COMPREHENSIVE COMPANY PROFILE

——Telecom Infrastructure Engineering Excellence——

FTTx • OSP • GIS • Pole Engineering • MRE • Permitting • ISP

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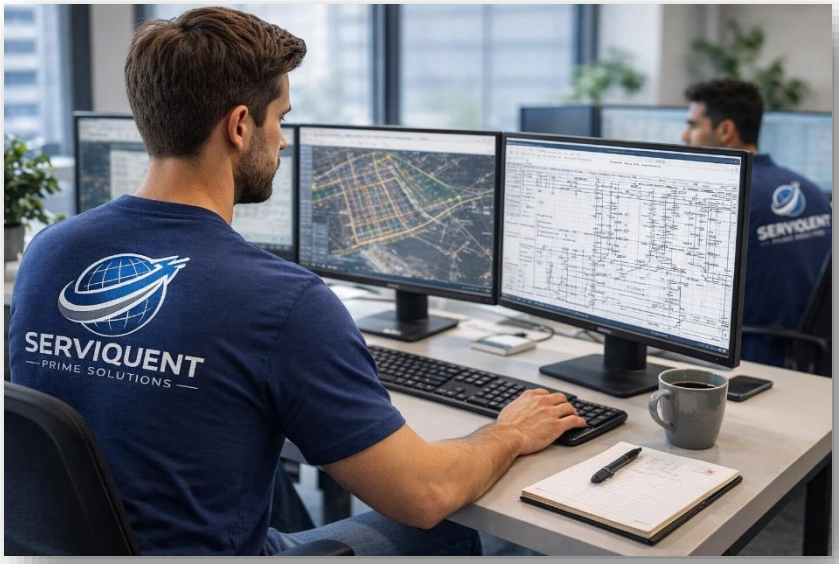


EXECUTIVE SUMMARY

Serviquent Prime Solutions stands at the forefront of telecom infrastructure engineering, delivering mission-critical fiber network design and broadband infrastructure development solutions across the United States. As a specialized engineering firm, we combine deep technical expertise with proven field experience to architect the connectivity infrastructure that powers modern digital communications.

Our comprehensive service portfolio spans the entire fiber network lifecycle—from initial planning and GIS-based route optimization to detailed engineering design, regulatory permitting, pole loading analysis, make-ready coordination, and construction support. We serve a diverse ecosystem of clients including Tier-1 telecommunications carriers, regional internet service providers, electric cooperatives, municipal utilities, and infrastructure investment firms.

As ATCT-certified engineers, we bring specialized expertise in ATCT Standards, Yellowhammer deployment programs, and GigaPower fiber-to-the-home initiatives. Our team maintains deep proficiency in ATCT proprietary platforms including Aramis DT, IQGEO and Waldo, ensuring seamless integration with ATCT's nationwide network infrastructure and engineering workflows.

What distinguishes Serviquent is our ability to navigate the complex intersection of advanced engineering, regulatory compliance, and real-world constructability. Our engineers leverage industry-leading software platforms—including AutoCAD, IQGEO, ArcGIS, QGIS, Google Earth Pro, SPIDAcalc, Bentley Fiber, Aramis DT, Waldo, O-Calc Pro, Sitetracker, and Katapult Pro—to deliver designs that meet rigorous technical standards while accelerating deployment timelines and minimizing costs.

COMPANY OVERVIEW & MISSION

Who We Are

Founded on the principle that exceptional engineering drives exceptional network performance, Serviquent Prime Solutions emerged from a recognition that the telecommunications infrastructure industry required a new breed of engineering partner—one that could seamlessly integrate advanced technical capabilities with practical field expertise, deep regulatory knowledge, and carrier-specific program proficiency.

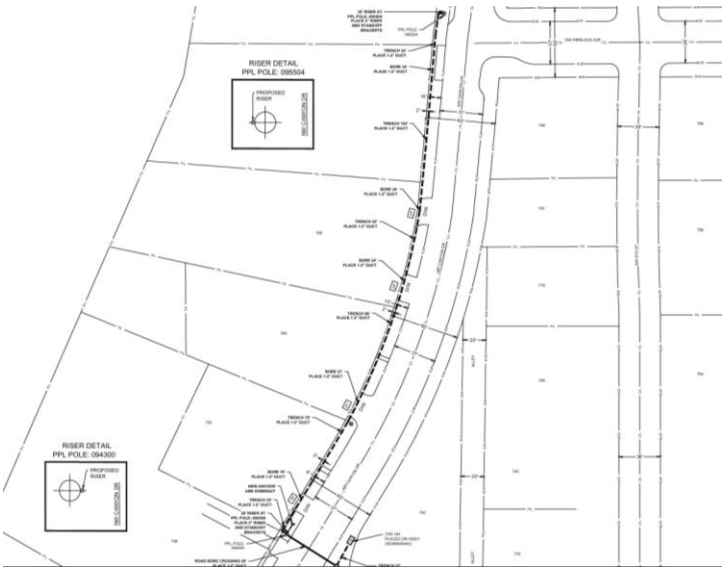
Today, we serve as a trusted engineering partner to operators deploying fiber infrastructure across urban corridors, suburban communities, and rural markets throughout the United States. Our team has designed and supported the deployment of thousands of fiber miles, enabling broadband connectivity that transforms communities and empowers economic development. Our ATCT-certified engineering capabilities position us uniquely to support major carrier initiatives including GigaPower residential fiber deployments and Yellowhammer program expansions.

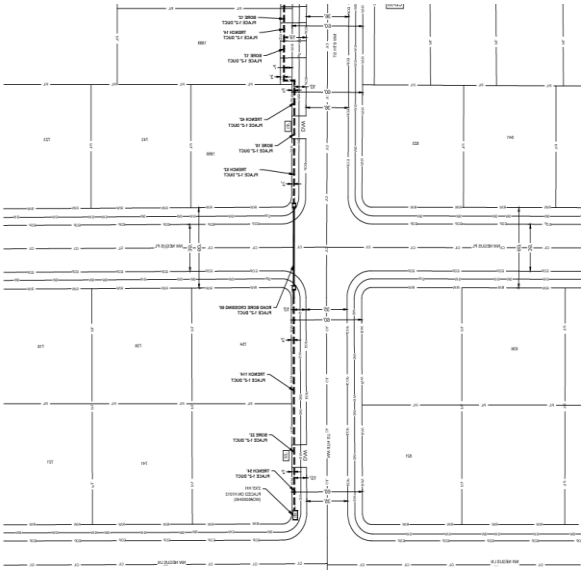
OUR VISION	OUR MISSION	CORE VALUES
To be the most trusted and innovative engineering partner for fiber infrastructure development advancing universal broadband connectivity across America	Deliver engineering excellence that empowers our clients to build scalable, resilient, and future-proof connectivity infrastructure	Technical Excellence • Client Partnership • Regulatory Expertise • Innovation • Integrity •

