Oldcastle Infrastructure Knowledge Base

This knowledge base is designed for Robi to access and provide tailored recommendations, insights, and solutions for Oldcastle Infrastructure's business needs. Each section is formatted for quick AI retrieval and contextual application.

Company Overview

History and Legacy

- Established in 1978 as a precast concrete manufacturer.
- Evolved into an industry leader in engineered building solutions.
- Offers over 16,000 products across multiple categories, including pipes, precast structures, stormwater solutions, enclosures, and building accessories.

Evolution of Product Lines and Market Focus

- Operates in five key markets:
    - **Water Management**: Stormwater solutions like BioPod and PerkFilter.
    - **Communications**: Infrastructure solutions for telecom needs.
    - **Transportation**: Engineered products supporting roads and highways.
    - **Energy**: Transformer pads and other critical infrastructure.
    - **Building Structures**: Precast systems for commercial and residential needs.
- Shifted focus from traditional construction to innovative, sustainable infrastructure solutions.

National Presence

- Extensive manufacturing network across North America.
- Solutions impact communities and infrastructure development on a national scale.

Vision and Innovation Commitment

- Vision: "Connecting communities and improving how the world works."
- Strong emphasis on forward-thinking solutions and cloud-based systems to improve decision-making and efficiency.

Sustainability Focus

- Dedicated to sustainable infrastructure with products like BioPod and PerkFilter, which address environmental challenges such as stormwater management.

Recent Developments

- Achieved a 21.5% growth in operating profit in 2020, supported by advanced data analytics capabilities.
- Invested in a modern data stack using Fivetran, Snowflake, and Tableau for enhanced business intelligence.

1. Company Overview

- **Mission Statement**: "To build a more sustainable and resilient world by providing innovative infrastructure solutions."
- **Core Focus Areas**:
    - Stormwater Management
    - Energy and Utility Infrastructure
    - Water Management Systems
    - Transportation and Communications
- **Key Differentiators**:
    - Comprehensive solutions across various infrastructure needs.
    - Focus on sustainability and innovation.
    - Advanced manufacturing capabilities.
- **Industries Served**:
    - Commercial
    - Residential
    - Municipal
    - Industrial
    - Transportation
    - Energy

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2. Products

Product Categories:

- **Stormwater Solutions**: Innovative detention systems, retention systems, and advanced stormwater management products designed to address complex water challenges.
- **Energy Infrastructure**: Utility vaults, precast concrete pads, and scalable solar solutions tailored to energy distribution and storage.

- **Water Management**: Comprehensive water vaults, treatment systems, and wastewater management solutions.
- **Communications & Transportation**: Cable vaults, signal pads, and telecom products supporting infrastructure for seamless connectivity and transit operations.

Unique Value Proposition:

- **Pre-engineered Solutions**: Ready-to-deploy products, minimizing on-site labor and reducing installation time.
- **Sustainability Focus**: Environmentally friendly materials and designs to align with green initiatives.
- **Scalable Infrastructure**: Products designed to meet the demands of small to large-scale projects across diverse industries.

Market-Specific Solutions:

With over 16,000 products, Oldcastle serves five key infrastructure markets:

- **Water Management**: Filtration, drainage systems, and water quality improvement solutions.
- **Communications**: Infrastructure supporting telecom networks, including vaults and enclosures.
- **Transportation**: Precast systems for highways, bridges, and other critical transportation needs.
- **Energy**: Advanced solutions for power distribution, solar energy, and grid infrastructure.
- **Building Structures**: Precast concrete products for commercial, residential, and industrial construction projects.

Oldcastle Brands

BioPod™: Advanced Stormwater Biofiltration

BioPod systems focus on pollutant removal through engineered biofiltration. Designed to address water quality challenges, these systems utilize a layered structure with specialized media to trap and treat contaminants such as oils, sediments, and nutrients from stormwater. They are ideal for urban areas where space is limited, providing efficient stormwater management in compliance with environmental regulations.

