S.D. Ireland Companies
Precast Division

193 Industrial Ave. Williston, VT 05495
P.O. Box 2286 South Burlington, VT 05407
p: 802-863-6222 f: 802-860-1528
www.sdireland.com

Attention:	Brian Richardson	Date:	12/8/2014
Company:	C.C.S. Constructors	Job Name:	Stowe BRF 0235(11)
Address:	138 Munson Ave	Job Number:	#15163
City, St, Zip:	Morrisville, VT 05661	Regarding:	Approach Slab Submittal #1
Ph: / Fax:	802-888-7701		

WE ARE SENDING:
- [ ] Quote
- [x] Details
- [ ] Other: _____
- [x] Submittals
- [ ] Prints
- [ ] Plans
- [ ] Specifications
- [ ] Copy Of Letter
- [ ] Change Order
- [ ] Samples
- [ ] Revised Submittals

Copies	Date	Pages	Description
1	12/8/2014	1	Transmittal Cover Page
1	11/20/2014	4	S.D.I. Approach Slab Drawings
1	12/2/2014	2	Dimension Fabricators Reinforcement Drawings
1	5/23/2014	1	State Concrete Mix Design
1	11/20/2014	7	Stamped lifting analysis calculations and info
1	12/5/2014	1	S.D.I. Bar Interference Sheet

These Are Submitted as Checked Below:
- [x] For Approval
- [ ] Approved as Submitted
- [ ] Resubmit __ Copies for Approval
- [x] For Your Use
- [ ] Approved as Noted
- [ ] Submit__ Copies for Distribution
- [ ] As Requested
- [ ] Returned for Corrections
- [ ] Return __ Corrected Prints
- [ ] For Review and Comment
- [ ] Prints Returned After Loan to Us
- [ ] For Bids Due: _____
- [ ] Other:

Notes/Remarks:

Brian,

Please pass on to the state for approvals. We sketched up a bar interference chart for the state to review and comment on. They will have to tell us what bars and/or sleeves to move and where.

Let me know if you have any questions.

Thank you.

Eric Barendse x265

Copy To: _____

Signed: Eric Barendse

If enclosures are not as noted, kindly notify us at once.

Precast Approach Slabs

Stowe BRF 0235 (II)

Concrete:

Mix Designation: P50TER

1. Specified Mix Design - 5000 PSI
2. Proposed Mix Design - 5000 PSI
3. Striping Strength - 3000 PSI
4. Handling Strength - 3000 PSI
5. Shipping Strength - 5000 PSI
6. Install Strength - 5000 PSI
7. Traffic Loading - 5000 PSI

Release strengths should be 85% of design strength which is 4250 psi

Fabrication Tolerances:

1. Width ±1/4"
2. Height ±1/4"
3. Length ±1/2"
4. Rebar Cover 3" Min. (Unless Noted Otherwise)
5. Rebar Spacing ±1"
6. Rebar Clearance ±1/4"
7. Insert Placement ±1/4"

Reinforcing:

General Notes:

1. Reinforcing Steel - ASTM A615, Grade 60, Level II, Dual Coated
2. Materials and Manufacturing shall conform to ASTM C1433
3. Bar tied at every intersection for all perimeter bars and every other intersection for all other bars.

Tolerances:

1. Spacing ±1"
2. Clearance ±1/4"

Lap Lengths:

1. Per AASHTO 5.11.2.1.1 & 5.11.5.3.1
   Lap Length for Level II (Dual Coated):
   #4 Bar=17"
   #5 Bar=26"
   #6 Bar=39"
   #7 Bar=53"
   #8 Bar=69"

On plans this is shown as 2'7"

Vermont Agency of Transportation

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Approach Slabs Submittal 1 120814_Resubmit 12.17.14.pdf

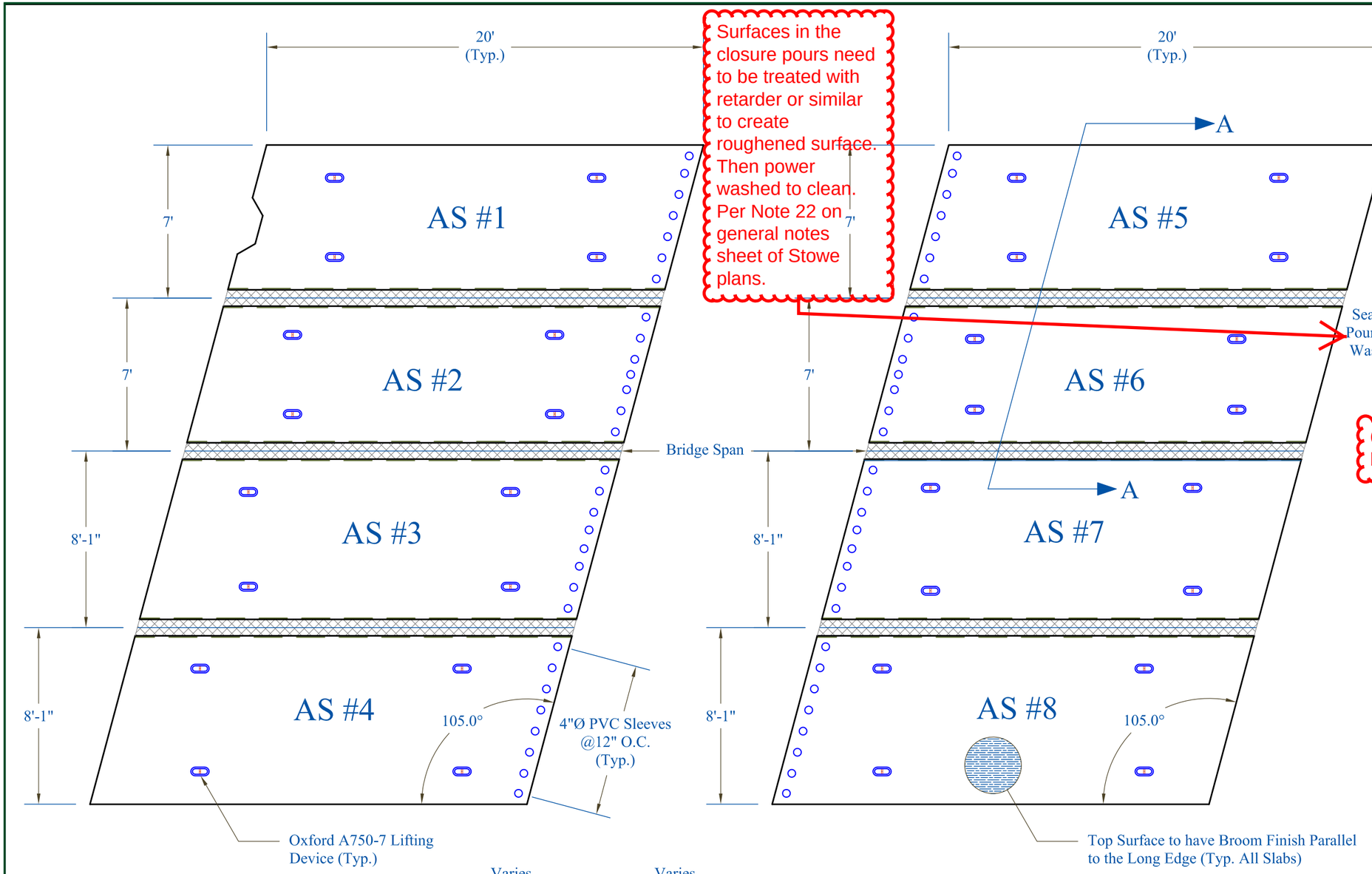
CK'D BY CLB OK'D BY DRP

December 9, 2014

RESUBMIT YES --------

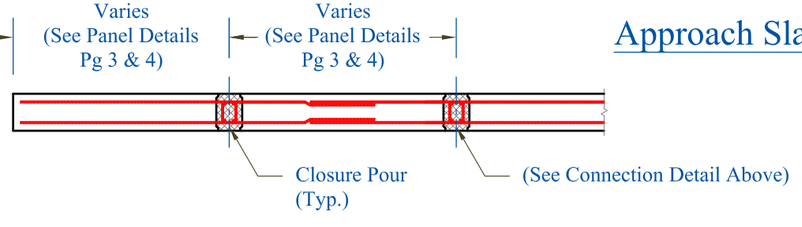
BY C. CARLSON DATE 12/18/14

CONTRACTORS VTSPE:	PRECAST CONCRETE APPROACH SLAB SHOP DRAWINGS (SDI JOB #15163)		INSTALLER: CCS Construction 138 Munson Ave Morrisville, VT 05661 PH: 802-888-7701	FABRICATOR: 193 INDUSTRIAL AVE. WILLISTON, VT 05495 Ph: (802) 658-0201 SD Ireland Precast Division	
	SUPERVISOR: M. WHEELER DETAILER: I. ADAMS CHECKER: E. Barendse ENGINEER:	PROJECT NAME: Stowe BRF 0235 (II) PROJECT #: 0235 (II) LOCATION: Stowe, VT	11/20/14	Text	1 of 4



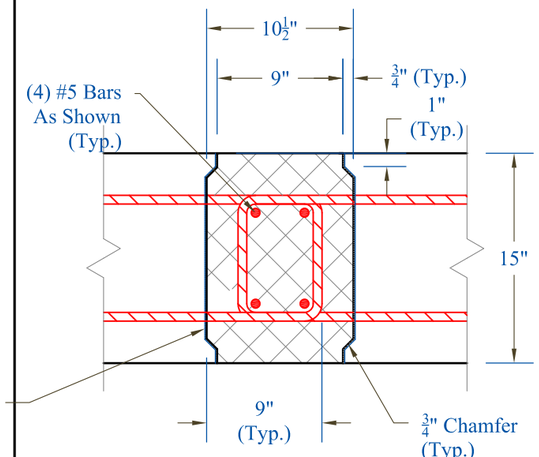
Approach Slab 1: Plan

Approach Slab 2: Plan



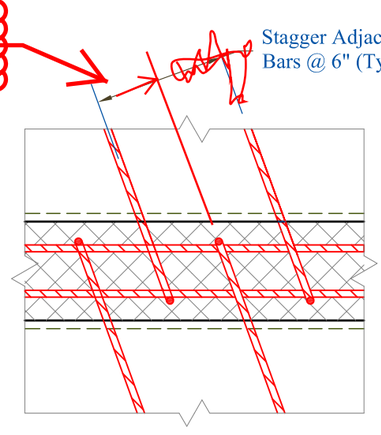
Section A-A

Approach slabs will be paved so no broom finish required.



