



HaulHub eTicket DOT API

To submit tickets to a state agency, you simply need an access token for the supplier and the agency code. All tickets are submitted to HaulHub's public ticket ingest endpoint. The access token instructs the ingest process as to which supplier the tickets belong to and which ticket type to use to process the tickets. You will need a unique token for submitting either Aggregate / Asphalt or Ready Mix / Concrete. Multiple tickets can be included in a single submission for a single agency.

Integration Endpoint

Requests must be submitted via POST to the following endpoint.

https://app.haulhub.com/integrations/api/v1/tickets

Required HTTP Headers

Header	Value	
Content-Type	application/json	
x-hh-api-token	Customer API key (supplied separately)	

Requests can be made via this curl equivalent:

```
1$ curl -X POST -H "Content-Type: application/json" \
    -H "x-hh-api-token: 96xxxb42-4xx3-4xxf-bxxf-c84cxxxxd7b1" \
    -d @mypayload \
    https://app.haulhub.com/integrations/api/v1/tickets
```

Aggregate / Asphalt ticket JSON

Agg/Asphalt tickets can be submitted in an array of ticket objects within a single request. The number of tickets accepted in a request is capped at 100, and the server will respond with a 400 response if that cap is exceeded. Do not include ready mix tickets in the json, you need a separate token for ready mix.

```
"tickets": [
 {
   "slip number": "1234567890",
   "dot code": "0123ABC4567",
   "dispatched_at": "2023-07-10T07:38:00.000",
   "last updated": "2023-07-10T07:38:00.000",
   "timestamp": "2023-07-10T07:38:00.000",
   "source timestamp": "2023-07-10T07:40:00.000",
   "timezone": "America/New York",
   "gross amount": 55.92,
   "tare_amount": 26.42,
   "net amount": 29.5,
    "quantity uom code": "TON",
    "gross2 amount": 111840,
    "tare2_amount": 52840,
    "net2 amount": 59000,
    "uom2": "lbs",
    "gross3_amount": 50.73,
    "tare3 amount": 23.97,
    "net3 amount": 26.76,
    "uom3": "mg",
    "client id": "5120",
    "client name": "Washington Paving",
   "comments": "enter from west st",
   "contract number": "54321",
   "customer_name": "Washington Paving",
    "customer address": "1 Main St",
    "customer_city": "Wilmington",
    "customer_state": "DE",
    "customer_zipcode": "19490",
   "customer_phone": "555-555-5555",
"deputy": "K CRUZ",
    "dispatch number": "67890",
    "job": "Rt 202 NB Metro Interchange",
   "job_number": "24680",
    "line_item_description": "3/4 CALTRANS CLASS 2 AB",
    "line item quantity": 29.5,
    "loads today": 2,
    "material_category": "",
    "material number": "5213342",
    "mix id": "W25422E1",
    "phase code": "DBP2006",
    "phase description": "WOODBINE",
    "product code": "JMF23352",
    "purchase order number": "525332223",
    "quantity_shipped_today": 52.35,
```

```
"supplier": "TEST Supplier",
"tonnage": 29.5,
"ticketed lot number": 12,
"optimum_binder_content": "5%",
"binder grade": "PG 64-22",
"virgin asphalt content": "3.14",
"void": false,
"return_slip_flag": false,
"original_slip_number": "",
"weighmaster": "Russel Karpovich - 86357",
"zone_id": "",
"plant_id": "2323",
"plant_name": "Test Plant 323",
"supplier code": "RSB43A42",
"plant_alias": "Test Asphalt Plant",
"plant address": "123 Side Street",
"plant city": "Clinton",
"plant state": "MA",
"plant zipcode": "01510",
"plant latitude": 42.415997,
"plant longitude": -71.687927,
"plant_portable": false,
"plant_dayphone": "(978) 365-4501",
"plant_nightphone": "",
"mill_cert": "MC12345-A",
"fleet_id": "2379",
"fleet name": "Jackson Hauling",
"truck id": "TK0842",
"truck name": "DEVLIN",
"max_gvw": "30000",
"license 1": "552BSD",
"license 2": "",
"license 3": ""
"audit log": [
  {
    "field_name": "job_number",
    "timestamp": "2023-08-07T10:38:00.000-05:00",
    "from value": "22222",
    "to value": "24680",
    "log source host": "jwsdata1",
    "log source": "APEX DATABASE",
    "event_type": "Updated",
    "performed_by_action": "System user action",
    "performed_by_name": "John Doe"
  },
  {
    "field name": "job",
    "timestamp": "2023-08-07T10:49:00.000-05:00",
    "from value": "Hannaford Street West",
    "to value": "Rt 202 NB Metro Interchange",
    "log_source_host": "jwsdata1",
    "log_source": " APEX DATABASE",
    "event_type": "Updated",
"performed_by_action": "System user action",
    "performed by name": "John Doe"
  }
]
```

