



Meeting Agenda

Welcome

Firm Presentations

Meeting Sponsor – ANEW



Contributing Presenters

Andersen • VECA

MacDonald-Miller • DPR

Skanska • Hoffman

McKinstry • ANEW

Disclaimer: The activities and innovations discussed are for reference only. Please do your own due diligence before implementing new technologies, equipment or procedures.



October 6, 2022

Transparency in Safety: Sharing Innovations



Andersen Construction



SAFEBUILD ALLIANCE RETURNING SAFETY TO THE FIELD

CHAD SPROULE, CSP

PROGRAM HISTORY:

SAFETY PROGRESSION AT ANDERSEN:

- REACTIVE
 - "Safety" run by projects at their discretion
 - Focus on checking boxes / complying
 - > EHS served as "Cops" catching infractions
 - Result:
 - Low incident reporting rate, High injury rate

Improved Reactive

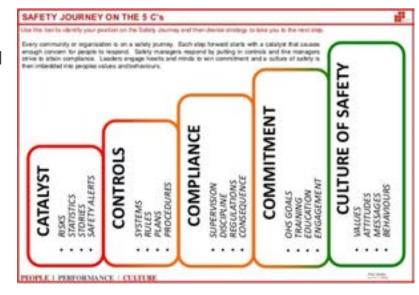
- Safety controlled by on-site EHS
 - > Safety in charge of inspections, safety meetings, orientations, incident reporting, review, document control, etc....
- Result:
 - > Rise in incident (Near-Miss) reporting decrease in injuries
 - Some actionable data, limited to size and capacity of EHS Team



PROGRAM HISTORY:

RETURNING SAFETY TO THE FIELD:

- Self Supporting Program:
 - Responsibility for safety has been formally returned to the project teams:
 - > Entire team expected to coordinate and control:
 - Pre-Construction Safety Assessments
 - Created a streamlined process
 - Project Orientations
 - New video system
 - Task-Planning Review and Approval
 - Project Safety Meetings
 - Engaging Trade-Partners and Outside Speakers
 - Inspections
 - Vastly increased the amount and diversity of inspections
 - EHS Team
 - Utilized as subject matter experts
 - Able to cover more projects, involved in Training, "High Risk" Activity Planning, Incident Reviews, Innovation Implementation



GAINING BUY IN:

CREATING A WILLING CULTURE:

- Setting Expectations
 - Leadership's buy-in is key
 - Specific Metrics and incentives tied to proactive safety performance
 - Amount and Diversity of inspections
 - Safety Meeting Involvement
 - Innovation awards
 - Safety Steering Teams
 - Creating clarity
 - > Safety Program should be straightforward
 - > Training and periodic checks to assess effectiveness
- Response to incidents is key
 - Safety is not responsible for discipline
- Engaging Trade-Partners
 - They must understand that the responsibility is collective

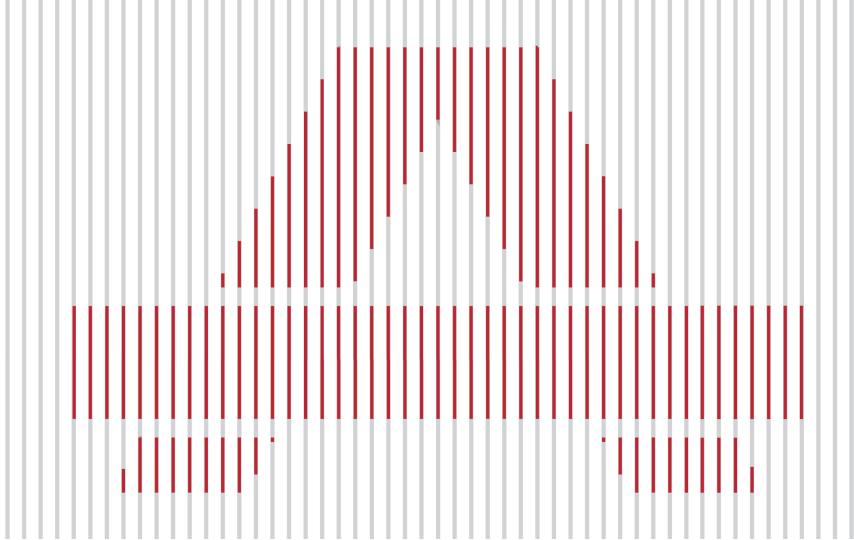


CASE STUDY:

QUIL CEDA CREEK CASINO:

- Project Scale
 - \$150 Million
 - 126,700 SF Casino
 - ➤ 6 Story 1,068 Stall Parking Garage
 - > 14 acre site development
 - 250+ Personnel on site daily
- 1,000,000 + Hours
 - 3 Recordable Injuries
 - 2 Restricted Duty
 - > 0 Lost time
- Project Team
 - Responsible for all day-to-day safety
 - EHS Manager on Site 1 day per week







VECA



Method of Procedure App

SafeBuild Alliance Thursday, October 6th

The Old Way

	VECA METHOD O	FPROCEDURE	
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- Archaic at best
- Hard doc / PDF format
- ► Lacked Efficiency and transparency
- Neglected to help our team members decisively decide on mitigation methods needed for their live / potential exposure tasks

Old Process Pitfalls

FIELD

- Limited access for the field, due to the need for computers and printing capabilities
- Long turnaround times for approval
- Excessive amount of wasted paper and time (reprints)
- Many crews with different approvers created communication issues
- Wasn't adaptable to all field tasks

Safet

- Difficult to track tasks with associated potential energized exposures
- ▶ No automatic notifications
- Assessing the correct protection methods
- Providing adequate / timely support of these activities
- Ability to audit and track our process for live work

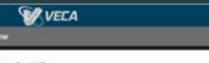
All these things lead to a lack of enthusiasm for completing....

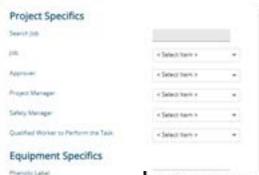
VECA's Safety Efficiency Objective Our Goal

CREATE A WANTED PROCESS!!

- Create a process team members will use
- Any VECA team member with a VECA device should be able to view and utilize their MOP
- Immediate notification to associated approvers specific to the project
- System / Database tracking
- Make the process more intuitive

- Provide a program that has built in mitigation processes
- Incorporate NFPA 70e tables that could fill the gaps
- Create a clean and organized format that can be shared / exported not only for internal use, but a client review.
- Simplify, Simplify, Simplify





VECA's New Process

- An online application / data base
- Includes dropdown menus for faster use
- Incorporates table information from NFPA 70e for accurate PPE, tool and boundary selection
- Immediately notifies all parties of new and approved MOPs via email
- Stores all open, approved and completed documents in one location for easy auditing
- In house certified NFPA 70e trainer

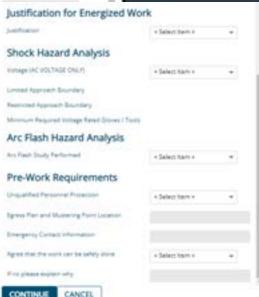
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Activity

Amer

Date to be Performed

Овоступпан



Results

- ► The new process is efficient, accurate and seamless.
- ▶ The approval and turn around time has been greatly reduced.
- Our field team has been provided a process they want to use. (Since June 2021 VECA has completed over 650 MOP's)
- VECA created a system that allows for an overview of what tasks may present the highest risk of exposure to our teams. This allows for VECA to adapt training and mitigation steps within the program to prevent incidents and unplanned outages. (Energized Electrical Work / Testing of Voltage and Rotation / Testing for AOV)
- In relation to this MOP program VECA has taken the step to certify an inhouse trainer for NFPA 70e. VECA has trained over 300 electricians in NFPA 70e and has provided Washington State approved CEU's to our personnel and facility clientele.



MacDonald-Miller



MacDonald-Miller Facility Solutions

We make buildings work better.







