

| CUADRO DE SIMBOLOGÍA |                                      |
|----------------------|--------------------------------------|
|                      | Cabecera                             |
|                      | Torpedo 96 con bandejas 48           |
|                      | Caja distribución Splitter 1:8       |
|                      | Caja abonado 16 adapt.               |
|                      | Caja satélite abonado 8 adapt.       |
|                      | Armario de distribución              |
|                      | Arqueta hormigón 30x30 cm            |
|                      | Cable de fibra óptica ext. 96 fibras |
|                      | Cable de fibra óptica ext. 48 fibras |
|                      | Cable de fibra óptica ext. 12 fibras |
|                      | Cable de fibra óptica ext. 12 fibras |
|                      | Línea separación nodos               |

|  |                    |   |                          |
|--|--------------------|---|--------------------------|
|  | Representante:     | Revisión:   | Fecha Revisión:          |
|  |                    | 12/2017   | 05/12/2017               |
|  | Sustituye a:       | Dibujado por:   | J.A.S.                   |
|  | Plano N°: 18       | PROYECTO DE INFRAESTRUCTURA DE TELECOMUNICACIONES AVANZADAS DE GRAN CAUDAL PARA EL MUNICIPIO DE CABRA |                          |
|  | Revisión: 004-2015 |   |                          |
| Escala: 1:500                                  | Fecha: Julio-2013  |   |                          |
| INGENIERO T. INDUSTRIAL<br>Nº Colegiado: 1.879 |                    |   |                          |
| Fco. Javier Arroyo Sánchez                     |                    | Promotor:   | ATALAYA TELEVISIÓN, S.L. |
| Plano: RED GPON NODO 15                        |                    | Situación: CABRA (Córdoba)  |                          |



## ATALAYA NODO 18

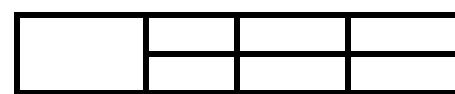
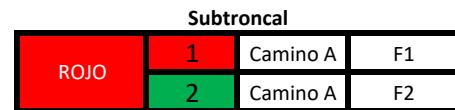
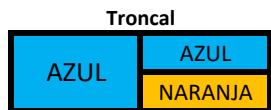
| CABECERA      |                |           |         |         | CABLE TRONCAL |         |      | CABLE SUBTRONCAL |  |             | CAJA DISTRIBUCION |               |           | CABLE DISTRIBUCION |           |             | CAJA ABONADO |      |  |       |  |           |  |                |  |             |  |
|---------------|----------------|-----------|---------|---------|---------------|---------|------|------------------|--|-------------|-------------------|---------------|-----------|--------------------|-----------|-------------|--------------|------|--|-------|--|-----------|--|----------------|--|-------------|--|
| TORPEDO NODO  |                | FIBRA     |         | A,B,C,D |               | TUBO    |      | FIBRA            |  | CAJA A.D    |                   | SPLITTER 1..2 |           | SALIDA 1..8        |           | CABLE A,B.. |              | TUBO |  | FIBRA |  | CAJA 1..8 |  | SPLITTER A,B,C |  | SALIDA 1..8 |  |
| OLT(1,2,3...) | TARJETA(1,2..) | PON(1..8) | 1..2..N | TUBO    | FIBRA         | A,B,C,D | TUBO | FIBRA            |  |             |                   |               |           |                    |           |             |              |      |  |       |  |           |  |                |  |             |  |
| 1             | 2              | 13        | 65      | 18      | A             | A       | R    |                  |  | 1           | 1                 | a             | R         | R,V (amp)          | 1         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 2           | a                 | V             | R,V (amp) | 2                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 3           | a                 | A             | R,V (amp) | 3                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 4           | b                 | R             | R,V (amp) | 4                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 5           | b                 | V             | R,V (sat) | 5                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 6           | c                 | R             | R,V (amp) | 6                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 7           | c                 | V             | R,V (sat) | 7                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 8           | d                 | R             | R,V (amp) | 8                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 2 (ampliac) |                   |               |           |                    |           |             |              |      |  |       |  |           |  |                |  |             |  |
| 1             | 2              | 15        | -       | 18      | A             | V       | A    | R                |  | 1           | 1                 | a             | R         | R,V (amp)          | 1         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 2           | a                 | V             | R,V (amp) | 2                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 3           | a                 | A             | R,V (amp) | 3                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 4           | a                 | Am            | R,V (amp) | 4                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 5           | b                 | R             | R,V (amp) | 5                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 6           | b                 | V             | R,V (amp) | 6                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 7           | c                 | V             | R,V (amp) | 7                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 8           | c                 | A             | R,V (amp) | 8                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 2 (ampliac) |                   |               |           |                    |           |             |              |      |  |       |  |           |  |                |  |             |  |
| 1             | 2              | -         | -       | 18      | A             | G       | A    | R                |  | 1           | 1                 | a             | R         | R,V (amp)          | 1         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 2           | a                 | V             | R,V (amp) | 2                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 3           | b                 | R             | R,V (amp) | 3                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 4           | b                 | V             | R,V (amp) | 4                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 5           | b                 | A             | R,V (amp) | 5                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 6           | c                 | R             | R,V (amp) | 6                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 7           | c                 | V             | R,V (amp) | 7                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 8           | c                 | A             | R,V (amp) | 8                  | A,B (amp) | 1...8, 1..8 |              |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 2 (ampliac) |                   |               |           |                    |           |             |              |      |  |       |  |           |  |                |  |             |  |
| 1             | 2              | -         | -       | 18      | A             | R       | A    | R                |  | 1           | 1                 |               |           | R,V (amp)          | 1         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 2           |                   |               |           | R,V (amp)          | 2         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 3           |                   |               |           | R,V (amp)          | 3         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 4           |                   |               |           | R,V (amp)          | 4         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 5           |                   |               |           | R,V (amp)          | 5         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 6           |                   |               |           | R,V (amp)          | 6         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 7           |                   |               |           | R,V (amp)          | 7         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 8           |                   |               |           | R,V (amp)          | 8         | A,B (amp)   | 1...8, 1..8  |      |  |       |  |           |  |                |  |             |  |
|               |                |           |         |         |               |         |      |                  |  | 2 (ampliac) |                   |               |           |                    |           |             |              |      |  |       |  |           |  |                |  |             |  |

