



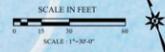
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COMPLETE KEY TO CLAY PIT POND PROJECTS

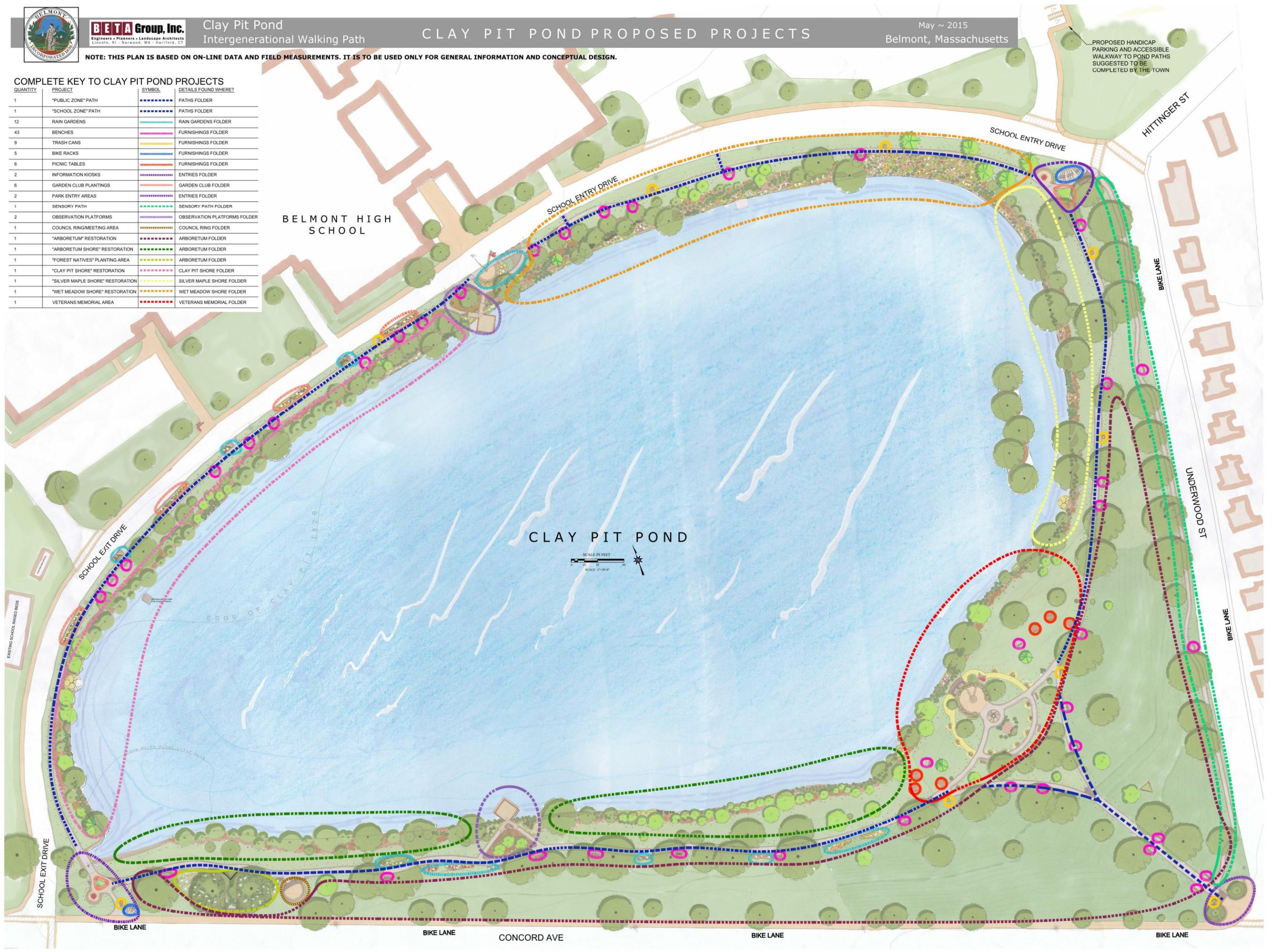
QUANTITY	PROJECT	SYMBOL	DETAILS FOUND WHERE?
1	"PUBLIC ZONE" PATH		PATHS FOLDER
1	"SCHOOL ZONE" PATH		PATHS FOLDER
12	RAIN GARDENS		RAIN GARDENS FOLDER
43	BENCHES		FURNISHINGS FOLDER
9	TRASH CANS		FURNISHINGS FOLDER
5	BIKE RACKS		FURNISHINGS FOLDER
6	PICNIC TABLES		FURNISHINGS FOLDER
2	INFORMATION KIOSKS		ENTRIES FOLDER
6	GARDEN CLUB PLANTINGS		GARDEN CLUB FOLDER
2	PARK ENTRY AREAS		ENTRIES FOLDER
1	SENSORY PATH		SENSORY PATH FOLDER
2	OBSERVATION PLATFORMS		OBSERVATION PLATFORMS FOLDER
1	COUNCIL RING/MEETING AREA		COUNCIL RING FOLDER
1	"ARBORETUM" RESTORATION		ARBORETUM FOLDER
1	"ARBORETUM SHORE" RESTORATION		ARBORETUM FOLDER
1	"FOREST NATIVES" PLANTING AREA		ARBORETUM FOLDER
1	"CLAY PIT SHORE" RESTORATION		CLAY PIT SHORE FOLDER
1	"SILVER MAPLE SHORE" RESTORATION		SILVER MAPLE SHORE FOLDER
1	"WET MEADOW SHORE" RESTORATION		WET MEADOW SHORE FOLDER
1	VETERANS MEMORIAL AREA		VETERANS MEMORIAL FOLDER

BELMONT HIGH SCHOOL

CLAY PIT POND



PROPOSED HANDICAP PARKING AND ACCESSIBLE WALKWAY TO POND PATHS SUGGESTED TO BE COMPLETED BY THE TOWN



Intergeneration Walking Path at Clay Pit Pond
Belmont, MA
PROJECT PLANS

V. Project Plans

B. Paths (includes “Public Zone” Path and “School Zone” Path)

1. Community Intent
2. Existing Conditions
3. Color Layout of Proposed Design
4. Layout, Section and Materials
5. Specifications
6. Quantities and Cost Estimate
7. Possible Sponsorship, Funding and Labor Sources

