



Listing and Technical Evaluation Report™

A Duly Authenticated Report from an Approved Agency

Report No: 2208-01



Issue Date: October 3, 2022 Revision Date: June 23, 2025 Subject to Renewal: July 1, 2026

NOVA™ #16 Fasteners for Use in Ledger Board to Stud Applications

Trade Secret Report Holder: Screw Products, Inc.

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CSI Designations:

DIVISION: 06 00 00 - WOOD, PLASTICS AND COMPOSITES

Section: 06 05 23 - Wood, Plastic, and Composite Fastenings Section: 06 11 00 - Wood Framing

Section: 06 15 00 - Wood Decking

1 Innovative Product Evaluated¹

1.1 NOVA #16 Fastener

2 Product Description and Materials

2.1 The innovative product evaluated in this report is shown in **Figure 1**.





2.2 Product Description

- 2.2.1 NOVA #16 Fasteners are construction lag screws intended for structural use in timber construction.
 - 2.2.1.1 NOVA #16 Fasteners are partially threaded screws with a coin head and star drive.
- 2.2.2 NOVA #16 Fasteners are made of heat-treated, hardened steel.
- 2.3 Corrosion Resistance
 - 2.3.1 NOVA #16 Fasteners are construction lag screws coated with a proprietary Zytec[™] GX coating that is equivalent to the protection provided by code-approved hot dipped galvanized coatings meeting ASTM A153, Class D (<u>IBC Section 2304.10.6</u>² and <u>IRC Section R304.3</u>³).
 - 2.3.1.1 NOVA #16 Fasteners may be used as an alternative to the protection provided by code-approved hot-dipped galvanized coatings meeting ASTM A153, Class D (<u>IBC Section 2304.10.6</u>⁴ and <u>IRC Section R304.3</u>⁵) where screws are required to exhibit corrosion resistance when exposed to adverse environmental conditions which are subject to the limitations of this report.





- 2.3.2 Zytec GX coating is tested and recognized for use in ground contact pressure treated lumber (MCA), exterior, freshwater, general construction applications (i.e., Ground Contact AWPA UC1-UC4A MCA).
- 2.3.3 Zytec GX coated fasteners are approved for use in Fire-Retardant Treated (FRT) lumber, provided the conditions set forth by the FRT lumber manufacturer be met, including appropriate strength reductions.
- 2.4 The fasteners evaluated in this report are set forth in **Table 1**.

Fastener Name	Designation	Head (in)		Nominal Length ¹	Thread Length ²	Shank Diameter ³	Thread Diameter (in)		Nominal Bending Yield ⁴ ,	Allowable Fastener Strength (lb)	
		Diameter	Drive Type	(in)	(in)	(in)	Minor	Major	F _{yb} (psi)	Tensile	Shear⁵
NOVA #16 Fastener	16 x 3"	0.630	TX30	3	1 1/2	0.205	0.177	0.283	178,200	1,520	1,105
	16 x 4"			4	2						

Table 1. Fastener Specifications - NOVA #16 Fasteners

SI: 1 in = 25.4 mm, 1 lb = 4.45 N, 1 psi = 0.00689 MPa

1. Fastener length is measured from the top of the head to the tip.

2. Thread length excludes the knurl.

3. Shank diameter based on manufactured thickness with coating.

4. Bending yield strength, Fyb, is determined in accordance with ASTM F1575 using minor thread diameter when fastener is tested in threaded section.

