

# Civil 3D to 3DS Max Using Civil View for Compelling Civil Construction Sequences

Jenna Kubiak

VDC Engineer







# About the speaker

## Jenna Kubiak

As an engineer with the Skanska USA Civil VDC team for the past two years, Jenna has utilized a wide range of Autodesk software to perform constructability reviews, quantity takeoffs and create compelling construction sequences for Heavy Civil pursuits. She has worked on jobs ranging from \$40 million to \$400 million across the US, including the General Dynamics Electric Boat's South Yard Assembly Building, Chelsea Viaduct, and Hunt's Point Interstate Access Improvement projects.





## About the speaker

### Patrick Rice

With over 10 years in the AEC industry and 6 years with Skanska USA Civil, Patrick is a VDC Manager of a team of 10 VDC Engineers and Coordinators. At Skanska USA Civil, Patrick and the VDC team use multiple Autodesk software and push them to their limit to help win Heavy Civil pursuits across the United States. Patrick has worked on projects such as the \$4 Billion LaGuardia Redevelopment Project, Kosciuszko Bridge Project, Chelsea Viaduct Project and numerous Civil pursuits around the United States.



# Who is Skanska?

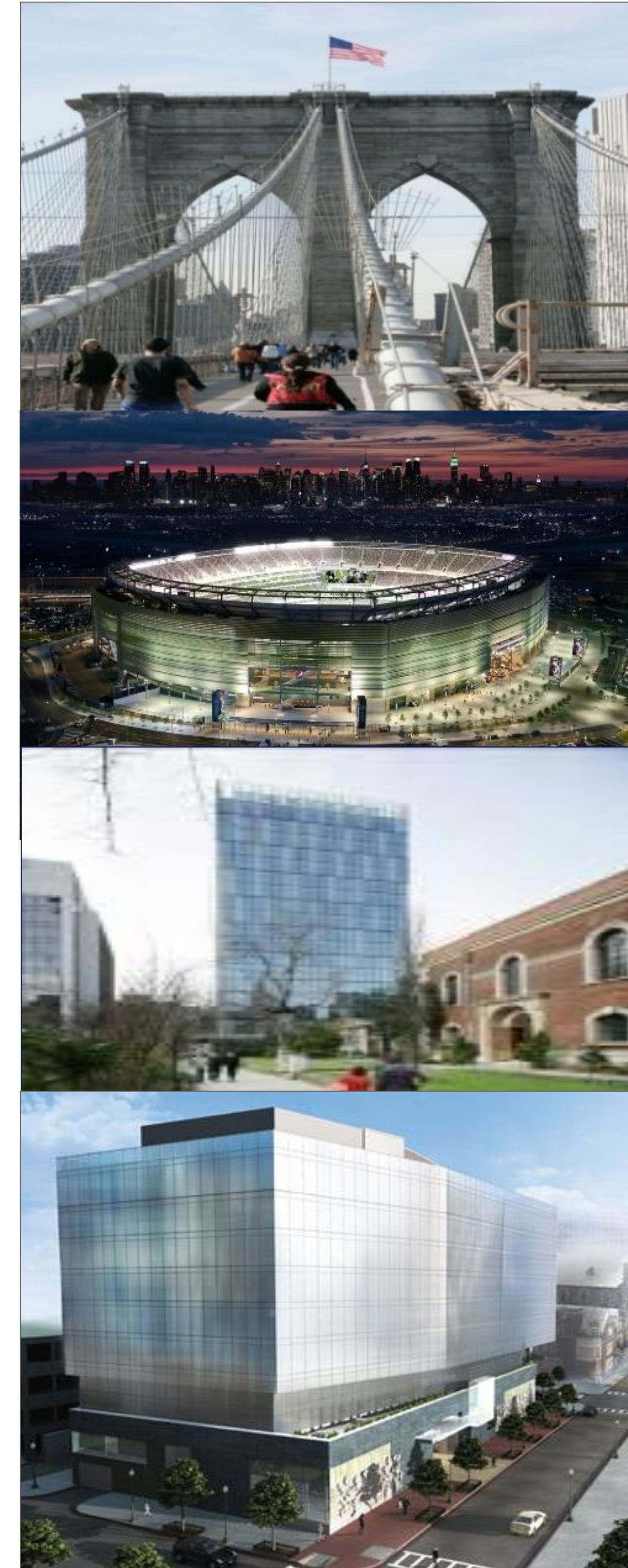
- One of the world's leading companies in construction and project development
- Ranked 7<sup>th</sup> largest general contractor by ENR
- A top green contractors
- 4,000 repeat customers
- Global headquarters in Stockholm, Sweden
- More than 41,000 employees worldwide
- Three business streams
  - Construction (building and heavy civil projects)
  - Commercial Development
  - Residential Development





# Skanska USA

- Three business units operate in the U.S.
  - Building
  - Civil
  - Commercial Development
- Revenues of \$8.1 billion in 2018
- Strong bonding capacity of \$10 billion
- Nearly 9,000 employees in 28 metro areas
- Contributed over \$3 million in Community Investment including donations, volunteered time and sponsorships





# Business Units in the U.S.



USA Building

USA Civil

Commercial Development



# Skanska USA Building

- 2018 revenue: \$5.3 billion
- More than 3,300 employees
- Headquarters in Parsippany, New Jersey
- Delivery method: construction management
  - Low risk, low margin, high return on capital
- Key Market Segments
  - Healthcare
  - Education
  - Mission Critical/data operation centers
  - Government
  - Corporate Offices
  - Life Sciences
  - Sports and Entertainment
  - Aviation





# Skanska USA Civil

- 2018 revenue: \$2.2 billion
- More than 7,000 employees
- Headquarters in Queens, New York
- Delivery method: Lump sum bid
  - Higher risk, higher margin
- Key Market Segments
  - Environment, DEP
  - Bridges
  - Roads
  - Ports
  - Power
  - Tunnels
  - Deep Foundations
  - Mechanical
  - Water and Waste Water
  - Transit
  - Rail (Freight)
  - Airports





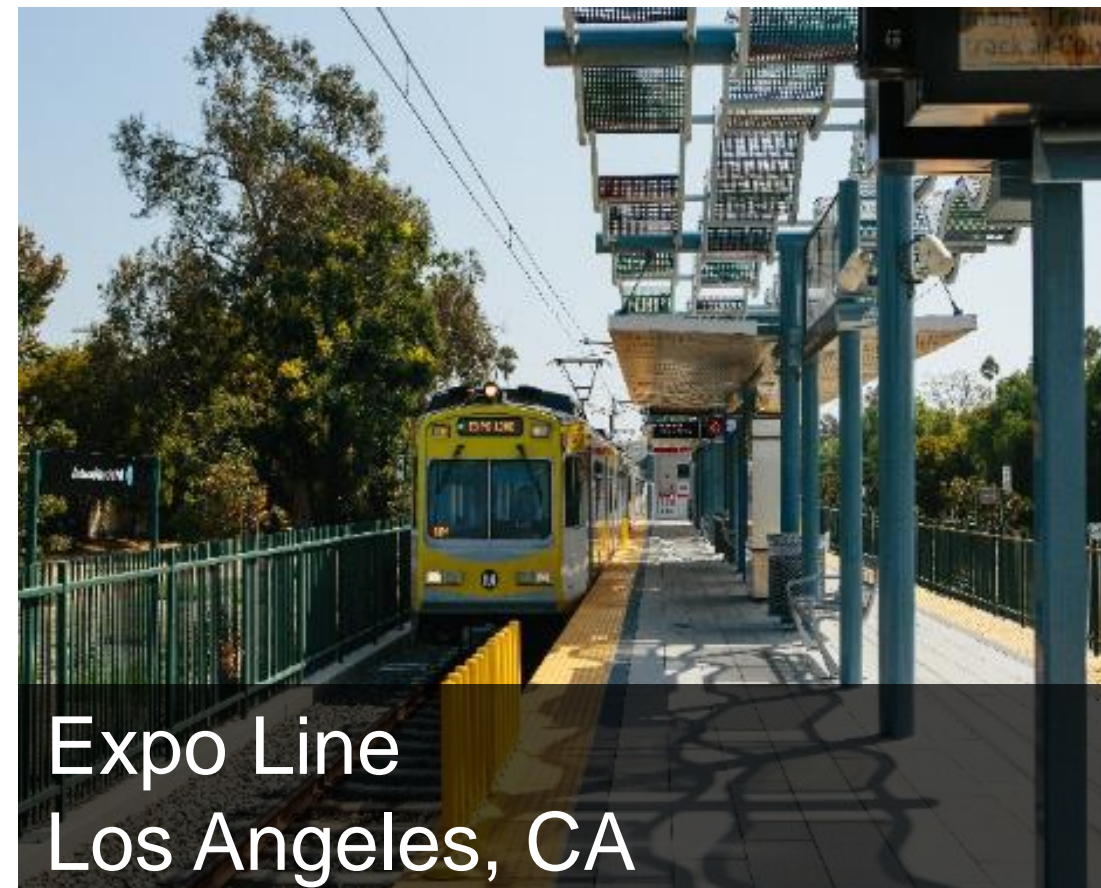
# Project Highlights



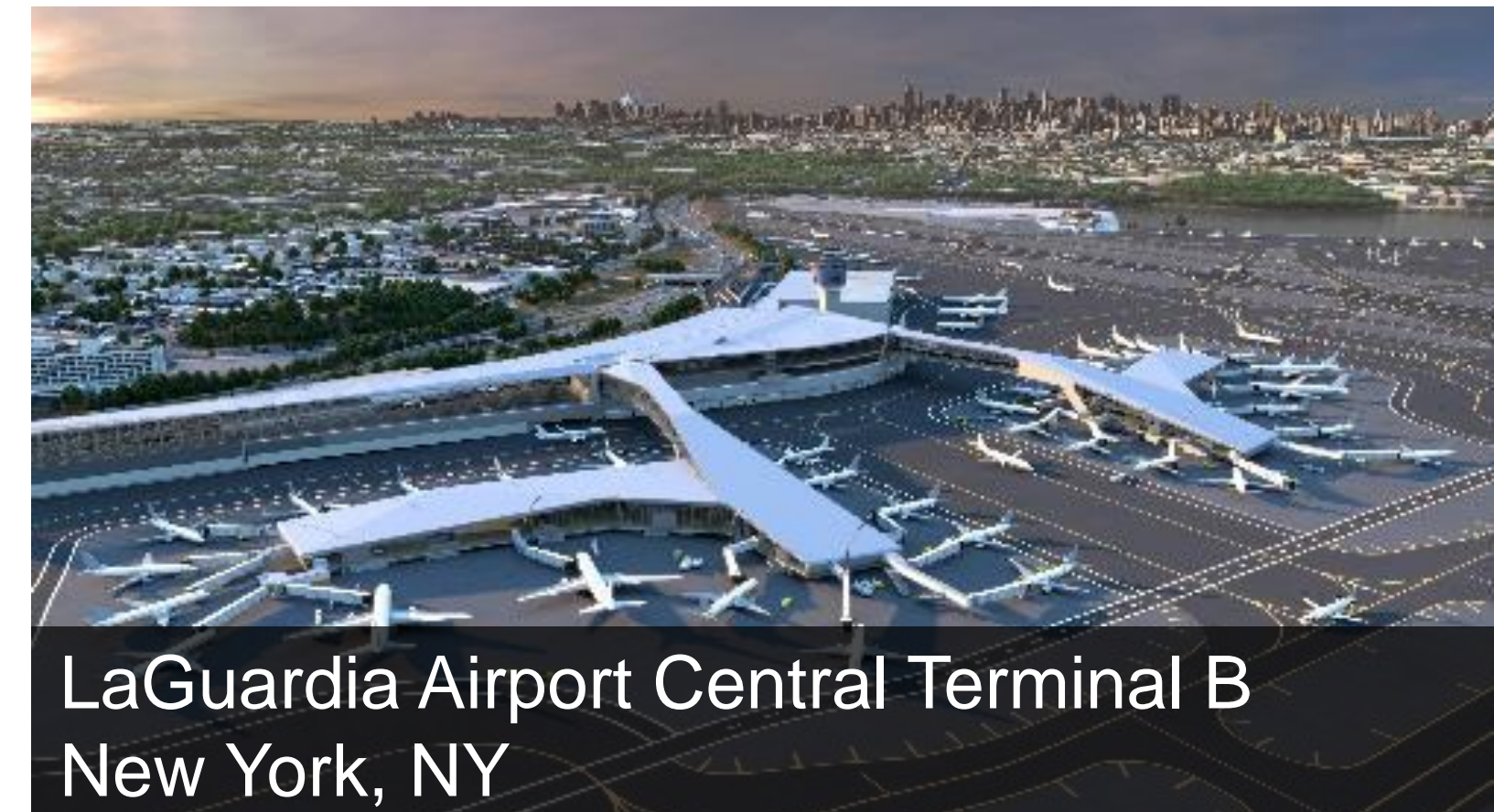
Capitol Tower  
Houston, TX



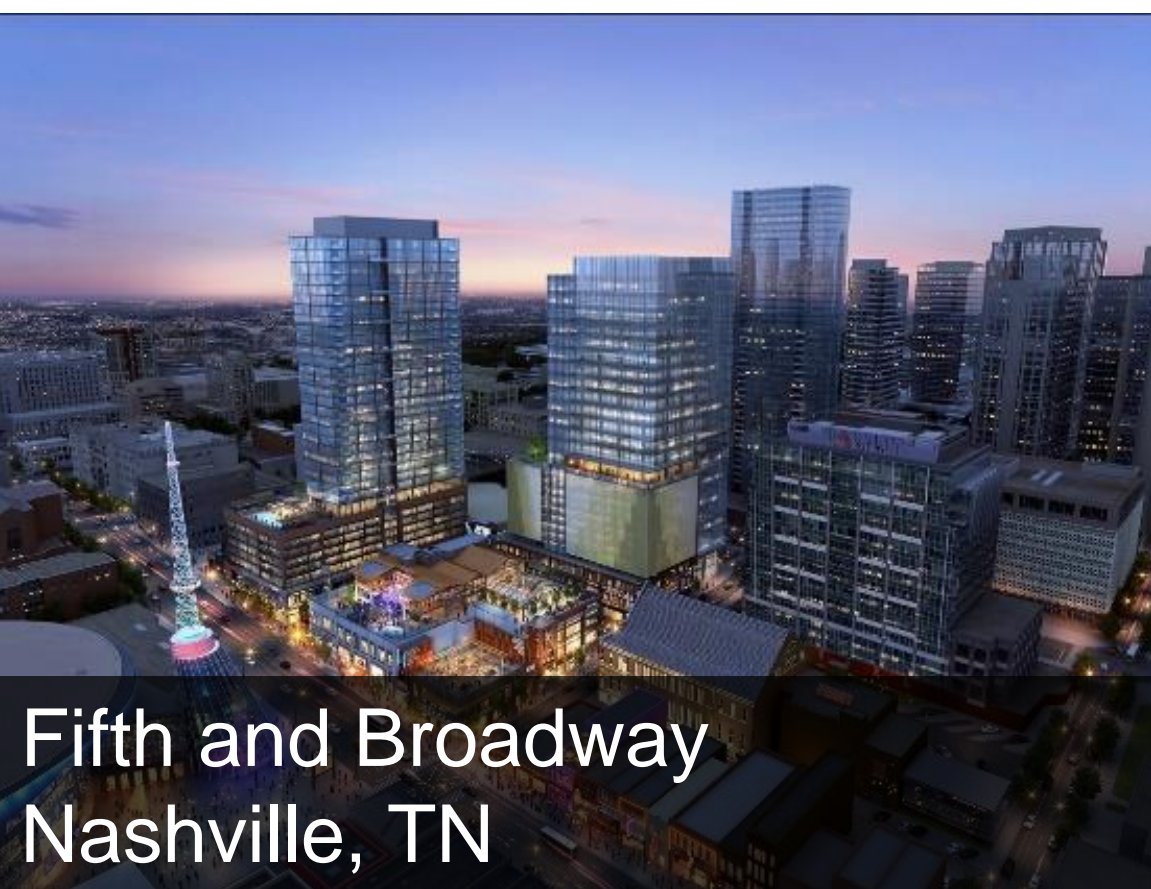
Moynihan Train Hall  
New York, NY



Expo Line  
Los Angeles, CA



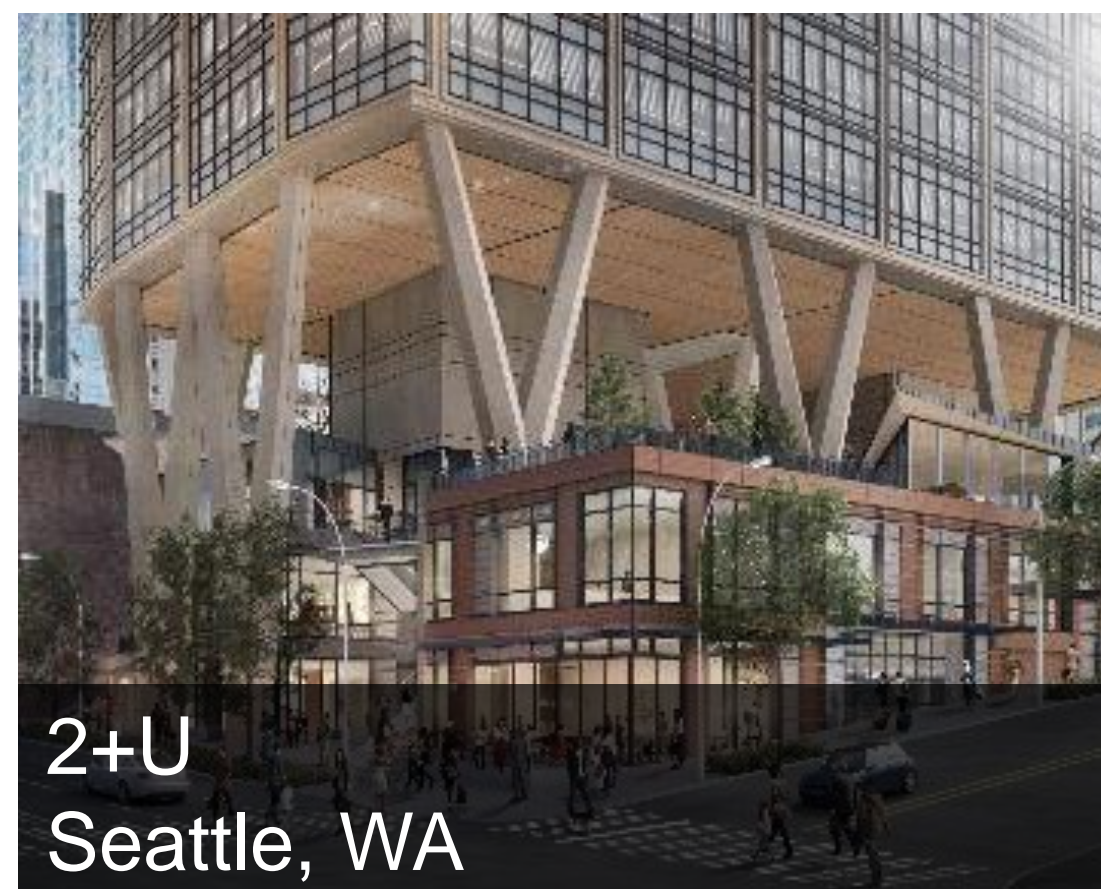
LaGuardia Airport Central Terminal B  
New York, NY



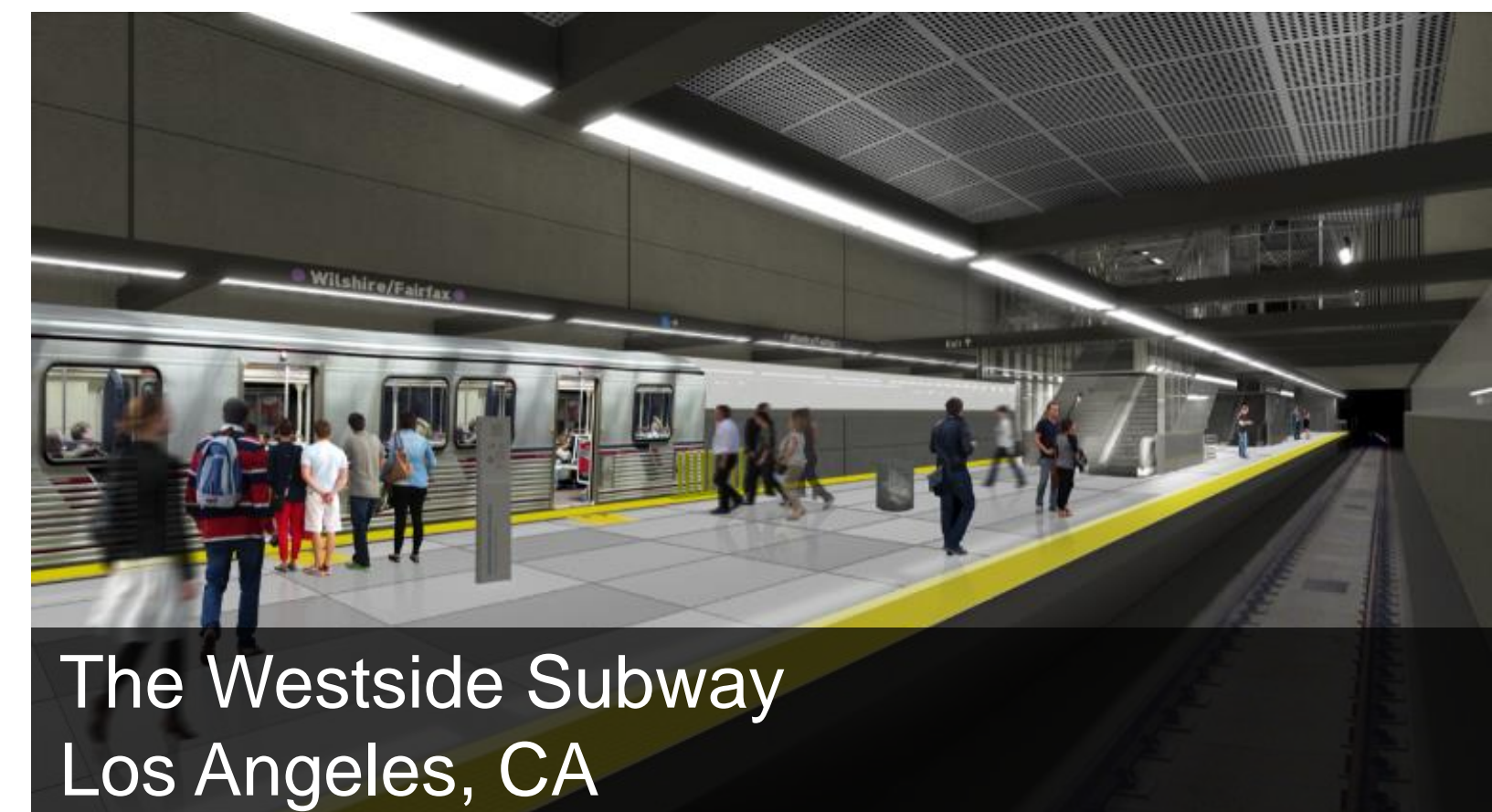
Fifth and Broadway  
Nashville, TN



George Washington Bridge  
New York, NY



2+U  
Seattle, WA



The Westside Subway  
Los Angeles, CA

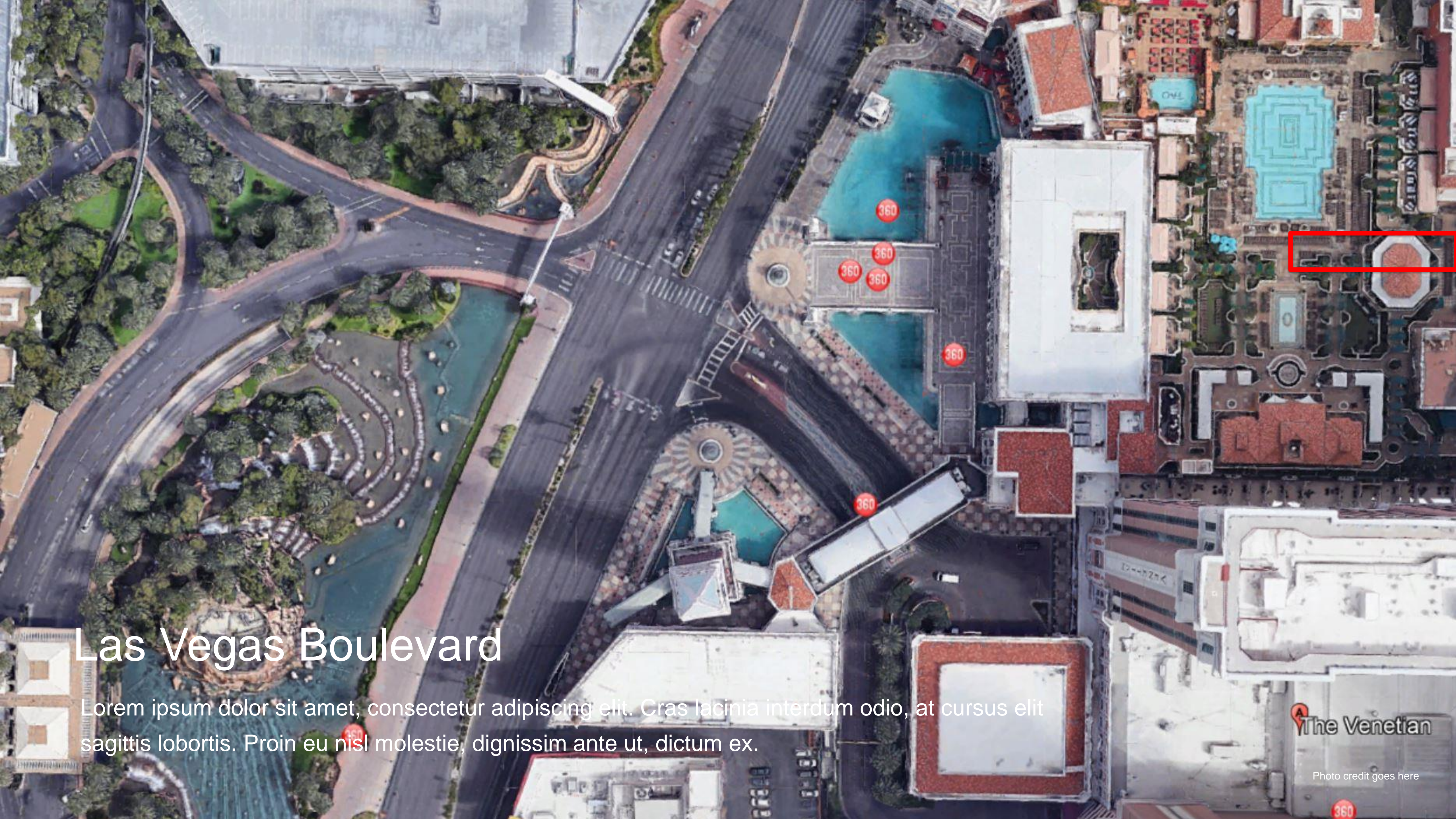


Who is familiar with  
roadway design in Civil  
3d?



Who has worked with 3ds  
Max Design?





# Las Vegas Boulevard

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras lacinia interdum odio, at cursus elit sagittis lobortis. Proin eu nisl molestie, dignissim ante ut, dictum ex.


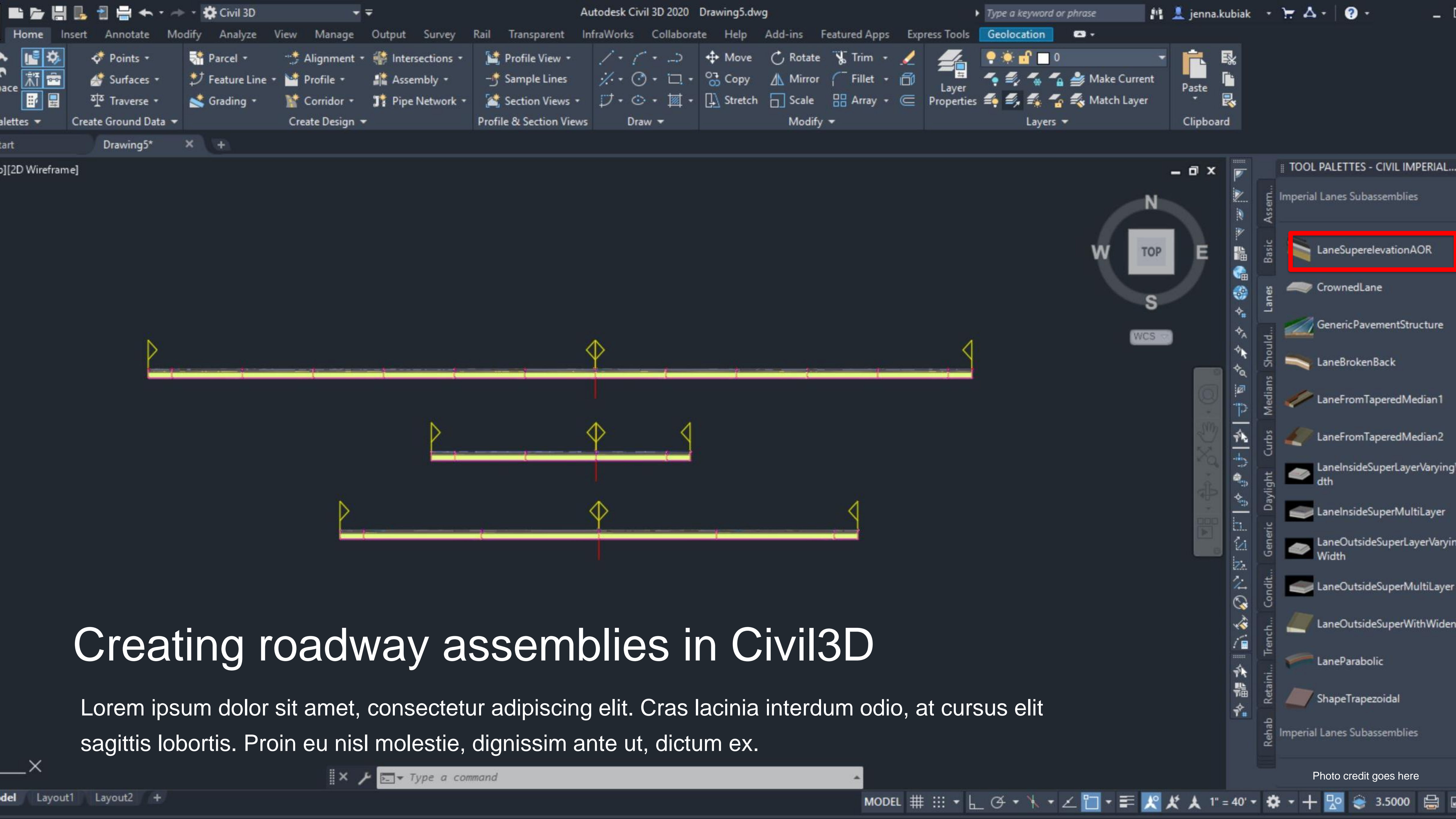
 The Venetian

Photo credit goes here

360

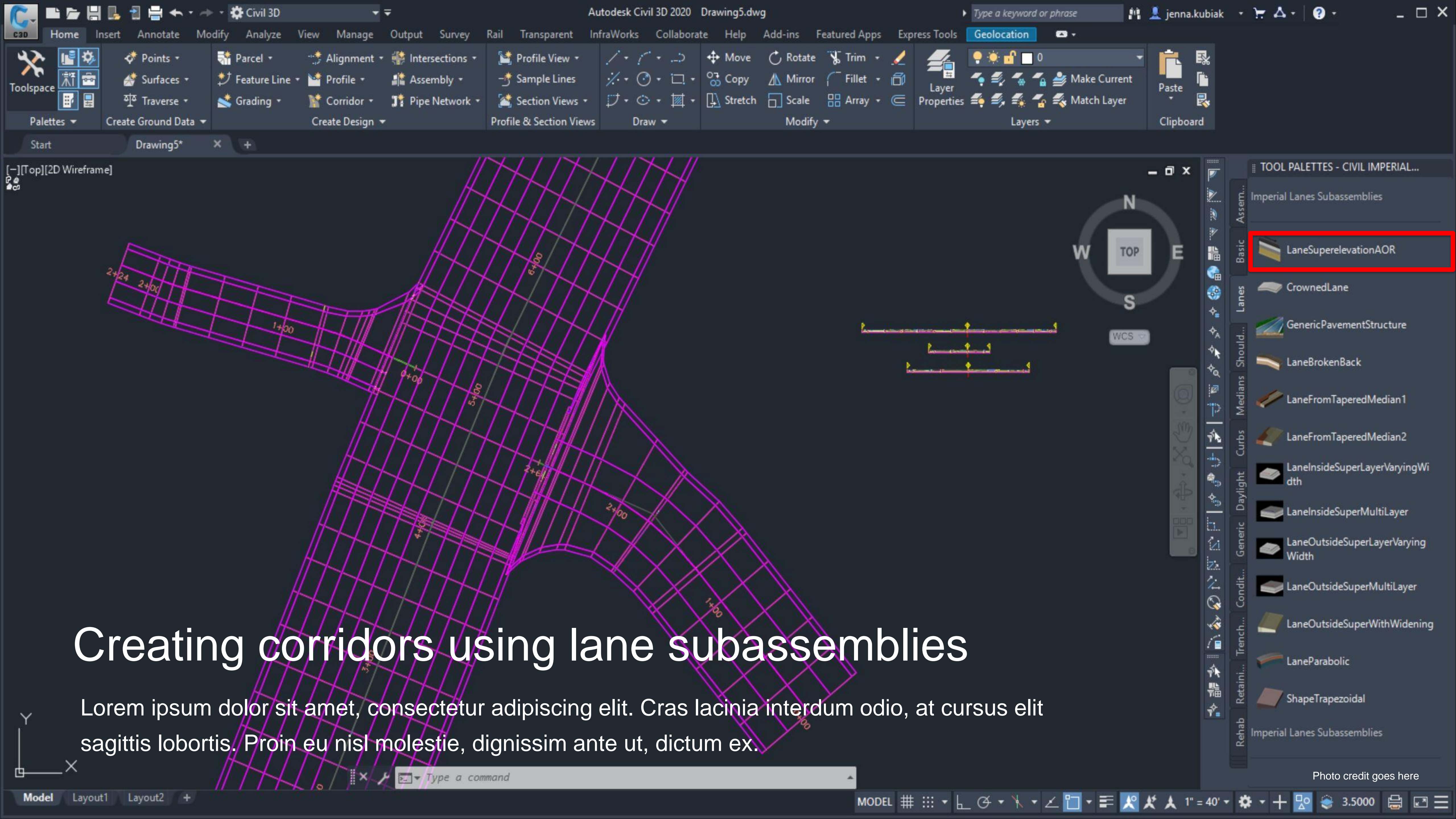




# Creating roadway assemblies in Civil3D

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras lacinia interdum odio, at cursus elit sagittis lobortis. Proin eu nisl molestie, dignissim ante ut, dictum ex.