| REDUNDANCIA  |   | CABLE TRONCAL |      |       | CABLE SUBTRONCAL |      |       | CAJA DISTRIBUCION |  |  |
|--------------|---|---------------|------|-------|------------------|------|-------|-------------------|--|--|
| TORPEDO NODO |   | 1..2..N       | TUBO | FIBRA | A,B,C,D          | TUBO | FIBRA | CAJA A.D          |  |  |
| 18           | A | A             |      |       |                  |      |       | A                 |  |  |
|              |   | N             |      |       |                  |      |       | A                 |  |  |
|              |   | V             |      |       |                  |      |       | B                 |  |  |
|              |   | Ma            |      |       |                  |      |       | B                 |  |  |
|              |   | G             |      |       |                  |      |       | C                 |  |  |
|              |   | B             |      |       |                  |      |       | C                 |  |  |
|              |   | R             |      |       |                  |      |       | D                 |  |  |
|              |   | Ne            |      |       |                  |      |       | D                 |  |  |



|                   |    |  |
|-------------------|----|--|
| NODO              | 18 | C/ JUAN MORAL, C/ JESÚS OBRERO, AVDA. SANTA MARÍA, AVDA.               |
| CAJA DISTRIBUCIÓN | A  | SAN JOSÉ, C/ ALCALDE LUIS CABELO, C/ RAMÓN Y CAJAL Y ACERA DEL CAUTIVO |

