5840 Sterling Drive, Suite 420 Howell, MI 48843 P 517-586-4033 F 517-586-4034

A. Qualifications, Experience and Accountability - 20 Points

1. Qualifications and experience of the bidder and of key persons, management, and supervisory personnel to be assigned by the bidder. See Attached Key Persons: Andy Reames – General Superintendent, Scott Rogers – Project Manager, Jeff Sangster or Nate Bruce - Foreman

2. References from individuals or entities the bidder has worked for within the last five (5) years including information regarding records of performance and job site cooperation. See Attached

3. Evidence of any quality control program used by the bidder and the results of any such program on the bidder's previous projects. D&R utilizes state of the art, GPS Equipment and a GPS Rover to assure proposed grades are met and accurate quantities for payment. Our Foremen are fluent with the GPS equipment, allowing them to report quantities and make any necessary field adjustments, on the spot, without delay. This ability saves 3rd CQA costs and allows the project to be completed more efficiently.

4. A statement from the bidder as to any major subcontractors it expects to engage including the name, work, and amount.

   Subcontractor(s)
   National Environmental Reclamation Concepts, Inc.
   143 W Main St.
   Hanover, MI 49241
   Seeding & Erosion Control $40,100.00

5840 Sterling Drive, Suite 420 Howell, MI 48843 P 517-586-4033 F 517-586-4034

D&R Earthmoving, LLC - Staff Experience Highlights (Landfill)

Project	Location	Description	Year	Est. Value
Muskegon County Landfill	Ravenna, MI	14.2 AC Cell Construction, Erosion Control, Clearing, Stripping, Import Structural Fill, Geosynthetics, LCS Pipe & Drainage Material, Lift Station, Electrical, Haul Road Construction, RCP Culverts & Seeding	2022	$8.5 million
Oakland Heights Landfill	Auburn Hills, MI	12 AC Final Cover, Stripping, Waste Excavation, Interim Cover, Structural Fill, Clay Liner, LFG Modifications/Raising/Tie-in, Stormwater Berms & Letdowns, Geosynthetic Support, Concrete Lined Ditch, Flex-a-Mat Downchute Channels, Seeding	2022	$1.4 million
Tri-City Landfill Cell 12 West Construction	Carsonville, MI	3.7 AC Cell Construction,Tack-on Berms, Mass-Ex, Structural Fill, Over-excavation, Geosynthetic Prep & Support, Sand Drainage Layer, LCS And LFG Collector Pipes, HAP Stone Pads, Letdowns, and HDPE Manhole	2022	$800,000
Various Landfill Gas Well & Pipe Work	Michigan	LF Gas Migration Repairs, Leachate & FM Repairs, Leachate Collection, and Site Grading	2022	$100,000
Ottawa County Farms Landfill – Well Pad	Coopersville, MI	Construction of 300' x 300' Deep Well Injection Pad - Erosion Control, Strip Topsoil, Place Compacted Fill, Geotextile and Aggregates	2021	$200,000
Venice Park Landfill - Cell 8 Construction	Lennon, MI	5.8 AC Cell Construction,Tack-on Berms, Mass-Ex, Structural Fill, Over-excavation & Replace with NSB, Stormwater Basin, Geosynthetic Prep & Support, Peastone Drainage Layer, LCS And HAP Belly Collector Pipes, HAP Stone Pads, Letdowns.	2021	$800,000
Northern Oaks Landfill - New Flare Installation	Harrison, MI	Remove old Flare and replace with new, design-build flare piping and connections to gas system, asphalt paving, heat tracing, SS Compressed Air Piping	2021	$100,000
Northern Oaks Landfill - Gas System Improvements	Harrison, MI	New Gas Wells, Header, Laterals, Horizontal Collectors and Grading	2021	$175,000
Various Landfill Gas Well & Pipe Work	Michigan	LF Gas Migration Repairs, Leachate & FM Repairs, Leachate Collection, and Site Grading	2021	$250,000
Sauk Trail Hills Landfill - Cell F South	Canton, MI	7.3 AC Cell Construction, Structural Fill, Silt/Muck/Waste Excavation, Subgrape Preparation, Stormwater Berms, Clay Liner, LCS Drainage Layer, Pipe, FM & Manhole, Perimeter Ditching, Road Stone, Geosynthitic Support, Gas Collection Piping	2021	$1.0 million
Woodland Meadows Wetland Construction	New Boston, MI	Wetland Bank Construction - 85 Acre Grading, Berms & Outlet Structures	2021	$700,000
Ottawa County Farms Landfill – Phase 10	Coopersville, MI	Cell Construction, Structural Fill, Clay Liner, LCS Drainage Layer & Pipe, Perimeter Road	2020	$3.5 million
Pine Tree Acres Landfill – Cells 29 & 30	Lenox, MI	37 AC Cell Construction, Structural Fill, Clay Liner, LSC Drainage Layer & Pipe, Manholes, 24” Perimeter Gas Header, FM & Sumps, Stormwater Ponds/Basins, Access Roads, Berms	2020	$4.5 million
Brent Run Landfill - Cell 11 Wedge	Montrose, MI	Structural Fill, Clay Liner, Subgrade Prep, LCS Drainage Layer & Pipe Modifications	2020	$225,000
Citizens Landfill - Cell B East	Grand Blanc, MI	3.4 AC Cell Construction, Wetland Dewatering & Excavation, Structural Fill, Clay Liner, Subgrade Preparation, LCS Drainage Layer & Pipe, Berm, Access Ramp, Seed & Mulch	2020	$1.5 million

Vienna Junction Landfill – Area 7 Phase 2	Toledo, OH	8 Acre Cell Construction, Waste Relocation, Grading Layer, Structural Fill, Subgrade Prep, LCS Drainage Layer & Pipe	2020	$1.6 million
Wood Road Landfill - Renewable Natural Gas Project	Lansing, MI	Site Grading, Underground Utilities (Sewer & Water), LFG and Condensate Piping to Plant, Access Roads, Site Restoration	2020	$900,000
Arbor Hills LF – GCCS Construction	Northville, MI	HDPE Header, Lateral, FM & Air, Well abandonment, Well Conversion to Pneumatic or Caisson	2020	$275,000
Pine Tree Acres Landfill - East Berm Gas System	Lenox, MI	Installations of LFG Perimeter Header, FM, Air, Electric & Communicatrions Pipe, Connections to Manholes & Sumps,	2020	$225,000
C&C Landfill Phase VI-A1 and Final Cover	Marshall, MI	10 AC Cell Construction, Stripping, Structural Fill, LCS Drainage Layer & Pipe, FM & Manhole, Access Road, Leachate Tank Pipe, Pump & Pad. 5 AC Final Cover, Clay Liner, Protective Cover, Vegitative Cover, Berms, Letdowns, Raising Gas Components, Seed & Mulch	2019	$4.0 million
Woodland Meadows Landfill - LFG Management Extension	Wayne, MI	LFG Wells w/ Pumps, HDPE Header, Laterals,	2019	$700,000
JR Whiting Ash Pond 1, 2 & Chemical Treatment Pond Closure	Erie, MI	Pond Dewatering & Treatment, Clearing, Veg Stripping, Bridging Layer,Off-Site Disposal, Import Fill Placement, Final Grading, Geosynthetics, Above Cap Collection Pipe, Import Protective Cover & Topsoil, Shoreline Protection, Perimeter Road, Building Demo	2019	$6 million
Pine Tree Acres Landfill – Cells 26 & 27	Lenox, MI	24 AC Cell Construction, Structural Fill, Clay Liner, LSC Drainage Layer & Pipe, Manholes, 24” Perimeter Gas Header, FM & Sumps, Stormwater Ponds/Basins, Access Roads, Berms	2019	$3.7 million
Clinton County Landfill - 2019 Final Cover	Frankfort, IN	25.6 AC Final Cover, Stripping, Waste Excavation, Interim Cover, Structural Fill, Clay Liner, LFG Modifications/Raising/Tie-in, Stormwater Berms & Letdowns, Geosynthetic Support, Ponds, Perimeter Road, Wheelwash, Scale & Wheelwash Removal, Restoration	2019-2020	$3.9 million
Pine Tree AcresLandfill Landfill – Slope Recovery	Lenox, MI	Slope Recovery - Stripping, Grading, Interim Cover, Diversion Berms, Raising Gas Components, Restoration	2019	$900,000
Eagle Valley Landfill - Phase 3 Overliner	Orion, MI	3.2 AC Overliner Construction,Stripping, Waste Grading, Gas System Modifications, Interim Cover, LCS Drainage Layer	2019	$350,000
Eagle Valley Landfill - Cell 15	Orion, MI	8 AC Cell Construction, Structural Fill, Clay Liner, LSC Drainage Layer, Sump, Pump, Risers, FM, Manhole, Access Roads, Berms	2018-2019	$1.75 million
Sunny Farms Landfill - 2019 Gas Construction & Misc.	Fostoria, OH	HDPE Header, Lateral, FM, Caisson Well Installation, Raising Caisson Wells	2019	$400,000
Vienna Junction Landfill – Area 7 Phase 1	Toledo, OH	5,5 Acre Cell Construction, Waste Relocation, Grading Layer, Structural Fill, Subgrade Prep, LCS Drainage Layer & Pipe	2019	$1.6 million
Pine Tree AcresLandfill – Cells 30 Excavation	Lenox, MI	Mass Excavation of Cell 30, 25+ AC, Stormwater Management, Dewatering, Topsoil Stripping	2019	$1.0 million
Sunny Farms Landfill - Phase 13	Fostoria, OH	24.6 AC Cell Construction, Establish Borrow Area, Structural Fill, Clay Liner, Perimeter Berm & Access Road, Site Restoration	2019	$2.0 million
Woodland Meadows Landfill - HAP Drains	Wayne, MI	LFG Wells w/ Pumps, HDPE Headers, Laterals, Horizontal Collectors, Burried Gas Wells, HAP Connections & Drain Tube Panel Installation, Haul Road Repairs & Restoration	2018	$250,000
Woodland Meadows Landfill - Phase 2 HAP Drains	Wayne, MI	LFG Wells w/ Pumps, HDPE Headers, Laterals, Horizontal Collectors, Burried Gas Wells, HAP Connections & Drain Tube Panel Installation, Haul Road Repairs & Restoration	2018	$700,000
Pine Tree Acres Landfill – Cells 24, 25 & Overfill Liner	Lenox, MI	24 AC Cell Construction, Clearing, Stripping, Electrical Transformer Pads & Conduit, Waste Excavation, Decomission Manholes, Structural Fill, Clay Liner, LSC Drainage Layer & Pipe, Manholes, Perimeter Gas Header, FM, Air, Elect., Comm. & Sumps, Overfill Liner Vaults, Pipe, LSC, Aggregate Columns	2018	$3.7 million
Pine Tree Acres Landfill – Lowe Plank Road Wetlands	Lenox, MI	Construction of 2 Separate Wetland Areas, 10 AC and 30AC, Veg & Tree Clearing,Strip Topsoil, Excavation to Stockpile, Swales & Berms, Water Control Structures, Woody plantings, Habitat Structures, Wetland Seeding, Erosion Control, Signage, Access Roads, Gates & Know Boxes	2018	$1.0 million
Brent Run Landfill Cell 11C	Montrose, MI	4.4 Acre Cell Construction, 12.5' thick Clay Berm, Structural Fill Berm, Buttress Placement, Geosynthetic Support, Subgrade Prep, LCS Drainage Layer & Pipe, Risers, Elect, Access Road	2018	$1.3 million
Brent Run Landfill Cell 11B & 12A	Montrose, MI	12.9 Acre Cell Construction, Structural Fill, Clay Liner, Subgrade Prep, LCS Drainage Layer & Pipe	2018	$1.5 million

Ottawa County Farms Landfill – Leachate Sump Removal	Coopersville, MI	2 Sump Removals with Engineered Waste Excavation, Soil Excavation, Modification of LCS Components, LF Gas Management, Structural Fill, Subgrade Prep	2017	$3.5 million
Eagle Valley Landfill - Cell 1 Sump Removal	Orion, MI	50' Deep Engineered Waste Excavation, Slope Movement Monitoring, Plan for Venting LF Gas, Connection of Leachate Lines in to new Sump, Installation of 1,030 LF Lateral Sump Riser, Geosynthetics, LCS Drainage Layer	2017	$600,000
Ameresco-Woodland Meadows Pipeline	Wayne, MI	Gas to Energy Plant (Civil Pkg) – Excavation & grading, Foundations & Slabs for 60+ pieces of equipment, Plant Utilities, Bldg. Demo & Connections to Landfill	2017	$2.2 million
Ameresco-Woodland Meadows Pipeline	Wayne, MI	Gas to Energy Plant – Over 1 mile of 18” HDPE & 4” High Pressure Gas pipe, Condensate Sumps & Bio-Retention Pond	2016	$1.8 million
Apex Landfill	Amsterdam, OH	15+ AC Cell Construction, Shale/Clay Processing, LCS Drainage Layer, LCS Pipe	2016	$2.2 million
Central Sanitary Landfill Phase IX-B & Intermediate Cover	Pierson, MI	2.5 AC Cell Construction, Stripping, Structural Fill, LCS Drainage Layer & Pipe, FM & Manhole, Access Road, Leachate Tank Pipe, Pump & Pad. 10 AC Final Cover,Protective Cover, Vegitative Cover, Berms, Letdowns, Raising Gas Components, Seed & Mulch	2016	$1.7 million
Clinton County Landfill - Area 2 Cell & Phase 1 Final Cover	Frankfort, IN	Cell Construction & Final Cover, Stripping, Waste Excavation, Interim Cover, Structural Fill, Clay Liner, LFG Modifications/Raising/Tie-in, Stormwater Berms & Letdowns, Geosynthetic Support, Roads,Site Restoration	2013	$1.6 million
Adrian Landfill - Drainage & Site Closure	Adrian, MI	Grading for Positive Drainage & Stormwater Collection, Installation of Concrete Stormwater Manhole w/ Pump, Geosynthetics	2013	$325,000
Waupaca Foundry Landfill - Phase 4B Final Cover	Tell City, IN	2 AC Final Cover Closure, Stripping, Grading, Clay Liner, Subgrade Prep, LCS Pipe	2013	$150,000
Clinton County Landfill - Area 2 Cell Construction	Frankfort, IN	Cell Construction, Stripping, Structural Fill, LCS Drainage Layer & Pipe, FM & Manhole, Access Road, Berms, Letdowns, Seed & Mulch	2012	$1.7 million
Liberty Landfill - Cell 7	Monticello, IN	Cell Construction, Structural Fill, Clay Liner, Subgrade Prep, LCS Drainage Layer & Pipe	2012	$1.1 million
Apex Landfill - Phase 5B	Amsterdam, OH	9AC Cell Construction, Stripping, Clay Liner Placement after Screening, Subgrade Prep, LCS Drainage Layer, Pipe Riser, Manholes, Site Restoration	2011	$1.8 million
Brent Run Landfill - Cell 10NE	Montrose, MI	Cell Construction, Structural Fill, Clay Liner, Subgrade Prep, LCS Drainage Layer & Pipe, Sump, Riser, Site Restoration	2011	$1.4 million
Green Valley Landfill - Unit 2, Phase 3	Ashland, KY	12 AC Cell Construction, Stripping, Crushed Shale Liner, Structural Fill, Subgrade Prep, LCS Drainage Later, Pipe, Sump, Riser, Site Restoration	2010	$1.1 million
Apex Landfill - Cell 4A Liner	Amsterdam, OH	Cell Construction, Stripping, Clay Liner Placement after Screening, Subgrade Prep, LCS Drainage Layer, Pipe Riser, Manholes, Site Restoration	2008	$1.8 million
Noble Road Landfill - Cell 4B	Shiloh, OH	8AC Cell Construction, Stripping, Structural Fill, Clay Liner, Transitional Cover, Stormwater Berms, Access Roads, LCS Drainage Layer, Pipe, Risers, Manhole, Site Restoration	2007	$1.3 million
Sunny Farms Landfill - Cells 4B, 5A and Phase 3 Cover	Fostoria, OH	21 AC Cell Construction & 3AC Final Cover, Stripping, Waste Excavation/Grading, Interim Cover, Structural Fill, Clay Liner, LFG Modifications/Raising/Tie-in, Stormwater Berms & Letdowns, Geosynthetic Support, Roads,Site Restoration	2006	$3.3 million
County Environmental - Cell S4 North	Carey, OH	10 AC Cell Construction, Stripping, Structural Fill, LCS Drainage Layer & Pipe, FM & Manhole, Access Road, Site Restoration	2006	$1.4 million
		This is a sample of our Staff experience. More experience can be provided upon request.		

Andy Reames

General Superintendent – D&R Earthmoving, LLC.

For the past nineteen years, Andy has been the Project Foreman/Superintendent working in the following sectors: Landfill (Ash & MSW), Power, Commercial and Industrial. Andy's responsibilities include bid preparation, material & subcontractor sourcing, personnel & equipment resources, project oversight, attending progress/construction meetings, marketing, customer relations. Prior to that, Andy was an operator at Westside Landfill, Three Rivers MI.

Andy has worked with numerous companies including: Republic Services, Waste Management, Waste Connections, Waupaca Foundry, APEX Environmental, Sunny Farms Landfill, Consumers Energy and several County Owned Landfills.

Andy Reames safety Training includes OSHA 30 Hour Training, 8 Hour Annual Refresher, 29 CFR 1926 OSHA 10 Hour Construction, Excavation Competent Person, Respirable Crystalline Silica, Confined Space Entry, Hazard Communication, Fall Prevention & Protection, CPR & First Aid, Bloodborne Pathogens.

Some of Andy's extensive Landfill Project Experience include the following:

Michigan Landfills:

Adrian Landfill, Brent Run Landfill, C&C Landfill, Sauk Trail Hills Landfill, Eagle Valley Landfill, Forest Lawn Landfill, McGill Road Landfill, Oakland Heights Landfill, Ottawa County Farms Landfill, Pine Tree Acres Landfill, Richfield Landfill, Riverview Land Preserve, Venice Park RFD, Vienna Junction Landfill, Westside Recycling & Disposal Facility, Woodland Meadows Landfill, American Waste and Consumers Energy – JR Whiting Plant.

Ohio Landfills:

APEX Environmental, Lorain County Landfill, Celina Sanitary Landfill, Sunny Farms Landfill, Countywide Recycling & Disposal, Williams County Landfill and County Environmental Landfill of Wyandotte.

Indiana Landfills:

National Serv-all, Oak Ridge Landfill, Newton County, Prairie View RDF, Clinton County Landfill, Liberty Landfill, Wabash Valley Landfill, Waupaca Foundry Landfill and Laubscher Meadows Landfill.

Jeff Sangster

Site Foreman – D&R Earthmoving, LLC.

Jeff was promoted to Superintendent in 2020 after being an operator for 30+ years (12 years in Landfills). The prior two years, Jeff trained under Andy Reames (D&R General Superintendent), focusing on Landfill Cap and Cell Construction, along with HDPE Pipe (LCS and LFG). Jeff is responsible for sourcing/coordinating all materials, personnel/staffing, progress meetings, pre-bid meetings, assistance with developing bids, and customer relations. Jeff has quickly built a customer base that continually request him for their work.

As a Foreman, Jeff has worked with Republic Services – Oakland Heights Landfill (Cap/LFG), Waste Management – Venice Park LF (Cell, LFG and other), Tri-City LF (Cell), Westside LF (LFG & FM), Hastings LF (FM Repairs & Road Improvements), Autumn Hills (FM & LFG), Holcim-Dundee (Cap Closure), and Muskegon County (Cell, Landfill Flare, Rain-flap).

Jeff Sangster's Training includes: OSHA 10-Hour Training, CPR & First Aid, Bloodborne Pathogens, HDPE Welding Certificate (Fusion, Extrusion & Electrofusion).

Nathan Bruce

Site Foreman – D&R Earthmoving, LLC.

Nate was promoted to Foreman in 2023, after being a Pipe Foreman and Operator for 6 years. Nate has trained under Andy Reames (D&R General Superintendent) and Jeff Sangster (D&R Foreman) for over a year now, focusing on Landfill Cap and Cell Construction, along with HDPE Pipe (LCS and LFG). During the past year, Nate has been helping with bid pricing, material take-offs, attending progress meetings, and filling-in as Foreman. Nate has quickly made a name for himself, frequently being requested on T&M Projects.

Nate has worked with Waste Management – Venice Park LF (Cell, LFG and other), Tri-City LF (Cell), Westside LF (LFG & FM), Hastings LF (FM Repairs & Road Improvements), Autumn Hills (FM & LFG), Pine Tree Acres (Cell, LFG), Eagle Valley (LFG), Woodland Meadows (Cell, LFG), Muskegon County (Cell, Landfill Flare, Rain-flap), Republic Services – Oakland Heights Landfill (Cap/LFG), Sauk Trail Hills (Cell), C&C (Cell), Win Waste – Sunny Farms LF(LFG), NIPSCO Power Plant (Piping), JR Whiting (Ash Closure), GFL – Arbor Hills (Cell, LFG), Holcim-Dundee (Cap Closure), and Delta County LF (Cell, LFG)

Nate Bruce's safety training includes: OSHA 10-Hour Training, Confined Space Entry, Hazard Communication, CPR & First Aid, Bloodborne Pathogens, HDPE Welding Certificate (Fusion, Extrusion & Electrofusion).

Scott M. Rogers

Project Manager – D&R Earthmoving, LLC.

Master of Business Administration, Bachelor of Mechanical Engineering, Associates of Mechanical Engineering and Associates of Architectural Engineering – University of Toledo, 1987 - 1995

For the past nineteen years, Scott has been estimating and managing $20+ million annually worth of work in the following sectors: Landfill (Ash & MSW), Power, Airport, Roads/Highway, Commercial and Industrial. He has managed individual projects ranging from $5,000 to over $10 million. Scott has been responsible for all aspects of the projects including: take-offs, bid preparation, material & subcontractor sourcing, personnel & equipment resources, attending progress/construction meetings, marketing and customer relations. Prior to that, Scott was a mechanical engineer involved with designing Power & Steam Generating Plants, Pneumatic Conveying Systems and Refinery Tanks & Piping Systems.

Scott has worked with numerous companies including: Republic Services, Waste Management, Waste Connections, GFL, City of Riverview, South Kent County, MI, Ameresco, Rumpke, Consumers Energy, Detroit Edison, FCL Builders, Toledo Port Authority, Stoneco, Lafarge, Eli Lilly, Kellogg, General Mills, City of Wyandotte, MI, Lansing Board of Water & Light, City of Sturgis, MI, City of Dover, OH and City of Toledo, OH.

Scott Rogers is a Certified Stormwater Operator in Michigan. He also has OSHA 30 Hour Training, 8 Hour Annual Refresher, 29 CFR 1926 OSHA 10 Hour Construction, Excavation Competent Person, Confined Space Entry, Hazard Communication, Fall Prevention & Protection, CPR & First Aid, Bloodborne Pathogens, 30 CFR Part 46 Miner Training and Annual Refresher.

Some of Scott's extensive Landfill Project Experience include the following:

Michigan Landfills:

Adrian Landfill, Arbor Hills Landfill, Autumn Hills Landfill, Brent Run Landfill, C&C Landfill, Carleton Farms Landfill, Central Sanitary Landfill, Citizens Disposal, Waters Landfill, Sauk Trail Hills Landfill, Eagle Valley Landfill, Forest Lawn Landfill, Glens Sanitary Landfill, Granger Wood Street Landfill, South Kent Landfill, McGill Road Landfill, Northern Oaks Landfill, Oakland Heights Landfill, Ottawa County Farms Landfill, Peoples Landfill, Pine Tree Acres Landfill, Richfield Landfill, Riverview Land Preserve, Smiths Creek Landfill, Tri-City RFD, Venice Park RFD, Vienna Junction Landfill, Westside Recycling & Disposal Facility, Whitefeather Landfill, Woodland Meadows Landfill, Consumers Energy – DE Karn, Detroit Edison Co – Range Road Ash Disposal, Holcim US Inc – Dundee Plant, Consumers Energy – JC Weadock, Consumers Energy – JR Whiting Plant, Liberty Landfill and Rockwood Landfill

Ohio Landfills:

Geneva Landfill, APEX Environmental, Crawford County Landfill, Defiance County Landfill, Erie County Landfill, Pine Grove Landfill, SWACO Franklin County Landfill, Henry County Landfill, Cherokee Run Landfill, Lorain County Landfill, Hoffman Road Sanitary Landfill, Evergreen Landfill, Carbon Limestone Landfill, Marion County Landfill, Celina Sanitary Landfill, Stony Hollow Landfill, Port Clinton Landfill, Holcim US Inc, Suburban Landfill, Tunnel Hill Reclamation, Noble Road Landfill, Sunny Farms Landfill, Evergreen Landfill, American Landfill, Countywide Recycling & Disposal, Wayne County C&DD, Williams County Landfill and County Environmental Landfill of Wyandotte.

Indiana Landfills:

National Serv-all, Oak Ridge Landfill, Earthmovers Landfill, Elkhart County Landfill, Twin Bridges Landfill, Newton County Landfill, Caldwell Landfill, Prairie View RDF, Clinton County Landfill, Liberty Landfill

REFERENCES/WORK EXPERIENCE

1. Company Name: WM of Michigan
   Street Address: 513 N County Farm Rd
   City/State/Zip Code: Harrison, MI 48625
   Contact Person: Debora Johnston
   Telephone No.: (989) 308-6967
   Email Address: djohnsto@wm.com

2. Company Name: Republic Services
   Street Address: 2361 W Grand Blanc Rd
   City/State/Zip Code: Grand Blanc, MI 48439
   Contact Person: Robb Moore
   Telephone No.: (810) 655-6906
   Email Address: rmoore@republicservices.com

3. Company Name: GFL - Brent Run Landfill
   Street Address: 8335 Vienna Rd
   City/State/Zip Code: Montrose Township, MI 48457
   Contact Person: Tim Church
   Telephone No.: (810) 444-0811
   Email Address: timothy.church@gfl.env.com

B. Workplace Safety – 20 Points

1. Provide a copy of the bidder's safety program, and evidence of a safety-training program for employees addressing potential hazards of the proposed job site. See Attached

2. Bidder must identify a designated qualified safety representative responsible for bidder's safety program who serves as a contact for safety related matters. Site Foreman (Jeff Sangster or Nate Bruce) will be the immediate on-site Safety Contact. Scott Rogers will be the Office/Overall Safety Contact.

3. Provide the bidder's Experience Modification Rating ("EMR") for the last three consecutive years. Preference within this criterion will be given to an EMR of 1.0 or less based on a three-year average. See Attached

4. Evidence that all craft labor that will be employed by the bidder for the project has, or will have prior to project commencement, completed at least an authorized 10-hour OSHA Construction Safety Course. D&R hires all union, local 324, workers and will require all employees on this project to have 10-hour OSHA Training.

5. For the last three years provide a copy of any documented violations and the bidder's corrective actions as a result of inspections conducted by the Michigan Occupational Safety & Health Administration (MIOSHA), U.S. Department of Labor – Occupational Safety and Health Administration (OSHA), or any other applicable safety agency. See Attached

SAFETY & HEALTH PROGRAM

D & R EARTHMOVING, LLC.
HOWELL, MI

2023

TABLE OF CONTENTS

1. SAFETY & HEALTH POLICY STATEMENT

D & R EARTHMOVING, LLC. is committed to providing employees and others a safe working environment. No job or task is more important than worker safety and health. Every effort will be made to plan a safe way to perform work and create an environment in which accidents and near misses are substantially reduced.

All applicable rules and regulations promulgated pursuant to the Michigan Occupational Safety and Health Act (MIOSHA) will be implemented and enforced by management.

Management acknowledges the importance of creating a positive safety culture through employee involvement and implementing effective policies and procedures. Employees are expected and encouraged to immediately correct and report unsafe conditions or potential safety and health hazards to management without fear of repercussion.

Every employee is responsible for complying with this Safety and Health Program and will be disciplined if found to be non-compliant.

