

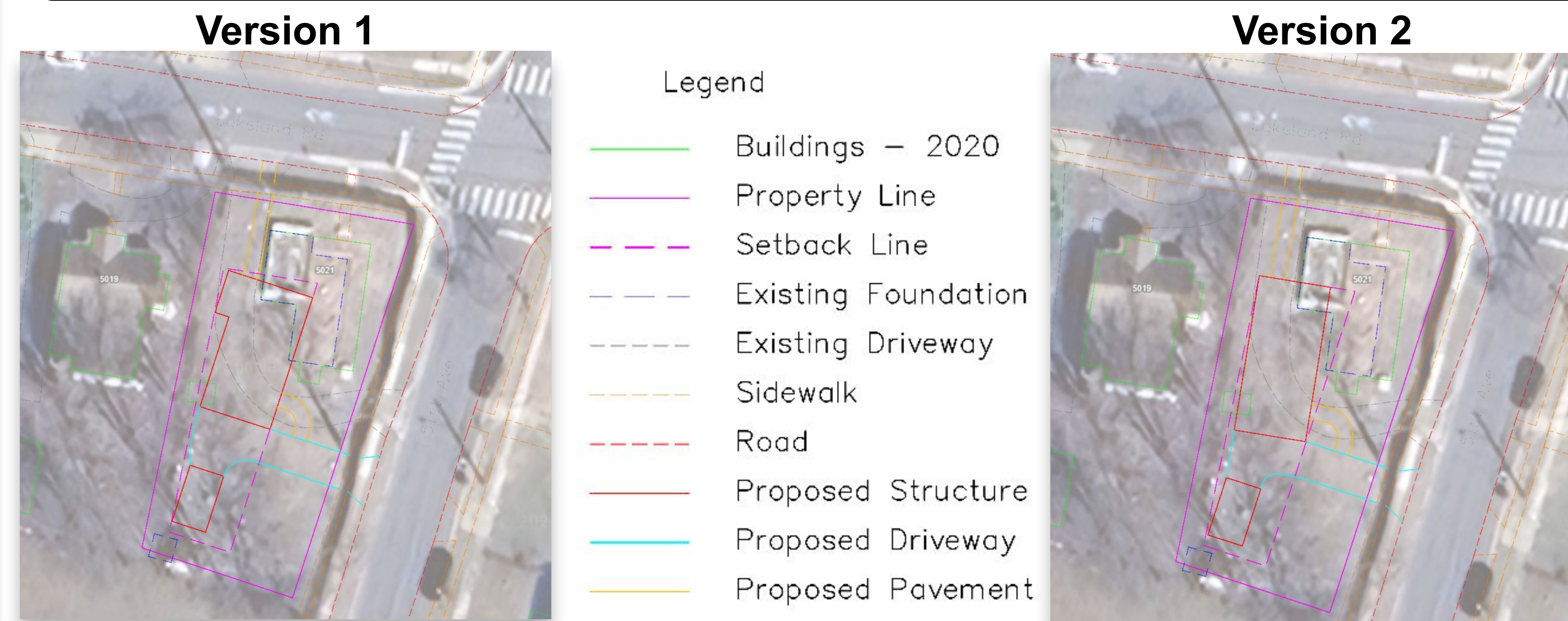
### Problem Definition

The client is looking to redevelop a vacant lot located in the historic Lakeland neighborhood of College Park into a permanently affordable, single family home. This project is part of a broader restorative justice initiative addressing past displacement of residents due to urban renewal policies.

### Background

- Lakeland was established in the early 1900s as a **self-sustaining Black community** near the University of Maryland
- **1970s Urban Renewal Plan** demolished ~70% of homes, displacing most residents
- Replacement housing prioritized **density over homeownership**, limiting return of families
- The project site became vacant in 2022 after **storm damage and demolition**

### Final Design



#### Constraints

- ✓ Propose location for a 1250 sq.ft. single family home
- ✓ Max 35% impervious land coverage
- ✓ Driveway that can fit familial cars
- ✓ Detached structure with potential for economic opportunity
- ✓ Following building codes, in particular the property setback lines

### Methods

1. Topographic map for drainage
2. Geotechnical plan for soil analysis
3. Community engagement plan for feedback on designs
4. Expert feedback
5. Utility Mapping

