



Columbia Smelting & Refining Works Site Status and Cleanup Plans

August 4, 2016 Public Information Session

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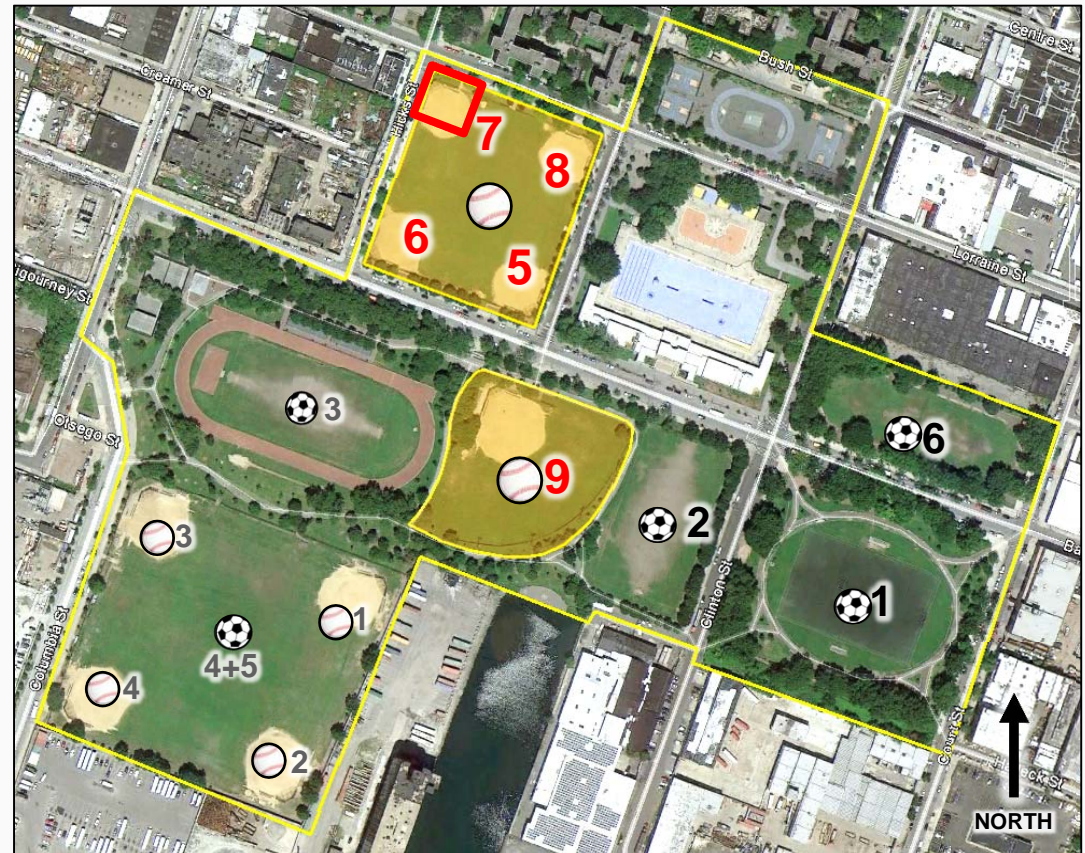
KEY POINTS

- NYC Parks conducting a **cleanup (removal action)** of Red Hook Park **Ball Fields 5-8 and Ball Field 9** under formal EPA oversight with a Consent Order
- Timeframe for cleanup of these fields set in the Consent Order; will take several years due to complexity of project, and to meet stringent standards and protect public health
 - **Ball Fields 5-8 (Phase 1):** Fall 2018 completion, *construction starts summer 2017*
 - **Ball Field 9 (Phase 2):** Spring 2020 completion (w/ Soccer Field 2)
- *Design work* for **Ball Fields 5-8** cleanup is well underway, ahead of schedule
 - Significant engineering project
 - Takes community concerns into account
- Updates on Ball Fields 5-8 and 9 will be provided by EPA and NYC Parks as needed and requested, at milestones and when construction schedule is set
- Work on all other fields in Red Hook Park will be done by NYC Parks separately to same standards; not included in EPA Consent Order (unrelated to Columbia smelter)



