

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE 1 OF 63 PAGES			
2. AMENDMENT/MODIFICATION NO. AMENDMENT NO. 0008		3. EFFECTIVE DATE 12/02/21		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable) 18-0044			
6. ISSUED BY CODE		N40085		7. ADMINISTERED BY (If other than Item 6) CODE					
NAVFAC Mid-Atlantic Resident Officer in Charge of Construction 1005 Michael Road Camp Lejeune, NC 28547-2521				See Item 6					
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(X)					
				X				9A. AMENDMENT OF SOLICITATION NO. N40085-22-R-2533	
								9B. DATED (SEE ITEM 11) 11/03/21	
								10A. MODIFICATION OF CONTRACT/ORDER NO.	
				10B. DATED (SEE ITEM 11)					
CODE		FACILITY CODE							
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS									
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.									
12. ACCOUNTING AND APPROPRIATION DATA (If required)									
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.									
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.								
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).								
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:								
	D. OTHER (Specify type of modification and authority)								
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.									
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)									
18-0044, Repair BEQ BB255									
Amendment 0008, Spec Revision and Extension of Proposal Due Date									
The time and date for receipt of proposals will now be 1400, 06 December 2021.									
This amendment should be acknowledged when your proposal is submitted. Failure to acknowledge the amendment may constitute grounds for rejection of a proposal.									
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.									
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)					
15B. CONTRACTOR/OFFEROR				15C. DATE SIGNED		16B. UNITED STATES OF AMERICA			
(Signature of person authorized to sign)						(Signature of Contracting Officer)			
						16C. DATE SIGNED			

1. Delete Spec Section 01 78 30 GIS Data Deliverables dated 07/20/21 and replace with the Updated Spec Section 01 28 30 GIS Data Deliverables dated 11/21/21 in the following pages of this amendment.
2. All other terms and conditions remain unchanged.

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 78 30

GIS DATA DELIVERABLES

11/2021

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PART 1 GENERAL

1 Objective

The primary objective of this section is to provide detailed specifications for collection and delivery of geospatial data commonly referred to as Geographic Information System (GIS) data. Additionally, this section shall provide guidance to ensure that all GIS data delivered is compatible and will add value to the Marine Corps Base (MCB) Camp Lejeune Installation Geospatial Information and Services (IGI&S) Geodatabase.

1.1.1 Point of Contact for MCB Camp Lejeune

The Points of Contact (POC) for assistance in preparation of GIS deliverables in accordance with the section are as follows;

Navy Officer In Charge Of Construction
Construction Manager (CM)
Camp Lejeune, NC
28547-2521

Public Works Assigned
GIS Data Manager
1005 Michael Road
Camp Lejeune, NC 28547-2521
Lejeune_PWD_GIS@usmc.mil

1.2 Submittals

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES 01 33 00.05 20 CONSTRUCTION SUBMITTAL PROCEDURES:

SD-11 Closeout Submittals GIS Data

Deliverables; G

1.3 Government Geospatial Data, Schema and Domains

Geospatial data is based on the Spatial Data Standards for Facilities, Infrastructure and Environment (SDSFIE) GEOFidelis Data Model. Because there are recurring business driven modifications and or adaptations within the SDSFIE schema, the contractor is responsible for providing all spatial and non-spatial data in the most current version utilized at the time of delivery.

1.3.1 Data Request Package Requirements

Request the existing GIS Data, Schema and Domain Properties by utilizing a Data Request Package (DRP), which is supplied via the government sponsored or contract manager.

- a. The DRP should be submitted prior to the start of data collection efforts and again 6 weeks prior to data delivery to ensure that GIS data has been created and will be delivered utilizing the most up to date SDSFIE schema.
- b. Instruction for submitting a Geospatial DRP to the CM or the Project Manager (PM).
- c. Each CM or PM will provide DRP forms upon request from the contractor. The request shall be completed and include all information as instructed on the data request form.
- d. Request only GIS data, schema and domains for feature classes that are relevant to the contract and within the boundary of project area.
- e. Attach the Scope of Work, which is defined by this GIS DATA DELIVERABLES SECTION 01 78 30 of the contract for each DPR submittal.
- f. Return the DRP to the CM or PM for sponsorship and submittal as instructed with required attachments and justifications for submittal.
- g. Incomplete forms may delay receipt of the requested GIS data, Schema and Domains.
- h. GIS data deliverables does not supplement or replace as-built drawings.

1.3.2 Data Collection and Utility Locates

- 1. Utilize the most up to date SDSFIE Schema to create and deliver Geospatial Data.
- 2. Prior to GPS efforts all underground utilities are to be located utilizing a utility locating service in order to obtain and verify accurate feature locations.
- 3. Actual conditions in the field always supersede drawings. Locate and field verify all features to ensure location is correctly recorded.
- 4. Data will be created to represent the real world, for example, water, sewer, and transportations systems. All segments will be created in the direction of flow.
- 5. Research may be required to be conducted to collect data and make copies of reports and studies as necessary to verify existing and/or record drawing data. Record drawing data can be located in the Technical Records & Design Section in the Public Works Department at 1005 Michael Street, MCB Camp Lejeune.
- 6. Infrastructure data, as identified in paragraph "ATTRIBUTE DATA COLLECTION AND GPS REQUIREMENTS FOR SPECIFIC FEATURES" may be collected utilizing Sub-Foot or better GPS data collection methods.

7. Utility data, as identified in paragraph "ATTRIBUTE DATA COLLECTION AND GPS REQUIREMENTS FOR SPECIFIC FEATURES" will be collected utilizing Survey Grade GPS data collection methods.

1.3.3 Attribute Data Requirements

- a. All attributes will be populated in accordance with the "1.4 ATTRIBUTE DATA COLLECTION AND GPS REQUIREMENTS FOR SPECIFIC FEATURES" and will be obtained via contract specifications, plans and record drawings
- b. Demolished / Removed data will be captured, attributed and delivered in the Disposal feature classes which include Disposal Facility Area, Disposal Facility Line and Disposal Facility Point.
- c. Spatial and non-spatial data may be copied from existing data, with the exception of specific attributes. Potable water wells are an exception to this rule and shall remain in the feature class and attributed as Removed or AIP
- d. Abandoned In Place (AIP) utility lines will be located and updated in the current feature data set and be attributed as AIP as required.

1.3.4 GIS Topology Rules for Geospatial Data

1. All data must be created using GIS topology rules for polygons, points and lines, such as, but not limited to the following examples:
Utility and transportation systems will be created from source to sink, etc.
 - a. All utilities shall be drawn in the direction of flow with no breaks in polyline except for fittings, manholes and other features nodes within the feature class.
 - b. All utility or infrastructure system data, which is, but is not limited to, transportation system and electrical, water, steam distribution, and wastewater collection, etc., will be created using GIS spatial connectivity rules which specify that vertex, edge and endpoints be snapped to features within the system.
 - c. Polygons, Polylines and points rules; please reference illustrating topology rules in ArcGIS at www.esri.com.
 - d. Polygons must not have slivers or overlay within the space of other polygons.
 - e. Features will be snapped to the appropriate item.

1.3.5 Global Positioning System (GPS) Data Collection

1. Only bench marks included in the North Carolina Geodetic Survey Base Station Network are to be utilized for GPS data collection.

2. Mission planning is essential. Utilize the best Position Dilution of Precision (PDOP) values for data accuracy.
3. Spatial accuracy requirements
 - a. Survey and Sub-Foot grade data collection are as follows:
 - i. Sub-Foot requirements:
 - 1) All points shall be within + / - 12 inches
 - 2) 95 percent accuracy rate for all points.
 - ii. Survey Grade requirements:
 - 1) All points shall be within + / - 1 centimeter
 - 2) 98 percent accuracy rate for all points
4. Make every effort to capture feature locations without using offsets. All Offsets will be noted in the Final Report for each feature. Which shall be delivered in PDF format.
 - a. Resubmittal of data will be required if PDOP planning was not observed per this specification.

1.3.6 Coordinate System Requirements

1. The data shall be collected in the following Spatial Reference / Coordinate System for each feature for all MCB Camp Lejeune and surrounding bases:
 - a. Transverse Mercator (UTM) Zone 18N
 - b. GRS 1980 spheroid
 - c. North American Datum 1983 (NAD83) horizontal datum
 - d. North American Vertical Datum 1988 (NAVD88) vertical datum.

1.3.7 Formats and Version Guidelines

1. All data deliverables shall be presented in the following formats and/or versions.
 - a) GIS data will be provided in an ArcGIS 10.8 or higher if a higher version is being used by the Government at the time of this project. Verify the ArcGIS version, via the CM or PM at the commencement of this contract.
 - b) Microsoft Windows 10 operating system, unless otherwise approved by the Government.

- c) All reports and maps will be delivered as a hard copy and in a searchable Adobe Portable Document Format (PDF).

1.3.8 GIS Deliverable Submittal Requirements

All GIS data submittals will be provided to the CM or PM and then analyzed by Government GIS PWD personnel prior to final approval. Failure to comply with the specifications outlined in this document will result in non-acceptance of GIS data deliverables.

1. The contractor shall provide a GIS deliverable at the end of each phase and at each Beneficial Occupancy Date (BOD) when contracted efforts, studies or construction are broken up in phases.
2. Prior to any spatial and non-spatial development provide the Government with a technical approach document in PDF format for approval. The Technical Approach document will describe in detail the Contractor's technical approach for developing GIS data to include utility locating, collecting and attributing all GIS data.
3. To ensure specifications compliance and quality a preliminary GIS deliverable shall be provided for review when 25 percent of the data has been collected and updated according to this specification.
4. Deliver digital geographic maps, GPS collection files and related data. All working text and documents and personal geodatabase will be included for review in the draft and final delivery of data in PDF format.
5. Do not deliver blank unused schema or feature class data with no attributes. Deliver only data pertinent to the contract that adds value to the Geodatabase per this section.
6. Do not include existing data in the GIS deliverable.
7. Spatial and non-spatial GIS data must be provided in a format that does not require translation or pre/post processing.
8. It is the Contractor's responsibility to perform quality assurance for all data and related materials required in the section prior to submitting product to the Government.
9. The data will be analyzed for discrepancies in subject content, correct format in accordance with this statement of work, and compatibility with the existing SDSFIE Schema as well as all other specifications included in this section.

1.3.9 GIS Deliverable Package Requirements

All reports must be provided in pdf format. Each GIS deliverable must contain the following information and be in the most up to date SDSFIE format.

1. Digital and Paper Maps

- a. All paper maps of GIS DATA DELIVERABLES will include an ANSI C size.
 - b. Each map will include a project title, contract number, scale, legend, standard symbology, attributes, i.e., building numbers, road names, etc.
 - c. All utilities will be labeled with direction of flow and segment line size.
 - d. Provide paper copy and pdf copies of Maps for project.
 - e. Provide a copy of all red-line construction drawings in pdf format.
 - f. Communication data will be provided on a separate map.
2. Provide all spatial and non-spatial data for review and acceptance.
 3. Provide a report of specific procedures, list GPS equipment, software and versions that were utilized for the GPS data collection and creation of geospatial data.
 4. Submit all GPS data files collected in the field.
 5. Provide details on any offsets to include justification as to why offsets were utilized and which features and or points offsets were used.
 6. Provide the source that was utilized for required attributes, such as redlines drawings and or field notes.
 7. Provide a coversheet that specifies the CM / PM, contract number, contract title, point of contract for GIS related questions and date.
 8. All geospatial data, pdf reports, spreadsheet, database files, reports, and maps will be submitted on a Digital Versatile Disc (DVD) platform.
 9. Failure to comply will result in non – compliance and rejection of data.

1.3.10 Ownership

All digital files, final hardcopy products, GPS raw data, source data acquired for this project, and related materials, including that furnished by the Government, will become the property of the Government and will not be issued, posted, distributed, or published by the Contractor. All documentation, working files and data will be delivered in the final delivery.

Note: No endorsement of software or hardware is implied.

1.4 Attribute Data Collection and GPS Requirements for Specific Feature

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties" Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as nodes, etc.

1.4.1 Feature Class CLJN.CL.AccessControl

Locate, GPS and collect attribute data as specified for each feature listed with GPS accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties." Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required.

CLJN.CL.AccessControlPoint (point) -The location of a feature, manned or unmanned, intended to selectively restrict entrance to or use of a place or other resource.