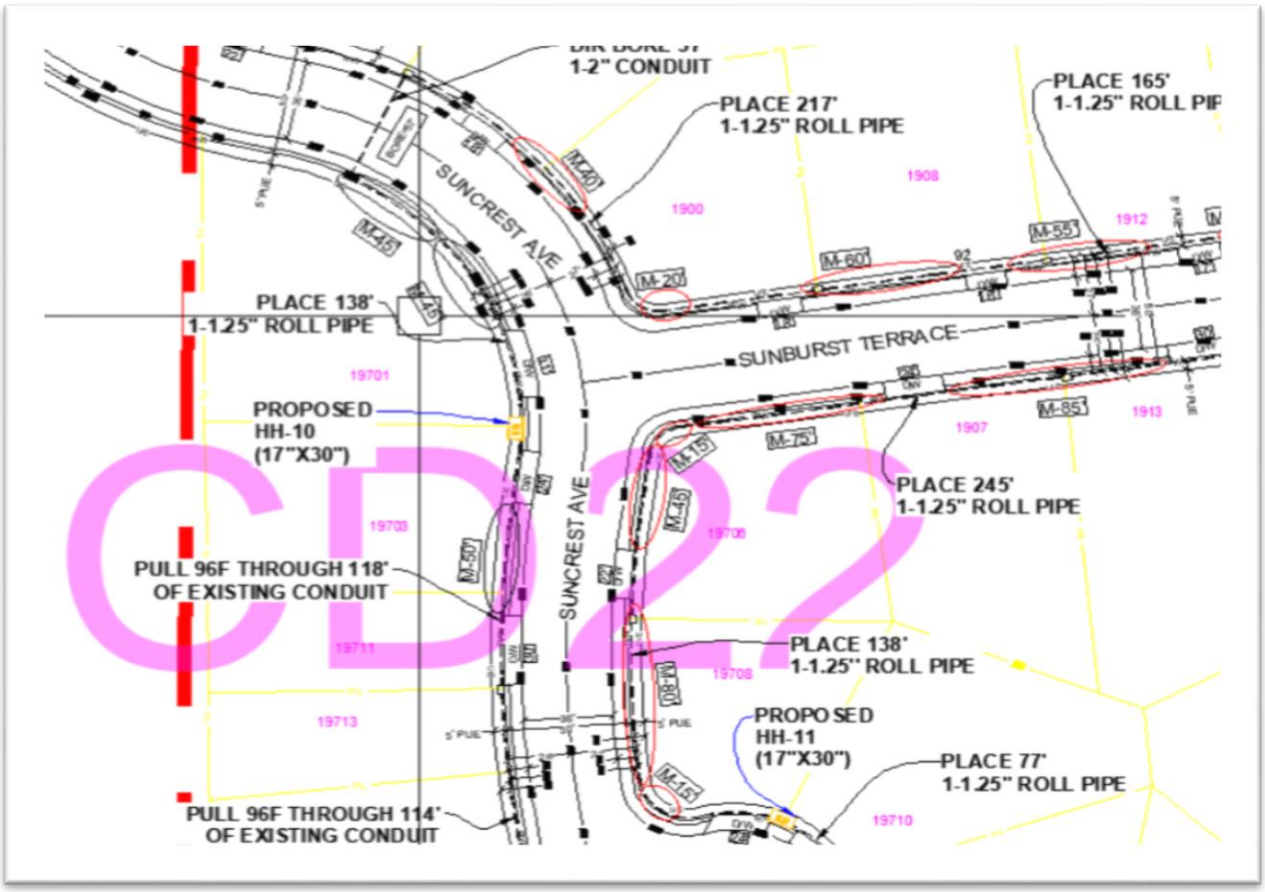
CORE SERVICE CAPABILITIES

1. FTTx Network Design Engineering

Complete Fiber-to-the-X Architecture & Deployment Planning







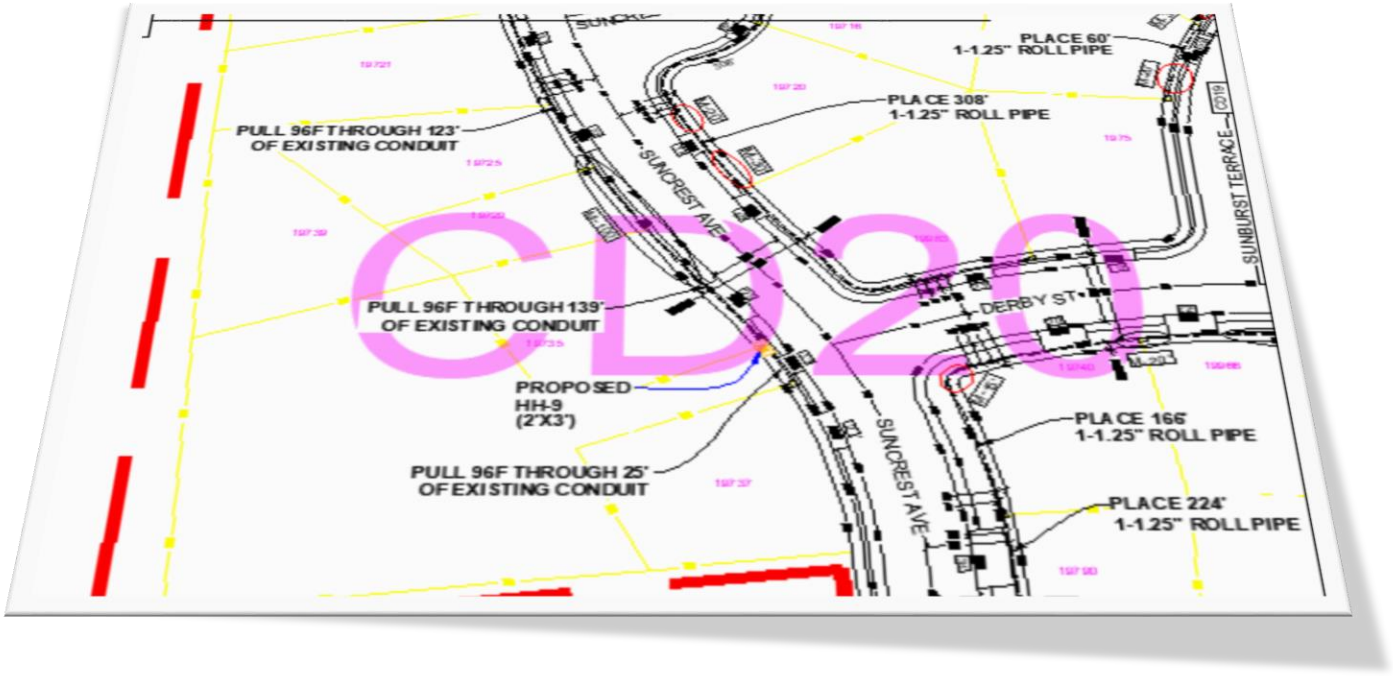
Our FTTx engineering services encompass the complete spectrum of passive optical network (PON) and active Ethernet architectures, delivering end-to-end network designs optimized for performance, scalability, and cost-efficiency. We engineer solutions for FTTP (Fiber-to-thw-premises), FTTH (Fiber-to-the-Home), FTTB (Fiber-to-the-Building), FTTC (Fiber-to-the-Curb), and FTTN (Fiber-to-the-Node) deployments, with specialized expertise in ATCT GigaPower residential fiber networks utilizing XGS-PON technology.

