YAKIMA REGIONAL CLEAN AIR AGENCY

186 Iron Horse Court, Suite 101. Yakima, WA. 98901
Phone: (509) 834-2050 Fax: (509) 834-2060
Website: http://www.yakimacleanair.org

RECEIVED
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Filing Fee: $400.00*

***Pursuant to WAC 173-400-111(1) (e)-an application is not complete until the permit application filling fee required by YRCAA has been paid.**

OFFICAL USE ONLY

YRCAA NSR No: NSRP-02-TTCC-25 Date Fee Paid: 01/27/2025

Received by: EGR-hand delivered Filing Fee: **$400.00**

☐ YRCAA is the lead agency for the SEPA process. Processing Fee $400.00

Review of the application will not begin, until the application filling fee is paid. A surcharge fee for the time required for preparing and processing the application for approval will be invoiced after the permit to operate is issued.

New Source Review (NSR) Application General

Stationary/Permanent Source

INSTALLATION OR ESTABLISHMENT OF NEW AIR CONTAMINANT SOURCES

NSR Application is Required for Construction, Installation or Establishment of an Air Pollution Source
Or
Replacement or Substantial Alteration of Emission Control Technology on an Air Pollution Source or Equipment

I. General Information:

BUSINESS NAME TTC Construction

NATURE OF BUSINESS Heavy Civil Construction

MAILING ADDRESS 12871 Summitview Rd, Yakima, WA 98908

FACILITY ADDRESS (if different): _____

PHONE and FAX NUMBERS (509) 457-3969 Email: ajheckart.ttc@gmail.com

TYPE OF PROCESS, EQUIPMENT, OR APPARATUS Portable rock crusher and associated equipment.

LIST OF AIR CONTAMINANT(S) WHICH WILL BE PRODUCED AND/OR CONTROLLED Fugitive particulate matter (PM, PM2.5, PM10) will be controlled by the FDCP. Watering the raw material as it is loaded into the crusher, watering material piles and the site.

ESTIMATED STARTING DATE: ASAP

ESTIMATED COMPLETION DATE: N/A

Compliance with SEPA (State Environmental Policy Act) - Check One of the Options Below:

- ☐ A DNS or EIS has been Issued by Another Agency for this Project and a Copy is Attached.
- ☑ If no DNS or EIS Exists for this Project, a Completed Checklist for this Project and the SEPA Processing Fee are Attached. *YRCAA SEPA checklist is available by phone, or by our website.*
- ☐ The city/county has established an exemption for this project.
- ☐ I certify that the SEPA has been satisfied or this project is exempt:

_____ *by* _____
Date *Government Agency*

Previous NSR/Air Permits Number issued by YRCAA for the Facility, if any _____

Describe Input to Output Process (Attach drawings, schematics, prints, or block diagrams) Material is loaded into the crusher, it is then transfered to a screen and out put into two piles of finished material.

ESTIMATED COSTS: OF BASIC SOURCE EQUIPMENT $ $250,000

OF CONTAMINANT CONTROL APPARATUS $ _____

Process: Production Output per Year (tons, pounds, etc) 48,000 TN

Maximum Output per Hour (tons, pounds, etc) 100 TN

Percentage of Production (%)

Dec - Feb 25 Mar – May 25

Jun - Aug 25 Sep – Nov 25

Operating Schedule: Hrs/Day 8 Days/Wk 5 Wks/Yr 12

II. Emissions Estimations and Calculations:

1. Criteria Pollutants (gr/dscf, tons/yr, lbs/hr., ppm, etc.)

Particulate (PM_{10},$PM_{2.5}$) PM10 = .041 tn/yr PM2.5 = .018234

Volatile Organic Compounds _____

Nitrogen Oxides _____

Sulfur Oxides _____

Carbon Monoxide _____

Lead _____

2. Toxic Air Pollutants (Name) Quantity (in gr/dscf, tons/yr, lbs/hr. ppm, etc.)

_____ _____

_____ _____

_____ _____

_____ _____

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- ☒ The city/county has established an exemption for this project.
- ☐ I certify that the SEPA has been satisfied or this project is exempt:

1-27-25 by [signature], Zoning & Subdivision Manager
Date *Government Agency*

Previous NSR/Air Permits Number issued by YRCAA for the Facility, if any _____

Describe Input to Output Process (Attach drawings, schematics, prints, or block diagrams) _____

ESTIMATED COSTS: OF BASIC SOURCE EQUIPMENT $ _____

OF CONTAMINANT CONTROL APPARATUS $ _____

Process: Production Output per Year (tons, pounds, etc) _____

Maximum Output per Hour (tons, pounds, etc) _____

Percentage of Production (%)

Dec - Feb _____ Mar – May _____

Jun - Aug _____ Sep – Nov _____

Operating Schedule: Hrs/Day _____ Days/Wk _____ Wks/Yr _____

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1. Criteria Pollutants (gr/dscf, tons/yr, lbs/hr., ppm, etc.)

Particulate (PM_{10},$PM_{2.5}$) _____

Volatile Organic Compounds _____

Nitrogen Oxides _____

Sulfur Oxides _____

Carbon Monoxide _____

Lead _____

2. Toxic Air Pollutants (Name) Quantity (in gr/dscf, tons/yr, lbs/hr. ppm, etc.)

_____ _____

_____ _____

_____ _____

_____ _____

3.	Fugitive Pollutants (Source) Primary Crusher, Fines Screening, Conveyor Transfer, Truck Load/Unload Aggregate Material	Quantity (in gr/dscf, tons/yr, lbs/hr. ppm, etc.) PM10 = .041 tn/yr PM2.5 = .018234

4. Air Pollution Modeling

Results _____

Computer Printout Attached? ☐Yes ☐No

III. Emission Data:

1. Stack

Height (Feet)_____ Inside Diameter (feet)_____

Gas Exit Temp (degrees F)_____ Gas Exit Velocity (ft/min)_____

Flow Rate (cfm)_____

Shared Stack? If a shared stack, identify process (es) or point(s) which share the stack.

Distance from Stack to Property Line _____

2. Discharge Point or points (if no stack or other than stack)

Height (feet)_____ Inside Diameter (feet)_____

Gas Exit Temp (degrees F)_____ Gas Exit Velocity (ft/min)_____

Flow Rate (cfm) _____

Shared discharge point? If a shared discharge point, identify process (es) or point(s) which share the discharge point. _____

_____

Distance from discharge point to Property Line _____

3. Fuel

Type_____ % Sulfur_____

% Ash_____ Unit of Measure (gal./cu.ft./etc.)_____

BTU per Unit of Measure_____Consumption Units per Year_____

Maximum Consumption Units per Hour _____

4. Building Dimensions

Height (feet)_____ Length (feet)_____ Width (feet)_____

IV. Air Pollution Control Equipment:

Baghouse

Type _____ Model #, Serial # _____

Efficiency _____ $PM_{2.5}$: _____ and PM_{10}: _____

Bag Height (feet) _____ Bag Diameter (feet) _____

Filter Area (feet squared) _____ Blower Flow Rate (cfm) _____

Filter Media _____ Dimensions (feet) _____

Discharge Area Dimensions (feet) _____

Cleaning Mechanism (shake) (air psi) _____

Other Data _____

Scrubber

Type _____ Model #, Serial # _____

Efficiency _____

Gas Differential Pressure (psi) _____ Liquor Differential Pressure (psi) _____

Liquor Flow (gpm) _____ Discharge Area Dimensions ($feet^2$) _____

Gas Flow (cfm) _____ Other Data _____

Cyclone

Type _____ Model #, Serial # _____

Efficiency _____ $PM_{2.5}$: _____ and PM_{10}: _____

Gas Flow (cfm) _____ Discharge Area Dimensions ($feet^2$) _____

Other Data _____

Precipitator

Type _____ Model #, Serial # _____

Efficiency _____

Gas Flow (cfm) _____ Gas Velocity (ft/sec) _____

Residence Time _____ Gas Differential Pressure (psi) _____

Precipitation Rate (ft/sec) _____ Discharge Area Dimensions ($feet^2$) _____

Other Data _____

Ad/Absorp

Type _____ Model #, Serial # _____

Efficiency _____

Gas Flow _____ Gas Velocity (ft/sec) _____

Gas Temp (degree F) _____ Bed Volume (ft^3) _____

Bed Dimensions (feet) _____ Capacity (hours) _____

Contaminant (lb/day) _____ Regeneration time (hours) _____

Other Type FDCP(Water Spray Systems) Model #, Serial # _____

Efficiency _____

Gas Flow (cfm)_____ Discharge Area Dimensions (feet)_____

Other Data _____

V. Additional Information:

1. Attach Related Information on Chemicals or Materials that will be emitted. (MSDS Sheets, Company Information, etc.)

   Note: Indicate how much quantity are used per MSDSs

   ☐ Yes ☐ No, if not why? _____

   _____

2. Fugitive Dust Control Plan (Attach if Necessary)
3. Attach Operation and Maintenance Manual of Pollution Control Equipment.

   ■ Yes ☐ No, if not, why? _____
4. Attach Vendor Information or Manufacturer's Instructions on Pollution Control Equipment.

   ☐ Yes ☐ No, if not, why? _____

APPLICANT: I hereby certify that the information contained in this application, including supplemental forms and data, when required, is, to the best of my knowledge, complete and correct. I also agree to all fees for processing this permit and grant permission for YRCAA staff to enter the premises for inspection.

Signature _____ Date 1-27-25

Title Vice President Date 1-27-25

Name and Title of Individual Filling out Form:

Name (print) Tyler Schroder, Controller

Signature Tyler Schroder

Name and Title of Contact Person, if Different than Above:

Name _____

Title _____

Name and Title of the Responsible Official for the permit, if Different than Above:

Name _____

Title _____

Yakima Regional Clean Air Agency
INSTRUCTIONS FOR PERMIT APPLICATION

Use this sheet as a checklist to determine when your application is substantially complete.

☞ Each PERMIT APPLICATION for the construction, installation or establishment of a new air contaminant source, or modification of existing air pollution source or control equipment or permit, needs to be accompanied by the following information to be considered complete:

Included	N/A	
☑	☐	Process flow sheets and equipment layout diagrams.
☑	☐	Control equipment manufacturer, model number, size, serial numbers (for each piece of control equipment).
☑	☐	Quantify average and maximum hourly throughput values, average yearly totals, and maximum concentrations for each pollutant.
☑	☐	Applicant's calculation of the kinds and amounts of emissions for each emission point, materials handling operation or fugitive category (both controlled and uncontrolled).
☑	☐	Plot plan including identification of proposed emission points to the atmosphere, distance to property boundaries, height of buildings and stack height above ground level.
☐	☑	Identification of raw materials and/or product specifications (physical and chemical properties) and typical ranges of operating conditions as related to each emission point (toxic air contaminants require a separate summary); Material Safety Data Sheets (MSDS) should be included in the PERMIT APPLICATION for all compounds used.
☑	☐	Identification of the methods/equipment proposed for prevention/control of emissions to the atmosphere.
☑	☐	Information sufficient to demonstrate the ability of the emission controls proposed as being consistent with those provided in the applicable regulations (BACT/NSPS/RACT/NESHAPS/LAER analysis). See attached worksheet for typical layout of BACT analysis information.
☐	☑	The kinds and amounts of emission offset credits proposed for assignment when operations are within a non-attainment boundary (see WAC 173-400-120 and 131).
☐	☑	Estimates of the proposed project ambient impact under average and least favorable conditions where pertinent to PSD (WAC 173-400-720) or Toxic Air Pollutants (WAC 173-460) requirements.
☐	☑	Additional information, evidence, or documentation as required by the Board of Directors, or the Control Officer, to show that the proposed project will meet federal, state and local air pollution control regulations.
☐	☑	For applications that include equipment that has previously been approved, authorized or registered, a lapse is considered to have occurred if the registration fees are delinquent for more than one calendar year or the source has not operated within five years prior to the receipt of any required PERMIT APPLICATION (WAC 173-400-110).
☐	☑	Applications that include previously approved or authorized equipment require that additional information regarding previous owners or approvals be provided so that YRCAA records can be updated. Equipment registered and/or approved for a given company cannot be authorized without a legal name change, purchase of company or equipment, or a legal contract or subcontract to do business with or for the approved source. Responsibility for operation of authorized equipment rests with the registered source.
☐	☑	All applications need to be accompanied with a completed SEPA checklist or SEPA determination. YRCAA may process the SEPA determination, if no other agency has done it. In this case a SEPA checklist with the proper fees must be submitted with the NSR application.

☞ The application transmittal shall conform to YRCAA review requirements wherever possible as detailed in the General Regulations for Air Pollution Sources (WAC 173-400).

☞ Each drawing, document, or other form of transmittal considered by the applicant to be proprietary and confidential must be suitably identified as confidential in red ink, and signed and dated by the applicant or its agent. Be aware that YRCAA follows the requirements in 40 CFR 2 for determination of confidentiality. YRCAA may not process company sensitive information as confidential.

☞ Orders of Approval (to construct, modify, or install) are issued for specific equipment or processes described in the application. Changes to the processes or control equipment are not allowed without new source review (Permit Application and Permit) if these changes result in an emission of a different type or an increase in emissions (WAC 173-400-110). Process equipment changes that result in decreased emissions require notification to YRCAA.

☞ The SIC code is identified as the four digit major group classification in the 1987 Standard Industrial Code Classification Manual listing of SIC codes can be obtained for free from the internet.

☞ Mail or deliver in person the completed application package to:

Yakima Regional Clean Air Agency
186 Iron Horse Court, Suite 101
Yakima, WA 98901-2303

☞ **Application fees must accompany application for the application to be considered complete. An invoice will be sent out for the Engineering review after final decision on the application. Make checks payable to "Yakima Regional Clean Air Agency" or "YRCAA".**

☞ **The PERMIT APPLICATION package submitted must be complete. All applications are screened for completeness before processing. Applicants submitting incomplete application packages will be notified of their incomplete status and may result in a delay in processing the application.**

Yakima Regional Clean Air Agency

PERMIT APPLICATION / NEW SOURCE REVIEW

BACT ANALYSIS WORKSHEET

Facility Name: 12871 Summitview Rd, Yakima, WA 98908

CONTROL ALTERNATIVE	EMISSIONS [lbs/hr] & [tons/yr]	EMISSIONS REDUCTION (a) [tons/yr]	INSTALLED CAPITAL COST (b) [$]	TOTAL ANNUALIZED COST (c,g) [$]	AVERAGE COST EFFECTIVENESS OVER BASELINE (d) [$/ton]	INCREMENTAL COST EFFECTIVENESS (e) [$/ton]	B
1) Controlled Fugitive Emissions per FDCP	PM .00001285 / .0617						
2)	PM 2.5 .000003 / .01595						
3)	PM 10 .000023 / .0466						
4)							
5) Uncontrolled Baseline (worst case - no controls)							

(a) Emissions reduction over baseline control level.
(b) Installed capital cost relative to baseline.
(c) Total annualized cost (capital, direct, and indirect) of purchasing, installing, and operating the proposed control alternative. A capital recovery factor approach using a real int express capital costs in present-day annual costs.
(d) Average cost effectiveness over baseline is equal to total annualized cost for the control option divided by the emissions reductions resulting from the uncontrolled baseline.
(e) The optional incremental cost effectiveness criterion is the same as the average cost effectiveness criteria except that the control alternative is considered relative to the next m control alternative.
(f) Energy impacts are the difference in total project energy requirements with the control alternative uncontrolled baseline expressed in equivalent millions of Btus per year.
(g) Assumptions made on catalyst life may have a substantial affect upon cost effectiveness.

Notes:

The number of alternatives to be evaluated will vary depending on application.
Values for each variable should be provided as they are applicable. Use N/A if not applicable.
Emission rates are the expected or predicted emission rates.
Calculations should provide for a range of alternatives.
Emissions reduction should use estimated efficiency if actual efficiency is unknown - should so state.
Attach worksheets as necessary to substantiate above values.

TTC CONSTRUCTION, INC.
12871 Summitview Rd Yakima, Wa. 98908 (509) 457-3969 Fax (509) 457-2945

Project Description

This Application has been created for the crushing operations of TTC Construction, INC. Located at 12871 Summitview Rd, Yakima, Washington, for review by the Yakima Regional Clean Air Agency (YRCAA). The facility currently includes:

- A crusher operation;
- A material stockpile
- An Office, Mechanic's Shop and yard.

TTC Construction will comply with operating hour limitations stated by Yakima County in CUP 03-037. The Decision for Approval with Conditions File No. 171311-31001 includes approval for concrete and asphalt Recycling. This application is specific to the operation of the TTC Construction crushing operation.

