

SCARBOROUGH
MAINE

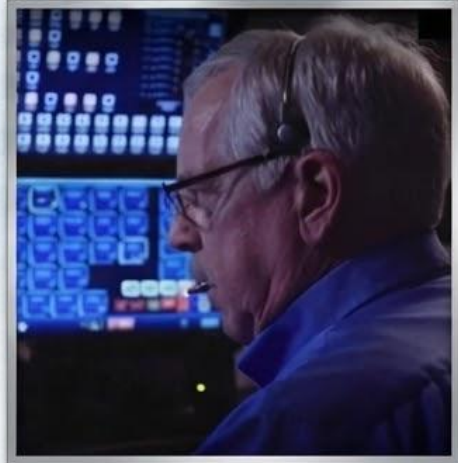
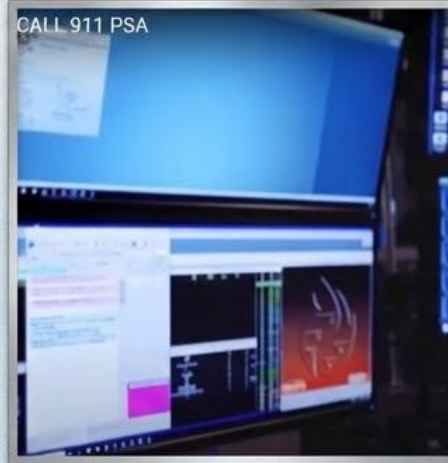


EST. 1883 Old
Orchard
Beach
MAINE



COMMUNICATIONS

MUNICIPAL TWO-WAY COMMUNICATIONS SYSTEM UPGRADE



Current Radio System Design & Architecture

-  Based on 1950's Technology. Pieces were added, replaced, and expanded overtime.
-  System was not designed or installed as one system.
-  Parts are older than 25 years, some pieces were installed prior to any records or current staff can verify.



July 2024

Councils Approve Study (\$85k)



July-Dec 2024

Consultant Analysis



Jan 2025

Radio Study Completed



April 2025

FY26 CIP Estimate (\$13.2M)



Sept 2025

RFP Issued for Upgrade



Dec 2025

RFP Closed, Interviews



Jan 2026

Vendor Scoring Completed

CURRENT SYSTEM



1950s Era & End-of-Life Infrastructure



- System based on 25-year-old architecture; utilizing 1950's technologies.
- Infrastructure is fragmented and many components are end-of-life (EOL).
- Parts availability diminishing, Service is "best effort" only with no warranties

Significant Coverage & Reliability Gaps



- Low portable radio signal (e.g., outer Broadturn Rd, East Grand Avenue).
- Coverage issues in critical buildings.
- High Noise Interference

Frequency & Capacity Limitations

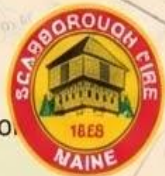


- Frequency band mismatches - Mutual Aid Communities, Schools, other municipal Depts.
- Frequency congestion, no available channels, Unable to expand