Objectives for achieving a safe and healthy workplace will be as follows:

- Designate a qualified safety officer to coordinate the program.
- Pre-plan for safety and health (e.g. JSA, Pre-Task Analysis)
- Provide on-going safety and health training to employees (e.g. formal classroom training, toolbox talks).
- Employee engagement (e.g. participation, problem solving, reporting).
- Follow safety rules and procedures.
- Conduct regular jobsite inspections and monitoring. See **Foreman Safety Checklist** on pgs. 66 - 70.
- Enforce safety and health rules and use appropriate discipline.

2. SAFETY DIRECTOR RESPONSIBILITIES

Don Roberts is the designated **Company Safety Director** and is responsible for coordinating, implementing, administering this program.

GENERAL RESPONSIBILITES

A. Employee Training. Coordinate safety and health training and keep employees informed of all MIOSHA Construction Safety Standards and Occupational Health Standards pertaining to the work operation. Copies of standards shall be provided to employees upon request.

B. Safety/Health Procedures. Understand potential job hazards and how to eliminate them by establishing safety and health procedures.

C. Employee Engagement. Encourage employee participation to improve safety on jobsites (i.e. recommendations on procedures and training topics; encourage employees to inspect their work areas and report safety concerns and near misses to their foreman.

D. Jobsite Inspections. Conduct periodic jobsite inspections to ensure foreman responsibilities are being implemented.

E. Documentation. Ensure employee training (i.e. classroom, tool box talks, pre-task analysis), **Foreman Safety Checklists**, and any other proactive safety records are documented, and copies maintained at the main office. Ensure every employee completes an **Employee Sign-off Sheet** (see pg. 75).

F. Postings. Ensure a safety bulletin with required postings is posted and maintained at the main office and on all jobsites having a company jobsite trailer.

G. Incident Investigations. Participate in all incident investigations resulting in serious bodily harm or high financial impact (i.e. injuries, illnesses, property damages). Ensure every incident investigation has been properly documented on the **Incident Investigation Report** and corrective actions are completed before work continues. See **Incident Investigation Report** on page 59.

H. Employee Discipline. Ensure **Discipline Policy** is properly implemented.

I. Recordkeeping. Ensure recording and reporting requirements prescribed by MIOSHA/OSHA have been implemented by the office.

3. FOREMAN RESPONSIBILITIES

The foreman or other designated qualified person is responsible for overall safety on the jobsite.

A "**qualified person"** is a person who, by possession of a recognized degree or professional standing, or who, by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problems related to the subject matter and work. Responsibilities and duties include the following:

a. Provide periodic and ongoing safety instructions (i.e. weekly tool box talks, daily safety huddles) to employees regarding operating procedures, hazards and safeguards of tools and equipment when necessary to perform the job; and how to recognize and avoid hazards.

b. Inspect the construction site, tools and equipment to assure any unsafe conditions that may create a hazard are eliminated. See **Foreman Safety Checklist** on pgs. 66 - 70.

c. Instruct each employee, where known harmful plants, reptiles, animals or insects are present, as to the potential hazards, how to avoid injury, and applicable first aid procedures to be used in the event of an injury.

d. Instruct each employee required to handle or use known poisons, toxic materials, caustics and other harmful substances regarding the potential hazards, safe handling, use, personal hygiene, protective measures required and applicable first aid procedures to be used in the event of injury.

e. Ensure all employees have been instructed in the steps to be taken in case of an incident or emergency for each jobsite.

f. Investigate all incidents (i.e. injuries, illnesses, property damages) on the jobsite that result in a recordable injury/illness or high financial impact. Serious near miss incidents should also be investigated. Immediately inform the Safety Director of the incident and provide him/her with a copy of the **Incident Investigation Report**. Complete any corrective actions before work continues or remove employees from the hazard.

g. Ensure the **Disciplinary Policy** is being implemented for employees found non-compliant with this safety and health program and have each employee sign-off.

h. Ensure employees are not knowingly allowed to work while under the influence of intoxicating beverages or substances which would impair the employee's ability to perform a task in a safe manner.

i. Ensure a copy of this Safety and Health Program is available at the jobsite and maintain a safety bulletin board with required posters in jobsite trailers.

4. GENERAL SAFETY RULES

The following safety and health rules must be obeyed by all employees.
Failure to do so may result in disciplinary action.

A. SAFE PRACTICES

1. Do not engage in horseplay or other unsafe behavior that would endanger you or another co-worker.

2. Watch where you are walking. Don't run. Keep your mind on your work.

3. Lift the right way - with your legs, not your back. Get help if a load is too heavy.

B. REPORTING RESPONSIBILITIES

1. If you see an unsafe condition, correct it immediately (if feasible) and inform your foreman. Do not hesitate to bring any safety concerns to your foreman.

2. Report all injuries (yourself or coworkers), no matter how significant, immediately to your foreman.

3. The use of illegal drugs or alcohol or being under the influence during working hours will be cause for termination. Inform your foreman if you are taking strong prescription drugs that warn against driving or using machinery.

4. Make sure you know what the emergency procedures are at your jobsite (i.e. location of emergency phone, jobsite address, first aid kit, fire extinguisher locations, evacuation plan, etc.). Ask your foreman if you have any questions.

C. HOUSEKEEPING

1. Maintain the floors of your work area. Pick up debris and sweep up daily.

2. Remove or secure any material located in open areas that could be picked up and blown away by the wind.

3. Material, scrap, and debris must be piled, stacked or placed in containers.

D. BARRICADES AND SIGNS

1. Barricade hazardous areas. Caution tape may not be suitable for preventing others from entering hazardous areas; guardrails or perimeter cables along with danger signs may be necessary to keep others out. Barricades should be illuminating and/or reflective during nighttime hours.

2. Do not enter an area that has been barricaded. Seek instruction from your foreman.

3. Post danger signs to alert other workers where an immediate hazard may exist that may not be readily seen (i.e. DANGER – Overhead Powerlines).

E. HAZARDOUS ATMOSPHERES

1. Never enter a manhole, well, shaft, sewer, excavation, tunnel or other confined space which could possibly have a hazardous atmosphere due to lack of oxygen, or contain toxic or flammable gases, or has a possibility of engulfment by solids or liquids. If you come across these types of spaces, inform your foreman and wait for further direction. Refer to **Confined Space Program** on pgs. 26 - 40 for additional information.

F. PERSONAL PROTECTIVE EQUIPMENT

1. If instructed to wear personal protective equipment…wear it!

2. All employees outside of a cabbed vehicle or a covered piece of equipment must wear a hard hat at all times while on the jobsite.

3. Wear appropriate eye protection (i.e. goggles, safety glasses, welding shields) when cutting, grinding, welding, chipping, jack-hammering, applying chemicals, flagging and other similar exposures.

4. Wear hearing protection (i.e. earplugs or noise-cancelling earmuffs) when working around loud noise.

5. Wear proper clothing on jobsites; the minimum requirements are work boots, appropriate shirts, and long pants. Other work operations may require steel-toed work boots, gloves, high visibility reflective vests, rubber boots, etc. Use sunblock to prevent sunburn.

6. You must wear an appropriate respirator when exposed to excessive dust and other air contaminants (i.e. cutting block or concrete, painting operations, chemical applications). The D & R foreman or superintendent will provide N95 dust masks to all employees potentially exposed to windblown dust if engineering controls such as water sprays for dust control or working upwind cannot be used or are unfeasible. Your foreman will determine which appropriate respirator should be used.

G. ELECTRICAL

1. Do not use a portable tool or extension cord unless it is plugged into a ground fault circuit interrupter (GFCI). Test the GFCI before plugging in the tool or cord to make sure it is working properly. Refer to **Equipment Grounding Conductor Program** on page 55 - 56 for more information.

2. Only use extension cords equipped with 3 prongs. Do not use extension cords if the ground prong has broken off.

3. Routinely inspect all extension cords and trailing cords on tools for damage. Do not use damaged cords, either repair them or throw them away.

4. Make sure all electrical power and other energy sources are locked out and tagged before working on equipment, machinery and tools.

5. Make sure underground lines are de-energized before jack hammering or using another tool or equipment that may contact the underground line.

6. Do not install, replace, or fix electrical systems. Only licensed electricians are qualified to work on electrical systems. Inform your foreman if you think your work duties may expose you to energized electrical parts or equipment.

H. OVERHEAD POWERLINES

1. Keep yourself, tools, and equipment at least 10' away from overhead powerlines that are 50kV and below. The minimum distance increases for power lines over 50kV. Inform your foreman if you have any questions or cannot maintain clearances. Refer to the **Minimum Clearance Distance for Excavating Equipment** table on page 19 for specific clearance requirements.

2. **Do not** store material near or under power lines. If this is not feasible, the stored material must be kept a minimum of 10' plus the length of the material away from overhead power lines that are 50kV or less. The minimum distance increases for power lines over 50 kV.

I. FIRE PROTECTION

1. Fire Extinguishers.

    a. At least one 2A-rated fire extinguisher must be available on every jobsite.

    b. Keep at least one 10 BC-rated fire extinguisher in the cab or within 25' of a crane or excavator, and also keep one within 75 feet of diesel and gasoline refueling areas.

    c. Inspect fire extinguishers every 12 months and label with an appropriate inspection tag.

2. Portable Fuel Containers.

    a. Store and transport flammable liquids (i.e. gasoline) in approved safety cans having a spring-closing lid, flashback arrestor screen, spout cover and is designed to safely relieve internal pressure.
    b. **Plastic gasoline containers are not permitted on jobsites.**

3. Smoking and Storage.

    a. Do not smoke around flammable, combustible materials or any areas posted with "No Smoking" signs (i.e. refueling stations).

    b. Do not place or store flammable or combustible material near open flames, sparks, or other ignition source.

4. Gasoline-powered equipment.

    a. Shut engines off during refueling.

    b. Do not use gasoline-powered equipment within closed buildings.

5. Propane/LP Storage.

    a. Store tanks and cylinders in the upright position with caps on.

    b. Secure cylinders with a chain, wire or suitable rack. Small portable propane tanks that cannot fall over do not have to be secured.

    c. Do not store tanks/cylinders in buildings or poorly ventilated areas.

J. WELDING AND CUTTING

1. Do not use welding and cutting equipment (i.e. torches) unless you have been trained and authorized to do so.

2. Wear the appropriate personal protective equipment when welding or cutting (i.e. aprons, leggings, hard hats, and proper goggles, face shields, or safety glasses).

3. Backflow devices must be used on gas and oxygen hoses or use a cutting torch that is equipped by the manufacturer with an internal backflow device.

4. Do not weld or cut within 50' of explosives, stored cylinders, or stored fuel. All flammable or combustible material located within 35' of a welding or cutting operation must be removed or covered with fire-resistant blankets.

5. Keep a 2A-10BC portable fire extinguisher (minimum size) in the immediate area during welding and cutting operations.

6. Never weld or cut within a confined space without taking the proper precautions. Refer to **Confined Space Policy** on pgs. 26 - 40 for additional information.

7. Clean all drums, barrels, and tanks of toxic, flammable, or combustible material before performing welding or cutting operations.

8. Cylinder Storage.

    a. Separate oxygen cylinders and fuel gas cylinders by a minimum of 20’ or install a noncombustible barrier between the cylinders that is at least 5’ high with a minimum fire-rating of one hour.

    b. Store cylinders (full or empty) valve-end up and secure them with a chain or bracket.

    c. Place caps on cylinders when they are not in use.

9. Exception for Storing a Single Oxygen Cylinder & a Single Fuel Gas Cylinder.

    a. A single oxygen cylinder and a single fuel gas cylinder (i.e. acetylene) may be stored together on a cart if the cart is designed for that purpose ***or*** the two single cylinders are secured to a wall or column.

    b. Make sure that both cylinders are secured in an upright position to the cart or to the vertical surface with straps, chains or another securing device.

    c. If using a cart, it must be set up on a firm, level surface.

    d. Do not put the cylinders or cart in heavy trafficked areas where they could be struck by vehicles or equipment.

    e. Both cylinders must have valves closed with protection caps on or are connected to a properly functioning regulator.

    f. Always use properly rated lifting components (i.e. chains, shackles, etc.) when suspending carts from cranes or other lifting equipment.

    g. The area below a suspended cart must be barricaded during active work hours.

K. PORTABLE LADDERS

1. Only use type 1 or type 1A ladders.

2. Don’t use damaged or defective ladders (i.e. broken spreaders and steps, split side rails). Tag damaged or defective ladders and remove them from service.

3. Make sure portable extension ladders are equipped with safety feet to prevent slippage. If a ladder is not equipped with safety feet, it must be tied off, blocked or otherwise secured.

4. Always secure both the top and the bottom of a ladder that is used in conjunction with a scaffold or other temporary platform.
   Extend portable extension ladders at least 3’ above the stepping off point.

5. Use the “four to one” rule when using a portable extension ladder. One foot of base for every 4’ of height.

6. Don’t fold up a step ladder and use it as straight (portable) ladders. Step ladders should only be used with the spreaders locked with all four legs set up on a stable base.

L. TOOLS

1. Do not operate tools or equipment that you have not been trained or authorized to use (i.e. powder-actuated tools, heavy equipment, jack hammers).

2. Do not use defective or damaged tools or equipment; remove it from service by locking out and tagging it or completely remove it from the jobsite.

3. Before servicing, repairing, or adjusting any powered tool or equipment, make sure it is disconnected and locked out from the power source.

4. Do not remove a guard or other safety device from a tool or equipment except for servicing or repair.

M. HEAVY EQUIPMENT

1. Stay alert when working around heavy equipment (i.e. dozers, excavators, rough terrain fork trucks, and cranes). The operator cannot always see other personnel around his equipment. Stay out from under suspended loads, away from moving equipment and swinging counterweights.

2. Only designated individuals are permitted to operate or service heavy equipment.

3. Perform frequent and periodic inspection as required and instructed.

4. Equipment operators must wear their seatbelt if one is provided.

5. Do not ride on any part of heavy equipment unless a seat and seatbelt are provided.

6. Every employee is responsible for making sure that back-up alarms are working on heavy equipment that have an obstructed rear view. Use a flagger to move equipment when back up alarms are inoperable.

7. Always maintain at least 10' minimum clearance from energized lines; use a spotter if necessary. Refer to the **Minimum Clearance Distance for Excavating Equipment** table on page 19 for specific clearance requirements.

N. DEMOLITION OPERATIONS

1. Before starting demolition operations, the foreman or another designated qualified person will conduct a survey to determine all the following:

    a. The condition of the building/structure;

    b. Whether adjacent structures will be affected by the demolition; and

    c. To check for any other conditions that may present a safety or health hazard (i.e. lead, asbestos, fire hazards).

    A copy of the written survey report is kept in the field office.

2. Manual demolition operations must be performed under the supervision of the foreman or another designated qualified person.

3. Make sure all utilities have been shut off before demolition operations.

4. Never torch-cut painted steel unless it has been determined that it does not contain lead. Refer to **MIOSHA Fact Sheet – Lead Exposure in Construction** on pgs. 82 - 84 for more information.

5. Asbestos must be removed by a certified abatement contractor prior to demolition. If you suspect or find asbestos material – stop work and bring it to the attention of your foreman or superintendent.

6. Do not use mechanical equipment on a floor or other working surface unless it can support the equipment and its intended load.

7. Use curbs or stop logs to prevent mechanical equipment from tracking over an edge or into an opening.

8. Use signs, barricades, or other barriers to keep workers out of demolition areas. Only the employees necessary to the operation of mechanical demolition are permitted in the demolition area.

9. When feasible, use water to control dust that is created during the demolition process.

O. FALL PROTECTION

1. Do not walk or work on any surface (i.e. platforms, roofs, and floors) that may be deteriorated, rotted, or not fully installed. Inform your foreman if you notice any defective walking/working surfaces. Walking and working surfaces must be inspected by the foreman (or other designated employee) to determine if the surfaces have the strength and structural integrity to support employees.

2. Always make sure you are protected from falling at heights of 6' or more above a surface (i.e. ground, floor surface, water) with a ***Guardrail***, ***Personal Fall Arrest System or Restraint System***.

3. Guardrail Specifications

    a. Guardrails must be installed along the edges of walking/working surfaces that are 6' or more above lower levels. If a guardrail is not installed, another fall protection system must be used to protect employees.

    b. A guardrail consists of a top rail and a mid rail. Install a toe board when active work is taking place below.

    c. Guardrails are typically constructed using 2' x 4' lumber or 3/8" wire rope cable. Never use rebar!

    d. Install top rails/cables between 39"- 45" above the floor or lower working level.

    e. Top rails must be strong enough to withstand at least 200 pounds applied outward or downward.

    f. If wire rope cable is used, the top cables must be tight and not sag or deflect lower than 39" when pushing downward or outward, then flagged every 6' with high visibility material.

    g. Install mid rails/cables halfway between the floor or lower working level and the top rail. They should be tight and strong enough to withstand 150 pounds applied outward or downward.

    h. Support posts should be spaced not more than 8' apart for 2" x 4" guardrails. The ends of the top rails and mid rails should be flush with the support posts with no sharp edges or protruding nails. The support points for wire rope guardrails may be spaced farther apart.

4. Personal Fall Arrest System Specifications

   a. A personal fall arrest system (PFAS) consists of three components: a harness, a lanyard or lifeline, and an anchor point.

   b. Visually inspect your harness, lanyard, lifeline, and anchor point before each use for excessive wear, damage and deterioration. Remove defective equipment from service – do not use!

   c. Harnesses must fit properly – not too loose, but not so tight you're your movement is constricted. Position the D-ring on the upper back near the shoulder level.

   d. Only use properly rated lanyards, vertical lifelines, and connecting components that are designed to be used for fall protection. **Do not tie, shorten or knot lanyards!**

   e. Only self-locking type snap hooks are allowed. **Do not** connect your snap hook to an object or structure unless the snap hook is designed for this type of connection. Check with your foreman if you have questions.

   f. Horizontal lifelines must be designed, installed, and used under the supervision of the foreman or other designated qualified person. A horizontal lifeline system is typically designed by an engineer to ensure the system maintains a safety factor of at least two.

   g. **Do not attach your lanyard or lifeline to a guardrail!** Lanyards and lifelines must be attached to an anchor point that can support at least 5,000 pounds per employee. Most guardrails are not designed to be used as an anchor point. Ask your foreman if you have any questions.

   h. Prompt rescue must be planned and provided for employees wearing a PFAS unless the system is designed to rescue themselves. Employees, ladders, aerial lifts and equipment can be used to rescue an employee.

5. Restraint System Specifications

   a. Restraint systems must be designed and installed to prevent an employee from being exposed to or reaching any fall hazard (i.e. edge of walking/working surface, floor openings).

   b. Only fixed-type lifelines, lanyards and anchorages can be used for restraint systems. Deceleration devices and other components that are designed to break away, elongate, or lengthen when activated must not be used!

c. The components and equipment that are used for restraint systems must meet the same criteria as those used for personal fall protection systems (i.e. harnesses, snap hooks, lifelines, lanyards). Do not use miscellaneous ropes or secure with knots!

d. A restraint system must be secured to an anchor point that is fixed and strong enough to support at least two times the potential load imposed.

6. Floor Openings and Holes

a. Covers must be installed over floor openings and holes (2" or greater including open manholes) that are 6' or more above lower levels. Larger holes can be protected by a guardrail.

b. Covers must support at least twice the maximum anticipated load of the weight of the vehicle, employees, equipment, and materials that may be imposed at any one time.

c. Make sure covers are sufficiently secured to prevent displacement from wind, equipment, and employees.

d. Identify covers with a high visible paint or marked with COVER or HOLE to warn workers of the hazard.

e. If a cover is removed to complete a task, make sure to re-install the cover immediately afterwards. Never leave the hole or opening unprotected.

7. Falling Object Protection

a. Always wear a ***hard hat*** when walking or working underneath areas where workers are working or otherwise exposed to falling objects.

b. If necessary, install toe boards, screens/panels, guardrails or canopies to prevent debris, material and tools from falling from the edges of overhead surfaces.

P. WORKZONE SAFETY

1. Employees must wear the appropriate high-visibility safety apparel as prescribed below when working on a roadway or adjacent to vehicular traffic:

Class 1: High-visibility shirt or safety vest. ***(Daylight hours with good visibility)***

Class 2: High-visibility *and* 360-degree reflective safety vest or jacket with contrasting colors. ***(Daylight hours with good visibility)***

Note: Class 2 is the minimum MDOT requirement for working within the right-of-way on highways.

Class 3: Apparel having more high-visibility background and 360-degree retro-reflective material. Safety apparel includes safety vests or jackets, reflective pants, and reflective hard hat. ***(Nighttime work and during low visibility conditions in daylight hours)***

2. Always face oncoming traffic or use a spotter when working on a roadway or adjacent to vehicular traffic.

3. Traffic Control Devices.

   a. Placing, removing, and maintaining traffic control devices shall be as prescribed in Part 6 of the Michigan Manual of Traffic Control Devices. MDOT may also develop specific traffic control plans for certain projects. Always check with your **foreman or the designated qualified person** to find out which traffic control plan and traffic control devices are being used for the project.

   b. Work operations must be routinely inspected to ensure traffic control devices are being maintained. Replace damaged or displaced traffic control devices as soon as possible. If you have any questions or concerns with traffic control issues consult your **foreman or the designated qualified person**.

   c. Cover up traffic control signs when work zones are not active. In addition, cover any permanent posted speed limit signs so they will not conflict with the temporary work zone posted speed limit signs.

   d. If a moving vehicle is used to place or remove traffic control devices, use one of the following methods to prevent falling from the vehicle:

      1. A seat with seatbelt.
      2. A standard guardrail.
      3. A guardrail section may be removed to facilitate handling of the devices. A hand hold must be provided.
      4. When using a lower platform, any combination of top rails, mid rails, side rails, seats, toe boards, or other combination of equivalent safeguard may be used. A hand hold must be provided.
      5. A positioning system that prevents an employee from falling from the vehicle. A hand hold must be provided.

Q. TRAFFIC REGULATORS

1. Always wear a hard hat, safety glasses, work boots and Class 2 or Class 3 high-visibility safety apparel when directing traffic (flagging).

2. Use a hand-held STOP/SLOW paddle sign with a 6-foot staff. Red flags are only allowed when directing traffic during emergencies.

3. Rest stools may be used under the following stipulations:

a. Do not use rest stools in any portion of the open or closed traffic lanes.

b. The rest stool must be at least 30" high with no arm or back supports.

c. Communication equipment may be attached to the rest stool.

d. Do not attach STOP/SLOW or STOP/STOP paddles to the rest stool.

4. Traffic regulator stations shall be illuminated with a minimum intensity of 10 foot- candles during nighttime hours.

5. Rules of Conduct for Traffic Regulators

   a. **Always pay attention to your surroundings!** Don't mingle with the work crew, traveling public or other people.

   b. Be alert to the traffic conditions and never turn your back to approaching vehicles.

   c. Recognize dangerous traffic situations and warn workers and other regulators in sufficient time to avoid injury.

   d. Plan a safe escape route to avoid being struck by an errant vehicle. Move quickly to avoid danger from errant vehicles.

   e. Do not abandon your traffic regulator station until a replacement traffic regulator arrives and is ready to assume traffic regulating duties.

   f. Do not sit in a parked vehicle when directing traffic or have another person sitting in the parked vehicle.

   g. Do not use cell phones to direct traffic unless instructed by your foreman.

R. UTILITY LOCATING – BEST PRACTICES

1. Prior to Excavating.

   Contact the MISS DIG System at **800-482-7171 or 811** at least 72 hours in advance of construction, but not more than 14 calendar days. Retain your ticket number and be specific about the limits concerning the proposed area of excavation.

2. Positive Response.

   All participating utility owners are required to notify MISS DIG via an automated response system. This useful tool will allow you to determine if all the utilities in your proposed area of excavation have been located. If a utility owner has no facilities in the area, this information will also be part of the positive response. This information is administered by MISS DIG and available through the web at **www.missdig.org** or the automated phone system at **800-763-3888**.

3. No Marks.

   If the excavator, having commenced excavation within the 14-calendar day period on or after the dig start date and time as set forth in the MISS DIG notice, has cause to be concerned about the presence of an unmarked facility(s) due to **any** of the following:

   a. There is visible evidence of a facility(s),
   b. A notified Facility Owner/Operator (FOO) failed to provide a positive response, or
   c. A positive response exists that indicates a location was marked, but the marks are missing.

   If any of the above exist, the excavator shall give notice to the potential unmarked FOO by contacting MISS DIG. Upon notification of this situation to MISS DIG, the FOO shall respond within three (3) hours; unless a later time-period for response is agreed upon by the excavator and the FOO.

4. Additional Assistance.

   If the precise location of a marked facility cannot be determined and assistance is requested during normal working hours (7 a.m. to 5 p.m.) on a business day, the system facility owner has 3 hours to respond to the request or meet at a mutually agreed upon time. **Requests for additional assistance must be made through MISS DIG: 1 - 800-482-7171 or 811.**

5. Excavating.

   Excavating must commence within **14 days** of the dig start date on the MISS DIG ticket. If excavating has not occurred within this time frame, a new ticket number must be obtained prior to excavating. Take pictures of staked utilities prior to starting excavation to document staking locations.

6. Safe Zone & Caution Zone

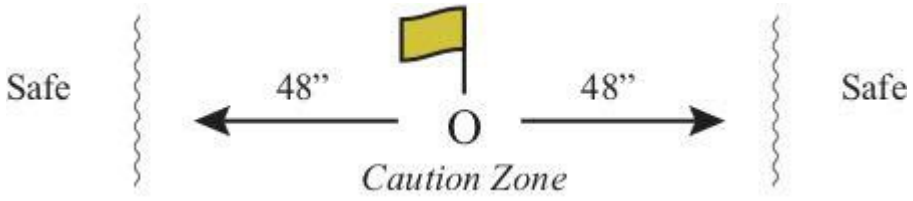
   Your intended area of excavation has been divided into two areas as follows:

   a. **Safe Zone** - Relates to the area at least **48" or farther away** from either side of the mark(s) provided by the utility owner. No hand-digging or facility verification is required when excavating in the safe zone. Be sure to remain diligent regarding evidence of unmarked facilities.

   b. **Caution Zone** - Means the area **within 48" of either side** of the mark(s) provided by the utility owner. If excavating must occur within the caution zone, all facilities must be located prior to excavating by hand digging or other means of soft excavation. Excavations that run parallel to a facility in a caution zone require hand dug test holes (i.e. pot holing) at intervals as often as reasonably necessary to establish the precise location of the underground facility. You may

commence excavation with powered equipment in the caution zone once you have established the location of the facility.

7. Safe Zone & Caution Zone Diagram



8. Markings

Paint, stakes, and/or flags may be utilized to mark underground facilities. Often, a combination of all three are used to identify facilities. Color-coding is used to differentiate the various marks of facilities to be encountered. The following should help determine the type of facility being dealt with:

Yellow: Natural gas, oil, steam, petroleum, or other gases
Orange: Phone and cable
Red: Electric
Blue: Water
Green: Storm drains
Brown: Sewer

9. Utility Damage Incident

Immediately report any suspected utility damage to the Foreman. Perform a thorough investigation of all facts and circumstances surrounding the incident when safe to do so.

a. Foreman shall utilize the Utility Damage Report, pgs. 60 – 65, to document the facts and circumstances of the damage incident. Take pictures of the damaged utility with measurements to Miss Dig stakes and overall pictures of the area showing the incident location on the site. Make a sketch of conditions encountered and the location of the damage. Turn in all information to the office within 48 hrs of the incident.

S. EXCAVATIONS

1. Protecting Underground Utilities.

a. **Do <u>not</u> begin excavating** until MISS DIG has been called and all the requirements in ***Utility Locating – Best Practices*** have been complied with.

b. Adequately support all utilities (i.e. gas lines, piping, structures) that have been exposed or disturbed by work operations.

c. If a utility is accidently struck or damaged during excavation work, inform the foreman immediately. All employees must evacuate the excavation if the damaged utility could present a dangerous situation (i.e. gas explosion, asphyxiation, electrocution). Any damage to a utility must be reported to the facility owner.