OVERVIEW

- Site history/background, EPA investigation
- Ball Fields 5-9 cleanup process & Consent Order with NYC Parks
- Cleanup Scope (BF 5-9)
- Cleanup Timeframe (BF 5-9)
- Presentation & update from NYC Parks (all fields)
- Q&A

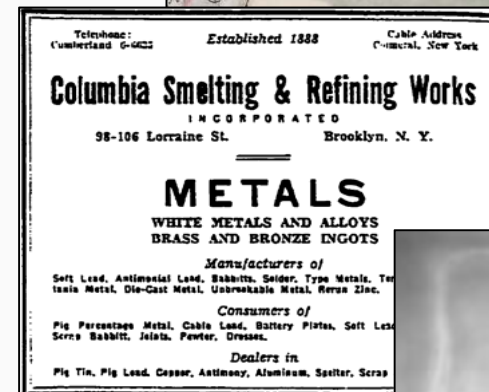
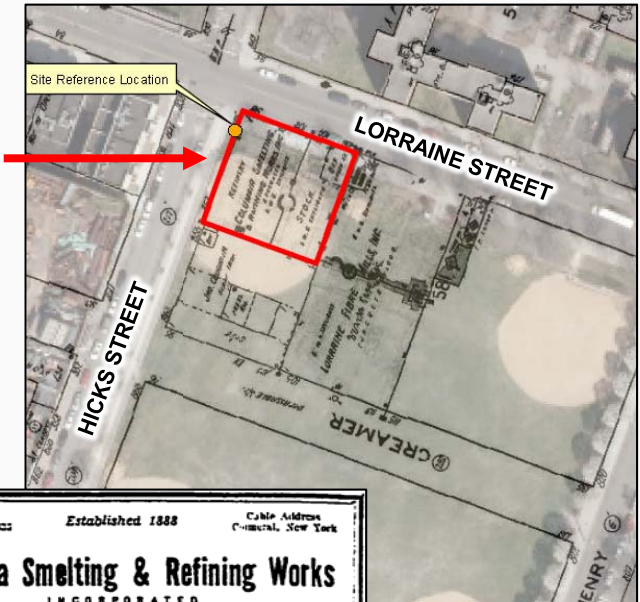




1938

SITE HISTORY/BACKGROUND

- Late 1920s-late 1930s: Columbia secondary smelter
 - Smelting = refining of scrap or used lead materials (batteries, pipes, cables) into metallic lead of a higher purity and metal alloys (specialized mixtures)
- Lead dust, fumes and waste released into air & soil
- Lead stays in soil; exposure occurs from:
 - Touching lead-contaminated soil, then accidentally ingesting it
 - Kids putting dirty hands & objects in their mouths
- Children - especially under age 6 - are most sensitive to the health effects, which include neurological symptoms; NYC Health can answer questions
- New York State DEC referred this site to EPA in 2014 with almost 40 others



1931



Typical secondary smelter. (Source: USA Today)





