

RECOMMENDATION 7-2022

To: Kankakee River Basin and Yellow River Basin Development Commission
From: Technical Advisory Committee
Subject: Jasper County FEMA Project augmentation
Date: September 23, 2022

DESCRIPTION: Jasper County, in partnership with the Commission, recently completed a \$3.8 million bank repair project with Federal Emergency Management Agency (FEMA) funding. The initiative regraded and armored several miles of bank in Jasper County following severe 2018 flood damage.

LOCATION: Kankakee River in Jasper County

ISSUE: While the repair work constituted the largest Kankakee River projects in recent decades, some flood-damaged sections – particularly one immediately downstream of US 231 -- were ineligible for FEMA assistance. The Jasper County Surveyor has requested that the Commission augment the FEMA project by funding and overseeing repairs to this section of bank.

The Jasper County Surveyor's office has prepared a tentative project area, preliminary designs, and a scope of work for consideration [ATTACHMENT].

While the FEMA project has been valuable both as a flood protection project and a sediment reduction tool, augmenting it could be fiscally challenging if the suggested project area remains undivided into smaller sections.

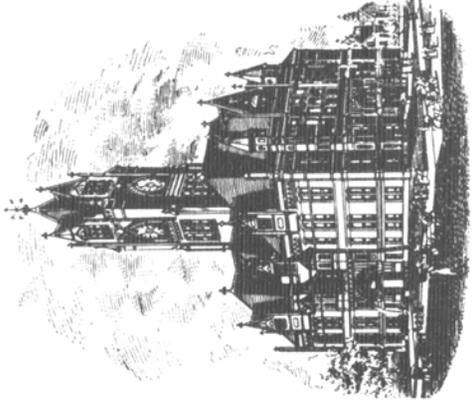
RECOMMENDATION: The Committee recommends that the Commission approve the project provided that 1) the project area be subdivided into annually affordable sections and 2) the Commission and Jasper County evaluate and consider effective design modifications that could reduce material costs.

ADOPTED BY COMMITTEE 9/23/2022.

ADOPTED BY COMMISSION 10/28/2022.



VINCE URBANO
(219) 866-4907
(219) 866-4641 - Fax



2530 NORTH MCKINLEY AVE. SUITE 2,
RENSSELAER, INDIANA 47978

MAINTENANCE PATH RESTORATION ALONG THE KANKAKEE RIVER

PROJECT LOCATION

Beginning approximately 1,850 feet north and 1,511 feet west of the northwest corner of Section 15 Township 32 Range 7 of Jasper County repair the Jasper County Maintenance Path along the Kankakee River for a distance of 10,573 feet. (See attached maps and drawings for details)

RIGHT-OF-WAY

All landowners along said **Kankakee River** shall provide the Contractor with the right-of-way as established by law I.C. 36-9-27-33; the County Surveyor, the Board or an authorized representative of the Surveyor or the Board acting under this chapter has the right of entry over and upon land lying within seventy-five feet (75') of any regulated drain. The seventy-five foot (75') limit is measured at right angles to the top edge of each bank of an open drain, and seventy-five feet (75') from the centerline of the tile, as determined by the Surveyor.

FENCING AND FENCING MATERIALS

All landowners having fences which are in the line of reconstruction and which may be in danger of being damaged by said work, are charged with protecting the same or removing and replacing the same, so as to avoid damage thereto. The Contractor shall notify each and all such landowners who have not removed sufficient fencing to enable this work to be done properly. Such notice shall provide adequate time for each such landowner. The Contractor shall use extreme care and shall plan work diligently as to avoid any damage to or unnecessary removal of nearby fencing materials.

PUBLIC UTILITIES

The Contractor shall give notice to the owners of the Public Utilities or their proper agents, of any electric power lines, telephone and telegraph line, or any other utility easements, no less than fifteen (15) days prior to the expected time this construction work will be entering upon or crossing any such easement or line.

The Contractor shall cooperate with all such owners and/or agents, and he shall use good judgment and extreme care in his work to avoid damage to any such property.

EROSION CONTROL

A representative of the Surveyor's Office, Deputy, or Contractor shall inspect erosion and sediment control practices daily and repair as necessary until all construction is complete and disturbed areas are permanently stabilized. Disturbed banks shall be stabilized as work progresses so that no more than 200 lineal feet are left disturbed at the completion of the workday. Except for material used as backfill as shown in plans, any excavated material shall be placed landward of the floodway.

The contractor shall stabilize and revegetate disturbed soils as final grades are achieved. Initiation of stabilization must occur immediately or at a minimum within the requirements of a construction site run-off permit or any other conditions required by environmental permitting after work is completed.

CLEARING, TREES, AND BRUSH

The Contractor shall clear **ONLY TREES NECESSARY** to achieve the proposed PATH restoration along the South bank within the right-of-way of the Kankakee River. No trees, brush or underbrush suitable for Indiana bat or Northern Long-eared bat roosting shall be cut (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. The boundaries of any clearing shall be limited to the immediate project area unless authorized in the plans on file with the Jasper County Surveyor. Any alteration of the proposed plans must first be approved by the Jasper County Surveyor or his Deputy. The immediate project area shall be defined as the proposed project area consisting of, the existing berm along the South bank of the Kankakee River, the necessary area for a twenty-five (25) foot maintenance path, and the slope of the bank from the top of the berm to the water's edge. All trees, brush, stumps and logs will be piled on land from which they are taken and all debris not claimed by landowner shall be burned as per the following standard specifications of the Indiana Department of Environmental Management.

1. Only wood products shall be burned.
2. Fires shall be attended at all times until completely extinguished.
3. If fires create a nuisance of a fire hazard, they shall be extinguished.

4. All burning shall occur during daylight hours, during which the fires may be replenished, but only in such a manner that nearly all of the burning material is consumed by sunset.
5. No burning shall be conducted during unfavorable meteorological condition such as temperature inversions, high winds, air stagnation, etc.

In addition, fires should not be ignited or fueled with tires or smoke producing petroleum products; all fires should be attended at all times while burning and until completely extinguished; fires must be conducted on property where waste is derived; all burning must comply with other state and local regulations; and the Jasper County Health Department and Sheriff's department should be notified prior to dates of burning. All debris not consumed by fire shall be buried to a depth that will allow at least two (2) feet of cover over the buried material.

TREATING OF STUMPS

Stumps of trees and brush or larger shall be treated with chemicals such as Tordon - RTU, or an equivalent chemical specified for cut surface treatment to prevent re-growth of vegetation.

Treating of stumps must be done in accordance with specifications on chemical manufacturers label and within twenty-four (24) hours of cut. Tordon – RTU should be applied to the outer diameter of the tree after the cut.

MAINTENANCE PATH RESTORATION

The contractor shall relocate all material from a pre-designated dump locations and existing stockpile locations (See attached drawings). It is recommended material be transported by way of off-road heavy haul trucks. Unless pre-approved by the Jasper County Surveyor or his deputy no over the road tri-axle or quad-axle dump truck will transport material along the berm. Unless approved by the Jasper County Surveyor or his deputy the designated dump location cannot be changed or relocated.

Beginning from the station 0+00 and working upstream to station 105+73(see attached drawing for location details) repair the maintenance path improvement with clean fill (approx. 24,559.45 cubic yards) restoring to an original 25 foot top width creating a no less than 2:1 slope. Then armor with clean limestone rip-rap (approx. 4,397.47 cubic yards) creating no less than a 2:1 slope along the riverside of the path. (See attached maps and drawings for details). The entire project length has been broken into 3 classification of existing condition, less than 15 feet considered critical, less than 20 feet considered Major, less than 25 feet considered Minor. See the following list for station reference to these conditions.

