



# Air Quality & Environmental Management

500 S. Grand Central Parkway, 1st floor  
Las Vegas NV · 89155-1776  
(702) 455-5942 · Fax (702) 383-9994



CLARK COUNTY · LAS VEGAS · NORTH LAS VEGAS · BOULDER CITY · HENDERSON · MESQUITE

## DUST CONTROL PERMIT FOR CONSTRUCTION ACTIVITIES INCLUDING SURFACE GRADING AND TRENCHING

THIS PERMIT DOES NOT EXEMPT THE PERMITTEE FROM COMPLIANCE WITH THE ENDANGERED SPECIES ACT

Permit Number:

PAYMENT INFORMATION:

20100668/0920

**38486**

**Mod: 0**

Fee: **\$1,380.00**

Balance Due: \$ 1242.00

### Permittee and Project Information

Permittee:	Tronox LLC		
Permittee Address:	560 West Lake Mead Parkway		
City, State, Zip:	Henderson NV 89015	Fax No.:	7026512310
Project Name:	Removal of Historic Manganese Tailings		
Project Address:	560 West Lake Maed Parkway		
Located In:	Township: 22	Range: 62	Section: 12 EO Area: SE
Acreage This Mod:	9.8	Total Acreage:	9.8
Cross Streets:	NW of Lake Mead Pkwy and Water Street		

### Project Contact(s)

Normal Hours:	Susan Crowley	After Hours:	Susan Crowley
Company:	Crowley Environmental LLC	Company:	Tronox LLC
Phone:	(702)592-7727	Phone:	(702)592-7727

Issue Date: 28-Apr-2010

Expiration Date:

28-Apr-2011

Effective Date: 04/28/10 JMC

- Request Of Sign Waiver
- Public Works Agreement
- Closure Plan
- Conditional Renewal

Notes

**DUST CONTROL MEASURES MUST OCCUR 24 HOURS A DAY, 7 DAYS A WEEK**

**THIS PERMIT IS NOT VALID UNTIL ALL FEES ARE PAID IN FULL AND A COMPLETE COPY IS ON THE PROJECT SITE, INCLUDING CONDITIONS OF PERMIT AND DUST MITIGATION PLAN**

*It is a condition of the issuance of any operating permit required by the commission or pursuant to any local ordinance for the control of air pollution that the holder of the operating permit agrees to permit inspection of the premises to which the permit relates by any authorized officer of the department at any time during the holder's hours of operation without prior notice. This condition must be stated on each application form and operating permit. NRS 445B.580.*

The issuance of this PERMIT does not relieve the PERMITTEE from compliance with all other applicable federal, state, county and local ordinances and regulations. Issuance of this PERMIT shall not be a defense to violations of any applicable ordinances or regulations.



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**APPLICATION**  
**DUST CONTROL PERMIT FOR CONSTRUCTION ACTIVITIES**

Blank spaces must be completed for the application to be processed. If not applicable, enter N/A.

**1. Applicant/Permittee:**

Property Owner    Developer    Prime Contractor    Other \_\_\_\_\_  
Name: Tronox LLC  
Address: 560 West Lake Mead Parkway  
City: Henderson   State: NV    Zip: 89015  
Telephone: 7025927727   Ext: \_\_\_\_\_   Fax: 7026512310  
E-mail Address: susan.crowley@tronox.com or smcrowley@cox.net

**2. Project:**

Name: Removal of Historic Manganese Tailings  
Address: 560 West Lake Mead Parkway   City: Henderson  
Nearest major cross-streets: <sup>NW of</sup> Lake Mead Pkwy and Water Street  
Township(s): 22   Range(s): 62   Section(s): 12  
Assessor's Parcel number(s) (Attach map): 178-12-801-001, 178-12-701-001, 178-12-701  
Project Description: Remove manganese tailings from existing stockpile

Project Acreage: 9.8 acres (rounded to the nearest 0.1 acre, all land that will be disturbed must be included in project acreage)

Submit non-refundable minimum fee for 1 acre with application (applied to total permit fee collected upon permit approval). Permit fees are based on project acreage, rounded up to the next whole acre.

**You must select one of the following three choices.**

- This project does not require any offsite street or utility development.
- This project requires offsite street/utility development that is not included in this application, and will be added at a later date by modification or additional permit.
- This application includes offsite street/utility development. (Area must be marked on the accompanying parcel map. Check all that apply)
  - Utility Lateral  less than 100 ft.    greater than 100 ft.    Half Street    Full Street
  - Curb / Entrance    Entity Name and Number of Approved Offsite Plan / Permit /
  - Easement: \_\_\_\_\_  Plan Pending    Other \_\_\_\_\_

**3. Property Owner (if not applicant):**

Name: Tronox LLC  
If applicant is NOT the Property Owner, applicant must complete the Owner's Designee form DCP 05, see Attachment 1: Dust Control Permit Forms. The signature on the Owner's designee form must be the same person that signs this application.

