



APCM Digital Delivery Program Synchro

Update

APCM Update

- User Acceptance Testing
- Champions
- Training
- Rollout
- Two Systems





Digital Delivery Program

Update





HELP
#EndTheStreakTX
End the streak of daily deaths on Texas roadways.

TxDOT.gov (Keyword: #EndTheStreakTX)



#EndTheStreakTX Toolkit



Roadmap



START: Geopak Utilization

2018: OpenRoads Utilization

2019: Posting XS

2022: OpenRoads Rollout

Formation of DDP Working Groups

Ongoing Change Management

2024:

- Models for Letting
- Model Development Standards
- Implementation Plan
- Digital Construction Exploration
- Workforce Transition Strategy



SPRING 2025:

- 1st Fully Digital Pilot Project



Additional Pilot Projects

Statewide Policy for Digital Delivery of Applicable Projects

2023:

- Software Investigation
- Model Review SOP
- Asset Management Digital Twin Exploration
- Strategic Plan



Ongoing Change Management

Digital Delivery – In Progress



Upgrade to ORD 10.12 – complete by end of Feb

ORD Advanced Modeling class – intersections, ramp, driveways

Strategic Plan – Final draft under review

QA/QC, inspection processes development

Models to contractors, FIO, on all projects....soon

JEDI project– Data Management & Asset Management subgroups

Model Development Standards and Level of Development standards in development

AGC working session with 100% SAT pilot project deliverables

Pilot Projects – SAT, AUS, LRD, YKM, SJT

Digital Delivery – Additional Pilot Projects



Name	District	Scope
US 83	Laredo	Schematic round first; 3.741 mi roadway widening to add lanes and shoulders from 1 mi north of SH 255 to Los Botines Ln
FM 1977	San Antonio	0.311 mi full depth reconstruction and widening from FM 621 to the Guadalupe/Caldwell county line
FM 971	Austin	3.14 mi roadway widening from CR 334 to SH 95. Includes pedestrian and drainage facilities
FM 236	Yoakum	~5 miles - Add Lane to Convert to a 3-Lane Facility with a Continuous Left Turn Lane Including Widen Pavement, Median Construction, Realign of Roadway, Construct Undivided Lanes, Placement of ACP, Upgrade Standard, and Proposed Drainage Modifications
FM 1929	San Angelo	~8.5 miles of rehabilitation of existing road from US 83 to Lake County Rd. No anticipated ROW.



What about letting?

- AGC Workshop completed with our 100% design files
- Mandatory Pre-Bid Meetings
- Plans Online
 - Folder in lieu of single PDF
 - Will include a reduced planset, roll plots, and contract digital files.
 - Proposals
- SAT Pre-Letting Responses FTP Site
 - For Information Only documents
- PS&E Checklist and Letting Checklist
 - New Checklists have been developed and will be refined with each pilot project

Communication Initiatives



TxDOT Digital Delivery Website

- www.txdot.gov/digital-delivery
- Roadmap
- FAQs & Glossary of Terms
- General Training Material
- Contact

Digital Delivery Roadshow

- Annual Program Updates
- Face-to-Face Presentations

Newsletter

- Pilot Project Updates
- Event Announcements

Conferences & Trainings





Questions?



