<https://gemini.google.com/u/1/app/b90970622259e225>

\* \* \* \* \*

### 1\. OpenAPI 3.1 Spec (for Module 4c - Transportation - Corrected)

YAML

```

openapi: 3.1.0

info:

title: Via di Francesco - Module 4c: Transportation API (Corrected)

version: v2.1

description: API endpoints for managing and accessing transportation-related data, including stop types, facilities, and detailed stop information. Primary language fields (e.g. 'label') contain English text, with other languages in a 'translations' object.

contact:

name: VdF Platform Team

url: https://example.com/contact # Placeholder

email: api-support@example.com # Placeholder

servers:

- url: https://api.viadifrancesco.example.com/v1 # Placeholder

description: Production Server

tags:

- name: Transport Stop Types

description: Management of public transport stop type classifications.

- name: Transport Stop Facilities

description: Management of facilities available at transport stops.

- name: Transport Stops

description: Detailed information and management of public transport stops (which are Waypoints).

components:

schemas:

# --- Core & Utility Schemas (Shared) ---

Error:

type: object

properties:

code:

type: string

description: An application-specific error code.

example: "validation\_failed"

message:

type: string

description: A human-readable message providing more details about the error.

example: "Invalid input for sort\_order."

detail:

type: object

additionalProperties: true

description: Additional details or specific field errors.

example:

sort\_order: "must be a positive integer"

required:

- code

- message

TranslationObject:

type: object

description: A map of language codes to translated strings for a specific field.

additionalProperties:

type: string

example:

it: "Stazione Ferroviaria Principale"

de: "Hauptbahnhof"

Pagination:

type: object

properties:

page:

type: integer

description: Current page number.

example: 1

page\_size:

type: integer

description: Number of items per page.

example: 20

total\_items:

type: integer

description: Total number of items available.

example: 42

total\_pages:

type: integer

description: Total number of pages.

example: 3

required:

- page

- page\_size

- total\_items

- total\_pages

# --- Module 4c: Transportation Schemas (Corrected Translatable Fields) ---

TransportStopTypeBase:

type: object

properties:

code:

type: string

description: "Short, stable, machine-readable code (snake\_case)."

example: "train\_station\_main"

label: # Corrected: Stores primary language (English) text

type: string

description: "Human-readable name in the primary reference language (English)."

description: # Corrected: Stores primary language (English) text

type: string

nullable: true

description: "Optional description in the primary reference language (English)."

translations:

type: object

description: "Translations for translatable fields like label and description."

properties:

label:

$ref: '#/components/schemas/TranslationObject'

description:

$ref: '#/components/schemas/TranslationObject'

icon\_identifier:

type: string

nullable: true

description: "Name, class, or path for a UI icon."

example: "icon-train-main"

sort\_order:

type: integer

default: 0

description: "Determines the display order."

is\_active:

type: boolean

default: true

description: "If true, this type is active and can be used."

required:

- code

- label # Now required as it holds English

- sort\_order

- is\_active

TransportStopType:

allOf:

- $ref: '#/components/schemas/TransportStopTypeBase'

- type: object

properties:

id:

type: integer

format: int32

description: "Unique identifier for the transport stop type."

readOnly: true

created\_at:

type: string

format: date-time

readOnly: true

updated\_at:

type: string

format: date-time

readOnly: true

required:

- id

- created\_at

- updated\_at

TransportStopTypeCreatePayload: # For POST

type: object

properties:

code:

type: string

label: # User submits primary language (English) text

type: string

description: # User submits primary language (English) text

type: string

nullable: true

icon\_identifier:

type: string

nullable: true

sort\_order:

type: integer

default: 0

is\_active: # Admin might set this explicitly

type: boolean

default: true

required:

- code

- label

PaginatedTransportStopTypes:

type: object

properties:

data:

type: array

items:

$ref: '#/components/schemas/TransportStopType'

pagination:

$ref: '#/components/schemas/Pagination'

required: [data, pagination]

TransportStopFacilityBase:

type: object

properties:

code:

type: string

description: "Short, stable, machine-readable code."

example: "toilets\_available"

label: # Corrected: Stores primary language (English) text

type: string

description: "Human-readable name in the primary reference language (English)."

description: # Corrected: Stores primary language (English) text

type: string

nullable: true

description: "Optional description in the primary reference language (English)."

translations:

type: object

description: "Translations for translatable fields like label and description."

properties:

label:

$ref: '#/components/schemas/TranslationObject'

description:

$ref: '#/components/schemas/TranslationObject'

icon\_identifier:

type: string

nullable: true

example: "icon-toilets"

category:

type: string

nullable: true

description: "Optional broad category code for grouping."

example: "basic\_needs"

sort\_order:

type: integer

default: 0

is\_active:

type: boolean

default: true

required:

- code

- label # Now required

- sort\_order

- is\_active

TransportStopFacility:

allOf:

- $ref: '#/components/schemas/TransportStopFacilityBase'

- type: object

properties:

id:

type: integer

format: int32

description: "Unique identifier for the facility."

readOnly: true

created\_at:

type: string

format: date-time

readOnly: true

updated\_at:

type: string

format: date-time

readOnly: true

required:

- id

- created\_at

- updated\_at

TransportStopFacilityCreatePayload: # For POST

type: object

properties:

code:

type: string

label: # User submits primary language (English) text

type: string

description: # User submits primary language (English) text

type: string

nullable: true

icon\_identifier:

type: string

nullable: true

category:

type: string

nullable: true

sort\_order:

type: integer

default: 0

is\_active:

type: boolean

default: true

required:

- code

- label

PaginatedTransportStopFacilities:

type: object

properties:

data:

type: array

items:

$ref: '#/components/schemas/TransportStopFacility'

pagination:

$ref: '#/components/schemas/Pagination'

required: [data, pagination]

FacilityDetail: # For the facilities\_details array in TransportStopEnriched

type: object

properties:

id:

type: integer

code:

type: string

label: # Corrected: Primary language (English) label

type: string

description: # Corrected: Primary language (English) description

type: string

nullable: true

translations:

type: object

description: "Translations for facility label and description."

properties:

label:

$ref: '#/components/schemas/TranslationObject'

description:

$ref: '#/components/schemas/TranslationObject'

icon\_identifier:

type: string

nullable: true

category:

type: string

nullable: true

required:

- id

- code

- label

# Schema for text fields that are translatable

TranslatableText:

type: object

properties:

text: # Main field holds English (or primary language)

type: string

nullable: true

translations:

$ref: '#/components/schemas/TranslationObject'

required:

# text might be nullable, so not always required here.

# The presence of the TranslatableText object itself implies it's a translatable concept.

- text # Make English text required if the field itself is NOT NULL in DB

TransportStopEnriched: # Based on view\_transport\_stops\_enriched

type: object

properties:

waypoint\_id:

type: integer

format: int64

waypoint\_name: # Corrected (was waypoint\_name\_en)

type: string

description: "Name of the waypoint in the primary reference language (English)."

translations\_waypoint\_name: # Translations specifically for waypoint\_name

$ref: '#/components/schemas/TranslationObject'

waypoint\_geom:

type: object

properties:

type: { type: string, enum: [Point] }

coordinates: { type: array, items: { type: number }, minItems: 2 }

waypoint\_primary\_image\_media\_id:

type: string

format: uuid

nullable: true

waypoint\_content\_status\_code:

type: string

example: "published\_live"

stop\_type\_code:

type: string

stop\_type\_label: # Corrected

type: string

description: "Label of the stop type in the primary reference language (English)."

translations\_stop\_type\_label:

$ref: '#/components/schemas/TranslationObject'

stop\_type\_description: # Corrected

type: string

nullable: true

description: "Description of the stop type in the primary reference language (English)."

translations\_stop\_type\_description:

$ref: '#/components/schemas/TranslationObject'

stop\_type\_icon\_identifier:

type: string

nullable: true

operator\_names\_text: # This is TEXT[] in DB, primary language.

type: array # Translations for array elements are complex; API might return as is or structure further.

items: { type: string }

nullable: true

description: "Array of operator names in the primary reference language (English)."

operator\_stop\_code\_primary:

type: string

nullable: true

gtfs\_stop\_id:

type: string

nullable: true

lines\_or\_routes\_served\_summary: # Corrected

type: string

nullable: true

description: "Summary of lines/routes in the primary reference language (English)."

translations\_lines\_or\_routes\_served\_summary:

$ref: '#/components/schemas/TranslationObject'

specific\_timetable\_url:

type: string

format: url

nullable: true

general\_operator\_info\_url:

type: string

format: url

nullable: true

ticketing\_information\_notes: # Corrected

type: string

nullable: true

description: "Ticketing notes in the primary reference language (English)."

translations\_ticketing\_information\_notes:

$ref: '#/components/schemas/TranslationObject'

stop\_facility\_ids:

type: array

items: { type: integer }

nullable: true

facilities\_details:

type: array

items:

$ref: '#/components/schemas/FacilityDetail' # FacilityDetail already models label + translations

nullable: true

platform\_track\_bay\_information\_notes: # Corrected

type: string

nullable: true

translations\_platform\_track\_bay\_information\_notes:

$ref: '#/components/schemas/TranslationObject'

frequency\_of\_service\_general\_notes: # Corrected

type: string

nullable: true

translations\_frequency\_of\_service\_general\_notes:

$ref: '#/components/schemas/TranslationObject'

is\_major\_interchange\_node:

type: boolean

accessibility\_notes\_transport\_stop: # Corrected

type: string

nullable: true

translations\_accessibility\_notes\_transport\_stop:

$ref: '#/components/schemas/TranslationObject'

bicycle\_transport\_on\_service\_notes: # Corrected

type: string

nullable: true

translations\_bicycle\_transport\_on\_service\_notes:

$ref: '#/components/schemas/TranslationObject'

notes\_for\_pilgrims\_at\_stop: # Corrected

type: string

nullable: true

translations\_notes\_for\_pilgrims\_at\_stop:

$ref: '#/components/schemas/TranslationObject'

data\_last\_verified\_at:

type: string

format: date-time

nullable: true

details\_created\_at:

type: string

format: date-time

details\_updated\_at:

type: string

format: date-time

required:

- waypoint\_id

- waypoint\_name # Was waypoint\_name\_en

# ... other required fields based on the view

TransportStopDetailsUpdatePayload: # For PATCH /transport\_stops/{waypoint\_id}

type: object

properties:

# User submits primary language (English) text for these fields

operator\_names\_text:

type: array

items: { type: string }

nullable: true

operator\_stop\_code\_primary:

type: string

nullable: true

maxLength: 50

gtfs\_stop\_id:

type: string

nullable: true

maxLength: 100

lines\_or\_routes\_served\_summary:

type: string

nullable: true

specific\_timetable\_url:

type: string

format: url

nullable: true

maxLength: 2048

general\_operator\_info\_url:

type: string

format: url

nullable: true

maxLength: 2048

ticketing\_information\_notes:

type: string

nullable: true

stop\_facility\_ids:

type: array

items: { type: integer }

nullable: true

platform\_track\_bay\_information\_notes:

type: string

nullable: true

frequency\_of\_service\_general\_notes:

type: string

nullable: true

is\_major\_interchange\_node:

type: boolean

accessibility\_notes\_transport\_stop:

type: string

nullable: true

bicycle\_transport\_on\_service\_notes:

type: string

nullable: true

notes\_for\_pilgrims\_at\_stop:

type: string

nullable: true

data\_last\_verified\_at:

type: string

format: date-time

nullable: true

PaginatedTransportStopsEnriched:

type: object

properties:

data:

type: array

items:

$ref: '#/components/schemas/TransportStopEnriched'

pagination:

$ref: '#/components/schemas/Pagination'

required: [data, pagination]

securitySchemes:

bearerAuth:

type: http

scheme: bearer

bearerFormat: JWT

description: "Supabase JWT token for authenticated requests."

parameters:

LangQueryParam:

name: lang

in: query

description: "BCP47 language code. If provided, the API may attempt to return main text fields in this language (if supported by backend logic). The 'translations' object will still list other available translations. If omitted, main text fields are in the primary reference language (English)."