Comprehensive FTTx Engineering Deliverables

- Network Architecture Design: Development of complete PON topology from central office/headend through distribution to subscriber endpoints, including fiber counts, splitter configurations (1:4, 1:8, 1:16, 1:32, 1:64), optical power budgets, and equipment specifications aligned with carrier standards including ATCT's GigaPower deployment requirements for symmetrical multi-gigabit service delivery
- PON Technology Selection: Engineering analysis and recommendations for GPON (2.5G downstream / 1.25G upstream), XGS-PON (10G symmetric), or NG-PON2 (40G+ TWDM) based on bandwidth requirements, subscriber density, service velocity expectations, future scalability needs, and total cost of ownership across the network lifecycle
- Optical Power Budget Analysis: Comprehensive link loss calculations accounting for fiber attenuation (G.652/G.657 specifications), splice loss (fusion and mechanical), connector loss, splitter insertion loss, and margin allocation for aging, future repairs, and capacity expansion to ensure reliable service delivery across maximum reach distances
- Serving Area Interface (SAI) Design: Strategic placement of distribution points balancing reach economics with service flexibility, incorporating splitter location strategies (centralized vs distributed), feeder/distribution fiber allocation, and integration with existing carrier infrastructure including ATCT's established central office locations and remote terminals
- Bill of Materials (BOM): Itemized materials lists with quantities, technical specifications, vendor part numbers, unit costs, and extended pricing for all network components including fiber optic cable (single-mode/multi-mode), optical splitters, splice closures, fiber distribution terminals, pedestals, handholes, OLT chassis and line cards, ONT devices, power systems, and ancillary hardware.

2. Outside Plant (OSP) Engineering

Comprehensive Fiber Route Design for All Deployment Methods



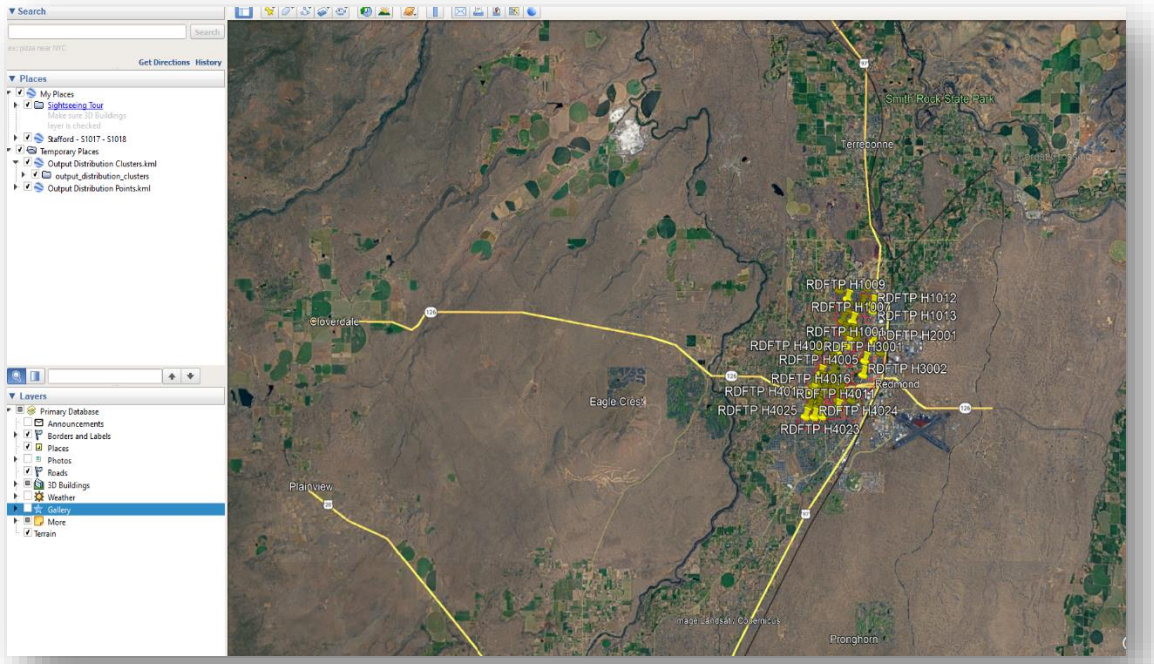
Outside Plant engineering translates network architecture into constructible infrastructure designs that navigate physical terrain, existing utilities, rights-of-way constraints, environmental considerations, and regulatory requirements. Our OSP engineering delivers detailed construction-ready designs for aerial (pole-mounted), underground (duct/conduit), and direct-buried fiber installations in full compliance with ATCT Standards, National Electric Safety Code (NESC), and local jurisdiction specifications.

