INSTRUCTIONS FOR CREATING AND SUBMITTING A DIGITAL BOUNDARY FOR STATE COASTAL ZONE CONSISTENCY (CZC) DETERMINATIONS.

SCDES-BCM strongly encourages the submission of an AutoCAD .DWG file, ESRI shapefile, TXT or CSV file showing the project boundary for all Coastal Zone Consistency (CZC) applications associated with requests for coverage under the NPDES General Permit for Stormwater Discharges from Construction Activities. The .DWG files or ESRI Shapefiles should be prepared and submitted using the protocols indicated below.

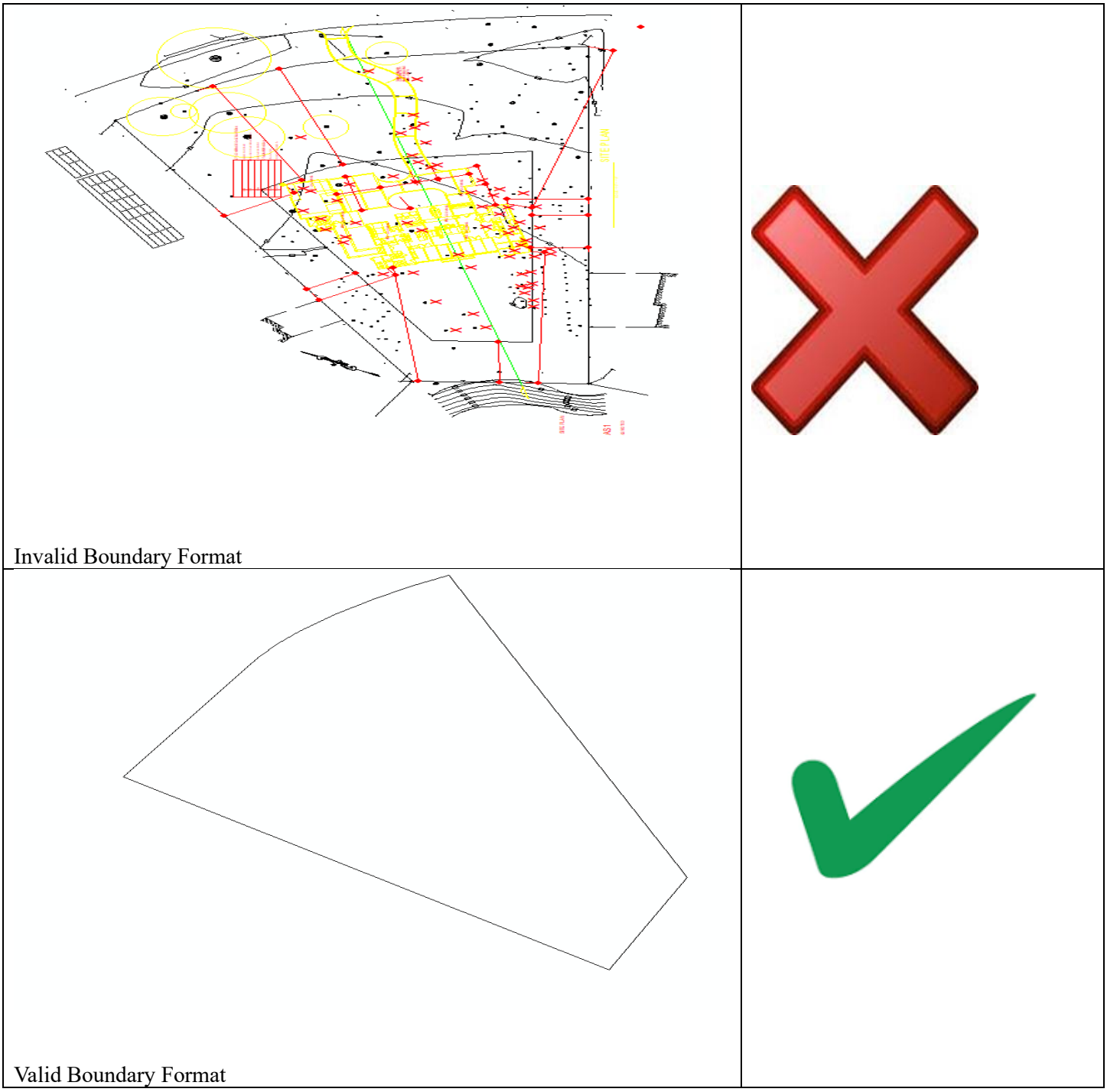


Figure 1.0 Only the outer boundary of project is required

NOTE: CDs, DVDs Floppy Disks and FTP links are no longer accepted.

The requirements for a boundary submission in AutoCAD .DWG format are as follows:

(1) The AutoCAD .DWG file should contain a closed polyline showing the limits of disturbed area or project boundary. In some instances, multiple closed polylines are acceptable if the individual project involves separate, noncontiguous areas of disturbance, which are of a relatively significant distance apart, or separated by permanent features such as a paved road or waterbody.

(2) The polyline should be closed to its point of beginning, so that it forms a polygon when imported into GIS. List the properties of the boundary polygon before sending the file for review to ensure the polygon is closed to its point of beginning. Closing the project boundary using object osnap and selecting the POB endpoint DOES NOT CLOSE the polygon. To close the polygon completely, right click and select close when drawing the last line of the project boundary.

(3) The closed polyline should be properly oriented North and properly scaled. This should not be an issue if all vertices are associated with verified state plane coordinates. See #5, below.

(4) The "Named UCS" should be set to "World." GIS software automatically interprets. DWGs to be in the "World" UCS. When the .DWG is created, the supporting coordinate information that may have been used by add-on software packages to manage the coordinate geometry in AutoCAD is not transferred as part of the file. The result of which is that though the boundary may appear to be in state plane on your system, it is not when imported into our system. Often when this occurs, the Named UCS will appear as "Unnamed" when viewed in our system.

