



(REFERENCE COPY - Not for submission)

FCC Form 399: Reimbursement Request

Facility **73226** | Service: **DTV** | Call **WLS-TV** | Channel: **44 (UHF)** |
ID: | Sign:
File **0000028376**
Number:
FRN: **0003471315** | Date **02/04**
Submitted: **/2019**

Applicant Information

Applicant Name, Type, and Contact Information

| Applicant | Address | Phone | Email | Applicant Type |
|---|--|----------------------|-------------------------------|----------------|
| WLS TELEVISION, INC. Doing Business As: WLS TELEVISION, INC. | John W. Zucker 77 W 66TH ST FL 16 NEW YORK, NY 10023 United States | +1 (212) 456-7777 | john.w. zucker@abc. com | Corporation |

Reimbursement Contact Information

Reimbursement Contact Name and Information

| Applicant | Address | Phone | Email |
|----------------|---------|-------|-------|
| [Confidential] | | | |

Preparer Contact Information

Preparer Contact Name and Information

| Applicant | Address | Phone | Email |
|--|---------|-------|-------|
| The Preparer is same as the reimbursement contact. | | | |

Broadcaster Information and Transition Plan

| Question | Response |
|----------|----------|
|----------|----------|

| | |
|--|--|
| Will the station be sharing equipment with another broadcast television station or stations (e.g., a shared antenna, co-location on a tower, use of the same transmitter room, multiple transmitters feeding a combiner, etc.)? If yes, enter the facility ID's of the other stations and click 'prefill' to download those stations' licensing information. | Yes |
| Briefly describe transition plan | Please see attached WLS Description of Transition Plan exhibit |

Transmitters

| Section | Question | Response |
|-------------------------------------|---|----------|
| Transmitter Related Expenses | Do you have transmitter related expenses? | Yes |

**Auxiliary
Transmitter****Existing Transmitter Information**

| Section | Question | Response |
|---|---|------------------------------|
| Existing Transmitter Description | Type of change | Purchase New |
| | Use | Auxiliary (Backup) |
| | Description of Use | Hancock Auxiliary site |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this transmitter currently shared with another station? | No |
| | Is this transmitter currently in operating condition? | Yes |
| Existing Transmitter Manufacturer and Type | Manufacturer | |
| | Model | DHD120P2 Diamond |
| | Year | 2002 |
| | Type | Solid State |
| | Solid State Cooling | Air Cooled |
| | Solid State Power Capacity | 30 kW |

**Auxiliary
Transmitter**

New Transmitter Costs

| Section | Question | Response |
|------------------------|---|--|
| New Transmitter | Use | Auxiliary (Backup) |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | No |
| | Manufacturer | |
| | Model | ULXTE-50 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 31.7 kW |
| | Justification for New Transmitter | Our existing Harris Diamond solid state transmitter on Channel 44 cannot be retuned to our new Channel 22 assignment. |

**Auxiliary
Transmitter**

Other Transmitter Costs

| Section | Question | Response |
|---------------------------|---------------------------------------|----------|
| Electrical Service | Service Entrance (3 phases 800A 208V) | No |
| | Switchgear (industrial 800 amp) | No |
| | Transformer (480V) | Yes |
| | Power | 300 kVA |
| | Rigid Conduit and Wiring | Yes |
| | | |

| | | |
|--|---|---|
| | Size | 2.00 inches |
| | Length | 130.0 feet |
| | Other Electrical Service | Yes |
| | Description | See "WLS Schedule 399 Supplemental Statement" Exhibit |
| HVAC Service | Does the replacement transmitter require HVAC Service? | No |
| | Type | N/A |
| | Size | N/A |
| | Other Size | N/A |
| Transmitter Building Addition/Modification or Leasehold Improvement | Does the Transmitter Building require an addition, modification, other leasehold improvement? | No |
| | Size | N/A |
| Channel 14 Costs | Is an RF Consulting Engineer needed? | N/A |
| | Is a channel 14 Mask Filer needed? | N/A |
| | Is additional field engineering time needed? | N/A |
| | Number of Days | N/A |

Auxiliary Transmitter **Other Transmitter Cost Not Listed**

| Name | Description |
|---|---|
| Partial demolition of existing space | This covers the cost of removal of the old Transmitter equipment and related equipment |
| Plumbing work | The new transmitter has liquid cooling and needs hookup and pumps to building condenser water |

**Primary
Transmitter**

Add Transmitter Information

| Section | Question | Response |
|---|--|--------------------------|
| Existing Transmitter Description | Type of change | Purchase New |
| | Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this transmitter currently shared with another station? | No |
| | Is this transmitter currently in operating condition? | Yes |
| Existing Transmitter Manufacturer and Type | Manufacturer | |
| | Model | PWR90D3 Power CD |
| | Year | 2012 |
| | Type | Inductive Output Tube |
| | IOT Power Type | Three |
| | Power Capacity | 90 kW |

**Primary
Transmitter**

New Transmitter Costs

| Section | Question | Response |
|------------------------|---|--|
| New Transmitter | Use | Primary (Main) |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | Yes |
| | Manufacturer | |
| | Model | ULXTE-150 |
| | Transmitter Type | Solid State |
| | Solid State Cooling | Liquid Cooled |
| | Solid State Power capacity | 92.8 kW |
| | Justification for New Transmitter | Please see attached justification of costs |

**Primary
Transmitter**

Other Transmitter Costs

| Section | Question | Response |
|---------------------------|---------------------------------------|------------|
| Electrical Service | Service Entrance (3 phases 800A 208V) | No |
| | Switchgear (industrial 800 amp) | Yes |
| | Transformer (480V) | Yes |
| | Power | 500 kVA |
| | Rigid Conduit and Wiring | Yes |
| | Size | 4.0 inches |
| | Length | 240.0 feet |
| | Other Electrical Service | No |
| | Description | N/A |

| | | |
|--|---|--------------------|
| HVAC Service | Does the replacement transmitter require HVAC Service? | Yes |
| | Type | Cooling Only |
| | Size | Other |
| | Other Size | 40 tons |
| Transmitter Building Addition/Modification or Leasehold Improvement | Does the Transmitter Building require an addition, modification, other leasehold improvement? | Yes |
| | Size | 2500.0 square feet |
| Channel 14 Costs | Is an RF Consulting Engineer needed? | N/A |
| | Is a channel 14 Mask Filer needed? | N/A |
| | Is additional field engineering time needed? | N/A |
| | Number of Days | N/A |

Primary Transmitter

Other Transmitter Cost Not Listed

| Name | Description |
|---|--|
| Demolition of existing transmitter space | This covers the cost of demolition of existing transmitter space and disposal of old transmitter and equipment |

Antennas

| Section | Question | Response |
|--------------------------|---------------------------------------|----------|
| Antenna Related Expenses | Do you have antenna related expenses? | Yes |

**Auxiliary
Antenna****Add Antenna Information**

| Section | Question | Response |
|---|---|---|
| Existing Antenna Description | Type of change | Retune Existing |
| | Antenna Use | Auxiliary (Backup) |
| | Description of Use | Hancock Auxiliary Site Antenna |
| | Ownership | Leased |
| | Owner | American Tower |
| | Site | N/A |
| | Is this antenna currently shared with any other stations? | Yes |
| | Is this antenna directional? | Yes |
| | Is antenna in operating condition? | Yes |
| | Is antenna located on or in close proximity to an antenna farm? | Yes |
| Existing Antenna Manufacturer and Type | Class | Full Power |
| | Mounting | Side Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Horizontal |
| | Type | Broadband Panel |
| | Number of Stations Supported | 4 |
| | Number of Panels | 24 |

| | |
|---------------------------------|-----------------------|
| Design power capacity in use | 100.0 % |
| Lower Limit | 488.00 MHz |
| Upper Limit | 698.00 MHz |
| Other Antenna Type | N/A |
| ERP: (Effective Radiated Power) | 1000.0 kW |
| Manufacturer | Dielectric |
| Model | TUF-C4-12 /48U-2BR |
| Year | 2004 |

**Facility ID's and Call Signs of
all stations with whom the
antenna is shared.**

| Facility ID | Call Sign |
|-------------|-----------|
| 73226 | WLS-TV |
| 12498 | WGBO-DT |
| 47905 | WMAQ-TV |
| 72115 | WGN-TV |

**Auxiliary
Antenna**

Adjustment to Existing Antenna

| Section | Question | Response |
|---------------------------------------|---|----------|
| Sweep Test of Existing Antenna | Do you need a sweep test of existing antenna? | No |