- a) accessControlType - The type of access control. Domain values, i.e., gate, tireShedder, barricade, etc.
- b) builtDate - The calendar date on which the original construction was completed for a facility.
- c) contractNumber - The contract number associated with the feature.
- d) facilityNumber - Asset number used for visual identification of the facility.
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)
- g) gatePurposeType – Purpose that the gate exists and functions under. Domain values i.e., decorative, internalSecurity, perimeterSecurity, recreation, residential, safely, vehicleBarrier, other, etc.
- h) gateTypeMaterial - The type of material of the gate. Domain values i.e., metal, steel, wood, wroughtiron, etc.
- i) isBaseEntryPoint -The Yes / No indicator of whether or not the location is an entry point for the military installation. Yes / No
- j) isCheckpoint - Indicator if location is where officials check vehicle contents or personnel. Yes / No
- k) mediaId – gpsDataCollected
- l) MetadataId – metaID000072
- m) isManned - Yes / No
- n) isRangeAccess - Yes / No
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

CLJN.CL.BarricadePoint (point) - The coordinated series of obstacles designed or employed to channel, direct, restrict, delay, or stop the movement of personnel, equipment, or an opposing force and to impose additional losses in personnel, time, and equipment on the opposing force. Barricades can exist naturally, be man-made, or a combination of both.

- a) accessControlType - The type of access control. Domain values, i.e., gate, tireShedder, barricade, etc.
- b) builtDate - The calendar date on which the original construction was completed for a facility.
- c) contractNumber - The contract number associated with the feature.
- d) facilityNumber - Asset number used for visual identification of the facility.
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)
- g) barricadeType -The type of barricade. Domain values i.e., bollard, bollardPipe, pedestrianBarrier, other, etc.
- h) barricadeUse - The intended use of the barricade Domain values i.e., pedestrianTraffic, security, vehicularTraffic, etc.
- i) gatePurposeType - Purpose that the gate exists and functions under. Domain values i.e., internalSecurity, perimeterSecurity, recreation, residential, safety, vehicleBarrier, etc.
- j) gateTypeMaterial - The type of material of the gate. Domain values i.e., metal, steel, wood, wroughtiron, etc.
- k) gateUse - The type of a gate (or similar route barrier) based on its intended use.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

1.4.2 Feature Class CLJN.CL.CivilWorks

Locate, GPS and collect attribute data as specified for each feature listed with GPS accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties." Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required.

CLJN.CL.PitOrQuarry (Polygon) - The location where material has been or is being excavated or extracted for use at another location.

- a) featureDescription - The narrative describing the feature. (Review current data for description)
- b) featureName - The common name of the feature. (Review current data for common name)
- c) contractNumber - The contract number associated with the feature.
- d) mediald – gpsDataCollected
- e) MetadataId –metaID000072
- f) isWaterFilled – Yes / No
- g) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

1.4.3 Feature Class CLJN.CL.HarbourArea

Locate, GPS and collect attribute data as specified for each feature listed with GPS accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties." Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in

a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required.

CLJN.CL.BoatRampPoint - (Point) - The partially submerged hard surfaced or non-hardsurface structure on a shoreline for launching or retrieving vessels or vehicles.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) isLighted - Yes / No
- g) mediaId - gpsDataCollected
- h) MetadataId - metaID000072
- i) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

CLJN.CL.DockOrWharf (Polygon) - The location of a manmade water-land interface structure often used for access to boats, ships, or barges.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) dockType - The kind or type of the dock. Domain values i.e., access ramp, pier, slipway, general, etc.
- d) dockUseType - The predominant use. Domain values i.e., fishing, fueling, loading, staging, etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) materialType - The material composition of the feature. Domain values i.e., concrete, steel, wood, etc.
- i) mediaId - gpsDataCollected
- j) MetadataId - metaID000072
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) owner - The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.

CLJN.CL.MarineNavigationAid (Point) - The physical object that serves as an aid to navigation.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)

- f) heightAboveSurfaceLevel - The vertical distance measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature.
- g) heightAboveSurfaceLevelUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- h) isLighted – Yes / No
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072
- k) navaidType - Type of the navaid. Domain value i.e., buoyMarkerDangerPoint, buoyMarkerDangerPoint etc.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, closed, abandoned, etc.

1.4.4 FeatureClass CLJN.CL.RealProperty

Locate, GPS and collect attribute data as specified for each feature listed with GPS accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties." Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required.

Specific instruction for all Disposal polygons, polylines and points. All demolished or removed property shall be accounted for in the following 3 disposal features. A simple copy and paste with the following exceptions as explains in the disposal area, polyline and point may be permitted with the exception of the directions for attribution for each feature as noted. However, under no circumstance should potable water wells be removed from their original feature class. Potable wells are never deleted from their main feature, all that is required is the water wells are attributed in such a way that indicated if they are abandoned in Place (AIP) or Removed.

CLJN.CL.Disposal_FacilityArea (polygon)– The location of a facility asset in the DoD real property inventory for which a disposal action is being or has been taken to physically demolish, remove, or release the DoD of accountability for and control of the asset.

- a) abandonedDate - The date the feature was abandoned. Leave blank if removed.
- b) builtDate - The calendar date on which the original construction was completed for a facility.
- c) contractNumber - The contract number associated with the feature demolition or abandonment.
- d) ClassType - Population is contingent only if data is currently available for feature.
- e) disposalCompletionDate - The actual calendar date of the disposal or abandonment of the asset.
- f) facilityNumber – Asset Identification such as building or structure number.
- g) featureDescription –Population is contingent only if data is currently available for feature.
- h) featureName (Mandatory) - Feature Name and subtype
- i) facilityIdfk - Population is contingent only if data is currently available for feature.
- j) operationalStatus - The state of usability of the feature. Domain values i.e., removed, abandoned, etc.
- k) owner – Population is contingent only if data is currently available for feature.
- l) removedDate - The date the feature was removed. Leave blank if abandoned.
- m) realPropertyJurisdictionType - Population is contingent only if data is currently available for feature.
- n) registryIdentifier - Population is contingent only if data is currently available for feature.

- o) sourceFeatureClass (Mandatory) - The feature class containing the polygon feature.

CLJN.CL.Disposal_FacilityLine (polyline) - The location of a personal property asset in the DoD real property inventory for which a disposal action is being or has been taken to physically demolish, remove, or release the DoD of accountability for and control of the asset.

- a) abandonedDate - The date the feature was abandoned. Leave blank if removed.
- b) builtDate - The calendar date on which the original construction was completed for a facility.
- c) contractNumber - The contract number associated with the feature demolition or abandoned.
- d) classType - Population is contingent only if data is currently available for feature.
- e) disposalCompletionDate - The actual calendar date of the disposal or abandonment of the asset.
- f) facilityNumber - Asset Identification RoadName, fence, utility line, fence gate information, etc.
- g) featureDescription - Population is contingent only if data is currently available for feature.
- h) featureName (Mandatory) - Feature Name and subtype
- i) operationalStatus - The state of usability of the feature. Domain values i.e., removed, abandoned, etc.
- j) owner - The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.
- k) removedDate - The date the feature was removed. Leave blank if abandoned.
- l) realPropertyJurisdictionType - The type of real property jurisdiction. Domain values i.e., tbd, etc.
- m) registryIdentifier - Population is contingent only if data is currently available for feature.
- n) sdsId - Population is contingent only if data is currently available for feature.
- o) sourceFeatureClass (Mandatory) - The feature class containing the line feature.

CLJN.CL.Disposal_FacilityPoint (point) - The location of a personal property asset in the DoD real property inventory for which a disposal action is being or has been taken to physically demolish, remove, or release the DoD of accountability for and control of the asset.

- a) abandonedDate - The date the feature was abandoned. Leave blank if removed.
- b) builtDate - The calendar date on which the original construction was completed for a facility.
- c) contractNumber - The contract number associated with the feature demolition or abandoned.
- d) ClassType - Population is contingent only if data is currently available for feature.
- e) disposalCompletionDate - The actual calendar date of the disposal or abandonment of the asset.
- f) facilityNumber - Asset Identification such as generator, ows, towers, etc.
- g) featureDescription - Population is contingent only if data is currently available for feature.
- h) featureName (Mandatory) - Feature Name and subtype
- i) facilityIdfk - Population is contingent only if data is currently available for feature.
- j) operationalStatus - The state of usability of the feature. Domain values i.e., removed, abandoned, etc.
- k) owner - The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.
- l) removedDate - The date the feature was removed. Leave blank if abandoned.
- m) realPropertyJurisdictionType - The type of real property jurisdiction. Domain values i.e., tbd, etc.
- n) registryIdentifier - Population is contingent only if data is currently available for feature.
- o) sdsId - Population is contingent only if data is currently available for feature.

- p) sourceFeatureClass (Mandatory) - The feature class containing the point feature.

CLJN.CL.Bridge - Bridge (polygon) - The structure erected over a depression or an obstacle such as a body of water, railroad, etc., to provide a pathway for vehicles, rail services, pedestrians or to carry utility services.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) contractNumber - The contract number associated with the feature.
- e) featureDescription - The narrative describing the feature. Value Base Area or Road Name Crossing
- f) featureName - The common name of the feature. Pedestrian, Railroad, Road, other, etc.
- g) heightAboveSurfaceLevel - The vertical distance measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature.
- h) heightUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072
- k) isFixed – Indicator of whether the bridge cannot be opened for navigation or other purposes. Yes / No
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

CLJN.CL.Building - Building (polygon) - The roofed and floored facility enclosed by exterior walls and consisting of one or more levels.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature if feature function does not accurately address the description of building.
- e) featureName - The common name of the feature. (Review current data for common name)
- f) featureFunction - The purpose(s) of, or intended role(s) served by, the feature. Domain values i.e., Fishing (3), Aircraft Repair (341), Motor Vehicle Repair (343), Utilities (350), Water Treatment (362), Water Distribution (363), Residence (563), Guard (781), Government (811), Recreation (921) etc.
- g) floorCount - The number of floors
- h) mediald – gpsDataCollected
- i) MetadataId – metaID000072
- j) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

CLJN.CL.Fence (polyline) – The freestanding structure designed to restrict or prevent movement across a boundary.

- a) builtDate - The calendar date on which the original construction was completed for a facility.

- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - FENCE or GATE.
- f) FenceDesignType - The configuration of fabricated fence materials in a particular manner to build a fence. This may or may not include specifications of the post type(s). Domain values i.e., cross, postAndFrame, metalRail, postAndFrame, etc.
- g) fenceFabricatedMaterialType - The fabricated material of the fence. Domain values i.e., barbedWire, chainLink, wroughtIron, metalOther, steel, wood, etc.
- h) fencePrimaryMaterialType - The fundamental or raw substance of the fence. Domain values i.e., jute, metalOther, steel, wood, wroughtIron, etc.
- i) fenceTopType - The fabricated material used as an upper barrier on the fence. Domain values i.e., spiked, electricifiedWire, etc.
- j) fenceUseType - The purpose that the fence serves. Domain values, i.e., internalSecurity, perimeterSecurity, recreation, residential, safety, vehicleBarrier, etc.
- k) heightAboveSurfaceLevel - The vertical distance measurement in feet.
- l) heightUom - The unit of measure for the height measurement. Domain values .3048 metres or feet, etc.
- m) mediald – gpsDataCollected
- n) MetadataId – metaID000072
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

CLJN.CL.OpenStorage - Open Storage (polygon) – The non-covered and/or covered storage areas, paved or otherwise established, for the storage of general supply materials or the receipt, processing, staging and issue of materials.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) mediald – gpsDataCollected
- g) MetadataId – metaID000072
- h) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

CLJN.CL.PavementSectionAirfieldArea - Pavement Section Airfield (polygon) - The location of a surface feature that comprises a section of a military airfield area.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) airfieldPavementUse – The use of the airfield. Domain values i.e., apron, fueling area, helipad, runway, taxiway, etc.
- e) featureDescription - The narrative describing the feature. Values should include Area i.e., MCAS NEW RIVER, HADNOT POINT, RIFLE RANGE, MCOLF CAMP DAVIS, GSRA, HOSPITAL, etc.
- f) featureName - The common name of the feature. (Review current data for common name)

- g) highestElevation - The elevation from a specified vertical datum to the highest point on a feature.
- h) highestElevationUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- i) isLighted – Yes / No
- j) isPaved - Yes / No
- k) mediaId – gpsDataCollected
- l) MetadataId – metaID000072
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) owner – The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.
- o) runwayClassification - Classification of the runway. Domain values i.e., classA, classB, rotary, olf, etc.

CLJN.CL.PavementSectionParkingArea (polygon) - The area used for parking vehicles not including residential streets and driveways.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) isLighted – Yes / No
- g) mediaId – gpsDataCollected
- h) MetadataId – metaID000072
- i) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- j) owner - The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.
- k) pavementSurfaceType - The type of material used to construct the surface of the pavement feature. Domain values i.e., asphalt, gravel, asphaltOverAsphaltConcrete, portlandCementConcrete, etc.
- l) vehicleType - The type of vehicle permitted on the pavement section. Domain value i.e., all, gov, mil, pov, etc.

