General Info

Total:

Number

Pedestrian Bridge to Schneider Park

Deadline

10/15/2025 10:00 AM EDT

Vendor

Double Z Construction Company

Submitted

10/15/2025 09:50 AM EDT

Signed by

Justin Guzzo **Account Holder** Justin Guzzo

Opened

10/15/2025 11:26 AM EDT **By** mklingler@bexley.org

Description

Project Description: The project includes connecting a Multi-Use trail in the city of Bexley to the Alum Creek Multi-Use
Trial in the City of Columbus with a Pedestrian Bridge over Alum Creek.
EDGE Requirement: 5%
Engineer's Estimate (if made public):
Detailed Location Information:
Summary of other pertinent details:

Allows zero unit prices and labor

Yes

Allows negative unit prices and labor

Yes

Attachment List

Project Manual.pdf (1.64 MB)

Pedestrian Bridge at Sheridan Park Drawings.pdf (18.7 MB)

Addendum#1 - Pedestrian Bridge at Schneider Park.pdf (191 KB)

EDGE-Contract Clause.docx (14.3 KB)

EDGE SUBCONTRACTORS LIST.docx (18.4 KB)

EDGE-Contractor+Waiver+Request.docx (31.2 KB)

Addendum #2 - Pedestrian Bridge at Schneider Park (2.46 MB)

2023071.00 - City of Bexley - Schneider Park Pedestrian Bridge Geotechnical Report - Updated_CERT.pdf (1.68 MB)

Schneider Park Pedestrian Bridge - Addendum #3.pdf (2.2 MB)

Subcontractor List

The Subcontractor list on this page shall be completed by each bidder. If awarded the Contract, the Contractor shall be held to the listing as submitted, when approved by the A & E.

If the bidder is not subcontracting the item, write in “Self”. (The bidder is cautioned in the use of Subcontractors to particularly regard the “Bidders Qualifications” hereinafter). Additional sheets may be submitted, supplementing the above information and elaborating on the method used to handle this project.

Click the + sign to add additional rows.

Subcontract *	Name *	Address *	Phone of Subcontractor *
Trucking	Hurts Trucking	13111 State Route 347, Marysville, Ohio 43040	614-206-6607

Subcontract Amount *

$24,100.00

Click the + sign to add additional rows. 1

Subcontract *	Name *	Address *	Phone of Subcontractor *
Seeding	John K Leohner	2477 Lamb Rd, Carroll Ohio 43112	740-654-3908

Subcontract Amount *

$12,555.00

Click the + sign to add additional rows. 2

Subcontract *	Name *	Address *	Phone of Subcontractor *
Testing	Soil Testing and Engineering	6375 Shier Rings Rd. Dublin, Ohio 43016	614-761-4700

Subcontract Amount *

$3,924.00

Click the + sign to add additional rows. 3

Subcontract *	Name *	Address *	Phone of Subcontractor *
Sealing	Heavy Highway Construction	8795 ST RT 56 East, Circleville, Ohio 43113	614-648-4772

Subcontract Amount *

$4,560.00

Click the + sign to add additional rows. 4

Subcontract *	Name *	Address *	Phone of Subcontractor *
Fence	Lake Erie Construction	PO Box 777, Norwalk Ohio 44857	419-668-3302

Subcontract Amount *

$9,540.00

Material and Equipment List

The material and equipment list on this page shall be completed by each bidder. It is the intent of this listing that the Contractor should list specifically, the component parts and accessories which this Contractor proposes to furnish and which is not of this Contractors own manufacture. This listing shall include the following items:

Click the + Sign to add additional rows.

Item *

Misc Bridge Materials

Manufacture and Type *

All Contractors Supply

Click the + Sign to add additional rows. 1

Item *

Concrete

Manufacture and Type *

Anderson Concrete Corp

Click the + Sign to add additional rows. 2

Item *

Aggregate

Manufacture and Type *

Shelly Materials

Click the + Sign to add additional rows. 3

Item *

Bridge Structure

Manufacture and Type *

Contech Engineered Solutions

Equal Opportunity Employment Assurance of Compliance

Name *

Double Z Construction Company

_____ (hereinafter called “BIDDER”) hereby agrees that it will comply with Title VI of the Civil Rights Act of 1964 (P.S. 88-352) and the regulation, no person in the United States shall, on the ground of race, color, creed, sexual orientation or gender identity, or national origin be excluded from employment by the BIDDER and hereby gives assurance that it will immediately take any measure to effectuate this agreement.

This ASSURANCE is given in consideration of and for the purpose of complying with the Equal Opportunity Employment section in the Instructions to BIDDERS and to generally qualify the BIDDER for award of the contract. The BIDDER recognizes and agrees that such contracts or purchase agreement will be extended in reliance on the representations and agreements made in this assurance, and that the OWNER shall reserve the right to seek judicial enforcement of this assurance. This assurance is binding on the BIDDER, its successors, transfers, and assignees. Furthermore, the person whose signature appears below is authorized to sign this assurance on behalf of the BIDDER.

Date *

10/15/2025

Signature *

Dave Guzzo

Title *

President

Firm *

Double Z Construction Company

BID BOND

Bid Guaranty Check or Bid Guaranty Bond must include the owner-agency as Obligees

Confirmation

Confirmation *

I have provided a Bid Guaranty Bond in the Required Documents List directly after this confirmation section.

Required Document List

Name	Omission Terms	Submitted File
CONTRACTOR/MANUFACTURER/VENDOR AFFIDAVIT OF COMPLIANCE WITH OHIO REVISED CODE, SECTION 5719.042 Please upload the signed and completed form.		contr man vend aff.pdf
NON-COLLUSION AFFIDAVIT Please upload the signed and completed form.		non-coll aff.pdf
BID GUARANTY AND CONTRACT BOND Please upload the signed and completed form.		Schneider PArk Bond.pdf
BIDDER' QUALIFICATIONS Please upload the signed and completed form.		bidder qual 2.pdf
BIDDER'S AFFIDAVIT: FOREIGN CORPORATION Please upload the signed and completed form.		bidder aff.pdf
FORM OF PROPOSAL Please upload the signed and completed form.		form of proposal.pdf
BID UNIT PRICES Please upload the completed unit prices form.		bid unit prices.pdf
7 Required Documents		

CONTRACTOR/MANUFACTURER/VENDOR
AFFIDAVIT OF COMPLIANCE WITH
OHIO REVISED CODE, SECTION 5719.042*

To: City of Bexley
2242 East Main Street
Bexley, Ohio 43209

Date 10/15/2025

State of Ohio
County of Franklin

I, Dave Guzzo, hereby make oath that:

1. I am the President (Authorized Representative) of Double Z Construction Company

_____, the firm that submitted the attached bid.

2. At the time the bid was submitted, the firm named above (was/was not) charged with delinquent personal property taxes on the general tax list of personal property in Franklin County, Ohio.

3. (If Applicable) The amount of due and unpaid delinquent personal property taxes is $_____ and penalties and interest on the same are $_____.

Double Z Construction Company
Contractor

By (Authorized Representative)

Sworn to before me and subscribed in my presence at Columbus
this 13th day of October A.D., 2025.

NOTARIAL SEAL STATE OF OHIO

Stephanie Crabtree
Notary Public, State of Ohio
My Commission Expires:
March 07, 2026

Notary Public

My Commission expires March 7th, 20 26

*Sworn statement required by Ohio Revised Code as to the status of bidder's (company's) personal property taxes.

NON-COLLUSION AFFIDAVIT

This affidavit shall be filled out and executed by the bidder; if the bid is made by a corporation, then this shall be completed by the properly authorized agent.

The name of the individual swearing to the affidavit should always appear on the line marked "Name of Affiant". The affiant's capacity, when a partner or officer of a corporation, should be inserted on lines marked "Affiant". The affiant should sign their individual name at the end, not partnership nor corporation name, and swear to said affidavit before a Notary Public, who must attach their seal.

STATE OF Ohio COUNTY OF Franklin

Dave Guzzo
(Name of Affiant)

being duly sworn, do depose and say that

Dave Guzzo
(Affiant)

resides at 2550 Harrison Rd. Columbus, Ohio 43204

and that

Double Z Construction Company
(Give names of all persons, firms or corporations interested in this bid)

is or are the only person interested in the profits of any Contract which may result from the herein contained proposal; that the said proposal is made without any connection or interests in the profits thereof with any other person making any other bid or proposal for said work; that the said proposal in all respects fair, and without collusion or fraud; and also that no, employee therein or any officer representing the Owner, is directly or indirectly interested therein; and that all the statements made in this proposal are true.

Subscribed and sworn to this 13th day of October 2025 before me

Dave Guzzo

Notary Public

NOTARIAL SEAL STATE OF OHIO

Stephanie Crabtree
Notary Public, State of Ohio
My Commission Expires:
March 07, 2026

BID GUARANTY AND
CONTRACT BOND

(Section 153.571 Ohio Revised Code)
(Used if 10% Bid Guaranty Check is not Submitted)

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned

Double Z Construction Company , 2550 Harrison Road, Columbus, OH 43204
(Name and Address)

as Principal and Atlantic Specialty Insurance Company

(Name of Surety)

_____ as Surety, are hereby held and firmly bound unto the City of Bexley and Franklin County, hereinafter called the Obligee, in the penal sum of the dollar amount of the bid submitted by the Principal to the Obligee on October 15, 2025

to undertake the project known as: Pedestrian Bridge to Schneider Park

The penal sum referred to herein shall be the dollar amount of the Principal's bid to the Obligee, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of

_____ Dollars ($_____)

(If the above line is left blank, the penal sum will be the full amount of the Principal's bid, including alternates. Alternatively, if completed, the amount stated must not be less than the full amount of the bid, including alternates in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above named principal has submitted a bid on the above referred project:

NOW THEREFORE, if the Obligee accepts the bid of the Principal and the Principal fails to enter into a proper Contract in accordance with the bid, plans, details, specifications and bills of material; and in the event the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid and such larger amount for which the Obligee may in good faith contract with the next lowest bidder to perform the work covered by the bid; or in the event the Obligee does not award the Contract to the next lowest bidder and resubmits the project for bidding, the Principal will pay the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the bid, or the costs, in connection with the resubmission of printing new contract documents, required advertising and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be void, otherwise to remain in full force and effect. If the Obligee accepts the bid of the Principal and the Principal within ten days after the awarding of the Contract, enters into a proper Contract in accordance with the bid, plans, details, specifications, and bills of material, which said Contract is made a part of this bond the same as though set forth herein; and

IF THE SAID Principal shall well and faithfully perform each and every condition of such Contract; and indemnify the Obligee against all damage suffered by failure to perform such Contract according to the provisions thereof and in accordance with the plans, details, specifications, and bills of material therefor; and shall pay all lawful claims of subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing or completing of said Contract; we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise, the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

THE SAID Surety hereby stipulates and agrees that no modifications, omissions or additions, in or to the terms of said Contract or in or to the plans and specifications therefore shall in any way affect the obligations of said Surety on this bond, and it does hereby waive notice of any such modifications, omissions or additions to the terms of the Contract or to the work or to the specifications.

PRINCIPAL

Double Z Construction Company

BY: _____

TITLE: _____

SURETY COMPANY ADDRESS

605 Highway 169 North, #800
Street

Plymouth, MN 55441
City, State, Zip

952-852-2431

SURETY AGENT'S ADDRESS

HUB International Limited
Agency Name

BY: _____
Attorney-in-Fact Stephanie M. White

1600 West Lane Avenue, Suite 200
Street

Columbus, OH 43221
City, State, Zip

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **Amy M. Perdue, Brian Mozena, David Catanese, Gregory R. Overmyer, Jack Kehl, Katie Rose, Stephanie M. White**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **unlimited** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this first day of January, 2023.

ATLANTIC SPECIALTY INSURANCE COMPANY CORPORATE SEAL 1986 NEW YORK

By _____
Sarah A. Kolar, Vice President and General Counsel

STATE OF MINNESOTA
HENNEPIN COUNTY

On this first day of January, 2023, before me personally came Sarah A. Kolar, Vice President and General Counsel of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and she acknowledged the execution of the same, and being by me duly sworn, that she is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.

ALISON D. NASH-TROUT
NOTARY PUBLIC - MINNESOTA
My Commission Expires
January 31, 2030

_____
Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 15th day of October, 2025

ATLANTIC SPECIALTY INSURANCE COMPANY CORPORATE SEAL 1986 NEW YORK

This Power of Attorney expires
January 31, 2030

_____
Kara L.B. Barrow, Secretary

Please direct bond verifications to surety@intactinsurance.com

[intact] specialty solutions
INSURANCE

Atlantic Specialty Insurance Company

Period Ended 12/31/2024

Dollars displayed in thousands

Admitted Assets	
Investments:	
Bonds	$ 2,894,094
Preferred Stocks	-
Common Stocks	987,702
Mortgage Loans	-
Real Estate	-
Contract Loans	-
Derivatives	-
Cash, Cash Equivalents & Short Term Investments	383,175
Other Investments	36,178
Total Cash & Investments	4,301,149
Premiums and Considerations Due	350,792
Reinsurance Recoverable	60,063
Receivable from Parent, Subsidiary or Affiliates	11,764
All Other Admitted Assets	94,008
Total Admitted Assets	4,817,776

Liabilities and Surplus	
Liabilities	
Loss Reserves	$ 1,264,802
Loss Adjustment Expense Reserves	423,323
Total Loss & LAE Reserves	1,688,125
Unearned Premium Reserve	811,551
Total Reinsurance Liabilities	64,571
Commissions, Other Expenses, and Taxes due	75,922
Derivatives	-
Payable to Parent, Subs or Affiliates	-
All Other Liabilities	1,121,125
Total Liabilities	3,761,294
Capital and Surplus	
Common Capital Stock	9,001
Preferred Capital Stock	-
Surplus Notes	-
Unassigned Surplus	476,697
Other Including Gross Contributed	570,784
Capital & Surplus	1,056,482
Total Liabilities and C&S	4,817,776

State of Minnesota
County of Hennepin

I, Kara Barrow, Secretary of Atlantic Specialty Insurance Company do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Company, on the 31st day of December, 2024, according to the best of my information, knowledge and belief.

Secretary

Subscribed and sworn to, before me, a Notary Public of the State of Minnesota on this 10th day of March, 2025.

Notary Public

KERRI RIECHERS
NOTARY PUBLIC
MINNESOTA
My Commission Expires Jan. 31, 2030

Office of Risk Assessment
50 West Town Street
Third Floor - Suite 300
Columbus,Ohio 43215
(614)644-2658
Fax(614)644-3256
www.insurance.ohio.gov

Ohio Department of Insurance

Mike DeWine - Governor

Judith French - Director

Certificate of Compliance

Issued 03/26/2025
Effective 04/02/2025
Expires 04/01/2026

I, Judith French, hereby certify that I am the Director of Insurance in the State of Ohio and have supervision of insurance business in said State and as such I hereby certify that

ATLANTIC SPECIALTY INSURANCE COMPANY

of New York is duly organized under the laws of this State and is authorized to transact the business of insurance under the following section(s) of the Ohio Revised Code:

Section 3929.01 (A)

Aircraft
Allied Lines
Boiler & Machinery
Burglary & Theft
Collectively Renewable A & H
Commercial Auto - Liability
Commercial Auto - No Fault
Commercial Auto - Physical Damage
Credit
Credit Accident & Health
Fidelity
Fire
Glass
Group Accident & Health
Guaranteed Renewable A & H
Inland Marine
Medical Malpractice
Multiple Peril - Commercial
Multiple Peril - Farmowners
Multiple Peril - Homeowners
Noncancellable A & H
Nonrenew-Stated Reasons (A&H)
Ocean Marine
Other
Other Accident only
Other Liability
Private Passenger Auto - Liability
Private Passenger Auto - No Fault
Private Passenger Auto - Physical Damage
Surety
Workers Compensation

ATLANTIC SPECIALTY INSURANCE COMPANY certified in its annual statement to this Department as of December 31, 2024 that it has admitted assets in the amount of $4,817,775,602, liabilities in the amount of $3,761,294,022, and surplus of at least $1,056,481,580.

IN WITNESS WHEREOF, I have hereunto subscribed my name and caused my seal to be affixed at Columbus, Ohio, this day and date.

Judith L. French

Judith French, Director

BIDDER'S QUALIFICATIONS

(PROVIDE COPY FOR EACH SUB-CONTRACTOR)

The signatory of this proposal guarantees the truth and accuracy of all statements and of all answers to interrogatories hereinafter made.

1. How many years have you been in business as a General Contractor under your present business name? ***See Attached***

2. How many years have you been a principal officer of a general contracting firm under another name? ***See Attached***

3. What projects of a similar nature has your organization completed?

(Note: Fill out each blank completely)

Name of Owner and Location	Name and Phone Number of person in Responsible Charge as Reference	Class of Work	Amount of Contract	Date of Completion
See Attached				

BIDDER'S QUALIFICATIONS

(PROVIDE COPY FOR EACH SUB-CONTRACTOR)

1. Have you, or your Company, or any organization of which you have been a responsible officer or agent, ever failed to complete any work awarded to you? If so, where and why?

See Attached

2. The work awarded or to be awarded will have the personal supervision of whom? Attach resume.

See Attached

3. Explain approximately your plan and layout for performing the proposed work.

We plan to have 2 cranes, one on each side of the proposed structure. We will lift the new bridge into place, and assemble it in place.

BIDDER'S QUALIFICATIONS
(PROVIDE COPY FOR EACH SUB-CONTRACTOR)

1. What equipment do you own that is available for the proposed work?

Quantity	Description Size, Capacity, Etc.	Condition	Years of Service
	See Attached		

1. At what places are the principal items of the equipment located?

2550 Harrison Rd. Columbus, Ohio 43204

Signature

10-13-25
Date

DOUBLE Z CONSTRUCTION COMPANY
2550 Harrison Road
Columbus, Ohio 43204

Major Equipment

	Qty	Name	Owned
	1	Concrete Mixer (Gas)	X
	1	Hydraulic Compactor (Hoe Mt)	X
	1	Hydraulic Hammer (Exc. Mt)	X
	1	Cat D6 Dozer	X
	1	Cat D6 Dozer	X
	1	450 John Deer Dozer	X
	1	550H Crawler Dozer - 6-Way	X
	1	JD 650JLT Dozer	X
	1	TD 15 Dozer	X
	1	12G Cat Grader	X
	1	613 Cat Scraper (Pan)	X
	1	228 Komatsu Track Hoe	X
	1	330 Volvo Track Hoe	X
	1	200 C Cat Track Hoe	X
	1	200 C Cat Track Hoe	X
	1	310 D John Deer Loader/Backhoe	X
	1	416 C John Deer Loader/Backhoe	X
	1	Ingersol Rand air compressor	X
	1	Vibromax Roller	X
	1	Bridge Deck Paver	X
	1	Blitzscreed Plate Tamp	X
	1	Fork Lift (shop)	X
	1	Flat Wheel Roller	X
	1	Light Plant w/ Trailer	X
	1	Bridge Deck Paver	X
	1	Gravel Box Spreader	X
	1	Slab Crab Bucket	X
	1	JD 544H Rubber Tired Loader	X
	1	Barber Green Asphalt Paver	X
	1	BLAW KNOX ASPHALT PAVER MO# PF115	X
	1	HYSTER MO C350C ASPHALT ROLLER	X
	1	BROTHERS PNEUMATIC ASPHALT ROLLER	X
	1	GALION PR42 PLANER	X
	1	APE PILE HAMMER	X
	1	60 ton Bucyrus Erie Crane	X

Trucks

		EQUIPMENT	
	1	Flat Bed Truck	X
	1	Tandom Dump Truck	X
	1	Single Axle Dump Truck	X
	1	Flat Bed Water Truck	X
	1	GMC topkick flatbed/dump truck	X
	1	4000 Gal Water Truck	X
	1	Mack Tractor Trailer Truck	X
	1	Mack Dump Truck	X
		Chevy Flatbed	X
	1	INTERNATIONAL BOOM TRUCK	X
		PICKUP TRUCKS	
	1	3/4 Ton F250 Diesel Pickup Tk	X
	1	F250 Pickup Truck	X
	1	D30 Pickup Truck	X
	1	FORD F -150	X
	1	GMC ENVOY	X

Trailers

	Qty	Name	Owned
	1	Office-Tool Trailer	X
	1	Office-Tool Trailer	X
	1	Office Trailer 12' x 60'	X
	1	Pull Type Trailer	X
	1	12 TN Tag Trailer	X
	1	14' Storage Trailer (GREEN)	X
	1	Equipment Trailer (tag trailer 12 ton)	X
	1	Tag Trailer (Red)	X
	1	Tag Trailer (Black)	X
	1	14' Tool Trailer (white)	X
	1	50' HIGHBED TRAILER	X
	1	8000 Gal Water Tanker	X
	1	Towmaster T12B	X
	1	14' Tool Trailer	X
	1	Gooseneck 50ton Equip Trailer	X

Experience Statement

Submitted By: Double Z Construction Company

Permanent Address: 2550 Harrison Road, Columbus Ohio 43204

Main Contact: Dave Guzzo, President 614-274-2700 ext. 410

Double Z Construction is a heavy highway construction company based out of Columbus, Ohio. Incorporated in 2001, Double Z Construction completes on average $24,000,000.00 worth of work each year with ODOT, The City of Columbus, and various other Counties and Municipalities. Double Z Construction employs nearly 100 employees during the peak construction season and has an experienced staff with industry veterans to complete projects safely, on-time, and within budget.

Persons Interested in Bid: David Guzzo, President – 1821 Lake Shore Dr, Columbus OH 43204
Vince Guzzo, Vice Pres. – 4800 Aberdeen Ave, Dublin OH 43016

Bank References: Thomas Mack, PNC Bank: 155 East Broad Street Columbus, Ohio 43251
(614) 463-8034

Surety Information: Bonding Company: The Guarantee Company of North America
Agent: Overmyer Hall and Associates 1600 W. Lane Ave Suite 200
Columbus, Ohio 43221

Project Key Personnel:

Workforce	Years of Exp.	Past Experience
David Guzzo, President	42	VP – Complete General Constr & Double Z Constr.
Vince Guzzo P.E., VP	40	Engineer/Estimator – Complete General & Double Z
Bruce Osborne	25	Foreman, Double Z Construction
Justin Hilton	15	Foreman, Double Z Construction
Jared Guzzo	15	Project Manager, Double Z Construction

Recent Similar Projects:

Owner	**ODOT District # 8**
Contact and Phone Number	**Scott LeBlanc 513-932-3030**
Project	**ODOT 220086 Clinton County**
Original Contract	**$ 979,653.56**
Final Contract	**$ 974,968.39**
Original Completion Date	**11/1/2022**
Final Completion Date	**11/1/2022**

Owner	**Fairfield County Engineers**
Contact and Phone Number	**William Maravy 740-652-2374**
Project	**Horns Mill Rd Bridge Replacement**
Original Contract	**$ 1,579,990.79**
Final Contract	**$ 1,610,178.91**
Original Completion Date	**10/1/2022**
Final Completion Date	**10/1/2022**

Owner	**City of Delaware**
Contact and Phone Number	**Nathan McCoy 740-203-1731**
Project	**John Street Bridge**
Original Contract	**$ 228,629.76**
Final Contract	**$ 402,280.87**
Original Completion Date	**9/1/2021**
Final Completion Date	**9/1/2021**

Owner	**Franklin County Engineers**
Contact and Phone Number	**Brad Foster 614-462-6040**
Project	**Hayden Rd Greenway Trail**
Original Contract	**$ 839,959.08**
Final Contract	**$ 889,989.72**
Original Completion Date	**8/31/2021**
Final Completion Date	**8/31/2021**

Owner	**Clark County Engineers**
Contact and Phone Number	**Dean Fenton 937-521-1807**
Project	**CR 338 Springfield- Xenia Rd Bridge**
Original Contract	**$ 525,000.00**
Final Contract	**$ 563,678.65**
Original Completion Date	**11/19/2019**
Final Completion Date	**11/19/2019**

CONTRACTOR QUALIFICATION STATEMENT

In lieu of completing the provided form regarding Contractor Qualifications, the Contractor may submit an alternative document that details the requested information which may be utilized by the Owner in evaluation of the bid. If the Contractor chooses to provide alternative documentation, they shall be solely responsible for omission of any information requested herein.

CONTRACTOR'S ORGANIZATION

GENERAL INFORMATION

Address: 2550 Harrison Rd Columbus, Ohio 43204

Telephone and Facsimile: phone 614-274-2700 fax 614-274-2702

Email Address: daveguzzo@doublez.co

Website: www.doublez.co

If address given above is a branch office address, provide principal home office address:

_____

TYPE OF ORGANIZATION

The Contractor's Organization is a:

- ☒ Corporation
- ☐ Partnership
- ☐ Joint Venture
- ☐ Limited Liability Company
- ☐ Sole Proprietorship
- ☐ Other

Date and State of Organization: July 12, 2001 State of Ohio

If you chose Other, please state Type and State of Organization:

_____

Please choose type of authorized signatory:

- ☐ Executive Officers
- ☐ Joint Ventures
- ☐ Current General Partners
- ☐ Members
- ☐ Owner(s)
- ☒ Owners and/or Principals

Name and Address of authorized signatory: Dave Guzzo, President- 1821 Lake Shore Dr. Columbus, Ohio 43204
Vincent Guzzo- V.P.- 4800 Aberdeen Ave. Dublin, Ohio 43016

If Partnership, please select Type of Partnership:

☐ General
☐ Limited
☐ Limited Liability
☐ Other

If Other, please state: _____

If Joint Venture: (For each indicate the name, address and form and state of organization, as well as the managing or controlling Joint Venture if applicable.)

_____

_____

In addition to the above categories of business entities, indicate whether Contractor's organization is certified as a:

Disadvantaged Business Enterprise:

☐ Yes ☒ No ☐ N/A

Certified by: _____

Minority Business Enterprise:

☐ Yes ☒ No ☐ N/A

Certified by: _____

Women's Business Enterprise:

☐ Yes ☒ No ☐ N/A

Certified by: _____

Historically Underutilized Business Zone Small Business Concern:

☐ Yes ☒ No ☐ N/A

Certified by: _____

LICENSING AND REGISTRATION

Jurisdictions in which Contractor is legally qualified to practice: (Indicate license or registration numbers for each jurisdiction, if applicable, and type of license or registration.

State of Ohio- Charter # 1242116

Multiple cities and counties within Ohio

In the past five years, has Contractor had any business or professional license suspended or revoked?

☐ Yes ☒ No

If yes, describe circumstances below, including jurisdiction and bases for suspension or revocation:

CONTRACTOR'S PERSONNEL AND APPROACH

KEY CONSTRUCTION PERSONEL

Attach a Schedule listing the Contractor's:

1) Key Construction Personnel who will work on the Project
2) Individual Construction Experience
3) Percentage of time that each is anticipated to devote to the Project

List types of work generally performed by Contractor's own work force:

Bridge work, underground- storm, sewer, water, dirt, concrete, box culverts

SUBCONTRACTORS

Indicate criteria used in the selection of subcontractors (Indicate if Not Applicable).

Price

☒ Yes ☐ No ☐ N/A

Financial Strength

☒ Yes ☐ No ☐ N/A

Bonding Capacity

☒ Yes ☐ No ☐ N/A

Previous Experience with Contractor

☒ Yes ☐ No ☐ N/A

Previous Experience in Industry

☒ Yes ☐ No ☐ N/A

Subcontractor's Reputation in Industry

☒ Yes ☐ No ☐ N/A

Availability of Sufficient Personnel

☒ Yes ☐ No ☐ N/A

Safety Record

☒ Yes ☐ No ☐ N/A

Other

State Contractor's policy on the bonding of its subcontractors:

Typically only bond specialty subcontractors- painters

Describe Contractor's proposed technical and management approach to the Project, including approaches to quality, time and cost control:

•Double Z Construction will place industry veterans in positions of leadership for the project

•Timely and clear communication with the owner. •Provide a safe project where risks are reduced for everyone, including the public

•Ability to quickly adapt and solve problems to keep additional costs and delays to a minimum.

•Utilize the latest technologies to build an efficient project.

ANNUAL CONSTRUCTION VOLUME

Indicate the annual volume of work completed for the past three years:

Year: 2024 - $19,145,600.99

Year: 2023- $18,798,905.04

Year: 2022 - $22,657,785.56

In the past five years, has Contractor defaulted, been terminated for cause or failed to complete a construction contract awarded to it?

☐ Yes ☒ No

If yes, describe circumstances on separate attachment, including dates and owner, and if applicable, Contractor's surety.

In the past five years, has any officer, partner, joint venture or proprietor of the Contractor ever failed to complete a construction contract awarded to that person or entity in their name or on behalf of another organization?

☐ Yes ☒ No

If yes, describe circumstances on separate attachment, including dates and Owner, and if applicable, surety.

Describe all litigation arising from Contractor's active projects or projects worked on within the last five years.

None

CONTRACTOR'S SAFETY PROGRAM

If Contractor has a written safety program, upload a copy to the Required Documents List.