2. Inspections.

   a. **Do not enter an excavation or trench unless instructed by your foreman!** Your **foreman or qualified person** must inspect each excavation or trench before employees can enter and on an ongoing basis for evidence of instability (i.e. cracks, slides, cave-ins, water, flaking) due to rainstorms or other potential hazards.

   b. If hazardous conditions are found, work shall stop, and employees shall immediately exit the excavation until protective measures (i.e. additional shoring or cutting the slope back) have been taken. **Inform your foreman if you have safety concerns.**

3. General Excavation Requirements

   a. Cave-in protection (sloping, shoring, sheeting, trench boxes) must be installed before entering an excavation more than 5'deep.

   b. Keep spoil piles, rocks, debris, and material at least 2' back from the edge of the excavation.

   c. Always wear a hard hat and stay within the protective system when working in an excavation or trench.

   d. Never climb on shoring, trench shields, or sloped walls or ride on any bucket, lift, hook, chain, cable, sling, or other equipment parts.

   e. Do not work in an excavation where water is accumulating unless precautions are taken, i.e. special shoring to protect against cave-ins or slides (i.e. trench box), pumps to control the water level, or use of safety harness and lifeline.

   f. Do not work in an excavation with atmospheric hazards unless air quality testing has been conducted to determine the permissible exposure levels and proper protection (i.e. respirators and ventilation) is provided.

4. Access and Egress

   a. Use a ladder or a ramp to get into or out of an excavation that is greater than 4' in depth.

b. Position the ladder or ramp within 25’ laterally of where employees are working.

c. Ladders must be stable and extend 3’ above the top of the excavation.

d. Earth ramps must be stable and constructed at a maximum 45° angle. Position the ramp no more than 30’ from the bottom of the excavation.

e. Manholes, pipes, and other similar structures are treated as **confined spaces**. Before employees can use these types of structures to travel though to access and egress an excavation, a **qualified person** must first perform an evaluation and test the atmospheres for oxygen content and combustible and toxic gasses to determine whether employees may be allowed to enter them. Refer to **Confined Space Program** on pgs. 26 - 40 for additional information.

5. Fall Protection for Excavations

a. **Don’t leave open manholes unprotected!** Manholes must be covered or protected by a guardrail or barricading. If a temporary cover is used, it must be labeled, have sufficient strength, and secured down or composed of a material that will prevent it from being dislodged.

b. Stationary or long-term excavations that are 6’ or more in depth (i.e. bore pits, wells, shafts) must be protected by guardrails, fences, barricades or covers.

6. Energized Lines

a. Excavating equipment (i.e. excavators and backhoes) must maintain a minimum clearance distance from overhead energized lines as prescribed in the table below:

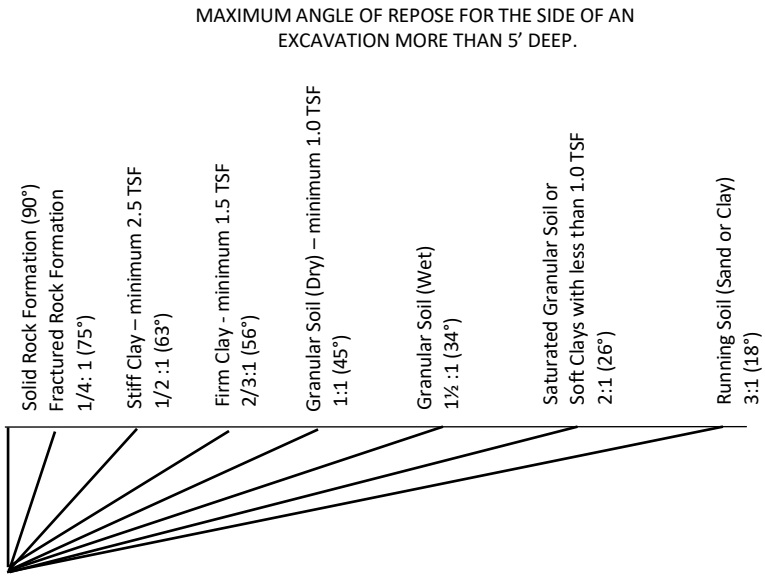
Minimum Clearance Distance for Excavating Equipment		
Voltage	Boom Raised	Boom Lowered & No Load
to 50 kV	10 feet	4 feet
50 to 345 kV	10 feet + 0.4 inches per kV over 50 kV	10 feet
346 to 750 kV	10 feet + 0.4 inches per kV over 50 kV	16 feet

b. Use a spotter if it is difficult for the operator to maintain clearances by visual means. Spotters must maintain visual contact with the operator and limit their work activity to only spotting.

7. Sloping Requirements

   a. All trenches and excavations that are **more than 5' deep** must be cut back, sloped or benched to the proper angle of repose based on the type of soil and site conditions unless supported by sheeting or a shoring system. Use Chart A below to determine the proper angle of repose.

CHART A



   b. The sides of the excavation must be flattened or cut back more than what is indicated in Chart A when the excavation is affected by water conditions, silty materials, loose boulders, erosion, frost, or slide plains.

8. Determining the Type of Soil using a Penetrometer.

   a. Take several soil samples to determine the type and strength of the soil and to assist you in determining the proper angle of repose. Note: The penetrometer shows the strength of the soil in tons per square foot (TSF).

   b. Take additional penetrometer readings if soil conditions change as the excavation gets deeper. Always make certain the employee performing the readings is protected.

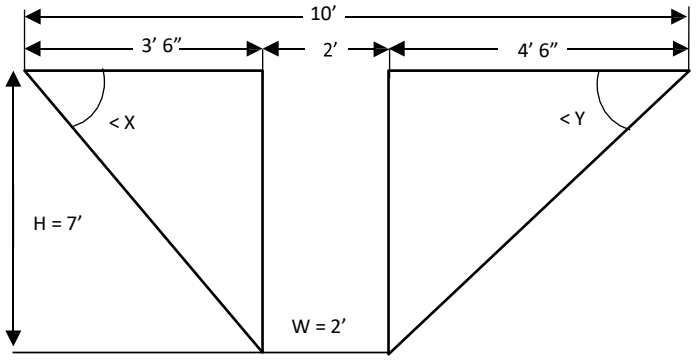
   c. Use the lowest penetrometer reading to determine the proper angle of repose. For example: If you took four penetrometer readings that varied between 1.5 – 2.5 TSF, the proper angle would be 56 degrees based on the 1.5 TSF reading.

9. Calculating the Angle of Repose.

   a. Chart B demonstrates how to measure and calculate the angle of repose to determine if the sides of an excavation have been cut back or sloped properly to satisfy the requirements of Chart A.

CHART B

Calculating the Angle of Repose
EXAMPLE



X = Tangent Angle (Left Side)
Y = Tangent Angle (Right Side)
H = Height
W = Width (at bottom of excavation)

X = H/W =	7'/3'6" =	7'/3.5' =	2.00 =	63° ANGLE
Y = H/W =	7/4'6" =	7/4.5' =	1.55 =	58° ANGLE

   b. Using the example above, refer to Chart C on next page to convert the tangent angle into the angle degree.

CHART C

TANGENT ANGLE = (H/W) = DEGREE OF ANGLE FROM THE HORIZONTAL					
TANGENT	DEGREE	TANGENT	DEGREE	TANGENT	DEGREE
0.000	0	0.577	30	1.732	60
0.017	1	0.601	31	1.804	61
0.035	2	0.625	32	1.881	62
0.052	3	0.649	33	1.963	63
0.070	4	0.675	34	2.050	64
0.087	5	0.700	35	2.145	65
0.105	6	0.727	36	2.246	66
0.123	7	0.754	37	2.356	67
0.141	8	0.781	38	2.475	68
0.158	9	0.810	39	2.605	69
0.176	10	0.839	40	2.748	70
0.194	11	0.869	41	2.904	71
0.213	12	0.900	42	3.078	72
0.231	13	0.933	43	3.271	73
0.249	14	0.966	44	3.487	74
0.268	15	1.000	45	3.732	75
0.287	16	1.036	46	4.011	76
0.306	17	1.072	47	4.332	77
0.325	18	1.111	48	4.705	78
0.344	19	1.150	49	5.145	79
0.364	20	1.192	50	5.671	80
0.384	21	1.235	51	6.314	81
0.404	22	1.280	52	7.115	82
0.424	23	1.327	53	8.144	83
0.445	24	1.376	54	9.514	84
0.466	25	1.428	55	11.43	85
0.488	26	1.483	56	14.30	86
0.510	27	1.540	57	19.08	87
0.532	28	1.600	58	28.64	88
0.554	29	1.664	59	57.29	89

10. Benching Requirements.

a. Benching can only be used when the soil has the minimum strength to sustain a 5’ vertical side (i.e. stiff clay).

b. The vertical rise cannot be more than 5’ and the step back must extend at least to the angle of repose as required in Chart 1.

c. The height of the lower bench shall not be more than the lesser of 5’ or the width of the trench measured at the bottom.

11. Trench Boxes, Shoring, Shields and Sheeting.

a. Trench boxes, shoring, or sheeting are a safe and effective protective system and can be used in combination with sloping or benching. The **qualified person** will determine which type of protective system will be used. The trench box design (from the supplier or manufacturer) must be available on the job site.

b. Use a ladder or ramp to access the trench box.

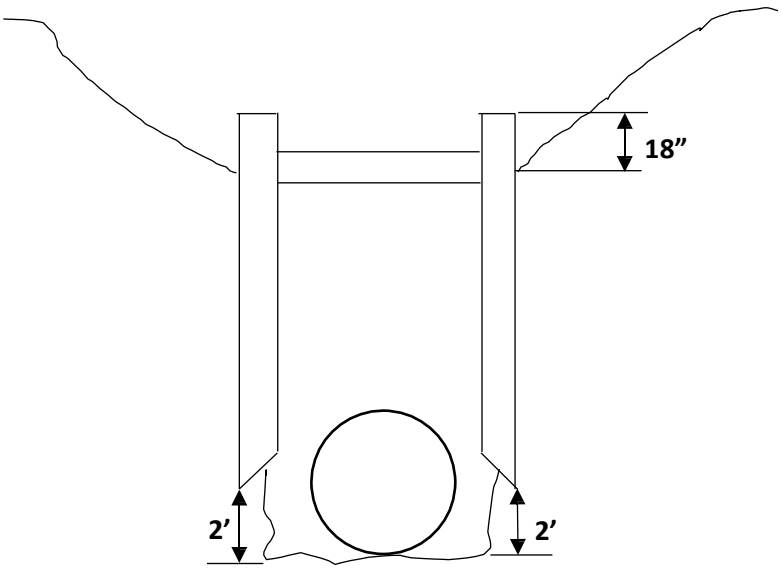
c. Stay within the protective system (i.e. trench box, shoring, sloping, sheeting) when you are working in an excavation.

d. Exit the trench box while it is being installed, removed, or moved.

e. The toe (bottom) of the trench box must not be more than 2’ above the bottom of the trench unless suitable protection is provided below the bottom of the trench box.

f. The sides of the excavation must be kept at least 18” below the top of the trench box. Any soils above the trench box must be properly sloped. See diagram below.

TRENCH BOX USE DIAGRAM



g. Refer to Sloping, Benching, & Shoring Designs on pgs. 76 - 81 for additional examples.

12. Tunneling Rules:

a. Always use the in and out board to keep track of personnel entering and leaving the tunnel.

b. Always wear the proper PPE depending on the job assignment.

c. Never stand under suspended loads being lowered into the shaft.

d. Prior to tunneling, be sure the proper rescue equipment is in place and the tunnel rescue team is assembled.

e. Inspect haulage equipment regularly.

f. Always have a top-man when employees are working in the tunnel.

g. Tunnels longer than 225' must be equipped with a means of communication at the following points:

1. The working face
2. The top of the shaft
3. The bottom of the shaft
4. Hoisting station, if provided
5. Each 1,000' of tunnel
6. The office, if provided

h. Test the atmosphere of the tunnel as often as necessary to assure air quality of 19.5% and no more the 22% oxygen, record results.
Refer to Confined Space Program on pgs. 26 – 40 for more detailed information.

5. CONFINED SPACE PROGRAM

GENERAL

A. CONFINED SPACE DEFINITION

1. A ***confined space*** is a space having all of the following criteria: (1) is large enough and so configured that an employee can bodily enter, (2) has a limited or restricted means for entry and exit, and (3) is not designed for continuous employee occupancy.

   Examples of locations where confined spaces may occur include, but are not limited to, storage tanks, manholes, sewers, water mains, storm drains, underground utility vaults, concrete pier columns, precast concrete manhole units, drilled shafts, pipelines, gatewells, ducts, catch basins and open top spaces such as pits, tubs, vaults, and vessels.

B. CONFINED SPACE CLASSIFICATIONS

1. ***Non-Permit Space*** is a confined space that does not contain existing or potential physical or atmospheric hazards. A space having only *physical hazard(s)* that have been isolated or eliminated can be reclassified as a non-permit space. Reclassifying is not allowed when a space contains an existing or potential *atmospheric hazard(s)* (i.e. existing sewers, manholes, and other similar locations).

2. ***Alternate Entry Space*** is a permit space that contains no physical hazards (or the physical hazards have been eliminated or isolated); the existing or potential atmospheric hazards can be controlled by continuous mechanical forced air ventilation; and, in the event the ventilation system stops working, entrants can exit the space safely. Alternate entry procedures are less stringent than full permit space procedures.

3. ***Full Permit Space*** is a permit space that contains existing or potential physical and/or atmospheric hazards. Full permit space entry procedures are required when workers enter the space.

C. MIOSHA STANDARD REFERENCES

1. The requirements for confined spaces in construction are covered in Construction Safety Standard (CS) Part 35 – Confined Space in Construction. Additional requirements for welding activities are covered in CS Part 7 – Welding and Cutting and General Industry Standard Part 12 – Welding and Cutting.

   Part 35 – Confined Space in Construction does not apply to certain construction work activities such as diving, excavations, and underground construction (i.e. tunnels, shafts, cofferdams, and caissons). The requirements for these activities are covered in CS Part 9 – Excavation Trenching & Shoring and Part 14 – Tunnels, Shafts, Cofferdams, and Caissons; and Occupational Health Standards Part 504 - Diving Operations and Part 665 - Underground Construction, Caissons, Cofferdams, and Compressed Air.

D. EMPLOYEE RESPONSIBILITIES

1. Employees must not enter a confined space until properly trained and authorized by the supervisor/foreman. If unsure whether an area or space is considered a confined space, contact your supervisor or foreman.

E. EMPLOYEE TRAINING

1. Every employee shall receive training and instruction as to the existence, location, and dangers posed by permit spaces and that they must not enter such spaces without authorization by the supervisor/foreman.

2. Employees who are involved in alternate entry and full permit space entry work operations shall receive specific training to ensure they have the knowledge, understanding and skills to perform their duties safely; understand the hazards in the permit spaces and the methods used to isolate, control or protect workers; and the dangers of attempting entry rescue unless authorized.

3. Employee names, trainer names, specific duties training, and dates of training shall be recorded and maintained at the office. The training records shall be made available to employees upon request.

FIRST STEP: INITIAL WORK SITE EVALUATION

1. Before work begins, the competent person (typically the foreman) must evaluate the worksite to determine if there are any spaces that workers may enter into that meet the definition of a confined space.

2. Employees are not authorized to enter a confined space until the foreman has determined which of the following classifications and entry procedures will be used to enter the space:

    a. Non-Permit Space Entry
    b. Alternate Entry Space
    c. Full Permit Space Entry

    Use the **Classifying Confined Spaces** flowchart (See Appendix A) for assistance in determining classification and entry procedures.

3. Each confined space must be evaluated for existing and/or potential physical and atmospheric hazards. Whenever possible, the initial evaluation shall be completed without entering the space. If entry into the space is necessary to complete an initial evaluation, full permit space entry procedures are required.

4. The atmosphere in the space must be tested prior to changing the space's natural ventilation. Direct-reading instruments must be calibrated per manufacturers' specification and used to test for oxygen content, flammable gases and vapors, and

potential toxic air contaminants, **in this order**. The testing will determine whether the following hazards are present or could be introduced by the work operation:

a. Oxygen deficiency (concentration less than 19.5 %) or excess (concentration above 23.5 %).
b. Concentration of any flammable gas, vapor, or mist in excess of 10 percent of its lower explosive limit (LEL).
c. Airborne combustible dust at a concentration equal to or greater than its lower explosive limit.
d. Atmospheric concentration of any substance that can cause death, incapacitation, impairment of ability to self-rescue, injury or acute illness.

5. ***Section 1*** of the **Pre Entry Checklist** (See Appendix B) must be completed for each confined space that employees may enter into and kept available at the job site. The Pre-Entry Certification (PEC) is necessary to document the results of the initial evaluation and atmospheric testing; and is the rationale used to classify the space and the entry procedures.

NON-PERMIT SPACE ENTRY

1. If a space does not have an existing or potential physical or atmospheric hazard, it is classified as a non-permit space, and employees may enter. **Danger signs are not required for non-permit spaces.**

2. If a space contains an existing or potential physical hazard(s) only, the space can be reclassified as a non-permit space if the physical hazards have been eliminated or isolated. The rationale must be documented in ***Section 1*** on the Pre Entry Certification (PEC). Reclassifying is not allowed when a space contains an existing or potential atmospheric hazard (i.e. existing sewers, manholes, and other similar locations). In this situation, go to the Alternate Entry Space section.

3. Periodic atmospheric testing and evaluations may be necessary to ensure employee safety in a non-permit space, especially when a work operation (i.e. welding, cutting, using toxic materials) could introduce a new hazard into the space. Anytime a periodic or subsequent atmospheric test is conducted, the results must be documented and kept at the work site. (See Appendix C): **Confined Space Atmospheric Testing Data Sheet**. Atmospheric test results are not required to be documented if ***continuously monitoring*** the atmosphere within the space.

4. Employees must exit the space immediately if a hazard is introduced or detected. The space is then reclassified as a full permit space until additional testing and evaluation demonstrate that the space is safe for re-entry. The event, hazards, and steps taken to eliminate or isolate the hazard in order to prevent another occurrence must be documented in ***Section 3*** on the PEC. The foreman must include his/her signature authorizing re-entry into the space. In addition, the GC must be informed of any hazards that occurred or were created in the space during entry.

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ALTERNATE ENTRY SPACE

1. Alternate entry space procedures are less stringent requirements that may be used in lieu of the full permit space procedures, provided **all** of the following criteria can be obtained:

    a. All physical hazards in the space are eliminated or isolated;
    b. The only hazard is an actual or potential hazardous atmosphere that can be made safe for entry using continuous forced air ventilation; and
    c. In the event the ventilation system stops working, entrants can exit the space safely.

2. Prior to entry, the foreman must inform the controlling contractor of the existence, location, and hazards likely to be confronted or created during entry, and that alternate entry procedures will be used to enter the space. When another employer's employee(s) is working in the space at the same time, or when work activities that could result in a hazard are performed in the space at the same time, the alternate entry procedures must be coordinated with the controlling contractor and the other affected employer.

3. DANGER – PERMIT-REQUIRED CONFINED SPACE – DO NOT ENTER signs must be posted at each alternative entry space location to prevent unauthorized entry.

4. ***Sections 1 and 2*** on the PEC must be completed prior to entering the space when using alternate entry procedures. This will document the hazards, precautions, entry procedures and the supporting data for using alternate entry procedures and to verify the space is safe for entry. The PEC must be made available to each employee entering the space or to their authorized representative, as applicable, and kept at the job site.

5. Any conditions making it unsafe to remove an entrance cover (i.e. manhole cover) must be eliminated before the cover is removed. If an entrance cover is removed, the opening must be immediately guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and will protect employees from falling objects when working in the space.

6. Continuous mechanical forced air ventilation must be set up and used to ventilate the space. Exhaust ventilation and natural ventilation are not acceptable substitutes for forced air ventilation. The forced air ventilation must be directed to ventilate the immediate areas where each employee will be working within the space and must continue until all employees have left the space. The air supply for the forced air ventilation must be from a clean source and must not increase the hazards in the space.

7. After the space has been ventilated, the atmosphere must be re-tested prior to entry to ensure that the forced air ventilation is preventing the accumulation of a hazardous atmosphere. After re-testing, the atmosphere must be continuously monitored unless periodic monitoring is sufficient to ensure that the atmosphere remains nonhazardous. Anytime a periodic, subsequent or re-test of the atmosphere is conducted, the results must be documented and kept at the work site. (See Appendix C): **Confined Space Atmospheric Testing Data Sheet**. Atmospheric test results are not required to be documented if ***continuously monitoring*** the atmosphere within the space.

8. Monitoring instruments must be equipped with an early warning audible alarm that is capable of alerting employees of any atmospheric hazard that may have entered into the space and provides sufficient time to exit the space.

9. If the ventilation system is equipped with an audible alarm, employee(s) must immediately leave the space on their own if the ventilation stops for any reason when the alarm sounds.

   If the ventilation system is <u>not</u> equipped with an audible alarm, an employee stationed at the top of the space opening (top man) must be readily available to monitor the ventilation system and be able to effectively communicate with the employees within to immediately exit the space on their own should the ventilation stop for any reason.

10. A safe method of entering and exiting the space must be provided. Any hoisting system that is used must either be designed or manufactured for personnel hoisting or be approved for personnel hoisting by a registered professional engineer prior to use.

11. Confirm local emergency units are readily available in the case of an emergency. **Attendants, rescue equipment and rescue teams are not required during alternate entry procedures unless the space is reclassified as a full permit space**.

12. If a hazard is detected while employees are working within the space, the foreman must ensure each worker leaves the space immediately. The space is then reclassified as a full permit space until additional testing and evaluation demonstrate that the space is safe for re-entry. The foreman must document the event, hazards, and steps taken to eliminate or isolate that hazard to prevent another occurrence in ***Section 3*** on the PEC. The foreman must include his/her signature authorizing re-entry into the space.

13. The GC must be notified when work has been completed and informed of any hazards that occurred or were created in the space during entry. Document this in ***Section 4*** on the PEC.

FULL PERMIT SPACE ENTRY

1. Complete Section 1 of the PEC to verify the conditions of the permit space during the initial work site evaluation and prior to entry. When hazards or potential hazards within a space cannot be eliminated, isolated, controlled with ventilation, or entrants are unable to exit the space in the event the ventilation system stops working, full permit space entry procedures must be established and implemented.

2. DANGER – PERMIT-REQUIRED CONFINED SPACE – DO NOT ENTER signs must be posted at each full permit space location to prevent unauthorized entry.

3. Prior to entry, the foreman must inform the controlling contractor of the existence, and location, of hazards (including any hazards likely to be confronted or created), and that full permit entry procedures will be used to enter the space. The entry procedures must be coordinated with the controlling contractor when another employer's employee(s) is

working in the permit space at the same time and when a work activity that could result in a hazard is performed in the space at the same time.

4. Full permit entry procedures must be developed and implemented to ensure safe entry into the space. The entry procedures must include, at a minimum, all of the following:
    a. Specify the acceptable entry conditions;
    b. Provide entrants or their authorized representative an opportunity to observe any monitoring or testing of space;
    c. Isolate the space and physical hazards within the space;
    d. Purging, inerting, flushing, or ventilating the space as necessary to eliminate or control atmospheric hazards;
    e. Determine that, in the event the ventilation system stops working, the monitoring procedures and equipment will detect an increase in atmospheric hazard levels in sufficient time for entrants to safely exit the space;
    f. Provide pedestrian, vehicle, or other barriers as necessary to protect entrants from external hazards;
    g. Verify that conditions within the space are acceptable throughout entry.

5. Provide the following equipment, maintain the equipment, and ensure employees use the equipment properly:
    a. Testing and monitoring equipment;
    b. Ventilating equipment;
    c. Communication equipment;
    d. Personal protective equipment when engineering and work-practice controls do not adequately protect employees;
    e. Approved lighting equipment;
    f. Barriers and shields;
    g. Equipment, such as ladders, for safe access and egress;
    h. Rescue and emergency equipment, unless equipment is provided by rescue services; and
    i. Any other equipment necessary for safe entry into, safe exit from, and rescue.

6. Full permit space conditions must be evaluated as follows during entry:
    a. Test the atmosphere in the space before entry to determine if acceptable entry conditions exist before changes to the space's natural ventilation are made. If isolation of the space is infeasible, due to being large or is part of a continuous system (such as a sewer), all of the following must be conducted:
        i. Perform pre-entry atmospheric testing to the extent feasible before entry;
        ii. Continuous monitoring of conditions in the areas where entrants are working;
        iii. Provide an early-warning system that continuously monitors for non-isolated engulfment hazards and alerts entrants and attendants in sufficient time to safely exit the space.
    b. Continuously monitor atmospheric hazards unless periodic monitoring is sufficient to ensure that the atmosphere remains nonhazardous.
    c. When testing the atmosphere, test first for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors.
    d. Allow entrants or their authorized representative to observe any testing.

e. Reevaluate the space as requested by the entrant or their authorized representative and provide them with the results of any testing.

7. The authorized entrant(s), attendant(s), and foremen each have specific duties whenever work is performed in a permit space. Their specific duties are listed below:

Authorized entrants must:

a. Know space hazards, including information on the means of exposure such as inhalation or skin contact, and symptoms of the exposure;
b. Use appropriate personal protective equipment properly;
c. Stay in communication with attendant as necessary to enable the attendant to monitor the entrant's status and alert to evacuate when necessary;
d. Exit from the permit space as soon as possible when:
    i. Ordered by the attendant or foreman;
    ii. When he/she recognizes the warning signs or symptoms of exposure;
    iii. A prohibited condition exists; or
    iv. An automatic alarm is activated.
e. Alert the attendant when a prohibited condition exists or when warning signs or symptoms of exposure exist.

Attendants must:

a. Remain outside the permit space during entry operations unless relieved by another authorized attendant;
b. Perform non-entry rescues when specified by the rescue procedure;
c. Know existing and potential hazards, including information on the types of exposure, signs or symptoms, consequences, and other effects;
d. Maintain communication with and keep an accurate account of the workers within the space;
e. Assess conditions inside and outside the space and order evacuation of the permit space when:
    i. A prohibited condition exists;
    ii. A worker shows behavioral effects of hazard exposure;
    iii. A situation exists outside the confined space that could endanger the employees within the space; and
    iv. The attendant cannot effectively and safely perform required duties.
f. Summon rescue and other services during an emergency and when a worker becomes injured or ill;
g. Ensure that unauthorized people stay away from permit spaces or exit immediately if they have entered into the space;
h. Inform entry employees and foreman if any unauthorized person enters the permit space; and
i. Perform no other duties that interfere with the attendant's primary duties.

Foremen must:

a. Know space hazards including information on the mode of exposure, signs or symptoms and consequences;
b. Verify that specified entry conditions are satisfied, including permits, tests, procedures and equipment before allowing entry;

c. Terminate entry and cancel or suspend permits when entry operations are completed or if a condition that is not allowed under the permit arises;
d. Verify that rescue services are available and that the means for summoning them are operable;
e. Take appropriate measures to remove unauthorized entrants; and
f. Ensure that entry operations remain consistent with the entry permit and that acceptable entry conditions are maintained.

8. At least one attendant must be stationed outside the permit space when workers are working within, and maintain communication with all entrants and keep track of their conditions. If one or more entrants suffers an injury or illness and is unable to exit the space without help, the attendant must initiate a rescue. When an attendant is required to monitor multiple permit spaces, additional procedures must be implemented in the event of an emergency within one or more of those spaces.

9. ***Rescue and emergency*** procedures must be established for summoning rescue and emergency services and preventing unauthorized personnel from attempting rescue.

    a. ***Non-entry rescue:*** It is preferable if the entrant(s) can be rescued without others entering the space to avoid having additional personnel exposure to the hazard that caused the illness or injury. Therefore, non-entry rescue procedures using retrieval equipment must be implemented, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant, such as when obstructions can snag the retrieval line or the line can become entangled with air lines or electric cords. The attendant must be prepared to perform non-entry rescues if needed.

    When non-entry procedure is selected, each entrant must wear a chest or full body harness, with a retrieval line attached at the D-ring in the center of the back or another point which positions the entrant so that he or she is small enough to be pulled out of the space. The other end of the retrieval line must be attached to a mechanical device or a fixed point outside the permit space. A mechanical device must be available to retrieve someone from vertical type permit spaces more than 5 feet deep. Wristlets or anklets may be used instead of a chest or full body harness only if the employer can demonstrate that use of a chest or full body harness is infeasible or creates a greater hazard.