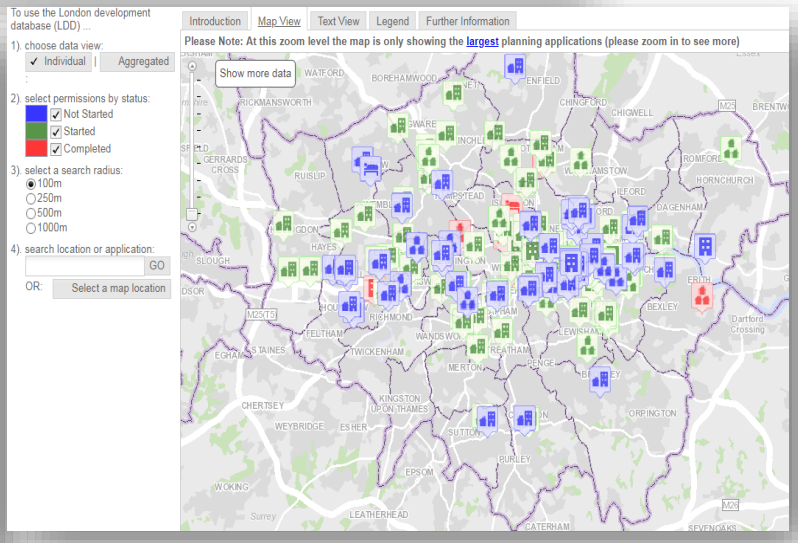
OSP Engineering Deliverables

- Detailed Route Design: Comprehensive fiber route layouts with precise GPS coordinates showing every pole, handhole, vault, splice point, and transition location with station-to-station distances measured to the foot and verified through field validation walks. Route alignments consider existing infrastructure, terrain challenges, environmental constraints, permitting pathways, and construction economics
- Aerial Plant Design: Complete pole-mounted installation specifications including messenger wire/self-supporting cable specifications, lashing wire gauge, NESC-compliant clearances (roadway, railway, communication, power), sag and tension calculations, maximum span lengths, guy wire requirements, anchor specifications, and attachment heights meeting utility owner requirements and ATCT Standards for safe, reliable aerial construction
- Underground Duct Systems: Engineering of duct bank configurations, conduit sizing (1-inch to 4-inch), innerduct color coding and specifications, vault sizing and placement optimization, pull box locations, splice chamber design, and cable entry/exit details compliant with ATCT Standards, NESC clearances, and local utility coordination requirements for permanent underground infrastructure
- Bore Crossing Design: Horizontal directional drilling (HDD) plans for roadway, railway, waterway, and environmentally sensitive area crossings including bore path profiles, entry/exit pit locations, drilling fluid management, inadvertent return mitigation, and conduit installation specifications ensuring successful crossings with minimal surface disruption
- Construction Plans C Quantities: CAD-generated construction plan sets with detailed drawings, cross-sections, profiles, splice diagrams, material schedules, construction notes, and itemized quantities enabling accurate contractor bidding and efficient field construction execution

3. GIS Planning & Spatial Analysis

Strategic insights, spatial excellence

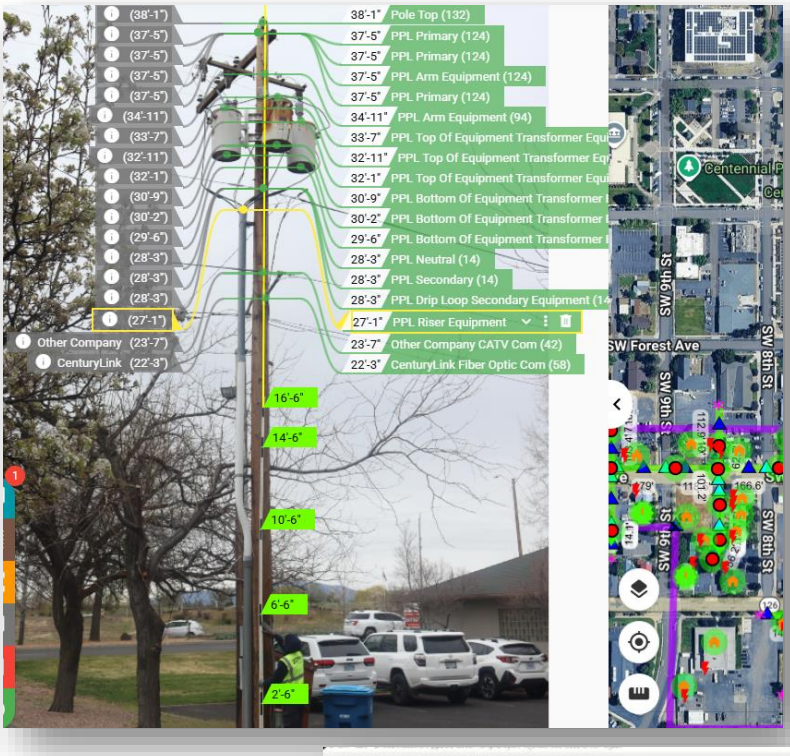


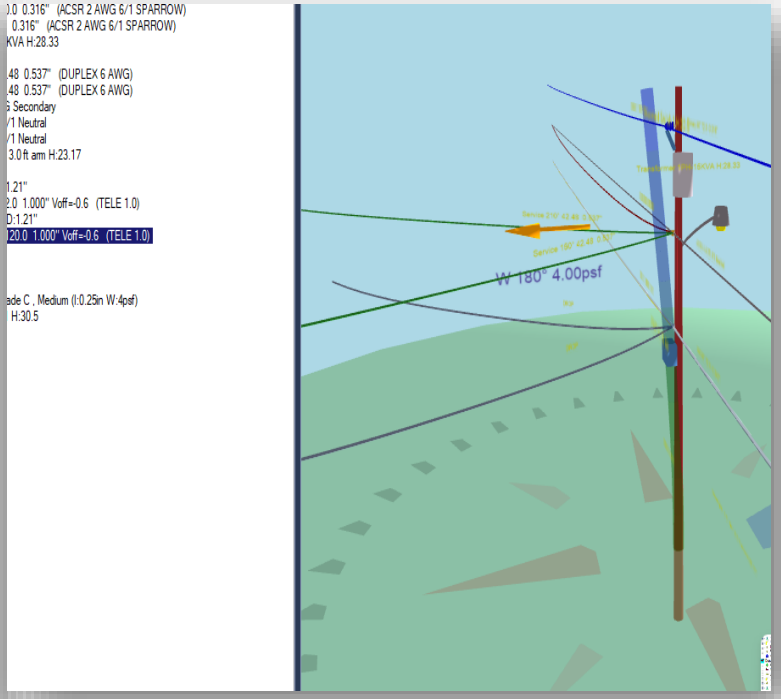


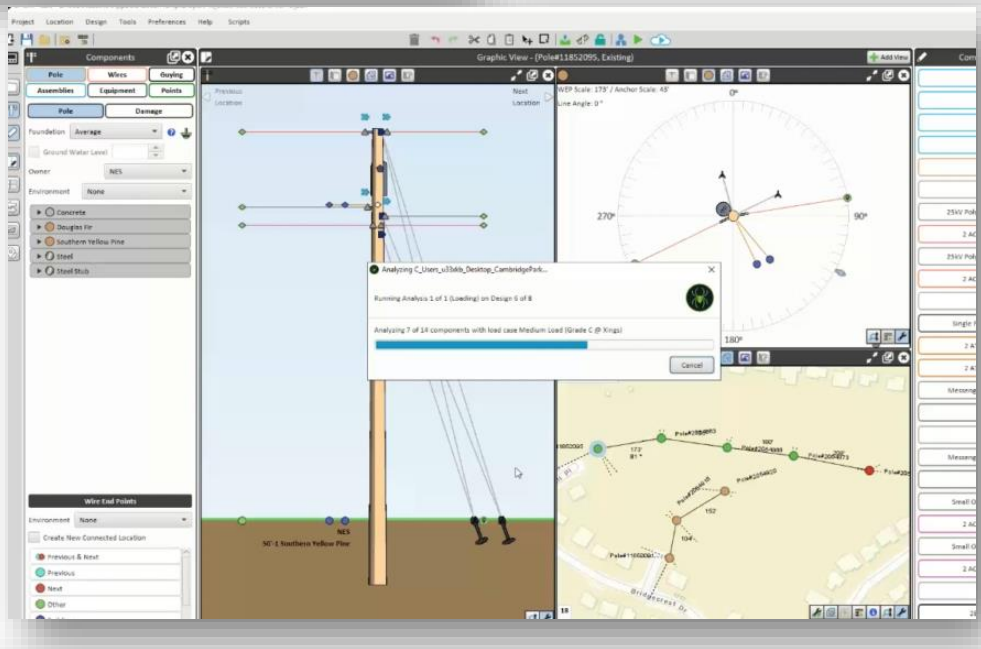
Geographic Information Systems serve as the foundational platform for strategic network planning, enabling data-driven decision making throughout the fiber deployment lifecycle. Our GIS capabilities integrate spatial analytics, demographic data, competitive intelligence, infrastructure mapping, and regulatory considerations to optimize network investment and accelerate time-to-market. This capability is particularly critical for ATCT Yellowhammer program serviceable location mapping and federal grant compliance documentation.