Connection Detail Section

6" between these bars



Connection Detail Plan

Table of Pieces

Name	Qty	Thickness	Vol (Cu Yd)	Wt (lbs)
As#1	1	1'-3"	6.07	24,300
As#2	1	1'-3"	5.79	23,200
As#3	1	1'-3"	6.79	27,200
As#4	1	1'-3"	7.14	28,600
As#5	1	1'-3"	6.13	24,500
As#6	1	1'-3"	5.79	23,200
As#7	1	1'-3"	6.79	27,200
As#8	1	1'-3"	7.14	28,600

Vermont Agency of Transportation

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PRECAST CONCRETE APPROACH SLAB SHOP DRAWINGS (SDI JOB #15163)

SUPERVISOR: M. WHEELER
DETAILER: I. ADAMS
CHECKER: E. Barendse
ENGINEER:

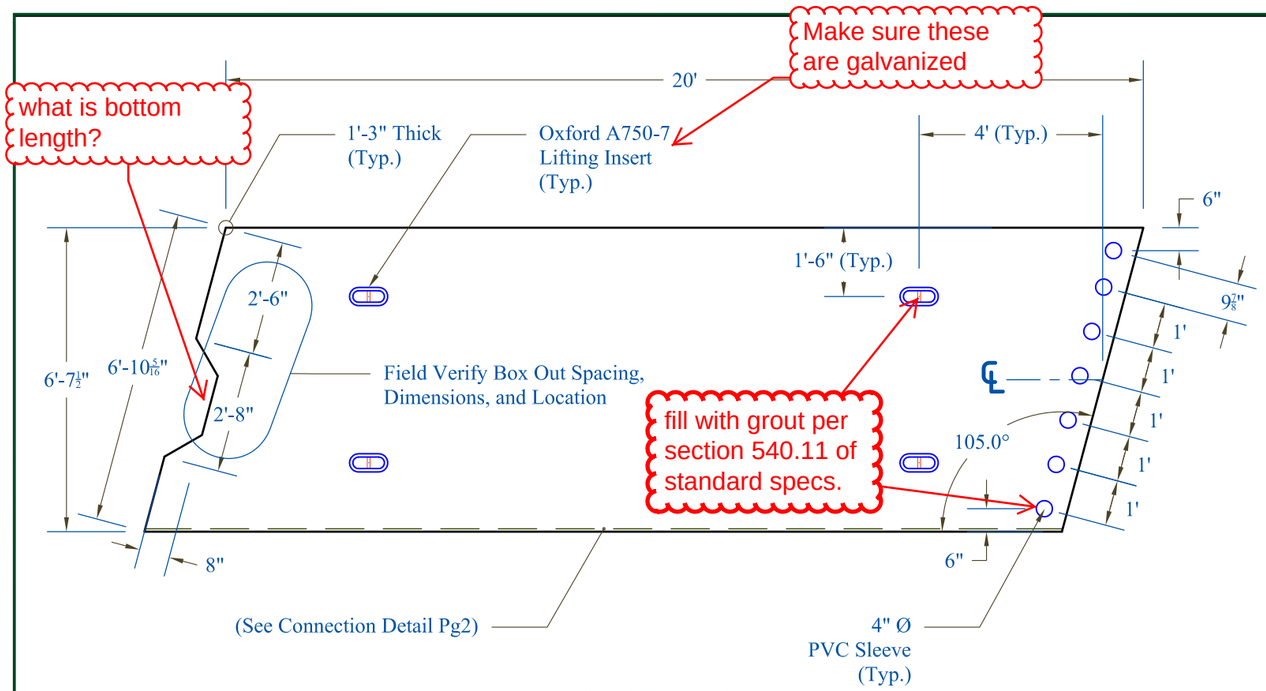
PROJECT NAME: Stowe BRF 0235 (II)
PROJECT #: 0235 (II)
LOCATION: Stowe, VT

INSTALLER: CCS Construction 138 Munson Ave Morrisville, VT 05661 PH: 802-888-7701

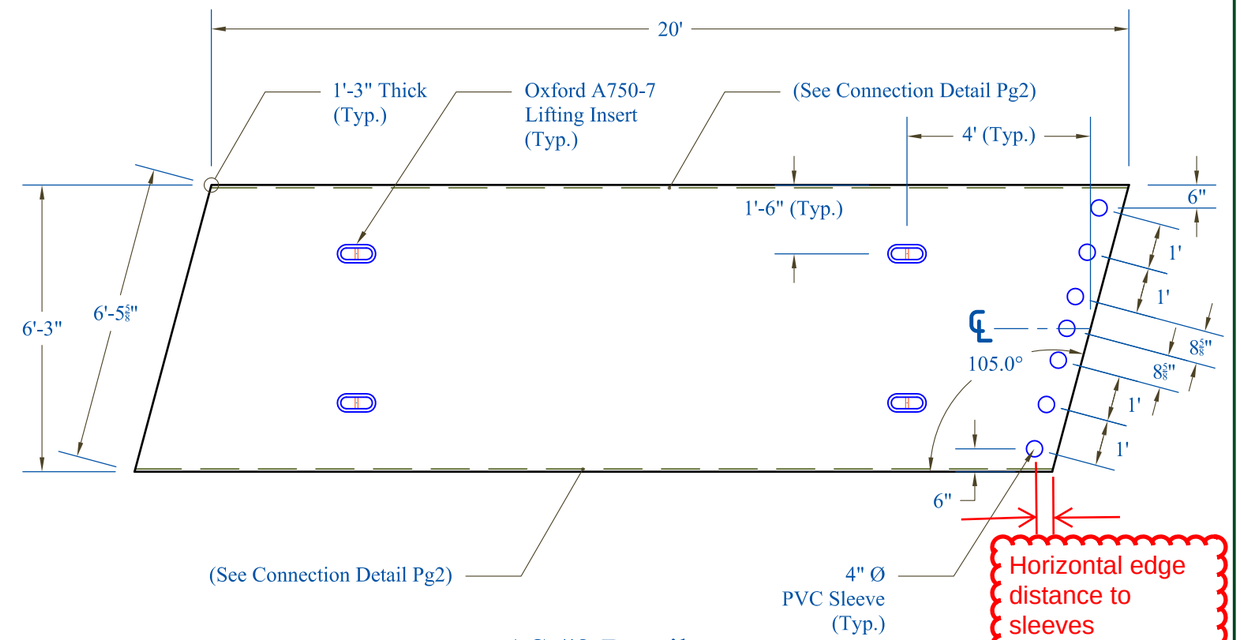
FABRICATOR: 193 INDUSTRIAL AVE. WILLISTON, VT 05495 Ph: (802) 658-0201

SD Ireland Precast Division

11/20/14 | Plan | 2 of 4



AS #1 Details



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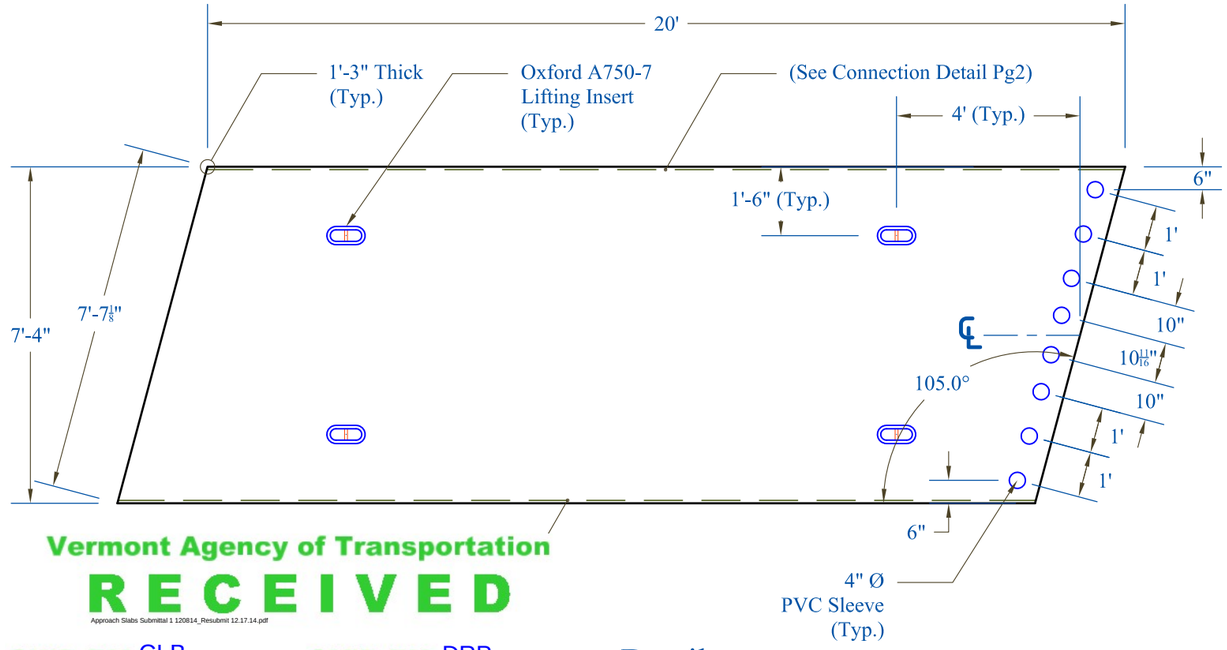
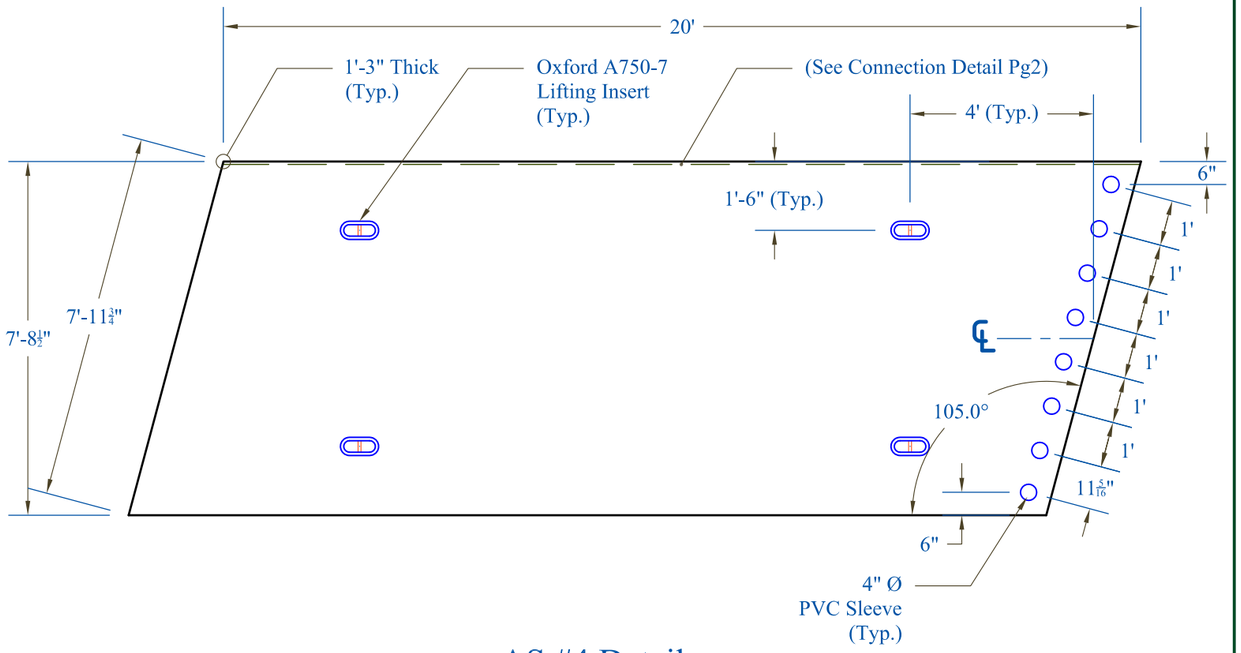