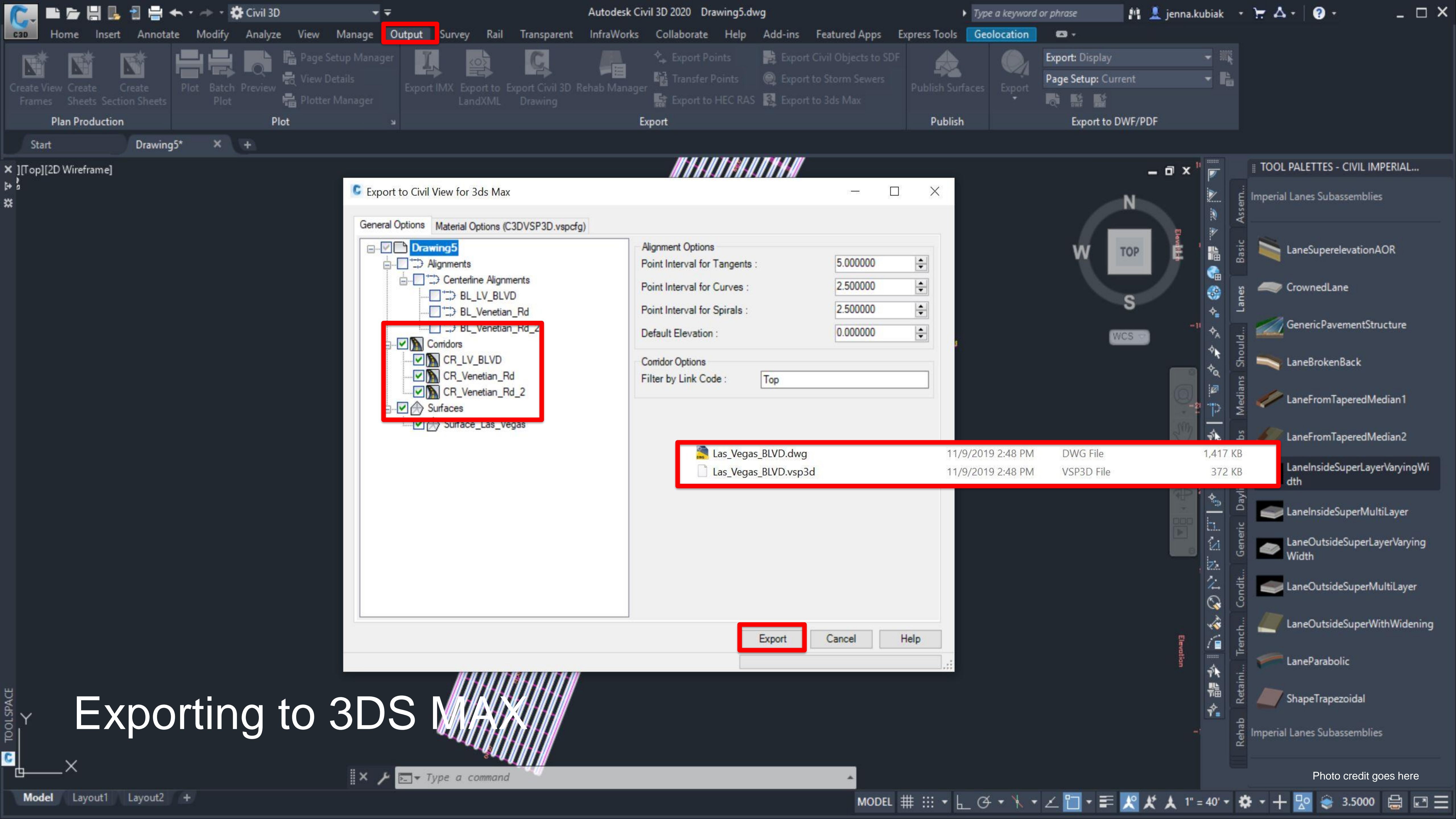




# Creating corridors using lane subassemblies

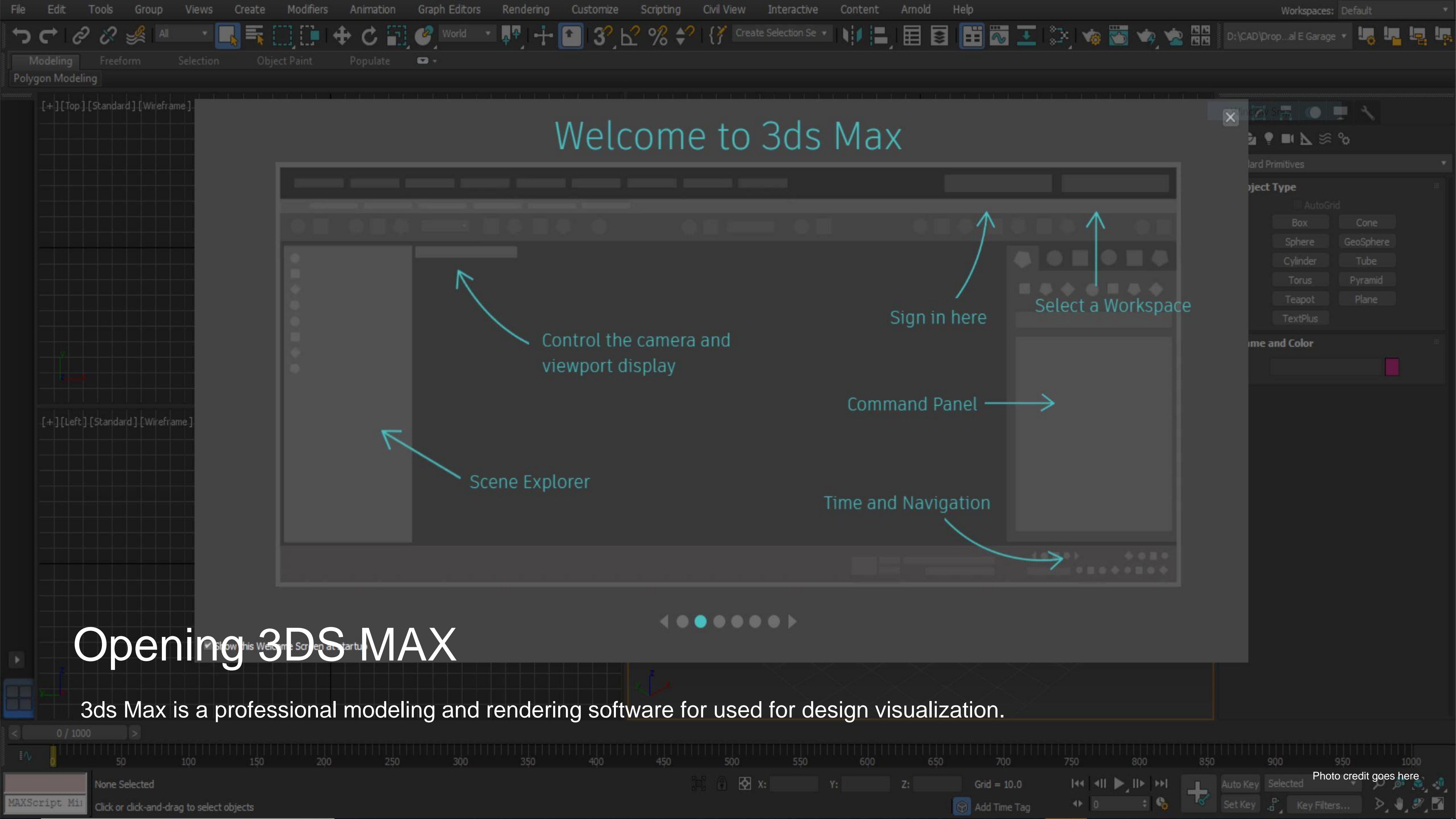
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras lacinia interdum odio, at cursus elit sagittis lobortis. Proin eu nisl molestie, dignissim ante ut, dictum ex.





Exporting to 3DS MAX





# Opening 3DS MAX

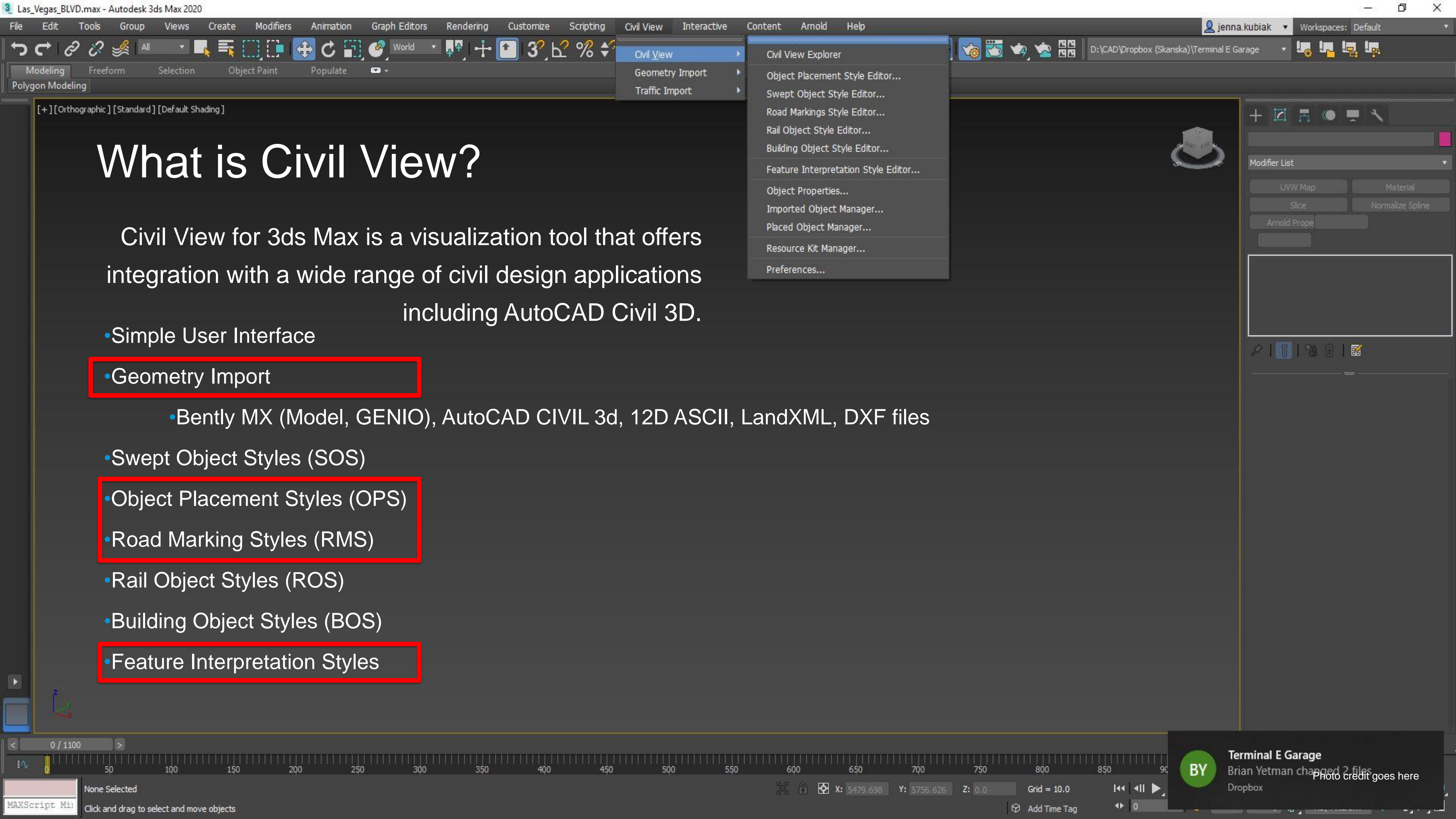
3ds Max is a professional modeling and rendering software for used for design visualization.



# What is Civil View?

Civil View for 3ds Max is a visualization tool that offers integration with a wide range of civil design applications including AutoCAD Civil 3D.

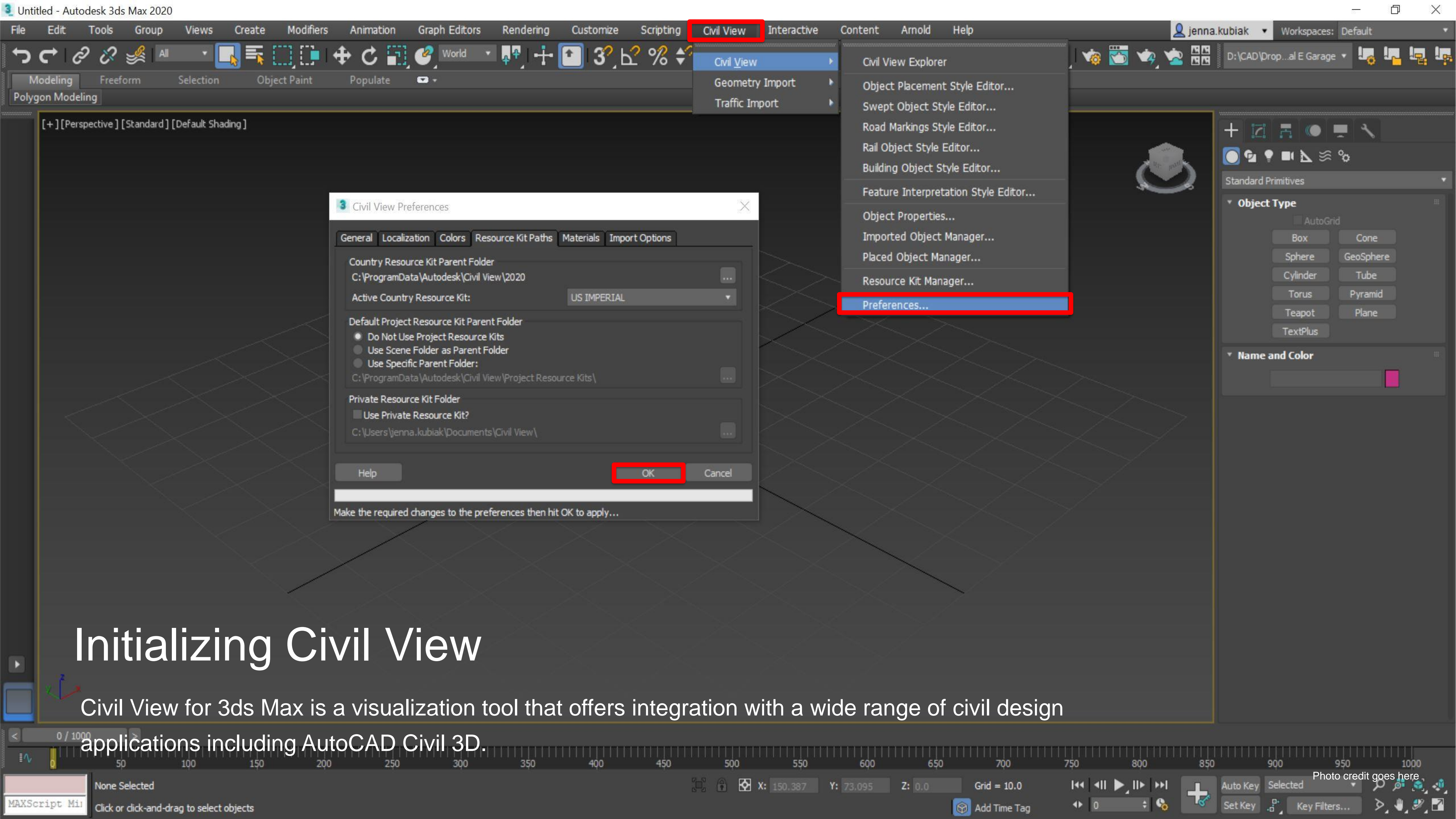
- Simple User Interface
- Geometry Import
  - Bently MX (Model, GENIO), AutoCAD CIVIL 3d, 12D ASCII, LandXML, DXF files
- Swept Object Styles (SOS)
- Object Placement Styles (OPS)
- Road Marking Styles (RMS)
- Rail Object Styles (ROS)
- Building Object Styles (BOS)
- Feature Interpretation Styles



**BY** Terminal E Garage  
Brian Yetman changed 2 files  
Dropbox

Photo credit goes here



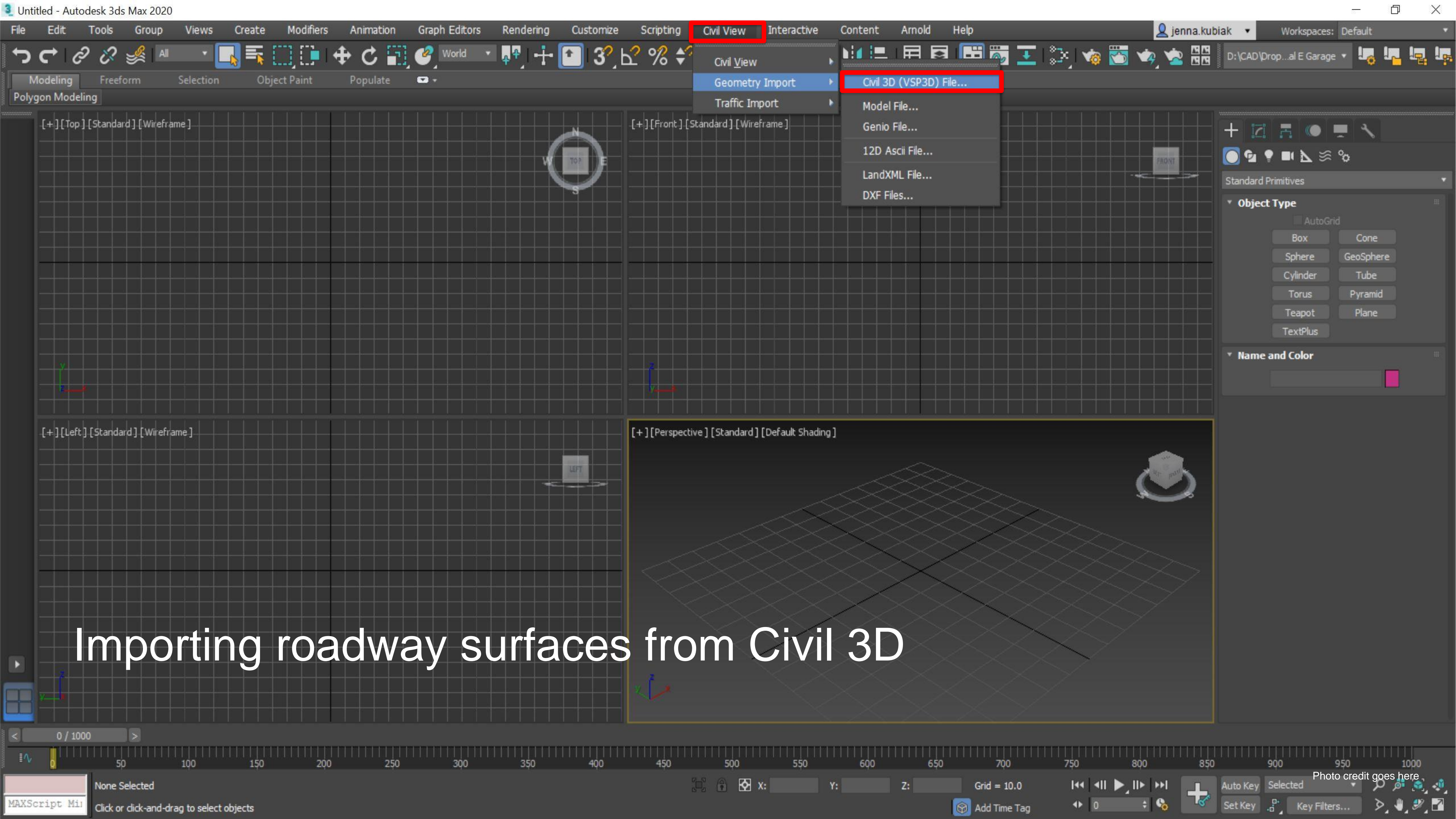


# Initializing Civil View

Civil View for 3ds Max is a visualization tool that offers integration with a wide range of civil design applications including AutoCAD Civil 3D.

Photo credit goes here

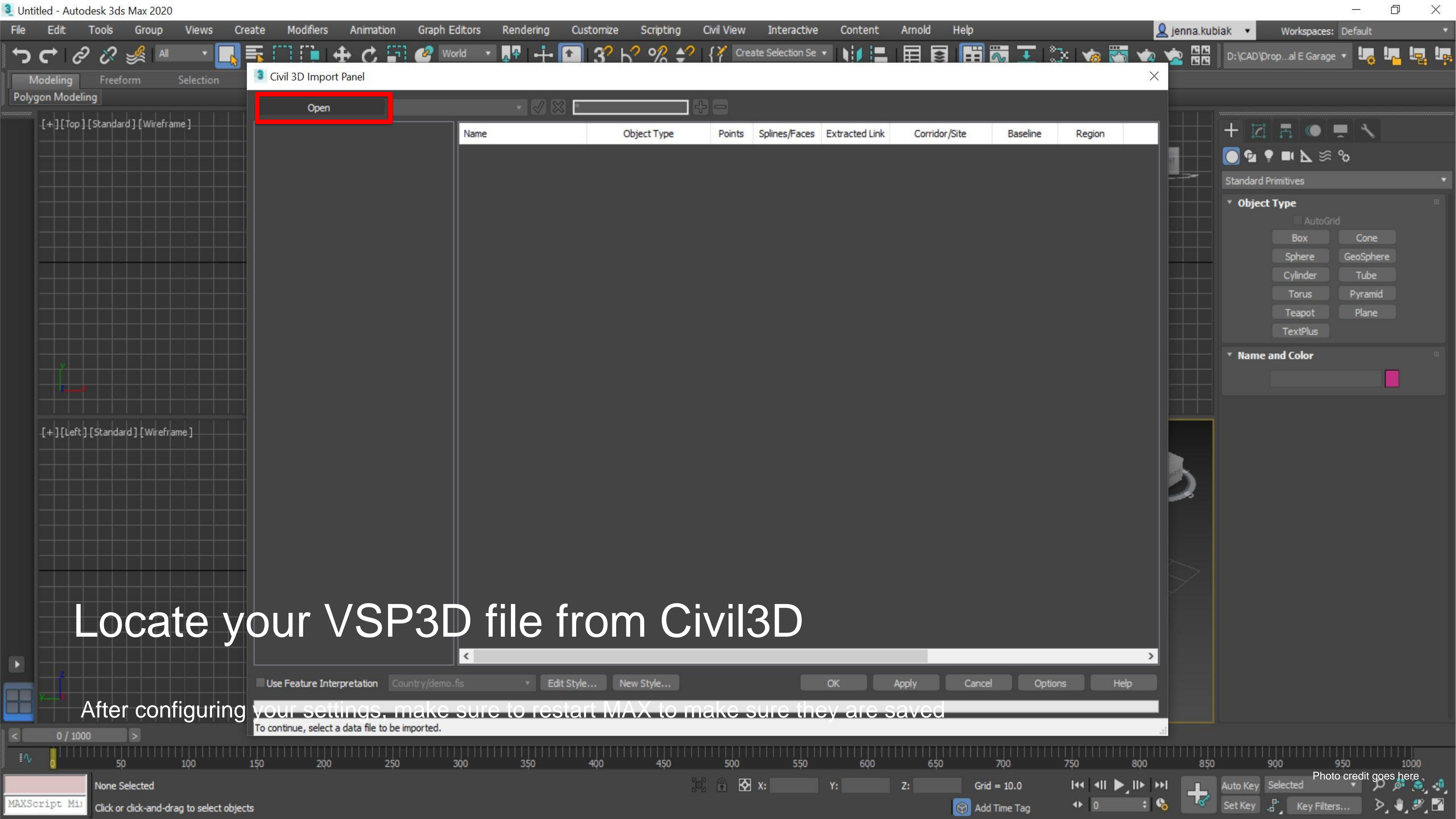




Importing roadway surfaces from Civil 3D

Photo credit goes here

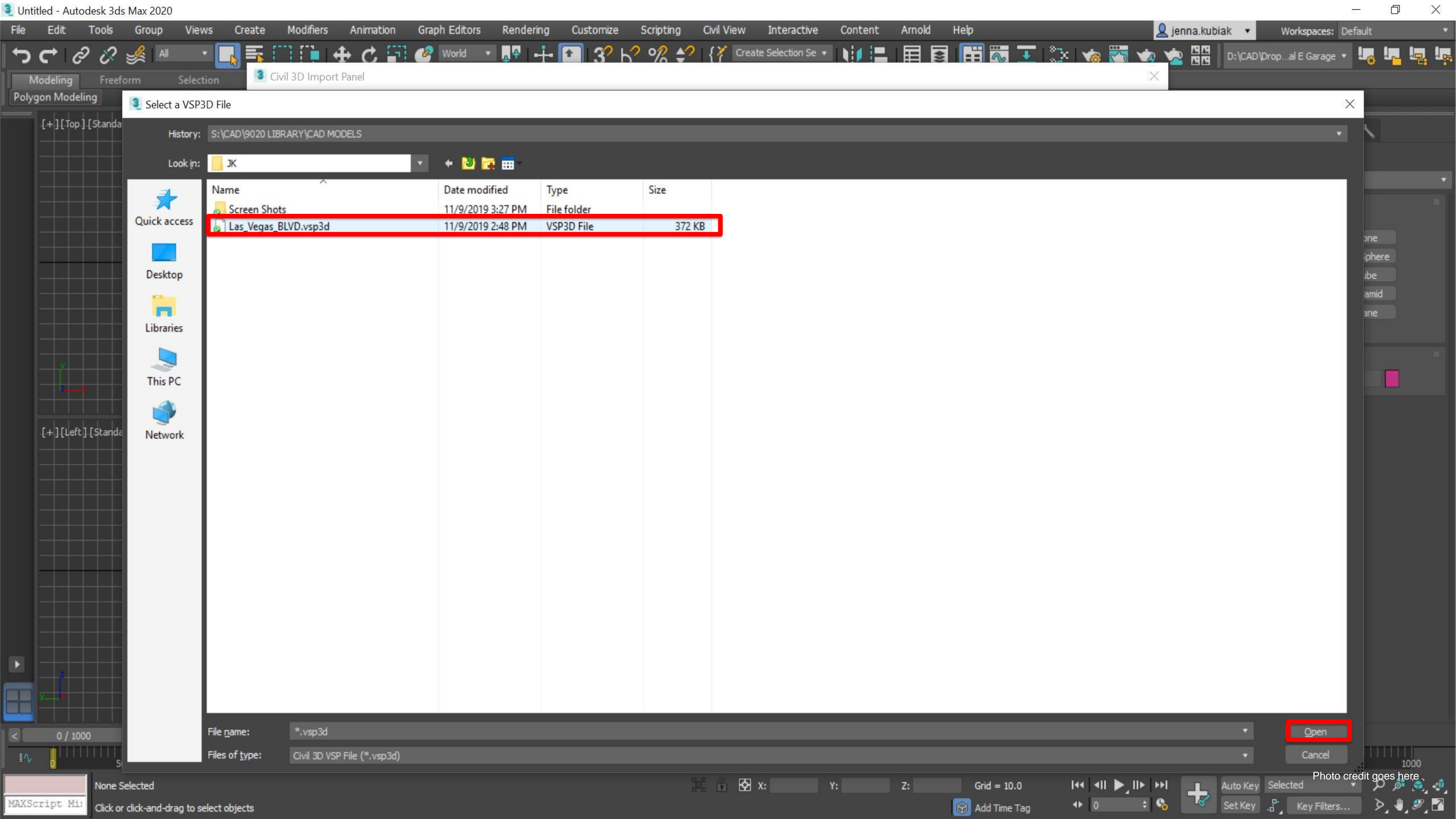




Locate your VSP3D file from Civil3D

After configuring your settings, make sure to restart MAX to make sure they are saved





File Edit Tools Group Views Create Modifiers Animation Graph Editors Rendering Customize Scripting Civil View Interactive Content Arnold Help

jenna.kubiak Workspaces: Default

D:\CAD\Drop...al E Garage

Civil 3D Import Panel

Select a VSP3D File

History: S:\CAD\9020 LIBRARY\CAD MODELS

Look in: JK

Name	Date modified	Type	Size
Screen Shots	11/9/2019 3:27 PM	File folder	
Las_Vegas_BLVD.vsp3d	11/9/2019 2:48 PM	VSP3D File	372 KB

Quick access

- Desktop
- Libraries
- This PC
- Network

File name: \*.vsp3d

Files of type: Civil 3D VSP File (\*.vsp3d)

Open Cancel

None Selected

Click or click-and-drag to select objects

MAXScript Mini

Grid = 10.0

Add Time Tag

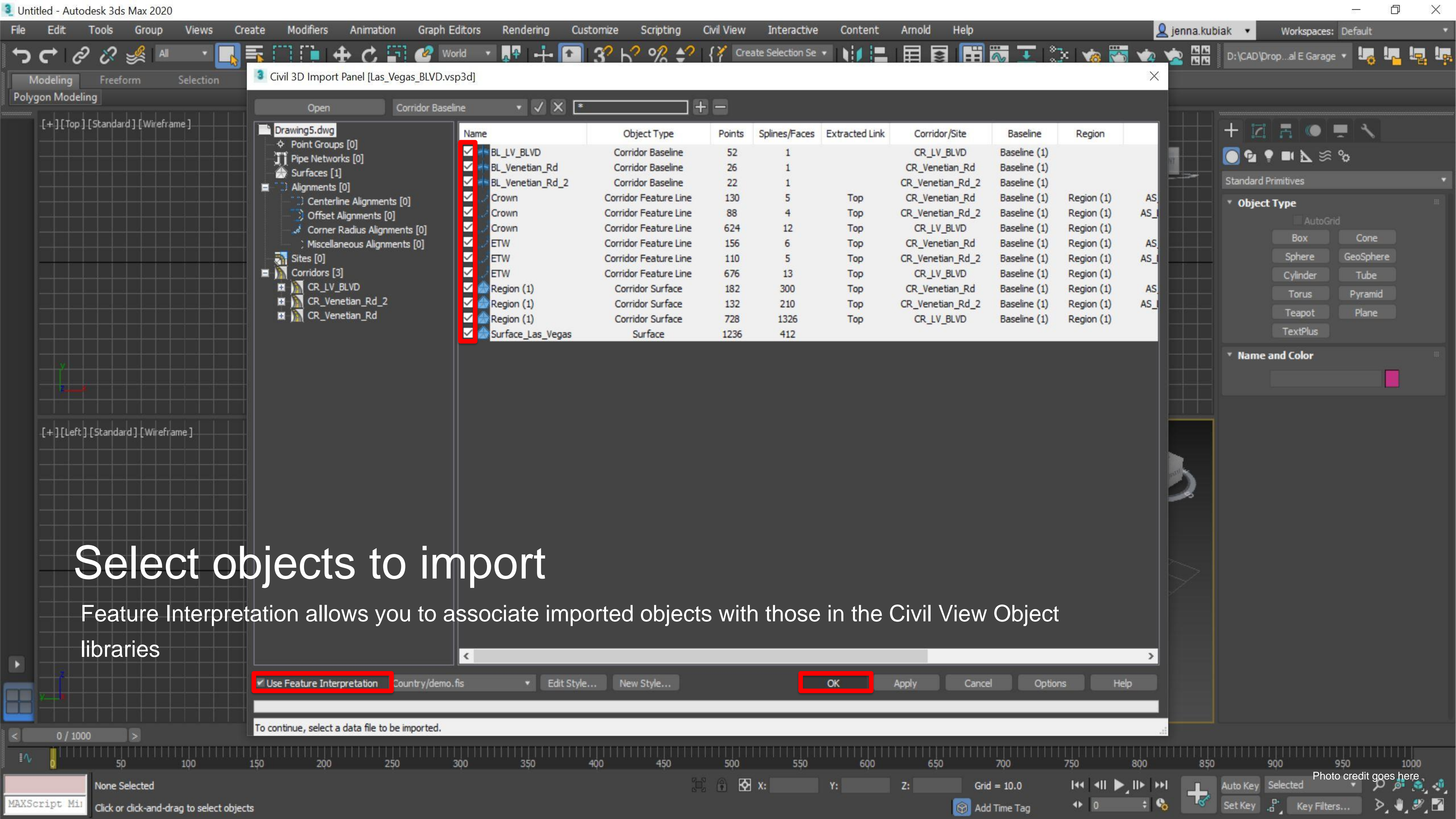
Auto Key Selected

Set Key

Key Filters...

