Murdock Street Safety Improvements Project

Presented by

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Presented to

City of Somerville

September 26, 2017

HOWARD STEIN HUDSON

Engineers + Planners

Agenda

- Welcome and Introductions
- Project Overview
- Existing Conditions and Design Constraints
- Concepts
- Next Steps
- Discussion

Project Area

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Project Schedule

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Initial Community Meeting February 2017

Conceptual Design April - September

Preliminary Design Select Preferred Alternative Fall 2017

Public Information Meeting January 2018

Final Design Winter/Spring 2018

Tonight's Meeting

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Project Goals

- Improve safety and clarity for all modes
- Improve drainage and reduce flooding
- Improve pedestrian accommodations and ADA accessibility
- Provide access for emergency response
- Reconstruct the road with consideration for future developments

Existing Conditions
Insufficient Sidewalks

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Existing Conditions
Deficient Pavement, Poor Drainage

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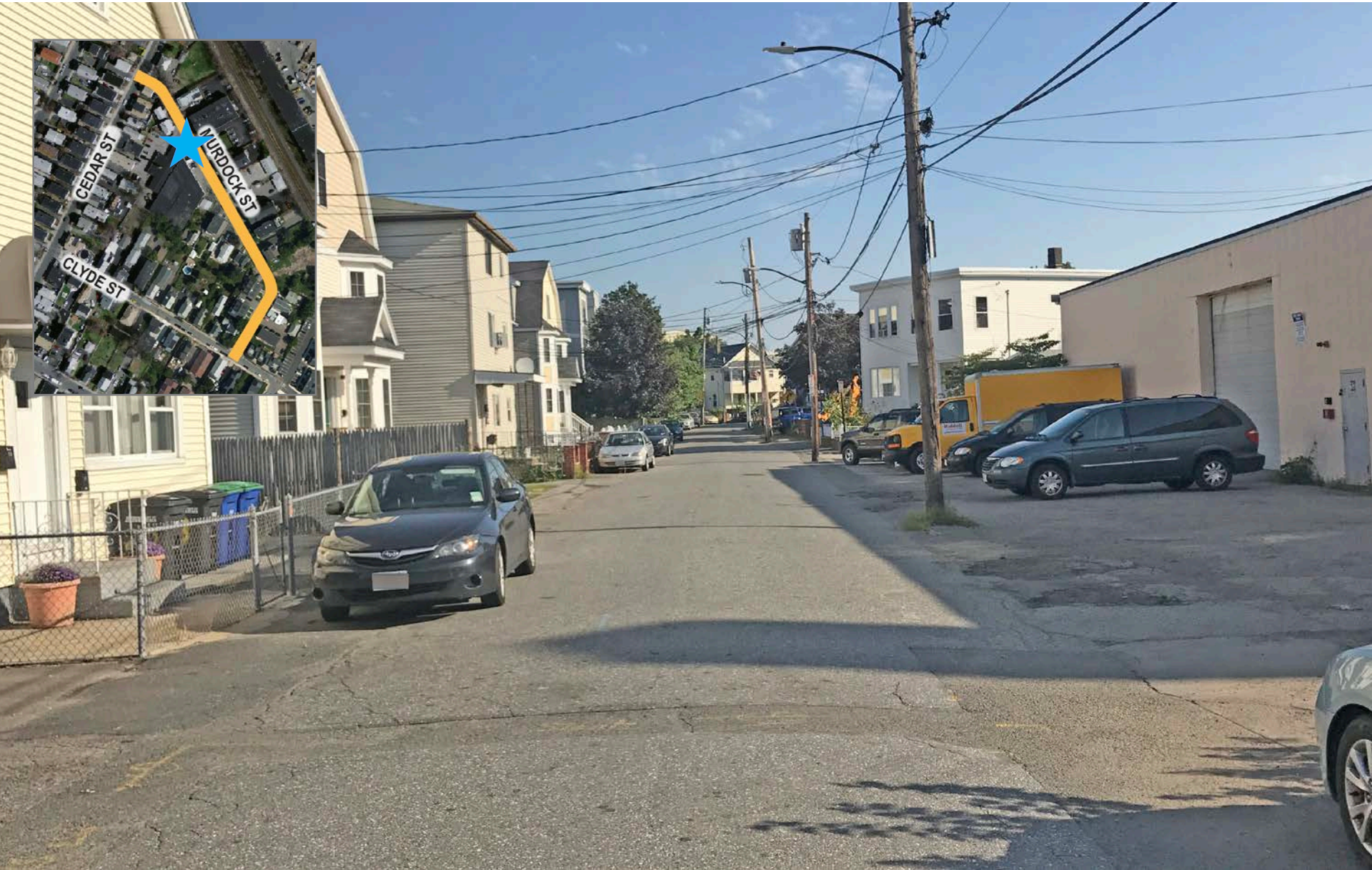