TORPEDO: Torpedo Nº: 18  
Subtroncal A  
Sin redundancia



COORDENADAS

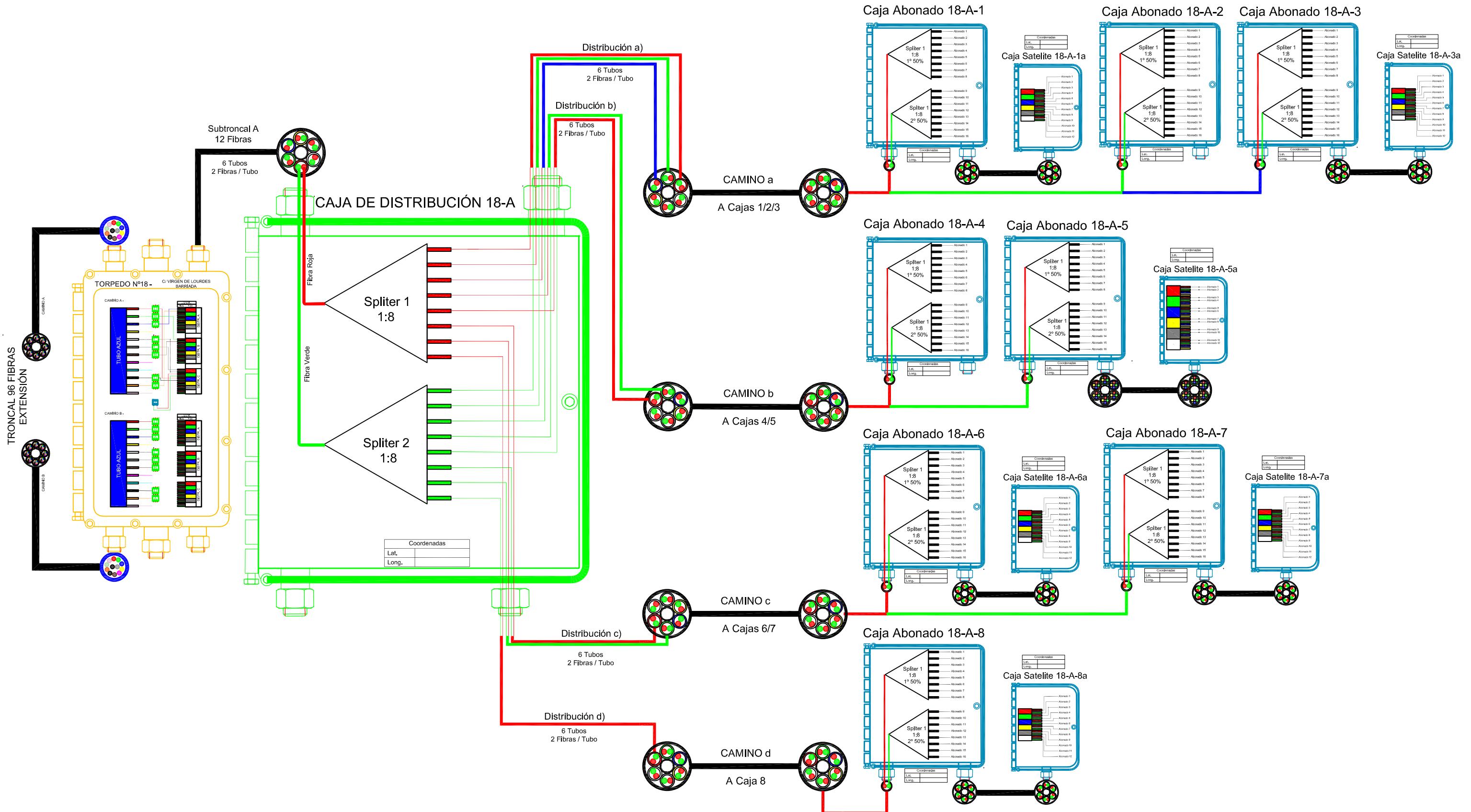
| GD       |  | UTM (Huso 30) |  |
|----------|--|---------------|--|
| Latitud  |  | X             |  |
| Longitud |  | Y             |  |

PRUEBAS REALIZADAS

|       |            |            |
|-------|------------|------------|
| Fecha | LANDA 1550 | LANDA 1490 |
|       |            |            |

| SPLITTER Dis. | C. Abonado | SPLITTER Ab. | PIGTAIL | FIBRA | TUBO  | COMENTARIOS |
|---------------|------------|--------------|---------|-------|-------|-------------|
| 1             | 1          | 1-1          | 1       | ROJO  | ROJO  | 18-A-1a     |
| 1             | 2          | 2-1          | 2       | VERDE |       |             |
| 1             | 3          | 18-A-2 - a   | 3       | ROJO  |       |             |
| 1             | 4          |              | 4       | VERDE | VERDE |             |
| 1             | 5          | 18-A-3 - a   | 5       | ROJO  |       |             |
| 1             | 6          |              | 6       | VERDE | AZUL  | 18-A-3a     |
| 1             | 7          | 18-A-4 - b   | 7       | ROJO  |       |             |
| 1             | 8          |              | 8       | VERDE | ROJO  |             |
| 2             | 1          | 18-A-5 - b   | 9       | ROJO  |       |             |
| 2             | 2          |              | 10      | VERDE | VERDE | 18-A-5a     |
| 2             | 3          | 18-A-6 - c   | 11      | ROJO  |       |             |
| 2             | 4          |              | 12      | VERDE | ROJO  |             |
| 2             | 5          | 18-A-7 - c   | 13      | ROJO  |       | 18-A-6a     |
| 2             | 6          |              | 14      | VERDE | VERDE |             |
| 2             | 7          | 18-A-8 - d   | 15      | ROJO  |       |             |
| 2             | 8          |              | 16      | VERDE | ROJO  | 18-A-8a     |

FUSIONADO NODO N° 18 - CAJA DE DISTRIBUCIÓN A



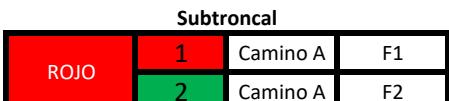
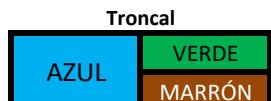


|                   |    |   |
|-------------------|----|---|
| NODO              | 18 | C/ SAN ISIDRO, C/ SAN RODRIGO, C/ MIO CID Y C/ VICENTE ALEIXANDRE |
| CAJA DISTRIBUCIÓN | B  |   |