5. Shear determined at thread diameter.

2.5 As needed, review material properties for design in **Section 6** and the regulatory evaluation in **Section 8**.

3 Definitions⁶

- 3.1 <u>New Materials</u>⁷ are defined as building materials, equipment, appliances, systems, or methods of construction, not provided for by prescriptive and/or legislatively adopted regulations, known as alternative materials.⁸ The <u>design strength</u> and permissible stresses shall be established by tests⁹ and/or engineering analysis.¹⁰
- 3.2 <u>Duly authenticated reports</u>¹¹ and <u>research reports</u>¹² are test reports and related engineering evaluations that are written by an <u>approved agency</u>¹³ and/or an <u>approved source</u>.¹⁴
 - 3.2.1 These reports utilize intellectual property and/or trade secrets to create public domain material properties for commercial end-use.
 - 3.2.1.1 This report protects confidential Intellectual Property and trade secretes under the regulation, <u>18.US.Code.90</u>, also known as <u>Defend Trade Secrets Act of 2016</u> (DTSA).¹⁵
- 3.3 An approved agency is *"approved"* when it is <u>ANAB ISO/IEC 17065 accredited</u>. DrJ Engineering, LLC (DrJ) is accredited and listed in the <u>ANAB directory</u>.
- 3.4 An <u>approved source</u> is *"approved"* when a professional engineer (i.e., <u>Registered Design Professional</u>, hereinafter <u>RDP</u>) is properly licensed to transact engineering commerce. The regulatory authority governing approved sources is the <u>state legislature</u> via its professional engineering regulations.¹⁶
- 3.5 Testing and/or inspections conducted for this <u>duly authenticated report</u> were performed by an <u>ISO/IEC 17025</u> <u>accredited testing laboratory</u>, an <u>ISO/IEC 17020 accredited inspection body</u>, and/or a licensed <u>RDP</u>.
 - 3.5.1 The <u>Center for Building Innovation</u> (CBI) is <u>ANAB¹⁷ ISO/IEC 17025</u> and <u>ISO/IEC 17020</u> accredited.
- 3.6 The regulatory authority shall <u>enforce</u>¹⁸ the specific provisions of each legislatively adopted regulation. If there is a non-conformance, the specific regulatory section and language of the non-conformance shall be provided in <u>writing</u>¹⁹ stating the nonconformance and the path to its cure.





- 3.7 The regulatory authority shall accept <u>duly authenticated reports</u> from an <u>approved agency</u> and/or an <u>approved</u> <u>source</u> with respect to the quality and manner of use of new materials or assemblies as provided for in regulations regarding the use of alternative materials, designs, or methods of construction.²⁰
- 3.8 ANAB is an International Accreditation Forum (IAF) Multilateral Recognition Arrangement (MLA) signatory. Therefore, recognition of certificates and validation statements issued by conformity assessment bodies accredited by all other signatories of the IAF MLA with the appropriate scope shall be approved.²¹ Thus, all ANAB ISO/IEC 17065 <u>duly authenticated reports</u> are approval equivalent,²² and can be used in any country that is an MLA signatory found at this link: <u>https://iaf.nu/en/recognised-abs/</u>
- 3.9 Approval equity is a fundamental commercial and legal principle.²³

4 Applicable Local, State, and Federal Approvals; Standards; Regulations ²⁴

- 4.1 Local, State and Federal
 - 4.1.1 Approved in all local jurisdictions pursuant to ISO/IEC 17065 <u>duly authenticated report</u> use, which includes the following featured local jurisdictions and is not limited to: Austin, Baltimore, Broward County, Chicago, Clark County, Dade County, Dallas, Detroit, Denver, DuPage County, Fort Worth, Houston, Kansas City, King County, Knoxville, Las Vegas, Los Angeles City, Los Angeles County, Miami, Nashville, New York City, Omaha, Philadelphia, Phoenix, Portland, San Antonio, San Diego, San Jose, San Francisco, Seattle, Sioux Falls, South Holland, Texas Department of Insurance, and Wichita.²⁵
 - 4.1.2 Approved in all state jurisdictions pursuant to ISO/IEC 17065 <u>duly authenticated report</u> use, which includes the following featured states, and is not limited to: California, Florida, New Jersey, Oregon, New York, Texas, Washington, and Wisconsin.²⁶
 - 4.1.3 Approved by the Code of Federal Regulations Manufactured Home Construction: Pursuant to Title 24, Subtitle B, Chapter XX, Part 3282.14²⁷ and Part 3280²⁸ pursuant to the use of ISO/IEC 17065 <u>duly</u> <u>authenticated reports</u>.
 - 4.1.4 Approved means complying with the requirements of local, state, or federal legislation.
- 4.2 Standards
 - 4.2.1 AISI S904: Standard Test Methods for Determining the Tensile and Shear Strength of Screws
 - 4.2.2 ANSI/AWC NDS: National Design Specification (NDS) for Wood Construction
 - 4.2.3 ASTM B117: Standard Practice for Operating Salt Spray (Fog) Apparatus
 - 4.2.4 ASTM D1761: Standard Test Methods for Mechanical Fasteners in Wood
 - 4.2.5 ASTM D2395: Standard Test Methods for Density and Specific Gravity (Relative Density) of Wood and Wood-Based Materials
 - 4.2.6 ASTM D4442: Standard Test Methods for Direct moisture Content Measurement of Wood and Wood-Based Materials
 - 4.2.7 ASTM F1575: Standard Test Method for Determining Bending Yield Moment of Nails
- 4.3 Regulations
 - 4.3.1 IBC 15, 18, 21, 24: International Building Code®
 - 4.3.2 IRC 15, 18, 21, 24: International Residential Code®





5 Listed²⁹

5.1 Equipment, materials, products, or services included in a List published by a <u>nationally recognized testing</u> <u>laboratory</u> (i.e., CBI), an <u>approved agency</u> (i.e., CBI and DrJ), and/or and <u>approved source</u> (i.e., DrJ), or other organization(s) concerned with product evaluation (i.e., DrJ), that maintains periodic inspection (i.e., CBI) of production of listed equipment or materials, and whose listing states either that the equipment or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner.