(5) MOST IMPORTANT – THE POLYLINE SHOULD BE CREATED IN OR ADJUSTED TO MATCH THE S.C. STATE PLANE COORDINATE SYSTEM (NAD 1983 – INTERNATIONAL FEET). EACH VERTEX SHOULD BE ASSOCIATED WITH A VERIFIED STATE PLANE COORDINATE. GENERALLY SPEAKING, THE "X" OR EASTING IS A 7-DIGIT NUMBER (NOT COUNTING DECIMAL PLACES) BETWEEN 1913700.00 – 2743157.00 AND THE "Y" OR NORTHING IS A 5 OR 6-DIGIT NUMBER (NOT COUNTING DECIMAL PLACES) BETWEEN 79142.00 – 902504.00. REGARDING THE NORTHING, IN PARTICULAR, IT IS MOST COMMONLY A 6-DIGIT NUMBER. IT IS ONLY A 5-DIGIT NUMBER IN THE MOST SOUTHERN PORTIONS OF BEAUFORT AND JASPER COUNTIES.

(6) The .DWG should be saved as AutoCAD 2014 (Software v. 19.1, Format v. 2013) or earlier. See automated system submission instructions below for details on how to submit your project.

(7) See the appendix for more details on how to submit an AutoCAD file.

The requirements for a boundary submission in ESRI Shapefile format are as follows:

(1) An ESRI Shapefile is made up of several distinct files (.dbf,.prj,.sbn,.sbx,.shp,.shp,.xml and .shx). Components of your Shapefile may vary, but to be readable by our GIS software a .dbf, .shp and .shx are REQUIRED, and unless the projected coordinate system of the Shapefile is NAD83, South Carolina StatePlane (FIPS 3900) International Feet, a. prj (projection) file is also required. For example, if a Shapefile is named "SCDESBCM_BOUND," then the email should (at minimum) contain:

SCDESBCM_BOUND.dbf

SCDESBCM_BOUND.shp

SCDESBCM_BOUND.shx

(and preferably) SCDESBCM_BOUND.prj

One somewhat common issue when Shapefiles are sent by those unfamiliar with its components is the .shp.xml file is sent instead of the .shp. This typically occurs when the "Hide extensions for known file types" setting is active on Folder Option > View tab in Windows. Because .xml is typically a "known file type," the .xml extension is hidden, and the user just sees the .shp and assumes it's the correct file to send. To be safe, we recommend sending all components of the Shapefile, whether a required component or not.

(2) The Shapefile should be a Polygon geometry type, containing a polygon feature (or multiple polygon features when appropriate) showing the limits of disturbance or project boundary.

See automated system submission instructions below for details on how to submit your project.

For any data submission issues or questions, please contact Samuel Nyarkoh at samuel.nyarkoh@des.sc.gov.

BCM suggests that you periodically check for new versions of digital boundary instructions, as contact information and procedures may change.

AUTOMATED SYSTEM SUBMISSION INSTRUCTIONS.

SCDES-BCM have implemented an automation system that efficiently processes emails within 10 minutes. The system is designed to handle various file formats, including CSV, TXT, AutoCAD, and shapefiles. The steps enumerated below will direct you on how to successfully submit a project for processing.

A. The requirements for a boundary submission in ESRI Shapefile format are as follows:
   (1) Zip the shapefile content and rename it to your project name.
   (2) The name of the attachment (Zip) will be used as the project name.

B. The requirements for a boundary submission in AutoCAD .DWG format are as follows:
   (1) Rename AutoCAD file to your project name.
   (2) The name of the attachment (AutoCAD) will be used as the project name.

C. The requirements for a boundary submission in TEXT file format are as follows:
   (1) Rename TEXT file to your project name.
   (2) The automation system will read the project name from the TEXT file.
   (3) Enter boundary vertices as shown below.

[Eastings, Northings].

File Edit Format View Help

```
399792.1866,2254269.4811
399802.0730,2254265.6960
399869.5280,2254204.7910
399912.1092,2254162.8939
399946.3323,2254126.4412
400035.2699,2254031.6241
400050.5036,2254015.5707
400056.1441,2254010.0738
400116.3833,2253945.1720
400122.4892,2253938.6407
400128.5950,2253932.1094
400134.8456,2253937.9829
400136.9283,2253942.5820
400142.7107,2253949.0505
400155.2082,2253961.2726
400148.5123,2253968.2786
```

(4) If your project boundary is a multipart feature (Separate boundaries distant from each other). Your coordinate format should be as shown below.

NOTE: Part number can be a minimum of three (3) in a group to form a polygon.

[Part Number, Eastings, Northings].

File Edit Format View Help

```
1, 399792.1866,2254269.4811
1, 399802.0730,2254265.6960
1, 399869.5280,2254204.7910
1, 399912.1092,2254162.8939
2, 399946.3323,2254126.4412
2, 400035.2699,2254031.6241
2, 400050.5036,2254015.5707
3, 400056.1441,2254010.0738
3, 400116.3833,2253945.1720
3, 400122.4892,2253938.6407
3, 400128.5950,2253932.1094
3, 400134.8456,2253937.9829
3, 400136.9283,2253942.5820
4, 400142.7107,2253949.0505
4, 400155.2082,2253961.2726
4, 400148.5123,2253968.2786
4, 400141.8163,2253975.2845
```

D. The requirements for a boundary submission in CSV file format are as follows:
   (1) Rename CSV file to your project name.
   (2) The automation system will read the project name from the CSV file.
   (3) Enter boundary vertices as shown in step C above.

The attachment should be mailed to ocrmdigbound@des.sc.gov. The submission email subject line is expected to conform to a specific format. Failure to do so will result in project rejection.

