



CONSTRUCTION LEADERS

LETTER OF TRANSMITTAL	
DATE: <b>June 15, 2015</b>	PCL JOB NO: <b>5515002</b>
ATTN: <b>Chris Barker</b>	TRANSMITTAL NO: <b>077</b>

To: **State of Vermont Agency of Transportation**  
 One National Life Drive  
 Montpelier, VT 05633-5001  
 (802) 828-0053

Re: Hartford Lateral Slide  
 Project No.: IM 091-2(79)  
 Contract ID.: 12A132

County: Windsor PCL FILE NO: 5515002-044.2

WE ARE SENDING  Attached  Under separate cover via   **Email & SP**   the following:  
 Shop drawings  Prints  Plans  Samples  Specifications  
 Copy of Letter  Change Order  Other

COPIES	SPEC.	REVISION	DESCRIPTION
<b>1</b>	<b>Spec. Prov. #109</b>	<b>2</b>	<b>Contractor-Fabricated Pre-Cast Concrete Structures</b>

TRANSMITTED for as checked below:

For approval  Approved as submitted  Resubmit   **1**   Copies for approval  
 For your use  Approved as noted  Submit  Copies for distribution  
 As requested  Returned for corrections  Return  Corrected prints  
 For review and comment

**Remarks:**

The included sheets have been revised per discussions from last Thursdays (6/11/15) owners meeting.

Please return an email of this approved submittal to Erich Heymann ([ewheymann@pcl.com](mailto:ewheymann@pcl.com)) and Jeremy Mackling ([imackling@pcl.com](mailto:imackling@pcl.com)).

We request the review and return of this submittal within   **2 Days**  . Please advise if this request cannot be met so we can plan accordingly.

By: **Erich Heymann**, Project Engineer

COPY TO: Project Files



**CONSTRUCTION LEADERS**

**SUBMITTAL NO. : 44.2**  
**Contractor-Fabricated Pre-Cast Concrete Structures**

<b>Item No.</b>	<b>Specification</b>	<b>Description</b>
1	Spec. Prov. #109	Contractor-Fabricated Pre-Cast Concrete Structures

***PROJECT:***  
**HARTFORD LATERAL SLIDE**  
**PROJECT NO.: IM 091-2(79)**  
**CONTRACT ID.: 12A132**

***OWNER:***  
**STATE OF VERMONT AGENCY OF TRANSPORTATION**

***ENGINEER OF RECORD:***  
**STATE OF VERMONT AGENCY OF TRANSPORTATION**

***CONTRACTOR:***  
**PCL CIVIL CONSTRUCTORS, INC.**

**JUNE 15, 2015**

# Approach Slab Quality Control Processes

## 1. Concrete Production

Prior to pouring of the permanent concrete for the approach slabs, concrete leveling slabs will be poured as bases. The approach slabs will be poured on top of a smooth surface.

In areas where leveling slabs are not within the specified tolerance sand will be added to fill low points. String lines will be run across the top of the forms and depths will be checked to ensure that the approach slabs are cast within the specified tolerances.

Prior to concrete placement a pre-production meeting will be held between the Contractor, Resident Engineer and all inspection staff.

Concrete will be supplied by Carroll Concrete. The approved mix design is included for reference. Concrete will be inspected at the plant and again when it arrives on site to ensure that it meets all requirements of the specifications.

VTrans will be responsible for Quality Assurance Testing.

The Contractor will be responsible for making additional cylinders for early breaks. Cylinders will be broken by S.W. Cole Engineering, Inc.

Each approach slab will be marked with its unit number and date of casting.

Approach slabs will be inspected by both the Contractor and the Resident Engineer and documented.

- Minor defects will be repaired using an approved patch material from the VTrans APL. Minor defects are defined as holes, honeycombing, or spalls, which are 6" or less in diameter, that do not penetrate deeper than 1" into the concrete.
- Surface voids or "bugholes" that are less than 5/8" in diameter and less than 1/4" deep are not required to be repaired.
- Cracks less than .01" in width shall be sealed by a method approved by the Engineer. Cracks in excess of .01" may be cause for rejection.

Concrete tolerances: length –  $\pm 1/4$ ", width –  $\pm 1/4$ ", skew/squareness (Plan) –  $\pm 1/2$ "

## 2. Formwork

Prior to pouring concrete all formwork will be inspected by the Contractor and Resident Engineer to ensure that it is installed per plan. Drawings and calculations are included for reference.

Formwork will be thoroughly cleaned and free of extraneous material such as dirt, loose chips, and dust from concrete surface. If compressed air is used, it will be free of oil.

Note: Prior to removal of forms the concrete must achieve 85% of design strength (4,250 PSI)

## 3. Reinforcing Steel

Prior to pouring concrete all reinforcing steel will be inspected by the Contractor and Resident Engineer to ensure that it is installed per the approved drawings.

All reinforcing steel will be clean from foreign material.

Reinforcing Steel Tolerances: reinforcing placement –  $\pm 1/4$ ", cover –  $\pm 1/4$ ", bar Spacing –  $\pm 1$ "

Note: All approach slab reinforcing steel shall be Level II or higher.

#### 4. Concrete Finishing

The top surface of the approach slabs are to receive a “tined” finish.

#### 5. Concrete Curing

Curing will take place immediately upon completion of finishing of the top surface. The approach slabs will be wetted and covered with visqueen/burlap for a minimum of 7 days.

#### 6. Installation Procedure

The approach slabs will be cast on site in the medians between I-91 NB & I-91 SB. Drawings are included for reference.

Prior to installation, the keyways & surfaces to be bonded will be cleaned to remove any foreign material.



During the closure weekend, the cranes will pick the approach slabs (one at a time) and walk down the medians back towards the abutments. Calculations for the lifting attachments and analysis of the approach slabs are included.

The cranes will then walk from the medians onto I-91 (NB/SB). Pending on the slope between the medians & I-91 (NB/SB), the approach slabs may need to be set down prior to walking onto the roadway. The cranes will then walk (with the approach slabs) towards the abutments and the approach slabs will be set in their final position.

Note: Prior to moving the approach slabs the concrete must achieve 28 day design strength (5,000 PSI).

Note: Prior to setting the approach slabs the surface elevation of the backfill we be checked to ensure that it is level and at proper grade.