| | <u>Location</u> | <u>Distance</u> | <u>Condition</u> |
|-----|----------------------------|------------------------|------------------|
| 1.) | Station 0+00.00 to Station | 0+86.52 86.52 feet | Critical |
| 2.) | Station 0+86.52 to Station | 4+46.66 360.14 feet | Major |
| 3.) | Station 4+46.66 to Station | 25+18.35 2,071.69 feet | Critical |

| | | | | | |
|------|---------|----------------------|-----------|---------------|----------|
| 4.) | Station | 25+18.35 to Station | 28+40.17 | 321.82 feet | Major |
| 5.) | Station | 28+40.17 to Station | 33+85.27 | 545.10 feet | Critical |
| 6.) | Station | 33+85.27 to Station | 44+01.98 | 1,016.71 feet | Major |
| 7.) | Station | 44+01.98 to Station | 48+36.93 | 434.95 feet | Minor |
| 8.) | Station | 48+36.93 to Station | 49+21.35 | 84.42 feet | Major |
| 9.) | Station | 49+21.35 to Station | 50+52.39 | 131.04 feet | Critical |
| 10.) | Station | 50+52.39 to Station | 53+06.11 | 253.72 feet | Major |
| 11.) | Station | 53+06.11 to Station | 53+50.48 | 44.37 feet | Critical |
| 12.) | Station | 53+50.48 to Station | 55+60.17 | 209.69 feet | Major |
| 13.) | Station | 55+60.17 to Station | 59+42.72 | 382.55 feet | Critical |
| 14.) | Station | 59+42.72 to Station | 60+95.80 | 153.08 feet | Major |
| 15.) | Station | 60+95.80 to Station | 62+41.65 | 145.85 feet | Minor |
| 16.) | Station | 62+41.65 to Station | 63+90.48 | 148.83 feet | Major |
| 17.) | Station | 63+90.48 to Station | 65+84.32 | 193.84 feet | Minor |
| 18.) | Station | 65+84.32 to Station | 70+29.53 | 445.21 feet | Major |
| 19.) | Station | 70+29.53 to Station | 71+34.77 | 105.24 feet | Critical |
| 20.) | Station | 71+34.77 to Station | 74+91.66 | 356.89 feet | Major |
| 21.) | Station | 74+91.66 to Station | 81+23.89 | 632.23 feet | Minor |
| 22.) | Station | 81+23.89 to Station | 82+72.90 | 149.01 feet | Major |
| 23.) | Station | 82+72.90 to Station | 83+82.61 | 109.71 feet | Minor |
| 24.) | Station | 83+82.61 to Station | 85+17.30 | 134.69 feet | Major |
| 25.) | Station | 85+17.30 to Station | 90+93.75 | 576.45 feet | Minor |
| 26.) | Station | 90+93.75 to Station | 93+54.44 | 260.69 feet | Major |
| 27.) | Station | 93+54.44 to Station | 94+80.79 | 126.35 feet | Minor |
| 28.) | Station | 94+80.79 to Station | 97+83.88 | 303.09 feet | Major |
| 29.) | Station | 97+83.88 to Station | 100+49.44 | 265.56 feet | Critical |
| 30.) | Station | 100+49.44 to Station | 103+17.03 | 267.59 feet | Major |
| 31.) | Station | 103+17.03 to Station | 105+73.32 | 256.49 feet | Minor |

SEEDING

1. No special preparation will be required for seeding.
2. In the areas of farm field no seed will be required.
3. In the areas of filter strip or grass lanes the following mixture is required.

| | |
|--------------------|-------------|
| Perennial Ryegrass | 10 lbs/acre |
| Bull Tall Fescue | 10 lbs/acre |
4. In the areas that may be lawn a common sunny grass seed mixture will be required.
5. Any seeding shall be casted with a hand crank vortex seed spreader.

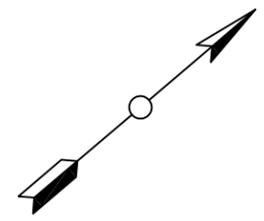
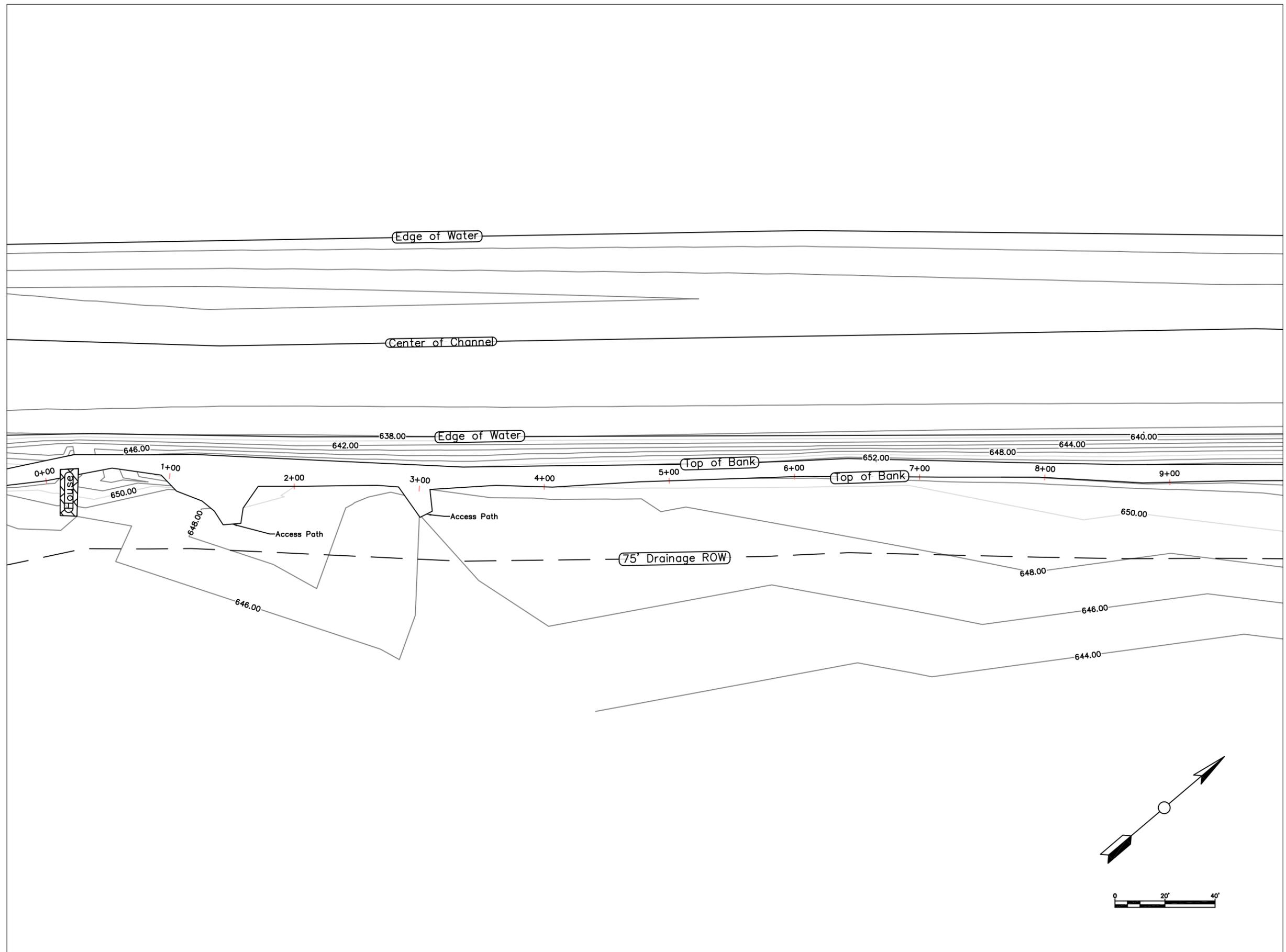
Any questions, please contact the Jasper County Surveyors Office.



KANKAKEE RIVER

KEENER TOWNSHIP, JASPER COUNTY, INDIANA

| | |
|---|--|
| | JASPER COUNTY SURVEYOR'S OFFICE 2530 NORTH MCKINLEY AVENUE RENSELAER, INDIANA 47978 |
|  | SURVEYOR: VINCE URBANO PHONE: (219) 866-4907 EMAIL: VINCE.URBANO@CO.JASPER.IN.US |
| PROJECT LOCATION: | KANKAKEE RIVER (JASPER COUNTY) |
| LATITUDE: | NORTH 41.2327333° |
| LONGITUDE: | WEST -87.223784° |
| DRAWING TITLE: | KANKAKEE RIVER |
| DRAWING SHEET: | SHEET 1 OF 14 |
| DRAWING DATE: | 8/4/2022 |