required: false

schema:

type: string

example: "it"

PageQueryParam:

name: page

in: query

description: "Page number for pagination."

required: false

schema:

type: integer

default: 1

minimum: 1

PageSizeQueryParam:

name: page\_size

in: query

description: "Number of items per page."

required: false

schema:

type: integer

default: 20

minimum: 1

maximum: 100

TransportStopTypeIdPathParam:

name: type\_id

in: path

required: true

description: "ID of the transport stop type."

schema:

type: integer

TransportStopFacilityIdPathParam:

name: facility\_id

in: path

required: true

description: "ID of the transport stop facility."

schema:

type: integer

WaypointIdPathParam:

name: waypoint\_id

in: path

required: true

description: "ID of the waypoint (transport stop)."

schema:

type: integer

format: int64

responses: # Standard error responses

UnauthorizedError:

description: Authentication information is missing or invalid.

content:

application/json: { schema: { $ref: '#/components/schemas/Error' } }

ForbiddenError:

description: Authenticated user does not have permission for the action.

content:

application/json: { schema: { $ref: '#/components/schemas/Error' } }

NotFoundError:

description: The requested resource was not found.

content:

application/json: { schema: { $ref: '#/components/schemas/Error' } }

BadRequestError:

description: The request was malformed or contained invalid parameters.

content:

application/json: { schema: { $ref: '#/components/schemas/Error' } }

UnprocessableEntityError:

description: Validation error; request was well-formed but contained semantic errors.

content:

application/json: { schema: { $ref: '#/components/schemas/Error' } }

TooManyRequestsError:

description: Rate limit exceeded.

content:

application/json: { schema: { $ref: '#/components/schemas/Error' } }

InternalServerError:

description: An unexpected error occurred on the server.

content:

application/json: { schema: { $ref: '#/components/schemas/Error' } }

security:

- bearerAuth: []

paths:

/transport\_stop\_types:

get:

tags: [Transport Stop Types]

summary: List transport stop types

operationId: listTransportStopTypes

security: [] # Public endpoint

parameters:

- $ref: '#/components/parameters/LangQueryParam' # Though API returns base fields in English + translations object

- $ref: '#/components/parameters/PageQueryParam'

- $ref: '#/components/parameters/PageSizeQueryParam'

- name: sort\_by

in: query

schema: { type: string, enum: [code, label, sort\_order], default: sort\_order } # Was label\_en

- name: order

in: query

schema: { type: string, enum: [asc, desc], default: asc }

responses:

'200':

description: A paginated list of active transport stop types.

content:

application/json:

schema:

$ref: '#/components/schemas/PaginatedTransportStopTypes'

post:

tags: [Transport Stop Types]

summary: Create a new transport stop type (Admin)

operationId: createTransportStopType

security:

- bearerAuth: [] # Requires admin role

requestBody:

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopTypeCreatePayload'

responses:

'201':

description: Transport stop type created successfully.

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopType'

'400': { $ref: '#/components/responses/BadRequestError' }

'401': { $ref: '#/components/responses/UnauthorizedError' }

'403': { $ref: '#/components/responses/ForbiddenError' }

'422': { $ref: '#/components/responses/UnprocessableEntityError' }

/transport\_stop\_types/{type\_id}:

get:

tags: [Transport Stop Types]

summary: Get a specific transport stop type by ID

operationId: getTransportStopTypeById

security: [] # Public endpoint

parameters:

- $ref: '#/components/parameters/TransportStopTypeIdPathParam'

# LangQueryParam can be added if individual field translation is desired by client from translations object

responses:

'200':

description: Detailed information about the transport stop type.

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopType'

'404': { $ref: '#/components/responses/NotFoundError' }

/transport\_stop\_facilities:

get:

tags: [Transport Stop Facilities]

summary: List transport stop facilities

operationId: listTransportStopFacilities

security: [] # Public endpoint

parameters:

- $ref: '#/components/parameters/LangQueryParam' # See note on /transport\_stop\_types

- $ref: '#/components/parameters/PageQueryParam'

