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| **Philly 311 CRM**  **Technical Design – Streets Department CityWorks System Integration**  **V1.4** |
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**Revision History**

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| --- | --- | --- | --- |
| **Revision Number** | **Revision Date** | **Summary of Changes** | **Author** |
| Draft | 02/04/2014 | Created Draft | Prabhakar/Murugaboopathi |
| 1.0 | 02/21/2014 | Updated based on meetings with Streets Department | Steve Waters |
| 1.1 | 08/21/2014 | Complete Document Revision | Thiru/ Saurav |
| 1.2 | 09/02/2014 | Reviewed and updated Architecture Diagram, Problem SID Mapping, Outbound Data flow section, Appendix | Sreelatha SK |
| 1.3 | 01/22/2015 | Document Revised | Saurav Sharma/ Sreelatha SK |
| 1.4 | 02/4/2015 | Removed Problem SID for 398, 413, 7052, 7755 as per Support ticket 9012143 | Sreelatha SK |

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# 1 – Introduction

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| 1.1 Document Purpose |

The purpose of this document is to provide technical design details needed to successfully implement CityWorks (Streets) integration for Philly 311 CRM.

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| 1.2 System Overview |

Philly 311 CRM provides 311 Agents, 311 Supervisors, 311 Managing Directors, Departmental SMEs, Department Leadership, and City Leadership to leverage Salesforce.com functionality to engage and provide new outreach opportunities with the Community Partners. Philly 311 CRM provides ability to look Customer info, Knowledge Base to help Agents, Maintain service requests, and generate analytical reporting to support decision making process, establish more channels (using Social Media) and collaborate using chatter.

# 2 – CityWorks (Streets) System Integration

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| --- |
| 2.1 OVERVIEW |

The purpose of this document is to provide technical design details needed to successfully implement CityWorks (Streets) Integration for Philly 311 CRM. The solution provides seamless bi-directional integration to the City’s Streets Department CityWorks instance and Salesforce.com.

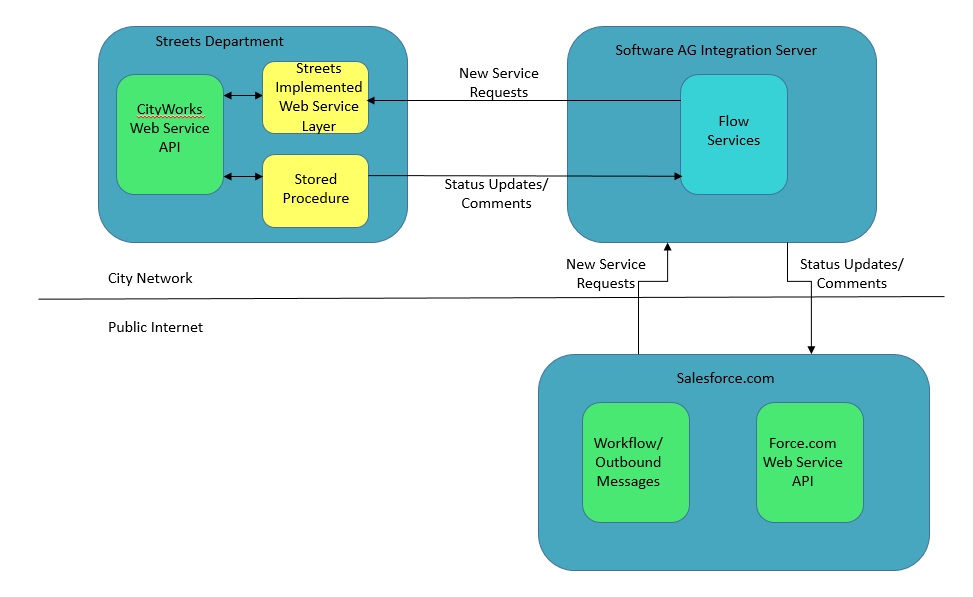


Diagram 1.1 – Architecture of CityWorks (Streets) Integration

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| 2.2 CONFIGURATION |

All communication between systems is done using standard HTTP/ HTTPS based services – REST and SOAP.

All communication between the Integration Server and Streets CityWorks systems will be done using REST interfaces. The Streets Department will develop a Web Service interface which will communicate with their CityWorks server and implement functionality specific to their processes. Outbound REST interfaces are called using standard HTTP/ HTTPS callouts (pub.client:http) and JSON parsing capabilities (jsonSupport.pub:documentToJSONString, jsonSupport.pub:jsonStringToDocument) in the Integration Server.

All communication between the Integration Server and Salesforce will be done using SOAP interfaces. Both Inbound and Outbound SOAP interfaces are a built in features of Integration Server.

