EVALUATION REPORT Number: 329

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COMPOSITE STEEL FLOOR DECK AND NON-COMPOSITE FORM DECK

CSI Division: 05 00 00 Metals

CSI Sections: 05 31 00 Steel Decking
05 31 13 Steel Floor Decking

1.0 RECOGNITION

ASC Composite Steel Floor Deck and Non-Composite Form Deck described in this report were evaluated for use as steel decking. The structural and fire resistance properties of the steel deck were evaluated for compliance with the following codes:

- 2021, 2018, 2015, and 2012 International Building Code® (IBC)
- 2022 and 2019 California Building Code® (CBC) – attached supplement
- 2020 City of Los Angeles Building Code (LABC) – attached supplement
- 2020 City of Los Angeles Residential Code (LARC) – attached supplement

ASC Composite Steel Floor Deck and Non-Composite Form Deck comply with the codes listed in Section 1.0 of this report, as defined in Section 2210 of the IBC, as applicable.

2.0 LIMITATIONS

Use of the ASC Composite Steel Floor Deck and Non-Composite Form Deck described in this report is subject to the following limitations:

2.1 Deck Thickness: The uncoated steel base-metal thickness for all decks shall be at least 95 percent of the design base steel thickness given in Tables 4, 5, 8, 9, 12, 13, 16, 17, 20, 22, 25, 28, 31, and 34 of this report.

2.2 The decks are manufactured, identified, and installed in accordance with this report, the approved plans, and ASC Steel Deck published installation instructions. If there is a conflict between this report and the published installation instructions, the more restrictive governs.

2.3 Calculations and details demonstrating that the loads applied to the decks comply with this report shall be submitted to the building official for approval. Calculations and drawings shall be prepared, signed, and sealed by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

2.4 Special Inspections and Structural Observations are required in accordance with Section 3.7 of this report.

2.5 Vibratory Loads: The tables in this report do not apply to loads that are predominately vibratory, such as for the operation of heavy machinery, reciprocating motors, moving loads, and large concentrated loads shall be analyzed and designed by the registered design professional to support these loads accordingly.

2.6 Non-cellular and cellular Steel Decks and Deep Decks are manufactured in Kalama, Washington. C0.9 and C1.4 Form Decks are manufactured in West Sacramento, California.

2.7 All attachments to the underside of the riveted cellular deck and Acustadeck for the support of suspended items shall be made at low flute location only. The design professional is responsible for verifying that the connection to the low flute material has sufficient capacity to resist the suspended load.

3.0 PRODUCT USE

3.1 General Design: Steel decks may resist gravity and in-plane diaphragm shear loads. The registered design professional of record shall verify that imposed loads on the steel deck panels do not exceed the design loads contained within this report.

3.2 Diaphragm Design:

3.2.1 General: Load and Resistance Factor Design (LRFD) diaphragm shear and flexibility (stiffness) shall be in accordance with Tables 7, 11, 15, 19, and 21 of this report including the General Notes of this report. The composite and non-composite deck diaphragm shear tables in this report are based on the SDI C-2017 and AISI S310-20 standards.

The diaphragm size shall be limited by:

a. Engineering mechanics using the shear stiffness or flexibility factor for the diaphragm.
b. Applied loads.
c. Shear capacity of the diaphragm.
d. Diaphragm shear deflection limited is by the requirements of ASCE 7 Section 12.8.6 titled “Story Drift Determination” and Section 12.12 titled “Drift and Deformation”.

Where use is as diaphragms:

1. Diaphragm deflections shall not exceed the permitted relative deflections of walls between the diaphragm level and the floor below.
2. Diaphragms may be zoned by varying deck gauges across a diaphragm to meet varying shear and flexibility demands.

3.2.2 Alternative Method: An acceptable alternative method for determining composite diaphragm shear performance shown in the tables of this report is given in Technical Manual TM 5-809-10/NAVFAC P-355/AFM 88-3, Seismic Design Guidelines for Essential Buildings, Chapter 13 (Tri-Services Method). Allowable Stress Design Diaphragm shear capacity in accordance with the Tri-Services Method shall be calculated using equation EQ-1:

Shear Capacity $q_d = (q_1 + q_6)$ (Eq.-1)

where:

q_d = Allowable shear in pounds per foot (ppf).
q_1 = $[92\ S\ (t_1+t'_2)\ K] / (b\ L_v)$, ppf
q_6 = $(q_6' + q_6'')$, ppf
q_6' = $(t_f\ w^{1.5}\ f'_c{}^{1/2}) / 200$, ppf
q_6'' = $2\ [\ K\ b / (d\ (t_1 + t'_2))\ ]^{1/2}$, ppf

Flexibility Factor = $20 * q_6'' / b^2\ q_d$

These diaphragms usually fall into the rigid category.

where:

K = 1,000 for composite decks
t_f = slab thickness over top of the deck in inches
t_1 = pan thickness in inches
t_2 = flute thickness in inches
t'_2 = effective thickness of fluted element in inches
= $[t'_2/t_2] * t_2$. the $[t'_2/t_2]$ term shall be taken from Table A of this report below where x is the width of the ending side lap low flute.

TABLE A	
Deck Section	**$[t'_2/t_2]$**
Non-cellular decks $t_1 = 0$	1
Multiple-sheet decks:	
$x \geq ¾$"	2/3
¾" > x > ½"	1/4
$x \leq ½$"	0

b = deck width in feet
d = distance between outer welds in feet
L_v = span in feet
f'_c = concrete compressive strength in psi
w = Concrete unit weight in pcf
S = Section Modulus in feet of puddle weld group at supports (each weld assumed as unit area)

The total deflection Δ_d of the diaphragm may be computed from equation EQ-2:

$\Delta_d = \Delta_f + \Delta_w$ (Eq-2)

where:

Δ_d = total deflection at a point on the diaphragm, inches
Δ_f = flexural deflection of the diaphragm, which is determined in the same manner as the deflection of beams, inches
Δ_w = web (shear) deflection, inches
= $(q_{ave} L_l F)/10^6$
q_{ave} = Average allowable shear in diaphragm over length L_l, pounds per foot
L_l = Distance between the vertical resisting element (such as a shear wall) and the point to which the deflection is to be determined, feet
F = Flexibility factor: The average microinches a diaphragm web will deflect in a span of 1 foot under a shear of 1 pound per foot

In accordance with the Tri-Services Method, the superimposed fill of concrete shall have a minimum compressive strength of 2,500 psi at 28 days and a minimum weight of 90 pounds per cubic foot. The minimum concrete fill over the deck shall be 2½ inches. Temperature reinforcement shall be used in the fill with the minimum 6x6—W1.4xW1.4 welded wire fabric. Steel decks less than 1½ inches in depth do not qualify as diaphragms.

3.3 Superimposed Loads: Superimposed Allowable Strength Design (ASD) and Load and Resistance Factor Design (LRFD) loads shall be in accordance with Tables 7, 11, 15, 19, and 23 of this report including the General Notes of this report.

Superimposed load capacities of ASC Steel Deck's composite concrete deck slabs are calculated per ANSI SDI C-2017 Appendix 2. This method of calculation considers the geometry of the steel deck panel and concrete topping to establish bending capacity based on the tension yielding of the extreme fiber. While the deck is required to have web embossments that meet established pattern and depth requirements, this calculation method does not allow the embossments to contribute additional composite slab capacity beyond yielding of the extreme fiber by limiting the calculated embossment factor, K, to a maximum of 1.

This calculation approach results in a conservative superimposed load capacity as compared to other approaches that rely on controlled testing of composite slabs which can allow for the use of factors above 1.0, which allow for partial steel plastification and push superimposed load capacities beyond the SDI calculated tension yielding limits.

3.4 Fire-resistance Ratings: The steel decks are permitted to be used as a component of a fire-resistance-rated assembly in accordance with IBC Section 703.2, based on testing in accordance with ASTM E119 or UL 263. Alternative methods in IBC Section 703.3 are also permitted. Fire-resistance based on testing in accordance with ASTM E119 or UL 263 may be established when the registered design

professional specifies and the building official approves a fire-resistance-rated assembly, listing the specific ASC Steel Deck type described in this report, from the Underwriters Laboratories Online Certifications Directory.

3.5 Corrosion Resistance: In high moisture atmospheres, G60 (Z180) or G90 (Z275) galvanized coating designations are recommended for the steel deck. In highly corrosive or chemical atmospheres or where reactive materials could be in contact with the steel deck, special care in specifying the finish shall be considered with the finish selected by the registered design professional.

3.6 Installation: The deck systems shall be installed on steel supports in accordance with this report, the Steel Deck Institute *Manual of Construction with Steel Deck*, ASC Steel Deck installation instructions, and the construction documents, ANSI/SDI C-2017, and all welds shall comply with AWS D1.3.Deck panel erection sequence and installation method is the responsibility of the contractor(s) performing installation of the steel panels. Deck surfaces shall be cleaned of debris, including, but not limited to welding rods, stud ferrules that are broken free from the stud, and excess fasteners, prior to concrete placement.

3.7 Special Inspections

3.7.1 Special Inspections: Special inspections are required in accordance with Chapter 17 of the IBC for steel, cold-formed steel, and concrete construction as applicable to the project.

3.7.2 Jobsite Welding: Periodic special inspection for welding shall be in accordance with IBC Section 1705.2 and SDI QA/QC. Prior to proceeding, the welder shall demonstrate the ability to produce the prescribed weld to the special inspector's satisfaction using a procedure as described in ANSI/AWS D1.3. The inspector's duties include verification of materials, weld preparation, welding procedures, and welding processes.

3.7.3 Screw and Power-Actuated Fastener Connections: Periodic special inspections for screw and power-actuated fastener connections are required where the steel deck systems are used in a seismic-force-resisting system in structures assigned to Seismic Design Category C, D, E, or F in accordance with 2021 IBC Section 1705.13, 2018 and 2015 IBC Section 1705.12, or 2012 IBC Section 1705.11; or a wind-force resisting system in areas described in 2021 IBC Section 1705.12, 2018 and 2015 IBC Section 1705.11, or 2012 IBC Section 1705.10, as applicable

3.7.4 Concrete: Continuous and periodic special inspections are required for concrete construction in accordance with Chapter 17 IBC Section 1705.3. The inspector's duties include verifying concrete mix design, sampling of fresh concrete for strength tests, performing slump and air concrete tests, measuring concrete temperature, identifying steel deck and reinforcement, inspecting steel deck and reinforcement placement, and inspecting concrete placement.

3.7.5 Structural Observations: Structural observations are required in accordance with Chapter 17 of the IBC for steel, cold-formed steel, and concrete construction as applicable to the project.

3.7.6 Material Traceability: Bundles marked in accordance with Section 5.0 of this report provide proof of material traceability required to conform to the requirements of Section 1705.2.2 of the 2021, 2018, and 2015 IBC or Table 1705.2.2, Item 1 of the 2012 IBC, as applicable.

4.0 PRODUCT DESCRIPTION

4.1 General: All composite Hi Form® steel decks are fluted sections of cold-formed steel sheets with web embossments. The steel conforms to ASTM A653 SS Grade 50 minimum or HSLAS designations Grade 55 minimum or from bare mill finish steel conforming to ASTM A1008 SS Grade 50 Type 1 or 2. The decks are galvanized to No. G40 coating designation minimum. The galvanized deck is available with optional prime paint on the underside of the steel deck. All Steel Form Decks are formed from galvanized steel conforming to ASTM A653 SS Grade 80 and Grade 40.

4.2 Deck Types

4.2.1 Non-Cellular Hi-Form® Composite Deck Types: 3WxH-36, 2WH-36, 2WHS-36, BH-36, BHN-36, BHN-36R, NH-32, and NHN-32. Deck profiles are shown in Figures 5, 7, 9, 11, and 15 of this report. Non-cellular nestable decks, designated with an "N", and screwable side lap decks, designated with an "S", may be designed using the same performance tables as the standard interlock decks.

Non-cellular decks may include optional vent tabs providing approximately one percent open area. These deck types are designated by "V" as follows. 3WxH-36V, 2WH-36V, 2WHS-36V, NH-32V, NHN-32V, BH-36V, and BHN-36V. Vented deck types may be designed based on the same performance as non-vented deck types.

4.2.2 Form Deck Types: C 0.9-32 and C1.4-32 deck profiles are shown in Figures 14 and 15 of this report. 4.5D, 6.0D, and 7.5D Deep Decks are shown in Figures 16, 17, and 18.

4.2.3 Cellular Hi-Form® Composite Deck Types: 3WxHF-36, 2WHF-36, BHF-36, and NHF-32: Hi-form decks denoted by the letter "F" are cellular decks that have the fluted section (the beam) resistance welded or riveted to the flat sheet (the pan). The gauge combination for the cellular deck is specified as the beam/pan. The first number (**XX**/xx) in the gauge combination refers to the top fluted section and the second number (xx/**XX**) refers to the pan section. The male and female side seam interlock is formed

out of the pan section. Deck profiles are shown in Figures 6, 8, 10, and 12 of this report.

4.2.4 Cellular Hi Form Composite Acustadek® Types: 3WxHF-36A, 2WHF-36A, BHF-36A, and NHF-32A: The Acustadek types denoted by the letter "A" and are identical to the cellular version of the profile except that the pan has perforations. The acoustic performance of the deck has not been evaluated in this report.

4.3 Concrete: Concrete shall be either lightweight concrete (LWC) or normal weight concrete (NWC) shall have a minimum 28-day compressive strength of 3,000 psi (20.68 MPa), shall comply with Chapter 19 of IBC. The design unit weight for LWC is 110 pcf (1760 kg/m^2) with a tolerance of 3 pcf (48 kg/m^3) and NWC is 145 pcf (2320 kg/m^2).

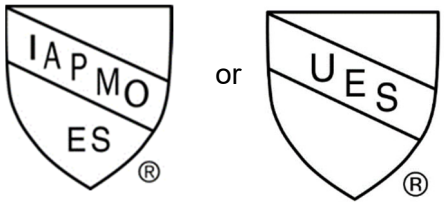
4.4 Connections:

4.4.1 General: The deck may be attached to supports with arc spot welds, arc seam welds, power-actuated fasteners (PAF), or self-drilling screws in accordance with the general notes. Deck side seams may be interconnected with button punches, DeltaGrip® top seam welds, or self-drilling screws in accordance with the general notes of this report.

4.4.2 Simpson Strong-Tie Screws: The XL Large Head and XM Medium Head Metal Screws are self-drilling tapping screws used to connect the steel decks to steel supports. The X1S1016, XQ1S1016, and XU34B1016 Metal Screws are self-drilling tapping screws used to connect steel deck panels together at side laps. Information on the screws is in IAPMO UES ER-326.

5.0 IDENTIFICATION

The decks shall be identified with a visible label on each deck unit and the bundle of panels. The label shall include the manufacturer's name and address, deck designation, ASTM steel specification, steel gauge and thickness, and amount of galvanization. The IAPMO Uniform ES Mark of Conformity. may also be used as shown below:



IAPMO UES ER-329

6.0 SUBSTANTIATING DATA

Data in accordance with the IAPMO Uniform Evaluation Service EC-007 revised April 2021, Evaluation Criteria for Steel Composite, Non-composite, and Roof Deck Construction. Test reports are from laboratories in compliance with ISO/IEC 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on ASC Steel Deck Composite Steel Floor Deck to assess its conformance to the codes listed in Section 1.0 of this report and serves as documentation of the product certification. Products are manufactured at locations noted in Section 2.6 of this report under a quality control program with periodic inspection under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org

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GENERAL NOTES

General

1. The general notes apply to the entire report.
2. The composite steel deck is manufactured from galvanized steel conforming to ASTM A653 SS Grade 50 or bare steel conforming to ASTM A1008 SS Grade 50.
3. The concrete slab depth in the tables is measured from the bottom of the deck to the top of the concrete.
4. The vertical load span is the clear span between supporting members.
5. Superimposed load is the load that may be applied to the composite deck in addition to the weight of the steel deck and concrete.
6. No uniform service load, based on an L/360 deflection limit, is shown in the tables when the load exceeds the allowable superimposed load.
7. For composite steel deck assemblies that exceed the scope of the table, the performance may be determined in accordance with ANSI/SDI C-2017.
    a. For 2WH-36 and 2WHF-36 the embossment shape is Type 1 with an embossment factor, K = 1.0, in reference to Eq. A2-8 in ANSI/SDI C-2017
    b. For 3WxH-36 and 3WxHF-36, the embossment shape is Type 2 with embossment factor K = 1.0, in reference to Eq. A2-8 in ANSI/SDI C-2017
    c. For BH-36 and BHF-36 the embossment shape is Type 1 with an embossment factor, K = 1.0, in reference to Eq. A2-8 in ANSI/SDI C-2017
    d. For NH-32 and NHF-32 the embossment shape is Type 2 with an embossment factor, K = 1.0, in reference to Eq. A2-8 in ANSI/SDI C-2017
8. Load tables are based on the non-cellular version of profiles. The addition of the pan (bottom plate) of the cellular deck increases the steel area and inherently increases the performance of the composite deck assembly. Using non-cellular design values in tables is therefore conservative.
9. The cellular deck section properties listed within this report are based on a riveted beam/pan which provides more conservative design values vs resistance welded cellular deck. Cellular deck designations "F" (welded) and "Fr" (riveted) may be used interchangeably.
10. Definition of symbols for composite deck

A_s	Area of reinforcing steel
I_{cr}	Cracked moment of inertia
I_u	Un-cracked moment of inertia
$(I_{cr}+I_u)/2$	Moment of inertia for determining deflection under service load
L	Vertical load clear span
M_{no}/Ω	ASD available flexural strength
V_n/Ω	ASD available vertical shear strength
ϕM_{no}	LRFD available flexural strength
ϕV_n	LRFD available vertical shear strength
ϕS_n	LRFD available diaphragm shear strength
PAF	Power-actuated fastener
W/Ω	ASD available superimposed load capacity
ϕW	LRFD available superimposed load capacity

11. Definition of symbols for panel properties

A_g	Gross Area of steel deck cross-section
t	Design base steel thickness of steel deck
F_y	Yield strength of steel
F_u	Tensile strength of steel
I_g	Moment of inertia of the gross section
y_b	Distance from extreme bottom fiber to the neutral axis of gross or effective section
s_g	Minimum section modulus for gross section
r	radius of gyration
A_e	Effective area for compression
s_e-	Negative effective section modulus
s_e+	Positive effective section modulus

GENRAL NOTES (continued)

I_e+	Positive effective moment of inertia
I_e-	Negative effective moment of inertia
I+	Positive effective moment of inertia for determining deflection
I-	Negative effective moment of inertia for determining deflection

12. Definition of symbols for reactions

h	Flat width of the web
R/Ω	ASD available reaction capacity at support based on web crippling
ϕR	LRFD available reaction capacity at support based on web crippling
r	centerline bend radius of web/flange transition
θ	angle relative to the support of the web

13. Definition for headed shear stud anchors

Q_n	Nominal shear capacity for one welded headed shear studs anchor
Q_n/Ω	ASD available shear capacity for one welded headed shear studs anchor
ϕQ_n	LRFD available shear capacity for one welded headed shear studs anchor

Deck as a form

1. Shoring spans are based on the load combinations and flexural strength requirements of ANSI/SDI C, which include the weight of the deck. The loading includes the weight of the deck, concrete, and 20 psf uniform construction load or 150 lbs/ft line load at mid-span. In addition to the loads in accordance with ANSI/SDI C, 3 psf is added for normalweight concrete, and 2 psf is added for lightweight concrete to account for ponding due to deck deflection between supporting members.
2. The theoretical deflection is limited to L/180, but not to exceed 3/4 inch for the weight of concrete and steel deck only.
3. Reactions at the supports shall not be exceeded. The shoring span may be limited by the reactions at supports in some conditions. For support reactions exceeding the reaction tables, the reactions shall be based on the web crippling of the steel deck using the flat width (h), angle to support (θ), and bend radius (r) presented in the reactions tables in accordance with the provisions of AISI S100. Conditions exceeding the scope of the tables, such as cantilever spans, may be determined in accordance with ANSI/SDI C and submitted to the building official for approval.

Concrete and minimum reinforcing

1. The tables presented in this report are based on minimum 28-day compressive strength for structural concrete of 3,000 psi (20.68 MPa). The appropriate concrete density (normal weight or lightweight) is indicated in the tables. Based on the standards referenced in this report (ACI 318, ANSI SDI C, AISI S310), superimposed load and diaphragm shear calculations complying with codes noted on page 1 of this report may be generated for concrete compressive strengths up to 6,000 psi and for structural lightweight concrete densities up to 120 pcf.
2. The minimum reinforcing may be provided by reinforcing steel, welded wire fabric, or fibers in accordance with one of the following.
    a. Steel reinforcing shall be at least 0.00075 times the area of the concrete above the steel deck but not less than 6x6 W1.4 x W1.4 welded wire fabric complying with ASTM A1064 with a 60 ksi minimum tensile strength.
    b. Concrete steel fibers in accordance with ANSI/SDI C-2017 Section 13.a.2. Concrete shall be specified in accordance with ASTM C1116, Type I, containing steel fibers complying with ASTM A820, Type I, Type II, or Type V.
    c. Concrete macrosynthetic fibers in accordance with ANSI/SDI C-2017 Section 13.a.3. Concrete shall be specified in accordance with ASTM C1116, Type III, containing macrosynthetic fibers complying with ASTM D7508.

Attachment of composite steel deck to supports

1. To develop the shear capacity in the tables, the deck shall be attached to the supports with the specified fastener pattern.
2. Spacing of welds or fasteners running parallel with the deck flutes shall not exceed 36 inches on center.
3. Power-actuated fasteners shall be installed in accordance with the manufacturer's instructions.

GENERAL NOTES (continued)

4. Welds and fasteners to the supports shall be as follows:
   a. Welds
      i. Welds shall have a filler metal with a minimum strength of 60 ksi. For shielded metal arc welding a minimum E60xx electrode is required.
      ii. Arc spot (puddle) welds shall have a minimum ½ inch effective diameter and a minimum ⅝ inch visible diameter.
      iii. Arc seam welds shall have a minimum ⅜-inch x 1-inch effective size and may be substituted for ½ inch effective diameter arc spot welds.
   b. Power-actuated fasteners (PAF) placed into support steel ≥ 0.25 inch thick shall be:
      i. Hilti X-ENP19
      ii. Pneutek K64
      iii. Pneutek K66
   c. Power-actuated fasteners (PAF) in support steel ≥ 0.125 inch thick shall be:
      i. Hilti X-HSN 24
      ii. Pneutek K63
      iii. Pneutek K61
   d. Self-drilling screws in support steel ≥ 0.0385 inch thick shall be:
      i. #12 Self Drilling-Screw in accordance with SAE J78
   e. Minimum Edge Distance
      i. Steel decks may be butted at supports or end lapped. The standard end lap is a 2-inch overlap with a tolerance of ± ½ inch. A minimum 1½ inch overlap (2-inch standard less ½-inch tolerance) is required. Overlaps greater than 2½ inches do not affect diaphragm performance but are more difficult to install.
      ii. The minimum edge distance for self-drilling screws and power-actuated fasteners (pins/nails) is ½ inch.
      iii. The minimum edge distance for welds is ¾ inch measured from the center of the arc spot weld and the center of the end radius of the arc seam weld.

FIGURE 1: DECK TO SUPPORT EDGE DISTANCE

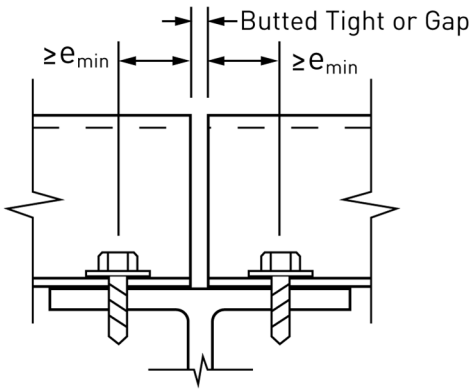


Figure 1a: Butted Deck Condition

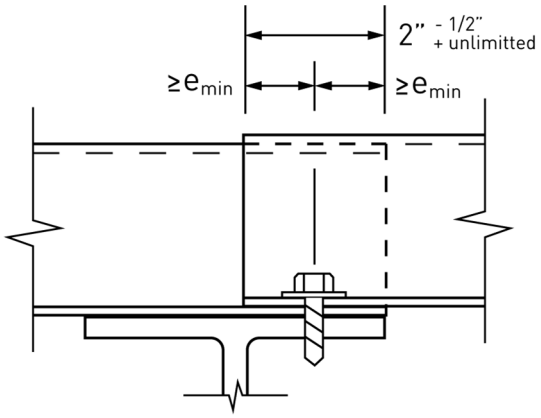


Figure 1b: End Lapped Deck Condition

Side seam attachment between deck panels

1. The minimum side seam attachment is a button punch at 36 inches on center maximum. For BHN-36R deck the side seam attachment is #12 screws at 36 inches on center maximum.
2. Triple button punches, DeltaGrip® side seam connections, arc top seam welds, or self-drilling screws may be substituted on a one-to-one basis for button punches at spacings from 4 inches to 36 inches.
3. The minimum edge distance for side lap screws is 1.5 times the nominal diameter of the screw.

GENERAL NOTES (continued)

Diaphragm shear attached with arc spot welds, power-actuated fasteners, or self-drilling screws.

1. Diaphragm shear performance may be determined in accordance with AISI S310. Under the 2015 and 2012 IBC, for composite steel deck assemblies that exceed the scope of the tables, the diaphragm shear performance also may be determined in accordance with the SDI DDM03 referenced in ANSI/SDI C-2011.
2. Diaphragms with concrete fill have a flexibility factor, f < 0.5 micro inches per lbf, which is equal to a shear stiffness, G' > 2000 kip/inch
3. Spacing of welds or fasteners transferring shear between the composite steel deck and supporting structures shall be based on the shear demand and the weld or fastener shear resistance.

   fastener spacing (ft) = weld or fastener capacity (lbf)/ required shear (lbf/ft)

4. Resistance and safety factors for diaphragm shear, $\phi_d = 0.5$ (LRFD) and $\Omega = 3.25$, are in accordance with Section D4.1 of AISI S310.

Diaphragm shear with welded headed shear stud connectors

1. Concrete shear reinforcing steel shall be provided that complies with the minimum specified reinforcing area, A_s, in the table based on the suggested welded wire reinforcing size. Reinforcing shall have minimum yield strength of 60,000 psi and comply with the requirements of ACI 318 for standard reinforcing bars or standard welded wire reinforcement.
2. To achieve tabulated diaphragm shears, the welded stud shear connectors are only required at locations in which diaphragm shear is being transferred between the composite deck slab and supporting members. Intermediate support members may be attached with welds, screws, or PAF's (power-actuated fasteners).
3. Based on the standards referenced in this report (AISI S310), diaphragm shear calculations complying with codes noted on page 1 of this report may be generated based on the use of alternative side lap and edge connection methods and spacings from 4 inches to 36 inches on center.
4. Diaphragm shear strength and stiffness shall be calculated in accordance with AISI S310-16 with the following modifications:

   Proprietary fasteners:

   a. Delta Grip System

   The nominal shear strength resistance for Delta Grip System (DG) connection shall be determined in accordance with Eq-3:

   $$Pns = 27.9 * (t)^2 * Fu \qquad \text{(Eq-3)}$$

   The flexibility of the Delta Grip System connection shall be determined in accordance with Eq-4:

   $$S_s = \frac{0.04}{1000 * (t)^2} \qquad \text{(Eq-4)}$$

   Where,

   t = Base Steel thickness of panel in inches
   S_s = Sidelap connection flexibility (in/kip)
   P_{nf}= Nominal shear strength of a support connection in Kips
   P_{ns}= Nominal shear strength of a side-lap connection per fastener in Kips

   b. Simpson Strong-Tie Screws

   The nominal shear strength for Simpson XL Large Head Metal Screws and Simpson XM Medium Head Metal Screws shall be determined using the equations provided in IAPMO UES ER-326.

5. Intermediate ribs of the steel deck not attached with welded stud shear connectors shall be fastened to the supporting member with arc spot welds, self-drilling screws, or power-actuated fasteners.
6. The welded stud shear connector strength assumes the weak position in the deck flute in accordance with AISC 360 Commentary and Figure C-I8.1.

7. Tabular values for the shear strength of the concrete diaphragm above the deck are in accordance with ACI 318 based on a strength reduction factor $\phi = 0.75$. ACI 318-19 and -14 Section 18.12 or ACI 318-11 Section 21.11 provides additional requirements to be considered in seismic design.
8. The welded stud shear connector shall extend 1½ inches above the top of the steel deck and shall have a minimum of ½ inch concrete cover above the top of the installed welded stud shear connector in accordance with AISC 360-16 Section I3.2c(1)(b) or AISC 360-10 Section I3.2c(1)(2), as applicable.
9. The supporting member flange shall not be less than 0.3 inches thick unless the welded stud shear connector is welded over the web of the supporting member in accordance with AISC 360 Section I8.1
10. The maximum center-to-center spacing of welded stud shear connector shall not exceed 8 times the depth of concrete above the deck or 36 inches in accordance with AISC 360 Section I8.2d.
11. Concrete reinforcement details shall be in accordance with ACI 318.
12. For local shear transfer in the field of the diaphragm, ¾ inch diameter welded stud shear connectors shall be determined in accordance with AISC 360. The following shear capacities are for 2 inches of concrete cover above the steel deck and may be used conservatively for all thicknesses greater than 2 inches:

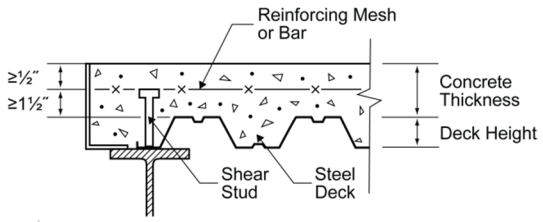
TABLE 1: AVAILABLE HEADED SHEAR STUD CAPACITY[1,2]

145 pcf Normal Weight Concrete and 110 pcf Lightweight Concrete	Shear Capacity	
Deck Types	**ASD Q_n/Ω**	**LRFD ϕQ_n**
2WH-36, 2WHF-36, 2WHF-36A, 3WxH-36,3WxHF-36, 3WxHF-36A 3WH-36, 3WHF-36, and 3WHF-36A	7.46 kips	11.20 kips
BH-36, BHF-36, BHF-36A and NH-32, NHF-32, and NHF-32A	6.35 kips	9.53kips

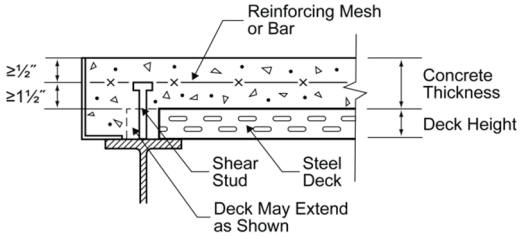
[1]The allowable shear values in the table utilize a factor of safety $\Omega = 2.31$ and an LRFD factor of $\phi = 0.65$.
[2]Shear capacities apply to deck parallel and perpendicular to load direction.

13. Figure 2 of this report provides typical details

FIGURE 2: HEADED STUD ANCHOR AND REINFORCING DETAILS



Deck Parallel to Beam



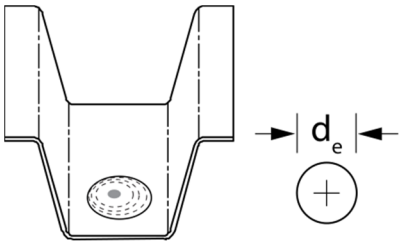
Deck Perpendicular to Beam

GENERAL NOTES (continued)

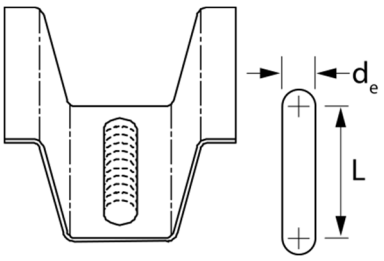
14. For diaphragm shear of composite deck steel deck assemblies attached with welded shear studs that exceed the scope of the tables the diaphragm shear may be determined in accordance with the provisions of ACI 318 and AISC 360 as follows:

    a. The diaphragm shear shall be the lesser of the capacity of the reinforced concrete and the capacity of the welded shear studs to transfer the shear from the supporting member to the reinforced concrete section.
    b. Reinforced concrete shear shall be determined in accordance with the requirements of ACI 318 using the concrete thickness above the steel deck.
    The welded shear stud strength shall be determined in accordance with AISC 360.

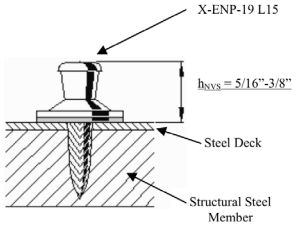
FIGURE 3: CONNECTIONS TO SUPPORTS



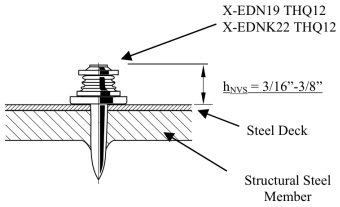
ARC SPOT WELD



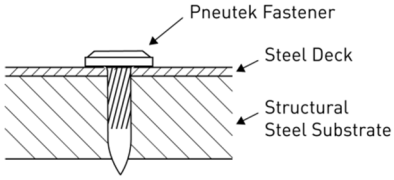
ARC SEAM WELD



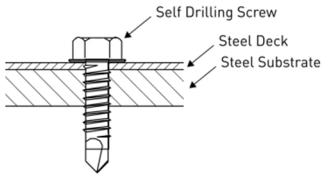
HILTI X-ENP 19 FASTENER



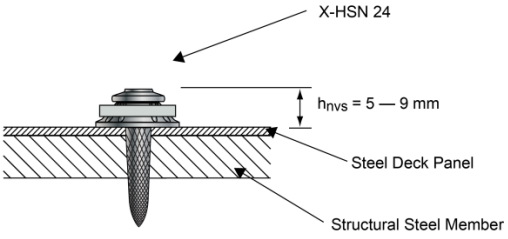
HILTI X-EDN 19 OR XEDNK22 FASTENER



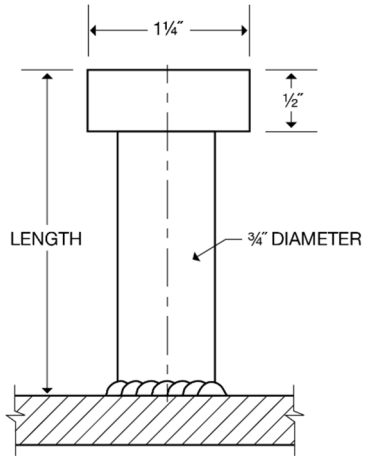
PNEUTEK FASTENER



#12 SELF-DRILLING SCREW



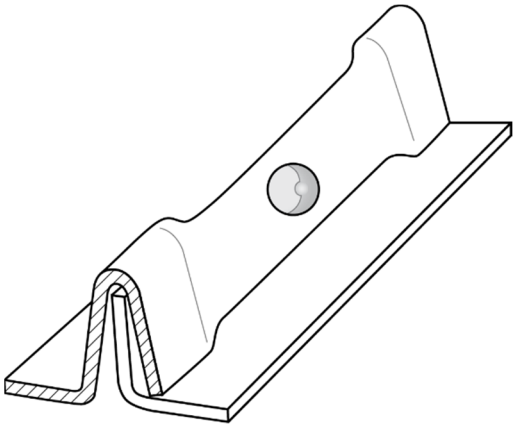
HILTI X-HSN 24 FASTENER



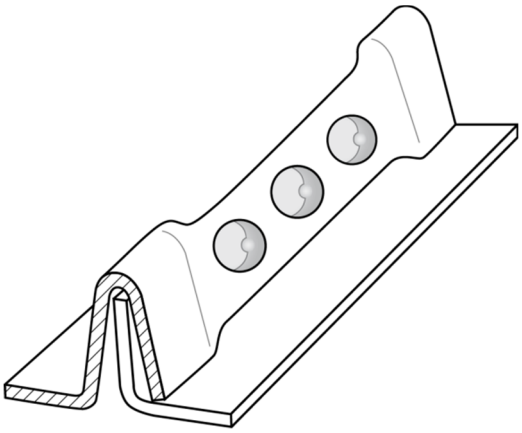
WELDED SHEAR STUD ANCHOR

GENERAL NOTES (continued)

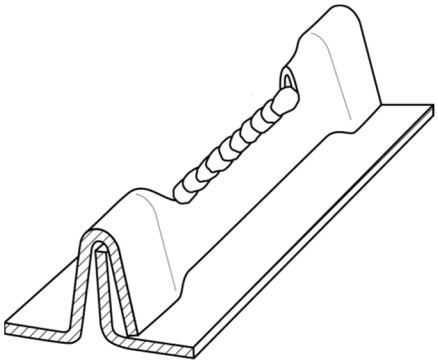
FIGURE 4: SIDE SEAM CONNECTIONS



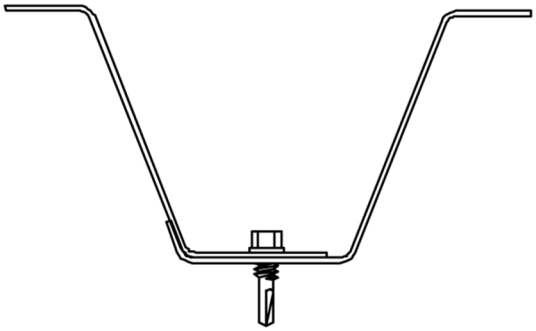
BUTTON PUNCH



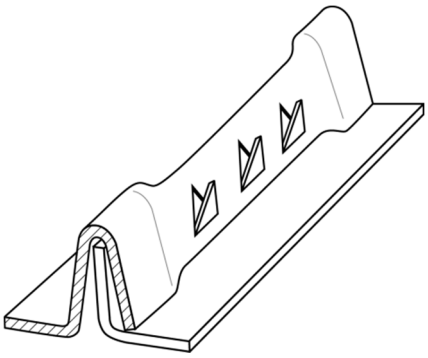
TRIPPLE BUTTON PUNCH



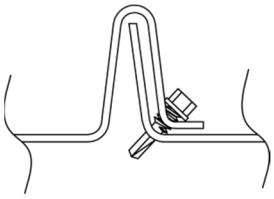
TOP ARC SIDE LAP WELD
(TOP SEAM WELD)



SELF-DRILLING SCREW
(NESTABLE SIDE LAP)



DELTAGRIP™



SELF-DRILLING SCREW
(SCREWABLE STANDING SEAM SIDE LAP)

TABLE 2: NOMINAL WELD CAPACITIES

Nominal Weld Strength, per AISI S100-16 w/S2-20				
Deck Profile	Gage	Arc Spot (puddle) Weld (1/2 in effective diameter)		Arc Seam Weld (3/8 in x 1 in effective width and length)
		Shear (lbs)	Tensile (lbs)	Shear (lbs)
BH-36, NH-32, 3WxH-36	22	2416	2310	3873
	21	2886	2541	4293
	20	3364	2755	4688
	19	4486	3200	5531
	18	5701	3618	6344
	16	7263	4056	8065
2WH-36	22	2323	2243	3752
	21	2886	2541	4293
	20	3364	2755	4688
	19	4486	3200	5531
	18	5613	3589	6287
	16	7263	4056	8065
4.5D-12, 6D-12, 7.5D-12	20	3052	2608	3967
	18	4982	3425	5368
	16	6145	4225	6824
	14	7569	4538	8730
BHF-36, NHF-32, 3WxHF-36	20/20	8608	4056	9851
	20/18	8836	4056	11521
	20/16	8836	4056	13392
	18/20	8836	4056	11660
	18/18	8836	4056	13376
	18/16	8836	4056	15298
	16/20	8836	4056	13534
	16/18	8836	4056	15298
	16/16	8836	4056	17271
2WHF-36	20/20	8608	4056	9851
	20/18	8836	4056	11521
	20/16	8836	4056	13392
	18/20	8836	4056	11598
	18/18	8836	4056	13313
	18/16	8836	4056	15233
	16/20	8836	4056	13534
	16/18	8836	4056	15298
	16/16	8836	4056	17271
4.5DF-24, 6DF-24, 7.5DF-24	20/20	7283	4538	8336
	20/18	8287	4538	9749
	20/16	8836	4538	11332
	18/20	8368	4538	9866
	18/18	8836	4538	11318
	18/16	8836	4538	12944
	16/20	8836	4538	11452
	16/18	8836	4538	12944
	16/16	8836	4538	14614

Safety and Resistance Factors for Welds Per AISI S100, Section J2

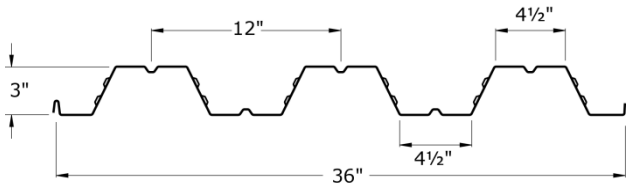
	Shear		Tension	
	W	F	W	F
Arc Spot Weld	2.80	0.55	2.50	0.60
Arc Spot Weld	3.05	0.50		
Arc Spot Weld	2.55	0.60		
Arc Spot Weld	2.20	0.70		
Arc Seam Weld	2.55	0.60		

TABLE 3: SCREW AND POWER-ACTUATED FASTENER CAPACITIES

Mechanical Fasteners										
		Nominal Shear Strength, Q_f (lbs)								
		Screws	Hilti		Pneutek				Simpson Strong Tie	
Supporting Framing Steel Thickness (in)	Min:	0.0385	0.250	0.125	0.281	0.187	0.155	0.113	0.125	0.125
	Max:	unlimitted	unlimitted	0.375	unlimitted	0.312	0.250	0.155	0.188	0.247
Deck Profile	Deck Gage	# 12 Self Drill	X-ENP-19 L15	X-HSN 24	K66062 K66075	K64062 K64075	SDK63075	SDK61075	XM Screw	XL Screw
BH-36, NH-32, 3WxH-36	22	1402	1624	1508	1841	1735	1728	1546	1241	1707
	21	1547	1787	1659	2055	1993	1860	1695	1439	1884
	20	1683	1938	1800	2258	2216	1977	1833	1632	2050
	19	1969	2253	2092	2698	2642	2210	2116	2066	2398
	18	2241	2549	2367	3132	3009	2417	2345	2508	2729
	16	2654	3149	2924	4076	3686	2812	2345	3110	3110
2WH-36	22	1359	1577	1464	1780	1655	1689	1502	1185	1656
	21	1547	1787	1659	2055	1993	1860	1695	1439	1884
	20	1683	1938	1800	2258	2216	1977	1833	1632	2050
	19	1969	2253	2092	2698	2642	2210	2116	2066	2398
	18	2222	2529	2348	3101	2985	2403	2345	2477	2707
	16	2654	3149	2924	4076	3686	2812	2345	3110	3110
4.5D-12, 6D-12, 7.5D-12	20	1436	1938	1800	2258	2216	1977	1833	1632	2050
	18	1912	2549	2367	3132	3009	2417	2345	2508	2729
	16	2392	3149	2924	4076	3686	2812	2345	3110	3110
	14	2654	3838	3020	4479	3705	3265	2345	3110	3110
BHF-36, NHF-36, 3WxHF-36	20/20	2654	3737	3020	4479	3705	3176	2345	3110	3110
	20/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	20/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
2WHF-36	20/20	2654	3737	3020	4479	3705	3176	2345	3110	3110
	20/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	20/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
C0.9-32, C1.4-32/ CP-32	26	1170	1099	994	870	1022	1016	900	654	1113
	24	1524	1394	1287	1230	1444	1436	1272	972	1450
	22	1884	1703	1582	1944	1863	1793	1619	1335	1793
	20	2244	2016	1872	2365	2326	2036	1903	1736	2136
	18	1920	2559	2376	3147	3021	2424	2345	2524	2741
4.5DF-24, 6DF-24, 7.5DF-24	20/20	2654	3737	3020	4479	3705	3176	2345	3110	3110
	20/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	20/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	18/16	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/20	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/18	2654	3838	3020	4479	3705	3385	2345	3110	3110
	16/16	2654	3838	3020	4479	3705	3385	2345	3110	3110

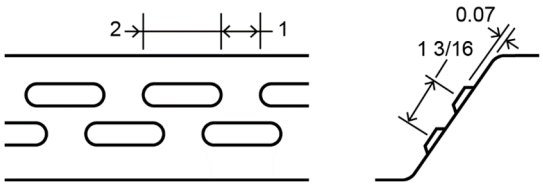
Calculated in Accordance with the SDI DDM and AISI S310

FIGURE 5: 3WxH-36



3WxH-36 PROFILE

36/4 ATTACHMENT PATTERN



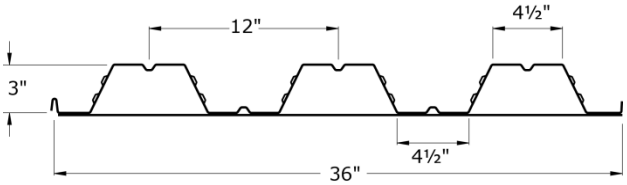
3WxH SERIES EMBOSSMENT

TABLE 4: 3WxH-36 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.75	0.0299	50	65	0.504	0.770	1.48	0.497	1.236
21	1.93	0.0330	50	65	0.556	0.850	1.48	0.548	1.236
20	2.09	0.0359	50	65	0.605	0.927	1.48	0.595	1.236
19	2.43	0.0420	50	65	0.708	1.083	1.48	0.695	1.236
18	2.76	0.0478	50	65	0.806	1.233	1.49	0.789	1.236
16	3.44	0.0598	50	65	1.008	1.540	1.49	0.984	1.236

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.309	0.392	1.33	0.404	1.63	0.727	0.720	0.741	0.737
21	0.362	0.452	1.36	0.465	1.61	0.823	0.813	0.832	0.826
20	0.414	0.510	1.39	0.524	1.59	0.910	0.900	0.916	0.909
19	0.532	0.636	1.43	0.654	1.55	1.083	1.073	1.083	1.077
18	0.651	0.761	1.46	0.781	1.52	1.233	1.230	1.233	1.231
16	0.887	0.984	1.49	0.982	1.50	1.540	1.540	1.540	1.540

FIGURE 6: 3WxHF-36



3WxHF-36 PROFILE

36/4 ATTACHMENT PATTERN

TABLE 5: 3WxHF-36 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Top Section Modulus	Radius of Gyration
	w psf	t_{beam} in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	3.69	0.0359 / 0.036	50	65	1.054	1.542	0.91	0.712	1.209
20/18	4.16	0.0359 / 0.047	50	65	1.193	1.640	0.81	0.723	1.172
20/16	4.68	0.0359 / 0.059	50	65	1.344	1.727	0.74	0.732	1.133
18/20	4.35	0.0478 / 0.036	50	65	1.253	1.932	1.02	0.934	1.242
18/18	4.83	0.0478 / 0.047	50	65	1.392	2.058	0.93	0.949	1.216
18/16	5.35	0.0478 / 0.059	50	65	1.543	2.172	0.85	0.962	1.186
16/20	5.03	0.0598 / 0.036	50	65	1.450	2.309	1.10	1.155	1.262
16/18	5.51	0.0598 / 0.047	50	65	1.593	2.457	1.01	1.174	1.242
16/16	6.03	0.0598 / 0.059	50	65	1.744	2.595	0.94	1.191	1.220

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service for Deflection			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e in^2/ft	S_{e+} in^3/ft	y_b in	S_{e-} in^3/ft	y_b in	I_{e+} in^4/ft	I_{e-} in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.481	0.538	0.75	0.645	1.42	1.506	1.186	1.518	1.305
20/18	0.551	0.540	0.66	0.674	1.23	1.582	1.363	1.601	1.455
20/16	0.650	0.562	0.61	0.701	1.04	1.640	1.512	1.669	1.584
18/20	0.691	0.875	0.98	0.844	1.49	1.930	1.484	1.931	1.633
18/18	0.761	0.878	0.88	0.879	1.34	2.056	1.693	2.057	1.815
18/16	0.860	0.875	0.80	0.910	1.19	2.170	1.868	2.171	1.969
16/20	0.923	1.175	1.11	1.047	1.53	2.306	1.790	2.307	1.963
16/18	0.997	1.194	1.02	1.084	1.40	2.454	2.012	2.455	2.160
16/16	1.095	1.211	0.95	1.119	1.28	2.592	2.214	2.593	2.341

TABLE 6: 3WxH-36, 3WxHF-36 AND 3WxHF-36A
AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	313	390	499	582	480	597	763	890
	Interior	553	667	827	951	823	992	1231	1414
21	End	379	470	598	697	580	719	915	1066
	Interior	667	801	990	1135	993	1191	1472	1688
20	End	445	550	698	812	681	841	1068	1242
	Interior	783	936	1153	1320	1165	1393	1715	1963
19	End	600	737	930	1078	918	1127	1423	1650
	Interior	1054	1252	1532	1747	1568	1863	2280	2599
18	End	767	937	1177	1361	1174	1433	1800	2082
	Interior	1347	1591	1937	2202	2004	2367	2881	3275
16	End	1172	1418	1765	2031	1794	2169	2701	3108
	Interior	2059	2409	2904	3284	3063	3584	4320	4884

TABLE 7a: 3WxH-36 COMPOSITE DECK WITH 5" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	10' - 1"	10' - 11"	11' - 4"
	21	11' - 0"	11' - 9"	12' - 1"
	20	11' - 9"	12' - 5"	12' - 10"

Gage	Single	Double	Triple
19	12' - 3"	13' - 10"	14' - 3"
18	12' - 7"	15' - 1"	14' - 9"
16	13' - 3"	16' - 6"	15' - 6"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	295	256	224	196	173	153	135	120	107	95	84	75	67	59	52
	LRFD, ϕW	452	394	346	305	270	240	214	191	171	154	138	124	112	101	90
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2295	2275	2258	2247	2233	2220	2208	2198	2188	2183	2174	2166	2159	2152	2146
	PAF Base Steel ≥ .25"	2192	2178	2166	2161	2151	2142	2134	2126	2119	2117	2111	2105	2100	2096	2091
	PAF Base Steel ≥ 0.125"	2177	2164	2153	2148	2139	2130	2123	2116	2109	2107	2102	2097	2092	2087	2083
	#12 Screw Base Steel ≥ .0385"	2075	2069	2063	2063	2058	2053	2049	2045	2042	2043	2039	2037	2034	2031	2029
	Concrete + Deck = 44.2 psf				I_{cr} = 39.2 in^4/ft			ASD		M_{no}/Ω = 32.6 kip-in/ft				V_n/Ω = 3.31 kip/ft		
	$(I_{cr}+I_u)/2$ = 73.2 in^4/ft				I_u = 107.1 in^4/ft			LRFD		ϕM_{no} = 48.4 kip-in/ft				ϕV_n = 4.94 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	326	284	248	218	193	171	152	135	120	107	96	86	77	68	61
	LRFD, ϕW	498	435	382	337	299	267	238	213	192	172	155	140	127	114	103
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2356	2333	2312	2299	2282	2267	2253	2240	2229	2222	2212	2203	2194	2186	2179
	PAF Base Steel ≥ .25"	2213	2198	2185	2179	2168	2158	2149	2141	2133	2130	2124	2118	2112	2107	2102
	PAF Base Steel ≥ 0.125"	2196	2183	2170	2165	2154	2145	2137	2129	2122	2120	2114	2108	2103	2098	2094
	#12 Screw Base Steel ≥ .0385"	2072	2065	2060	2060	2055	2050	2046	2043	2039	2040	2037	2034	2032	2029	2027
	Concrete + Deck = 44.4 psf				I_{cr} = 42.3 in^4/ft			ASD		M_{no}/Ω = 35.6 kip-in/ft				V_n/Ω = 3.79 kip/ft		
	$(I_{cr}+I_u)/2$ = 75.4 in^4/ft				I_u = 108.6 in^4/ft			LRFD		ϕM_{no} = 52.9 kip-in/ft				ϕV_n = 5.66 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	355	309	271	239	211	187	167	149	133	119	107	96	86	77	69
	LRFD, ϕW	541	473	416	368	327	291	261	234	211	190	172	155	141	127	116
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2418	2391	2367	2351	2332	2314	2298	2284	2270	2262	2250	2240	2230	2220	2212
	PAF Base Steel ≥ .25"	2233	2217	2203	2195	2183	2173	2163	2155	2146	2143	2136	2130	2124	2118	2113
	PAF Base Steel ≥ 0.125"	2215	2200	2186	2180	2169	2159	2150	2142	2134	2132	2125	2119	2113	2108	2103
	#12 Screw Base Steel ≥ .0385"	2069	2063	2057	2057	2053	2048	2044	2041	2037	2038	2035	2033	2030	2028	2026
	Concrete + Deck = 44.6 psf				I_{cr} = 45.0 in^4/ft			ASD		M_{no}/Ω = 38.4 kip-in/ft				V_n/Ω = 3.82 kip/ft		
	$(I_{cr}+I_u)/2$ = 77.5 in^4/ft				I_u = 110.0 in^4/ft			LRFD		ϕM_{no} = 57.0 kip-in/ft				ϕV_n = 5.73 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	3230	4580	5570	7370	10070
	24 in o.c.	3230	4580	5570	7370	7750
	36 in o.c.	3230	4580	5170	5170	5170