1. COMMUNITY INTENT FOR ALL PATHS AT CLAY PIT POND

THE PATHS... CONCEPTUAL VISION

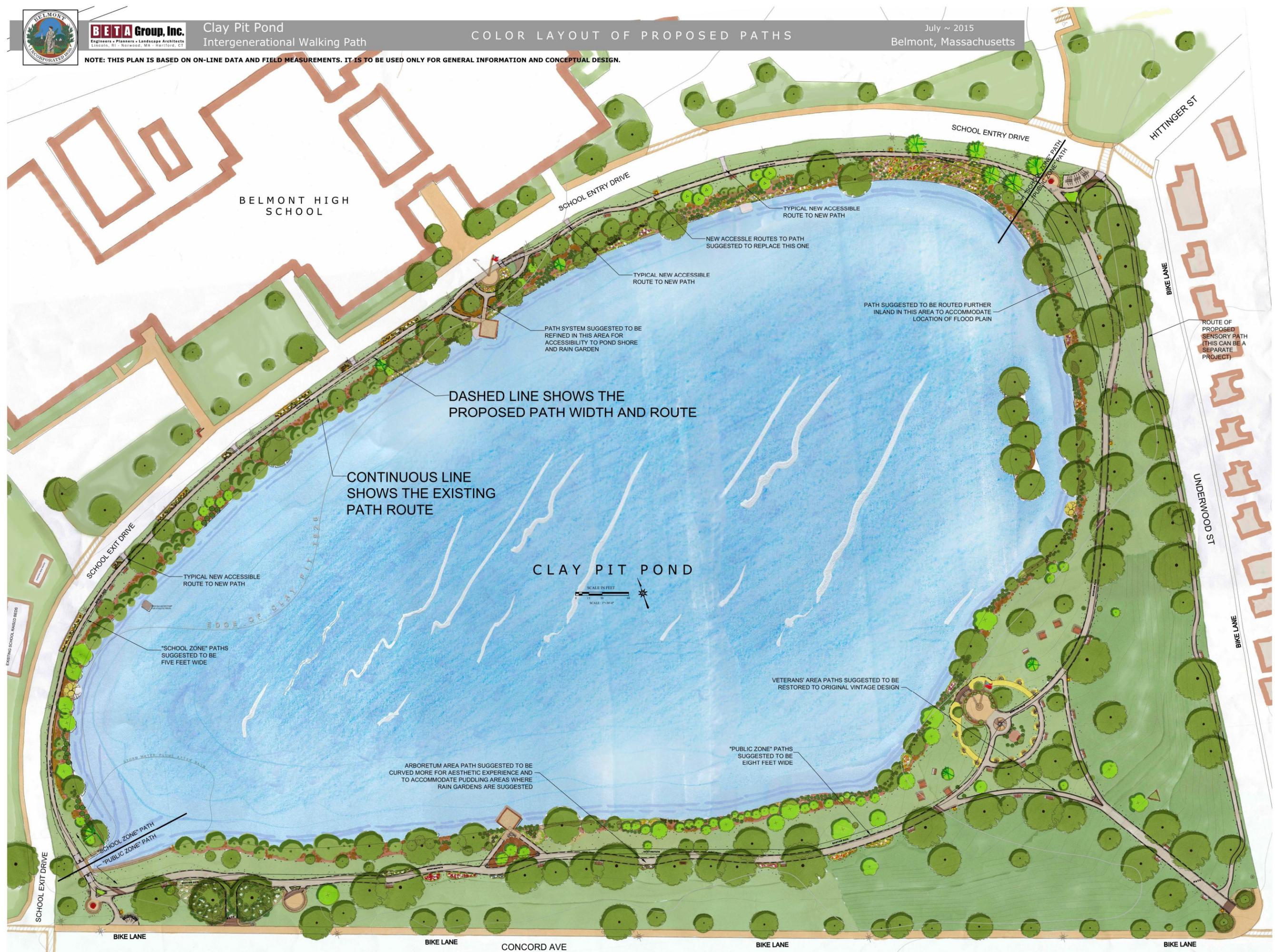
- Handicap accessible
- Walking mostly
- Permeable
- Runnable by High School team
- In keeping with historic, natural character of park

Paths and Pond Flooding at low-lying Hittinger Street end of park, December 2014





NOTE: THIS PLAN IS BASED ON ON-LINE DATA AND FIELD MEASUREMENTS. IT IS TO BE USED ONLY FOR GENERAL INFORMATION AND CONCEPTUAL DESIGN.



BELMONT HIGH SCHOOL

CLAY PIT POND



DASHED LINE SHOWS THE PROPOSED PATH WIDTH AND ROUTE

CONTINUOUS LINE SHOWS THE EXISTING PATH ROUTE

VETERANS' AREA PATHS SUGGESTED TO BE RESTORED TO ORIGINAL VINTAGE DESIGN

"PUBLIC ZONE" PATHS SUGGESTED TO BE EIGHT FEET WIDE

ARBORETUM AREA PATH SUGGESTED TO BE CURVED MORE FOR AESTHETIC EXPERIENCE AND TO ACCOMMODATE PUDDLING AREAS WHERE RAIN GARDENS ARE SUGGESTED

"SCHOOL ZONE" PATHS SUGGESTED TO BE FIVE FEET WIDE

TYPICAL NEW ACCESSIBLE ROUTE TO NEW PATH

TYPICAL NEW ACCESSIBLE ROUTE TO NEW PATH

NEW ACCESSIBLE ROUTES TO PATH SUGGESTED TO REPLACE THIS ONE

PATH SUGGESTED TO BE ROUTED FURTHER INLAND IN THIS AREA TO ACCOMMODATE LOCATION OF FLOOD PLAIN

PATH SYSTEM SUGGESTED TO BE REFINED IN THIS AREA FOR ACCESSIBILITY TO POND SHORE AND RAIN GARDEN

UNDERWOOD ST

HITTINGER ST

BIKE LANE

CONCORD AVE

BIKE LANE

BIKE LANE

SCHOOL EXIT DRIVE

SCHOOL EXIT DRIVE

SCHOOL ENTRY DRIVE

SCHOOL ENTRY DRIVE

BIKE LANE

BIKE LANE

BIKE LANE

SCHOOL ZONE PATH

PUBLIC ZONE PATH

"SCHOOL ZONE" PATH
"PUBLIC ZONE" PATH

ROUTE OF PROPOSED SENSORY PATH (THIS CAN BE A SEPARATE PROJECT)