Action	Subject	Is Attachment Required?
New Project	Digital Boundary for Project Name#TMS# If no TMS use # N/A # Digital Boundary for Project Name#TMS#current	Yes
Update Project	Digital Boundary for Project Name # TMS # Boundary update Digital Boundary for Project Name # TMS # Boundary update#current	Yes
Rename Project	Rename Project ** Old Project Name ** New Project Name Rename Project ** Old Project Name ** New Project Name **current	No
To update old projects (2019 and below), use this Web application to find the database that has your project. Then use the target database name to format your email subject as shown below. There are three (3) databases which include CURRENT (2020 to present), PREVIOUS (2017-2019) and ARCHIVE (2016). Options: [archive, previous, old, current] ->previous=old		
Update Old Project	Digital Boundary for Project Name # TMS # Boundary update # old Digital Boundary for Project Name # TMS # Boundary update # Previous	Yes
Rename Old Project	Rename Project ** Old Project Name ** New Project Name ** Archive Rename Project ** Old Project Name ** New Project Name ** Previous	No

Figure 2.0: Approved email subject line formats

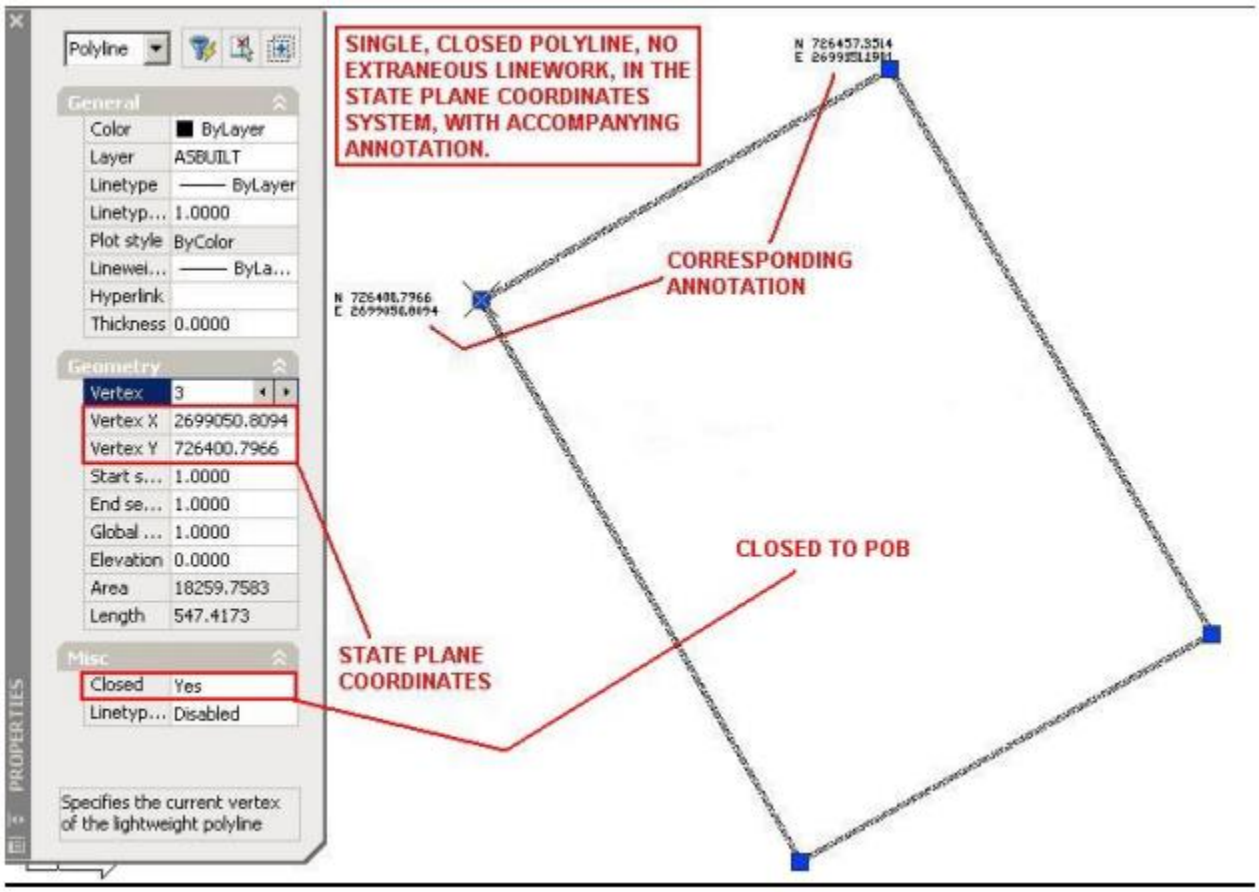
TROUBLESHOOT SUBMISSION FAILURES

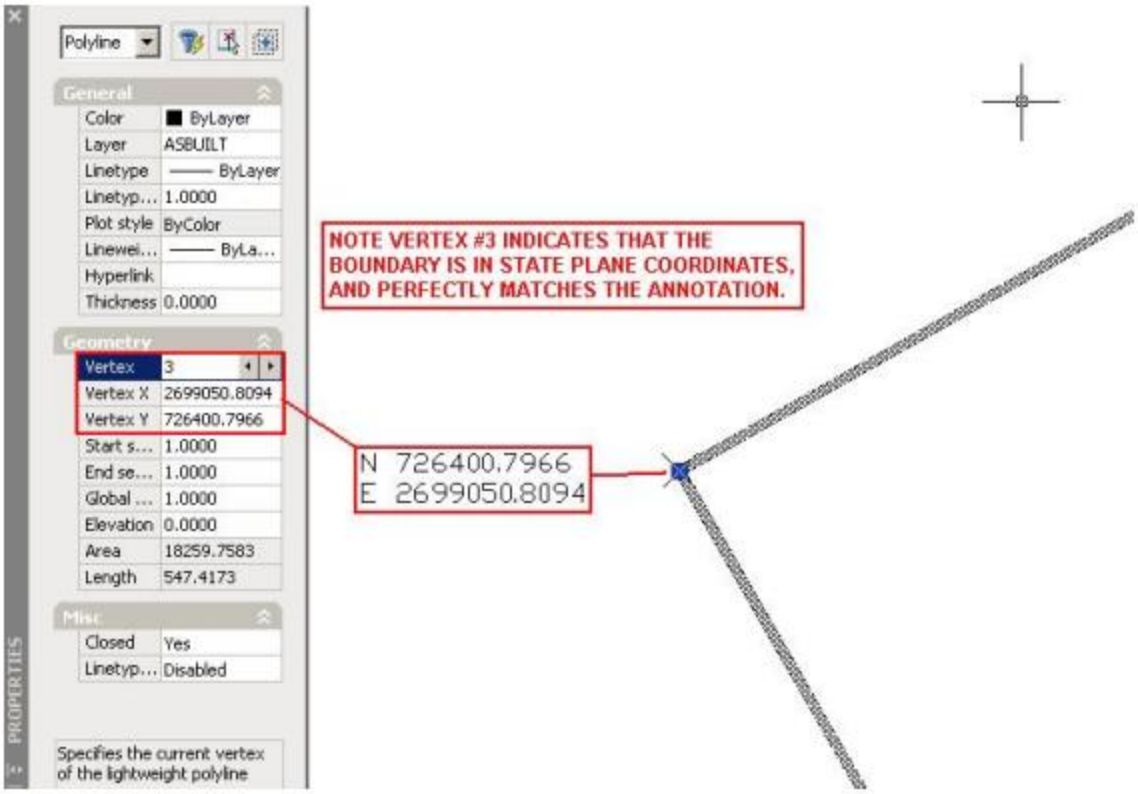
<table>
<tr><th>ERROR MESSAGE</th><th>SOLUTION</th></tr>
<tr><td>Exception occurred while processing file :Internal error. Please resubmit file</td><td>This error may not be from the user. If it persists, copy the project boundary to a new file and re-submit.</td></tr>
<tr><td>Exception occurred while processing file :There is no polygon boundary in your file. File rejected</td><td>A typical boundary should be a polygon feature. Convert your line feature to a closed polygon and re-submit</td></tr>
<tr><td>Missing Attachment: No attachment exist for this submission.</td><td>Add your attachment file to email and re-submit</td></tr>
<tr><td>Another project with same name as xxxxx-xxxx exists in BCM database. Please change project name or update name of existing project</td><td>Change the name of your attachment.
If you plan to update existing project, then use the webapp to find the exact name of your project in the database, then rename your attachment to the exact name found and re-submit.</td></tr>