**Auxiliary
Antenna**

Other Antenna Costs

| Section | Question | Response |
|------------------------------------|--|----------------------|
| Combiner for Shared Antenna | Do you need a Combiner for a Shared Antenna? | Yes |
| | Type | Additional Module |
| | | |

| | | |
|--|-----------------------------------|---------------------------|
| | Number of channels supported | 4 |
| | Frequencies of channels supported | Upper and lower frequency |
| | Frequency | 488.0 MHz - 698.0 MHz |

**Auxiliary
Antenna**

Other Antenna Cost Not Listed

| Name | | Description |
|-----------------------|--|--|
| RF Project Management | | RF project management at the John Hancock Center |
| Combiner Installation | | Labor and Materials to install Channel 22 filter |

**Auxiliary
Antenna****Add Antenna Information**

| Section | Question | Response |
|---|--|--------------------------|
| Existing Antenna Description | Type of change | Purchase New |
| | Antenna Use | Auxiliary (Backup) |
| | Description of Use | Willis Aux Antenna |
| | Ownership | Leased |
| | Owner | 233 Broadcast, LLC |
| | Site | N/A |
| | Is this antenna currently shared with any other stations? | Yes |
| | Is this antenna directional? | Yes |
| | Is antenna in operating condition? | Yes |
| | Is antenna located on or in close proximity to an antenna farm? | Yes |
| Existing Antenna Manufacturer and Type | Class | Full Power |
| | Mounting | Side Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Horizontal |
| | Type | Broadband Panel |
| | Number of Stations Supported | 3 |
| | Number of Panels | 24 |
| | Design power capacity in use | 100.0 % |
| | Lower Limit | 488.00 MHz |
| | Upper Limit | 608.00 MHz |
| | Other Antenna Type | N/A |

| | |
|--|----------|
| ERP: (Effective Radiated Power) | 700.0 kW |
| Manufacturer | |
| Model | PHP24C |
| Year | 2012 |

**Facility ID's and Call Signs of
all stations with whom the
antenna is shared.**

| Facility ID | Call Sign |
|-------------|-----------|
| 10981 | WCPX-TV |
| 32334 | WJYS |
| 73226 | WLS-TV |

**Auxiliary
Antenna****New Antenna Costs**

| Section | Question | Response |
|---|---|-----------------------|
| New Antenna Description | Use | Auxiliary (Backup) |
| | Description of Use | Willis Aux Antenna |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | No |
| | Ownership | Owned |
| | Owner | N/A |
| | Is antenna shared? | Yes |
| | Is antenna directional? | Yes |
| | Will antenna be located on or in close proximity to an antenna farm? | Yes |
| New Antenna Manufacturer and Types | Class | Full Power |
| | Mounting | Side Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Elliptical |
| | Type | Broadband Panel |
| | Number of Stations Supported | 2 |
| | Number of Panels/Bays | 24 |
| | Lower Limit | 488.00 MHz |
| | Upper Limit | 608.00 MHz |
| | Design power capacity in use | 100.0 % |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 700.0 kW |
| | Manufacturer | |
| | | |

| | |
|-------------------------------|--|
| Model | PEPL-24C |
| Year | 2018 |
| Justification for New Antenna | Please see Cost Justification Exhibit attachment |

Auxiliary Antenna

Other Antenna Costs

| Section | Question | Response |
|------------------------------------|---|---------------------------|
| Combiner for Shared Antenna | Do you need a Combiner for a Shared Antenna? | Yes |
| | Type | New |
| | Number of channels supported | 2 |
| | Frequencies of channels supported | Upper and lower frequency |
| | Frequency | 488.0 MHz - 608.0 MHz |
| | Do you need a combiner output splitter /switcher for dual feed lines? | No |
| Elbow Complex | Do you require the separate purchase of the Elbow Complex? | No |
| | Broadband or Single Channel? | N/A |
| | Feed Line Size | N/A |
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for a high power antenna? | Yes |
| Pattern Scatter Analysis | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | Yes |
| Sweep Test | Do you require the sweep testing of transmission line and antenna? | Yes |

**Auxiliary
Antenna****Other Antenna Cost Not Listed**

| Name | Description |
|-------------------------------------|---|
| Antenna Commissioning | RFS-Loney |
| East Pole material disposal | Scrap |
| RFR measurements | Post installation |
| Combiner Commissioning | RFS-Loney |
| Antenna Installation | No helicopter lift |
| Antenna Freight | From Australia to ISI |
| RF Safety Coordibnatio | For antenna and line installation |
| Permitting | City of Chicago |
| Combiner Reconfiguration Labor | Reconfiguration of existing combiner |
| Combiner Room Construction EAST | Construction of existing combiner room where existing combiners will be removed |
| Cylinder entry port Restoration | Restoring the East Cylinder |
| Combiner Freight | From Australia to ISI |
| Combiner Room Construction WEST | Prepping space for new Combiner on floor 100 at Willis |
| Antenna Delivery | Delivery from ISI to Willis |
| East Pole transmission line removal | Remove transmission line |
| Radome modifications | Design and fabrication |
| NE Pole decommissioning lift | Helicopter lift removal |
| outside project management | Project managers at Willis |
| RF Safety coordination NE Pole | NE Pole decommissioning |
| NE Pole decommissioning | Engineering |
| Combiner Delivery | Delivery from ISI to Willis Tower |
| NE Pole Prep work | Prep for removal |
| Equipment Storage | ISI storage |

Primary Antenna

Existing Antenna Information

| Section | Question | Response |
|---|--|--------------------|
| Existing Antenna Description | Type of change | Purchase New |
| | Antenna Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is the existing antenna shared with another station or stations? | No |
| | Is the existing antenna directional? | Yes |
| | Is antenna in operating condition? | Yes |
| | Is antenna located on or in close proximity to an antenna farm? | Yes |
| Existing Antenna Manufacturer and Type | Class | Full Power |
| | Mounting | Top Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Elliptical |
| | Type | Slotted Coaxial |
| | Number of Stations Supported | N/A |
| | Number of Panels | N/A |
| | Design power capacity in use | N/A |
| | Lower Limit | N/A |
| | Upper Limit | N/A |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 1000.0 kW |
| | | |

| | |
|--------------|--------------------------|
| Manufacturer | |
| Model | TFU 19ETT /VP -R S140 |
| Year | 2012 |

Primary
Antenna

New Antenna Costs

| Section | Question | Response |
|------------------------------------|--|-----------------|
| New Antenna Description | Use | Primary (Main) |
| | Description of Use | N/A |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | No |
| | Ownership | Owned |
| | Owner | N/A |
| | Is antenna shared? | No |
| | Is antenna directional? | Yes |
| | Will antenna be located on or in close proximity to an antenna farm? | Yes |
| New Antenna Manufacturer and Types | Class | Full Power |
| | Mounting | Top Mount |
| | Antenna position in stack | Not in Stack |
| | Polarization | Elliptical |
| | Type | Slotted Coaxial |
| | Number of Stations Supported | N/A |
| | Number of Panels/Bays | N/A |
| | Lower Limit | N/A |
| | Upper Limit | N/A |
| | Design power capacity in use | N/A |
| | Other Antenna Type | N/A |
| | ERP: (Effective Radiated Power) | 700.0 kW |
| | Manufacturer | |
| | | |

| | |
|-------------------------------|---|
| Model | TFU-15ETT /VP-R S140 Directional Antenna |
| Year | 2019 |
| Justification for New Antenna | Our present antenna is a Dielectric channel 44 antenna that cannot be retuned to our new channel 22 assignment. |

Primary Antenna

Other Antenna Costs

| Section | Question | Response |
|------------------------------------|---|-------------------------|
| Combiner for Shared Antenna | Do you need a Combiner for a Shared Antenna? | No |
| | Type | |
| | Number of channels supported | N/A |
| | Frequencies of channels supported | N/A |
| | Frequency | N/A |
| | Do you need a combiner output splitter /switcher for dual feed lines? | N/A |
| Elbow Complex | Do you require the separate purchase of the Elbow Complex? | Yes |
| | Broadband or Single Channel? | Single Channel |
| | Feed Line Size | 8 3/16 inches inches |
| Side Mount Brackets | Do you require the separate purchase of side mount brackets for a high power antenna? | No |

| | | |
|---------------------------------|---|-----|
| Pattern Scatter Analysis | Do you require separate purchase of pattern scatter analysis for a side mount high or medium power antenna? | No |
| Sweep Test | Do you require the sweep testing of transmission line and antenna? | Yes |

**Primary
Antenna**

Other Antenna Cost Not Listed

| Name | Description |
|------------------------|--|
| Antenna Storage | The new antenna needs to be on site early to meet the FCC timeline |