Does the Contractor's safety program include instructions on the following:

Safety work practices

☒ Yes ☐ No

Safety supervision

☒ Yes ☐ No

Toolbox safety meetings

☒ Yes ☐ No

Emergency procedures

☒ Yes ☐ No

First aid procedures

☒ Yes ☐ No

Accident investigation

☒ Yes ☐ No

Fire protection

☒ Yes ☐ No

New workers' orientation

☒ Yes ☐ No

Do you have a safety officer/department in your company?

☒ Yes ☐ No

If Yes,

Name: Mike Guzzo

Title: Safety Officer

Phone: 614-274-2700 ext 404

Do you conduct project safety inspections?

☒ Yes ☐ No

If Yes, how often?

☐ Weekly ☐ Bi-weekly ☒ Monthly ☐ Less Often (as needed)

Who conducts this inspection?

Name: Mike Guzzo

Title: Safety Officer

Do you hold project safety meetings for field supervisors?

☒ Yes ☐ No

If Yes, how often?

☒ Weekly ☐ Bi-weekly ☐ Monthly ☐ Less Often (as needed)

Do you have in place an instruction program on safety for newly hired or promoted supervisors?

☒ Yes ☐ No

If yes, please attach a copy of program format in the Required Documents list section.
*** attached at the end of this document***

Are craft "toolbox" safety meetings are held?

☒ Yes ☐ No

If Yes, how often?

☒ Weekly ☐ Bi-weekly ☐ Monthly ☐ Less Often (as needed)

Do you have a drug and alcohol testing policy?

☒ Yes ☐ No

If yes, please attach a copy of the policy in the Required Documents list section. Please also provide a copy of the Contractor's OSHA No. 300 Log and Summary of Occupational Injuries and Illnesses for the past five years. ***** attached at the end of this document*****

List all OSHA Citations and Notifications of Penalty, monetary or other, received within the last five years:

***** attached at the end of this document*****

List all safety citations of violations under state law received within the last five years: (Indicate final disposition as applicable.)

n/a

SURETY AND INSURANCE

SURETY COMPANY
Name: ***see additional doc in upload section experience document***

Address: _____

SURETY'S AGENT ***see additional doc in upload section experience document***
Name: _____

Address: _____

Telephone Number: _____

Total bonding capacity: $ 35,000,000.00

Limit per project: $ 20,000,000.00

Available bonding capacity as of this date: $ 25,000,000.00

CONTRACTOR FINANCIAL INFORMATION

List principal banks used, the approximate value of outstanding loans and general repayment history, as well as the Name, Address and Telephone Number of a contact person:
see additional doc in upload section experience document

Attach audited financial statements for the past three (3) years, including latest balance sheet. *Please upload in the Required Documents List.* ****will supply if awarded the project.*****

State whether Contractor, or any of the individuals identified in Article 1, has/have been the subject of any bankruptcy proceeding within the last five (5) years.

☐ Yes ☒ No

If yes, describe circumstances:

_____

STATEMENT OF POTENTIAL CONFLICTS OF INTEREST

Provide information about any business associations, financial interests or other circumstances that may create a conflict of interest with the Owner or any other Party known to be involved in the Project.

n/a

OTHER INFORMATION

Within the past five years, has Contractor, or any of the individuals identified in Article 1 and/or Schedule A been the subject of any criminal indictment or judgment of conviction for any business-related conduct constituting a crime under state or federal law?

☐ Yes ☒ No

If yes, describe circumstances:

Within the past five years, has Contractor or any of the individuals identified in Article 1 and/or Schedule A been the subject of any federal or state suspension or disbarment?

☐ Yes ☒ No

If yes, describe circumstances:

Within the past five years, has Contractor, or any of the individuals identified in Article 1 and/or Schedule A been the subject of any formal proceeding or consent order with a state or federal environmental agency involving a violation of state or federal environmental laws?

☐ Yes ☒ No

If yes, describe circumstances:

REFERENCES

OWNER ***see attached- at the end of the document***

Name: _____

Address: _____

Telephone Number: _____

Contract Person: _____

ARCHITECT / ENGINEER

Name: _____

Address: _____

Telephone Number: _____

Contract Person: _____

SUBCONTRACTOR

Name: _____

Address: _____

Telephone Number: _____

Contract Person: _____

The Undersigned, on behalf of the Contractor, certifies under that the information provided here, or attached to this form, is true and sufficiently complete to the best of the Contractor's knowledge.

CONTRACTOR

Signature: Justin Guzzo Digitally signed by Justin Guzzo DN: C=US, E=justinguzzo@doublez.co, O=Double Z construction Company, OU=Double Z construction Company, CN=Justin Guzzo Reason: I attest to the accuracy and integrity of this document Date: 2025.09.22 10:46:12-04'00'

Printed Name: Justin Guzzo

Title: Secretary

Date: 10/15/2025

OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20 24

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:
- Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.
- Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.
- Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.

Reminders:
- Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.
- Feel free to use two lines for a single case if you need to.
- Complete the 5 steps for each case.

Establishment name: Double Z Construction Company
City: Columbus State: OH

Step 1. Identify the person | **Step 2. Describe the case** | **Step 3. Classify the case** (SELECT ONLY ONE circle based on the most serious outcome:) | **Step 4.** (Enter the number of days the injured or ill worker was:) | **Step 5.** (Select one column:)

	(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10) month / day	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	(G) Death	(H) Days away from work	(I) Remained at Work: Job transfer or restriction	(J) Remained at Work: Other record-able cases	(K) Away from work (days)	(L) On job transfer or restriction (days)	(M)(1) Injury	(2) Skin disorder	(3) Respiratory condition	(4) Poisoning	(5) Hearing loss	(6) All other illnesses
Reset	1	Daniel Young	Foreman	3 / 18	Project - 466-23	Broken Toe & Bicep Tear	○	●	○	○	39		●	○	○	○	○	○
Reset	2	Daniel Young	Foreman	8 / 9	Project - 407-23	Tore Rotator Cuff	○	●	○	○	55		●	○	○	○	○	○
Reset				/			○	○	○	○			○	○	○	○	○	○
Reset				/			○	○	○	○			○	○	○	○	○	○
Reset				/			○	○	○	○			○	○	○	○	○	○
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Reset				/			○	○	○	○			○	○	○	○	○	○
Reset				/			○	○	○	○			○	○	○	○	○	○
						Page totals ▶	0	2	0	0	94		2	0	0	0	0	0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Add a Form Page

Page 1 of 1

Injury (1) | Skin disorder (2) | Respiratory condition (3) | Poisoning (4) | Hearing loss (5) | All other illnesses (6)

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

U.S. Department of Labor
Occupational Safety and Health Administration

Optional

Calculating Injury and Illness Incidence Rates

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

What is an incidence rate?

An incidence rate is the number of recordable injuries and illnesses occurring among a given number of full-time workers (usually 100 full-time workers) over a given period of time (usually one year). To evaluate your firm's injury and illness experience over time or to compare your firm's experience with that of your industry as a whole, you need to compute your incidence rate. Because a specific number of workers and a specific period of time are involved, these rates can help you identify problems in your workplace and/or progress you may have made in preventing work-related injuries and illnesses.

How do you calculate an incidence rate?

You can compute an occupational injury and illness incidence rate for all recordable cases or for cases that involved days away from work for your firm quickly and easily. The formula requires that you follow instructions in paragraph (a) below for the total recordable cases or those in paragraph (b) for cases that involved days away from work, *and* for both rates the instructions in paragraph (c).

(a) *To find out the total number of recordable injuries and illnesses that occurred during the year,* count the number of line entries on your OSHA Form 300, or refer to the OSHA Form 300A and sum the entries for columns (G), (H), (I), and (J).

(b) *To find out the number of injuries and illnesses that involved days away from work,* count the number of line entries on your OSHA Form 300 that received a check mark in column (H), or refer to the entry for column (H) on the OSHA Form 300A.

(c) *The number of hours all employees actually worked during the year.* Refer to OSHA Form 300A and optional worksheet to calculate this number.

You can compute the incidence rate for all recordable cases of injuries and illnesses using the following formula:

Total number of injuries and illnesses X *200,000* ÷ *Number of hours worked by all employees* = *Total recordable case rate*

(The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rates.)

You can compute the incidence rate for recordable cases involving days away from work, days of restricted work activity or job transfer (DART) using the following formula:

(Number of entries in column H + Number of entries in column I) X *200,000* ÷ *Number of hours worked by all employees* = *DART incidence rate*

You can use the same formula to calculate incidence rates for other variables such as cases involving restricted work activity (column (I) on Form 300A), cases involving skin disorders (column (M-2) on Form 300A), etc. Just substitute the appropriate total for these cases, from Form 300A, into the formula in place of the total number of injuries and illnesses.

What can I compare my incidence rate to?

The Bureau of Labor Statistics (BLS) conducts a survey of occupational injuries and illnesses each year and publishes incidence rate data by various classifications (e.g., by industry, by employer size, etc.) You can obtain these published data at www.bls.gov/iif or by calling a BLS Regional Office.

Worksheet

Total number of injuries and illnesses			Number of hours worked by all employees		Total recordable case rate
2	X	200,000	84,476	=	4.7

Number of entries in Column H + Column I			Number of hours worked by all employees		DART incidence rate
2	X	200,000	84,476	=	4.7

Save Input Reset

OSHA's Form 300A (Rev. 04/2004)

Summary of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it.
Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 20 24

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	2	0	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
94	0
(K)	(L)

Injury and Illness Types

Total number of ...	(M)		
(1) Injuries	2	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: Double Z Construction Company

Street: 2550 Harrison Road

City: Columbus State: OH Zip: 43204

Industry description (e.g., *Manufacture of motor truck trailers*)
Construction

North American Industrial Classification (NAICS), if known (e.g., 336212)
1600

Employment information *(If you don't have these figures, see the Worksheet on the next page to estimate.)*

Annual average number of employees: 35

Total hours worked by all employees last year: 84476

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive: [signature] Title: Safety

Phone 614 - 274 - 2700 Date 1 / 15 / 24

Save Input

OSHA's Form 301 (Rev. 04/2004)

Injury and Illness Incident Report

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy the printout or insert additional form pages in the PDF, and then use as many as you need.

Completed by: Mike Guzzo

Title: VP Operations & Safety Director

Phone: 614 - 274 - 2700 Date: 3 (Month) 20 (Day) 24 (Year)

Information about the employee

1) Full name: Daniel Young

2) Street: 17005 SR335

City: Beaver State: OH ZIP: 45613

3) Date of birth: 12 (Month) 26 (Day) 1972 (Year)

4) Date hired: 5 (Month) 28 (Day) 2013 (Year)

5) (●) Male ( ) Female

Information about the physician or other health care professional

6) Name of physician or other health care professional: Emergency Room

7) If treatment was given away from the worksite, where was it given?

Facility: Miami Valley Hospital

Street: One Wyoming St.

City: Dayton State: OH ZIP: 45409

8) Was employee treated in an emergency room?
(●) Yes
( ) No

9) Was employee hospitalized overnight as an in-patient?
( ) Yes
( ) No

Information about the case

10) Case number from the *Log*: 1 *(Transfer the case number from the Log after you record the case.)*

11) Date of injury or illness: 3 (Month) 18 (Day) 24 (Year)

12) Time employee began work: 7:00 (●) AM ( ) PM

13) Time of event: 10:00 (●) AM ( ) PM ( ) Check if time cannot be determined

***Re fields 14 to 17:** Please do not include any personally identifiable information (PII) pertaining to worker(s) involved in the incident (e.g., no names, phone numbers, or Social Security numbers).

14)* ***What was the employee doing just before the incident occurred?*** Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. *Examples:* "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."

Driving sheet piling using crawler crane and movac attachment (attachment used for driving/vibrating sheeting) . Unhooking sheet piling when movac grip slipped and pinched toe and pushed him backwards causing bicep injury.

15)* ***What Happened?*** Tell us how the injury occurred. *Examples:* "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."

Employee was unhooking the sheeting from the movac the movac slipped a little bit and pinched toe and injured bicep.

16)* ***What was the injury or illness?*** Tell us the part of the body that was affected and how it was affected. *Examples:* "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

Broken toe and torn bicep

17)* ***What object or substance directly harmed the employee?*** *Examples:* "concrete floor"; "chlorine"; "radial arm saw." *If this question does not apply to the incident, leave it blank.*

Movac equipment.

18) ***If the employee died, when did death occur?*** Date of death: (Month) (Day) (Year)

Save Input | Delete a Form Page | Reset

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

OSHA's Form 301 (Rev. 04/2004)

Injury and Illness Incident Report

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy the printout or insert additional form pages in the PDF, and then use as many as you need.

Completed by: Mike Guzzo

Title: VP Operations & Safety Director

Phone: 614 - 274 - 2700 Date: 8 (Month) 16 (Day) 2024 (Year)

Information about the employee

1) Full name: Daniel Young

2) Street: 17005 SR335

City: Beaver State: OH ZIP: 45613

3) Date of birth: 12 (Month) 26 (Day) 1972 (Year)

4) Date hired: 5 (Month) 18 (Day) 2013 (Year)

5) ○ Male ○ Female

Information about the physician or other health care professional

6) Name of physician or other health care professional: Emergency Room

7) If treatment was given away from the worksite, where was it given?

Facility: Riverside Hospital

Street: 3535 Olentangy River Road

City: Columbus State: OH ZIP: 43214

8) Was employee treated in an emergency room?
◉ Yes
○ No

9) Was employee hospitalized overnight as an in-patient?
○ Yes
◉ No

Information about the case

10) Case number from the *Log*: 2 *(Transfer the case number from the Log after you record the case.)*

11) Date of injury or illness: 8 (Month) 9 (Day) 2024 (Year)

12) Time employee began work: 7:00 ◉ AM ○ PM

13) Time of event: 7:30 ◉ AM ○ PM ○ Check if time cannot be determined

***Re fields 14 to 17:** Please do not include any personally identifiable information (PII) pertaining to worker(s) involved in the incident (e.g., no names, phone numbers, or Social Security numbers).

14)* ***What was the employee doing just before the incident occurred?*** Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. *Examples:* "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."

Employee had just gotten out of the truck for the morning and was moving moving gas cans in the back of his truck to get a tool out and he tore his shoulder while reaching and picking up the gas can.

15)* ***What Happened?*** Tell us how the injury occurred. *Examples:* "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."

Employee was reaching for gas can and he picked it up at a weird angle causing a tear to his rotator cuff.

16)* ***What was the injury or illness?*** Tell us the part of the body that was affected and how it was affected. *Examples:* "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

torn rotator cuff

17)* ***What object or substance directly harmed the employee?*** *Examples:* "concrete floor"; "chlorine"; "radial arm saw." *If this question does not apply to the incident, leave it blank.*

Gas can

18) ***If the employee died, when did death occur?*** Date of death: (Month) (Day) (Year)

Save Input | Add a Form Page | Delete a Form Page | Reset

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20 23

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:
- Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.
- Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.
- Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.

Reminders:
- Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.
- Feel free to use two lines for a single case if you need to.
- Complete the 5 steps for each case.

Establishment name: Double Z Construction Co

City: Columbus State: OH

Step 1. Identify the person			Step 2. Describe the case			Step 3. Classify the case (SELECT ONLY ONE circle based on the most serious outcome)				Step 4. Enter the number of days the injured or ill worker was:		Step 5. Select one column:						
							Remained at Work						Illness					
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Away from work (K)	On job transfer or restriction (L)	(M) Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
1	Cody Stumbo	Labor	8 / 9	Bridge Deck	Fractured ankle, tripped getting off equipment			●			26 days	●					
2	Paul Anderson	Foreman	10 / 18	Headwall Footer	Fractured heel, stepped backwards off walkway		●			17 days		●					
			/							days	days						
			/							days	days						
			/							days	days						
			/							days	days						
			/							days	days						
			/							days	days						
			/							days	days						
			/							days	days						
			/							days	days						
Page totals ▶						0	1	1	0	17	26	2	0	0	0	0	0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Add a Form Page

Page 1 of 1

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

U.S. Department of Labor
Occupational Safety and Health Administration

Optional

Calculating Injury and Illness Incidence Rates

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

What is an incidence rate?

An incidence rate is the number of recordable injuries and illnesses occurring among a given number of full-time workers (usually 100 full-time workers) over a given period of time (usually one year). To evaluate your firm's injury and illness experience over time or to compare your firm's experience with that of your industry as a whole, you need to compute your incidence rate. Because a specific number of workers and a specific period of time are involved, these rates can help you identify problems in your workplace and/or progress you may have made in preventing work-related injuries and illnesses.

How do you calculate an incidence rate?

You can compute an occupational injury and illness incidence rate for all recordable cases or for cases that involved days away from work for your firm quickly and easily. The formula requires that you follow instructions in paragraph (a) below for the total recordable cases or those in paragraph (b) for cases that involved days away from work, *and* for both rates the instructions in paragraph (c).

(a) *To find out the total number of recordable injuries and illnesses that occurred during the year*, count the number of line entries on your OSHA Form 300, or refer to the OSHA Form 300A and sum the entries for columns (G), (H), (I), and (J).

(b) *To find out the number of injuries and illnesses that involved days away from work*, count the number of line entries on your OSHA Form 300 that received a check mark in column (H), or refer to the entry for column (H) on the OSHA Form 300A.

(c) *The number of hours all employees actually worked during the year*. Refer to OSHA Form 300A and optional worksheet to calculate this number.

You can compute the incidence rate for all recordable cases of injuries and illnesses using the following formula:

Total number of injuries and illnesses X *200,000* ÷ *Number of hours worked by all employees* = *Total recordable case rate*

(The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rates.)

You can compute the incidence rate for recordable cases involving days away from work, days of restricted work activity or job transfer (DART) using the following formula:

(Number of entries in column H + Number of entries in column I) X *200,000* ÷ *Number of hours worked by all employees* = *DART incidence rate*

You can use the same formula to calculate incidence rates for other variables such as cases involving restricted work activity (column (I) on Form 300A), cases involving skin disorders (column (M-2) on Form 300A), etc. Just substitute the appropriate total for these cases, from Form 300A, into the formula in place of the total number of injuries and illnesses.

What can I compare my incidence rate to?

The Bureau of Labor Statistics (BLS) conducts a survey of occupational injuries and illnesses each year and publishes incidence rate data by various classifications (e.g., by industry, by employer size, etc.). You can obtain these published data at www.bls.gov/iif or by calling a BLS Regional Office.

Worksheet

Total number of injuries and illnesses			Number of hours worked by all employees		Total recordable case rate
2	X	200,000	÷ 71,993	=	5.6

Number of entries in Column H + Column I			Number of hours worked by all employees		DART incidence rate
2	X	200,000	÷ 71,993	=	5.6

Save Input Reset

OSHA's Form 300A (Rev. 04/2004)

Summary of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it.
Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 20 23

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	1	1	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
17	26
(K)	(L)

Injury and Illness Types

Total number of . . .	(M)		
(1) Injuries	2	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: Double Z Construction Company

Street: 2550 Harrison Road

City: Columbus State: OH Zip: 43204

Industry description (e.g., *Manufacture of motor truck trailers*)
Construction

North American Industrial Classification (NAICS), if known (e.g., 336212)
1600

Employment information *(If you don't have these figures, see the Worksheet on the next page to estimate.)*

Annual average number of employees: 32

Total hours worked by all employees last year: 71993

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

Title: Safety VP

Phone: 614 - 348 - 6359 Date: 1 / 2 / 24

Save Input

U.S. Department of Labor
Occupational Safety and Health Administration

Optional

Worksheet to Help You Fill Out the Summary

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

At the end of the year, OSHA requires you to enter the average number of employees and the total hours worked by your employees on the summary. If you don't have these figures, you can use the information on this page to estimate the numbers you will need to enter on the Summary page at the end of the year.

How to figure the average number of employees who worked for your establishment during the year:

1. ***Add*** the total number of employees your establishment paid in all pay periods during the year. Include all employees: full-time, part-time, temporary, seasonal, salaried, and hourly.

   The number of employees paid in all pay periods = ❶ 1668

2. ***Count*** the number of pay periods your establishment had during the year. Be sure to include any pay periods when you had no employees.

   The number of pay periods during the year = ❷ 52

3. ***Divide*** the number of employees by the number of pay periods.

   ❶ 1,668 / ❷ 52 = ❸ 32.08

4. ***Round the answer*** to the next highest whole number. Write the rounded number in the blank marked *Annual average number of employees.*

   The number rounded = ❹ 32

For example, Acme Construction figured its average employment this way:

In this pay period . . .	Acme paid this many employees . . .
1	10
2	0
3	15
4	30
5	40
▼	▼
24	20
25	15
26	+10
	830

❶ Number of employees paid = 830

❷ Number of pay periods = 26

❸ 830 / 26 = 31.92

❹ 31.92 rounds to 32

32 is the annual average number of employees

How to figure the total hours worked by all employees:

Include hours worked by salaried, hourly, part-time and seasonal workers, as well as hours worked by other workers subject to day to day supervision by your establishment (e.g., temporary help services workers).

Do not include vacation, sick leave, holidays, or any other non-work time, even if employees were paid for it. If your establishment keeps records of only the hours paid or if you have employees who are not paid by the hour, please estimate the hours that the employees actually worked.

If this number isn't available, you can use this optional worksheet to estimate it.

Optional Worksheet

	_____	***Find*** the number of full-time employees in your establishment for the year.
X	_____	***Multiply*** by the number of work hours for a full-time employee in a year.
	_____	This is the number of full-time hours worked.
+	_____	***Add*** the number of any overtime hours as well as the hours worked by other employees (part-time, temporary, seasonal)
	_____	***Round*** the answer to the next highest whole number. Write the rounded number in the blank marked *Total hours worked by all employees last year.*

Save Input Reset

OSHA's Form 301 (Rev. 04/2004)

Injury and Illness Incident Report

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy the printout or insert additional form pages in the PDF, and then use as many as you need.

Completed by: Mike Guzzo

Title: VP Operations / Safety

Phone: 614 - 348 - 6354 Date: 10 (Month) 19 (Day) 2023 (Year)

Information about the employee

1) Full name: Paul Anderson

2) Street: 1972 Jasper Road

City: Piketon State: OH ZIP: 45661

3) Date of birth: 12 (Month) 9 (Day) 1968 (Year)

4) Date hired: 4 (Month) 27 (Day) 2005 (Year)

5) (●) Male ( ) Female

Information about the physician or other health care professional

6) Name of physician or other health care professional: NA

7) If treatment was given away from the worksite, where was it given?

Facility: Ohio Health Riverside Hospital

Street: 3535 Olentangy River Road

City: Columbus State: OH ZIP: 43214

8) Was employee treated in an emergency room?
(●) Yes
( ) No

9) Was employee hospitalized overnight as an in-patient?
(●) Yes
( ) No

Information about the case

10) Case number from the *Log*: 2 *(Transfer the case number from the Log after you record the case.)*

11) Date of injury or illness: 10 (Month) 18 (Day) 2023 (Year)

12) Time employee began work: 7:00 (●) AM ( ) PM

13) Time of event: 11:30 (●) AM ( ) PM ( ) Check if time cannot be determined

***Re fields 14 to 17:** Please do not include any personally identifiable information (PII) pertaining to worker(s) involved in the incident (e.g., no names, phone numbers, or Social Security numbers).

14)* ***What was the employee doing just before the incident occurred?*** Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. *Examples:* "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."

Employee was stripping forms off of a headwall for a storm conduit.

15)* ***What Happened?*** Tell us how the injury occurred. *Examples:* "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."

One of the forms broke loose and he stepped back off the walk plank which was about 2.5' high. He jammed his heel on the footer below causing fracture.

16)* ***What was the injury or illness?*** Tell us the part of the body that was affected and how it was affected. *Examples:* "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

Fractured heel

17)* ***What object or substance directly harmed the employee?*** *Examples:* "concrete floor"; "chlorine"; "radial arm saw." *If this question does not apply to the incident, leave it blank.*

Concrete footer

18) ***If the employee died, when did death occur?*** Date of death: ___ (Month) ___ (Day) ___ (Year)

Save Input | Delete a Form Page | Reset

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

OSHA's Form 301 (Rev. 04/2004)

Injury and Illness Incident Report

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U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

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If you need additional copies of this form, you may photocopy the printout or insert additional form pages in the PDF, and then use as many as you need.

Completed by: Mike Guzzo

Title: VP Operations / Safety

Phone: 614 - 348 - 6354 Date: 8 (Month) 10 (Day) 2023 (Year)

Information about the employee

1) Full name: Cody Stumbo

2) Street: 765 State Route 93 N

City: Logan State: OH ZIP: 43138

3) Date of birth: 9 (Month) 10 (Day) 1992 (Year)

4) Date hired: 4 (Month) 13 (Day) 2021 (Year)

5) (●) Male ( ) Female

Information about the physician or other health care professional

6) Name of physician or other health care professional: NA

7) If treatment was given away from the worksite, where was it given?

Facility: Ohio Health Riverside Hospital

Street: 3535 Olentangy River Road

City: Columbus State: OH ZIP: 43214

8) Was employee treated in an emergency room?
(●) Yes
( ) No

9) Was employee hospitalized overnight as an in-patient?
( ) Yes
(●) No

Information about the case

10) Case number from the *Log*: 1 *(Transfer the case number from the Log after you record the case.)*

11) Date of injury or illness: 8 (Month) 9 (Day) 2023 (Year)

12) Time employee began work: 6:30AM (●) AM ( ) PM

13) Time of event: 6:45 (●) AM ( ) PM ( ) Check if time cannot be determined

***Re fields 14 to 17:** Please do not include any personally identifiable information (PII) pertaining to worker(s) involved in the incident (e.g., no names, phone numbers, or Social Security numbers).

14)* ***What was the employee doing just before the incident occurred?*** Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. *Examples:* "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."

Driving skidsteer for material clean up

15)* ***What Happened?*** Tell us how the injury occurred. *Examples:* "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."

Employee was exiting the skidsteer and misstepped on the step on the bucket causing him to fall and twist his ankle causing a fracture.

16)* ***What was the injury or illness?*** Tell us the part of the body that was affected and how it was affected. *Examples:* "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

Fractured ankle

17)* ***What object or substance directly harmed the employee?*** *Examples:* "concrete floor"; "chlorine"; "radial arm saw." *If this question does not apply to the incident, leave it blank.*

Concrete bridge deck

18) ***If the employee died, when did death occur?*** Date of death: ___ (Month) ___ (Day) ___ (Year)

Save Input | Add a Form Page | Delete a Form Page | Reset

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OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

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Year 20 22

U.S. Department of Labor

Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:

- *Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.*
- *Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.*
- *Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.*

Reminders:

- *Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.*
- *Feel free to use two lines for a single case if you need to.*
- *Complete the 5 steps for each case.*

Establishment name Double Z Construction Co.

City Columbus State OH

Step 1. Identify the person — **Step 2. Describe the case** — **Step 3. Classify the case** (SELECT ONLY ONE circle based on the most serious outcome:) — **Step 4.** (Enter the number of days the injured or ill worker was:) — **Step 5.** (Select one column:)

	(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10) month / day	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	(G) Death	(H) Days away from work	(I) Remained at Work: Job transfer or restriction	(J) Remained at Work: Other record-able cases	(K) Away from work (days)	(L) On job transfer or restriction (days)	(M)(1) Injury	(2) Illness: Skin disorder	(3) Illness: Respiratory condition	(4) Illness: Poisoning	(5) Illness: Hearing loss	(6) Illness: All other illnesses
Reset	1	Kalven Baer	Shop Mgr	1 / 12	Office Yard	Ruptured bicep tendon		●			2 days	5 days	●					
Reset	2	Willie Knight	Foreman	9 / 27	Amlin Road	Smashed Finger		●			8 days	days	●					
Reset				/							days	days						
Reset				/							days	days						
Reset				/							days	days						
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Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Add a Form Page

Page 1 of 1

Injury (1) Skin disorder (2) Respiratory condition (3) Poisoning (4) Hearing loss (5) All other illnesses (6)

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OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

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Year 20 21

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:

- *Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.*
- *Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.*
- *Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.*

Reminders:

- *Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.*
- *Feel free to use two lines for a single case if you need to.*
- *Complete the 5 steps for each case.*

Establishment name Double Z Construction Co.

City Columbus State OH

Step 1. Identify the person			Step 2. Describe the case			Step 3. Classify the case (SELECT ONLY ONE circle based on the most serious outcome:)				Step 4. Enter the number of days the injured or ill worker was:		Step 5. Select one column:					
								Remained at Work					Illness				
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	(G) Death	(H) Days away from work	(I) Job transfer or restriction	(J) Other record-able cases	(K) Away from work	(L) On job transfer or restriction	(M) (1) Injury	(2) Skin disorder	(3) Respiratory condition	(4) Poisoning	(5) Hearing loss	(6) All other illnesses
1	Jevona Dille	Operator	6 / 29 month / day	ODOT 200425	Fell getting out of skidsteer	○	●	○	○	2 days	days	●	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
					Page totals ▶	0	1	0	0	2		1	0	0	0	0	0
												(1) Injury	(2) Skin disorder	(3) Respiratory condition	(4) Poisoning	(5) Hearing loss	(6) All other illnesses

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Add a Form Page

Page 1 of 1

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OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader. In addition, the forms are programmed to auto-calculate as appropriate.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20 20

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:
- *Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.*
- *Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.*
- *Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.*

Reminders:
- *Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.*
- *Feel free to use two lines for a single case if you need to.*
- *Complete the 5 steps for each case.*

Establishment name Double Z Construction Co.