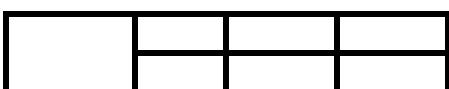
TORPEDO: Torpedo Nº: 18

Subtroncal B

Sin redundancia



Redundancia

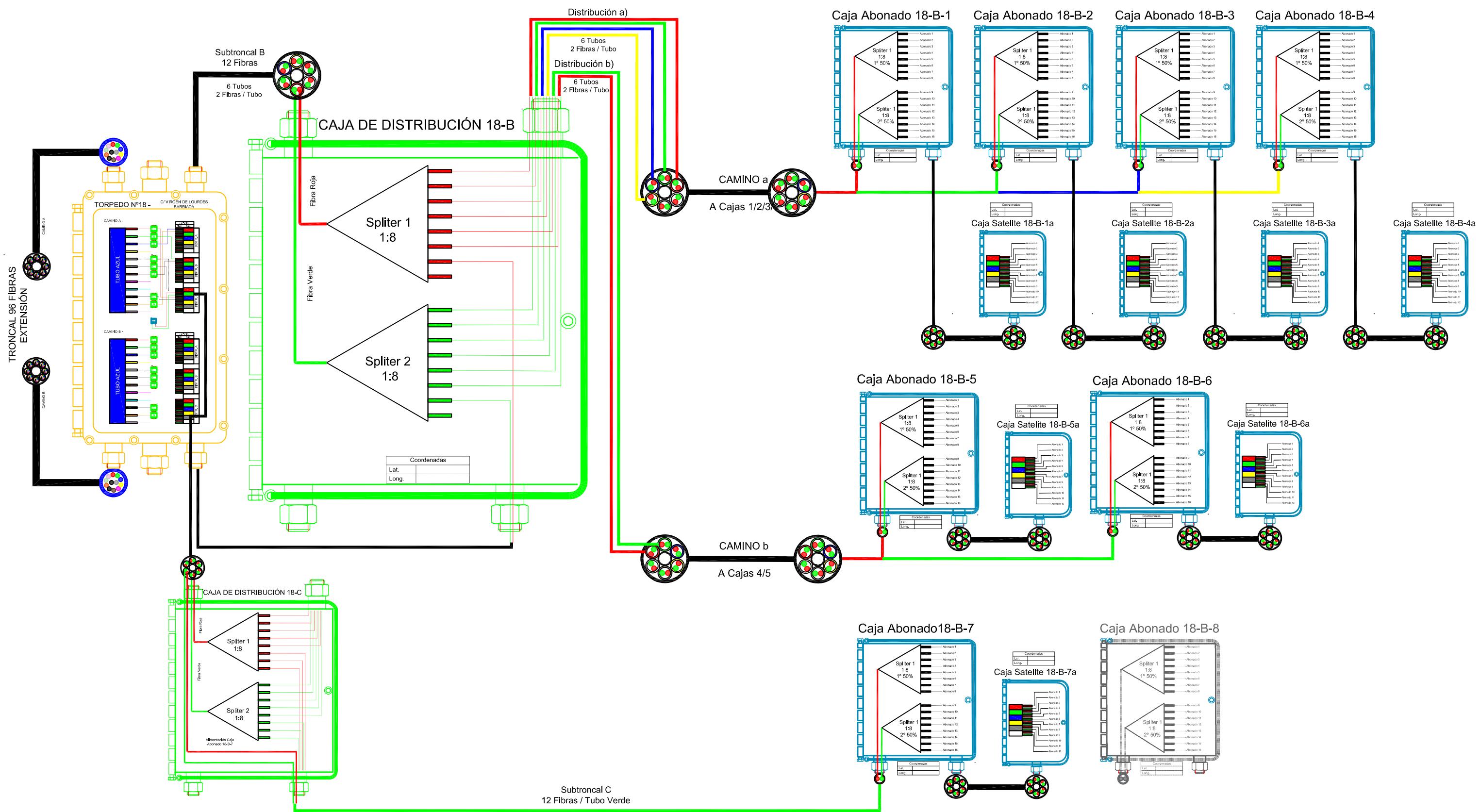


| COORDENADAS |   |               |  |
|-------------|---|---------------|--|
| GD          |   | UTM (Huso 30) |  |
| Latitud     | X |               |  |
| Longitud    | Y |               |  |

| PRUEBAS REALIZADAS |            |            |
|--------------------|------------|------------|
| Fecha              | LANDA 1550 | LANDA 1490 |
|                    |            |            |

