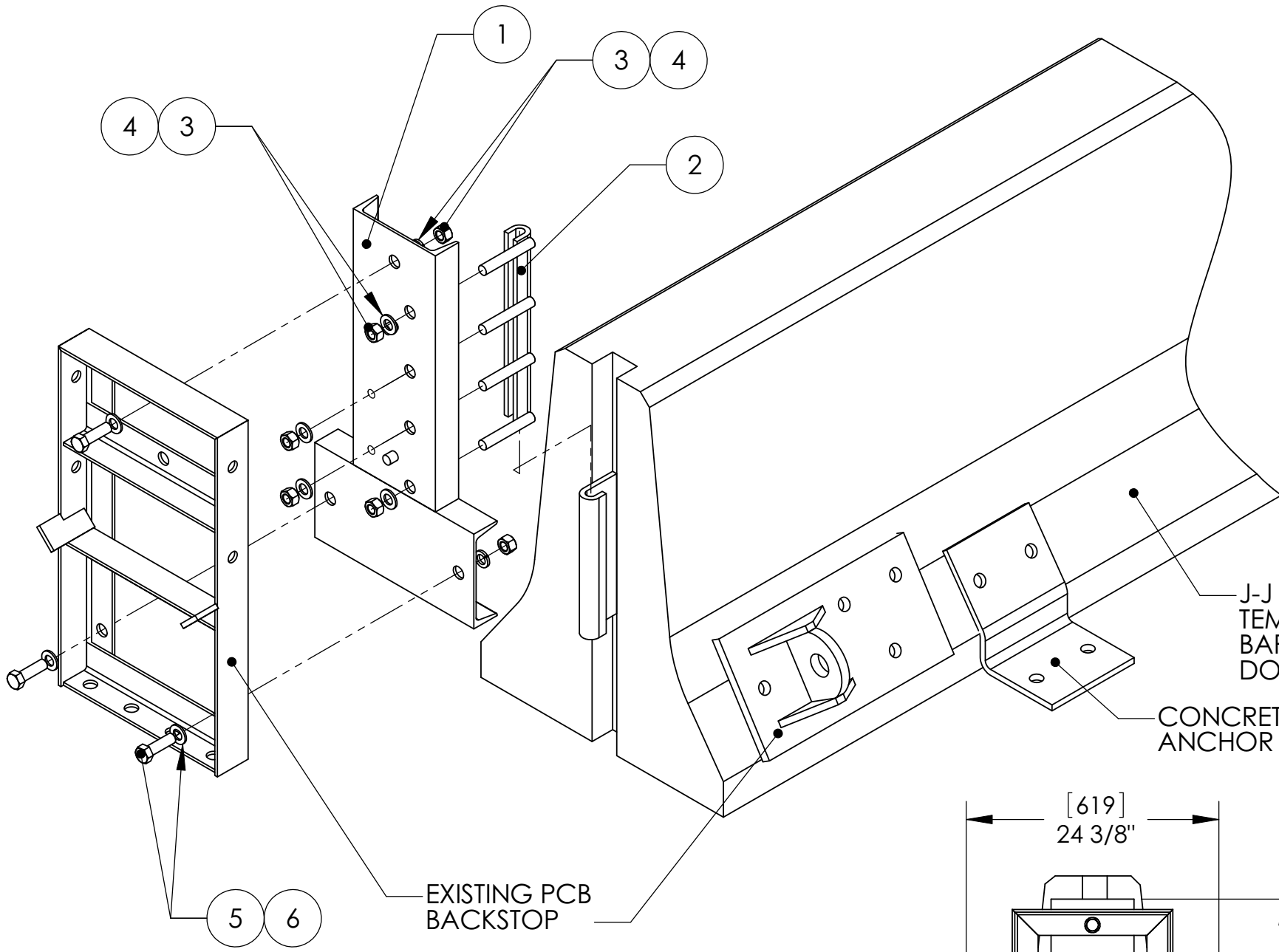
- 1.) ALL STEEL COMPONENTS ARE ASTM A36 OR EQUIVALENT UNLESS OTHERWISE STATED.
- 2.) ALL STEEL COMPONENTS ARE HOT DIPPED GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 3.) ALL FASTENERS ARE GRADE 2 OR EQUIVALENT AND GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967 UNLESS OTHERWISE STATED.
- 4.) STANDARD TORQUE SPECIFICATION FOR 20MM-2.5 FASTENERS WHEN NOT SPECIFIED IS 120 FT-LBF [160 N-M].
- 5.) ALL FASTENERS WILL INCORPORATE A POSITIVE THREAD LOCKING DEVICE.



THIS DRAWING ILLUSTRATES THE GENERAL LAYOUT FOR A PARALLEL 36" WIDE 8-BAY TAU-II, 60 MPH RATED UNIT (MODEL # 36T100CBC)

|  |         |      |    |       |            |             |       |          |   |  |     |  |
|--|---------|------|----|-------|------------|-------------|-------|----------|---|--|-----|--|
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|  |         |      |    |       |            | B           |       | 04/27/09 | JR  |  |     |  |
|  |         |      |    |       |            | A           |       | 10/16/08 | JR  | JSM  |     |  |
| REV.   | CHANGES | DATE | BY | REQ'D | NEXT ASSY. | ITEM        | MODEL |          |   | DRAWING NUMBER   | REV |  |
|  |         |      |    |       |            |             |       |          |   | B033146-FL   | B   |  |

| ITEM | QTY / DWG | PART DESCRIPTION | SPECIFICATION          | DWG #   |
|------|-----------|------------------|------------------------|---------|
| 1    | 1         | ADAPTER WELDMENT | NA                     | B040222 |
| 2    | 1         | J-HOOK INTERFACE | NA                     | B040225 |
| 3    | 7         | HEX NUT          | 20MM-2.5, GR2, GALV    | 2001451 |
| 4    | 7         | LOCK WASHER      | 20MM, GALV             | 2001501 |
| 5    | 3         | FLAT RD WASHER   | 20MM, GALV             | 2001160 |
| 6    | 3         | HEX BOLT         | 20MM X 50MM, GR2, GALV | 2001449 |



J-J HOOK CONNECTED  
TEMPORARY CONCRETE  
BARRIER WALL (FLORIDA  
DOT INDEX 413)

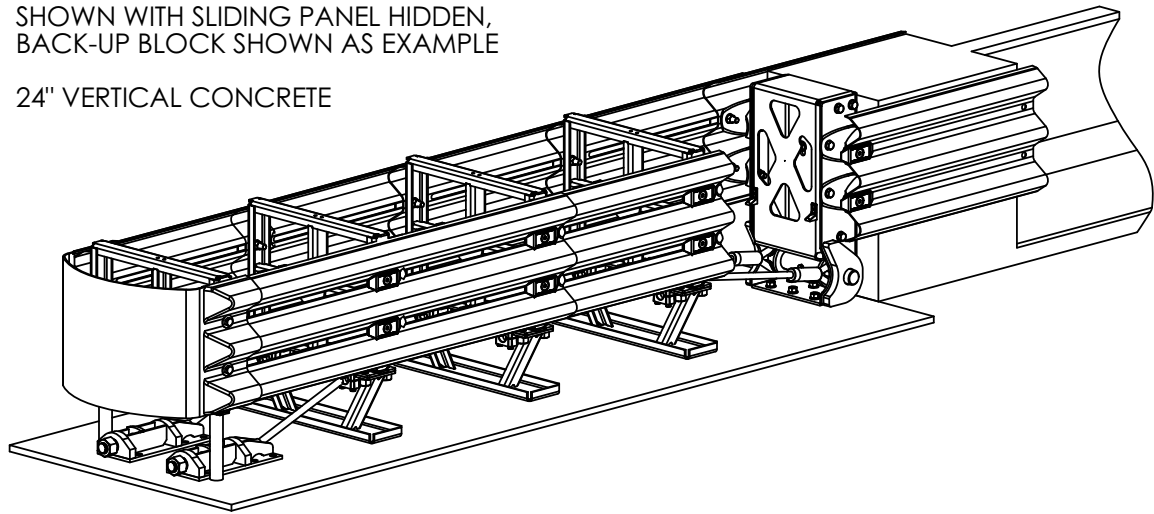
CONCRETE BARRIER  
ANCHOR

EXISTING PCB  
BACKSTOP

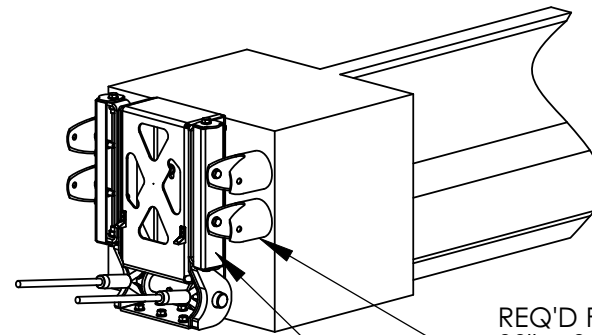
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|---|--|--|--|--|--|--|-------------|------|-------|---|------|--|------------|----------------|-----|
| © 2004 Barrier Sytems Inc.  |  |  |  |  |  |  | SCALE: 1:14 |      |       | Standard Tolerance<br>Angular +/- 1/2 Deg.<br>Fractional +/- 1/16<br>Dec. XXX= +/- .010<br>Dec. .XX= +/- .030 |      |  |            |                |     |
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|   |  |  |  |  |  |  | 2/25/04     | GAD  | JSM   |   |      |  |            |                |     |
| A SEE ECN 00598   |  |  |  |  |  |  | 3/15/04     | GAD  | 1     | AP040228  | 1    | TITLE: PCB ADAPTER TO J-HOOK<br>TEMPORARY CONCRETE<br>BARRIER ASSEMBLY | MODEL      | DRAWING NUMBER | REV |
| REV. CHANGES  |  |  |  |  |  |  | DATE        | BY   | REQ'D | NEXT ASSY.  | ITEM |  | B040221-FL | A              |     |