4. Point of Contact for dust control matters and to whom a NOTICE OF VIOLATION should be sent if necessary:

Name: Susan Crowley Company: Tronox LLC  
Address: 560 West Lake Mead Parkway  
City: Henderson State: NV  Zip: 89015  
Telephone: 7025927727 Ext: \_\_\_\_\_ Fax: 7026512310  
Cellular/Pager: 7025927727 After Hours Phone: 7025927727

5. On-site Superintendent/Supervisor/Foreman contact:

Name: Susan Crowley Company: Crowley Environmental LLC  
On-site phone: 7025927727 Cellular/Pager: 7025927727  
DAQEM Dust Class Certification/Card #: DC0308147 Expiration date: 3/26/11

Have all other on-site supervisory personnel attended the DAQEM Dust Class?  Yes  No  
If no, all on-site supervisory personnel must attend a DAQEM Dust Class within 30 days.

6. Storm Water Advisory: Be advised that all land disturbances that exceed one (1) acre or which are adjacent to a waterway must submit a "Notice of Intent" to the Nevada Division of Environmental Protection (NDEP) that certifies a Storm Water Pollution Prevention Plan has been developed and is maintained for the site. For information contact NDEP at (775) 687-9429. Applications and instructions are available at [www.ndep.nv.gov/bwpc/storm01.htm](http://www.ndep.nv.gov/bwpc/storm01.htm)

7. By signing this permit application I certify that:

- A. I am authorized, on behalf of the individual or company listed in Section 1, as Applicant/Permittee, to apply for their Dust Control Permit and to commit to all of the terms and conditions of the requested permit.
- B. Construction activities will be limited to lands that the applicant/permittee either owns or is authorized to use for construction activities. The permit issued subsequent to this application is not a substitute for obtaining the property owners permission to use his land. Issuance of a Dust Control Permit is intended only for the purpose of controlling emissions of air pollutants and assuring compliance with Air Quality Regulations. The applicant/permittee agrees to hold harmless, indemnify, and defend Clark County, its employees and assigns from any claims that may arise due to any unauthorized use of land for construction activities.
- C. The permittee accepts responsibility for assuring that all contractors, subcontractors, and all other persons on the construction site covered by this permit, comply with the terms and conditions of the permit, the dust mitigation plan and all applicable Air Quality Regulations.
- D. The applicant/permittee understands that it is a condition of the permit that the permittee agrees to allow the inspection of the site for compliance with the terms and conditions of the permit and Air Quality Regulations at any time during the permittee's hours of operation by a DAQEM officer without prior notice or at any time pursuant to the investigation of a complaint or upon direct observation of emission and/or failure to maintain Best Management Practices.
- E. I understand that any material misrepresentation made in this application may invalidate the permit and that Clark County may pursue enforcement action against me. In addition, I understand any willful misrepresentation may result in criminal penalties. I declare under penalty of perjury that the foregoing is true and correct.

Executed on:

April 14, 2010

DATE

Fredrick R. Stater

PRINTED NAME

  
SIGNATURE

Plant Manager

TITLE AND COMPANY NAME

Application completed by, if not completed by signatory (Please Print):

Susan Crowley

7025927727

Name

Phone Number

Ext.

PAYMENT INFORMATION TO BE COMPLETED BY THE APPLICANT	
<b>PAYING BY</b> (Please Print)	
<input type="checkbox"/> CASH	
<input type="checkbox"/> CHECK	CHECK # _____ NAME AND ADDRESS AS IT APPEARS ON CHECK: _____ _____ _____ Telephone #: _____
<input checked="" type="checkbox"/> CREDIT CARD	LAST FOUR DIGITS OF CREDIT CARD NUMBER: <u>5157</u> EXACT NAME AS IT APPEARS ON CREDIT CARD: <u>James Carolan</u>

FOR DAQEM USE ONLY		
ISSUE DATE	ISSUED BY	POS #
<u>4-28-10</u>	<u>20538486</u>	<u>201006608</u>
DATE PAID	RECEIVED BY	
<u>4-14-10</u>	<u>A. Olsen</u>	
DAQEM REVIEW: <u>[Signature]</u>	DATE: <u>4-26-10</u>	
BLASTING APPROVAL (if applicable): _____	DATE: _____	
DEMOLITION APPROVAL (if applicable): _____	DATE: _____	
COMPLIANCE AREA ASSIGNMENT: <u>SE</u>	Hydrographic Area: <u>212</u>	
<input type="checkbox"/> Airport	<input type="checkbox"/> Blasting	<input type="checkbox"/> Commercial
<input type="checkbox"/> Highway	<input type="checkbox"/> Schools	<input type="checkbox"/> Residential
<input type="checkbox"/> Public Works	<input type="checkbox"/> Flood Detention	<input type="checkbox"/> Utilities
<input type="checkbox"/> Demo-Structure	<input type="checkbox"/> Demo-Other	<input checked="" type="checkbox"/> Staging/Stockpiling
<input type="checkbox"/> Misc.		

*Protecting the air we share*

# Air Quality

**DUST MITIGATION PLAN FOR ALL PROJECTS**

**Project Name:** Removal of Historic Manganese Tailings

**Permittee Name:** Tronox LLC

**Identify the Project Soil "Particulate Emission Potential" (check all that apply):**

Using silt and optimum moisture content to determine the particulate emission potential (PEP) is the preferred method.

PEP determined using generalized PEP determination maps included in the Dust Control Handbook.