4. Pole Loading Analysis, Pole Inspection & Make-Ready

Structural Analysis and Infrastructure Compliance for Aerial Deployment







POLE & EQUIPMENT INFORMATION							Attachment Heights							Field Notes			
. #	PSE Pole #	Pole Type T/D	Pole Owner	PSE Umap	Location	City/Area	Neutral	Secondary	Street Light	CATV	TelCo	Fiber	Requested Attachment	Make Ready Notes	Mid Span Violation Notes	Pole Number in Field if different than Grid #	PSE Field N
1	FTR-609138	D	ZIPLY	3506E084	48.501463, -122.047655	HAMILTON	N/A	N/A	N/A	N/A	27'		Overlash (1)96F, (1)12F TAIL @ 27'	N/A	NO		

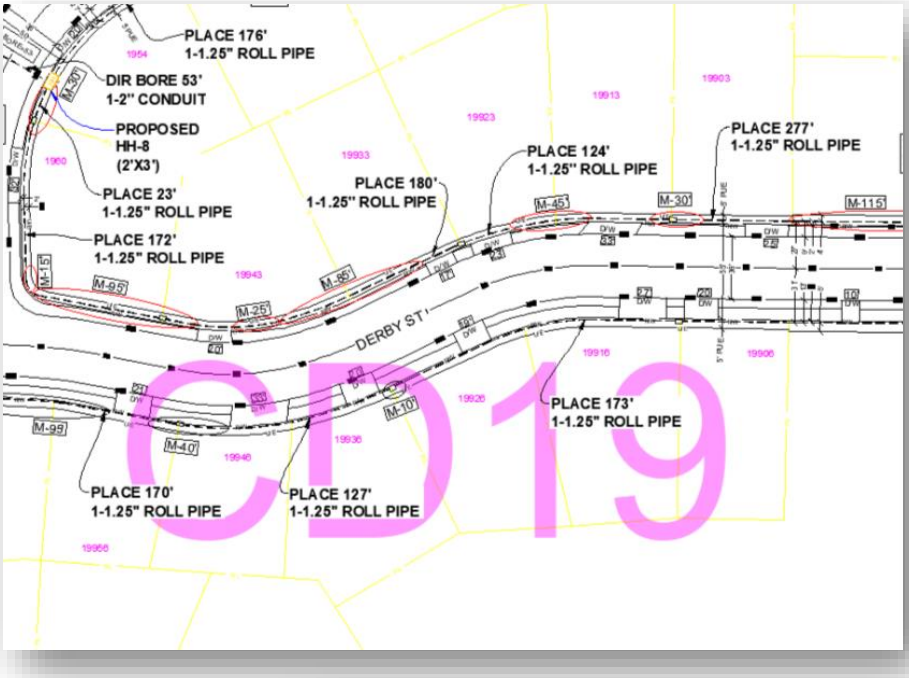
Aerial fiber deployment demands a rigorous engineering approach to maintain the structural integrity of utility poles while adhering strictly to National Electrical Safety Code (NESC) standards. This process begins with comprehensive Pole Loading Analysis (PLA), where detailed structural assessments determine if existing assets can support the additional weight and tension of new communications equipment. These evaluations factor in critical physical parameters—such as pole height, class, and material—alongside environmental stressors like lateral wind forces and ice accumulation. To ensure the accuracy of these models, meticulous pole inspections are conducted using both visual mechanical testing and high-fidelity digital data capture to verify the current "health" and attachment heights of each asset.

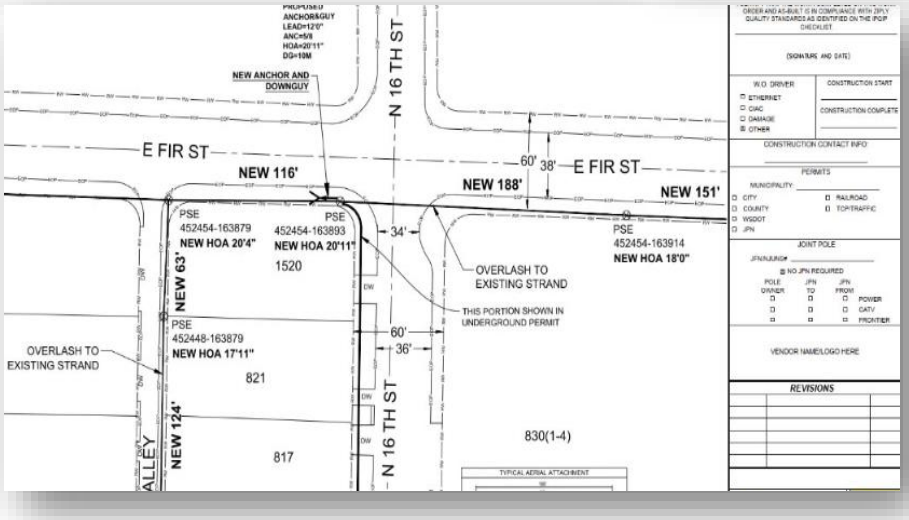
When a pole fails to meet capacity or clearance requirements, Make-Ready Engineering (MRE) provides the necessary intervention. This phase involves designing strategic modifications, such as re-arranging existing attachments to create safety buffers or recommending structural reinforcements like guy wires and anchors. In cases of severe overloading, MRE specifies full pole replacements to ensure the resulting infrastructure is safe, compliant, and ready for first-pass permit approval.

The precision and efficiency of these workflows are driven by an integrated suite of industry-leading software. Platforms such as *SPIDAcalc* and *O-Calc Pro* provide advanced finite element analysis and 3D modeling to simulate complex loading scenarios and extreme weather conditions. These are complemented by OSMOSE platforms for system-wide asset management. Furthermore, the integration of *Katapult Pro* transforms the data collection phase; by utilizing AI-powered photogrammetry for preliminary assessments, it enables "virtual rideouts" that reduce the need for physical field visits by 60–80 percent, significantly accelerating deployment timelines while maintaining defensible engineering accuracy.

5. Permitting & Regulatory Compliance

Precision Engineering for Seamless Aerial and Underground Permitting.





The deployment of telecommunications infrastructure demands a sophisticated understanding of the multifaceted regulatory landscapes governing both aerial and subterranean environments. Our methodology ensures rigorous adherence to the **National Electrical Safety Code (NESC)** for aerial assets and the **National Electrical Code (NEC)** and municipal specifications for underground (UG) installations. By integrating advanced engineering with proactive jurisdictional coordination, we secure the technical and legal authorizations necessary to eliminate project volatility and ensure seamless deployment.