Details



AS #4 Details

Vermont Agency of Transportation

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CHECKER: E. Barendse
ENGINEER:

PROJECT NAME: Stowe BRF 0235 (II)
PROJECT #: 0235 (II)
LOCATION: Stowe, VT

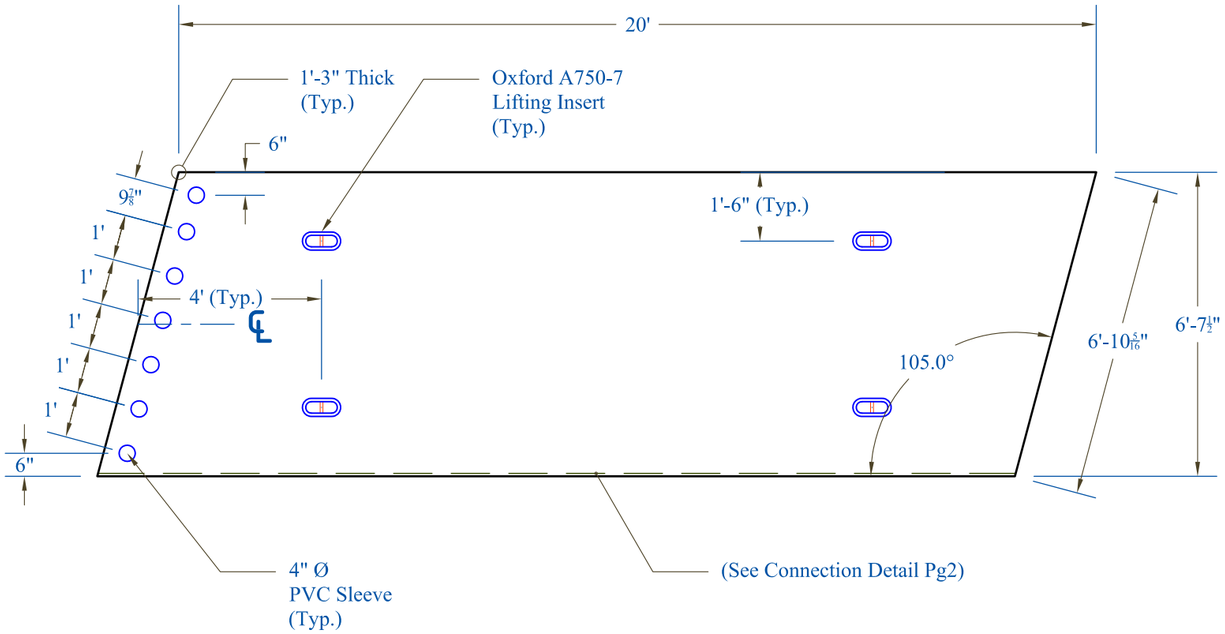
INSTALLER:
CCS Construction
138 Munson Ave
Morrisville, VT 05661
PH: 802-888-7701

FABRICATOR:
193 INDUSTRIAL AVE.
WILLISTON, VT 05495
Ph: (802) 658-0201

SD Ireland Precast Division

11/20/14

South Approach Slabs



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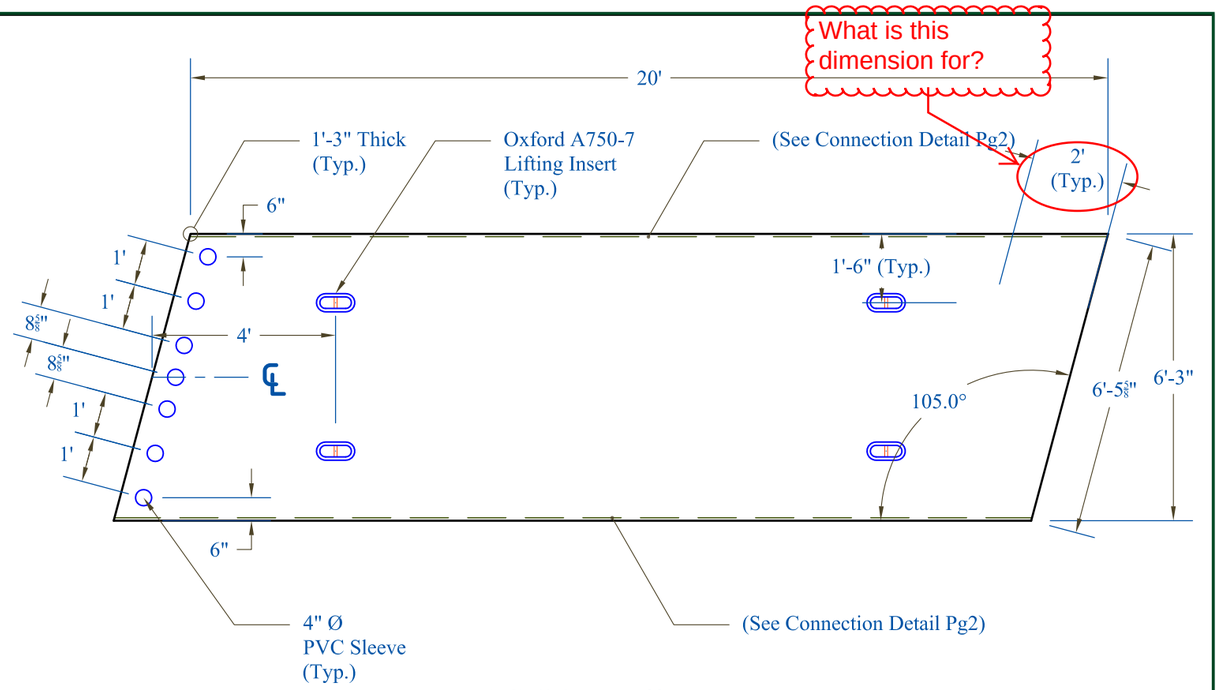

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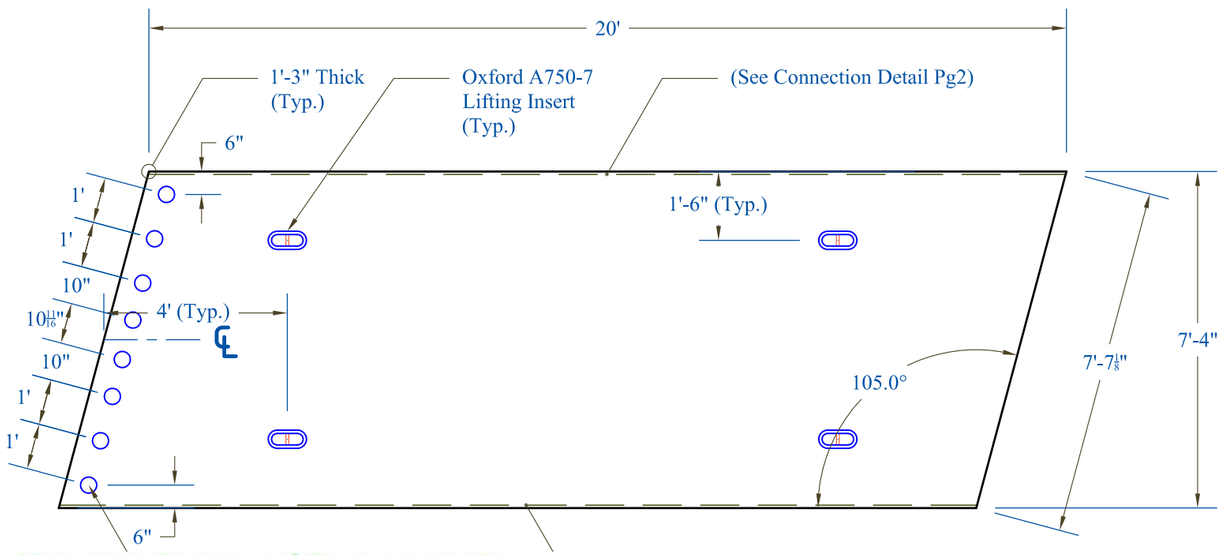
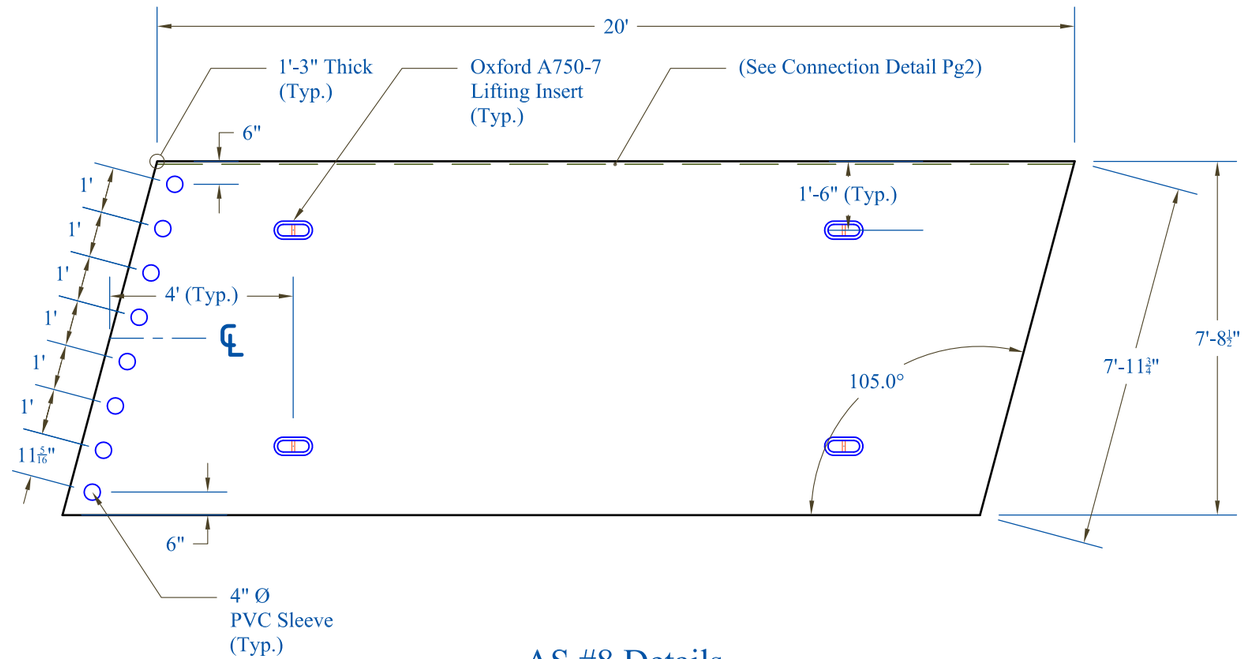


