

RDV SYSTEMS™

STATEMENT OF QUALIFICATIONS

Since 2005, RDV Systems has been working side-by-side with US State DOT's, consultants, private engineering firms and public agencies to provide the opportunity for safer roads. RDV creates the industry's most realistic, eye-catching, effective and versatile 3D models for visualization on regional roads or highways, urban roads and streets and also for rural or low-volume roads. RDV Systems focuses on 2 major initiatives for US roadways. Remaining laser focused on safety, RDV Systems offers an innovative, accurate, and revolutionary tool, Road Safety Audit 3D Tool and a Visualization Technology called 123BIM.

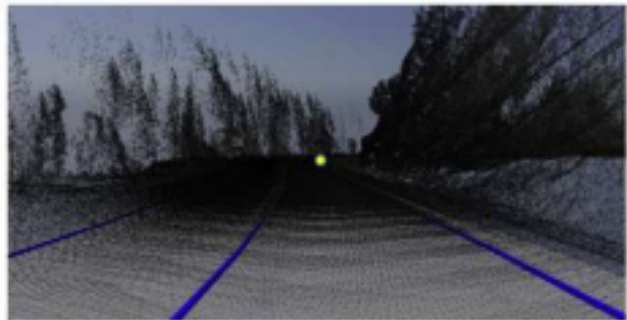


RSA-3D is a powerful tool that allows roadway engineers to conduct road safety audits in a virtual environment. Using 3D modeling LiDAR data and simulation, RSA-3D enables engineers to identify potential safety issues before construction or improvements are made to the roadway. RSA-3D allows engineers to assess the impact of different design features & operational scenarios on safety outcomes and provides them with data-driven insights to better inform their decisions.

RSA-3D Technology was recently utilized in a breakthrough study done by Michigan State University, utilizing Utah DOT data and proved conclusively that the value of high-fidelity LiDAR data, allowed for a large-scale investigation of the relationship between crash risk and available sight distance on a diverse set of roadway facilities. Negative binomial regression models were estimated separately for freeway and non-freeway facilities while controlling for the effects of other important variables. [Click here to read the study.](#)



Sight Distance Analysis on Proposed Interchange
(3-D model built from CAD data)



Sight Distance Analysis on Existing Highway
(3-D model built from LIDAR point cloud)



Maine DOT
Frank J Wood Bridge Replacement – Brunswick, ME



Massachusetts DOT
North Washington Street Bridge Replacement – Boston MA



Florida DOT
Interchange Upgrade for Median Express Lanes – Orlando FL



Connecticut DOT
I-84 Viaduct Replacement Study – Hartford CT

[CLICK HERE TO SEE THE DIFFERENCE BETWEEN
OUTDATED SIGHT DISTANCE METHODOLOGY VS. RSA-3D TECHNOLOGY](#)



RDV's visualization model development technologies focus on making fully interactive 3D virtual models that show proposed design alternatives superimposed on surrounding existing conditions. RDV's model usage technologies focus on making these models available to project team members, enabling them to integrate visualization directly into their project workflow. RDV's 123BIM models are used for design review, public involvement, stakeholder outreach, inter-agency coordination, public education, selection of alternatives, and construction coordination.

The applications used by project team members include:

- **123BIM.com** - provides web-hosted interactive viewing and navigation of RDV models. 123BIM.com requires no software installation and can be used on any computer with internet access. With 123BIM.com project team members can present proposed designs, and create an unlimited number of still images, animated video clips, 3D "virtual reality" videos, and virtual tours for public access to the interactive model.
- **123BIM Navigator** – provides high-speed interactive viewing and navigation of RDV models in a "gaming engine" environment designed for civil engineers. With 123BIM Navigator project team members can present proposed designs, create images, create custom animation paths, and show existing designs and proposed conditions.
- **123BIM Virtual Tour** – provides web-hosted interactive viewing of the 3D project models in a simplified environment designed for use by members of the general public.

RDV Modeling Services

RDV's 3D model development team provides rapid and affordable development of 3D project models to civil and infrastructure professionals. The RDV team has developed accurate 3D models for over fifty U.S. civil projects of all types including roads and highways, rail, airports, site development, mining, and energy. Each RDV model development project includes a Customer Success program that includes training on the use of the RDV model usage technologies, assistance with the preparation of visualization assets, & development of a model utilization plan that applies best practices to ensure that RDV clients receive the greatest possible return on their visualization investment.