PEP determined using silt vs. optimum moisture table in Figure 2 of the Dust Control Handbook.

Percentage of silt through a #200 sieve: % Optimum moisture content: %

PEP for this project is determined to be:

High     Moderate High     Moderate Low     Low

Water source:  Hydrant with Jones Valve     Fire hose     Water trucks/pulls     Well  
 Stand tanks     Ponds     Other: \_\_\_\_\_

**PROJECT ACTIVITIES CHECKLIST**

**Instructions:**

~~Place a check mark in the box to the right of each Project Activity that will occur on your project. If additional soil disturbing activities that are not on the checklist are to be included in the project, list them on a separate page and provide a description. For a more complete description of the listed activities, see the Control Measures Selection Pages (Form DCP03) that follow or refer to the Best Management Practices for dust control in the Dust Control Handbook.~~

**BMP 10 Disturbed Soil and BMP 20 Trackout Prevention and Cleanup must be marked for every Dust Mitigation Plan.**

**CONTROL MEASURES SELECTION PAGES**

**Instructions:**

For each project activity that you have selected on the Project Activities Checklist you must include the corresponding Control Measures Selection Page. Read and understand each item listed as a "Requirement" on these included pages. Where control measure options are listed, place a check in the box in front of the control measure you will use to meet that requirement. You must select at least one control measure where a choice is listed. In addition you must select the control measure that corresponds to your PEP as listed above, if applicable.

**NOTE: PROJECTS 10 ACRES AND LARGER MUST COMPLETE A SUPPLEMENT TO THE DUST MITIGATION PLAN (APPENDIX B-1 AND B-2).**



## PROJECT ACTIVITIES CHECKLIST

Project Name: Removal of Historic Manganese Tailings

Permittee Name: Tronox LLC

**PLACE A CHECK MARK NEXT TO EVERY ACTIVITY THAT WILL BE CONDUCTED ON THIS SITE, FOR EACH CHECKED ACTIVITY COMPLETE THE CORRESPONDING CONTROL MEASURES SELECTION PAGE AND INCLUDE WITH APPLICATION.**

BMP	Project Activity	Check All That Apply
01	Backfilling Filling area previously excavated or trenched.	<input type="checkbox"/>
02	Blasting - Abrasive Sandblasting and/or abrasive blasting.	<input type="checkbox"/>
03	Blasting Soil & Rock Explosive blasting of soil and rock.	<input type="checkbox"/>
04	Clearing & Grubbing Clearing and grubbing for site preparation and vacant land cleanup.	<input type="checkbox"/>
05	Clearing Forms, Foundations and Slabs Clearing and cleaning of forms, foundations and slabs prior to pouring concrete.	<input type="checkbox"/>
06	Crushing Crushing of construction and demolition debris, rock and soil.	<input type="checkbox"/>
07	Cut and/or Fill Cut and/or fill soils for site grade preparation.	<input checked="" type="checkbox"/>
08	Demolition - Implosion Implosive demolition of a structure, using explosives.	<input type="checkbox"/>
09	Demolition - Mechanical/Manual Mechanical and manual demolition of walls, stucco, concrete, freestanding structures, buildings, load-bearing walls and/or removal of transit pipe	<input type="checkbox"/>
10	Disturbed Soil <b>THIS ACTIVITY MUST BE SELECTED FOR ALL PROJECTS</b> Disturbed soil throughout project including between structures.	<input checked="" type="checkbox"/>
11	Disturbed Land - Long Term Stabilization Large tracts of disturbed land that will not have continuing activity for more than 30 days.	<input checked="" type="checkbox"/>
12	Dust Suppressants - Selection and Use Selection and use of chemical and organic dust suppressing agents and other dust palliatives.	<input checked="" type="checkbox"/>
13	Importing/Exporting Materials Importing or exporting of soil, aggregate, decorative rock, debris, Type II and other bulk material.	<input checked="" type="checkbox"/>
14	Landscaping Installation of sod, decorative rock, desert or other landscape material.	<input type="checkbox"/>
15	Paving/Subgrade Preparation Subgrade preparation for paving streets, parking lots, etc.	<input type="checkbox"/>
16	Sawing/Cutting Material Sawing or cutting materials such as concrete, asphalt, block or pipe.	<input type="checkbox"/>
17	Screening Screening of rock, soil or construction debris.	<input type="checkbox"/>
18	Staging Areas Staging areas, equipment storage, vehicle parking lots, and material storage areas.	<input checked="" type="checkbox"/>
19	Stockpiles Stockpiling of materials, such as Type II, other soils, rock or debris, for future use or export.	<input type="checkbox"/>
20	Trackout Prevention and Cleanup <b>THIS ACTIVITY MUST BE SELECTED FOR ALL PROJECTS</b> Prevention and cleanup of mud, silt and soil tracked out onto paved roads.	<input checked="" type="checkbox"/>
21	Traffic - Unpaved Routes and Parking Construction related traffic on unpaved interior and/or access roads and unpaved employee/worker parking areas.	<input checked="" type="checkbox"/>
22	Trenching Trenching with track or wheel mounted excavator, shovel, backhoe or trencher.	<input type="checkbox"/>
23	Truck Loading Loading trucks with materials including construction and demolition debris, rock and soil.	<input checked="" type="checkbox"/>

CONTROL MEASURES SELECTION PAGES

Removal of Historic Manganese Tailings

**CUT AND FILL**

**BMP 07**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: Stabilize surface soils where support equipment and vehicles will operate.**

- 07-1 Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
- 07-2 Apply and maintain a dust palliative to surface soils where support equipment and vehicles will operate.