Project Owner/Operator

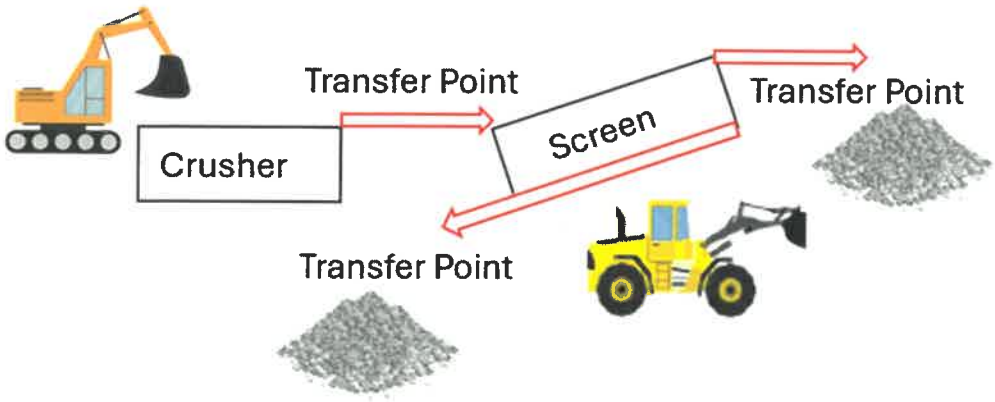
TTC Constructiton is owned and operated by Shannon Heckart. The primary contact is AJ Heckart, Vice President

12871 Summitview Rd
Yakima, WA 98908
(509) 457-3969
Email: ajheckart.ttc@gmail.com

Site Description and Plant Layout/Process Flow Diagrams

The facility is in a rural area northwest of the City of Yakima. Figure 1 shows the vicinity of the crushing operation. Shannon and AJ Heckart own the land and TTC Construction leases the land.The property is approximately 10.5 acres and the permitted crushing area is approximately 1.2 acres. The proposed rock crushing operation occurs within property leased by TTC Construction. This remote location provides security and reduces impacts on the surrounding community. There are private residences and orchards to the west and northwest of the facility. The area to the North, East and south are vacant, arid land.

Crushing Equipment and Process



TTC CONSTRUCTION, INC.
12871 Summitview Rd Yakima, Wa. 98908 (509) 457-3969 Fax (509) 457-2945

Make	Model	Year	Function
CAT	D250	1998	Articulating Dump truck to move material
CAT	950F	1995	Wheel Loader to move material
CAT	336EL	2015	Excavator to feed Crusher
CAT	336FL	2016	Excavator to feed Crusher
Cedar Rapids			Horizontal Impact Crusher w/ Cummins motor
Detroit	8V71	1975	Diesel Motor

Figure 1

TTC CONSTRUCTION, INC.

12871 Summitview Rd Yakima, Wa. 98908 (509) 457-3969 Fax (509) 457-2945

TTC CONSTRUCTION, INC.
12871 Summitview Rd Yakima, Wa. 98908 (509) 457-3969 Fax (509) 457-2945

Control Equipment

Button House Detroit Diesel 8V71 Generator
35-42% Thermal Efficiency

Sources and Examples Supporting Thermal Efficiency (35–42%)

1. **Manufacturer Documentation:**
   - Detroit Diesel does not explicitly state thermal efficiency in its user manuals, but performance specifications (such as fuel consumption and power output) can be used to calculate it. For example:
     - **Brake-Specific Fuel Consumption (BSFC):**
       - Typical BSFC for the 8V71 is around **0.40–0.45 lb/hp·hr**.

Conversion to thermal efficiency:

$$\eta_{\text{thermal}} = \frac{\text{Power Output (hp)}}{\text{Fuel Energy Input (hp-equivalent)}} \times 100$$

Assuming diesel fuel has an energy content of 18,500 BTU/lb, thermal efficiency for an engine with BSFC of 0.40 lb/hp·hr is approximately:

$$\eta_{\text{thermal}} = \frac{1}{0.40 \times 18,500/2545} \times 100 \approx 42\%$$

       - Lower efficiencies (~35%) occur under suboptimal conditions (low loads or higher BSFC).

Example with Detroit Diesel 8V71

Let's assume:

- **BSFC** = 0.40 lb/hp·hr (typical for this engine).
- **Fuel Energy Content** = 18,500 BTU/lb.

Plugging in the values:

$$\eta_{\text{thermal}} = \frac{2545}{0.40 \times 18500} \times 100 = 34.4\%$$

If the BSFC is lower (e.g., 0.35 lb/hp·hr), the efficiency increases:

$$\eta_{\text{thermal}} = \frac{2545}{0.35 \times 18500} \times 100 = 39.2\%$$

2. **Two-Stroke Diesel Engine Benchmarks:**
    - Scientific studies of two-stroke diesel engines show typical thermal efficiencies ranging from **35% to 45%** under optimal operating conditions.
    - Reference: "Thermodynamics of Internal Combustion Engines" by Rowland S. Benson details diesel engine efficiencies.
3. **Similar Engine Comparisons:**
    - Engines with similar displacement and design (e.g., two-stroke, naturally aspirated or turbocharged) show comparable efficiencies.
    - For example:
        - Caterpillar and Cummins engines from the same era and size class exhibit thermal efficiencies within the 35–42% range.
4. **Empirical Testing and Reports:**
    - Research on older Detroit Diesel engines, such as those used in heavy-duty trucks, marine applications, and industrial equipment, aligns with this range.
    - Studies from organizations like SAE (Society of Automotive Engineers) and ASME (American Society of Mechanical Engineers) often examine diesel engine efficiencies.

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Control Equipment

Emerson Power & Control Generator Control, Voltmeter & Ammeter

TTC CONSTRUCTION, INC.
12871 Summitview Rd Yakima, Wa. 98908 (509) 457-3969 Fax (509) 457-2945

Emissions Calculations

All emission factors are calculated based on the Department of Ecology's Technical Support Document for Stationary and Portable Rock Crushing Operations

General Order of Approval
No. 11AQ-GO-01

Table 1. Emission Factors Comparison

Activity	Pollutant	Emission Factor Selected controlled (lb/ton)	ORCAA controlled (lb/ton)	SWCAA controlled (lb/ton)	SWCAA 2011 controlled (lb/ton)	SCAPCA (2006) controlled (lb/ton)	AP-42 TBL 11.19.2-2 (8/04) controlled (lb/ton)	AP-42 (7/95) controlled (lb/ton)
Screening	PM	0.0022	0.008	0.032	0.0022	0.00087	0.0022	NI
	PM_{10}	0.00074	NI	0.015	0.00074	NI	0.00074	0.00084
	$PM_{2.5}$	0.00005	NI	NI	0.00005	NI	0.00005	NI
Fines	PM	0.0036	NI	NI	NI	NI	0.0036	NI
Screening	PM_{10}	0.0022	NI	NI	NI	NI	0.0022	NI
	$PM_{2.5}$	0.0001	NI	NI	NI	NI	ND	NI
Product	PM	0.00014	4.8E-05	0.003	NI	0.0011	0.00014	NI
Transfer	PM_{10}	0.000046	NI	0.0014	NI	NI	0.000046	0.000048
	$PM_{2.5}$	0.000013	NI	NI	NI	NI	0.000013	NI
Primary	PM	0.0012	0.0007	NI	0.00014	NI	ND	NI
Crusher	PM_{10}	0.00054	NI	NI	0.000067	0.0024	ND	NI
	$PM_{2.5}$	0.0001	NI	NI	0.000012	NI	ND	NI
Secondary	PM	0.0012	0.0007	0.005	0.0012	NI	ND	NI
Crusher	PM_{10}	0.00054	NI	0.0024	0.00054	0.0024	ND	NI
	$PM_{2.5}$	0.0001	NI	NI	0.0001	NI	ND	NI
Tertiary	PM	0.0012	NI	NI	0.0012	NI	0.0012	NI
Crusher	PM_{10}	0.00054	NI	NI	0.00054	0.0024	0.00054	0.00059
	$PM_{2.5}$	0.0001	NI	NI	0.0001	NI	NI	NI
Truck	PM	NI	0.0001	0.003	0.00014	NI	NI	NI
Loading	PM_{10}	0.000016	NI	0.0014	0.000046	0.000761	0.000016	NI
	$PM_{2.5}$	NI	NI	NI	0.000013	NI	NI	NI

NI=no information ND=non detect

According to **AP-42** or regional sources, crushing asphalt and concrete typically emits less particulate matter than rock crushing due to material composition. We used updated emission factors:

Activity	PM (lb/ton)	PM10 (lb/ton)	PM2.5 (lb/ton)
Primary Crusher	0.001	0.0005	0.0002
Fines Screening	0.002	0.001	0.0005
Conveyor Transfer Point (1)	0.0001	0.00005	0.00002
Truck Loading/Unloading	0.000015	0.00001	0.000005

Annual Throughput and Transfer Points

- **Annual Throughput**: 48,000 tons/year.
- **Conveyor Transfer Points**: 3 transfer points.

Calculation Method

For each activity, emissions are calculated using:

$$\text{Emissions (tons/year)} = \frac{\text{Emission Factor (lb/ton)} \times \text{Throughput (tons/year)}}{2000 \text{ lbs/ton}}$$

Emission Factors for Asphalt and Concrete Crushing

		PM	PM10	PM2.5
1	Primary Crusher	0.024	0.012	0.005
2	Fines Screening	0.048	0.024	0.012
3	Conveyor Transfer Points	0.007	0.004	0.001
4	Truck Loading/Unloading	0.000359	0.00024	0.00012

The emission factor for windblown dust from aggregate piles from Section 13.2.4 of AP-42 was used to estimate windblown dust from aggregate storage piles, using Equation 1 from Section 13.2.4 of AP-42:

$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (pound [lb]/ton)}$$

where:

E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s) (miles per hour [mph])
M = material moisture content (%)

The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1				
< 30 μm	< 15 μm	< 10 μm	< 5 μm	< 2.5 μm
0.74	0.48	0.35	0.20	0.053[a]

Where:

E = Emission (lb/ton)

k = particle size multiplier: PM2.5 = 0.053, PM10 = 0.35, PM = 0.74

U = average wind speed, mph (5.7 mph is the high value) Weather World

M = material moisture, % (3% From TTC Working Area Dust Measurements)
Emissions from windblown dust from aggregate storage piles are shown in Table below.

	Particle Size	Annual Emissions (tons/year)
1	PM	0.013411
2	PM10	0.006343
3	PM2.5	0.000961

Toxic Air Pollutants per WAC 173-460

All emissions governed under this application are fugitive particulate matter and do not include any toxic air pollutants that are listed in WAC 173-460-150. Equipment proposed in this application run on Diesel fuel and are mobile on site. Per WAC 173 400-035 and WAC 173-400-110(1)(b) nonroad engines are exempt from NSR.

TTC CONSTRUCTION, INC.
12871 Summitview Rd Yakima, Wa. 98908 (509) 457-3969 Fax (509) 457-2945

Fugitive Dust Control Plan (FDCP)

1. Sources of Fugitive Dust
    - Crushing and screening equipment.
    - Material stockpiles.
    - Conveyor transfer points.
    - Truck loading/unloading and transport.
2. Dust Control Measures
    - Water Spray Systems: Installed at crushers, screens, and conveyor transfer points.
    - Windbreaks: Barriers to reduce wind-driven dust.
    - Material Moisture Content: Maintaining adequate moisture in materials to reduce dust generation.
3. Monitoring and Inspections
    - Regular inspections of equipment and dust control measures.
    - Visual monitoring of dust levels during operation.
4. Recordkeeping
    - Documentation of dust control activities (e.g., watering frequency, equipment maintenance).
    - Logs of inspections and any corrective actions taken.
5. Emergency Procedures
    - Plans to address excessive dust events, equipment failures, or other emergencies.
6. Training
    - Ensuring staff are trained on dust control methods and compliance requirements.

SEPA[1] Environmental Checklist

Purpose of checklist

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. **You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown.** You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to **all parts of your proposal**, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for lead agencies

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B, plus the Supplemental Sheet for Nonproject Actions (Part D). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in "Part B: Environmental Elements" that do not contribute meaningfully to the analysis of the proposal.

[1] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/Checklist-guidance

Background

Find help answering background questions[2]

1. **Name of proposed project, if applicable:**

   YRCAA NSR 12871 Summitview Rd, Yakima, WA 98908

2. **Name of applicant:**

   Aj Heckart

3. **Address and phone number of applicant and contact person:**

   12871 Summitview Rd, Yakima, WA 98908

   (509) 728-2534

4. **Date checklist prepared:**

   1/22/2025

5. **Agency requesting checklist:**

   YRCAA

6. **Proposed timing of schedule (including phasing, if applicable):**

   ASAP

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

   No.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

   N/A

9. **Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

   No

10. **List any government approvals or permits that will be needed for your proposal, if known.**

    YRCAA Permit/NSR.

11. **Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

[2] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-A-Background

Operate an asphalt and concrete recycling operation at 12871 Summitview Rd Parcel 17131131001, project site is 10.48 Acres.

12. **Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

12871 Summitview Rd, Yakima, WA 98908. Parcel # 17131131001

Latitude:46º 37' 39.857" Longitude:-120º 40' 07.354" Range:17 Township:13 Section:11

TH PT OF N1/2 NE1/4 SW1/4 LY E OF CORD R/W

Environmental Elements

1. Earth

Find help answering earth questions[3]

a. **General description of the site:**

Circle or highlight one: Flat, rolling, hilly, steep slopes, mountainous, other:

b. **What is the steepest slope on the site (approximate percent slope)?**

100%

c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them, and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.**

110—Rock Creek-Clint-Simcoe complex, 0 to 45 percent slopes

d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

No.

[3] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-earth

e. **Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.**

No filling, excavation or grading proposed.

f. **Could erosion occur because of clearing, construction, or use? If so, generally describe.**

No filling, excavation or grading proposed.

g. **About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

.58 Acres are currently covered with impervious surfaces, this will not change.

h. **Proposed measures to reduce or control erosion, or other impacts to the earth, if any.**

Site will not change, avoid tracking off of current roads or disturbing existing slopes.

2. Air

Find help answering air questions[4]

a. **What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.**

Fugitive Particulate Material, PM - .0809 tn/yr, PM2.5 - .018234 tn/yr, PM10 - .041 tn/yr

b. **Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**

No.

c. **Proposed measures to reduce or control emissions or other impacts to air, if any:**

Watering of the site as well as the crusher feeder to reduce fugitive particulate matter and track off. Leaving natural vegetation in undisturbed areas, staying on graveled surfaces to minimize disturbed areas.

3. Water

Find help answering water questions[5]

a. **Surface:**

Find help answering surface water questions[6]

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[4] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-Air

[5] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water

[6] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Surface-water

1. **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

   Cowiche Creek is located .5 miles to the east of the project location.

2. **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

   No.

3. **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   Zero.

4. **Will the proposal require surface water withdrawals or diversions? Give a general description, purpose, and approximate quantities if known.**

   No.

5. **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

   No.

6. **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   No.

b. **Ground:**
Find help answering ground water questions[7]

1. **Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give a general description, purpose, and approximate quantities if known.**

   Yes,

2. **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (domestic sewage; industrial, containing the following chemicals…; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   N/A

[7] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-3-Water/Environmental-elements-Groundwater

c. Water Runoff (including stormwater):

1. **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

   Dust mitigation efforts and storm water, sediment control BMPs used to collect all runoff and keep it on site.

2. **Could waste materials enter ground or surface waters? If so, generally describe.**

   No.

3. **Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.**

   No.

d. **Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:**

   Silt Fence along down slope of property to contain any runoff.

4. Plants

Find help answering plants questions

a. **Check the types of vegetation found on the site:**

- ☐ **deciduous tree: alder, maple, aspen, other**
- ☐ **evergreen tree: fir, cedar, pine, other**
- ☐ **shrubs**
- ☐ **grass**
- ☐ **pasture**
- ☐ **crop or grain**
- ☐ **orchards, vineyards, or other permanent crops.**
- ☐ **wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other**
- ☐ **water plants: water lily, eelgrass, milfoil, other**
- ☒ **other types of vegetation**

b. **What kind and amount of vegetation will be removed or altered?**

   None.

c. **List threatened and endangered species known to be on or near the site.**

   None.

d. **Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any.**

None.

e. **List all noxious weeds and invasive species known to be on or near the site.**

Scotch Thistle

5. Animals

Find help answering animal questions[8]

a. **List any birds and other animals that have been observed on or near the site or are known to be on or near the site.**

Examples include: Quail, Coyote

- **Birds: hawk, heron, eagle, songbirds, other:**
- **Mammals: deer, bear, elk, beaver, other:**
- **Fish: bass, salmon, trout, herring, shellfish, other:**

b. **List any threatened and endangered species known to be on or near the site.**

None.

c. **Is the site part of a migration route? If so, explain.**

No.

d. **Proposed measures to preserve or enhance wildlife, if any.**

None.

e. **List any invasive animal species known to be on or near the site.**

None.

6. Energy and natural resources

Find help answering energy and natural resource questions[9]

a. **What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**

Electricity, Diesel Fuel.

[8] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-5-Animals
[9] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-6-Energy-natural-resou

b. **Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**

No.

c. **What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any.**

N/A

7. Environmental health

Health Find help with answering environmental health questions[10]

a. **Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur because of this proposal? If so, describe.**

Diesel Fuel Tanks

1. **Describe any known or possible contamination at the site from present or past uses.**

   N/A

2. **Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.**

   N/A

3. **Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.**

   N/A

4. **Describe special emergency services that might be required.**

   None.

