LiteDeck®

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FORWARD and INTRODUCTION

The Technical Evaluation data contained herein is provided for general information only. It is not to be construed as engineering advice on a particular project and does not replace the engineering judgment, interpretation or conclusions of the Engineer Of Record on a particular project.

Tests and Reports

The tests provided herein were conducted by independent firms and facilities and are warranted to have been done in full compliance with the codes referenced for each test. Further related statements have been secured from information published by the firms, organizations or associations which are referenced herein.

Local Building Codes

The Lite-Deck concrete forming system is sold throughout several building code jurisdictions. Construction codes may be subject to various interpretations and periodic changes. Lite-Form Technologies does not warrant that the information contained herein complies with any specific local code or building regulation. The engineer, designer or installer must insure that all applications of Lite-Deck forms are in compliance with the appropriate local codes and regulations in the jurisdiction and for which the specific applications are being used.

Errors and/or Omissions

The information contained herein could include technical or typographical errors, omissions or other inaccuracies. Lite-Form Technologies reserves the right to make changes, correc-tions and/or improvements without notice. Lite-Form Technologies assumes no liability for the accuracy or completeness of the information contained herein. Further, Lite-Form Technologies, its' representatives or distributors disclaim any and all liability for damages incurred directly or indirectly as a result of such errors, omissions or inaccuracies.

Liability

Lite-Form Technologies, its' representatives or distributors shall not be held liable for any direct, indirect, incidental or consequential damages as a result of the interpretation and subsequent application of any information contained herein.

Patent Number 6272749 and 6817150B1. Other Patents applied for or Pending.

Description of the Lite-Deck System

Lite-Deck Floor/Roof System – Stay-in-Place EPS formwork for Concrete Construction
General: The Lite-Deck System consists of interlocking rigid polystyrene foam plastic panels with inserted steel stiffeners, and is a permanent formwork for reinforced concrete joists and slab. The system is an ICF (Insulated Concrete Form) panel for floors and roofs to be used in residential and commercial applications.

1.1 Materials:

Base Sections: This profile consists of a wire-cut expanded polystyrene (EPS) foam-plastic panel with provision for load-bearing, concrete structural joists. The sides of the panels have an interlocking configuration. Cut-outs for the metal C-channel stiffeners are made on the bottom face of the base sections. The stiffener cut-outs are spaced 12 inches on center. The panels can be either 24 inches or 48 inches wide by lengths as needed.
See Detail Drawings in Section 3
The foam billets used to fabricate the base sections are molded from modified, expandable polystyrene beads that comply with Type 8 EPS classification in accordance with the latest ASTM C578 requirements. The foam plastic has a nominal density of 1.25 lbs. pcf and has a maximum flame-spread rating of 25 and maximum smoke-density rating of 450 when tested in accordance with ASTM E84 in a thickness of 4 inches.

Top Hats: This EPS profile is molded with 100% recycled EPS. During installation, it is attached to the top of the base sections in order to increase the depth of the load-bearing concrete joist. The top hats come in thicknesses of 2, 4 and 6-inches by 4 foot lengths. The foam plastic has a nominal density of 1.25 lbs. pcf. EPS has a maximum flame-spread rat-ing of 25 and a maximum smoke-density rating of 450 when tested in accordance with ASTM E84 in a thickness of 4 inches. See Detail Drawings Section 3; LD 2.3

Steel C-channel: The channels are formed from 18 gauge (0.0516") Type G90, galvanized steel in compliance with ASTM A653, Chemically Treated, Dry or lightly oiled. The nominal dimensions of the channels are 1 1/2" flange by 3 1/2" web with 3/8" thick return lip. The channels are inserted into the channel cutouts on the bottom face of the base sections. To maintain the base sections in place, 3 inch self-tapping screws with plastic insulation washers are fastened through the top face of the base section and into the stiffener.
See Lite-Deck Detail Drawing Section 3; LD 2.1

1.2 Floor/Roof Formwork Installation
Base Sections are installed over temporary shoring. Top hats are then installed on top of base sections as required by code or design. Reinforcing steel is then installed in the joist and in the top slab. Concrete is then placed on the Lite-Deck formwork. Once the concrete reaches the required strength, the temporary shoring is removed from under the Lite-Deck form. See Installation Manual in Section 4; Marketing Materials

1.3 Structural Engineering
Structural engineering for all projects using Lite-Deck formwork shall have the concrete joist engineered for the clear span and loads to be placed on the completed concrete joist. The design shall be in compliance with applicable building code. If the building code does not address concrete joists, the latest edition of (American Concrete Institute) ACI 318 shall be used to design the joist. Any variance from applicable building code or ACI code must be certified in advance by a Structural Engineer who is licensed for the jobsite location and specifications.
See Section 3; Detail Drawings

1.4 Span Tables (Autocad and PDF Files of these drawings are located on liteform.com)

Lite-Deck span tables should not be used without first securing competent advice with respect to its suitablility for any given application. The use of the informatnion disclosed in this diagram is subject to approval by the local building code authority. Although the information in this document is believed to be accurate, Lite-Form Technologies, nor any of their employees or representatives makes any warranty, guarantee or representation, ex-pressed for the direct or indirect damages arising from such use.

1.5 Reinforcing of Concrete

Placement and specifications of all reinforcing steel shall be designed in compliance with the latest editions of ACI 318 and CRSI (Concrete Reinforcing Steel Institute) standards. Any variance from ACI or CRSI standards must be certified in advance by a Structural Engineer who is licensed for the jobsite location and specifications.

1.6 Concrete Placement

Placement of concrete shall be in compliance with latest edition of ACI-614 Code (Handling) and ACI-301 and 306 Codes for cold and hot weather concrete placement. Any variance from ACI standards must be certified in advance by a Structural Engineer who is licensed for the jobsite location and specifications.

1.7 Temporary Shoring (Full test available upon request)

All Lite-Deck formwork shoring shall be designed in compliance with the latest edition of ACI347R "Guide to Formwork for Concrete" (design chapter) using Load Table 1 as minimum requirements. Loads in Table 1 have a 2 to 1 safety factor included. Distance between support beams under Lite-Deck steel stiffener shall be determined by capacity of vertical shores and spacing between vertical shores. The maximum spacing between vertical shores shall be based on ASTM E72-05 Transverse Load Test, submitted as part of this Technical Evaluation.
See Transverse Load Test: RADCO Test Report No. RAD-3860

1.8 Concentrated Loads (Full test available upon request)

Maximum loads applied by foot traffic (from construction crews) to the Lite-Deck formwork shall be based on ASTM E661-03 Concentrated load Test, submitted as part of this Technical Evaluation. As required by ASTM standard, concentrated loads were placed on the "most vulnerable' portion of the Lite-Deck form. See Concentrated Load Test - RADCO Test Report No. RAD-3861

1.9 Maximum Ceiling Load / Steel Stud Load Capacity.

The maximum ceiling load attached to steel C-channels inserted into the base sections shall be based on Steel Channel Withdrawal Test, submitted as part of this Technical Evaluation. See Ceiling Load Test (Channel Withdrawal) - RADCO Test Report No. RAD-3862

1.10 Fire Resistance Rating (Full test available upon request)

Lite-Deck formwork has a 1.5 hour fire resistance rating based on the test results which were made in compliance with ASTM E 119-00.
See Fire Resistance Rating Test (ASTM E 119-00) SwRI – Test Project No. 01.11579.01.001

1.11 Fire Performance Evaluation with Drywall

(Complete Test Results are available on the attached Lite-Deck CD)
Foam plastic insulation used in the Lite-Deck formwork system has an average thickness which is in excess of 4 inches. Foam plastic insulation cov-ered with 1/2 inch drywall is in compliance with UBC Standard 26-3, based on Fire Perform-ance Test, submitted as part of this Technical Evaluation.
See Fire Performance Test (UBC 26-3) - SwRI – Test Project No. 01.10934.01.418a

1.12 Fire Performance Evaluation without Drywall

(Complete Test Results are available on the attached Lite-Deck CD)
Foam Plastic insulation used in the Lite-Deck formwork system has an average thickness which is in excess of 4 inches. Foam plastic insulation without 1/2 inch drywall covering is in compliance with UBC Standard 26-3, based on Fire Performance Test, submitted as part of this Technical Evaluation.
See Fire Performance Test (UBC 26-3)
SwRI – Test Project No. 01.10934.01.418b

1.13 STC -Sound Transmission Class (Full test available upon request)

A concrete floor's ability to reduce the transmission of outside, ambient sound is rated by a Sound Transmission Class number. The higher the number, the better the barrier to ambient sound pollution.

Lite-Deck Floor with 3-inch Concrete Cover and 14-inch Load-Bearing Concrete Joist
STC by Test – 57
STC by Calculation – 54 – With ½" Drywall attached direct to Lite-Deck stiffeners
STC by Calculation – 67 – With ½" Drywall attached with Resilient Clips

Lite-Deck Floor with 3-inch Concrete Cover, 14-inch Load-Bearing Concrete Joist, 1/2 " Carpet w/Pad
STC by Test – 48
STC by Calculation – 52 – With ½" Drywall attached direct to Lite-Deck stiffeners
STC by Calculation – 56 – With ½" Drywall attached with Resilient Clips

1.14 IIC – R-Value (Full Test located on enclosed CD)

The insulating value of Lite-Deck forms is achieved by its' use of EPS (Expanded Polystyrene) Insulation.
By test (C177 or C518), the insulating value of the EPS used in Lite-Deck Base Sections is R-4.40 (@ 25-degrees f) per inch of thickness*.
Based on the above-referenced tests, the calculated, nominal insulating value of Lite-Deck Base Sections is R-26.4.

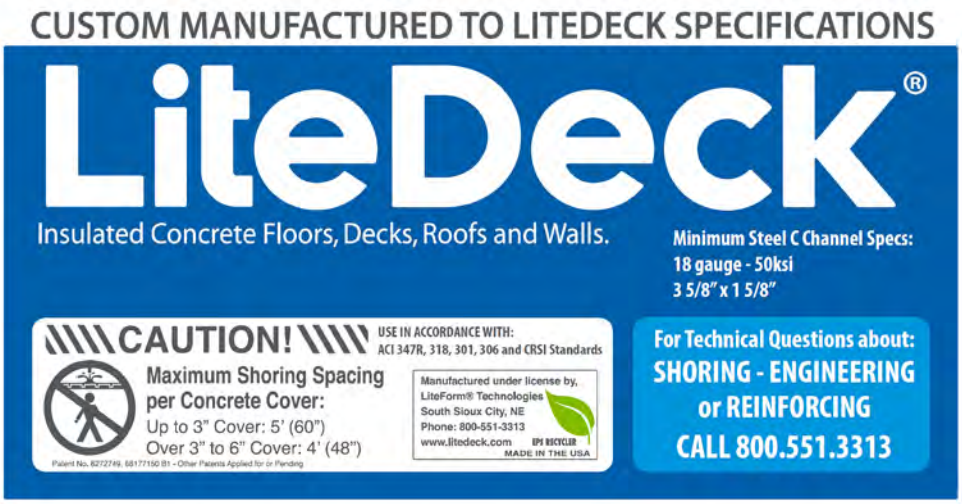
1.15 IIC – Impact Insulation Class (Full test available upon request)

A concrete floor's ability to reduce the transmission of sound is rated by an Impact Insulation Class number. This rating quantifies the transmission of "impact sounds" such as foot traffic. The higher the number, the better the barrier to impact sounds.
Lite-Deck Floor with 3-inch Concrete Cover and 14-inch load-bearing Concrete Joist
IIC by Test – 44
IIC by Calculation – 48 – With ½" Drywall attached direct to Lite-Deck stiffeners
IIC by Calculation – 61 – With ½" Drywall attached with Resilient Clips
Lite-Deck Floor with 3-inch Concrete Cover, 14-inch load-bearing Concrete Joist, 1/2 " Carpet w/Pad
IIC by Test – 82
IIC by Calculation – 86 – With ½" Drywall attached direct to Lite-Deck stiffeners
IIC by Calculation – 90 – With ½" Drywall attached with Resilient Clips

1.16 Patents

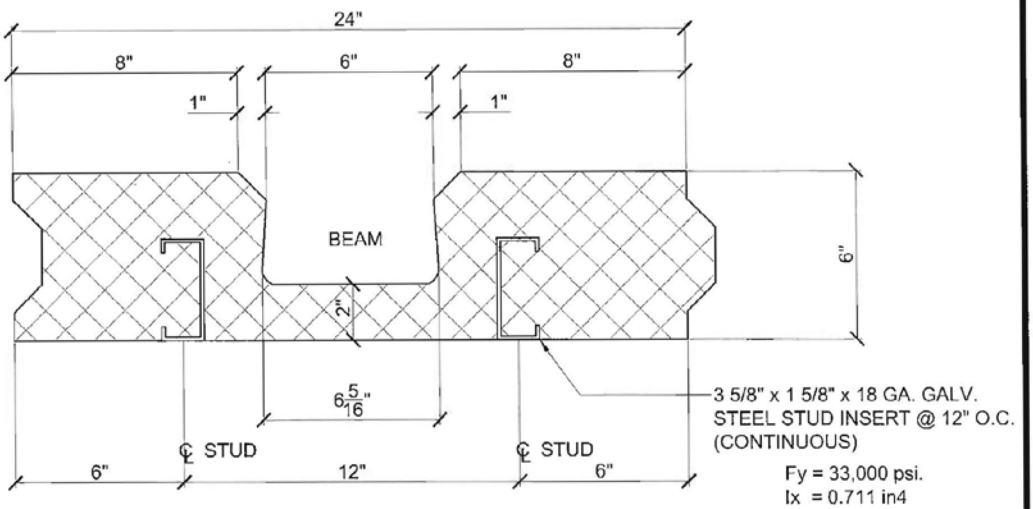
1.17 Lite-Deck Imprints

This sticker label is present on all LiteDeck products that leave the South Sioux City, NE. manufacturing facility.



