



US Army Corps
of Engineers
Pittsburgh District

Ohio River Navigation Charts

Pittsburgh, Pennsylvania to New Martinsville, West Virginia

January 2003

*The Bicentennial
Commemoration of the
Lewis and Clark
Corps of Discovery
2003-2006*

*The Beginning of the
Great Expedition...*

The Eastern Legacy

The Lewis and Clark Corps of Discovery was the first of the great explorations undertaken by the United States. The idea, the planning, and the journey began in the East.

*"Jefferson gave you the country. Lewis
and Clark showed you the way."
Elliott Coues*



From Trail Blazing to Walking on the Moon

When the English explorer, Alexander Mackenzie, published in 1801 an account of his explorations in the Northwest, the race to the unknown was on just as the race for space exploration took place in the 20th century.

There were fewer undiscovered secrets in the pursuit of a moon landing in 1969 than those hidden in the Far West when the two explorers –Meriwether Lewis and William Clark –and their party set out for the Pacific in 1803.

A great exploratory expedition is initiated long before the first footstep on the trail or the first oar dips into the water. Follow in the footsteps of Lewis and Clark as they prepared for their journey and explored the young America.

The Lewis and Clark Bicentennial Commemoration



Sites for the Lewis and Clark Expedition noted on the Ohio River Navigation Charts are based on historical references and are approximate locations. The misspellings are from Lewis' journal as he wrote them. In 1803, the year Lewis came down the river, it was particularly dry. Many of the sites he and his party passed are now underwater.

Meriwether Lewis journeyed down the Ohio River with boats and equipment and recruited men along the way for the western exploration. Clark joined him at the Falls of the Ohio in mid-October.

Bob Anderson (a descendant of expedition member George Shannon) has researched the sites noted on these charts. Shannon joined the expedition on trial in the Pittsburgh area. An informative resource about Lewis and Clark on the Ohio River is Gary Moulton's *The Journals of the Lewis and Clark Expedition*, volume 2.

The numbers listed with the information refer to the river chart number. There are three river charts for the Ohio River, and references made to one chart for the Monongahela River.

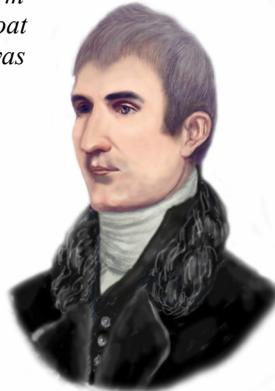


Chart #7 Monongahela River –Elizabeth, Pennsylvania

This is the general area of the Walker Boat Yard where some historians believe the keelboat

was built. The keelboat was 55' long with an 8' beam, 32' mast, and a shallow draft. The boat was modified at Camp Dubois to include a hold 31' long, a cabin at the stern with a deck on top, another 10' deck at the bow, and lockers with lids that could be raised for protection from attack.

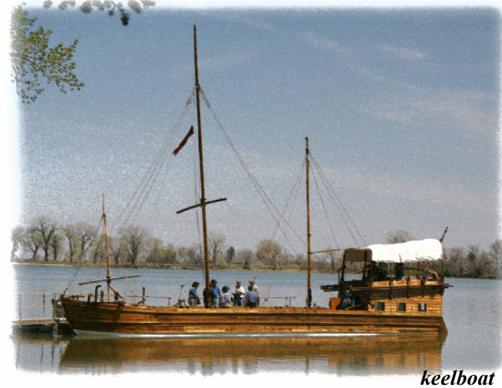
Lewis wrote to Jefferson that *"I was moste shamefully detained by the unpardonable negligence of my boat-builder. On my arrival at Pittsburgh, my calculation was that the boat would be in readiness by the 5th of August; this term however elapsed and the boat so far from being finished was only partially planked on one side."*



Meriwether Lewis

Chart #224 – Pittsburgh, Pennsylvania

August 31, 1803. Lewis wrote President Jefferson that *"it was not untill 7 O'Clock on the morning of the 31st Ultmo. that my boat was completed, she was instantly loaded, and at 10 A.M. on the same day I left Pittsburgh"*.



keelboat

On August 31, 1803, Meriwether Lewis recorded in his journal, *"left Pittsburgh this day at 11 o'clock with a party of 11 hands 7 of which are soldiers, a pilot and three young men on trial they having proposed to go with me throughout the voyage. Arrived at Bruno's Island 3 miles below halted a few minutes."*



Air Gun

Brunot Island

Lewis went on shore at the request of a gentleman and demonstrated his air gun. He fired it seven times for a distance of 55 yards *"with pretty good success."* One of the men on shore accidentally discharged the gun, and the ball passed through the hat of a woman 40 yards away. It grazed her temple and she was gushing blood. They thought she was dead, but she revived and was not seriously wounded to *"our enespressable satisfaction."*

McKees Rocks

August 31, 1803. Lewis noted in his journal, *"proceeded to a ripple of McKee's rock where we were obleged to get out all hands and lift the boat [keelboat] over about thirty yards; the river is extreemly low..."* (McKees Rocks is located near the mouth of Chartiers Creek.)

Chart #223 – Little Horsetail Riffle

September 1, 1803. The fog was so thick that drops of water fell from the trees like a gentle rain. Lewis waited until eight o'clock that morning to depart. At Little Horsetail Riffle it took two hours to pass with all hands laboring to effect a passage. Lewis wrote in his journal, *"the fogg is thickest and appears to rise from the face of the water like steem from boiling water – we passed the little horsetale ripple or riffle with much deficulty, all hands laboured in the water about two hours before we effected a passage..."*



Chart #221 – Woollery's Trap

September 1, 1803. They camped at Woollery's Trap, a riffle. (They may have camped on the tip of the island on the north bank.) After unloading all their goods and lifting the empty boat over the Big Horsetail Riffle, Lewis wrote in his journal, *"about 5 Ocock we reach the riffle called Woollery's trap, here after unloading again and exerting all our force we found it impracticable to get over, I employed a man with a team of oxen with the assistance of which we at length got off we put in and remained all night having made only ten miles this day."*

Chart #218 & 219 – Site of Ft. Legionville

William Clark reportedly received his military training at this fort established by Anthony Wayne.



September 2, 1803. Lewis' crew had to get out of the boat and pull it over Logtown Riffle. Lewis commented on the *"rich land"* they saw that day. He also described, *"the hills on either side of the ohio are from 3 to 400 feet which running parallel to each other keep the general course of the river, at the distance of about two miles while the river pursuing a serpentine course between them alternately washes their bases. – thus leaving fine bottom land between itself and the hills in large boddys, and frequently in the form of a simecicles or the larger segment of a circle or horseshoe form."* Lewis also notes the leaves are starting to turn to fall colors.

Chart #216, 217 & 217A

September 3, 1803.

Thick fog delayed their travels. They passed by “Atkins’s” Riffle and the mouth of Beaver River (formed by the confluence of the Shenango and Mahoning Rivers and meeting the Ohio River in central Beaver County.) They anchored off the site of Ft. MacKintosh where Lewis discharged “one of my hands.”



Chart #216 – Beaver County, Pennsylvania Area

Lewis described the riffle about three miles below MacKintosh as the worst yet. They were “obliged to unload and drag over with horses.” Lewis and his men camped in this area on September 3, 1803; which side of the river is unknown.

Chart #213 – Georgetown Island

On September 4, 1803, fog delayed their departure. A boat sprung a leak and Captain Lewis bought a canoe (which also leaked) in the Georgetown Island area (near the state line). Lewis spent part of the day drying out his supplies and repairing the canoe.

Chart #212 & 213 – State Line

Lewis noted land cleared 60 feet wide to mark the state line. They camped about two miles below the state line of Virginia (West Virginia) and Pennsylvania near the mouth of Mill Creek opposite Little Beaver Creek. Lewis describes the water as so low and clear that they could see a great number of fish – sturgeon, bass, catfish, and pike.



Chart #206 – Browns Island

Lewis and his men camped on Browns Island, West Virginia on September 5, 1803.

Foggy again, Lewis recorded in his journal that they made 16 miles that day and camped at the head of Browns Island (near Weirton, West Virginia). Lewis noted, “it grew very dark and my canoes which had on board the most valuable part of my stores had not come up, ordered the trumpet to be sound and they answered.” (The tin trumpets purchased in Philadelphia were used for signaling on the expedition.) They bailed water out of the leaky canoes during the night.

Chart #204 – Steubenville, Ohio

Lewis described The area in his journal on September 6, 1803.



Ft. Steuben

“Stewbenville a small town situated on the Ohio in the state of Ohio about six miles above Charlestown in Virginia [West Virginia] and 24 above Wheeling – is small well built thriving place has several respectable families residing in it, five years since it was a wilderness—“

They passed Steubenville about two o’clock in the afternoon, and about two miles below the town, the men hoisted the sail but still needed oxen to pull them over the riffles.

Chart #203

Lewis camped south of Indian Cross Creek on September 6, 1803, “about a mile and a half further” downstream from Steubenville.

Chart #202 – Wellsburg, West Virginia

On September 7, 1803, Lewis passed the Mingo Indian village on that foggy morning. He described “a hansom bridge” at the “mouth of Buffaloe” and a “handsome little Village containing about forty houses” at Charlestown (now Wellsburg).



Patrick Gass, one of the sergeants of the expedition, lived in Wellsburg, died in 1870, and is buried in the hillside cemetery overlooking the town. He published a journal after his return. He outlived everyone else on the

expedition, and the house he built still stands on the corner of Tenth Street and Main across the street from the public library.

Chart #198 – Wheeling, West Virginia

Lewis noted in his journal the town of Wheeling and their campsite of September 7, 1803. Captain Lewis described Wheeling as “a pretty considerable Village contains about fifty houses and is the county town of Ohio [state of Virginia, now West Virginia]. It is situated on the east side of the river on an elevated bank; the landing is good, just below the town and on the same side big Wheeling creek emptys itself into the Ohio, on the point formed by this creek and the river stands an old stoccade fort [probably Ft. Fincastle renamed Ft. Henry], now gone to decay; this town is remarkable for being the point of embarkation for merchants and Emergrants who are about to descend the river, particularly if they are late in geting on and the water gets low as it most commonly is from the beginning of July to the last of September, the water from hence being much deeper and the navigation better than it is from Pittsburgh or any point above it—“

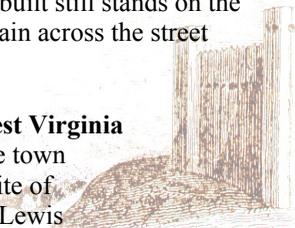


Chart #197 – Wheeling, West Virginia

On September 8, 1803, Captain Lewis wrote to President Jefferson. He purchased the red pirogue that was taken up the Missouri River on the expedition, and picked up goods shipped overland from Pittsburgh.



Red Pirogue

Lewis described, “my men were much fatieged and I concluded it would be better to give them a days rest and let them wash their cloths and exchange their flour for bread or bake their bread in a better manner than they had the means of baking it while traveling; dined with Colo. Rodney and his suit, in the evening they walked down to my boat and partook of some watermellons.”

He talked to a Dr. Patterson who wanted to make the western journey but failed to show up. The expedition left without the doctor.

Chart #195

Lewis stopped September 9, 1803, near Riley Run on the Ohio side of the river in Belmont County.

In his journal he recorded, “about the time we landed it began to rain very heard and continued to rain most powerfully all night with small intervals: had my perogues covered with oil-cloth, but the rain came down in such torrents that I found it necessary to have them bailed out freequently in the course of the night; in attending to the security of my goods I was exposed to the rain and got wet to the skin as I remained untill about twelve at night, when I wrung out my saturated clothes, put on a dry shirt turned into my birth; the rain was excessively could [cold] for the season of the year—“

Chart #194 – Moundsville, West Virginia

On September 10, 1803, Lewis described the Indian mound at Moundsville. “I landed on the east side of R. and went on shore to view a remarkable artifical mound of earth called by the people in this neighborhood the Indian grave. – This remarkable mound of earth stands on the east bank of the Ohio 12 miles below Wheeling and about 700 paces from the river, as the land is not cleared the mound is not visible from the river.”