5. **Proposed measures to reduce or control environmental health hazards, if any.**

   N/A

b. Noise

1. **What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

   Heavy Equipment Operation.

[10] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-7-Environmental-health

2. **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site)?**

   Equipment Operation 8:00am – 4:30 pm, project site is located in a depressed area of the site surrounded by walls.

3. **Proposed measures to reduce or control noise impacts, if any:**

   Hours of operation, placing mobile crusher in a depressed area to block the noise.

8. Land and shoreline use

Find help answering land and shoreline use questions[11]

a. **What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.**

   The site is currently used for the same purpose of this application and has been for over 20 years, a clean air permit was not applied for when previous owner was permitted in 2003.

b. **Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses because of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?**

   No.

   1. **Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how?**

      No.

c. **Describe any structures on the site.**

   There is a modular home, and three storage buildings.

d. **Will any structures be demolished? If so, what?**

   No.

e. **What is the current zoning classification of the site?**

   Mining (MIN) zoning district.

f. **What is the current comprehensive plan designation of the site?**

   Rural Self-Sufficient (Yakima County Plan 2015)

[11] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-8-Land-shoreline-use

g. **If applicable, what is the current shoreline master program designation of the site?**

N/A

h. **Has any part of the site been classified as a critical area by the city or county? If so, specify.**

No.

i. **Approximately how many people would reside or work in the completed project?**

5-10

j. **Approximately how many people would the completed project displace?**

0

k. **Proposed measures to avoid or reduce displacement impacts, if any.**

N/A

l. **Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any.**

N/A

m. **Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:**

N/A

9. Housing

Find help answering housing questions[12]

a. **Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**

N/A

b. **Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**

N/A

c. **Proposed measures to reduce or control housing impacts, if any:**

N/A

[12] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-9-Housing

10. Aesthetics

Find help answering aesthetics questions[13]

a. **What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**

   20'

b. **What views in the immediate vicinity would be altered or obstructed?**

   None

c. **Proposed measures to reduce or control aesthetic impacts, if any:**

   N/A

11. Light and glare

Find help answering light and glare questions[14]

a. **What type of light or glare will the proposal produce? What time of day would it mainly occur?**

   N/A

b. **Could light or glare from the finished project be a safety hazard or interfere with views?**

   N/A

c. **What existing off-site sources of light or glare may affect your proposal?**

   N/A

d. **Proposed measures to reduce or control light and glare impacts, if any:**

   N/A

12. Recreation

Find help answering recreation questions

a. **What designated and informal recreational opportunities are in the immediate vicinity?**

   None.

b. **Would the proposed project displace any existing recreational uses? If so, describe.**

   No.

c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

   N/A

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[13] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-10-Aesthetics

[14] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-11-Light-glare

13. Historic and cultural preservation

Find help answering historic and cultural preservation questions[15]

a. **Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.**

   No.

b. **Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.**

   No.

c. **Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.**

   GIS Data

d. **Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.**

   N/A

14. Transportation

Find help with answering transportation questions[16]

a. **Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.**

   N/A

b. **Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?**

   No.

c. **Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).**

   No.

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[15] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-13-Historic-cultural-p

[16] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-B-Environmental-elements/Environmental-elements-14-Transportation

d. **Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**

No.

e. **How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?**

1>, crushing operation only occurs one week per month.

f. **Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.**

No.

g. **Proposed measures to reduce or control transportation impacts, if any:**

N/A

15. Public services

Find help answering public service questions[17]

a. **Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.**

No.

b. **Proposed measures to reduce or control direct impacts on public services, if any.**

No.

16. Utilities

Find help answering utilities questions[18]

a. **Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:**

b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

Water used for dust mitigation, Electricity produced from diesel generator.

[17] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-15-public-services
[18] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-b-environmental-elements/environmental-elements-16-utilities

Signature

Find help about who should sign[19]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

X 

Type name of signee: Tyler Schroder

Position and agency/organization: Controller, TTC Construction, INC.

Date submitted:

Supplemental sheet for nonproject actions
Find help for the nonproject actions worksheet[20]

Do not use this section for project actions.

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. **How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?**

   Dust mitigation efforts, heavy equipment operation.

   - **Proposed measures to avoid or reduce such increases are:**

     Operate appropriate BMPS for Sediment and Erosion control. Using water suppression to minimize fugitive particulate matter, maintain minimal working hours to reduce effect of noise.

2. **How would the proposal be likely to affect plants, animals, fish, or marine life?**

   N/A

[19] https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-guidance/SEPA-checklist-guidance/SEPA-Checklist-Section-C-Signature
[20] https://ecology.wa.gov/regulations-permits/sepa/environmental-review/sepa-guidance/sepa-checklist-guidance/sepa-checklist-section-d-non-project-actions

- **Proposed measures to protect or conserve plants, animals, fish, or marine life are:**

  N/A

3. **How would the proposal be likely to deplete energy or natural resources?**

   Unlikely, recycling operation.

   - **Proposed measures to protect or conserve energy and natural resources are:**

     Maintaining minimal operation time.

4. **How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection, such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?**

   N/A

   - **Proposed measures to protect such resources or to avoid or reduce impacts are:**

     N/A

5. **How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?**

   N/A

   - **Proposed measures to avoid or reduce shoreline and land use impacts are:**

     N/A

6. **How would the proposal be likely to increase demands on transportation or public services and utilities?**

   None.

   - **Proposed measures to reduce or respond to such demand(s) are:**

     N/A

7. **Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.**

   None.

Yakima Regional Clean Air Agency

Yakima Regional Clean Air Agency
186 Iron Horse Court, Suite 101, Yakima WA 98901
Phone: (509) 834-2050 Fax: (509) 834-2060
https://www.yakimacleanair.org

INDUSTRIAL / COMMERCIAL REGISTRATION

***NOTE:** Enter information from your previous calendar year activities and mail it back*

1. OWNER INFORMATION HAS THE BUSINESS NAME OR OWNERSHIP CHANGED IN THE LAST YEAR? ☐ YES ☑ NO

a. FACILITY NAME	b. OWNER NAME	c. UNIFIED BUSINESS IDENTIFIER (UBI)
TTC Construction	Shannon Heckart	603295167

d. PHYSICAL ADDRESS	e. MAILING ADDRESS
12871 Summitview Rd, Yakima, WA 98908	12871 Summitview Rd, Yakima, WA 98908

f. CONTACT NAME & TITLE	g. PHONE	h. EMAIL
Aj Heckart, Vice President	5094573969	ajheckart.ttc@gmail.com

i. PREFERRED CONTACT METHOD ■ MAIL ☐ EMAIL

2. GENERAL INFORMATION

a. **OPERATING SCHEDULE**	HOURS PER DAY	DAYS PER WEEK	WEEKS PER YEAR
M-F, 8:00am - 5:30 pm	8	5	12

VARIATION IN SCHEDULE	JAN-MAR (%) 25	APR-JUN (%) 25	JUL-SEP (%) 25	OCT-DEC (%) 25

b. **HAVE YOU PREVIOUSLY SUBMITTED DETAILED EQUIPMENT AND PROCESS INFORMATION?**
☐ YES, ANSWER NEXT QUESTION AND FOLLOW INSTRUCTIONS ■ NO, COMPLETE REMAINDER OF FORM

c. **HAVE YOU MADE ANY MODIFICATIONS TO EQUIPMENT, PROCESSES OR FUEL USE SINCE LAST SUBMITTING DETAILED INFORMATION?**
☐ YES, COMPLETE REMAINDER OF FORM ■ NO, COMPLETE SECTIONS 3a, 3b, 3c, 3f, 3g, 3i, 3j AND 4

3. EQUIPMENT AND PROCESS INFORMATION

a. **FUEL USE:** *LIST EACH FUEL USED, QUANTITY, AND SUPPLIER FOR EACH USE*

TYPE	QUANTITY & UNIT OF MEASURE	SUPPLIER	USED FOR
Diesel	500 Gallon	Christensen	Crusher/Generator

b. **RAW MATERIALS:** *LIST, DESCRIBE AND QUANTIFY ALL RAW MATERIALS. USE A SEPARATE SHEET IF NECESSARY.*

MATERIAL	QUANTITY	UNIT OF MEASURE
Concrete	50	CY
Asphalt	150	CY

c. **PRODUCTS:** *LIST, DESCRIBE AND QUANTIFY ALL PRODUCTS PRODUCED. USE A SEPARATE SHEET IF NECESSARY.*

PRODUCT	QUANTITY	UNIT OF MEASURE
7/8" Recycled Crushed Surfacing Top Course	100	TN/HR

Yakima Regional Clean Air Agency

Yakima Regional Clean Air Agency
186 Iron Horse Court, Suite 101, Yakima WA 98901
Phone: (509) 834-2050 Fax: (509) 834-2060
https://www.yakimacleanair.org

d. PROCESSES: *ASSIGN AN ID# AND DESCRIBE EACH PROCESS (I.E.. CUT LINE 1, FIBER LINE 3, ETC). GIVE THE DATE THE PROCESS WAS INSTALLED OR LAST MODIFIED. USE SEPARATE SHEET IF NECESSARY.*

PROCESS ID#	PROCESS DESCRIPTION	DATE INSTALLED
1	Load Crusher	N/A
2	Impact crusher crushes material and feeds into screen plant	1/1/2023
3	Screen separates all material into finish product	1/1/2023

e. EMISSION UNITS: *ASSIGN AN ID#, PROCESS ID#, AND DESCRIPTION FOR EACH EMISSION UNIT (I.E. BOILER 1, KILN 3, ETC.) GIVE THE DATE THE EMISSION UNIT WAS INSTALLED OR LAST MODIFIED. USE SEPARATE SHEET IF NECESSARY.*

EMISSION UNIT ID#	PROCESS ID#	EMISSION UNIT	DATE INSTALLED
1	1/2	Primary Horizontal Impact Crusher	1/1/2023
2	3	Fines Screening	1/1/2023
3	3	Conveyor Transfer Points (3)	1/1/2023

f. MATERIAL THROUGHPUT: *FOR EACH EMISSION UNIT, DESCRIBE AND QUANTIFY EACH MATERIAL USED. USE SEPARATE SHEET IF NECESSARY.*

EMISSION UNIT ID#	MATERIAL	ANNUAL QUANTITY
1	7/8"-3" Recycled material	5,000-10,000 TN
2	7/8" Recycled Crushed Surfacing Top Course	5,000-10,000 TN

g. AIR EMSSIONS: *LIST EACH AIR CONTAMINANT (PM10, CO, NOX, ETC) FOR EACH EMISSION UNIT. INDICATE TOTAL QUANTITY EMITTED IN TONS PER YEAR. USE SEPARATE SHEET IF NECESSARY.*

EMISSION UNIT ID#	AIR CONTAMINANT	ANNUAL QUANTITY
1	PM, PM2.5, PM10	.0617TN/YR
2	PM, PM2.5, PM10	.084 TN/YR
3	PM, PM2.5, PM10	.01595 TN/YR

Yakima Regional Clean Air Agency

Yakima Regional Clean Air Agency
186 Iron Horse Court, Suite 101, Yakima WA 98901
Phone: (509) 834-2050 Fax: (509) 834-2060
https://www.yakimacleanair.org

h. CONTROL DEVICES: *LIST AND ASSIGN AN ID# FOR EACH CONTROL DEVICE (I.E. BAGHOUSE, CYCLONE, SCRUBBER, ETC) IN EACH PROCESS. INDICATE DATE INSTALLED OR LAST MODIFIED, EFFICIENCY, AND EXHAUST RATE IN CUBIC FEET PER MINUTE (ACFM). USE SEPARATE SHEET IF NECESSARY.*

PROCESS ID#	DEVICE ID#	CONTROL DEVICE	DATE INSTALLED	% EFFICIENCY	EXHAUST RATE
3	1	Button House	1/1/2023	35-42%	620 CFM

i. WASTE MATERIALS: *LIST EACH WASTE MATERIAL GENERATED, QUANTITY, DISPOSAL METHOD, AND DISPOSAL LOCATION*

MATERIAL	QUANTITY	METHOD OF DISPOSAL	DISPOSAL LOCATION

j. PLANT LAYOUT AND PROCESS FLOW: *HAVE YOU SUBMITTED CURRENT PLANT LAYOUT AND PROCESS FLOW DIAGRAMS?*

■ YES, WHEN? Included COMPLETE CERTIFICATION

☐ NO, SUBMIT PLANT LAYOUT DIAGRAM, PROCESS FLOW DIAGRAM AND COMPLETE CERTIFICATION.

DIRECTIONS FOR PLANT LAYOUT DIAGRAMS:

1. SUBMIT A DIAGRAM SHOWING THE LOCATION OF ALL CONTROL DEVICES AND EMISSION POINTS (VENTS, RIDGE VENTS, STACKS, ETC).
2. LABEL EACH CONTROL DEVICE WITH THE SAME ID# USED IN SECTION "h".
3. INCLUDE A LEGEND, NORTH ARROW, COMPANY NAME, ADDRESS, AND SCALE.
4. SIGN AND DATE THE DIAGRAM.

DIRECTIONS FOR PROCESS FLOW DIAGRAMS:

1. SUBMIT A DIAGRAM SHOWING THE FLOW OF RAW MATERIALS WITH DASHED LINES THROUGH YOUR FACILITY.
2. INDICATE THE FLOW OF EMISSIONS FROM THE FACILITY WITH SOLID LINES.
3. INCLUDE ALL EMISSION UNITS AND CONTROL DEVICES.
4. INCLUDE A LEGEND, NORTH ARROW, COMPANY NAME, ADDRESS, AND SCALE.
5. SIGN AND DATE THE DIAGRAM.

4. CERTIFICATION *I, the undersigned, do hereby certify that the information provided is accurate and complete to the best of my knowledge.*

SIGNATURE _____ TITLE Vice President

NAME (PRINT) Anthony J Heckart DATE 1-27-25

SUBMIT

Yakima Regional Clean Air Agency

186 Iron Horse Court, Suite 101
Yakima, WA 98901-1468
509-834-2050
www.yakimacleanair.org

February 26, 2025

AJ Heckart – Vice President
TTC Construction
12871 Summitview Rd,
Yakima, WA 98908

RE: New Source Review (NSR) application - Determination of incompleteness for TTC Construction.

Dear Mr. Heckart:

After the initial review of the New Source Review (NSR) application received by our office on January 27, 2025, for a reclaimed asphalt and concrete crushing operation at 12871 Summitview Rd, Yakima, WA 98908, the Yakima Regional Clean Air (YRCAA) has determined that the application is incomplete. Therefore, please submit the following information to complete the determination on or before March 26, 2025:

1. Facility map outlining the approximate location and boundaries of the crushing area.
2. Information on the transportation of concrete and asphalt before and after crushing:
    a. Map indicating the roads used by dump trucks (or other vehicles) for hauling materials in and out, specifying whether they are paved or unpaved.
    b. Designated area where materials are dumped upon arrival before crushing.
3. Crusher manufacturer, model and serial number, along with the manual and specifications, including maximum crushing capacity.
4. Screen manufacturer, model and serial number.
5. Clarifications on the Detroit Diesel generator:
    a. Whether it provides energy to both the crusher and screen.
    b. Power rating (e.g., in horsepower or kilowatts).
    c. Annual hours of operation.
    d. Tier classification.
    e. Manufacturer's emissions data.
    f. Type of diesel fuel used.
    g. Fuel consumption rate (gallons per hour or per year).
    h. Manual and specifications.
6. Copy of CUP 03-037.
7. Figures or diagrams of the crusher and screen.
8. Average speed of loaders and excavators during crushing operations.
9. TTC Working Area Dust Measurement report for the material moisture used in the calculations.

If you have any questions, please feel free to call me at (509) 834-2050 Ext. 108. Thank you.