Detail Drawings

LD-2.1 - 24” Wide Base Section Dimension
LD-2.2 - 48” Wide Base Section Dimension
LD-2.3 - 18” Wide Top Hat Section Dimension
LD-2.3.1 - 26” Wide Top Hat Section Dimension
LD-2.4 - Typical Combination of Base Section and Top Hats
LD-2.5 - Trans. Section @ LiteDeck
LD-2.6 - Trans. Section @ LiteDeck Floor to ICF Wall
LD-2.7 - Long. Section @ LiteDeck Floor to ICF Wall (Resting)
LD-2.8 - Long. Section @ LiteDeck Floor to ICF Wall (Abutment)
LD-2.9 - Trans. Section @ Interior ICF Wall
LD-2.10 - Longitudinal Section @ Interior ICF Wall
LD-2.11 - Trans Section @ LiteDeck Floor to CMU Wall (Abutment)
LD-2.12 - Long. Section @ LiteDeck Floor to CMU Wall (Resting)
LD-2.13 - Trans. Section @ Interior CMU to LiteDeck Floor
LD-2.14 - Long. Section @ Interior CMU Wall to LiteDeck Floor
LD-2.15 - One Sided Trans. Sect. @ Flush Concrete Beam
LD-2.16 - Longitudinal Section @ Flush Concrete Beam
LD-2.17 - Transverse Section @ Dropped Concrete Beam
LD-2.18 - Long. Section @ Flush Concrete Beam
LD-2.19 - Trans. Section @ Porch Perimeter Beam



24" WIDE BASE SECTION

EPS Foam Density = 1.25 pcf

Weight = 4.10 pounds per lineal foot or 2.05 psf

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24" WIDE BASE SECTION DIMENSIONS

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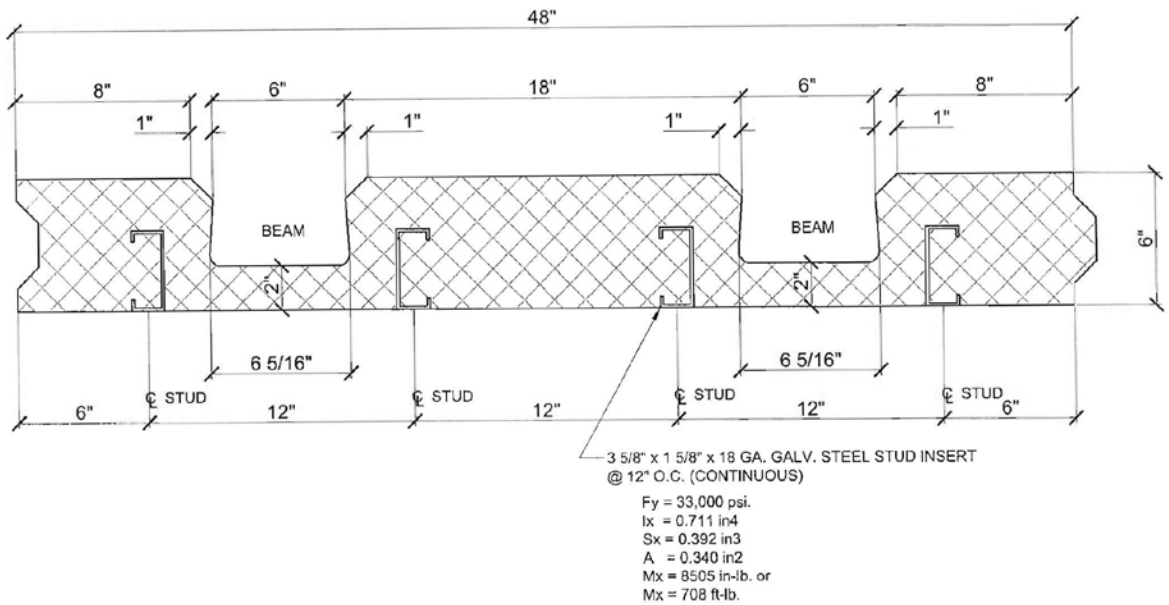
DETAIL NO:	LD-2.1



48" WIDE BASE SECTION

EPS Foam Density = 1.25 pcf

Weight = 8.25 pounds per lineal foot or 2.06 psf

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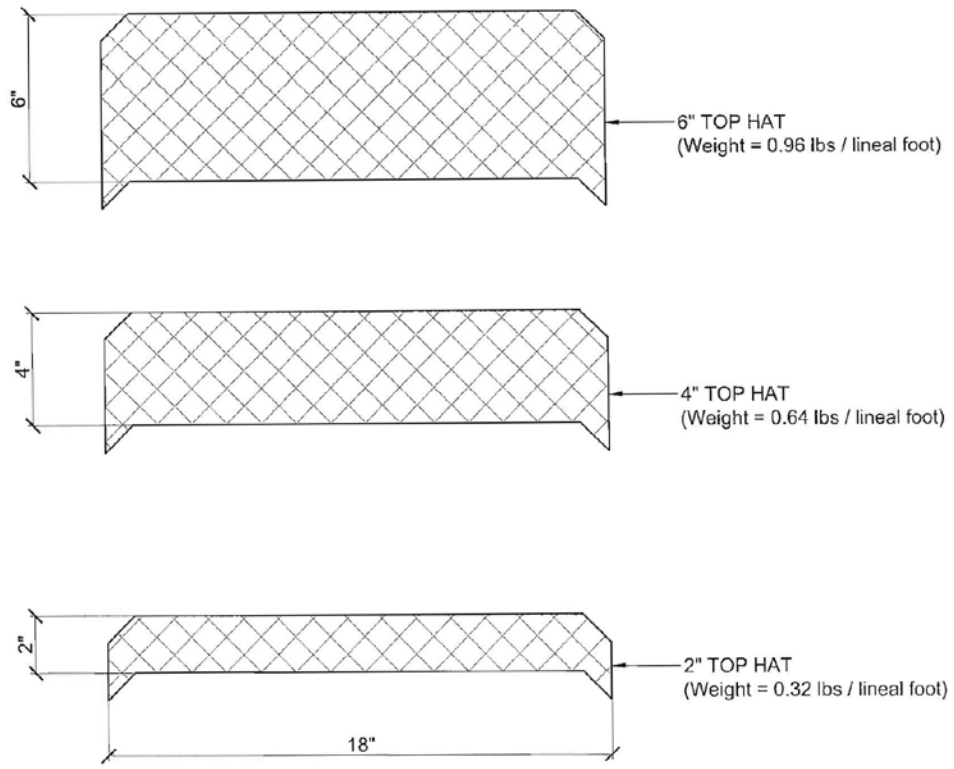
48" WIDE BASE SECTION DIMENSIONS

DRAWN BY: LFT	REVISION DATE:
DATE: 09/23/08	SCALE: Not to Scale
DETAIL NO:	LD-2.2



18" WIDE TOP HAT SECTIONS

EPS Foam Density = 0.75 pcf

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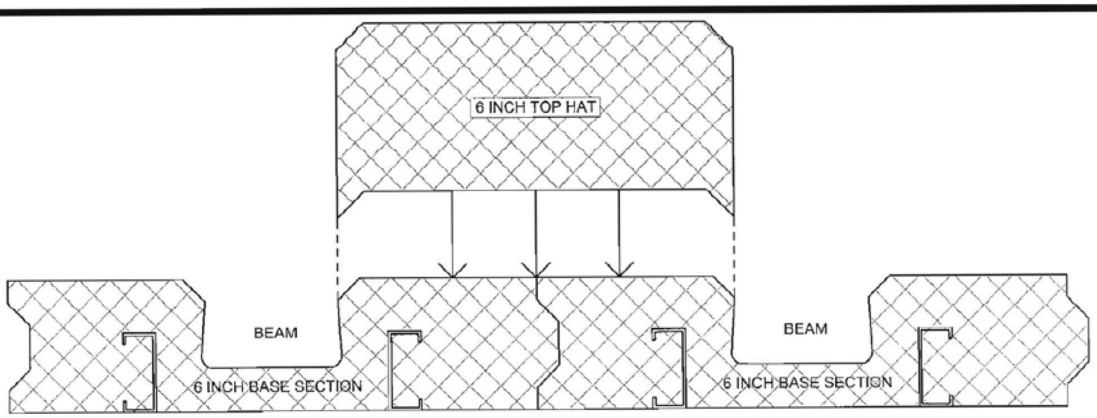
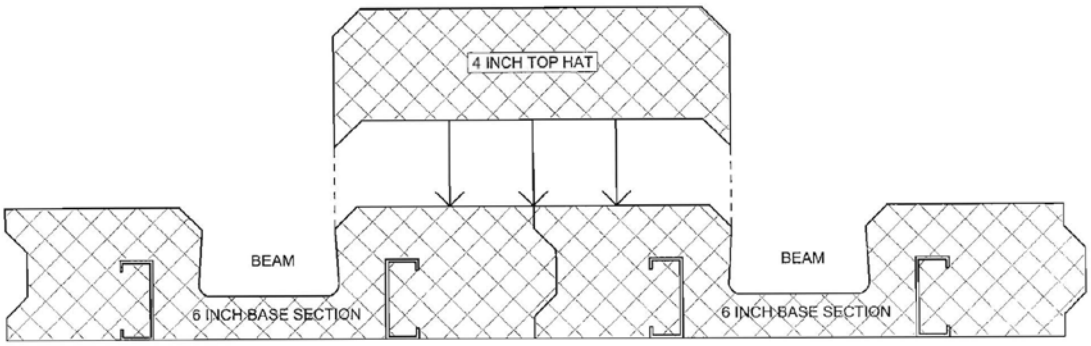
18" WIDE TOP HAT SECTION DIMENSIONS

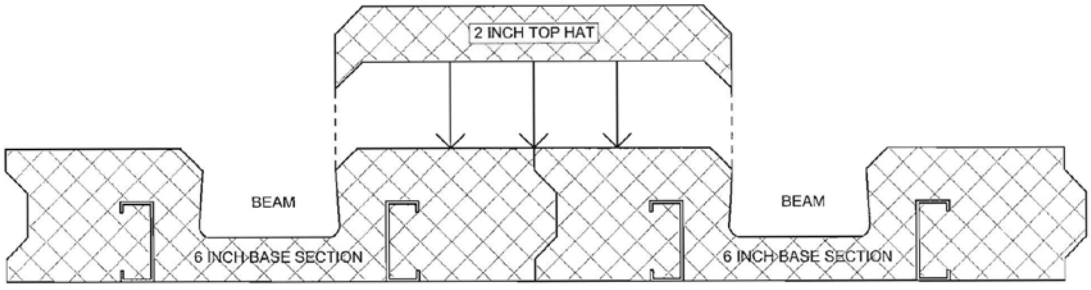
DRAWN BY: LFT	REVISION DATE:
DATE: 09/23/08	SCALE: Not to Scale
DETAIL NO:	LD-2.3



