

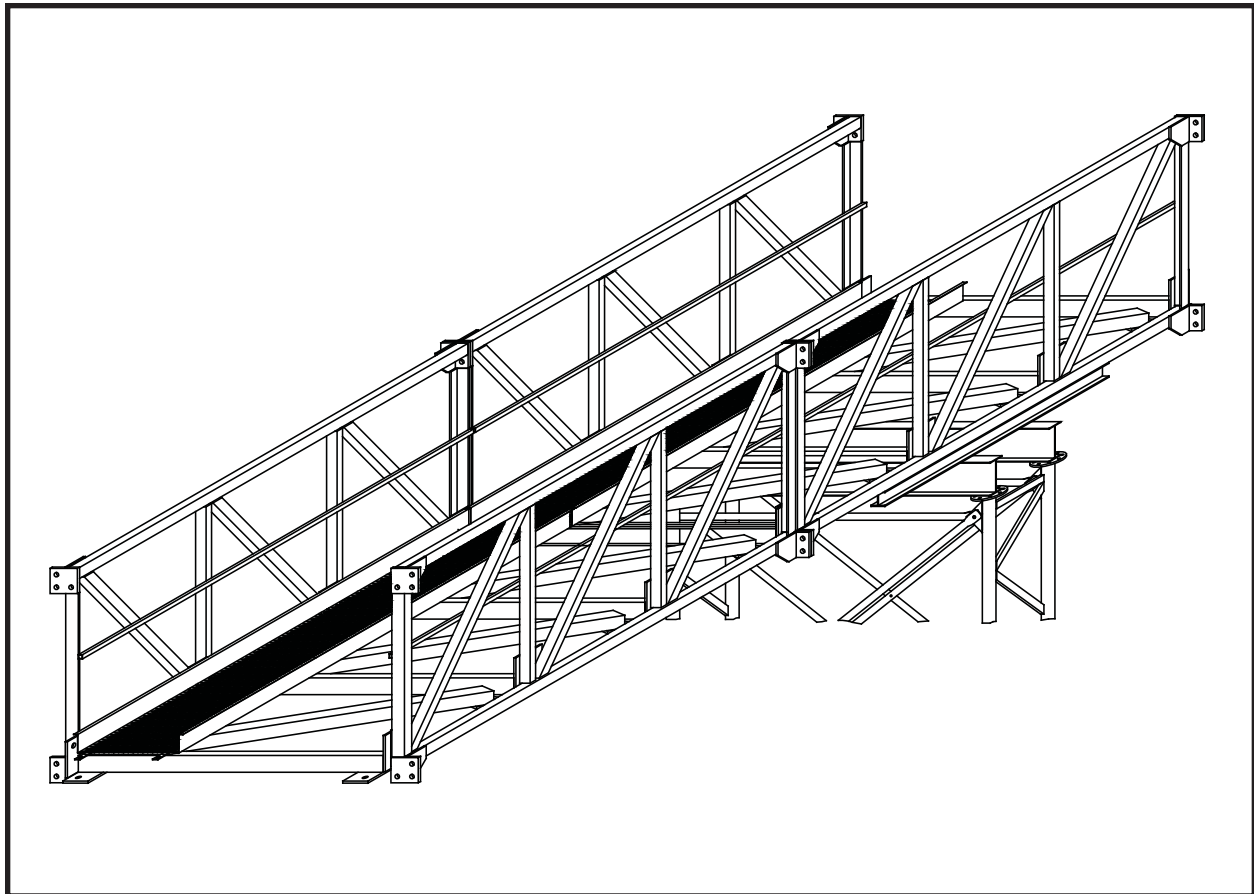


Brownie **SYSTEMS**

A Unit of **GLOBAL** Industries, Inc.

Type 6 C & D Catwalk

CONSTRUCTION AND OWNER'S MANUAL





The Symbol shown below is used to call your attention to instructions concerning your personal safety. Watch this symbol - it points out important safety precautions. It means "ATTENTION" - Become Alert! Your Personal Safety Is Involved! Read the message that follows and be alert to the possibility of personal injury or death.



Be Alert! **Your Personal Safety Is Involved**

A copy of this manual should be available at all times to the owner/operator. Additional copies may be requested from the company at the address shown on the back cover. Please reference manual part number 4000002 when requesting additional copies.

Please Contact BROWNIE SYSTEMS or Your Dealer
If You Have Any Questions Concerning This Manual

Keep This Manual In A Safe Place Available For Future Reference

The safety and performance of this catwalk, constructed and readied for operation will be affected by the installation and construction personnel. Catwalks generally involve extreme heights and high winds. Careful consideration must be given to the structural requirements. Brownie Systems cannot be responsible for the construction of the catwalk. The information obtained in this manual is offered only as a convenience to the installer. No liability is expressed or implied toward the installation.



PREFACE

You have purchased the finest catwalk manufactured today. The following information is intended as a guide for: catwalk pre-assembly, proper construction of your catwalk, and safe and proper use of your catwalk after construction.



General Safety Statement

Your safety and the safety of others associated with catwalks and grain system equipment, is of prime concern to us at Brownie Systems. This manual was written with the safety of the operator and/or others who come into contact with the catwalk as our prime concern. We wrote this manual to help you to better understand how to safely build and use your catwalk.

It is your responsibility as the owner, builder, operator, or supervisor, to know what specific requirements, precautions, and hazards exist and to make these known to all personnel working with the equipment or in the area, so that they too may take any necessary safety precautions that may be required!

Failure to read this Manual and its Safety Instructions by all personnel is a misuse of the equipment. We want you as our partner in safety!

All personnel, including construction personnel, must read and understand all equipment Operator's Manuals before starting catwalk construction!



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Warranty

Global Industries Inc. (the **Company**) makes the following warranty to the initial retail purchaser of its products (the **Customer**).

MATERIALS and WORKMANSHIP:

The Company warrants products manufactured by it to be free from defects in materials and workmanship in normal use and service for a period of one (1) year after date of delivery to the Customer.

COMPANY'S OBLIGATION and CUSTOMER'S EXCLUSIVE REMEDY:

The Company's sole obligation and the Customer's exclusive remedy under this warranty is as follows:

If within one (1) year after delivery to the customer the product fails to function properly due to a defect in either materials or workmanship, the Company will at its option, either repair the defective part or replace the defective part with a new or reconditioned part. Labor charges for removing defective parts and installing replacement parts, shipping charges with respect to such parts, and applicable sales and other taxes, if any, shall not be covered by this warranty.

CONDITIONS, LIMITATIONS, AND EXCLUSIONS:

There are no warranties or merchantability or fitness for a particular purpose with respect to any product manufactured or sold by the Company. Motors provided by the Company are in most instances warranted by the manufacturer thereof and are not warranted by the Company. The Company shall not be responsible under this warranty or otherwise for personal injury or for **Incidental or Consequential Damages**, including, without limitation, loss of use and lost profits. This warranty does not apply to defects or damages caused by misuse, improper maintenance, or improper installation of the Company's product or any equipment attached to or used in connection with the Company's product. The Company reserves the right to make changes or improvements to its products without incurring any obligation with respect to previously manufactured products. Field modification of this product without the expressed written permission of the Company constitutes a misuse of the product. The Company shall have no liability under this warranty until payment in full for the product in question has been made by the customer. The foregoing is the sole warranty made by the Company. No one is authorized to make other warranties on behalf of the Company.



Notes:

1

Safety



General Safety Requirements

This Brownie Systems Construction/Safety manual is written to assist and instruct those who are responsible for the complete catwalk assembly, and for anyone using the completed catwalk.

Global Industries, Inc. assumes no liability with respect to proper construction and inspection, assembly, or use of its products established under applicable laws, all of which is the sole responsibility of the purchaser and those doing the assembly work.

Appurtenances and the accessories manufactured by us for use with our products conform only to applicable Federal Safety Standards in effect at such time.

SAFETY COMPLIANCE

It is your responsibility as an owner or operator or supervisor, to know what specific requirements, precautions, and work hazards exist and to make these known to all other personnel working with the equipment or in the area, so that they too may take any necessary safety precautions that may be required.



WARNING! Watch For This Symbol: !

It Points Out Important Safety Precautions. It Means
“ATTENTION” - Become Alert! Your Safety Is Involved.



ALL INFORMATION ON THIS PAGE
IS WARNING INFORMATION!

WORK AREA SAFETY STATEMENT

Under no circumstances should persons not involved in the operation be allowed to **trespass** into or be present in the work area.

It shall be the duty of all operators to see that children and/or other persons stay out of the work area! Trespass into the work area by anyone not involved in the actual operations, or trespass into a hazard area by anyone, shall result in an immediate shut down by the operator.

It shall be the responsibility of all operators to see that the work area has secure footing and is clean and free of all debris and tools which might cause accidental tripping and/or falling. It shall also be their responsibility to keep the work area clean and orderly during the operation.



PROPER PERSONNEL

To insure safe use of your catwalk, be certain that only trained persons install, maintain, and use your catwalk.

WORK AREA AND EQUIPMENT SAFETY

Do not operate your equipment without shields and guards in place. Failure to heed this warning may result in serious personal injury or death.

Follow all climbing safety laws and regulations. When climbing catwalks, towers, tower stairways, tower ladders, tower platforms, tower accessories, and the like. Take care not to fall when working on catwalks or any time you are working from unsafe heights. Common sense dictates that such appurtenances should not be used when conditions such as rain or wind preclude their safe use. Brownie Systems strongly recommends that optional climbing equipment be purchased to meet the current specifications set forth by OSHA or ANSI whether the individual operator is required by law to do so or not. A properly secured safety belt should be used at all times when performing operations work or maintenance on catwalks.

Care must be taken to avoid entanglement in equipment installed in or on catwalks. Securely lock-out all power, be it electrical or PTO, before working on or near such equipment.

Field modification of the catwalk without the authorization of the manufacturer may present unknown dangers to the operator and must be avoided.

AUXILIARY EQUIPMENT SAFETY

You may decide to buy and install “auxiliary equipment” made by other manufacturers. Global Industries, Inc. has no control over the design and manufacture of this equipment. If you buy and install auxiliary equipment then at a minimum **we suggest that you do the following:**

- 1 Obtain, read, and understand the instructions and cautions of the auxiliary equipment manufacturer. Be certain all equipment is installed in agreement with the manufacturer’s instructions.
- 2 Check with Global Industries, Inc. or your dealer to make certain that your catwalk is designed to support any additional loads supplied by the auxiliary equipment.
- 3 Obtain any applicable safety decals from the manufacturer of the auxiliary equipment and make certain they are displayed in a visible location.
- 4 Make certain all electrical equipment is properly installed and grounded by a qualified electrician.
- 5 Check availability and operation of electrical lock-out and emergency stop systems.
- 6 Be certain all guards and shields are securely in place.
- 7 Store all operations/maintenance manuals in a safe place available for future use.



ALL INFORMATION ON THIS PAGE
IS WARNING INFORMATION!

OSHA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

Certain purchasers of our products may be subject to the requirements and standards of the William-Steiger Occupational Safety and Health Act of 1970, which prescribes standards for use of appurtenances of our manufacture, such as handrails, platforms, stairways, fixed ladders, ladder cages, and guard rails. (Occupational Safety and Health Standards Section 1910.21 through 1910.32). Before installing these devices, familiarize yourself with the above Federal Standards.

At the time of manufacture, these **optional** items conform to applicable standards. Global Industries, Inc. assumes no liability with respect to proper construction, assembly, inspection, or use of its products under applicable laws, all of which is the sole responsibility of the purchaser and those doing the assembly work.

OPERATOR QUALIFICATIONS

Operation of this unit shall be limited to competent and experienced persons. In order to be qualified, they must also know and meet all other requirements, such as, but not limited to, the following:

- 1** Some laws and regulations specify that no one under the age of 16 years may operate power machinery. It is your responsibility to know what these requirements are in your own area or situation.
- 2** Current OSHA regulations state in part: "At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved."*
- 3** Unqualified persons are to **STAY OUT** of the work area.
- 4** A person who has not read and understood all operating and safety instructions is not qualified to operate the machine.