6 Tabulated Properties Generated from Nationally Recognized Standards

6.1 NOVA #16 Fasteners can be used for attaching ledger boards to wall studs with zero, one, or two layers of Gypsum Wallboard (GWB) between the ledger and the wall studs.

6.2 General

- 6.2.1 NOVA #16 Fasteners are permitted to be installed without lead holes.
 - 6.2.1.1 Where lead holes are used, provisions from <u>NDS Section 12.1.4</u> shall be followed.
- 6.2.2 NOVA #16 Fasteners are governed by the applicable code and the provisions for dowel type fasteners in NDS.
- 6.2.3 NOVA #16 Fasteners may be used where screws are required to exhibit corrosion resistance when exposed to adverse environmental conditions and/or in chemically treated wood.
- 6.2.4 NOVA #16 Fasteners are subject to the limitations of this report and are approved as alternatives to hot-dipped galvanized screws with a coating weight in compliance with ASTM A153, Class D.
- 6.2.5 Unless otherwise noted, adjustment of the design stresses for duration of load shall be in accordance with the applicable code.
- 6.3 Reference Lateral Design Values for Deck Ledger to Stud Attachment
 - 6.3.1 Installation details for ledger to stud connections without GWB for 2 x 6, 2 x 8, and 2 x 10 ledgers are shown in **Figure 2**, **Figure 3**, and **Figure 4**, respectively.

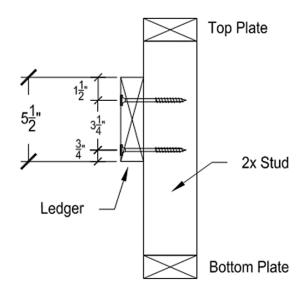


Figure 2. 2 x 6 Ledger Directly Attached to Stud





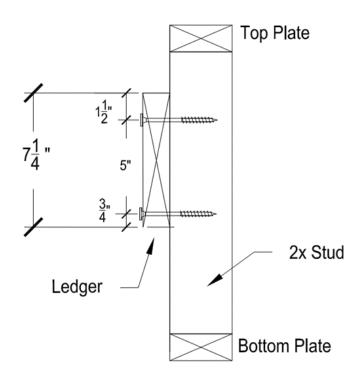


Figure 3. 2 x 8 Ledger Directly Attached to Stud

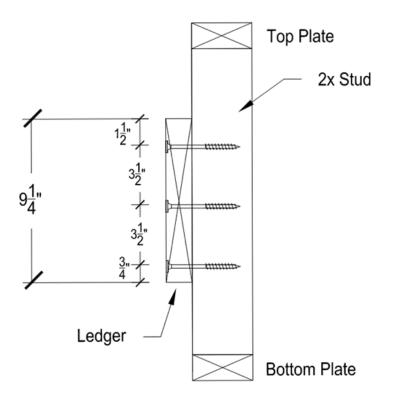


Figure 4. 2 x 10 Ledger Directly Attached to Stud





6.3.2 With One Layer GWB Interlayer

6.3.2.1 Installation details for ledger to stud connections with a single layer of GWB for 2 x 6, 2 x 8, and 2 x 10 ledgers are shown in **Figure 5**, **Figure 6**, and **Figure 7**, respectively.