SOME OF RDV'S RELEVANT PROJECTS

Project	Consultant	Agency	State	Year
RSA Mountain View Corridor Extension	Horrocks Engineers	Utah DOT	UT	2022-23
US-192 / Vine St From Bamboo Ln To Main St.	Ardura	Florida DOT	FL	2023
RSA Q3 Dev - ISD "Urban Package" Development	N/A	Utah DOT	UT	2023
SR-347 / Riggs Road Interchange	Kimly-Horn	Arizona DOT	AZ	2023
Backage Road @ U.S. 27	Dewberry	Florida DOT	FL	2023
Arkwright Power Station Reclamation	N/A	Georgia Power	GA	2022-23
SR-538 / Poinciana Parkway Part 1	N/A	CFX	FL	2022
I-195/SR 112 from NW 12th Avenue to Alton Road	Metric Engineering	Florida DOT	FL	2022
Neptune Road Improvements	N/A	Osceola County	FL	2022
SR 516 from US 27 to SR 429	N/A	CFX	FL	2022
I-40 West Kingman Interchange Improvements	Jacobs	Arizona DOT	AZ	2022
RSA Gulf Coast Parkway	Moffat & Nichol	Florida DOT	FL	2022
Plant Branch Power Station	N/A	Georgia Power	GA	2022
RSA Existing Conditions UDOT Region 1	N/A	Utah DOT	UT	2022
RSA Existing Conditions UDOT Region 2	N/A	Utah DOT	UT	2022
RSA Existing Conditions UDOT Region 3	N/A	Utah DOT	UT	2022
RSA Existing Conditions UDOT Region 4	N/A	Utah DOT	UT	2022
U.S. 27 Corridor at I-4	Dewberry Engineers	Florida DOT	FL	2022
Snider Plaza Upgrades	TNP Engineers	City of University Park	TX	2022-23
South Selmon Expressway Widening	BCC Engineering	THEA	FL	2022
Belden Bly Bridge Replacement project pursuit	STV Group	Massachusetts DOT	MA	2022
528-143 TWO #3 SR528, SR436 & OI Airport	N/A	CFX	FL	2022
I-85 Gaston County Widening	N/A	North Carolina DOT	NC	2022
Lake Howell & SR 426 Intersection RSA Study	Moffat & Nichol	Florida DOT	FL	2022
SR 408-315 Tampa Av interchange	N/A	CFX	FL	2022
RSA Gulf Breeze	Moffat & Nichol	Florida DOT	FL	2022
RSA SR-71	Moffat & Nichol	Florida DOT	FL	2022
RSA Existing Conditions CDOT Region 4 Pilot	N/A	Colorado DOT	CO	2022
I-4 Interim Upgrades at Sand Lake Road	Global 5 Communications	Florida DOT	FL	2022
Sumner Tunnel Rehabilitation	SPS New England	Massachusetts DOT	MA	2021
PennDOT RSA Existing Conditions Pilot	HNTB	Pennsylvania DOT	PA	2021-22
RSA Existing Conditions UDOT Region 1 Pilot	N/A	Utah DOT	UT	2021
RSA Existing Conditions UDOT Region 2 Pilot	N/A	Utah DOT	UT	2021
RSA Existing Conditions UDOT Region 3 Pilot	N/A	Utah DOT	UT	2021
RSA Existing Conditions UDOT Region 4 Pilot	N/A	Utah DOT	UT	2021
RSA Mountain View Corridor Existing Conditions	N/A	Utah DOT	UT	2022
I-95 Exits 7-9 Widening Phase 1	Stantec	Connecticut DOT	CT	2022
SR-414 Maitland Blvd Extension	N/A	CFX	FL	2022
North Station Bridge Replacement	STV Group	MBTA	MA	2022
I-15 Springville / Spanish Fork Interchange	Horrocks Engineers	Utah DOT	UT	2022
SR303L I-10 to Buckeye Detailed Design	Aztec Engineering	Arizona DOT	AZ	2022
Main Road Segment A Upgrades	Infrastructure Consulting Eng.	Charleston County	SC	2021
I-90 Allston Interchange Redesign	Tetra Tech	Massachusetts DOT	MA	2021
I-515 Henderson NEPA	C A Group	Nevada DOT	NV	2021
SR-303L I-17 to 51st Avenue	Jacobs	Arizona DOT	AZ	2021
Frontier Parkway Widening and Grade Separation	Birkhoff, Hendricks & Carter	Collin County / Town of Prosper TX	TX	2021
S.R. 150 / S.R. 89 Sight Distance Analysis	n/a	Utah DOT	UT	2020-21
Utah Road Safety Analysis Pilot	n/a	Utah DOT	UT	2020-21
S.R. 429 Widening - Turnpike to West Road	Pegasus	Central Florida Expressway Authority	FL	2020-21
S.R. 429 Widening - West Road to SR-414	Pegasus	Central Florida Expressway Authority	FL	2020-21
S.R. 429 Widening - Tildon Road to Turnpike	Pegasus	Central Florida Expressway Authority	FL	2020-21