“The mound is nearly a regular cone 310 yards in circumference at its base & 65 feet high terminating in a blunt point whose diameter is 30 feet, this point is concave being depressed about five feet in the center, around the base runs a ditch 60 feet in width which is broken or intersected by a ledge of earth raised as high as the outer bank of the ditch on the N.W. side, this bank is about 30 feet wide and appears to have formed the entrance to fortified mound – near the summit of this mound grows a white oak tree whose girth is 13 ½ feet, from the aged appearance of this tree I think its age might reasonably be calculated at 300 years, the whole mound is covered with large timber, sugar tree, hickory, poplar, red and white oak, etc—“

Chart #189 – Clarington, Ohio Area

Lewis reported, “we got on twenty four miles this day. We passed some bad riffles but got over them without the assistance of cattle...” They camped on September 10, 1803 just above Sunfish Creek (located across the river from Clarington, Ohio).

Lewis’ campsite is apparently underwater on the east side of the river almost across from Sunfish Creek. The next day, Lewis set out at sunrise and entered the “long reach.” He described five islands from three to two miles in length each, and a “number of squirrels swimming the Ohio.”

He made his dog, Seaman, “take as many each day as I had occasion for, they were fat and I thought them when fried a pleasant food – many of these squirrels were black, they swim very light on the water and make pretty good speed –.”



Chart #184 – Sistersville, West Virginia

Lewis passed through this area on September 11, 1803.

Chart #183 – The Longreach

George Washington referred to this area as the Longreach. It stretches from about mile 133 to mile 149.

Chart #182 – Grandview Island

Lewis’ campsite on September 11, 1803, was just below Grandview Island in the beautiful Longreach area.



Chart #181

Indians used this high bluff overlooking the Longreach as a lookout point. It is now part of Wayne National Forest.

Chart #178 – Wilson’s Island

The men dragged their boat through the gravel-bottom channel at the lower end of the Longreach area. Lewis noted a campsite nine miles above Marietta on September 12, 1803.

#177 – Marietta, Ohio

On September 13, 1803, Lewis arrived at Marietta, Ohio. He observed many pigeons overhead and squirrels crossing the river. He dismissed two hands –Wilkinson and Montgomery. He described in his journal –“this evening was visited by Colo. Green the Postmaster at this place, he appears to be much of a gentleman and an excellent republican.” He also noted that two men got drunk and he had to find them in the morning and bring them back to the boat delaying their departure until 11 o’clock.

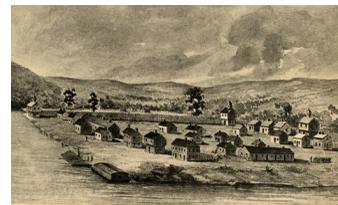


Chart #174 – Belpre, Ohio

Lewis described his Newfoundland dog, Seaman, catching several squirrels, and camping north of Belpre, on September 14, 1803 on the northwest shore in Washington County, Ohio.

Lewis noted in his journal passing the mouth of the Little Kanawha, and the considerable settlement in what is now the Parkersburg area, and “Bellpray” (Belpre, Ohio or perhaps Belleville, West Virginia)—“a yankee settlement.”

Chart #171 – Lee Creek

Lewis camped near Lee Creek in Wood County, West Virginia, on September 15, 1803. He noted a large number of squirrels in the Indian Run area.



Chart #170 – Little Forked Run

Captain Lewis noted a large number of squirrels crossing the river in the Little Forked Run area. There were several riffles in the area where Lewis and his men had to lift the boats.

Chart #168 – Buffington Island

On September 16, 1803, Lewis recorded in his journal, “thermometer this morning in the air 54 [degrees] in the water 72 [degrees] a thick fog which continued so thick that we did not set out until 8 o’clock in the morning.” He noted in his journal that he shot some squirrels while his men got the boats through the riffles at Buffington Island. They went to the north end, navigating by hugging the right bank going down the river.

Chart #167 – Ravenswood, West Virginia

Lewis camped in the Ravenswood area on September 17, 1803. They spent the day drying their equipment and oiling their guns.

Chart #164 – Letart Falls

Lewis passed Letart Falls about nine o’clock in the morning on September 18, 1803. The descent at the falls was “a little more than 4 four feet in two hundred fifty yards.”

Chart #128 – Maysville, Kentucky

Squire Boone family history indicates Lewis may have met John Colter at Boone’s Tavern in Maysville and enlisted him to go on the expedition.

Chart #115 – Cincinnati, Ohio

Lewis camped in the area that is now near the Reds’ baseball field and the Ft. Washington area in downtown Cincinnati.



Ft. Washington

Chart #105 – Big Bone Lick

While in the Cincinnati area, Lewis journeyed to Big Bone Lick to the south. President Jefferson wanted Lewis to examine and collect specimens from that area. Lewis wrote Jefferson on October 3, 1803, about his observations. He described one tusk “measuring one foot ten inches in circumference and five feet eight inches in length.”



Big Bone Lick

Jefferson had instructed Lewis to record plants and animals they saw on the journey and report their findings. He wanted to know if any of these animals still lived in the western regions.

Chart #92 – Bethlehem, Indiana

Local lore contends that Lewis may have camped about 30 miles above the falls in the Bethlehem, Indiana area in October 1803.

Chart #87 – Louisville, Kentucky

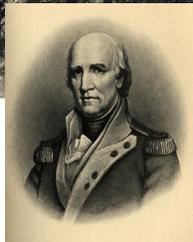


Locust Grove

Additional Lewis and Clark related sites in the Louisville area include Mulberry Hill, Trough Spring, the Filson Historical Society, and the Louisville waterfront.

Chart #85 – Falls of the Ohio

The Falls of the Ohio State Park, Indiana, has two Lewis and Clark sites – the Interpretive Center overlooking the fossil reef of the Falls and the George Rogers Clark Home Site.



General George Rogers Clark



A member of the expedition, Sergeant Charles Floyd, was believed to have been born around 1782 to the south of Louisville on Beargrass Creek at Floyd’s Station. The springhouse and family cemetery remain.

Charles Floyd Additional Lewis and Clark related sites in Jeffersonville and Clarksville, Indiana area include the Clarksville War Memorial and the Carnegie Center for Art and History. To the north, William Bratton, a member of the Corps of Discovery, is buried at Waynetown, Indiana. [Information source: Falls of the Ohio Lewis and Clark Bicentennial Committee.]

Lewis arrived on October 14, 1803, at the Falls of the Ohio area. William Clark was living in the area with his older brother, George Rogers Clark, while he waited for Lewis to arrive.



William Clark

Lewis and Clark recruited, trained, and outfitted their men in this area for the western journey. Lewis and Clark departed on October 26, 1803.



Chart #80 – West Point, Kentucky

Expedition member, John Shields, lived in this area near the mouth of Salt River when he was recruited for the Corps of Discovery. His home site was in the Elm and Third Street area. When he returned from the expedition, he settled near Corydon.



Kentucky View of the Ohio River

Other expedition members from this general area included the Field brothers, Joseph and Reubin. They grew up in the Valley Station area south of Louisville. [Information source: Falls of the Ohio Lewis and Clark Bicentennial Committee.]



Ft. Massac

Chart #10 – Ft. Massac, Illinois

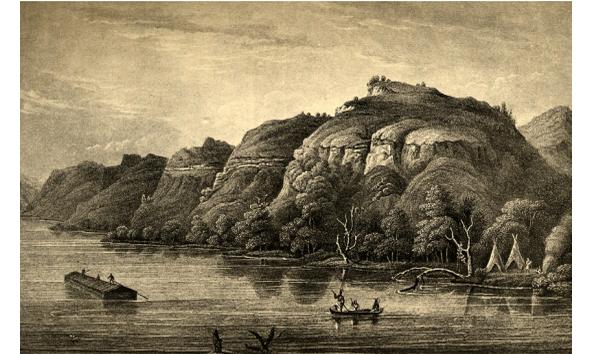
Lewis and Clark reached Ft. Massac on November 11, 1803 and left about four o’clock in the afternoon on November 13, 1803. While at the fort, they hired George Drouillard as an Indian interpreter. They agreed to pay him “25 dollards pr. Month for his services.”

Chart #9 – Metropolis, Illinois Area

On November 13, 1803, Lewis and Clark camped south of the Metropolis, Illinois area.

Chart #5

About 12 noon on November 14, 1803, Lewis and Clark passed by Wilkinsonville (established about 1787 as an outpost of Ft. Massac and probably abandoned by 1804.) Lewis described a “great chain of rocks stretching in an oblique manner across the Oho.” It is located in the area that is now the site of Locks and Dam 53.



Mississippi River View

Chart #1 – Confluence of the Ohio and Mississippi Rivers

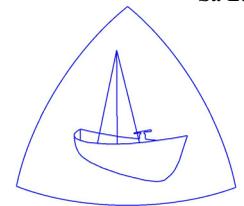
Lewis and Clark landed at the junction of the Ohio and Mississippi Rivers in the evening of November 14, 1803. Here the captains practiced using their equipment to measure latitude and longitude, an important task in mapping the west.

Departing on November 20, they headed up the Mississippi River not returning to the Ohio River area until 1806.



St. Louis

Sites for the Lewis and Clark Expedition are noted on the Ohio River charts by this symbol.



NAVIGATION CHARTS
OHIO RIVER
U.S. ARMY ENGINEER DISTRICT, PITTSBURGH
NEW MARTINSVILLE, WV TO PITTSBURGH, PA

U.S. ARMY ENGINEER DISTRICT, PITTSBURGH
WILLIAM S. MOORHEAD FEDERAL BUILDING
1000 LIBERTY AVENUE
PITTSBURGH, PA 15222-4186

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Revised: 1 January 2002

The following applies for Charts 187 through 219:

The source mapping used to develop and portray the information shown on these charts were compiled from aerial photography exposed in 1999. The source mapping is referenced to the State Plane Coordinate System, Pennsylvania South Zone, NAD 83 (86). The Geographic Coordinates shown were previously developed from conversion software routines and projected onto these charts. The grid annotated on these charts are for general reference and not to be used for precise location of features.

The following applies for Charts 220 through 224:

The source mapping used to develop and portray the information shown on these charts were compiled from aerial photography exposed in 1992 and 1993. The Geographic Coordinates represented were converted from the source mapping Horizontal Grid Data, State Plane Coordinate System, Pennsylvania South Zone, NAD 83 (86) utilizing Conversion software. The grid annotated on these charts are for general reference and not to be used for precise location of features.

The minimum channel depth depicted on these charts was developed from soundings data obtained on June 1992 for mile 0 to mile 0.6 and on May thru July 2000 for mile 0.6 to mile 126.4.

The general locations of AIDS TO NAVIGATION are shown, as they existed on the last editing date of this book. They may subsequently have been moved, destroyed or discontinued. They should in no event be used to fix the position of a vessel.

CALL 412-936-1212 TO HEAR HAZARDOUS BOATING CONDITIONS EXIST.

NAVIGATION CHARTS AND NOTICES

Navigation charts for the Ohio, Allegheny and Monongahela Rivers within the boundaries of the Pittsburgh District are available on our web site www.lrp.usace.army.mil for viewing and/or printing. Information on how to order spiral bound copies of navigation charts, as well as links to access navigation charts outside the Pittsburgh District boundaries, are also available on our web site.

Notices to Navigation Interests, containing data on channel conditions and location of dredges, are issued as occasions demand. Pittsburgh District's Notices to Navigation Interests are available on our web site www.lrp.usace.army.mil for viewing and printing. Interested parties, who send a request to:

Chief, Regulatory Branch
U.S. Army Engineer District, Pittsburgh
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

are placed on a mailing list to receive either electronic or printed copies of these notices.

OHIO RIVER NAVIGATION CHARTS

Louisville District: Charts 1-122
Huntington District: Charts 122-186
Pittsburgh District: Charts 187-224

MILE POINTS

Mile points are shown on the charts at one mile intervals, with figures designating mileage above (The Point) Pittsburgh, Pennsylvania.

BUOYS

Buoys used to mark channels in the Mississippi River System conform to the standard lateral system of buoyage on the Western Rivers of the United States. Generally, the unlighted buoys in the Allegheny, Monongahela and Ohio Rivers are equipped with radar reflectors. All buoys are equipped with reflective material; buoys on the left descending side of the channel reflect red; buoys on the right descending side of the channel reflect green.

