



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

May 5, 2020
Subject: Large Culvert Replacement
State WIN: 021823.00
Location: **Sanford & Alfred**
Amendment No. 1

Dear Sir/Ms.:

For your information and review:

The Shop Drawings for the State supplied precast concrete box culvert have been posted to the MaineDOT web site and Bid Express.

Please make the following changes to the Bid Documents:

In the Bid Book:

ADD the attached SPECIAL PROVISION – SECTION 403 – HOT MIX ASPHALT, 2 pages, dated May 4, 2020.

ADD the attached Shop Drawings, 10 pages, dated “MaineDOT REVIEWED February 25th, 2020”.

The following questions have been received:

Question: Is there a section 403 paving sheet available? Descriptions of Course, coarse gradation, Course thickness, number of layers, complimentary notes, tack coat application, etc.

Response: See the attached SPECIAL PROVISION – SECTION 403 – HOT MIX ASPHALT.

Question: There is no 403 Special Provision Box page. Will one be provided?

Response: See previous response.

Question: Will Guardrail removal and replacement be considered incidental, or paid separately?

Response: The removal of existing guardrail is incidental to the contract. There is no guardrail being replaced.

Question: Please clarify where the butt joint item is to be used because on sheet 4 of the plans, Construction Note #1 says that all joints are to be saw cut.

Response: Butt joints will be used to create tapered approaches between HMA layers.

Question: Would you please issue the following information regarding Item 534.7101 PC Box Culvert supplied by the State -
The number of pieces?
The length of each piece?
And the weight of each piece?

Response: Please see the attached approved shop drawings, which have also been posted to the MaineDOT web site and Bid Express.

Consider these changes and information prior to submitting your bid on **May 13, 2020**.

Sincerely,



George M. A. Macdougall P.E.
Contracts & Specifications Engineer

SPECIAL PROVISION
SECTION 403
HOT MIX ASPHALT

| Desc. Of Course | Grad Design. | Item Number | Total Thick | No. Of Layers | Comp. Notes |
|---|--------------|-------------|-------------|---------------|--------------|
| <u>5" HMA Overlay Areas</u> | | | | | |
| <u>Travelway (As Indicated in Typical)</u> | | | | | |
| Wearing | 12.5 mm | 403.2081 | 1 ½" | 1 | 5,8,30 |
| Intermediate | 12.5 mm | 403.2131 | 1 ½" | 1 | 5,8,30 |
| Base | 12.5 mm | 403.2131 | 2" | 1 | 5,8,30 |
| <u>3" HMA Overlay Areas</u> | | | | | |
| <u>Shoulders (As Indicated in Typical)</u> | | | | | |
| Wearing | 12.5 mm | 403.2081 | 1 ½" | 1 | 5,8,17,23,30 |
| Base | 12.5 mm | 403.2131 | 1 ½" | 1 | 5,8,17,23,30 |

COMPLEMENTARY NOTES

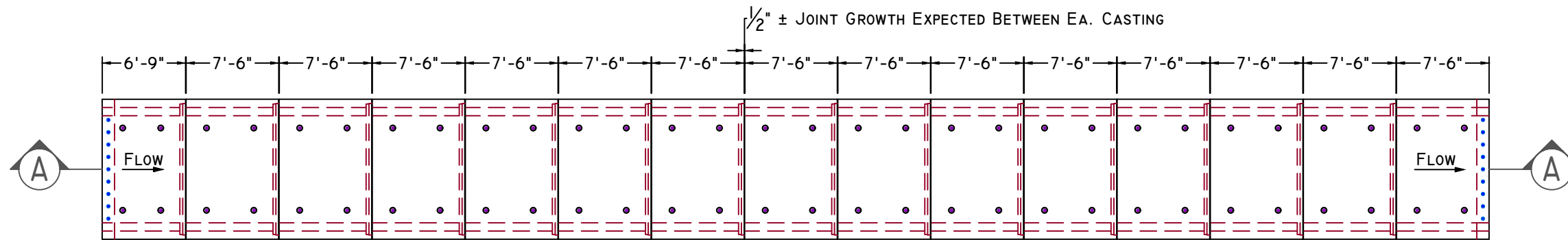
5. The aggregate qualities shall meet the design traffic level of 3 to <10 million ESALS for mix placed under this contract. The design, verification, Quality Control, and Acceptance tests for this mix will be performed at **65 gyrations**.
8. Section 106.6 Acceptance, (2) Method B. The Contractor may request a contract modification to change to testing method "A" prior to work starting on this item.
17. Compaction of the new Hot Mix Asphalt Pavement will be obtained using a minimal roller train consisting of a **10 ton** vibratory, **12 ton** pneumatic, and a **10 ton** finish roller for roadway work. A daily paving report, summarizing the mixture type, mixture temperature, equipment used, environmental conditions, and number of roller passes, shall be recorded and signed by the QCT and presented to the Department's representative by the end of the working day. An approved release agent is required to ensure the mixture does not adhere to hand tools, rollers, pavers, and truck bodies. The use of petroleum based fuel oils, or asphalt stripping solvents will not be permitted.
23. Roadway HMA shim mixtures may be placed with an a track or rubber tire mounted highway class paver with a minimum tractor weight of 28,000 pounds, equipped with a minimum main screed width of eight feet. Placement location, placement width and depth of shim layers will be as directed, and may vary.
30. The required PGAB shall be a storage-stable, homogeneous, polymer modified asphalt binder that meets **PG 64E-28** grading requirements in AASHTO M 332. All polymer modified asphalt grades utilized on the Project shall be treated with an approved liquid anti-strip. PG binders shall be treated either at the asphalt source terminal with the required dose rate on the delivery documentation, or at the hot mix asphalt plant utilizing a system integrated with the plants controls that will introduce a minimum 0.50 percent anti-strip by weight of asphalt binder used unless a rate is otherwise recommended by the anti-strip manufacturer. The PGAB and anti-strip blend shall meet the **PG 64E-28** requirements. The Contractor shall provide supporting test data showing the PGAB and anti-strip blend meet the required criteria.