12 INCH LITE-DECK FORM



10 INCH LITE-DECK FORM



8 INCH LITE-DECK FORM

TYPICAL COMBINATIONS
BASE SECTION WITH TOP HATS

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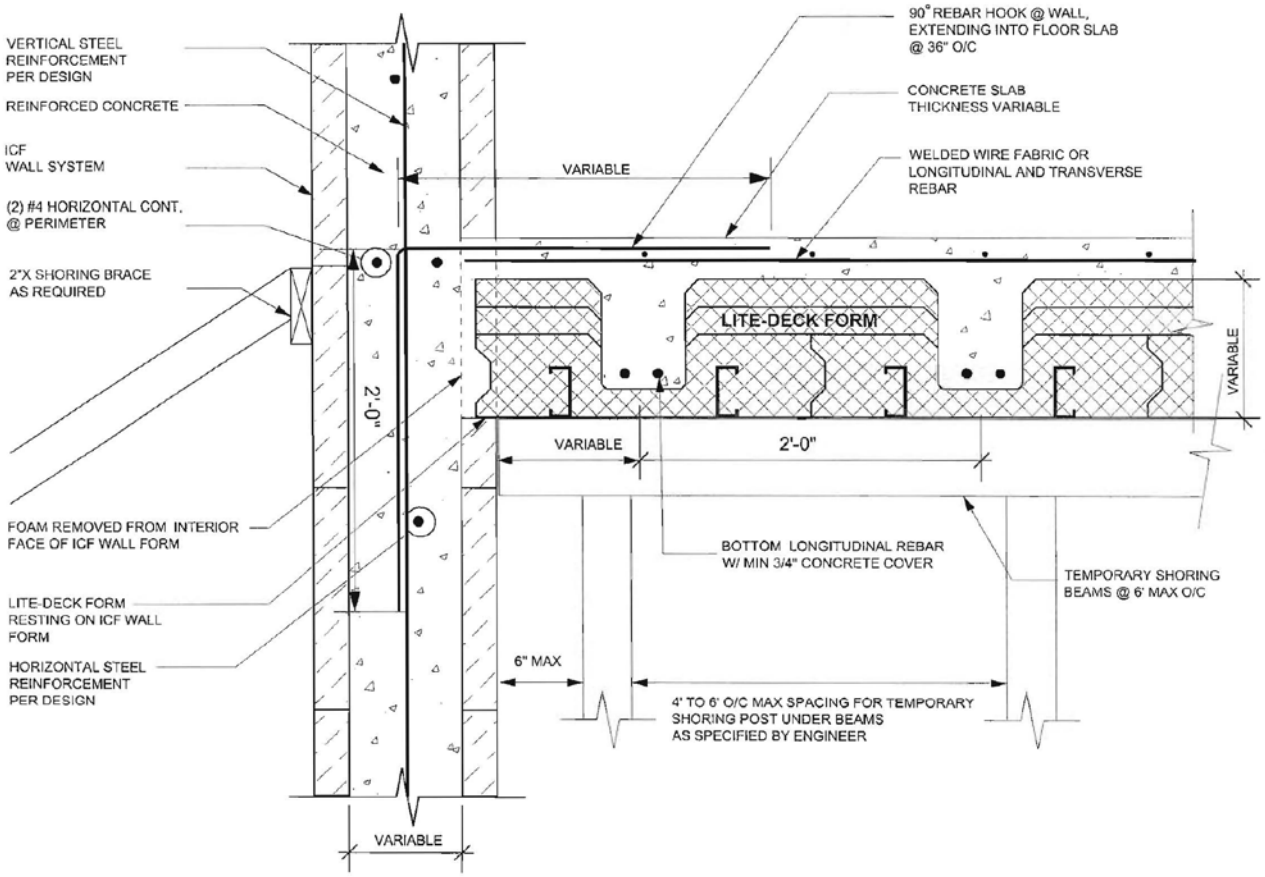
TYPICAL COMBINATIONS BASE SECTION WITH TOP HATS

DRAWN BY: LFT	REVISION DATE:
DATE: 08/16/2008	SCALE: Not to Scale
DETAIL NO:	**LD-2.4**

TRANSVERSE SECTION @ LITE-DECK FLOOR TO ICF WALL



NOTE:

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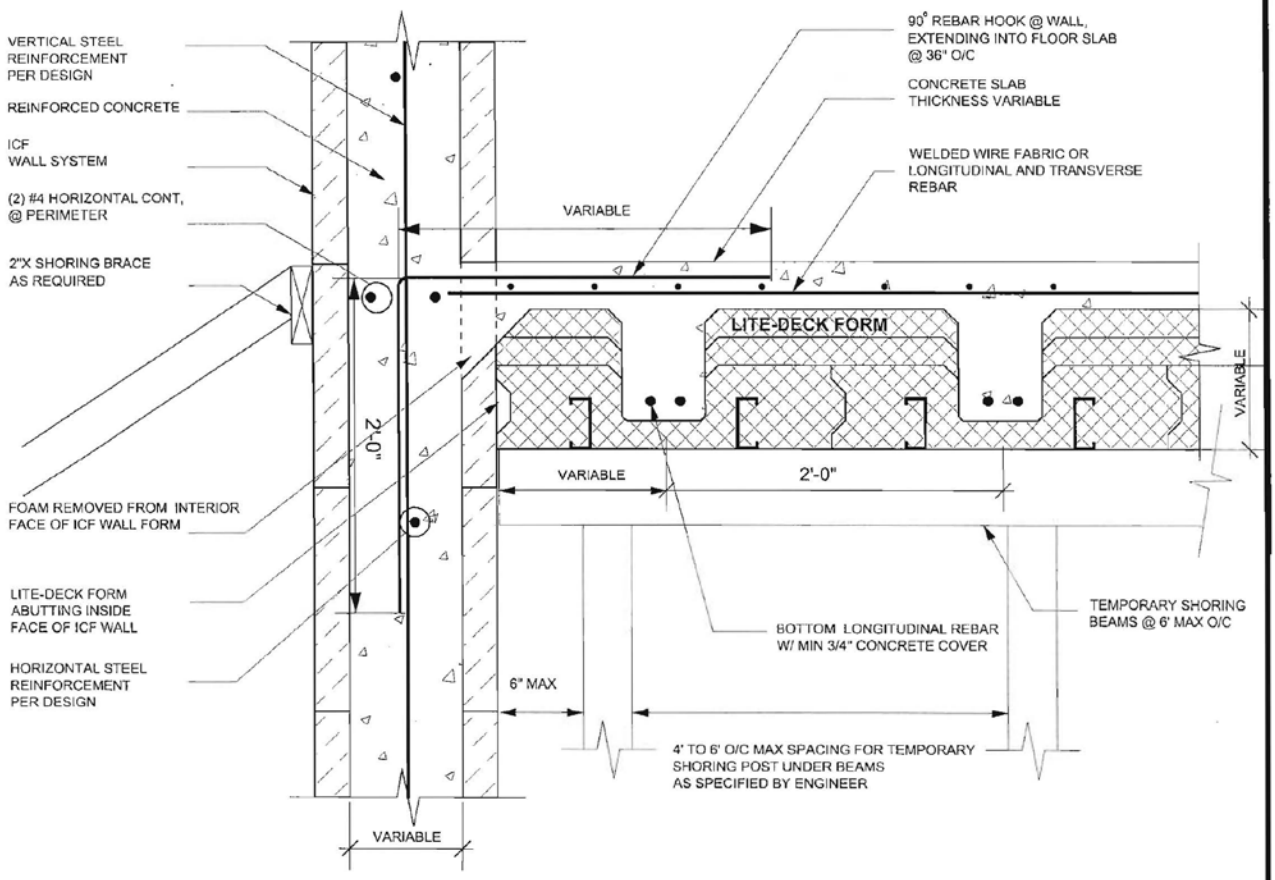
TRANS. SECTION @ LITE-DECK

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	**LD-2.5**

TRANSVERSE SECTION @ LITE-DECK FLOOR TO ICF WALL

(LITE-DECK FORM ABUTTING ICF WALL)



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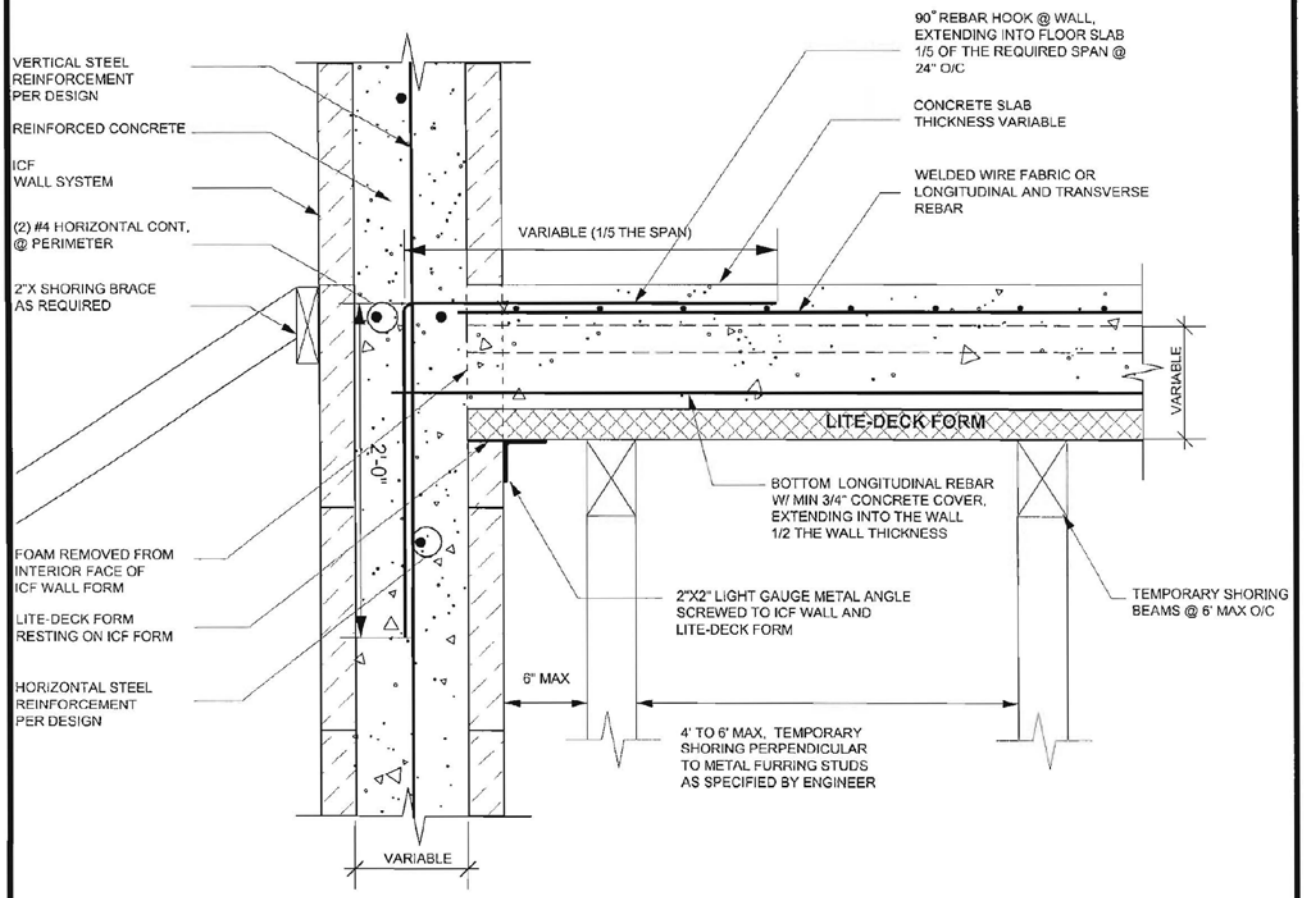
TRANS. SECTION @ LITE-DECK FLOOR TO ICF WALL

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	**LD-2.6**

LONGITUDINAL SECTION @ LITE-DECK FLOOR TO ICF WALL

(LITE-DECK FORM RESTING ON ICF WALL)