City Columbus State OH

Step 1. Identify the person			Step 2. Describe the case			Step 3. Classify the case — SELECT ONLY ONE circle based on the most serious outcome:				Step 4. Enter the number of days the injured or ill worker was:		Step 5. Select one column:					
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Death (G)	Days away from work (H)	Remained at Work: Job transfer or restriction (I)	Remained at Work: Other recordable cases (J)	Away from work (K)	On job transfer or restriction (L)	(M) Injury (1)	Illness: Skin disorder (2)	Illness: Respiratory condition (3)	Illness: Poisoning (4)	Illness: Hearing loss (5)	Illness: All other illnesses (6)
1	Codey McKenzie	Mechanic	3 / 11	Shop	Broke Thumb	○	●	○	○	5 days	days	●	○	○	○	○	○
2	Nate Grandy	Cement Mason	6 / 18	E William St	Stepped on a nail	○	○	○	●	days	days	●	○	○	○	○	○
					Page totals	0	1	0	1	5		2	0	0	0	0	0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

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OSHA's Form 300 (Rev. 04/2004)

Log of Work-Related Injuries and Illnesses

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Year 20 19

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Please Record:
- *Information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid.*
- *Significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional.*
- *Work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12.*

Reminders:
- *Complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.*
- *Feel free to use two lines for a single case if you need to.*
- *Complete the 5 steps for each case.*

Establishment name Double Z Construction Co.

City Columbus State OH

Step 1. Identify the person			Step 2. Describe the case			Step 3. Classify the case — SELECT ONLY ONE circle based on the most serious outcome:				Step 4. Enter the number of days the injured or ill worker was:		Step 5. Select one column:					
								Remained at Work					Illness				
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other record-able cases (J)	Away from work (K)	On job transfer or restriction (L)	(M) Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
Reset 1	Evan Cansler	Operator	7 / 16 month / day	E William St	Cut to finger, stitches	○	○	●	○	days	1 days	●	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
Reset			/ month / day			○	○	○	○	days	days	○	○	○	○	○	○
					Page totals ▶	0	0	1	0		1	1	0	0	0	0	0
												Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Add a Form Page

Page 1 of 1

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OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

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Year 20 18

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name Double Z Construction

City Columbus State OH

Identify the person | **Describe the case** | **Classify the case** — SELECT ONLY ONE box for each case based on the most serious outcome for that case: | Enter the number of days the injured or ill worker was: | Select the "Injury" column or choose one type of illness:

(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness (e.g., 2/10) (month / day)	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	(G) Death	(H) Days away from work	(I) Remained at Work: Job transfer or restriction	(J) Remained at Work: Other recordable cases	(K) Away from work (days)	(L) On job transfer or restriction (days)	(M)(1) Injury	(2) Skin disorder	(3) Respiratory condition	(4) Poisoning	(5) Hearing loss	(6) All other illnesses
			/			○	○	○	○			○	○	○	○	○	○
1	Bryan Kelly	Labor	9 / 10	ODOT 180094	Strained back	○	○	●	○		3	●	○	○	○	○	○
2	Scott Hilton	Labor	10 / 30	ODOT 180344	Broke Finger	○	○	●	○		23	●	○	○	○	○	○
			/			○	○	○	○			○	○	○	○	○	○
			/			○	○	○	○			○	○	○	○	○	○
			/			○	○	○	○			○	○	○	○	○	○
			/			○	○	○	○			○	○	○	○	○	○
			/			○	○	○	○			○	○	○	○	○	○
			/			○	○	○	○			○	○	○	○	○	○
			/			○	○	○	○			○	○	○	○	○	○
					Page totals ▶	0	0	2	0		26	2	0	0	0	0	0

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Save Input | Add a Form Page

Injury (1) | Skin disorder (2) | Respiratory condition (3) | Poisoning (4) | Hearing loss (5) | All other illnesses (6)

OSHA's Form 300A (Rev. 04/2004)

Summary of Work-Related Injuries and Illnesses

Note: You can type input into this form and save it. Because the forms in this recordkeeping package are "fillable/writable" PDF documents, you can type into the input form fields and then save your inputs using the free Adobe PDF Reader.

Year 20 22

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	2	0	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
10	5
(K)	(L)

Injury and Illness Types

Total number of (M)

(1) Injuries	2	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: Double Z Construction Co.

Street: 2550 Harrison Road

City: Columbus State: OH Zip: 43204

Industry description (*e.g., Manufacture of motor truck trailers*): Construction

North American Industrial Classification (NAICS), if known (e.g., 336212): 1 6 0 0

Employment information

(If you don't have these figures, see the Worksheet on the next page to estimate.)

Annual average number of employees: 41

Total hours worked by all employees last year: 87311

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive: [signature] Title: [signature]

Phone: (614) 274-2700 Date: 1/13/23

Save Input

OSHA's Form 300A (Rev. 04/2004)

Summary of Work-Related Injuries and Illnesses

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Year 20 21

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

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Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	1	0	0
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
2	0
(K)	(L)

Injury and Illness Types

Total number of ...	(M)		
(1) Injuries	1	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name: Double Z Construction Co.

Street: 2550 Harrison Road

City: Columbus State: OH Zip: 43204

Industry description (e.g., *Manufacture of motor truck trailers*)
Construction

North American Industrial Classification (NAICS), if known (e.g., 336212)
1600

Employment information *(If you don't have these figures, see the Worksheet on the next page to estimate.)*

Annual average number of employees: 51

Total hours worked by all employees last year: 102421

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company Executive — Title: Safety

Phone: 614 - 274 - 2700 Date: 2 / 21 / 22

Save Input

OSHA's Form 300A (Rev. 04/2004)

Summary of Work-Related Injuries and Illnesses

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Year 20 20

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

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Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	1	0	1
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
5	0
(K)	(L)

Injury and Illness Types

Total number of . . .	(M)		
(1) Injuries	2	(4) Poisonings	0
(2) Skin disorders	0	(5) Hearing loss	0
(3) Respiratory conditions	0	(6) All other illnesses	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

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Your establishment name: Double Z Construction Co.

Street: 2550 Harrison Road

City: Columbus State: OH Zip: 43204

Industry description (*e.g., Manufacture of motor truck trailers*)
Construction

North American Industrial Classification (NAICS), if known (e.g., 336212)
1 6 0 0

Employment information *(If you don't have these figures, see the Worksheet on the next page to estimate.)*

Annual average number of employees: 55

Total hours worked by all employees last year: 116286

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive

Title: Supervisor

Phone 614 - 274 - 2900 Date 1 / 14 / 2021

Save Input

2025

Double Z Construction Safety Manual

SAFETY AND HEALTH PROGRAM

MIKE GUZZO, SAFETY DIRECTOR

Double Z Construction Company Employee Safety Policy

Double Z Construction Company is sincerely concerned with each employee's safety and health – and will strive to provide the safest working conditions possible.

We will endeavor to maintain a workplace as free from recognized hazards as possible, by providing each employee with proper training and safe equipment and tools.

As an employee of Double Z Construction you are encourage and expected to follow recognized safety practices, including federal, state, and local safety regulations, and the safety rules of Double Z Construction which are outlined in the company safety program manual.

We believe most accidents can be avoided by using common sense and personal initiative, and we ask you to be a part of Double Z Constructions commitment to safety.

We look forward to your employment with us being accident-free and productive.

_____ _____

David B. Guzzo, President Vince Guzzo, Vice President

_____

Michael F. Guzzo, Safety

Site Specific Safety Standards

Although the company safety program manual attempts to be as comprehensive as possible, some construction sites may have hazards and characteristics unique to the project.

To respond to these hazards, Double Z Construction may complete a safety site plan for each project.

A competent person will be designated as the safety official for the site (job superintendent, foremen, or safety director) and should make an initial inspection of the site in all areas where employees will be working.

After determining the unique hazards of the specific site, the safety official shall either correct the hazards or report them to the appropriate contractor for correction. The safety official will also make employees aware of hazards, and inform them of how they can protect themselves.

A general jobsite inspection checklist (found in the inspection section of this program) will be used to help determine hazards. In addition, the site-specific plan may address any or all of the following issues pertinent to the site that may not be a part of the overall company safety program:

- Unique activities known to be hazardous such as confined space entry, steel erection or demolition.
- Other contractor or client specifications
- The nature and timing of each contractor's job – to avoid interference with and creation of hazards for other companies.
- Specific training requirements
- Specific machinery or personal protective equipment
- Emergency response procedures
- Designated first aid givers
- Environmental conditions
- Surrounding conditions – power lines, road traffic, pedestrian traffic, buildings, etc.
- Material storage areas
- Access routes
- Other site specific or contractor specific condition

Delegation of Responsibilities

To ensure that Double Z Construction's safety program is implemented, the following assignments of responsibility have been established.

All employees have the full support of management in executing their assigned duties and are expected to fulfill their responsibilities in regards to safety.

Management responsibilities

- Upper management is responsible for establishing the overall company safety and health program.
- Show 100% commitment to the safety and health of all employees of Double Z Construction
- Establish rules and programs to promote the safety and health of all employees
- Delegate safety responsibilities among employees, and stress the importance of a complete team effort to ensure a safe work environment.
- Make available the necessary training for employees to perform their jobs safely.
- Make available all necessary personal protective equipment for employees
- As appropriate, investigate accidents and "near-miss" accidents.
- Conduct periodic safety inspections on all jobsites
- Implement a safety incentive program - to reward employees for their safety efforts
- As necessary, discipline employees who willfully disregard the company safety policy.
- Require all other contractors, suppliers, and visitors on site to adhere to government and company safety rules.

Designated safety coordinator responsibilities

Chosen by management, the company safety coordinator has duties that may be fulfilled on either a full-time or part-time basis. The safety coordinator works closely with, and reports directly to upper management and is

responsible for coordinating and maintaining the company safety and health program.

- Act as a competent person for the company
- Coordinate and ensure implementation of all company safety activities, including the hazard communication program.
- Work directly with job supervisors regarding their safety responsibilities.
- Be familiar with and advise management of all standards, regulations, and enforcement procedures – including new and changed laws
- Make recommendations to management regarding compliance with regulations and any necessary additional company policies.
- Monitor the company inspection program and make periodic inspections.
- If possible, be present for all inspections performed by government authorities.
- Review all accident reports and monitor accident recordkeeping; as necessary, investigate accidents and "near-miss" incidents.
- As needed, work with insurance company representatives, attorneys and others regarding company safety policies.
- Coordinate training programs for supervisors and employees.
- Coordinate the purchase of materials and equipment to assist company safety efforts – including required posters and forms, first aid kits, and educational materials.
- Ensure that all OSHA recordkeeping and posting requirements are fulfilled.
- Coordinate the employee safety reinforcement program.
- Work with the personnel department to coordinate disciplinary procedures; as necessary, discipline employees who willfully disregard the company safety policy.
- Periodically evaluate the effectiveness of the safety program.
- Keep MSDS books up to date for all foremen.

Job supervisor responsibilities

- Act as a competent person for the company.
- Implement the company safety program at the work or jobsite level, setting a good example for all employees.

- Remain knowledgeable about all safety regulations and safe working practices that apply to the work being supervised.
- Conduct daily job inspections, as well as more formal weekly inspections
- Act immediately to eliminate hazards and/or remove employees from any hazardous areas.
- Conduct necessary employee training – including weekly "tool box talks" specialized job training and hazardous communication training.
- Ensure that all machines and personal protective equipment are properly maintained and correctly used.
- Investigate all jobsite accidents and "near-miss" incidents – at times, with management and/or the safety officer.
- Ensure that all injuries are cared for properly and promptly, providing for medical treatment, if necessary.
- Periodically evaluate the safe work practices of all employees
- Record and report all necessary information – including accident investigation forms, training, attendance records, and performance evaluation reports.
- Advise the safety committee, safety officer, or management of outstanding safety efforts by employees.
- As necessary, discipline employees who willfully disregard the company safety policy.
- Require that all other contractors, suppliers, and visitors adhere to all government safety standards and the company safety program.

Employee responsibilities

- Work in a safe manner to ensure your own safety and the safety of those around you.
- Maintain a mental and physical health conducive to working safely.
- Adhere to all government standards and company safety regulations
- Follow all safe working rules outlined in the company safety program.
- Request instruction from the supervisor when unsure of how to perform any task safely, including handling of hazardous materials.
- Refrain from any obvious or questionable hazards or unsafe work practices, and report hazards immediately to the supervisor.
- If possible, correct any hazards or unsafe practices.
- Properly use all tools, machines and personal protective equipment, as instructed by the supervisor.

- Maintain and take responsibility for personal protective equipment.
- Keep all work areas clean and free of debris.

Other contractor and supplier responsibilities

- Abide by all government standards and safety rules of the owner or controlling party.
- Notify other contractors when actions or activities could affect the safety of employees of other companies.
- Report all injuries and accidents to the controlling party
- Report any unsafe conditions or work practices immediately to the controlling party.

Visitor and guest responsibilities

- Abide by all government and company safety regulations
- Register with the proper personnel upon arriving at the site.

Double Z Construction Safety Rules Policy

To ensure that the company safety rules will be effectively followed, Double Z Construction will strive to:

- Provide each employee with his or her own copy of the company safety rules. These safety rules are provided at time of employment in the new hire information packet and are also provided at the beginning of the year to all returning employees in the form of a small safety booklet.
- Review the rules with all new employees before they begin work.
- Discuss the rules periodically at company safety meetings.
- Post the rules in a conspicuous place on each jobsite.
- Maintain accessible copies of the rules in every company office and on each jobsite.

Double Z Construction Company Safety Rules

- Employees must adhere to all federal, state, and local laws, as well as employer regulations and policies.

- Hard hat use is mandatory on all projects.
- Horseplay causes accidents and is strictly prohibited.
- Employees must be alert to hazards and potential hazards, and must immediately report and unsafe conditions, acts, tools, or equipment to the supervisor. Employees should never perform any assignment that is unsafe.
- If an employee does not know the safe procedures for a job or operations, he or she should ask the supervisor to demonstrate the approved safe methods.
- Employees must report any injury or accident to the supervisor as soon as possible.
- Employees must practice good housekeeping on projects at all times. No materials should be left in aisles, walkways or roads.
- Employees must be aware of the location of all fire extinguishers and first aid kits.
- The use, possession, transportation, solicitation, or sale of alcohol or drugs, including illegal drugs and misuse of prescription drugs on company premises is strictly prohibited.
- In addition, the company prohibits any employee from being at work or working under the influence of alcohol or drugs. Violations of this rule will lead to immediate disciplinary actions, up to and including possible dismissal, even on the first violations.
- No firearms or other weapons are permitted on the jobsite.
- Personal protective equipment must be worn and used properly, as directed by the supervisor.
- For all walking/working surfaces, employees must use fall protection methods, such as guardrails, body harnesses, etc when working at heights over six feet.
- Eye and/or face protection must be worn by all employees exposed to flying objects or potential eye or face injuries.
- Hearing protection must be worn when operating power-actuated tools, or wherever a hazard exists.
- Protective clothing and work shoes must be worn, as directed by the supervisor. Tennis shoes, shorts, and sleeveless shirts are not permitted.
- Gloves must be worn by workers handling debris and rough or sharp edged material.

- Tools should be inspected frequently by employees for defects, and turned in to the supervisor for repair or replacement if they are damaged.
- Hand tools may not be used for any purpose other than those intended, and should be promptly repaired or replaced when necessary.
- Power tools should only be operated by authorized personnel, with proper guards and safety devices in place. All electrical tools must be grounded or double insulated.
- Employees must never remove or bypass safety equipment.
- Employees should only approach equipment if the operator is aware of their presence.
- Machinery must not be oiled, cleaned, adjusted, or refueled while operating.
- Employees are prohibited from improperly riding on equipment – including crane hooks, forklifts, hoists, or other material handling equipment.
- Ladders must be placed on a substantial base and may not be used if they have broken, split, or missing rungs or rails. All ladders are to extend at least three feet above the landing platform and must be securely fastened or tied-off. The maximum length of a single ladder must not exceed 30 feet, and ladders should have slip resistant feet for prevent accidental movement.
- Scaffolding must be placed on a substantial base, with a minimum width of two planks and with guardrails or the equivalent on all open sides and ends.
- Floor openings must be planked over or barricaded, and slab edges of an open building must be protected by a standard railing and toe boards.
- Employees must not move or remove the protective barriers unless directed by a supervisor. If temporary removal is required, the employees removing the barriers are responsible for their replacement as soon as possible.
- Excavations and trench construction in soils other than rock, shale, or consolidated slag, must be shored and/or braced if over five feet deep and not cut to the natural angle of repose of the surrounding material.
- No employee may enter a trench or confined space unless he or she is properly trained and authorized by a competent person.

- Gasoline must be stored and transported in approved safety cans only. Engines must be turned off when refueling and no smoking is permitted near flammable liquids.
- Sources of ignition are prohibited from areas where flammable liquids are stored or issued. Appropriate warning signs shall be posted at these locations.
- Compressed gas cylinders must be chained or otherwise secured in an upright position and must be placed in cylinder carts when transported.
- When stored, cylinders must be capped and secured in an upright position, with oxygen and combustible gases separated by 20 feet or a five foot non-combustible wall.

Violation of these safety rules may be cause for disciplinary action, up to and including possible dismissal, even on the first violation.

Safety Equipment

Hard hats:
Hard hats shall be worn in areas where there is a possible danger of head injuries from flying or falling objects, electrical shock, burns, and impact. All Double Z projects require hard hats 100% of the time. This protective equipment, guarding against impact injuries and penetration of falling and flying objects, shall meet the requirements of ANSI Z89.1-1986.
Hard hats for protection against electrical shock and burns shall meet the requirements of ANSI Z89.1-1971

Ladders:
Falls are the leading cause of death in the construction industry and every year, falls from ladders make up nearly a third of those deaths. Falls from ladders are completely preventable. All ladders used on project sites should be in good working condition. If they are bent, worn, missing steps or feet, they should be immediately removed from service. Ladders should be used on level ground and should extend at least 3 feet above the landing point to provide a safe handhold. Proper footwear shall always be worn when using ladders and the base of the ladder must be secure. Additional ladder information can be found in the other parts of this safety manual.

Guardrail/handrails:
On all projects, only guardrails and handrails made from steel, wood, and wire rope will be acceptable. All guardrail systems will comply with the current OSHA standards (i.e., contain a 42" high toprail, a midrail, and toeboard, which can withstand 200 pounds of force in any direction). Guardrails will be place in the following areas if necessary or feasible:

1. All open sided floors
2. Around all open excavations or pits
3. On leading edges of roofs, bridge decks, or box culverts
4. On any ledge over six feet where a fall may occur due to proximity of work

Additional information on handrail and guardrails can be found in the Double Z Fall Protection Program section of this manual.

Wire cables & woven straps:
Wire cables and woven straps are important pieces of equipment on every project. They are used in a wide variety of lifting procedures. As a result they must be in good condition, properly tagged, and inspected regularly. Both cables and straps should be inspected before each use to check for frays, bird caging, burns, wear, and eyes. Tags should be legible and attached to the cable. If a cable is missing a tag or sufficiently worn it should be immediately removed from service and either destroyed or labeled with a "Do Not Use" tag. Monthly inspections on straps and cables will be conducted by the Double Z Safety Officer and the records will be kept in the office.

Trench boxes:
Trenching and excavating can be some of the most dangerous work in the construction industry. Two workers are killed every month in trench collapses. Cave-ins pose the greatest risk and are much more likely than other excavation-related accidents to result in worker fatalities. One Cubic yard of soil can weigh as much as a car. Any trench 5 feet deep or greater requires a protective system. Trench boxes are one way to help keep employees safe in these instances. Trench box data is available on every project where excavations are scheduled to take place. Double Z foremen are trained as competent persons to inspect and safely use trench boxes on projects.

Additional equipment such as harnesses and lanyards can be found in other parts of this manual.

Enforcement of Safety Rules

Compliance with company safety rules and procedures is a condition of employment for working with Double Z Construction Company.

To ensure the safest work environment possible and to prevent accidents and injuries, action will be taken immediately if a violation of the rules is observed. Management personnel at all levels are responsible for the enforcement of the company safety rules.

Any violation of the rules will result in disciplinary action and can lead to dismissal, even upon first violation. Both the disciplinary policy and the company safety rules will be discussed with all employees at the time of initial hire and will be periodically reviewed during their employment.

Reinforcement of safety rules

A safety reinforcement program is an excellent motivational tool used to sustain employees' awareness of safety, and to demonstrate that "safety pays" for both management and employees.

Incentives may be awarded for numerous reasons, including:

- Increments of time without accident
- A useful safety suggestion
- A unique way to "engineer out a problem"

Awards used in a safety reinforcement program may include:

- Monetary bonuses
- Time off with pay
- Novelty gifts – tee shirts, hats, hard hat stickers, etc.
- Recognition awards – plaques, certifications, etc

Double Z Construction Safety Training Policy

Training of employees is the foundation to the effectiveness of the Double Z safety program and to the prevention of as many injuries and illnesses as possible.

Training for the construction industry is also mandated by OSHA in the safety training and educational standard, in Title 29, Code of Federal Regulations, Part 1926.21 (b). The standard states:

> "The employer shall instruct each employee in the recognition of hazards in the work environment to control or eliminate any hazards or other exposure to illness or injury."

All employees will be instructed to recognize and avoid general workplace hazards, as well as hazards and regulations specific to a particular line of work.

Certain employees will be required to attend specialized training classes to become certified in particular areas, or to become designated as a "competent person."

In addition, all employees will be taught to understand and to follow all company safety policies and procedures.

Documentation will be maintained for each training program – including attendance lists, subjects covered, and questions or suggestions discussed. Unexcused absences from training classes could lead to disciplinary action.

Safety training will be an ongoing process and will be for all employees, including office, management, and field personnel. It may be conducted in a group setting or with an individual depending on the topic and circumstances.

Double Z Construction Safety Training Programs

Company safety rules

At the time of hire, each employee will be issued a copy of the Double Z Construction safety rules in the new hire packet before beginning work. A signed acknowledgement that the employee has read or has been trained in the rules, and understands the rules will be maintained on file.

Additionally, each spring, Double Z will provide a safety booklet to all employees. This booklet will contain rules, policies, changes, and additional information to help refresh and reinforce safety on projects.

Supervisor training

Site supervisors will receive periodic instruction to maintain and enhance their communication and instructional skills, as well as their knowledge of the safety regulations and practice which they supervise. The following list includes the training required for all foremen.

1. OSHA 30 Hour
2. Competent Person Excavating
3. Traffic Control
4. Man Lift Training
5. Fall Protection
6. Rigging & Signaling
7. First Aid
8. Drug Free Workplace
9. Supervisor Training for Drugs and Alcohol
10. Lockout/Tagout

Addition training requirements may be required if deemed necessary.

New employee training

In addition to the company safety rules, new employees will be oriented to other company safety policies, site-specific requirements and safety procedures for their assigned tasks, before beginning work. On the job training will usually be conducted by the foremen or superintendent. In

some cases the Double Z Safety Officer will conduct field training for specific items. All field employees are also encouraged to seek training through their union halls during the winter months.

Weekly safety meetings

Jobsite safety meetings, or "Tool Box Talks," will be held weekly (usually on Thursday) to reinforce company rules and to discuss site-specific conditions. These meetings will be conducted by a superintendent or foreman. Each meeting will discuss a topic pertinent to the specific jobsite – such as fall protection, or trench safety. All employees are encouraged and expected to ask questions during these meetings. Attendance at the meetings is mandatory for all crew members. Signed Tool Box Talks will be recorded and filed in the office by the Safety Officer.

Safety Officer Safety meetings

Safety Officer conducted safety meetings will be held from time to time when the Safety Officer is on a project. These meetings will typically cover job specific hazards that are currently being worked on. Occasionally, these meetings may be more general and will include policies, changes, and important information. All employees on site will be required to attend and a signature sheet will be passed around. Attendance will be recorded and filed by the Safety Officer.

Safety letters

Occasionally, the Safety Officer will prepare and distribute safety letters to the employees in the field. These letters will include a wide range of topics ranging from fall protection to heat related hazards. These letters are often a result of observations in the field of items that need to be addressed.

Position transfers or changed conditions

Employees changing to a new position or to a new jobsite will be trained in site-specific requirements and safety procedures for their newly-assigned tasks. The employer will not assume that the employee has been trained for a new task simply because he or she already works for the company. In addition, when a new phase of construction begins on a project, employees will be made aware of new hazards or actions to eliminate safety issues.

Hazard communication training

Employees will be trained in the company's hazard communication policy before beginning work. The training will include information on the hazard communication standard, physical and health hazards of pertinent chemicals, non-routine tasks, and the use and availability of the company's Material Safety Data Sheets (MSDS) and labels.

Equipment

When issued personal protective equipment or tools, employees will be instructed how to use the equipment properly and safely.

Recordkeeping and Posting Procedures

Injury and illness records

Double Z Construction will maintain accurate injury and illness records such as the OSHA No. 300, 300A, and 301 forms.

If employees report to work at the same establishment daily, the safety records regarding those employees will be kept at that location. If employees work at various locations, the records will be maintained at the location from which they are paid or at the main base from which they operate.

The forms will be kept on a calendar year basis, and maintained by the employer for at least five years. The records will be available for inspection and copying by OSHA or other authorized government agencies.

We will also use these forms to help track injury and illness trends, as we investigate incidents in an attempt to prevent similar accidents in the future.

Required OSHA forms

OSHA No. 300 – Log of Work-Related Injuries and Illnesses

The OSHA 300 Log is a required document used to record and classify injuries and illnesses, and includes employee information and the extent and severity of each case.

OSHA No. 300A – Summary of Work Related Injuries and Illnesses

The 300A Summary shows the work-related injury and illness totals for the year in each category. At the end of the year, we will count the number of incidents in each category from the 300 Log and transfer the totals to the 300A Summary. We will then post the 300A Summary from the previous year during the months of February, March and April in a visible location that all employees can see. This location is usually the large bulletin board in the hallway at the main office.

OSHA No. 301 – Injury and Illness Incident Report

An OSHA 301 Report – which provides more detailed information about every entry from the OSHA 300 Log, will be completed within seven calendar days of receiving information that a recordable incident has occurred.

Company forms

In addition to the OSHA injury and illness forms, Double Z Construction will strive to maintain the following records:

- Reports for all accidents and utility incidents, even for injuries only requiring first aid.
- Near Misses
- Attendance records from all training classes, including weekly "Tool box talks"
- Employee acknowledgements of receiving training and materials
- Jobsite inspections and violations
- Equipment inspections

Jobsite posters and bulletin boards

Double Z Construction will post all required items and notices on the bulletin boards on each project. These bulletin boards will include the following items:

- OSHA job safety and health protection
- Emergency phone numbers and directions to nearest hospital
- Proof of worker's compensation coverage
- Ohio minimum wage law
- Ohio minor labor law
- Ohio fair employment practices law
- Ohio unemployment compensation law
- Equal employment opportunity is the law
- Employee polygraph protection act
- Family and medical leave act
- Davis-Bacon public contracts act
- Fair labor standards act
- Walsh-Healy public contracts act
- EEO officer contract information
- Wages and fringes for the project
- Company safety policy
- Affirmative action policy
- Sexual harassment policy
- Title 18 Form
- USSERA form

Additional information may be required for some projects.

Accident and Incident Procedures & Investigations

Any time damage occurs to vehicles, property or people, an accident has occurred. This includes within the confines of the project, on the way to/and from the site, and involving the company or the public. Accidents and incidents must be reported immediately to the supervisor. After the supervisor has been notified he will fill out an accident investigation form and turn it into the safety officer.

The detection and elimination of sources of loss through investigation is one of the most effective methods of improving the loss control record of the company.

Once the accident sequence is set in motion, little can be done to control the degree of severity. The difference between a "fender-bender" and major property damage is usually a matter of chance. Whether an employee turns an ankle or merely trips is largely fortuitous. For this reason, ALL ACCIDENTS, and "NEAR MISSES" should be investigated.

Accident investigation is based upon the logic that:

- All accidents and losses have causes. Eliminate the causes and prevent the accident. You must determine and correct the underlying cause of the accident.
- Accidents and loss causes can be determined and corrective action developed. When corrective action is applied, it will help eliminate the causes and prevent similar accidents and losses.

In investigating accidents or losses, the following points shall be focused upon:

- How was the injury, damage, or loss incurred? Exactly WHAT happened and where?
- Under what circumstances did the accident occur; in other words, WHY?
- Once the details have been reconstructed, WHAT can be done to prevent similar accident, damage or loss from recurring?
- Take corrective actions to prevent a recurrence of the accidents.

An investigation must be done as soon as possible. Accident investigation should be promptly completed because:

- Facts are fresh in the minds of witnesses and those involved.
- Witnesses have not had a chance to talk and influence each other's thinking.
- All physical conditions remain the same
- People are still available

- Quick response shows management's concern for reporting, investigating, and taking corrective action.