Carson®: Lightweight Polymer Utility Enclosures

Carson enclosures are crafted from lightweight, high-strength polymers, offering a durable and cost-effective solution for utility infrastructure. Common applications include housing for electrical, water, and telecommunications equipment. The lightweight design ensures ease of installation while maintaining robust protection against environmental and operational stressors.

Cell Blocks®: Modular Infrastructure Solutions

Cell Blocks are modular, precast concrete blocks designed for versatile use in infrastructure projects. These systems are known for their flexibility, allowing for rapid assembly and customization for retaining

walls, sound barriers, and structural foundations. Their interlocking design ensures stability while reducing installation time.

Christy®: Telecom and Electrical Vaults and Enclosures

Christy vaults and enclosures provide reliable solutions for housing critical telecom and electrical components. Engineered for heavy-duty applications, these products offer exceptional strength and durability while ensuring accessibility for maintenance. Christy products are a trusted choice in the utility sector, known for their longevity and resilience.

CUDO®: Modular Stormwater Storage Systems

CUDO systems are designed to manage and store stormwater efficiently. The modular design enables scalable solutions for projects of varying sizes, from small urban developments to large industrial facilities. The high-strength materials and customizable configurations make CUDO systems an excellent choice for underground stormwater management.

Defender Wall: Protective Barriers for Safety

The Defender Wall provides robust protective solutions for infrastructure projects, ensuring safety in high-risk areas. Designed to withstand impacts and environmental conditions, these barriers are commonly used in transportation, industrial, and municipal applications to safeguard assets and personnel.

Dual-Vortex Separator (DVS): Debris and Sediment Removal

The DVS system employs dual-vortex technology to efficiently separate debris and sediment from stormwater. This advanced design improves the water treatment process, reducing maintenance needs and enhancing the lifespan of downstream infrastructure. The DVS is a critical component in sustainable stormwater management systems.

Duralite®: Lightweight and Durable Utility Enclosures

Duralite enclosures combine the advantages of lightweight materials with exceptional durability. These products are ideal for applications where weight constraints are critical, such as rooftops and remote locations, while still offering robust protection against weather, impact, and corrosion.

Fibrelyte®: Reinforced Fiberglass Infrastructure Products

Fibrelyte products deliver enhanced strength and durability for a range of infrastructure applications. The fiberglass reinforcement ensures resistance to corrosion and environmental wear, making them suitable for long-term use in harsh conditions. These products are often employed in utility and transportation sectors.

FloGard®: Stormwater Pollutant Capture Inserts

FloGard catch basin inserts are engineered to capture and retain pollutants in stormwater systems, including oil, sediment, and trash. These inserts are easy to install and maintain, providing a cost-effective solution for improving water quality in urban and industrial areas.

Highline®: High-Capacity Drainage Solutions

Highline products are designed to handle high volumes of water efficiently, making them suitable for urban and industrial drainage systems. These solutions feature advanced hydraulic designs to prevent flooding, ensure consistent water flow, and reduce maintenance needs. Highline systems are customizable for various applications, including roadways, parking lots, and industrial facilities.

MAXWELL®: Modular Precast Products

MAXWELL systems consist of modular precast solutions tailored for stormwater management and utility applications. These products are engineered for quick installation, durability, and adaptability to diverse project requirements. MAXWELL solutions are particularly valuable in projects requiring rapid deployment and minimal disruption to the surrounding environment.

MULTIduct™: Multi-Channel Ducting Systems

MULTIduct is a lightweight, multi-channel ducting system designed for efficient cable and utility management. Its modular design allows for flexibility in infrastructure layouts, making it ideal for transport, energy, and telecommunications sectors. MULTIduct offers robust protection for cables while reducing installation time and costs.

Nutrient Separating Baffle Box® (NSBB®): Stormwater Management with Nutrient Control

The NSBB is an advanced stormwater treatment system that targets nutrients, sediment, and debris. Its innovative design separates and captures pollutants, preventing them from entering waterways. This system is widely used in environmentally sensitive areas, helping to meet stringent water quality regulations.