SHOWN WITH SLIDING PANEL HIDDEN,  
BACK-UP BLOCK SHOWN AS EXAMPLE

24" VERTICAL CONCRETE



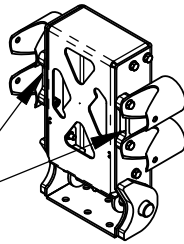
36" VERTICAL CONCRETE



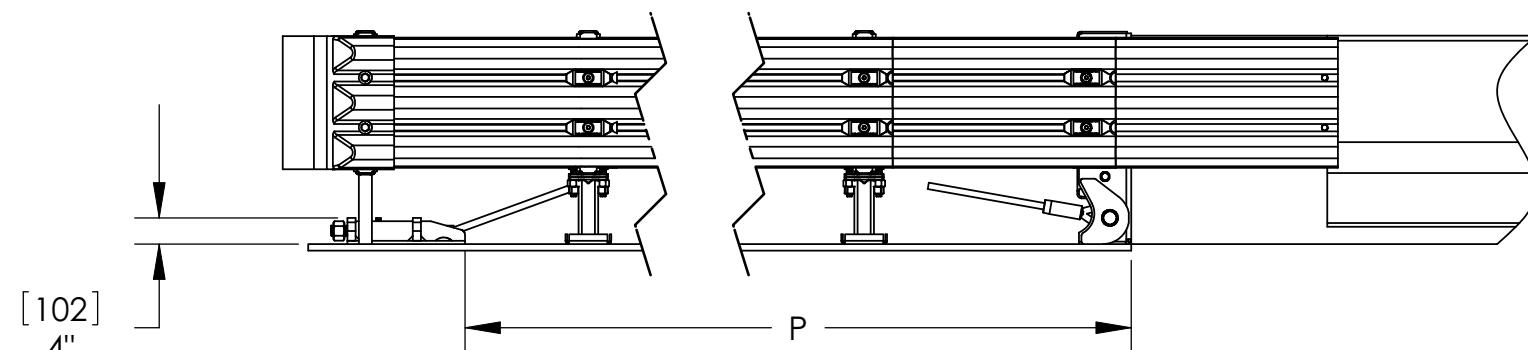
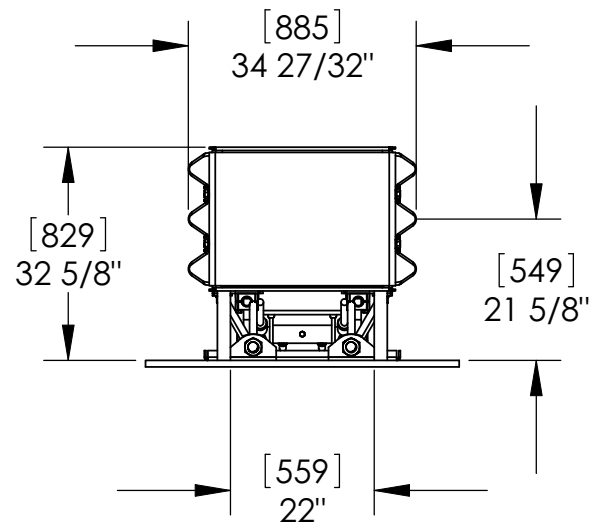
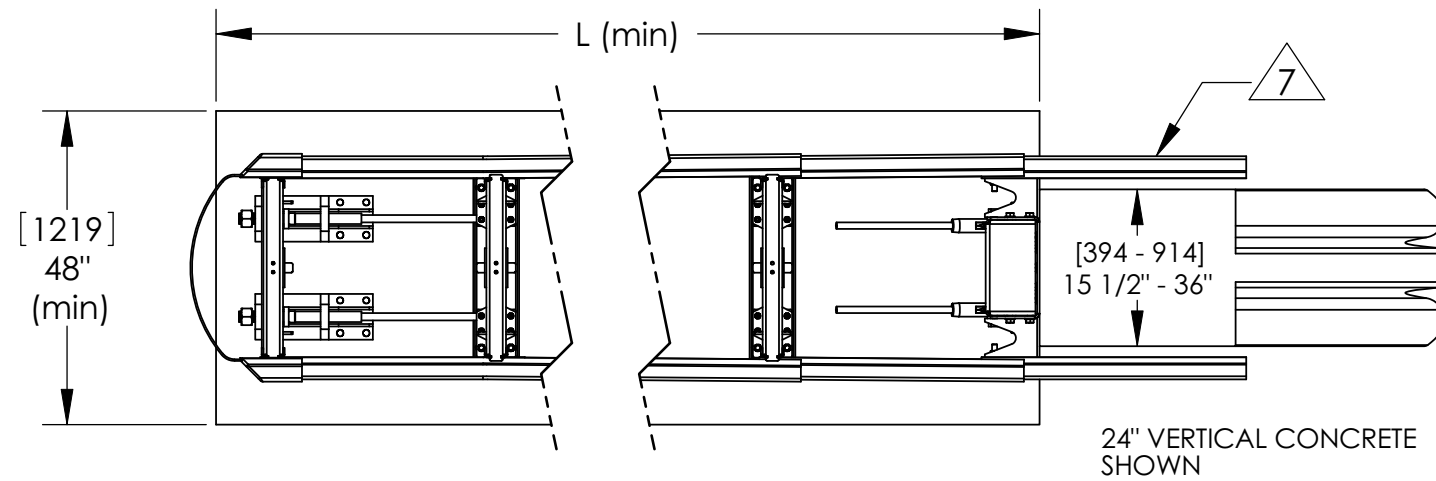
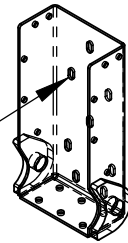
REQ'D FOR  
30" & 36"  
APPLICATIONS

36" ADAPTER  
BSI PART No.  
B031201

30in SPACER (B041102)  
TO BE USED WITH 30"  
APPLICATIONS ONLY  
WHEN HAZARD EXCEEDS  
A WIDTH OF 27 1/2"



EIGHT (8) SLOTTED HOLES ARE  
PROVIDED ON THE BACK OF  
THE FLUSH MOUNT BACKSTOP  
IN ORDER TO ANCHOR  
TO CONCRETE BACKSTOP.  
SEE NOTE 3 FOR ANCHORAGE  
REQUIREMENTS.



NOTES:

- 1.) FLUSH MOUNT BACKSTOP SYSTEMS ARE INTENDED FOR APPLICATIONS WHERE THE HAZARD WIDTH EXCEEDS THE LIMITATIONS OF THE PCB BACKSTOP. FLUSH MOUNT SYSTEMS ARE ALSO APPLICABLE IN LOCATIONS WITH LIMITED FOUNDATION SIZE.
- 2.) THE FLUSH MOUNT BACKSTOP MAY BE ATTACHED TO REINFORCED SAFETY SHAPE OR VERTICAL CONCRETE STRUCTURES UP TO 36" [914] WIDE. STRUCTURES (OR BLOCKS), SHOULDER BARRIER WALLS OR ENDS OF CONVERGING BARRIER WALLS OVER 24" [610] WIDE REQUIRE 36" ADAPTER B031201.
- 3.) THE FLUSH MOUNT BACKSTOP IS ATTACHED TO THE FOUNDATION WITH SIX (6) ANCHORS AND TO THE CONCRETE WALLS, BLOCK, OR STRUCTURE WITH A MINIMUM OF SIX (6) ANCHORS. ANCHORS INTO THE FOUNDATION PAD TO BE IN ACCORDANCE WITH BSI SPECIFICATIONS A040113-FL. USE SAME TECHNIQUES TO ANCHOR FLUSH MOUNT BACKSTOP TO CONCRETE BACKSTOP AS SHOWN FOR PCC PAD IN A040113-FL. THE CENTERLINE OF TAU-II CAN BE OFFSET FROM CENTERLINE OF BARRIER IN ORDER TO FACILITATE THE NECESSARY ANCHORAGE.
- 4.) VERTICAL SLOTS ON THE BACKSTOP ALLOW REMOVAL/REPLACEMENT OF THE BACKSTOP. ANCHORS MUST BE PLACED AT THE TOP OF SAID SLOTS TO BE EFFECTIVE.
- 5.) FLUSH MOUNT BACKSTOP SYSTEMS USE THE SAME CABLE USED IN ALL PARALLEL SYSTEMS. THE CABLE IS INSTALLED WITH THE THREADED TENSIONING END FORWARD. THE LOOPED END IS PINNED IN PLACE AT THE BACKSTOP.
- 6.) THE FRONT CABLE ANCHOR USES AN INSERTED KEY TO KEEP THE THREADED STUD FROM ROTATING DURING TENSIONING.
- 7.) IN A BI-DIRECTIONAL APPLICATION, THE END PANEL CAN BE SUBSTITUTED WITH AN END SHOE. THE CENTERLINE OF TAU-II CAN BE OFFSET FROM THE CENTERLINE OF BARRIER IN ORDER FOR THE END SHOE TO LAY FLAT ON THE VERTICAL CONCRETE BLOCK.