Existing Conditions
Undefined Parking

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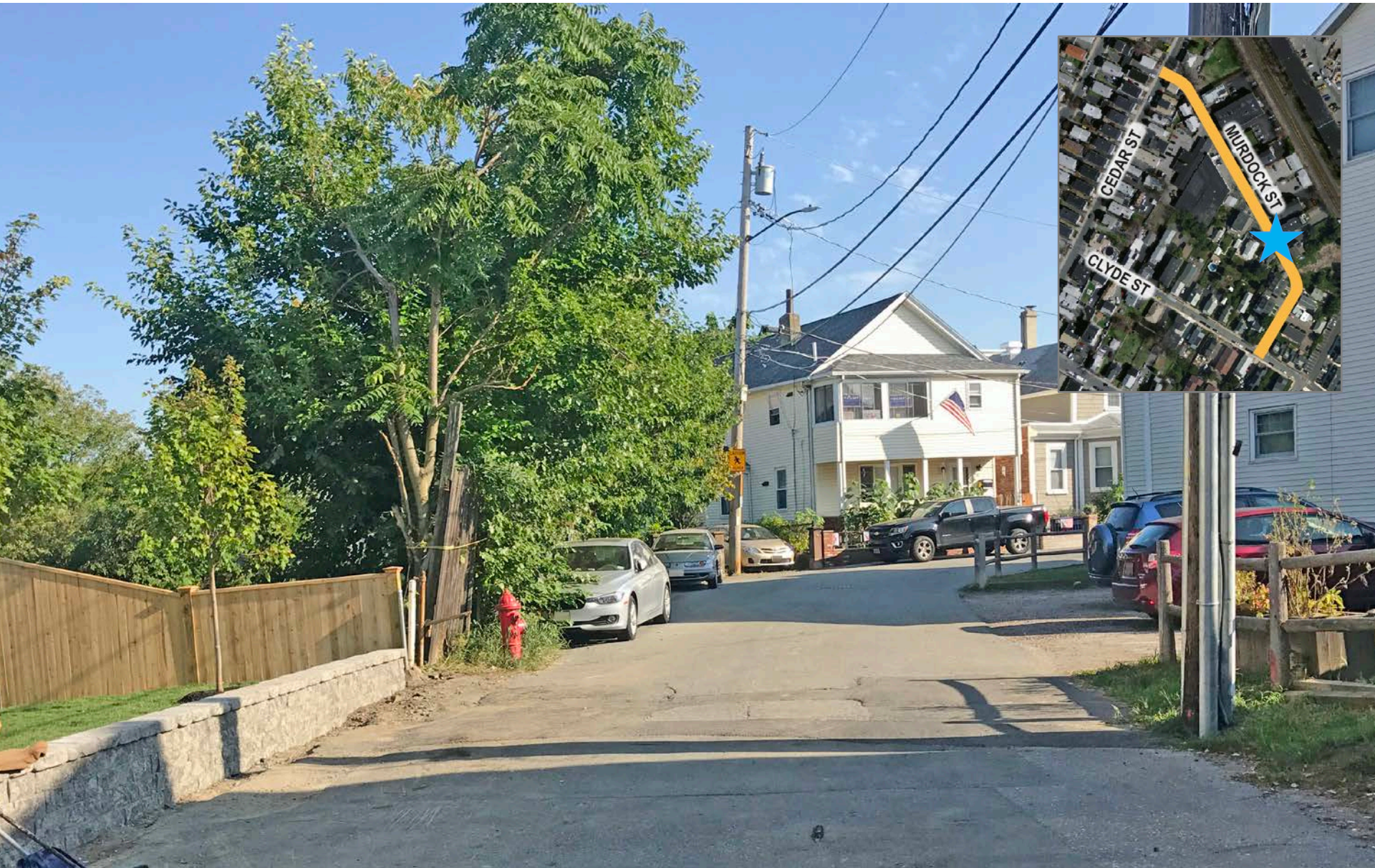