Photo credit goes here





# Select objects to import

Feature Interpretation allows you to associate imported objects with those in the Civil View Object libraries

Name	Object Type	Points	Splines/Faces	Extracted Link	Corridor/Site	Baseline	Region	
<input checked="" type="checkbox"/> BL_LV_BLVD	Corridor Baseline	52	1		CR_LV_BLVD	Baseline (1)		
<input checked="" type="checkbox"/> BL_Venetian_Rd	Corridor Baseline	26	1		CR_Venetian_Rd	Baseline (1)		
<input checked="" type="checkbox"/> BL_Venetian_Rd_2	Corridor Baseline	22	1		CR_Venetian_Rd_2	Baseline (1)		
<input checked="" type="checkbox"/> Crown	Corridor Feature Line	130	5	Top	CR_Venetian_Rd	Baseline (1)	Region (1)	AS
<input checked="" type="checkbox"/> Crown	Corridor Feature Line	88	4	Top	CR_Venetian_Rd_2	Baseline (1)	Region (1)	AS
<input checked="" type="checkbox"/> Crown	Corridor Feature Line	624	12	Top	CR_LV_BLVD	Baseline (1)	Region (1)	
<input checked="" type="checkbox"/> ETW	Corridor Feature Line	156	6	Top	CR_Venetian_Rd	Baseline (1)	Region (1)	AS
<input checked="" type="checkbox"/> ETW	Corridor Feature Line	110	5	Top	CR_Venetian_Rd_2	Baseline (1)	Region (1)	AS
<input checked="" type="checkbox"/> ETW	Corridor Feature Line	676	13	Top	CR_LV_BLVD	Baseline (1)	Region (1)	
<input checked="" type="checkbox"/> Region (1)	Corridor Surface	182	300	Top	CR_Venetian_Rd	Baseline (1)	Region (1)	AS
<input checked="" type="checkbox"/> Region (1)	Corridor Surface	132	210	Top	CR_Venetian_Rd_2	Baseline (1)	Region (1)	AS
<input checked="" type="checkbox"/> Region (1)	Corridor Surface	728	1326	Top	CR_LV_BLVD	Baseline (1)	Region (1)	
<input checked="" type="checkbox"/> Surface_Las_Vegas	Surface	1236	412					

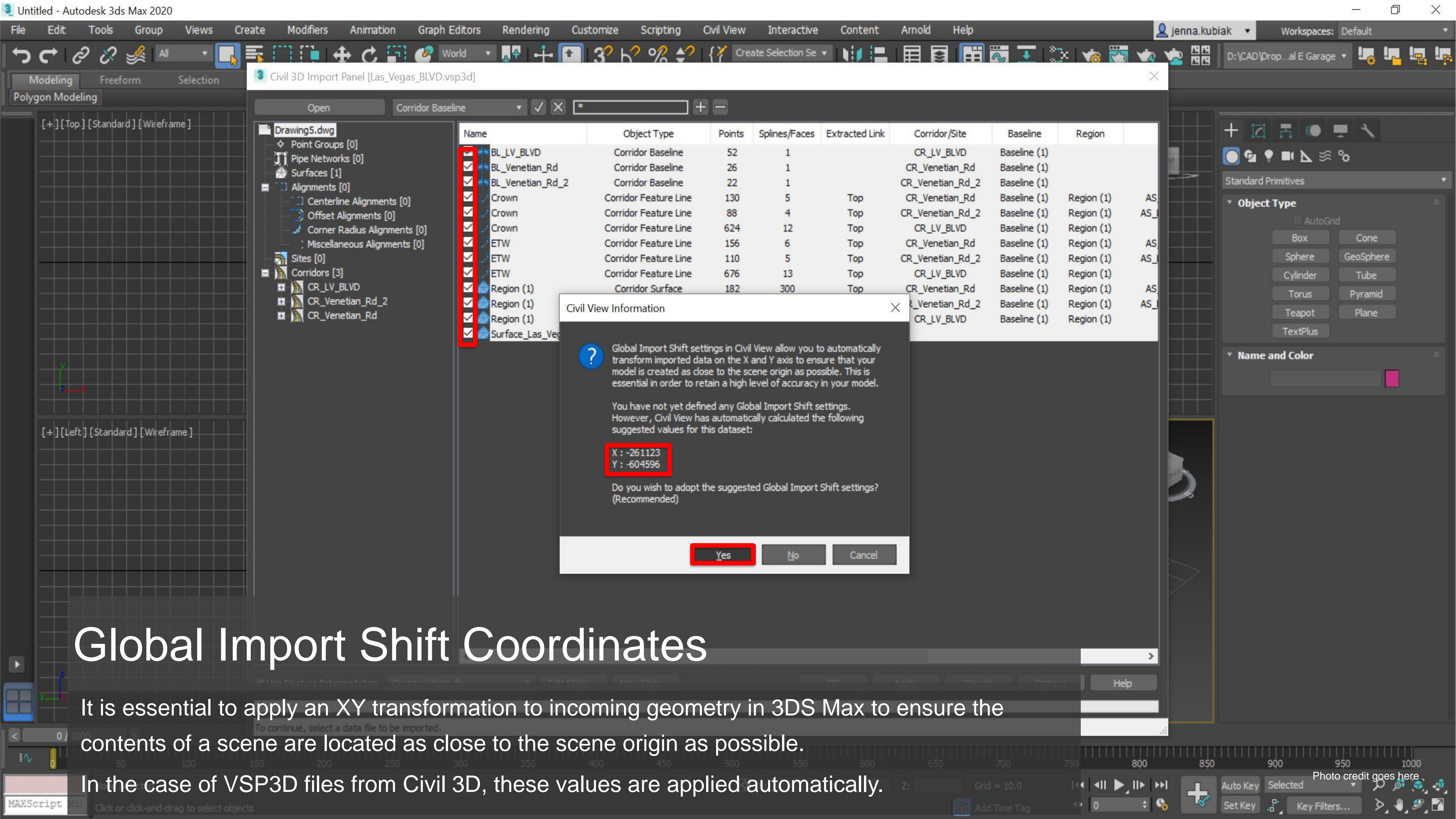
☒ Use Feature Interpretation

OK

To continue, select a data file to be imported.

Photo credit goes here





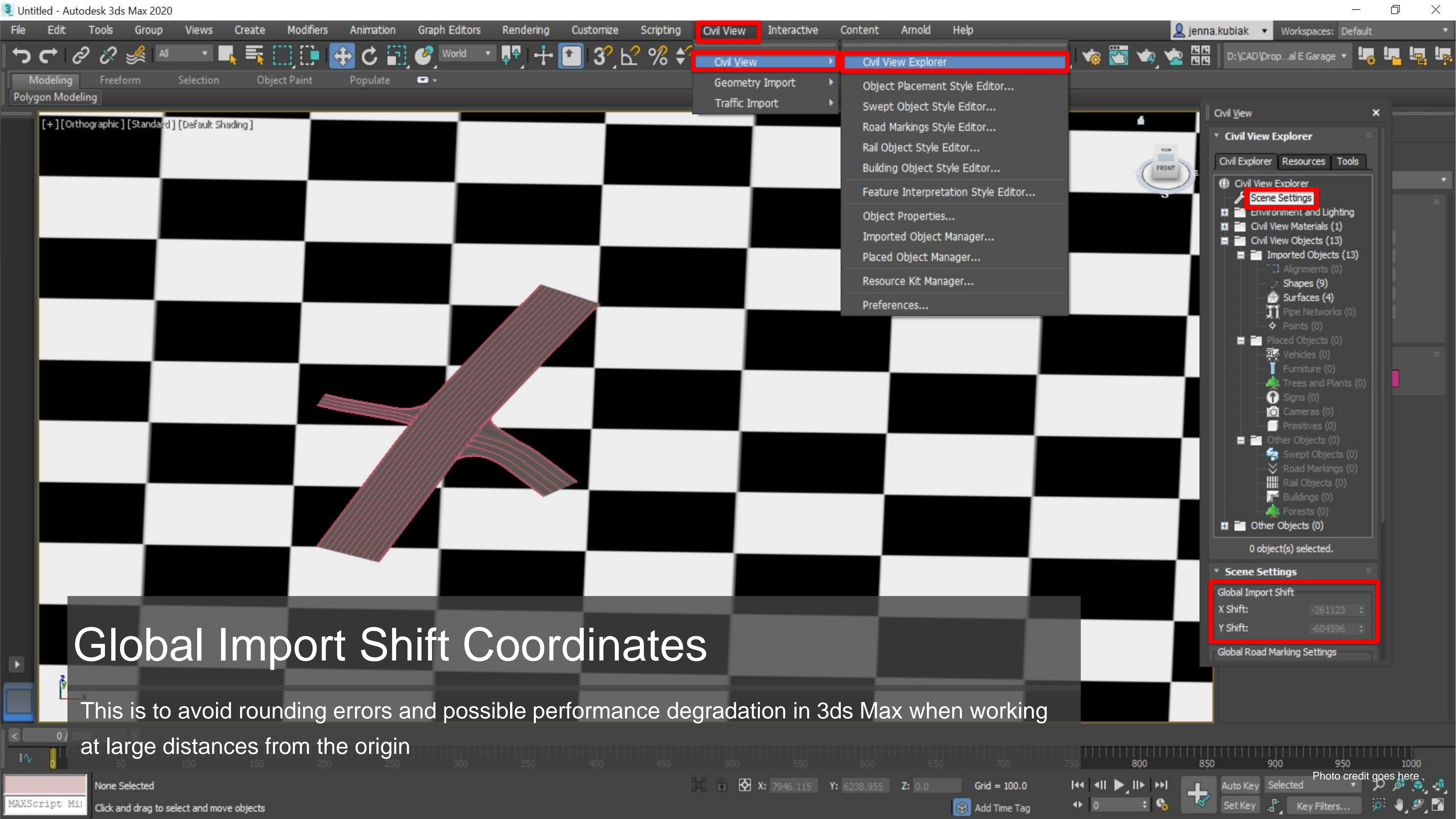
# Global Import Shift Coordinates

It is essential to apply an XY transformation to incoming geometry in 3DS Max to ensure the contents of a scene are located as close to the scene origin as possible.

In the case of VSP3D files from Civil 3D, these values are applied automatically.

Photo credit goes here



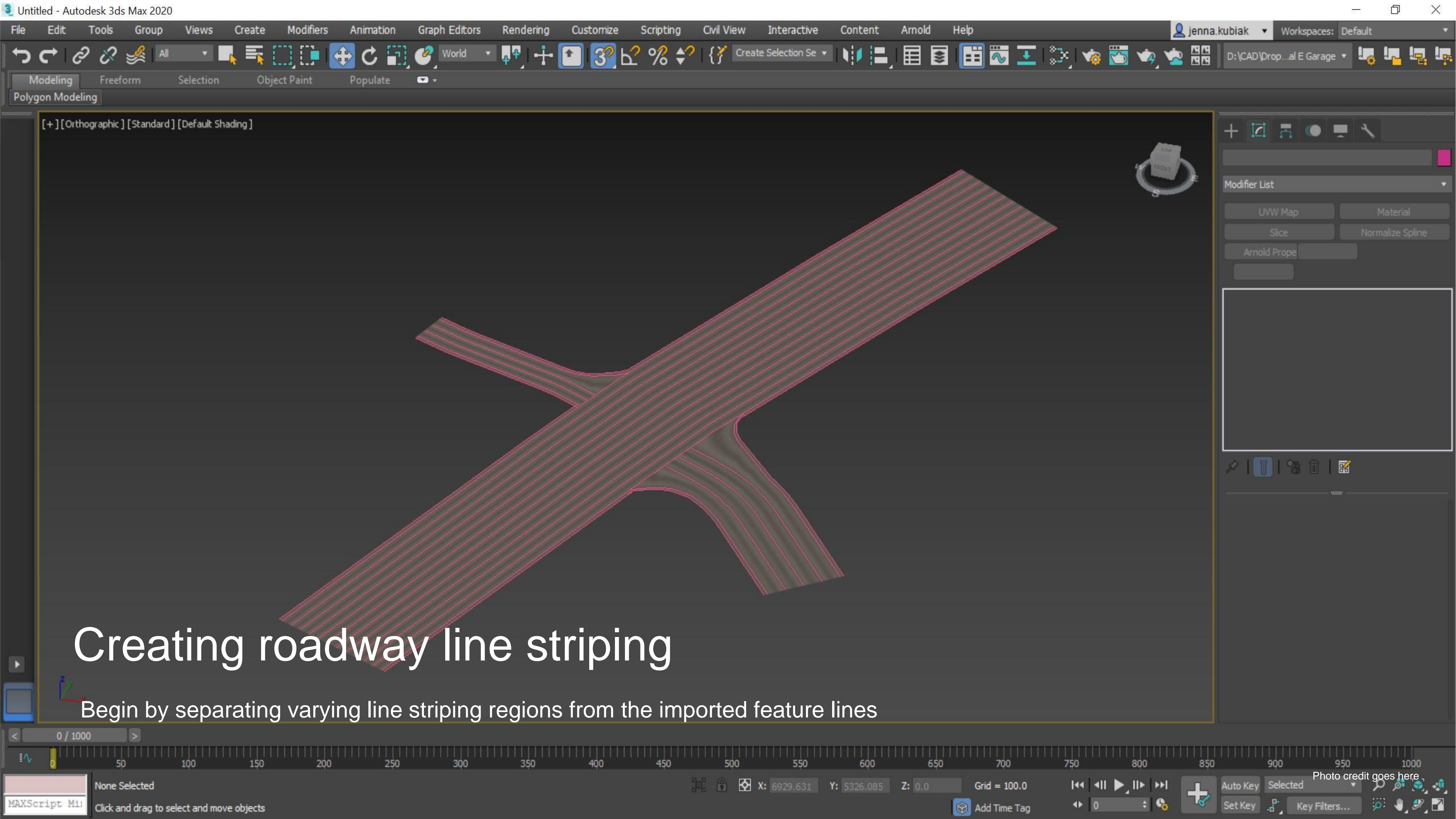


# Global Import Shift Coordinates

This is to avoid rounding errors and possible performance degradation in 3ds Max when working at large distances from the origin

Photo credit goes here



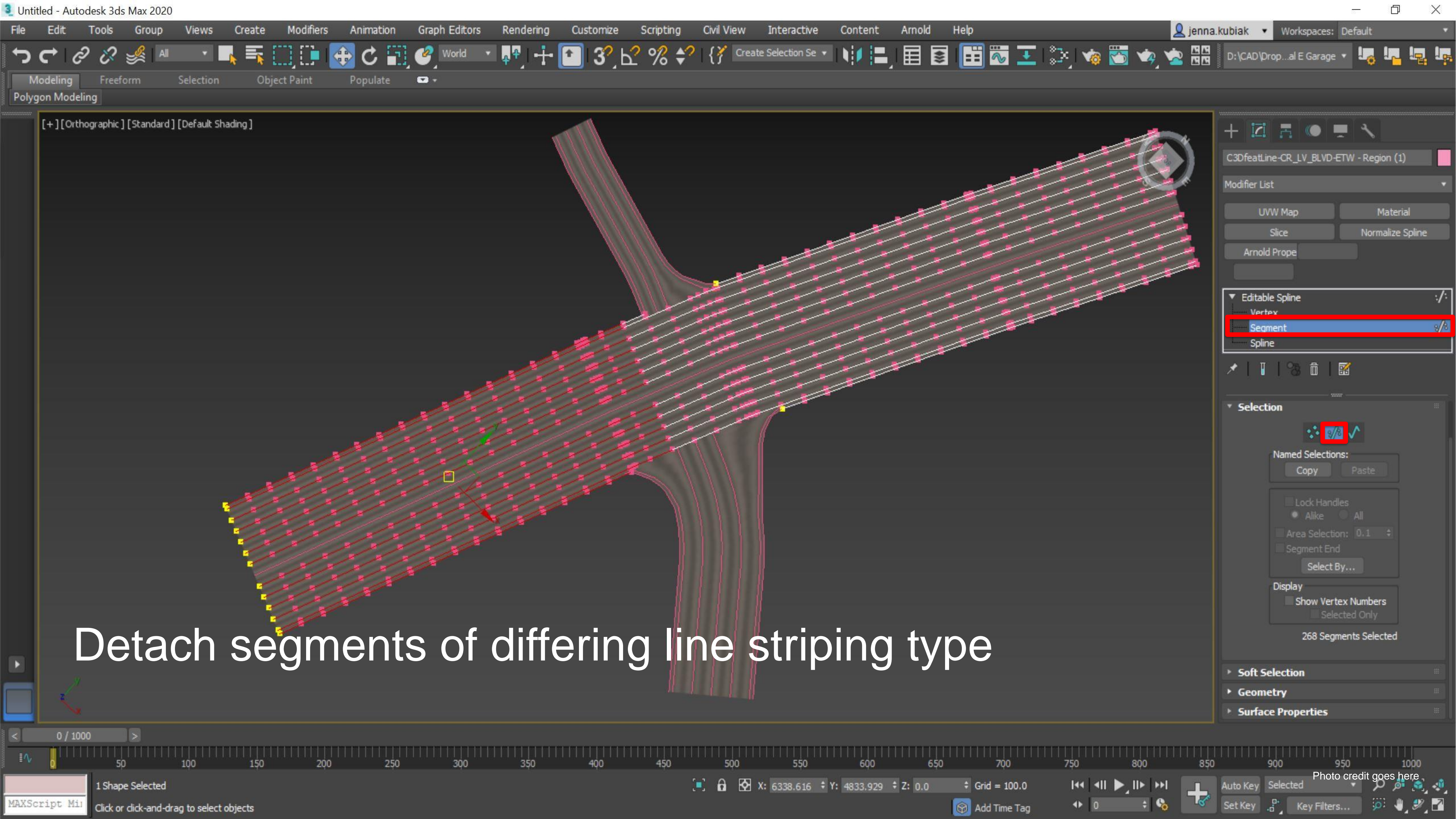


# Creating roadway line striping

Begin by separating varying line striping regions from the imported feature lines

Photo credit goes here

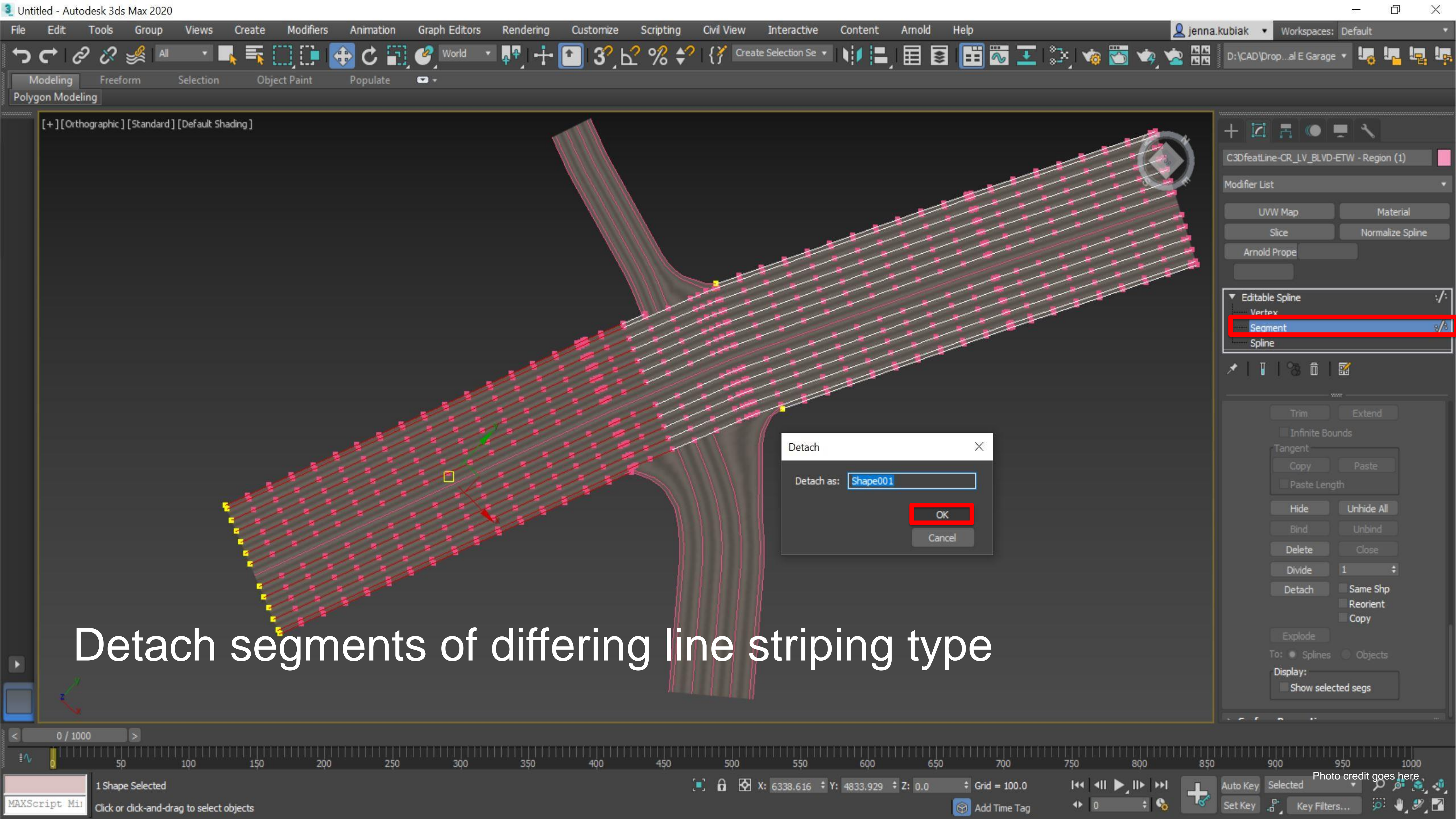




Detach segments of differing line striping type

Photo credit goes here

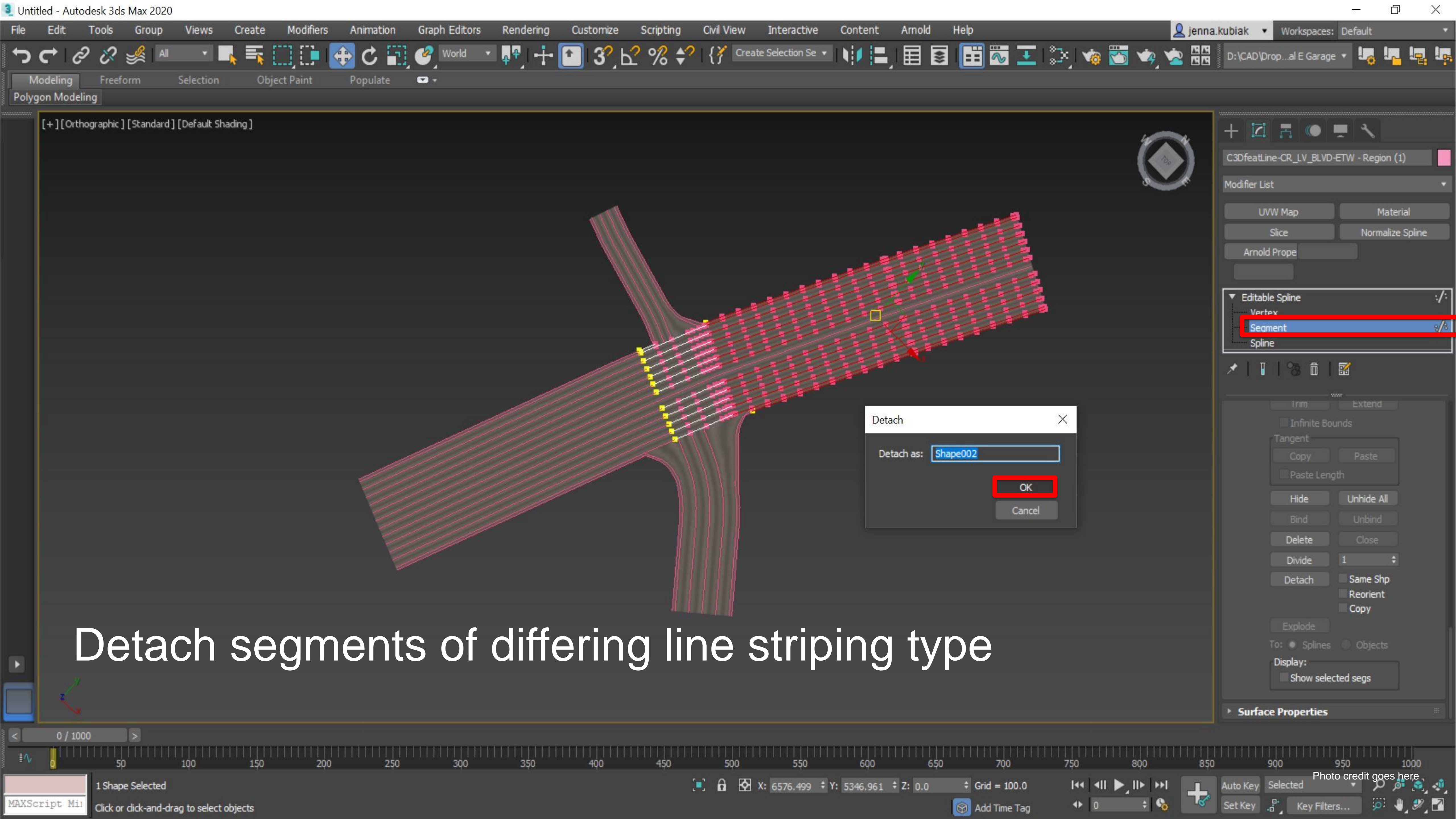




Detach segments of differing line striping type

Photo credit goes here

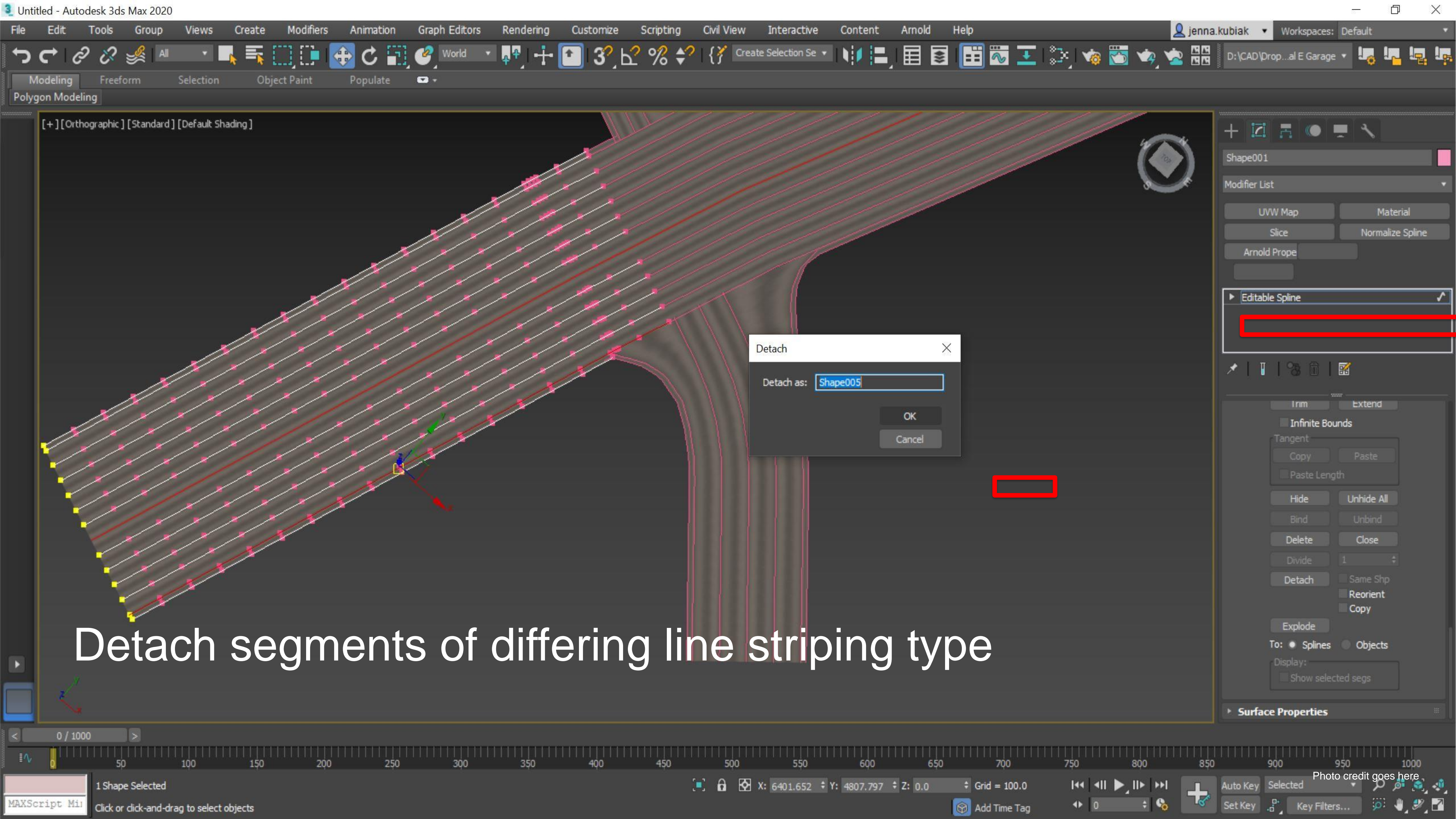




Detach segments of differing line striping type

Photo credit goes here

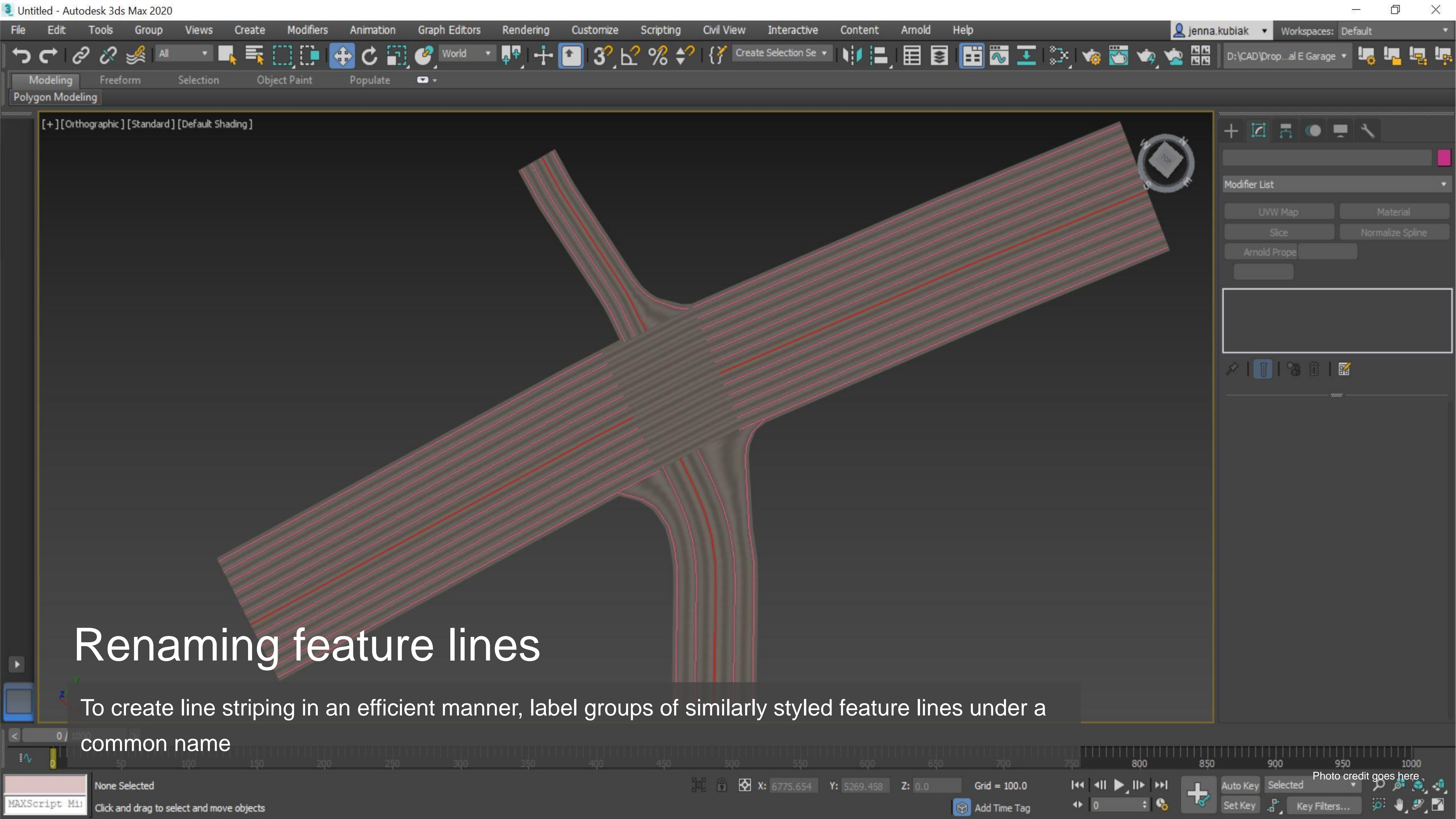




Detach segments of differing line striping type

Photo credit goes here

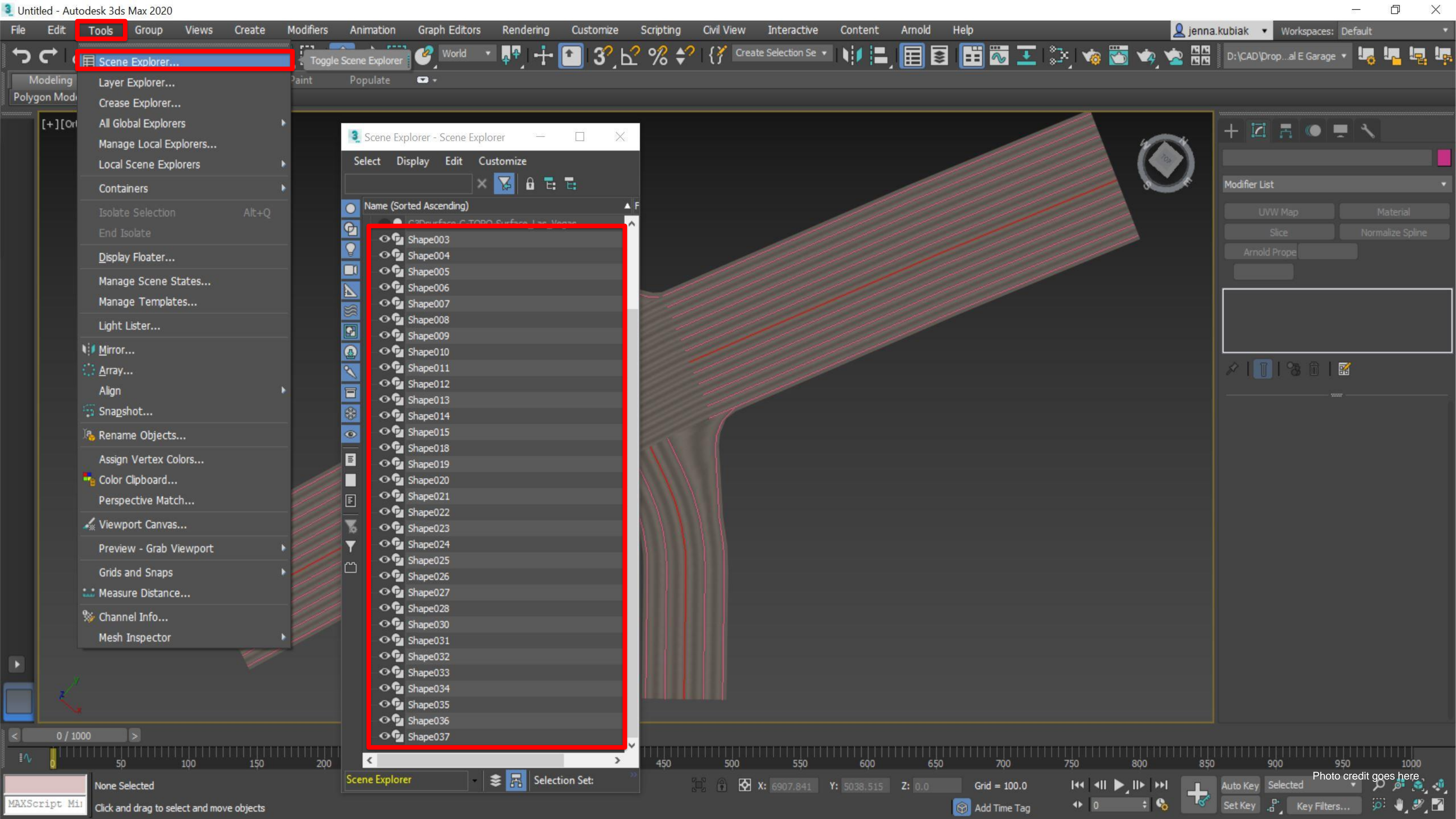




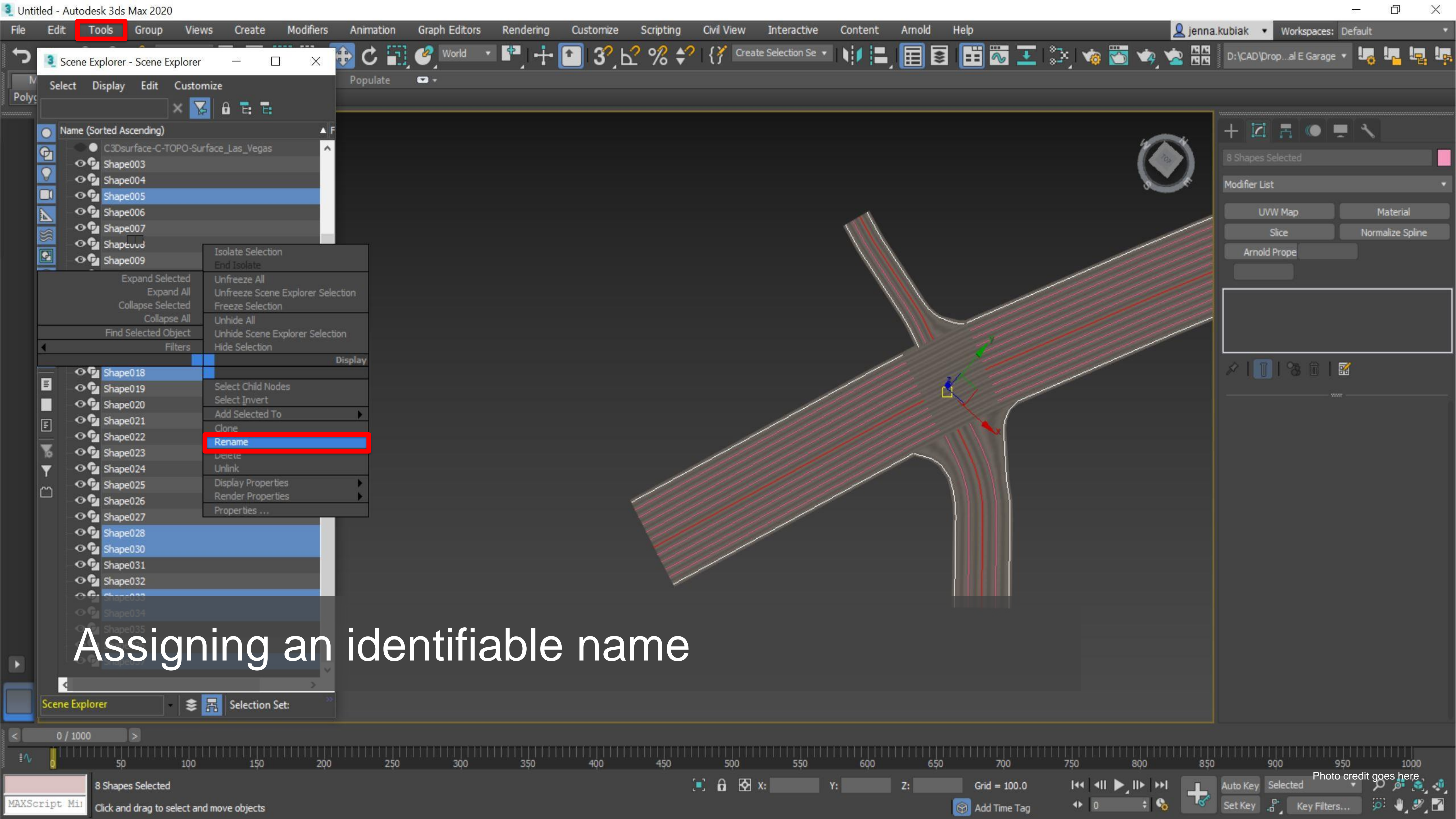
# Renaming feature lines

To create line striping in an efficient manner, label groups of similarly styled feature lines under a common name