A thorough accident investigation involves exploring. There are a number of weaknesses in accident investigations. One primary weakness is that too often the investigation looks only at the obvious conditions and facts; often many related causative factors go unnoticed. Investigation should include:

- The physical condition, e.g. site conditions, weather, equipment, and photographs.
- The employee, e.g. emotions, health, and attitude.
- Other factors, e.g. rush jobs, overtime, shorthanded operations, and previous "near misses".
- Unsafe conditions caused by other employees and/or equipment. Unsafe acts of other causing another employee's direct injury.
- A look at management's failure to provide necessary guidance in job-site orientation for new employees and employee training (initial and continued).

The first step in a normal accident investigation is to interview the person(s) involved. Generally, the interview should be conducted according to the following steps:

- Put the person at ease, emphasize prevention is your goal, not fault finding.
- Conduct the interview at the scene of the accident, if possible.
- Ask the employee's or witnesses' versions of the accident. Let each person tell the story without interruption.
- Ask any necessary questions. Avoid the "why" questions at this point, as they tend to make employees defensive.
- Repeat the employee's or witness's story as you understand it.

Great care should be taken not to question an upset person who has just sustained an injury or emotional shock. Wait until the person calms down, or the doctor or other medical personnel indicates it is all right. An accident investigation report form should be completed and forwarded to the Safety Officer. Once the "immediate" and "basic cause(s)" of the accident have been discovered through investigation, the problem can be analyzed, then a

solution can be developed which will help avoid similar accidents in the future. Efficient analysis can be achieved by:

- Assembling information taken from accident investigation forms and accident records.
- Grouping similar information and trying to determine if there is a pattern of accident cause trends.
- Identify source of loss, areas, etc., on which to concentrate your efforts.
- Study possible solutions to the problem(s).
- Determine alternatives that can be applied to prevent recurrence of this type of accident.
- Select the most appropriate alternative.

Preparing a good report is important because it provides both the details and recommendations. The report affords an opportunity to tell management what actions are needed and provides the information necessary to justify the expense associated with the remedies. Applying the proper remedies will decrease the possibility of similar accidents occurring in the future.

Prevention

Prevention of recurrence is always the most important goal of an investigation. Fault finding or placing blame serves no useful purpose, and is not part of accident prevention. Prevention of future, similar occurrences is accomplished through corrective procedures and conditions, as well as through training. In the event an accident or loss occurs, the Safety Officer should investigate because they:

- Know the most about the operation, employees, and situation.
- Have a personal interest in identifying incident causes (the supervisor views accidents/incidents as affecting “my” workers and operation.)

Inspections

Jobsite inspections

The purpose of jobsite inspections is to detect hazards in the work environment – including existing and potential hazards, as well as violation of company safety rules and local, state and federal laws. Hazards may

include unsafe acts, unsafe conditions or unsafe machinery and tools, and may be general construction hazards or site specific conditions. The frequency of the inspections will depend on the complexity and type of work, equipment and materials, along with site specific hazardous conditions. The inspection program will include at least daily "walk-throughs" and weekly inspections by the job superintendent. Additionally the Safety Officer will conduct regular inspections on all projects. All employees designated to conduct inspections will be trained in the procedure. In addition to detecting hazards, the inspection process will include plans to abate any of the problems that are identified. Action to correct or control the hazard will be taken immediately, once the hazard is determined. All inspections will be documented, with copies of the report kept in the job file at the main office and available for all employees. A verbal meeting will be held after each inspection on site to discuss hazards and items found during the inspection. At this time, violations and warnings will also be brought to the attention of the foremen and will be issued on site. The post inspection meeting will also be conducted to inform the foremen or superintendent of areas in which they are doing a good job and to reinforce safety policies and safety rules.

Equipment inspections

All equipment should be inspected on a regular basis. However some safety equipment requires additional inspections. All equipment related to fall protection such as full body harnesses, lanyards, beam sliders, safety cables, etc should be inspected before each use. Each item should be thoroughly checked for wear, tears, impact indicators, connection rings, and cleanliness. In addition to daily inspections, the Safety Officer will conduct full inspections on safety equipment with detailed reports no more than every six months. These detailed reports will be kept on file to track the condition of fall protection equipment. A yearly report will be done each winter when work is slow and fall protection equipment has been returned to the Double Z shop. Any equipment found to be deficient will be removed from service immediately and reported to Jesse Fischer in the Double Z shop for the purpose of inventory and ordering a replacement.

Cables and straps

Proper care and inspections of wire cable and woven straps are essential to the safety of all Double Z projects. Rigging equipment inspections shall be

completed on an annual, monthly, and daily basis. Annual inspections of rigging equipment will be completed during the winter months by the Double Z safety officer. Monthly inspections will also be conducted by the safety officer but will be completed while rigging equipment is on projects during the year. Both the annual and monthly inspections will be documented and kept on file in the main office. Daily inspections are to be conducted by employees before each use. Daily inspections should check for wear, cuts, fraying, eye condition, safety latches, tags, bird caging, and chemical or fire damage. Any piece of equipment that fails an inspection, even if borderline, must be tagged out of service and reported to the Double Z shop. Do not use defective rigging equipment!

Crane inspections

Cranes owned by Double Z Construction will have a comprehensive annual inspection each year. These inspections will normally occur in the early spring before work begins. All annual crane inspections will be completed by KT Crane Services, LLC. Inspection documentation will be kept in the Double Z office and an additional copy will be kept in the operator's cab of the crane. Cranes will not be authorized for use until all outstanding items found in the inspection have been corrected. Additionally, all crane operators are required to complete their daily and monthly crane inspection logs that are specific to each crane. At the end of each month these inspection logs shall be turned in to the safety officer, Mike Guzzo where they will be kept on file. When a crane is moved between projects, or is idle for 30 days, a monthly inspection regardless the date of the last monthly inspection shall be completed.

Construction Housekeeping

Good housekeeping is an essential part of safety on any construction jobsite. Double Z Construction enforces the following information – compiled by the State of Ohio, Bureau of Workers Compensation, and the Division of Safety & Hygiene – as its company housekeeping policy.
All employees should be trained in housekeeping procedures before beginning work, and should be instructed in site-specific housekeeping plans, including material storage. Housekeeping topics will also be reinforced at periodic "Tool box talks". The Superintendent and Safety

Officer will include housekeeping items in the periodic jobsite safety inspections, and will be alert to housekeeping conditions at all times.

Safe working rules for construction housekeeping

Reducing the number of accidents that result from poor housekeeping is good business. The reduction serves a two-fold purpose, by helping keep workers on the job and by cutting equipment losses. A good housekeeping program enhances public relations, promotes job morale, increase efficiency and production and presents a picture of a well-organized jobsite.

The following are steps to a good housekeeping program that will be established on every jobsite.

- Areas will be designated for material storage, parking and trash, as well as for storage of compressed cylinders.
- Areas will be provided for employee tools and clothing, and adequate lighting and ventilation will be provided.
- Metal containers that are to be used for trash, paper and debris will be marked.
- For safe vehicular access and movement of traffic, roads will be kept in good condition. Clear access will be maintained to material storage, parking and trash areas.
- Employees will be instructed in special safety equipment requirements and the use of the equipment.
- Posters and signs will be prominently displayed.

Housekeeping rules

- Storage Areas: All materials will be maintained in neat stockpiles for ease of access. Aisles and walkways will be kept clear of loose materials.
- Work Areas: Loose materials and waste will be cleaned up immediately. This is especially important in the aisles and in the vicinity of ladders, ramps, stairs, rolling scaffolds and machinery. Tools and loose materials will be removed if they create a hazard.
- Areas Used by Personnel: Empty bottles, containers and papers will not be allowed to accumulate where lunches are eaten on jobsite. Trash disposal containers will be provided.

- Oil and Grease: Spills of oil, grease or other liquids will be cleaned immediately or sprinkled with sand.
- Disposal of Waste: Litter will be prevented by providing suitable receptacles for waste and scrap. Combustible waste such as oily rags or paper will be stored in a covered metal container and waste will be disposed of regularly.
- Protruding Nails: Protruding nails will be removed or clenched as the hazard develops. Cleaned lumber will be stacked in orderly piles. Heavy gloves and puncture proof insoles will be worn to perform this task.
- Lighting: Adequate lighting will be provided in or around all work areas, passageways, stairs, ladders and other areas used by personnel.
- Fuel Tanks: Fuel tanks should be kept away from vehicular traffic. If a tank is exposed to vehicular traffic barrier wall should be placed in front of the tank. Tanks should be stored in appropriate containers to reduce the possibility for leaks.
- Tool Shanty: Tool Shanties shall be kept clean and organized at all times. Harnesses and Lanyards shall be properly stored and hung up. If oxygen and acetylene are stored in tool shanties they must be stored in separate containers or at least 20' apart and separated by a fireproof wall.
- Traffic Control: All traffic control items, including barricades, drums, and signs shall be kept in clean and good condition. Additionally they shall be re adjusted and fixed any time they are moved or hit by a vehicle.

Required Safety Items for Foremen

All Foremen are required to have specific items in their work trucks or field offices at all times. These items include:

- MSDS Book
- Double Z Policy Book
- First Aid Kit
- Fire Extinguisher

The Double Z Safety Officer will track these items to make sure the foremen have the latest versions and most up to date equipment. In instances where a foreman lacks one of these items and fails to notify the Safety Officer for a replacement, a written write up will be issued.

Fall Protection and Site Specific Plans

Double Z Construction has developed a comprehensive program to protect employees from fall hazards. This program attempts to cover all aspects of fall protection, including training, inspections, proper use, storage and hazards. Additionally, fall protection books on jobsites contain site specific plans and information for employees. These site specific plans are the first page of the fall protection plan. These plans are created by the Double Z Safety Officer to make all employees aware of jobsite hazards and provide additional information about the project. Contained on the following pages is the complete Double Z Construction Fall Protection Plan.

Fall Protection Program

Purpose and scope

The purpose of this fall protection program is to establish guidelines to protect all employees engaged in outdoor or indoor work activities that expose them to potential falls from elevations.

The scope of this fall protection program includes all field, shop, and office employees.
In particular those staff engaged in work activities, which expose them to falls from heights of 6 feet or more.

Goals

The goal of this Fall Protection Program is to prevent the occurrence of falls from elevations of 6 feet or higher. This goal will be accomplished through effective education, engineering, administrative controls, use of fall protection systems, and enforcement of the program. This fall protection program will be continually improved upon to prevent all falls from occurring.

Types of Fall Protection Systems

1) An articulating man lift provided with a restraint system and full body harness to an anchor point below the waist (preferably at the floor level).
2) Guardrail with a toeboard, midrail and toprail.
3) Personal fall arrest systems.
    - Anchor points (rated at 5000 pounds per person).
    - Full body harness.
    - Restraint line or lanyard.
    - Retractable lanyard.
    - Rope grabs.
    - Connectors (self-locking snaphooks).
4) Engineered lifelines.
5) Warning lines.
6) Safety nets.
7) Safety monitoring systems.

Appropriate fall protection will be determined by the task (job) to be performed.

Fall protection locations

Fall protection is required wherever the potential to fall 6 feet or more exists. Double Z Construction has identified the following places concerning fall protection:

1) All flat and low sloped roof and bridge deck locations, when within 6 feet of the roof edge or during roof repair/maintenance (4:12 pitch or less).
2) All exterior and interior equipment platforms, catwalks, antennas/towers, etc.
3) All exterior and interior fixed ladders above 20 feet.
4) All open excavations or pits.
5) All tasks requiring use of the articulating man lifts.
6) All tasks requiring employees to lean outside the vertical rails of ladders (i.e., painting, stairwell light bulb replacement, etc.).
7) Scaffolding erection – 10 feet in height or greater.

Guardrails

On all projects, only guardrails made from steel, wood, and wire rope will be acceptable. All guardrail systems will comply with the current OSHA standards (i.e., contain a 42" high toprail, a midrail and toeboard, which can withstand 200 pounds of force in any direction,). These guardrails will be placed in the following areas if necessary or feasible based on job location or requirements:

1) On all open sided floors.
2) Around all open excavations or pits.
3) On leading edges of roofs and bridge decks
4) On any edge over 6 feet where a fall may occur due to proximity of work.

Personal fall protection systems

All employees on any project that will be required to wear a personal fall arrest or restraint system will follow these guidelines:

1) A full body harness will be used at all times.
2) Only shock absorbing lanyards or retractable lanyards are to be used so as to keep impact forces at a minimum on the body.
3) Only nylon rope or nylon straps with locking snaphooks are to be used for restraints.
4) All lanyards will have self-locking snaphooks.
5) The employee will inspect all personal fall arrest equipment before each use. Any deteriorated, bent, damaged, impacted, and/or harness showing excessive wear will be removed from service.

The maximum free fall distance is not to exceed 6 feet. Consideration must be given to the total fall distance. The following factors can affect total fall distance:

1) Length of connecting means (i.e., lanyard length, carabiners, snaphooks, etc.)
2) Position and height of anchorage relative to work platform/area (always keep above the head whenever possible).
3) Position of attachment and D-ring slide on the full body harness.
4) Deployment of shock absorber (max. 42").
5) Movement in the lifeline.

6) Initial position of worker before free fall occurs (i.e., sitting, standing, etc.).

Calculating total fall distance

It is the total length of shock absorbing lanyard + height of the person + the location distance of the D-ring from the work surface or platform.

Always allow a minimum of 6 feet of clearance above the ground, equipment, etc., at the end of the fall from the fall arrest point.

Engineered lifeline

Lifeline systems must be designed and approved by an engineer or qualified person.

Lifeline systems must be engineered to have appropriate anchorages, strength of line designed to hold X number of individuals connected to it, line strength to aid in the arrest of a fall, and durability

Warning line system

All work on a flat roof or bridge deck greater than 50 feet wide, which is performed 6 feet or further back from the edge can be completed by installing a Warning Line and using a safety monitor. If the deck is flat and less than 50 feet wide, a competent person safety monitor may be used. Warning Lines will consist of the following:

1) Will be erected 6 feet from the edge of the roof or bridge deck
2) Be constructed of stationary posts made of wood or metal.
3) Wire or nylon rope and "Caution" tape will be strung from post to post and must be able to withstand 16 pounds of force.
4) The warning line will guard the entire perimeter of the roof where work is being performed.

If an employee must access an area within 6 feet of the edge, for reasons other than exiting the area via a ladder or fixed industrial ladder, another employee must monitor that individual and warn him/her of any dangers. If another employee is not available to act as a safety monitor, then the

employee must don a full body harness and attach a fall restraint lanyard to an anchor point to prevent reaching the edge of the roof.

Inspection of fall protection systems

The following criteria will be utilized to maintain all equipment in good working condition:

Full Body Harnesses

1) Inspect before each use.
   - Closely examine all of the nylon webbing to ensure there are no burn marks, which could weaken the material.
   - Verify there are no torn, frayed or broken fibers, pulled stitches, or frayed edges anywhere on the harness.
   - Examine the D-ring for excessive wear, pits, deterioration, or cracks.
   - Verify that buckles are not deformed, cracked, and operate correctly.
   - Check to see that each grommet (if present) is secure and not deformed from abuse or a fall.
   - The harness should never have additional punched holes.
   - All rivets should be tight and not deformed.
   - Check tongue/straps for excessive wear from repeated buckling.
2) A competent person will complete an annual inspection of all harnesses and documentation will be maintained (see Appendix 1).
3) Storage will consist of hanging in an enclosed cabinet, to protect from damage.
4) All harnesses that are involved in a fall will be destroyed.

Harness Do's and Don'ts

DO:

• Adjust the harness to fit snuggly. A harness that does not fit snuggly can cause serious injury and limit the tolerable suspension time following fall arrest.
• Wear the chest strap. If the chest strap is not done up you may fall out of the harness in a headfirst fall.
• Inspect the harness prior to use. A harness that does not pass the pre-use inspection should not be used.

• Use the keepers to prevent the webbing from sliding through the buckles and to tuck back excess webbing.

DON'T:

• Leave straps dangling or leave the harness partially done up. If the unattached straps are forgotten about, they may be caught in machinery or the harness may fall off during fall arrest.

• Use a harness that has been previously used to arrest a fall. It must be discarded following fall arrest.

Donning a Full Body Harness

Lay the harness out on a clean, flat surface to ensure there are no tangles in the webbing and for ease in inspection. Place the shoulder straps on and secure all corresponding buckles. Adjust all straps and buckles so that the harness fits snuggly, but still allows free movement. Ensure the sub-pelvic strap is just below the buttock and the chest strap is across the chest at nipple height. Slide all keepers to their correct locations. Attach all other fall arrest equipment to the dorsal D-ring on the harness. It is important to follow the manufacturer's direction for donning your particular harness, as donning procedure may change.

Lanyards/Shock Absorbing Lanyards

1) Inspect before each use.
   - Check lanyard material for cuts, burns, abrasions, kinks, knots, broken stitches and excessive wear.
   - Inspect the snaphooks for distortions in the hook, locks, and eye.
   - Check carabiner for excessive wear, distortion, and lock operation.
   - Ensure that all locking mechanisms seat and lock properly.
   - Once locked, locking mechanism should prevent hook from opening.
   - Visually inspect shock absorber for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard.
   - Verify that points where the lanyard attaches to the snaphooks are free of defects.
2) A competent person will complete an annual inspection of all lanyards and documentation will be maintained (see Appendix 2).
3) Storage will consist of hanging in an enclosed cabinet, to protect from damage.
4) All lanyards that are involved in a fall will be destroyed

Lanyard Do's and Don'ts

DO:

- Attach the lanyard directly overhead to minimize swing fall hazard
- Use the shortest possible lanyard for the job.
- Inspect the lanyard prior to use.

DON'T:

- Use a lanyard if it has been used to arrest a fall.
- Attach two lanyards together to make them longer, as it could cause rollout, and the freefall is unacceptable.
- Tie knots in lanyards; it reduces the strength by 50%.
- Girth hitch lanyards, it can cut the lanyard.

Snaphooks

1) Inspect before each use.
   - Inspect snaphook for any hook and eye distortions.
   - Verify there are no cracks or pitted surfaces.
   - The keeper latch should not be bent, distorted, or obstructed.
   - Verify that the keeper latch seats into the nose without binding.
   - Verify that the keeper spring securely closes the keeper latch.
   - Test the locking mechanism to verify that the keeper latch locks properly.
2) A competent person will complete an annual inspection of all snaphooks and documentation will be maintained (see Appendix 3).
3) All snaphooks involved in a fall will be destroyed.

Self-Retracting Lanyards/Lifelines

1) Inspect before each use.
   - Visually inspect the body to ensure there is no physical damage to the body.
   - Make sure all nuts and rivets are tight.
   - Make sure the entire length of the nylon strap/wire rope is free from any cuts, burns, abrasions, kinks, knots, broken stitches/strands, excessive wear and retracts freely.
   - Test the unit by pulling sharply on the lanyard/lifeline to verify that the locking mechanism is operating correctly.

- If the manufacturer requires, make certain the retractable lanyard is returned to the manufacturer for scheduled annual inspections.

2) A competent person will conduct monthly inspection of all self retracting lanyards/lifelines and documentation will be maintained (see Appendix 4).
3) Service per manufacturer specifications (1-2 years).
4) Inspect for proper function after every fall.

Tie-Off Adapters/Anchorages

1) Inspect for integrity and attachment to solid surface.
2) A competent person will complete an annual inspection of all tie offs and anchorages and documentation will be maintained.
3) All tie-offs and anchorages will be destroyed after a fall.

Articulating Man Lift

1) Inspect before each use.
2) Inspect/service per manufacturer guidelines. Forklift, scissors lifts, and safety nets will be inspected at the beginning of each shift in use. Structural integrity of the forklift basket will be checked per the same schedule.
3) A competent person will complete an annual inspection of the forklift basket and documentation will be maintained.

Horizontal Lifelines

1) Inspect before each use for structural integrity of line and anchors.
2) A competent person will complete an annual inspection.

Guardrails

1) Temporary systems – Daily visual inspection will be completed by a competent person.
2) Temporary systems – Weekly, a complete structural inspection will be completed by a competent person.
3) Permanent systems – Annual structural inspections will be completed by a competent person with future frequency of inspection defined based on conditions/controls present.

Storage and maintenance of fall protection equipment

1) Never store the personal fall arrest equipment in the bottom of a toolbox, on the ground, or outdoors exposed to the elements (i.e., sun, rain, snow, etc.).
2) Hang equipment in a cool, dry location in a manner that retains its shape.
3) Always follow manufacturer recommendations for inspections.
4) Clean with a mild, nonabrasive soap and hang to dry.
5) Never force dry or use strong detergents in cleaning.
6) Never store equipment near excessive heat, chemicals, moisture, or sunlight.
7) Never store in an area with exposures to fumes or corrosive elements.
8) Avoid dirt or other types of build-up on equipment.
9) Never use this equipment for any purpose other than personal fall arrest.
10) Once exposed to a fall, remove equipment from service immediately.
12) Equipment should not be taken apart, modified, or repaired in house.

Excavations

Double Z Construction jobsites may have excavation edges that will not be readily seen (i.e., concealed from view by plant growth, etc.). In addition, walls, pits, shafts, and similar excavations 6 feet or more deep will be guarded to prevent employees from falling into them. When it is necessary, and when the excavation is 6 feet or more deep, we will protect our employees and subcontractors.

Dangerous equipment

Double Z Construction is committed to protecting our employees from falling onto dangerous equipment. Because of the inherent danger an employee or subcontractor will be exposed to, Double Z Construction will utilize and require the use of covers, standard guardrails, safety nets, or personal fall arrest systems (PFAS) to protect our employees and subcontractors from these fall hazards.

Articulating man lifts

On jobsites where man lifts are required to complete work only authorized persons shall operate the aerial lift. Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted. In addition, employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position. A body belt or full body harness shall be worn, and a lanyard attached to the boom or basket when working from an aerial lift. Boom and basket load limits specified by the manufacturer shall not be exceeded.

Pre-cast concrete erection

Our company may be involved with pre-cast concrete erection work.

We presume that it is feasible and will not create a greater hazard to implement at least one of the conventional fall protection systems for any pre-cast concrete erection work. When our employees are erecting pre-cast concrete members 6 feet or more above a lower level they must be protected from falling by the use of standard guardrail, or personal fall arrest systems (PFAS).

Working over water

Double Z Construction may have jobsites that require employees to work over or near water. Where the danger of drowning exists, employees shall be provided with U.S. Coast Guard-approved life jackets or buoyant work vests.

1) Prior to and after each use, the buoyant work vests or life preservers shall be inspected for defects which would alter their strength or buoyancy. Defective Units shall not be used.
2) Ring Buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. Distance between ring buoys shall not exceed 200 feet.
3) At least one life saving skiff shall be immediately available at locations where employees are working over or adjacent to water.

Protection from falling objects

When employees are exposed to falling objects, we ensure they wear hard hats and also implement one of the following measures:

1) Erect toe boards, screens, or guardrail systems to prevent objects from falling from higher levels.
2) Erect a canopy structure and keep potential fall objects far enough from the edge of the higher level so that those objects would not go over the edge if they were accidentally moved.
3) Barricade the area to which objects could fall, prohibit employees from entering the barricaded area, and keep objects that may fall far enough away from the edge of a higher level so that those objects would not go over the edge if they were accidentally moved.
4) Cover or guard holes 6 feet or more above a lower level.

Training

All employees engaged in fall protection will be trained and have the knowledge to:

1) Recognize the fall hazards of/on their job sites.
2) Understand the hazards associated with working near fall hazards.
3) Work safely in hazardous areas by utilizing appropriate fall protection measures.
4) Understand and follow all components of this fall protection program.
5) Identify and understand the OSHA and ANSI standards that pertain to fall protection.

Enforcement

Constant awareness of and respect for fall hazards, and compliance with all safety rules are considered conditions of employment. The Project Superintendent and Safety Officer reserve the right to issue disciplinary warning to employees, up to and including termination, for failure to follow the guidelines of this program.

1) Double Z jobs are required to implement the Fall Protection Plan at all times.
2) All employees are subject to discipline.

3) Documentation of any violations will be kept on file by the Safety Officer, and periodically submitted to upper management for review.
4) All Double Z Construction jobsites are subject to random safety inspections by the Safety Officer and Management.

Duties of the safety officer and project superintendent shall be:

1) To recognize fall hazards.
2) Warn employees if they are unaware of a fall hazard or are acting in an unsafe manner.
3) Be on the same working surface and in visual sight of employees.
4) Stay within a distance that verbal communication can be heard and understood.
5) Shall not assume any other duties or assignments which may interfere with performing the duties of the Safety Officer.

Walking/working surfaces not otherwise addressed

We realize there will be situations that are not covered by our written safety plan, for which we have the duty to provide fall protection. All employees exposed to falls of 6 feet or more must be protected by a guardrail system, safety net system, or personal fall arrest system except where specified otherwise in Part 1926 of the OSHA manual. In addition to these measures, Safety Monitoring systems and controlled access zones may be utilized as alternative protection in accordance with the requirements of 29 CFR 1926.502(g) & (h).

When Safety Monitoring Systems are utilized, the Project Superintendent will serve as the safety monitor or he shall designate an individual adequately trained under this program to serve as the safety monitor. The safety monitor is designated the competent person and has the authority to take prompt corrective action should he/she identify or predict any fall hazards that our employees may be exposed to.

Changes to plan

Any changes to the Double Z Construction Fall Protection Plan must be approved by the Safety Officer and/or Project Manager. This plan is reviewed by a qualified person as the job progresses to determine if additional practices, procedures or training needs to be implemented by the

competent person to improve or provide additional fall protection. Workers are notified and trained, if necessary, in the new procedures. A copy of this plan and all approved changes is maintained at the jobsite.

Sample site specific plan

On the following page is a sample site specific fall protection plan. These plans can vary in complexity because of different hazards specific to a project. The site specific plan includes;

- Project name and job number
- Project type of work
- Location or project and closest major city and hospital
- Contact information
- Location of general safety items
- Requirements for project
- Types of fall hazards that exist
- Plan in case of fall or injury
- Sign off sheet that employees were given the site specific plan

Double Z Construction Fall Protection and Rescue Plan

Project: Tremont Road Bridge, Clark Co.
Double Z job number: # 181

Type of work: Bridge Reconstruction
Work over or adjacent to water? Yes

Location of project: Less than one mile south east of Tremont City, and northwest of Springfield
Closest major city: Springfield
Closest hospital: Springfield Regional Medical Center (See emergency directions page)

Project Manager: Jeremy Lyons 614-648-2945 jeremylyons@doublez.co
Project Superintendent: John Stinson 614-778-3695 johnstinson@doublez.co
Project Foreman: Paul Anderson 740-222-6128 paulanderson@doublez.co
Safety Officer: Michael Guzzo 614-348-6354 mikeguzzo@doublez.co

First Aid Location: Foreman truck
MSDS Location: Foreman truck
Fall Protection/Rescue Plan Location: Foreman truck/Office trailer
Policy Book Location: Foreman truck
Fire Extinguisher Location: Foreman truck

Requirements for project: Fall safety equipment must be worn 100% of the time where a fall over 6' exists. Safety equipment (harnesses, lanyards, lifelines, etc) must be inspected everyday to check for wear. If condition is unacceptable, equipment should be taken out of use and a new one should be ordered through the shop. Appropriate handrail must be erected simultaneously as work progresses. All employees, in instances where handrail does not exist must be appropriately tied off. All excavations of abutments and footers greater than 6' need to be adequately blocked off with handrail.

Types of fall hazards on project: Fall hazards on this job greater than 6' include, deck, pier, abutment, man-lift, scaffolding, demo, piling, and erection work. In instances where these types of work exist appropriate safety measures must be taken before employees are allowed to begin.

Specific plan in case of a fall/injury: In the event of a fall arrest, employees with the use of an articulating man-lift or ladders, where feasible, will rescue all employees. If rescue is not feasible by onsite employees, alternate rescue will be through local emergency services. All employees involved in a fall arrest or fall will be sent immediately for a medical evaluation to determine the extent of injuries, if any. First aid should be given as appropriate.

The following people should be notified as soon as possible after a fall occurs:

1) Rescue personnel (i.e., maintenance personnel).
2) Manager/Supervisor.
3) Safety officer/coordinator
4) Fire Department and emergency medical services if necessary.

All Subcontractors on Double Z jobsites must follow Double Z safety policies 100% of the time

Double Z Construction Fall Rescue Plan

Rescue methods/options of fallen personnel

In the unlikely event that a fall arrest occurs on-site, personnel with the use of an articulating man lift or ladders where feasible, will rescue all employees. Alternate rescue would be through the local emergency services.

Communication issues

In the event of a fall, the following people will be notified as soon as possible.

1) Rescue personnel (i.e., maintenance personnel).
2) Manager/Supervisor.
3) Safety officer/coordinator
4) Fire Department and emergency medical services if necessary.

At the beginning of any work activity where fall protection is an issue, rescue plans must be identified and discussed with all employees in case of a fall.

All employees involved in a fall arrest or fall will be sent immediately for a medical evaluation to determine the extent of injuries, if any.

