



Janet T. Mills
GOVERNOR

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

Bruce A. Van Note
COMMISSIONER

June 5, 2019
Subject: Large Culvert Replacement
State WIN: 022849.00
Location: **Danforth**
Amendment No. 1

Dear Sir/Ms.:

The following questions have been received:

Question: Drawing No 3 shows a list of estimated quantities that differs from bid items. Special Provision for the box culvert (section 534) indicates that excavation for the culvert will be per item 206 which is shown within the estimated quantity items also on drawing No. 3. Can you please clarify whether some of the estimated quantity items on drawing No. 3 were supposed to be included in the bid items or if those items are considered incidental to the culvert.

Response: Refer to Sections A-A and B-B, the Excavation and Backfill for the Box Culvert shall be measured and paid as per Section 206 - Structural Excavation, in the Standard Specifications book, November 2014 Edition. Granular borrow for underwater backfill shall be used as backfill for the Box Culvert below the subgrade of the road.

Question: The special provision for the box culvert (section 534) indicates that the box culvert will be provided by the state and delivered by American Concrete Industries. Can you provide anticipated date of culvert availability as well as typical length of sections and heaviest pick? Will materials be offloaded by American Concrete or does the Contractor need to provide an equipment source for offloading of culvert?

Response: The fabrication of the box is complete and will be available for delivery coordination at the time of award. See the attached shop drawings for section length and pick weight. As stated in Special Provisions 534, unloading and on-site storage is the responsibility of the Contractor.

Question: Can a design drawing be provided by American Concrete to help determine what incidental items would be necessary (i.e. fasteners, sealants, grout, etc)?

Response: Yes, please see the attached shop drawings, which are also available at the MaineDOT advertise project web page, <https://www.maine.gov/mdot/contractors/>.

Consider these changes and information prior to submitting your bid on **June 12, 2019**.

Sincerely,

A handwritten signature in black ink, appearing to read "G. M. A. Macdougall" followed by "For".

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



American Concrete Industries
1717 STILLWATER AVE. VEAZIE, ME. 04401
TEL: 207-947-8334
FAX: 207-947-3580
WWW.AMERICANCONCRETE.COM

ITEM	QTY	BILL OF MATERIALS
1	(1)	4'-11" UPSTREAM END (28,090 #)
2	(15)	4'-11" MID SECTION (27,580 # EA.)
3	(9)	4'-11" DOWNSTREAM END (27,070 #)
4	(2)	1' x 2' x 17'-4" TOEWALL (5,895 # EA.)
5	(16)	#8 x 20" TOEWALL PIN (9 EA. END)

DESIGN NOTES:
1. Concrete:
1.1. COMP. STRENGTH MIN. 5,000PSI @ 28 DAYS
1.2. AIR-ENTRAIMENT: 5.5% MIN - 7.5% MAX
2. Structural Reinforcement:
2.1. BAR PER ASTM A615, GRADE 60
2.2. WWR PER ASTM A615, 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 HL-93 WHEEL LOAD RATING (+25% LL)
3. Manufacturing / Installation:
3.1. JOINTS SEALED WITH BUTYL RUBBER SEALANT
3.2. CONFORMS STRICTLY TO ASTM & MDOT
3.3. MINIMUM SOIL COVER = 2'
3.4. MAXIMUM SOIL COVER = 5'

Note: Some details not shown for clarity
SCALE: 1/8" = 1'-0" Unless otherwise noted

STRUCTURE NAME:
16' x 6' x 83'-7" BOX CULVERT

JOB NAME:
S. CROOKED ROAD BRIDGE

LOCATION:
DANFORTH, ME

CONTRACTOR:
MDOT

DRAWN BY:
AAG

DATE:
04/23/2019

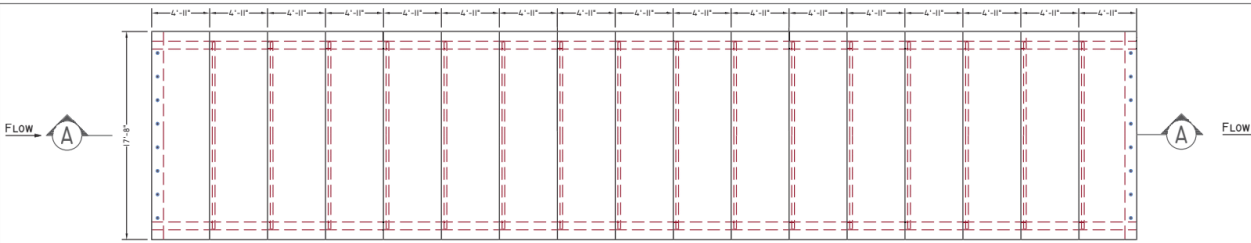
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DATE:
04/23/2019

