



Letter of Transmittal

To: Chris Williams
VTRANS
61 VALLEY VIEW
MENDON, VT 05701
Ph: (802)786-3812 Fax: (802)786-3810

Transmittal #: 24
Date: 6/11/2015
Job: M117 VTRANS CASTLETON BRF 015-2(10)

Subject: Submittal

- WE ARE SENDING YOU**
- Attached
 - Shop drawings
 - Copy of letter
 - Prints
 - Change order
 - Under separate cover via the following items:
 - Plans
 - Specifications
 - Samples
 - Submittal

Document Type	Copies	Date	No.	Description
Submittal	1		13 Rev 1	Pre Cast Erection

THESE ARE TRANSMITTED as checked below:

- For approval
- For your use
- As requested
- For review and comment
- FOR BIDS DUE
- Approved as submitted
- Approved as noted
- Returned for corrections
- Other
- PRINTS RETURNED AFTER LOAN TO US
- Resubmit ___ copies for approval
- Submit ___ copies for distribution
- Return ___ corrected prints

Remarks: Please see attached revised Erection plan from our sub Rozell

Copy To: Jennifer Fitch (VTRANS), KEVIN TURE (W.M. SCHULTZ CONSTRUCTION)

From: MIKE GARN (W.M. SCHULTZ CONSTRUCTION)

Signature: 

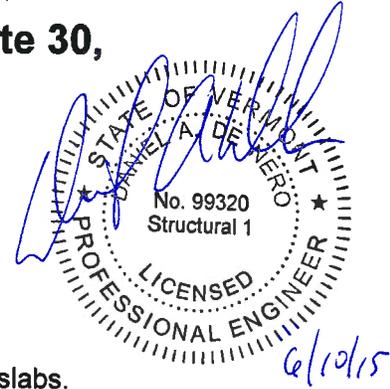


THIS DOCUMENT (52 PAGES)
STAMPED AND SIGNED FOR
CRITICAL LIFT PLAN

**Erection Plan for State of Vermont Agency of Transportation
Bridge Improvement Project
Town of Castleton, County of Rutland, VT Route 30,
Bridge Number 93, BRF 015-2(10)**

Date: June 2015

General Requirements



This plan is for the installation of abutments, wing walls, NEXT beam and approach slabs.

The erection will be performed by Link-Belt ATC3275 (275 Ton) and Link-Belt ATC3200 (200 Ton) cranes. Both cranes will be outfitted with their maximum counterweights listed in the following lift plan. All maximum radii are also listed in lift plan, shown on drawings and shall not be exceeded.

Abutments

Before any abutment pick, measurement will be taken and crane location verified to assure picks are within the crane radius charts for the weight being lifted. (see Critical Lift Plan). Each abutment will be picked from 4 locations and pick points designed by Carrara and shown on the attached shop drawings. 2- 20 ton (min) Lifting shackles will be attached on one side to the 2 - 20 ton x 19 3/4" SWIFT LIFT LIFTER located on the cheek walls and 2- 20 t (min) lifting shackles will be attached to strand lifting loops located in the bridge seat. Each abutment is delivered in its upright position. Once the crane has been rigged to the abutments and checked for safety, the piece will be picked, swung into position and lowered into position over the piles. This procedure will be repeated for each abutment pick.

Wingwalls

Before any wingwall pick, measurement will be taken and crane location verified to assure picks are within the crane radius charts for the weight being lifted. (see Critical Lift Plan). After the abutments have been post tensioned, the wing walls will be rigged and picked into position. 2- 10t(min) shackles will be rigged to the 2- 8t x 13 3/8" SWIFT LIFT LIFTER located in the top of the wing wall. Each wing wall will be picked off the delivery trucks, lowered into position and adjusted to accurate position and alignment with the NMB splice sleeves. This procedure will be repeated for each wingwall pick.

NEXT Beams

Before any abutment pick, measurement will be taken and crane location verified to assure picks are within the crane radius charts for the weight being lifted. (see Critical Lift Plan). Each NEXT beam will be picked from four (4) locations, as shown on shop drawings. From the four locations the NEXT beams will be lifted with J.P. Carrara supplied lifting devices (attached). This device is adjustable to compensate for the slightly off center of gravity (5¹¹/₁₆" toward curb) of NEXT beams with curbs. See J.P. Carrara's shop drawings for additional information on center of gravity locations.



Critical Lift Plan

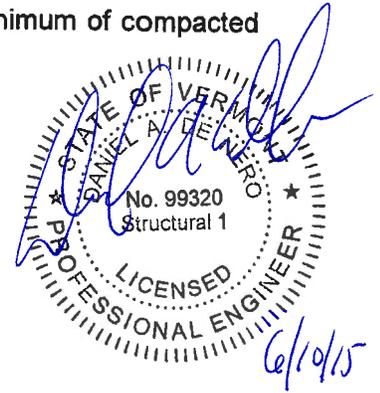
NEXT Beams con't

Two W36x230 steel beams with diaphragms and skates called a "slider system" will be used to support one end of each NEXT beam in rolling it across the span. Calderwood Engineering ETC, LLC and Miller Construction designed this system for erecting heavier NEXT beams on other V.A.O.T. projects. All diaphragms shown in the attached layout drawing shall be connected to the W36 beams as shown in attached diagrams. Set W36 beams on four (4) inch minimum thick by two (2) rows eight (8) inch minimum wide hardwood blocking on bridge abutment. Blocking thickness may be increase at low end of bridge.

Approach Slabs

Before any approach slab pick, measurement will be taken and crane location verified to assure picks are within the crane radius charts for the weight being lifted. (see Critical Lift Plan). The approach slabs will be rigged and picked into position. 4- 4t (min) shackles will be rigged to the 4- 4T x 7 1/8" SWIFT LIFT LIFTER located in the top of the approach slabs. Each approach slab will be picked off the delivery trucks, lowered into position and adjusted to accurate position and alignment

The sub-base beneath tractors, cranes and slider system shall be two (2) feet minimum of compacted structural gravel.





Critical Lift Plan

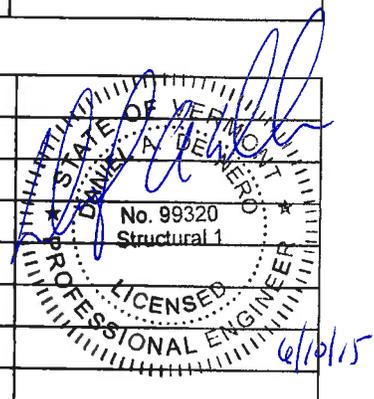
Project: State of Vermont Bridge Project				Date:	
Location: Town of Castleton, Route 30, Bridge #93				Client: Schultz Construction	
Document Ref.: BRF 015-2(10)			Rev	Issued by:	
Competent Person:	Gordon Nygaard (Rozell)		Phone:	518-361-0191	Fax:
Contact:	Mike Garn (Schultz)		Phone:	518-860-7457	Fax:
Site contact:	Kevin Ture (Schultz)		Phone:	518-956-0255	Fax:
Description of lift: Installation of four next beams and associated pre-cast					

Details of Loads <i>(worst case only)</i>	Abutments	Wing walls	Beams with curb	Beams with NO curb	Approach slabs
Weight :	99,000 lbs	27,900 lbs	113,800 lbs	96,380 lbs	27,500 lbs
Dimensions (l x w x h):	22'-9 ⁵ / ₈ " x 3'-6" x 12'-0"	10'-5 ³ / ₈ " x 1'-6" x 12'-4"	70'-2 ¹ / ₂ " x 8'-2 ¹ / ₂ " x 3'-11 ¹ / ₂ "	70'-2 ¹ / ₂ " x 8'-2 ¹ / ₂ " x 2'-4"	20'-0" x 7'-8 ¹ / ₂ " x 1'-3"
Position of Center of Gravity:	centered	centered	5 ¹¹ / ₁₆ " from center	centered	centered
Height of lift :	20'	20'	20'	20'	20'
Max. radius: 275T/200T	45' / N/A	45' / N/A	65' / 55'	65' / 55'	100' / 80'
Rated Capacity: 275T/200T	111,500 / N/A	111,500 / N/A	71,000/68,000	71,000/68,000	40,000 / 40,000
Number of pieces:	4	4	2	2	8

Details of Cranes	Primary	Secondary	3rd
Make & model:	Link-Belt ATC3275	Link-Belt ATC3200	
Capacity:	275 Ton	200 Ton	
Jib length:	223'	196'	
Outrigger spread:	26'-6"	27'-3"	
Outrigger load:	203,000 lbs	213,568 lbs	
Max. ground bearing capacity:	527 psi	383 psi	
Counterweight:	156,500 lbs	112,435 lbs	
Weight of crane:	136,000 lbs	127,983 lbs	

Alternative Crane Details

Make & model:	N/A		
Capacity:			
Jib length:			
Outrigger spread:			
Outrigger load:			
Max. ground bearing capacity:			
Counterweight:			
Weight of crane:			



Ground Conditions (Visual assessment)

Access/Egress for crane & transport:	Compacted Structural Gravel		
Lifting position:	Compacted Structural Gravel		



Critical Lift Plan

Lifting Accessories

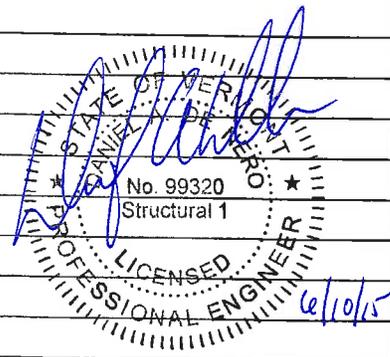
Slings (wire rope): N/A	Slings (webbing): SP3100 or <
Slings (chains): N/A	Shackles: 9 ½ Ton or <
Other Accessories: Miller Construction Slider Beam (attached), J.P. Carrara lifting brackets (attached)	

Proximity Hazard	Present?
Overhead power lines	yes
Other overhead obstacles	N/A
Underground services	N/A
Excavations	N/A
Unstable/ Soft ground	N/A
Hazardous chemicals/materials	N/A
Confined working area	N/A
Restricted access - width	N/A
Restricted access - height	N/A
Other vehicles	N/A

Proximity Hazard (cont.)	Present?
Other hazards identified	N/A
Load Hazard	Present?
Slinging difficulties	N/A
Top heavy	N/A
Sharp edges	N/A
Other hazards identified	N/A

Assessment of Risk:

Hazard Present	Risk	Action to Avoid or Reduce Risk
Other trades in area	Overhead lifting	Barricade lifting radius
Overhead power lines Approximately 35' to east of crane	Electrical shock	Maintain 20' minimum safe distance
Operational Requirements: Qualified rigger, qualified signalman, tagline		
Site Provisions:		



Notes:



Critical Lift Plan

Personnel:

Title	Name	Title	Name
Competent Person	Howard Patten, Terry Kelleher, Chris Lindstrand, Matt Allen, Dan Burden, John Feiden, Rodney Paige	Riggers	Supplied by Schultz Construction
Crane Supervisor	Howard Patten, Terry Kelleher, Chris Lindstrand, Matt Allen, Dan Burden, John Feiden, Rodney Paige	Signalmen	Supplied by Schultz Construction
Crane Operators	Howard Patten, Terry Kelleher, Chris Lindstrand, Matt Allen, Dan Burden, John Feiden, Rodney Paige	Crane Erectors	Howard Patten, Terry Kelleher, Chris Lindstrand, Matt Allen, Dan Burden, John Feiden, Rodney Paige

Weather Conditions

The Appointed Person or, in his/her absence, the Crane Supervisor, will ensure that the lifting operation only takes place if the weather conditions are within the limits recommended by the crane manufacturer. 3 day weather forecast.

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Ground Conditions

Have assurances been obtained that the ground can withstand the load?

Drawings/Plans

Drawings need to be shown below or attached, please include lift angle and height of final destination of equipment being lifted

(SEE ATTACHED DRAWINGS)





Critical Lift Plan

Work Plan:

1	ATC3275 arrives on site, South side of RR
2	Inspect job site conditions and set up crane for abutments and wing walls
3	Inspect equipment – crane & rigging
4	Truck with abutment(s) brought to crane and attach rigging
5	Hoist and lower to ground (ALL crane movement directed by qualified signalman unless operator has clear view of path)
6	Re-rig to top of abutment and stand piece vertical, swing and lower into place
7	Repeat for second abutment and wing walls
8	Demobilize crane and transport to North side of RR
9	Repeat above process for abutments and wing walls
10	Demobilize crane for Schultz activities including slider beam assembly
11	Set up ATC3275 on north side of RR for slider beam and NEXT beams installation
12	Inspect equipment – crane & rigging
13	Hoist two W36x230 into place on abutments
14	Schultz Const. installs cross bracing on slider beam
15	Hoist slider onto beam
16	ATC3200 arrives on site, South side of RR
17	Inspect job site conditions and set up crane for NEXT beams installation
18	Inspect equipment – crane & rigging
19	Truck with next beam driven into position (NEXT beam and slider beam system must be in line with each other)
20	Attach rigging to NEXT beam (hoisting of NEXT beams utilizing J.P. Carrara supplied lifting device) (beam remains secured to truck until crane is attached)
21	ATC3275 hoists end of NEXT beam onto slider and disconnects (maintain center of gravity between main slider beams)
22	Swing crane clear of next activities
23	Truck dolly removed from under NEXT beam
24	Truck slowly backs up and NEXT beam slides to south side (beam remains secured to truck until crane is attached)
25	Once across truck must set breaks until attached to both cranes

STATE OF VERMONT
 JAMES L. NERO
 No. 99320
 Structural 1
 LICENSED PROFESSIONAL ENGINEER
 6/10/15



Critical Lift Plan

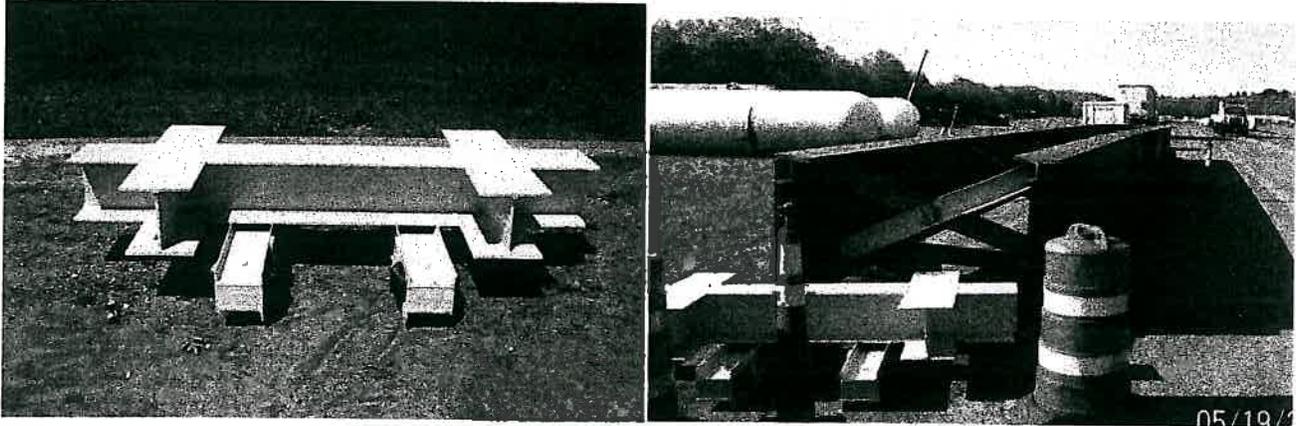
26	ATC3275 connects to north end and ATC3200 connects to south end of NEXT beam
27	In unison both cranes hoist and lower NEXT beam into position (starting on East proceeding West)
28	Repeat above process for next two beams
29	Last NEXT beam is hoisted in same manner but place on top of TWO preceding NEXT beam
30	Disconnect ATC3275 and remove slider
31	Schultz Const. disassembles slider beam
32	Hoist two W36x230 into place on truck
33	ATC3275 reconnect to last next beam and both cranes place on abutments
34	Demobilize cranes for Schultz activities
35	Set up both ATC3275 & ATC3200 on each side of RR to set approach slabs
36	Trucks with approach slabs are moved into position
37	Each crane hoists & lowers slabs into position
38	Demobilize cranes, housekeeping & leave job site
39	
40	
41	
42	
43	
44	
45	

STATE OF VERMONT
DANIEL DE NERO
No. 99320
Structural 1
LICENSED PROFESSIONAL ENGINEER
6/10/15

Competent Person's Acceptance of Responsibilities		
I confirm that the lifts have been planned and will be carried out in accordance with current OSHA standards and that I accept responsibility for the preparation of this Risk Assessment and Method Statement.	Signed:	Date: 6/10/15
Crane Supervisor's Acceptance of Duties		
I confirm that I have been fully briefed on the contents of this Risk Assessment and Method Statement and that I accept the duty of ensuring that the lift(s) will be carried out in accordance with the method and procedures set out in this document.	Signed:	Date: 6/10/15

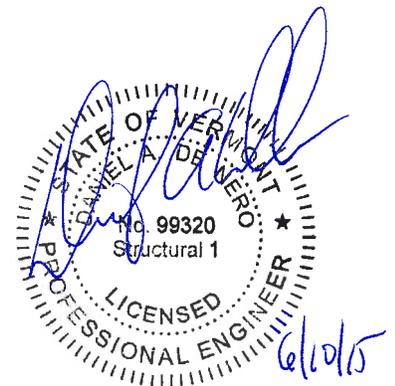
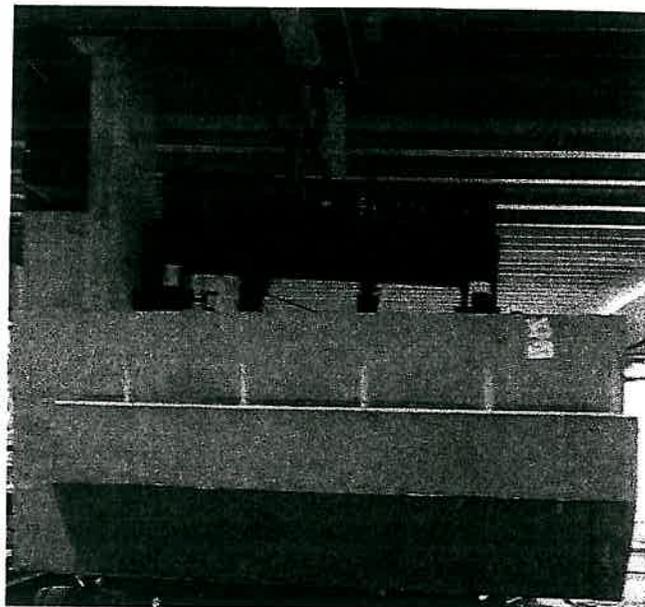


SLIDER SYSTEM



J.P. Carrara's 50 Ton lifting beam

Connection to crane shall be a minimum 50 ton shackle if hook does not fit hole in device.
Connection from device to lifting loops is with two 35 ton shackles

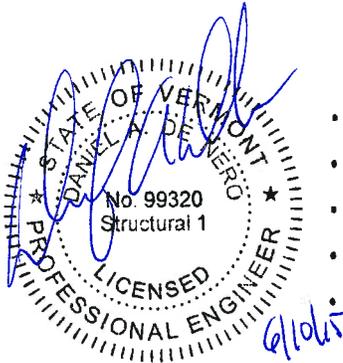


Synthetic Slings



BUFFALO SLING SINGLE PATH - ENDLESS POLYESTER ROUND SLINGS

- A flexible solution to your lifting needs.
- Rotation of lift points extends service life of sling.
- Length measure from Bearing Point to Bearing Point.
- Two same color polyester tubular jackets.
- The economical choice!

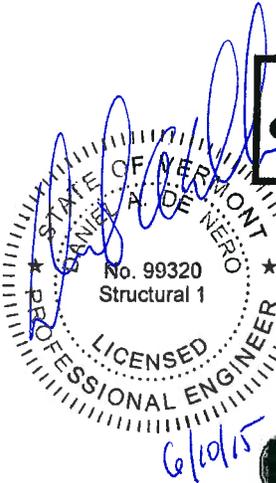


Item No.	Color	Rated Capacity (lbs)			Min. Lpth. (ft)	Approx. Measurements		
		Vertical	Choker	Basket		Wt. (lbs/ft)	Body Dia. Relaxed (in)	Width @ Load (in)
SP260	Purple	2,600	2,100	5,200	1-1/2	.2	5/8	1-1/8
SP530	Green	5,300	4,200	10,600	1-1/2	.3	7/8	1-1/2
SP840	Yellow	8,400	6,700	16,800	3	.4	1-1/8	1-7/8
SP1060	Tan	10,600	8,500	21,200	3	.5	1-1/8	2-1/8
SP1320	Red	13,200	10,600	26,400	3	.7	1-3/8	2-1/4
SP1680	White	16,800	13,400	33,600	3	.8	1-3/8	2-1/2
SP2120	Blue	21,200	17,000	42,400	3	1.1	1-3/4	3
SP3100	Grey	31,000	24,800	62,000	3	1.6	2-1/4	3-3/4
SP5300	Brown	53,000	42,400	106,000	8	2.5	2-3/4	4-5/8
SP6600	Olive	66,000	52,800	132,000	8	3.1	3-1/8	5-1/4
SP9000	Black	90,000	72,000	180,000	8	4.0	3-5/8	6

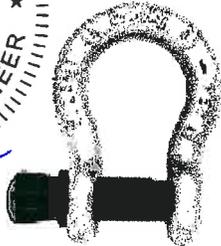
WARNING! DO NOT exceed rated capacities.
When slings are used at angles of less than 90° from horizontal ratings must be reduced.



Forged Shackles

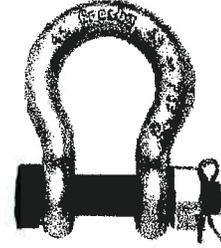


SCREW PIN



- Working load limit permanently shown on every shackle.
- Forged – Quenched and Tempered, with alloy pins.
- Capacities 1/3 through 55 tons.
- Look for the red pin...the mark of genuine Crosby quality.
- Shackles can be furnished proof tested with certificates to designated standards such as ABS, DNV, Lloyds, or other certification available when requested at the time of order.
- Hot dip galvanized or self-colored.
- Fatigue rated.

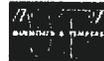
ROUND PIN



G-209 S-209

Screw pin anchor shackles meet the requirements of Federal Specification RR-C-271D Type IVA, Grade A, Class 2.