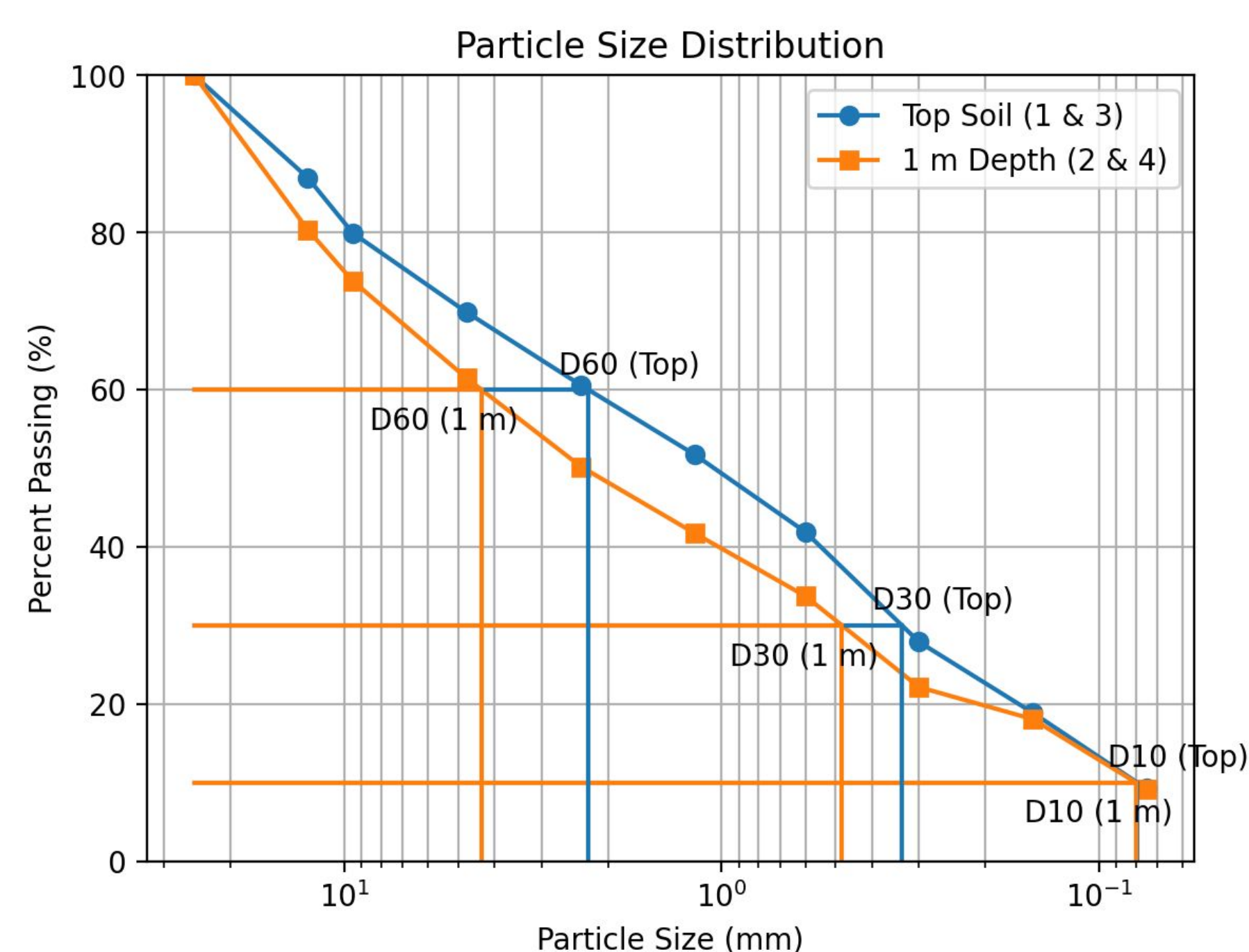
### Conclusion

In the end, we developed 2 alternative final site layout designs. The first of which having the front entrance facing Lakeland Road and the other facing 51st Avenue. Additionally, our geotechnical analysis returned SP-SM for the top layer and SP-SC 1 meter deep. The next step of this project involves hiring architects and fully developing the site. We are hopeful to see what the future will bring for this initiative.