<tr><td>Exception occurred while getting email subject line: Invalid Email Subject Line. See below formats.</td><td>Use Figure 2.0 above to format your email subject.<table><tr><th>Submission Type</th><th>Begin email subject with</th></tr><tr><td>New Project</td><td>Digital boundary for</td></tr><tr><td>Rename Project</td><td>Rename Project</td></tr><tr><td>•</td><td></td></tr></table></td></tr>
<tr><td>Invalid file : File type not supported. Please submit file with following extenstions ['txt','csv','dwg','zip']</td><td>Invalid attachment found. Submit Text, CSV, AutoCAD or zipped shapefile.</td></tr>
<tr><td>Exception occurred while processing file :Your project is outside the coastal zone. Expected coordinate reference-NAD_1983_StatePlane_South_Carolina_FIPS_3900_Feet_Intl. The “Named UCS” in your AutoCAD should be set to “World”. File rejected</td><td>1. Download the Coastal Zone AutoCAD file.
2. Open the Coastal zone layer with AutoCAD.
3. Copy your project and paste to coordinates.
4. Ensure your project falls within the Coastal Zone boundary.
5. Delete the Coastal Zone layer and re-submit your project.
NOTE: Do not submit the Coastal Zone boundary.</td></tr>
<tr><td>Exception occurred while getting email subject line: TMS field can accept a maximum 50 characters.</td><td>TMS field can take only 50 characters. If you have multiple TMS numbers, submit only one or two.</td></tr>
<tr><td>Email subject line error :Exception occurred while getting email subject line: Inavlid email subject line.Your subject line cannot have multiple # symbols aside the two required for a new submission. Remove one # symbol</td><td>Only two (2) “#” are accepted for new submissions.
Do not use “#” to represent “Number”.
Use Figure 2.0 above to format your email subject.</td></tr>
<tr><td>Exception occurred while processing file :ERROR 160196: Invalid Topology Failed to execute (FeatureToPolygon).</td><td>1. The project contains invalid data.
2. Delete layouts, contours, points, labels etc as shown in Figure 1.0.
3. Submit only outer project boundary.</td></tr>
<tr><td>Exception occurred while processing file :Submitted file is not a shapefile. Only Shapefiles can be zipped.</td><td>User likely zipped an AutoCAD file. Only Shapefiles can be zipped.</td></tr>
<tr><td>Exception occurred while processing file :Submitted file is not a polygon feature. Boundary feature should be polygon</td><td>Typical boundary should be a polygon feature.
Convert your line feature to a closed polygon and re-submit</td></tr>
</table>