SYNCHRO Update

Jackie Benavides

Construction Division



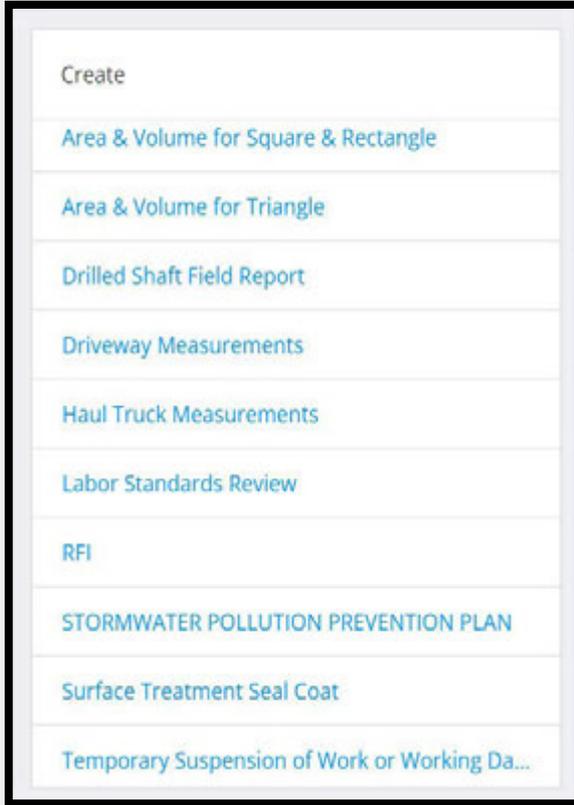
- ▶ WHAT IS SYNCHRO?

SYNCHRO is an application program used as a tool in the field to create field calculation sheets or forms that can be assigned to other users and imported directly to

ProjectWise

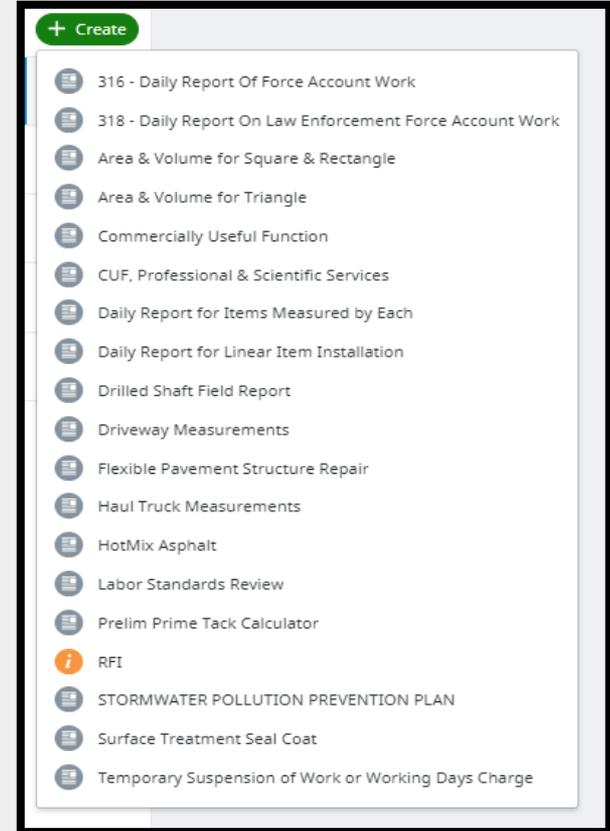
- ▶ SYNCHRO Control is the web-based application and SYNCHRO Field is the app available for cell phones or tablets
- ▶ SYNCHRO keeps tabs of recent activity of documents with an easy-to-read dashboard





Short Course
with 10
forms...

Now at 19 forms.
Continue to add
and develop as
we progress.





SYNCHRO - INPUT to OUTPUT

New Labor Standards Review

Project CSJ: Enter nine digit value (No Dashes) (i.e. 99999999)

County:

Date:

Employer:

Employee Interview

Employee Name:

Job Classification:

Wage Rate:

Describe your work duties and tools used:

LABOR STANDARDS REVIEW

Form 2022 Rev. 2/22 Page 1 of 2

Project CSJ: 49509056 County: ARANSAS Date: 8/31/2022

Employer: Flasher Company

Employee Interview

Employee Name: Jane Dane

Job Classification: test Wage Rate: 12

Describe your work duties and tools used:
cleaning signs

Work being performed (observed): testing labor interview

*Do you work over 40 hours per week? Yes No Overtime: _____ How paid? _____
Wage Rate: time and 1/2 (cash or check) Check _____

*Work on all projects (private, municipal, state or county) is counted for overtime.