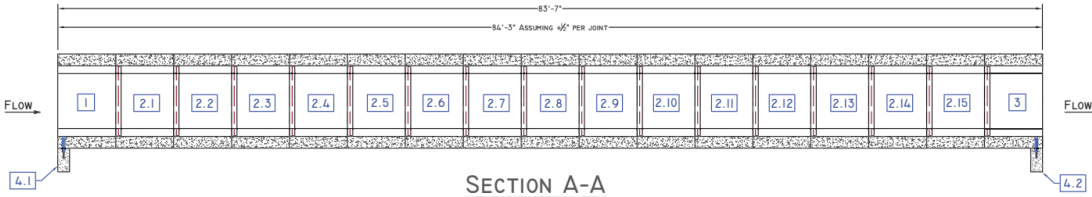
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STANTEC CONSULTING SERVICES INC.

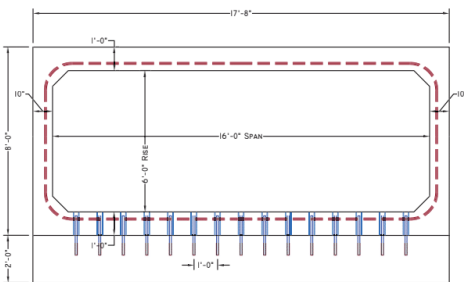
NOTE: 1/2"± GROWTH PER JOINT IS EXPECTED DURING INSTALLATION



PLAN VIEW



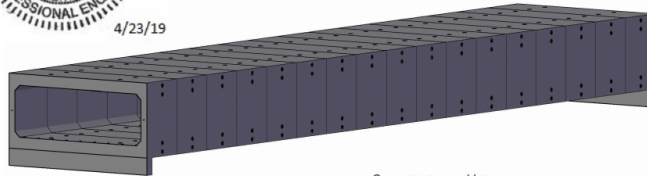
SECTION A-A



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



4/23/19



CONCEPTUAL VIEW
SCALE: NTS

- ☐ NO EXCEPTION TAKEN
- ☒ MAKE CORRECTIONS NOTED
- ☐ REVISE & RESUBMIT
- ☐ RESUBMIT CERTIFIED

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By: K.Wight

Date: 4/25/19

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ITEM	QTY	BILL OF MATERIALS
1	(1)	6' UPSTREAM END (28,090 #)
4	(1)	1' x 2' x 17'-4" TOEWALL (5,895 #)
(15)		#8 x 20" TOEWALL PIN

DESIGN NOTES:
1. Concrete:
1.1. COMP. STRENGTH MIN. 5,000PSI @ 28 DAYS
1.2. AIR-ENTRAIMENT: 5.5% MIN - 7.5% MAX
2. Structural Reinforcement:
2.1. BAR PER ASTM A615, GRADE 60
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2.3. INTEGRATE REBAR WITH LIFTING INSERT(S)
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3.4. MAXIMUM SOIL COVER = 5'

Note: Some details not shown for clarity
SCALE: 3/8" = 1'-0" Unless otherwise noted