Design Constraints

- **Need for defined parking**
- **Somerville's emergency response access**
  - 18' – 20' requirement
- **Limited right of way**
- **Utilities along Murdock Street**

Traffic Circulation – Existing

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Traffic Circulation – Proposed (One Way)

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Traffic Volumes – a.m. and (p.m.) Peak Hours

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Traffic Volumes – a.m. and (p.m.) Peak Hours

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Concept 1 – Two Way

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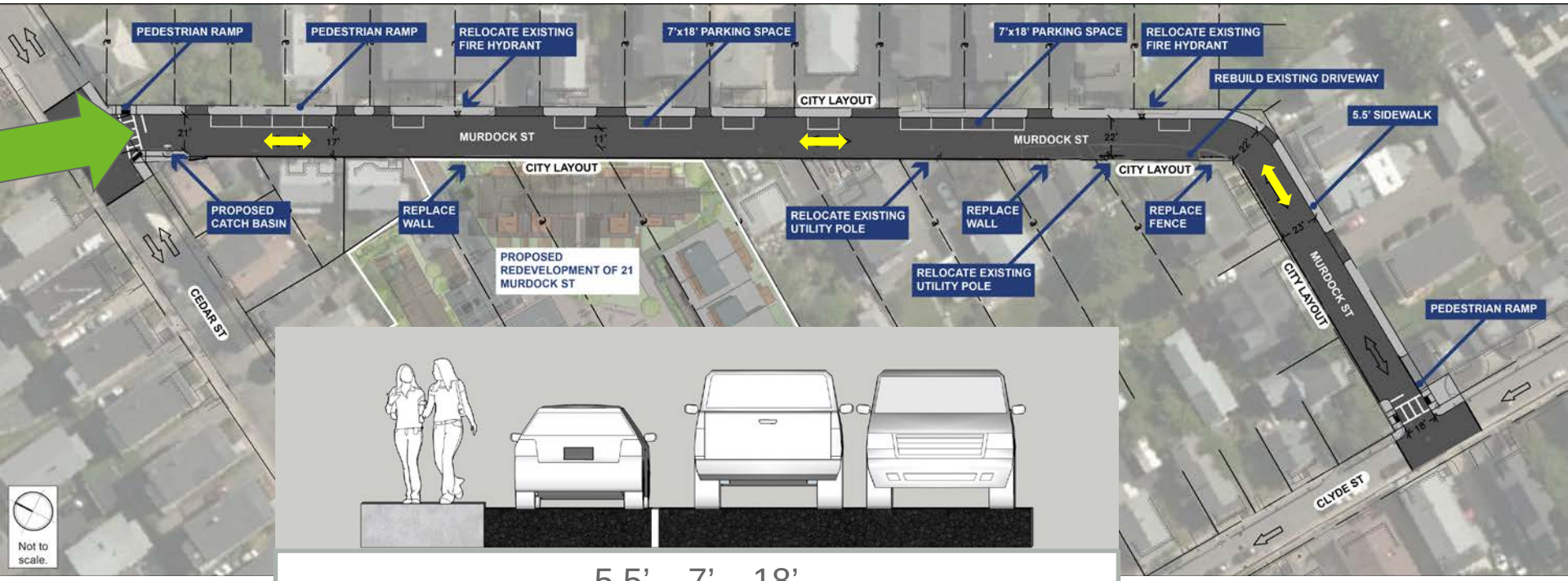

5.5' – 7' – 18'