Questions to be considered before relying on professional emergency services include:

1) Are emergency responders on duty throughout the time when they may be needed?
2) Can they reach the location of a fallen worker in a timely manner?
3) Do they have the equipment and training necessary to reach the elevation involved and access a fallen worker?
4) Are provisions for multiple-worker or multiple-location falls within their capabilities?
5) Does the emergency service have sufficient back-up capacity to respond to your needs in the event that the responders are occupied with another emergency when you call them?

Fall investigation

All fall investigations will be conducted by the Safety Officer of Double Z Construction.

The following documentation will be completed as part of the fall investigation:

1. Interviews with staff and witnesses.
2. Employee injury/accident report.
3. Supervisor injury/accident report.

Program evaluation

This fall protection program will be evaluated periodically to determine the effectiveness. The following criteria will be used to evaluate its performance:

1. Accident reports
2. Number of accidents.
3. Management/staff compliance with program components.
4. Periodic on-site audits.
5. Staff feedback and interviews.

Contractors

All outside contractors working in or on the premises of Double Z Construction will be required to follow the guidelines set forth in this fall protection program. Contractors in the pre-job meeting will be informed of these requirements as well as the on-site construction rules that apply.

Definitions

Authorized Person: A person approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or job site (i.e., building maintenance, roof repair, etc.).

Competent Person: A person capable of identifying existing and predictable hazards in the surroundings or working conditions, which are hazardous or dangerous to employees. A person who has the authorization to take prompt corrective action to eliminate such hazards.

Qualified Person: An individual, who by possession of a recognized degree, certificate, or professional standing or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, work, or project.

Anchor Point: A secure point of attachment for lifelines, lanyards, or deceleration devices. An anchor point must be capable of supporting at least 5000 pounds (3600 pounds if engineered/certified by a qualified person) per person and must be independent of any anchorage being used to support or suspend platforms.

Full Body Harness: Webbing/straps which are secured about an employee's body in a manner that will distribute the fall arrest forces over the thighs, pelvis, waist, chest and shoulders. Having means for attaching it to other components of a personal fall arrest system, preferably at the shoulders and/or middle of the back.

Connector: A device which is used to couple (connect) parts of the personal fall arrest system together.

Deceleration Device: Any mechanism, such as a rope grab, rip-stitch lanyard, a specially woven lanyard, tearing or deforming lanyard, automatic self-retracting lifeline/lanyard, etc., which serves to dissipate a substantial amount of energy during a fall arrest.

Deceleration Distance: The additional vertical distance a falling employee travels excluding lifeline elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. It is measured as the distance between the location of an employee's body harness attachment point at the moment of activation of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop.

Free Fall: The act of falling before a personal fall arrest system begins to apply force to arrest the fall.

Free Fall Distance: The vertical displacement of the fall arrest attachment point on the employee's body harness between the onset of the fall and just before the system begins to apply force to arrest the fall. Free fall distance

must not exceed 6 feet. **This distance excludes deceleration distance and lifeline/lanyard elongation distance.**

Total Fall Distance: The maximum vertical change in distance from the bottom of an individual's feet at the onset of a fall, to the position of the feet after the fall is arrested. This includes the free fall distance and the deceleration distance.

Guardrail System: A barrier erected to prevent employees from falling to lower levels. This system includes a toeboard, midrail and toprail able to withstand 200 pounds of force applied in any direction.

Lanyard: A flexible line of rope or strap that has self-locking snaphook connectors at each end for connecting to body harnesses, deceleration devices, and anchor points.

Leading Edge: The edge of a floor, roof, or other walking/working surface, which changes location as additional floor, roof, etc., is placed or constructed. A leading edge is considered an unprotected side or edge when not under active construction.

Lifeline: A component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline). This serves as a means for connecting other components of a personal fall arrest system to the anchorage.

Personal Fall Arrest System: A system used to arrest (catch) an employee in a fall from a working level. It consists of an anchorage location, connectors, a body harness, and may include a lanyard, deceleration device, lifeline, or any combination of the before-mentioned items.

Rope Grab: A deceleration device, which travels on a lifeline and automatically, by friction, engages the lifeline and locks to arrest the fall of an employee.

Roof Work: The hoisting, storage, installation, repair, and removal of materials or equipment on the roof.

Safety Monitoring System: A safety system in which a competent person is responsible for recognizing and warning employees of fall hazards. All other fall protection systems must be deemed "infeasible" (through infeasibility study/review) to select/use a safety monitoring system.

Snaphook: A connector comprised of a hook-shaped member with a closed keeper which may be opened to permit the hook to receive an object and when released, automatically closes to retain the object. Snaphooks must be self-closing with a self-locking keeper which remains closed and locked until unlocked and pressed open for connection or disconnection, thus preventing the opportunity for the object to "rollout" of the snaphook.

Toeboard: A low protective barrier that will prevent the fall of materials and equipment to lower levels, usually 4 inches or greater in height.

Unprotected Sides and Edges: Any side or edge of a walking or working surface (e.g., floor, roof, ramp, runway, etc.) where there is no guardrail at least 39 inches high.

Warning Line System: A barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, which designates an area in which work can be conducted without the use of guardrails, personal fall arrest systems, or safety nets to protect employees in the area. This will be utilized on any roof greater than 50 feet wide and in conjunction with a safety monitor only where the other forms of fall protection have been deemed infeasible to use

Heat Stress Management Program

Similar to the Double Z Fall Protection Plan, the Double Z Heat Stress Management Program is a comprehensive collection of information relating to heat related hazards. This program is distributed to all projects and kept in the field office or foreman's truck. At the time of distribution, a short safety meeting will be held on the project with employees to share information about the plan and make aware its location. Employees will sign a safety meeting log to acknowledge they have received this information. Additionally, at least twice a year, foremen will receive specialized safety talks from the Safety Officer to share with their employees relating to heat hazards. Employees will once again sign to acknowledge they have received this information. Contained on the following pages is the Heat Stress Management Program in its entirety.

Double Z Heat Stress Management Program

1.0 Introduction

Employee exposure to heat stress can result in several illnesses, as well as decreased productivity and increased likelihood of injuries. The Double Z Construction Heat Stress Management Program is designed to protect employees against the risk of heat induced illnesses and injuries.

Heat stress results from a combination of internal (body) heat production from doing work and external heat exposure from the environment. Both aspects need to be addressed to properly control heat stress.

Heat stress is influenced by several risk factors: climatic conditions, the work environment, demands of the work, clothing, and personal characteristics.

Climatic and environmental conditions that affect the risk of heat related disorders are air temperature and humidity, air movement, and the temperature of surrounding surfaces which affects radiant heat exchange.

Demands of the work influence the stress on the temperature regulation system. Individual responses to a given work load vary but, as an employee expends more energy, the body's internal metabolic heat production rises.

This increases stress on the cardiovascular system to regulate body temperature (i.e., by increasing blood flow to skin.) Work-related factors that influence heat stress include work rate, level of physical effort, and duration of activity.

Clothing characteristics such as insulation, permeability, weight, fit and ventilation affect the body's ability to regulate internal temperatures. Other factors that may increase the risk of heat-related disorders include additional equipment, the use of a respirator, or other personal protective equipment (PPE).

Personal characteristics such as age, weight, previous heat stress injury, underlying medical conditions (e.g., diabetes, cardiovascular disorders, chronic pulmonary disease, and thyroid disorders), medication use and overall health and physical fitness contribute to an employee's susceptibility of contracting a heat related illness.

Working in an environment with heat stress not only increases the risk for specific heat related conditions such as heat exhaustion and heat stroke, but also increases the risk for workplace accidents.

This program describes common heat disorders (health hazard of heat exposure), prevention strategies, methods for evaluating heat stress risk, and methods of control.

1.1 Application

Double Z Construction is committed to the health and safety of our employees, management, and visitors. This guideline applies to all Double Z employees that may be required to work in elevated temperature work environments.

1.2 Purpose

The goal of this program is to minimize potential detrimental health effects for Double Z employees resulting from excessive heat that may result from working outdoors or within indoor environments with elevated temperatures. This document establishes guidelines to assess and minimize employee health risks resulting from heat stress exposure.

1.3 Standards and regulatory guidelines

There is currently no specific Occupational Safety and Health Administration (OSHA) Standard for heat stress. However, OSHA recognizes that jobs involving operations in hot environments have the potential to induce heat stress in employees. These operations include those which involve radiant heat sources, high humidity, direct contact with hot objects, or strenuous activities. The National Institute of Occupational Safety and Health (NIOSH), the American Conference of Governmental Industrial Hygienists (ACGIH) and the Environmental Protection Agency (EPA) have promulgated recommended safety guidelines for working in hot environments. As guidance for employers of those individuals involved in these operations, OSHA has included a section on heat stress in the OSHA Technical Manual which references many of the guidelines put forth by NIOSH and ACGIH.

2.0 Responsibilities

Management responsibilities

It is management's responsibility to provide a safe workplace for employees of the company on all projects and locations with the realization that employees are ultimately responsible for their own personal safety. Supervisors shall assess the project or contact the safety officer to determine if heat stress hazards are present or likely to be present that would necessitate the use or engineering controls, administrative controls, or PPE.

Safety officer and management

- Develop a written Heat Stress Program and review it on an annual basis
- Ensure heat stress management program is being implemented company wide
- Update program as needed to comply with OSHA standards
- Provide fiscal and administrative resources for the implementation of the program

- Conduct hazard evaluations of heat stress environments and make recommendations to supervisors and foremen

- Ensure that all employees receive the proper heat stress training

Supervisors and foremen

- Attend training for the heat stress program

- Understand and follow the protocols of this heat stress guideline

- Monitor and recognize heat related symptoms and injuries on their projects

- Complete a Double Z Construction Accident Report for any employee heat related injury or illness

- Report all heat related injuries and illnesses to the Safety Officer immediately

Affected employees

- Attend and receive training from foremen, supervisors, and in some circumstances the Safety Officer

- Understand and recognize the hazards and warning signs of heat stress

- Understand and follow the company protocols for heat stress

- Comply with applicable safety and regulatory requirements

- Wear or use prescribed protective equipment

- Report hazardous conditions and dangers to their supervisors

- Report any job related injury or illness to their supervisor

- Promptly notify supervisor of any medical conditions, or if they are taking over the counter medications that may but them at special risk for heat related injury

3.0 Definitions

Acclimatization: (or acclimation) is adaptation to a new climate, such as a new temperature, altitude or environment.

Conduction: is the transfer of heat between materials that contact each other. Heat passes from the warmer material to the cooler material. For example, a worker's skin can transfer heat to a contacting surface if that surface is cooler, and vice versa.

Convection: is the transfer of heat in a moving fluid. Air flowing past the body can cool the body if the air temperature is cool. On the other hand, air that exceeds 35C (95F) can increase the heat load on the body.

Dry Bulb (DB): temperature is measured by a thermal sensor, such as an ordinary mercury-in-glass thermometer, that is shielded from direct radiant energy sources.

Electrolytes: are various ions, such as sodium, potassium, or chloride, required by cells to regulate the electric charge and flow of water molecules across the cell membrane. Muscle contraction is dependent upon the presence of calcium, sodium, and potassium. Without sufficient levels of these key electrolytes, muscle weakness or severe muscle contractions may occur.

Evaporative Cooling: takes place when sweat evaporates from the skin. High humidity reduces the rate of evaporation and thus reduces the effectiveness of the body's primary cooling mechanism.

Metabolic Heat: is a by-product of the body's activity.

Radiation: is the transfer of heat energy through space. A worker whose body temperature is greater than the temperature of the surrounding surfaces radiates heat to these surfaces. Hot surfaces and infrared light sources radiate heat that can increase the body's heat load.

Heat Index: The heat index (HI) or humiture or humidex is an index that combines air temperature and relative humidity in an attempt to determine the human perceived equivalent temperature – how hot it feels. The result is also known as the "felt air temperature" or "apparent temperature" For example, when the temperature is 90F (32C) with very high humidity, the heat index can be about 105F (41C).

4.0 Heat Stress Injuries/Illnesses (symptoms, treatment, cause, prevention)

Heat Stroke
Symptoms: Usually hot, dry skin; red, mottled or bluish. Sweating may still be present. Confusion, loss of consciousness and convulsions. Rapid pulse. Rectal temperature greater than 104F. When in doubt, treat as heat stoke. Can be fatal.
Treatment: Medical emergency. Call paramedics and start cooling the victim immediately. Remove the victim to a cool area. Soak clothing and skin with cool water and use a fan to create air movement. Shock may occur. Medical treatment is imperative.
Cause: Partial or complete failure of sweating mechanism. The body cannot get rid of excess heat.
Prevention: Acclimatization, monitoring for signs of heat illness, medical screening and drinking plenty of water.

Heat Exhaustion
Symptoms: Fatigue, weakness, dizziness, faintness, nausea, or headache. Moist, clammy skin; pale or flushed. Rapid pulse. Normal or slightly elevated temperature.
Treatment: Have the victim rest in a cool area and drink fluids.
Cause: Dehydration causes blood volume to decrease.
Prevention: Acclimatization and drinking plenty of water.

Heat Syncope
Symptoms: Fainting while standing erect and immobile. A variant of heat exhaustion. Symptoms of heat exhaustion may precede fainting.
Treatment: Move the victim to a cool area, have the victim rest and drink fluids.
Cause: Dehydration causes blood volume to decrease. Blood pools in dilated blood vessels of the skin and lower body, making less blood available to the brain.
Prevention: Acclimatization, drinking plenty of water, avoiding standing in one place and intermittent activity to avoid blood pooling.

Heat Cramps
Symptoms: Painful muscle spasms in the arms, legs or abdomen during or after hard physical work.
Treatment: Resting, drinking water, and eating more salty foods.
Cause: Not well understood. May be due to a loss of salt from sweating. Dehydration is a factor
Prevention: Adequate water intake and adequate salt intake at meals; do not use salt tablets.

Heat Rash
Symptoms: “Prickly heat”; tiny, raised, blister-like rash
Treatment: Keeping skin clean and dry.
Cause: Skin is constantly wet from sweat. Sweat gland ducts become plugged, leading to inflammation.
Prevention: Showering after working in hot environment. Keeping skin dry.

Transient Heat Fatigue

Symptoms: Decline in performance, particularly in skilled physical work, mental tasks and those requiring concentration.
Treatment: No treatment necessary unless other signs of heat illness are present.
Cause: Discomfort. Stress from the heat less than what would result in other heat illnesses
Prevention: Acclimatization and training.

(See Appendix C for Solar Energy Exposure health effects and risk reduction)

5.0 Heat Stress Prevention / Risk Management

The Double Z heat stress prevention program involves four elements, which are:

1. Employee Training
2. Assessing job heat stress risks
3. Assessing employee heat stress risks
4. Heat stress controls

5.1 Employee training

The most important component of the Double Z heat stress prevention program is employee training. In addition to reading this program document, employees shall be trained regarding the risks of heat stress and how it is reduced, as well as how to recognize heat illnesses and treat them. Specific components of the training include:

- The hazards of heat stress
- Personal precautions that can be taken to reduce heat stress (see section 5.4)
- Predisposed factors for, danger signs of, and symptoms of heat stress conditions and illnesses (see section 5.3)
- Dangers of using drugs, including therapeutic ones, and alcohol in hot work environments

- Awareness of first-aid procedures for, and the potential health effects of heat stroke in themselves and others
- Employee responsibilities in avoiding heat stress
- Typical engineering and administrative controls implemented to reduce heat stress
- Use of personal protective equipment

5.2 Assessing job heat stress risks

Supervisors and foremen are responsible for assessing every job/project to determine if it is likely to pose heat stress risks. Operations involving high air temperatures, radiant heat sources, high humidity, direct physical contact with hot objects, or strenuous physical activities have a high potential for inducing heat stress in employees. Outdoor operations conducted in hot weather, such as trenching, road work, bridge work, or general construction works are likely to cause heat stress among exposed workers.

Supervisors are responsible for ensuring that appropriate heat stress reduction controls are instituted (see section 5.4) whenever significant heat stress is possible. Employees are empowered to request such controls if heat stress is expected or encountered.

5.2.1 Assessing environmental heat stress risks

Ambient temperature, humidity levels, radiant heat sources, and air movement must be taken into consideration when assessing the potential for heat stress hazards. There are several different ways to evaluate environmental heat stress risks for employees. The most common method is the National Weather Service Heat Index available on all foremen smart phones.

5.2.1.1 National weather service heat index

The most common method for evaluating environmental heat stress risk for workers working outdoors is using the National Weather Service Heat Index. This index can be used to determine danger levels based on temperature and humidity. One advantage of using this tool is the availability of the data. Temperature and relative humidity are the measurements used for this calculated index and these are available 24/7 from the

national weather service. See Appendix B for detailed information.

5.3 Assessing worker heat stress risks

Supervisors and foremen are responsible for assessing their employee's ability to perform jobs which might involve heat stress. Age, weight, degree of physical fitness, degree of acclimatization, metabolism, dehydration, use of alcohol or drugs, and a variety of medical conditions such as hypertension all affect a person's sensitivity to heat. Even the type of clothing worn must be considered. Prior heat injury predisposes an individual to additional injury. Individual susceptibility varies. In addition, environmental factors include more than the ambient air temperature. Radiant heat, air movement, conduction, and relative humidity all affect an individual's response to heat.

Heat stress controls should be modified or the employee reassigned to a job without heat stress for employees identified as at risk for heat conditions or illness.

The potential for an employee who works in a hot environment to be affected by heat stress depends on heat combined with physical labor, loss of fluids, and fatigue, in addition to the factors listed below. An assessment of each job with these factors can assist in developing a strategy to prevent heat related problems.

Employee risk factors

Factors increasing an employee's susceptibility to heat stress include:

- Being dehydrated
- Having recently consumed alcohol
- Having diarrhea or taking anti-diarrhea medications
- Being exposed to high temperatures at night
- Fatigue
- Improper work procedures
- Lack of acclimatization
- Loss of sleep
- Being obese
- Being over age 40

- Taking medications that inhibit sweating, such as antihistamines, cold medicines, diuretics, and some tranquilizers
- Previous occurrence of heat stroke
- Poor physical conditioning
- Recent immunizations (as they can cause fever)
- Recent drug or alcohol use
- Skin trauma, such as heat rash or sunburn
- Use of respirators
- Wearing impermeable equipment, such as rubber gloves and rubber boots

5.4 Heat stress controls

Heat stress controls can take the form of engineering controls, personal protective equipment (PPE), and administrative controls. The following sections provide examples of controls that might be appropriate in certain situations.

5.4.1 Engineering controls

General ventilation dilutes hot air with cooler air. A permanently installed ventilation system usually can handle large areas or entire buildings. Portable or local exhaust systems may be more effective or practical in smaller areas.

Air treatment differs from ventilation because it reduces the temperature of the air by removing the heat, and sometimes humidity, from the air. Air conditioning is a method of air cooling which uses a compressed refrigerant under pressure to remove the heat from the air.

Another way to reduce heat stress is to cool the employee by increasing the air flow or convection using fans, etc. in the work area. Changes in air speed can help workers stay cooler by increasing both the convective heat exchange (the exchange between the skin surface and the surrounding air) and the rate of evaporation. This does not actually cool the air so moving air must impact the worker directly to be effective. Convective cooling is generally only effective as long as the air temperature is less than the worker's skin temperature. Increases in air speed have no effect on the body temperature of workers wearing vapor-barrier clothing.

Heat conduction blocking methods include insulating the hot surface that generates the heat and changing the surface itself. Simple devices, such as shields, can be used to reduce radiant heat, i.e. heat coming from hot surfaces within the worker's line of sight. Polished surfaces make the best barriers, although special glass or metal mesh surfaces can be used if visibility is a problem. With some sources of radiation, such as heating pipes it is possible to use both insulation and surface modifications to achieve a substantial reduction in radiant heat. Shields should be located so that they do not interfere with air flow, unless they are also being used to reduce convective heating. The reflective surface of the shield should be kept clean to maintain its effectiveness.

5.4.2 Personal protective equipment (PPE)

Reflective clothing, which can vary from shirts to aprons to jackets and suits that completely enclose the worker from neck to feet, can reduce the radiant heat reaching the worker. However, since most reflective clothing does not allow air exchange through the garment, the reduction of radiant heat must more than offset the corresponding loss in evaporative cooling. For this reason, reflective clothing should be worn as loosely as possible. In situations where radiant heat is high, auxiliary cooling systems can be used under the reflective clothing.

5.4.3 Administrative controls

The two most important methods of preventing heat disorders are hydration and acclimatization because they increase the ability of the body to tolerate heat stress. Engineering and administrative controls are also important in reducing heat exposure.

Hydration

- The most important factor in preventing heat illnesses is adequate water intake
- Water must be available to employees who are working under heat stress risk conditions

- Workers should drink at least five to seven ounces of cool water every **15 to 20 minutes**
- Under conditions of profuse sweating, a commercial electrolyte replacement drink may be appropriate. Some drinks are too concentrated and need to be diluted or consumed along with water

Acclimatization

A physiological adaptation will occur with repeated exposure to hot environments. The heart rate will decrease, sweating will increase, sweat will become more dilute and body temperature will be lower. The ability to acclimatize varies among workers. Generally, individuals in good physical condition acclimatize more rapidly than those in poor condition.

Approximately one week of gradually increasing the workload and time spent in the hot environment will usually lead to full acclimatization. On the first day the individual performs 50 percent of the normal workload and spends 50 percent of the time in the hot environment. Each day, an additional 10 percent of the normal workload and time is added, so that by day six, the worker is performing the full workload for an entire day. The exposure time should be at least two hours a day for acclimatization to occur.

Acclimatization is lost when exposure to hot environments does not occur for several days. After a one week absence, a worker needs to reacclimatize by following a schedule similar to that for initial acclimatization. The acclimatization will occur more rapidly, so increases in workload and time can increase by approximately 20 percent each day after the first day, reaching normal work conditions by day four.

Work practices to reduce risk

Use the buddy system. Ensure that co-workers watch one another for signs of heat stress. Reduce physical demands by reducing physical exertion such as excessive lifting, climbing, or digging with heavy objects. Spread the work over more individuals, use relief workers or

assign extra workers. Provide external pacing to minimize overexertion.

Provide recovery areas, such as air-conditioned enclosures (work trucks or field offices) and provide intermittent rest periods with water breaks. Establish provisions for a work/rest regimen so that exposure time to high temperatures and/or the work rate is decreased.

Reschedule hot jobs for the cooler part of the day. Routine maintenance and repair work in hot areas should be scheduled for the cooler seasons of the year. When possible, outdoor work areas should be provided with coverings, such as a tarp, to provide shade.

Monitor workers who are at risk of heat stress, such as those wearing semi-permeable or impermeable clothing when the temperature exceeds 70F, while performing strenuous tasks. Personal monitoring can be done by checking the heart rate, recovery heart rate, oral temperature, or extent of body water loss.

Personal precautions that Double Z employees should be aware of and institute precautions when exposed to heat stress include:

- Fluid intake: Drink 5 to 7 ounces of cool water for every 15 to 20 minutes,
- Salt supplements: Not recommended since too much salt can cause higher body temperature, increased thirst and nausea
- Dress to increase reflection and convection: wear light-colored, loose and breathable clothing
- Reduce ultraviolet radiation: work in the shade when possible
- Stop the heat build-up: take frequent short breaks in cool shade
- Reduce metabolic heat: eat smaller meals before work activity
- Avoid dehydrating liquids: don't drink caffeine and alcohol or large amounts of sugary drinks

6.0 Appendices

Appendix A

ACHIG Threshold Limit Value (TLV) for Heat Stress

Heat stress for an employee is a result of the net heat load which includes combined contributions from metabolic heat (work load), environmental factors (air temperature, humidity, air movement, and radiant heat), and clothing requirements. The TLV is a guideline for a work rest schedule based on body heat load including:

- Type of work activity
- WBGT (Wet Bulb Globe Temperature) Index

This calculated temperature is used to select a work-rest regimen to minimize risk for most average healthy workers.

ACGIH Threshold Limit Values for Hot Environments (WBGT Index)

	Work Load		
Work-Rest Regimen	**Light**	**Moderate**	**Heavy**
Continuous Work (75-100% work)	86F (31C)	80F (28C)	77F (27C)
75% Work (50-75% work 25% Rest, each hour	87F (31C)	82F (29C)	78F (27.50C)
50% Work (25-50% work) 50% Rest, each hour	89F (32C)	85F (30C)	82F (29C)
25% Work (0-25% work) 75% Rest, each hour	90F (32.50C)	88F (31.5C)	86F 30.5C)

Work Load Definitions

Approximate Workload Levels

Light	Sitting at ease, sorting light materials, inspecting work, driving equipment, safety meetings
Moderate	Using chain saw, off road operation, periodic handling of moderately heavy materials, cleaning, pushing or pulling carts or wheelbarrows, walking 2-3mph
Heavy	Transferring heavy materials, shoveling digging, hand work, loading and unloading, sawing, pushing or pulling carts,

	sandblasting, laying block, walking 4mph, jack hammering, decking, piling, grading, pipe work, concrete work
Very Heavy	Heavy shoveling or digging, ax work, climbing, lifting more than 44 pounds at 10 lifts per minute, walking faster than 4 mph, jogging and running, concrete work

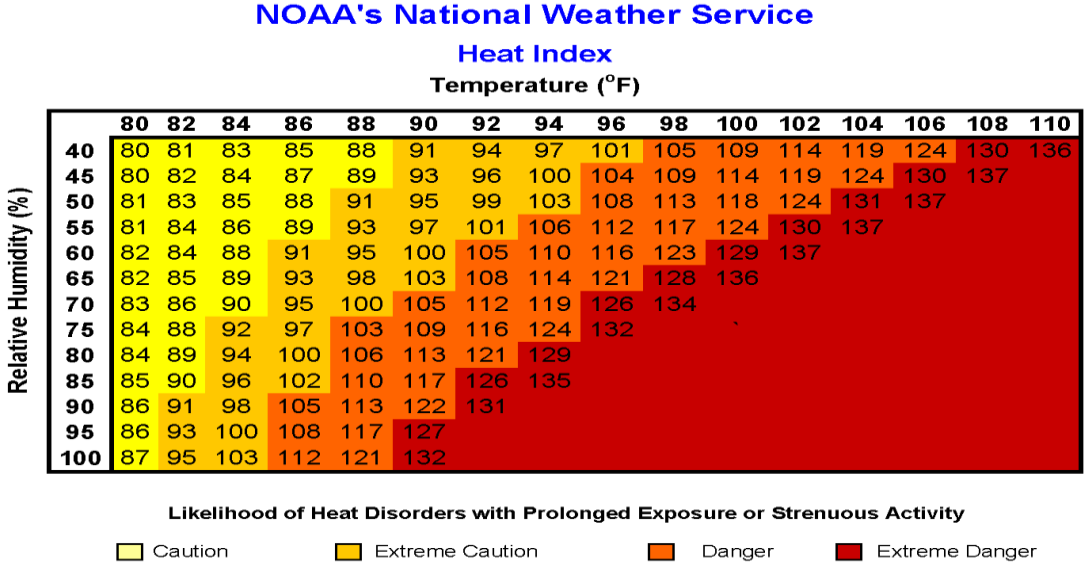
Appendix B

Heat Index

The U.S National Oceanographic and Atmospheric Administration (NOAA) developed the heat index system. The heat index combines both air temperature and relative humidity into a single value that indicates the apparent temperature in degrees Fahrenheit, or how hot the weather will feel. The higher the heat index, the hotter the weather will feel, and the greater the risk that outdoor workers will experience heat-related illness. NOAA issues heat advisories as the heat index rises. To learn more about the heat index, visit NOAA's website.

Important Note: The heat index values were devised for shady, light wind conditions, and exposure to full sunshine can increase heat index values by up to 15 degrees Fahrenheit. To account for solar load, added precautions are recommended. See protective measures to take at each risk level.

See OSHA website for more information:
http://www.osha.gov/SLTC/heatstress/
For the HEAT safety tool app see: http://www.osha.gov/SLTC/heatil



Appendix C

Solar energy exposure (Sun Exposure)

Potential health effects of sun exposure

Sunlight contains ultraviolet (UV) radiation. UV radiation has both positive and negative effects. Positive effects of UV radiation include warmth, light, photosynthesis in plants, and vitamin D synthesis in the body. UV radiation also increases moods in people and kills pathogens. However, overexposure to UV radiation has adverse health effects, including skin damage, eye damage, and skin cancer.

Skin damage

UV-related skin disorders include actinic keratoses and premature aging of the skin. Chronic exposure to the sun also causes premature aging, which over time can make the skin become thick, wrinkled, and leathery. With proper protection from UV radiation, however, most premature aging of the skin can be avoided.

Eye damage

Cataracts are a form of eye damage in which a loss of transparency in the lens of the eye clouds vision. If left untreated, cataracts can lead to blindness. Research has shown that UV radiation increases the likelihood of certain cataracts. All of these problems can be lessened with proper eye protection from UV radiation.

Skin cancers

Long-term overexposure to the sun can cause skin cancer. The four types of skin cancer are: Melanoma, Nonmelanoma, Basal Cell Carcinomas, and Squamous Cell Carcinomas.