CURRENT SYSTEM

Independent VHF Analog Radio Systems

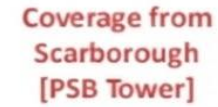
Independent UHF Analog Radio Systems



Scarborough

Old Orchard Beach

1. COVERAGE PROBLEMS AT VARIOUS LOCATIONS WITHIN SCARBOROUGH AND OLD ORCHARD



Burnham Road Police



WHITE
Inside Large
Buildings

Walmart Police



ORANGE Inside Residential Building

Dunstan Dental Police



BLUE
In-Street
Coverage

Tapley Road - Fire/EMS



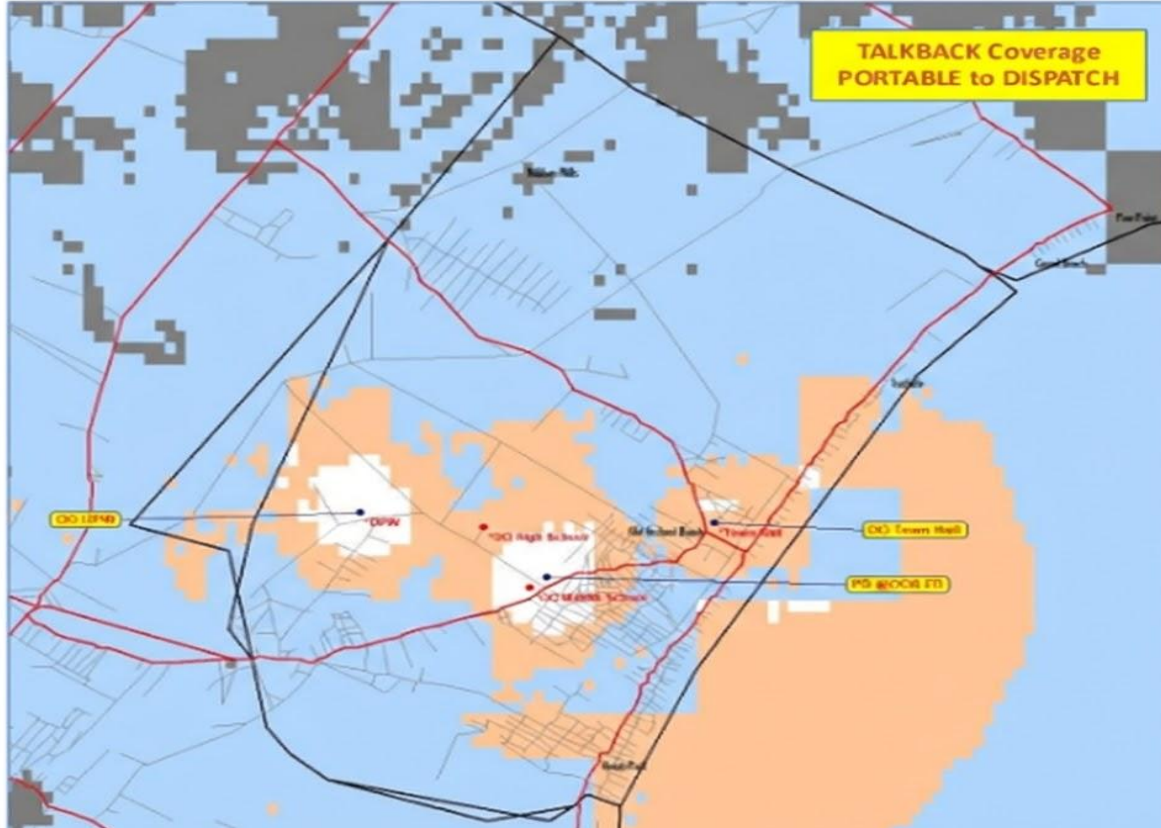
Colby Drive - Fire/EMS



GRAY
No/Poor
Coverage

CRITICAL ISSUES AND CONCERNS

1. COVERAGE PROBLEMS AT VARIOUS LOCATIONS WITHIN SCARBOROUGH AND OLD ORCHARD



**Coverage from
Old Orchard Fire
Headquarters**

**Fire Headquarters
Tower**

WHITE
Inside Large
Buildings

**ORANGE Inside
Residential
Building**

BLUE
In-Street
Coverage

GRAY
No/Poor
Coverage

Ocean Park Rd. Police



Ocean Park Rd. Police



Ocean Park Rd. Police



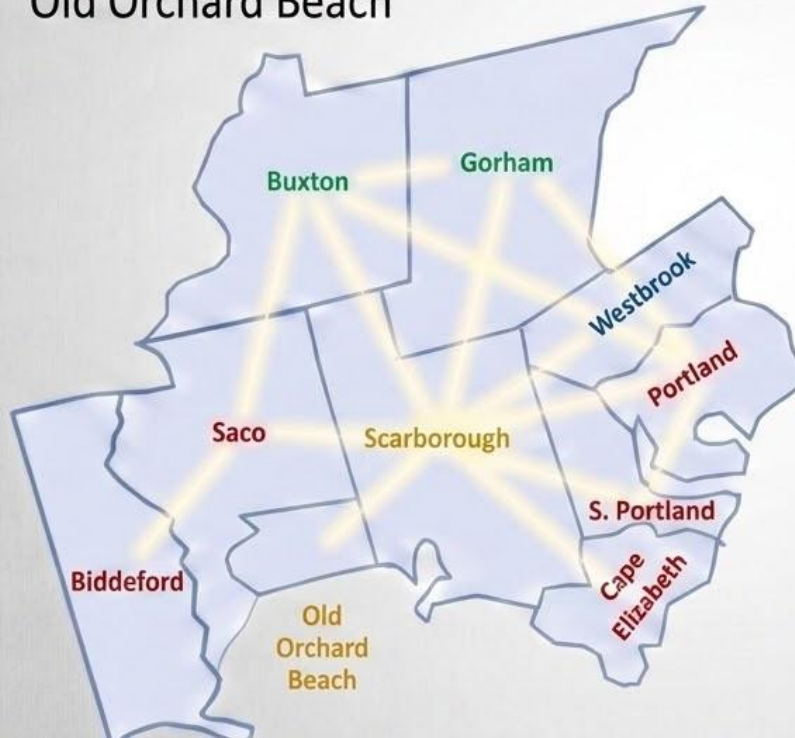
CRITICAL ISSUES AND CONCERNS

2. INTERNAL AND MUTUAL AID COMMUNICATIONS



