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## SECTION 8 Transmission Proposal



**TRANSMISSION PROPOSAL 102.2MHZ**

It is proposed to use the Rock Solid Transmission Limited transmission site on Three Rock for the transmission of the 102.2mHz signal.

**8 (i)Site location (102.2mHz):**

Three Rock County Dublin, national grid co-ordinates E317769 N223347.

**8 (ii)Indicative ERP (dBW) (102.2mHz):**

0'	60'	120'	180'	240'	300'
V- 29.00 H- 32.25	V- 29.00 H- 29.00	V- 29.00 H- 32.00	V- 24.00 H- 24.00	V- 25.00 H- 29.50	V- 30.00 H- 29.50
10'	70'	130'	190'	250'	310'
V- 31.00 H- 32.25	V- 30.00 H- 30.50	V- 30.00 H- 31.50	V- 28.00 H- 26.00	V- 28.00 H- 30.00	V- 31.00 H- 31.00
20'	80'	140'	200'	260'	320'
V- 33.25 H- 32.25	V- 32.80 H- 31.70	V- 32.00 H- 31.00	V- 29.50 H- 28.00	V- 31.00 H- 30.50	V- 32.50 H- 32.00
30'	90'	150'	210'	270'	330'
V- 34.00 H- 31.70	V- 32.80 H- 32.50	V- 32.50 H- 30.00	V- 29.00 H- 29.00	V- 32.50 H- 30.25	V- 32.50 H- 32.50
40'	100'	160'	220'	280'	340'
V- 33.00 H- 30.00	V- 31.50 H- 32.50	V- 31.50 H- 28.00	V- 27.00 H- 29.00	V- 32.00 H- 29.25	V- 31.00 H- 32.50
50'	110'	170'	230'	290'	350'
V- 30.00 H- 28.90	V- 30.00 H- 32.25	V- 28.00 H- 25.00	V- 24.00 H- 29.50	V- 30.50 H- 29.00	V- 29.00 H- 32.50

**• Site details (102.2mHz):**

The tower is an Eve 60 metres high Type 5 Cellular Radio Tower on a bearing of 340° ETN. There is a secure concrete block building with a standby generator and a Transmission plant room 11.5m x 8m which is fitted with cable tray and mechanical ventilation plant. The radio stations 98FM and Anna Livia FM currently transmit from the site. There is a link repeater station between TV3 and RTE on the site. In addition Esat Digifone use the facility for their SDH and local access network.

**• Site height (102.2mHz):**

442 metres ASL

**• Height of antenna (102.2mHz):**

Centred at 51 metres AGL.

**• Antenna (102.2mHz):**

Rock Solid Transmission Limited subject to contract with the three new operators propose to build a new six tier band two antenna between the 42 and 60 metre levels. This will replace the current antenna used by 98FM. Initially the antenna will be used to broadcast the following frequencies 98.1mHz, 102.2mHz, 103.8mHz and 106mHz. This antenna will be dual fed for maintenance purposes. In addition the dual feed arrangement will facilitate emergency operation into the split tiers should there be an issue with the combiner system.

**8 (iii) Anticipated coverage (102.2mHz):**

The anticipated coverage map is attached. (See Appendix 7)

**8 (iv) Planning permission (102.2mHz):**

The site has full and permanent planning permission for multi-user Transmission operation reference: 91A/1206 Dun Laoghaire Rathdown Council.

**8 (v) Capital costs (102.2mHz):**

	IRE
FM Antenna (contribution)	13,000
FM Feeder cable (contribution)	5,500
FM Combiner (contribution)	5,500
Tower modification (contribution)	6,000
Antenna installation (contribution)	10,000
Dummy load	included in base cost
1kWatt FM transmitter	8,650
FM exciter	2,350
Directional coupler	450
Moseley 1.4GHz link receiver	9,995
Andrew Gridpak link antenna	950
Link feeder cable	650
Air-conditioning	no cost
Standby power	no cost
Building	no cost
Tower	no cost

**Annual costs (102.2mHz):**

	IRE
Tower & plant room fee	40,000
Electricity	included in annual fee
Air-conditioning	included in annual fee
Standby power	included in annual fee

**8 (vi) Technical expertise (102.2mHz):**

The engineering and technical aspects of the radio station will be co-ordinated by the Production Director and the Chief Executive.

The Company will engage the services of Broadcast Technical Solutions to install and maintain all studio and transmission equipment.

John Murphy will also act as Technical consultant for the group. John is Business Development Manager with Memorex Telex, who were responsible for IT installation at TV3 and Lyric FM. He has been a director of East Coast Radio Ltd., since its inception in 1991. At the time of set-up of local radio in 1989, John was advisor to Radio Kilkenny, Tipperary Mid West Radio and Horizon.

**• Variations from assigned transmission characteristics (102.2mHz):**

This transmission proposal marginally varies from the assigned transmission characteristics. The antenna height is 51 metres whereas the assigned height is 40 metres. However the assigned site height is 448 meters so the net height increase over the assignment is 6 metres. This increase is negligible and occurs because the proposed antenna is capable of split operation, which requires a larger antenna system (5 1/2 Lambda), and because of antenna positioning constraints on the tower.