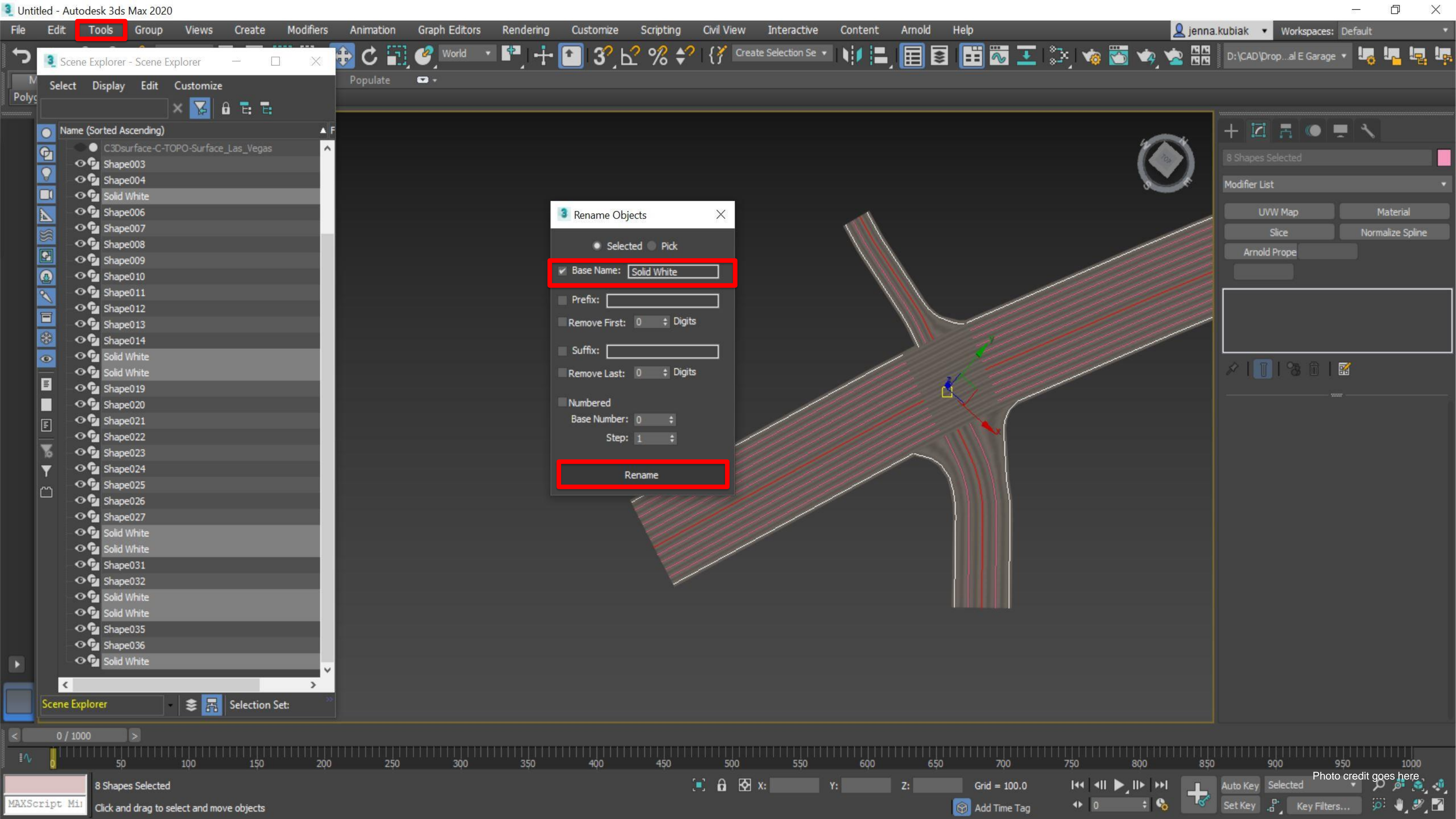




Assigning an identifiable name

Photo credit goes here





Scene Explorer - Scene Explorer

Select Display Edit Customize

Name (Sorted Ascending)

- C3Dsurface-C-TPO-Surface\_Las\_Vegas
- Shape003
- Shape004
- Solid White
- Shape006
- Shape007
- Shape008
- Shape009
- Shape010
- Shape011
- Shape012
- Shape013
- Shape014
- Solid White
- Solid White
- Shape019
- Shape020
- Shape021
- Shape022
- Shape023
- Shape024
- Shape025
- Shape026
- Shape027
- Solid White
- Solid White
- Shape031
- Shape032
- Solid White
- Solid White
- Shape035
- Shape036
- Solid White

Scene Explorer Selection Set:

Rename Objects

☒ Selected ☐ Pick

☒ Base Name: Solid White

☐ Prefix:

☐ Remove First: 0 Digits

☐ Suffix:

☐ Remove Last: 0 Digits

☐ Numbered

Base Number: 0

Step: 1

Rename

8 Shapes Selected

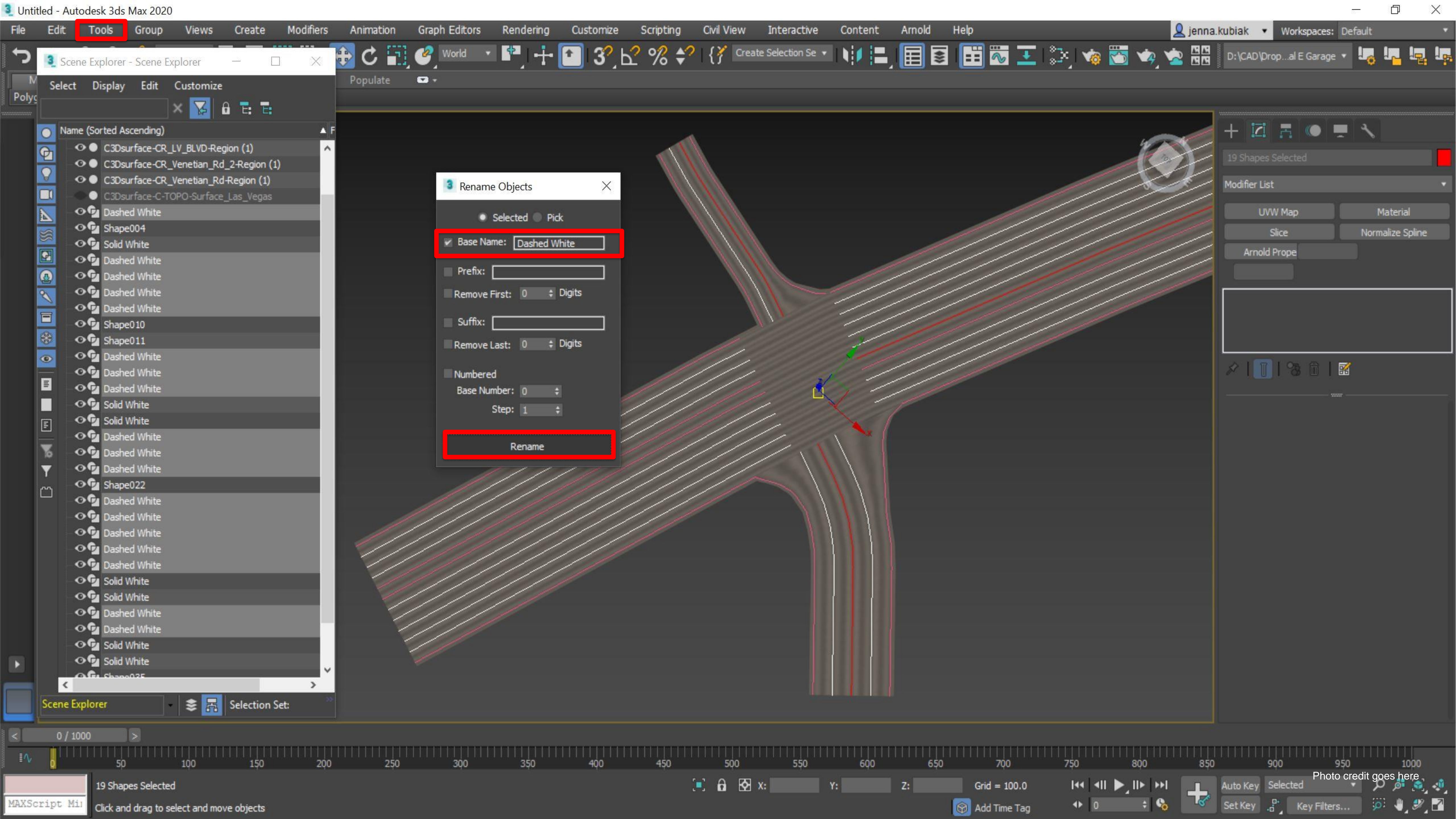
Modifier List

UVW Map Material

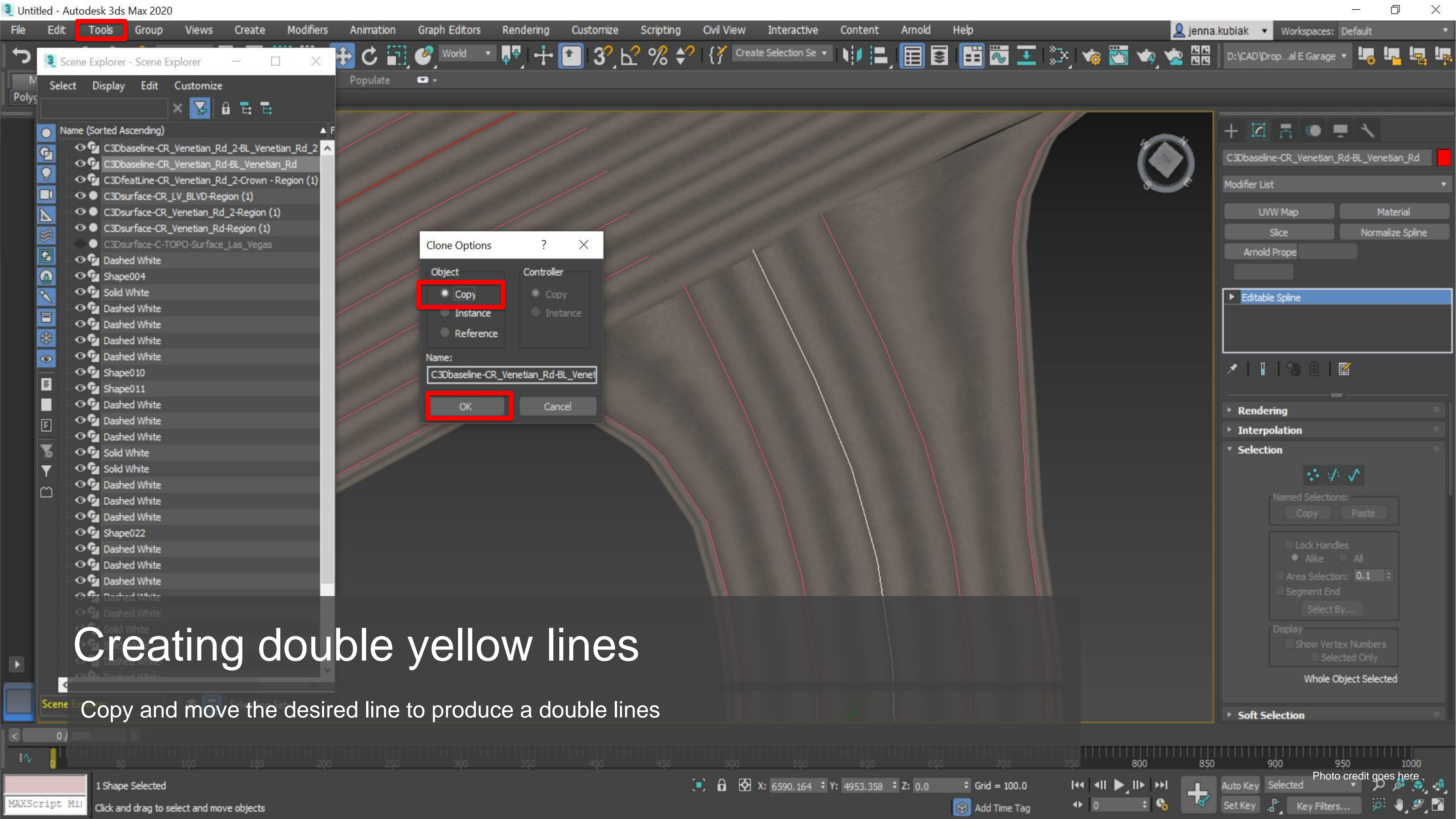
Slice Normalize Spline

Arnold Prope







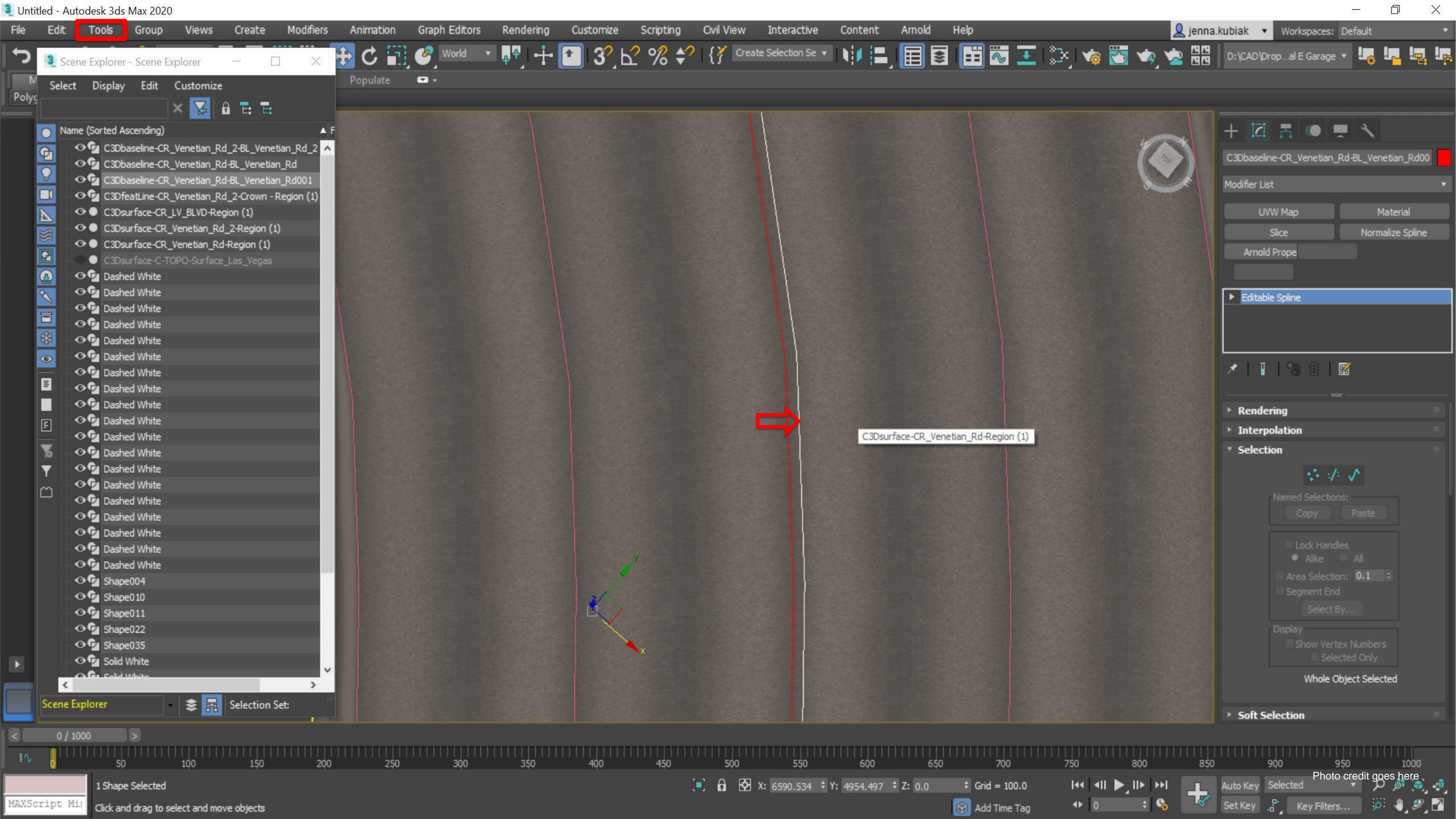


# Creating double yellow lines

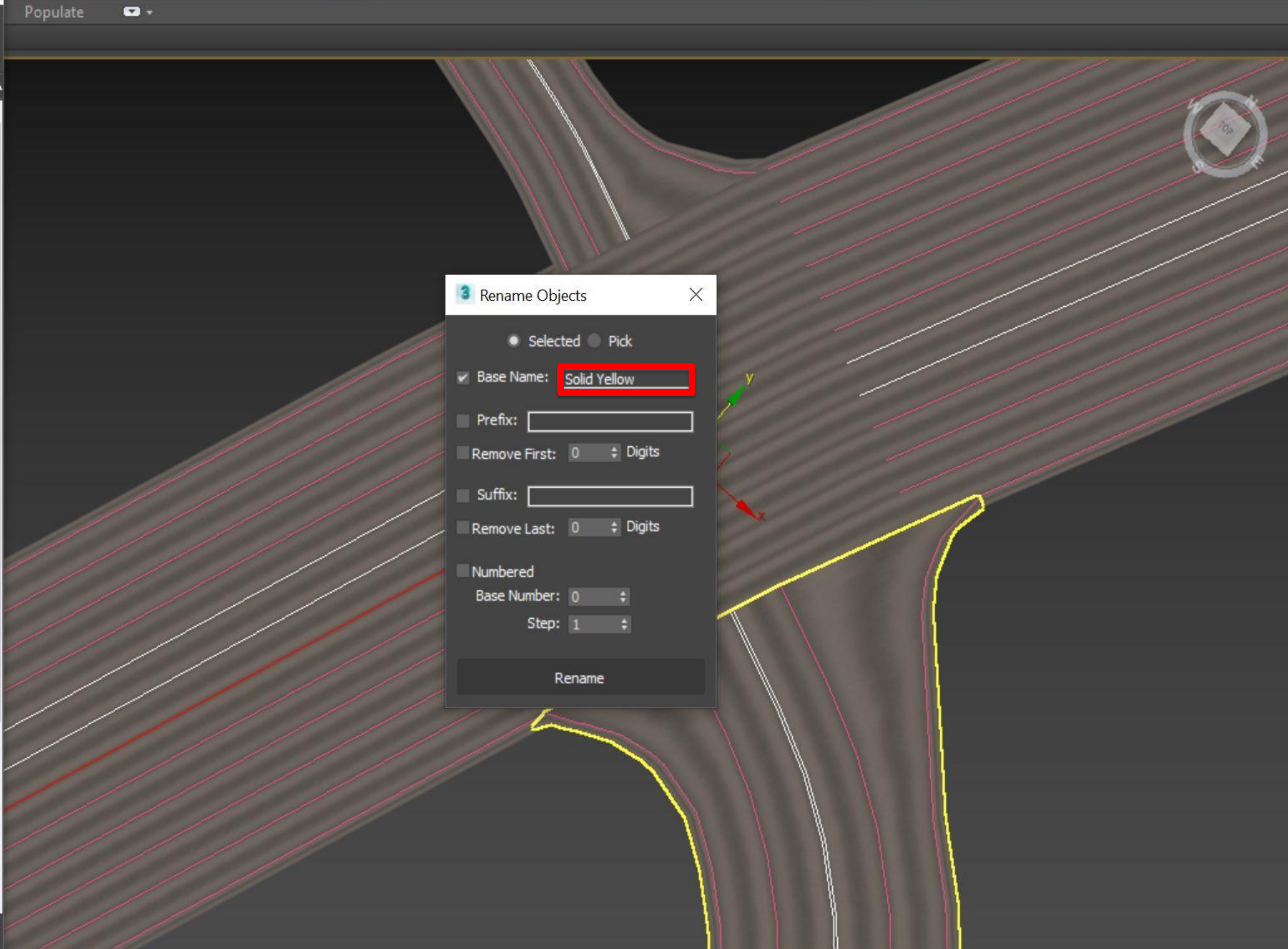
Copy and move the desired line to produce a double lines

Photo credit goes here

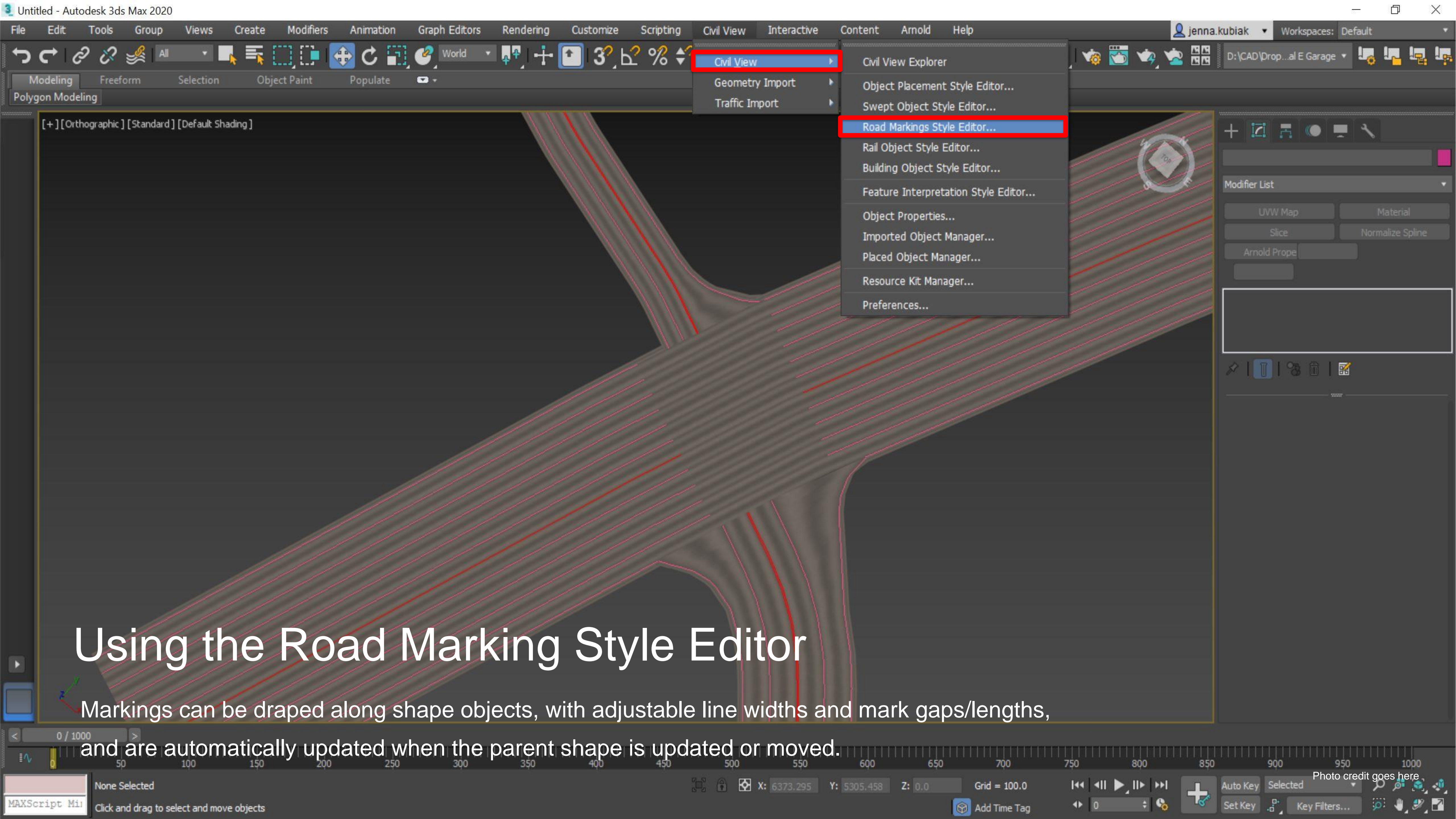










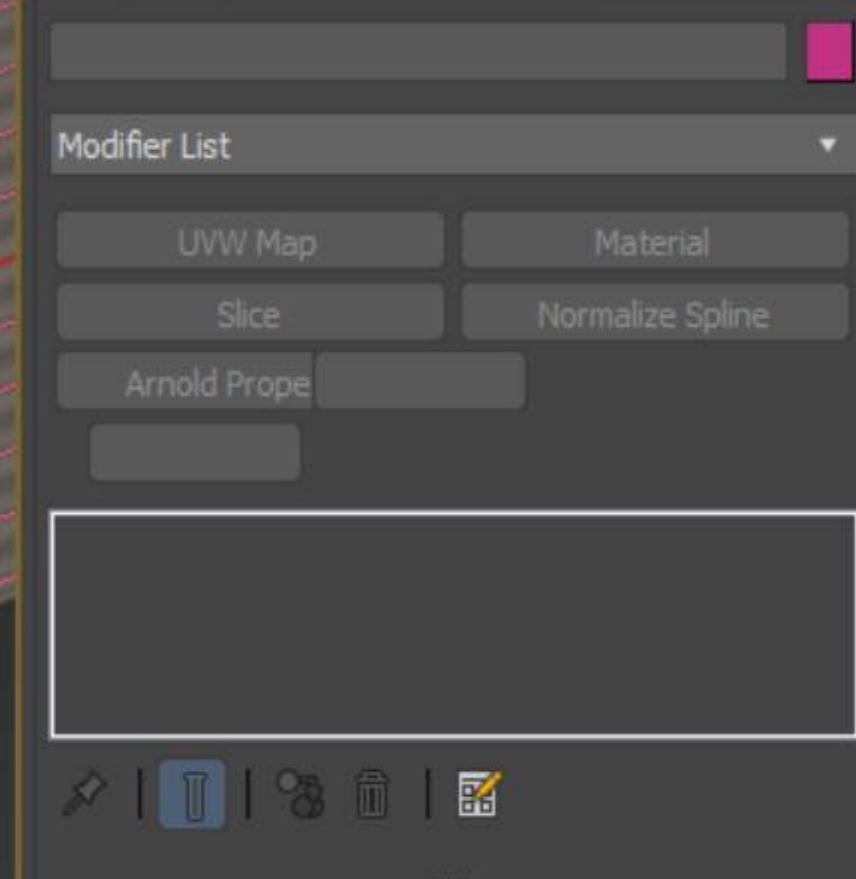


# Using the Road Marking Style Editor

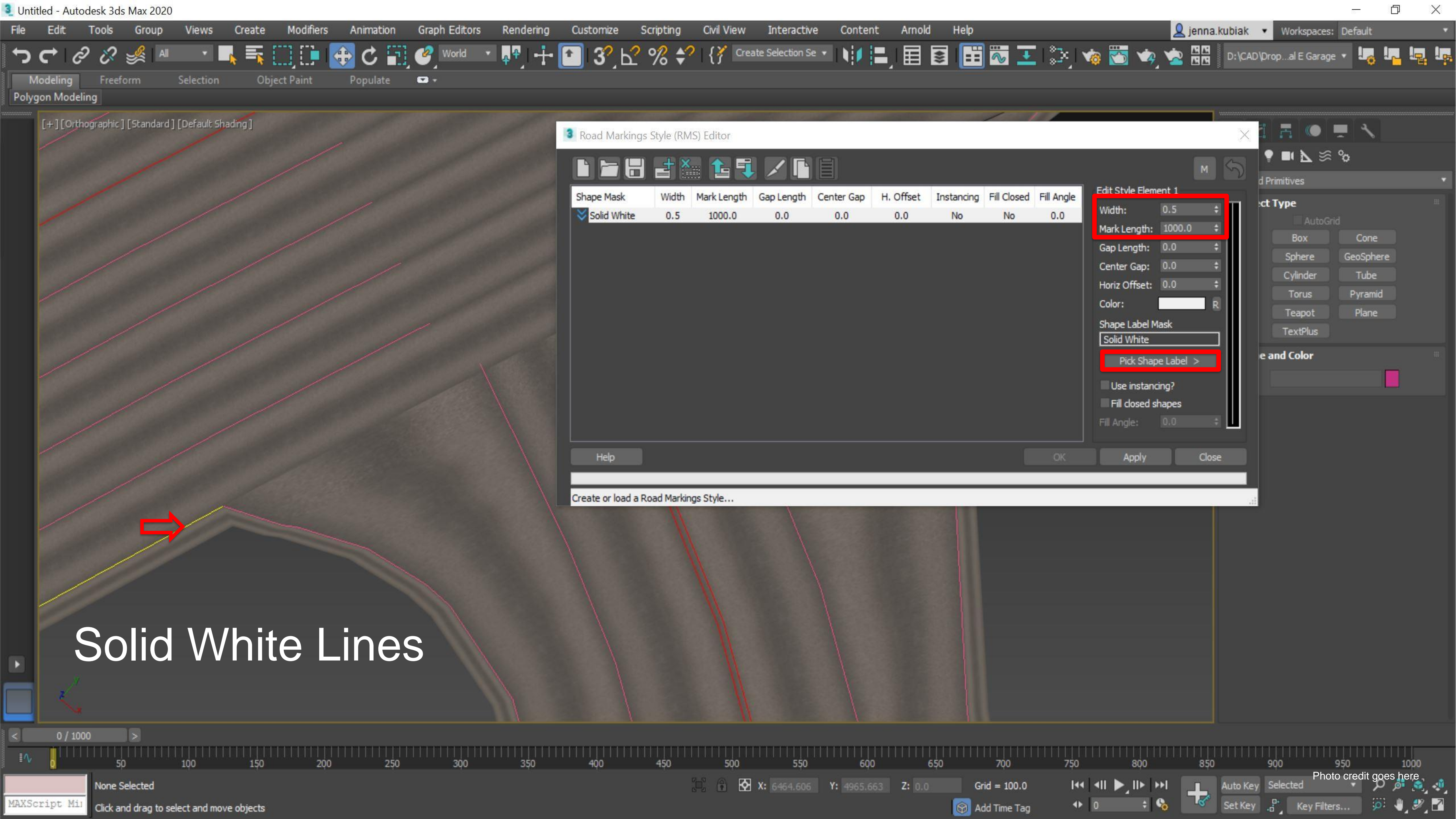
Markings can be draped along shape objects, with adjustable line widths and mark gaps/lengths, and are automatically updated when the parent shape is updated or moved.