Oldcastle FRP: Fiber-Reinforced Polymer Solutions

Oldcastle FRP products combine strength and lightweight properties, offering durable solutions for infrastructure challenges. Common applications include bridge decking, pedestrian walkways, and utility enclosures. The fiber-reinforced polymer construction ensures resistance to corrosion, weather, and chemical exposure, making it ideal for harsh environments.

Oldcastle Polymer: Durable and Lightweight Infrastructure Products

Oldcastle Polymer offers a range of polymer-based products designed for utility and infrastructure applications. These solutions provide the strength of traditional materials like concrete but are significantly lighter, enabling easier handling and installation. Applications include utility enclosures, manholes, and access points.

OMNI Pole Base: Precast Utility Pole Bases

OMNI Pole Bases are precast foundations designed for poles in lighting, utility, and signage applications. These bases simplify installation, improve stability, and reduce labor costs. Their durable construction ensures long-term performance even in demanding environments.

OneLift™ Pump Station: Compact Wastewater Solutions

The OneLift Pump Station offers a compact and efficient solution for wastewater management. Its all-in-one design integrates the wet well and valve vault, reducing installation time and footprint. OneLift is

ideal for municipal and industrial wastewater applications, combining reliability and ease of maintenance.

PerkFilter™: Media Filtration for Contaminant Removal

PerkFilter systems utilize advanced filtration media to capture and remove pollutants from stormwater. These modular filters are scalable and customizable, making them suitable for diverse applications, from small urban projects to large industrial sites. PerkFilter enhances water quality while meeting regulatory requirements.

PermeCapture™: Permeable Stormwater Capture Systems

PermeCapture systems combine permeable surfaces with efficient stormwater capture technologies, allowing water to infiltrate and recharge groundwater supplies. These systems are particularly useful in urban areas with high impervious surface coverage, offering sustainable stormwater management solutions.

Plastibeton®: Concrete-Based Infrastructure Solutions

Plastibeton products offer durable, concrete-based solutions tailored for rail, transit, and industrial applications. Known for their high load-bearing capacity and long lifespan, these products provide reliable infrastructure support in challenging environments. Plastibeton is particularly well-suited for cable troughs, track supports, and other transit-related needs.

Primex: Control and Monitoring Systems

Primex systems are designed to optimize infrastructure performance through advanced control and monitoring technologies. Applications include water and wastewater treatment, stormwater management, and utility infrastructure. Primex solutions enhance operational efficiency, reduce downtime, and improve overall system reliability.

PROtrough: Precast Cable Trough Systems

PROtrough is a precast solution for efficient cable management. These systems are lightweight, durable, and designed for easy installation. Common applications include railways, utilities, and energy projects, where they provide robust protection and streamlined organization for critical cables.

Sierra Wall Systems: Precast Concrete Wall Solutions

Sierra Wall Systems offer durable and aesthetically pleasing precast concrete walls for various applications, including sound barriers, retaining walls, and security enclosures. These systems are engineered for strength, longevity, and quick installation, making them a cost-effective solution for infrastructure projects.

STAKKAbox™ Ultima Connect: Modular, Flexible Chambers

STAKKAbox Ultima Connect is a modular chamber system that offers unparalleled flexibility and durability. Designed for utility, telecom, and infrastructure projects, these chambers can be easily customized and expanded to suit specific project needs. The lightweight, stackable design ensures quick and efficient installation.

StarTrack® Rail Solutions: Infrastructure for Transit Systems

StarTrack products provide reliable rail solutions for transit infrastructure. Designed for strength and durability, these systems include precast components that support efficient rail installation and long-term performance. StarTrack is trusted in high-traffic transit applications for its precision and reliability.

