

ACCESSIBLE EV CHARGING

PAS 1899 in practice

Accessible EV charging: what the standard asks, what we actually see on the street, and what councils can do now



01

Context

Why it matters · What the standard is · The four requirement areas · Parking bay vs charging bay

Disabled drivers will depend on public charging

2.7m

disabled drivers and passengers
expected on UK roads by 2035

1.35m

of them likely to rely on public
chargepoints rather than home
charging

49 of 194

councils responding to a 2026
FOI reported any accessible on-
street chargers — about one in
four

Progress is real but uneven: the number of councils with accessible on-street provision roughly doubled in a year, yet three quarters still report none. The gap is now a service-equality issue for highway authorities, not a niche design question.

Sources: Motability Foundation / BSI; Vauxhall Electric Streets of Britain FOI (2026).

What PAS 1899 is — and who it lands on

- 01 Published October 2022 by BSI, co-sponsored by the Motability Foundation and OZEV.
- 02 A voluntary specification, not law — but increasingly the benchmark used by funders, auditors and disability organisations.
- 03 The onus of conformity sits with the procurer of the chargepoint. That includes a local authority, or a car park owner.

**Designated accessible
bays, on and off street**

Supplementary best practice

Core minimum: all public chargepoints

Four areas the core requirements cover

CLAUSE

5



The unit itself

Heights of socket, holster, screen and payment terminal; cable weight, length and grip; connection force; screen readability and plain language.

CLAUSE

6



Placement

Components reachable seated or standing; smooth, stable ground; no low-level obstacles; bollards and impact protection that don't block access.

CLAUSE

7



Streetscape

Street furniture kept clear; level access preferred, otherwise a dropped kerb next to the bay; visible locations near amenities; assistance where a unit can't be used independently.

CLAUSE

8



Digital and data

Accessible apps and back office; open data on location and characteristics so disabled drivers can plan before they travel.

An accessible parking bay is not an accessible charging bay

Accessible parking bay

- Purpose: get in and out of the vehicle, then reach the destination.
- Transfer space is needed on one side — the driver can pull in or reverse in to put it where they need it.
- Works for disabled passengers as well as drivers.
- Once parked, the job is done.

Accessible EV charging bay

- Purpose: get out, reach the unit, carry the connector to the vehicle's inlet, and back again.
- Inlet position varies by vehicle, and short, heavy cables dictate how the car is parked — which can put the transfer space on the wrong side.
- So space is needed on both sides and at both ends, plus a unit that can be seen, reached and used.
- The person charging may be a disabled passenger, not the driver.