- **Sidewalk, parking on North side**
- **Fewest parking spots retained (15)**

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Concept 1 – Two Way

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Concept 2A – One Way

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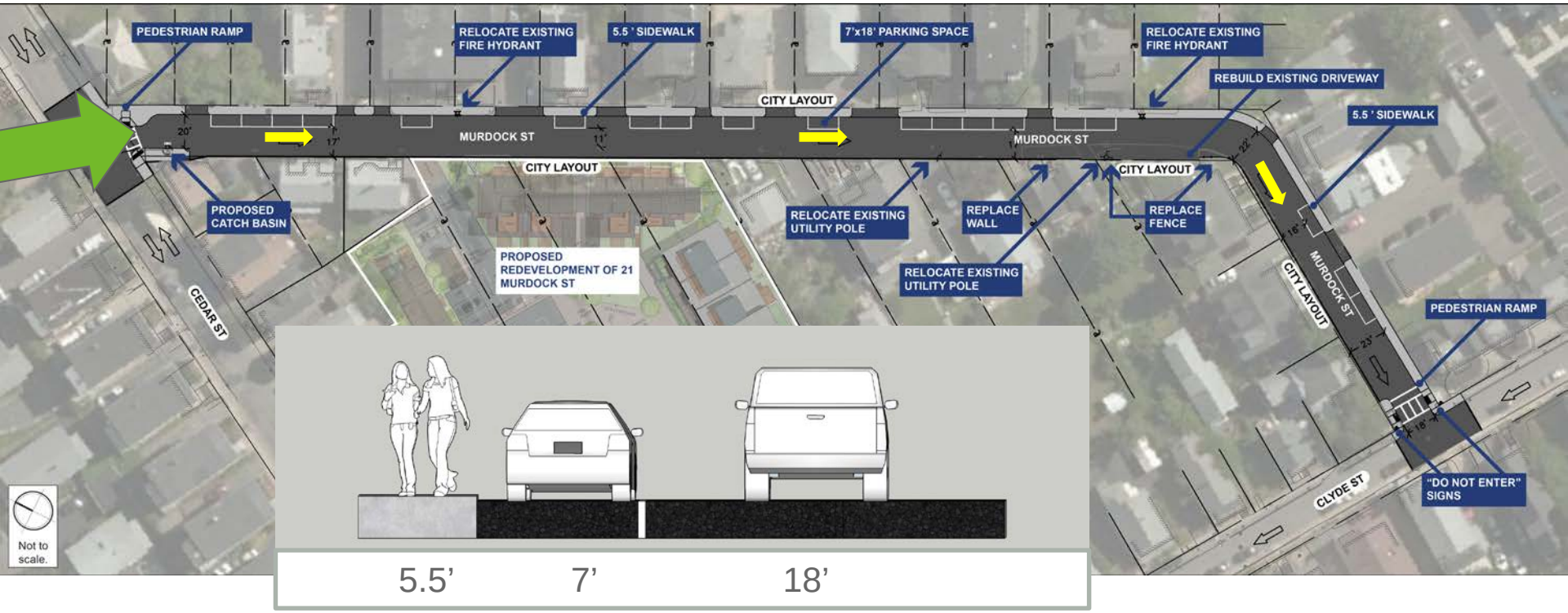

- Sidewalk, parking on North side
- 19 parking spots

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Concept 2A – One Way

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Concept 2B – One Way

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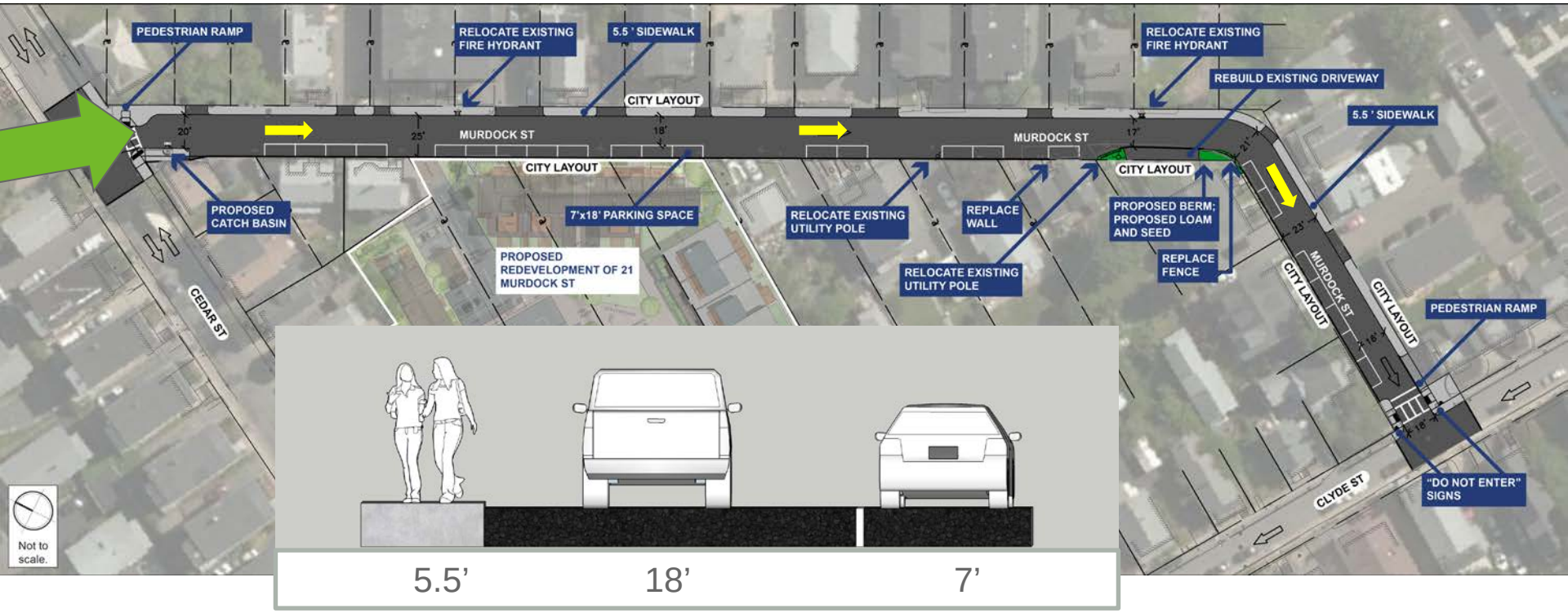