| SPLITTER Dis. | C. Abonado | SPLITTER Ab. | PIGTAIL | FIBRA | TUBO     | COMENTARIOS  |
|---------------|------------|--------------|---------|-------|----------|--|
| 1             | 1          | 1-1          | 1       | ROJO  | ROJO     | 18-B-1a  |
| 1             | 2          | 2-1          | 2       | VERDE | ROJO     |  |
| 1             | 3          | 18-B-2 -a    | 3       | ROJO  | VERDE    | 18-B-2a  |
| 1             | 4          | 2-2          | 4       | VERDE | VERDE    |  |
| 1             | 5          | 18-B-3 - a   | 5       | ROJO  | AZUL     | 18-B-3a  |
| 1             | 6          | 2-3          | 6       | VERDE | AMARILLO |  |
| 1             | 7          | 18-B-4 - a   | 7       | ROJO  | AMARILLO | 18-B-4a  |
| 1             | 8          | 2-4          | 8       | VERDE | ROJO     |  |
| 2             | 1          | 18-B-5 - b   | 9       | ROJO  | ROJO     | 18-B-5a  |
| 2             | 2          | 2-5          | 10      | VERDE | ROJO     |  |
| 2             | 3          | 18-B-6 - b   | 11      | ROJO  | VERDE    | 18-B-6a  |
| 2             | 4          | 2-6          | 12      | VERDE | VERDE    |  |
| 2             | 5          | 18-B-7 - c   | 13      | ROJO  | VERDE    | 18-B-7a / Ojo fibra sangrada desde el cable que alimenta la caja de Distribución C |
| 2             | 6          | 2-7          | 14      | VERDE | VERDE    |  |
| 2             | 7          |              | 15      | ROJO  |          |  |
| 2             | 8          |              | 16      | VERDE |          |  |

# FUSIONADO NODO Nº 18 - CAJA DE DISTRIBUCIÓN B



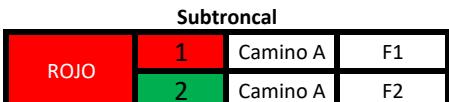
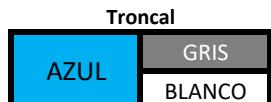


|                   |    |   |
|-------------------|----|---|
| NODO              | 18 | C/ RAMÓN Y CAJAL, C/ VICENTE ALEXNADRE, C/ MIO CID, C/ BEN MOCADEM, C/ NTRA. SRA. DE LA PAZ |
| CAJA DISTRIBUCIÓN | C  |   |

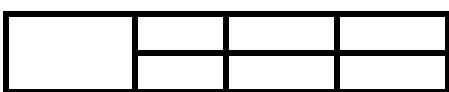
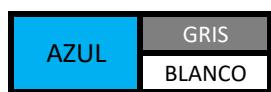
TORPEDO: Torpedo Nº: 18