Photo credit goes here









[+] [Orthographic] [Standard] [Default Shading]

Road Markings Style (RMS) Editor

Shape Mask	Width	Mark Length	Gap Length	Center Gap	H. Offset	Instancing	Fill Closed	Fill Angle
<input checked="" type="checkbox"/> Solid White	0.5	1000.0	0.0	0.0	0.0	No	No	0.0

Edit Style Element 1

Width: 0.5

Mark Length: 1000.0

Gap Length: 0.0

Center Gap: 0.0

Horiz Offset: 0.0

Color:  R

Shape Label Mask

Solid White

Pick Shape Label >

☐ Use instancing?

☐ Fill closed shapes

Fill Angle: 0.0

Help

OK

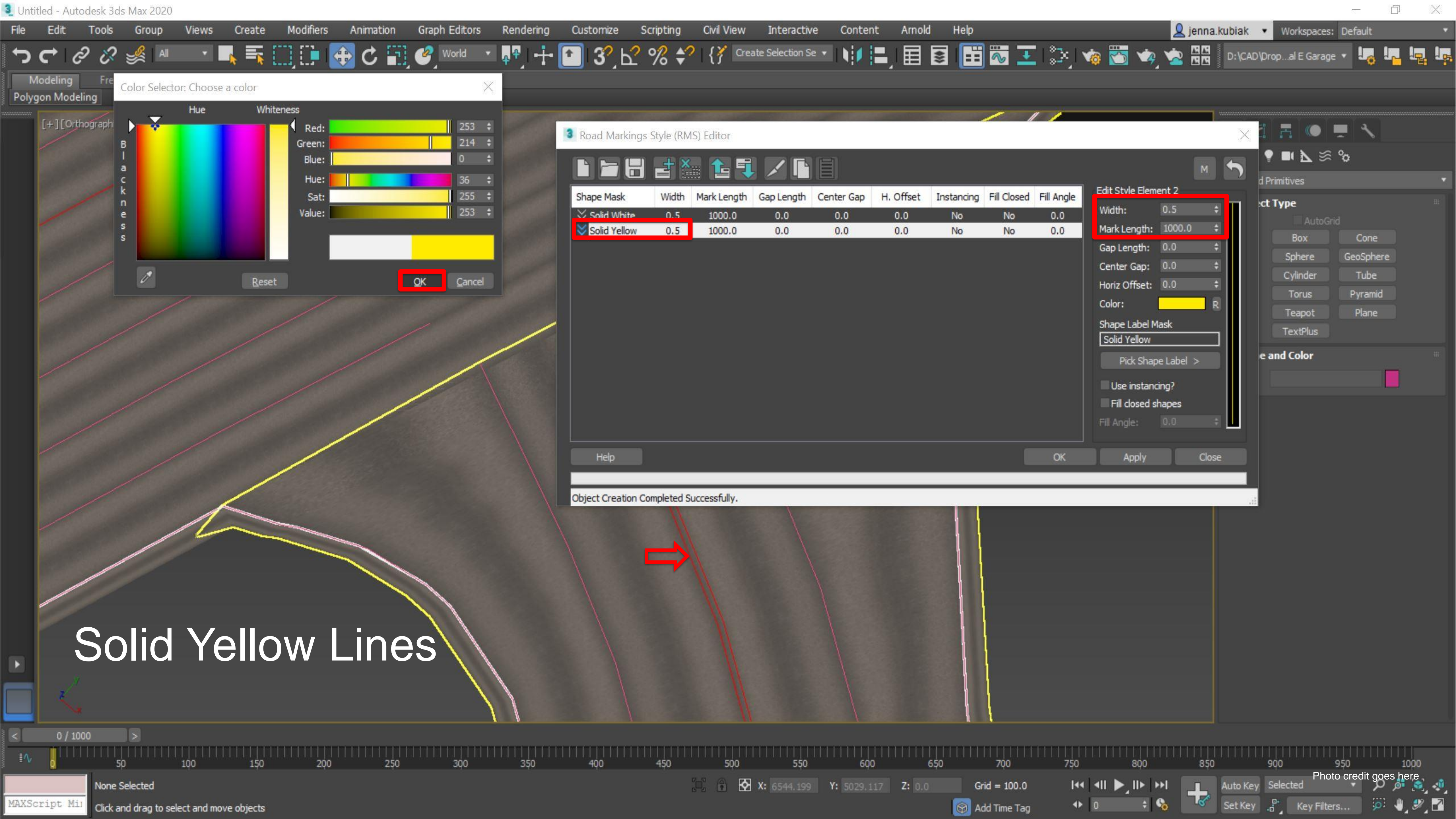
Apply

Close

Create or load a Road Markings Style...

Solid White Lines





Solid Yellow Lines

Road Markings Style (RMS) Editor

Shape Mask	Width	Mark Length	Gap Length	Center Gap	H. Offset	Instancing	Fill Closed	Fill Angle
<input checked="" type="checkbox"/> Solid White	0.5	1000.0	0.0	0.0	0.0	No	No	0.0
<input checked="" type="checkbox"/> Solid Yellow	0.5	1000.0	0.0	0.0	0.0	No	No	0.0

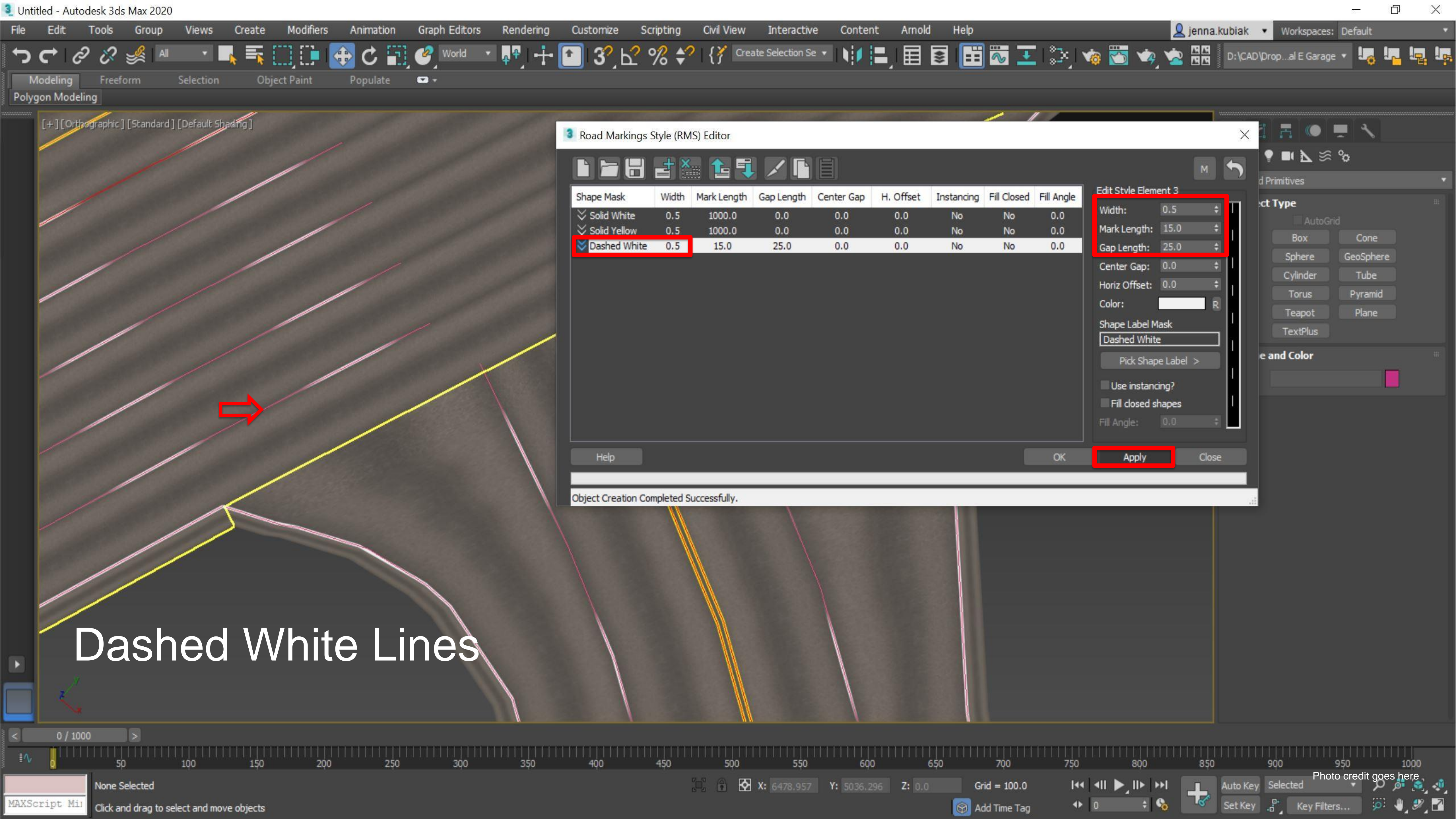
Edit Style Element 2

Width: 0.5  
Mark Length: 1000.0  
Gap Length: 0.0  
Center Gap: 0.0  
Horiz Offset: 0.0  
Color:  R  
Shape Label Mask  
Solid Yellow  
Pick Shape Label >  
☐ Use instancing?  
☐ Fill closed shapes  
Fill Angle: 0.0

Help OK Apply Close

Object Creation Completed Successfully.





Road Markings Style (RMS) Editor

Shape Mask	Width	Mark Length	Gap Length	Center Gap	H. Offset	Instancing	Fill Closed	Fill Angle
✓ Solid White	0.5	1000.0	0.0	0.0	0.0	No	No	0.0
✓ Solid Yellow	0.5	1000.0	0.0	0.0	0.0	No	No	0.0
✓ Dashed White	0.5	15.0	25.0	0.0	0.0	No	No	0.0

Edit Style Element 3

Width: 0.5  
Mark Length: 15.0  
Gap Length: 25.0  
Center Gap: 0.0  
Horiz Offset: 0.0  
Color:  R  
Shape Label Mask: Dashed White  
Pick Shape Label >  
Use instancing?  
Fill closed shapes  
Fill Angle: 0.0

Help OK Apply Close

Object Creation Completed Successfully.

Dashed White Lines



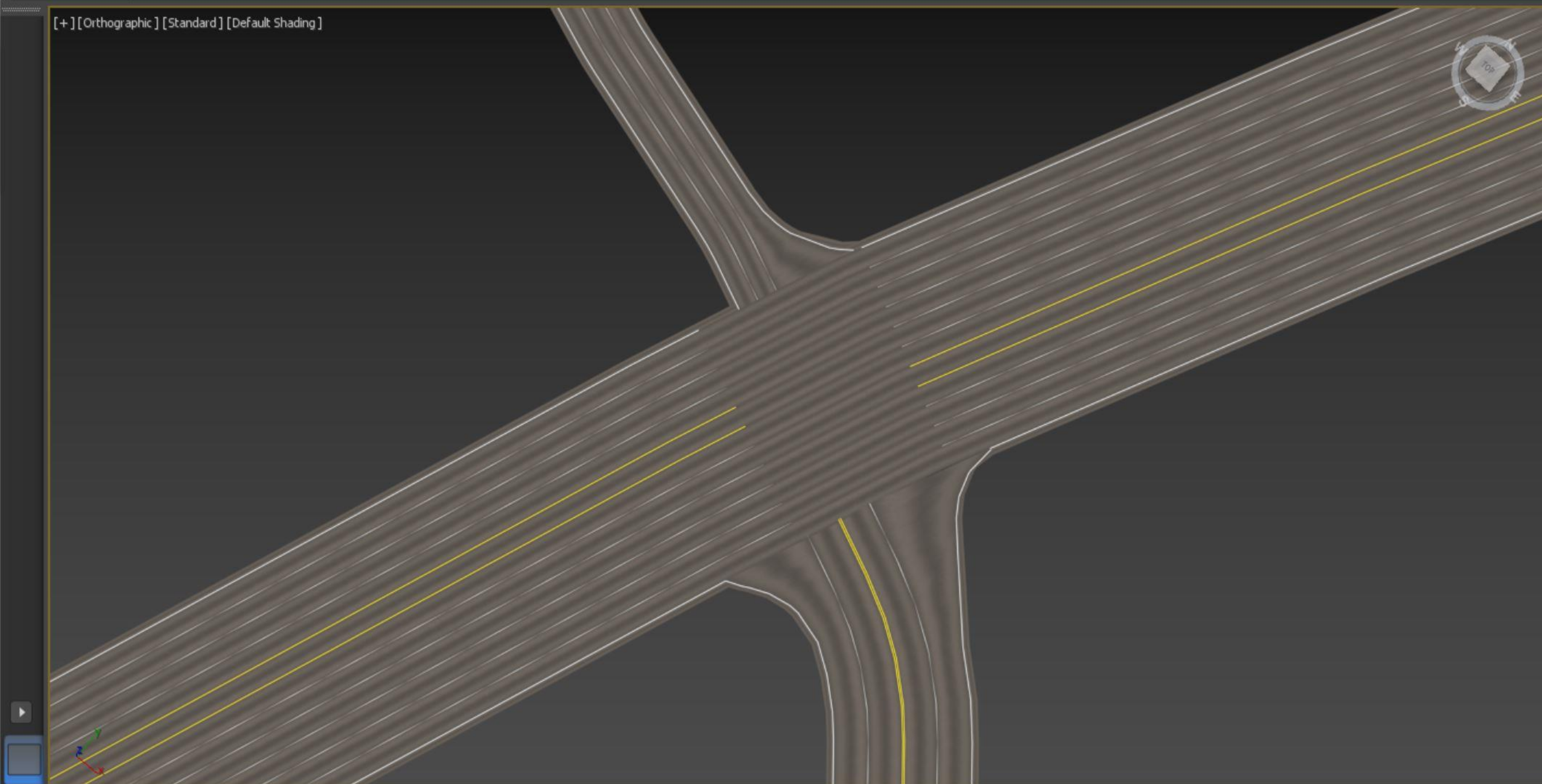
File Edit Tools Group Views Create Modifiers Animation Graph Editors Rendering Customize Scripting Civil View Interactive Content Arnold Help

jenna.kubiak Workspaces: Default

D:\CAD\Drop...al E Garage

Modeling Freeform Selection Object Paint Populate

Polygon Modeling



+

Splines

**Object Type**

☐ AutoGrid

☒ Start New Shape

Line Rectangle

Circle Ellipse

Arc Donut

NGon Star

Text Helix

Egg Section

Freehand

**Name and Color**

< 0 / 1000 >

None Selected

MAXScript Mini

Click and drag to select and move objects

X: 6665.531 Y: 5144.325 Z: 0.0 Grid = 100.0

0

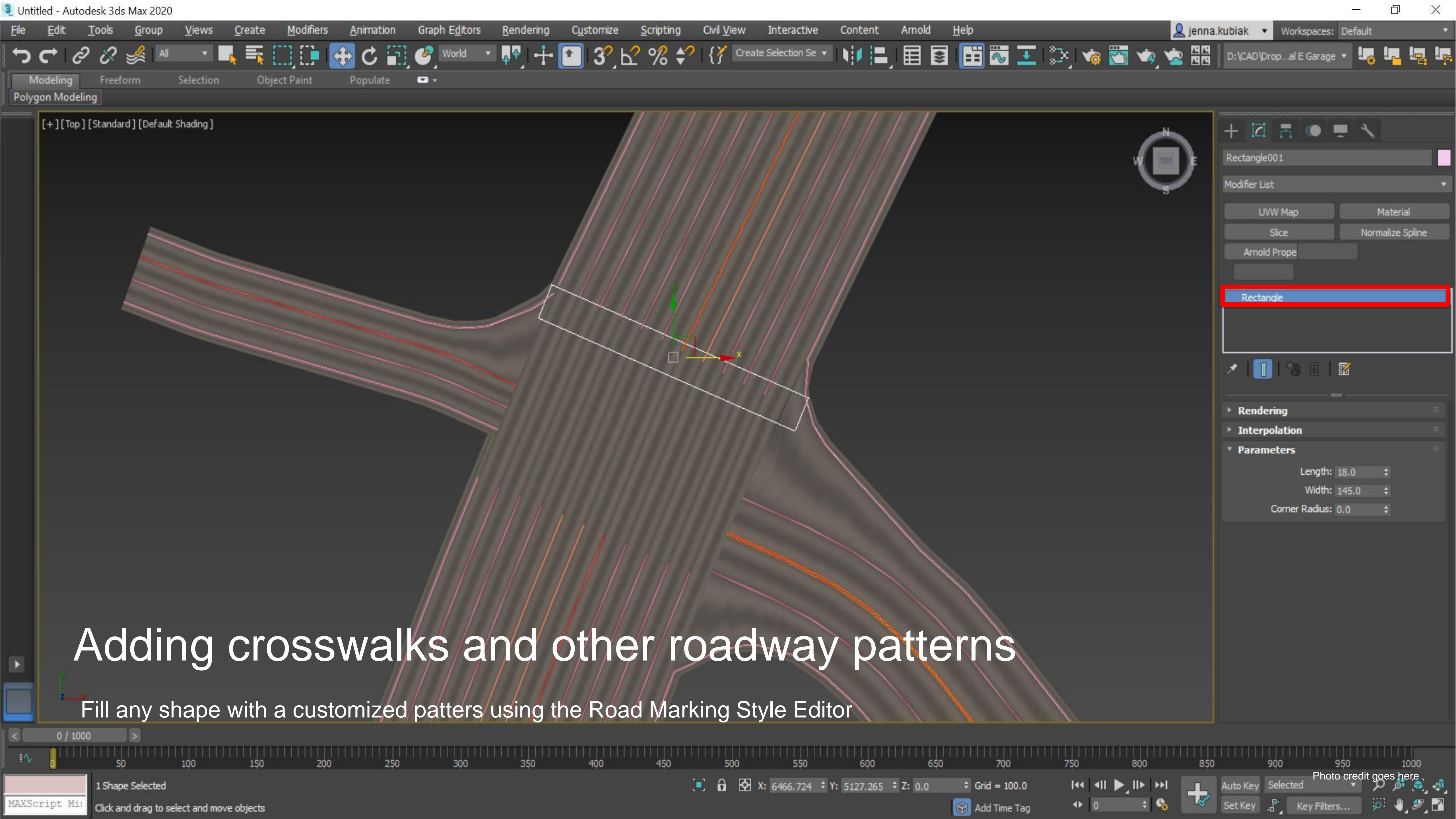
Auto Key Selected

Set Key

Key Filters...

Photo credit goes here





# Adding crosswalks and other roadway patterns

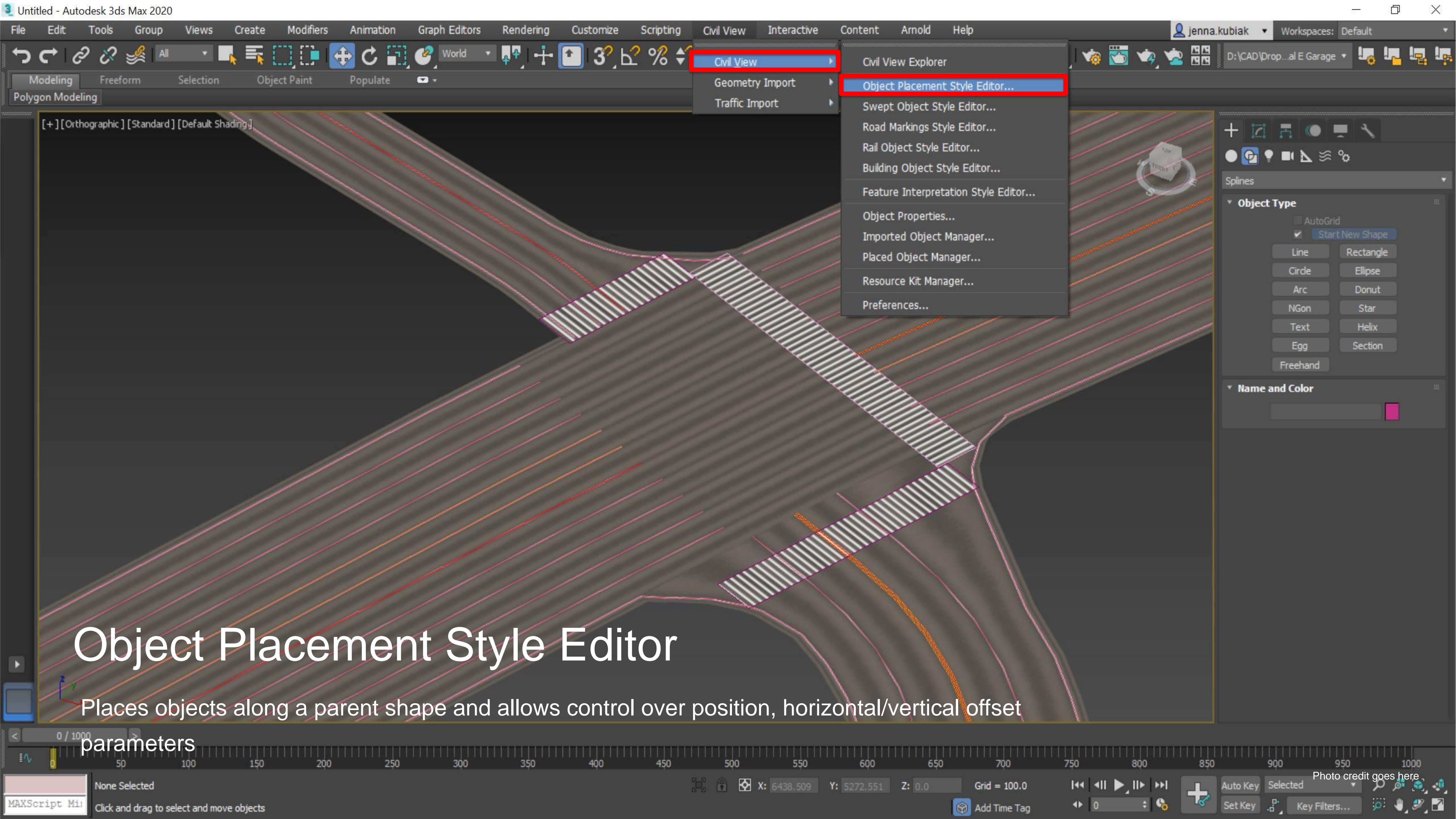
Fill any shape with a customized patterns using the Road Marking Style Editor

Photo credit goes here





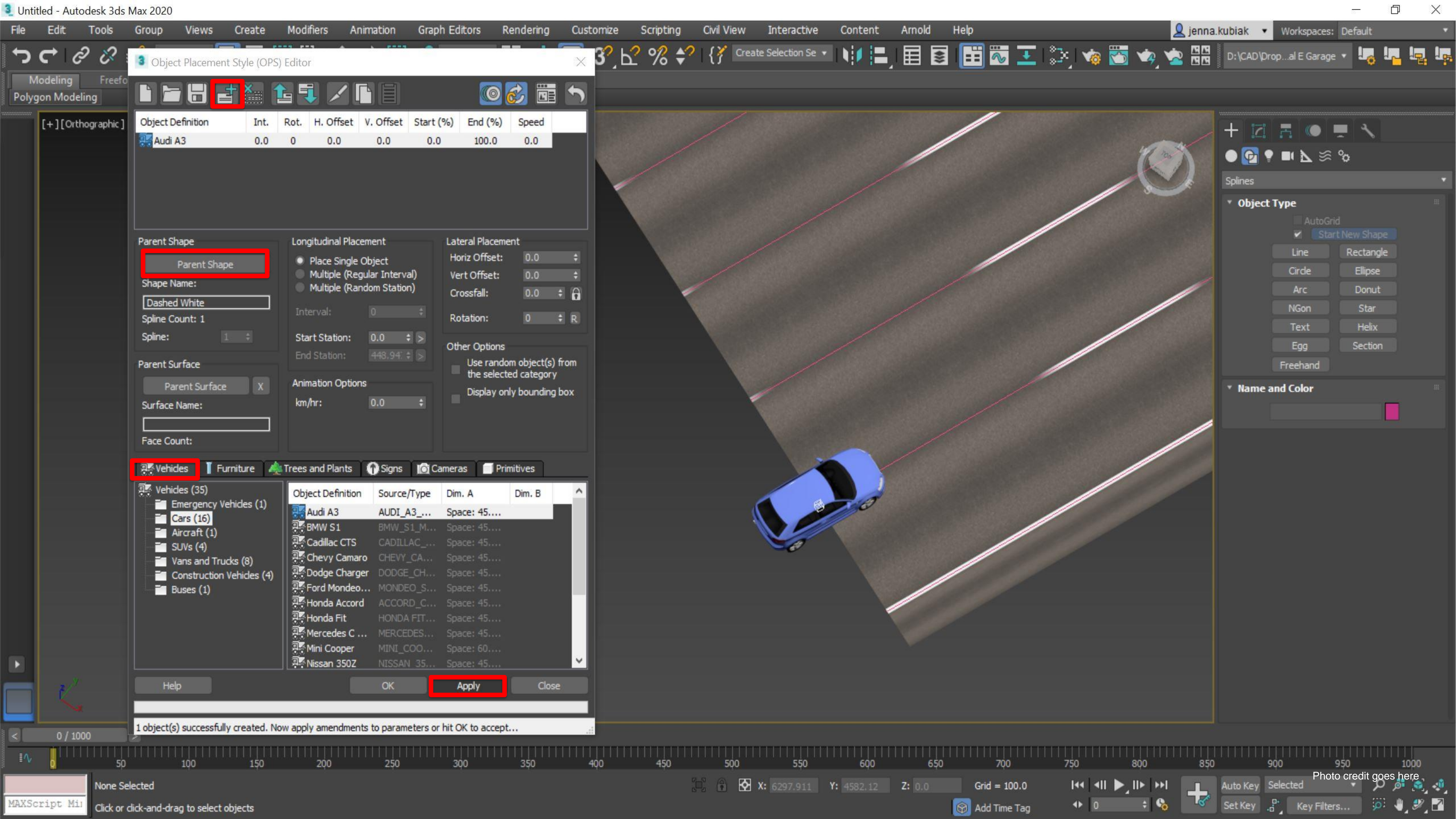




# Object Placement Style Editor

Places objects along a parent shape and allows control over position, horizontal/vertical offset parameters





# Object Placement Style (OPS) Editor



Object Definition	Int.	Rot.	H. Offset	V. Offset	Start (%)	End (%)	Speed
Audi A3	0.0	0	0.0	0.0	0.0	100.0	0.0

## Parent Shape

Parent Shape

Shape Name:

Dashed White

Spline Count: 1

Spline: 1

## Parent Surface

Parent Surface

Surface Name:

Face Count:

## Longitudinal Placement

Place Single Object

Multiple (Regular Interval)

Multiple (Random Station)

Interval: 0

Start Station: 0.0

End Station: 448.94

## Animation Options

km/hr: 0.0

## Lateral Placement

Horiz Offset: 0.0

Vert Offset: 0.0

Crossfall: 0.0

Rotation: 0

## Other Options

Use random object(s) from the selected category

Display only bounding box

## Vehicles

Vehicles (35)

Emergency Vehicles (1)

Cars (16)

Aircraft (1)

SUVs (4)

Vans and Trucks (8)

Construction Vehicles (4)

Buses (1)

Object Definition	Source/Type	Dim. A	Dim. B
Audi A3	AUDI_A3_...	Space: 45....	
BMW S1	BMW_S1_M...	Space: 45....	
Cadillac CTS	CADILLAC_...	Space: 45....	
Chevy Camaro	CHEVY_CA...	Space: 45....	
Dodge Charger	DODGE_CH...	Space: 45....	
Ford Mondeo...	MONDEO_S...	Space: 45....	
Honda Accord	ACCORD_C...	Space: 45....	
Honda Fit	HONDA FIT...	Space: 45....	
Mercedes C ...	MERCEDES...	Space: 45....	
Mini Cooper	MINI_COO...	Space: 60....	
Nissan 350Z	NISSAN_35...	Space: 45....	

Help

OK

Apply

Close

1 object(s) successfully created. Now apply amendments to parameters or hit OK to accept...

## Object Type

AutoGrid

Start New Shape

Line

Rectangle

Circle

Ellipse

Arc

Donut

NGon

Star

Text

Helix

Egg

Section

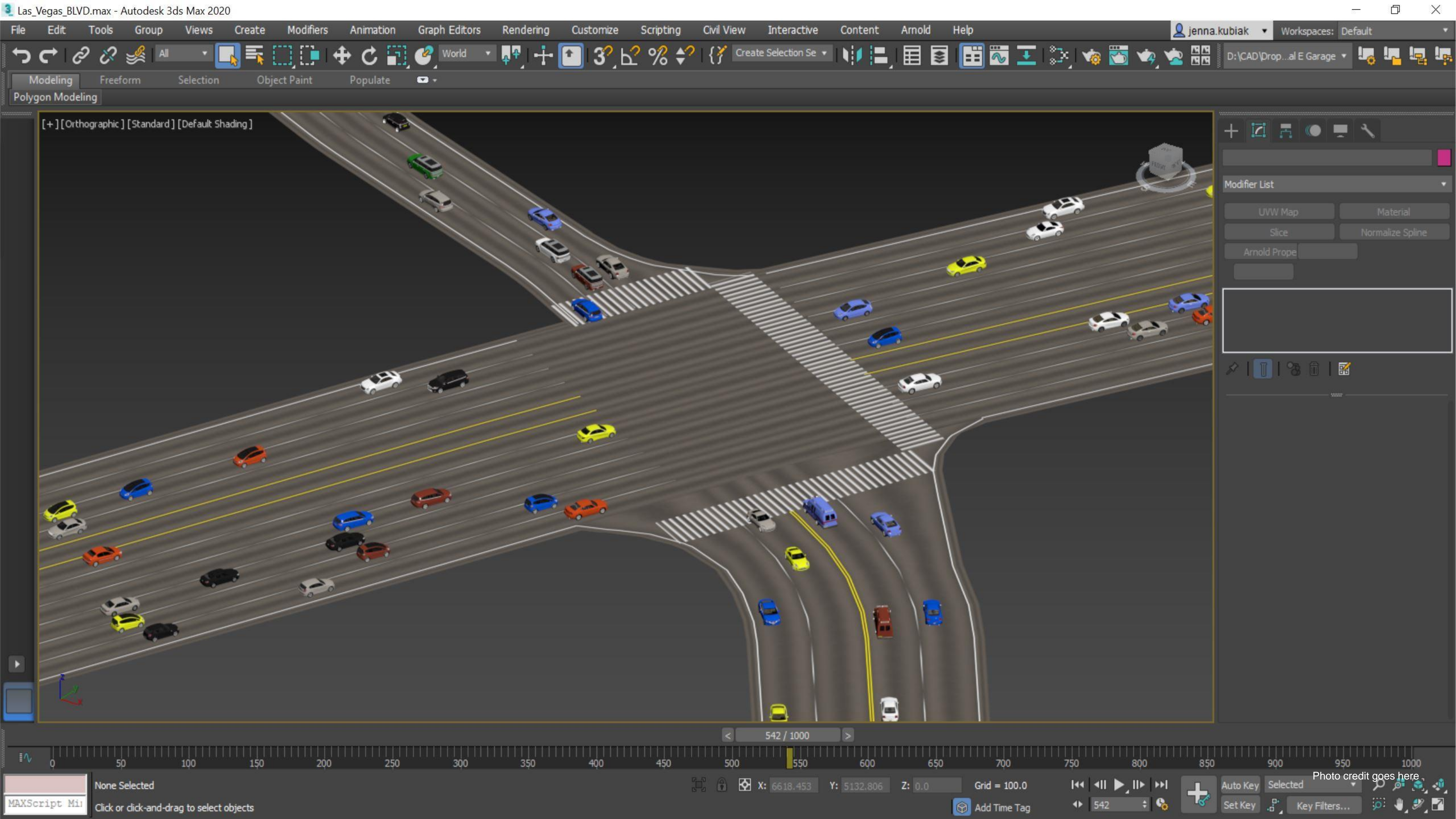
Freehand

## Name and Color

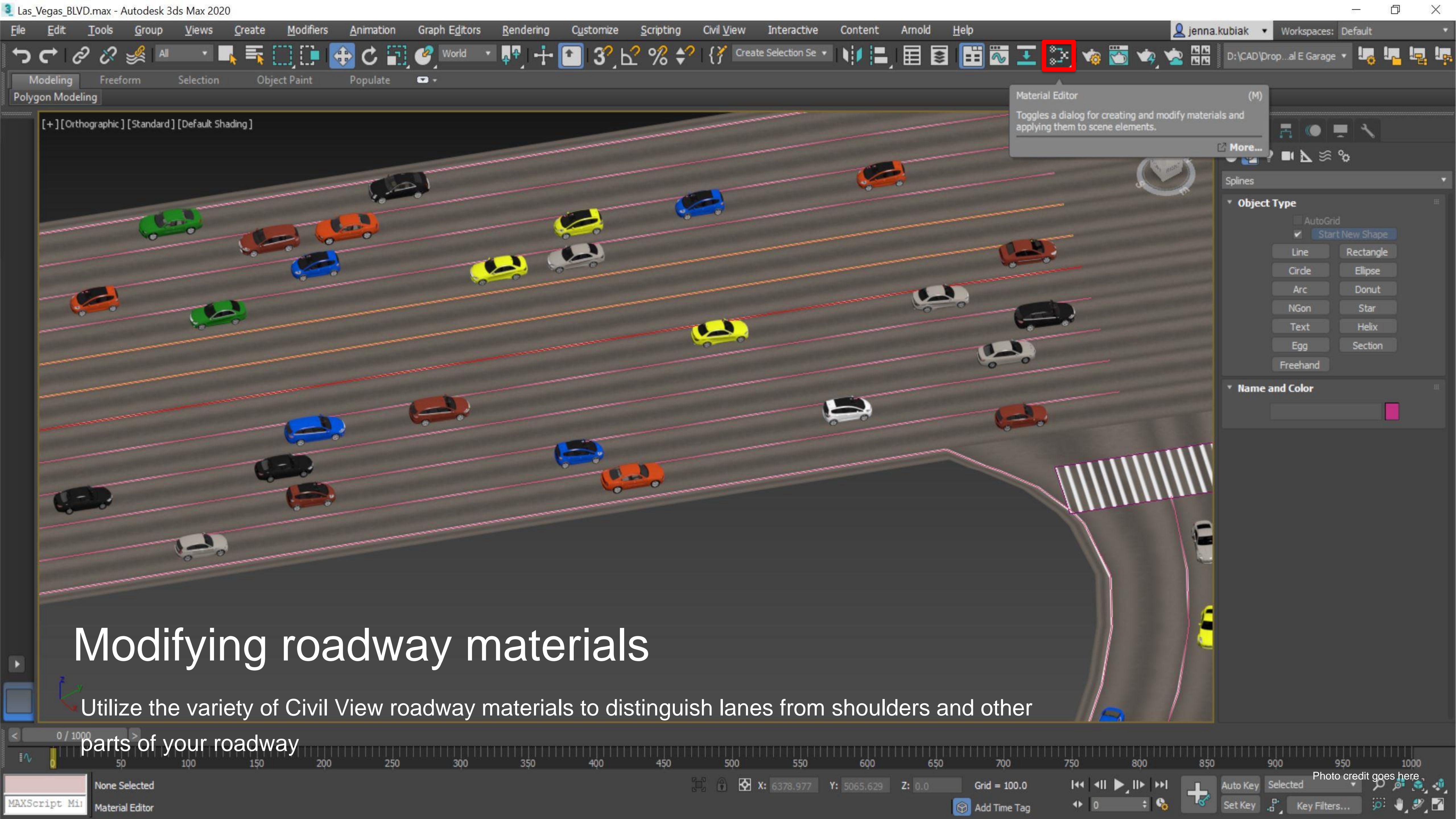










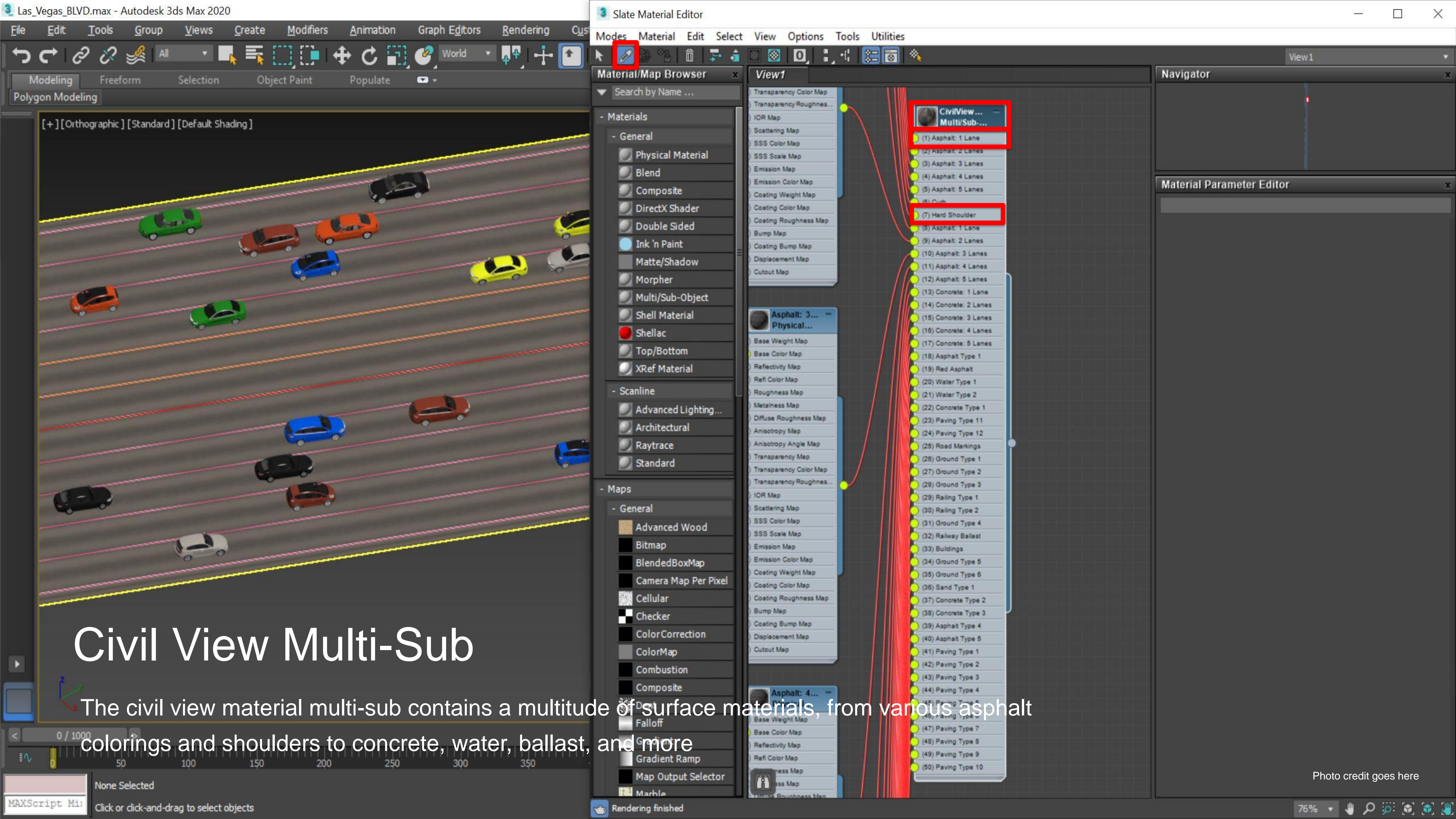


# Modifying roadway materials

Utilize the variety of Civil View roadway materials to distinguish lanes from shoulders and other parts of your roadway