#### USCS soil classification

Top Soil: Poorly graded sand with silt SP-SM

1 meter: Poorly graded sand with clay SP-SC



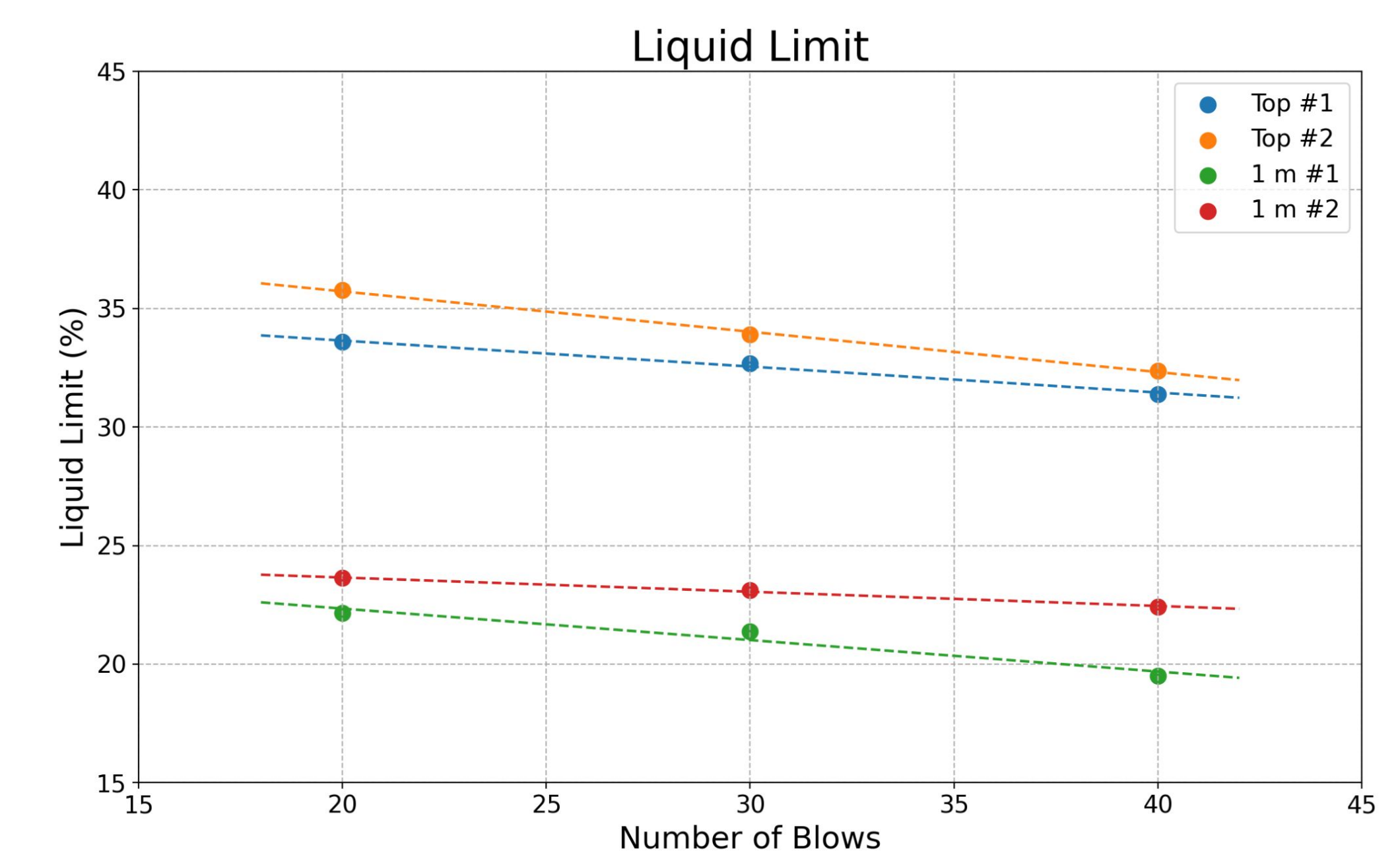
### Results

#### Geotechnical Testing: Sieve Analysis

Soil Level	Top soil		1 Meter Deep	
	Percent Retained (%)	Percent Passing(%)	Percent Retained (%)	Percent Passing(%)
1/2	13.0	86.9	19.6	80.3
3/8	20.0	79.9	26.1	73.8
No. 4	30.1	69.8	38.5	61.4
No. 8	39.4	60.5	49.8	50.1
No. 16	48.2	51.7	58.2	41.7
No. 30	58.1	41.8	66.2	33.7
No. 50	72.1	27.8	77.8	22.1
No. 100	81.1	18.8	81.9	18.0
No. 200	90.7	9.2	90.8	9.1
Base	100.0	0.0	100.0	0.0
Cu	28.6		54.2	
Cc	0.61		0.67	

#### Geotechnical Testing: Atterberg Limits

Soil layer	Top Soil	1 Meter deep
Plastic Limit (%)	25.31	15.41
Liquid Limit(%)	33.95	22.49
Plastic Index(%)	8.64	7.08



**“The voices of the community are actually being listened to this time.”**  
- Maxine Gross, LCHP Founding Chairperson, via The Diamondback