7 Details



AS #8 Details

PRECAST CONCRETE APPROACH SLAB SHOP DRAWINGS (SDI JOB #15163)

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DETAILER: I. ADAMS
CHECKER: E. Barendse
ENGINEER:

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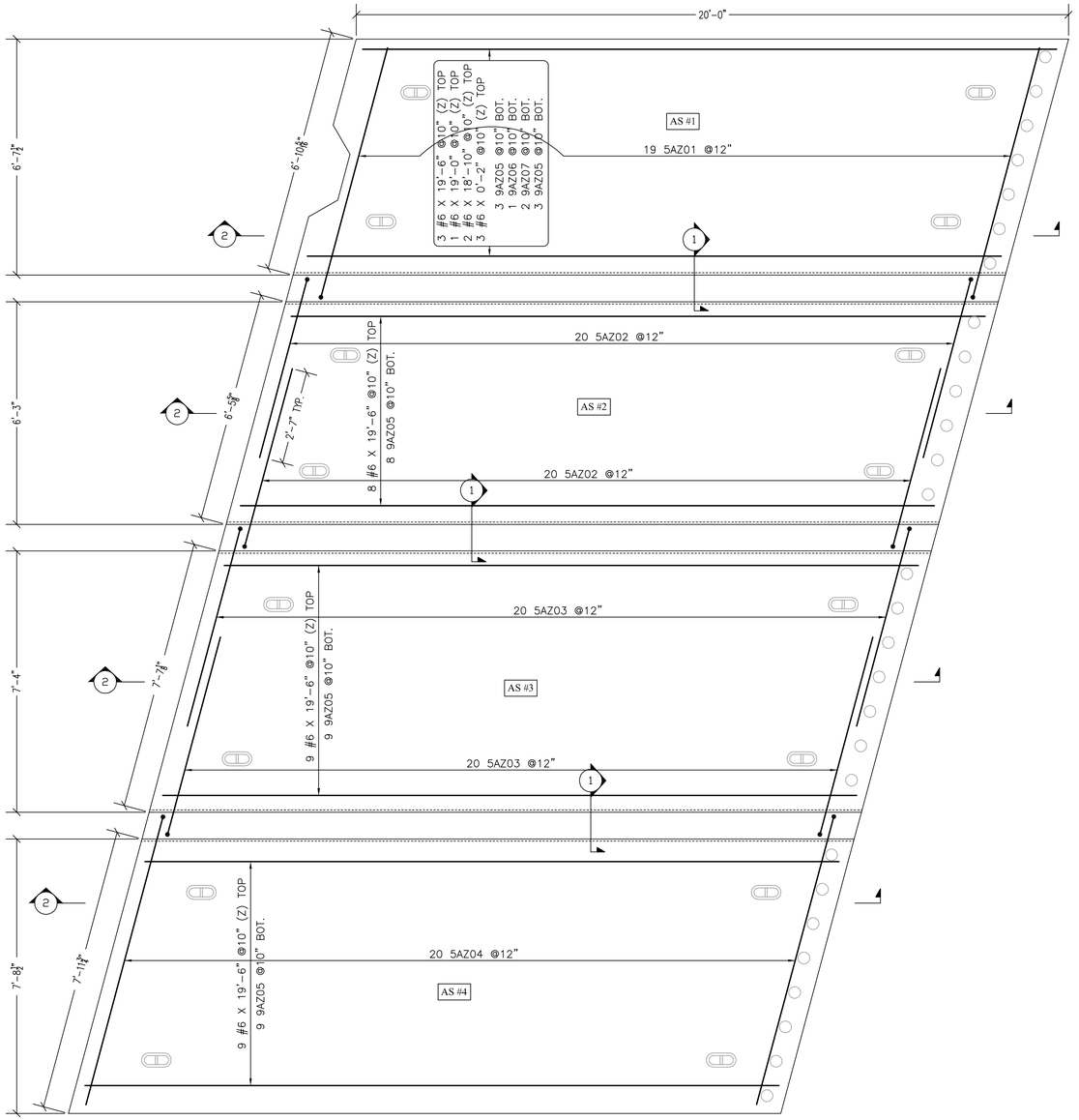
PROJECT #: 0235 (II)
LOCATION: Stowe, VT

INSTALLER:
CCS Construction
138 Munson Ave
Morrisville, VT 05661
PH: 802-888-7701

FABRICATOR:
193 INDUSTRIAL AVE.
WILLISTON, VT 05495
Ph: (802) 658-0201

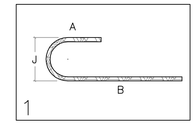
SD Ireland Precast Division

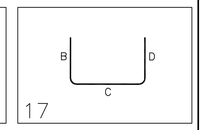
11/20/14 | North Approach Slabs | 4 of 4



APPROACH SLAB #1 PLAN

Release Number: 001													BAR LIST			
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'R'
	29	#6	19'-6"			19'-6"										
	1	#6	19'-0"			19'-0"										
	2	#6	18'-10"			18'-10"										
	3	#6	0'-2"			0'-2"										
5AZ01	19	#5	15'-3 ¼"	17		7'-4"	0'-7 ¼"	7'-4"								
5AZ02	40	#5	11'-1 ¼"	17		5'-3"	0'-7 ¼"	5'-3"								
5AZ03	40	#5	12'-3 ¼"	17		5'-10"	0'-7 ¼"	5'-10"								
5AZ04	20	#5	17'-6 ¼"	17		8'-5 ½"	0'-7 ¼"	8'-5 ½"								
9AZ05	32	#9	20'-9"	1	1'-3"	19'-6"							0'-11 ¾"			
9AZ06	1	#9	20'-3"	1	1'-3"	19'-0"							0'-11 ¾"			
9AZ07	2	#9	20'-1"	1	1'-3"	18'-10"							0'-11 ¾"			





ALL DUAL COATED REINF. DENOTED (Z)

LEGEND:
CONT.-CONTINUOUS
TRANS.-TRANSVERSE
DWLS.-DOWELS
VERTS.-VERTICAL
HORIZ.-HORIZONTAL
T&B -TOP & BOTTOM
I.F.-INNER FACE
O.F.-OUTER FACE
E.E.-EACH END
E.F.-EACH FACE
F.F.-FRONT FACE
R.F.-REAR FACE
E.W.-EACH WAY
O.C.-ON CENTER
L.W.-LONG WAY
S.W.-SHORT WAY

LAP CHART	
#5	2'-7"

FOR APPROVAL

ELEVATIONS & DIMENSIONS SHOWN ON THIS DWG. ARE FOR REINF. DETAILING PURPOSES ONLY AND ARE NOT INTENDED FOR CONSTRUCTION.

REINF. BARS ASTM A615 GRADE 60 DUAL COATED

VERIFICATION OF UNCLEAR INFORMATION MAY BE REQUESTED ON THIS DRAWING. SHOULD VERIFICATION BE LEFT UN-ADDRESSED IT WILL REMAIN AS SHOWN AND ASSUME TO BE CORRECT.

Vermont Agency of Transportation
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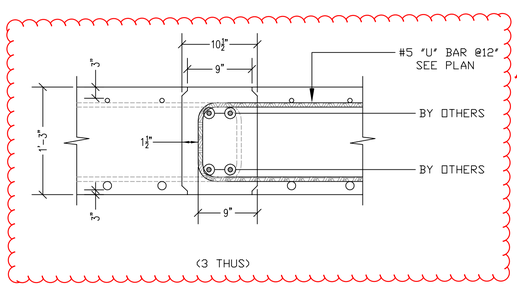
CK'D BY CLB OK'D BY DRP

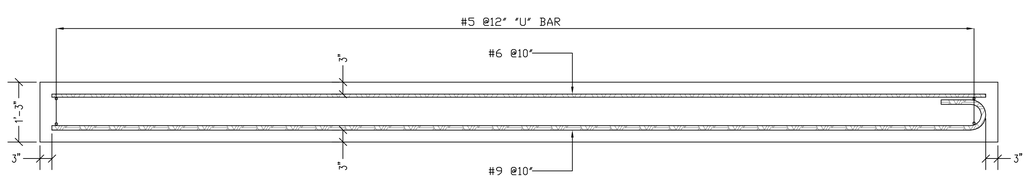
December 9, 2014

RESUBMIT YES --------
BY C. CARLSON DATE 12/18/14

Please verify with contractor that the four reinforcing bars in the closure pour will in fact be provided by others. Per general note 16 on the contract plans, the reinforcing steel in the approach slab closure pours shall be incidental to the precast approach slab contract items.