Tack Coat

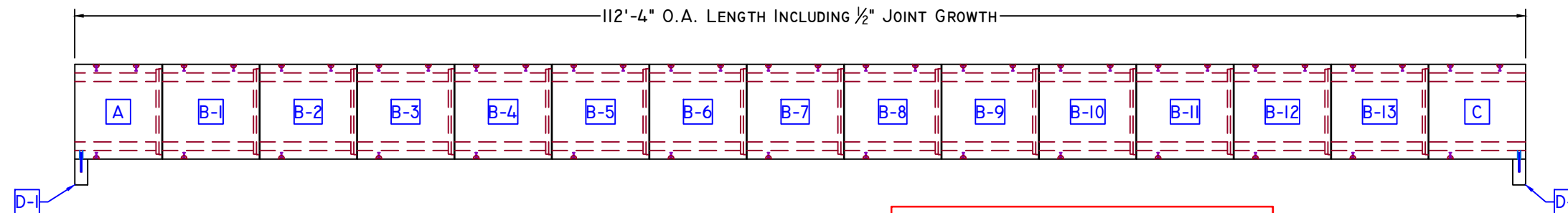
A tack coat of emulsified asphalt, RS-1, RS-1h, CRS-1 or CRS-1h, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.030 gal/yd², and on milled pavement approximately 0.05 gal/yd² prior to placing a new course. A fog coat of emulsified asphalt shall be applied between shim /base courses and surface course as well as to any bridge membrane prior to the placement of HMA layers at a rate not to exceed 0.030 gal/yd². Tack used will be paid for at the contract unit price for Item 409.15 Bituminous Tack Coat.



Superior Concrete, LLC
 982 Minot Ave. Auburn, ME
 Tel: 207-784-1388
 Fax: 207-783-4039