The following sections provide a detailed description on the inbound and outbound data flows between the Streets Department, the Integration Server and Salesforce.

### 2.2.1 Inbound Data Flow

Inbound data elements from the Streets Department will be:

* Status changes
* Request Type Changes
* Case Comments

These data elements will be transferred using a stored procedure implemented by Streets Department. Streets Department changes will be picked up using a scheduled Integration Server service which will call the Stored Procedure. This Integration Server service will run every x minutes (current is 5 minutes). Streets comments are prefixed with the string ‘STREETS DEPT:’ in Salesforce so that they can be distinguished from comments received from other sources.

#### 2.2.1.1 Service Request Status

The following Stored procedure will be used to fetch Service Request status and comments from the Streets Department.

##### 2.2.1.1.1 sp\_WebSubmitRequestStatus Stored Procedure

The Stored Procedure sp\_WebSubmitRequestStatus will fetch the status and latest comment from all open Service Requests and Service Requests that were closed in the time period specified as an interval specified in the scheduler.

###### Implemented By

Streets Department

###### Parameters

DaysSinceClosed, webNum

###### Returns

This stored procedure returns the records from the street Department.

| **Parameter** | **Data Type** | **Description** | **Map to** |
| --- | --- | --- | --- |
| caseId311 | String | Salesforce Case Id | Case.Id |
| requestID | String | Streets request Id | Case.Streets\_RequestID\_\_c |
| ticketNum311 | String |  | Case.CaseNumber |
| problemSID | String | Streets problem ID, mapped to Problem Type | Case.Problem\_Type\_\_c |
| status311 | String |  | Case.Status |
| textFor311 | String | Latest comment from CityWorks | CaseComment.CommentBody |

###### Implementation Notes

Integration Server service will be scheduled to run every X minutes to call the Stored Procedure.

A temporary table will be created in the cityworkstraining database and will be populated with the stored procedure result set.

From the temporary table, required fields will be selected namely STSWEBNUM, ReqStatus, Textfor311 with the condition where len(STSWEBNUM) =18. That is selecting the cases that are originated from 311 (Salesforce).

These selected records will then be updated in Salesforce.com using API Services.

###### Authentication

Contained with the City’s network and does not require authentication.

###### Exceptions and Logging

Error occurring when making call to Streets Department service will be recorded to the Integration Server error log and will cause system administrators to be notified by email. This service is designed to only insert new comments and can be restarted once all issues have been resolved.

##### Salesforce Web Service API

See <http://www.salesforce.com/us/developer/docs/api/index_Left.htm>.

### 2.2.2 Outbound Data Flow

Outbound data flow from Salesforce to Streets Department will be Service Request submissions.

The outbound flow will be triggered using the Salesforce Outbound Messaging feature. Salesforce Outbound Messaging allows us to specify that changes to fields within Salesforce can cause messages with field values to be sent to designated external servers via SOAP message. Integration Server web services will be developed to receive these messages and propagate those changes to integrated systems. Salesforce Outbound Messages are initiated by workflows within Salesforce. Workflows will be created to detect Service Request creation. A description of the Outbound Messaging SOAP message structure can be found at <http://www.salesforce.com/us/developer/docs/api/Content/sforce_api_om_outboundmessaging.htm>.

#### 2.2.2.1 Service Request Submit

For Case submissions, Salesforce will call a Integration Server web services with Case field values needed to create a Streets Department Service Request, which will then use Streets Department Service Request submit API call to submit the Service Request.

##### 2.2.2.1.1 Service Request Create Outbound Message

Standard Salesforce Outbound SOAP message. SOAP interface implemented by Integration Server.

###### Triggering Workflow

A workflow will be created that will trigger the outbound message when an open case is assigned to one of the Streets Department related queues.

The following Service Requests will be monitored for cases to be submitted to the Streets Department.

|  |  |
| --- | --- |
| **Service Request Types** | **Department** |
| Alley Light Outage | Streets |
| Dangerous Sidewalk | Streets |
| Dead Animal in Street | Streets |
| Complaint (Streets) | Streets |
| Illegal Dumping | Streets |
| Line Striping | Streets |
| Manhole Cover | Streets |
| Newsstand/ Outdoor Café | Streets |
| Other (Streets) | Streets |
| Streets Defect | Streets |
| Rubbish/Recyclables Material Collection | Streets |
| Salting | Streets |
| Sanitation/Dumpster Violation | Streets |
| Shoveling | Streets |
| Stop Sign Repair | Streets |
| Street Light Outage | Streets |
| Street Paving | Streets |
| Traffic - Other | Streets |
| Traffic Signal Emergency | Streets |

