










# PREFERRED PLAN

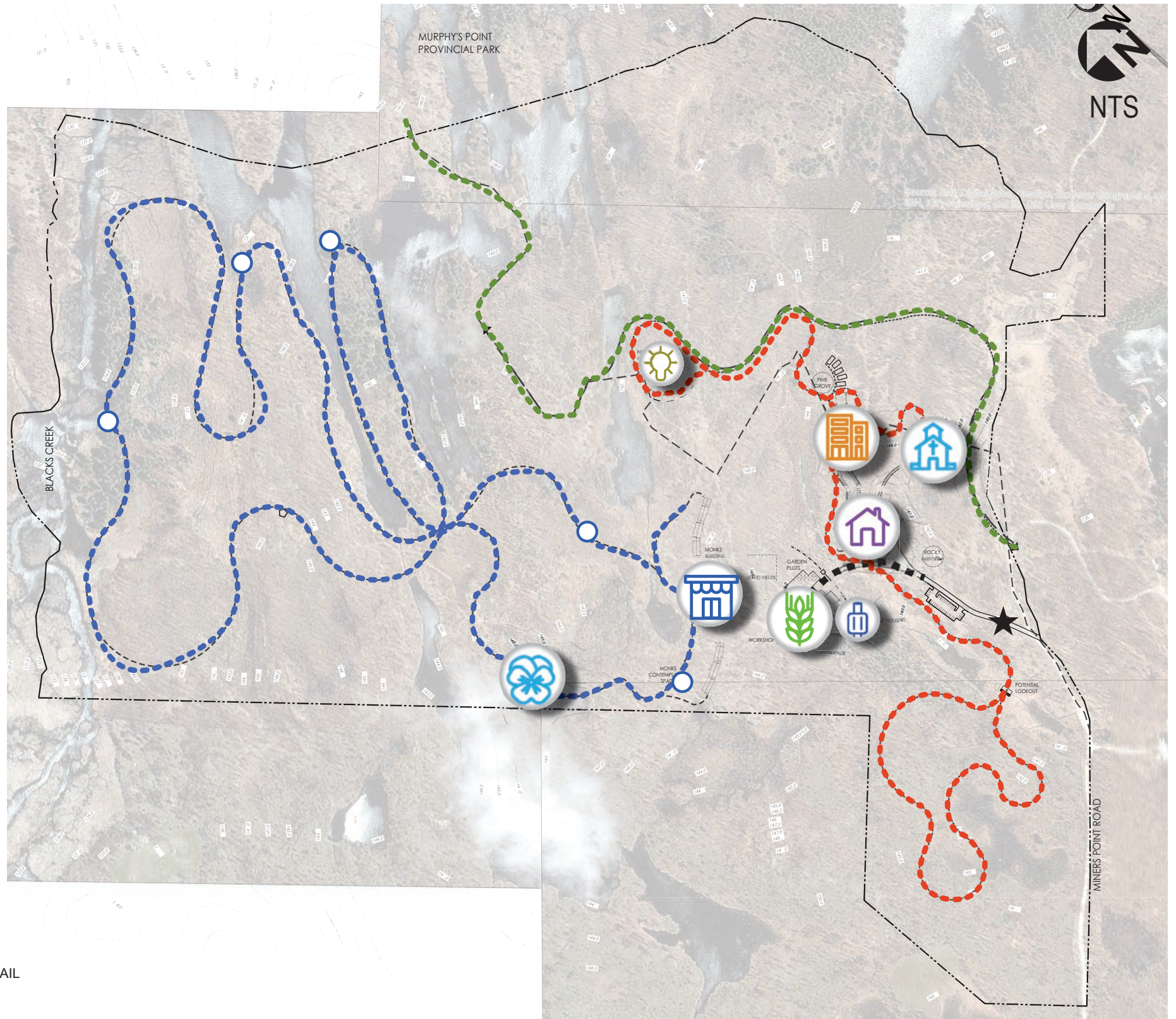
## A CAMPUS

Each of the options explored presented opportunities and challenges. The exercise allowed all stakeholders to evaluate the benefits and weaknesses which led to a preferred plan which tries to balance different dynamics. There is a desire to place buildings within the landscape as best as possible, yet be located in near proximity to one another. The Monks' Building must be in a secluded location, but have good access to the rest of the sites for service and operation practices. The preferred campus plan as proposed maximizes seclusion while having direct and easy access to other major campus elements.

The landscape of the site greatly informed the building designs and placement. The Monks' Building is situated at the top of a ridge to maximize views to the natural water bodies. St. Mina's Lodge and the Church rest atop ridges formed by the ancient glacial scouring. Pathways and trails provide connectivity throughout and follow existing topography to minimize the amount of disturbance required for installation. Overall the proposed campus plan develops only 6% of the whole site area, protecting and preserving as much land as possible for quiet reflection and connection to nature.

### LEGEND

- |   |   |  |
|---|---|--|
|  FARM              |  CHURCH          |  POTENTIAL ROAD       |
|  MONKS' BUILDING   |  CEMETERY        |  RIDEAU TRAIL         |
|  INTERIM HOUSING   |  RETREAT CENTRE  |  PUBLIC TRAIL         |
|  MONKS' CABIN      |  ST. MINAS LODGE |  PRIVATE/MONKS' TRAIL |
|  OUTDOOR CLASSROOM |  SITE ENTRANCE   |  |





# PREFERRED PLAN

## A CAMPUS

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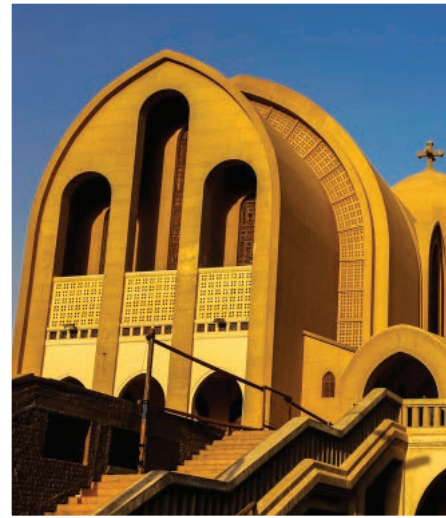
# ARCHITECTURAL EXPRESSION & CONCEPTS

# ARCHITECTURAL EXPRESSION

Coptic churches and monasteries throughout the world largely follow the same architectural styling of the religion dating back to 451 AD. The origin of the architecture, derived in part from Egyptian styling, tends to be simple in design, featuring barrel vaulted roofs, domes, and a tripartite apse. Modern interpretations of this styling are present in contemporary Coptic Churches around the globe.

The creation of Canada's first Coptic Monastery presents an opportunity to reinterpret these forms. Inspired by the existing structure on site, and the desire from the Monastery to complement its surroundings, the inspiration for new buildings will be a blend of old and new. Old world stylings from Coptic architecture around the world will integrate with contemporary simple design.

Inspired by the rural vernacular architecture of eastern Ontario, buildings of the monastery could take the look of contemporary barns or cabins, where buildings can express the materiality that is within the landscape, from wood interior finishes, to hewn stone exteriors. This strategy would complement the existing structure on site and also provide a distinct and innovative look to the monastery.



CABIN AT MURPHY'S POINT PROVINCIAL PARK



# ARCHITECTURAL EXPRESSION



HIDDEN AND CONTEMPLATIVE SPACES



BUILDING ARCHITECTURE THAT REFLECTS NATURE



PERCHED BUILDING OVERLOOKING LANDSCAPE



CLASSIC MEETS MODERN DESIGN



# ARCHITECTURAL EXPRESSION

When considering the outdoor spaces, from classrooms to contemplative elements, there are many considerations. Inspired by nature, structures could be designed in ways to note the point of view, to give the visitor a guidepost that this is a place to stop. To Reflect. To take a moment. This can be achieved through architectural design of the structures themselves, either in dramatic form using shape and colour. This can also be done by using natural materials to integrate into the landscape, or using living materials in innovative ways to grow a structure over time. Consideration to Coptic religious symbols, orientation, and patterns can be incorporated to further reinforce the notion of place within the landscape.