**Requirement: Pre-water soils.**

- 07-3 Dig a test hole to depth of cut or equipment penetration to determine if soils are moist at depth. Continue to pre-water if not moist to depth of cut.
- 07-4 **L & ML:** Pre-water with sprinklers or wobblers to allow time for penetration.
- 07-5 **L & ML:** Pre-water with water trucks or water pulls to allow time for penetration.
- 07-6 **MH:** Pre-water with a water and tackifier mixture using sprinklers or wobblers to allow time for penetration.
- 07-7 **MH:** Pre-water with a water and tackifier mixture using water trucks or water pulls to allow time for penetration.
- 07-8 **H:** Pre-water with a water and surfactant mixture using sprinklers or wobblers to allow time for penetration.
- 07-9 **H:** Pre-water with a water and surfactant mixture using water trucks or water pulls to allow time for penetration.

**Requirement: Stabilize soil during cut activities.**

- 07-10 Apply water, using water truck or water pull, to depth of cut prior to subsequent cuts.
- 07-11 No cut activities fill only.

**Requirement: Stabilize soil after cut and fill activities.**

- 07-12 Water disturbed soils to form crust following fill and compaction.
- 07-13 Apply and maintain a dust palliative on disturbed soils to form crust following fill and compaction.

See also: BMP 11: DISTURBED LAND – Long-Term Stabilization if no continuing activity will occur within 30 days.

CONTROL MEASURES SELECTION PAGES

Removal of Historic Manganese Tailings

**DISTURBED SOIL**

**BMP 10**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: For each non-linear project to be permitted for 5 acres or less; install perimeter wind barrier 3 feet or more in height made of material with a porosity of 50% or less.**

**Requirement: Limit vehicle traffic and disturbance of soils where possible.**

- 10-1 Limit vehicle traffic and disturbance of soils with the use of fencing, barriers, barricades, and/or wind barriers.

**Requirement: Stabilize and maintain stability of all disturbed soil throughout construction site.**

**Note: You must choose one or more of the following.**

- 10-2 Apply water to stabilize disturbed soils. Soils must be kept in a sufficiently damp, crusted or covered condition.
- 10-3 Apply and maintain a dust palliative based on soil type and future plans.

**Requirement: Soil conditions, including preventive and corrective measures, must be recorded every day the construction project is active.**

- 10-4 Record soil conditions and dust control actions in daily project records.

**Recommendations: If interior block walls are planned, install as early in the construction as possible.**

**See also: BMP 11: DISTURBED LAND – Long-Term Stabilization, if no continuing activity will occur within 30 days.**



CONTROL MEASURES SELECTION PAGES

**DISTURBED LAND – Long-Term Stabilization**

**BMP 11**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: Stabilize soil to meet standards required by Air Quality Regulation Section 90.**

- 11-1 Apply and maintain a dust palliative on disturbed soils for long-term stabilization.
- 11-2 Stabilize disturbed soil with vegetation for long-term stabilization.
- 11-3 Pave or apply surface rock for long-term stabilization.
- 11-4 Use wind breaks in accordance with a site-specific plan approved by the Control Officer and Region IX Administrator of the EPA.
- 11-5 Apply water and maintain soils in a visible damp or crusted condition for temporary stabilization.

**Requirement: Prevent access to limit soil disturbance.**

- 11-6 Prevent access by fencing, ditches, vegetation, berms or other suitable barrier or means approved by the Control Officer.

**Recommendations: Plant perimeter vegetation early. Use of native and drought-tolerant plants with greater than 50 % silhouette area is encouraged.**

**See also: BMP 12: DUST SUPPRESSANT, DUST PALLIATIVE AND SURFACTANT – Selection and Use.**

CONTROL MEASURES SELECTION PAGES

Removal of Historic Manganese Tailings

**DUST PALLIATIVE – Selection and Use**

**BMP 12**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: Follow AQD “Interim Policy on Dust Palliatives Use In Clark County, Nevada”.**

**Requirement: Record use of suppressants and dust palliatives and retain records.**

**Requirement: Follow applicable federal and state regulations.**

**Requirement: Select method of long-term stabilization taking into consideration future land use.**

- 12-1 For traffic area applications use Table 1: Traffic Area Application Requirements, Appropriate Use of Liquid Dust Palliatives and Application Rates, from the Interim Policy on Dust Palliatives Use In Clark County, Nevada.
- 12-2 For non-traffic area applications use Table 2: Non-Traffic Area Application Requirements, Appropriate Use of Liquid Dust Palliatives and Application Rates, from the Interim Policy on Dust Palliatives Use In Clark County, Nevada.