Photo credit goes here



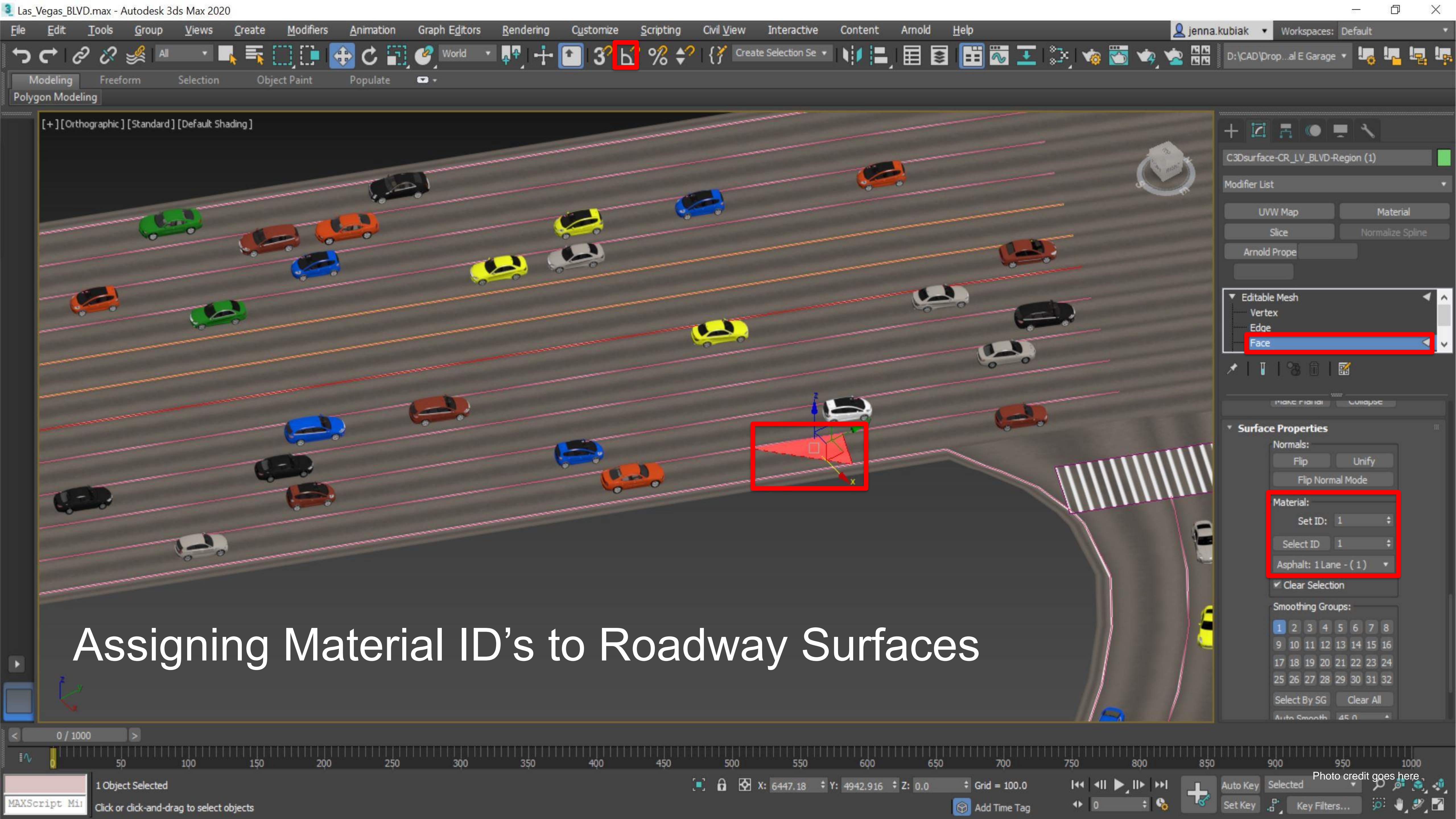


# Civil View Multi-Sub

The civil view material multi-sub contains a multitude of surface materials, from various asphalt colorings and shoulders to concrete, water, ballast, and more

Photo credit goes here

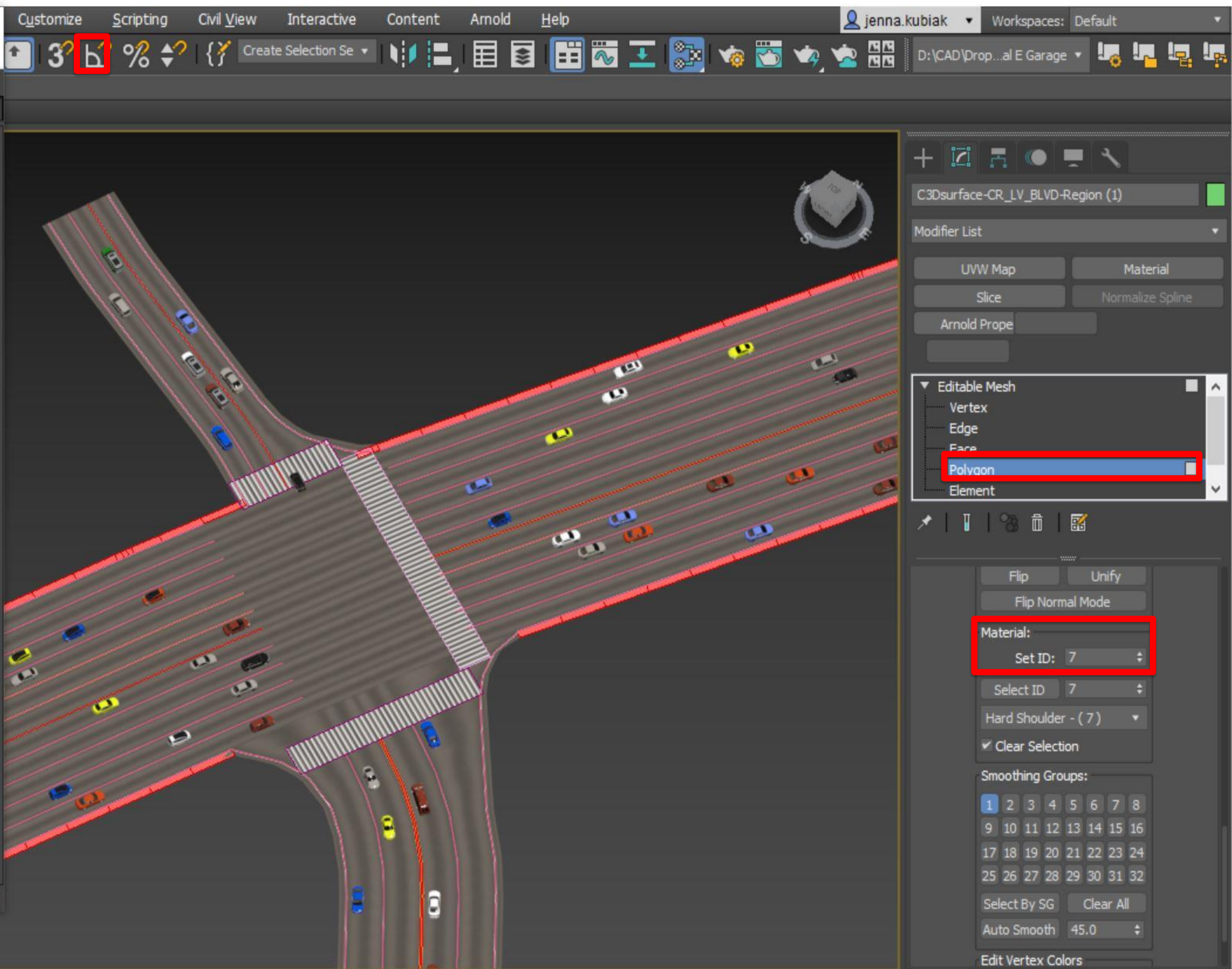
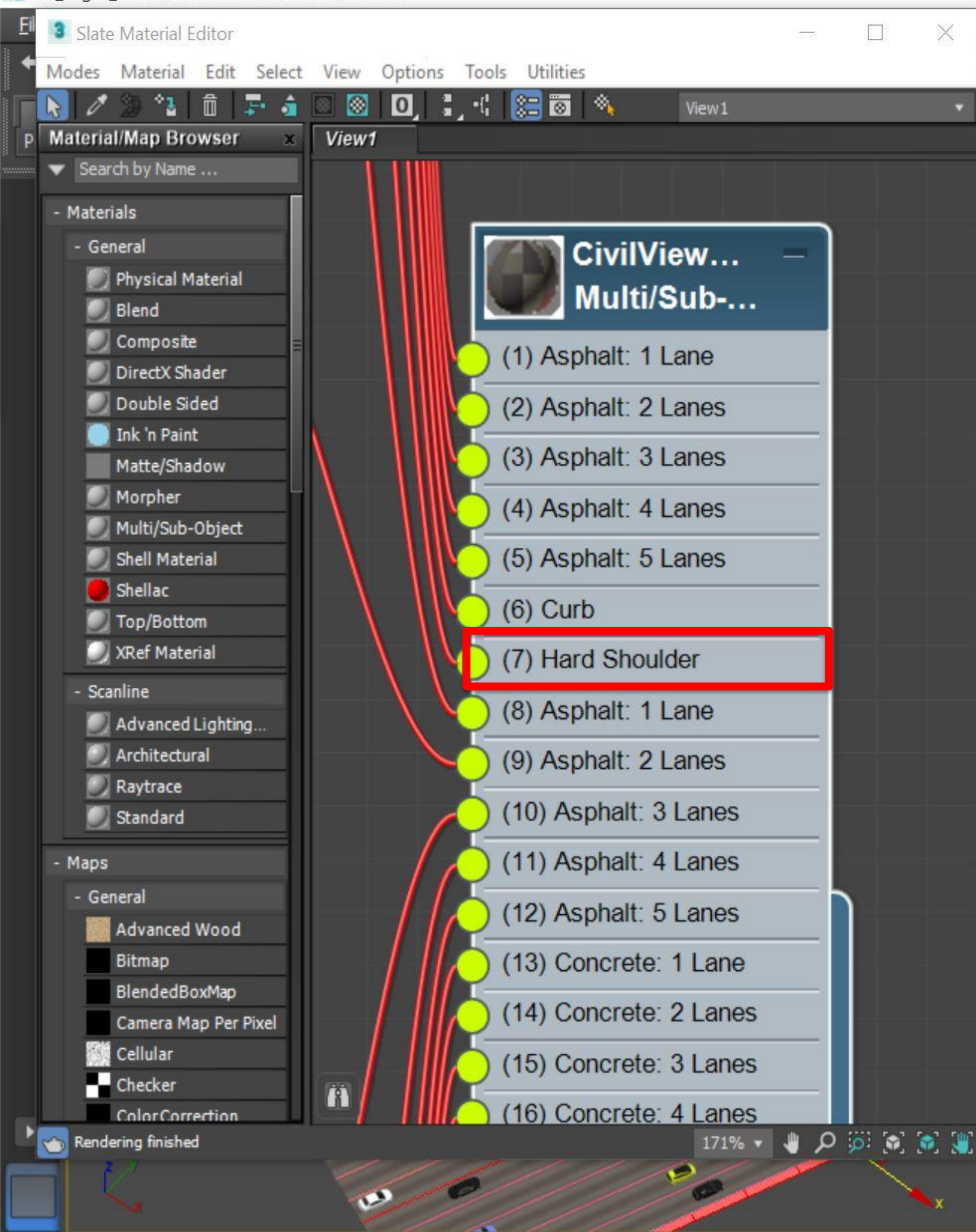




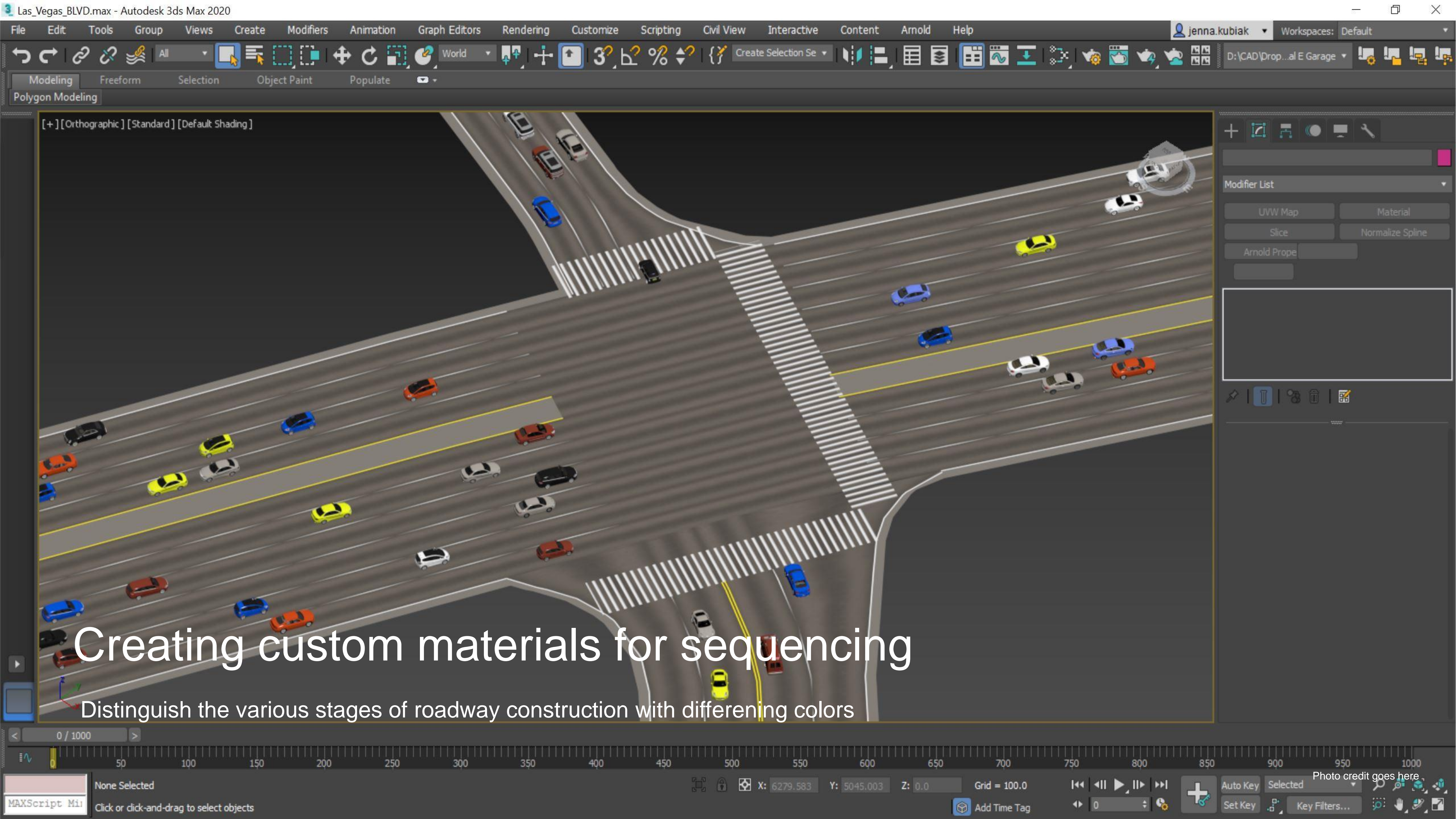
# Assigning Material ID's to Roadway Surfaces

Photo credit goes here







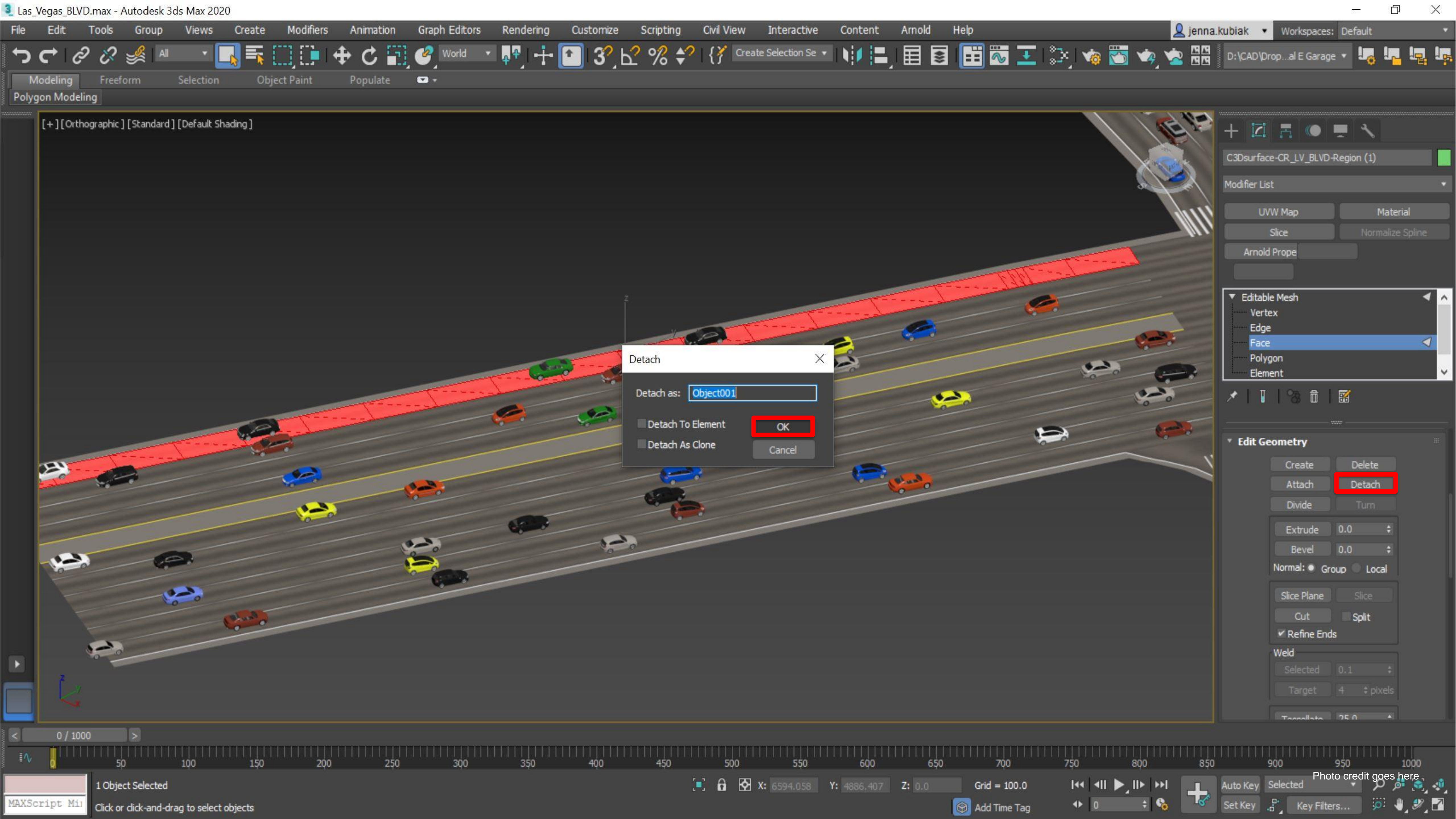


# Creating custom materials for sequencing

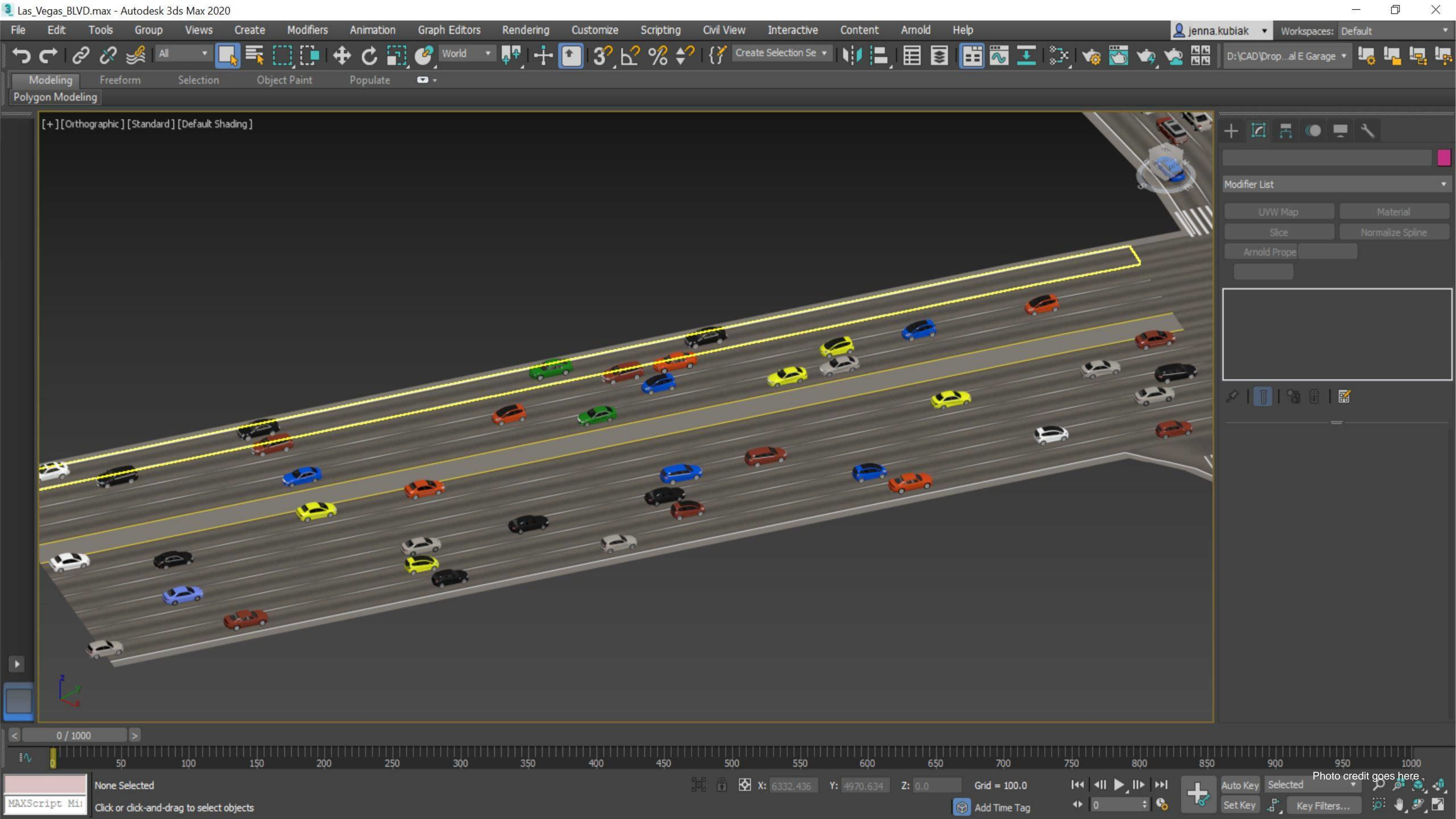
Distinguish the various stages of roadway construction with differening colors