Is any money deducted from your pay besides income and social security taxes?
 Yes No If yes, explain: _____

Has employee seen posting of minimum wage rates? Yes No Are you paid weekly? Yes No If not, how often? _____

Are you currently enrolled in an apprenticeship or training program? Yes No
If so, has copy of training program been provided? Yes No

On-the-Job Training (if applicable)

Are you currently enrolled in an OJT program? Yes No
If response is "No," proceed to page 2 and complete the "TxDOT Employee Performing Interview" portion.

When did you begin working for this company? Approximate Month/Year: _____

Job classification at hire: _____

List previous job classification/craft with this company or other companies:

In which classification/craft training are you enrolled? _____

What is the name and title of your trainer? _____

Comments

Author: Jacqueline Benavides
Date: 8/31/2022 10:48 AM

Comments:

Moved from status Open to Review.

Transition comment: please complete labor interview

Author: Jacqueline Benavides
Date: 8/31/2022 10:50 AM

Comments:

Moved from status Review to Completed.

Transition comment: all is good move to PW

History

8/31/2022, 10:48 AM	Jacqueline Benavides	Created
8/31/2022, 10:48 AM	Jacqueline Benavides	Assigned - Jacqueline Benavides
8/31/2022, 10:48 AM	Jacqueline Benavides	Status - Open
8/31/2022, 10:48 AM	Jacqueline Benavides	Opened
8/31/2022, 10:48 AM	Jacqueline Benavides	Status - Review
8/31/2022, 10:50 AM	Jacqueline Benavides	Status - Completed
8/31/2022, 10:50 AM	Jacqueline Benavides	Closed



SYNCHRO - Connections to ProjectWise



20

Export to PDF

ID:
LSR-00004

Project CSJ: Enter nine digit value (No Dashes): (i.e. 999999999)
123456789

County:
ANDERSON

Date:
Apr 27, 2023

Repositories

Search all repos...