    When a non-entry rescue procedure is selected, the foreman must also confirm, before entry begins, that emergency assistance (typically the local fire department) is available if the non-entry rescue fails.

    b. ***Entry rescue:*** When non-entry rescue is not feasible, the only way to rescue an entrant is for others to enter the permit space. For entry rescue, an on-site rescue team consists of our employees or another contractor's employees. An off-site rescue service is a local fire department or other rescue service. The off-site rescue service must be able to respond in time to get the entrant out of the space to receive medical treatment, which requires the foreman to contact the rescue service prior to entering the space and informing them of the nature and

hazards involved in the space. In some cases, this may require a standby rescue team, such as when the entrant is working in an atmosphere that is immediately dangerous to life or health (IDLH) and is wearing an airline respirator or a self-contained breathing apparatus.

When entry rescue takes place, an attendant must be stationed outside the permit space so that additional help can be summoned if needed. If the original attendant is to enter the space as part of the rescue team, a new attendant must be in position before the first attendant enters the space.

c. ***Training requirements for rescue teams and off-site rescue services***: All members of a rescue team must receive the training that is required for authorized entrants and have been trained to perform their assigned rescue duties. Rescue team members must be provided with personal protective and rescue equipment, including respirators, and must be instructed on how to use it. All rescuers must be trained in first aid and CPR. At a minimum, one rescue team member must be certified in first aid and CPR. Rescuers must be informed of the hazards within the permit space before entering. Rescue team practices or exercises must take place at least yearly. Off-site rescue services must be provided access to all permit spaces, if requested, in order to practice rescue operations.

   Off-site rescue services must notify the foreman in the event that their service is unavailable. The permit space work can be postponed or another off-site rescue service can be used.

   If using an off-site rescue service, the foreman must determine that the service has the ability and equipment to carry out a rescue in the particular permit space or type of permit space that entrants are working in. The foreman must contact the rescue service to make sure that it will be able to respond in a timely manner whenever an entrant is in the permit space.

10. Full permit space entry procedures must be reviewed and deficiencies must be corrected whenever it is discovered that the procedures established may not be protecting employees adequately. Circumstances requiring a review include an injury or near misses, unauthorized entry, detection of a new hazard or condition prohibited by the Entry Permit, or an employee complaint about the program's effectiveness. In addition, the Full Permit Space Procedures will be reviewed annually for effectiveness using the cancelled entry permits.

11. Prior to entry, a **Full Permit Space Entry Permit** (See Appendix D) must be completed for each full permit space that employees may enter into. The entry permit includes all of the following information:

    a. Name of the permit space to be entered, authorized entrants(s), current attendants, and current entry foremen;
    b. Purpose of entry;
    c. Date and authorized duration of entry;

d. Means of detecting an increase in atmospheric hazard levels;
e. Name and signature of foreman who authorizes entry;
f. Known hazards in the space;
g. Measures to be taken to isolate permit spaces and to eliminate or control space hazards;
h. Acceptable entry conditions;
i. Test results, date and time of tests(s), and the tester's initials or signature;
j. Name and telephone numbers of rescue and emergency services and means to be used to contact them;
k. Communication procedures and equipment to maintain during entry;
l. Special equipment and procedures, including personal protective equipment and alarm systems;
m. Any other information needed to ensure employee safety; and
n. Additional permits, such as for hot work, that have been issued authorizing work in the permit space.

12. The foreman must cancel entry permits when work has been completed within the space or when new hazards or conditions occur. Once a permit is cancelled, entry under it is no longer permitted. New hazards or conditions must be noted on the cancelled permit and used in revising the permit space program. Once the work has been completed and the entry permit cancelled, it must be kept for a least one year.

13. The foreman may suspend an entry permit instead of cancelling it if a temporary condition has occurred in or near the space that, once corrected, is not expected to reoccur. The permit may be reinstated and entry may occur under the permit if the entry supervisor has determined that the conditions in the space match the allowable conditions listed on the permit.
14. The GC shall be informed when work has been completed within the space and of any hazards that occurred or were created in the space during entry.

APPENDIX A

CLASSIFYING CONFINED SPACES

Identify and evaluate each space to determine existing or potential hazards.

- Does the space contain a hazardous atmosphere?
- Could the work operation introduce a hazard, i.e. welding, cutting, using toxic material?
- Are there materials within the space that could engulf?
- Could the design of the space's internal configuration trap or asphyxiate?
- Does the space contain any physical hazards that cannot be eliminated or isolated?
- Is the space an existing sewer, manhole, or similar structure?

NO

This is **a Non-Permit Space**.

Employees may enter a non-permit space provided they have received appropriate confined space training. Only Section 1 of the Pre-Entry Checklist must be completed prior to entry.

Additional atmospheric testing and evaluations may be necessary to ensure worker safety.

YES

This is a **Permit Space**.

Employees are <u>not</u> allowed to enter a permit space until it can be maintained in a safe condition or the employees are protected from hazards.

There are two options for entering a permit space: Alternate Entry or Full Permit Entry.

Alternate Entry procedures can be used if <u>all</u> of the following are satisfied:

- The physical hazards are eliminated or isolated;
- Atmospheric hazards can be controlled by continuous *mechanical* forced air ventilation; and
- In the event the ventilation system stops working, entrants can exit the space safely.

The space remains a permit space; however less stringent requirements are allowed. Sections 1 & 2 on the Pre-Entry Checklist must be completed prior to entry. Additional training is required for entry employees, foremen and any other employees having duties or responsibilities for space entry.

Full Permit Entry procedures <u>must</u> be used when the criteria for alternate entry cannot be satisfied.

The space remains a permit space and <u>all</u> of the requirements of a Full Permit Space Entry must be complied with. This includes, but is not limited to, additional employee training, full permit documentation, attendants, rescue personnel, and rescue equipment.

APPENDIX B
PRE-ENTRY CHECKLIST

SECTION 1: INITIAL WORK SITE EVALUATION

Date of Initial Evaluation:	Identify space being entered:	Person completing the evaluation:

Can the initial evaluation be completed without entering?

Yes ☐ *Continue to next box.*
No ☐ *STOP! –Use full permit space procedures.*

If a cover or guard has to be removed to perform the initial evaluation or testing, have all hazardous conditions been eliminated, isolated, or controlled?
Yes ☐ N/A ☐

Atmospheric Hazard Assessment

Record initial atmospheric testing:

Oxygen	%
Flammable/Explosive Gas	% LEL
Hydrogen Sulfide (H2S)	PPM
Carbon Monoxide (CO)	PPM
Other (Specify)	

Record subsequent atmospheric testing on the Confined Space Atmospheric Testing Data Sheet (Appendix C).

Does the space contain a hazardous atmosphere?

No ☐
Yes ☐ (Only Alternate Entry or Full Permit Entry procedures are allowed.)

Could a hazardous atmosphere possibly enter the space after the initial testing, (i.e. sewers and manholes) or could a hazard be introduced from a work operation (i.e. welding, cutting, applying toxic material)?

No ☐
Yes ☐ (Only Alternate Entry or Full Permit Entry procedures are allowed.)

Physical Hazard Assessment

Are there existing or potential physical hazards in the space (i.e. electrical, mechanical, engulfment)?

No ☐ Yes ☐ (*Check applicable boxes below)*

- ☐ Electrical
- ☐ Mechanical
- ☐ Engulfment/Water
- ☐ Hydraulic/Pneumatic
- ☐ Entrapment
- ☐ Converging Walls
- ☐ Fall Hazard
- ☐ Temp. Extreme
- ☐ Other (Specify): _____

If physical hazards were detected in the space, were they eliminated or isolated?

No ☐ Yes ☐ (Check applicable boxes below)

- ☐ Lock out/Tag out
- ☐ Isolate/Guard
- ☐ Purge/Drain/Clean
- ☐ Blank/Block/Bleed
- ☐ Other (Specify): _____
- ☐ Personal Fall Arrest/Rest.
- ☐ Install Work Platform
- ☐ Guard Rails/Hole Covers
- ☐ Ventilation/Ice Vest

SPECIFY THE APPROPRIATE CLASSIFICATION AND ENTRY PROCEDURES

☐ Non-Permit Space. There are no existing or potential physical hazards or atmospheric hazards. Periodic atmospheric testing may be necessary. Employees may enter the space.

☐ Alternate Entry Space. There are no physical hazards. There are existing or potential atmospheric hazards that can be controlled by ventilation; and if the ventilation system stops working, entrants can exit the space safely on their own. Continue to Section 2: Alternate Entry Space.

☐ Full Permit Space. There are physical hazards that cannot be eliminated or isolated and/or there are existing or potential atmospheric hazards that cannot be controlled by ventilation. Full permit space entry procedures are required.

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SECTION 2: ALTERNATE ENTRY SPACE

Confined space danger sign posted at the space? Yes ☐	Are local emergency services readily available? Yes ☐
GC notified of the work and entry procedure? Yes ☐ N/A ☐	Alternate entry training provided to employees? Yes ☐

Check applicable boxes describing the existing or potential atmospheric hazards detected in the space:

☐ Oxygen Deficiency ☐ Carbon Monoxide (CO) ☐ Flammable/Explosive Gases/Vapors (Specify):
☐ Welding/Cutting ☐ Hydrogen Sulfide (H_2S) ☐ Other (Specify):

Check applicable boxes that describe how the atmospheric hazards will be isolated or controlled in order to protect entrants:

☐ Mechanical ventilation system set at 100% outside air
☐ Use portable blowers to augment natural ventilation
☐ Continuous air monitoring during and after entry
☐ Use intrinsically safe lighting in the space
☐ Open additional manholes to increase air circulation
☐ Repeat atmospheric testing after ventilating the space
☐ No burning, cutting, or welding operations in the space
☐ Other (Specify):

In the event the ventilation system stops working, check applicable boxes that describe how the atmospheric hazards will remain at safe levels long enough for entrants to recognize the problem and safely exit the space:

☐ Fully ventilated space while unoccupied to get non-detect readings for atmospheric hazards; then shut down ventilation and monitored air quality. If atmospheric hazards are detected that reach maximum limits, full permit space procedures will be implemented.
☐ The atmospheric testing equipment is equipped with an audible alarm to alert entrants to exit the space.
☐ Entrants are wearing personal air monitors that are equipped with an audible alarm to alert them to exit the space.
☐ The ventilation system is equipped with an audible alarm to alert entrants to exit the space.
☐ A top man is readily available to monitor the ventilation system and alert the entrants to exit the space.
☐ Other (Specify):

Check applicable boxes that describe how employees are able to safely exit the space on their own:

☐ A fixed ladder is located in the space and safe for entrants to use to exit the space.
☐ A portable ladder will remain in the manhole during the time entrants are working in the space.
☐ A work platform has been installed in the space for egress.
☐ Other (Specify):

Check appropriate boxes that describe any additional steps or monitoring to be taken to ensure conditions are safe from physical hazards: ☐ Periodic inspections ☐ Early warning system ☐ Other (Specify):

SECTION 3: COMPLETE ONLY WHEN A HAZARD IS DETECTED IN THE SPACE AFTER THE INITIAL EVALUATION

Were employees evacuated from the space when the hazard was detected? Yes ☐

Describe the event, hazard, and steps taken to eliminate or isolate the hazard to prevent another occurrence:

_____
_____
_____

Is the space safe for re-entry?

Yes ☐ *Employees may re-enter the space.* **Foreman Signature:** _____

No ☐ *Employees must not enter the space. This is now re-classified as a full permit space. Full permit space procedures are required until space has been made safe for re-entry.*

SECTION 4: AFTER WORK HAS BEEN COMPLETED IN THE SPACE

GC informed that work has been completed? Yes ☐ GC informed of any hazards detected during entry? Yes ☐ N/A ☐

APPENDIX C

CONFINED SPACE ATMOSPHERIC TESTING DATA SHEET

The initial atmospheric test results for a space are recorded on the Pre-Entry Checklist. This data sheet is used to record subsequent or additional atmospheric testing of a space.

Job Site: _____ Space being tested: _____

Date	Time	Oxygen	Flammable/ Explosive Gas	Hydrogen Sulfide (H2S)	Carbon Monoxide (CO)	Other (Specify)	Employee Initials
Permissible Levels		19.5 to 23.5%	10% LEL	5 PPM	25 PPM		

Notes:

_____

_____

_____

_____

_____

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APPENDIX D

FULL PERMIT SPACE ENTRY PERMIT

1. Permit space to be entered (i.e. sewer, tank, manhole, crawlspace, attic):	Host, GC and Subs notified of the work? Yes ☐ NA☐
2. Purpose of entry:	Location:
3. Date of entry: Auth. duration of entry permit:	Entry supervisor print name/contact information:
4. Rescue type selected: Non-entry ☐ or Entry ☐ Equipment: Tri-pod/Davit arm ☐ or Emergency service ☐ Emer. Service Available (Permit Space only): Onsite ☐ or ☐ Off-site (name & phone): _____ Rescuer(s) trained in 1st Aid/CPR (Permit Space only): ☐ (Note: Part 1 1st Aid requirements	Communication Equipment: Radio ☐ Voice ☐ Cell Phone ☐ Air Horn ☐ ☐ Other (Specify):

5. Authorized entrants (Print Names) Use back or attach page for more entrants	**Entry time**		**Entry time**		**Entry time**		**Entry time**	
	In	**Out**	**In**	**Out**	**In**	**Out**	**In**	**Out**

6. Attendant (Print Name)	**Date and Time**	**7. Current training for confined space workers verified?**
	☐ AM ☐ PM	Yes ☐ No ☐
	☐ AM ☐ PM	

8A. Identify, evaluate and record hazards of space to be entered.	**Yes**	**No**	**8B. Specify equipment and measures required to eliminate/control hazards before and during entry**
A. Lack of Oxygen or Inert Gas Present (i.e. Argon, Nitrogen)	☐	☐	Continuous forced air ventilation ☐ Blank, Block and Bleed ☐ Purge, Clean, Drain ☐ Intrinsically Safe Lighting ☐ Respiratory Protection: Supplied Air with Escape Bottle ☐ SCBA ☐ Other (list) ☐
B. Flammable Gas/Vapor (%LEL)	☐	☐	
C. Toxic Gas/Vapor (i.e. CO and H_2S)	☐	☐	
D. Chemical (impairs self-rescue)	☐	☐	
E. Electrical	☐	☐	Lockout/Tagout ☐ Isolate/Guard ☐ Blank, Block and Bleed ☐ Other (list) ☐
F. Mechanical	☐	☐	
G. Hydraulic/Pneumatic	☐	☐	
H. Temp. Extreme	☐	☐	Continuous forced air ventilation ☐ Ice Vest ☐ Other (list) ☐
I. Engulfment	☐	☐	Drain ☐ Pump ☐ Other (list) ☐
J. Entrapment/Converging Walls	☐	☐	Install Work Platform ☐ Hole Covers ☐ Guard Rails ☐ Personal Fall Arrest /Restraint ☐ Other (list) ☐
K. Fall Hazard	☐	☐	
L. Introduced Hazards (i.e. Chemical, Hot Work)	☐	☐	Fire extinguisher ☐ Hot Work Permit ☐ Other (list) ☐
M. Other	☐	☐	Warning signs posted at access ☐ Additional PPE ☐

9. Gas tester(s)/monitor model(s)/type(s):	Serial/unit no(s):
	Bump test to confirm function? Yes ☐ Verified: On-site test ☐ Documentation ☐

Test Required	**Permissible levels**	**Initial test levels**	**Subsequent test type**: Sample ☐ Continuous ☐ (take readings before **EACH** entry into space)				
		(before vent)	**Test 2**	**Test 3**	**Test 4**	**Test 5**	**Test 6**
A. Oxygen (O2)	19.5 to 23.5%						
B. Combustible gas/vapor (LEL)	10% LEL						
C. Hydrogen sulfide (H2S)	5 PPM						
D. Carbon monoxide (CO)	< 25 PPM						
E. Other							
	Tester initials						
	Test Times						

10. Are entry conditions acceptable? (Remove debris and other obstructions from entry point) Yes ☐ No ☐

Entry Suspended (time): _____ AM ☐ PM ☐ **Time of reentry:** _____ AM ☐ PM ☐

Reason for suspending permit: _____

Permit Canceled date/time ____/____ AM ☐ PM ☐ **Unanticipated Hazards?** No ☐ Yes ☐ If yes, describe below:

Debriefing occurred after entry? Yes ☐ No ☐

Entry Supervisor Signature: _____

6. EMERGENCY RESPONSE PROGRAM

A. As part of its safety program it is the policy of **D & R Earthmoving, LLC.** to make certain that all employees have been instructed as to proper procedures in case of an injury or accident.

B. **D & R Earthmoving, LLC.** designates the 911 system as its first response in the event of a medical emergency and / or rescue operation.

C. A list of emergency phone numbers will be posted at the jobsite when practical. If no suitable or convenient location exists, the list will be kept by the project foreman.

D. All injuries and / or accidents shall be reported to the job foreman immediately.

E. All accidents and / or injuries shall be reported to the Safety Officer as soon as is practical.

F. **D & R Earthmoving, LLC.** will provide a person at each job site who is trained in CPR and First Aid procedures as required by any applicable Safety & Health Standards.

G. Never move an injured person unless absolutely necessary. Further injury may result. Keep the injured employee comfortable and utilize available first aid equipment until an ambulance arrives.

7. HAZARD COMMUNICATION PROGRAM
MICHIGAN RIGHT TO KNOW LAW (RTK)

A. GENERAL

The following hazard communication program has been established for **D & R Earthmoving, LLC.** and will be available for review by all employees. The foreman or superintendent will keep a copy (electronic or hard copy) of this program on each jobsite for employees to review.

B. Hazard Classification

All employees must rely on the Safety Data Sheets (SDS's) obtained from the product manufacturer or its suppliers to determine which chemicals are classified as hazardous.

C. Labeling

1. The foreman or superintendent is responsible for making sure all containers entering the jobsite are properly labeled. All labels shall be checked for:

a. Product identity;
b. Signal word;

c. Hazard statement(s);
d. Pictogram(s);
e. Precautionary statement(s); and
f. Name, address, and telephone number of the chemical manufacturer, supplier, or other responsible party.

2. The Safety Director is responsible for requesting labels (in writing) from the manufacturer or supplier for all shipments arriving at the jobsite without labels. The foreman or superintendent shall notify the Safety Director immediately upon discovering any shipments arriving at the jobsite without labels.

3. The foreman or superintendent is responsible for making sure that all portable or secondary containers used on the jobsite are labeled with the product identity and providing employees with the specific information regarding the physical and health hazards associated with chemical.

D. Safety Data Sheets (SDS's)

1. The Safety Director is responsible for compiling and maintaining the master SDS file. It will be kept at the main office at: **5840 Sterling Drive – Suite 420 Howell, MI 48843**.

2. Copies of SDS's for all hazardous chemicals to which employees may be exposed will be made available to all employees upon request.

3. The foreman or superintendent will be provided with the required Michigan Right-To-Know posters and postings for each jobsite. The posters must identify the person responsible for maintaining SDSs and where the SDSs are located. Posters notifying employees when new or revised SDSs will be in the same location.

E. Employee Information and Training

1. The Safety Director is responsible for coordinating and maintaining records of employee hazard communication training conducted for **D & R Earthmoving, LLC.**

2. Before starting work, or as soon as possible thereafter, each new employee will attend a safety briefing which will include the following information and training:
   a. Information:
      1. Hazard Communication Requirements.
      2. Work operations on the jobsite where hazardous chemical are present.
      3. Where to locate the Company Hazard Communication Program, list of hazardous chemicals and from whom they may obtain a copy of the SDS's.

b. Training:
    1. Methods to use for reducing or preventing exposure to these chemicals during work activities.
    2. Instructions regarding the physical and health hazards, as well as hazards that are not classified, of the chemicals present in the work area.
    3. Procedures to protect themselves from chemical hazards if exposed.
    4. How to read and interpret labels and SDS's.
    5. How to obtain and use hazard information.

3. Inform the new employee that employers are prohibited from discharging, or discriminating against, an employee who exercises the rights regarding information about hazardous chemicals in the workplace.

4. Attendance will be taken at all safety briefings or training sessions. The records will be kept by the Safety Director.

5. Before a new hazardous chemical is introduced into the workplace, each employee will be given information in the same manner as during the safety briefing.

F. HAZARDOUS NON-ROUTINE TASKS

1. On occasion, employees may be required to perform non-routine tasks in a potentially hazardous area (e.g. confined spaces). Prior to working in such areas, each employee must receive a safety briefing that includes the following information about the hazards involved:

    a. Specific chemical hazards.

    b. Protective safety methods the employee can take to reduce risks.

    c. Measures the company has taken to reduce the hazards including air monitoring, ventilation requirements, use of respirators, use of attendants to observe procedures, and emergency procedures.

G. INFORMING CONTRACTORS ON MULTI-EMPLOYER WORKSITES

1. The Safety Director is responsible for providing each subcontractor who has employees working on the jobsite that could be exposed to our chemicals with the following information:

    a. Hazardous chemicals used at the jobsite that employees may encounter.

    b. Measures the employees may take to lessen the risks.

    c. Where to obtain a copy of the SDS for the hazardous chemicals

    d. Location of SDS list.

2. The Safety Director is responsible for obtaining chemical information from contractors when they bring hazardous chemicals into our workplace that could expose or harm our employees.

H. PIPES AND PIPING SYSTEMS

1. The foreman or superintendent shall ensure that facilities have been properly labeled on all pipes and piping systems containing hazardous chemicals, natural gas, steam and compressed air lines (exceeding 25 psig) when our employees may be exposed to this hazard during their work operation.

I. LIST OF HAZARDOUS CHEMICALS

1. The list of the chemicals used by this company can be obtained by reviewing the SDSs or by contacting the Safety Director.

8. SILICA PROGRAM

GENERAL

I. SILICA HEALTH HAZARDS

Crystalline Silica (silica) is a mineral commonly found in rock, stone, sand, concrete, asphalt and masonry material. Silica becomes a health hazard when these materials are broken up or crushed into very fine respirable ***silica dust*** that is breathed into the lungs. Silica dust damages lung tissue and can lead to silicosis, a serious and sometimes fatal lung disease. Other diseases that can occur from breathing in silica dust are chronic bronchitis, tuberculosis, chronic obstructive pulmonary disease (COPD) and lung cancer.

Below are some common work practices that can lead to silica dust exposure:

- Drilling, cutting, grinding, chipping or hammering concrete, stone or masonry.
- Abrasive blasting
- Crushing rock or concrete, mixing concrete.
- Milling concrete and asphalt
- Loading, dumping, and hauling rock and concrete.
- Tunneling operations
- Dry sweeping or using compressed air to move dust, sand or rock.

II. WHEN DO THE SILICA RULES APPLY?

The silica rules apply to any work operation that generates silica dust except where employee exposure to the silica dust will remain below the ***action level*** of 25 micrograms of respirable crystalline silica per cubic meter of air (25 $\mu g/m^3$) calculated as an 8-hour time-weighted average (TWA) under any foreseeable conditions. There are a few work operations that can reasonably be expected to remain below the action level such as pouring concrete and mixing small batches of concrete, however ***most tasks that create silica dust will be at or above the action level.***

Employees who are exposed to silica dust must be protected with engineering controls (wet or vacuum), work practice controls, and sometimes respirators so as not to exceed the permissible exposure limit (PEL) of 50 $\mu g/m^3$ calculated as an 8-hour time-weighted average (TWA).

III. MIOSHA STANDARD REFERENCE

The requirements for silica are covered in the Construction Safety and Health Standard Part 690 - Silica in Construction.

IV. TRAINING

Employees must be trained in the recognition of work operations that generate silica dust, the hazards associated with silica dust, and ways to limit exposures.

STEPS TO COMPLY WITH THE SILICA RULES

STEP 1: DETERMINE WHICH COMPLIANCE METHOD TO USE

When a work operation creates silica dust, the competent person (typically the foreman) must determine which of the ***two compliance method options described below*** will be used to control exposures to silica dust before work begins:

Option #1: Table 1

Refer to Table 1 (Pages 48 - 53) to determine if the work operation is listed as one of the 18 common equipment/tasks ***and*** if all the engineering controls, work practices, and respiratory protection that are specified in the table can be fully and properly implemented. If Table 1 can be used, no additional assessments or engineering controls are required unless exposure conditions have been altered.

-OR-

Option #2: Exposure Assessment and Alternative Exposure Controls

See criteria below:

A. ***Exposure Assessment***: An independent exposure assessment must be conducted to determine who may be exposed to silica dust at or above the ***action level*** of 25 $\mu g/m^3$ calculated as an 8-hour TWA during the work operation. The assessment is based on any air monitoring data or objective data that is sufficient to accurately characterize exposures.

If ***objective data*** is used for the exposure assessment, the information must demonstrate how the employee is exposed to silica dust based on the specific material, process, or work operation. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the types of material, control methods, work practices and environmental conditions in the employer's current operations. An accurate record of the information must be kept when relying on objective data to comply with the silica standard. The record must include:

a. The date of the measurement for each sample taken;
b. The task monitored;

c. Sampling and analytical methods used;
d. The number, duration and results of sample taken;
e. The identity of the laboratory that performed the analysis;
f. The type of personal protective equipment used (*e.g.*, type of respirator worn); and
g. The name, social security number and job classification of all employees represented by the monitoring.

B. ***Alternate Exposure Controls***: Alternate exposure controls must be used to limit employee exposures to the PEL of 50 micrograms of respirable crystalline silica per cubic meter of air (50 μg/m^3) calculated as an 8-hour time-weighted average (TWA). The alternate exposure controls are as follows:

a. ***Engineering controls*** are *wet method* and *HEPA-filtered vacuuming*. Wet methods involve applying water or foam at the point where dust is created to keep the dust from getting into the air (i.e. an integrated water delivery system on a stationary masonry saw). HEPA-filtered vacuuming removes dust by capturing it at or near the point where it is created (i.e. a dust collector on a handheld grinder).

b. ***Work practice controls*** are performing a task in a way that reduces or limits exposures (i.e. following the manufacturers' recommendations for equipment usage and maintenance.) or limiting the duration that an employee is exposed (i.e. rotating employees).

c. ***Respirators*** are typically required only when engineering controls cannot reduce exposures to acceptable levels.

STEP 2: RESPIRATORY PROTECTION REQUIREMENTS

A written respiratory protection program must be on site when work operations require the use of a respirator. The designated competent person (typically the foreman) must implement all the program requirements (i.e. proper selection, clean shaven, fit testing, and training). Refer to the **Respiratory Protection Program** for additional information.

Medical exams (including chest X-rays and lung function tests) must be offered to employees who are required to wear respirators for 30 or more days per year. An accurate record must be kept which includes the following information about the employee:

a. Name and social security number;
b. A copy of the physicians and other licensed health care professionals (PLHCPs) and specialists' written opinions (See Appendix B);
c. A copy of the information given to PLHCPs and specialists (i.e. a description of the employee's former, current and anticipated duties and exposure levels; a description of the PPE used by the employee; and

information from previous employment-related medical examinations that is currently within the control of the employer).

STEP 3: RESTRICT ACCESS TO OTHER WORKERS

Other workers shall be prevented from entering areas where silica dust is at or above the action level (typically in the areas where respirators are required) using signs, barricades, enclosures, spotters, or only perform the work when area is cleared of other contractors and workers.

STEP 4: HOUSEKEEPING

Only use wet-sweeping or a HEPA-filtered vacuum for cleaning surfaces or clothing unless the competent person determines that dry sweeping is the only feasible method.

Compressed air should not be used to clean clothing or surfaces unless the compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air.

STEP 5: WRITTEN EXPOSURE CONTROL PLAN

The competent person must complete the **Silica Exposure Control Plan –** pgs. 85 - 86 for each work operation/task that generates silica dust (whether using Table 1 or alternative exposure control methods).

STEP 6: REASSESS WHEN WORK CONDITIONS HAVE CHANGED

Exposures, engineering controls, and work practices must be reassessed whenever a change in the work operation, equipment, personnel, or work practices may result in new or additional exposures at or above the action level.