Transmission Line

| Section | Question | Response |
|------------------------------------|---|----------|
| Transmission Line Related Expenses | Do you have transmission line related expenses? | Yes |

Primary Transmission Line**Existing Transmission Line**

| Section | Question | Response |
|--|--|------------------|
| Existing Transmission Line Description | Type of change | Utilize Existing |
| | Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is the existing transmission line shared with another station or stations? | No |
| | Is Transmission Line in operating condition? | Yes |
| Existing Transmission Line Manufacturer and Type | Manufacturer | Dielectric |
| | Type | Rigid |
| | Diameter | 8 3/16 inches |
| | Other Diameter | N/A |
| | Segment Length | Other |
| | Other Segment Length | 10 feet |
| | Number of parallel runs | 1 |
| | Length | 480 feet per run |

Primary **Other Transmission Line Expenses Not Listed**

| Transmission Line Name | Description |
|----------------------------|---|
| Modification of rigid line | Modification of main antenna 8 3/16' rigid transmission line at Willis transmitter site |

Auxiliary **Existing Transmission Line**

| Transmission Line Section | Question | Response |
|---|--|-------------------------|
| Existing Transmission Line Description | Type of change | Utilize Existing |
| | Use | Auxiliary (Backup) |
| | Description of Use | Hancock Auxilliary Site |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is the existing transmission line shared with another station or stations? | No |
| | Is Transmission Line in operating condition? | Yes |
| Existing Transmission Line Manufacturer and Type | Manufacturer | Dielectric |
| | Type | Rigid |
| | Diameter | 4 1/16 inches |
| | Other Diameter | N/A |
| | Segment Length | Other |
| | Other Segment Length | 10 feet |
| | Number of parallel runs | 1 |
| | Length | 160 feet per run |

Auxiliary
Transmission Line

Other Transmission Line Expenses Not Listed

| Name | Description |
|------------------------|--|
| Hancock Auxiliary Site | Modification of existing transmission line to accommodate new transmitter and new combiner configuration |

Auxiliary Transmission Line

Add Transmission Line

| Section | Question | Response |
|--|--|--------------------|
| Existing Transmission Line Description | Type of change | Purchase New |
| | Use | Auxiliary (Backup) |
| | Description of Use | willis Aux Antenna |
| | Ownership | Owned |
| | Owner | N/A |
| | Site | N/A |
| | Is this transmission currently shared with any other stations? | Yes |
| | Is Transmission Line in operating condition? | Yes |
| Existing Transmission Line Manufacturer and Type | Manufacturer | |
| | Type | Rigid |
| | Diameter | 6 1/8 inches |
| | Other Diameter | N/A |
| | Segment Length | Other |
| | Other Segment Length | 10 feet |
| | Number of parallel runs | 2 |
| | Length | 485 feet per run |

Facility ID's and Call Signs of all stations with whom the transmission line is shared.

| Facility ID | Call Sign |
|-------------|-----------|
| 32334 | WJYS |
| 10981 | WCPX-TV |

Auxiliary **New Transmission Line**
Transmission Line

| Section | Question | Response |
|------------------------------------|---|--|
| New Transmission Line Costs | Use | Auxiliary (Backup) |
| | Description of Use | Willis Aux Antenna |
| | Change Type | Purchase New |
| | Is this a request for upgraded equipment? | No |
| | Type | Rigid |
| | Diameter | 6 1/8 inches |
| | Other Diameter | N/A |
| | Segment Length | Other |
| | Other Segment Length | 10 feet |
| | Number of parallel runs | 2 |
| | Length | 400 feet per run |
| | Justification for New Transmission Line | The existing transmission line needs to be replaced to feed the new Willis Aux antenna from the new shared Combiner due to the repack work at Willis |

Auxiliary **Other Transmission Line Expenses Not Listed**
Transmission Line

| Name | Description |
|------|-------------|
|------|-------------|

| | |
|---------------------------------------|---------------------------|
| Transmission Line installation | Mix of day and night work |
| Internal Transmission line | To Combiner. With Parts |
| Transmission Line Mounts | Design and Fabrication |

Tower Equipment And Rigging Costs

| Section | Question | Response |
|--|---|----------|
| Tower Equipment or Rigging Costs Changes | Do you have tower equipment or rigging costs changes? | Yes |

Auxiliary Tower

Existing Tower

| Section | Question | Response |
|---|---|---------------------|
| Existing Tower Description | Type of change | Modify Existing |
| | Tower Use | Auxiliary (Backup) |
| | Description of Use | Hancock Aux Antenna |
| | Ownership | Leased |
| | Is this tower consider Complex? | Located on Building |
| | Is this tower currently shared with any other stations? | Yes |
| | One or more FM, AM or TV radio broadcaster(s) | Yes |
| | Others Types of Users | No |
| | Is tower documented for structural analysis? | Unknown |
| | Is tower compliant with Rev G? | Unknown |
| Existing Tower Structure Registration | Do you have a tower registration number? | Yes |
| | ASR Number | 1009012 |
| Coordinates (NAD83 (North American Datum of 1983)) | Latitude (NAD83) | 41° 53' 56.1" N- |
| | Longitude (NAD83) | 087° 37' 23.2" W- |
| | Overall Structure Height | 1505.89 feet |
| | Support Structure Height | 1206.35 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 592.84 feet |
| | | |

| | | |
|--|------------------|--|
| | Structure Type | BTWR - Building with Tower |
| | Tower Owner | SpectraSite Communications, LLC. through American Towers, LLC. |
| | Date Constructed | 12/05/2002 |

**FM, AM or TV radio
broadcasters. Facility ID's,
Call Signs and Services of
other broadcast stations with
whom the tower is shared**

| Facility ID | Call Sign | Service |
|-------------|-----------|---------|
| 12279 | WYCC | DTV |
| 72115 | WGN-TV | DTV |
| 35101 | WOCH-CD | DTV |
| 35092 | WOCK-CD | DTV |
| 12498 | WGBO-DT | DTV |
| 60539 | WXFT-DT | DTV |
| 47905 | WMAQ-TV | DTV |

**Auxiliary
Tower**

Tower Modification Costs

| Section | Question | Response |
|-----------------------------|--|--------------------------|
| Engineering Study | Please what type of engineering study is required, if any: | No study needed |
| Tower Reinforcements | Please select whether tower reinforcements are needed: | No reinforcements needed |

**Auxiliary
Tower**

Tower Rigging Costs

| Section | Question | Response |
|------------------------------|-----------------------------------|---------------------|
| Tower Rigging Costs | Complex Tower | Located on Building |
| Helicopter Services Required | Are helicopter services required? | No |

**Auxiliary
Tower**

Other Tower Expenses Not Listed

Information not provided.

Auxiliary Tower

Existing Tower

| Section | Question | Response |
|--|---|----------------------------|
| Existing Tower Description | Type of change | Modify Existing |
| | Tower Use | Auxiliary (Backup) |
| | Description of Use | Willis Auxiliary Antenna |
| | Ownership | Leased |
| | Is this tower consider Complex? | Located on Building |
| | Is this tower currently shared with any other stations? | Yes |
| | One or more FM, AM or TV radio broadcaster(s) | Yes |
| | Others Types of Users | No |
| | Is tower documented for structural analysis? | Yes |
| | Is tower compliant with Rev G? | No |
| Existing Tower Structure Registration | Do you have a tower registration number? | Yes |
| | ASR Number | 1032960 |
| Coordinates (NAD83 (North American Datum of 1983)) | Latitude (NAD83) | 41° 52' 44.0" N- |
| | Longitude (NAD83) | 087° 38' 08.0" W- |
| | Overall Structure Height | 1722.09 feet |
| | Support Structure Height | 1435.35 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 595.14 feet |
| | Structure Type | BMAST - Building with Mast |
| | | |

| | | |
|--|------------------|--------------------------|
| | Tower Owner | 233 Broadcast, LLC |
| | Date Constructed | 09/30/2012 |

**FM, AM or TV radio
broadcasters. Facility ID's,
Call Signs and Services of
other broadcast stations with
whom the tower is shared**

| Facility ID | Call Sign | Service |
|-------------|-----------|---------|
| 47905 | WMAQ-TV | DTV |
| 9613 | WBBM-FM | FM |
| 48772 | WPWR-TV | DTV |
| 168662 | WMEU-CD | DTV |
| 70042 | WLIT-FM | FM |
| 6377 | WTMX | FM |
| 10981 | WCPX-TV | DTV |
| 53971 | WEBG | FM |
| 71425 | WWME-CD | DTV |
| 51165 | WGCI-FM | FM |
| 71428 | WCIU-TV | DTV |
| 10801 | WFMT | FM |
| 66978 | WEDE-CD | DTV |
| 71283 | WCFS-FM | FM |
| 22211 | WFLD | DTV |
| 70119 | WSNS-TV | DTV |
| 72115 | WGN-TV | DTV |
| 73228 | WLS-FM | FM |
| 74178 | WKSC-FM | FM |

| | | |
|-------|---------|-----|
| 9617 | WBBM-TV | DTV |
| 10802 | WTTW | DTV |
| 32334 | WJYS | DTV |

Auxiliary Tower

Tower Modification Costs

| Section | Question | Response |
|----------------------|--|-----------------------------------|
| Engineering Study | Please what type of engineering study is required, if any: | Study needed for documented tower |
| Tower Reinforcements | Please select whether tower reinforcements are needed: | Serious Reinforcements needed |

Auxiliary Tower

Tower Rigging Costs

| Section | Question | Response |
|------------------------------|-----------------------------------|---------------------|
| Tower Rigging Costs | Complex Tower | Located on Building |
| Helicopter Services Required | Are helicopter services required? | No |

Auxiliary Tower

Other Tower Expenses Not Listed

Information not provided.

