

FIRM INFORMATION

Bala's mission focuses on **People, Environment and Well-Being**. We are built on relationships first—Relationships with our staff, clients and business partners.

We believe sustainable design is essential design. As engineers and consultants we influence and change the path of design for the built environment. We educate our clients on optimal systems and solutions for their project's needs. The results are efficient, safe and healthy facilities that sustain people.







POINTS OF CONTACT

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EXPERTISE & MARKETS

According to the 2020 U.S. Census, 1 in 6 people were over the age of 65. By 2030, that will be 1 in 5 as the baby boomer population in elder care swells to form what the industry is calling a "Silver Tsunami" of life care need. Effectively housing this population, and providing a location that a modern senior will thrive in, depends on massive building and facilities improvements at Continuing Care Retirement Communities (CCRCs) - from independent living, assisted living, and memory care to skilled nursing.

This is an opportunity for innovation and defined market expansion that is rare. It is important for architects and facilities owners to work with engineering partners who fully grasp the complexities of new life care facility development and the requirements of effectively upgrading/expanding existing properties.

The Bala Advantage provides not only MEP/FP designs services but also technology (IT, AV and security), structural engineering, commissioning and sustainability. The ability to navigate the breadth of services, preferably within one firm, can bring efficiencies and repeatable strategies that can be incorporated across senior care facilities nationwide.

FACILITIES SERVED

- Skilled nursing
- Assisted Living

- Residential Healthcare
- Community Centers



SERVICES

MEP/FP

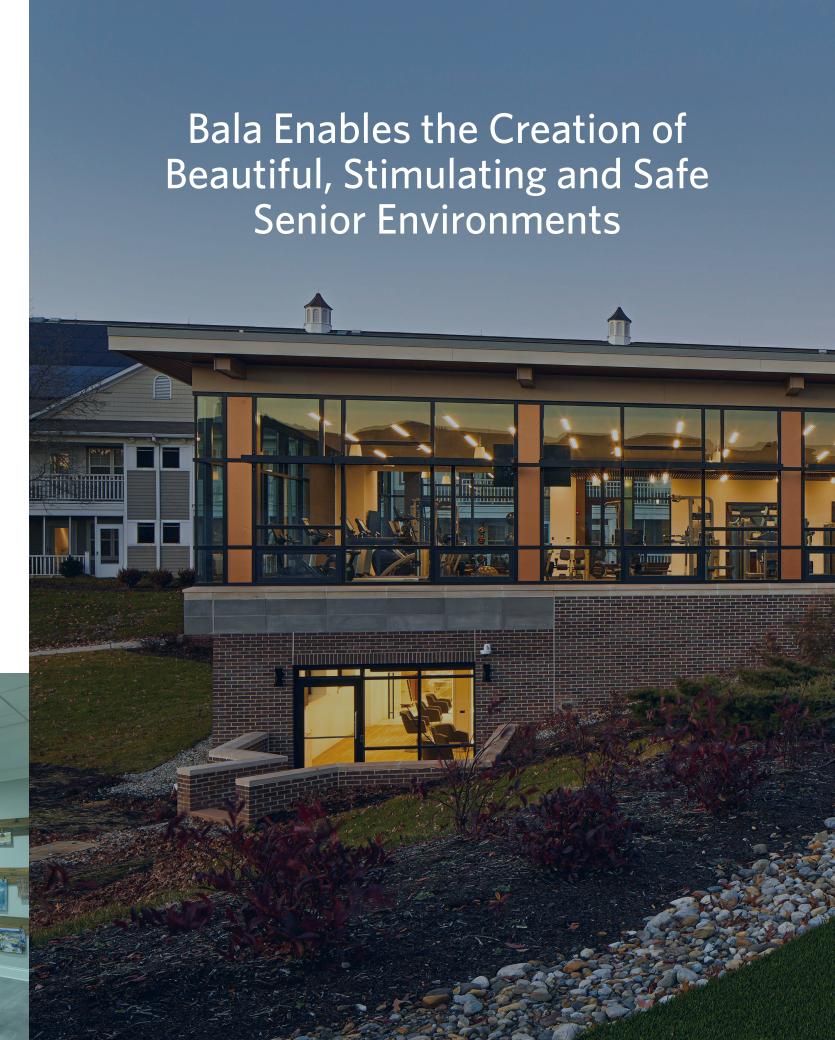
- Engineering for MEP/FP for Residential, Fitness, Community, Medical Spaces, Dining Kitchens, Natatoriums & Social Amenities
- Emergency Power Systems,
- MEP System Upgrades
- Lighting Design for Dining, Terrance,
 Community Rooms, Parking and Fitness