StormCapture®: Modular Stormwater Storage Solutions

StormCapture systems offer modular, scalable solutions for stormwater storage and management. These precast structures are designed to handle high volumes of water, reducing flooding risks and improving water quality. StormCapture is ideal for urban and industrial developments with stringent stormwater requirements.

TerraMod™: Modular Foundations for Versatile Applications

TerraMod systems provide modular foundation solutions for diverse applications, including energy, industrial, and commercial projects. These foundations are designed for quick assembly and adaptability, ensuring a solid base for structures while minimizing environmental impact.

TruFireWalls™: Fire-Resistant Wall Systems

TruFireWalls deliver fire-resistant solutions for critical infrastructure. These walls are designed to withstand high temperatures and provide exceptional safety in industrial and commercial settings. TruFireWalls are often used in applications where fire safety is paramount, such as energy facilities and storage areas.

3. Custom Solutions

- Provides customized designs to meet specific project requirements:
    - **Case Study**: Teton Pass Highway emergency detour project, showcasing the ability to deliver under tight deadlines.
    - Collaborative process with clients to integrate tailored solutions into broader infrastructure projects.

Product Innovation

- Focuses on "forward-thinking" solutions across all markets.
- Committed to digital transformation, driving innovation in product design and manufacturing processes.

Installation and Maintenance

- Offers guidance on efficient installation processes (e.g., BioPod units).
- Products are designed for long-term performance with maintenance best practices.

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4. Core Challenges (Oldcastle's Needs)

- Managing complex infrastructure projects with high operational efficiency.
- Maintaining compliance with stringent regulatory and environmental standards.
- Meeting sustainability goals while remaining cost-competitive.
- Supporting distributors and customers with effective product training.
- Scaling operations to meet growing demands in multiple regions.

Supply Chain Optimization

- Mitigating supply chain disruptions.
- Managing inventory in volatile markets.
- Incorporating sustainable sourcing practices.

Talent Acquisition and Retention

- Attracting and retaining skilled workers in a competitive labor market.
- Building a leadership pipeline.
- Enhancing employee engagement and satisfaction.

Digital Transformation

- Integrating IoT and smart technologies into infrastructure products.
- Leveraging data analytics to improve decision-making.
- Strengthening cybersecurity for connected systems.

Market Expansion

- Strategies for entering new geographical markets.
- Adapting solutions for diverse climate conditions.
- Navigating complex regulatory landscapes.

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4. Strategic Goals

- **Sustainability**: Reduce carbon footprint and improve environmental impact metrics.
- **Innovation**: Leverage AI and digital solutions to optimize operations and product offerings.
- **Customer Satisfaction**: Enhance customer engagement and provide personalized service.
- **Growth**: Expand market share in emerging industries like EV infrastructure

Operational Excellence

- Implement lean manufacturing processes.

- Strengthen quality control measures.
- Increase automation and robotics in production.

Research and Development

- Build partnerships with universities and research institutions.
- Expand patent portfolios and explore emerging technologies.

Financial Performance

- Achieve revenue growth and profit margin improvement.
- Allocate resources strategically for high-priority initiatives.

Brand Positioning

- Establish thought leadership in sustainable infrastructure.
- Earn industry recognition and awards.
- Build customer loyalty through innovative solutions.

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5. Use Cases for Robi

Operations:

- Predictive maintenance for manufacturing equipment.
- Resource optimization across production facilities.

Customer Experience:

- Sentiment analysis to gauge distributor and customer feedback.
- Personalized product recommendations based on client needs.

Sales & Marketing:

- AI-driven market intelligence to identify high-growth opportunities.
- Automated outreach campaigns targeting key decision-makers in infrastructure projects.

People & Organization:

- AI-powered training modules for distributors.
- Career development pathways and mentorship programs for employees.

Technology & Digital:

- Data-driven dashboards to track ROI on sustainability initiatives.

- Real-time analytics for compliance tracking.

Project Management

- Optimize project schedules and resource allocation using AI.
- Provide risk assessment and mitigation strategies.
- Track and report project progress in real time.