Aggregate / Asphalt ticket JSON Field Descriptions

Ticket JSON

Required fields are marked with an asterisk (*)

NOTE: DOT AGENCIES MAY HAVE ADDITIONAL REQUIRED FIELDS THAT MAY BE SUBJECT TO CHANGE.

Field	Example	Description
slip_number *	2356233	Ticket number / identifier
dot_code *	0123436C3A3FABC D	DOT agency code. Please contact HaulHub to enable access to each agency you are submitting to.
dispatched_at *	2023-07- 10T07:38:23.000	Ticket's creation timestamp. Time zone is required.
last_updated	2023-07- 10T07:38:23.000	Update timestamp for the ticket
timestamp	2023-07- 10T07:38:23.000	Should match dispatched_at
source_timestamp	2023-07- 10T07:40:00.000	For suppliers with aggregated db integrations only – the time the ticket reached the aggregated db server.
timezone	America/New_York	IANA defined timezone of all timestamps https://en.wikipedia.org/wiki/List of tz database time zones
gross_amount *	38.85	Gross weight in tons
tare_amount *	12.53	Tare weight in tons
net_amount *	26.32	Net weight in tons
quantity_uom_code *	ton	Unit for gross/tare/net – preferred "ton"
gross2_amount *	77700	Gross weight in Ibs
tare2_amount *	25060	Tare weight in lbs
net2_amount *	52640	Net weight in lbs
uom2 *	lbs	Unit for gross/tare/net – generally "lbs"
gross3_amount	50.73	Gross weight in metric tons
tare3_amount	23.97	Tare weight in metric tons
net3_amount	26.76	Net weight in metric tons
uom3	mg	Unit for gross/tare/net – generally "mg"
client_id *	34	Customer ID for this job

client_name *	JOHN CONTRACTING	Customer name for the job	
comments	freeform text	ticket comments	
contract_number *		DOT project number (e.g. PA EMCS number) – ID Only – do not prepend "ECMS# "	
customer_name *	JOHN CONTRACTING	Usually matches client_name	
customer_address	1 Main St		
customer_city	Wilmington		
customer_state	DE		
customer_zipcode	19490		
customer_phone	555-555-5555		
deputy	Frank Smith	deputy	
dispatch_number			
job *	GREEN ST	Job name	
job_number *	5233	Job number	
line_item_description *	3/4" CRUSHED RAP BASE	Material description	
line_item_quantity *	26.32	Should match net_amount	
loads_today *	6	number of loads for this material today	
material_category		Often plant name or district	
material_number *	52355	material number	
mix_id		Internal Mix ID	
phase_code	2	phase code	
phase_description	PHASE2	phase description	
product_code *	SP16-14996A	DOT JMF code for the material	
purchase_order_number	2345, ORDER66	purchase order number	
quantity_shipped_today *	165.35	tonnage of material for the day	
supplier *	Max Paving	supplier name - often hardcoded	
tonnage *	26.32	Net amount in tons	
ticketed_lot_number	12	Identifier for the lot/batch of material that this load is from	
optimum_binder_content	5%	percentage of asphalt binder	
binder_grade	PG 64-22		
virgin_asphalt_content	3.14	Asphalt "VAC"	

void *	FALSE	Void status for the ticket	
return_slip_flag	FALSE	Return Ticket flag (true/false)	
original_slip_number	"12345"	Modified ticket number (as string)	
weighmaster *	Frank Smith	name of the weighmaster	
zone_id			
plant_id *	52355	ID for the plant/location	
plant_name	PLANT30	name of the plant/location – default is plant_id	
supplier_code	X3423	State Plant code	
plant_alias *	Clinton Asphalt Plant	Ticketed Plant Alias Name	
plant_address *	123 Side Street	Ticketed Plant Street Address	
plant_city *	Clinton	Ticketed Plant City / Town	
plant_state *	МА	Ticketed Plant State	
plant_zipcode *	01510	Ticketed Plant ZipCode	
plant_latitude *	42.415997	Plant Latitude longitude	
plant_longitude *	-71.687927	Plant Latitude longitude	
plant_portable *	false	Portable Plant flag: true / false	
plant_dayphone *	(978) 365-4501	Day time phone number	
plant_nightphone		Nighttime phone number	
mill_cert	MC12345-A	State issued mill certificate	
fleet_id *	3	ID for the fleet	
fleet_name	FLEET3	name of the fleet – default is fleet_id	
truck_id *	34	ID for the truck	
truck_name	TRUCK34	name of the truck – default is truck_id	
max_gvw	233	max gross volume weight	
license_1	BDC3F3	License number	

See Audit Log section below for details on the Audit Log object.

