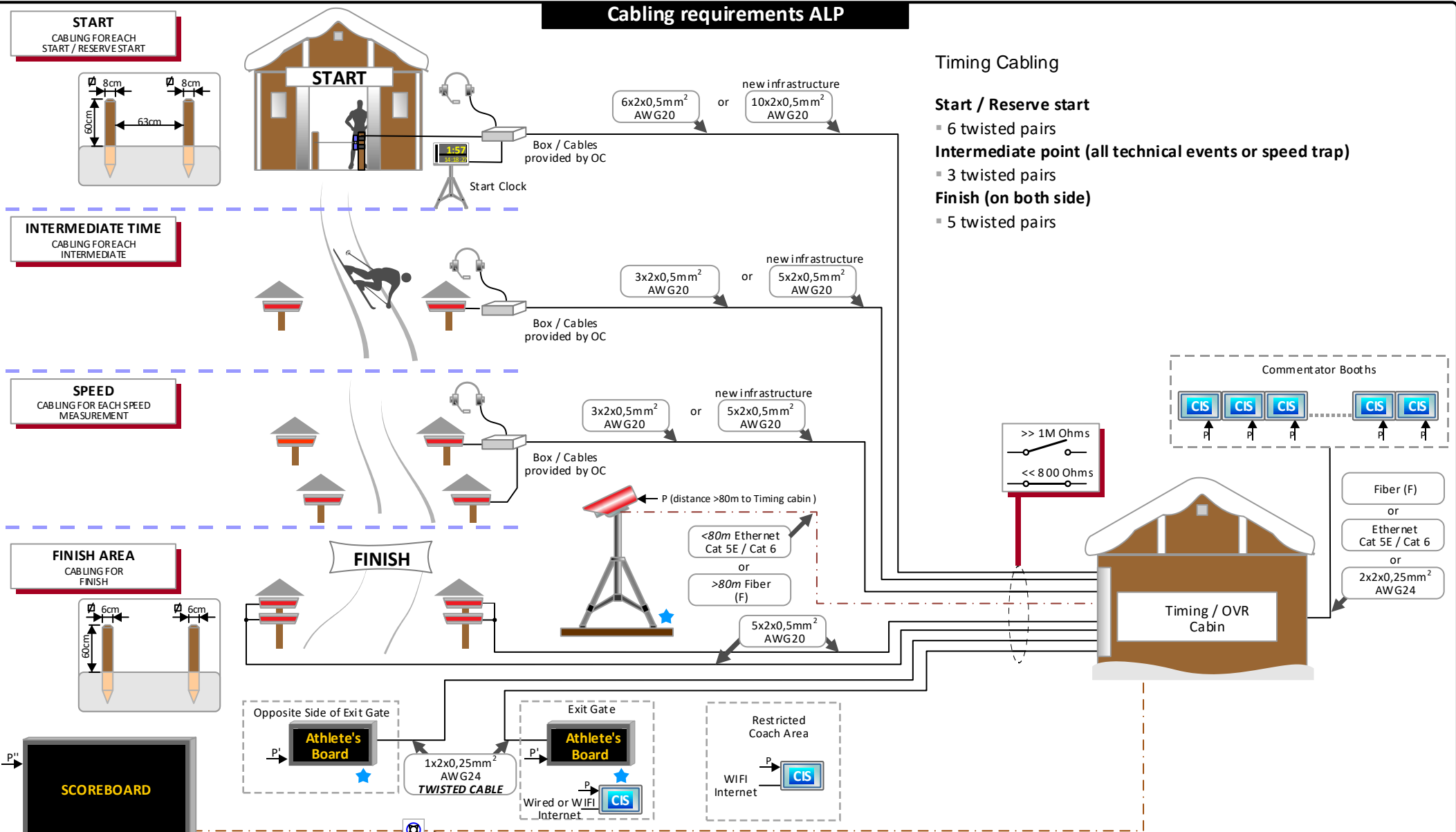


## Cabling requirements ALP



### Timing Cabling

#### Start / Reserve start

- 6 twisted pairs

#### Intermediate point (all technical events or speed trap)

- 3 twisted pairs

#### Finish (on both side)

- 5 twisted pairs

- F = Optical Fiber - duplex, single mode, connectors LC/UPC (blue, 90°)
- P = Power Plug 110/240VAC / 50-60Hz
- P' = Power Plug 110/240VAC / 50-60Hz / 1.5kVA Connector or CEE 230V/15A monophase
- P" = Scoreboard 15m<sup>2</sup>: Power Plug 3 x 400/240VAC / 50-60Hz / 12kVA (3xLNPE) - connect or CEE 32A  
Scoreboard 21m<sup>2</sup>: Power Plug 2 x 3 x 400/240VAC / 50-60Hz / 12kVA (3xLNPE) - connect or 2x CEE 32A
- ★ = Platform provided by LOC. Photo Finish platform is mandatory if finish line(s) is not flat behind the B-NET

Drawn by	MOSYAN	10.06.2016
Checked by	MEYPIE	24.05.2023
Modified by	MEYPIE	24.05.2023
File Number	REQALP001_WCUP.vsd	

<p><b>ALPINE SKIING</b> World Cup Cabling – Level 0 Timing &amp; Data Handling</p>	
REQ-ALP-001-WCUP	Rev. V04 Page 1 / 1



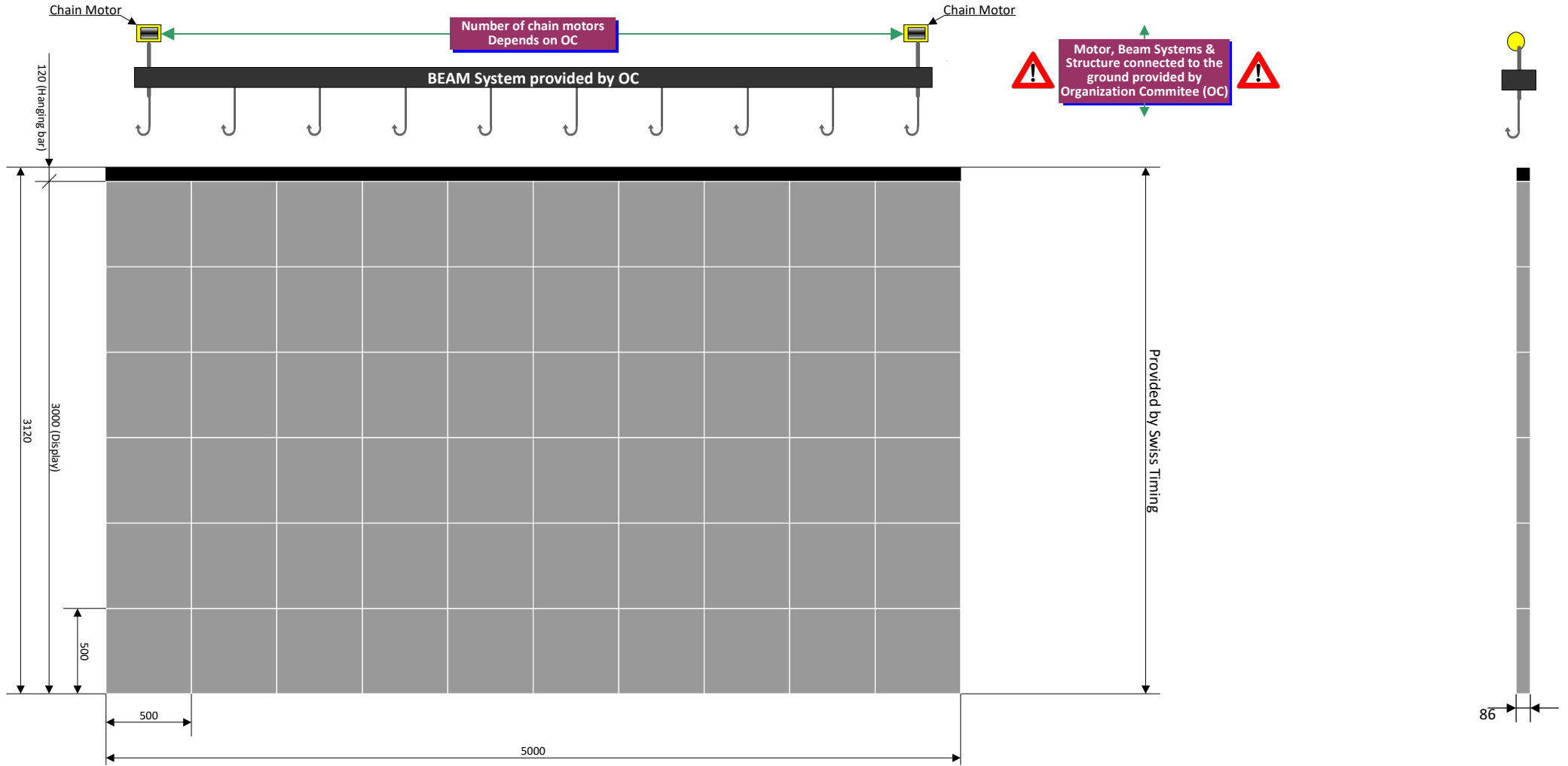
Security under  
Organization Responsibility

Scaffolding or Structure:  
See document C-14-Q-004-S for Swiss Security Rules.  
To be updated to other countries Security Rules.