SECT. 1



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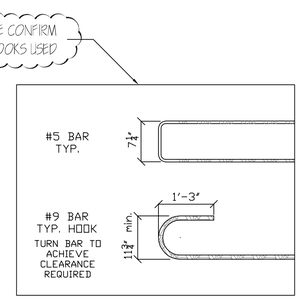


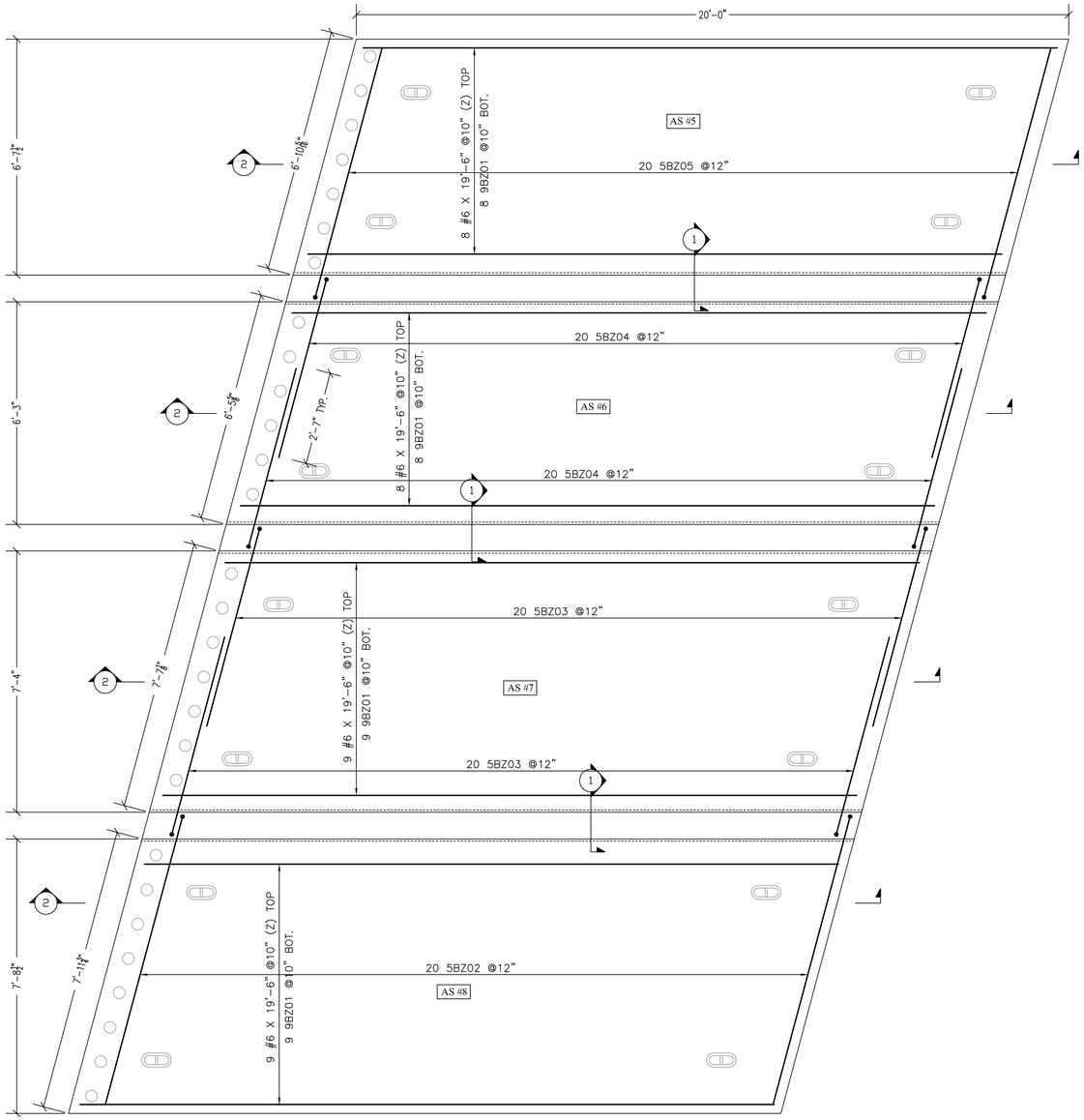
6			
5			
4			
3			
2	12/3/14		REVISED/SDI COM/FOR APPROVAL
1	12/2/14	0	FOR APPROVAL
	DATE	REV.#	STATUS

DIMENSION
DIMENSION FABRICATORS INC.
2000 7TH STREET
SCOTIA, N.Y. 12302
PH: (518) 374-1936
FAX: (518) 374-4830
www.dimensionfabricators.com

STRUCTURE	VTAOT STOWE BRF 0235(11)
LOCATION	
ARCHITECT	
ENGINEER	
CUSTOMER	SD IRELAND CONCRETE CONST. CORP.

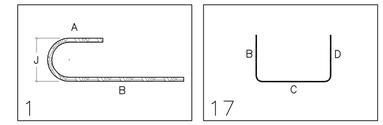
DRAWN BY	DATE	DFI #
ED	12/2/14	9117

DRAWING COVERS	DRAWING #
APPROACH SLAB #1 DUAL COATED REINFORCING	A



APPROACH SLAB #2 PLAN

Release Number: 002						BAR LIST										
Bar Mark	Qty	Size	Total Length	Type	'A'	'B'	'C'	'D'	'E'	'F'	'G'	'H'	'J'	'K'	'O'	'R'
	34	#6	19'-6"			19'-6"										
5BZ02	20	#5	17'-6 ¼"	17		8'-5 ½"	0'-7 ¼"	8'-5 ½"								
5BZ03	40	#5	12'-3 ¼"	17		5'-10"	0'-7 ¼"	5'-10"								
5BZ04	40	#5	11'-1 ¼"	17		5'-3"	0'-7 ¼"	5'-3"								
5BZ05	20	#5	15'-3 ¼"	17		7'-4"	0'-7 ¼"	7'-4"								
9BZ01	34	#9	20'-9"	1	1'-3"	19'-6"							0'-11 ¾"			



ALL DUAL COATED REINF. DENOTED (Z)

LEGEND:
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TRANS.-TRANSVERSE
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HORIZ.-HORIZONTAL
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E.W.-EACH WAY
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L.W.-LONG WAY
S.W.-SHORT WAY

LAP CHART	
#5	2'-7"

FOR APPROVAL

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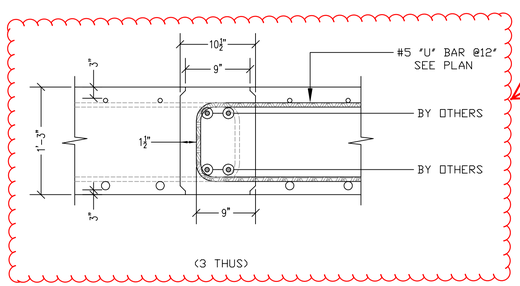
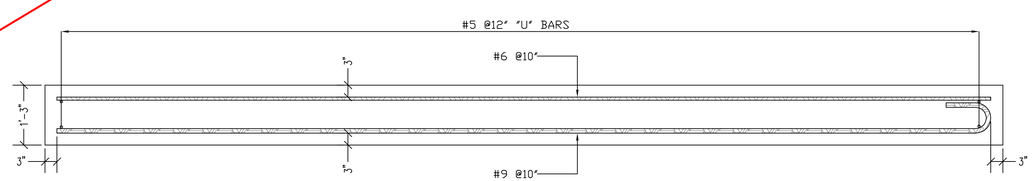
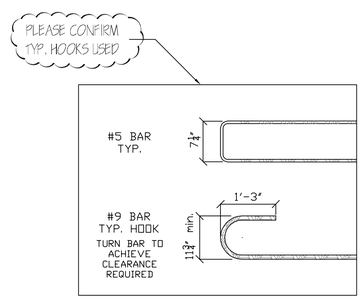


SECT. 1



SECT. 2



6			
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2000 7TH STREET SCOTIA, N.Y. 12302 PH: (518) 374-1936 FAX (518) 374-4830 www.dimensionfabricators.com

STRUCTURE	VTAOT STOWE BRF 0235(11)
LOCATION	
ARCHITECT	
ENGINEER	
CUSTOMER	SD IRELAND CONCRETE CONST. CORP.

DRAWN BY	DATE	DFI #
ED	12/2/14	9117

DRAWING COVERS	DRAWING #
APPROACH SLAB #2 DUAL COATED REINFORCING	B

S.D. Ireland
Concrete Construction Corporation

CONCRETE MIX DESIGN

5000 psi

SCC

SDI MIX CODE: P50TER

DATE: May 22, 2014 **PLANT:** Burlington, VT

PROJECT: General DOT Precast - 2014

FINE AGGREGATE: ASTM C 33	Source:	Hinesburg Sand & Gravel
	Specific Gravity:	2.67 (Abs.: 1.30%)
	Fineness Modulus:	2.9
COARSE AGGREGATE: ASTM C 33	Source:	S.D. Ireland, Brownell Quarry
	Specific Gravity:	2.80 (Abs.: 0.30%)
	Description	3/4" 100% Crushed Stone (Size #67)
CEMENT:	Ternary Blend Cement; Lefarge North America Lakes and Seaway Re St. Constant, Quebec (22% Slag, 5% Silica Fume, 73% Type II Cement) (Sp.Gvty: 3.02)	
ADMIXTURES:	Water Reducer (HRWR): Glenium 7500; BASF Admixtures Air Entraining Agent: Darex II AEA; Grace Concrete Chemicals	

CONSTITUENTS (LBS. /YD³)

		Abs.Vol.
Coarse Aggregate (SSD)	1675	9.59
Fine Aggregate (SSD)	1162	6.97
Cement	705	3.74
Water	300	4.81
Air Content (Entrained)	7.0%	1.89
Total	3842	27.00ft³

MIX PROPERTIES/ REQUIREMENTS

Water Cement Ratios: 0.426 (0.44)
Entrained Air Content: 5.0 % – 9.0%
Dry Unit Weight: 142.0 ± pcf
Spread: 21" to 27"
Concrete Temperatures: 50 – 85°F
VSI=/<1

***ADMIXTURE(S) DOSEAGE (OZ. /YD³)**

Glenium 7500 (HRWR)	46 - 53
Darex II AEA	2.3

Approved Jarod Weld
VAOT Engineering
Materials Engineer
5/23/14

TYPICAL STRENGTH GAIN

18-HOURS	1980 psi
3-DAYS	3760 psi
7-DAYS	4790 psi
28-DAYS	6020 psi

*Admixture dosage rates are subject to change.