Email subject line error :Exception occurred while getting email subject line: TMS or Parent cannot be part of TMS Number. Provide ONLY TMS	Don't include the word TMS in value. #tms 041-00-04-030# #Parent tms 041-00-04-030# ✗ #041-00-04-030# #N/A# ✓
Exception occurred while processing file :Error selecting polygon features from file :Malformed AutoCAD file. Submit only boundary of interest.	Your AutoCAD file cannot be read. Copy only the project outer boundary to a new file and re-submit.
"20250626_001_PROJECT" does not exist in the BCM database. The project name you provide should be same as what is in the database. Use the *webapp* to find your project.	The project name you provided for the update does not exist in database. 1. Find the project using this *webapp* . 2. Copy the name of project from *webapp* popup. 3. Rename your attachment to the name retrieved from *webapp* and re-submit.
Exception occurred while processing file :Your layer contains multiple features that cannot be merged. Delete all irrelevant features like labels,arrows and lines. Submit ONLY the boundary of interest.:ERROR 160196: Invalid Topology Failed to execute (Dissolve).	Your AutoCAD file contains invalid data as shown in Figure 1.0
Exception occurred while processing file :Submitted file is not a shapefile. Only Shapefiles can be zipped.	Only shapefiles should be zipped. Unzip your files and submit them separately.
Exception occurred while processing file :Boundary falls outside the coastal zone. Please check coordinates	1. *Download the Coastal Zone AutoCAD file.* 2. *Open the Coastal zone layer with AutoCAD.* 3. *Copy your project and paste to coordinates.* 4. *Ensure your project falls within the Coastal Zone boundary.* 5. *Delete the Coastal Zone layer and re-submit your project.* 6. *NOTE: Do not submit the Coastal Zone boundary.*
Exception occurred while processing file : Your shapefile is corrupted and cannot be read. Please submit a different shapefile	Re-create your shapefile and submit.
Exception occurred while processing file :Incorrect boundary. Please verify if boundary has a valid area	File may be corrupted. Copy only the project boundary to a new file and re-submit.
Exception occurred while processing file :Error getting input boundary extent :Your AutoCAD file cannot be processed. Please submit only boundary of interest. Remove all arrows and labels in file	Your file may contain unwanted features like tables, lines, points, labels. As shown in Figure 1.0. Submit only the polygon boundary.
Email subject line error :Exception occurred while getting email subject line: TMS or Parent cannot be part of TMS Number.Provide ONLY TMS	#tms 041-00-04-030# #Parent tms 041-00-04-030# ✗ #041-00-04-030# #N/A# ✓

APPENDIX

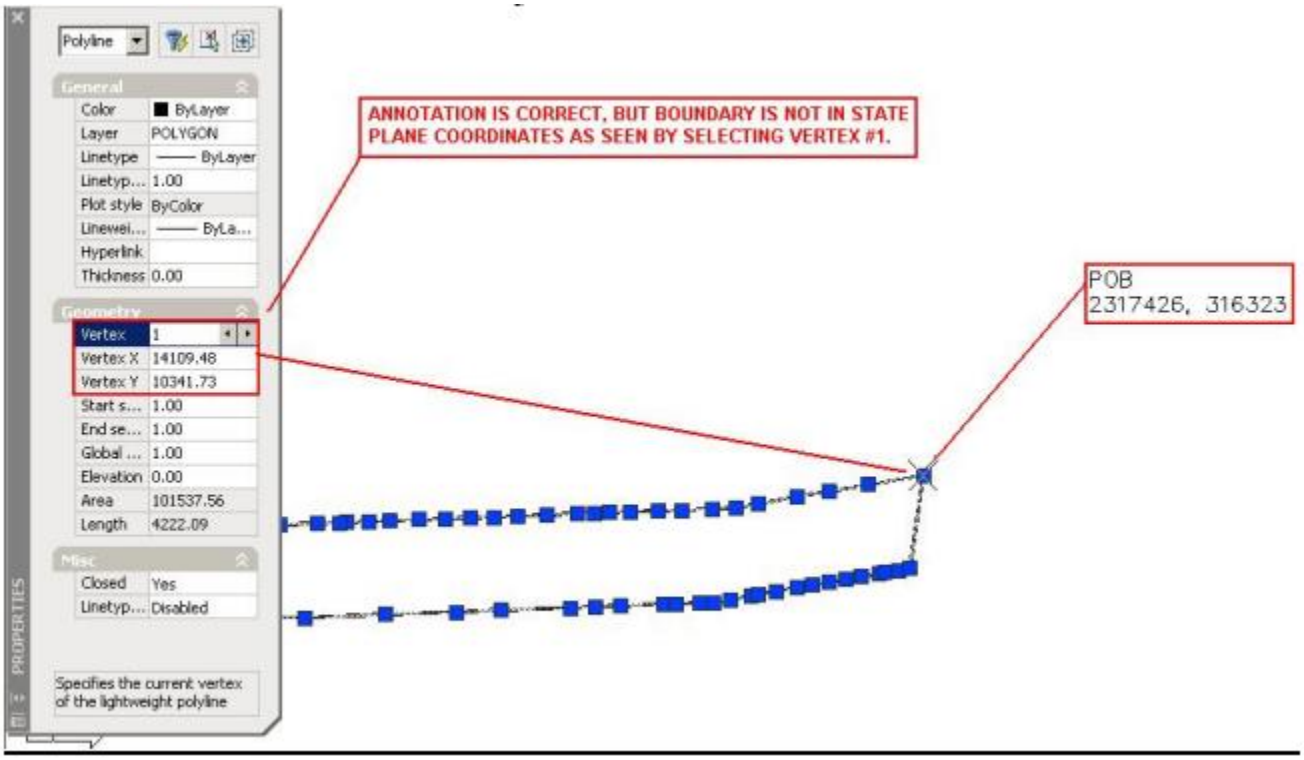
Below is an example of a preferred boundary submission.