FORMAL, NATURAL LANDSCAPING



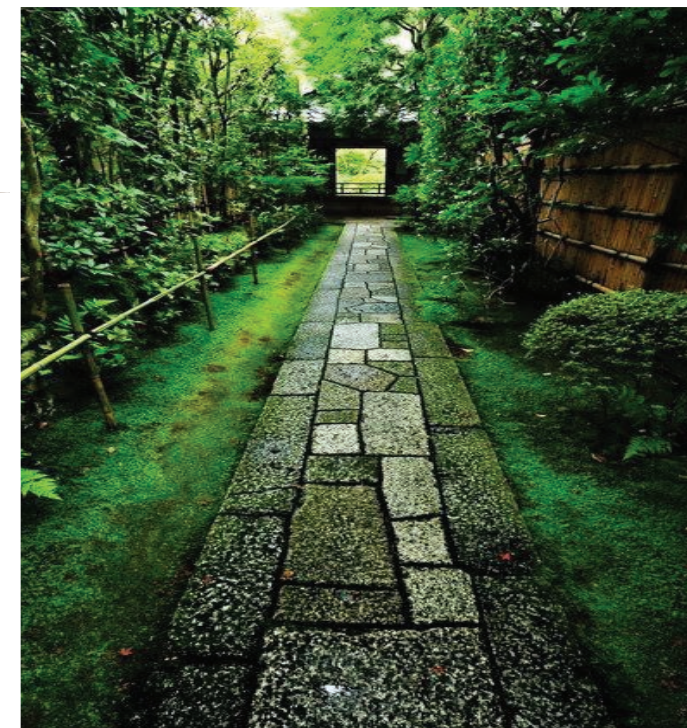
ARCHITECTURE THAT REFERENCES GLACIAL SCOURING



RUSTIC MODERN ARCHITECTURE



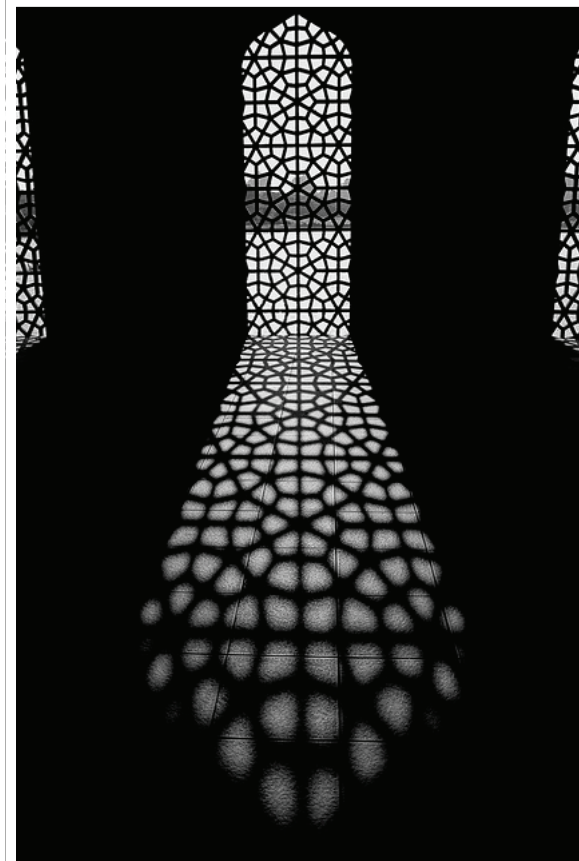
INNOVATIVE SMALL BUILDING DESIGN FOR CABINS



GARDENS



# ARCHITECTURAL EXPRESSION



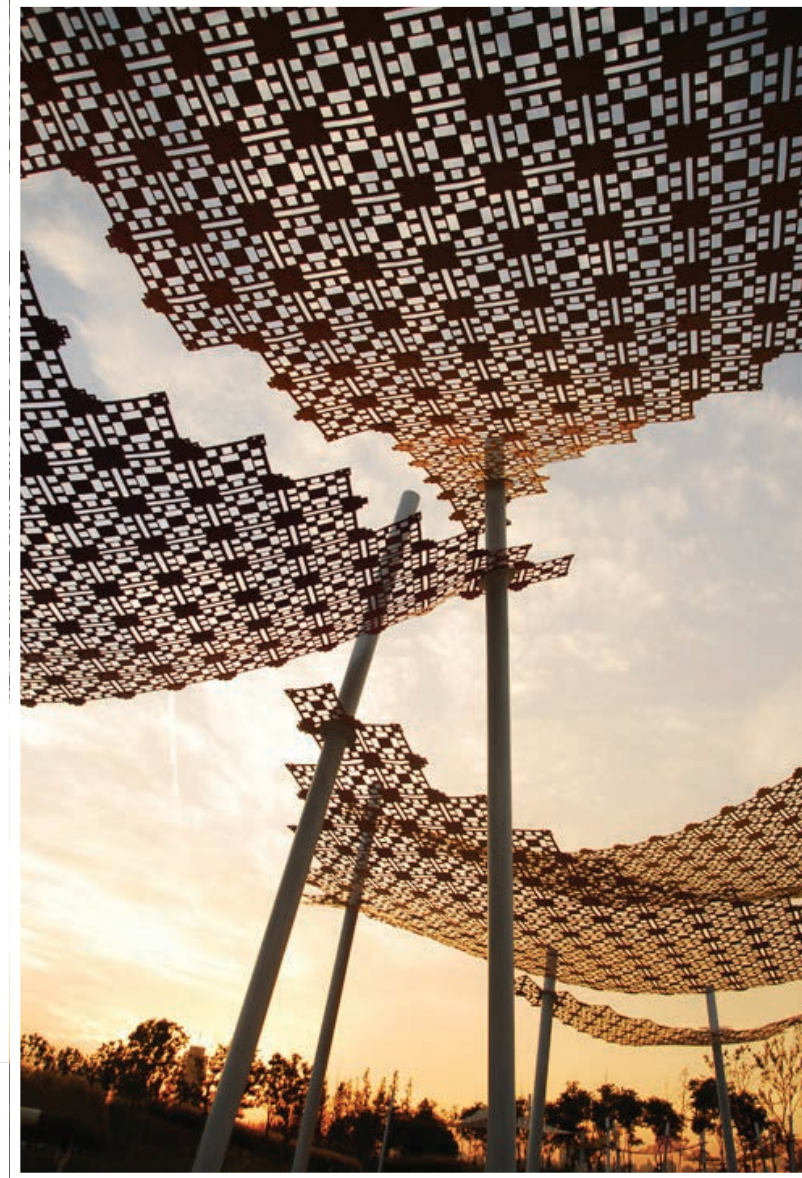


# ARCHITECTURAL EXPRESSION





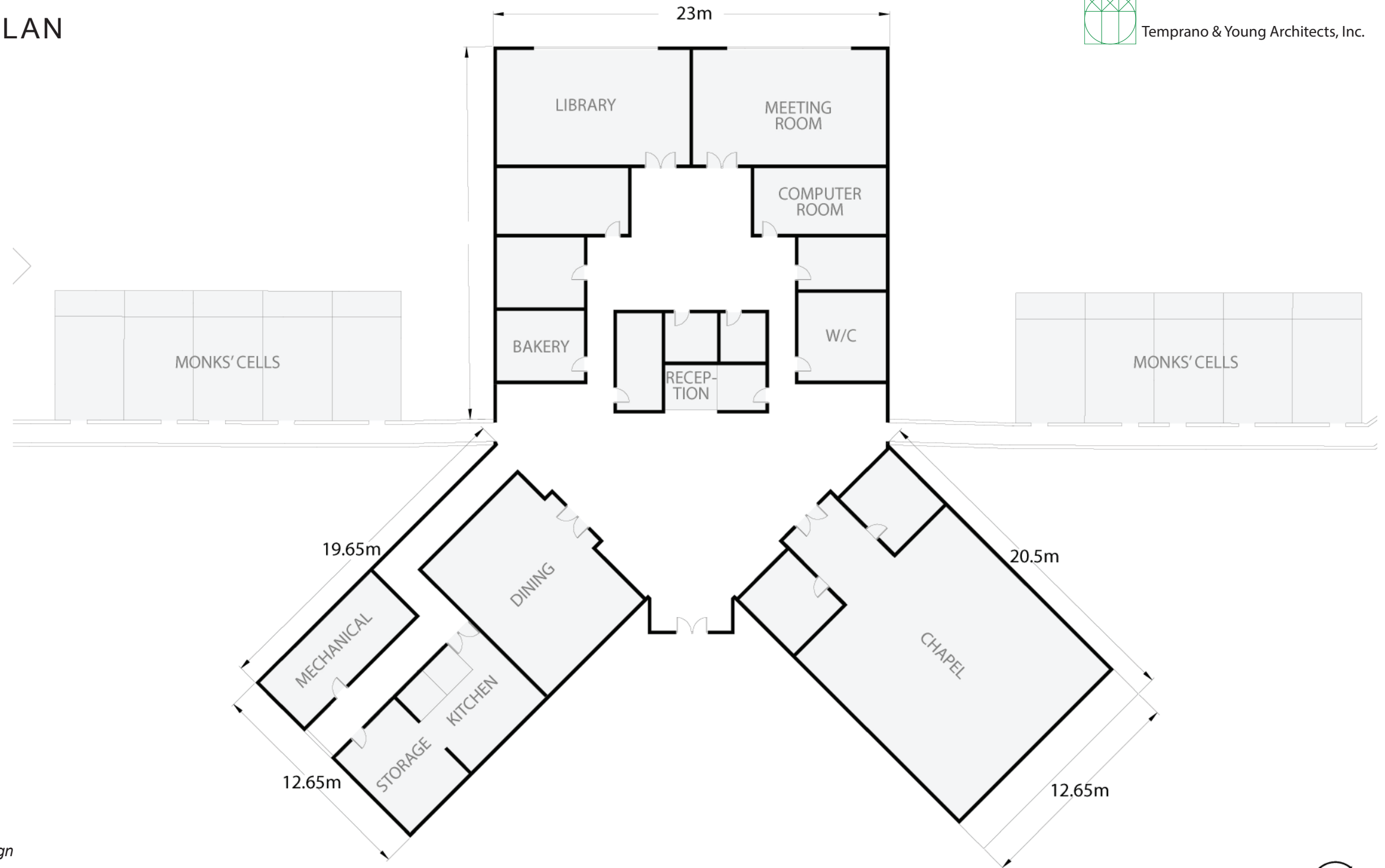
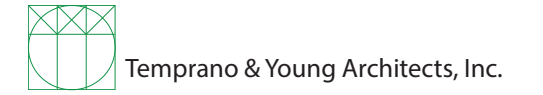
# ARCHITECTURAL EXPRESSION