Employee sun overexposure risk factors

The factors that may increase the risk of skin cancer are:

Fair Skin	A history of sunburns
Excessive sun exposure	Moles
Precancerous skin lesions	A family history of skin cancer
A personal history of skin cancer	Fragile skin
Exposure to environmental hazards	Age

Sun overexposure risk reduction

Employees can implement the following protections to block harmful sunrays:

- Work in the shade whenever possible
- Cover limbs by wearing loose-fitting, long-sleeved shirts and long pants
- Use sunscreen with a protection factor (SPF) of at least 30. Be sure to follow application directions on the bottle or tube.
- Wear UV absorbent sunglasses (eye protection). Sunglasses should be labeled as blocking 99 to 100 percent of UVA and UVB radiation.
- Limit exposure during the time of day when UV rays are most intense, which is between 10 a.m. and 4 p.m.

Hazard Communication Program

Pursuant to the requirements of OSHA standard 1926.59, Double Z Construction Company has developed this program to insure that information necessary for the use, handling, and storage of hazardous chemicals is available to all employees. This program includes guidelines on identification of chemical hazards and they preparation and proper use of container, placards, and other types of warning devices.

Chemical inventory

Double Z Construction will maintain an inventory of all known chemicals in use on the work site. A chemical inventory is available from the job foremen and is located in the front of the MSDS book. Additional hazardous chemicals brought onto the jobsite will be added to the chemical inventory list.

Container labeling

Double Z Construction will ensure that each container is labeled with the identity of the hazardous chemical contained therein and, any hazard warning pertaining to the chemical. Whenever possible, Double Z Construction will rely on labels affixed by manufactures for safety information. Information on these labels will be provided to all employees on a GOOD FAITH BASIS. All chemicals on all work sites will be stored in their original container or in a container with a proper label attached. Any container not properly labeled, should be labeled for proper handling. Workers may dispense chemicals from original and/or approved containers only in small quantities intended for immediate use. Any chemical remaining after work is completed must be returned to the original container or, given to the job foreman for proper handling. No unmarked containers of any size are to be left unattended in the work area.

Material safety data sheets (MSDS)

Double Z Construction will be relying on MSDS received from suppliers, to determine any safety requirements. The information contained on the MSDS will be provided to all employees on a GOOD FAITH BASIS. Employees working with hazardous chemicals may request a copy of the

MSDS at any time. Requests should be made to the job foreman. MSDS are located in the foreman's truck or the field office. All MSDS books at Double Z are standardized and uniform in their appearance. MSDS are large black binders with the yellow and black Double Z logo on the cover. The spine of the book reads "MSDS" in large yellow letters. MSDS should be available and standard chemical reference may also be available on the site to provide immediate reference to chemical safety information. Any material received without an MSDS should be brought to the attention of the job foremen.

Updates to the MSDS book will be done on a bi-yearly basis. Usually, updates to the MSDS are done during the slow winter months and once during the summer to make sure any new chemicals are accounted for. MSDS books are assigned a version number in the top left corner of the inside cover of the binder. Versions are denoted as "MSDS Version X.XX". Contained below is the current release schedule for new MSDS books:

Current Version: 2.00
Version 2.5: Winter 2014
Version 3.0: Summer 2014
Version 3.5: Winter 2015
Version 4.0: Summer 2015
Version 4.5: Winter 2016
Version 5.0: Summer 2016

In instances where a new chemical is being used by employees that is out of the normal scope of work done by Double Z Construction, the Safety Officer will provide the relevant MSDS to the job foremen to be kept nearby as the employees work with the hazardous chemicals. The new chemicals will also be placed on the list to be included in the next version release.

Failure to have an MSDS on site is considered an immediate safety violation.

*Special note: Double Z will begin updating to SDS (Safety Data Sheets) as they become available from manufactures over the next few years.

Employee training

Employees will be trained to work safely with hazardous chemicals. Employee training will include:

- Methods that may be used to detect a release of a hazardous chemical(s) in the work place and job site.
- Physical and health hazards associated with chemicals.
- Safe work practices, emergency responses and use of personal protective equipment.
- Information on the Hazard Communication Standard including labeling and warning systems and an explanation of material safety data sheets.

As of December 1st 2013, OSHA requires employers to train employees on the new label sheets and safety data sheets (SDS) format. Double Z will begin training employees in the fall of 2013 on the new standards.

Personal protective equipment (PPE)

Double Z Construction will provide each employee with the proper PPE when working with hazardous chemicals. Any employee found in violation of PPE requirements may be subject to disciplinary actions up to and including discharge.

Emergency response

Any incident of over exposure of spill of a hazardous chemical/substance must be reported to the Safety Officer. The job foreman or superintendent will be responsible for insuring that proper emergency response actions are taken in leak/spill situations.

Hazards of non-routine tasks

Supervisors will inform employees of any special tasks that may arise which would involve possible exposure to hazardous chemicals. Review of safe work procedures and use of required PPE will be conducted prior to the start of such tasks. Where necessary, areas will be posted to indicate the nature of the hazard involved.

Informing other employees

Other on-site employers are required to adhere to the provisions of the Hazard Communication Standard. Information on hazardous chemicals known to be present will be exchanged with other employers. Employers will be responsible for providing necessary information to their employees. Other on site employers will be provided with a copy of the Double Z Construction Company's Hazard Communication Program.

Posting

Double Z Construction Company will post the Hazard Communication Standard information for employees on all job sites. In addition to the safety bulletin board, information can be requested through the foremen and safety officer.

Confined Space

The following confined space program is a guide to assist employees and management of Double Z Construction in complying with the requirements of OSHA's Confined Space Standard, 29 CFR 1910.146, as well as to provide other helpful information. It is not intended to supersede the requirements of the standard. Double Z will attempt to make this program as comprehensive as possible and will update it regularly with new and relevant information.

Double Z Construction Confined Space Program

Objective

The purpose of Double Z Constructions Confined Space Program is to set procedures that will ensure workers safe entry into confined spaces and permit-required confined spaces to perform routine tasks associated with their employment. This procedure is designed to provide the minimum safety requirements in accordance with the Occupational Safety and Health Administration's (OSHA) Confined Space Standard, 1910.146.

Background

A confined space is defined as any location that has limited openings for entry and egress, is not intended for continuous employee occupancy, and is so enclosed that natural ventilation may not reduce air contaminants to levels below the threshold limit value (TLV). Examples of confined spaces include: manholes, stacks, pipes, storage tanks, trailers, tank cars, pits, sumps, hoppers, and bins. Entry into confined spaces without proper precautions could result in injury, impairment, and death due to:

1. An atmosphere that is flammable or explosive
2. Lack of sufficient oxygen to support life
3. Contact with or inhalation of toxic chemicals
4. General safety or work area hazards such as stream or high pressure materials

Assignment of responsibility

Employer

In administering this Confined Space Program, Double Z Construction will:

1. Monitor the effectiveness of the program
2. Provide atmospheric testing and equipment as needed
3. Provide personal protective equipment as needed
4. Provide training to affected employees and supervisors
5. Provide technical assistance as needed
6. Preview and update the program on at least an annual basis or as needed

Safety officer

The Double Z Safety Officer is responsible for managing the Confined Space Program, and shall:

1. Ensure that a list of confined spaces at all Double Z worksites is maintained.
2. Ensure that canceled permits are reviewed for lessons learned
3. Ensure training of personnel is conducted and documented
4. Coordinate with outside responders
5. Ensure that equipment is in compliance with standards
6. Ensure that the responsible person in charge of confined space work shall:
    a. Ensure requirements for entry have been completed before entry is authorized
    b. ensure confined space monitoring is performed by personnel qualified and trained in confined space entry procedures.
    c. Ensure a list of monitoring equipment and personnel qualified to operate the equipment is maintained
    d. Know the hazards that may be faced during an entry, including the mode (how the containment gets into the body), signs or symptoms, and consequences of exposure.
    e. Fill out a permit
    f. Determine the entry requirements
    g. Notify all involved employees of the permit requirements
    h. Post the permit in a conspicuous location near the job

i. Renew the permit or reissue as needed (every shift)
j. Determine the number of employees required to perform work
k. Ensure all employees know how to communicate with the entrants and how to obtain assistance
l. Post any required barriers and signs
m. Remain alert to changing conditions that might affect the conditions of the permits
n. change and reissue the permit, or issue a new permit if necessary
o. Ensure periodic atmospheric monitoring is done according to permit requirements
p. Ensure that personnel doing the work and all support personnel adhere to permit requirements
q. Ensure the permit is canceled when the work is complete
r. Ensure the confined space is safely closed and all workers are cleared from the area

Entry supervisors

Competent persons shall serve as the entry supervisors, and shall be qualified and authorized to approve confined space entry permits. The entry supervisors shall be responsible for:

1. Determining the conditions are acceptable for entry
2. Authorizing entry and overseeing entry operations
3. Terminating entry procedures as required
4. Serving as an attendant, as long as the person is trained and equipped appropriately for that role
5. Ensuring measures are in place to keep unauthorized personnel clear of the area
6. checking the work at least twice a shift to verify and document permit requirements are being observed (more frequent checks shall be made if operations or conditions are anticipated that could affect permit requirements)
7. Ensuring that necessary information on chemical hazards is kept at the worksite for the employees or rescue team.
8. Ensuring a rescue team is available and instructed in their rescue duties (i.e. on site team or a prearranged outside rescue service)

9. Ensuring the rescue team members have current certification in first aid and CPR.

Attendants

Competent persons shall function as an attendant and shall be stationed outside of the confined workspace. The attendants shall:

1. Be knowledgeable of, and be able to recognize potential confined space hazards.
2. Maintain a sign-in/sign-out log with a count of all persons in the confined space, if necessary.
3. Monitor surrounding activities to ensure the safety of personnel
4. Maintain effective and continuous communication with personnel during confined space entry, work, and exit
5. Order personnel to evacuate the confined space if he/she:
    a. Observes a condition which is not allowed on the entry permit.
    b. Notices the entrants acting strangely, possibly as a result of exposure to a hazardous substance
    c. Notices a situation outside the confined space which could endanger personnel
    d. Notices a hazard within the confined space that has not been previously recognized or taken into consideration
    e. Must leave his/her work station
    f. Must focus attention on the rescue of personnel in some other confined space that he/she is monitoring
6. Immediately summon the rescue team if crew rescue becomes necessary
7. Keep unauthorized persons out of the confined space, order them out, or notify authorized personnel of an unauthorized entry

Entrants/affected employees

Employees who are granted permission to enter a confined space shall:

1. Read and observe the entry permit requirements
2. Remain alert to the hazards that could be encountered while in the confined space

3. Properly use the personal protective equipment that is required by the permit
4. Immediately exit the confined space when:
    a. They are ordered to do so by an authorized person
    b. They notice or recognize signs or symptoms of exposure
    c. A prohibited condition exists
5. Alert attendants when a prohibited condition exists and/or when warning signs or symptoms of exposure exist

Training

Double Z Construction shall provide training so that all employees whose work is regulated by this Confined Space Program acquire the understanding, knowledge, and skills necessary for the safe performance of their duties in confined spaces.

Training frequency

The Safety Officer or a Competent Person shall provide training to each affected employee:

1. Before the employee is first assigned duties within a confined space
2. Before there is a change in assigned duties
3. When there is a change in permit space operations that presents a hazard for which an employee has not been trained
4. When Double Z Construction has reason to believe that there are deviations from the confined space entry procedures required in this program, or that there are inadequacies in the employee's knowledge or use of these procedures

The training shall establish employee proficiency in the duties required in this program, and shall introduce new or revised procedures, as necessary, for compliance with this program.

General Training

All employees who enter confined spaces shall be trained in entry procedures. Personnel responsible for supervising, planning, entering, or participating in confined space entry and rescue shall be adequately trained and certified in their functional duties prior to any confined space entry.

Training shall include:

1. Explanation of the general hazards associated with confined spaces
2. Discussion of specific confined space hazards associated with the facility, location, or operation
3. Reason for, proper use, and limitations of personal protective equipment and other safety equipment required for entry into confined spaces.
4. Explanation of permits and other procedural requirements for conducting a confined space entry
5. A clear understanding of what conditions would prohibit entry
6. Procedures for responding to emergencies
7. Duties and responsibilities of the confined space entry team
8. Description of how to recognize symptoms of overexposure to probable air contaminants in themselves and co-workers and methods for alerting the attendants.

Refresher Training shall be conducted as needed to maintain employee competence in entry procedures and precautions.

Specific training

Training for atmospheric monitoring personnel shall include proper use of monitoring instruments, including instruction on the following:

1. Proper use of equipment
2. Calibration of equipment
3. Sampling strategies and techniques
4. Exposure limits (PELs, TLVs, LELs, UELs, etc)

Training for attendants shall include the following:

1. Procedures for summoning rescue or other emergency services
2. Proper utilization of equipment used for communicating with entry and emergency/rescue personnel

Training for Emergency Response Personnel shall include:

1. A rescue plan and procedures developed for each type of confined space that is anticipated to be encountered

2. Use of emergency rescue equipment
3. First aid and CPR techniques
4. Work location and confined space configuration to minimize response time

Verification of training

Periodic assessment of the effectiveness of employee training shall be conducted by the Safety Officer. Training sessions shall be repeated as often as necessary to maintain an acceptable level of personnel competence.

Identification of hazards and evaluation of confined spaces

Survey

The project foreman or superintendent shall ensure a survey of the worksite is conducted to identify confined spaces. This survey can be partially completed from initial and continuing site characterizations, as well as other available data (i.e. project plan sheets and job safety analyses.) the purpose of the survey is to develop an inventory of those locations and/or equipment at Double Z projects that meet the definition of a confined space. This information shall be communicated to personnel, and appropriate confined space procedures shall be followed prior to entry. The initial surveys shall include air monitoring to determine the air quality in the confined spaces. The potential for the following situations shall be evaluated by the foreman or superintendent:

1. flammable or explosive potential
2. Oxygen deficiency
3. Presence of toxic and corrosive material

Hazard reevaluation

The foreman or superintendent shall identify and reevaluate hazards based on possible changes in activities or other physical or environmental conditions that could adversely affect work.

Pre-entry hazard assessment

A hazard assessment shall be completed by the foreman or superintendent prior to any entry into a confined space. The hazard assessment should identify:

1. The sequence of work to be performed in the confined space
2. The specific hazards known or anticipated
3. The control measures to be implemented to eliminate or reduce each of the hazards to an acceptable level.

No entry shall be permitted until the hazard assessment has been reviewed and discussed by all persons engaged in the activity. Personnel who are to enter confined spaces shall be informed of known or potential hazards associated with said confined spaces.

Hazard controls

Hazard controls shall be instituted to address changes in the work processes and/or working environment. Hazard controls must be able to either control the health hazards by eliminating the responsible agents, reduce health hazards below harmful levels, or prevent the contaminants from coming into contact with the workers.

The following order of precedence shall be followed in reducing confined space risks.

Engineering controls

Engineering controls are those controls that eliminate or reduce the hazard through implementation of sound engineering practices.

Ventilation is one of the most common engineering controls use in confined spaces. When ventilation is used to remove atmospheric contaminants from a confined space, the space shall be ventilated until the atmosphere is within the acceptable ranges. Ventilation shall be maintained during the occupancy if there is a potential for the atmospheric conditions to move out of the acceptable range. When ventilation is not possible or feasible, alternate protective measures or methods to remove air contaminants and protect

occupants shall be determined by the foreman or superintendent prior to authorizing entry.

When conditions necessitate and can accommodate continuous forced air ventilation, the following precautions shall be followed:

1. Employees shall not enter the space until the force air ventilation has eliminated any hazardous atmosphere.
2. Forced air ventilation shall be directed so as to ventilate the immediate areas where an employee is or will be present within the space.
3. Continuous ventilation shall be maintained until all employees have left the space.
4. Air supply or forced air ventilation shall originate from a clean source.

Work practice (administrative) controls

Work practice controls are those controls which eliminate or reduce the hazard through changes in the work practices (i.e., rotating workers, reducing the amount of worker exposure, and housekeeping).

Personal protective equipment (PPE)

If the hazard cannot be eliminated or reduced to a safe level through engineering and/or work practice controls, PPE should be used. The project foreman or superintendent shall determine the appropriate PPE needed by all personnel entering the confined space, including rescue teams. PPE that meets the specifications of applicable standards shall be selected in accordance with the requirements of the job to be performed.

Entry permits

The confined space entry permit is the most essential tool for assuring safety during entry in confined spaces with known hazards, or with unknown or potentially hazardous atmospheres. The entry permit process guides the supervisor and workers through a systematic evaluation of the space to be entered. The permit should be used to establish appropriate conditions. Before each entry into a confined space, an entry permit will be completed by the project foreman or superintendent. This person will then communicate the contents of the permit to all employees involved n the

operation, and post the permit conspicuously near the work location. A standard entry permit shall be use for all entries.

Key elements of entry permits

A standard entry permit shall contain the following items:

1. Space to be entered
2. Purpose of entry
3. Date and authorized duration of the entry permit
4. Name of authorized entrants within the permit space
5. Means of identifying authorized entrants inside the permit space (i.e. rosters or tracking systems)
6. Names of personnel serving as attendants for the permit duration
7. Name of individual serving as entry supervisor, with a space for the signature or initials of the entry supervisor who originally authorized the entry
8. Hazards of the permit space to be entered
9. Measures used to isolate the permit space and to eliminate or control permit space hazards before entry (i.e., lockout/tag out of equipment and procedures for purging, ventilating, and flushing permit spaces.)
10. Acceptable entry conditions
11. Results of initial and periodic tests performed, accompanied by the names or initials of the testers and the date(s) when the tests were performed.
12. Rescue and emergency services that can be summoned and the means of contacting those services
13. Communicating procedures used by authorized entrants and attendants to maintain contact during the entry
14. Equipment to be provided for compliance with this confined space program (i.e., PPE, testing, communications, alarms, and rescue)
15. Other information necessary for the circumstances of the particular confined space that will help ensure employee safety
16. Additional permits, such as for hot work, that have been issued to authorize work on the permit space

Permit scope and duration

A permit is only valid for one shift. For a permit to be renewed, the following conditions shall be met before each reentry into the confined space:

1. Atmospheric testing shall be conducted and the results should be within acceptable limits. If atmospheric tests results are not within acceptable limits, precautions to protect entrants against the hazards should be addressed on the permit and should be in place.
2. Project foreman or superintendents shall verify that all precautions and other measures called for on the permit are still in effect.
3. Only operations or work originally approved on the permit shall be conducted in the confined space.

A new permit shall be issued, or the original permit will be reissued if possible, whenever changing work conditions or work activities introduce new hazards into the confined space. The foreman or superintendent shall retain each canceled entry permit and submit them to the safety office for at least one year to facilitate the review of the Confined Space Entry Program. Any problems encountered during an entry operation shall be noted on the respective permit(s) so that appropriate revisions to the confined space permit program can be made.

Entry procedures

When entry into a confined space is necessary, either the entry supervisor or the project foreman may initiate entry procedures, including the completion of a confined space entry permit. Entry into a confined space shall follow the standard entry procedure below.

Prior to entry

The entire confined space entry permit shall be completed before a standard entry. Entry shall be allowed only when all requirements of the permit are met and it is reviewed and signed by an entry supervisor. The following conditions must be met prior to standard entry:

1. Affected personnel shall be trained to establish proficiency in the duties that will be performed within the confined space.

2. The internal atmosphere within the confined space shall be tested by the project foreman with a calibrated, direct reading instrument.
3. Personnel shall be provided with necessary PPE as determined by the entry supervisor
4. Atmospheric monitoring shall take place during the entry. If a hazardous atmosphere is detected during entry:

    a. Personnel within the confined space shall be evacuated by the attendants or entry supervisor until the space can be evaluated by a competent person to determine how the hazardous atmosphere developed.
    b. Controls shall be put in place to protect employees before reentry.

Opening a confined space

Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed. When entrance covers are removed, the opening shall be promptly guarded by a railing, temporary cover or other temporary barrier that will prevent anyone from falling through the opening. This barrier or cover shall protect each employee working in the space from foreign objects entering the space. If it is in a traffic area, adequate barriers shall be erected.

Atmospheric testing

Atmospheric test data is required prior to entry into a confined space. Atmospheric testing is required for two distinct purposes: (1) evaluation of the hazards of the permit space, and (2) verification that acceptable conditions exist for entry into that space. If a person must go into the space to obtain the needed data, then Standard Confined Space Entry Procedures shall be followed. Before entry into a confined space, the project foreman shall conduct testing for hazardous atmospheres. The internal atmosphere shall be tested with a calibrated, direct-reading instrument for oxygen, flammable gases and vapors, and potential toxic air contaminants, in that order.

Testing equipment used in specialty areas shall be listed or approved for use in such areas by the Safety Officer. All testing equipment shall be approved by a nationally recognized laboratory.

Evaluation testing

The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity. The analysis shall identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space. Evaluation and interpretation of these data and development of the entry procedure should involve a technically qualified professional (i.e., consultant, certified industrial hygienist, registered safety engineer, or certified safety professional).

Verification testing

A confined space that may contain a hazardous atmosphere shall be tested for residues of all identified or suspected contaminants. The evaluation testing should be conducted with specified equipment to determine that residual concentrations at the time or testing and entry are within acceptable limits. Results of testing shall be recorded by the person performing the tests on the permit. The atmosphere shall be periodically retested to verify that atmospheric conditions remain within acceptable entry parameters.

Acceptable limits

The atmosphere of the confined spaces shall be considered to be within acceptable limits when the following conditions are maintained:

1. Oxygen: 19.5 percent to 23.5 percent
2. Flammability: less than 10 percent of the Lower Flammable Limit (LFL)
3. Toxicity: less than recognized American Conference of Governmental Industrial Hygienists (ACGIH) exposure limits or other published exposure levels (i.e., OSHA Permissible Exposure Limits).

Isolation and lockout/tagout safeguards

All energy sources that are potentially hazardous to confined space entrants shall be secured, relieved, disconnected, and/or restrained before personnel are permitted to enter the confined space. Equipment systems or processes shall be locked out and/or tagged out as required by the Double Z

Lockout/Tagout program prior to permitting entry into a confined space. In confined spaces where complete isolation is not possible, the project foreman or competent person shall evaluate the situation and make provisions for as rigorous an isolation as practical.

Ingress/egress safeguards

Means for safe entry and exit shall be provided for confined spaces. Each entry and exit points shall be evaluated by a competent person to determine the most effective methods and equipment that will enable employees to safely enter and exit the confined space.

Appropriate retrieval equipment or methods shall be used whenever a person enters a confined space. Use of retrieval equipment may be waived by the competent person if use of the equipment increases the overall risks of entry or does not contribute to the rescue. A mechanical device shall be available to retrieve personnel from vertical confined spaces grater than five (5) feet in depth.

Warning signs and symbols

All confined spaces that could be inadvertently entered shall have signs identifying them as confined spaces. Signs shall be maintained in a legible condition. The signs shall contain a warning that a permit is required before entry. Accesses to all confined spaces shall be prominently marked.

Trenching and Excavating

This program was developed to protect employees from safety hazards that may be encountered during work in trenches and excavations. This program is intended to assure that:

- Employees that perform work in excavations are aware of their responsibilities and have appointed one or more individuals within the crew (the foreman) to assure compliance with the requirements of this program;

- The responsibilities of the foreman and workers are clearly detailed; and,

- All persons involved in excavation and trenching work have received appropriate training in the safe work practices that must be followed during this work.

This program includes provisions for employee training, hazard identification and control, and work practices that must be followed while constructing or working in or around an excavation or trench. The designated departmental Project Manager is required to assure that:

The procedures described in this program are followed;

- Employees entering excavations or trenches are properly trained and equipped to perform their duties safely.

- All required inspections, tests, and recordkeeping functions have been performed.

Double Z Excavating and Trenching Safety Program

Introduction

The purpose of the Excavation and Trenching Safety Program is to put in place work practices and procedures that will protect employees from hazards that may be found in or around excavations or trenches. This objective is met by:

1. Training foreman so they understand their duties and responsibilities.

2. Requiring that each foreman assure that all persons working in excavations have been provided adequate training as required by this program.

This program has been designed to comply with Occupational Safety and Health Administration (OSHA) standard 29 CFR 1926 Subpart P.

Who should participate

All employees that work in or around excavations must comply with the requirements of this program.

Other key participants include:

1. Workers who work in or around excavations

2. Contractor's personnel, since the work that a Contractor performs can directly affect the safety of persons working in or around excavations.

Safety Coordinator

The Excavation and Trenching Safety Manager will:

1. Monitor the overall effectiveness of the program

2. Assist with atmospheric testing and equipment selection as needed

3. Provide training for designated foremen
4. Assist the project foreman with training of other employees
5. Provide technical assistance to the crews as needed
6. Review and update the program on an annual basis as necessary.

Definitions

Accepted engineering practices means the standards of practice required by a registered professional engineer.

Aluminum Hydraulic Shoring means a manufactured shoring system consisting of aluminum hydraulic cylinders (crossbraces) used with vertical rails (uprights) or horizontal rails (wales). Such system is designed to support the sidewalls of an excavation and prevent cave-ins. See Figure 2.0.

Bell-bottom pier hole means a type of shaft or footing excavation, the bottom of which is made larger than the cross section above to form a belled shape.

Benching (Benching system) is a method of protecting employees from cave-ins by excavating the sides of an excavation to form one or more horizontal steps, usually with vertical or near-vertical surfaces between levels.

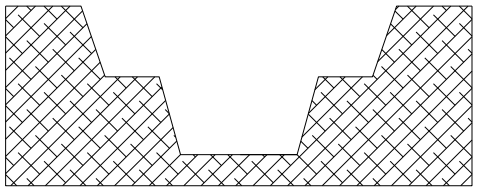


Figure 1.0 - Benching System

Cave-in means the movement of soil or rock into an excavation, or the loss of soil from under a trench shield or support system, in amounts large enough to trap, bury, or injure and immobilize a person.

Competent person means one who has been trained to identify hazards in the workplace, or working conditions that are unsafe for employees, and who has the authority to have these hazards corrected. The departmental

Project Manager serves as the departmental competent person for the purposes of this program. The Project Manager will conduct all required

tests and inspections as detailed in this program, and ensure that employees working in excavations have been trained and are following the requirements of this program.

Cross braces mean the horizontal members of a shoring system installed from side to side of the excavation. The cross braces bear against either uprights or wales. See Figure 2.0.

Department means a department that conducts work in excavations.

Excavation means any man-made cut, cavity, trench, or depression in an earth surface formed by earth removal.

Faces or sides mean the vertical or inclined earth surfaces formed as a result of excavation work.

Failure means the movement or damage of a structural member or connection that makes it unable to support loads.

Hazardous atmosphere means an atmosphere that is explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful that may cause death, illness, or injury.

Kickout means the accidental movement or failure of a cross brace.

Project Manager is the individual within the department that will oversee excavation work and that is responsible for assuring compliance with this program.

Protective system means a method of protecting employees from cave-ins, from material that could fall or roll from an excavation face into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.

Ramp means an inclined walking or working surface that is used to gain access to one point from another. A ramp may be constructed from earth or from structural materials such as steel or wood.

Registered Professional Engineer means a person who is registered as a professional engineer in the applicable state.

Safety Coordinator means the individual responsible for developing and implementing this program, conducting unannounced work site inspections, and ensuring that the departments comply with the program requirements.

Sheeting means the members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system. See figure 2.0.

Shield (Shield system) means a structure used in an excavation to withstand cave-ins and which will protect employees working within the shield system. Shields can be permanent structures or portable units moved along as work progresses. Shields used in trenches are usually referred to as "**trench boxes**" or "**trench shields**."

Shoring (Shoring system) means a structure that is built or put in place to support the sides of an excavation to prevent cave-ins.

Sides. See "Faces."

Sloping (Sloping system) means sloping the sides of the excavation away from the excavation to protect employees from cave-ins. The required slope will vary with soil type, weather, and surface or near surface loads that may affect the soil in the area of the trench (such as adjacent buildings, vehicles near the edge of the trench and so forth).

Stable rock means natural solid mineral material that can be excavated with vertical sides that will remain intact while exposed.

Structural ramp means a ramp built of steel or wood usually used for vehicle access. Ramps made of soil or rock are not considered structural ramps.

Support system means a structure such as underpinning, bracing, or shoring, which provides support to an adjacent structure, underground installation, or the sides of an excavation.

Tabulated data means tables and charts approved by a registered professional engineer and used to design and construct a protective system.

Trench (Trench excavation) means a narrow excavation (in relation to its length) made below the surface of the ground.

Trench box or shield. See "Shield".

Uprights mean the vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not contact each other. Uprights placed so that individual members are closely spaced, in contact with or interconnected to each other, are often called "sheeting."

Wales are horizontal members of a shoring system placed in the direction of the excavation face whose sides bear against the vertical members of the shoring system or earth (the uprights or sheeting).

Program elements

Training and duties of program participants

- All personnel involved in trenching or excavation work shall be trained in the requirements of this program. The certified foremen shall train crew personnel with assistance from the Safety Coordinator.

- Training shall be performed **before** the employee is assigned duties in excavations.