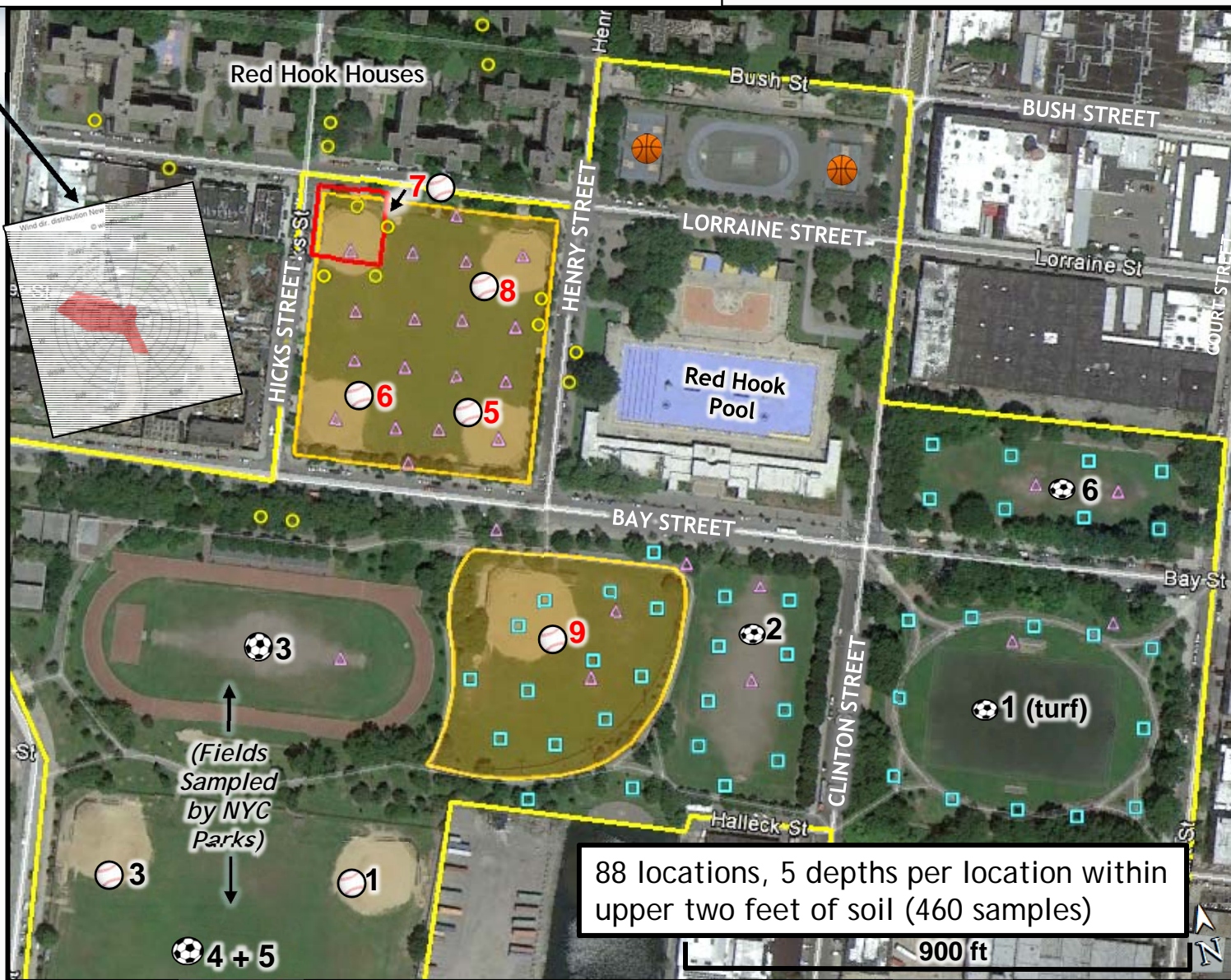
EPA 2014-2015 SOIL INVESTIGATION

Wind Rose, showing where the predominant wind flow originates



LEGEND

- Approximate Footprint of Former Smelter
- Red Hook Park Border
- October 2014 Sample Location
- March 2015 Sample Location
- April 2015 Sample Location
- Areas to be cleaned up under EPA oversight