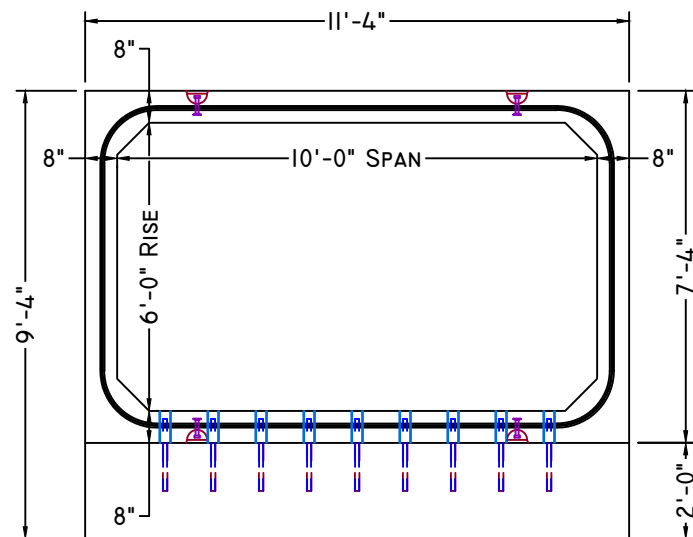


PLAN VIEW

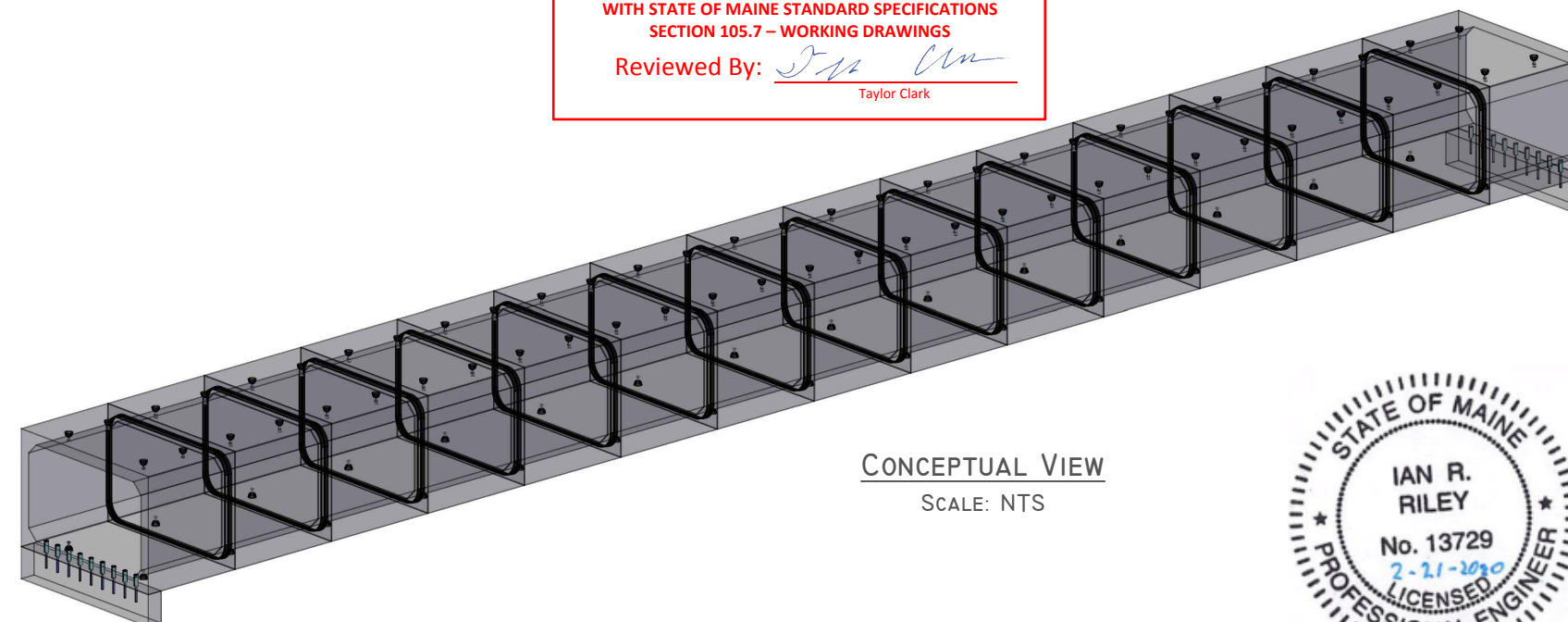


SECTION A-A

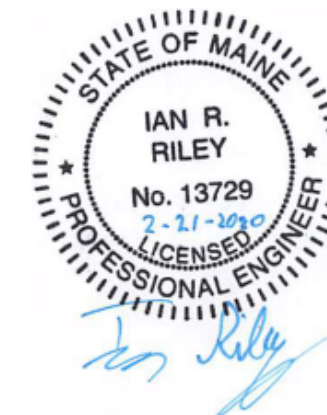
REVIEWED
February 25th, 2020
 THIS DOCUMENT HAS BEEN REVIEWED IN ACCORDANCE
 WITH STATE OF MAINE STANDARD SPECIFICATIONS
 SECTION 105.7 - WORKING DRAWINGS
 Reviewed By: *Taylor Clark*
 Taylor Clark



END VIEW
 SCALE: 1/4" = 1'-0"



CONCEPTUAL VIEW
 SCALE: NTS



| ITEM | QTY | BILL OF MATERIALS |
|------|------|--|
| A | (1) | 6'-9" UPSTREAM END WT: (23,561 #) |
| B | (13) | 7'-6" MID SECTION WT: (26,988 # EA.) |
| C | (1) | 7'-6" DOWNSTREAM END WT: (27,633 #) |
| D | (2) | 1' x 2' x 11'-4" TOEWALL (3,395 # EA.) |
| | (18) | #8 x 18" TOEWALL PIN (9 EA. END) |

- DESIGN NOTES:
- Concrete**
 - 1.1. COMP. STRENGTH MIN. 5,000PSI @ 28 DAYS
 - 1.2. AIR-ENTRAINMENT: MIN. 5.5%
 - Structural Reinforcement:**
 - 2.1. BAR PER ASTM A615, GRADE 60
 - 2.2. WWF PER ASTM A1064, GRADE 70
 - 2.3. INTEGRATE REBAR WITH LIFTING INSERT(S)
 - 2.4. INTERRUPTED BAR AREAS WILL BE REPLACED EACH SIDE WITH HALF THE AFFECTED AREA
 - 2.5. DESIGNED FOR 125% HL-93 WHEEL LOAD RATING
 - 2.6. 2" CLR EXTERIOR, 1 1/2" CLR INTERIOR
 - Manufacturing / Installation:**
 - 3.1. JOINTS SEALED WITH BUTYL RUBBER SEALANT
 - 3.2. *112'-4" PROJECTED LENGTH WHEN FACTORING 1/2" MAX. GROWTH PER JOINT
 - 3.3. EACH EXTERIOR JOINT TO BE WRAPPED IN MIN. 12" CS-212 JOINT WRAP BY CONTRACTOR
 - 3.4. ALL EXPOSED SURFACES TO HAVE A RUBBED FINISH OR APPROVED EQUAL IN ACCORDANCE WITH SPEC. SECTION 534.17
 - 3.5. REBAR CLEAR COVER = 1.5" INTERIOR & 2" EXTERIOR
 - Soil / Fill Requirements:**
 - 4.1. MINIMUM = 1.5'

Note: Some details not shown for clarity
 SCALE: 3/32" = 1'-0" Unless otherwise noted