Project Share
PROJECTSHARE

000803124
PVID

6 - Construction > 2. Field Records

+ New

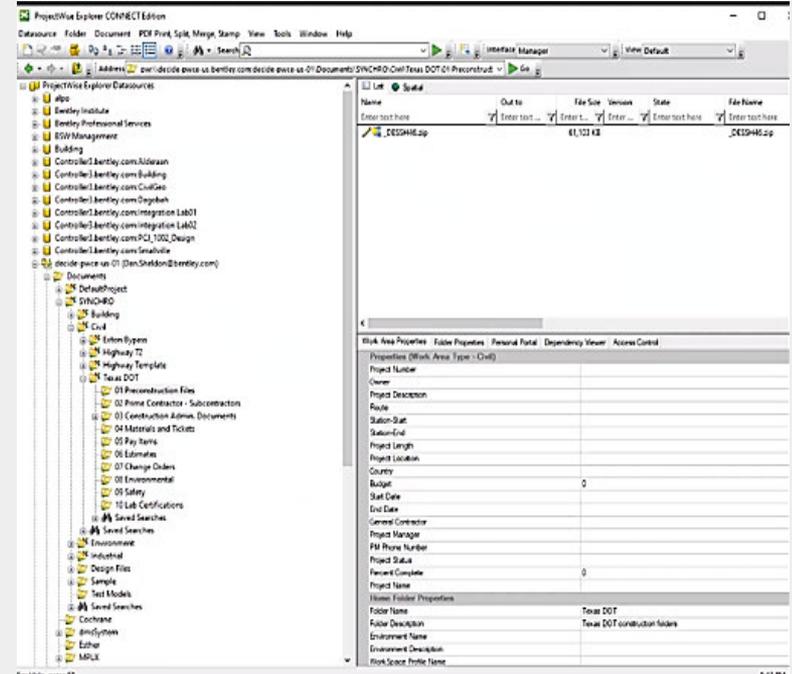
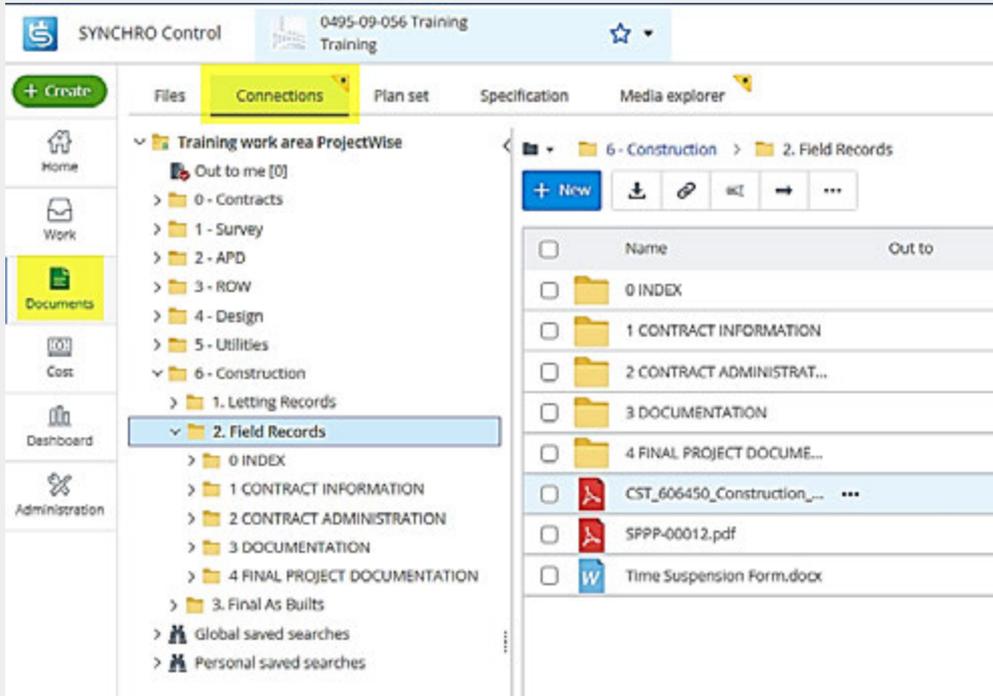
<input type="checkbox"/>	Name	Version	Size	Modified By	Last Modified
<input type="checkbox"/>	1 - Preconstruction				Aug 25, 2023, 7:45 pm
<input type="checkbox"/>	2 - Prime Contract...				Aug 25, 2023, 7:45 pm
<input type="checkbox"/>	3 - Contract Admi...				Aug 25, 2023, 7:45 pm
<input type="checkbox"/>	4 - Materials and ...				Aug 25, 2023, 7:45 pm
<input type="checkbox"/>	5 - Pay Items				Aug 25, 2023, 7:45 pm
<input type="checkbox"/>	6 - Change Orders				Aug 25, 2023, 7:45 pm
<input type="checkbox"/>	7 - Environmental				Aug 25, 2023, 7:45 pm
<input type="checkbox"/>	Training				Apr 27, 2023, 2:52 pm

Select Cancel

SYNCHRO - Connections to ProjectWise



Once a document or form is completed in SYNCHRO, the user creates a PDF version of the file and can drag and drop file in SYNCHRO, file updates to ProjectWise via Connection



SYNCHRO – Current Projects



SYNCHRO Control

My projects Favorites Register a trial project Register a project

Recent

<p>1899-02-021 SAT RM 1376 📍 RM 1376 @ RM 473 Created on: Sep 14, 2023</p>	<p>0495-09-056 ATL Pilot 📍 Marshall, Texas Created on: Dec 9, 2021</p>	<p>TxDOT CST Template TxDOT CST Template 📍 6230 E Stassney Ln, Austin 78744 Created on: Dec 9, 2021</p>	<p>Test-143402005-CST SAT DIGITAL DELIVERY PILOT - ... 📍 San Antonio, TX Created on: Aug 26, 2023</p>	<p>122803050 122803050 📍 Pharr Tx Created on: Feb 13, 2024</p>
<p>0008-03-124 FTW IH 20 Created on: Dec 27, 2022</p>	<p>BENTLEY TX DOT IH-20 Training BENTLEY TX DOT IH-20 Training 📍 Weatherford Texas, Interstate 20 Created on: Apr 25, 2023</p>	<p>BCM_TxDOT_Test_Project_003 BCM_TxDOT_Test_Project_003 Created on: Aug 26, 2023</p>		