BIKE LANE

EXISTING SCHOOL PARKED BEES

STORM WATER PLUME AFTER RAIN

EDGE OF CLAY PIT POND



“SCHOOL ZONE”

- Path is 5 feet wide



TRANSITION POINTS
ARE AT THE EAST
AND WEST ENTRIES



“PUBLIC ZONE”

- Path is 8 feet wide

BETA

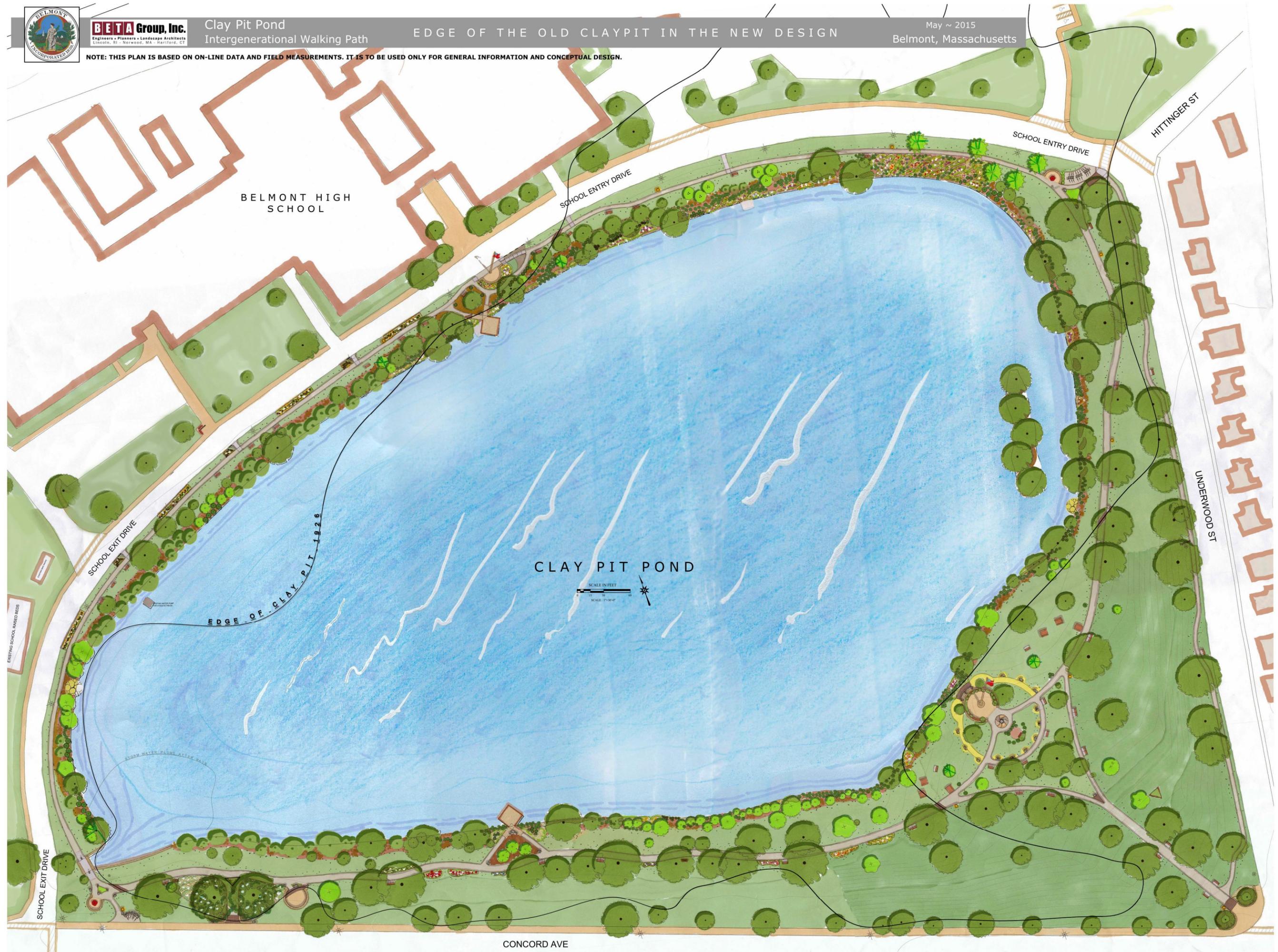
SPECIAL DESIGN ELEMENTS:
EVOKING THE ‘GENIUS OF THE PLACE’