Sincerely,

Elizel Reynoso
Engineer
Yakima Regional Clean Air Agency

TTC CONSTRUCTION, INC.
12871 Summitview Rd Yakima, Wa. 98908 (509) 457-3969 Fax (509) 457-2945

1. See Figure 1
2. See Figure 1
    a. See Figure 1
    b. See Figure 1
3. Cedar Rapids Model 5064, Serial # 49370, unable to find a manual.
4. CEC Road Runner Screen-It Model 5121
5. Detroit Diesel Generator 12V71, **Mistake in original application**
    a. Provides energy only to the screen and belts.
    b. 300kw
    c. 480 Hours
    d. Tier 0
    e. 12V71 Engine Power Assumption

    Power Output: **450 - 750 HP**
    Estimated Load Factor: **0.8** (80% typical operational load)

    Step 1: Convert Power to Brake-Horsepower-Hours
    For an **average 12V71 engine** at **600 HP**, running at 80% load for **one hour**:

$$\text{Brake-Horsepower-Hours} = 600 \times 0.8 = 480 \text{ bhp-hr}$$

    Step 2: Calculate Emissions

    Using the EPA emission factors:
    Total PM Emissions

$$\text{PM} = 1.5 \times 480 = 720 \text{ g/hr} = 0.72 \text{ kg/hr} = 1.58 \text{ lbs/hr}$$

    PM10 Emissions

$$\text{PM10} = 1.2 \times 480 = 576 \text{ g/hr} = 0.576 \text{ kg/hr} = 1.27 \text{ lbs/hr}$$

    PM2.5 Emissions

$$\text{PM2.5} = 1.0 \times 480 = 480 \text{ g/hr} = 0.48 \text{ kg/hr} = 1.06 \text{ lbs/hr}$$

Revised Primary Crusher Emissions

Pollutant	Emissions (tons/year)
PM	0.3810
PM10	0.3048
PM2.5	0.2540

    f. ULSD #2 Dyed

g. 26-30 GPH
h. See Below

6. See below
7. See Below
8. Average speed estimated at 5 mph.
9. See Below

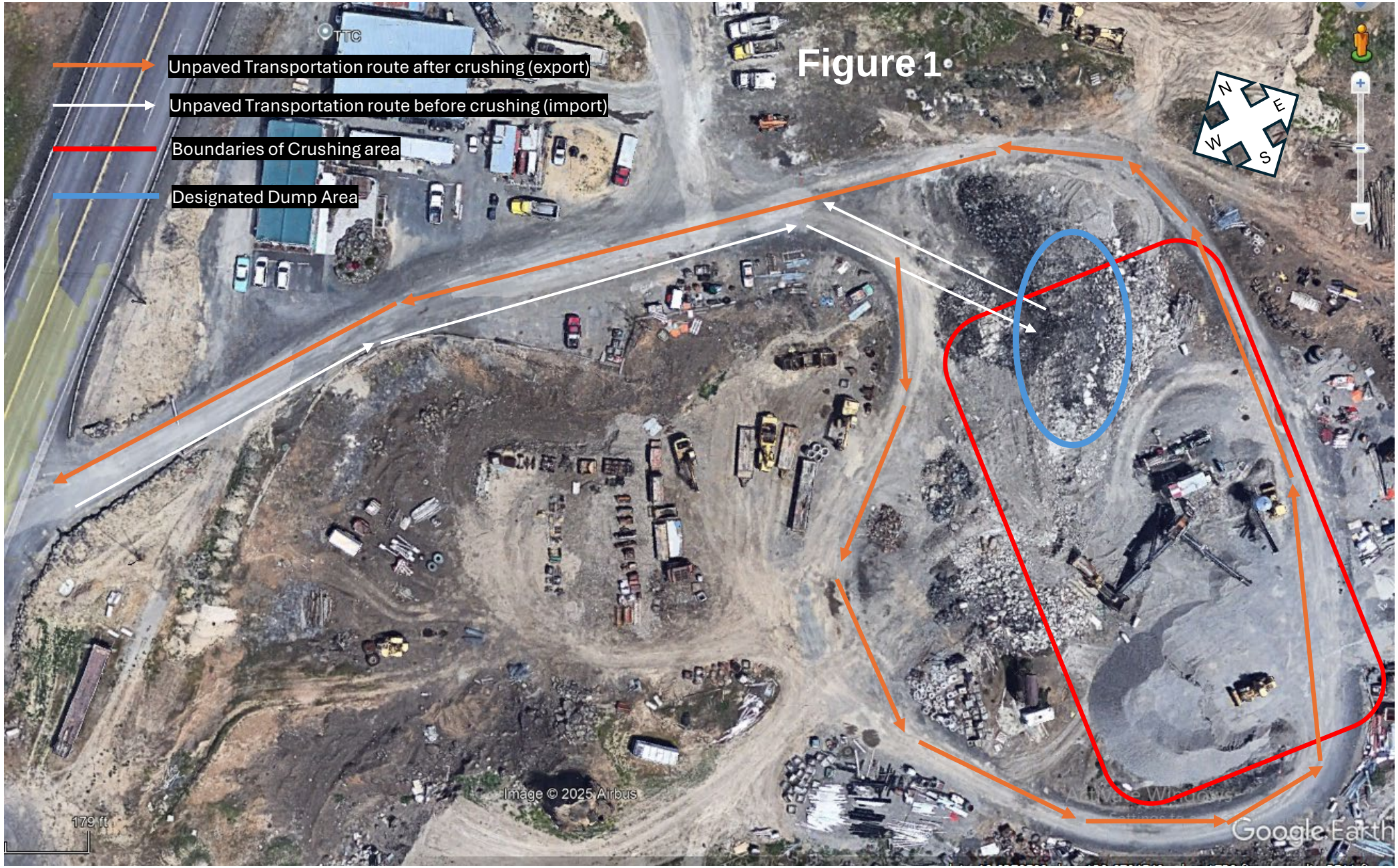
Figure 1
Unpaved Transportation route after crushing (export)
Unpaved Transportation route before crushing (import)
Boundaries of Crushing area
Designated Dump Area
N
E
W
S
TTC
Image © 2025 Airbus
179 ft
Google Earth

Question 3 & 7 Crusher Spec & Diagram

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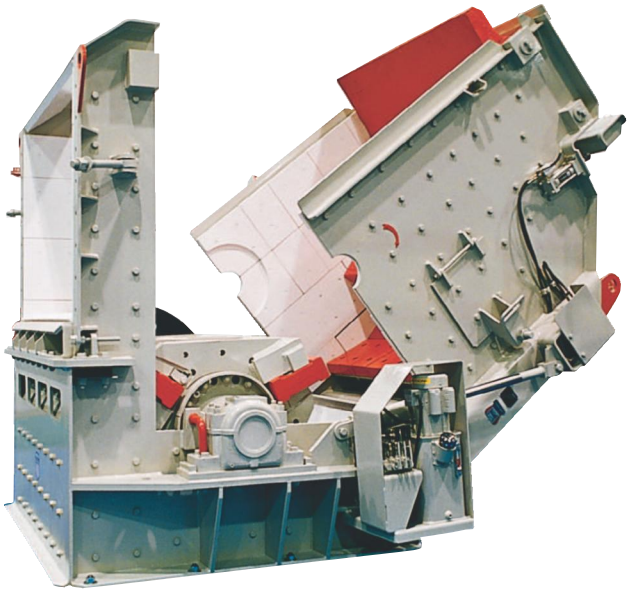
TEREX | CEDARAPIDS

50" Family | Horizontal Shaft Impactor



Unit shown with optional hydraulic adjust assist

Standard Features

- Large feed opening
- Hydraulically raised front section for ease of accessibility
- Simple wrench adjustment of breaker plates
- Three or four bar rotor
- Massive backer bar with replaceable insert bar
- Simple quick impeller bar repositioning and replacement
- 4" (102 mm) high-chrome impeller bars have four wear sides for maximum service life
- Dual locking impact bar wedge system
- Cast manganese "monoblock" primary apron
- 3" (76 mm) thick high-chrome breaker apron liners on secondary apron
- Interchangeable breaker apron liners
- Interchangeable frame liners
- 45° bolt in feed plate
- Easily replaceable, adjustable stripper bar
- Chrome-nickel-moly-steel tapered shaft
- Balanced, high strength, high inertia open-disc type rotor
- Large spherical roller bearings, hydraulically removable, with taconite-type labyrinth seals
- Inspection doors for all critical areas
- Large, clear discharge opening
- Left hand drive

Optional Equipment

- Fabricated primary apron with chrome liners for hard rock
- 4" (102 mm) manganese impeller bars
- 5" (127 mm) tool steel impeller bars
- 5" (127 mm) high-chrome impeller bars
- Tool steel breaker apron liners
- V-belt drive
- High inertia sheave, 53" (1346 mm)
- 55° bolt in feed plate
- 40" (1016 mm) crusher sheave for 1200 rpm power; 360-610 crusher rpm depending on motor drive sheave
- 44.5" (1130 mm) crusher sheave for 1800 rpm power; 500-560 crusher rpm depending on motor drive sheave
- 53" (1346 mm) crusher sheave for 1800 rpm power; 420-470 crusher rpm depending on motor drive sheave
- Right hand drive

Form 23642 (3/05)

Question 3 & 7 Crusher Spec & Diagram

TEREX | CEDARAPIDS

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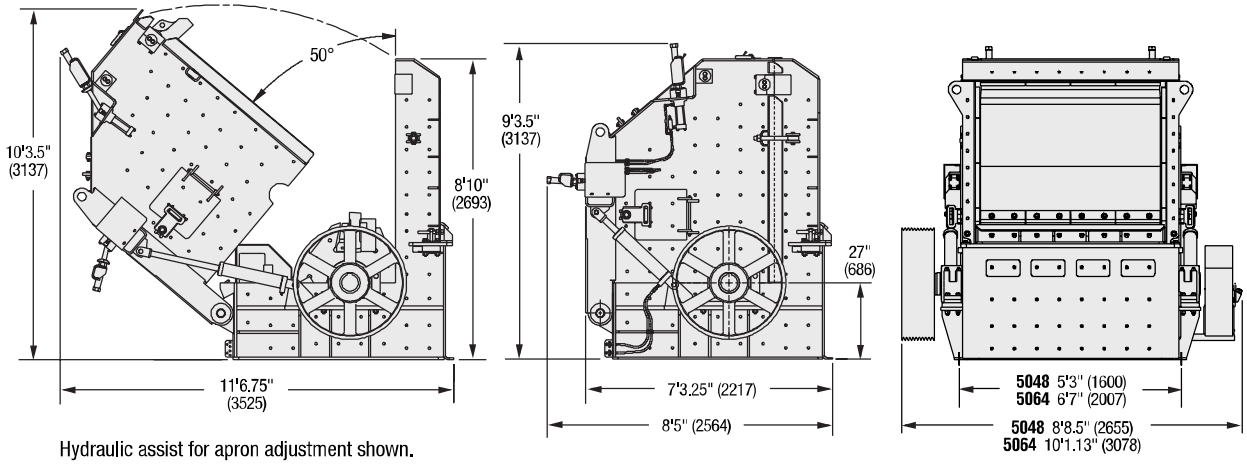
50" Family | Horizontal Shaft Impactor



Hydraulic assist for apron adjustment shown.

Specifications

	5048 HSI	5064 HSI
Maximum Feed Opening	43-1/4" x 48-3/4" (1099 x 1238 mm)	43-1/4" x 64-3/4" (1099 x 1645 mm)
Discharge Opening	65-5/8" x 48-3/4" (1667 x 1238 mm)	65-5/8" x 64-3/4" (1667 x 1645 mm)
Maximum Feed Size	12"-22" (304-560 mm)	12"-22" (304-560 mm)
Tonnage	150-300 (136-272 tonnes)	250-400 (227-363 tonnes)
Horsepower	250-300 (186-224 kW)	300-400 (224-298 kW)
Rotor Speed*	350-610 rpm 4600-8000 fpm (23.3-40.6 m/s)	350-610 rpm 4600-8000 fpm (23.3-40.6 m/s)
Approximate Weights	three bar rotor 33,700 lbs (15,286 kg)	three bar rotor 40,700 lbs (18,462 kg)
	four bar rotor 35,800 lbs (16,239 kg)	four bar rotor 42,800 lbs (19,414 kg)
Bearing Size	6.3" (160 mm)	6.3" (160 mm)
Rotor Diameter Width	 50" (1270 mm) 48" (1219 mm)	 50" (1270 mm) 64" (1626 mm)
Standard Impact Bars Weight Length Thickness	three or four rows 615 lbs (279 kg) each 48" (1219 mm) each 4" (102 mm)	three or four rows 410 lbs (186 kg) each 32" (813 mm) each 4" (102 mm)
Cast Primary "Monoblock" Apron Approximate Weight	 4600 lbs (2087 kg)	 6500 lbs (2949 kg)
Breaker Plate Liners (each) Weight Size Thickness	 100 lbs (45 kg) 8" x 16" (203 x 406 mm) 3" (76 mm)	 100 lbs (45 kg) 8" x 16" (203 x 406 mm) 3" (76 mm)
Side Plate Liners Weight Range Thickness	 34 - 106 lbs (15.4 - 48.1 kg) 1-1/2" (38 mm)	 34 - 106 lbs (15.4 - 48.1 kg) 1-1/2" (38 mm)

*For other speeds, consult factory.

Cedarapids Inc • 909 17th Street NE • Cedar Rapids IA 52402 USA • TEL 319 363 3511 • WEB www.cedarapids.com

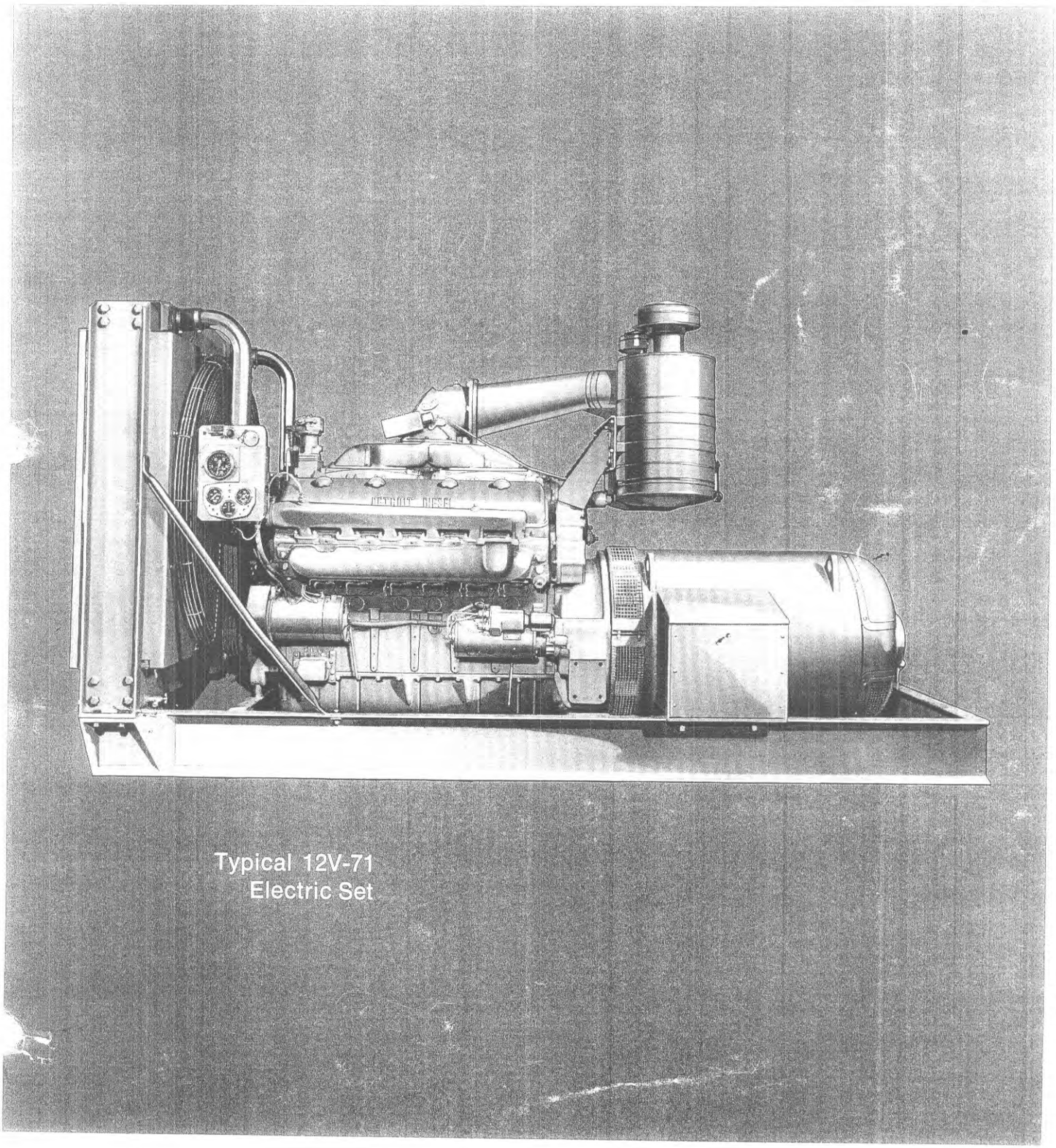
Form 23642 (3/05)