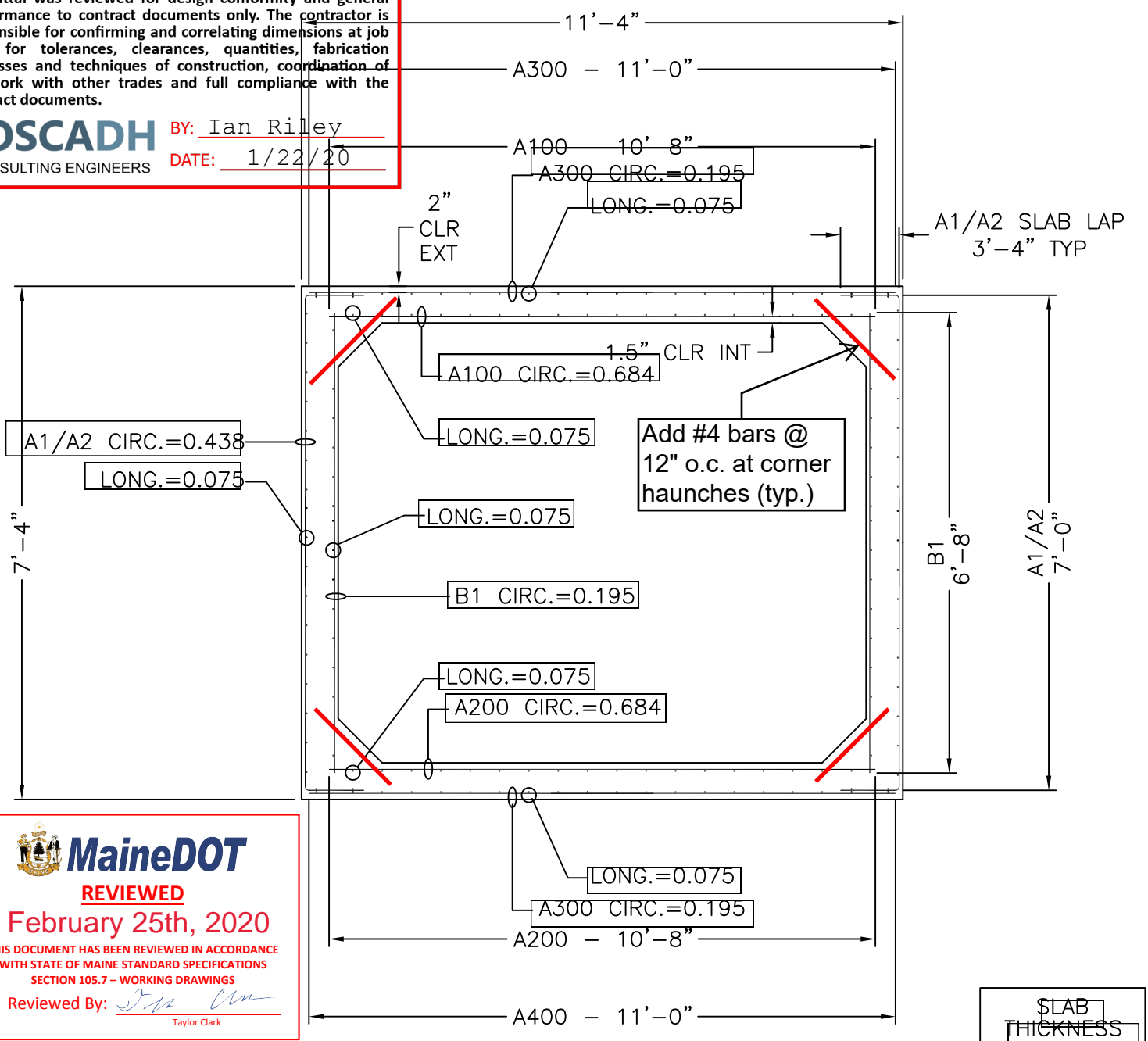
| | | |
|--|---------------------|----------------------|
| STRUCTURE NAME: 10' x 6' x 112' BOX CULVERT | | |
| JOB NAME: HAY BROOK BRIDGE ROUTE 202/A4 | | |
| LOCATION: SANFORD - ALFRED, ME. (WIN: 21823.00) | | |
| CONTRACTOR: MAINE D.O.T. | | |
| DRAWN BY: JWP | DATE: 12/20/2019 | PROJECT MGR: C.H. |
| REV.#: 0.01 | DATE: 02/21/2020 | SHEET: 1 OF 5 |

SHOP DRAWING/SUBMITTAL REVIEW

APPROVED APPROVED WITH CHANGES NOTES
 REVISE AND RESUBMIT REJECTED: _____

Submittal was reviewed for design conformity and general conformance to contract documents only. The contractor is responsible for confirming and correlating dimensions at job sites for tolerances, clearances, quantities, fabrication processes and techniques of construction, coordination of his work with other trades and full compliance with the contract documents.

FOSCADH BY: Ian Riley
CONSULTING ENGINEERS DATE: 1/22/20



MaineDOT
REVIEWED
February 25th, 2020
THIS DOCUMENT HAS BEEN REVIEWED IN ACCORDANCE WITH STATE OF MAINE STANDARD SPECIFICATIONS SECTION 105.7 - WORKING DRAWINGS
Reviewed By: Taylor Clark
Taylor Clark

10' x 6' x 7'-6"
CROSS SECTION WITH AREAS OF STEEL

CAGE WEIGHT PER 7'-6" JOINT = 1013.8 lbs

| | |
|----------------|----|
| SLAB THICKNESS | |
| TOP | 8" |
| BOTTOM | 8" |
| WALLS | 8" |

| | | | |
|-----------------------|---|-----|--|
| MECHANICAL DIMENSIONS | | | |
| DIM. 'L' | = | N/A | |
| DIM. 'M' | = | N/A | |
| DIM. 'R' | = | N/A | |
| DIM. 'S' | = | N/A | |

| | | | |
|-------------------------------|----------------|----------------|----------------|
| BOX SIZE: 10' x 6' x 7'-6" | ASTM: HL-93 | TABLE: 125% | FILL: 3' 4" |
|-------------------------------|----------------|----------------|----------------|