STRUCTURE NAME:
16' x 6' x 83'-7" BOX CULVERT

JOB NAME:
S. CROOKED ROAD BRIDGE

LOCATION:
DANFORTH, ME

CONTRACTOR:
MDOT

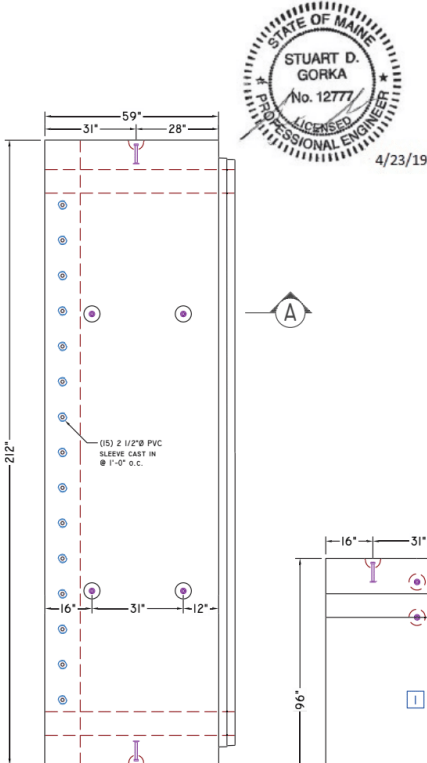
DRAWN BY:
AAG

DATE:
04/23/2019

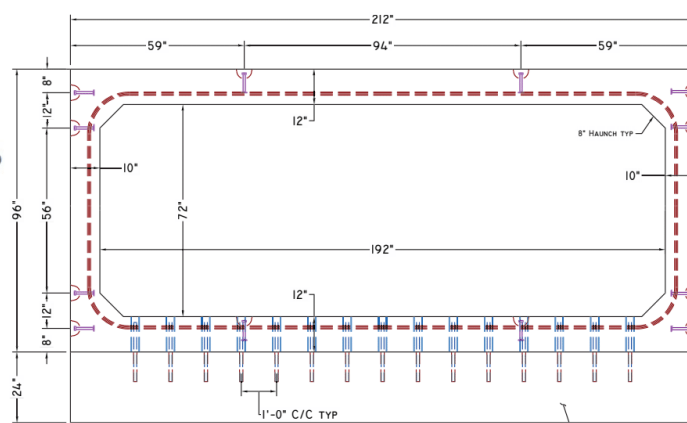
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DATE:
04/23/2019

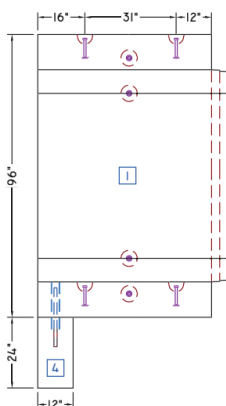
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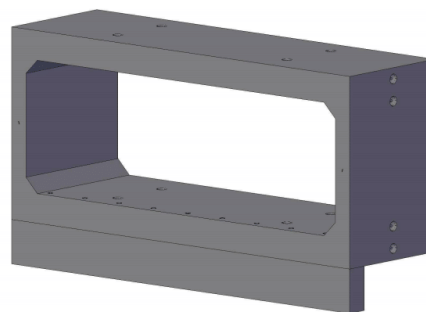
PLAN VIEW