Question 5 h. Manual & Specs

Detroit Diesel Engines

12V-71
300 kW

12V-71T
440 kW



Typical 12V-71
Electric Set

Question 5 h. Manual & Specs

Basic Engine	12V-71				12V-71T			
Basic engine model	7123-7005				7123-7305			
Engine type	Two Cycle				Two Cycle			
No. of cylinders	12				12			
Bore & stroke—in (mm)	4.25 x 5 (108 x 127)				4.25 x 5 (108 x 127)			
Displacement—cu in (litres)	852 (13.97)				852 (13.97)			
Application	Standby				Standby			
Frequency @ rpm	60 Hz @ 1800		50 Hz @ 1500		60 Hz @ 1800		50 Hz @ 1500	
Rated Power, less fan—BHP (kW)*	430	(321)	360	(269)	630	(470)	532	(397)
kW Rating max. @ P.F. 1.0**	300		250		440		370	
Generator efficiency (assumed)—%	94		94		94		94	
Compression ratio	18.7 to 1		18.7 to 1		17 to 1		17 to 1	
Piston speed—ft/min (m/sec)	1500	(7.62)	1250	(6.35)	1500	(7.62)	1250	(6.35)
No. of main bearings	7		7		7		7	
Approx. net weight dry—lbs (kg)***	8500	(3856)	8500	(3856)	8650	(3924)	8650	(3924)
Air and exhaust system:								
Combustion air requirements—cfm (m^3/min)	1128	(32)	946	(27)	1900	(54)	1510	(43)
Max. air intake restriction—in H_2O (kPa)	25.0	(6.22)	18.0	(4.48)	14.5	(3.61)	10.5	(2.61)
Exhaust gas temp. @ Rated BHP—°F (°C)								
Engine manifold dry	970	(521.1)	955	(512.8)	880	(471.1)	915	(490.6)
Engine manifold wet	920	(493.3)	910	(487.8)				
Exhaust gas flow @ Rated BHP—cfm (m^3/min)								
Engine manifold dry	2960	(84)	2456	(70)	4670	(132)	3810	(108)
Engine manifold wet	2856	(81)	2378	(67)				
Max. exhaust back press. allowable—in Hg (kPa)	3.3	(11.17)	2.3	(7.79)	2.0	(6.77)	1.4	(4.74)
Exhaust outlet I.D.—in (mm)								
Engine manifold dry	3.5	(88.9)	3.5	(88.9)				
Engine manfold wet	4.0	(101.60)	4.0	(101.60)				
Recommended stack single outlet minimum	6	(152.40)	6	(152.40)	8	(203.20)	8	(203.20)
Cooling system:								
Basic engine water capacity—gal (litres)	13.75	(52.05)	13.75	(52.05)	13.75	(52.05)	13.75	(52.05)
Jacket water flow—gpm (litres/min)	173	(654.87)	143	(541.31)	217	(821.43)	183	(692.73)
Jacket water temp., normal operation—°F (°C)	170-185	(76.7-85.0)	170-185	(76.7-85.0)	170-185	(76.7-85.0)	170-185	(76.7-85.0)
Heat rejection to jacket water @ Rated BHP—Btu/min (W)								
Exhaust manifold dry	12900	(226837)	10800	(189910)	20790	(365577)	17555	(308692)
Exhaust manifold wet	14620	(257082)	12240	(215231)				
Engine heat radiated @ Rated BHP—Btu/min (W)								
Engine manifold dry	3310	(58209)	2866	(50392)	2529	(44471)	2518	(44277)
Engine manifold wet	2814	(49477)	2436	(42833)				
Max. static head @ water pump inlet—ft H_2O (kPa)	30	(89.58)	30	(89.58)	30	(89.58)	30	(89.58)
Max. heat exchanger raw water press.—psi (kPa)	65	(448.18)	65	(448.18)	65	(448.18)	65	(448.18)
Generator heat radiated to room @ Rated BHP—Btu/min (W)†	1092	(19202)	910	(16002)	1601	(28152)	1346	(23668)
Air required to radiator—cfm (m^3/min.)††	20000	(566)	17000	(481)	24000	(680)	19000	(538)
Static pressure for air flow—in H_2O (kPa)	1.4	(.35)	.90	(.22)	1.6	(.40)	1.1	(.27)
Fuel system:								
Fuel pump max. suction, clean system—in Hg (kPa)	6	(20.32)	6	(20.32)	6	(20.32)	6	(20.32)
Fuel quantity pumped—gph (litres/hr)	120	(454.25)	120	(454.25)	120	(454.24)	120	(454.24)
Lubrication system:								
Oil pan capacity—qts (litres)†††	33	(31.23)	33	(31.23)	33	(31.23)	33	(31.23)
Starting system:								
Electric motors—quantity	1		1		1		1	1
Voltage††††	24		24		24		24	24
Battery recommended capacity—amp/hr	205 [2]		205 [2]		205 [2]		205 [2]	
Engine rolling current @ 32°F (0.0°C)—amps	820		820		820		820	

*Nominal basic engine horsepower rating at 85°F (29.4°C) and 29.00 in Hg (98.19 kPa) Barometer-Dry.
**Maximum kW rating at assumed generator efficiency.
***Radiator-cooled set.
†Generator heat radiated to room @ P.F. 1.0 and assumed generator efficiency.
††Engine standard option fan. †††Engine standard option oil pan. ††††Engine standard option starting motor.

specifications

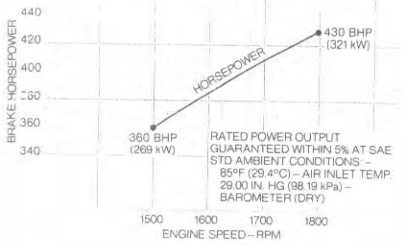
Rating Explanation

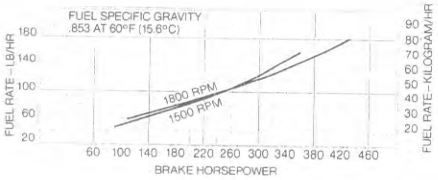
kW Ratings are based on a nominal engine at 85°F (29.4°C) and 29.00 in. Hg (98.19 kPa) engine operating conditions. Losses for fan and accessory equipment are not included. Appropriate generator efficiencies as shown have been assumed.

Ratings shown in specifications and on performance curves apply to engines used for standby electric set power systems which must deliver rated power continuously for the interval between interruption and restoration of the normal power source.

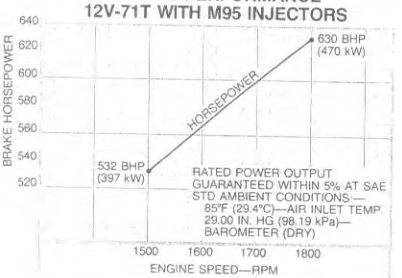
For complete specifications regarding your standby electric power requirements, contact your local authorized Detroit Diesel Allison Distributor.

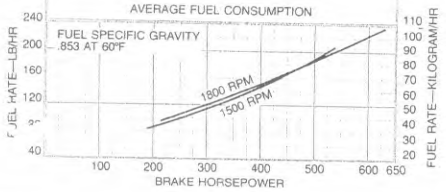
ENGINE PERFORMANCE
12V-71 WITH N70 INJECTORS



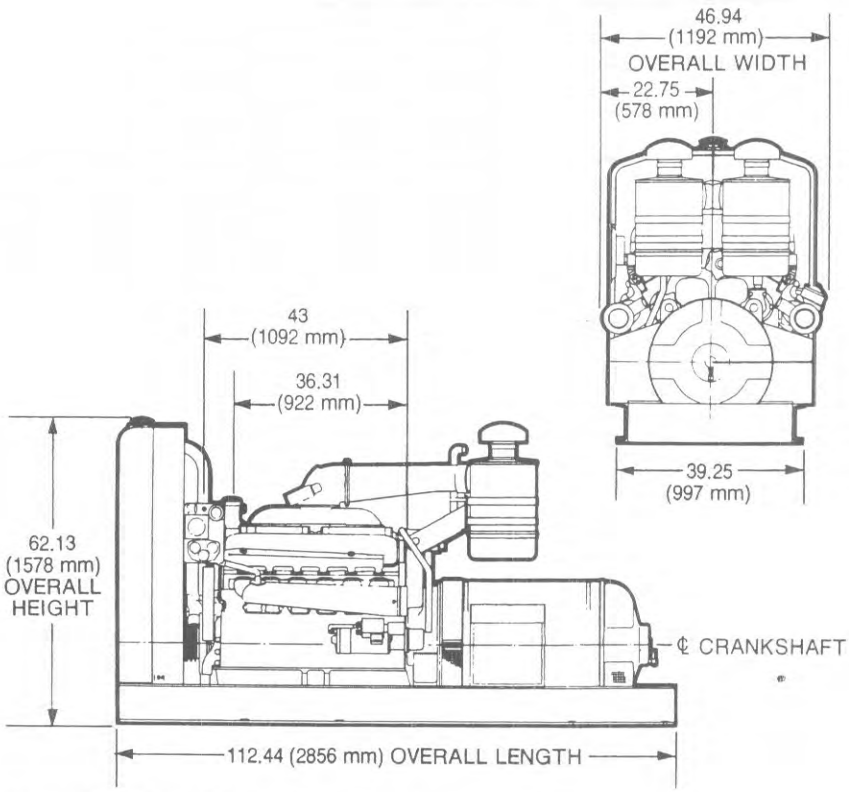


ENGINE PERFORMANCE
12V-71T WITH M95 INJECTORS

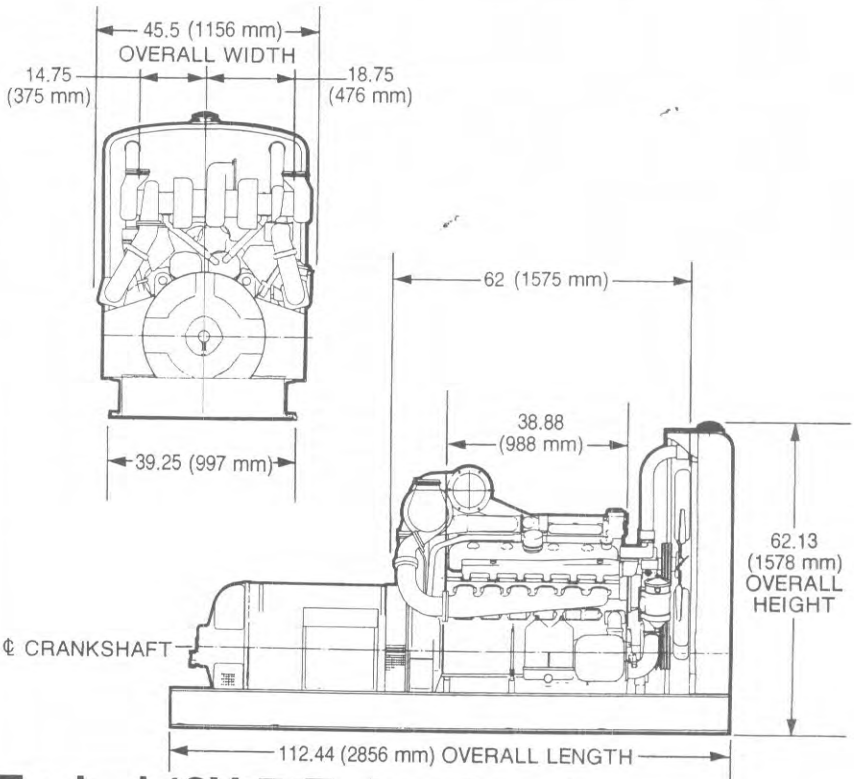




principal dimensions



Typical 12V-71 electric set



Typical 12V-71T electric set

Consult Detroit Diesel Allison Distributor installation drawings for detailed dimensions.

standard equipment

Engine Protection—With positive fault protection air shut off due to low oil pressure or high coolant temperature

Fuel Filters—Replaceable primary and secondary filters

Fuel Transfer Pump—Positive displacement, gear driven pump

Governor—Hydraulic SGX governor, 3-5% frequency regulation

Lube Oil Filter—Full-flow replacement filter

Lube Oil Pump—Gear-driven

Power Generator—Brushless 208/240 volt, 3-phase, 4-wire with built-in static voltage regulator

Starting Equipment—24 volt starting motor with sprag over-running clutch

Water Pump—Gear driven

For a complete listing of standard and optional equipment, consult your authorized Detroit Diesel Allison Distributor.

generator features

Widespread Application—Delco generators are built to a "Broad Range" design. A standard generator can be applied in installations requiring *any* voltage within the listed output range. Stability over the entire range is assured by a "Broad Range" exciter.

Meet More Specs—All models meet or exceed ASA and NEMA specifications. "ABS" units meet or exceed AIEE and ABS specifications.

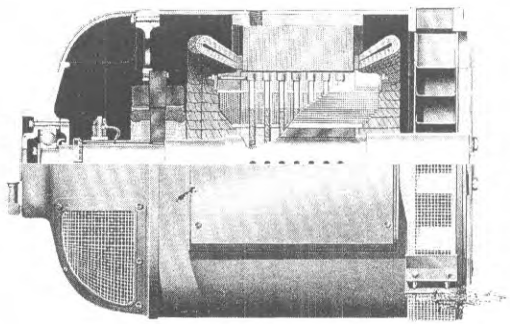
Good Wave Form—A low deviation factor is obtained by optimum pitch of stator windings, specifically tapered air gaps, and the use of ample skew of laminations. Deviation factors are from ⅓ to ½ of NEMA limits.

Compact Design—Good bearing operating conditions, minimum length and low weight are assured by the exciter being mounted inboard of the bearing and nesting under the stator coil.

Smooth Running—Torsional vibration is minimized by use of rugged shafts accurately coupled to prime mover through flexible discs.

Torsionally Compatible—A torsional analysis can be obtained for each engine/generator combination.

Balance—Delco rotors are dynamically balanced to limits which permit units to withstand 50% overspeed during laboratory tests.



Performance and Specification information for the Detroit Diesel Engine Electric Set models listed are based on the use of Delco generators. However, generators of many other manufacturers are compatible, and optional generators are offered and selected as determined by design criteria and customer preference.

Specifications subject to change without notice

Detroit Diesel Allison
Division of General Motors Corporation
13400 West Outer Drive Detroit, Michigan 48228

5 SA 37 4-77 Litho in U.S.A.

PLANNING DEPARTMENT

128 North Second Street • Room 417 • Courthouse • Yakima, Washington 98901
(509) 574-2230 • 1-800-572-7354 • FAX (509) 574-2231 • http://www.co.yakima.wa.us

RICHARD F. ANDERWALD, AICP
DIRECTOR OF PLANNING / SPECIAL PROJECTS

STEVEN M. ERICKSON
ASSISTANT DIRECTOR

May 5, 2003

Charles Heckart
T.T.C. Construction
2212 Jerome Avenue
Yakima, WA 98902

RE: Decision for Approval with Conditions
File No. CUP 03-037, Parcel No. 171311-31001

Dear Mr. Heckart:

On May 5, 2003 your application to operate an asphalt and concrete recycling operation in the bottom of a depleted gravel pit, was approved. The property is located on the east side of Summitview Road, ½ mile north of Klendon Drive. The conditions of approval are outlined in the attached decision.

You or any aggrieved parties can appeal this decision to the Hearing Examiner for public hearing and review by providing written notice of appeal on forms provided by the County Planning Department (filing fee is $505). The appeal must be filed with the Planning Department in Room 417, County Courthouse before 5:00 p.m., ***May 19, 2003.***

Please give Jamey Ayling a call at 574-2230 if you have any questions about this application or the appeal process.

Sincerely,

Richard F Anderwald

RICHARD F. ANDERWALD
Director of Planning

Encls.: Findings & Decision

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Question 6 Copy of CUP 03-037

YAKIMA COUNTY PLANNING DEPARTMENT
FINDINGS AND DECISION OF THE
ADMINISTRATIVE OFFICIAL

May 5, 2003

CONSIDERATION OF AN APPLICATION)	**FILE NO. CUP 03-37**
BY CHARLES HECKART, ON BEHALF OF)	
T.T.C. CONST. FOR A TYPE I REVIEW OF)	
AN ASPHALT AND CONCRETE RECYCLING)	
OPERATION AT THE SUMMITVIEW PIT)	**PARCEL NO. 171311-31001**

INTRODUCTION

The Yakima County Planning Department has received a Type I application from the Charles Heckert on behalf of T.T.C. Construction to operate an asphalt and concrete recycling operation in the Mining (MIN) zoning district.

FINDINGS OF FACT

1. **Applicant:** Charles Heckert, T.T.C. Construction

2. **Property Owner:** Charles & Sadie Heckart

3. **Property Location:** The property is located on the east side of Summitview Road, about ½ mile north of Klendon Dr., approximately 3 miles west of the City of Yakima.

4. **Project History:** The 10.6-acre parcel is a depleted gravel mine that predates the County Zoning Ordinance, therefore no County permits were required at the time of its origination. The gravel supply has since been depleted and the mine has been used as a storage site for a rock crusher and other excavation equipment associated with T.T.C. Construction.

5. **Application:** T.T.C. Construction wishes to operate an asphalt and concrete recycling operation in the bottom of a depleted gravel pit. The operation would only operate as needed, it may be as little as one day per week and up to five days per week. The process is designed as follows: a truckload of material would enter the pit and be dumped into the hopper, it would then go through the crusher and exit as recycled aggregate, which could then be reused on other job sites. The amount of stockpiled recyclable material is not expected to exceed 200 yards at a time, and the amount of stockpiled product is not expected to exceed 1,000 yards at a time. The entire recycling process will take place in the bottom of the existing pit as to minimize affects on neighboring properties and traveling motorists.

Hours of operation would be from 8:00 a.m. to 4:30 p.m. five days a week and vehicular traffic patterns would follow existing established haul roads. Increased truck traffic would occur during days of hauling recycled product to vicinity projects.

6. **Zoning and Land Use:** The zoning of the site and the surrounding properties is Mining (MIN). The Mining zoning district is established for the principal purpose of providing long-term sites for heavy industrial uses in conjunction with a mining site/operation. Uses within this zoning district are likely to cause dust, smoke, noise, odors, fumes, visual impacts, and heavy equipment traffic.

   The property is currently a depleted mining site, which contains a maintenance building, multiple vehicles, and a crusher on the property. To the south is a Yakima County Mine that was permitted for an asphalt batch plant in 1999 under CUP 99-52. The property to the north and east is barren land and to the west across Summitview Road are a few scattered residences.