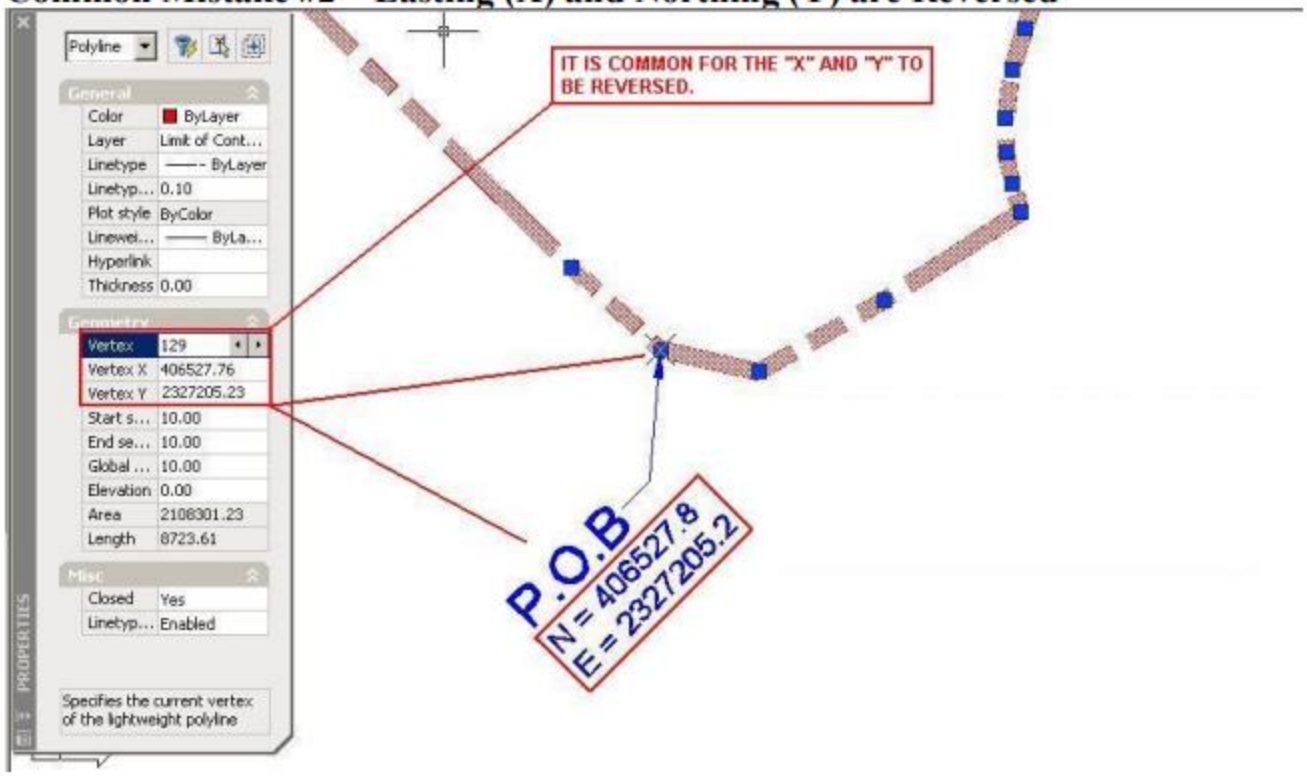


Below are common mistakes to avoid.

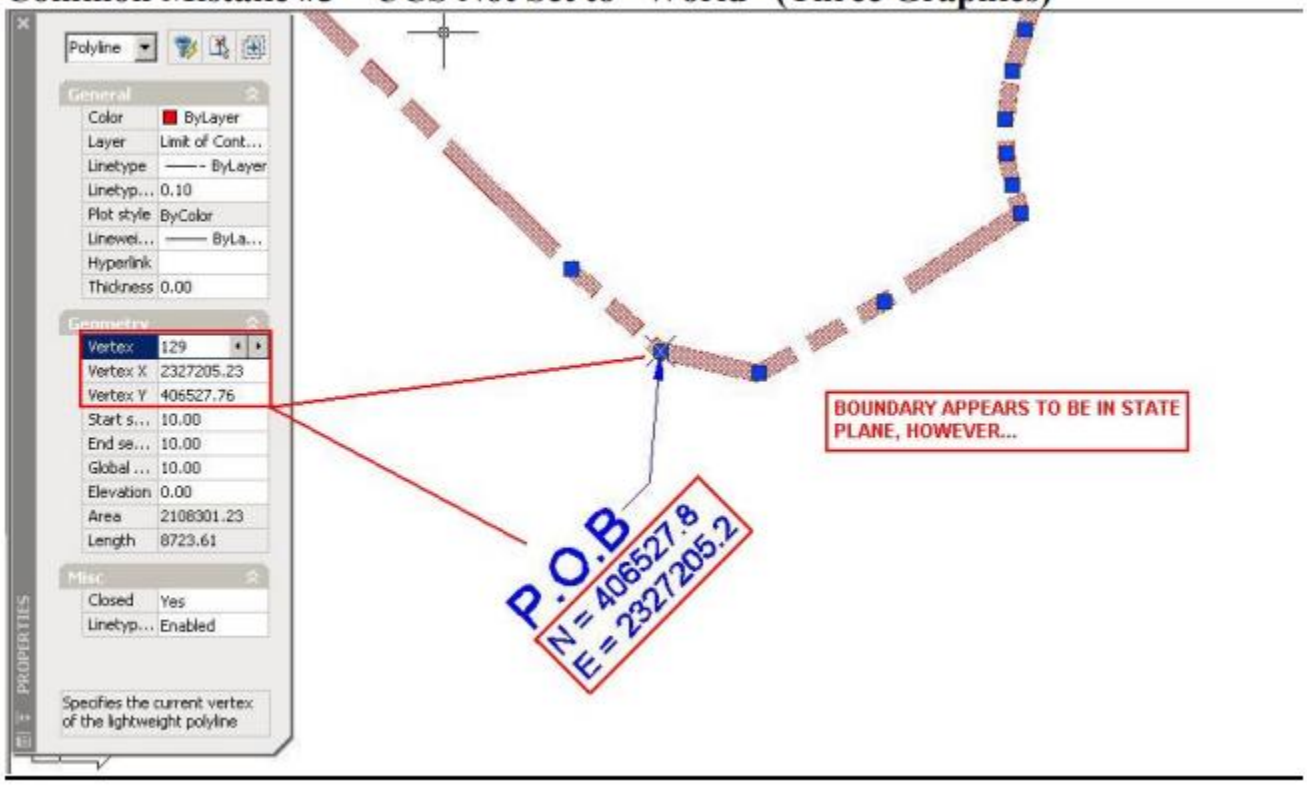
Common Mistake #1 – Boundary Not in State Plane Coordinates