Muscle Rolling

Presented by Lee Pyfrom, CHST

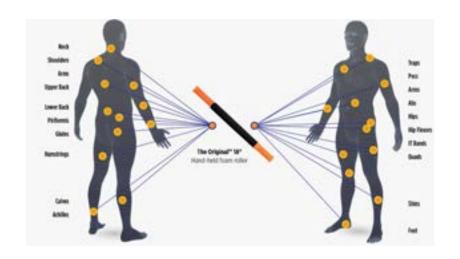
Safety Director, MacDonald-Miller Facility Solutions, Inc.

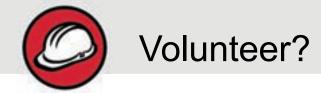


Benefits of Muscle Rolling



- ☐ Warms Up the Body, Making it More Receptive to Stretching
- □Releases Muscle Knots
- □ Relieves Inflammation
- □Increases Range of Motion
- **□**Boosts Circulation
- □Rolling Ones Legs Tends to Loosen up Your Back









Comfortably Touch Toes







Muscle Rolling



□Rollout for 10 to 30 Seconds
Per Muscle Group





















IT Bands_



Now Touch Toes Again



☐ Any Difference?





Questions?







DPR

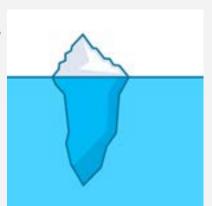
Ground Disturbance Process

Safe Build Alliance – Transparency in Innovations
October 6, 2022

Problem Statement

Underground Utility Strikes Are not a part of any business strategy!

- Potential for serious Injuries
- Client Business Interruption
- Repair Cost
- Production down time
- 3rd party involvement
- Utility impacts to project and or public
- Insurance Claims



Current Condition

- Excavation Checklist
- No standard approach
- Training is inadequate or not provided
- Unaware of the volume and frequency of these incidents

Problem Analysis

What is the root cause? Take a shot at picking problem areas, ask the 5-WHYS?

- ? We were unaware of existing utility location
- ? Adequate potholing was not performed
- ? Regulatory guidance doesn't require it (Utilities impacted was outside of tolerance zone of 24")
- ? No process currently identified to prevent this
- ? We were unaware of the frequency of this issue

Background – Ground Disturbance



- Since 2016 there have been 315 Underground utility strikes at DPR
- This is a statistic that we all should not except!
- How do we get to ZERO?



#1 –Ground
Disturbance Permit

5 Steps to Zero

#2 -DIG BOARDS

#3 – 3 Paths to Identification









#4 – Identify all Underground Utility Work in our Schedules



#5 – Exposing Everything Within 10' of Work Area





How this Process Changed DPR

- Communication Ensuring that DPR, the Utility Locator, and Party responsible for the excavation are aligned with the findings.
- Scanning Education Around Scanning and What Tools to Use
- Planning The timing between locating the utilities and performing the work cannot be less than 24 hours.
- Complete Due Diligence before Digging Team take every step to ensure they have identified utilities in the area.
- Define the Process and set Clear Expectations Across the Country
- Accountability Someone always responsible for intrusive site work.



Lease Crutcher Lewis



Lewis Safety Innovations





SAFETY COMMITMENT STATEMENT

At Lewis, safety is not a department. It is not an individual. It is not a field issue. Every one of us is personally accountable for protecting ourselves and our co-workers from harm, and mutually committed to safe execution. We provide the leadership and teamwork to create a workplace that is free of incidents and injuries. Because we are a family at Lewis, when we observe an unsafe situation, we take action as we would for any family member.

Tell us what you don't want us to know







WHAT DO WE DO NEXT?

- After conducting several RCA's we found that workers perception of the incident was very different from the way Leaders look at the incident
- Workers personal commitment to safety was based on their perception of their individual performance (showing their salt)
- Choosing to do what's right vs making a split decision

WHAT YOU DON'T WANT US TO KNOW

- Seattle President, Director of Field
 Operations, and myself held a working
 session to understand Code
 Compliance vs. Best Practice
 working session (what do we have to
 do vs. creating some flexibility)
- Talk to the people who perform the work (Superintendents, Foreman, Craft workers and Sub partners)
- What have we learned?

