TECHLINEA
LIGHTING & INTEGRATION DESIGN

Today's Date: _____
(mm/dd/yyyy)

Please use TAB to navigate through the document; Please fill out as completely as possible. Thank you!

Project Information

Client Name(s): _____

Mailing Address: _____

Mailing City/ST/Zip: _____

Contact Phone: _____ Fax: _____

Email Address: _____

Project Name: _____

Project Address: _____

Project City/ST/Zip: _____

Project Team

Architect's Name: _____

Name of Firm: _____

Address: _____

City/ST/Zip: _____

Contact Phone: _____ Fax: _____

Email Address: _____

Interior Designer: _____

Name of Firm: _____

Address: _____

City/ST/Zip: _____

Contact Phone: _____ Fax: _____

Email Address: _____

Builder/Contractor: _____

Name of Firm: _____

Address: _____

City/ST/Zip: _____

Contact Phone: _____ Fax: _____

Email Address: _____

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General Lifestyle Questions

What is the main use of this residence? _____

How many persons will normally live in this residence? _____

How many children living in the home (ages of kids)? _____

How often will guests be staying in the residence? _____

What is your preferred computer OS: _____

Please describe your lifestyle (active, out-and-about, homebodies, frequent entertainers, etc):

_____

Any special needs/considerations (handicapped access, senior citizen convenience needs, pet needs)?

_____

What's the approx. square footage of this residence? _____

How many floors/levels is the residence? _____

Who has the most influence on you in the decision making process? _____

Number and frequency of home service personnel who need access/use of the home-

(housekeeper, gardener, pool service, delivery, au-pair/babysitter, executive assistant, etc):

_____

Describe the architecture and design style that you anticipate for this residence.

_____

Is your taste classical, contemporary, traditional, etc? _____

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Below is a list of activities/ideas. Please indicate how important each of these is to you and your family as they relate to this project. Importance can be measured by how often you engage in the activity or how much emphasis/concern/desire you have for it in your new home.

Please indicate for each activity/area of interest as follows:

(0 = Do not want; 1= Not necessarily interested through 5=Critical and must have it):

Area of Interest	л м н о п р
Watching Movies	
Watching TV shows	
Listening to Music	
Entertaining/hosting parties	
Personal safety/security	
Concern over air quality/safety: Carbon Monoxide, gas leaks, etc	
Ability to view house cameras from off-site/internet/office, etc.	
Ability to monitor exterior property/fences	
Being able to control HVAC from off-site	
Being able to control lights from off-site	
Being able to control access to the property: on-site: (smart locks on doors/gate/door control)	
off-site: (control home access from remote location)	
Energy Efficiency/Sustainability/Green Design/LEED	
Having one single user interface (app or touchscreen) for all your independent systems	
Integrating different systems' devices to minimize ceiling and wall devices (aesthetics)	
Linking multiple homesites (properties) together	
Linking multiple buildings on the same property together (campus design)	

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Electrical Design

Does the property have reliable, robust electrical service? (AMP size to the house?) _____

Will you require an emergency generator? _____

Are you planning on solar power? (If so, what company if known) _____

Are you interested in energy management and monitoring? _____

Please check the electrical equipment that you expect to have specified for this project:

- ☐ Elevator
- ☐ Sump Pumps/Wells/Septic Pumps
- ☐ Fountains
- ☐ Pool/Spa/Jacuzzi
- ☐ Dry Sauna
- ☐ Steam Generator
- ☐ Electric Cook Top
- ☐ Electric Ovens
- ☐ Warming Drawers
- ☐ Built-in Coffeemakers
- ☐ Instant Hot Dispensers
- ☐ Microwave
- ☐ Garbage Disposals
- ☐ Trash Compactors
- ☐ Refrigerator/Freezers
- ☐ Wine Refrigerators
- ☐ Heavy Duty Dishwashers
- ☐ Heavy Duty Washer-Dryer
- ☐ High CFM Kitchen Venting & Blowers
- ☐ Extra Power for Caterers
- ☐ Large Aquarium (pumps/heaters/etc)
- ☐ Towel Warming racks (bathrooms)
- ☐ Steam Showers
- ☐ Electric/electronic toilets (warming/water features)
- ☐ On-Demand Electric Water Heaters
- ☐ Attic Fans
- ☐ Heated/Radiant Floors
- ☐ Forced Air Conditioning/Heating
- ☐ Air Transfer/Circulation System (Exchangers)
- ☐ Garage Electric Car Charger
- ☐ Garage Air Compressor
- ☐ Electric Gates
- ☐ Garage Door Openers
- ☐ Garage Car Lifts
- ☐ Automated Drapes/Shades
- ☐ Automated Skylights
- ☐ Motorized Screens
- ☐ Dedicated A/V equipment
- ☐ Centralized Vacuum system
- ☐ Dedicated uninterrupted power circuits for computers, sensitive equipment

Shop equipment: stationary power tools or other devices not listed above:

Requirement for a Sub-Panel for occasional high draw loads:

Any special needs or requests:

Lighting Design

All Lighting design will conform to Current Electrical codes for the project jurisdiction, including California Title 24 Energy Standards as applicable.

