From Ruins to Reclamation

The Fairfax Mill Story

Florida/Alabama Brownfield Conference

April 23, 2022


1915 -2004
SOUTHEND
RECLAIMED


FAIRFAX KINDERGARTEN
Built in 1916, the kindergarten was one of five original public buildings in the Fairfax Mill Village. Each mill village had an efficient, attractive, and well kept kindergarten for children ages four to six. LaFayette Lanier, Sr. was the inspiration for the kindergarten system that was put into operation. In his newsletter of July 16, 1917, William Teagin, Alabama Superintendent of Education, commended West Point Manufacturing Company for its commitment to education. The kindergarten was in operation until 1983 and is now privately owned.


FAIRFAX


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Boulevard


FROM HISTORIC
FAIRFAX MILL
VALLEY, ALABAMA

https://www.youtube.com/watch?v=dp58z2FKUlM

https://www.youtube.com/watch?v=0D6v4MK1HlI


Fairfax Mill Village
August 23rd, 2015


Video

The City Takes Charge....

- Purchases site in 2018
- Conducts environmental assessments
- Asbestos and lead-based paint found in some of the materials

Photo 1: 8-2-2018	Pieces of wood with lead base paint

Photo 2:	Paint off of concrete containing lead based paint.

The City Takes Charge....

- Purchases site in 2018
- Conducts environmental assessments
- Asbestos and lead-based paint found in some of the materials
- Petroleum-impacted soil in former oil storage area
- Former cooling pond filled with debris
- Begins limited segregation of metal/wood

City Seeks EPA Brownfields Cleanup Grant

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- $500,000, plus 20% city cost share
- Remove demolition rubble
- Remove petroleum-impacted soils in former oil storage area
- Remove pond

CHALLENGES


How much rubble?


How do you
sample/characterize
this?

What do you do with the rubble-filled pond water?

How do you estimate costs for such a cleanup for the brownfield cleanup grant application?

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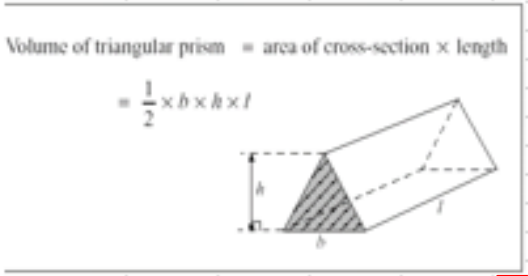
ABCA

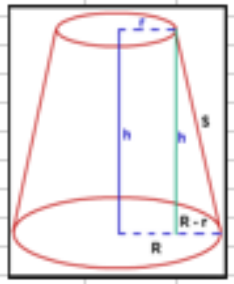

Police Drone Image
Fairfax Mill-Valley, AL

How Much Rubble?

r (ft)	3
h (ft)	6
Vol (cf	56.5
Vol (cy	2.1
Tons	2.9



b (ft)	8
h (ft)	4
l (ft)	30
Vol (cf	480.0
Vol (cy	17.8
Tons	24.9



Pi	3.1416
R (	10
r (	5
h (ft)	0
Vol (cf	366.2
Vol (cy	135.7
Tons	190.0

VOLUME (V)= L×H×(P+Q/2)
where,
L- Length

L (ft)	20
H (ft)	10
P (ft)	15
Q (ft)	10

17,000 tons

Piles from Drawing

Area ID	No Samples	CY (median)
A1	1	62
A2	3	439
A3	1	41
A4	1	48
A5	1	107
A6	1	4
A7	2	219
A8	1	10
A9	1	84
A10	1	37
A11	3	469
A12	1	10
A13	1	115
A14	1	44
A15	1	106
A16	1	37
A17	1	11

Big-Picture Cleanup Alternatives in ABCA

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- No action
- Permit site as Construction & Demolition Landfill
- Transport all materials to a lined Subtitle D landfill
- Use inert materials as on-site fill, transport remainder to landfill

Selected Alternative

- Characterize each demolition pile
- Use inert materials as on-site fill
- Transport wastes containing asbestos, lead, and non-inert wastes to Subtitle D landfill
- Excavate and dispose of small quantity of shallow petroleum-impacted soils
- Discharge former cooling pond water to storm water ditch

ADEM SOLID WASTE RULES FOR "INERT" FILL

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- No wood
- No metal
- No household trash
- Soil, concrete, asphalt ok

Community Meetings

Regulatory Approvals

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- EPA (SSQAPP)
- ADEM Solid Waste Division
- ADEM Industrial Water Permits
- ADEM Voluntary Cleanup Program