CLJN.CL.PavementSectionRoadway (polygon) - The surface area that comprise a road area, upon which vehicles drive and park.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName – FULL Road Name All Capital Letters, i.e., D STREET, SIXTH STREET, FOSTER BOULEVARD, PORTLAND COURT
- f) isPaved – Yes / No
- g) mediaId – gpsDataCollected
- h) MetadataId – metaID000072
- i) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

- j) owner – The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.
- k) pavementSurfaceType - The type of material used to construct the surface of the pavement feature. Domain values i.e., gravel, asphalt, asphaltOverAsphaltConcrete, portlandCementConcrete, etc.
- l) roadSectionType - The type of road asset represented by this section. Domain values i.e., roadway, stagingArea, etc.
- m) vehicleType - The type of vehicle permitted on the pavement section. Domain value i.e., all, gov, mil, pov, etc.

CLJN.CL.PavementSection – Pavement Section (polygon) - The portion of a pavement branch that differs in some aspect from other sections such that further segmentation is required to uniquely identify that section.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. Value i.e., GENERATOR PAD, TRANSFORER PAD, DUMPSTER PAD, BLEACHER PAD, UTILITY PANEL PAD, etc.
- e) featureName - The common name of the feature. (Review current data for common name)
- f) mediald – gpsDataCollected
- g) MetadataId – metaID000072
- h) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- i) owner – The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.

CLJN.CL.PavementSectionSidewalk (polygon) - The paved pedestrian walkway prepared to facilitate travel on foot. It may or may not be adjacent to a street/road.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) isLighted – Yes / No
- g) isPaved – Yes / No
- h) materialType – The material composition of the feature. Domain values i.e., asphalt, concrete, etc.
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) owner – The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.

CLJN.CL.StructureArea - Structure (polygon) - The facility, other than a building or linear structure, which is constructed on or in the land.

- a) **builtDate** - The calendar date on which the original construction was completed for a facility.
- b) **contractNumber** - The contract number associated with the feature.
- c) **facilityNumber** - Asset number used for visual identification of the facility.
- d) **featureDescription** - The narrative describing the feature. Values i.e., Picnic Pavilion, Gazebo, Postal Shelter, Buss Stop, Golf Shelter, Vehicle Wash Platform, Outdoor Classroom,
- e) **featureName** – The common name of the feature. Values i.e., CANOPY, PLATFORM, PAVILLION, RAMP, WEIGH STATION, etc.
- f) **mediald** – **gpsDataCollected**
- g) **MetadataId** – **metaID000072**
- h) **operationalStatus** - The state of usability of the feature i.e., **inService**, **notInService**, **abandoned**, etc.

CLJN.CL.TowerPoint (point) - The vertical projection, higher than its diameter, generally used for observation, etc.

- a) **builtDate** - The calendar date on which the original construction was completed for a facility.
- b) **contractNumber** - The contract number associated with the feature.
- c) **facilityNumber** - Asset number used for visual identification of the facility.
- d) **featureDescription** - The narrative describing the feature. I.e., Range, Observation, Cell, etc.
- e) **featureName** – Common name utilized for Range Area name.
- f) **heightMax** - Maximum height of structure in feet.
- g) **heightUom** - The unit of measure for the height measurement. Domain values .3048 metres or feet, etc.
- h) **mediald** – **gpsDataCollected**
- i) **MetadataId** – **metaID000072**
- j) **operationalStatus** - The state of usability of the feature i.e., **inService**, **notInService**, **abandoned**, etc.
- k) **towerUseType** - The primary operational use of the tower. Domain values, i.e., fire, observation, communication, training, etc.

CLJN.CL.TrafficControlLight (point) - A feature used to represent traffic lights.

- a) **builtDate** - The calendar date on which the original construction was completed for a facility.
- b) **contractNumber** - The contract number associated with the feature.
- c) **facilityNumber** - Asset number used for visual identification of the facility.
- d) **featureDescription** - The narrative describing the feature. (Review current data for description)
- e) **featureName** - The common name of the feature. (Review current data for common name)
- f) **heightAboveSurfaceLevel** - Maximum height of structure in feet.
- g) **heightAboveSurfaceLevelUom** - The unit of measure for the height measurement. Domain values .3048 metres or feet, etc.
- h) **mediald** – **gpsDataCollected**
- i) **MetadataId** – **metaID000072**
- j) **operationalStatus** - The state of usability of the feature i.e., **inService**, **notInService**, **abandoned**, etc.

CLJN.CL.WallLine - Wall - The linear feature used for separation of facilities, ornamental decoration, or structural reinforcement.

- a) **builtDate** - The calendar date on which the original construction was completed for a facility.
- b) **contractNumber** - The contract number associated with the feature.
- c) **facilityNumber** - Asset number used for visual identification of the facility.
- d) **featureDescription** - The narrative describing the feature. Values i.e., BENCH, DUMSPETER ENCLOSURE, UTILITY ENCLOSURE, RETAINING WALL, BLAST PROTECTION, BAFFLE WALL, MECHANICAL YARD, etc.
- e) **featureName** - The common name of the feature. (Review current data for common name)
- f) **height** - The height of the feature in feet.
- g) **heightUom** - The unit of measure for the height measurement. Domain values .3048 metres or feet, etc.
- h) **mediald** – **gpsDataCollected**
- i) **MetadataId** – **metaID000072**
- j) **operationalStatus** - The state of usability of the feature i.e., **inService**, **notInService**, **abandoned**, etc.
- k) **wallMaterialType** - The material from which the majority of the wall is constructed. Domain values i.e., brick, cinderblock, grass, glassBlock, masonry, wood, etc.

1.4.5 Feature Class CLJN.CL.Recreation

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such at nodes, etc.

CLJN.CL.RecreationTrail - Recreation Trail (Polyline) - The path or walkway providing opportunity for physical activities.

- a) **builtDate** - The calendar date on which the original construction was completed for a facility.
- b) **contractNumber** - The contract number associated with the feature.
- c) **facilityNumber** - Asset number used for visual identification of the facility.
- d) **featureDescription** - The narrative describing the feature area. Values i.e., HADNOT POINT, FRECH CREEK, WALLAS CREEK, MCAS, etc.
- e) **featureName** - The common name of the feature such as common trail name. Values, i.e., GREENWAY, MCAS, KNOX, etc.
- f) **Mediald** – **gpsDataCollected**
- g) **MetadataId** – **metaID000072**
- h) **materialType** - The material composition of the feature. Domain values i.e., asphalt, concrete, etc.
- i) **officialLength** - The officially reported length of the feature in feet.
- j) **officialLengthUom** - The official length. Domain values i.e. 0.3048 metres, feet, etc.
- k) **operationalStatus** - The state of usability of the feature i.e., **inService**, **notInService**, **abandoned**, etc.

CLJN.CL.Playground - Playground (Polygon) The area designed for children to play outdoors.

- a) **builtDate** - The calendar date on which the original construction was completed for a facility.
- b) **contractNumber** - The contract number associated with the feature.

- c) featureDescription - The narrative describing the feature. (Review current data for description)
- d) featureName - The common name of the feature. (Review current data for common name)
- e) featureName - The common name of the feature such as common trail name.
- f) isHandicappedAccessible – Yes / No
- g) MediaId – gpsDataCollected
- h) MetadataId – metaID000072
- i) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- j) owner – The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.
- k) isHandicappedAccessible – Yes / No
- l) playgroundCategory - Playground categorization by physical location on the installation. Domain values i.e., childDevCenter, generalPurpose, housingArea, school, etc.
- m) playgroundMaterial - The primary material that the play pieces are constructed from. Domain values i.e., paintedMetal, plastic, vinylCoatedMetal, wood, etc.
- n) recreationFeatureType - The type of recreation feature. Domain values i.e., paintball, playground, obstacleCourse, picnicSite, tennisCourt, volleyballCourt, swimmingPool, etc.
- o) heightAboveSurfaceLevel - The vertical distance measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature.
- p) heightAboveSurfaceLevelUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.

CLJN.CL.RecreationFeatureArea - Recreation Feature Area (Polygon) - The location of an object or other physical asset associated with a recreation site. - Recreation area, i.e., swimming pool, basketball, tennis, baseball, football, and other recreation features.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) facilityNumber - Asset number used for visual identification of the facility.
- c) contractNumber - The contract number associated with the feature.
- d) featureDescription - The narrative describing the feature.
- e) featureName – The common name of the feature if not addressed in RecreationFeatureType field.
- f) mediaId – gpsDataCollected
- g) MetadataId – metaID000072
- h) heightAboveSurfaceLevel - The vertical distance measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature.
- i) heightAboveSurfaceLevelUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- j) isHandicappedAccessible – Recreation Area has a formal designation. Yes / No
- k) isIndoor – Yes or No
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) owner – The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.
- n) RecreationFeatureType - The type of recreation feature. Domain values. i.e., athleticCourt, athleticField, basketballCourt, climbingStructure, dugout, exerciseStation, footballField, picnicSite, recreationalFirearmsRange, volleyballCourt, etc.

1.4.6 Feature Class CLJN.CL.Transportation

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties. Attribute

fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

CLJN.CL.Sign - Sign (point) - The structure that conveys directional, warning, or other information.

- a) builtDate - The calendar date on which the original construction was completed for a facility.
- b) contractNumber - The contract number associated with the feature.
- c) mediald – gpsDataCollected
- d) MetadataId – metaID000072
- e) heightAboveSurfaceLevel - The vertical distance measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature.
- f) heightAboveSurfaceLevelUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- g) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- h) signAssemblyType - The type of sign assembly material. Domain values i.e., IBeamSteelBreakaway, PedestrianPole, SignalMastArm, signalPole, fire, safety, etc.
- i) signText - The text displayed on the sign.
- j) signType - The type of sign. Domain values i.e., regulatory, school, warning, etc.
- k) owner – The entity that owns the feature. Domain values, i.e., ppv, usmc, usn, leased, federalOther, etc.

CLJN.CL.RoadCenterline - The center of a roadway, as measured from the edge of the navigable road with the paved or unpaved surface. Polyline is to be drawn in direction of flow with no breaks except where naturally occurring such as intersections and crossings.

- a) dataSource – The agency that last updated the record.
- b) dateUpdated – The date the record was created or last modified.
- c) elevationFrom – Elevation value at start of segment.
- d) elevationTo – Elevation value at end of segment.
- e) featureDescription – The narrative describing the feature.
- f) featureName – the common name of the feature.
- g) fullStreetName – The combined full street name.
- h) isPaved – The yes or no indicator of whether the feature has a paved surface. Domain values i.e., yes, no.
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072
- k) numLanes – The number of traffic lanes throughout the length of the centerline.
- l) oneWayDirection – The one-way road directionality. Domain values i.e. ft, tf, b, etc.
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) owner – The entity that owns the feature. Domain values, i.e., usmc, ncdot, etc.
- o) roadClass – The general description of the type of road, based on the US Census MAF/TIGER Feature Classification Codes (MTFCC). Domain values i.e., primary, secondary, local, etc.
- p) roadWidth – The width of the feature.
- q) roadWidthUom – The width unit of measure in feet
- r) Domain: GsipLengthUom (i.e. usSurveyFoot, metre, etc.)
- s) speedLimit – The posted speed limit in MPH.

- t) verticalDatum – The vertical reference datum for the z location value. Domain values i.e. navd88, etc.
- u) verticalEpoch – The time period epoch to which the elevation measurement is referenced. Domain values i.e., opus, etc.

1.4.7 Feature Class CLJN.CL.Telecommunication

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

CLJN.CL.CommUtilSegment (polyline)

- a) availableStrands - A list of fiber strands that are available.
- b) cableCount - The number of copper pairs or fiber strands dedicated at a given location.
- c) cableId - The cable identifier. (Review current data for description)
- d) cableInstaller - The name of the group responsible for installation of the cable feature.
- e) cableInstallType - The type of installation of the cables. Domain values i.e., aerea, directBuried, tunnel, underground, etc.
- f) cableInsulation - The material composition of the insulation of the cable. Domain values i.e., pvc, xlpe, etc.
- g) cableMaterial - The material composition of the cable. Domain values i.e., fiberOpt, cu, etc.
- h) cableRoute - The start and end points of a cable section. (Review current data for description)
- i) cableSheathing - The type of sheathing or insulation of the cable. Domain values i.e., bp, cpnm, cj, etc.
- j) communicationsSegmentType - The type of communications network segment that this feature represents. Domain values i.e., cCoaxial, cFiberOptic, etc.
- k) contractNumber - The contract number associated with the feature.
- l) dateInService - The date the utility equipment was put in service.
- m) featureDescription - The narrative describing the feature. (Review current data for description)
- n) featureName - The common name of the feature. (Review current data for naming convention)
- numberOfPairs - The number of wire pairs in the cable.
- o) numberOfSingleModeStrands - The number of single-mode fiber strands.
- p) numberOfStrands - The total number of fiber strands in the cable.
- q) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- r) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- s) wireGauge - The gauge of the wire.