Supply Chain Management

- Forecast demand and optimize inventory.
- Monitor supplier performance metrics.
- Enhance logistics with AI-powered route optimization.

Product Development

- Leverage AI for design and prototyping.
- Use predictive modeling for product performance.
- Integrate customer feedback into iterative development.

Regulatory Compliance

- Automate compliance checks to meet changing regulations.
- Generate documentation for certifications.
- Detect potential compliance issues early with AI alerts.

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6. Relevant Data

Key Performance Indicators (KPIs)

- **Manufacturing Efficiency**: Uptime and downtime rates, energy consumption, production quality.
- **Customer Satisfaction**: Net Promoter Score, retention rates, on-time delivery.
- **Sustainability Metrics**: Carbon footprint reduction, water usage, and waste reduction statistics.
- **Project Performance**: Timely delivery, cost efficiency, and safety metrics.

Historical Data

- Previous project case studies (e.g., solar panel installations, stormwater systems, and emergency infrastructure projects).
- Financial performance trends and operational improvements.
- Customer feedback and survey results.

Market Insights

- Trends in EV infrastructure and green building solutions.
- Competitor benchmarking.

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7. Common Queries

- **Stormwater Management**: How does Oldcastle's BioPod compare to other stormwater solutions?
- **Cost Savings**: What cost savings can be achieved using Oldcastle's precast products?
- **Sustainability and AI**: How can AI improve sustainability metrics in infrastructure projects?
- **Urbanization Challenges**: How does Oldcastle support urbanization challenges with its product line?
- **EV Infrastructure**: What solutions does Oldcastle offer for EV infrastructure expansion?
- **Training and Operations**: How can distributors be trained effectively using AI tools?
- **Scaling Operations**: What are the best practices for scaling operations across multiple regions?
- **Quality Assurance**: How does Oldcastle ensure product quality across diverse locations?
- **Carbon Footprint**: What steps are being taken to reduce the company's carbon footprint?

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8. Compliance and Security

Regulatory Requirements:

- Adherence to ASTM International standards, LEED certification, and OSHA safety regulations.
- Compliance with environmental standards for water and energy systems.
- Safety and compliance metrics for product installations.

Data Security:

- Secure handling of sensitive client information and project data.
- Compliance with international data privacy laws through access controls and secure data storage practices.

Risk Management:

- Robust disaster recovery protocols and business continuity planning.

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9. AI Change Strategy for Oldcastle

- **Phase 1**: Deploy predictive analytics for operational efficiency and compliance tracking.
- **Phase 2**: Implement AI-driven customer engagement tools for distributor training and sentiment analysis.
- **Phase 3**: Scale AI solutions across departments to achieve sustainability goals and operational excellence.

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10. Supporting Content

Technical Whitepapers

- Research-driven content exploring sustainable infrastructure and comparative analysis.

Video Library

- Product demonstrations, customer testimonials, and virtual tours.

Interactive Tools

- Product configurators, ROI calculators, and environmental impact simulators.

PRODUCT INFO

- **Product Name**: Biopod™ System
- **Description**: Advanced biofiltration design for stormwater runoff treatment.
    - **Functionality**:Removes total suspended solids (TSS)
        - Eliminates dissolved metals and nutrients
        - Filters gross solids, trash, debris, and petroleum hydrocarbons
    - **Features**:Low-Impact Development (LID) solution
        - Integrates into standard site drainage
        - Accommodates various vegetation for green infrastructure
- **Media Used**: StormMix™ Media**Type**: Engineered, high-flow media