3WxH-36 5" Slab Depth, 145 pcf NWC

TABLE 7a: 3WxH-36 COMPOSITE DECK WITH 5" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	10' - 1"	10' - 11"	11' - 4"
	21	11' - 0"	11' - 9"	12' - 1"
	20	11' - 9"	12' - 5"	12' - 10"

Gage	Single	Double	Triple
19	12' - 3"	13' - 10"	14' - 3"
18	12' - 7"	15' - 1"	14' - 9"
16	13' - 3"	16' - 6"	15' - 6"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	414	361	318	280	249	221	198	177	159	143	129	116	105	95	86
	LRFD, ϕW	629	551	485	430	383	342	307	276	249	226	204	186	169	154	140
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2564	2529	2497	2474	2449	2425	2404	2385	2367	2355	2340	2326	2313	2301	2290
	PAF Base Steel ≥ .25"	2274	2255	2239	2230	2216	2204	2193	2183	2174	2169	2161	2154	2147	2141	2135
	PAF Base Steel ≥ 0.125"	2253	2236	2220	2212	2199	2188	2178	2168	2160	2156	2148	2142	2135	2129	2124
	#12 Screw Base Steel ≥ .0385"	2067	2061	2055	2055	2051	2047	2043	2039	2036	2037	2034	2031	2029	2027	2024
	Concrete + Deck = 45.0 psf				I_{cr} = 50.5 in⁴/ft			ASD	M_{no}/Ω = 44.0 kip-in/ft					V_n/Ω = 3.82 kip/ft		
	$(I_{cr}+I_u)/2$ = 81.7 in⁴/ft				I_u = 112.8 in⁴/ft			LRFD	ϕM_{no} = 65.5 kip-in/ft					ϕV_n = 5.73 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	469	410	361	319	284	253	226	203	183	165	149	135	122	111	101
	LRFD, ϕW	710	623	550	488	435	389	350	315	285	259	235	214	195	178	163
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2722	2677	2638	2607	2575	2546	2519	2495	2473	2456	2437	2420	2403	2388	2374
	PAF Base Steel ≥ .25"	2312	2291	2273	2262	2247	2233	2221	2210	2199	2194	2185	2177	2169	2162	2155
	PAF Base Steel ≥ 0.125"	2288	2269	2252	2242	2228	2215	2204	2193	2184	2179	2170	2163	2156	2149	2143
	#12 Screw Base Steel ≥ .0385"	2067	2061	2055	2055	2051	2047	2043	2039	2036	2037	2034	2031	2029	2027	2024
	Concrete + Deck = 45.3 psf				I_{cr} = 55.4 in⁴/ft			ASD	M_{no}/Ω = 49.3 kip-in/ft					V_n/Ω = 3.82 kip/ft		
	$(I_{cr}+I_u)/2$ = 85.5 in⁴/ft				I_u = 115.5 in⁴/ft			LRFD	ϕM_{no} = 73.4 kip-in/ft					ϕV_n = 5.73 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	577	506	446	396	353	316	284	256	231	209	190	173	157	144	131
	LRFD, ϕW	872	766	677	602	538	483	435	393	357	325	296	270	247	227	208
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	142	128
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2925	2869	2818	2778	2738	2701	2667	2636	2608	2586	2562	2540	2519	2500	2482
	PAF Base Steel ≥ .25"	2390	2365	2342	2328	2309	2293	2278	2264	2251	2244	2233	2223	2214	2205	2197
	PAF Base Steel ≥ 0.125"	2345	2322	2302	2289	2273	2258	2245	2232	2221	2215	2205	2196	2188	2180	2173
	#12 Screw Base Steel ≥ .0385"	2067	2061	2055	2055	2051	2047	2043	2039	2036	2037	2034	2031	2029	2027	2024
	Concrete + Deck = 46.1 psf				I_{cr} = 64.8 in⁴/ft			ASD	M_{no}/Ω = 59.8 kip-in/ft					V_n/Ω = 3.82 kip/ft		
	$(I_{cr}+I_u)/2$ = 92.8 in⁴/ft				I_u = 120.7 in⁴/ft			LRFD	ϕM_{no} = 89.0 kip-in/ft					ϕV_n = 5.73 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in²/ft	6x6 W2.9xW2.9 A_s = 0.058 in²/ft	6x6 W4.0xW4.0 A_s = 0.080 in²/ft	4x4 W4xW4 A_s = 0.120 in²/ft	4x4 W6xW6 A_s = 0.180 in²/ft
	12 in o.c.	3230	4580	5570	7370	10070
	24 in o.c.	3230	4580	5570	7370	7750
	36 in o.c.	3230	4580	5170	5170	5170

3WxH-36 5" Slab Depth, 145 pcf NWC

TABLE 7b: 3WxH-36 COMPOSITE DECK WITH 5-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 8"	10' - 6"	10' - 10"
	21	10' - 6"	11' - 3"	11' - 7"
	20	11' - 3"	11' - 11"	12' - 4"

Gage	Single	Double	Triple
19	11' - 10"	13' - 3"	13' - 9"
18	12' - 3"	14' - 6"	14' - 4"
16	12' - 11"	16' - 1"	15' - 1"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	345	300	262	230	203	179	159	141	125	112	99	89	79	70	62
	LRFD, ϕW	528	460	404	357	316	281	251	224	201	180	162	146	132	119	107
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2785	2766	2748	2738	2724	2711	2699	2688	2678	2673	2665	2657	2650	2643	2636
	PAF Base Steel ≥ .25"	2682	2669	2657	2651	2641	2632	2624	2617	2610	2607	2601	2596	2591	2586	2582
	PAF Base Steel ≥ 0.125"	2667	2654	2643	2638	2629	2621	2613	2606	2600	2598	2592	2587	2582	2578	2573
	#12 Screw Base Steel ≥ .0385"	2566	2559	2553	2553	2548	2544	2539	2536	2532	2533	2530	2527	2524	2522	2519
	Concrete + Deck = 50.3 psf				I_{cr} = 50.6 in⁴/ft			ASD	M_{no}/Ω = 37.9 kip-in/ft					V_n/Ω = 3.57 kip/ft		
	$(I_{cr}+I_u)/2$ = 96 in⁴/ft				I_u = 141.4 in⁴/ft			LRFD	ϕM_{no} = 56.4 kip-in/ft					ϕV_n = 5.34 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	381	332	291	256	226	200	178	158	141	126	113	101	91	81	72
	LRFD, ϕW	582	508	447	395	350	312	279	250	225	202	183	165	149	135	122
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2846	2823	2803	2789	2773	2757	2743	2731	2719	2712	2702	2693	2685	2677	2669
	PAF Base Steel ≥ .25"	2703	2689	2675	2669	2658	2648	2639	2631	2624	2621	2614	2608	2603	2598	2593
	PAF Base Steel ≥ 0.125"	2687	2673	2661	2655	2645	2636	2627	2620	2613	2610	2604	2599	2593	2588	2584
	#12 Screw Base Steel ≥ .0385"	2562	2556	2550	2550	2545	2541	2537	2533	2530	2531	2528	2525	2522	2520	2518
	Concrete + Deck = 50.5 psf				I_{cr} = 54.5 in⁴/ft			ASD	M_{no}/Ω = 41.4 kip-in/ft					V_n/Ω = 4.05 kip/ft		
	$(I_{cr}+I_u)/2$ = 98.9 in⁴/ft				I_u = 143.2 in⁴/ft			LRFD	ϕM_{no} = 61.7 kip-in/ft					ϕV_n = 6.05 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	415	362	317	280	247	220	196	175	156	140	126	113	101	91	82
	LRFD, ϕW	632	553	487	430	383	341	306	274	247	223	202	182	165	150	136
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2908	2882	2858	2842	2822	2805	2789	2774	2761	2752	2741	2730	2720	2711	2702
	PAF Base Steel ≥ .25"	2723	2707	2693	2686	2674	2663	2654	2645	2637	2634	2627	2620	2614	2609	2603
	PAF Base Steel ≥ 0.125"	2705	2690	2677	2670	2659	2650	2641	2632	2625	2622	2615	2609	2604	2599	2594
	#12 Screw Base Steel ≥ .0385"	2559	2553	2547	2548	2543	2539	2535	2531	2528	2529	2526	2523	2521	2518	2516
	Concrete + Deck = 50.6 psf				I_{cr} = 58.0 in⁴/ft			ASD	M_{no}/Ω = 44.7 kip-in/ft					V_n/Ω = 4.35 kip/ft		
	$(I_{cr}+I_u)/2$ = 102 in⁴/ft				I_u = 145.0 in⁴/ft			LRFD	ϕM_{no} = 66.5 kip-in/ft					ϕV_n = 6.52 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in²/ft	6x6 W2.9xW2.9 A_s = 0.058 in²/ft	6x6 W4.0xW4.0 A_s = 0.080 in²/ft	4x4 W4xW4 A_s = 0.120 in²/ft	4x4 W6xW6 A_s = 0.180 in²/ft
	12 in o.c.	3720	5070	6060	7860	10560
	24 in o.c.	3720	5070	6060	7750	7750
	36 in o.c.	3720	5070	5170	5170	5170

3WxH-36 5 1/2" Slab Depth, 145 pcf NWC

TABLE 7b: 3WxH-36 COMPOSITE DECK WITH 5-1/2" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 8"	10' - 6"	10' - 10"
	21	10' - 6"	11' - 3"	11' - 7"
	20	11' - 3"	11' - 11"	12' - 4"
	19	11' - 10"	13' - 3"	13' - 9"
	18	12' - 3"	14' - 6"	14' - 4"
	16	12' - 11"	16' - 1"	15' - 1"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	484	423	372	328	291	260	232	208	187	168	152	137	124	112	101
	LRFD, ϕW	735	644	568	503	448	401	360	324	293	265	240	218	199	181	165
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3054	3019	2988	2965	2939	2916	2895	2875	2858	2846	2830	2816	2803	2791	2780
	PAF Base Steel ≥ .25"	2764	2746	2729	2720	2707	2695	2684	2673	2664	2660	2652	2644	2637	2631	2625
	PAF Base Steel ≥ 0.125"	2743	2726	2711	2702	2690	2679	2668	2659	2650	2646	2639	2632	2626	2620	2614
	#12 Screw Base Steel ≥ .0385"	2557	2551	2546	2546	2541	2537	2533	2530	2526	2527	2525	2522	2519	2517	2515
	Concrete + Deck =	51.0	psf		I_{cr} =	65.1	in^4/ft	ASD		M_{no}/Ω =	51.4	kip-in/ft		V_n/Ω =	4.35	kip/ft
	$(I_{cr}+I_u)/2$ =	107	in^4/ft		I_u =	148.5	in^4/ft	LRFD		ϕM_{no} =	76.4	kip-in/ft		ϕV_n =	6.52	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	548	480	422	374	332	297	266	239	215	194	176	159	144	131	119
	LRFD, ϕW	830	728	643	571	509	456	410	370	335	304	276	251	229	210	192
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3213	3168	3128	3098	3065	3036	3010	2985	2963	2947	2928	2910	2894	2879	2864
	PAF Base Steel ≥ .25"	2802	2782	2764	2752	2737	2724	2711	2700	2690	2684	2675	2667	2659	2652	2646
	PAF Base Steel ≥ 0.125"	2779	2760	2742	2732	2718	2706	2694	2684	2674	2669	2661	2653	2646	2639	2633
	#12 Screw Base Steel ≥ .0385"	2557	2551	2546	2546	2541	2537	2533	2530	2526	2527	2525	2522	2519	2517	2515
	Concrete + Deck =	51.4	psf		I_{cr} =	71.5	in^4/ft	ASD		M_{no}/Ω =	57.5	kip-in/ft		V_n/Ω =	4.35	kip/ft
	$(I_{cr}+I_u)/2$ =	112	in^4/ft		I_u =	151.8	in^4/ft	LRFD		ϕM_{no} =	85.6	kip-in/ft		ϕV_n =	6.52	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	676	592	523	464	414	370	333	300	271	246	223	203	185	169	155
	LRFD, ϕW	1020	896	793	705	630	566	510	461	419	381	347	318	291	267	245
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3416	3359	3309	3269	3228	3191	3157	3127	3099	3077	3053	3031	3010	2991	2973
	PAF Base Steel ≥ .25"	2880	2855	2833	2818	2800	2783	2768	2754	2742	2734	2723	2713	2704	2695	2687
	PAF Base Steel ≥ 0.125"	2835	2812	2792	2780	2763	2749	2735	2723	2712	2705	2695	2686	2678	2670	2663
	#12 Screw Base Steel ≥ .0385"	2557	2551	2546	2546	2541	2537	2533	2530	2526	2527	2525	2522	2519	2517	2515
	Concrete + Deck =	52.1	psf		I_{cr} =	83.6	in^4/ft	ASD		M_{no}/Ω =	69.9	kip-in/ft		V_n/Ω =	4.35	kip/ft
	$(I_{cr}+I_u)/2$ =	121	in^4/ft		I_u =	158.3	in^4/ft	LRFD		ϕM_{no} =	103.9	kip-in/ft		ϕV_n =	6.52	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	3720	5070	6060	7860	10560
	24 in o.c.	3720	5070	6060	7750	7750
	36 in o.c.	3720	5070	5170	5170	5170

3WxH-36 5 1/2 " Slab Depth, 145 pcf NWC

TABLE 7c: 3WxH-36 COMPOSITE DECK WITH 6" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 3"	10' - 1"	10' - 5"
	21	10' - 0"	10' - 10"	11' - 2"
	20	10' - 9"	11' - 5"	11' - 10"

Gage	Single	Double	Triple
19	11' - 7"	12' - 9"	13' - 2"
18	11' - 11"	13' - 11"	13' - 11"
16	12' - 7"	15' - 7"	14' - 8"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	398	346	302	266	234	207	184	163	145	130	116	103	92	82	73
	LRFD, ϕW	608	531	466	411	365	324	290	259	233	209	188	170	153	138	125
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3276	3256	3239	3228	3214	3201	3189	3179	3169	3164	3155	3147	3140	3133	3127
	PAF Base Steel ≥ .25"	3173	3159	3147	3142	3132	3123	3114	3107	3100	3098	3092	3086	3081	3076	3072
	PAF Base Steel ≥ 0.125"	3158	3145	3134	3129	3120	3111	3103	3096	3090	3088	3083	3077	3073	3068	3064
	#12 Screw Base Steel ≥ .0385"	3056	3050	3044	3044	3039	3034	3030	3026	3023	3023	3020	3017	3015	3012	3010
	Concrete + Deck = 56.3 psf				I_{cr} = 63.7 in⁴/ft			ASD		M_{no}/Ω = 43.6 kip-in/ft				V_n/Ω = 3.85 kip/ft		
	$(I_{cr}+I_u)/2$ = 123 in⁴/ft				I_u = 182.5 in⁴/ft			LRFD		ϕM_{no} = 64.8 kip-in/ft				ϕV_n = 5.76 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	440	383	336	295	261	232	206	184	164	147	131	118	106	95	85
	LRFD, ϕW	670	586	515	456	405	361	323	289	260	234	212	191	173	157	142
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3337	3314	3293	3280	3263	3248	3234	3221	3210	3203	3193	3184	3175	3167	3160
	PAF Base Steel ≥ .25"	3194	3179	3166	3159	3149	3139	3130	3122	3114	3111	3105	3099	3093	3088	3083
	PAF Base Steel ≥ 0.125"	3177	3163	3151	3145	3135	3126	3118	3110	3103	3101	3095	3089	3084	3079	3074
	#12 Screw Base Steel ≥ .0385"	3053	3046	3040	3041	3036	3031	3027	3024	3020	3021	3018	3015	3013	3010	3008
	Concrete + Deck = 56.5 psf				I_{cr} = 68.7 in⁴/ft			ASD		M_{no}/Ω = 47.6 kip-in/ft				V_n/Ω = 4.33 kip/ft		
	$(I_{cr}+I_u)/2$ = 127 in⁴/ft				I_u = 184.8 in⁴/ft			LRFD		ϕM_{no} = 70.9 kip-in/ft				ϕV_n = 6.47 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	479	417	366	323	286	254	226	202	181	163	146	131	118	106	96
	LRFD, ϕW	728	637	561	497	442	394	353	317	286	258	234	212	192	174	158
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3399	3372	3348	3332	3313	3295	3279	3264	3251	3243	3231	3220	3210	3201	3193
	PAF Base Steel ≥ .25"	3213	3198	3183	3176	3164	3154	3144	3135	3127	3124	3117	3111	3105	3099	3094
	PAF Base Steel ≥ 0.125"	3195	3181	3167	3161	3150	3140	3131	3123	3115	3112	3106	3100	3094	3089	3084
	#12 Screw Base Steel ≥ .0385"	3050	3044	3038	3038	3033	3029	3025	3022	3018	3019	3016	3014	3011	3009	3006
	Concrete + Deck = 56.7 psf				I_{cr} = 73.2 in⁴/ft			ASD		M_{no}/Ω = 51.4 kip-in/ft				V_n/Ω = 4.87 kip/ft		
	$(I_{cr}+I_u)/2$ = 130 in⁴/ft				I_u = 186.9 in⁴/ft			LRFD		ϕM_{no} = 76.4 kip-in/ft				ϕV_n = 7.27 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in²/ft	6x6 W2.9xW2.9 A_s = 0.058 in²/ft	6x6 W4.0xW4.0 A_s = 0.080 in²/ft	4x4 W4xW4 A_s = 0.120 in²/ft	4x4 W6xW6 A_s = 0.180 in²/ft
	12 in o.c.	4220	5570	6560	8360	11060
	24 in o.c.	4220	5570	6560	7750	7750
	36 in o.c.	4220	5170	5170	5170	5170

3WxH-36 6" Slab Depth, 145 pcf NWC

TABLE 7c: 3WxH-36 COMPOSITE DECK WITH 6" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 3"	10' - 1"	10' - 5"
	21	10' - 0"	10' - 10"	11' - 2"
	20	10' - 9"	11' - 5"	11' - 10"

Gage	Single	Double	Triple
19	11' - 7"	12' - 9"	13' - 2"
18	11' - 11"	13' - 11"	13' - 11"
16	12' - 7"	15' - 7"	14' - 8"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	558	488	429	379	337	300	269	241	217	195	176	159	144	130	118
	LRFD, ϕW	847	743	655	581	518	463	416	375	338	307	278	253	230	210	192
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3545	3509	3478	3455	3429	3406	3385	3366	3348	3336	3321	3307	3294	3282	3270
	PAF Base Steel ≥ .25"	3254	3236	3220	3210	3197	3185	3174	3164	3155	3150	3142	3135	3128	3122	3116
	PAF Base Steel ≥ 0.125"	3233	3216	3201	3193	3180	3169	3159	3149	3141	3137	3129	3122	3116	3110	3104
	#12 Screw Base Steel ≥ .0385"	3048	3041	3036	3036	3032	3027	3024	3020	3017	3018	3015	3012	3010	3007	3005
	Concrete + Deck =	57.1	psf		I_{cr} =	82.2	in^4/ft	ASD		M_{no}/Ω =	59.1	kip-in/ft		V_n/Ω =	4.90	kip/ft
	$(I_{cr}+I_u)/2$ =	137	in^4/ft		I_u =	191.2	in^4/ft	LRFD		ϕM_{no} =	87.9	kip-in/ft		ϕV_n =	7.35	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	633	554	488	432	384	343	308	276	249	225	204	185	168	153	139
	LRFD, ϕW	957	840	742	659	588	527	474	428	387	351	320	291	266	243	223
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3703	3658	3618	3588	3556	3527	3500	3476	3454	3437	3418	3401	3384	3369	3355
	PAF Base Steel ≥ .25"	3293	3272	3254	3243	3228	3214	3202	3191	3180	3175	3166	3158	3150	3143	3136
	PAF Base Steel ≥ 0.125"	3269	3250	3233	3223	3209	3196	3185	3174	3165	3160	3151	3144	3136	3130	3123
	#12 Screw Base Steel ≥ .0385"	3048	3041	3036	3036	3032	3027	3024	3020	3017	3018	3015	3012	3010	3007	3005
	Concrete + Deck =	57.4	psf		I_{cr} =	90.3	in^4/ft	ASD		M_{no}/Ω =	66.2	kip-in/ft		V_n/Ω =	4.90	kip/ft
	$(I_{cr}+I_u)/2$ =	143	in^4/ft		I_u =	195.2	in^4/ft	LRFD		ϕM_{no} =	98.5	kip-in/ft		ϕV_n =	7.35	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	780	685	604	536	478	429	385	348	314	285	259	236	216	197	180
	LRFD, ϕW	1177	1035	916	815	728	654	590	534	484	441	402	368	337	310	285
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3906	3849	3799	3759	3718	3681	3648	3617	3589	3567	3543	3521	3500	3481	3463
	PAF Base Steel ≥ .25"	3371	3346	3323	3309	3290	3274	3259	3245	3232	3225	3214	3204	3194	3186	3178
	PAF Base Steel ≥ 0.125"	3325	3303	3283	3270	3254	3239	3226	3213	3202	3196	3186	3177	3169	3161	3153
	#12 Screw Base Steel ≥ .0385"	3048	3041	3036	3036	3032	3027	3024	3020	3017	3018	3015	3012	3010	3007	3005
	Concrete + Deck =	58.2	psf		I_{cr} =	105.6	in^4/ft	ASD		M_{no}/Ω =	80.5	kip-in/ft		V_n/Ω =	4.90	kip/ft
	$(I_{cr}+I_u)/2$ =	154	in^4/ft		I_u =	203.3	in^4/ft	LRFD		ϕM_{no} =	119.7	kip-in/ft		ϕV_n =	7.35	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A_s = 0.028 in^2/ft	A_s = 0.058 in^2/ft	A_s = 0.080 in^2/ft	A_s = 0.120 in^2/ft	A_s = 0.180 in^2/ft
	12 in o.c.	4220	5570	6560	8360	11060
	24 in o.c.	4220	5570	6560	7750	7750
	36 in o.c.	4220	5170	5170	5170	5170

3WxH-36 6" Slab Depth, 145 pcf NWC

TABLE 7d: 3WxH-36 COMPOSITE DECK WITH 6-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 11"	9' - 9"	10' - 0"
	21	9' - 8"	10' - 5"	10' - 9"
	20	10' - 4"	11' - 0"	11' - 5"

Gage	Single	Double	Triple
19	11' - 3"	12' - 4"	12' - 9"
18	11' - 8"	13' - 5"	13' - 7"
16	12' - 3"	15' - 0"	14' - 4"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	453	394	345	303	267	237	210	187	167	149	133	118	106	94	84
	LRFD, ϕW	691	604	530	468	415	370	330	296	266	239	215	194	175	158	143
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3766	3746	3729	3719	3704	3692	3680	3669	3659	3654	3646	3638	3630	3624	3617
	PAF Base Steel ≥ .25"	3663	3650	3638	3632	3622	3613	3605	3597	3591	3588	3582	3577	3572	3567	3562
	PAF Base Steel ≥ 0.125"	3648	3635	3624	3619	3610	3602	3594	3587	3580	3579	3573	3568	3563	3559	3554
	#12 Screw Base Steel ≥ .0385"	3547	3540	3534	3534	3529	3524	3520	3516	3513	3514	3511	3508	3505	3503	3500
	Concrete + Deck = 62.4 psf				I_{cr} = 78.7 in^4/ft			ASD		M_{no}/Ω = 49.4 kip-in/ft				V_n/Ω = 4.14 kip/ft		
	$(I_{cr}+I_u)/2$ = 155 in^4/ft				I_u = 231.1 in^4/ft			LRFD		ϕM_{no} = 73.5 kip-in/ft				ϕV_n = 6.19 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	500	436	382	337	298	264	235	210	188	168	151	135	121	109	98
	LRFD, ϕW	762	667	587	519	461	411	368	330	297	268	242	219	198	180	163
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3827	3804	3783	3770	3753	3738	3724	3712	3700	3693	3683	3674	3665	3657	3650
	PAF Base Steel ≥ .25"	3684	3669	3656	3650	3639	3629	3620	3612	3605	3602	3595	3589	3584	3579	3574
	PAF Base Steel ≥ 0.125"	3668	3654	3642	3636	3626	3617	3608	3601	3594	3591	3585	3579	3574	3569	3565
	#12 Screw Base Steel ≥ .0385"	3543	3537	3531	3531	3526	3522	3518	3514	3511	3511	3508	3506	3503	3501	3498
	Concrete + Deck = 62.5 psf				I_{cr} = 84.9 in^4/ft			ASD		M_{no}/Ω = 54.0 kip-in/ft				V_n/Ω = 4.62 kip/ft		
	$(I_{cr}+I_u)/2$ = 159 in^4/ft				I_u = 233.9 in^4/ft			LRFD		ϕM_{no} = 80.4 kip-in/ft				ϕV_n = 6.91 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	545	476	417	368	326	290	259	231	207	186	167	151	136	122	110
	LRFD, ϕW	829	725	639	566	503	449	403	362	326	295	267	242	220	200	182
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3889	3862	3839	3823	3803	3785	3769	3755	3741	3733	3722	3711	3701	3692	3683
	PAF Base Steel ≥ .25"	3704	3688	3674	3666	3655	3644	3635	3626	3618	3614	3607	3601	3595	3589	3584
	PAF Base Steel ≥ 0.125"	3686	3671	3658	3651	3640	3630	3621	3613	3606	3603	3596	3590	3585	3579	3575
	#12 Screw Base Steel ≥ .0385"	3540	3534	3528	3529	3524	3519	3516	3512	3509	3510	3507	3504	3501	3499	3497
	Concrete + Deck = 62.7 psf				I_{cr} = 90.6 in^4/ft			ASD		M_{no}/Ω = 58.3 kip-in/ft				V_n/Ω = 5.16 kip/ft		
	$(I_{cr}+I_u)/2$ = 164 in^4/ft				I_u = 236.5 in^4/ft			LRFD		ϕM_{no} = 86.8 kip-in/ft				ϕV_n = 7.71 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	6060	7050	8850	11550
	24 in o.c.	n/a	6060	7050	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

3WxH-36 6 1/2 " Slab Depth, 145 pcf NWC

TABLE 7d: 3WxH-36 COMPOSITE DECK WITH 6-1/2" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 11"	9' - 9"	10' - 0"
	21	9' - 8"	10' - 5"	10' - 9"
	20	10' - 4"	11' - 0"	11' - 5"

Gage	Single	Double	Triple
19	11' - 3"	12' - 4"	12' - 9"
18	11' - 8"	13' - 5"	13' - 7"
16	12' - 3"	15' - 0"	14' - 4"

19 ga.

Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	636	556	489	433	384	343	307	275	248	223	202	182	165	150	136
LRFD, ϕW	964	846	746	662	590	528	474	428	387	350	318	290	264	241	220
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	4035	4000	3968	3945	3920	3897	3876	3856	3839	3826	3811	3797	3784	3772	3761
PAF Base Steel ≥ .25"	3745	3727	3710	3701	3687	3675	3664	3654	3645	3641	3633	3625	3618	3612	3606
PAF Base Steel ≥ 0.125"	3724	3707	3692	3683	3671	3659	3649	3640	3631	3627	3620	3613	3606	3600	3595
#12 Screw Base Steel ≥ .0385"	3538	3532	3526	3527	3522	3518	3514	3510	3507	3508	3505	3503	3500	3498	3496

Concrete + Deck = 63.1 psf I_{cr} = 101.8 in^4/ft ASD M_{no}/Ω = 67.1 kip-in/ft V_n/Ω = 5.49 kip/ft

$(I_{cr}+I_u)/2$ = 172 in^4/ft I_u = 241.8 in^4/ft LRFD ϕM_{no} = 99.9 kip-in/ft ϕV_n = 8.23 kip/ft

18 ga.

Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	721	631	556	493	438	392	351	316	285	258	234	212	193	175	160
LRFD, ϕW	1090	957	846	751	670	601	541	488	442	402	366	334	305	279	256
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	4193	4149	4109	4079	4046	4017	3991	3966	3944	3928	3909	3891	3875	3859	3845
PAF Base Steel ≥ .25"	3783	3763	3744	3733	3718	3705	3692	3681	3671	3665	3656	3648	3640	3633	3627
PAF Base Steel ≥ 0.125"	3760	3740	3723	3713	3699	3687	3675	3665	3655	3650	3642	3634	3627	3620	3614
#12 Screw Base Steel ≥ .0385"	3538	3532	3526	3527	3522	3518	3514	3510	3507	3508	3505	3503	3500	3498	3496

Concrete + Deck = 63.5 psf I_{cr} = 111.9 in^4/ft ASD M_{no}/Ω = 75.3 kip-in/ft V_n/Ω = 5.49 kip/ft

$(I_{cr}+I_u)/2$ = 179 in^4/ft I_u = 246.7 in^4/ft LRFD ϕM_{no} = 112.0 kip-in/ft ϕV_n = 8.23 kip/ft

16 ga.

Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	890	781	690	612	546	490	441	398	360	327	297	271	247	226	207
LRFD, ϕW	1342	1180	1044	930	831	747	674	610	554	504	460	421	386	355	327
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	4396	4340	4289	4250	4209	4172	4138	4108	4080	4058	4034	4011	3991	3971	3954
PAF Base Steel ≥ .25"	3861	3836	3814	3799	3781	3764	3749	3735	3723	3715	3704	3694	3685	3676	3668
PAF Base Steel ≥ 0.125"	3816	3793	3773	3761	3744	3729	3716	3704	3692	3686	3676	3667	3659	3651	3644
#12 Screw Base Steel ≥ .0385"	3538	3532	3526	3527	3522	3518	3514	3510	3507	3508	3505	3503	3500	3498	3496

Concrete + Deck = 64.2 psf I_{cr} = 131.1 in^4/ft ASD M_{no}/Ω = 91.6 kip-in/ft V_n/Ω = 5.49 kip/ft

$(I_{cr}+I_u)/2$ = 194 in^4/ft I_u = 256.4 in^4/ft LRFD ϕM_{no} = 136.3 kip-in/ft ϕV_n = 8.23 kip/ft

All Gages

LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
	A_s = 0.028 in^2/ft	A_s = 0.058 in^2/ft	A_s = 0.080 in^2/ft	A_s = 0.120 in^2/ft	A_s = 0.180 in^2/ft
12 in o.c.	n/a	6060	7050	8850	11550
24 in o.c.	n/a	6060	7050	7750	7750
36 in o.c.	n/a	5170	5170	5170	5170

3WxH-36 6 1/2 " Slab Depth, 145 pcf NWC

TABLE 7e: 3WxH-36 COMPOSITE DECK WITH 7-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 4"	9' - 1"	9' - 5"
	21	9' - 0"	9' - 9"	10' - 1"
	20	9' - 8"	10' - 4"	10' - 8"

Gage	Single	Double	Triple
19	10' - 8"	11' - 6"	11' - 11"
18	11' - 1"	12' - 7"	13' - 0"
16	11' - 9"	14' - 1"	13' - 9"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	567	494	433	381	336	298	265	236	211	188	169	151	135	121	108
	LRFD, ϕW	865	756	665	587	522	465	415	373	335	302	272	246	222	201	182
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4747	4727	4710	4700	4685	4672	4661	4650	4640	4635	4627	4619	4611	4605	4598
	PAF Base Steel ≥ .25"	4644	4630	4618	4613	4603	4594	4586	4578	4571	4569	4563	4558	4552	4548	4543
	PAF Base Steel ≥ 0.125"	4629	4616	4605	4600	4591	4582	4575	4568	4561	4559	4554	4549	4544	4539	4535
	#12 Screw Base Steel ≥ .0385"	4528	4521	4515	4515	4510	4505	4501	4497	4494	4495	4492	4489	4486	4484	4481
	Concrete + Deck = 74.4 psf				I_{cr} = 114.5 in^4/ft		ASD		M_{no}/Ω = 61.6 kip-in/ft				V_n/Ω = 4.76 kip/ft			
	$(I_{cr}+I_u)/2$ = 234 in^4/ft				I_u = 354.2 in^4/ft		LRFD		ϕM_{no} = 91.6 kip-in/ft				ϕV_n = 7.13 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	627	547	480	423	375	333	297	265	237	213	191	172	155	139	125
	LRFD, ϕW	955	836	736	651	579	517	463	416	375	338	306	277	251	228	208
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4808	4785	4764	4751	4734	4719	4705	4692	4681	4674	4664	4655	4646	4638	4631
	PAF Base Steel ≥ .25"	4665	4650	4637	4631	4620	4610	4601	4593	4586	4583	4576	4570	4565	4559	4555
	PAF Base Steel ≥ 0.125"	4648	4635	4622	4617	4607	4597	4589	4581	4574	4572	4566	4560	4555	4550	4546
	#12 Screw Base Steel ≥ .0385"	4524	4517	4512	4512	4507	4503	4498	4495	4491	4492	4489	4487	4484	4482	4479
	Concrete + Deck = 74.6 psf				I_{cr} = 123.7 in^4/ft		ASD		M_{no}/Ω = 67.4 kip-in/ft				V_n/Ω = 5.24 kip/ft			
	$(I_{cr}+I_u)/2$ = 241 in^4/ft				I_u = 358.2 in^4/ft		LRFD		ϕM_{no} = 100.3 kip-in/ft				ϕV_n = 7.84 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	683	597	524	463	410	365	326	292	262	236	212	191	173	156	141
	LRFD, ϕW	1038	909	801	710	632	565	507	456	412	372	337	306	279	254	231
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4870	4843	4820	4803	4784	4766	4750	4736	4722	4714	4702	4692	4682	4673	4664
	PAF Base Steel ≥ .25"	4685	4669	4655	4647	4636	4625	4615	4607	4599	4595	4588	4582	4576	4570	4565
	PAF Base Steel ≥ 0.125"	4667	4652	4639	4632	4621	4611	4602	4594	4587	4584	4577	4571	4566	4560	4555
	#12 Screw Base Steel ≥ .0385"	4521	4515	4509	4509	4505	4500	4496	4493	4490	4491	4488	4485	4482	4480	4478
	Concrete + Deck = 74.8 psf				I_{cr} = 132.0 in^4/ft		ASD		M_{no}/Ω = 72.8 kip-in/ft				V_n/Ω = 5.78 kip/ft			
	$(I_{cr}+I_u)/2$ = 247 in^4/ft				I_u = 361.8 in^4/ft		LRFD		ϕM_{no} = 108.3 kip-in/ft				ϕV_n = 8.64 kip/ft			

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	7050	8040	9840	12540
	24 in o.c.	n/a	7050	7750	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

3WxH-36 7 1/2" Slab Depth, 145 pcf NWC

TABLE 7e: 3WxH-36 COMPOSITE DECK WITH 7-1/2" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 4"	9' - 1"	9' - 5"
	21	9' - 0"	9' - 9"	10' - 1"
	20	9' - 8"	10' - 4"	10' - 8"
	19	10' - 8"	11' - 6"	11' - 11"
	18	11' - 1"	12' - 7"	13' - 0"
	16	11' - 9"	14' - 1"	13' - 9"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	799	699	615	545	484	432	387	348	313	283	256	232	210	191	173
	LRFD, ϕW	1210	1061	937	832	742	664	597	539	487	442	402	366	334	305	280
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5016	4981	4949	4926	4901	4878	4856	4837	4820	4807	4792	4778	4765	4753	4742
	PAF Base Steel ≥ .25"	4726	4707	4691	4682	4668	4656	4645	4635	4626	4621	4613	4606	4599	4593	4587
	PAF Base Steel ≥ 0.125"	4705	4688	4672	4664	4652	4640	4630	4621	4612	4608	4601	4594	4587	4581	4576
	#12 Screw Base Steel ≥ .0385"	4519	4513	4507	4508	4503	4499	4495	4491	4488	4489	4486	4484	4481	4479	4477
	Concrete + Deck =	75.2	psf		I_{cr} =	148.7	in^4/ft	ASD		M_{no}/Ω =	83.9	kip-in/ft		V_n/Ω =	6.73	kip/ft
	$(I_{cr}+I_u)/2$ =	259	in^4/ft		I_u =	369.4	in^4/ft	LRFD		ϕM_{no} =	124.8	kip-in/ft		ϕV_n =	10.09	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	906	794	700	620	553	494	444	399	361	326	296	269	245	223	204
	LRFD, ϕW	1369	1202	1063	945	844	757	681	616	558	507	462	422	386	354	325
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5174	5130	5090	5059	5027	4998	4971	4947	4925	4909	4890	4872	4856	4840	4826
	PAF Base Steel ≥ .25"	4764	4744	4725	4714	4699	4686	4673	4662	4652	4646	4637	4629	4621	4614	4607
	PAF Base Steel ≥ 0.125"	4741	4721	4704	4694	4680	4667	4656	4645	4636	4631	4623	4615	4608	4601	4595
	#12 Screw Base Steel ≥ .0385"	4519	4513	4507	4508	4503	4499	4495	4491	4488	4489	4486	4484	4481	4479	4477
	Concrete + Deck =	75.6	psf		I_{cr} =	163.7	in^4/ft	ASD		M_{no}/Ω =	94.2	kip-in/ft		V_n/Ω =	6.73	kip/ft
	$(I_{cr}+I_u)/2$ =	270	in^4/ft		I_u =	376.4	in^4/ft	LRFD		ϕM_{no} =	140.1	kip-in/ft		ϕV_n =	10.09	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1121	984	870	773	690	619	557	503	456	414	377	344	315	288	264
	LRFD, ϕW	1689	1486	1315	1171	1048	942	850	770	700	638	583	534	490	450	415
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5377	5321	5270	5230	5190	5153	5119	5088	5060	5039	5014	4992	4972	4952	4934
	PAF Base Steel ≥ .25"	4842	4817	4795	4780	4762	4745	4730	4716	4704	4696	4685	4675	4666	4657	4649
	PAF Base Steel ≥ 0.125"	4797	4774	4754	4742	4725	4710	4697	4685	4673	4667	4657	4648	4640	4632	4625
	#12 Screw Base Steel ≥ .0385"	4519	4513	4507	4508	4503	4499	4495	4491	4488	4489	4486	4484	4481	4479	4477
	Concrete + Deck =	76.3	psf		I_{cr} =	192.3	in^4/ft	ASD		M_{no}/Ω =	114.9	kip-in/ft		V_n/Ω =	6.73	kip/ft
	$(I_{cr}+I_u)/2$ =	291	in^4/ft		I_u =	390.4	in^4/ft	LRFD		ϕM_{no} =	170.9	kip-in/ft		ϕV_n =	10.09	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	7050	8040	9840	12540
	24 in o.c.	n/a	7050	7750	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

TABLE 7f: 3WxH-36 COMPOSITE DECK WITH 8-1/4" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 11"	8' - 8"	9' - 0"
	21	8' - 7"	9' - 4"	9' - 8"
	20	9' - 3"	9' - 11"	10' - 3"

Gage	Single	Double	Triple
19	10' - 3"	11' - 0"	11' - 5"
18	10' - 9"	12' - 0"	12' - 5"
16	11' - 5"	13' - 5"	13' - 5"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	656	572	501	441	390	346	308	274	245	219	197	176	158	142	127
	LRFD, ϕW	1000	874	769	680	604	538	482	432	389	350	316	286	259	235	213
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5483	5463	5446	5435	5421	5408	5396	5386	5376	5371	5362	5354	5347	5340	5334
	PAF Base Steel ≥ .25"	5380	5366	5354	5349	5339	5330	5321	5314	5307	5305	5299	5293	5288	5283	5279
	PAF Base Steel ≥ 0.125"	5364	5352	5341	5336	5326	5318	5310	5303	5297	5295	5289	5284	5279	5275	5271
	#12 Screw Base Steel ≥ .0385"	5263	5257	5251	5251	5246	5241	5237	5233	5230	5230	5227	5224	5222	5219	5217
	Concrete + Deck = 83.5 psf				I_{cr} = 146.4 in^4/ft			ASD		M_{no}/Ω = 71.0 kip-in/ft				V_n/Ω = 5.37 kip/ft		
	$(I_{cr}+I_u)/2$ = 309 in^4/ft				I_u = 472.0 in^4/ft			LRFD		ϕM_{no} = 105.6 kip-in/ft				ϕV_n = 8.04 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	726	634	556	491	435	386	345	308	276	248	223	201	181	163	147
	LRFD, ϕW	1104	967	851	754	671	599	537	483	435	393	356	323	293	266	242
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5544	5521	5500	5487	5470	5455	5441	5428	5417	5410	5400	5391	5382	5374	5366
	PAF Base Steel ≥ .25"	5401	5386	5373	5366	5355	5346	5337	5329	5321	5318	5312	5306	5300	5295	5290
	PAF Base Steel ≥ 0.125"	5384	5370	5358	5352	5342	5333	5325	5317	5310	5308	5302	5296	5291	5286	5281
	#12 Screw Base Steel ≥ .0385"	5260	5253	5247	5247	5243	5238	5234	5230	5227	5228	5225	5222	5220	5217	5215
	Concrete + Deck = 83.7 psf				I_{cr} = 158.3 in^4/ft			ASD		M_{no}/Ω = 77.7 kip-in/ft				V_n/Ω = 5.85 kip/ft		
	$(I_{cr}+I_u)/2$ = 318 in^4/ft				I_u = 477.1 in^4/ft			LRFD		ϕM_{no} = 115.6 kip-in/ft				ϕV_n = 8.76 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	791	691	607	537	476	424	379	340	305	275	247	223	202	182	165
	LRFD, ϕW	1201	1052	928	822	732	655	588	529	478	432	392	356	324	296	270
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5606	5579	5555	5539	5520	5502	5486	5471	5458	5450	5438	5427	5417	5408	5400
	PAF Base Steel ≥ .25"	5420	5404	5390	5383	5371	5361	5351	5342	5334	5331	5324	5317	5311	5306	5301
	PAF Base Steel ≥ 0.125"	5402	5388	5374	5368	5357	5347	5338	5330	5322	5319	5313	5307	5301	5296	5291
	#12 Screw Base Steel ≥ .0385"	5257	5250	5245	5245	5240	5236	5232	5228	5225	5226	5223	5220	5218	5216	5213
	Concrete + Deck = 83.9 psf				I_{cr} = 169.0 in^4/ft			ASD		M_{no}/Ω = 84.0 kip-in/ft				V_n/Ω = 6.39 kip/ft		
	$(I_{cr}+I_u)/2$ = 325 in^4/ft				I_u = 481.7 in^4/ft			LRFD		ϕM_{no} = 124.9 kip-in/ft				ϕV_n = 9.56 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	7790	8780	10580	13280
	24 in o.c.	n/a	7750	7750	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

3WxH-36 8 1/4 " Slab Depth, 145 pcf NWC

TABLE 7f: 3WxH-36 COMPOSITE DECK WITH 8-1/4" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 11"	8' - 8"	9' - 0"
	21	8' - 7"	9' - 4"	9' - 8"
	20	9' - 3"	9' - 11"	10' - 3"
	19	10' - 3"	11' - 0"	11' - 5"
	18	10' - 9"	12' - 0"	12' - 5"
	16	11' - 5"	13' - 5"	13' - 5"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	925	810	713	632	562	502	450	404	364	329	298	270	245	223	203
	LRFD, ϕW	1400	1229	1085	964	860	771	693	626	566	514	468	426	389	356	326
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5752	5716	5685	5662	5636	5613	5592	5573	5555	5543	5528	5514	5501	5489	5477
	PAF Base Steel ≥ .25"	5461	5443	5427	5417	5404	5392	5381	5371	5362	5357	5349	5342	5335	5328	5323
	PAF Base Steel ≥ 0.125"	5440	5423	5408	5400	5387	5376	5366	5356	5348	5344	5336	5329	5323	5317	5311
	#12 Screw Base Steel ≥ .0385"	5255	5248	5243	5243	5239	5234	5230	5227	5224	5225	5222	5219	5217	5214	5212
	Concrete + Deck =	84.2	psf		I_{cr} =	190.7	in^4/ft	ASD		M_{no}/Ω =	96.9	kip-in/ft		V_n/Ω =	7.37	kip/ft
	$(I_{cr}+I_u)/2$ =	341	in^4/ft		I_u =	491.3	in^4/ft	LRFD		ϕM_{no} =	144.2	kip-in/ft		ϕV_n =	11.01	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1050	921	812	720	642	574	516	465	420	380	345	314	286	261	238
	LRFD, ϕW	1586	1394	1232	1095	979	878	791	715	649	590	538	491	450	412	379
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5910	5865	5825	5795	5763	5734	5707	5683	5661	5644	5625	5608	5591	5576	5562
	PAF Base Steel ≥ .25"	5500	5479	5461	5450	5435	5421	5409	5398	5387	5382	5373	5365	5357	5350	5343
	PAF Base Steel ≥ 0.125"	5476	5457	5440	5430	5416	5403	5392	5381	5371	5367	5358	5350	5343	5337	5330
	#12 Screw Base Steel ≥ .0385"	5255	5248	5243	5243	5239	5234	5230	5227	5224	5225	5222	5219	5217	5214	5212
	Concrete + Deck =	84.6	psf		I_{cr} =	210.2	in^4/ft	ASD		M_{no}/Ω =	108.9	kip-in/ft		V_n/Ω =	7.95	kip/ft
	$(I_{cr}+I_u)/2$ =	355	in^4/ft		I_u =	500.2	in^4/ft	LRFD		ϕM_{no} =	162.0	kip-in/ft		ϕV_n =	11.93	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1301	1143	1010	898	802	719	648	586	531	483	440	402	367	337	309
	LRFD, ϕW	1960	1724	1527	1360	1218	1095	988	896	814	742	679	622	571	525	484
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	6113	6056	6006	5966	5925	5888	5855	5824	5796	5774	5750	5728	5707	5688	5670
	PAF Base Steel ≥ .25"	5578	5553	5530	5515	5497	5481	5466	5452	5439	5432	5421	5411	5401	5393	5385
	PAF Base Steel ≥ 0.125"	5532	5510	5490	5477	5461	5446	5433	5420	5409	5403	5393	5384	5375	5368	5360
	#12 Screw Base Steel ≥ .0385"	5255	5248	5243	5243	5239	5234	5230	5227	5224	5225	5222	5219	5217	5214	5212
	Concrete + Deck =	85.4	psf		I_{cr} =	247.5	in^4/ft	ASD		M_{no}/Ω =	133.1	kip-in/ft		V_n/Ω =	7.95	kip/ft
	$(I_{cr}+I_u)/2$ =	383	in^4/ft		I_u =	518.0	in^4/ft	LRFD		ϕM_{no} =	198.0	kip-in/ft		ϕV_n =	11.93	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A_s = 0.028 in^2/ft	A_s = 0.058 in^2/ft	A_s = 0.080 in^2/ft	A_s = 0.120 in^2/ft	A_s = 0.180 in^2/ft
	12 in o.c.	n/a	7790	8780	10580	13280
	24 in o.c.	n/a	7750	7750	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

3WxH-36 8 1/4" Slab Depth, 145 pcf NWC

TABLE 7g: 3WxH-36 COMPOSITE DECK WITH 5" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	11' - 2"	12' - 0"	12' - 5"
	21	12' - 2"	12' - 10"	13' - 3"
	20	12' - 7"	13' - 7"	14' - 1"

Gage	Single	Double	Triple
19	13' - 1"	15' - 2"	15' - 3"
18	13' - 5"	16' - 6"	15' - 9"
16	14' - 2"	17' - 8"	16' - 7"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	291	254	223	197	174	155	138	123	110	99	89	80	72	65	58
	LRFD, ϕW	443	388	341	302	269	240	215	193	174	157	142	129	117	106	97
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1629	1610	1592	1582	1568	1555	1543	1532	1522	1517	1509	1501	1494	1487	1480
	PAF Base Steel ≥ .25"	1526	1513	1501	1495	1485	1476	1468	1461	1454	1451	1445	1440	1435	1430	1426
	PAF Base Steel ≥ 0.125"	1511	1499	1487	1482	1473	1465	1457	1450	1444	1442	1436	1431	1426	1422	1418
	#12 Screw Base Steel ≥ .0385"	1410	1403	1397	1397	1392	1388	1383	1380	1376	1377	1374	1371	1368	1366	1364
	Concrete + Deck =	34.0	psf		I_{cr} =	53.5	in^4/ft	ASD		M_{no}/Ω =	31.2	kip-in/ft		V_n/Ω =	2.83	kip/ft
	$(I_{cr}+I_u)/2$ =	84	in^4/ft		I_u =	114.4	in^4/ft	LRFD		ϕM_{no} =	46.4	kip-in/ft		ϕV_n =	4.23	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	320	280	246	217	193	172	153	137	123	111	100	90	82	74	67
	LRFD, ϕW	486	426	376	333	296	265	238	214	193	175	159	144	131	119	109
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1690	1667	1647	1633	1617	1601	1587	1575	1563	1557	1546	1537	1529	1521	1513
	PAF Base Steel ≥ .25"	1547	1533	1520	1513	1502	1492	1483	1475	1468	1465	1458	1452	1447	1442	1437
	PAF Base Steel ≥ 0.125"	1531	1517	1505	1499	1489	1480	1471	1464	1457	1454	1448	1443	1437	1433	1428
	#12 Screw Base Steel ≥ .0385"	1406	1400	1394	1394	1389	1385	1381	1377	1374	1375	1372	1369	1366	1364	1362
	Concrete + Deck =	34.2	psf		I_{cr} =	57.4	in^4/ft	ASD		M_{no}/Ω =	34.0	kip-in/ft		V_n/Ω =	2.86	kip/ft
	$(I_{cr}+I_u)/2$ =	87	in^4/ft		I_u =	116.5	in^4/ft	LRFD		ϕM_{no} =	50.6	kip-in/ft		ϕV_n =	4.94	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	347	304	267	236	210	187	168	150	135	122	110	100	90	82	74
	LRFD, ϕW	527	462	407	361	322	288	259	234	211	191	174	158	144	132	120
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1753	1726	1702	1686	1666	1649	1633	1618	1605	1596	1585	1574	1564	1555	1546
	PAF Base Steel ≥ .25"	1567	1551	1537	1530	1518	1507	1498	1489	1481	1478	1471	1464	1458	1453	1447
	PAF Base Steel ≥ 0.125"	1549	1534	1521	1514	1504	1494	1485	1476	1469	1466	1460	1453	1448	1443	1438
	#12 Screw Base Steel ≥ .0385"	1403	1397	1392	1392	1387	1383	1379	1375	1372	1373	1370	1367	1365	1362	1360
	Concrete + Deck =	34.3	psf		I_{cr} =	61.0	in^4/ft	ASD		M_{no}/Ω =	36.6	kip-in/ft		V_n/Ω =	2.86	kip/ft
	$(I_{cr}+I_u)/2$ =	89.8	in^4/ft		I_u =	118.5	in^4/ft	LRFD		ϕM_{no} =	54.5	kip-in/ft		ϕV_n =	5.73	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	2740	4090	5080	6880	9580
	24 in o.c.	2740	4090	5080	6880	7750
	36 in o.c.	2740	4090	5080	5170	5170