TABLE 1

Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica

Equipment/Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours/shift	> 4 hours/shift
(1) Stationary masonry saws	Use saw equipped with integrated water delivery system that continuouslyfeeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(2) Handheld power saws (any blade diameter)	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • When used outdoors. • When used indoors or in an enclosed area.	None APF 10	APF 10 APF 10
(3) Handheld power saws for cutting fiber-cement board (with blades diameter of 8" or less)	For tasks performed outdoors only: Use saw equipped with commercially available dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None
(4) Walk-behind saws	Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • When used outdoors. • When used indoors or in an enclosed area.	None APF 10	None APF 10

TABLE 1			
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours/shift	**> 4 hours/shift**
(5) Drivable saws	For tasks performed outdoors only: Use saw equipped with integrated water delivery system that continuously feeds water to the blade. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(6) Rig-mounted core saws or drills	Use tool equipped with integrated water delivery system that supplies water to cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
(7) Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use drill equipped with commercially available shroud or cowling with dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	None	None
(8) Dowel drilling rigs for concrete	For tasks performed outdoors only: Use shroud around drill bit with a dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.	APF 10	APF 10

TABLE 1			
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours/shift	**> 4 hours/shift**
(9) Vehicle-mounted drilling rigs for rock and concrete	Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector. **OR** Operate from within an enclosed cab and use water for dust suppression on drill bit.	None None	None None
(10) Jackhammers and handheld powered chipping tools	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact. • When used outdoors. • When used indoors or in an enclosed area. **OR** Use tool equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • When used outdoors. • When used indoors or in an enclosed area.	None APF 10 None APF 10	APF 10 APF 10 APF 10 APF 10
(11) Handheld grinders for mortar removal (i.e., tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	APF 10	APF 25

TABLE 1			
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours/shift	**> 4 hours/shift**
(12) Handheld grinders for uses other than mortar removal	For tasks performed outdoors only: Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. **OR** Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism. • When used outdoors. • When used indoors or in an enclosed area.	None None None	None None APF 10
(13) Walk-behind milling machines and floor grinders	Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. **OR** Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None None	None None

TABLE 1			
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours/shift	**> 4 hours/shift**
(14) Small drivable milling machines (less than half-lane)	Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None	None
(15) Large drivable milling machines (half-lane and larger)	For cuts of any depth on asphalt only: • Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. For cuts of four inches in depth or less on any substrate: • Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. Operate and maintain machine to minimize dust emissions. **OR** • Use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant. Operate and maintain machine to minimize dust emissions.	None None None	None None None

TABLE 1			
Equipment/Task	**Engineering and Work Practice Control Methods**	**Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**	
		≤ 4 hours/shift	**> 4 hours/shift**
(16) Crushing machines	Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyors, sieves/sizing or vibrating components, and discharge points). Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None
(17) Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab. When employees outside of the cab are engaged in the task, apply water and/ or dust suppressants as necessary to minimize dust emissions.	None None	None None
(18) Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	Apply water and/or dust suppressants as necessary to minimize dust emissions. **OR** When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None None	None None

Respiratory Protection Examples:

APF 10: Disposable N95 Respirator Dust Mask (must be fit test)
Reusable Half Facepiece Respirator with appropriate cartridges (must be fit test)

APF 25: Reusable Loose Fitting Powered Air-Purifying Respiratory Visor

9. EQUIPMENT GROUNDING CONDUCTOR PROGRAM

This program is designed to inform employees of the inspection and testing of all electrical cords, plugs and tools to prevent injuries from occurring. The foreman in conjunction with the shop is responsible for implementing this program.

A. All extension cords, plugs, electrical tools and equipment shall be visually inspected before each days use for external defects or damage and for possible internal damage. Damaged or defective cords, plugs, electrical tools or equipment shall not be used and sent to the shop for repair.

B. For the generators equipped with ground fault interrupters, please adhere to the following:
   1. Check all ground fault interrupters every time the generator is started.
   2. If the reset button pops out, the ground fault interrupter is good.
   3. If the reset button does not pop out, the ground fault interrupter is bad.
   4. A bad ground fault interrupter will cause shocking to occur.
   5. Call the shop to repair or replace a bad ground fault interrupter.
   6. Do not wire the throttle. It will cause the ground fault interrupter to go bad.
   7. The frame of all welders must be grounded.

C. The following tests shall be performed:
   1. All ground fault interrupters shall be tested as directed in Part D.
   2. Each receptacle or plug shall be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor shall be connected to its proper terminal.

D. All required tests shall be performed:
   1. Before first use.
   2. Before equipment is returned to service following any repairs.
   3. Before equipment is used after any incident which can be reasonably suspected to have caused damage.
   4. At intervals not exceeding 3 months, except that extension cords and receptacles which are fixed and not exposed to damage shall be tested at intervals not exceeding 6 months.

Tests performed as required by MIOSHA shall be recorded. The records shall identify each extension cord or electrical equipment that passed the test and shall indicate the last date it was tested or the interval it was tested. This record shall be maintained until replaced by a more current record. The record shall be made available at the jobsite for inspection by a MIOSHA director or representative, and any affected employee.

10. MOBILE DEVICE POLICY

A. APPLICABILITY

1. This policy applies to mobile cell phone usage (personal and employer-issued) and listening devices when working on a jobsite - regardless whether the cell phones or listening devices are hand-held or being used hands-free (i.e. Bluetooth earphones, earbuds, and headphones).

2. The term "cell phone usage" means making or receiving phone calls, texting, messaging, checking emails, checking social media, taking photos and videos, or any other similar activities.

B. CELL PHONES

1. Only foremen, superintendents, or other designated qualified persons are allowed to use mobile cell phones on jobsites or during working hours. Any exceptions to this policy must be approved by Management.

2. Employees may use personal cell phones during breaks or lunch times in a safe location away from active work operations (i.e. jobsite trailer or parked vehicle).

3. Personal cell phone ringers must be turned off or set to mute or vibrate during work hours.

C. LISTENING DEVICES

1. Listening devices (i.e. radios, portable CD players, iPods and other similar listening devices) are strictly prohibited on jobsites.

D. SAFE PRACTICES FOR CELL PHONES (WHEN APPROVED)

1. Use cell phones in a safe manner that does not expose the user and others to any recognizable hazard.

2. Do not use cell phones, radios, and other devices when they could distract you from warning alarms and other approaching hazards. Move to a safe location before answering the call.

3. Turn cell phones off or set to "silent" or "vibrate" before starting vehicles.

4. Pull over to a safe place when making or receiving calls while on the road.

5. Modify your voicemail greeting to indicate unavailability to answer calls or return messages while driving.

11. DISCIPLINARY POLICY

SAFETY IS EVERYONE'S RESPONSIBILITY

Management is responsible for implementing safety and health policies and procedures and providing employees with the proper tools, equipment, training, and instruction to maintain a safe and healthy workplace that is free from recognized hazards. **Foremen and Superintendents** are responsible for identifying and eliminating potential hazards at the jobsite, ensuring employees are working safely, and communicating safety policies and procedures before starting work on a project. **Employees** are responsible for following the company's safety and health policies and procedures, not engaging in unsafe behaviors, and reporting unsafe conditions to the foreman.

A violation of company safety and health policies and procedures will result in disciplinary action up to and including discharge. To ensure compliance with this policy, the following schedule of disciplinary action will be implemented when safety or health rules are not followed, or other unsafe actions occur that could endanger yourself or other workers:

First Offense:	Verbal warning.
Second Offense:	Written reprimand. (effective for one year from date of issue)
Third Offense:	Written reprimand ***and*** 1- 3 working day(s) suspension without pay. (effective for one year from date of issue)
Fourth Offense:	Written reprimand and one week suspension without pay, or termination if warranted.

Zero-Tolerance Offense: Some offenses are of such serious nature that there will be no warnings and termination may result. This applies to both the employee and the foreman.

All disciplinary actions shall be documented and filed in employee's personnel file effective for one year from date of offense.

The foreman or superintendent shall retrain the employee on the safety rule or policy that resulted in the disciplinary action before allowing the employee to return to work.

EMPLOYEE DISCIPLINE REPORT

Employee: _____ Date: _____

Project Name or Location: _____

Description of conditions and/or employee actions that led to disciplinary action:

_____

_____

_____

What is the company policy or work rule for the violation?

_____

_____

Was employee trained in the policy or safety rule prior to offense? ☐ Yes ☐ No

Action taken to correct violation:

_____

_____

Discipline Action Taken:

☐ First Offense: Verbal warning

☐ Second Offense: Written Reprimand

☐ Third Offense: Written Reprimand ***and*** Suspension # of Days *(1-3)* _____

☐ Fourth Offense: Written Reprimand ***and*** one of the following:

☐ Suspension *(one work week)*

☐ Termination

☐ Deliberate Serious Act: Immediate Termination

Was employee re-trained on the policy or safety rule? ☐ Yes ☐ No Date: _____

Report Issued By: _____ Date:_____

Employee Signature: _____ Date: _____

INCIDENT INVESTIGATION REPORT

COMPLETE THIS SECTION FOR ALL INCIDENTS

Jobsite / Location: _____

Date of Incident: _____ Time of Incident: _____

☐ Personal Injury ☐ Property Damage ☐ Near Miss

Describe Incident:

_____

_____

_____

Action Taken:

_____

Comments & Recommendations:

_____

COMPLETE THIS SECTION FOR PERSONAL INJURY INVESTIGATIONS

Injured Employee: _____ Type of Injury: _____

Type of Treatment: ☐ First Aid ☐ Sent to Physician ☐ Hospitalization

Witnesses: _____ Witness Statement: ☐ YES ☐ NO

_____ Witness Statement: ☐ YES ☐ NO

Photos: ☐ YES ☐ NO

COMPLETE THIS SECTION FOR PROPERTY DAMAGE INVESTIGATIONS

Describe Equipment Damage:

_____

Witnesses: _____ Witness Statement: ☐ YES ☐ NO

_____ Witness Statement: ☐ YES ☐ NO

THE PERSON FILLING OUT THIS REPORT MUST COMPLETE THIS SECTION

Incident Report Sent to Company Safety Director: ☐ YES (Attach photos and witness statements.)

Name: _____ Title: _____ Date: _____

EARTHMOVING, LLC

UTILITY DAMAGE REPORT

INSTRUCTIONS: THIS REPORT IS TO BE COMPLETED BY THE JOBSITE FOREMAN/SUPERVISOR & FORWARDED TO MANAGEMENT BY THE END OF THE NEXT BUSINESS DAY.

DO NOT SPECULATE AS TO WHY THIS DAMAGE OCCURRED. DESCRIBE WHAT HAPPENED IN DETAIL ONLY.

GENERAL INFORMATION

DATE OF DAMAGE	TIME OF DAMAGE	LOCATION
_____/_____/____ MM / DD / YYYY	____:____ ☐ AM ☐ PM	PROJECT: ADDRESS: CITY, STATE, ZIP:

D&R FOREMAN:	PROJECT NUMBER:		

DID YOU REPORT THE DAMAGE TO….

				DATE AND TIME
MANAGEMENT	☐ YES	☐ NO	IF YES, NAME:	
SAFETY COORDINATOR	☐ YES	☐ NO	IF YES, NAME:	
CUSTOMER	☐ YES	☐ NO	IF YES, NAME:	
FACILITY OWNER	☐ YES	☐ NO	IF YES, NAME:	
OTHER	☐ YES	☐ NO	IF YES, NAME:	

VALID ONE CALL / LOCATE TICKET NUMBER PRIOR TO EXCAVATING? ☐ YES ☐ NO
IF YES, ENTER NUMBER:

TYPE OF WORK BEING DONE? (EARTHWORK, DEMO, WATER, SEWER, ETC.)

WORK BEING DONE FOR WHAT CUSTOMER?

WERE THERE ANY INJURIES? ☐ YES ☐ NO IF YES, ALSO COMPLETE AN INJURY REPORT	DID ANY EMERGENCY PERSONNEL RESPOND TO THE DAMAGE / INCIDENT? ☐ YES ☐ NO IF YES, IDENTIFY:
WAS AN EVACUATION NECESSARY? ☐ YES ☐ NO IF YES, EXPLAIN: WHO ORDERED?	WAS TRAFFIC STOPPED OR DETOURED? ☐ YES ☐ NO IF YES, EXPLAIN:

UTILITY DAMAGE DETAILS

WAS THE UTILITY MARKED?

NAME OF UTILITY COMPANY DAMAGED:	☐ MARKED HOW WAS IT MARKED? (PAINT, FLAG, STAKE, OTHER)	☐ UN-MARKED	☐ MIS-MARKED HOW FAR OFF WERE THE MARKS? _____ FEET _____INCHES HOW WAS IT MARKED? (PAINT, FLAG, STAKE, OTHER)

DAMAGE LOCATION	TYPE OF DAMAGE
☐ UNDERGROUND DEPTH AT DAMAGE _____ FEET _____ INCHES ☐ ABOVE GROUND	(CUT, IMPACT, PULLED, FIRE, OTHER, ETC.)

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TYPE OF UTILITY (ELECTRICAL, CABLE, GAS, WATER, SEWER, OTHER, ETC.
TYPE OF SERVICE (MAIN, SERVICE, OTHER, UNKNOWN, ETC.)
DURATION OF SERVICE INTERRUPTION (HOURS / MINUTES)
DAMAGED UTILITY: MATERIAL TYPE: (STEEL, PLASTIC, ETC. PRESSURE (PSIG/INCHES) SIZE (DIAMETER, VOLTAGE, PAIRS, ETC.)
NAME & CONTACT INFORMATION OF UTILITY PERSONNEL WHO RESPONDED?
REPAIR INFORMATION – DONE BY THE UTILITY COMPANY HOW MANY PEOPLE RESPONDED? # OF VEHICLES INVOLVED? MAJOR EQUIPMENT INVOLVED? MAJOR MATERIALS INVOLVED?
ADDITIONAL REMARKS / COMMENTS ABOUT THE TYPE AND EXTENT OF DAMAGE
DAMAGE CAUSED BY: SPECIFICALLY DESCRIBE EQUIPMENT WHICH CAUSED DAMAGE: (EXAMPLE, BACKHOE, SHOVEL, JACKHAMMER, ETC.) NAME OF EMPLOYEE OPERATING EQUIPMENT OR TOOL THAT CAUSED DAMAGE _____
SITE CONDITIONS AND WEATHER AT THE TIME OF INCIDENT:

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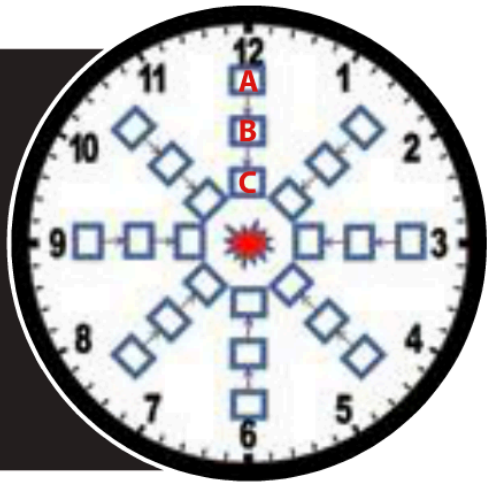
DESCRIPTION OF THE INCIDENT. WHAT HAPPENED? PLEASE BE SPECIFIC AND INCLUDE AS MANY DETAILS AS POSSIBLE. INCLUDE SUCH THINGS AS WHAT YOU SAW, HEARD, OBSERVED. ATTACH ADDITIONAL SHEETS IF NECESSARY. ALSO, USE THIS SECTION TO IDENTIFY AND NOTE ANY COMMENTS MADE BY UTILITY / LOCATING PERSONNEL WHILE AT THE SCENE. DO NOT SPECULATE AS TO WHY. DESCRIBE WHAT HAPPENED IN DETAIL ONLY.

WITNESS INFORMATION		
NAME	ADDRESS	PHONE NUMBER

With the damage at the center of the clock:
A. Start at 12:00 (at least 50 feet from the damage) and take a picture.
B. Move halfway toward the damage and take another.
C. Move close to the damage and take a third.
Continue around the clock, repeating the process at 1:30, 3:00, 4:30, 6:00, 7:30, 9:00 and 10:30 to produce 24 pictures that should captured enough detail for outside parties to understand the situation.



DID YOU TAKE A MINIMUM OF 24 PICTURES?	☐ YES ☐ NO	IF NO, EXPLAIN WHY?
DO PHOTOS SHOW THE DAMAGE?	☐ YES ☐ NO	IF NO, EXPLAIN WHY?
PHOTOS SHOW DEPTH OF DAMAGE WITH A MEASURING DEVICE?	☐ YES ☐ NO	IF NO, EXPLAIN WHY?
PHOTOS SHOW MIS-MARKED AREAS WITH A MEASURING DEVICE?	☐ YES ☐ NO	IF NO, EXPLAIN WHY?
PHOTOS SHOW DATE OF DAMAGE?	☐ YES ☐ NO	IF NO, EXPLAIN WHY?
DID YOU GET WITNESS STATEMENTS?	☐ YES ☐ NO	IF NO, EXPLAIN WHY?

DOWN TIME DETAILS

NAME AND TITLE OF ALL CREW MEMBERS ON SITE:

ALL EQUIPMENT, VEHICLES AND TRAILERS ON SITE:

AMOUNT OF TIME DELAY:	DID WE ASSIST IN THE REPAIR IN ANY WAY? ☐ YES ☐ NO IF YES, EXPLAIN:

REPORT PREPARER

REPORT PREPARED BY: (PRINT NAME)	JOB TITLE:	PHONE NUMBER:	DATE PREPARED:

PREPARER SIGNATURE:

EARTHMOVING, LLC

SKETCH OF SITE AND DAMAGE

PROVIDE A DETAILED SKETCH OF THE AREA: TO ACCURATELY DESCRIBE THE INCIDENT, PLEASE INCLUDE THE FOLLOWING:

(1) DIRECTION OF NORTH

(2) THE UNDERGROUND UTILITIES USING SOLID LINES; LABEL BY TYPE (GAS, WATER, PHONE, ETC.)

(3) LOCATION OF INCIDENT USING FIXED DISTANCE LANDMARKS (TRANSFORMER, POLES, PEDS, GAS METER, ETC.)

(4) THE LOCATION OF THE MARKS USING DASHED LINES PLACED BY UTILITY/LOCATOR; LABEL BY TYPE AND COLOR OF MARKING)

(5) THE DISTANCE BETWEEN THE INCIDENT AND THE MARKS.

(6) CLOSEST ROAD/STREET OR DIRECTION TO CLOSEST ROAD/STREET

(7) DRAWING NEEDS TO FIT IN THE AREA BELOW PROVIDED

SOLID LINES FOR UTILITIES, DASHED LINES FOR LOCATION MARKS, X FOR DAMAGE LOCATION, INDICATE NORTH BY ARROW

EARTHMOVING, LLC

Witness Statement Form
(To be completed by the witness)

Location of Incident:

Date of Incident: Time of Incident:

Your Name:

Home Address:

Phone:

Your Company Name:

Your Job Title: Your Supervisors Name

PLEASE PRINT. Give a factual statement of YOUR actions & observations, preceding, during and following the occurrence. Use additional pages if needed.

DO NOT SPECULATE WHY, DESCRIBE (IN DETAIL) WHAT HAPPENED ONLY.

Names of others with knowledge of occurrence:

Signature: Date:

FOREMAN SAFETY CHECKLIST

Foreman: _____ Date: _____

Inspected By: _____ Job Location: _____

	YES	NO	N/A
1. General Requirements			
• Emergency phone numbers posted.	❑	❑	❑
• MIOSHA Rights and Responsibilities poster.	❑	❑	❑
• RTK posters (2) and SDS available.	❑	❑	❑
• First Aid/CPR certified employee on job site.	❑	❑	❑
• First-aid kit available.	❑	❑	❑
• Drinking water with cups available.	❑	❑	❑
• Toilet facilities available.	❑	❑	❑
• Hand washing station available.	❑	❑	❑
• Safety and Health Program available.	❑	❑	❑
• New employee orientation conducted.	❑	❑	❑
• Weekly 10-minute safety talks (Tool Box Talks).	❑	❑	❑
• Housekeeping maintained; floors swept; debris disposed.	❑	❑	❑
• Hazardous areas barricaded.	❑	❑	❑
• Confined spaces identified; atmosphere tested; signs posted. (Refer to Confined Space Policy for specific criteria.) 2. Personal Protective Equipment (PPE)	❑	❑	❑
• Hard Hats	❑	❑	❑
• Eye Protection	❑	❑	❑
• Hearing Protection	❑	❑	❑

	YES	NO	N/A
• Hand Protection	❑	❑	❑
• Foot Protection: Specify _____	❑	❑	❑
• Protective Clothing: Specify_____	❑	❑	❑
3. Powerlines			
• Maintaining minimum clearances of 10' from powerlines.	❑	❑	❑
• Spotter used to maintain minimum clearances.	❑	❑	❑
• Material not being stored under powerlines.	❑	❑	❑
4. Fire Protection			
• 2A fire extinguisher available on jobsite.	❑	❑	❑
• 2A-10BC fire extinguisher within 75 feet of refueling areas.			
• NO SMOKING signs posted at refueling stations; and flammable and combustible storage areas.	❑	❑	❑
• Approved safety-type containers used to transport gasoline.	❑	❑	❑
• Oxygen and fuel gas cylinders separated properly.	❑	❑	❑
• Cylinders secured and stored properly.	❑	❑	❑
5. Welding and Cutting			
• Proper PPE worn.	❑	❑	❑
• Backflow devices in place.	❑	❑	❑
• Flammables/combustibles kept at least 50' away from welding operations.	❑	❑	❑
• 2A-10BC fire extinguisher in the immediate welding area.	❑	❑	❑

	YES	NO	N/A
6. Tools			
• Portable electric tools protected by approved GFCL	❑	❑	❑
• Extension cords are three-prong type and in good condition.	❑	❑	❑
• Hand tools in good condition, no cracked or splintered handles.	❑	❑	❑
• Defective or damaged tools tagged and removed from service.	❑	❑	❑
• Electrical sources turned off, tagged and locked out (i.e. jack hammering, equipment repairs).	❑	❑	❑
• Protective guards on portable saws and grinders in place.	❑	❑	❑
• Air tool connections secured with safety chains.	❑	❑	❑
• Portable lights maintained and equipped with bulb guards.	❑	❑	❑
• Ladders in good condition and set up properly.	❑	❑	❑
7. Heavy Equipment and Trucks			
• Back up alarms in good working order or flagger used.	❑	❑	❑
• Parking brakes set when not in use.	❑	❑	❑
• 10 BC fire extinguisher available in crane and excavator cab.	❑	❑	❑
• Type ABC fire extinguishers available in trucks.	❑	❑	❑
• All horns and lights in good working order.	❑	❑	❑
• Seats firmly secured on vehicles used to transport employees.	❑	❑	❑
• Roll over protection and seat belts in good order.	❑	❑	❑
• Equipment safety chains in good order and in use.	❑	❑	❑
• A copy of most recent equipment inspection checklist available.	❑	❑	❑
• Vehicle registration and insurance paperwork in all trucks.	❑	❑	❑
• Equipment and vehicle properly lubricated and maintained.	❑	❑	❑

	YES	NO	N/A
• Windshield void of cracks; wipers and defoggers operable.	❑	❑	❑
8. Handling and Storage of Materials			
• Rigging equipment inspected before use (i.e. hooks not stretched or twisted, slings in good condition).	❑	❑	❑
• Chains are alloy steel with permanent tag showing size, grade, rated capacity and manufacturer's name.	❑	❑	❑
• Material secured (i.e. stacked, raked, blocked, interlocked) to prevent sliding, falling or collapse during storage or transit.	❑	❑	❑
9. Fall Protection			
• Employees protected from falls at heights 6' or more.	❑	❑	❑
• Employees protected from a fall from scaffold at 10' or more.	❑	❑	❑
• Manholes and floor holes/openings properly covered & marked.	❑	❑	❑
10. Work Zones			
• Advance warning signs installed and maintained properly.	❑	❑	❑
• Traffic barricades and cones installed and maintained properly.	❑	❑	❑
• Employees working on roadway or in work zone wearing proper high visibility safety vests/apparel.	❑	❑	❑
• Traffic Regulator Station set up properly (i.e. advance warning signs, SLOW/STOP paddles, 6' staff, and illuminated at night).	❑	❑	❑
• Traffic regulator(s) wearing hard hat, safety glasses, work boots and proper high visibility safety apparel.	❑	❑	❑

	YES	NO	N/A
• Traffic regulators used to assist work vehicles in/out of traffic.	❑	❑	❑
11. Excavations, Trenching, Shoring, Pipe Laying			
• MISS DIG contacted, and utilities marked prior to excavating.	❑	❑	❑
• Qualified person making periodic inspections of soil conditions and shoring systems.	❑	❑	❑
• Excavations with potential hazardous atmospheres tested and ventilated in accordance to the Confined Space Policy.	❑	❑	❑
• Excavations and trenches more than 5' deep are properly sloped, shored, sheeted, and/or protected by a trench box.	❑	❑	❑
• Materials used for shoring in good working condition; trench box inspected for broken welds.	❑	❑	❑
• Excavated soil and material stored 2' from edge of excavation.	❑	❑	❑
• Employees wearing proper PPE (i.e. hard hats, eye protection)	❑	❑	❑
• Ladder or ramp used for access and egress within 25' laterally for excavations over 4' deep.	❑	❑	❑
• Bore pits and excavations 6' or more are guarded properly.	❑	❑	❑
• Manhole covers are in place or properly guarded.	❑	❑	❑
• Existing utilities (i.e. pipes, gas lines) are adequately supported.	❑	❑	❑
• Excavating equipment at least 10' from overhead powerlines.	❑	❑	❑
• DANGER signs posted on swinging counterweights of cranes & excavators.	❑	❑	❑

Remarks: _____

_____

This Workplace Covered by the Michigan Right To Know Law

Employers must make available for employees in a readily accessible manner, Safety Data Sheets (SDS)* for those hazardous chemicals in their workplace.

Employees cannot be discharged or discriminated against for exercising their rights including the request for information on hazardous chemicals.

Employees must be notified and given direction (by employer posting) for locating Safety Data Sheets and the receipt of new or revised SDS(s).

***When the employer has not provided a SDS, employees may request assistance in obtaining SDS from the:**

Michigan Department of Licensing and Regulatory Affairs
Michigan Occupational Safety & Health Administration
General Industry Safety & Health Division
(517) 284-7750
Construction Safety & Health Division
(517) 284-7680
www.michigan.gov/miosha
MIOSHA/CET #2105 (Rev. 08/15)

MIOSHA
Michigan Occupational Safety and Health Administration

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED.

SDS(s) For This Workplace Are Located At

D & R Main Office
5840 Sterling Drive - Suite 420
Location(s)

Howell, MI 48843
Location(s)

Don Roberts
Person(s) responsible for SDS(s)

517-586-4033
Phone

LARA is an equal opportunity employer/program.

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As Required by the Michigan Right To Know Law

TO BE POSTED THROUGHOUT THE WORKPLACE NEXT TO THE SAFETY DATA SHEETS (SDS) LOCATION POSTERS

New or Revised SDS

New or Revised	Receipt Date	Posting Date	Location of New or Revised SDS

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED.

MIOSHA
Michigan Occupational Safety and Health Administration

Michigan Department of Licensing and Regulatory Affairs
Michigan Occupational Safety & Health Administration
Consultation Education & Training Division
(517) 284-7720

Paid in part with
Federal OSHA funds.
MIOSHA/CET #2106 (Revised 08/15)
LARA is an equal opportunity employer/program.