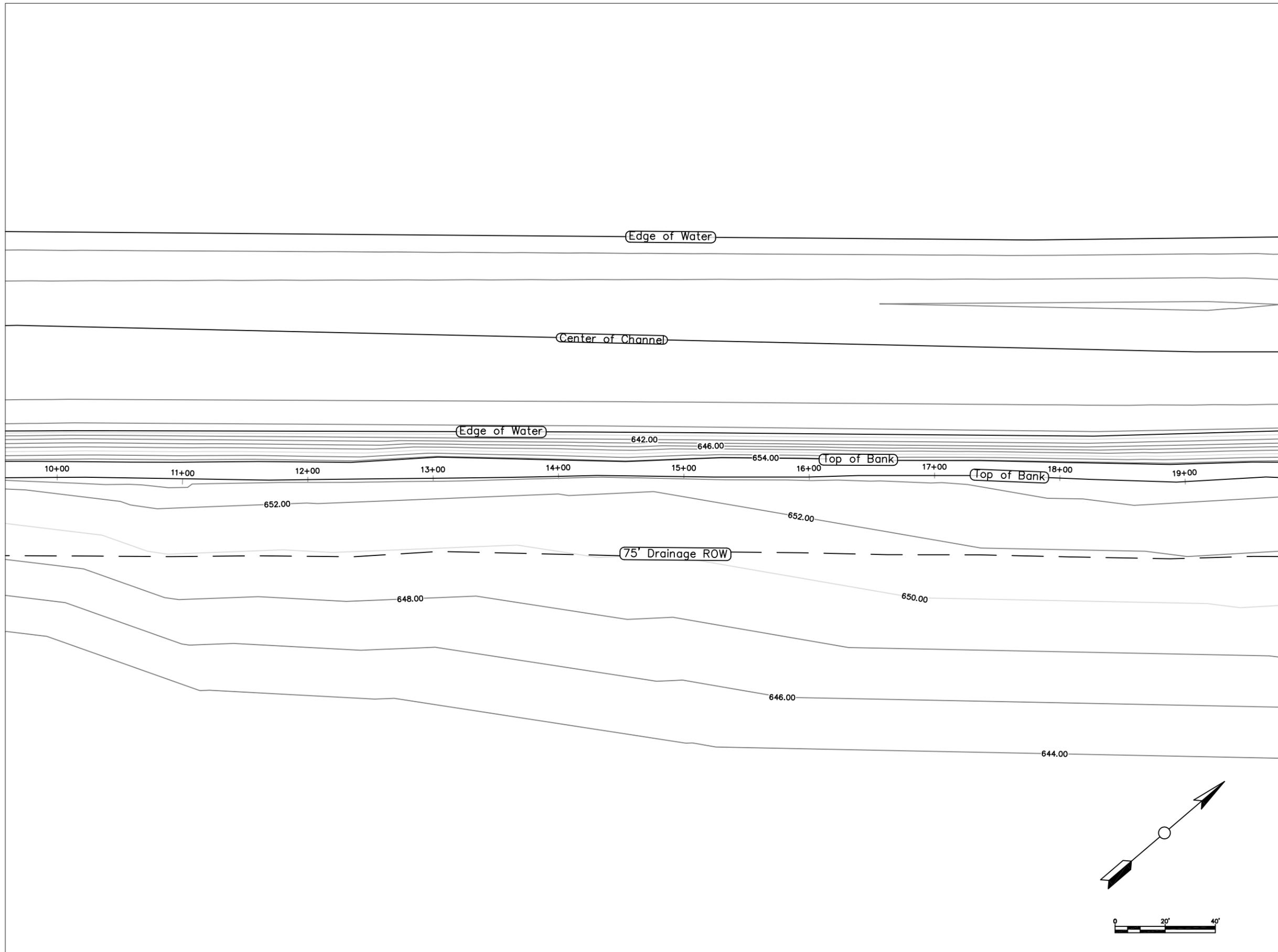
General Notes

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Firm Name and Address
 JASPER COUNTY SURVEYOR

Project Name and Address
 KANKAKEE RIVER

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| Project | KANKAKEE | Sheet | 1 |
| Date | 8/4/2022 | | |
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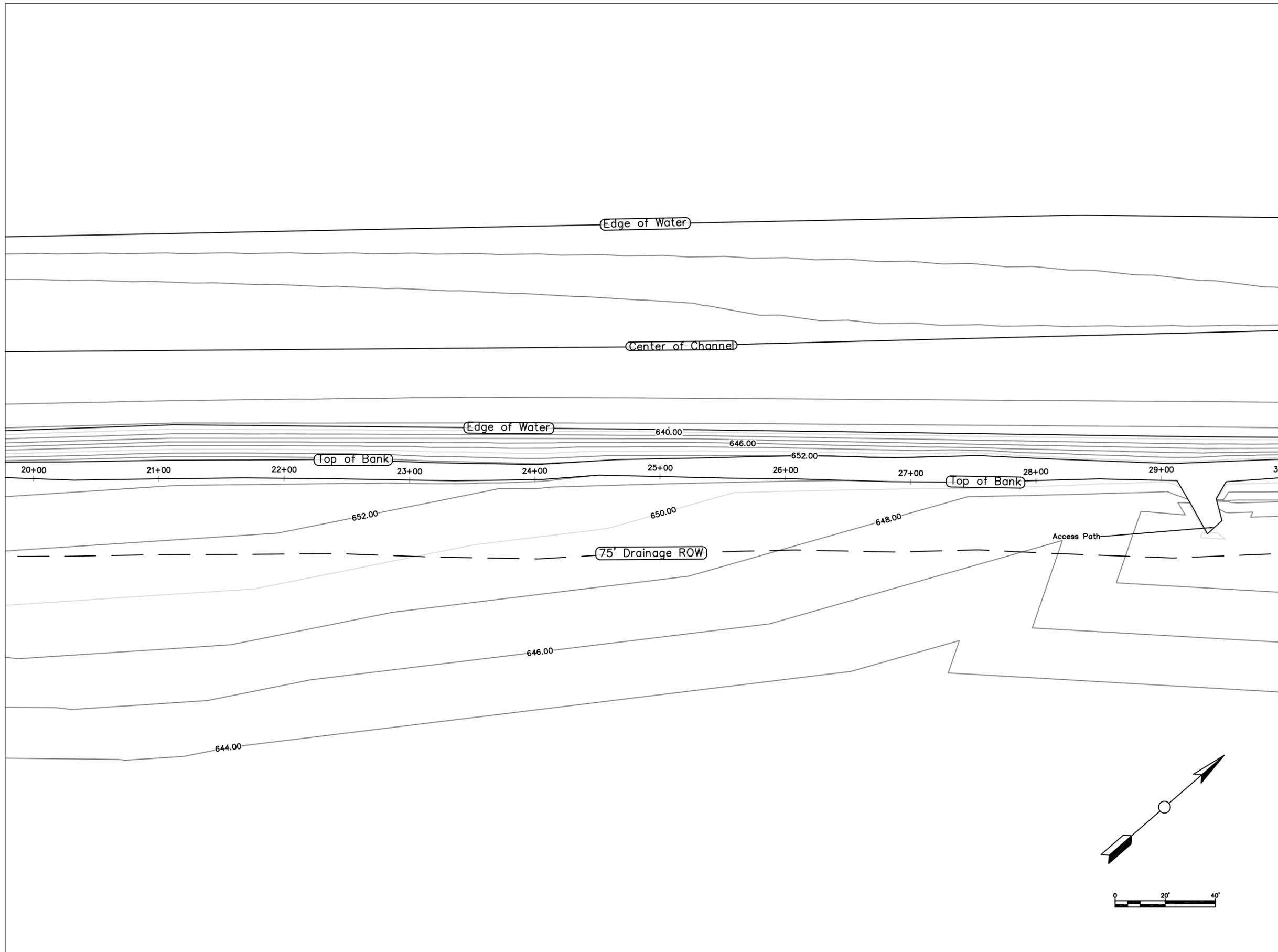
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Firm Name and Address
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Project Name and Address
KANKAKEE RIVER