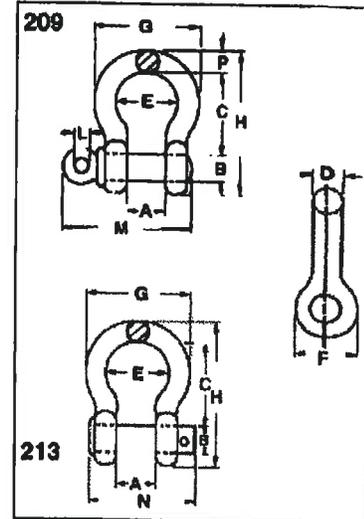
Load Rated



G-213 S-213

Round pin anchor shackles meet the requirements of Federal Specification RR-C-271D Type IVA, Grade A, Class 1.

NOM. SIZE (IN.)	WORKING LOAD LIMIT* (TONS)	STOCK NO.				WEIGHT EACH (LBS)	
		G-209 GALV.	S-209 S.C.	G-213 GALV.	S-213 S.C.	G-209 S-209	G-213 S-213
3/16	†1/3	1018357	-	-	-	.06	-
1/4	1/2	1018375	1018384	1018017	1018026	.10	.13
5/16	3/4	1018393	1018400	1018035	1018044	.19	.18
3/8	1	1018419	1018428	1018053	1018062	.31	.29
7/16	1-1/2	1018437	1018446	1018071	1018080	.38	.38
1/2	2	1018455	1018464	1018099	1018108	.72	.71
5/8	3-1/4	1018473	1018482	1018115	1018124	1.37	1.50
3/4	4-3/4	1018491	1018507	1018133	1018142	2.35	2.32
7/8	6-1/2	1018516	1018525	1018151	1018160	3.62	3.49
1	8-1/2	1018534	1018543	1018179	1018188	5.03	5.00
1-1/8	9-1/2	1018552	1018561	1018197	1018204	7.41	6.97
1-1/4	12	1018570	1018589	1018213	1018222	9.50	9.75
1-3/8	13-1/2	1018598	1018605	1018231	1018240	13.53	13.25
1-1/2	17	1018614	1018623	1018259	1018268	17.20	17.25
1-3/4	25	1018632	1018641	1018277	1018286	27.75	28.46
2	35	1018650	1018669	1018295	1018302	45.00	45.75
2-1/2	†55	1018678	1018687	-	-	85.75	-



NOM. SIZE	WORKING LOAD LIMIT*	DIMENSIONS (IN)												TOLERANCE +/-	
		A	B	C	D	E	F	G	H	L	M	N	P	C	A
3/16	†1/3	.38	.25	.88	.19	.60	.56	.98	1.47	.16	1.12	-	.19	.06	.06
1/4	1/2	.47	.31	1.13	.25	.78	.61	1.28	1.84	.19	1.38	1.34	.25	.06	.06
5/16	3/4	.53	.38	1.22	.31	.84	.75	1.47	2.09	.22	1.66	1.59	.31	.08	.06
3/8	1	.66	.44	1.44	.38	1.03	.91	1.78	2.49	.25	2.03	1.88	.38	.13	.06
7/16	1-1/2	.75	.50	1.69	.44	1.16	1.06	2.03	2.91	.31	2.38	2.13	.44	.13	.06
1/2	2	.81	.63	1.88	.50	1.31	1.19	2.31	3.28	.38	2.69	2.38	.50	.13	.06
5/8	3-1/4	1.06	.75	2.38	.63	1.69	1.50	2.94	4.19	.44	3.34	2.91	.69	.13	.06
3/4	4-3/4	1.25	.88	2.81	.75	2.00	1.81	3.50	4.97	.50	3.97	3.44	.81	.25	.06
7/8	6-1/2	1.44	1.00	3.31	.88	2.28	2.09	4.03	5.83	.56	4.50	3.81	.97	.26	.06
1	8-1/2	1.69	1.13	3.75	1.00	2.69	2.38	4.69	6.56	.56	5.07	4.53	1.06	.26	.06
1-1/8	9-1/2	1.81	1.25	4.25	1.16	2.91	2.69	5.16	7.47	.63	5.59	5.13	1.25	.25	.06
1-1/4	12	2.03	1.38	4.69	1.29	3.25	3.00	5.75	8.25	.69	6.16	5.50	1.38	.25	.06
1-3/8	13-1/2	2.25	1.60	5.25	1.42	3.63	3.31	6.38	9.16	.75	6.84	6.13	1.50	.25	.13
1-1/2	17	2.38	1.63	5.75	1.54	3.88	3.63	6.88	10.00	.81	7.35	6.50	1.62	.25	.13
1-3/4	25	2.88	2.00	7.00	1.84	5.00	4.19	8.86	12.34	1.00	9.08	7.75	2.25	.25	.13
2	35	3.25	2.25	7.75	2.08	5.75	4.71	9.97	13.68	1.22	10.34	8.75	2.40	.25	.13
2-1/2	†55	4.13	2.75	10.60	2.71	7.25	5.69	12.87	17.84	1.38	13.00	-	3.13	.25	.25

*NOTE: Maximum Proof Load is 2.0 times the Working Load Limit. Minimum Ultimate Strength is 6 times the Working Load Limit.
†Furnished in screw pin only.

HEADQUARTERS: 55 James E. Casey Drive • Buffalo, NY 14206 PHONE: 716.826.2636 FAX: 716.826.4412 www.hanessupply.com

WORK WITH HSI SLINGS, SINCE 1930

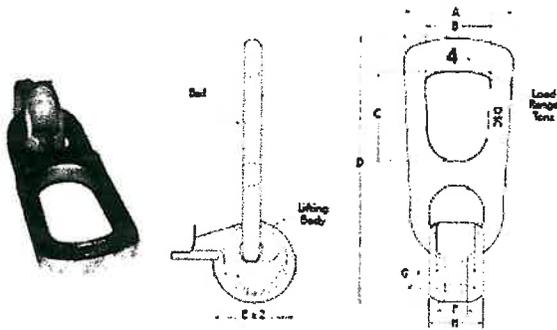
TECHNICAL DATA SHEET

DESCRIPTION

The P50 Swift Lift Universal Lifting Eye consists of a flat-sided, spherical lifting body and a high strength ball.

APPLICATION

The P50 lifting body has a T-shaped slot that permits rapid attachment and release of the head on Swift Lift Anchors.



FEATURES

- The design of the P50 Universal Lifting Eye permits the bail to freely rotate 180°, while the complete lifting eye may rotate through a 360° arc
- Dayton Superior does not recommend the use of this lifting eye for edge lifting of thin precast concrete panels

TECHNICAL DATA

P50 SWIFT LIFT UNIVERSAL LIFTING EYE DIMENSIONS									
Rated Load Tons	A	B	C	D	E x 2	F Maximum Width	G Minimum Thickness	H	
1	2.9"	1.7"	2.8"	7.5"	2.20"	0.45"	0.35"	1.26"	
2	3.5"	2.3"	3.3"	9.0"	2.68"	0.63"	0.35"	1.65"	
4	4.6"	2.8"	3.5"	11.0"	3.46"	0.85"	0.40"	2.26"	
8	6.3"	3.3"	4.4"	15.6"	4.40"	1.18"	0.55"	2.90"	
20	7.3"	4.6"	5.9"	20.4"	5.98"	1.67"	0.83"	4.35"	

The rated load provides a factor of safety of approximately 5 to 1 (ultimate rated load)

INSTALLATION

1. To install the P50 lifting eye, hold the unit upside down with the T-shaped slot directly over the head of the Swift Lift anchor.
2. Lower the lifting eye down onto the anchor until the T-slot engages the head of the anchor.
3. Rotate the lifting eye until the extended lip of the body touches the horizontal surface of the concrete.
4. NOTE: Prior to lifting a precast element, apply an initial cable tension to make sure that the bail and body of the lifting eye are aligned in the direction.
5. The bail of the P50 lifting eye can move through a 180° usable range.
6. The main body of the lifting eye has a 360° rotational range.
7. The P50 lifting eye can be safely used with the T-shaped slot facing away from or toward the direction of the applied load.

8. To disengage the lifting eye, the crane hook is lowered and the body removed by rotating the extended lip upward.
9. Prior to lifting a precast element, apply an initial cable tension to make certain that the bail and body of the lifting eye are aligned in the direction of the cable pull.
10. When applying the initial cable tension on edge lift applications, make sure that the cables are at a 90° angle (or larger) to the surface of the precast element.
11. WARNING: Do not allow the crane lines to form an angle less than 90° during the edge lift application. This condition can bend the lifting eye bail and could lead to premature failure.
12. WARNING: The crane line and bail of the lifting hardware must be turned in the direction of the cable forces before the lifting operation begins. The crane line must not be allowed to apply a sideward force on the bail. This condition is dangerous and could lead to premature failure of the hardware or insert.
13. WARNING: Do not modify or alter in any way the Swift Lift Universal Lifting Eye.

Inspection and Maintenance

14. The P50 Universal Lifting Eye may be subject to wear, misuse, overloading and other factors that can affect the lifting eye's rated load. Therefore, it is imperative that the lifting eye be user-inspected at least once a month to determine its general condition and degree of wear.
15. During the user's monthly inspection, the lifting eye should be checked for evidence of heat application. If evidence of heat application is found, the unit must be scrapped. Check for a bent or twisted bail and discard all units found to have these flaws. Also, check to make certain that the bail rotates freely in all directions.
16. At least once every three months, dimensions "F" and "G" on each unit should be checked. The upper limits are shown in the chart. If either of these limits is exceeded, the P50 Universal Lifting Eye must be removed from service and destroyed.
17. The proper method for scrapping a lifting eye is to cut through the bail with a cutting torch to render the unit useless as a lifting device.
18. No repairs or welding to the P50 Swift Lift Universal Lifting Eye are permitted.

RELATED PRODUCTS

- P52 Swift Lift Anchors
- P53 Swift Lift Eye Anchors

ORDERING INFORMATION

Product Code	Description	Weight
60571	1 TON SWL	2.04 LB
60574	2 TON SWL	3.44 LB
60577	4 TON SWL	6.68 LB
60580	8 TON SWL	20.6 LB
60583	20 TON SWL	46.35 LB



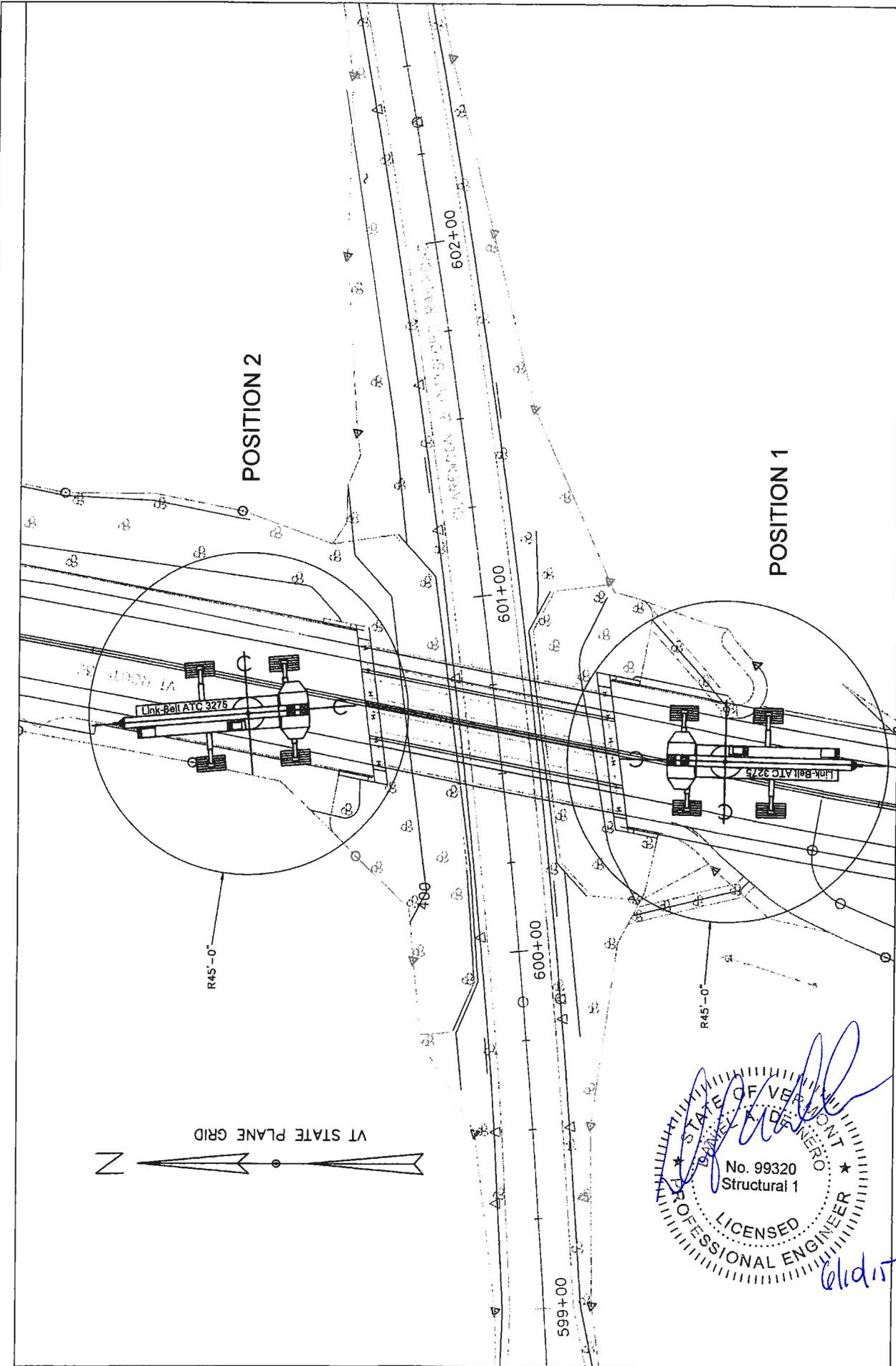
TECHNICAL DATA SHEET**MANUFACTURER**

Dayton Superior Corporation
1125 Byers Road
Miamisburg, OH 45342
Customer Service: 888-977-9600
Technical Services: 877-266-7732
Website: www.daytonsuperior.com

WARRANTY (ACCESSORIES)

Limited Warranty. Dayton warrants, for a period of 60 days from the date of shipment (three years from the date of shipment in the case of formwork, excluding any consumable Products included with such formwork), that Products and any associated application drawings and engineering services provided by Dayton ("Ancillary Services") will be free from defects in material and workmanship and, in the case of custom designed formwork, that the formwork will meet the specifications set forth in the design drawings approved by Dayton and Customer. Any claim under this warranty must be made in writing within such warranty period. If any Product and/or Ancillary Service covered by a timely claim are found to be defective, Dayton will, within a reasonable time, make any necessary repairs or corrections or, at Dayton's option, replace the Product. Unless pre-authorized by Dayton in writing, Dayton will not accept any charges for correcting defects or accept the return of any Product. This warranty will not apply to any Products that have been subjected to misuse, neglect, storage damage, misapplication, accident or any other damage caused by any person other than Dayton, or that have not been maintained in accordance with Dayton's specifications. THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES AS TO THE PRODUCTS AND ANCILLARY SERVICES. DAYTON MAKES NO OTHER WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE. THE REMEDIES SET FORTH IN THIS SECTION ARE CUSTOMER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY.





PROJECT	Castleton Bridge BRP 015-2(10)
LOCATION	Abutments & Wing Walls
CUSTOMER	Schulz Construction
ARCHITECT	
PURCHASE ORDER NO	
SHEET NAME	
SIZE	
JOB NUMBER	
DATE	
SCALE	
DRAWN	



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Link-Belt ATC3275
275 Ton Crane

R65'-0"

Link-Belt ATC3200
200 Ton Crane

R55'-0"

SLIDER BEAM LOCATION

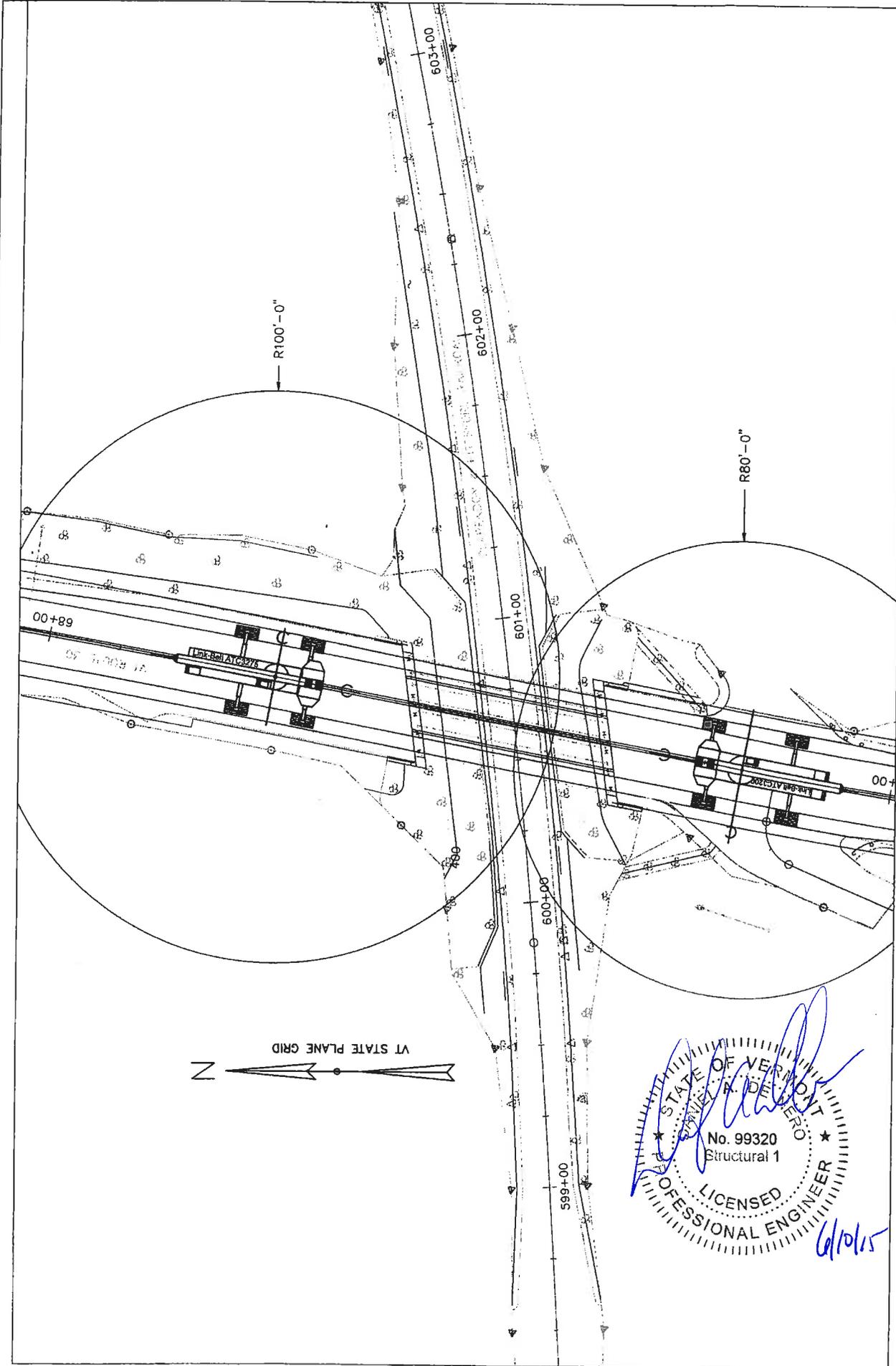
PROFESSIONAL ENGINEER
 THIS DOCUMENT IS THE PROPERTY OF ROZELL INDUSTRIES, INC. (RII), AND SHALL NOT, WITHOUT THE EXPRESS WRITTEN PERMISSION OF RII, BE REPRODUCED OR COPIED IN WHOLE OR IN PART BY ANY PERSON OUTSIDE OF RII. OR, IF LOANED BY RII TO SUCH PERSON, SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS LOANED. FOR MORE INFORMATION TO ANY THIRD PARTY FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS LOANED.