GRANT AWARDED AND CLEANUP BEGINS

Pond Cleanup


Storm Sewer Drop Inlet
16" Entrance Culvert,
0.8 miles to Osanippa
Creek
Storm Sewer Drop Inlet
41" Exit Culvert
0.6 miles to
Osanippa Creek
Osanippa Creek
11 miles through
wooded area to
Chattahoochee River


B25
A1
A3
A4
A6
A7
A9
A10
A12
A13
A5
A11
A16
A18
A20
FORMER UST, OIL, ST
AND MINERAL SPIRIT
FORMER ELECTRICAL
TRANSFORMER AREA

Valley Fairfax Demo Rubble Estimates

Input			Volume as Cone Costs	Volume as Cube Costs	
1.25	CY to Tons Conversion	unitless	$121,331	$363,946	Total Transport & Landfill-Sub D (includes On-site Transport and Burn)
9	Tranportation-Sub D	$ per ton	$128,903	$386,664	Total Transport & Landfill-C&D (includes On-site Transport and Burn)
26	Landfill-Sub D	$ per ton	3,959	11,873	CY Left on Site
9	Tranportation-C&D	$ per ton	$44,538	$133,568	Total On-site Transport
30	Landfill-C&D	$ per ton	$10,533	$31,598	Burn
9	Transporation-On-site	$ per ton		1,654	CY Available - Pond Before Removal
70	Concr/Brick/Asph/Soil	% worth separating		53,694	CY Available - Pond/Beyond
50	Wood	% worth separating		??	CY Available - Fire Station slope

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70	Concr/Brick/Asph/Soil	% worth separating		53,694	CY Available - Pond/Beyond
50	Wood	% worth separating		??	CY Available - Fire Station slope

A17	231	2	17	21	6	7	100	0	0	0	0	100	100	0	100% Off Site[a]	0	
A18	1,867	2	138	173	46	58	80	2	6	10	2	100	90	10	100% Off Site[a]	0	
A19	1,020	4	151	189	50	63	75	3	10	10	2	100	85	15	100% Off Site[a]	0	
A20	1,339	1.5	74	93	25	31	15	15	60	10	0	100	25	75	100% Off Site	0	
A21	603	10	223	279	74	93	0	0	0	100	0	100	100	0	On Site/Separate	223	
A22	915	10	339	423	113	141	70	1	1	28	0	100	98	2	100% Off Site[a]	0	