What have we learned & how to make changes

START WITH THE BASICS

TIME TO MAKE IMPROVEMENTS

SEE THE RESULT S

- Create programs and processes that gets buy in by all (Top down)
- How do you plan your work
- Do you have the right employee / employees to perform the work?
- Do they have the proper training and equipment?
- What is the Culture on the project

- Create an inclusive environment built on Trust and Respect, Best Practices, Team Work
- Change stick vs. carrot method
- Fit the work environment to meet the employees needs
- Planning work in advance can help to eliminate potential hazards before they take place
- Pre-task planning is there only one way?
- Partner with workers, supervisors, and trade partners for consistent feedback



SKANSKA

Safety Innovations Microsoft Campus Modernization Project

Chiung-I Hwang & Stacy Jellison
Senior EHS Managers
10/06/2022

TREADX - Temporary Stair Tread Inserts

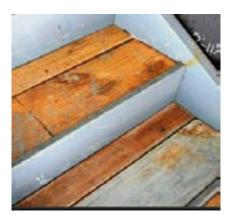
Benefits:

- Safety features
 - Non-skid surface
 - Class B fire rating
 - Safety Stripe
 - Weather-proof
 - Easy to install No power tool needed

Cost saving

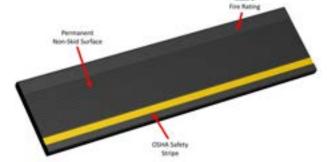
- Reusable
- Low maintenance
- Lower labor costs

Wood infill



TREADX





SKANSKA J Balfour Beatty

J-Edge Anchor System

Benefits:

- Replaces the bent plate pour stop with high strength, straight edge steel beam with bolted connector.
- Reduce welding
- Reduce field mistake and rework
- Bolt system allows easy adjustment
- Quick release guardrail system
- Reduce labor



Ladder alternative by Shinn Mechanical

Features:

- Guardrails for fall protection
- Non-skid surface
- Wheel and brake system allows one-person operation
- Pull out work surface and storage

Benefits:

- No additional fall protection required while working near the slab edge
- Can be used where scissor-lift is not allowed due to point loading
- Safer than ladders
- Safely carry more tool and materials





Hoffman



Purple Air Indoor/Outdoor Air Quality Sensors

https://www2.purpleair.com/

The PA-II-SD device is an air quality sensor that measures real-time PM2.5 concentrations for residential, commercial, or industrial use.

- Built-in WiFi enables the air quality detector to transmit data to the PurpleAir map, where it is stored and made available to any smart device.
- For locations with limited or no WiFi access, the PA-II-SD PM2.5 measurement detector incorporates an SD card and real-time clock, allowing the sensor to record and store data locally.*



This allowed the project team to receive real time Air quality data for their actual location rather than relying on regional Air-Now (app) and positioned monitors located further away or at different elevations.





Audible Cue – Last Step Notification

Missing the bottom rung causes close to 20 percent of all ladder-related falls, making it one of the two most common causes of ladder related injuries, according to a study published by the American Ladder Institute.

- The Ground Cue is designed to prevent these types of accidents.
- The patent-pending Ground Cue[™] is an audible and tactile signal to let you know you when you have reached the bottom step of the ladder.
- The Ground Cue is available on the MightyLite, SafeFrame and Safety Cage. It will also be available soon on some of the models of HyperLite.





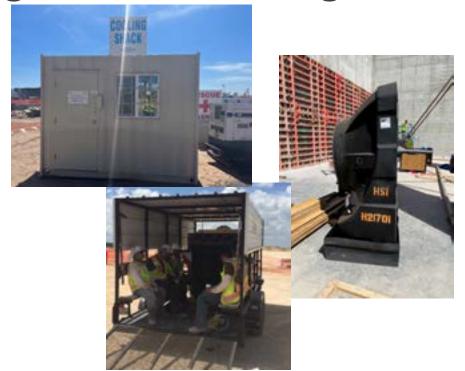


Cooling Rooms / Misting Stations

Extreme heat becoming more common and sticking around longer

Solutions

- Typical in traditionally warm weather environments
- PNW & Coastal areas-Not so much
 - we need to bring lessons learned forward