Clay Pit Pond Walking Path, Belmont, MA

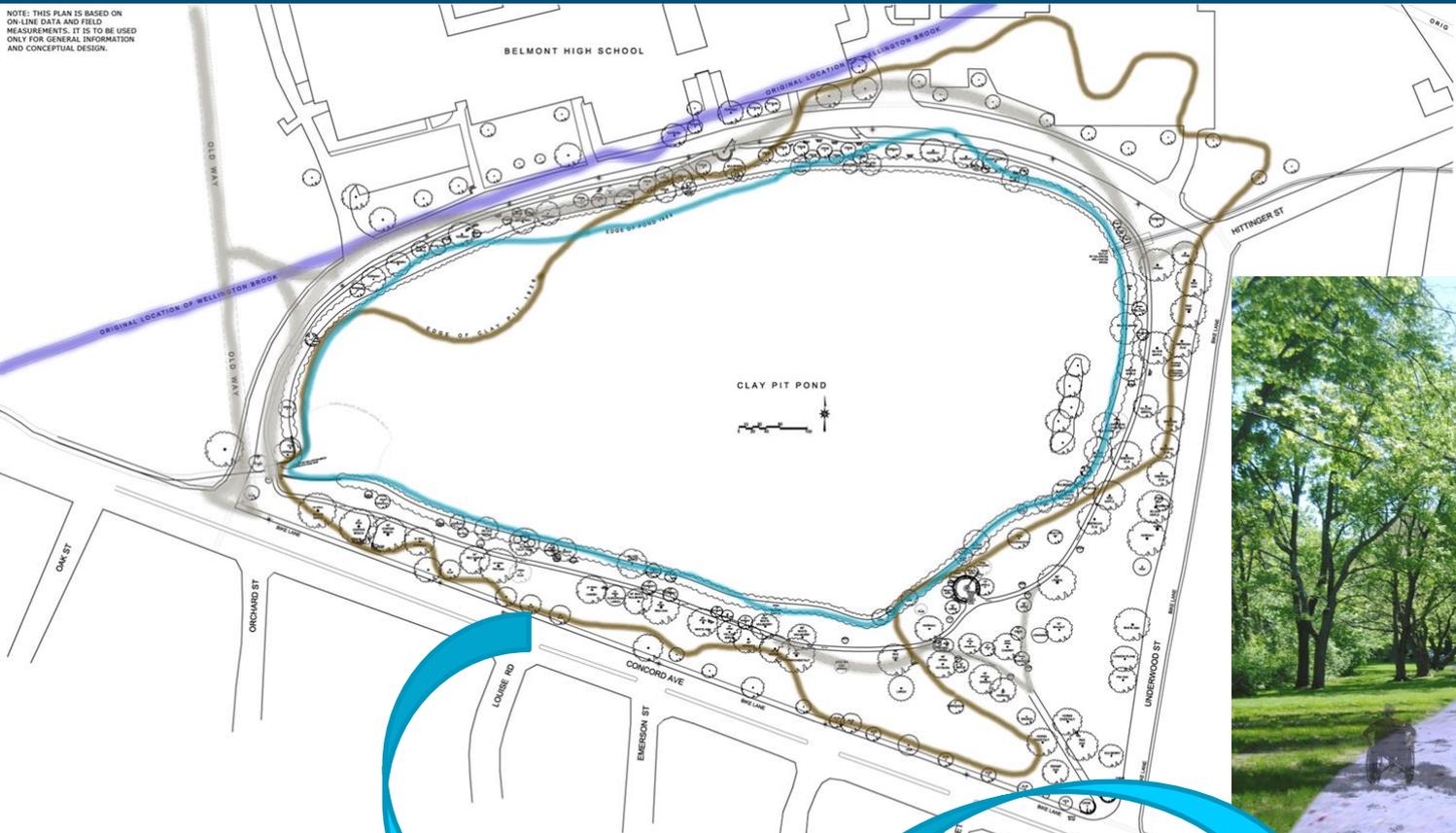




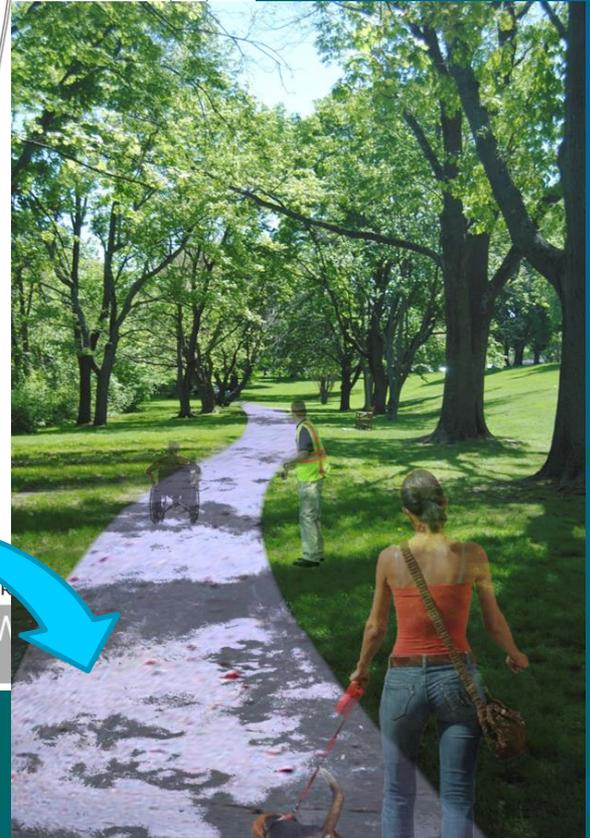
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PLAN OF CLAY PIT POND SHOWING HISTORICAL FEATURES AND PROPOSED WALKING PATHS
Clay Pit Pond Intergenerational Walking Path
Belmont, Massachusetts



Evoke the historic edge of the original clay pit, which was used to make bricks, by laying a brick band across the new path wherever the clay pit edge crosses it?



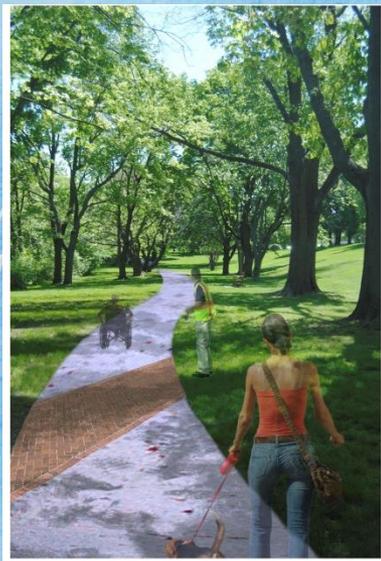
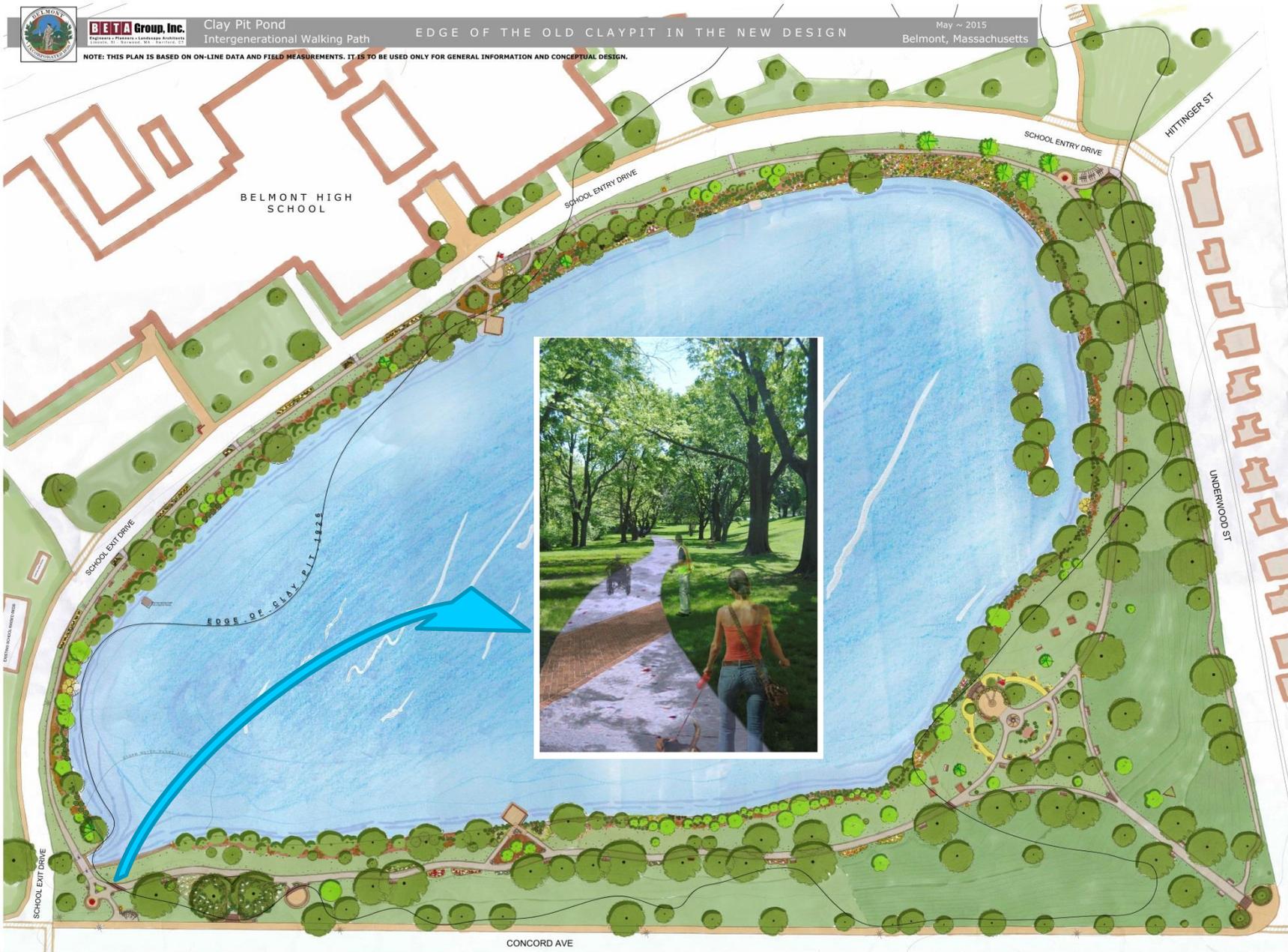
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Clay Pit Pond Walking Path, Belmont, MA