PROJECT	Castleton Bridge BRF 015-2(10)
LOCATION	NEXT Beams
CUSTOMER	Schultz Construction
ARCHITECT	
PURCHASE ORDER NO	
SHEET NAME	
SIZE	
JOB NUMBER	
DATE	
SCALE	
DRAWN	



DO NOT SCALE THIS DRAWING



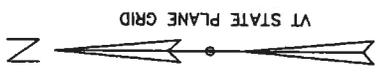
PROJECT	Castleton Bridge BRF 015-2(10)
LOCATION	Approach Slabs
CUSTOMER	Schultz Construction
ARCHITECT	
PURCHASE ORDER NO	
SHEET NAME	
SIZE	
JOB NUMBER	
DATE	
SCALE	
DRAWN	



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STATE OF VERMONT
 No. 99320
 Structural 1
 LICENSED PROFESSIONAL ENGINEER
[Signature]
 6/10/15





JOB BARNARD ER BRG 0291 (39)

SHEET NO. 1 OF 9

CALCULATED BY PJH DATE 2/19

CHECKED BY ETC DATE 4/19

SCALE

MAX. LOAD EXTERION NEXT BEAM

= 73.38 TONS = 146,760 KIIPS

ℓ BRG TO ℓ BRG = 85 FE

EXISTING STEEL GRADE ASSUME GRADE 33KSI

SAY ROLLY WEIGHT = 500 LBS %

EXISTING STEEL = W36 x 230

USE AISC 13TH EDITION ASD DESIGN

Ω BENDING = 1.67 (ASD)

Ω SHEAR = 1.50 (ASD)

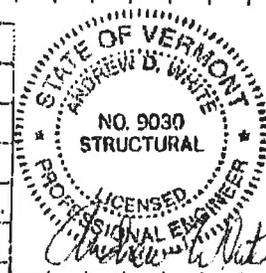
φ_b = 0.9 (LRFD)

φ_v = 1.0 (LRFD)

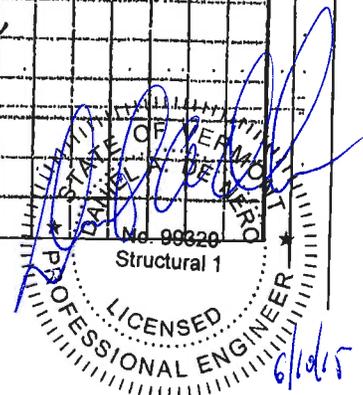
PROVIDE BRACING @ 10 FE CENTERS

ℓ = 20 INCHES

W36 x 230 BEAM IS COMPACT BY DEFINITION



July 2, 2014,
9 sheets of
calculations





JOB BARNARD
 SHEET NO. 2 OF 9
 CALCULATED BY PJH DATE 2/14
 CHECKED BY ETC DATE 4/14
 SCALE _____

$$L_p = 1.76 C_b \sqrt{\frac{E}{F_y}} \quad (F2-5 AISC 13'11")$$

$$L_p = 1.76 (3.71) \sqrt{\frac{29000}{33}} = 193.57 \text{ in}$$

$L_b = 120 \text{ in} \leq L_p$ LATERAL TORSIONAL
 BUCKLING IS NOT
 AN ISSUE

& $M_n = M_p = F_y Z_x$

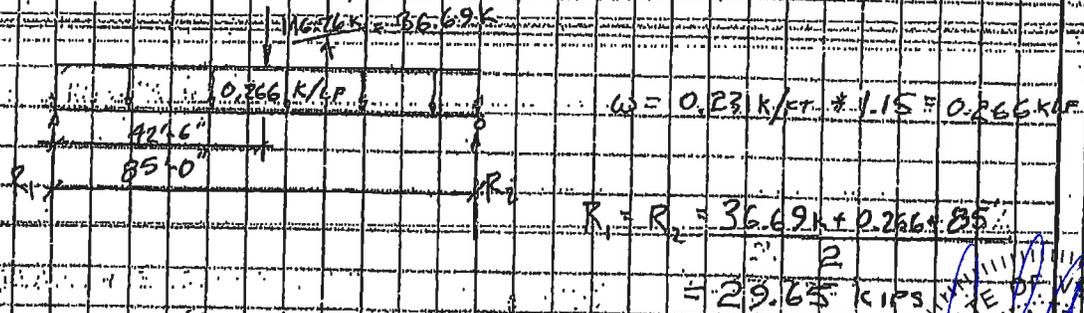
$$M_n = 33 \text{ ksi} \times 963 \text{ in}^3 = 31,779 \text{ k-in}$$

$$M_{n,LT} = \frac{M_n}{C_b} = \frac{31,779 \text{ k-in}}{1.67} = 19,029.3 \text{ k-in}$$

$$= 1585.8 \text{ k-ft}$$

1/4 NEXT BAY CARRIED BY EACH BEAM

(1/2 CARRIED BY TRUCK HALF BY SLIDING BEAM ASSEMBLY)





JOB BARNARD
 SHEET NO. 3 OF 9
 CALCULATED BY FJH DATE 2/14
 CHECKED BY ETC DATE 4/14
 SCALE

$$M_u = \frac{29.65k + 22.65k - 42.5 \times 0.266k \cdot l}{2} * 42.5 \text{ ft} = 1019.9 \text{ k-ft}$$

$$M_u (\text{SLC LOAD}) = 1019.9 \text{ k-ft}$$

$$M_u (\text{ASD}) = 1505.8 \text{ k-ft}$$

$$M_R \gg M_u \quad \therefore \text{O.K.}$$

$$V_u = 36.69k + 0.266 * 85 \text{ ft} / 2 = 47.995 \text{ kips}$$

(WITH SLIDING SLED @ ϕ BRG EITHER END)

$$V_n = 0.6 F_y A_w C_w \quad (G2-1)$$

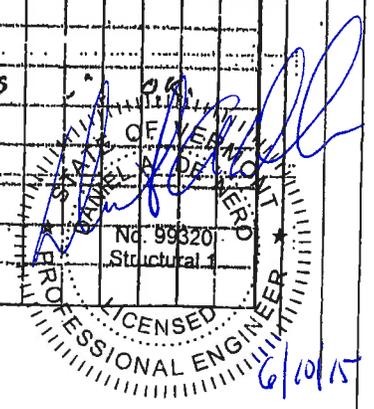
$$h/t_w = 36.5 \text{ in} / 0.76 \text{ in} = 48.03$$

$$2.24 \sqrt{E/F_y} = 2.24 * \sqrt{29000/33} = 66.9$$

$$66.9 > 48.03 \quad \therefore C_w = 1.0$$

$$V_n = 0.60 (33 \text{ ksi}) * (36.5 \text{ in}) * (0.76 \text{ in}) * 1.0 = 549.25 \text{ kips}$$

$$V_u (\text{SLC}) < V_n \quad V_A = \frac{549.25 \text{ k}}{1.5} = 366.2 \text{ kips}$$





JOB BARNARD
 SHEET NO. 4 OF 9
 CALCULATED BY PJH DATE 2/14
 CHECKED BY ETC DATE 4/19

SCALE

✓ WEB LOCAL YIELDING (J10-3) J-2

USE $N = k$

$$R_n = (2.5k + N)(F_{yw})(t_w)$$

$$k = 2.21 \text{ in} \quad \therefore R_n = (2.5(2.21 \text{ in}) + 2.21 \text{ in})(33 \text{ ksi})(0.76 \text{ in})$$

$$R_n = 193.99 \text{ KIPS} \quad \Omega = 1.5$$

$$\therefore R_A = 193.99 \text{ K} / 1.5 = 129.33 \text{ KIAS}$$

$R_n = 48 \text{ KIPS} < R_A$ LOCAL WEB YIELDING OK

✓ WEB CRIPPLING (J10-4) J-3

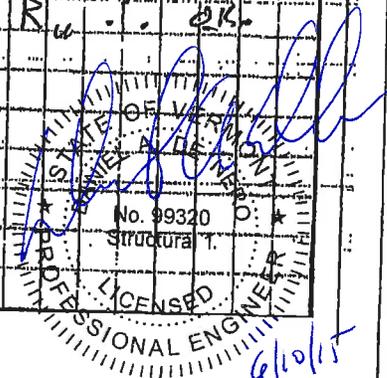
USE $N = k = 2.21 \text{ in}$

$$R_n (\text{@ END OF MEMBER}) = 0.4 t_w^2 \left[1 + 3 \left(\frac{N}{d} \right) \left(\frac{t_w}{t_f} \right)^{1.5} \right] \sqrt{E F_y t_f}$$

$$R_n = 0.4 (0.76 \text{ in})^2 \left[1 + 3 \left(\frac{2.21 \text{ in}}{36.5 \text{ in}} \right) \left(\frac{0.76 \text{ in}}{1.26 \text{ in}} \right)^{1.5} \right] \sqrt{29000 \times 33 \text{ ksi} \times 1.26 \text{ in}}$$

$$R_n = 293.496 \text{ KIPS} \quad R_A = R_n / \Omega \quad \Omega = 2.00$$

$$R_A = 293.5 \text{ K} / 2.0 = 146.7 \text{ KIPS} >> R_n \quad \text{OK}$$





JOB BARNARD
 SHEET NO. 5 OF 9
 CALCULATED BY PJH DATE 2/14
 CHECKED BY ETC DATE 4/14

SCALE _____

✓ SIDESWAY WEB BUCKLING J-4

$$h / l_w = (36.5 \text{ in} - 2.21 \text{ in} * 2) / 0.76 \text{ in} = 32.08$$

$$r / b_f = 120 \text{ in} / 16.5 \text{ in} = 7.27$$

$$(h / l_w) / (r / b_f) = 32.08 / 7.27 = 4.41$$

COMPRESSION FLANGE IS NOT RESTRAINED AGAINST ROTATION

$$(h / l_w) / (r / b_f) = 4.41 \geq 1.7 \therefore \text{SIDESWAY WEB BUCKLING IS NOT A CONCERN}$$

✓ BRACING FORCE REQ'D

RULE OF THUMB: 2% FORCE IN COMPRESSION FLANGE

APPENDIX D (C-A-6-4-b)

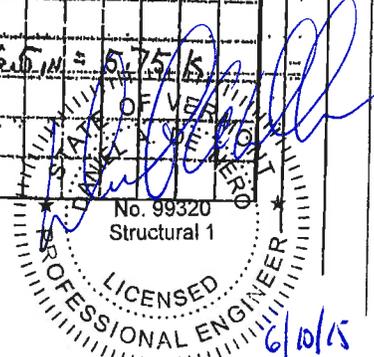
$$P_{br} = 0.01 * M_u (C_1) C_2 / h_p = 0.01 * (1018.9 \text{ K-FT}) * (12 \text{ in/ft}) * (2.0 / 20) / 36 \text{ in}$$

$$P_{br} = 13.41 \text{ KIPS}$$

$$\text{AVE STRESS IN COMP. FLANGE} = \left[\frac{1018.9 (12 \text{ in/ft})}{85 \text{ in}^2} + \frac{0.01 (12) * 16.99 \text{ in}}{15600 \text{ in}^2} \right] * 1/2$$

$$= 3.03 \text{ ksi} \quad 2\% P_u = 0.02 * 13.83 \text{ ksi} * 126 \text{ in} * 16.5 \text{ in} = 5.75 \text{ KIPS}$$

USE 13.41 KIPS BRACING FORCE REQ'D





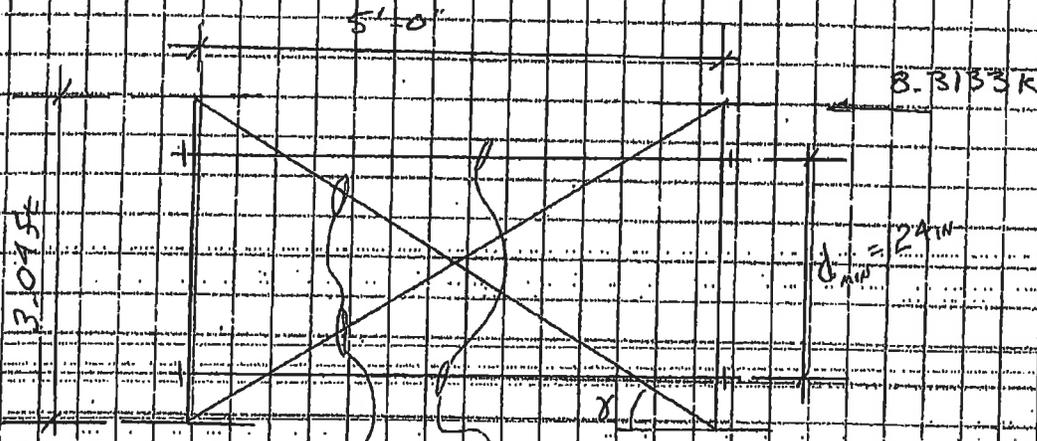
JOB BARNARD
 SHEET NO. 6 OF 9
 CALCULATED BY RJH DATE 2/14
 CHECKED BY ETC DATE 4/14
 SCALE _____

$L_B \text{ REQ'D} = 193.57 \text{ IN}$
 $L_B \text{ PROV} = 120 \text{ IN}$

BRACING FORCE MAY BE REDUCED FOR CLOSER SPACING PROVIDED.

∴ BRACING FORCE REQ'D @ 120 IN
 $= 13.41 \text{ KIPS} \times \frac{20 \text{ IN}}{193.57 \text{ IN}} = 8.3133 \text{ K / X-FRAME}$

SPACING OF GIRDERS = SPACING OF STEMS OF NEXT ISM = 5'-0"



4x6 FIBER BRACER (SPF #2 SOFT)

$\theta = \tan^{-1} \left(\frac{3.09}{5.0} \right) = 31.3^\circ$





JOB BARNARD
 SHEET NO. 7 OF 9
 CALCULATED BY PJH DATE 2/14
 CHECKED BY ETC DATE 4/14
 SCALE _____

$$P_{\text{IN BRACING}} = 8,313.5 \text{ lbs} * \frac{1}{\cos 31.3^\circ} = 9,730 \text{ lbs}$$

$$F_{c1} = \frac{9730 \text{ lbs}}{(4 \text{ IN} * 6 \text{ IN})} = 405.4 \text{ psi}$$

$$l_e = \sqrt{(3.04)^2 + (5)^2} = 5.852 \text{ ft} = 70.22 \text{ IN}$$

$$F_{c1} = 1000 \text{ psi} \quad (\text{NDS} = \text{ASD } 2005)$$

$$C_F = 1.1 \quad C_D = 1.0 \quad (\text{FOR CONSERVATISM})$$

$$C_M = 0.80$$

$$F_c^* = 1000 \text{ psi} * 1.1 * 0.80 * 1.0 = 880 \text{ psi}$$

$$l_e/d = 70.22 \text{ IN} / 4 \text{ IN} = 17.56$$

$$F_{cE} = \frac{0.822 E_{min}}{(l_e/d)^2} = \frac{0.822 * 400,000 \text{ psi}}{(17.56)^2} = 1066 \text{ psi}$$

C = 0.80 FOR SAWN LUMBER

$$1 + \frac{F_{cE}/F_c^*}{C} = 1.3821$$

$$\frac{F_{cE}/F_c^*}{C} = 1.5142$$





JOB BARNARD
 SHEET NO. 8 OF 9
 CALCULATED BY PJH DATE 2/14
 CHECKED BY EC DATE 4/14

SCALE

$$C_p = \frac{1 + F_{ce}/F_c'}{2C} - \sqrt{\left(\frac{1 + F_{ce}/F_c'}{2C}\right)^2 - \frac{F_{ce}/F_c'}{C}} \quad (3.7-1)$$

$$C_p = \frac{1 + 3821}{2 \cdot 1.5142} - \sqrt{\left(\frac{1 + 3821}{2 \cdot 1.5142}\right)^2 - \frac{3821}{1.5142}} = 0.7528$$

$$F_{c11}' = C_p F_c' = 0.7528 * 880 \text{ psi} = 662.5 \text{ psi}$$

$$P_{allowable} = 662.5 * 4 \text{ in} * 6 \text{ in} = 15,900 \text{ lbs}$$

$$15,900 \text{ lbs} \geq 9,730 \text{ lbs} \quad \therefore \text{O.K.}$$

THREADROD MUST BE CAPABLE OF RESISTING $8,313.3 \text{ lbs} * \frac{36.5 - 6.25 \text{ in}}{24 \text{ in}} = 10,251.35 \text{ lbs}$

$$P_{TALL} \geq 10.25 \text{ kIPS}$$

$$\Omega_{t+} = 1.67 \text{ (YIELD)} \quad P_n = F_y A_g \quad P = \frac{F_y A_g}{1.67}$$

USING A36 THREADROD 1/8" - 9 $A_g = 0.60 \text{ in}^2$

$$P_{tall} = \frac{36 \text{ ksi} * 0.60 \text{ in}^2}{1.67} = 12.96 \text{ kIPS}$$

✓ RUPTURE $F_u = 58 \text{ ksi}$ $A_e = 0.429 \text{ in}^2$

$$\Omega_{t+} = 2.00 \text{ (FOR RUPTURE)}$$

$$P_{tall} = \frac{58 \text{ ksi} * 0.429 \text{ in}^2}{2.0} = 12.44 \text{ kIPS (GOVERN)} \quad \text{CONC. (COUNCIL OF PROFESSIONAL ENGINEERS) No. 99820 Structural I}$$





www.calderwoodengineering.com

JOB BARNARD
SHEET NO. 9 OF 9
CALCULATED BY PJW DATE 2/14
CHECKED BY ETC DATE 4/14

SCALE

$$12.74 \text{ KIPS} \geq 10.25 \text{ KIPS} \quad \therefore \text{OK}$$

✓ CONCRETE BEARING STRESS $f_c = 5,000 \text{ psi}$

USE $12 \times 18 \text{ \#}$

$$\begin{aligned} \text{MAX REACTION} &= 48 \text{ K} / (12 \times 18) = 0.222 \text{ ksi} \\ &= 222 \text{ psi} \end{aligned}$$

ALLOWABLE BEARING PRESSURE ON CONCRETE

PER AASHTO 17TH EDITION ASD

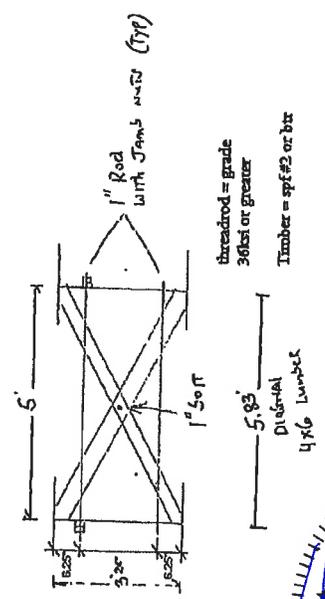
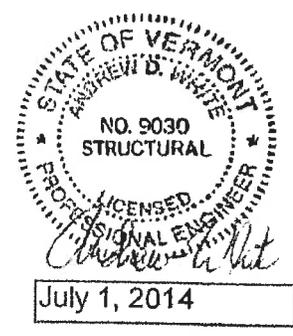
$$= 0.3 f_c = 0.3 * 5,000 \text{ psi} = 1,500 \text{ psi} \text{ ALLOWED}$$

$$222 \text{ psi} \leq 1,500 \text{ psi} \quad \therefore \text{OK}$$

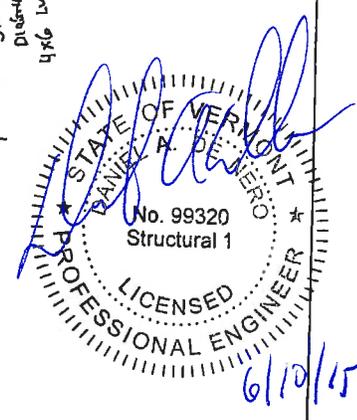


- 20 - 1" Flat Washers (Extras)
- 65 - 1" NUTS (Extras)
- 20 - 1" x 6" Threaded Rod (Extras)
- 20 - 4x6" x 6' for Diag Bracing (Extras)
- 10 - 1" x 12" Splice Plate (Extras)

Girder LWT: 19,780 CA +-



Threaded = grade 36ksi or greater
 Timber = spf #2 or btr



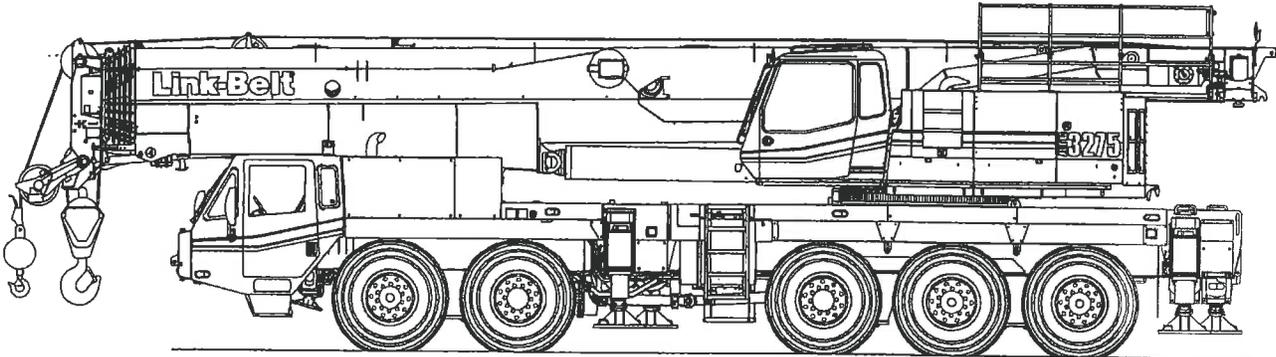
6/10/15

Technical Data

Specifications & Capacities

ATC 3275

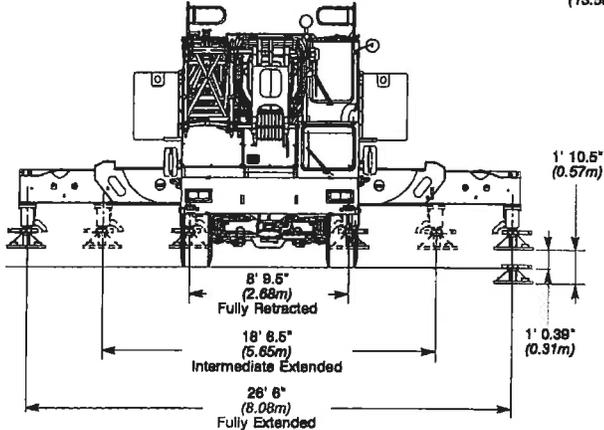
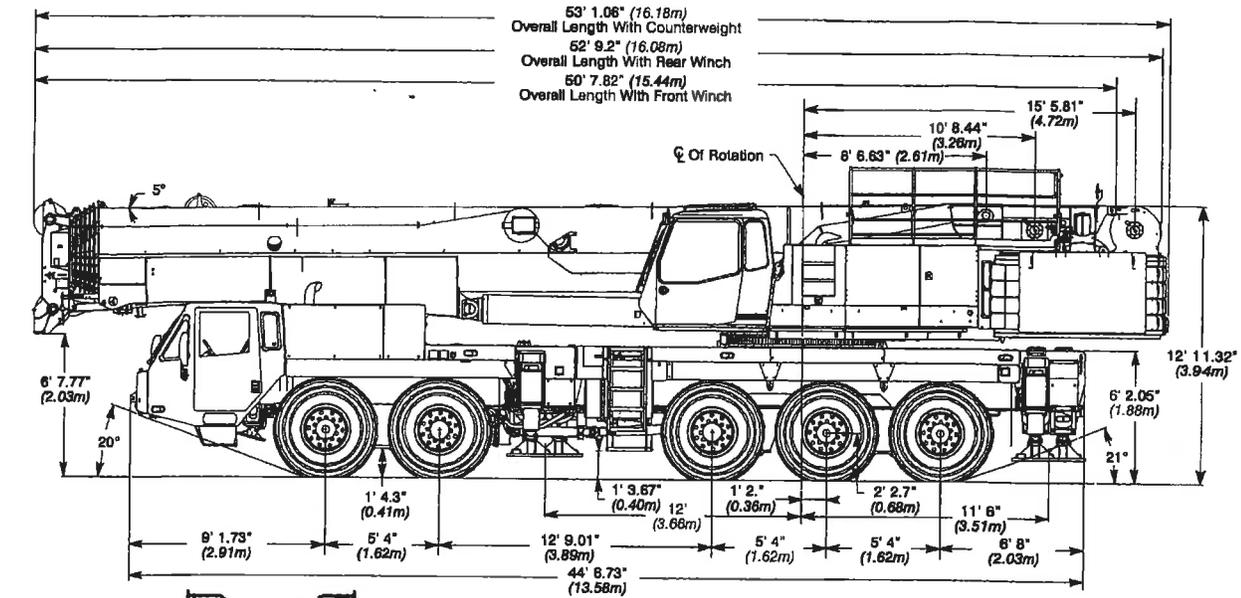
Telescopic Boom All Terrain Crane
275 US ton
250 metric ton



CAUTION: This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.