### Transmission proposal 103.8mHz

It is proposed to use the Rock Solid Transmission Limited transmission site on Three Rock for the transmission of the 102.2mHz signal.

#### 8 (i) Site location (103.8mHz):

Three Rock County Dublin, national grid co-ordinates E317769 N223347.

0° V- 29.00 H- 32.00	60° V- 29.00 H- 29.00	120° V- 29.00 H- 32.00	180° V- 24.00 H- 24.00	240° V- 25.00 H- 29.50	300° V- 30.00 H- 29.50
10° V- 31.00 H- 32.00	70° V- 31.00 H- 30.00	130° V- 30.00 H- 31.50	190° V- 27.00 H- 26.00	250° V- 28.00 H- 30.00	310° V- 31.00 H- 30.75
20° V- 33.00 H- 32.00	80° V- 32.90 H- 31.50	140° V- 32.00 H- 31.00	200° V- 30.00 H- 28.00	260° V- 31.00 H- 30.25	320° V- 32.50 H- 31.75
30° V- 34.00 H- 31.75	90° V- 32.90 H- 32.50	150° V- 32.50 H- 30.00	210° V- 29.50 H- 29.00	270° V- 32.50 H- 30.00	330° V- 32.50 H- 32.25
40° V- 33.00 H- 30.00	100° V- 31.50 H- 32.50	160° V- 31.00 H- 28.00	220° V- 27.00 H- 29.00	280° V- 32.50 H- 29.50	340° V- 31.00 H- 32.50
50° V- 30.50 H- 29.00	110° V- 30.00 H- 32.50	170° V- 28.00 H- 25.00	230° V- 24.00 H- 29.00	290° V- 30.50 H- 29.00	350° V- 29.00 H- 32.25

#### 8 (ii) Indicative ERP (dBW) (103.8mHz):

##### • Site details (103.8mHz):

The tower is an Eve 60 metres high Type 5 Cellular Radio Tower on a bearing of 340° ETN. There is a secure concrete block building with a standby generator and a Transmission plant room 11.5m x 8m which is fitted with cable tray and mechanical ventilation plant. The radio stations 98FM and Anna Livia FM currently transmit from the site. There is a link repeater station between TV3 and RTE on the site. In addition Esat Digifone use the facility for their SDH and local access network.

##### • Site height (103.8mHz):

442 metres ASL.

##### • Height of antenna (103.8mHz):

Centred at 51 metres AGL.

##### • Antenna (103.8mHz):

Rock Solid Transmission Limited subject to contract with the three new operators propose to build a new six tier band two antenna between the 42 and 60 metre levels. This will replace the current antenna used by 98FM. Initially the antenna will be used to broadcast the following frequencies 98.1mHz, 102.2mHz, 103.8mHz and 106mHz. This antenna will be dual fed for maintenance purposes. In addition the dual feed arrangement will facilitate emergency operation into the split tiers should there be an issue with the combiner system.

**8 (iii) Anticipated coverage (103.8mHz):**

The anticipated coverage map is attached. (See Appendix 7)

**8 (iv) Planning permission (103.8mHz):**

The site has full and permanent planning permission for multi-user Transmission operation reference: 91A/1206 Dun Laoghaire Rathdown Council.

**8 (v) Capital costs (103.8mHz):**

	IR£
FM Antenna (contribution)	13,000
FM Feeder cable (contribution)	5,500
FM Combiner (contribution)	5,500
Tower modification (contribution)	6,000
Antenna installation (contribution)	10,000
Dummy load	included in base cost
1kWatt FM transmitter	8,650
FM exciter	2,350
Directional coupler	450
Moseley 1.4GHz link receiver	9,995
Andrew Gridpak link antenna	950
Link feeder cable	650
Air-conditioning	no cost
Standby power	no cost
Buildin	no cost
Tower	no cost

**Annual costs (103.8mHz):**

	IR£
Tower & plant room fee	40,000
Electricity	included in annual fee
Air-conditioning	included in annual fee
Standby power	included in annual fee

**8 (vi) Technical expertise (103.8mHz):**

The engineering and technical aspects of the radio station will be co-ordinated by the Production Director and the Chief Executive.

The Company will engage the services of Broadcast Technical Solutions to install and maintain all studio and transmission equipment.

John Murphy will also act as Technical consultant for the group. John is Business Development Manager with Memorex Telex, who were responsible for IT installation at TV3 and Lyric FM. He has been a director of East Coast Radio Ltd., since its inception in 1991. At the time of set-up of local radio in 1989, John was advisor to Radio Kilkenny, Tipperary Mid West Radio and Horizon.

**• Variations from assigned transmission characteristics (103.8mHz):**

This transmission proposal marginally varies from the assigned transmission characteristics. The antenna height is 51 metres whereas the assigned height is 40 metres. However the assigned site height is 448 meters so the net height increase over the assignment is 6 metres. This increase is negligible and occurs because the proposed antenna is capable of split operation, which requires a larger antenna system (5 1/2 Lambda), and because of antenna positioning constraints on the tower.