GAGES

All gages read 9 feet at normal pool level, except as otherwise noted on charts. All elevations based on N.G.V.D. (National Geodetic Vertical Datum).

PERMITS-JURISDICTION

In the administration of laws enacted by Congress for the protection and preservation of navigation and the navigable waters of the United States, the U.S. Army Corps of Engineers exercises jurisdiction over the Allegheny, Monongahela and Ohio Rivers. Work or structures in, under or over the Allegheny, Monongahela and Ohio Rivers between the limits of ordinary high water lines on both banks of the stream require prior authorization. Inquiries regarding permits for such work or structures should be addressed to:

Chief, Regulatory Branch
U.S. Army Engineer District, Pittsburgh
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

or may be made by telephone to 412-395-7152. The permit application form is available on our web site www.lrp.usace.army.mil.

GENERAL NOTES NAVIGATION CHARTS OHIO RIVER

U.S. ARMY ENGINEER DISTRICT, PITTSBURGH
Revised: 1 January 2002

REGULATIONS

PRESCRIBED BY THE SECRETARY OF THE ARMY FOR THE OHIO AND MISSISSIPPI RIVERS, ABOVE CAIRO, IL, AND THEIR TRIBUTARIES; USE, ADMINISTRATION AND NAVIGATION

THE LAW

Section 7 of the River and harbor Act of August 8, 1917, provides as follows:

"That it shall be the duty of the Secretary of War to prescribe such regulations for the use, administration, and navigation of the navigable waters of the United States as in his judgment the public necessity may require for the protection of life and property, or of operations of the United States in channel improvement, covering all matters not specifically delegated by law to some other executive department. Such regulations shall be posted, in conspicuous and appropriate places, for the information of the public; and every person and every corporation which shall violate such regulations shall be deemed guilty of a misdemeanor and, on conviction thereof in any district court of the United States within those territorial jurisdiction such offense may have been committed, shall be punished by a fine not exceeding \$500, or by imprisonment (in the case of a natural person) not exceeding six months, in the discretion of the court."

In pursuance of the law above quoted, the following regulations were prescribed to govern the use, administration, and navigation of the Ohio River above Cairo, Ill., and its tributaries.

207.300 Ohio River, above Cairo, Ill., and their tributaries; use, administration, and navigation.

(a) Authority of Lockmasters. The lockmaster shall be charged with the immediate control and management of the lock, and of the area set aside as the lock area, including the lock approach channels. He shall see that all laws, rules, and regulations for the use of the lock and lock area are duly complied with, to which end he is authorized to give all necessary orders and directions in accordance therewith, both to employees of the Government and to any and every person within the limits of the lock or lock area, whether navigating the lock or not. No one shall cause any movement of any vessel, boat, or other floating thing in the lock or approaches except by or under the direction of the lockmaster or his assistant. In the event of an emergency, the lockmaster may

depart from these regulations as he deems necessary. The lockmasters shall also be charged with the control and management of Federally constructed mooring facilities.

(b) Safety Rules for Vessels Using Navigation Locks. The following safety rules are hereby prescribed for vessels in the locking process, including the act of approaching or departing a lock:

(1) Tows with Flammable or Hazardous Cargo Barges, Loaded or Empty.

(i) Stripping barges or transferring cargo is prohibited.

(ii) All hatches on barges used to transport flammable or hazardous materials shall be closed and latched, except those barges carrying a gas-free certificate.

(iii) Spark-proof protective rubbing fenders ("possums") shall be used.

(2) All Vessels.

(i) Leaking vessels may be excluded from locks until they have been repaired to the satisfaction of the lockmaster.

(ii) Smoking, open flames, and chipping or other spark-producing activities are prohibited on deck during the locking cycle.

(iii) Painting will not be permitted in the lock chamber during the locking cycle.

(iv) Tow speeds shall be reduced to a rate of travel such that the tow can be stopped by checking should mechanical difficulties develop. Pilots should check with the individual lockmasters concerning prevailing conditions. It is also recommended that pilots check their ability to reverse their energies prior to beginning an approach. Engines shall not be turned off in the lock until the tow has stopped and been made fast.

(v) U.S. Coast Guard Regulations require all vessels to have on board life saving devices for prevention of drowning. All crew members of vessels required to carry work vests (life jackets) shall wear them during a lockage, except those persons in an area enclosed with a handrail or other device which would reasonably preclude the possibility of falling overboard. All deckhands

handling lines during locking procedures shall wear a life jacket. Vessels not required by Coast Guard Regulations to have work vests aboard shall have at least the prescribed life saving devices, located for ready access and use if needed. The lockmaster may refuse lockage to any vessel which fails to conform to the above.

(c) Reporting of Navigation Incidents. In furtherance of increased safety on waterways the following safety rules are hereby prescribed for all navigation interests:

(1) Any incident resulting in uncontrolled barges shall immediately be reported to the nearest lock. The report shall include information as to the number of loose barges, their cargo, and the time and location where they broke loose. The lockmaster or locks shall be kept informed of the progress being made in bringing the barges under control so that he can initiate whatever actions may be warranted.

(2) Whenever barges are temporarily moored at other than commercial terminals or established fleeting areas, and their breaking away could endanger a lock, the nearest lock shall be so notified, preferably the downstream lock.

(3) Sunken or sinking barges shall be reported to the nearest lock both downstream and upstream of the location in order that other traffic passing these points may be advised of the hazards.

(4) In the event of an oil spill, notify the nearest lock downstream, specifying the time and location of the incident, type of oil, amount of spill, and what recovery or controlling measures are being employed.

(5) Any other activity on the waterways that could conceivably endanger navigation or a navigation structure shall be reported to the nearest lock.

(6) Whenever it is necessary to report an incident involving uncontrolled, sunken or sinking barges, cargo in the barges shall be accurately identified.

(d) Precedence at Locks.

(1) The vessel arriving first at a lock shall normally be first to lock through, but precedence shall be given to vessels belonging to the United States. Licensed commercial passenger vessels

operating on a published schedule or regularly operating in the "for hire" trade shall have precedence over cargo tows and like craft.

Commercial cargo tows shall have precedence over recreational craft, except as described in paragraph (f).

(2) Arrival posts or markers may be established above and/or below the locks. Vessels arriving at or opposite such posts or markers will be considered as having arrived at the locks within the meaning of this paragraph. Precedence may be established visually or by radio communication. The lockmaster may prescribe such departure from the normal order of precedence as in his judgment is warranted to achieve best lock utilization.

(e) Unnecessary Delay at Locks. Masters and pilots must use every precaution to prevent unnecessary delay in entering or leaving locks. Vessels failing to enter locks with reasonable promptness when signaled to do so shall lose their turn. Rearranging or switching of barges in the locks or in approaches is prohibited unless approved or directed by the lockmaster. This is not meant to curtail "jackknifing" or set-overs where normally practiced.

(f) Lockage of Recreation Craft.

In order to fully utilize the capacity of the lock, the lockage of recreational craft shall be expedited by locking them through with commercial craft, provided that both parties agree to joint use of the chamber. When recreational craft are locked simultaneously with commercial tows, the lockmaster will direct, whenever practicable, that the recreational craft enter the lock and depart while the tow is secured in the lock. Recreational craft will not be locked through with vessels carrying volatile cargoes or other substances likely to emit toxic or explosive vapors. If the lockage of recreational craft can not be accomplished within the time required for three other lockages, a separate lockage of recreational craft shall be made. Recreational craft operators are advised that many locks have a pull chain located at each end of the lock which signals the lockmaster that lockage is desired.

(g) Simultaneous Lockage of Tows with Dangerous Cargoes. Simultaneous lockage of other rows with tows carrying dangerous cargoes or containing flammable vapors normally will only be permitted when there is agreement between the lockmaster and both vessel masters that the simultaneous lockage can be executed safely. He shall make a separate decision each time such action seems safe and appropriate, provided:

(1) The first vessel or tow in and the last vessel out are secured before the other enters or leaves.

(2) Any vessel or tow carrying dangerous cargoes is not leaking.

(3) All masters involved have agreed to the joint use of the lock chamber.

(h) Stations While Awaiting Lockage. Vessels awaiting their turn to lock shall remain sufficiently clear of the structure to allow unobstructed departure for the vessel leaving the lock. However, to the extent practicable under the prevailing conditions, vessels and tows shall position themselves so as to minimize approach time when signaled to do so.

(i) Stations While Awaiting Access Through Navigable Pass. When navigable dams are up or are in the process of being raised or lowered, vessels desiring to use the pass shall wait outside the limits of the approach points unless authorized otherwise by the lockmaster.

(j) Signals. Signals from vessels shall ordinarily be by whistle; signals from locks to vessels shall be by whistle, another sound device, or visual means. When a whistle is used, long blasts of the whistle shall not exceed 10 seconds and short blasts of the whistle shall not exceed 3 seconds. Where a lock is not provided with a sound or visual signal installation, the lockmaster will indicate by voice or by the wave of a hand when the vessels may enter or leave the lock. Vessels must approach the locks with caution and shall not enter nor leave the lock until signaled to do so by the lockmaster.

The following lockage signals are prescribed:

(1) Sound Signals by Means of a Whistle. These signals apply at either a single lock or twin locks.

(i) Vessels desiring lockage shall on approaching a lock give the following signals at a distance of not more than one mile from the lock:

(a) If a single lockage only is required: One long blast of the whistle followed by one short blast.

(b) If a double lockage is required: One long blast of the whistle followed by two short blasts.

(ii) When the lock is ready for entrance, the lock will give the following signals:

(a) One long blast of the whistle indicates permission to enter the lock chamber in the case of a single lock or to enter the landward chamber in the case of twin locks.

(b) Two long blasts of the whistle indicates permission to enter the riverward chamber in the case of twin locks.

(iii) Permission to leave the locks will be indicated by the

following signals given by the lock:

(a) One short blast of the whistle indicates permission to leave the lock chamber in the case of a single lock or to leave the landward chamber in the case of twin locks.

(b) Two short blasts of the whistle indicates permission to leave the riverward chamber in the case of twin locks.

(iv) Four or more short blasts of the lock whistle delivered in rapid succession will be used as a means of attracting attention, to indicate caution, and to signal danger. This signal will be used to attract the attention of the captain and crews of vessels using or approaching the lock or navigating in its vicinity and to indicate that something unusual involving or requiring special caution is happening or is about to take place. When this signal is given by the lock, the captains and crews of vessels in the vicinity shall immediately become on the alert to determine the reason for the signal and shall take the necessary steps to cope with the situation.

(2) Lock Signal Lights. At locks where density of traffic or other local conditions make it advisable, the sound signals from the lock will be supplemented by signal lights. Flashing lights (showing a one-second flash followed by a two-second eclipse) will be located on or near each end of the land wall to control use of a single lock or of the landward lock of double locks. In addition, at double locks, interrupted flashing lights (showing a one-second flash, a one-second eclipse, followed by a three-second eclipse) will be located on or near each end of the intermediate wall to control use of the riverward lock. Navigation will be governed as follows:

Red Light. Locks cannot be made ready immediately. Vessel shall stand clear.

Amber Light. Lock is being made ready. Vessel may approach but under full control.

Green Light. Lock is ready for entrance.

Green and Amber. Lock is ready for entrance but gates cannot be recessed completely. Vessel may enter under full control and with extreme caution.

(3) Radio Communications. VHF-FM radios, operating on the FCC authorized Maritime Band, have been installed at all operational locks. Radio contact may be made by any vessel desiring passage. Commercial tows are especially requested to make contact at least one half hour before arrival in order that the pilot may be informed of current river and traffic conditions that may affect the safe passage of this tow.

All locks monitor 156.8 MHz (Ch. 16) and 156.65 MHz (Ch. 13) and can work 156.65 MHz (Ch.13) and 156.7 MHz (Ch. 14) Ch. 16 is the authorized call, reply and distress frequency, and locks are not permitted to work on this frequency except in an emergency involving the risk of immediate loss of life or property. Vessels may call and work Ch. 13, without switching, but are cautioned that vessel to lock traffic must not interrupt or delay Bridge to Bridge traffic which has priority at all times.