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| Project KANKAKEE | Sheet 2 |
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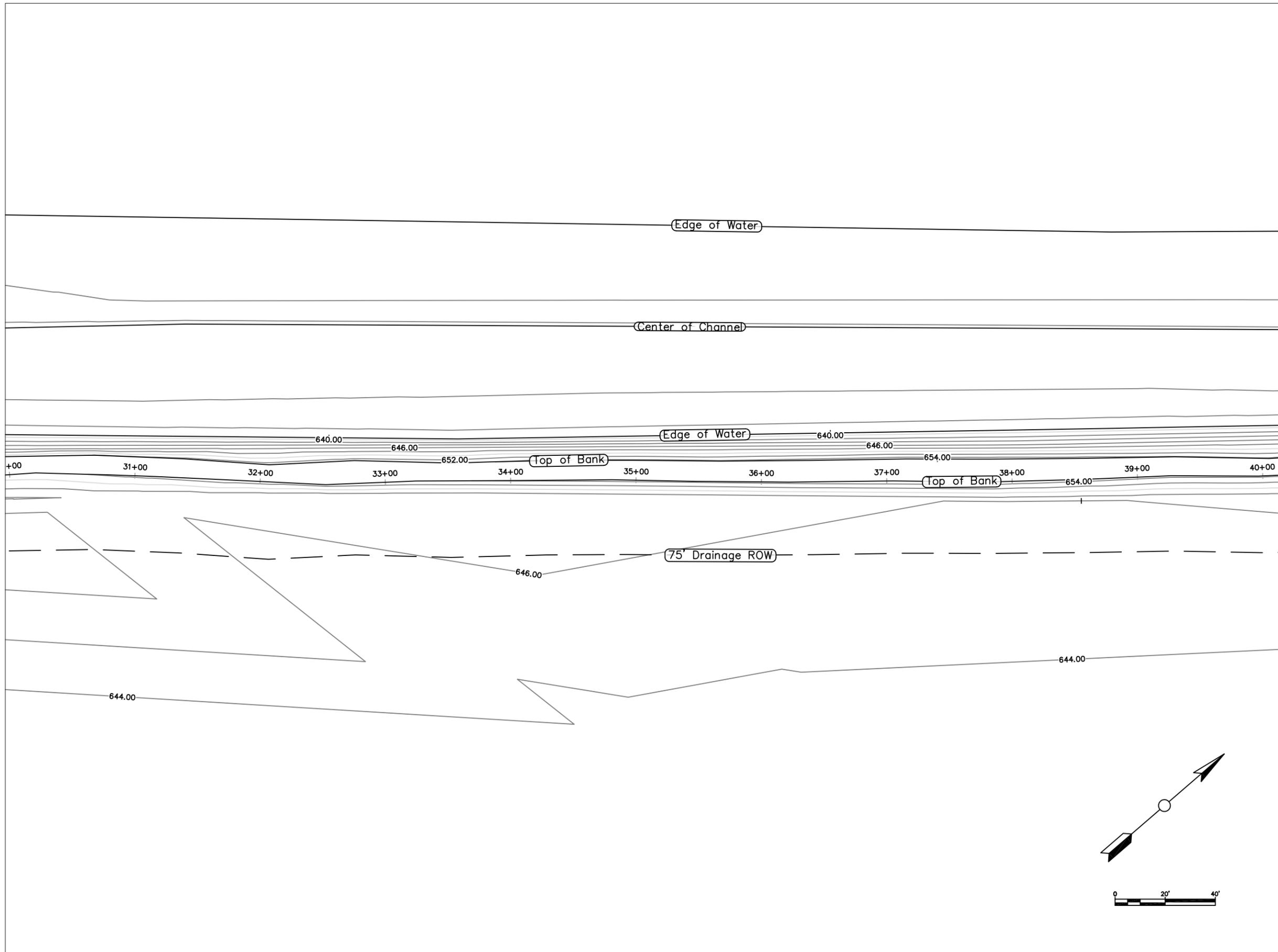
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Project Name and Address
 KANKAKEE RIVER

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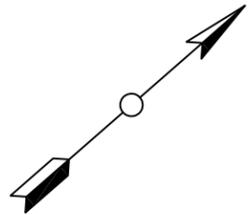
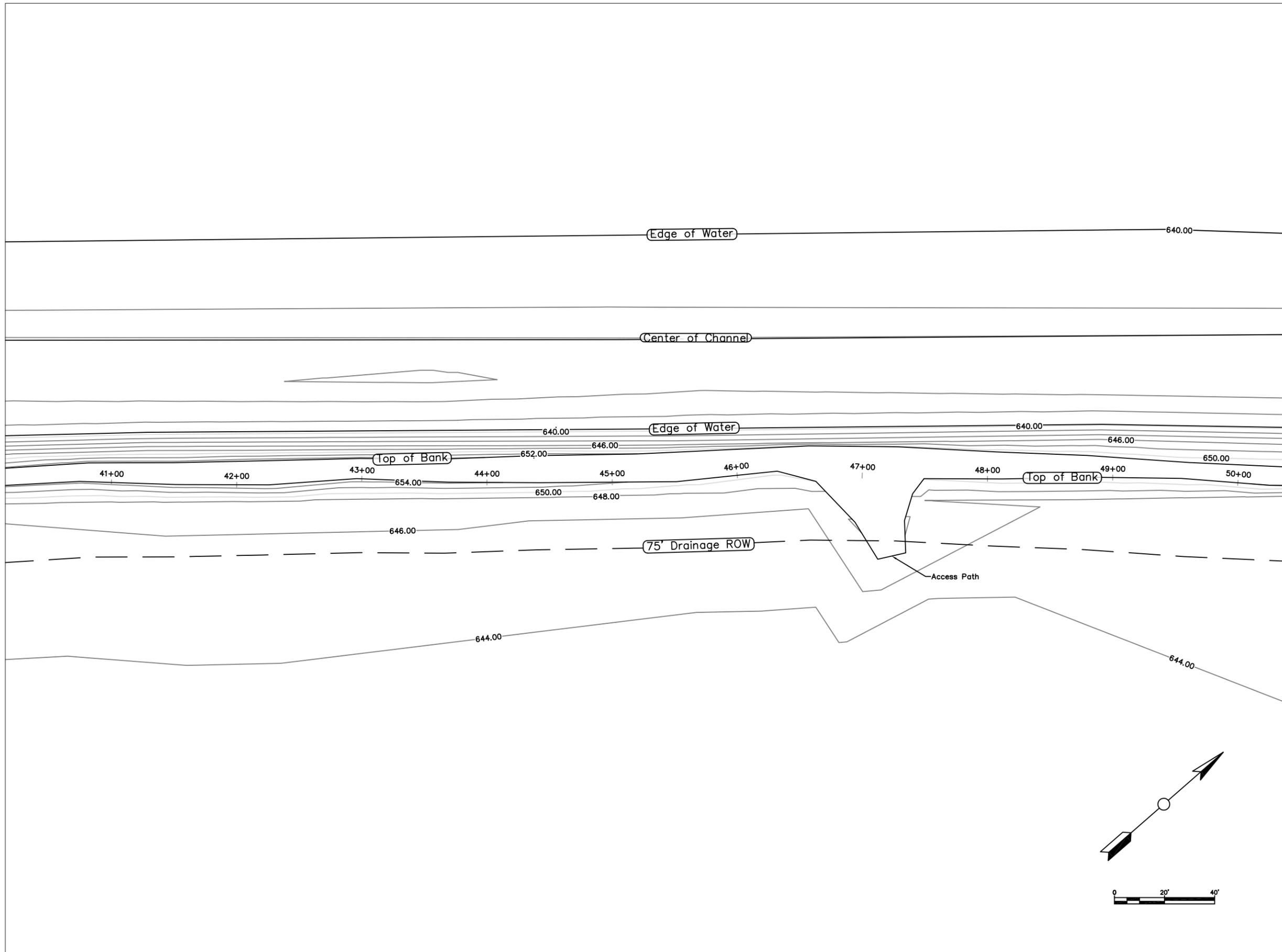
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 KANKAKEE RIVER