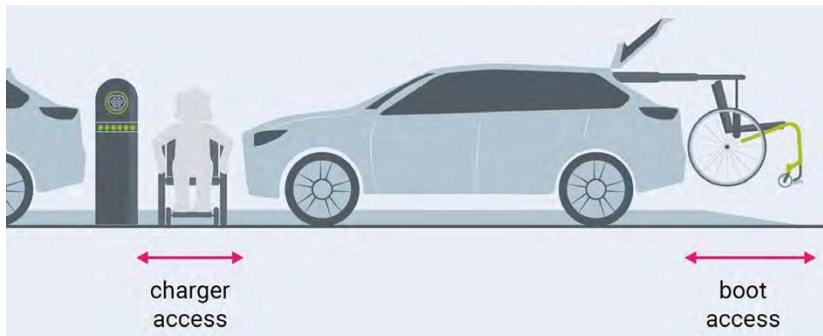


Diagram: Designability — space for charger access and boot access

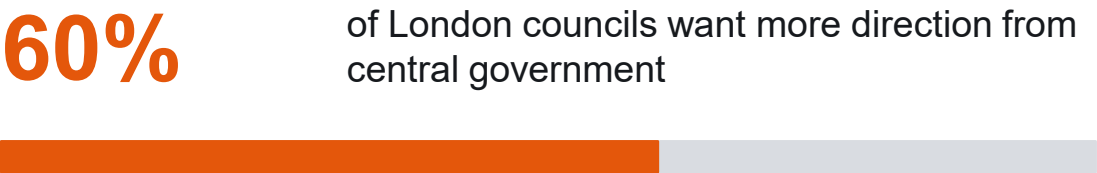
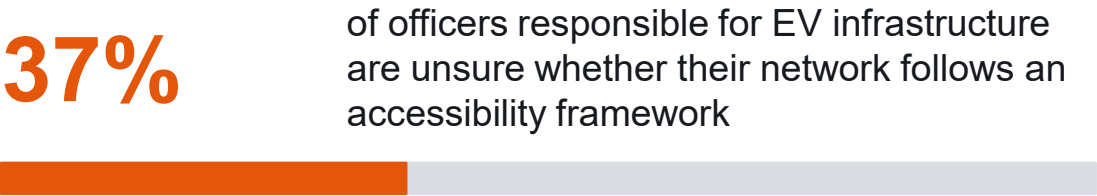
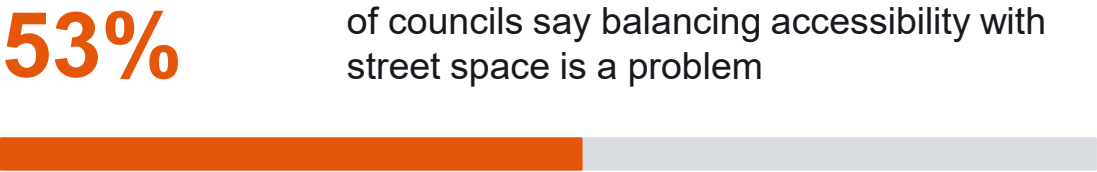
Two rules follow. A charger added to a Blue Badge bay does not make it an accessible charging bay. And converting existing Blue Badge bays into EV-only bays reduces disabled parking supply — add accessible charging bays rather than repurpose disabled ones.

02

In practice

Voices · Evidence · Failures · Good and bad bays · Space, reach, process, signage and site

What the evidence says about implementation



Believ local authority survey (2026)

BSI TECHNICAL WORKING GROUP REVIEW (NOV 2025)

- The standard was a positive step, but disabled drivers still meet barriers.
- Many stakeholders find the requirements hard to interpret consistently.
- Buying chargepoints that meet the physical design requirements remains difficult.
- Drivers need per-chargepoint accessibility data to find units that suit them.

What failure looks like on the street

01



Bollards and impact protection

placed where they block the approach to the socket or screen

02



Kerb and surface

no dropped kerb near the bay; uneven paving, gradients, tree pits

03



Cables

heavy, stiff tethered cables that can't be handled one-handed or seated

04



Interface

screens and payment too high, glare, small text, app-only operation

05



Street clutter

feeder pillars, signs and bins crowding the access zone

06



The bay itself

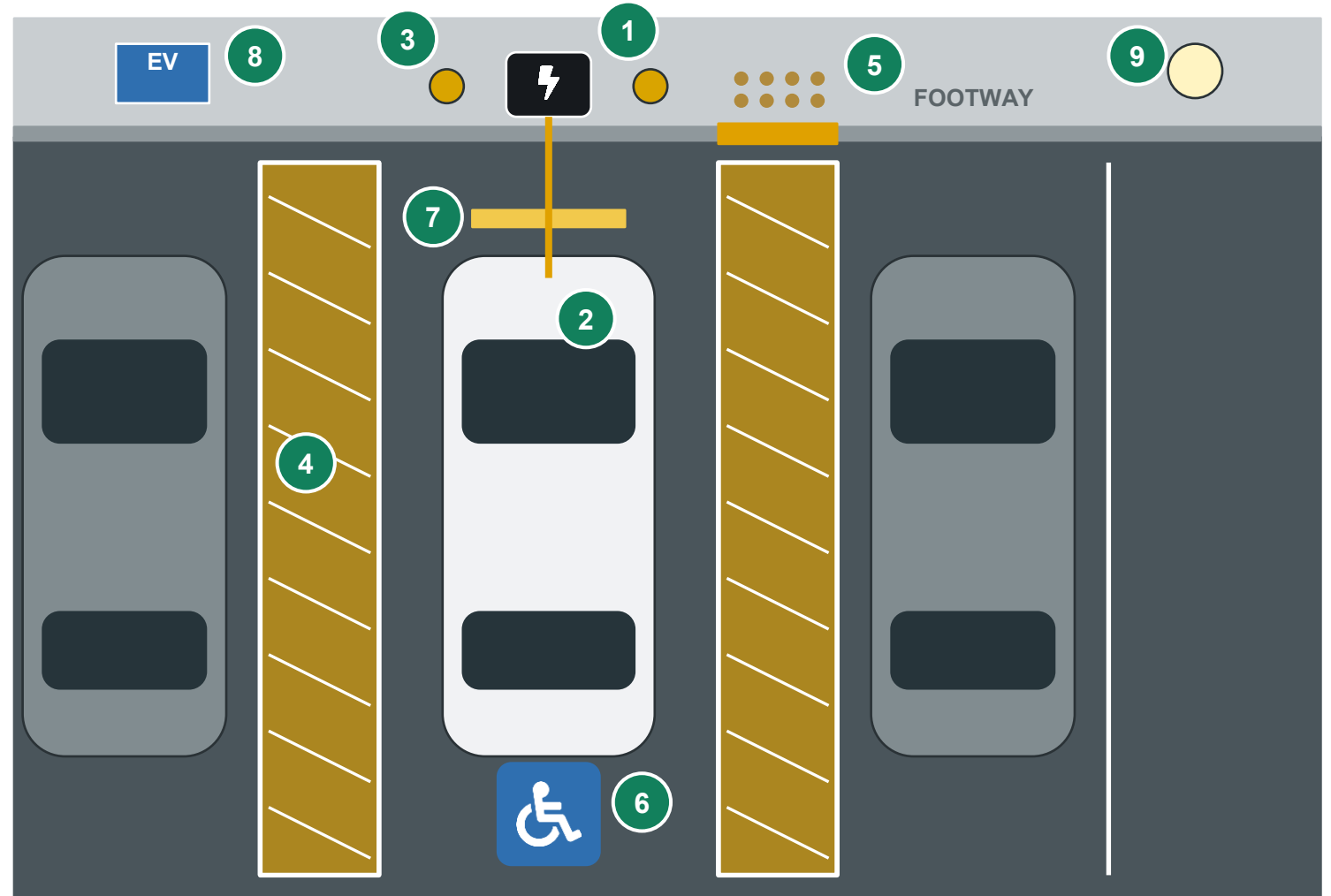
occupied by non-charging or non-EV vehicles, with no enforceable restriction