7. **Comprehensive Plan Designation:** The property has been designated Rural Self-Sufficient under the Yakima County Comprehensive Plan (Plan 2015).

   Mineral Resource Areas:
   POLICY LU-ER-MR 3.2: Require new or expanded mineral resource operations to minimize negative effects of mineral-related activities on surrounding affected uses. Utilize and rely upon the authority and expertise of state and federal permitting agencies in developing, implementing and enforcing permit conditions.

8. **Consistency Analysis (Y.C.C. 16B.06.020)**
   The following conclusions concern the application's consistency with applicable development regulations, or in the absence of applicable regulations, the adopted Comprehensive Plan. During project review, Yakima County or any subsequent reviewing body must not re-examine alternatives to, or hear appeals on the items identified in these conclusions except for issues of code interpretation.

   a. The type of land use (asphalt and concrete recycling) is permitted on this site in the Mining (MIN) zone with a Conditional Use permit.

   b. The density of development is not being increased to a level that is higher than that allowed by the Zoning Ordinance.

   c. The comprehensive plan and development regulations do not indicate a need for funding public infrastructure and public facilities for this project. Existing public facilities such as roads and emergency services are available and adequate for this proposal.

d. The proposal is consistent with the development standards of the Yakima County Zoning Ordinance.

Mineral Resource Area:
POLICY LU-ER-MR 3.2: The applicant will be required to minimize all potential impacts of the recycling operation on the adjoining properties. This will include meeting permit requirements set forth by the local, state and federal governing agencies. Traffic safety, water quality, dust and noise issues that could affect the public are conditioned in this decision.

DECISION

The Administrative Official, finds the application of the Charles Heckart for a Type I review to operate an asphalt and concrete recycling operation, as described in application CUP 03-37, is **approved** subject to the following conditions:

CONDITIONS OF APPROVAL

1. **Time Limit:** All necessary permits must be obtained prior to commencing operations, but no later than **May 5, 2004**. If unable to secure necessary permits by that date, the applicant may make a written request to the Planning Department for an extension explaining the reasons for being unable to do so. The request must be submitted prior to the expiration date.

2. Prior to the conduct of asphalt and concrete recycling, appropriate approvals and authorizations shall be obtained from the Yakima Clean Air Authority.

3. The amount of stockpiled recyclable material on site must not exceed 200 yards at any given time and stockpiled recycled product must not exceed 1,000 yards at any given time.

4. All recycling including crushing of material must be conducted in the bottom of the pit in the area depicted as recycle area on the submitted site plan.

5. Waste from the recycling plant shall be disposed of in a location that has been authorized by the appropriate federal, state or local authority to handle such waste.

6. The access road from Summitview Avenue to the recycling site shall be paved or, as an alternative, maintained with a dust control product at all times during recycling operations.

7. Hours of operation, including maintenance of any equipment, is limited to between 8:00 a.m. and 4:30 p.m., Monday through Friday.

8. If the use is discontinued at this location, all material must be removed from the site.

Question 6 Copy of CUP 03-037

If you have any questions regarding this decision, please contact Jamey Ayling, Planner, of our staff at (509)574-2230.

5/5/2003
Date

Richard F. Anderwald
RICHARD F. ANDERWALD
Director of Planning

NOTICE OF APPEAL

In accordance with Section 15.13 of the Yakima County Code, any person may appeal the Administrative Official's decision to the Yakima County Hearing Examiner. A notice of such appeal must be filed in writing and delivered to the Planning Department, Room 417, County Courthouse, Yakima, Washington **on or before 5:00 p.m, May 19, 2003**. The appeal must be in writing, must be accompanied by the filing fee, and must include:

A. The appellant's name, address, and telephone number;
B. The decision being appealed;
C. Appellant's statement as to why the decision is believed to be wrong;
D. The desired outcome or relief sought by the appellant.

The filing fee is $505.

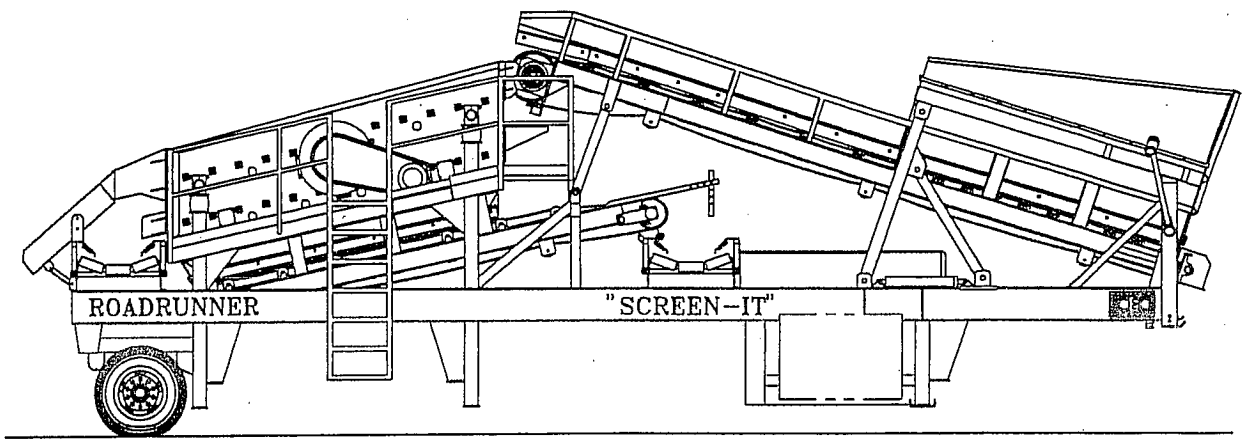
Question 7 Figures/diagrams of Screen

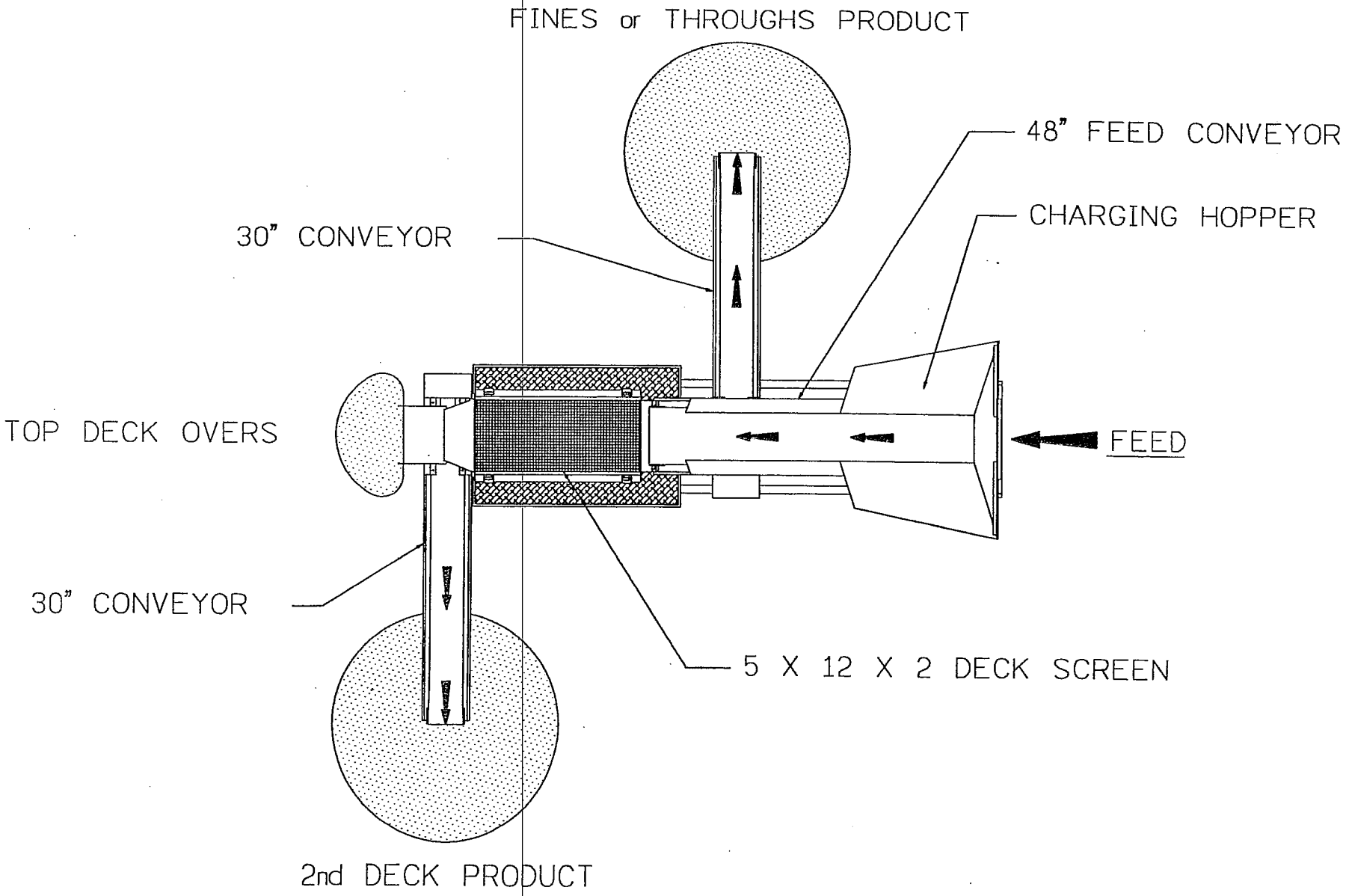
Construction Equipment Company

Crushing and Screening Specialists
P.O. Box 1271 Lake Grove, Oregon 97035 (503)692-9000

SECTION 1 "SCREEN-IT"

THIS SECTION IS TO PROVIDE
DIMENSIONAL DATA FOR THE
"CEC" SCREEN-IT "MODEL 5121"





Construction Equipment Company

CEC

Crushing and Screening Specialists

Drawing Title

GENERAL ARRANGEMENT

"CEC" SCREEN-IT

MODEL "512I"

File No.:

PAGE 1-2

Date: 4-17-1997

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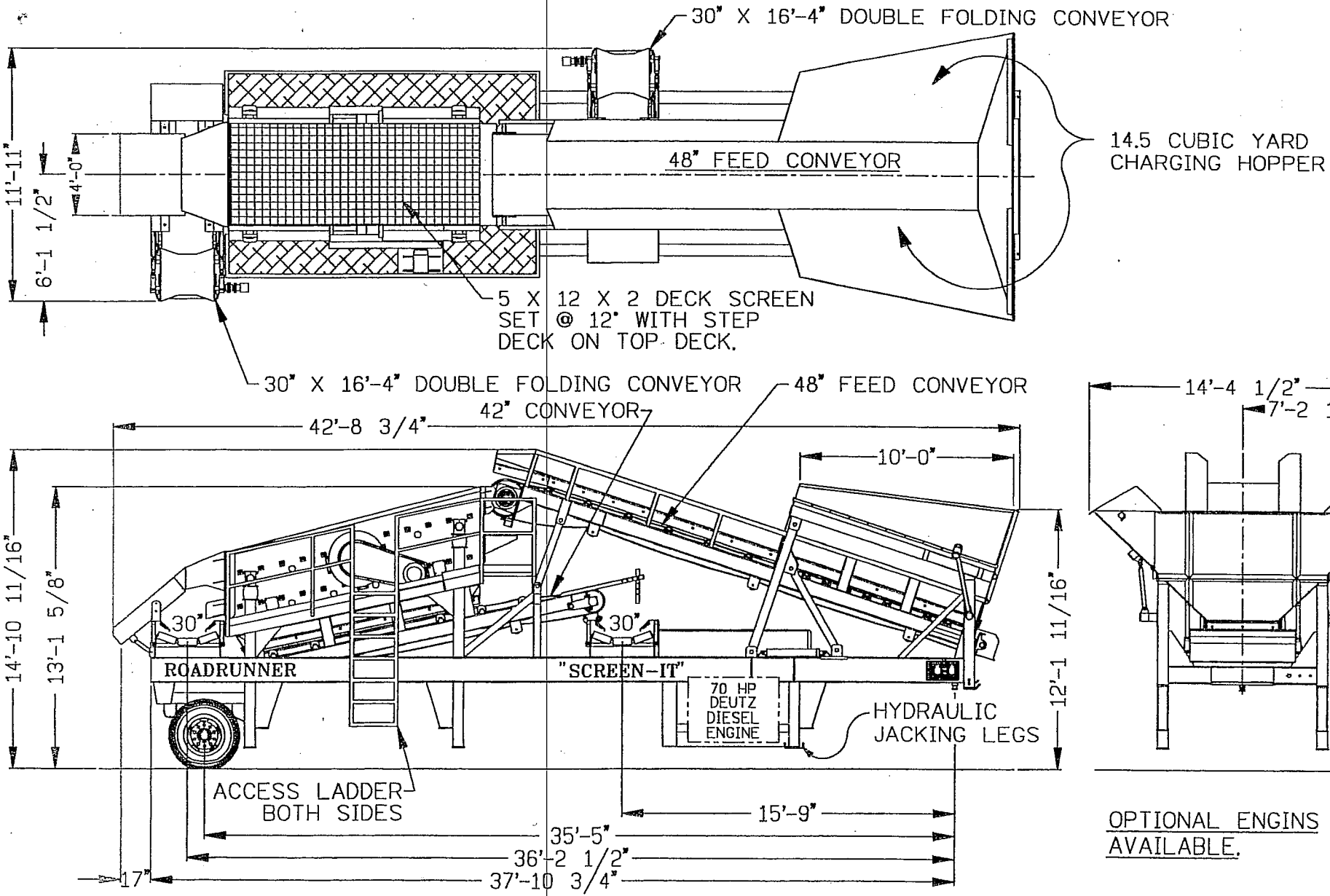
Drawn By: CEB

App'd By: CEB

Question 7 Figures/diagrams of Screen



Construction Equipment Company

Crushing and Screening Specialists

Drawing Title

GENERAL ARRANGEMENT
"CEC" SCREEN-IT
MODEL "512I"

File No.: PAGE1-1

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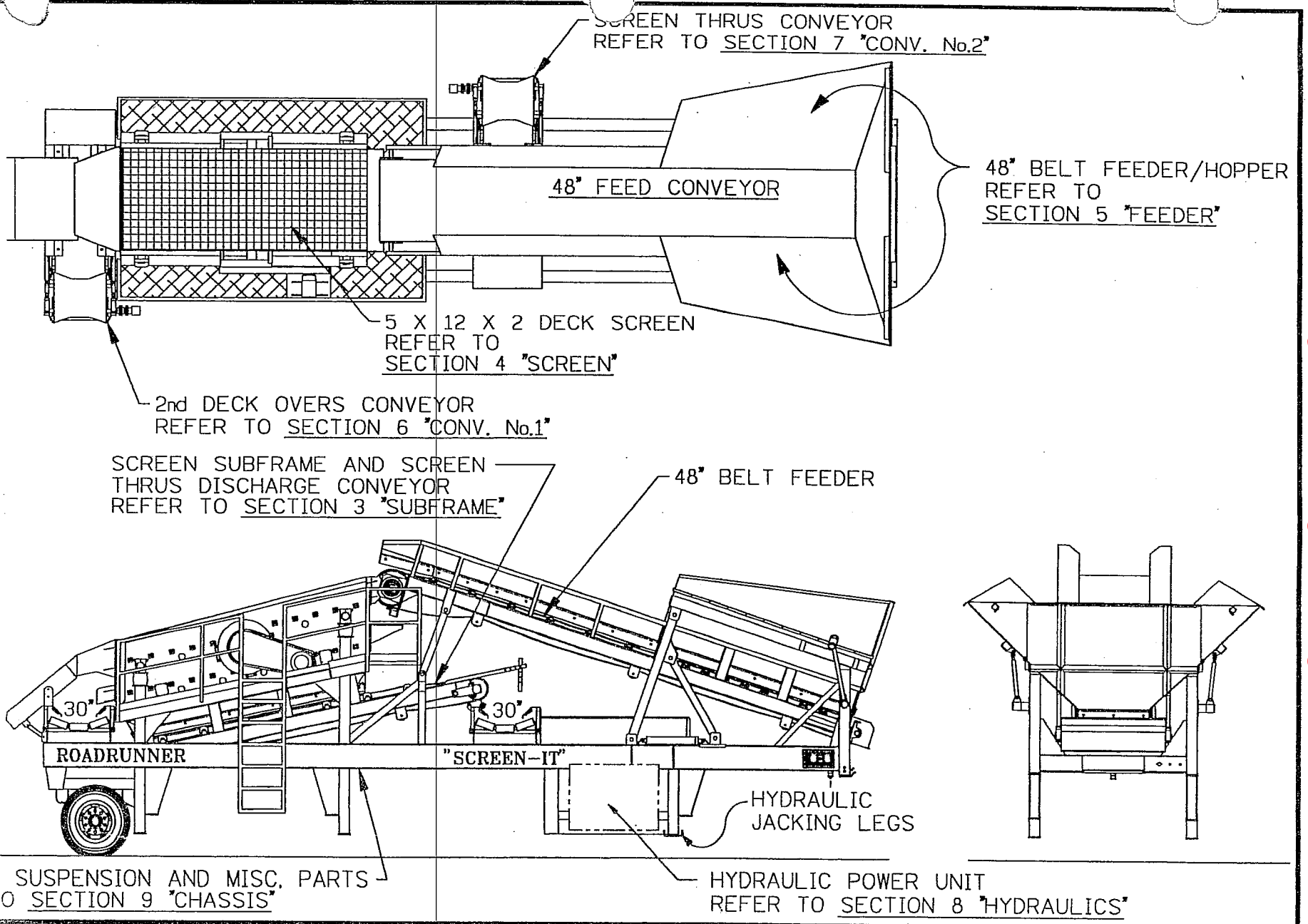
Drawn By: CEB
App'd By: CEB