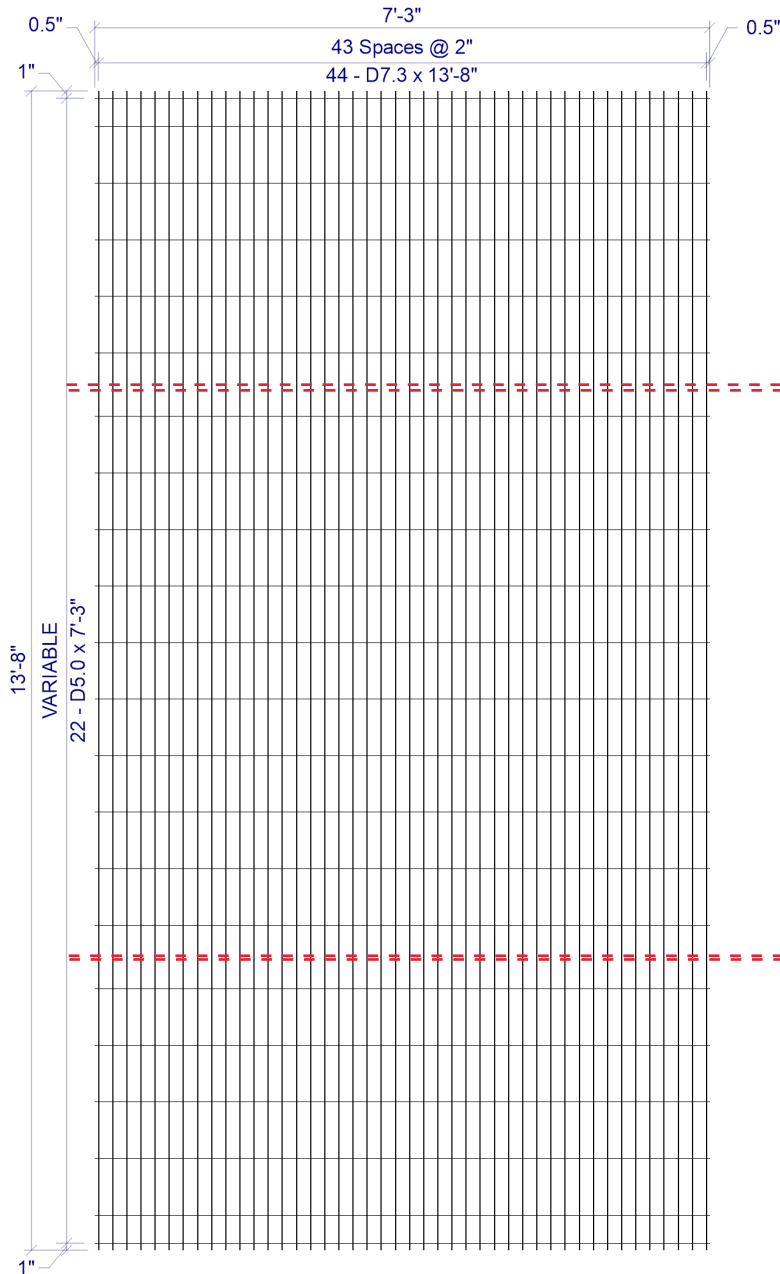
Concrete Reinforcements, Inc.
3830 Presidents Way
Jacksonville, FL 32220
PH. 904-520-7100 FAX. 904-520-7101

| | | | |
|--------------------------------------|--------------------|------------------------|-----------------------------|
| CUSTOMER: SUPERIOR CONCRETE | DRAWN BY: BWA | REVISION: 1/24/2020 | SHEET DESCRIPTION: COVER |
| PROJECT: 10' X 6' X 7'-6" SANFORD | DATE: 1/20/2020 | REVISION DATE: R1 | FILE NAME: 94826 |
| CHECKED BY: BWA | SCALE: NTS | PROJECT #: 94826 | SHEET #: 1 OF 6 |

SHEET DESIGN



Concrete Reinforcements, Inc.
 3830 Presidents Way • Jacksonville, FL 32220
 Phone: 904-520-7100 • Fax: 904-520-7101



CUSTOMER Superior Concrete
 PROJECT 94826 - Drawings - 10x6 Sanford - Superior Concrete - 1-20-2020
 LOCATION Auburn, ME
 DATE 01-24-2020 MARK NUMBER A1/A2 (-01)

L.W.SPACE 2
 C.W.SPACE VAR
 L.W.1 SIZE D7.3
 L.W.2 SIZE N/A
 C.W.SIZE D5.0
 WIDTH 7'-3"
 LENGTH 13'-8"
 OH.LEFT 0.5"
 OH.RIGHT 0.5"
 OH.TOP 1"
 OH.BOTTOM 1"
 YIELD 70,000psi
 BENT -
 CUT -
 ROLL -

| W I R E S | LINE WIRE 1 | LINE WIRE 2 | CROSS WIRE |
|-----------------------|---------------|-------------|------------|
| | NO. PER SHEET | 44 | N/A |
| SIZE | D7.3 | N/A | D5.0 |
| LENGTH | 13'-8" | - | 7'-3" |
| W.T./SHEET | | | |
| SHEET W.T. | 180.50# | | |
| QUANTITY | 30 | | |
| SUB TOTAL WEIGHT | | | |
| TOTAL WEIGHT | | | |
| S.F./SHEET | | | |
| LBS./CSF | | | |
| Ast/LF | | | |
| ST.DENSITY | | | |

BEND LINE

BEND LINE

2 x VAR D7.3 / D5.0 (GRADE 70) 86(+0.5, +0.5) x 13'-8" (1, 1)
 VAR = 1" OH, 1@4", 4@8", 1@9", 9@8", 1@9", 4@8", 1@4", 1" OH

SPECIAL REMARKS:
 BEND DIMS: WALL=84", SLABS=40"