3WxH-36 5" Slab Depth, 110 pcf LWC

TABLE 7g: 3WxH-36 COMPOSITE DECK WITH 5" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	11' - 2"	12' - 0"	12' - 5"	19	13' - 1"	15' - 2"	15' - 3"
	21	12' - 2"	12' - 10"	13' - 3"	18	13' - 5"	16' - 6"	15' - 9"
	20	12' - 7"	13' - 7"	14' - 1"	16	14' - 2"	17' - 8"	16' - 7"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	402	353	311	275	245	219	197	177	160	144	131	119	108	98	90
	LRFD, ϕW	609	534	472	419	375	336	302	273	247	225	205	187	171	156	143
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	107	97	87
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1899	1863	1832	1809	1783	1760	1739	1720	1702	1690	1675	1661	1648	1635	1624
	PAF Base Steel ≥ .25"	1608	1590	1573	1564	1551	1539	1528	1517	1508	1504	1496	1488	1482	1475	1469
	PAF Base Steel ≥ 0.125"	1587	1570	1555	1546	1534	1523	1512	1503	1494	1490	1483	1476	1470	1464	1458
	#12 Screw Base Steel ≥ .0385"	1401	1395	1390	1390	1385	1381	1377	1374	1370	1371	1369	1366	1363	1361	1359
	Concrete + Deck = 34.7 psf				I_{cr} = 68.0 in^4/ft			ASD		M_{no}/Ω = 42.0 kip-in/ft				V_n/Ω = 2.86 kip/ft		
	$(I_{cr}+I_u)/2$ = 95.3 in^4/ft				I_u = 122.6 in^4/ft			LRFD		ϕM_{no} = 62.4 kip-in/ft				ϕV_n = 5.73 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	453	398	351	311	278	248	223	201	182	165	150	136	124	114	104
	LRFD, ϕW	684	602	532	473	423	380	342	310	281	256	233	213	195	179	165
	L/360	-	-	-	-	-	-	-	-	179	159	141	126	113	102	92
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2057	2012	1972	1942	1910	1880	1854	1830	1807	1791	1772	1754	1738	1723	1708
	PAF Base Steel ≥ .25"	1647	1626	1608	1596	1581	1568	1556	1544	1534	1528	1519	1511	1504	1496	1490
	PAF Base Steel ≥ 0.125"	1623	1604	1587	1577	1563	1550	1538	1528	1518	1513	1505	1497	1490	1483	1477
	#12 Screw Base Steel ≥ .0385"	1401	1395	1390	1390	1385	1381	1377	1374	1370	1371	1369	1366	1363	1361	1359
	Concrete + Deck = 35.1 psf				I_{cr} = 74.2 in^4/ft			ASD		M_{no}/Ω = 46.9 kip-in/ft				V_n/Ω = 2.86 kip/ft		
	$(I_{cr}+I_u)/2$ = 100 in^4/ft				I_u = 126.3 in^4/ft			LRFD		ϕM_{no} = 69.8 kip-in/ft				ϕV_n = 5.73 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	554	487	431	383	342	307	276	250	227	206	188	171	157	144	132
	LRFD, ϕW	835	735	651	580	519	467	421	382	347	317	290	265	244	224	207
	L/360	-	-	-	-	339	293	255	223	196	174	154	138	124	111	101
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2260	2203	2153	2113	2072	2035	2001	1971	1943	1921	1897	1875	1854	1835	1817
	PAF Base Steel ≥ .25"	1725	1699	1677	1662	1644	1627	1612	1599	1586	1578	1567	1557	1548	1539	1531
	PAF Base Steel ≥ 0.125"	1679	1657	1637	1624	1607	1593	1579	1567	1556	1549	1540	1530	1522	1514	1507
	#12 Screw Base Steel ≥ .0385"	1401	1395	1390	1390	1385	1381	1377	1374	1370	1371	1369	1366	1363	1361	1359
	Concrete + Deck = 35.8 psf				I_{cr} = 86.0 in^4/ft			ASD		M_{no}/Ω = 56.7 kip-in/ft				V_n/Ω = 2.86 kip/ft		
	$(I_{cr}+I_u)/2$ = 110 in^4/ft				I_u = 133.7 in^4/ft			LRFD		ϕM_{no} = 84.3 kip-in/ft				ϕV_n = 5.73 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	2740	4090	5080	6880	9580
	24 in o.c.	2740	4090	5080	6880	7750
	36 in o.c.	2740	4090	5080	5170	5170

3WxH-36 5" Slab Depth, 110 pcf LWC

TABLE 7h: 3WxH-36 COMPOSITE DECK WITH 5-1/2" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	10' - 8"	11' - 6"	11' - 11"
	21	11' - 8"	12' - 4"	12' - 9"
	20	12' - 2"	13' - 1"	13' - 6"

Gage	Single	Double	Triple
19	12' - 8"	14' - 7"	14' - 10"
18	13' - 1"	15' - 11"	15' - 4"
16	13' - 9"	17' - 2"	16' - 1"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	340	297	261	230	204	181	162	145	130	117	105	95	85	77	69
	LRFD, ϕW	518	453	399	354	315	281	252	227	204	185	167	152	138	125	114
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1953	1934	1916	1906	1892	1879	1867	1856	1846	1841	1833	1825	1818	1811	1805
	PAF Base Steel ≥ .25"	1850	1837	1825	1819	1809	1800	1792	1785	1778	1775	1770	1764	1759	1754	1750
	PAF Base Steel ≥ 0.125"	1835	1823	1811	1807	1797	1789	1781	1774	1768	1766	1760	1755	1750	1746	1742
	#12 Screw Base Steel ≥ .0385"	1734	1727	1721	1721	1716	1712	1708	1704	1700	1701	1698	1695	1692	1690	1688
	Concrete + Deck = 38.6 psf				I_{cr} = 69.0 in^4/ft			ASD		M_{no}/Ω = 36.4 kip-in/ft				V_n/Ω = 3.03 kip/ft		
	$(I_{cr}+I_u)/2$ = 110 in^4/ft				I_u = 150.5 in^4/ft			LRFD		ϕM_{no} = 54.1 kip-in/ft				ϕV_n = 4.52 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	375	327	288	254	226	201	180	161	145	131	118	106	96	87	79
	LRFD, ϕW	568	498	439	389	347	310	279	251	227	205	186	169	154	141	128
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2014	1991	1971	1958	1941	1925	1912	1899	1887	1881	1871	1861	1853	1845	1837
	PAF Base Steel ≥ .25"	1871	1857	1844	1837	1826	1816	1808	1799	1792	1789	1783	1777	1771	1766	1761
	PAF Base Steel ≥ 0.125"	1855	1841	1829	1823	1813	1804	1795	1788	1781	1778	1772	1767	1761	1757	1752
	#12 Screw Base Steel ≥ .0385"	1730	1724	1718	1718	1713	1709	1705	1701	1698	1699	1696	1693	1690	1688	1686
	Concrete + Deck = 38.7 psf				I_{cr} = 74.0 in^4/ft			ASD		M_{no}/Ω = 39.7 kip-in/ft				V_n/Ω = 3.26 kip/ft		
	$(I_{cr}+I_u)/2$ = 114 in^4/ft				I_u = 153.1 in^4/ft			LRFD		ϕM_{no} = 59.0 kip-in/ft				ϕV_n = 5.24 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	406	355	313	277	246	219	197	176	159	143	130	117	106	97	88
	LRFD, ϕW	615	540	476	423	377	338	304	274	248	225	204	186	169	155	142
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2077	2050	2026	2010	1990	1973	1957	1942	1929	1920	1909	1898	1888	1879	1870
	PAF Base Steel ≥ .25"	1891	1875	1861	1854	1842	1831	1822	1813	1805	1802	1795	1788	1782	1777	1771
	PAF Base Steel ≥ 0.125"	1873	1858	1845	1838	1828	1818	1809	1801	1793	1790	1784	1778	1772	1767	1762
	#12 Screw Base Steel ≥ .0385"	1728	1721	1716	1716	1711	1707	1703	1699	1696	1697	1694	1691	1689	1686	1684
	Concrete + Deck = 38.9 psf				I_{cr} = 78.6 in^4/ft			ASD		M_{no}/Ω = 42.7 kip-in/ft				V_n/Ω = 3.26 kip/ft		
	$(I_{cr}+I_u)/2$ = 117 in^4/ft				I_u = 155.6 in^4/ft			LRFD		ϕM_{no} = 63.6 kip-in/ft				ϕV_n = 6.04 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	3110	4460	5450	7250	9950
	24 in o.c.	3110	4460	5450	7250	7750
	36 in o.c.	3110	4460	5170	5170	5170

3WxH-36 5 1/2 " Slab Depth, 110 pcf LWC

TABLE 7h: 3WxH-36 COMPOSITE DECK WITH 5-1/2" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	10' - 8"	11' - 6"	11' - 11"	19	12' - 8"	14' - 7"	14' - 10"
	21	11' - 8"	12' - 4"	12' - 9"	18	13' - 1"	15' - 11"	15' - 4"
	20	12' - 2"	13' - 1"	13' - 6"	16	13' - 9"	17' - 2"	16' - 1"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	471	412	364	322	287	257	230	208	187	170	154	140	127	116	106
	LRFD, ϕW	711	625	552	491	438	393	354	320	290	264	240	219	201	184	169
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2223	2187	2156	2133	2107	2084	2063	2044	2026	2014	1999	1985	1972	1959	1948
	PAF Base Steel ≥ .25"	1932	1914	1897	1888	1875	1863	1852	1842	1832	1828	1820	1812	1806	1799	1793
	PAF Base Steel ≥ 0.125"	1911	1894	1879	1871	1858	1847	1836	1827	1818	1814	1807	1800	1794	1788	1782
	#12 Screw Base Steel ≥ .0385"	1725	1719	1714	1714	1709	1705	1701	1698	1694	1696	1693	1690	1687	1685	1683
	Concrete + Deck =	39.3	psf		I_{cr} =	87.6	in^4/ft	ASD		M_{no}/Ω =	49.0	kip-in/ft		V_n/Ω =	3.26	kip/ft
	$(I_{cr}+I_u)/2$ =	124	in^4/ft		I_u =	160.6	in^4/ft	LRFD		ϕM_{no} =	72.8	kip-in/ft		ϕV_n =	6.52	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	530	465	411	364	325	291	262	236	214	194	176	160	146	134	122
	LRFD, ϕW	800	703	622	554	495	445	401	363	329	300	273	250	229	210	194
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	132	119
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2381	2336	2296	2266	2234	2204	2178	2154	2131	2115	2096	2078	2062	2047	2032
	PAF Base Steel ≥ .25"	1971	1950	1932	1921	1906	1892	1880	1868	1858	1852	1844	1835	1828	1820	1814
	PAF Base Steel ≥ 0.125"	1947	1928	1911	1901	1887	1874	1862	1852	1842	1837	1829	1821	1814	1807	1801
	#12 Screw Base Steel ≥ .0385"	1725	1719	1714	1714	1709	1705	1701	1698	1694	1696	1693	1690	1687	1685	1683
	Concrete + Deck =	39.6	psf		I_{cr} =	95.6	in^4/ft	ASD		M_{no}/Ω =	54.7	kip-in/ft		V_n/Ω =	3.26	kip/ft
	$(I_{cr}+I_u)/2$ =	130	in^4/ft		I_u =	165.2	in^4/ft	LRFD		ϕM_{no} =	81.4	kip-in/ft		ϕV_n =	6.52	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	648	570	504	448	400	359	324	293	266	242	220	201	185	169	156
	LRFD, ϕW	976	859	761	678	607	546	493	447	407	371	339	311	286	263	243
	L/360	-	-	-	-	-	-	-	289	255	225	200	179	160	144	130
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2584	2527	2477	2437	2396	2359	2326	2295	2267	2245	2221	2199	2178	2159	2141
	PAF Base Steel ≥ .25"	2049	2023	2001	1986	1968	1951	1936	1923	1910	1902	1892	1881	1872	1863	1855
	PAF Base Steel ≥ 0.125"	2003	1981	1961	1948	1932	1917	1903	1891	1880	1873	1864	1855	1846	1838	1831
	#12 Screw Base Steel ≥ .0385"	1725	1719	1714	1714	1709	1705	1701	1698	1694	1696	1693	1690	1687	1685	1683
	Concrete + Deck =	40.4	psf		I_{cr} =	110.7	in^4/ft	ASD		M_{no}/Ω =	66.1	kip-in/ft		V_n/Ω =	3.26	kip/ft
	$(I_{cr}+I_u)/2$ =	142	in^4/ft		I_u =	174.3	in^4/ft	LRFD		ϕM_{no} =	98.3	kip-in/ft		ϕV_n =	6.52	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A_s = 0.028 in^2/ft	A_s = 0.058 in^2/ft	A_s = 0.080 in^2/ft	A_s = 0.120 in^2/ft	A_s = 0.180 in^2/ft
	12 in o.c.	3110	4460	5450	7250	9950
	24 in o.c.	3110	4460	5450	7250	7750
	36 in o.c.	3110	4460	5170	5170	5170

TABLE 7i: 3WxH-36 COMPOSITE DECK WITH 6-1/4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	10' - 1"	10' - 11"	11' - 4"
	21	11' - 0"	11' - 9"	12' - 1"
	20	11' - 9"	12' - 5"	12' - 10"

Gage	Single	Double	Triple
19	12' - 2"	13' - 10"	14' - 3"
18	12' - 7"	15' - 1"	14' - 9"
16	13' - 3"	16' - 6"	15' - 6"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	420	367	322	285	252	225	201	180	161	145	131	118	107	96	87
	LRFD, ϕW	638	559	492	436	389	347	312	281	253	229	208	189	172	156	142
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2439	2420	2402	2392	2378	2365	2353	2342	2333	2327	2319	2311	2304	2297	2291
	PAF Base Steel ≥ .25"	2336	2323	2311	2305	2295	2286	2278	2271	2264	2262	2256	2250	2245	2240	2236
	PAF Base Steel ≥ 0.125"	2321	2309	2297	2293	2283	2275	2267	2260	2254	2252	2246	2241	2236	2232	2228
	#12 Screw Base Steel ≥ .0385"	2220	2213	2207	2207	2202	2198	2194	2190	2186	2187	2184	2181	2178	2176	2174
	Concrete + Deck =	45.4	psf		I_{cr} =	97.1	in^4/ft	ASD		M_{no}/Ω =	44.7	kip-in/ft		V_n/Ω =	3.34	kip/ft
	$(I_{cr}+I_u)/2$ =	158	in^4/ft		I_u =	218.1	in^4/ft	LRFD		ϕM_{no} =	66.5	kip-in/ft		ϕV_n =	5.00	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	462	404	356	314	279	249	223	200	180	162	147	133	120	109	99
	LRFD, ϕW	701	614	542	481	429	384	345	311	281	255	231	211	192	175	160
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2501	2477	2457	2444	2427	2411	2398	2385	2373	2367	2357	2347	2339	2331	2323
	PAF Base Steel ≥ .25"	2358	2343	2330	2323	2312	2302	2294	2285	2278	2275	2269	2263	2257	2252	2247
	PAF Base Steel ≥ 0.125"	2341	2327	2315	2309	2299	2290	2282	2274	2267	2264	2258	2253	2248	2243	2238
	#12 Screw Base Steel ≥ .0385"	2216	2210	2204	2204	2199	2195	2191	2187	2184	2185	2182	2179	2176	2174	2172
	Concrete + Deck =	45.6	psf		I_{cr} =	104.3	in^4/ft	ASD		M_{no}/Ω =	48.8	kip-in/ft		V_n/Ω =	3.82	kip/ft
	$(I_{cr}+I_u)/2$ =	163	in^4/ft		I_u =	221.7	in^4/ft	LRFD		ϕM_{no} =	72.5	kip-in/ft		ϕV_n =	5.71	kip/ft

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	501	439	387	342	304	272	244	219	197	178	161	146	133	121	110
	LRFD, ϕW	759	666	588	522	466	417	376	339	307	278	253	231	211	193	177
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2563	2536	2512	2496	2476	2459	2443	2428	2415	2406	2395	2384	2374	2365	2356
	PAF Base Steel ≥ .25"	2377	2361	2347	2340	2328	2317	2308	2299	2291	2288	2281	2274	2268	2263	2257
	PAF Base Steel ≥ 0.125"	2359	2344	2331	2325	2314	2304	2295	2287	2279	2276	2270	2264	2258	2253	2248
	#12 Screw Base Steel ≥ .0385"	2214	2207	2202	2202	2197	2193	2189	2185	2182	2183	2180	2177	2175	2172	2170
	Concrete + Deck =	45.8	psf		I_{cr} =	110.8	in^4/ft	ASD		M_{no}/Ω =	52.5	kip-in/ft		V_n/Ω =	3.89	kip/ft
	$(I_{cr}+I_u)/2$ =	168	in^4/ft		I_u =	225.1	in^4/ft	LRFD		ϕM_{no} =	78.1	kip-in/ft		ϕV_n =	6.51	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width										
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft		6x6 W2.9xW2.9 A_s = 0.058 in^2/ft		6x6 W4.0xW4.0 A_s = 0.080 in^2/ft		4x4 W4xW4 A_s = 0.120 in^2/ft		4x4 W6xW6 A_s = 0.180 in^2/ft	
	12 in o.c.	n/a		5010		6000		7800		10500	
	24 in o.c.	n/a		5010		6000		7750		7750	
	36 in o.c.	n/a		5010		5170		5170		5170	

3WxH-36 6 1/4 " Slab Depth, 110 pcf LWC

TABLE 7i: 3WxH-36 COMPOSITE DECK WITH 6-1/4" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	10' - 1"	10' - 11"	11' - 4"
	21	11' - 0"	11' - 9"	12' - 1"
	20	11' - 9"	12' - 5"	12' - 10"
	19	12' - 2"	13' - 10"	14' - 3"
	18	12' - 7"	15' - 1"	14' - 9"
	16	13' - 3"	16' - 6"	15' - 6"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	581	510	450	399	355	318	286	258	233	211	191	174	159	145	132
	LRFD, ϕW	878	771	682	607	542	486	438	396	359	327	298	272	249	229	210
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2709	2673	2642	2619	2593	2570	2549	2530	2512	2500	2485	2471	2458	2446	2434
	PAF Base Steel ≥ .25"	2418	2400	2384	2374	2361	2349	2338	2328	2318	2314	2306	2299	2292	2285	2279
	PAF Base Steel ≥ 0.125"	2397	2380	2365	2357	2344	2333	2322	2313	2304	2301	2293	2286	2280	2274	2268
	#12 Screw Base Steel ≥ .0385"	2211	2205	2200	2200	2195	2191	2187	2184	2181	2182	2179	2176	2174	2171	2169
	Concrete + Deck = 46.2 psf				I_{cr} = 123.6 in^4/ft			ASD		M_{no}/Ω = 60.2 kip-in/ft				V_n/Ω = 3.89 kip/ft		
	$(I_{cr}+I_u)/2$ = 178 in^4/ft				I_u = 231.9 in^4/ft			LRFD		ϕM_{no} = 89.6 kip-in/ft				ϕV_n = 7.79 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	655	575	508	451	403	361	325	293	265	241	219	200	183	167	153
	LRFD, ϕW	988	869	769	684	612	550	496	449	408	372	339	311	285	262	241
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2867	2822	2782	2752	2720	2690	2664	2640	2617	2601	2582	2564	2548	2533	2519
	PAF Base Steel ≥ .25"	2457	2436	2418	2407	2392	2378	2366	2354	2344	2339	2330	2321	2314	2307	2300
	PAF Base Steel ≥ 0.125"	2433	2414	2397	2387	2373	2360	2348	2338	2328	2323	2315	2307	2300	2293	2287
	#12 Screw Base Steel ≥ .0385"	2211	2205	2200	2200	2195	2191	2187	2184	2181	2182	2179	2176	2174	2171	2169
	Concrete + Deck = 46.5 psf				I_{cr} = 134.9 in^4/ft			ASD		M_{no}/Ω = 67.4 kip-in/ft				V_n/Ω = 3.89 kip/ft		
	$(I_{cr}+I_u)/2$ = 187 in^4/ft				I_u = 238.2 in^4/ft			LRFD		ϕM_{no} = 100.2 kip-in/ft				ϕV_n = 7.79 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	802	705	624	555	496	446	402	364	330	301	274	251	230	211	194
	LRFD, ϕW	1207	1062	941	839	752	677	611	555	505	461	422	387	356	328	303
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	229	206	186
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3070	3013	2963	2923	2882	2845	2812	2781	2753	2731	2707	2685	2664	2645	2627
	PAF Base Steel ≥ .25"	2535	2509	2487	2472	2454	2437	2422	2409	2396	2388	2378	2368	2358	2350	2341
	PAF Base Steel ≥ 0.125"	2489	2467	2447	2434	2418	2403	2389	2377	2366	2359	2350	2341	2332	2324	2317
	#12 Screw Base Steel ≥ .0385"	2211	2205	2200	2200	2195	2191	2187	2184	2181	2182	2179	2176	2174	2171	2169
	Concrete + Deck = 47.3 psf				I_{cr} = 156.3 in^4/ft			ASD		M_{no}/Ω = 81.5 kip-in/ft				V_n/Ω = 3.89 kip/ft		
	$(I_{cr}+I_u)/2$ = 203 in^4/ft				I_u = 250.5 in^4/ft			LRFD		ϕM_{no} = 121.3 kip-in/ft				ϕV_n = 7.79 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	5010	6000	7800	10500
	24 in o.c.	n/a	5010	6000	7750	7750
	36 in o.c.	n/a	5010	5170	5170	5170

3WxH-36 6 1/4 " Slab Depth, 110 pcf LWC

TABLE 7j: 3WxH-36 COMPOSITE DECK WITH 7-1/4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 5"	10' - 3"	10' - 7"
	21	10' - 3"	11' - 0"	11' - 4"
	20	11' - 0"	11' - 8"	12' - 1"

Gage	Single	Double	Triple
19	11' - 8"	13' - 0"	13' - 5"
18	12' - 1"	14' - 2"	14' - 1"
16	12' - 8"	15' - 10"	14' - 11"

22 ga.

Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	533	466	410	362	322	287	256	230	207	186	168	152	137	124	113
LRFD, ϕW	809	709	625	554	494	442	397	358	323	293	266	241	220	201	183
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	3087	3068	3050	3040	3026	3013	3001	2990	2981	2976	2967	2959	2952	2945	2939
PAF Base Steel ≥ .25"	2984	2971	2959	2953	2943	2934	2926	2919	2912	2910	2904	2898	2893	2888	2884
PAF Base Steel ≥ 0.125"	2969	2957	2946	2941	2931	2923	2915	2908	2902	2900	2894	2889	2884	2880	2876
#12 Screw Base Steel ≥ .0385"	2868	2861	2856	2855	2850	2846	2842	2838	2834	2835	2832	2829	2827	2824	2822

Concrete + Deck = 54.6 psf I_{cr} = 144.1 in^4/ft ASD M_{no}/Ω = 56.4 kip-in/ft V_n/Ω = 3.80 kip/ft

$(I_{cr}+I_u)/2$ = 241 in^4/ft I_u = 337.8 in^4/ft LRFD ϕM_{no} = 83.9 kip-in/ft ϕV_n = 5.68 kip/ft

21 ga.

Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	587	514	452	400	356	318	285	256	230	208	188	171	155	141	128
LRFD, ϕW	889	780	689	611	545	489	439	396	359	325	296	270	246	225	206
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	3149	3125	3105	3092	3075	3060	3046	3033	3021	3015	3005	2995	2987	2979	2971
PAF Base Steel ≥ .25"	3006	2991	2978	2971	2960	2951	2942	2934	2926	2923	2917	2911	2905	2900	2895
PAF Base Steel ≥ 0.125"	2989	2975	2963	2957	2947	2938	2930	2922	2915	2913	2907	2901	2896	2891	2886
#12 Screw Base Steel ≥ .0385"	2865	2858	2852	2852	2848	2843	2839	2835	2832	2833	2830	2827	2824	2822	2820

Concrete + Deck = 54.8 psf I_{cr} = 154.9 in^4/ft ASD M_{no}/Ω = 61.6 kip-in/ft V_n/Ω = 4.28 kip/ft

$(I_{cr}+I_u)/2$ = 249 in^4/ft I_u = 343.0 in^4/ft LRFD ϕM_{no} = 91.7 kip-in/ft ϕV_n = 6.40 kip/ft

20 ga.

Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	637	558	492	436	388	347	311	280	253	229	207	188	171	156	142
LRFD, ϕW	964	846	747	664	593	532	479	432	392	356	324	296	270	247	227
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	3211	3184	3160	3144	3125	3107	3091	3076	3063	3054	3043	3032	3022	3013	3004
PAF Base Steel ≥ .25"	3025	3009	2995	2988	2976	2966	2956	2947	2939	2936	2929	2922	2916	2911	2906
PAF Base Steel ≥ 0.125"	3007	2992	2979	2973	2962	2952	2943	2935	2927	2924	2918	2912	2906	2901	2896
#12 Screw Base Steel ≥ .0385"	2862	2855	2850	2850	2845	2841	2837	2833	2830	2831	2828	2825	2823	2821	2818

Concrete + Deck = 55.0 psf I_{cr} = 164.7 in^4/ft ASD M_{no}/Ω = 66.4 kip-in/ft V_n/Ω = 4.81 kip/ft

$(I_{cr}+I_u)/2$ = 256 in^4/ft I_u = 347.8 in^4/ft LRFD ϕM_{no} = 98.8 kip-in/ft ϕV_n = 7.20 kip/ft

All Gages

LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
12 in o.c.	n/a	5750	6740	8540	11240
24 in o.c.	n/a	5750	6740	7750	7750
36 in o.c.	n/a	5170	5170	5170	5170

3WxH-36 7 1/4 " Slab Depth, 110 pcf LWC

TABLE 7j: 3WxH-36 COMPOSITE DECK WITH 7-1/4" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 5"	10' - 3"	10' - 7"
	21	10' - 3"	11' - 0"	11' - 4"
	20	11' - 0"	11' - 8"	12' - 1"
	19	11' - 8"	13' - 0"	13' - 5"
	18	12' - 1"	14' - 2"	14' - 1"
	16	12' - 8"	15' - 10"	14' - 11"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	740	649	573	508	454	406	365	329	298	270	246	224	204	187	171
	LRFD, ϕW	1116	981	868	772	691	620	559	506	459	418	381	349	320	294	270
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3357	3321	3290	3267	3241	3218	3197	3178	3160	3148	3133	3119	3106	3094	3082
	PAF Base Steel ≥ .25"	3066	3048	3032	3022	3009	2997	2986	2976	2967	2962	2954	2947	2940	2933	2927
	PAF Base Steel ≥ 0.125"	3045	3028	3013	3005	2992	2981	2971	2961	2953	2949	2941	2934	2928	2922	2916
	#12 Screw Base Steel ≥ .0385"	2860	2853	2848	2848	2843	2839	2835	2832	2829	2830	2827	2824	2822	2819	2817
	Concrete + Deck = 55.3 psf				I_{cr} = 184.1 in^4/ft			ASD		M_{no}/Ω = 76.3 kip-in/ft				V_n/Ω = 4.81 kip/ft		
	$(I_{cr}+I_u)/2$ = 271 in^4/ft				I_u = 357.7 in^4/ft			LRFD		ϕM_{no} = 113.5 kip-in/ft				ϕV_n = 8.65 kip/ft		

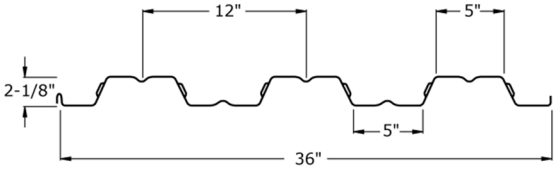
	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	835	733	648	576	514	461	415	375	340	309	282	257	235	215	198
	LRFD, ϕW	1258	1106	980	872	781	702	634	574	522	476	435	398	366	336	310
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3515	3470	3430	3400	3368	3339	3312	3288	3266	3249	3230	3212	3196	3181	3167
	PAF Base Steel ≥ .25"	3105	3084	3066	3055	3040	3026	3014	3002	2992	2987	2978	2969	2962	2955	2948
	PAF Base Steel ≥ 0.125"	3081	3062	3045	3035	3021	3008	2997	2986	2976	2971	2963	2955	2948	2942	2935
	#12 Screw Base Steel ≥ .0385"	2860	2853	2848	2848	2843	2839	2835	2832	2829	2830	2827	2824	2822	2819	2817
	Concrete + Deck = 55.7 psf				I_{cr} = 201.3 in^4/ft			ASD		M_{no}/Ω = 85.5 kip-in/ft				V_n/Ω = 4.81 kip/ft		
	$(I_{cr}+I_u)/2$ = 284 in^4/ft				I_u = 366.8 in^4/ft			LRFD		ϕM_{no} = 127.2 kip-in/ft				ϕV_n = 9.61 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1024	901	797	710	635	571	515	466	424	386	353	323	296	272	251
	LRFD, ϕW	1539	1356	1202	1072	961	865	782	710	647	591	541	497	457	422	389
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3718	3661	3611	3571	3530	3493	3460	3429	3401	3379	3355	3333	3312	3293	3275
	PAF Base Steel ≥ .25"	3183	3158	3135	3120	3102	3086	3070	3057	3044	3037	3026	3016	3006	2998	2990
	PAF Base Steel ≥ 0.125"	3137	3115	3095	3082	3066	3051	3037	3025	3014	3007	2998	2989	2980	2973	2965
	#12 Screw Base Steel ≥ .0385"	2860	2853	2848	2848	2843	2839	2835	2832	2829	2830	2827	2824	2822	2819	2817
	Concrete + Deck = 56.4 psf				I_{cr} = 233.8 in^4/ft			ASD		M_{no}/Ω = 103.7 kip-in/ft				V_n/Ω = 4.81 kip/ft		
	$(I_{cr}+I_u)/2$ = 309 in^4/ft				I_u = 384.7 in^4/ft			LRFD		ϕM_{no} = 154.3 kip-in/ft				ϕV_n = 9.61 kip/ft		

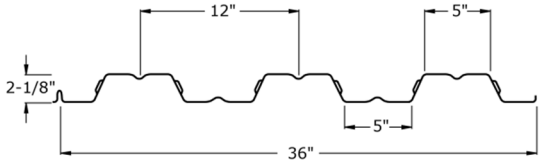
	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	5750	6740	8540	11240
	24 in o.c.	n/a	5750	6740	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

3WxH-36 7 1/4 " Slab Depth, 110 pcf LWC

FIGURE 7: 2WH-36

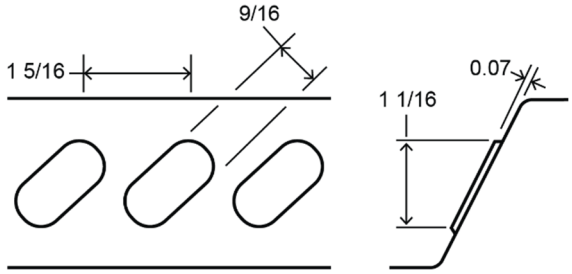


2WH – 36 PROFILE



2WHS – 36 PROFILE

36/4 ATTACHMENT PATTERN



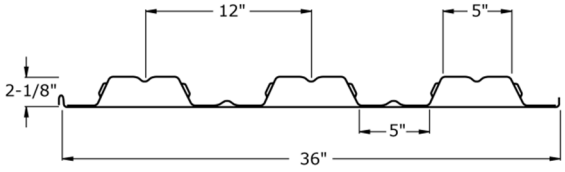
2W SERIES EMBOSMENT

TABLE 8: 2WH-36 PANEL PROPERTIES

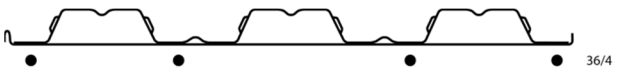
Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.58	0.0290	50	65	0.449	0.353	1.04	0.328	0.890
21	1.79	0.0330	50	65	0.509	0.403	1.04	0.371	0.889
20	1.94	0.0359	50	65	0.554	0.437	1.05	0.403	0.888
19	2.26	0.0420	50	65	0.646	0.507	1.05	0.468	0.887
18	2.54	0.0474	50	65	0.728	0.570	1.05	0.525	0.885
16	3.19	0.0598	50	65	0.915	0.713	1.05	0.654	0.883

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.292	0.247	0.92	0.256	1.17	0.330	0.323	0.338	0.333
21	0.362	0.298	0.95	0.307	1.14	0.387	0.380	0.392	0.388
20	0.415	0.337	0.97	0.345	1.13	0.430	0.420	0.432	0.426
19	0.524	0.408	0.98	0.425	1.11	0.507	0.503	0.507	0.504
18	0.627	0.472	1.00	0.500	1.09	0.570	0.570	0.570	0.570
16	0.897	0.654	1.05	0.653	1.06	0.713	0.713	0.713	0.713

FIGURE 8: 2WHF-36



2WHF-36 PROFILE



36/4 ATTACHMENT PATTERN

TABLE 9: 2WHF-36 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Top Section Modulus	Radius of Gyration
	w psf	t_{beam} in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	3.54	0.0359 / 0.036	50	65	1.008	0.770	0.65	0.496	0.874
20/18	4.01	0.0359 / 0.047	50	65	1.147	0.820	0.58	0.504	0.845
20/16	4.53	0.0359 / 0.059	50	65	1.299	0.864	0.53	0.510	0.815
18/20	4.13	0.0474 / 0.036	50	65	1.187	0.961	0.72	0.648	0.900
18/18	4.61	0.0474 / 0.047	50	65	1.326	1.025	0.66	0.658	0.879
18/16	5.12	0.0474 / 0.059	50	65	1.477	1.083	0.61	0.667	0.856
16/20	4.78	0.0598 / 0.036	50	65	1.381	1.159	0.79	0.809	0.916
16/18	5.25	0.0598 / 0.047	50	65	1.520	1.235	0.73	0.822	0.901
16/16	5.77	0.0598 / 0.059	50	65	1.671	1.306	0.68	0.833	0.884

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service for Deflection			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e in^2/ft	S_{e+} in^3/ft	y_b in	S_{e-} in^3/ft	y_b in	I_{e+} in^4/ft	I_{e-} in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.510	0.391	0.56	0.457	1.00	0.732	0.603	0.745	0.659
20/18	0.591	0.401	0.50	0.476	0.87	0.776	0.690	0.791	0.733
20/16	0.692	0.406	0.46	0.492	0.73	0.816	0.771	0.832	0.802
18/20	0.715	0.590	0.69	0.593	1.07	0.959	0.749	0.960	0.820
18/18	0.796	0.599	0.63	0.616	0.95	1.023	0.849	1.024	0.907
18/16	0.897	0.607	0.57	0.639	0.83	1.081	0.948	1.081	0.993
16/20	0.939	0.779	0.77	0.740	1.10	1.156	0.905	1.157	0.989
16/18	1.020	0.792	0.71	0.766	1.01	1.232	1.017	1.233	1.089
16/16	1.121	0.803	0.66	0.792	0.91	1.303	1.132	1.304	1.190

TABLE 10: 2WH-36, 2WHF-36 AND 2WHF-36A AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	6"	1"	2"	4"	6"
22	End	316	393	503	588	483	602	770	899
	Interior	528	638	792	911	786	948	1178	1355
21	End	403	499	636	741	616	764	973	1133
	Interior	675	810	1001	1148	1004	1205	1489	1708
20	End	472	583	740	860	721	891	1132	1316
	Interior	792	947	1166	1335	1178	1409	1735	1985
19	End	633	777	980	1137	968	1188	1500	1739
	Interior	1066	1266	1549	1766	1585	1883	2304	2627
18	End	793	969	1217	1408	1214	1483	1863	2154
	Interior	1340	1583	1927	2191	1993	2355	2867	3260
16	End	1224	1481	1843	2122	1873	2266	2820	3246
	Interior	2079	2433	2932	3315	3093	3619	4362	4932

TABLE 11a: 2WH-36 COMPOSITE DECK WITH 4 INCH THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 11"	9' - 2"	9' - 4"
	21	8' - 11"	10' - 0"	10' - 4"
	20	9' - 7"	10' - 7"	10' - 11"

Gage	Single	Double	Triple
19	10' - 2"	11' - 9"	12' - 1"
18	10' - 7"	12' - 8"	12' - 7"
16	11' - 4"	14' - 1"	13' - 3"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	417	350	296	253	218	189	164	143	126	111	97	86	76	67	59
	LRFD, ϕW	631	531	452	388	335	292	255	224	198	175	156	139	124	110	99
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2376	2352	2324	2300	2279	2260	2244	2234	2220	2208	2197	2187	2177	2173	2165
	PAF Base Steel ≥ .25"	2248	2234	2215	2198	2183	2170	2158	2153	2144	2135	2127	2120	2113	2111	2106
	PAF Base Steel ≥ 0.125"	2229	2216	2198	2182	2169	2156	2146	2141	2132	2124	2117	2110	2104	2102	2097
	#12 Screw Base Steel ≥ .0385"	2105	2102	2092	2083	2075	2069	2063	2063	2058	2053	2049	2045	2042	2042	2039
	Concrete + Deck = 38.0 psf				I_{cr} = 23.1 in^4/ft			ASD	M_{no}/Ω = 24.6 kip-in/ft					V_n/Ω = 3.06 kip/ft		
	$(I_{cr}+I_u)/2$ = 41 in^4/ft				I_u = 58.9 in^4/ft			LRFD	ϕM_{no} = 36.5 kip-in/ft					ϕV_n = 4.59 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	472	396	337	288	249	216	188	165	145	128	114	101	89	79	70
	LRFD, ϕW	713	601	512	440	381	332	291	257	227	202	180	161	144	129	116
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2473	2441	2407	2377	2351	2328	2308	2295	2278	2263	2250	2237	2226	2219	2209
	PAF Base Steel ≥ .25"	2284	2267	2245	2227	2210	2195	2182	2176	2165	2156	2147	2139	2131	2129	2122
	PAF Base Steel ≥ 0.125"	2263	2247	2227	2209	2194	2180	2168	2162	2152	2143	2135	2127	2120	2118	2112
	#12 Screw Base Steel ≥ .0385"	2099	2096	2086	2078	2071	2064	2059	2059	2054	2049	2045	2042	2039	2039	2036
	Concrete + Deck = 38.2 psf				I_{cr} = 25.4 in^4/ft			ASD	M_{no}/Ω = 27.5 kip-in/ft					V_n/Ω = 3.06 kip/ft		
	$(I_{cr}+I_u)/2$ = 42.7 in^4/ft				I_u = 60.0 in^4/ft			LRFD	ϕM_{no} = 41.0 kip-in/ft					ϕV_n = 4.59 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	510	429	365	313	270	235	205	180	159	141	125	111	99	88	78
	LRFD, ϕW	770	649	554	476	413	361	317	279	248	220	197	176	158	142	128
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2554	2517	2477	2443	2413	2386	2362	2347	2327	2310	2294	2280	2266	2258	2247
	PAF Base Steel ≥ .25"	2310	2291	2268	2247	2229	2214	2200	2192	2181	2170	2161	2152	2144	2141	2134
	PAF Base Steel ≥ 0.125"	2287	2269	2247	2228	2212	2197	2184	2177	2167	2157	2148	2140	2133	2130	2123
	#12 Screw Base Steel ≥ .0385"	2095	2092	2083	2075	2068	2062	2056	2056	2052	2047	2043	2040	2037	2038	2035
	Concrete + Deck = 38.4 psf				I_{cr} = 26.9 in^4/ft			ASD	M_{no}/Ω = 29.6 kip-in/ft					V_n/Ω = 3.06 kip/ft		
	$(I_{cr}+I_u)/2$ = 43.8 in^4/ft				I_u = 60.7 in^4/ft			LRFD	ϕM_{no} = 44.1 kip-in/ft					ϕV_n = 4.59 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	3230	4580	5570	7370	10070
	24 in o.c.	3230	4580	5570	7370	7750
	36 in o.c.	3230	4580	5170	5170	5170

2WH-36 4" Slab Depth, 145 pcf NWC

TABLE 11a: 2WH -36 COMPOSITE DECK WITH 4" NWC THICK (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 11"	9' - 2"	9' - 4"
	21	8' - 11"	10' - 0"	10' - 4"
	20	9' - 7"	10' - 7"	10' - 11"
	19	10' - 2"	11' - 9"	12' - 1"
	18	10' - 7"	12' - 8"	12' - 7"
	16	11' - 4"	14' - 1"	13' - 3"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	590	497	423	363	315	274	241	212	187	166	148	132	118	106	95
	LRFD, ϕW	888	750	640	552	479	419	369	326	290	259	232	208	187	169	153
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2747	2694	2642	2596	2557	2522	2491	2468	2443	2420	2399	2380	2363	2350	2336
	PAF Base Steel ≥ .25"	2364	2341	2314	2290	2270	2252	2236	2226	2213	2201	2190	2180	2171	2167	2159
	PAF Base Steel ≥ 0.125"	2337	2316	2290	2268	2249	2232	2217	2209	2197	2186	2175	2166	2158	2154	2146
	#12 Screw Base Steel ≥ .0385"	2092	2090	2081	2073	2066	2060	2054	2055	2050	2046	2042	2038	2035	2036	2033
	Concrete + Deck =	38.8	psf		I_{cr} =	30.1	in^4/ft	ASD		M_{no}/Ω=	33.9	kip-in/ft		V_n/Ω =	3.06	kip/ft
	$(I_{cr}+I_u)/2$ =	46.2	in^4/ft		I_u =	62.3	in^4/ft	LRFD		ϕM_{no}=	50.5	kip-in/ft		ϕV_n =	4.59	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	658	555	473	407	353	308	271	239	212	189	168	151	135	122	109
	LRFD, ϕW	990	837	715	617	537	470	414	367	327	292	262	235	212	192	174
	L/360	-	-	-	-	-	-	-	-	-	-	-	148	130	115	102
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2940	2872	2807	2751	2701	2658	2619	2590	2558	2530	2504	2481	2459	2443	2425
	PAF Base Steel ≥ .25"	2411	2385	2354	2328	2305	2285	2267	2256	2242	2228	2216	2205	2195	2190	2181
	PAF Base Steel ≥ 0.125"	2380	2356	2328	2303	2282	2263	2246	2237	2223	2211	2199	2189	2179	2175	2167
	#12 Screw Base Steel ≥ .0385"	2092	2090	2081	2073	2066	2060	2054	2055	2050	2046	2042	2038	2035	2036	2033
	Concrete + Deck =	39.1	psf		I_{cr} =	32.7	in^4/ft	ASD		M_{no}/Ω=	37.7	kip-in/ft		V_n/Ω =	3.06	kip/ft
	$(I_{cr}+I_u)/2$ =	48.1	in^4/ft		I_u =	63.6	in^4/ft	LRFD		ϕM_{no}=	56.0	kip-in/ft		ϕV_n =	4.59	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	809	683	584	503	437	383	337	299	266	237	213	191	172	156	141
	LRFD, ϕW	1214	1028	879	760	662	581	513	456	407	364	328	296	268	243	221
	L/360	-	-	-	-	-	-	336	285	245	211	184	161	142	125	111
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3222	3133	3049	2977	2913	2857	2808	2768	2728	2692	2658	2628	2600	2579	2555
	PAF Base Steel ≥ .25"	2518	2483	2445	2413	2385	2360	2338	2323	2305	2289	2274	2260	2248	2241	2230
	PAF Base Steel ≥ 0.125"	2458	2427	2394	2365	2340	2318	2298	2286	2269	2255	2241	2229	2218	2212	2202
	#12 Screw Base Steel ≥ .0385"	2092	2090	2081	2073	2066	2060	2054	2055	2050	2046	2042	2038	2035	2036	2033
	Concrete + Deck =	39.8	psf		I_{cr} =	38.1	in^4/ft	ASD		M_{no}/Ω=	45.8	kip-in/ft		V_n/Ω =	3.06	kip/ft
	$(I_{cr}+I_u)/2$ =	52.3	in^4/ft		I_u =	66.6	in^4/ft	LRFD		ϕM_{no}=	68.2	kip-in/ft		ϕV_n =	4.59	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	3230	4580	5570	7370	10070
	24 in o.c.	3230	4580	5570	7370	7750
	36 in o.c.	3230	4580	5170	5170	5170

2WH-36 4" Slab Depth, 145 pcf NWC

TABLE 11b: 2WH -36 COMPOSITE DECK WITH 4-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 6"	8' - 9"	8' - 10"
	21	8' - 6"	9' - 6"	9' - 10"
	20	9' - 2"	10' - 1"	10' - 5"

Gage	Single	Double	Triple
19	9' - 9"	11' - 2"	11' - 7"
18	10' - 1"	12' - 1"	12' - 2"
16	10' - 10"	13' - 8"	12' - 10"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	504	423	359	307	264	229	200	175	153	135	119	105	93	82	73
	LRFD, ϕW	763	642	546	469	406	353	310	272	241	213	190	169	151	135	121
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2867	2842	2815	2790	2769	2751	2734	2724	2711	2698	2687	2677	2668	2663	2655
	PAF Base Steel ≥ .25"	2739	2725	2705	2688	2673	2660	2649	2644	2634	2626	2618	2610	2604	2602	2596
	PAF Base Steel ≥ 0.125"	2720	2707	2689	2673	2659	2647	2636	2632	2623	2614	2607	2600	2594	2593	2587
	#12 Screw Base Steel ≥ .0385"	2595	2592	2582	2573	2566	2559	2553	2553	2548	2544	2539	2536	2532	2533	2530
	Concrete + Deck = 44.0 psf				I_{cr} = 31.5 in^4/ft			ASD		M_{no}/Ω = 29.6 kip-in/ft				V_n/Ω = 3.40 kip/ft		
	$(I_{cr}+I_u)/2$ = 57.3 in^4/ft				I_u = 83.1 in^4/ft			LRFD		ϕM_{no} = 44.0 kip-in/ft				ϕV_n = 5.08 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	571	480	407	349	302	262	229	201	177	157	139	123	109	97	87
	LRFD, ϕW	862	726	619	532	461	403	353	312	276	246	219	196	176	158	142
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2963	2932	2897	2868	2842	2819	2798	2785	2769	2754	2740	2727	2716	2709	2700
	PAF Base Steel ≥ .25"	2775	2758	2736	2717	2700	2686	2673	2666	2656	2646	2637	2629	2622	2619	2613
	PAF Base Steel ≥ 0.125"	2753	2738	2717	2700	2684	2670	2658	2653	2643	2634	2625	2618	2611	2609	2603
	#12 Screw Base Steel ≥ .0385"	2589	2586	2577	2568	2561	2555	2549	2549	2544	2540	2536	2532	2529	2530	2527
	Concrete + Deck = 44.3 psf				I_{cr} = 34.7 in^4/ft			ASD		M_{no}/Ω = 33.2 kip-in/ft				V_n/Ω = 3.56 kip/ft		
	$(I_{cr}+I_u)/2$ = 59.6 in^4/ft				I_u = 84.5 in^4/ft			LRFD		ϕM_{no} = 49.4 kip-in/ft				ϕV_n = 5.35 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	617	519	442	379	328	285	250	220	194	172	152	136	121	108	97
	LRFD, ϕW	931	786	670	577	500	437	384	339	301	268	240	215	193	173	156
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3045	3007	2967	2933	2903	2876	2853	2837	2818	2800	2785	2770	2757	2749	2737
	PAF Base Steel ≥ .25"	2801	2782	2758	2738	2720	2704	2690	2683	2671	2661	2651	2643	2635	2631	2625
	PAF Base Steel ≥ 0.125"	2777	2760	2738	2719	2702	2687	2674	2668	2657	2647	2638	2630	2623	2620	2614
	#12 Screw Base Steel ≥ .0385"	2585	2583	2573	2565	2558	2552	2546	2547	2542	2538	2534	2530	2527	2528	2525
	Concrete + Deck = 44.4 psf				I_{cr} = 36.9 in^4/ft			ASD		M_{no}/Ω = 35.7 kip-in/ft				V_n/Ω = 3.56 kip/ft		
	$(I_{cr}+I_u)/2$ = 61.2 in^4/ft				I_u = 85.5 in^4/ft			LRFD		ϕM_{no} = 53.2 kip-in/ft				ϕV_n = 5.35 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	3720	5070	6060	7860	10560
	24 in o.c.	3720	5070	6060	7750	7750
	36 in o.c.	3720	5070	5170	5170	5170

2WH-36 4 1/2" Slab Depth, 145 pcf NWC

TABLE 11b: 2WH -36 COMPOSITE DECK WITH 4-1/2" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	7' - 6"	8' - 9"	8' - 10"	19	9' - 9"	11' - 2"	11' - 7"
	21	8' - 6"	9' - 6"	9' - 10"	18	10' - 1"	12' - 1"	12' - 2"
	20	9' - 2"	10' - 1"	10' - 5"	16	10' - 10"	13' - 8"	12' - 10"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	714	602	513	441	382	333	292	258	228	203	181	162	145	130	117
	LRFD, ϕW	1075	908	776	669	581	509	448	397	353	315	282	254	228	206	187
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3237	3184	3132	3087	3047	3012	2981	2958	2933	2910	2889	2870	2853	2841	2826
	PAF Base Steel ≥ .25"	2855	2831	2804	2781	2760	2742	2726	2717	2704	2692	2681	2671	2662	2657	2649
	PAF Base Steel ≥ 0.125"	2827	2806	2781	2759	2740	2723	2708	2700	2687	2676	2666	2656	2648	2644	2637
	#12 Screw Base Steel ≥ .0385"	2582	2580	2571	2563	2556	2550	2545	2545	2540	2536	2532	2529	2526	2527	2524
	Concrete + Deck =	44.8	psf		I_{cr} =	41.2	in^4/ft	ASD		M_{no}/Ω =	41.0	kip-in/ft		V_n/Ω =	3.56	kip/ft
	$(I_{cr}+I_u)/2$ =	64.4	in^4/ft		I_u =	87.6	in^4/ft	LRFD		ϕM_{no} =	61.0	kip-in/ft		ϕV_n =	5.35	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	798	673	574	494	429	375	329	291	258	230	206	184	166	149	134
	LRFD, ϕW	1199	1014	867	748	651	570	503	446	397	355	319	287	259	235	213
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3430	3363	3298	3241	3192	3148	3110	3080	3049	3020	2995	2971	2949	2934	2915
	PAF Base Steel ≥ .25"	2902	2875	2845	2819	2796	2775	2758	2747	2732	2719	2707	2695	2685	2680	2671
	PAF Base Steel ≥ 0.125"	2871	2846	2818	2794	2772	2754	2737	2727	2713	2701	2690	2679	2670	2665	2657
	#12 Screw Base Steel ≥ .0385"	2582	2580	2571	2563	2556	2550	2545	2545	2540	2536	2532	2529	2526	2527	2524
	Concrete + Deck =	45.1	psf		I_{cr} =	44.8	in^4/ft	ASD		M_{no}/Ω =	45.5	kip-in/ft		V_n/Ω =	3.56	kip/ft
	$(I_{cr}+I_u)/2$ =	67.1	in^4/ft		I_u =	89.4	in^4/ft	LRFD		ϕM_{no} =	67.7	kip-in/ft		ϕV_n =	5.35	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	981	829	709	611	532	466	411	364	324	289	260	234	211	191	173
	LRFD, ϕW	1472	1246	1067	923	804	706	624	554	495	444	399	361	327	297	270
	L/360	-	-	-	-	-	-	-	-	-	-	256	224	197	174	155
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3713	3623	3540	3467	3404	3348	3298	3259	3218	3182	3149	3118	3091	3069	3045
	PAF Base Steel ≥ .25"	3008	2973	2936	2904	2875	2850	2828	2814	2796	2779	2764	2751	2738	2731	2720
	PAF Base Steel ≥ 0.125"	2948	2918	2884	2856	2830	2808	2788	2776	2760	2745	2732	2720	2709	2702	2693
	#12 Screw Base Steel ≥ .0385"	2582	2580	2571	2563	2556	2550	2545	2545	2540	2536	2532	2529	2526	2527	2524
	Concrete + Deck =	45.8	psf		I_{cr} =	52.3	in^4/ft	ASD		M_{no}/Ω =	55.5	kip-in/ft		V_n/Ω =	3.56	kip/ft
	$(I_{cr}+I_u)/2$ =	72.8	in^4/ft		I_u =	93.3	in^4/ft	LRFD		ϕM_{no} =	82.5	kip-in/ft		ϕV_n =	5.35	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	3720	5070	6060	7860	10560
	24 in o.c.	3720	5070	6060	7750	7750
	36 in o.c.	3720	5070	5170	5170	5170