The 2106 CA Title 24 lighting requirements may be summarized as follows:

A. All luminaires installed in residential construction must qualify as "high efficacy luminaires" and shall have readily accessible manual on/off control. This eliminates varying requirements by room and type of controls. This also eliminates the need to calculate the wattage of low versus high efficacy luminaires in the kitchen.

B. The definition of "high efficacy luminaires" includes the light sources identified as efficient in 2013 (linear fluorescent, pin based compact fluorescent, GU-24 base CFL, HID, and integral LED lighting), and now also includes any luminaire that contains a JA8 certified lamp or other light source that is appropriately marked. All luminaires installed with JA8 lamps must be controlled by a dimmer or vacancy sensor.

C. Lighting under cabinets must be switched separately from other lighting systems.

D. Recessed downlights in ceilings must contain JA8-certified light sources; screw-based lamps are specifically prohibited.

E. The number of blank electrical boxes installed more than five feet above the finished floor shall not be greater than the number of bedrooms. These electrical boxes shall be served by a dimmer, a vacancy sensor, or fan speed control.

F. Bathrooms, utility rooms, laundry rooms, and garages require vacancy sensors to control at least one luminaire in that space.

G. All luminaires mounted to the building (or to other buildings on the same lot) must be high efficacy, and be controlled with manual on/off PLUS one of the following: motion sensor AND by photo-control, photo-control AND astronomical time clock, or energy management system that incorporates astronomical time clock. Landscape lighting is exempt from this requirement.

Please describe what you like about your current lighting system.

Describe what you dislike about your current lighting system.

Are you familiar with the differences between an LED module type fixture and an LED lamp type fixture?

Do have any particular likes or dislikes for any of these light sources?

Do you have any particular preference about ceiling fixtures: aperture, trim type (flanged or flangeless), trim shape (square or round) trim color, and trim flanged color?

Do you like surface mounted fixtures? Sconces, Chandeliers, Pendants?

Is brightness a critical factor or is ambiance more important? _____

Indirect lighting: *lighting that is shielded and usually uses another element such as the lens, walls or ceiling to redirect the lighting into the space, in example: up lighting- lighting through opaque sources such as Sconces, Lamps, Coves, etc.*

Direct lighting: *lighting that openly directs its light source at the object being lighted, in example: down lights, accent lights, wall washers, under cabinet task lights.*

KITCHEN:

What are the surfaces to be used in the kitchen? Marble, Granite, Laminates? _____

Our concern here is the reflective value of these surfaces for countertops, islands, and peninsulas.

Do you like lighting inside the cabinets for stemware, crystal objects, and plate collections? _____

If so, please consider that glass shelves are best for lighting shelves from above; otherwise, the cabinet will need either vertical strips or shelf mounted accent lights.

Would you liketo have preset scenes (Cooking, Dining, Entertainment, Clean-Up, etc)? _____

Please give us some information on the cabinetry that you will be using in this residence.

_____

Do you like indirect cabinet mounted up lights? _____

Will there be a lot of windows surrounding the Living Room, Family Room, and Kitchen? _____

Are night-time and evening outside views important from these rooms? _____

Particular attention must be paid to these rooms if that is to be the case. Windows and glass doors become black mirrors at night if the exterior lighting is not adequately addressed.
Please note the following:

a) Unbalanced exterior lighting causes interior lighting to reflect on the windows making it difficult to see outdoors.
b) Consider window treatments for heat, sun, and glare control.

BATHS:

Will there be a make-up area or simply a vanity? _____

Will there be a dual vanity or a shared vanity? _____

Will there be dual baths or a shared bath? _____

Will this vanity area have a plate mirror, decorative or an articulated mirror? _____

Separate dressing areas? _____

If so, do you each require your own lighting and controls, for grooming, bathing, and dressing? _____

Note: Down lighting over vanities and sinks is not advised, but if they must be used, we recommend that they are complimented by side mounted fixtures or integrated lighted mirrors for the best task lighting. Downlighting creates harsh shadows around the face and especially beneath the eyes and chin: not good for make up or shaving.