Most of these are decided at design sign-off or in the contract, not by the hardware manufacturer.

What a PAS 1899-compliant bay looks like

- 1 **Chargepoint.** Socket, holster, screen and payment within PAS 1899 height ranges; usable seated or standing.
- 2 **Cable that reaches.** Tethered cable with management system, long and light enough to reach the vehicle inlet.
- 3 **Bollards set aside.** Impact protection placed so it never blocks the approach to the unit.
- 4 **Clear access zones.** Hatched zones both sides for wheelchair transfer and side-loading WAVs.
- 5 **Dropped kerb.** Level route from bay to footway, with tactile paving.
- 6 **Bay marking.** Clearly marked accessible EV bay in contrasting colours.
- 7 **Smooth, level surface.** Firm, even ground with no grates, gradients or gaps at the unit.
- 8 **Signage.** Visible signs so drivers find the bay before they arrive.
- 9 **Lighting.** Good lighting for safety and for reading the screen at night.

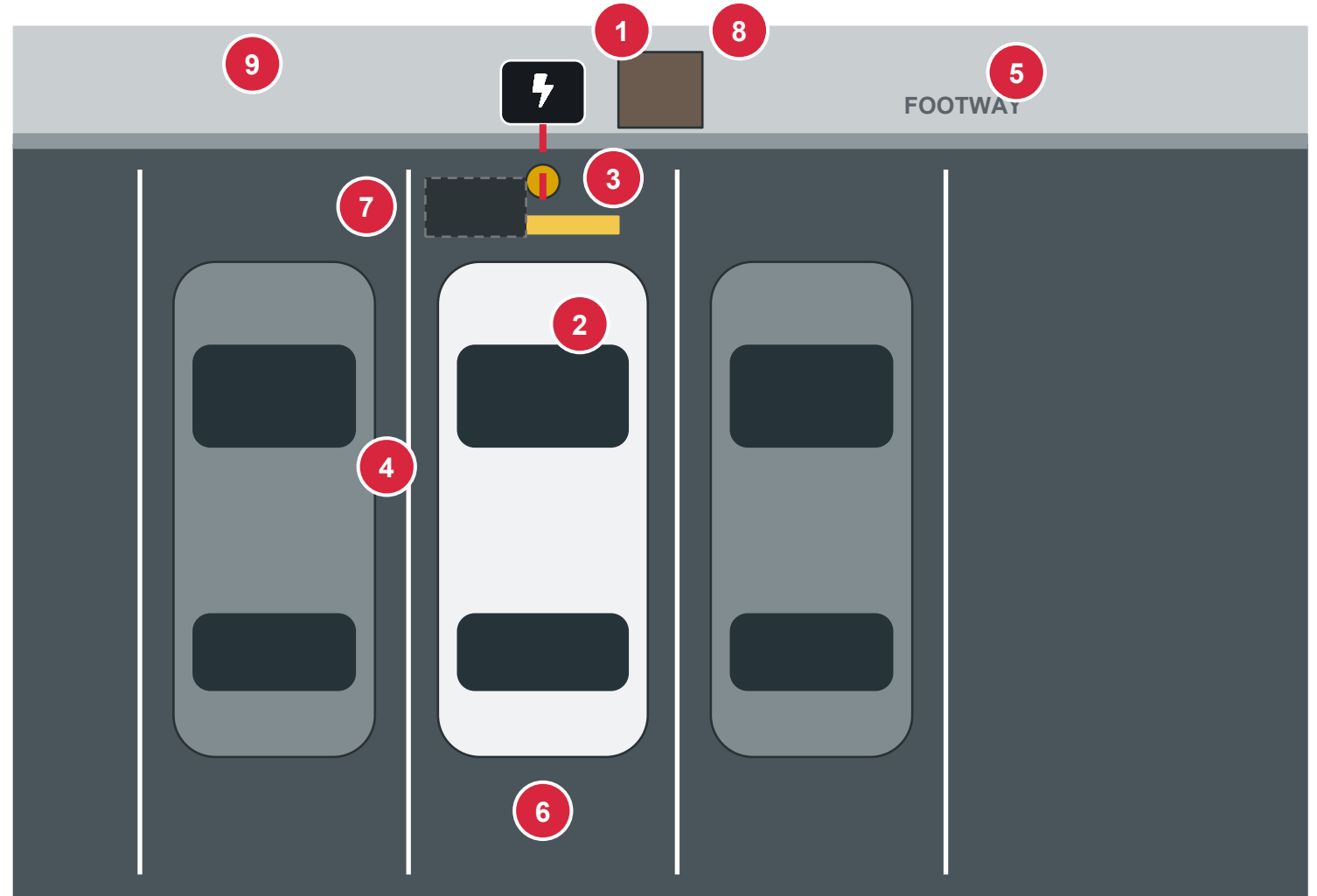
Illustrative plan view, not to scale. Check exact dimensions and height ranges against the full PAS 1899 text.