Question 7 Figures/diagrams of Screen



Construction Equipment Company

Crushing and Screening Specialists

Drawing Title

GENERAL

"CEC" SCREEN-IT

MODEL "512I"

File No.:

PAGE 2-1

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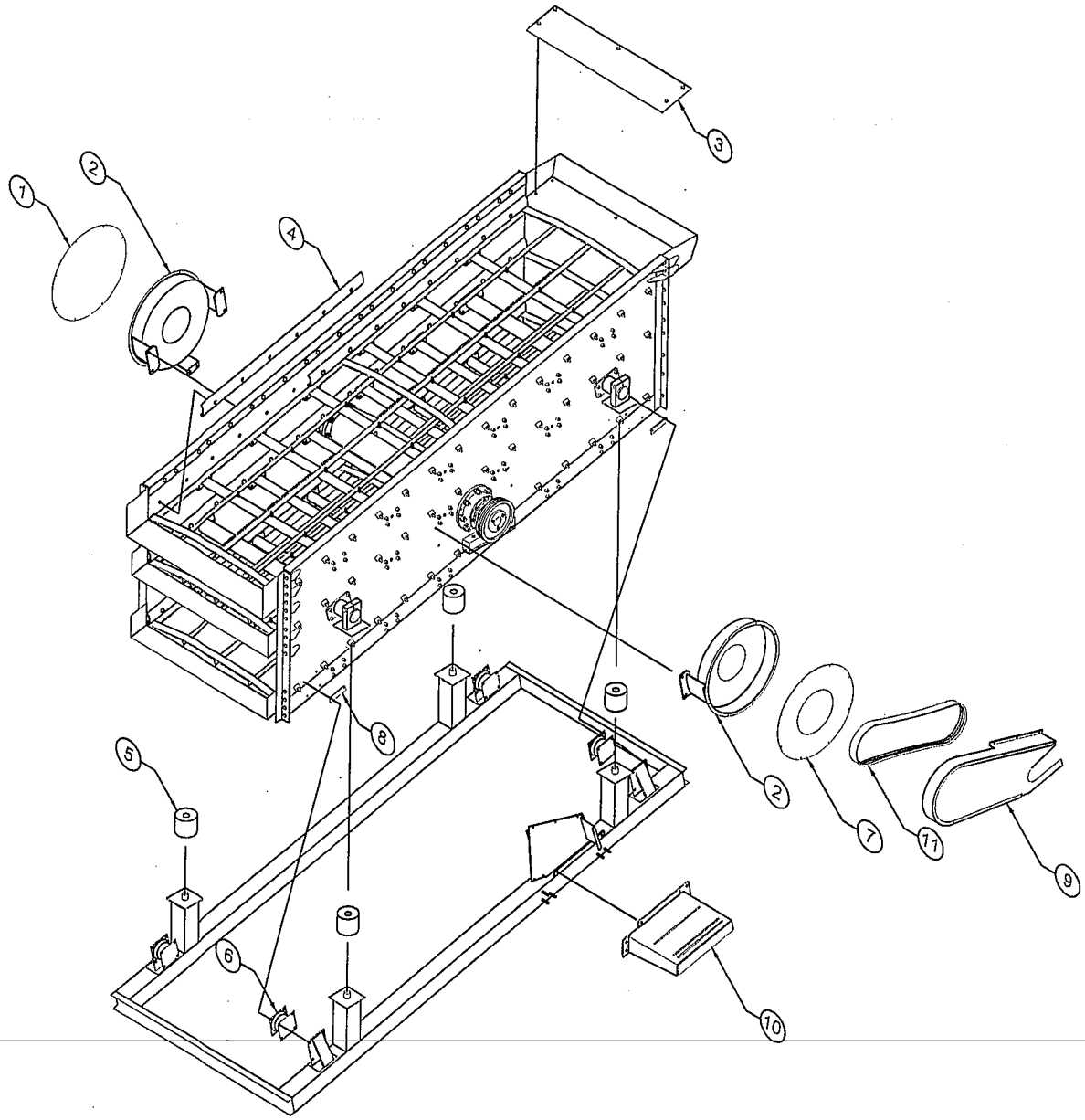
App'd By: CEB

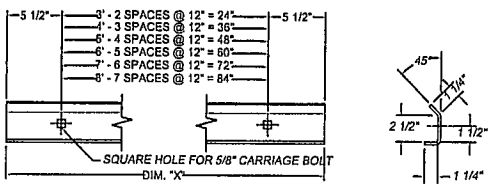
Question 7 Figures/diagrams of Screen

Question 7 Figures/diagrams of Screen



100mm. SCREEN & SCREEN SUBFRAME PARTS			
ITEM #	DESCRIPTION	QTY.	PART #
1	Non-drive Side Stroke Enhancer Guard Cover	1	94100702
2	Drive / Non-drive Stroke Enhancer Guard	2	-
3	Feed Chute Wear Plate	1	94007504
4	Screen Cloth Clamp Rail	-	SEE DIAGRAM
5	Marshmellow Spring - Firestone, #W22-358-0187	4	VIBR-00002
6	Sandwich Mount - Lord, #J-14056-22	4	VIBR-00004
7	Drive Side Stroke Enhancer Guard Cover	1	94100602
8	Sandwich Mount Spacer Plate	4	94007006
9	100mm. Belt Drive Guard	1	-
10	100mm. Screen Motor Mount - Bolt-On	1	-
11	Drive Belt 3r 5v 1060	1	VBEL-00021

SIZE	DIM. "X"	BURN NUMBER	EST. WT. (ea.)
3'	35"	94006304	12.0 lbs.
4'	47"	94006404	16.5 lbs.
5'	59"	94006504	21.0 lbs.
6'	71"	94006604	25.0 lbs.
7'	83"	94006704	29.0 lbs.
8'	95"	94006804	33.0 lbs.



SCREEN CLOTH CLAMP RAIL

SCALE - 1" = 6" QUANTITY - MATERIAL - 1/4" M.S. PLATE

Question 9 Working Area Dust Measurement Report

: (509) 469-3068
: (509) 469-3070
: www.baertesting.com

Baer Testing & Engineering, Inc.

1106 Ledwich Ave.
Yakima, WA 98902

VIA EMAIL

March 19, 2025

TTC Construction, Inc.
12871 Summitview Road
Yakima, WA 98908

RE: MATERIAL TESTING SERVICES; TTC CONSTRUCTION ROAD AND WORK AREA DUST SAMPLING AND TESTING; YAKIMA COUNTY, WASHINGTON

At your request, Baer Testing & Engineering, Inc. (BAER) is pleased to provide material testing results for the dust analysis of the TTC Construction crushing and haul road at 12871 Summitview Road in Yakima County, Washington.

Samples were obtained at the project site on March 12, 2025. Hand equipment was used to obtain three samples from 5 locations along the unpaved transportation route entering, leaving, and within the crushing area. The samples consist of either road surface or dust materials. Sample locations are shown in the attached **Exploration Plan**.

Based on visual-manual methods (ASTM D2488), the soil descriptions for the test samples are:

25-0614-1 ***Silty Sand with Gravel (SM)***
25-0614-2 ***Silty Sand with Gravel (SM)***
25-0614-3 ***Poorly Graded Sand with Silt and Gravel (SP-SM)***
25-0614-4 ***Silty Sand with Gravel (SM)***
25-0614-5 ***Poorly Graded Sand with Silt and Gravel (SP-SM)***

BAER performed the following laboratory tests on the above samples.

- Moisture Content (American Society for Testing and Materials (ASTM) Designation: D 2216) for material characterization and soil index properties; and
- Particle Distribution (ASTM Designation: D 422 and ASTM Designation: D 1140) for material characterization and soil index properties.

A summary of this laboratory testing is presented in the table below.

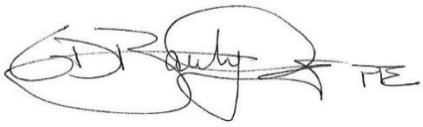
Table 1 - Summary of Laboratory Testing

Sample	Unified Soil Classification	Moisture Content (%)	Percent Passing the U.S. No. 200 Sieve
1	SM	3.3	13.2
2	SM	4.2	13.2
3	SP-SM	2.8	11.2
4	SM	2.2	16.6
5	SP-SM	3.7	9.4

Experience has shown that test values on soil and other natural materials vary with each representative sample. As such, BAER has no knowledge as to the extent and quantity of material the tested samples may represent. BAER obtained samples in general accordance with the procedures outlined in the EPA Document AP42 Appendix C.1 (*Procedures for Sampling Surface/Bulk Dust Loading*), to obtain samples representative of specific areas. However, BAER makes no warranty as to how representative either the samples evaluated, or the test results obtained, are to field conditions outside of the specified sample areas.

We trust this information meets your current project needs. If you have questions or need additional information, please contact our office.

Sincerely,
BAER TESTING & ENGINEERING, INC.



Gerry D. Bautista, Jr., P.E.
Principal Geotechnical Engineer

Brandon Holwegner, L.E.G.
Senior Geologist

Enclosures: Exploration Plan
Laboratory Test Results – 6 pages

Exploration Plan: Approximate sample locations circled in blue.

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1106 Ledwich Ave.
Yakima, WA 98902
1120 North Oregon Ave.
Pasco, WA 99301

MOISTURE CONTENT OF SOILS - ASTM D 2216

CLIENT	TTC Construction	**DATE TESTED:**	3/13/2025
PROJECT	Dust Analysis	**JOB NUMBER:**	25-091
SAMPLE SOURCE:	See Below	**WORK ORDER NUMBER**	25-0614
DATE SAMPLED:	3/12/2025	**SAMPLE NUMBER:**	25-0614-1, 2, 3, 4, 5
MATERIAL TYPE:	See Below	**TESTED BY:**	Andrew Hill

Sampled in accordance with ASTM D 75 and reduced in accordance with ASTM C 702.

Sample #	Material Type	Location	% Moisture
25-0614-1	Native Soil	41 Rocky Top Rd, Location #1	3.3%
25-0614-2	Native Soil	41 Rocky Top Rd, Location #2	4.2%
25-0614-3	Native Soil	41 Rocky Top Rd, Location #3	2.8%
25-0614-4	Native Soil	41 Rocky Top Rd, Location #4	2.2%
25-0614-5	Native Soil	41 Rocky Top Rd, Location #5	3.7%

REMARKS:

REVIEWED BY:
Dee Burrie, Technical Director

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Pasco, WA 99301

CLIENT:	TTC Construction	**PROJECT:**	25-091
PROJECT:	Dust Analysis	**WORK ORDER #:**	25-0614
SAMPLE SOURCE:	41 Rocky Top Rd, Location 1	**SAMPLE NUMBER:**	25-0614-1
DATE SAMPLED:	3/12/2025	**DATE TESTED:**	3/13/2025
MATERIAL TYPE:	Silty Sand with Gravel (SM)	**TESTED BY:**	Andrew Hill

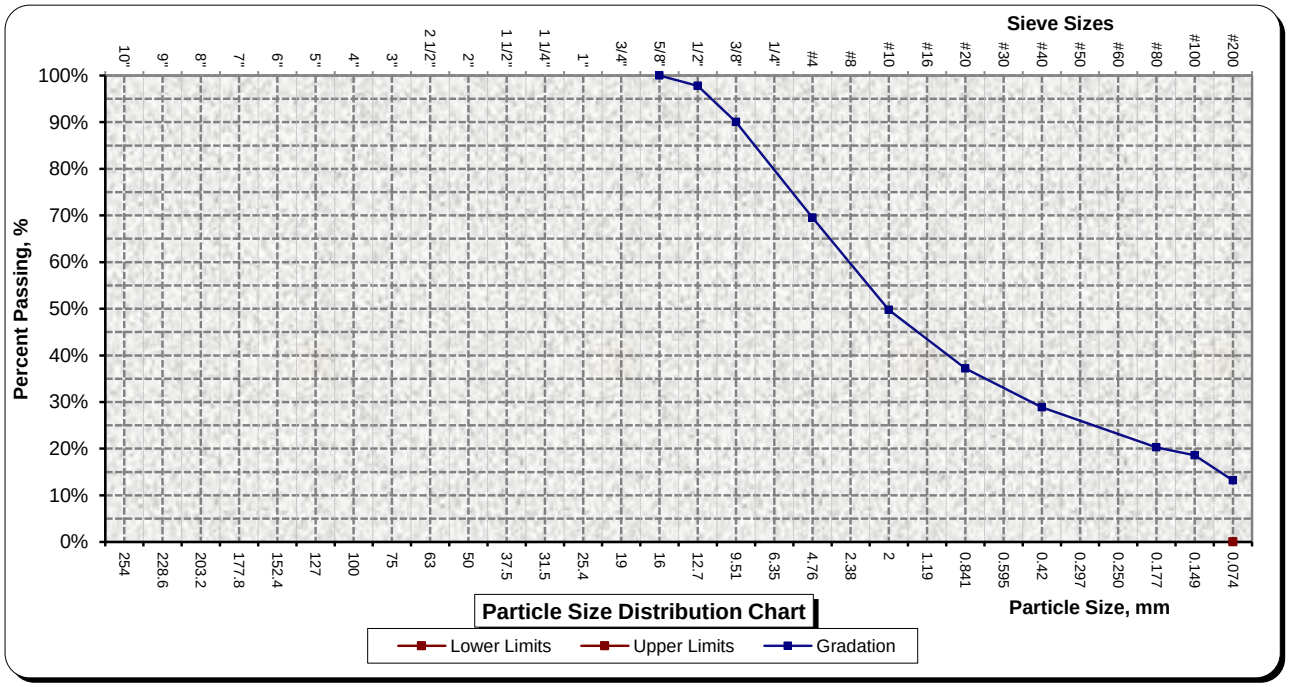
Sampled in Accordance with ASTM D 75 and reduced in accordance with ASTM C 702 or D 421 unless otherwise noted.

SIEVE ANALYSIS OF SOILS
ASTM C 136/D 1140

Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:
10" (254mm)			1 1/2" (37.5mm)			#10 (2mm)	50%	
9" (228.6mm)			1 1/4" (31.5mm)			#16 (1.19mm)		
8" (203.2mm)			1" (25.4mm)			#20 (0.841mm)	37%	
7" (177.8mm)			3/4" (19mm)			#30 (0.595mm)		
6" (152.4mm)			5/8" (16mm)	100%		#40 (0.42mm)	29%	
5" (127mm)			1/2" (12.7mm)	98%		#50 (0.297mm)		
4" (100mm)			3/8" (9.51mm)	90%		#60 (0.250mm)		
3" (75mm)			1/4" (6.35mm)			#80 (0.177mm)	20%	
2 1/2" (63mm)			#4 (4.76mm)	70%		#100 (0.149mm)	19%	
2" (50mm)			#8 (2.38mm)			#200 (0.074mm)	13.2%	

MOISTURE CONTENT - ASTM D 2216

3.3%



REVIEWED BY: Dee Burrie, Technical Director

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Pasco, WA 99301

CLIENT:	TTC Construction	**PROJECT:**	25-091
PROJECT:	Dust Analysis	**WORK ORDER #:**	25-0614
SAMPLE SOURCE:	41 Rocky Top Rd, Location 2	**SAMPLE NUMBER:**	25-0614-2
DATE SAMPLED:	3/12/2025	**DATE TESTED:**	3/13/2025
MATERIAL TYPE:	Silty Sand with Gravel (SM)	**TESTED BY:**	Andrew Hill

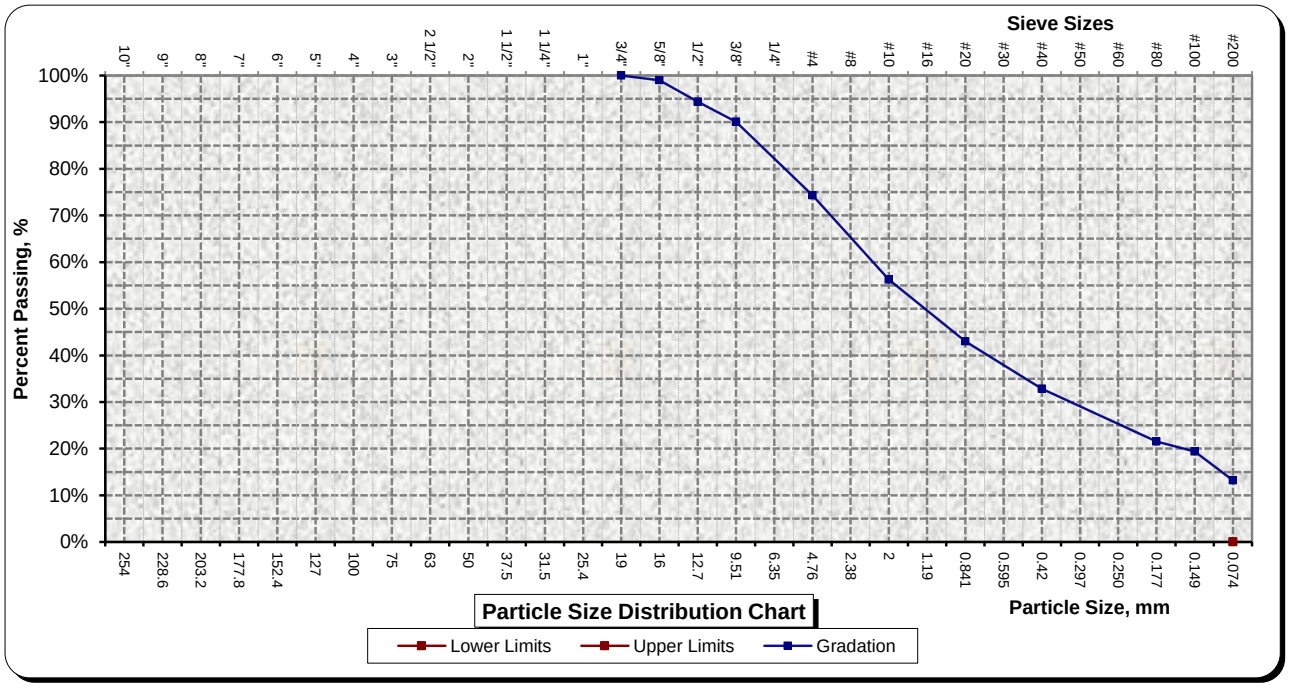
Sampled in Accordance with ASTM D 75 and reduced in accordance with ASTM C 702 or D 421 unless otherwise noted.