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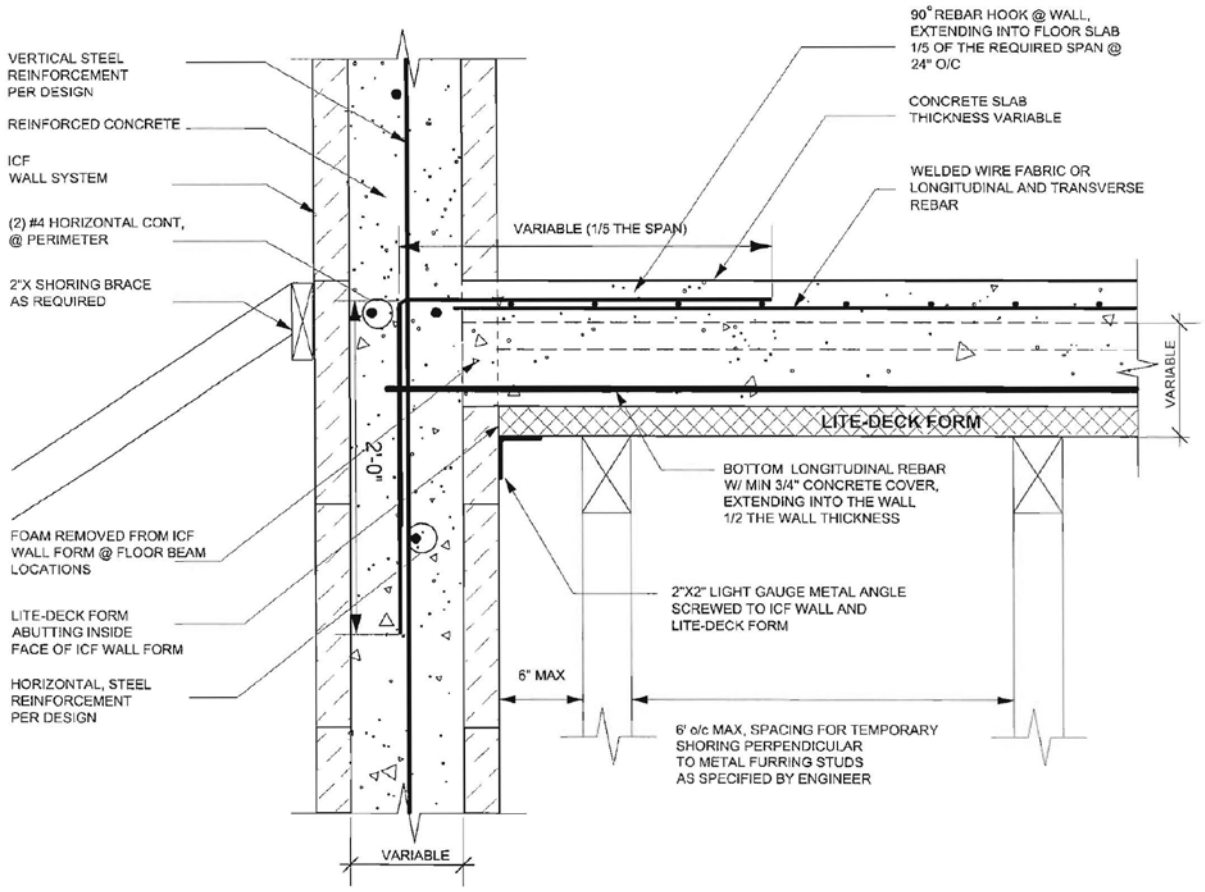
LONG. SECTION @ LITE-DECK FLOOR TO ICF WALL

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	**LD-2.7**

LONGITUDINAL SECTION @ LITE-DECK FLOOR TO ICF WALL

(LITE-DECK FORM ABUTTING ICF WALL)



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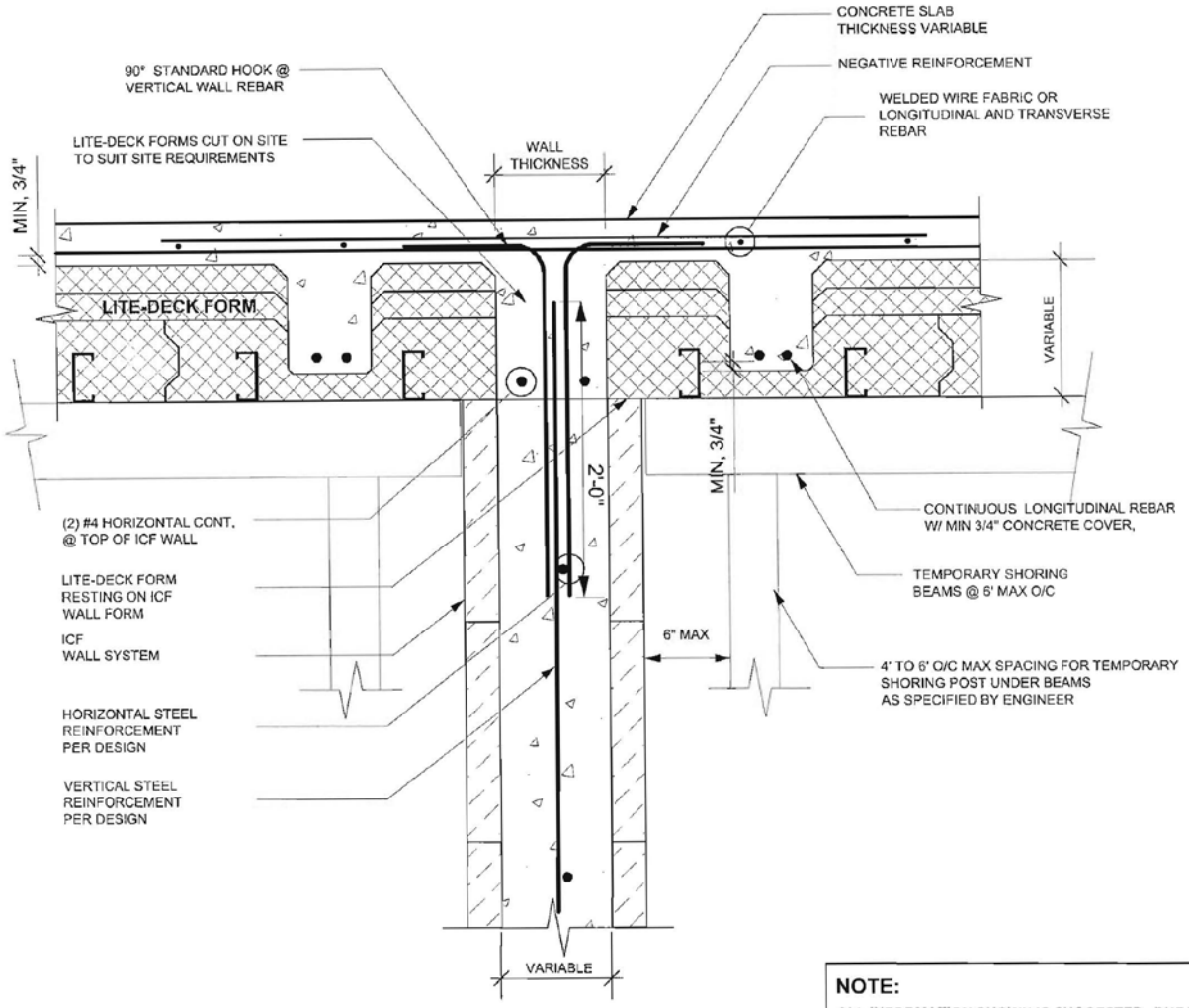
LONG. SECTION @ LITE-DECK FLOOR TO ICF WALL

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE:
DETAIL NO:	LD-2.8

TRANSVERSE SECTION @ INTERIOR ICF WALL TO LITE-DECK FLOOR CONNECTION



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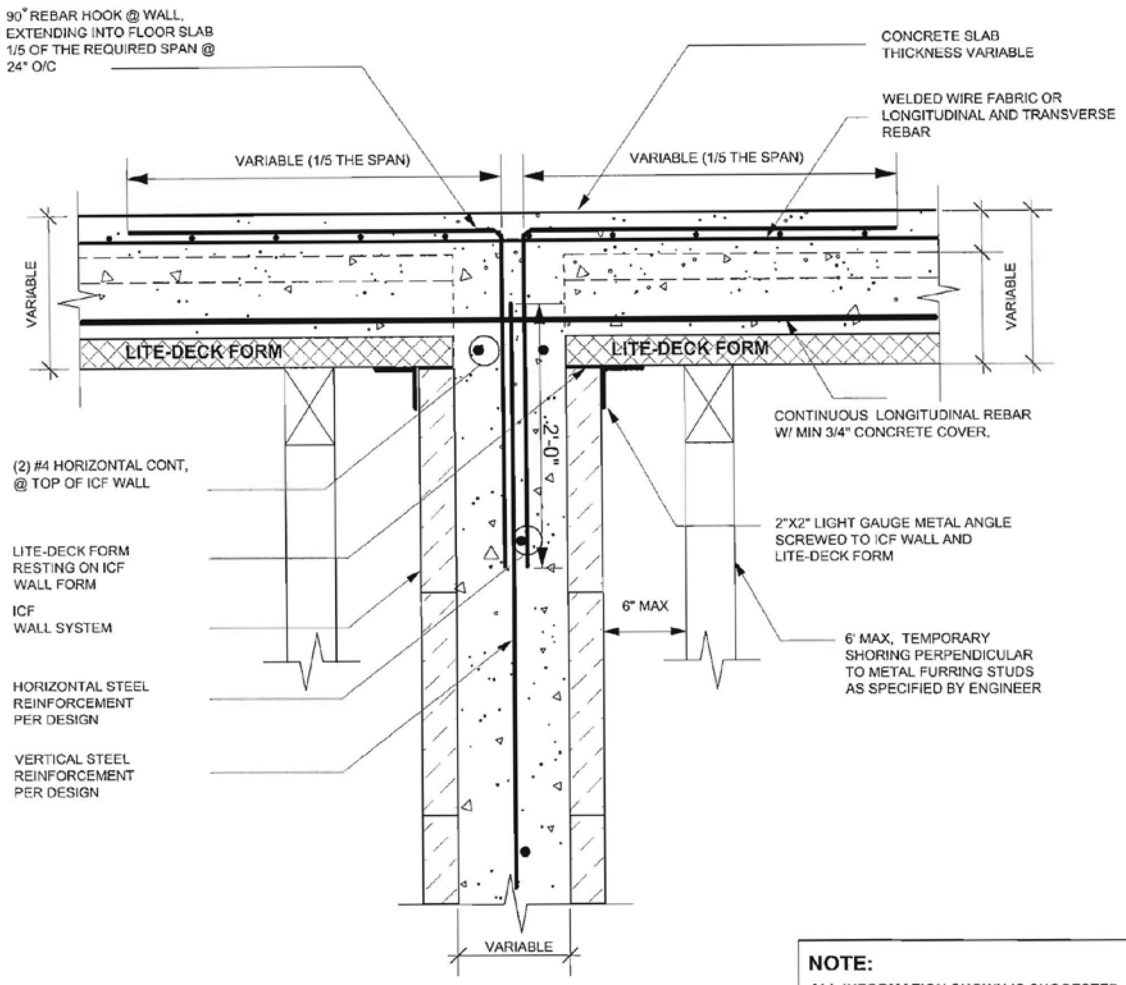
TRANSVERSE SECTION @ INTERIOR ICF WALL

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	**LD-2.9**

LONGITUDINAL SECTION @ INTERIOR ICF WALL TO LITE-DECK FLOOR CONNECTION



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LONGITUDINAL SECTION @ INTERIOR ICF WALL