2WH-36 4 1/2" Slab Depth, 145 pcf NWC

TABLE 11c: 2WH -36 COMPOSITE DECK WITH 5" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 2"	8' - 4"	8' - 6"
	21	8' - 1"	9' - 2"	9' - 5"
	20	8' - 9"	9' - 8"	10' - 0"

Gage	Single	Double	Triple
19	9' - 4"	10' - 9"	11' - 1"
18	9' - 9"	11' - 7"	11' - 10"
16	10' - 5"	13' - 2"	12' - 6"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	596	500	424	363	313	272	237	207	182	161	142	126	111	99	87
	LRFD, ϕW	900	758	646	555	480	418	367	323	286	254	226	201	180	161	144
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3357	3333	3305	3281	3260	3241	3224	3215	3201	3189	3178	3168	3158	3154	3145
	PAF Base Steel ≥ .25"	3229	3215	3195	3179	3164	3151	3139	3134	3125	3116	3108	3101	3094	3092	3086
	PAF Base Steel ≥ 0.125"	3210	3197	3179	3163	3149	3137	3126	3122	3113	3105	3098	3091	3085	3083	3078
	#12 Screw Base Steel ≥ .0385"	3086	3083	3073	3064	3056	3050	3044	3044	3039	3034	3030	3026	3023	3023	3020
	Concrete + Deck = 50.1 psf				I_{cr} = 41.6 in^4/ft			ASD		M_{no}/Ω = 34.9 kip-in/ft				V_n/Ω = 3.67 kip/ft		
	$(I_{cr}+I_u)/2$ = 77.6 in^4/ft				I_u = 113.5 in^4/ft			LRFD		ϕM_{no} = 51.9 kip-in/ft				ϕV_n = 5.48 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	674	567	482	414	357	311	272	239	211	186	165	147	131	117	104
	LRFD, ϕW	1018	858	732	630	546	477	419	370	328	292	260	233	209	188	169
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3454	3422	3388	3358	3332	3309	3289	3276	3259	3244	3230	3218	3206	3200	3190
	PAF Base Steel ≥ .25"	3265	3248	3226	3207	3191	3176	3163	3157	3146	3137	3128	3120	3112	3109	3103
	PAF Base Steel ≥ 0.125"	3243	3228	3208	3190	3174	3161	3149	3143	3133	3124	3116	3108	3101	3099	3093
	#12 Screw Base Steel ≥ .0385"	3079	3077	3067	3059	3052	3045	3039	3040	3035	3030	3026	3023	3019	3020	3017
	Concrete + Deck = 50.3 psf				I_{cr} = 45.9 in^4/ft			ASD		M_{no}/Ω = 39.1 kip-in/ft				V_n/Ω = 4.09 kip/ft		
	$(I_{cr}+I_u)/2$ = 80.6 in^4/ft				I_u = 115.4 in^4/ft			LRFD		ϕM_{no} = 58.2 kip-in/ft				ϕV_n = 6.14 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	730	615	523	449	389	338	296	261	231	204	182	162	145	129	116
	LRFD, ϕW	1101	929	792	683	593	518	455	403	357	319	285	255	230	207	187
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3535	3497	3458	3423	3393	3367	3343	3327	3308	3291	3275	3261	3247	3239	3228
	PAF Base Steel ≥ .25"	3291	3272	3249	3228	3210	3195	3181	3173	3162	3151	3142	3133	3125	3122	3115
	PAF Base Steel ≥ 0.125"	3267	3250	3228	3209	3193	3178	3165	3158	3148	3138	3129	3121	3113	3111	3104
	#12 Screw Base Steel ≥ .0385"	3076	3073	3064	3056	3049	3042	3037	3037	3032	3028	3024	3021	3018	3019	3016
	Concrete + Deck = 50.5 psf				I_{cr} = 48.7 in^4/ft			ASD		M_{no}/Ω = 42.2 kip-in/ft				V_n/Ω = 4.09 kip/ft		
	$(I_{cr}+I_u)/2$ = 82.7 in^4/ft				I_u = 116.7 in^4/ft			LRFD		ϕM_{no} = 62.7 kip-in/ft				ϕV_n = 6.14 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	4220	5570	6560	8360	11060
	24 in o.c.	4220	5570	6560	7750	7750
	36 in o.c.	4220	5170	5170	5170	5170

2WH-36 5" Slab Depth, 145 pcf NWC

TABLE 11c: 2WH -36 COMPOSITE DECK WITH 5" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 2"	8' - 4"	8' - 6"
	21	8' - 1"	9' - 2"	9' - 5"
	20	8' - 9"	9' - 8"	10' - 0"
	19	9' - 4"	10' - 9"	11' - 1"
	18	9' - 9"	11' - 7"	11' - 10"
	16	10' - 5"	13' - 2"	12' - 6"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	845	713	608	523	453	396	347	307	272	242	216	193	173	156	140
	LRFD, ϕW	1272	1075	918	792	689	603	531	471	419	374	336	302	272	246	223
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3728	3675	3623	3577	3538	3503	3471	3449	3424	3401	3380	3361	3343	3331	3316
	PAF Base Steel ≥ .25"	3345	3322	3295	3271	3251	3233	3217	3207	3194	3182	3171	3161	3152	3148	3140
	PAF Base Steel ≥ 0.125"	3318	3296	3271	3249	3230	3213	3198	3190	3178	3166	3156	3147	3138	3135	3127
	#12 Screw Base Steel ≥ .0385"	3073	3071	3061	3053	3047	3040	3035	3035	3031	3027	3023	3019	3016	3017	3014
	Concrete + Deck =	50.8	psf		I_{cr} =	54.5	in^4/ft	ASD		M_{no}/Ω =	48.4	kip-in/ft		V_n/Ω =	4.09	kip/ft
	$(I_{cr}+I_u)/2$ =	87	in^4/ft		I_u =	119.4	in^4/ft	LRFD		ϕM_{no} =	72.0	kip-in/ft		ϕV_n =	6.14	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	945	797	681	586	509	445	391	346	307	274	245	220	198	178	161
	LRFD, ϕW	1420	1201	1027	887	772	677	597	530	472	422	379	342	309	280	254
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3921	3853	3788	3732	3682	3639	3600	3571	3539	3511	3485	3462	3440	3424	3405
	PAF Base Steel ≥ .25"	3392	3365	3335	3309	3286	3266	3248	3237	3222	3209	3197	3186	3176	3170	3162
	PAF Base Steel ≥ 0.125"	3361	3337	3309	3284	3263	3244	3227	3218	3204	3191	3180	3170	3160	3156	3147
	#12 Screw Base Steel ≥ .0385"	3073	3071	3061	3053	3047	3040	3035	3035	3031	3027	3023	3019	3016	3017	3014
	Concrete + Deck =	51.2	psf		I_{cr} =	59.4	in^4/ft	ASD		M_{no}/Ω =	53.8	kip-in/ft		V_n/Ω =	4.09	kip/ft
	$(I_{cr}+I_u)/2$ =	90.5	in^4/ft		I_u =	121.7	in^4/ft	LRFD		ϕM_{no} =	80.0	kip-in/ft		ϕV_n =	6.14	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1164	984	841	726	632	554	488	433	386	345	310	279	252	228	207
	LRFD, ϕW	1746	1479	1266	1095	955	839	741	659	589	528	476	430	390	354	323
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4203	4114	4030	3958	3894	3838	3788	3749	3709	3672	3639	3609	3581	3560	3536
	PAF Base Steel ≥ .25"	3498	3463	3426	3394	3366	3341	3319	3304	3286	3270	3255	3241	3229	3221	3211
	PAF Base Steel ≥ 0.125"	3439	3408	3375	3346	3321	3299	3279	3266	3250	3236	3222	3210	3199	3193	3183
	#12 Screw Base Steel ≥ .0385"	3073	3071	3061	3053	3047	3040	3035	3035	3031	3027	3023	3019	3016	3017	3014
	Concrete + Deck =	51.9	psf		I_{cr} =	69.5	in^4/ft	ASD		M_{no}/Ω =	65.6	kip-in/ft		V_n/Ω =	4.09	kip/ft
	$(I_{cr}+I_u)/2$ =	98.1	in^4/ft		I_u =	126.8	in^4/ft	LRFD		ϕM_{no} =	97.7	kip-in/ft		ϕV_n =	6.14	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A_s = 0.028 in^2/ft	A_s = 0.058 in^2/ft	A_s = 0.080 in^2/ft	A_s = 0.120 in^2/ft	A_s = 0.180 in^2/ft
	12 in o.c.	4220	5570	6560	8360	11060
	24 in o.c.	4220	5570	6560	7750	7750
	36 in o.c.	4220	5170	5170	5170	5170

2WH-36 5" Slab Depth, 145 pcf NWC

TABLE 11d: 2WH -36 COMPOSITE DECK WITH 5-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 11"	8' - 0"	8' - 2"
	21	7' - 10"	8' - 9"	9' - 1"
	20	8' - 5"	9' - 4"	9' - 7"

Gage	Single	Double	Triple
19	9' - 1"	10' - 4"	10' - 8"
18	9' - 5"	11' - 2"	11' - 6"
16	10' - 1"	12' - 8"	12' - 2"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	690	580	492	422	364	316	276	242	213	188	166	147	130	116	103
	LRFD, ϕW	1043	879	748	643	557	486	426	375	332	295	263	235	210	188	169
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3847	3823	3795	3771	3750	3731	3715	3705	3692	3679	3668	3658	3649	3644	3636
	PAF Base Steel ≥ .25"	3720	3705	3686	3669	3654	3641	3630	3625	3615	3606	3599	3591	3585	3583	3577
	PAF Base Steel ≥ 0.125"	3700	3688	3669	3654	3640	3628	3617	3612	3603	3595	3588	3581	3575	3573	3568
	#12 Screw Base Steel ≥ .0385"	3576	3573	3563	3554	3547	3540	3534	3534	3529	3524	3520	3516	3513	3514	3511
	Concrete + Deck = 56.1 psf				I_{cr} = 53.4 in^4/ft		ASD		M_{no}/Ω = 40.3 kip-in/ft			V_n/Ω = 3.94 kip/ft				
	$(I_{cr}+I_u)/2$ = 102 in^4/ft				I_u = 150.9 in^4/ft		LRFD		ϕM_{no} = 59.9 kip-in/ft			ϕV_n = 5.90 kip/ft				

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	782	658	560	480	415	361	316	278	245	217	193	172	153	137	122
	LRFD, ϕW	1179	995	849	730	634	554	487	430	381	340	303	272	244	220	198
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3944	3912	3878	3848	3823	3800	3779	3766	3750	3735	3721	3708	3697	3690	3680
	PAF Base Steel ≥ .25"	3756	3739	3717	3698	3681	3667	3654	3647	3637	3627	3618	3610	3603	3600	3593
	PAF Base Steel ≥ 0.125"	3734	3718	3698	3680	3665	3651	3639	3634	3624	3614	3606	3599	3592	3589	3583
	#12 Screw Base Steel ≥ .0385"	3570	3567	3558	3549	3542	3536	3530	3530	3525	3521	3517	3513	3510	3511	3508
	Concrete + Deck = 56.4 psf				I_{cr} = 58.9 in^4/ft		ASD		M_{no}/Ω = 45.3 kip-in/ft			V_n/Ω = 4.42 kip/ft				
	$(I_{cr}+I_u)/2$ = 106 in^4/ft				I_u = 153.2 in^4/ft		LRFD		ϕM_{no} = 67.3 kip-in/ft			ϕV_n = 6.61 kip/ft				

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	847	713	607	522	452	394	345	304	269	238	212	189	169	152	136
	LRFD, ϕW	1276	1077	920	792	688	602	529	468	416	371	332	298	268	242	218
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4026	3988	3948	3914	3884	3857	3834	3818	3799	3781	3765	3751	3738	3730	3718
	PAF Base Steel ≥ .25"	3782	3762	3739	3719	3701	3685	3671	3664	3652	3642	3632	3624	3616	3612	3605
	PAF Base Steel ≥ 0.125"	3758	3741	3719	3700	3683	3668	3655	3649	3638	3628	3619	3611	3604	3601	3595
	#12 Screw Base Steel ≥ .0385"	3566	3564	3554	3546	3539	3533	3527	3528	3523	3519	3515	3511	3508	3509	3506
	Concrete + Deck = 56.5 psf				I_{cr} = 62.6 in^4/ft		ASD		M_{no}/Ω = 48.8 kip-in/ft			V_n/Ω = 4.65 kip/ft				
	$(I_{cr}+I_u)/2$ = 109 in^4/ft				I_u = 154.9 in^4/ft		LRFD		ϕM_{no} = 72.6 kip-in/ft			ϕV_n = 6.98 kip/ft				

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	6060	7050	8850	11550
	24 in o.c.	n/a	6060	7050	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 5 1/2" Slab Depth, 145 pcf NWC

TABLE 11d: 2WH -36 COMPOSITE DECK WITH 5-1/2" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 11"	8' - 0"	8' - 2"
	21	7' - 10"	8' - 9"	9' - 1"
	20	8' - 5"	9' - 4"	9' - 7"

Gage	Single	Double	Triple
19	9' - 1"	10' - 4"	10' - 8"
18	9' - 5"	11' - 2"	11' - 6"
16	10' - 1"	12' - 8"	12' - 2"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	981	828	706	608	527	460	405	357	317	282	252	226	203	182	164
	LRFD, ϕW	1476	1248	1066	920	801	701	618	548	488	436	391	352	318	288	261
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4218	4165	4113	4068	4028	3993	3962	3939	3914	3891	3870	3851	3834	3822	3807
	PAF Base Steel ≥ .25"	3836	3812	3785	3762	3741	3723	3707	3698	3685	3673	3662	3652	3643	3638	3630
	PAF Base Steel ≥ 0.125"	3808	3787	3762	3740	3721	3704	3689	3680	3668	3657	3647	3637	3629	3625	3618
	#12 Screw Base Steel ≥ .0385"	3563	3561	3552	3544	3537	3531	3525	3526	3521	3517	3513	3510	3507	3508	3505
	Concrete + Deck = 56.9 psf				I_{cr} = 70.2 in^4/ft			ASD		M_{no}/Ω = 56.1 kip-in/ft				V_n/Ω = 4.65 kip/ft		
	$(I_{cr}+I_u)/2$ = 114 in^4/ft				I_u = 158.3 in^4/ft			LRFD		ϕM_{no} = 83.4 kip-in/ft				ϕV_n = 6.98 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1098	927	791	682	592	518	456	403	359	320	286	257	232	209	189
	LRFD, ϕW	1649	1395	1194	1031	898	787	695	617	550	492	442	399	361	327	297
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4411	4343	4278	4222	4173	4129	4091	4061	4030	4001	3976	3952	3930	3914	3896
	PAF Base Steel ≥ .25"	3883	3856	3826	3799	3777	3756	3738	3728	3713	3700	3687	3676	3666	3661	3652
	PAF Base Steel ≥ 0.125"	3852	3827	3799	3775	3753	3735	3718	3708	3694	3682	3671	3660	3651	3646	3638
	#12 Screw Base Steel ≥ .0385"	3563	3561	3552	3544	3537	3531	3525	3526	3521	3517	3513	3510	3507	3508	3505
	Concrete + Deck = 57.2 psf				I_{cr} = 76.5 in^4/ft			ASD		M_{no}/Ω = 62.4 kip-in/ft				V_n/Ω = 4.65 kip/ft		
	$(I_{cr}+I_u)/2$ = 119 in^4/ft				I_u = 161.2 in^4/ft			LRFD		ϕM_{no} = 92.8 kip-in/ft				ϕV_n = 6.98 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1354	1145	980	846	736	646	570	505	450	403	362	327	295	267	243
	LRFD, ϕW	2031	1721	1474	1275	1112	977	864	768	687	616	556	502	456	415	378
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4693	4604	4521	4448	4385	4329	4279	4240	4199	4163	4130	4099	4072	4050	4026
	PAF Base Steel ≥ .25"	3989	3954	3917	3884	3856	3831	3809	3795	3777	3760	3745	3732	3719	3712	3701
	PAF Base Steel ≥ 0.125"	3929	3899	3865	3837	3811	3789	3769	3757	3741	3726	3713	3701	3689	3683	3673
	#12 Screw Base Steel ≥ .0385"	3563	3561	3552	3544	3537	3531	3525	3526	3521	3517	3513	3510	3507	3508	3505
	Concrete + Deck = 57.9 psf				I_{cr} = 89.7 in^4/ft			ASD		M_{no}/Ω = 76.3 kip-in/ft				V_n/Ω = 4.65 kip/ft		
	$(I_{cr}+I_u)/2$ = 129 in^4/ft				I_u = 167.7 in^4/ft			LRFD		ϕM_{no} = 113.4 kip-in/ft				ϕV_n = 6.98 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	6060	7050	8850	11550
	24 in o.c.	n/a	6060	7050	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 5 1/2" Slab Depth, 145 pcf NWC

TABLE 11e: 2WH -36 COMPOSITE DECK WITH 6" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 8"	7' - 9"	7' - 10"
	21	7' - 6"	8' - 6"	8' - 9"
	20	8' - 1"	9' - 0"	9' - 3"
	19	8' - 9"	9' - 11"	10' - 3"
	18	9' - 1"	10' - 9"	11' - 1"
	16	9' - 9"	12' - 3"	11' - 10"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	787	662	562	481	416	361	315	277	244	215	191	169	150	134	119
	LRFD, ϕW	1189	1002	854	734	636	555	487	429	380	338	301	269	241	216	195
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4338	4314	4286	4262	4241	4222	4205	4196	4182	4170	4159	4148	4139	4134	4126
	PAF Base Steel ≥ .25"	4210	4196	4176	4159	4145	4132	4120	4115	4105	4097	4089	4082	4075	4073	4067
	PAF Base Steel ≥ 0.125"	4191	4178	4160	4144	4130	4118	4107	4103	4094	4086	4078	4072	4065	4064	4058
	#12 Screw Base Steel ≥ .0385"	4067	4063	4053	4045	4037	4030	4025	4024	4019	4015	4011	4007	4003	4004	4001
	Concrete + Deck = 62.2 psf				I_{cr} = 66.9 in^4/ft		ASD		M_{no}/Ω = 45.9 kip-in/ft				V_n/Ω = 4.24 kip/ft			
	$(I_{cr}+I_u)/2$ = 131 in^4/ft				I_u = 195.9 in^4/ft		LRFD		ϕM_{no} = 68.2 kip-in/ft				ϕV_n = 6.34 kip/ft			

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	892	751	639	549	475	413	362	318	281	249	222	197	176	158	141
	LRFD, ϕW	1345	1135	968	834	724	633	556	492	436	389	348	312	280	252	228
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4434	4403	4369	4339	4313	4290	4270	4257	4240	4225	4211	4199	4187	4181	4171
	PAF Base Steel ≥ .25"	4246	4229	4207	4188	4172	4157	4144	4138	4127	4117	4109	4101	4093	4090	4084
	PAF Base Steel ≥ 0.125"	4224	4209	4188	4171	4155	4142	4130	4124	4114	4105	4097	4089	4082	4080	4074
	#12 Screw Base Steel ≥ .0385"	4060	4058	4048	4040	4032	4026	4020	4020	4016	4011	4007	4004	4000	4001	3998
	Concrete + Deck = 62.4 psf				I_{cr} = 73.8 in^4/ft		ASD		M_{no}/Ω = 51.6 kip-in/ft				V_n/Ω = 4.71 kip/ft			
	$(I_{cr}+I_u)/2$ = 136 in^4/ft				I_u = 198.8 in^4/ft		LRFD		ϕM_{no} = 76.7 kip-in/ft				ϕV_n = 7.05 kip/ft			

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	967	815	694	596	516	450	395	348	308	274	244	218	195	175	157
	LRFD, ϕW	1456	1230	1050	905	786	688	605	536	476	425	380	342	308	278	251
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4516	4478	4439	4404	4374	4348	4324	4308	4289	4272	4256	4241	4228	4220	4209
	PAF Base Steel ≥ .25"	4272	4253	4229	4209	4191	4175	4161	4154	4143	4132	4123	4114	4106	4103	4096
	PAF Base Steel ≥ 0.125"	4248	4231	4209	4190	4173	4159	4146	4139	4128	4119	4110	4102	4094	4091	4085
	#12 Screw Base Steel ≥ .0385"	4057	4054	4045	4037	4030	4023	4018	4018	4013	4009	4005	4002	3998	3999	3996
	Concrete + Deck = 62.6 psf				I_{cr} = 78.6 in^4/ft		ASD		M_{no}/Ω = 55.6 kip-in/ft				V_n/Ω = 5.09 kip/ft			
	$(I_{cr}+I_u)/2$ = 140 in^4/ft				I_u = 200.8 in^4/ft		LRFD		ϕM_{no} = 82.7 kip-in/ft				ϕV_n = 7.61 kip/ft			

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	6550	7540	9340	12040
	24 in o.c.	n/a	6550	7540	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 6" Slab Depth, 145 pcf NWC

TABLE 11e: 2WH -36 COMPOSITE DECK WITH 6" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 8"	7' - 9"	7' - 10"
	21	7' - 6"	8' - 6"	8' - 9"
	20	8' - 1"	9' - 0"	9' - 3"
	19	8' - 9"	9' - 11"	10' - 3"
	18	9' - 1"	10' - 9"	11' - 1"
	16	9' - 9"	12' - 3"	11' - 10"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1121	946	807	695	603	527	463	409	363	324	289	259	233	210	189
	LRFD, ϕW	1686	1425	1219	1052	915	802	707	627	559	500	449	404	365	330	300
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4708	4656	4603	4558	4518	4483	4452	4430	4404	4382	4361	4342	4324	4312	4297
	PAF Base Steel ≥ .25"	4326	4303	4276	4252	4232	4213	4197	4188	4175	4163	4152	4142	4133	4129	4121
	PAF Base Steel ≥ 0.125"	4298	4277	4252	4230	4211	4194	4179	4171	4158	4147	4137	4128	4119	4115	4108
	#12 Screw Base Steel ≥ .0385"	4054	4051	4042	4034	4027	4021	4016	4016	4012	4007	4004	4000	3997	3998	3995
	Concrete + Deck = 62.9 psf				I_{cr} = 88.2 in^4/ft			ASD		M_{no}/Ω = 63.9 kip-in/ft				V_n/Ω = 5.24 kip/ft		
	$(I_{cr}+I_u)/2$ = 147 in^4/ft				I_u = 205.1 in^4/ft			LRFD		ϕM_{no} = 95.1 kip-in/ft				ϕV_n = 7.86 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1255	1060	905	780	678	594	523	463	411	367	329	296	266	240	218
	LRFD, ϕW	1885	1595	1365	1179	1027	901	796	706	630	564	508	458	414	376	342
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4901	4834	4769	4712	4663	4620	4581	4552	4520	4492	4466	4442	4421	4405	4386
	PAF Base Steel ≥ .25"	4373	4346	4316	4290	4267	4247	4229	4218	4203	4190	4178	4167	4157	4151	4143
	PAF Base Steel ≥ 0.125"	4342	4318	4290	4265	4244	4225	4208	4198	4185	4172	4161	4151	4141	4136	4128
	#12 Screw Base Steel ≥ .0385"	4054	4051	4042	4034	4027	4021	4016	4016	4012	4007	4004	4000	3997	3998	3995
	Concrete + Deck = 63.2 psf				I_{cr} = 96.2 in^4/ft			ASD		M_{no}/Ω = 71.2 kip-in/ft				V_n/Ω = 5.24 kip/ft		
	$(I_{cr}+I_u)/2$ = 152 in^4/ft				I_u = 208.7 in^4/ft			LRFD		ϕM_{no} = 105.9 kip-in/ft				ϕV_n = 7.86 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1551	1312	1122	969	844	741	654	580	517	463	416	376	340	308	280
	LRFD, ϕW	2325	1970	1688	1460	1274	1120	991	881	788	708	638	577	524	477	435
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5184	5095	5011	4938	4875	4819	4769	4730	4690	4653	4620	4590	4562	4540	4517
	PAF Base Steel ≥ .25"	4479	4444	4407	4375	4347	4322	4300	4285	4267	4251	4236	4222	4210	4202	4192
	PAF Base Steel ≥ 0.125"	4419	4389	4356	4327	4302	4279	4260	4247	4231	4216	4203	4191	4180	4174	4164
	#12 Screw Base Steel ≥ .0385"	4054	4051	4042	4034	4027	4021	4016	4016	4012	4007	4004	4000	3997	3998	3995
	Concrete + Deck = 64.0 psf				I_{cr} = 113.0 in^4/ft			ASD		M_{no}/Ω = 87.2 kip-in/ft				V_n/Ω = 5.24 kip/ft		
	$(I_{cr}+I_u)/2$ = 165 in^4/ft				I_u = 216.8 in^4/ft			LRFD		ϕM_{no} = 129.7 kip-in/ft				ϕV_n = 7.86 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	6550	7540	9340	12040
	24 in o.c.	n/a	6550	7540	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 6" Slab Depth, 145 pcf NWC

TABLE 11f: 2WH -36 COMPOSITE DECK WITH 7-1/4" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 2"	7' - 2"	7' - 3"
	21	6' - 11"	7' - 10"	8' - 1"
	20	7' - 5"	8' - 3"	8' - 7"

Gage	Single	Double	Triple
19	8' - 2"	9' - 2"	9' - 6"
18	8' - 6"	9' - 11"	10' - 3"
16	9' - 2"	11' - 4"	11' - 3"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1037	872	741	636	549	478	418	367	324	287	254	226	201	179	160
	LRFD, ϕW	1565	1319	1125	968	840	733	644	568	504	448	400	358	322	289	260
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5564	5540	5512	5488	5467	5448	5431	5422	5408	5396	5385	5374	5365	5360	5352
	PAF Base Steel ≥ .25"	5436	5422	5402	5386	5371	5358	5346	5341	5332	5323	5315	5308	5301	5299	5293
	PAF Base Steel ≥ 0.125"	5417	5404	5386	5370	5356	5344	5333	5329	5320	5312	5304	5298	5292	5290	5284
	#12 Screw Base Steel ≥ .0385"	5293	5289	5279	5271	5263	5257	5251	5251	5245	5241	5237	5233	5229	5230	5227
	Concrete + Deck =	77.3	psf		I_{cr} =	108.0	in^4/ft	ASD		M_{no}/Ω =	60.2	kip-in/ft		V_n/Ω =	5.06	kip/ft
	$(I_{cr}+I_u)/2$ =	227	in^4/ft		I_u =	346.8	in^4/ft	LRFD		ϕM_{no} =	89.5	kip-in/ft		ϕV_n =	7.56	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1176	991	844	725	628	547	480	423	374	332	296	264	236	211	190
	LRFD, ϕW	1772	1496	1277	1101	956	836	736	651	578	516	462	415	373	337	304
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5661	5629	5595	5565	5539	5516	5496	5483	5466	5451	5437	5425	5413	5407	5397
	PAF Base Steel ≥ .25"	5472	5455	5433	5414	5398	5383	5370	5364	5353	5343	5335	5327	5319	5316	5310
	PAF Base Steel ≥ 0.125"	5450	5435	5415	5397	5381	5368	5356	5350	5340	5331	5323	5315	5308	5306	5300
	#12 Screw Base Steel ≥ .0385"	5286	5284	5274	5266	5258	5252	5246	5247	5242	5237	5233	5230	5226	5227	5224
	Concrete + Deck =	77.5	psf		I_{cr} =	119.5	in^4/ft	ASD		M_{no}/Ω =	67.7	kip-in/ft		V_n/Ω =	5.53	kip/ft
	$(I_{cr}+I_u)/2$ =	235	in^4/ft		I_u =	351.5	in^4/ft	LRFD		ϕM_{no} =	100.7	kip-in/ft		ϕV_n =	8.27	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1276	1076	917	789	684	597	524	462	410	364	325	291	261	234	211
	LRFD, ϕW	1920	1622	1386	1195	1039	910	802	710	632	564	506	455	410	371	336
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5742	5704	5665	5630	5600	5574	5550	5534	5515	5498	5482	5467	5454	5446	5435
	PAF Base Steel ≥ .25"	5498	5479	5455	5435	5417	5401	5387	5380	5369	5358	5349	5340	5332	5329	5322
	PAF Base Steel ≥ 0.125"	5474	5457	5435	5416	5399	5385	5372	5365	5354	5345	5336	5328	5320	5317	5311
	#12 Screw Base Steel ≥ .0385"	5283	5280	5271	5263	5256	5249	5244	5244	5239	5235	5231	5228	5224	5225	5223
	Concrete + Deck =	77.7	psf		I_{cr} =	127.4	in^4/ft	ASD		M_{no}/Ω =	73.1	kip-in/ft		V_n/Ω =	5.91	kip/ft
	$(I_{cr}+I_u)/2$ =	241	in^4/ft		I_u =	354.7	in^4/ft	LRFD		ϕM_{no} =	108.7	kip-in/ft		ϕV_n =	8.84	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	7790	8780	10580	13280
	24 in o.c.	n/a	7750	7750	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 7 1/4 " Slab Depth, 145 pcf NWC

TABLE 11f: 2WH -36 COMPOSITE DECK WITH 7-1/4" THICK NWC (145 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 2"	7' - 2"	7' - 3"
	21	6' - 11"	7' - 10"	8' - 1"
	20	7' - 5"	8' - 3"	8' - 7"

Gage	Single	Double	Triple
19	8' - 2"	9' - 2"	9' - 6"
18	8' - 6"	9' - 11"	10' - 3"
16	9' - 2"	11' - 4"	11' - 3"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1482	1252	1068	921	800	699	615	544	484	431	386	347	312	281	254
	LRFD, ϕW	2227	1884	1612	1392	1212	1063	938	832	742	664	597	538	487	441	401
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5934	5882	5829	5784	5744	5709	5678	5656	5630	5608	5587	5568	5550	5538	5523
	PAF Base Steel ≥ .25"	5552	5529	5502	5478	5458	5440	5423	5414	5401	5389	5378	5368	5359	5355	5347
	PAF Base Steel ≥ 0.125"	5525	5503	5478	5456	5437	5420	5405	5397	5385	5373	5363	5354	5345	5342	5334
	#12 Screw Base Steel ≥ .0385"	5280	5278	5268	5260	5254	5247	5242	5242	5238	5234	5230	5226	5223	5224	5221
	Concrete + Deck = 78.0 psf				I_{cr} = 143.5 in^4/ft			ASD		M_{no}/Ω = 84.3 kip-in/ft				V_n/Ω = 6.34 kip/ft		
	$(I_{cr}+I_u)/2$ = 252 in^4/ft				I_u = 361.5 in^4/ft			LRFD		ϕM_{no} = 125.3 kip-in/ft				ϕV_n = 9.48 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1661	1404	1200	1035	900	789	695	616	548	490	439	395	357	323	292
	LRFD, ϕW	2494	2111	1807	1562	1362	1195	1056	938	838	751	676	610	553	502	457
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	6127	6060	5995	5939	5889	5846	5807	5778	5746	5718	5692	5668	5647	5631	5612
	PAF Base Steel ≥ .25"	5599	5572	5542	5516	5493	5473	5455	5444	5429	5416	5404	5393	5383	5377	5369
	PAF Base Steel ≥ 0.125"	5568	5544	5516	5491	5470	5451	5434	5425	5411	5398	5387	5377	5367	5363	5354
	#12 Screw Base Steel ≥ .0385"	5280	5278	5268	5260	5254	5247	5242	5242	5238	5234	5230	5226	5223	5224	5221
	Concrete + Deck = 78.3 psf				I_{cr} = 156.9 in^4/ft			ASD		M_{no}/Ω = 93.9 kip-in/ft				V_n/Ω = 6.72 kip/ft		
	$(I_{cr}+I_u)/2$ = 262 in^4/ft				I_u = 367.4 in^4/ft			LRFD		ϕM_{no} = 139.7 kip-in/ft				ϕV_n = 10.04 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	2059	1743	1492	1289	1124	986	871	774	691	619	557	503	456	414	376
	LRFD, ϕW	3086	2615	2242	1941	1694	1490	1319	1174	1050	944	851	771	700	638	583
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	6410	6321	6237	6165	6101	6045	5995	5956	5916	5879	5846	5816	5788	5767	5743
	PAF Base Steel ≥ .25"	5705	5670	5633	5601	5573	5548	5526	5511	5493	5477	5462	5448	5436	5428	5418
	PAF Base Steel ≥ 0.125"	5646	5615	5582	5553	5528	5506	5486	5473	5457	5442	5429	5417	5406	5400	5390
	#12 Screw Base Steel ≥ .0385"	5280	5278	5268	5260	5254	5247	5242	5242	5238	5234	5230	5226	5223	5224	5221
	Concrete + Deck = 79.1 psf				I_{cr} = 185.3 in^4/ft			ASD		M_{no}/Ω = 115.5 kip-in/ft				V_n/Ω = 6.87 kip/ft		
	$(I_{cr}+I_u)/2$ = 283 in^4/ft				I_u = 380.5 in^4/ft			LRFD		ϕM_{no} = 171.8 kip-in/ft				ϕV_n = 10.31 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	7790	8780	10580	13280
	24 in o.c.	n/a	7750	7750	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

TABLE 11g: 2WH -36 COMPOSITE DECK WITH 4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 8"	10' - 0"	10' - 3"
	21	9' - 9"	10' - 11"	11' - 3"
	20	10' - 7"	11' - 7"	11' - 11"

Gage	Single	Double	Triple
19	11' - 2"	12' - 9"	13' - 1"
18	11' - 6"	13' - 10"	13' - 5"
16	12' - 1"	15' - 1"	14' - 2"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	406	341	290	249	215	188	164	144	127	113	100	89	80	71	63
	LRFD, ϕW	612	516	440	379	329	287	252	223	198	176	157	141	127	114	103
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1711	1686	1659	1634	1613	1595	1578	1568	1555	1543	1531	1521	1512	1507	1499
	PAF Base Steel ≥ .25"	1583	1569	1549	1532	1518	1504	1493	1488	1478	1470	1462	1454	1448	1446	1440
	PAF Base Steel ≥ 0.125"	1564	1551	1533	1517	1503	1491	1480	1476	1467	1459	1451	1444	1438	1437	1431
	#12 Screw Base Steel ≥ .0385"	1439	1436	1426	1417	1410	1403	1397	1397	1392	1388	1383	1380	1376	1377	1374
	Concrete + Deck = 29.2 psf				I_{cr} = 31.2 in^4/ft			ASD		M_{no}/Ω = 23.5 kip-in/ft				V_n/Ω = 2.30 kip/ft		
	$(I_{cr}+I_u)/2$ = 47 in^4/ft				I_u = 62.9 in^4/ft			LRFD		ϕM_{no} = 34.9 kip-in/ft				ϕV_n = 4.13 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	457	385	328	282	244	213	187	165	146	129	115	103	92	83	74
	LRFD, ϕW	688	581	496	428	372	325	286	253	225	201	180	162	146	131	119
	L/360	-	-	-	-	-	-	-	-	-	-	114	100	88	78	69
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1807	1776	1741	1712	1686	1663	1642	1629	1613	1598	1584	1572	1560	1553	1544
	PAF Base Steel ≥ .25"	1619	1602	1580	1561	1544	1530	1517	1511	1500	1490	1481	1473	1466	1463	1457
	PAF Base Steel ≥ 0.125"	1597	1582	1561	1544	1528	1514	1502	1497	1487	1478	1469	1462	1455	1453	1447
	#12 Screw Base Steel ≥ .0385"	1433	1430	1421	1412	1405	1399	1393	1393	1388	1384	1380	1376	1373	1374	1371
	Concrete + Deck = 29.4 psf				I_{cr} = 34.1 in^4/ft			ASD		M_{no}/Ω = 26.3 kip-in/ft				V_n/Ω = 2.30 kip/ft		
	$(I_{cr}+I_u)/2$ = 49.3 in^4/ft				I_u = 64.5 in^4/ft			LRFD		ϕM_{no} = 39.1 kip-in/ft				ϕV_n = 4.59 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	493	416	354	305	264	231	203	179	158	141	126	113	101	91	82
	LRFD, ϕW	742	627	535	462	402	352	310	274	244	218	196	176	159	144	130
	L/360	-	-	-	-	-	-	-	-	157	136	118	103	91	80	71
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1889	1851	1811	1777	1747	1721	1697	1681	1662	1644	1629	1614	1601	1593	1581
	PAF Base Steel ≥ .25"	1645	1626	1602	1582	1564	1548	1534	1527	1515	1505	1495	1487	1479	1476	1469
	PAF Base Steel ≥ 0.125"	1621	1604	1582	1563	1546	1531	1518	1512	1501	1491	1483	1474	1467	1464	1458
	#12 Screw Base Steel ≥ .0385"	1429	1427	1418	1409	1402	1396	1391	1391	1386	1382	1378	1374	1371	1372	1369
	Concrete + Deck = 29.6 psf				I_{cr} = 36.1 in^4/ft			ASD		M_{no}/Ω = 28.2 kip-in/ft				V_n/Ω = 2.30 kip/ft		
	$(I_{cr}+I_u)/2$ = 50.8 in^4/ft				I_u = 65.5 in^4/ft			LRFD		ϕM_{no} = 42.0 kip-in/ft				ϕV_n = 4.59 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	2740	4090	5080	6880	9580
	24 in o.c.	2740	4090	5080	6880	7750
	36 in o.c.	2740	4090	5080	5170	5170

2WH-36 4" Slab Depth, 110 pcf LWC

TABLE 11g: 2WH -36 COMPOSITE DECK WITH 4" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 8"	10' - 0"	10' - 3"
	21	9' - 9"	10' - 11"	11' - 3"
	20	10' - 7"	11' - 7"	11' - 11"
	19	11' - 2"	12' - 9"	13' - 1"
	18	11' - 6"	13' - 10"	13' - 5"
	16	12' - 1"	15' - 1"	14' - 2"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	567	478	408	352	306	267	235	208	185	165	148	132	119	108	97
	LRFD, ϕW	851	720	616	532	463	406	358	318	284	254	228	206	186	169	153
	L/360	-	-	-	-	-	-	228	194	166	144	125	109	96	85	76
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2081	2028	1976	1931	1891	1856	1825	1802	1777	1754	1733	1714	1697	1685	1670
	PAF Base Steel ≥ .25"	1699	1675	1648	1625	1604	1586	1570	1561	1548	1536	1525	1515	1506	1501	1494
	PAF Base Steel ≥ 0.125"	1671	1650	1625	1603	1584	1567	1552	1544	1531	1520	1510	1501	1492	1488	1481
	#12 Screw Base Steel ≥ .0385"	1427	1424	1415	1407	1400	1394	1389	1389	1384	1380	1376	1373	1370	1371	1368
	Concrete + Deck =	30.0	psf		I_{cr} =	40.0	in^4/ft	ASD		M_{no}/Ω =	32.2	kip-in/ft		V_n/Ω =	2.30	kip/ft
	$(I_{cr}+I_u)/2$ =	53.9	in^4/ft		I_u =	67.7	in^4/ft	LRFD		ϕM_{no} =	47.9	kip-in/ft		ϕV_n =	4.59	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	630	532	455	392	341	299	263	233	207	185	166	150	135	122	110
	LRFD, ϕW	946	801	685	592	516	453	400	356	317	284	256	231	209	190	173
	L/360	-	-	-	-	340	284	239	203	174	151	131	115	101	89	79
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2274	2207	2142	2085	2036	1992	1954	1924	1893	1865	1839	1815	1794	1778	1759
	PAF Base Steel ≥ .25"	1746	1719	1689	1663	1640	1620	1602	1591	1576	1563	1551	1540	1529	1524	1515
	PAF Base Steel ≥ 0.125"	1715	1690	1662	1638	1617	1598	1581	1571	1557	1545	1534	1523	1514	1509	1501
	#12 Screw Base Steel ≥ .0385"	1427	1424	1415	1407	1400	1394	1389	1389	1384	1380	1376	1373	1370	1371	1368
	Concrete + Deck =	30.3	psf		I_{cr} =	43.2	in^4/ft	ASD		M_{no}/Ω =	35.7	kip-in/ft		V_n/Ω =	2.30	kip/ft
	$(I_{cr}+I_u)/2$ =	56.4	in^4/ft		I_u =	69.6	in^4/ft	LRFD		ϕM_{no} =	53.0	kip-in/ft		ϕV_n =	4.59	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	765	650	557	481	419	367	324	288	257	230	207	187	169	153	139
	LRFD, ϕW	1152	976	837	724	632	555	491	437	391	351	317	287	260	237	216
	L/360	-	-	-	453	373	311	262	223	191	165	144	126	111	98	87
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2557	2467	2384	2311	2248	2192	2142	2103	2062	2026	1993	1963	1935	1913	1889
	PAF Base Steel ≥ .25"	1852	1817	1780	1748	1719	1694	1672	1658	1640	1623	1609	1595	1582	1575	1564
	PAF Base Steel ≥ 0.125"	1792	1762	1729	1700	1674	1652	1632	1620	1604	1589	1576	1564	1553	1546	1537
	#12 Screw Base Steel ≥ .0385"	1427	1424	1415	1407	1400	1394	1389	1389	1384	1380	1376	1373	1370	1371	1368
	Concrete + Deck =	31.0	psf		I_{cr} =	49.9	in^4/ft	ASD		M_{no}/Ω =	43.2	kip-in/ft		V_n/Ω =	2.30	kip/ft
	$(I_{cr}+I_u)/2$ =	61.8	in^4/ft		I_u =	73.7	in^4/ft	LRFD		ϕM_{no} =	64.2	kip-in/ft		ϕV_n =	4.59	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A_s = 0.028 in^2/ft	A_s = 0.058 in^2/ft	A_s = 0.080 in^2/ft	A_s = 0.120 in^2/ft	A_s = 0.180 in^2/ft
	12 in o.c.	2740	4090	5080	6880	9580
	24 in o.c.	2740	4090	5080	6880	7750
	36 in o.c.	2740	4090	5080	5170	5170

TABLE 11h: 2WH -36 COMPOSITE DECK WITH 4-1/2" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 3"	9' - 7"	9' - 9"
	21	9' - 4"	10' - 5"	10' - 10"
	20	10' - 1"	11' - 1"	11' - 5"

Gage	Single	Double	Triple
19	10' - 8"	12' - 3"	12' - 8"
18	11' - 1"	13' - 3"	13' - 0"
16	11' - 8"	14' - 7"	13' - 8"

22 ga.

Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	491	414	352	302	262	228	200	176	155	138	122	109	97	87	78
LRFD, ϕW	741	625	533	459	399	349	307	271	241	214	192	172	155	139	126
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	2035	2010	1983	1958	1937	1919	1902	1893	1879	1867	1855	1845	1836	1831	1823
PAF Base Steel ≥ .25"	1907	1893	1873	1856	1842	1829	1817	1812	1802	1794	1786	1779	1772	1770	1764
PAF Base Steel ≥ 0.125"	1888	1875	1857	1841	1827	1815	1804	1800	1791	1783	1775	1768	1762	1761	1755
#12 Screw Base Steel ≥ .0385"	1764	1760	1750	1742	1734	1727	1721	1721	1716	1712	1708	1704	1700	1701	1698

Concrete + Deck = 33.8 psf I_{cr} = 42.7 in^4/ft ASD M_{no}/Ω = 28.4 kip-in/ft V_n/Ω = 2.67 kip/ft

$(I_{cr}+I_u)/2$ = 65.6 in^4/ft I_u = 88.4 in^4/ft LRFD ϕM_{no} = 42.2 kip-in/ft ϕV_n = 4.41 kip/ft

21 ga.

Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	554	467	398	342	297	259	227	200	178	158	141	126	113	101	91
LRFD, ϕW	833	704	601	519	451	395	348	308	274	245	219	197	178	161	145
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	2131	2100	2065	2036	2010	1987	1966	1954	1937	1922	1908	1896	1884	1878	1868
PAF Base Steel ≥ .25"	1943	1926	1904	1885	1869	1854	1841	1835	1824	1814	1805	1797	1790	1787	1781
PAF Base Steel ≥ 0.125"	1921	1906	1885	1868	1852	1839	1826	1821	1811	1802	1793	1786	1779	1777	1771
#12 Screw Base Steel ≥ .0385"	1757	1754	1745	1736	1729	1723	1717	1717	1712	1708	1704	1700	1697	1698	1695

Concrete + Deck = 34.0 psf I_{cr} = 46.8 in^4/ft ASD M_{no}/Ω = 31.7 kip-in/ft V_n/Ω = 2.67 kip/ft

$(I_{cr}+I_u)/2$ = 68.6 in^4/ft I_u = 90.5 in^4/ft LRFD ϕM_{no} = 47.2 kip-in/ft ϕV_n = 5.12 kip/ft

20 ga.

Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	597	504	430	370	321	280	246	218	193	172	154	138	124	111	100
LRFD, ϕW	898	759	649	560	487	427	376	334	297	266	238	215	194	175	159
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	2213	2175	2135	2101	2071	2045	2021	2005	1986	1969	1953	1938	1925	1917	1905
PAF Base Steel ≥ .25"	1969	1950	1926	1906	1888	1872	1858	1851	1839	1829	1819	1811	1803	1800	1793
PAF Base Steel ≥ 0.125"	1945	1928	1906	1887	1870	1855	1842	1836	1825	1815	1807	1798	1791	1788	1782
#12 Screw Base Steel ≥ .0385"	1753	1751	1742	1733	1726	1720	1715	1715	1710	1706	1702	1698	1695	1696	1693

Concrete + Deck = 34.2 psf I_{cr} = 49.5 in^4/ft ASD M_{no}/Ω = 34.1 kip-in/ft V_n/Ω = 2.67 kip/ft

$(I_{cr}+I_u)/2$ = 70.7 in^4/ft I_u = 91.9 in^4/ft LRFD ϕM_{no} = 50.7 kip-in/ft ϕV_n = 5.35 kip/ft

All Gages

LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
12 in o.c.	3110	4460	5450	7250	9950
24 in o.c.	3110	4460	5450	7250	7750
36 in o.c.	3110	4460	5170	5170	5170

2WH-36 4 1/2" Slab Depth, 110 pcf LWC

TABLE 11h: 2WH -36 COMPOSITE DECK WITH 4-1/2" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 3"	9' - 7"	9' - 9"
	21	9' - 4"	10' - 5"	10' - 10"
	20	10' - 1"	11' - 1"	11' - 5"

Gage	Single	Double	Triple
19	10' - 8"	12' - 3"	12' - 8"
18	11' - 1"	13' - 3"	13' - 0"
16	11' - 8"	14' - 7"	13' - 8"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	687	580	496	427	371	325	286	253	225	201	180	162	146	132	119
	LRFD, ϕW	1032	873	747	646	562	494	436	387	345	309	278	251	227	206	187
	L/360	-	-	-	-	-	-	-	-	-	200	174	152	134	118	105
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2405	2353	2300	2255	2215	2180	2149	2127	2101	2078	2058	2038	2021	2009	1994
	PAF Base Steel ≥ .25"	2023	2000	1972	1949	1928	1910	1894	1885	1872	1860	1849	1839	1830	1825	1818
	PAF Base Steel ≥ 0.125"	1995	1974	1949	1927	1908	1891	1876	1868	1855	1844	1834	1825	1816	1812	1805
	#12 Screw Base Steel ≥ .0385"	1751	1748	1739	1731	1724	1718	1713	1713	1708	1704	1700	1697	1694	1695	1692
	Concrete + Deck = 34.5 psf				I_{cr} = 54.9 in^4/ft			ASD		M_{no}/Ω = 39.0 kip-in/ft				V_n/Ω = 2.67 kip/ft		
	$(I_{cr}+I_u)/2$ = 74.9 in^4/ft				I_u = 94.8 in^4/ft			LRFD		ϕM_{no} = 58.0 kip-in/ft				ϕV_n = 5.35 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	765	646	553	477	415	364	320	284	253	226	203	183	165	149	135
	LRFD, ϕW	1147	972	832	719	627	551	487	433	386	347	312	282	256	232	212
	L/360	-	-	-	-	-	-	-	282	242	209	182	159	140	124	110
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2598	2531	2466	2409	2360	2316	2278	2248	2217	2189	2163	2139	2118	2102	2083
	PAF Base Steel ≥ .25"	2070	2043	2013	1987	1964	1944	1926	1915	1900	1887	1875	1864	1853	1848	1839
	PAF Base Steel ≥ 0.125"	2039	2015	1986	1962	1941	1922	1905	1895	1882	1869	1858	1847	1838	1833	1825
	#12 Screw Base Steel ≥ .0385"	1751	1748	1739	1731	1724	1718	1713	1713	1708	1704	1700	1697	1694	1695	1692
	Concrete + Deck = 34.8 psf				I_{cr} = 59.4 in^4/ft			ASD		M_{no}/Ω = 43.2 kip-in/ft				V_n/Ω = 2.67 kip/ft		
	$(I_{cr}+I_u)/2$ = 78.3 in^4/ft				I_u = 97.3 in^4/ft			LRFD		ϕM_{no} = 64.2 kip-in/ft				ϕV_n = 5.35 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	891	790	677	585	510	447	395	351	313	281	253	228	207	188	171
	LRFD, ϕW	1399	1186	1017	880	768	676	598	532	476	428	386	350	318	290	264
	L/360	-	-	-	-	-	431	363	309	265	229	199	174	153	135	120
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2881	2791	2708	2635	2572	2516	2466	2427	2387	2350	2317	2287	2259	2237	2214
	PAF Base Steel ≥ .25"	2176	2141	2104	2072	2043	2019	1996	1982	1964	1947	1933	1919	1907	1899	1888
	PAF Base Steel ≥ 0.125"	2116	2086	2053	2024	1999	1976	1957	1944	1928	1913	1900	1888	1877	1870	1861
	#12 Screw Base Steel ≥ .0385"	1751	1748	1739	1731	1724	1718	1713	1713	1708	1704	1700	1697	1694	1695	1692
	Concrete + Deck = 35.5 psf				I_{cr} = 68.5 in^4/ft			ASD		M_{no}/Ω = 52.3 kip-in/ft				V_n/Ω = 2.67 kip/ft		
	$(I_{cr}+I_u)/2$ = 85.6 in^4/ft				I_u = 102.7 in^4/ft			LRFD		ϕM_{no} = 77.9 kip-in/ft				ϕV_n = 5.35 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	3110	4460	5450	7250	9950
	24 in o.c.	3110	4460	5450	7250	7750
	36 in o.c.	3110	4460	5170	5170	5170

2WH-36 4 1/2" Slab Depth, 110 pcf LWC

TABLE 11i: 2WH -36 COMPOSITE DECK WITH 5-1/4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 9"	9' - 0"	9' - 2"
	21	8' - 9"	9' - 10"	10' - 2"
	20	9' - 6"	10' - 5"	10' - 10"

Gage	Single	Double	Triple
19	10' - 1"	11' - 7"	11' - 11"
18	10' - 5"	12' - 6"	12' - 6"
16	11' - 2"	14' - 0"	13' - 2"

22 ga.

Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	628	529	451	387	336	293	257	226	200	178	158	141	127	113	102
LRFD, ϕW	946	799	682	588	511	447	393	348	309	276	247	222	200	180	163
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	2521	2497	2469	2445	2423	2405	2388	2379	2365	2353	2341	2331	2322	2317	2309
PAF Base Steel ≥ .25"	2393	2379	2359	2342	2328	2315	2303	2298	2288	2280	2272	2265	2258	2256	2250
PAF Base Steel ≥ 0.125"	2374	2361	2343	2327	2313	2301	2290	2286	2277	2269	2261	2255	2248	2247	2241
#12 Screw Base Steel ≥ .0385"	2250	2246	2236	2228	2220	2213	2207	2207	2202	2198	2194	2190	2186	2187	2184
Concrete + Deck =	40.7	psf		I_{cr} =	64.5	in^4/ft	ASD		M_{no}/Ω =	36.1	kip-in/ft		V_n/Ω =	3.26	kip/ft
$(I_{cr}+I_u)/2$ =	102	in^4/ft		I_u =	139.1	in^4/ft	LRFD		ϕM_{no} =	53.7	kip-in/ft		ϕV_n =	4.87	kip/ft

21 ga.

Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	708	598	510	439	381	332	292	258	229	204	182	163	146	132	119
LRFD, ϕW	1066	901	770	664	578	506	446	396	352	315	283	254	230	208	188
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	2617	2586	2551	2522	2496	2473	2453	2440	2423	2408	2394	2382	2370	2364	2354
PAF Base Steel ≥ .25"	2429	2412	2390	2371	2355	2340	2327	2321	2310	2300	2291	2283	2276	2273	2267
PAF Base Steel ≥ 0.125"	2407	2392	2371	2354	2338	2325	2312	2307	2297	2288	2280	2272	2265	2263	2257
#12 Screw Base Steel ≥ .0385"	2243	2240	2231	2223	2215	2209	2203	2203	2198	2194	2190	2186	2183	2184	2181
Concrete + Deck =	40.9	psf		I_{cr} =	70.6	in^4/ft	ASD		M_{no}/Ω =	40.5	kip-in/ft		V_n/Ω =	3.28	kip/ft
$(I_{cr}+I_u)/2$ =	106	in^4/ft		I_u =	142.1	in^4/ft	LRFD		ϕM_{no} =	60.2	kip-in/ft		ϕV_n =	5.58	kip/ft

20 ga.

Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	765	646	551	475	412	361	317	280	249	222	199	178	160	145	131
LRFD, ϕW	1150	972	832	718	625	548	484	429	382	342	307	277	250	227	206
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	2699	2661	2622	2587	2557	2531	2507	2491	2472	2455	2439	2424	2411	2403	2391
PAF Base Steel ≥ .25"	2455	2436	2412	2392	2374	2358	2344	2337	2326	2315	2306	2297	2289	2286	2279
PAF Base Steel ≥ 0.125"	2431	2414	2392	2373	2356	2342	2328	2322	2311	2302	2293	2285	2277	2274	2268
#12 Screw Base Steel ≥ .0385"	2240	2237	2228	2220	2212	2206	2201	2201	2196	2192	2188	2185	2181	2182	2179
Concrete + Deck =	41.1	psf		I_{cr} =	74.8	in^4/ft	ASD		M_{no}/Ω =	43.5	kip-in/ft		V_n/Ω =	3.28	kip/ft
$(I_{cr}+I_u)/2$ =	109	in^4/ft		I_u =	144.1	in^4/ft	LRFD		ϕM_{no} =	64.7	kip-in/ft		ϕV_n =	6.14	kip/ft

All Gages

LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
12 in o.c.	n/a	5010	6000	7800	10500
24 in o.c.	n/a	5010	6000	7750	7750
36 in o.c.	n/a	5010	5170	5170	5170

2WH-36 5 1/4 " Slab Depth, 110 pcf LWC

TABLE 11i: 2WH -36 COMPOSITE DECK WITH 5-1/4" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	7' - 9"	9' - 0"	9' - 2"	19	10' - 1"	11' - 7"	11' - 11"
	21	8' - 9"	9' - 10"	10' - 2"	18	10' - 5"	12' - 6"	12' - 6"
	20	9' - 6"	10' - 5"	10' - 10"	16	11' - 2"	14' - 0"	13' - 2"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	882	745	637	549	478	418	369	327	291	260	233	210	189	171	155
	LRFD, ϕW	1323	1120	959	829	723	634	561	498	445	399	359	324	294	267	243
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2891	2839	2786	2741	2701	2666	2635	2613	2587	2564	2544	2525	2507	2495	2480
	PAF Base Steel ≥ .25"	2509	2486	2459	2435	2415	2396	2380	2371	2358	2346	2335	2325	2316	2312	2304
	PAF Base Steel ≥ 0.125"	2481	2460	2435	2413	2394	2377	2362	2354	2341	2330	2320	2311	2302	2298	2291
	#12 Screw Base Steel ≥ .0385"	2237	2234	2225	2217	2210	2204	2199	2199	2195	2190	2187	2183	2180	2181	2178
	Concrete + Deck = 41.4 psf				I_{cr} = 83.1 in^4/ft			ASD		M_{no}/Ω = 49.8 kip-in/ft				V_n/Ω = 3.28 kip/ft		
	$(I_{cr}+I_u)/2$ = 116 in^4/ft				I_u = 148.4 in^4/ft			LRFD		ϕM_{no} = 74.1 kip-in/ft				ϕV_n = 6.56 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	982	831	710	613	534	468	413	367	327	293	263	237	214	194	176
	LRFD, ϕW	1473	1248	1069	925	807	709	627	557	498	447	403	364	331	301	274
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	191	170
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3084	3017	2952	2895	2846	2803	2764	2735	2703	2675	2649	2625	2604	2588	2569
	PAF Base Steel ≥ .25"	2556	2529	2499	2473	2450	2430	2412	2401	2386	2373	2361	2350	2340	2334	2325
	PAF Base Steel ≥ 0.125"	2525	2501	2472	2448	2427	2408	2391	2381	2368	2355	2344	2334	2324	2319	2311
	#12 Screw Base Steel ≥ .0385"	2237	2234	2225	2217	2210	2204	2199	2199	2195	2190	2187	2183	2180	2181	2178
	Concrete + Deck = 41.7 psf				I_{cr} = 90.0 in^4/ft			ASD		M_{no}/Ω = 55.3 kip-in/ft				V_n/Ω = 3.28 kip/ft		
	$(I_{cr}+I_u)/2$ = 121 in^4/ft				I_u = 152.1 in^4/ft			LRFD		ϕM_{no} = 82.2 kip-in/ft				ϕV_n = 6.56 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1093	1009	872	754	658	578	511	454	406	364	328	296	269	244	223
	LRFD, ϕW	1800	1526	1309	1134	990	872	772	688	616	554	500	453	412	376	343
	L/360	-	-	-	-	-	-	-	-	-	353	307	268	236	209	186
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3367	3278	3194	3121	3058	3002	2952	2913	2873	2836	2803	2773	2745	2723	2700
	PAF Base Steel ≥ .25"	2662	2627	2590	2558	2529	2505	2482	2468	2450	2434	2419	2405	2393	2385	2374
	PAF Base Steel ≥ 0.125"	2602	2572	2539	2510	2485	2462	2443	2430	2414	2399	2386	2374	2363	2356	2347
	#12 Screw Base Steel ≥ .0385"	2237	2234	2225	2217	2210	2204	2199	2199	2195	2190	2187	2183	2180	2181	2178
	Concrete + Deck = 42.4 psf				I_{cr} = 104.2 in^4/ft			ASD		M_{no}/Ω = 67.2 kip-in/ft				V_n/Ω = 3.28 kip/ft		
	$(I_{cr}+I_u)/2$ = 132 in^4/ft				I_u = 160.0 in^4/ft			LRFD		ϕM_{no} = 100.0 kip-in/ft				ϕV_n = 6.56 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	5010	6000	7800	10500
	24 in o.c.	n/a	5010	6000	7750	7750
	36 in o.c.	n/a	5010	5170	5170	5170

2WH-36 5 1/4 " Slab Depth, 110 pcf LWC

TABLE 11j: 2WH -36 COMPOSITE DECK WITH 6-1/4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 3"	8' - 5"	8' - 7"
	21	8' - 2"	9' - 3"	9' - 6"
	20	8' - 10"	9' - 9"	10' - 1"

Gage	Single	Double	Triple
19	9' - 5"	10' - 10"	11' - 2"
18	9' - 10"	11' - 8"	11' - 11"
16	10' - 6"	13' - 4"	12' - 6"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	821	692	590	507	440	384	337	297	264	234	209	187	168	151	136
	LRFD, ϕW	1235	1044	892	769	669	586	516	457	406	363	326	293	264	239	216
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3169	3145	3117	3093	3072	3053	3036	3027	3013	3001	2990	2979	2970	2965	2957
	PAF Base Steel ≥ .25"	3041	3027	3007	2990	2976	2963	2951	2946	2936	2928	2920	2913	2906	2904	2898
	PAF Base Steel ≥ 0.125"	3022	3009	2991	2975	2961	2949	2938	2934	2925	2917	2909	2903	2896	2895	2889
	#12 Screw Base Steel ≥ .0385"	2898	2894	2884	2876	2868	2861	2856	2855	2850	2846	2842	2838	2834	2835	2832
	Concrete + Deck = 49.8 psf				I_{cr} = 101.8 in^4/ft			ASD		M_{no}/Ω = 47.0 kip-in/ft				V_n/Ω = 3.70 kip/ft		
	$(I_{cr}+I_u)/2$ = 168 in^4/ft				I_u = 233.5 in^4/ft			LRFD		ϕM_{no} = 69.9 kip-in/ft				ϕV_n = 5.52 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	927	782	668	575	499	437	384	340	302	269	241	216	194	175	158
	LRFD, ϕW	1393	1178	1008	870	757	664	586	520	463	414	372	335	303	275	249
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3265	3234	3200	3170	3144	3121	3101	3088	3071	3056	3042	3030	3018	3012	3002
	PAF Base Steel ≥ .25"	3077	3060	3038	3019	3003	2988	2975	2969	2958	2948	2940	2932	2924	2921	2915
	PAF Base Steel ≥ 0.125"	3055	3040	3019	3002	2986	2973	2961	2955	2945	2936	2928	2920	2913	2911	2905
	#12 Screw Base Steel ≥ .0385"	2891	2889	2879	2871	2863	2857	2851	2851	2847	2842	2838	2835	2831	2832	2829
	Concrete + Deck = 50.1 psf				I_{cr} = 111.8 in^4/ft			ASD		M_{no}/Ω = 52.8 kip-in/ft				V_n/Ω = 4.15 kip/ft		
	$(I_{cr}+I_u)/2$ = 175 in^4/ft				I_u = 238.1 in^4/ft			LRFD		ϕM_{no} = 78.5 kip-in/ft				ϕV_n = 6.23 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1002	846	723	623	542	474	417	369	329	293	263	236	213	192	174
	LRFD, ϕW	1505	1273	1090	941	820	720	635	564	503	451	405	366	331	300	273
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3347	3309	3270	3235	3205	3179	3155	3139	3120	3103	3087	3072	3059	3051	3040
	PAF Base Steel ≥ .25"	3103	3084	3060	3040	3022	3006	2992	2985	2974	2963	2954	2945	2937	2934	2927
	PAF Base Steel ≥ 0.125"	3079	3062	3040	3021	3004	2990	2977	2970	2959	2950	2941	2933	2925	2922	2916
	#12 Screw Base Steel ≥ .0385"	2888	2885	2876	2868	2861	2854	2849	2849	2844	2840	2836	2833	2829	2830	2827
	Concrete + Deck = 50.2 psf				I_{cr} = 118.6 in^4/ft			ASD		M_{no}/Ω = 56.8 kip-in/ft				V_n/Ω = 4.15 kip/ft		
	$(I_{cr}+I_u)/2$ = 180 in^4/ft				I_u = 241.4 in^4/ft			LRFD		ϕM_{no} = 84.5 kip-in/ft				ϕV_n = 6.80 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width										
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft		6x6 W2.9xW2.9 A_s = 0.058 in^2/ft		6x6 W4.0xW4.0 A_s = 0.080 in^2/ft		4x4 W4xW4 A_s = 0.120 in^2/ft		4x4 W6xW6 A_s = 0.180 in^2/ft	
	12 in o.c.	n/a		5750		6740		8540		11240	
	24 in o.c.	n/a		5750		6740		7750		7750	
	36 in o.c.	n/a		5170		5170		5170		5170	

2WH-36 6 1/4 " Slab Depth, 110 pcf LWC

TABLE 11j: 2WH -36 COMPOSITE DECK WITH 6-1/4" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	7' - 3"	8' - 5"	8' - 7"	19	9' - 5"	10' - 10"	11' - 2"
	21	8' - 2"	9' - 3"	9' - 6"	18	9' - 10"	11' - 8"	11' - 11"
	20	8' - 10"	9' - 9"	10' - 1"	16	10' - 6"	13' - 4"	12' - 6"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1157	978	837	722	629	551	486	431	384	344	309	278	251	228	207
	LRFD, ϕW	1736	1470	1259	1089	950	834	738	656	586	526	474	428	388	353	322
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3539	3487	3434	3389	3349	3314	3283	3261	3235	3213	3192	3173	3155	3143	3128
	PAF Base Steel ≥ .25"	3157	3134	3107	3083	3063	3044	3028	3019	3006	2994	2983	2973	2964	2960	2952
	PAF Base Steel ≥ 0.125"	3129	3108	3083	3061	3042	3025	3010	3002	2989	2978	2968	2959	2950	2946	2939
	#12 Screw Base Steel ≥ .0385"	2885	2882	2873	2865	2858	2852	2847	2847	2843	2838	2835	2831	2828	2829	2826
	Concrete + Deck = 50.6 psf				I_{cr} = 132.2 in^4/ft			ASD		M_{no}/Ω = 65.2 kip-in/ft				V_n/Ω = 4.15 kip/ft		
	$(I_{cr}+I_u)/2$ = 190 in^4/ft				I_u = 248.0 in^4/ft			LRFD		ϕM_{no} = 97.0 kip-in/ft				ϕV_n = 7.44 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1291	1092	935	808	704	618	545	484	432	387	348	314	285	258	235
	LRFD, ϕW	1935	1640	1405	1216	1062	933	826	735	657	591	533	482	438	399	364
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3732	3665	3600	3543	3494	3451	3412	3383	3351	3323	3297	3273	3252	3236	3217
	PAF Base Steel ≥ .25"	3204	3177	3147	3121	3098	3078	3060	3049	3034	3021	3009	2998	2988	2982	2974
	PAF Base Steel ≥ 0.125"	3173	3149	3121	3096	3075	3056	3039	3029	3016	3003	2992	2982	2972	2967	2959
	#12 Screw Base Steel ≥ .0385"	2885	2882	2873	2865	2858	2852	2847	2847	2843	2838	2835	2831	2828	2829	2826
	Concrete + Deck = 50.9 psf				I_{cr} = 143.5 in^4/ft			ASD		M_{no}/Ω = 72.5 kip-in/ft				V_n/Ω = 4.15 kip/ft		
	$(I_{cr}+I_u)/2$ = 199 in^4/ft				I_u = 253.7 in^4/ft			LRFD		ϕM_{no} = 107.8 kip-in/ft				ϕV_n = 8.00 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1385	1278	1151	996	869	764	676	601	538	483	436	394	358	326	297
	LRFD, ϕW	2373	2013	1727	1497	1308	1152	1020	910	815	733	663	601	547	499	457
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4015	3926	3842	3769	3706	3650	3600	3561	3521	3484	3451	3421	3393	3371	3348
	PAF Base Steel ≥ .25"	3310	3275	3238	3206	3178	3153	3131	3116	3098	3082	3067	3053	3041	3033	3023
	PAF Base Steel ≥ 0.125"	3250	3220	3187	3158	3133	3110	3091	3078	3062	3047	3034	3022	3011	3005	2995
	#12 Screw Base Steel ≥ .0385"	2885	2882	2873	2865	2858	2852	2847	2847	2843	2838	2835	2831	2828	2829	2826
	Concrete + Deck = 51.6 psf				I_{cr} = 166.8 in^4/ft			ASD		M_{no}/Ω = 88.4 kip-in/ft				V_n/Ω = 4.15 kip/ft		
	$(I_{cr}+I_u)/2$ = 216 in^4/ft				I_u = 266.2 in^4/ft			LRFD		ϕM_{no} = 131.5 kip-in/ft				ϕV_n = 8.31 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	5750	6740	8540	11240
	24 in o.c.	n/a	5750	6740	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 6 1/4 " Slab Depth, 110 pcf LWC

TABLE 11k: 2WH -36 COMPOSITE DECK WITH 6-1/2" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 2"	8' - 4"	8' - 5"
	21	8' - 1"	9' - 1"	9' - 5"
	20	8' - 8"	9' - 7"	9' - 11"

Gage	Single	Double	Triple
19	9' - 4"	10' - 8"	11' - 0"
18	9' - 8"	11' - 6"	11' - 9"
16	10' - 5"	13' - 1"	12' - 5"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	870	734	626	538	467	407	358	316	280	249	222	199	178	160	144
	LRFD, ϕW	1310	1107	945	816	709	621	547	485	431	385	346	311	280	254	230
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3331	3307	3279	3255	3234	3215	3198	3189	3175	3163	3152	3141	3132	3127	3119
	PAF Base Steel ≥ .25"	3203	3189	3169	3153	3138	3125	3113	3108	3099	3090	3082	3075	3068	3066	3060
	PAF Base Steel ≥ 0.125"	3184	3171	3153	3137	3123	3111	3100	3096	3087	3079	3071	3065	3059	3057	3051
	#12 Screw Base Steel ≥ .0385"	3060	3056	3046	3038	3030	3023	3018	3017	3012	3008	3004	3000	2996	2997	2994
	Concrete + Deck = 52.1 psf				I_{cr} = 112.7 in^4/ft			ASD		M_{no}/Ω = 49.8 kip-in/ft				V_n/Ω = 3.81 kip/ft		
	$(I_{cr}+I_u)/2$ = 188 in^4/ft				I_u = 262.5 in^4/ft			LRFD		ϕM_{no} = 74.1 kip-in/ft				ϕV_n = 5.70 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	983	830	708	610	530	464	408	361	320	286	256	229	206	186	168
	LRFD, ϕW	1477	1249	1069	923	803	705	622	551	492	440	395	356	322	292	265
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3427	3396	3362	3332	3306	3283	3263	3250	3233	3218	3204	3192	3180	3174	3164
	PAF Base Steel ≥ .25"	3239	3222	3200	3181	3165	3150	3137	3131	3120	3110	3102	3094	3086	3083	3077
	PAF Base Steel ≥ 0.125"	3217	3202	3181	3164	3148	3135	3123	3117	3107	3098	3090	3082	3075	3073	3067
	#12 Screw Base Steel ≥ .0385"	3053	3051	3041	3033	3025	3019	3013	3013	3009	3004	3000	2997	2993	2994	2991
	Concrete + Deck = 52.4 psf				I_{cr} = 123.8 in^4/ft			ASD		M_{no}/Ω = 55.9 kip-in/ft				V_n/Ω = 4.29 kip/ft		
	$(I_{cr}+I_u)/2$ = 196 in^4/ft				I_u = 267.6 in^4/ft			LRFD		ϕM_{no} = 83.2 kip-in/ft				ϕV_n = 6.41 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1063	898	767	661	575	503	443	392	349	312	279	251	226	204	185
	LRFD, ϕW	1596	1351	1156	999	870	764	674	599	534	479	431	389	352	319	290
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3509	3471	3432	3397	3367	3341	3317	3301	3282	3265	3249	3234	3221	3213	3202
	PAF Base Steel ≥ .25"	3265	3246	3222	3202	3184	3168	3154	3147	3136	3125	3116	3107	3099	3096	3089
	PAF Base Steel ≥ 0.125"	3241	3224	3202	3183	3166	3152	3139	3132	3121	3112	3103	3095	3087	3084	3078
	#12 Screw Base Steel ≥ .0385"	3050	3047	3038	3030	3023	3016	3011	3011	3006	3002	2998	2995	2991	2992	2989
	Concrete + Deck = 52.5 psf				I_{cr} = 131.4 in^4/ft			ASD		M_{no}/Ω = 60.2 kip-in/ft				V_n/Ω = 4.39 kip/ft		
	$(I_{cr}+I_u)/2$ = 201 in^4/ft				I_u = 271.2 in^4/ft			LRFD		ϕM_{no} = 89.6 kip-in/ft				ϕV_n = 6.97 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	5940	6930	8730	11430
	24 in o.c.	n/a	5940	6930	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 6 1/2 " Slab Depth, 110 pcf LWC

TABLE 11k: 2WH -36 COMPOSITE DECK WITH 6-1/2" THICK LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	7' - 2"	8' - 4"	8' - 5"	19	9' - 4"	10' - 8"	11' - 0"
	21	8' - 1"	9' - 1"	9' - 5"	18	9' - 8"	11' - 6"	11' - 9"
	20	8' - 8"	9' - 7"	9' - 11"	16	10' - 5"	13' - 1"	12' - 5"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1228	1038	888	767	668	585	516	458	408	365	328	296	267	242	220
	LRFD, ϕW	1842	1560	1336	1156	1008	886	783	697	622	559	503	455	413	376	342
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3701	3649	3596	3551	3511	3476	3445	3423	3397	3375	3354	3335	3317	3305	3290
	PAF Base Steel ≥ .25"	3319	3296	3269	3245	3225	3207	3190	3181	3168	3156	3145	3135	3126	3122	3114
	PAF Base Steel ≥ 0.125"	3291	3270	3245	3223	3204	3187	3172	3164	3151	3140	3130	3121	3112	3108	3101
	#12 Screw Base Steel ≥ .0385"	3047	3044	3035	3027	3020	3014	3009	3009	3005	3000	2997	2993	2990	2991	2988
	Concrete + Deck = 52.9 psf				I_{cr} = 146.6 in^4/ft			ASD		M_{no}/Ω = 69.2 kip-in/ft				V_n/Ω = 4.39 kip/ft		
	$(I_{cr}+I_u)/2$ = 213 in^4/ft				I_u = 278.6 in^4/ft			LRFD		ϕM_{no} = 102.9 kip-in/ft				ϕV_n = 7.61 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1370	1160	993	858	748	656	580	515	459	412	370	334	303	275	250
	LRFD, ϕW	2054	1741	1492	1292	1127	991	877	781	699	628	566	513	466	424	387
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3894	3827	3762	3705	3656	3613	3574	3545	3513	3485	3459	3435	3414	3398	3379
	PAF Base Steel ≥ .25"	3366	3339	3309	3283	3260	3240	3222	3211	3196	3183	3171	3160	3150	3144	3136
	PAF Base Steel ≥ 0.125"	3335	3311	3283	3258	3237	3218	3201	3191	3178	3165	3154	3144	3134	3129	3121
	#12 Screw Base Steel ≥ .0385"	3047	3044	3035	3027	3020	3014	3009	3009	3005	3000	2997	2993	2990	2991	2988
	Concrete + Deck = 53.2 psf				I_{cr} = 159.1 in^4/ft			ASD		M_{no}/Ω = 76.9 kip-in/ft				V_n/Ω = 4.39 kip/ft		
	$(I_{cr}+I_u)/2$ = 222 in^4/ft				I_u = 284.9 in^4/ft			LRFD		ϕM_{no} = 114.4 kip-in/ft				ϕV_n = 8.18 kip/ft		

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1462	1350	1223	1059	924	812	719	640	572	514	463	419	381	347	316
	LRFD, ϕW	2521	2139	1835	1590	1390	1224	1085	967	866	780	705	639	582	531	486
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4177	4088	4004	3931	3868	3812	3762	3723	3683	3646	3613	3583	3555	3533	3510
	PAF Base Steel ≥ .25"	3472	3437	3400	3368	3340	3315	3293	3278	3260	3244	3229	3215	3203	3195	3185
	PAF Base Steel ≥ 0.125"	3413	3382	3349	3320	3295	3272	3253	3240	3224	3209	3196	3184	3173	3167	3157
	#12 Screw Base Steel ≥ .0385"	3047	3044	3035	3027	3020	3014	3009	3009	3005	3000	2997	2993	2990	2991	2988
	Concrete + Deck = 53.9 psf				I_{cr} = 185.2 in^4/ft			ASD		M_{no}/Ω = 93.9 kip-in/ft				V_n/Ω = 4.39 kip/ft		
	$(I_{cr}+I_u)/2$ = 242 in^4/ft				I_u = 298.7 in^4/ft			LRFD		ϕM_{no} = 139.6 kip-in/ft				ϕV_n = 8.77 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	12 in o.c.	n/a	5940	6930	8730	11430
	24 in o.c.	n/a	5940	6930	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 6 1/2 " Slab Depth, 110 pcf LWC

TABLE 11l: 2WH -36 COMPOSITE DECK WITH 6 3/16" LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 4"	8' - 6"	8' - 7"
	21	8' - 3"	9' - 3"	9' - 7"
	20	8' - 10"	9' - 10"	10' - 2"
	19	9' - 6"	10' - 10"	11' - 3"
	18	9' - 10"	11' - 9"	11' - 11"
	16	10' - 7"	13' - 4"	12' - 7"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	809	682	581	500	433	378	332	293	260	231	206	184	165	148	133
	LRFD, ϕW	1217	1028	878	758	659	577	508	450	400	358	321	288	260	235	213
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3129	3104	3077	3052	3031	3013	2996	2987	2973	2961	2949	2939	2930	2925	2917
	PAF Base Steel ≥ .25"	3001	2987	2967	2950	2936	2923	2911	2906	2896	2888	2880	2873	2866	2864	2858
	PAF Base Steel ≥ 0.125"	2982	2969	2951	2935	2921	2909	2898	2894	2885	2877	2869	2862	2856	2855	2849
	#12 Screw Base Steel ≥ .0385"	2858	2854	2844	2836	2828	2821	2815	2815	2810	2806	2802	2798	2794	2795	2792
	Concrete + Deck =	49.3	psf		I_{cr} =	99.2	in^4/ft	ASD		M_{no}/Ω=	46.3	kip-in/ft		V_n/Ω =	3.67	kip/ft
	$(I_{cr}+I_u)/2$ =	163	in^4/ft		I_u =	226.7	in^4/ft	LRFD		ϕM_{no}=	68.9	kip-in/ft		ϕV_n =	5.48	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	913	771	658	566	492	430	378	334	297	265	237	213	191	172	156
	LRFD, ϕW	1372	1161	992	857	746	654	577	512	456	408	367	330	299	270	246
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3225	3194	3159	3130	3104	3081	3060	3048	3031	3016	3002	2990	2978	2972	2962
	PAF Base Steel ≥ .25"	3037	3020	2998	2979	2963	2948	2935	2929	2918	2908	2899	2891	2884	2881	2875
	PAF Base Steel ≥ 0.125"	3015	3000	2979	2962	2946	2933	2920	2915	2905	2896	2887	2880	2873	2871	2865
	#12 Screw Base Steel ≥ .0385"	2851	2848	2839	2830	2823	2817	2811	2811	2806	2802	2798	2794	2791	2792	2789
	Concrete + Deck =	49.5	psf		I_{cr} =	108.9	in^4/ft	ASD		M_{no}/Ω=	52.0	kip-in/ft		V_n/Ω =	4.10	kip/ft
	$(I_{cr}+I_u)/2$ =	170	in^4/ft		I_u =	231.2	in^4/ft	LRFD		ϕM_{no}=	77.3	kip-in/ft		ϕV_n =	6.19	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	987	834	712	614	533	467	411	364	324	289	259	233	209	189	171
	LRFD, ϕW	1482	1254	1073	927	808	709	626	555	495	444	399	360	326	296	269
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3307	3269	3229	3195	3165	3139	3115	3099	3080	3063	3047	3032	3019	3011	2999
	PAF Base Steel ≥ .25"	3063	3044	3020	3000	2982	2966	2952	2945	2933	2923	2913	2905	2897	2894	2887
	PAF Base Steel ≥ 0.125"	3039	3022	3000	2981	2964	2949	2936	2930	2919	2909	2901	2892	2885	2882	2876
	#12 Screw Base Steel ≥ .0385"	2847	2845	2836	2827	2820	2814	2809	2809	2804	2800	2796	2792	2789	2790	2787
	Concrete + Deck =	49.7	psf		I_{cr} =	115.5	in^4/ft	ASD		M_{no}/Ω=	56.0	kip-in/ft		V_n/Ω =	4.10	kip/ft
	$(I_{cr}+I_u)/2$ =	175	in^4/ft		I_u =	234.3	in^4/ft	LRFD		ϕM_{no}=	83.3	kip-in/ft		ϕV_n =	6.76	kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A_s = 0.028 in^2/ft	A_s = 0.058 in^2/ft	A_s = 0.080 in^2/ft	A_s = 0.120 in^2/ft	A_s = 0.180 in^2/ft
	12 in o.c.	n/a	5710	6700	8500	11200
	24 in o.c.	n/a	5710	6700	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 6 3/16" Slab Depth, 110 pcf LWC

TABLE 11l: 2WH -36 COMPOSITE DECK WITH 6 3/16" LWC (110 pcf) (continued)

Maximum Unshored Span	Gage	Single	Double	Triple	Gage	Single	Double	Triple
	22	7' - 4"	8' - 6"	8' - 7"	19	9' - 6"	10' - 10"	11' - 3"
	21	8' - 3"	9' - 3"	9' - 7"	18	9' - 10"	11' - 9"	11' - 11"
	20	8' - 10"	9' - 10"	10' - 2"	16	10' - 7"	13' - 4"	12' - 7"

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1140	964	824	711	619	543	479	424	378	338	304	274	247	224	203
	LRFD, ϕW	1709	1448	1240	1072	935	822	726	646	577	518	466	422	382	348	317
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3499	3447	3394	3349	3309	3274	3243	3221	3195	3172	3152	3132	3115	3103	3088
	PAF Base Steel ≥ .25"	3117	3094	3066	3043	3022	3004	2988	2979	2966	2954	2943	2933	2924	2919	2912
	PAF Base Steel ≥ 0.125"	3089	3068	3043	3021	3002	2985	2970	2962	2949	2938	2928	2919	2910	2906	2899
	#12 Screw Base Steel ≥ .0385"	2845	2842	2833	2825	2818	2812	2807	2807	2802	2798	2794	2791	2788	2789	2786
	Concrete + Deck =	50.0	psf		I_{cr} =	128.8	in^4/ft	ASD		M_{no}/Ω=	64.2	kip-in/ft		V_n/Ω =	4.10	kip/ft
	$(I_{cr}+I_u)/2$ =	185	in^4/ft		I_u =	240.8	in^4/ft	LRFD		ϕM_{no}=	95.6	kip-in/ft		ϕV_n =	7.39	kip/ft

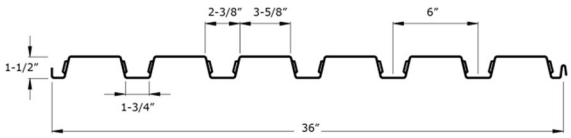
	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1271	1076	921	796	693	608	537	477	425	381	343	309	280	254	231
	LRFD, ϕW	1906	1615	1384	1198	1045	919	813	724	647	582	525	475	431	393	358
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3692	3625	3560	3503	3454	3410	3372	3342	3311	3283	3257	3233	3212	3196	3177
	PAF Base Steel ≥ .25"	3164	3137	3107	3081	3058	3038	3020	3009	2994	2981	2969	2958	2947	2942	2933
	PAF Base Steel ≥ 0.125"	3133	3109	3080	3056	3035	3016	2999	2989	2976	2963	2952	2941	2932	2927	2919
	#12 Screw Base Steel ≥ .0385"	2845	2842	2833	2825	2818	2812	2807	2807	2802	2798	2794	2791	2788	2789	2786
	Concrete + Deck =	50.3	psf		I_{cr} =	139.7	in^4/ft	ASD		M_{no}/Ω=	71.4	kip-in/ft		V_n/Ω =	4.10	kip/ft
	$(I_{cr}+I_u)/2$ =	193	in^4/ft		I_u =	246.4	in^4/ft	LRFD		ϕM_{no}=	106.2	kip-in/ft		ϕV_n =	7.96	kip/ft

	Vertical Load Span (ft-in)	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1366	1261	1133	981	856	752	666	592	529	475	429	388	352	320	292
	LRFD, ϕW	2337	1982	1701	1474	1288	1134	1005	895	802	722	652	592	538	491	450
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3975	3885	3802	3729	3666	3610	3560	3521	3481	3444	3411	3381	3353	3331	3308
	PAF Base Steel ≥ .25"	3270	3235	3198	3166	3137	3113	3090	3076	3058	3041	3027	3013	3001	2993	2982
	PAF Base Steel ≥ 0.125"	3210	3180	3147	3118	3093	3070	3051	3038	3022	3007	2994	2982	2971	2964	2955
	#12 Screw Base Steel ≥ .0385"	2845	2842	2833	2825	2818	2812	2807	2807	2802	2798	2794	2791	2788	2789	2786
	Concrete + Deck =	51.0	psf		I_{cr} =	162.4	in^4/ft	ASD		M_{no}/Ω=	87.1	kip-in/ft		V_n/Ω =	4.10	kip/ft
	$(I_{cr}+I_u)/2$ =	210	in^4/ft		I_u =	258.5	in^4/ft	LRFD		ϕM_{no}=	129.5	kip-in/ft		ϕV_n =	8.20	kip/ft

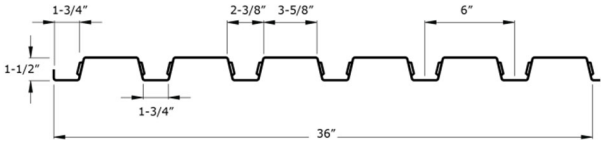
	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4	6x6 W2.9xW2.9	6x6 W4.0xW4.0	4x4 W4xW4	4x4 W6xW6
		A_s = 0.028 in^2/ft	A_s = 0.058 in^2/ft	A_s = 0.080 in^2/ft	A_s = 0.120 in^2/ft	A_s = 0.180 in^2/ft
	12 in o.c.	n/a	5710	6700	8500	11200
	24 in o.c.	n/a	5710	6700	7750	7750
	36 in o.c.	n/a	5170	5170	5170	5170

2WH-36 6 3/16" Slab Depth, 110 pcf LWC

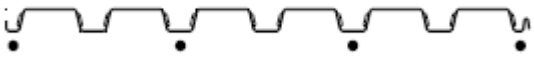
FIGURE 9: BH-36 AND BHN-36



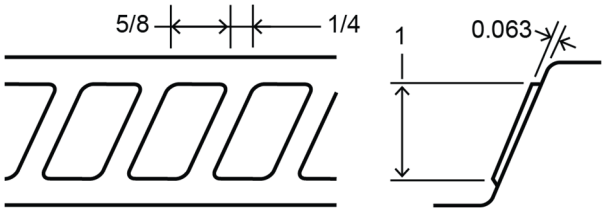
BH-36 PROFILE



BHN-36 PROFILE



36/4 ATTACHMENT PATTERN



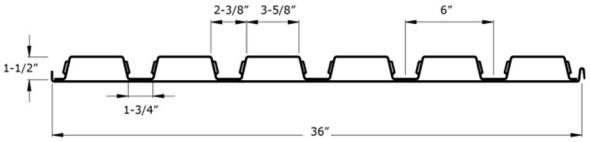
B SERIES EMBOSSMENT

TABLE 12: BH-36 AND BHN-36 PANEL PROPERTIES

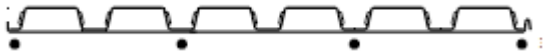
Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.75	0.0299	50	65	0.514	0.200	0.94	0.213	0.625
20	2.09	0.0359	50	65	0.615	0.240	0.94	0.253	0.623
18	2.76	0.0478	50	65	0.814	0.313	0.95	0.330	0.619
16	3.44	0.0598	50	65	1.012	0.383	0.95	0.404	0.615

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.179	0.175	0.74	0.187	0.98	0.157	0.197	0.171	0.198
20	0.235	0.228	0.77	0.236	0.96	0.197	0.237	0.211	0.238
18	0.351	0.311	0.84	0.329	0.94	0.287	0.313	0.296	0.313
16	0.330	0.392	0.89	0.404	0.95	0.377	0.383	0.379	0.383

FIGURE 10: BHF-36



BHF-36 PROFILE



36/4 ATTACHMENT PATTERN

TABLE 13:- BHF-36 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Top Section Modulus	Radius of Gyration
	w psf	t_{beam} in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	3.69	0.0359 / 0.036	50	65	1.040	0.460	0.58	0.462	0.665
20/18	4.16	0.0359 / 0.047	50	65	1.179	0.499	0.52	0.471	0.651
20/16	4.68	0.0359 / 0.059	50	65	1.330	0.535	0.48	0.479	0.634
18/20	4.35	0.0478 / 0.036	50	65	1.231	0.564	0.65	0.601	0.677
18/18	4.83	0.0478 / 0.047	50	65	1.370	0.614	0.59	0.613	0.670
18/16	5.35	0.0478 / 0.059	50	65	1.521	0.661	0.55	0.624	0.659
16/20	5.03	0.0598 / 0.036	50	65	1.423	0.661	0.70	0.736	0.682
16/18	5.51	0.0598 / 0.047	50	65	1.562	0.721	0.65	0.752	0.679
16/16	6.03	0.0598 / 0.059	50	65	1.713	0.777	0.60	0.767	0.674

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service for Deflection			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.643	0.272	0.43	0.438	0.73	0.354	0.389	0.389	0.413
20/18	0.744	0.278	0.39	0.452	0.66	0.381	0.445	0.420	0.463
20/16	0.861	0.284	0.35	0.465	0.58	0.404	0.505	0.448	0.515
18/20	0.876	0.409	0.53	0.569	0.77	0.489	0.486	0.514	0.512
18/18	0.977	0.419	0.48	0.587	0.71	0.529	0.547	0.558	0.569
18/16	1.094	0.427	0.44	0.604	0.65	0.566	0.617	0.598	0.631
16/20	1.105	0.564	0.61	0.698	0.81	0.619	0.582	0.633	0.609
16/18	1.206	0.577	0.56	0.719	0.75	0.673	0.646	0.689	0.671
16/16	1.323	0.588	0.52	0.739	0.70	0.724	0.723	0.742	0.741

TABLE 14: BH-36, BHF-36, AND BHF-36A AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	772	874	960	1105	1180	1337	1469	1691
	Interior	1229	1366	1482	1675	1828	2032	2204	2492
20	End	1081	1220	1336	1532	1655	1866	2045	2344
	Interior	1737	1922	2078	2339	2584	2859	3091	3479
18	End	1834	2053	2239	2550	2805	3142	3425	3901
	Interior	2984	3277	3525	3940	4439	4875	5243	5860
16	End	2771	3086	3351	3796	4240	4721	5127	5809
	Interior	4555	4975	5329	5923	6776	7401	7927	8810

TABLE 15a: BH-36 COMPOSITE DECK WITH 3-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 7"	7' - 8"	7' - 9"
	20	7' - 10"	9' - 2"	9' - 3"

Gage	Single	Double	Triple
18	8' - 11"	10' - 9"	11' - 2"
16	9' - 7"	11' - 11"	11' - 9"

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	554	453	375	315	267	228	197	171	149	130	114	101	89	79	69
	LRFD, ϕW	834	683	567	478	406	349	302	263	231	203	179	159	141	126	113
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2497	2449	2408	2381	2351	2326	2303	2283	2265	2254	2240	2226	2214	2203	2193
	PAF Base Steel ≥ .25"	2328	2295	2267	2251	2231	2213	2197	2183	2171	2165	2155	2146	2137	2130	2123
	PAF Base Steel ≥ 0.125"	2304	2273	2247	2232	2213	2196	2182	2169	2157	2152	2143	2134	2126	2119	2113
	#12 Screw Base Steel ≥ .0385"	2138	2122	2108	2105	2094	2086	2078	2071	2065	2065	2060	2055	2051	2047	2043
	Concrete + Deck = 32.4 psf	I_{cr} = 17.4 in⁴/ft	ASD	M_{no}/Ω = 22.0 kip-in/ft	V_n/Ω = 1.90 kip/ft
	$(I_{cr}+I_u)/2$ = 26.6 in⁴/ft	I_u = 35.7 in⁴/ft	LRFD	ϕM_{no} = 32.7 kip-in/ft	ϕV_n = 2.85 kip/ft

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	652	533	443	373	317	272	235	204	179	157	139	123	109	97	86
	LRFD, ϕW	980	803	668	564	481	414	359	313	275	243	215	192	171	153	138
	L/360	-	-	-	-	-	-	-	-	-	154	132	114	99	87	77
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2700	2633	2577	2537	2496	2460	2429	2402	2377	2361	2341	2323	2306	2291	2278
	PAF Base Steel ≥ .25"	2395	2356	2323	2303	2279	2258	2239	2223	2208	2201	2189	2178	2168	2159	2151
	PAF Base Steel ≥ 0.125"	2366	2329	2299	2280	2258	2238	2221	2205	2192	2185	2174	2164	2155	2146	2138
	#12 Screw Base Steel ≥ .0385"	2127	2112	2099	2096	2087	2079	2071	2065	2059	2059	2054	2050	2046	2042	2039
	Concrete + Deck = 32.8 psf	I_{cr} = 19.7 in⁴/ft	ASD	M_{no}/Ω = 25.7 kip-in/ft	V_n/Ω = 1.90 kip/ft
	$(I_{cr}+I_u)/2$ = 28.3 in⁴/ft	I_u = 36.9 in⁴/ft	LRFD	ϕM_{no} = 38.2 kip-in/ft	ϕV_n = 2.85 kip/ft

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	760	683	568	479	409	352	305	266	234	206	183	163	145	130	117
	LRFD, ϕW	1141	1025	855	722	617	533	463	406	358	317	282	252	226	203	184
	L/360	-	-	-	-	-	348	287	239	201	171	147	127	110	96	85
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3199	3086	2992	2921	2852	2793	2741	2695	2654	2623	2590	2560	2533	2508	2485
	PAF Base Steel ≥ .25"	2526	2474	2432	2403	2372	2344	2320	2299	2281	2269	2254	2240	2227	2216	2205
	PAF Base Steel ≥ 0.125"	2487	2439	2399	2373	2344	2318	2296	2277	2259	2249	2234	2221	2210	2199	2189
	#12 Screw Base Steel ≥ .0385"	2123	2109	2096	2094	2084	2076	2069	2063	2057	2057	2053	2048	2044	2041	2037
	Concrete + Deck = 33.5 psf	I_{cr} = 23.7 in⁴/ft	ASD	M_{no}/Ω = 32.5 kip-in/ft	V_n/Ω = 1.90 kip/ft
	$(I_{cr}+I_u)/2$ = 31.4 in⁴/ft	I_u = 39.1 in⁴/ft	LRFD	ϕM_{no} = 48.3 kip-in/ft	ϕV_n = 2.85 kip/ft

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	760	691	634	578	494	426	370	324	285	252	224	200	180	161	145
	LRFD, ϕW	1141	1037	951	870	744	643	560	492	434	385	344	308	277	250	226
	L/360	-	-	-	-	465	378	312	260	219	186	159	138	120	105	92
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3532	3389	3270	3177	3090	3015	2949	2891	2840	2799	2757	2719	2684	2653	2624
	PAF Base Steel ≥ .25"	2654	2591	2538	2502	2463	2430	2400	2375	2352	2336	2318	2301	2285	2271	2258
	PAF Base Steel ≥ 0.125"	2579	2523	2476	2444	2410	2380	2354	2331	2310	2297	2280	2265	2251	2239	2227
	#12 Screw Base Steel ≥ .0385"	2123	2109	2096	2094	2084	2076	2069	2063	2057	2057	2053	2048	2044	2041	2037
	Concrete + Deck = 34.3 psf	I_{cr} = 27.1 in⁴/ft	ASD	M_{no}/Ω = 38.8 kip-in/ft	V_n/Ω = 1.90 kip/ft
	$(I_{cr}+I_u)/2$ = 34.1 in⁴/ft	I_u = 41.1 in⁴/ft	LRFD	ϕM_{no} = 57.7 kip-in/ft	ϕV_n = 2.85 kip/ft

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in²/ft	6x6 W2.9xW2.9 A_s = 0.058 in²/ft	6x6 W4.0xW4.0 A_s = 0.080 in²/ft	4x4 W4xW4 A_s = 0.120 in²/ft	4x4 W6xW6 A_s = 0.180 in²/ft
All Gages	6 in o.c.	3230	4580	5570	7370	10070
	12 in o.c.	3230	4580	5570	7370	10070
	18 in o.c.	3230	4580	5570	7370	8790

BH-36 3 1/2 " Slab Depth, 145 pcf NWC

TABLE 15b: BH-36 COMPOSITE DECK WITH 4" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 3"	7' - 4"	7' - 5"
	20	7' - 5"	8' - 8"	8' - 10"
	18	8' - 6"	10' - 3"	10' - 7"
	16	9' - 2"	11' - 4"	11' - 4"

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	703	574	476	400	340	291	251	218	190	167	147	130	115	102	90
	LRFD, ϕW	1057	865	720	606	517	444	385	336	294	259	230	204	182	162	145
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2988	2939	2899	2872	2842	2816	2793	2773	2755	2745	2730	2717	2705	2694	2684
	PAF Base Steel ≥ .25"	2819	2786	2758	2742	2721	2703	2688	2674	2661	2656	2645	2636	2628	2620	2613
	PAF Base Steel ≥ 0.125"	2794	2763	2737	2723	2704	2687	2672	2659	2648	2643	2633	2624	2617	2610	2603
	#12 Screw Base Steel ≥ .0385"	2628	2612	2599	2595	2585	2576	2568	2561	2555	2555	2550	2545	2541	2537	2534
	Concrete + Deck = 38.4 psf				I_{cr} = 25.3 in^4/ft			ASD		M_{no}/Ω = 27.8 kip-in/ft				V_n/Ω = 2.26 kip/ft		
	$(I_{cr}+I_u)/2$ = 39.4 in^4/ft				I_u = 53.5 in^4/ft			LRFD		ϕM_{no} = 41.4 kip-in/ft				ϕV_n = 3.40 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	829	678	564	474	404	347	300	261	229	201	178	158	140	125	112
	LRFD, ϕW	1244	1020	849	717	612	527	457	400	352	311	276	246	220	197	177
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3190	3123	3067	3028	2986	2951	2920	2892	2868	2851	2831	2813	2797	2782	2768
	PAF Base Steel ≥ .25"	2886	2846	2814	2793	2769	2748	2729	2713	2699	2691	2679	2668	2658	2649	2641
	PAF Base Steel ≥ 0.125"	2856	2820	2789	2771	2748	2728	2711	2696	2682	2675	2664	2654	2645	2637	2629
	#12 Screw Base Steel ≥ .0385"	2617	2602	2590	2587	2577	2569	2562	2555	2549	2550	2545	2540	2536	2533	2529
	Concrete + Deck = 38.8 psf				I_{cr} = 28.8 in^4/ft			ASD		M_{no}/Ω = 32.5 kip-in/ft				V_n/Ω = 2.26 kip/ft		
	$(I_{cr}+I_u)/2$ = 42 in^4/ft				I_u = 55.2 in^4/ft			LRFD		ϕM_{no} = 48.4 kip-in/ft				ϕV_n = 3.40 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	906	823	725	612	522	450	391	342	300	266	236	210	188	169	152
	LRFD, ϕW	1358	1235	1091	922	789	681	593	520	458	406	362	324	291	262	237
	L/360	-	-	-	-	-	-	-	-	298	254	218	188	163	143	126
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3689	3577	3483	3411	3343	3283	3231	3186	3145	3114	3081	3051	3023	2999	2976
	PAF Base Steel ≥ .25"	3016	2965	2922	2894	2862	2835	2811	2790	2771	2760	2744	2730	2718	2706	2695
	PAF Base Steel ≥ 0.125"	2977	2930	2890	2864	2834	2809	2787	2767	2749	2739	2725	2712	2700	2689	2679
	#12 Screw Base Steel ≥ .0385"	2614	2599	2587	2584	2575	2567	2559	2553	2548	2548	2543	2539	2535	2531	2528
	Concrete + Deck = 39.6 psf				I_{cr} = 34.7 in^4/ft			ASD		M_{no}/Ω = 41.3 kip-in/ft				V_n/Ω = 2.26 kip/ft		
	$(I_{cr}+I_u)/2$ = 46.5 in^4/ft				I_u = 58.4 in^4/ft			LRFD		ϕM_{no} = 61.5 kip-in/ft				ϕV_n = 3.40 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	906	823	755	697	634	547	476	417	367	326	290	259	233	209	189
	LRFD, ϕW	1358	1235	1132	1045	954	825	719	631	558	496	443	397	358	323	293
	L/360	-	-	-	-	-	-	462	385	324	276	236	204	178	155	137
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4022	3879	3761	3668	3581	3506	3440	3382	3330	3289	3247	3209	3175	3143	3115
	PAF Base Steel ≥ .25"	3144	3081	3029	2992	2954	2920	2891	2865	2842	2827	2808	2791	2776	2762	2749
	PAF Base Steel ≥ 0.125"	3070	3013	2967	2935	2900	2870	2844	2821	2801	2788	2771	2756	2742	2729	2718
	#12 Screw Base Steel ≥ .0385"	2614	2599	2587	2584	2575	2567	2559	2553	2548	2548	2543	2539	2535	2531	2528
	Concrete + Deck = 40.4 psf				I_{cr} = 39.9 in^4/ft			ASD		M_{no}/Ω = 49.5 kip-in/ft				V_n/Ω = 2.26 kip/ft		
	$(I_{cr}+I_u)/2$ = 50.6 in^4/ft				I_u = 61.3 in^4/ft			LRFD		ϕM_{no} = 73.7 kip-in/ft				ϕV_n = 3.40 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	6 in o.c.	3720	5070	6060	7860	10560
	12 in o.c.	3720	5070	6060	7860	10560
	18 in o.c.	3720	5070	6060	7860	8790

BH-36 4" Slab Depth, 145 pcf NWC

TABLE 15c: BH-36 COMPOSITE DECK WITH 4-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 0"	7' - 0"	7' - 1"
	20	7' - 1"	8' - 4"	8' - 5"

Gage	Single	Double	Triple
18	8' - 1"	9' - 9"	10' - 1"
16	8' - 9"	10' - 9"	10' - 10"