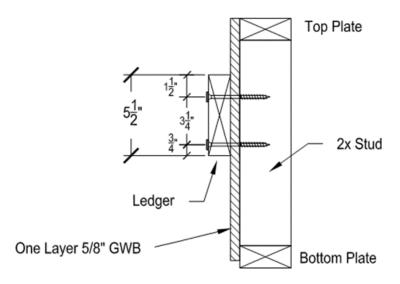


Figure 5. 2 x 6 Ledger Attached to Stud through One Layer of GWB

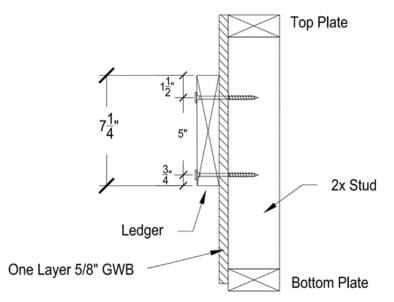


Figure 6. 2 x 8 Ledger Attached to Stud through One Layer of GWB





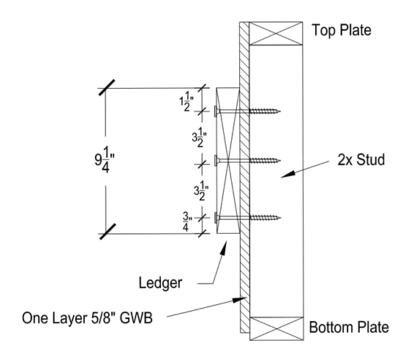
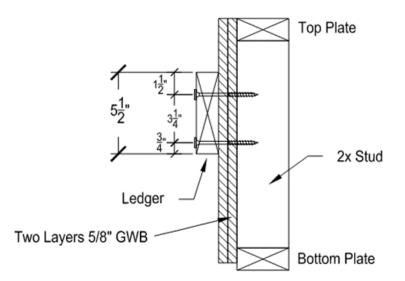
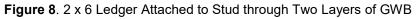


Figure 7. 2 x 10 Ledger Attached to Stud through One Layer of GWB

- 6.3.3 With Two Layers GWB Interlayer
 - 6.3.3.1 Installation details for ledger to stud connections with a double layer of GWB for 2 x 6, 2 x 8 and 2 x 10 ledgers are shown in **Figure 8**, **Figure 9** and **Figure 10**, respectively.









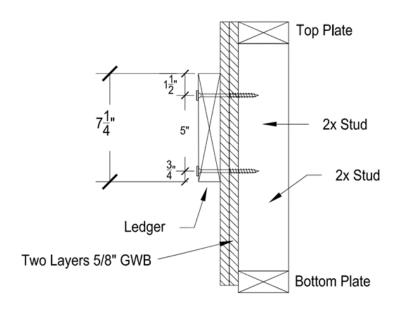


Figure 9. 2 x 8 Ledger Attached to Stud through Two Layers of GWB

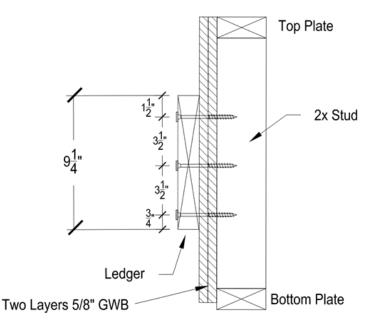


Figure 10. 2 x 10 Ledger Attached to Stud through Two Layers of GWB

- 6.3.4 Reference lateral design values for the deck ledger to stud connections detailed in **Figure 2** through **Figure 10** are provided in **Table 2**.
- 6.3.5 The values in **Table 2** apply where the ledger is applied either directly over the studs or with up to two layers of 5/8" GWB between the ledger and studs.





	Minimum Thread	Layers	Allowable Load per Stud Connection ^{3,4,5,6,7} (Ib) Ledger Size ^{1,2}				
Fastener Designation	Penetration into	of					
, , , , , , , , , , , , , , , , , , ,	Main Member (in)	GWB ⁸	2 x 6	2 x 8	2 x 10		
#16 x 3"	11/2	0	615	615	1,025		
#16 x 4"	17/ ₈	1	570	570	865		
#10 X 4	11/4	2	415	415	570		

SI: 1 in = 25.4 mm, 1 lb = 4.45 N

1. Two fasteners are required for 2 x 6 and 2 x 8 ledger connections. Three fasteners are required for 2 x 10 ledger connections. Additional fasteners prohibited.

2. SPF ledger with minimum specific gravity of 0.42.

3. The tabulated values apply where the ledger is installed either directly over the studs or with up to two layers of 5/8" gypsum between the ledger and studs.

- 4. Allowable loads shall be limited to parallel-to-grain loaded solid sawn main members (minimum 2" nominal). Wood side members shall be loaded perpendicular to grain.
- Allowable loads are shown at the wood load duration factor of C_D = 1.00. Loads may be increased for load duration as permitted by the building code up to a C_D = 1.60. All adjustment factors shall be applied per NDS. For in-service moisture content greater than nineteen percent (19%), apply the Wet Service Factor (C_M) = 0.70 to the tabulated loads.
- 6. For LRFD values, the reference connection design values shall be adjusted in accordance with <u>NDS Section 11.3</u>.

7. Fasteners shall be centered in the stud and spaced as shown in Figure 2 through Figure 10. The stud minimum end distance is 6³/₄" when loaded toward the end and 4" when loaded away from the end. The ledger end distance is 6" for full values. For ledger end distances under 6", the reference connection design values shall be adjusted in accordance with <u>NDS Section 12.5</u>.