The same bay, done badly

- 1 **Unit too high.** Screen and payment above seated reach; app-only operation.
- 2 **Cable won't reach.** Short, heavy cable that only reaches if the car parks against the unit.
- 3 **Bollard in the way.** Impact protection placed directly in front of the socket.
- 4 **Narrow bay.** Standard-width bay with neighbours close on both sides; no room to open doors or transfer.
- 5 **No dropped kerb.** Full-height kerb all along; no step-free route to the footway.
- 6 **No bay marking.** Nothing tells drivers this is a charging bay, let alone an accessible one.
- 7 **Grate and uneven surface.** Drain cover and broken surface right where the user needs to stand.
- 8 **Feeder pillar crowding.** Street furniture narrows the approach to the unit.
- 9 **No signage or lighting.** Hard to find and hard to use after dark.

Illustrative plan view, not to scale. Check exact dimensions and height ranges against the full PAS 1899 text.



Space around the vehicle decides who can charge



Images: Designability



“I have to park my car away from the kerb so I can stand between the car and the pavement – then my passenger is right in the traffic flow.”

- ✓ **Doors open fully on both sides**
to straighten legs, transfer to a wheelchair, and help passengers or children out.
- ✓ **Protected space at both ends**
to reach the charger at one end and a boot hoist or ramp at the other.
- ✓ **Mark it clearly**
so other drivers do not park in the protected space.
- ✓ **Room for WAVs**
larger wheelchair accessible vehicles need extra space for side or rear ramps and lifts; end-of-row space can work well.
- ✓ **No kerbs, verges or slopes beside the bay**
a high kerb on one side traps the user; a gradient can roll a wheelchair away.

Beyond the bay: shelter, lighting, amenities and ground



Shelter and lighting

Disabled people may take longer getting in and out and managing the charge, so shelter matters more. Light the unit and the socket.

“In the dark I use my 30-seconds of headlights ... to rush to plug in the cable.”



Nearby amenities

Toilets and cafés close by can decide whether a site is usable at all for some disabled drivers.

“I’ll always choose those, even if I have to drive further to find them.”



Ground and planting

Level, smooth, firm ground at the unit — no gravel, grass or mud — and shrubs kept trimmed back.