# ARCHITECTURAL CONCEPTS

## MONKS' BUILDING PLAN



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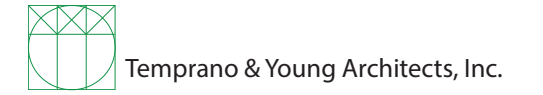
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### LEVEL ONE: CORE FACILITIES AND AMENITIES

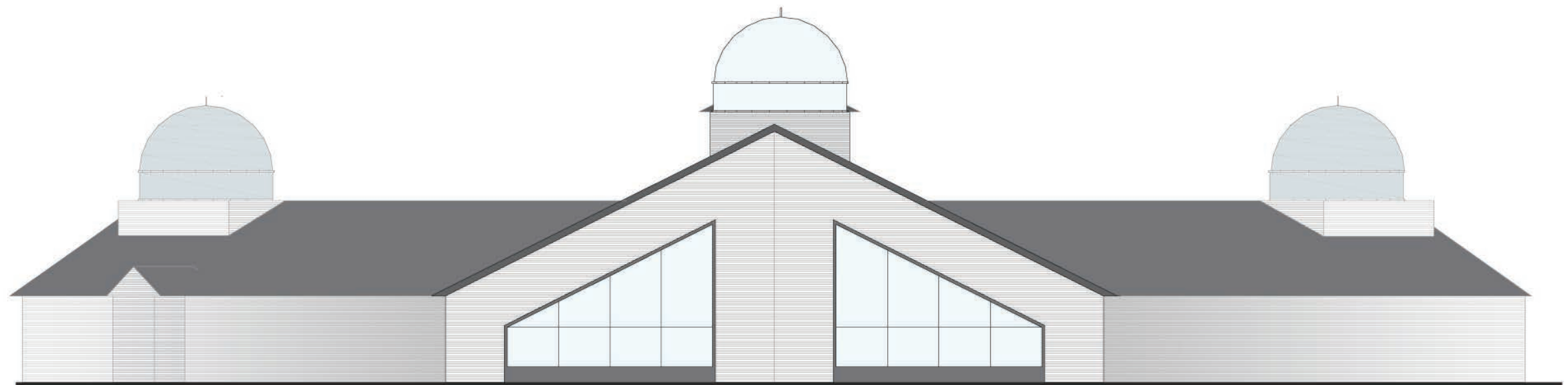


# ARCHITECTURAL CONCEPTS

## MONKS' BUILDING ELEVATION



SOUTH ELEVATION



NORTH ELEVATION

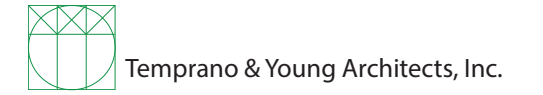
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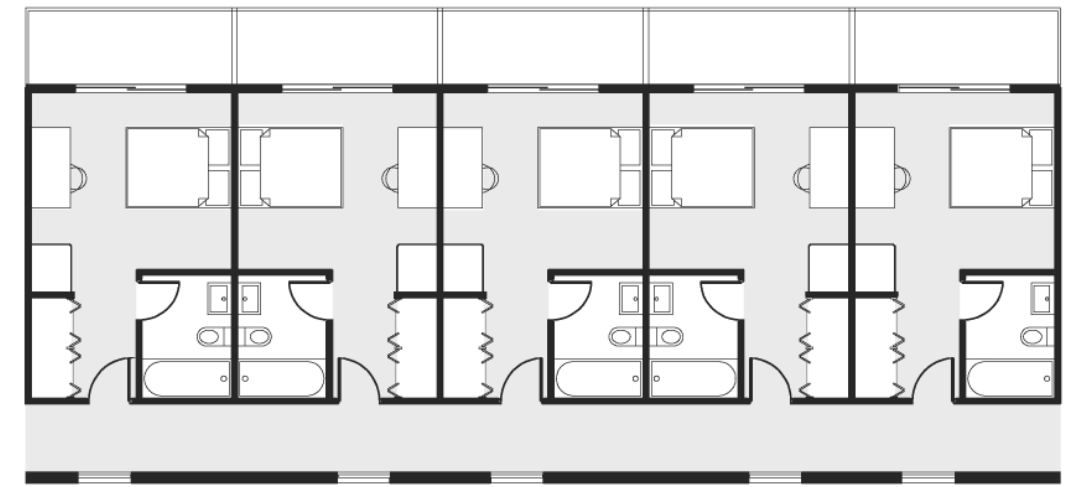


# ARCHITECTURAL CONCEPTS

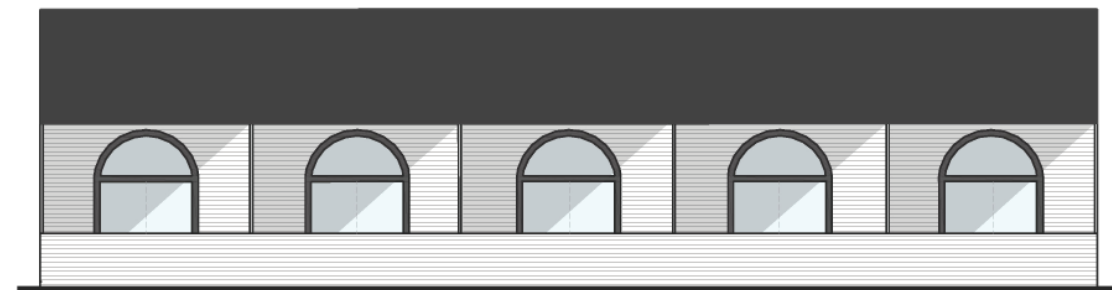
## MONKS' BUILDING ELEVATION



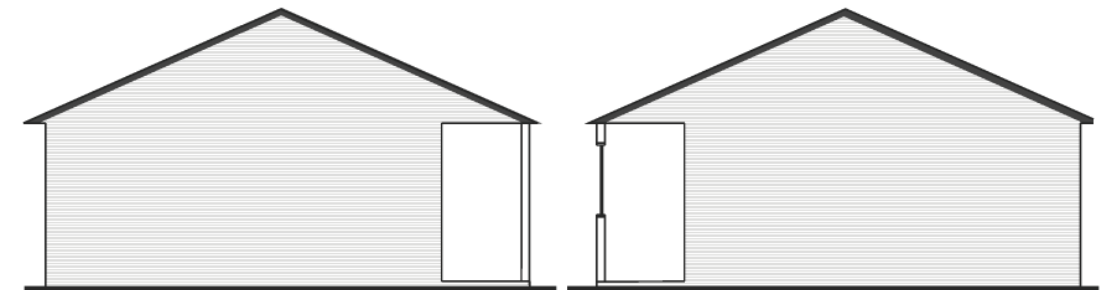
CIRCULATION ELEVATION



SINGLE MODULE: 5 UNIT PLAN



PATIO ELEVATION



SIDE ELEVATIONS

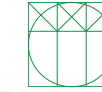
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# ARCHITECTURAL CONCEPTS