Telephone 215-855-8713 FAX 215-855-8714

GARY K. MUNKELT & ASSOCIATES

Consulting Engineers
Precast Concrete, Structural, Civil

1180 Welsh Rd. Suite 190 North Wales, PA 19454

PROJECT: **CHECK CAPACITY OF LIFT SYSTEM COMPONENTS TO LIFT PRECAST CONCRETE SLABS**

CLIENT: **S.D. IRELAND WILLISTON, VT**

LOCATION: **STOWE BRF 0235 STOWE, VT**

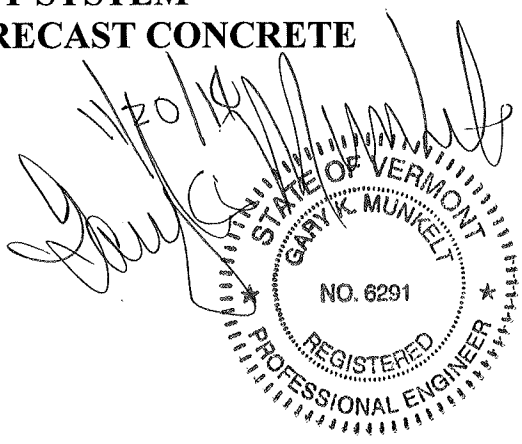
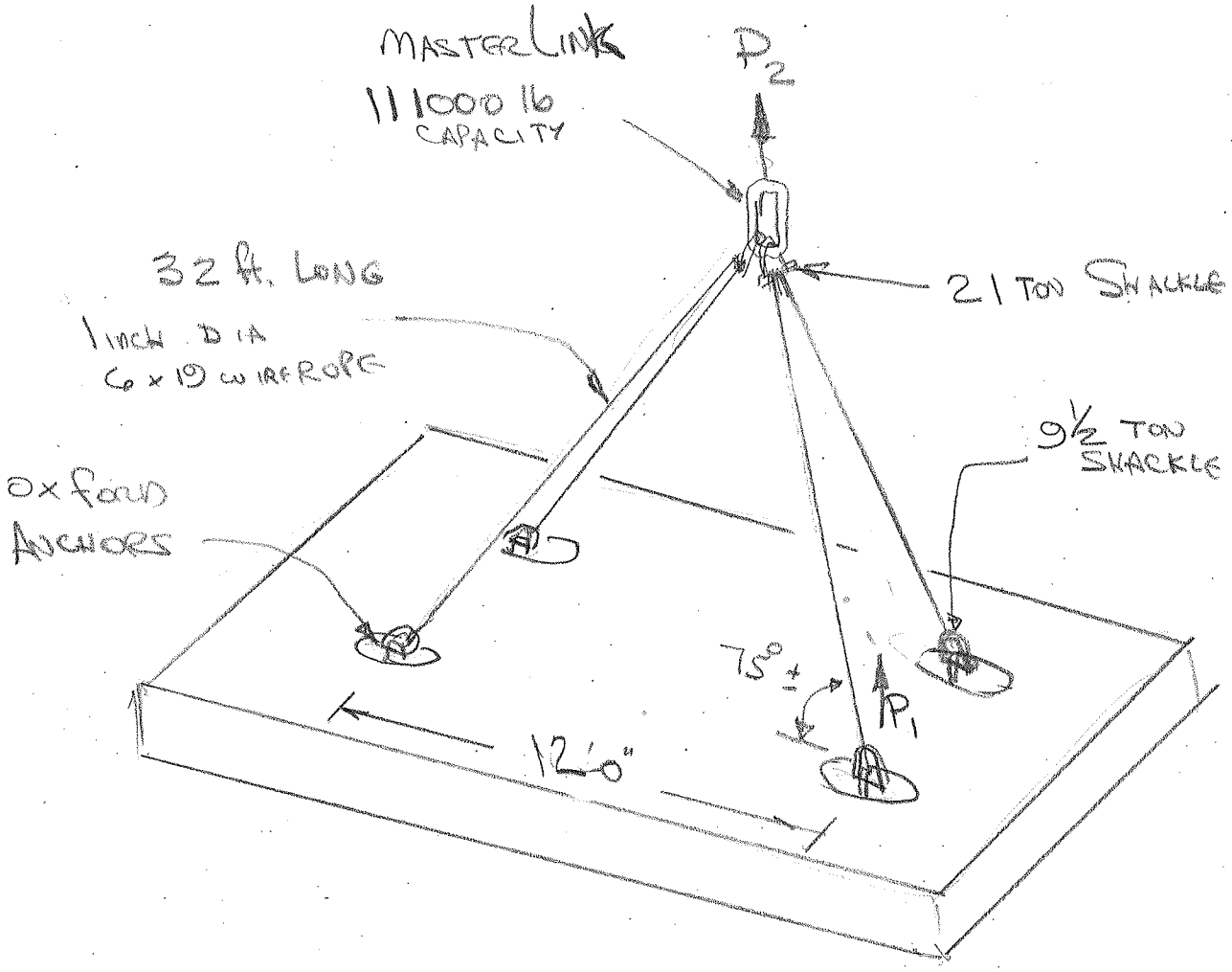


TABLE OF CONTENTS

Job No. 141165

DESCRIPTION of PRODUCT



DETAIL of LIFTING SYSTEM

MAX. WT. 28600 lb

SHEET NO. 3 OF 3

CK'D BY CLB OK'D BY DRP PROJECT:

December 9, 2014

RESUBMIT NO Approved

BY C. CARLSON DATE 12/18/14

CONNECTION AT SLAB: - LOAD = $P_1 = \frac{28600}{4} = 7200$ lb

FROM APPENDIX A1 FOR CODE A750-7

FOR F.S.=4 IN 4000 psi CONC. CAP = 10000 lb

FOR 5000 psi CONC. CAP. = $10000 \times \frac{5}{4} = 12500$ lb.

FROM APPENDIX A2 USE 9½ TON WORKING LOAD LIMIT SHACKLE

FOR F.S. = 5 CAPACITY = 19000 lb

F.S. FOR $P_1 = \frac{5 \times 19000}{7200} = 13$

CABLE - TENSION = $\frac{P_1}{\sin 75°} = 7500$ lb

FROM APPENDIX A3 USE 1" DIA 6x19 WIRE ROPE

RATED CAPACITY = 9.8 TONS = 19600 lb

FROM APPENDIX A2 USE 21 TON WORKING LOAD LIMIT SHACKLE

ONE SHACKLE HOLDS 2 CABLES

∴ SHACKLE CAPACITY MUST BE 15000 lb

FROM TABLE 1 3/8 G209A SHACKLE HAS

CAPACITY of 42000 lbs

LINK - MUST HAVE CAPACITY of 28600 lb

FROM APPENDIX A4 CAPACITY = 111000 lb.

CONCLUSION: LIFT SYSTEM MEETS O.S.H.A. REQUIREMENTS

HOOK FIXED IN CONCRETE FS > 4

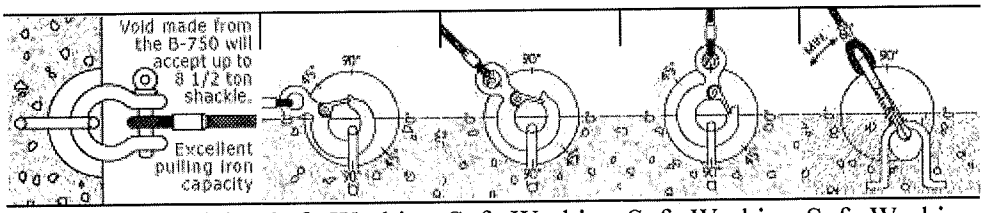
ALL OTHER CONNECTIONS FS > 5

APPENDIX A1

OXFORD Industrial Technologies, LLC

PO Box 736 • Stevenson, CT 06491
www.oxfordtechusa.com
Phone: (203) 268-6030
Fax: (203) 445-1240
info@oxfordtechusa.com

Oxford Lift System®



Anchor Product Code	Slab Min. Inches	Safe Working Load @ 90 degree Shear-0 degree Pull	Safe Working Load @ 90 degree Shear-45 degree Pull	Safe Working Load @ 90 degree Tension-90 degree Pull	Safe Working Load @ 90 degree Shear-60 degree Pull
A 500-3	4.00"	4,500	4,000	3,500	4,000
A 500-4	5.00"	8,000	5,500	4,000	5,000
A 500-5	6.00"	10,500	6,500	5,000	5,500
A 750-5	6.00"	12,500	8,000	7,000	7,000
A 750-7	8.00"	15,000	12,500	10,000	10,000

Note: Safe Working Load provides a factor of safety of approximately 4:1
Test Results are based on a minimum concrete compressive strength of 4,000 psi.

< back next >

Home | B-500 & B-750 | S-150 | S-300 | Lift Anchor & Order Form | Concrete Products
Pull Iron Capacity | Anchors & Accessories | Toggle-Lok | Insert/Lift Anchor | Grid-Lok/ Rebar Chair | Helpful Calculations COMING SOON!

Vermont Agency of Transportation

RECEIVED

Approach Slabs Submittal 1 120814_Resubmit 12.18.14.pdf

CK'D BY CLB OK'D BY DRP

December 9, 2014

RESUBMIT NO Approved

BY C. CARLSON DATE 12/18/14

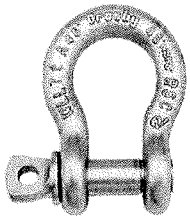
APPENDIX A2

Crosby® Alloy Screw Pin Shackles

Load Rated® | QUENCHED & TEMPERED | QUIC-CHECK®

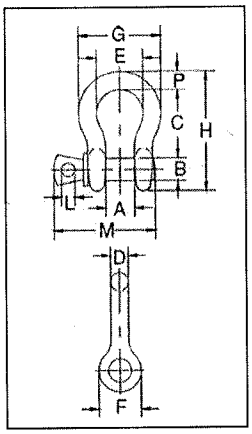
APPLICATION INSTRUCTIONS
SEE PAGE 89 OF THE GENERAL CATALOG

G-209A



G-209A Screw pin anchor shackles meet the performance requirements of Federal Specification RR-C-271F Type IVA, Grade B, Class 2, except for those provisions required of the contractor. For additional information, see page 444.