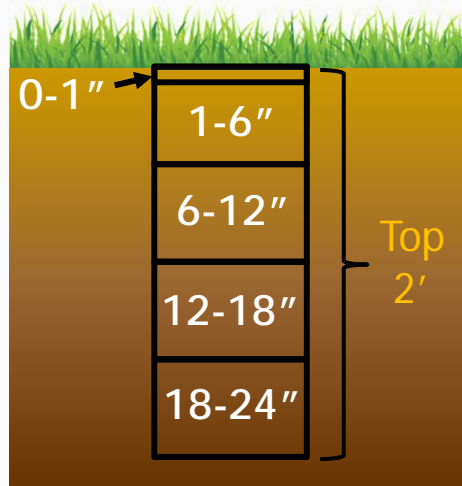
88 locations, 5 depths per location within upper two feet of soil (460 samples)



EPA SOIL SAMPLING PROCESS



5 depth intervals
per location:



Samples sent to
lab for metals
analysis
(TAL metals + tin)

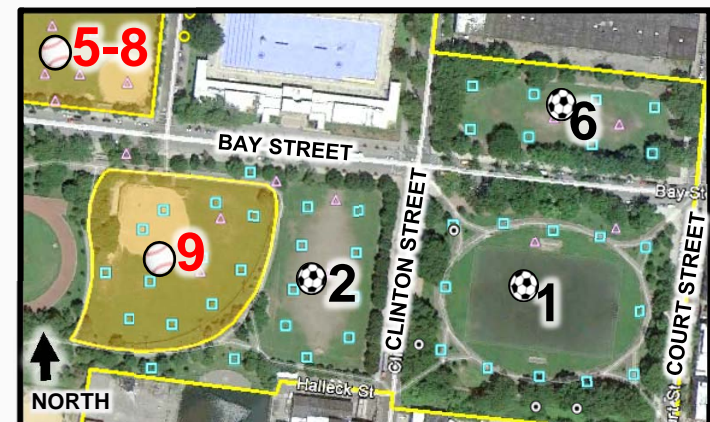


EPA SOIL SAMPLING RESULTS

- Highest lead levels at Ball Fields 5-8; fields will remain closed until cleanup completed
 - Closed since fall 2014 season ended (signage & fencing added by May 2015)
- **Ball Fields 5-8 and 9** contain elevated contaminants related to smelter
 - Based on ratios of certain metals (antimony, tin, zinc, iron, copper) characteristic of smelter emissions
 - **EPA determined that an EPA removal action (cleanup) is necessary for Ball Fields 5-9; NYC Parks (property owner) agreed to do this work under EPA oversight**
- Contaminant levels in other areas not an immediate concern, but long-term cleanup recommended; NYC Parks sampled remaining areas of park and plans cleanup

Average Lead Levels per Area (parts per million)

DEPTH		BALL FIELDS 5-8	BALL FIELD 9	SOCCER FIELD 2	SOCCER FIELD 1	SOCCER FIELD 6
SURFACE ↓ 2' DEEP	0-1"	1,580	140	285	474	254
	1-6"	2,240	179	508	587	367
	6-12"	2,590	698	618	496	535
	12-18"	2,847	1,209	875	389	387
	18-24"	3,795	1,222	1,431	781	467
smelter-related			not smelter-related			



400 ppm = EPA & NYSDEC standard; 1,200 ppm = immediate action



EPA CLEANUP PROCESS – CONSENT ORDER

- NYC Parks (property owner) will conduct removal action at **Ball Fields 5-9** under EPA oversight
 - “Removal Action” = short-term Superfund cleanup
- Oversight = bound to formal *consent order* between EPA & NYC Parks
 - **Administrative Settlement Agreement and Order on Consent for a Removal Action**
 - Known as: Consent Order, Order, Order on Consent, AOC, Settlement Agreement
 - Legal document, 44 pages
 - Available to the public
 - Negotiated between August 2015 & June 2016 by legal teams and technical staff
 - Reviewed up through, and signed by, NYC Parks Deputy Commissioner Liam Kavanagh and EPA Division Director Walter Mugdan
 - Finalized/signed July 7, 2016 (“Effective Date”), but **NYC Parks began work in fall 2015**
- Sets scope of action & requires series of plans, to be submitted by NYC Parks contractors for EPA approval, to achieve cleanup to EPA standards
- Includes required timeframes and penalties