MENTAL HEALTH INITIATIVE

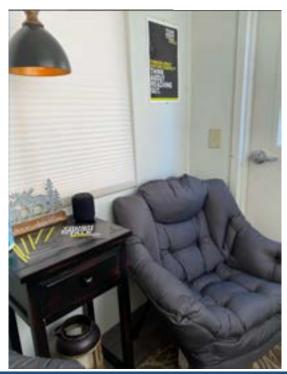


GUTS Rooms

Why a GUTS Room

Mental and emotional health is vital to our overall health and safety on our projects

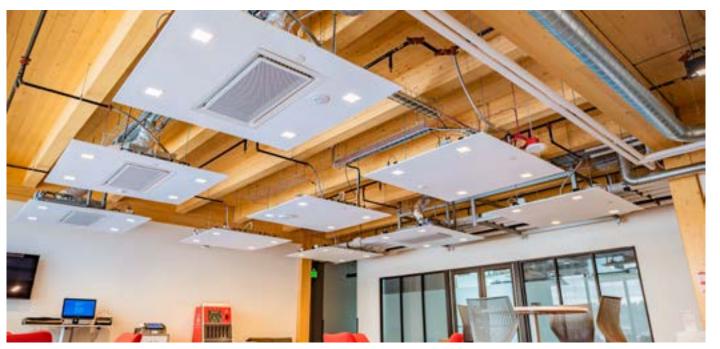
- Offers an area to hear your own voice again
- Encourages healthy behavior on and off the jobsite
- Provide a space to help build and strengthen healthy relationships and find balance while on the job site without fear of judgement
- Each space needs to include resources either through QR codes, phone numbers, or literature







McKinstry

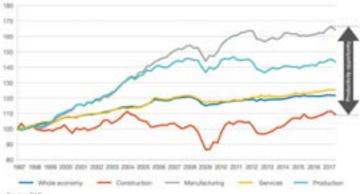


The Next Generation of Integrated Building Solutions



Construction Industry Productivity

the problem



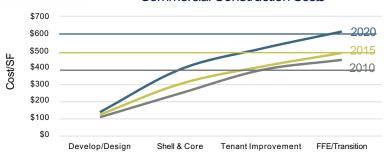
The construction industry is complex and fragmented with many players, where contractual structures and incentives are often misaligned



Starter ONE

Commercial Construction Costs

Construction costs have increased by \$100/sf in just the last 5 years



Confidential & Proprietary
Do not share without express permission.

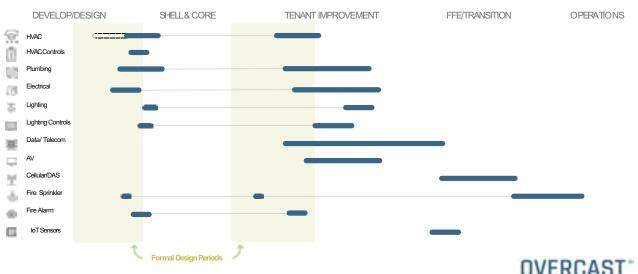


Design is siloed across specialties

the problem



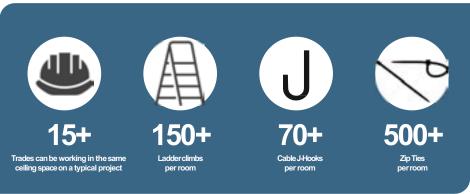
INNOVATIONS











congestion, redundancy, excessive waste and inefficient







OVERCAST

- HVAC Equipment
- Bldg Automation
- Lighting
- Lighting Controls
- Fire / Sprinkler
- Fire Alarm
- Audio Visual
- IT Devices / WAP
- DAS/ Wireless
- IOT Sensors

In one coordinated, customizable package

Manufactured & Delivered as a Finished Good – Ready to Install



UNION MANUFACTURED



All products are assembled and shipped ready to install with mechanical & electrical systems and associated low voltage equipment pre-configured.

Cloud and Splines carry the **SMART blue label**. The blue label is used on production products to notify field workers that the appliance is made by a union manufacturer.