- Sidewalk, parking on South side
- 24 parking spots

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Concept 2B – One Way

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Concept 3 – One Way

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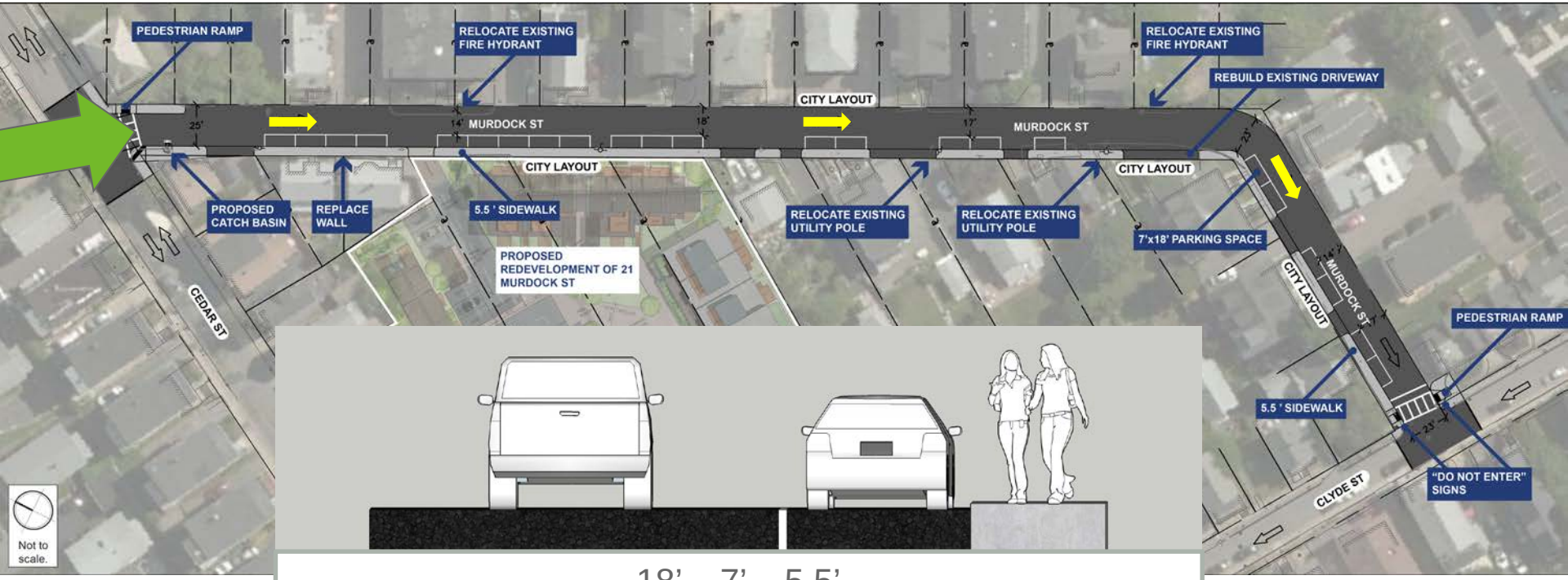

18' – 7' – 5.5'