[Handwritten Signature]
STATE OF VERMONT
DENNIS A. BELMONT
No. 99320
Structural 1
LICENSED PROFESSIONAL ENGINEER
6/10/15

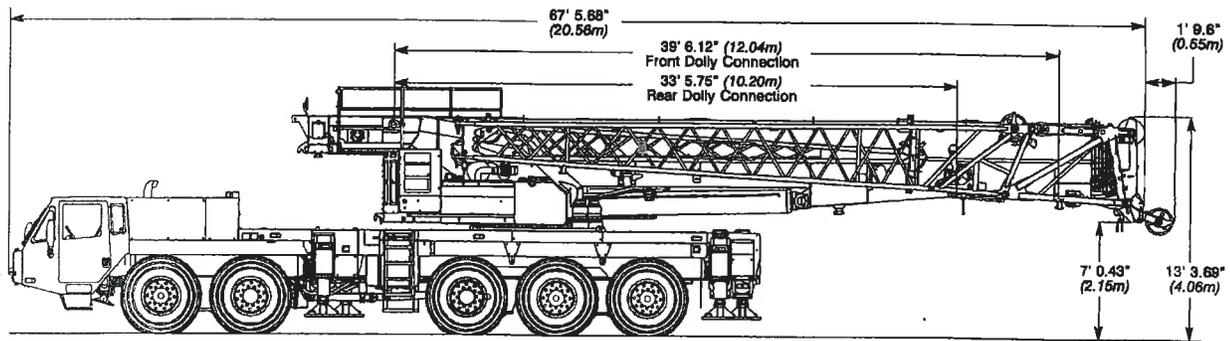
General Dimensions



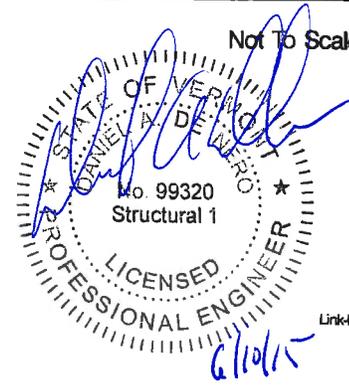
Turning Radius	20.5R25		18.00R25	
	English	Metric	English	Metric
Wall to wall over carrier	42' 0"	12.8m	41' 6"	12.6m
Wall to wall over boom	42' 6"	12.9m	42' 2"	12.8m
Wall to wall over boom attachment	44' 11"	13.7m	44' 6"	13.5m
Curb to curb	37' 1"	11.3m	36' 3"	11.04m
Centerline of tire	36' 2"	11.0m	35' 6"	10.8m

Tail Swing	English	Metric
With auxiliary winch	18' 11"	5.1m
Without auxiliary winch	14' 8"	4.7m
With Counterweight	17' 1"	5.21m

Overall Width	English	Metric
With 14,000 lb (6 350kg) counterweight	9' 10"	3.0m
With 36,000-115,000 lb (16 329-52 390kg) counterweight	10' 3"	3.1m
With 156,500 lb (70 987kg) counterweight	15' 2"	4.6m



Not To Scale



6/10/15

156,500 lb Counterweight - Fully Extended Outriggers - 360° Rotation (All Capacities Are Listed In Pounds)														
Radius (ft)	Boom Length (ft)												Radius (ft)	
	43.7	57.4-58.9	70.1-73.5	85.3-90.7	99.6-105.4	114.2-119.7	128.9-135.9	145-147.1	159.3-163.3	176.8-177.5	190.5-193.0	206.9-209.3		223
8	550,000*													8
10	350,000													10
12	313,900	302,400	268,900	225,200										12
15	274,100	275,700	262,900	211,500	170,500									15
20	224,600	226,900	225,300	211,500	170,500	142,800	102,900							20
25	187,500	181,800	185,000	180,100	168,900	142,800	119,000	84,600	70,200					25
30	159,900	163,900	162,700	163,000	159,400	142,800	113,200	84,500	70,200	55,200	35,500			30
35	138,500	142,700	142,900	143,000	140,500	141,800	102,900	84,500	70,200	55,200	45,600	39,300		35
40		125,900	125,900	125,300	124,000	125,200	102,900	79,300	70,200	55,200	45,600	36,700	30,100	40
45		110,100	110,100	109,800	109,500	109,700	102,900	74,300	70,200	55,200	45,600	36,700	30,100	45
50		94,800	97,300	98,800	98,700	97,000	96,100	69,800	66,000	55,200	45,600	36,700	30,100	50
55			86,200	86,100	85,600	85,100	86,000	66,000	61,200	54,800	45,600	36,700	30,100	55
60			79,800	80,100	78,300	78,000	79,400	62,300	56,800	52,000	44,800	36,700	30,100	60
65			80,300	73,700	70,800	72,900	71,000	58,100	53,000	49,400	42,200	38,700	30,100	65
70				64,500	63,700	65,800	63,900	56,300	49,500	46,800	39,500	36,700	30,100	70
75				58,300	57,700	59,800	57,800	53,700	48,400	45,900	37,400	36,700	30,100	75
80				50,200	54,500	54,300	52,400	51,400	43,500	41,300	35,500	34,900	30,100	80
85					49,900	49,900	48,000	48,200	41,000	39,000	33,700	32,900	30,100	85
90					46,800	45,700	44,000	45,500	38,700	36,800	32,100	30,900	30,100	90
95					38,400	42,100	42,200	41,900	36,500	34,800	30,500	29,900	28,200	95
100						38,800	40,500	38,600	34,600	32,900	29,200	27,900	27,600	100
105						36,100	37,500	35,700	32,900	31,200	27,800	26,700	26,100	105
110						29,800	34,800	33,300	31,600	29,700	26,600	25,500	24,700	110
115							32,700	30,600	30,400	28,200	25,500	24,300	23,400	115
120							28,400	28,700	29,300	26,800	24,400	23,300	22,200	120
125							22,000	26,700	27,900	25,500	23,200	22,300	21,000	125
130								24,900	25,800	24,300	22,000	21,400	20,000	130
135									23,300	24,100	22,700	21,000	19,000	135
140									22,800	21,200	19,900	19,600	18,000	140
145									21,200	19,700	19,000	18,800	17,100	145
150									19,800	18,400	18,100	18,100	16,300	150
155										17,300	17,200	17,400	15,500	155
160										16,100	16,200	16,600	14,800	160
165										15,000	15,700	15,900	14,000	165
170											14,100	15,000	13,400	170
175											13,200	14,100	12,700	175
180											12,700	13,100	12,100	180
185												12,300	11,200	185
190												11,500	10,400	190
195												8,700	8,600	195
200												7,800	8,900	200
205													6,200	205

Note: Capacities depict multiple boom modes.
* Over rear intermediate outriggers additional equipment required.



This information is not for crane operation. Operator must refer to the in-cab information for crane operation. Rated lifting capacities shown on fully extended outriggers do not exceed 85% of the tipping loads.



Corporate Headquarters
795 Marshall Avenue
PO Box 1099
Williston, VT 05495
802-658-1700
802-862-6076 fax

Southern New England Branch
65 Leicester Street
N. Oxford, MA 01537
508-499-1950
508-499-1955 fax

Central New York Branch
751 County Route 37
Central Square, NY 13036
315-676-2003
315-676-2422 fax

Eastern Pennsylvania Branch
7096 Carlisle Pike
Carlisle, PA 17015
717-795-0700
717-795-0701 fax

CERTIFICATE OF COMPLIANCE

Jurisdiction: OSHA 1910.180, 1926.SUB PART CC, 1926.601 PCSA#2, ANSI B30.5 (2007) ANSI/ASME B30.5, B30.10 (2009), FED 49 CFR, 396.17-23

ANNUAL SAFETY INSPECTION

OWNER: ROZELL INDUSTRIES INC.
129 PARK ROAD
QUEENSBURY, NY 12804

DESCRIPTION: LINK-BELT
LINK-BELT ATC3275
SERIAL NUMBER: S2K3-3023

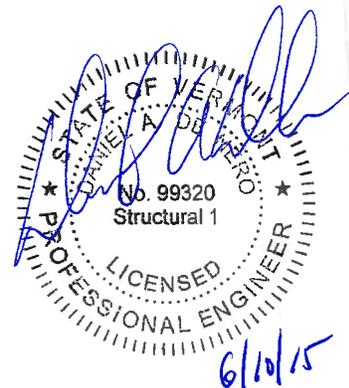
CAPACITY: 550,000 LBS.

SURVEY TYPE: ANNUAL OSHA SAFETY/ ANSI 30.5, 1968-89/PCSA 4-5

EXPIRATION: 6/10/2015

INSPECTOR: STEVE SMITH

DATE: 6/10/2014

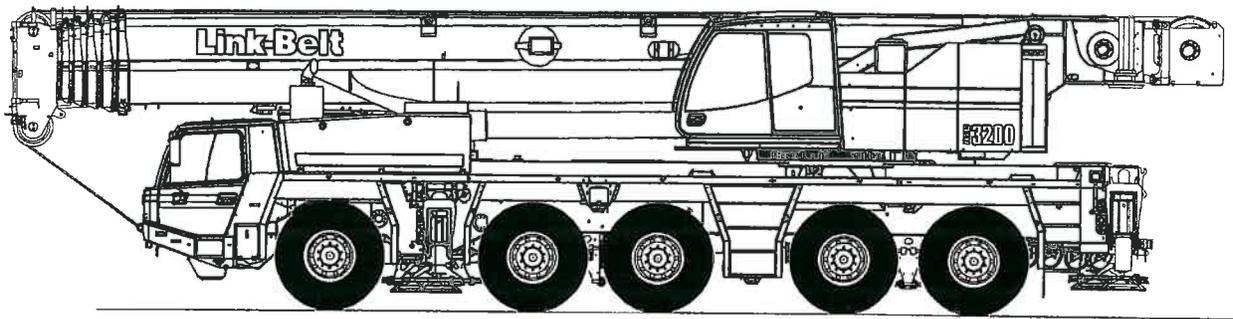


Technical Data

Specifications & Capacities

ATC 3200

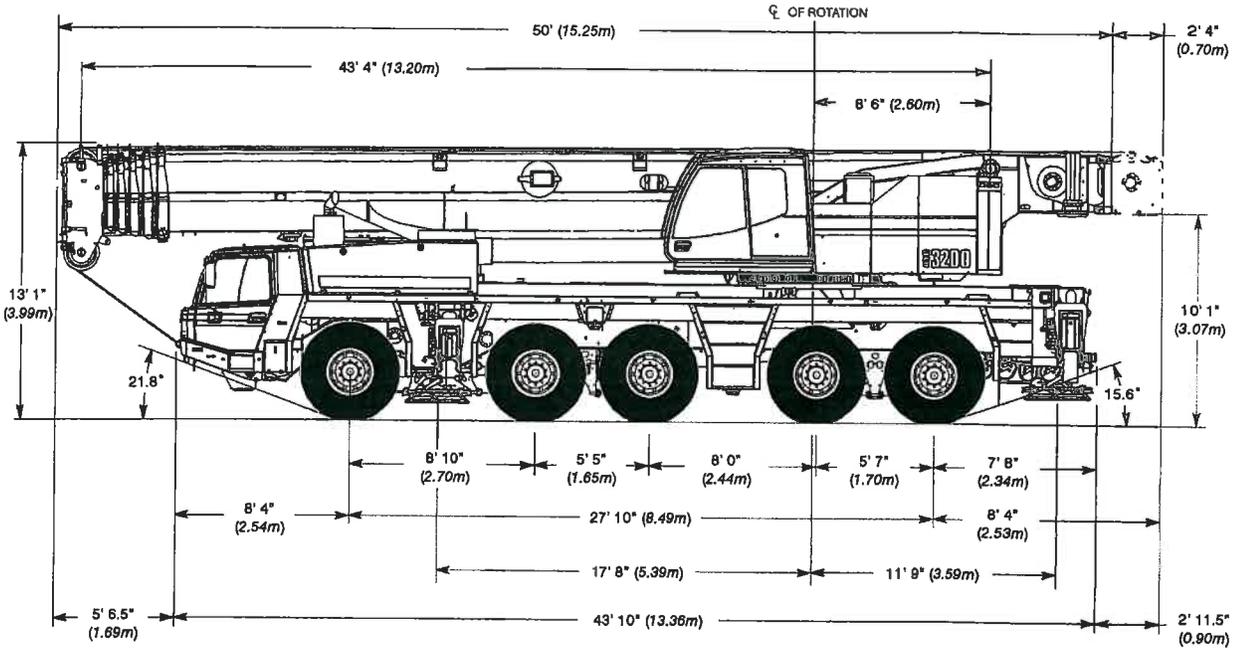
Telescopic Boom All Terrain Crane
200 ton (160 metric ton)



CAUTION: This material is supplied for reference use only. Operator must refer to in-cab Crane Rating Manual and Operator's Manual to determine allowable crane lifting capacities and assembly and operating procedures.

[Handwritten Signature]
STATE OF VERMONT
DANIEL A. DEWEIRD
No. 99320
Structural 1
LICENSED PROFESSIONAL ENGINEER
6/10/15

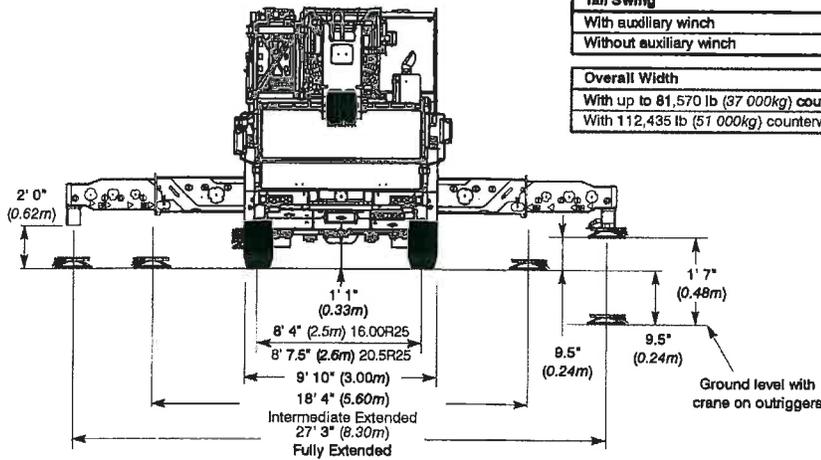
General Dimensions



Turning Radius	20.5R25		16.00R25	
	English	Metric	English	Metric
Wall to wall over carrier	36' 0"	11.0m	35' 9"	10.9m
Wall to wall over boom	36' 4"	11.7m	38' 1"	11.6m
Wall to wall over boom attachment	40' 7"	12.4m	40' 4"	12.3m
Curb to curb	32' 2"	9.80m	31' 11"	9.72m
Centerline of tire	31' 5"	9.6m	31' 2"	9.5m

Tail Swing	English	Metric
With auxiliary winch	16' 8"	5.1m
Without auxiliary winch	14' 5"	4.4m

Overall Width	English	Metric
With up to 81,570 lb (37 000kg) counterweight	9' 10"	3.0m
With 112,435 lb (51 000kg) counterweight	15' 1"	4.6m



Not To Scale

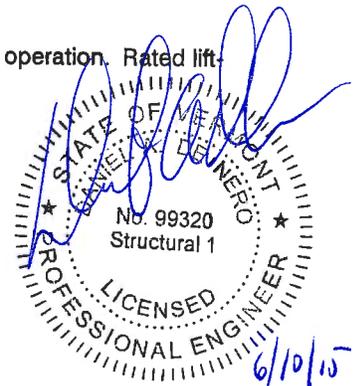


Main Boom Lift Capacity Charts

112,435 lb Counterweight -- Fully Extended Outriggers -- 360° Rotation (All Capacities Are Listed In Thousand Pounds)														
Radius (ft)	Boom Length (ft)												Radius (ft)	
	33.3 (*)	43.3	57.7	71.9	86.3	100.4	114.8	128.9	143.3	157.5	171.9	186.0		196.9
9	400.0*													9
10	350.5*	307.5*	264.5*	255.0*	196.5									10
12	322.5*	279.0*	264.5*	255.0*	196.5	162.5								12
14	294.5*	254.5*	255.0*	250.0*	196.5	156.0								14
16	270.0*	228.5	229.0	228.5	196.5	145.5	121.5							16
18	243.0	209.5	210.0	209.5	196.5	136.5	119.5							18
20	216.5	193.5	194.0	193.0	194.0	128.0	117.0	91.3	73.6					20
25	168.5	161.0	161.5	164.5	163.5	111.0	102.0	91.3	73.6	59.3				25
30	134.5	134.5	136.5	138.0	136.5	97.5	95.5	83.8	73.3	59.3	47.6	37.5		30
35			115.0	117.0	115.5	87.1	88.8	75.3	68.3	58.0	47.0	37.5	30.9	35
40			99.8	101.0	99.8	78.0	82.2	68.0	61.7	54.9	45.7	37.4	30.9	40
45			87.4	88.5	87.4	71.9	76.5	62.0	56.5	51.2	42.9	36.3	30.9	45
50				79.4	78.0	66.7	71.4	56.7	51.9	47.9	40.1	34.4	30.9	50
55				70.3	68.8	62.0	67.6	52.2	47.8	44.6	37.7	32.4	30.0	55
60				60.5	59.7	58.3	63.8	48.3	44.2	41.3	35.6	30.5	28.4	60
65					52.5	56.4	56.3	44.7	41.0	38.5	33.5	28.9	27.1	65
70					46.6	51.7	50.3	41.8	38.2	35.9	31.8	27.5	25.7	70
75					43.3	46.7	45.2	40.4	35.7	33.6	30.2	26.1	24.5	75
80						42.2	40.7	39.2	33.4	31.5	28.8	24.9	23.3	80
85						38.4	36.8	35.5	31.4	29.4	27.4	23.9	21.9	85
90						34.5	33.6	32.3	30.0	27.7	26.2	22.7	20.4	90
95							30.7	29.4	28.5	26.2	25.1	21.7	19.1	95
100							28.0	27.5	26.6	24.8	23.8	20.9	17.9	100
110								25.1	22.2	22.1	21.6	19.2	15.7	110
120									18.5	19.9	19.8	17.9	14.0	120
130									17.7	17.9	16.9	16.5	12.2	130
140										15.4	15.1	14.9	10.7	140
150											14.0	13.0	9.4	150
160											12.1	11.0	8.3	160
170												9.3	7.1	170
180													6.1	180

* Special Conditions Or Wire Rope Required
 (*) Over Rear Only With Swing Lock Engaged

This information is not for crane operation. Operator must refer to the in-cab information for crane operation. Rated lift-
 ing capacities shown on fully extended outriggers do not exceed 85% of the tipping loads.