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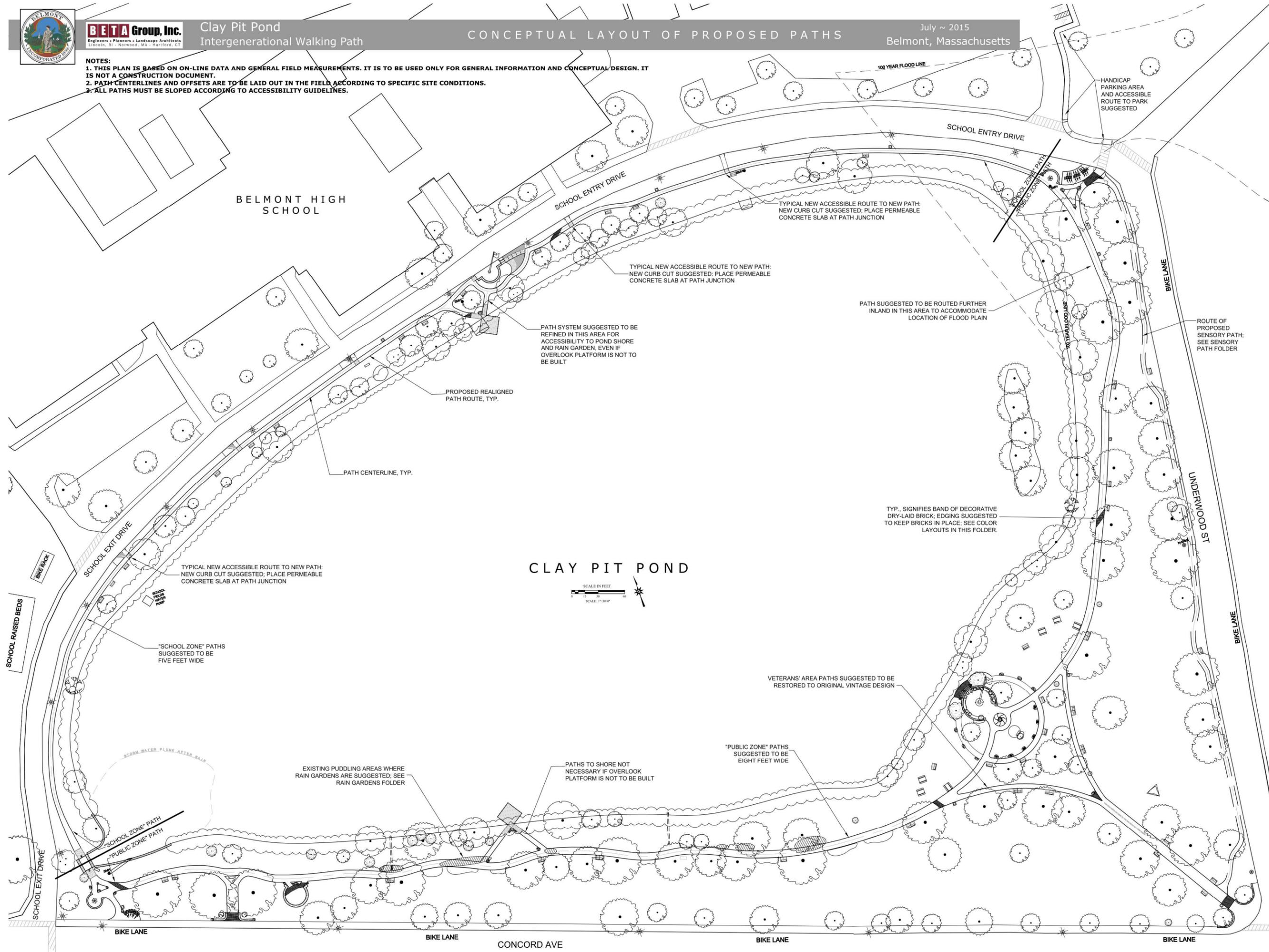
SPECIAL DESIGN ELEMENTS:
EVOKING THE 'GENIUS OF THE PLACE'

Clay Pit Pond Walking Path, Belmont, MA



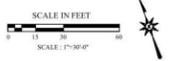


- NOTES:**
1. THIS PLAN IS BASED ON ON-LINE DATA AND GENERAL FIELD MEASUREMENTS. IT IS TO BE USED ONLY FOR GENERAL INFORMATION AND CONCEPTUAL DESIGN. IT IS NOT A CONSTRUCTION DOCUMENT.
 2. PATH CENTERLINES AND OFFSETS ARE TO BE LAID OUT IN THE FIELD ACCORDING TO SPECIFIC SITE CONDITIONS.
 3. ALL PATHS MUST BE SLOPED ACCORDING TO ACCESSIBILITY GUIDELINES.