ASSEMBLY OF THE SWISS TIMING

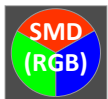
DRAWINGS ARE ONLY INFORMATIVE AND MAY CHANGE ACCORDING TO SPECIFIC GAMES NEED AND/OR CHANGE OF TECHNOLOGIES.

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**Power Supply :**  
1 x (3 x 400 / 240V / 50-60Hz / 10kVA / 3xLNPE)

3.9 x 3.9mm



**06 x 10 SCB147** (128 x 128 Pixels) (500 x 500mm)

ASPECT RATIO	LEGIBILITY IN METERS	SIZES in MM (H x L x P)	Displ. WEIGHT (kg.)	
1.67	90	3120 x 5000 x 86	~700	OUTDOOR IP54

**OC – PROVIDED by Organization Committee**  
CHAIN / IRON CABLE MOTOR & BEAM SYSTEMS  
POWER CABLE With FEM. CEE 32A  
LIFTING SYSTEM  
CRANE / ELEVATOR For MOUNTING & DISMOUNTING

Drawn by	MOSYNA	01.09.2023	<b>MULTI-SPORTS DISPLAY - Suspended</b> 06 x 10 SCB147 - SMD (RGB) LED Display 768 x 1280 pixels / 3.9mm Screen Size 15m2
Checked by			
Modified by			
File Number	SCB147PN06L10CSusp.vsdm		
			<b>SCB147-PN-06Lx10C-Susp</b>
			Rev. V0.1 Page 1 / 1



# ALPINE SKIING SERVICE CATALOGUE

## FIS Ski World Cup 2023/2024

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Changes log:

V012 Season 2023-2024

- Timing cabling: One additional twisted pair at each intermediate point requested for all technical events
- Additional volunteers requirements for all technical event (specific speed and all technical events)
- Cabling provision for photo finish and scoreboard
- TCM laptop provided by LOC
- Mailing list not required, all reports must be download from FIS website

V011 Season 2022-2023

- Update contact accommodation / staffing
- Cabling provision for photo finish and scoreboard
- Remove Draw board/cards to be confirmed by FIS
- Minors adjustments in whole document

V010 Season 2021-2022

- Minors changes

V009 Season 2020-2021

- Section “Swiss Timing contact persons” updated
- Minors changes in sections “Transport costs” and “Means of transport”

V008 Season 2019-2020

- Photo Finish required
- Additional staff and volunteers
- Additional pairs for timing cabling
- Example for header/footer for reports and logo scoreboard

V007 Season 2018-2019

- Update section cabling
- All Parallel events: One additional LCD (2 for City Event) must be provided by LOC
- Minor changes: Athlete Scoreboard platform (5.4), Equipment distribution - box color codes

## Swiss Timing obligations

According to the service catalogue description, Swiss Timing (ST) will deliver the following items to FIS, FIS World Cup Organisers (LOC) and Broadcasters:

### 1. Equipment

#### 1.1. Timing System Alpine Skiing according to FIS rules

- Starting gate
- Start clock
- Speed measurement equipment
- Timing equipment for intermediate times:
  - Speed event: up to 5 intermediate timing points and 2 speeds
  - Technical event: up to 3 intermediate timing points
- Double photocell light beams at finish
- Photo Finish for all events
- Two homologated timing devices with printer to record net time and day time
- Online interface to OVR (On Venue Result)
- Manual timing system

#### 1.2. On Venue Results (OVR)

- OVR Software
- Printing reports (distributed over FIS website and by email) to produce required lists by FIS
- TV graphics generator
- Commentator Information System (CIS)
- Real-time interface (Live Timing) on FIS website
- Scoreboard control PC
- Electronic draw software used during Team Captain's meeting

#### 1.3. TV Graphics Generator to produce live TV graphics for the World feed (in English)

TV style guide with graphics definition for the FIS World Cup is available at the beginning of the season and distributed to host broadcaster by FIS

#### 1.4. Commentator Information System (CIS)

Available information:

- General competition information
- Live info current racer, Intermediate times, speeds, final time, time to beat, rank, WC discipline and Overall points and ranks
- Start list, Analysis, Results, FIS World Cup standings

Locations:

- 1 CIS terminal for the announcer
- CIS terminals for all commentators in the commentator booths
- 2 CIS for Host Broadcaster in TV Compound
- 1 CIS at equipment control (FIS Equipment tent) near to the exit gate
- 1 CIS in the restricted area reserved for coaches (finish area)
- 1 CIS at start for parallel events

### 1.5. Scoreboard

One video Scoreboard of 15 m<sup>2</sup> (up to 21 m<sup>2</sup> for specific venues) located in the finish area.

Available information:

- Welcome frame, Technical Data, Jury information, Schedule, Day Time, Count down to the competition start
- Start List, Result List, Bracket for parallel event, Podium
- Name of current competitor including a short biography with intermediate times, speeds, finish time, time to beat, rank and running time
- FIS World Cup standings (Discipline, Overall, Nation Cup)

### 1.6. Athlete boards

One athlete video scoreboard next to exit gate

One athlete video scoreboard at the opposite of the exit gate in the finish area

Available information:

- Name of current competitor with intermediates time, finish time, time to beat, rank and running time
- Result list with 4 racers
- Top 4 racers
- Daytime before/after competition, count down to the end of inspection

**The LOC shall provide the following:**

## 2. Staff

### 2.1. Technicians

- 7 ST technicians for technical event
- 8 ST technicians for speed event (up to 9 for specific event)
- 9 ST technicians for World Cup Finals (up to 10 if two separate finish area)
- Depending the service provided, the staff can increase

### 2.2. Board and Lodging

- Accommodation (single rooms with shower/WC, international standard, free internet access), full board for all ST technicians and available free parking place.
- The accommodation of the ST technicians should be in the FIS hotel or in a hotel of international standard nearby the venue or race office.
- The ST technicians arrive 3 nights before the first training run or competition day and leave the day after the last competition.

### 2.3. Volunteers

All events (without parallel event):

- 1 volunteer per intermediate/speed point
- 2 volunteers for manual timing (1 at start, 1 at finish)
- 1 volunteer to activate the Photo Finish

**In addition, if sensor technology is deployed (specific speed and all technical events):**

- **1 volunteer at start to setup the sensor on the athletes**
- **1 volunteer at finish to remove the sensor on the athletes**

Parallel event:

- 2 volunteers to close the start gates
- 1 volunteer for manual timing at start
- 1 volunteer to activate the Photo Finish
- Volunteers must be present from the 1st day of competition including training runs and available as soon as ST technicians are going to setup the equipment on the course/s and the same people must stay if possible from the beginning until the end. One team leader volunteer must be appointed to facilitate communication with ST team.
- Intermediate timing volunteer with strong skiing ability - must be able to descend piste while carrying ST backpack weighing up to 15 kilos.
- Depending the service provided, the volunteer staff can increase.