END VIEW



SECTION A



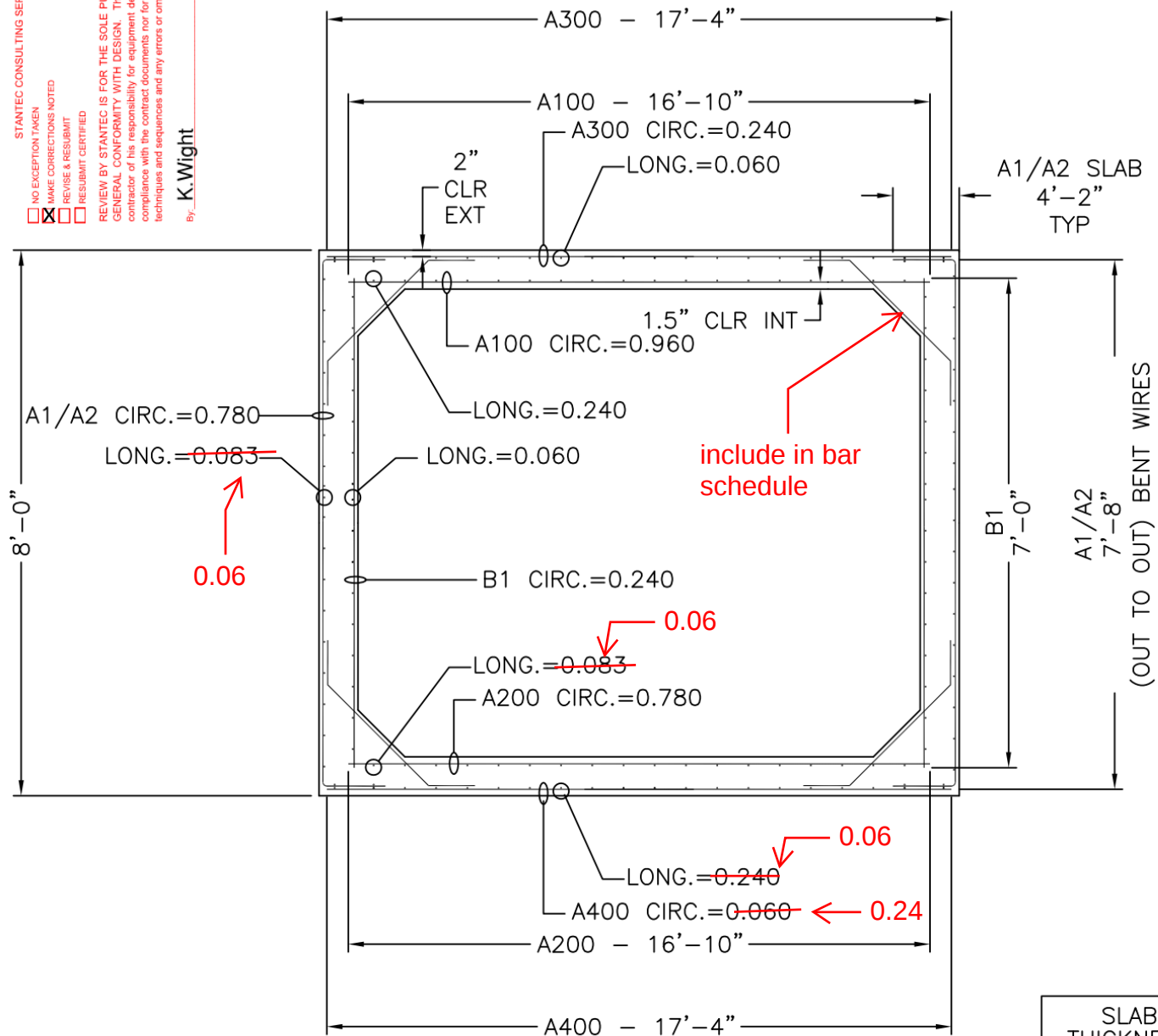
CONCEPTUAL VIEW - NTS

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NO EXCEPTION TAKEN
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☐ RESUBMIT CERTIFIED

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By: **K. Wight** Date: **4/25/19**



16' x 6' x 4'-8"

CROSS SECTION WITH AREAS OF STEEL

CAGE WEIGHT PER 4'-8" JOINT = 1197.7 lbs

SLAB THICKNESS	
TOP	12"
BOTTOM	12"
WALLS	10"

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

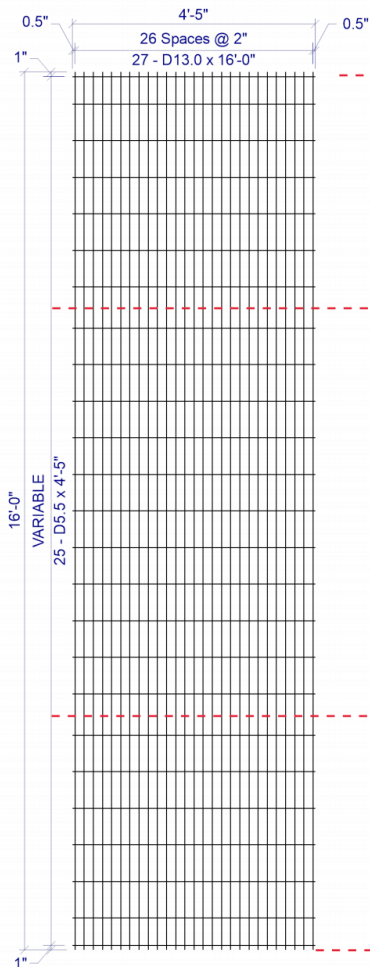
BOX SIZE:	ASTM:	TABLE:	FILL:
16' X 6' X 4'-8"	HL-93	125%	1'-4'



Concrete Reinforcements, Inc.