- $ref: '#/components/parameters/PageSizeQueryParam'

- name: category

in: query

schema: { type: string }

- name: sort\_by

in: query

schema: { type: string, enum: [code, label, category, sort\_order], default: sort\_order } # Was label\_en

- name: order

in: query

schema: { type: string, enum: [asc, desc], default: asc }

responses:

'200':

description: A paginated list of active transport stop facilities.

content:

application/json:

schema:

$ref: '#/components/schemas/PaginatedTransportStopFacilities'

post:

tags: [Transport Stop Facilities]

summary: Create a new transport stop facility (Admin)

operationId: createTransportStopFacility

security:

- bearerAuth: [] # Requires admin role

requestBody:

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopFacilityCreatePayload'

responses:

'201':

description: Transport stop facility created successfully.

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopFacility'

'400': { $ref: '#/components/responses/BadRequestError' }

'401': { $ref: '#/components/responses/UnauthorizedError' }

'403': { $ref: '#/components/responses/ForbiddenError' }

'422': { $ref: '#/components/responses/UnprocessableEntityError' }

/transport\_stop\_facilities/{facility\_id}:

get:

tags: [Transport Stop Facilities]

summary: Get a specific transport stop facility by ID

operationId: getTransportStopFacilityById

security: [] # Public endpoint

parameters:

- $ref: '#/components/parameters/TransportStopFacilityIdPathParam'

# LangQueryParam can be added

responses:

'200':

description: Detailed information about the transport stop facility.

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopFacility'

'404': { $ref: '#/components/responses/NotFoundError' }

/transport\_stops:

get:

tags: [Transport Stops]

summary: List enriched transport stops

operationId: listTransportStopsEnriched

security: [] # Public endpoint, RLS on view handles published status

parameters:

- $ref: '#/components/parameters/LangQueryParam' # See note on /transport\_stop\_types

- $ref: '#/components/parameters/PageQueryParam'

- $ref: '#/components/parameters/PageSizeQueryParam'

- name: stop\_type\_code

in: query

schema: { type: string }

- name: facilities\_include # comma-separated codes of facilities

in: query

schema: { type: string }

- name: is\_major\_interchange

in: query

schema: { type: boolean }

- name: near\_point # lat,lon

in: query

schema: { type: string, example: "43.0695,12.6180" }

- name: radius # in meters

in: query

schema: { type: integer, minimum: 1 }

responses:

'200':

description: A paginated list of enriched transport stops.

content:

application/json:

schema:

$ref: '#/components/schemas/PaginatedTransportStopsEnriched'

# Comment: Relies heavily on view\_transport\_stops\_enriched.

# Critical: Spatial index on waypoints.geom for 'near\_point'.

# Filtering by 'facilities\_include' codes needs efficient backend logic.

/transport\_stops/{waypoint\_id}:

get:

tags: [Transport Stops]

summary: Get enriched details for a specific transport stop

operationId: getTransportStopEnrichedById

security: [] # Public endpoint, RLS on view handles published status

parameters:

- $ref: '#/components/parameters/WaypointIdPathParam'

# LangQueryParam can be added

responses:

'200':

description: Detailed enriched information about the transport stop.

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopEnriched'

'404': { $ref: '#/components/responses/NotFoundError' }

patch:

tags: [Transport Stops]

summary: Update specific details of a transport stop (Admin/Manager)

operationId: updateTransportStopDetails

security:

- bearerAuth: [] # Requires specific role

parameters:

- $ref: '#/components/parameters/WaypointIdPathParam'

requestBody:

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopDetailsUpdatePayload' # User submits primary lang text for updatable fields

responses:

'200':

description: Transport stop details updated successfully. Returns the updated enriched transport stop.

content:

application/json:

schema:

$ref: '#/components/schemas/TransportStopEnriched'

'400': { $ref: '#/components/responses/BadRequestError' }

'401': { $ref: '#/components/responses/UnauthorizedError' }

'403': { $ref: '#/components/responses/ForbiddenError' }

'404': { $ref: '#/components/responses/NotFoundError' }

'422': { $ref: '#/components/responses/UnprocessableEntityError' }

# Comment: Backend needs to handle potential updates to public.translations if primary lang text changes.