CRITICAL ISSUES AND CONCERNS

Public Safety Communications in Towns Bordering Scarborough and Old Orchard Beach

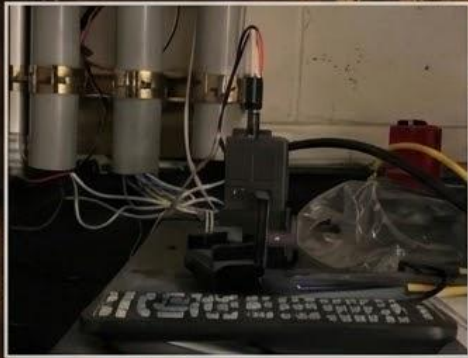


- ❖ Existing 800 MHz System
- ❖ Current VHF Planning 800 MHz
- ❖ Existing VHF Analog System
- ❖ Existing VHF DMR System

CRITICAL ISSUES AND CONCERNS

3. END-OF-LIFE EQUIPMENT IN BOTH TOWNS THAT REQUIRE IMMEDIATE REPLACEMENT

Municipality	End Of Life Equipment	Recommended Replacement	Serviceable Equipment	% Critical Equipment
Scarborough	41	23	47	57.7%
Old Orchard Beach	10	1	2	84.6%
TOTALS	51	24	49	60.5%



VISUAL EVIDENCE: Aging, disorganized, and failing infrastructure.

CRITICAL ISSUES AND CONCERNS

4. COMMUNICATIONS CONSOLE

THE PROBLEM: OBSOLETE HARDWARE



THE COMPOUND ISSUE: OUTDATED OS



1980's Technology - Decades Past its Prime



Only User in Maine - Single Point of Failure Risk



Two Known Techs Statewide - Critical Support Vulnerability

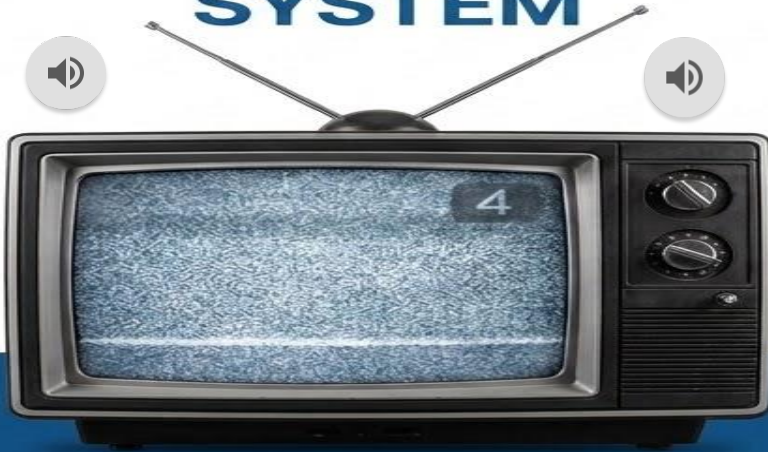


Operating on Windows 7 (End of Life)