- 8. GWB must be attached as required per the building code.
- 6.4 Where the application falls outside of the performance evaluation, conditions of use, and/or installation requirements set forth herein, alternative techniques shall be permitted in accordance with accepted engineering practice and experience. This includes but is not limited to the following areas of engineering: mechanics or materials, structural, building science, and fire science.

7 Certified Performance³⁰

- 7.1 All construction methods shall conform to accepted engineering practices to ensure durable, livable, and safe construction and shall demonstrate acceptable workmanship reflecting journeyman quality of work of the various trades.³¹
- 7.2 The strength and rigidity of the component parts and/or the integrated structure shall be determined by engineering analysis or by suitable load tests to simulate the actual loads and conditions of application that occur.³²

8 Regulatory Evaluation and Accepted Engineering Practice

- 8.1 NOVA #16 Fasteners comply with the following legislatively adopted regulations and/or accepted engineering practice for the following reasons:
 - 8.1.1 Lateral strength of ledger connections to wood-framed walls. This application includes zero, one, or two layers of $\frac{5}{8}$ " GWB between the ledger and the wall studs.
 - 8.1.2 Corrosion resistance of fasteners meeting or exceeding the protection afforded hot-dipped galvanized fasteners in accordance with ASTM A153, Class D.
- 8.2 Use of fasteners in locations exposed to saltwater or saltwater spray is outside the scope of this report.





- 8.3 Any building code, regulation and/or accepted engineering evaluations (i.e., <u>research reports</u>, <u>duly</u> <u>authenticated reports</u>, etc.) that are conducted for this Listing were performed by DrJ, which is an <u>ISO/IEC</u> <u>17065 accredited certification body</u> and a professional engineering company operated by <u>RDP</u> or <u>approved</u> <u>sources</u>. DrJ is qualified³³ to practice product and regulatory compliance services within its <u>scope of</u> <u>accreditation and engineering expertise</u>,³⁴ respectively.
- 8.4 Engineering evaluations are conducted with DrJ's ANAB <u>accredited ICS code scope</u> of expertise, which is also its areas of professional engineering competence.
- 8.5 Any regulation specific issues not addressed in this section are outside the scope of this report.

9 Installation

- 9.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, this report, and the applicable building code.
- 9.2 In the event of a conflict between the manufacturer installation instructions and this report, contact the manufacturer for counsel on the proper installation method.
- 9.3 Installation Procedure
 - 9.3.1 NOVA #16 Fasteners shall be installed with an appropriate rotating powered driver.
 - 9.3.2 NOVA #16 Fasteners shall not be struck with a hammer during installation.
 - 9.3.3 Lead holes are not required but may be used where lumber is prone to splitting.
 - 9.3.4 For ledger to stud connections, fasteners shall be centered in the stud and spaced as shown in **Figure 2** through **Figure 10**.
 - 9.3.4.1 The stud minimum end distance is $6^{3}/4^{"}$ when loaded toward the end and 4" when loaded away from the end.
 - 9.3.4.2 The fasteners shall be installed with a minimum 6" end distance on the ledger.

10 Substantiating Data

- 10.1 Testing has been performed under the supervision of a professional engineer and/or under the requirements of ISO/IEC 17025 as follows:
 - 10.1.1 Ledger assembly testing in accordance with ASTM D1761
 - 10.1.2 Corrosion resistance testing in accordance with ASTM B117
- 10.2 Information contained herein may include the result of testing and/or data analysis by sources that are <u>approved agencies</u>, <u>approved sources</u>, and/or an <u>RDP</u>. Accuracy of external test data and resulting analysis is relied upon.
- 10.3 Where applicable, testing and/or engineering analysis are based upon provisions that have been codified into law through state or local adoption of regulations and standards. The developers of these regulations and standards are responsible for the reliability of published content. DrJ's engineering practice may use a regulation-adopted provision as the control. A regulation-endorsed control versus a simulation of the conditions of application to occur establishes a new material as <u>being equivalent</u> to the regulatory provision in terms of quality, <u>strength</u>, effectiveness, <u>fire resistance</u>, durability, and safety.
- 10.4 The accuracy of the provisions provided herein may be reliant upon the published properties of raw materials, which are defined by the grade mark, grade stamp, mill certificate, or <u>duly authenticated reports</u> from <u>approved</u> <u>agencies</u> and/or <u>approved sources</u> provided by the supplier. These are presumed to be minimum properties and relied upon to be accurate. The reliability of DrJ's engineering practice, as contained in this <u>duly</u> <u>authenticated report</u>, may be dependent upon published design properties by others.