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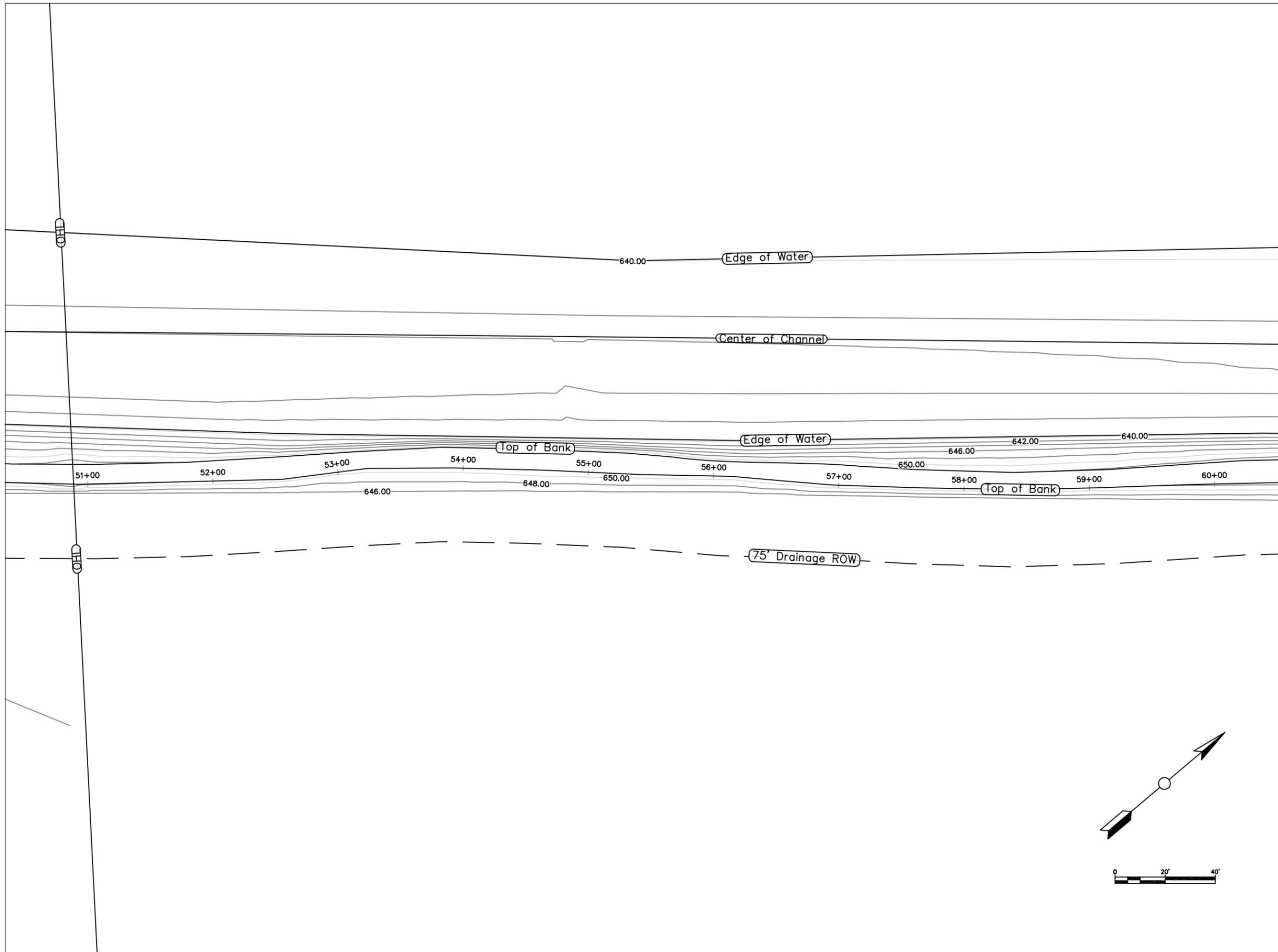
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Project Name and Address
 KANKAKEE RIVER

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General Notes

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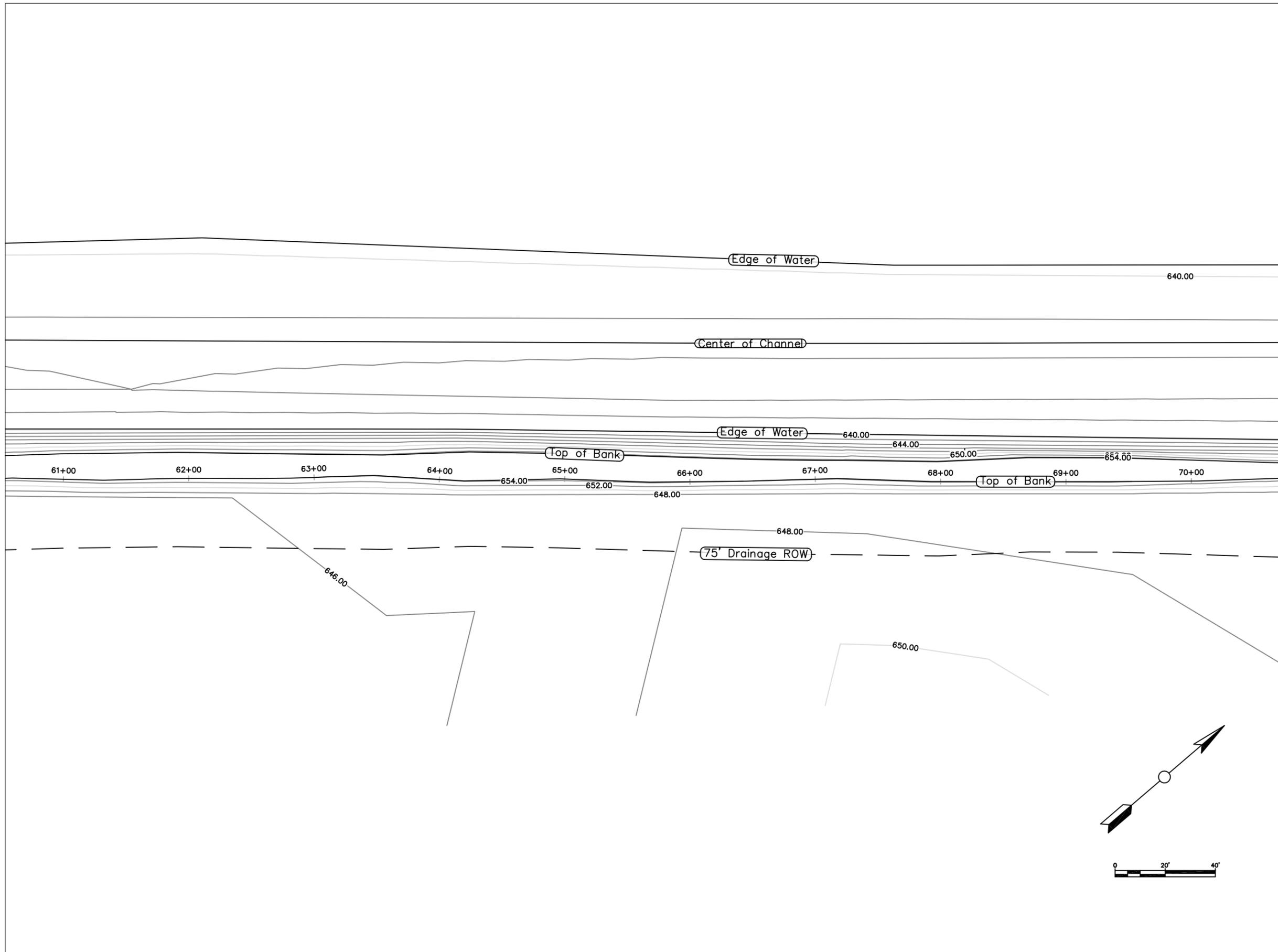
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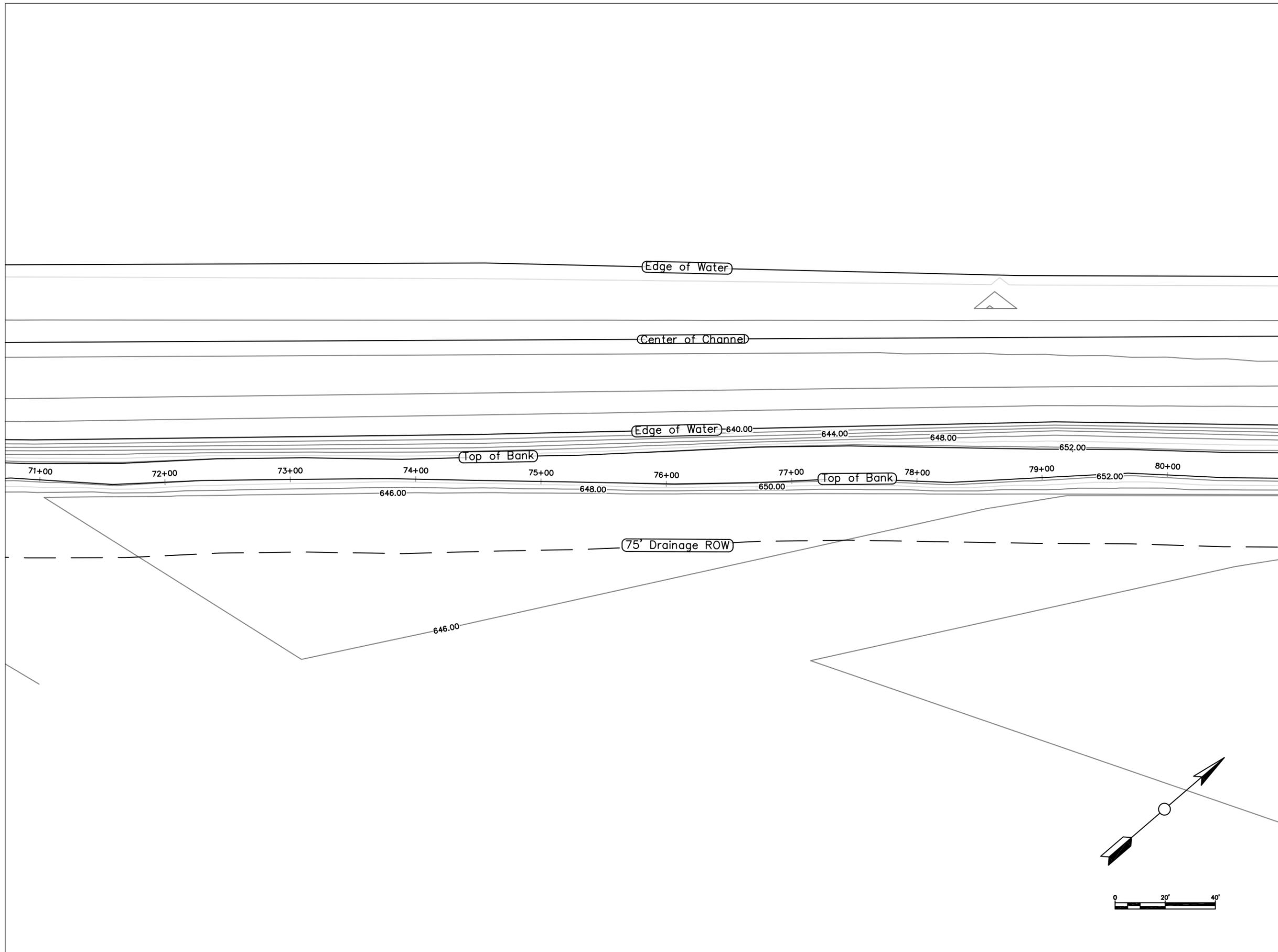
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 KANAKEE RIVER