Photo credit goes here

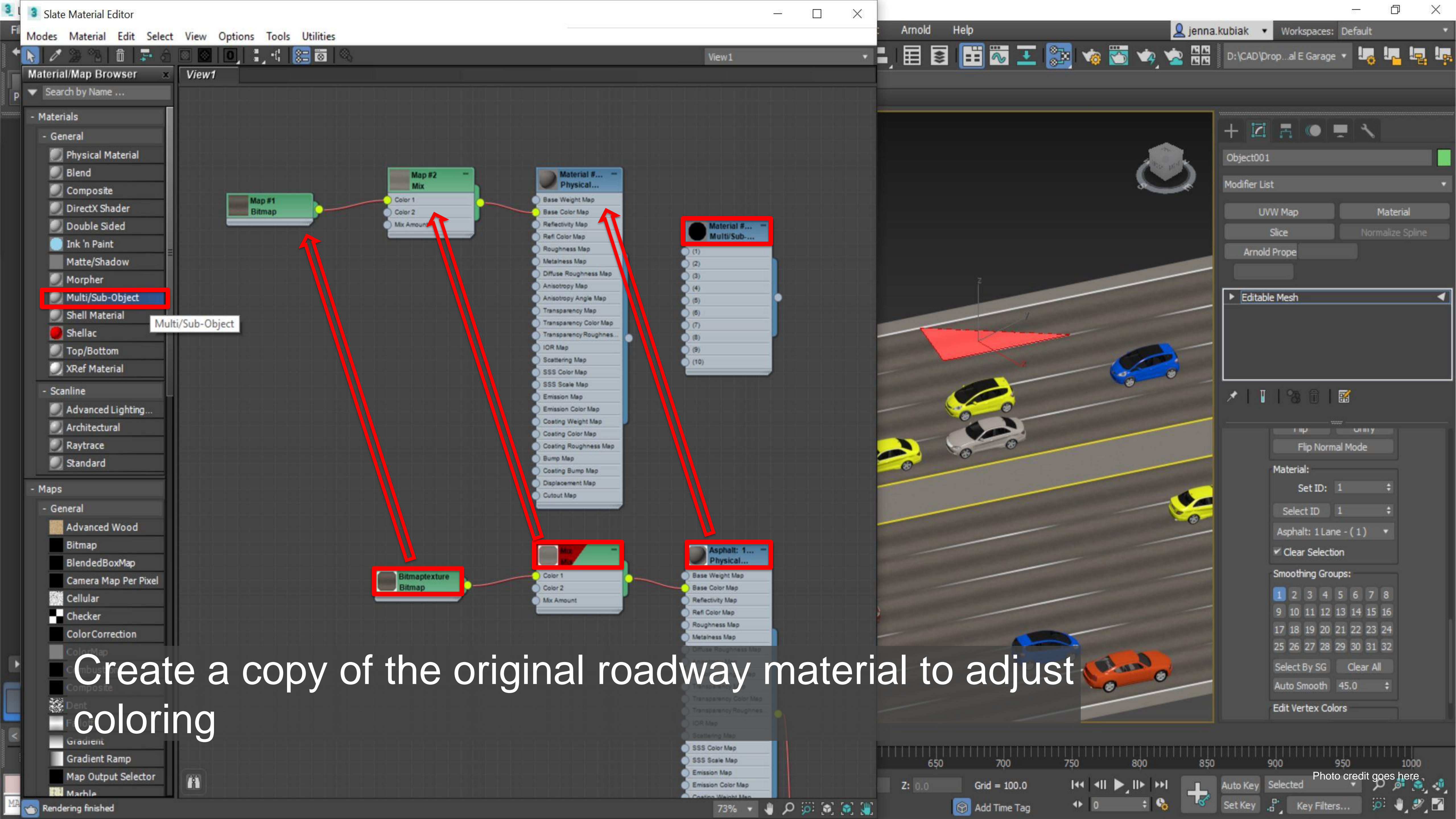




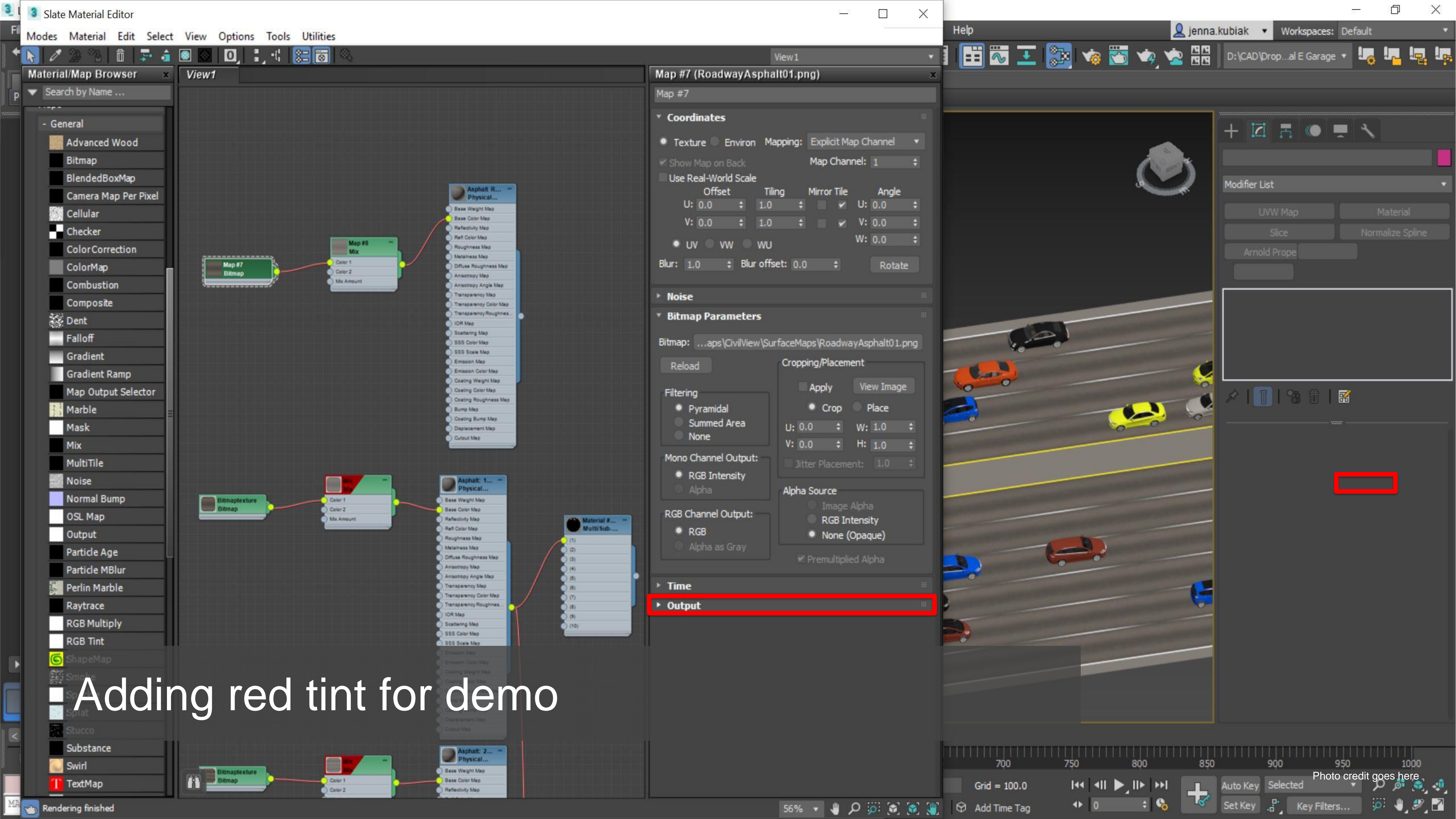








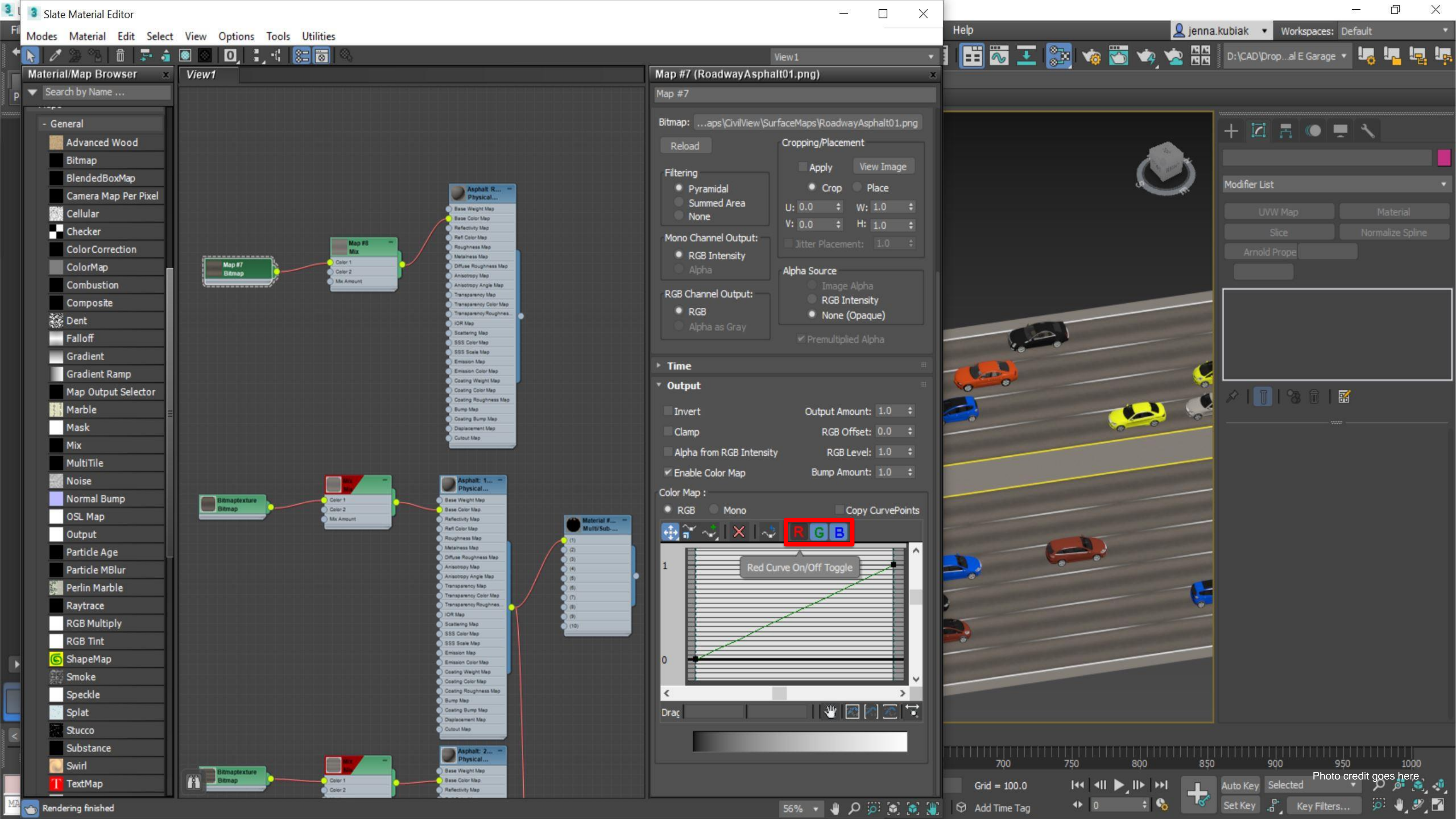




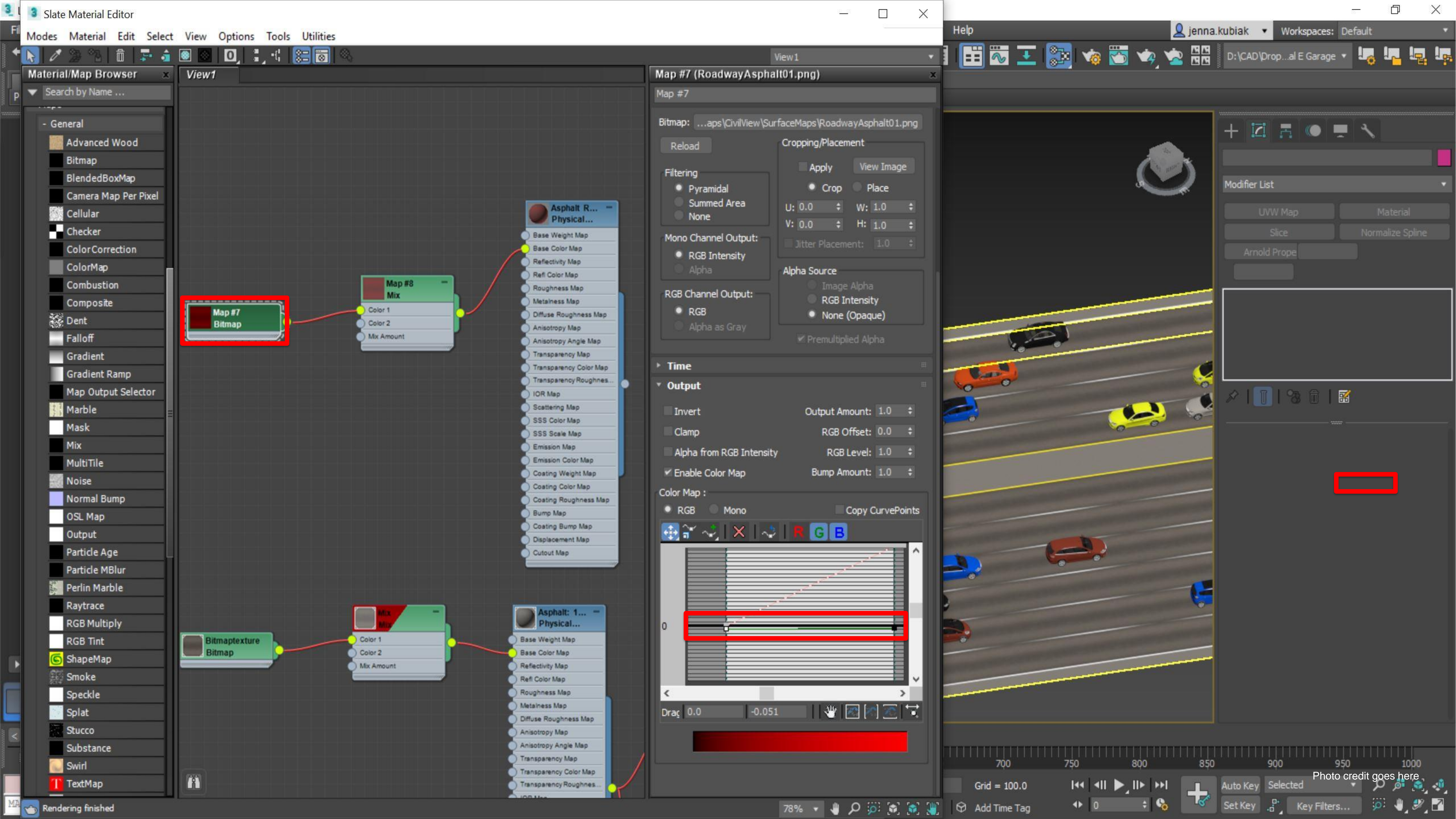
Adding red tint for demo

Photo credit goes here

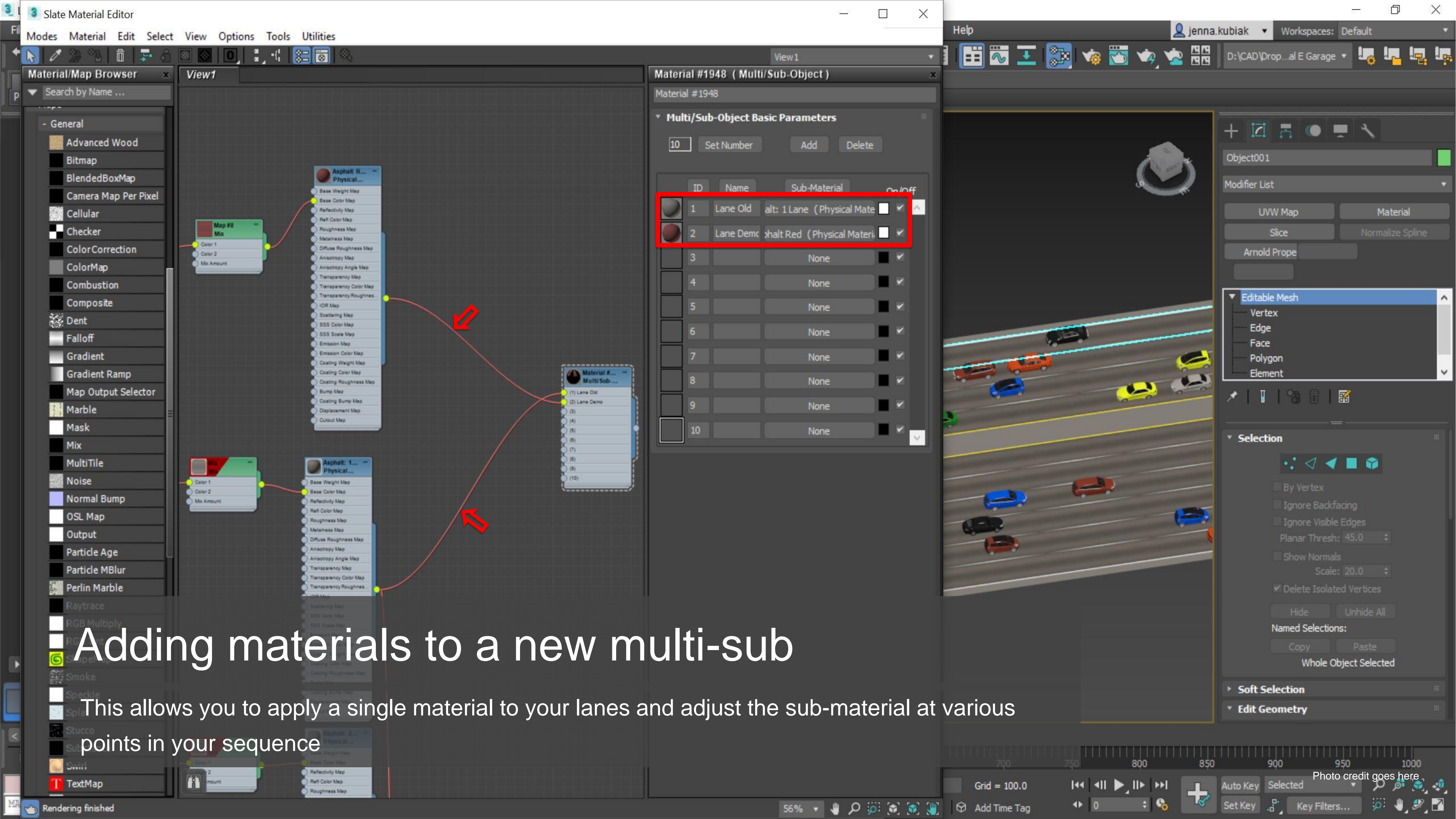










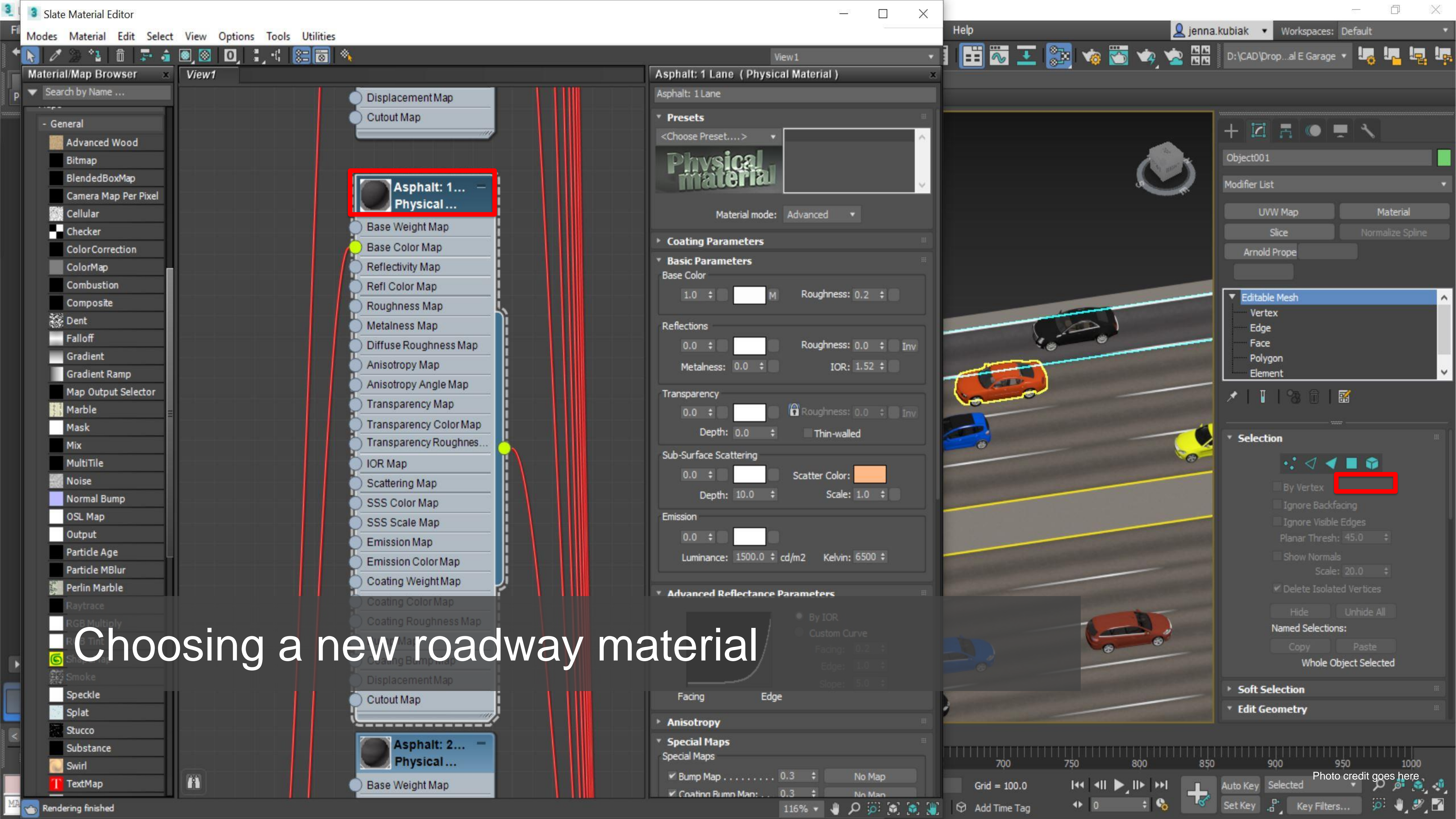


# Adding materials to a new multi-sub

This allows you to apply a single material to your lanes and adjust the sub-material at various points in your sequence

Photo credit goes here

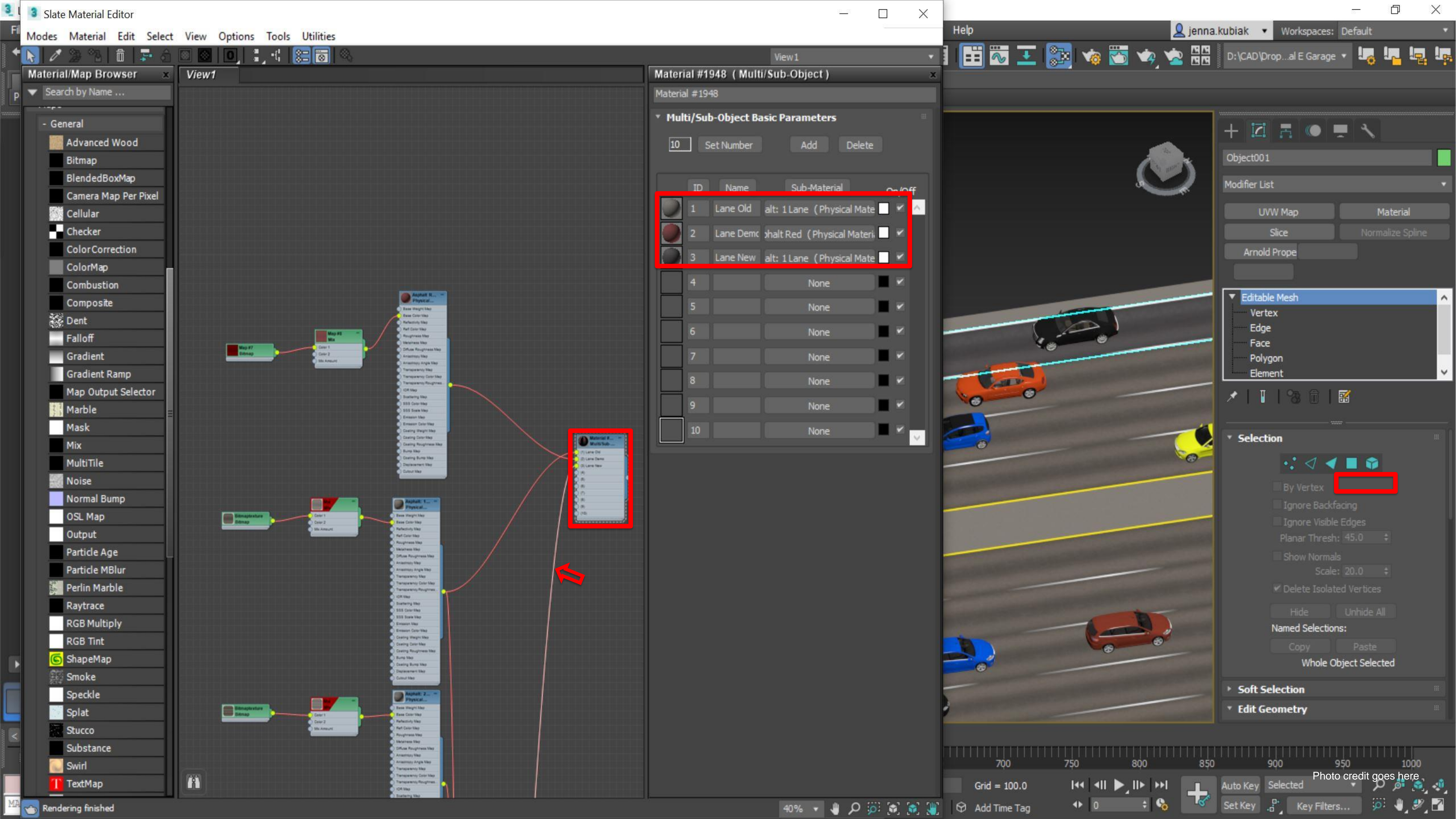




Choosing a new roadway material

Photo credit goes here





Material #1948 ( Multi/Sub-Object )				
Material #1948				
Multi/Sub-Object Basic Parameters				
10	Set Number	Add	Delete	
ID	Name	Sub-Material	On/Off	
1	Lane Old	alt: 1 Lane ( Physical Mate	<input checked="" type="checkbox"/>	
2	Lane Demo	phalt Red ( Physical Materi	<input checked="" type="checkbox"/>	
3	Lane New	alt: 1 Lane ( Physical Mate	<input checked="" type="checkbox"/>	
4		None	<input checked="" type="checkbox"/>	
5		None	<input checked="" type="checkbox"/>	
6		None	<input checked="" type="checkbox"/>	
7		None	<input checked="" type="checkbox"/>	
8		None	<input checked="" type="checkbox"/>	
9		None	<input checked="" type="checkbox"/>	
10		None	<input checked="" type="checkbox"/>	

Object001

Modifier List

UVW Map

Material

Slice

Normalize Spline

Arnold Prope

Editable Mesh

Vertex

Edge

Face

Polygon

Element

Selection

By Vertex

Ignore Backfacing

Ignore Visible Edges

Planar Thresh: 45.0

Show Normals

Scale: 20.0

Delete Isolated Vertices

Hide

Unhide All

Named Selections:

Copy

Paste

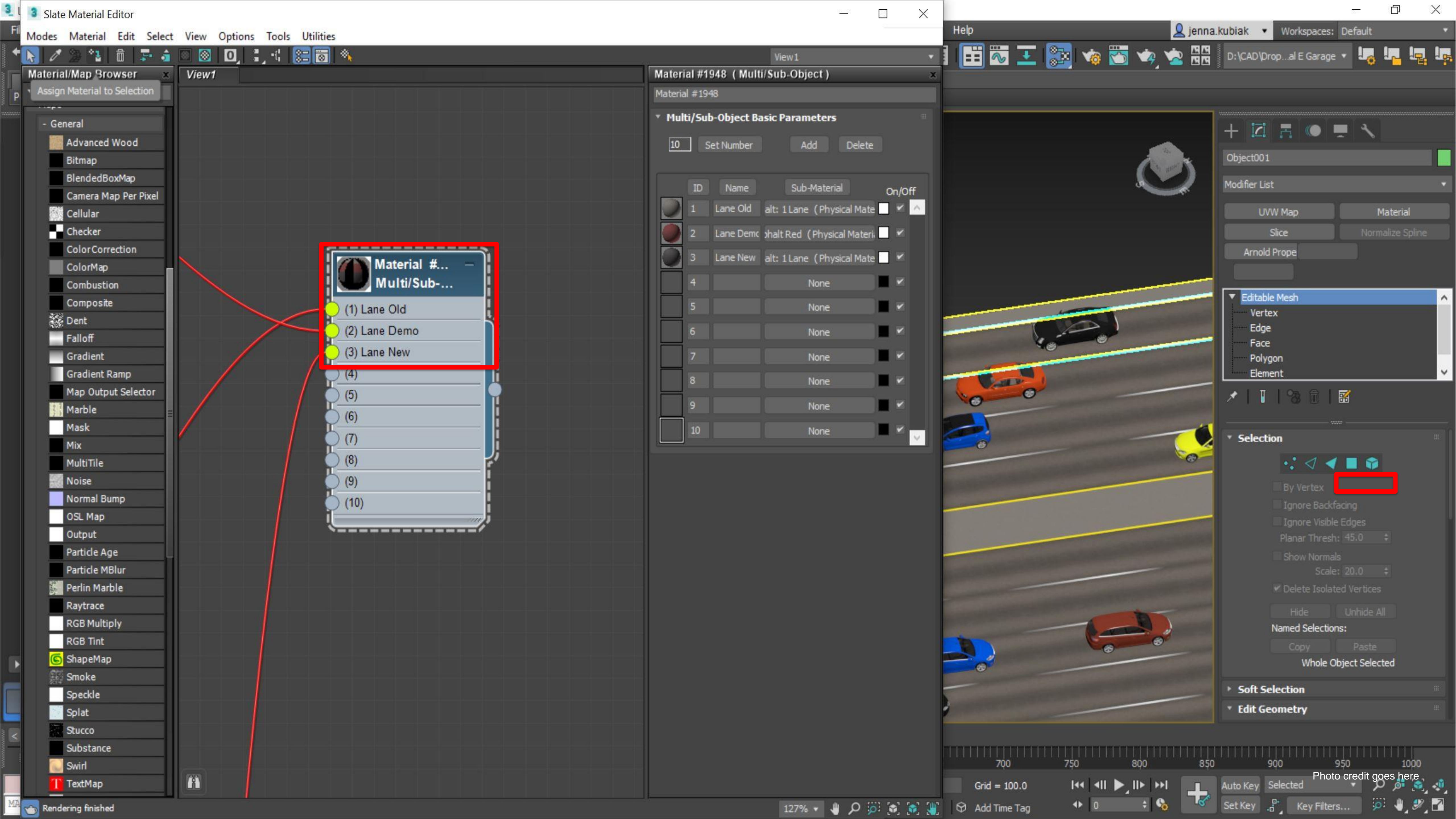
Whole Object Selected

Soft Selection

Edit Geometry

Photo credit goes here





## General

Advanced Wood  
Bitmap  
BlendedBoxMap  
Camera Map Per Pixel  
Cellular  
Checker  
ColorCorrection  
ColorMap  
Combustion  
Composite  
Dent  
Falloff  
Gradient  
Gradient Ramp  
Map Output Selector  
Marble  
Mask  
Mix  
MultiTile  
Noise  
Normal Bump  
OSL Map  
Output  
Particle Age  
Particle MBlur  
Perlin Marble  
Raytrace  
RGB Multiply  
RGB Tint  
ShapeMap  
Smoke  
Speckle  
Splat  
Stucco  
Substance  
Swirl  
TextMap

Material #...  
Multi/Sub-...

- (1) Lane Old
- (2) Lane Demo
- (3) Lane New
- (4)
- (5)
- (6)
- (7)
- (8)
- (9)
- (10)

## Multi/Sub-Object Basic Parameters

10

Set Number

Add

Delete

ID	Name	Sub-Material	On/Off
1	Lane Old	alt: 1 Lane (Physical Mate	<input checked="" type="checkbox"/>
2	Lane Demo	phalt Red (Physical Materi	<input checked="" type="checkbox"/>
3	Lane New	alt: 1 Lane (Physical Mate	<input checked="" type="checkbox"/>
4		None	<input checked="" type="checkbox"/>
5		None	<input checked="" type="checkbox"/>
6		None	<input checked="" type="checkbox"/>
7		None	<input checked="" type="checkbox"/>
8		None	<input checked="" type="checkbox"/>
9		None	<input checked="" type="checkbox"/>
10		None	<input checked="" type="checkbox"/>

Object001

Modifier List

UVW Map

Material

Slice

Normalize Spline

Arnold Prope

## Editable Mesh

Vertex  
Edge  
Face  
Polygon  
Element

## Selection



By Vertex

Ignore Backfacing

Ignore Visible Edges

Planar Thresh: 45.0

Show Normals

Scale: 20.0

Delete Isolated Vertices

Hide

Unhide All

Named Selections:

Copy

Paste

Whole Object Selected

## Soft Selection

## Edit Geometry

Grid = 100.0

127%

Add Time Tag

Auto Key

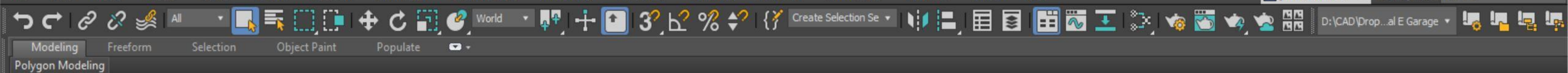
Selected

Set Key

Key Filters...

Photo credit goes here





[+][Orthographic][Standard][Default Shading]