Ready Mix / Concrete ticket JSON

Ready Mix / Concrete tickets can be submitted in an array of ticket objects within a single request. The number of tickets accepted in a request is capped at 25, and the server will respond with a 400 response if that cap is exceeded. Do not include asphalt tickets in the json, you need a separate token for asphalt.

```
"tickets": [
 {
    "supplier": "TEST Supplier",
    "code": "82855",
    "dot code": "0123ABC4567",
    "company id": 4570,
    "company label": "TEST CO INC (00014431)",
    "contract number": "24680135",
    "job site location": "ALLAGENY COUNTY",
    "delivery instructions": "US33 N TO COLLEGE",
    "dispatcher user id": "Nick LaRoche #632531",
    "is cancelled": 0,
    "mix id": "453CF25",
    "jmf year": "2022",
    "order label": "74525",
    "primary product quantity": 8,
    "primary product slump": 1.5,
    "block number": "3210"
    "ticketed lot number": 12,
    "max water cement ratio": 0.35,
    "design water cement ratio": 0.35,
    "target water cement ratio": 0.35,
    "batched water cement ratio": 0.35,
    "design total water": 22.5,
    "batched water": 22.5,
    "total allowable water": 0,
    "system allowable water to add": 0,
    "project id": 511642,
    "project label": "US 33 AT COLLEGE AVE, R-41821-A (000102)",
    "purchase order number": "R41821A",
    "sequence": 8,
    "quantity shipped today": "24.0",
    "quantity_ordered": "36.0",
    "plant id": "2323",
    "plant label": "GOSHEN-E (369)",
    "supplier code": "RSB43A42",
    "plant alias": "Clinton ReadyMix Plant",
    "plant address": "123 Side Street",
    "plant city": "Clinton",
    "plant_state": "MA",
    "plant zipcode": "01510",
```

```
"plant latitude": 42.415997,
"plant longitude": -71.687927,
"plant portable": false,
"plant dayphone": "(978) 365-4501",
"plant_nightphone": "",
"mill cert": "MC12345-A",
"asset id": 540,
"asset label": "2112",
"fleet id": 123,
"fleet name": "C. Hatfield",
"license 1": "19148T2",
"license 2": "51122v3",
"timezone": "America/New York",
"allocate datetime": "2021-09-10 10:25:04",
"source timestamp": "2021-09-10 10:28:10",
"batch time": "2021-09-10 10:30:14",
"due time": "2021-09-10 11:00:00",
"begin load datetime": "2021-09-10 10:29:35",
"finish load datetime": "2021-09-10 10:33:00",
"to job datetime": "2021-09-10 10:36:00",
"on job datetime": "2021-09-10 10:53:00",
"begin pour datetime": "2021-09-10 11:09:00",
"finish pour datetime": "2021-09-10 11:30:00",
"to plant datetime": "2021-09-10 11:45:00",
"arrive plant datetime": "2021-09-10 11:50:00",
"ticket_products": [
  {
    "product id": 3225,
    "product code": "3634",
    "application type": "primary",
    "product uom": "yd^3",
    "product name": "INDOT CLASS A LOW SLUMP",
    "quantity": 8
  },
  {
    "product id": 8181,
    "product code": "EC",
    "application type": null,
    "product uom": "yd^3",
    "product name": "ENVIRONMENTAL CHARGE",
    "quantity": 8
  }
],
"batch weights": [
 {
    "material id": 568,
    "material label": "INDOT #8 LIMESTONE (CA-IN8HA)",
    "material uom": "lb",
    "theoretical quantity": 2638.7,
    "target quantity": 2673,
    "actual_quantity": 2670,
    "error percentage": -0.11,
    "moisture percentage": 1.3,
    "actual water": 22.3,
    "total_water": 22.3,
    "type": "Aggregate - Fine",
    "material": "CM11314150",
```

```
"flow rate": "63",
    "display order": 1
  },
  {
    "material id": 337,
    "material label": "LAFARGE ALPENA CEMENT (CEM-LAFA)",
    "material uom": "lb",
    "theoretical quantity": 846,
    "target quantity": 846,
    "actual quantity": 1075,
    "error percentage": 27.07,
    "moisture percentage": 0,
    "type": "Cement",
    "material": "CEMT313972",
    "flow rate": "12",
    "display order": 2
  },
  {
    "material id": 27,
    "material label": "WATER REDUCER GCP ZYLA 630 (WR-Z630)",
    "material uom": "oz",
    "theoretical quantity": 30,
    "target quantity": 30,
    "actual quantity": 30,
    "error_percentage": 0,
    "moisture percentage": 0,
    "type": "Admixture - WR",
    "material": "WRDA329859",
    "flow rate": "0.02",
    "display order": 5
  }
],
"audit log": [
  {
    "field name": "contract_number",
    "timestamp": "2023-08-07T10:38:00.000-05:00",
    "from_value": "22692721",
    "to value": "24680135",
    "log source host": "EBatch1",
    "log source": "Batch Database",
    "event type": "Updated",
    "performed by action": "System user action",
    "performed by name": "John Doe"
  },
  {
    "field name": "product_name",
    "ticket_product_id": 8181,
    "timestamp": "2023-08-07T10:49:00.000-05:00",
    "from value": "",
    "to value": "ENVIRONMENTAL CHARGE",
    "log_source_host": "EBatch1",
    "log source": "Batch Database",
    "event_type": "Created",
    "performed by action": "Server action",
    "performed by name": "System.account"
  },
```

```
"field_name": "material_label",
   "batch_material_id": 57,
   "timestamp": "2023-08-07T08:18:00.000-05:00",
   "from_value": "MB AE-90",
   "to_value": "",
   "log_source_host": "EBatch1",
   "log_source": "Batch Database",
   "event_type": "Deleted",
   "performed_by_action": "System user action",
   "performed_by_name": "John Doe"
   }
]
```