Corporate Headquarters
 PO Box 1099
 795 Marshall Ave.
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 p: 802.658.1700
 f: 802.862.6076

Southern New England
 PO Box 684
 65 Leicester St.
 N. Oxford, MA 01537
 p: 508.499.1950
 f: 508.499.1955

Central New York
 751 County Route 37
 Central Square, NY 13036
 p: 315.676.2008
 f: 315.676.2422

Eastern Pennsylvania
 7096 Carlisle Pike
 Carlisle, PA 17015
 p: 717.795.0700
 f: 717.795.0701

CERTIFICATE OF COMPLIANCE

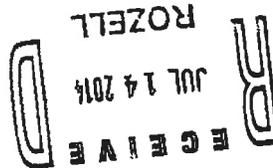
Jurisdiction: OSHA 1910.180, 1926. SUB PART CC, 1926.601 PCSA#2,
 ANSI B30.5 (2007) ANSI/ASME B30.5, B30.10 (2009),
 FED 49 CFR, 396.17-23

ANNUAL SAFETY INSPECTION

Owner: Rozell Industries Inc.
 129 Park Road
 Queensbury, NY 12804

Description:

Make: Link-Belt
Model: ATC 3200
S/N: P6J8-0995



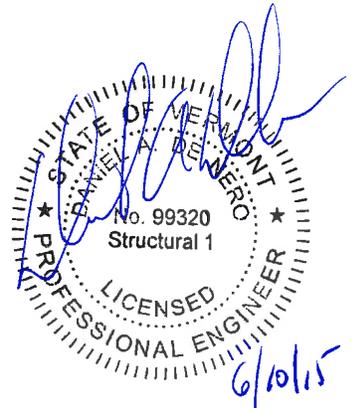
Capacity: 400,000 pounds

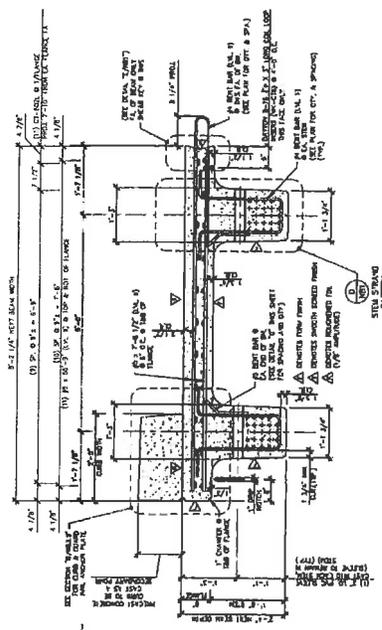
Survey Type: ANNUAL OSHA SAFETY/ANSI 30.5, 1968-89/PCSA 4-5

Expiration: 7/9/2015

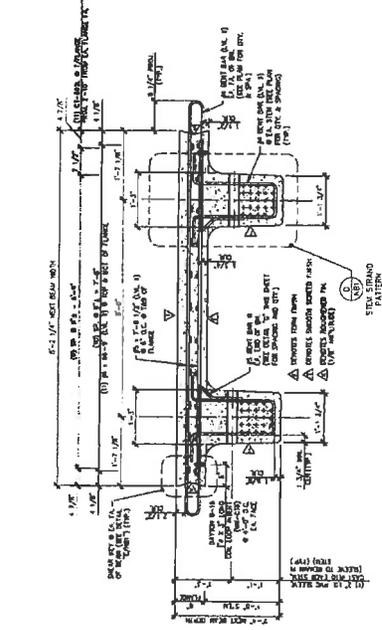
Inspector: Jim Doody

Date: 7/9/2014

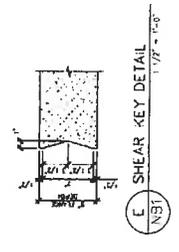




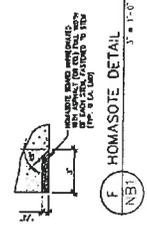
A DIMENSIONAL & REINFORCING SECTION
3/4" = 1'-0"



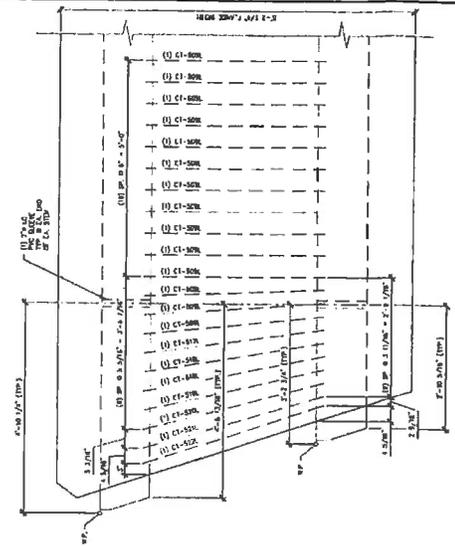
B DIMENSIONAL & REINFORCING SECTION
3/4" = 1'-0"



E SHEAR KEY DETAIL
1/2" = 1'-0"



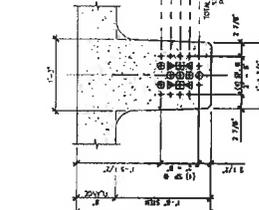
F HOMASOTE DETAIL
3/4" = 1'-0"



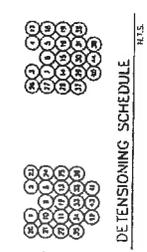
C ADDITIONAL END ZONE REINFORCING @ BOTTOM OF FLANGE
& LOCATION OF PVC SLEEVES @ STEM
3/4" = 1'-0"



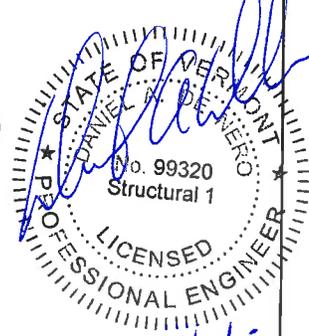
D STEM STRAND PATTERN
1" = 1'-0"



C END BLOCK STEM REINFORCING DETAILS
3/4" = 1'-0"



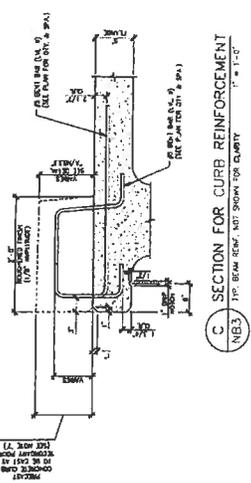
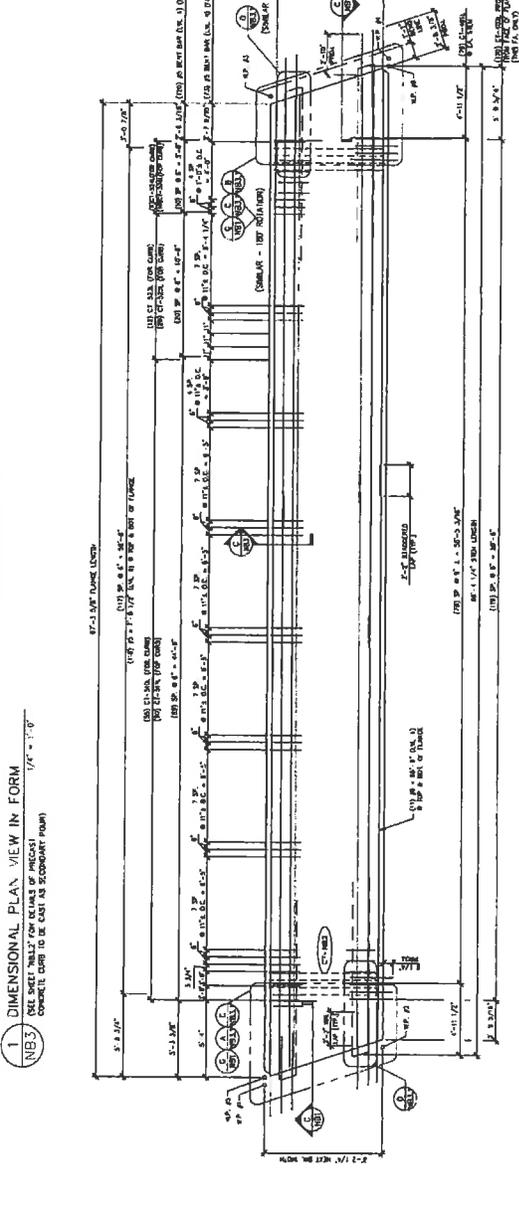
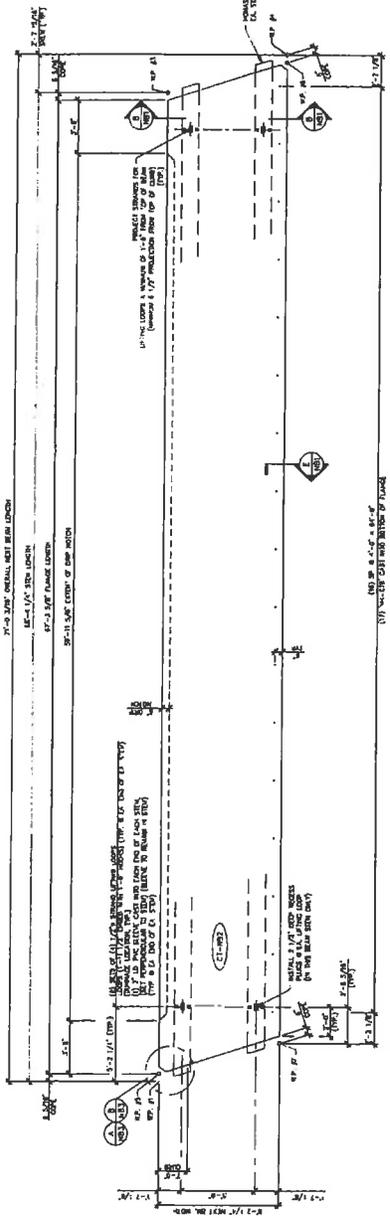
DE DIMENSIONING SCHEDULE
1/8" = 1'-0"



J.P. CARRARA & SONS INC. Precast & Prestressed Manufacturer 1000 W. BURLINGTON AVENUE, SUITE 100 BURLINGTON, VT 05405		SHULTZ CONSTRUCTION 100 W. BURLINGTON AVENUE, SUITE 100 BURLINGTON, VT 05405	
STATE OF VERMONT AGENCY OF TRANSPORTATION COUNTY OF RUTLAND		DATE: APR 17, 2015 SCALE: NOTED	DWG. NO.: 24064-010 JOB NO.: 24064-010
TOWN OF CASTLETON 61 ROUTE 30 (RURAL HIGHWAY ARTERIAL) BRIDGE NO. 93 PROJECT NO. BRP 013-2(10)		PRESTRESSED NEXT BEAM DETAILS DWG. NO. NB1	

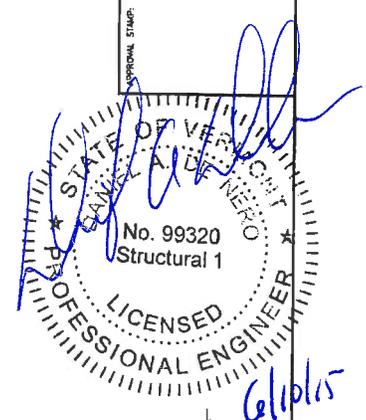
APPROVAL STAMP

6/20/15



SHOP NOTES:
 1. TOTAL BEAM WEIGHT INCLUDES THE WEIGHT OF PRECAST CONCRETE CURB TO BE CAST IN PLACE.
 2. SEE SHEET NB2 FOR PRECAST CONCRETE CURB DETAILS TO BE CAST IN PLACE.
 3. SEE SHEET NB3 FOR REINFORCEMENT DETAILS TO BE CAST IN PLACE.

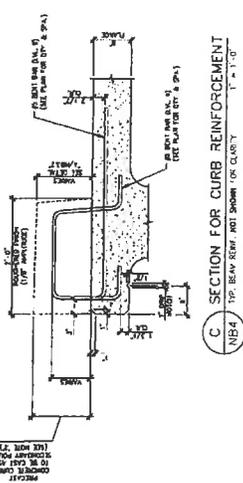
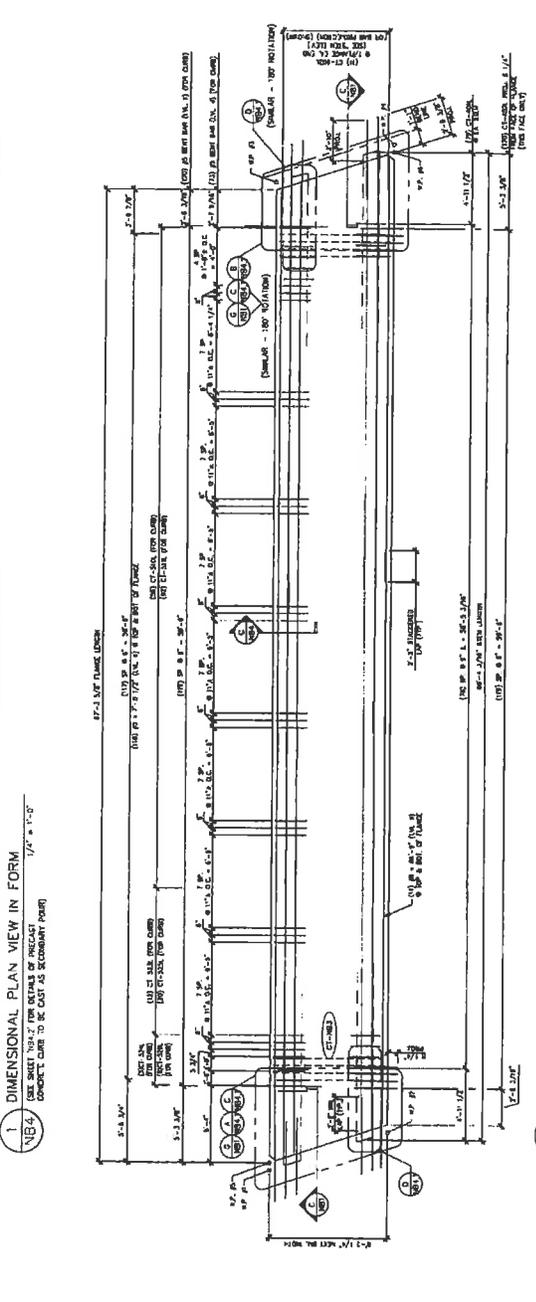
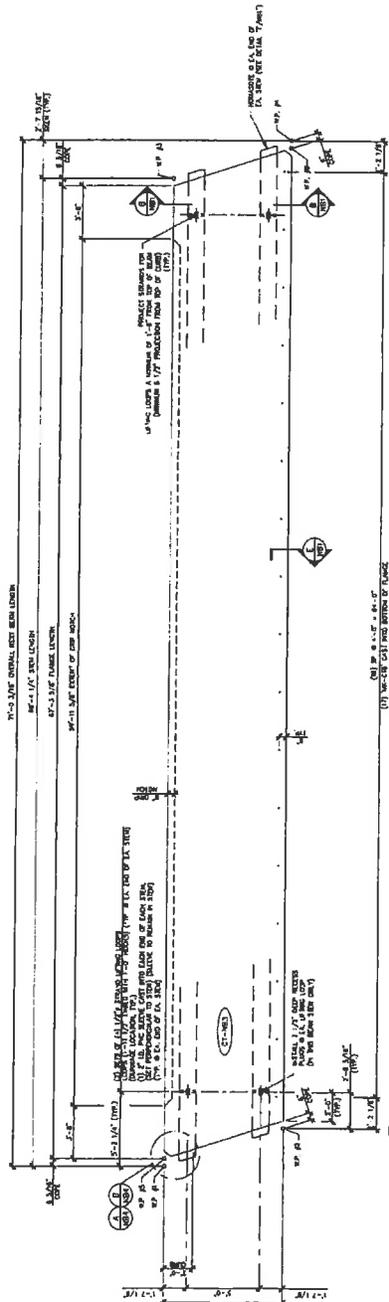
ITEM	MARK	QTY	WT.	VOL.	WT.	QTY.
1	CT-NB3	1	56.90	1	28.10	1
MATERIAL LIST / NEXT BEAM						
ITEM	MARK	DESCRIPTION	QTY.			
1	CT-NB3	1.000000	1.000000			
2	CT-NB3	1.000000	1.000000			
3	CT-NB3	1.000000	1.000000			
4	CT-NB3	1.000000	1.000000			
5	CT-NB3	1.000000	1.000000			
6	CT-NB3	1.000000	1.000000			
7	CT-NB3	1.000000	1.000000			
8	CT-NB3	1.000000	1.000000			
9	CT-NB3	1.000000	1.000000			
10	CT-NB3	1.000000	1.000000			
11	CT-NB3	1.000000	1.000000			
12	CT-NB3	1.000000	1.000000			
13	CT-NB3	1.000000	1.000000			
14	CT-NB3	1.000000	1.000000			
15	CT-NB3	1.000000	1.000000			
16	CT-NB3	1.000000	1.000000			
17	CT-NB3	1.000000	1.000000			
18	CT-NB3	1.000000	1.000000			
19	CT-NB3	1.000000	1.000000			
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38	CT-NB3	1.000000	1.000000			
39	CT-NB3	1.000000	1.000000			
40	CT-NB3	1.000000	1.000000			
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42	CT-NB3	1.000000	1.000000			
43	CT-NB3	1.000000	1.000000			
44	CT-NB3	1.000000	1.000000			
45	CT-NB3	1.000000	1.000000			
46	CT-NB3	1.000000	1.000000			
47	CT-NB3	1.000000	1.000000			
48	CT-NB3	1.000000	1.000000			
49	CT-NB3	1.000000	1.000000			
50	CT-NB3	1.000000	1.000000			



B ACUTE CORNER BLOCKOUT DETAIL
 NB3 (FOR STEM)
 1/2" = 1'-0"

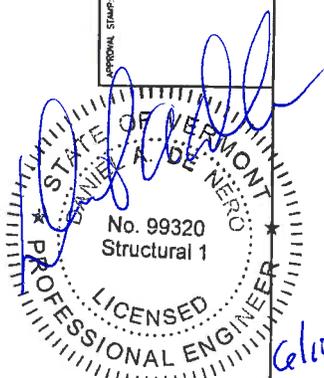
A ACUTE CORNER BLOCKOUT DETAIL
 NB3 (FOR FLANGE)
 1/2" = 1'-0"

J.P. CARRARA & SONS, INC.
 Precast & Products Manufacturer
 1000 W. COLLEGE AVENUE, SUITE 100
 FERRISBURGH, VERMONT 05753-1001
 SHULTZ CONSTRUCTION
 CONTRACTOR
 BULLHEARD ST., VT
 DATE: APR. 17, 2015
 SCALE: NOTED
 SHEET NO. 04-14-005
 JOB NO. 14-04-005
 PROJECT NO. 101-993-2(10)
 TOWN OF CASTLETON
 VY ROUTE 30 (RURAL/INDUS. ARTERIAL)
 BRIDGE NB-151
 PRESTRESSED NEXT BEAM DETAILS "CT-NB2"
 BEAM NO. NB3



SLIPUP NOTES:
 1. TOP BEAM REINFORCING IS SHOWN IN THE RIGHT OF THE CURB.
 2. SECONDARY PARTS ARE CAST AS SECONDARY PARTS.
 3. CURB DETAILS TO BE CAST AS A SECONDARY PART.

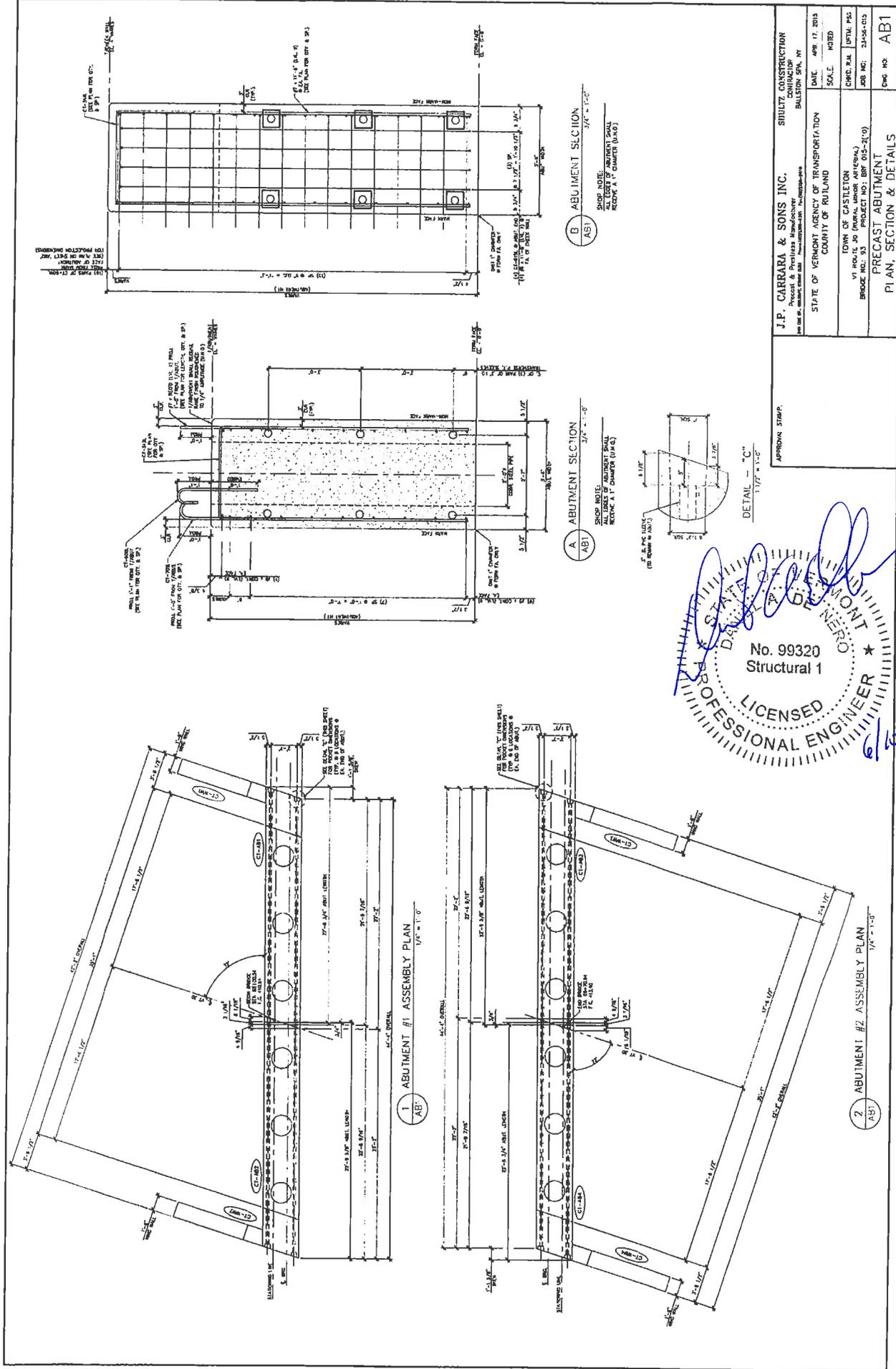
ITEM	MARK	DESCRIPTION	QTY.
1	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	24
2	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	10
3	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
4	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
5	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
6	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
7	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
8	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
9	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
10	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
11	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
12	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
13	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
14	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
15	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
16	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
17	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
18	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
19	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
20	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
21	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
22	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
23	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
24	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
25	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
26	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
27	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
28	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
29	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
30	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
31	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
32	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
33	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
34	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
35	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
36	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
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44	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
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49	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
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51	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
52	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
53	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
54	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
55	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
56	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
57	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
58	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
59	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
60	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
61	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
62	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
63	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
64	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
65	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
66	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
67	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
68	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
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72	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
73	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
74	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
75	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
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79	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
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81	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
82	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
83	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
84	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
85	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
86	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
87	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
88	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
89	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
90	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
91	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
92	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
93	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
94	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
95	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
96	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
97	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
98	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
99	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4
100	C1-100	#1 BENT BAR (DOWN & BEND DOWN)	4



B ACUTE CORNER BLOCKOUT DETAIL
 NB3 (FOR STEM)
 1/2" = 1'-0"

A ACUTE CORNER BLOCKOUT DETAIL
 NB4 (FOR FLANGE)
 1/2" = 1'-0"

J.P. CARRARA & SONS INC.
 Structural Manufacturer
 1000 W. COLLETT AVENUE
 RUTLAND, VERMONT 05701
 STATE OF VERMONT AGENCY OF TRANSPORTATION
 COUNTY OF RUTLAND
 SCALE: NOTED
 DATE: APR. 17, 2018
 PROJECT NO. 1811-1(0)
 BRIDGE NO. 83
 JOB NO. 33456-013
 SHEET NO. NB4
 PRESTRESSED NEXT BEAM DETAILS "CT-NB3"



100% PROTECTION DIMENSIONS

B ABUTMENT SECTION
 3/4" = 1'-0"

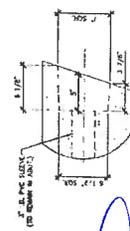
A ABUTMENT SECTION
 3/4" = 1'-0"

1 ABUTMENT #1 ASSEMBLY PLAN
 1/4" = 1'-0"

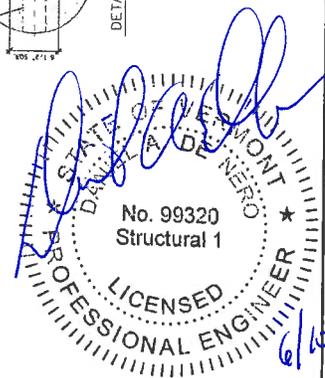
2 ABUTMENT #2 ASSEMBLY PLAN
 1/4" = 1'-0"