(k) Rafts. Rafts to be locked through shall be moored in such manner as not to obstruct the entrance of the lock and if to be locked in sections, shall be brought to the lock as directed by the lockmaster. After passing the lock the sections shall be reassembled at such distance beyond the lock as not to interfere with other vessels.

(l) Entrance to and Exit from Locks. In case two or more boats or tows are to enter for the same lockage, their order of entry shall be determined by the lockmaster. Except as directed by the lockmaster, no boat shall pass another in the lock. In no case will boats be permitted to enter or leave the locks until directed to do so by the lockmaster. The sides of all craft passing through any lock shall be free from projections of any kind which might injure the lock walls. All vessels shall be provided with suitable fenders, and shall be used to protect the lock and guide walls until it has cleared the lock and guide walls.

(m) Mooring.

(1) At Locks.

(i) All vessels when in the locks shall be moored as directed by the lockmaster. Vessels shall be moored with bow and stern lines leading in opposite directions to prevent the vessels from "running" in the lock. All vessels will have one additional line available on the head of the tow for emergency use. The pilothouse shall be attended by qualified personnel during the entire locking procedure. When the vessel is securely moored, the pilot shall not cause movement of the propellers except in emergency or unless directed by the lockmaster. Tying to lock ladders is strictly prohibited.

(ii) Mooring of unattended or nonpropelled vessels or small craft at the upper or lower channel approaches will not be permitted within 1200 feet of the lock.

(2) Outside of Locks.

(i) No vessel or other craft shall regularly or permanently moor in any reach of a navigation channel. The approximate centerline

of such channels are as marked as the sailing line on the Corps of Engineers' navigation charts. Nor shall any floating craft, except in an emergency, moor in any narrow or hazardous section of the waterway. Furthermore, all vessels or other craft are prohibited from regularly or permanently mooring in any section of navigable waterways which are congested with commercial facilities or traffic unless it is moored at facilities approved by the Secretary of the Army or his authorized representative. The limit of congested areas shall be marked on Corps of Engineers' navigation charts. However, the District Engineer may authorize in writing exceptions to any of the above if, in his judgment, such mooring would not adversely affect navigation and anchorage.

(ii) No vessel or other craft shall be moored to railroad tracks, to riverbanks in the vicinity of railroad tracks when such mooring threatens the safety of equipment using tracks, to telephone poles or power poles, or to bridges or similar structures used by the public.

(iii) Except in case of great emergency, no vessel or craft shall anchor over revetted banks of the river, and no floating plant other than launches and similar small craft shall land against banks protected by revetment except a regular commercial landings. In all cases, every precaution to avoid damage to the revetment works shall be exercised. The construction of log rafts along matted or paved banks or the tying up and landing of log rafts against such banks shall be performed in such a manner as to cause no damage to the mattress work or bank paving. Generally, mattress work extends out into the river 600 feet from the low water line.

(iv) Any vessel utilizing a federally constructed mooring facility (e.g., cells, buoys, anchor rings) at the point designated on the current issue of the Corps' navigation charts shall advise the lockmaster at the nearest lock that from point by the most expeditious means.

(n) Draft of Vessels. No vessel shall attempt to enter a lock unless its draft is at least three inches less than the least depth of water over the guard sills, or over the gate sill if there be no guard sills. Information concerning controlling depth over sills can be obtained from the lockmaster at each lock or by inquiry at the office of the district engineer of the district in which the lock is located.

(o) Handling Machinery. No one but employees of the United

States shall move any lock machinery except as directed by the lockmaster. Tampering or meddling with the machinery or other parts of the lock is strictly forbidden.

(p) Refuse in Locks. Placing or discharging refuse of any description into the lock, on lock walls or esplanade, canal or canal bank is prohibited.

(q) Damage to Locks or Other Work. To avoid damage to plant and structures connected with the construction or repair of locks and dams, vessels passing structures in the process of construction or repair shall reduce their speed and navigate with special caution while in the vicinity of such work. The restrictions and admonitions contained in these regulations shall not affect the liability of the owners and operators of floating craft for any damage to locks or other structures caused by the operation of such craft.

(r) Trespass on Lock Property. Trespass on locks or dams or other United States property pertaining to the locks or dams is strictly prohibited except in those areas specifically permitted. Parties committing any injury to the locks or dams or to any part thereof will be responsible therefore. Any person committing a willful injury to any United States property will be prosecuted. No fishing will be permitted from lock walls, guide walls, or guard walls of any lock or from any dam except in areas designated and posted by the responsible District Engineer as fishing areas. Personnel from commercial and recreational craft will be allowed on the lock structure for legitimate business reasons: e.g., crew changes, emergency phone calls, etc.

(s) Restricted Areas at Locks and Dams. All waters immediately above and below each dam, as posted by the respective District Engineers, are hereby designated as restricted areas. No vessel or other floating craft shall enter any such restricted area at any time. The limits of the restricted areas at each dam will be determined by the responsible District Engineer and marked by signs and/or red flashing lights installed in conspicuous and appropriate places.

(t) Statistical Information.

(1) Masters of vessels shall furnish to the lockmaster such statistics of passengers or cargo as may be requested.

(2) The owners or masters of vessels sunk in the navigable waters of the United States shall provide the appropriate District Engineer with a copy of the sunken vessel report furnished to the

U.S. Coast Guard Marine Inspection Office in accordance with Code of Federal Regulations Title 33 Subpart 64.10-1.

(u) Operations during High Water and Floods in Designated Vulnerable Areas. Vessels operating on these waters during periods when river stages exceed the level of "ordinary high water", as designated on Corps of Engineers' navigation charts, shall exercise reasonable care to minimize the effect of their bow waves and propeller washes on river banks; submerged structures or habitations; terrestrial growth such as trees and bushes; and manmade amenities that may be present. Vessels shall operate carefully when passing close to levees and other flood protection works, and shall observe minimum distance from banks which may be prescribe from time to time in Notices to Navigation Interests. Pilots should exercise particular care not to direct propeller wash at river banks, levees, revetments, structures or other appurtenances subject to damage from wave action.

(v) Navigation Lights for Use at All Locks and Dams.

(1) At locks at all fixed dams and at locks at all movable dams when the dams are up so that there is no navigable pass through the dam, the following navigation lights will be displayed during hours of darkness.

(a) Three green lights visible through an arc of 360° arranged in a vertical line on the upstream end of the river (guard) wall unless the intermediate wall extends farther upstream. In the latter case, the lights will be placed on the upstream end of the intermediate wall.

(b) Two green lights visible through an arc of 360° arranged in a vertical line on the downstream end of the river (guard) wall unless the intermediate wall extends farther downstream. In the latter case, the lights will be placed on the downstream end of the intermediate wall.

(c) A single red light, visible through an arc of 360° on each end (upstream and downstream) of the land (guide) wall.

(2) At movable dams when the dam has been lowered or partly lowered so that there is an unobstructed navigable pass through the dam, the navigation lights indicated in the following paragraphs will be displayed during hours of darkness until lock walls and weir piers are awash.

(a) Three red lights visible through an arc of 360° arranged in a vertical line on the upstream end of the river (guard) wall.

(b) Two red lights visible through an arc of 360° arranged in a vertical line on the downstream end of the river (guard) wall.

(c) A single red light visible through an arc of 360° on each end (upstream and downstream) of the land (guide) wall.

(3) After lock walls and weir piers are awash they will be marked as prescribed in paragraph (x) below.

(4) If one or more bear traps or weirs are open or partially open, and may cause a set in current conditions at the upper approach to the locks, this fact will be indicated by displaying a white circular disk 5 feet in diameter, on or near the light support on the upstream end of the land (guide) wall during the hours of daylight, and will be indicated during hours of darkness by displaying a white (amber) light vertically under and 5 feet below the red light on the upstream end of the land (guide) wall.

(x) Buoys at Moveable Dams.

(1) Whenever the river (guard) wall of the lock and any portion of the dam are awash, and until covered by a depth of water equal to the project depth, the limits of the navigable pass through the dam will be marked by buoys located at the upstream and downstream ends of the river (guard) wall, and by a single buoy over the end or ends of the portion or portions of the dam adjacent to the navigable pass over which project depth is not available. A red nun-type buoy will be used for such structures located on the left-hand side (facing downstream) of the river and a green can-type buoy for such structures located on the right-hand side. Buoys will be lighted, if practicable.

(2) Where powerhouses or other substantial structures projecting considerably above the level of the lock wall are located on the river (guard) wall, a single red light located on top of one of these structures may be used instead of river wall buoys prescribed above until these structures are awash, after which they will be marked by a buoy of appropriate type and color (red nun or green can buoy) until covered by a depth of water equal to the project depth. Buoys will be lighted, if practicable.

(y) Vessels to Carry Regulations. A copy of these regulations shall be kept at all times on board each vessel regularly engaged in navigating the rivers to which these regulations apply. Copies may be obtained from any lock office or District Engineer's office on request. Masters of such vessels are encouraged to have on board copies of the current edition of appropriate navigation charts.

NOTE: These regulations are those in effect 31 July 1975.

EXTRACT FROM SECTIONS 15 AND 16 OF THE RIVER AND HARBOR ACT OF 1899

SECTION 15. That it shall not be lawful to tie up or anchor vessels or other craft in navigable channels in such a manner as to prevent or obstruct the passage of other vessels or other craft; or to sink, or permit or cause to be sunk, vessels or craft in navigable channels; or to float loose timber and logs, or to float what is known as sack rafts of timber and logs in streams or channels actually navigated by steamboats in such manner as to obstruct, impede, or endanger navigation. And whenever a vessel, raft, or other craft is wrecked and sunk in a navigable channel, it shall be the duty of the owner, lessee, or operator of such sunken craft to immediately mark it with a buoy or beacon during the day and a lighted lantern at night, and to maintain such marks until the sunken craft is removed or abandoned, and the neglect or failure of the said owner, lessee, or operator so to do shall be unlawful; and it shall be the duty of the owner, lessee, or operator of such sunken craft to commence the immediate removal of the same, and prosecute such removal diligently and failure to do so shall be considered as an abandonment of such craft, and subject the same to removal by the United States as hereinafter provided for (30 Stat. 1152; 33 U.S.C. § 409).

SECTION 16. That every person and every corporation that shall violate, or that shall knowingly aid, abet, authorize, or instigate a violation of the provisions of sections thirteen, fourteen, and fifteen of this Act shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine not exceeding twenty-five hundred dollars nor less than five hundred dollars, or by imprisonment (in the case of a natural person) for not less than thirty days nor more than one year, or by both such fine and imprisonment, in the discretion of the court, one-half of said fine to be paid to the person or persons giving information which shall lead to conviction (30 Stat. 1153; 33 U.S.C §411). And any and every master, pilot, and engineer, or person or persons acting in such capacity, respectively, on board of any boat or vessel who shall knowingly engage in towing any scow, boat, or vessel loaded with any material specified in section thirteen of this Act to any point or place or deposit or discharge in any harbor or navigable water, elsewhere than within the limits defined and permitted by the Secretary of War, or who shall willfully injure or destroy any work of the United States contemplated in section fourteen of this Act, or who willfully obstruct the channel of any waterway in the manner contemplated in section fifteen of this Act, shall be deemed guilty of a violation of this Act, and shall upon conviction be punished hereinbefore provided in this section, and shall also have his license revoked or suspended for a term to be fixed by the judge before whom tried and convicted. And any boat, vessel, scow, raft, or other craft used or employed in violating any of the provisions of sections thirteen, fourteen, and fifteen of this Act shall be liable for the pecuniary penalties specified in this section, and in addition thereto for the amount of the damages done by said boat, vessel, scow, raft, or other craft, which latter sum of the harbor or waterway in which the damage occurred, and said boat, vessel, scow, raft, or other craft may be proceeded against summarily by way of libel in any district court of the United States having jurisdiction thereof (30 Stat. 1153; 33 U.S.C § 412).