**TRANSMISSION PROPOSAL 106.0MHZ**

It is proposed to use the Rock Solid Transmission Limited transmission site on Three Rock for the transmission of the 102.2mHz signal.

**8 (i) Site location (106.0mHz):**

Three Rock County Dublin, national grid co-ordinates E317769 N223347.

**8 (ii) Indicative ERP (dBW) (106.0mHz):**

0'	60'	120'	180'	240'	300'
V- 32.00 H- 35.25	V- 32.00 H- 31.00	V- 32.50 H- 35.20	V- 28.00 H- 26.50	V- 28.00 H- 32.50	V- 33.00 H- 32.00
10'	70'	130'	190'	250'	310'
V- 34.50 H- 35.50	V- 34.50 H- 32.00	V- 34.00 H- 35.00	V- 31.50 H- 28.00	V- 32.00 H- 33.25	V- 35.00 H- 33.00
20'	80'	140'	200'	260'	320'
V- 36.50 H- 35.75	V- 35.50 H- 34.00	V- 35.25 H- 34.50	V- 32.50 H- 30.00	V- 35.00 H- 33.75	V- 35.50 H- 34.00
30'	90'	150'	210'	270'	330'
V- 37.00 H- 35.50	V- 35.50 H- 35.25	V- 35.50 H- 34.00	V- 32.00 H- 31.50	V- 35.75 H- 34.00	V- 35.00 H- 35.00
40'	100'	160'	220'	280'	340'
V- 34.75 H- 34.00	V- 34.00 H- 35.50	V- 34.00 H- 32.00	V- 29.00 H- 32.00	V- 35.00 H- 33.00	V- 33.50 H- 35.00
50'	110'	170'	230'	290'	350'
V- 33.00 H- 32.00	V- 32.50 H- 35.60	V- 29.00 H- 29.00	V- 26.00 H- 32.25	V- 33.00 H- 32.00	V- 31.50 H- 35.00

**• Site details (106.0mHz):**

The tower is an Eve 60 metres high Type 5 Cellular Radio Tower on a bearing of 340° ETN. There is a secure concrete block building with a standby generator and a Transmission plant room 11.5m x 8m which is fitted with cable tray and mechanical ventilation plant. The radio stations 98FM and Anna Livia FM currently transmit from the site. There is a link repeater station between TV3 and RTE on the site. In addition Esat Digifone use the facility for their SDH and local access network.

**• Site height (106.0mHz):**

442 metres ASL.

**• Height of antenna (106.0mHz):**

Centred at 51 metres AGL.

**• Antenna (106.0mHz):**

Rock Solid Transmission Limited subject to contract with the three new operators propose to build a new six tier band two antenna between the 42 and 60 metre levels. This will replace the current antenna used by 98FM. Initially the antenna will be used to broadcast the following frequencies 98.1mHz, 102.2mHz, 103.8mHz and 106mHz. This antenna will be dual fed for maintenance purposes. In addition the dual feed arrangement will facilitate emergency operation into the split tiers should there be an issue with the combiner system.

**8 (iii) Anticipated coverage (106.0mHz):**

The anticipated coverage map is attached. (See Appendix 7)

**8 (iv) Planning permission (106.0mHz):**

The site has full and permanent planning permission for multi-user Transmission operation reference: 91A/1206 Dun Laoghaire Rathdown Council.

**8 (v) Capital costs (106.0mHz):**

	IR£
FM Antenna (contribution)	13,000
FM Feeder cable (contribution)	5,500
FM Combiner (contribution)	5,500
Tower modification (contribution)	6,000
Antenna installation (contribution)	10,000
Dummy load	included in base cost
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FM exciter	2,350
Directional coupler	450
Moseley 1.4GHz link receiver	9,995
Andrew Gridpak link antenna	950
Link feeder cable	650
Air-conditioning	no cost
Standby power	no cost
Building	no cost
Tower	no cost

**Annual costs (106.0mHz):**

	IR£
Tower & plant room fee	40,000
Electricity	included in annual fee
Air-conditioning	included in annual fee
Standby power	included in annual fee

**8 (vi) Technical expertise (106.0mHz):**

The engineering and technical aspects of the radio station will be co-ordinated by the Production Director and the Chief Executive.

The Company will engage the services of Broadcast Technical Solutions to install and maintain all studio and transmission equipment.

John Murphy will also act as Technical consultant for the group. John is Business Development Manager with Memorex Telex, who were responsible for IT installation at TV3 and Lyric FM. He has been a director of East Coast Radio Ltd., since its inception in 1991. At the time of set-up of local radio in 1989, John was advisor to Radio Kilkenny, Tipperary Mid West Radio and Horizon.

**Variations from assigned transmission characteristics (106.0mHz):**

This transmission proposal marginally varies from the assigned transmission characteristics. The antenna height is 51 metres whereas the assigned height is 30 metres. However the assigned site height is 450 meters so the net height increase over the assignment is 13 metres. This increase is negligible and occurs because the proposed antenna is capable of split operation, which requires a larger antenna system (5 1/2 Lambda), and because of antenna positioning constraints on the tower.