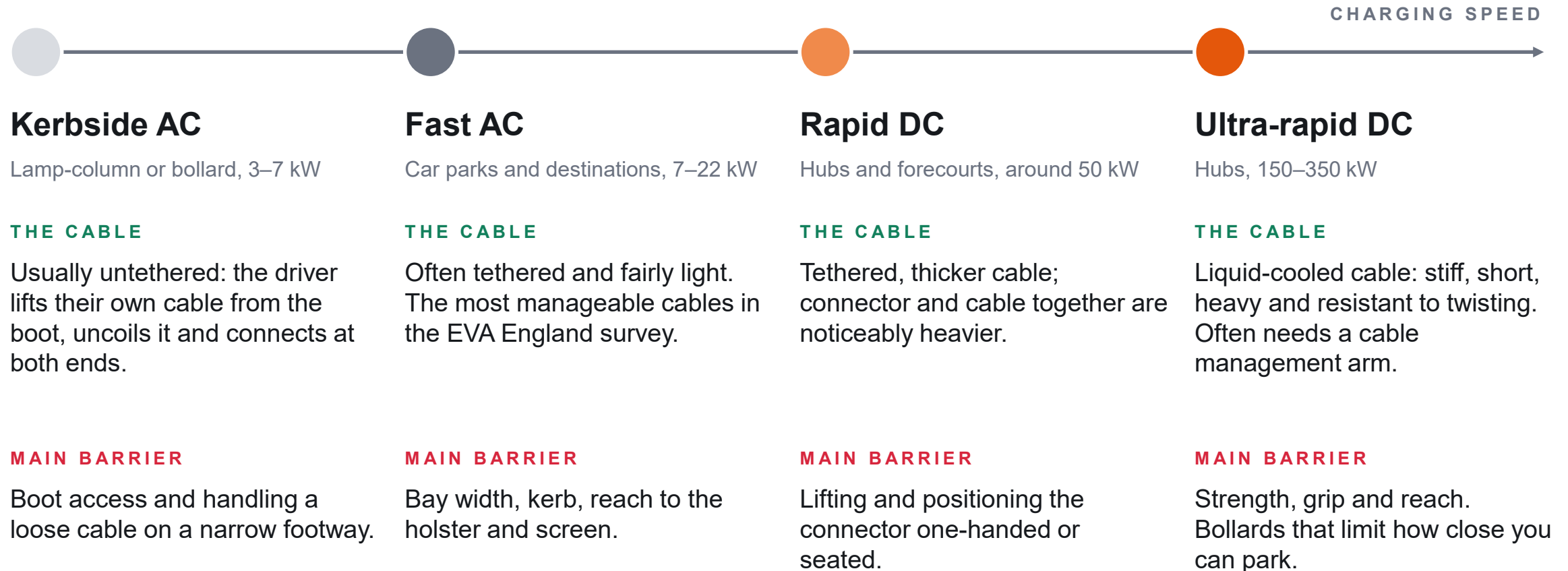
“I hate it when I have to stand on wet grass to charge.”

03

Design choices

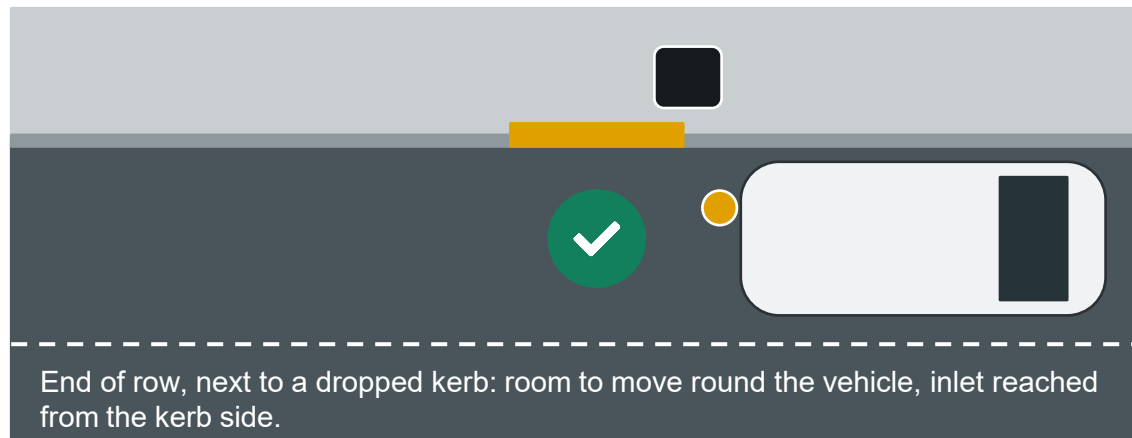
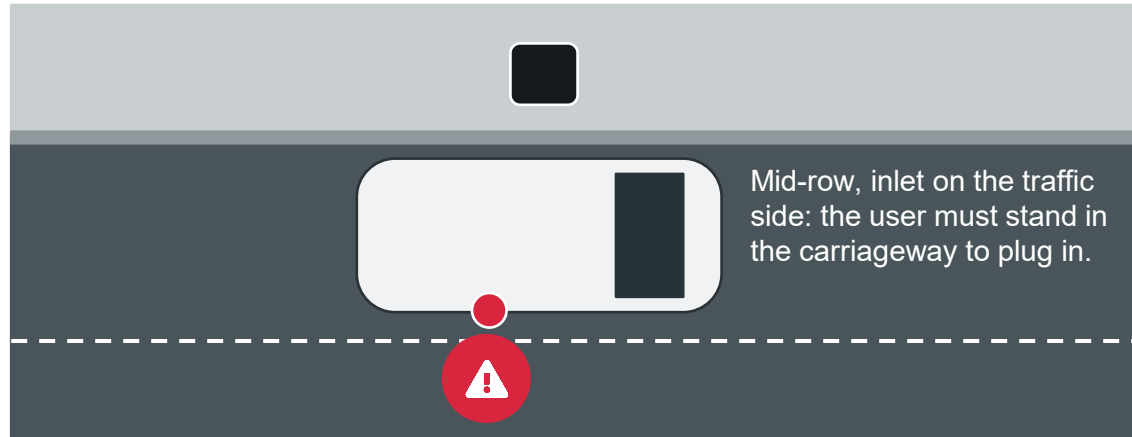
Charger types · Kerbside layouts · Cables · The finance argument · Bay numbers · Blue Badge position