##### 2.2.2.1.2 Fields Contained in message

From Case object:

| **Parameter** | **Data Type** | **Description** |
| --- | --- | --- |
| Id | String | Salesforce Id |
| CaseNumber | String |  |
| Case\_Record\_Type\_\_c | String | Record Type of the Case |
| Centerline\_2272X\_\_c | Decimal |  |
| Centerline\_2272Y\_\_c | Decimal |  |
| City\_\_c | String |  |
| ContactId | String |  |
| CreatedDate | Date/Time | Case Creation Time |
| Customer\_Request\_Id\_\_c | String | PublicStuff Id (If created from Public Stuff) |
| Department\_\_c | String | Department of the Case |
| Description | String |  |
| Details\_\_c | String | Salesforce Description + Fields value related to that SR. |
| hansenAddressKey\_\_c | String |  |
| HANSEN\_Problem\_Code\_\_c | String |  |
| Hansen\_Request\_ID\_\_c | String |  |
| Issue\_\_c | String |  |
| Origin\_\_c | String |  |
| ParentId | String | Salesforce Parent Case ID |
| Problem\_Type\_Highways\_\_c | String |  |
| Problem\_Type\_Sanitation\_\_c | String |  |
| Problem\_Type\_\_c | String |  |
| PublicStuff\_Custom\_Fields\_\_c | String |  |
| Redressed\_Case\_Number\_\_c | String | Case Number for which this is Redress |
| Redressed\_Street\_Request\_Id\_\_c | String | Streets Request ID for which this is Redress |
| Resurfacing\_Defect\_\_c | String |  |
| Resurfacing\_Request\_\_c | String |  |
| SAG\_Contact\_City\_\_c | String | Contact’s City |
| SAG\_Contact\_Email\_\_c | Email | Contact’s Email |
| SAG\_Contact\_First\_Name\_c\_\_c | String | Contact’s First Name |
| SAG\_Contact\_Last\_Name\_\_c | String | Contact’s Last Name |
| SAG\_Contact\_Mobile\_Phone\_\_c | String | Contact’s Mobile Phone |
| SAG\_Contact\_Phone\_\_c | String | Contact’s Phone |
| SAG\_Contact\_State\_Code\_\_c | String |  |
| SAG\_Contact\_State\_\_c | String | Contact’s State |
| SAG\_Contact\_Street\_\_c | String | Contact’s Street |
| SAG\_Contact\_Type\_\_c | Picklist | Staff, Commissioner, Council Member , Mayor, Citizen |
| SAG\_Contact\_Zip\_\_c | Number | Contact’s Zip Code |
| SAG\_Parent\_Case\_Number\_\_c | String | Salesforce Parent Case Number |
| SAG\_Problem\_SID\_\_c | Number | Problem SID (See Appendix A) |
| Service\_Request\_Type\_\_c | String | Service Request Type |
| Source\_\_c | String |  |
| State\_\_c | String |  |
| Status | String |  |
| Street\_\_c | String |  |
| Zip\_Code\_\_c | String | Customer’s ZipCode |
| ZipCode\_\_c | String |  |
| Redress\_Case\_\_c | Checkbox | To identify Redress Case |

###### Implementation Notes

Integration Server web service will process messages by calling the Streets Department Service Request Submit service (described below) according the logic described below:

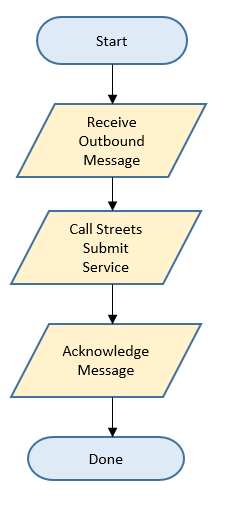


Diagram 2.2 – Streets Submit Service Logic

###### 2.2.2.1.2 Service Request Submit API

A REST service that will submit a Service Request to the Streets Department. See CityWorks API documentation at:

<http://stscwweb01.city.phila.local/CityworksTraining/Services/Help/Home/Index>

###### 2.2.2.1.2.1 Implemented By

Streets Department

###### 2.2.2.1.2.2 URL

POST /Services/AMS/ServiceRequest/Create

###### 2.2.2.1.2.3 Parameters

|  |
| --- |
| /Services/AMS/ServiceRequest/Create?token=<<auth token>>&data=<<urlencoded json object with parameters as properties>> |

| **Parameter** | **Data Type** | **Description** | **Map to** | **Req’d** |
| --- | --- | --- | --- | --- |
| Address | String | Verified address of the Service Request Problem | Case.Street\_\_c | Y |
| CallerAdress | String |  | Case.SAG\_Contact\_Street\_\_c | N |
| CallerCallTime | String |  | Case.CreatedDate | Y |
| CallerCellPhone | String |  | Case.SAG\_Contact\_Mobile\_Phone\_\_c | N |
| CallerCity | String |  | Case.SAG\_Contact\_City\_\_c | N |
| CallerComments | String |  | 311ID:<Case.Id>  Previous SR:<Case.Redressed\_Street\_Request\_Id\_\_c> (Only for Redressed Case)  Caller Details:  Name: < Case.SAG\_Contact\_First\_Name\_c\_\_c> < Case.SAG\_Contact\_Last\_Name\_\_c>  Phone: <Case.Contact\_Mobile\_Phone\_\_c> | N |
| CallerEmail | String |  | Case.SAG\_Contact\_Email\_\_c | N |
| CallerFirstName | String |  | Case.SAG\_Contact\_First\_Name\_c\_\_c | N |
| CallerHomePhone | String |  | Case.Contact\_Phone\_\_c | N |
| CallerLastName | String |  | Case.SAG\_Contact\_Last\_Name\_\_c | N |
| CallerState | String |  | Case.Contact\_State\_\_c | N |
| CallerText1 | String | Salesforce Id | Case.Id | Y |
| CallerText2 | String | Salesforce Case Number | Case.CaseNumber | Y |
| CallerText3 |  |  | Case.ParentId / Case.Redressed\_Case\_Number\_\_c (Only for Redressed Case) | N |
| CallerType | String |  | Case.Contact\_Type\_\_c | N |
| CallerZip | String |  | Case.Contact\_Zip\_\_c | N |
| City | String |  | Case.City\_\_c | N |
| Comments | String |  | 311ID:<Case.Id>  Previous SR:< Case.Redressed\_Street\_Request\_Id\_\_c> (Only for Redressed Case)  Request from SalesForce/PublicStuff | N |
| Details | String | Only up to 500 characters. If more, then rest sent to Comments. | Case.Details\_\_c | N |
| InitiatedByApp | String | If case created from PublicStuff then Case.Source\_\_c otherwise “SalesForce” | Harcoded to SalesForce or Case.Source\_\_c | Y |
| Num1 | Number |  | Case.SAG\_Problem\_SID\_\_c | Y |
| OtherSystemId | String |  | Case.CaseNumber | Y |
| ProblemSid | Number |  | Case.SAG\_Problem\_SID\_\_c | Y |
| StreetName | String |  | Case.Street\_\_c | Y |
| SubmitTo | Number | Only for Redressed Case | Hardcoded to “8238” | N |
| Text1 | String | Depends on Service Request Type | IC – CLEAN INLET / H – KNOCKED OVER | Y |
| Text2 | String |  | Case.Id | Y |
| Text3 | String | Only for Redressed Case | Redressed | N |
| Text5 | String | Only for Redressed Case | Case.Redressed\_Street\_Request\_Id\_\_c | N |
| Text6 | String |  | Case.Contact\_Type\_\_c | N |
| Text7 | String | Same as InitiatedByApp field | Harcoded to SalesForce or Case.Source\_\_c | N |
| X | Decimal |  | Case.Centerline\_2272X\_\_c | Y |
| Y | Decimal |  | Case.Centerline\_2272Y\_\_c | Y |
| Zip | Number |  | Case.ZipCode\_\_c | N |

###### 2.2.2.1.2.4 Returns

The service returns the following as a JSON string:

Example:

|  |
| --- |
| {  "Value": {  "Date1": "",  "Text1": "",  "Text3": "",  "Text4": "",  "Text6": "",  "RequestId": ,  "DomainId": ,  "ProjectSid": ,  "ProblemCode": "",  "Details": "",  "ReqCategory": "",  "Description": "",  "Priority": "",  "SRX": ,  "SRY": ,  "ProblemSid": ,  "ReqCustFieldCatId": ,  "ProbAddress": "",  "ProbCity": "",  "ProbZip": "",  "ProbAddType": "",  "InitiatedBy": "",  "DateTimeInit": "",  "SubmitToPager": "",  "SubmitToPhone": "",  "SubmitTo": "",  "SubmitToEmail": "",  "ClosedBy": "",  "DateTimeClosed": "",  "WorkOrderId": "",  "ProjectName": "",  "DateSubmitTo": "",  "SubmitToOpenBy": "",  "DateSubmitToOpen": "",  "DispatchTo": "",  "DateDispatchTo": "",  "DispatchOpenBy": "",  "DateDispatchOpen": "",  "MapPage": "",  "Shop": "",  "Status": "",  "Cancel": ,  "CancelledBy": "",  "DateCancelled": "",  "LaborCost": ,  "FieldInvtDone": ,  "DateInvtDone": "",  "WONeeded": ,  "Excursion": ,  "TileNo": "",  "PrjCompleteDate": "",  "Text2": "",  "Text5": "",  "Text7": "",  "Text8": "",  "Text9": "",  "Text10": "",  "Text11": "",  "Text12": "",  "Text13": "",  "Text14": "",  "Text15": "",  "Text16": "",  "Text17": "",  "Text18": "",  "Text19": "",  "Text20": "",  "OtherSystemId": "",  "OtherSystemStatus": "",  "OtherSystemCode": "",  "OtherSystemDesc": "",  "OtherSystemDesc2": "",  "ProbAptNum": "",  "ProbLandmark": "",  "ProbDistrict": "",  "ProbState": "",  "ProbLocation": "",  "CancelReason": "",  "Num1": ,  "Num2": ,  "Num3": ,  "Num4": ,  "Num5": ,  "Date2": "",  "Date3": "",  "Date4": "",  "Date5": "",  "InitiatedByApp": "",  "Resolution": "",  "IsClosed": ,  "StreetName": "",  "LockedByDesktopUser": ""  },  "Status": 0,  "Message": null  } |

| **Parameter** | **Data Type** | **Description** | **Map to** |
| --- | --- | --- | --- |
| requestID | string | Streets request Id | Case.Streets\_Request\_ID\_\_c |
| Status (request) | string | Streets request status | Case.Status |
| Status (call) | string | Status of the API call | 0 – Ok  1 - Error  2 - Unauthorized |
| Message | string | Error messages if any |  |

###### Implementation Notes

This is a Standard CityWorks web Service.

###### Authentication

Contained with the City’s network and does not require authentication.

###### Exceptions and Logging

Errors processing this message will write to the Integration Server Error Log and will cause system administrators to be notified by email. Errors will cause the source message not to be acknowledged back to Salesforce and the message will remain in the Salesforce Outbound Message Queue where it can be resent once all issues have been resolved.

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| 2.4. DEVELOPMENT |

### 2.4.1 Coding Standards

All services will be developed and deployed in a packaged named ‘Philly311’.

### 2.4.2 Developers

Developers will work, via RDP, in city provided servers which will be loaded with the Software AG Integration Server and the Software AG Designer tool.

### 2.4.3 Version Control

Integration server packages will be committed to the Unisys Team Foundation Server repository at development milestones and system releases.