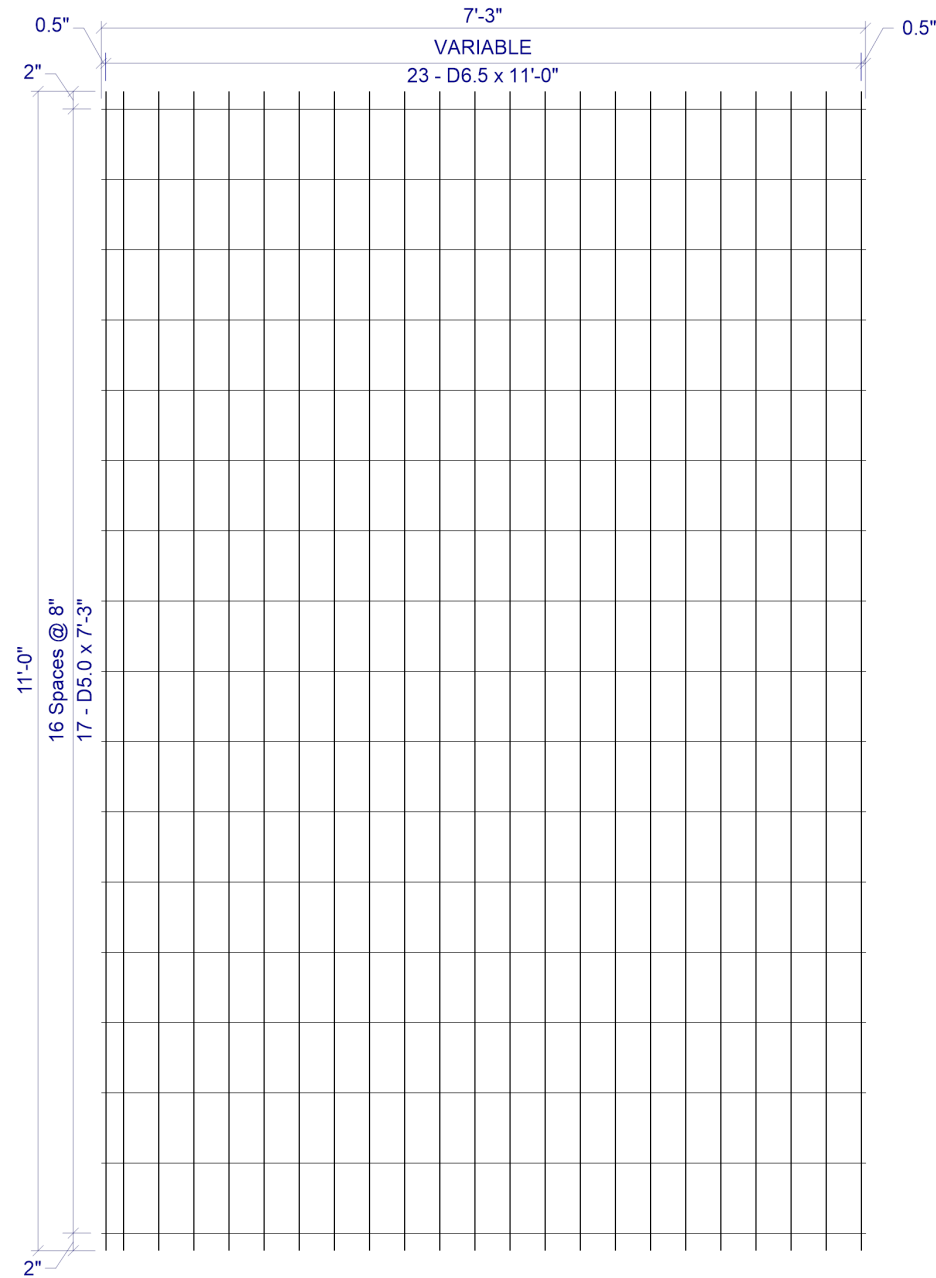
REVIEWED

February 25th, 2020

THIS DOCUMENT HAS BEEN REVIEWED IN ACCORDANCE WITH STATE OF MAINE STANDARD SPECIFICATIONS SECTION 105.7 - WORKING DRAWINGS

Reviewed By: *[Signature]*
 Taylor Clark

APPROVED _____



VAR x 8 D6.5 / D5.0 (GRADE 70) 86(+0.5, +0.5) x 11'-0" (2, 2)
 VAR = 0.5" OH, 1@2", 21@4", 0.5" OH

SHEET DESIGN



Concrete Reinforcements, Inc.
 3830 Presidents Way • Jacksonville, FL 32220
 Phone: 904-520-7100 • Fax: 904-520-7101

CUSTOMER Superior Concrete
 PROJECT 94826 - Drawings - 10x6 Sanford - Superior Concrete - 1-20-2020
 LOCATION Auburn, ME
 DATE 01-24-2020 MARK NUMBER A300/A400 (-02)

L.W.SPAC VAR
 C.W.SPAC 8
 L.W.1 SIZE D6.5
 L.W.2 SIZE N/A
 C.W.SIZE D5.0
 WIDTH 7'-3"
 LENGTH 11'-0"
 OH.LEFT 0.5"
 OH.RIGHT 0.5"
 OH.TOP 2"
 OH.BOTTOM 2"
 YIELD 70,000psi
 BENT -
 CUT -
 ROLL -

| W I R E S | LINE WIRE 1 | LINE WIRE 2 | CROSS WIRE |
|-----------------------|---------------|-------------|------------|
| | NO. PER SHEET | 23 | N/A |
| SIZE | D6.5 | N/A | D5.0 |
| LENGTH | 11'-0" | - | 7'-3" |
| W.T./SHEET | | | |
| SHEET W.T. | 76.90# | | |
| QUANTITY | 30 | | |
| SUB TOTAL WEIGHT | | | |
| TOTAL WEIGHT | | | |
| S.F./SHEET | | | |
| LBS./CSF | | | |
| Ast/LF | | | |
| ST.DENSITY | | | |