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

CUSTOMER:	DRAWN BY:	REVISION:	SHEET DESCRIPTION:
AMERICAN CONCRETE	BWA	4/10/2019	COVER
PROJECT:	DATE:	REVISION DATE:	FILE NAME:
16' X 6' X 4'-8"	3/11/2019	R1	94182
DANFORTH	CHECKED BY:	SCALE:	PROJECT #:
	BWA	NTS	94182
			SHEET #:
			1 OF 6



2 x VAR D13.0 / D5.5 (GRADE 70) 52(+0.5, +0.5) x 16'-0" (1, 1)
 VAR = 1" OH, 1@6", 5@8", 1@9", 10@8", 1@9", 5@8", 1@6", 1" OH

SHEET DESIGN



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

verify with calculations

CUSTOMER	American Concrete
PROJECT	94182 - Drawings - 16x6 Danforth - American Concrete - 3-11-2019
LOCATION	Veazie, ME
DATE	04-18-2019
MARK NUMBER	A1/A2 (-01)
L.W.SPACE	2
C.W.SPACE	VAR
L.W.1 SIZE	D13.0
L.W.2 SIZE	N/A
C.W.SIZE	D5.5
WIDTH	4'-5"
LENGTH	16'-0"
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	27	N/A	25
SIZE	D13.0	N/A	D5.5
LENGTH	16'-0"	-	4'-5"
W.T./SHEET			
SHEET W.T.	213.50#		
QUANTITY	36		
SUB TOTAL WEIGHT			
TOTAL WEIGHT			
S.F./SHEET			
LBS./CSF			
Ast/LF			
ST.DENSITY			

SPECIAL REMARKS:
 BEND DIMS: WALL=92", SLABS=50"

APPROVED _____

Page 2 of 6

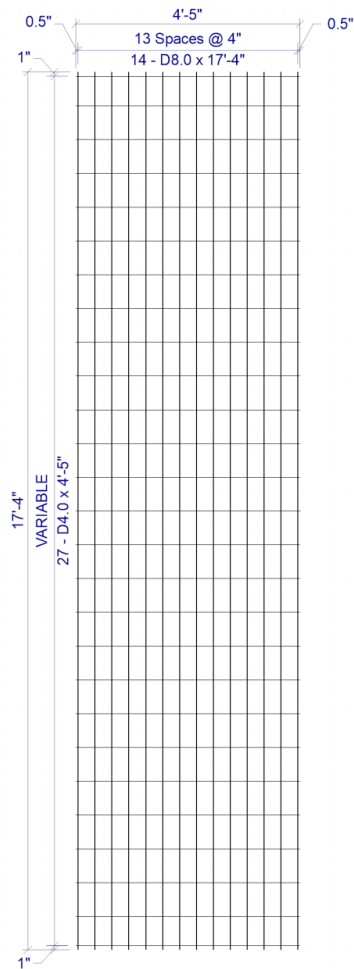
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By: K. Wight

Date: 4/25/19



4 x VAR D8.0 / D4.0 (GRADE 70) 52(+0.5, +0.5) x 17'-4" (1, 1)
VAR = 1" OH, 1@7", 24@8", 1@7", 1" OH

SHEET DESIGN



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CUSTOMER American Concrete

PROJECT 94182 - Drawings - 16x6 Danforth - American Concrete - 3-11-2019

LOCATION Veazie, ME

DATE 04-10-2019 MARK NUMBER A300/A400 (-02)

L.W.SPACE 4

C.W.SPACE VAR

L.W.1 SIZE D8.0

L.W.2 SIZE N/A

C.W.SIZE D4.0

WIDTH 4'-5"

LENGTH 17'-4"

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	14	N/A	27
SIZE	D8.0	N/A	D4.0
LENGTH	17'-4"	-	4'-5"
W.T./SHEET			
SHEET W.T.	86.30#		
QUANTITY	36		
SUB TOTAL WEIGHT			
TOTAL WEIGHT			
S.F./SHEET			
LBS./CSF			
Ast/LF			
ST.DENSITY			

SPECIAL REMARKS:

APPROVED _____

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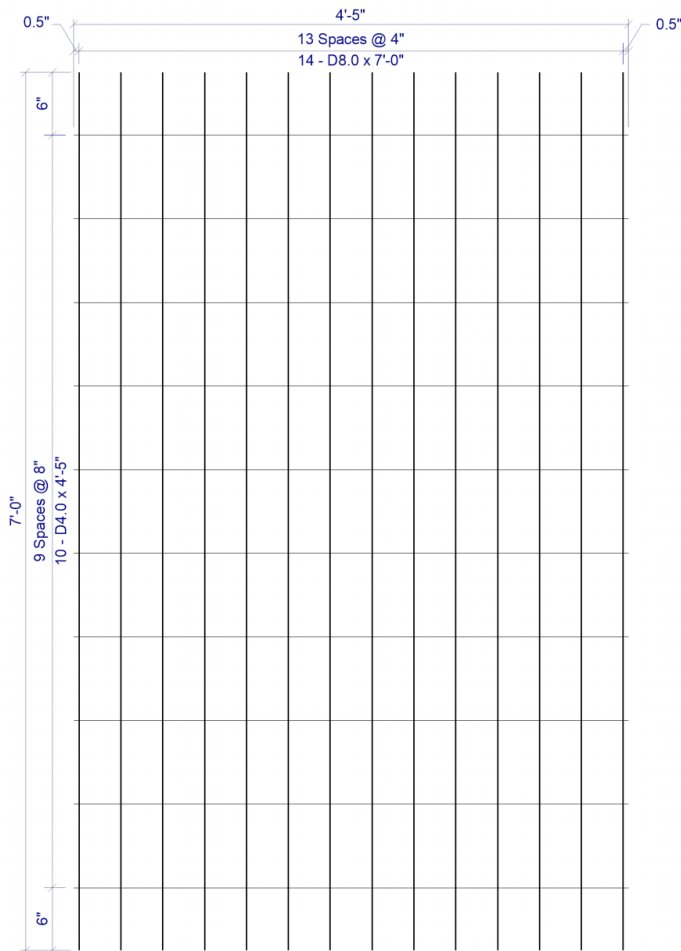
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By: K. Wight

Date: 4/25/19



4 x 8 D8.0 / D4.0 (GRADE 70) 52(+0.5, +0.5) x 7'-0" (6, 6)

SHEET DESIGN



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Phone: 904-520-7100 • Fax: 904-520-7101

CUSTOMER American Concrete

PROJECT 94182 - Drawings - 16x6 Danforth - American Concrete - 3-11-2019

LOCATION Veazie, ME

DATE 04-10-2019 MARK NUMBER B1 (-03)

L.W.SPACE 4

C.W.SPACE 8

L.W.1 SIZE D8.0

L.W.2 SIZE N/A

C.W.SIZE D4.0

WIDTH 4'-5"

LENGTH 7'-0"

OH.LEFT 0.5"

OH.RIGHT 0.5"

OH.TOP 6"

OH.BOTTOM 6"

YIELD 70,000psi

BENT -

CUT -

ROLL -

W I R E S	LINE WIRE 1	LINE WIRE 2	CROSS WIRE
NO. PER SHEET	14	N/A	10
SIZE	D8.0	N/A	D4.0
LENGTH	7'-0"	-	4'-5"
W.T./SHEET			
SHEET W.T.	34.20#		
QUANTITY	36		
SUB TOTAL WEIGHT			
TOTAL WEIGHT			
S.F./SHEET			
LBS./CSF			
Ast/LF			
ST.DENSITY			

SPECIAL REMARKS:

APPROVED _____

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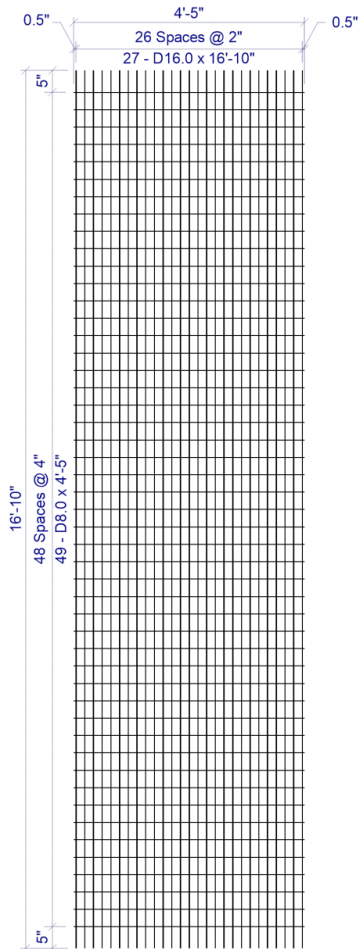
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By: K.Wight