Primary Tower

Existing Tower

| Section | Question | Response |
|--|---|----------------------------|
| Existing Tower Description | Type of change | Modify Existing |
| | Tower Use | Primary (Main) |
| | Description of Use | N/A |
| | Ownership | Leased |
| | Is this tower consider Complex? | Located on Building |
| | Is this tower currently shared with any other stations? | Yes |
| | One or more FM, AM or TV radio broadcaster(s) | Yes |
| | Others Types of Users | No |
| | Is tower documented for structural analysis? | Yes |
| | Is tower compliant with Rev G? | No |
| Existing Tower Structure Registration | Do you have a tower registration number? | Yes |
| | ASR Number | 1032960 |
| Coordinates (NAD83 (North American Datum of 1983)) | Latitude (NAD83) | 41° 52' 44.0" N- |
| | Longitude (NAD83) | 087° 38' 08.0" W- |
| | Overall Structure Height | 1722.09 feet |
| | Support Structure Height | 1435.35 feet |
| | Ground Elevation Above Mean Sea Level (AMSL) | 595.14 feet |
| | Structure Type | BMAST - Building with Mast |
| | | |

| | | |
|--|------------------|--------------------------|
| | Tower Owner | 233 Broadcast, LLC |
| | Date Constructed | 09/30/2012 |

**FM, AM or TV radio
broadcasters. Facility ID's,
Call Signs and Services of
other broadcast stations with
whom the tower is shared**

| Facility ID | Call Sign | Service |
|-------------|-----------|---------|
| 9613 | WBBM-FM | FM |
| 70042 | WLIT-FM | FM |
| 6377 | WTMX | FM |
| 74178 | WKSC-FM | FM |
| 72115 | WGN-TV | DTV |
| 10802 | WTTW | DTV |
| 71428 | WCIU-TV | DTV |
| 168662 | WMEU-CD | DTV |
| 71425 | WWME-CD | DTV |
| 22211 | WFLD | DTV |
| 70119 | WSNS-TV | DTV |
| 66978 | WEDE-CD | DTV |
| 48772 | WPWR-TV | DTV |
| 47905 | WMAQ-TV | DTV |
| 53971 | WEBG | FM |
| 51165 | WGCI-FM | FM |
| 10801 | WFMT | FM |
| 32334 | WJYS | DTV |
| 73228 | WLS-FM | FM |

| | | |
|-------|---------|-----|
| 71283 | WCFS-FM | FM |
| 9617 | WBBM-TV | DTV |
| 10981 | WCPX-TV | DTV |

**Primary
Tower**

Tower Modification Costs

| Section | Question | Response |
|-----------------------------|--|-----------------------------------|
| Engineering Study | Please what type of engineering study is required, if any: | Study needed for documented tower |
| Tower Reinforcements | Please select whether tower reinforcements are needed: | Serious Reinforcements needed |

**Primary
Tower**

Tower Rigging Costs

| Section | Question | Response |
|-------------------------------------|-----------------------------------|---------------------|
| Tower Rigging Costs | Complex Tower | Located on Building |
| Helicopter Services Required | Are helicopter services required? | Yes |

**Primary
Tower**

Other Tower Expenses Not Listed

| Name | Description |
|-----------------------------------|--|
| Install channel 22 antenna | Helicopter lifts to install channel 22 antenna at 1700' |
| Remove Channel 44 antenna | Helicopter lifts to remove channel 44 antenna and damper assembly at 1700' |

**Outside
Professional Services Costs**

| Section | Question | Response |
|---|--|---|
| Outside Project Management Services | Do you require outside project management services? | Yes |
| | Number of Hours | 100 |
| | Explanation | Willis tower RF management services for Main antenna replacement requiring at least 4 helicopter lifts. Willis Tower RF management services for Aux antenna modifications and filter. Hancock site RF management services for combiner mods and filter. |
| Outside RF consulting Engineering Services | Perform engineering study for new channel assignment and antenna development | Yes |
| | Prepare engineering section of Form FCC Construction Permit Application | Yes |
| | For Auxiliary Facility | Yes |
| | For Main Facility | Yes |
| | Prepare engineering section of Form FCC License to Cover Application | Yes |
| | For Auxiliary Facility | Yes |
| | For Main Facility | Yes |
| | Prepare request for Special Temporary Authority | Yes |

| | | |
|---|--|-----|
| | Quantity | 2 |
| | Do you have Distributed Transmission System engineering services? | N/A |
| | Critical Facility | N/A |
| | Terrain-Shielded Facility | N/A |
| Attorney and Other Outside Consulting Services | Prepare and file Form FCC Construction Permit Application | Yes |
| | For Auxiliary Facility | Yes |
| | For Main Facility | Yes |
| | Prepare and file Form FCC License to Cover Application | Yes |
| | For Auxiliary Facility | Yes |
| | For Main Facility | Yes |
| | Prepare request for Special Temporary Authority | Yes |
| | Quantity | 2 |
| | NEPA Section 106 environmental review | No |
| | Environmental Assessment | No |
| | ASR Modification | No |
| | FAA Consultation (including preparation of FAA Form 7460) | No |
| | Negotiation of Lease and other Matter for Shared Locations | Yes |
| | Prepare or Review FCC Form 399 for Reimbursement | Yes |
| | Address transition timing and coordination issues w/ other stations and wireless providers | Yes |
| RF Field Engineering Services | Comprehensive coverage verification via field study | Yes |
| | RF exposure measurements | No |
| | Additional Field Engineering Service | No |

| | | |
|--|----------------|-----|
| | Number of Days | N/A |
| | Justification | N/A |

Outside Other Professional Services Expenses Not Listed

| Professional Services Costs | Description |
|--|---|
| Legal advice re Reimbursement Process | Review and provide guidance on completion of form 399 including research and advice on eligibility of WLS reimburseable expenses, drafting cost justification document and requirements regarding reimbursable legal expenses and required backup support |
| Structural analysis of new Channel 22 antenna | Vortex study of new antenna at top of East Mast and vetting of antenna mounts |
| Outsult RF Consulting Engineering Services | Outside RF consulting services at John Hancock |

Other Expenses

| Section | Question | Response |
|-------------------------------------|--|----------|
| AM Pattern Disturbance | Is an Impact Study needed? | No |
| | Is Remediation needed? | No |
| Facility Expenses | Name | N/A |
| | Other Distributed Transmission System Expenses Not listed | N/A |
| | Name | N/A |
| | Is Notification of a Medical Facility required as a result of DTV broadcasting? | Yes |
| Permit and Filing Costs | Local Zoning | Yes |
| | Non-zoning permits | Yes |
| | BLM or NFS Coordination | No |
| | FCC Construction Permit Minor Change | Yes |
| | FCC License to Cover Application | Yes |
| | FCC Special Temporary Authority Application | Yes |
| Other Miscellaneous Expenses | Does this relocation require paying Disposal Costs (for equipment and other waste, net of any salvage value)? | Yes |
| | Does this relocation require Equipment Delivery or Handling Charges not otherwise included in individual item costs? | Yes |
| | Does this relocation require Equipment Storage? | Yes |
| | Does this relocation require the Development and Airing of an Announcement regarding an upcoming channel change? | Yes |
| | Does this relocation require MVPD Notification of a Channel Change? | Yes |

**Other
Expenses**

Other Expenses Not Listed

| Name | Description |
|-------------------------------|--|
| Engineering management charge | This covers the cost of Engineering management for 16 weeks (640hrs at \$150 /hr) |
| Outside labor cost | this covers the labor cost of two electricians for 12 weeks (960hours @\$123.89/hr) |
| Hancock non dormant charges | Switching to Hancock site for more than 24 hours/month triggers a rent increase. We anticipate 5 months of \$21,746.22/month increase due to repack overnight work at Willis |