- Capacities 2 thru 21 metric tons. Meets performance requirements of Grade 8 shackles.
- Forged Alloy Steel – Quenched and Tempered, with alloy pins.
- Working Load Limit permanently shown on every shackle.
- Hot Dip Galvanized.
- Shackles can be furnished proof tested with certificates to designated standards, such as ABS, DNV, Lloyds, or other certification. Charges for proof testing and certification available when requested at the time of order.
- Approved for use at -40 degree C (-40 degree F) to 204 degree C (400 degree F).
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



G-209A Crosby® Alloy Screw Pin Shackles

Nominal Size (in.)	Working Load Limit (t)*	G-209A Stock No.	Weight Each (lbs.)	Dimensions (in.)											Tolerance +/-	
				A	B	C	D	E	F	G	H	L	M	P	C	A
3/8	2	1017450	.31	.66	.44	1.44	.38	1.03	.91	1.78	2.49	.25	2.03	.38	.13	.06
7/16	2-2/3	1017472	.38	.75	.50	1.69	.44	1.16	1.06	2.03	2.91	.31	2.38	.44	.13	.06
1/2	3-1/3	1017494	.63	.81	.63	1.88	.50	1.31	1.19	2.31	3.28	.38	2.69	.50	.13	.06
5/8	5	1017516	1.38	1.06	.75	2.38	.63	1.69	1.50	2.94	4.19	.44	3.34	.69	.13	.06
3/4	7	1017538	2.35	1.25	.88	2.81	.75	2.00	1.81	3.50	4.97	.50	3.97	.81	.25	.06
7/8	9-1/2	1017560	3.61	1.44	1.00	3.31	.88	2.28	2.09	4.03	5.83	.50	4.50	.97	.25	.06
1	12-1/2	1017582	5.32	1.69	1.13	3.75	1.00	2.69	2.38	4.69	6.56	.56	5.07	1.06	.25	.06
1-1/8	15	1017604	7.25	1.81	1.25	4.25	1.16	2.91	2.69	5.16	7.47	.63	5.59	1.25	.25	.06
1-1/4	18	1017626	9.88	2.03	1.38	4.69	1.29	3.25	3.00	5.75	8.25	.69	6.16	1.38	.25	.06
1-3/8	21	1017648	13.25	2.25	1.50	5.25	1.42	3.63	3.31	6.38	9.16	.75	6.84	1.50	.25	.13

* Maximum Proof Load is 2 times the Working Load Limit (metric tons) and 2.2 times the Working Load Limit (short tons). Minimum Ultimate Strength is 4.5 times the Working Load Limit for metric tonnes, and 5 times the Working Load Limit for short tons. For Working Load Limit reduction due to side loading applications, see page 91.

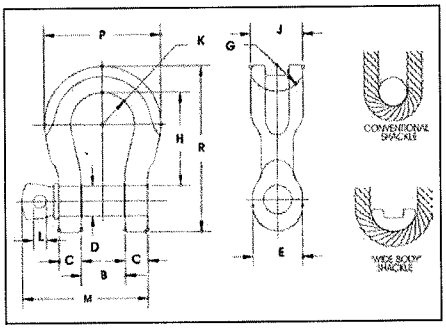
Load Rated® | QUENCHED & TEMPERED

APPLICATION INSTRUCTIONS
SEE PAGE 89 OF THE GENERAL CATALOG

G-2169

S-2169

- Capacities of 7, 12.5 and 18 metric tons.
- Quenched and Tempered for maximum strength.
- Forged Alloy Steel.
- Available in galvanized and self colored finished.
- Individually proof tested and magnetic particle inspected. Crosby certification available at time of order.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these shackles meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- Look for the Red Pin® . . . the mark of genuine Crosby quality.



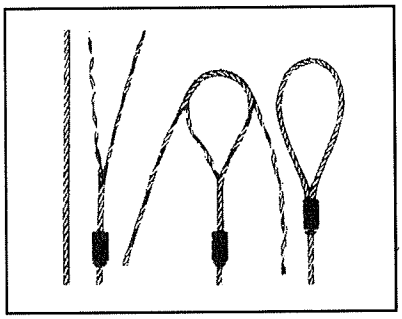
G-2169 / S-2169 Screw Pin "Wide Body" Shackles

Working Load Limit (t)*	G-2169 Stock No.	S-2169 Stock No.	Weight Each (lbs.)	Dimensi (in.)						
				B +/- .25	C	D +/- .02	E	G	H	
7	1021655	1021664	3.5	1.25	.69	.88	1.82	1.25	3.56	
12.5	1021673	1021682	8.8	1.69	.92	1.13	2.38	1.37	4.63	
18	1021691	1021699	13	2.03	1.16	1.38	2.69	1.50	5.81	

* Ultimate Load is 5 times the Working Load Limit. Forged Alloy Steel. Proof Load is 2 times the W

PERMALOC WIRE ROPE SLINGS

Lift-All Permaloc Slings are made using the flemish splice technique to form the eyes. Unlike the simple return loop method that places 100% of its strength on the swaged sleeve, *Permaloc* slings have reserve strength should the sleeve become damaged in use.



Features, Advantages and Benefits

Maintains all the basic *Lift-All* wire rope sling features plus ...

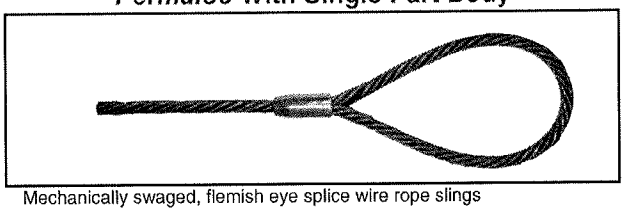
Promotes Safety

- Reserve strength - integrity of eyes not solely dependent upon steel sleeves
- IWRC resists crushing better than FC ropes

Saves Money

- When specified, thimble eyes protect wire rope from wear for increased life
- Good abrasion resistance for longer life

***Permaloc* With Single Part Body**



Mechanically swaged, flemish eye splice wire rope slings

IWRC (Independent Wire Rope Core) **Fiber core available at reduced capacities**

Wire Rope

Wire Rope Class		Rope Dia. (in.)	EIP, IWRC ¹ Rated Capacity (tons)* Vertical	Choker	V. Basket	² Min. Sling Length	Standard Eye Size (in.) W x L	Thimbled Eye Size (in.) W x L	Eye Hook Cap. (tons)	Crescent Thimble Eye Size (in.) W x L	Slip Thru Thimble Eye Size (in.) W x L	Sliding Choker Hook (in.)
	6 x 19 EIP, IWRC	1/4	.65	.48	1.3	1' 6"	2 x 4	7/8 x 1 5/8	1	2 x 4	2 1/8 x 4 1/8	3/8
		5/16	1.0	.74	2.0	1' 9"	2 1/2 x 5	1 1/16 x 1 7/8	1	2 x 4	2 1/2 x 4 1/8	3/8
		3/8	1.4	1.1	2.9	2' 0"	3 x 6	1 1/8 x 2 1/8	1 1/2	2 x 4	2 1/2 x 4 1/8	3/8
		7/16	1.9	1.4	3.9	2' 3"	3 1/2 x 7	1 1/4 x 2 1/4	2	2 x 5	2 3/8 x 4 3/8	1/2
		1/2	2.5	1.9	5.1	2' 6"	4 x 8	1 1/2 x 2 3/4	3	2 1/4 x 6	2 3/8 x 4 3/8	1/2 **
		9/16	3.2	2.4	6.4	2' 9"	4 1/2 x 9	1 1/2 x 2 3/4	4 1/2	2 1/4 x 7	2 3/8 x 4 3/8	5/8
		5/8	3.9	2.9	7.8	3' 0"	5 x 10	1 3/4 x 3 1/4	4 1/2	2 3/4 x 7	3 3/8 x 6 5/8	5/8 **
		3/4	5.6	4.1	11	3' 6"	6 x 12	2 x 3 3/4	7	3 1/4 x 8 1/2	3 3/8 x 6 5/8	3/4 **
		7/8	7.6	5.6	15	4' 0"	7 x 14	2 1/4 x 4 1/4	11	4 1/2 x 10	3 3/4 x 7 1/8	7/8
(4) 32' long wire rope →		1	9.8	7.2	20	4' 6"	8 x 16	2 1/2 x 4 1/2	11	4 1/2 x 11 1/2	3 3/4 x 7 1/8	1
		1 1/8	12	9.1	24	5' 0"	9 x 18	2 7/8 x 5 1/8	15	4 7/8 x 13	4 3/8 x 8 3/8	1 1/8
	6 x 37 EIP, IWRC	1 1/4	15	11	30	5' 6"	10 x 20	3 1/2 x 6 1/2	15	5 1/2 x 14 1/2	4 3/8 x 8 3/8	1 1/4
		1 3/8	18	13	36	6' 0"	11 x 22	3 1/2 x 6 1/4	22	6 x 16	5 x 9 1/2	1 3/8
		1 1/2	21	16	42	7' 0"	12 x 24	3 1/2 x 6 1/4	22	6 x 17 1/2	5 x 9 1/2	1 1/2**
		1 3/4	28	21	57	8' 0"	14 x 28					
		2	37	28	73	9' 0"	16 x 32					
		2 1/4	44	35	89	10' 0"	18 x 36					
		2 1/2	54	42	109	11' 0"	20 x 40					

Note: Larger diameter slings available. Basket ratings are based on a minimum D/d of 25.

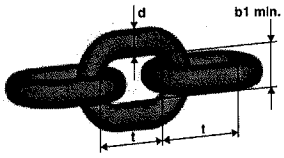
1. 1 Ton = 2,000 lbs.
2. Minimum sling length when using standard eyes.

Note: **Length Tolerances** - Single Part Wire Rope Slings - Standard length tolerance is plus or minus two rope diameters, or plus or minus 0.5% of the sling length, whichever is

** See page 91 for reduced choker capacity when using these hook sizes.

NI | Round Steel Chain

Round steel chains for use in lifting. Maximum working temperature: 400°F. Standard surface: blasted, clear painted.