I. Aerial Compliance and Asset Integration
Aerial deployment is centered on the principle of safe, sustainable "joint-use" co-location. We mitigate the risks associated with shared utility infrastructure through:

- **NESC Clearance Mandates:** Precise verification of vertical and horizontal clearances across all spans, specifically targeting high-risk crossings such as arterial roadways, railways, and pedestrian corridors to ensure public safety and code adherence.
- **Defensible Structural Engineering:** Utilizing industry-standard platforms including **SPIDAcalc** and **O-Calc Pro**, we generate comprehensive structural reports. These analyses validate that proposed fiber tensions, combined with regional wind and ice loading, maintain the structural integrity of the host pole.
- **Make-Ready Engineering (MRE) Design:** In instances of non-compliance, our engineers develop sophisticated remediation strategies—ranging from attachment realignment to structural reinforcements—facilitating immediate permit eligibility for sub-standard assets.
- **Joint-Use Administrative Management:** Direct oversight of the application and licensing process with electric utilities and Incumbent Local Exchange Carriers (ILECs), ensuring all contractual and safety obligations of joint-use agreements are satisfied.

II. Subterranean Regulatory Logistics (Underground):

Subsurface deployment requires a heightened focus on the preservation of public land and the protection of existing utility corridors.

- **Right-of-Way (ROW) & Encroachment Authorization:** We manage the procurement of permits from state and local **Departments of Transportation (DOT)** and municipal bodies. This includes the development of engineered **Traffic Control Plans (TCP)** to minimize disruption within active transportation zones.
- **Geometric Standards & Subsurface Separation:** Engineering designs strictly adhere to depth-of-cover requirements—typically **24 to 48 inches**—while maintaining critical physical separation from sensitive electrical and hydraulic systems to prevent cross-bore incidents.
- **Proactive Utility Coordination (811/One-Call):** Total management of the "Call Before You Dig" lifecycle, providing field-level coordination with utility owners to ensure the accurate marking of buried assets and the mitigation of strike-related liabilities.
- **Environmental & Cultural Resource Stewardship:** Identifying and navigating the regulatory requirements for trenching in sensitive areas, including wetlands and floodplains, while securing necessary clearances from the **U.S. Army Corps of Engineers** and local historical commissions.

III. Optimized Documentation & Digital Integration:

Our workflow leverages a "data-first" approach to bridge the gap between field engineering and regulatory approval:

- **High-Fidelity Engineering Schematics:** Production of "First-Pass" ready drawings featuring detailed longitudinal profiles and cross-sectional views, providing regulators with precise cable entry/exit points and alignment within municipal boundaries.
- **AI-Powered Photogrammetry (Katapult Pro):** Integration of **Katapult Pro** to generate high-accuracy "digital twins" of the deployment route. This provides a defensible visual audit trail and exact measurements for both pole attachments and ground-level ROW demarcations.
- **Site Restoration Compliance:** Comprehensive restoration protocols that ensure all surfaces—including pavement, sidewalks, and softscapes—are returned to pre-construction standards, satisfying all municipal site-restitution requirements.

AT&T SPECIALIZED PROGRAMS
&
CARRIER STANDARDS

AT&T network infrastructure or deployment project - Professional carrier operations

Our engineering team maintains specialized expertise in AT&T's proprietary programs, deployment standards, and technology platforms. This deep carrier knowledge enables us to deliver designs that integrate seamlessly with AT&T's nationwide infrastructure, accelerate approval processes, and ensure compliance with AT&T's rigorous engineering requirements.

AT&T Standards Compliance & Engineering Practices

ATCT Standards represent the comprehensive set of engineering specifications, design guidelines, construction practices, and quality requirements that govern fiber network deployment across ATCT's nationwide footprint. Our engineering team maintains current certification and deep proficiency in ATCT Standards spanning network architecture, outside plant construction, equipment specifications, testing procedures, and documentation requirements.

Key AT&T Standards Areas of Expertise:

- ATCT Network Design Standards: Fiber architecture requirements including fiber counts, splitter ratios (centralized vs distributed), serving area interface (SAI) configurations, central office terminations, remote terminal integration, and network hierarchy structures specific to ATCT's topology ensuring seamless integration with existing ATCT infrastructure and future network evolution
- ATCT Outside Plant Standards: Specifications for aerial construction (pole attachment heights, clearances from power and communication facilities, lashing specifications), underground construction (duct types, vault specifications, pull tensions, bend radius requirements), splice closure requirements (fiber counts, enclosure types, grounding), and cable placement practices ensuring long-term network reliability

- ATCT Equipment C Materials Standards: Approved vendor lists, equipment specifications for OLTs (Optical Line Terminals)/ONTs (Optical Network Terminals), fiber cable specifications (single-mode G.652/G.657 bend-insensitive), connector types (SC/APC for PON), splice closure models, and hardware requirements ensuring compatibility with ATCT's national network inventory and maintenance practices

- ATCT Testing C Acceptance Standards: OTDR (Optical Time Domain Reflectometer) testing requirements, splice loss limits (fusion splice ≤ 0.05 dB typical), end-to-end optical power budgets, documentation formats for test results, and turnover procedures for network acceptance ensuring deployed infrastructure meets ATCT's stringent quality requirements before service activation

ATCT Safety C Compliance Standards: Worker safety requirements (qualified person training, fall protection, traffic control), excavation practices (call-before-you-dig, potholing verification), pole climbing certifications, and environmental protection procedures aligned with ATCT corporate policies and OSHA regulations ensuring safe work execution

Yellowhammer Deployment Program Expertise

Yellowhammer is ATCT's strategic fiber deployment program focused on expanding fiber-to-the-premises (FTTP) availability across targeted markets, particularly in underserved suburban and rural communities. The program combines federal broadband funding mechanisms (including RDOF - Rural Digital Opportunity Fund, CAF - Connect America Fund, and state-level grant programs) with ATCT's private capital investment to accelerate fiber infrastructure buildout and bridge the digital divide.

Our Yellowhammer engineering capabilities enable ATCT to rapidly deploy fiber infrastructure in compliance with federal funding requirements, state regulatory mandates, and ATCT's quality standards. We understand the unique challenges of Yellowhammer deployments including accelerated timelines, grant compliance

documentation, environmental review requirements, and cost optimization within subsidy constraints.