1.4.8 Feature Class CLJN.CL.Utilities_Electrical_Class

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular

field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

CLJN.CL.AlternativeEnergyArea (polygon) - The apparatus or device used for the production of energy from a renewable resource.

- a) alternativeEnergyType - The type of alternative energy that the feature represents. Domain values i.e., photovoltaic, windTurbine, tbd, etc.
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) expansionDistributionNetwork - An indication of the distribution network interconnection an alternative energy feature uses to supply renewable energy. Domain values i.e., partOElectricalNetwork, etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, recreational, tbd, etc.
- i) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- j) hasInverter - Yes / No
- k) isMetered - Yes / No
- l) mediaId - gpsDataCollected
- m) MetadataId - metaID000072
- n) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- o) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- p) panelType - The type of panel present.
- q) systemCapacityDc - The system capacity for the DC current produced by the solar photovoltaic array, preferably measured in kilowatts.

CLJN.CL.ElecUtilNode_EFuse (point) - The location of a device used to protect electric distribution devices from dangerously high currents, and reduce risk of severe injury for personnel.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) alternativeEnergyType - The type of alternative energy that the feature represents. Domain values i.e., photovoltaic, windTurbine, tbd, etc.
- c) contractNumber - The contract number associated with the feature.
- d) dateInService - The date the utility equipment was put in service.
- e) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., efuse.
- f) facilityNumber - Asset number used for visual identification of the facility.
- g) featureDescription - The narrative describing the feature. (Review current data for description)
- h) featureName - The common name of the feature. (Review current data for common name)
- i) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, recreational, etc.
- j) mediaId - gpsDataCollected

- k) MetadataId – metaID000071
- l) numberOfPhases - Number of phases. Domain values i.e., one, two, three, etc.
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.

CLJN.CL.ElecUtilNode_EGenerator (point) - The location of an available kinetic power source providing electricity.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eGenerator.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) generatorPowerSource - The power source of the generator. Domain values, i.e., gas, natural gas, propane, solarPower, etc.
- j) generatorType - The type of electrical generator. Domain values i.e., emergency, primary, standby, etc.
- k) isPortable – Yes / No
- l) kvaRate - The rating of the complex power that the generator creates.
- m) kwRate - The rating of the real power that the generator creates.
- n) Manufacturer - The name of the manufacturer of the feature.
- o) mediaId – gpsDataCollected
- p) MetadataId – metaID000072
- q) modelNumber - The model, product, catalog, or item number for the feature item.
- r) numberOfPhases - Number of phases. Domain values i.e., one, two, three, etc.
- s) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- t) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- u) serialNumber - The manufacturer serial or unique identification number for the feature item.
- v) voltage - The system voltage applied to the subject item. Domain value i.e., 120V, 480V, 480YTo277V etc.

CLJN.CL.ElecUtilNode_EMeter (point) - The location of a device that measures the amount of electric energy consumed by the power user.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eMeter.
- e) energySource - Indicates if the meter is measuring a standard power source or an alternative energy source. Domain values i.e., standardPowerSource, alternativeEnergySource, tbd, etc.

- f) facilityNumber - Asset number used for visual identification of the facility.
- g) featureDescription - The narrative describing the feature. (Review current data for description)
- h) featureName - The common name of the feature. (Review current data for common name)
- i) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- j) isAmi - An indicator of whether or not the meter is an AMI or smart meter. Yes / No
- k) mediaId - gpsDataCollected
- l) MetadataId - metaID000072
- m) meterType - The type of meter. Domain values i.e., diaphragm, orifice, rotary, other, tbd, etc.
- n) meterUse - An indication of the type of service the meter is monitoring. Domain values eleMeter, generator, loadPoint, commercial, etc.
- o) mountingType - The type of mounting for the subject item. Domain values electrical, pole, pad, transformer, wall, etc.
- p) numberOfPhases - Number of phases. Domain values i.e., one, two, three, etc.
- q) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- r) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- s) transformerKva - The kva rate for the transformer.
- t) voltage - The system voltage applied to the subject item. Domain value i.e., 120V, 480V, 480YTo277V etc.

CLJN.CL.ElecUtilNode_EVoltageRegulator (point) - The location of a device that varies the ac supply or source voltage to the customer to maintain the voltage within desired limits.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eVoltageRegulator.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) feederId - The Feeder Manager identifier assigned to electric feeders and devices that participate in a specific distribution circuit, utilize (tbd) if unknown.
- i) feederId2 - The feeder Manager identifier assigned if the electric device is supplied by second feeder, (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) mediaId - gpsDataCollected
- l) MetadataId - metaID000072
- m) numberOfPhases - Number of phases. Domain values i.e., one, two, three, etc.
- n) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- o) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- p) primaryVoltage - The voltage on the source side of the regulator with the associated units given. Domain value i.e., 120V, 480V, 480YTo277V etc.
- q) secondaryVoltage - The voltage on the load side of the regulator with the associated units given. Domain value i.e., 120V, 480V, 480YTo277V etc.

- r) totalKva - The total kva rate.

CLJN.CL.ElecUtilNode_ECircuitBreaker (point) - The location of a circuit breaker, an automatically operated electrical switch designed to protect an electrical circuit from damage caused by excess current from an overload or short circuit.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eCircuitBreaker.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) mediaId - gpsDataCollected
- j) MetadataId - metaID000072
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.

CLJN.CL.ElecUtilNode_EExteriorLight (point) - The location of a lighting device that is supplied by local distribution systems and is generally the only service for which the electric utility installs, operates and maintains utilization equipment.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eExteriorLight.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) exteriorLightType - The type of exterior light. Domain i.e., landscapelight, parkingLotLight, pedestrianLight, recreationFieldLight, securityLight, streetlight, sidewalkLight, etc.
- g) featureDescription - The narrative describing the feature. (Review current data for description)
- h) featureName - The common name of the feature. (Review current data for common name)
- i) feederId - The Feeder Manager identifier assigned to electric feeders and devices that participate in a specific distribution circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) hasSensor - Yes / No
- l) heightAboveSurfaceLevel - The vertical distance measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature.
- m) heightAboveSurfaceLevelUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- n) isSolar - Yes / No
- o) lampType - The type of lamp per fixture. Domain i.e., led, hps, mh, etc.

- p) mediald – gpsDataCollected
- q) MetadataId – metaID000072
- r) mountingType - The type of mounting for the subject item. Domain values i.e., pole, pad, transformer, wall, ground, etc.
- s) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- t) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- u) voltage - The system voltage applied to the subject item. Domain value i.e., 120V, 480V, 480YTo277V etc.

CLJN.CL.ElecUtilNode_EAirfieldLight (point) - The location of an electrical device used to illuminate runways, taxiways, helipads, aprons, and any other aircraft movement area, as well as to guide ground traffic.

- a) airfieldLightType - The type of lighting present on the airfield. Domain value i.e., runwayLight, taxiwayLight, apron, helipadLight, approachLight, etc.
- b) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- c) contractNumber - The contract number associated with the feature.
- d) dateInService - The date the utility equipment was put in service
- e) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eAirfieldLight.
- f) facilityNumber - Asset number used for visual identification of the facility.
- g) featureDescription - The narrative describing the feature. (Review current data for description)
- h) featureName - The common name of the feature. (Review current data for common name)
- i) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- j) mediald – gpsDataCollected
- k) MetadataId – metaID000072
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) voltage - The system voltage applied to the subject item. Domain value i.e., 120V, 480V, 480YTo277V etc.

CLJN.CL.ElecUtilNode_EEnergyStorage - The location of energy storage device or natural system capable of capture of energy produced at one time for use at a later time, within the relative span of a human lifetime.

- a) circuitId - - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eEnergyStorage.
- e) featureDescription The narrative describing the feature. (Review current data for description)
- f) featureName - - The narrative describing the feature. (Review current data for description)
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.

- h) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- i) ownerName - The name of the item owner, i.e., MCB CL, Company Name, etc.

CLJN.CL.ElecUtilNode_ESubstation (point) - A substation is a part of an electrical generation, transmission, and distribution system. Substations transform voltage from high to low, or the reverse, or perform any of several other important functions. Between the generating station and consumer, electric power may flow through several substations at different voltage levels.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eSubstation
- d) facilityNumber - Asset number used for visual identification of the facility.-
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- h) mediald – gpsDataCollected
- i) MetadataId – metaID000072
- j) numberOfAvailableBays - The number of available bays at the substation.
- k) numberOfCircuits - The number of circuits present at the substation.
- l) numberOfSpareBreakers - The number of Spare Breakers in the substation.
- m) numberOfTransformers - The number of transformers present.
- n) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- o) ownerName – The name of the item owner, i.e., MCB CL, Company Name, etc.
- p) voltageIn - The line-to-line voltage of the transmission line that is the source for the substation. Domain value i.e., 120V, 480V, 480YTo277V etc.
- q) voltageOut - The line-to-line output voltage of the substation. Domain value i.e., 120V, 480V, 480YTo277V etc.

CLJN.CL.Feat_ESubstation (Polygon) - The location of a facility in an electrical system where the voltage is reduced from transmission levels to distribution levels.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) electricalUtilityFeatureType - The type of electrical utility feature. Domain value, i.e., eSubstation.
- d) FacilityNumber - Asset number used for visual identification of the facility.
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- h) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072

- k) networkType - The primary type of utility network to which this feature relates. Domain values i.e., electrical, etc.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., electrical, etc.

CLJN.CL.ElecUtilNode_EVoltageRegulator (point) - Current Regulators are different that Voltage Regulators and are used on the airfield lighting systems.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., ecurrentRegulator.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) mediaId – gpsDataCollected
- j) MetadataId – metaID000072
- k) numberOfPhases - Number of phases. Domain values i.e., one, two, three, etc.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.

CLJN.CL.ElecUtilNode_ESwitchingStation (point) - A Switching Station is an electrical substation with only one voltage level, whose only function are switching actions.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eSwitchingStation.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription – Number of Switches.
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) mediaId– gpsDataCollected
- j) MetadataId – metaID000072
- k) numberOfSwitches -The number of switches present.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.

CLJN.CL.ElecUtilNode_ESwitch (point) - The location of a device throughout distribution feeder circuits to redirect power flows to balance loads or for sectionalizing to allow repair of damaged lines or equipment.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes, i.e., eSwitch.
- e) electricalSwitchInstallation - The mounting/installation style of the electrical switch. Domain values buildingMounted, padMounted, poleMounted, electricalPanel, etc.
- f) electricalSwitchType - The type or style of electrical switch. Domain values circuitBrkr, disconnect, fuseCutout, gangDisc, hdSafty, iso, reclosure, etc.
- g) facilityNumber - Asset number used for visual identification of the facility.
- h) featureDescription - The narrative describing the feature. (Review current data for description)
- i) featureName - The common name of the feature. (Review current data for common name)
- j) feederId - The Feeder Manager identifier assigned to electric feeders and devices that participate in a specific distribution circuit, utilize (tbd) if unknown.
- k) feederId2 - The feeder Manager Identifier assigned if the electric device is supplied by second feeder, utilize. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- l) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- m) mediaId - gpsDataCollected
- n) MetadataId - metaID000072
- o) numberOfPhases - Number of phases. Domain values i.e., one, two, three, etc.
- p) numberOfSwitches - The number of switches present, i.e.,
- q) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- r) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- s) switchPosition - Code indicating normal position of switch, per phase. Domain value closed, closedOpen, open, openClosed, unknown, tbd, etc.
- t) voltage - The system voltage applied to the subject item. Domain value i.e., 120V, 480V, 480YTo277V etc.

CLJN.CL.Feat_EPedestal (point) An aboveground service entrance, allowing maintenance access to the specific utility, usually electric or communications.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) bcontractNumber - The contract number associated with the feature.
- c) cdateInService - The date the utility equipment was put in service.
- d) electricalUtilityFeatureType - The type of electrical utility feature, i.e., ePedestal
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) featureName - The common name of the feature. (Review current data for common name)

- i) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- j) groundConfiguration - - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- k) mediaId – gpsDataCollected
- l) MetadataId – metaID000072
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- o) utilityNetworkSubtype - - The primary subtype of utility to which this feature relates. Domain values i.e., electrical, etc.