Field Installation...efficient & repeatable







10-15 Minutes

2 People

1 Material Lift

Field Productivity Improvement:

Trade Coordination

Reduce risk to schedule and budget

Reduce Trade Stacking

Coordination happens in the factory, reducing jobsite inefficiencies

Efficiency On Site

Reduce installation labor decongest jobsites, shrink laydown areas, minimize site traffic and enhance site safety







Cloud Ceiling Appliances install in just 15 minutes. Your project can be completed faster and at less cost.



Overcast projects require less installation labor simplifying theinstallation process and reducing onsite conflicts



Fully configured and manufactured offsite reduces jobsitematerial waste management.



Less Risk due to ease of reconfiguration. Cloud ceiling appliances are modular by design to allow for changes when needed.





Sellen





Safety & Quality Collaboration

Why do More Accidents Occur During Rework

Separating but Integrating Quality & Safety

Promoting a Culture of Safe, High-Quality Projects



Does Rework Increase Safety Risk?

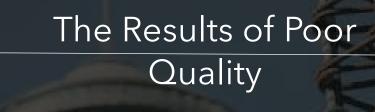




THE FACTS ABOUT REWORK:

- 70% of all construction liability claims are due to construction defects
- 50% of all construction claims are relate to envelope (exterior walls and roof) failures
- Rework can be 2% 20% of the total cost of construction
- Rework equates to an estimated total of \$15 billion a year*
- · Safety incidents tied to rework can increase by a factor of two or more
- Rework is the single largest contributor to delays and time/cost for rework is not recoverable
- On average, fixing a problem after a trade's work is complete can be \$2K per item or much more. Fixing it during the placement of the work costs nothing

*According to the Construction Industry Institute



Safety Incidents Increase by a Factor of 2 or more

Single Largest Contributor to Project Delays

EXPECT DELAYS

Rework Could Be 2%-9% of Project Cost





Safety Management Elements

- Management Commitment
- Safety Manual (APP)
- Pre-Construction Planning
- Site Specific Safety Plans
- Pre-Installation / Task Planning
- Education
 - Orientations
 - Task and Equipment Specific

Training

- Tool-Box Talks
- Observations & Inspections
- Safety Audits

Quality Management

- ManagemenElemmeintent
- Quality Management System (QMS)
- Pre-Construction Planning
- Project Specific Quality Control Plans
- Pre-Installation / Task Planning
- Education
 - Orientations
 - Mock-Ups and First In Place
 Reviews
 - Lesson' Learned
- Observations & Inspections
 - **Quality Audits**



Promoting a Culture of Safe, High Quality, Projects

Safety Cultures Affect Quality and Productivity?

- Strong Safety Culture "Safe for the Ones You Love"
 - "We always start with Safety"
 - " When we are safe, we are Productive"
 - "We look out for each other"
 - "We listen to those doing the work and know the risk"





Promoting a Culture of Safe, High Quality, Projects

Quality Cultures Affect Safety and Productivity?

- Strong Quality Culture "Deliver it right the first time"
 - > We partner to prevent and solve problems
 - > We learn from others to improve our skills
 - > We coach people and share our craft

Potentially, the Safest Projects







Q & A



Thank you to our Sponsor





Building People, Building Communities

Presented By: Megan Clark, Development Director



Our Mission

ANEW improves people's lives by providing quality training, employment navigation and supportive services leading to successful family wage careers.

Our Vision

We envision a thriving community where there is equal access to family wage, apprentice-able career pathways, resulting in a diverse, skilled workforce.

ANEW does not discriminate on the basis of age, national origin, race, ethnicity, gender, background, religion, sexual orientation, or disability.





WHAT WE OFFER

ANEW provides quality training, employment navigation and supportive services leading to successful family wage careers.

- 1. Construction pre-apprenticeship training
- 2. Youth exploration programs and Passport to Careers
- 3. Support Services
- 4. RISE Up Diversity & Advocacy training and technical assistance







What does it mean to RISE Up?