```

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### 2\. Quick-Start Examples

1. List active transport stop types (Public), primary lang + translations object

Bash

```

curl -X GET "https://api.viadifrancesco.example.com/v1/transport\_stop\_types?page\_size=1"\

-H "Accept: application/json"

```

Sample Response:

JSON

```

{

"data": [

{

"id": 10,

"code": "train\_station\_main",

"label": "Main Train Station", // English from DB

"description": "Primary railway station with comprehensive services.", // English from DB

"translations": {

"label": { "it": "Stazione Ferroviaria Principale", "de": "Hauptbahnhof" },

"description": { "it": "Stazione ferroviaria principale con servizi completi.", "de": "Hauptbahnhof mit umfassenden Dienstleistungen." }

},

"icon\_identifier": "icon-train-main",

"sort\_order": 10,

"is\_active": true,

"created\_at": "2023-01-15T10:00:00Z",

"updated\_at": "2023-01-16T11:00:00Z"

}

],

"pagination": {

"page": 1,

"page\_size": 1,

"total\_items": 17,

"total\_pages": 17

}

}

```

2. Get enriched details for a specific transport stop (Public)

Bash

```

curl -X GET "https://api.viadifrancesco.example.com/v1/transport\_stops/101"\

-H "Accept: application/json"

```

Sample Response:

JSON

```

{

"waypoint\_id": 101,

"waypoint\_name": "Assisi Station", // English

"translations\_waypoint\_name": { "it": "Stazione di Assisi" },

"waypoint\_geom": { "type": "Point", "coordinates": [12.6189, 43.0592] },

"stop\_type\_code": "train\_station\_main",

"stop\_type\_label": "Main Train Station", // English

"translations\_stop\_type\_label": { "it": "Stazione Ferroviaria Principale" },

"facilities\_details": [

{

"id": 1, "code": "toilets\_available", "label": "Toilets Available", // English

"translations": { "label": { "it": "Servizi Igienici Disponibili" } }

/\* ... \*/

}

]

// ... other fields from TransportStopEnriched

}

```

3. Create a new transport stop facility (Admin)

Bash

```

curl -X POST "https://api.viadifrancesco.example.com/v1/transport\_stop\_facilities"\

-H "Authorization: Bearer <YOUR\_ADMIN\_JWT\_TOKEN>"\

-H "Content-Type: application/json"\

-d '{

"code": "bicycle\_repair\_station",

"label": "Bicycle Repair Station",

"description": "Station with basic tools for bicycle repair.",

"icon\_identifier": "icon-bicycle-repair",

"category": "services",

"sort\_order": 155,

"is\_active": true

}'