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	859	702	583	490	417	357	308	268	234	206	181	160	142	126	112
	LRFD, ϕW	1291	1057	880	742	632	544	472	412	361	319	283	251	224	201	180
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3478	3430	3389	3362	3332	3306	3284	3264	3246	3235	3220	3207	3195	3184	3174
	PAF Base Steel ≥ .25"	3309	3276	3248	3232	3212	3194	3178	3164	3152	3146	3136	3127	3118	3111	3104
	PAF Base Steel ≥ 0.125"	3285	3253	3228	3213	3194	3177	3163	3150	3138	3133	3124	3115	3107	3100	3093
	#12 Screw Base Steel ≥ .0385"	3118	3102	3089	3086	3075	3066	3059	3052	3046	3046	3040	3036	3032	3028	3024
	Concrete + Deck = 44.5 psf				I_{cr} = 35.1 in⁴/ft			ASD		M_{no}/Ω = 33.9 kip-in/ft				V_n/Ω = 2.65 kip/ft		
	$(I_{cr}+I_u)/2$ = 55.9 in⁴/ft				I_u = 76.7 in⁴/ft			LRFD		ϕM_{no} = 50.4 kip-in/ft				ϕV_n = 3.97 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1014	831	691	582	496	426	369	322	282	249	220	195	174	155	139
	LRFD, ϕW	1522	1248	1040	878	750	646	562	491	432	383	340	303	272	244	220
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3681	3613	3558	3518	3477	3441	3410	3383	3358	3342	3322	3304	3287	3272	3258
	PAF Base Steel ≥ .25"	3376	3337	3304	3284	3260	3238	3220	3204	3189	3181	3169	3159	3149	3140	3132
	PAF Base Steel ≥ 0.125"	3347	3310	3279	3261	3238	3219	3201	3186	3173	3166	3155	3145	3135	3127	3119
	#12 Screw Base Steel ≥ .0385"	3108	3093	3080	3077	3068	3059	3052	3046	3040	3040	3035	3031	3027	3023	3020
	Concrete + Deck = 44.9 psf				I_{cr} = 39.9 in⁴/ft			ASD		M_{no}/Ω = 39.7 kip-in/ft				V_n/Ω = 2.65 kip/ft		
	$(I_{cr}+I_u)/2$ = 59.5 in⁴/ft				I_u = 79.0 in⁴/ft			LRFD		ϕM_{no} = 59.1 kip-in/ft				ϕV_n = 3.97 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1060	963	883	753	643	555	482	422	371	328	292	261	233	210	189
	LRFD, ϕW	1590	1445	1325	1134	970	838	730	640	565	502	447	401	360	325	294
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	231	202	178
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4179	4067	3973	3902	3833	3774	3722	3676	3635	3604	3571	3541	3514	3489	3466
	PAF Base Steel ≥ .25"	3507	3455	3413	3384	3353	3325	3301	3280	3261	3250	3235	3221	3208	3197	3186
	PAF Base Steel ≥ 0.125"	3468	3420	3380	3354	3325	3299	3277	3257	3240	3230	3215	3202	3190	3180	3170
	#12 Screw Base Steel ≥ .0385"	3104	3090	3077	3075	3065	3057	3050	3044	3038	3038	3033	3029	3025	3022	3018
	Concrete + Deck = 45.6 psf				I_{cr} = 48.4 in⁴/ft			ASD		M_{no}/Ω = 50.6 kip-in/ft				V_n/Ω = 2.65 kip/ft		
	$(I_{cr}+I_u)/2$ = 65.9 in⁴/ft				I_u = 83.4 in⁴/ft			LRFD		ϕM_{no} = 75.3 kip-in/ft				ϕV_n = 3.97 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1060	963	883	815	757	676	588	516	455	404	360	322	289	261	236
	LRFD, ϕW	1590	1445	1325	1223	1136	1018	888	780	690	614	548	492	444	401	364
	L/360	-	-	-	-	-	-	-	-	-	390	335	289	251	220	194
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4513	4370	4251	4158	4071	3996	3930	3872	3820	3779	3738	3700	3665	3634	3605
	PAF Base Steel ≥ .25"	3635	3572	3519	3483	3444	3411	3381	3356	3333	3317	3299	3282	3266	3252	3239
	PAF Base Steel ≥ 0.125"	3560	3504	3457	3425	3391	3361	3335	3312	3291	3278	3261	3246	3232	3220	3208
	#12 Screw Base Steel ≥ .0385"	3104	3090	3077	3075	3065	3057	3050	3044	3038	3038	3033	3029	3025	3022	3018
	Concrete + Deck = 46.4 psf				I_{cr} = 55.7 in⁴/ft			ASD		M_{no}/Ω = 60.9 kip-in/ft				V_n/Ω = 2.65 kip/ft		
	$(I_{cr}+I_u)/2$ = 71.6 in⁴/ft				I_u = 87.4 in⁴/ft			LRFD		ϕM_{no} = 90.6 kip-in/ft				ϕV_n = 3.97 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in²/ft	6x6 W2.9xW2.9 A_s = 0.058 in²/ft	6x6 W4.0xW4.0 A_s = 0.080 in²/ft	4x4 W4xW4 A_s = 0.120 in²/ft	4x4 W6xW6 A_s = 0.180 in²/ft
	6 in o.c.	4220	5570	6560	8360	11060
	12 in o.c.	4220	5570	6560	8360	11060
	18 in o.c.	4220	5570	6560	8360	8790

BH-36 4 1/2" Slab Depth, 145 pcf NWC

TABLE 15d: BH-36 COMPOSITE DECK WITH 5" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	5' - 9"	6' - 9"	6' - 10"
	20	6' - 10"	7' - 11"	8' - 1"

Gage	Single	Double	Triple
18	7' - 10"	9' - 5"	9' - 8"
16	8' - 5"	10' - 4"	10' - 5"

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1021	835	693	583	496	425	368	320	280	246	217	192	171	152	135
	LRFD, ϕW	1533	1256	1046	882	752	647	562	491	431	381	338	301	269	241	216
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3969	3920	3879	3853	3823	3797	3774	3754	3736	3725	3711	3698	3686	3675	3665
	PAF Base Steel ≥ .25"	3800	3766	3739	3723	3702	3684	3668	3655	3642	3637	3626	3617	3609	3601	3594
	PAF Base Steel ≥ 0.125"	3775	3744	3718	3704	3684	3668	3653	3640	3629	3624	3614	3605	3598	3590	3584
	#12 Screw Base Steel ≥ .0385"	3609	3593	3580	3576	3566	3557	3549	3542	3536	3536	3531	3526	3522	3518	3515
	Concrete + Deck = 50.5 psf				I_{cr} = 46.7 in^4/ft		ASD		M_{no}/Ω = 40.2 kip-in/ft				V_n/Ω = 3.06 kip/ft			
	$(I_{cr}+I_u)/2$ = 76.4 in^4/ft				I_u = 106.1 in^4/ft		LRFD		ϕM_{no} = 59.7 kip-in/ft				ϕV_n = 4.59 kip/ft			

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1207	988	822	693	591	508	440	384	337	297	264	234	209	187	167
	LRFD, ϕW	1810	1485	1238	1046	893	770	670	586	516	457	407	363	325	293	264
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4171	4104	4048	4008	3967	3932	3900	3873	3849	3832	3812	3794	3778	3763	3749
	PAF Base Steel ≥ .25"	3867	3827	3794	3774	3750	3729	3710	3694	3680	3672	3660	3649	3639	3630	3622
	PAF Base Steel ≥ 0.125"	3837	3800	3770	3752	3729	3709	3692	3677	3663	3656	3645	3635	3626	3617	3610
	#12 Screw Base Steel ≥ .0385"	3598	3583	3571	3568	3558	3550	3543	3536	3530	3530	3526	3521	3517	3514	3510
	Concrete + Deck = 50.9 psf				I_{cr} = 53.2 in^4/ft		ASD		M_{no}/Ω = 47.2 kip-in/ft				V_n/Ω = 3.06 kip/ft			
	$(I_{cr}+I_u)/2$ = 81.2 in^4/ft				I_u = 109.2 in^4/ft		LRFD		ϕM_{no} = 70.2 kip-in/ft				ϕV_n = 4.59 kip/ft			

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1223	1112	1019	900	769	663	577	505	445	394	350	313	281	252	228
	LRFD, ϕW	1835	1668	1529	1354	1159	1001	873	766	676	601	536	481	432	390	353
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4670	4557	4464	4392	4324	4264	4212	4166	4126	4095	4061	4032	4004	3979	3957
	PAF Base Steel ≥ .25"	3997	3946	3903	3875	3843	3816	3792	3771	3752	3740	3725	3711	3698	3687	3676
	PAF Base Steel ≥ 0.125"	3958	3910	3871	3845	3815	3790	3767	3748	3730	3720	3706	3693	3681	3670	3660
	#12 Screw Base Steel ≥ .0385"	3595	3580	3568	3565	3556	3547	3540	3534	3528	3529	3524	3520	3516	3512	3509
	Concrete + Deck = 51.7 psf				I_{cr} = 64.7 in^4/ft		ASD		M_{no}/Ω = 60.3 kip-in/ft				V_n/Ω = 3.06 kip/ft			
	$(I_{cr}+I_u)/2$ = 89.8 in^4/ft				I_u = 114.9 in^4/ft		LRFD		ϕM_{no} = 89.7 kip-in/ft				ϕV_n = 4.59 kip/ft			

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1223	1112	1019	941	874	810	706	619	546	485	433	388	348	314	284
	LRFD, ϕW	1835	1668	1529	1411	1311	1220	1065	936	828	737	659	592	533	483	438
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	343	300	264
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5003	4860	4741	4648	4562	4486	4421	4362	4311	4270	4228	4190	4156	4124	4096
	PAF Base Steel ≥ .25"	4125	4062	4010	3973	3934	3901	3872	3846	3823	3808	3789	3772	3757	3743	3730
	PAF Base Steel ≥ 0.125"	4050	3994	3948	3916	3881	3851	3825	3802	3782	3769	3752	3737	3723	3710	3699
	#12 Screw Base Steel ≥ .0385"	3595	3580	3568	3565	3556	3547	3540	3534	3528	3529	3524	3520	3516	3512	3509
	Concrete + Deck = 52.4 psf				I_{cr} = 74.8 in^4/ft		ASD		M_{no}/Ω = 72.8 kip-in/ft				V_n/Ω = 3.06 kip/ft			
	$(I_{cr}+I_u)/2$ = 97.5 in^4/ft				I_u = 120.3 in^4/ft		LRFD		ϕM_{no} = 108.2 kip-in/ft				ϕV_n = 4.59 kip/ft			

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	6 in o.c.	n/a	6060	7050	8850	11550
	12 in o.c.	n/a	6060	7050	8850	11550
	18 in o.c.	n/a	6060	7050	8790	8790

BH-36 5" Slab Depth, 145 pcf NWC

TABLE 15e: BH-36 COMPOSITE DECK WITH 6" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	5' - 4"	6' - 3"	6' - 4"
	20	6' - 4"	7' - 5"	7' - 6"

Gage	Single	Double	Triple
18	7' - 3"	8' - 8"	9' - 0"
16	7' - 11"	9' - 7"	9' - 9"

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1354	1108	921	776	660	567	491	428	375	330	292	259	230	205	183
	LRFD, ϕW	2032	1666	1388	1172	1000	861	748	654	575	509	452	403	360	323	291
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4950	4901	4860	4834	4804	4778	4755	4735	4717	4706	4692	4678	4666	4655	4645
	PAF Base Steel ≥ .25"	4781	4747	4719	4704	4683	4665	4649	4635	4623	4617	4607	4598	4590	4582	4575
	PAF Base Steel ≥ 0.125"	4756	4725	4699	4685	4665	4648	4634	4621	4609	4604	4595	4586	4578	4571	4565
	#12 Screw Base Steel ≥ .0385"	4590	4574	4560	4557	4547	4538	4530	4523	4517	4517	4512	4507	4503	4499	4495
	Concrete + Deck = 62.6 psf				I_{cr} = 75.6 in^4/ft			ASD		M_{no}/Ω = 53.1 kip-in/ft				V_n/Ω = 3.94 kip/ft		
	$(I_{cr}+I_u)/2$ = 131 in^4/ft				I_u = 186.3 in^4/ft			LRFD		ϕM_{no} = 79.0 kip-in/ft				ϕV_n = 5.92 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1577	1316	1095	924	788	678	589	514	452	399	354	315	282	252	227
	LRFD, ϕW	2366	1975	1647	1393	1190	1027	894	783	690	612	545	487	437	393	355
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5152	5085	5029	4989	4948	4913	4881	4854	4829	4813	4793	4775	4758	4743	4730
	PAF Base Steel ≥ .25"	4848	4808	4775	4755	4731	4710	4691	4675	4660	4653	4641	4630	4620	4611	4603
	PAF Base Steel ≥ 0.125"	4818	4781	4751	4732	4710	4690	4673	4657	4644	4637	4626	4616	4607	4598	4591
	#12 Screw Base Steel ≥ .0385"	4579	4564	4552	4549	4539	4531	4523	4517	4511	4511	4506	4502	4498	4494	4491
	Concrete + Deck = 63.0 psf				I_{cr} = 86.5 in^4/ft			ASD		M_{no}/Ω = 62.6 kip-in/ft				V_n/Ω = 3.94 kip/ft		
	$(I_{cr}+I_u)/2$ = 139 in^4/ft				I_u = 191.2 in^4/ft			LRFD		ϕM_{no} = 93.0 kip-in/ft				ϕV_n = 5.92 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1577	1434	1315	1205	1030	889	774	678	598	530	472	422	379	342	309
	LRFD, ϕW	2366	2151	1972	1811	1551	1341	1169	1027	908	807	721	647	582	526	477
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5651	5538	5445	5373	5305	5245	5193	5147	5107	5075	5042	5012	4985	4960	4938
	PAF Base Steel ≥ .25"	4978	4927	4884	4855	4824	4797	4773	4752	4733	4721	4706	4692	4679	4668	4657
	PAF Base Steel ≥ 0.125"	4939	4891	4852	4826	4796	4771	4748	4729	4711	4701	4686	4673	4662	4651	4641
	#12 Screw Base Steel ≥ .0385"	4576	4561	4549	4546	4536	4528	4521	4515	4509	4509	4505	4500	4496	4493	4490
	Concrete + Deck = 63.7 psf				I_{cr} = 105.9 in^4/ft			ASD		M_{no}/Ω = 80.4 kip-in/ft				V_n/Ω = 3.94 kip/ft		
	$(I_{cr}+I_u)/2$ = 153 in^4/ft				I_u = 200.4 in^4/ft			LRFD		ϕM_{no} = 119.6 kip-in/ft				ϕV_n = 5.92 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1577	1434	1315	1213	1127	1052	950	834	737	655	585	525	472	427	387
	LRFD, ϕW	2366	2151	1972	1820	1690	1577	1432	1260	1115	993	889	799	721	653	594
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5984	5841	5722	5629	5543	5467	5401	5343	5292	5251	5209	5171	5137	5105	5076
	PAF Base Steel ≥ .25"	5106	5043	4991	4954	4915	4882	4853	4827	4804	4789	4770	4753	4738	4723	4711
	PAF Base Steel ≥ 0.125"	5031	4975	4928	4897	4862	4832	4806	4783	4762	4749	4733	4717	4704	4691	4679
	#12 Screw Base Steel ≥ .0385"	4576	4561	4549	4546	4536	4528	4521	4515	4509	4509	4505	4500	4496	4493	4490
	Concrete + Deck = 64.5 psf				I_{cr} = 123.1 in^4/ft			ASD		M_{no}/Ω = 97.4 kip-in/ft				V_n/Ω = 3.94 kip/ft		
	$(I_{cr}+I_u)/2$ = 166 in^4/ft				I_u = 209.2 in^4/ft			LRFD		ϕM_{no} = 144.9 kip-in/ft				ϕV_n = 5.92 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	6 in o.c.	n/a	7050	8040	9840	12540
	12 in o.c.	n/a	7050	8040	9840	12540
	18 in o.c.	n/a	7050	8040	8790	8790

BH-36 6" Slab Depth, 145 pcf NWC

TABLE 15f: BH-36 COMPOSITE DECK WITH 6-3/4" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	5' - 1"	6' - 0"	6' - 0"
	20	6' - 1"	7' - 0"	7' - 1"

Gage	Single	Double	Triple
18	7' - 0"	8' - 3"	8' - 6"
16	7' - 7"	9' - 2"	9' - 5"

22 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	1610	1318	1096	924	787	676	585	510	447	394	349	310	276	246	220
LRFD, ϕW	2416	1982	1652	1395	1191	1026	891	780	686	607	540	481	431	387	348
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	5685	5637	5596	5569	5539	5513	5491	5471	5453	5442	5427	5414	5402	5391	5381
PAF Base Steel ≥ .25"	5516	5483	5455	5439	5419	5401	5385	5371	5359	5353	5343	5334	5325	5318	5311
PAF Base Steel ≥ 0.125"	5491	5460	5434	5420	5401	5384	5369	5357	5345	5340	5330	5322	5314	5307	5300
#12 Screw Base Steel ≥ .0385"	5325	5309	5296	5292	5282	5273	5266	5259	5253	5253	5247	5243	5239	5235	5231

Concrete + Deck = 71.7 psf I_{cr} = 102.3 in^4/ft ASD M_{no}/Ω = 63.1 kip-in/ft V_n/Ω = 4.67 kip/ft

$(I_{cr}+I_u)/2$ = 185 in^4/ft I_u = 268.2 in^4/ft LRFD ϕM_{no} = 93.8 kip-in/ft ϕV_n = 7.00 kip/ft

20 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	1867	1567	1305	1102	940	810	703	614	540	477	424	378	338	303	272
LRFD, ϕW	2801	2352	1963	1660	1419	1225	1066	935	824	731	651	583	523	471	426
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	5887	5820	5764	5725	5684	5648	5617	5590	5565	5548	5529	5510	5494	5479	5465
PAF Base Steel ≥ .25"	5583	5544	5511	5491	5466	5445	5427	5411	5396	5388	5376	5366	5356	5347	5339
PAF Base Steel ≥ 0.125"	5554	5517	5486	5468	5445	5426	5408	5393	5380	5373	5362	5351	5342	5334	5326
#12 Screw Base Steel ≥ .0385"	5315	5300	5287	5284	5275	5266	5259	5253	5247	5247	5242	5238	5234	5230	5227

Concrete + Deck = 72.0 psf I_{cr} = 117.4 in^4/ft ASD M_{no}/Ω = 74.4 kip-in/ft V_n/Ω = 4.67 kip/ft

$(I_{cr}+I_u)/2$ = 196 in^4/ft I_u = 274.8 in^4/ft LRFD ϕM_{no} = 110.7 kip-in/ft ϕV_n = 7.00 kip/ft

18 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	1867	1697	1556	1436	1232	1064	926	812	716	636	566	507	456	411	371
LRFD, ϕW	2801	2546	2334	2154	1853	1603	1398	1229	1087	966	864	775	699	632	573
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	6386	6274	6180	6109	6040	5981	5929	5883	5842	5811	5778	5748	5721	5696	5673
PAF Base Steel ≥ .25"	5714	5662	5620	5591	5560	5532	5508	5487	5468	5457	5442	5428	5415	5403	5393
PAF Base Steel ≥ 0.125"	5675	5627	5587	5561	5532	5506	5484	5464	5447	5436	5422	5409	5397	5387	5377
#12 Screw Base Steel ≥ .0385"	5311	5296	5284	5282	5272	5264	5257	5250	5245	5245	5240	5236	5232	5228	5225

Concrete + Deck = 72.8 psf I_{cr} = 144.3 in^4/ft ASD M_{no}/Ω = 95.9 kip-in/ft V_n/Ω = 4.67 kip/ft

$(I_{cr}+I_u)/2$ = 216 in^4/ft I_u = 287.3 in^4/ft LRFD ϕM_{no} = 142.6 kip-in/ft ϕV_n = 7.00 kip/ft

16 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	1867	1697	1556	1436	1334	1245	1140	1001	885	787	703	631	568	514	466
LRFD, ϕW	2801	2546	2334	2154	2000	1867	1717	1510	1338	1192	1067	959	866	785	714
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	6720	6577	6458	6365	6278	6203	6137	6079	6027	5986	5945	5907	5872	5841	5812
PAF Base Steel ≥ .25"	5842	5779	5726	5690	5651	5618	5588	5562	5540	5524	5506	5489	5473	5459	5446
PAF Base Steel ≥ 0.125"	5767	5711	5664	5632	5598	5568	5542	5519	5498	5485	5468	5453	5439	5427	5415
#12 Screw Base Steel ≥ .0385"	5311	5296	5284	5282	5272	5264	5257	5250	5245	5245	5240	5236	5232	5228	5225

Concrete + Deck = 73.6 psf I_{cr} = 168.3 in^4/ft ASD M_{no}/Ω = 116.5 kip-in/ft V_n/Ω = 4.67 kip/ft

$(I_{cr}+I_u)/2$ = 234 in^4/ft I_u = 299.2 in^4/ft LRFD ϕM_{no} = 173.3 kip-in/ft ϕV_n = 7.00 kip/ft

All Gages

LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width					
3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
6 in o.c.	n/a	7790	8780	10580	13280
12 in o.c.	n/a	7790	8780	10580	13180
18 in o.c.	n/a	7790	8780	8790	8790

BH-36 6 3/4 " Slab Depth, 145 pcf NWC

TABLE 15g: BH-36 COMPOSITE DECK WITH 3-1/2" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 1"	8' - 4"	8' - 6"
	20	8' - 6"	10' - 0"	10' - 2"

Gage	Single	Double	Triple
18	9' - 9"	11' - 8"	12' - 0"
16	10' - 6"	12' - 10"	12' - 6"

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	528	432	359	302	257	221	191	166	146	128	113	100	89	80	71
	LRFD, ϕW	793	650	542	457	390	336	291	255	224	198	176	157	140	126	113
	L/360	-	-	-	-	-	-	187	156	131	111	96	83	72	63	55
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1832	1783	1743	1716	1686	1660	1637	1617	1599	1589	1574	1561	1549	1538	1528
	PAF Base Steel ≥ .25"	1663	1630	1602	1586	1565	1547	1532	1518	1505	1500	1490	1480	1472	1464	1457
	PAF Base Steel ≥ 0.125"	1638	1607	1581	1567	1548	1531	1516	1503	1492	1487	1477	1469	1461	1454	1447
	#12 Screw Base Steel ≥ .0385"	1472	1456	1443	1439	1429	1420	1412	1406	1399	1399	1394	1389	1385	1381	1378
	Concrete + Deck = 25.0 psf				I_{cr} = 23.1 in^4/ft			ASD		M_{no}/Ω= 20.7 kip-in/ft				V_n/Ω = 1.43 kip/ft		
	$(I_{cr}+I_u)/2$ = 30.9 in^4/ft				I_u = 38.8 in^4/ft			LRFD		ϕM_{no}= 30.9 kip-in/ft				ϕV_n = 2.85 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	570	506	421	355	303	260	226	197	173	153	135	120	107	96	86
	LRFD, ϕW	926	760	634	536	458	395	343	301	265	235	209	186	167	150	136
	L/360	-	-	-	-	299	243	200	167	141	120	102	89	77	67	59
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2034	1967	1911	1872	1830	1795	1764	1736	1712	1695	1675	1657	1641	1626	1612
	PAF Base Steel ≥ .25"	1730	1690	1658	1638	1613	1592	1574	1557	1543	1535	1523	1512	1502	1493	1485
	PAF Base Steel ≥ 0.125"	1700	1664	1633	1615	1592	1572	1555	1540	1526	1519	1508	1498	1489	1481	1473
	#12 Screw Base Steel ≥ .0385"	1461	1446	1434	1431	1421	1413	1406	1399	1394	1394	1389	1384	1380	1377	1373
	Concrete + Deck = 25.4 psf				I_{cr} = 25.9 in^4/ft			ASD		M_{no}/Ω= 24.1 kip-in/ft				V_n/Ω = 1.43 kip/ft		
	$(I_{cr}+I_u)/2$ = 33.2 in^4/ft				I_u = 40.5 in^4/ft			LRFD		ϕM_{no}= 35.9 kip-in/ft				ϕV_n = 2.85 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	570	518	475	439	386	332	289	253	223	197	176	157	141	126	114
	LRFD, ϕW	1141	960	802	679	581	502	437	384	339	301	269	241	217	196	177
	L/360	-	-	-	417	334	271	223	186	157	133	114	99	86	75	66
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2533	2421	2327	2255	2187	2127	2076	2030	1989	1958	1925	1895	1868	1843	1820
	PAF Base Steel ≥ .25"	1860	1809	1766	1738	1706	1679	1655	1634	1615	1604	1588	1574	1562	1550	1540
	PAF Base Steel ≥ 0.125"	1821	1774	1734	1708	1678	1653	1631	1611	1594	1583	1569	1556	1544	1533	1523
	#12 Screw Base Steel ≥ .0385"	1458	1443	1431	1428	1419	1411	1403	1397	1392	1392	1387	1383	1379	1375	1372
	Concrete + Deck = 26.1 psf				I_{cr} = 30.7 in^4/ft			ASD		M_{no}/Ω= 30.3 kip-in/ft				V_n/Ω = 1.43 kip/ft		
	$(I_{cr}+I_u)/2$ = 37 in^4/ft				I_u = 43.4 in^4/ft			LRFD		ϕM_{no}= 45.0 kip-in/ft				ϕV_n = 2.85 kip/ft		

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	570	518	475	439	407	380	347	304	269	238	212	190	171	154	139
	LRFD, ϕW	1141	1037	951	810	694	601	524	461	407	362	324	291	262	237	215
	L/360	-	-	-	-	364	296	244	203	171	146	125	108	94	82	72
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2866	2724	2605	2512	2425	2350	2284	2226	2174	2133	2091	2053	2019	1988	1959
	PAF Base Steel ≥ .25"	1988	1925	1873	1836	1798	1764	1735	1709	1686	1671	1652	1635	1620	1606	1593
	PAF Base Steel ≥ 0.125"	1914	1857	1811	1779	1744	1714	1688	1665	1645	1632	1615	1600	1586	1573	1562
	#12 Screw Base Steel ≥ .0385"	1458	1443	1431	1428	1419	1411	1403	1397	1392	1392	1387	1383	1379	1375	1372
	Concrete + Deck = 26.9 psf				I_{cr} = 34.7 in^4/ft			ASD		M_{no}/Ω= 35.9 kip-in/ft				V_n/Ω = 1.43 kip/ft		
	$(I_{cr}+I_u)/2$ = 40.4 in^4/ft				I_u = 46.1 in^4/ft			LRFD		ϕM_{no}= 53.4 kip-in/ft				ϕV_n = 2.85 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	6 in o.c.	2740	4090	5080	6880	9580
	12 in o.c.	2740	4090	5080	6880	9580
	18 in o.c.	2740	4090	5080	6880	8790

BH-36 3 1/2" Slab Depth, 110 pcf LWC

TABLE 15h: BH-36 COMPOSITE DECK WITH 4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 9"	8' - 0"	8' - 1"
	20	8' - 2"	9' - 6"	9' - 8"

Gage	Single	Double	Triple
18	9' - 3"	11' - 2"	11' - 7"
16	10' - 0"	12' - 4"	12' - 1"

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	673	551	458	386	329	283	245	213	187	165	146	130	116	103	92
	LRFD, ϕW	1009	828	690	583	498	429	373	326	287	254	226	201	180	162	146
	L/360	-	-	-	-	-	-	-	-	-	-	142	122	106	93	82
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2156	2107	2067	2040	2010	1984	1961	1941	1923	1913	1898	1885	1873	1862	1852
	PAF Base Steel ≥ .25"	1987	1954	1926	1910	1889	1871	1856	1842	1830	1824	1814	1804	1796	1788	1781
	PAF Base Steel ≥ 0.125"	1962	1931	1905	1891	1872	1855	1840	1827	1816	1811	1801	1793	1785	1778	1771
	#12 Screw Base Steel ≥ .0385"	1796	1780	1767	1763	1753	1744	1736	1730	1723	1723	1718	1714	1709	1705	1702
	Concrete + Deck = 29.6 psf				I_{cr} = 33.8 in^4/ft		ASD		M_{no}/Ω = 26.3 kip-in/ft			V_n/Ω = 1.70 kip/ft				
	$(I_{cr}+I_u)/2$ = 45.8 in^4/ft				I_u = 57.9 in^4/ft		LRFD		ϕM_{no} = 39.2 kip-in/ft			ϕV_n = 3.40 kip/ft				

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	679	617	538	454	387	334	290	253	223	197	175	156	139	125	112
	LRFD, ϕW	1181	970	809	684	585	505	439	385	340	301	268	240	216	194	175
	L/360	-	-	-	-	-	-	-	247	208	177	152	131	114	100	88
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2358	2291	2235	2196	2155	2119	2088	2060	2036	2019	1999	1981	1965	1950	1936
	PAF Base Steel ≥ .25"	2054	2015	1982	1962	1937	1916	1898	1881	1867	1859	1847	1836	1826	1818	1809
	PAF Base Steel ≥ 0.125"	2024	1988	1957	1939	1916	1896	1879	1864	1850	1843	1832	1822	1813	1805	1797
	#12 Screw Base Steel ≥ .0385"	1785	1770	1758	1755	1745	1737	1730	1723	1718	1718	1713	1708	1704	1701	1697
	Concrete + Deck = 30.0 psf				I_{cr} = 38.0 in^4/ft		ASD		M_{no}/Ω = 30.7 kip-in/ft			V_n/Ω = 1.70 kip/ft				
	$(I_{cr}+I_u)/2$ = 49.1 in^4/ft				I_u = 60.3 in^4/ft		LRFD		ϕM_{no} = 45.6 kip-in/ft			ϕV_n = 3.40 kip/ft				

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	679	617	566	522	485	428	372	326	288	255	227	203	182	164	148
	LRFD, ϕW	1358	1231	1028	871	746	645	562	494	437	388	347	311	280	253	229
	L/360	-	-	-	-	-	401	331	276	232	197	169	146	127	111	98
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2857	2745	2651	2579	2511	2452	2400	2354	2313	2282	2249	2219	2192	2167	2144
	PAF Base Steel ≥ .25"	2184	2133	2090	2062	2030	2003	1979	1958	1939	1928	1912	1898	1886	1874	1864
	PAF Base Steel ≥ 0.125"	2145	2098	2058	2032	2003	1977	1955	1935	1918	1907	1893	1880	1868	1857	1847
	#12 Screw Base Steel ≥ .0385"	1782	1767	1755	1752	1743	1735	1728	1721	1716	1716	1711	1707	1703	1699	1696
	Concrete + Deck = 30.7 psf				I_{cr} = 45.1 in^4/ft		ASD		M_{no}/Ω = 38.7 kip-in/ft			V_n/Ω = 1.70 kip/ft				
	$(I_{cr}+I_u)/2$ = 54.8 in^4/ft				I_u = 64.5 in^4/ft		LRFD		ϕM_{no} = 57.5 kip-in/ft			ϕV_n = 3.40 kip/ft				

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	679	617	566	522	485	453	424	393	348	309	276	247	222	201	182
	LRFD, ϕW	1358	1235	1132	1043	894	774	676	594	526	468	419	376	340	308	279
	L/360	-	-	-	-	-	438	361	301	253	215	185	160	139	121	107
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3190	3048	2929	2836	2749	2674	2608	2550	2498	2457	2415	2377	2343	2312	2283
	PAF Base Steel ≥ .25"	2312	2249	2197	2160	2122	2088	2059	2033	2010	1995	1976	1959	1944	1930	1917
	PAF Base Steel ≥ 0.125"	2238	2182	2135	2103	2068	2039	2012	1989	1969	1956	1939	1924	1910	1897	1886
	#12 Screw Base Steel ≥ .0385"	1782	1767	1755	1752	1743	1735	1728	1721	1716	1716	1711	1707	1703	1699	1696
	Concrete + Deck = 31.4 psf				I_{cr} = 51.2 in^4/ft		ASD		M_{no}/Ω = 46.1 kip-in/ft			V_n/Ω = 1.70 kip/ft				
	$(I_{cr}+I_u)/2$ = 59.8 in^4/ft				I_u = 68.4 in^4/ft		LRFD		ϕM_{no} = 68.5 kip-in/ft			ϕV_n = 3.40 kip/ft				

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	6 in o.c.	3110	4460	5450	7250	9950
	12 in o.c.	3110	4460	5450	7250	9950
	18 in o.c.	3110	4460	5450	7250	8790

BH-36 4" Slab Depth, 110 pcf LWC

TABLE 15i: BH-36 COMPOSITE DECK WITH 4-3/4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 5"	7' - 6"	7' - 7"
	20	7' - 8"	8' - 11"	9' - 0"

Gage	Single	Double	Triple
18	8' - 8"	10' - 6"	10' - 10"
16	9' - 5"	11' - 7"	11' - 6"

22 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	855	741	617	520	444	382	331	289	254	224	199	177	158	141	127
LRFD, ϕW	1356	1113	928	785	671	578	503	441	388	344	306	274	246	221	199
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	2642	2593	2553	2526	2496	2470	2447	2427	2409	2399	2384	2371	2359	2348	2338
PAF Base Steel ≥ .25"	2473	2440	2412	2396	2375	2357	2342	2328	2316	2310	2300	2290	2282	2274	2267
PAF Base Steel ≥ 0.125"	2448	2417	2391	2377	2358	2341	2326	2313	2302	2297	2287	2279	2271	2264	2257
#12 Screw Base Steel ≥ .0385"	2282	2266	2253	2249	2239	2230	2222	2216	2210	2209	2204	2200	2195	2191	2188

Concrete + Deck = 36.5 psf I_{cr} = 54.6 in^4/ft ASD M_{no}/Ω = 35.3 kip-in/ft V_n/Ω = 2.14 kip/ft

$(I_{cr}+I_u)/2$ = 76.1 in^4/ft I_u = 97.5 in^4/ft LRFD ϕM_{no} = 52.5 kip-in/ft ϕV_n = 4.28 kip/ft

20 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	855	778	713	614	524	452	393	344	303	268	238	213	190	171	154
LRFD, ϕW	1592	1308	1092	924	790	683	595	522	461	409	365	327	294	265	240
L/360	-	-	-	-	-	-	-	-	-	-	-	-	189	165	146
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	2844	2777	2721	2682	2641	2605	2574	2546	2522	2505	2485	2467	2451	2436	2422
PAF Base Steel ≥ .25"	2540	2501	2468	2448	2423	2402	2384	2367	2353	2345	2333	2322	2313	2304	2295
PAF Base Steel ≥ 0.125"	2510	2474	2443	2425	2402	2382	2365	2350	2336	2330	2318	2308	2299	2291	2283
#12 Screw Base Steel ≥ .0385"	2272	2257	2244	2241	2231	2223	2216	2209	2204	2204	2199	2195	2191	2187	2184

Concrete + Deck = 36.8 psf I_{cr} = 61.6 in^4/ft ASD M_{no}/Ω = 41.2 kip-in/ft V_n/Ω = 2.14 kip/ft

$(I_{cr}+I_u)/2$ = 81.4 in^4/ft I_u = 101.3 in^4/ft LRFD ϕM_{no} = 61.3 kip-in/ft ϕV_n = 4.28 kip/ft

18 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	855	778	713	658	611	570	507	445	393	349	311	279	251	226	205
LRFD, ϕW	1711	1555	1396	1182	1013	877	765	673	595	530	474	425	384	347	315
L/360	-	-	-	-	-	-	-	-	385	327	281	242	211	185	162
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	3343	3231	3137	3065	2997	2938	2886	2840	2799	2768	2735	2705	2678	2653	2630
PAF Base Steel ≥ .25"	2670	2619	2576	2548	2516	2489	2465	2444	2425	2414	2398	2384	2372	2360	2350
PAF Base Steel ≥ 0.125"	2631	2584	2544	2518	2489	2463	2441	2421	2404	2393	2379	2366	2354	2343	2333
#12 Screw Base Steel ≥ .0385"	2268	2253	2241	2238	2229	2221	2214	2207	2202	2202	2197	2193	2189	2185	2182

Concrete + Deck = 37.6 psf I_{cr} = 73.6 in^4/ft ASD M_{no}/Ω = 52.3 kip-in/ft V_n/Ω = 2.14 kip/ft

$(I_{cr}+I_u)/2$ = 90.9 in^4/ft I_u = 108.1 in^4/ft LRFD ϕM_{no} = 77.8 kip-in/ft ϕV_n = 4.28 kip/ft

16 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	855	778	713	658	611	570	535	503	475	424	379	340	307	277	252
LRFD, ϕW	1711	1555	1426	1316	1221	1058	924	814	721	642	575	517	467	424	385
L/360	-	-	-	-	-	-	-	499	420	357	306	265	230	201	177
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	3676	3534	3415	3322	3235	3160	3094	3036	2984	2943	2901	2864	2829	2798	2769
PAF Base Steel ≥ .25"	2798	2735	2683	2646	2608	2574	2545	2519	2496	2481	2462	2445	2430	2416	2403
PAF Base Steel ≥ 0.125"	2724	2668	2621	2589	2554	2525	2498	2475	2455	2442	2425	2410	2396	2383	2372
#12 Screw Base Steel ≥ .0385"	2268	2253	2241	2238	2229	2221	2214	2207	2202	2202	2197	2193	2189	2185	2182

Concrete + Deck = 38.3 psf I_{cr} = 83.9 in^4/ft ASD M_{no}/Ω = 62.6 kip-in/ft V_n/Ω = 2.14 kip/ft

$(I_{cr}+I_u)/2$ = 99.1 in^4/ft I_u = 114.4 in^4/ft LRFD ϕM_{no} = 93.2 kip-in/ft ϕV_n = 4.28 kip/ft

All Gages

LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
6 in o.c.	n/a	5010	6000	7800	10500
12 in o.c.	n/a	5010	6000	7800	10500
18 in o.c.	n/a	5010	6000	7800	8790

BH-36 4 3/4 " Slab Depth, 110 pcf LWC

TABLE 15j: BH-36 COMPOSITE DECK WITH 5-3/4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	6' - 0"	7' - 0"	7' - 1"
	20	7' - 1"	8' - 3"	8' - 5"

Gage	Single	Double	Triple
18	8' - 1"	9' - 9"	10' - 1"
16	8' - 9"	10' - 9"	10' - 10"

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1114	1009	841	710	606	522	453	396	348	308	274	244	218	196	176
	LRFD, ϕW	1844	1515	1264	1069	914	789	687	602	531	471	420	376	338	304	275
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3290	3241	3201	3174	3144	3118	3095	3075	3058	3047	3032	3019	3007	2996	2986
	PAF Base Steel ≥ .25"	3121	3088	3060	3044	3024	3006	2990	2976	2964	2958	2948	2939	2930	2923	2916
	PAF Base Steel ≥ 0.125"	3096	3065	3039	3025	3006	2989	2974	2961	2950	2945	2935	2927	2919	2912	2905
	#12 Screw Base Steel ≥ .0385"	2930	2914	2901	2897	2887	2878	2871	2864	2858	2858	2852	2848	2843	2840	2836
	Concrete + Deck = 45.6 psf				I_{cr} = 91.7 in^4/ft			ASD		M_{no}/Ω = 47.9 kip-in/ft			V_n/Ω = 2.79 kip/ft			
	$(I_{cr}+I_u)/2$ = 133 in^4/ft				I_u = 174.8 in^4/ft			LRFD		ϕM_{no} = 71.2 kip-in/ft			ϕV_n = 5.57 kip/ft			

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1114	1013	928	840	718	619	539	472	416	369	328	293	263	237	214
	LRFD, ϕW	2172	1785	1491	1262	1081	935	815	715	632	562	502	450	405	366	331
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3492	3425	3369	3330	3289	3253	3222	3194	3170	3153	3133	3115	3099	3084	3070
	PAF Base Steel ≥ .25"	3188	3149	3116	3096	3071	3050	3032	3015	3001	2993	2981	2970	2961	2952	2943
	PAF Base Steel ≥ 0.125"	3159	3122	3091	3073	3050	3031	3013	2998	2985	2978	2967	2956	2947	2939	2931
	#12 Screw Base Steel ≥ .0385"	2920	2905	2892	2889	2880	2871	2864	2858	2852	2852	2847	2843	2839	2835	2832
	Concrete + Deck = 46.0 psf				I_{cr} = 103.9 in^4/ft			ASD		M_{no}/Ω = 56.1 kip-in/ft			V_n/Ω = 2.79 kip/ft			
	$(I_{cr}+I_u)/2$ = 142 in^4/ft				I_u = 181.0 in^4/ft			LRFD		ϕM_{no} = 83.5 kip-in/ft			ϕV_n = 5.57 kip/ft			

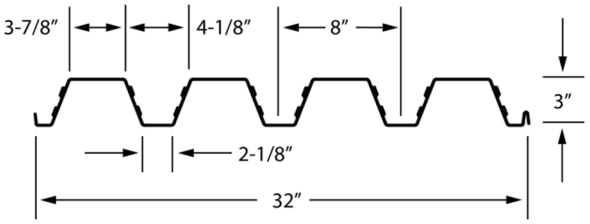
	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1114	1013	928	857	796	743	696	614	543	483	431	387	348	314	285
	LRFD, ϕW	2228	2026	1857	1626	1394	1207	1054	927	821	731	654	588	531	481	437
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	284
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3991	3879	3785	3714	3645	3586	3534	3488	3447	3416	3383	3353	3326	3301	3278
	PAF Base Steel ≥ .25"	3318	3267	3224	3196	3164	3137	3113	3092	3073	3062	3046	3033	3020	3008	2998
	PAF Base Steel ≥ 0.125"	3280	3232	3192	3166	3137	3111	3089	3069	3052	3041	3027	3014	3002	2991	2982
	#12 Screw Base Steel ≥ .0385"	2916	2901	2889	2886	2877	2869	2862	2855	2850	2850	2845	2841	2837	2833	2830
	Concrete + Deck = 46.7 psf				I_{cr} = 125.1 in^4/ft			ASD		M_{no}/Ω = 71.7 kip-in/ft			V_n/Ω = 2.79 kip/ft			
	$(I_{cr}+I_u)/2$ = 159 in^4/ft				I_u = 192.5 in^4/ft			LRFD		ϕM_{no} = 106.6 kip-in/ft			ϕV_n = 5.57 kip/ft			

	Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1114	1013	928	857	796	743	696	655	619	586	528	474	428	387	352
	LRFD, ϕW	2228	2026	1857	1714	1592	1464	1280	1127	999	891	799	719	650	590	537
	L/360	-	-	-	-	-	-	-	-	-	-	-	462	402	352	310
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4325	4182	4063	3970	3883	3808	3742	3684	3632	3591	3549	3512	3477	3446	3417
	PAF Base Steel ≥ .25"	3446	3384	3331	3294	3256	3222	3193	3167	3144	3129	3110	3093	3078	3064	3051
	PAF Base Steel ≥ 0.125"	3372	3316	3269	3237	3203	3173	3147	3124	3103	3090	3073	3058	3044	3032	3020
	#12 Screw Base Steel ≥ .0385"	2916	2901	2889	2886	2877	2869	2862	2855	2850	2850	2845	2841	2837	2833	2830
	Concrete + Deck = 47.5 psf				I_{cr} = 143.4 in^4/ft			ASD		M_{no}/Ω = 86.3 kip-in/ft			V_n/Ω = 2.79 kip/ft			
	$(I_{cr}+I_u)/2$ = 173 in^4/ft				I_u = 203.1 in^4/ft			LRFD		ϕM_{no} = 128.4 kip-in/ft			ϕV_n = 5.57 kip/ft			

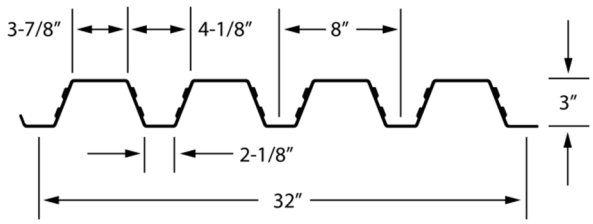
	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	6 in o.c.	n/a	5750	6740	8540	11240
	12 in o.c.	n/a	5750	6740	8540	11240
	18 in o.c.	n/a	5750	6740	8540	8790

BH-36 5 3/4 " Slab Depth, 110 pcf LWC

FIGURE 11: NH-32 AND NHF-32

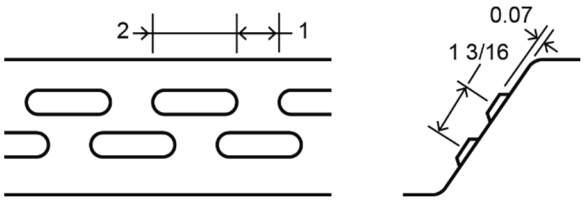


NH-32 PROFILE



NHN-32 PROFILE

32/5 ATTACHMENT PATTERN



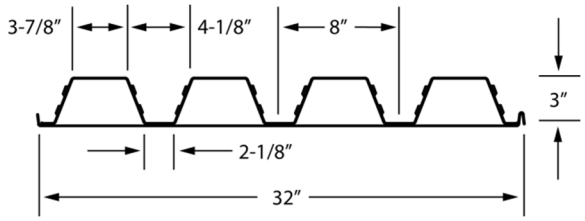
N SERIES EMBOSSMENTS

TABLE 16: NH-32 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.96	0.0299	50	65	0.569	0.814	1.68	0.483	1.195
20	2.35	0.0359	50	65	0.681	0.968	1.68	0.576	1.193
18	3.10	0.0478	50	65	0.902	1.275	1.69	0.755	1.189
16	3.86	0.0598	50	65	1.123	1.575	1.69	0.931	1.185

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.272	0.349	1.37	0.402	1.78	0.668	0.754	0.716	0.774
20	0.372	0.446	1.41	0.505	1.76	0.848	0.930	0.888	0.943
18	0.604	0.661	1.48	0.715	1.72	1.219	1.275	1.238	1.275
16	0.871	0.879	1.54	0.927	1.70	1.556	1.575	1.563	1.575

FIGURE 12: NH-32 AND NHF-32



NHF 32 PROFILE

32/5 ATTACHMENT PATTERN

TABLE 17: NHF-32 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Top Section Modulus	Radius of Gyration
	w psf	t_{beam} in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
20/20	3.96	0.0359 / 0.036	50	65	1.114	1.740	1.07	0.867	1.250
20/18	4.44	0.0359 / 0.047	50	65	1.254	1.877	0.96	0.884	1.223
20/16	4.96	0.0359 / 0.059	50	65	1.406	1.999	0.87	0.899	1.192
18/20	4.71	0.0478 / 0.036	50	65	1.330	2.143	1.19	1.129	1.269
18/18	5.19	0.0478 / 0.047	50	65	1.470	2.316	1.09	1.153	1.255
18/16	5.71	0.0478 / 0.059	50	65	1.622	2.474	1.00	1.173	1.235
16/20	5.47	0.0598 / 0.036	50	65	1.547	2.522	1.27	1.385	1.277
16/18	5.95	0.0598 / 0.047	50	65	1.687	2.725	1.18	1.415	1.271
16/16	6.47	0.0598 / 0.059	50	65	1.839	2.914	1.10	1.442	1.259

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service for Deflection			
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e in^2/ft	S_{e+} in^3/ft	y_b in	S_{e-} in^3/ft	y_b in	I_{e+} in^4/ft	I_{e-} in^4/ft	I+ in^4/ft	I- in^4/ft
20/20	0.547	0.488	0.76	0.808	1.39	1.381	1.454	1.501	1.549
20/18	0.622	0.490	0.66	0.838	1.24	1.480	1.623	1.612	1.708
20/16	0.729	0.522	0.62	0.863	1.11	1.515	1.816	1.676	1.877
18/20	0.784	0.798	0.99	1.057	1.45	1.835	1.839	1.938	1.940
18/18	0.859	0.816	0.90	1.093	1.33	1.972	2.019	2.087	2.118
18/16	0.966	0.810	0.81	1.123	1.22	2.107	2.234	2.230	2.314
16/20	1.057	1.073	1.13	1.306	1.49	2.316	2.218	2.385	2.319
16/18	1.132	1.098	1.04	1.346	1.39	2.495	2.405	2.572	2.512
16/16	1.238	1.119	0.96	1.380	1.30	2.661	2.636	2.746	2.729

TABLE 18: NH-32 NHF-32, AND NHF-32A AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
22	End	500	566	622	716	764	866	952	1095
	Interior	876	973	1056	1194	1303	1448	1570	1776
20	End	709	799	876	1004	1084	1223	1340	1536
	Interior	1240	1371	1482	1669	1844	2040	2205	2482
18	End	1221	1367	1490	1697	1868	2092	2280	2597
	Interior	2133	2343	2519	2816	3173	3485	3748	4189
16	End	1864	2076	2254	2554	2852	3176	3449	3907
	Interior	3260	3560	3814	4239	4849	5296	5673	6305

TABLE 19a: NH-32 COMPOSITE DECK WITH 5" NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 8"	11' - 3"	11' - 4"
	20	11' - 3"	12' - 7"	13' - 0"
	18	12' - 10"	14' - 10"	15' - 2"
	16	13' - 7"	16' - 9"	15' - 11"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	290	252	220	194	171	151	134	119	106	95	84	75	67	60	53
	LRFD, ϕW	442	386	339	300	266	236	211	189	170	152	137	124	112	101	91
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2338	2315	2296	2284	2267	2253	2240	2228	2216	2210	2201	2192	2184	2176	2169
	PAF Base Steel ≥ .25"	2221	2205	2192	2185	2174	2164	2155	2146	2138	2135	2129	2123	2117	2111	2106
	PAF Base Steel ≥ 0.125"	2203	2189	2177	2171	2160	2151	2142	2134	2127	2124	2118	2112	2107	2102	2097
	#12 Screw Base Steel ≥ .0385"	2088	2081	2074	2074	2068	2063	2058	2054	2050	2051	2047	2044	2041	2039	2036
	Concrete + Deck = 40.6 psf				I_{cr} = 38.1 in^4/ft			ASD		M_{no}/Ω = 31.7 kip-in/ft				V_n/Ω = 3.12 kip/ft		
	$(I_{cr}+I_u)/2$ = 65.7 in^4/ft				I_u = 93.4 in^4/ft			LRFD		ϕM_{no} = 47.1 kip-in/ft				ϕV_n = 4.68 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	345	301	264	233	206	183	163	146	131	117	105	95	85	76	69
	LRFD, ϕW	525	459	404	358	318	284	254	229	206	186	168	152	138	126	114
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2478	2447	2420	2401	2379	2360	2342	2325	2310	2300	2287	2275	2264	2253	2244
	PAF Base Steel ≥ .25"	2267	2249	2233	2224	2211	2199	2188	2178	2169	2165	2157	2150	2143	2137	2131
	PAF Base Steel ≥ 0.125"	2246	2230	2215	2207	2195	2183	2173	2164	2156	2152	2145	2138	2132	2126	2120
	#12 Screw Base Steel ≥ .0385"	2081	2074	2068	2067	2062	2057	2053	2049	2045	2046	2043	2040	2037	2034	2032
	Concrete + Deck = 41.0 psf				I_{cr} = 43.4 in^4/ft			ASD		M_{no}/Ω = 37.1 kip-in/ft				V_n/Ω = 3.12 kip/ft		
	$(I_{cr}+I_u)/2$ = 69.8 in^4/ft				I_u = 96.3 in^4/ft			LRFD		ϕM_{no} = 55.1 kip-in/ft				ϕV_n = 4.68 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	450	393	346	307	273	243	218	196	177	159	144	131	119	108	98
	LRFD, ϕW	681	597	527	468	418	374	336	303	275	249	227	206	188	172	158
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2823	2772	2727	2692	2656	2623	2593	2565	2540	2521	2500	2480	2461	2444	2428
	PAF Base Steel ≥ .25"	2357	2334	2313	2300	2283	2268	2254	2241	2230	2223	2213	2203	2195	2187	2179
	PAF Base Steel ≥ 0.125"	2330	2309	2289	2277	2262	2247	2234	2222	2212	2206	2196	2188	2179	2172	2165
	#12 Screw Base Steel ≥ .0385"	2079	2072	2066	2065	2060	2055	2051	2047	2044	2044	2041	2038	2036	2033	2031
	Concrete + Deck = 41.8 psf				I_{cr} = 53.0 in^4/ft			ASD		M_{no}/Ω = 47.2 kip-in/ft				V_n/Ω = 3.12 kip/ft		
	$(I_{cr}+I_u)/2$ = 77.3 in^4/ft				I_u = 101.7 in^4/ft			LRFD		ϕM_{no} = 70.2 kip-in/ft				ϕV_n = 4.68 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	548	480	424	376	335	300	270	243	220	199	181	165	150	137	125
	LRFD, ϕW	827	727	643	571	511	458	413	374	339	308	281	257	235	216	199
	L/360	-	-	-	-	-	-	-	-	-	-	179	160	143	129	117
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3054	2990	2933	2887	2840	2799	2761	2726	2694	2669	2642	2616	2593	2571	2551
	PAF Base Steel ≥ .25"	2446	2417	2392	2375	2354	2335	2318	2303	2289	2280	2267	2256	2246	2236	2227
	PAF Base Steel ≥ 0.125"	2394	2369	2346	2331	2313	2296	2281	2267	2254	2247	2236	2225	2216	2207	2199
	#12 Screw Base Steel ≥ .0385"	2079	2072	2066	2065	2060	2055	2051	2047	2044	2044	2041	2038	2036	2033	2031
	Concrete + Deck = 42.7 psf				I_{cr} = 61.5 in^4/ft			ASD		M_{no}/Ω = 56.7 kip-in/ft				V_n/Ω = 3.12 kip/ft		
	$(I_{cr}+I_u)/2$ = 84.1 in^4/ft				I_u = 106.8 in^4/ft			LRFD		ϕM_{no} = 84.3 kip-in/ft				ϕV_n = 4.68 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	8 in o.c.	3230	4580	5570	7370	10070
	16 in o.c.	3230	4580	5570	7370	9890
	24 in o.c.	3230	4580	5570	6590	6590