BELMONT HIGH SCHOOL

CLAY PIT POND



SCHOOL RAISED BEDS

SCHOOL EXIT DRIVE

SCHOOL EXIT DRIVE

SCHOOL ENTRY DRIVE

SCHOOL ENTRY DRIVE

SCHOOL ENTRY DRIVE

UNDERWOOD ST

CONCORD AVE

BIKE LANE

BIKE LANE

BIKE LANE

BIKE LANE

BIKE LANE

BIKE LANE

100 YEAR FLOOD LINE

100 YEAR FLOOD LINE

"SCHOOL ZONE" PATHS SUGGESTED TO BE FIVE FEET WIDE

TYPICAL NEW ACCESSIBLE ROUTE TO NEW PATH: NEW CURB CUT SUGGESTED; PLACE PERMEABLE CONCRETE SLAB AT PATH JUNCTION

"SCHOOL ZONE" PATH

"PUBLIC ZONE" PATH

EXISTING PUDDLING AREAS WHERE RAIN GARDENS ARE SUGGESTED; SEE RAIN GARDENS FOLDER

PATHS TO SHORE NOT NECESSARY IF OVERLOOK PLATFORM IS NOT TO BE BUILT

PATH SYSTEM SUGGESTED TO BE REFINED IN THIS AREA FOR ACCESSIBILITY TO POND SHORE AND RAIN GARDEN, EVEN IF OVERLOOK PLATFORM IS NOT TO BE BUILT

PROPOSED REALIGNED PATH ROUTE, TYP.

PATH CENTERLINE, TYP.

TYPICAL NEW ACCESSIBLE ROUTE TO NEW PATH: NEW CURB CUT SUGGESTED; PLACE PERMEABLE CONCRETE SLAB AT PATH JUNCTION

TYPICAL NEW ACCESSIBLE ROUTE TO NEW PATH: NEW CURB CUT SUGGESTED; PLACE PERMEABLE CONCRETE SLAB AT PATH JUNCTION

PATH SUGGESTED TO BE ROUTED FURTHER INLAND IN THIS AREA TO ACCOMMODATE LOCATION OF FLOOD PLAIN

TYP. SIGNIFIES BAND OF DECORATIVE DRY-LAID BRICK; EDGING SUGGESTED TO KEEP BRICKS IN PLACE; SEE COLOR LAYOUTS IN THIS FOLDER.

VETERANS' AREA PATHS SUGGESTED TO BE RESTORED TO ORIGINAL VINTAGE DESIGN

"PUBLIC ZONE" PATHS SUGGESTED TO BE EIGHT FEET WIDE

HANDICAP PARKING AREA AND ACCESSIBLE ROUTE TO PARK SUGGESTED

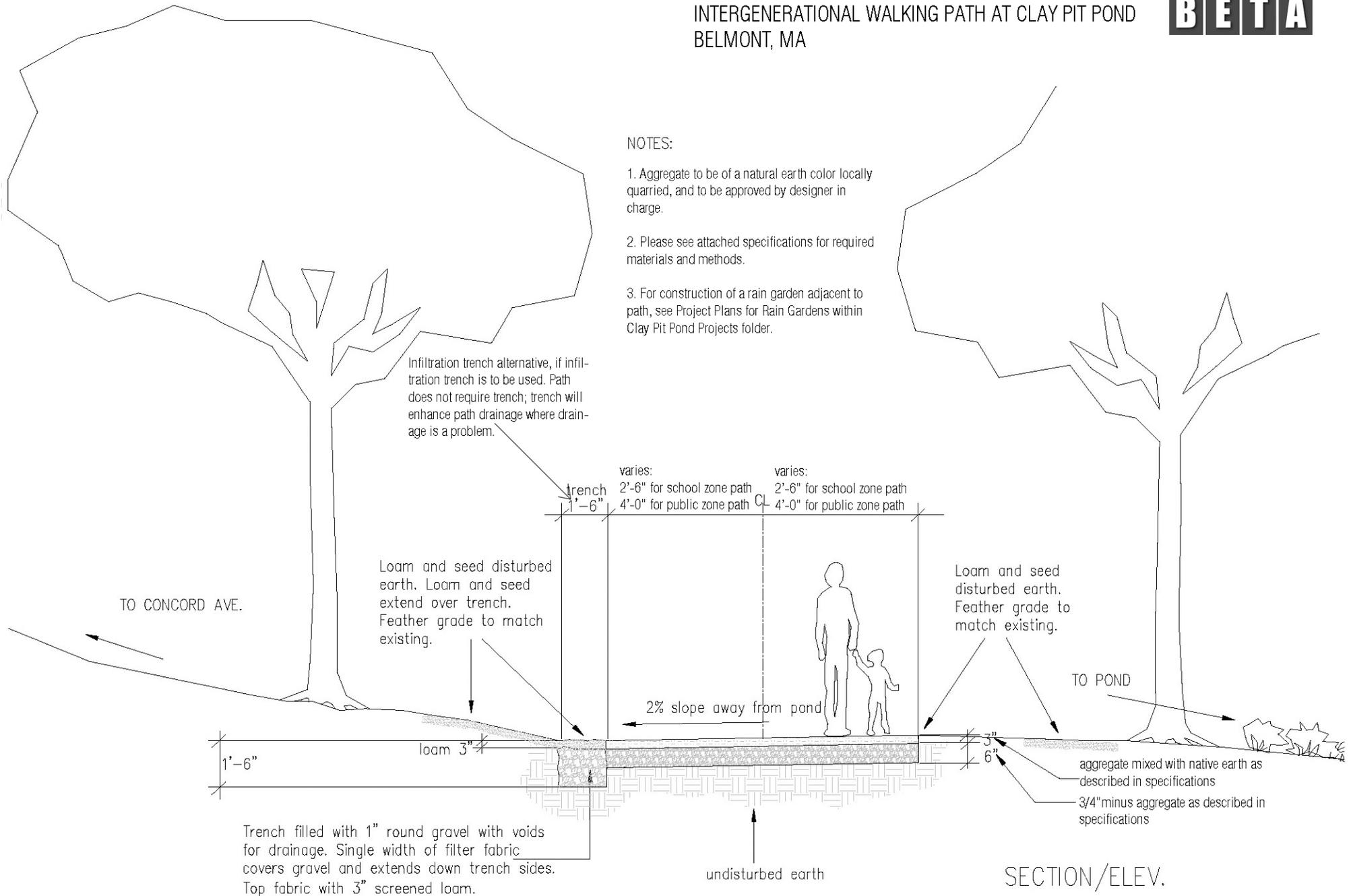
ROUTE OF PROPOSED SENSORY PATH; SEE SENSORY PATH FOLDER