EXTRACT FROM SECTIONS 19 AND 20 OF THE RIVER AND HARBOR ACT OF 1899

SECTION 19. (a) That whenever the navigation of any river, lake, harbor, sound, bay, canal, or other navigable waters of the United States shall be obstructed or endangered by any sunken vessel, boat, watercraft, raft, or other similar obstruction, and such obstruction has existed for a longer period than thirty days, or whenever the abandonment of such obstruction can be legally established in a less space of time, the sunken vessel, boat, watercraft, raft, or other obstruction shall be subject to be broken up, removed, sold or otherwise disposed of by the Secretary of War at his discretion, without liability for any damage to the owners of the same; PROVIDED, that in his discretion, the Secretary of War may cause reasonable notice of such obstruction of not less than thirty days, unless the legal abandonment of the obstruction can be established in a less time, to be given by publication, addressed "To whom it may concern", in a newspaper published nearest to the locality of the obstruction, requiring the removal thereof; AND PROVIDED ALSO, that the Secretary of War may, in his discretion, at or after the time of giving such notice, cause sealed proposals to be solicited by public advertisement, giving reasonable notice of less than ten days, for the removal of such obstructions as soon as possible after the expiration of the above specified thirty days' notice, in case it has not in the meantime been so removed, these proposals and contracts, at his discretion, to be conditioned that such vessel, boat, watercraft, raft, or other obstruction, and all cargo and property contained therein, shall become the property of the contractor, and the contract shall be awarded to the bidder making the proposition most advantageous to the United States; PROVIDED, that such bidder shall give satisfactory security to execute the work; PROVIDED FURTHER, that any money received from the sale of any such wreck, or from any contractor for the removal of wrecks, under this paragraph shall be covered into the Treasury of the United States (30 Stat. 1154; 33 U.S.C. § 414).

(b) The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the cost of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered from the owner, lessee, or operator of such vessel pursuant to this sub section to recover costs in excess of the proceeds from the sale or disposition of such vessel shall be deposited in the general fund of the Treasury of The United States.

SECTION 20. (a) That under emergency, in the case of any vessel, boat, watercraft, raft, or other similar obstruction, sinking or grounding, or being unnecessarily delayed in any Government canal or lock, or in any navigable waters mentioned in section nineteen, in such manner as to stop, seriously interfere with, or specially endanger navigation, in the opinion of the Secretary of War, or any agent of the United States to whom the Secretary may delegate proper authority, the Secretary of War or any such agent shall have the right to take immediate possession of such boat, vessel, or other watercraft, or raft, so far as to remove or to destroy it and to clear immediately the canal, lock, or navigable waters aforesaid of the obstruction thereby caused, using his best judgment to prevent any unnecessary injury; and no one shall interfere with or prevent such removal or destruction; PROVIDED, that the officer or agent charged with the removal or destruction of an obstruction under this section may in his discretion give notice in writing to the owners of any such obstruction requiring them to remove it; AND PROVIDE FURTHER, that the expense of removing any such obstruction as aforesaid shall be a charge against such craft and cargo; and if the owners thereof fail or refuse to reimburse the United States for such expense within thirty days after notification, then the officer or agent aforesaid may sell the craft or cargo, or any part thereof that may not have been destroyed in removal, and the proceeds of such sale shall be covered into the Treasury of the United States (30 Stat. 1154; 33 U.S.C. 4 415)

(b). The owner, lessee, or operator of such vessel, boat, watercraft, raft, or other obstruction as described in this section shall be liable to the United States for the cost of removal or destruction and disposal as described which exceeds the costs recovered under subsection (a). Any amount recovered from the owner, lessee, or operator of such vessel pursuant to this subsection to recover costs in excess of the proceeds from the sale or disposition of such vessel shall be deposited in the general fund of the Treasury of the United States.

JURISDICTIONAL LIMITS, ADDRESSES, AND TELEPHONE NUMBERS OF COAST GUARD OFFICIALS

The following information in the guidance and assistance of those persons required by law to, or who otherwise desire to contact, cognizant Coast Guard official.

U.S. COAST GUARD INFORMATION: Coast Guard units listed herein are under the operational and administrative control of:

Commanding Officer, Marine Safety Office 1430 Olive Street St. Louis, MO 63103	Rescue Coordination Center Aids to Navigation Branch Merchant Marine Safety Division	(314)425-4614 (314)425-4604 (314)425-4655	
Commanding Office, Marine Safety Office U.S. Coast Guard Suite 700 Kossman Bldg., Forbes Ave. & Stanwix St. Pittsburgh, PA 15222-4186		(412)644-5808	All Monongahela and Allegheny Rivers Ohio River to Mile 121.6 Youghiogheny River, 0 to Mile 3.0
Commanding Officer, Marine Safety Office U.S. Coast Guard P.O. Box 2412 Huntington, WV 27725		(304)529-5524	Mile 121.6 to 374.8
Commanding Officer, Marine Safety Office U.S. Coast Guard 4335 River Rd. Cincinnati, OH 45204		(513)684-3295	Mile 374.8 to 546.8
Commanding Officer, Marine Safety Office U.S. Coast Guard P.O. Box 1153, Room 360 Louisville, KY 40201		(502)582-5194 or 582-5195	Mile 546.4 to 867.3
Commanding Officer, Marine Safety Office U.S. Coast Guard P.O. Box 7509 Paducah, KY 42002-7509		(502)442-1621	Mile 867.3 to 981.0

After working hours and non-work days, marine accidents and deficiencies in aids to navigation may be reported to the following:

Coast Guard Group Ohio Valley U.S. Customs - Court House Snyder Building 601 West Broadway Street Louisville, KY 40202-2229	(502)582-6474
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CHARACTERISTICS OF LIGHTS

Left Descending Bank

F. W.	Fixed White
F. R.	Fixed Red
2 F. R.	Two Fixed Red
FL (2) W5s	Group Flashing White every 5 Sec. (2 flashes)
FL (2) W6s	Group Flashing White every 6 sec. (2 flashes)
FL (2) R5s	Group Flashing Red every 5 sec. (2 flashes)
FL (2) R6s	Group Flashing Red every 6 sec. (2 flashes)
Iso W 2s	Equal Interval White 2 sec.
Iso R 2s	Equal Interval Red 2 sec.
Q R	Quick Flashing Red
IQ R	Interrupted Quick Flashing Red

Right Descending Bank

F. W.	Fixed White
F. G.	Fixed Green
2 F. G.	Two Fixed Green
FL W4s	Flashing White every 4 Sec.
FL G4s	Flashing Green every 4 sec.
Iso W 2s	Equal Interval White 2 sec.
Iso G 2s	Equal Interval Green 2 sec.
Q G	Quick Flashing Green
IQ G	Interrupted Quick Flashing Green

CHARACTERISTICS OF BEACONS

All beacons have reflective material which matches the color indicated below:

SG	Square shaped Green PASSING beacon.
CG	Diamond shaped Green CROSSING beacon.
TR	Triangle shaped Red PASSING beacon.
CR	Diamond shaped Red CROSSING beacon.
JR	Triangle shaped Red and Green JUNCTION beacon.

POSITION OF AIDS TO NAVIGATION

Buoys are set to mark project depths taking into consideration the prevailing river stage and obstructions. Buoy positions as shown on the obstructions. Buoy position as shown on the chart are approximate and should always be given as wide a berth in passing as possible consistent with the length and width of the bend or crossing.

Buoys should always be used with caution. They may be carried off position by high water accumulation of drift, ice, or sunk by collision or other causes. When carried off position destroyed, or removed to prevent loss, buoys are replaced at the earliest opportunity.

LIGHTS AND BEACONS ARE ALSO SHOWN IN APPROXIMATE LOCATIONS.

NOTE

NAVIGATIONAL SYMBOLS AS SHOWN IN THE LEGEND ARE ONLY REPRESENTATIVE. THE ACTUAL LOCATION OF THE ITEMS WHICH THEY REPRESENT MAY VARY FROM WHAT IS SHOWN ON THE NAVIGATION CHART.

MARINE RADIO CHANNELS

CHANNEL	FREQUENCY	PURPOSE
13	156.650mhz	Bridge to Bridge
14	156.700mhz	Port Operations
16	156.800mhz	Hailing & Distress

NOTES:

1. Locks monitor Channels 13 & 16.
2. Coast Guard monitors Channel 16 for Distress Calls.

CHARACTERISTICS OF LIGHTS AND NOTES NAVIGATION CHARTS

OHIO RIVER

U.S. ARMY ENGINEER DISTRICT, PITTSBURGH
Revised: 1 January 2000

LEGEND

- Anchorage Area 
- Anchoring Prohibited 
- Arrival Area 
- Square Beacon 
- Triangle Beacon 
- Bouys:
 - Can (green) 
 - Can (green lighted) 
 - Nun (red) 
 - Nun (red lighted) 
 - Junction bouy 
 - Cautionary bouy 
 - Federal Mooring Bouy 
 - Campground 
 - Mooring cell 
- Cemetery 
- Coast Guard Station 
- Church 
- Cliff 
- COE Guage 
- Crane 
- Dock 
- Diff. Outfall Pipe 
- Dolphin 
- Federal Road Sign 
- Ferry Crossing 
- Fleeting Area 
- Flow Arrow 
- GEOGRAPHY INFORMATION:
 - Land above project pool. 
 - Water with less than 9 feet depth of poolstage. 
 - Water with a depth of nine feet or more at poolstage. 
- Ice Piers 
- Intake
- Interstate Highway Sign

- Levee 
- U. S. Navigation Lights:
 - Light & Beacon Right Descending Bank (Green) 
 - Light & Beacon Left Descending Bank (Red) 
 - Cautionary Light (Amber) 
- Lewis & Clark Legacy Sites 
- Marina 
- National Weather Station 
- Pipeline Submerged 
- Accurate Position 
- Power Crossing 
- Launching Ramp 
- Restricted Areas, above and below dam, and other designated areas. 
- Rocky Bottom 
- Sailing Line 
- School 
- State Road Sign 
- Stony Shore 
- Submarine Cable 
- Swamp 
- Tank 
- Towers 
- Tree 
- Warf (Paved Landing) 
- Well On Shore 
- Well Underwater 
- Wrecks:
 - Sunken Wreck 
 - Sunken Wreck (Depth Unknown) 
 - Sunken Wreck (Visible) 

REGULATORY MARKERS



SWIM AREA

BOAT EXCLUSION AREA

EXPLANATION MAY BE PLACED OUTSIDE THE CROSSED DIAMOND SHAPE SUCH AS CAN, RAPIDS, SWIM AREA, ETC.



ROCK

DANGER

THE NATURE OF DANGER MAY BE INDICATED INSIDE THE DIAMOND SHAPE SUCH AS ROCK, WRECK, SHOAL, DAM, ETC.

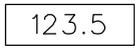


SLOW

NO WAKE

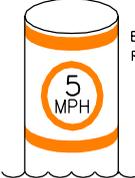
CONTROLLED AREA

TYPE OF CONTROL IS INDICATED IN THE CIRCLE SUCH AS SLOW, NO WAKE, ANCHORING, ETC.