NH-32 5" Slab Depth, 145 pcf NWC

TABLE 19b: NH-32 COMPOSITE DECK WITH 5 1/2" NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 2"	10' - 8"	10' - 10"
	20	10' - 8"	12' - 0"	12' - 5"
	18	12' - 5"	14' - 2"	14' - 8"
	16	13' - 2"	16' - 1"	15' - 5"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	344	299	262	230	203	180	160	142	127	113	101	90	81	72	64
	LRFD, ϕW	525	458	403	356	316	281	251	225	202	182	164	148	134	121	109
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2828	2806	2786	2774	2758	2743	2730	2718	2707	2701	2691	2682	2674	2666	2659
	PAF Base Steel ≥ .25"	2711	2696	2682	2675	2664	2654	2645	2637	2629	2626	2619	2613	2607	2602	2597
	PAF Base Steel ≥ 0.125"	2694	2680	2667	2661	2651	2641	2632	2625	2617	2615	2609	2603	2597	2592	2588
	#12 Screw Base Steel ≥ .0385"	2579	2571	2565	2564	2558	2553	2549	2545	2541	2541	2538	2535	2532	2529	2526
	Concrete + Deck = 46.6 psf				I_{cr} = 49.7 in^4/ft			ASD		M_{no}/Ω = 37.5 kip-in/ft			V_n/Ω = 3.58 kip/ft			
	$(I_{cr}+I_u)/2$ = 86.5 in^4/ft				I_u = 123.4 in^4/ft			LRFD		ϕM_{no} = 55.7 kip-in/ft			ϕV_n = 5.37 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	410	358	314	277	245	218	195	174	156	140	126	113	102	92	83
	LRFD, ϕW	623	545	480	425	378	338	303	272	246	222	201	182	165	150	137
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2968	2938	2911	2892	2870	2850	2832	2815	2800	2790	2777	2765	2754	2744	2734
	PAF Base Steel ≥ .25"	2757	2739	2723	2714	2701	2689	2679	2669	2660	2656	2648	2640	2634	2627	2622
	PAF Base Steel ≥ 0.125"	2737	2720	2705	2697	2685	2674	2664	2655	2646	2642	2635	2628	2622	2616	2611
	#12 Screw Base Steel ≥ .0385"	2571	2564	2558	2558	2553	2548	2543	2539	2536	2537	2533	2530	2527	2525	2522
	Concrete + Deck = 47.1 psf				I_{cr} = 56.7 in^4/ft			ASD		M_{no}/Ω = 43.9 kip-in/ft			V_n/Ω = 3.58 kip/ft			
	$(I_{cr}+I_u)/2$ = 91.8 in^4/ft				I_u = 127.0 in^4/ft			LRFD		ϕM_{no} = 65.2 kip-in/ft			ϕV_n = 5.37 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	534	468	412	365	325	290	260	234	211	191	173	157	142	129	118
	LRFD, ϕW	808	710	627	557	497	445	401	362	327	297	270	247	225	206	189
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3314	3263	3218	3183	3146	3113	3083	3056	3031	3011	2990	2970	2952	2934	2918
	PAF Base Steel ≥ .25"	2848	2824	2804	2790	2774	2758	2744	2732	2720	2713	2703	2694	2685	2677	2670
	PAF Base Steel ≥ 0.125"	2821	2799	2780	2768	2752	2738	2725	2713	2702	2696	2687	2678	2670	2662	2655
	#12 Screw Base Steel ≥ .0385"	2569	2562	2556	2556	2551	2546	2542	2538	2534	2535	2532	2529	2526	2524	2521
	Concrete + Deck = 47.9 psf				I_{cr} = 69.2 in^4/ft			ASD		M_{no}/Ω = 55.9 kip-in/ft			V_n/Ω = 3.58 kip/ft			
	$(I_{cr}+I_u)/2$ = 102 in^4/ft				I_u = 133.9 in^4/ft			LRFD		ϕM_{no} = 83.1 kip-in/ft			ϕV_n = 5.37 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	651	571	504	448	399	358	321	290	262	238	216	197	180	164	150
	LRFD, ϕW	983	864	764	680	608	546	492	445	404	368	336	307	282	258	238
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3544	3480	3423	3377	3331	3289	3251	3216	3184	3159	3132	3107	3083	3062	3041
	PAF Base Steel ≥ .25"	2936	2908	2882	2865	2844	2826	2809	2793	2779	2770	2758	2746	2736	2726	2717
	PAF Base Steel ≥ 0.125"	2885	2859	2837	2822	2803	2786	2771	2757	2745	2737	2726	2716	2706	2698	2689
	#12 Screw Base Steel ≥ .0385"	2569	2562	2556	2556	2551	2546	2542	2538	2534	2535	2532	2529	2526	2524	2521
	Concrete + Deck = 48.7 psf				I_{cr} = 80.2 in^4/ft			ASD		M_{no}/Ω = 67.2 kip-in/ft			V_n/Ω = 3.58 kip/ft			
	$(I_{cr}+I_u)/2$ = 110 in^4/ft				I_u = 140.4 in^4/ft			LRFD		ϕM_{no} = 100.0 kip-in/ft			ϕV_n = 5.37 kip/ft			

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	8 in o.c.	3720	5070	6060	7860	10560
	16 in o.c.	3720	5070	6060	7860	9890
	24 in o.c.	3720	5070	6060	6590	6590

NH-32 5 1/2" Slab Depth, 145 pcf NWC

TABLE 19c: NH-32 COMPOSITE DECK WITH 6" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 10"	10' - 3"	10' - 4"
	20	10' - 2"	11' - 6"	11' - 11"
	18	12' - 1"	13' - 7"	14' - 1"
	16	12' - 9"	15' - 5"	15' - 0"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	402	350	306	269	238	211	188	167	149	133	119	107	96	86	77
	LRFD, ϕW	612	535	471	416	369	329	294	264	237	214	193	174	157	142	129
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3318	3296	3277	3264	3248	3234	3220	3208	3197	3191	3182	3173	3165	3157	3150
	PAF Base Steel ≥ .25"	3201	3186	3173	3166	3155	3145	3135	3127	3119	3116	3110	3103	3098	3092	3087
	PAF Base Steel ≥ 0.125"	3184	3170	3157	3151	3141	3131	3123	3115	3108	3105	3099	3093	3088	3083	3078
	#12 Screw Base Steel ≥ .0385"	3069	3062	3055	3055	3049	3044	3039	3035	3031	3032	3028	3025	3022	3019	3017
	Concrete + Deck = 52.7 psf				I_{cr} = 63.3 in^4/ft			ASD		M_{no}/Ω = 43.6 kip-in/ft			V_n/Ω = 4.07 kip/ft			
	$(I_{cr}+I_u)/2$ = 111 in^4/ft				I_u = 159.6 in^4/ft			LRFD		ϕM_{no} = 64.9 kip-in/ft			ϕV_n = 6.10 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	479	418	367	324	287	256	228	204	183	165	148	134	121	109	98
	LRFD, ϕW	728	637	562	498	443	396	355	319	288	260	236	214	195	177	161
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3459	3428	3401	3382	3360	3340	3322	3306	3291	3281	3268	3256	3245	3234	3224
	PAF Base Steel ≥ .25"	3248	3230	3214	3205	3192	3180	3169	3159	3150	3146	3138	3131	3124	3118	3112
	PAF Base Steel ≥ 0.125"	3227	3211	3196	3188	3175	3164	3154	3145	3137	3133	3126	3119	3112	3107	3101
	#12 Screw Base Steel ≥ .0385"	3062	3055	3049	3048	3043	3038	3034	3030	3026	3027	3024	3021	3018	3015	3013
	Concrete + Deck = 53.1 psf				I_{cr} = 72.3 in^4/ft			ASD		M_{no}/Ω = 51.1 kip-in/ft			V_n/Ω = 4.07 kip/ft			
	$(I_{cr}+I_u)/2$ = 118 in^4/ft				I_u = 164.2 in^4/ft			LRFD		ϕM_{no} = 76.0 kip-in/ft			ϕV_n = 6.10 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	625	548	483	428	381	340	305	275	248	224	203	185	168	153	139
	LRFD, ϕW	946	830	733	652	582	522	470	424	384	349	318	290	265	243	223
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3804	3753	3708	3673	3637	3604	3574	3546	3521	3502	3480	3460	3442	3425	3409
	PAF Base Steel ≥ .25"	3338	3315	3294	3281	3264	3249	3235	3222	3210	3204	3194	3184	3176	3168	3160
	PAF Base Steel ≥ 0.125"	3311	3289	3270	3258	3242	3228	3215	3203	3192	3186	3177	3168	3160	3153	3146
	#12 Screw Base Steel ≥ .0385"	3059	3053	3046	3046	3041	3036	3032	3028	3025	3025	3022	3019	3016	3014	3012
	Concrete + Deck = 53.9 psf				I_{cr} = 88.4 in^4/ft			ASD		M_{no}/Ω = 65.2 kip-in/ft			V_n/Ω = 4.07 kip/ft			
	$(I_{cr}+I_u)/2$ = 131 in^4/ft				I_u = 172.7 in^4/ft			LRFD		ϕM_{no} = 97.0 kip-in/ft			ϕV_n = 6.10 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	763	670	591	525	469	420	378	341	309	280	255	232	212	194	178
	LRFD, ϕW	1151	1012	895	797	713	640	578	523	475	432	395	361	331	305	280
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4035	3971	3913	3868	3821	3779	3741	3707	3675	3650	3622	3597	3574	3552	3532
	PAF Base Steel ≥ .25"	3427	3398	3373	3356	3335	3316	3299	3284	3269	3260	3248	3237	3226	3217	3207
	PAF Base Steel ≥ 0.125"	3375	3350	3327	3312	3294	3277	3262	3248	3235	3227	3216	3206	3197	3188	3180
	#12 Screw Base Steel ≥ .0385"	3059	3053	3046	3046	3041	3036	3032	3028	3025	3025	3022	3019	3016	3014	3012
	Concrete + Deck = 54.8 psf				I_{cr} = 102.6 in^4/ft			ASD		M_{no}/Ω = 78.5 kip-in/ft			V_n/Ω = 4.07 kip/ft			
	$(I_{cr}+I_u)/2$ = 142 in^4/ft				I_u = 180.8 in^4/ft			LRFD		ϕM_{no} = 116.8 kip-in/ft			ϕV_n = 6.10 kip/ft			

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	8 in o.c.	4220	5570	6560	8360	11060
	16 in o.c.	4220	5570	6560	8360	9890
	24 in o.c.	4220	5570	6560	6590	6590

NH-32 6" Slab Depth, 145 pcf NWC

TABLE 19d: NH-32 COMPOSITE DECK WITH 6-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 5"	9' - 10"	9' - 11"
	20	9' - 10"	11' - 1"	11' - 5"

Gage	Single	Double	Triple
18	11' - 10"	13' - 1"	13' - 7"
16	12' - 6"	14' - 10"	14' - 8"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	462	403	353	311	275	244	217	193	173	155	139	124	111	100	89
	LRFD, ϕW	704	616	542	479	425	379	339	304	274	247	223	202	182	165	150
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3809	3787	3767	3755	3739	3724	3711	3699	3688	3682	3672	3663	3655	3647	3640
	PAF Base Steel ≥ .25"	3692	3677	3663	3656	3645	3635	3626	3617	3610	3607	3600	3594	3588	3583	3578
	PAF Base Steel ≥ 0.125"	3675	3660	3648	3642	3631	3622	3613	3605	3598	3596	3589	3584	3578	3573	3569
	#12 Screw Base Steel ≥ .0385"	3560	3552	3546	3545	3539	3534	3530	3525	3522	3522	3519	3515	3513	3510	3507
	Concrete + Deck = 58.7 psf				I_{cr} = 79.0 in^4/ft			ASD		M_{no}/Ω = 50.0 kip-in/ft				V_n/Ω = 4.51 kip/ft		
	$(I_{cr}+I_u)/2$ = 141 in^4/ft				I_u = 202.8 in^4/ft			LRFD		ϕM_{no} = 74.4 kip-in/ft				ϕV_n = 6.74 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	552	482	423	374	332	295	264	236	212	191	172	155	140	127	115
	LRFD, ϕW	838	734	647	573	511	456	410	369	333	301	273	248	226	206	187
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3949	3919	3892	3873	3851	3831	3813	3796	3781	3771	3758	3746	3735	3725	3715
	PAF Base Steel ≥ .25"	3738	3720	3704	3695	3682	3670	3660	3650	3641	3636	3629	3621	3615	3608	3602
	PAF Base Steel ≥ 0.125"	3718	3701	3686	3678	3666	3655	3645	3635	3627	3623	3616	3609	3603	3597	3592
	#12 Screw Base Steel ≥ .0385"	3552	3545	3539	3539	3533	3529	3524	3520	3517	3517	3514	3511	3508	3506	3503
	Concrete + Deck = 59.1 psf				I_{cr} = 90.3 in^4/ft			ASD		M_{no}/Ω = 58.6 kip-in/ft				V_n/Ω = 4.58 kip/ft		
	$(I_{cr}+I_u)/2$ = 149 in^4/ft				I_u = 208.4 in^4/ft			LRFD		ϕM_{no} = 87.2 kip-in/ft				ϕV_n = 6.87 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	721	632	557	494	440	393	353	318	287	260	236	214	195	178	162
	LRFD, ϕW	1090	957	846	752	672	602	543	490	444	404	368	336	307	282	258
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4294	4244	4199	4164	4127	4094	4064	4037	4011	3992	3971	3951	3932	3915	3899
	PAF Base Steel ≥ .25"	3828	3805	3785	3771	3754	3739	3725	3712	3701	3694	3684	3675	3666	3658	3651
	PAF Base Steel ≥ 0.125"	3802	3780	3761	3749	3733	3719	3706	3694	3683	3677	3668	3659	3651	3643	3636
	#12 Screw Base Steel ≥ .0385"	3550	3543	3537	3537	3531	3527	3523	3519	3515	3516	3513	3510	3507	3504	3502
	Concrete + Deck = 60.0 psf				I_{cr} = 110.6 in^4/ft			ASD		M_{no}/Ω = 75.0 kip-in/ft				V_n/Ω = 4.58 kip/ft		
	$(I_{cr}+I_u)/2$ = 165 in^4/ft				I_u = 219.0 in^4/ft			LRFD		ϕM_{no} = 111.5 kip-in/ft				ϕV_n = 6.87 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	881	774	683	607	542	486	437	395	358	325	296	270	247	226	207
	LRFD, ϕW	1328	1168	1034	921	824	740	668	605	550	501	458	419	385	354	326
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4525	4461	4404	4358	4312	4270	4232	4197	4165	4140	4113	4088	4064	4043	4022
	PAF Base Steel ≥ .25"	3917	3889	3863	3846	3825	3807	3790	3774	3760	3751	3739	3727	3717	3707	3698
	PAF Base Steel ≥ 0.125"	3865	3840	3817	3802	3784	3767	3752	3738	3725	3718	3707	3697	3687	3679	3670
	#12 Screw Base Steel ≥ .0385"	3550	3543	3537	3537	3531	3527	3523	3519	3515	3516	3513	3510	3507	3504	3502
	Concrete + Deck = 60.8 psf				I_{cr} = 128.6 in^4/ft			ASD		M_{no}/Ω = 90.4 kip-in/ft				V_n/Ω = 4.58 kip/ft		
	$(I_{cr}+I_u)/2$ = 179 in^4/ft				I_u = 228.9 in^4/ft			LRFD		ϕM_{no} = 134.5 kip-in/ft				ϕV_n = 6.87 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	8 in o.c.	n/a	6060	7050	8850	11550
	16 in o.c.	n/a	6060	7050	8850	9890
	24 in o.c.	n/a	6060	6590	6590	6590

NH-32 6 1/2" Slab Depth, 145 pcf NWC

TABLE 19e: NH-32 COMPOSITE DECK WITH 7-1/2" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 11"	9' - 2"	9' - 3"
	20	9' - 1"	10' - 4"	10' - 8"

Gage	Single	Double	Triple
18	11' - 3"	12' - 3"	12' - 8"
16	11' - 11"	13' - 11"	14' - 0"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	589	514	451	397	352	312	278	249	223	200	179	161	145	130	117
	LRFD, ϕW	897	785	691	611	543	485	434	390	351	317	287	260	236	214	194
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4790	4768	4748	4736	4720	4705	4692	4680	4669	4662	4653	4644	4636	4628	4621
	PAF Base Steel ≥ .25"	4673	4657	4644	4637	4626	4616	4607	4598	4591	4588	4581	4575	4569	4564	4559
	PAF Base Steel ≥ 0.125"	4656	4641	4629	4623	4612	4603	4594	4586	4579	4577	4570	4565	4559	4554	4549
	#12 Screw Base Steel ≥ .0385"	4541	4533	4526	4526	4520	4515	4511	4506	4502	4503	4500	4496	4493	4491	4488
	Concrete + Deck = 70.8 psf				I_{cr} = 116.7 in^4/ft			ASD		M_{no}/Ω = 63.4 kip-in/ft				V_n/Ω = 5.07 kip/ft		
	$(I_{cr}+I_u)/2$ = 215 in^4/ft				I_u = 313.3 in^4/ft			LRFD		ϕM_{no} = 94.3 kip-in/ft				ϕV_n = 7.57 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	705	616	542	479	425	379	339	304	274	247	223	201	182	165	150
	LRFD, ϕW	1069	937	827	733	653	585	525	473	428	387	352	320	291	266	243
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	4930	4899	4872	4854	4832	4812	4794	4777	4762	4752	4739	4727	4716	4705	4696
	PAF Base Steel ≥ .25"	4719	4701	4685	4676	4663	4651	4640	4631	4622	4617	4609	4602	4595	4589	4583
	PAF Base Steel ≥ 0.125"	4699	4682	4667	4659	4647	4636	4626	4616	4608	4604	4597	4590	4584	4578	4572
	#12 Screw Base Steel ≥ .0385"	4533	4526	4520	4520	4514	4510	4505	4501	4498	4498	4495	4492	4489	4487	4484
	Concrete + Deck = 71.2 psf				I_{cr} = 133.8 in^4/ft			ASD		M_{no}/Ω = 74.5 kip-in/ft				V_n/Ω = 5.69 kip/ft		
	$(I_{cr}+I_u)/2$ = 228 in^4/ft				I_u = 321.3 in^4/ft			LRFD		ϕM_{no} = 110.8 kip-in/ft				ϕV_n = 8.53 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	924	810	715	634	565	506	455	410	370	336	305	278	253	231	211
	LRFD, ϕW	1395	1226	1084	964	861	773	697	630	572	520	474	434	397	364	335
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5275	5225	5180	5145	5108	5075	5045	5017	4992	4973	4952	4932	4913	4896	4880
	PAF Base Steel ≥ .25"	4809	4786	4765	4752	4735	4720	4706	4693	4682	4675	4665	4656	4647	4639	4631
	PAF Base Steel ≥ 0.125"	4782	4761	4741	4730	4714	4699	4686	4675	4664	4658	4648	4640	4632	4624	4617
	#12 Screw Base Steel ≥ .0385"	4531	4524	4518	4518	4512	4508	4503	4499	4496	4497	4493	4491	4488	4485	4483
	Concrete + Deck = 72.1 psf				I_{cr} = 164.5 in^4/ft			ASD		M_{no}/Ω = 95.6 kip-in/ft				V_n/Ω = 5.69 kip/ft		
	$(I_{cr}+I_u)/2$ = 251 in^4/ft				I_u = 336.7 in^4/ft			LRFD		ϕM_{no} = 142.2 kip-in/ft				ϕV_n = 8.53 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1132	994	879	781	698	626	564	510	462	420	383	350	320	294	270
	LRFD, ϕW	1704	1500	1328	1183	1059	953	860	780	709	646	591	542	498	458	422
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5506	5442	5385	5339	5293	5251	5213	5178	5146	5121	5094	5069	5045	5023	5003
	PAF Base Steel ≥ .25"	4898	4870	4844	4827	4806	4787	4771	4755	4741	4732	4719	4708	4698	4688	4679
	PAF Base Steel ≥ 0.125"	4846	4821	4798	4783	4765	4748	4733	4719	4706	4699	4688	4678	4668	4659	4651
	#12 Screw Base Steel ≥ .0385"	4531	4524	4518	4518	4512	4508	4503	4499	4496	4497	4493	4491	4488	4485	4483
	Concrete + Deck = 72.9 psf				I_{cr} = 191.8 in^4/ft			ASD		M_{no}/Ω = 115.6 kip-in/ft				V_n/Ω = 5.69 kip/ft		
	$(I_{cr}+I_u)/2$ = 272 in^4/ft				I_u = 351.2 in^4/ft			LRFD		ϕM_{no} = 172.0 kip-in/ft				ϕV_n = 8.53 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	8 in o.c.	n/a	7050	8040	9840	12540
	16 in o.c.	n/a	7050	8040	9840	9890
	24 in o.c.	n/a	6590	6590	6590	6590

NH-32 7 1/2" Slab Depth, 145 pcf NWC

TABLE 19f: NH-32 COMPOSITE DECK WITH 8-1/4" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	7' - 6"	8' - 9"	8' - 10"
	20	8' - 8"	9' - 11"	10' - 2"

Gage	Single	Double	Triple
18	10' - 10"	11' - 9"	12' - 1"
16	11' - 7"	13' - 3"	13' - 7"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	689	601	527	465	412	366	327	292	262	235	211	190	171	154	139
	LRFD, ϕW	1048	917	808	715	636	568	509	457	412	372	337	306	278	252	229
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5525	5503	5484	5471	5455	5441	5427	5415	5404	5398	5389	5380	5371	5364	5357
	PAF Base Steel ≥ .25"	5408	5393	5380	5373	5362	5351	5342	5334	5326	5323	5317	5310	5305	5299	5294
	PAF Base Steel ≥ 0.125"	5391	5377	5364	5358	5348	5338	5330	5322	5315	5312	5306	5300	5295	5290	5285
	#12 Screw Base Steel ≥ .0385"	5276	5269	5262	5261	5256	5251	5246	5242	5238	5239	5235	5232	5229	5226	5224
	Concrete + Deck = 79.9 psf				I_{cr} = 150.6 in⁴/ft			ASD		M_{no}/Ω = 73.8 kip-in/ft				V_n/Ω = 5.52 kip/ft		
	$(I_{cr}+I_u)/2$ = 285 in⁴/ft				I_u = 420.1 in⁴/ft			LRFD		ϕM_{no} = 109.8 kip-in/ft				ϕV_n = 8.25 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	825	721	635	561	499	445	398	358	322	290	262	237	215	195	177
	LRFD, ϕW	1250	1096	967	858	765	685	616	555	502	455	413	376	343	313	286
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	5665	5635	5608	5589	5567	5547	5529	5513	5498	5488	5475	5463	5451	5441	5431
	PAF Base Steel ≥ .25"	5455	5437	5421	5412	5399	5387	5376	5366	5357	5353	5345	5338	5331	5325	5319
	PAF Base Steel ≥ 0.125"	5434	5418	5403	5395	5382	5371	5361	5352	5344	5340	5332	5326	5319	5314	5308
	#12 Screw Base Steel ≥ .0385"	5269	5262	5256	5255	5250	5245	5241	5237	5233	5234	5231	5228	5225	5222	5220
	Concrete + Deck = 80.3 psf				I_{cr} = 173.0 in⁴/ft			ASD		M_{no}/Ω = 86.9 kip-in/ft				V_n/Ω = 6.59 kip/ft		
	$(I_{cr}+I_u)/2$ = 302 in⁴/ft				I_u = 430.4 in⁴/ft			LRFD		ϕM_{no} = 129.2 kip-in/ft				ϕV_n = 9.89 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1083	950	838	744	664	594	534	482	436	396	360	328	299	273	250
	LRFD, ϕW	1634	1436	1270	1130	1011	908	818	740	672	612	558	511	468	430	395
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	6011	5960	5915	5880	5844	5811	5781	5753	5728	5709	5687	5667	5649	5632	5616
	PAF Base Steel ≥ .25"	5545	5522	5501	5488	5471	5456	5442	5429	5417	5411	5401	5391	5383	5375	5367
	PAF Base Steel ≥ 0.125"	5518	5496	5477	5465	5449	5435	5422	5410	5399	5393	5384	5375	5367	5360	5353
	#12 Screw Base Steel ≥ .0385"	5266	5259	5253	5253	5248	5243	5239	5235	5232	5232	5229	5226	5223	5221	5219
	Concrete + Deck = 81.1 psf				I_{cr} = 213.3 in⁴/ft			ASD		M_{no}/Ω = 111.7 kip-in/ft				V_n/Ω = 6.59 kip/ft		
	$(I_{cr}+I_u)/2$ = 332 in⁴/ft				I_u = 450.1 in⁴/ft			LRFD		ϕM_{no} = 166.2 kip-in/ft				ϕV_n = 9.89 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1329	1168	1033	919	821	737	664	601	545	496	452	413	379	347	319
	LRFD, ϕW	2000	1761	1560	1390	1245	1120	1012	917	834	761	696	639	587	540	499
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	6242	6177	6120	6075	6028	5986	5948	5914	5882	5857	5829	5804	5781	5759	5739
	PAF Base Steel ≥ .25"	5634	5605	5580	5562	5542	5523	5506	5491	5476	5467	5455	5444	5433	5424	5414
	PAF Base Steel ≥ 0.125"	5582	5557	5534	5519	5501	5484	5469	5455	5442	5434	5423	5413	5404	5395	5387
	#12 Screw Base Steel ≥ .0385"	5266	5259	5253	5253	5248	5243	5239	5235	5232	5232	5229	5226	5223	5221	5219
	Concrete + Deck = 82.0 psf				I_{cr} = 249.3 in⁴/ft			ASD		M_{no}/Ω = 135.4 kip-in/ft				V_n/Ω = 6.59 kip/ft		
	$(I_{cr}+I_u)/2$ = 359 in⁴/ft				I_u = 468.7 in⁴/ft			LRFD		ϕM_{no} = 201.5 kip-in/ft				ϕV_n = 9.89 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in²/ft	6x6 W2.9xW2.9 A_s = 0.058 in²/ft	6x6 W4.0xW4.0 A_s = 0.080 in²/ft	4x4 W4xW4 A_s = 0.120 in²/ft	4x4 W6xW6 A_s = 0.180 in²/ft
	8 in o.c.	n/a	7790	8780	10580	13280
	16 in o.c.	n/a	7790	8780	9890	9890
	24 in o.c.	n/a	6590	6590	6590	6590

NH-32 8 1/4 " Slab Depth, 145 pcf NWC

TABLE 19g: NH-32 COMPOSITE DECK WITH 5" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	10' - 8"	12' - 3"	12' - 7"
	20	12' - 5"	13' - 8"	14' - 2"

Gage	Single	Double	Triple
18	13' - 9"	16' - 2"	16' - 2"
16	14' - 5"	18' - 0"	17' - 0"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	283	247	217	192	170	151	135	121	108	97	88	79	71	64	58
	LRFD, ϕW	430	376	332	294	262	234	210	189	170	154	139	127	115	105	95
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1672	1650	1630	1618	1602	1587	1574	1562	1551	1545	1535	1526	1518	1510	1503
	PAF Base Steel ≥ .25"	1555	1540	1526	1519	1508	1498	1489	1481	1473	1470	1463	1457	1451	1446	1441
	PAF Base Steel ≥ 0.125"	1538	1524	1511	1505	1495	1485	1477	1469	1461	1459	1453	1447	1441	1436	1432
	#12 Screw Base Steel ≥ .0385"	1423	1415	1409	1408	1403	1397	1393	1389	1385	1385	1382	1379	1376	1373	1370
	Concrete + Deck = 31.3 psf				I_{cr} = 51.6 in⁴/ft			ASD		M_{no}/Ω = 30.2 kip-in/ft				V_n/Ω = 2.34 kip/ft		
	$(I_{cr}+I_u)/2$ = 76.3 in⁴/ft				I_u = 101.0 in⁴/ft			LRFD		ϕM_{no} = 44.9 kip-in/ft				ϕV_n = 4.68 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	334	292	257	228	203	181	162	145	131	118	107	97	88	80	72
	LRFD, ϕW	506	444	392	348	310	278	250	225	204	185	168	153	140	128	117
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1812	1782	1755	1736	1714	1694	1676	1659	1644	1634	1621	1609	1598	1588	1578
	PAF Base Steel ≥ .25"	1601	1583	1568	1559	1545	1534	1523	1513	1504	1500	1492	1484	1478	1472	1466
	PAF Base Steel ≥ 0.125"	1581	1564	1549	1541	1529	1518	1508	1499	1490	1486	1479	1472	1466	1460	1455
	#12 Screw Base Steel ≥ .0385"	1416	1408	1402	1402	1397	1392	1388	1384	1380	1381	1377	1374	1372	1369	1367
	Concrete + Deck = 31.7 psf				I_{cr} = 58.4 in⁴/ft			ASD		M_{no}/Ω = 35.1 kip-in/ft				V_n/Ω = 2.34 kip/ft		
	$(I_{cr}+I_u)/2$ = 81.7 in⁴/ft				I_u = 105.0 in⁴/ft			LRFD		ϕM_{no} = 52.3 kip-in/ft				ϕV_n = 4.68 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	431	378	333	296	264	236	212	192	173	157	143	130	119	108	99
	LRFD, ϕW	650	571	505	450	402	361	325	294	267	243	222	203	186	171	157
	L/360	-	-	-	-	-	-	-	186	164	145	129	115	103	93	84
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2158	2107	2062	2027	1990	1957	1927	1900	1875	1856	1834	1814	1796	1778	1762
	PAF Base Steel ≥ .25"	1692	1668	1648	1635	1618	1602	1588	1576	1564	1557	1547	1538	1529	1521	1514
	PAF Base Steel ≥ 0.125"	1665	1643	1624	1612	1596	1582	1569	1557	1546	1540	1531	1522	1514	1506	1499
	#12 Screw Base Steel ≥ .0385"	1413	1406	1400	1400	1395	1390	1386	1382	1378	1379	1376	1373	1370	1368	1365
	Concrete + Deck = 32.5 psf				I_{cr} = 70.5 in⁴/ft			ASD		M_{no}/Ω = 44.5 kip-in/ft				V_n/Ω = 2.34 kip/ft		
	$(I_{cr}+I_u)/2$ = 91.6 in⁴/ft				I_u = 112.7 in⁴/ft			LRFD		ϕM_{no} = 66.1 kip-in/ft				ϕV_n = 4.68 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	521	457	404	359	321	288	260	235	213	194	176	161	148	135	124
	LRFD, ϕW	784	690	611	544	487	438	396	359	326	297	272	249	229	211	194
	L/360	-	-	-	-	310	268	233	204	180	159	141	126	113	102	92
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2388	2324	2267	2221	2175	2133	2095	2060	2029	2003	1976	1951	1927	1906	1885
	PAF Base Steel ≥ .25"	1780	1752	1727	1709	1689	1670	1653	1637	1623	1614	1602	1591	1580	1570	1561
	PAF Base Steel ≥ 0.125"	1729	1703	1681	1666	1647	1630	1615	1601	1589	1581	1570	1560	1550	1542	1534
	#12 Screw Base Steel ≥ .0385"	1413	1406	1400	1400	1395	1390	1386	1382	1378	1379	1376	1373	1370	1368	1365
	Concrete + Deck = 33.3 psf				I_{cr} = 81.1 in⁴/ft			ASD		M_{no}/Ω = 53.2 kip-in/ft				V_n/Ω = 2.34 kip/ft		
	$(I_{cr}+I_u)/2$ = 100 in⁴/ft				I_u = 119.8 in⁴/ft			LRFD		ϕM_{no} = 79.1 kip-in/ft				ϕV_n = 4.68 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width										
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in²/ft		6x6 W2.9xW2.9 A_s = 0.058 in²/ft		6x6 W4.0xW4.0 A_s = 0.080 in²/ft		4x4 W4xW4 A_s = 0.120 in²/ft		4x4 W6xW6 A_s = 0.180 in²/ft	
	8 in o.c.	2740		4090		5080		6880		9580	
	16 in o.c.	2740		4090		5080		6880		9580	
	24 in o.c.	2740		4090		5080		6590		6590	

NH-32 5" Slab Depth, 110 pcf LWC

TABLE 19h: NH-32 COMPOSITE DECK WITH 5-1/2" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	10' - 2"	11' - 9"	12' - 0"
	20	11' - 10"	13' - 2"	13' - 7"
	18	13' - 3"	15' - 7"	15' - 8"
	16	14' - 0"	17' - 6"	16' - 5"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	336	293	258	228	202	180	161	144	129	116	105	95	86	77	70
	LRFD, ϕW	510	447	394	349	311	278	249	225	203	183	166	151	138	125	114
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	1996	1974	1954	1942	1926	1911	1898	1886	1875	1869	1859	1850	1842	1835	1827
	PAF Base Steel ≥ .25"	1879	1864	1850	1843	1832	1822	1813	1805	1797	1794	1787	1781	1775	1770	1765
	PAF Base Steel ≥ 0.125"	1862	1848	1835	1829	1819	1809	1801	1793	1786	1783	1777	1771	1766	1761	1756
	#12 Screw Base Steel ≥ .0385"	1747	1739	1733	1732	1727	1722	1717	1713	1709	1709	1706	1703	1700	1697	1694
	Concrete + Deck = 35.8 psf				I_{cr} = 67.3 in⁴/ft			ASD		M_{no}/Ω = 35.7 kip-in/ft				V_n/Ω = 2.68 kip/ft		
	$(I_{cr}+I_u)/2$ = 100 in⁴/ft				I_u = 133.0 in⁴/ft			LRFD		ϕM_{no} = 53.1 kip-in/ft				ϕV_n = 5.32 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	397	348	306	271	241	215	193	173	156	141	128	116	105	96	87
	LRFD, ϕW	601	527	466	414	369	331	297	268	243	221	201	183	167	153	140
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2136	2106	2079	2060	2038	2018	2000	1984	1968	1958	1945	1933	1922	1912	1902
	PAF Base Steel ≥ .25"	1925	1908	1892	1883	1869	1858	1847	1837	1828	1824	1816	1809	1802	1796	1790
	PAF Base Steel ≥ 0.125"	1905	1888	1873	1865	1853	1842	1832	1823	1814	1811	1803	1796	1790	1784	1779
	#12 Screw Base Steel ≥ .0385"	1740	1733	1726	1726	1721	1716	1712	1708	1704	1705	1701	1698	1696	1693	1691
	Concrete + Deck = 36.3 psf				I_{cr} = 76.2 in⁴/ft			ASD		M_{no}/Ω = 41.6 kip-in/ft				V_n/Ω = 2.68 kip/ft		
	$(I_{cr}+I_u)/2$ = 107 in⁴/ft				I_u = 138.1 in⁴/ft			LRFD		ϕM_{no} = 61.9 kip-in/ft				ϕV_n = 5.37 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	512	449	397	352	314	281	253	229	207	188	171	156	142	130	119
	LRFD, ϕW	772	679	601	534	478	429	387	351	318	290	265	242	222	204	188
	L/360	-	-	-	-	-	-	-	-	-	-	168	150	135	121	110
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2482	2431	2386	2351	2314	2281	2251	2224	2199	2180	2158	2138	2120	2102	2086
	PAF Base Steel ≥ .25"	2016	1992	1972	1959	1942	1926	1912	1900	1888	1881	1871	1862	1853	1845	1838
	PAF Base Steel ≥ 0.125"	1989	1967	1948	1936	1920	1906	1893	1881	1870	1864	1855	1846	1838	1831	1823
	#12 Screw Base Steel ≥ .0385"	1737	1730	1724	1724	1719	1714	1710	1706	1702	1703	1700	1697	1694	1692	1689
	Concrete + Deck = 37.1 psf				I_{cr} = 91.9 in⁴/ft			ASD		M_{no}/Ω = 52.7 kip-in/ft				V_n/Ω = 2.68 kip/ft		
	$(I_{cr}+I_u)/2$ = 120 in⁴/ft				I_u = 147.7 in⁴/ft			LRFD		ϕM_{no} = 78.4 kip-in/ft				ϕV_n = 5.37 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	619	544	481	428	382	343	309	280	254	231	211	193	176	162	149
	LRFD, ϕW	931	819	726	647	579	521	471	427	388	354	324	297	273	252	232
	L/360	-	-	-	-	-	-	304	266	234	207	184	165	148	133	120
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2712	2648	2591	2545	2499	2457	2419	2384	2353	2327	2300	2275	2252	2230	2209
	PAF Base Steel ≥ .25"	2104	2076	2051	2033	2013	1994	1977	1961	1947	1938	1926	1915	1904	1894	1885
	PAF Base Steel ≥ 0.125"	2053	2027	2005	1990	1971	1955	1939	1925	1913	1905	1894	1884	1875	1866	1858
	#12 Screw Base Steel ≥ .0385"	1737	1730	1724	1724	1719	1714	1710	1706	1702	1703	1700	1697	1694	1692	1689
	Concrete + Deck = 37.9 psf				I_{cr} = 105.6 in⁴/ft			ASD		M_{no}/Ω = 63.0 kip-in/ft				V_n/Ω = 2.68 kip/ft		
	$(I_{cr}+I_u)/2$ = 131 in⁴/ft				I_u = 156.6 in⁴/ft			LRFD		ϕM_{no} = 93.7 kip-in/ft				ϕV_n = 5.37 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width										
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in²/ft		6x6 W2.9xW2.9 A_s = 0.058 in²/ft		6x6 W4.0xW4.0 A_s = 0.080 in²/ft		4x4 W4xW4 A_s = 0.120 in²/ft		4x4 W6xW6 A_s = 0.180 in²/ft	
	8 in o.c.	3110		4460		5450		7250		9950	
	16 in o.c.	3110		4460		5450		7250		9890	
	24 in o.c.	3110		4460		5450		6590		6590	

NH-32 5 1/2 " Slab Depth, 110 pcf LWC

TABLE 19i: NH-32 COMPOSITE DECK WITH 6-1/4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	9' - 7"	11' - 1"	11' - 3"
	20	11' - 1"	12' - 5"	12' - 10"
	18	12' - 9"	14' - 9"	15' - 1"
	16	13' - 6"	16' - 8"	15' - 10"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	422	369	325	287	255	227	203	182	164	148	133	121	109	99	90
	LRFD, ϕW	641	562	495	439	392	350	315	284	256	232	211	192	175	159	146
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2482	2460	2440	2428	2412	2397	2384	2372	2361	2355	2345	2336	2328	2321	2313
	PAF Base Steel ≥ .25"	2365	2350	2336	2330	2318	2308	2299	2291	2283	2280	2273	2267	2261	2256	2251
	PAF Base Steel ≥ 0.125"	2348	2334	2321	2315	2305	2295	2287	2279	2272	2269	2263	2257	2252	2247	2242
	#12 Screw Base Steel ≥ .0385"	2233	2226	2219	2218	2213	2208	2203	2199	2195	2195	2192	2189	2186	2183	2181
	Concrete + Deck = 42.7 psf				I_{cr} = 96.3 in^4/ft		ASD		M_{no}/Ω = 44.7 kip-in/ft				V_n/Ω = 3.24 kip/ft			
	$(I_{cr}+I_u)/2$ = 145 in^4/ft				I_u = 193.5 in^4/ft		LRFD		ϕM_{no} = 66.4 kip-in/ft				ϕV_n = 5.74 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	500	438	386	342	304	272	244	220	198	179	163	148	134	122	111
	LRFD, ϕW	756	664	587	521	465	417	376	339	307	279	254	232	212	194	178
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2622	2592	2565	2546	2524	2504	2486	2470	2454	2445	2432	2419	2408	2398	2388
	PAF Base Steel ≥ .25"	2412	2394	2378	2369	2356	2344	2333	2323	2314	2310	2302	2295	2288	2282	2276
	PAF Base Steel ≥ 0.125"	2391	2374	2359	2351	2339	2328	2318	2309	2300	2297	2289	2282	2276	2270	2265
	#12 Screw Base Steel ≥ .0385"	2226	2219	2212	2212	2207	2202	2198	2194	2190	2191	2187	2184	2182	2179	2177
	Concrete + Deck = 43.1 psf				I_{cr} = 109.2 in^4/ft		ASD		M_{no}/Ω = 52.1 kip-in/ft				V_n/Ω = 3.24 kip/ft			
	$(I_{cr}+I_u)/2$ = 155 in^4/ft				I_u = 200.6 in^4/ft		LRFD		ϕM_{no} = 77.6 kip-in/ft				ϕV_n = 6.48 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	646	567	501	445	397	356	321	290	262	238	217	198	181	166	152
	LRFD, ϕW	973	856	758	675	604	543	490	444	403	367	336	307	282	259	239
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	2968	2917	2872	2837	2800	2767	2737	2710	2685	2666	2644	2624	2606	2589	2572
	PAF Base Steel ≥ .25"	2502	2479	2458	2445	2428	2412	2399	2386	2374	2367	2357	2348	2339	2331	2324
	PAF Base Steel ≥ 0.125"	2475	2453	2434	2422	2406	2392	2379	2367	2356	2350	2341	2332	2324	2317	2310
	#12 Screw Base Steel ≥ .0385"	2223	2216	2210	2210	2205	2200	2196	2192	2188	2189	2186	2183	2180	2178	2175
	Concrete + Deck = 44.0 psf				I_{cr} = 131.8 in^4/ft		ASD		M_{no}/Ω = 66.2 kip-in/ft				V_n/Ω = 3.24 kip/ft			
	$(I_{cr}+I_u)/2$ = 173 in^4/ft				I_u = 213.9 in^4/ft		LRFD		ϕM_{no} = 98.5 kip-in/ft				ϕV_n = 6.48 kip/ft			

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	781	687	608	541	484	435	392	355	322	294	268	245	225	207	190
	LRFD, ϕW	1175	1035	917	818	733	660	596	541	493	450	412	378	348	320	296
	L/360	-	-	-	-	-	-	-	-	-	-	266	237	213	191	173
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3199	3134	3077	3031	2985	2943	2905	2870	2839	2813	2786	2761	2738	2716	2696
	PAF Base Steel ≥ .25"	2590	2562	2537	2519	2499	2480	2463	2447	2433	2424	2412	2401	2390	2380	2371
	PAF Base Steel ≥ 0.125"	2539	2513	2491	2476	2457	2441	2425	2412	2399	2391	2380	2370	2361	2352	2344
	#12 Screw Base Steel ≥ .0385"	2223	2216	2210	2210	2205	2200	2196	2192	2188	2189	2186	2183	2180	2178	2175
	Concrete + Deck = 44.8 psf				I_{cr} = 151.5 in^4/ft		ASD		M_{no}/Ω = 79.3 kip-in/ft				V_n/Ω = 3.24 kip/ft			
	$(I_{cr}+I_u)/2$ = 189 in^4/ft				I_u = 226.2 in^4/ft		LRFD		ϕM_{no} = 118.0 kip-in/ft				ϕV_n = 6.48 kip/ft			

	LRFD - Available Diaphragm Shear Capacity, ϕSn (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	8 in o.c.	n/a	5010	6000	7800	10500
	16 in o.c.	n/a	5010	6000	7800	9890
	24 in o.c.	n/a	5010	6000	6590	6590

NH-32 6 1/4 " Slab Depth, 110 pcf LWC

TABLE 19j: NH-32 COMPOSITE DECK WITH 7-1/4" THICK LWC (110 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 11"	10' - 4"	10' - 6"
	20	10' - 4"	11' - 8"	12' - 0"
	18	12' - 2"	13' - 9"	14' - 3"
	16	12' - 11"	15' - 7"	15' - 1"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	547	479	421	373	331	296	265	238	214	193	175	158	144	130	118
	LRFD, ϕW	829	727	642	570	508	455	409	369	334	303	275	251	229	209	191
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3130	3108	3089	3076	3060	3046	3032	3020	3009	3003	2993	2985	2976	2969	2962
	PAF Base Steel ≥ .25"	3013	2998	2985	2978	2967	2956	2947	2939	2931	2928	2921	2915	2909	2904	2899
	PAF Base Steel ≥ 0.125"	2996	2982	2969	2963	2953	2943	2935	2927	2920	2917	2911	2905	2900	2895	2890
	#12 Screw Base Steel ≥ .0385"	2881	2874	2867	2866	2861	2856	2851	2847	2843	2844	2840	2837	2834	2831	2829
	Concrete + Deck = 51.9 psf				I_{cr} = 145.4 in^4/ft			ASD		M_{no}/Ω = 57.5 kip-in/ft				V_n/Ω = 4.05 kip/ft		
	$(I_{cr}+I_u)/2$ = 224 in^4/ft				I_u = 301.7 in^4/ft			LRFD		ϕM_{no} = 85.5 kip-in/ft				ϕV_n = 6.35 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	649	569	502	445	396	355	319	287	259	235	213	194	177	161	147
	LRFD, ϕW	980	861	761	677	605	543	489	442	401	364	332	303	278	255	234
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3270	3240	3213	3194	3172	3152	3134	3118	3103	3093	3080	3068	3056	3046	3036
	PAF Base Steel ≥ .25"	3060	3042	3026	3017	3004	2992	2981	2971	2962	2958	2950	2943	2936	2930	2924
	PAF Base Steel ≥ 0.125"	3039	3022	3008	3000	2987	2976	2966	2957	2948	2945	2937	2931	2924	2918	2913
	#12 Screw Base Steel ≥ .0385"	2874	2867	2860	2860	2855	2850	2846	2842	2838	2839	2836	2833	2830	2827	2825
	Concrete + Deck = 52.3 psf				I_{cr} = 165.2 in^4/ft			ASD		M_{no}/Ω = 67.3 kip-in/ft				V_n/Ω = 4.05 kip/ft		
	$(I_{cr}+I_u)/2$ = 239 in^4/ft				I_u = 312.2 in^4/ft			LRFD		ϕM_{no} = 100.1 kip-in/ft				ϕV_n = 8.10 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	840	738	653	580	519	465	419	379	344	313	285	261	239	219	201
	LRFD, ϕW	1265	1113	986	879	787	708	639	579	527	481	440	403	370	341	314
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3616	3565	3520	3485	3449	3416	3385	3358	3333	3314	3292	3272	3254	3237	3221
	PAF Base Steel ≥ .25"	3150	3127	3106	3093	3076	3061	3047	3034	3022	3016	3006	2996	2988	2980	2972
	PAF Base Steel ≥ 0.125"	3123	3101	3082	3070	3054	3040	3027	3015	3004	2998	2989	2980	2972	2965	2958
	#12 Screw Base Steel ≥ .0385"	2871	2864	2858	2858	2853	2848	2844	2840	2836	2837	2834	2831	2828	2826	2823
	Concrete + Deck = 53.1 psf				I_{cr} = 200.1 in^4/ft			ASD		M_{no}/Ω = 85.8 kip-in/ft				V_n/Ω = 4.05 kip/ft		
	$(I_{cr}+I_u)/2$ = 266 in^4/ft				I_u = 331.9 in^4/ft			LRFD		ϕM_{no} = 127.6 kip-in/ft				ϕV_n = 8.10 kip/ft		

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1013	898	795	708	634	570	514	466	423	386	353	323	297	273	252
	LRFD, ϕW	1533	1351	1198	1068	958	863	780	709	645	590	540	496	457	422	390
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3847	3782	3725	3679	3633	3591	3553	3519	3487	3461	3434	3409	3386	3364	3344
	PAF Base Steel ≥ .25"	3239	3210	3185	3167	3147	3128	3111	3096	3081	3072	3060	3049	3038	3028	3019
	PAF Base Steel ≥ 0.125"	3187	3161	3139	3124	3105	3089	3074	3060	3047	3039	3028	3018	3009	3000	2992
	#12 Screw Base Steel ≥ .0385"	2871	2864	2858	2858	2853	2848	2844	2840	2836	2837	2834	2831	2828	2826	2823
	Concrete + Deck = 54.0 psf				I_{cr} = 230.6 in^4/ft			ASD		M_{no}/Ω = 103.1 kip-in/ft				V_n/Ω = 4.05 kip/ft		
	$(I_{cr}+I_u)/2$ = 290 in^4/ft				I_u = 350.2 in^4/ft			LRFD		ϕM_{no} = 153.4 kip-in/ft				ϕV_n = 8.10 kip/ft		

	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	8 in o.c.	n/a	5750	6740	8540	11240
	16 in o.c.	n/a	5750	6740	8540	9890
	24 in o.c.	n/a	5750	6590	6590	6590

NH-32 7 1/4 " Slab Depth, 110 pcf LWC

TABLE 19k: NH-32 COMPOSITE DECK WITH 7-3/16" THICK LWC (110 pcf))

Maximum Unshored Span	Gage	Single	Double	Triple
	22	8' - 11"	10' - 5"	10' - 6"
	20	10' - 5"	11' - 8"	12' - 1"
	18	12' - 3"	13' - 10"	14' - 4"
	16	12' - 11"	15' - 8"	15' - 2"

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	539	472	415	367	327	291	261	234	211	191	172	156	141	128	117
	LRFD, ϕW	817	716	632	561	500	448	403	363	329	298	271	247	225	206	188
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3090	3068	3048	3036	3020	3005	2992	2980	2969	2963	2953	2944	2936	2929	2921
	PAF Base Steel ≥ .25"	2973	2958	2944	2937	2926	2916	2907	2899	2891	2888	2881	2875	2869	2864	2859
	PAF Base Steel ≥ 0.125"	2956	2942	2929	2923	2913	2903	2895	2887	2880	2877	2871	2865	2860	2855	2850
	#12 Screw Base Steel ≥ .0385"	2841	2833	2827	2826	2821	2816	2811	2807	2803	2803	2800	2797	2794	2791	2788
	Concrete + Deck = 51.3 psf				I_{cr} = 142.0 in^4/ft		ASD		M_{no}/Ω = 56.7 kip-in/ft			V_n/Ω = 4.00 kip/ft				
	$(I_{cr}+I_u)/2$ = 218 in^4/ft				I_u = 294.0 in^4/ft		LRFD		ϕM_{no} = 84.3 kip-in/ft			ϕV_n = 6.31 kip/ft				

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	639	560	494	438	391	349	314	283	255	231	210	191	174	159	145
	LRFD, ϕW	966	848	750	667	596	535	482	435	395	359	327	299	274	251	230
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3230	3200	3173	3154	3132	3112	3094	3078	3062	3052	3039	3027	3016	3006	2996
	PAF Base Steel ≥ .25"	3019	3002	2986	2977	2963	2952	2941	2931	2922	2918	2910	2903	2896	2890	2884
	PAF Base Steel ≥ 0.125"	2999	2982	2967	2959	2947	2936	2926	2917	2908	2905	2897	2890	2884	2878	2873
	#12 Screw Base Steel ≥ .0385"	2834	2827	2820	2820	2815	2810	2806	2802	2798	2799	2795	2792	2790	2787	2785
	Concrete + Deck = 51.7 psf				I_{cr} = 161.3 in^4/ft		ASD		M_{no}/Ω = 66.3 kip-in/ft			V_n/Ω = 4.00 kip/ft				
	$(I_{cr}+I_u)/2$ = 233 in^4/ft				I_u = 304.3 in^4/ft		LRFD		ϕM_{no} = 98.7 kip-in/ft			ϕV_n = 8.00 kip/ft				

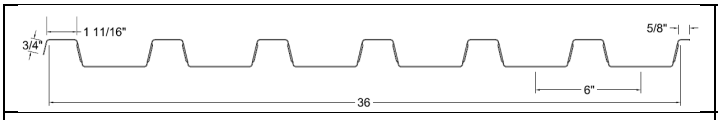
	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	828	727	643	572	511	458	413	373	339	308	281	257	235	215	198
	LRFD, ϕW	1246	1097	972	866	775	697	630	571	519	473	433	397	365	336	309
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3576	3525	3480	3445	3408	3375	3345	3318	3293	3274	3252	3232	3214	3196	3180
	PAF Base Steel ≥ .25"	3110	3086	3066	3053	3036	3020	3006	2994	2982	2975	2965	2956	2947	2939	2932
	PAF Base Steel ≥ 0.125"	3083	3061	3042	3030	3014	3000	2987	2975	2964	2958	2949	2940	2932	2925	2917
	#12 Screw Base Steel ≥ .0385"	2831	2824	2818	2818	2813	2808	2804	2800	2796	2797	2794	2791	2788	2786	2783
	Concrete + Deck = 52.6 psf				I_{cr} = 195.4 in^4/ft		ASD		M_{no}/Ω = 84.5 kip-in/ft			V_n/Ω = 4.00 kip/ft				
	$(I_{cr}+I_u)/2$ = 259 in^4/ft				I_u = 323.5 in^4/ft		LRFD		ϕM_{no} = 125.7 kip-in/ft			ϕV_n = 8.00 kip/ft				

	Vertical Load Span (ft-in)	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"	12'-6"	13'-0"	13'-6"	14'-0"	14'-6"	15'-0"
	ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
	ASD, W/Ω	1000	884	783	697	624	561	506	459	417	380	347	318	292	269	248
	LRFD, ϕW	1510	1330	1180	1052	943	850	769	698	636	581	532	489	450	415	384
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 ga.	**LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 32/5 Attachment Pattern**															
	Arc Spot Weld 1/2" Effective Dia	3806	3742	3685	3639	3593	3551	3513	3478	3447	3421	3394	3369	3346	3324	3303
	PAF Base Steel ≥ .25"	3198	3170	3145	3127	3107	3088	3071	3055	3041	3032	3020	3009	2998	2988	2979
	PAF Base Steel ≥ 0.125"	3147	3121	3099	3084	3065	3049	3033	3019	3007	2999	2988	2978	2969	2960	2952
	#12 Screw Base Steel ≥ .0385"	2831	2824	2818	2818	2813	2808	2804	2800	2796	2797	2794	2791	2788	2786	2783
	Concrete + Deck = 53.4 psf				I_{cr} = 225.1 in^4/ft		ASD		M_{no}/Ω = 101.6 kip-in/ft			V_n/Ω = 4.00 kip/ft				
	$(I_{cr}+I_u)/2$ = 283 in^4/ft				I_u = 341.3 in^4/ft		LRFD		ϕM_{no} = 151.1 kip-in/ft			ϕV_n = 8.00 kip/ft				

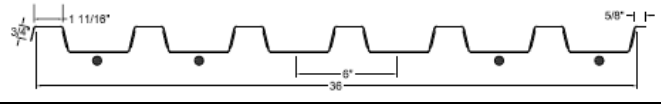
	LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width				
All Gages	3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
	8 in o.c.	n/a	5710	6700	8500	11200
	16 in o.c.	n/a	5710	6700	8500	9890
	24 in o.c.	n/a	5710	6590	6590	6590

NH-32 7 3/16" Slab Depth, 110 pcf LWC

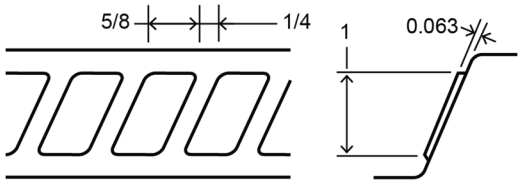
FIGURE 13: BHN-36R



BHN-36R PROFILE



36/4 ATTACHMENT PATTERN



B SERIES EMBOSSMENT
(BHN-36R embossments reversed)

TABLE 20: BHN-36R PANEL PROPERTIES

For available reaction capacity of the Reverse BH-36 deck (BHN-36R) based on web crippling please refer to Table 14 of this report for BH-36 capacities.