Security Vulnerabilities & Lack of Updates

CURRENT SYSTEM



- 150 mhz
Analog VHF
System



RECOMMENDED SYSTEM



- 800mhz
P25-Phase 2
Digital Simulcast
Trunked System



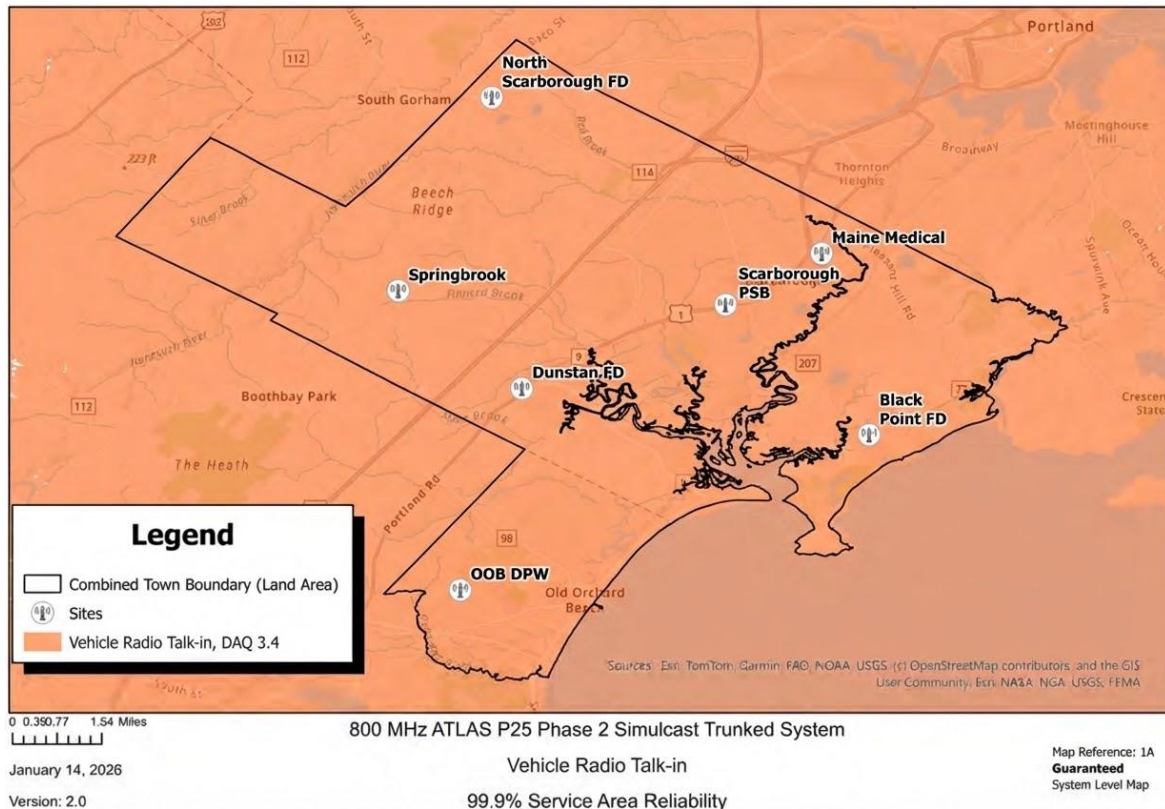
One Regional System



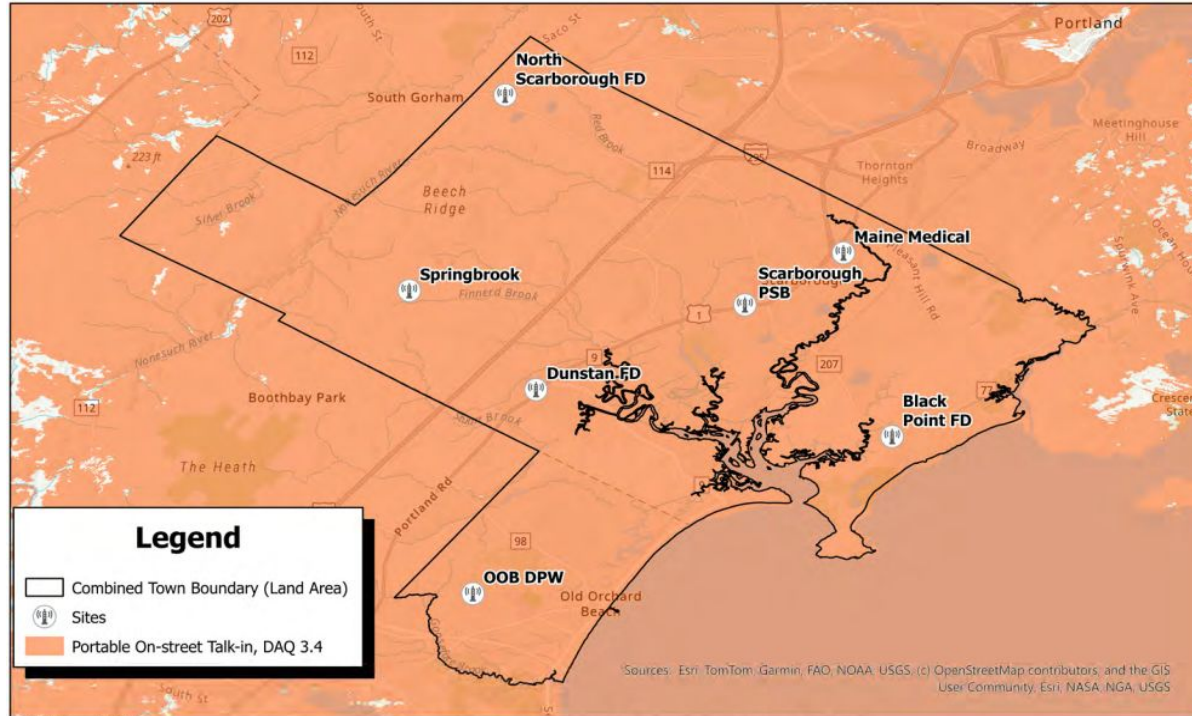
RECOMMENDED SYSTEM - SITE INFRASTRUCTURE