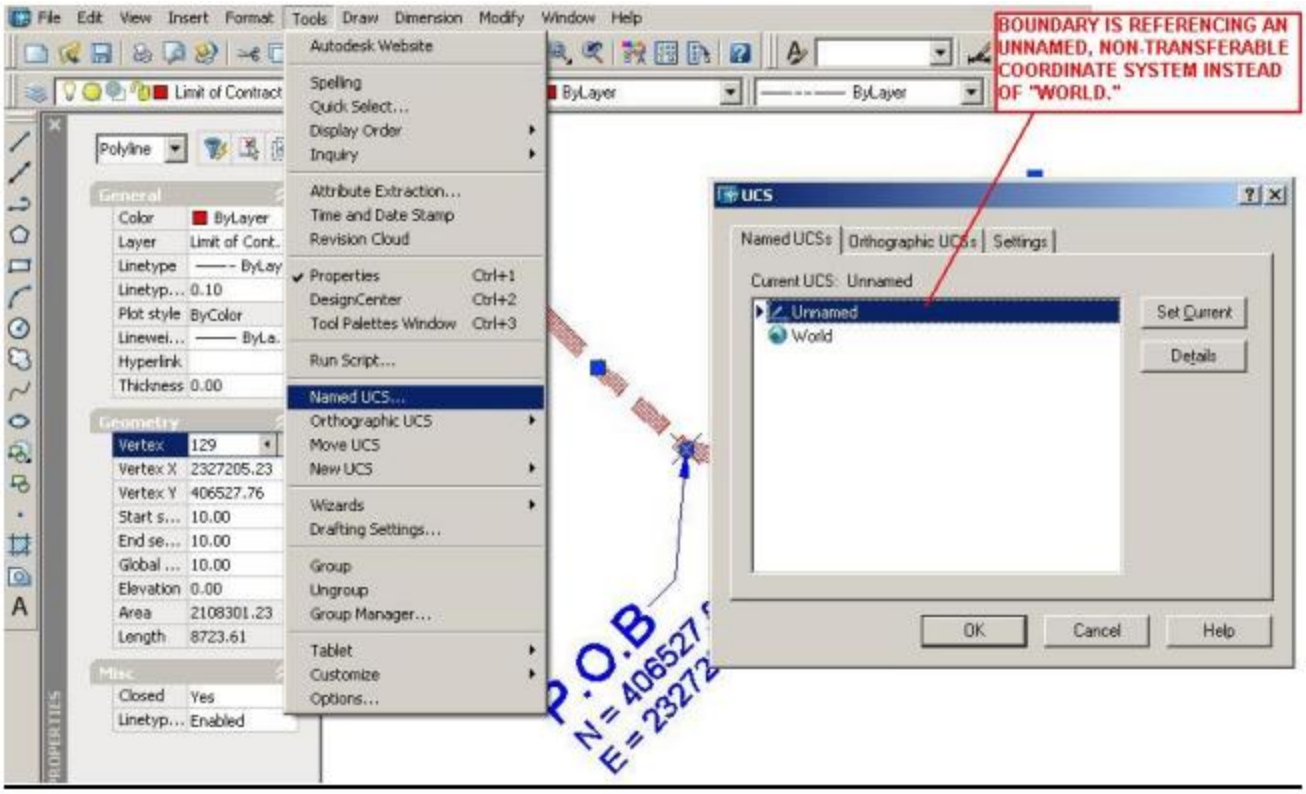


Common Mistake #2 – Easting (X) and Northing (Y) are Reversed

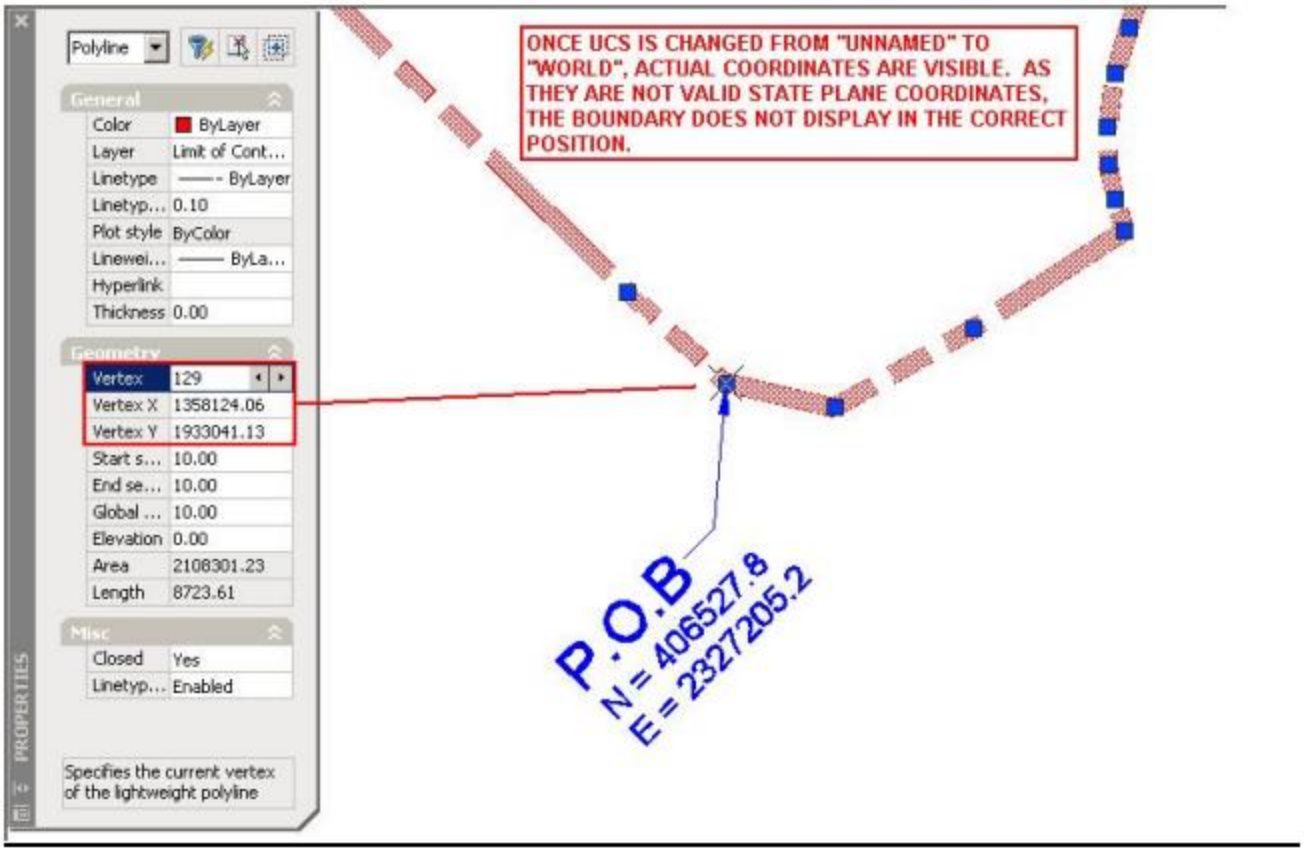