SHOP NOTE:
 ALL DIMENSIONS OF ABUTMENT SHALL
 BE TO FACE UNLESS OTHERWISE NOTED

SHOP NOTE:
 ALL DIMENSIONS OF ABUTMENT SHALL
 BE TO FACE UNLESS OTHERWISE NOTED



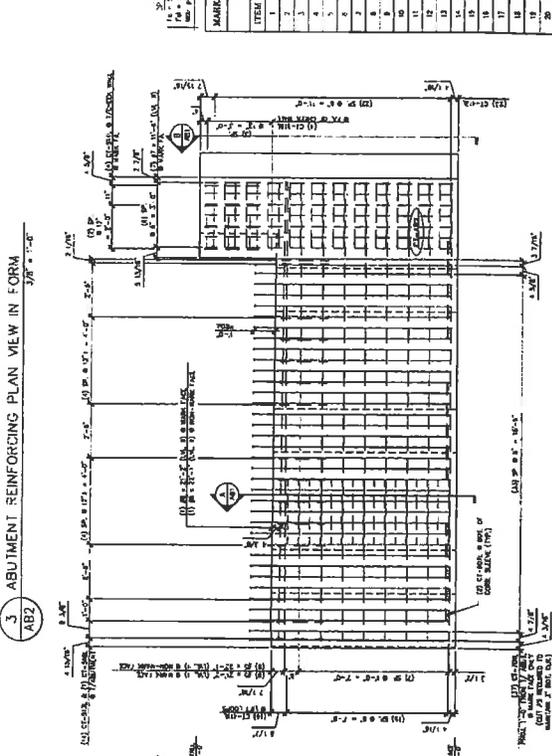
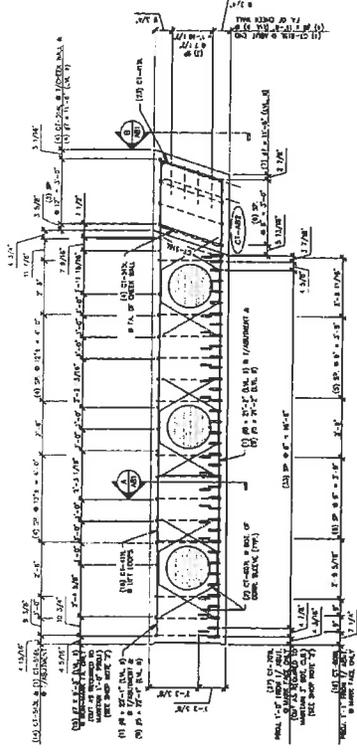
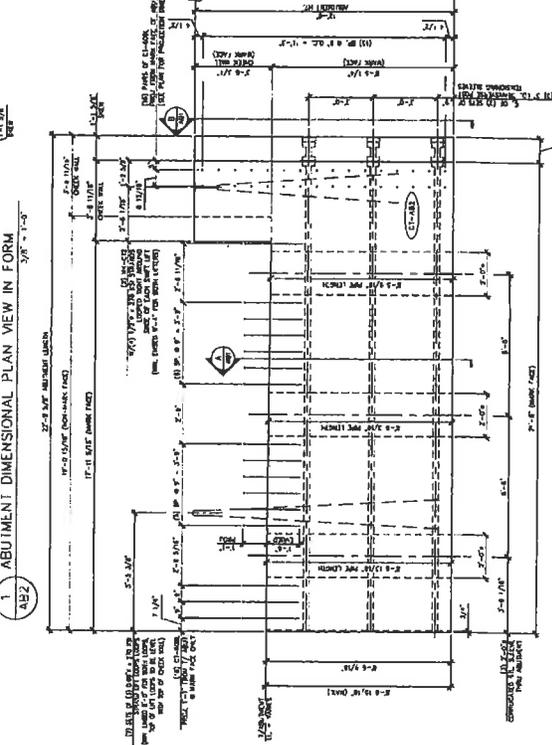
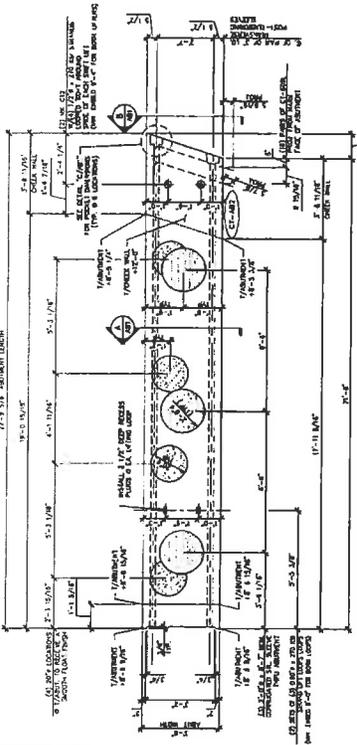
DETAIL - "C"
 1/16" = 1'-0"



6/6/15

J.P. CARRARA & SONS INC. Precast & Prestress Manufacturer 1000 W. Main Street, Rutland, VT 05701-1000		SHULTZ CONSTRUCTION CONTRACTOR BULLSTON ST., VT	
DATE: APR. 17, 2015		SCALE: NOTED	NOTED
PROJECT: STATE OF VERMONT AGENCY OF TRANSPORTATION COUNTY OF RUTLAND		CHECKED BY: [Signature]	DATE: 04/17/15
DRAWN BY: [Signature]		APPROVED BY: [Signature]	DATE: 04/17/15
PROJECT NO.: 100-100-100		CONTRACT NO.: 100-100-100	CONTRACT NO.: 100-100-100
PROJECT NAME: PRECAST ABUTMENT		CONTRACT NAME: PRECAST ABUTMENT	CONTRACT NAME: PRECAST ABUTMENT
PROJECT LOCATION: [Location]		CONTRACT LOCATION: [Location]	CONTRACT LOCATION: [Location]
PROJECT NO.: 100-100-100		CONTRACT NO.: 100-100-100	CONTRACT NO.: 100-100-100
PROJECT NO.: 100-100-100		CONTRACT NO.: 100-100-100	CONTRACT NO.: 100-100-100

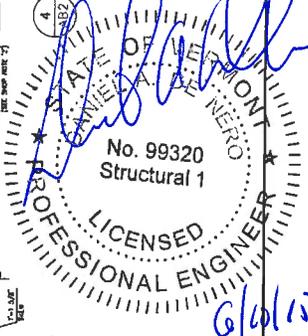
APPROVAL STAMP



3. NOTE
1. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE NOTED.

MARK: CT-AB2 QTY: 1 WT.: 45.94 T VOL.: 23.8 CF

ITEM	MARK	DESCRIPTION	QTY
1	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
2	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
3	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
4	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
5	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
6	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
7	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
8	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
9	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
10	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
11	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
12	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
13	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
14	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
15	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
16	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
17	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
18	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
19	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
20	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
21	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
22	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
23	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
24	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
25	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
26	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
27	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37
28	CT-AB2	17 8" x 18" BAR (ELEV. & DIM. DATA)	37



APPROVAL STAMP

J.P. CARRARA & SONS, INC.
Precast & Formwork Manufacturers
1000 N. 10TH ST. SUITE 100
BULLINGTON, MASS 01551
TEL: (508) 351-1100 FAX: (508) 351-1101

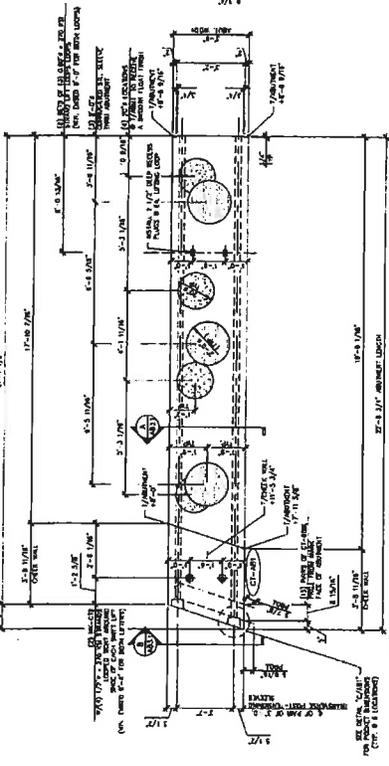
SRUETZ CONSTRUCTION
CONTRACTOR
BULLINGTON, MA, 01561

DATE: APR 17, 2015
SCALE: NOTED

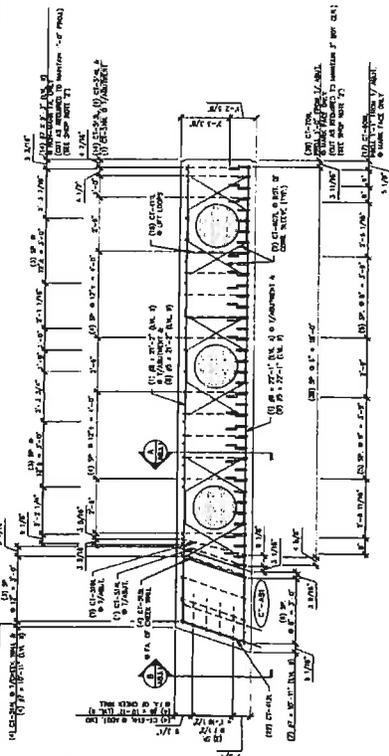
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF RUTLAND

TOWN OF CASTLETON
100 SOUTH ST. (BURNINGHAM BRIDGE)
BRIDGE NO. 13 PROJECT NO. 103-2(10)
APP. NO. 2008-215

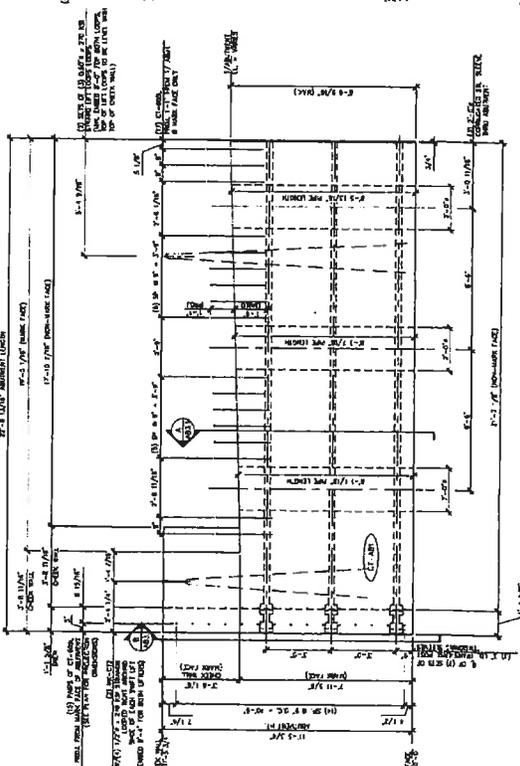
PRECAST ABUTMENT DETAILS "CT-AB2" DWG NO: AB2



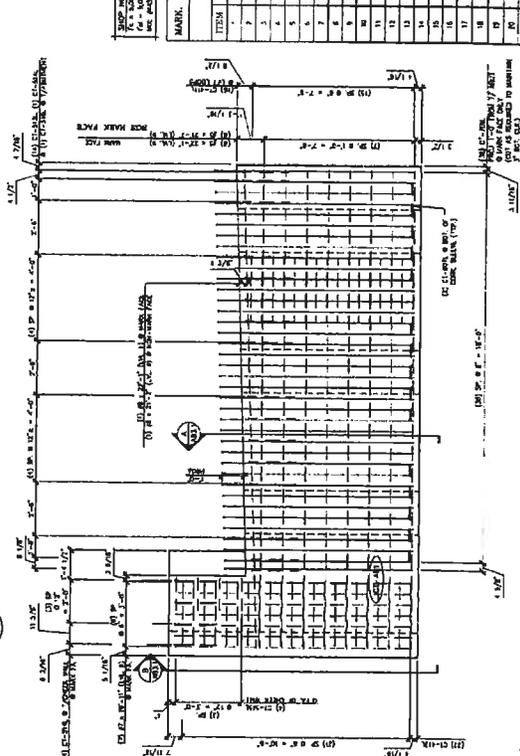
1 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
 3/8" = 1'-0"



3 ABUTMENT REINFORCING PLAN VIEW IN FORM
 3/8" = 1'-0"



2 ABUTMENT DIMENSIONAL MARK FACE ELEVATION
 3/8" = 1'-0"



4 ABUTMENT REINFORCING MARK FACE ELEVATION
 3/8" = 1'-0"

NOTE: ALL REINFORCEMENT SHALL BE PLACED IN THE CENTER OF THE MEMBER UNLESS OTHERWISE NOTED.

NOTE: ALL REINFORCEMENT SHALL BE PLACED IN THE CENTER OF THE MEMBER UNLESS OTHERWISE NOTED.

MARK: CT-AB1 QTY: 1 WT: 45,348 T VOL: 22.39 CY

ITEM	MARK	DESCRIPTION	QTY
1	CT-AB1	CONCRETE	22.39
2	CT-AB1	REINFORCING BARS	45.348
3	CT-AB1	FORMWORK	...
4	CT-AB1	...	...
5	CT-AB1	...	...
6	CT-AB1	...	...
7	CT-AB1	...	...
8	CT-AB1	...	...
9	CT-AB1	...	...
10	CT-AB1	...	...
11	CT-AB1	...	...
12	CT-AB1	...	...
13	CT-AB1	...	...
14	CT-AB1	...	...
15	CT-AB1	...	...
16	CT-AB1	...	...
17	CT-AB1	...	...
18	CT-AB1	...	...
19	CT-AB1	...	...
20	CT-AB1	...	...
21	CT-AB1	...	...
22	CT-AB1	...	...
23	CT-AB1	...	...
24	CT-AB1	...	...
25	CT-AB1	...	...
26	CT-AB1	...	...
27	CT-AB1	...	...
28	CT-AB1	...	...
29	CT-AB1	...	...
30	CT-AB1	...	...

APPROVAL STAMP:

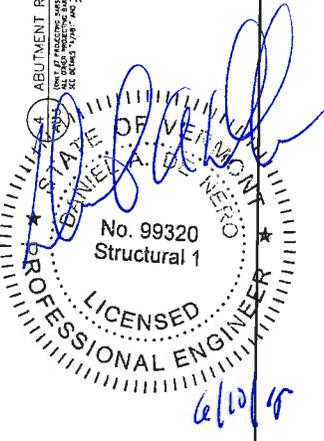
J.P. CARRARA & SONS INC.
 Precast & Prefabricated Construction
 100 West 10th Street, Suite 100, Burlington, VT 05401

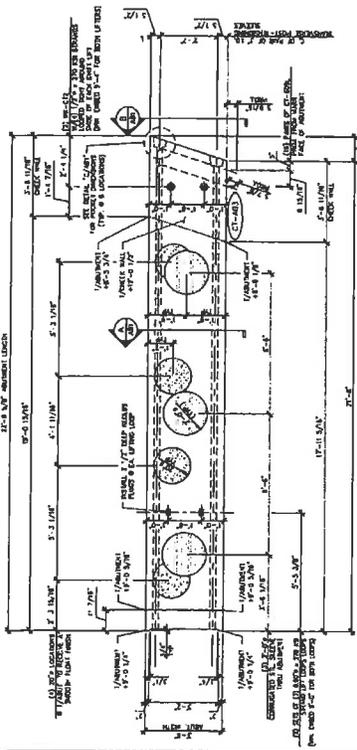
SHULZ CONSTRUCTION
 100 West 10th Street, Suite 100, Burlington, VT 05401

STATE OF VERMONT AGENCY OF TRANSPORTATION
 COUNTY OF RUTLAND

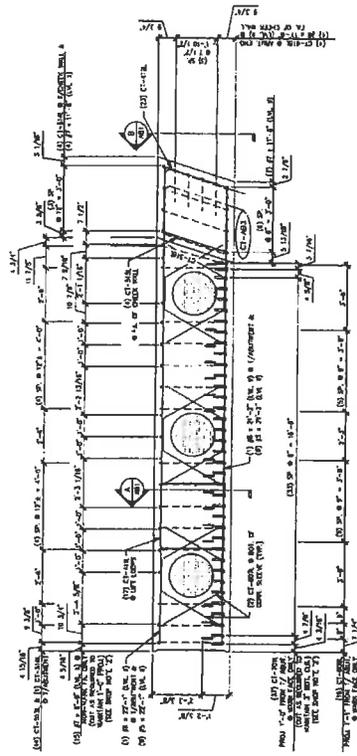
TOWN OF CASTLETON
 VT ROUTE 30 (RURAL HIGHWAY 401/40A)
 BRIDGE NO. 83 PROJECT NO. BR7 015-2(10)

DATE: APR 17, 2010
 SCALE: NOTED
 CHECKED BY: J.P. CARROLL
 JOB NO.: JPC-08-015
 PRECAST ABUTMENT DETAILS "CT-AB1"
 SHEET NO. AB3

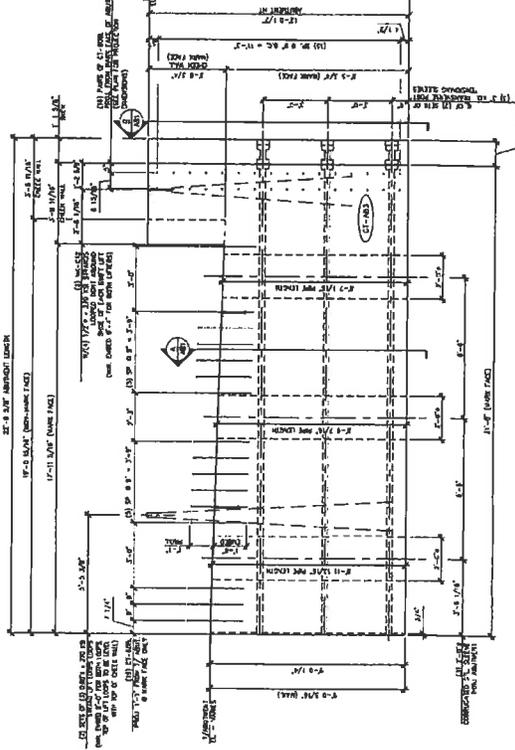




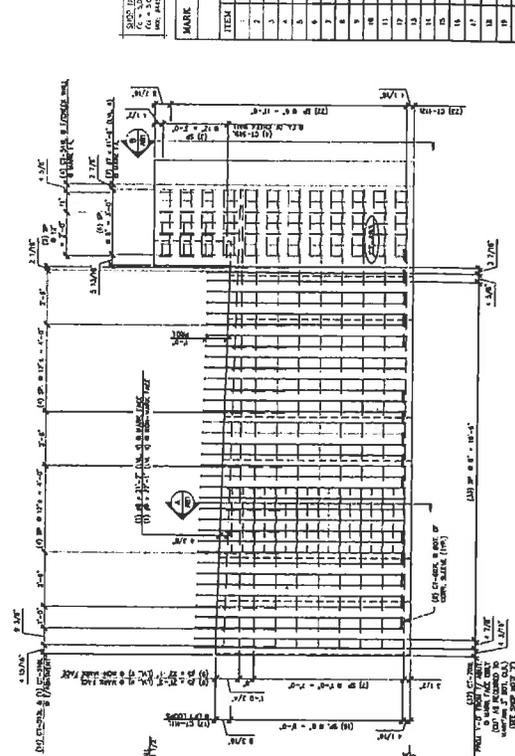
1 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" = 1'-0"



3 ABUTMENT REINFORCING PLAN VIEW IN FORM
3/8" = 1'-0"



2 ABUTMENT DIMENSIONAL MARK FACE ELEVATION
3/8" = 1'-0"



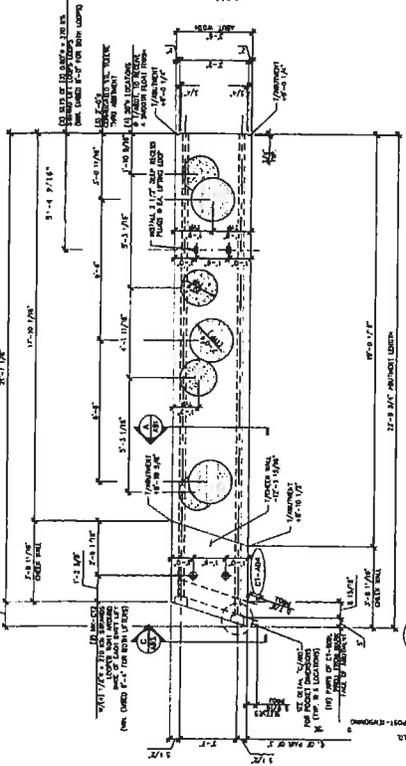
4 ABUTMENT REINFORCING MARK FACE ELEVATION
3/8" = 1'-0"

NOTE: 1. ALL REINFORCEMENT SHALL BE PLACED AS SHOWN ON THIS DRAWING. 2. ALL REINFORCEMENT SHALL BE PLACED AS SHOWN ON THIS DRAWING. 3. ALL REINFORCEMENT SHALL BE PLACED AS SHOWN ON THIS DRAWING.