Site Name	Tower
Scarborough Public Safety Building	Existing 180' Tower
Dunstan Fire Station	<i>*New 180' Tower*</i>
North Scarborough Fire Station	<i>*New 180' Tower*</i>
Old Orchard Beach Department of Public Works	<i>*New 180' Tower*</i>
Black Point Fire Station	Replace 80' Monopole with New 100' Tower
Maine Medical	Rooftop Antennas

Proposed New Radio Signal Coverage



Proposed New Radio Signal Coverage



0 0.390.77 1.54 Miles

January 14, 2026

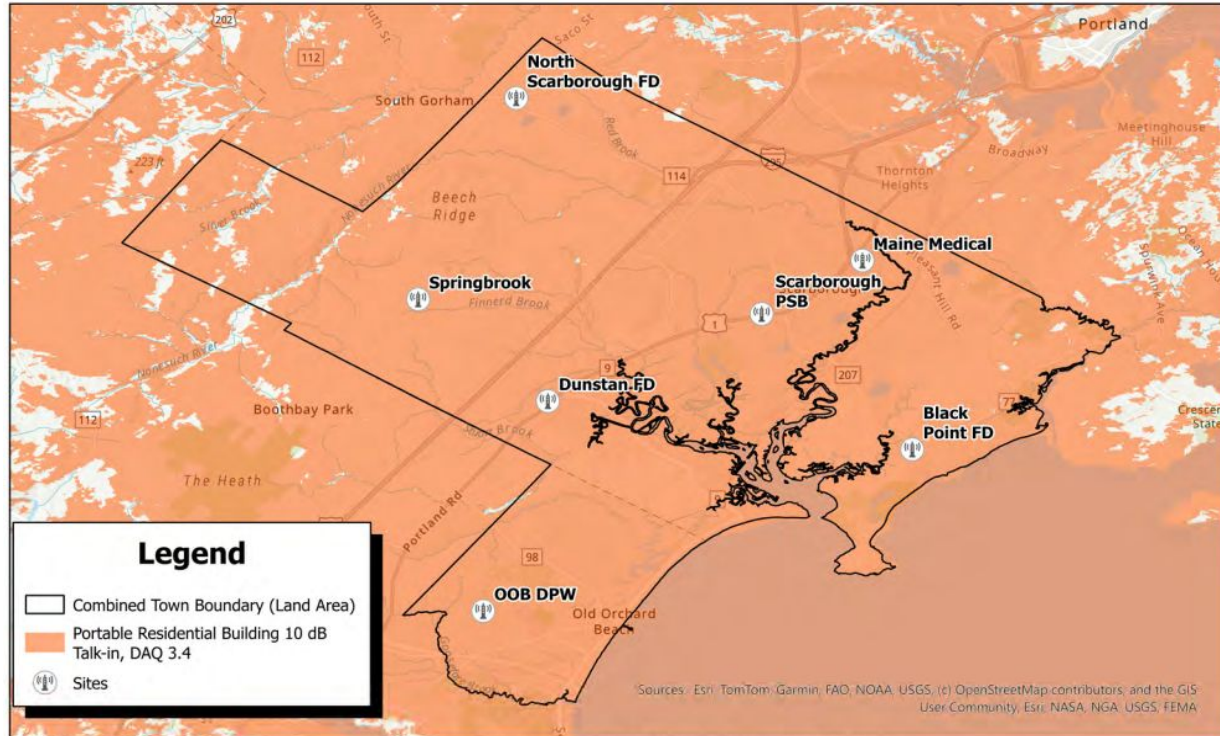
Version: 2.0

800 MHz ATLAS P25 Phase 2 Simulcast Trunked System

Portable On-street Talk-in
99.8% Service Area Reliability

Map Reference: 2
Guaranteed
System Level Map

Proposed New Radio Signal Coverage



0 0.390.77 1.54 Miles



January 14, 2026

Version: 2.0

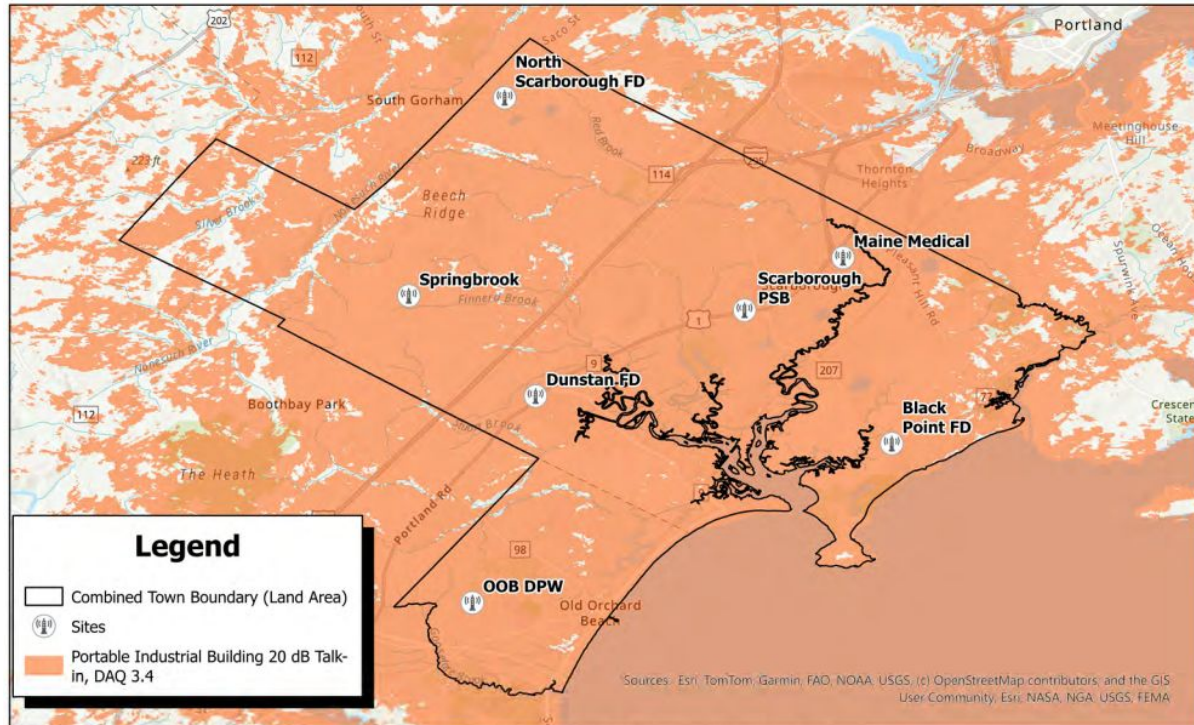
800 MHz ATLAS P25 Phase 2 Simulcast Trunked System

Portable Residential Building 10 dB Talk-in

98.5% Service Area Reliability

Map Reference: 3A
Guaranteed
System Level Map

Proposed New Radio Signal Coverage



0 0.390.77 1.54 Miles

January 14, 2026

Version: 2.0

800 MHz ATLAS P25 Phase 2 Simulcast Trunked System

Portable Industrial Building 20 dB Talk-in

92.8% Service Area Reliability

Map Reference: 4A
For Information Only
System Level Map

SUBSCRIBERS

Field Radios

SCARBOROUGH (605 Total)



Police Dept: 130
(95 Portable, 35 Mobile, 0 Other)



Fire Dept: 263
(140 Portable, 44 Mobile, 79 Other)



Sanitary Dist: 5
(4 Portable, 0 Mobile, 1 Other)



Public Works: 78
(25 Portable, 45 Mobile, 8 Other)



School Dept: 23
(23 Portable, 0 Mobile, 0 Other)



School Bus Dept: 44
(2 Portable, 42 Mobile, 0 Other)



Community Services: 55
(50 Portable, 5 Mobile, 0 Other)



Dispatch Center: 7
(1 Portable, 0 Mobile, 6 Other)



