Attachment A – Existing Sites Information

1. Radio Sites

Although the vast majority of the City receives at least some level of radio coverage from Central Radio Site (CRS), the city's main radio site, seven additional sites were chosen to deliver the required level of coverage and provide geographic redundancy in the event of the loss or degradation of CRS. All city systems, with the exception of SFIA, use all or some subset of the eight main radio sites to provide coverage. However, SFIA does rely on the Motorola 7.7 Master Site equipment located at CRS. Table 1 - RF Site/System Matrix provides a tabular summary as to which sites are contained within each RF system.

In addition to RF systems, the City maintains multiple microwave systems as well as a fiber optic network to connect the various sites in order to form cohesive RF simulcast systems. Separate loop microwave systems were deployed among the various sites and communications system to provide additional redundancy. Table 2 – Site/Microwave Backhaul Matrix provides a tabular summary as to which sites are contained within each microwave or fiber system.

1.1 COMBINED EMERGENCY COMMUNICATIONS CENTER (CECC)

The Department of Emergency Management operates a 24/7 dispatch center which functions as the primary Public Safety Answering Point (PSAP) for the City. The dispatch center, also known as the Combined Emergency Communications Center (CECC), provides dispatch services for the City's Police, Fire, and EMS departments.

System Assets at this site include:

- Dispatch Consoles for CERS

- Microwave links to CRS

- Public Safety Fiber Hub

1.2 CENTRAL RADIO SITE (CRS)

As its name implies Central Radio Site is located in the center of the City at the top of Twin Peaks. CRS provides the vast majority of coverage for the city and houses many of the system control elements for City radio systems.

System Assets at this site include:

- Motorola 7.7 Master Site, which controls CERS, PERS, EWDN, SFIA, and the 700 MHz Interoperability System and associated control and audio equipment

- Microwave links to CECC (1011 Turk St)

- Microwave Hub for CERS North and South Loops

- Microwave Hub for PERS Loop

- Microwave Hub for PSC Loop

- Co-located RF site equipment for CERS, PERS, EWDN, and the 700 MHz Interoperability System

- Simulcast control point equipment for CERS and the 700 MHz Interoperability System (Simulcast Prime site)

- Conventional Mutual Aid Systems – State Law Interoperability Channels, State Fire Interoperability Channels, National Interoperability Channels, DOJ 25 Cities System

- Conventional Low Band Fallback channels

1.3   CLAY–JONES (CJ)

Clay-Jones is a rooftop site located at the top of 1250 Jones at the intersection of Clay and Jones streets. In addition to One Market Plaza, it provides increased building penetration in the dense urban core of the City. The site also helps to cover areas shaded by Nob Hill from CRS such as North Beach and Pier 39.

System Assets at this site include:

- Microwave Hop site for CERS North Loop

- Microwave Hop site for PERS Loop

- RF site equipment for CERS and EWDN

1.4   ONE MARKET PLAZA (OMP)

One Market Plaza is also a rooftop site located at the top of Steuart Tower in the downtown section of the City. In addition to Clay-Jones, it aids in providing increased building penetration in the dense urban core of the City.

System Assets at this site include:

- Microwave Hop site for CERS North Loop

- Microwave Hop site for PERS Loop

- Microwave Hop site for PSC Loop

- RF site equipment for CERS, PERS, and EWDN

1.5 FOREST HILL (FH)

The Forest Hill site is located in a PUC water tank compound in the Forest Hill neighborhood. Forest Hill site provides coverage primarily for the Sunset and Parkside districts of the City.

System Assets at this site include:

- Microwave Hop site for CERS North Loop

- RF site equipment for CERS, EWDN, and the 700 MHz Interoperability System

1.6 BERNAL HEIGHTS (BH)

The Bernal Heights site is located in radio/cell site compound in the center of Bernal Heights Park. Bernal Heights provides coverage primarily for the Bernal Heights area and areas in the southeast portion of the City that are shaded from CRS.

System Assets at this site include:

- Microwave Hop site for CERS South Loop

- RF site equipment for CERS, and conventional low band systems

1.7 SAN FRANCISCO STATE UNIVERSITY (SFSU)

With its antenna system located atop Thornton Hall in the San Francisco State University Campus, the SFSU site provides coverage for the many buildings in the University as well as neighboring areas such as Lake Merced.

System Assets at this site include:

- Microwave Hop site for CERS North Loop

- RF site equipment for CERS

1.8   SOUTH HILL (SH)

South Hill is located near the City border in Daly City with the site property shared with the City of Daly City. The site is located near a water tank and provides coverage for the southern portion of the City.

System Assets at this site include:

- Microwave Hop site for CERS South Loop

- Microwave Hop site for PERS Loop

- RF site equipment for CERS, PERS, EWDN, and the 700 MHz Interoperability System

1.9   FORT MILEY (FM)

Fort Miley is located in the northwest corner of the City in the Veterans Administration campus. It provides coverage for the Richmond District and the northwest portion of the City.

System Assets at this site include:

- Microwave Hop site for CERS North Loop

- Microwave Hop site for PERS Loop

- RF site equipment for CERS and PERS

- Simulcast control point equipment for PERS (Simulcast Prime site)

1.10   PUBLIC SAFETY CAMPUS (PSC)

The City is building a new Public Safety Campus (PSC) which will house Police and Fire administrative units. System Assets at this site include:

- Microwave hop site for PSC Loop

1.11   SFIA SOUTH

The South Site of the SFIA system is located in the South Terminal (International Terminal) at the San Francisco International Airport. It is used to provide coverage for the airport and has equipment for the Enhanced Wireless Data Network and SFIA system.

- RF site equipment for SFIA and EWDN

- Simulcast control point equipment for SFIA (Simulcast Prime site)

1.12   SFIA NORTH

The North Site of the SFIA system is located atop the building at 710 N. McDonnell Road (Old Delta Bldg.) at the San Francisco International Airport. It is used to provide coverage for the airport and has equipment for the Enhanced Wireless Data Network and SFIA system.

- RF site equipment for SFIA and EWDN

Table 1 - RF Site/System Matrix

Site	CERS	PERS	EWDN	700 I/O	SFIA	SFMTA P25[1]	Conventional Systems
CRS	✔	✔	✔	✔		✔	✔
One Market Plaza	✔	✔	✔	✔		✔	
Clay-Jones	✔		✔				
Forest Hill	✔		✔	✔		✔	
Ft. Miley	✔	✔					
SFSU	✔						
Bernal Heights	✔						✔
South Hill	✔	✔	✔	✔		✔	
SFIA North			✔		✔		
SFIA South			✔		✔		

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[1] Subject to change, as system is not fully deployed

Table 2 – Site/Microwave Backhaul Matrix Summary

Site	North Loop	South Loop	PERS Loop	PSC Loop	Turk St CRS	City Fiber	SFIA Fiber
CECC					✔	✔	
CRS	✔	✔	✔	✔	✔	✔	✔
One Market Plaza	✔		✔	✔		✔	
Clay-Jones	✔		✔			✔	
Forest Hill	✔					✔	
Ft. Miley	✔		✔			✔	
SFSU	✔					✔	
Bernal Heights		✔				✔	
South Hill		✔	✔			✔	
PSC				✔		✔	
SFIA North							✔
SFIA South							✔