Ready Mix / Concrete ticket JSON Field Descriptions

Ticket JSON

Required fields are marked with an asterisk (*)

NOTE: DOT AGENCIES MAY HAVE ADDITIONAL REQUIRED FIELDS THAT MAY BE SUBJECT TO CHANGE.

FIELD NAME	SAMPLE VALUE	DESCRIPTION
supplier *	OZINGA	Supplier Name (Your name)
dot_code *	0123436C3A3FABCD	DOT agency code. Please contact HaulHub to enable access to each agency you are submitting to.
code *	82855	Supplier ticket number
company_id *	4570	Customer ID
company_label *	PHEND AND BROWN INC (00014431)	Customer Name
contract_number *	24680135	For DOT projects this must be the state project number.
job_site_location	ALLAGENY COUNTY	Job site County or Job location
delivery_instructions	US33 N TO COLLEGE	Comments
dispatcher_user_id *	Nick LaRoche #632531	Weighmaster/Dispatcher ID or Name
is_cancelled *	0	Ticket Void (Numeric field: 0/1)
mix_id *	453CF25	State approved JMF number
jmf_year	2022	The year the JMF is approved for

order_label	74525	Order ID / Label
primary_product_quantity *	8	
primary_product_slump	1.5	unit - inches
block_number	3210	
ticketed_lot_number	12	Identifier for the lot/batch of material that this load is from.
max_water_cement_ratio	0.35	The maximum water cement ratio allowed for the mix
design_water_cement_ratio *	0.35	Numeric field
target_water_cement_ratio	0.35	Numeric field
batched_water_cement_ratio	0.35	Numeric field
design_total_water *	22.5	units = gallons
batched_water	22.5	units = gallons
total_allowable_water	0	units = gallons
system_allowable_water_to_add *	0	units = gallons
project_id *	511642	Project ID
project_label *	US 33 AT COLLEGE AVE, R-41821-A	Project Name
purchase_order_number	R41821A	PO#
sequence *	8	Number of loads
quantity_shipped_today *	24	
quantity_ordered	36	
plant_id *	182	Plant Id
plant_label	GOSHEN-E (369)	Plant Name – defaults to plant_id
mill_cert	MC12345-A	State defined mill certificate id
supplier_code	RSB43A42	State defined plant id
plant_alias *	Clinton Asphalt Plant	Ticketed Plant Alias Name
plant_address *	123 Side Street	Ticketed Plant Street Address
plant_city *	Clinton	Ticketed Plant City / Town
plant_state *	МА	Ticketed Plant State
plant_zipcode *	01510	Ticketed Plant ZipCode
plant_latitude *	42.415997	Plant Latitude longitude
plant_longitude *	-71.687927	Plant Latitude longitude
plant_portable *	false	Portable Plant flag: true / false