| FOUNDATION PAD LENGTH<br>DIMENSION "L" (MINIMUM) |                |              |        |
|--|----------------|--------------|--------|
| BAY No.  | CAPACITY (mph) | L (ft-in)    | L (mm) |
| 2  | 30             | 6' - 11 1/2" | 2121   |
| 3  | 35             | 9' - 9 1/2"  | 2985   |
| 4  | 45             | 12' - 7 1/2" | 3848   |
| 5  | 50             | 15' - 5 1/2" | 4712   |
| 7  | 55             | 21' - 2"     | 6452   |
| 8  | 60             | 24' - 0"     | 7315   |
| 9  | 65             | 26' - 10"    | 8179   |
| 10   | 70             | 29' - 8 1/2" | 9055   |

| FRONT ANCHOR PLACEMENT<br>DIMENSION "P" |                |              |        |
|---|----------------|--------------|--------|
| BAY No.                                 | CAPACITY (mph) | P (ft-in)    | P (mm) |
| 2                                       | 30             | 4' - 11 1/2" | 1511   |
| 3                                       | 35             | 7' - 9 1/2"  | 2375   |
| 4                                       | 45             | 10' - 7 1/2" | 3239   |
| 5                                       | 50             | 13' - 5 1/2" | 4102   |
| 7                                       | 55             | 19' - 2"     | 5842   |
| 8                                       | 60             | 22' - 0"     | 6706   |
| 9                                       | 65             | 24' - 10"    | 7569   |
| 10                                      | 70             | 27' - 8 1/2" | 8446   |

|   |  |  |          |    |       |            |  |  |  |   |                |            |   |
|---|--|--|----------|----|-------|------------|--|--|--|---|----------------|------------|---|
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| B   | ADDED NOTES & ISOMETRIC<br>VIEW OF FM BACKSTOP |  | 04/28/09 | JR |       |            | TITLE:<br>APPLICATION, FLUSH<br>MOUNT BACKSTOP |  |  | MODEL   | DRAWING NUMBER | REV        |   |
| A   | ADDED NOTES                                    |  | 10/16/08 | JR | 1     | B040219    |  |  |  | 1   |                | B040239-FL | B |
| REV.  | CHANGES  |  | DATE     | BY | REQ'D | NEXT ASSY. |  |  |  | ITEM  |                |            |   |

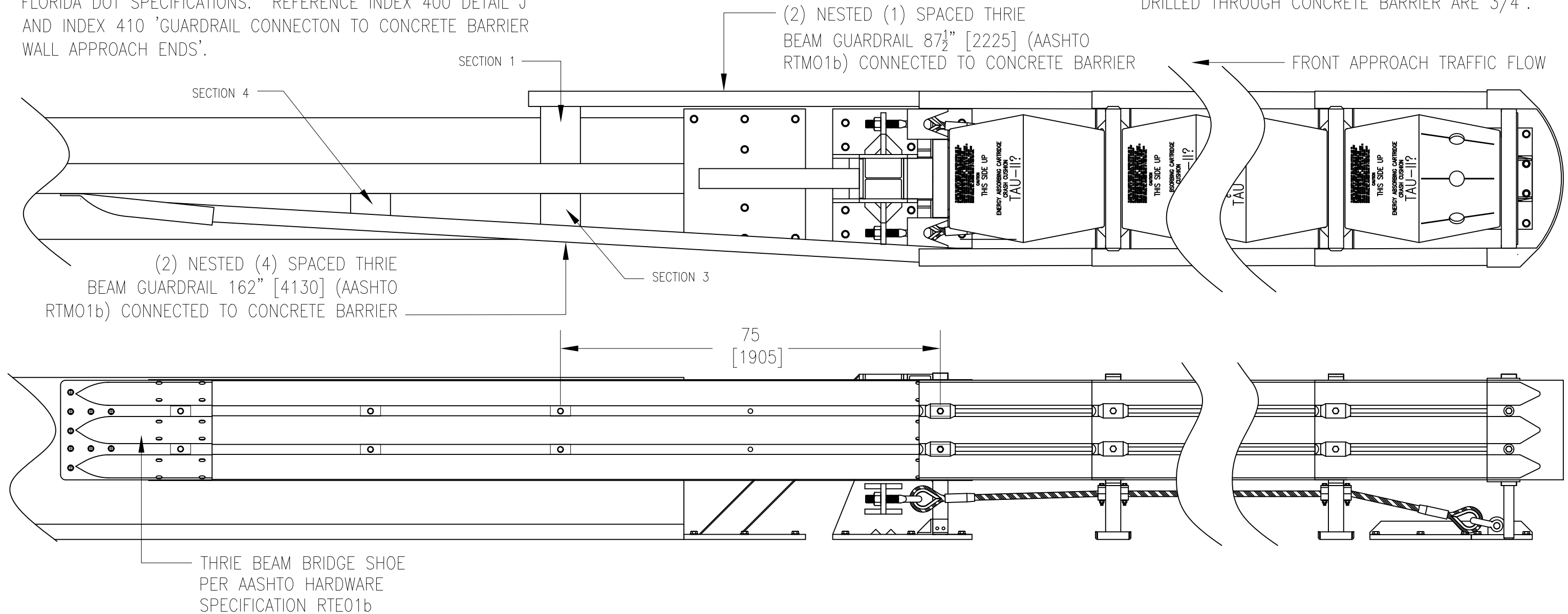
NOTES:

1.) CONCRETE MEDIAN BARRIER TO BE IN ACCORDANCE WITH FLORIDA DOT INDEX 410 OR 415. IF THE MEDIAN BARRIER IS TEMPORARY IT MUST BE ANCHORED IN ACCORDANCE WITH BSI SPECIFICATION A040206-FL, A040113-FL, B020413-FL, AND B020411-FL.

2.) USE HARDWARE AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400 DETAIL J AND INDEX 410 'GUARDRAIL CONNECTON TO CONCRETE BARRIER WALL APPROACH ENDS'.

3.) STANDARD TIMBER OR PLASTIC OFFSET BLOCKS FIELD TRIMMED FOR USE AT SECTIONS 1, 3 AND 4. REFERENCE BSI DRAWING B031222-FL FOR BLOCKOUT DETAILS. BLOCKOUTS SHALL MEET REQUIRMENTS OF FLORIDA DOT INDEX 400, 410, AND FLORIDA DOT SPECIFICATIONS.

4.) USE 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER ON ALL SECTIONS. BOLT LENGTH DETERMINED BY SECTION WIDTH: 1&3-24", AND 4-14". LENGTHS MAY VARY WITH DIFFERENT BARRIER SHAPES. A 12"X12" BACK-UP PLATE WITH 3/4" HOLES IS REQUIRED ON SECTION 4. HOLES DRILLED THROUGH CONCRETE BARRIER ARE 3/4".



5.) THRIE BEAM GUARDRAIL AND TERMINAL CONNECTOR TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.