123.5

MILE BOARD



5 MPH

BUOY USED TO DISPLAY REGULATORY MARKERS



DANGER DAM

MAY SHOW WHITE LIGHT MAY BE LETTERED

AIDS TO NAVIGATION

STARBOARD SIDE



LIGHTED BUOY



NUN



TR

PASSING BEACON



CROSSING BEACON



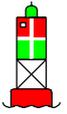
CROSSING BEACON

JUNCTION

PREFERRED CHANNEL TO STARBOARD

TOPMOST BAND RED

WHITE OR RED LIGHTS






PORT SIDE



LIGHTED BUOY

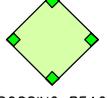


CAN



SG

PASSING BEACON



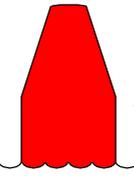
CROSSING BEACON



CROSSING BEACON

LOOKING DOWNSTREAM

LATERAL SYSTEM

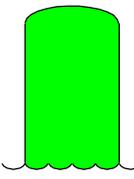


STARBOARD SIDE

USUALLY FOUND IN PAIRS PASS BETWEEN THESE BUOYS

LOOKING DOWNSTREAM

PORT SIDE



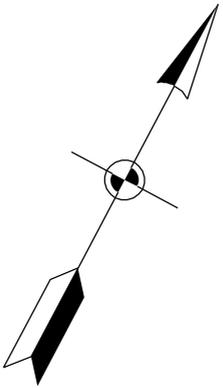
LATERAL SYSTEM

Chart Nos.	Locality	Chart Nos.	Locality
	POOL HANNIBAL LOCKS & DAM		POOL NEW CUMBERLAND LOCKS & DAM
187	New Martinsville, Hannibal, Hannibal Dam	208	New Cumberland Dam
188	Proctor Bar, Proctor, Roger Bar	209	Cluster Island
189	Opossum Creek Bar, Sunfish Ripple, Clarington	210	Wellsville
190	Clines Bar	211	John F. Kennedy Park Small Boat Launching Area, Mile 46.2, Old Lock #8, East Liverpool
191	Woodlands, Fish Creek Island, Old Lock #14	212	East Liverpool, Babbs Island, State Line, Mouth of Little Beaver Creek
192	Powhatan Point, Captina Island	213	Georgetown Island
193	Captina Island	214	Phillis Island
194	Moundsville, Little Grave Creek Bar		POOL MONTGOMERY LOCKS & DAM
195	Riley Run Bar	215	Montgomery Dam
196	Old Lock #13, Boggs Island	216	Beaver
197	Wheeling, Wheeling Island	217	Beaver, Mouth of Beaver River, Rochester, Monaca, Freedom
198	Old Lock #12	218	Aliquippa
	POOL PIKE ISLAND LOCKS & DAM	219	Ambridge
199	Pike Island Dam		POOL DASHIELDS LOCKS & DAM
200	Short Creek Small Boat Launching Area, Mile 81.3	220	Dashields Dam
202	Old Lock #11, Buffalo Creek Small Boat Launching Area, Mile 74.7 Wellsburg	221	Sewickley, Coraopolis, Whites Towhead, Neville Island
204	Cross Creek Bar, Mingo Bar	222	Neville Island
205	Steubenville, Old Lock #10, Cables Eddy		POOL EMSWORTH LOCKS & DAMS
206	Weirton, Browns Island	223	Emsworth Dams, Neville Island, Davis Island
207	Toronto, Talbot Run Bar, Croxton Run Bar, New Cumberland, Old Lock #9	224	Brunot Island, "Point", Pittsburgh

TABULAR INDEX
NAVIGATION CHARTS

OHIO RIVER

U.S. ARMY ENGINEER DISTRICT, PITTSBURGH
SHEET K



NEW CUMBERLAND LOCKS & DAM

MONTGOMERY LOCKS & DAM

PIKE ISLAND LOCKS & DAM

DASHIELDS LOCKS & DAM

EMSWORTH LOCKS & DAMS

HANNIBAL LOCKS & DAM

OHIO

PENNSYLVANIA

WEST VIRGINIA

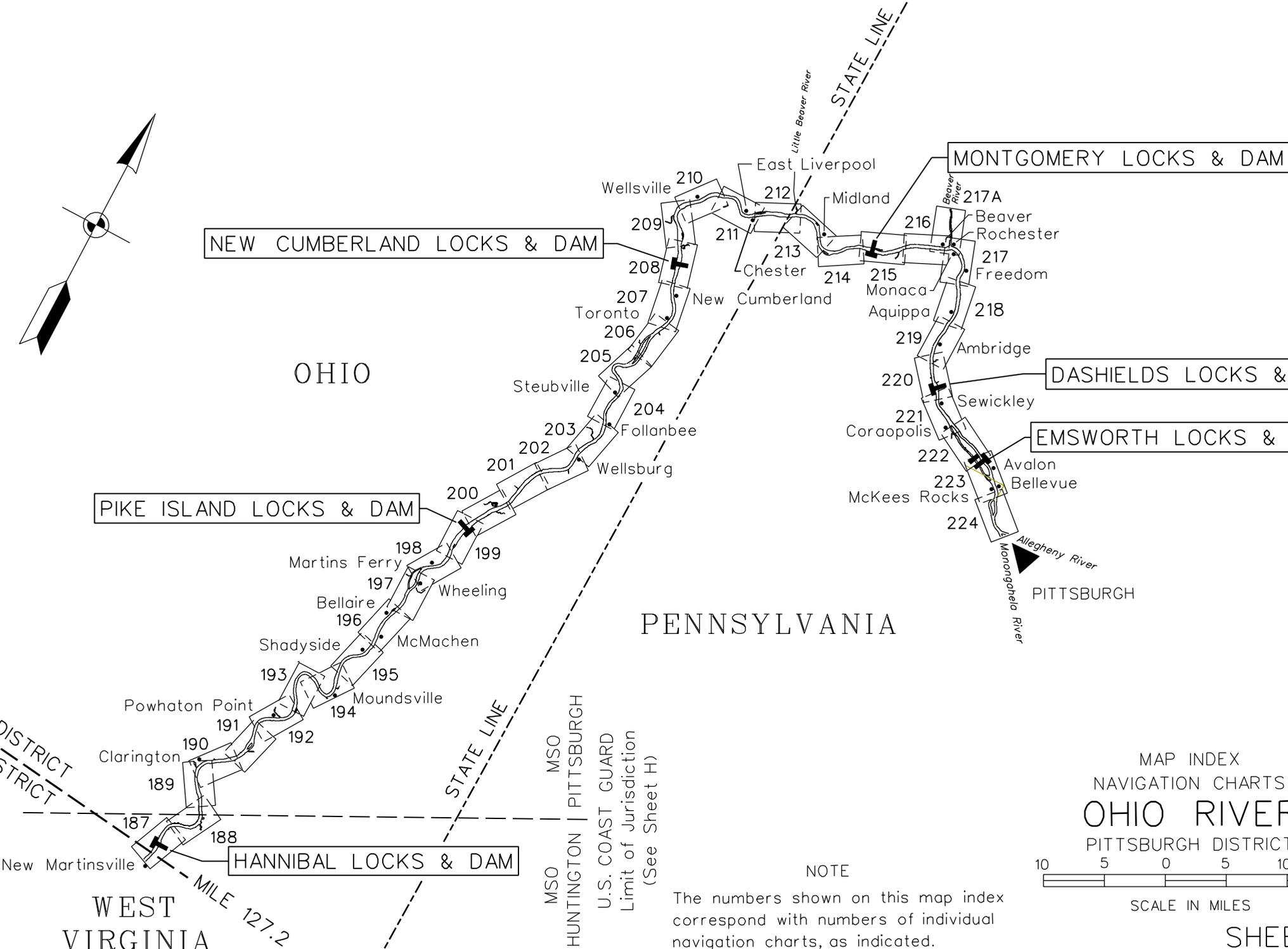
STATE LINE
MSO HUNTINGTON | PITTSBURGH
U.S. COAST GUARD
Limit of Jurisdiction
(See Sheet H)

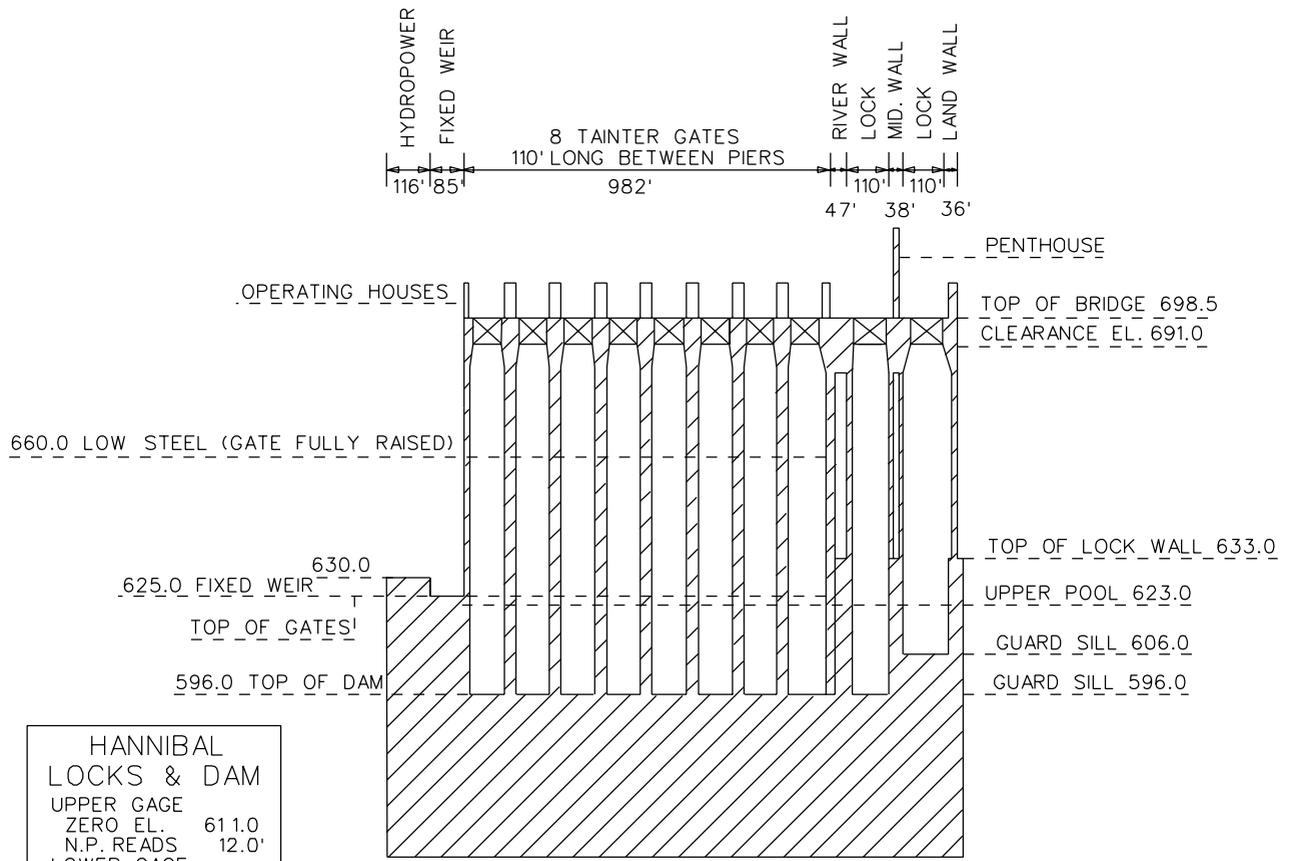
PITTSBURGH DISTRICT
HUNTINGTON DISTRICT

MILE 127.2



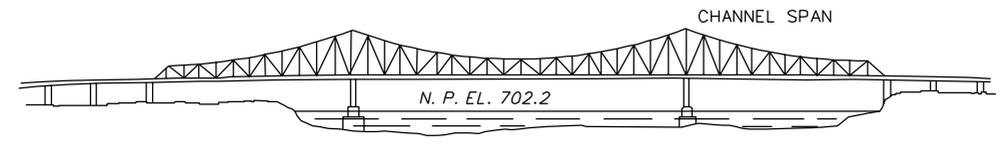
NOTE
The numbers shown on this map index correspond with numbers of individual navigation charts, as indicated.