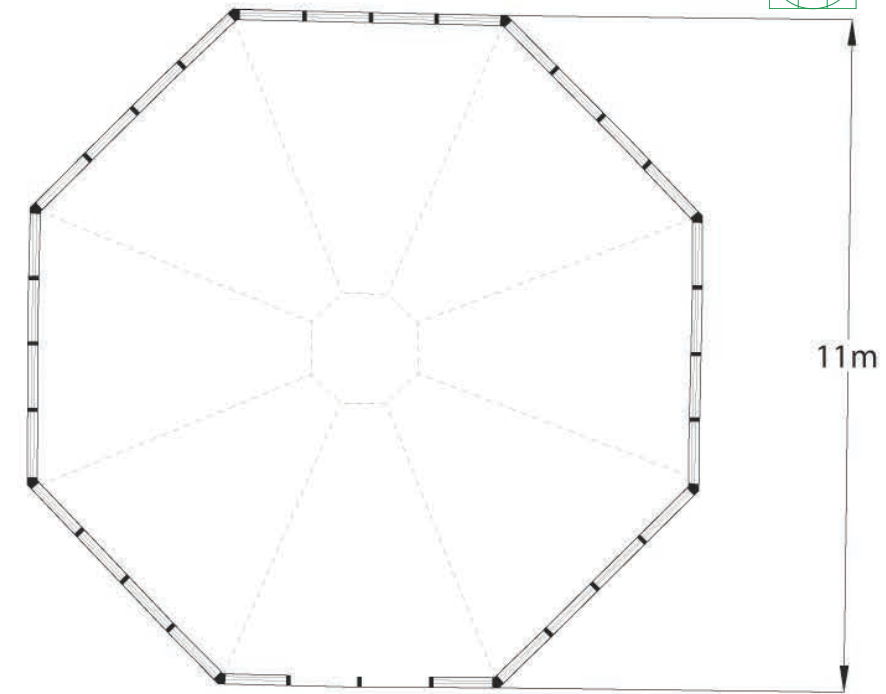
## PRAYER PAVILLION CONCEPT



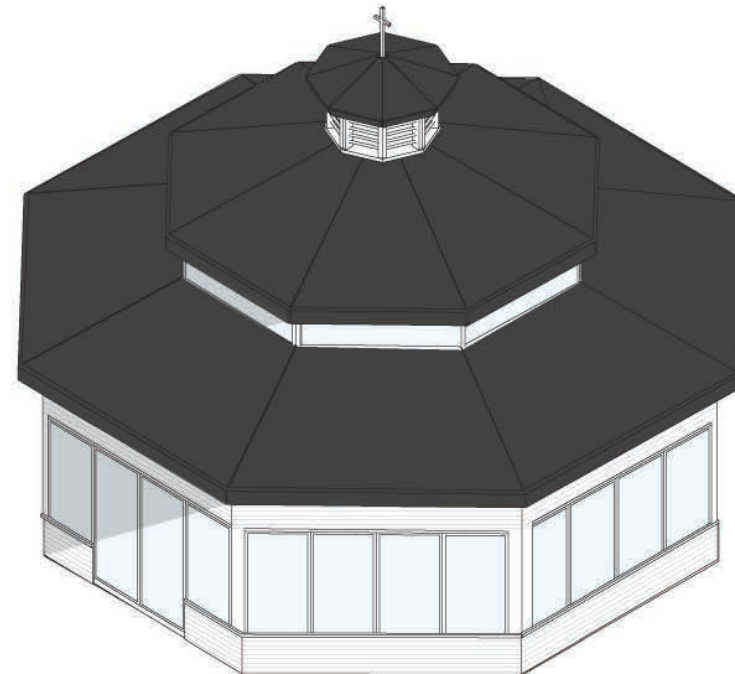
Temprano & Young Architects, Inc.



ENTRANCE ELEVATION



PLAN VIEW



AXONOMETRIC PERSPECTIVE

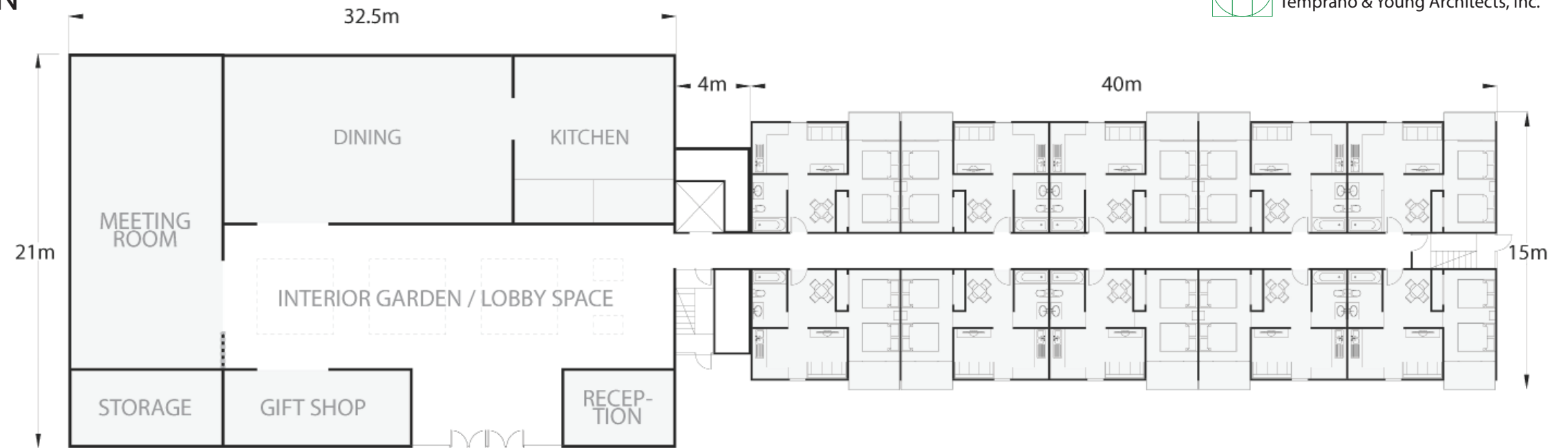
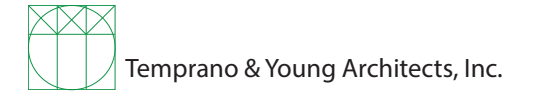
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# ARCHITECTURAL CONCEPTS

## ST. MINA'S LODGE PLAN



LEVEL ONE: LODGE AMENITIES



LEVEL TWO: ADDITIONAL ROOMS

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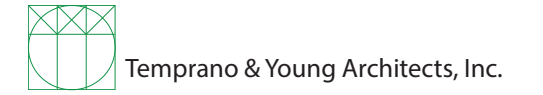
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# ARCHITECTURAL CONCEPTS

## ST. MINA'S LODGE ELEVATIONS



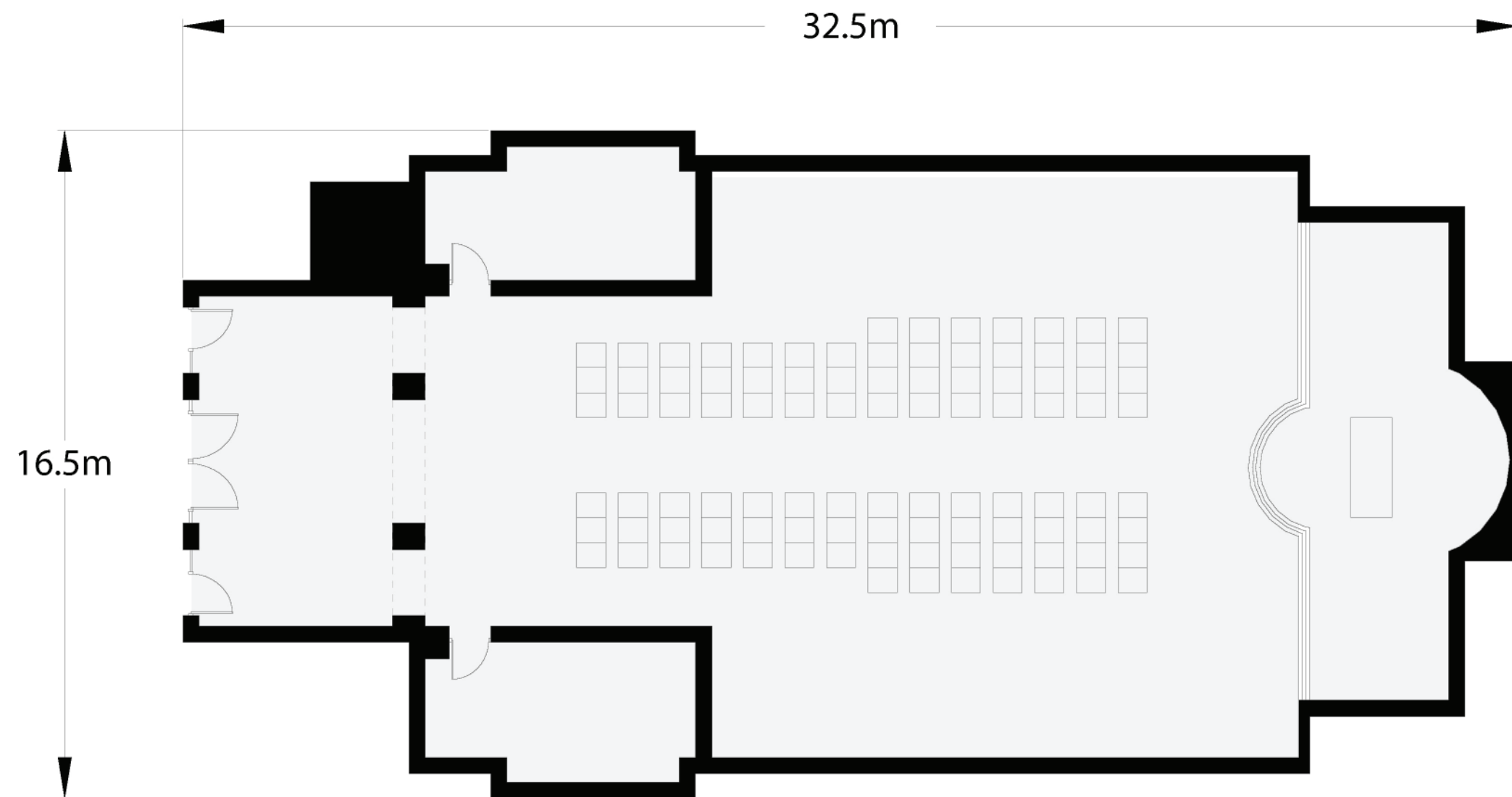
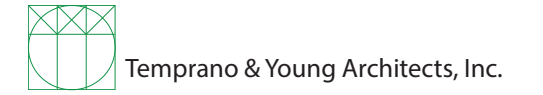
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# ARCHITECTURAL CONCEPTS