- **Sidewalk, parking on South side**
- **23 parking spots – realigned in coordination with 21 Murdock redevelopment**

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Concept 3 – One Way

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Concept 4 – Shared Street (Woonerf)

- Works well for low volume residential streets
- Balance the need for parking with safer pedestrian accommodations
- Creates public space
- Parking and landscaping elements serve as “chicanes” slowing traffic
- Textured/pervious pavement

Image: NACTO

Local Examples

Webster St., Brookline

Winthrop St., Cambridge

Concept 4 – Shared Street

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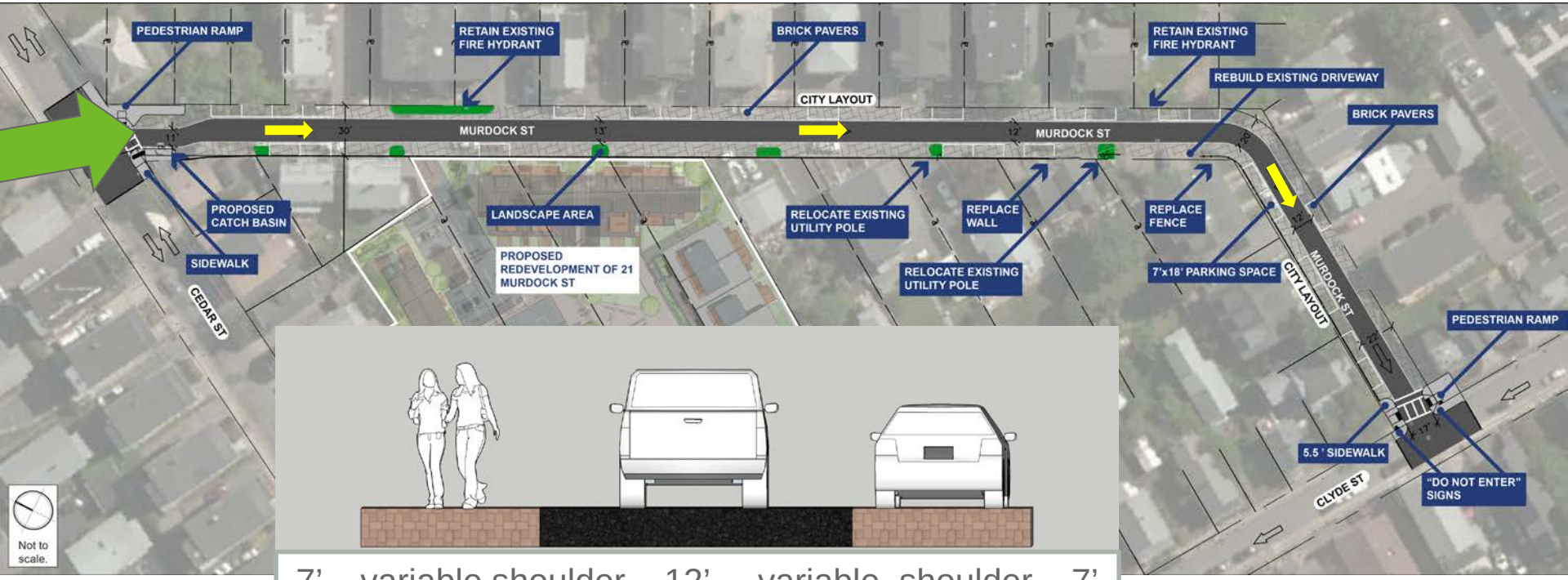

7' – variable shoulder – 12' – variable shoulder – 7'

- **Parking staggers along Murdock Street – 27 spots**
- **Traffic calming elements create a pedestrian friendly environment**
- **Room for drainage elements (rain gardens) and landscaping**

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Concept 4 – Shared Street

Selection of a Preferred Alternative

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	Existing	1	2A North	2B Split	3 South	4 Woonerf
Circulation	Two-Way	Two-Way	One-Way	One-Way	One-Way	One-Way
Parking Spaces	38	15	19	24	23	27
Degree of Change versus Today						
Walkability and Traffic Calming	0	-	0	0	0	+
Relocation of Infrastructure	0	0	0	0	+	-
Opportunity for Drainage Improvement	0	0	0	0	0	+

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Next Steps

- Selection of a preferred alternative
- Preliminary Design
- Next Meeting - Anticipated January 2018

Discussion

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