Would you like lighted vanity mirrors? _____

Will the there be a Jacuzzi or Spa Tub in the bath? _____

If so, do you enjoy reading in the spa? _____

Will you have a heating zone in the baths, or will you use toe kick heaters, heated floors?

_____

Have you considered your need for skylights, windows, fans, and how they need to be controlled?

_____

Will you have electric warming towel racks? _____

LIVING ROOM-GREAT ROOM-FAMILY ROOM:

Will you be lighting any particular pieces of art or sculptures? _____

Do you have a color scheme, surfaces, and fabric samples? _____

Is this room to be used for family, entertainment, or both? _____

Do you like indirect lighting as opposed to direct sources of lighting? _____

Do you use table lamps or portable reading lights? _____

Do you like lamps to be controlled as part of your lighting scheme? _____

Do you require floor outlets, switched? _____

Are there any areas that need special attention? Game table, piano, conversation areas, fireplace, patio, garden views? _____

DINING ROOM:

Will this be a formal dining room? _____

Do you prefer Chandeliers over the dining table? _____

Do you like Sconces to be used for ambient lighting for the perimeter of the room? _____

Do you have table arrangements that need to be high-lighted? _____

Do you anticipate art or accent features in this room such as: paintings, murals, sculptures etc.?

_____

Will the dining table be solid material (wood/metal) or glass? _____

Will the dining table enlarge or collapse? _____

How many people will your dining room seat? _____

Does this dining room need to change its configuration during entertainment? _____

MASTER BEDROOM SUITE:
Do you read in bed? _____

Would you like preset scenes for the Bedroom?
☐ Nightlight ☐ Path lights ☐ Reading lights ☐ Master Off

Is there a Sitting Room attached to the Master Bedroom Suite? _____

EXTERIOR LIGHTING:
Is security lighting important in this residence? _____

If so, we will determine with you which lights would be best suited to be integrated with security and fire protection. We need to determine your municipality's particular codes regarding exterior lighting, such as DarkSky requirements, as every district is different. If you have any particular exterior lighting concept in mind, please introduce it in our consultation meeting.

Is there anything that you particularly like or dislike regarding exterior lighting?

_____

Would you like to see the following illuminated:

☐ Other Buildings
☐ Trees
☐ Planting Beds
☐ Driveway
☐ Pathways
☐ Columns
☐ Stairs
☐ Niches
☐ Exterior Statuary
☐ Pools
☐ Ponds
☐ Loggia
☐ Courtyard
☐ Tennis/Basketball Courts
☐ Patios Decks
☐ Fountains
☐ Car Port
☐ Garage
☐ Specific landmark? _____
☐ Other? _____

Any special lighting needs or requests:

_____

Lighting Control

Is the ability to universally control the lighting important to you? _____

What areas do you want to be able to control?

☐ Whole house ☐ exterior lighting ☐ common areas ☐ particular areas: _____

There are a few ways to design lighting control systems:

1. **digital/low voltage:** fixtures are wired with standard electrical; simple low voltage wiring run in a BUS to each fixture's driver; individual fixtures digitally controlled by control system (also wireless options)
    a. higher cost for each fixture/lower electrical and control system costs; higher programming costs
    b. more flexible and better suited for LED modules/driver technology
2. **analog/line voltage**: long runs of electrical wiring back to centralized panels which control each switchleg (groups of fixtures wired together)
    a. *lower cost of fixtures/higher electrical & labor and control equipment costs*
    b. *more traditional; better suited for LED retrofit lamp-type fixtures and legacy type fixtures*
3. **localized/standard:** standard/typical electrical wiring to smart dimmers/devices in local rooms that can communicate and be part of a control system; limited profgramming options; limited to smaller projects.
    a. *Works well in smaller rooms with 1 or 2 circuits of lighting; large rooms end up with multiple gangs of dimmers; can be unwieldy design/programming; works with LED retrofit/lamp-type fixtures*
    b. *lower cost of devices, but higher quantity needed; standard electrical & labor costs;*
    Determining which architecture type is dependent on the physical design of the structure, the availability of locations, budget, and your particular preferences.