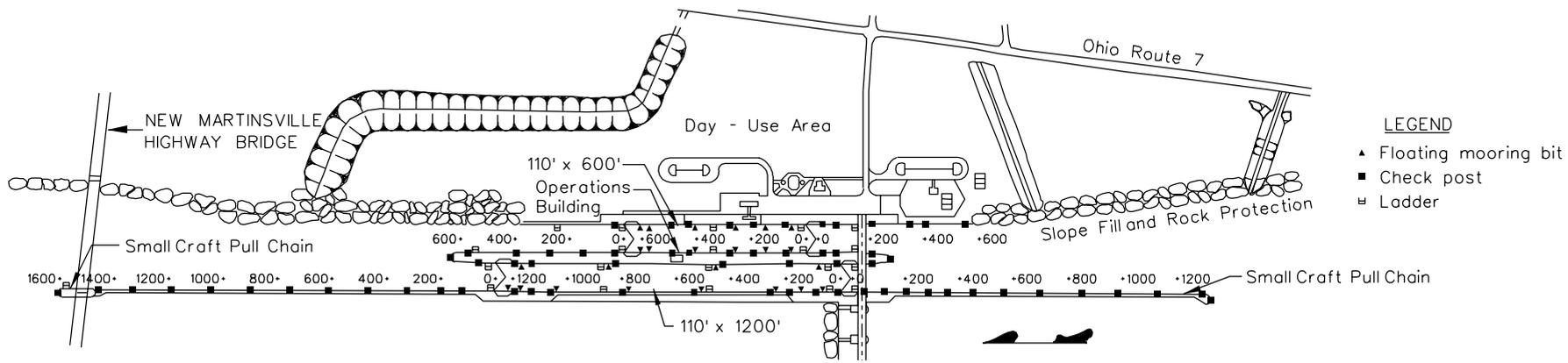


HANNIBAL LOCKS & DAM	
UPPER GAGE	
ZERO EL.	611.0
N.P. READS	12.0'
LOWER GAGE	
ZERO EL.	590.0
N.P. READS	12.0'

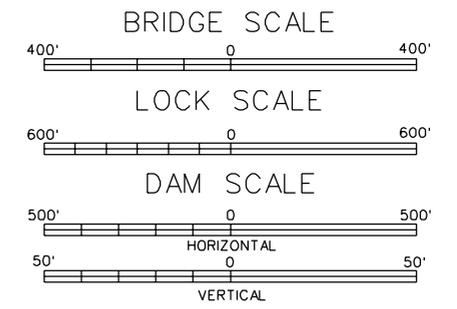
HANNIBAL LOCKS & DAM
NAVIGATION SUSPENDED - UPPER GAGE 18.0
TELEPHONE NO. 614-483-2305

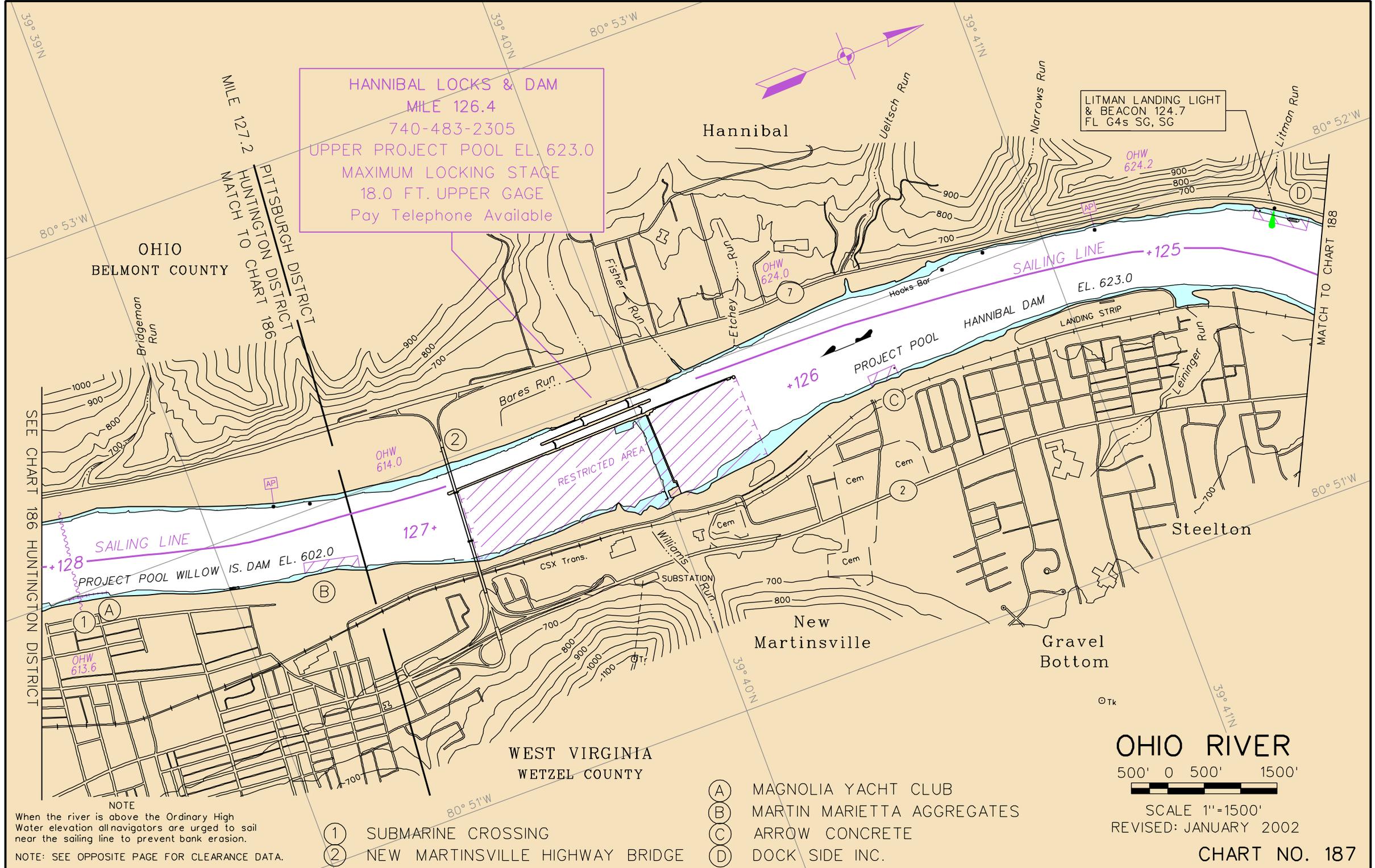


①
NEW MARTINSVILLE HIGHWAY BRIDGE
CHANNEL SPAN
MILE 126.9
ELEVATION OF LOW STEEL 680.5
VERTICAL CLEARANCE AT POOL STAGE 78.3'
HORIZONTAL CLEARANCE AT LOCK APPROACH 254.0'



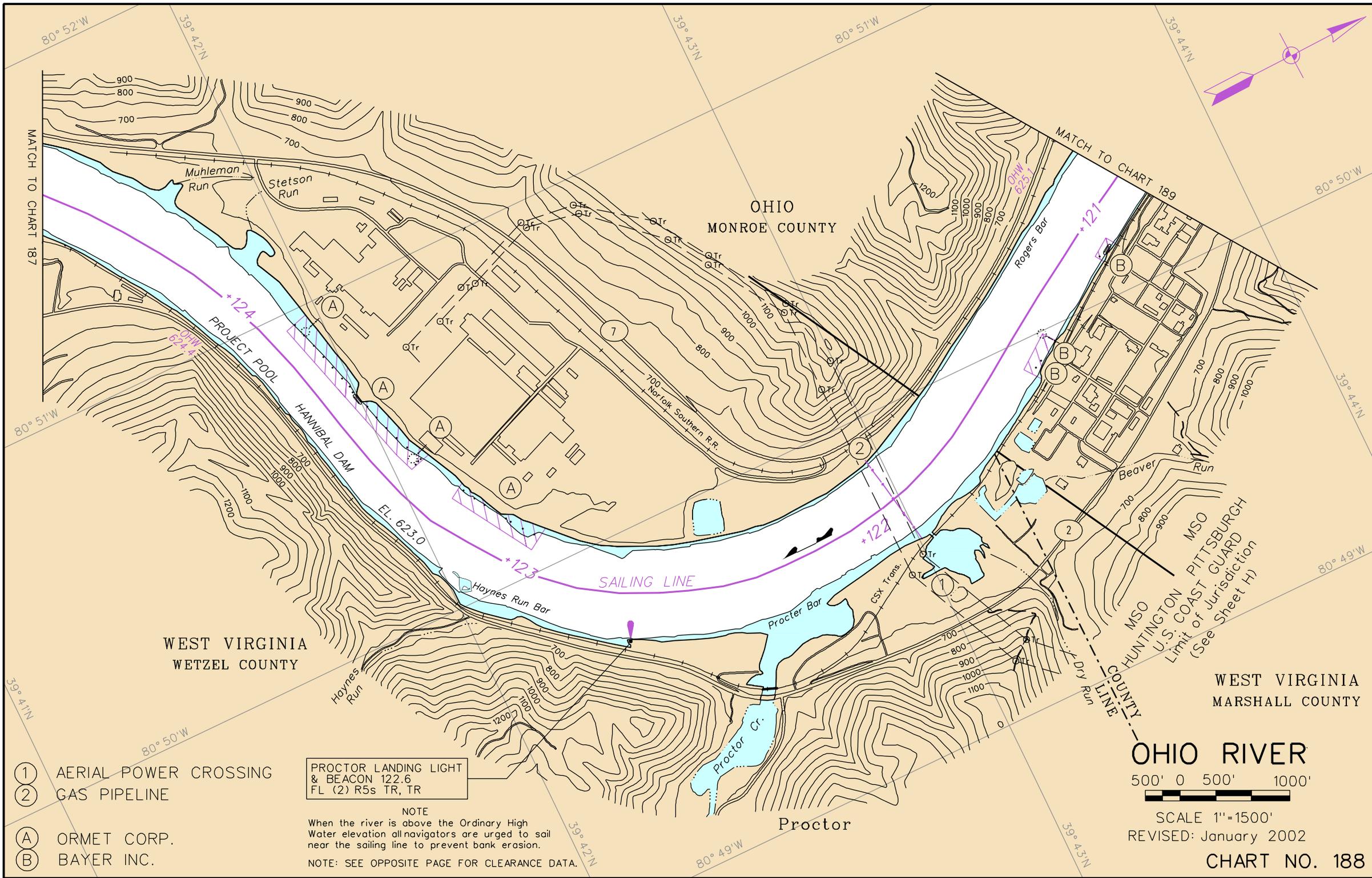
- LEGEND
- ▲ Floating mooring bit
 - Check post
 - ▣ Ladder





AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	121.9	704.2	81.2'

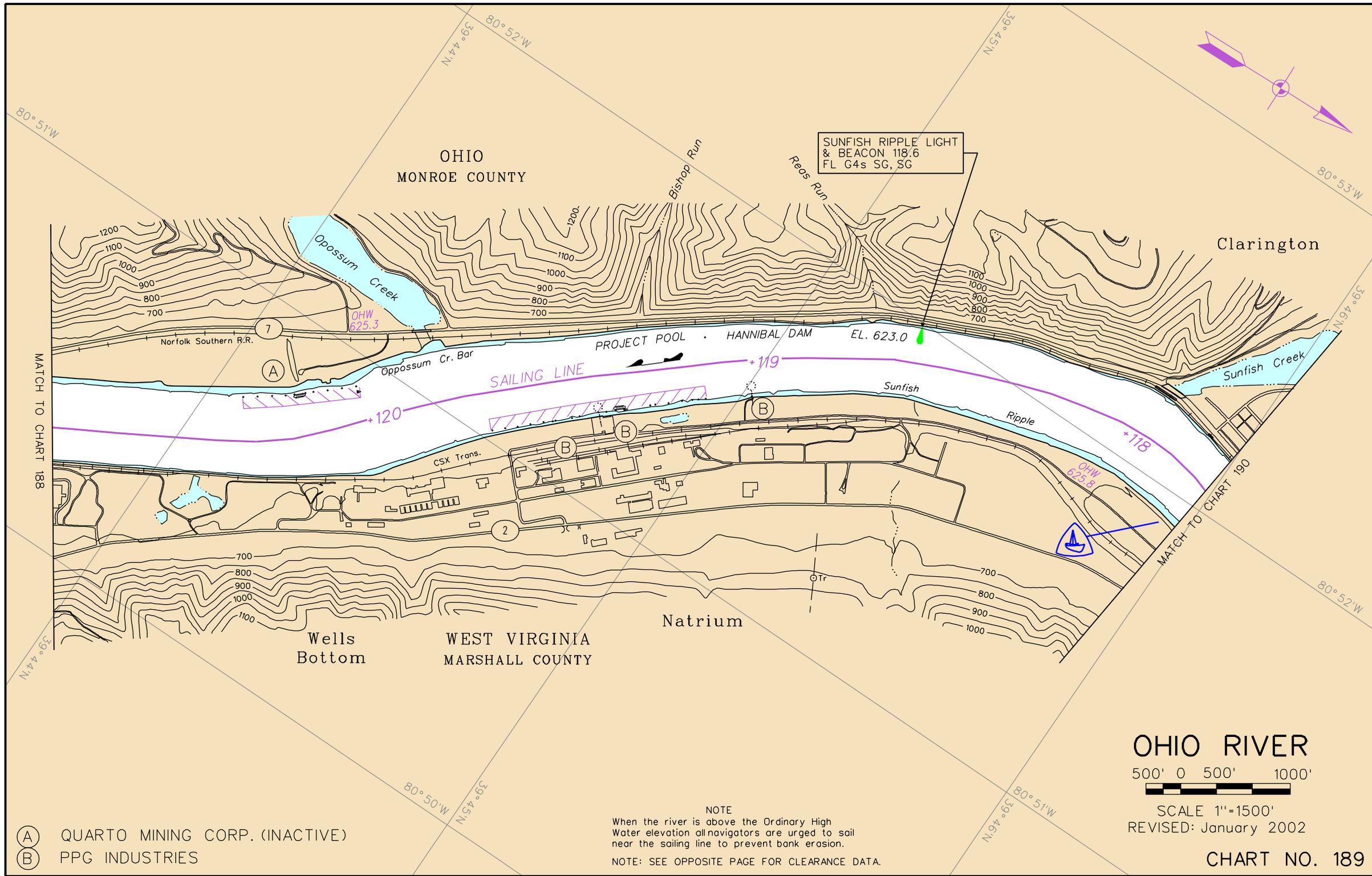


- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- Ⓐ ORMET CORP.
- Ⓑ BAYER INC.