All projects >

SYNCHRO - Selecting iModel

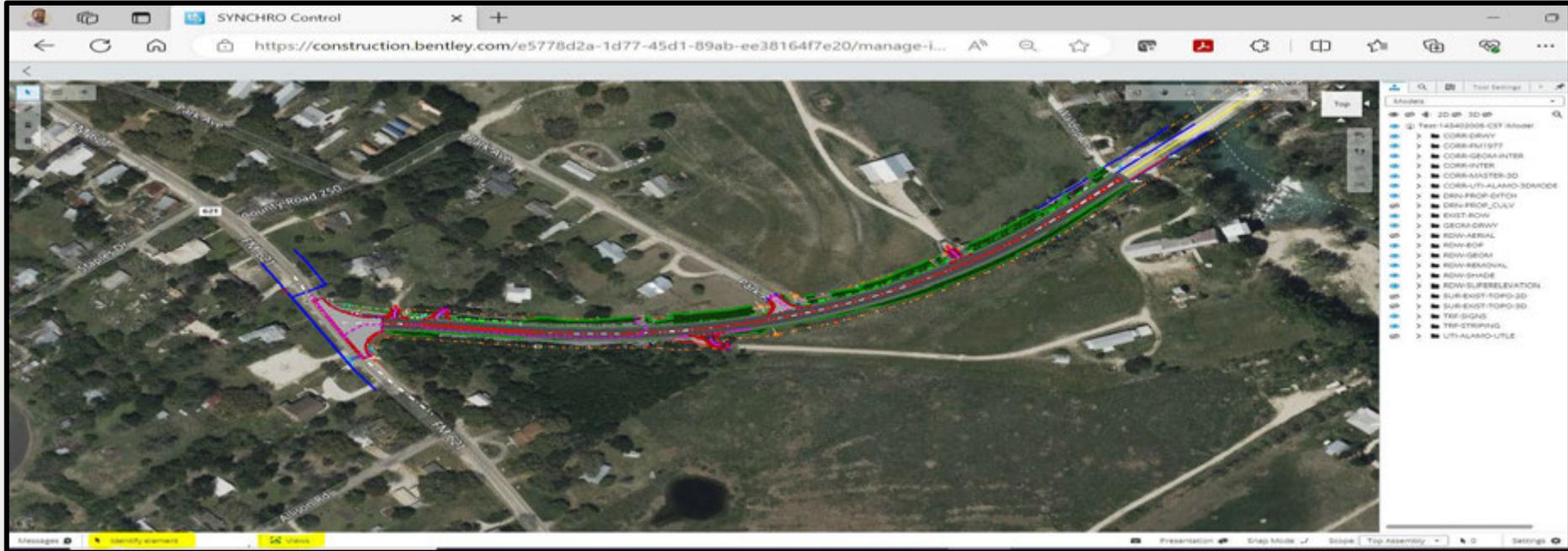


The screenshot displays the SYNCHRO Control web application interface. At the top, the project name is "Test-143402005-CST SAT DIGITAL DELIVERY PILOT - FM1977 - ...". The weather for San Antonio, TX is shown as 77°F on Wednesday, Sep 13, with a forecast for Thursday (75°F, Thunderstorms Late), Friday (74°F, Isolated Thunderstorms), Saturday (71°F, Scattered Thunderstorms), and Sunday (67°F, Clear).