* Federal Occupational Safety and Health Standards for Agriculture, Subpart D. Section 9128.57 (a) (6).

SAFETY QUESTIONS OR CONCERNS

Please contact Brownie Systems with any specific [catwalk / grain systems] equipment use safety needs!

Phone: 1-800-228-4285

Fax: 1-308-382-6954





WARNING! Owners and Contractors: Before starting construction of your catwalk, 1) READ AND UNDERSTAND THIS MANUAL! 2) Read and understand the instructions for all equipment, auxiliary equipment, structures, other products, and the like within or connected to this catwalk system / grain system. 3) View all illustrations in this manual. 4) Read and understand any applicable OSHA Regulations, Building Codes, and Electric Codes.



WARNING! Make certain that all persons on catwalks during construction are properly fastened to safety cables to prevent injury or death due to falling!



WARNING! Installation of accessories or equipment in or on the catwalk that would over stress the structure in any manner will void the Warranty. If you do not have specific recommendations from Brownie Systems, where additional loading is involved, please contact Brownie Systems before installing any such appurtenances or equipment.



WARNING! Make certain that all persons within the work area on ladders, lifts, crane lifts, scaffolds, or the like are secure and not in danger of falling! Also make certain that the work surfaces are clean and free of clutter.



WARNING! UNDER NO CIRCUMSTANCES SHALL ANY OTHER BOLT BE SUBSTITUTED FOR THOSE SUPPLIED BY Brownie Systems!



WARNING! Any alterations to catwalks without the authorization of the Brownie Systems engineering department is prohibited!



ALL INFORMATION ON THIS PAGE IS WARNING INFORMATION!



WARNING! Local codes supersede the instructions provided in this manual and should be strictly adhered to. Contact the manufacturer if you have questions.



WARNING! Avoid injury or death! Use extreme caution when working from heights. Use the proper equipment when working from heights. Take the proper precautions to prevent persons or objects from falling!



WARNING! DO NOT substitute parts or hardware for those supplied by Brownie Systems.



WARNING! Read and understand all of the instructions in this manual before starting assembly. Build your catwalks in accordance with the instructions. Failure to build your catwalk correctly could result in structural damage or failure! Structural damage or failure of any of these assemblies could result in injury or death of persons. Call Brownie Systems using the phone number on the back of the manual if you have any questions regarding assembly.



WARNING! Be certain to build your catwalk in exact accordance with your catwalk layout!



WARNING! Do not use any damaged catwalk components. It may not be safe.



WARNING! Call the factory right away if any of the following situations occur: 1) You encounter any problems with catwalk construction. 2) You have modified (or plan to modify) the catwalk or any equipment supported by the catwalk in a significant way. 3) A modification is made that adds (or may add) wind loading to the catwalk.



ALL INFORMATION ON THIS PAGE
IS WARNING INFORMATION!



WARNING! Do not attempt catwalk construction when the weather makes it unsafe. Especially, when wind conditions are not favorable!



WARNING! When adding additional equipment not previously accounted for, considerable wind load or weight may be added to the catwalk. Be certain that your Brownie catwalk is designed and staged for all equipment, and any future additions. If you are uncertain, contact the factory before installing the catwalk.



ALL INFORMATION ON THIS PAGE IS WARNING INFORMATION!



WARNING! Pre-position components before field welding. Verify that all installation requirements are satisfied!



WARNING! IMPORTANT: If any question or difficulty should arise during the process of catwalks installation, the contractor or owner should contact Brownie Systems to get an answer or to resolve the problem!



Operating Safety

Follow these **4 BASIC SAFETY RULES** for your grain systems equipment to make certain that accidents do not occur! Make certain that everyone working with or around your catwalk follows these rules!

- 1** Be certain that all covers, grates, and guards are in place and securely fastened before operating!
- 2** Never step or walk on conveyor covers, grates or guards!
- 3** Lock out all power before removing covers, grates or guards! Secure all chains and belts so that they can't move before working on any part of your conveyor or bucket elevator.
- 4** Don't modify or redesign your catwalk without first consulting Brownie Systems.

Following these 4 basic safety rules is a proven way to reduce accidents! Be certain to provide all employees working on or near your catwalk with effective safety training, including management.

It is ok to add extra safety rules for your job site but **DO NOT SUBSTITUTE** other safety procedures for the 4 safety rules! Following the safety rules given for the safe use of your catwalk requires a commitment at all levels within your company.

SECONDARY SAFETY DEVICES

Components such as interlock switches, may be helpful but are not fail safe and should not be substituted for a proper lock out procedure. Do not rely on a switch that can fail, can lose adjustment or can be bypassed. A proper lock-out procedure will prevent accidents.

REMEMBER! There is no substitute for a commitment to safety!

OTHER IMPORTANT OPERATING SAFETY CONCERNS

- 1** Do not make contact with or place body parts near moving components and or moving equipment! Also remember, do not wear loose clothing near moving equipment parts!
- 2** Have a safety program in place for all personnel. Install any necessary warning signs. Make certain all personnel working in the catwalk area know where all equipment emergency controls and devices are!
- 3** Work Site Area lighting is part of Work Site Area safety!
- 4** Completely stop unauthorized climbing access to your catwalk.

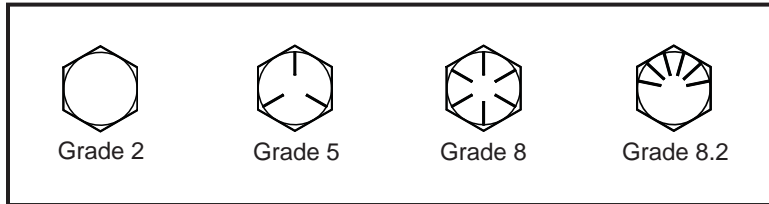


ALL INFORMATION ON THIS PAGE
IS WARNING INFORMATION!

2

Bolt Torque

Bolt Head Identification



Bolt Torque Value Table

Bolt Diameter	Torque			
	SAE Grade 2	SAE Grade 5	SAE Grade 8	SAE Grade 8.2
1/4" - 20	6 ft-lbs, 8 Nm, 0.8 kgf-m			
5/16" - 18	8 ft-lbs, 10 Nm, 1.1 kgf-m	13 ft-lbs, 17 Nm, 1.8 kgf-m	25 ft-lbs, 33 Nm, 3.4 kgf-m	25 ft-lbs, 33 Nm, 3.4 kgf-m
3/8" - 16	20 ft-lbs, 27 Nm, 2.7 kgf-m	25 ft-lbs, 33 Nm, 3.4 kgf-m		
3/4" - 10		240 ft-lbs, 325 Nm, 33.2 kgf-m		
1" - 8		696 ft-lbs, 943 Nm, 96.2 kgf-m		

Use the torque values listed in the table above for all catwalk hardware connections!



WARNING! CRITICAL: The correct bolts as specified and provided by Brownie Systems must be used throughout the entire assembly of this Catwalk! And, the correct bolt torques as indicated in the table above must be achieved throughout the entire assembly! Using the wrong bolts or not achieving the correct torque values could result in the structural damage or failure of this Catwalk!

3

Assembly

Introduction

TYPE 6 CATWALKS

Type 6 Catwalk is available in 3' [914mm], 6' [1,829mm], and 9' [2,743mm] lengths. The following instructions provide step by step assembly and installation guidelines, based on 9' [2,743mm] catwalk sections; 3' [914mm] and 6' [1,829mm] sections follow the same general guidelines.

TOOLS REQUIRED FOR ASSEMBLY

- 7/16" open-end wrench and socket
- 1/2" open-end wrench and socket
- 9/16" open-end wrench and socket
- 1 1/8" open-end wrench and socket
- 1 1/2" open-end wrench and socket
- torque wrench

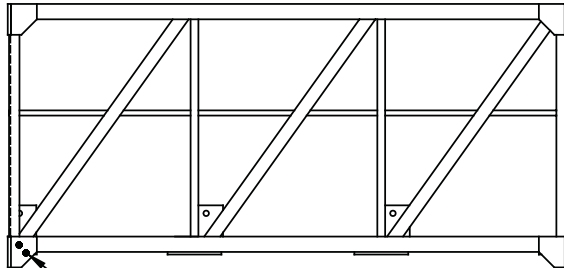
Contact the factory with any Catwalk or Catwalk component construction or assembly problems.

Phone: 1-800-228-4285

Fax: 1-308-382-6954

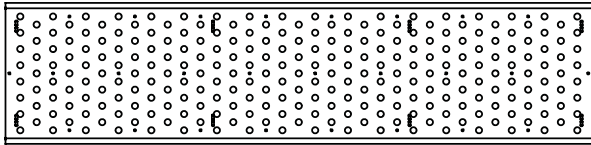


Parts List, 30" [762mm] Mounting Area

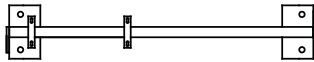


Identification mark
Grade C - one weld bump
Grade D - two weld bumps

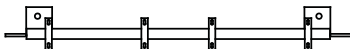
TRUSS SIDE



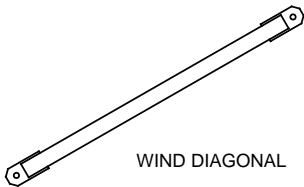
WALKWAY PLANK



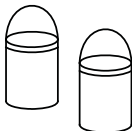
CROSS MEMBER



TERMINATING CROSS MEMBER



WIND DIAGONAL



HARDWARE PACKAGE

- 25 - 1" NC x 2-1/2" Grade 5 *
hex bolt, lock washer & nut
- 7 - 1" NC x 4" Grade 5 *
hex bolt, lock washer & nut
- 9 - 5/16" NC x 1-1/2" *
carriage bolt, flat washer, lock washer & nut
- 9 - Diamond Anchor
- 4 - 1" Sq. Plastic Plug

* NC = Unified National Course Bolt Thread

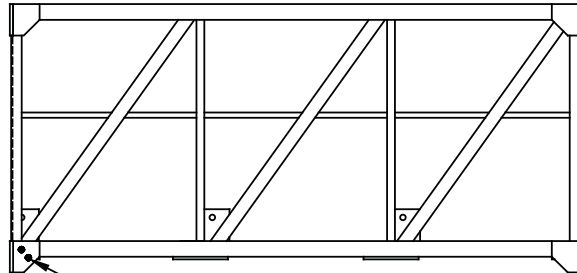
Grade C

	Part Number	Description	Qty.
9FT SECTION	(G)4500562	Truss side	2
	G1921130	Walkway plank	1
	(G)4500582	Cross member	3
	(G)4500574	Wind diagonal	3
	1901296	Hardware package	1
6FT SECTION	(G)4500563	Truss side	2
	G1921131	Walkway plank	1
	(G)4500582	Cross member	2
	(G)4500574	Wind diagonal	2
	1901296	Hardware package	1
3FT SECTION	(G)4500564	Truss side	2
	G1921132	Walkway plank	1
	(G)4500582	Cross member	1
	(G)4500574	Wind diagonal	1
	1901296	Hardware package	1
**	(G)4500590	Terminating cross member	2/run

Grade D

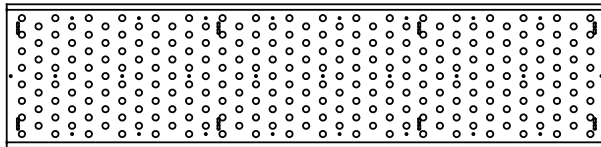
	Part Number	Description	Qty.
9FT SECTION	(G)4500565	Truss side	2
	G1921130	Walkway plank	1
	(G)4500582	Cross member	3
	(G)4500574	Wind diagonal	3
	1901296	Hardware package	1
6FT SECTION	(G)4500566	Truss side	2
	G1921131	Walkway plank	1
	(G)4500582	Cross member	2
	(G)4500574	Wind diagonal	2
	1901296	Hardware package	1
3FT SECTION	(G)4500567	Truss side	2
	G1921132	Walkway plank	1
	(G)4500582	Cross member	1
	(G)4500574	Wind diagonal	1
	1901296	Hardware package	1
**	(G)4500590	Terminating cross member	2/run