Object001

Material

Material

MaterialByElement

mCloth

Melt

Mesh Select

MeshSmooth

Mirror

Morpher

MultiRes

Noise

Normal

OpenSubdiv

Optimize

Particle Face Creator

Particle Skinner

Patch Select

PatchDeform

Path Deform

Physique

Point Cache

Poly Select

Preserve

Projection

ProOptimizer

Push

Quadify Mesh

Relax

Ripple

Select By Channel

Shell

Skew

Skin

Skin Morph

Skin Wrap

Skin Wrap Patch

Slice

Smooth

Spherify

Squeeze

STL Check

Stretch

0 / 1000

50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850

1 Object Selected

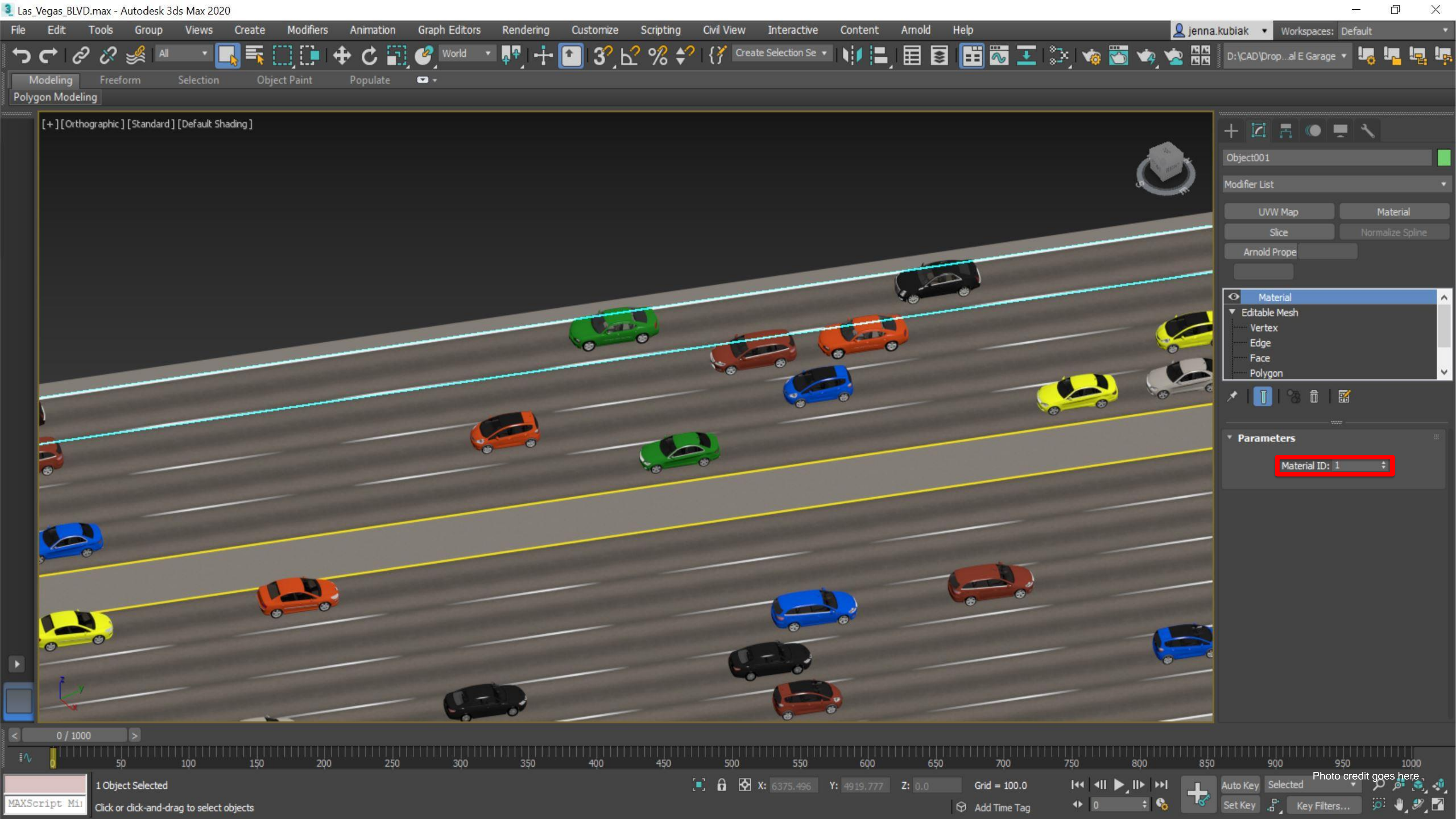
MAXScript Mini

Click or click-and-drag to select objects

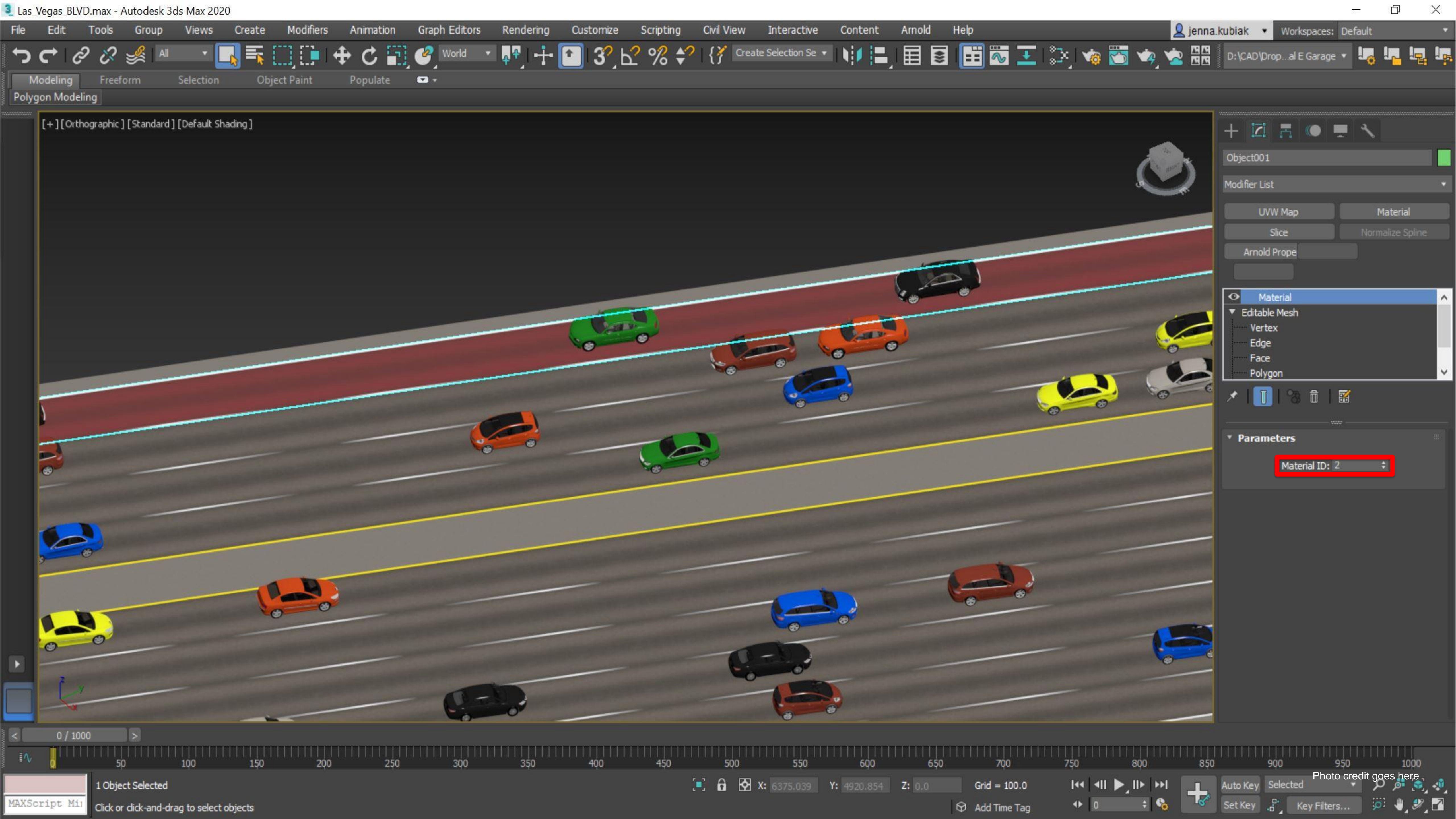
Add Time Tag

Photo credit goes here

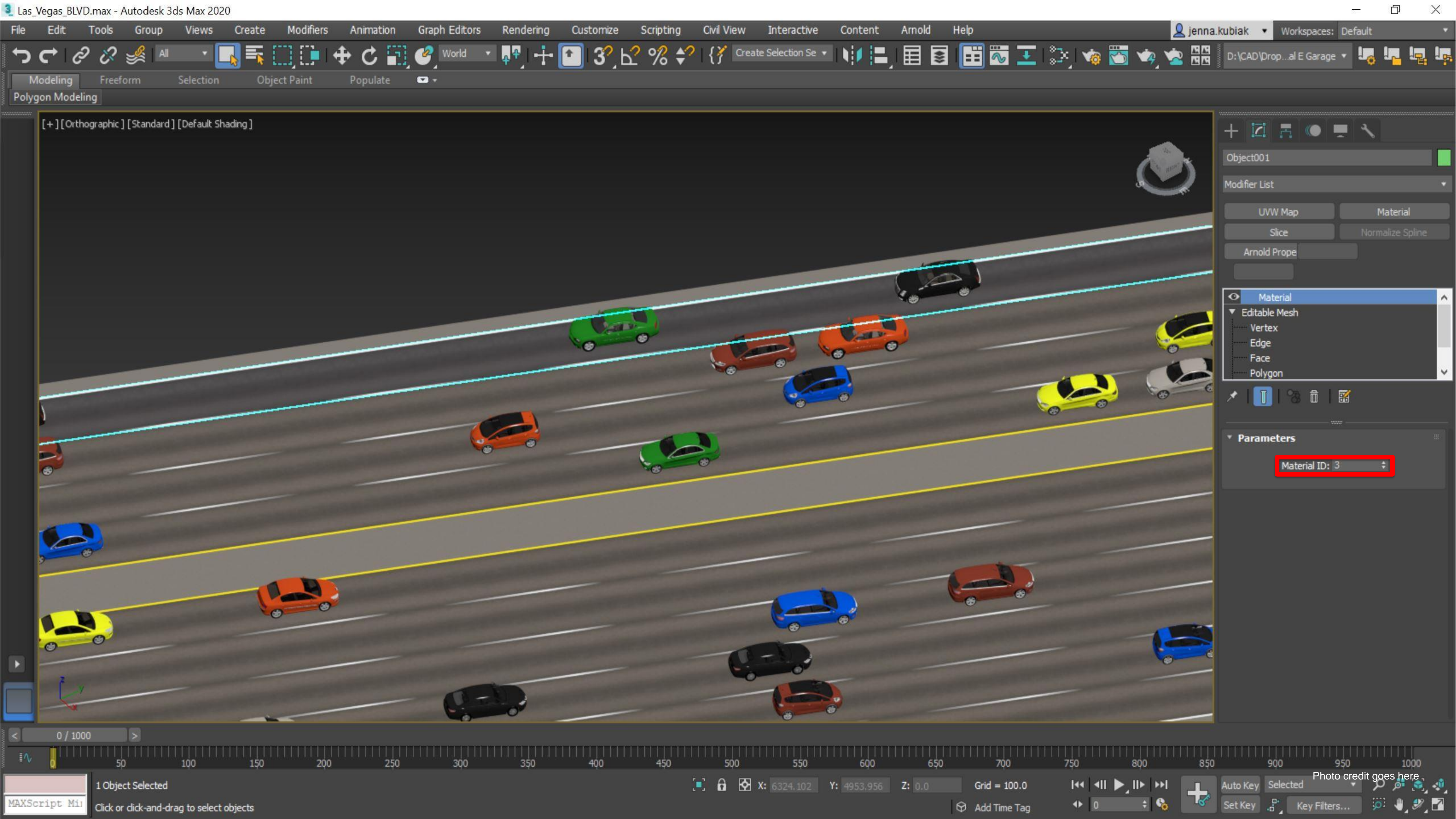




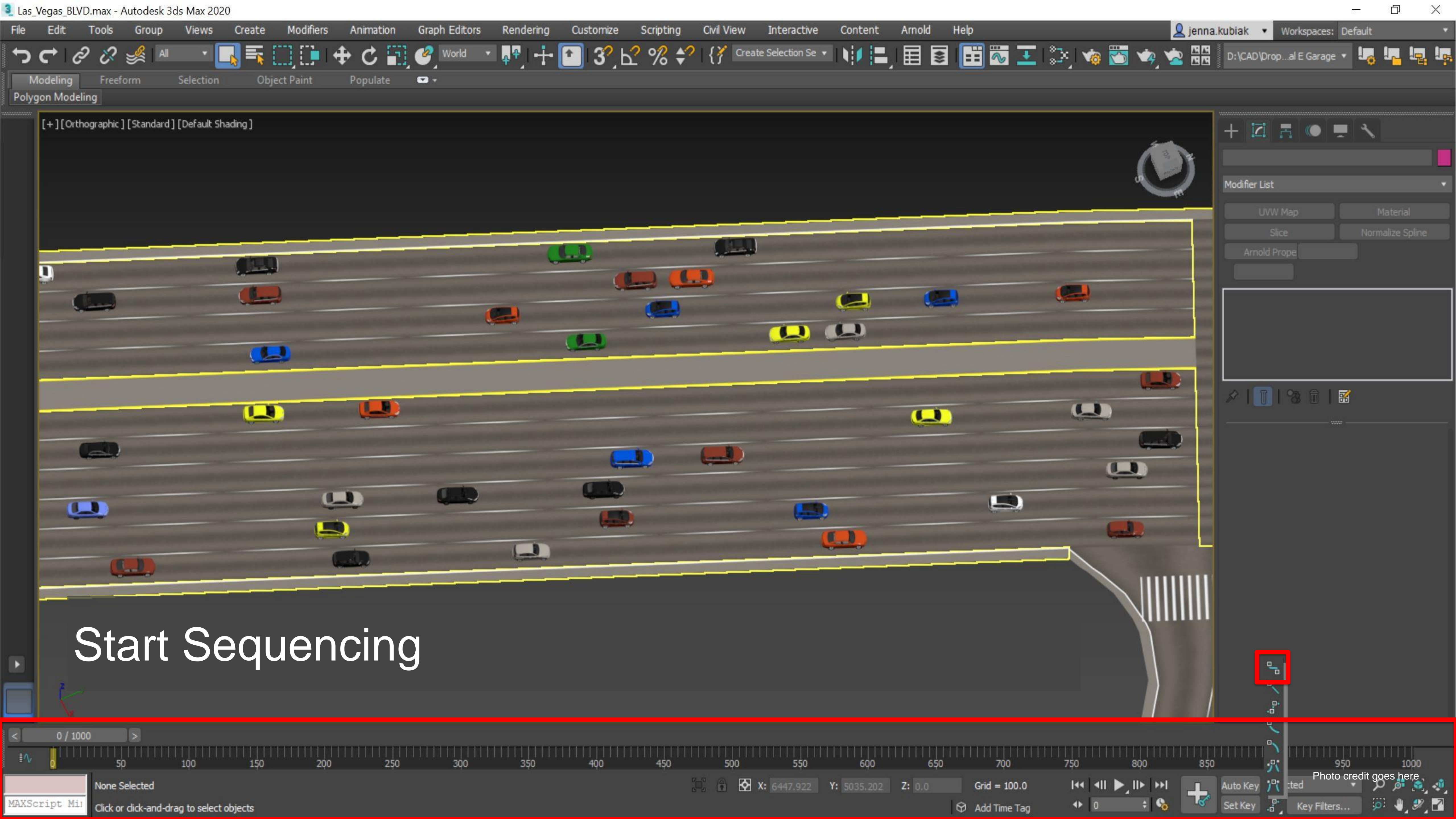










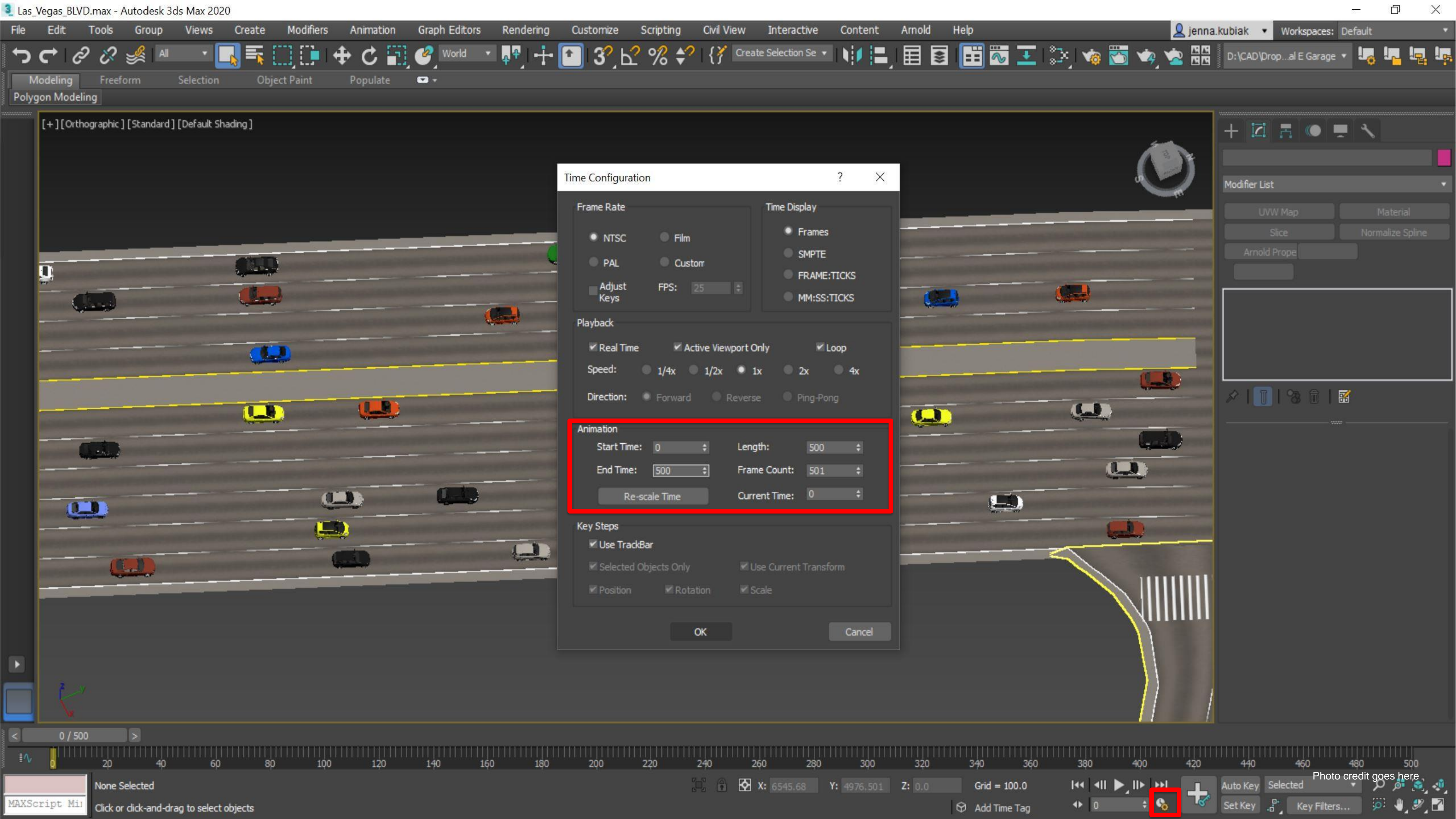


Start Sequencing



Photo credit goes here





Time Configuration

Frame Rate

☒ NTSC

☐ PAL

☐ Adjust Keys

☐ Film

☐ Custom

FPS:

25

Time Display

☒ Frames

☐ SMPTE

☐ FRAME:TICKS

☐ MM:SS:TICKS

Playback

☒ Real Time

☒ Active Viewport Only

☒ Loop

Speed:

☐ 1/4x

☐ 1/2x

☒ 1x

☐ 2x

☐ 4x

Direction:

☒ Forward

☐ Reverse

☐ Ping-Pong

Animation

Start Time:

0

Length:

500

End Time:

500

Frame Count:

501

Re-scale Time

Current Time:

0

Key Steps

☒ Use TrackBar

☒ Selected Objects Only

☒ Position

☒ Rotation

☒ Use Current Transform

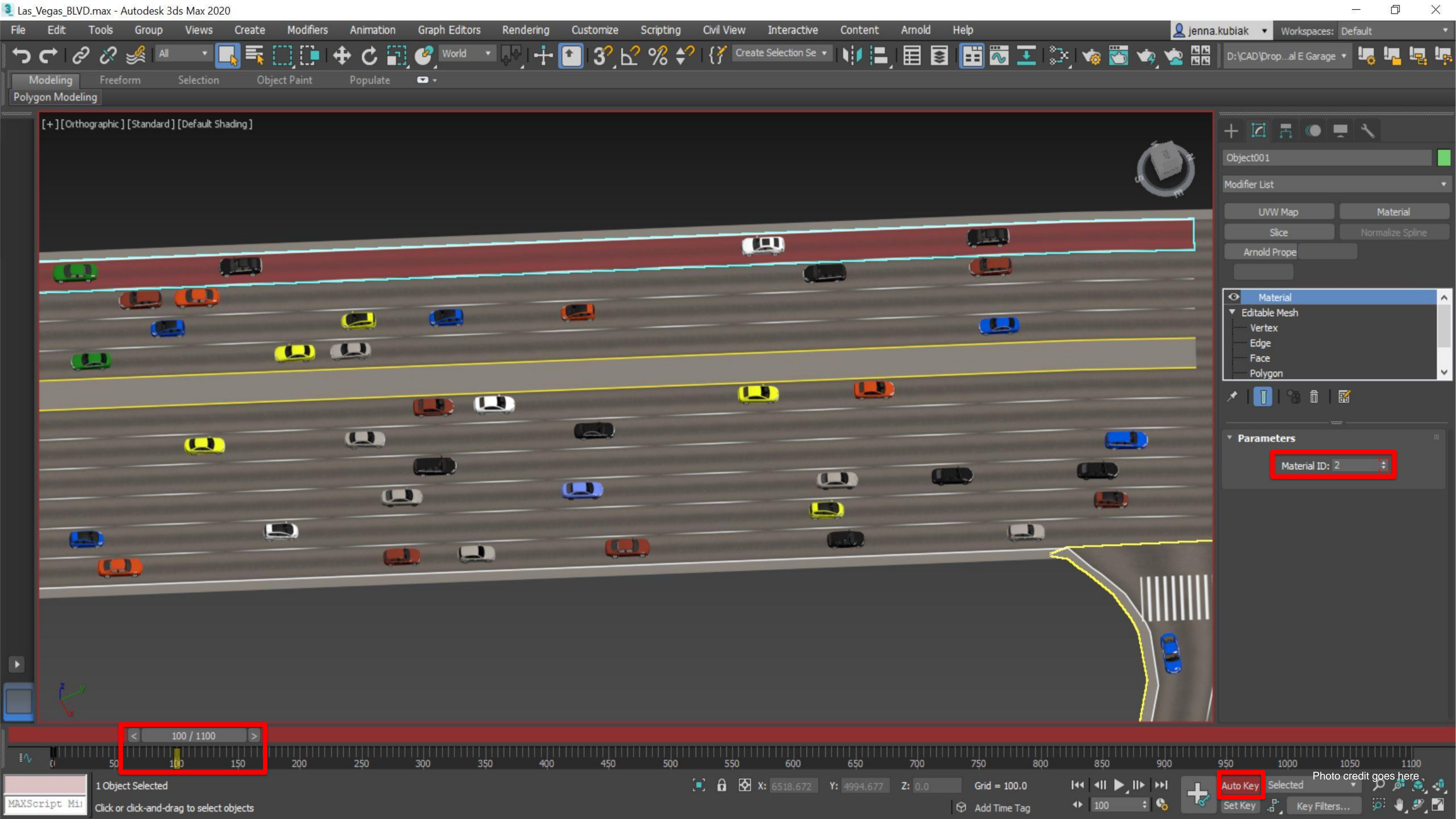
☒ Scale

OK

Cancel

Photo credit goes here





Object001

Modifier List

UVW Map Material  
Slice Normalize Spline  
Arnold Prope

Material  
Editable Mesh  
Vertex  
Edge  
Face  
Polygon

Parameters

Material ID: 2

Auto Key Selected  
Set Key Key Filters...

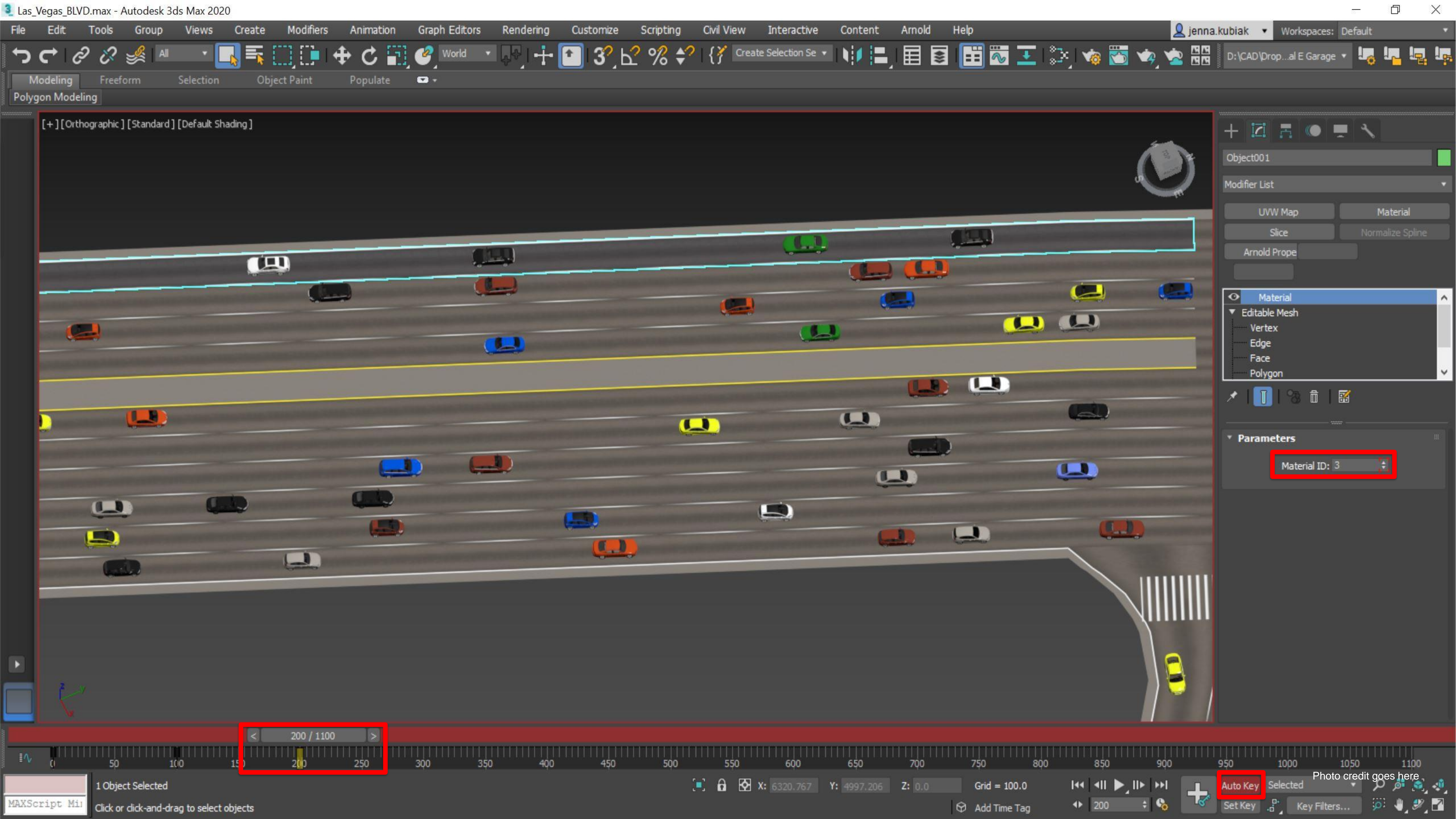
100 / 1100

1 Object Selected  
Click or click-and-drag to select objects

X: 6518.672 Y: 4994.677 Z: 0.0 Grid = 100.0  
Add Time Tag

Photo credit goes here





[+][Orthographic][Standard][Default Shading]

Object001

Modifier List

UVW Map Material

Slice Normalize Spline

Arnold Prope

Material

Editable Mesh

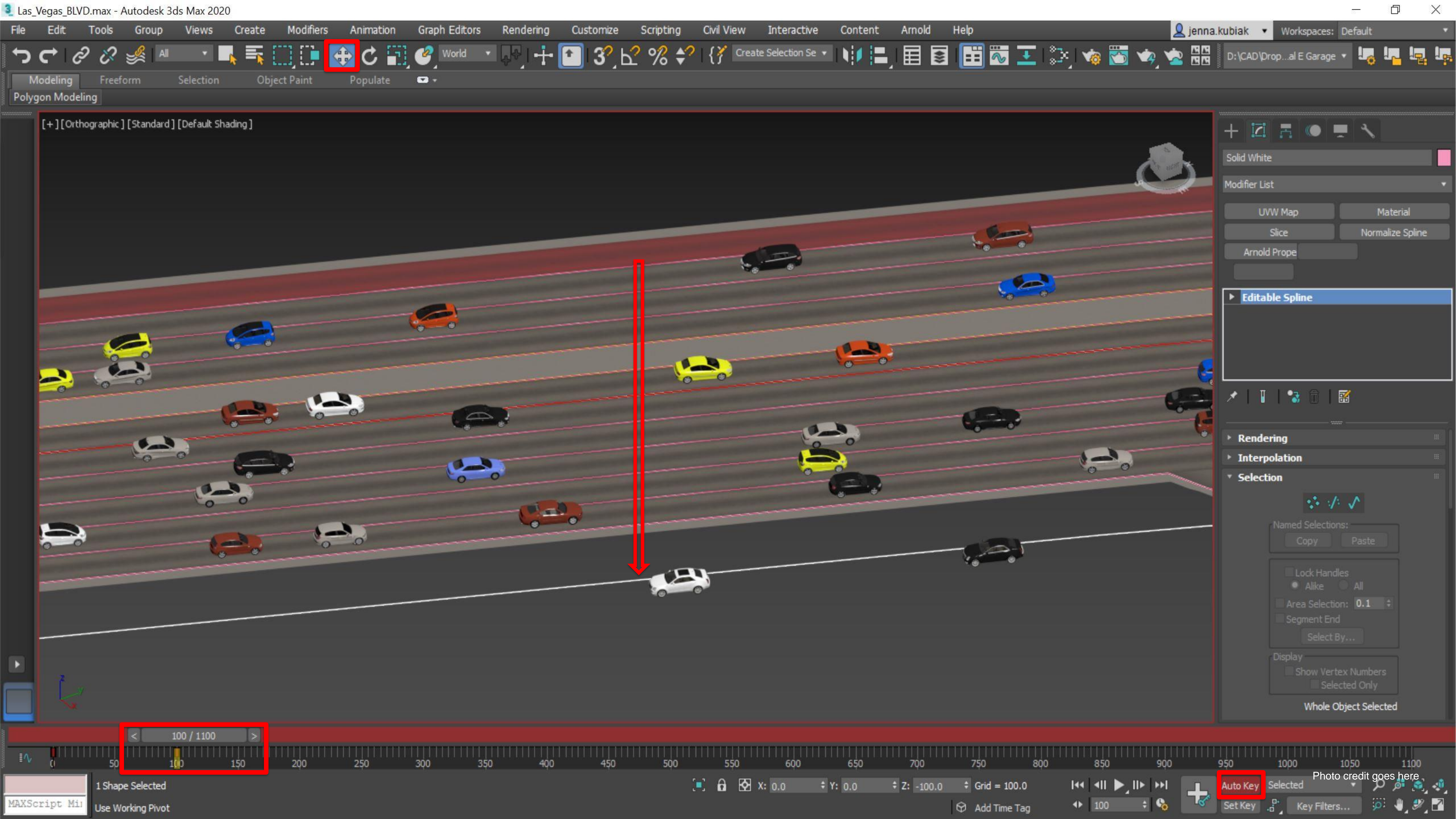
- Vertex
- Edge
- Face
- Polygon

Parameters

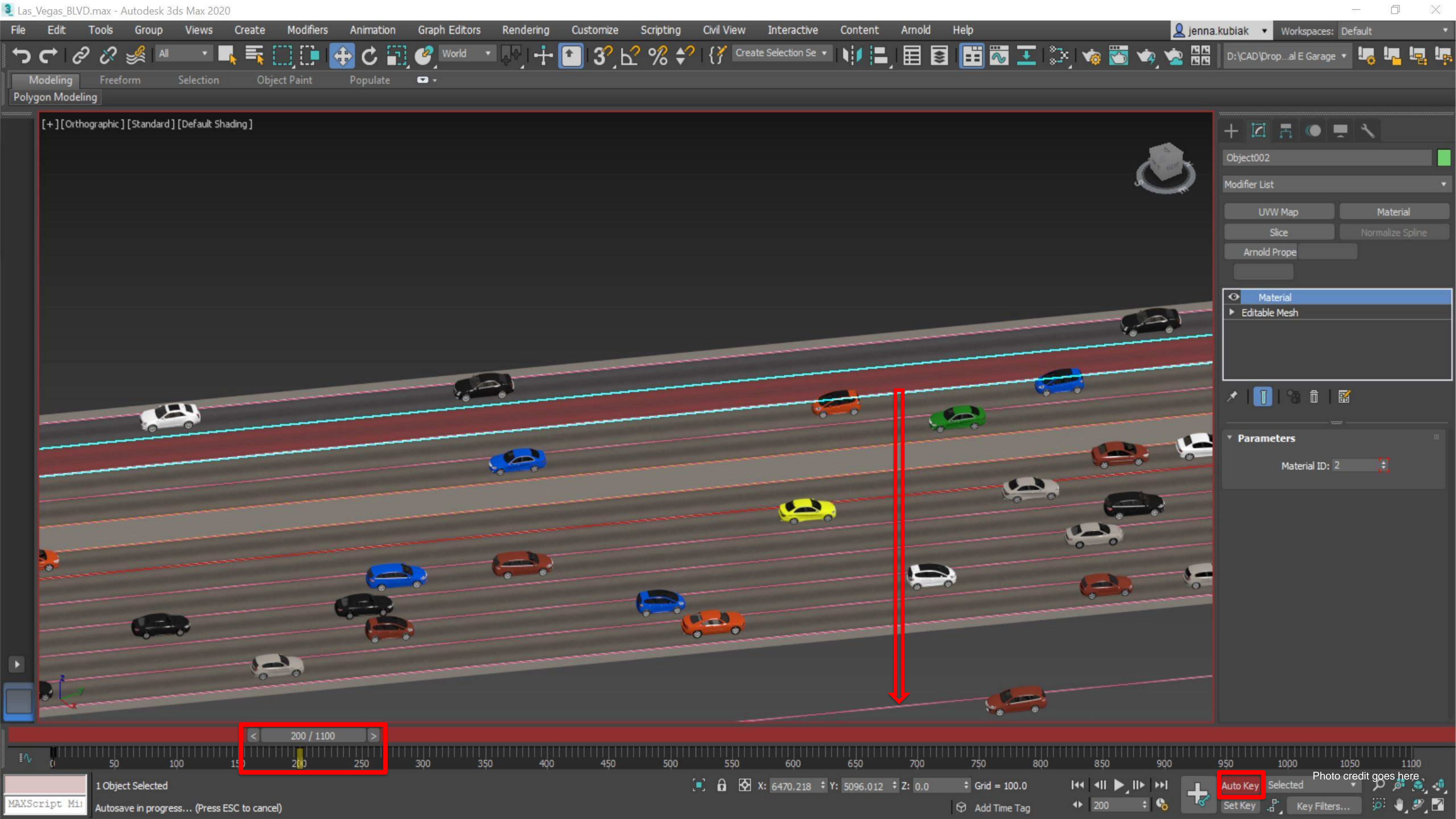
Material ID: 3

< 200 / 1100 >









[+][Orthographic][Standard][Default Shading]

Object002

Modifier List

UVW Map Material

Slice Normalize Spline

Arnold Prope

Material

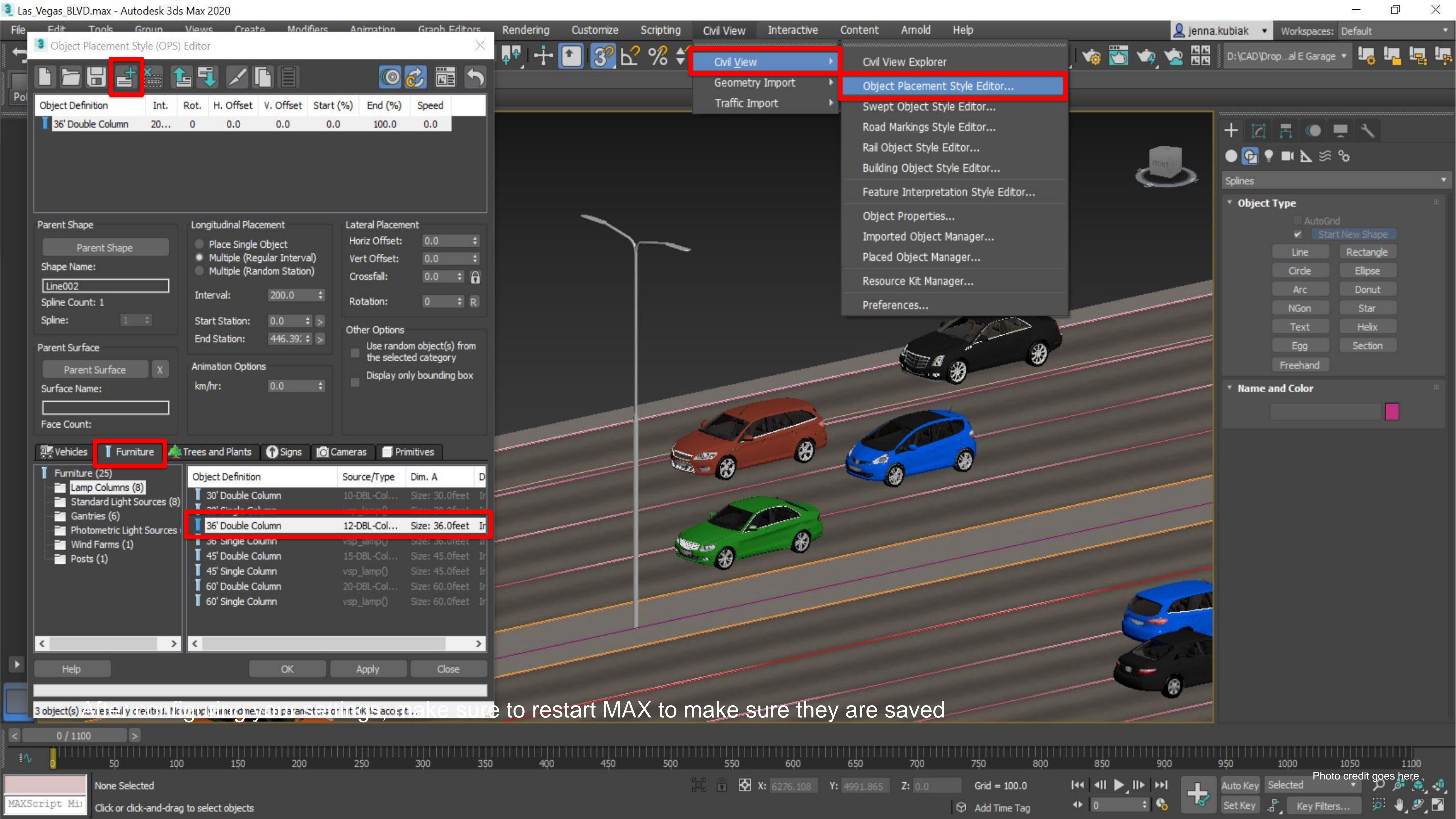
Editable Mesh

Parameters

Material ID: 2

< 200 / 1100 >





Object Definition	Int.	Rot.	H. Offset	V. Offset	Start (%)	End (%)	Speed
36' Double Column	20...	0	0.0	0.0	0.0	100.0	0.0

Parent Shape

Parent Shape

Shape Name: Line002

Spline Count: 1

Spline: 1

Parent Surface

Parent Surface X

Surface Name:

Face Count:

Longitudinal Placement

☐ Place Single Object

☒ Multiple (Regular Interval)

☐ Multiple (Random Station)

Interval: 200.0

Start Station: 0.0

End Station: 446.39

Lateral Placement

Horiz Offset: 0.0

Vert Offset: 0.0

Crossfall: 0.0

Rotation: 0

Other Options

☐ Use random object(s) from the selected category

☐ Display only bounding box

Animation Options

km/hr: 0.0

Vehicles Furniture Trees and Plants Signs Cameras Primitives

Object Definition	Source/Type	Dim. A	D
30' Double Column	10-DBL-Col...	Size: 30.0feet	Ir
36' Double Column	12-DBL-Col...	Size: 36.0feet	Ir
36' Single Column	vsp_lamp0	Size: 36.0feet	Ir
45' Double Column	15-DBL-Col...	Size: 45.0feet	Ir
45' Single Column	vsp_lamp0	Size: 45.0feet	Ir
60' Double Column	20-DBL-Col...	Size: 60.0feet	Ir
60' Single Column	vsp_lamp0	Size: 60.0feet	Ir

Help OK Apply Close

3 object(s) successfully created. No further action is needed to parameters or hit OK to accept.

After configuring new settings, make sure to restart MAX to make sure they are saved

Photo credit goes here





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