Cost Information

Transmitters

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|---|-----------------------------|-----------------------|---|-----------------------|---------------------------|
| Primary Transmitter ULXTE-150 | \$3,604,920.00 | \$3,641,575.88 | | \$1,633,055.40 | |
| UHF - Liquid Cooled Solid State Transmitter 86.8 . 106 kW | \$2,630,000.00 | \$2,670,955.88 | See exhibit "WLS ULXTE-150 system (003)", also "WLS Schedule 399 Supplemental Statement" | \$1,633,055.40 | N/A |
| Demolition of existing transmitter space | <i>\$85,578.00</i> | \$85,578.00 | See attached "WLS Cost Justification Exhibit", also "WLS Schedule 399 Supplemental Statement" | \$0.00 | N/A |
| Other -- Building Addition Size: 2500.0 | <i>\$618,742.00</i> | \$618,742.00 | See attached cost justification exhibit | N/A | N/A |
| Other -- HVAC Service Type: C Size: 40 (Other) | <i>\$160,000.00</i> | \$160,000.00 | X2 Catalog price of \$80,000.00 for 20 Ton HVAC | N/A | N/A |
| 4.0" Rigid Conduit and Wiring | <i>\$24,000.00</i> | \$24,000.00 | catalog price estimate | N/A | N/A |
| Transformer 3 phase/480v - 500 KVA | \$48,400.00 | \$46,000.00 | catalog price estimate | N/A | N/A |

| | | | | | |
|---|-----------------------|-----------------------|--|---------------------|-----|
| Switchgear - industrial 800 amp | \$38,200.00 | \$36,300.00 | Catalog price estimate | N/A | N/A |
| Auxiliary Transmitter ULXTE-50 | \$1,285,014.49 | \$1,283,214.49 | | \$682,043.47 | |
| UHF - Liquid Cooled Solid State Transmitter 31.7 kW | \$1,127,736.49 | \$1,127,736.49 | See exhibit "WLS-TV Hancock ULXTE-50 updated", also "WLS Schedule 399 Supplemental Statement" | \$682,043.47 | N/A |
| Transformer 3 phase/480v - 300 KVA | \$36,800.00 | \$35,000.00 | Catalog price estimate | \$0.00 | N/A |
| Plumbing work | \$25,000.00 | \$25,000.00 | Transmitter room condenser water pumps and heat exchanger installation, plus prep for removal of AC unit, estimate based on previous work at Hancock | N/A | N/A |
| Partial demolition of existing space | \$20,000.00 | \$20,000.00 | Removal of 20 Ton AC unit and Transmitter from Hancock. Estimate based on prior work at Hancock. | N/A | N/A |

| | | | | | |
|---|--------------------|----------------|---|----------------|-----|
| Other Electrical Service: See "WLS Schedule 399 Supplemental Statement" Exhibit | \$66,378.00 | \$66,378.00 | See "WLS Schedule 399 Supplemental Statement" Exhibit | N/A | N/A |
| 2.00" Rigid Conduit and Wiring | \$9,100.00 | \$9,100.00 | Catalog price estimate | N/A | N/A |
| Sub-total | \$4,889,934.49 | \$4,924,790.37 | N/A | \$2,315,098.87 | N/A |
| Total for all systems | \$11,446,908.31 | \$8,878,835.58 | N/A | \$2,781,049.18 | N/A |

Components

| Actual Information | |
|---|---|
| Description | File Name |
| UHF - Liquid Cooled Solid State Transmitter 86.8 . 106 kW | <p>Component Description: 70% down RF Accessories for main transmitter</p> <p>Amount: \$77,234.00</p> <p>Component Description: 70% down Electrical for main transmitter</p> <p>Amount: \$11,883.65</p> <p>Component Description: 70% down mask filter system for main transmitter</p> <p>Amount: \$70,629.93</p> <p>Component Description: 70% down payment, transmitter, main</p> <p>Amount: \$1,473,307.82</p> |

| | |
|--|---------------------------|
| Demolition of existing transmitter space | Information not provided. |
| Other -- Building Addition Size: 2500.0 | Information not provided. |
| Other -- HVAC Service Type: C Size:40 (Other) | Information not provided. |
| 4.0" Rigid Conduit and Wiring | Information not provided. |
| Transformer 3 phase/480v - 500 KVA | Information not provided. |
| Switchgear - industrial 800 amp | Information not provided. |

| | |
|---|---|
| UHF - Liquid Cooled Solid State Transmitter 31.7 kW | Component Description: 70% down payment for the aux transmitter mask filter system Amount: \$22,177.63 |
| | Component Description: 70% down payment for RF accessories for the aux transmitter Amount: \$34,609.11 |
| | Component Description: 70% Down Payment down payment for the aux transmitter Amount: \$611,648.74 |
| | Component Description: 70% down payment for aux transmitter electrical equipment Amount: \$5,166.58 |
| | Component Description: 70% down payment for aux transmitter spare parts Amount: \$8,441.41 |
| | |
| Transformer 3 phase/480v - 300 KVA | Information not provided. |
| Plumbing work | Information not provided. |
| Partial demolition of existing space | Information not provided. |

| | |
|--|---------------------------|
| Other Electrical Service: See "WLS Schedule 399 Supplemental Statement" Exhibit | Information not provided. |
| 2.00" Rigid Conduit and Wiring | Information not provided. |

**Cost
Information**

Antennas

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Justi |
|---|--------------------------------|---------------------|--|--------------------|-----------------|
| Primary Antenna TFU-15ETT/VP-R S140 Directional Antenna | \$317,240.00 | \$292,196.18 | | \$65,180.25 | |
| UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized | \$289,500.00 | \$262,797.89 | See attached "WLS Dielectric Main Antenna Cover Letter, Quote and Invoice 2-4-2019 . pdf" for explanation of new Estimated Cost | \$59,562.00 | 1 |
| Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed) | \$15,250.00 | \$17,238.29 | Sales tax and an additional piece of transmission line to interface to the new elbow complex increased the original price. See attached "WLS Dielectric Main Antenna Cover Letter, Quote and Invoice 2-4-2019 . pdf" | \$4,018.25 | 1 |
| Antenna Storage | <i>\$5,760.00</i> | \$5,760.00 | 24 weeks at \$240/ week storage | N/A | 1 |
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | Catalog price estimate | \$1,600.00 | 1 |
| Auxiliary Antenna TUF-C4- 12/48U-2BR | \$124,666.00 | \$105,212.00 | | \$0.00 | |

| | | | | | |
|--|-----------------------|-----------------------|--|---------------------|---|
| Combiner Installation | \$23,800.00 | \$23,800.00 | Please see attached WLS 280282 John Hancock-East Tower IL Repack Estimates | N/A | 1 |
| RF Project Management | \$9,936.00 | \$9,936.00 | Please see attached WLS 280282 John Hancock-East Tower IL Repack Estimates | N/A | 1 |
| Adding a module to existing combiner (without antenna) | \$84,200.00 | \$65,076.00 | Please see attached WLS 280282 John Hancock-East Tower IL Repack Estimates | N/A | 1 |
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | Catalog price estimate | N/A | 1 |
| UHF " Broadband Panel, Side Mount Auxiliary /Interim, 1000 horizontally polarized | \$0.00 | \$0.00 | N/A | N/A | 1 |
| Auxiliary Antenna PEPL-24C | \$1,160,134.20 | \$1,147,194.20 | | \$195,026.08 | |
| UHF - High Power, Side Mount, broadband panel, 24 bay,, 700 kW input, directional,, elliptically or circularly polarized | \$129,625.03 | \$129,625.03 | Please see attached "WLS Invoice 058641 Explanation 4823-6332-3783, 1 Antenna.pdf" | \$129,625.03 | 1 |

| | | | | | |
|--------------------------------|---------------------|--------------|--|-----|---|
| Equipment Storage | \$1,000.00 | \$1,000.00 | ISI storage Please see attachment : Willis Tower- Budget Overview West Tower RFS Antenna /Combiner System | N/A | 1 |
| NE Pole Prep work | \$33,333.33 | \$33,333.33 | East Pole Decommissioning Prep work Please see attached Cost Justification | N/A | 1 |
| Combiner Delivery | \$10,000.00 | \$10,000.00 | From ISI facility to Willis Tower Please see attached Cost Justification | N/A | 1 |
| NE Pole decommissioning | \$16,666.67 | \$16,666.67 | Engineering Please see attached Cost Justification | N/A | 1 |
| RF Safety coordination NE Pole | \$16,666.67 | \$16,666.67 | RF coordination East Pole Decommissioning Please see attached Cost Justification | N/A | 1 |
| outside project management | \$92,500.00 | \$92,500.00 | Willis charges Please see attached Cost Justification | N/A | 1 |
| NE Pole decommissioning lift | \$200,000.00 | \$200,000.00 | Expected 2 helicopter lifts at Willis Please see attached Cost Justification | N/A | 1 |
| Radome modifications | \$50,000.00 | \$50,000.00 | Design and Fabrication Please see attached Cost Justification | N/A | 1 |