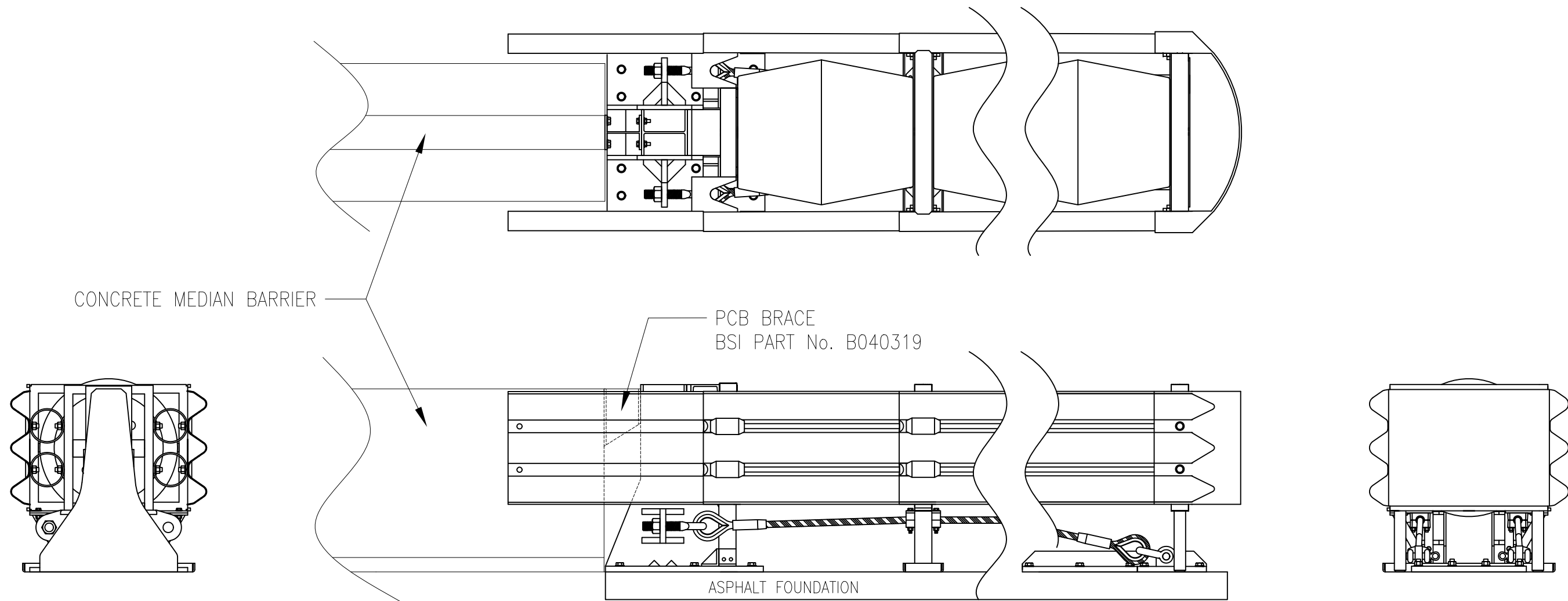
6.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.

7.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.

8.) TRANSITION SHOWN IS FOR BI-DIRECTIONAL TRAFFIC. FOR UNI-DIRECTIONAL TRAFFIC CONDITIONS TERMINATE THE TRANSITION PANELS AT THE FIRST BLOCKOUT AS SHOWN ON FRONT APPROACH TRAFFIC SIDE.

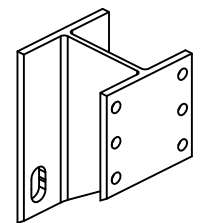
9.) FOR ROADSIDE CONDITIONS WHEN THERE IS NO TRAFFIC FLOW ON ONE SIDE, NO TRANSITION IS NEEDED ON THAT SIDE.

|  |             |  |         |     |       |            |  |       |  |  |  |  |       |                |      |
|--|-------------|--|---------|-----|-------|------------|--|-------|--|--|--|--|-------|----------------|------|
| © 2004 Barrier Systems, Inc.   |             |  |         |     |       |            | SCALE: 1=20  |       |  | Standard Tolerance<br>Angular ± 1/2"<br>Fractional ± 1/16<br>Dec .XXX= ± .010<br>Dec .XX= ± .030 |  |  |       |                |      |
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|  |             |  |         |     |       |            | 03/1/04  | GAD   |  |  |  |  |       |                |      |
|  |             |  |         |     |       |            | 03/1/04  | OSD   |  |  |  |  |       |                |      |
|  |             |  |         |     |       |            | TITLE : TRANSITION, TAU-II WITH COMPACT BACKSTOP, ASPHALT FOUNDATION |       |  |  |  |  | MODEL | DRAWING NUMBER | REV. |
|  |             |  |         |     |       |            |  |       |  |  |  |  |       | B040301-FL     | A    |
| REV.   | CHANGES     |  | DATE    | BY  | REQ'D | NEXT ASSY. | ITEM   |       |  |  |  |  |       |                |      |
| A  | FLORIDA DOT |  | 3/15/04 | GAD |       |            |  |       |  |  |  |  |       |                |      |



NOTES:

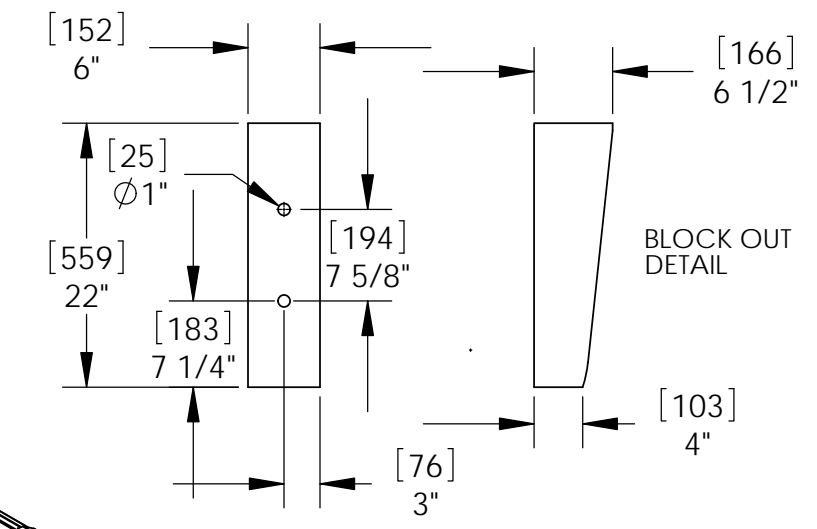
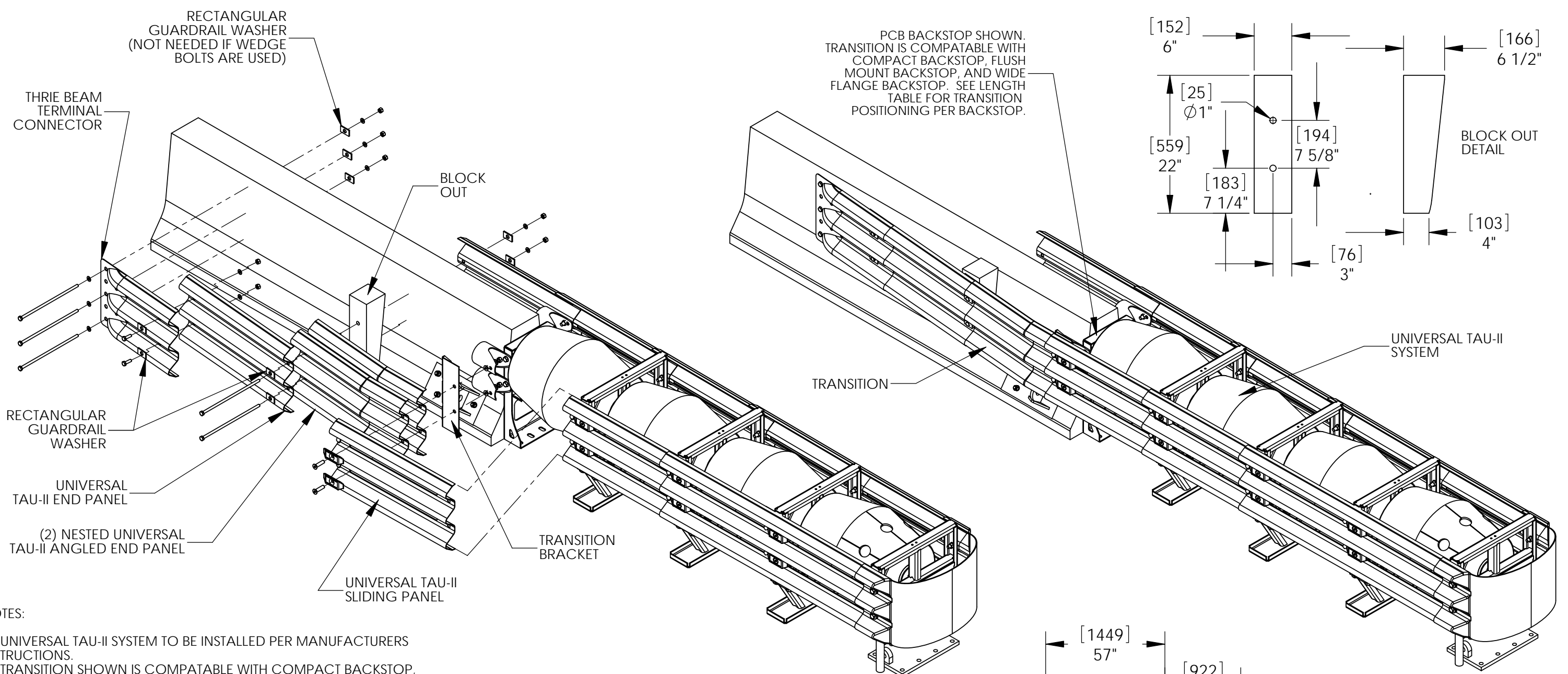
- 1.) CONCRETE MEDIAN BARRIER TO BE IN ACCORDANCE WITH FLORIDA DOT INDEX 410 OR 415. IF THE MEDIAN BARRIER IS TEMPORARY IT MUST BE ANCHORED IN ACCORDANCE WITH BSI SPECIFICATION A040206-FL, B020413-FL, A040113-FL, AND B020411-FL.
- 2.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 3.) USE PCB BRACE (BSI PART No. B040319) TO ATTACH COMPACT BACKSTOP TO CONCRETE MEDIAN BARRIER.
- 4.) PCB BRACE ATTACHES TO THE CONCRETE MEDIAN BARRIER WITH (2) 3/4" DIA THREADED ANCHORS WITH 6" EMBEDMENT. TORQUE ANCHORS TO 120 FT-LBF [160 N-m].
- 5.) TAU-II TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
- 6.) APPLICATION SHOWN IS FOR UNI-DIRECTIONAL TRAFFIC. IF THERE IS TO BE BI-DIRECTIONAL TRAFFIC A TRANSITION NEEDS TO BE PROVIDED FOR THE REAR APPROACHING TRAFFIC. REFERENCE DRAWING B010725-FL OR B050606-FL FOR TRANSITION DETAILS.
- 7.) REFERENCE DRAWING A040110-FL FOR ASPHALT PAD LAYOUT.