CONTROL MEASURES SELECTION PAGES

Removal of Historic Manganese Tailings

**IMPORTING/EXPORTING SOIL, ROCK AND OTHER BULK MATERIAL**

**BMP 13**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: Limit visible dust opacity from vehicular operations.**

- 13-1 Apply water and limit vehicle speeds to 15 mph on the work site.
- 13-2 Apply and maintain dust suppressant on haul routes.

**Requirement: Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage.**

**Requirement: Maintain 3-6 inches of freeboard to minimize spillage.**

**Requirement: Stabilize materials during transport on site.**

- 13-3 Use tarps or other suitable enclosures on haul trucks.
- 13-4 Stabilize materials with water.

**Requirement: Clean wheels and undercarriage of haul trucks prior to leaving construction site.**

Recommendations: Verify State and local laws, concerning the hauling of bulk materials on public roadways.

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See also: BMP 20: TRACKOUT PREVENTION AND CLEANUP.  
BMP 23: TRUCK LOADING.

CONTROL MEASURES SELECTION PAGES

Removal of Historic Manganese Tailings

**STAGING AREAS**

**BMP 18**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: Limit visible dust opacity from vehicular operations.**

- 18-1 Limit vehicle speeds to 15 mph in the staging area and on all unpaved access routes.
- 18-2 Apply and maintain dust suppressant on all vehicle traffic areas in the staging areas and unpaved access routes.

**Requirement: Stabilize staging area soils during use.**

- 18-3 Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
- 18-4 Apply and maintain a dust palliative to surface soils where support equipment and vehicles will be operated.

**Requirement: Stabilize staging area soils at project completion.**

- 18-5 Apply a dust palliative.
- 18-6 Apply screened or washed Type II aggregate.
- 18-7 Use wind breaks in accordance with a site-specific plan approved by the Control Officer and Region IX Administrator of the EPA.
- 18-8 Pave with thin paving.
- 18-9 Completed project will cover staging area with buildings, paving, and/or landscaping.
- 18-10 Apply water to form adequate crust and prevent access.

Recommendations: Limit size of staging areas.

Limit ingress and egress points.

See also: BMP 20: TRACKOUT PREVENTION AND CLEANUP

CONTROL MEASURES SELECTION PAGES

Removal of Historic Manganese Tailings

**TRACKOUT PREVENTION AND CLEANUP**

**BMP 20**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: In soils that have a PEP classification of "High", pave construction activities roadways as early as possible.**

**Requirement: Use of soil to create a ramp for vehicle access over a curb is prohibited.**

**Requirement: Trackout conditions, including preventive and corrective measures, must be recorded daily for every day that the construction project access is used by vehicles.**

- 20-1 Record soil conditions and dust control actions in daily project records.

**Requirement: Prevent dust from trackout.**

- 20-2 Immediately clean trackout from paved surfaces to maintain dust control. Trackout must not extend 50 feet or more.
- 20-3 Maintain dust control during working hours and clean trackout from paved surfaces at the end of the work shift/day. Trackout must not extend 50 feet or more and must be cleaned daily, at minimum.

**Requirement: Install and maintain trackout control devices in effective condition at all access points where paved and unpaved access or travel routes intersect.**

- 20-4 Install gravel pad(s) consisting of 1" to 3" rough diameter, clean, well-graded gravel or crushed rock. Minimum dimensions must be 30 feet wide by 3 inches deep, and, at minimum, 50' or the length of the longest haul truck, whichever is greater. Re-screen, wash or apply additional rock in gravel pad to maintain effectiveness.
- 20-5 Install wheel shakers. Clean wheel shakers on a regular basis to maintain effectiveness.
- 20-6 Install wheel washers. Maintain wheel washers on a regular basis to maintain effectiveness.
- 20-7 Install wheel shakers in the event that trackout cannot be controlled with gravel pads.
- 20-8 Install wheel washer in the event that trackout cannot be controlled with gravel pads and wheel shakers.
- 20-9 Motorized vehicles will only operate on paved surfaces.

(Continued on next page)

**CONTROL MEASURES SELECTION PAGES**

**Requirement: All exiting traffic must be routed over selected trackout control device(s).**

- 20-10 Clearly establish and enforce traffic patterns to route traffic over selected trackout control device(s).
- 20-11 Limit site accessibility to routes with trackout control devices in place by installing effective barriers on unprotected routes.

CONTROL MEASURES SELECTION PAGES

Removal of Historic Manganese Tailings

**TRAFFIC – Unpaved Routes and Parking Areas**

**BMP 21**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: Limit visible dust opacity from vehicular operations.**

- 21-1 Limit vehicle speeds to 15 mph on all unpaved routes and parking areas.
- 21-2 Apply and maintain dust palliative on all vehicle travel areas.

**Requirement: Stabilize all haul routes.**

- 21-3 Apply water to haul routes and maintain in a stabilized condition.
- 21-4 Apply a dust palliative to haul routes and maintain in a stabilized condition.
- 21-5 Apply gravel to haul routes and maintain in a stabilized condition.
- 21-6 Supplement dust palliative or aggregate applications with watering, if necessary.

