

# 700MHz

/// MANAGING THE COMPLEX PROCESS OF SPECTRUM RELOCATION ///



## 700 MHz - THE BEACHFRONT SPECTRUM

The wireless industry in the United States is experiencing another major milestone. The FCC is auctioning coveted 700 MHz spectrum for use in advanced public safety and commercial applications. This “beachfront” spectrum will be of interest to most wireless incumbents and new entrants due to the favorable nature of its transmission characteristics. The 700 MHz spectrum can be used to offer a variety of advanced mobile technology applications, including next generation mobile broadband services such as mobile broadcast, m-commerce and location-based services.

Success in realizing the benefits of this spectrum depend upon effective planning and preparation for all participants including emerging carriers, traditional wireless carriers and other spectrum stakeholders. LCC's expertise and extensive experience in spectrum services and wireless network planning provides the valuable technical consulting, pre-acquisition planning, deployment and post-acquisition services necessary to help win and maximize spectrum.

## EXTENSIVE EXPERIENCE IN SPECTRUM PLANNING AND ADVANCED TECHNOLOGIES

As the largest independent wireless network engineering firm in the world, LCC understands the critical needs that arise in spectrum allocation, network planning and deployment. LCC has helped a diverse group of clients, including both new and existing wireless service providers, with voice and data applications. Our RF engineering team has performed nearly every type of wireless project from troubleshooting a single cell site to designing and optimizing nationwide wireless systems in many countries around the world.

### Services

- > Spectrum Usage and Applications
- > Broadband Business Planning
- > Technology Evaluations
- > Vendor Evaluations
- > Network Planning and Design
- > Implementation and Optimization

## THE LCC ADVANTAGE

For 25 years, LCC has been the industry's go-to resource for designing, building and optimizing voice and data networks for the world's largest telecom carriers and equipment manufacturers. These networks provide the essential backbone that delivers innovative services to millions of customers worldwide. As the largest independent wireless engineering company in the world, we believe that our expertise is a sizable advantage in the markets we serve.

## FCC 700 MHz BAND PLAN FOR COMMERCIAL AND PUBLIC SAFETY SERVICES

|     |     |     |     |     |     |     |     |     |     |     |               |     |     |     |     |               |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|-----|-----|-----|-----|---------------|-----|-----|
| A   | B   | C   | D   | E   | A   | B   | C   | C   | A   | D   | Public Safety | B   | C   | A   | D   | Public Safety | B   |     |
| 52  | 53  | 54  | 55  | 56  | 57  | 58  | 59  | 60  | 61  | 62  | 63            | 64  | 65  | 66  | 67  | 68            | 69  |     |
| 698 | 704 | 710 | 716 | 722 | 728 | 734 | 740 | 748 | 752 | 758 | 764           | 770 | 776 | 782 | 788 | 794           | 800 | 806 |

Lower 700 MHz Band

Upper 700 MHz Band

| BLOCK | Frequencies      | Bandwidth | Pairing    | Area Type  | Licenses |
|-------|------------------|-----------|------------|------------|----------|
| A     | 698-704, 728-734 | 12 MHz    | 2 X 6 MHz  | EA         | 176      |
| B     | 704-710, 734-740 | 12 MHz    | 2 X 6 MHz  | CMA        | 734      |
| C     | 710-716, 740-746 | 12 MHz    | 2 X 6 MHz  | CMA        | 734      |
| D     | 716-722          | 6 MHz     | unpaired   | EAG        | 6        |
| E     | 722-728          | 6 MHz     | unpaired   | EA         | 176      |
| C     | 746-752, 776-782 | 22 MHz    | 2 X 11 MHz | REAG       | 12       |
| D     | 758-763, 788-793 | 10 MHz    | 2 X 5 MHz  | Nationwide | 1        |
| A     | 757-758, 787-788 | 2 MHz     | 2 X 1 MHz  | MEA        | 52       |
| B     | 775-776, 805-806 | 2 MHz     | 2 X 1 MHz  | MEA        | 52       |

■ These blocks have been auctioned

## PROVIDING COMPLETE ENGINEERING SERVICES

LCC's engineering solutions are organized around the clients' technological, financial and regulatory needs. Our offering includes a range of services to meet the various phases of the network:

### Pre-Acquisition

- > Spectrum Usage & Applications
- > Broadband Business Strategies
- > Spectrum Evaluations
- > Technology Evaluations
- > Market Analysis and Strategies
- > Vendor/Infrastructure Assessment
- > Network Planning and Design
- > Implementation and Operational Planning
- > Capacity/CAPEX Planning

### Pre-Deployment

- > Vendor Selection
- > Market Analysis
- > Deployment Planning
- > Implementation Logistics
- > Tool Identification and Solutions
- > Transport Planning and Provisioning

### Deployment

- > Program Management
- > Coverage and RF Design
- > Transport and Core Network Design
- > Implementation and Optimization
- > Site Acquisition, Leasing and Zoning
- > Construction
- > Installation, Commissioning and Testing

### Post-Deployment

- > Network Acceptance
- > Knowledge Transfer
- > Training
- > Operations and Maintenance
- > Post-Optimization
- > Network Management

Celebrating 25 years in the wireless industry, LCC continues to bring innovation and expertise in advancing wireless network services. From developing the industry's first RF planning tool to measuring and monitoring End-User Quality of Experience today, LCC provides advanced network services to achieve higher quality of service under the growing network demands of tomorrow. Building on 25 years of designing, optimizing and maintaining advanced wireless networks, LCC is ideally poised to help deliver the next generation of networks to the market.



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