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| Project | KANKAKEE | Sheet | 7 |
| Date | 8/4/2022 | | |
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General Notes

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Project Name and Address
 KANKAKEE RIVER

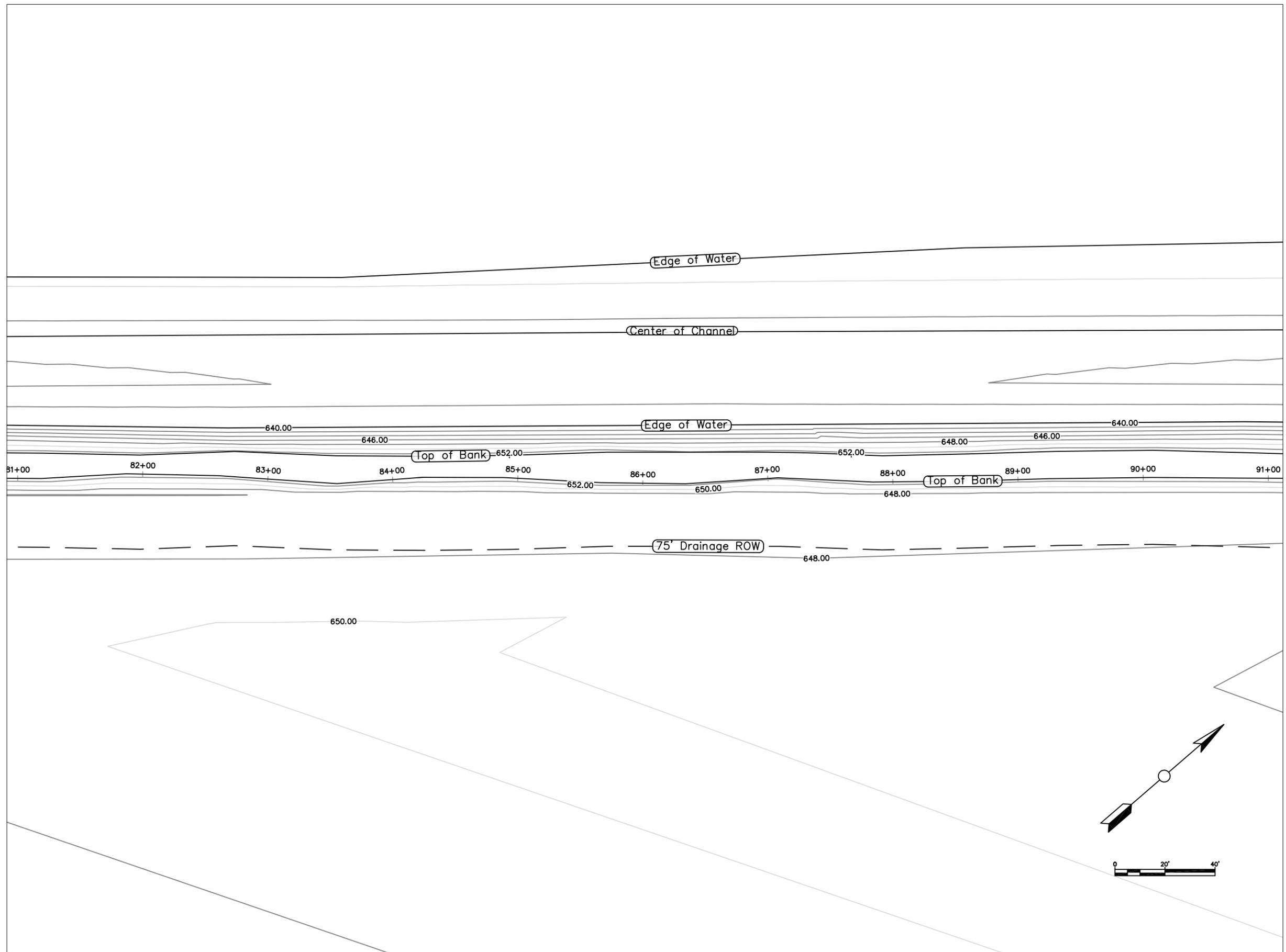
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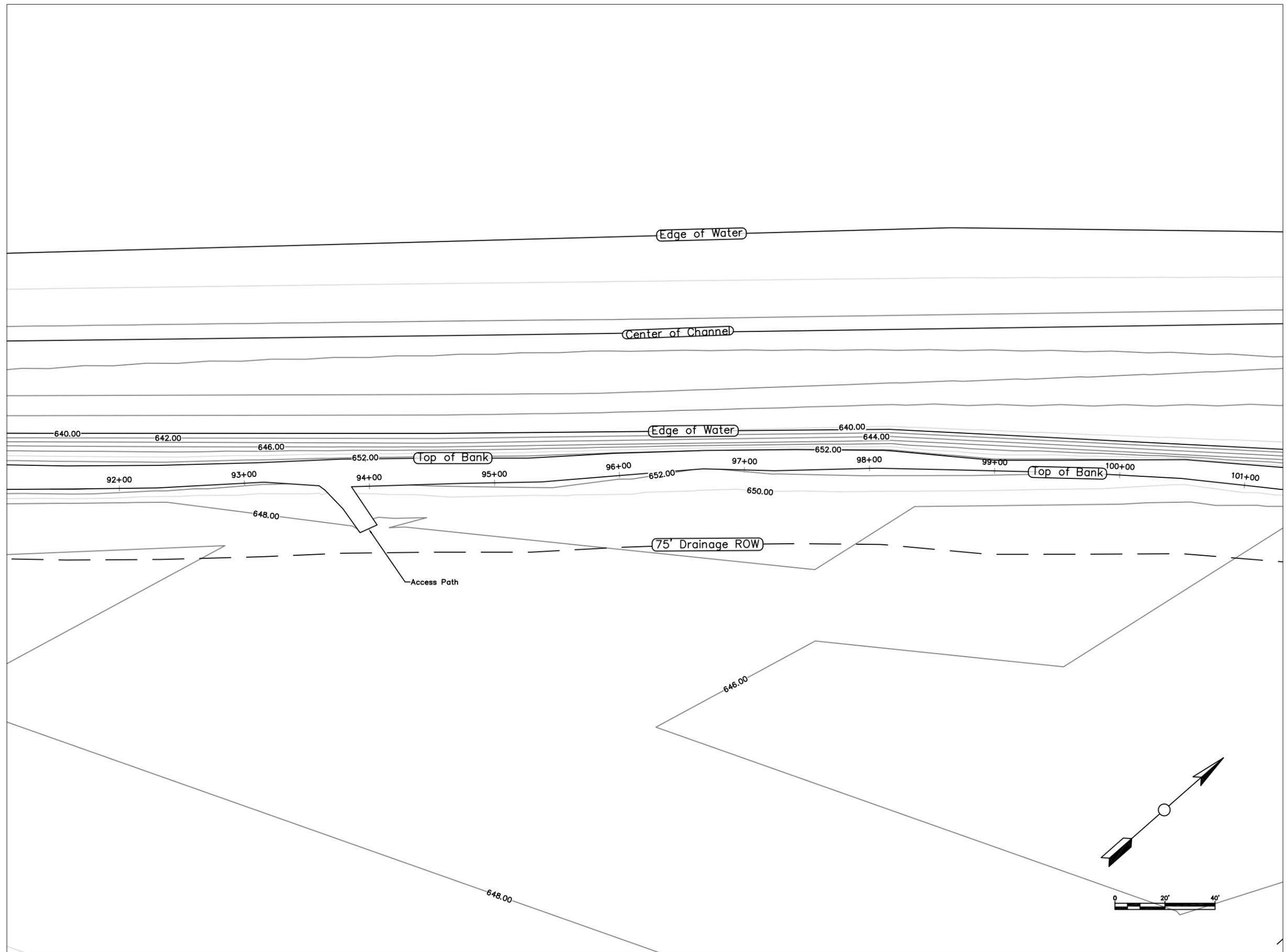
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Project Name and Address
 KANKAKEE RIVER