ElecUtilNode_ETransformer - Electrical Utility Node – Transformer (point) - The location of an electric distribution or power transformer.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) electricalNodeType - The type of electrical network node that this feature represents. Domain values consist of electrical nodes i.e., eTransformer.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) feederId - The Feeder Manager identifier assigned to electric feeders and devices that participate in a specific distribution circuit, utilize (tbd) if unknown.
- i) feederId2 - The feeder Manager Identifier assigned if the electric device is supplied by second feeder, utilize (tbd) if unknown.
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) mediaId – gpsDataCollected
- l) MetadataId – metaID000072
- m) Manufacture - The name of the manufacturer of the feature.
- n) modelNumber - The model, product, catalog, or item number for the feature item.
- o) mountingType - The type of mounting for the subject item. Domain value ground, pad, pole, transformer, wall, tbd, etc.
- p) numberOfPhases - Number of phases. Domain values i.e., one, two, three, etc.
- q) numberOfTransformers - The number of transformers present.
- r) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- s) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- t) primaryVoltage - The voltage on the source side of the regulator with the associated units given. Domain value i.e., 120V, 480V, 480YTo277V etc.
- u) secondaryVoltage - The voltage on the load side of the regulator with the associated units given. Domain value i.e., 120V, 480V, 480YTo277V etc.
- v) totalKva - The total kva rate.
- w) transformerType - The type of transformer. Domain values i.e., inverter, isolation, stepDown, stepUp, vault, etc.

CLJN.CL.ElecUtilSegment (polyline) - The location of a linear feature, particularly a cable that transmits, distributes or connects customers to electricity. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

- a) cableInsulation - The material composition of the insulation of the cable. Domain value, i.e., ip, epr, pe, pvc, rubber, xipe, tdb, unknown, etc.
- b) cableMaterial - The material composition of the cable. Domain value, i.e., ac, al, copper, fiberOpt, steel, steelGalv, etc.
- c) cableSheathing - The type of sheathing or insulation of the cable. Domain value, i.e., shielded, weatherProof, asbestos, cellulose, tapeArmor, tbd, etc.
- d) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- e) conductorSize - The size of the conductor.
- f) contractNumber - The contract number associated with the feature.
- g) dateInService - The date the utility equipment was put in service.
- h) facilityNumber - Asset number used for visual identification of the facility.
- i) featureDescription - The narrative describing the feature. (Review current data for description)
- j) featureName - The common name of the feature. (Review current data for common name)
- k) feederId - The Feeder Manager identifier assigned to electric feeders and devices that participate in a specific distribution circuit, utilize (tbd) if unknown.
- l) feederId2 - The feeder Manager identifier assigned if the electric device is supplied by second feeder, utilize. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- m) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- n) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- o) medialId - gpsDataCollected
- p) MetadataId - metaID000072
- q) neutralSize - The size of a single neutral conductor. Domain value i.e., .5, .75, 1, 1.25, 2, 4, etc.
- r) numberOfPhases - Number of phases. Value, i.e., 1, 2, 3, 4, etc.
- s) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- t) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- u) voltage - The system voltage applied to the subject item. Domain value i.e., 120V, 480V, 480YTo277V etc.

CLJN.CL.Feat_EScadaSensor (point) - The location of a device that is used to remotely measure the status of electrical network components as part of a Supervisory Control and Data Acquisition (SCADA) system.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) electricalUtilityFeatureType - The type of electrical utility feature, i.e., eScadaSensor
- d) FacilityNumber - Asset number used for visual identification of the facility.
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.

- h) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- i) mediaId – gpsDataCollected
- j) MetadataId – metaID000072
- k) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., electrical.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., electrical, etc.

CLJN.CL.Feat_EDemarcationPoint (point) - The location where the electrical service provider ownership ends, and the customer ownership begins.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) electricalUtilityFeatureType - The type of electrical utility feature, i.e., eDemarcationPoint.
- d) facilityNumber - Asset number used for visual identification of the facility.
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- h) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- i) mediaId – gpsDataCollected
- j) MetadataId – metaID000072
- k) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., electrical.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) outsideProvider - The name of the outside provider for the Utility Feature. Value, i.e., owner of point may be 3rd party company.
- n) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- o) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., electrical, etc.

CLJN.CL.Feat_ESupportStructure (point) - The location of a structural framework that holds electric devices in an elevated position.

- a) circuitId - An operator generated identifier locally used to reference a specific electrical circuit. (Data can be found in Geodatabase, i.e., RG2, FC1, CHB, IND, etc. or contact PWD GIS Office)
- b) configurationType - The cable mounting configuration on the pole or tower. Domain value, i.e., armless, crossarmEqual, crossarmUnequal, shortArm, vertical, other, tbd, unknown, etc.
- c) contractNumber - The contract number associated with the feature.
- d) dateInService - The date the utility equipment was put in service.
- e) electricalUtilityFeatureType - The type of electrical utility feature i.e., eSupportStructure.
- f) facilityNumber - Asset number used for visual identification of the facility.
- g) featureDescription - The narrative describing the feature. (Review current data for description)

- h) featureName - The common name of the feature. (Review current data for common name)
- i) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- j) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- k) heightAboveSurfaceLevel - The vertical distance measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature in feet.
- l) heightAboveSurfaceLevelUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- m) materialType - The material composition of the feature. Domain value, i.e., cement, fiberglass, log, metal, steel, wood, etc.
- n) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., electrical.
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- p) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- q) serialNumber - Physical ID on pole that is a unique identifier added to pole on label by contractor/shop.
- r) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., electrical, etc.

CLJN.CL.Feat_ESurfaceStructure - The location of a structural framework that holds electric devices in a position at or near the ground surface.

- a) contractNumber - The contract number associated with the feature.
 - b) dateInService - The date the utility equipment was put in service.
 - c) electricalStructureType - The type of electrical feature. Domain values i.e., electricalCabinet, handHole, junctionBox, manhole, etc.
 - d) electricalUtilityFeatureType - The type of electrical utility feature i.e., eSurfaceStructure.
 - e) facilityNumber - Asset number used for visual identification of the facility.
 - f) featureDescription - The narrative describing the feature. (Review current data for description)
 - g) featureName - The common name of the feature. (Review current data for common name)
 - h) functionalArea - The common name of the feature. (Review current data for common name)
 - i) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
 - j) mediaId - gpsDataCollected
 - k) MetadataId - metaID000072
 - l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
 - m) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- utilityNetworkSubtype

CLJN.CL.Feat_EAnchorGuy (point) - The location of a wire or set of wires running from the top of the pole to an anchor installed in the ground and consist of wires, appropriate fastenings and the anchor.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) electricalUtilityFeatureType - The type of electrical utility feature, i.e., eAnchorGuy.
- d) facilityNumber - Asset number used for visual identification of the facility.
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)

- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- h) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- i) mediaId – gpsDataCollected
- j) MetadataId – metaID000072
- k) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., electrical.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., electrical, etc.

CLJN.CL.Feat_EUGEnclosureAccess (point) - The location of an electrical access point to the related electrical underground enclosure.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) electricalUtilityFeatureType - The type of electrical utility feature i.e., eUgEnclosureAccess.
- d) facilityNumber - Asset number used for visual identification of the facility.
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- h) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- i) mediaId – gpsDataCollected
- j) MetadataId – metaID000072
- k) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., electrical.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., electrical, etc.

1.4.9 Feature Class CLJN.CL.Utilities_Pol

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

CLJN.CL.PolUtilNode _OOwsSystem (point) - A filtering device placed in the fuel stream specifically to remove oil and water from the fuel.

- a) contractNumber - The contract number associated with the feature.

- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) mediald – gpsDataCollected
- h) MetadataId – metaID000072
- i) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- j) polNetworkSubType - The subtype of POL network in which this feature participates. Domain values i.e., contaminatedMedia, b5, automotiveDiesel, etc.
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.

CLJN.CL.PolUtilNode_OValve (point) -The location of a network component used to control flow, pressure, and level within fueling systems.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) depth - The distance, measured vertically downward to the base in inches.
- d) depthUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- f) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- g) facilityNumber - Asset number used for visual identification of the facility.
- h) featureDescription - The narrative describing the feature. (Review current data for description)
- i) featureName - The common name of the feature. (Review current data for common name)
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) mediald – gpsDataCollected
- l) MetadataId – metaID000072
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) polNetworkSubType - The subtype of POL network in which this feature participates. Domain values i.e., jetA, kerosene, marineDiesel, jp5, automotiveDiesel, etc.
- o) polNodeType - The type of POL network node that this feature represents i.e., **oValve**, etc.
- p) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- q) valveMaterial - The material composition of the valve. Domain values, i.e., ductileIron, carbonSteel, etc.
- r) valveType - The normal status or operating position of the valve. Domain values i.e., check, gate, etc.

CLJN.CL.PolUtilNode_OMeter (point) - The location of a device that measures the volumetric flow rate of fuel passing through the meter.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)

- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) isAmi - Description of meter - meter is an AMI or smart meter. Yes / No
- h) mediaId - gpsDataCollected
- i) MetadataId - metaID000072
- j) meterType - The type of meter. Domain values i.e., diaphragm, orifice, rotary, other, tbd, etc.
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName - The name of the item owner, i.e., MCB CL, AmeriGas, etc., etc.
- m) polNetworkSubType - The subtype of POL network in which this feature participates. Domain values i.e., jetA, kerosene, marineDiesel, jp5, automotiveDiesel, contaminatedMedia, etc.
- n) polNodeType - The type of POL network node that this feature represents i.e., oMeter

CLJN.CL.PolUtilNode_OTank (point) -The location of a container for storage of POL products at atmospheric pressure.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- h) locatedUnderground - Yes / No
- i) mediaId - gpsDataCollected
- j) MetadataId - metaID000072
- k) nominalCapacity - The numeric volume of the feature when filled to its design capacity.
- l) nominalCapacityUom - The unit of measure of the like named value. Domain values i.e., usgallon
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- o) polNetworkSubType - - The subtype of POL network in which this feature participates. Domain values i.e., jetA, kerosene, marineDiesel, jp5, automotiveDiesel, contaminatedMedia, etc.
- p) secondaryContainment - Indicates the storage tank has a secondary containment area that contains spills. Domain values i.e., concreteVault, doubleBottom, plasticPanSystem, other, etc.
- q) polNodeType - The type of POL network node that this feature represents. Domain values, i.e., (oTank)
- r) secondaryContainment - Indicates the storage tank has a secondary containment area that contains spills, i.e., spillPan, etc.
- s) storageTankProduct - The product contained in the storage tank. Domain values i.e., automotiveDiesel, bf5, dielectricOil, diesel, ethanol, gasoline, heatingOilUnspecified, jp, marineDiesel, propane, reclaimedFuel, usedCookingOil, usedFuel, usedOil, etc.
- t) tankTopHeight - The top of the tank reservoir measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature.
- u) tankTopHeightUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.

CLJN.CL.PolUtilNode_ODispenser (point) - The location of a machine at a fueling station that is used to pump fuel into vehicles or Aerospace Ground Equipment (AGE).

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. Type of dispenser i.e., Marine, Aircraft, Automobile, HeavyEquipment, POV, GOV, etc.
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- h) mediald – gpsDataCollected
- i) MetadataId – metaID000072
- j) networkType - The primary type of utility network to which this feature relates. Domain values i.e., (pol)
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- m) polNetworkSubType - The subtype of POL network in which this feature participates. Domain values i.e., jetA, kerosene, marineDiesel, jp5, automotiveDiesel, contaminatedMedia, etc.
- n) polNodeType - The type of POL network node that this feature represents i.e., oDispenser

CLJN.CL.PolUtilSegment (polyline) - The location of a linear feature, particularly a pipeline, used for the conveyance of petroleum, oil, and lubricants (POL) product. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such at nodes, etc.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) depth - The distance, measured vertically downward to the base in inches.
- d) depthUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- f) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- g) facilityNumber - Asset number used for visual identification of the facility.
- h) featureDescription - The narrative describing the feature. (Review current data for description)
- i) featureName - The common name of the feature. (Review current data for common name)
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- l) materialType - The material composition of the feature. Domain values i.e., cooper, carbonSteel, etc.
- m) mediald – gpsDataCollected
- n) MetadataId – metaID000072
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- p) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.

- q) `polNetworkSubType` - The subtype of POL network in which this feature participates. Domain values i.e., `jetA`, `kerosene`, `marineDiesel`, `jp5`, `automotiveDiesel`, `contaminatedMedia`, etc.

1.4.10 Feature Class `CLJN.CL.Utilities_Sewer`

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

`CLJN.CL.Feat_SDemarcationPoint` (point) - The location where the wastewater service provider ownership ends, and the customer ownership begins.

