



The following list is a compilation of projects representing the past experience of Vinal Applebee, P.E., many of which he either designed/managed or supervised during previous employment.

**Large Scale
Commercial :**

:: Logistics Management Warehouse, LMS :: Hermon, Maine

For this 128,000 sf warehouse and truck-to-rail facility, served as building project manager, site design and obtained local and DEP permits.

:: Wal*Mart Stores, Inc. :: Bangor, Maine

Project manager through construction phase. Responsible for site design and DEP and local permitting for original 98,000 sf Wal*Mart.

:: Sam's Club :: Bangor, Maine

Responsible for site design and DEP and local permitting for the 90,000 sf Sam's Club in Bangor. Project manager through construction phase.

:: Forest Products & Technology Center :: E. Millinocket, Maine

Design and permitting with Maine DEP and local municipality for a large-scale industrial subdivision aimed at the forest product industry. This unique 450+ acre park is comprised of six large lots ranging from 12 to 63-acres, connected to Maine's "wood basket" by an off-highway road system, adjacent to Dolby Flowage.

:: Wal*Mart Stores, Inc. :: Presque Isle and Newport, Maine

Project manager through construction phase. Responsible for site design and DEP and local permitting for original Wal*Marts in Presque Isle and Newport.

**Medium Scale
Commercial :**

:: USDA/Rural Development Offices :: Bangor, Maine

12,000 SF office building, responsible for site design and permitting.

:: Danforth's Down Home Supermarket :: Hermon, Maine

20,000 SF grocery store, responsible for site design and permitting.

:: Traffic Engineering Garage, MDOT :: W. Gardiner, Maine

Site design, DEP permitting and building project manager for 50,000 sf maintenance garage.

:: Distribution Center, CarQuest :: Bangor, Maine

Site design, local permitting and building project manager for 50,000 addition to distribution center warehouse.

**Small Scale:
Commercial**

:: Penobscot Valley Dermatology ,:: Bangor, Maine

Site design and local land use permitting

:: Creative Dental Solutions :: Bangor, Maine

Site design & layout, local land use and State DEP permitting of 5,000 SF dental clinic.

:: 7-Lot Commercial Subdivision :: Bangor, Maine

Design and permitting of commercial subdivision on Broadway, Bangor where USDA Rural Development and Creative Dental Solutions are now located.

:: Dunkin Donuts :: Bangor, Maine

Design and permitting of Dunkin Donuts site and drive relocation on Broadway.

:: Olive Garden Restaurant :: Bangor, Maine

Design and local permitting of the area's only Olive Garden Restaurant.

:: Stillwater Retail :: Bangor, Maine

Design and permitting of commercial retail building at corner of Stillwater Avenue and Kittridge Road.

:: Great Skates :: Bangor, Maine

Original design and permitting of commercial recreational facility on Sylvan Road.

:: 5-Lot Commercial Subdivision :: Bangor, Maine

Design and permitting of commercial subdivision on Frost and Longview Drives where Olive Garden, Dunkin Donuts, Sports Hut, KFC and auto dealer expansion are located.

Military:

:: Anti-Terrorism Protection Study :: Bangor International Airport, Maine

Maine Air National Guard (MEANG) base-wide study on existing and proposed buildings, parking areas and base perimeter following *DoD Minimum Anti-terrorism Standards for Buildings - Unified Facilities Criteria (UFC 4-010-01)*.

:: Aircraft Deicing Effluent Collection and Lift Station:: MEANG:: BIA, Bangor, Maine

Project manager and key design professional for 120,000 gallons per day aircraft de-icing disposal pumping station and forcemain with overflow storage pond, Ethernet connected electronic measuring and flow metering devices, electric slide gate valves and site work to accommodate new pond storage and infrastructure.

:: MEANG Base Master Plan Update :: Bangor International Airport, Maine

Project Manager for AMES work with national IDIQ consulting firm, the Benham Company on Antiterrorism/Force Protection, stormwater management study and traffic study and participated in the planning charrettes with the Maine Air National Guard, providing knowledge of the base and local issues.

:: WMD Ready Building :: Waterville, Maine

Responsible for the site design including incorporating anti-terrorism methods such as physical security measures into the design including maximum feasible standoff distance from parking areas.

Medical:

:: Acadia Hospital :: Bangor, Maine

Site plan design modifications, permitting approvals with City of Bangor and Maine DEP.

:: EMMC Cancer Center of Maine :: Bangor, Maine

Site design and permitting at local and Maine DEP levels for this additional to the EMMC campus on State Street, Bangor.

:: EMMC Westgate Healthcare Mall Renovations and Addition :: Bangor, Maine

Civil engineering including parking lot layout with considerations for patient pick-up and drop-off, relocated main entrance and new traffic signal on Union Street.

:: Norumbega Medical Buildings :: Bangor and Orono, Maine

Site design and permitting of two medical facilities for multi-practitioner, primary care providers, in Orono and Bangor.