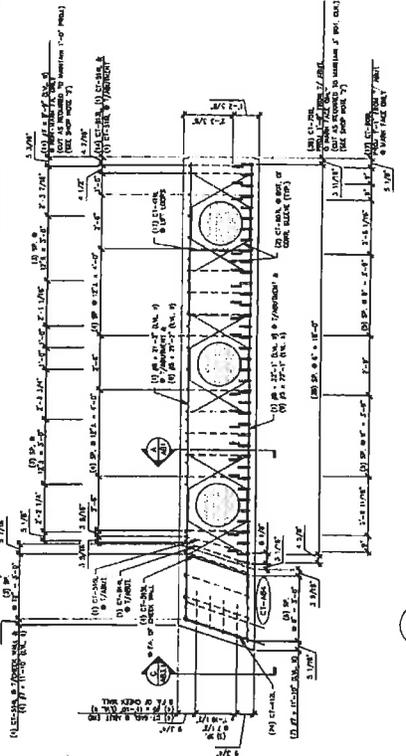
MARK	CT	AB3	QTY.	WT.	48.10 T	WT.	23.75 CY
1	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
2	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
3	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
4	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
5	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
6	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
7	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
8	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
9	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
10	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
11	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
12	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
13	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
14	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
15	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
16	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
17	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
18	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
19	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
20	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
21	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
22	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
23	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
24	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
25	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
26	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
27	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
28	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
29	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
30	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
31	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
32	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
33	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
34	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
35	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
36	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
37	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
38	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
39	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
40	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
41	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
42	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
43	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
44	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
45	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
46	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
47	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
48	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
49	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
50	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
51	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
52	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
53	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
54	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
55	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
56	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
57	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
58	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
59	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
60	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
61	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
62	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
63	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
64	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
65	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
66	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
67	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
68	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
69	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100
70	CT-100	# 4000 BAR (S&L & S&L)	1	100	100	100	100

J.P. CARRARA & SONS INC.
Precast & Concrete Manufacturer
1000 State Street, Montpelier, Vermont 05602
SHULTZ CONSTRUCTION
BALLSTON SPA, VT
DATE: APR 17, 2015
SCALE: NOTED
SHEET NO. 01 OF 015
PROJECT NO. 015-2(10)
JOB NO. 2454-015
PRECAST ABUTMENT DETAILS
DWG. NO. AB4

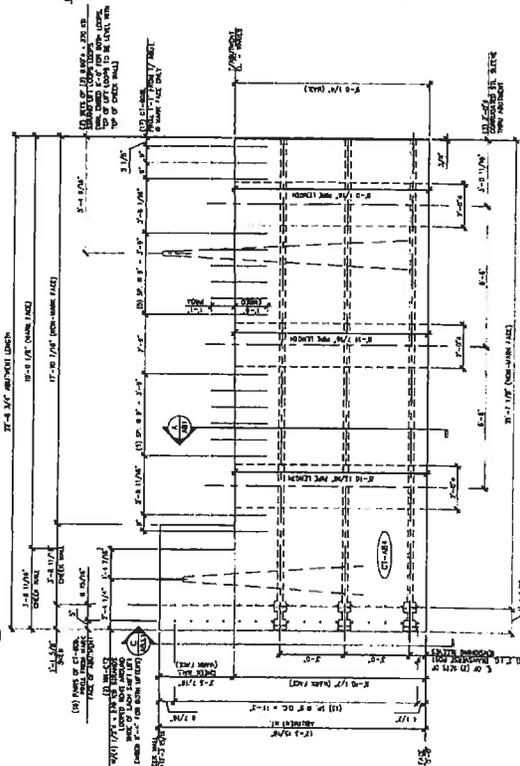




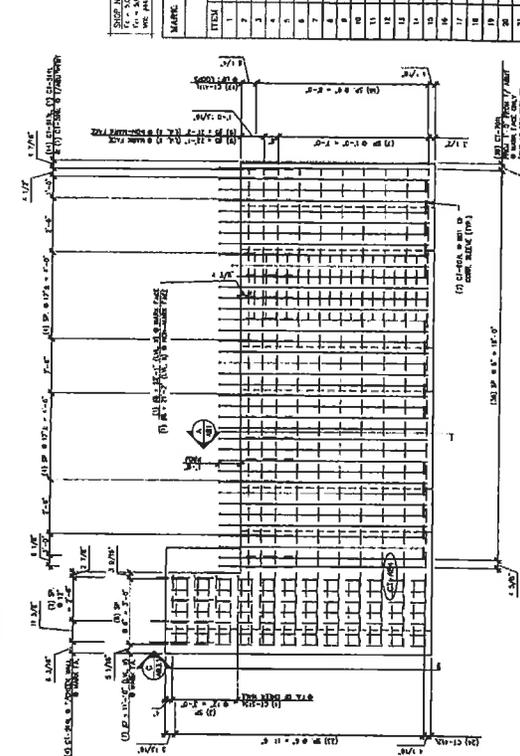
1 ABUTMENT DIMENSIONAL PLAN VIEW IN FORM
3/8" = 1'-0"



3 ABUTMENT REINFORCING PLAN VIEW IN FORM
3/8" = 1'-0"



2 ABUTMENT DIMENSIONAL MARK FACE ELEVATION
3/8" = 1'-0"



4 ABUTMENT REINFORCING MARK FACE ELEVATION
3/8" = 1'-0"

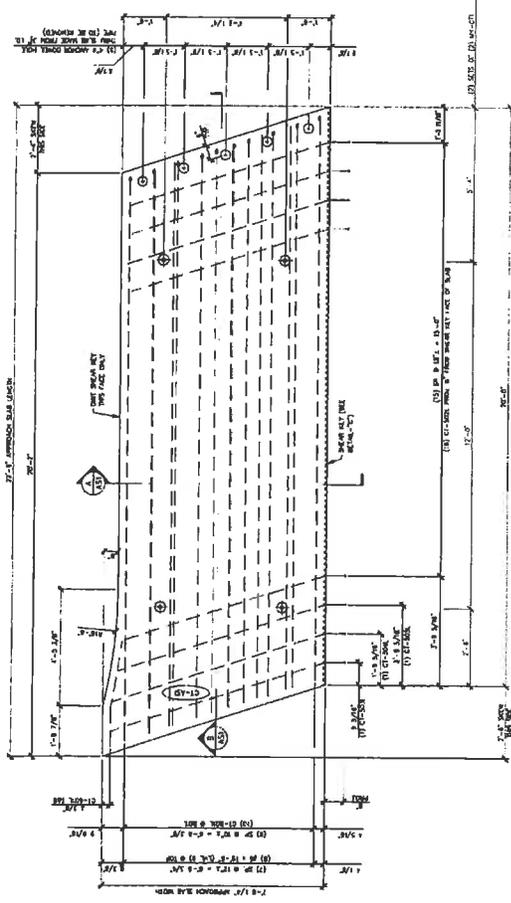
SLIP NOTES:
1. ALL BARS OF ABUTMENT SHALL BE 1" DIA. UNLESS OTHERWISE NOTED.
2. ALL BARS OF ABUTMENT SHALL BE 1" DIA. UNLESS OTHERWISE NOTED.
3. ALL BARS OF ABUTMENT SHALL BE 1" DIA. UNLESS OTHERWISE NOTED.
4. ALL BARS OF ABUTMENT SHALL BE 1" DIA. UNLESS OTHERWISE NOTED.

MARK: CT-AB4 QTY: 1 WT: 49.05 I VOL: 24.22 C7

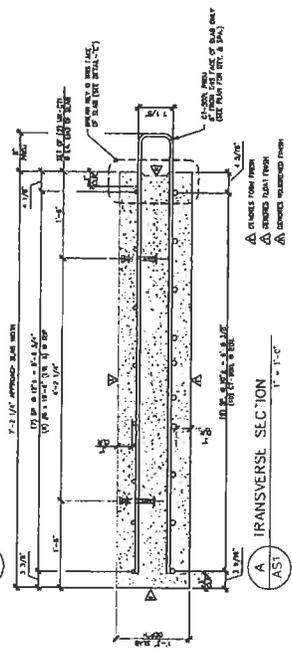
ITEM	MARK	DESCRIPTION	QTY.
1	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
2	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
3	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
4	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
5	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
6	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
7	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
8	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
9	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
10	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
11	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
12	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
13	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
14	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
15	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
16	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
17	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
18	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
19	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
20	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
21	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
22	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
23	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
24	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
25	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
26	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
27	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1
28	CT-AB4	1" DIA. BAR (CONC. & BALK. COATED)	1

APPROVAL STAMP:
J.P. CARRARA & SONS INC.
Precast & Posttension Manufacturer
1000 W. 10th Street, Burlington, VT 05401
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF RUTLAND
TOWN OF CASTLETON
VT ROUTE 30 (Rt. 100A)
BRIDGE NO. 93 PROJECT NO. RPT 015-2(10)
DATE: APR 17, 2015
SCALE: NOTED
DWD: RJA
JOB NO: 23154-015
DWG. NO: ABS

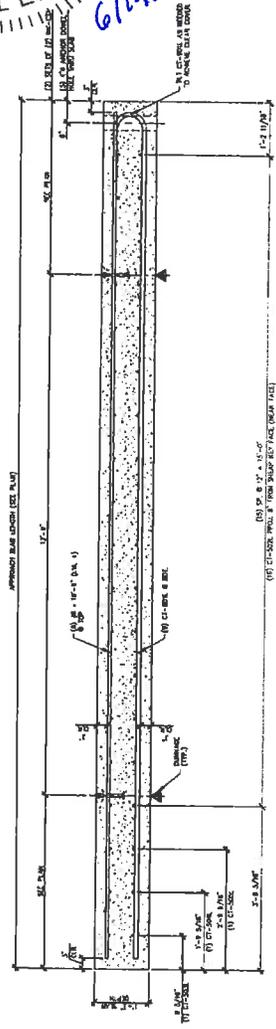




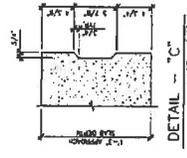
1. APPROACH SLAB PLAN VIEW IN FORM
 1/2" = 1'-0"



A. TRANSVERSE SECTION
 1" = 1'-0"



B. LONGITUDINAL SECTION
 3/4" = 1'-0"

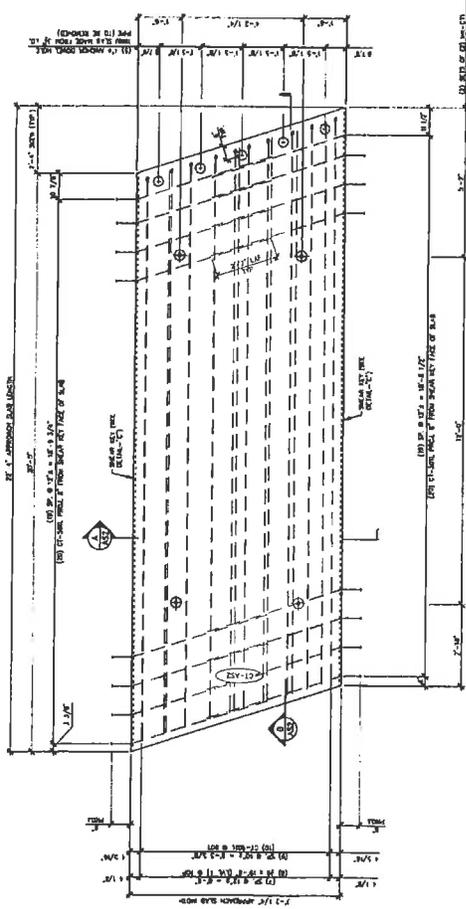


DETAIL - "C"
 1 1/2" = 1'-0"

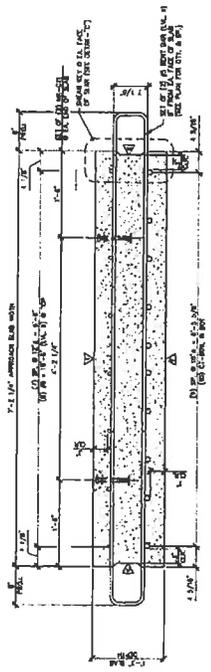


ITEM	MARK	DESCRIPTION	QTY.	CT. ASI
1	CT-AS1	APPROACH SLAB	13.62	7
2	CT-AS1	APPROACH CURB	1.00	1
3	CT-AS1	APPROACH GUTTER	1.00	1
4	CT-AS1	APPROACH SIDEWALK	1.00	1
5	CT-AS1	APPROACH DRIVE	1.00	1
6	CT-AS1	APPROACH DRIVE	1.00	1
7	CT-AS1	APPROACH DRIVE	1.00	1
8	CT-AS1	APPROACH DRIVE	1.00	1
9	CT-AS1	APPROACH DRIVE	1.00	1
10	CT-AS1	APPROACH DRIVE	1.00	1
11	CT-AS1	APPROACH DRIVE	1.00	1
12	CT-AS1	APPROACH DRIVE	1.00	1
13	CT-AS1	APPROACH DRIVE	1.00	1
14	CT-AS1	APPROACH DRIVE	1.00	1
15	CT-AS1	APPROACH DRIVE	1.00	1
16	CT-AS1	APPROACH DRIVE	1.00	1
17	CT-AS1	APPROACH DRIVE	1.00	1
18	CT-AS1	APPROACH DRIVE	1.00	1
19	CT-AS1	APPROACH DRIVE	1.00	1
20	CT-AS1	APPROACH DRIVE	1.00	1
21	CT-AS1	APPROACH DRIVE	1.00	1
22	CT-AS1	APPROACH DRIVE	1.00	1
23	CT-AS1	APPROACH DRIVE	1.00	1
24	CT-AS1	APPROACH DRIVE	1.00	1
25	CT-AS1	APPROACH DRIVE	1.00	1
26	CT-AS1	APPROACH DRIVE	1.00	1
27	CT-AS1	APPROACH DRIVE	1.00	1
28	CT-AS1	APPROACH DRIVE	1.00	1
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30	CT-AS1	APPROACH DRIVE	1.00	1
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36	CT-AS1	APPROACH DRIVE	1.00	1
37	CT-AS1	APPROACH DRIVE	1.00	1
38	CT-AS1	APPROACH DRIVE	1.00	1
39	CT-AS1	APPROACH DRIVE	1.00	1
40	CT-AS1	APPROACH DRIVE	1.00	1
41	CT-AS1	APPROACH DRIVE	1.00	1
42	CT-AS1	APPROACH DRIVE	1.00	1
43	CT-AS1	APPROACH DRIVE	1.00	1
44	CT-AS1	APPROACH DRIVE	1.00	1
45	CT-AS1	APPROACH DRIVE	1.00	1
46	CT-AS1	APPROACH DRIVE	1.00	1
47	CT-AS1	APPROACH DRIVE	1.00	1
48	CT-AS1	APPROACH DRIVE	1.00	1
49	CT-AS1	APPROACH DRIVE	1.00	1
50	CT-AS1	APPROACH DRIVE	1.00	1
51	CT-AS1	APPROACH DRIVE	1.00	1
52	CT-AS1	APPROACH DRIVE	1.00	1
53	CT-AS1	APPROACH DRIVE	1.00	1
54	CT-AS1	APPROACH DRIVE	1.00	1
55	CT-AS1	APPROACH DRIVE	1.00	1
56	CT-AS1	APPROACH DRIVE	1.00	1
57	CT-AS1	APPROACH DRIVE	1.00	1
58	CT-AS1	APPROACH DRIVE	1.00	1
59	CT-AS1	APPROACH DRIVE	1.00	1
60	CT-AS1	APPROACH DRIVE	1.00	1
61	CT-AS1	APPROACH DRIVE	1.00	1
62	CT-AS1	APPROACH DRIVE	1.00	1
63	CT-AS1	APPROACH DRIVE	1.00	1
64	CT-AS1	APPROACH DRIVE	1.00	1
65	CT-AS1	APPROACH DRIVE	1.00	1
66	CT-AS1	APPROACH DRIVE	1.00	1
67	CT-AS1	APPROACH DRIVE	1.00	1
68	CT-AS1	APPROACH DRIVE	1.00	1
69	CT-AS1	APPROACH DRIVE	1.00	1
70	CT-AS1	APPROACH DRIVE	1.00	1
71	CT-AS1	APPROACH DRIVE	1.00	1
72	CT-AS1	APPROACH DRIVE	1.00	1
73	CT-AS1	APPROACH DRIVE	1.00	1
74	CT-AS1	APPROACH DRIVE	1.00	1
75	CT-AS1	APPROACH DRIVE	1.00	1
76	CT-AS1	APPROACH DRIVE	1.00	1
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83	CT-AS1	APPROACH DRIVE	1.00	1
84	CT-AS1	APPROACH DRIVE	1.00	1
85	CT-AS1	APPROACH DRIVE	1.00	1
86	CT-AS1	APPROACH DRIVE	1.00	1
87	CT-AS1	APPROACH DRIVE	1.00	1
88	CT-AS1	APPROACH DRIVE	1.00	1
89	CT-AS1	APPROACH DRIVE	1.00	1
90	CT-AS1	APPROACH DRIVE	1.00	1
91	CT-AS1	APPROACH DRIVE	1.00	1
92	CT-AS1	APPROACH DRIVE	1.00	1
93	CT-AS1	APPROACH DRIVE	1.00	1
94	CT-AS1	APPROACH DRIVE	1.00	1
95	CT-AS1	APPROACH DRIVE	1.00	1
96	CT-AS1	APPROACH DRIVE	1.00	1
97	CT-AS1	APPROACH DRIVE	1.00	1
98	CT-AS1	APPROACH DRIVE	1.00	1
99	CT-AS1	APPROACH DRIVE	1.00	1
100	CT-AS1	APPROACH DRIVE	1.00	1

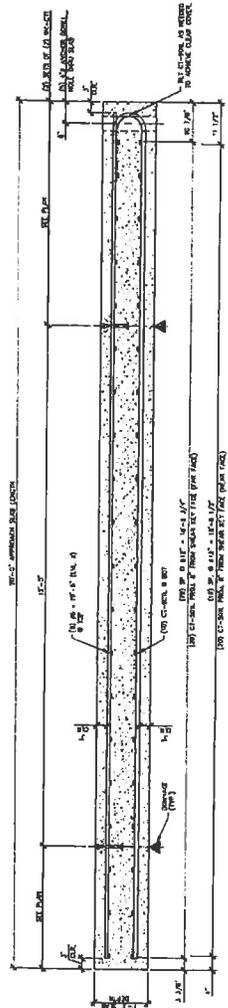
APPROVAL STAMP
 J.P. CARRARA & SONS INC.
 Precast & Prestress Manufacturer
 100 Industrial Park Drive
 Shelburne, Vermont 05488
 STATE OF VERMONT AGENCY OF TRANSPORTATION
 COUNTY OF RUTLAND
 TOWN OF CASTLETON
 VI ROUTE 30 (RURAL HIGHWAY MATERIAL)
 BRIDGE NO. 83
 PROJECT NO.: RPT 035-2(10)
 DATE: APR 16, 2015
 SCALE: HOTO
 SHEET NO.: 25436-015
 PRECAST APPROACH SLAB DETAILS "CT-AS1"



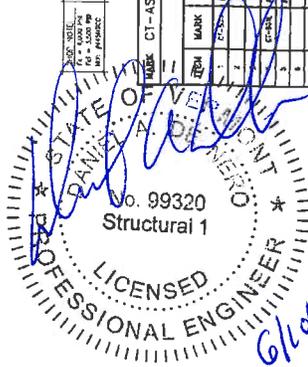
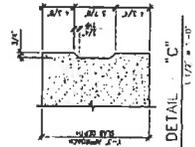
1 APPROACH SLAB PLAN VIEW IN FORM
AS2
1/2" = 1'-0"



A TRANSVERSE SECTION
AS2
1" = 1'-0"



B LONGITUDINAL SECTION
AS2
3/4" = 1'-0"



MARK	QTY	WT.	VOL.	WT.	VOL.
CT-AS2	2	13.48 T	5.65 CY		

ITEM	MARK	DESCRIPTION	QTY
1	CT-AS2	2" REIN BAR (10% & 20% QUANT)	49
2	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10
3	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10
4	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10
5	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10
6	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10
7	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10
8	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10
9	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10
10	CT-AS2	2" REIN BAR (10% & 20% QUANT)	10

APPROVAL STAMP

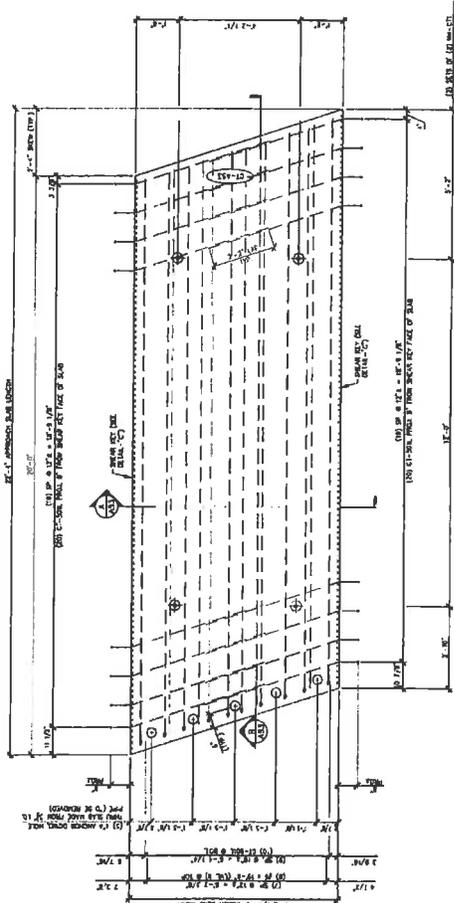
J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturers
1000 State Street, Rutland, Vermont 05701

STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF RUTLAND

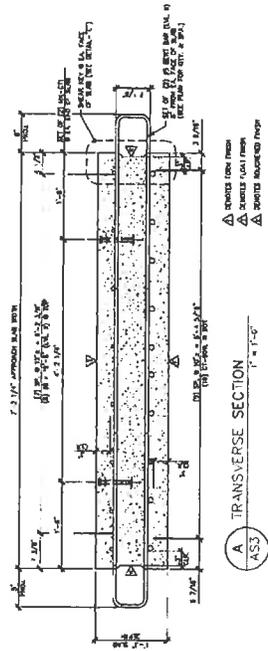
TOWN OF CASTLETON
VI ROUTE 30 (RURAL UNDER ARTISAN)
PROJECT NO.: BRP 013-2100

DATE: APR 11, 2015
SCALE: 1/2" = 1'-0"
DRAWN BY: JPM/PS
JOB NO.: 23456-015
DWG. NO.: AS2

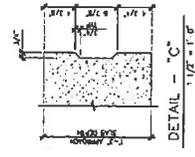
SHUTZ CONSTRUCTION
CONTRACTOR
BALDWIN ST., VT



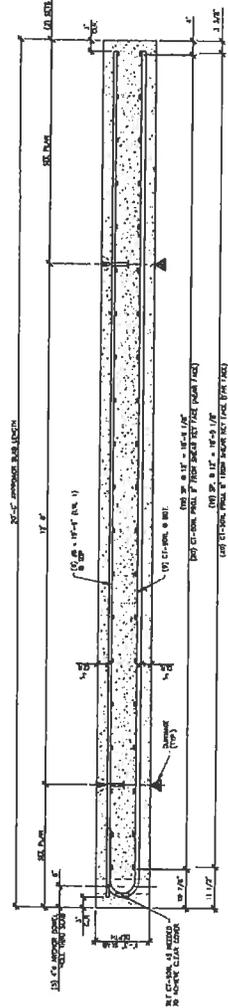
1 APPROACH SLAB PLAN VIEW IN FORM
AS3
1/8" = 1'-0"