## CHURCH PLAN



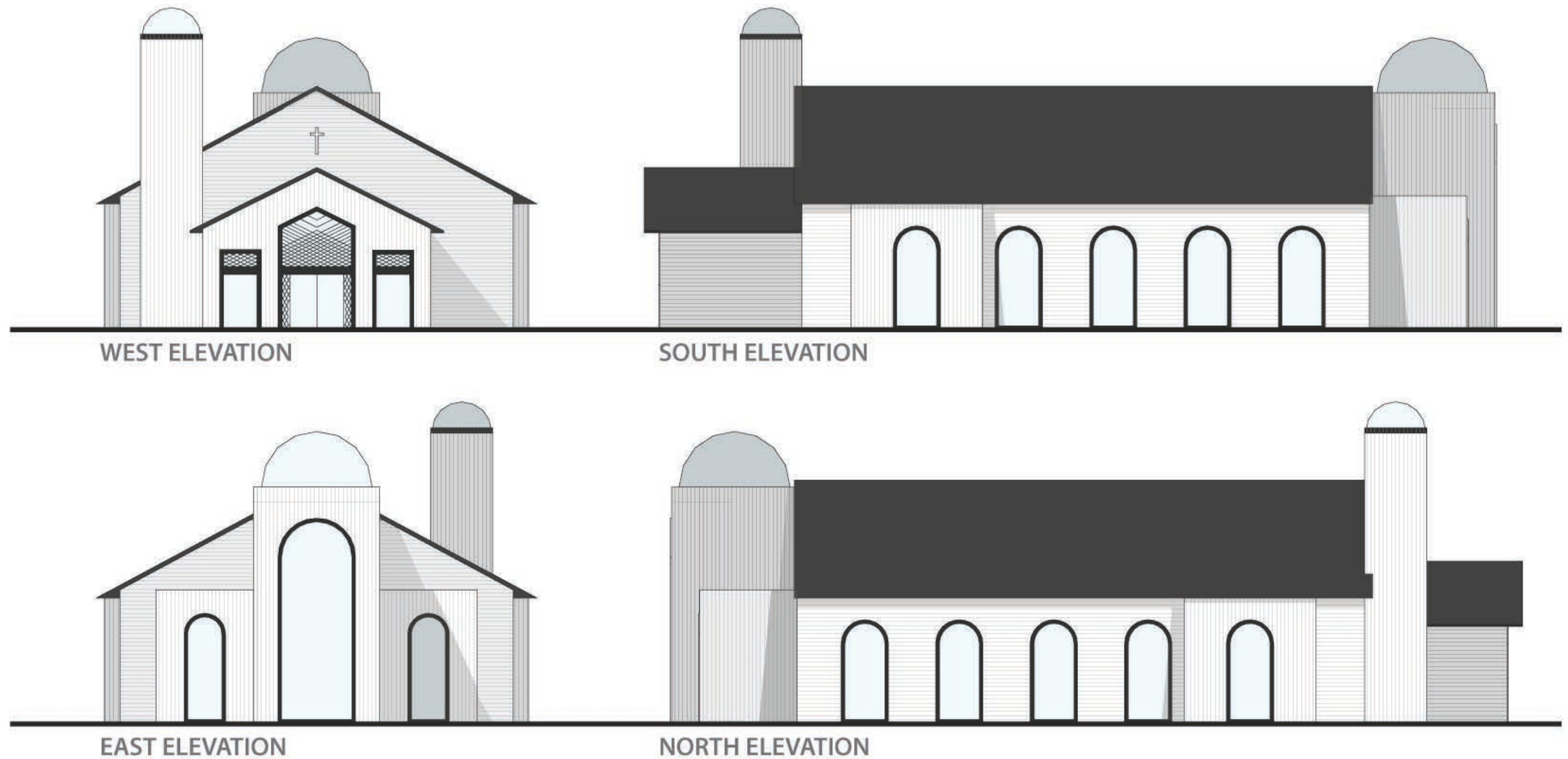
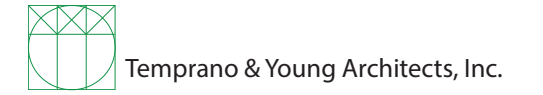
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# ARCHITECTURAL CONCEPTS

## CHURCH PLAN



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# LANDSCAPE EXPRESSION & PLANTING



# LANDSCAPE EXPRESSION

## NATURE AS A GUIDE

Development that must occur on site in order to realize the full vision of the monastery should be respectful of the land once complete. 6% of the total land area of the monastery property will be disturbed for the implementation of the master plan over the next 50 years.

The landscape expression proposed in this master plan is one that restores any disturbed land back to a naturalized state that fits within the existing landscape and enhances the natural beauty. This chapter helps describe these planting areas around the monastery campus, their intended planting strategy and a detailed plant list for use during implementation of all development projects.

### RETREAT POND ACCESS

As section of the Retreat Pond shoreline should be regraded to a gentler grade and established as a mown grass area to allow easy access to this open pond area. A small dock could be erected, and canoes or row boats could use the open water for recreational purposes.



### SHRUB AND RIPARIAN MEADOW SHORELINE STABILIZATION

The edges of the Retreat Pond are over steepened and eroding. Eroded areas should be regraded to smooth out gullies, then it should be seeded with a riparian meadow mix and covered with an erosion control blanket. Riparian shrub species, such as willow, dogwood and Meadow Sweet could be planted using plugs or live stakes to provide some overhanging vegetation.



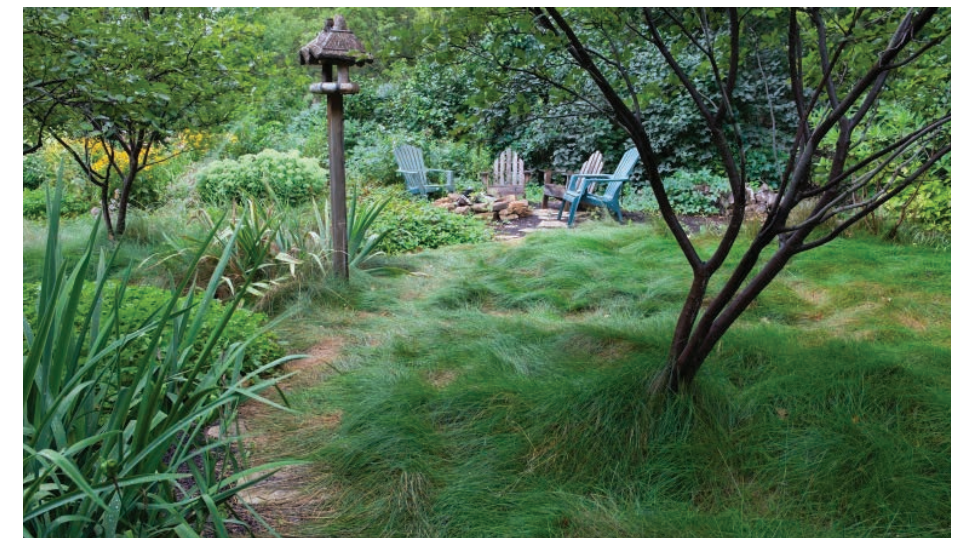
### HORTICULTURAL ENHANCEMENTS

The entrance areas for the Monks' Building and the Church are indicated to be enhanced with garden ornamental plant species. Any additional floral enhancements are proposed to consist of strategically placed masses of locally native wildflowers (Blue flag iris, brown-eyed Susan, etc.) in fine fescue meadows or bioretention areas.