Portable: 340



Mobile: 171



Other: 94

OLD ORCHARD BEACH (263 Total)



Police Dept: 93
(70 Portable, 23 Mobile, 0 Other)



Fire Dept/Lifeguards: 93
(57 Portable, 16 Mobile, 20 Other)



Public Works Dept: 41
(10 Portable, 30 Mobile, 1 Other)



School Dept & Bus Dept: 30
(14 Portable, 16 Mobile, 0 Other)



Wastewater Dept: 6
(6 Portable, 0 Mobile, 0 Other)



Portable: 157



Mobile: 85



Other: 21

GRAND TOTAL: 868

Portable Radios: 497

Mobile Radios: 256

Other Radios: 115

SCARBOROUGH

PROJECT COST BREAKDOWN



TOTAL PROJECT COST: \$12,397,029.23



SCARBOROUGH - Total Cost: \$9,165,352.36

Infrastructure Cost:
\$6,590,598.09



Subscribers:
\$1,741,540.42



10% Contingency:
\$833,213.85



Total Build Cost
\$8,332,138.51

Grand Total
\$9,165,352.36

COMBINED TOTALS

Infrastructure
\$8,768,077.00



Subscribers
\$2,501,949.57



10% Contingency
\$1,127,002.66



OLD ORCHARD - Total Cost: \$3,231,676.87

Infrastructure Cost:
\$2,177,478.91



Subscribers:
\$760,409.15



10% Contingency:
\$293,788.81



Total Build Cost
\$2,937,888.06

Old Grand Total
\$3,231,676.87

SCARBOROUGH TOTAL

\$ 9,165,352.36

OLD ORCHARD TOTAL

\$ 3,231,676.87

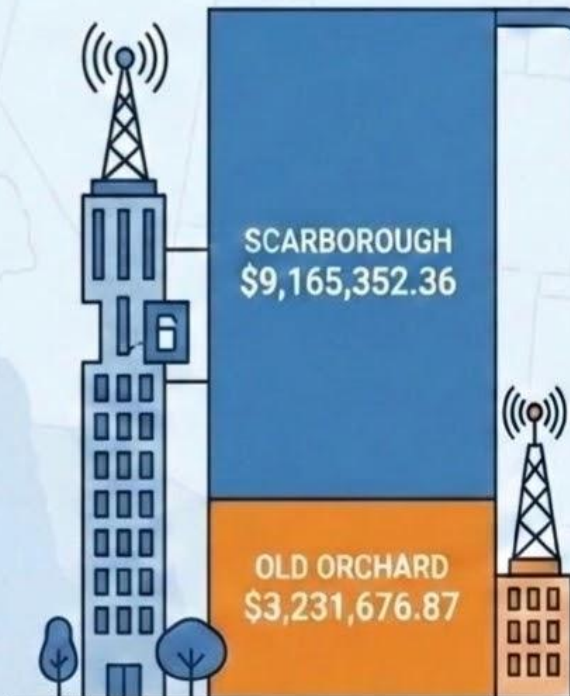
TOTAL PROJECT COST

\$ 12,397,029.23

GRANT FUNDING

START:
INITIAL TOTAL PROJECT COST
(Baseline)

\$12,397,029.23



INTERVENTION:
FEDERAL CDS GRANT
FUNDING

CDS - Congressionally Directed Spending

FEDERAL GRANT FUNDING



GRANT AMOUNT:

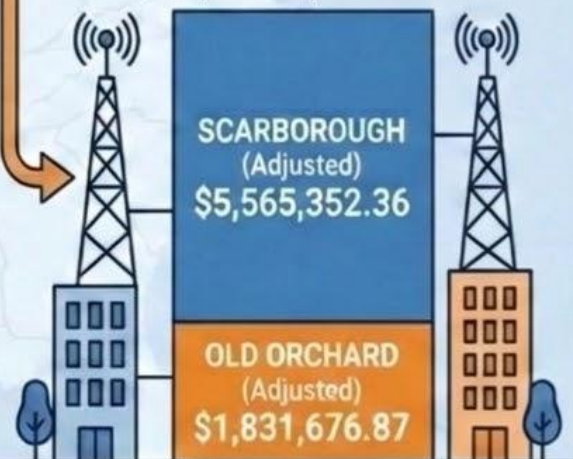
\$5,000,000.00
(Pending Approval)

Currently in US Senate
Appropriations Process,
approval potentially after
public referendum process.