- 10.5 *Testing and Engineering Analysis:*
 - 10.5.1 The strength, rigidity, and/or general performance of component parts and/or the integrated structure are determined by suitable tests that simulate the actual conditions of application that occur and/or by accepted engineering practice and experience.³⁵
- 10.6 Where additional condition of use and/or regulatory compliance information is required, please search for NOVA #16 Fastener on the <u>DrJ Certification website</u>.

11 Findings

- 11.1 As outlined in **Section 6**, NOVA #16 Fasteners have performance characteristics that were tested and/or meet applicable regulations. In addition, they are suitable for use pursuant to its specified purpose.
- 11.2 When used and installed in accordance with this <u>duly authenticated report</u> and the manufacturer installation instructions, NOVA #16 Fasteners shall be approved for the following applications:
 - 11.2.1 To connect ledger boards to studs through zero, one, or two layers of gypsum.
- 11.3 Any application specific issues not addressed herein can be engineered by an <u>RDP</u>. Assistance with engineering is available from Screw Products, Inc.
- 11.4 IBC Section 104.2.3³⁶ (IRC Section R104.2.2³⁷ and IFC Section 104.2.3³⁸ are similar) in pertinent part state:

104.2.3 Alternative Materials, Design and Methods of Construction and Equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative is not specifically prohibited by this code and has been approved.

- 11.5 Approved: ³⁹ Building regulations require that the building official shall accept duly authenticated reports.⁴⁰
 - 11.5.1 An approved agency is "approved" when it is ANAB ISO/IEC 17065 accredited.
 - 11.5.2 An <u>approved source</u> is *"approved"* when an <u>RDP</u> is properly licensed to transact engineering commerce.
 - 11.5.3 Federal law, <u>Title 18 US Code Section 242</u>, requires that, where the alternative product, material, service, design, assembly, and/or method of construction is not approved, the building official shall respond in writing, stating the reasons why the alternative was not approved. Denial without written reason deprives a protected right to free and fair competition in the marketplace.
- 11.6 DrJ is a licensed engineering company, employs licensed <u>RDP</u>s and is an <u>ANAB Accredited Product</u> <u>Certification Body</u> – <u>Accreditation #1131</u>.
- 11.7 Through the <u>IAF Multilateral Arrangement</u> (MLA), this <u>duly authenticated report</u> can be used to obtain product approval in any <u>jurisdiction</u> or <u>country</u> because all ANAB ISO/IEC 17065 <u>duly authenticated reports</u> are equivalent.⁴¹

12 Conditions of Use

- 12.1 Material properties shall not fall outside the boundaries defined in Section 6.
- 12.2 As defined in **Section 6**, where material and/or engineering mechanics properties are created for load resisting design purposes, the resistance to the applied load shall not exceed the ability of the defined properties to resist those loads using the principles of accepted engineering practice.
- 12.3 NOVA #16 Fasteners shall be installed in accordance with this report and the manufacturer installation instructions.
- 12.4 NOVA #16 Fasteners loading in ledger to stud applications shall not exceed those listed in **Table 2**.
- 12.5 Use of fasteners in locations exposed to saltwater or saltwater spray is outside the scope of this evaluation report.





- 12.6 Design properties shall not exceed those described in Section 6.
- 12.7 When required by adopted legislation and enforced by the <u>building official</u>, also known as the Authority Having Jurisdiction (AHJ) in which the project is to be constructed:
 - 12.7.1 Any calculations incorporated into the construction documents shall conform to accepted engineering practice and, when prepared by an <u>approved source</u>, shall be approved when signed and sealed.
 - 12.7.2 This report and the installation instructions shall be submitted at the time of <u>permit</u> application.
 - 12.7.3 This innovative product has an internal quality control program and a third-party quality assurance program.
 - 12.7.4 At a minimum, this innovative product shall be installed per Section 9.
 - 12.7.5 The review of this report by the AHJ shall comply with <u>IBC Section 104.2.3.2</u> and <u>IBC Section 105.3.1</u>.
 - 12.7.6 This innovative product has an internal quality control program and a third party quality assurance program in accordance with <u>IBC Section 104.7.2</u>, <u>IBC Section 110.4</u>, <u>IBC Section 1703</u>, <u>IRC Section R104.7.2</u>, and <u>IRC Section R109.2</u>.
 - 12.7.7 The application of this innovative product in the context of this report is dependent upon the accuracy of the construction documents, implementation of installation instructions, inspection as required by <u>IBC</u> <u>Section 110.3</u>, <u>IRC Section R109.2</u>, and any other regulatory requirements that may apply.
- 12.8 The approval of this report by the AHJ shall comply with <u>IBC Section 1707.1</u>, where legislation states in part, *"the <u>building official</u> shall make, or cause to be made, the necessary tests and investigations; or the <u>building</u> <u>official</u> shall accept duly authenticated reports from <u>approved agencies</u> in respect to the quality and manner of use of new materials or assemblies as provided for in <u>Section 104.2.3</u>", all of <u>IBC Section 104</u>, and <u>IBC Section 105.3</u>.*
- 12.9 <u>Design loads</u> shall be determined in accordance with the regulations adopted by the jurisdiction in which the project is to be constructed and/or by the building designer (i.e., <u>owner</u> or <u>RDP</u>).
- 12.10 The actual design, suitability, and use of this report for any particular building, is the responsibility of the owner or the authorized agent of the <u>owner</u>.