    - **Benefits**: Enables treatment of large areas in a compact footprint
- **Construction**:**Material**: Durable precast concrete
    - **Design**: All-in-one, single-piece unit for ease of installation and longevity
- **Configurations Available**:**Planter**
    - **Tree**
    - **Surface**
    - **Underground**
- **High-Flow Bypass Option**:Reduces costs by eliminating the need for separate bypass structures
    - Allows placement in a “sag” condition
- **Hydromodification Capability**:Can be used with Oldcastle detention systems to meet hydromodification and water treatment needs
    - Collected flows can supplement irrigation, reducing potable water consumption
- **LEED Certification Support**:Approved by regulatory agencies in Washington, New Jersey, and others
    - May assist in earning LEED credits for:Sustainable Sites
        - Water Efficiency
        - Materials & Resources
- **Standard Sizes Available**:Configurations include:4' x 4'
        - 4' x 6'
        - 4' x 8'
        - 4' x 12'
        - 6' x 6'
        - 6' x 8'
        - 6' x 12'
        - 8' x 12'
        - 8' x 16'

For more specific size requirements, contact your local Oldcastle Infrastructure representative.

- **Product Name**: PerkFilter™
    - **Description**: Cartridge-based media filtration system designed to remove specific pollutants from stormwater.
    - **Functionality**:Utilizes sedimentation, filtration, and sorption processes.
        - Reduces downstream contaminants effectively.
    - **Performance**:Removal efficiencies:Total Suspended Solids (TSS): > 80%
        - Total Phosphorus: > 60%
    - **Applications**:Configurable for various uses including:Catch Basins
        - Drop Inlets
        - Manholes
        - Vaults
        - Panel Vaults
    - **Certifications**:Approved by Washington State Department of Ecology, New Jersey Department of Environmental Protection, Maryland Department of the Environment, and Virginia Department of Environmental Quality.
- **Cartridge Specifications**:**Standard Capacities**:Cartridge Height (inches)Treatment Capacity (gpm) at Media Surface Loading Rate
    - 1210.2 (1.5 gpm/ft²), 18 (2.5 gpm/ft²)
      1813.6 (1.5 gpm/ft²), 24 (2.5 gpm/ft²)
      2417 (1.5 gpm/ft²), 30 (2.5 gpm/ft²)
- **Product Name**: Biopod™ System**Description**: Advanced biofiltration system for stormwater treatment.
    - **Functionality**:Removes TSS, dissolved metals, nutrients, gross solids, trash, debris, and petroleum hydrocarbons.
        - Integrates into standard site drainage.
    - **Features**:Utilizes proprietary StormMix™ media for high-flow treatment.
        - Available in four configurations: planter, tree, surface, and underground.
    - **Hydromodification Capability**:Can work with Oldcastle detention systems to manage water treatment needs.
        - Collected flows can be used for irrigation to reduce potable water consumption.
- **LEED Certification Support**:Approved by regulatory agencies in multiple states.

    - May assist in earning LEED credits for Sustainable Sites, Water Efficiency, and Materials & Resources.

- **Standard Sizes Available**:Configuration TypeStandard Sizes
  Planter4' x 4', 4' x 6',
  4' x 8', 4' x 12'
  Tree6' x 6', 6' x 8',
  6' x 12'
  Surface8' x 12', 8' x 16'

For specific size requirements or additional configurations, contact your local Oldcastle Infrastructure representative.

Product Name: MaxWell® Plus Drainage System

Description:

Industry-leading drainage system designed for large paved surfaces, nuisance water, and other demanding applications. Integrates state-of-the-art pre-treatment technology to enhance stormwater management.

Functionality

- Separates and traps sediment, debris, and floating trash.
- Regulates stormwater flow to optimize treatment capacity.
- Removes pavement oils with absorbent hydrophobic sponges.

Features

1. **Pre-Treatment Chambers**:
    - Large settling chambers for sediment and debris collection.
    - Equipped with PureFlo® Debris Shields for filtering and trapping floating materials.
2. **High-Capacity Absorbents**:
    - Petrochemical sponges wick oil and hydrocarbons from water.
    - Each sponge removes up to 128 oz. of pollutants.
3. **Durable Security Measures**:
    - Cast iron bolted grates with theft-deterrent features.
    - Custom castings for high-impact resistance.