Subtroncal B

Sin redundancia



Redundancia

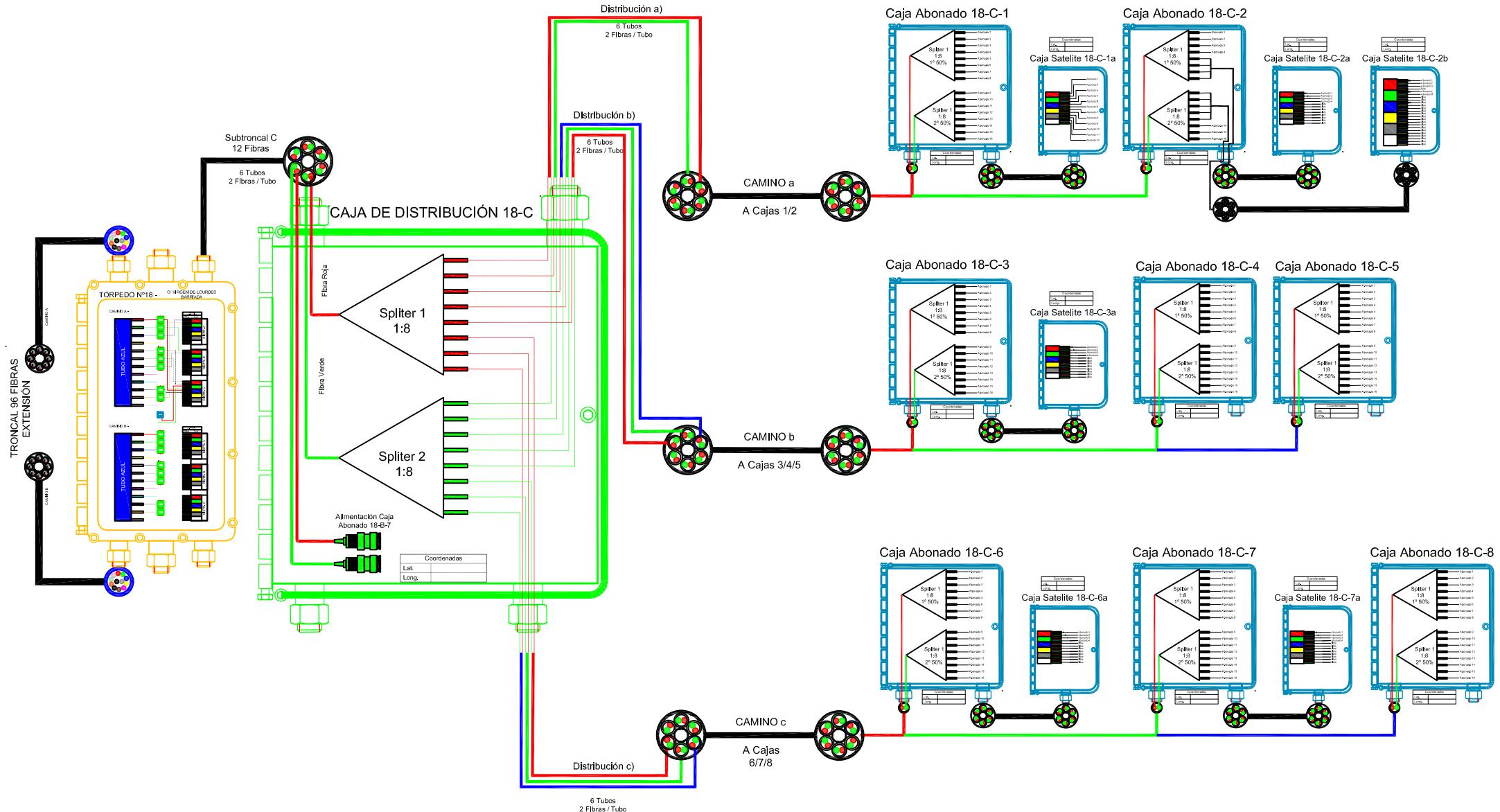


| SPLITTER Dis. | C. Abonado | SPLITTER Ab. | PIGTAIL | FIBRA | TUBO  | COMENTARIOS       |
|---------------|------------|--------------|---------|-------|-------|-------------------|
| 1             | 1          | 18-C-1 -a    | 1-1     | 1     | ROJO  | 18-C-1a           |
| 1             | 2          |              | 2-1     | 2     | VERDE |                   |
| 1             | 3          | 18-C-2 -a    | 1-2     | 3     | ROJO  | 18-C-2a / 18-C-2b |
| 1             | 4          |              | 2-2     | 4     | VERDE |                   |
| 1             | 5          | 18-C-3 - b   | 1-3     | 5     | ROJO  | 18-C-3a           |
| 1             | 6          |              | 2-3     | 6     | VERDE |                   |
| 1             | 7          | 18-C-4 - b   | 1-4     | 7     | ROJO  |                   |
| 1             | 8          |              | 2-4     | 8     | VERDE |                   |
| 2             | 1          | 18-C-5 - b   | 1-5     | 9     | ROJO  | 18-C-6a           |
| 2             | 2          |              | 2-5     | 10    | VERDE |                   |
| 2             | 3          | 18-C-6 - c   | 1-6     | 11    | ROJO  | 18-C-7a           |
| 2             | 4          |              | 2-6     | 12    | VERDE |                   |
| 2             | 5          | 18-C-7 - c   | 1-7     | 13    | ROJO  |                   |
| 2             | 6          |              | 2-7     | 14    | VERDE |                   |
| 2             | 7          | 18-C-8 - c   | 1-8     | 15    | ROJO  | 18-C-7a           |
| 2             | 8          |              | 2-8     | 16    | VERDE |                   |