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
22	1.75	0.0299	50	65	0.497	0.197	0.60	0.207	0.630
20	2.09	0.0359	50	65	0.595	0.233	0.60	0.246	0.628
18	2.76	0.0478	50	65	0.788	0.307	0.60	0.321	0.624
16	3.44	0.0598	50	65	0.981	0.377	0.60	0.393	0.620

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								$I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
22	0.313	0.180	0.56	0.175	0.80	0.197	0.173	0.197	0.181
20	0.424	0.228	0.58	0.224	0.77	0.233	0.213	0.233	0.220
18	0.645	0.319	0.60	0.304	0.71	0.307	0.300	0.307	0.302
16	0.852	0.393	0.60	0.382	0.66	0.377	0.377	0.377	0.377

TABLE 21: BHN-36R COMPOSITE DECK WITH 5" THICK NWC (145 pcf)

Maximum Unshored Span	Gage	Single	Double	Triple
	22	5' - 8"	6' - 7"	6' - 8"
	20	6' - 7"	7' - 6"	7' - 9"

Gage	Single	Double	Triple
18	7' - 8"	8' - 8"	9' - 0"
16	8' - 2"	9' - 9"	10' - 0"

22 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	1211	991	824	693	590	507	439	382	335	295	261	231	206	183	164
LRFD, ϕW	1817	1490	1241	1048	894	770	669	585	514	455	404	360	322	289	260
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	3909	3866	3830	3807	3780	3757	3737	3719	3703	3694	3681	3669	3659	3649	3640
PAF Base Steel ≥ .25"	3760	3730	3705	3692	3674	3658	3644	3631	3620	3616	3606	3598	3591	3584	3578
PAF Base Steel ≥ 0.125"	3738	3710	3687	3675	3658	3643	3630	3618	3608	3604	3595	3588	3581	3574	3568
#12 Screw Base Steel ≥ .0385"	3591	3577	3565	3562	3553	3545	3538	3532	3526	3527	3522	3518	3514	3510	3507

Concrete + Deck = 56.1 psf I_{cr} = 54.4 in^4/ft ASD M_{no}/Ω = 47.5 kip-in/ft V_n/Ω = 5.11 kip/ft

$(I_{cr}+I_u)/2$ = 94.2 in^4/ft I_u = 134.1 in^4/ft LRFD ϕM_{no} = 70.7 kip-in/ft ϕV_n = 7.67 kip/ft

20 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	1438	1178	981	828	706	608	527	461	405	357	317	282	252	226	203
LRFD, ϕW	2155	1769	1476	1247	1066	920	800	701	618	548	488	436	391	352	318
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	4088	4029	3979	3945	3908	3877	3849	3824	3803	3788	3771	3755	3740	3727	3714
PAF Base Steel ≥ .25"	3819	3784	3755	3738	3716	3697	3681	3666	3653	3647	3636	3626	3618	3610	3602
PAF Base Steel ≥ 0.125"	3793	3760	3733	3718	3697	3680	3664	3651	3639	3633	3623	3614	3606	3598	3591
#12 Screw Base Steel ≥ .0385"	3582	3568	3557	3555	3546	3539	3532	3526	3521	3522	3517	3513	3510	3506	3503

Concrete + Deck = 56.4 psf I_{cr} = 62.2 in^4/ft ASD M_{no}/Ω = 56.0 kip-in/ft V_n/Ω = 5.11 kip/ft

$(I_{cr}+I_u)/2$ = 99.8 in^4/ft I_u = 137.4 in^4/ft LRFD ϕM_{no} = 83.3 kip-in/ft ϕV_n = 7.67 kip/ft

18 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	1872	1537	1283	1085	927	800	697	611	538	477	425	380	342	308	278
LRFD, ϕW	2802	2303	1925	1630	1396	1207	1053	925	817	726	649	582	524	474	430
L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	4530	4430	4347	4285	4224	4171	4125	4084	4048	4021	3991	3965	3941	3919	3898
PAF Base Steel ≥ .25"	3934	3889	3851	3826	3798	3774	3753	3734	3717	3707	3694	3681	3670	3660	3650
PAF Base Steel ≥ 0.125"	3900	3858	3822	3800	3774	3751	3731	3714	3698	3689	3677	3665	3654	3645	3636
#12 Screw Base Steel ≥ .0385"	3578	3565	3554	3553	3544	3537	3530	3524	3519	3520	3516	3512	3508	3505	3502

Concrete + Deck = 57.1 psf I_{cr} = 76.0 in^4/ft ASD M_{no}/Ω = 72.4 kip-in/ft V_n/Ω = 5.11 kip/ft

$(I_{cr}+I_u)/2$ = 110 in^4/ft I_u = 143.8 in^4/ft LRFD ϕM_{no} = 107.6 kip-in/ft ϕV_n = 7.67 kip/ft

16 ga.

Vertical Load Span (ft-in)	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	8'-6"	9'-0"	9'-6"	10'-0"	10'-6"	11'-0"	11'-6"	12'-0"
ASD & LRFD - Available Superimposed Load Capacity, W (psf)															
ASD, W/Ω	2045	1859	1572	1331	1140	985	859	754	667	592	529	474	427	386	350
LRFD, ϕW	3067	2788	2355	1996	1712	1482	1294	1139	1008	898	803	722	652	591	537
L/360	-	-	-	-	-	-	-	-	-	-	-	-	418	366	322
LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) 36/4 Attachment Pattern															
Arc Spot Weld 1/2" Effective Dia	4825	4698	4593	4511	4434	4368	4309	4258	4212	4176	4139	4105	4075	4047	4021
PAF Base Steel ≥ .25"	4048	3992	3945	3914	3879	3850	3823	3801	3780	3767	3750	3735	3722	3709	3697
PAF Base Steel ≥ 0.125"	3982	3932	3890	3863	3832	3805	3782	3762	3743	3732	3717	3704	3692	3680	3670
#12 Screw Base Steel ≥ .0385"	3578	3565	3554	3553	3544	3537	3530	3524	3519	3520	3516	3512	3508	3505	3502

Concrete + Deck = 57.9 psf I_{cr} = 88.2 in^4/ft ASD M_{no}/Ω = 88.0 kip-in/ft V_n/Ω = 5.11 kip/ft

$(I_{cr}+I_u)/2$ = 119 in^4/ft I_u = 149.8 in^4/ft LRFD ϕM_{no} = 130.9 kip-in/ft ϕV_n = 7.67 kip/ft

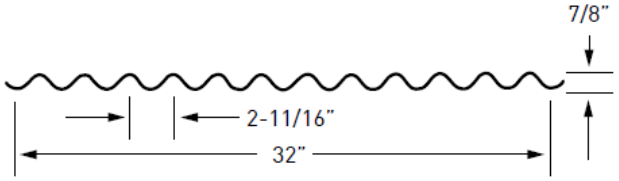
All Gages

LRFD - Available Diaphragm Shear Capacity, ϕS_n (plf / ft) for all vertical load spans, WWF Size or Area of Steel per foot width

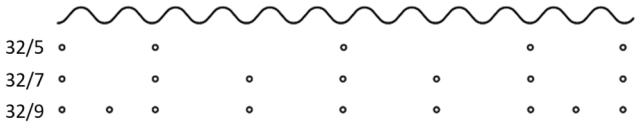
3/4" Welded Shear Studs	6x6 W1.4xW1.4 A_s = 0.028 in^2/ft	6x6 W2.9xW2.9 A_s = 0.058 in^2/ft	6x6 W4.0xW4.0 A_s = 0.080 in^2/ft	4x4 W4xW4 A_s = 0.120 in^2/ft	4x4 W6xW6 A_s = 0.180 in^2/ft
6 in o.c.	n/a	6060	7050	8850	11550
12 in o.c.	n/a	6060	7050	8850	11550
18 in o.c.	n/a	6060	7050	8790	8790

BHN-36R 5" Slab Depth, 145 pcf NWC

FIGURE 14: C 0.9-32



C 0.9 -32 PROFILE



32/5, 32/7 & 32/9 ATTACHMENT PATTERNS

TABLE 22: C 0.9-32 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
26	1.08	0.0195	80	82	0.299	0.028	0.44	0.062	0.306
24	1.39	0.0254	80	82	0.390	0.036	0.44	0.080	0.306
22	1.70	0.0314	80	82	0.482	0.045	0.46	0.098	0.305
20	2.01	0.0374	80	82	0.574	0.053	0.46	0.116	0.305

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
26	0.285	0.061	0.45	0.060	0.46	0.028	0.028	0.028	0.028
24	0.390	0.080	0.45	0.080	0.45	0.036	0.036	0.036	0.036
22	0.482	0.098	0.46	0.098	0.46	0.045	0.045	0.045	0.045
20	0.574	0.116	0.45	0.116	0.45	0.053	0.053	0.053	0.053

TABLE 23: C 0.9 -32 AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	1.5"	2"	3"	1"	1.5"	2"	3"
26	End	675	772	823	823	1033	1182	1259	1259
	Interior	661	742	785	785	983	1104	1168	1168
24	End	1115	1267	1347	1347	1705	1939	2061	2061
	Interior	1219	1360	1434	1434	1813	2024	2133	2133
22	End	1661	1880	1994	1994	2542	2876	3050	3050
	Interior	1946	2161	2272	2272	2895	3214	3379	3379
20	End	2306	2598	2750	2750	3528	3975	4208	4208
	Interior	2832	3130	3285	3285	4213	4656	4886	4886

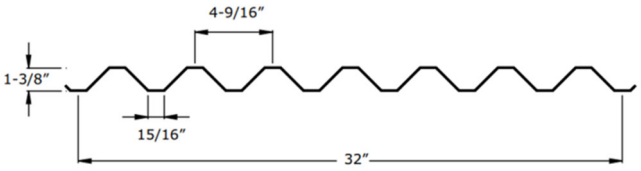
TABLE 24: C 0.9 -32 OUT-OF-PLANE CAPACITIES

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
26	Single Span	f_b/Ω	163	120	92	73	59	49	41	30	23
		Φf_b	245	180	138	109	88	73	61	45	34
		L/360	46	29	19	13	10	7	6	4	2
		L/240	68	43	29	20	15	11	9	5	4
		L/180	91	57	38	27	20	15	11	7	5
		L/120	137	86	58	40	30	22	17	11	7
	Double Span	f_b/Ω	158	116	89	70	57	47	40	29	22
		Φf_b	238	175	134	106	86	71	60	44	33
		L/360	110	69	46	32	24	18	14	9	6
		L/240	164	104	69	49	36	27	21	13	9
		L/180	219	138	93	65	47	36	27	17	12
		L/120	329	207	139	97	71	53	41	26	17
	Triple Span	f_b/Ω	198	146	111	88	71	59	50	36	28
		Φf_b	298	219	167	132	107	89	74	55	42
		L/360	86	54	36	25	19	14	11	7	5
		L/240	129	81	54	38	28	21	16	10	7
		L/180	172	108	72	51	37	28	21	14	9
		L/120	258	162	109	76	56	42	32	20	14
24	Single Span	f_b/Ω	213	156	120	95	77	63	53	39	30
		Φf_b	320	235	180	142	115	95	80	59	45
		L/360	59	37	25	17	13	10	7	5	3
		L/240	88	56	37	26	19	14	11	7	5
		L/180	118	74	50	35	25	19	15	9	6
		L/120	177	111	75	52	38	29	22	14	9
	Double Span	f_b/Ω	213	156	120	95	77	63	53	39	30
		Φf_b	320	235	180	142	115	95	80	59	45
		L/360	142	89	60	42	31	23	18	11	7
		L/240	213	134	90	63	46	35	27	17	11
		L/180	284	179	120	84	61	46	35	22	15
		L/120	425	268	180	126	92	69	53	33	22
	Triple Span	f_b/Ω	266	196	150	118	96	79	67	49	37
		Φf_b	400	294	225	178	144	119	100	73	56
		L/360	111	70	47	33	24	18	14	9	6
		L/240	167	105	70	49	36	27	21	13	9
		L/180	222	140	94	66	48	36	28	17	12
		L/120	333	210	141	99	72	54	42	26	18

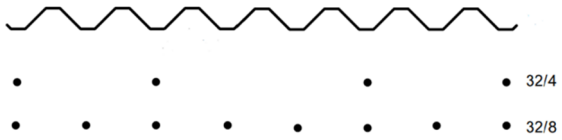
TABLE 24: C 0.9 -32 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
22	Single Span	f_b/Ω	261	192	147	116	94	78	65	48	37
		Φf_b	393	288	221	174	141	117	98	72	55
		L/360	73	46	31	22	16	12	9	6	4
		L/240	109	69	46	32	24	18	14	9	6
		L/180	146	92	61	43	31	24	18	11	8
		L/120	219	138	92	65	47	35	27	17	12
	Double Span	f_b/Ω	261	192	147	116	94	78	65	48	37
		Φf_b	393	288	221	174	141	117	98	72	55
		L/360	175	110	74	52	38	28	22	14	9
		L/240	263	166	111	78	57	43	33	21	14
		L/180	351	221	148	104	76	57	44	28	19
		L/120	526	331	222	156	114	85	66	41	28
	Triple Span	f_b/Ω	326	240	184	145	118	97	82	60	46
		Φf_b	491	361	276	218	177	146	123	90	69
		L/360	137	87	58	41	30	22	17	11	7
		L/240	206	130	87	61	45	33	26	16	11
		L/180	275	173	116	81	59	45	34	22	14
		L/120	412	260	174	122	89	67	52	32	22
20	Single Span	f_b/Ω	309	227	174	137	111	92	77	57	43
		Φf_b	464	341	261	206	167	138	116	85	65
		L/360	85	54	36	25	18	14	11	7	4
		L/240	127	80	54	38	28	21	16	10	7
		L/180	170	107	72	50	37	28	21	13	9
		L/120	255	161	108	76	55	41	32	20	13
	Double Span	f_b/Ω	309	227	174	137	111	92	77	57	43
		Φf_b	464	341	261	206	167	138	116	85	65
		L/360	205	129	86	61	44	33	26	16	11
		L/240	307	193	130	91	66	50	38	24	16
		L/180	409	258	173	121	88	66	51	32	22
		L/120	614	387	259	182	133	100	77	48	32
	Triple Span	f_b/Ω	386	283	217	171	139	115	96	71	54
		Φf_b	580	426	326	258	209	173	145	107	82
		L/360	160	101	68	48	35	26	20	13	8
		L/240	241	151	101	71	52	39	30	19	13
		L/180	321	202	135	95	69	52	40	25	17
		L/120	481	303	203	143	104	78	60	38	25

FIGURE 15: C 1.4-32



C 1.4 -32 PROFILE



32/4 & 32/8 ATTACHMENT PATTERNS

TABLE 25: C 1.4-32 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties				
					Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus (Min.)	Radius of Gyration
	w psf	t in	F_y ksi	F_u ksi	A_g in^2/ft	I_g in^4/ft	y_b in	S_g in^3/ft	r in
26	1.08	0.0195	80	82	0.303	0.080	0.68	0.111	0.514
24	1.39	0.0254	80	82	0.394	0.104	0.68	0.143	0.513
22	1.70	0.0314	80	82	0.486	0.128	0.68	0.175	0.513
20	2.01	0.0374	80	82	0.577	0.150	0.68	0.207	0.512
18	2.57	0.0480	40	55	0.738	0.191	0.69	0.262	0.510

Gauge	Effective Section Properties at F_y for Bending Strength					Effective Section Properties at Service Load for Deflection			
	Area	Section Modulus (Min.)	Distance to N.A. from Bottom	Section Modulus (Min.)	Distance to N.A. from Bottom	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ in^2/ft	S_e+ in^3/ft	y_b in	S_e- in^3/ft	y_b in	I_e+ in^4/ft	I_e- in^4/ft	I+ in^4/ft	I- in^4/ft
26	0.172	0.101	0.65	0.107	0.70	0.080	0.079	0.080	0.079
24	0.265	0.140	0.67	0.141	0.69	0.104	0.104	0.104	0.104
22	0.367	0.175	0.68	0.175	0.69	0.128	0.128	0.128	0.128
20	0.473	0.207	0.68	0.207	0.68	0.150	0.150	0.150	0.150
18	0.723	0.262	0.68	0.262	0.68	0.191	0.191	0.191	0.191

TABLE 26: C 1.4 -32 AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/W) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	6"	1"	2"	4"	6"
26	End	379	480	622	628	580	734	952	961
	Interior	616	757	955	963	917	1125	1420	1432
24	End	624	782	1005	1123	955	1196	1538	1718
	Interior	1021	1239	1548	1711	1518	1843	2302	2545
22	End	928	1153	1471	1654	1420	1764	2251	2531
	Interior	1527	1836	2274	2526	2271	2731	3383	3757
20	End	1286	1587	2011	2255	1968	2427	3077	3451
	Interior	2126	2538	3121	3455	3162	3775	4642	5139
18	End	1364	1665	2091	2336	2087	2548	3200	3574
	Interior	2272	2683	3265	3598	3380	3991	4856	5353

TABLE 27: C 1.4 -32 OUT-OF-PLANE CAPACITIES

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)											
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
26	Single Span	f_b/Ω	269	198	151	120	97	80	67	49	38
		Φf_b	405	297	228	180	146	120	101	74	57
		L/360	129	81	55	38	28	21	16	10	7
		L/240	194	122	82	57	42	31	24	15	10
		L/180	259	163	109	77	56	42	32	20	14
		L/120	388	244	164	115	84	63	48	31	20
	Double Span	f_b/Ω	283	208	159	126	102	84	71	52	40
		Φf_b	426	313	240	189	153	127	107	78	60
		L/360	309	195	131	92	67	50	39	24	16
		L/240	464	292	196	138	100	75	58	37	24
		L/180	619	390	261	183	134	100	77	49	33
		L/120	928	585	392	275	201	151	116	73	49
	Triple Span	f_b/Ω	354	260	199	157	128	105	89	65	50
		Φf_b	533	391	300	237	192	158	133	98	75
		L/360	242	153	102	72	52	39	30	19	13
		L/240	364	229	153	108	79	59	45	29	19
		L/180	485	305	205	144	105	79	61	38	26
		L/120	727	458	307	216	157	118	91	57	38
24	Single Span	f_b/Ω	371	273	209	165	134	111	93	68	52
		Φf_b	558	410	314	248	201	166	140	103	79
		L/360	168	106	71	50	36	27	21	13	9
		L/240	252	159	106	75	54	41	32	20	13
		L/180	336	212	142	100	73	55	42	26	18
		L/120	504	318	213	149	109	82	63	40	27
	Double Span	f_b/Ω	376	276	212	167	135	112	94	69	53
		Φf_b	566	415	318	251	204	168	141	104	80
		L/360	405	255	171	120	87	66	51	32	21
		L/240	608	383	256	180	131	99	76	48	32
		L/180	810	510	342	240	175	131	101	64	43
		L/120	1215	765	513	360	262	197	152	96	64
	Triple Span	f_b/Ω	470	346	265	209	169	140	118	86	66
		Φf_b	707	519	398	314	254	210	177	130	99
		L/360	317	200	134	94	69	51	40	25	17
		L/240	476	300	201	141	103	77	59	37	25
		L/180	635	400	268	188	137	103	79	50	33
		L/120	952	599	402	282	206	154	119	75	50

TABLE 27: C 1.4 -32 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
22	Single Span	f_b/Ω	466	343	262	207	168	139	117	86	66
		Φf_b	701	515	394	312	252	209	175	129	99
		L/360	206	130	87	61	45	33	26	16	11
		L/240	310	195	131	92	67	50	39	24	16
		L/180	413	260	174	122	89	67	52	32	22
		L/120	619	390	261	183	134	100	77	49	33
	Double Span	f_b/Ω	466	342	262	207	168	139	116	86	65
		Φf_b	700	514	394	311	252	208	175	129	98
		L/360	497	313	210	147	107	81	62	39	26
		L/240	746	470	315	221	161	121	93	59	39
		L/180	994	626	419	295	215	161	124	78	52
		L/120	1491	939	629	442	322	242	186	117	79
	Triple Span	f_b/Ω	582	428	327	259	210	173	145	107	82
		Φf_b	875	643	492	389	315	260	219	161	123
		L/360	389	245	164	115	84	63	49	31	21
		L/240	584	368	246	173	126	95	73	46	31
		L/180	779	491	329	231	168	126	97	61	41
		L/120	1168	736	493	346	252	190	146	92	62
20	Single Span	f_b/Ω	551	405	310	245	198	164	138	101	78
		Φf_b	829	609	466	368	298	247	207	152	117
		L/360	243	153	102	72	52	39	30	19	13
		L/240	364	229	154	108	79	59	46	29	19
		L/180	486	306	205	144	105	79	61	38	26
		L/120	728	459	307	216	157	118	91	57	38
	Double Span	f_b/Ω	551	405	310	245	198	164	138	101	78
		Φf_b	829	609	466	368	298	247	207	152	117
		L/360	585	368	247	173	126	95	73	46	31
		L/240	877	552	370	260	189	142	110	69	46
		L/180	1170	737	493	347	253	190	146	92	62
		L/120	1755	1105	740	520	379	285	219	138	93
	Triple Span	f_b/Ω	689	506	388	306	248	205	172	127	97
		Φf_b	1036	761	583	460	373	308	259	190	146
		L/360	458	289	193	136	99	74	57	36	24
		L/240	687	433	290	204	148	112	86	54	36
		L/180	916	577	387	272	198	149	115	72	48
		L/120	1375	866	580	407	297	223	172	108	72

TABLE 27: C 1.4 -32 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)										
Gauge	Span	Limit Condition	Panel Span (Support Spacing)								
			3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"	5' - 6"	6' - 0"	7' - 0"	8' - 0"
18	Single Span	f_b/Ω	465	342	262	207	167	138	116	85	65
		Φf_b	699	514	393	311	252	208	175	128	98
		L/360	310	195	131	92	67	50	39	24	16
		L/240	464	292	196	138	100	75	58	37	24
		L/180	619	390	261	183	134	100	77	49	33
		L/120	929	585	392	275	201	151	116	73	49
	Double Span	f_b/Ω	465	342	262	207	167	138	116	85	65
		Φf_b	699	514	393	311	252	208	175	128	98
		L/360	746	470	315	221	161	121	93	59	39
		L/240	1119	704	472	331	242	182	140	88	59
		L/180	1491	939	629	442	322	242	186	117	79
		L/120	2237	1409	944	663	483	363	280	176	118
	Triple Span	f_b/Ω	581	427	327	258	209	173	145	107	82
		Φf_b	874	642	491	388	315	260	218	160	123
		L/360	584	368	246	173	126	95	73	46	31
		L/240	876	552	370	260	189	142	110	69	46
		L/180	1168	736	493	346	252	190	146	92	62
		L/120	1753	1104	739	519	379	284	219	138	92

FIGURE 16: 4.5D-12 PROFILE

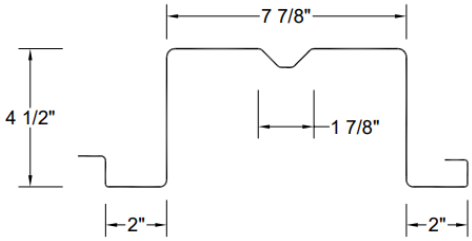


TABLE 28: 4.5D-12 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_g	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20	2.88	0.0359	40	55	0.868	2.817	2.40	2.100	1.174	1.802
18	3.87	0.0478	40	55	1.154	3.727	2.40	2.100	1.553	1.797
16	4.86	0.0598	40	55	1.442	4.634	2.40	2.100	1.931	1.792
14	6.14	0.0750	40	55	1.807	5.767	2.40	2.100	2.403	1.787

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+	S_e+	y_b	S_e-	y_b	I_e+	I_e-	I+	I-
	in^2/ft	in^3/ft	in	in^3/ft	in	in^4/ft	in^4/ft	in^4/ft	in^4/ft
20	0.798	1.108	2.27	1.156	2.42	2.519	2.792	2.618	2.800
18	1.154	1.535	2.34	1.551	2.40	3.591	3.725	3.636	3.726
16	1.442	1.931	2.40	1.931	2.40	4.634	4.634	4.634	4.634
14	1.807	2.403	2.40	2.403	2.40	5.767	5.767	5.767	5.767

TABLE 29: 4.5D-12 AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	362	448	569	722	555	685	870	1105
	Interior	629	752	926	1148	935	1119	1378	1707
18	End	634	775	973	1253	971	1185	1488	1917
	Interior	1101	1301	1583	1982	1638	1935	2355	2948
16	End	979	1184	1474	1884	1498	1811	2255	2882
	Interior	1702	1992	2401	2979	2532	2963	3571	4431
14	End	1514	1813	2236	2835	2316	2774	3422	4337
	Interior	2641	3060	3652	4490	3928	4552	5433	6679
Constants		h = 4.5"		r = 0.25"		θ = 90°			

TABLE 30: 4.5D-12 OUT-OF-PLANE CAPACITIES

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	177	123	90	69	55	44	37	31	26	23	20
		Φf_b	281	195	143	110	87	70	58	49	42	36	31
		L/360	114	66	42	28	20	14	11	8	7	5	4
		L/240	172	99	63	42	29	21	16	12	10	8	6
		L/180	-	-	83	56	39	29	21	17	13	10	8
		L/120	-	-	-	-	-	43	32	25	20	16	13
	DS	f_b/Ω	185	128	94	72	57	46	38	32	27	24	21
		Φf_b	293	203	149	114	90	73	61	51	43	37	33
		L/360	-	-	-	72	51	37	28	21	17	13	11
		L/240	-	-	-	-	-	-	-	32	25	20	16
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	231	160	118	90	71	58	48	40	34	29	26
		Φf_b	366	254	187	143	113	92	76	64	54	47	41
		L/360	-	156	98	66	46	34	25	20	15	12	10
		L/240	-	-	-	-	69	51	38	29	23	18	15
		L/180	-	-	-	-	-	-	-	39	31	25	20
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	245	170	125	96	76	61	51	43	36	31	27
		Φf_b	389	270	198	152	120	97	80	67	58	50	43
		L/360	159	92	58	39	27	20	15	11	9	7	6
		L/240	238	138	87	58	41	30	22	17	14	11	9
		L/180	-	-	116	78	54	40	30	23	18	14	12
		L/120	-	-	-	-	-	60	45	34	27	22	18
	DS	f_b/Ω	248	172	126	97	76	62	51	43	37	32	28
		Φf_b	393	273	201	154	121	98	81	68	58	50	44
		L/360	-	-	-	96	67	49	37	28	22	18	15
		L/240	-	-	-	-	-	-	-	43	33	27	22
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	310	215	158	121	96	77	64	54	46	39	34
		Φf_b	491	341	251	192	152	123	102	85	73	63	55
		L/360	-	208	131	88	62	45	34	26	20	16	13
		L/240	-	-	-	-	92	67	51	39	31	25	20
		L/180	-	-	-	-	-	-	-	52	41	33	27
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 30: 4.5D-12 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	308	214	157	120	95	77	64	54	46	39	34
		Φf_b	489	340	250	191	151	122	101	85	72	62	54
		L/360	203	117	74	49	35	25	19	15	12	9	8
		L/240	304	176	111	74	52	38	29	22	17	14	11
		L/180	-	-	148	99	69	51	38	29	23	18	15
		L/120	-	-	-	-	-	76	57	44	35	28	23
	DS	f_b/Ω	308	214	157	120	95	77	64	54	46	39	34
		Φf_b	489	340	250	191	151	122	101	85	72	62	54
		L/360	-	-	-	119	84	61	46	35	28	22	18
		L/240	-	-	-	-	-	-	-	53	42	33	27
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	385	268	197	151	119	96	80	67	57	49	43
		Φf_b	611	425	312	239	189	153	126	106	90	78	68
		L/360	-	259	163	109	77	56	42	32	25	20	17
		L/240	-	-	-	-	115	84	63	48	38	31	25
		L/180	-	-	-	-	-	-	-	65	51	41	33
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	384	266	196	150	118	96	79	67	57	49	43
		Φf_b	609	423	311	238	188	152	126	106	90	78	68
		L/360	252	146	92	62	43	32	24	18	14	11	9
		L/240	378	219	138	92	65	47	36	27	22	17	14
		L/180	-	-	184	123	86	63	47	36	29	23	19
		L/120	-	-	-	-	-	95	71	55	43	34	28
	DS	f_b/Ω	384	266	196	150	118	96	79	67	57	49	43
		Φf_b	609	423	311	238	188	152	126	106	90	78	68
		L/360	-	-	-	148	104	76	57	44	35	28	22
		L/240	-	-	-	-	-	-	-	66	52	41	34
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	480	333	245	187	148	120	99	83	71	61	53
		Φf_b	761	528	388	297	235	190	157	132	113	97	85
		L/360	-	322	203	136	95	70	52	40	32	25	21
		L/240	-	-	-	-	143	104	78	60	47	38	31
		L/180	-	-	-	-	-	-	-	80	63	51	41
		L/120	-	-	-	-	-	-	-	-	-	-	-

FIGURE 17: 6D-12 PROFILE

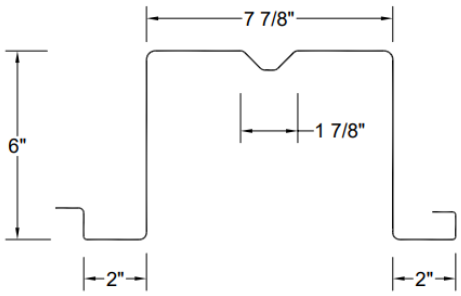


TABLE 31: 6D-12 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_{gbot}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20	3.25	0.0359	40	55	0.975	5.518	3.16	2.841	1.747	2.379
18	4.37	0.0478	40	55	1.298	7.313	3.16	2.841	2.315	2.374
16	5.41	0.0598	40	55	1.622	9.107	3.16	2.841	2.883	2.370
14	6.86	0.0750	40	55	2.032	11.355	3.16	2.841	3.594	2.364

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+	S_e+	y_b	S_e-	y_b	I_e+	I_e-	I+	I-
	in^2/ft	in^3/ft	in	in^3/ft	in	in^4/ft	in^4/ft	in^4/ft	in^4/ft
20	0.906	1.631	3.05	1.701	3.20	4.969	5.441	5.152	5.467
18	1.262	2.285	3.08	2.313	3.16	7.044	7.309	7.134	7.310
16	1.622	2.883	3.16	2.883	3.16	9.107	9.107	9.107	9.107
14	2.032	3.595	3.16	3.595	3.16	11.355	11.355	11.355	11.355

TABLE 32: 6D-12 AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	341	421	534	679	521	644	818	1039
	Interior	624	746	919	1140	929	1110	1368	1695
18	End	603	736	925	1191	923	1126	1415	1822
	Interior	1094	1293	1573	1970	1628	1923	2340	2930
16	End	937	1133	1411	1803	1434	1734	2158	2759
	Interior	1693	1981	2387	2962	2518	2946	3551	4407
14	End	1458	1746	2153	2730	2230	2671	3295	4176
	Interior	2628	3045	3634	4468	3909	4529	5406	6646
Constants		h = 6"		r = 0.25"		θ = 90°			

TABLE 33: 6D-12 OUT-OF-PLANE CAPACITIES

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	260	181	133	102	80	65	54	45	39	33	29
		Φf_b	413	287	211	161	128	103	85	72	61	53	46
		L/360	225	130	82	55	39	28	21	16	13	10	8
		L/240	-	-	123	82	58	42	32	24	19	15	13
		L/180	-	-	-	-	77	56	42	33	26	21	17
		L/120	-	-	-	-	-	-	-	-	38	31	25
	DS	f_b/Ω	272	189	139	106	84	68	56	47	40	35	30
		Φf_b	431	299	220	168	133	108	89	75	64	55	48
		L/360	-	-	-	-	-	-	54	42	33	26	21
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	340	236	173	133	105	85	70	59	50	43	38
		Φf_b	539	374	275	210	166	135	111	94	80	69	60
		L/360	-	-	-	129	90	66	50	38	30	24	20
		L/240	-	-	-	-	-	-	-	57	45	36	29
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	365	253	186	143	113	91	75	63	54	47	41
		Φf_b	579	402	295	226	179	145	120	100	86	74	64
		L/360	312	180	114	76	53	39	29	23	18	14	12
		L/240	-	-	170	114	80	58	44	34	27	21	17
		L/180	-	-	-	-	107	78	59	45	35	28	23
		L/120	-	-	-	-	-	-	-	-	53	43	35
	DS	f_b/Ω	369	256	188	144	114	92	76	64	55	47	41
		Φf_b	586	407	299	229	181	146	121	102	87	75	65
		L/360	-	-	-	-	-	-	72	56	44	35	29
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	462	321	236	180	142	115	95	80	68	59	51
		Φf_b	732	509	374	286	226	183	151	127	108	93	81
		L/360	-	-	-	172	121	88	66	51	40	32	26
		L/240	-	-	-	-	-	-	-	77	60	48	39
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 33: 6D-12 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)													
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	460	320	235	180	142	115	95	80	68	59	51
		Φf_b	730	507	373	285	225	183	151	127	108	93	81
		L/360	398	230	145	97	68	50	37	29	23	18	15
		L/240	-	-	218	146	102	75	56	43	34	27	22
		L/180	-	-	-	-	136	100	75	58	45	36	29
		L/120	-	-	-	-	-	-	-	-	68	54	44
	DS	f_b/Ω	460	320	235	180	142	115	95	80	68	59	51
		Φf_b	730	507	373	285	225	183	151	127	108	93	81
		L/360	-	-	-	-	-	-	90	69	55	44	36
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	575	400	294	225	178	144	119	100	85	73	64
		Φf_b	913	634	466	357	282	228	189	158	135	116	101
		L/360	-	-	-	214	151	110	82	64	50	40	33
		L/240	-	-	-	-	-	-	-	95	75	60	49
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	574	399	293	224	177	143	119	100	85	73	64
		Φf_b	911	632	465	356	281	228	188	158	135	116	101
		L/360	496	287	181	121	85	62	47	36	28	23	18
		L/240	-	-	271	182	128	93	70	54	42	34	28
		L/180	-	-	-	-	170	124	93	72	56	45	37
		L/120	-	-	-	-	-	-	-	-	85	68	55
	DS	f_b/Ω	574	399	293	224	177	143	119	100	85	73	64
		Φf_b	911	632	465	356	281	228	188	158	135	116	101
		L/360	-	-	-	-	-	-	112	86	68	54	44
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	717	498	366	280	221	179	148	125	106	92	80
		Φf_b	1138	790	581	445	351	285	235	198	168	145	126
		L/360	-	-	-	267	188	137	103	79	62	50	41
		L/240	-	-	-	-	-	-	-	119	93	75	61
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

FIGURE 18: 7.5D-12 PROFILE

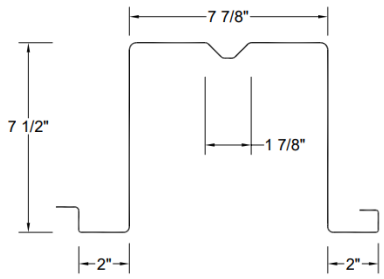


TABLE 34: 7.5D-12 PANEL PROPERTIES

Gauge	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties					
					Area	Moment of Inertia	Distance to N.A. from Bottom	Distance to N.A. from Top	Section Modulus	Radius of Gyration
	w	t	F_y	F_u	A_g	I_g	y_b	y_t	S_{gbot}	r
	psf	in	ksi	ksi	in^2/ft	in^4/ft	in	in	in^3/ft	in
20	3.61	0.0359	40	45	1.083	9.317	3.92	3.583	2.379	2.933
18	4.84	0.0478	40	45	1.441	12.359	3.92	3.583	3.156	2.929
16	6.08	0.0598	40	45	1.801	15.400	3.92	3.584	3.932	2.924
14	6.86	0.0750	40	55	2.249	18.920	3.94	3.559	4.800	2.900

Gauge	Effective Section Modulus for Bending at F_y					Effective Moment of Inertia for Deflection at Service Load			
	Area	Section Modulus	Max Distance to N.A. from Extreme Fiber	Section Modulus	Max Distance to N.A. from Extreme Fiber	Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+	S_e+	y_b	S_e-	y_b	I_e+	I_e-	I+	I-
	in^2/ft	in^3/ft	in	in^3/ft	in	in^4/ft	in^4/ft	in^4/ft	in^4/ft
20	1.021	2.248	3.79	2.281	4.00	8.529	9.120	8.792	9.186
18	1.404	3.112	3.83	3.112	3.95	11.905	12.279	12.056	12.306
16	1.799	3.933	3.92	3.929	3.92	15.404	15.396	15.403	15.397
14	2.249	4.802	3.94	4.802	3.94	18.925	18.925	18.923	18.923

TABLE 35: 7.5D-12 AVAILABLE REACTION CAPACITY AT SUPPORTS (plf) BASED ON WEB CRIPPLING

Reactions at Supports based on Web Crippling									
Gauge	Condition	Bearing Length of Webs							
		ASD (Pn/Ω) *(lbs/ft width)*				LRFD (ϕPn) *(lbs/ft width)*			
		1"	2"	4"	8"	1"	2"	4"	8"
20	End	321	397	504	641	492	608	772	980
	Interior	620	742	913	1132	923	1103	1359	1684
18	End	575	702	882	1136	880	1075	1350	1739
	Interior	1088	1285	1564	1959	1619	1912	2327	2913
16	End	900	1088	1355	1732	1377	1665	2073	2650
	Interior	1685	1971	2376	2948	2506	2932	3534	4385
14	End	1408	1686	2080	2637	2154	2580	3183	4034
	Interior	2616	3031	3618	4449	3892	4509	5382	6617
Constants		h = 7.5"		r = 0.25"		θ = 90°			

TABLE 36: 7.5D-12 OUT-OF-PLANE CAPACITIES

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)										
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
20	SS	f_b/Ω	359	249	183	140	111	90	74	62	53	46	40
		Φf_b	570	396	291	222	176	142	118	99	84	73	63
		L/360	-	222	140	94	66	48	36	28	22	18	14
		L/240	-	-	-	-	99	72	54	42	33	26	21
		L/180	-	-	-	-	-	-	72	56	44	35	28
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	364	253	186	142	112	91	75	63	54	46	40
		Φf_b	578	401	295	226	178	144	119	100	85	74	64
		L/360	-	-	-	-	-	-	-	-	-	44	36
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	455	316	232	178	141	114	94	79	67	58	51
		Φf_b	722	502	369	282	223	181	149	125	107	92	80
		L/360	-	-	-	-	-	111	83	64	50	40	33
		L/240	-	-	-	-	-	-	-	-	-	-	49
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
18	SS	f_b/Ω	497	345	254	194	153	124	103	86	74	63	55
		Φf_b	788	547	402	308	243	197	163	137	117	101	88
		L/360	-	305	192	129	90	66	49	38	30	24	20
		L/240	-	-	-	193	136	99	74	57	45	36	29
		L/180	-	-	-	-	-	-	99	76	60	48	39
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	497	345	254	194	153	124	103	86	74	63	55
		Φf_b	788	547	402	308	243	197	163	137	117	101	88
		L/360	-	-	-	-	-	-	-	-	-	59	48
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	621	431	317	243	192	155	128	108	92	79	69
		Φf_b	985	684	503	385	304	246	204	171	146	126	109
		L/360	-	-	-	-	-	148	111	86	68	54	44
		L/240	-	-	-	-	-	-	-	-	-	-	66
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

TABLE 36: 7.5D-12 OUT-OF-PLANE CAPACITIES (continued)

Inward Allowable (f_b/Ω) and Factored (Φf_b) Distributed Load (lbs/ft^2)												
Gauge	Span	Limit Conditio	Panel Span (Support Spacing)									
			10' - 0"	12' - 0"	14' - 0"	16' - 0"	18' - 0"	20' - 0"	22' - 0"	24' - 0"	26' - 0"	28' - 0"	30' - 0"
16	SS	f_b/Ω	628	436	320	245	194	157	130	109	93	80	70
		Φf_b	996	692	508	389	308	249	206	173	147	127	111
		L/360	-	390	245	164	115	84	63	49	38	31	25
		L/240	-	-	-	-	173	126	95	73	57	46	37
		L/180	-	-	-	-	-	-	126	97	77	61	50
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	627	436	320	245	194	157	130	109	93	80	70
		Φf_b	995	691	508	389	307	249	206	173	147	127	111
		L/360	-	-	-	-	-	-	-	-	92	74	60
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	784	545	400	306	242	196	162	136	116	100	87
		Φf_b	1244	864	635	486	384	311	257	216	184	159	138
		L/360	-	-	-	-	-	186	139	107	84	68	55
		L/240	-	-	-	-	-	-	-	-	-	-	83
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
14	SS	f_b/Ω	767	532	391	299	237	192	158	133	113	98	85
		Φf_b	1216	845	621	475	375	304	251	211	180	155	135
		L/360	-	479	301	202	142	103	78	60	47	38	31
		L/240	-	-	-	-	213	155	117	90	71	57	46
		L/180	-	-	-	-	-	-	155	120	94	75	61
		L/120	-	-	-	-	-	-	-	-	-	-	-
	DS	f_b/Ω	767	532	391	299	237	192	158	133	113	98	85
		Φf_b	1216	845	621	475	375	304	251	211	180	155	135
		L/360	-	-	-	-	-	-	-	-	113	91	74
		L/240	-	-	-	-	-	-	-	-	-	-	-
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-
	TS	f_b/Ω	958	666	489	374	296	240	198	166	142	122	106
		Φf_b	1520	1056	776	594	469	380	314	264	225	194	169
		L/360	-	-	-	-	-	228	171	132	104	83	68
		L/240	-	-	-	-	-	-	-	-	-	-	101
		L/180	-	-	-	-	-	-	-	-	-	-	-
		L/120	-	-	-	-	-	-	-	-	-	-	-

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COMPOSITE STEEL FLOOR DECK

CSI Division: 05 00 00 Metals

CSI Sections: 05 31 00 Steel Decking
05 31 13 Steel Floor Decking

1.0 RECOGNITION

ASC Steel Deck Composite Steel Floor Deck evaluated in IAPMO Uniform Evaluation Service evaluation report ER-329 complies with the following code subject to the additional requirements in Section 2.0 of this supplement:

- 2022 and 2019 California Building Code (CBC)

The steel decks comply with the requirements for steel structural members in Sections 2210 and 2210A of the CBC.

2.0 LIMITATIONS

Use of the steel decks recognized in this report is subject to the following limitations:

2.1 Special Inspections are required in accordance with CBC Sections 1705.2 and 1705A.2, Steel Construction; and Sections 1705.3 and 1705A.3, Concrete Construction.

2.2 Structural Observation is required in accordance with CBC Sections 1704.6 and 1704A.6.

2.3 Concrete tests and materials shall comply with CBC Sections 1909.2 and 1903A.

2.4 In accordance with CBC Sections 2210A.1.1.2 and 2210A.1.1.2, for installations under the review of OSHPD, the minimum base steel thickness is 0.0359 inches (0.9 mm), except for single-story open structures, where the steel deck is not used as a diaphragm and there are no suspended hangers or bracing for nonstructural components attached to the deck.

2.5 This supplement expires concurrently with ER-329.

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1.0 RECOGNITION

The ASC Profiles Composite Steel Floor Decks and Non-Composite Form Deck recognized in IAPMO UES ER-329 and ER-329 California Supplement comply with the following LABC and LARC codes, subject to the limitations in Section 2.0 of this supplement.

- 2020 City of Los Angeles Building Code (LABC)
- 2020 City of Los Angeles Residential Code (LARC)

2.0 LIMITATIONS

Use of the ASC Steel Deck Composite Steel Floor Deck recognized in this supplement are subject to the following limitations in addition to the limitations shown in ER-329.

2.1 Deck Type BHN-36R described in Section 4.2.1, Figures 1 and 15, and Table 24 is not recognized for use in the City of Los Angeles.

2.2 Special Inspections are required in accordance with LABC Section 1705.2, Steel Construction. Continuous inspection shall be provided for welding of the deck for use as diaphragms, and for mixing and placing of the concrete topping. The continuous inspection shall be performed by deputy building inspectors.

2.3 Decks shall be welded by Los Angeles City certified light gauge welders, who shall demonstrate to the Deputy Inspectors their ability to achieve satisfactory welding results. Samples simulating the steel decks welded to framing shall be prepared for inspection. A satisfactory weld is indicated by tearing of the deck material or displaying the proper weld fusion area as the sample is twisted.

2.4 Structural Observation is required in accordance with LABC Section 1704.6.

2.5 Cellular panels shall be welded in a Los Angeles City licensed fabrication facility.

2.6 In accordance with LABC Section 106.3.3.2, calculations and drawings shall be prepared and stamped by an engineer or architect licensed by the State of California for the type of service performed except as otherwise permitted by the Department of Building and Safety. The drawings shall include deck panel length and cross-section details; fastener and weld details at supports, diaphragm boundaries, shear transfer elements, and seams, where required; and design shears.

2.7 Any changes in design shall be approved by the building design engineer and by the Structural Plan Check Division of the Department of Building and Safety.

2.8 This report and the data contained therein shall be for exclusive use with Composite Steel Floor Decks and Non-Composite Form Decks manufactured by ASC Steel Deck.

2.9 Mill certifications or test data shall be submitted to the Department of Building and Safety when requested to verify the deck material specifications.

2.10 Steel beams or girders connected to concrete-filled steel decks in composite steel-concrete construction shall be in accordance with Department Information bulletin P/BC 2017-046

2.11 In accordance with LABC Section 106.3.3.3, for buildings exceeding 160 feet in height (49 m), calculations and drawings shall be prepared and stamped by a structural engineer licensed by the State of California.

2.12 Composite Steel Floor Decks and Non-Composite Form Decks shall be galvanized when used and exposed to the weather.

2.13 Side Seam attachments, where required, shall not exceed the maximum spacing provisions in ER-329 nor shall the spacing be greater than 4 feet (1220 mm).

2.14 The ASTM A185/ASTM A1064 welded wire reinforcement shall be placed at the approximate mid-depth of the concrete fill. Corrosive admixtures such as those containing calcium chloride shall not be used in the concrete fill. Minimum 6 x 6 - W1.4 x W1.4 W.W.F. temperature reinforcement shall be provided 1 inch below the concrete surface. The reinforcing ratio shall be a minimum 0.001 each way, (not applicable to insulating concrete fill).

2.15 The required number of "puddle welds" specified in the tables refers to each support. Arc spot welds for fastening steel sheets to supporting members for uplift shall be calculated in accordance with AISI S100-16 Section J2.2.2. The specified sizes of puddle welds refer to the fused sizes.

2.16 Composite Steel Floor Decks and Non-Composite Form Decks used in diaphragms at less than the full width shall be designed to transfer all shear loads.

2.17 Tabulated values for diaphragm shear shall not be increased one-third for seismic or wind loading.

2.18 Use of the decks in fire-resistive construction shall be in accordance with a separate Los Angeles City Research Report.

2.19 This supplement expires concurrently with ER-329.