PCB BRACE B040319  
(ASPHALT FOUNDATION ONLY)

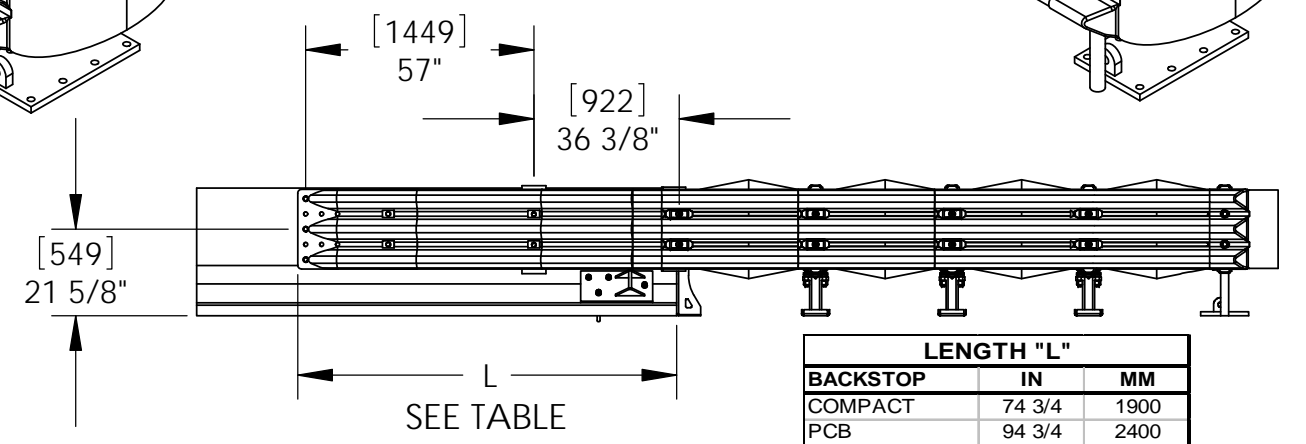
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|--|---------|--------------------------|----------|-------|------------|------|----|--|--|-------|----------------|------|
| © 2004 Barrier Systems, Inc.<br><br>The information heron is proprietary to Barrier Systems Inc. and shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc. | D       | ADDED NOTE 7             | 05/13/09 | JR    |            |      |    | SCALE: 1=20  | Standard Tolerance<br>Angular ± 1/2"<br>Fractional ± 1/16<br>Dec .XXX= ± .010<br>Dec .XX= ± .030 | MODEL | DRAWING NUMBER | REV. |
|  | C       | ADDED FOUNDATION & NOTES | 10/16/08 | JR    |            |      |    |  |  |       |                |      |
|  | B       | FLORIDA DOT              | 3/29/04  | GAD   |            |      |    | TITLE :TAU-II WITH COMPACT<br>BACKSTOP, ASPHALT<br>FOUNDATION, PCB BRACE |  |       |                |      |
|  | A       | FLORIDA DOT              | 3/24/04  | GAD   | NA         | NA   | NA |  |  |       |                |      |
| REV.   | CHANGES | DATE                     | BY       | REQ'D | NEXT ASSY. | ITEM |    |  | B040318-FL   | D     |                |      |





- NOTES:
- 1.) UNIVERSAL TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
  - 2.) TRANSITION SHOWN IS COMPATIBLE WITH COMPACT BACKSTOP, FLUSH MOUNT BACKSTOP, PCB BACKSTOP (SHOWN), AND WIDE FLANGE BACKSTOP. IT IS APPLICABLE WITH ASPHALT ANCHORING PACKAGES FOR PCB BACKSTOP AND PCB BRACE KIT FOR COMPACT BACKSTOP.
  - 3.) THRIE BEAM TERMINAL CONNECTOR PER AASHTO HARDWARE SPECIFICATION RTE01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
  - 4.) STANDARD TIMBER OR PLASTIC OFFSET BLOCKS FIELD TRIMMED FOR USE. BLOCK OUT DETIAL SHOWS DIMENSIONS FOR F-SHAPE SAFETY SHAPED BARRIER. ACTUAL DIMENSIONS SHOULD REFLECT SHAPE OF BARRIER TRANSITIONED TO. BLOCK OUTS SHALL MEET THE REQUIREMENTS OF FLORIDA DOT INDEX 400, 410, AND FLORIDA DOT SPECIFICATIONS.
  - 5.) PANELS AND BLOCKOUT ATTACHED TO BARRIER WALL WITH 5/8" [16mm] BOLTS WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. 20" [500mm] BOLTS MAY BE FIELD TRIMMED. LENGTH MAY VARY WITH DIFFERENT BARRIER SHAPES. HOLES DRILLED THROUGH MEDIAN BARRIER ARE 3/4" [20mm]. CHEMICALLY BONDED OR MECHANICAL ANCHORS MAY BE USED THAT MEET OR EXCEED 15,000 LBF SHEAR AND PULL OUT STRENGTH.
  - 6.) ATTACH THRIE BEAM TERMINAL CONNECTOR TO MEDIAN BARRIER WITH (3) 5/8" [16mm] BOLTS WITH WASHERS AND NUT WITH WASHERS AND BEAM WASHERS. REFERENCE NOTE 5 FOR DETAILS.

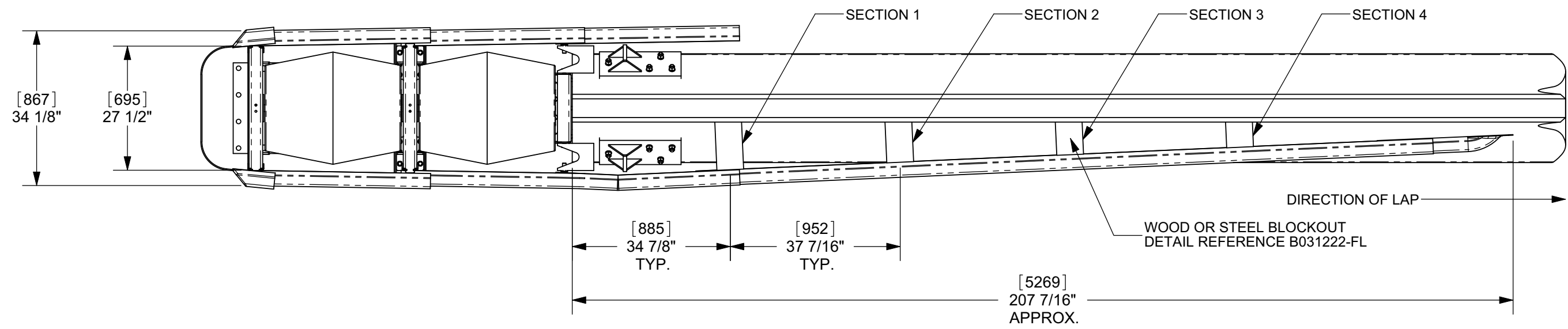
- 7.) ATTACH THRIE BEAM TERMINAL CONNECTOR TO UNIVERSAL TAU-II END PANEL WITH 5/8" [16mm] X 2" [50mm] BOLTS WITH BEAM WASHER AND NUT WITH WASHER.
- 8.) TRANSITION BRACKET TO BE INSTALLED OVER PIPE PANEL MOUNTS UNDER THE (2) NESTED ANGLED END PANELS AND THE SLIDING PANEL. BEND IN TRANSITION BRACKET FACES REARWARD AND FITS AROUND PIPE PANEL MOUNTS. JOINT IS SECURED WITH SLIDING BOLTS. SLIDING BOLTS TO BE TORQUED PER MANUFACTURERS SPECIFICATIONS.
- 9.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 10.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.