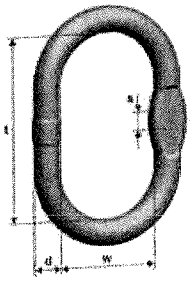


Code	Size	Nominal diameter d	Standard delivery length [feet]	Pitch t	Inside width b1 min.	Outside width b2 max.	WLL [lb]	Breaking force [lb]	Weight [lb/ft]
NI5.50	7/32″	0.217	400	0.67	0.31	0.83	2,700	10,800	0.470
NI70	9/32″	0.276	800	0.83	0.39	0.98	4,300	17,200	0.738
NI80	5/16″	0.315	500	0.94	0.43	1.14	5,700	22,800	0.939
NI100	3/8″	0.394	400	1.18	0.55	1.42	8,800	35,200	1.475
NI130	1/2″	0.512	200	1.54	0.71	1.85	15,000	60,000	2.548
NI160	5/8″	0.630	150	1.89	0.87	2.28	22,600	90,400	3.830
NI200	3/4″	0.787	100	2.44	1.02	2.80	35,300	141,200	5.780
NI220	7/8″	0.866	100	2.60	1.18	3.11	42,700	170,800	7.324
NI260	1″	1.024	100	3.07	1.38	3.70	59,700	238,800	10.214
NI320	1-1/4″	1.260	50	3.78	1.69	4.53	90,400	361,600	15.455

NEW

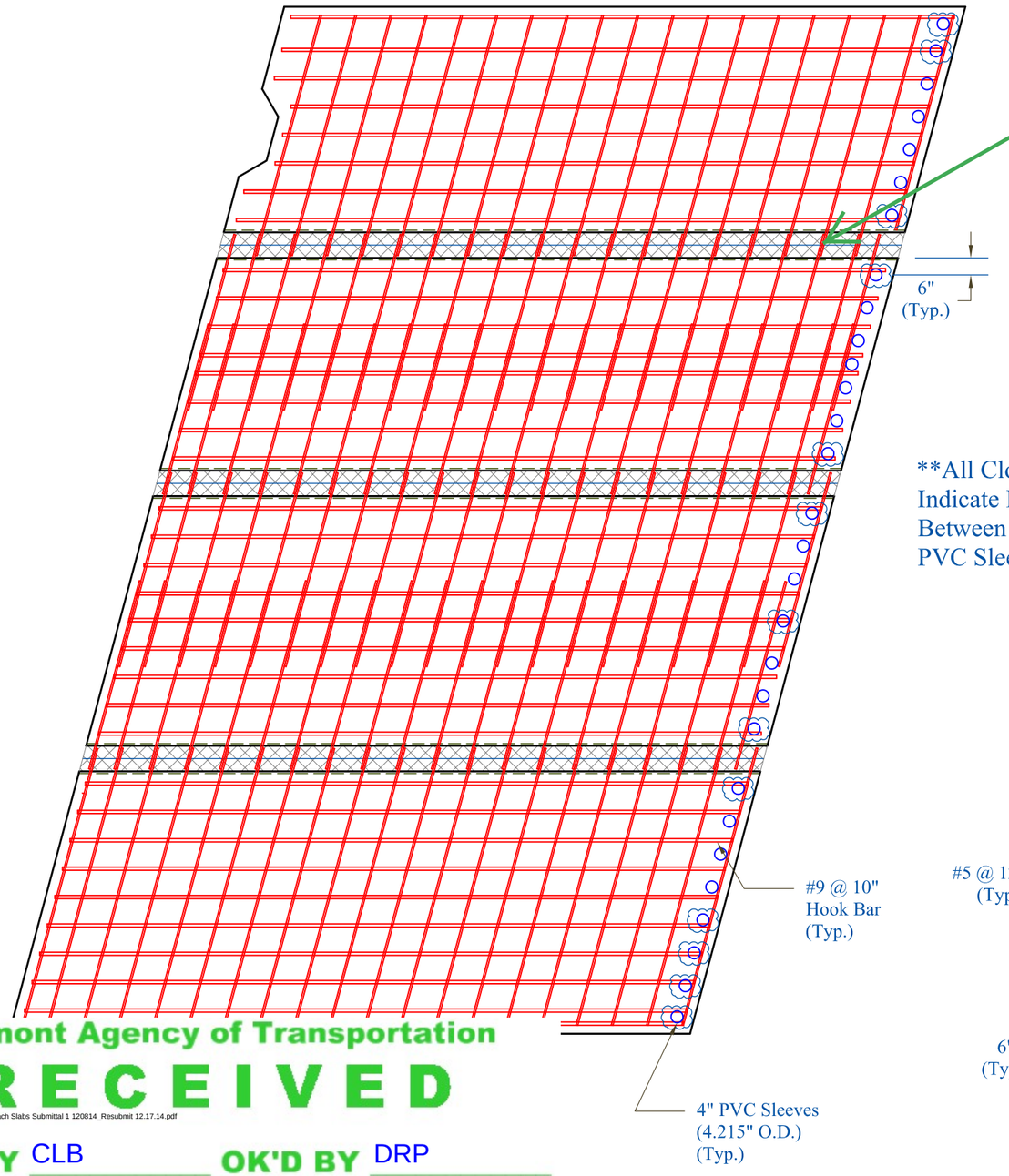
A | Master Link

Master link for 1 or 2 leg chain sling.



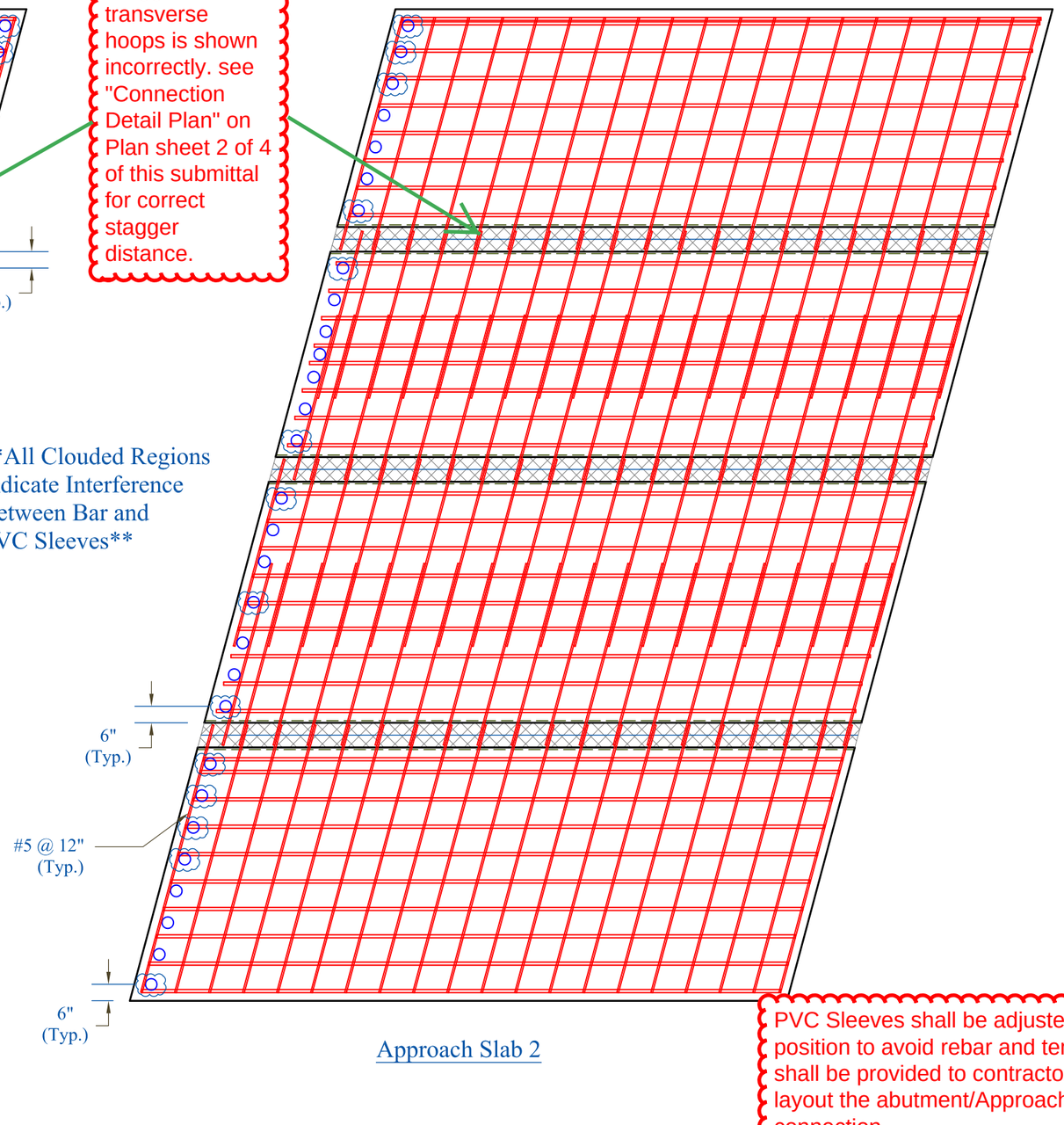
Code	WLL 0-45° [lb]	d [inch]	t [inch]	w [inch]	s [inch]	Weight [lb/pc.]	Master link for chain	
							1-leg	2-leg
A100	3,800	0.39	3.15	1.97	0.39	0.31	7/32″	-
A130	5,800	0.51	4.33	2.36	0.39	0.75	9/32″	7/32″
A160	7,500	0.63	4.33	2.36	0.55	1.17	5/16″	9/32″
A180	10,000	0.75	5.31	2.95	0.55	2.03	3/8″	5/16″
A220	16,700	0.91	6.30	3.54	0.67	3.53	1/2″	3/8″
A260	26,000	1.06	7.09	3.94	0.79	5.42	5/8″	1/2″
A320	39,100	1.30	7.87	4.33	1.02	9.13	3/4″	5/8″
A360	61,100	1.42	10.24	5.51	-	13.72	7/8″	3/4″
A450	83,100	1.77	13.39	7.09	-	28.27	1″	7/8″
A500	111,000	1.97	13.78	7.48	-	36.49	1-1/4″	1″
A560	156,600	2.36	15.75	7.87	-	59.56	-	1-1/4″
A720	234,900	2.76	18.11	9.84	-	99.23	-	-

Approach Slab 1 & 2 Bar Interference



Stagger on transverse hoops is shown incorrectly. see "Connection Detail Plan" on Plan sheet 2 of 4 of this submittal for correct stagger distance.

All Clouded Regions Indicate Interference Between Bar and PVC Sleeves



Approach Slab 2

PVC Sleeves shall be adjusted to closest position to avoid rebar and templates shall be provided to contractor to help layout the abutment/Approach slab connection.

Vermont Agency of Transportation

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Approach Slabs Submittal 1 120814_Resubmit 12.17.14.pdf

CK'D BY CLB OK'D BY DRP

December 9, 2014

RESUBMIT YES --------

BY C. CARLSON DATE 12/18/14

PRECAST CONCRETE APPROACH SLAB SHOP DRAWINGS (SDI JOB #15163)		INSTALLER: CCS Construction 138 Munson Ave Morrisville, VT 05661 PH: 802-888-7701	FABRICATOR: 193 INDUSTRIAL AVE. WILLISTON, VT 05495 Ph: (802) 658-0201 SD Ireland Precast Division
SUPERVISOR: M. WHEELER DETAILER: I. ADAMS CHECKER: E. Barendse ENGINEER:	PROJECT NAME: Stowe BRF 0235 (II) PROJECT #: 0235 (II) LOCATION: Stowe, VT	12/05/14	Bar Interference