- a) `contractNumber` - The contract number associated with the feature.
- b) `dateInService` - The date the utility equipment was put in service.
- c) `facilityNumber` - Asset number used for visual identification of the facility.
- d) `featureDescription` - The narrative describing the feature. (Review current data for description)
- e) `featureName` - The common name of the feature. (Review current data for common name)
- f) `functionalArea` - The principle activity within a landuse area. Domain values i.e., `utilities`, `familyHousing`, `recreational`, `training`, `water`, etc.
- g) `groundConfiguration` - The configuration of the asset in relationship to the ground. Domain values i.e., `aboveground`, `elevated`, `semiBuried`, `underground`, etc.
- h) `mediaId` – `gpsDataCollected`
- i) `MetadataId` – `metaID000072`
- j) `networkType` - The primary type of utility network to which this feature relates. Domain values i.e., `wastewater`, etc.
- k) `operationalStatus` - The state of usability of the feature i.e., `inService`, `notInService`, `abandoned`, etc.
- l) `outsideProvider` - The name of the outside provider for the Utility Feature. Value, i.e., owner of point may be 3rd party company.
- m) `owner` – The entity that owns the feature. Domain values, i.e., `ppv`, `usmc`, `usn`, `leased`, `federalOther`, etc.
- n) `wastewaterNetworkSubType` - The subtype of wastewater network in which this feature participates. Domain values i.e., `domesticSewage`, `oilyWaste`, `industrialWaste`, etc.
- o) `wastewaterNodeType` - The type of water utility feature i.e., `sDemarcationPoint`

`CLJN.CL.WastUtilNode_SMeter` (point) - The location of a device or set of devices used to measure the flow of wastewater.

- a) `contractNumber` - The contract number associated with the feature.
- b) `dateInService` - The date the utility equipment was put in service.
- c) `facilityNumber` - Asset number used for visual identification of the facility.
- d) `featureDescription` - The narrative describing the feature. (Review current data for description)
- e) `featureName` - The common name of the feature. (Review current data for common name)
- f) `functionalArea` - The principle activity within a landuse area. Domain values i.e., `utilities`, `familyHousing`, `recreational`, `training`, `water`, etc.
- g) `isAmi` - An indicator of whether or not the meter is an AMI or smart meter. Yes / No

- h) Manufacturer - The name of the manufacturer of the feature.
- i) mediaId – gpsDataCollected
- j) MetadataId – metaID000072
- k) meterType - The type of meter. Domain values i.e., diaphragm, orifice, rotary, other, tbd, etc.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates. Domain values i.e., domesticSewage, oilyWaste, industrialWaste, etc.
- o) wastewaterNodeType - The type of wastewater network node that this feature represents i.e., smeter.

CLJN.CL.Feat_SScaSensor (point) - The location of a device that is used to remotely measure the status of wastewater network components as part of a Supervisory Control and Data Acquisition (SCADA) system.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) mediaId – gpsDataCollected
- h) MetadataId – metaID000072
- i) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., wastewater, etc.
- j) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- k) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- l) utilityNetworkSubType - The subtype of wastewater network in which this feature participates. Domain values i.e., domesticSewage, etc.
- m) wastewaterUtilityFeatureType - The type of water utility feature i.e., sScadaSensor

CLJN.CL.Feat_SUGEnclosureAccess (point) -The location of a wastewater access point to the related wastewater underground enclosure.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- h) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- i) invertElevation - The elevation of the bottom of the feature in inches.
- j) invertElevationUom - The invert elevation. Domain values, i.e., length equal to .0254, inch, etc.

- k) numberOfPipes - The number of pipes connecting to the manhole.
- l) mediaId – gpsDataCollected
- m) MetadataId – metaID000072
- n) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., wastewater.
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- p) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- q) rimElevation - The elevation at the top of the feature in feet.
- r) rimElevationUom - The unit of measure for rim elevation. Domain values i.e. measurement equal to 0.3048 metres, etc.
- s) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., wastewater, etc.
- t) wastewaterUtilityFeatureType - The type of water utility feature i.e., sUgEnclosureAccess.

CLJN.CL.WastUtilNode_SCleanOut (point) - The location of a wastewater device access point in a lateral used for maintenance purposes.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- g) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) mediaId – gpsDataCollected
- j) MetadataId – metaID000072
- k) materialType - The material composition of the feature. Domain values i.e., copper, ductileIron, fiber, fiberglassReinforcedPolyester, galvanizedIron, galvanizedSteel, PVC, terracotta, etc.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, etc.
- o) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., sCleanOut.

CLJN.CL.WastUtilNode_SFitting (point) - The location of a mechanical device on the wastewater system that caps or plugs a single pipe, or connects two or more pipes.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- d) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) facilityNumber - Asset number used for visual identification of the facility.

- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) fittingMaterial - The material of the pipe fitting. Domain values i.e., Domain values i.e., copper, ductileIron, fiber, fiberglassReinforcedPolyester, galvanizedIron, galvanizedSteel, PVC, steel, etc.
- i) fittingType - The type of pipe fitting. Domain values, i.e., bend, reducer, tee, plug, etc.
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) mediaId – digitized
- l) MetadataId – metaID000071
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- o) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, etc.
- p) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., sFitting.

CLJN.CL.WastUtilNode_SSsystemValve (point) - The location of a device that regulates, directs, or controls the flow of wastewater.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- d) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) mediaId – gpsDataCollected
- j) MetadataId – metaID000072
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- m) valveMaterial - The material composition of the valve. Domain values, i.e., ductileIron, carbonSteel, etc.
- n) valvePosition - The normal status or operating position of the valve. Domain values i.e., normallyClosed, normallyOpen, other, tbd, unknown.
- o) valveType - The normal status or operating position of the valve. Domain values i.e., flowControl, butterfly, check, gate, postIndicator, etc.
- p) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, etc.
- q) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., sSystemValve.

CLJN.CL.WastUtilNode_SReleaseValve (point) - The location of a wastewater device used to purge air from a force main.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- d) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- m) valveMaterial - The material composition of the valve. Domain values, i.e., ductileIron, carbonSteel, etc.
- n) valveType - The normal status or operating position of the valve. Domain values i.e., airRelease.
- o) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, etc.
- p) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., sReleaseValve.

CLJN.CL.WastUtilNode_SGreaseTrap (point) - The location of a tank which separates grease from water, collects the grease for removal, and allows the water to exit.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) mediald – gpsDataCollected
- h) MetadataId – metaID000072
- i) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- j) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- k) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, etc.
- l) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., sGreaseTrap.

CLJN.CL.WastUtilNode_STank (point) - The location of a container for storage of products associated with the wastewater network.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.

- c) diameter - Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.5, 1.75, 2, etc.
- d) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription- The narrative describing the feature. (Review current data for description)
- g) featureName- The common name of the feature. (Review current data for common name)
- h) functionalArea- The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- j) hasSecondaryContainment – Yes / No
- k) materialType - The material composition of the feature. Domain values i.e., concrete, etc.
- l) nominalCapacity- The unit total numeric capacity in gallons.
- m) nominalCapacityUom- The unit of measure of the like named value i.e., usGallon
- n) mediaId – gpsDataCollected
- o) MetadataId – metaID000072
- p) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- q) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc
- r) storageTankProduct - s) storageTankProduct - The product contained in the storage tank. Domain values i.e., oilyWastewater, rawWater, wasteFuel.
- s) volume The volumetric capacity of the feature
- t) volumeUom - The unit of measure of the like named value i.e., usGallon
- u) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, oilyWaste, etc.
- v) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e.,stank.
- w) width - The dimension of a feature in feet.
- x) widthUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.

CLJN.CL.WastUtilNode_SOilWateSeparator (point) - The location of a device or structure placed in the wastewater stream to separate water from oil products.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) mediaId – gpsDataCollected
- h) MetadataId – metaID000072
- i) nominalCapacity - The unit total numeric capacity in gallons.
- j) nominalCapacityUom - The unit of measure of the like named value i.e., usGallon
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- m) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, oilyWaste, etc.

- n) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., sOilWaterSeparator.

CLJN.CL.WastUtilNode_SPump (point) - The location of a piece of wastewater equipment that adds energy to a fluid being conveyed through a pipe or other closed conduit.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) mediaId - gpsDataCollected
- h) MetadataId - metaID000072
- i) isMainPump - Yes / No
- j) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- k) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- l) pumpType - Type of pump. Domain values i.e., liftstation, booster, submersible, grinder, etc.
- m) ratedFlow - The common rate of flow of each pump.
- n) ratedFlowUom - The rate of flow for each pump. Domain value i.e., galMin
- o) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, etc.
- p) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., sPump.

CLJN.CL.Feat_SPumpStation (polygon) - The location of a facility that collects and discharges wastewater via pumps.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature.
- e) featureDescription - The narrative describing the feature. (Review current data for description)
- f) featureName - The common name of the feature. (Review current data for common name)
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- h) hasGeneratorBackup - Yes / No
- i) mediaId - gpsDataCollected
- j) MetadataId - metaID000072
- k) isMainPump - Yes / No
- l) nominalCapacity - The station total capacity in gallons.
- m) nominalCapacityUom - The unit of measure of the like named value i.e., usGallon
- n) numberOfPumps - The number of pumps in the feature.
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- p) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.

- q) pumpStationType – Type of pumping station. Domain value i.e., pumpingStation, ejectorStation, liftStation, etc.
- r) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, etc.
- s) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., sPumpStation.

CLJN.CL.Feat_SSepicTankPoint (point) - The location of a small-scale anaerobic digester and leach field designed to treat wastewater from an individual facility, and is not connected to the wastewater collection system.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) materialType - The material composition of the feature. Domain values i.e., plastic, concrete, fiberglass, etc.
- h) mediaId – gpsDataCollected
- i) MetadataId – metaID000072
- j) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., wastewater.
- k) nominalCapacity - The unit total numeric capacity in gallons.
- l) nominalCapacityUom - The unit of measure of the like named value i.e., usGallon
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) secondaryContainment - Indicates the storage tank has a secondary containment area that contains spills. Domain values i.e., concreteVault, doubleBottom, plasticPanSystem, other, etc.
- o) septicTankType - The type of septic tank. Domain values, i.e., mound, septicTank, etc.
- p) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., domesticSewage, etc.
- q) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- r) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, oilyWaste, etc.
- s) wastewaterNodeType - The type of wastewater network node that this feature represents. i.e., tbd

CLJN.CL.WastUtilSegment (polyline) -The location of a feature used for the conveyance of wastewater. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such at nodes, etc.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- d) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) facilityNumber - Asset number used for visual identification of the facility.

- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) materialType - The material composition of the feature. Domain values i.e., asbestosCement, pvc, etc.
- j) invertElevationDownstream - Numeric number of the elevation downstream invert in inches.
- k) invertElevationDownstreamUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, etc.
- l) invertElevationUpstream - - Numeric number of the elevation upstream invert in inches.
- m) invertElevationUpstreamUom - - The diameter unit of measure. Domain values, i.e., 0.0254 metres, etc.
- n) isLined - Yes / No
- o) mediald - gpsDataCollected
- p) MetadataId - metaID000072
- q) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- r) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- s) pipeType - The type of pipe used. Domain values i.e., box, circular, pipArch, tbd, etc.
- t) slope - The slope of the bottom of the subject item expressed as a percentage.
- u) wastewaterNetworkSubType - The subtype of wastewater network in which this feature participates, i.e., domesticSewage, etc.
- v) wastewaterSegmentType - The type of wastewater network segment that this feature represents. Domain values i.e., sForceMain, sGravityMain, sLateralLine, sPressurizedServiceLine, etc.

1.4.11 Feature Class CLJN.CL.Utilities_Stormwater

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

CLJN.CL.StormUtilNode_SwInlet (point) - The location where stormwater is collected and received into the utility system.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. Values i.e., CATCHBASIN, ENDWALL, HEADWALL, INLET, ETC.
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) inletCoverType - The type of inlet cover. Domain values i.e., Domain values i.e., concrete, metalGate, etc.
- h) inletDiameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.5, 1, 4, etc.

- i) inletDiameterUom- The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- j) inletOpeningSize - The size of the inlet opening in inches.
- k) inletOpeningSizeUom - The unit of measure for the inlet opening size. Domain values, i.e., 0.0254 metres, inches etc.
- l) invertElevation - The elevation of the bottom of the feature in inches.
- m) invertElevationUom - The invert elevation. Domain values, i.e., length equal to .0254, inch, etc.
- n) materialType - The material composition of the feature. Domain values i.e., concrete, steel, pvc, etc.
- o) mediald – gpsDataCollected
- p) MetadataId – metaID000072
- q) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- r) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- s) rimElevation - The elevation at the top of the feature in feet.
- t) rimElevationUom - The unit of measure for rim elevation. Domain values i.e. measurement equal to 0.3048 metres, etc.
- u) stormwaterInletType - The type of stormwater inlet feature. Domain values i.e., catch basin, curbinlet, grateInlet, weirInlet, etc.
- v) stormwaterNodeType - The type of stormwater network node that this feature represents. Domain values i.e., swCatchBasin, swCleanout, swDownspout, swInlet, swInfall, etc.

CLJN.CL.Feat_SwUgEnclosureAccess (point) - The location of a Stormwater access point to the related Stormwater underground enclosure.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- d) diameterUom- The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. Values i.e., swManhole, etc.
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) invertElevation - The elevation of the bottom of the feature in inches.
- j) invertElevationUom - The invert elevation. Domain values, i.e., length equal to .0254, inch, etc.
- k) mediald – gpsDataCollected
- l) MetadataId – metaID000072
- m) networkType - The type of stormwater network node that this feature represents. Domain values i.e., stormwater.
- n) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- o) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- p) rimElevation - The elevation at the top of the feature in feet.
- q) rimElevationUom - The unit of measure for rim elevation. Domain values i.e. measurement equal to 0.3048 metres, etc.
- r) stormwaterUtilityFeatureType - The type of stormwater utility feature, i.e., swUgEnclosureAccess
- s) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., stormwater, etc.