SIEVE ANALYSIS OF SOILS
ASTM C 136/D 1140

Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:
10" (254mm)			1 1/2" (37.5mm)			#10 (2mm)	56%	
9" (228.6mm)			1 1/4" (31.5mm)			#16 (1.19mm)		
8" (203.2mm)			1" (25.4mm)			#20 (0.841mm)	43%	
7" (177.8mm)			3/4" (19mm)	100%		#30 (0.595mm)		
6" (152.4mm)			5/8" (16mm)	99%		#40 (0.42mm)	33%	
5" (127mm)			1/2" (12.7mm)	94%		#50 (0.297mm)		
4" (100mm)			3/8" (9.51mm)	90%		#60 (0.250mm)		
3" (75mm)			1/4" (6.35mm)			#80 (0.177mm)	22%	
2 1/2" (63mm)			#4 (4.76mm)	74%		#100 (0.149mm)	19%	
2" (50mm)			#8 (2.38mm)			#200 (0.074mm)	13.2%	

MOISTURE CONTENT - ASTM D 2216

4.2%



REVIEWED BY: Dee Burrie, Technical Director

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Yakima, WA 98902
1120 North Oregon Ave.
Pasco, WA 99301

CLIENT:	TTC Construction	**PROJECT:**	25-091
PROJECT:	Dust Analysis	**WORK ORDER #:**	25-0614
SAMPLE SOURCE:	41 Rocky Top Rd, Location 3	**SAMPLE NUMBER:**	25-0614-3
DATE SAMPLED:	3/12/2025	**DATE TESTED:**	3/13/2025
MATERIAL TYPE:	Poorly Graded Sand with Silt and Gravel (SP-SM)	**TESTED BY:**	Andrew Hill

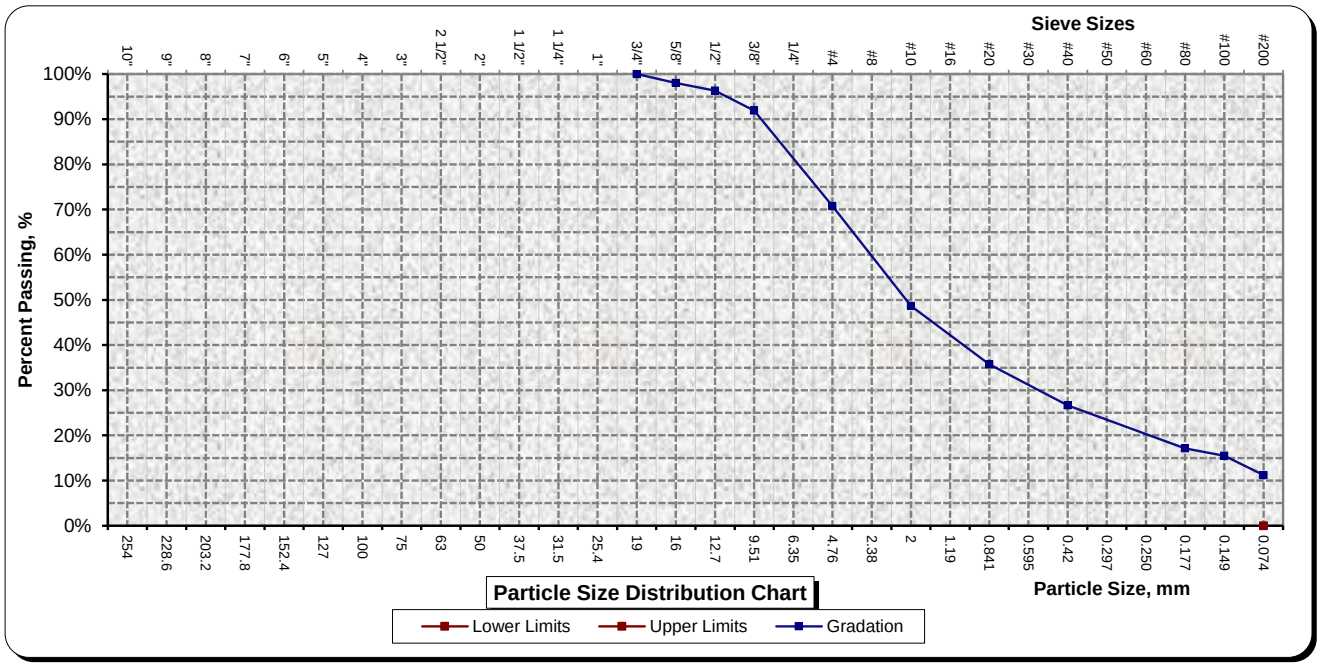
Sampled in Accordance with ASTM D 75 and reduced in accordance with ASTM C 702 or D 421 unless otherwise noted.

SIEVE ANALYSIS OF SOILS
ASTM C 136/D 1140

Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:
10" (254mm)			1 1/2" (37.5mm)			#10 (2mm)	49%	
9" (228.6mm)			1 1/4" (31.5mm)			#16 (1.19mm)		
8" (203.2mm)			1" (25.4mm)			#20 (0.841mm)	36%	
7" (177.8mm)			3/4" (19mm)	100%		#30 (0.595mm)		
6" (152.4mm)			5/8" (16mm)	98%		#40 (0.42mm)	27%	
5" (127mm)			1/2" (12.7mm)	96%		#50 (0.297mm)		
4" (100mm)			3/8" (9.51mm)	92%		#60 (0.250mm)		
3" (75mm)			1/4" (6.35mm)			#80 (0.177mm)	17%	
2 1/2" (63mm)			#4 (4.76mm)	71%		#100 (0.149mm)	16%	
2" (50mm)			#8 (2.38mm)			#200 (0.074mm)	11.2%	

MOISTURE CONTENT - ASTM D 2216

2.8%



REVIEWED BY: Dee Burrie, Technical Director

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Pasco, WA 99301

CLIENT:	TTC Construction	**PROJECT:**	25-091
PROJECT:	Dust Analysis	**WORK ORDER #:**	25-0614
SAMPLE SOURCE:	41 Rocky Top Rd, Location 4	**SAMPLE NUMBER:**	25-0614-4
DATE SAMPLED:	3/12/2025	**DATE TESTED:**	3/13/2025
MATERIAL TYPE:	Silty Sand with Gravel (SM)	**TESTED BY:**	Andrew Hill

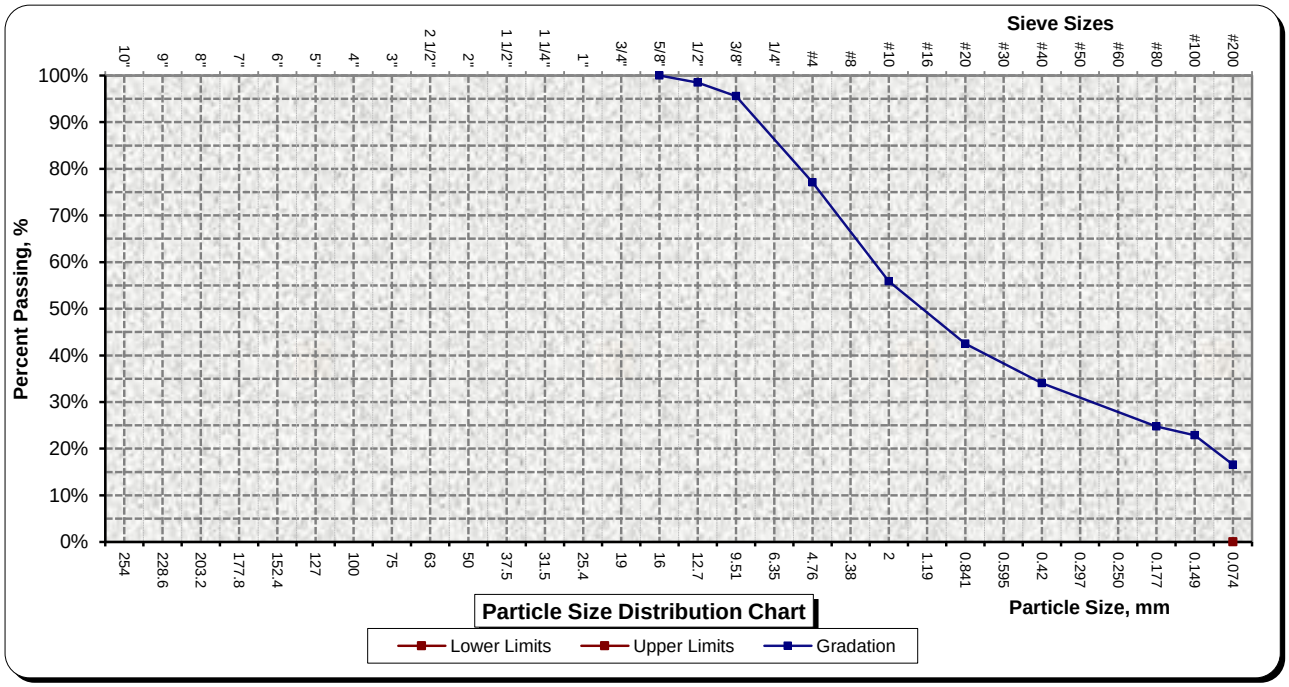
Sampled in Accordance with ASTM D 75 and reduced in accordance with ASTM C 702 or D 421 unless otherwise noted.

SIEVE ANALYSIS OF SOILS
ASTM C 136/D 1140

Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:
10" (254mm)			1 1/2" (37.5mm)			#10 (2mm)	56%	
9" (228.6mm)			1 1/4" (31.5mm)			#16 (1.19mm)		
8" (203.2mm)			1" (25.4mm)			#20 (0.841mm)	42%	
7" (177.8mm)			3/4" (19mm)			#30 (0.595mm)		
6" (152.4mm)			5/8" (16mm)	100%		#40 (0.42mm)	34%	
5" (127mm)			1/2" (12.7mm)	99%		#50 (0.297mm)		
4" (100mm)			3/8" (9.51mm)	96%		#60 (0.250mm)		
3" (75mm)			1/4" (6.35mm)			#80 (0.177mm)	25%	
2 1/2" (63mm)			#4 (4.76mm)	77%		#100 (0.149mm)	23%	
2" (50mm)			#8 (2.38mm)			#200 (0.074mm)	16.6%	

MOISTURE CONTENT - ASTM D 2216

2.2%



REVIEWED BY: Dee Burrie, Technical Director

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Yakima, WA 98902
1120 North Oregon Ave.
Pasco, WA 99301

CLIENT:	TTC Construction	**PROJECT:**	25-091
PROJECT:	Dust Analysis	**WORK ORDER #:**	25-0614
SAMPLE SOURCE:	41 Rocky Top Rd, Location 5	**SAMPLE NUMBER:**	25-0614-5
DATE SAMPLED:	3/12/2025	**DATE TESTED:**	3/13/2025
MATERIAL TYPE:	Poorly Graded Sand with Silt and Gravel (SP-SM)	**TESTED BY:**	Andrew Hill

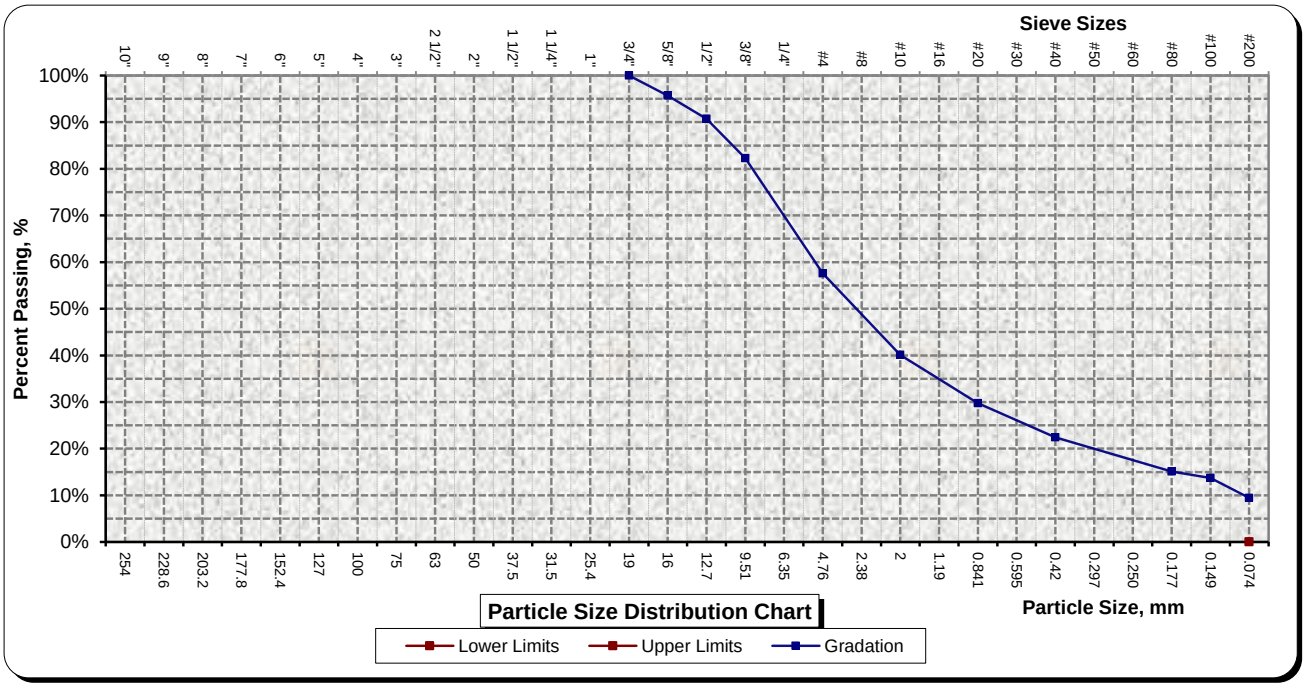
Sampled in Accordance with ASTM D 75 and reduced in accordance with ASTM C 702 or D 421 unless otherwise noted.

SIEVE ANALYSIS OF SOILS
ASTM C 136/D 1140

Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:	Sieve Size:	Percent Passing:	Specs:
10" (254mm)			1 1/2" (37.5mm)			#10 (2mm)	40%	
9" (228.6mm)			1 1/4" (31.5mm)			#16 (1.19mm)		
8" (203.2mm)			1" (25.4mm)			#20 (0.841mm)	30%	
7" (177.8mm)			3/4" (19mm)	100%		#30 (0.595mm)		
6" (152.4mm)			5/8" (16mm)	96%		#40 (0.42mm)	22%	
5" (127mm)			1/2" (12.7mm)	91%		#50 (0.297mm)		
4" (100mm)			3/8" (9.51mm)	82%		#60 (0.250mm)		
3" (75mm)			1/4" (6.35mm)			#80 (0.177mm)	15%	
2 1/2" (63mm)			#4 (4.76mm)	58%		#100 (0.149mm)	14%	
2" (50mm)			#8 (2.38mm)			#200 (0.074mm)	9.4%	

MOISTURE CONTENT - ASTM D 2216

3.7%



REVIEWED BY: Dee Burrie, Technical Director