Yellowhammer Program Engineering Services:

- Serviceable Location Mapping: GIS-based identification and geocoding of all serviceable locations within Yellowhammer project areas, validation against FCC Broadband Data Collection (BDC) requirements, demographic analysis, competitive service availability verification, and generation of serviceable location lists meeting RDOF/CAF/state grant program specifications and milestone reporting requirements
- Route Optimization: Cost-optimized fiber route selection balancing capital efficiency with service quality objectives, leveraging existing ATCT infrastructure where available (fiber backhaul, central office locations), identifying optimal serving area interfaces (SAIs), and minimizing per-location deployment costs to maximize grant funding effectiveness while maintaining ATCT service quality standards
- Grant Compliance Engineering: Design documentation meeting RDOF, CAF, BEAD (Broadband Equity Access and Deployment), and state program requirements including environmental assessments (NEPA compliance), cultural resource reviews (Section 106 National Historic Preservation Act), endangered species coordination (ESA Section 7), tribal consultation protocols, and Davis-Bacon prevailing wage determinations where applicable for federally-funded construction
- Accelerated Permitting: Streamlined right-of-way acquisition strategies, coordinated permit applications across multiple jurisdictions, railroad crossing agreements (Norfolk Southern, CSX, Union Pacific), state DOT highway crossing permits, utility pole attachment processing (electric cooperative, municipal utility, investor-owned utility coordination), and expedited review cycles to meet aggressive Yellowhammer deployment timelines and grant milestone requirements

Progress Reporting C Milestone Tracking: Engineering support for Yellowhammer program reporting including location activation tracking aligned with FCC Form 481 requirements, construction progress monitoring against grant milestones, and achievement documentation required by funding agencies (USDA-RUS, state

broadband offices) and ATCT program management ensuring compliance and continued funding eligibility

AT&T GigaPower Fiber Network Engineering

ATCT GigaPower represents ATCT's premium fiber-to-the-home service delivering symmetrical multi-gigabit internet speeds to residential and small business customers. GigaPower deployments utilize XGS-PON technology (10 Gbps symmetric capacity) with network architectures designed to support current multi-gigabit service offerings (2 Gbps, 5 Gbps tiers) while providing substantial headroom for future 10 Gbps residential services and continued bandwidth evolution.

Our GigaPower engineering expertise ensures that network designs meet ATCT's stringent performance requirements for premium residential fiber service while optimizing deployment economics and maintaining flexibility for technology evolution. We design GigaPower networks that deliver exceptional customer experience through meticulous attention to optical power budgets, network resilience, capacity planning, and integration with ATCT's provisioning and operational systems.

GigaPower Network Engineering Capabilities:

- XGS -PON Architecture Design: Engineering of 10 Gbps symmetric PON networks with optimal splitter configurations (typically 1:32 or 1:64 split ratios), careful power budget management to support maximum reach while maintaining performance headroom for future capacity upgrades, equipment specifications aligned with ATCT's approved vendor list (Nokia, Calix, Adtran platforms), and OLT/ONT pairing ensuring compatibility across ATCT's multi-vendor environment
- High-Density MDU Solutions: Specialized designs for multi-dwelling units (apartments, condominiums, townhomes) including riser management (plenum-rated cable specifications), IDF/MDF terminations, floor-by-floor distribution strategies, in-unit ONT placement optimization (telecommunications closet vs in-unit installation), and coordination with property management for installation access, ensuring efficient service delivery in dense residential environments

COMPLETE TECHNOLOGY & SOFTWARE STACK

Our engineering excellence is powered by strategic investments in industry-leading software platforms and technical tools. Each platform is selected to deliver maximum value to clients while maintaining flexibility to adapt to evolving technological landscapes and carrier-specific requirements.

CAD & Design Engineering Platforms

AutoCAD	Industry-standard 2D/3D CAD platform from Autodesk for creating detailed engineering drawings, construction plans, as-built documentation, and technical specifications. Essential for pole line drawings, underground duct designs, splice diagrams, equipment layout plans, and detail sheets. Advanced capabilities include dynamic blocks, external references (xrefs), and custom LISP routines enabling automated drawing generation and standards enforcement.
MicroStation	Bentley Systems' advanced CAD platform preferred by electric utilities and telecommunications operators for complex infrastructure modeling. Enables civil engineering integration, 3D visualization, and seamless coordination with client systems utilizing Bentley environments. Particularly valuable for projects requiring integration with utility GIS databases and asset management systems.
Bentley Fiber	Specialized fiber network design and documentation platform managing complete infrastructure lifecycle from planning through as-built documentation. Comprehensive strand mapping, splice management, cable assignments, and integrated network documentation feeding directly into GIS and OSS/BSS systems. Advanced features include automated fiber assignment algorithms, optical power budget verification, and multi-tenant strand management for shared infrastructure deployments.

AT&T Proprietary Engineering Platforms

Aramis DT	ATCT's proprietary network design and documentation platform specifically engineered for fiber optic infrastructure planning across ATCT's nationwide footprint. Aramis DT serves as ATCT's central repository for network engineering data, enabling comprehensive fiber network design, strand assignment, splice documentation, and as-built record management. The platform enables automated compliance checking against ATCT design rules, bidirectional data exchange with ATCT's GIS (Waldo) and work order management systems, and bill of materials generation aligned with ATCT's approved equipment catalog. Critical for GigaPower and Yellowhammer program engineering, ensuring all designs meet ATCT Standards and integrate seamlessly with ATCT's operational workflows.
Waldo	ATCT's enterprise GIS and infrastructure visualization platform used for spatial planning, asset management, and network operations across telecommunications infrastructure (fiber, copper, wireless). Provides comprehensive geospatial capabilities enabling engineers to visualize existing fiber routes, copper facilities, wireless sites, and supporting infrastructure (central offices, remote terminals, cabinets) in unified mapping environment. Real-time integration with ATCT's operational databases provides access to network inventory, facility ownership records, construction status, and service activation data. Advanced query tools allow rapid identification of available conduit capacity, nearest fiber access points, and infrastructure sharing opportunities essential for efficient GigaPower and Yellowhammer deployment planning.

GIS & Geospatial Analysis Platforms

ArcGIS Pro	Esri's professional GIS platform for geospatial analysis, route optimization, network planning, and spatial data management. Capabilities include spatial analytics, network analysis for least-cost path routing, geocoding and address validation, 3D visualization, terrain analysis, and custom Python scripting for workflow automation. Essential for Yellowhammer serviceable location mapping, demographic analysis, competitive intelligence gathering, and grant compliance documentation including FCC BDC reporting.
QGIS	Open-source GIS platform providing robust spatial analysis and data management capabilities at no licensing cost. Cost-effective complement to ArcGIS Pro enabling broader team access to geospatial tools while supporting open-format data exchange (GeoJSON, KML, Shapefile). Particularly valuable for field teams requiring mobile GIS capabilities and organizations seeking to minimize software licensing costs.
Google Earth Pro	Satellite imagery and terrain visualization essential for preliminary route planning and site reconnaissance. Enables rapid route reconnaissance, terrain profiling, elevation analysis, and distance/area measurements without field visits. Particularly valuable for initial feasibility assessments, stakeholder presentations, and environmental desktop reviews prior to detailed field surveys.