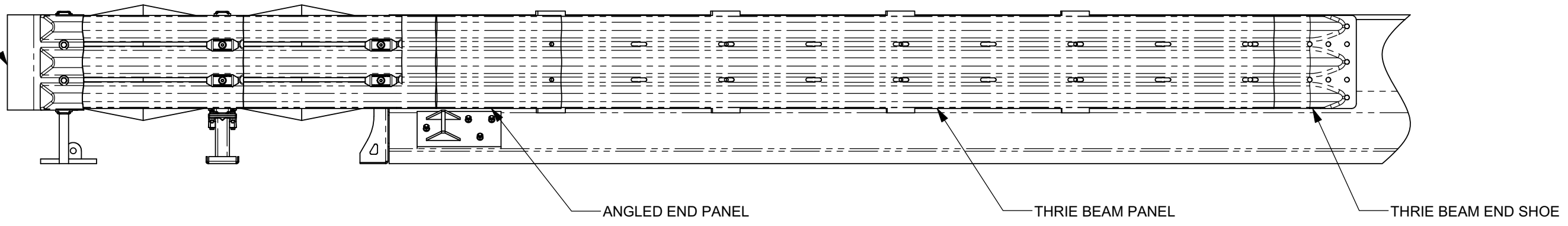
| LENGTH "L"  |         |      |
|-------------|---------|------|
| BACKSTOP    | IN      | MM   |
| COMPACT     | 74 3/4  | 1900 |
| PCB         | 94 3/4  | 2400 |
| FLUSH MOUNT | 89 3/8  | 2270 |
| WIDE FLANGE | 128 1/2 | 3260 |

|  |         |          |    |       |            |      |   |       |  |  |     |
|--|---------|----------|----|-------|------------|------|---|-------|--|--|-----|
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|  |         |          |    |       |            |      | DRAWN BY                                      | GAD   |  |  |     |
|  |         |          |    |       |            |      | TITLE:  |       |  | DRAWING NUMBER   | REV |
|  |         |          |    |       |            |      | UNIVERSAL TAU-II TRANSITION TO MEDIAN BARRIER |       |  | B050606-FL   | A   |
| REV.   | ECN No. | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |   |       |  |  |     |
| A  | 1236    | 10/16/08 | JR | 1     | NA         | 1    |   |       |  |  |     |



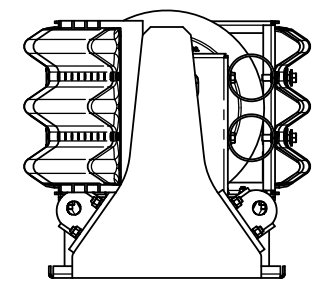
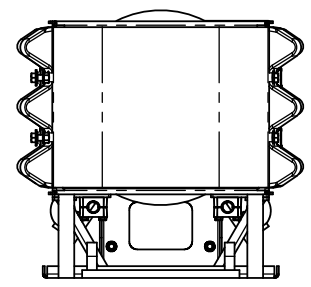


TAU-II WITH P.C.B. BACKSTOP



NOTES UNLESS OTHERWISE SPECIFIED:

- 1.) REINFORCEMENT OF SAFETY SHAPED BARRIER END MAY BE NEEDED. REFER TO BSI SPECIFICATION B011044 OR B011045 FOR FOUNDATION REQUIREMENTS.
- 2.) USE HARDWARE AND BLOCKOUTS IN ACCORDANCE WITH FLORIDA DOT SPECIFICATIONS. REFERENCE INDEX 400 DETAIL J AND INDEX 410 'GUARDRAIL CONNECTION TO CONCRETE BARRIER WALL APPROACH ENDS'.
- 3.) 4-SPACE THRIE BEAM GUARDRAIL PER AASHTO HARDWARE SPECIFICATION RTM01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 4.) THRIE BEAM TERMINAL CONNECTOR PER AASHTO HARDWARE SPECIFICATION RTE01. GALVANIZE IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 5.) STANDARD TIMBER OR PLASTIC OFFSET BLOCKS FIELD TRIMMED FOR USE AT SECTIONS 1-4. REFERENCE BSI DRAWING B031222-FL FOR BLOCKOUT DETAILS. BLOCKOUTS SHALL MEET REQUIREMENTS OF FLORIDA DOT INDEX 400, 410, AND FLORIDA DOT SPECIFICATIONS.
- 6.) 5/8" DIA BUTTON HEAD BOLT WITH BEAM WASHER AND NUT WITH WASHER AND BEAM WASHER. BOLT LENGTH DETERMINED BY SECTION WIDTH: 1-28", 2-24", 3-20", AND 4-16". LENGTHS MAY VARY WITH DIFFERENT BARRIER SHAPES. HOLES DRILLED THROUGH CONCRETE BARRIER ARE 3/4" DIA.
- 7.) ATTACH THRIE BEAM TERMINAL CONNECTOR TO MEDIAN BARRIER WALL WITH 7/8" X 15" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS. ATTACH TO SHOULDER BARRIER WALL WITH A 21" X 12" X 5/8" THRIE BEAM TERMINAL CONNECTOR PLATE AND 7/8" X 12" LONG HS HEX BOLTS AND NUTS WITH 7/8" PLAIN ROUND WASHERS UNDER HEADS AND NUTS.
- 8.) WHERE REAMING IS NECESSARY TO FIT NESTED BEAMS AND TERMINAL CONNECTORS THE REAMED SURFACES SHALL BE METALIZED IN ACCORDANCE WITH FLORIDA DOT INDEX 400.
- 9.) ALL HARDWARE AND FASTENERS TO BE GALVANIZED IN ACCORDANCE WITH FLORIDA DOT SPECIFICATION 967.
- 10.) TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS.



|                            |  |             |          |    |       |   |                    |   |               |  |        |
|----------------------------|--|-------------|----------|----|-------|---|--------------------|---|---------------|--|--------|
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|                            | The information here on is proprietary to Barrier Systems Inc. shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc. |             |          |    |       |   | Angular            | ± | 1/2°          |  |        |
| REV.                       | 0  | NEW DRAWING | 10/14/08 | JR |       |   | Fractional         | ± | 1/16"         |  |        |
|                            |  | CHANGES     | DATE     | BY | REQ'D | NEXT ASSY.  | Dec .XXX=          | ± | .010          |  |        |
|                            |  |             |          |    |       |   | Dec .XX=           | ± | .030          |  |        |
|                            |  |             |          |    |       | DRAWN BY: 10/14/08 JR   |                    |   | SHEET: 1 OF 1 | DRAWING NUMBER: B081026-FL   | REV: 0 |
|                            |  |             |          |    |       | APPR'D BY: TITLE: TAU-II WITH P.C.B. BACKSTOP, TRANSTION TO P.C.B., ONE-SIDED |                    |   |               |  |        |

| BACKSTOP WIDTH     | SYSTEM CAPACITY |        |        |        |        |        |        |
|--------------------|-----------------|--------|--------|--------|--------|--------|--------|
|                    | 30 MPH          | 35 MPH | 45 MPH | 50 MPH | 55 MPH | 60 MPH | 70 MPH |
| PARALLEL UP TO 30" |                 |        |        |        |        |        |        |
| 36" BACKSTOP       |                 |        |        |        |        |        |        |
| 42" BACKSTOP       |                 |        |        |        |        |        |        |
| 48" BACKSTOP       |                 |        |        |        |        |        |        |
| 54" BACKSTOP       |                 |        |        |        |        |        |        |
| 60" BACKSTOP       |                 |        |        |        |        |        |        |
| 66" BACKSTOP       |                 |        |        |        |        |        |        |
| 72" BACKSTOP       |                 |        |        |        |        |        |        |
| 78" BACKSTOP       |                 |        |        |        |        |        |        |
| 84" BACKSTOP       |                 |        |        |        |        |        |        |
| 90" BACKSTOP       |                 |        |        |        |        |        |        |
| 96" BACKSTOP       |                 |        |        |        |        |        |        |

|                                 |                            |                   |
|---------------------------------|----------------------------|-------------------|
| PARALLEL BACKSTOP<br>65 MPH<br> | 36" BACKSTOP<br>65 MPH<br> | 102" BACKSTOP<br> |
|---------------------------------|----------------------------|-------------------|

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|      |                      |          |    |       |            |      |
|------|----------------------|----------|----|-------|------------|------|
| REV. | CHANGES              | DATE     | BY | REQ'D | NEXT ASSY. | ITEM |
| B    | ADDED 65 MPH SYSTEMS | 04/27/09 | JR | 1     | NA         | 1    |