|  |
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| Appendix |

### Appendix A – Streets Problem SID Mapping

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Case Record Type** | **Service Request Type** | **Problem Type** | **Other Field** | **Problem SID** |
| Alley Light Outage | Alley Light Outage | Bulb Hanging |  | 11462 |
| Alley Light Outage | Alley Light Outage | Pole Down |  | 183 |
| Alley Light Outage | Alley Light Outage | Wire Down |  | 184 |
| Alley Light Outage | Alley Light Outage | Wire Sparking |  | 184 |
| Alley Light Outage | Alley Light Outage | Other Problem |  | 213 |
| Alley Light Outage | Alley Light Outage | On 24 Hours |  | 180 |
| Alley Light Outage | Alley Light Outage | Light On/Off |  | 181 |
| Alley Light Outage | Alley Light Outage | Light Out |  | 182 |
| Complaint (Streets) | Complaint (Streets) |  |  | 11442 |
| Dangerous Sidewalk | ADA Curb Ramp |  |  | 7959 |
| Dangerous Sidewalk | Dangeorus Sidewalk |  |  | 425 |
| Dead Animal in Street | Dead Animal in Street |  |  | 7732 |
| Illegal Dumping | Illegal Dumping |  |  | 7733 |
| Line Striping | Line Striping |  |  | 6713 |
| Manhole Cover | Manhole Cover Missing |  |  | 9594 |
| Manhole Cover | Manhole Other Problem |  |  | 234 |
| Newsstand Outdoor Café | Newsstand Outdoor Café |  |  | 11461 |
| ~~Other (Streets)~~ | ~~Other (Streets)~~ | ~~Bridge Defect~~ |  | ~~398~~ |
| ~~Other (Streets)~~ | ~~Other (Streets)~~ | ~~Basketball Court in ROW~~ |  | ~~413~~ |
| ~~Other (Streets)~~ | ~~Other (Streets)~~ | ~~Fire Debris~~ |  | ~~7755~~ |
| Other (Streets) | Other (Streets) | Other |  | 11442 |
| Rubbish/Recyclable Material Collection | Rubbish Collection |  |  | 7729 |
| Rubbish/Recyclable Material Collection | Recyclables Collection |  |  | 7730 |
| Salting | Icy Road Surface |  |  | 390 |
| Salting | Snow Removal |  |  | 389 |
| Sanitation / Dumpster Violation | Dumpster Violation |  |  | 7735 |
| Sanitation / Dumpster Violation | Sanitation Violation |  |  | 7735 |
| Shoveling | Shoveling |  |  | 11688 |
| Stop Sign Repair | Stop Sign Repair | Damaged |  | 7051 |
| Stop Sign Repair | Stop Sign Repair | Missing |  | 6718 |
| Stop Sign Repair | Stop Sign Repair | Knocked Down |  | 6707 |
| Stop Sign Repair | Stop Sign Repair | Pole Remanants |  | 7084 |
| Street Defect | Cave-In Repair |  |  | 50 |
| Street Defect | Ditch Repair |  |  | 306 |
| Street Defect | Pothole Repair |  |  | 233 |
| Street Defect | Push-Up |  |  | 237 |
| Street Defect | Depression |  |  | 236 |
| Street Light Outage | Street Light Outage | Bulb Hanging |  | 7787 |
| Street Light Outage | Street Light Outage | On All the Time |  | 7788 |
| Street Light Outage | Street Light Outage | On and Off |  | 7784 |
| Street Light Outage | Street Light Outage | On During day |  | 7788 |
| Street Light Outage | Street Light Outage | Out All the Time |  | 7789 |
| Street Light Outage | Street Light Outage | Pole Down |  | 7606 |
| Street Light Outage | Street Light Outage | Pole Leaning |  | 7799 |
| Street Light Outage | Street Light Outage | Wire Down |  | 7800 |
| Street Light Outage | Street Light Outage | Wire Sparking |  | 7800 |
| Street Light Outage | Street Light Outage | Other |  | 7801 |
| Street Light Outage | Street Light Outage | Request for New Lighting |  | 7801 |
| ~~Street Light Outage~~ | ~~Street Light Outage~~ | ~~Missing Bracket~~ |  | ~~7801~~ |
| Street Paving | Street Paving |  | Resurfacing Defect = 'Yes' | 7837 |
| Street Paving | Street Paving |  | Resurfacing Defect = 'no' | 428 |
| Traffic (Other) | Traffic (Other) | All-Way Stop Request |  | 6727 |
| Traffic (Other) | Traffic (Other) | Do Not Enter Sign Missing |  | 6711 |
| Traffic (Other) | Traffic (Other) | One-Way Sign Missing |  | 6724 |
| Traffic (Other) | Traffic (Other) | Parking Related Signs |  | 6712 |
| Traffic (Other) | Traffic (Other) | Pick Up Sign |  | 6729 |
| Traffic (Other) | Traffic (Other) | School Related Signs |  | 6722 |
| Traffic (Other) | Traffic (Other) | Sign Pole Problem |  | 6719 |
| Traffic (Other) | Traffic (Other) | Street Name Sign Problem |  | 6710 |
| Traffic (Other) | Traffic (Other) | Other Signs |  | 6730 |
| Traffic (Other) | Traffic (Other) | Driveway X Box App |  | 6714 |
| Traffic (Other) | Traffic (Other) | Street Permit |  | 6726 |
| ~~Traffic (Other)~~ | ~~Traffic (Other)~~ | ~~Traffic Inquiry~~ |  | ~~7052~~ |
| Traffic Signal Emergency | Traffic Signal Emergency | All Out |  | 7032 |
| Traffic Signal Emergency | Traffic Signal Emergency | Blank Out |  | 6731 |
| Traffic Signal Emergency | Traffic Signal Emergency | Bulb Out |  | 7034 |
| Traffic Signal Emergency | Traffic Signal Emergency | Flashing |  | 7033 |
| Traffic Signal Emergency | Traffic Signal Emergency | Knocked Down |  | 7029 |
| Traffic Signal Emergency | Traffic Signal Emergency | Leaning |  | 7036 |
| Traffic Signal Emergency | Traffic Signal Emergency | Missing Base |  | 7035 |
| Traffic Signal Emergency | Traffic Signal Emergency | Stuck |  | 7030 |
| Traffic Signal Emergency | Traffic Signal Emergency | Turned |  | 7037 |
| Traffic Signal Emergency | Traffic (Other) | Other |  | 7031 |