Charger type changes the accessibility problem



Power bands are indicative. The faster the charger, the more the cable itself becomes the barrier.

Kerbside layouts: where the user ends up standing



Design principles drawn from international guidance; check against PAS 1899 and UK highways practice.

Traffic-side inlets. On parallel kerbside bays, a vehicle with its inlet on the offside puts the user in live traffic.

End-of-row units next to a dropped kerb give room to move round the vehicle — the best spot for the most accessible kerbside unit.

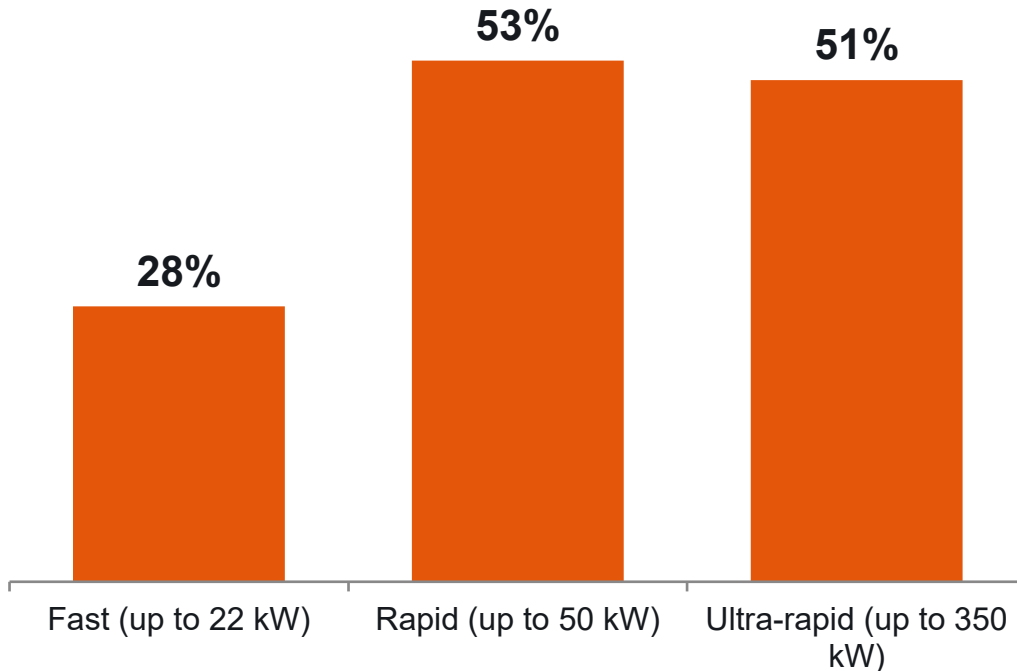
Units on the footway should face so they can be used from the footway, with a cable that reaches back to the inlet.

Pull-through bays, like a petrol forecourt, let larger WAVs and rear-ramp vehicles charge without reversing or blocking aisles.

Winter matters. Cleared snow, grit bins and ice must not end up in the access zone.

Ultra-rapid: why the cable is the barrier

Disabled drivers who find cables hard to use (%)



Source: EVA England, Cable Weight Survey (2025).

- 01** Ultra-rapid charging pushes very high current through the cable and connector, which generates heat.
- 02** Coolant is pumped through the cable and connector to carry that heat away. Without it, the copper would need to be far thicker.
- 03** Even cooled, the result is a thick, stiff, relatively short cable that is heavier than an AC lead and resists bending and twisting.
- 04** Operators keep cables short to limit damage, so reach depends on parking very close to the unit, often hard against bollards.

What to specify: cable management or counterbalance systems, holster heights within PAS 1899 ranges, and bays wide enough to approach the connector from a wheelchair.