#### 2.4. Contact person

The LOC shall give ST the name and phone number of the person in charge of:

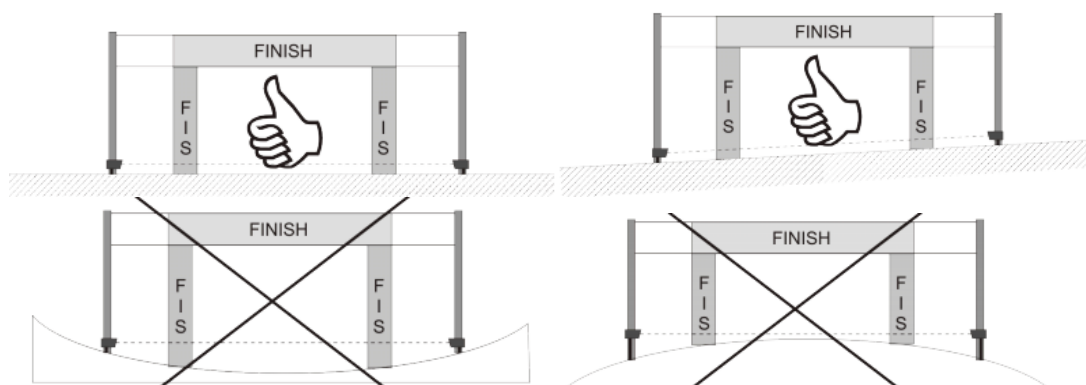
- Transport
- Race office
- Cables installation (see below the job description for this technical person)
- Volunteers

#### **Job description LOC Technical person – (contact person between Organising Committee and ST)** Spring and Summer time (in collaboration with LOC general management)

- Gets debrief and remarks from ST / FIS about installations
- Ensures the maintenance of the cables, boxes at intermediate points and at start/finish
- Follows up construction or replacement when applicable

Around snow control date:

- Prepares boxes, plugs and extra cables
- Carries out testing of resistance and of all connections before event; at start, reserve starts, along the course for intermediate time and speed check, at finish and at the timing cabin
- Fills in the form with all the cable measurements. Sends this form to ST and prints it for the snow controller (Template “Control Timing Lines” available on request to ST)
- **Pays attention to the snow profile at finish line** and at all intermediate positions (refer to the document [Timing Booklet](#) and drawings below)





#### During race time:

- Prepares the cables for starts, reserve starts, intermediate time on course, at the finish and timing building.
- Is present during TV, timing and Race director inspection for final positions.
- Is present on site every day.
- Is part of the daily debrief with ST.
- Marks on the map the last positions for archives.

#### **2.5. Swiss Timing contact persons**

Main contact: Pierre Meyrat | Email: [pierre.meyrat@swisstiming.com](mailto:pierre.meyrat@swisstiming.com)

Phone: +41 32 488 36 06 | Mobile: +41 79 486 49 88

All questions regarding accommodation and staffing:

Contact: Patrick Mollard | Email: [event@swisstiming.com](mailto:event@swisstiming.com)

Phone: +41 32 488 36 25 | Mobile: +41 79 768 36 97

All question regarding equipment transportation, date of delivery and/or date of loading, truck plate numbers, loading list/packing list, Custom documentation and procedure

Contact:

Hatice Karakoc | Email: [hatice.karakoc@swisstiming.com](mailto:hatice.karakoc@swisstiming.com) | Mobile: +41 796238531

Srdja Boskovic | Email: [Srdja.Boskovic@swisstiming.com](mailto:Srdja.Boskovic@swisstiming.com) | +41 32 4883686 | Mobile: +41 797800496

#### **2.6. Transport costs**

Transportation costs are borne by ST as per Incoterms FOT FreeOnTruck 'named destination' at time of delivery, and FCA FreeCarrier 'named destination' at time of pickup.

The transport costs of technical personnel up to the parking space next to the venue is borne by ST.

#### **2.7. Accreditation**

ST shall be granted accreditations for access to the timing cabin and media centre, as well as all other access rights which are necessary for the fulfilment of ST's services (parking access included).

The LOC shall be responsible for the provision of the following:

### 3. Timing and OVR (On Venue Results)

#### 3.1. Means of transport

- Unloading of the equipment when transporter delivers the equipment before the ST technicians are in the venue. The equipment must be stored in a secure area until the arrival and after the departure of the technicians.
- Transport of the equipment from the parking lot to the finish line, scoreboard structure and at start before or at the technicians' arrival and after the event, max. 1 hour after the competitions end.
- All equipment boxes are identified with colour stickers and have to be dispatched to the right area (refer to document [Equipment Distribution](#)).
- Crane or forklift to carry and set up and dismantle the equipment (especially for scoreboard).
- Forklift must be provided to load/unload the truck.
- Forklift, forklift driver and manpower must be provided to load/offload the truck(s)
- All equipment must be dismantled on the last competition day.

#### 3.2. Timing and OVR room (timing cabin) and Workshop/Storage room

In order to deliver timing services and store the equipment for the timing and OVR of the FIS Alpine World Cup Races, the following requirements are to be met:

- The location of the timing cabin should allow a direct view onto the slope before the finish lines and onto the finish lines.
- The team must have free access to the timing cabin at any time. Access to the timing cabin by third parties must be agreed by ST.
- The timing cabin must be locked or have a security guard and in any case be compliant with the insurance requirements.
- The temperature shall be approx. 20°C (~68°F) during day and night.

##### Size and furniture

- Timing cabin should have a minimum surface area of:
  - 30 m<sup>2</sup> (320 ft<sup>2</sup>) for technical events and speed events if workshop/storage room is available
  - 40 m<sup>2</sup> (430 ft<sup>2</sup>) for speed events without workshop/storage room
- The minimum requirements for the desks are:
  - Minimum depth 80cm (~2'8") in order to accommodate the personal computers with their keyboards in front of them
  - Minimum length 12 m (~20')
  - Maximum height 80 cm (~2'8")
- 8 chairs

##### Workshop/Storage room (optional if timing cabin is enough big)

- The location of the workshop/storage room should be close to ski lifts to reach the race slope or near to the finish line and timing cabin
- Minimum surface area of 10 m<sup>2</sup> (110 ft<sup>2</sup>)
- Equipped with heating, power plugs and tables to set up timing equipment

### 3.3. Start and Reserve Start

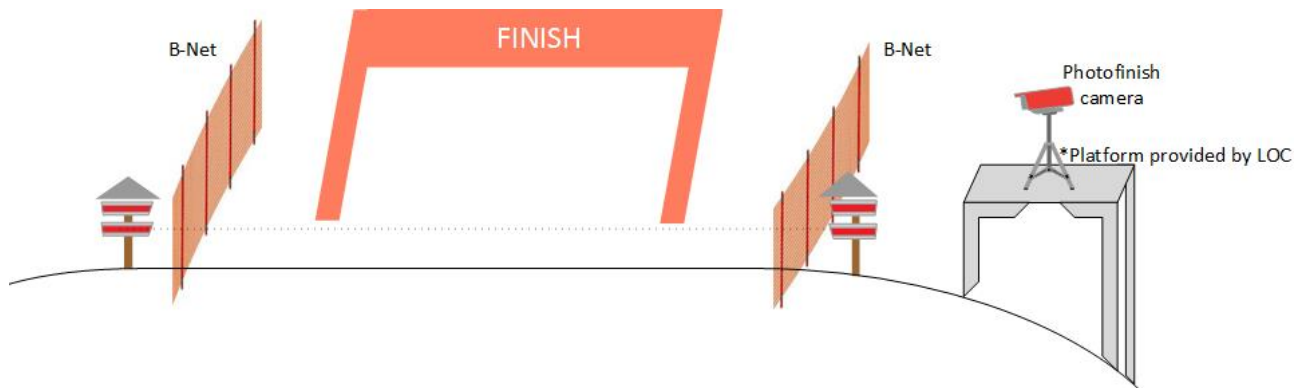
- 2 wooden poles 8x8 cm installed at each start - not required for parallel events
- Parallel event: Power supply for start gates
- [Cabling](#) under section Timing cabling and [Cabling requirements](#) / [Cabling requirements for parallel events](#)

### 3.4. Finish

- 2 wooden poles (4 for parallel event) 6x6 cm for each finish line and 1 in reserve
- [Cabling](#) under section Timing cabling and [Cabling requirements](#) / [Cabling requirements for parallel events](#)