4. **Versatile Configurations**:
    - Standard chamber depth is adjustable from 15 feet for initial acres to a maximum of 25 feet.

Construction

- **Material**: Precast concrete with fusion-bonded epoxy coatings for internal components.
- **Design**: Modular construction with scalable depth for varying drainage needs.
- **Dimensions**: Chambers typically measure 48” ID and 54” OD.

Benefits

- Handles "first flush" during initial stormwater runoff, capturing the highest pollutant loads.
- Effective oil absorption down to molecular sheens.
- Reduces downstream maintenance with multi-level treatment.

Configurations Available

- Single-unit systems with customizable chamber depths.
- Options for additional pipe sizes (6", 8", 12") to meet site-specific needs.

LEED Certification Support

- Recognized by state and municipal agencies for sustainability and stormwater efficiency.
- Supports credits for Sustainable Sites and Water Efficiency in LEED projects.

Standard Sizes Available

- Chamber depth range: 15 to 25 feet.
- Pipe options: 6", 8", and 12" diameters for flexible system configurations.

For specific project requirements, contact Torrent Resources Incorporated.

Product Name: MaxWell® IV Drainage System

Description:

An advanced drainage system designed for landscaped developments and paved areas, featuring cutting-edge pre-treatment technology to handle stormwater runoff effectively.

Functionality

- Traps sediment, debris, and floating trash using settling chambers.
- Removes pavement oils with hydrophobic absorbent sponges.
- Returns treated water to surrounding soil via FloFast® Drainage Screen.

Features

1. **Pre-Treatment Efficiency**:
    - Large-volume chambers separate silt and heavy particles.
    - PureFlo® Debris Shield traps floating materials and prevents siphoning.
2. **Absorbent Technology**:
    - Floating sponges wick oil and hydrocarbons from water.
    - Each sponge removes up to 128 oz. of petrochemical pollutants.
3. **Security Enhancements**:
    - Cast iron, bolted grates with theft-deterrent features.
    - Impact-resistant castings for landscaped applications.
4. **Durability**:
    - Precast concrete liner with fusion-bonded epoxy coatings for longevity.
    - UV-resistant geotextile fabric seal for added protection.

Construction

- **Material**: High-strength precast concrete and steel components.
- **Design**: Compact and efficient, supporting depths up to 25 feet for enhanced drainage performance.
- **Chamber Depth**: 18 feet standard, adjustable based on system demands.

Benefits

- Provides reliable "first flush" treatment to capture initial stormwater pollutants.
- Customizable to suit various landscaped and paved surfaces.
- Long-term performance with minimal maintenance requirements.

Configurations Available

- Supports pipes up to 4" in diameter.
- Adaptable depths and settling chamber sizes to fit site-specific needs.
- Compatible with additional Torrent Resources systems for larger-scale drainage.

LEED Certification Support

- Meets stormwater management criteria for Sustainable Sites.
- Assists in achieving Water Efficiency and Materials & Resources credits.

Standard Sizes Available

- Settling chambers are available in depths of 18 to 25 feet.
- Pipes: 6", 8", or 12" diameter options for drainage flexibility.

For more details or to customize for your project, contact Torrent Resources Incorporated.

Product Name: STAKKAbox™ ULTIMA Connect

Description:

A highly versatile, modular access chamber system made from Glass Reinforced Polyester (GRP), offering lightweight and durable solutions for utility and infrastructure applications.

Functionality

- Allows easy customization of chamber dimensions.
- Provides robust, stackable sections for quick installation.
- Integrates with duct entries, spigots, and various covers for site-specific needs.

Features

1. **Modular Design**:
    - Constructed from stackable 6-inch deep sections.
    - Variable lengths and widths to suit project requirements.
2. **Lightweight Components**:
    - Individual components weigh less than 55 lbs, ensuring easy handling and transport.
3. **Material Durability**:
    - Made from Glass Reinforced Polyester (GRP) for high strength and longevity.
    - Resistant to water absorption and extreme temperatures.
4. **Options for Covers**:
    - Available in AX-S™ Concrete Infill, Composite, Recessed, Steel, and Ductile covers.
    - Supports additional customization with concrete slabs or duct entry integration.