### Appendix B – Caller Type Mapping

|  |  |
| --- | --- |
| **SFDC** | **CityWorks (Streets)** |
| Staff | EMPLOYEE |
| Commissioner | EMPLOYEE |
| Council Member | COUNCIL |
| Mayor | MAYOR |
| Citizen | RES |

### Appendix C – Status Mapping

|  |  |
| --- | --- |
| **Status Fields in Streets (Status311)** | **Status fields in Salesforce** |
| New | New |
| Open | Open |
| In Progress | In-Progress |
| Closed | Closed |

### Appendix D – Addition of Custom fields Value in Details field before submitting a case in CityWorks

A Custom Setting “Required Streets Field” has been created in Salesforce to store all the custom fields present for the Streets and Water Department. The fields present for “Required Streets Field” Custom Setting are:

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| API Name | Text (50) | Fields API Name in Salesforce |
| Case Record Type | Text (50) | Case Record Type in which field is present |
| Department | Text (30) | Department in which field is present |
| Label | Text (100) | Label |
| Required | Checkbox |  |

When a Case is created, the trigger in Salesforce concatenates the description field value with all the Custom fields value present for that record type and stores it in Details field.

Using the Custom Setting, trigger gets all the fields that belong to the particular record type. Then, it checks if the “Required” field value for that particular field is TRUE and value for that field is not NULL. Only if the above condition is satisfied, it adds that field’s value in Details field otherwise it does not

Below are the list of the field which are following to Water in details field:

|  |  |  |
| --- | --- | --- |
| **Service Request Type** | **SFDC Fields Name** | **Required** |
| Alley Light Outage | How to access the Alley | TRUE |
| Alley Light Outage | Alley Gated or Locked | TRUE |
| Alley Light Outage | Problem Type | TRUE |
| Dangerous Sidewalk | Sidewalk Curb Problem | TRUE |
| Dangerous Sidewalk | Intersection Ramp for Crossing Street | TRUE |
| Dead Animal in Street | Animal Location | TRUE |
| Dead Animal in Street | Animal is Visible and Accessible | TRUE |
| Dead Animal in Street | Animal Type | TRUE |
| Illegal Dumping | Description of Vehicle/Person Involved | TRUE |
| Illegal Dumping | Condition of Materials | TRUE |
| Illegal Dumping | Active Construction at Site | TRUE |
| Illegal Dumping | Police District | FALSE |
| Illegal Dumping | Sanitation District | FALSE |
| Illegal Dumping | Type of Materials | TRUE |
| Illegal Dumping | Includes Household Hazardous Waste | TRUE |
| Illegal Dumping | Includes Commercial Hazardous Waste | TRUE |
| Illegal Dumping | Description of vehicle involved in Dumping | TRUE |
| Illegal Dumping | Number of Bags if Bagged | TRUE |
| Illegal Dumping | Trash on Street or Sidewalk | TRUE |
| Illegal Dumping | Trash on Vacant Lot | TRUE |
| Line Striping | What types of lines are being requested | TRUE |
| Manhole Cover | Problem Type | TRUE |
| Manhole Cover | Manhole Cover Owner Known | TRUE |
| Manhole Cover | Property Owner | TRUE |
| Manhole Cover | Manhole Cover Owner Contacted | TRUE |
| Manhole Cover | Manhole Position | TRUE |
| Other (Streets) | Problem Type Sanitation | TRUE |
| Other (Streets) | Problem Type Highway | TRUE |
| Other (Streets) | Problem Type | TRUE |
| Rubbish/Recyclable Material Collection | Includes Household Hazardous Waste | TRUE |
| Rubbish/Recyclable Material Collection | Set Out in Time | TRUE |
| Rubbish/Recyclable Material Collection | Single Address or Whole Block | TRUE |
| Rubbish/Recyclable Material Collection | Where Was Trash Set Out | TRUE |
| Rubbish/Recyclable Material Collection | Type of Collection Missed | TRUE |
| Rubbish/Recyclable Material Collection | Construction/Bulk Items | TRUE |
| Rubbish/Recyclable Material Collection | Proper Recycling Container | TRUE |
| Rubbish/Recyclable Material Collection | Is Trash in Wastebasket | TRUE |
| Rubbish/Recyclable Material Collection | Is it more than Max Num of Cans/Bags? | TRUE |
| Rubbish/Recyclable Material Collection | Is it more than the allowed weight? | TRUE |
| Rubbish/Recyclable Material Collection | Pickup Day | FALSE |
| Rubbish/Recyclable Material Collection | Sanitation District | FALSE |
| Salting | Problem Type | TRUE |
| Sanitation / Dumpster Violation | How many Bags of Trash if Bagged | TRUE |
| Sanitation / Dumpster Violation | Is Trash in Front of Structure | TRUE |
| Sanitation / Dumpster Violation | Vehicle or Person Involved in Dumping | TRUE |
| Sanitation / Dumpster Violation | Dumpster Type | TRUE |
| Sanitation / Dumpster Violation | Dumpster Leaking | TRUE |
| Sanitation / Dumpster Violation | Dumpster Blocking Street | TRUE |
| Sanitation / Dumpster Violation | How long Trash Been there | TRUE |
| Sanitation / Dumpster Violation | Dumpster Blocking Sidewalk | TRUE |
| Stop Sign Repair | Stop Sign Type | TRUE |
| Stop Sign Repair | Hazardous | TRUE |
| Stop Sign Repair | Issue | TRUE |
| Street Defect | Width of the hole | TRUE |
| Street Defect | Shape | TRUE |
| Street Defect | Condition of the hole | TRUE |
| Street Defect | Parking or Driving Lane | TRUE |
| Street Light Outage | Is Light Illuminating a Parking Lot | TRUE |
| Street Light Outage | Problem Type | TRUE |
| Street Light Outage | Hazardous | TRUE |
| Street Light Outage | Is Light in a Park | TRUE |
| Street Light Outage | Is Light Illuminating an Alley | TRUE |
| Street Light Outage | Private Property | TRUE |
| Street Light Outage | Is Light a Traffic Signal | TRUE |
| Street Paving | Resurfacing Defect | TRUE |
| Street Paving | Resurfacing Request | TRUE |
| Traffic (Other) | Problem Type | TRUE |
| Traffic Signal Emergency | Signal Bulb Out | TRUE |
| Traffic Signal Emergency | Signal Type | TRUE |
| Traffic Signal Emergency | Time of Incident | TRUE |
| Traffic Signal Emergency | Direction | TRUE |
| Traffic Signal Emergency | Problem Type | TRUE |
| Traffic Signal Emergency | Did the caller indicate recurring Problem | TRUE |
| Traffic Signal Emergency | Blocked by Tree Branches or Foliage | TRUE |
| Traffic Signal Emergency | Request to Modify Traffic Signal Operation | TRUE |