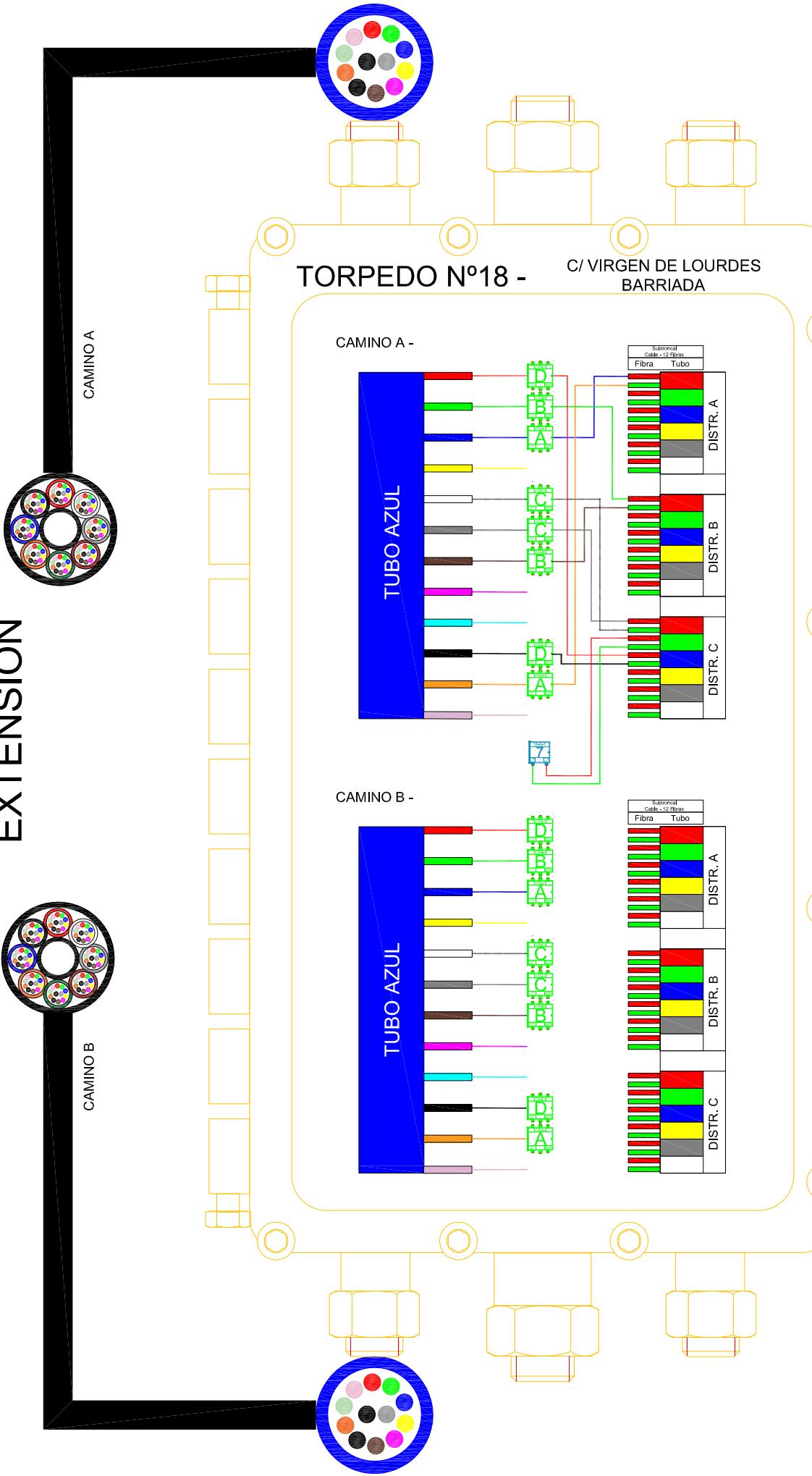
| COORDENADAS |   |               |  |
|-------------|---|---------------|--|
| GD          |   | UTM (Huso 30) |  |
| Latitud     | X |               |  |
| Longitud    | Y |               |  |

| PRUEBAS REALIZADAS |            |            |
|--------------------|------------|------------|
| Fecha              | LANDA 1550 | LANDA 1490 |
|                    |            |            |