SPECIAL REMARKS:



REVIEWED

February 25th, 2020

THIS DOCUMENT HAS BEEN REVIEWED IN ACCORDANCE WITH STATE OF MAINE STANDARD SPECIFICATIONS SECTION 105.7 - WORKING DRAWINGS

Reviewed By: *J. Clark*
 Taylor Clark

APPROVED _____

SHEET DESIGN



Concrete Reinforcements, Inc.
 3830 Presidents Way • Jacksonville, FL 32220
 Phone: 904-520-7100 • Fax: 904-520-7101

CUSTOMER Superior Concrete

PROJECT 94826 - Drawings - 10x6 Sanford - Superior Concrete - 1-20-2020

LOCATION Auburn, ME

DATE 01-24-2020 MARK NUMBER B1 (-03)

L.W.SPACED VAR

C.W.SPACED 8

L.W.1 SIZE D6.5

L.W.2 SIZE N/A

C.W.SIZE D5.0

WIDTH 7'-3"

LENGTH 6'-8"

OH.LEFT 0.5"

OH.RIGHT 0.5"

OH.TOP 4"

OH.BOTTOM 4"

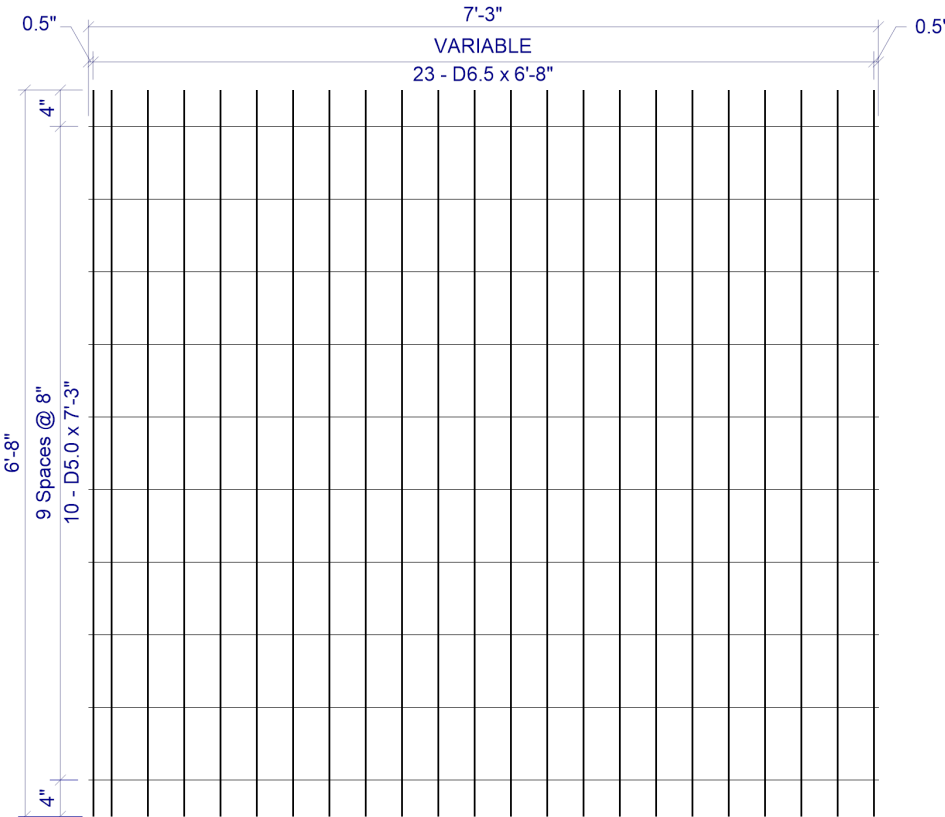
YIELD 70,000psi

BENT -

CUT -

ROLL -

| W I R E S | LINE WIRE 1 | LINE WIRE 2 | CROSS WIRE |
|-----------------------|---------------|-------------|------------|
| | NO. PER SHEET | 23 | N/A |
| SIZE | D6.5 | N/A | D5.0 |
| LENGTH | 6'-8" | - | 7'-3" |
| W.T./SHEET | | | |
| SHEET W.T. | 46.20# | | |
| QUANTITY | 30 | | |
| SUB TOTAL WEIGHT | | | |
| TOTAL WEIGHT | | | |
| S.F./SHEET | | | |
| LBS./CSF | | | |
| Ast/LF | | | |
| ST.DENSITY | | | |