Finance cannot be the reason to design disabled drivers out

WHAT PROCURERS HEAR

“Wider bays cost us chargers and income.”

“Compliant hardware is more expensive.”

“We’ll add accessible bays in phase two.”

“The standard is voluntary.”

01 The duty is anticipatory

Service providers must plan reasonable adjustments in advance under the Equality Act 2010. Cost is a factor in what is reasonable, but designing exclusion in from day one is hard to defend.

02 Public land, public leverage

Councils grant the site, the TRO and often the funding. Accessibility is a fair condition of that access, and the Public Sector Equality Duty applies to the decision.

03 Retrofit costs more

Moving feeder pillars, kerbs and bollards after installation costs far more than getting the layout right at design stage.

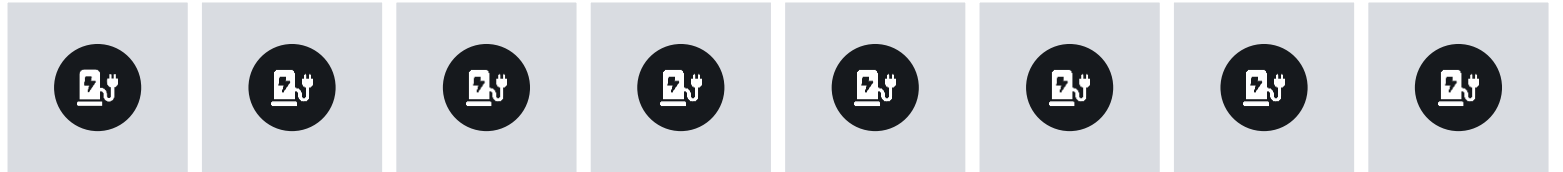
Eight standard bays or six accessible bays?

8 → 6

+33%

sessions per bay to match 8 bays

8 standard bays Same frontage, tight bays



6 accessible bays Same frontage, wider bays



Why six can outperform eight over the life of the site

Fewer failed sessions. Drivers who can't reach, open doors or connect leave without charging.

Wider customer base. Disabled drivers, WAVs, larger SUVs, vans and families can all use every bay.

Faster turnaround. Easier entry, exit and connection shorten the time each bay is occupied.

Repeat custom. Drivers return to sites they know will work for them.

What the evidence does and doesn't show



What supports the case

48% of UK drivers want larger parking spaces (YourParkingSpace, Nov 2025).

Standard 2.4 m × 4.8 m bays date from 1970s guidance; many popular SUVs now leave little door clearance.

Over half of disabled drivers struggle with rapid and ultra-rapid cables (EVA England, 2025).

Some operators, such as Osprey, now build bigger bays where they can, citing repeat custom.



The gap — and how councils close it

No published UK dataset yet compares utilisation or revenue of wider bays against standard bays.

Operators hold the data: sessions per bay, failed and abandoned sessions, dwell time.

Require per-bay reporting in concession contracts, split by bay type.

Compare accessible and standard bays across sites for 12 months, then publish the result.

Position: accessible EV bays for Blue Badge holders



The case for reserving them

- 1 EV bays and disabled bays compete for the same prime spots: near entrances, amenities and level access.
- 2 An accessible EV bay open to all is often the best bay on the site, so it is taken first by drivers who could use any bay.
- 3 We already reserve disabled bays for Blue Badge holders. A charger in the bay should not remove that protection.
- 4 A clear restriction is easier to sign, explain and enforce.

Challenges to prepare for

Not every disabled driver who needs the space holds a Blue Badge.

→ Keep every bay to the PAS 1899 core; reserve only a share.

Idle reserved bays weaken the operator's business case.

→ Agree the ratio per site and review it with usage data.

Enforcement needs a legal basis.

→ TRO on-street; clear terms and signage off-street.

04

Quick wins

Put it in the contract · Get the site right · Keep it usable · A 90-day starter plan

Quick win 1: put it in the contract

1

The cheapest point to secure accessibility is before the order is placed. Retrofitting costs far more than specifying.



Name PAS 1899 conformity as a contract requirement

Core minimum for every public unit; Annex B/C good practice for units at designated accessible bays.



Ask for evidence, not assurances

Completed Annex E checklists per site, or third-party assessment such as the BSI Kitemark scheme endorsed by Motability.



Build accessibility into KPIs and remedies

Uptime and fault-fix times for accessible units specifically, with rectification at the operator's cost.



Make existing concessions catch up

Use variation or renewal points to require a remediation plan for the legacy estate.

Quick win 2: get the site right

2

Placement failures are council decisions. Highways, parking and the EV team need to sign off the same drawing.



Walk the site with the Annex E checklist

Kerb height, gradient, surface, furniture and bollard positions checked before installation, not after.