METHODS OF OUTREACH

PRIORITY HIRE ZIP CODES

- King County
 - Undeserved communities
 - Low-income families
 - High school education level

YOUNG ADULTS 18-24

- Targeting those employed in
 - Minimum wage jobs
 - Warehouse / restaurant / fast food
 - Stay-at-home parents

Middle and High Schools

- » Present and table at school career fairs.
 - Educate students about family-wage careers
 - Show the benefits of a trade school vs. college
 - Provide information for them to share with parents
 - Host evening events for students & parents

Partner Organization Referrals

- » Strong partnerships in our community
 - Women-based organizations
 - Programs for troubled youth
 - Organizations providing resources to those struggling with income and previously incarcerated



Program Expectations

- Rapidly adapt and respond to changes in the environment and priorities.
- Must be able to lift 40 lbs. over head and all duties need to be performed unassisted.
- Will have the ability to stand/walk for long periods of time.
- Ability to follow specific directions, perform a variety of duties which may change often.
- · Comfortable working at heights on ladders.
- Crawling, climbing and working with your arms above your head.
- Self-starter, ambitious and can take initiative.
- Constantly forward thinking to problem solve.





Daily Expectations for our Programs



Punctuality

- On time means EARLY. No call No show is NOT okay
- · Vou will arrive 15 minutes early for class



Perseverance/Commitment

- Maintain a positive attitude!
- Show respect to classmates and instructors
- Work toward your own success and the



Work Ethic

- Prepared with PPE, clothing, and materials
- Listen to directions



CONSTRUCTION PRE-APPRENTICESHIP TRAINING

WHY PRE-APPRENTICESHIP?

- Most are competitive to enter
 - Need experience in the trades
 - Seeking industry certifications
 - Long wait lists
 - Uncertainty of choosing a trade

PHYSICAL FITNESS

- Mirrors commercial construction standards
 - Build strength and endurance.
 - Get stronger, learn proper form
 - Emphasis on nutrition to stay healthy and hydrated!

Trades Rotation

- » Our students are exposed to all the major trades!
 - Apprenticeship hall tours
 - · Learn about scope of work, wages, and benefits
 - Meet apprentices who are already doing the work!

Improving Math Skills

- » Learn applied, trades math that will be used every day
 - Measuring techniques and methods
 - Cutting materials at angles, cubic volume, etc,

Training Curriculum Breakdown	Total Hours
Professional Development and Personal Development Practices	41
Apprenticeship Competency Evaluations	40
Construction Career Exploration	100
Math Skills	40
Physical Fitness	26
Safety Certifications	33
Service Learning and Speed Mentoring (outside of program hours)	10





80% Graduation Rate

80% Placement Rate 70% Retention Rate*

*Retention is measured over a period of 3 years





How you can partner!

Arrange to visit the cohort to speak or do a lunch and learn hands on project, so the students learn about your company and trades you hire

Jobsite tours

Participate in mock interviews! Come meet our students and help them get ready for their industry interviews.

Donate company swag or gift cards for our graduations

Be an annual sponsor of ANEW and our growing programs!





425-358-0871

megan@anewcareer.org

www.anewcareer.org





2023 Web Banner Advertising Reservations

SafeBuild banner ads average thousands of impressions per month



Advertise your business effectively with SafeBuild Alliance

The SafeBuild Alliance website is an excellent, low-cost way to promote your business or services to a highly concentrated network of your target clients.

Your full-color advertisement will appear on the SafeBuildAlliance.com homepage for one full year.

By advertioning with SateBuild, you are helping to support our vision of area incidents through collaboration. Bunner administer as 8400 per year. Standard administrately applied your logic and brief sagine jurider 10 words. Please provide togos in high-resolution jog or ago format. Contact learnifeatebuildations com for more information.

Examples





2023 Engagement

Are you interested in becoming more involved with SafeBuild?

There are many ways to contribute, including:

Board of Directors

SafeBuild Committees

Become a Mentor or Mentee

Sponsorships & Advertising

Participate in an upcoming member meeting

Contact <u>jason@safebuildalliance.com</u> to learn more!

ZERO INCIDENTS THROUGH COLLABORATION