For further information visit our website at:
www.michigan.gov/miosha

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EARTHMOVING, LLC

Equipment Daily/Annual Inspection Report

Date:	Equip Desc:
Hour Meter:	Equip #:
Project/Location:	

Check every box if applicable, write "N/A" if not applicable

OK	Need Attn		OK	Need Attn	
		General:			**Boom and stick:**
		Fire extinguisher 10BC			Visual check
		Glass- No visual Distortion			Bent
		Backup alarm			Wear
		Horn			Cracks
		Access- Skid resistant			Pins tight
		Mirrors			Bushings
		Wipers			Paint
		Lights			**Bucket / Blade:**
		Defrost			Cutting Edge
		Brakes			Closed hook
		Steering			Screw pin shackle
		Engine			Less than 15% spread
		Shifting - Transmission			Less than 10 degrees twist
		Mainframe Damage			Any cracks?
		Final drive planetary leaks			Teeth, sidecutters
		Swing Mechanism			**Tires and Wheels:**
		Gauges:			Wheel Lugs
		Temperature			Tire Pressure
		Oil Pressure			Tire Wear/Damage
		Amp meter			Bearings
		Hydraulic Oil Temp			**Undercarriage:**
		Other			Track pads
		Hydraulic:			Rollers (wear & leaks)
		Pump			Idlers
		Cylinders			Sprockets
		Hoses			Track Adjusters
		Leaks			**Documentation:**
		Controls:			Load charts in place
		Operation			Manual in machine
		Adjustment			Hazard warning signs
		Check for wear			Swing radius danger signs
					Hand Signal Chart

Comments:

Operator/Inspector:
Title:
Signature:

Tool Box Talks Sign-In Sheet

Company: _____

Superintendent/ Foreman/ Qualified Person:

_____

Topic(s):

_____

_____

_____

Attendees:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Date: _____ **Location:** _____

EMPLOYEE SIGN-OFF SHEET

As an employee of **D & R Earthmoving, LLC.**, I acknowledge that I understand this company's Safety and Health Program and policies and may contact the Company Safety Director for clarification if I have any questions. Furthermore, I understand that safety and health is everyone's responsibility, including my own, and will immediately report any safety or health concerns to my Foreman, Company Safety Director or management.

Employee Name: _____

Signed: _____

Date: _____

EARTHMOVING, LLC

PROJECT NAME _____

LOCATION _____

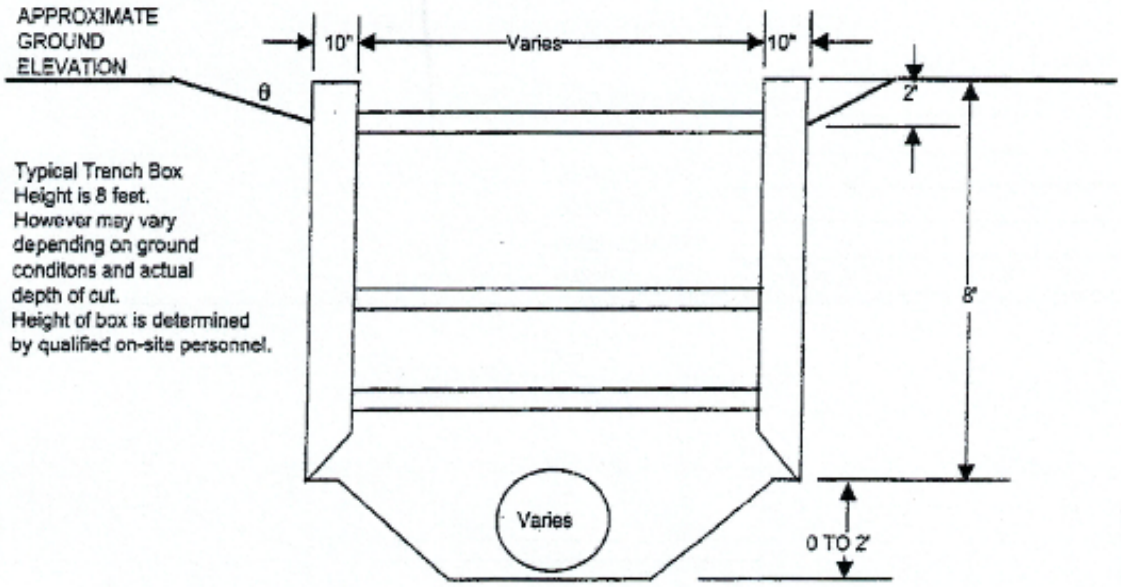
PROJECT NO. _____

DEI JOB NO. _____

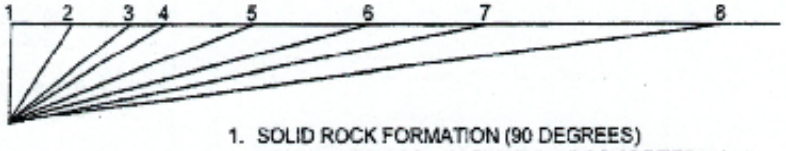
PREPARED BY _____

DATE _____ SHEET _____ OF _____

Design 1



ANGLE OF REPOSE (θ)



1. SOLID ROCK FORMATION (90 DEGREES)
2. FRACTURED ROCK FORMATION (75 DEGREES) 1/4:1
3. STIFF CLAY (63 DEGREES) 1/2:1 ; 2.5 TSF MINIMUM
4. FIRM CLAY (56 DEGREES) 2/3:1 ; 1.5 TSF MINIMUM
5. GRANULAR SOIL - DRY (45 DEGREES) 1:1 ; 1.0 TSF MINIMUM
6. GRANULAR SOIL - WET (34 DEGREES) 1 1/2:1 ; <1.0 TSF
7. SATURATED GRANULAR SOIL (26 DEGREES) 2:1
8. RUNNING SOIL (18 DEGREES) 3:1

*Design acceptable for pipe installation from 0 to 10' in depth.

AN EQUAL OPPORTUNITY EMPLOYER

EARTHMOVING, LLC

PROJECT NAME _____

LOCATION _____

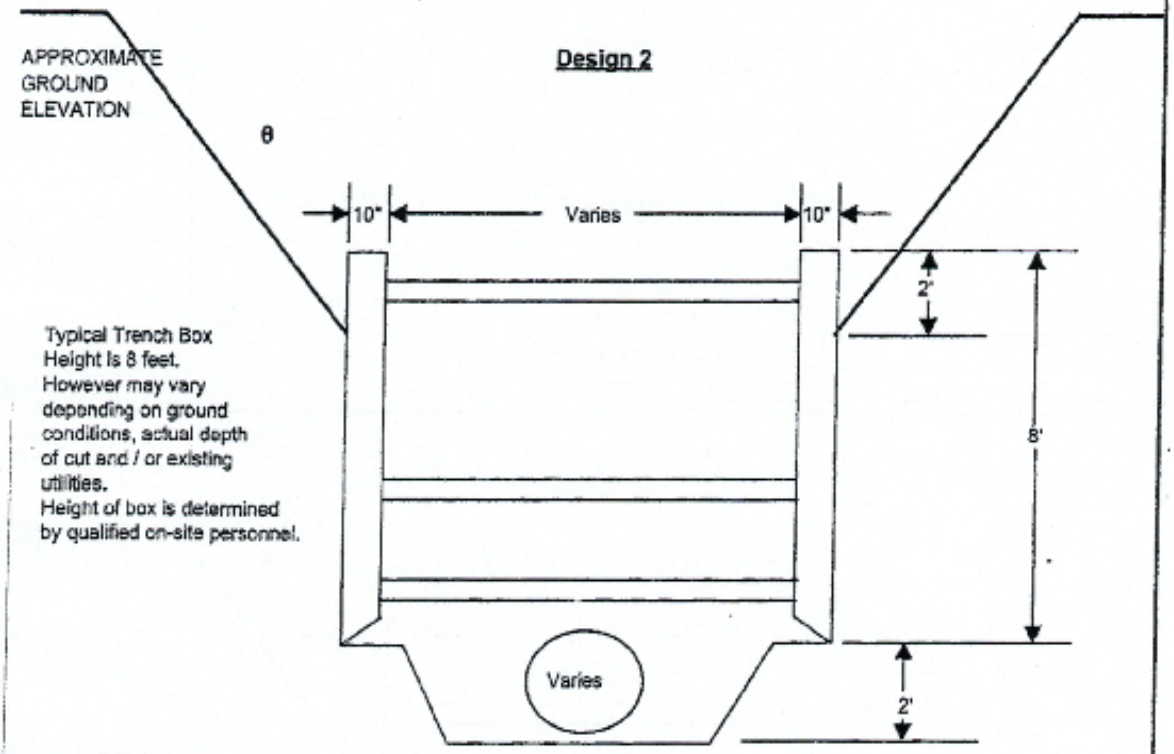
PROJECT NO. _____

DEI JOB NO. _____

PREPARED BY _____

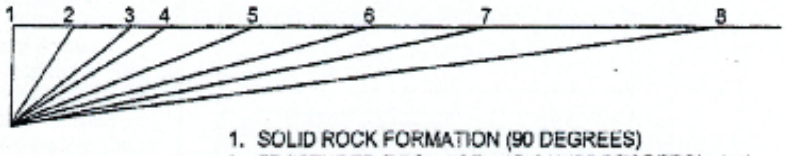
DATE _____ SHEET _____ OF _____

Design 2



Typical Trench Box Height is 8 feet. However may vary depending on ground conditions, actual depth of cut and / or existing utilities. Height of box is determined by qualified on-site personnel.

ANGLE OF REPOSE (θ)



1. SOLID ROCK FORMATION (90 DEGREES)
2. FRACTURED ROCK FORMATION (75 DEGREES) 1/4:1
3. STIFF CLAY (63 DEGREES) 1/2:1 ; 2.5 TSF MINIMUM
4. FIRM CLAY (56 DEGREES) 2/3:1 ; 1.5 TSF MINIMUM
5. GRANULAR SOIL - DRY (45 DEGREES) 1:1 ; 1.0 TSF MINIMUM
6. GRANULAR SOIL - WET (34 DEGREES) 1 1/2:1 ; <1.0 TSF
7. SATURATED GRANULAR SOIL (26 DEGREES) 2:1
8. RUNNING SOIL (18 DEGREES) 3:1

*Design Acceptable for Pipe Installation from 10' to 15' in depth

AN EQUAL OPPORTUNITY EMPLOYER

EARTHMOVING, LLC

PROJECT NAME _____

LOCATION _____

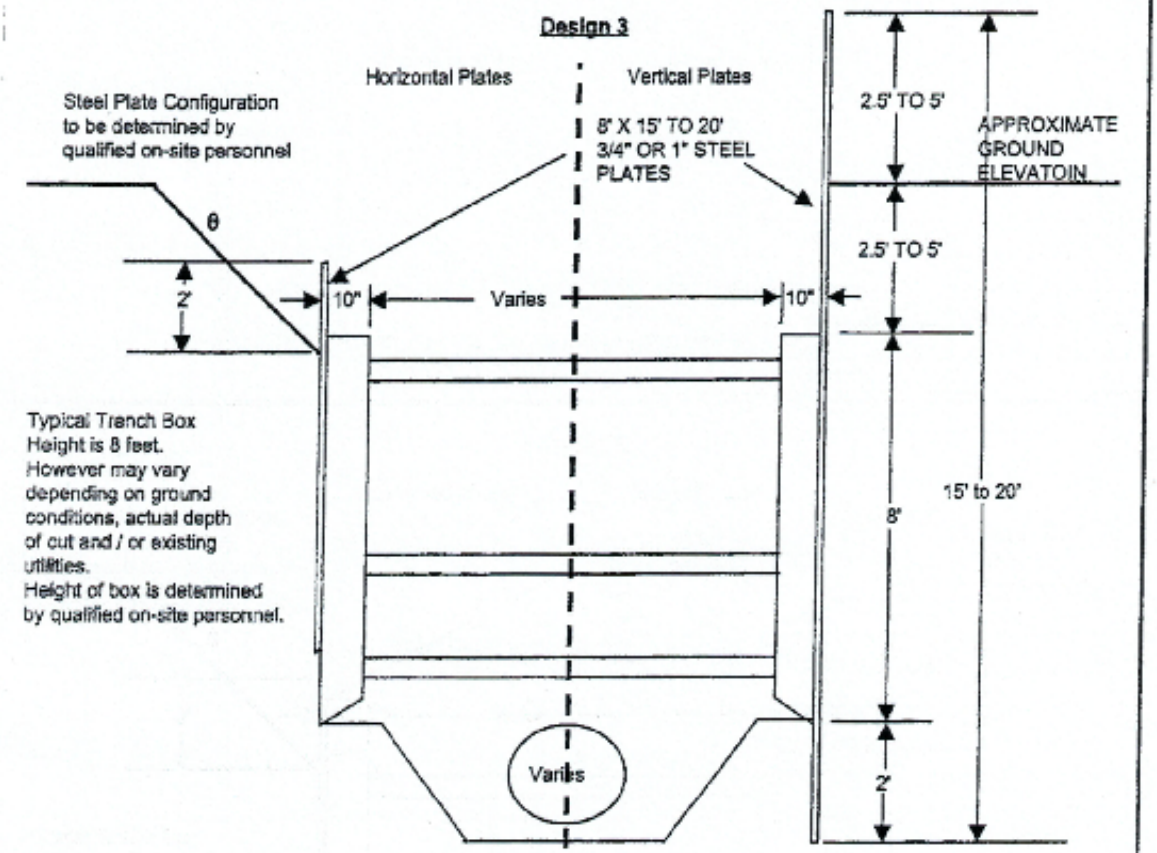
PROJECT NO. _____

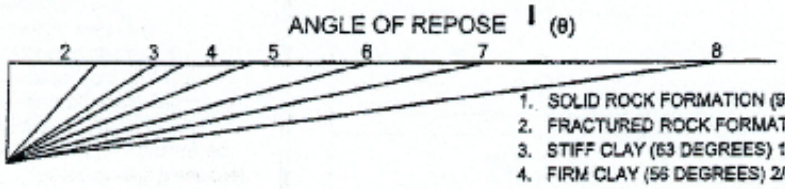
DEI JOB NO. _____

PREPARED BY _____

DATE _____ SHEET _____ OF _____

Design 3





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3. STIFF CLAY (63 DEGREES) 1/2:1 ; 2.5 TSF MINIMUM
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5. GRANULAR SOIL - DRY (45 DEGREES) 1:1 ; 1.0 TSF MINIMUM
6. GRANULAR SOIL - WET (34 DEGREES) 1 1/2:1 ; <1.0 TSF
7. SATURATED GRANULAR SOIL (26 DEGREES) 2:1
8. RUNNING SOIL (18 DEGREES) 3:1

*Design Acceptable for Pipe Installation from 10' to 20' in Depth

AN EQUAL OPPORTUNITY EMPLOYER

EARTHMOVING, LLC

PROJECT NAME _____

LOCATION _____

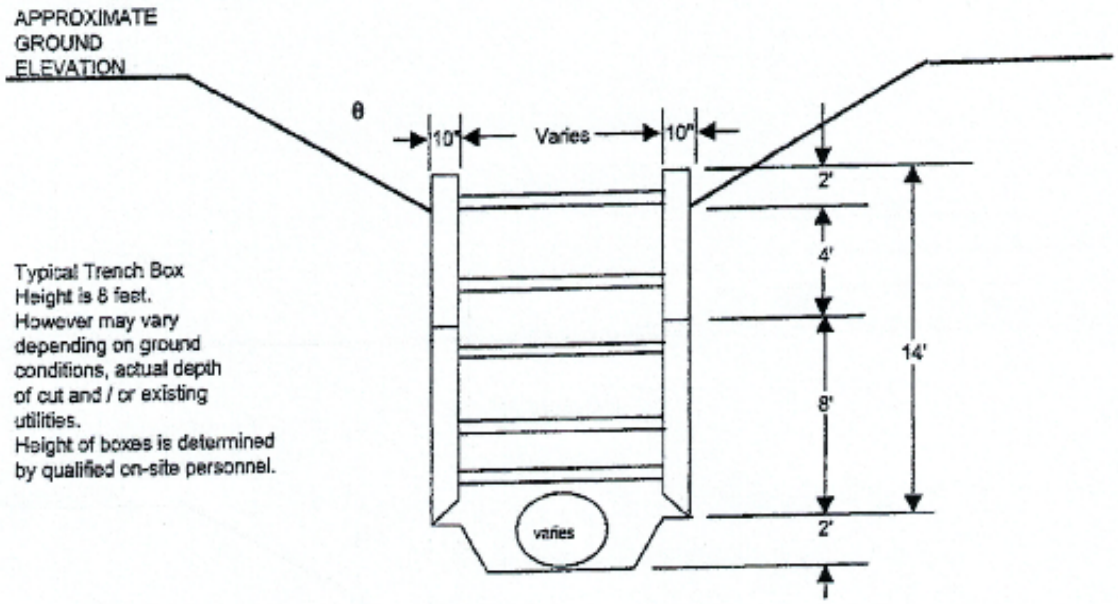
PROJECT NO. _____

DEI JOB NO. _____

PREPARED BY _____

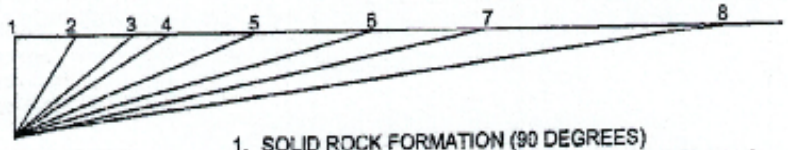
DATE _____ SHEET _____ OF _____

Design 4



Typical Trench Box
Height is 8 feet.
However may vary
depending on ground
conditions, actual depth
of cut and / or existing
utilities.
Height of boxes is determined
by qualified on-site personnel.

ANGLE OF REPOSE (θ)



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4. FIRM CLAY (56 DEGREES) 2/3:1 ; 1.5 TSF MINIMUM
5. GRANULAR SOIL - DRY (45 DEGREES) 1:1 ; 1.0 TSF MINIMUM
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7. SATURATED GRANULAR SOIL (26 DEGREES) 2:1
8. RUNNING SOIL (18 DEGREES) 3:1

*Design Acceptable for pipe installation from 10' to 24' in depth.

AN EQUAL OPPORTUNITY EMPLOYER

EARTHMOVING, LLC

PROJECT NAME _____

LOCATION _____

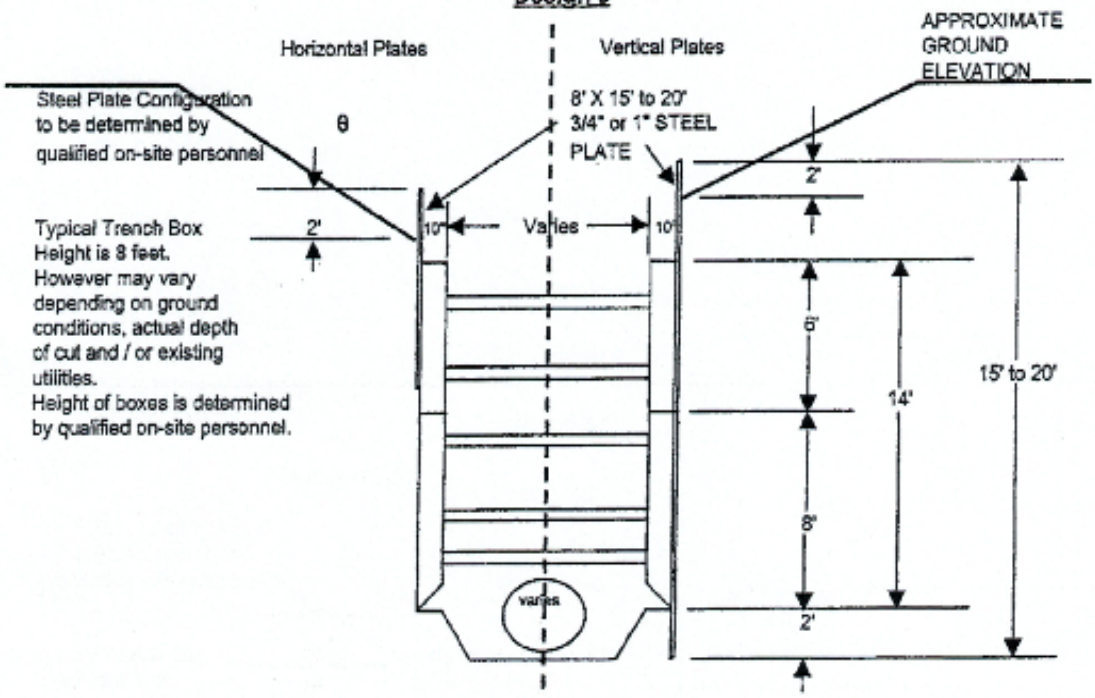
PROJECT NO. _____

DEI JOB NO. _____

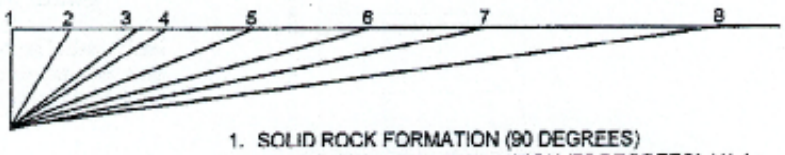
PREPARED BY _____

DATE _____ SHEET _____ OF _____

Design 5



ANGLE OF REPOSE (θ)



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3. STIFF CLAY (63 DEGREES) 1/2:1 ; 2.5 TSF MINIMUM
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6. GRANULAR SOIL - WET (34 DEGREES) 1 1/2:1 ; <1.0 TSF
7. SATURATED GRANULAR SOIL (26 DEGREES) 2:1
8. RUNNING SOIL (18 DEGREES) 3:1

*Design Acceptable for pipe installation from 10' to 24' in depth

EARTHMOVING, LLC

PROJECT NAME _____

LOCATION _____

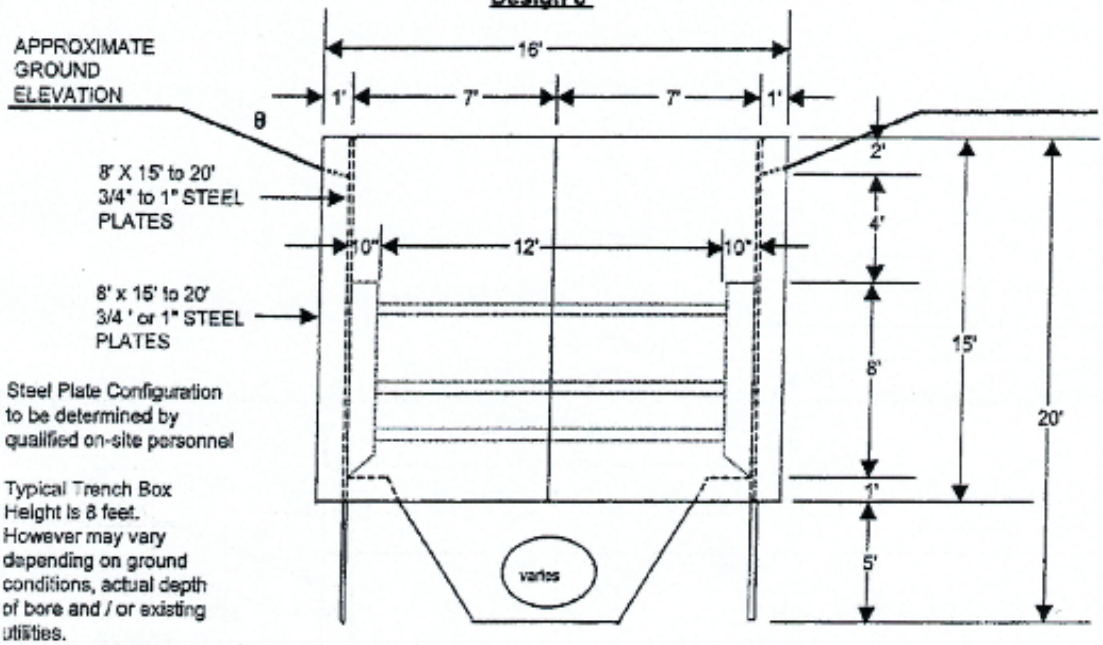
PROJECT NO. _____

DEI JOB NO. _____

PREPARED BY _____

DATE _____ SHEET _____ OF _____

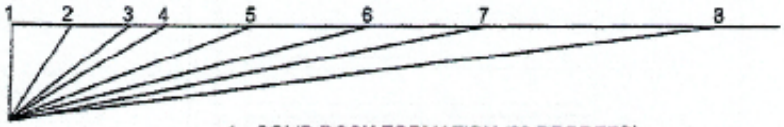
Design 6



Steel Plate Configuration to be determined by qualified on-site personnel

Typical Trench Box Height is 8 feet. However may vary depending on ground conditions, actual depth of bore and / or existing utilities. Height of box is determined by qualified on-site personnel.

ANGLE OF REPOSE (θ)



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7. SATURATED GRANULAR SOIL (26 DEGREES) 2:1
8. RUNNING SOIL (18 DEGREES) 3:1

*Design Acceptalbe for Bores 0' to 24' in depth.

AN EQUAL OPPORTUNITY EMPLOYER

MIOSHA Fact Sheet

Construction Safety & Health Division

Lead Exposure in Construction

Lead is a soft bluish-gray metal in its elemental state that is commonly found as an additive in many construction materials. Such materials include but are not limited to: paint, welding wire, solders used for soldering tinplate and copper pipe joints, tank linings and electrical conduit. The Consumer Product Safety Commission has banned the use of lead-based paint in residences. However, because lead-based paint inhibits the rusting and corrosion of iron and steel, lead continues to be used on bridges, railways, ships, lighthouses and other steel structures. Employee exposures to lead can occur during the demolition, or salvage of structures, during the removal or encapsulation of lead-containing materials, and during new construction, alteration, repair, or renovation of structures that contain lead or lead-containing materials.

Overexposures to lead are commonly found in the construction industry and are a significant cause of illness in the workplace. Exposure to lead can occur through inhalation (breathing), ingestion (eating), and in the case of certain organic lead compounds not covered by the construction standard, absorption through the skin. Employee exposure to lead can result in both acute (short term) and chronic (long term) health effects. Such health effects include insomnia, constipation, nausea, encephalopathy or damage to the central nervous system, anemia, and kidney disease. Exposure can also result in damage to both the male and female reproductive systems (e.g., decreased fertility, sterility, impotence, miscarriage, and still birth). If an employee does not receive proper medical treatment for these conditions, and the exposures to lead continue unchecked, these health effects can become permanent, and may even result in death.

Employer Responsibilities

The MIOSHA Part 603 Lead Exposure in Construction Standard applies to all construction work operations where an employee may be occupationally exposed to lead. Any employer who has a workplace or operation that is covered by the standard is required to initially determine if employees are exposed to lead at or in excess of the eight-hour Action Level of 30 ug/m^3 (micrograms per cubic meter of air). If the work operations include tasks such as spray painting with lead paint, or manual demolition of structures, manual sanding, heat gun applications, power tool cleaning, lead burning, rivet busting, abrasive blasting, welding, cutting, torch burning, cleanup activities where dry expendable abrasives are used or abrasive blasting enclosure movement and removal, where lead coatings or paint are present, the employer is required to provide the affected employees with appropriate interim protection (i.e., respiratory protection,

personal protective clothing, change areas, hand washing facilities, biological monitoring, and training) until such time that employee exposures have been determined.

Many of the standard's provisions are triggered by the level of employee exposure to lead. Employee exposures that are at or in excess of the action level, but less than the eight-hour Permissible Exposure Limit (PEL) of 50 ug/m^3, require that the employer implement routine air monitoring, medical surveillance, housekeeping, and training. Employee exposures in excess of the PEL require additional actions by the employer including, routine air monitoring, methods of complying with the PEL, the use of respiratory protection, the use of protective work clothing and equipment, housekeeping practices, hygiene facilities (i.e. change areas, shower and hand washing facilities, and eating facilities), medical surveillance and medical removal protection, employee information and training, warning signs, and record keeping.

Medical surveillance and medical removal protection is based on the blood lead level (BLL) measured in micrograms of lead per deciliter of blood (µg/dL). New MIOSHA rules (effective December 11, 2018) require that employees be removed from lead exposure when their BLL reaches 30 µg/dL and may not return to work involving lead exposure until their BLL is below 15 µg/dL. Former MIOSHA rules allowed workers to have BLLs of 50 µg/dL before they had to be removed from lead exposure. Under the former rules, workers could return to work when their BLL was below 40 µg/dL. The average BLL in the general population is 1.12 µg/dL.