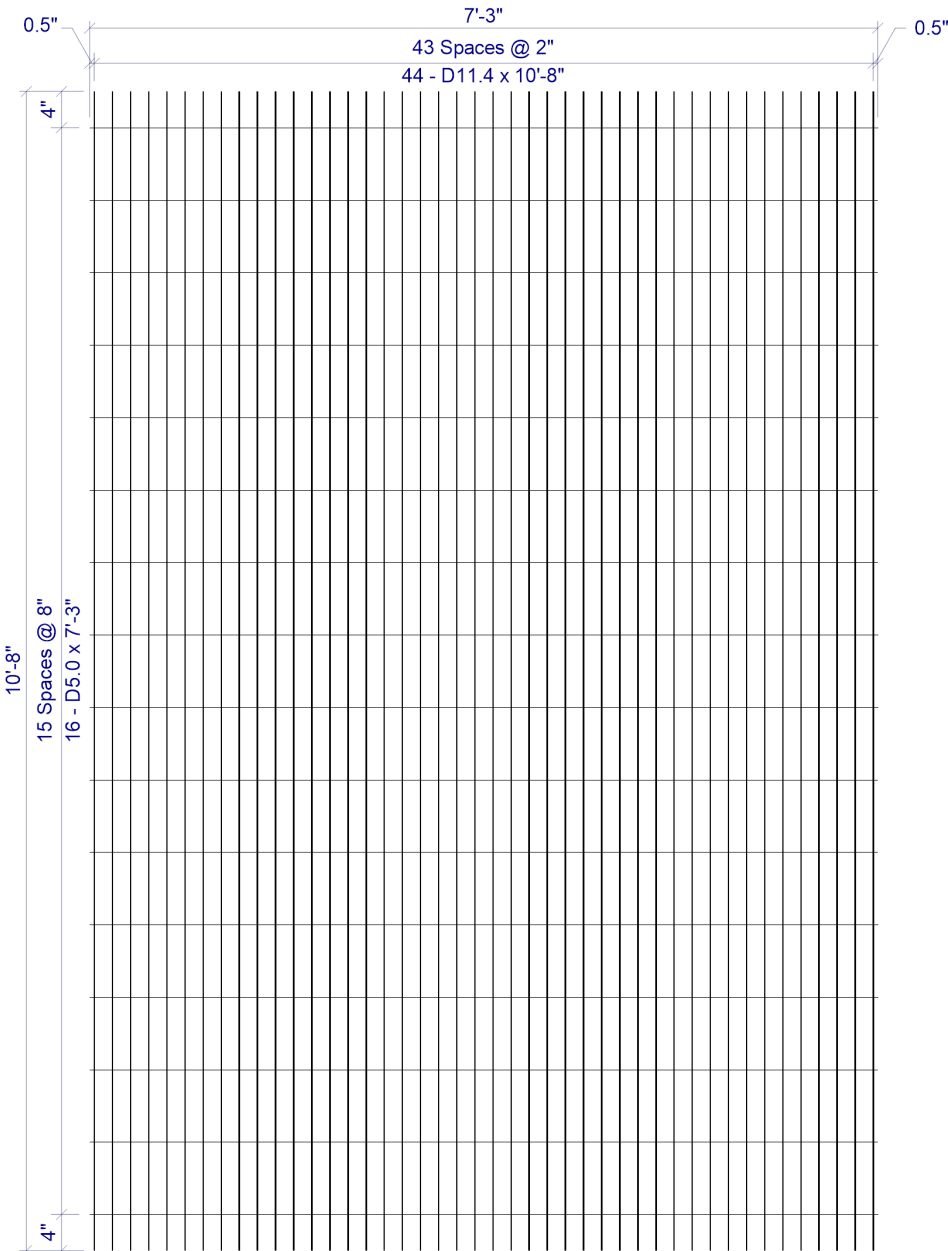
VAR x 8 D6.5 / D5.0 (GRADE 70) 86(+0.5, +0.5) x 6'-8" (4, 4)
 VAR = 0.5" OH, 1@2", 21@4", 0.5" OH

SPECIAL REMARKS:

APPROVED _____



REVIEWED
February 25th, 2020
 THIS DOCUMENT HAS BEEN REVIEWED IN ACCORDANCE
 WITH STATE OF MAINE STANDARD SPECIFICATIONS
 SECTION 105.7 - WORKING DRAWINGS
 Reviewed By: Taylor Clark
 Taylor Clark



2 x 8 D11.4 / D5.0 (GRADE 70) 86(+0.5, +0.5) x 10'-8" (4, 4)

SHEET DESIGN



Concrete Reinforcements, Inc.
3830 Presidents Way • Jacksonville, FL 32220
Phone: 904-520-7100 • Fax: 904-520-7101

CUSTOMER Superior Concrete

PROJECT 94826 - Drawings - 10x6 Sanford - Superior Concrete - 1-20-2020

LOCATION Auburn, ME

DATE 01-24-2020 MARK NUMBER A100/A200 (-04)

L.W.SPACED 2

C.W.SPACED 8

L.W.1 SIZE D11.4

L.W.2 SIZE N/A

C.W.SIZE D5.0

WIDTH 7'-3"

LENGTH 10'-8"

OH.LEFT 0.5"

OH.RIGHT 0.5"

OH.TOP 4"

OH.BOTTOM 4"

YIELD 70,000psi

BENT -

CUT -

ROLL -

| W I R E S | LINE WIRE 1 | LINE WIRE 2 | CROSS WIRE |
|-----------------------|---------------|-------------|------------|
| | NO. PER SHEET | 44 | N/A |
| SIZE | D11.4 | N/A | D5.0 |
| LENGTH | 10'-8" | - | 7'-3" |
| W.T./SHEET | | | |
| SHEET W.T. | 203.30# | | |
| QUANTITY | 30 | | |
| SUB TOTAL WEIGHT | | | |
| TOTAL WEIGHT | | | |
| S.F./SHEET | | | |
| LBS./CSF | | | |
| Ast/LF | | | |
| ST.DENSITY | | | |

SPECIAL REMARKS:

APPROVED _____



REVIEWED

February 25th, 2020

THIS DOCUMENT HAS BEEN REVIEWED IN ACCORDANCE WITH STATE OF MAINE STANDARD SPECIFICATIONS SECTION 105.7 - WORKING DRAWINGS

Reviewed By: Taylor Clark