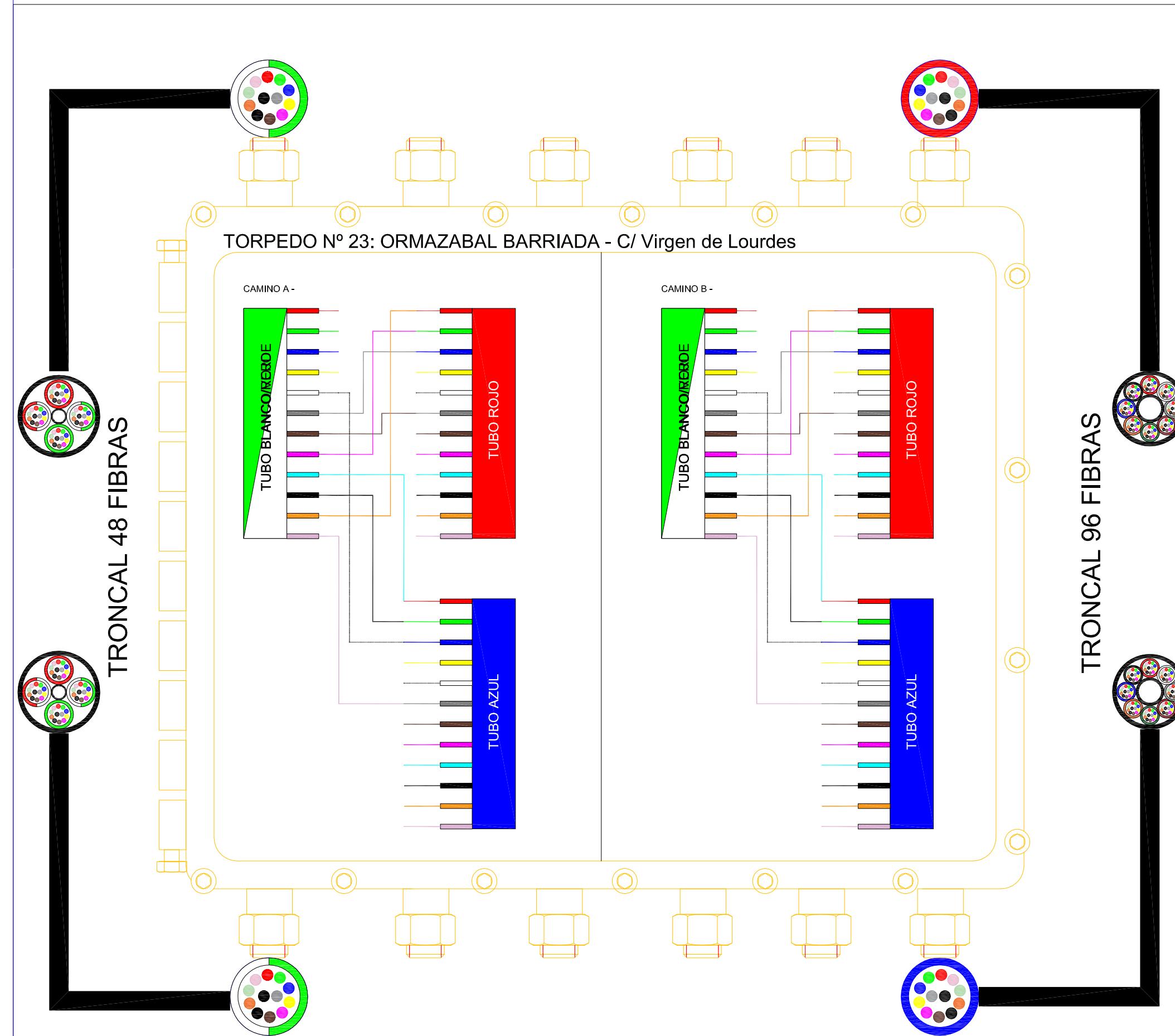
# FUSIONADO NODO Nº 18 - CAJA DE DISTRIBUCIÓN C



**TRONCAL 96 FIBRAS  
EXTENSIÓN**



|  |                |   |                 |
|--|----------------|---|-----------------|
|  | Representante: | Revisión:   | Fecha Revisión: |
|  |                | 01/2017   | 01/04/2017      |
|  | Sustituye a:   | Dibujado por:   | Javier Arroyo   |
|  | Plano N°:      | T-18  |                 |
|  | Revisión:      | 004-2015  |                 |
| Escala:  | Plano:         | PROYECTO DE INFRAESTRUCTURA DE TELECOMUNICACIONES AVANZADAS DE GRAN CAUDAL PARA EL MUNICIPIO DE CABRA |                 |
| S-E  |                |   |                 |
| Fecha:   |                |   |                 |
| Julio-2013                                     |                |   |                 |
| INGENIERO T. INDUSTRIAL<br>Nº Colegiado: 1.879 |                |   |                 |
| Fco. Javier Arroyo Sánchez                     | Promotor:      | ATALAYA TELEVISIÓN, S.L.  |                 |



|  |                                 |  |                                       |
|--|---------------------------------|--|---------------------------------------|
| <br><b>atalaya</b><br><small>TELEVISIÓN</small> | <b>Representante:</b>           | <b>Revisión:</b><br>01/2017  | <b>Fecha Revisión:</b><br>01/04/2017  |
|  |                                 | <b>Sustituye a:</b>  | <b>Dibujado por:</b><br>Javier Arroyo |
| <br><b>Plano N°:</b><br><b>T-23</b>             | <b>Plano N°:</b><br><b>T-23</b> | <b>PROYECTO DE INFRAESTRUCTURA DE TELECOMUNICACIONES AVANZADAS DE GRAN CAUDAL PARA EL MUNICIPIO DE CABRA</b> |                                       |
|  | <b>Revisión:</b><br>004-2015    | <b>Plano:</b><br><b>FUSIONADO TORPEDO N° 23</b>  |                                       |
| <b>Escala:</b><br>S-E  | <b>Fecha:</b><br>Julio-2013     | <b>Situación:</b><br>C/ Virgen de Lourdes (Ormazabal - Barriada)<br>CABRA (Córdoba)                          |                                       |
| <b>INGENIERO T. INDUSTRIAL</b><br>N° Colegiado: 1.879  |                                 | <b>Promotor:</b>   | <b>ATALAYA TELEVISIÓN, S.L.</b>       |
| Fco. Javier Arroyo Sánchez   |                                 |  |                                       |