CLJN.CL.StormUtilSeg (polyline) - The location of a feature used for the conveyance of stormwater. For example, a pipeline, culvert, or ditch. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such at nodes, etc.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- d) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The narrative describing the feature. (Review current data for description)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) invertElevation - The elevation of the bottom of the feature in inches.
- j) invertElevationUom - The invert elevation. Domain values, i.e., length equal to .0254, inch, etc.
- k) invertElevationDownstream - Numeric number of the elevation downstream invert in inches.
- l) invertElevationDownstreamUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, etc.
- m) invertElevationUpstream - - Numeric number of the elevation upstream invert in inches.
- n) invertElevationUpstreamUom - - The diameter unit of measure. Domain values, i.e., 0.0254 metres, etc.
- o) mediald - gpsDataCollected
- p) MetadataId - metaID000072
- q) openDrainSurface - The surface material of the drain, typically at the bottom of the structure.
- r) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- s) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- t) percentSlope - The slope of the bottom of the subject item expressed as a percentage.
- u) pipeType - The type of pipe used. Domain values i.e., box, circular, pipArch, tbd, etc.
- v) stormwaterSegmentType - The type of stormwater network segment that this feature represents. Domain values i.e., swCulvert, swForceMain, swGravityMain, swLateralLine, swOpenDrain, swSwale, swTrenchDrain, tbd.

CLJN.CL.StormUtilNode_SwOilWateSepa (point) - The location of a device or structure placed in the stormwater stream to separate water from oil products.

- a) contractNumber - The contract number associated with the feature.
 - b) dateInService - The date the utility equipment was put in service degradationIndex
 - e) facilityNumber - Asset number used for visual identification of the facility.
 - f) featureDescription - The narrative describing the feature. (Review current data for description)
 - g) featureName - The common name of the feature. (Review current data for common name)
 - h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
 - g) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- isCovered - Yes / No

- k) nominalCapacity - The numeric volume of the feature when filled to its design capacity.
- l) nominalCapacityUom - The unit of measure of the like named value. Domain values i.e., usgallon
- n) operationalStatus - The state of usability of the feature i.e., inService, abandoned, etc.
- o) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- v) stormwaterNodeType - The type of stormwater network node that this feature represents. Domain values i.e., swCatchBasin, swCleanout, swDownspout, swInlet, swInfall, etc.

CLJN.CL.Feat_SwRetentionBasinArea (polygon) - The location of a human-created area installed to improve water quality by permanently storing runoff.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) mediald – gpsDataCollected
- h) MetadataId – metaID000072
- i) networkType - The type of stormwater network node that this feature represents. Domain values i.e., stormwater.
- j) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- k) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- l) stormwaterUtilityFeatureType - The type of stormwater utility feature, i.e.
swRetentionBasinArea
- m) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., stormwater, etc.

1.4.12 Feature Class CLJN.CL.Utilities_Thermal

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

CLJN.CL.TherUtilNode_TPump (point) - The location of a facility that operates to maintain flow at adequate pressure for the thermal system.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)

- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- h) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- i) pumpElevation - The elevation of the pump feature in feet.
- j) pumpElevationUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- k) pumpType - The type of pump.
- l) ratedFlow – The numeric flow rating of the pump.
- m) ratedFlowUom - The rate of flow for each pump. Domain value i.e., galMin
- n) thermalNodeType - The type of thermal network node that this feature represents, tPump.

CLJN.CL.TherUtilNode_TProdStruc (point) - The location of a facility which produce steam, high-temperature water, low-temperature water, dual-temperature water or chilled water.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) heightAboveSurfaceLevel - The vertical distance measured from the lowest point of the base of the feature at ground or water level to the tallest point of the feature in feet.
- h) heightAboveSurfaceLevelUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072
- k) nominalCapacity - The numeric volume of the feature when filled to its design capacity
- l) nominalCapacityUom - The unit of measure for nominal capacity. Domain value i.e., tons, btu, etc.
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- o) thermalNetworkSubType - The subtype of thermal network in which this feature participates. Domain values i.e., steamSupply, otherSupply, geothermalSupply (well), highTemperatureHotWaterSupply, etc.
- p) thermalNodeType - The type of thermal network node that this feature represents, tProductionStructure.
- q) thermalProdStrucType - The type of production structure based upon various classifications including methods of transferring heat, piping arrangement, pumping arrangement, or the relative temperature of transferred media. Examples include Boilers, Chillers, Cooling Towers, Heat Pumps, Single/Double pipe systems, Low/Medium/High Temperatures systems, etc.
- r) volume - The volumetric capacity of the feature
- s) volumeUom – Rate of flow in tons, btu, etc.

CLJN.CL.TherUtilNode_TCondCollector (point) - The location of a thermal related well or a tank that collects condensation.

- a) contractNumber - The contract number associated with the feature.

- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- h) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- i) thermalNetworkSubType - The subtype of thermal network in which this feature participates. Domain values i.e., chilledWaterReturn, dualTemperatureWaterSupply, geothermalReturn, highTemperatureHotWaterSupply, lowTemperatureHotWaterSupply, steamSupply, etc.
- j) thermalNodeType - The type of thermal network node that this feature represents, tCondCollector.

CLJN.CL.TherUtilNode_TSystemValve (point) - The location of a device that regulates, directs, or controls the flow of steam or water.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- h) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- i) thermalNetworkSubType - The subtype of thermal network in which this feature participates. Domain values i.e., chilledWaterReturn, dualTemperatureWaterSupply, geothermalReturn, highTemperatureHotWaterSupply, lowTemperatureHotWaterSupply, steamSupply, etc.
- j) thermalNodeType - The type of thermal network node that this feature represents, tSystemValve
- k) valveMaterial - The material composition of the valve. Domain values i.e., steel, etc.
- l) valvePosition - The normal status or operating position of the valve. Domain value i.e., normallyClose, normallyOpen, other, tbd, unknown.
- m) valveType - The normal status or operating position of the valve. Domain values i.e., reliefValve, flowControl, gate, pressureRegulator, pressureReducing, etc.

CLJN.CL.Feat_TUGEnclosureAccess (point) - The location of a thermal access point to the related thermal underground enclosure.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The narrative describing the feature. (Review current data for description)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.

- g) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- h) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- i) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- j) networkType - The primary type of utility network to which this feature relates. Domain values i.e., thermal.
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- m) thermalUtilityFeatureType - The type of thermal utility feature tUgEnclosureAccess.
- n) thermalNetworkSubType - The subtype of thermal network in which this feature participates. Domain values i.e., steamSupply, otherSupply, geothermalSupply, highTemperatureHotWaterSupply, etc.

ThermalUtilitySegment (polyline) - The location of a feature used for the conveyance of steam, high-temperature water, low-temperature water, or chilled water. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such at nodes, etc.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) depth - The distance, measured vertically downward to the base in inches.
- d) depthUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- f) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- g) facilityNumber - Asset number used for visual identification of the facility.
- h) featureDescription - The narrative describing the feature. (Review current data for description)
- i) featureName - The common name of the feature. (Review current data for common name)
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- m) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- n) materialType – Type of segment material. Domain values i.e., steel, castiron, etc.
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- p) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- q) pipeType - The type of pipe used. Domain values i.e., box, circular, pipArch, tbd, etc.
- r) thermalNetworkSubType - The subtype of thermal network in which this feature participates. Domain values i.e., steamSupply, otherSupply, geothermalSupply, highTemperatureHotWaterSupply, etc.
- s) thermalSegmentType - - The type of thermal network segment that this feature represents. Domain values i.e., tMainLine, tService Line.

1.4.13 Feature Class CLJN.CL.Utilities_Water

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required. All polylines shall be drawn in the direction of flow with no breaks except for what is naturally occurring such as at nodes, etc.

CLJN.CL.WateUtilNode_WSystemValve (point) - The location of a device that regulates, directs, or controls the flow of water.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) depth - The distance, measured vertically downward to the base in inches.
- d) depthUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- f) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- g) facilityNumber - Asset number used for visual identification of the facility.
- h) featureDescription – Utilize CLJN.CL.Feat_WUtilityArea to use Service Area Values i.e., Stone Bay, Onslow Beach, Handnot Point, etc.
- i) featureName - The common name of the feature. (Review current data for common name)
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) mediaId – gpsDataCollected
- l) MetadataId –metaID000072
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- o) turnDirectionToClose - The turn direction to close the valve. Domain values i.e., leftToClose, rightToClose, other, na, tbd, unknown, etc.
- p) valveMaterial - The material composition of the valve. Domain values i.e., ductileIron, steel, pvc, etc.
- q) valvePosition - The normal status or operating position of the valve. Domain value i.e., normallyClose, normallyOpen, other, tbd, unknown.
- r) valveType - The subtype of water network in which this feature participates. Domain values i.e., ball, gate, postIndicator, waterServiceValve, postIndicator, fireHydrantValve, etc.
- s) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater, etc.
- t) waterNodeType - The type of water network node that this feature represents. Domain values i.e., wAirGap, wControlValve, wFireHydrant, wFitting, wFlushingStation, wHydrant, wMeter, etc.

CLJN.CL.WateUtilNode_WReliefValve (point) - The location of a water related device designed to release when the set pressure is exceeded.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) depth - The distance, measured vertically downward to the base in inches.

- d) depthUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 1.75, 2, etc.
- f) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- g) facilityNumber - Asset number used for visual identification of the facility.
- h) featureDescription - The common name of the feature. (Review current data for common name)
- i) featureName - The common name of the feature. (Review current data for common name)
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) mediald – gpsDataCollected
- l) MetadataId – metaID000072
- m) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- n) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- o) valveMaterial - The material composition of the valve. Domain values i.e., steel, pvc, etc.
- p) valveType - The subtype of water network in which this feature participates. Domain values i.e., wReliefValve.
- q) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- r) waterNodeType - The type of water network node that this feature represents. Domain values i.e., **wReliefValve**

CLJN.CL.WateUtilNode_WPressReduStation (point) - The location of a feature which reduces the pressure from line pressure to the desired operating pressure and can switch from low to high pressure for flushing.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) featureDescription - The common name of the feature. (Review current data for common name)
- d) featureName - The common name of the feature. (Review current data for common name)
- e) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- f) mediald – gpsDataCollected
- g) MetadataId – metaID000072
- h) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- i) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- j) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- k) waterNodeType - The type of water network node that this feature represents. Domain values i.e., wPressureReducingStation.

CLJN.CL.WateUtilNode_WBackPrevDevice (point) - The location of a feature that is used to protect water supplies from contamination or pollution.

- a) bfpType - Backflow prevention device type. Domain values i.e., ag, avb, dcva, pvb, rpz, spvb, etc.
- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.

- d) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.75, 2, etc.
- e) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- f) featureDescription - The common name of the feature. (Review current data for common name)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- m) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- n) waterNodeType - The type of water network node that this feature represents. Domain values i.e., wBackflowPreventionDevice.

- a) CLJN.CL.WateUtilNode_WMeter (point) - The location of a device used to measure the quantity and/or rate of water flowing through a pipe, which may be the amount of water used by the customer.

- b) contractNumber - The contract number associated with the feature.
- c) dateInService - The date the utility equipment was put in service.
- d) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.75, 2, etc.
- e) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- f) facilityNumber - Asset number used for visual identification of the facility.
- g) featureDescription - The common name of the feature. (Review current data for common name)
- h) featureName - The common name of the feature. (Review current data for common name)
- i) fittingType - The type of pipe fitting. Domain values i.e., bend, tap, cap, other, tbd, etc.
- j) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- k) isAmi - The yes or no indicator of whether or not the meter is an AMI or smart meter.
- l) mediald – gpsDataCollected
- m) MetadataId – metaID000072
- n) meterType - The type of meter. Domain values i.e., turbine, rotary, etc.
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- p) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- q) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- r) waterNodeType - The type of water network node that this feature represents, wMeter.

CLJN.CL.WateUtilNode_WHydrant (point) - Hydrants not exclusively used for firefighting. Secondary uses are flushing main lines and laterals, filling tank trucks, and providing a temporary water source for construction jobs.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The common name of the feature. (Review current data for common name)

- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) HydrantPurpose – The purpose of the Hydrant. Values i.e., fireHydant, flushedFDC, YardHydrant, etc.
- h) mediald – gpsDataCollected
- i) MetadataId – metaID000072
- j) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- k) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- l) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- m) waterNodeType - The type of water network node that this feature represents. Domain values i.e., whHydrant.