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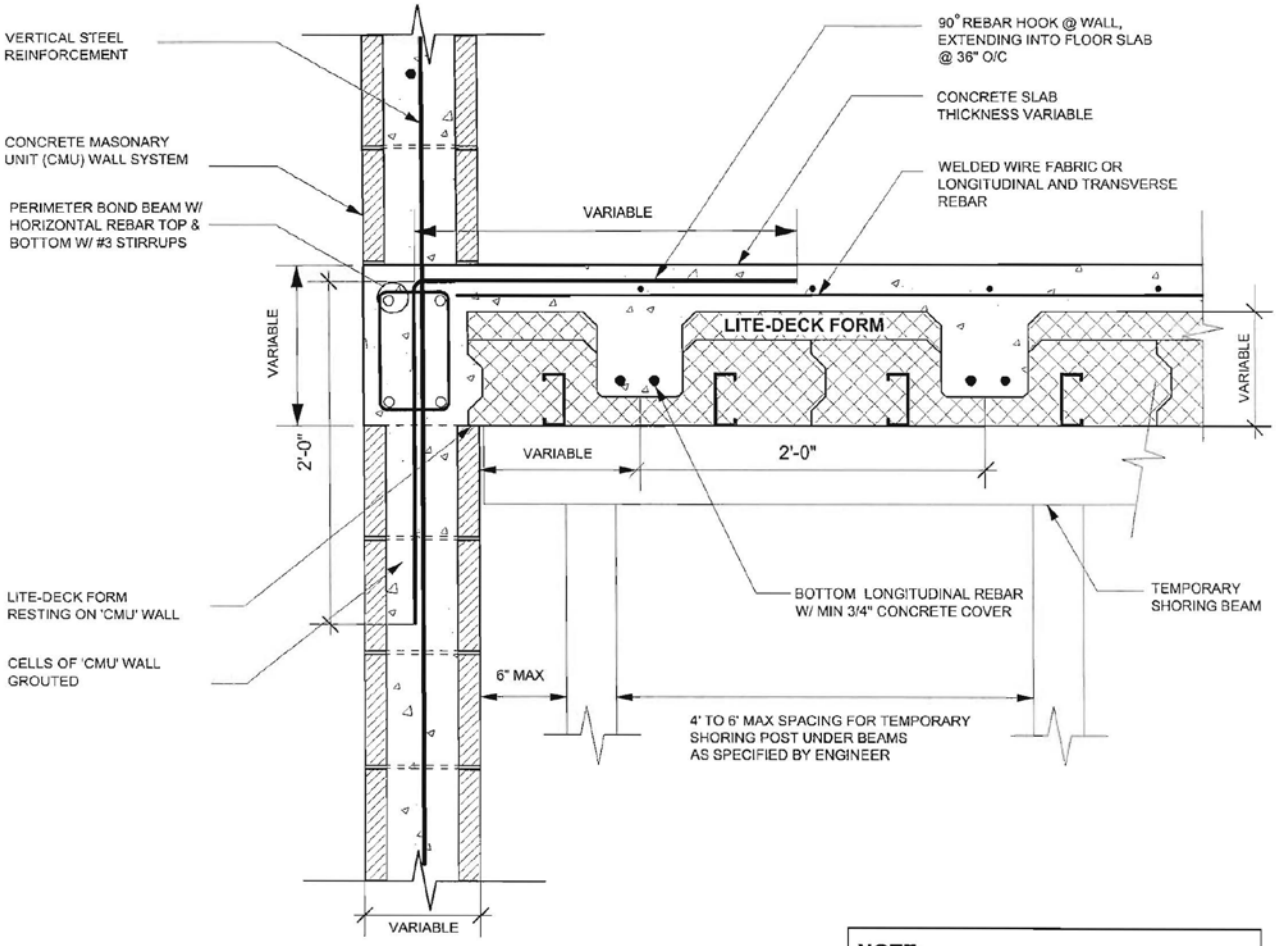
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	**LD-2.10**

TRANSVERSE SECTION @ LITE-DECK FLOOR TO 'CMU' WALL

(LITE-DECK FORM RESTING ON CMU WALL)



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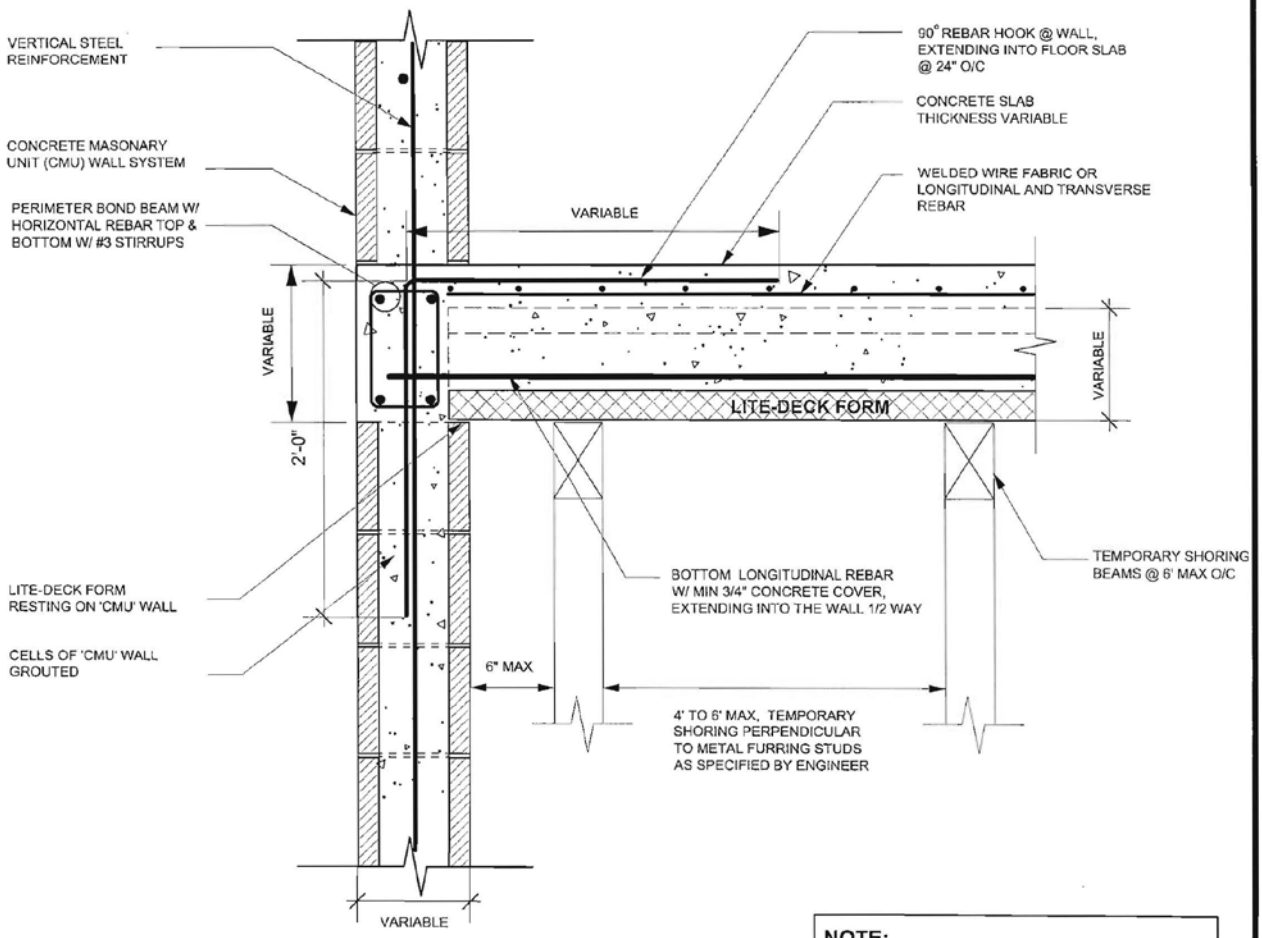
TRANS. SECTION @ LITE-DECK FLOOR TO CMU WALL	
DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	LD-2.11

LONGITUDINAL SECTION @ LITE-DECK FLOOR TO 'CMU' WALL

(LITE-DECK FORM RESTING ON CMU WALL)



NOTE:

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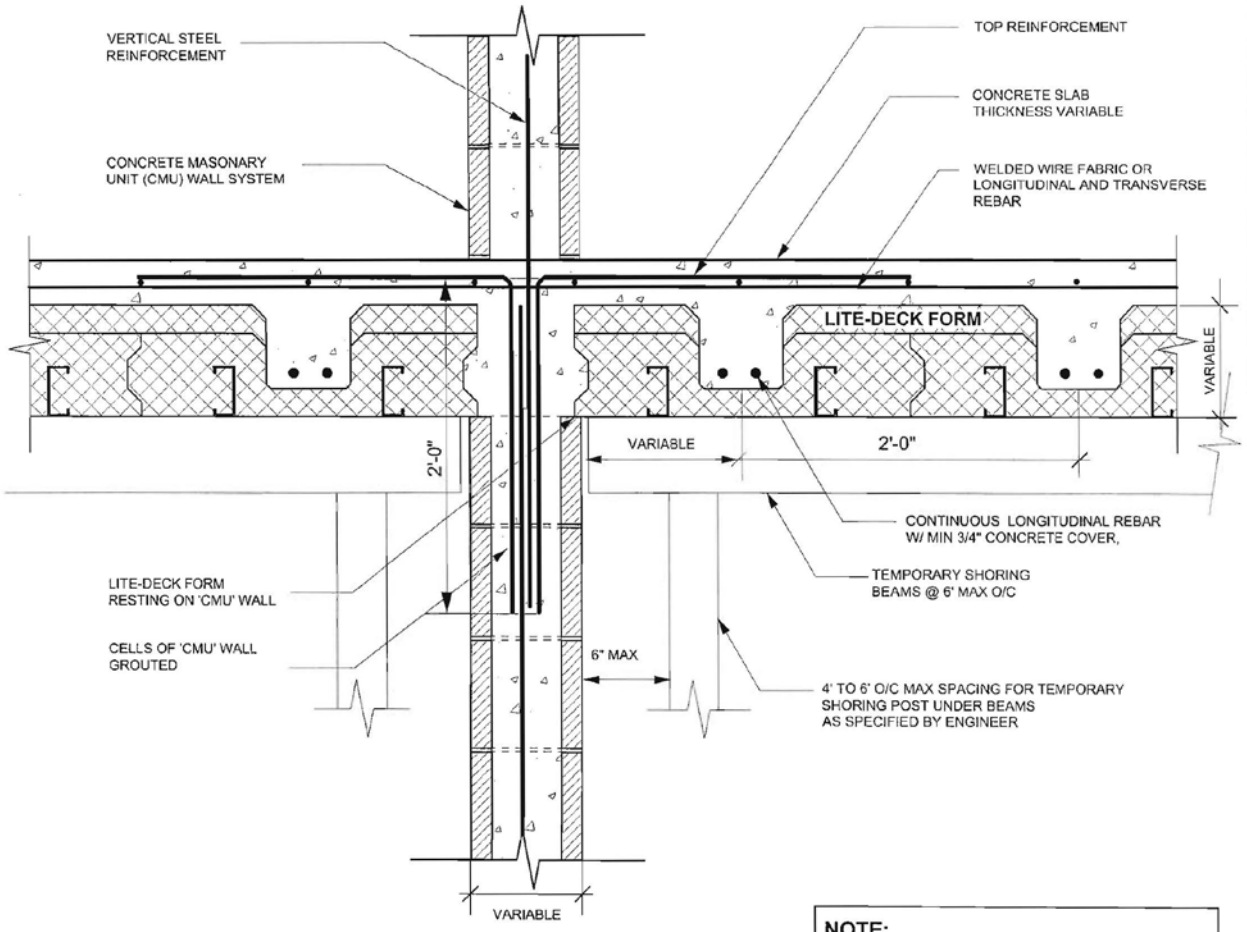
LONG. SECTION @ LITE-DECK FLOOR TO CMU WALL

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	**LD-2.12**

TRANSVERSE SECTION @ INTERIOR 'CMU' WALL TO LITE-DECK FLOOR

(LITE-DECK FORM RESTING ON CMU WALL)



NOTE:

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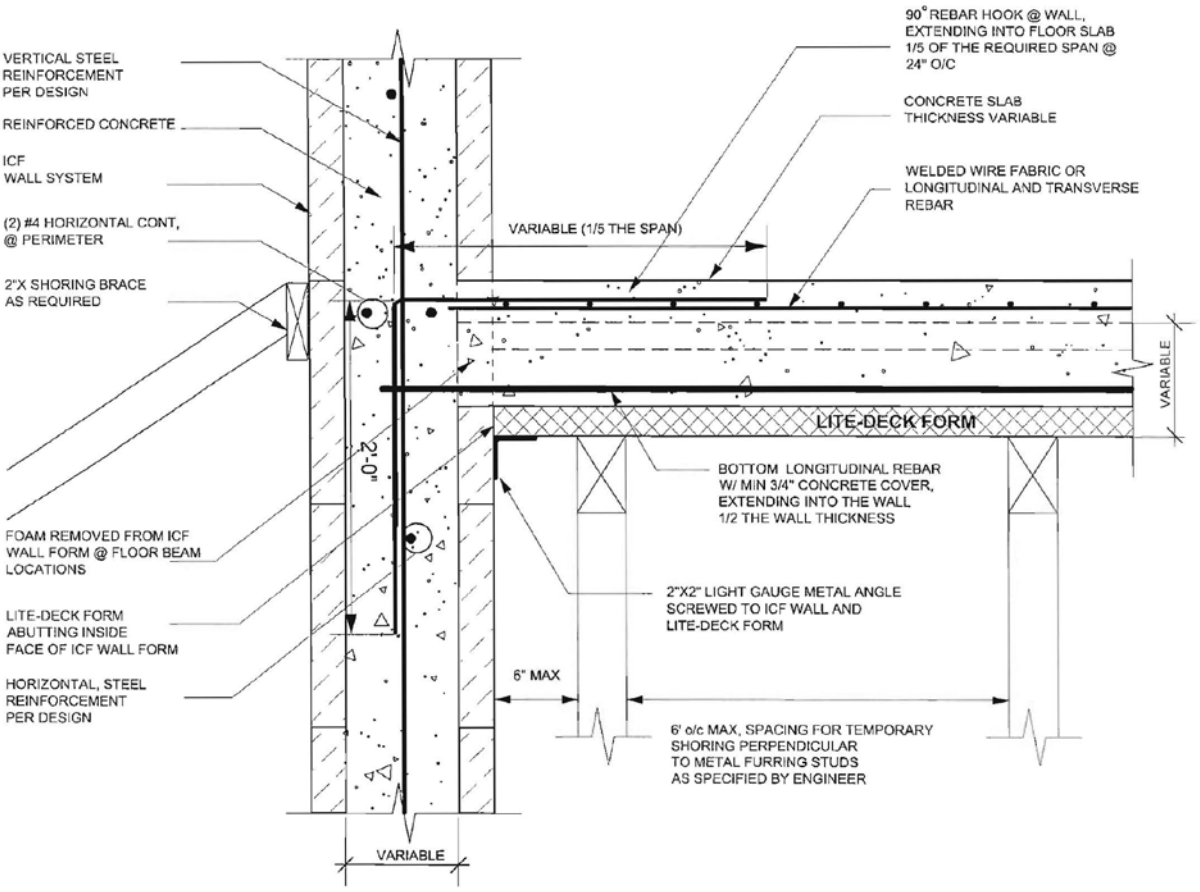
TRANS. SECTION @ INTERIOR CMU WALL TO LITE-DECK FLOOR