CONCEPTUAL SECTION FOR PATHS
 INTERGENERATIONAL WALKING PATH AT CLAY PIT POND
 BELMONT, MA



NOTES:

1. Aggregate to be of a natural earth color locally quarried, and to be approved by designer in charge.
2. Please see attached specifications for required materials and methods.
3. For construction of a rain garden adjacent to path, see Project Plans for Rain Gardens within Clay Pit Pond Projects folder.



Intergenerational Walking Path at Clay Pit Pond, Belmont, MA PROJECT PLANS

PATH MATERIALS AND METHODS SPECIFICATIONS

For all paths except accessible ramps from the road.

Installation of Aggregate Surfaces

Prior to installing the crushed rock (aggregate) surfacing material, the trail bed shall be shaped to reflect the same linear grade and cross slope as the desired finished surface. The trail bed shall be uniformly smooth and compacted to a rate of 90 percent.

The rock shall be from a quarry and have angular fractured surfaces. It shall be ¾ inch minus 100 percent crushed and shall be free of vegetable matter and other potentially harmful substances. It shall be of such nature that it can be compacted readily under watering to form a firm and stable surface. The crushed rock shall be inspected by a representative of the contracting agency prior to delivery to the worksite to insure material quality. The crushed quarried rock shall conform to the grading requirements shown in Table 6.

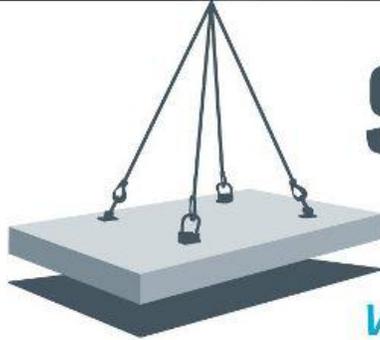
Table 6. Installation of Firm and Stable Aggregate Material

Sieve Sizes	¾ inch Maximum Individual Test Result	Moving Average
1"	100	100
¾"	87-100	90-100
No. 4	30-60	35-55
No. 30	5-35	10-30
No. 200	0-12	2-9

The crushed rock shall be applied to the trail bed at a minimum depth of 6 inches. The application shall be performed in two separate 3-inch lifts. Each lift shall be shaped to the proper linear grade and cross slope prior to compaction. Compaction shall be performed by using either a viberplate compactor or a vibratory roller and shall achieve a minimum compaction rate of 90 percent. The crushed rock shall be kept moist to achieve the maximum rate of compaction. Native soil shall be blended into the last 3-inch lift of crushed rock to soften the color and texture of the finished trail tread. The rate of application shall vary depending on the clay content of the native soil. The finished surface of the trail tread shall be uniformly smooth without holes or concave depressions that can trap water.

For permeable concrete slabs used at junctions of accessible ramps and the main path.

1-877-271-9055



STORM CRETE™

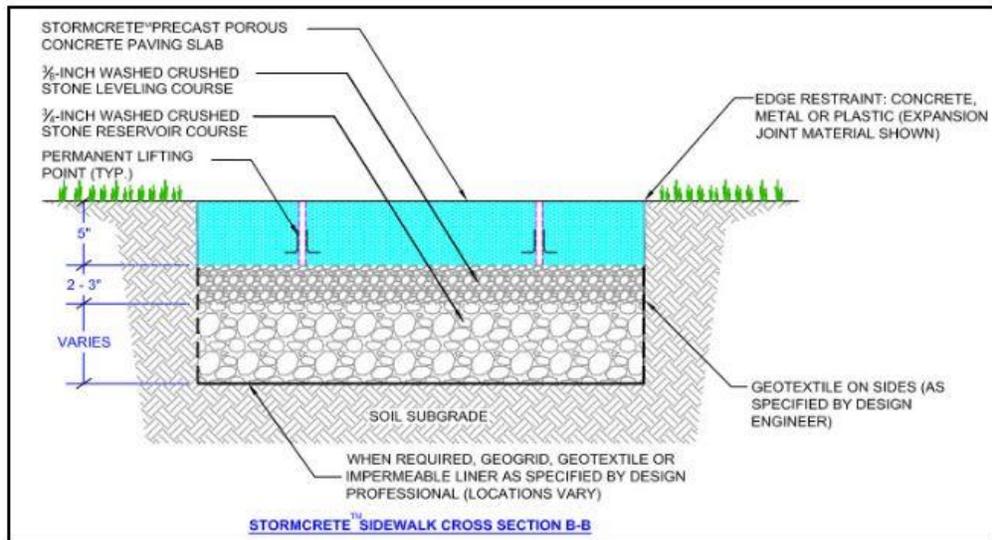
When it Rains...it's Porous™

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- Stormcrete™ Advantage
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- Specifications/Drawings
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- Operation & Maintenance
- Contact Us
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- Videos
- Site Map