:: Sunbury Medical Associates :: Bangor, Maine

Site design and permitting for new Bangor Family Medicine on Corporate Drive

:: Sunbury Medical Associates :: Hermon, Maine

Site design and permitting for new Family Medicine practice on Route 2

:: Maine General Hospital :: Waterville and Augusta, Maine

Parking deficiency study, conducted public interviews and final recommendation for both Waterville and Augusta campuses.

:: Eastern Maine Medical Center :: Bangor, Maine

Designed modifications to both the State Street parking lot and the Physicians Parking lot.

Transportation:

Airport Design – designed various runway or taxiway components in strict accordance with FAA design guidelines and regulations at the following locations:

- Eastport – Runway extension, obstruction lighting, ADF NAVAID
- Presque Isle – Runway rehabilitation/extension, taxiway design, runway/taxiway lighting
- Jackman – Runway rehab and extension (cold climate concerns)
- Houlton – Taxiway lighting improvements

Air Ambulance Helipad Design – complete design of helipad facility, obstruction lighting, ground clearance assessment, approach path analyses, probably cost estimate at the following locations:

- Eastern Maine Medical Center - (original ground-based)
- Central Maine Medical Center – included snow melt system for concrete landing pad
- Mid-Coast Hospital – challenging approach path over parking lot
- Also performed feasibility study at Maine Medical Center and Franklin Memorial Hospital to assess the practicality of bringing in a landing area and the associated issues.

Rail Design – designed the following facilities and amenities:

- Bangor & Aroostook Railroad – Switch Yard at the Derby Maintenance Shops. Project involved the rehabilitation of 4,200 feet of track and the installation of 22 new switches.
- Iron Road Railway – conceptual sidetrack for Jackman truck-to-rail facility.
- Sidetrack design for Logistics Management Systems truck-to-rail facility.

Roadway:

:: Stillwater Avenue Widening :: Orono, Maine

Widening of Stillwater Avenue from four lanes to five from I-95 interchange to the Orono/Old Town line. New traffic signals and relocation of private facilities.

:: Route 157 By-Pass Lane :: E. Millinocket, Maine

Design and permitting with Maine DOT of a high-speed by-pass lane along Route 157 at the entrance to Huber Resource's Forest & Technology Park.

:: Westbrook/Rand Road Highway Interchange :: Maine Turnpike, Westbrook, Maine

Responsible for oversight of design team for new highway interchange, two bridged overpasses, highway signage, environmental mitigation, geotechnical and coordination.

:: Route 2 Reconstruction Project :: Lincoln, Maine

Responsible for the production of construction documents for full-depth pavement, drainage improvements, coordination of utilities, and upgraded traffic signal.

:: Stillwater Avenue Roadway Safety Elimination :: Orono, Maine

Intersection improvements including radii increases, drainage structures, increasing sight distance by raising intersection grade by four feet.

:: Various Municipal Streets

- ♦ LaSalle, Hillview Drive, Peruvian Way – Bangor – including design of all utilities
- ♦ Hillside Blvd Extension – Brewer – including design of all utilities
- ♦ Skyline Road – Bangor – no public water or sewer, open drainage ditches
- ♦ Nature's Way – Brewer – water only, only open ditches

Municipal :

:: 1,200 space Parking Garage and 600 space surface lot, BIA :: Bangor, Maine

Provided design services and project management for mechanical and electrical design for this parking deck and complete renovation of entire surface parking lots at BIA.

:: Lakeview Cemetery :: Hampden, Maine

Expansion design of 2,560 new burial plots with 3,900 feet of gravel road at the Lakeview Cemetery, Hampden.

:: Betton Street Sewer Separation Project :: Brewer, Maine

Responsible for the design of this Combined Sewer Overflow project that eliminated several thousand cubic feet of stormwater flow from the City sewer system.

:: Katahdin Region Industrial Park :: E. Millinocket, Maine

Complete design of this 19-lot industrial subdivision including roadways, water and sewer infrastructure and associated sewage pumping station. Project was permitted through Maine DEP and local Planning Board.

:: Ozone Treatment Plant :: Otis, Maine

Site design for Ozone Treatment Plant at Floods Pond, Otis.

Education:

:: Center for Rural Health & Technology :: University of Maine, Maine

Civil Engineering and Site design of 17,000 SF, 2-story facility houses a School of Nursing, Health Center, and a Technology Center and connects to an existing building.

:: Husson College :: Bangor, Maine

Design and permitting of Winkin Field, the area's first artificial playing surface field.

:: University of Maine :: Orono, Maine

Alfond Arena – entire parking lot redesign and ancillary improvements design.

:: University of Maine :: Orono, Maine

Maine Center for the Arts – parking lot expansion redesign.

:: University of Maine :: Orono, Maine

Murray Hall – study of building drainage issues and basement flooding.

Housing :

:: Ross Manor Nursing Home :: Bangor, Maine

Parking and site modifications for new wing addition.

:: Ellen M. Leach Retirement Home :: Brewer, Maine

Site design and permitting for new congregate retirement housing of 60 units.

:: Woodlands Assisted Living :: Brewer, Maine

Site design and permitting for first phase, 72-bed assisted living residence.

:: Belvedere on the Waterpark :: Bangor, Maine

Site design and local permitting for a new 3-story, 32-unit, high-end condominium complex.