- Retraining will be performed whenever work site inspections conducted by the Project Manager or Safety Coordinator indicate that an employee does not have the necessary knowledge or skills to safely work in or around excavations.

- Training records will be maintained by the Safety Officer. These records shall include the date(s) of the training program, the instructor(s) of the training program, a copy of the written material presented, and the names of the employee(s) to whom the training was given.

Training and duties of workers

All personnel that perform work in excavations shall comply with the requirements of this program. These personnel shall receive appropriate training that shall include, at a minimum:

- The work practices that must be followed during excavating or working in excavations;

- The use of personal protective equipment that will typically be required during work in excavations, including but not limited to safety shoes, hardhats, and fall protective devices;

- Procedures to be followed if a hazardous atmosphere exists or could reasonably be expected to develop during work in an excavation; and,

- Emergency and non-entry rescue methods, and procedure for calling rescue services.

Training and duties of the safety officer

The Safety Officer shall receive the training detailed above and shall, in addition, receive training on the requirements detailed in Section 4.0 and 5.0, and Appendices A through D of this program. The Project Manager shall:

- Coordinate and actively participate in the training of employees. A copy of the training records shall be maintained by the Safety Officer.

- Ensure on a daily basis, or more often as detailed in this program, that work site conditions are safe for employees to work in excavations;

- Determine the means of protection (sloping back the sides of the excavation, use of trench shields, or shoring) that will be used for each excavation project; and,

- Ensure, if required, that the design of a protective system has been completed and approved by a Registered Professional Engineer before work is begun in the excavation.

Contractor awareness, duties and responsibilities

Contractors that are performing excavation work on Double Z property shall coordinate trenching and excavation work with the project manager to assure the coordination of the work and shutdown of utilities if necessary.

Specific Excavation Requirements

Utilities and pre-work site inspection

Prior to excavation the site shall be thoroughly inspected by the foreman to determine if special safety measures must be taken.

- Surface encumbrances. All equipment, materials, supplies, permanent installations (for example, buildings or roadways), trees, brush, boulders and other objects at the surface that could present a hazard to employees working in the excavation shall be removed or supported as necessary to protect employees.

- Underground installations.

    1. The location of sewers, telephone, fuel, electric, water lines, or any other underground installations that may be encountered during excavation work shall be determined and marked prior to opening an excavation. The foreman shall make arrangements as necessary with the appropriate utility agency for the protection, removal, shutdown, or relocation of underground installations.

    2. If it is not possible to establish the exact location of these installations, the work may proceed with caution if detection equipment or other safe and acceptable means are used to locate the utility.

    3. Excavation shall be done in a manner that does not endanger the underground installations or the employees engaged in the work. Barricades, shoring, suspension or other means as necessary to protect employees, shall protect utilities left in place.

Protection of the public

Barricades, walkways, lighting and posting shall be provided as necessary for the protection of the public prior to the start of excavation operations.

- Guardrails, fences, or barricades shall be provided on excavations adjacent to walkways, driveways and other pedestrian or vehicle thoroughfares. Warning lights or other illumination shall be maintained as necessary for the safety of the public and employees from sunset to sunrise.

- Wells, holes, pits, shafts and all similar hazardous excavations shall be effectively barricaded or covered and posted as necessary to prevent unauthorized access. All temporary excavations of this type shall be backfilled as soon as possible.

- Walkways or bridges protected by standard guardrails shall be provided where employees and the general public are permitted to cross over excavations. Where workers in the excavation may pass under these walkways or bridges, a standard guardrail and toeboard shall be used. Information on the requirements for guardrails and toeboards may be obtained by contacting the Safety Coordinator.

Protection of workers in excavations

- Access and means of egress**.** Stairs, ladders or ramps shall be provided where employees are required to enter trench excavations over 4 feet deep. The maximum distance of lateral travel (e.g., along the length of the trench) required to reach the means of egress shall not exceed 25 feet.

    1. Structural ramps.

        - Structural ramps used solely by employees, as a means of access or a competent person shall design egress from excavations. Structural ramps used for access or egress of equipment shall be designed by a person qualified in

structural design, and shall be constructed in accordance with the design.

- Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent movement or displacement.

- Structural members used for ramps and runways shall be of uniform thickness.

- Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.

- Structural ramps used in place of steps shall be provided with cleats or other surface treatments on the top surface to prevent slipping.

2. Ladders.

    - When portable ladders are used, the ladder side rails shall extend a minimum of 3 feet above the upper surface of the excavation (see Figure 3.0).

    - Ladders shall have nonconductive side rails if work will be performed near exposed energized equipment or systems.

    - Two or more ladders, or a double-cleated ladder, will be provided where 25 or more employees will be conducting work in an excavation where ladders serve as the primary means of egress, or where ladders serve two-way traffic.

    - Ladders will be inspected prior to use for signs of damage or defects. Damaged ladders will be removed from service and marked with “Do Not Use” until repaired.

- Ladders shall be used only on stable and level surfaces unless secured. Ladders placed in any location where they can be displaced by workplace activities or traffic shall be secured, or barricades shall be used to keep these activities away from the ladder.

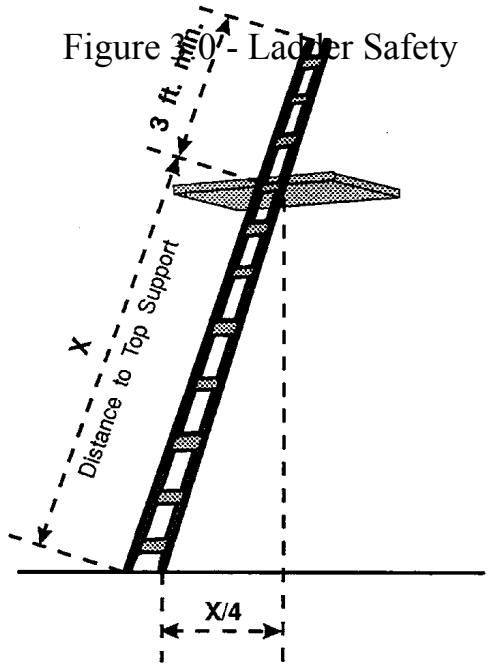
- Non-self-supporting ladders shall be positioned so that the foot of the ladder is one-quarter of the working length away from the support (see Figure 3.0).

- Employees shall not be allowed to carry any object or load while on the ladder that could cause them to lose their balance and fall.

Exposure to vehicular traffic

Employees exposed to vehicular traffic shall be provided with, and shall wear; warning vests or other suitable garments marked with or made of reflectorized or high-visibility material. Warning vests worn by flagmen shall be red or orange, and shall be of reflectorized material if worn during night work.

Figure 3.0 - Ladder Safety



Employee exposure to falling loads

No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles

provide adequate protection for the operator during loading and unloading operations.

Warning system for mobile equipment

A warning system shall be used when mobile equipment is operated adjacent to the edge of an excavation if the operator does not have a clear and direct view of the edge of the excavation. The warning system shall consist of barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

Hazardous atmospheres

The Project Manager will test the atmosphere in excavations over 4 feet deep if a hazardous atmosphere exists or could reasonably be expected to exist. A hazardous atmosphere could be expected, for example, in excavations in landfill areas, in excavations in areas where hazardous substances are stored nearby, or in excavations near or containing gas pipelines.

1. Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or forced ventilation of the workspace. Technical assistance on these precautions may be obtained by contacting the Safety Coordinator.

2. Forced ventilation or other effective means shall be used to prevent employee exposure to an atmosphere containing a flammable gas in excess of 10 percent of the lower flammability limit of the gas.

3. When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, the Project Manager will perform continuous air monitoring. The device used for atmospheric monitoring shall be equipped with an audible and visual alarm.

4. Atmospheric testing will be performed using a properly calibrated direct reading gas monitor. Direct reading gas detector tubes or other

acceptable means may also be used to test potentially toxic atmospheres.

1. Each atmospheric testing instrument shall be calibrated on a schedule and in the manner recommended by the manufacturer except:

    a) The Department prior to use shall recalibrate any atmospheric testing instrument that has not been used within thirty (30) days.

    b) The Department shall calibrate each atmospheric testing instrument at least every six- (6) months.

    c) Copies of calibration records will be forwarded to the Safety Coordinator.

2. Each atmospheric testing instrument will be field checked immediately prior to use to ensure that it is operating properly.

Personal protective equipment

1. All employees working in trenches or excavations shall wear approved hardhats and steel toed shoes or boots.

2. Employees exposed to flying fragments, dust, or other materials produced by drilling, sawing, sanding, grinding and similar operations shall wear approved safety glasses with side shields.

3. Employees exposed to hazards produced by, or performing, welding, cutting, or brazing operations shall wear, as determined by the foreman, approved spectacles or a welding faceshield or helmet.

4. Employees entering bell-bottom pier holes or other similar deep and confined footing excavations shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.

5. Employees shall wear, as determined by the foreman, approved gloves or other suitable hand protection.

6. Employees using, or working in the immediate vicinity of, hammer drills, masonry saws, jackhammers or similar high noise producing equipment shall wear suitable hearing protection.

7. Each employee at the edge of an excavation 6 feet or more deep shall be protected from falling. Guardrail systems, fences, barricades, covers, or a tie-back system meeting the requirements of the Fall Protection Program shall provide fall protection.

8. Emergency rescue equipment, such as breathing apparatus, a safety harness and line, and a basket stretcher shall be readily available where hazardous atmospheric conditions exist or may develop during work in an excavation. This equipment shall be attended when in use. Only personnel that have received approved training and have appropriate equipment shall attempt retrieval that would require entry into a hazardous atmosphere. If entry into a known hazardous atmosphere must be performed, then the Safety Coordinator shall be given advance notice so that the hazards can be evaluated and rescue personnel placed on standby if necessary.

Walkways and guardrails

Walkways shall be provided where employees or equipment are permitted to cross over excavations. Guardrails shall be provided where walkways, accessible only to on-site project personnel, are 6 feet or more above lower levels.

Protection from hazards associated with water accumulation

1. Employees shall not work in excavations that contain or are accumulating water unless precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions taken could include, for example, special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of safety harnesses and lifelines.

2. If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operation shall be monitored by a person trained in the use of the equipment.

3. If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation. Precautions shall also be taken to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains shall be reinspected by the foreman to determine if additional precautions should be taken.

4. The foreman shall inform workers of the precautions or procedures that are to be followed if water accumulates or is accumulating in an excavation.

Stability of adjacent structures

The foreman will determine if the excavation work could affect the stability of adjoining buildings, walls, sidewalks or other structures.

1. Support systems (such as shoring, bracing, or underpinning) shall be used to assure the stability of structures and the protection of employees where excavation operations could affect the stability of adjoining buildings, walls, or other structures.

2. Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted except when:

    a) A support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure; or

    b) The excavation is in stable rock; or

    c) A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or

d) A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.

3. Sidewalks, pavements and appurtenant structure shall not be undermined unless a support system or other method of protection is provided to protect employees from the possible collapse of such structures.

4. Where review or approval of a support system by a registered professional engineer is required, the Department shall secure this review and approval in writing before the work is begun. A copy of this approval shall be provided to the Safety Coordinator.

Protection of employees from falling objects and loose rocks or soil

1. Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of:

   e) Scaling to remove loose material;

   f) Installation of protective barricades, such as wire mesh or timber, at appropriate intervals on the face of the slope to stop and contain falling material; or

   g) Benching sufficient to contain falling material.

2. Excavation personnel shall not be permitted to work above one another where the danger of falling rock or earth exists.

3. Employees shall be protected from excavated materials, equipment or other materials that could pose a hazard by falling or rolling into excavations.

h) Protection shall be provided by keeping such materials or equipment at least 2 feet from the edge of excavations, by the use of restraining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

i) Materials and equipment may, as determined by the foreman, need to be stored further than 2 feet from the edge of the excavation if a hazardous loading condition is created on the face of the excavation.

j) Materials piled, grouped or stacked near the edge of an excavation must be stable and self-supporting.

Inspection by the project foreman

The project foreman shall conduct daily inspections of excavations, adjacent areas, and protective systems for evidence of a situation that could result in possible cave-ins, failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the foreman prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when the trench will be or is occupied by employees.

Where the competent person finds evidence of a situation that could result in a possible cave-in, failure of protective systems, hazardous atmosphere, or other hazardous conditions, exposed employees shall be removed from the hazardous area until precautions have been taken to assure their safety.

The Project Manager shall maintain a written log of all inspections conducted. This log shall include the date, work site location, results of the inspection, and a summary of any action taken to correct existing hazards.

Requirements for Protective Systems

Protection of employees in excavations

Employees in an excavation shall be protected from cave-ins by using either an adequate sloping or benching system (Section 5.2) or an adequate support or protective system (Section 5.3). The only exceptions are:

1. Excavations made entirely in stable rock; or

2. Excavations less than 5 feet in depth where examination of the ground by the Project Manager provides no indication of a potential cave-in.

Protective systems shall be capable of resisting all loads that could reasonably be expected to be applied to the system.

Design of sloping and benching systems
The slope and configuration of sloping and benching systems shall be selected and constructed by the Project Manager in accordance with either Section 5.2 (A), (B), (C) or (D) as follows:

Option 1 - Allowable configurations and slopes.

1. Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the Project Manager uses one of the other options listed below.

2. The slopes used shall be excavated in accordance with the slopes shown for Type C soil in Appendix B.

Option 2 - Determination of slopes and configurations using Appendix A and B. Maximum allowable slopes, and allowable configurations for sloping and benching systems, shall meet the requirements set forth in appendix A and B.

Option 3 - Designs using other tabulated data.

1. The design of sloping or benching systems may be selected from, and shall be constructed in accordance with, other tabulated data, such as tables and charts. The tabulated data used must be in written form and include all of the following:

    a) Identification of the factors that affect the selection of a sloping or benching system;

    b) Identification of the limits of use of the data, including the maximum height and the angle of the slopes determined to be safe;

    c) Other information needed by the user to make correct selection of a protective system.

II. One copy of the tabulated data that identifies the registered professional engineer who approved the data shall be maintained at the job site during construction of the protective system. After that time the data may be stored off the job site, but a copy of the data shall be made available to the Safety Coordinator upon request.

Option (4) - Design by a registered professional engineer: Sloping and benching systems not utilizing Option (1), Option (2) or Option (3) under Section 5.2 shall be approved by a registered professional engineer.

Designs shall be in written form and shall include at least the following:

a) The maximum height and angle of the slopes that were determined to be safe for the particular project;

b) The identity of the registered professional engineer approving the design.

At least one copy of the design shall be maintained at the job site while the slope is being constructed. After that time the design need not be at the job site, but a copy shall be made available to the Safety Coordinator upon request.

Design of support systems, shield systems, and other protective systems

The design of support systems, shield systems, and other protective systems shall be selected and constructed by the Project Manager in accordance with the requirements of either Section 5.3 (A), (B), (C) or (D) as follows:

Option (1) - Designs using Appendix A, C and D. Design of timber shoring in trenches shall be made in accordance with the requirements of appendix A and C of this program. Design of aluminum hydraulic shoring shall be in accordance with Section 5.2(B), but if manufacturer's tabulated data can not be used, then designs shall be in accordance with appendix D.

Option (2) - Designs using manufacturer's tabulated data

1. Support systems, shield systems, or other protective systems drawn from manufacturer's tabulated data shall be constructed and used in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.

2. Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer shall only be allowed after the manufacturer issues specific written approval.

3. Manufacturer's specifications, recommendations, and limitations, and manufacturer's approval to deviate from the specifications, recommendations, and limitations shall be kept in written form at the job site during construction of the protective system. After that time this data may be stored off the job site, but a copy shall be made available to the Safety Coordinator upon request.

Option (3) - Designs using other tabulated data

1. Designs of support systems, shield systems, or other protective systems shall be selected from and be constructed in accordance with tabulated data, such as tables and charts.

2. The tabulated data shall be in written form and include all of the following
   a) Identification of the factors that affect the selection of a protective system drawn from such data;

   b) Identification of the limits of use of the data;

   c) Information needed by the user to make a correct selection of a protective system from the data.

3. At least one copy of the tabulated data, which identifies the registered professional engineer who approved the data, shall be maintained at the job site during construction of the protective system. After that time the data may be stored off the job site, but a copy of the data shall be made available to THE SAFETY COORDINATOR upon request.

Option (4) - Design by a registered professional engineer

1. Support systems, shield systems, and other protective systems not using the options detailed in sections 5.3(A), a registered professional engineer shall approve (B) or (C).

2. Designs shall be in written form and shall include the following:

   d) A plan indicating the sizes, types, and configurations of the materials to be used in the protective system; and

   e) The identity of the registered professional engineer approving the design.

3. At least one copy of the design shall be maintained at the job site during construction of the protective system. After that time, the design may be stored off the job site, but a copy of the design shall be made available to THE SAFETY COORDINATOR upon request.

Materials and equipment

Materials and equipment used for protective systems shall be free from damage or defects that might affect their proper function.

Manufactured materials and equipment used for protective systems shall be used and maintained in accordance with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards.

When material or equipment used for protective systems is damaged, the foreman shall ensure that a competent person to evaluate its suitability for continued use examines these systems. If the competent person can not assure the material or equipment is able to support the intended loads or is otherwise suitable for safe use, then such material or equipment shall be removed from service. These materials or equipment shall be evaluated and approved by a registered professional engineer before being returned to service.

Installation and removal of support

General

- Members of support systems shall be securely connected together to prevent sliding, falling, kickouts, or other potential hazards.

- Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.

- Individual members of support systems shall not be subjected to loads exceeding those, which those members were designed to support.

- Before temporary removal of individual support members begins, additional precautions shall be taken as directed by the Project Manager to ensure the safety of employees. These precautions could include, for example, the installation other structural members to carry the loads imposed on the support system.

- Removal of support systems shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly. If there is any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation the work shall be halted until the Project Manager can examine it.

    1. Backfilling shall progress together with the removal of support systems from excavations.

Additional requirements for support systems for trench excavations

1. Excavation of material to a level no greater than 2 feet below the bottom of the members of a support system is allowed, but only if the system is designed to resist the forces calculated for the full depth of the trench. There shall be no indications while the trench is open of a possible loss of soil from behind or below the bottom of the support system.

2. Installation of a support system shall be closely coordinated with the excavation of trenches.

Sloping and benching systems. Employees shall not be permitted to work above other employees on the faces of sloped or benched systems except when employees at the lower levels are protected from the hazard of falling, rolling, or sliding material or equipment.

Shield systems

General

- Shield systems shall not be subjected to loads that are greater than those they were designed to withstand.

- Shields shall be installed in a manner that will restrict lateral or other hazardous movement of the shield that could occur during cave-in or unexpected soil movement.

- Employees shall be protected from the hazard of cave-ins when entering or exiting the areas protected by shields.

- Employees shall not be allowed in shields when shields are being installed, removed, or moved vertically.

Additional requirement for shield systems used in trench excavations. Excavation of material to a level no greater than 2 feet below the bottom of the shield system is allowed, but only if the system is designed to resist the forces calculated for the full depth of the trench. There shall be no indications while the trench is open of a possible loss of soil from behind or below the bottom of the shield system.

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Rigging and Signaling

Purpose

Many types of cranes, hoists, and rigging devices are used at Double Z Construction for lifting and moving materials. Double Z Construction's policy is to maintain a safe workplace for its employees; therefore, it cannot be overemphasized that only qualified and licensed individuals shall assume rigging and signaling duties. The safety rules and guidance in this chapter apply to all operations at Double Z that involve the use of cranes and machinery, and to all Double Z employees who use such devices.

Responsibilities

Supervisors are responsible for:

- Ensuring that employees under their supervision receive the required training and are certified and licensed to operate the cranes and hoists in their areas.
- Ensure that all rigging and signaling is being completed according to the proper safety rules and standards.
- Ensuring that rigging equipment is inspected and tested daily by a responsible individual.

- **Crane and hoist operators are responsible for:**
- Operating hoisting equipment safely.
- Conducting functional tests prior to using the equipment.
- Selecting and using rigging equipment appropriately.
- Having a valid operator's license on their person while operating cranes or hoists.

Safety/maintenance/operations is responsible for:

- Performing annual maintenance and inspection of all Double Z cranes and hoists that are not covered by a program with maintenance responsibility.
- Conducting periodic and special load tests of cranes and hoists.

- Maintaining written records of inspections and tests, and providing copies of all inspections to upper management.
- Inspecting and load testing cranes and hoists following modification or extensive repairs (e.g., a replaced cable or hook, or structural modification).
- Maintaining all manuals for cranes and hoists in a central file for reference.

Safety Officer is responsible for

- Conducting or scheduling training for all Crane & Hoist Operators.
- Issuing licenses to Crane and Hoist Operators.
- Periodically verifying monthly test and inspection reports.
- Interpreting crane and hoist safety rules and standards.

Safe operating requirements

All workers who use any Double Z crane or hoist shall have an operator's license.

General safety rules

Operators shall comply with the following rules while operating the cranes and hoists:

- Do not engage in any practice that will divert your attention while operating the crane.
- Respond to signals only from the person who is directing the lift, or any appointed signal person. Obey a stop signal at all times, no matter who gives it.
- Do not move a load over people. People shall not be placed in jeopardy by being under a suspended load. Also, do not work under a suspended load unless the load is supported by blocks, jacks, or a solid footing that will safely support the entire weight. Have a crane or hoist operator remain at the controls or lock open and tag the main electrical disconnect switch.

- Ensure that the rated load capacity of a crane's bridge, individual hoist, or any sling or fitting is not exceeded. Know the weight of the object being lifted or use a dynamometer or load cell to determine the weight.
- Check that all controls are in the OFF position before closing the main-line disconnect switch.
- If spring-loaded reels are provided to lift pendants clear off the work area, ease the pendant up into the stop to prevent damaging the wire.
- Avoid side pulls. These can cause the hoist rope to slip out of the drum groove, damaging the rope or destabilizing the crane or hoist.
- To prevent shock loading, avoid sudden stops or starts. Shock loading can occur when a suspended load is accelerated or decelerated, and can overload the crane or hoist. When completing an upward or downward motion, ease the load slowly to a stop.

Rigging

General rigging safety requirements

Only select rigging equipment that is in good condition. All rigging equipment shall be inspected annually; defective equipment is to be removed from service and destroyed to prevent inadvertent reuse. The load capacity limits shall be stamped or affixed to all rigging components.

Double Z policy requires a minimum safety factor of 6 to be maintained for wire rope slings. The following types of slings shall be rejected or destroyed:

- Nylon slings with:
  - Abnormal wear.
  - Torn stitching.
  - Broken or cut fibers.
  - Discoloration or deterioration.
- Wire-rope slings with:
  - Kinking, crushing, bird caging, or other distortions.
  - Evidence of heat damage.
  - Cracks, deformation, or worn end attachments.
  - Six randomly broken wires in a single rope lay.

    - Three broken wires in one strand of rope.
    - Hooks opened more than 15% at the throat.
    - Hooks twisted sideways more than 10° from the plane of the unbent hook.
- Alloy steel chain slings with:
    - Cracked, bent or elongated links or components.
    - Cracked hooks.
- Shackles, eye bolts, turnbuckles, or other components that are damaged or deformed.

Rigging a load

Do the following when rigging a load:

- Determine the weight of the load. Do not guess.
- Determine the proper size for slings and components.
- Do not use manila rope for rigging.
- Make sure that shackle pins and shouldered eye bolts are installed in accordance with the manufacturer's recommendations.
- Make sure that ordinary (shoulderless) eye bolts are threaded in at least 1.5 times the bolt diameter.
- Use safety hoist rings (swivel eyes) as a preferred substitute for eye bolts wherever possible.
- Pad sharp edges to protect slings. Remember that machinery foundations or angle-iron edges may not feel sharp to the touch but could cut into rigging when under several tons of load. Wood, tire rubber, or other pliable materials may be suitable for padding.
- Do not use slings, eye bolts, shackles, or hooks that have been cut, welded, or brazed.
- Install wire-rope clips with the base only on the live end and the U-bolt only on the dead end. Follow the manufacturer's recommendations for the spacing for each specific wire size.
- Determine the center of gravity and balance the load before moving it.
- Initially lift the load only a few inches to test the rigging and balance.

Crane overloading

Cranes or hoists shall not be loaded beyond their rated capacity for normal operations. Any crane or hoist suspected of having been overloaded shall be removed from service by locking open and tagging the main disconnect switch. Additionally, overloaded cranes shall be inspected, repaired, load tested, and approved for use before being returned to service.

Hand signals

Signals to the operator shall be in accordance with the standard hand signals unless voice communications equipment (telephone, radio, or equivalent) is used. Signals shall be discernible or audible at all times. Some special operations may require addition to or modification of the basic signals. For all such cases, these special signals shall be agreed upon and thoroughly understood by both the person giving the signals and the operator, and shall not be in conflict with the standard signals.

Load weight communication

On projects that require a critical pick involving beams, demolition, or structures a professional engineer shall calculate the weight for each item. These weights shall then be communicated to all employees before the specific activity begins by the Double Z Safety Officer during a Pre Pick/Demo safety meeting. Additionally, weights will also be included in the Site Specific Fall Protection Plan and communicated to the crew during the Fall Protection safety meeting at the beginning of each project. At no point before a pick shall an operator attempt to guess the weight of his load.

All stop communication

Double Z operators are required to call an *"ALL STOP"* if they become aware of a safety problem during operation. Work shall not continue until the problem has been resolved. In addition to operators all Double Z Employees are encouraged to speak up and take immediate action when required. No employee shall ever receive discipline for speaking up and taking action for safety.

Fall zones

No employees shall be within the fall zone of a load unless they are engaged in the operation of hooking, unhooking, and guiding a load. At no point shall an employee be directly underneath a suspended load. Operators shall not begin their pick until they are given the all clear by the signalman. All employees not involved with the pick shall stand safely outside of the fall zone.

Inspection, maintenance, and testing

All tests and inspections shall be conducted in accordance with the manufacturer's recommendations.

Lock Out / Tag Out

The following procedures establish the minimum requirements for the lockout of energy isolating devices. It shall be used to isolate equipment from the energy source before performing any maintenance activities. This will prevent an injury to Double Z employees from unexpected startup of any equipment while they are performing maintenance duties.

The Double Z Construction Safety Officer shall arrange training for appropriate employees on the significance of the lockout procedure. New employees who operate or maintain machinery will also be instructed on the purpose and use of the company's lockout program by foreman.

Each foreman will be familiar with the location of all switches, valves, or other devices that need to be locked out while performing maintenance on any equipment. This applies to electrical, mechanical, or any other source of energy that could cause injury to an employee. If an employee is unsure of how or whether to Lockout/Tagout machinery or any other device, the employee should consult his or her supervisor.

Sequence for lockout/tagout procedure

1. Notify all exposed employees that the lockout procedure will be utilized. The authorized employee shall know the types, magnitude, and hazards of energy the particular machine uses.
2. If the machine is operating, shut it down by normal operating procedure.
3. Operate the switch, valve or other energy-isolating device so that the energy source is isolated from the equipment to be worked on. Stored energy (springs, gas, hydraulics, rotating flywheels, etc.) needs to be blocked, dissipated, or restrained by appropriate methods.
4. Use lockout equipment on energy isolating devices.
5. After ensuring that no personnel are in danger, check to see if the lockout program is working. Operate the start switch to "on" to make sure the machine is not running and isolated from the energy source.
6. Return the switch to "off" after the test. The machine is now locked out.

Returning the equipment to normal operating procedure

1. After maintenance is complete, guards shall be replaced, tools removed from the equipment, and the area shall be cleared from personnel.
2. Remove lockout devices and restore energy to the machine.

Procedure involving more than one person

In the preceding steps, if more than one person is required to lockout/tagout the equipment to be worked on, the individuals will place their own lock/tag on the energy-isolating device. As each individual completes their work they can remove their lock/tag. If the device does not allow more than one lockout device, then the individuals will communicate with each other and will not remove the lockout/tagout device until they have checked with each other.

Summary

Failure to follow all lockout/tagout procedures is punishable up to and including termination. All equipment shall be locked or tagged out before starting any maintenance to protect personnel from an injury due to inadvertent or unexpected stat-up of machinery. Do not attempt to operate any tagged or locked energy-isolating devices.

Fire Prevention and Protection

Double Z Construction is committed to preventing and minimizing injuries and damages caused by fires. The following information, compiled by the State of Ohio, Bureau of Workers' Compensation, and Division of Safety & Hygiene shall be discussed with all employees before beginning work, and will be reviewed periodically with safety meetings. In addition, all employees shall be instructed on site-specific fire prevention plans including the location of the alarm, placement of fire extinguishers and evacuation plans.

Safe working rules for fire prevention

- Fuel, heat and oxygen – together these three elements will start a fire. On a jobsite, the elements are there although the amount and locations change constantly.
- Piles of wood scraps, cardboard, straw, paper, and other trash are fuel sources that accumulate daily.
- Heat sources are also present. Cutting and welding torches, carelessly discarded matches, cigarettes, tar kettles, and temporary heaters and lights are familiar objects on jobsites.
- Oxygen, the third element necessary for a fire, is present in the atmosphere.