Table 1 | Table 2 | **Estimate Edits** | Volume Calcs

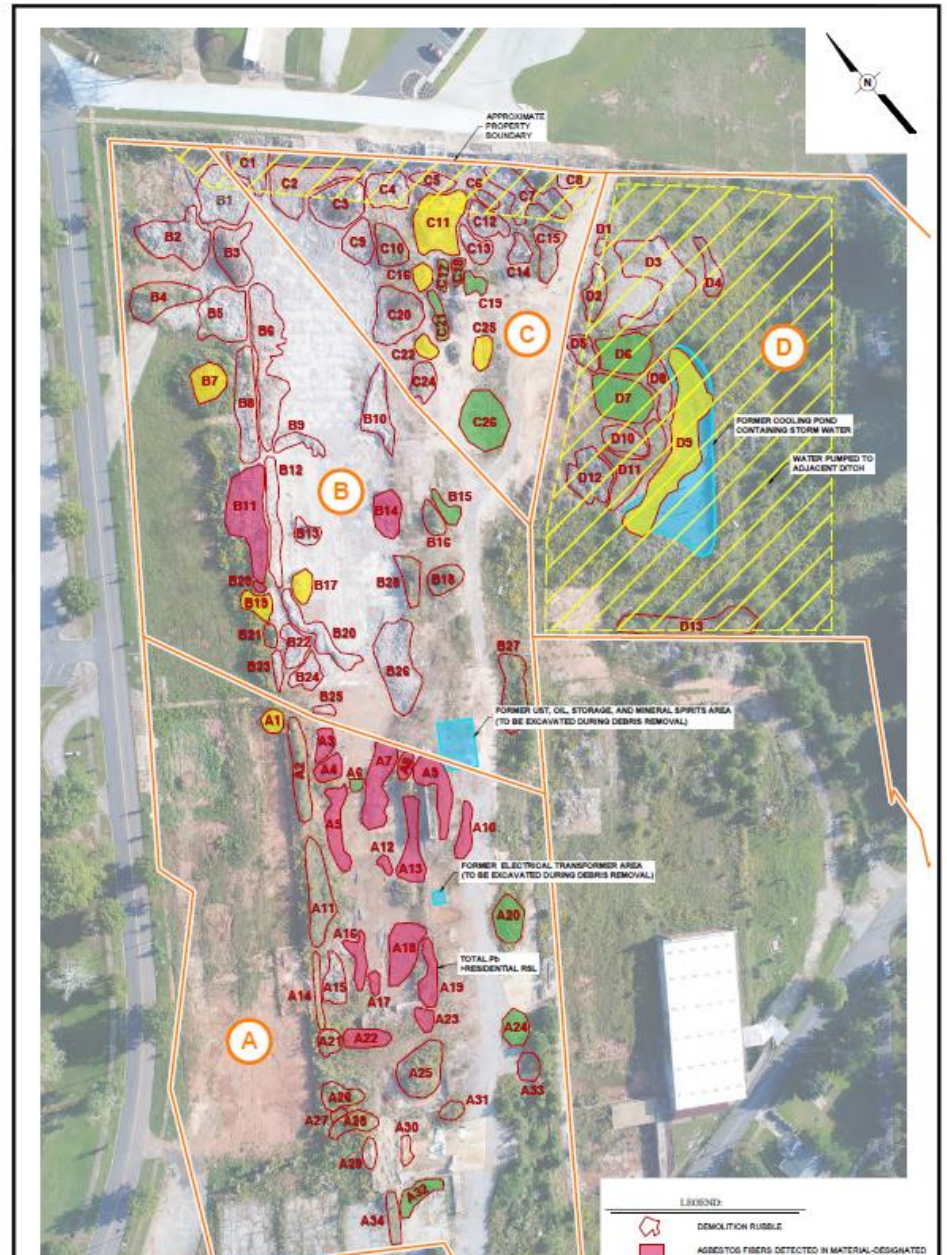
BID DOCUMENTS AND SPECIFICATIONS

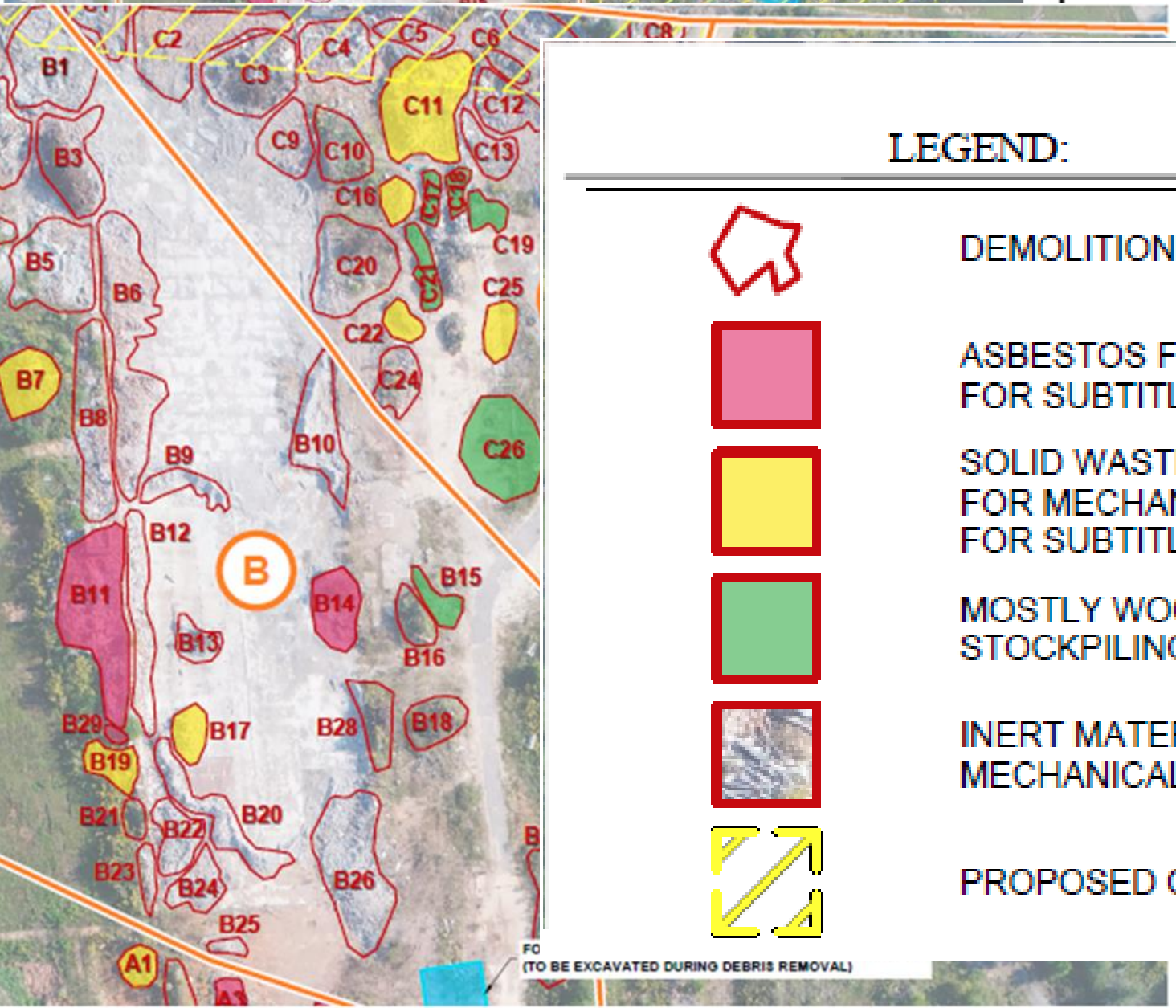
BROWNFIELD GRANT CLEANUP ACTIVITIES
CITY OF VALLEY, ALABAMA
FORMER FAIRFAX TEXTILE MILL
201 BOULEVARD STREET
VALLEY, ALABAMA