**Requirement: Stabilize all off-road and parking areas.**

- 21-7 Apply water to off-road traffic and parking areas and maintain in a stabilized condition.
- 21-8 Apply gravel to off-road traffic and parking areas and maintain in a stabilized condition.
- 21-9 Apply recycled asphalt (or other suitable material) to off-road traffic and parking areas and maintain in a stabilized condition.
- 21-10 Apply and maintain a dust palliative (designed for vehicle traffic) to off-road traffic and parking areas and maintain in a stabilized condition.

Recommendations: Use of bumps or dips for speed control is encouraged.

Apply paving as soon as possible to all future roadway areas for PEP categories other than "High".

CONTROL MEASURES SELECTION PAGES

Removal of Historic Manganese Tailings

**TRUCK LOADING**

**BMP 23**

**YOU MUST SELECT AT LEAST ONE CONTROL MEASURE FOR EACH REQUIREMENT.  
PLACE A CHECK IN THE BOX IN FRONT OF YOUR SELECTION.**

**Requirement: Ensure all loads are covered prior to leaving the construction site and traveling on public roadways.**

**Requirement: Stabilize surface soils where loaders, support equipment and vehicles will operate.**

- 23-1 Pre-water and maintain surface soils in a stabilized condition where loaders, support equipment and vehicles will operate.
- 23-2 Apply and maintain a dust palliative on surface soils where loaders, support equipment and vehicles will operate.

**Requirement: Stabilize material during loading.**

- 23-3 Empty loader bucket slowly and keep loader bucket close to the truck to minimize the drop height while dumping.

**Note: You must selected 23-3 if PEP is greater than LOW, in addition one of the following must be selected.**

- 23-4 **L & ML:** Mix material with water prior to loading.
- 23-5 **L & ML:** Spray material with water while loading.
- 23-6 **MH:** Mix material with a water and tackifier mixture prior to loading.
- 23-7 **MH:** Spray material with a water and tackifier mixture while loading.
- 23-8 **H:** Mix material with a water and surfactant mixture prior to loading.
- 23-9 **H:** Spray material with a water and surfactant mixture while loading.



Protecting the air we share

# Air Quality

**CONSTRUCTION ACTIVITIES DUST CONTROL PERMIT  
SUPPLEMENTAL PERMITS/APPROVALS CHECKLIST**

The following construction activities require permits or approval in addition to a Dust Control Permit. Permits or approvals must be obtained prior to conducting the activity. This form must be submitted with every Dust Mitigation Plan. *Check all activities that apply to the construction project.*

**Activities requiring a Various Locations Permit (VLP):**

*(Comply with VLP regulations prior to installation of this equipment on the project site.)*

Operation of a:

List Name of VLP Company and/or VLP#

- powered crusher at temporary locations. \_\_\_\_\_
- powered screen at temporary locations. \_\_\_\_\_
- concrete batch plant at temporary locations. \_\_\_\_\_
- asphalt batch plant at temporary locations. \_\_\_\_\_

**Activities requiring Supplemental Permit:**

*(Submit applicable supplemental forms. Asbestos survey is required for any size demo/remodel. NESHAP notification is required for ANY size demolition or for remodel if RACM is found.)*

- Blasting to fracture rock, hardpan, or caliche.
- Blasting to implode a structure.
- Demolition of a structure greater than 1,000 square feet.
  - Structural remodeling
  - Structure relocation