### 3.5. Photo Finish setup

- Platform (1.5mx1.5m) is required if setup can't be done behind the photocells (see figure below)
- Minimum high of the platform must be on snow level. The tripod is about 2 meters high
- Photo Finish must be aligned with photocells
- The location of the Photo Finish is preferred on the same side as timing cabin
- [Cabling](#) under section Photo Finish



### 3.6. Scoreboard

- Structure for scoreboard (refer to drawings [Scoreboard structure](#) and [Scoreboard setup](#)). Scoreboard size can be adjusted according to the decision between LOC and ST
- Maximum one Scoreboard per finish area
- Power supply specified on the drawing and under section [Power Supply](#)
- [Cabling](#) (fiber) under section Photo Finish
- Pipe and secure pathway must be available from timing cabin to the structure

### 3.7. Athlete's scoreboard

- Platforms for athlete scoreboard (refer to drawing [Athlete's scoreboard platform](#))
- One platform is located in front of the FIS tent (equipment control) next to the exit gate
- Second platform is located at the opposite side of the exit gate.
- Positions must take in consideration the security zone defined by FIS
- Power supply specified on the same drawing and under section [Power Supply](#)
- [Cabling](#) under section Athlete's scoreboards

### 3.8. Cabling

The cable dedicated to timing functions must be reserved for that purpose only and must be protected from any interference (e.g. speaker systems, snow gun data, etc.). No technical changes during the competition that may alter the transmission of trigger signals (length, capacitance, resistance, etc.)

may be carried out. The LOC must ensure that cable conduits and other cable runs do not interfere with timing cable functions.

**It is required that expert technical testing and verification of these timing cables be performed to assure timing cable integrity and fill the form “[Control Timing Lines](#)” (available on request to ST) before the snow control.**

- **Timing cabling** must be according to drawings [Cabling requirements](#) and [Cabling requirements for parallel events](#).

All cabling along the slopes and additional timing cables must be pulled by the LOC from waterproof timing boxes to the intermediates/speed positions:

- Speed event up to 5 intermediate times and 2 speeds
- Technical event up to 3 intermediate times
- Parallel event: no intermediate

Numbers of pairs and type of cables:

All disciplines:

- Starts and reserve starts: 6x2x0.5mm<sup>2</sup> (10 pairs for new infrastructure)
- Intermediate times with speed or **new sensors technology for all technical events:** 3x2x0.5mm<sup>2</sup> (5 pairs for new infrastructure)
- Intermediate times (without sensors technology): 2x2x0.5mm<sup>2</sup>
- Speed (radar gun): 2x2x0.5mm<sup>2</sup>
- Finish skier left: 5x2x0.5mm<sup>2</sup>
- Finish skier right: 5x2x0.5mm<sup>2</sup>

Parallel event:

- Start: 10x2x0.5mm<sup>2</sup>
- Finish skier left: 5x2x0.5mm<sup>2</sup>
- Finish skier right: 5x2x0.5mm<sup>2</sup>

Type of cables: AWG20 twisted U/UTP. Type of connector in boxes: banana female 4mm.



**If number of timing lines required can't not be fulfil, please contact [ST](#).**

- **Athlete's scoreboards:**  
One cable 1x2x0.25mm<sup>2</sup> twisted (AWG24 twisted (U/UTP) or Ethernet cable Cat5E/Cat6 from timing cabin to FIS tent (equipment control) next to the exit gate  
One cable 1x2x0.25mm<sup>2</sup> twisted (AWG24 twisted (U/UTP) or Ethernet cable Cat5E/Cat6 from timing cabin to the opposite side of the exit gate in the finish area
- **Scoreboard:** Fiber from timing cabin to less than 5m scoreboard structure (2xduplex, single mode, connectors LC/UPC (blue, 90°) or Neutrik OpticalCON Quad)
- **Photofinish:**  
Cable length from timing cabin to finish line(s) - up to 80 m:
  - One Ethernet cable (Cat 6/Cat 7 with RJ45 plugs) – power is not requestedCable length from timing cabin to finish line(s) > 80m:
  - Fiber (duplex, single mode, connectors LC/UPC (blue, 90°))
  - Power supply (1 plug 110/240V AC) close to the Photo Finish camera location(s)
- **CIS:** One cable 2x2x0.25mm<sup>2</sup> twisted (AWG24 twisted (U/UTP)) or one Ethernet cable Cat5E/Cat6 or fiber (duplex, single mode, connectors LC/UPC (blue, 90°)) from timing cabin to the middle of the commentator booths

### 3.9. Radios

- **7 radios for speed events (DH/SG/TC), 6 radios for technical events (GS/SL/parallel), 10 radios** for the World Cup Finals available as from arrival of the ST technicians.
- Dedicated frequency channel for timing crew
- **1 Jury radio or 2 Jury radios** for the World Cup Finals
- Radio signal must cover complete slope from start to finish

### 3.10. Power Supply

#### Timing cabin:

- Maximum load of the timing equipment: 3 KVA
- Minimum number of outlets: 6
- Maximum load at start: 1.5 KVA
- Grounded outlets are to be provided
- The circuit for the timing and OVR equipment must be separated from any other equipment, i.e. Audio/P.A., TV, scoreboard.
- Acceptable voltage range: 208 to 240 Volts AC
- Acceptable frequency range: 50-60Hz

#### Workshop/storage room

- 1 power plug (110/240V AC)

#### At start (only for parallel event)

- 1 power plug (110/240V AC) near starting gates

#### At finish

- 1 power plug (110/240V AC) in the restricted area for CIS reserved for coaches
- 3 x 400 / 240V / 50-60Hz / ~12kVA / 3xLNPE (CEE 32A) on scoreboard structure for 15m<sup>2</sup> scoreboard (2x3x400V for scoreboard 21m<sup>2</sup>)
- 1 power plug (110/240V AC) close to the Photo Finish camera location(s), only if cabling is done by fiber

#### Equipment control (FIS Tent)

- 1 power plug (110/240V AC) for CIS
- 1 power plug (110/240V AC), 50-60Hz, ~1,5kVA Connector CEE 230V/16A monophasé (1st Athlete's board)

#### Opposite side of the exit gate

- 1 power plug (110/240V AC), 50-60Hz, ~1,5kVA Connector CEE 230V/16A monophasé (2<sup>nd</sup> Athlete's board)

### 3.11. Internet access

- Wired connection in the timing cabin as from the arrival day – minimum 2 days before the 1<sup>st</sup> competition (race or training) with router access (min. 20 Mb download / 5 Mb upload). This connection cannot be shared with other equipment or persons.
- Wired connection or WIFI (secured and no public access) in the FIS tent next to the exit gate
- WIFI (secured and no public access) in the restricted coach area at the finish
- WIFI at the team captain's meeting room

### 3.12. Race office and Team Captain's meeting room

**Mailing list is not anymore required. All reports must be downloaded from FIS web site (start list, results,...). No report will be sent by as previous years.**

To be provided by Race office:

- Header and footer ([Example 5.9](#)) which will be inserted in the printing reports (competitor list by nation, draw list, start list, unofficial/official results, penalty calculation and analysis). Files must be sent at the latest one week before the first race (training or race)  
Files format jpg, 300 dpi: header: 2150x400 pixels, footer: 2150x260
- Logo ([Example 5.10](#)) of the event (advertising prohibited) to be shown on the scoreboard  
File format png, 72 dpi, 433x376 pixels
- All technical data (start/reserve start and finish altitude, exact length), Jury members and forerunners before TCM according [Race data information](#)

#### **Team Captain's meeting room (TCM room):**

- Table and two chairs near jury table
- Electronic draw board must be shown during TCM over a laptop provided by LOC connected to LCD's screen or to a beamer  
WIFI Internet connection to keep online board updated

### 3.13. Commentator Information System (CIS)

Number of CIS must be known not later than one month prior to the competition.