| | | | | | |
|-------------------------------------|--------------------|-------------|---|-----|---|
| East Pole transmission line removal | \$41,666.67 | \$41,666.67 | Remove transmission line NE pole at Willis Please see attached Cost Justification | N/A | 1 |
| Antenna Delivery | \$10,000.00 | \$10,000.00 | Delivery from ISI to Willis Tower Please see attached Cost Justification | N/A | 1 |
| Combiner Room Construction WEST | \$45,000.00 | \$45,000.00 | New combiner room Please see attachment: Willis Tower - Budget Overview WEST Tower RFS Antenna /Combiner System | N/A | 1 |
| Cylinder entry port Restoration | \$25,000.00 | \$25,000.00 | Restoring East Cylinder at Willis Please see attached Cost Justification | N/A | 1 |
| Combiner Room Construction EAST | \$12,857.14 | \$12,857.14 | Construction in existing combiner room where existing combiners are to be removed | N/A | 1 |
| Combiner Reconfiguration Labor | \$7,142.86 | \$7,142.86 | Reconfiguration of existing combiner Please see attachment: Willis Tower Budget Overview EAST Tower RFS System | N/A | 1 |
| Permitting | \$20,000.00 | \$20,000.00 | City of Chicago Please see attachment : Please see attached Cost Justification | N/A | 1 |

| | | | | | |
|--|---------------------|--------------|---|-----|---|
| RF Safety Coordinatio | \$75,000.00 | \$75,000.00 | For Antenna and line install Please see attached Cost Justification | N/A | 1 |
| Antenna Freight | \$12,500.00 | \$12,500.00 | From Australia to ISI Please see attached Cost Justification | N/A | 1 |
| Antenna Installation | \$200,000.00 | \$200,000.00 | West Tower combined Aux antenna install Please see attached Cost Justification | N/A | 1 |
| Combiner Commissioning | \$7,720.00 | \$7,720.00 | RFS-Loney Please see attached Cost Justification | N/A | 1 |
| RFR measurements | \$5,000.00 | \$5,000.00 | Post installation and construction Please see attachment : Willis Tower- Budget Overview West Tower RFS Antenna /Combiner System | N/A | 1 |
| East Pole material disposal | \$13,333.33 | \$13,333.33 | scrap Please see attached Cost Justification | N/A | 1 |
| Antenna Commissioning | \$10,782.50 | \$10,782.50 | Please see attached Cost Justification | N/A | 1 |
| Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost) | \$5,260.00 | \$5,000.00 | Based on catalog estimate | N/A | 1 |

| | | | | | |
|--|-------------------|----------------|---|----------------|---|
| Side mount brackets for high power antennas (if not included in antenna base cost) | \$23,150.00 | \$15,000.00 | Custom Design /Fabrication Please see attached Cost Justification | N/A | 1 |
| Sweep test of existing antenna | \$6,730.00 | \$6,400.00 | based on catalog estimate | N/A | 1 |
| New combiner, cost per channel (without antenna) | \$84,200.00 | \$80,000.00 | WLS 1/2 share of Combiner Module and Spine Please see attached Cost Justification | \$65,401.05 | 1 |
| Combiner Freight | \$5,000.00 | \$5,000.00 | from Australia to ISI Please see attached Cost Justification | N/A | 1 |
| Sub-total | \$1,602,040.20 | \$1,544,602.38 | N/A | \$260,206.33 | 1 |
| Total for all systems | \$11,446,908.31 | \$8,878,835.58 | N/A | \$2,781,049.18 | 1 |

Components

| Actual Information | |
|--|--------------------------------------|
| Description | File Name |
| UHF - High Power Top Mount (200-1000 kW), One station antenna , elliptically or circularly polarized | Component Description: |
| | 1st 25% down payment on line item 2 |
| | Amount: |
| | \$2,450.00 |
| | Component Description: |
| | 1st 25% down payment on line items 1 |
| | Amount: |
| | \$57,112.00 |

| | | | |
|--|-------------------------------|--|---|
| Elbow complex, single channel, at antenna input, per 8 3/16. feedline (if needed) | Component Description: | | 1st 25% down payment on line item 3 |
| | Amount: | | \$3,395.75 |
| | Component Description: | | 1st 25% down payment for line item 4 |
| | Amount: | | \$622.50 |
| Antenna Storage | Information not provided. | | |
| Sweep test of existing antenna | Component Description: | | 1st down payment on line item 5 |
| | Amount: | | \$1,600.00 |
| Combiner Installation | Information not provided. | | |
| RF Project Management | Information not provided. | | |
| Adding a module to existing combiner (without antenna) | Information not provided. | | |
| Sweep test of existing antenna | Information not provided. | | |
| UHF " Broadband Panel, Side Mount Auxiliary/Interim, 1000 horizontally polarized | Information not provided. | | |
| UHF - High Power, Side Mount, broadband panel, 24 bay,, 700 kW input, directional,, elliptically or circularly polarized | Component Description: | | WLS 50% share of the Willis Tower aux antenna |
| | Amount: | | \$129,625.03 |
| Equipment Storage | Information not provided. | | |
| NE Pole Prep work | Information not provided. | | |
| Combiner Delivery | Information not provided. | | |
| NE Pole decommissioning | Information not provided. | | |

| | |
|--|---------------------------|
| RF Safety coordination NE Pole | Information not provided. |
| outside project management | Information not provided. |
| NE Pole decommissioning lift | Information not provided. |
| Radome modifications | Information not provided. |
| East Pole transmission line removal | Information not provided. |
| Antenna Delivery | Information not provided. |
| Combiner Room Construction WEST | Information not provided. |
| Cylinder entry port Restoration | Information not provided. |
| Combiner Room Construction EAST | Information not provided. |
| Combiner Reconfiguration Labor | Information not provided. |
| Permitting | Information not provided. |
| RF Safety Coordination | Information not provided. |
| Antenna Freight | Information not provided. |
| Antenna Installation | Information not provided. |
| Combiner Commissioning | Information not provided. |
| RFR measurements | Information not provided. |
| East Pole material disposal | Information not provided. |
| Antenna Commissioning | Information not provided. |
| Pattern scatter analysis for side mount high/med power antennas (if not included in antenna base cost) | Information not provided. |
| Side mount brackets for high power antennas (if not included in antenna base cost) | Information not provided. |

| | |
|--|--|
| Sweep test of existing antenna | Information not provided. |
| New combiner, cost per channel (without antenna) | <div> <div> Component Description: </div> <div> Willis Tower aux antenna combiner, WLS 50% share, including taxes (6.35% IL, 1% Chicago). </div> </div> <div> <div> Amount: </div> <div> \$65,401.05 </div> </div> |
| Combiner Freight | Information not provided. |

Cost Information

Transmission Line

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|--|-----------------------------|---------------------|--|---------------------|---------------------------|
| Primary Transmission Line | \$40,000.00 | \$40,000.00 | | \$0.00 | |
| Modification of rigid line | <i>\$40,000.00</i> | \$40,000.00 | Estimate based on previous construction experience at Willis | N/A | N/A |
| Auxiliary Transmission Line | \$35,000.00 | \$35,000.00 | | \$0.00 | |
| Hancock Auxiliary Site | <i>\$35,000.00</i> | \$35,000.00 | Estimate based on previous work at Hancock. | N/A | N/A |
| Auxiliary Transmission Line | \$326,600.00 | \$284,367.21 | | \$119,367.21 | |
| Rigid Transmission Line - copper, 6 1/8" | \$161,600.00 | \$119,367.21 | Please see attached "WLS Invoice 059935 Explanation 4824-1149-7094, 4 Transmission Line.pdf" | \$119,367.21 | N/A |
| Transmission Line Mounts | <i>\$15,000.00</i> | \$15,000.00 | Design and Fabrication Please see attached cost justification | N/A | N/A |

| | | | | | |
|--------------------------------|--------------------|----------------|---|----------------|-----|
| Internal Transmission line | \$75,000.00 | \$75,000.00 | To Combiner, with parts Please see attached cost justification | N/A | N/A |
| Transmission Line installation | \$75,000.00 | \$75,000.00 | Mix of day and night work Please see attached cost justification | N/A | N/A |
| Sub-total | \$401,600.00 | \$359,367.21 | N/A | \$119,367.21 | N/A |
| Total for all systems | \$11,446,908.31 | \$8,878,835.58 | N/A | \$2,781,049.18 | N/A |