PPM PROJECT NO. 40096601.CA

JULY 28, 2020

PPM


APPROXIMATE PROPERTY BOUNDARY
FORMER COOLING POND CONTAINING STORM WATER
WATER PUMPED TO ADJACENT DITCH
FORMER UST, OIL STORAGE, AND MINERAL SPIRITS AREA (TO BE EXCAVATED DURING DEBRIS REMOVAL)
FORMER ELECTRICAL TRANSFORMER AREA (TO BE EXCAVATED DURING DEBRIS REMOVAL)
TOTAL Pb >RESIDENTIAL RSL
A
B
C
D
LEGEND
DEMOLITION RUBBLE



LEGEND:

DEMOLITION RUBBLE

ASBESTOS FIBERS DETECTED IN MATERIAL-DESIGNATED FOR SUBTITLE D LANDFILL

SOLID WASTE MATERIAL VOLUME/SIZE INAPPROPRIATE FOR MECHANICAL SEPARATION-ENTIRE PILE DESIGNATED FOR SUBTITLE D LANDFILL

MOSTLY WOOD-DESIGNATED FOR TEMPORARY STOCKPILING ON SITE

INERT MATERIAL TO BE USED FOR ONSITE FILL AFTER MECHANICAL SEPARATION OF LARGE SOLID WASTES

PROPOSED ON-SITE FILL AREA FOR INERT MATERIALS

BID FORM

FAIRFAX MILL BROWNFIELD CLEANUP-CITY OF VALLEY, AL

Contractor Name:					
Item	**Description**	**Quantity**	**Unit**	**Unit Cost**	**Total Cost**
A.	**Mobilization and Demobilization**	1	Job		$0.00
B.	**Excavation, Loading, Transport and Disposal or Placement of Demolition Debris and Subsurface Soil**				
	B.1. Excavation, loading, transport and spreading of inert demoliton material in on-site fill area.	8,000	CY		
	B.2. Excavation, loading, and Subtitle D landfill disposal of demoltion debris.	5,000	ton		
	B3. Excavation and placement of soils from UST and transfomer area and placement on plastic sheeting.	450	CY		
C.	**Site and Surface Restoration**				
	C.1. Import and spreading of 4-inch thickness of topsoil over 7 acre area	3,500	CY		


KOMATSU


KOMATSU

DJI_0129 video shortcut.url

Project Cost:

- Total project cost: $621k
- EPA Funding: $500k
- City contribution: $121k

  (primarily for in-kind services)

Take Aways:

- Community support
- Agency buy-in
- Don’t be intimidated by how a site looks
- Careful and creative planning
- Solid plans, specifications and basement of payment
- Experienced subcontractors

From Ruins to Reclamation...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Fairfax Mill Site History

- Textile Mill: 1915-2004
- Major Employer
- “Fairfax Mill Village”
- Salvage company buys site in 2015 to salvage marketable materials
- Most Asbestos removed prior to demo
- Fire/demolition
- Estimated 17,000 tons of rubble present