#### **TV/Radio Commentators**

- Upon request of each and any LOC, ST will provide and install the necessary CIS for TV/Radio commentators only in the commentator booths.  
LOC shall provide the cabling as mentioned under [3.8](#)  
In the Mixed Zone, CIS can be connected on ST switch located in commentator booths or WIFI provided by LOC. Cable is not provided and pulled by ST
- OB Van - Host broadcaster as mentioned under [3.14](#)

#### **Coach restricted area**

- [Power supply](#) as mentioned under [3.10](#)
- WIFI Internet connection as mentioned under [3.11](#)

#### **FIS tent (equipment control)**

- Wired or WIFI as mentioned under [3.11](#)

### 3.14. Host broadcaster (HB) requirements:

- Cables (fill, key, preview and black burst) between the timing cabin to HB  
On request for speed events, one additional feed can be provided to cover the top part
- Provision of a broadcast feed with 1 monitor for technical events and 2 monitors for speed events
- Installation of an Intercom connection between the HB and the timing cabin
- Ethernet cable (over fiber) for a point to point connection from timing cabin (or TV Commentator position) to HB. ST will provide up to 2 CIS monitors. Web CIS is also available

#### 4. Technical check List for LOC

##### Power

- Timing cabin: 208-240V AC / 3KVA
- Workshop/storage room: 1x110V/240V AC
- Coach restricted area: 1x110V/240V AC
- Start for parallel event: 1x110V/240V AC
- Structure scoreboard: 15m<sup>2</sup>: 3 x 400 / 240V / 50-60Hz / ~12kVA / 3xLNPE (plug CEE 32A)  
21m<sup>2</sup>: 2 x 3 x 400 / 240V / 50-60Hz / ~12kVA / 3xLNPE (plug 2x CEE 32A)
- Platform athlete's scoreboard (exit gate): 1x110V/240V, 50-60Hz, ~1,5kVA (plug CEE 230V/16A)
- Platform athlete's scoreboard (opposite side exit gate): 1x110V/240V, 50-60Hz, ~1,5kVA (plug CEE 230V/16A)
- On finish line(s), if Photo Finish is connected over fiber (distance >80m timing cabin-finish line): 1x110V/240V AC

##### Structure and platform for scoreboards and photo finish

- 1 [structure for scoreboard](#)
- 1 [platform](#) near to the exit gate
- 1 [platform](#) near to the opposite side of the exit gate (outside the security zone defined by FIS)
- [Platform\(s\)](#) needed on the finish line(s) if snow profile is not flat enough to setup a tripod behind the B-Net

##### Cabling

- 6 twisted pairs at each start and each reserve start
- 3 twisted pairs at each intermediate point **for all technical events and specific speed events**
- 2 twisted pairs at each intermediate point (3 pairs with speed)
- 5 twisted pairs on each side of finish line
- Parallel event: 10 twisted pairs at start and 5 twisted pairs at each side of finish line



**If number of timing lines required can't not be fulfil, please contact [Swiss Timing](#)**

- 1 twisted pair from timing cabin to Athlete's scoreboard near to the exit gate
- 1 twisted pair from timing cabin to Athlete's scoreboard at the opposite side of the exit gate
- 2 twisted pairs or Ethernet cable (Cat 5e/Cat 6/Cat 7) from timing cabin to the middle of commentator booths
- For photo finish:  
Distance <80m timing cabin to finish line(s): Ethernet cable with RJ45 plugs (Cat 6/Cat 7)  
Distance >80m timing cabin to finish line(s): 1 pair of single mode fiber with connectors LC (UPC-blue, 90°)
- Fiber from timing cabin to less than 5m scoreboard structure (2xduplex, single mode, connectors LC/UPC (blue, 90°) or Neutrik OpticalCON Quad) for scoreboard

##### Internet access

- Wired connection in timing cabin (no access restriction, no wifi, min. 20Mb upload /5 Mb download)
- WIFI (secured and no public access) internet connection in restricted coach area
- Wired or WIFI (secured and no public access) connection in FIS Equipment control tent
- WIFI access at team captain's meeting room

##### Race office

- [Accreditations](#) according ST staff, parking lot and lunch vouchers
- [Volunteers](#): 1 per intermediate/speed point, 2 for manual timing, 1 for photofinish, **2 for sensors (specific speed and all technical events)**
- [Header and footer](#) for printing reports must be received by ST one week before the event
- [Event's logo](#) for scoreboard must be received by ST one week before the event
- [Race data information](#) (all start and reserve start/finish altitude, length's slope, jury and forerunners)

**Miscellaneous**

- Forklift, forklift driver and manpower must be provided to load/offload the truck(s)
- Prepare a flat finish line (without hole or bump) where photocells will setup in a secure zone
- 2 wooden poles 8x8 cm installed at each start. Not required for parallel events.
- 2 wooden poles 6x6 cm for each finish line and 1 in reserve. 4 poles for parallel event
- [Radios](#) (7 for speed events+1 Jury, 6 for technical+1 Jury, 10+2 Jury for World Cup Finals) available as from arrival of the ST technicians.

**Team Captain's meeting room**

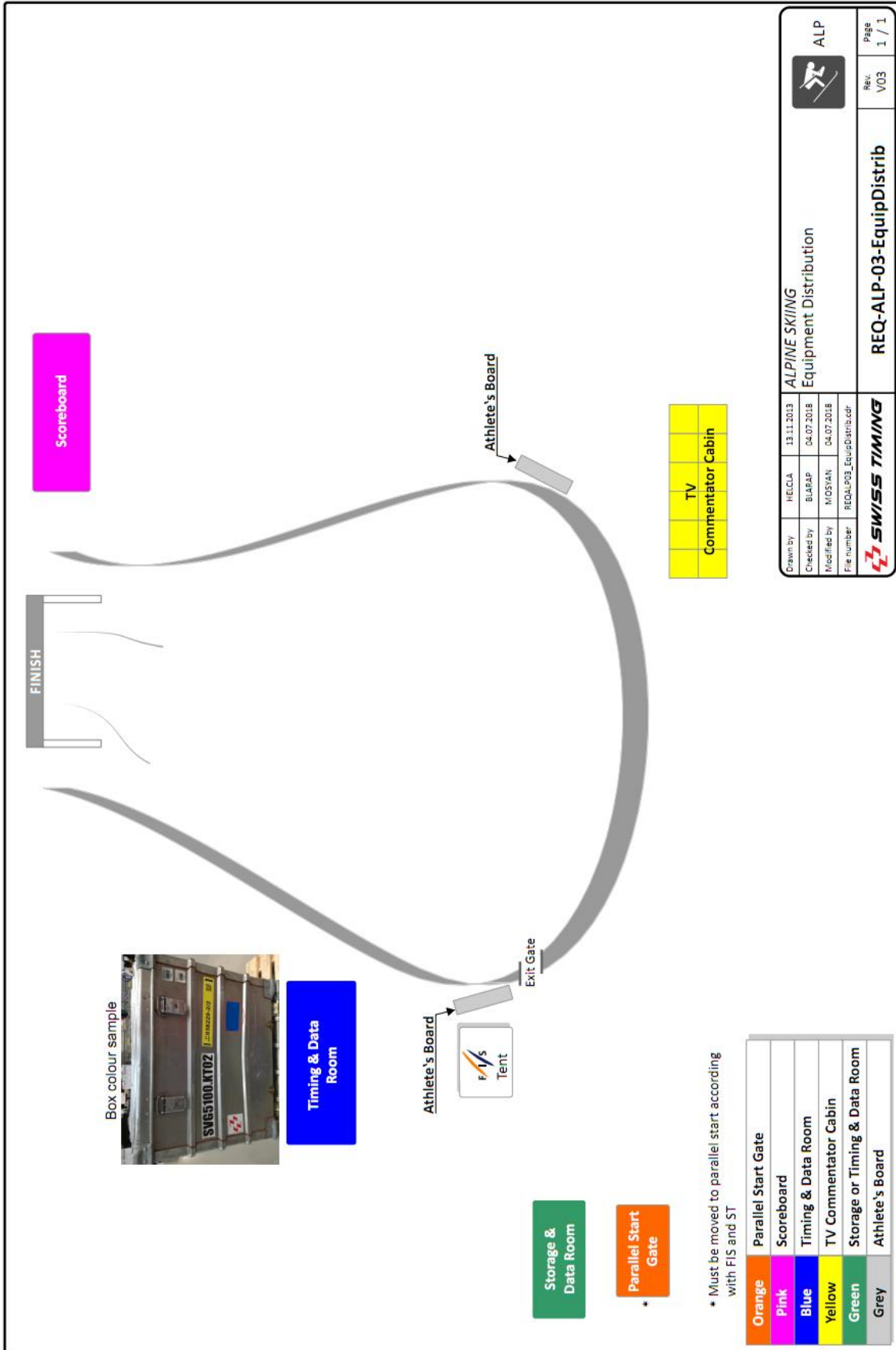
- Table with chairs near jury table
- Laptop provided by LOC connected to LCD screen or beamer for electronic board



