

To: Tom Harrigan
 Elm Grove Village Manager

From: Richard Klein, PE
 Stantec

Date: July 3, 2024

Reference: Alternatives Evaluation
Underwood Creek Daylighting, Village of Elm Grove, Wisconsin

This memorandum presents conceptual alternatives intended to serve as a basis for discussion to facilitate selection of a final configuration of elements to be included in the project design.

- Three alternative stream channel and bank treatment combinations, including pedestrian access options in the channel daylighting project area footprint.
- Three alternative parking lot configurations, showing ingress and egress options at Watertown Plank Road and Wall Street, vehicular and pedestrian travel lanes, and parking spaces. The Village’s upcoming Traffic Impact Analysis will further inform the development of these alternatives.

Table 1 below summarizes the channel alternatives.

Table 1 - Channel Alternatives

Channel Alternative No.	Name	Comments
1	East Path and Pedestrian Bridge	<p>Alternative 1 includes a pedestrian path east of the new channel between Watertown Plank Road and Wall Street, and a pedestrian bridge over the channel to connect the path to the commercial area. This alternative provides a safe, direct connection between the pedestrian path system north of downtown with the path south of Wall Street. It also fosters increased pedestrian traffic to local businesses via the pedestrian bridge.</p> <p>This alternative is more costly than Alternatives 2 and 3 because of the pedestrian bridge and the extended quarry stone bank treatment adjacent to the abutments.</p>

Channel Alternative No.	Name	Comments
2	East Path and West Sidewalk	<p>Alternative 2 includes a pedestrian path east of the new channel between Watertown Plank Road and Wall Street, and a sidewalk west of the new channel between Wall Street and the north side of the Sendik’s building. This alternative provides a safe, direct connection between the pedestrian path system north of downtown with the path south of Wall Street.</p> <p>A pedestrian bridge is not included in this alternative. Pedestrian traffic from Wall Street to the middle of the Park and Shop commercial area is facilitated via a sidewalk along the west channel top of bank.</p> <p>This alternative is less expensive than Alternative 1 because it does not include the pedestrian bridge. The west sidewalk adds a moderate expense that Alternative 1 does not include.</p>
3	West Sidewalk	<p>Alternative 3 includes a sidewalk along the west channel top of bank to facilitate pedestrian traffic from Wall Street to the middle of the Park and Shop commercial area.</p> <p>Neither the east path nor the pedestrian bridge is included in this alternative. It is therefore the least expensive of the three channel alternatives.</p>

Table 2 below summarizes the parking lot alternatives.

Table 2 - Parking Lot Alternatives

Parking Lot Alternative No.	Name	Comments
A	Ingress/Egress at Watertown Plank Road and at Wall Street	Alternative A accommodates ingress and egress (left-turn out and right-turn out) at both Watertown Plank Road and at Wall Street. Additional space is made available at Watertown Plank Road by relocating the Park and Shop entrance sign to the east side of the channel.
B	Ingress Only at Watertown Plank Road and Ingress/Egress at Wall Street	Alternative B accommodates ingress only at Watertown Plank Road. Alternative B maintains the Park and Shop entrance sign on the west side of the channel and accommodates both ingress and egress at Wall Street.
C	Ingress and Right-Turn Only Egress at Watertown Plank Road and Ingress/Egress at Wall Street	Alternative C accommodates ingress and right-turn only egress at Watertown Plank Road. Alternative C maintains the Park and Shop entrance sign on the west side of the channel and accommodates both ingress and egress at Wall Street.