Parts List, 44" [1,118mm] Mounting Area

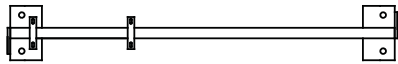


Identification mark
 Grade C - one weld bump
 Grade D - two weld bumps

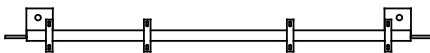
TRUSS SIDE



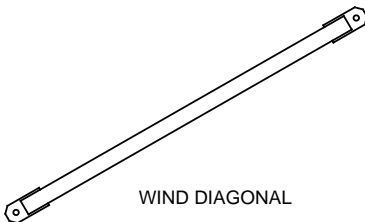
WALKWAY PLANK



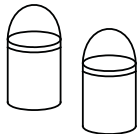
CROSS MEMBER



TERMINATING CROSS MEMBER



WIND DIAGONAL



HARDWARE PACKAGE

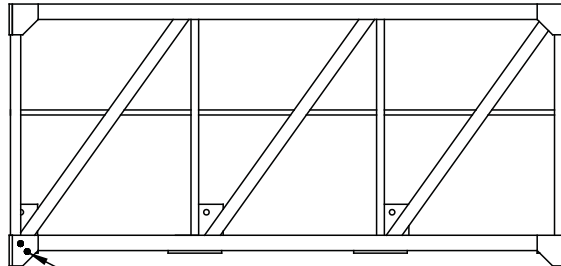
- 25 - 1" NC x 2-1/2" Grade 5*
hex bolt, lock washer & nut
- 7 - 1" NC x 4" Grade 5*
hex bolt, lock washer & nut
- 9 - 5/16" NC x 1-1/2**
carriage bolt, flat washer, lock washer & nut
- 9 - Diamond Anchor
- 4 - 1" Sq. Plastic Plug

* NC = Unified National Course Bolt Thread

	Part Number	Description	Qty.
Grade C	9FT SECTION		
	(G)4500562	Truss side	2
	G1921130	Walkway plank	1
	(G)4500583	Cross member	3
	(G)4500575	Wind diagonal	3
	1901296	Hardware package	1
	6FT SECTION		
	(G)4500563	Truss side	2
	G1921131	Walkway plank	1
	(G)4500583	Cross member	2
	(G)4500575	Wind diagonal	2
	1901296	Hardware package	1
3FT SECTION			
(G)4500564	Truss side	2	
G1921132	Walkway plank	1	
(G)4500583	Cross member	1	
(G)4500575	Wind diagonal	1	
1901296	Hardware package	1	
**	(G)4500591	Terminating cross member	2/run
Grade D	9FT SECTION		
	(G)4500565	Truss side	2
	G1921130	Walkway plank	1
	(G)4500583	Cross member	3
	(G)4500575	Wind diagonal	3
	1901296	Hardware package	1
	6FT SECTION		
	(G)4500566	Truss side	2
	G1921131	Walkway plank	1
	(G)4500583	Cross member	2
	(G)4500575	Wind diagonal	2
	1901296	Hardware package	1
3FT SECTION			
(G)4500567	Truss side	2	
G1921132	Walkway plank	1	
(G)4500583	Cross member	1	
(G)4500575	Wind diagonal	1	
1901296	Hardware package	1	
**	(G)4500591	Terminating cross member	2/run

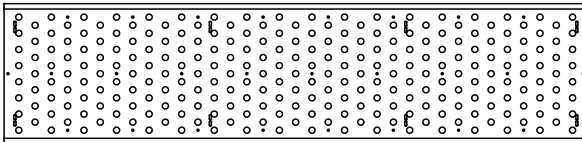


Parts List, 60" [1,524mm] Mounting Area

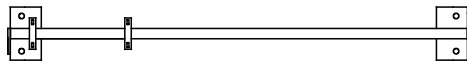


Identification mark →
Grade C - one weld bump
Grade D - two weld bumps

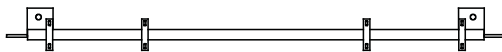
TRUSS SIDE



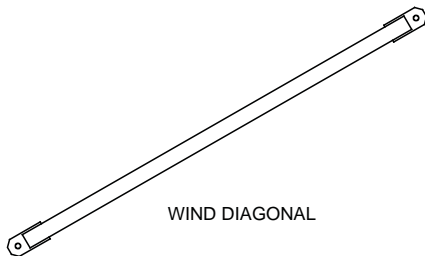
WALKWAY PLANK



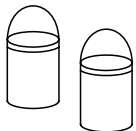
CROSS MEMBER



TERMINATING CROSS MEMBER



WIND DIAGONAL



HARDWARE PACKAGE

- 25 - 1" NC x 2-1/2" Grade 5*
hex bolt, lock washer & nut
- 7 - 1" NC x 4" Grade 5*
hex bolt, lock washer & nut
- 9 - 5/16" NC x 1-1/2" *
carriage bolt, flat washer, lock washer & nut
- 9 - Diamond Anchor
- 4 - 1" Sq. Plastic Plug

* NC = Unified National Course Bolt Thread

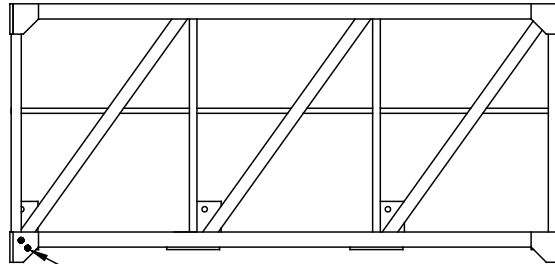
Grade C

	Part Number	Description	Qty.
9FT SECTION	(G)4500562	Truss side	2
	G1921130	Walkway plank	1
	(G)4500584	Cross member	3
	(G)4500576	Wind diagonal	3
	1901296	Hardware package	1
6FT SECTION	(G)4500563	Truss side	2
	G1921131	Walkway plank	1
	(G)4500584	Cross member	2
	(G)4500576	Wind diagonal	2
	1901296	Hardware package	1
3FT SECTION	(G)4500564	Truss side	2
	G1921132	Walkway plank	1
	(G)4500584	Cross member	1
	(G)4500576	Wind diagonal	1
	1901296	Hardware package	1
*	(G)4500592	Terminating cross member	2/run

Grade D

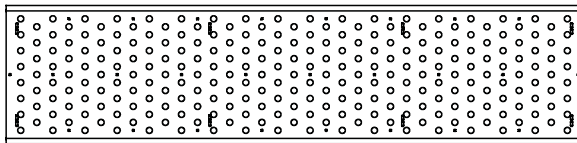
	Part Number	Description	Qty.
9FT SECTION	(G)4500565	Truss side	2
	G1921130	Walkway plank	1
	(G)4500584	Cross member	3
	(G)4500576	Wind diagonal	3
	1901296	Hardware package	1
6FT SECTION	(G)4500566	Truss side	2
	G1921131	Walkway plank	1
	(G)4500584	Cross member	2
	(G)4500576	Wind diagonal	2
	1901296	Hardware package	1
3FT SECTION	(G)4500567	Truss side	2
	G1921132	Walkway plank	1
	(G)4500584	Cross member	1
	(G)4500576	Wind diagonal	1
	1901296	Hardware package	1
**	(G)4500592	Terminating cross member	2/run

Parts List, 72" [1,829mm] Mounting Area

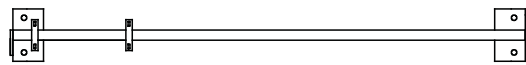


Identification mark
 Grade C - one weld bump
 Grade D - two weld bumps

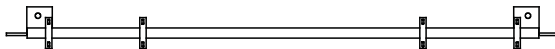
TRUSS SIDE



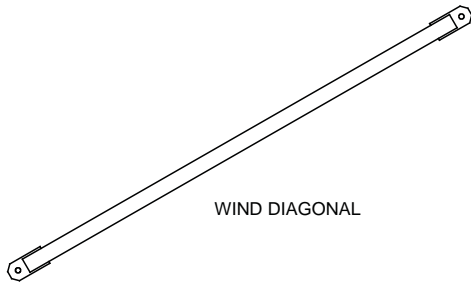
WALKWAY PLANK



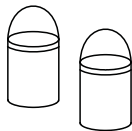
CROSS MEMBER



TERMINATING CROSS MEMBER



WIND DIAGONAL



HARDWARE PACKAGE

- 25 - 1" NC x 2-1/2" Grade 5*
hex bolt, lock washer & nut
- 7 - 1" NC x 4" Grade 5*
hex bolt, lock washer & nut
- 9 - 5/16" NC x 1-1/2" *
carriage bolt, flat washer, lock washer & nut
- 9 - Diamond Anchor
- 4 - 1" Sq. Plastic Plug

* NC = Unified National Course Bolt Thread

Grade C

	Part Number	Description	Qty.
9FT SECTION	(G)4500562	Truss side	2
	G1921130	Walkway plank	1
	(G)4500585	Cross member	3
	(G)4500586	Wind diagonal	3
	1901296	Hardware package	1
6FT SECTION	(G)4500563	Truss side	2
	G1921131	Walkway plank	1
	(G)4500585	Cross member	2
	(G)4500586	Wind diagonal	2
	1901296	Hardware package	1
3FT SECTION	(G)4500564	Truss side	2
	G1921132	Walkway plank	1
	(G)4500585	Cross member	1
	(G)4500586	Wind diagonal	1
	1901296	Hardware package	1
**	(G)4500593	Terminating cross member	2/run

Grade D

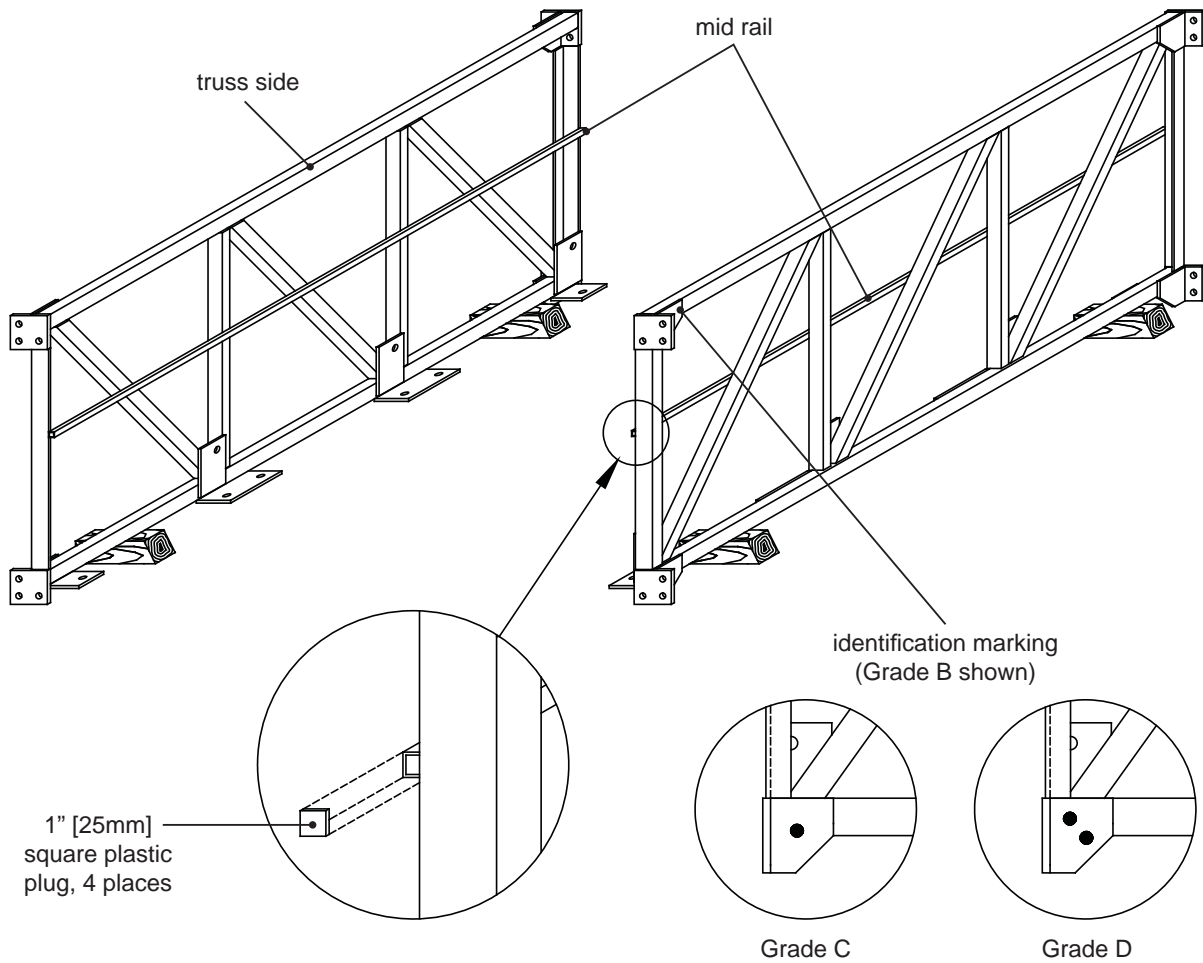
	Part Number	Description	Qty.
9FT SECTION	(G)4500565	Truss side	2
	G1921130	Walkway plank	1
	(G)4500585	Cross member	3
	(G)4500586	Wind diagonal	3
	1901296	Hardware package	1
6FT SECTION	(G)4500566	Truss side	2
	G1921131	Walkway plank	1
	(G)4500585	Cross member	2
	(G)4500586	Wind diagonal	2
	1901296	Hardware package	1
3FT SECTION	(G)4500567	Truss side	2
	G1921132	Walkway plank	1
	(G)4500585	Cross member	1
	(G)4500586	Wind diagonal	1
	1901296	Hardware package	1
**	(G)4500593	Terminating cross member	2/run