How to Avoid Hazards

When employees are exposed above the PEL, the employer must develop a compliance program that includes engineering and work practice controls. The best way to prevent over-exposure to lead is to install and maintain engineering controls to eliminate or reduce the hazard. Examples of engineering and other controls include:

- Conduct bulk material analysis to determine if lead is present.
- Provide interim protection until air monitoring determines exposure levels.
- Use exhaust ventilation and dust collection systems. For example, power tools used for grinding surfaces coated with lead containing paint can be equipped with dust collection systems. Use local exhaust ventilation where feasible.
- Do not dry sweep or use compressed air to clean work areas contaminated with lead materials; use wet methods or a vacuum equipped with a high efficiency particulate (HEPA) filter.
- Comply with all requirements of Part 603 with regard to air monitoring, compliance program, use of protective work clothing and equipment, housekeeping, hygiene facilities, medical surveillance and medical removal protection, employee information and training, warning signs, and record keeping.
- If engineering and work practice controls cannot be used or do not reduce exposure to an acceptable level, then the employer must provide respiratory protection. The type of respiratory protection required is based on the level of exposure determined by air monitoring. The minimum recommended respirator required is a half mask, air-purifying respirator with HEPA filters. Remember, the employer must then implement a respiratory protection program as required by MIOSHA Part 451, Respiratory Protection.

- If respirators are used to protect employees, then a regulated area should be established to prevent unprotected employees from entering the exposure area.

For additional information regarding the hazards of lead and the measures that can be implemented to protect employees from exposure, you can visit the following web sites at:

OSHA, Safety and Health Topics, Construction - Lead
NIOSH, Preventing Lead Poisoning in Construction Workers
NIOSH, Protecting Workers Exposed to Lead-Based Paint Hazards

CONSTRUCTION SAFETY AND HEALTH DIVISION
530 WEST ALLEGAN STREET • P.O. BOX 30645 • LANSING, MI 48909-8145
OVERNIGHT MAIL ADDRESS: 2407 NORTH GRAND RIVER AVENUE • LANSING, MI 48906
www.michigan.gov/miosha • 517-284-7680
(Revised 02/01/2019)

Silica Exposure Control Program

Company: _____ Date: _____
Person Completing the Plan, Title: _____
Competent Person: _____
Job site/location: _____
Description of Task: _____
_____

(Routine task, new task, Indoors/outdoors, task found on Table 1?)

Engineering Controls: _____
_____

Any deviation from Table 1 = air monitoring is required. Engineering controls must be used at all times!

(Wet methods, continuous water feed, local exhaust ventilation w/ HEPA filters, commercially available shrouds, commercial dust collection system, cyclone pre-separator/filter cleaning system, surfactant used, and ventilation ≥ 25 cfm/inch of wheel diameter, enclosed cab w/ fresh climate controlled air to operator, employees outside of cabs applying water/dust suppressants, equipment maintained to minimize dust emissions.)

Work Practices: _____
_____

(Maintain equipment functionality – cleaned/spare filters, hoses to start; good connections; hoses with no holes, kinks, permanent bends, crushed; power source available; water source available, ensure ventilation is ≥ 25 cfm/inch of wheel diameter; water/exhaust ventilation lines safe from damage; shrouds/cowls fit correctly and not damaged; follow Manufacturer's instruction for filter cleaning/change out.)

Respiratory protection:
_____

(Use respirator with APF = 10 the entire time the task is being performed – See Table 1)
See Part 451 – Respiratory Protection rule for information on selection, training and fit testing requirements, and proper use instruction for respirators (i.e., no facial hair interfering with the respirator sealing surface).

Housekeeping:

_____

_____

(Dust containing silica on work surfaces/equipment must be cleaned up using wet methods of HEPA equipped vacuum**, no use of compressed air or dry sweeping** for removing dust and debris containing silica, dispose of used vacuum bags in a closed sealed container).

Procedures Used to Restrict Access to Work Area (Construction = optional, GI = required if exposures exceed the permissible exposure limit, PEL):

_____

_____

_____

_____

(Signage, barricades, enclosures, spotters, work when area is cleared of other contractors to reduce risk of exposure.)

Objective data use (Optional) – **Yes** or **NO**

Data Source: _____

_____

Data conditions from the source exactly matches the work conditions? **Yes** or **No**

(Same conditions, equipment, process, controls, material silica %, environmental.)

Review and update this plan annually.
Keep a copy of this plan at the jobsite.
Provide this plan of action to the General Contractor.
Review this plan with all involved employees.

JOB SITE ANALYSIS (JSA) FORM

Project Location:		Project #:
Date:	Weather Conditions:	
Prime Contractor:		
Sub-Contractor (s):		
Scope of Work:		

☐ Bore-hole Drilling ☐ Confined Space ☐ Demolition ☐ Drilling, Grinding, Cutting ☐ Electrical (live) ☐ Electrical (isolation) ☐ Equipment Handling & Dismantling ☐ Excavation ☐ Fall Protection ☐ Form Work	☐ Heavy Equipment Operations ☐ Hydro-blasting/Sand-blasting ☐ Lead/Asbestos ☐ Overhead Power ☐ Pressure Testing ☐ Stored Pressure Systems ☐ Temporary Pumping & Transfer Facilities ☐ Traffic Control ☐ Work at Heights (scaffolds, ladders, roof, etc..) ☐ Welding/Cutting

Sequence of Events	Potential Hazards	Controls to Reduce or Eliminate Hazards
1.		
2.		

JOB SITE ANALYSIS (JSA) FORM

Sequence of Events	Potential Hazards	Controls to Reduce or Eliminate Hazards
3.		
4.		
5.		
6.		
7.		
8.		
9.		

JOB SITE ANALYSIS (JSA) FORM

Tools and Equipment: (List of tool/equipment to be used on the job-site, if relevant to site safety)

Personal Protective Equipment:

PPE Specifics: ☐ Hard Hat ☐ Hearing Protection ☐ Eye Protection ☐ Gloves ☐ Work Boots
☐ Fall Protection ☐ Reflective Vest ☐ Respiratory ☐ Other

SAFETY PROCESS INFORMATION REGARDING THE JSA

Prepared By:	**Position:**	**Date:**
Person(s) carrying out this process on the work-site:		
Name(s):	**Signed:**	**Date:**
Reviewed By:	**Position:**	**Date:**

GUY HURLEY
INSURANCE & SURETY SERVICES

February 21, 2023

D&R Earthmoving, LLC
5840 Sterling Drive, Suite 420
Howell, MI 48843

Re: Experience Modification

To whom it may concern,

The Michigan Workers Compensation Experience Modification for captioned insured for the past 3 year terms is as follows:

Term: 2/1/23 to 2/1/24	0.65
Term: 2/1/22 to 2/1/23	0.65
Term: 2/1/21 to 2/1/22	0.65

If you have any questions, please contact the undersigned.

Very truly yours,

Beverly Sarney

Beverly Sarney
Account Manager

DIRECT 248.519.1400 | **FAX** 248.519.1401 | 989 E South Blvd Ste 200 | Rochester Hills, MI 48307

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED

SUMMARY OF WORK-RELATED INJURIES AND ILLNESSES

Year 20 18

Michigan Department of Licensing and Regulatory Affairs
Michigan Occupational Safety and Health Administration (MIOSHA)

Form Approved OMB No. 1218-0176

All establishments covered by Public Law of 1970 (P.O. 91-596) and Michigan Occupational Safety and Health Act 154, P.A. 1974, Part 11, Michigan Administrative Rule for Recording and Reporting of Injuries and Illnesses, must complete this Summary page, even if no 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. You may be fined for failure to comply.

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 MIOSHA Form 300 in its entirety. They also have limited access to the MIOSHA Form 301 or its equivalent. See Part 11, R408.22135 Rule 1135, in MIOSHA'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	0	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
0	0
(K)	(L)

Injury and Illness Types

Total number of...	(M)		
(1) Injury	0	(4) Poisonings	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Conditions	0	(6) All Other Illnesses	0

Establishment information

Your establishment name D & R Earthmoving, LLC.

Street 5840 Sterling Drive - Suite 420

City Howell State MI Zip 48843

Industry description (e.g., Manufacture of motor truck trailers)
Construction - Heavy Civil Engineering

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
1 6 2 9

CR North American Industrial Classification (NAICS), if known (e.g., 336212)
2 3 7 9 9 0

Employment information

Annual average number of employees 53

Total hours worked by all employees last year 109,055.25

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

517-586-4033
Phone

1.25.19
Date

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

LARA
LICENSING AND REGULATORY AFFAIRS
CUSTOMER DRIVEN. BUSINESS MINDED

SUMMARY OF WORK-RELATED INJURIES AND ILLNESSES

Year 20 19

Michigan Department of Licensing and Regulatory Affairs
Michigan Occupational Safety and Health Administration (MIOSHA)

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	0	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
0	0
(K)	(L)

Injury and Illness Types

Total number of...	(M)		
(1) Injury	0	(4) Poisonings	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Conditions	0	(6) All Other Illnesses	0

Establishment information

Your establishment name D&R Earthmoving, LLC.

Street 5840 Sterling Drive - Suite 420

City Howell State MI Zip 48843

Industry description (e.g., Manufacture of motor truck trailers)
Construction - Heavy Civil Engineering

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
1629

OR North American Industrial Classification (NAICS), if known (e.g., 336212)
237990

Employment information

Annual average number of employees 56

Total hours worked by all employees last year 113,976

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.

Kelley Kuspa
Company Executive

Bookkeeper
Title

517-586-4033
Phone

1-21-20
Date

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

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

Summary of Work-Related Injuries and Illnesses

Year 2020

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 injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete

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 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	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
5	0
(K)	(L)

Injury and Illness Types

Total number of...	(M)		
(1) Injury	1	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	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

Establishment information

Your establishment name D&R Earthmoving, LLC.

Street 5840 Sterling Drive - Suite 420

City Howell State MI Zip 48843

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

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

1629

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

237990

Employment information

Annual average number of employees 49

Total hours worked by all employees last year 110,868

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.

Kelley Kurzma
Company executive

Title

517-586-4083
Phone

1-13-21
Date

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

Summary of Work-Related Injuries and Illnesses

Year 2021

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

Form approved OMB no. 1218-0176

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Number of Cases

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0	0	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
0	0
(K)	(L)

Injury and Illness Types

Total number of...	(M)		(M)
(1) Injury	0	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	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

Establishment information

Your establishment name: D&R Earthmoving, LLC.

Street: 5840 Sterling Drive - Suite 420

City: Howell State: MI Zip: 48843

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

Standard Industrial Classification (SIC), if known (e.g. SIC 3715)

1629

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

237990

Employment information

Annual average number of employees: 53

Total hours worked by all employees last year: 143,425

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

Bookkeeper
Title

517-586-4033
Phone

1-25-22
Date

OSHA's Form 300A (Rev. 01/2004)
Summary of Work-Related Injuries and Illnesses

Year 2022

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 injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete

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 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	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
76	0
(K)	(L)

Injury and Illness Types

Total number of...	(M)		
(1) Injury	2	(4) Poisoning	0
(2) Skin Disorder	0	(5) Hearing Loss	0
(3) Respiratory Condition	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

Establishment information

Your establishment name D&R Earthmoving, LLC.

Street 5840 Sterling Drive - Suite 420

City Howell State MI Zip 48843

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

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)
1629

OR North American Industrial Classification (NAICS), if known (e.g., 336212)
237990

Employment information

Annual average number of employees 74

Total hours worked by all employees last year 172,635.75

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

Controller
Title

517-586-4033
Phone

2/21/23
Date

D & R MIOSHA Violations

Date	Project / Location	Violation Description	Penalty	Fine	Appeal	Result	Comments
7/3/2019	Kroger - Sterling Hts	No Fire Extinguisher for 1,000 gal Fuel Tank	Other than Serious	$ 0.00	No	N/A	Abated Immediately
7/3/2019	Kroger - Sterling Hts	No warning sign for 1,000 gal Fuel Tank	Other than Serious	$ 0.00	No	N/A	Abated Immediately
3/28/2022	Encore Village West - Brighton	No annual inspection available for CAT 336 Excavator	Other than Serious	$ 0.00	No	N/A	Abated Immediately
3/28/2022	Encore Village West - Brighton	No DANGER signs affixed to rear/sides of CAT 336 Excavator counterweight	Other than Serious	$ 0.00	No	N/A	Abated Immediately

Avetta Connect

Member Benefits

AT

Home

Profile

Network

Compliance

Insurance

Files

Help Center

COMPLIANCE STATUS

1 Compliant Connections

0 Conditional Connections

0 Non-Compliant Connections

0 Pending

My Tasks

View all tasks

Forms Variances

There are no matching items.

Recent Connections

Holcim US SP

VIEW ALL

Statistics

Profile

Member Benefits

AT

Home

Profile

Network

Compliance

Insurance

Files

Help Center

ACCOUNT MANAGEMENT

Manage Your Account

COMPANY PROFILE | MY PROFILE | USER MANAGEMENT | MEMBERSHIP

Profile Strength
Next: Add certifications and licenses

80%

D & R Earthmoving, LLC

Member since 03/31/22
517-586-4033
Number of Employees: 100
420, 5840 Sterling Dr, Howell, MI 48843, USA

DBA

No DBA names.

Company Description

D & R Earthmoving provides site work construction services from large scale development projects to restoration and soil erosion control for residential, commercial, municipal, landfill or industrial applications. We have a fleet of heavy equipment that currently consists of more than eighty pieces of major earthmoving equipment.
We create a project specific quality control plan that addresses the issues unique to each project, and we develop specific procedures with the land surveyor on each project to incorporate the use of GPS machine grading control systems to ensure adherence to project plans and specifications.
Our services include work on subdivisions, commercial development, industrial development, landfill cell and over-burden construction, aggregate mine over-burden construction, wetlands, parks, schools, road work and more.

Diversity Classifications

Please add applicable diversity.

Certificates & Licenses

AVETTA | Add New

Certificates

Please add your certificates/certifications.

Licenses

Please add your licenses.

C. Workforce Development – 20 Points

1. Documentation as to bidder's pay rates, health insurance, pension or other retirement benefits, paid leave, or other fringe benefits to its employees. See Attached

2. Documentation that the bidder participates in a Registered Apprenticeship Program that is registered with the United States Department of Labor Office of Apprenticeship or by a State Apprenticeship Agency recognized by the USDOL Office of Apprenticeship. USDOL apprenticeship agreements shall be disclosed to the City in the solicitation response. D&R works with the Local 324 union hall and Business Administrators to supply Apprentices for our projects. D&R believes this is the only way to maintain a healthy and full workforce. All apprentices will be trained and evaluated to assure the have the tools to work safely and efficiently.

3. Bidders shall disclose the number of non-craft employees who will work on the project on a 1099 basis, and the bidders shall be awarded points based on their relative reliance on 1099 work arrangements with more points assigned to companies with fewer 1099 arrangements. Bidders will acknowledge that the City may ask them to produce payroll records at points during the project to verify compliance with this section. D&R will not employ and 1099 employees. We are a union company and hire from the union hall.

Pay Date 9/16/22

OPERATING ENGINEERS 324
Douglas W. Stockwell - Business Manager

To: All Contractors reporting under MUCG Underground Agreement

From: Douglas W. Stockwell,
Business Manager and General Vice President

In accordance with the current Collective Bargaining Agreement between the MUCG Underground and the International Union of Operating Engineers' Local 324, please be advised that effective the first full payroll period on or after September 1, 2022, the allocation is as follows:

Allocation: Entire increase of ($1.75) to be applied to Base rate and Vacation and Holiday Fund.

Enclosed for your convenience are the computed wage and fringe benefit rates.

DWS/rg: ufcw876

MUCG UNDERGROUND AGREEMENT
WAGE AND FRINGE BENEFITS
EFFECTIVE SEPTEMBER 1, 2022

	ZONE I		ZONE II	
CLASS I	1st Shift	2nd/3rd	1st Shift	2nd/3rd
*Base Wage Per Hour	$34.20	$34.88	$32.71	$33.30
*Vacation & Holiday (15% Funded)	$5.13	$5.23	$4.91	$5.00
*Supplemental Vacation (funded)	$0.05	$0.05	$0.05	$0.05
Pension (Funded)	$13.95	$13.95	$13.95	$13.95
Health Care (Funded)	$8.40	$8.40	$8.40	$8.40
Apprenticeship Fund	$1.00	$1.00	$1.00	$1.00
Retiree Benefit (Funded)	$0.45	$0.45	$0.45	$0.45
Labor Management Education Committee	$0.16	$0.16	$0.16	$0.16
IUOE National Training Fund	$0.05	$0.05	$0.05	$0.05
DC Plan	$1.00	$1.00	$1.00	$1.00
Industry Labor Management Fund	$0.03	$0.03	$0.03	$0.03
Gross Wage	$64.42	$65.20	$62.71	$63.39
Industry Labor Management Fund	$0.03	$0.03	$0.03	$0.03
MUCG Industry Advancement fund	$0.03	$0.03	$0.03	$0.03

CLASS II	1st Shift	2nd/3rd	1st Shift	2nd/3rd
*Base Wage Per Hour	$30.09	$30.75	$28.46	$29.01
*Vacation & Holiday (15% Funded)	$4.51	$4.61	$4.27	$4.35
*Supplemental Vacation (funded)	$0.05	$0.05	$0.05	$0.05
Pension (Funded)	$13.95	$13.95	$13.95	$13.95
Health Care (Funded)	$8.40	$8.40	$8.40	$8.40
Apprenticeship Fund	$1.00	$1.00	$1.00	$1.00
Retiree Benefit (Funded)	$0.45	$0.45	$0.45	$0.45
Labor Management Education Committee	$0.16	$0.16	$0.16	$0.16
IUOE National Training Fund	$0.05	$0.05	$0.05	$0.05
DC Plan	$1.00	$1.00	$1.00	$1.00
Industry Labor Management Fund	$0.03	$0.03	$0.03	$0.03
Gross Wage	$59.69	$60.45	$57.82	$58.45
Industry Labor Management Fund	$0.03	$0.03	$0.03	$0.03
MUCG Industry Advancement fund	$0.03	$0.03	$0.03	$0.03

CLASS III	1st Shift	2nd/3rd	1st Shift	2nd/3rd
*Base Wage Per Hour	$29.45	$30.03	$28.03	$28.51
*Vacation & Holiday (15% Funded)	$4.42	$4.50	$4.20	$4.28
*Supplemental Vacation (funded)	$0.05	$0.05	$0.05	$0.05
Pension (Funded)	$13.95	$13.95	$13.95	$13.95
Health Care (Funded)	$8.40	$8.40	$8.40	$8.40
Apprenticeship Fund	$1.00	$1.00	$1.00	$1.00
Retiree Benefit (Funded)	$0.45	$0.45	$0.45	$0.45
Labor Management Education Committee	$0.16	$0.16	$0.16	$0.16
IUOE National Training Fund	$0.05	$0.05	$0.05	$0.05
DC Plan	$1.00	$1.00	$1.00	$1.00
Industry Labor Management Fund	$0.03	$0.03	$0.03	$0.03
Gross Wage	$58.96	$59.62	$57.32	$57.88
Industry Labor Management Fund	$0.03	$0.03	$0.03	$0.03
MUCG Industry Advancement fund	$0.03	$0.03	$0.03	$0.03

CLASS IV	1st Shift	2nd/3rd	1st Shift	2nd/3rd
*Base Wage Per Hour	$28.96	$29.45	$27.78	$28.22
*Vacation & Holiday (15% Funded)	$4.34	$4.42	$4.17	$4.23
*Supplemental Vacation (funded)	$0.05	$0.05	$0.05	$0.05
Pension (Funded)	$13.95	$13.95	$13.95	$13.95
Health Care (Funded)	$8.40	$8.40	$8.40	$8.40
Apprenticeship Fund	$1.00	$1.00	$1.00	$1.00
Retiree Benefit (Funded)	$0.45	$0.45	$0.45	$0.45
Labor Management Education Committee	$0.16	$0.16	$0.16	$0.16
IUOE National Training Fund	$0.05	$0.05	$0.05	$0.05
DC Plan	$1.00	$1.00	$1.00	$1.00
Industry Labor Management Fund	$0.03	$0.03	$0.03	$0.03
Gross Wage	$58.39	$58.96	$57.04	$57.54
Industry Labor Management Fund	$0.03	$0.03	$0.03	$0.03
MUCG Industry Advancement fund	$0.03	$0.03	$0.03	$0.03

CLASS V

	1st Shift
*Base Wage Per Hour	$21.65
*Vacation & Holiday (15% Funded)	$3.25
Pension (Funded)	$4.00
Health Care (Funded)	$6.50
Apprenticeship Fund	$0.50
IUOE National Training Fund	$0.05
DC Plan	$1.00
Industry Labor Management Fund	$0.03
Gross Wage	$36.98
Industry Labor Management Fund	$0.03
MUCG Industry Advancement fund	$0.03

*Taxable Income.

Allocations

Sept 2020 - $1.75 to be allocated
Sept 2021 - $1.75 to be allocated
Sept 2022 - $1.75 to be allocated
Sept 2023 - $2.00 to be allocated

D. Social Equity and Sustainability – 20 Points

1. A statement from the bidder as to what percentage of its workforce resides in the City of Ann Arbor and in Washtenaw County, Michigan. The City will consider in evaluating which bids best serve its interests, the extent to which responsible and qualified bidders employ individuals in either the city of the county. City of Ann Arbor jurisdiction is prioritized for evaluation purposes for this solicitation. At this time, 0% of the workforce resides in Ann Arbor/Washtenaw County, MI.

2. Evidence of Equal Employment Opportunity Programs for minorities, women, veterans, returning citizens, and small businesses. D&R does not have a set program for each of these specific categories, we are an Equal Opportunity Employer for all. See Attached

3. Evidence that the bidder is an equal opportunity employer and does not discriminate on the basis of race, sex, pregnancy, age, religion, national origin, marital status, sexual orientation, gender identity or expression, height, weight, or disability. See Attached

4. The bidder's proposed use of sustainable products, technologies, or practices for the project, which reduce the impact on human health and the environment, including raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and waste management. D&R has purchased several CAT NextGen Dozers & Excavators which reduce fuel consumption by 25% over previous models.

5. The bidder's environmental record, including findings of violations and penalties imposed by government agencies. D&R has not had any Environmental infractions.

EQUAL EMPLOYMENT OPPORTUNITY

It is the policy of D & R Earthmoving, LLC. to offer employment opportunities to all qualified employees and applicants without regard to race, color, religion, sex, national origin, age, disability, or any other characteristic protected by the law. Hiring decisions are based solely on the individual's qualifications and abilities to perform the position in which he or she is applying for. D & R Earthmoving, LLC. does not discriminate in employment opportunities or practices on the basis of race, color, religion, sex, national origin, age, disability or any other characteristic protected by the law. It is of the utmost importance that each employee is treated with fair and consistent policies regarding advancement and wage levels. We encourage every employee, regardless of background or origin, to have an opportunity to achieve his or her full potential. It is also encouraged that if, at any time, an employee has questions or concerns about any type of discrimination in the workplace, that it is promptly brought to the attention of management. Employees with concerns should voice those concerns without the fear of reprisal. If any employee is found to be engaging in any type of unlawful discrimination practices, that employee will be subject to disciplinary action, up to and including termination of employment.

5840 Sterling Drive, Suite 420 ▪ Howell, MI 48843 ▪ 517.586.4033 ▪ 517.586.4005 - Fax
www.drearthmoving.com

ATTACHMENT B
GENERAL DECLARATIONS

City of Ann Arbor
Guy C. Larcom Municipal Building
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including City Nondiscrimination requirements and Declaration of Compliance Form, Living Wage requirements and Declaration of Compliance Form, Prevailing Wage requirements and Declaration of Compliance Form, Vendor Conflict of Interest Form, Notice of Pre-Bid Conference, General Information, Bid, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans (if applicable) and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered #1, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:320 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting requirements stated in the City Code provisions cited. Bidder certifies that the statements contained in the City Prevailing Wage and Living Wage Declaration of Compliance Forms are true and correct. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder declares that it has become familiar with the City Conflict of Interest Disclosure Form and certifies that the statement contained therein is true and correct.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS 20th DAY OF April, 2023.

D&R Earthmoving, LLC
Bidder's Name

Authorized Signature of Bidder

5840 Sterling Dr Suite 420
Howell, MI 48843
Official Address

Ryan Look
(Print Name of Signer Above)

(517) 586-4033
Telephone Number

rlook@drearthmoving.com &
srogers@drearthmoving.com
Email Address for Award Notice

ATTACHMENT C
LEGAL STATUS OF BIDDER

(The bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

~~* A corporation organized and doing business under the laws of the State of _____, for whom _____, bearing the office title of _____, whose signature is affixed to this Bid, is authorized to execute contracts.~~

NOTE: If not incorporated in Michigan, please attach the corporation's Certificate of Authority

• A limited liability company doing business under the laws of the State of Michigan, whom Ryan Look bearing the title of Member whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.

~~* A partnership, organized under the laws of the state of _____ and filed in the county of _____, whose members are (list all members and the street and mailing address of each) (attach separate sheet if necessary):~~

_____

_____

_____

_____

_____

~~* An individual, whose signature with address, is affixed to this Bid: _____~~ __ _____
(initial here)

Authorized Official

_____ **Date** April 20, 2023

(Print) Name Ryan Look Title Member

Company:
D&R Earthmoving, LLC

Address:
5840 Sterling Dr Suite 420 Howell, MI 48843

Contact Phone (517) 586-4033 Fax ( ) N/A

Email rlook@drearthmoving.com

ATTACHMENT D
PREVAILING WAGE DECLARATION OF COMPLIANCE

The "wage and employment requirements" of Section 1:320 of Chapter 14 of Title I of the Ann Arbor City Code mandates that the city not enter any contract, understanding or other arrangement for a public improvement for or on behalf of the city unless the contract provides that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. Where the contract and the Ann Arbor City Code are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used. Further, to the extent that any employees of the contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with section 1:320 of Chapter 14 of Title I of the Code of the City of Ann Arbor, employees shall be paid a prescribed minimum level of compensation (i.e. Living Wage) for the time those employees perform work on the contract in conformance with section 1:815 of Chapter 23 of Title I of the Code of the City of Ann Arbor.

At the request of the city, any contractor or subcontractor shall provide satisfactory proof of compliance with this provision.

The Contractor agrees:

(a) To pay each of its employees whose wage level is required to comply with federal, state or local prevailing wage law, for work covered or funded by this contract with the City,

(b) To require each subcontractor performing work covered or funded by this contract with the City to pay each of its employees the applicable prescribed wage level under the conditions stated in subsection (a) or (b) above.

(c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.

(d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the wage and employment provisions of the Chapter 14 of the Ann Arbor City Code. The undersigned certifies that he/she has read and is familiar with the terms of Section 1:320 of Chapter 14 of the Ann Arbor City Code and by executing this Declaration of Compliance obligates his/her employer and any subcontractor employed by it to perform work on the contract to the wage and employment requirements stated herein. The undersigned further acknowledges and agrees that if it is found to be in violation of the wage and employment requirements of Section 1:320 of the Chapter 14 of the Ann Arbor City Code it shall has be deemed a material breach of the terms of the contract and grounds for termination of same by the City.

D&R Earthmoving, LLC
Company Name

Signature of Authorized Representative — Date: 4-20-2023

Ryan Look - Member
Print Name and Title

5840 Sterling Dr Suite 420 Howell, MI 48843
Address, City, State, Zip

(517) 586-4033 rlook@drearthmoving.com
Phone/Email address

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500

ATTACHMENT E
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than $10,000 for any twelve-month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than $10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than $10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here [___] No. of employees__

The Contractor or Grantee agrees:

(a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as $15.90/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than $17.73/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

Check the applicable box below which applies to your workforce

[___] Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits

[X] Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

(b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.

(c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.

(d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.

(e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

D&R Earthmoving, LLC
Company Name

5840 Sterling Dr Suite 420
Street Address

Signature of Authorized Representative

4-20-2023
Date

Howell, MI 48843
City, State, Zip

Ryan Look - Member
Print Name and Title

(517) 586-4033 / rlook@drearthmoving.com
Phone/Email address

Attachment F

CITY OF ANN ARBOR
LIVING WAGE ORDINANCE

RATE EFFECTIVE APRIL 30, 2023 - ENDING APRIL 29, 2024

$15.90 per hour
If the employer provides health care benefits*

$17.73 per hour
If the employer does **NOT** provide health care benefits*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than $10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

ENFORCEMENT

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than $500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed $.50 an hour for an average work week; and the employer cost or contribution must equal no less than $1/hr for the average work week.

The Law Requires Employers to Display This Poster Where Employees Can Readily See It.