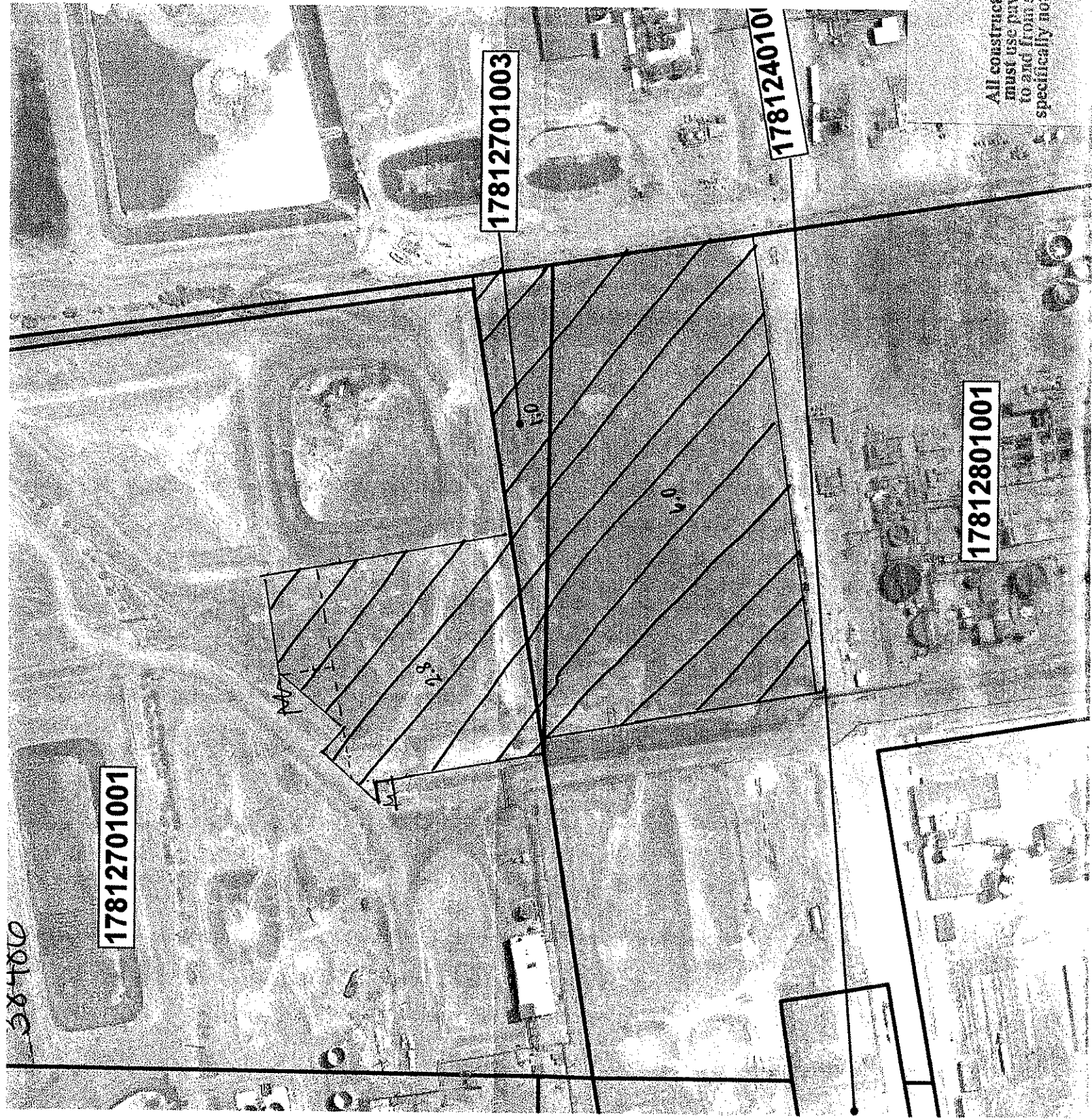
**Activities requiring Authority to Construct (ATC) Certificate and Operating Permit:**

*(An ATC must be obtained prior to installation of this equipment/facility.)*

- Construction of or installation of any Emission Unit
  - Gasoline Dispensing Facility
  - Cooling Tower
  - Dry Cleaning Equipment
  - Emergency Standby Generator or Other Internal Combustion Engine
  - Woodworking Process Equipment
  - Power Generation Facility or Equipment
  - Crushing or Screening Stationary Source
  - Concrete or Asphalt Plant Stationary Source
  - Commercial Surface Coating Equipment including Paint Spray Booth
  - Other Source of PM<sub>10</sub>, CO, VOC, NO<sub>x</sub>, SO<sub>2</sub>, Lead, Hazardous Air Pollutant, or Toxic Chemical Substance
  - Plating Shop
  - Incinerator
  - Boiler

Activities Listed Above Do Not Apply to this Construction Project:

22 62 12-  
178 12-7  
mod0 = 9.8



All construction traffic must use paved access to and from site unless specifically noted on map.

17812701001

17812701003

1781240101

17812801001

AGREE TO CHANGES \_\_\_\_\_ INITIAL \_\_\_\_\_  
DATE \_\_\_\_\_

ASSESSOR'S PARCELS - CLARK CO., NV.  
M. W. Schofield, Assessor

AVERAGE  
DA VALUE  
45

MAP LEGEND

———	PARCEL BOUNDARY	001	PARCEL NUMBER
———	SUBD BOUNDARY	1.00	ACREAGE
---	ROAD EASEMENT	202	PARCEL SUB/SEQ NUMBER
---	ROAD EASEMENT	PB 25-45	PLAT RECORDING NUMBER
———	PM/LD BOUNDARY	5	BLOCK NUMBER
---	NON-PARCEL LOT LINE	5	LOT NUMBER
---	MATCH LINE / LEADER LINE	5	LOT NUMBER
---	ROAD ID NUMBER	GL5	GOV. LOT NUMBER

Use only and does NOT represent a survey.  
The accuracy of the data delineated herein,  
other non-assessed parcels may be obtained  
listing in the Assessor's Office.

Official records, including surveys and deeds,  
information required for assessment. See the  
re detailed legal information.



178 12 7

38486

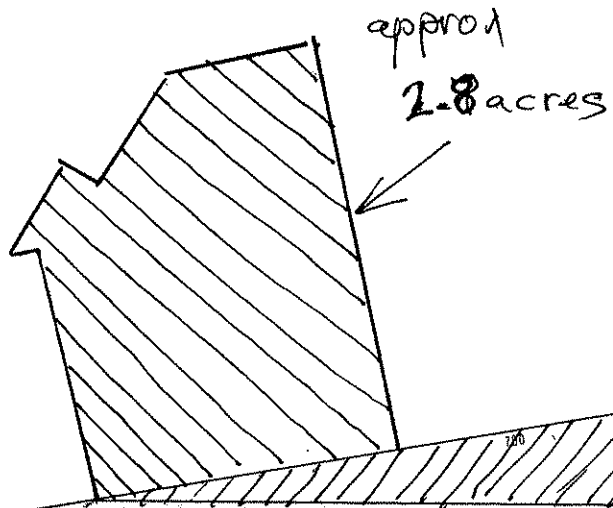
PT 178-12-

979  
985

All construction traffic  
must use paved access  
to and from site unless  
specifically noted on map.