Pole Loading & Structural Analysis Tools

	pole modeling, multi-owner attachment coordination, and automated make-ready work order generation.
O-Calc Pro	Advanced pole loading and clearance analysis software with enhanced capabilities for complex loading scenarios, integrated pole mapping workflows, and construction work order generation. Particularly valuable for large-scale Yellowhammer deployment programs requiring analysis of thousands of poles. Features include batch processing, automated utility coordination, and integration with field data collection applications for streamlined make-ready workflows.
OSMOSE	Comprehensive utility infrastructure assessment platform used extensively by electric cooperatives and utilities for pole strength testing, inspection data management, and make-ready planning. Enables integration of pole strength testing data (remaining strength values, wood species, treatment history), loading analysis results, and make-ready work order tracking providing complete lifecycle management of utility pole infrastructure.
Katapult Pro	AI-powered pole analysis platform automatically detecting and measuring pole infrastructure (attachments, guy wires, transformers, clearances) from street-level imagery and aerial imagery sources. Accelerates preliminary make-ready scoping by automating data collection, reducing field visit requirements by 60-80 percent, and generating initial pole loading models for SPIDAcalc/O-Calc Pro import. Particularly valuable for rapid assessment of large route miles in Yellowhammer expansion areas.

SPIDAcalc	Industry-leading pole loading analysis software performing NESC-compliant structural calculations for pole strength, guy wire tensions, anchor sizing, and make-ready requirements. Produces detailed loading reports accepted by utilities nationwide including calculations for wind loading, ice loading, construction loading, and final loading conditions. Advanced capabilities include photo-based

tracking

Project Management & Workflow Platforms

Sitetracker	Cloud-based deployment management platform specifically designed for telecommunications infrastructure projects. Built on Salesforce platform, Sitetracker manages complete workflows from site acquisition through construction completion with integrated permitting tracking, milestone management, stakeholder collaboration capabilities, and real-time project dashboards. Essential for complex fiber deployment programs including GigaPower residential buildouts and Yellowhammer grant-funded expansions requiring detailed progress tracking and regulatory reporting.
Microsoft Project	Enterprise project scheduling platform for planning complex fiber deployments with multiple phases, hundreds of tasks, task dependencies, resource allocation, and critical path analysis. Enables detailed timeline development, resource leveling, baseline management, and earned value analysis for large-scale infrastructure programs.
Primavera P6	Enterprise-class project portfolio management platform for large-scale infrastructure programs involving multiple projects, shared resources, and complex interdependencies. Capabilities include multi-project scheduling, resource leveling across project portfolios, earned value management, and risk analysis. Particularly valuable for managing extensive fiber deployment portfolios such as statewide Yellowhammer programs.
Smartsheet	Cloud-based work management platform for collaborative project tracking, permit coordination, and real-time client visibility. Features include automated workflows, interactive Gantt charts, resource management, file attachments, and customizable dashboards. Particularly effective for permit tracking across multiple jurisdictions, stakeholder coordination, and providing clients with self-service project status visibility.
Additional Tools	Adobe Creative Suite (professional graphics and presentations), Bluebeam Revu (PDF markup and collaboration for drawing reviews), Microsoft 365 (complete productivity suite including Word, Excel, PowerPoint, Teams, SharePoint for documentation, analysis, and secure collaboration across project teams)

CLIENT SECTORS AND MARKET PLACE

Serviquent Prime Solutions has established itself as a premier engineering partner within the telecommunications and utility landscape. Our market presence is defined by our ability to navigate the intersection of complex geospatial data and physical infrastructure deployment across the United States. We serve as the technical backbone for organizations that demand high-accuracy, code-compliant network expansions.

- **Telecommunications & 5G Carriers**: We provide Tier 1 and Tier 2 carriers with the foundational engineering required for massive 5G small cell rollouts and backhaul integration. By specializing in FTTx (Fiber-to-the-X) architectures, we ensure that fiber deployment to homes, businesses, and towers is executed with surgical precision.

- **Electric & Public Utilities**: Our team acts as a bridge between pole owners and attachers. We partner with investor-owned utilities (IOUs) and electric cooperatives to manage joint-use programs, performing the critical audits and stress tests (PLA) necessary to ensure that new fiber does not jeopardize grid stability or public safety.

- **Broadband Service Providers (ISPs)**: We support both established ISPs and emerging providers in the rapid expansion of high-speed internet. Our expertise in route optimization and cost-per-passing analysis helps these providers maximize their ROI in competitive markets.

- **Municipalities & Smart City Initiatives**: We assist local governments in developing integrated connectivity master plans. From smart street lighting to municipal broadband and IoT sensor networks, we provide the geospatial planning and permitting expertise required for modern urban infrastructure.

- **Energy & Renewable Resources**: We support the integration of renewable energy sites into the grid by designing the fiber-optic "nerve centers" required for real-time monitoring and substation automation. Our GIS analysis identifies optimal routes that minimize environmental disruption.
    - **Transportation & DOT Entities**: We work alongside state and local Departments of Transportation to manage fiber relocation projects and Intelligent Transportation Systems (ITS). We ensure that all underground and aerial assets remain compliant with strict right-of-way (ROW) and safety regulations during highway expansions.

COMPETETIVE ADVANTAGES

The **Serviquent Prime Solutions** advantage lies in our "Right-First-Time" philosophy. We combine high-level engineering software with AI-driven field data to eliminate the traditional bottlenecks of network deployment.

- **AI-Powered "Virtual Rideouts" with Katapult Pro**:
  Traditional field collection is slow and prone to human error. By integrating **Katapult Pro**, we utilize AI-powered photogrammetry to capture high-resolution, 360-degree imagery of every asset. This allows our engineers to perform "virtual rideouts" from the office, reducing field time by **60-80%** and providing a permanent, defensible digital record of every pole and right-of-way.

- **Sophisticated Structural Modeling (SPIDAcalc, O-Calc Pro, & OSMOSE)**:
  We don't rely on guesswork. Our engineering team utilizes **SPIDAcalc**, **O-Calc Pro**, and **OSMOSE** platforms to build precise 3D models of utility poles. We simulate extreme environmental stressors—such as NESC "Heavy" ice loads and hurricane-force winds—ensuring every attachment is mathematically proven to be safe.

- **Integrated GIS Planning & Spatial Analysis**:
  Our spatial analysis goes beyond simple mapping. We use advanced GIS tools to analyze terrain, existing utility density, and parcel boundaries. This allows us to design the most efficient routes possible, identifying the path of least resistance to reduce construction costs and avoid environmental or cultural "no-go" zones.

- **Regulatory & Permitting Mastery (NESC & NEC)**:
  The biggest threat to a project timeline is a rejected permit. We specialize in "first-pass" success by delivering submittals that anticipate the specific requirements of the **DOT**, **NESC**, and local municipalities. Our deep understanding of **Make-Ready Engineering (MRE)** ensures that if a pole is non-compliant, we provide the solution alongside the application.

- **End-to-End Lifecycle Visibility**:
  From the initial feasibility study to the final "as-built" documentation, we provide a continuous thread of data. This ensures that the network as designed is exactly what gets built, providing clients with high-accuracy records that are essential for long-term maintenance and future expansion.

CONTACT US

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