### TURF AREAS

A combination of mown lawn and fine fescue meadows has been delineated to address variable degrees of site usage and to provide a more natural transition from manicured areas to existing natural areas.





# LANDSCAPE EXPRESSION

## NATURE AS A GUIDE

### WOODLOT MANAGEMENT

Several areas in front of the Monks' Building and in front of St. Mina's Lodge have been designated for woodlot management. This entails selection thinning of dead trees, invasive species, and fallen woody debris to provide filtered views of the adjacent wetlands. Care needs to be taken to not overly thin the woodlot, because some saplings are required to ensure an ongoing forest cover.



### FOREST CLEARING

Where required, the following wood clearing principles should be adhered to during construction:

- A 10-metre offset should be used for clearing around major buildings
- A 5-metre offset should be used for clearing around small buildings

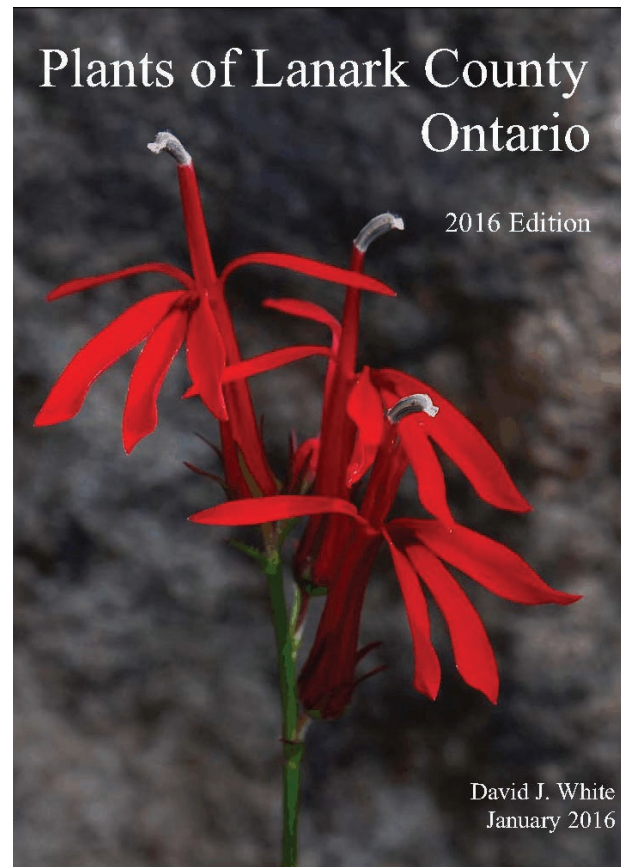




# LANDSCAPE EXPRESSION

## MASTER PLANT LIST

A master plant list has been developed using a publication Plants of Lanark County (2016) to identify common, locally native trees, shrubs and vascular plants that would be appropriate for use in reforestation, slope stabilization and ornamental garden enhancements.



LEGEND	
<span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Trees
<span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Shrubs
<span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Herbaceous Plants
<span style="background-color: #FFDAB9; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Grasses & Sedges
<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Water Plants
<span style="background-color: #DDA0DD; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Suitable as a garden ornamental

Riparian Fringe (periodically inundated— extends 30-120 cm above normal water level)						
SCIENTIFIC	COMMON	TYPE	GARDEN USE?	PREFERRED HABITAT	DESCRIPTION	
<i>Athyrium filix-femina</i>	Lady Fern	Forest Edge	Yes	Shade or part shade		
<i>Betula alleghaniensis</i>	Yellow Birch	Forest	No	moist to fresh upland sites, wet organic sites, all soil textures, rich, moderately shade tolerant	Hardwood, deciduous, up to 22 m. Ht., wide-spreading root system with some larger roots on or above surface.	
<i>Cornus sericea</i>	Red Osier Dogwood	Shoreline Fringe	Yes	Extended inundation; wet organic hardwood and conifer swamps; moist upland sites; low damp ground along shores, river flats, edges of marshes, damp open woods and thickets.	Deciduous shrub, 1-3 m. Ht., bright red to purplish branches, creamy-white flat-tipped clusters of flowers in June-July	
<i>Meteucelle struthiopteris</i>	Ostrich Fern	Wooded	Yes	shore maple and elm wet woods	tall, dark green, broad-leaved fern, grows in large tufts with plume-like central leaf, forms huge stands	
<i>Viburnum lentago</i>	Hairyberry	Meadow	Yes	wet river shores and low thickets; readily transplanted; withstand calcareous and dry soils, sun or half shade, prefers well-drained, loamy soils, swamps and marshes; along shores and edges of low woods and thickets.	tall (5-5.5 m Ht.), thicket forming shrub with leathery, tapered leaves, creamy flowers in early to mid-May; large clusters of blacking, foul-smelling berries in late summer	
Floodplain Terrace (Infrequently inundated— from 2 year to 10-100 year flood levels)						
SCIENTIFIC	COMMON	TYPE	GARDEN USE?	PREFERRED HABITAT	DESCRIPTION	
<i>Elymus virginicus</i>	Virginia Wild Rye	Meadow	No	along rivers and wet meadows; pioneer species; rhizomatous, herbaceous, on sandy, gravelly, rocky soil, stabilizes sandy surfaces	Green to gray-green leaves with nodding green bristly panicles that turn tan; grow in a wide variety of soils and habitats; often used as nurse crops for meadow mixes as they are quick to grow and provide cover for slower growing plants; full sun, adequate moisture, but fairly drought tolerant; beautiful in drifts and groups.	
<i>Osmunda cinnamomea</i>	Cinnamon Fern	Wooded	No	dominant in sandy, wet ground under hardwoods; mucky soil, 4-6.4 pH substrate.	tall (1.5 m), broad-leaved, pale green fern growing in robust clumps, easy to cultivate, prefers light shade	
<i>Osmunda regalis</i>	Royal Fern	Forest Edge	Yes	Shade or part shade		
<i>Physocarpus opulifolius</i>	Ninebark	Forest Edge	Yes	sun or part shade, withstands acid and alkaline soils, dry situations, renew by cutting to ground in late winter	Upright-spreading shrub, rounded and dense growing to 1.5-3 m. Ht., flat green leaves in summer turn yellow to orange in fall	
<i>Prunus virginiana</i>	Chokecherry	Forest Edge	Yes	moist to dry, sticky to sandy upland sites; swamps, streambanks	Deciduous shrub, 2-3 m, sometimes 10 m Ht., spreads from roots and often forms thickets, white flowers in May-June; deep red cherries in Aug-Sept.	
<i>Smilacina stellata</i>	False Solomon's Seal	Meadow	No	Secondary species, rhizomatous, occurs on gravelly or alluvial shores, good for erosion control		
<i>Spiraea alba</i>	Narrow-Leaved Meadow Sweet	Shoreline Fringe	No	Extended inundation; Low moist fields, sedge meadows, swamps, shorelines.	Deciduous shrub, erect, up to 1.5 m Ht.; white flowers in June-Sept.	
<i>Spiraea tomentosa</i>	Steeplebush	Shoreline Fringe	No	wet, acidic shrubby areas and bog margins, sandy, marshy or rocky, usually acid soils; along edges of ponds and swamps, also fields.	steeply-shaped shrub to 1 m. Ht., with small, dark green leaves (pale below); dense spikes of pinkish-purple flowers at branch ends	
<i>Thuja occidentalis</i>	Eastern White Cedar	Flood Fringe/ Forest	Yes	wet organic sites, moist to dry, fine loamy to sandy uplands; swampy areas underlain with limestone, very intolerant dry soils over flat limestone	Evergreen up to 15 m. Ht., in pure stands or associated with hardwoods, slow growing	
<i>Taxus canadensis</i> (Floodplain Terrace and above)	Eastern Hemlock	Forest	No	cool, moist sites in maple forests and shaded slopes; tolerates inundation, very sensitive to compaction; requires cool moist sites, very shade tolerant (small trees persist in closed stands for decades)	shaggy, dark green conifer growing up to 30 m. Ht., shallow, wide-spreading root system, graceful tree, forms stands; tolerates at sunshine conditions and acidic soil	
<i>Vitis riparia</i>	Frost Grape	Wet Thickets	No	Full sun	Valuable for trailing over rocks and riprap	