SCALE: 1=80

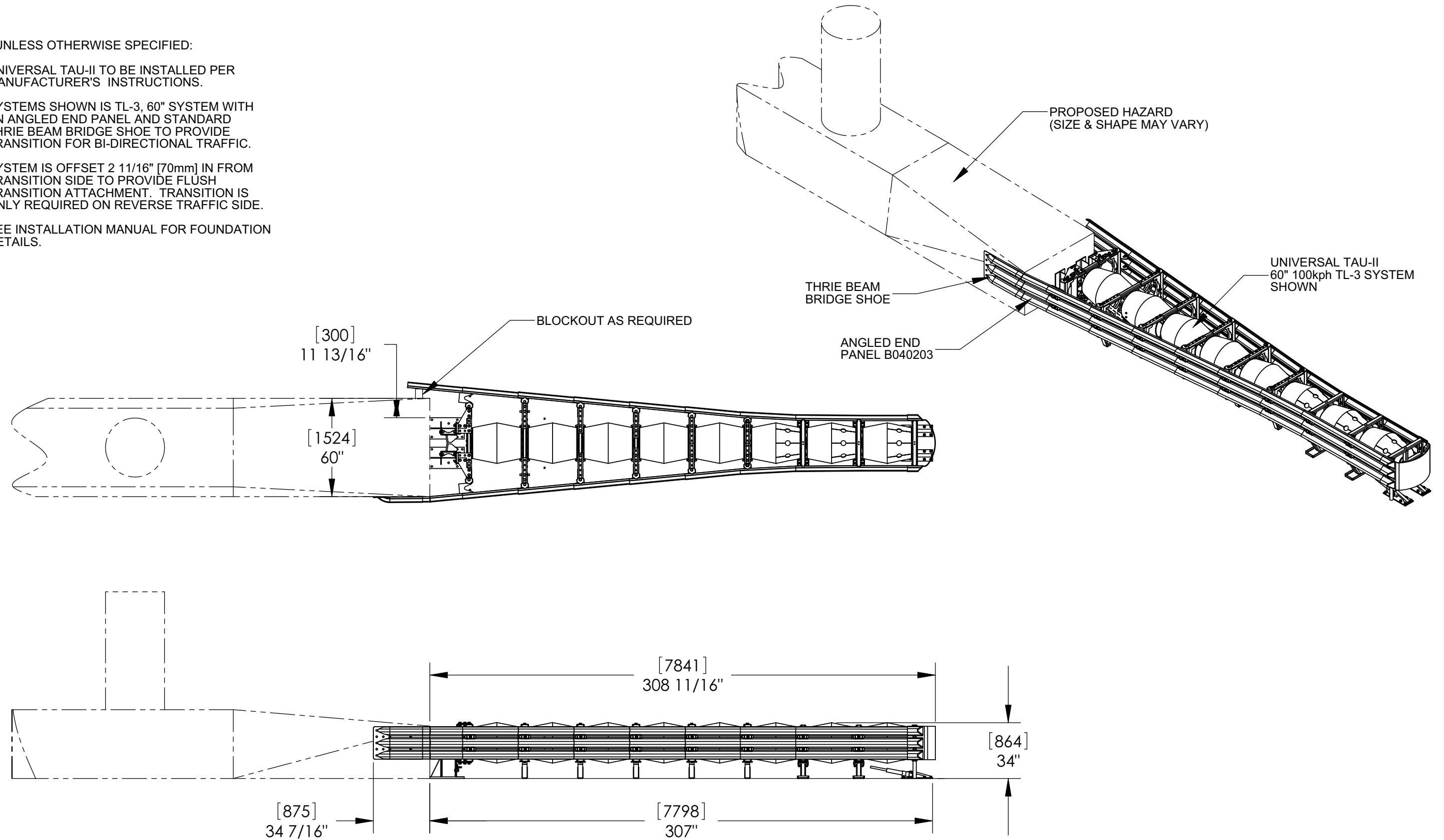
Standard Tolerance  
 Angular ± 1/2°  
 Fractional ± 1/16"  
 Dec .XXX ± .010  
 Dec .XX ± .030

TITLE: UNIVERSAL TAU-II SYSTEM CONFIGURATION MATRIX

|       |                |      |
|-------|----------------|------|
| MODEL | DRAWING NUMBER | REV. |
|       | D031101-FL     | B    |

NOTES UNLESS OTHERWISE SPECIFIED:

1. UNIVERSAL TAU-II TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
2. SYSTEMS SHOWN IS TL-3, 60" SYSTEM WITH AN ANGLED END PANEL AND STANDARD THRIE BEAM BRIDGE SHOE TO PROVIDE TRANSITION FOR BI-DIRECTIONAL TRAFFIC.
3. SYSTEM IS OFFSET 2 11/16" [70mm] IN FROM TRANSITION SIDE TO PROVIDE FLUSH TRANSITION ATTACHMENT. TRANSITION IS ONLY REQUIRED ON REVERSE TRAFFIC SIDE.
4. SEE INSTALLATION MANUAL FOR FOUNDATION DETAILS.



|  |           |                        |                  |          |      |            |             |   |  |                 |                               |
|--|-----------|------------------------|------------------|----------|------|------------|-------------|---|--|-----------------|-------------------------------|
| © 2007 Barrier Sytems Inc.<br>The information heron is proprietary to Barrier Systems Inc. shall not be disclosed, duplicated or used otherwise without the express written approval of Barrier Systems Inc. |           |                        |                  |          |      |            | SCALE: 1:60 | Standard Tolerance<br>Angular ± 1/2°<br>Fractional ± 1/16"<br>Dec .XXX= ± .010<br>Dec .XX= ± .030 | <b>BARRIER SYSTEMS INC</b><br>180 RIVER RD, RIO VISTA, CA 94571<br>TEL: 707-374-6800 FAX: 707-374-6801 |                 |                               |
|  | 0<br>REV. | NEW DRAWING<br>CHANGES | 10/15/08<br>DATE | JR<br>BY | REQD | NEXT ASSY. | ITEM        | DRAWN BY: 4/26/07<br>APPR'D BY: AEM   | TITLE:<br>UNIVERSAL TAU-II SYSTEM<br>TRANSITION TO CONCRETE BLOCK                                      | SHEET<br>1 OF 1 | DRAWING NUMBER<br>AP070406-FL |