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	LD-2.13

LONGITUDINAL SECTION @ LITE-DECK FLOOR TO ICF WALL

(LITE-DECK FORM ABUTTING ICF WALL)



NOTE:

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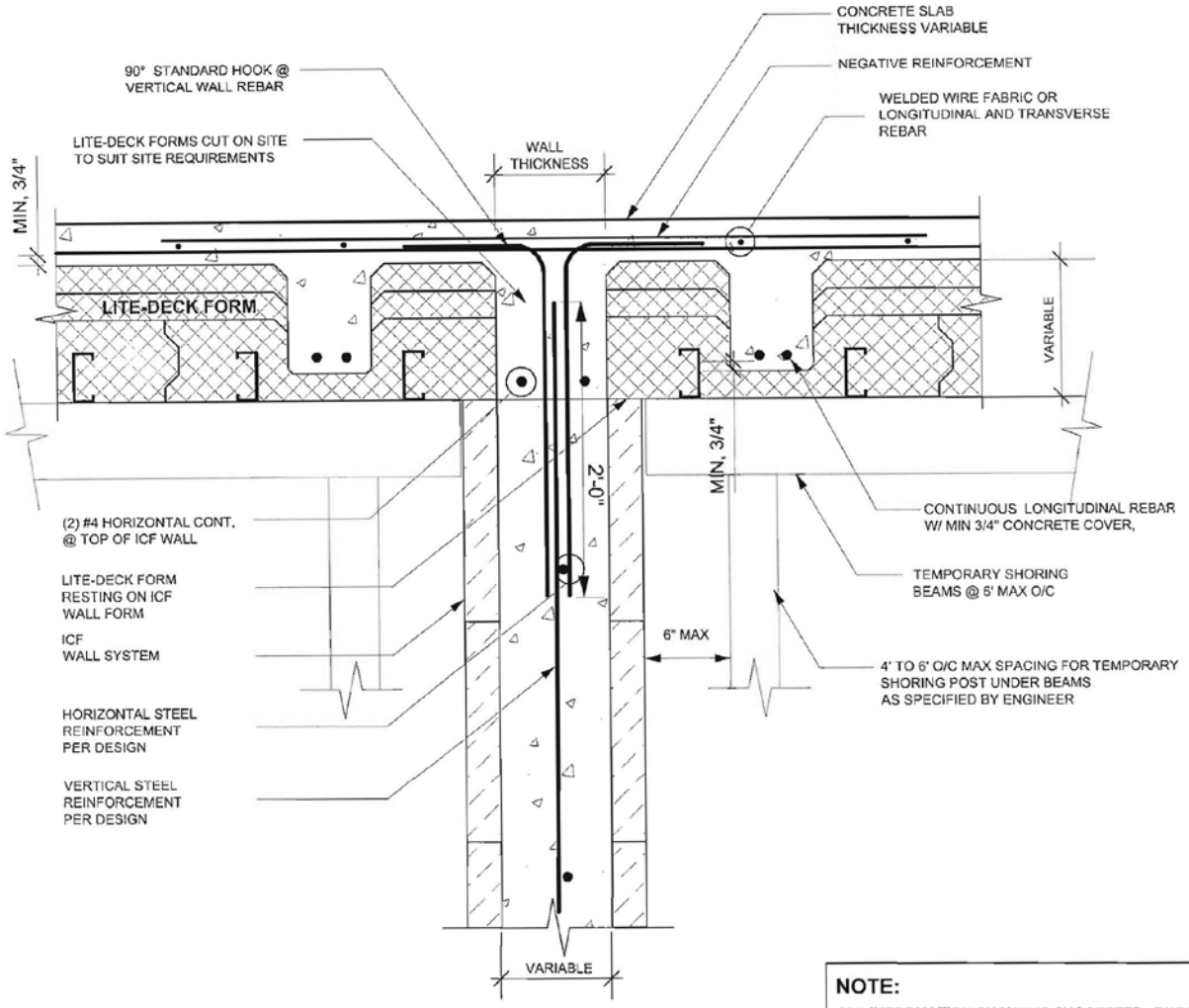
LONG. SECTION @ LITE-DECK FLOOR TO ICF WALL

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE:
DETAIL NO:	**LD-2.8**

TRANSVERSE SECTION @ INTERIOR ICF WALL TO LITE-DECK FLOOR CONNECTION



NOTE:

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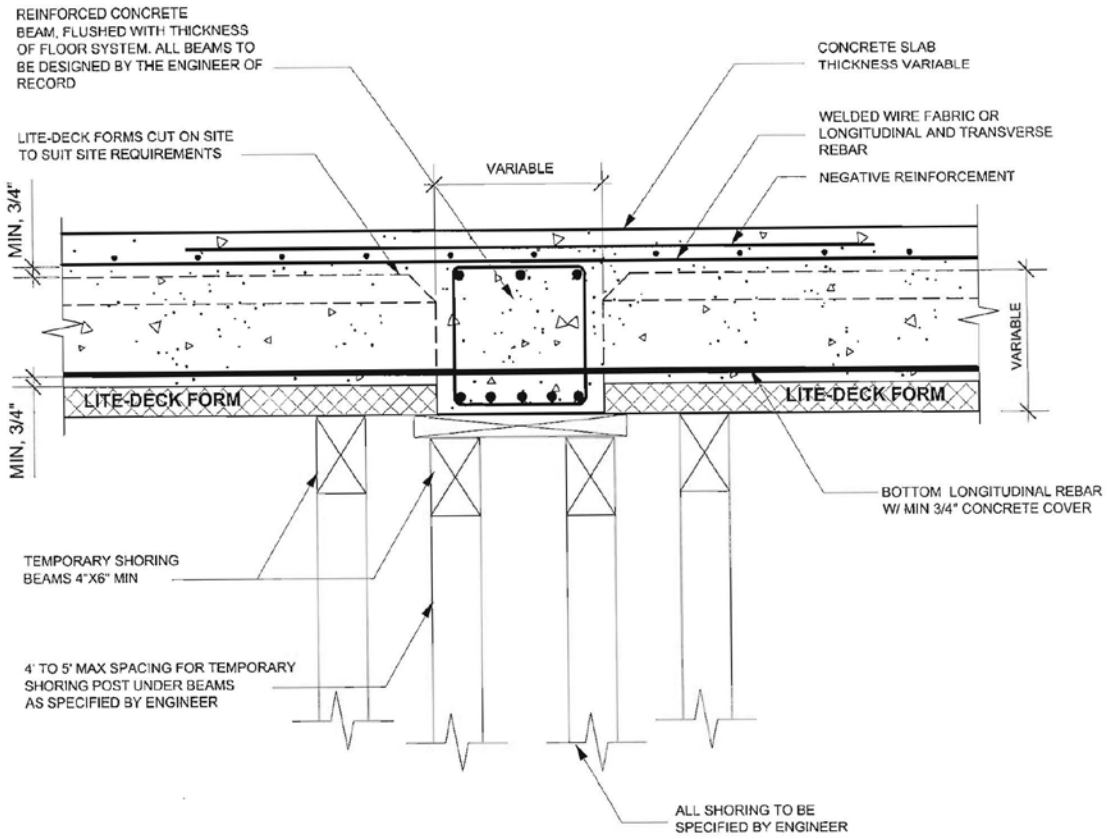
TRANSVERSE SECTION @ INTERIOR ICF WALL

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	**LD-2.9**

LONGITUDINAL SECTION @ FLUSH CONCRETE BEAM



NOTE:
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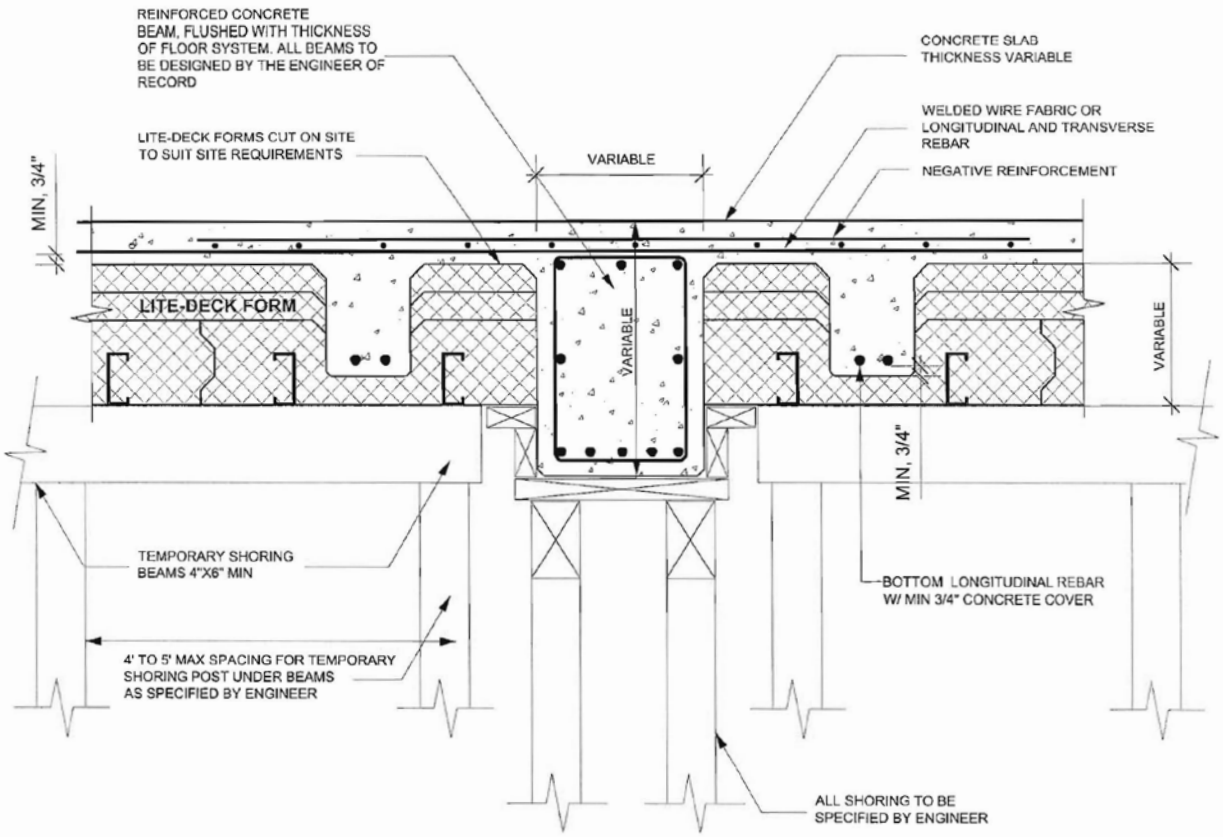
LONGITUDINAL SECTION @ FLUSH CONCRETE BEAM	
DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	LD-2.16

TRANSVERSE SECTION @ DROPPED CONCRETE BEAM



NOTE:

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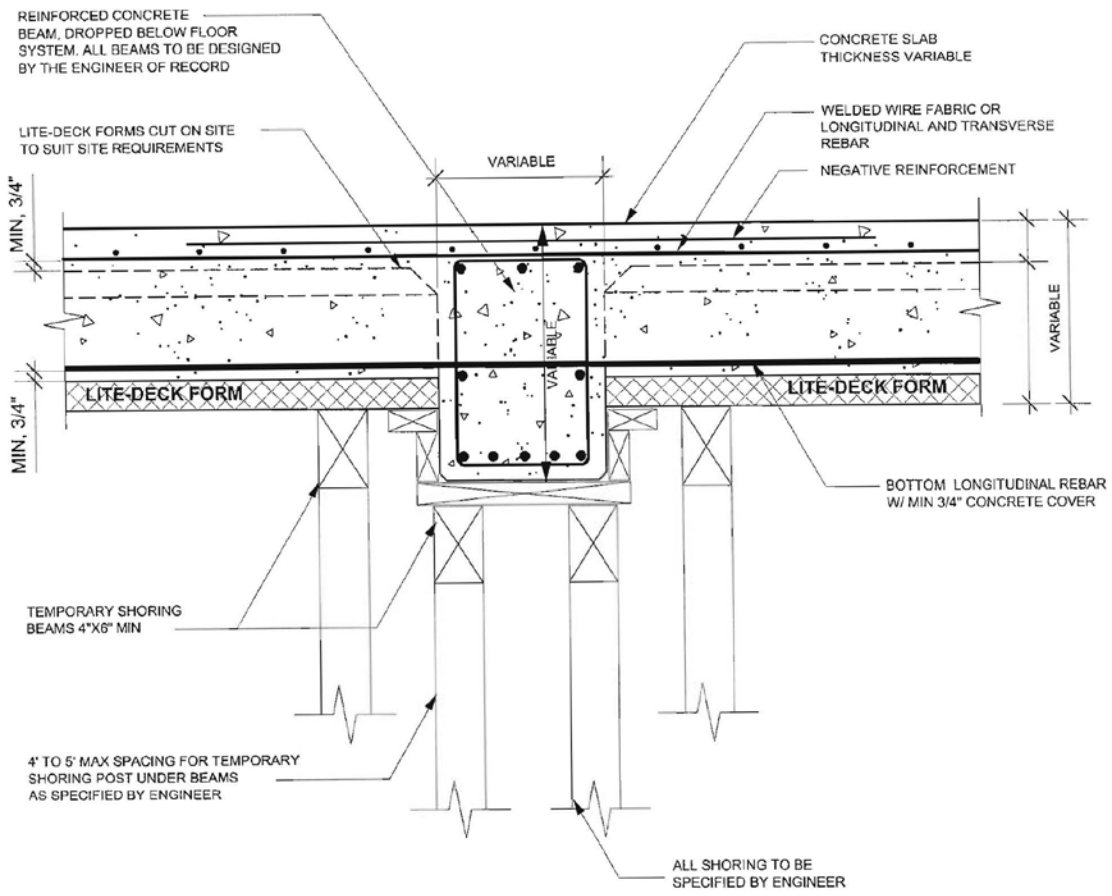
TRANSVERSE SECTION @ DROPPED CONCRETE BEAM

DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	LD-2.17

LONGITUDINAL SECTION @ DROPPED CONCRETE BEAM



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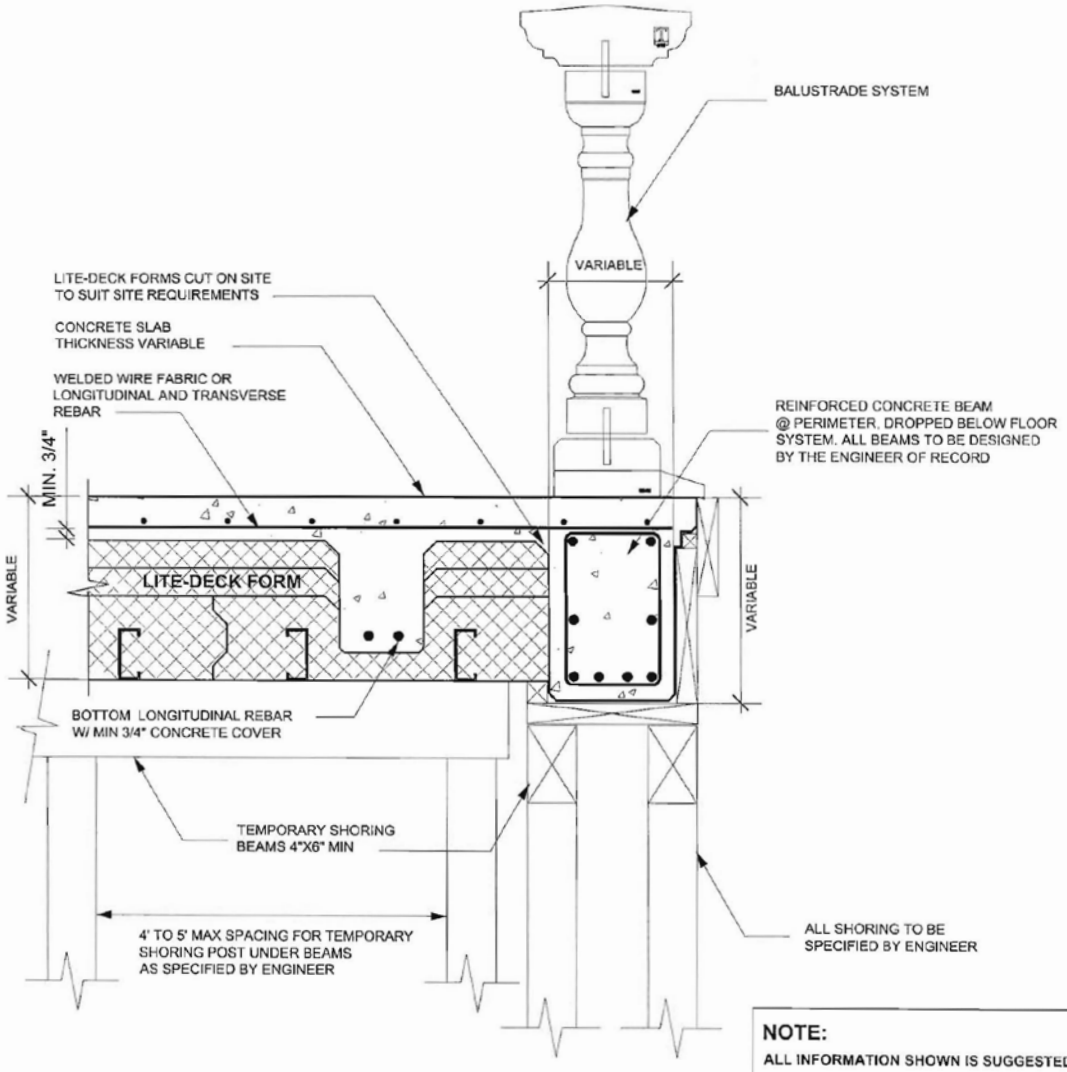
LONGITUDINAL SECTION @ FLUSH CONCRETE BEAM

DRAWN BY:	REVISION DATE:
LFT	
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	**LD-2.18**

TRANSVERSE SECTION @ PORCH PERIMETER BEAM

(LITE-DECK FORM W/ REINFORCED CONCRETE BEAM)



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TRANSVERSE SECTION @ PORCH PERIMETER BEAM	
DRAWN BY: LFT	REVISION DATE:
DATE: 10/14/08	SCALE: 1" = 1'-0"
DETAIL NO:	LD-2.19

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System 6+2

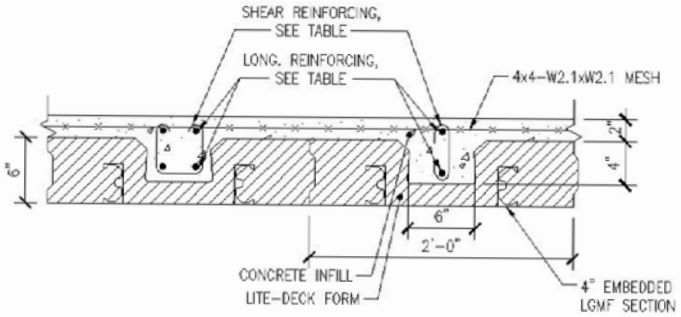
Tabulated spans between 8' and 17'

Material Parameters

Concrete Strength = 3000 psi

Reinforcement Strength = 60 ksi

Normal Weight Concrete = 145 lbs/ft^3



6" LITE–DECK FORM
2" CONCRETE SLAB

			Minimum Reinforcing Steel Required For Given Span									
	Superimposed		2' to 8'	9'	10'	11'	12'	13'	14'	15'	16'	17'
Span Condition	Live Load (PSF)	Dead Load	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.
1 & 2 Span	40	10	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6
3+ Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5
1 & 2 Span	80	15	1 - #4	1 - #5	1 - #5	1 - #6	2 - #5	2 - #5	2 - #6	-	-	-
3+ Span	80	15	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	-
1 & 2 Span	100	15	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #6	-	-	-	-
3+ Span	100	15	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	-	-

Design Table Notes:

1. Design tables are for cost estimating purposes only. Final beam reinforcing to be designed by a licensed design professional in responsible charge.
2. For 1 span condition, longitudinal reinforcing steel only required in bottom of beam.
3. For 2 and 3+ span conditions, longitudinal reinforcing required in both top and bottom of beam.
4. Shaded cells in table reflect need for shear reinforcing in beam. Shear reinforcing to be designed by a licensed design professional in responsible charge.
5. For 2 and 3+ span conditions, center long. reinforcing in bottom of beam at midspan and in top beam at support.
6. Provide 3/4" minimum concrete cover to all reinforcing steel for interior exposure. Refer to the latest ACI318 for minimum clearance for other exposures.
7. Multiple span reinforcing is valid for same length spans only.

LiteDeck®

System 6+4

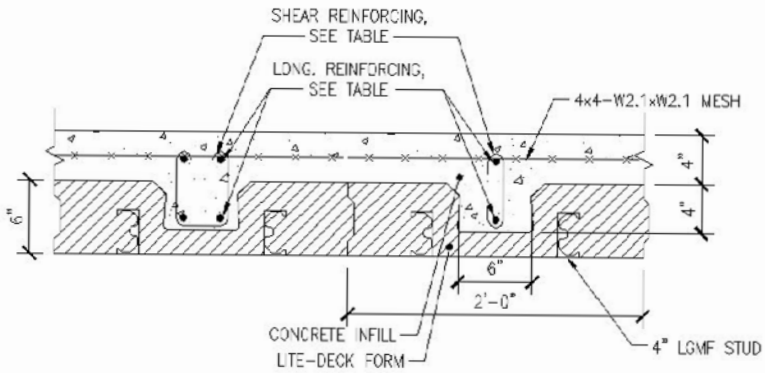
Tabulated spans between 8' and 21'

Material Parameters

Concrete Strength = 3000 psi

Reinforcement Strength = 60 ksi

Normal Weight Concrete = 145 lbs/ft^3



6" LITE-DECK FORM
4" CONCRETE SLAB

	Superimposed		Minimum Reinforcing Steel Required For Given Span													
			2' to 8'	9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'	20'	21'
Span Condition	Live Load (PSF)	Dead Load	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.
1 & 2 Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6
3+ Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5
1 & 2 Span	80	15	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #7	-	-
3+ Span	80	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #7
1 & 2 Span	100	15	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #6	2 - #6	2 - #7	2 - #7	-	-	-
3+ Span	100	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	2 - #6	2 - #7	2 - #7	-

Design Table Notes:

1. Design tables are for cost estimating purposes only. Final beam reinforcing to be designed by a licensed design professional in responsible charge.
2. For 1 span condition, longitudinal reinforcing steel only required in bottom of beam.
3. For 2 and 3+ span conditions, longitudinal reinforcing required in both top and bottom of beam.
4. Shaded cells in table reflect need for shear reinforcing in beam. Shear reinforcing to be designed by a licensed design professional in responsible charge.
5. For 2 and 3+ span conditions, center long. reinforcing in bottom of beam at midspan and in top beam at support.
6. Provide 3/4" minimum concrete cover to all reinforcing steel for interior exposure. Refer to the latest ACI318 for minimum clearance for other exposures.
7. Multiple span reinforcing is valid for same length spans only.