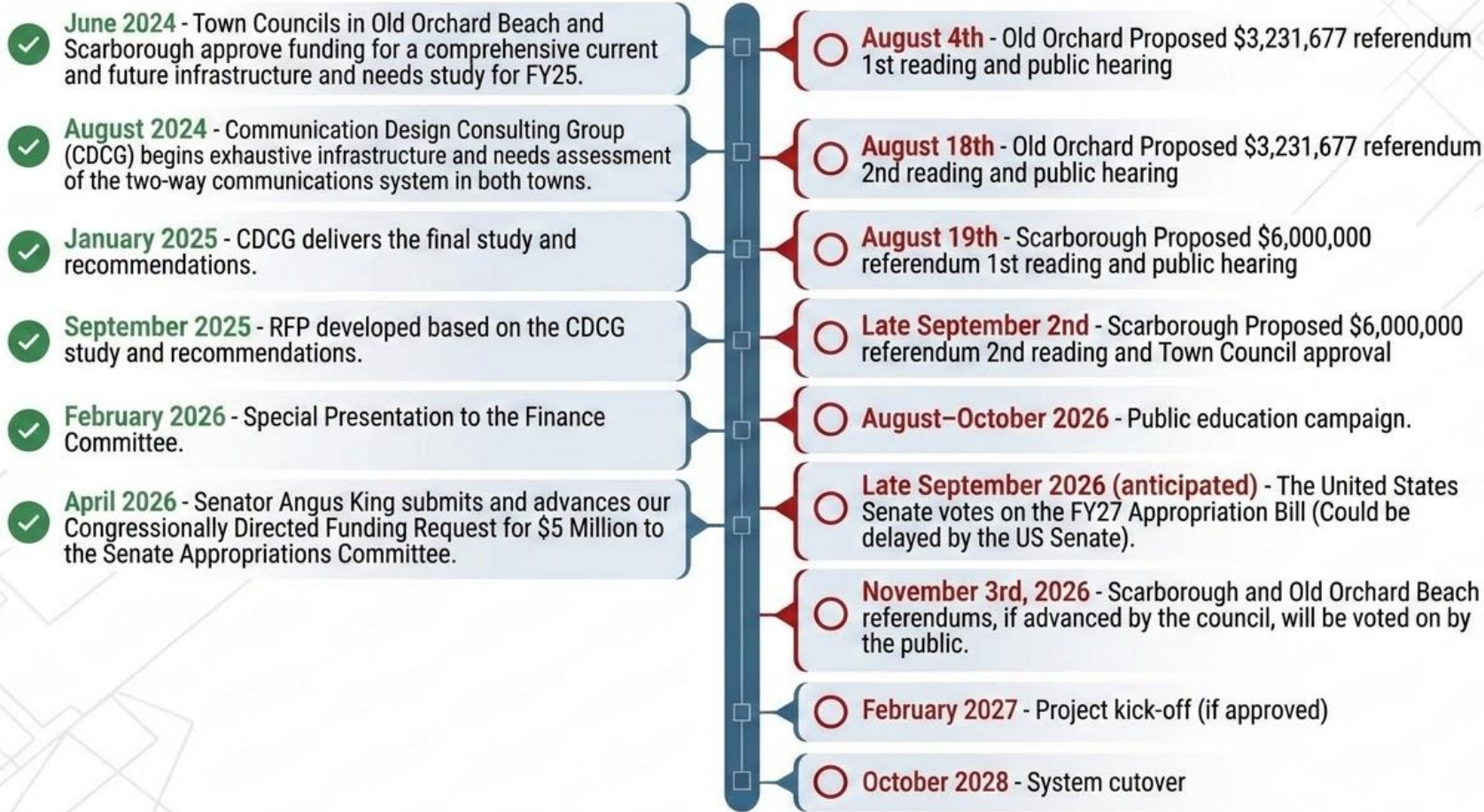
RESULT:
NEW TOTAL PROJECT COST
(Grant Adjusted)

\$7,397,029.23

\$7,397,029.23



PROJECT TIMELINE & MILESTONES (ESTIMATED)





Questions & Discussion

Questions Welcomed

This presentation is designed as an overview to accompany spoken commentary and detailed technical talking points that cannot be fully captured on simple slides alone.

We welcome all questions, feedback, and requests for additional context regarding this project and its implementation.

Please reach out directly via email with any inquiries or feedback following this session.



Jay McAdams

PROJECT MANAGER

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Town of Scarborough, Maine

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