A TRANSVERSE SECTION
AS3
1" = 1'-0"



DETAIL - "C"
1/8" = 1'-0"



B LONGITUDINAL SECTION
AS3
3/4" = 1'-0"



MATERIAL LIST / APPROACH SLAB			
ITEM	MARK	DESCRIPTION	QTY / SLAB
1	7'-0"	1" DIA. BAR (EAST & WEST)	40
2	7'-0"	1" DIA. BAR (NORTH & SOUTH)	40
3	7'-0"	1" DIA. BAR (EAST & WEST)	40
4	7'-0"	1" DIA. BAR (NORTH & SOUTH)	40
5	7'-0"	1" DIA. BAR (EAST & WEST)	40
6	7'-0"	1" DIA. BAR (NORTH & SOUTH)	40
7	7'-0"	1" DIA. BAR (EAST & WEST)	40
8	7'-0"	1" DIA. BAR (NORTH & SOUTH)	40
9	7'-0"	1" DIA. BAR (EAST & WEST)	40
10	7'-0"	1" DIA. BAR (NORTH & SOUTH)	40

APPROVAL STAMP:

J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturers
1000 E. Main Street, Suite 100, Ferrisburgh, VT 05752

SHULTZ CONSTRUCTION
1000 E. Main Street, Suite 100, Ferrisburgh, VT 05752

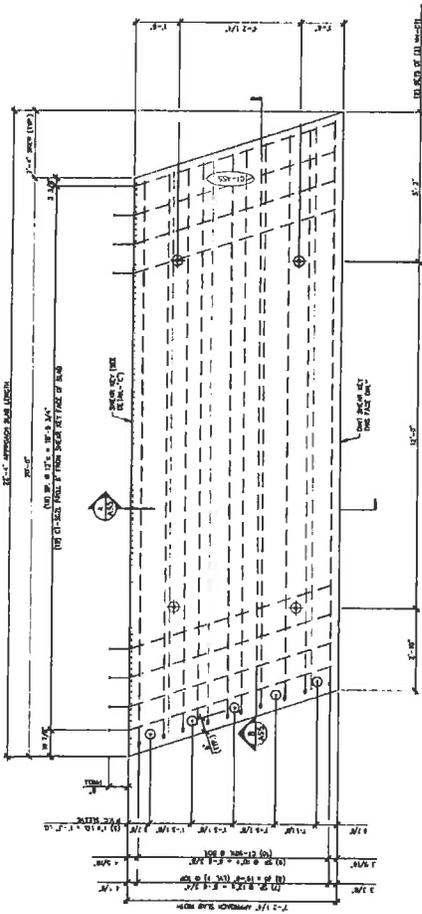
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF RUTLAND

TOWN OF CASTLETON
VT ROUTE 30 (RURAL UNDER ARRIVAL)

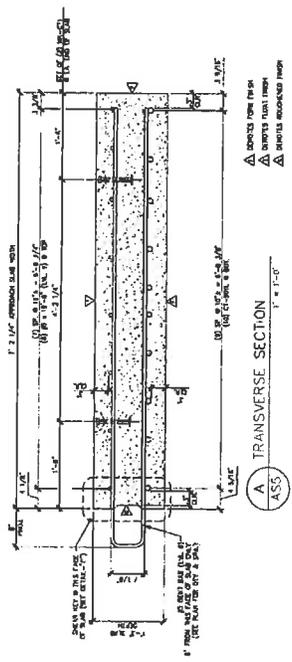
DATE: APR 16, 2018
SCALE: 1/8" = 1'-0"

PROJECT NO.: 93
JOB NO.: 23404-015
PROJECT NO.: BPT 015-2(10)

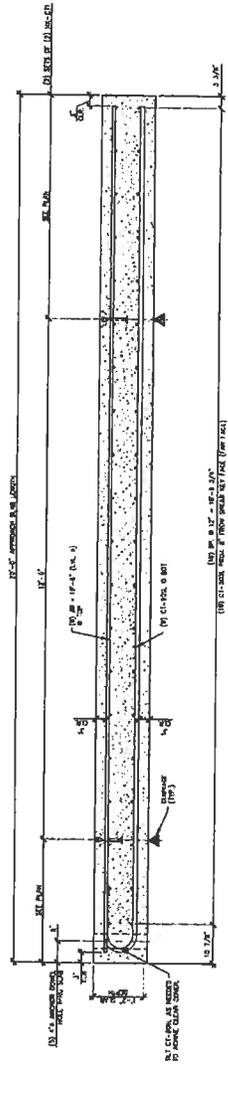
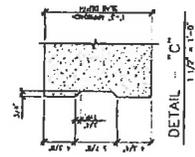
DWG. NO.: AS3



1. APPROACH SLAB PLAN VIEW IN FORM
1/8" = 1'-0"



A. TRANSVERSE SECTION
1/8" = 1'-0"



B. LONGITUDINAL SECTION
3/8" = 1'-0"



SHOP NOTE:
1. ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE.
2. ALL DIMENSIONS ARE TO FACE UNLESS NOTED OTHERWISE.

ITEM	MARK	DESCRIPTION	QTY
1	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
2	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
3	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
4	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
5	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
6	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
7	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
8	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
9	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1
10	CT-ASS	PRECAST CONCRETE APPROACH SLAB	1

APPROVAL STAMP:
J.P. CARRARA & SONS INC.
Precast & Prestress Manufacturers
1000 W. RUTLAND ST. RUTLAND, VT 05701

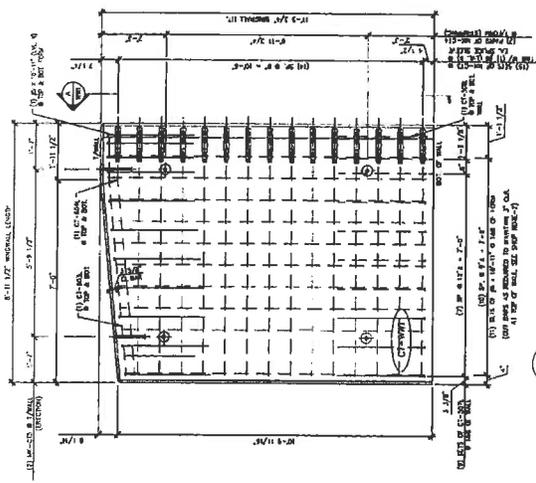
SHULTZ CONSTRUCTION
CONTRACTOR
BURLINGTON, VT, NY

DATE: APR. 16, 2010
SCALE: 1/8" = 1'-0"

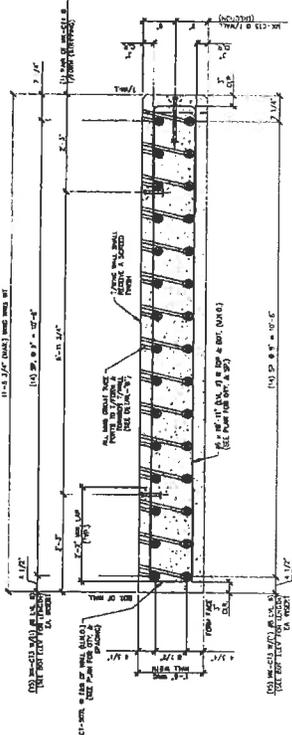
STATE OF VERMONT AGENCY OF TRANSPORTATION
COUNTY OF RUTLAND

TOWN OF CASTLETON
VI ROUTE 30 (RURAL ERROR ORIGINAL)
BRIDGE NO. 93 PROJECT NO: BRP 013-2(10)

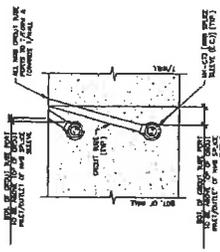
CONTRACT NO. 24106-015
JOB NO. 24106-015
DWG. NO. ASS



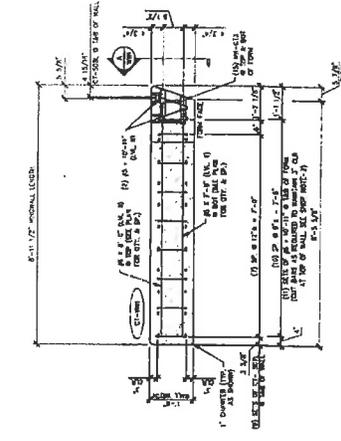
1 PLAN VIEW IN FORM
1/2" = 1'-0"



A WINGWALL ELEVATION
3/4" = 1'-0"



DETAIL - "B"
3/4" = 1'-0"

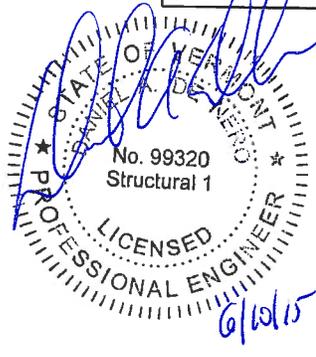


WING WALL BOTTOM ELEVATION
1/2" = 1'-0"

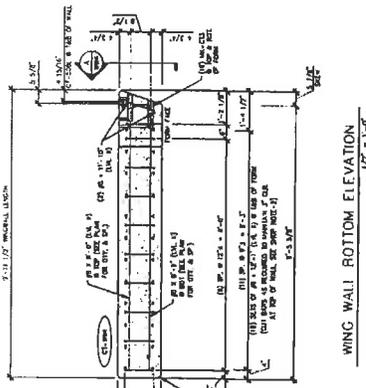
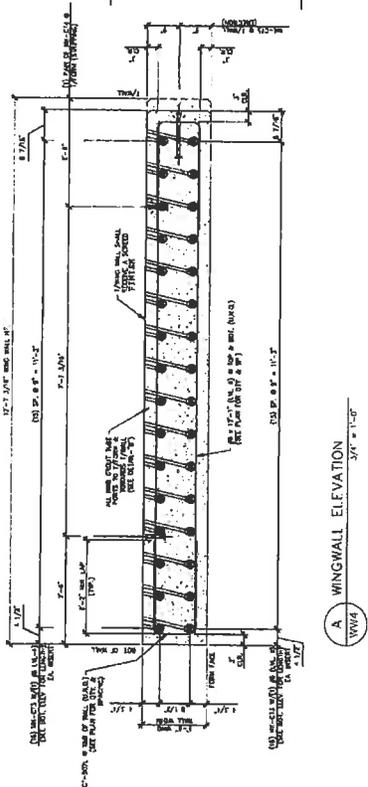
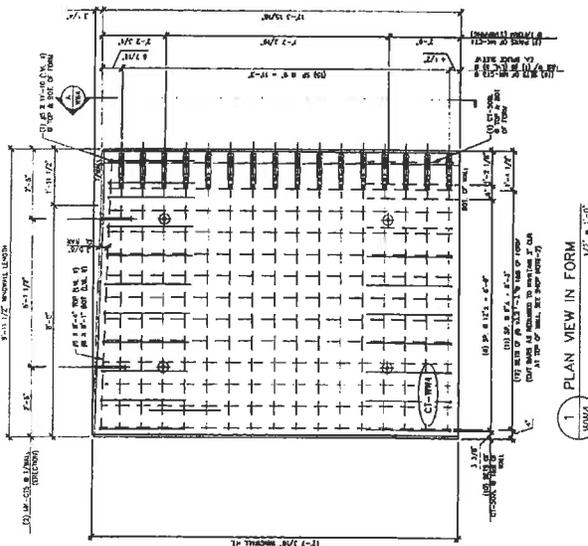
SHOULDER: 12" MIN. WING WALL. FORM FACE & FINISH FACE. SMALL REINFT. 1" CHAMFER (LAPERS NOTED OTHERWISE). ALL REINFT. TO BE COATED WITH TONGUE & GROOVE POLYURETHANE. THE REINFT. MANUFACTURER, THE REINFT. PRODUCT.

MARK: C1-WW1 | QTY.: 1 | WT.: 10.98 T | VOL.: 5.42 CY

ITEM	MARK	DESCRIPTION	QTY.
1	C1-WW1	CONCRETE WING WALL	1
2	C1-WW1	REINFT. BAR (1" DIA.)	10.98
3	C1-WW1	REINFT. BAR (1" DIA.)	10.98
4	C1-WW1	REINFT. BAR (1" DIA.)	10.98
5	C1-WW1	REINFT. BAR (1" DIA.)	10.98
6	C1-WW1	REINFT. BAR (1" DIA.)	10.98
7	C1-WW1	REINFT. BAR (1" DIA.)	10.98
8	C1-WW1	REINFT. BAR (1" DIA.)	10.98
9	C1-WW1	REINFT. BAR (1" DIA.)	10.98
10	C1-WW1	REINFT. BAR (1" DIA.)	10.98
11	C1-WW1	REINFT. BAR (1" DIA.)	10.98
12	C1-WW1	REINFT. BAR (1" DIA.)	10.98
13	C1-WW1	REINFT. BAR (1" DIA.)	10.98
14	C1-WW1	REINFT. BAR (1" DIA.)	10.98
15	C1-WW1	REINFT. BAR (1" DIA.)	10.98
16	C1-WW1	REINFT. BAR (1" DIA.)	10.98
17	C1-WW1	REINFT. BAR (1" DIA.)	10.98
18	C1-WW1	REINFT. BAR (1" DIA.)	10.98
19	C1-WW1	REINFT. BAR (1" DIA.)	10.98
20	C1-WW1	REINFT. BAR (1" DIA.)	10.98
21	C1-WW1	REINFT. BAR (1" DIA.)	10.98
22	C1-WW1	REINFT. BAR (1" DIA.)	10.98
23	C1-WW1	REINFT. BAR (1" DIA.)	10.98
24	C1-WW1	REINFT. BAR (1" DIA.)	10.98
25	C1-WW1	REINFT. BAR (1" DIA.)	10.98
26	C1-WW1	REINFT. BAR (1" DIA.)	10.98
27	C1-WW1	REINFT. BAR (1" DIA.)	10.98
28	C1-WW1	REINFT. BAR (1" DIA.)	10.98
29	C1-WW1	REINFT. BAR (1" DIA.)	10.98
30	C1-WW1	REINFT. BAR (1" DIA.)	10.98
31	C1-WW1	REINFT. BAR (1" DIA.)	10.98
32	C1-WW1	REINFT. BAR (1" DIA.)	10.98
33	C1-WW1	REINFT. BAR (1" DIA.)	10.98
34	C1-WW1	REINFT. BAR (1" DIA.)	10.98
35	C1-WW1	REINFT. BAR (1" DIA.)	10.98
36	C1-WW1	REINFT. BAR (1" DIA.)	10.98
37	C1-WW1	REINFT. BAR (1" DIA.)	10.98
38	C1-WW1	REINFT. BAR (1" DIA.)	10.98
39	C1-WW1	REINFT. BAR (1" DIA.)	10.98
40	C1-WW1	REINFT. BAR (1" DIA.)	10.98
41	C1-WW1	REINFT. BAR (1" DIA.)	10.98
42	C1-WW1	REINFT. BAR (1" DIA.)	10.98
43	C1-WW1	REINFT. BAR (1" DIA.)	10.98
44	C1-WW1	REINFT. BAR (1" DIA.)	10.98
45	C1-WW1	REINFT. BAR (1" DIA.)	10.98
46	C1-WW1	REINFT. BAR (1" DIA.)	10.98
47	C1-WW1	REINFT. BAR (1" DIA.)	10.98
48	C1-WW1	REINFT. BAR (1" DIA.)	10.98
49	C1-WW1	REINFT. BAR (1" DIA.)	10.98
50	C1-WW1	REINFT. BAR (1" DIA.)	10.98
51	C1-WW1	REINFT. BAR (1" DIA.)	10.98
52	C1-WW1	REINFT. BAR (1" DIA.)	10.98
53	C1-WW1	REINFT. BAR (1" DIA.)	10.98
54	C1-WW1	REINFT. BAR (1" DIA.)	10.98
55	C1-WW1	REINFT. BAR (1" DIA.)	10.98
56	C1-WW1	REINFT. BAR (1" DIA.)	10.98
57	C1-WW1	REINFT. BAR (1" DIA.)	10.98
58	C1-WW1	REINFT. BAR (1" DIA.)	10.98
59	C1-WW1	REINFT. BAR (1" DIA.)	10.98
60	C1-WW1	REINFT. BAR (1" DIA.)	10.98
61	C1-WW1	REINFT. BAR (1" DIA.)	10.98
62	C1-WW1	REINFT. BAR (1" DIA.)	10.98
63	C1-WW1	REINFT. BAR (1" DIA.)	10.98
64	C1-WW1	REINFT. BAR (1" DIA.)	10.98
65	C1-WW1	REINFT. BAR (1" DIA.)	10.98
66	C1-WW1	REINFT. BAR (1" DIA.)	10.98
67	C1-WW1	REINFT. BAR (1" DIA.)	10.98
68	C1-WW1	REINFT. BAR (1" DIA.)	10.98
69	C1-WW1	REINFT. BAR (1" DIA.)	10.98
70	C1-WW1	REINFT. BAR (1" DIA.)	10.98
71	C1-WW1	REINFT. BAR (1" DIA.)	10.98
72	C1-WW1	REINFT. BAR (1" DIA.)	10.98
73	C1-WW1	REINFT. BAR (1" DIA.)	10.98
74	C1-WW1	REINFT. BAR (1" DIA.)	10.98
75	C1-WW1	REINFT. BAR (1" DIA.)	10.98
76	C1-WW1	REINFT. BAR (1" DIA.)	10.98
77	C1-WW1	REINFT. BAR (1" DIA.)	10.98
78	C1-WW1	REINFT. BAR (1" DIA.)	10.98
79	C1-WW1	REINFT. BAR (1" DIA.)	10.98
80	C1-WW1	REINFT. BAR (1" DIA.)	10.98
81	C1-WW1	REINFT. BAR (1" DIA.)	10.98
82	C1-WW1	REINFT. BAR (1" DIA.)	10.98
83	C1-WW1	REINFT. BAR (1" DIA.)	10.98
84	C1-WW1	REINFT. BAR (1" DIA.)	10.98
85	C1-WW1	REINFT. BAR (1" DIA.)	10.98
86	C1-WW1	REINFT. BAR (1" DIA.)	10.98
87	C1-WW1	REINFT. BAR (1" DIA.)	10.98
88	C1-WW1	REINFT. BAR (1" DIA.)	10.98
89	C1-WW1	REINFT. BAR (1" DIA.)	10.98
90	C1-WW1	REINFT. BAR (1" DIA.)	10.98
91	C1-WW1	REINFT. BAR (1" DIA.)	10.98
92	C1-WW1	REINFT. BAR (1" DIA.)	10.98
93	C1-WW1	REINFT. BAR (1" DIA.)	10.98
94	C1-WW1	REINFT. BAR (1" DIA.)	10.98
95	C1-WW1	REINFT. BAR (1" DIA.)	10.98
96	C1-WW1	REINFT. BAR (1" DIA.)	10.98
97	C1-WW1	REINFT. BAR (1" DIA.)	10.98
98	C1-WW1	REINFT. BAR (1" DIA.)	10.98
99	C1-WW1	REINFT. BAR (1" DIA.)	10.98
100	C1-WW1	REINFT. BAR (1" DIA.)	10.98



APPROVAL STAMP:
J.P. CARRARA & SONS INC.
 Precast & Prestress Manufacturer
 1000 W. Rte. 100, Colchester, VT 05445
 SHULTZ CONSTRUCTION CONSULTING
 BALDWIN, VT, VT
 STATE OF VERMONT AGENCY OF TRANSPORTATION
 COUNTY OF RUTLAND
 DATE: APR 18, 2015
 SCALE: NOTED
 TOWN OF CASTLETON
 VT ROUTE 10 (RURAL BARRK ARTERIAL)
 BRIDGE NO. 93 PROJECT NO. DR1 015-2(10)
 JOB NO. 2456-015
 PRECAST WINGWALL DETAILS "C1-WW1"
 DWG NO. WW1

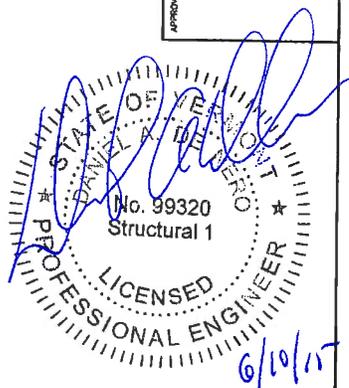


MARK: CI-WW4 QTY: 1 FT. 13.59 I VOL. 6.71 CY

ITEM MARK DESCRIPTION QTY.

1. C1-WW4 (1) 13.59 I (1) 6.71 CY
2. C1-WW4 (1) 13.59 I (1) 6.71 CY
3. C1-WW4 (1) 13.59 I (1) 6.71 CY
4. C1-WW4 (1) 13.59 I (1) 6.71 CY
5. C1-WW4 (1) 13.59 I (1) 6.71 CY
6. C1-WW4 (1) 13.59 I (1) 6.71 CY
7. C1-WW4 (1) 13.59 I (1) 6.71 CY
8. C1-WW4 (1) 13.59 I (1) 6.71 CY
9. C1-WW4 (1) 13.59 I (1) 6.71 CY
10. C1-WW4 (1) 13.59 I (1) 6.71 CY
11. C1-WW4 (1) 13.59 I (1) 6.71 CY
12. C1-WW4 (1) 13.59 I (1) 6.71 CY
13. C1-WW4 (1) 13.59 I (1) 6.71 CY
14. C1-WW4 (1) 13.59 I (1) 6.71 CY
15. C1-WW4 (1) 13.59 I (1) 6.71 CY

SHOULDER NOTES:
 1. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 2. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 3. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 4. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 5. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 6. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 7. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 8. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 9. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)
 10. ALL REINFORCING BARS TO BE 1/2" DIA. (A603)



APPROVAL STAMP

J.P. CARRARA & SONS INC.
 Precast & Prestress Manufacturer
 1000 W. VERMONT AVENUE
 BURLINGTON, VT 05401-1000

SHULTZ CONSTRUCTION
 CONTRACTOR
 BURLINGTON, VT 05401-1000

DATE: APR. 16, 2015
 SCALE: NOTED

STATE OF VERMONT AGENCY OF TRANSPORTATION
 COUNTY OF RUTLAND

TOWN OF CASTLETON (RURAL)
 VI ROUTE 30
 PROJECT NO.: BRP 013-1(10)

DWG. P.K. DT/ML/PMS
 JOB NO. 2445C-05
 DWG. NO. WW4