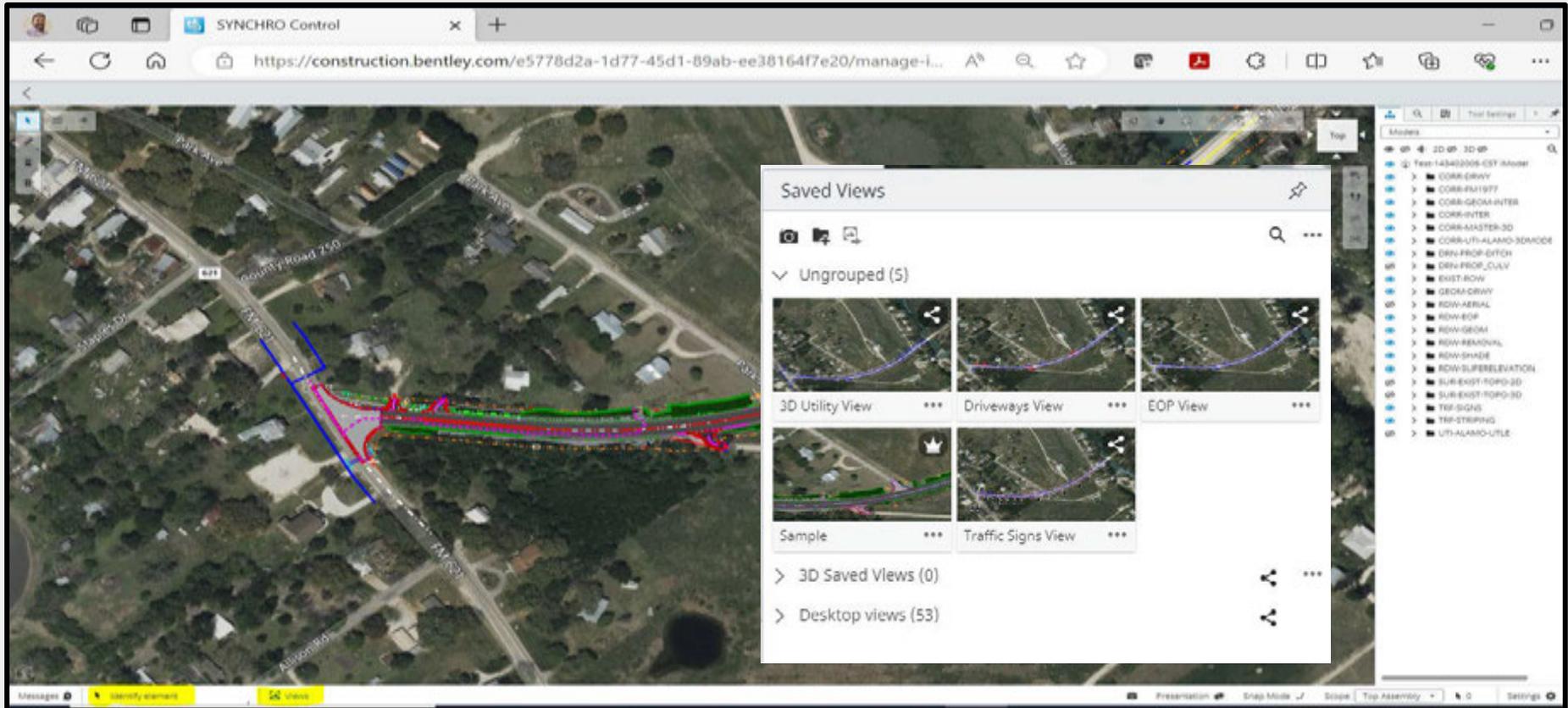
The main dashboard is divided into several sections:

- My recent activity:** A placeholder indicating "There are no recent items."
- My work:** A section with buttons for "My work", "My role", and "Share". A placeholder indicates "There is no work assigned to you" with a "View all" link at the bottom.
- Create:** A list of actions including "Area & Volume for Square & Rectangle", "Area & Volume for Triangle", "Driveway Measurements", "Haul Truck Measurements", "Labor Standards Review", "Prelim Prime Tack Calculator", "RFI", "Surface Treatment Seal Coat", and "Temporary Suspension of Work or Working Da...".
- iModels:** A section with a yellow header and a thumbnail for "Test-143402005-CST iModel" created on Aug 30, 2023, at 10:57:22 AM.
- Summary:** A section with tabs for "My work" and "Project". It displays four metrics: "All open items: 0" (with sub-counts: New: 0, Change: 2, Close deadline: 0, Warning: 0), "Open RFI: 0", "Open Potential Change Order: 0", and "Open Change Order: 0". There is also a "0 Open Payment Application" metric.