Attached: Exhibits 1 through 3: Channel Alternatives

Exhibits A through C: Parking Lot Alternatives

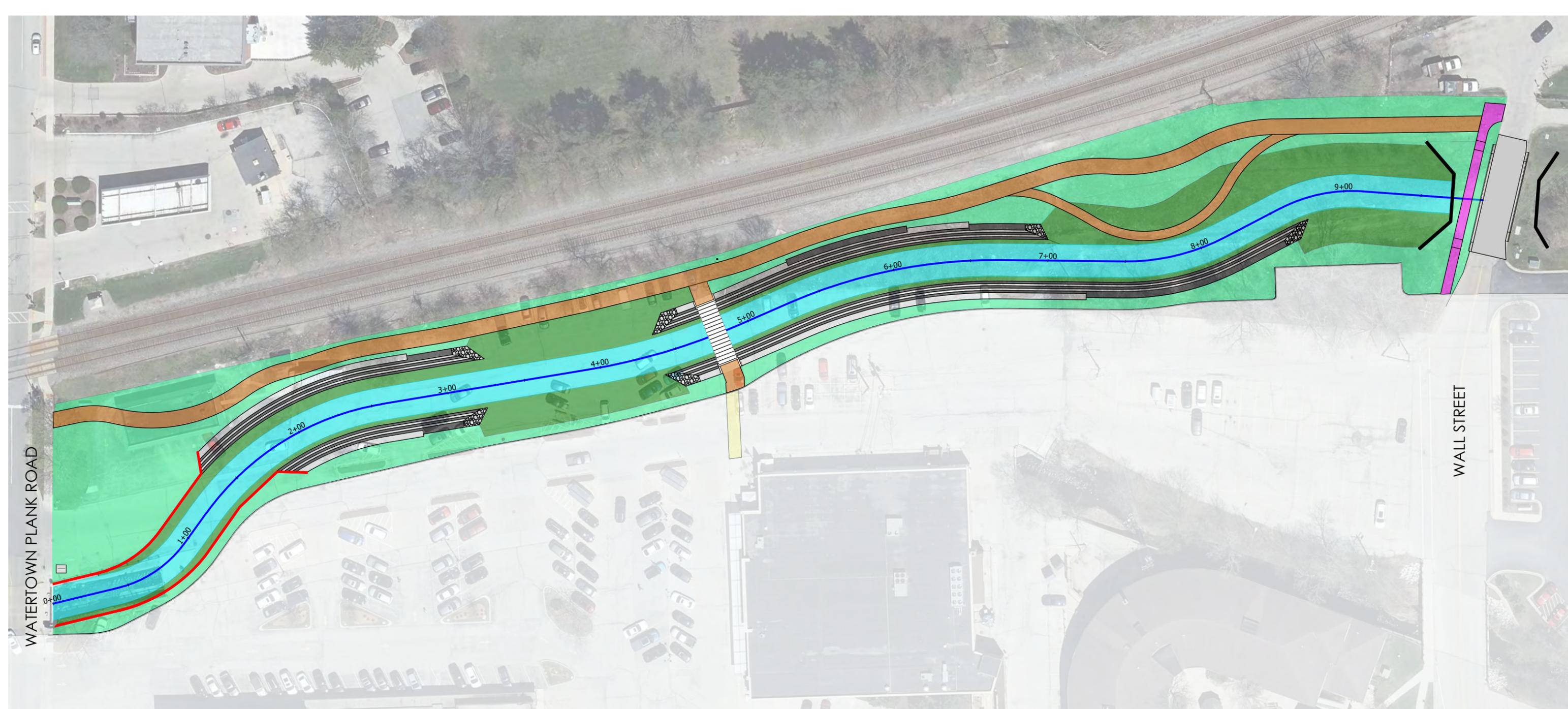


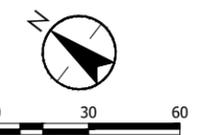
EXHIBIT 1

STREAM CHANNEL ALTERNATIVE 1 East Path with Pedestrian Bridge

VILLAGE OF ELM GROVE
UNDERWOOD CREEK DAYLIGHTING

LEGEND

-  STREAM BANK: SLOPE NATIVE VEGETATION (3:1)
-  STREAM BANK: STEPPED QUARRY STONE (1:1)
-  STREAM BANK: RETAINING WALL (VERTICAL)
-  NEW STREAM BED
-  ASPHALT PATH
-  CONCRETE SIDEWALK
-  PEDESTRIAN BRIDGE