plant_dayphone *	(978) 365-4501	Day time phone number
plant_nightphone		Nighttime phone number
asset_id *	540	Truck identifier
asset_label	2112	Truck name – defaults to truck_id
fleet_id *	123	Fleet ID
fleet_name	C. Hatfield	Fleet Name – defaults to fleet_id
license_1	19148T2	Licenses
license_2	51122v3	
timezone *	America/New_York	IANA defined timezone of all timestamps https://en.wikipedia.org/wiki/List of tz database time zones
allocate_datetime *	9/10/21 10:25	Ticket create time
source_timestamp	9/10/21 10:28	For suppliers with aggregated db integrations only – the time the ticket reached the aggregated db server.
batch_time *	9/10/21 10:30	Date format:
due_time	9/10/21 11:00	'YYYY-MM-DD hh:mm:ss' or
begin_load_datetime	9/10/21 10:29	'yyyyMMdd HHmmss.SSS'
finish_load_datetime	9/10/21 10:33	
to_job_datetime	9/10/21 10:36	
on_job_datetime	9/10/21 10:53	
begin_pour_datetime	9/10/21 11:09	
finish_pour_datetime	9/10/21 11:30	
to_plant_datetime	9/10/21 11:45	
arrive_plant_datetime	9/10/21 11:50	
ticket_products *		Unbound list (repeat object as many times as needed)
product_id *	3225	
product_code *	3634	
application_type *	primary	This static value must be set for the primary product on the ticket. Additional ticket products should omit this value.
product_uom	yd^3	The primary product units should be either "yd^3" for cubic yards or "ton" for weights. Other values are accepted but are omitted from summary calculations.
product_name *	INDOT CLASS A LOW SLUMP	
quantity *	8	

batch_weights *		Unbound list (repeat object as many times
		as needed)
material_id *	568	Required
material_label *	INDOT #8 LIMESTONE	Required
	(CA-IN8HA)	
material_uom	lb	
theoretical_quantity	2638.7	
target_quantity *	2673	Required
actual_quantity *	2670	Required
error_percentage	-0.11	The variance between the actual and target
		quantities
moisture_percentage	1.3	
actual_water	22.3	Optional – amount of water in gallons
total_water	22.3	Optional – total water in gallons
type	Aggregate - Fine	Optional – material classification
material	CM11314150	Optional – material code for the item, often
		same as the material_id, however if included
		this value appears on the ticket
flow_rate	112 lbs/min	Optional – flow_rate for volumetric mixers –
		value shoud include units
display_order	1	Optional - define order batch data is
		displayed

Time Formatting

HaulHub supports several input time formats – for example:

```
"source_timestamp": "2023-07-10T07:40:00.000-05:00",
"source_timestamp": "2023-07-10 07:40:00.000",
"source_timestamp": "20230710 074000.000",
```

For simplicity, we recommend sending the data in the format native to your data store and also include the **timezone** that data is stored in.

```
"source_timestamp": "20230710 074000.000",
"timezone": "America/New_York",
```

The timezone supports IANA defined timezones, some common values:

```
"timezone": "America/New_York",
"timezone": "America/Chicago",
"timezone": "America/Denver",
"timezone": "America/Los_Angeles",
"timezone": "Etc/UTC",
```

Audit Log

Systems and their vendors will be required to send an audit log for each data field created and/or altered inside a HaulHub system. The audit log must be set to continually update to coincide with all data record creations, alterations, calculations, or deletions. Vendors will be required to identify where the audit log is stored, where did the audit log receive its data from, what type of event was logged, who or what created, altered, deleted, or calculated the record, along with the value created, altered, deleted, or calculated the prior value.

audit_log: array of "audit_log_entry" items

audit_log_entry: object

audit_log_entry keys:

field_name: name of ticket json field being updated, e.g. "gross_amount"

ticket_product_id: product_id of the ticket_product item being updated, only for updates to fields of ticket_product items in readymix/concrete tickets, e.g. 123

batch_material_id: material_id of the batch_weight item being updated, only for updates to fields of batch_weight items in readymix/concrete tickets, e.g. 456

timestamp: time of update, e.g. "2023-08-07T10:38:00.000-05:00",

from_value: prior value of field before update, can be null if event_type is Created

to_value: new value of field after update, can be null if event_type is Deleted

log_source_host: where is the audit log stored, e.g. "production server"

log_source: what was the source of the record that was updated, e.g. "production server", "company database", etc.