Pair accessible bays with level access or a dropped kerb

Plan the dropped kerb next to the bay as part of the scheme, not as a later request.



Protect the access zone

Relocate feeder pillars and street furniture away from the approach; position impact protection so it doesn't block reach.



Choose cross-pavement solutions carefully

Avoid cable covers that create trip hazards for wheelchair users and people with visual impairments.

Quick win 3: keep it usable

3

A compliant unit that is blocked, broken or invisible is not accessible. Day-to-day operation is where parking services add most value.



Make the bay enforceable and enforce it

Check TRO wording covers both the EV-charging and any Blue Badge condition; include the bays in CEO patrol plans.



Inspect and maintain

Add accessible units to routine inspection: surfaces, markings, cable condition, screen legibility.



Publish accessibility data

Extend open data duties via contract so each unit's accessibility features are published for journey planning.



Guarantee assistance

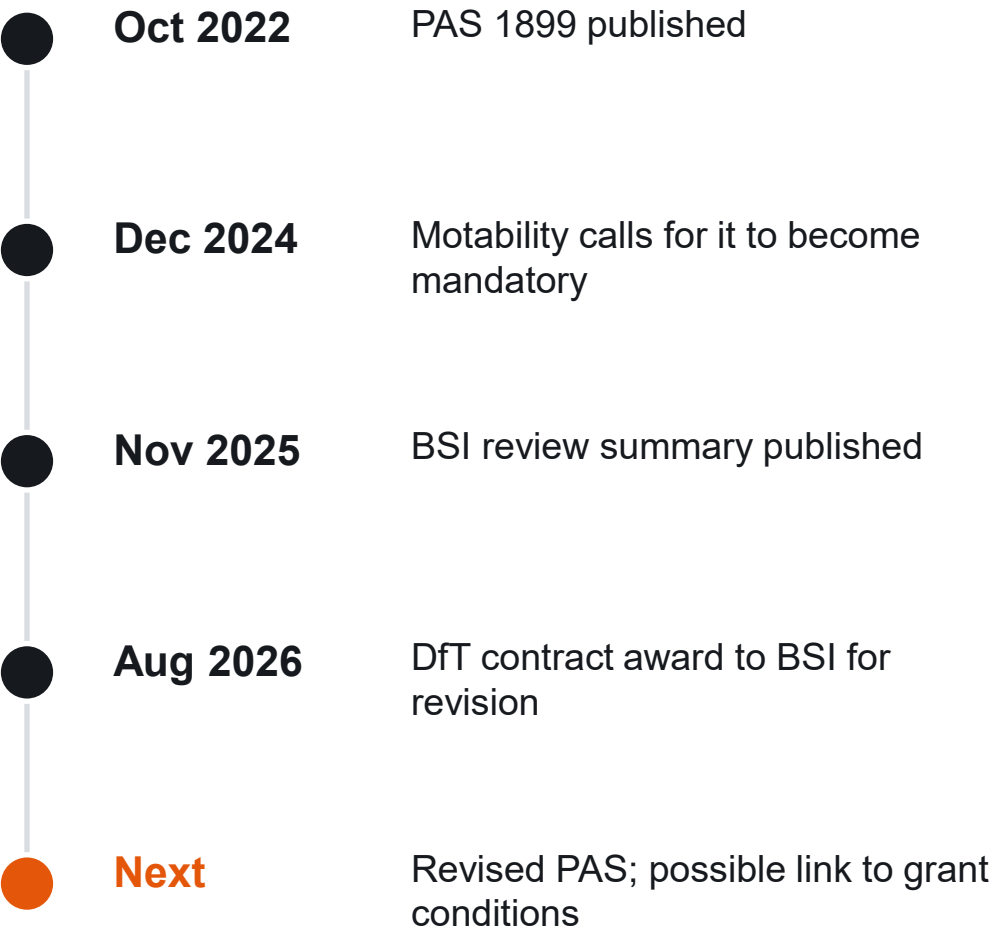
Where a unit can't be used independently, require a staffed, accessible 24/7 route to help — and test it.

05

Outlook

The revision of PAS 1899 · Questions for discussion · Sources

The standard is being revised — build to it now



IMPLICATION FOR COUNCILS

Waiting for the revision is the riskiest option. Assets installed now will be judged against a tighter standard and against Equality Act duties. Specify to the current core requirements, write contracts so they track the latest version, and record the reasons where a site genuinely cannot comply.

Accessibility is decided by the procurer

- 01 Who owns PAS 1899 conformity in our council today?
- 02 How many of our units would pass the Annex E core checklist?
- 03 Are our accessible bays enforceable — and enforced?