Catwalk Sections

1

Truss Sides



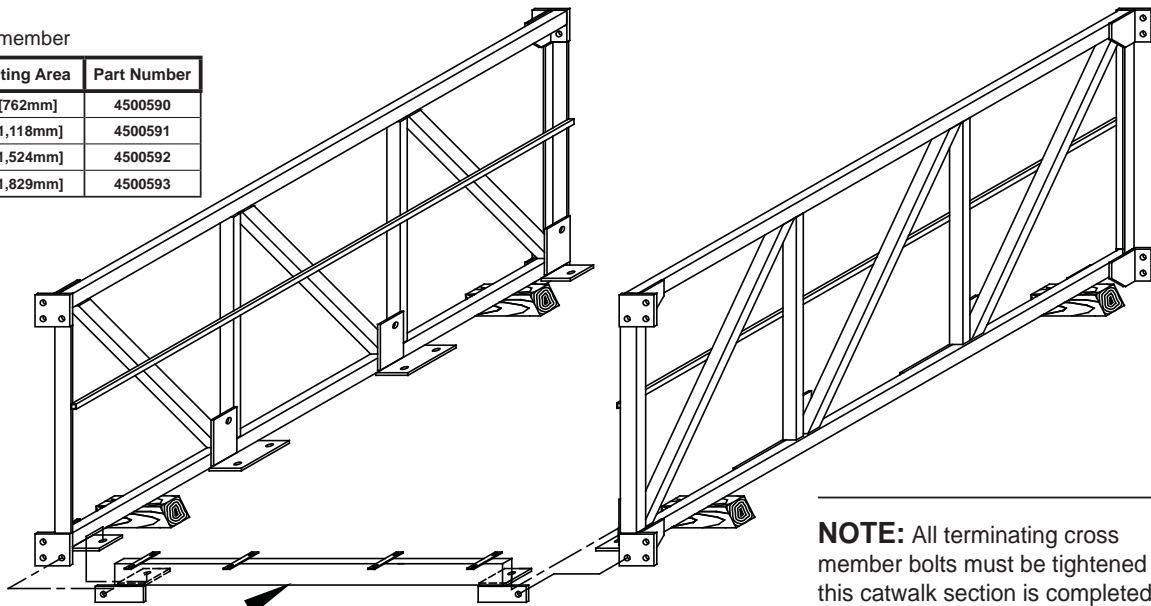
Check truss side identification marking for required grade. Place (2) truss sides opposite each other (mid rails facing inward). Plug mid rails at each end with 1" [25mm] square plastic plugs.

2

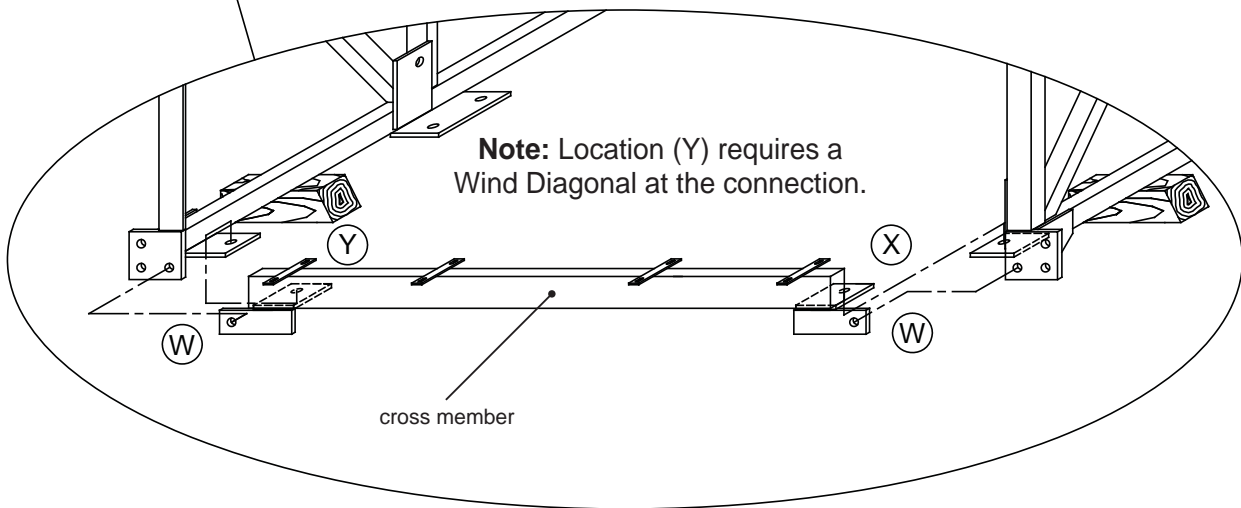
Terminating Cross Member

cross member

Mounting Area	Part Number
30" [762mm]	4500590
44" [1,118mm]	4500591
60" [1,524mm]	4500592
72" [1,829mm]	4500593



NOTE: All terminating cross member bolts must be tightened after this catwalk section is completed and bolted to the adjoining catwalk section in **assembly step 7**.



Note: Location (Y) requires a Wind Diagonal at the connection.

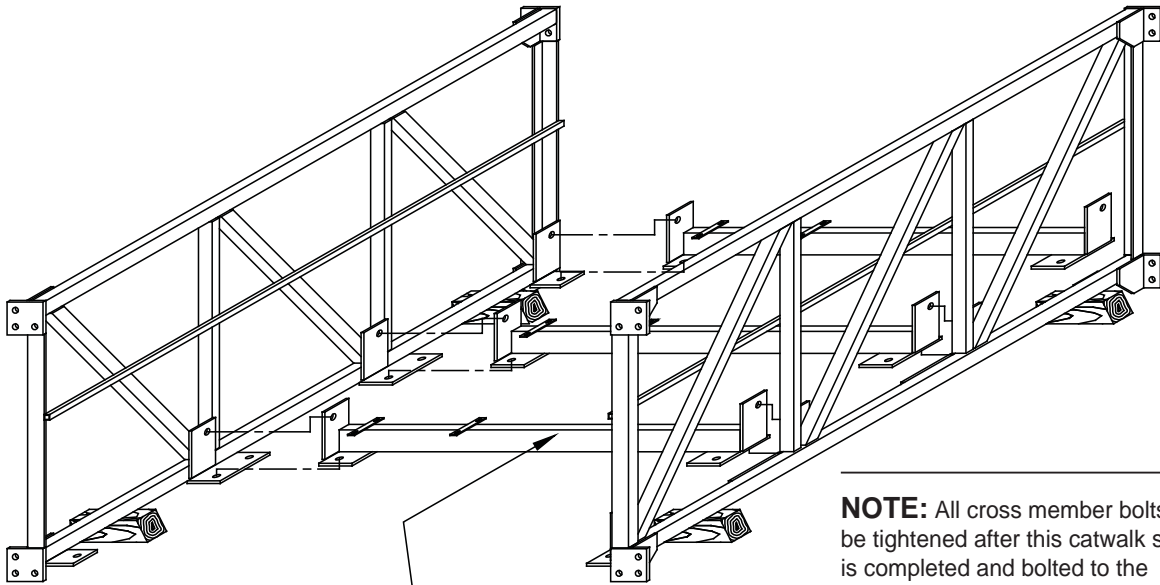
(1) terminating cross member is required at BOTH the start and end of the catwalk run! Bolt the terminating cross member to truss sides at locations (W) and (X). Use 1" x 2 1/2" grade 5 hex bolts, lock washers and nuts. Install bolts finger-tight at this time.

NOTE: The terminating cross member is common between both grade C and grade D type 6 catwalk.

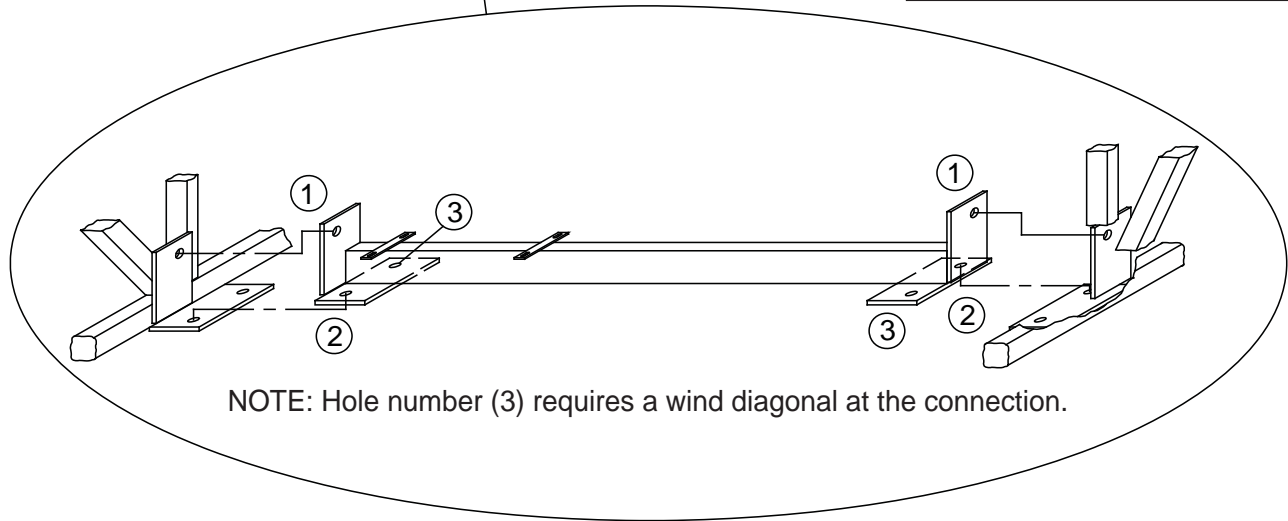


3

Cross Members



NOTE: All cross member bolts must be tightened after this catwalk section is completed and bolted to the adjoining catwalk section in **step 7**.