```

Sample Response (201 Created):

JSON

```

{

"id": 99, // New ID

"code": "bicycle\_repair\_station",

"label": "Bicycle Repair Station", // English

"description": "Station with basic tools for bicycle repair.", // English

"translations": {

"label": {}, // Initially empty, to be populated via translation workflow

"description": {}

},

"icon\_identifier": "icon-bicycle-repair",

"category": "services",

"sort\_order": 155,

"is\_active": true,

"created\_at": "2025-05-18T19:30:00Z",

"updated\_at": "2025-05-18T19:30:00Z"

}

```

\* \* \* \* \*

### 3\. Implementation Notes

- 🟢 Schema OK for Module 4c Tables: The database table specifications for `transport\_stop\_types\_master`, `transport\_stop\_facilities\_master`, and `transport\_stops\_details` (V2.1) are consistent with this API model (i.e., primary language text in columns like `label`, with other translations in `public.translations`). No further schema tweaks to these tables are mandated by this specific API structure.

- ✨ View `public.view\_transport\_stops\_enriched`:

- This view remains highly recommended for the `GET /transport\_stops` and `GET /transport\_stops/{waypoint\_id}` endpoints. Its DDL should select primary language fields directly (e.g., `w.name AS waypoint\_name`, `tstm.label AS stop\_type\_label`).

- The API backend will query this view for the primary language content and then separately query `public.translations` to construct the `translations` objects for the API response.

- 🔑 Translation Handling by API Backend (Crucial):

- The API backend is responsible for constructing the specified JSON output where main fields (e.g., `label`) contain the primary reference language (English) text, and the nested `translations` object contains key-value pairs for other languages.

- This involves fetching the base record (which contains English) and then performing lookups in `public.translations` for all relevant translatable fields of that record for all supported/requested other languages.

- When creating/updating (e.g., `POST /transport\_stop\_types`), the payload will contain the primary language text (e.g., in `label`). The backend saves this to the main table column. Separate processes/endpoints would manage adding/updating entries in the `public.translations` table.

- 🗺️ Critical External Dependency: Spatial Index on `waypoints.geom`:

- 🔴 For `GET /transport\_stops` to support `near\_point` or `bbox` geographic queries efficiently, a spatial index (e.g., GIST) on `public.waypoints.geom` is CRITICAL. This should be ensured in the `waypoints` table specification.

- 🔗 Filtering by `facilities\_include` (codes):

- The API backend will need to:

1. Map the provided facility `codes` to their `id`s from `transport\_stop\_facilities\_master`.

2. Filter `transport\_stops\_details` using its `stop\_facility\_ids` array column with the GIN index (e.g., `WHERE stop\_facility\_ids @> ARRAY[id1, id2]`).

- 🛡️ Authorization & RLS:

- WRITE endpoints must be protected by `bearerAuth` and appropriate RLS policies on the backend tables, checking user roles (`admin\_platform`, `regional\_content\_manager` as appropriate).

- READ endpoints for master data (`/transport\_stop\_types`, `/transport\_stop\_facilities`) will rely on RLS on the master tables to filter by `is\_active=true` for public requests.

- READ endpoints for `/transport\_stops` will rely on RLS on `view\_transport\_stops\_enriched` (and its underlying tables) to filter by `waypoint\_content\_status\_code = 'published\_live'` for public requests.

- ⚙️ `LangQueryParam` Behavior:

- The `LangQueryParam` is available. While the primary text fields in the response (e.g., `label`) will default to English (primary reference language), a sophisticated API \*could\* use the `lang` param to directly populate these fields with the requested language if a translation exists, moving the English to the `translations.en` field or omitting it from the main field if a translation is found. However, the simpler model for now is: main field = English, `translations` object = others. The client then uses `lang` to select. For clarity, I've described the `LangQueryParam` in a way that allows the API to use it as a hint, but the base schema returns English + translations object.