CONSENT ORDER SCOPE - REQUIREMENTS

- In short, NYC Parks must:

- A. Continue to **prohibit access to Ball Fields 5-8** and the surrounding land until removal action is complete
- B. Provide & maintain **signage** to communicate closure of Ball Fields 5-8
- C. Maintain adequate **vegetation** on Ball Fields 5-9 until removal action is complete

- D. **Provide a 12-inch cover of clean soil, fill or other material approved by EPA to eliminate exposure to existing contaminants in the soil**
- E. **Restore site to park usage following completion of response action above**

- F. **Participate with EPA in communications with the general public, park users, elected officials and community groups regarding the planning, implementation and completion of the removal action**

- G. Establish **long-term controls** for the site to prevent exposure to any site-related contaminants left in place

Interim controls

Removal work

Public communication

Long-term maintenance



HOW TO ACHIEVE SCOPE?

- Significant engineering & construction effort: 7.6 acres, \$28.5M
- NYC Parks-proposed phased approach incorporated into Order →
- Plans for each phase (split into Ball Fields 5-8 and Ball Field 9):



Work Plan

- **Project Management Plan**
 - Management structure; who's who
- **Interim Design Plan**
 - Interim controls/inspection & maintenance schedules
 - Conceptual presentation of design plan for pre-approval by EPA
 - Schedule for *all* work (design + construction)
- **Design & Implementation Plan**
 - Provides for: specifications, design, construction quality assurance, construction schedule, equipment & materials staging plan, detailed engineering drawings, schedule for permitting requirements, decontamination, site security, traffic control, environmental/community monitoring, waste transport and disposal
- **Construction Plan**
 - Logistics of final design as approved by multiple NYC departments
- **Health & Safety Plans**
- **Quality Assurance Plans**
- **Post-Removal Site Control Plan**
- **Monthly Progress Reports, Construction Completion Report, Final Report**

All plans enforceable under Order once approved by EPA



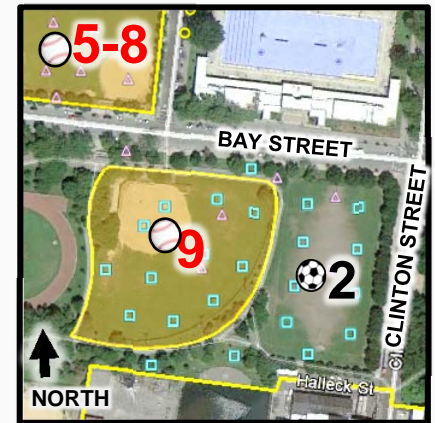
TIMELINE - OVERALL

PHASING OF CLEANUP TO MINIMIZE DISRUPTION

- Ball Fields 5-8: Fall 2018 completion
- Ball Field 9: Spring 2020 completion, along with Soccer Field 2
(Work on Ball Field 9 to begin once Ball Fields 5-8 reopen)

HELD TO TIME FRAME

- Penalties if NYC Parks does not submit plans by deadlines (non-compliance) - ranging from \$1,500-6,000 per day
- NYC Parks must resubmit any plans to EPA with corrections within 14 days of receipt of EPA's comments; EPA prioritizing plan review to keep project moving



LONG-TERM REQUIREMENTS

- Post-Removal Site Control to be overseen by NYSDEC = Engineering and Institutional Controls
 - Defines allowable usage of site for the future
 - Sets schedule for site inspections, monitoring, annual periodic certification of remedy
 - Sets rules on conduct of future activities that could disturb remaining contaminated material (i.e. utility work)
- Documented in Site Management Plan & Environmental Easement (Declaration of Covenants & Restrictions) under NYSDEC oversight, to be filed with NYC clerk/register