Shoreline Fringe (regularly inundated— to 30 cm above normal water level)						
SCIENTIFIC	COMMON	TYPE	GARDEN USE?	PREFERRED HABITAT	DESCRIPTION	
<i>Acer rubra</i> (shoreline fringe and higher)	Red Maple	Emergent, Woody, periodic inundation	Yes	Tolerates inundation; 0.05-0.2 m. max. water depth, 0-70% flooding duration.	Medium sized tree up to 25 m. Ht., hybridizes readily with silver maple; bright red fall foliage; rapid growth, tolerates acidic soils	
<i>Acer saccharinum</i>	Silver Maple	Emergent, Woody, Flood Fringe	No	0.05-0.2 m. max. water depth, 0-70% flooding duration; moist to wet hardwood swamps, bays, rich, moist bottomlands bordering streams, swamps and lakes, less shade tolerant than red maple	Medium sized tree up to 35 m. Ht., hybridizes readily with red maple, duller autumn colour than other maples, aggressive root system	
<i>Carex rostrata</i> (also shallow water bench)	Stellate Sedge		No	less than 15 cm water depth		
<i>Deschampsia caespitosa</i> (Shoreline fringe and higher)	Tufted Hair Grass	Garden Ornamental	Yes	Moist grasslands, almost entirely confined to shoreline habitats, usually where flood levels cover its completely in the spring, or where high waves wash their base in summer, tolerates regular to irregular inundation	Cool-season clump grasses, pale green to purplish panicles, full sun, may become invasive	
<i>Eupatorium maculatum</i>	Spotted Joe Pye Weed	Moist Meadows	No		Whorled leaves, upright form, purple-pink flowers in late summer-fall, full sun, moist, fertile soil, limited to slow spreading	
<i>Festuca rubra</i>	Red Fescue	Hydro Grass/ Shoreline Fringe	No	Extended inundation;		
<i>Ilex verticillata</i> (shoreline fringe up to floodplain terrace)	Winterberry	Garden Ornamental	Yes	Tolerates inundation; prefers seasonally flooded areas; 0.05-0.1 m. max. water depth, less than 10-30% flooding duration; moist situations, swampy woods and thickets, peat bogs, lowland bordering swamps.	Erect shrub 3-4 m. Ht., bright orange to red fruit Aug through winter, full sun or part shade.	
<i>Juncus tenuis</i> Available in seed form	Pathway Rush	Emergent, Continuous inundation	No	moist to dry, heavily compacted woodland and field sites; 0.05-0.25 m. max. water depth, 50-100% flooding duration; dry to wet conditions, often on disturbed sites; water level at or just below soil surface.	10-60 cm Ht., wire-like stems, tufted, from fibrous roots, tolerate foot traffic but not heavy mowing; short, green clumping rush, useful for naturalizing in moist soils, grows 15-30 cm Ht.; tolerates foot traffic	
<i>Larix laricina</i> (also riparian fringe)	Tamarack	Forest	Yes	wet organic to moist sandy upland sites, with cedar; tolerates inundation; cold, wet, poorly drained sites	Deciduous conifer up to 21 m Ht.; rapid initial growth, full sun, prefers acidic boggy soils, occurs in pure stands in narrow bands, excellent in groves	
<i>Mentha arvensis</i>	Wild Mint	Meadow/ Mud flats	No	wet meadows, grassy river shores, mudflats	low, pale green, hairy plant with strong minty odour; clusters of tiny blue flowers along stem	
<i>Muhlenbergia mexicana</i>	Knot-root Grass	Meadow	No	Pioneer, rhizomatous, occurring along shores, thickets, damp clearings, and sandy soil; wet sand	Abundant and characteristic species of rock or gravel bar/reef washed by the higher flood waters of rivers.	
<i>Myrica gale</i>	Bayberry	Shoreline Fringe/ Wet Thickets	No	Extended inundation; wet sand; damp soil and shallow water along shorelines; tolerates inundation	Upright shrub 60-150 cm Ht., fragrant when bruised, bark dark gray to reddish brown, leaves dark green above, pale beneath; tolerates slightly acidic soils	
<i>Oncoclea sensibilis</i>	Sensitive Fern	Forest Understorey	No	Shade		
<i>Salix babingtonii</i>	Belt's Willow	Shoreline Fringe	No	Extended inundation; moist to wet thickets, meadows and wet organic sites; moist to wet habitats, incl. sedge meadows, swamps, riverbanks, alluvial flats, deciduous and coniferous forests, also on limestone flats and in sandy jack pine woods	Coarse shrub or small tree 1 to 6 m Ht., ascending branches, grayish, understorey species on limestone flats	
<i>Salix discolor</i>	Pussy Willow	Shoreline Fringe	No	damp meadows, along shorelines, damp meadows, along rivers, in alder swamps, cedar woods, wet thickets and flooded ditches.	shrub or small tree 2-6 m Ht., catkins in May-June fully develop before the leaves expand	



# LANDSCAPE EXPRESSION

## MASTER PLANT LIST

Shallow Water (5-50 cm depth)						
SCIENTIFIC	COMMON	TYPE	GARDEN USE?	PREFERRED HABITAT	DESCRIPTION	
<i>Alisma triviale</i>	Water Plantain	Emergent	No	marshes or shallow margins, swamps, lakes, streams, ditches, quickly colonizes ditches and other disturbed sites	aquatic perennial, 30-100 cm ht., leafless flowering stalk, grows from fleshy corn-like base with fibrous roots; central stalk supporting cluster of tiny white flowers	
<i>Carex vulpinoidea</i> (also shoreline fringe) Available in seed form	Fox Sedge	Emergent	No	very adaptable, wet soils, standing spring water, seasonally flooded areas	Wetland sedge, 50 cm ht. and spr., brownish yellow seed heads spray out to create a stunning effect in mid-summer	
<i>Eleocharis acicularis</i>	Needle Spike Rush	Emergent, continuous inundation	No	0.05-0.5 m. max. water depth, 50-100% flooding inundation – good groundcover in wet soils, great filler in moist meadows, grows in any soil as long as moisture present, good in moist bogs/wetlands	Creeping warm season rush, 15-30 cm ht., fine-textured soft threadlike stems with terminal bulbous flowerheads, sun or light shade	
<i>Eleocharis palustris</i>	Marsh Spike Rush	Emergent, continuous inundation	No	marshes, ponds and stream banks, — 0.05-0.5 m. max. water depth, 50-100% flooding inundation		
<i>Iris versicolor</i> (also shoreline fringe) Available in seed form	Blue Flag	Emergent, continuous inundation	Yes	plant 5 cm below water level, regular or permanent inundation up to 15 cm, or saturated soil — see the duration	tall, swordlike leaves bearing blue flowers in May-June; hardy, slow growth, full sun to part shade, tolerates clay, clumping, does not spread rapidly	
<i>Juncus effusus</i> (up to riparian fringe) Available in seed form	Soft Rush/ Common Rush	Emergent/ Moist Meadows	No	swamps, moist fields, tolerates inundation up to 7.5 cm, less than 0.05-0.25 m. max. water depth, 50-100% flooding duration — marshes, ditches, streambanks and occasionally hardwood swamps	50 cm tall, evergreen grass like, blooms July-Sept, clumping and upright, arching green, to 120 cm ht., 23, tolerates both wet and dry conditions, sun or part shade	
<i>Leersia oryzoides</i> (also shoreline fringe) Available in seed form	Rice Cut Grass	Emergent/ Shoreline Fringe/ Hydric Grass	No	Extended inundation, marshes, or wet meadows, tolerates inundation up to 7.5 cm — characteristic grass of wet soils, confined to shores subject to prolonged flooding, more prevalent in wet years	85-105 cm ht., full sun, tolerates some shade, good for shoreline stabilization — light yellowish green, prickly foliage, clinging, scratching stems, forms dense tangled masses, noticeable as a band around wet depressions and along eggshell-silted and ponds	
<i>Potamogeton nodosus</i> (also shoreline fringe)	Pickering Weed	Emergent, continuous inundation	No	plant 5 cm below water level, tolerates inundation to 30 cm — 0.1-0.25 m. max. water depth, 70-100% flooding duration, less than 0.5 m deep	hardy marsh plant with elongated, heart shaped leaves on sturdy stems, 90-90 cm ht., blue flowers lightly clustered on tall spikes, full sun to part shade, slow spreading	
<i>Sagittaria latifolia</i> (also shoreline fringe)	Broad-leaved Arrowhead	Emergent/ Mud flats, Continuous inundation	No	dominant, shallow water, 5-30 cm below water level, moist organic substrate — 0.2-0.5 m. max. water depth, 50-100% flooding duration	20-30 cm ht., with dark green arrowhead-shaped leaves on tall stalks. Showy white flowers throughout summer, grows from rhizomes and tubers, transplants, tubers, seeds (seedbank revegetation suitable), aggressive, colonizer	

LEGEND	
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<span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Shrubs
<span style="background-color: #90EE90; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Herbaceous Plants
<span style="background-color: #FFDAB9; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Grasses & Sedges
<span style="background-color: #ADD8E6; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Water Plants
<span style="background-color: #D8BFD8; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span>	Suitable as a garden ornamental