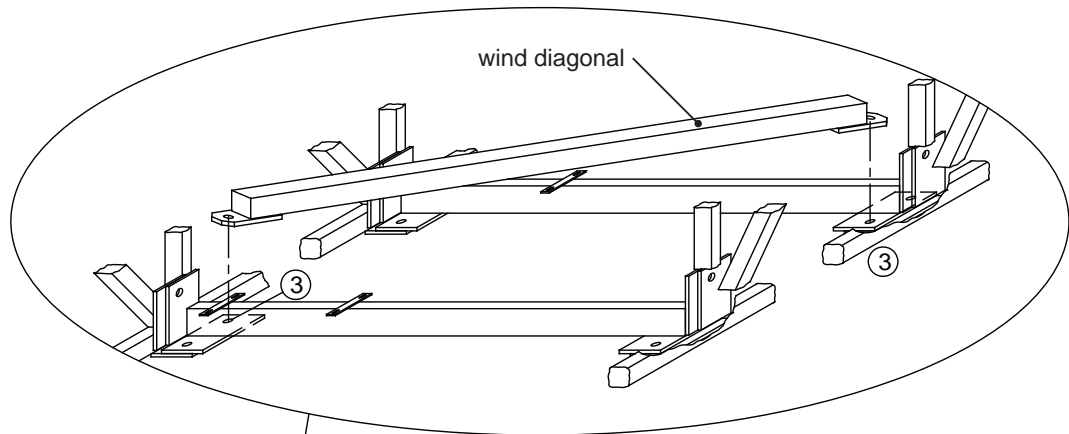
NOTE: Hole number (3) requires a wind diagonal at the connection.

Install (3) cross members to truss sides. Use 1" x 2 1/2" grade 5 hex bolts, nuts, and lock washers ("finger tight") at designated holes only. Designated holes are numbered for clarity (see above).

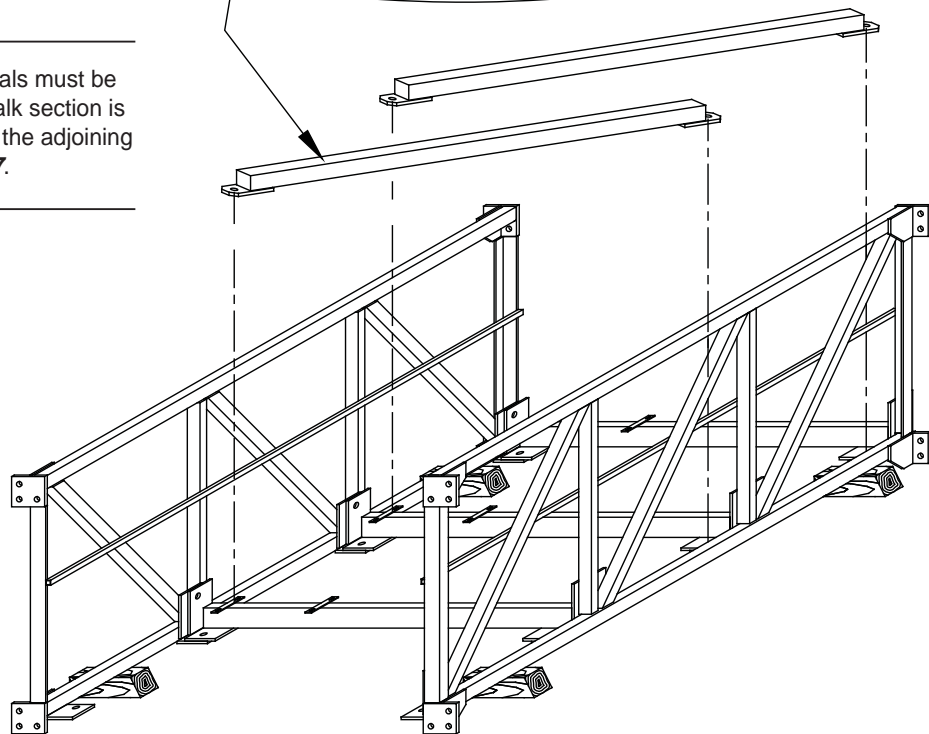
NOTE: Walkways will connect to the tabs on cross members. Make certain walkway tabs line up to desired walkway side.

4

Wind Diagonals



NOTE: All wind diagonals must be tightened after this catwalk section is completed and bolted to the adjoining catwalk section in **step 7**.



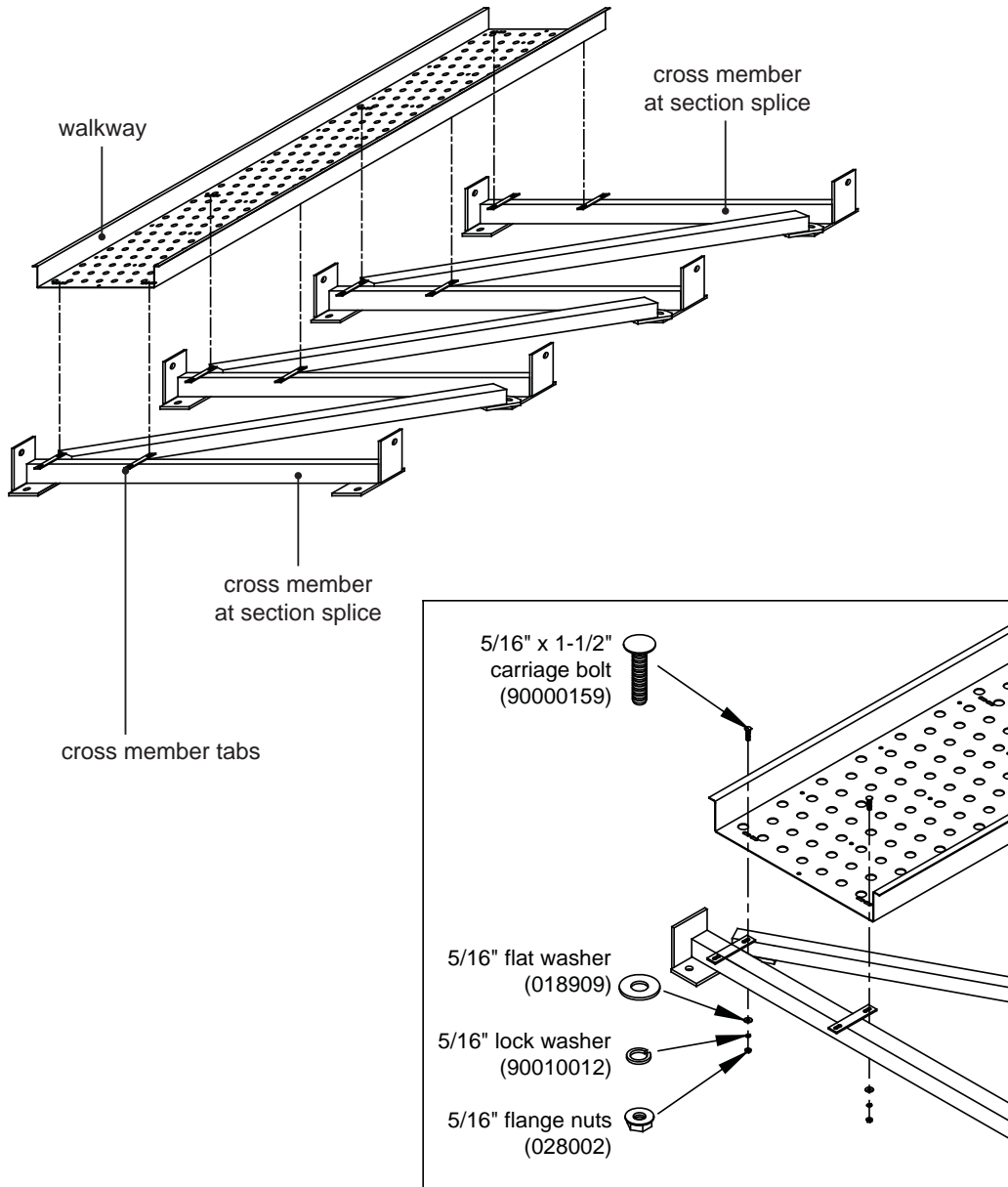
Install wind diagonals and cross members to truss sides at number (3) mounting position using 1" x 4" grade 5 hex bolt, nuts, and lockwashers ("finger tight").

NOTE: Wind diagonals are positioned parallel to one another. In other words, holes 3 and 3 (see example above) are used for installation throughout the entire run. Alternatively, wind diagonal installation using holes 2 and 2 throughout the entire run is acceptable. If installation configuration interferes with your conveyor, see **Enlarged Drop-Thru Opening**.



5

Walkways



Install (1) walkway. Install the walkway to the cross members. Use 5/16" x 1 1/2" carriage bolts, flat washers, lock washers and flange nuts.

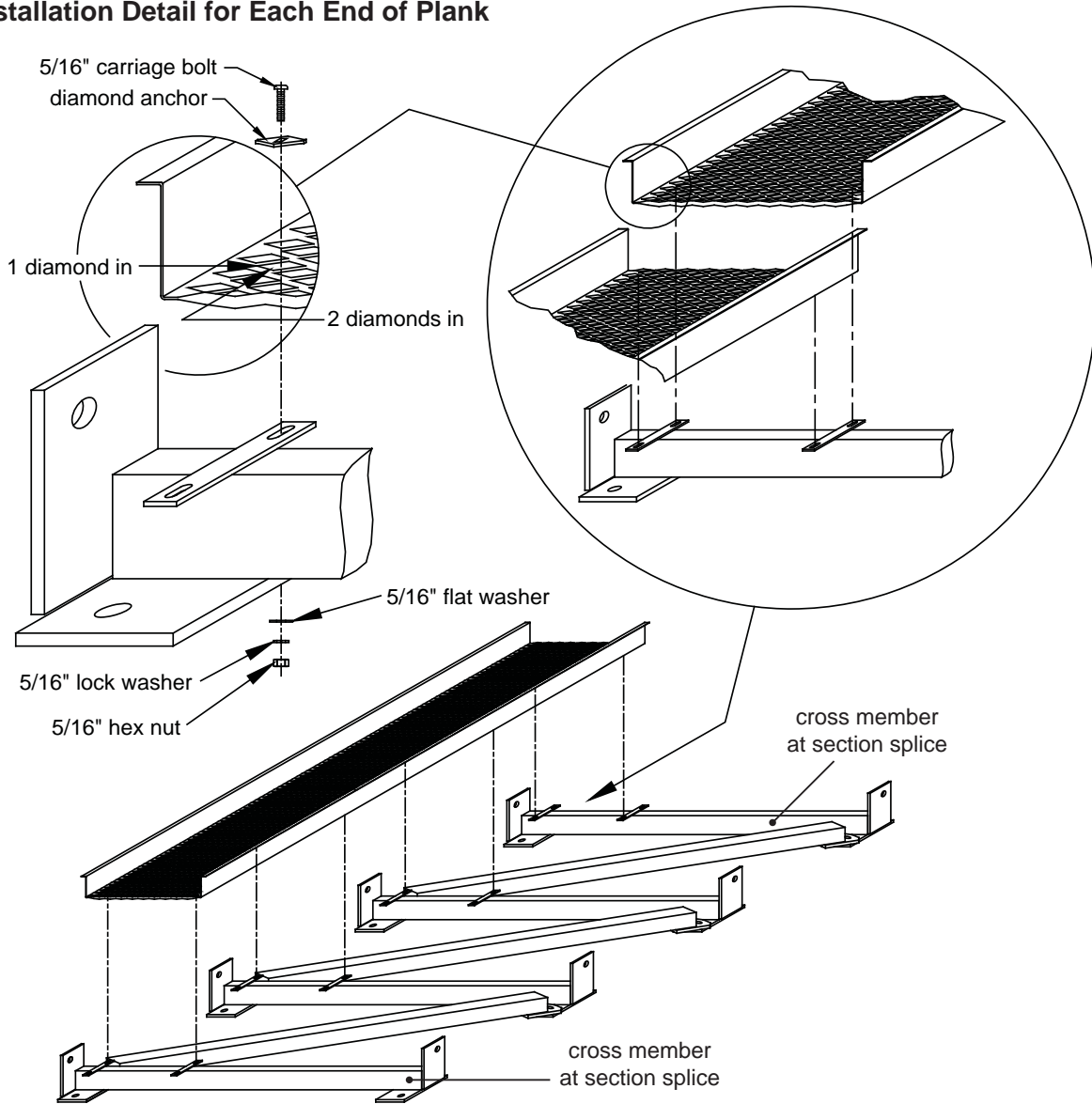
NOTE: The cross members may have (2) (see the example above) or (4) tabs. Use the slotted mounting holes.