For Additional Information or to File a Complaint contact
Colin Spencer at 734/794-6500 or cspencer@a2gov.org

Revised 2/1/2023

ATTACHEMENT G

Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Conflict of Interest Disclosure*	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	( ) Relationship to employee ( ) Interest in vendor's company ( ) Other (please describe in box below)

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:

D&R Earthmoving, LLC		(517) 586-4033
Vendor Name		**Vendor Phone Number**
	4/20/2023	Ryan Look - Member
Signature of Vendor Authorized Representative	**Date**	**Printed Name of Vendor Authorized Representative**

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500, procurement@a2gov.org

ATTACHMENT H

DECLARATION OF COMPLIANCE

Non-Discrimination Ordinance

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

The Contractor agrees:

(a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy, including but not limited to an acceptable affirmative action program if applicable.

(b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.

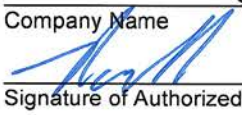
(c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.

(d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

D&R Earthmoving, LLC

Company Name



4-20-2023

Signature of Authorized Representative — Date

Ryan Look - Member

Print Name and Title

5840 Sterling Dr Suite 420 Howell, MI 48843

Address, City, State, Zip

(517) 586-4033 / rlook@drearthmoving.com

Phone/Email Address

Questions about the Notice or the City Administrative Policy, Please contact:
Procurement Office of the City of Ann Arbor
(734) 794-6500

THE AMERICAN INSTITUTE OF ARCHITECTS

AIA Document A310

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we

D&R Earthmoving, LLC
5840 Sterling Drive, Suite 420,Howell, MI 48843

as Principal, hereinafter called Principal, and

Old Republic Insurance Company
631 Excel Drive, Suite 200,Mt. Pleasant, PA 15666

a corporation duly organized under the laws of the State of **Pennsylvania**
as Surety, hereinafter called Surety, are held and firmly bound unto

City of Ann Arbor
301 East Huron Street,Ann Arbor, MI 48104

as Obligee, hereinafter called Obligee, in the sum of **Five Percent of Accompanying Bid**

Dollars (**5% of Bid**
for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for (Here insert full name, address and description of project)

Landfill Cover Improvements, RFP #23-20

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this **20th** day of **April**, **2023**.

D&R Earthmoving, LLC

(Witness)

(Principal) (Seal)

President

(Title)

Old Republic Insurance Company

(Witness)

(Surety) (Seal)

(Title)

Nicholas Ashburn, Attorney in Fact

OLD REPUBLIC INSURANCE COMPANY

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC INSURANCE COMPANY, a Pennsylvania stock insurance corporation, does make, constitute and appoint:

MICHAEL D LECHNER, ROBERT D HEUER, MARK T MADDEN, HOLLY NICHOLS, NICHOLAS ASHBURN, JASON ROGERS of ROCHESTER, MI

its true and lawful Attorney(s)-in-Fact, with full power and authority for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, (other than self-insurance workers compensation bonds guaranteeing payment of benefits, or black lung bonds), as follows:

ALL WRITTEN INSTRUMENTS

and to bind OLD REPUBLIC INSURANCE COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a meeting held on December 10, 2019. This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC INSURANCE COMPANY on December 10, 2019.

RESOLVED FURTHER, that the chairman, president or any vice president of the Company's surety division, in conjunction with the secretary or any assistant secretary of the Company, be and hereby are authorized and directed to execute and deliver, to such persons as such officers of the Company may deem appropriate, Powers of Attorney in the form presented to and attached to the minutes of this meeting, authorizing such persons to execute and deliver and affix the seal of the Company to bonds, undertakings, recognizances, and suretyship obligations of all kinds, other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and not guaranty bonds. The said officers may revoke any Power of Attorney previously granted to any such person.

RESOLVED FURTHER that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company

(i) when signed by chairmen, president or any vice president of the Company's surety division and attested and sealed (if a seal be required) by any secretary or assistant secretary; or

(ii) when signed by a duly authorized Attorney-in-Fact and sealed with the seal of the Company (if a seal be required).

RESOLVED FURTHER, that the signature of any officer designated above, and the seal of the Company, may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC INSURANCE COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 1st day of June, 2021.

OLD REPUBLIC INSURANCE COMPANY

Karen J. Haffner
Assistant Secretary

Alan Pavlic
Vice President

STATE OF WISCONSIN, COUNTY OF WAUKESHA - SS

On this 1st day of June, 2021, personally came before me, Alan Pavlic and Karen J. Haffner, to me known to be the individuals and officers of the OLD REPUBLIC INSURANCE COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say: that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said organization.

Kathryn R. Pearson
Notary Public

My Commission Expires: September 28, 2022

(Expiration of notary's commission does not invalidate this instrument)

CERTIFICATE

I, the undersigned, assistant secretary of the OLD REPUBLIC INSURANCE COMPANY, a Pennsylvania corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

Signed and sealed at the City of Brookfield, WI this 20th day of April, 2023.

Karen J. Haffner
Assistant Secretary

46-5332

ORSC 11008 (6-93)

GUY HURLEY INS & SURETY SERV.

E. Schedule of Pricing/Cost – 20 Points

Company: _____

Ann Arbor Landfill
Cover Improvement Bid Form

				PRICING	
BID ITEM	**DESCRIPTION**	**ESTIMATED QUANTITY**	**UNIT**	**UNIT PRICE**	**TOTAL**
1	Mobilization & Demobilization	1	LS	$ 28,500.00	$ 28,500.00
2	General Conditions	1	LS	$ 40,815.00	$ 40,815.00
3	Silt Fence Installation & Management	1	LS	$ 6,025.00	$ 6,025.00
4	Regrade West Channel	1	LS	$ 11,000.00	$ 11,000.00
5	Strip and Stockpile Vegetative Soil	29,800	SY	$ 0.70	$ 20,860.00
6	Load, Haul, Place and Grade Existing Soil Stockpile to Proposed Grades in 3 Project Areas	8,307	CY	$ 7.05	$ 58,564.35
7	Replace Stripped Vegetative Soil and Grade	29,800	SY	$ 1.00	$ 29,800.00
8	Dormant Seed, Fertilizer and Mulch	31,200	SY	$ 0.95	$ 29,640.00
10	As-built Plan of Regraded Areas and Proposed North Stockpile	1	LS	$ 3,000.00	$ 3,000.00
11	Repair and Reseed, fertilize and Mulch Eroded Project Areas in Spring 2023	1	LS	$ 8,500.00	$ 8,500.00
TOTAL					**$ 236,704.35**

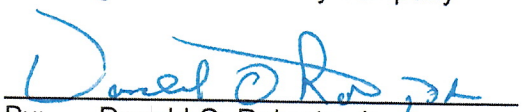
D&R EARTHMOVING, LLC
MANAGER CERTIFICATE

The undersigned, being the Manager of D&R EARTHMOVING, LLC, a Michigan limited liability company (the "Company"), does hereby, by this Consent, adopt the following resolutions, hereby waiving notice and call of a meeting therefore, to wit:

IT IS HEREBY RESOLVED, that: (i) Donald Roberts, Jr.; (ii) David Avery; (iii) Don Sines; and (iv) Ryan Look, are hereby authorized and directed to execute any and all bids, contracts, agreements, or papers necessary to legally bind D&R Earthmoving, LLC in connection with its primary business activities.

IN WITNESS WHEREOF, the undersigned being the Manager of the Company does hereby declare that the actions taken by the foregoing resolution are in the best interest of the Company and its Member, and that he has executed this Consent Resolution as of this 29th day of March, 2023.

D&R EARTHMOVING, LLC,
a Michigan limited liability company



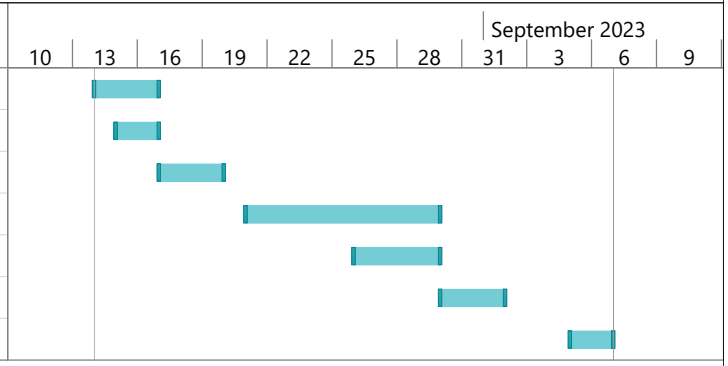
By: Donald O. Roberts, Jr.
Its: Manager

Ann Arbor Landfill 2023 Cover Improvements – Bid Clarifications

1. Bid is based on Tetra Tech Issued for Bids Documents dated November 8, 2022, Rev 0 and Addendum 1, dated April 10, 2023.
2. All work will be performed in Level D PPE
3. Due to market volatility with all materials, most vendors are not holding their pricing for more than 7 days. D&R proposes to turn over all material pricing at time of award for comparison to pricing at time of submittal approval to order material (or release from Owner to order material). D&R would either offer a credit or request to be compensated for the difference in cost between the actual invoice and original bid cost for material items (with no additional mark-up), including, but not limited to: Aggregates, Trucking, etc.
4. To account for increasing and variable fuel costs, increases or decreases of more than $0.25 per gallon, will be credited or debited to the overall project cost, based on Midwest On-Road Diesel Price as determined on https://www.eia.gov/petroleum/gasdiesel/?src=email (weekly average). Current price at time of bid is $4.027 (week of April 17, 2023) will set the baseline for any adjustments.
5. We have not included Winter Conditions in our proposal, and the following are excluded: snow removal, frost removal, weather delays (snow), remobilization due to inclement weather/cold temperatures.
6. Bid Item 2 – We have included all project management costs, restoration of stone road along ditch regrading (300 tons of 21AA included), dozer time to clean-up excavated area of the stockpile only, and sweeping of paved road upon completion of hauling.
7. Bid Item 3 – Includes 1,200 LF of Straw Bales and/or Erosion Sock, repairs to Silt Fence @ Borrow Stockpile Location and E&S maintenance during construction. Upon completion, all erosion measures will be disposed of on-site, with no disposal cost. We have not included any off-site disposal.
8. Bid Item 4 – Channel area will be stripped of vegetation and topsoil for re-use (if any exists). Excess soil from regrading will be hauled to the three Project Grading Areas as fill, however, we have not included soil conditioning. We have not included undercutting the ditch area by 3" to replace 3" of topsoil. Only topsoil stripped in this ditch area will be re-used, not import topsoil.
9. Bid Item 5 – Includes stripping up to 6" of topsoil/vegetation and windrowing off to the side of each Project Area for re-use.
10. Bid Item 6 – Soils will be excavated from the existing stockpile and hauled to the three project fill areas and does not include soil conditioning or compaction (other than with the Dozer/Trucks during placement). Pay will be based on pre-con topo vs post-con topo of the existing stockpile, plus topo of any cut/flip soils utilized after stripping, within each area (based on 3-D quantities).
11. Bid Item 7 – Windrowed topsoil/vegetation will be respread over the project areas based on what was push off/windrowed from that particular area. No hauling between areas and no import topsoil was included.
12. Bid Item 8 – Final quantity to be based on seeding all disturbed areas requiring revegetation/seeding.
13. Bid Item 9 – Removed from the bid
14. Bid Item 10 – We will provide raw survey data/points in a CSV File of 3 Project Fill Areas and Post-Con of Stockpile.

15. Bid Item 11 – We have included cost to re-seed any insufficient growth areas and repair minor erosion areas in the spring.
16. Leachate outbreaks, if encountered, will be handled on a T&M Basis.
17. Waste excavation, if encountered, will be handled on a T&M Basis.

ID	Task Mode	Task Name	Duration	Start	Finish
1		Mobilization 2023	3 days	Mon 8/14/23	Wed 8/16/23
2		Site Prep/E&S	2 days	Tue 8/15/23	Wed 8/16/23
3		Topsoil/Veg. Stripping	3 days	Thu 8/17/23	Sat 8/19/23
4		LHP Stockpile to Fill Areas	8 days	Mon 8/21/23	Tue 8/29/23
5		Ditch Regrading to N. Fill Area	3 days	Sat 8/26/23	Tue 8/29/23
6		Replace Stripped Soils	3 days	Wed 8/30/23	Fri 9/1/23
7		Seed/Mulch/Site Restoration	2 days	Tue 9/5/23	Wed 9/6/23



Project: Ann Arbor LF
Date: Wed 4/19/23

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

Ann Arbor LF - 2023 Cover Improvements

2023 EQUIPMENT RENTAL RATES

EQUIPMENT TYPE	HOURLY RATE [3]		MOVE RATE [1]
DOZERS:			
CAT D-8R, D-8T Dozer	$ 393.00		$ 1,500.00
CAT D-6XE LGP, D-6 Next Gen LGP Dozer	$ 288.00		$ 1,500.00
CAT D-6T XL, D-6T LGP, D-6R LGP Dozer	$ 251.00		$ 1,500.00
CAT D-6N LGP, D-6K2 LGP Dozer	$ 215.00		$ 750.00
CAT D-5K2 LGP, D3-12 LGP Dozer	$ 207.00		$ 750.00
CAT D-4K2 LGP, D-4K2 XE Dozer	$ 175.00		$ 750.00
CAT D-3K2 LGP Dozer	$ 175.00		$ 750.00
Add for GPS Grading System per hour	$ 60.00		
Add for D-6 Ripper attachment per day	$ 185.00	day	
SCRAPERS:			
MTS 3630T Quad Track with 1 pan	$ 436.00		$ 1,500.00
MTS 3630T Quad Track with 2 pans	$ 536.00		$ 1,500.00
Case Quad Track with 1 pan	$ 355.00		$ 1,500.00
Case Quad Track with 2 pans	$ 405.00		$ 1,500.00
CAT 627F Scraper	$ 399.00		$ 1,000.00
CAT 621B Scraper	$ 285.00		$ 1,000.00
LOADERS/BACKHOES/SKID STEERS:			
CAT 950K Loader	$ 214.00		$ 1,000.00
CAT 938G, 938H, 938M Loader	$ 184.00		$ 750.00
CAT 930M, 930K Loader	$ 180.00		$ 750.00
CAT 420F IT Backhoe	$ 152.00		$ 500.00
CAT 299D3 Track Skid Steer	$ 204.00		$ 500.00
CAT 279D Track Skid Steer	$ 156.00		$ 500.00
CAT 246C Skid Steers	$ 142.00		$ 500.00
Add Skid Steer Sweeper/Auger/Rockhound Attachments per day	$ 230.00	day	$ 350.00
TRACK EXCAVATORS:			
CAT 352 Next Gen, CAT 349E L Excavator	$ 373.00		$ 1,500.00
CAT 345B L Excavator	$ 317.00		$ 1,000.00
CAT 336 FL, 336 EL Excavator	$ 281.00		$ 1,000.00
Add CAT 140ES Breaker Attachment per day	$ 785.00	day	$ 350.00
CAT 330C L Excavator	$ 268.00		$ 1,000.00
CAT 321D LCR Excavator	$ 221.00		$ 1,000.00
CAT 320C L, Excavator	$ 214.00		$ 1,000.00
CAT 315C L Excavator	$ 184.00		$ 750.00
Add CAT 110SE Breaker Attachment per day	$ 400.00	day	$ 350.00
CAT 308E2 CR SB Mini-Excavator	$ 160.00		$ 500.00
CAT 305CCR Mini-Excavator with std bucket	$ 140.00		$ 500.00

2023 EQUIPMENT RENTAL RATES

EQUIPMENT TYPE	HOURLY RATE [3]		MOVE RATE [1]
COMPACTION EQUIPMENT:			
CAT 815B Sheepsfoot Roller	$ 236.00		$ 1,000.00
84" Smooth Drum Roller - Bomag BW211, Hamm 3410, CAT CS54B, CAT CS56, CAT CS533E	$ 168.00		$ 750.00
84" Sheepsfoot Roller - CAT CP563C, CP563D	$ 168.00		$ 750.00
66" Smooth Drum Roller - CAT CS44	$ 147.00		$ 500.00
66" Sheepsfoot Roller - CAT CP433E	$ 147.00		$ 500.00
Wacker 35" RD-11A Smooth Drum Roller	$ 111.00		$ 500.00
GRADERS:			
CAT 140M Grader	$ 212.00		$ 1,000.00
Add for GPS Grading System per hour	$ 60.00		
OFF-ROAD TRUCKS:			
CAT 745, Volvo A45G Articulated Rear Dump Truck	$ 330.00		$ 1,000.00
CAT 740 Articulated Rear Dump Truck	$ 276.00		$ 1,000.00
CAT D300E II, 725C2 Articulated Rear Dump Truck	$ 221.00		$ 1,000.00
MISC EQUIPMENT:			
International 2000 Gal Water Truck	$ 139.00		$ 500.00
Steiger ST-325 Tractor or John Deere 6135E Tractor w/Rome TAW-20S Disc	$ 220.00		$ 500.00
Rome TAW-20S Disc	$ 55.00		$ 500.00
Kenco KL-12000 Barrier Clamp per day	$ 175.00		$ 350.00
Roscoe RB-48 Sweeper	$ 139.00		$ 500.00
TRUCKING:			
Train	Truck Invoice + 10%		
Semi	Truck Invoice + 10%		
Tri-Axle	Truck Invoice + 10%		

2023 EQUIPMENT RENTAL RATES

EQUIPMENT TYPE	HOURLY RATE [3]		MOVE RATE [1]
SMALL EQUIPMENT (labor extra):			
Small Plate Compactor	$ 105.00	day	
14" Pipe Saw + Blade	$ 154.00	day	
2" Gas Pump w/suction & discharge hose	$ 128.00	day	
3" Gas Pump w/suction & discharge hose	$ 153.00	day	
4" Gas Pump w/suction & discharge hose	$ 198.00	day	
6" Diesel Pump w/suction & discharge hose	$ 720.00	day	
2" Electric Pump w/discharge hose	$ 74.00	day	
3" Electric Pump w/discharge hose	$ 107.00	day	
2" x 50ft Discharge Hose	$ 15.00	day	
3" x 50ft Discharge Hose	$ 20.00	day	
4" x 50ft Discharge Hose	$ 20.00	day	
6" x 50ft Discharge Hose	$ 45.00	day	
5000 - 6500 Watt Generator w/50ft ext cord	$ 152.00	day	
2000 Watt Generator w/50ft ext cord	$ 80.00	day	
20 kw Diesel Generator w/100ft ext cord	$ 473.00	day	
42 kw Diesel Generator w/100ft ext cord	$ 811.00	day	
PERSONNEL:			
Foreman with truck [2]	$ 114.00	hr	
Foreman with truck (premium time) [2]	$ 143.00	hr	
Foreman/Operator running equipment - add/hr to equip. rate [2]	$ 31.00	hr	
Operator [2]	$ 83.00	hr	
Operator (premium time) [2]	$ 124.00	hr	
Laborer [2]	$ 72.00	hr	
Laborer (premium time) [2]	$ 107.00	hr	

All rates include operator and fuel.

Minimum rental charge is 8 hours, unless otherwise specified.

Overtime shall apply to time over 8 hrs for Monday - Friday and all hrs on Saturday

Sunday and Holiday's are double time.

Show up time for labor is 2 hours

1. Equipment Move costs shown are for local moves, each way, in the Metro Detroit, MI area. Move costs outside the Metro Detroit, MI area will be based on the transport invoice + 10% Mark-up.

2. Per Diem costs for work outside the Metro Detroit, MI area will be added to T&M invoices.

3. Equipment Hourly Rates are subject to change based on the national average fuel cost as detailed by the U.S. Energy Information Administration for the Midwest (PADD 2) region.

5840 Sterling Drive, Suite 420 Howell, MI 48843 P 517-586-4033 F 517-586-4034

D&R Earthmoving, LLC - 2023 Equipment List

Quantity	Equipment Type
3	CAT 279 SKID STEER
1	CAT 246 SKID STEER
3	CAT D-3 LGP DOZER
1	CAT D-4 LGP DOZER
1	CAT D-5K DOZER
10	CAT D-6 LGP DOZER
6	CAT D-6 DOZER
1	CAT D-8 DOZER
1	BOMAG SMOOTH DRUM
3	CAT CP563
1	CAT CS44 ROLLER
2	CAT 815 COMPACTOR
2	CAT CS54B COMPACTOR
2	CAT CS533 VIBRATORY ROLLER
1	HAMM 3410 ROLLER
3	CAT 938 LOADER
2	CAT 930 LOADER
2	CAT 420 BACKHOE
1	ALLIED 8700 HOE-PAK
1	LEEBOY BROOM
1	CAT 140 GRADER
1	CAT 330 EXCAVATOR
3	CAT 315 EXCAVATOR
1	CAT 305 EXCAVATOR
1	McElroy 26 Fusion Machine
1	Holmes 16F Rollerblade

Quantity	Equipment Type
2	CAT 336 EXCAVATOR
2	CAT 349 EXCAVATOR
2	CAT 320 EXCAVATOR
1	CAT 308 RUBBER TIRE EXCAVATOR
1	VOLVO EC450 EXCAVATOR
1	HYUNDAI 200W-7 RUBBER TIRE EXCAVATOR
1	CAT 345 EXCAVATOR
1	CAT 352 EXCAVATOR
4	CAT 740 ARTICULATING TRUCK
6	CAT 745 ARTICULATING TRUCK
3	VOLVO A45 ARTICULATING TRUCK
1	CAT 613 SCRAPER
9	CAT 627 SCRAPER
1	CAT 621 SCRAPER
3	CASE QUAD TRACK
4	ASHLAND PULL PAN
1	CAT HM315 MULCHER
1	JOHN DEERE 6135E TRACTOR
1	STEIGER 325 TRACTOR
2	ROME DISC TAW-20S
1	WACKER RD11A ROLLER
1	HAMM 3410 COMPACTOR
1	INTERNATIONAL DUMP TRUCK
1	INTERNATIONAL WATER TRUCK
1	McElroy 618 Fuson Machine

GUY HURLEY
INSURANCE & SURETY SERVICES

March 14, 2023

Mr. Mark T. Bauer
Federal-Mogul Piston Rings, LLC
15701 Technology Drive, Unit 6
Northville, MI 48168

Mr. Thomas O'Connell
Environmental Resources Management Michigan, Inc.
25 E. 8th Street, Suite 220
Holland, MI 49423

RE: Principal: D&R Earthmoving, LLC
Project: Sparta Foundry Waste Facility Closure Project

Dear Mr. Bauer & Mr. O'Connell

D&R Earthmoving, LLC is a highly regarded and valued client of Old Republic Insurance Company.

We are willing to consider requests up to $20,000,000 single job and $60,000,000 aggregate. Needs in excess of this would be considered based upon current underwriting information and an appropriate request from D&R Earthmoving, LLC.

Should you award the above contract to D&R Earthmoving, LLC, it is the present intention of Old Republic Insurance Company to provide contract Performance and Payment Bonds on their behalf. Any arrangement to provide final bonds on a project is a matter between our contractor and Old Republic Insurance Company, and we assume no liability to any party, if we do not execute said bonds.

Old Republic Insurance Company is listed on the U.S. Treasury Department's Listing of Approved Sureties and has an Underwriting Limitation of $142,639,000. Old Republic Insurance Company is rated A+ (FSC XV) by A.M. Best Company.

OLD REPUBLIC INSURANCE COMPANY

By: _____
Nicholas Ashburn, Attorney-in-Fact

DIRECT 248.519.1400 | FAX 248.519.1401 | 989 E. South Boulevard, Suite 200 | Rochester Hills, MI 48307

OLD REPUBLIC INSURANCE COMPANY

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC INSURANCE COMPANY, a Pennsylvania stock insurance corporation, does make, constitute and appoint:

MICHAEL D LECHNER, ROBERT D HEUER, MARK T MADDEN, HOLLY NICHOLS, NICHOLAS ASHBURN, JASON ROGERS of ROCHESTER, MI

its true and lawful Attorney(s)-in-Fact, with full power and authority for and on behalf of the Company as surety, to execute and deliver and affix the seal of the Company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, (other than self-insurance workers compensation bonds guaranteeing payment of benefits, or black lung bonds), as follows:

ALL WRITTEN INSTRUMENTS

and to bind OLD REPUBLIC INSURANCE COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a meeting held on December 10, 2019. This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC INSURANCE COMPANY on December 10, 2019.

RESOLVED FURTHER, that the chairman, president or any vice president of the Company's surety division, in conjunction with the secretary or any assistant secretary of the Company, be and hereby are authorized and directed to execute and deliver, to such persons as such officers of the Company may deem appropriate, Powers of Attorney in the form presented to and attached to the minutes of this meeting, authorizing such persons to execute and deliver and affix the seal of the Company to bonds, undertakings, recognizances, and suretyship obligations of all kinds, other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and not guaranty bonds. The said officers may revoke any Power of Attorney previously granted to any such person.

RESOLVED FURTHER that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company

(i) when signed by chairmen, president or any vice president of the Company's surety division and attested and sealed (if a seal be required) by any secretary or assistant secretary; or

(ii) when signed by a duly authorized Attorney-in-Fact and sealed with the seal of the Company (if a seal be required).

RESOLVED FURTHER, that the signature of any officer designated above, and the seal of the Company, may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC INSURANCE COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 1st day of June, 2021.

OLD REPUBLIC INSURANCE COMPANY

Karen J. Haffner
Assistant Secretary

Alan Pavlic
Vice President

STATE OF WISCONSIN, COUNTY OF WAUKESHA - SS

On this 1st day of June, 2021, personally came before me, Alan Pavlic and Karen J. Haffner, to me known to be the individuals and officers of the OLD REPUBLIC INSURANCE COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say: that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said organization.

Kathryn R. Pearson
Notary Public

My Commission Expires: September 28, 2022

(Expiration of notary's commission does not invalidate this instrument)

CERTIFICATE

I, the undersigned, assistant secretary of the OLD REPUBLIC INSURANCE COMPANY, a Pennsylvania corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

Signed and sealed at the City of Brookfield, WI this 14th day of March, 2023.

Karen J. Haffner
Assistant Secretary

46-5332

ORSC 11008 (6-93)

GUY HURLEY INS & SURETY SERV.

Michigan Department of Licensing and Regulatory Affairs
Bureau of Construction Codes
Licensing & Compliance Division
P.O. Box 30254
Lansing, MI 48909

Michigan Department of Licensing and Regulatory Affairs
Bureau of Construction Codes
Company Builder License

Q.O. - Brian M Dodds
D & R EARTHMOVING LLC
5840 STERLING DRIVE SUITE 420
HOWELL, MI 48843

License No:
2102192598

Expiration Date:
05/31/2023

D & R EARTHMOVING LLC
5840 STERLING DRIVE SUITE 420
HOWELL, MI 48843

P287665

GRETCHEN WHITMER
Governor

Michigan Department of Licensing and Regulatory Affairs
Bureau of Construction Codes
Company Builder License

D & R EARTHMOVING LLC
5840 STERLING DRIVE SUITE 420
HOWELL, MI 48843

Qualifying Officer:
Brian M Dodds
Qualifying Officer #
2101073013

MUST BE DISPLAYED IN A CONSPICUOUS PLACE

License No.
2102192598

Expiration Date:
05/31/2023

This document is duly issued under the laws of the State of Michigan

GRETCHEN WHITMER
Governor

STATE OF MICHIGAN
DEPARTMENT OF TRANSPORTATION
Lansing

PAUL C. AJEGBA
Director

May 24, 2022

D & R Earthmoving, LLC
5840 Sterling Dr Ste 420
Howell MI 48843-7024

05348
(517) 586-4033

Dear Vendor:

In accordance with our Administrative Rules we have established your numerical rating which is based on a financial rating of $99,991,000.00 covering the classifications in the amounts stated below. This prequalification rating is effective until April 30, 2024.

99991	Ea	Grading, Drainage Structures & Agg. Cons

It will be assumed that the rating is satisfactory unless the Prequalification Committee is notified in writing to the contrary within 15 days after the bidder has been advised of the rating granted. The Department, may declare a prequalified bidder ineligible to bid at any time because of developments subsequent to prequalification which, in their opinion, would affect the responsibility of the bidder or their ability to perform the contract work.

Lawrence F. Strzalka
Manager
Construction Contracts Section
Contract Services Division