event_type: type of event: [Created, Updated, Deleted, Calculated, Rounded, Reformatted]

performed_by_action: what type of user/system action made the update, e.g. "System user action", "system derived value", "apex system action"

performed_by_name: name of entity that made the update, e.g. "John Doe", "Admin", "System account"

Custom Fields

Often partners or DOTs may have data that they would like to display on tickets which are not covered by the above lists. Customer-specific fields can solve that problem. Use the following naming convention to specify a customer-specific field:

"HHCustom.My Field": "field value"

This will create a field called "My Field" which will display on the ticket alongside the value "field value".

By default, the order in which customer-specific fields are displayed is not guaranteed. However, if you want to ensure that fields are displayed in a certain order, you can add indices to the field list, like so:

"HHCustom10.My Field": "value1", "HHCustom15.Second Field": "value2", "HHCustom.Displays Last": "value3"

The indices do not need to be consecutive. Any fields without an index will be displayed at the end of the list in an indeterminate order.

Note: the number of customer-specific fields that can be associated with a ticket is capped at 100. Field names may not exceed 100 characters, and field values may not exceed 1000 characters.

Response Codes

If you are not submitting a valid token correctly then you will get back a 401 error with the following message

```
{"status":401,"message":"Unauthorized"}
```

If the token is OK but the json is not properly formatted or is missing the dot_code, you will get back a 400 error with one of the following messages

```
{"status":400,"message":"Invalid JSON: Error occurred while parsing request
parameters"}
```

```
{"status":400,"message":"A `dot_code` value is expected."}
```

If you are submitting the token correctly you should receive a 201 response with a message confirming the number of slips received.

```
{"status":201,"message":"Received 1 slip."}
```

In the case where at least one ticket in the batch fails validation you will receive a 200 response along with the any tickets that failed validation along with the reason the ticket was not ingested. In this example, 11 tickets were uploaded, the first ticket had an invalid contract_number

```
{"status":200,"message":"Received 10 slips.",
"rejected":[{"ticket":{"<SLIP_DATA_OMITTED_FOR_BREVITY>"},"slip_number":"4000243","in
dex":0,"errors":[{"field":"contract_number","reason":"invalid_value"}]]}
```

Change Log

2023 June 21	DOT API Spec Released
2023 August 18	Both Agg/Asphalt and Ready Mix Spec updated with audit log support, additional plant data and source_timestamp
	<pre>"audit_log": [{ "field_name": "contract_number", "timestamp": "2023-08-07T10:38:00.000-05:00", "from_value": "22692721", "to_value": "24680135", "log_source_host": "EBatch1", "log_source_host": "EBatch1", "log_source": "Batch Database", "event_type": "Updated", "performed_by_action": "System user action", "performed_by_anme": "John Doe" }], "plant_alias": "Clinton ReadyMix Plant", "plant_address": "123 Side Street", "plant_city": "Clinton", "plant_state": "MA", "plant_zipcode": "01510", "plant_latitude": 42.415997, "plant_longitude": -71.687927, "plant_longitude": false, "plant_dayphone": "(978) 365-4501", "plant_nightphone": "", "source_timestamp": "2021-09-10 10:28:10" </pre>
2023 September 15	Added batched_water_cement_ratio to Ready Mix API and mill_cert to both Ready Mix and Agg/Asphalt API "batched_water_cement_ratio": 0.35,
	"mill_cert": "MC12345-A"
2023 November 20	Correction: Removed references to "field_changed" in Audit log examples - references updated to use the correct "field_name"
2024 January 19	Added Time Formatting section
2024 February 5	Added flow_rate field to batch data for volumetric mixers
2024 April 17	Added batched_water field
2025 March 7	Added ticketed_lot_number and max_water_cement_ratio fields to Ready Mix API Added "ticketed_lot_number", "optimum_binder_content", and "binder_grade" fields to Agg/Asphalt API
2025 May 22	Added target_water_cement_ratio field and deprecated calculated_allowable_water_to_add to Ready Mix API

Questions?

Please feel free to reach out to the HaulHub Integration team with any questions or concerns. <u>integrations@haulhub.com</u>