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| Project KANKAKEE | Sheet 9 |
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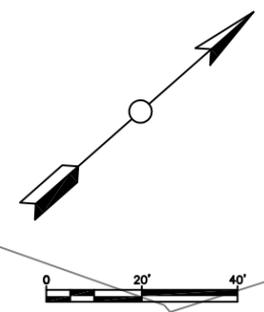
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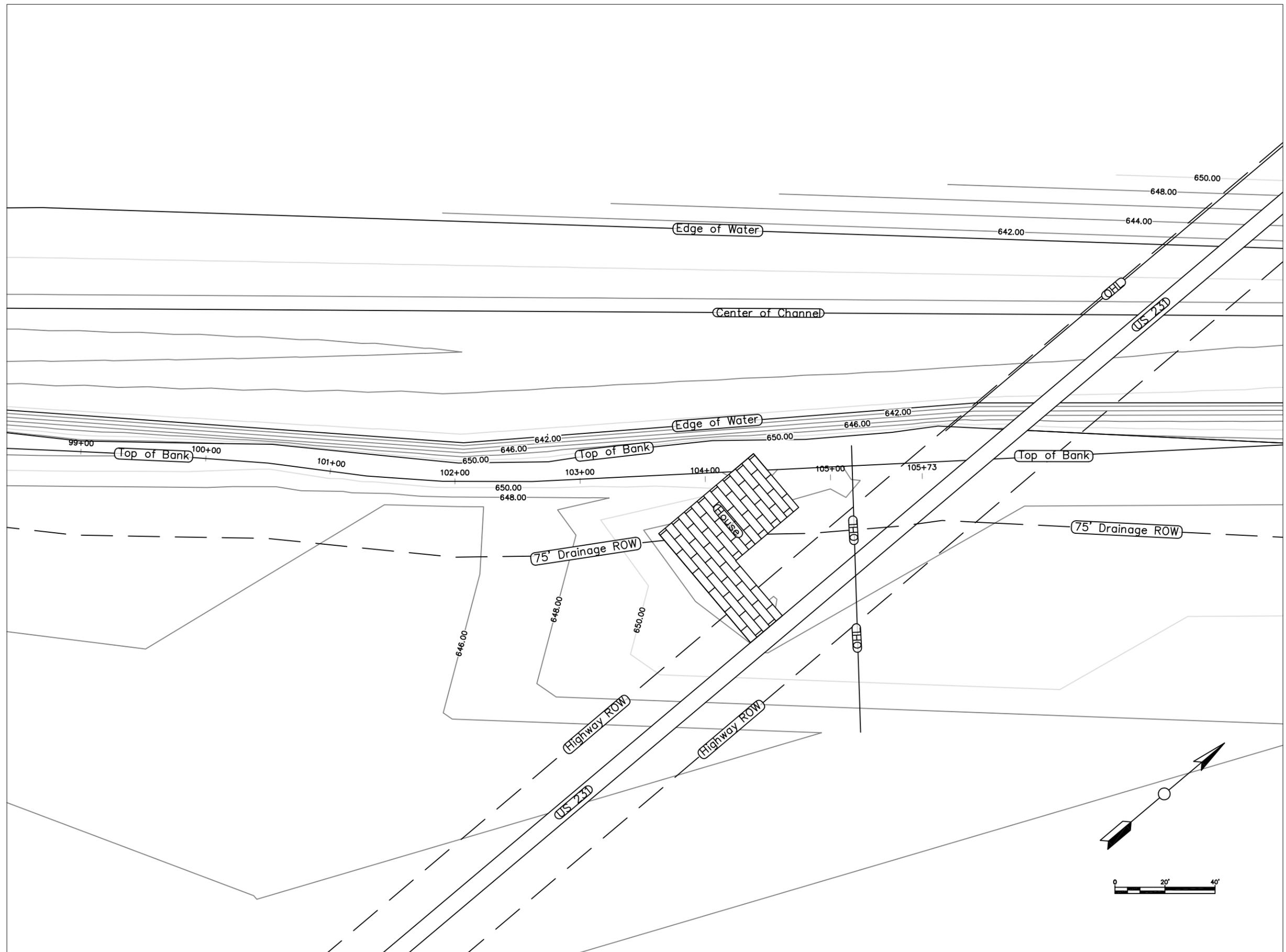
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 JASPER COUNTY SURVEYOR

Project Name and Address
 KANKAKEE RIVER

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| Project | KANKAKEE | Sheet | 10 |
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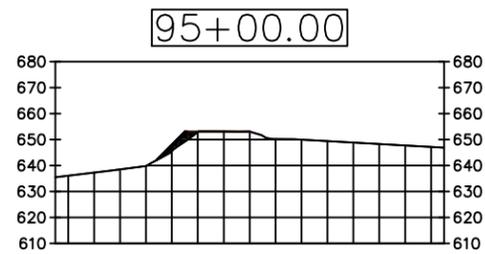
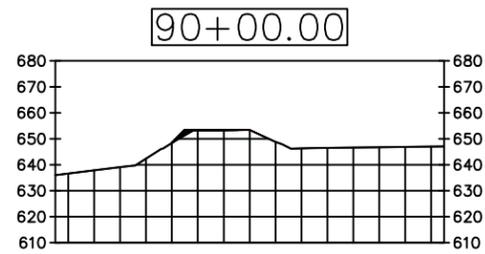
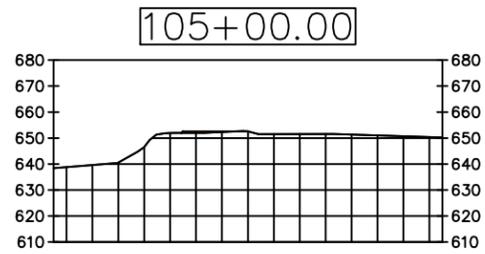
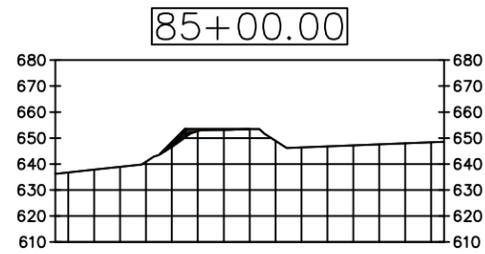
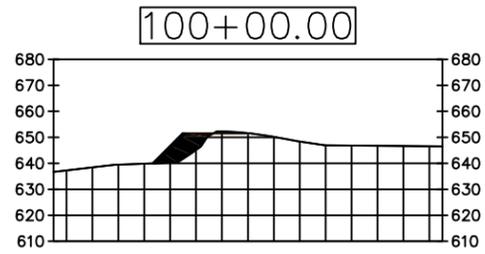
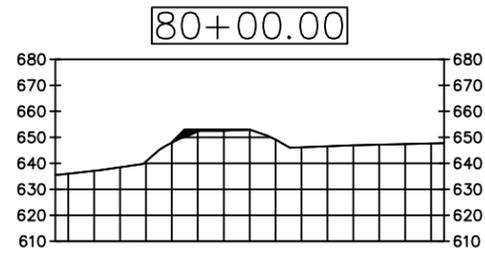
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Firm Name and Address
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Project Name and Address
 KANKAKEE RIVER