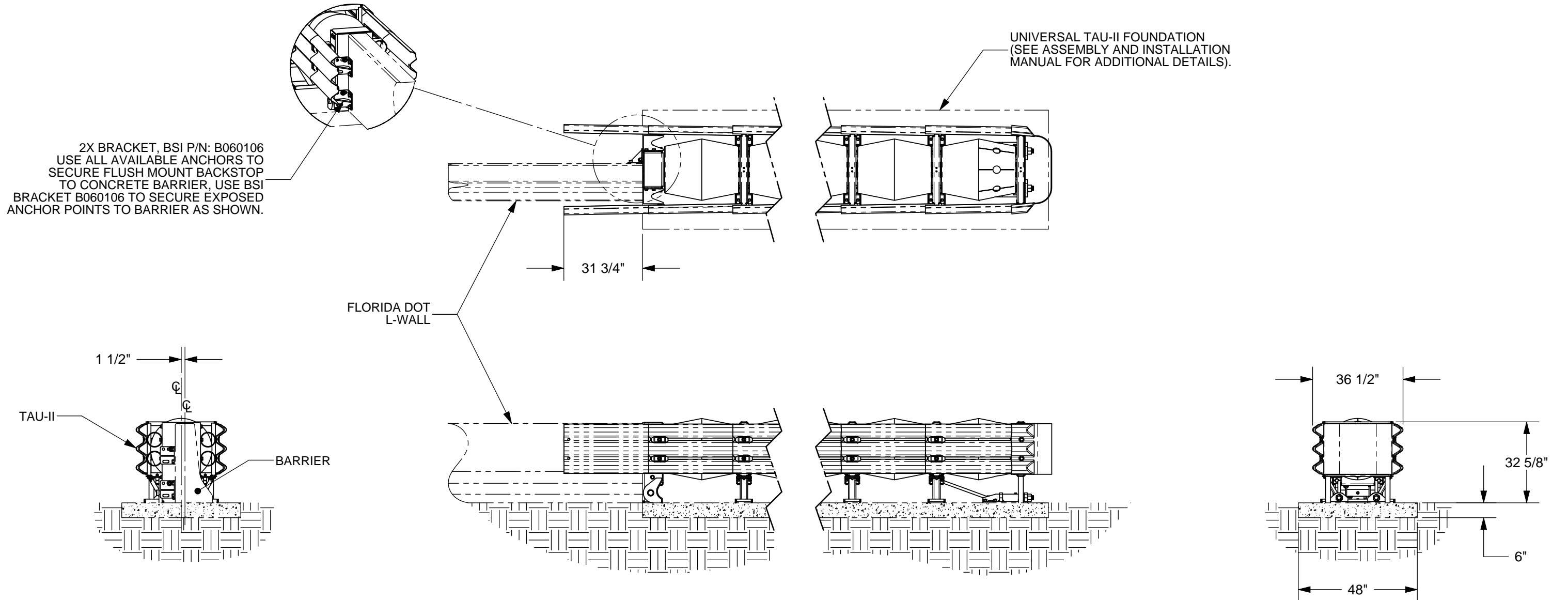



| SYSTEM WIDTH (IN)      | SYSTEM SPEED CAPACITY (MPH) |           |           |           |           |           |           |           | DRAWING NUMBER |         |
|------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------------|---------|
|                        | 30                          | 35        | 45 TL-2   | 50        | 55        | 60 TL-3   | 65        | 70        |                |         |
| <b>48" WF BACKSTOP</b> | 48T050WBC                   | 48T060WBC | 48T070WBC | 48T080WBC | 48T090WBC | 48T100WBC | 48T105WBC | 48T110WBC | A040108        |         |
|                        | 48T050WYC                   | 48T060WYC | 48T070WYC | 48T080WYC | 48T090WYC | 48T100WYC | 48T105WYC | 48T110WYC |                |         |
| L (in)                 | 125                         | 159       | 193       | 227       | 295       | 329       | 363       | 397       |                |         |
| W1 (in)                | 44                          | 44        | 44        | 44        | 44        | 44        | 44        | 44        |                |         |
| W2 (in)                | 51                          | 51        | 51        | 51        | 51        | 51        | 51        | 51        |                |         |
| P (in)                 | 65                          | 99        | 133       | 167       | 235       | 269       | 303       | 337       |                |         |
| A (in)                 | 22                          | 22        | 22        | 22        | 22        | 22        | 22        | 22        |                |         |
| B (in)                 | 31                          | 31        | 31        | 31        | 31        | 31        | 31        | 31        |                |         |
| C (in) *               | NA                          | NA        | NA        | NA        | NA        | NA        | NA        | NA        |                |         |
| D (in)                 | 16                          | 16        | 16        | 16        | 16        | 16        | 16        | 16        |                |         |
| E (in) *               | NA                          | NA        | NA        | NA        | NA        | NA        | NA        | NA        |                |         |
| <b>54" WF BACKSTOP</b> | 54T050WBC                   | 54T060WBC | 54T070WBC | 54T080WBC | 54T090WBC | 54T100WBC | 54T105WBC | 54T110WBC |                | A040108 |
|                        | 54T050WYC                   | 54T060WYC | 54T070WYC | 54T080WYC | 54T090WYC | 54T100WYC | 54T105WYC | 54T110WYC |                |         |
| L (in)                 | 125                         | 159       | 193       | 227       | 295       | 329       | 363       | 397       |                |         |
| W1 (in)                | 44                          | 44        | 44        | 44        | 44        | 44        | 44        | 44        |                |         |
| W2 (in)                | 51                          | 51        | 51        | 51        | 51        | 51        | 51        | 51        |                |         |
| P (in)                 | 65                          | 99        | 133       | 167       | 235       | 269       | 303       | 337       |                |         |
| A (in)                 | 22                          | 22        | 22        | 22        | 22        | 22        | 22        | 22        |                |         |
| B (in)                 | 31                          | 31        | 31        | 31        | 31        | 31        | 31        | 31        |                |         |
| C (in) *               | NA                          | NA        | NA        | NA        | NA        | NA        | NA        | NA        |                |         |
| D (in)                 | 16                          | 16        | 16        | 16        | 16        | 16        | 16        | 16        |                |         |
| E (in) *               | NA                          | NA        | NA        | NA        | NA        | NA        | NA        | NA        |                |         |
| <b>60" WF BACKSTOP</b> | 60T050WBC                   | 60T060WBC | 60T070WBC | 60T080WBC | 60T090WBC | 60T100WBC | 60T105WBC | 60T110WBC | A040108        |         |
|                        | 60T050WYC                   | 60T060WYC | 60T070WYC | 60T080WYC | 60T090WYC | 60T100WYC | 60T105WYC | 60T110WYC |                |         |
| L (in)                 | 125                         | 159       | 193       | 227       | 295       | 329       | 363       | 397       |                |         |
| W1 (in)                | 44                          | 44        | 44        | 44        | 44        | 44        | 44        | 44        |                |         |
| W2 (in)                | 51                          | 51        | 51        | 51        | 51        | 51        | 51        | 51        |                |         |
| P (in)                 | 65                          | 99        | 133       | 167       | 235       | 269       | 303       | 337       |                |         |
| A (in)                 | 22                          | 22        | 22        | 22        | 22        | 22        | 22        | 22        |                |         |
| B (in)                 | 31                          | 31        | 31        | 31        | 31        | 31        | 31        | 31        |                |         |
| C (in) *               | NA                          | NA        | NA        | NA        | NA        | NA        | NA        | NA        |                |         |
| D (in)                 | 16                          | 16        | 16        | 16        | 16        | 16        | 16        | 16        |                |         |
| E (in) *               | NA                          | NA        | NA        | NA        | NA        | NA        | NA        | NA        |                |         |
| <b>66" WF BACKSTOP</b> |                             | 66T060WBC | 66T070WBC | 66T080WBC | 66T090WBC | 66T100WBC | 66T105WBC | 66T110WBC |                | A040108 |
|                        |                             | 66T060WYC | 66T070WYC | 66T080WYC | 66T090WYC | 66T100WYC | 66T106WYC | 66T110WYC |                |         |
| L (in)                 |                             | 125       | 159       | 193       | 261       | 295       | 329       | 363       |                |         |
| W1 (in)                |                             | 69        | 44        | 44        | 44        | 44        | 44        | 44        |                |         |
| W2 (in)                |                             | 75        | 75        | 75        | 75        | 75        | 75        | 75        |                |         |
| P (in)                 |                             | 65        | 99        | 133       | 201       | 235       | 269       | 303       |                |         |
| A (in)                 |                             | 48 5/8    | 22        | 22        | 22        | 22        | 22        | 22        |                |         |
| B (in)                 |                             | 54 3/4    | 54 3/4    | 54 3/4    | 54 3/4    | 54 3/4    | 54 3/4    | 54 3/4    |                |         |
| C (in) *               |                             | NA        | 27 3/4    | 27 3/4    | 27 3/4    | 27 3/4    | 27 3/4    | 27 3/4    |                |         |
| D (in)                 |                             | 42 5/8    | 16        | 16        | 16        | 16        | 16        | 16        |                |         |
| E (in) *               |                             | NA        | 41 3/4    | 41 3/4    | 41 3/4    | 41 3/4    | 41 3/4    | 41 3/4    |                |         |
| <b>72" WF BACKSTOP</b> |                             | 72T060WBC | 72T070WBC | 72T080WBC | 72T090WBC | 72T100WBC | 72T105WBC | 72T110WBC | A040108        |         |
|                        |                             | 72T060WYC | 72T070WYC | 72T080WYC | 72T090WYC | 72T100WYC | 72T105WYC | 72T110WYC |                |         |
| L (in)                 |                             | 125       | 159       | 193       | 227       | 295       | 329       | 329       |                |         |
| W1 (in)                |                             | 69        | 69        | 44        | 44        | 44        | 44        | 44        |                |         |
| W2 (in)                |                             | 75        | 75        | 75        | 75        | 75        | 75        | 75        |                |         |
| P (in)                 |                             | 65        | 99        | 133       | 167       | 235       | 269       | 269       |                |         |
| A (in)                 |                             | 48 5/8    | 48 5/8    | 22        | 22        | 22        | 22        | 22        |                |         |
| B (in)                 |                             | 54 3/4    | 54 3/4    | 54 3/4    | 54 3/4    | 54 3/4    | 54 3/4    | 54 3/4    |                |         |
| C (in) *               |                             | NA        | NA        | 27 3/4    | 27 3/4    | 27 3/4    | 27 3/4    | 27 3/4    |                |         |
| D (in)                 |                             | 42 5/8    | 42 5/8    | 16        | 16        | 16        | 16        | 16        |                |         |
| E (in) *               |                             | NA        | NA        | 41 3/4    | 41 3/4    | 41 3/4    | 41 3/4    | 41 3/4    |                |         |



NOTES UNLESS OTHERWISE SPECIFIED:

1. UNIVERSAL TAU-II SYSTEM TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS. REFER TO INSTALLATION MANUAL.
2. ALL ANCHORS INTO CONCRETE BARRIER FOR BACKSTOP, BRACKETS TO BE IN ACCORDANCE WITH BSI SPECIFICATIONS FOR PC CONCRETE FOUNDATIONS. REFER TO INSTALLATION MANUAL FOR ADDITIONAL DETAILS.
3. SYSTEM SHOWN INSTALLED ON FLORIDA DOT L-WALL, INDEX NO. 410.



|  |      |                             |          |     |       |            |   |                    |       |   |            |         |  |
|--|------|-----------------------------|----------|-----|-------|------------|---|--------------------|-------|---|------------|---------|--|
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|  |      |                             |          |     |       |            | DRAWN BY  | DATE               | INIT. |   | Angular    | ± 1/2°  |  |
|  |      |                             |          |     |       |            | APPR'D BY   | 8/21/09            | AEM   |   | Fractional | ± 1/16" |  |
|  |      |                             |          |     |       |            |   |                    |       |   | Dec .XXX=  | ± .010  |  |
|  | 1    | ADDED NOTE 3, CHANGED TITLE | 10/05/09 | JR  |       |            | TITLE:  |                    |       | Dec .XX=  | ± .030     |         |  |
|  | 0    | NEW DRAWING                 | 8/21/09  | AEM |       |            | FLUSH MOUNT BACKSTOP APPLICATION,<br>SHOULDER WALLS |                    |       |   |            |         |  |
|  | REV. | CHANGES                     | DATE     | BY  | REQ'D | NEXT ASSY. |   |                    |       |   |            |         |  |
|  |      |                             |          |     |       |            | SHEET   | DRAWING NUMBER     | REV   |   |            |         |  |
|  |      |                             |          |     |       |            | 1 OF 1  | AP090806           | 1     |   |            |         |  |