NOTE: Truss sides are not shown in the example above for clarity.

6

Optional Diamond Walkways

Installation Detail for Each End of Plank



Install (1) walkway. Install the walkway to the cross members. Use 5/16" x 1 1/2" carriage bolts, flat washers, lock washers, flange nuts, and diamond anchors.

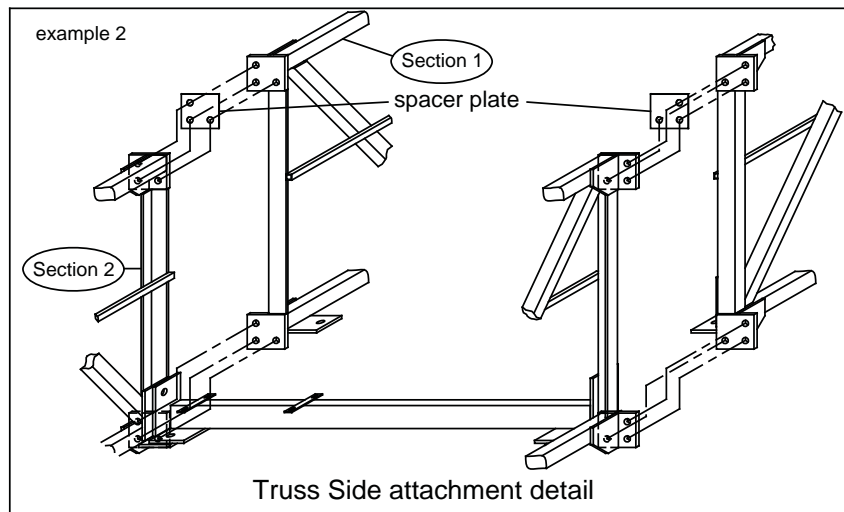
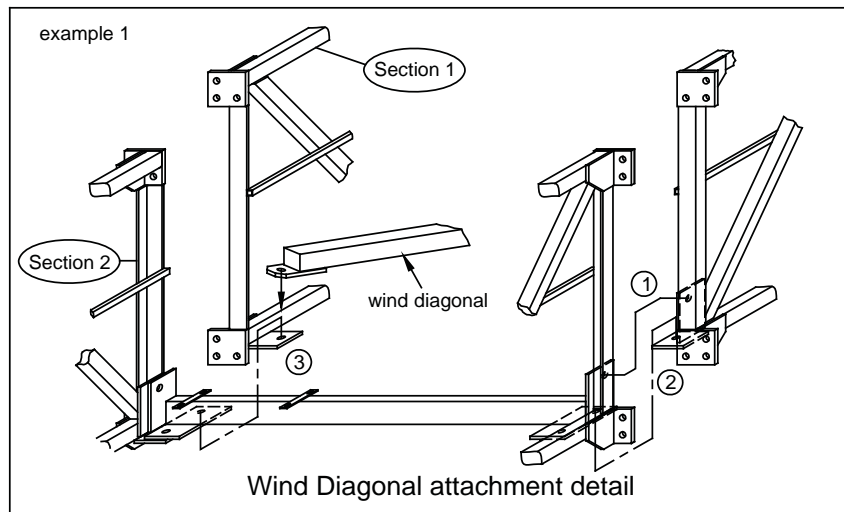
NOTE: The cross members may have (4) tabs (see the example above). Use the slotted mounting tabs.

NOTE: Truss sides are not shown in the example above for clarity.



7i

Connect Catwalk Sections



- 1** Connect truss sides (section 1) to cross member at positions 1 and 2 as shown in example 1. Use 1" x 2 1/2" grade 5 hex bolts, lock washers, and nuts. Leave connections "finger tight" at this time.
- 2** Install (1) wind diagonal. Connect wind diagonal to position 3. Use 1" x 4" grade 5 hex bolt, lock washer and nut. Install opposite end of wind diagonal to previous cross member in section 1. Use 1" x 4" grade 5 hex bolt, lock washer and nut.
- 3** Connect truss sides (section 1 and section 2) together as shown in example 2, sandwiching (1) spacer plate per side on top. Use 1" x 2 1/2" grade 5 hex bolts, lock washers, and nuts. Leave connections "finger tight" at this time.
- 4** Proceed to torque ALL bolts down on section 1 only (this includes the truss side splicing hardware, step 3), to the Bolt Torque specifications on [page 14](#). Do not torque the section 2 bolt connections until the following section is joined. If section 2 is the last section of the run, then proceed to torque all bolts to specified torques.

7ii

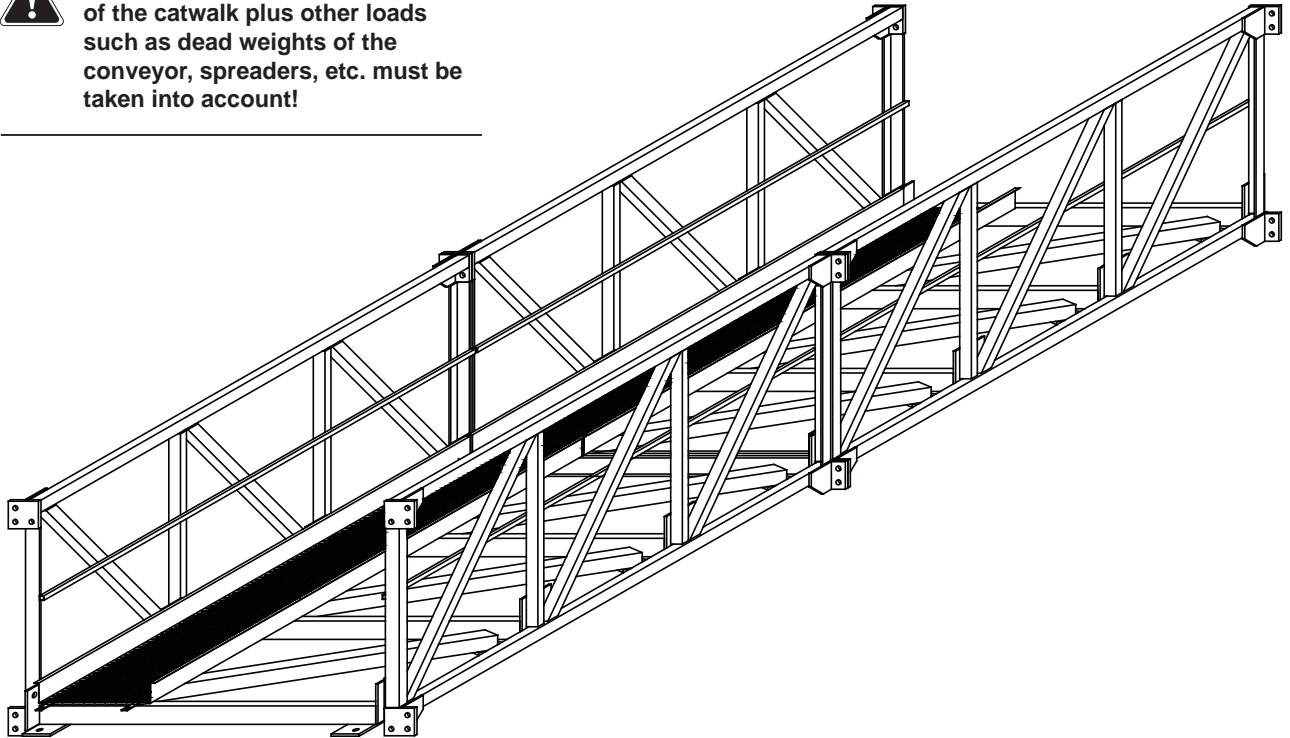
Weights for 6C and 6D Catwalks

6C = approximately 140 (lbs/ft) / [208 kg/m]

6D = approximately 160 (lbs/ft) / [238.0 kg/m]



NOTE: When hoisting, the weight of the catwalk plus other loads such as dead weights of the conveyor, spreaders, etc. must be taken into account!



Repeat **all the steps** to install additional catwalk sections until the catwalk run is complete.



NOTE: The number of catwalk sections connected together at one time is dependent on the capabilities of the crane lifting the unit into place.



Rule of Thumb: Rigging from the crane must lift the catwalk assembly at points that are equal to half of the catwalk free span.

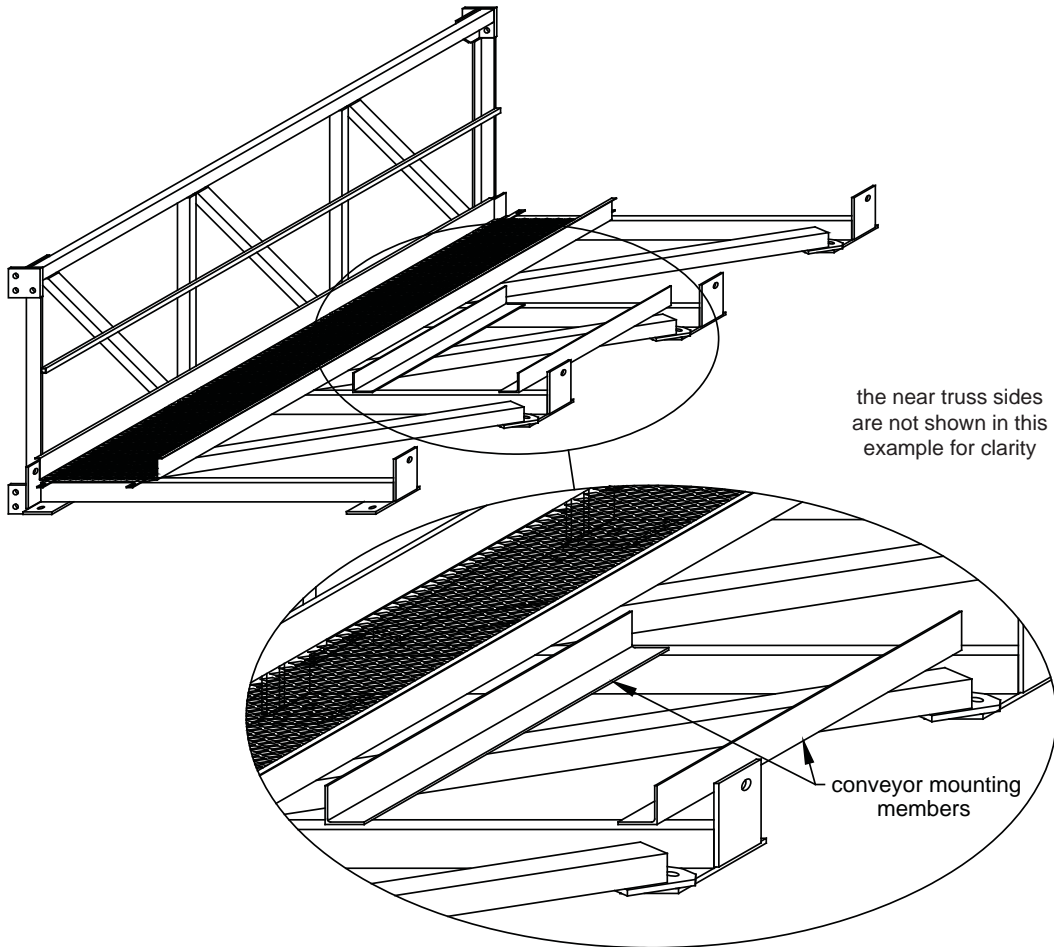


Conveyor Mounting

1i



NOTE: When hoisting, the weight of the catwalk plus other loads such as dead weights of the conveyor, spreaders, etc. must be taken into account!