13 Identification

- 13.1 NOVA #16 Fastener, as listed in **Section 1.1**, is identified by a label on the board or packaging material bearing the manufacturer name, product name, this report number, and other information to confirm code compliance.
- 13.2 Additional technical information can be found at <u>www.screw-products.com</u>.

14 Review Schedule

- 14.1 This report is subject to periodic review and revision. For the latest version, visit www.drjcertification.org.
- 14.2 For information on the status of this report, please contact DrJ Certification.





Notes

- For more information, visit dricertification.org or call us at 608-310-6748.
- ² <u>2018 IBC Section 2304.10.5</u>
- ³ 2021 IRC Section R317.3
- 4 2018 IBC Section 2304.10.5
- 5 2021 IRC Section R317.3
- ⁶ Capitalized terms and responsibilities are defined pursuant to the applicable building code, applicable reference standards, the latest edition of <u>TPI 1</u>, the <u>NDS</u>, <u>AISI S202</u>, <u>US</u> professional engineering law, <u>Canadian building code</u>, <u>Canada professional engineering law</u>, <u>Qualtim External Appendix A</u>: <u>Definitions/Commentary</u>, <u>Qualtim External Appendix B</u>: <u>Project/Deliverables</u>, <u>Qualtim External Appendix C</u>: <u>Intellectual Property and Trade Secrets</u>, definitions created within Design Drawings and/or definitions within Reference Sheets. Beyond this, terms not defined shall have ordinarily accepted meanings as the context implies. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.
- 7 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1702
- 8 Alternative Materials, Design and Methods of Construction and Equipment: The provisions of any regulation code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by a regulation. Please review <u>https://www.justice.gov/atr/mission</u> and https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3
- https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-andtests#1706.2:~:text=the%20design%20strengths%20and%20permissible%20stresses%20shall%20be%20established%20by%20tests
- https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-andtests#1707.1:~:text=the%20building%20official%20shall%20make%2C%20or%20cause%20to%20be%20made%2C%20the%20necessary%20tests%20and%20investigations%3B %20or%20the%20building%20official%20shall%20accept%20duly%20authenticated%20reports%20from%20approved%20agencies%20in%20respect%20to%20the%20quality%2 0and%20manner%20of%20use%20of%20new%20materials%20or%20assemblies%20as%20provided%20for%20in%20Section%20104.2.3.
- ¹² https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4.2
- ¹³ <u>https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_agency</u>
- 14 https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#approved_source
- https://www.law.cornell.edu/uscode/text/18/1832 (b) Any organization that commits any offense described in subsection (a) shall be fined not more than the greater of \$5,000,000 or 3 times the value of the stolen trade secret to the organization, including expenses for research and design and other costs of reproducing the trade secret that the organization has thereby avoided. The <u>federal government</u> and each state have a <u>public records act</u>. To follow DTSA and comply state public records and trade secret legislation requires approval through <u>ANAB ISO/IEC 17065 accredited certification bodies</u> or <u>approved sources</u>. For more information, please review this website: <u>Intellectual Property and</u> Trade Secrets.
- ¹⁶ <u>https://www.nspe.org/resources/issues-and-advocacy/professional-policies-and-position-statements/regulation-professional AND https://apassociation.org/list-of-engineeringboards-in-each-state-archive/</u>
- 17 https://www.cbitest.com/accreditation/
- ¹⁸ https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.1:~:text=directed%20to%20enforce%20the%20provisions%20of%20this%20code
- ¹⁹ https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-administration#104.2.3 AND https://up.codes/viewer/mississippi/ibc-2024/chapter/1/scope-and-
- administration#105.3.1
- ²⁰ <u>https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1</u>
- 21 https://iaf.nu/en/about-iaf-
- mla/#:~:text=Once%20an%20accreditation%20body%20is%20a%20signatory%20of%20the%20IAF%20MLA%2C%20it%20is%20required%20to%20recognise%20certificates%20 and%20validation%20and%20verification%20statements%20issued%20by%20conformity%20assessment%20bodies%20accredited%20by%20all%20other%20signatories%20of %20the%20IAF%20MLA%2C%20with%20the%20appropriate%20scope
- ²² True for all ANAB accredited product evaluation agencies and all International Trade Agreements.
- 23 https://www.justice.gov/crt/deprivation-rights-under-color-law AND https://www.justice.gov/atr/mission
- ²⁴ Unless otherwise noted, the links referenced herein use un-amended versions of the <u>2024 International Code Council (ICC)</u> 2024 International Code Council (ICC) model codes as foundation references. Mississippi versions of the <u>IBC 2024</u> and the <u>IRC 2024</u> are un-amended. This material, product, design, service and/or method of construction also complies with the 2000-2012 versions of the referenced codes and the standards referenced therein. As pertinent to this technical and code compliance evaluation, CBI and/or DrJ staff have reviewed any state or local regulatory amendments to assure this report is in compliance.
- ²⁵ See <u>Adoptions by Publisher</u> for the latest adoption of a non-amended or amended model code by the local jurisdiction. <u>https://up.codes/codes/general</u>
- ²⁶ See Adoptions by Publisher for the latest adoption of a non-amended or amended model code by state. https://up.codes/codes/general
- ²⁷ <u>https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3282/subpart-A/section-3282.14</u>
- 28 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280
- ²⁹ <u>https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280#p-3280.2(Listed%20or%20certified); https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#listed AND <u>https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#labeled</u></u>
- ³⁰ https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1703.4
- ³¹ https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-