TIMELINE - *WHY SO LONG????????!!!!!!!!!!!!!!!!!!!!* 😞

- **Design/Engineering (Ongoing) - to be completed by fall 2016**
 - **Procurement:** NYC Parks solicited requests for proposals, submitted work order to NYC Office of Management and Budget for approval; contractor approved by EPA (completed)
 - **Geotechnical Investigation:** Contractor completed geotechnical investigation - infiltration testing, soil & groundwater sampling to inform stormwater management/green infrastructure
 - **Design Completion:** Detailed engineering drawings for every facet of site and cleanup, including site layout, stormwater management, equipment & materials staging
 - **Other Plans:** Considerations for site security, traffic control, environmental/community monitoring, transport and disposal
 - **Approvals:** All plans require approval by NYC Parks internal design team and Commissioner, Community Board, Public Design Commission, EPA (nearly complete)
 - **Permits:** Must be obtained from NYC DEP, DOB, etc.
- **Construction Contractor Procurement (9 months)**
 - Contract: write and transmit for review by NYC Parks, NYC Law and other NYC agencies
 - Contract out for bid
 - Award contract; submit for registration with NYC Comptroller
- **On-site Construction (12-18 months) - Summer 2017 through October 2018**
 - Removal of all park features, grading, installation of all new features (curbs, fencing, benches, portions of sidewalk, fountains, lighting, utilities, turf, trees, ramps/stairs, bioswale, etc.)





NYC Parks operating ahead of required schedule

STEP-BY-STEP: BALL FIELDS 5-8

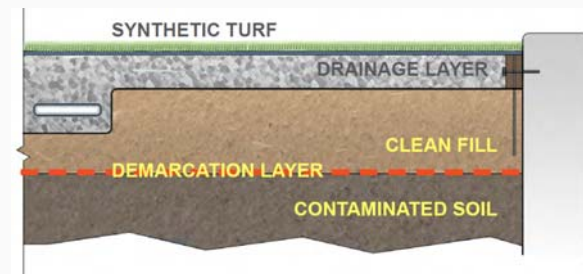
NYC PARKS ACTION - BALL FIELDS 5-8	Requirement in Consent Order	Date Due to EPA (based on 7/7/16 Effective Date)	DRAFT Parks Planned Submittal Date	EPA Approval Date	Done?
Release RFP to Environmental Design Consultants					
Parks reviews proposals and selects Consultant; work order submitted to Office of Management & Budget (OMB) for approval			October-15 to December-15		X
Work order approved by OMB; Consultant begins work					
Pre-construction/Design Phase Health & Safety Plan	60 days Effective Date	September-16	March-16	March-16	X
Project Management Plan	60 days Effective Date	September-16	June-16	July-16	X
Interim Design Plan (IDP)	90 days Effective Date	October-16	July-16	Pending	
Submit schematic design to Parks for <i>in-house design</i> review			April-16	Nearly complete ↑	X
Approval of schematic design by Parks Commissioner and Community Board			April-16		X
Submit schematic design to Public Design Commission (PDC) for preliminary approval			July-16		X
Preliminary approval of schematic design by PDC			July-16		X
Consultant submits 50% drawings for review by Parks and EPA			July-16		X
Submit permit applications/drawings to DEP/DOB/etc. for approval			August-16		
Submit 90% contract drawings to PDC for final approval			September-16		
Design and Implementation Plan (DIP)	240 days of IDP approval	July-17	November-16		
Post-Removal Site Control Plan for entire Site	On IDP Schedule	July-17	October-18		
Transmit Contract for Parks Legal/City review			November-16		
Contract approved by Parks Legal/City; out to bid			April-17		
Contract awarded to Contractor; submit contract for registration with Comptroller			May-17		
Contract registered with Comptroller			July-17		
Construction commences, including mobilization of equipment and personnel			July-17		
Project Management Plan for Construction	w/in 7 days of contractor retention		TBD		
Construction Plan	300 days DIP approval	May-18	TBD		
Construction Phase Health & Safety Plan	270 days DIP approval	April-18	TBD		
Construction Completion	On IDP Schedule	August-19	TBD		
Construction Completion Report	On IDP Schedule		TBD		
Final Report	w/in 60 days completion	October-19	TBD		