STRUCTURES

- Foundation Retaining Walls
- New Roof Framing
- Exterior Slabs on Grade Trenching & Infill
- Support, Steel Dunnage & Platforms for Mechanical Equipment
- Porte Cochere Structure & Cantilevered Canopies

TECHNOLOGY

- IT Network Systems
- Digital Messaging Way Finding
- Assisted Listening Systems
- Access Control and Video Surveillance
- Audio Visual Design
- Wi-Fi Coverage Modeling
- Structured Cabling
- Security System Design to Support Security Analysis
- Facilities Management
 Technology Infrastructure







TRAILBLAZING AMENITIES

With an active, healthy population also comes the need to provide facilities that support wellness activities. Today's senior population are just as fitness center savvy as they are with technology. Additionally, to create an all-in-one experience for residents, life care facilities have added on-site medi-spa, physical therapy, dental and salon components. Physical activity is important, but social interaction is just as important. Many facilities are creating flexible gathering spaces that can be changed by group/day/function. These amenities are raising the bar on space design and their supporting infrastructure.

Bala develops flexible MEP and technology systems to support specialty health, fitness and social activities including:

- Convertible space that can transition from an afternoon cooking class to an evening entertainment space
- Fulfilling the complicated power and ventilation requirements of salons, medi-spas, dental and medical suites
- Sound, video and communication systems for permanent and portable entertainment spaces

PERSONAL LIVING ENVIRONMENT

One of the biggest areas for significant senior living upgrades are the addition of "smart home" features including remote lighting and independent heating/cooling, digital home access and security systems, automatic shades/draperies, and induction appliances that never get hot and shut off automatically. These amenities are fairly easy to incorporate once the proper electrical and technology infrastructure has been added.

Bala has been at the forefront of designing HVAC, backup power, ventilation and technology systems for life care residential use including:

• Independently controlled HVAC

- Independently controlled HVAC systems
- In-room kiosks for service requests, food orders and appointment scheduling
- Wayfinding technologies



ENVIRONMENTAL HEALTH & PATIENT WELFARE

HEALTHY ENVIRONMENTS

During the COVID era we all learned the critical need for managing indoor air quality, air transfers, and in-house healthcare for senior facilities. Facility designers and engineers are taking those learnings to create equipment maintenance and upgrade protocols that can be escalated in case of emergency situations. Increased air filtration, higher outside air quantities, Bi-Polar Ionization systems, all help to improve the air quality in the spaces, in addition to proper and frequent cleaning of common spaces.

Bala is at the forefront of the COVID mitigation designs. We published several white papers and provided presentations to clients while developing options for HVAC system upgrades for clients. If you have concerns for COVID or other airborne viruses, Bala can help you plan your power and HVAC approach including:

- Generator backup power for shelter in place, command center operations, life safety and nursing care
- Understanding new code requirements for ventilation, operational efficiencies and lower costs



COGNITIVE CARE

Many senior communities are also introducing sophisticated cognitive care facilities which require patient wander care technologies, and detailed patient interaction tracking while avoiding the feeling of being in a locked down environment. A delicate balance to achieve. Bala enables implementation of these cutting-edge life care technologies and provides the engineering foresight to accommodate future use cases.