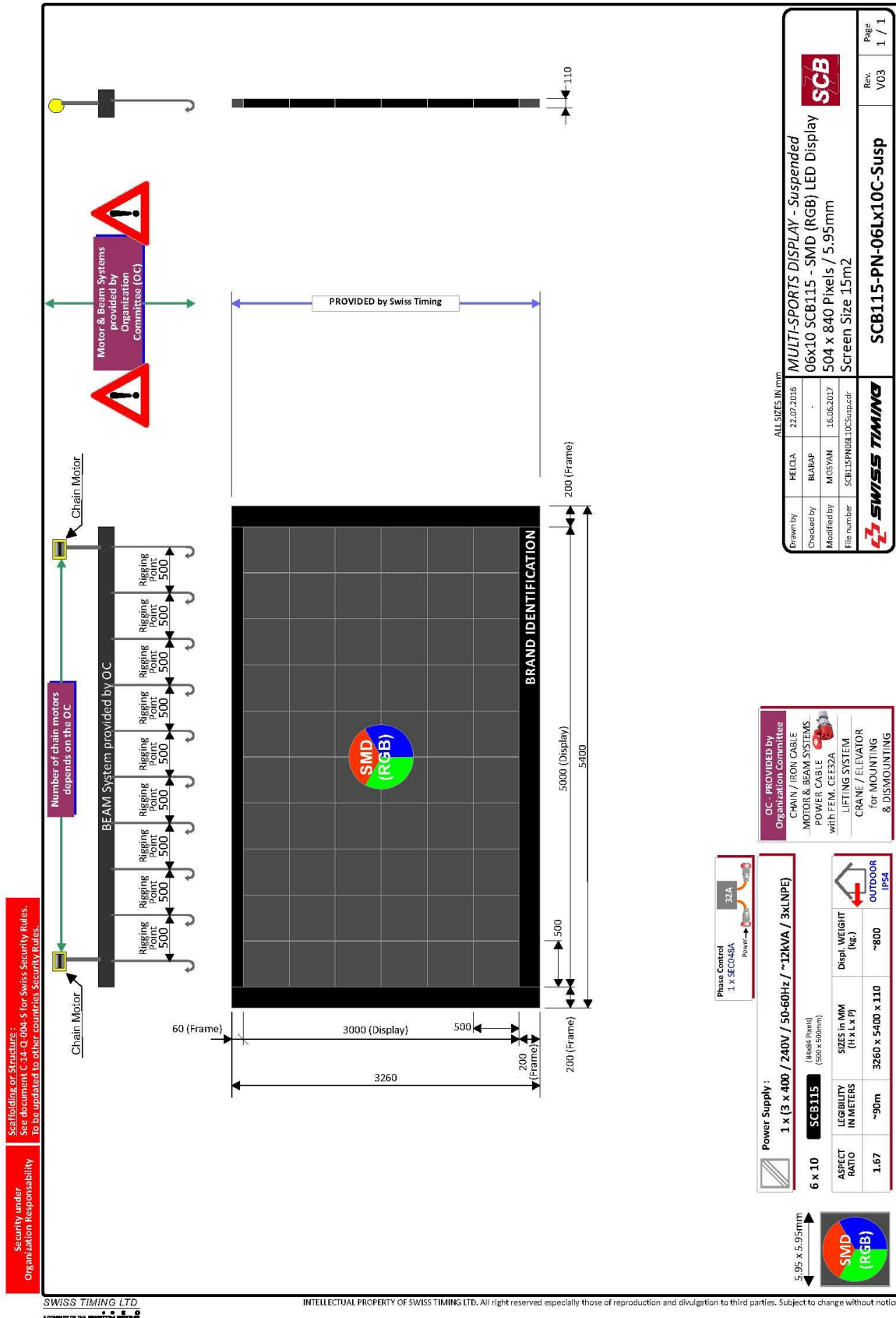
## 5. Annexe

- [Equipment distribution](#)
- [Structure scoreboard \(15m<sup>2</sup>\)](#)
- [Scoreboard setup – additional information](#)
- [Platform Athlete scoreboard](#)
- [Cabling requirements](#)
- Cabling requirements for parallel event
- [Template Control timing Lines](#) – Control Timing Lines v5.pdf and Control Timing Lines v5.xlsx
- [Race data information](#)
- Samples for [Header and footer for print](#) and [Logo for Scoreboard](#)