Material Properties

- **Tensile Strength**: 62 MPa
- **Flexural Strength**: 142 MPa
- **Impact Strength**: 64 J/mm²
- **Fire Performance**: UL94 rated from HB to V0 for flame retardancy.
- **Heat Distortion**: Handles temperatures over 200°C.

Benefits

- Lightweight design minimizes labor costs and installation time.
- Flexible configuration reduces the need for on-site modifications.
- Durable material ensures long-term performance in harsh environments.
- Fire and water resistance improve safety and reliability.

Configurations Available

- Stackable sections with flexible dimensions for varied project applications.
- Accessories include steps, ladders, and duct integration options.

LEED Certification Support

- May contribute to LEED credits for Materials & Resources due to lightweight and durable construction.

Standard Sizes Available

- Variable lengths and widths with 6-inch deep stackable sections.
- Designed to integrate seamlessly with MULTIduct™ systems and other Oldcastle products.

For more information or specific project requirements, contact Oldcastle Infrastructure representatives.

Product Name: StormCapture® Modular Stormwater Management System

Description:

A flexible and scalable modular system designed for stormwater detention, retention, infiltration, treatment, and harvesting. Offers a comprehensive solution for managing stormwater runoff while supporting sustainable development practices.

Functionality

- **Detention**: Temporarily stores stormwater for controlled discharge.
- **Retention**: Holds stormwater for slow release into the environment.
- **Infiltration**: Directs water into the soil to recharge aquifers.
- **Treatment**: Removes contaminants through integrated pre- and post-treatment options.
- **Harvesting**: Enables collection and reuse of stormwater and greywater.

Features

1. **Modular Design**:
    - Precast concrete modules with external dimensions of 8’ x 16’ (OD) and internal dimensions of 7’ x 15’ (ID).
    - Heights customizable from 2’ to 14’ for site-specific requirements.
2. **Large Storage Capacity**:
    - Space-efficient design with capacities up to hundreds of thousands of gallons.

3. **Durable Construction**:
    - Designed to meet HS-20-44 load ratings for full truckloads plus impact.
    - Minimum 6" cover requirement for traffic loading.
4. **Ease of Installation**:
    - Simple, safe, and fast installation with minimal handling.
    - Uses existing site materials for backfill to save costs.
5. **Maintenance Friendly**:
    - Easy access for long-term upkeep, ensuring sustainability and reliability.
6. **Integrated Treatment Options**:
    - Compatible with pre-treatment units, oil-water separators, and sand filters.

Applications

- **Detention Systems**: Slows down runoff to prevent storm drain overloading.
- **Retention Systems**: Stores water under parking lots or roadways for controlled discharge.
- **Infiltration Systems**: Replenishes local aquifers through natural soil processes.
- **Cisterns**: Stores harvested stormwater for reuse.
- **Harvesting Systems**: Collects and recycles water for irrigation and other uses.

Configurations Available

- **SC1 Modules**: Single-piece modules for heights from 2’ to 7’. Ideal for cisterns, infiltration, and detention.
- **SC2 Modules**: Two-piece modules for heights from 6’ to 14’. Provides maximum storage capacity.
- **Link Slab®**: Reduces module requirements while maximizing capacity, compatible with SC1 and SC2.

LEED Certification Support

- Eligible for LEED v4.1 credits in categories like Sustainable Sites and Water Efficiency.

Standard Sizes Available

- Inside dimensions vary from 7’x15’x2’ to 7’x15’x14’, with capacities ranging from 210 ft^3 to 1,608 ft^3.

For custom designs and project-specific requirements, visit stormcapturedesign.com or contact Oldcastle Infrastructure.