Do you have a preference in designing the lighting control system? _____

Are you interested in setting scenes, if so, would you like the ability to set:

☐ 1) Scenes for daily functions or entertainment.
☐ 2) Entry lights- exterior -interior
☐ 3) Pathway lights
☐ 4) Night lights
☐ 5) Timed functions
☐ 6) Motion controlled functions
☐ 7) Landscape lighting
☐ 8) Fountains, pumps, gates
☐ 9) Security lighting

Which room(s) require the most attention? _____

Any special lighting needs or requests:

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Integration and Automation

With an integration system, formerly separate home systems can be controlled from a single convenient location, allowing the ability to create "scenes" and automate functionality between systems. These systems offer a very high level of home integration through universal handheld remotes and in-wall or wireless touch screens, and can integrate with Apple/Android Mobile and Tablet technology, as well as PC/Mac computer "virtual" interfaces, . One of the advantages of integration is that you can minimize/eliminate the need for various stand-alone wall-mounted controls (that all look different), the need to have multiple handheld remotes, or the need to learn different styles of user interfaces/apps or instructions.

Here is a sampling of some of the sub-systems that you could integrate or automate.
Please check any items that you'd like to see as part your system:

- ☐ Lighting Control System
- ☐ A/V System
- ☐ HVAC System
- ☐ Radiant Heating System
- ☐ Security/CCTV Systems
- ☐ Intercom System
- ☐ Access Control/Door Control
- ☐ Garage Door Openers
- ☐ Gate Controls
- ☐ Fireplaces
- ☐ Any Motors/Relays/Lifts
- ☐ Automated Window Treatments
- ☐ Landscape Sprinkler System
- ☐ Fountains/Ponds
- ☐ Pool/Spa Controls
- ☐ Outdoor Fire Pits
- ☐ Video Conferencing
- ☐ Link Multiple Properties
- ☐ Other: _____

Any systems you specifically want EXCLUDED from this control and want to be stand alone?

Keypads are wall mounted devices in a permanent location. Portable controls are a handheld remote controls allowing freedom of movement. Touch panels: either wall mounted or table top screens with a custom-designed interface are either RF (Radio Frequency) or WIFI and provide ***bi-directional*** *communication. Why is bi-directional communication important? Because when you press a button on a standard remote, you're telling a piece of equipment somewhere to do something; if you're not in the same room as the equipment you don't know whether it has responded or not. Example: turning-on the stereo, if you press POWER, it may go on, but if it was "on" it will go "off". You won't know what state it's in unless you go and look or if music comes on. With bi-directional communication, when you press the power button the remote sends the Command, the stereo will respond and send back a message indicating that it's* ***on****.*

Do you prefer keypads, remote hand control, web browser, touch screen panels or portable tablets?

Are there are any features that you are particularly interested in or you would like to receive more information about in order to decide what you need?

Security

Our first recommendation prior to designing a security system is to evaluate your personal security needs, your property's security needs, and determine the safety of the area in which you are planning to move into or build. Please consider the following preliminary steps:

1) Get an incident report or survey from your local police dept. for the last 6 months
2) What are the most prevalent incidents in your area?
3) Find out what the expected police response time is in your area.
4) Talk to your new neighbors, or the people who sold you the property.
5) Check out the public lighting system surrounding your property.

Areas of concern for Safety and Security (Please *check* all that you are interested in having):

- ☐ Exterior Perimeter Protection
- ☐ Exterior CCTV/Surveillance
- ☐ Exterior Car Gate Control
- ☐ Exterior Pedestrian Gate Control
- ☐ Perimeter Motion Detection
- ☐ Deer/Animal Deterrent Options
- ☐ Pool Safety/Wave Monitoring
- ☐ DVR Digital Video Recording
- ☐ Central Station Monitoring
- ☐ Fully-Integrated Security System
- ☐ Interior Perimeter Protection
- ☐ Interior CCTV/Surveillance
- ☐ Door/Window Contacts
- ☐ Door Access Control/E-locks
- ☐ Interior Motion Detection
- ☐ Sensor Pads (floors/stairs)
- ☐ Advanced Zoning/Partitioning
- ☐ Interior Air Quality Monitoring
- ☐ Gas Leak Detection
- ☐ Advanced Fire Protection
- ☐ Sprinkler System Integration
- ☐ Below Grade Flood Detection
- ☐ Cellular Security Interface
- ☐ Restricted Access Rooms
- ☐ Wine Cellar Monitoring
- ☐ Safe Room/Panic Room
- ☐ Vault/Hidden Safe
- ☐ Personal Panic Devices
- ☐ Child Safety Systems
- ☐ Emergency Shutdown Switch

Life Safety:

National Electric Code requires that every bedroom, stairway landing and hall have communicating smoke detectors on a dedicated electrical circuit, in addition to carbon monoxide detectors on each level and in proximity of all sleeping areas. As an alternative, low voltage fire and carbon monoxide detectors can be installed which are part of the alarm/security system. Because we realize that these devices are un-slightly but necessary for life safety, we have adopted and recommend VESDA, an early-warning ACTIVE smoke and gas detection technology that will protect your entire home from fire, Co2, and other harmful gases better than standard visible ceiling mounted detectors. It utilizes a piping system with sampling points (small tubes that can be hidden in architectural details) making them virtually invisible yet much more effective than traditional detection.