CLEANUP APPROACH

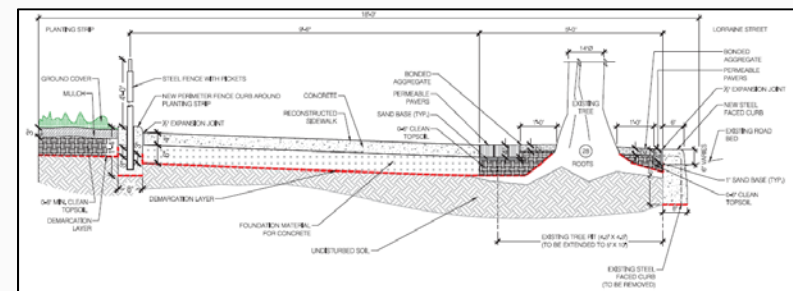
- EPA & NYSDEC require a 12" barrier to contaminated soil left in place:

d. For Ball Fields 5-8, the Ball Fields 5-8 Planting Strips, Ball Field 9 and the Ball Field 9 Planting Strips, place a permeable demarcation layer over the contaminated soil and provide at least a 12-inch cover of clean soil, fill or other material approved by EPA that meets the requirements of 6 NYCRR 375-6.7(d) and the substantive requirements of NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10) 5.4(e). Where it is anticipated that such cover in the Planting Strips will damage the existing trees or adversely affect survival of trees, an alternate methodology to eliminate exposure to soil contaminants within the upper 12 inches of soil may be proposed by Respondent for approval by EPA within the Interim Design Plans discussed in Paragraphs 26.d and 26.e;



- EPA approved NYC Parks proposal for capping of site, with limited excavation
- Plan for preservation of trees & treatment of new trees approved by EPA and NYSDEC
- NYC Parks held public meetings to discuss plans in November 2015, March 2016, May 2016
 - Community concerns incorporated into project design (synthetic turf field, raised elevation, stormwater/inclusion of bioswale, additional bike racks, storage shed, ADA compliance, additional perimeter lighting for security)

- NYC Parks to present detailed plans for Ball Fields 5-8 (+ updates for other fields in Red Hook Park)





COMMUNITY INVOLVEMENT

EPA COMMUNITY INVOLVEMENT PLAN

- Public document for the community that discusses:
 - Site history and background
 - Community issues and concerns
 - Community involvement action plan - methods for communicating with EPA
- Incorporates community concerns captured during EPA's interviews with community members & comments
- Comments/questions on Community Involvement Plan welcome - **by 9/6/16**
 - **Natalie Loney**, EPA Community Involvement Coordinator: Loney.Natalie@epa.gov, 212-637-3639



COMMUNITY UPDATES

- Public meetings, periodic fact sheets, Mailing List (← email Natalie to be included on list)
- EPA website: <https://www3.epa.gov/region02/superfund/removal/columbia/>
- NYC Parks websites:
 - Red Hook Recreation Area Remediation - overall: <https://www.nycgovparks.org/about/whats-happening/red-hook-park-remediation>
 - Ball Fields 5-8 Capital Projects Tracker: <https://www.nycgovparks.org/planning-and-building/capital-project-tracker/project/7192>
 - Ball Fields 9-2 Capital Projects Tracker will be posted when design work begins

INFORMATION REPOSITORY

- Red Hook Library, 7 Wolcott Street (at Dwight Street), Red Hook (phone: 718-935-0203)
- Will contain technical record supporting cleanup decision/remedy selection (Administrative Record) and other documents (i.e., Community Involvement Plan)



KEY POINTS

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QUESTIONS?