Recommended Angle Size

Conveyor Load	No Drive Motor	DRIVE MOTOR WEIGHT		
		1,000 - 2,000 lbs [373 - 746 kg]	2,000 - 3,000 lbs [746 - 1,119 kg]	3,000-6,000 lbs [1,119-2,239 kg]
0-200 lbs/ft [0-298 kg/m]	3" x 3" x 1/4" [77mm x 77mm x 7mm]	4" x 4" x 1/4" [102mm x 102mm x 7mm]	4" x 4" x 1/4" [102mm x 102mm x 7mm]	-
200-400 lbs/ft [298-596 kg/m]	4" x 4" x 1/4" [102mm x 102mm x 7mm]	-	4" x 4" x 3/8" [102mm x 102mm x 10mm]	-
400-600 lbs/ft [596-893 kg/m]	4" x 4" x 3/8" [102mm x 102mm x 10mm]	-	-	6" x 6" x 3/8" [153mm x 153mm x 10mm]

1ii

See the examples on the previous page to perform the instructions on this page. The conveyor may be mounted on the ground, before lifting in place, or after complete installation. Either method is acceptable.

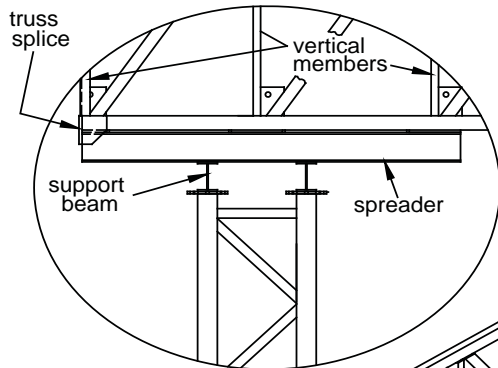
- 1** Determine the mounting locations. Span angle iron (not included) across at least (2) cross members (3' [914mm]). (Angle Iron is supplied by Brownie Systems upon request only). See the example on the previous page. Angle size recommendations are listed in the table on the previous page. Weld angle iron to the cross members at all contact points. Or, adequately bolt angle iron to cross members (hardware not supplied).
- 2** Lift and position the conveyor into place (mounting locations on the conveyor must rest on the welded (or bolted) angle iron (hardware not supplied)).
- 3** Weld or bolt conveyor to conveyor mounting angles. If bolting the conveyor, DO NOT drill into cross members.
- 4** Apply touch-up paint on all welded surfaces.

NOTE: If your catwalk structure interferes with conveyor drop-thru, see **Enlarged Drop-Thru Opening**.

NOTE: DO NOT cut truss sides to fit in Conveyor Drive Unit.



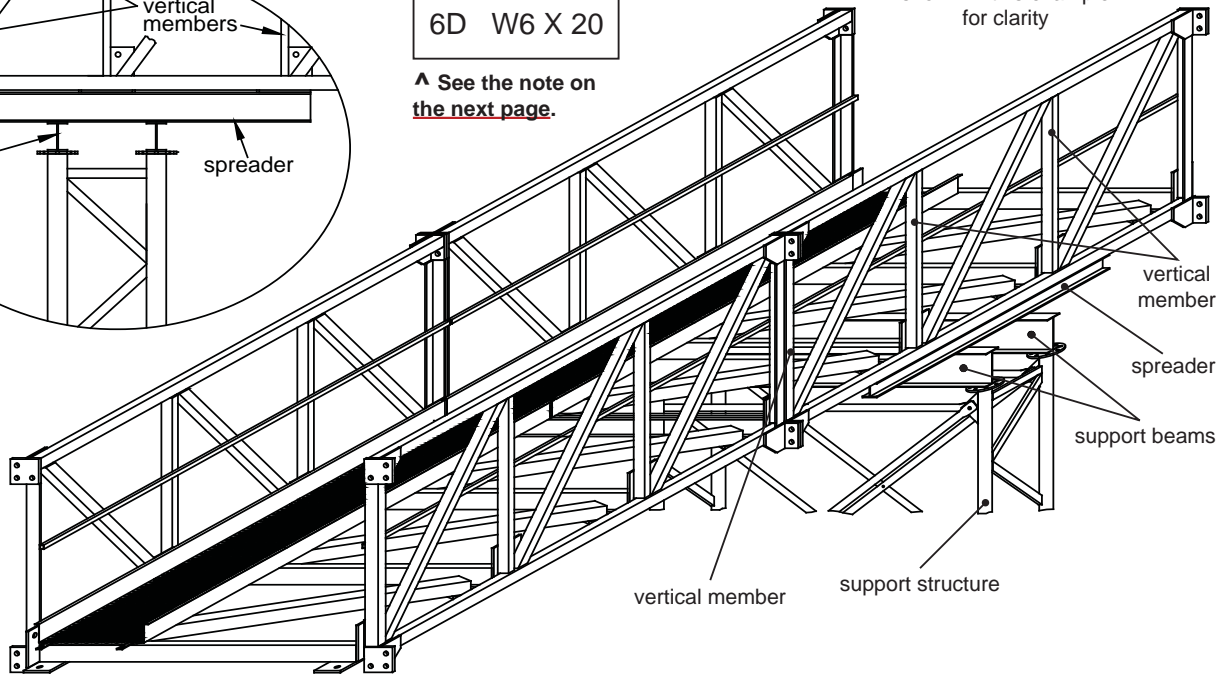
Install the Catwalk to the Support System

1i**Spreader Recommendations**

6C	W6 X 16
6D	W6 X 20

^ See the note on [the next page.](#)

a conveyor is not shown in this example for clarity



After all support structures (i.e. support tower, sidewall brackets, knee-bracing, support beams, etc.) are assembled and secured into place you are ready to position the catwalk into place. Read and understand the instructions on [this page](#) and [the next page](#) before installing your catwalk to the support system!

Spreader Installation Note:

Spreaders are required to properly transfer catwalk / conveyor load to support structures. Spreaders must span at least (2) truss vertical members closest to the catwalk-support structure contact points (see example above). Spreader may be installed in different sequence than shown below.

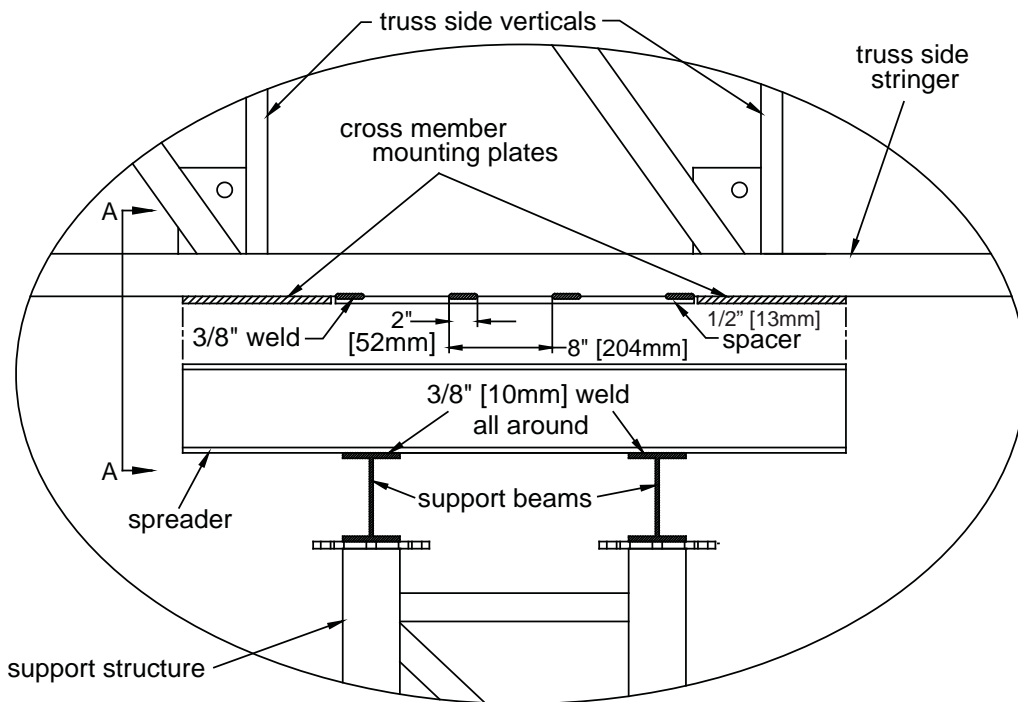
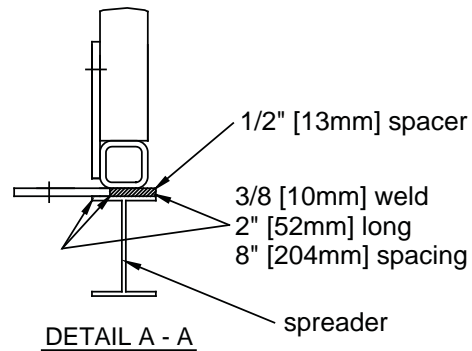
- 1** Position spreaders directly underneath the catwalk at each support structure. Weld the spreaders to catwalk cross member ends applying a 1/4" [7mm] full all around weld at all contact points. (Or, install a bolted connection of equivalent strength using existing cross member bolt holes.)
- 2** Lift the assembled catwalk sections / conveyor into position. Remember, rigging from the crane must lift the catwalk assembly at points equal to half the catwalk span.
- 3** Weld spreaders to the support beams on the support structure applying a 3/8" [10mm] full all around weld at all contact points. (Or, install a bolted connection of equivalent strength.) Apply a protective paint coating on all welded surfaces.
- 4** Repeat the procedure on [this page](#) until the entire catwalk is installed to all support structures.

(Hardware or paint used for catwalk to support system installation is not supplied by Brownie Systems.)

1ii

^ NOTE: about WIDE-FLANGE BEAMS -

W6 X 16 and W6 X 20 are (2) different types of Wide-Flange beams. Wide-flange beams are a structural steel section, designated by flange width and pounds per foot. Wide-flange beams are supplied by Brownie Systems upon request only. Wide-Flange beams are standardized and commonly sold by steel beam suppliers.

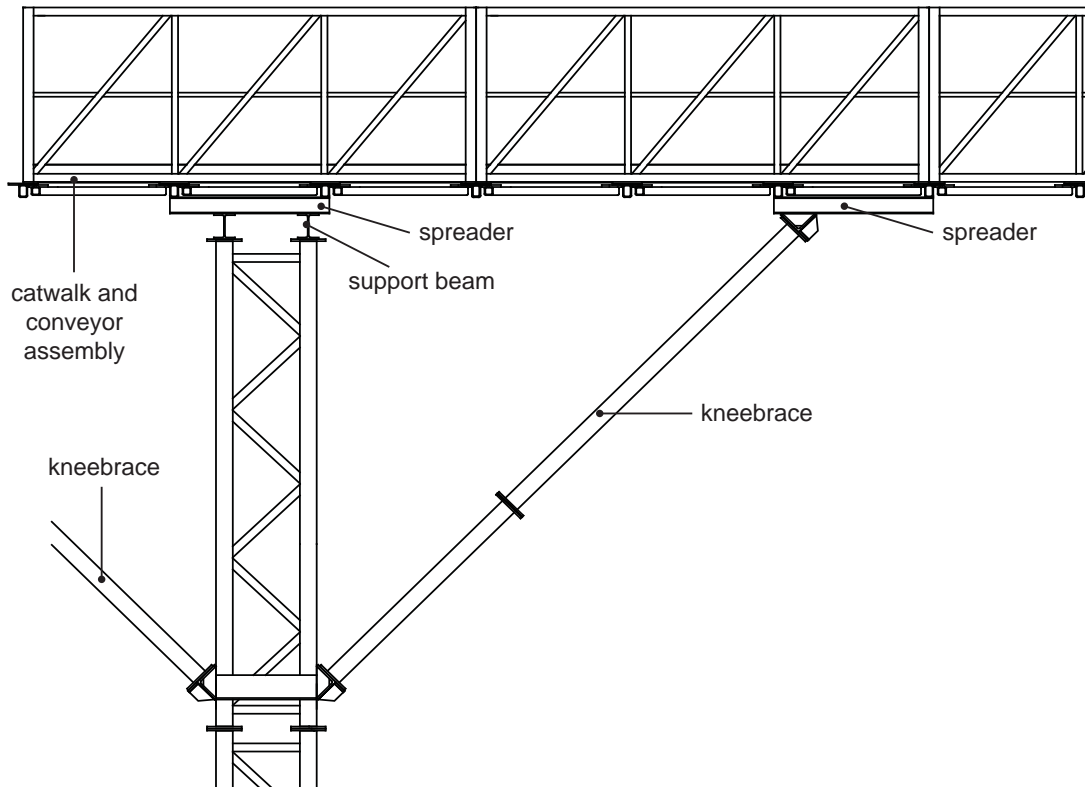


A spacer must be used to fill the area between the lower surface of the cross member mounting plates and truss side stringers. Weld both sides of the spacer to the truss side stringer, placing a 3/8" [10mm] groove weld 2" [52mm] long with 8" [204mm] spacing (see the example above.)