Are you interested in:

- ☐ standard stand-alone electrician-installed smoke and CO detectors
- ☐ integrated low-voltage detectors wired into the alarm system
- ☐ nearly-invisible VESDA active air sampling and detection system

Specialty Security requirements for your project:

Entertainment (Audio/Video)

Will this residence have an audio/video system? _____

Will there be a designated Theater or Media Room? _____

Will there be a central location for the system such as a Media Room, or a media closet

(some people prefer to see all their equipment; some people prefer not to see it)? If so, where?

_____

Will this system be a multi-zone system? _____

In a multi-zone or distributed system each room (zone) has independent control over volume and source content (radio, IPod, DVD, Video, etc.)

How many total zones will you want to set up? _____

Please check off from the following list items that will be part of your audio video system:

- ☐ Cable TV services
- ☐ Satellite TV services
- ☐ Blue Ray DVD Player
- ☐ TiVo Services
- ☐ Apple TV
- ☐ Internet TV
- ☐ Digital Video Server
- ☐ Other Streaming Video
- ☐ Video Surveillance (CCTV)
- ☐ Video Game Interface
- ☐ Computer Input Interface
- ☐ AM/FM Radio
- ☐ Satellite Radio
- ☐ Internet Radio
- ☐ Streaming Music Services
- ☐ Wireless Audio
- ☐ Digital Music Server
- ☐ CD Changer
- ☐ IPOD Interface
- ☐ Live Music (Microphone)
- ☐ Piano/Jukebox jack
- ☐ Phono (vinyl)
- ☐ Electronic Video Screen
- ☐ Video Projector
- ☐ Outdoor TV
- ☐ TV/Cabinet lift
- ☐ Specialty Application: _____
- ☐ Other: _____

Different life experiences and activities require a different solution and approach to audio. When thinking about each zone, please consider which type of audio experience is preferred in each area/zone:

1. Critical Active listening WITH VIDEO: this would be a dedicated theater/media room where you would go to have the best experience of watching a movie with movie-quality surround sound.

2. Active Listening with Video: This would be an area that has a TV, and you would watch movies or sports or other events, but you do not need the level of a theater experience.

3. Critical/Active Listening (Audio Only): This would be a zone where you might sit in a comfortable chair, perhaps with a beverage, and the primary activity would be listening to the music, where you can discern the source of the sound and are immersed in the aural experience.

4. Passive/Background Listening (Audio Only): this would be a zone/area where the primary activity is NOT listening to the music, but having music playing in the background, filling the room with sound evenly, enhancing the overall experience of the primary activity (dining room/pool, etc.).

(In each of the zones below, please enter a # to indicate which level of A/V you require; entering "0" indicates you do not want A/V in that zone)

Foyer/Entry	Office	Master Bedroom	Front Yard
Living Room	Den/Library	Master Sitting	Rear Yard/Garden
Dining Room	Sitting Rm	Master Bath (s)	Back Patio Area/Deck
Hallways	Play Room	Other Bedrooms	Pool Area
Powder Rm	Family Room	Other Baths	Other Outside Area
Kitchen	Theater/Media Rm*	Guest Bedroom*	Pool House/Lanai*
Nook	Garage/Workshop	Guest Bath*	Separate Guest House*

Other: _____

* *We recommend independent separate systems for these zones*

Are there any features that you are particularly interested in getting information about or any particular special needs relating to A/V?

Communication

While we understand the trend of utilizing your cellular telephone as your home phone and the use of all things wireless, we still highly recommend installing a wiring infrastructure for phone/data throughout the home, to include voice and data locations in all the bedrooms and major common areas.

How many incoming land lines are you planning? _____

Do you want a business-style phone system? _____

Do you have the need for an intercom system throughout the home? _____

There are several ways to achieve this:

- ☐ Standalone intercom system
- ☐ Integrated business-style phone system
- ☐ Utilizing the Control system touch panels as intercom stations

Please list the number and name of locations where you will need door/gate communication:

_____

Do you need cellular repeaters to strengthen their signal inside your home? _____

Do you need to connect multiple buildings on the property (fiber optic)? _____

How robust do you need your wireless data coverage to be (WI-FI)? _____

Any special needs in terms of voice or data for your project? Any special firewall/internet security?

_____

Overall Project Client Notes *(please provide any additional information you feel would be helpful to us!)*