Components

| Actual Information | |
|--|--|
| Description | File Name |
| Modification of rigid line | Information not provided. |
| Hancock Auxiliary Site | Information not provided. |
| Rigid Transmission Line - copper, 6 1/8" | <p>Component Description: Willis Tower aux transmission line, WLS 50% share.</p> <p>Amount: \$119,367.21</p> |
| Transmission Line Mounts | Information not provided. |
| Internal Transmission line | Information not provided. |
| Transmission Line installation | Information not provided. |

Cost
Information

Tower Equipment and Rigging Costs

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|---------------------------------|--------------------------------|-------------------|---|-------------|------------------------------|
| Primary Tower BMAST | \$2,115,975.00 | \$1,180,375.00 | | \$0.00 | |
| Remove Channel 44 antenna | <i>\$177,900.00</i> | \$177,900.00 | See attached ABC-WLS Willis Tower Chicago Channel 44 Removal (ISI estimate to prep East Mast at Willis and labor for uninstalling and transporting ch. 44 antenna). Helicopter lift /permits /insurance costs excluded from Remove Channel 44 Antenna line item. | N/A | N/A |

| | | | | | |
|----------------------------------|---------------------|--------------|---|-----|-----|
| Install channel 22 antenna | \$243,200.00 | \$243,200.00 | See attached ABC-WLS Willis Tower Chicago Channel 44 Install (ISI estimate to prep East Mast at Willis and labor for transporting /installing ch. 22 antenna). Helicopter lift /permits /insurance costs excluded from Install Channel 44 Antenna line item. | N/A | N/A |
| Tower Helicopter Lift | \$209,275.00 | \$209,275.00 | See attached ABC-WLS Willis Tower Chicago Channel 44 Removal (\$88.5K for helicopter lift /permits and \$9.5K for lift insurance); ABC-WLS Willis Tower Chicago Channel 44 Install (\$101,775 for helicopter lift /permits and \$9.5K for lift insurance). | N/A | N/A |

| | | | | | |
|--|---------------------|---------------|--|---------------|-----|
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | \$421,000.00 | \$0.00 | Not applicable to WLS | N/A | N/A |
| Serious tower reinforcement /modifications | \$1,052,000.00 | \$400,000.00 | Will install channel 44 antenna on East Mast, and has based cost estimate for structural modifications on Willis Tower West Mast estimates. See Willis Tower- Budget Overview West Tower RFS Antenna /Combiner System. | N/A | N/A |
| Structural engineering tower load study for well documented tower | \$12,600.00 | \$150,000.00 | ERE. Same as study for West mast Please see attachment : Willis Tower- Budget Overview West Tower RFS Antenna /Combiner System, provided by Willis Tower representatives | N/A | N/A |
| Auxiliary Tower BTWR | \$421,000.00 | \$0.00 | | \$0.00 | |

| | | | | | |
|--|------------------------|-----------------------|--|-----------------------|------------|
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | \$421,000.00 | \$0.00 | Not applicable to WLS | N/A | N/A |
| Auxiliary Tower BMAST | \$1,485,600.00 | \$350,000.00 | | \$0.00 | |
| Complex Tower (includes, for example, those with candelabras and/or stacked antennas) | \$421,000.00 | \$0.00 | Not applicable to WLS | N/A | N/A |
| Serious tower reinforcement /modifications | \$1,052,000.00 | \$200,000.00 | Structural. WLS 1/2 share Please see attached cost justification | N/A | N/A |
| Structural engineering tower load study for well documented tower | \$12,600.00 | \$150,000.00 | ERE Please see attached cost justification | N/A | N/A |
| Sub-total | \$4,022,575.00 | \$1,530,375.00 | N/A | \$0.00 | N/A |
| Total for all systems | \$11,446,908.31 | \$8,878,835.58 | N/A | \$2,781,049.18 | N/A |

Components

Information not provided.

Cost Information

Outside Professional Services

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Cost Justification |
|--|-----------------------------|---------------------|---|--------------------|---------------------------|
| Outside Professional Services | \$227,153.12 | \$219,778.12 | | \$86,376.77 | |
| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application | \$5,260.00 | \$5,000.00 | N/A | \$4,579.03 | N/A |
| Outsult RF Consulting Engineering Services | <i>\$750.00</i> | \$750.00 | Please see attachment WLS 280282 JOHN HANCOCK - EAST TOWER ILRepack Cost Estimate | N/A | N/A |
| Structural analysis of new Channel 22 antenna | <i>\$7,000.00</i> | \$7,000.00 | Please see attached WLS Vortex shedding study PO exhibit | N/A | N/A |
| Legal advice re Reimbursement Process | <i>\$70,858.12</i> | \$70,858.12 | Please see two attached proposals from Akin Gump Strauss Hauer & Feld, LLP | \$69,475.49 | N/A |

| | | | | | |
|--|-------------|-------------|---------------------------------|-----|-----|
| Comprehensive coverage verification via field study, if needed | \$84,200.00 | \$80,000.00 | Price based on catalog estimate | N/A | N/A |
| Attorney Fees - Prepare and File request for Special Temporary Authorization | \$7,360.00 | \$7,000.00 | N/A | N/A | N/A |
| Attorney Fees - Negotiation of lease and other matters for shared locations | \$4,210.00 | \$4,000.00 | N/A | N/A | N/A |
| Attorney Fees - Prepare and File FCC Form 2100 (main), License to Cover Application | \$2,365.00 | \$2,250.00 | N/A | N/A | N/A |
| Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application | \$4,210.00 | \$4,000.00 | N/A | N/A | N/A |
| RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application | \$1,580.00 | \$1,500.00 | N/A | N/A | N/A |

| | | | | | |
|---|-------------|-------------|---|------------|-----|
| Prepare engineering section of FCC Form 2100 (main), License to Cover Application | \$1,580.00 | \$1,500.00 | N/A | N/A | N/A |
| Prepare engineering section of FCC Form 2100 (main), Construction Permit Application | \$3,155.00 | \$3,015.00 | Slightly more work was required than was accounted for in the original cost estimate. | \$3,015.00 | N/A |
| Address transition timing and coordination issues w/ other stations and wireless | \$2,630.00 | \$2,500.00 | N/A | \$1,200.00 | N/A |
| Project management of the transition | \$15,800.00 | \$15,000.00 | Willis tower estimated charges | N/A | N/A |
| Prepare and or review reimbursement form | \$2,630.00 | \$2,500.00 | N/A | \$2,377.25 | N/A |
| RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application | \$2,105.00 | \$2,000.00 | N/A | N/A | N/A |

| | | | | | |
|--|-----------------|----------------|--|----------------|-----|
| Perform engineering study for new channel assignment and antenna development | \$7,360.00 | \$7,905.00 | Please see attached CTJC Invoice # 850-03-0081 | \$4,890.00 | N/A |
| Prepare request for Special Temporary Authorization | \$4,100.00 | \$3,000.00 | N/A | \$840.00 | N/A |
| Sub-total | \$227,153.12 | \$219,778.12 | N/A | \$86,376.77 | N/A |
| Total for all systems | \$11,446,908.31 | \$8,878,835.58 | N/A | \$2,781,049.18 | N/A |

Components

| Actual Information | |
|--|---------------------------------------|
| Description | File Name |
| Attorney Fees - Prepare and File FCC Form 2100 (main), Construction Permit Application | Component Description: |
| | Prepare & File 2100, Main CP |
| | Amount: |
| | \$216.27 |
| | Component Description: |
| | Prepare & File 2100, Main CP |
| | Amount: |
| | \$4,362.76 |
| Outsult RF Consulting Engineering Services | Information not provided. |
| Structural analysis of new Channel 22 antenna | Information not provided. |
| Legal advice re Reimbursement Process | Component Description: |
| | Legal Advice RE Reimbursement Process |
| | Amount: |
| | \$982.02 |