Job specifications will contain provisions for reasonable precautions against these types of fire hazards while the job is being completed. Every worker on a construction site should be instructed:

- Where the fire extinguishers are located.
- How to operate the extinguishers.
- The classifications of fire extinguishers and the classes of fires.
- How to call the fire department.
- How to make sure that a used fire extinguisher has been recharged and whom to notify when the extinguisher has been used and needs refueling.

Fire classifications

Class A fires: consume combustible materials such as wood, cloth, and paper. These fires need the quenching/cooling effect of water, or solutions

that are mostly water, to lower the temperature of the burning material below its ignition level.

Class B fires: occur in flammable petroleum products or other flammable liquids and greases. The blanketing/smothering action of an oxygen-excluding medium is most effective in extinguishing class B fires.

Class C fires: involve electrical equipment and must be extinguished by a medium that does not conduct electricity.

Class D fires: involve combustible metals. Fire extinguishers for class D fires will state the kind of metal they should be used on.

Extinguisher locations

Fire extinguishers will be located in all foremen trucks and in field offices and tool shanties.

General rules for using most fire extinguishers

- Use the fire extinguisher in the upright position
- Start the discharge of the extinguisher eight feet from the fire. With the wind at your back, if possible.
- Attack the fire as you advance.
- Work quickly, since the discharge time to empty the contents of the extinguisher is usually about one minute.
- If you are out in the open, be prepared to retreat in case of a sudden change in wind direction.
- In enclosed areas you may be on your knees with your head no higher that the upright extinguisher you are using. The best air to breath is between knee level and the floor.
- With water-type extinguishers, direct the stream at the base of the fire and move forward.
- When using dry chemical extinguishers, attack the nearest edge of the fire and walk forward, moving the nozzle rapidly with a side-to-side sweeping motion. Direct the initial discharge from a distance no closer than eight feet from the fire.
- When fighting flammable liquid fires with carbon-dioxide (CO2) extinguishers, use the CO2 from the extinguisher discharge horn to

sweep the flames off the burning surface. Start at the near edge of the fire and gradually move forward, waving the discharge cone slowly from side to side. Be careful when using this type of extinguisher in an enclosed area, because carbon dioxide may produce an oxygen deficit in the area.

- When two or more persons are using fire extinguishers on a flammable-liquid fire, they must act as a team, working from the same side of the fire and making sure the fire does not reignite between them.

Cutting and welding

Because sparks from cutting and welding cause more construction fires than any other source, all cutting and welding will be carefully supervised, and adequate precautions will be taken. After a cutting or welding operation is finished, the area will be inspected. Combustibles that might be exposed to sparks will be removed, or be covered with a fire proof material. Cutting and welding will be prohibited at locations where explosives and vapors are present or where combustibles remain, regardless of other precautions.

Flammable liquids

During construction, care will be taken in handling and storing paints, thinners, diesel fuel and gasoline. Approved safety cans will be used for handling gasoline and other low-flash-point liquids. Gasoline and diesel storage tanks will be identified and "No Smoking" signs will be posted in fueling areas. Dispensing units will be protected from collision damage, and flammable liquids will be kept in closed containers when not in use. Flammable liquid spills will be cleaned up immediately. All equipment motors will be shut off during refueling.

Rubbish disposal

Fires can easily start in piles of trash and debris, but the chances of fire decrease as the amount of easily ignited fuel exposed to an ignition source is decreased. Paper wrappings, scrap lumber and other combustible rubbish will be disposed of regularly, promptly, and safely. Oily waste, paint rags, and other materials subject to spontaneous ignition will be disposed of properly. Open fires to dispose of trash and rubbish will not be permitted.

Emergency Response and First Aid

To prevent or to minimize fatalities, injuries, and damages, Double Z Construction has implemented a plan to respond to all jobsite emergencies – including fires, natural disasters and medical incidents.

Each jobsite will generally have a separate plan, geared specifically to the site. The plan will detail at least the following information:

- Designated first-aid/CPR giver (foreman)
- Other trained emergency personnel, if applicable
- Location of first aid kits or first aid materials
- A site evacuation plan, if applicable
- Rescue Operations
- Transportation plans
- Fire procedures
- Directions to nearest hospital
- Emergency contacts

On every jobsite, employees will be trained in the emergency plan, and will be instructed to remain calm if an emergency occurs. In addition, employees will be instructed to immediately notify their supervisor, call emergency services for help and provide first aid, if qualified. All emergency phone numbers, along with the type of information to convey, will be posted in a conspicuous place. First aid kits will be checked by the superintendent each week – as a part of the jobsite inspection, to ensure that all the supplies in the kit are approved and easily accessible. Sterile items will be individually sealed and stored in a weatherproof container. Superintendents will contact the Safety Officer for new first aid kits. Both the general emergency plan and the site specific plan will be reviewed periodically with employees at the weekly "tool box talks."

Substance Abuse Program

Double Z Construction Company believes that is very important to provide a safe workplace for all of its employees. Double Z is taking steps to address the problem of substance use that negatively affects every workplace, including ours. Our Company is concerned with the health and well being of all employees. Behaviors related to substance use can endanger all employees, not just users. We can't condone and won't tolerate behaviors on the part of employees that relate to substance use, such as:

- Use of illegal drugs:
- Misuse of alcohol:
- Sale, purchase, transfer, trafficking, use or possession of any illegal drugs;
- Arrival or return to work under the influence of any drug (legal or illegal) or alcohol to the extent that job performance is affected.

Management is fully committed to our Drug-Free Safety Program Policy which establishes clear guidelines for acceptable and unacceptable employee behavior for everyone in the workplace. We will not tolerate substance use in violation of this policy and intend to hold everyone reasonably responsible for supporting the Policy.

This policy describes our Company's Drug-Free Safety Program, and every employee is expected to read and understand it. The policy applies to every employee including management, and also applies to subcontractors we may use. The consequences stated in this Drug-Free Safety Policy will apply to anyone who violates the policy.

Double Z holds all employees accountable in terms of substance use but also supports getting help for employees. Employees who come forward voluntarily to identify that they have a substance problem will receive company support and assistance. However, if an employee has a substance problem and does not come forward, and the employee then tests positive for drug or alcohol use in violation of this policy, Double Z reserves the right to terminate employment for violation of this work rule. Employees whose

jobs are subject to any special law or regulation may face additional requirements in terms of substance use. Other consequences that apply to all employees who violate this Policy are spelled out within this document.

This program will go into effect within 30 days of the announcement of our Drug-Free Safety Program. Our policy covers five key parts:

- A written policy that clearly spells out their program rules and how everyone benefits
- Annual substance awareness education for all employees.
- Training for supervisors regarding their responsibilities
- Drug and alcohol testing, the most effective way to change harmful behaviors related to substance use.
- Employee assistance

Employees will have the opportunity to receive information about how substance use is a problem affecting the workplace. You will learn the signs and symptoms, dangers of use, and how and where to get help for yourselves and your families. Debbie Guzzo will be our Drug-Free Safety Coordinator so everyone knows who to go to for information or help. She will be responsible for arranging drug and alcohol testing, as needed, and will have a list of places that employees can turn to for help for themselves and/or their families; she will also arrange to get knowledgeable presenters to educate our employees about substance use.

Protections for employees

This program is designed to protect employees from behaviors of substance users. Some of the protections built into this program are:

Employee records like testing results and referrals for help will be kept confidential. Information will be on a need-to-know basis. Any violation of confidentially rights is subject to disciplinary action up to and including termination of employment.

We're committed to employees who have a substance problem getting help. Each situation will be reviewed individually. Employee assistance is available for employees and their families. A list of resources is available through our Drug Free Coordinator. We want you to come forward if you have a substance problem and not wait. If you test positive, you risk losing your job.

All supervisors will be trained in their duties related to testing before this program begins.

All employees will receive awareness education every year to help identify problems and learn where employees can go for help.

Collection of urine specimens and breath testing will be done at a local clinic, and urine drug test specimens will be analyzed by a laboratory certified by the federal government. These labs use the highest level of care in ensuring that results are accurate, and the process that's used is 100% accurate in determining that the substance that the Company is concerned about are present in the employee in sufficient quantity to lead to behaviors that may hurt the person or other employees. The lab will work closely with our local clinic to ensure fairness and accuracy of every test, and we also have a medical review officer (MRO), a trained physician responsible for checking whether there's a valid reason for the presence of the substance in the employee's system. The MRO is an expert in drugs & alcohol. When the MRO receives positive test results, the MRO will contact the employee and any appropriate health care provider to determine whether there is a valid reason for the presence of the drug in the person's system.

The testing program consists of an initial screening test. If the initial results are positive, then a second test is used. Cut-off levels for each drug and for alcohol are established for what will be considered a positive test. These levels show that the employee didn't just have a little of the substance in his or her system but enough to affect workplace safety and the ability to do the job. These cut-off levels come from federal guidelines and are fair for all employees.

Employee awareness education

Every employee will attend a session in which this policy is discussed. You will have a chance to ask questions. We'll give everyone a copy of our written policy, and everyone will be expected to sign that they received it. Later, we'll have a qualified person explain why and how substance use is a workplace problem, the effects, sign/symptoms of use, effects of commonly used drugs in the workplace, and how to get help. There will be a minimum or two hours of substance education annually for all employees. New employees will hear about the program during orientation and will receive substance education as soon as possible thereafter.

Supervisor training

Supervisors will be trained to recognize substance problems that may endanger the employee and others as well as violate this Policy. This policy is in addition to the employee education session. Supervisors will be trained about testing responsibilities, how to recognize behaviors that demonstrate an alcohol/drug problem and how to make referrals for help.

Drug and alcohol testing

Testing will be used to screen employees for a variety of employment situations, detect problems, prevent detrimental behavior, and keep projects as safe as possible. In addition to alcohol, the drugs we're testing for are:

- Amphetamines
- Cocaine (including crack cocaine)
- Marijuana
- Opiates (codeine, heroin, morphine)
- Phencyclidine (PCP, "angel dust)

Employee assistance

Double Z believes in offering assistance to employees with a substance problem. We don't have a rehabilitation program and can't afford to pay someone to attend a program, but we are supportive of employees taking action on their own behalf to address a substance problem. We have a list of local community resource to give employees who come forward voluntarily to seek help. The list is of places to go for an assessment and for treatment. When an employee has a substance problem, we'll meet with the employee to discuss the problem and any violation of this Policy. Double Z reserves the right to terminate based on a positive test.

Included below is a list of resources for employees seeking help for a substance abuse problem. These resources are available openly to all employees. In addition, Double Z Construction has a personal employee assistance counselor not associated with the company that is available for employees seeking help.

Resources:

1. Making Your Employees Drug-Free. Available through the National Clearing House for Alcohol and Drug Information

2. Under the Influence. Dr. James Ketcham

3. I'll Quit Tomorrow. Vernon Johnson

Additional resources:

1. US Drug Enforcement Agency

2. US Department of Labor

3. Bureau of Workers Comp @ www.ohiobwc.com

4. Substance Abuse and Mental Health @ www.samhsa.gov

5. National Institute on Drug Abuse @ www.nida.nih.gov

6. White House National Drug Control Policy @ www.whitehouse.gov.ondcp

The Double Z Construction employee assistance counselor can be contacted directly at the following information, or through either Michael or Debbie Guzzo. All inquiries are completely confidential.

Meri Jo Warner S.A.P
Meri Jo Warner Treatment
614-268-5331

Michael Guzzo
Safety Double Z Construction
614-274-2700 ex 407

Debbie Guzzo
Office Manager & EEO Double Z Construction
614-274-2700 ex 401

When will a test occur?

Employees will be tested for the presence of drugs in the urine and/or alcohol on the breath under any and/or all of the conditions outlined below:

Post-offer, pre-employment drug testing

As part of the Company's employment procedures, all Applicants will be required to undergo a post-offer, pre-employment drug screen/test that is conducted by a contractor designated by the Company. Any offer of employment depends upon satisfactory completion of this screen.

Reasonable suspicion testing

Reasonable suspicion testing will occur when management has reason to suspect that an employee may be in violation of this Policy. The suspicion will be documented in writing prior to the release of the test findings. A reasonable suspicion test may occur based on:

- Observed behavior, such as direct observation of drug/alcohol use or possession and/or physical symptoms of drug and/or alcohol use:
- A pattern of abnormal conduct or erratic behavior:
- Arrest or conviction for a drug-related offence, or identification of an employee as the focus of a criminal investigation into illegal drug possession, use, or trafficking. The employee is responsible for notification of the Company, within five (5) working days, of any drug related conviction:
- Information provided either by reliable and credible sources or independently corroborated regarding an employee's substance use: or
- Newly discovered evidence that the employee has tampered with a previous drug or alcohol test.

Reasonable suspicion testing does not require certainty, but mere "hunches" are not sufficient to justify testing. To prevent this, all manager/supervisors will be trained to recognize drug and alcohol signs & symptoms. Testing may be for drugs or alcohol or both.

Post accident testing

Post-Accident testing will be conducted whenever an accident occurs, regardless of whether there's an injury. We consider an accident an unplanned, unexpected or unintended event that occurs on our property, during the conduct of our business, or during hours, or which involves one or more of our motor vehicles or motor vehicles that are used in conducting company business, or is within the scope of employment, and which results in any of the following:

- A fatality of anyone involved in the accident

- Bodily injury to the employee and/or another person that requires off site medical attention away from the Company's place of employment

- Vehicular damage in apparent excess of $500.00

- Non-Vehicular damage in the amount of $500.00

When such an accident occurs in one of the situations below, an employee who may have contributed to the accident will be tested for drugs or alcohol or both.

Drug and/or alcohol testing after an accident

Urine specimen collection (for drugs) or breath/saliva (for alcohol) is to occur as quickly as possible after a need to test has been determined. At no time will a urine specimen be collected after 32 hours from the time of an employment related incident. Breath or saliva alcohol testing will be performed as quickly as possible but no later than eight hours after the incident, or it will be documented but not preformed. If the employee responsible for an employment-related accident is injured, it is a condition of employment that the employee grants the company the right to request that attending medical personnel obtain appropriate specimens (breath, urine and/or blood) for the purpose of conducting alcohol and/or drug testing. Further, all employees grant the Company access to any and all other medical information that may be relevant in conducting a complete and thorough investigation of the work-related accident including a full medical report from the examining physician(s) or other health care providers. A signed consent to testing form is considered a condition of employment. Management reserves the right to determine who may have caused or contributed to a work-related accident and may choose not to test after minor accidents if there is no violation of a safety or work rule, minor damage and/or injuries and no reasonable suspicion.

Follow up testing after return-to-duty form assessment or treatment

This test occurs when an employee who has previously tested positive and the decision is made to not terminate the employee under a “last-chance” agreement. A negative return-to-duty test is required before the employee will be allowed to return to work. If the employee fails this test, this will lead to termination of employment. Once an employee passes the drug and/or alcohol test and returns to work, management may choose to do additional unannounced tests for as long as we deem necessary. Any employee with a second positive test result will be terminated. Follow-up tests will be unannounced and may occur at any time for a time period that management considers reasonable. The intent is to deter any substance

usage that would result in a violation of our Policy and result in termination of employment.

Random testing

Random testing of all employees will be on a yearly basis. All employees will be entered into a pool where a third party administrator will draw a specified number of names to be tested.

Substances to be tested for and methods of testing

The procedure that we're relying on is called systems presence testing. This is how qualified testing professionals identify the presence of one or more of prohibited controlled substances or alcohol that may be present in the employee. There is an initial screening test. If it's negative, then a negative test is declared. If the initial test is positive (comes in at or higher than the cut-off level), a second test called a "confirmatory" test is done. This is a different test and is considered 100% accurate by experts and in court. Cut-off levels are standards that have been established for each of the tested drugs after years of research. These levels will be used to interpret all drug screens/tests, whether for a pre-employment examination, reasonable suspicion test, post-accident test or follow up test.

Breath alcohol testing will be conducted by a medical clinic that uses only certified equipment and personnel. Breath alcohol concentrations exceeding .04 will be considered a verified positive result. In the event of an accident where an employee has "whole blood" alcohol draw at a medical treatment facility, a result equal to or greater than .04 shall be considered to be a verified positive result. An Evidentiary Breath Test (EBT) will typically be used to confirm any initial positive test result. The company also reserves the right to add or delete substances on the list above, especially if mandated by changes in existing Federal, State or local regulations or laws.

An employee who adulterates, attempts to adulterate or substitutes a specimen or otherwise manipulates the testing process will be terminated. A refusal to produce/provide a specimen is considered a positive test unless there's a verifiable medical reason that the specimen could not be produced.

Specimen collection procedure

Trained collection personnel who meet standards for urine collection and breathe alcohol testing will conduct urine specimens and breathe testing. Confidentiality is required from our collection sites and labs. Employees are permitted to provide urine specimens in private, but subject to strict scrutiny by collection personnel so as to avoid any alteration or substitution of the specimen. Breath alcohol testing will likewise be done in an area that affords the individual privacy. In all cases, there will only be one individual tested at a time. Failure to appear for testing when scheduled shall be considered refusal to participate in testing, and will subject an employee to the range of disciplinary actions, including dismissal, and an applicant to the cancellation of an offer of employment. An observed voiding will only occur if there is grounds for suspecting manipulation of the testing process.

Review of test results

To ensure that every employee who is tested is treated fairly, we have hired a Medical Review Officer ("MRO"). The MRO is a doctor with a specialized knowledge of substance abuse disorders and will be able to determine whether there are any valid reasons for the presences in the employee's system of the substance that was tested positive.

Employee's rights when there is a positive test

An employee who tests positive under this Policy will be given an opportunity to explain the findings to the MRO prior to the issuance of a positive tests result to the Company. Upon receipt of a confirmed positive finding, the MRO will attempt to contact the employee by telephone or in person. If contact is made by the MRO, the employee will be informed of the positive finding and given an opportunity to rebut or explain the findings. The MRO can request information on recent medical history and on medications taken within the last thirty days by the employee.

If the MRO finds support in the explanation offered by the employee, the employee may be asked to provide documentary evidence to support the employee's position (for example, the names of treating physicians, pharmacies where pharmacies where prescriptions have been filled, etc.). A failure in the part of the employee to provide such documentary evidence will result in the issuance of a positive report by the MRO with no attendant

medical explanation. A medical disqualification of the employee will result. If the employee fails to contact the MRO as instructed, the MRO will issue a positive report to the company.

Reporting of results

All test results will be reported to the MRO prior to the results being issued to the company. The MRO will receive a detailed report of the findings of the analysis from the testing laboratory. Each substance tested for will be listed along with the results of the testing. The company will receive a summary report, and this report will indicate that the employee passed or failed the test. All of these procedures are intended to be consistent with the most current guidelines for Medical Review Officers, published by the federal Department of Health and Human Services.

Storage of test results and right to review test results

All records of drug/alcohol testing will be stored separately and apart from the employee's general personal documents. These records shall be maintained under lock and key at all times. Access is limited to designated company officials. The information contained in these files shall be utilized only to properly administer this Policy and to provide to certifying agencies for review as required by law. Designated company officials that shall have access to these records are charged with the responsibility of maintaining the confidentiality of these records. Any breach of confidentiality with regard to these records may be an offense resulting in termination of employment. Any employees testing under this Policy have the right to review and/or receive a copy of their own test results. An employee may request from the Drug-Free Coordinator, in writing, presenting a duly notarized Employee Request for Release of Drug Tests Results form, requesting that a copy of the test be provided. The company will use its best efforts to promptly comply with this request and will issue to the employee a copy of the results personally or by U.S. Certified Mail, Return Receipt Requested.

Positive test results

Employee's who are found to have confirmed positive drug or alcohol test will be immediately taken off safety-sensitive duties and are subject to discipline up to and including termination.

Termination notices

In those cases where substance testing results in the termination of employment, all termination notices will list "misconduct" as the reason. Termination shall be deemed "for cause."

Year End Safety Report

At the end of each year, the Double Z Construction Safety Officer will put together a year end safety report. This report studies the past year to identify areas in which the safety program is not only successful but also deficient. Each year is kept in a unique three ring binder. The safety report contains statistics, facts, violations, reports, inspections, recommendations, and more.

Program Evaluation

The Double Z Construction Safety Officer along with management will evaluate and update the Double Z Safety policy as needed. Updates will be completed for changes in government standards, policies, and for clarity. All employees will be made aware of changes to the safety policies as they are updated.

Safety Booklet

Each spring, as the busy season for construction begins, employees will be given a Double Z safety booklet upon returning to work. The safety booklet is a condensed version of Double Z safety rules and policies. This booklet helps refresh and reinforce company policies to new and returning employees. The Double Z Safety Officer will keep track of the employees who receive the safety booklet. All new hires throughout the year will also be given the booklet as part of the hiring process.

Double Z Forms and Templates

The following pages contain the various forms and templates Double Z Construction uses for documentation. The following list includes:

- Jobsite inspections
- Safety violation template
- Accident and utility incidents
- Near miss report
- Confined space entry permit
- Harness and lanyard inspections
- Wire cable and woven strap inspections
- Bulletin board inspection
- Double Z safety meeting and training log
- Observed behavior/reasonable suspicion form

Application for Credit

Double Z Construction Company
2550 Harrison Road
Columbus, OH 43204

Phone: (614) 274-2700
Fax: (614) 274-2702

2550 harrison rd. columbus oh 43204
(614) 274-2700
(614) 274-2702 -fax

Federal ID: 31-1788042

S. Corporation

Partners/Officers:

David B. Guzzo President
Vincent M. Guzzo Vice President

Bank Reference:

PNC Bank
155 East Broad Street
Columbus, OH 43215
Account #: 4210025511

Thomas Mack

Phone: (614)463-7379
Fax: (614)463-7300

Trade Reference:

Paul Peterson Company	Aaron Peterson	Phone: (614)486-4375 Fax: (614)486-5517
State Highway Supply	Mike Lowe	Phone: (614)799-9811 Fax: (614)799-9794
Machinery & Tool	Mark Gable	Phone: (614)228-6725 Fax: (614)228-5474

Signature:

dbl z construction

equal opportunity employer
m/f/vets/disabled

BIDDER'S AFFIDAVIT: FOREIGN CORPORATION*

The undersign certifies that N/A is a foreign corporation incorporated in the State of N/A, whose principal place of business is and is required to obtain authorization to transact business in the State of Ohio.

The undersigned bidder further certifies that said authorization has been obtained and is in effect and the bidder has a designated statutory agent upon whom process against bidder corporation may be served within the State of Ohio. The designated

statutory agent is N/A
(name and address)

Process served upon the designated statutory agent named above shall be effective service, unless the Owner has been informed, by certified mail or its equivalent (return receipt), of a change in the agent upon whom process can be served.

N/A
Date

N/A
Signed

N/A
Title

Note: This statement is to be reproduced on the bidder's letterhead, signed by the authorized bid signatory, notarized and submitted with the bid.

*Any corporation that is not incorporated in the State of Ohio is a foreign corporation.

N/A

FORM OF PROPOSAL
CITY OF BEXLEY
SCHNEIDER PARK PEDESTRIAN BRIDGE

*** * * * * PLEASE INITIAL AND ACKNOWLEDGE RECEIPT OF ADDENDA* * * ***

Addendum No.	Initial:	Addendum No.:	Initial:
1	DG	2	DG
3	DG		

The undersigned further agrees to commence work within ten (10) days from the date of Notice to Proceed from the Owner that such work can be started, and to proceed with all possible energy and dispatch in giving preference to such portions of the work as the Owner may require, in order to comply with all of the terms of the Contract within agreed time frame. Failure to complete this work within the agreed time frame, including any interim completion dates, shall require the contractor to forfeit and pay liquidated damages to the Owner in the amount of $500.00 per day for each and every day beyond the stipulated time.

(Signature in writing of the bidder or bidders or authorized officer or agent with business address.)

Double Z Construction Company
Company

Authorized Signature 10-13-25 Date

Witness

Date 10-13-25

Name Dave Guzzo

Title President

Address 2550 Harrison Rd

Columbus, Ohio 43204

Email daveguzzo@doublez.co

phone 614-274-2700 ext 410

CITY OF BEXLEY SCHNEIDER PARK PEDESTRIAN BRIDGE

INSTRUCTIONS: Please complete the BID SCHEDULE legibly using ink pen. The BIDDER shall complete the UNIT COST and TOTAL COST prices for all items in the BID SCHEDULE. For UNIT PRICE ITEMS the TOTAL shall be equal to the QUANTITY multiplied by the UNIT COST. The amount bid for each item shall be based on the completely installed cost of each item including ancillary fittings, testing, inspection, surface restoration, materials or labor as per plan and as required to provide complete installations or operating systems as appropriate.

	Description	Quantity	Unit	Unit Cost	Total	
	BID					
1	Clearing and Grubbing, As Per Plan	LS		15,000.00	15,000.00	
2	Excavation	52	CY	100.00	5,200.00	
3	Embankment	66	CY	50.00	3,300.00	
4	Subgrade Compaction	213	SY	16.00	3,834.00	
5	Aggregate Base	36	CY	195.00	7,020.00	
6	Tack Coat	10	GAL	7.50	75.00	
7	Asphalt Concrete Surface Course, Type 1 (448), PG64-22	7	CY	500.00	3,500.00	V.L.
8	Asphalt Concrete Intermediate Ciurse, Type 1 (448)	10	CY	400.00	4,000.00	
9	Cofferdamns and Excavation Bracing	LS		63,400.00	63,400.00	
10	Unclassified Excavation	119	CY	150.00	17,850.00	
11	Steel Sheet Piling Left in Place	834	SF	65.00	54,210.00	V.L.
12	Steel Sheet Piling Left in Place (MIN Section of Modulus of 7 in 3/FT of Wall)	147	SF	30.00	4,410.00	
13	Pile Driving Equipment Mobilization	LS		20,000.00	20,000.00	
14	Steel Piles HP10X42, Driven	800	FT	22.00	17,600.00	
15	Steel Piles HP10X42, Furnished	880	FT	38.00	33,440.00	
16	Epoxy Coated Steel Reinforcement	8,388	LB	3.50	29,358.00	
17	Class QC1 Concrete With QC/QA, Abutment Not Including Footing	56	CY	1,300.00	72,800.00	
18	Class QC1 Concrete with QC/QA, Footing	26	CY	850.00	22,100.00	
19	Sealing of Concrete Surfaces (Epoxy-Urethane)	76	SY	60.00	4,560.00	
20	Porous Backfill With Geotextile Fabric	308	CY	100.00	30,800.00	
21	6" Perforated Corrugated Plastic Pipe	46	FT	16.00	736.00	
22	6" Non-Perforated Corrugated Plastic Pipe, Including Specials	54	FT	20.00	1,080.00	
23	Rock Channel Protection, Type B with Filter	57	CY	160.00	9,120.00	
24	Fence, Misc.	120	FT	79.50	9,540.00	

BID (Continued)

25	Perimeter Filter Fabric Fence, Wattles	500	FT	6.00	3,000.00
26	Maintaining Traffic	LS		30,000.00	30,000.00
27	Tree Protection during Construction	LS		1,500.00	1,500.00
28	Seeding and Mulching	262	SY	35.00	9,170.00
29	Commercial Fertilizer	0.10	TON	800.00	80.00
30	Water	2	MGAL	75.00	150.00
31	Slope Erosion Protection Mat, Type G, As Per Plan	17	SY	3.80	64.60
32	Roadway, Misc,: Construction Access, As Per Plan	LS		150,000.00	150,000.00
33	Mobilization	LS		50,000.00	50,000.00
34	Construction Layout Stakes And Surveying	LS		18,000.00	18,000.00
35	Structures, Misc,: 175'-9" Pre-Engineered Truss Pedestrian Bridge, As Per Plan (BASE BID)	LS		625,000.00	625,000.00
36	Structures, Misc,: Black Locust Wood Decking, As Per Plan (Alternative Bid #1)	1,760	SF	200.00	352,000.00

TOTAL (BASE BID): 1,319,897.60

ALTERNATIVE #1 352,000.00

Bid Total In Writing:

One-million, Three-hundred and nineteen thousand, Eight-hundred and ninety-seven dollars and sixty cents

DETERMINATION OF INCLUSION OF ALTERNATE BID ITEMS WILL BE MADE BY THE OWNER, ACTING UPON THE ENGINEER'S RECOMMENDATIONS, FOR THE BEST INTEREST OF THE PROJECT, COMMENSURATE WITH AVAILABLE FUNDS. BIDDERS SHALL BID ON ALL ITEMS. FAILURE TO DO SO WILL BE CAUSE FOR REJECTION OF THE BID AS BEING NON-RESPONSIVE AND NON-CONFORMING TO THE REQUEST FOR PROPOSAL (RFP). THE LOW BIDDER SHALL BE BASED ON WHAT BIDDER IS THE LOW BIDDER ON THE BASE BID AND THE COMBINATION OF ALTERNATES OR ADDITIVES THAT THE OWNER CHOOSES TO EXERCISE. DOING SO ENSURES THAT THE OWNER RECEIVES THE LOWEST PRICE FOR THE WORK PERFORMED AND IS CONSISTENT WITH MOST LAWS THAT REQUIRE AWARD TO THE LOW BIDDER.