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| Project KANKAKEE | Sheet 11 |
| Date 8/4/2022 | |
| Scale | |



| KANKAKEE RIVER CLEAN FILL MATERIAL | | | |
|------------------------------------|------------------|-------------------|------------------------------|
| STATION | CUT AREA | TOTAL CUBIC YARDS | CUMULATIVE TOTAL CUBIC YARDS |
| 0+9.19 - 5+00 | 63.9598 SQ. FT. | 1184.4400 | 1184.4400 |
| 5+00 - 10+00 | 69.0996 SQ. FT. | 1279.6200 | 2,464.0600 |
| 10+00 - 15+00 | 109.8464 SQ. FT. | 2034.1900 | 4,498.2500 |
| 15+00 - 20+00 | 135.0886 SQ. FT. | 2501.6400 | 6,999.8900 |
| 20+00 - 25+00 | 115.7414 SQ. FT. | 2143.3600 | 9,143.2500 |
| 25+00 - 30+00 | 73.6402 SQ. FT. | 1363.7100 | 10,506.9600 |
| 30+00 - 35+00 | 100.9309 SQ. FT. | 1869.0900 | 12,376.0500 |
| 35+00 - 40+00 | 112.7113 SQ. FT. | 2087.2500 | 14,463.3000 |
| 40+00 - 45+00 | 66.6247 SQ. FT. | 1233.7900 | 15,697.0900 |
| 45+00 - 50+00 | 8.9646 SQ. FT. | 166.0100 | 15,863.1000 |
| 50+00 - 55+00 | 25.4224 SQ. FT. | 470.7900 | 16,333.8900 |
| 55+00 - 60+00 | 105.8834 SQ. FT. | 1960.8000 | 18,294.6900 |
| 60+00 - 65+00 | 23.9957 SQ. FT. | 444.3600 | 18,739.0500 |
| 65+00 - 70+00 | 37.5077 SQ. FT. | 694.5900 | 19,433.6300 |
| 70+00 - 75+00 | 82.0943 SQ. FT. | 1520.2600 | 20,953.8900 |
| 75+00 - 80+00 | 12.3012 SQ. FT. | 227.8000 | 21,181.6900 |
| 80+00 - 85+00 | 17.8906 SQ. FT. | 331.3100 | 21,513.0000 |
| 85+00 - 90+00 | 22.6405 SQ. FT. | 419.2700 | 21,932.2700 |
| 90+00 - 95+00 | 6.2440 SQ. FT. | 115.6300 | 22,047.9000 |
| 95+00 - 100+00 | 23.5723 SQ. FT. | 436.5200 | 22,484.4200 |
| 100+00 - 105+00 | 112.0518 SQ. FT. | 2075.0300 | 24,559.45 |

| KANKAKEE RIVER RIP-RAP ARMOURMENT | | | |
|-----------------------------------|-----------------|-------------------|------------------------------|
| STATION | CUT AREA | TOTAL CUBIC YARDS | CUMULATIVE TOTAL CUBIC YARDS |
| 0+9.19 - 5+00 | 14.8748 SQ. FT. | 275.4600 | 275.4600 |
| 5+00 - 10+00 | 12.8694 SQ. FT. | 238.3200 | 513.7800 |
| 10+00 - 15+00 | 15.8423 SQ. FT. | 293.3800 | 807.1600 |
| 15+00 - 20+00 | 15.7053 SQ. FT. | 290.8400 | 1,098.0000 |
| 20+00 - 25+00 | 15.9999 SQ. FT. | 296.2900 | 1,394.2900 |
| 25+00 - 30+00 | 14.2514 SQ. FT. | 263.9100 | 1,658.2000 |
| 30+00 - 35+00 | 12.3695 SQ. FT. | 229.0600 | 1,887.2600 |
| 35+00 - 40+00 | 15.5325 SQ. FT. | 287.6400 | 2,174.9000 |
| 40+00 - 45+00 | 14.5099 SQ. FT. | 268.7000 | 2,443.6000 |
| 45+00 - 50+00 | 8.3219 SQ. FT. | 154.1100 | 2,597.7100 |
| 50+00 - 55+00 | 4.7712 SQ. FT. | 88.3600 | 2,686.0700 |
| 55+00 - 60+00 | 12.2882 SQ. FT. | 227.5600 | 2,913.6300 |
| 60+00 - 65+00 | 6.5669 SQ. FT. | 121.6100 | 3,035.2400 |
| 65+00 - 70+00 | 14.1857 SQ. FT. | 262.7000 | 3,297.9400 |
| 70+00 - 75+00 | 13.6521 SQ. FT. | 252.8200 | 3,550.7600 |
| 75+00 - 80+00 | 7.4128 SQ. FT. | 137.2700 | 3,688.0300 |
| 80+00 - 85+00 | 4.4480 SQ. FT. | 82.3700 | 3,770.4000 |
| 85+00 - 90+00 | 8.6746 SQ. FT. | 160.6400 | 3,931.0400 |
| 90+00 - 95+00 | 4.1055 SQ. FT. | 76.0300 | 4,007.0700 |
| 95+00 - 100+00 | 10.0748 SQ. FT. | 186.5700 | 4,193.6400 |
| 100+00 - 105+00 | 11.0068 SQ. FT. | 203.8300 | 4,397.47 |

General Notes

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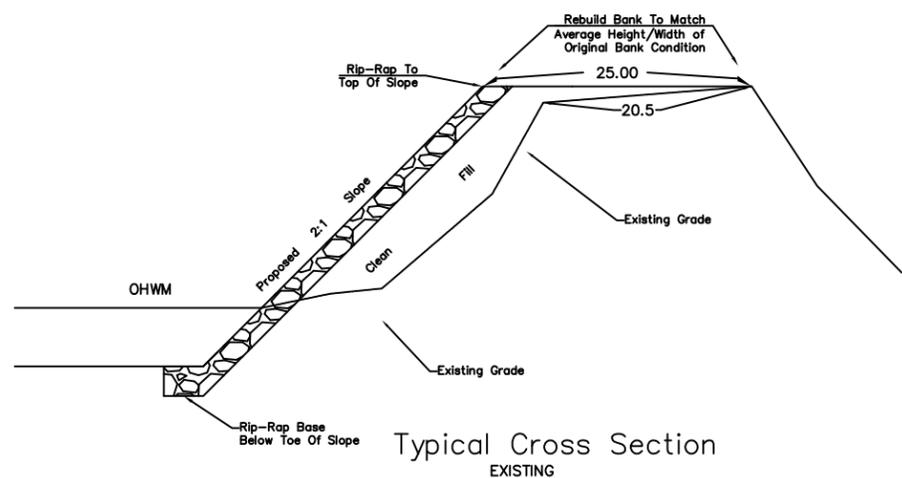
Firm Name and Address
 JASPER COUNTY SURVEYOR

Project Name and Address
 KANKAKEE RIVER

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| <small>Project</small> KANKAKEE RIVER | <small>Sheet</small> |
| <small>Date</small> 8/4/2022 | 13 |
| <small>Scale</small> NA | |

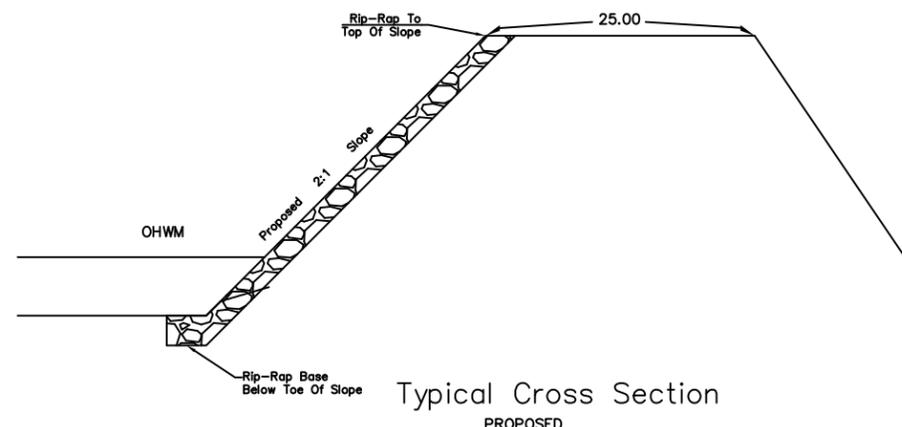
TYPICAL CROSS SECTION

Kankakee River Project



Typical Cross Section
EXISTING

Kankakee River Project



Typical Cross Section
PROPOSED

General Notes

| No. | Revision/Issue | Date |
|-----|----------------|------|
| | | |
| | | |

Firm Name and Address
JASPER COUNTY SURVEYOR

Project Name and Address
KANKAKEE RIVER

Project
KANKAKEE RIVER

Date
8/4/2022

Scale
NA

Sheet

14

KANKAKEE RIVER