001  
32.88

701



approx  
1.0 acres

003  
1.85

AGREE TO CHANGES \_\_\_\_\_ INITIAL \_\_\_\_\_  
DATE \_\_\_\_\_

ASSESSOR'S PARCELS - CLARK CO., NV.  
M. W. Schofield, Assessor

AVERAGE  
QA VALUE  
45

MAP LEGEND

- PARCEL BOUNDARY 001 PARCEL NUMBER
- SUBD BOUNDARY 1.00 ACREAGE
- - - - ROAD EASEMENT 202 PARCEL SUB/SEQ NUMBER
- PM/LD BOUNDARY PB 25-45 PLAT RECORDING NUMBER
- - - - NON-PARCEL LOT LINE 5 BLOCK NUMBER
- MATCH LINE 5 LOT NUMBER
- 001 ROAD ID NUMBER GL5 GOV. LOT NUMBER

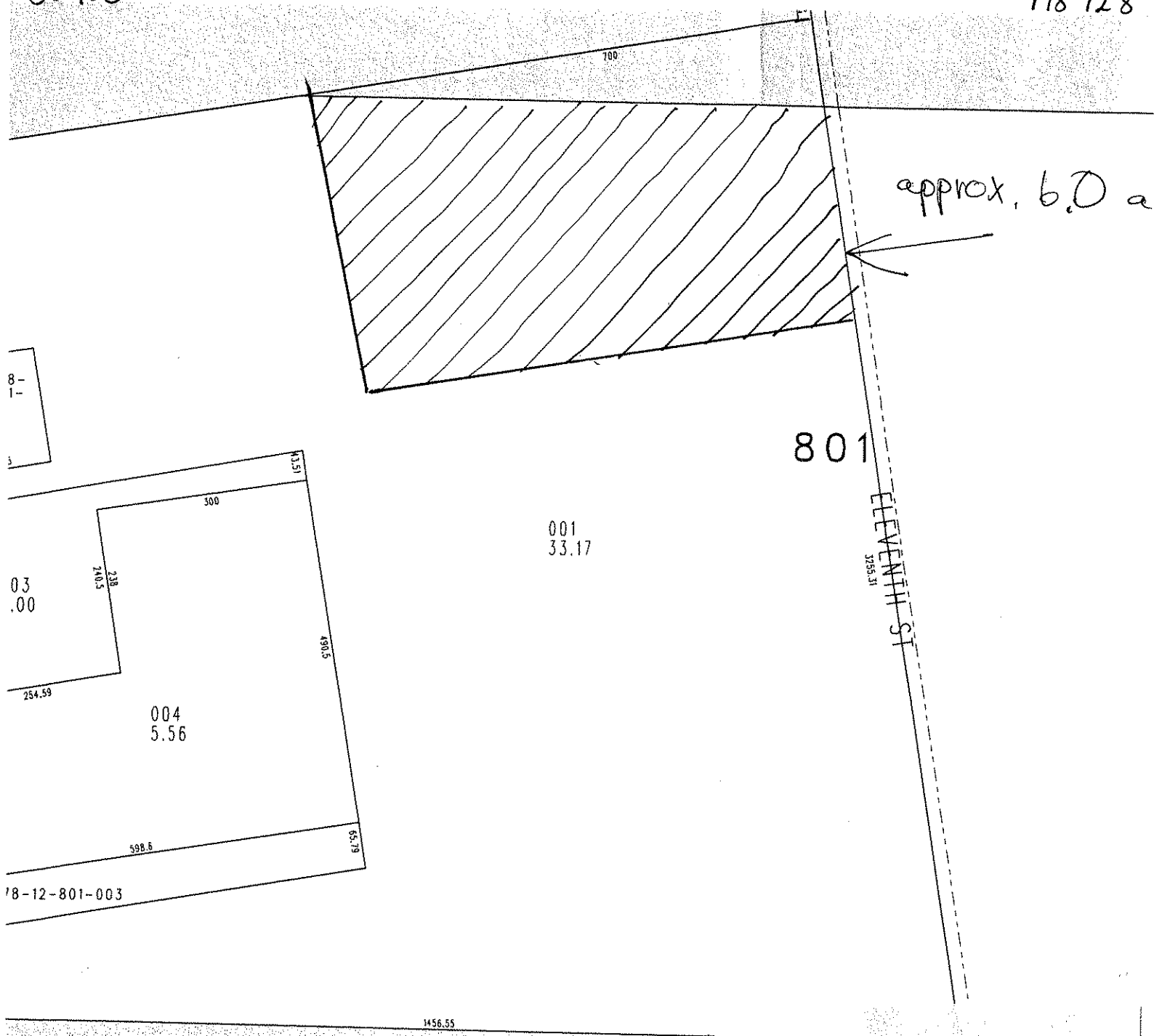
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for detailed legal information.

38480

178 128



AGREE TO CHANGES \_\_\_\_\_ INITIAL \_\_\_\_\_  
DATE \_\_\_\_\_

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specifically noted on map.