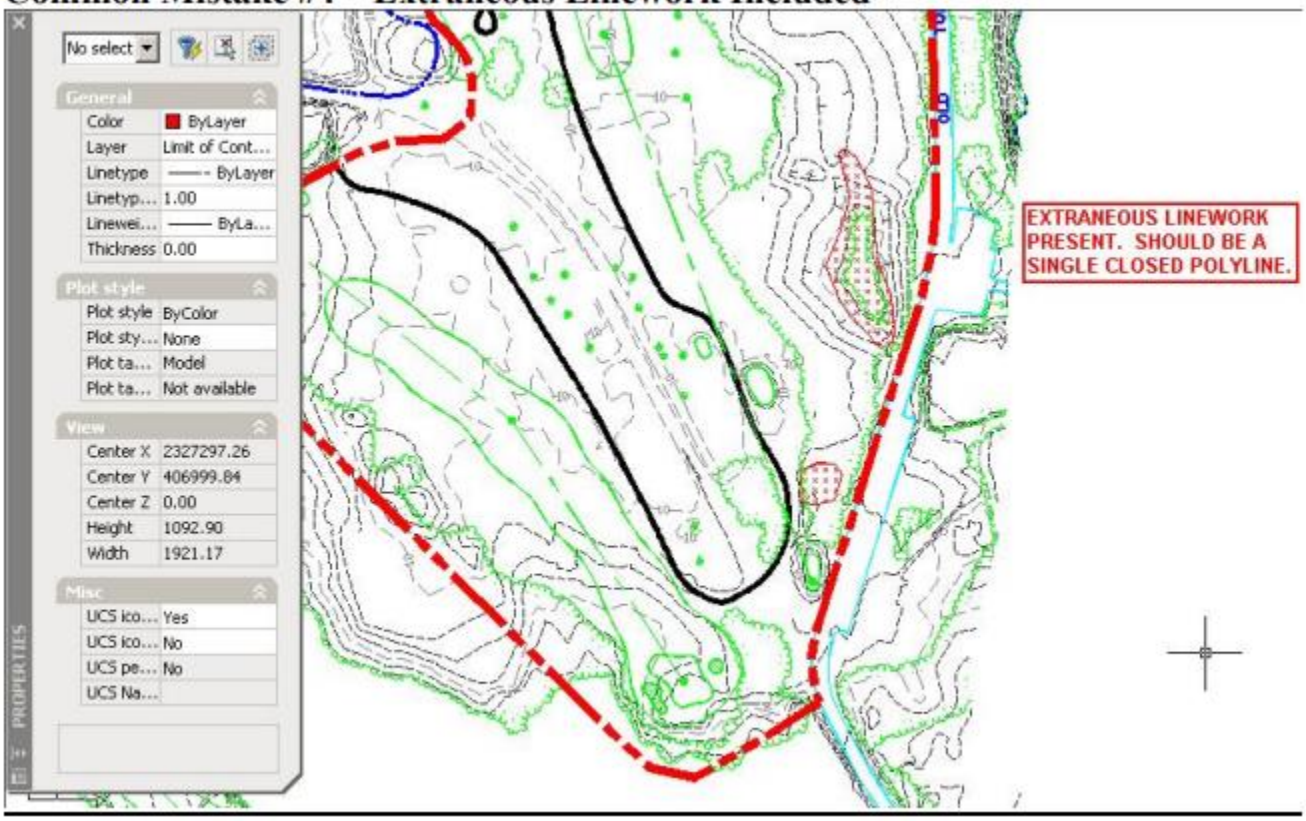


Common Mistake #3 – UCS Not Set to "World" (Three Graphics)





(Updated August 26, 2024)



Common Mistake #4 – Extraneous Linework Included