### 5.1. Equipment distribution



## 5.2. Scoreboard structure

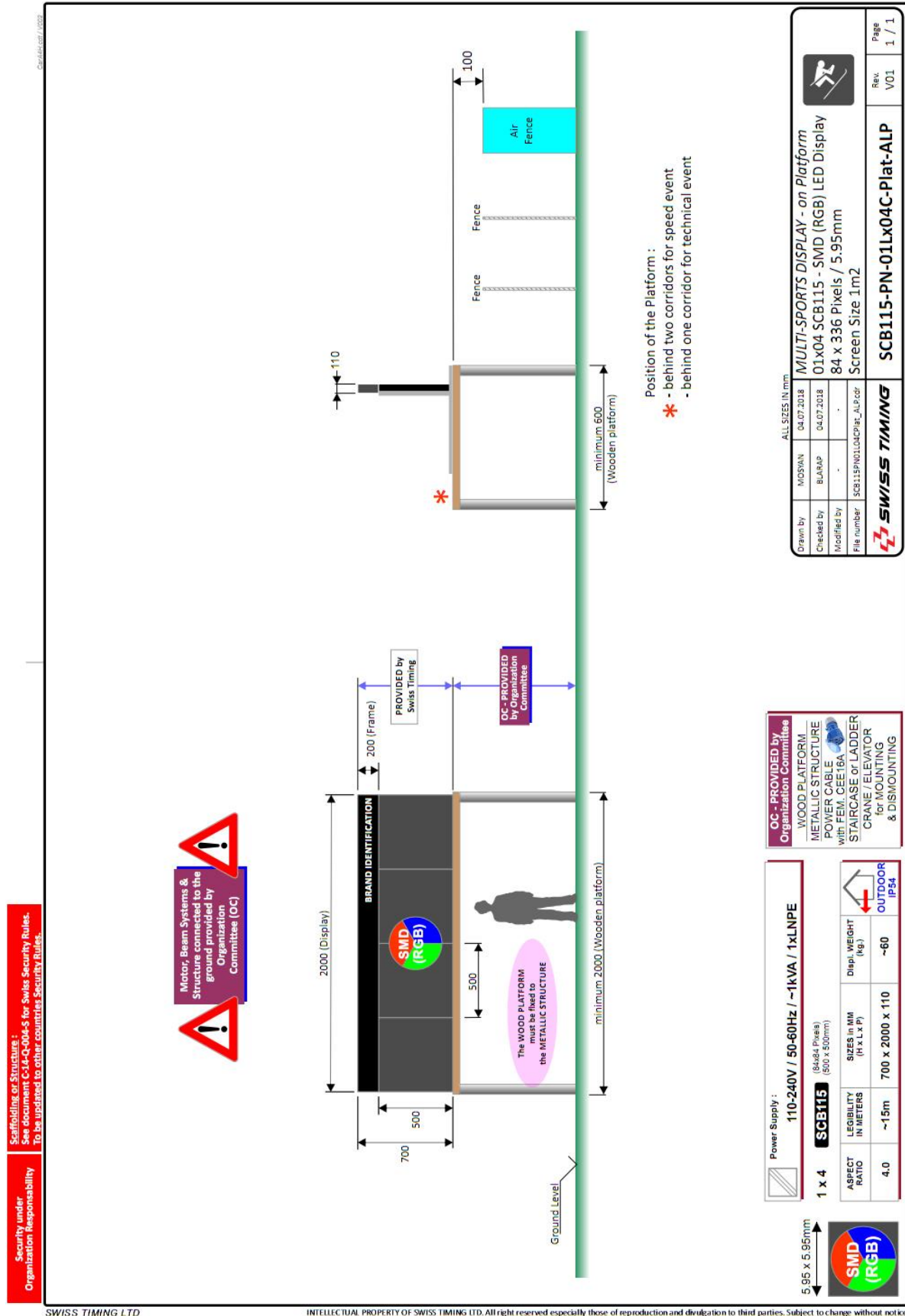


### 5.3. Scoreboard setup – additional information

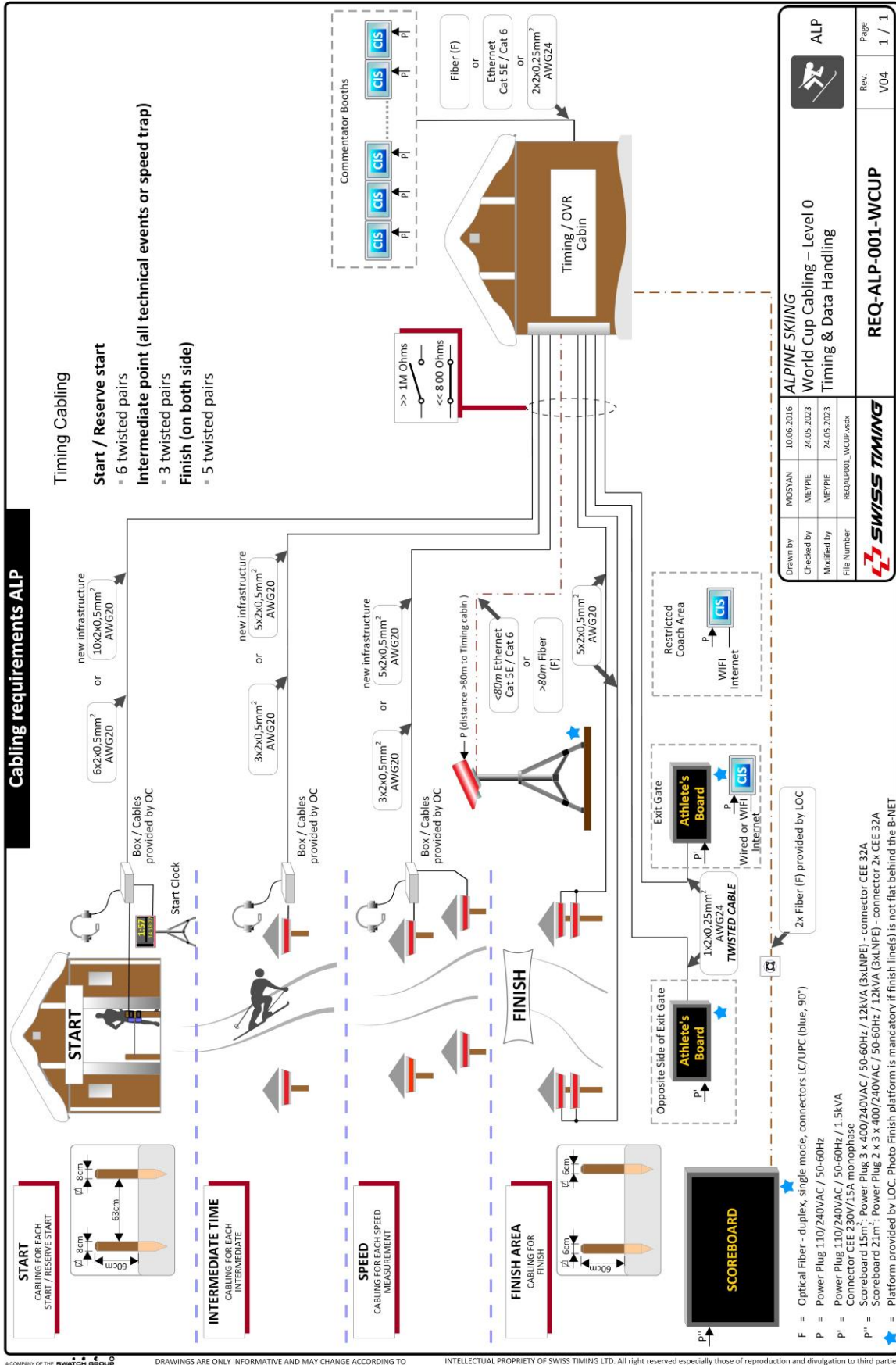
Please see below which parts will be provided by the Organisers and by Swiss Timing



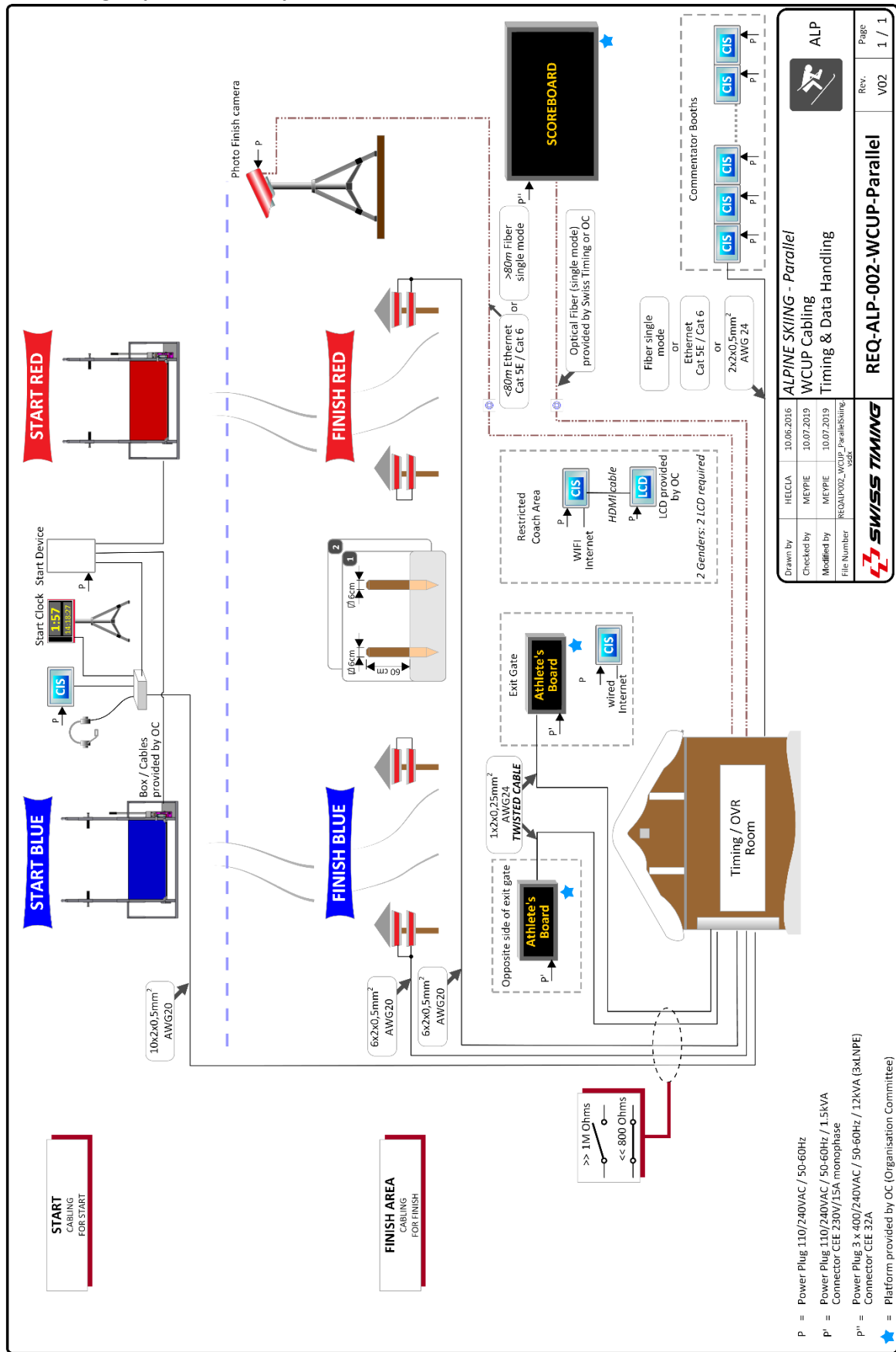
### 5.4. Athlete Scoreboard platform



### 5.5. Cabling requirements



### 5.6. Cabling requirements for parallel events



Drawn by	HELCLA	10.06.2016	 ALPINE SKIING - Parallel WCUP Cabling Timing & Data Handling	Page	1 / 1
Checked by	MEYPIE	10.07.2019		Rev.	V02
Modified by	MEYPIE	10.07.2019			
File Number	REQ-ALP002-WCUP-ParallelSkiing				
			<b>REQ-ALP-002-WCUP-Parallel</b>		

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5.7. Control Timing Lines

Control Timing Lines requirements for the FIS Alpine level 0 races



This document must be filled and completed by OC when FIS comes for snow control.