Date: 4/25/19



2 x 4 D16.0 / D8.0 (GRADE 70) 52(+0.5, +0.5) x 16'-10"(5, 5)

SHEET DESIGN



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CUSTOMER American Concrete

PROJECT 94182 - Drawings - 16x6 Danforth - American Concrete - 3-11-2019

LOCATION Veazie, ME

DATE 04-10-2019 MARK NUMBER A100 (-04)

L.W.SPACE 2

C.W.SPACE 4

L.W.1 SIZE D16.0

L.W.2 SIZE N/A

C.W.SIZE D8.0

WIDTH 4'-5"

LENGTH 16'-10"

OH.LEFT 0.5"

OH.RIGHT 0.5"

OH.TOP 5"

OH.BOTTOM 5"

YIELD 70,000psi

BENT -

CUT -

ROLL -

W I R E S	LINE WIRE 1	LINE WIRE 2	CROSS WIRE
NO. PER SHEET	27	N/A	49
SIZE	D16.0	N/A	D8.0
LENGTH	16'-10"	-	4'-5"
W.T./SHEET			
SHEET W.T.	306.20#		
QUANTITY	18		
SUB TOTAL WEIGHT			
TOTAL WEIGHT			
S.F./SHEET			
LBS./CSF			
Ast/LF			
ST.DENSITY			

SPECIAL REMARKS:

APPROVED _____

Page 5 of 6

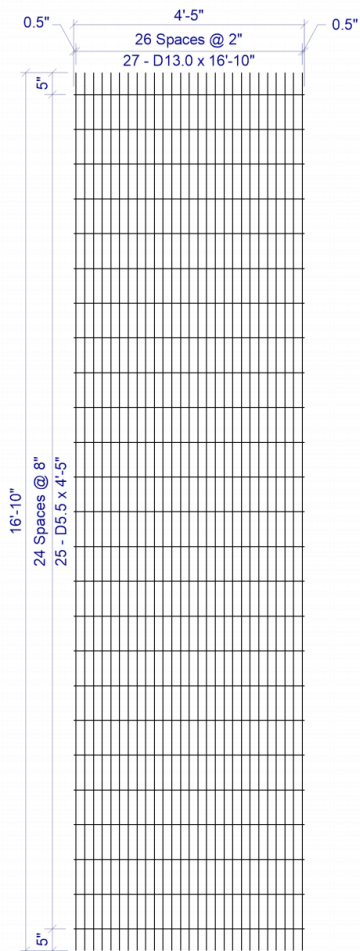
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By: K. Wight

Date: 4/25/19



2 x 8 D13.0 / D5.5 (GRADE 70) 52(+0.5, +0.5) x 16'-10"(5, 5)

SHEET DESIGN



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CUSTOMER American Concrete

PROJECT 94182 - Drawings - 16x6 Danforth - American Concrete - 3-11-2019

LOCATION Veazie, ME

DATE 04-10-2019 MARK NUMBER A200 (-05)

L.W.SPACE 2

C.W.SPACE 8

L.W.1 SIZE D13.0

L.W.2 SIZE N/A

C.W.SIZE D5.5

WIDTH 4'-5"

LENGTH 16'-10"

OH.LEFT 0.5"

OH.RIGHT 0.5"

OH.TOP 5"

OH.BOTTOM 5"

YIELD 70,000psi

BENT -

CUT -

ROLL -

W I R E S	LINE WIRE 1	LINE WIRE 2	CROSS WIRE
NO. PER SHEET	27	N/A	25
SIZE	D13.0	N/A	D5.5
LENGTH	16'-10"	-	4'-5"
W.T./SHEET			
SHEET W.T.	223.50#		
QUANTITY	18		
SUB TOTAL WEIGHT			
TOTAL WEIGHT			
S.F./SHEET			
LBS./CSF			
Ast/LF			
ST.DENSITY			

SPECIAL REMARKS:

APPROVED _____

Page 6 of 6

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