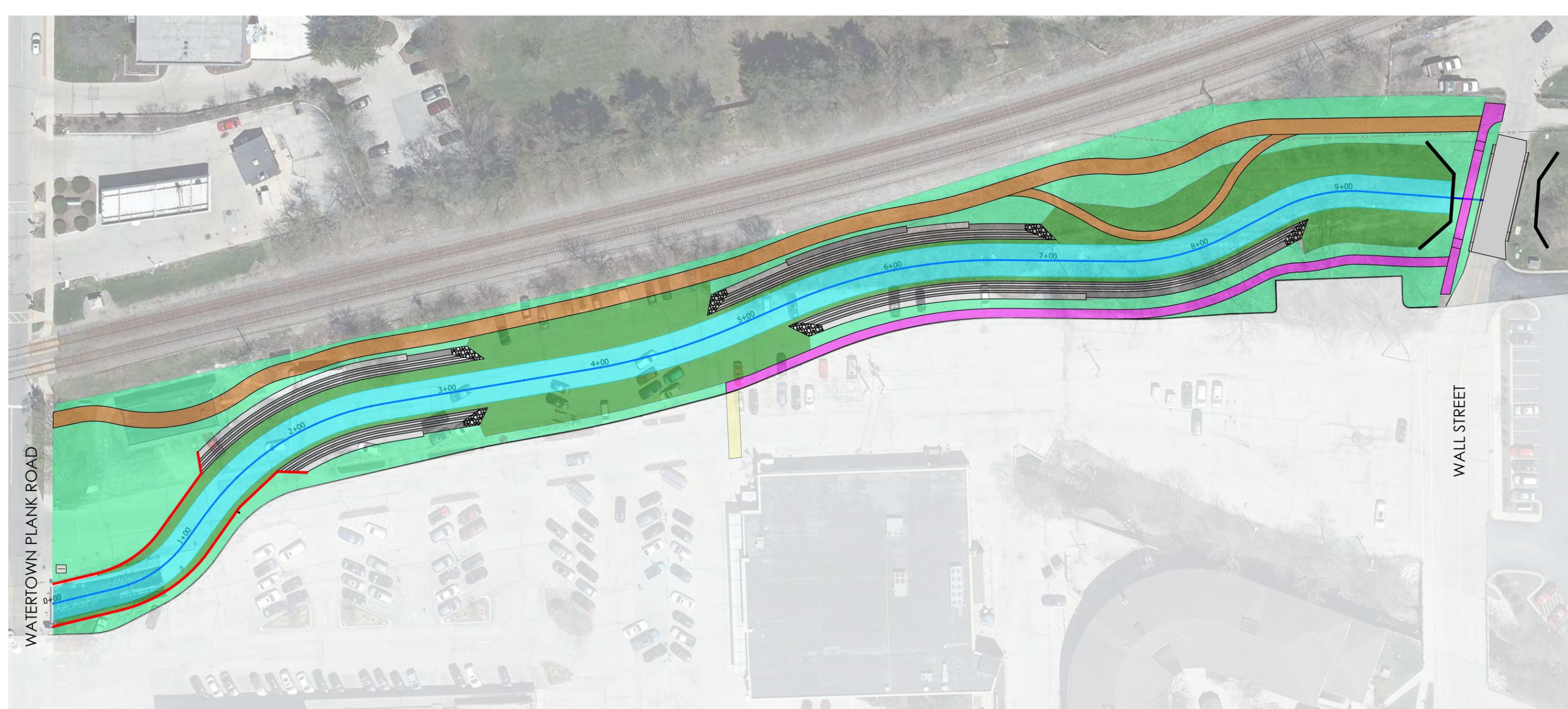


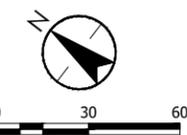
EXHIBIT 2

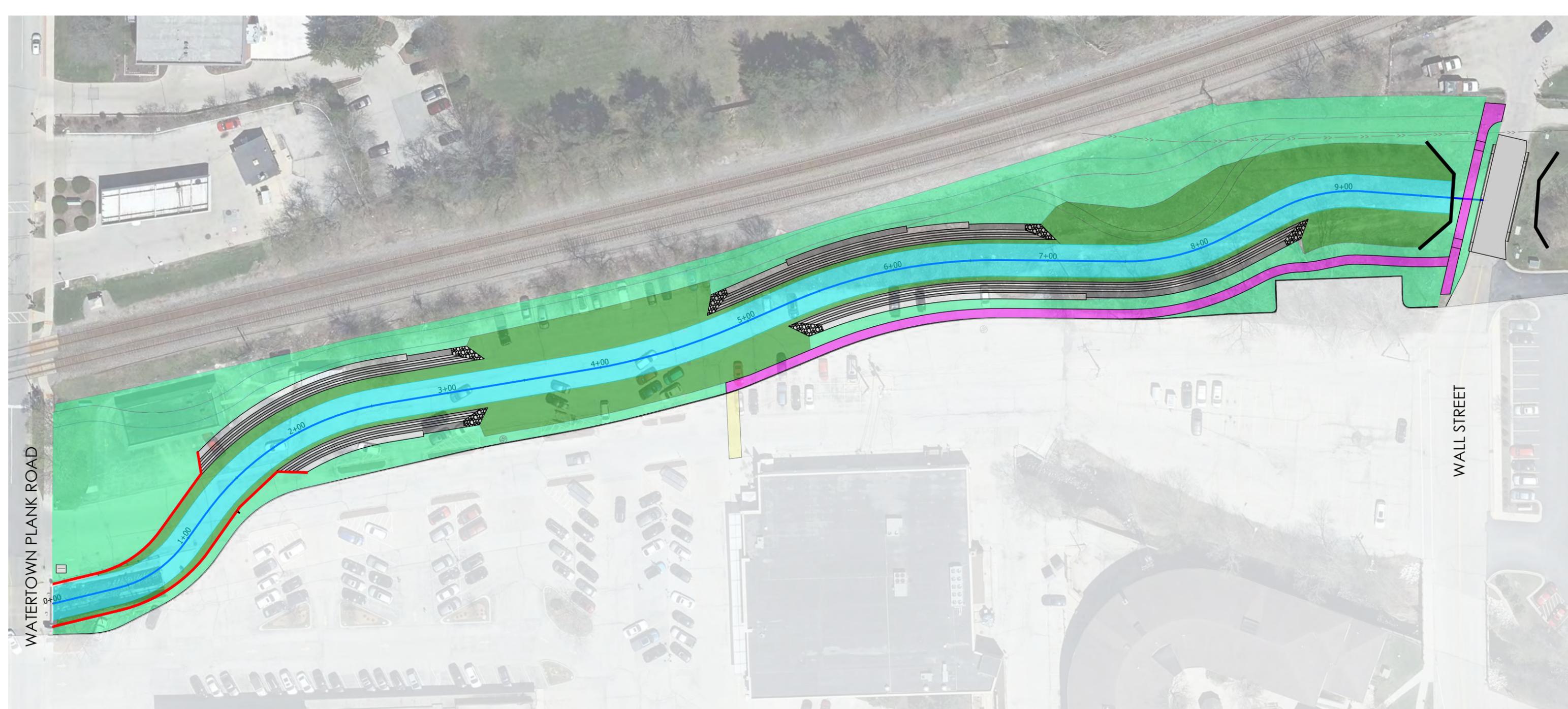
STREAM CHANNEL ALTERNATIVE 2 East Path and West Sidewalk