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S.R. 417 Widening - Landstarr to Boggy Creek	Pegasus	Central Florida Expressway Authority	FL	2020-21
S.R. 417 Widening - Narcoosee to SR 528	Pegasus	Central Florida Expressway Authority	FL	2020-21
S.R. 417 Widening - Boggy Creek to Narcoosee	Pegasus	Central Florida Expressway Authority	FL	2020-21
F.M. 546 Realignment and Widening	BGE	Collin County	TX	2020-21
SR-520 Resurfacing	PHD	Florida DOT	FL	2020-21
I-75 / 49th Street DDI	Metric Engineering	Florida DOT	FL	2020
I-75 / Colonial Blvd. DDI	Atkins	Florida DOT	FL	2020
Terry Avenue Widening and Improvements	Global 5 Communications	Florida DOT	FL	2020
U.S 69 / S.H. 73 Interchange Safety Analysis	Poznecki-Caramillo Inc.	Texas DOT	TX	2020
I-10 / Beulah Road Interchange	Atkins	Florida DOT	FL	2020
S.R. 371 / S.R. 373 Orange Ave Improvements	Atkins	Florida DOT	FL	2020
I-90 Bridge Rplacements (project pursuit)	J.F. White Contracting	Massachusetts DOT	MA	2020
Derby Downtown Development	Luchs Consulting	City of Derby, CT	CT	2020
I-4 / C.R.-532 Interchange (Champions Gate)	Global 5 Communications	Florida DOT	FL	2020
U.S. 231 Interchange	Atkins	Florida DOT	FL	2020
Cervantes Street Improvements	Atkins	Florida DOT	FL	1029
Nine Mile Road Improvements	Atkins	Florida DOT	FL	2019
SR-40 Ocala	Pevida Highway Designers	Florida DOT	FL	2019
Hampton Roads Express Lanes Network	Kimley-Horn	Virginia DOT	VA	2019
I-440 Glenwood Interchange	n/a	North Carolina DOT	NC	2019
Long Island Bridge	STV	City of Boston	MA	2019
I-95 / Rte 161 Interchange	H.W. Lochner	Connecticut DOT	CT	2019
I-90 Allston Interchange	Tetra Tech	Massachusetts DOT	MA	2019
I-90 / I-495 Interchange	HNTB	Massachusetts DOT	MA	2019
I-85 Gaston County Widening	n/a	North Carolina DOT	NC	2019
MLK Blvd Extension	Atkins	City of Las Vegas	NV	2019
NC 43 Widening	STV	North Carolina DOT	NC	2019
US 20 Empire to Greenwood	HDR	Oregon DOT	OR	2019
I-515 / I-215 Interchange Re-configuration	C A Group	Nevada DOT	NV	2019
Guilford Bridge Replacement	Weston & Sampson	Connecticut DOT	CT	2018-19
US 97 Bend to Redmond	Kittelson	Oregon DOT	OR	2018-19
North Washington Street Bridge Replacement	J.F. White Contracting	Massachusetts DOT	MA	2018
I-80 Rock Cuts (Design)	Dewberry	New Jersey DOT	NJ	2019
5600 West Widening	Kimley-Horn	Utah DOT	UT	2018
US 17 / Main Road	ICE	South Carolina DOT	SC	2018
I-26 Widening	Mead & Hunt	South Carolina DOT	SC	2018
I-4 Beyond the Ultimate Segment 1b	Global 5 Communications	Florida DOT	FL	2018
I-4 Beyond the Ultimate Segment 2	Global 5 Communications	Florida DOT	FL	2018
I-205 Widening	HDR	Oregon DOT	OR	2018
I-515 / I-215 Interchange Re-stripping	Nevada DOT	Nevada DOT	NV	2018
Hospital Road Solar Array	Delaware River Solar	n/a	NY	2018
Villa Roma Solar Array	Delaware River Solar	n/a	NY	2018
I-84 Hartford Viaduct Replacement	TranSystems	Connecticut DOT	CT	2015 - 2019
White Plains Hospital (final design)	n/a	White Plains Hospital	NY	2018
Granby Roundabout	Kleinfelder	Connecticut DOT	CT	2018
Complete 540 (I-540)	H.W. Lochner	North Carolina DOT	NC	2018
Mesa SR 24 Extensions	Parsons	Arizona DOT	AZ	2018
Charleston Port Access Road	JMT	South Carolina DOT	SC	2018
Westport Bridge Replacement	Hardesty & Hanover	Connecticut DOT	CT	2018
SR 303L Extensions	WSP	Arizona DOT	AZ	2018
Merritt Parkway / SR 7 Interchange	Stantec	Connecticut DOT	CT	2017-18
I-4 Ultimate - Longwood Area	Global 5 Communications	Florida DOT	FL	2017-18
I-4 Ultimate - Central Parkway Area	Global 5 Communications	Florida DOT	FL	2017-18
I-4 Ultimate - Ivanhoe Blvd. Area	Global 5 Communications	Florida DOT	FL	2017-18
I-4 Ultimate - S.R. 408 Area	Global 5 Communications	Florida DOT	FL	2017-18
I-4 Ultimate - John Young Parkway Area	Global 5 Communications	Florida DOT	FL	2017-18