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|--|-------------------------------|---------------------------------------|
| | Component Description: | Legal Advice RE Reimbursement Process |
| | Amount: | \$23,586.40 |
| | Component Description: | Legal Advice RE Reimbursement Process |
| | Amount: | \$1,670.39 |
| | Component Description: | Legal Advice RE Reimbursement Process |
| | Amount: | \$550.78 |
| | Component Description: | Legal Advice RE Reimbursement Process |
| | Amount: | \$642.31 |
| | Component Description: | Legal Advice RE Reimbursement Process |
| | Amount: | \$821.12 |
| | Component Description: | Legal Advice RE Reimbursement Process |
| | Amount: | \$1,983.32 |
| | Component Description: | Legal Advice RE Reimbursement Process |
| | Amount: | \$39,239.15 |
| Comprehensive coverage verification via field study, if needed | Information not provided. | |

| | | |
|--|---|--|
| Attorney Fees - Prepare and File request for Special Temporary Authorization | Information not provided. | |
| Attorney Fees - Negotiation of lease and other matters for shared locations | Information not provided. | |
| Attorney Fees -Prepare and File FCC Form 2100 (main), License to Cover Application | Information not provided. | |
| Attorney Fees - Aux Antenna, prepare and File Form 2100 Construction Permit or License Application | Information not provided. | |
| RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, License to Cover Application | Information not provided. | |
| Prepare engineering section of FCC Form 2100 (main), License to Cover Application | Information not provided. | |
| Prepare engineering section of FCC Form 2100 (main), Construction Permit Application | Component Description: Amount: | Prepare engineering section of FCC Form 2100 (Main), Construction Permit Application \$3,015.00 |
| Address transition timing and coordination issues w/ other stations and wireless | Component Description: Amount: | Address transition timing with other stations and wireless \$1,200.00 |

| | | |
|---|---|--|
| Project management of the transition | Information not provided. | |
| Prepare and or review reimbursement form | Component Description: Amount: | Prepare and or Review Reimbursement Form \$2,377.25 |
| RF Consulting Engineer Fees- Aux Antenna: Prepare engineering section of FCC Form 2100, Construction Permit Application | Information not provided. | |
| Perform engineering study for new channel assignment and antenna development | Component Description: Amount: | Perform Engineering Study for New Channel Assignment & Antenna Dev \$4,890.00 |
| Prepare request for Special Temporary Authorization | Component Description: Amount: | Prepare Special Temporary Authorization (partial) \$840.00 |

**Cost
Information**

Other Expenses

Where no predetermined cost estimate is available, any estimate provided will also become the predetermined cost (displayed in italics).

| Description | Predetermined Cost Estimate | Estimated Cost | Estimated Cost Justification | Actual Cost | Actual Co Justificati |
|-------------------------------------|--------------------------------|---------------------|--|---------------|--------------------------|
| Other Expenses | \$303,605.50 | \$299,922.50 | | \$0.00 | |
| Hancock non dormant charges | <i>\$108,731.10</i> | \$108,731.10 | See attached lease text: "WLS Hancock Lease Dormant vs Energized Language", And See "WLS Schedule 399 Supplemental Statement" Exhibit | N/A | N/A |
| Outside labor cost | <i>\$118,934.40</i> | \$118,934.40 | Two electricians for 12 weeks at \$123.89/hr (960 hrs). See attached hourly quote: "WLS Prime Electric Hourly Quote" and See "WLS Schedule 399 Supplemental Statement" Exhibit | N/A | N/A |
| Engineering management charge | <i>\$0.00</i> | \$0.00 | Do not anticipate seeking reimbursement of cost for internal Engineering | N/A | N/A |

| | | | | | |
|---|--------------------|-------------|--|-----|-----|
| MVPD Notification of Channel Change | \$0.00 | \$0.00 | Do not anticipate seeking reimbursement of cost | N/A | N/A |
| Develop and air announcement of upcoming channel change | \$25,000.00 | \$25,000.00 | 1/2 of catalog estimate | N/A | N/A |
| Equipment Storage | \$5,000.00 | \$5,000.00 | Based on catalog estimate | N/A | N/A |
| Non-zoning permits | \$2,000.00 | \$2,000.00 | N/A | N/A | N/A |
| FCC Filing Fees - Special Temporary Authorization request | \$195.00 | \$190.00 | N/A | N/A | N/A |
| FCC Filing Fees - Form 2100 license to cover application | \$335.00 | \$975.00 | X3 \$325/ license filing fee | N/A | N/A |
| FCC Filing Fees - Form 2100 minor change CP application | \$1,110.00 | \$1,070.00 | X2 \$1070.00 for two Aux facilities | N/A | N/A |
| DTV Medical Facility Notification | \$11,550.00 | \$7,272.00 | Please see attached "DTV Notifications ABC Stations " quote | N/A | N/A |
| Local Zoning | \$750.00 | \$750.00 | Please see attached WLS 280282 John Hancock-East Tower IL Repack Estimates | N/A | N/A |

| | | | | | |
|--|--------------------|----------------|---------------------------|----------------|-----|
| Disposal Costs (for equipment and other waste, net of any salvage value) | \$20,000.00 | \$20,000.00 | Based on catalog estimate | N/A | N/A |
| Equipment Delivery and Handling Charges | \$10,000.00 | \$10,000.00 | based on catalog estimate | N/A | N/A |
| Sub-total | \$303,605.50 | \$299,922.50 | N/A | \$0.00 | N/A |
| Total for all systems | \$11,446,908.31 | \$8,878,835.58 | N/A | \$2,781,049.18 | N/A |

Components

Information not provided.

| Cost Information | Grand Total | | | |
|------------------|-----------------------|-----------------------------|----------------|----------------|
| | | Predetermined Cost Estimate | Estimated Cost | Actual Cost |
| | | | | |
| | Total for all systems | \$11,446,908.31 | \$8,878,835.58 | \$2,781,049.18 |

| Reimbursement Status | Question | Response |
|----------------------|--|----------|
| | The facility has ceased operating on its pre-auction channel. | No |
| | Construction of final facilities or all necessary modifications are complete. | No |
| | All receipts for reimbursement have been submitted no further costs are expected to be incurred. Note this will lock the Form 399 from further editing and begin close-out procedures with the Fund Administrator. | No |

| Certification | Section | Question | Response |
|---------------|---|---|----------|
| | Submission of Estimated Expenses Statements | <p>WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT.</p> | |
| | | <ol style="list-style-type: none"> 1. The Authorized Person signing below certifies that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. 3. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount. | |

4. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (broadcasters) or to continue to carry the signal of a broadcaster that changes channels (MVPD).
5. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
6. The above-named entity certifies that it will maintain and provide to the Commission detailed records, including receipts, of all costs eligible for reimbursement actually incurred.
7. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.

| | |
|---|---|
| <p>8. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a pre-requisite for obtaining the payments herein requested.</p> | |
| <p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p> | <p>John W Zucker <i>Assistant Secretary</i></p> <p>02/04/2019</p> |

| Certification | Section | Question | Response |
|---------------|--|--|----------|
| | Submission of Actual Cost Documentation Statements | WILLFUL FALSE, FRAUDULENT, OR FICTITIOUS STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a) (1), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503), AND ANY FALSE AND/OR FRAUDULENT STATEMENTS COULD SUBJECT THIS ENTITY TO LIABILITY UNDER THE FALSE CLAIMS ACT (U.S. CODE, TITLE 31, SECTIONS 3729-3733). | |
| | | <ol style="list-style-type: none"> 1. The Authorized Person signing below certifies and represents that he /she is authorized to submit this TV Broadcaster Relocation Fund Reimbursement Form on behalf of the above-named entity. 2. The above-named entity certifies that the statements in this form and attached documentation are true, complete, and correct. 3. The above-named entity acknowledges that all certifications and attached documentation are considered material representations. | |

4. The above-named entity acknowledges the submission of the information herein creates no obligation on the part of the government to pay any amount.
5. The above-named entity certifies that the equipment and services paid for with money from the TV Broadcaster Relocation Fund are necessary to change channels (full power and Class A stations) and/or otherwise modify a television station's facility as a result of the spectrum repack (LPTV/TV Translator stations); or to minimize service disruption resulting from a repacked television station (FM stations); or to continue to carry the signal of a broadcaster that changes channels (MVPD) .
6. The above-named entity certifies that all payments from the TV Broadcaster Relocation Fund (Fund) received by the entity listed on this form will be used only for expenses that are eligible for reimbursement from the Fund.
7. The above-named entity certifies that the cost information /documents submitted reflect costs actually incurred.

| | |
|--|---|
| <p>8. The above-named entity acknowledges that overpayments or payments in error must be promptly refunded to the Commission.</p> <p>9. The above-named entity certifies that it is in full compliance with all statutes, rules, regulations and governmental requirements for which compliance is a prerequisite for obtaining the payments herein requested.</p> | |
| <p>I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.</p> | <p>John W Zucker <i>Assistant Secretary</i></p> <p>02/04/2019</p> |

Attachments