CLJN.CL.WateUtilNode_WFireHydrant (point) a valve connection on a water supply system having one or more outlets and that is used in firefighting to supply hose and fire department pumpers with water.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.5, 1.75, 2, etc.
- d) diameter1 - The diameter of the outlet.
- e) diameter2 - The diameter of the outlet.
- f) diameter3 - The diameter of the outlet.
- g) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- h) facilityNumber - Asset number used for visual identification of the facility.
- i) featureDescription - The common name of the feature. (Review current data for common name)
- j) featureName - The common name of the feature. (Review current data for common name)
- k) fireConnectionType - The yes or no indicator of whether or not the fire hydrant is a fire protection connection. Yes or No
- l) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- m) hydrantNumber - The equipment number as designated by the fire department that is primarily responsible for the fire hydrants operation and maintenance.
- n) inletDiameter - The diameter of the inlet.
- o) inletDiameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- p) mediald – gpsDataCollected
- q) MetadataId – metaID000072
- r) isFireConnection - The yes or no indicator of whether or not the fire hydrant is a fire protection connection. Yes or No
- s) outletDiameter - The diameter of the outlet.
- a) outletDiameter1 - The diameter of the outlet.
- b) outletDiameter2 - The diameter of the outlet.
- c) outletDiameter3 - The diameter of the outlet.
- d) outletDiameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- f) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- g) waterNodeType - The type of water network node that this feature represents, wFireHydrant.

CLJN.CL.WateUtilNode_WFitting (point) - The location of a mechanical device that connects two or more pipes, or caps or plugs a single pipe, on the water system.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Diameter - The diameter of the feature in inches. Domain value i.e., .5, 1, 1.25, 1.5, 1.75, 2, etc.
- d) diameter1 - The diameter of the outlet.
- e) diameter2 - The diameter of the outlet.
- f) diameter3 - The diameter of the outlet.
- g) diameter4 - The diameter of the outlet.
- h) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- i) facilityNumber - Asset number used for visual identification of the facility.
- j) featureDescription - The common name of the feature. (Review current data for common name)
- k) featureName - The common name of the feature. (Review current data for common name)
- l) fittingType - The type of pipe fitting. Domain values i.e., bend, cap, tee, etc.
- m) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- n) mediald – digitized
- o) MetadataId – metaID000071
- p) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- q) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- r) waterNodeType - The type of water network node that this feature represents. Domain values i.e., wfitting.
- s) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.

CLJN.CL.WateUtilNode_WPump (point) - The location of a water related piece of equipment that adds energy to a fluid, such as water, being conveyed through a pipe or other closed conduit.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The common name of the feature. (Review current data for common name)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) mediald – gpsDataCollected
- h) MetadataId – metaID000072
- i) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- j) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- k) pumpType - Type of pump. Domain values i.e., booster, submersible, etc.
- l) ratedFlow - The common rate of flow of each pump.
- m) ratedFlowUom – The rate of flow for each pump. Domain value i.e., galMin
- n) waterNodeType - The type of water network node that this feature represents. Domain values i.e., wpump.

- o) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.

CLJN.CL.WateUtilNode_WStorageStructure (point) - The location of a facility that store large volumes of water.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Elevation - The elevation from a specified vertical datum to the highest point on a feature.
- d) elevationUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The common name of the feature. (Review current data for common name)
- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- j) groundElevation - The elevation of the ground at the location of the item in feet.
- k) invertElevation - The elevation of the bottom of the feature in feet.
- l) mediald – gpsDataCollected
- m) MetadataId – metaID000072
- n) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- o) overflowElevation - The elevation of the overflow device (i.e., pipe invert).
- p) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- q) secondaryContainment - Indicates the storage tank has a secondary containment area that contains spills. Domain values i.e., concreteVault, doubleBottom, plasticPanSystem, other, etc.
- r) storageTankProduct - The product contained in the storage tank.
- s) storageTankType - The primary type of storage tank.
- t) topElevation - The elevation at the top of the feature.
- u) topElevationUom The unit of measure Domain values i.e. 0.3048 metres, feet, etc.
- v) volume - The volumetric capacity of the feature in usgallons.
- w) volumeUom - Unit of measure in usgallons
- x) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- y) waterNodeType - The type of water network node that this feature represents. Domain values i.e., wstorageStructure.
- z) width - The dimension of a feature in feet.
- aa) widthUom - The unit of measure Domain values i.e. 0.3048 metres, feet, etc.

CLJN.CL.Feat_WUGEnclosureAccess (point) - The location of a water access point to the related water underground enclosure.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.5, 1.75, 2, etc.
- d) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) facilityNumber - Asset number used for visual identification of the facility.
- f) featureDescription - The common name of the feature. (Review current data for common name)

- g) featureName - The common name of the feature. (Review current data for common name)
- h) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- i) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- j) lidDiameter - Diameter of the lid or cover that allows access to the manhole.
- k) lidDiameterUom - - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 2, etc.
- l) lidMaterial - Material type of the manhole access lid or cover.
- m) mediald – gpsDataCollected
- n) MetadataId – metaID000072
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- p) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- q) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- r) waterUtilityFeatureType - The type of water utility feature i.e., wUgEnclosureAccess.

WateUtilNode_WSource(point) - A source of water intake to the water system including reservoirs, natural water bodies, wells, and/or feeds from external water networks. Do not delete potable from any feature class, please attribute as removed or AIP.

- a) abandonedDate - The date the feature was abandoned – see feature name to add contract number for abandoned.
- b) contractNumber - The contract number associated with the original construction of this feature.
- c) dateInService - The date the utility equipment was put in service.
- d) facilityNumber - Asset number used for visual identification of the facility.
- e) featureDescription - The common name of the feature. (Review current data for common name)
- f) featureName - The common name of the feature. Until such a time that the well is abandoned or removed. (Add contract number associated with removal or abandonment of water well)
- g) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- h) mediald – gpsDataCollected
- i) MetadataId – metaID000072
- j) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- k) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- l) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- m) removedDate - Enter Remove date; however, do not delete water well from well feature class. (Attribute contract number to remove well in featureName)
- n) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- o) waterNodeType - The type of water network node that this feature represents. Domain values i.e., wSource
- p) waterSourceType – Source of water, well

CLJN.CL.Feat_WScadaSensor (point) – The location of a device that is used to remotely measure the status of water network components as part of a Supervisory Control and Data Acquisition (SCADA) system.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The common name of the feature. (Review current data for common name)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities,
- g) familyHousing, recreational, training, water, etc.
- h) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- i) mediald – gpsDataCollected
- j) MetadataId – metaID000072
- k) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., water.
- l) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., water, etc.
- o) waterUtilityFeatureType - The type of water utility feature is wScadaSensor.

CLJN.CL.Feat_WDemarcationPoint (point) - The location where the water service provider ownership ends, and the customer ownership begins.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription - The common name of the feature. (Review current data for common name)
- e) featureName - The common name of the feature. (Review current data for common name)
- f) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- g) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- h) mediald – gpsDataCollected
- i) MetadataId – metaID000072
- j) networkType - The primary type of utility network to which this feature relates. Domain values, i.e., water.
- k) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- l) outsideProvider - The name of the outside provider for the Utility Feature.
- m) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- n) utilityNetworkSubtype - The primary subtype of utility to which this feature relates. Domain values i.e., water, etc.
- o) waterUtilityFeatureType - The type of water utility feature is wDemarcationPoint.

CLJN.CL.WaterUtilitySegment (polyline) - The location of a feature used for the conveyance of water.

- a) contractNumber - The contract number associated with the feature.
- b) dateInService - The date the utility equipment was put in service.
- c) depth - The distance, measured vertically downward to the base in inches.
- d) depthUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- e) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.5, 1.75, 2, etc.
- f) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- g) elevation - The elevation at the top of the feature.
- h) elevationUom - The elevation unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- i) facilityNumber - Asset number used for visual identification of the facility.
- j) featureDescription - The narrative describing the feature. (Review current data for description)
- k) featureName - The common name of the feature. (Review current data for common name)
- l) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- m) groundConfiguration - The configuration of the asset in relationship to the ground. Domain values i.e., aboveground, elevated, semiBuried, underground, etc.
- n) invertElevationDownstream - Numeric number of the elevation downstream invert in inches.
- o) invertElevationDownstreamUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, etc.
- p) invertElevationUpstream - Numeric number of the elevation upstream invert in inches.
- q) invertElevationUpstreamUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, etc.
- r) lateralSegmentType - The type of lateral water network segment that this feature represents. Domain values i.e., wDomesticLateral, wFireProtectionLateral, wHydrantLateral, wInlineStorageLateral, wIrrigationLateral, wTransportPipeLateral, etc.
- s) materialType - The material composition of the feature. Domain values i.e., pvc, tbd, etc.
- t) mediald - gpsDataCollected
- u) MetadataId - metaID000072
- v) operationalStatus - The state of usability of the feature i.e., inService, notInService, abandoned, etc.
- w) ownerName - The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- x) waterNetworkSubType - The subtype of water network in which this feature participates. Domain values i.e., fireProtectionWater, nonPotableWater, potableWater, rawWater, saltWater.
- y) waterSegmentType - The type of wastewater network segment that this feature represents. Domain values i.e., wDistributionMain, wGravityMain, wLateral, wTransmissionMain

1.4.14 Feature Class CLJN.CL.Wells

Locate, GPS and collect attribute data as specified for each feature listed with (GPS) accuracy as described in paragraph "Global Positioning System (GPS) and Spatial Reference Properties". Attribute fields may be associated with Domains, which are utilized to constrain the values allowed in a particular field, attribute table or feature class. Domains must be utilized when populating the feature where required.

CLJN.CL.WellPoint – (point) - The man-made vertical excavation penetrating the surface of the Earth used collect environmental samples or monitor fluid or gas characteristics, inject fluids, gases or thermal energy into the subsurface, or extract contamination or other impurities from the subsurface. *(Potable Water Wells used for water distribution are not to be deleted from the this feature class, if they are*

demolished, the contract number utilize to make any changes should be attributed in featureName and the operation status should be changed to removed)

- a) abandonedDate - The date the feature was abandoned – see feature name to add contract number for abandoned.
- b) builtDate - The calendar date on which the original construction was completed for a facility.
- c) contractNumber - The contract number associated with the original construction of this feature.
- d) depth - The distance, measured vertically downward to the base in inches.
- e) depthUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- f) Diameter - The diameter of the feature in inches. Domain value i.e., .5, .75, 1, 1.25, 1.5, 2, 3, etc.
- g) diameterUom - The diameter unit of measure. Domain values, i.e., 0.0254 metres, inches etc.
- h) facilityNumber - Asset number used for visual identification of the facility.
- i) featureDescription – Utilize CLJN.CL.Feat_WUtilityArea to use Service Area Values i.e., Stone Bay, Onslow Beach, Handnot Point, etc.
- j) featureName - The common name of the feature. Until such a time that the well is abandoned or removed. (Add contract number associated with removal or abandonment of water well)
- k) functionalArea - The principle activity within a landuse area. Domain values i.e., utilities, familyHousing, recreational, training, water, etc.
- l) locationAccuracy - The location accuracy for the data that was collected and verified i.e., Survey Grade GPS
- m) mediald – gpsDataCollected
- n) MetadataId – metaID000072
- o) operationalStatus - The state of usability of the feature i.e., inService, notInService, removed, etc.
- p) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company Name, etc.
- q) removedDate - Enter Remove date; however, do not delete water well from well feature class. *(Attribute contract number to remove well in featureName)*
- r) wellCapacity– The total capacity in gallons.
- s) wellCapacityUom - The unit of measure of the like named value i.e., usGallon
- t) wellPurposeType - The purpose of the well. Domain values extraction.
- u) wellResourceType - The resource type which is being extracted, i.e. waterNonPotable.

1.4.15 CLJN.CL.CadFloorPlan (polyline) A linear representation of the floor plan representing the outer and inner walls, doors and windows of a building or structure that has been exported into a GIS Feature.

This feature will present all levels, entry, exits, windows, stairwells. No none permanent fixtures, such as furniture should be included.

- a) contractNumber - The contract number associated with the feature.
- b) builtDate - The date the utility equipment was put in service.
- c) facilityNumber - Asset number used for visual identification of the facility.
- d) featureDescription – The narrative describing the feature. (Review current data for description)
- e) featureName - The narrative describing the feature. (Review current data for description)
- f) florid – Floor Level
- g) mediald – digitized
- h) MetadataId – metaID000071
- i) operationalStatus - The state of usability of the feature i.e., inService, notInService, removed, etc.
- j) ownerName – The name of the item owner, i.e., MCB CL, MCCS, PPV, Company

1.4.16 Non Compliance

Failure to follow the specification outlined in this document will result in non-acceptance of data deliverable. Note: Geospatial data delivery does not replace record drawing requirements.