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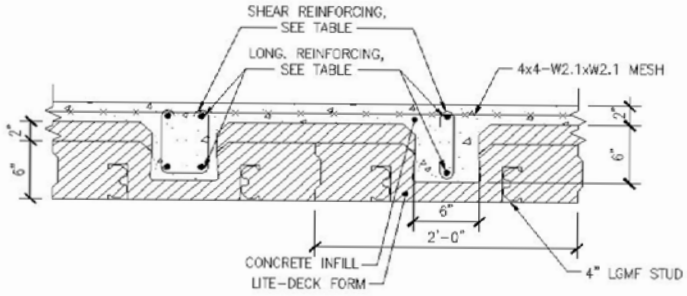
System 8+2

Tabulated spans between 8' and 19'

Material Parameters

Concrete Strength = 3000 psi
Reinforcement Strength = 60 ksi
Normal Weight Concrete = 145 lbs/ft^3



8" LITE-DECK FORM
2" CONCRETE SLAB

	Superimposed		Minimum Reinforcing Steel Required For Given Span											
			2' to 8'	9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'
Span Condition	Live Load (PSF)	Dead Load	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.
1 & 2 Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5
3+ Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6
1 & 2 Span	80	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	2 - #6	-
3+ Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6
1 & 2 Span	100	15	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	2 - #6	-	-
3+ Span	100	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	2 - #6

Design Table Notes:

1. Design tables are for cost estimating purposes only. Final beam reinforcing to be designed by a licensed design professional in responsible charge.
2. For 1 span condition, longitudinal reinforcing steel only required in bottom of beam.
3. For 2 and 3+ span conditions, longitudinal reinforcing required in both top and bottom of beam.
4. Shaded cells in table reflect need for shear reinforcing in beam. Shear reinforcing to be designed by a licensed design professional in responsible charge.
5. For 2 and 3+ span conditions, center long. reinforcing in bottom of beam at midspan and in top beam at support.
6. Provide 3/4" minimum concrete cover to all reinforcing steel for interior exposure. Refer to the latest ACI318 for minimum clearance for other exposures.
7. Multiple span reinforcing is valid for same length spans only.

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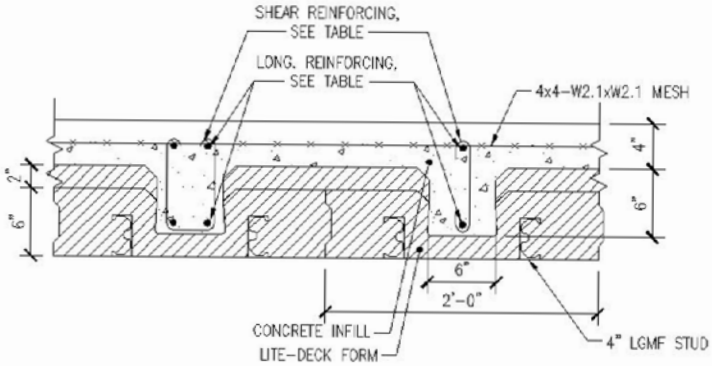
System 8+4

Tabulated spans between 8' and 23'

Material Parameters

Concrete Strength = 3000 psi
Reinforcement Strength = 60 ksi
Normal Weight Concrete = 145 lbs/ft^3



8" LITE–DECK FORM
4" CONCRETE SLAB

	Superimposed		Minimum Reinforcing Steel Required For Given Span																
			2' to 8'	9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'	20'	21'	22'	23'
Span Condition	Live Load (PSF)	Dead Load	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.
1 & 2 Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6
3+ Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5
1 & 2 Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #7	2 - #7
3+ Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6
1 & 2 Span	100	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #7	2 - #7	2 - #7	-
3+ Span	100	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #7

Design Table Notes:

1. Design tables are for cost estimating purposes only. Final beam reinforcing to be designed by a licensed design professional in responsible charge.
2. For 1 span condition, longitudinal reinforcing steel only required in bottom of beam.
3. For 2 and 3+ span conditions, longitudinal reinforcing required in both top and bottom of beam.
4. Shaded cells in table reflect need for shear reinforcing in beam. Shear reinforcing to be designed by a licensed design professional in responsible charge.
5. For 2 and 3+ span conditions, center long. reinforcing in bottom of beam at midspan and in top beam at support.
6. Provide 3/4" minimum concrete cover to all reinforcing steel for interior exposure. Refer to the latest ACI318 for minimum clearance for other exposures.
7. Multiple span reinforcing is valid for same length spans only.

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System 10+2

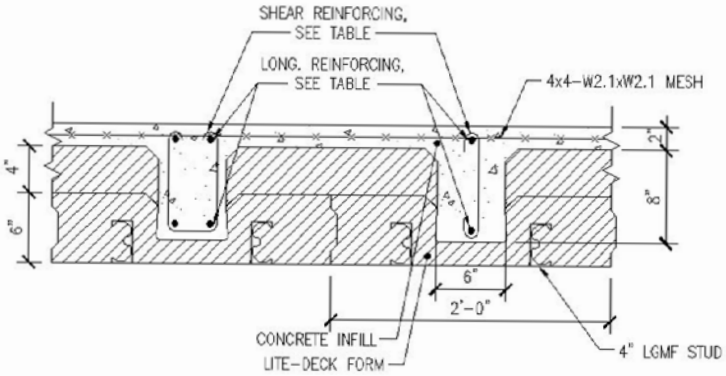
Tabulated spans between 8' and 21'

Material Parameters

Concrete Strength = 3000 psi

Reinforcement Strength = 60 ksi

Normal Weight Concrete = 145 lbs/ft^3



10" LITE–DECK FORM
2" CONCRETE SLAB

	Superimposed		Minimum Reinforcing Steel Required For Given Span													
			2' to 8'	9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'	20'	21'
Span Condition	Live Load (PSF)	Dead Load	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.
1 & 2 Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5
3+ Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6
1 & 2 Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6
3+ Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5
1 & 2 Span	100	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	-
3+ Span	100	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6

Design Table Notes:

1. Design tables are for cost estimating purposes only. Final beam reinforcing to be designed by a licensed design professional in responsible charge.
2. For 1 span condition, longitudinal reinforcing steel only required in bottom of beam.
3. For 2 and 3+ span conditions, longitudinal reinforcing required in both top and bottom of beam.
4. Shaded cells in table reflect need for shear reinforcing in beam. Shear reinforcing to be designed by a licensed design professional in responsible charge.
5. For 2 and 3+ span conditions, center long. reinforcing in bottom of beam at midspan and in top beam at support.
6. Provide 3/4" minimum concrete cover to all reinforcing steel for interior exposure. Refer to the latest ACI318 for minimum clearance for other exposures.
7. Multiple span reinforcing is valid for same length spans only.

LiteDeck®

System 10+4

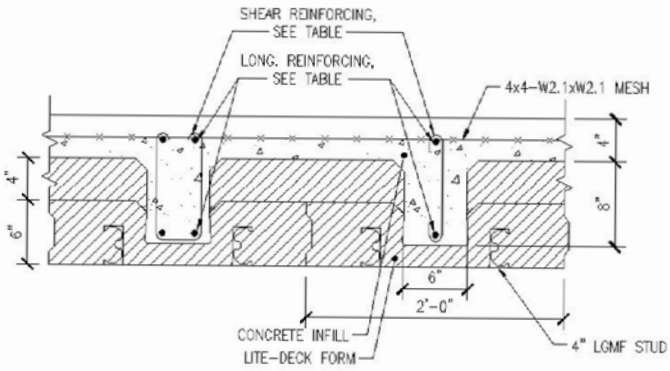
Tabulated spans between 9' and 25'

Material Parameters

Concrete Strength = 3000 psi

Reinforcement Strength = 60 ksi

Normal Weight Concrete = 145 lbs/ft^3



10" LITE–DECK FORM
4" CONCRETE SLAB

			Minimum Reinforcing Steel Required For Given Span																
	Superimposed		2' to 9'	10'	11'	12'	13'	14'	15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	25'
Span Condition	Live Load (PSF)	Dead Load	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.
1 & 2 Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #5	2 - #6
3+ Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5
1 & 2 Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #7	2 - #7
3+ Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6
1 & 2 Span	100	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #7	2 - #7	-
3+ Span	100	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #7

Design Table Notes:

1. Design tables are for cost estimating purposes only. Final beam reinforcing to be designed by a licensed design professional in responsible charge.
2. For 1 span condition, longitudinal reinforcing steel only required in bottom of beam.
3. For 2 and 3+ span conditions, longitudinal reinforcing required in both top and bottom of beam.
4. Shaded cells in table reflect need for shear reinforcing in beam. Shear reinforcing to be designed by a licensed design professional in responsible charge.
5. For 2 and 3+ span conditions, center long. reinforcing in bottom of beam at midspan and in top beam at support.
6. Provide 3/4" minimum concrete cover to all reinforcing steel for interior exposure. Refer to the latest ACI318 for minimum clearance for other exposures.
7. Multiple span reinforcing is valid for same length spans only.

LiteDeck®

System 12+2

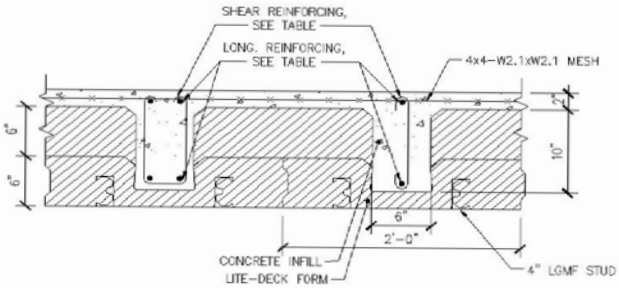
Tabulated spans between 10' and 26'

Material Parameters

Concrete Strength = 3000 psi

Reinforcement Strength = 60 ksi

Normal Weight Concrete = 145 lbs/ft^3



12" LITE–DECK FORM
2" CONCRETE SLAB

			Minimum Reinforcing Steel Required For Given Span																
	Superimposed		2' to 8'	11'	12'	13'	14'	15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	25'	26'
Span Condition	Live Load (PSF)	Dead Load	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.
1 & 2 Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6
3+ Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5
1 & 2 Span	80	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	-	-
3+ Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6
1 & 2 Span	100	15	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	-	-	-
3+ Span	100	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #6	2 - #6

Design Table Notes:

1. Design tables are for cost estimating purposes only. Final beam reinforcing to be designed by a licensed design professional in responsible charge.
2. For 1 span condition, longitudinal reinforcing steel only required in bottom of beam.
3. For 2 and 3+ span conditions, longitudinal reinforcing required in both top and bottom of beam.
4. Shaded cells in table reflect need for shear reinforcing in beam. Shear reinforcing to be designed by a licensed design professional in responsible charge.
5. For 2 and 3+ span conditions, center long. reinforcing in bottom of beam at midspan and in top beam at support.
6. Provide 3/4" minimum concrete cover to all reinforcing steel for interior exposure. Refer to the latest ACI318 for minimum clearance for other exposures.
7. Multiple span reinforcing is valid for same length spans only.

LiteDeck®

System 12+4

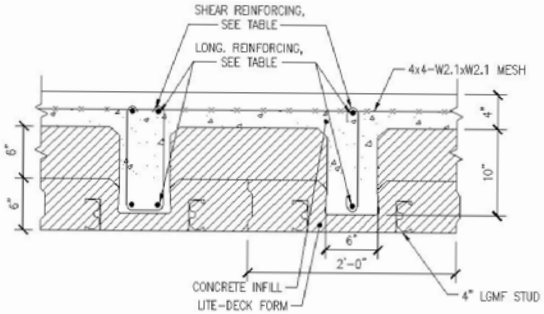
Tabulated spans between 11' and 30'

Material Parameters

Concrete Strength = 3000 psi

Reinforcement Strength = 60 ksi

Normal Weight Concrete = 145 lbs/ft^3



12" LITE-DECK FORM
4" CONCRETE SLAB

			Minimum Reinforcing Steel Required For Given Span																			
	Superimposed		2' to 11'	12'	13'	14'	15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	25'	26'	27'	28'	29'	30'
Span Condition	Live Load (PSF)	Dead Load	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.	Long. Reinf.
1 & 2 Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #6	2 - #6
3+ Span	40	10	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6
1 & 2 Span	80	15	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #7	2 - #7	2 - #7	2 - #7	-
3+ Span	80	15	1 - #4	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #6	2 - #7	2 - #7
1 & 2 Span	100	15	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #6	2 - #7	2 - #7	2 - #7	-	-	-
3+ Span	100	15	1 - #4	1 - #4	1 - #4	1 - #5	1 - #5	1 - #5	1 - #6	1 - #6	1 - #6	1 - #6	2 - #5	2 - #5	2 - #5	2 - #6	2 - #6	2 - #6	2 - #6	2 - #7	2 - #7	2 - #7

Design Table Notes:

1. Design tables are for cost estimating purposes only. Final beam reinforcing to be designed by a licensed design professional in responsible charge.
2. For 1 span condition, longitudinal reinforcing steel only required in bottom of beam.
3. For 2 and 3+ span conditions, longitudinal reinforcing required in both top and bottom of beam.
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6. Provide 3/4" minimum concrete cover to all reinforcing steel for interior exposure. Refer to the latest ACI318 for minimum clearance for other exposures.
7. Multiple span reinforcing is valid for same length spans only.