A left sidebar contains navigation icons for Home, Work, Documents, Cart, and Dashboard. The bottom left corner shows the SYNCHRO logo.



SYNCHRO – iModel Saved Views



SYNCHRO – iModel: Identifying Work Items



The screenshot displays the SYNCHRO Control software interface. The browser window at the top shows the URL: <https://construction.bentley.com/e5778d2a-1d77-45d1-89ab-ee38164f7e20/manage-i...>

The central 3D view shows a road construction model with various elements like roadways, sidewalks, and utility lines. Two orange boxes highlight specific areas on the road.

The left panel shows the Properties window for the selected item, with the 'Bid Items' section highlighted in red. The 'Bid Items' section contains the following information:

- Item_Catgry: 0300 - Surface Courses and Pav...
- Item_Selection: 316-6005_ASPH (TIER I)
- Item_Number: 316-6005
- Item_Description: ASPH (TIER I)
- Item_Unit: GAL
- Quantity: 0.00

The right panel shows the Models window, listing various construction models such as CORR-CRWVY, CORR-FM1977, CORR-GEOM-INTER, CORR-INTER, CORR-MASTER-3D, CORR-UTI-ALAMO-3DRMODE, CRV-PROP-DITCH, CRV-PROP_CULV, EXIST-ROW, GEOM-CRWVY, RDW-AERIAL, RDW-BCP, RDW-GEOM, RDW-REMOVAL, RDW-SHADE, RDW-SUPERELEVATION, SLUR-EXIST-TOPO-3D, SLUR-EXIST-TOPO-3D, TRF-SIGNS, TRF-STRIPING, and UTI-ALAMO-UTLE.

SYNCHRO – iModel: Civil Tools



The screenshot displays the SYNCHRO Control software interface. At the top, the browser address bar shows the URL: <https://construction.bentley.com/e5778d2a-1d77-45d1-89ab-ee38164f7e20/manage-i...>

The main workspace shows a 3D perspective view of a road construction project. A red box highlights the 'Civil Tools' menu, which includes the following options:

- Profile
- Perpendicular cross-section
- 2 points cross-section
- Station Offset
- Civil Quantities
- Drive
- Minimum Clearance

On the left side, the 'Properties' panel is visible, with a red box highlighting the 'Bid_Item' section:

- Removal: No
- Item Category: 0200--Subgrade Treatments and ...
- Item Selection: 275-6031_CEMENT TREAT (NEW B...
- Item Number: 275-6031
- Item Description: CEMENT TREAT (NEW BASE) (10')
- Item Unit: SY
- Quantity: 5839.82

At the bottom, two profile views are shown:

- The left profile is labeled 'FM1977-CL' and shows a cross-section of the road with a vertical axis from 400.0 to 500.0 and a horizontal axis from -40.0 to 40.0.
- The right profile is labeled 'FM1977-CL' and shows a longitudinal section with a vertical axis from 470.0 to 500.0 and a horizontal axis from 4+00.00 to 27+00.00. It displays a road grade with a 2.07% slope.



Phone App

Tablet Friendly

Upload Pics

TxDOT Form Creation

Instant transfer of DATA

No Scanning

3D Model



Stay Organized

Reduce Paperwork

Audit & Tracking Tool

Save Time



THANK YOU



Jackie Benavides
Technical Project Manager
Construction Division
512-696-9377
Jackie.Benavides@txdot.gov

Sam Lopez
Technical Project Manager
Construction Division
(737) 701-0182
Samuel.Lopez@txdot.gov