Upland Areas (seldom or never inundated— above 100 year floodlevel)						
SCIENTIFIC	COMMON	TYPE	GARDEN USE?	PREFERRED HABITAT	DESCRIPTION	
<i>Acer saccharum</i>	Sugar Maple	Forest	Yes		hardwood, dominates most other trees in upland sites	
<i>Amelanchier laevis</i>	Smooth Serviceberry	Forest Edge	Yes	Clearings and thickets, along the edges of woods, roadsides, in coniferous and mixed woods (Soper)	Fract multi-stem shrub or small tree to 10 m. ht., flowers in April-May with developing leaves, juicy, edible fruit, dark reddish-purple to black in July-Aug	
<i>Anaphalis margaritacea</i>	Pearly Everlasting	Meadow	Yes	Full sun		
<i>Asarum canadense</i>	Wild ginger	Forest Understorey	Yes	Shade or part shade		
<i>Cornus alternifolia</i>	Alternate-Leaved Dogwood/ Pagoda Tree/ Green Osier	Forests	No	all moisture regimes and soil textures, in thickets or open woods, on hillsides and ravine slopes	Large shrub or small tree up to 6 m. ht., creamy-white flowers in large flat-topped clusters in June, round dark blue black drupes	
<i>Dicentra cucullaria</i>	Dutchman's Breeches	Forest Edge	Yes	Shade to part shade		
<i>Diervilla lonicera</i>	Northern Bush Honeysuckle	Open Areas	Yes	Full sun, dry, rocky conditions		
<i>Dryopteris intermedia</i>	Evergreen Woodfern	Forest	No	young to mature hardwood and mixed forests	delicate woodland fern with finely divided leaves covered by dot-like fruiting bodies beneath and distinctive chaffy scales on lower part of stems, grows in clumps	
<i>Fagus grandifolia</i>	American Beech	Forest	Yes	moist to fresh, sandy to loamy upland sites, moist, well-drained slopes and rich bottomlands	Hardwood deciduous, up to 25 m ht., occasionally in pure stands, slow growing, very sensitive to soil compaction, very shade tolerant, wide spreading root system	
<i>Ostrya virginiana</i>	Ironwood	Forest	No	dry to moist, sandy to fine loamy upland sites with other hardwoods, very shade tolerant (understorey species)	Hardwood deciduous up to 15 m ht.,	
<i>Picea glauca</i>	White Spruce	Forest	Yes	Tolerates diverse growing conditions		
<i>Pinus strobus</i>	White Pine	Forest	Yes	sandy, rocky ridges and drier knolls, dry sandy soils and rocky ridges, best on moist, sandy loam, full sun, seedlings moderately shade tolerant	huge coniferous tree	
<i>Populus tremuloides</i>	Trembling Aspen	Forest Edges	No		Fast growing	
<i>Prunus pennsylvanica</i>	Pin Cherry	Forest Edges	Yes	dry to moist, sandy to fine loamy upland sites; pine and intolerant hardwood mixed stands, openings/ edges	Deciduous shrub or small tree, erect to 12 m ht., small white flowers in flat-topped clusters May-early June	
<i>Quercus rubra</i>	Red Oak	Forest	Yes	dry to fresh, sandy to coarse loamy shallow upland sites, very compaction tolerant, intolerant of competition, intolerant of shade, moderately shade tolerant when young	Hardwood deciduous, up to 24 m ht., straight trunk,	
<i>Rhus typhina</i>	Staghorn Sumac	Forest Edge	Yes	Full sun, tolerant of dry conditions	Spreads by underground rhizomes	
<i>Rudbeckia hirta</i>	Brown-eyed Susan	Meadow	Yes	Full sun, tolerant of dry conditions		

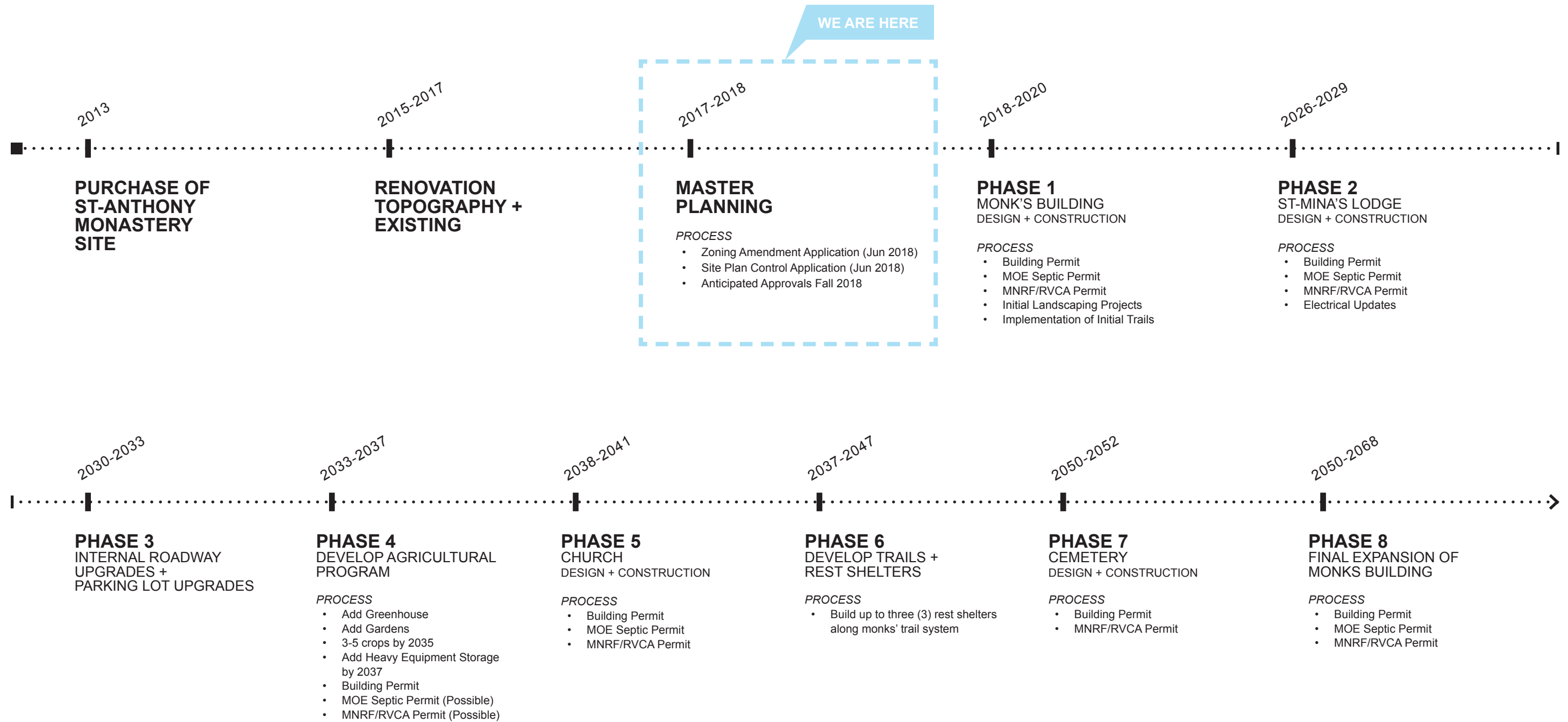
<i>Sambucus racemosa</i>	Red-Berried Elder	Forest Edge	Yes	Wet organic sites and moist to dry, clayey to sandy upland sites; in hardwood swamps and tolerant hardwood stands	Deciduous shrub up to 4 m. ht., whitish pyramid-shaped clusters in May-June, purple-black, rounded, berry-like fruit in July-Aug
<i>Sorghastrum nutans</i>	Indian Grass	Meadow	Yes	Full sun, tolerant of dry conditions	
<i>Symphoricarpon novae-angliae</i>	New England Asar	Meadow	Yes	Full sun	
<i>Taxus canadensis</i>	Canada Yew	Forest Understorey	No	Shade	Straggling, multi-stemmed shrub up to 2 m. ht., grows in colonies
<i>Tiarelia cordifolia</i>	Fawnflower	Forest Understorey	Yes	Shade to part shade	
<i>Tilia americana</i>	Basswood	Forest Edges	No	moist slopes that face north and east, very shade tolerant	Large tree up to 35 m. ht.
<i>Trillium grandiflorum</i>	White Trillium	Forest Understorey	Yes	shade	
<i>Viola labradorica</i>	Dog Violet	Forest Edge	Yes	Shade to part shade	
<i>Viola sororia</i>	Common Blue Violet	Forest Edge	Yes	Shade to part shade	



# CONSTRUCTION TIMELINE & NEXT STEPS



# TIMELINE





# TIMELINE