**Residential
Subdivisions:**

:: Judson Heights Phase 2 and 3:: Bangor, Maine

Over 50 single family residential lots of approximately 1/2 acre in size. The project included conceptual and final lotting layout. Roadway design included roughly 2,500 feet of City-accepted streets, including the design of City water, City sewer and closed drainage stormwater collection and mitigation. In addition to local Planning Board approvals, a DEP Site Location Application was prepared for this expansion.

:: Pondview Estates – Lower Patten Pond :: Ellsworth, Maine

Design and permitting at local and State levels for this significant 24-lot residential subdivision on the west side of Lower Patten Pond. Project involved archeological studies, phosphorus mitigation design, the design of 2,800 feet of roadway.

:: Church Woods :: Bangor, Maine

Off Church Street, you will find this subdivision in a rural section of Bangor. The project included lotting layout design, roadway design and stormwater management via open roadside ditches. No public utilities, other than power, were inclusive, as these homes have wells and septic systems. The street was accepted by the City of Bangor as a public way.

:: Nature's Way :: Brewer, Maine

A smaller subdivision of 15 lots is located in rural Brewer. Similar to Church Woods, this project included lot layout, roadway design, and stormwater collection and mitigation/treatment. All lots are on well and septic, so no public utility design was necessary. This project is presently under construction.

:: Judson Height Mobile Park:: Bangor, Maine

This project involved the final design of 20 lots for pre-manufactured homes. Design of a City-accepted roadway and City utilities were part of this project. Conceptual sketches and preliminary designs were prepared for an additional 75 lots, including design of roadways and buried utilities.

Infrastructure :

Stormwater/drainage facilities

- Complex stormwater management study for DEP baseline of entire Maine Air National Guard campus at Bangor International Airport.
- High-velocity stream protection riprap design – Sugarloaf Mountain major drainage ways and Irving Oil in Rockport (drainage diversion)
- Stormwater collection system improvements included in sewer separation project – Betton Street Sewer Separation Phase I and II, Brewer
- Entire watershed runoff calculations for culvert and stormwater collection designs associated with listed MDOT roadway designs.
- Major stormwater design for Eastern Maine Medical Center's interceptor relocation
- Phosphorous studies for various lake watersheds
- Compliance for EPA NPDES permitting, DEP stormwater treatment ponds

Potable Water Systems

- Water distribution studies including hydrant flow testing, head-loss and pressure reduction in pipes - studies and reporting for Wilmington and Walpole, Massachusetts.
- Problem solving of water booster stations, system problems, system curves, hydraulic gradelines, thrust block design
- Water supply, distribution and treatment including design of 0.5 to 1.0-MGD gravel packed wells in Walpole, MA
- Lengthy 12-inch line for dedicated fire protection of \$10MM Army Aviation Support Facility,
- Co-designer of two water treatment plants rated capacity of two- and eight- MGD. Design responsibilities included gravity-flow plant hydraulics, mechanical systems including air scrubbing, flocculation, filtration, chemical feed systems and vertical turbine pumps. Performed field pilot plant studies to determine best chemical dosages and filter material.
- **Water booster pumping station designs include:**
 - Job Corp, Bangor, Maine - dormitory twin booster pump system
 - Municipal booster station associated with 40-unit Condominium project
 - Mechanical design of 1-mgd, 100-hp municipal booster pumping station

Sanitary Sewage Systems

- Engineered subsurface system designs in accordance with Maine Subsurface Regulations
 - Pittsfield Rest Stops (north and southbound) – up to 8,000 gpd system
 - Camp Molly Molasses – seasonal use day camp for children
 - Squaw Mountain, high-capacity system to serve condos and lodge
- Designed miles of City-accepted sewer design in Bangor, Brewer and Hampden
- Sanitary sewer Infiltration/Inflow (I/I) studies including sewer line and manhole inspections, smoke testing, basement investigations, multi-day flow studies
- Designed miles of sewer mains and interceptor sewers for both developed and undeveloped areas of various municipalities in Massachusetts
 - **Sanitary sewage pumping station designs include:**
 - Camp Molly Molasses, Eddington – 2,400 gpd pump station
 - Pittsfield Rest Stop – both north and southbound sides, design included significant pump station design for flows up to 8,000 gpd. Reserve storage system was incorporated for peak flows and for power outages.
 - E. Millinocket Industrial Park – pump station handled flow from 19-lot park
 - Robin Hood Drive, Brewer – 8-lot subdivision expansion required design of sanitary pumping station with extra storage capacity for power outage emergencies
 - Hillside Blvd., Brewer – Pump station for 30-lot residential subdivision
 - Broadway, Bangor – 7-lot commercial subdivision, evaluated existing station

Golf Courses :

:: Rocky Knoll :: Orrington, Maine

Site and infrastructure design and DEP permitting for back nine holes expansion project. Course was designed by Owners.

:: Felt Brook Golf Center :: Holden, Maine

Site and infrastructure design and DEP permitting for nine hole course.

:: JATO :: Lincoln, Maine

Site and infrastructure design and DEP permitting for back nine holes expansion project. Course was designed by Owners.