3280#:~:text=All%20construction%20methods%20shall%20be%20in%20conformance%20with%20accepted%20engineering%20practices%20to%20insure%20durable%2C%20liv able%2C%20and%20safe%20housing%20and%20shall%20demonstrate%20acceptable%20workmanship%20reflecting%20journeyman%20quality%20of%20work%20of%20the% 20various%20trades

Report Number: 2208-01 NOVA™ #16 Fasteners for Use in Ledger Board to Stud Applications Information contained in this report was developed using report holder's confidential <u>intellectual property</u> (IP) and <u>trade secrets</u> (TS), which is protected by <u>Defend Trade Secrets Act 2016</u>, © DrJ Engineering, LLC





- 32 https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-
- 3280#:~:text=The%20strength%20and%20rigidity%20of%20the%20component%20parts%20and/or%20the%20integrated%20structure%20shall%20be%20determined%20by%20 engineering%20analysis%20or%20by%20suitable%20load%20tests%20to%20simulate%20the%20actual%20loads%20and%20conditions%20of%20application%20that%20occur
- 33 Qualification is performed by a legislatively defined Accreditation Body. ANSI National Accreditation Board (ANAB) is the largest independent accreditation body in North America and provides services in more than 75 countries. DrJ is an ANAB accredited product certification body.
- 34 https://anabpd.ansi.org/Accreditation/product-certification/AllDirectoryDetails?prgID=1&orgID=2125&statusID=4#:~:text=Bill%20Payment%20Date-,Accredited%20Scopes,-13%20ENVIRONMENT.%20HEALTH
- 35 See Code of Federal Regulations (CFR) Title 24 Subtitle B Chapter XX Part 3280 for definition: https://www.ecfr.gov/current/title-24/subtitle-B/chapter-XX/part-3280 36 2021 IBC Section 104.11
- 2021 IRC Section R104.11 37
- 38
- 2018: https://up.codes/viewer/wyoming/ifc-2018/chapter/1/scope-and-administration#104.9 AND 2021: https://up.codes/viewer/wyoming/ibc-2021/chapter/1/scope-andadministration#104.11
- Approved is an adjective that modifies the noun after it. For example, Approved Agency means that the Agency is accepted officially as being suitable in a particular situation. This 39 example conforms to IBC/IRC/IFC Section 201.4 (https://up.codes/viewer/mississippi/ibc-2024/chapter/2/definitions#201.4) where the building code authorizes sentences to have an ordinarily accepted meaning such as the context implies.
- 40 https://up.codes/viewer/mississippi/ibc-2024/chapter/17/special-inspections-and-tests#1707.1
- 41 Multilateral approval is true for all ANAB accredited product evaluation agencies and all International Trade Agreements.