### Appendix E – Web Method Services Details

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| --- | --- | --- |
| **Folder** | **Services** | **Usage** |
| Cityworks/work | CreateServiceRequest  getRecordsFrom\_CW1 | To create a service Request for streets Department.  Retrieve the records from Streets Department for which Status/RecordType/Comments to be updated. |
| Common | addressValidation  convertDateTimeFormat  detailsCW  getDepartmentMap  getProblemCodeMapping  getRecordTypeName  getServerConfig  getServiceRequestType  getStatusPS2SFDC  getStatusSFDC2PS  objectToBigDecimal  objectToStringFinishDate  parseDescription  statusFieldMap  stringToInteger  updateProblemType  updateSFDCDesc | These are all utility Services for the following purpose:   1. Status mapping from one application to another application   For ex: SFDC to PS   1. Address Validation 2. Date/Time conversion utilities |
| DBConnect | getRecordsFrom\_CW1\_customSQL  insertIntermediateTable\_1  updateCommentsOnly\_1  updateIntermediateTable\_1  TestSQLConnect | Services that interact with Database particularly updating intermediate table. |
| Philly311/comment\_submit\_ob | \_post | Rest service for comment submission from salesforce |
| PublicStuff/comment\_submit | \_post | Rest Service for comment submission from PS |
| PublicStuff/request\_submit | \_post | Rest Service for Request Submission from PS |
| PublicStuff/Work | caseCommentSubmit\_PS  caseStatusUpdate\_PS | Flow services for comment submission, status update to PS |
| Salesforce/Work | getCaseIdFromRequestId\_SFDC  insertAndUpdateComment  insertCase  insertCaseComment  insertCaseCommentForProblemCodeChange  insertCaseCommentSFDC\_PS  insertContact  insertTempTableAndCaseComment  queryCase  queryContact  queryRecordType  updateCase\_SFDC\_CW  updateIntermediateTable  updateRecordeFrom\_CW\_SFDC  updateSFDC | Services that interact with Salesforce  For ex:  1)Insert a case  2)Update a case  3)insertCaseComments.  4)queryCase  5) update Records from Cityworks Streets to Salesforce. |
| Salesforce/Outbound/caseStatusUpdate\_PS\_  /services | Notifications | This service will be called when an outbound message is delivered from Salesforce (for status update to Mobile App) |
| Salesforce/Outbound/createServiceRequest\_SFDC\_CW\_/services | Notifications | This service will be called when an outbound message is delivered from Salesforce (for creating a new Street Service request) |