2

Kneebraces

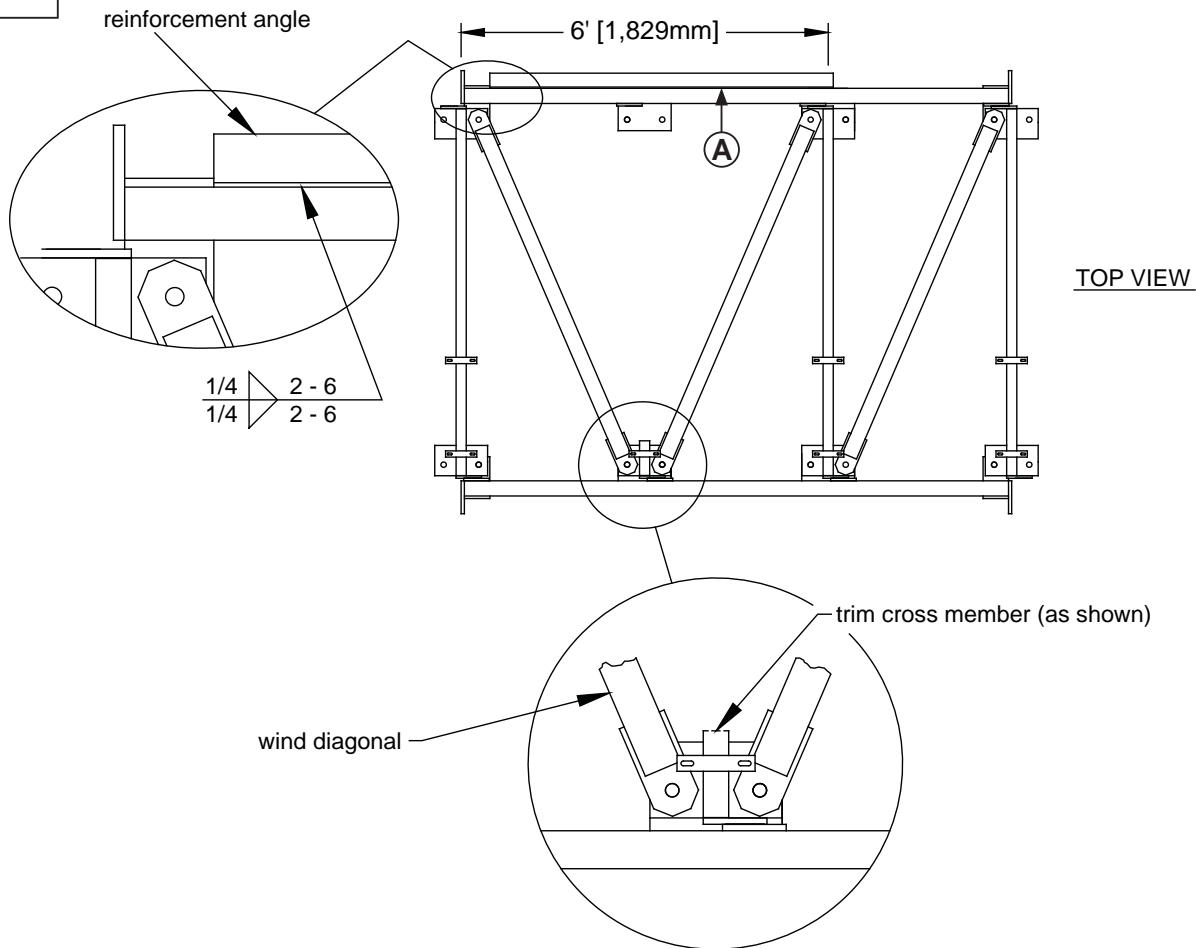


When your catwalk requires knee braces, use this procedure for installation! Incorrect procedures may result in permanent damage to the catwalk or conveyor! The cranes used to lift the catwalk must remain with full tension on their cables until the knee braces are fully installed.

- 1** Make certain spreaders are in place at the support locations and knee brace attachment locations on the catwalk.
- 2** Rig the cranes so that they support the catwalk as follows:
 - a) With (1) crane, use at least a 3 point lift or better, equal spaced with an overhang of no more than 10% of the rated span.
 - b) With (2) cranes, initially start with the rigging at 18% - 20% from each end.
- 3** Adjust the rigging so that there is a 1" [26mm] to 2" [51mm] crown in the center of the catwalk. Lift the assembly. When lifting, record the crane's cable tension read-out. These readings must never decrease until **step 5** is completed. This is to ensure the knee braces are properly loaded.
- 4** Move the assembly into place. Let the catwalk touch their supports, but do not reduce the cable tension. Weld the catwalk to their supports. All welds are to be at least 3/8" [10mm] full all around welds at all contact points.
- 5** Lift the knee braces into place and weld them secure, following any requirements found in your knee brace instructions. The 1" [26mm] to 2" [51mm] crown in **step 3** must be double checked and maintained before applying any welds.
- 6** Slack the cranes and remove the rigging.

3

Enlarged Drop-Thru Opening



If additional clearance is required for your conveyor drop-thru, an enlarged drop-thru opening is recommended. Follow the procedure below to create an enlarged opening in any assembled section. **Note: This alternative can only be employed once in any given section, and must not be applied at a section connection (splicing) location.**

- 1 At desired opening location, remove (2) wind diagonals.
- 2 At the location where the diagonals will come into the common mounting plate, cut the cross member as illustrated above.

NOTE: DO NOT REMOVE CROSS MEMBER MOUNTING PLATE AS IT IS NECESSARY FOR WIND DIAGONALS TO MAINTAIN LEVEL.

- 3 Reinforce lower stringer, over unbraced 6' [1,829mm] length (see A in example above).
 - Minimum material requirement for 6C catwalk - 3" x 3" x 1/4" [77mm x 77mm x 7mm] angle
 - Minimum material requirement for 6D catwalk - 3" x 3" x 1/4" [77mm x 77mm x 7mm] angle
 - Weld the angle to the stringer tube with 1/4" [7mm] welds, 2" [52mm] long, every 6" [154mm] on both sides.
- 4 Reattach wind diagonals, reversing the direction of one diagonal (creating a large "V"). See designated holes (for wind diagonals) in the example above for assistance.



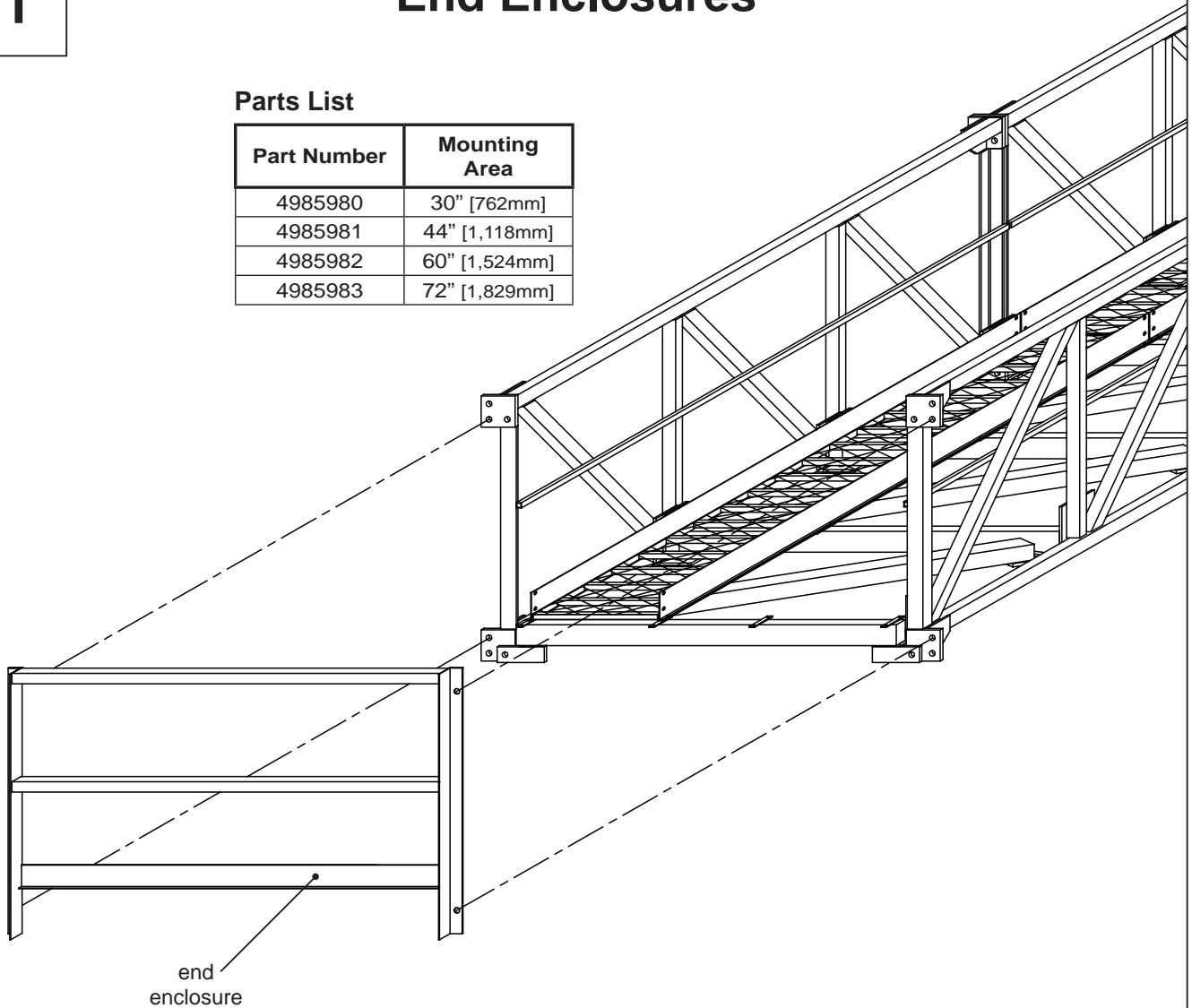
Catwalk Ends

1

End Enclosures

Parts List

Part Number	Mounting Area
4985980	30" [762mm]
4985981	44" [1,118mm]
4985982	60" [1,524mm]
4985983	72" [1,829mm]



A handrail end enclosure is used to close off the end of a catwalk run. Align the holes in the end enclosure with the holes in the truss side splices and install the end enclosure. Use 1" x 2 1/2" grade 5 hex bolts, lock washers and nuts. Torque bolts to the correct specifications; see [page 14](#).

NOTE: Handrail end enclosure is common between both grade C and grade D type 6 catwalks.

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Recent Significant Manual Changes:

2-09 [1] Version Changes

- 1** More safety information was included.
- 2** Page 14. SI bolt torques were added.
- 3** Some drawing corrections were made.
- 4** Some formatting changes were made throughout the manual.
- 5** Text changes were made throughout the manual.
- 6** Page 30. The Install Catwalk to Support System instructions were changed.
- 7** Pages 30 - 31. Notes were added.
- 8** Page 24. Brownie part numbers replaced other part numbers.
- 9** SI units were added in various places throughout the manual.
- 10** An index was added.



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