VILLAGE OF ELM GROVE
UNDERWOOD CREEK DAYLIGHTING

LEGEND

-  STREAM BANK: SLOPE NATIVE VEGETATION (3:1)
-  STREAM BANK: STEPPED QUARRY STONE (1:1)
-  STREAM BANK: RETAINING WALL (VERTICAL)
-  NEW STREAM BED
-  ASPHALT PATH
-  CONCRETE SIDEWALK
-  PEDESTRIAN BRIDGE





WATERTOWN PLANK ROAD

WALL STREET

EXHIBIT 3

STREAM CHANNEL ALTERNATIVE 3 West Sidewalk

VILLAGE OF ELM GROVE
UNDERWOOD CREEK DAYLIGHTING

LEGEND

- STREAM BANK: SLOPE NATIVE VEGETATION (3:1)
- STREAM BANK: STEPPED QUARRY STONE (1:1)
- STREAM BANK: RETAINING WALL (VERTICAL)
- NEW STREAM BED
- ASPHALT PATH
- CONCRETE SIDEWALK
- PEDESTRIAN BRIDGE

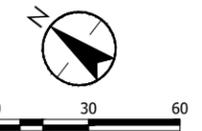




EXHIBIT A

PARKING LOT ALTERNATIVE A
 Ingress/Egress at Watertown Plank Road and at Wall Street

VILLAGE OF ELM GROVE
 UNDERWOOD CREEK DAYLIGHTING

LEGEND

-  ARROW SHOWING DIRECTION OF TRAVEL
-  PEDSTRIAN CROSSWALK
-  PARKING SPACES
-  PARK & SHOP ENTRANCE SIGN

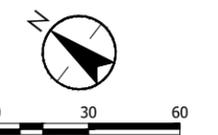




EXHIBIT B

PARKING LOT ALTERNATIVE B
 Ingress Only at Watertown Plank Road and Ingress/Egress at Wall Street

VILLAGE OF ELM GROVE
 UNDERWOOD CREEK DAYLIGHTING

LEGEND

-  ARROW SHOWING DIRECTION OF TRAVEL
-  PEDSTRIAN CROSSWALK
-  PARKING SPACES
-  PARK & SHOP ENTRANCE SIGN

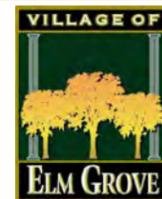
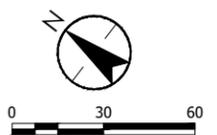




EXHIBIT C

PARKING LOT ALTERNATIVE C
 Ingress and Right Turn Only Egress at Watertown Plank Road and Ingress/Egress at Wall Street

VILLAGE OF ELM GROVE
 UNDERWOOD CREEK DAYLIGHTING

LEGEND

- ARROW SHOWING DIRECTION OF TRAVEL
- PEDSTRIAN CROSSWALK
- PARKING SPACES
- PARK & SHOP ENTRANCE SIGN

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