Numbers of pairs requested	type of cable: AWG20 twisted (U/UTP)-connectors: banana 4mm
Starts and reserve starts	6 pairs (10 for new infrastructure) 6 or 10 x2x0.5mm <sup>2</sup>
Intermediate position	3 pairs (5 for new infrastructure) 3 or 5 x2x0.5mm <sup>2</sup>
Finish skier left	5 pairs 5x2x0.5mm <sup>2</sup>
Finish skier right	5 pairs 5x2x0.5mm <sup>2</sup>
Parallel	start 10 pairs finish (skier left and right) 6 pairs 10x2x0.5mm <sup>2</sup> 6x2x0.5mm <sup>2</sup>

Place: \_\_\_\_\_

Date checked: \_\_\_\_\_

By: \_\_\_\_\_

All cabling along the slopes and cabling between slope's boxes (waterproof) and intermediate positions must be provided by Organisation Committee

When completed, please send a copy to Swiss Timing (pierre.meyrat@swisstiming.com)

Cable Identification		Position		Impedance measured		Remarks
Slope side	Box #	Timing room side	Location	Line open (>= 1 Mohm)	Line close (<= 800 ohm)	



## 5.8. Race data information

Race information	
Discipline	
Gender	
Date and start time	

Jury				
Technical delegate		Nation		TD N°
Referee		Nation		
Assistant Referee		Nation		
Chief of race		Nation		
Course setter 1 <sup>st</sup> run		Nation		
Course setter 2 <sup>nd</sup> run		Nation		

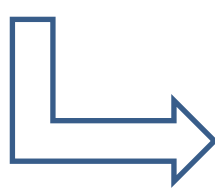
Course Data	Main start or 1 <sup>st</sup> Run	Reserve start 1 or 2 <sup>nd</sup> Run	Reserve start 2
Race name			
* Start altitude (m)			
* Finish altitude (m)			
Vertical drop (m)			
*Length (m) (from gate to gate)			
Homologation number			
Number of gates / turning gates			
*According to FIS, start and finish altitudes and exact lengths must be calculated after the course set with a GPS system			

Forerunners (numbers according to jury decision)			
-A-		Nation	
-B-		Nation	
-C-		Nation	
-D-		Nation	
-E-		Nation	
-F- / 2 <sup>nd</sup> run -A-		Nation	
-G- / 2 <sup>nd</sup> run -B-		Nation	
-H- / 2 <sup>nd</sup> run -C-		Nation	
-I- / 2 <sup>nd</sup> run -D-		Nation	
-J- / 2 <sup>nd</sup> run -E-		Nation	

Please fill in the document and give it back to ST technician at the Team Captain's Meeting.

### 5.9. Header and footer for print

Files provided by LOC. Format JPG,PDF,PNG (header: 2150x400 pixels / footer: 2150x260)



Rank	Bib	FIS Code	Name	Year of Birth	NSA Code	Time	Difference	Distance (m)	Points	Race	Ski
1	17	50067	SIENHOFER Ramona	1991	AUT	1:15.44	0.40	11.34	0.00	Head	
2	3	50020	STURECI Ilka	1990	SLO	1:15.94	0.40	11.34	6.61	Stovochi	
3	11	56177	VENIER Stephanie	1993	AUT	1:15.90	0.46	13.03	7.62	Atomic	
4	18	51639	BUTER Corinne	1994	SUI	1:15.91	0.47	13.31	7.78	Head	
5	21	19747	MIRADOLI Romane	1994	FRA	1:15.96	0.54	15.28	8.96	Dynastar	
6	27	29702	MARSAGLIA Francesca	1990	ITA	1:16.18	0.74	20.86	12.26	Salomon	
7	25	50008	TIPPLER Tamara	1991	AUT	1:16.19	0.75	21.16	12.43	Salomon	
8	8	20993	WEIDLE Kira	1996	GER	1:16.20	0.76	21.44	12.59	Rossignol	
9	23	53853	ROSE Laurence	1998	USA	1:16.23	0.79	22.28	13.09	Head	
10	15	94123	HUETTER Coriella	1992	AUT	1:16.23	0.79	22.28	13.09	Head	
11	1	205218	REBENSBURG Viktoria	1989	GER	1:16.32	0.88	24.79	14.58	Stovochi	
12	7	50020	SCHNIEDNER Nicole	1999	AUT	1:16.36	0.95	26.74	15.74	Head	
13	20	29829	FANCHINI Nadia	1998	ITA	1:16.43	0.99	27.85	16.40	Dynastar	
14	5	516284	GERM Michelle	1993	SUI	1:16.47	1.03	28.96	17.07	Rossignol	
15	22	98174	HAASER Ricarda	1993	AUT	1:16.63	1.19	33.39	19.72	Head	
16	13	537544	VONN Lindsey	1984	USA	1:16.63	1.19	33.39	19.72	Head	
17	4	197053	LEIDICKA Ester	1995	CZE	1:16.66	1.22	34.22	20.21	Atomic	
18	2	209480	WEING Michaela	1992	GER	1:16.66	1.22	34.22	20.21	Stovochi	
19	28	56125	PUGHNER Mirjam	1992	AUT	1:16.85	1.41	39.45	23.36	Atomic	
20	10	516248	FLURY Jasmin	1993	SUI	1:16.85	1.41	39.45	23.36	Stovochi	
21	19	425929	MOWINCKEL Regahild	1992	NOR	1:16.86	1.42	39.72	23.53	Head	
22	40	603660	HERYWEATHER Alice	1996	USA	1:16.95	1.44	40.27	23.92	Rossignol	
23	18	518138	GUT BEHRAIM Lara	1991	SUI	1:16.93	1.49	41.64	24.69	Head	
24	12	516165	MADLER Joanna	1992	SUI	1:17.15	1.71	47.65	28.33	Atomic	
25	6	287921	BRIGNONE Federica	1990	ITA	1:17.15	1.71	47.65	28.33	Rossignol	
26	47	29876	BASSINO Maria	1996	ITA	1:17.18	1.74	48.47	28.83	Salomon	
27	35	42627	LIE Kapka Vichhoff	1998	NOR	1:17.21	1.77	49.29	29.33	Head	
28	43	197295	PIOT Jennifer	1992	FRA	1:17.22	1.78	49.56	29.49	Head	
29	29	56417	FEY Nadine	1998	AUT	1:17.28	1.84	51.19	30.49	Rossignol	
30	30	56323	ORTLIEB Nina	1996	AUT	1:17.29	1.85	51.48	30.65	Head	
31	37	508718	WARSON Lin	1996	SWI	1:17.38	1.94	53.90	32.14	Head	
32	39	509701	HOENBLAD Lisa	1996	SWI	1:17.38	1.94	53.90	32.14	Head	
33	9	350000	WEIRATHER Tina	1989	LIE	1:17.40	1.96	54.44	32.48	Head	
34	42	197613	GREINER Valerie	1994	CAN	1:17.45	2.01	55.90	33.92	Rossignol	
35	32	56256	RAEDLER Ariane	1995	AUT	1:17.53	2.09	57.96	34.63	Head	
36	31	516200	HOLDNER Wendy	1993	SUI	1:17.80	2.36	59.85	35.79	Head	
37	45	482749	PROCOPEVA Aleksandra	1984	RUS	1:17.85	2.41	60.96	36.93	Atomic	

### 5.10. Logo for Scoreboard

File provided by LOC  
Format PNG 433x376 pixels