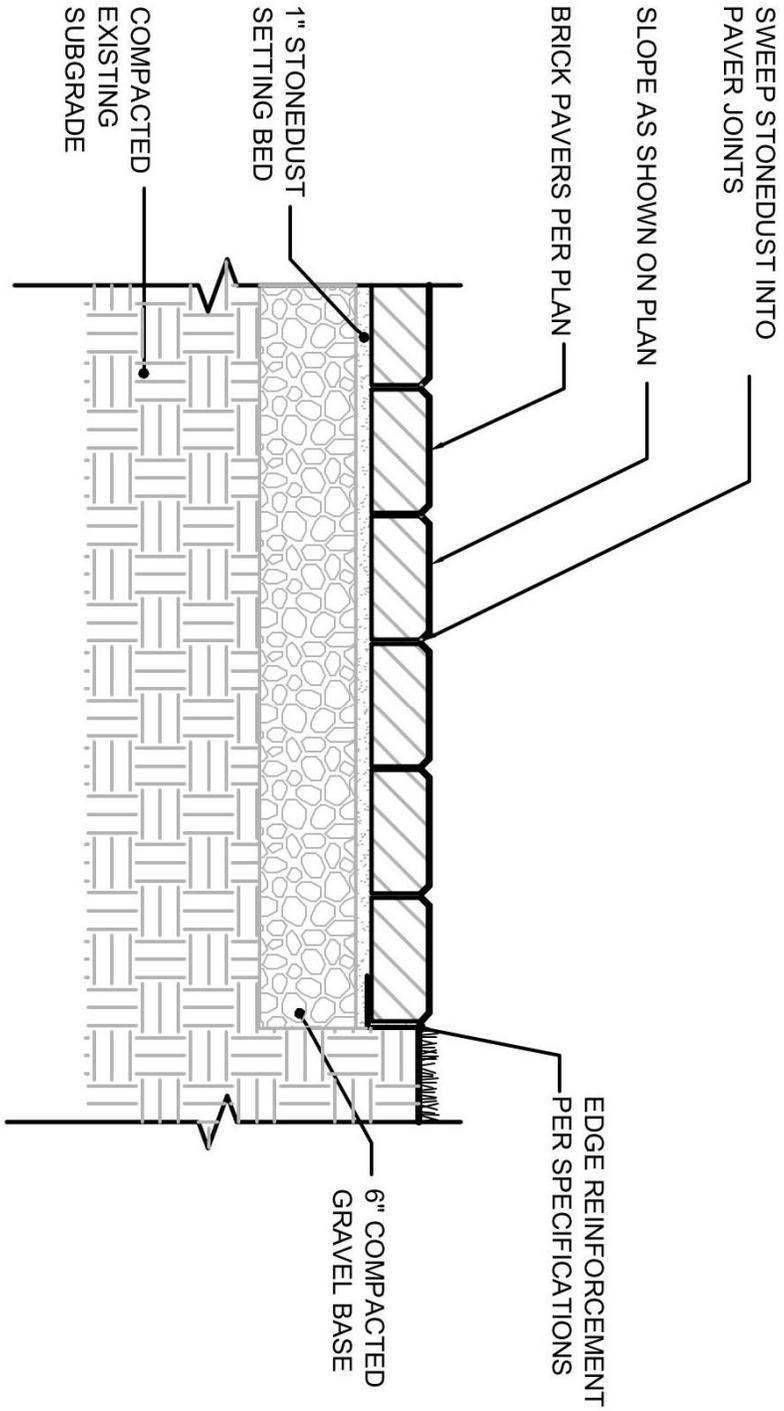
Specifications & Drawings

For a full version of our specifications, design drawings and details

e-mail us [here](#).



For dry-laid brick pavers used as accent bands in the path. Brick pattern and specific product to be decided by project leader.



BRICK PAVER ON GRAVEL BASE

SCALE: NTS

BETA Group, Inc.

Engineers • Planners • Landscape Architects
Lincoln, RI - Norwood, MA - Hartford, CT

NOTE: PLEASE SEE ACCOMPANYING COMPUTER FILE/DISK FOR MANIPULATABLE SPREADSHEET

Landscape Improvements Order of Magnitude Estimate Template: Paths
Clay Pit Pond Intergenerational Walking Path
Belmont, MA

Comments/Notes:

Project Number: 4788	
Contact Person: Amanda Sloan	
Preparation Date: May 2015	
Prepared by: AS	
Approved by: KC	

NOTE: BETA PROVIDES THIS TEMPLATE COST ESTIMATE SHEET WITH COMPREHENSIVE LINE ITEMS, COST ESTIMATES PER UNIT IN THE YEAR 2015, AND FORMULAS, AS A COURTESY FOR PROJECT PLANNING. CALCULATIONS OF QUANTITY FOR SPECIFIC ITEMS MAY CHANGE AS PLANS PROGRESS AND PROJECT PHASING IS IMPLEMENTED. FOR THIS REASON, QUANTITY TAKEOFFS CANNOT BE INPUT UNTIL THE SCOPE OF EACH PROJECT IS DEFINED AND ARE NOT INCLUDED HERE.

NOTE: APPROXIMATE LABOR COSTS ARE INCLUDED IN THE ITEM TOTAL FORMULA BY MULTIPLYING BY 2.5

ABBREVIATIONS: AL -- ALLOWANCE; LS -- LUMP SUM; LF -- LINEAR FOOT; CY -- CUBIC FOOT; SF -- SQUARE FOOT; FF -- FACE FOOT; EA -- EACH

Line #	Item	Qty.	Unit	Cost/Unit	TOTAL
Site Work					
Demolition					
1	excavate, remove and salvage/stockpile/relocate existing path material	0	sf	\$ 0.20	\$ -
2	excavate, remove and salvage/stockpile/relocate loam material in new path areas	0	sf	\$ 0.18	\$ -
Subtotal this Phase:					\$ -
Site Improvements					
3	excavation/fine grading of new path sub-base in existing earth	0	sf	\$ 0.20	\$ -
4	furnish and install 6" depth compacted gravel base	0	sf	\$ 1.40	\$ -
5	furnish and install 3" depth gravel mixed with native earth top	0	sf	\$ 1.40	\$ -
6	furnish and install 3" loam and fine grade path edges	0	sf	\$ 0.70	\$ -
7	seed path edges to repair	0	sf	\$ 0.50	\$ -
Subtotal this Phase:					\$ -
Estimate Subtotal:					\$ -
Contingency 10 %:					\$ -
TOTAL ESTIMATED COST:					\$ -

Alternates					
8	furnish and install 5'x5' Stormcrete Porous Concrete slab or equal	0	EA	call company	\$ -
9	furnish and install brick paver accent bands in path	0	sf	\$ 7.00	\$ -
10	accessible ramps from road	0		check with DPW	\$ -
Subtotal this Phase:					\$ -
Estimate Subtotal:					\$ -
Contingency 10 %:					\$ -
TOTAL ESTIMATED COST:					\$ -

BETA has no influence on cost of labor, materials or equipment that are not directly our services. The methods of determining prices are based on BETA's knowledge and experience in Construction Costs. BETA cannot guarantee any pricing on this ESTIMATE OF COST. The client, at any time, can get independent estimates for any of the products listed.