PROCTOR LANDING LIGHT & BEACON 122.6
FL (2) R5s TR, TR

NOTE
When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
500' 0 500' 1000'
SCALE 1"=1500'
REVISED: January 2002
CHART NO. 188



OHIO
MONROE COUNTY

Clarington

Wells Bottom
WEST VIRGINIA
MARSHALL COUNTY

Natrium

SUNFISH RIPPLE LIGHT
& BEACON 118.6
FL G4s SG, SG

PROJECT POOL HANNIBAL DAM EL. 623.0

SAILING LINE

Opossum Cr. Bar

Sunfish

Ripple

Sunfish Creek

Norfolk Southern R.R.

CSX Trans.

OTr

OHW
625.3

OHW
625.8

MATCH TO CHART 188

MATCH TO CHART 190

OHIO RIVER

500' 0 500' 1000'

SCALE 1"=1500'
REVISED: January 2002

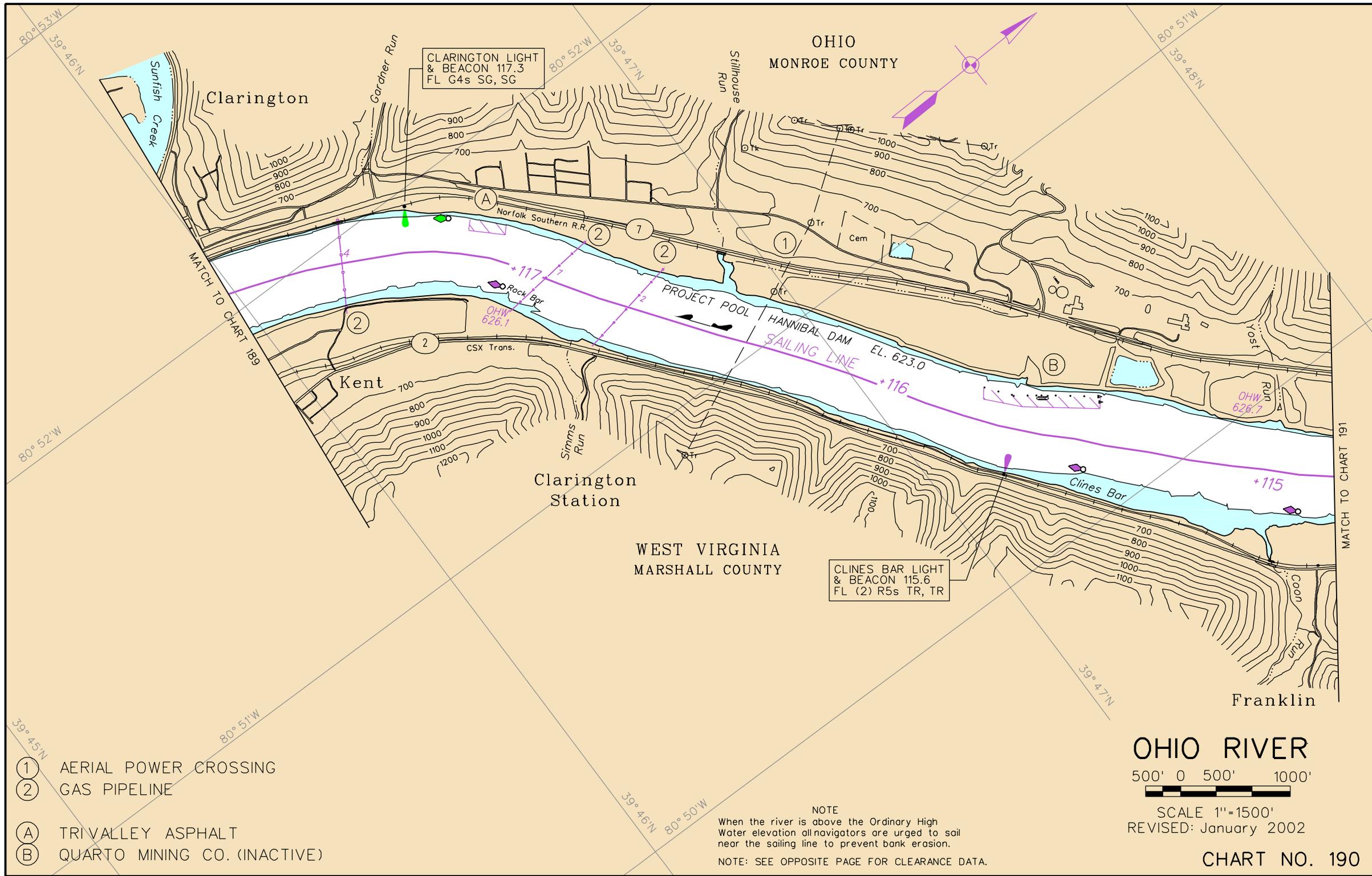
CHART NO. 189

- (A) QUARTO MINING CORP. (INACTIVE)
- (B) PPG INDUSTRIES

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	116.35	706.9	83.9'



CLARINGTON LIGHT & BEACON 117.3
FL G4s SG, SG

CLINES BAR LIGHT & BEACON 115.6
FL (2) R5s TR, TR

- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- (A) TRIVALLEY ASPHALT
- (B) QUARTO MINING CO. (INACTIVE)

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
500' 0 500' 1000'
SCALE 1"=1500'

REVISED: January 2002

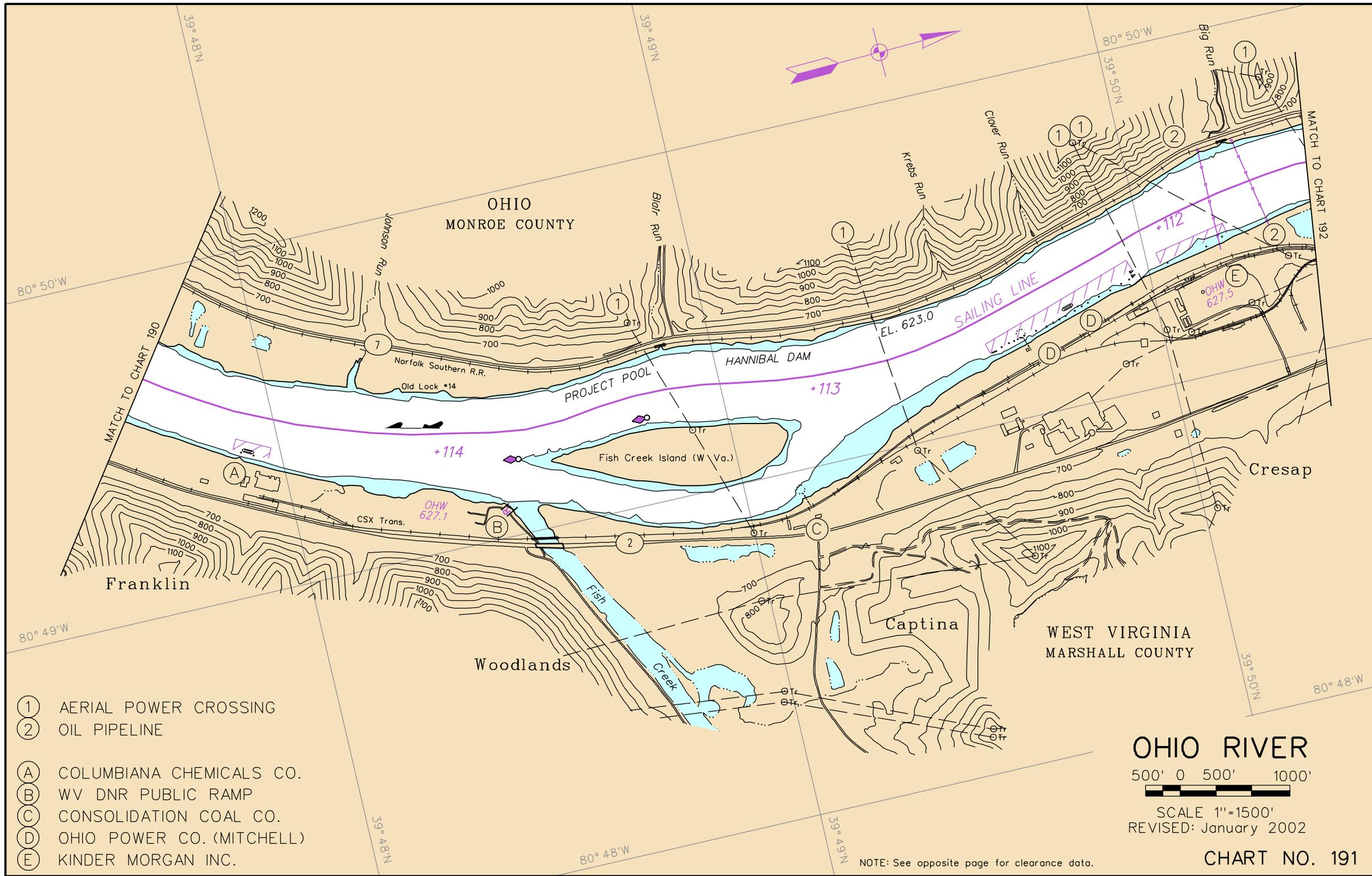
CHART NO. 190

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	111.6	716.5	93.5'
1	111.9	715.0	92.0'
1	112.1	837.0	214.0'
1	112.9	743.0	120.0'
* 1	113.4	731.5	108.5'
** 1	113.4	692.1	69.1'

* MAIN CHANNEL

** BACK CHANNEL



- ① AERIAL POWER CROSSING
- ② OIL PIPELINE
- Ⓐ COLUMBIANA CHEMICALS CO.
- Ⓑ WV DNR PUBLIC RAMP
- Ⓒ CONSOLIDATION COAL CO.
- Ⓓ OHIO POWER CO. (MITCHELL)
- Ⓔ KINDER MORGAN INC.

OHIO RIVER

500' 0 500' 1000'



SCALE 1"=1500'
REVISED: January 2002

CHART NO. 191

NOTE: See opposite page for clearance data.

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	110.65	707.2	84.2'
1	111.1	733.5	110.5'
1	111.4	722.5	99.5'
1	111.6	716.5	93.5'

* MAIN CHANNEL

** BACK CHANNEL

OHIO
MONROE COUNTY

CRESAP BEND LIGHT
& BEACON 111.2
FL G4s SG, SG

Powhatan Point

OHIO
BELMONT COUNTY

WEST VIRGINIA
MARSHALL COUNTY

HOG RUN LIGHT
& BEACON 109.6
FL (2) R5s TR, TR

CAPTINA ISLAND LIGHT
& BEACON 108.5
FL (2) R5s TR, TR

- ① AERIAL POWER CROSSING
- ② SUBMARINE CROSSING

- (A) KAMMER GENERATING CO. (KAMMER)
- (B) AMERICAN COAL SALES CO.
- (C) CONSOLIDATION ENERGY CO.
- (D) CORPS OF ENGR., CITY OF POWHATAN POINT

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.

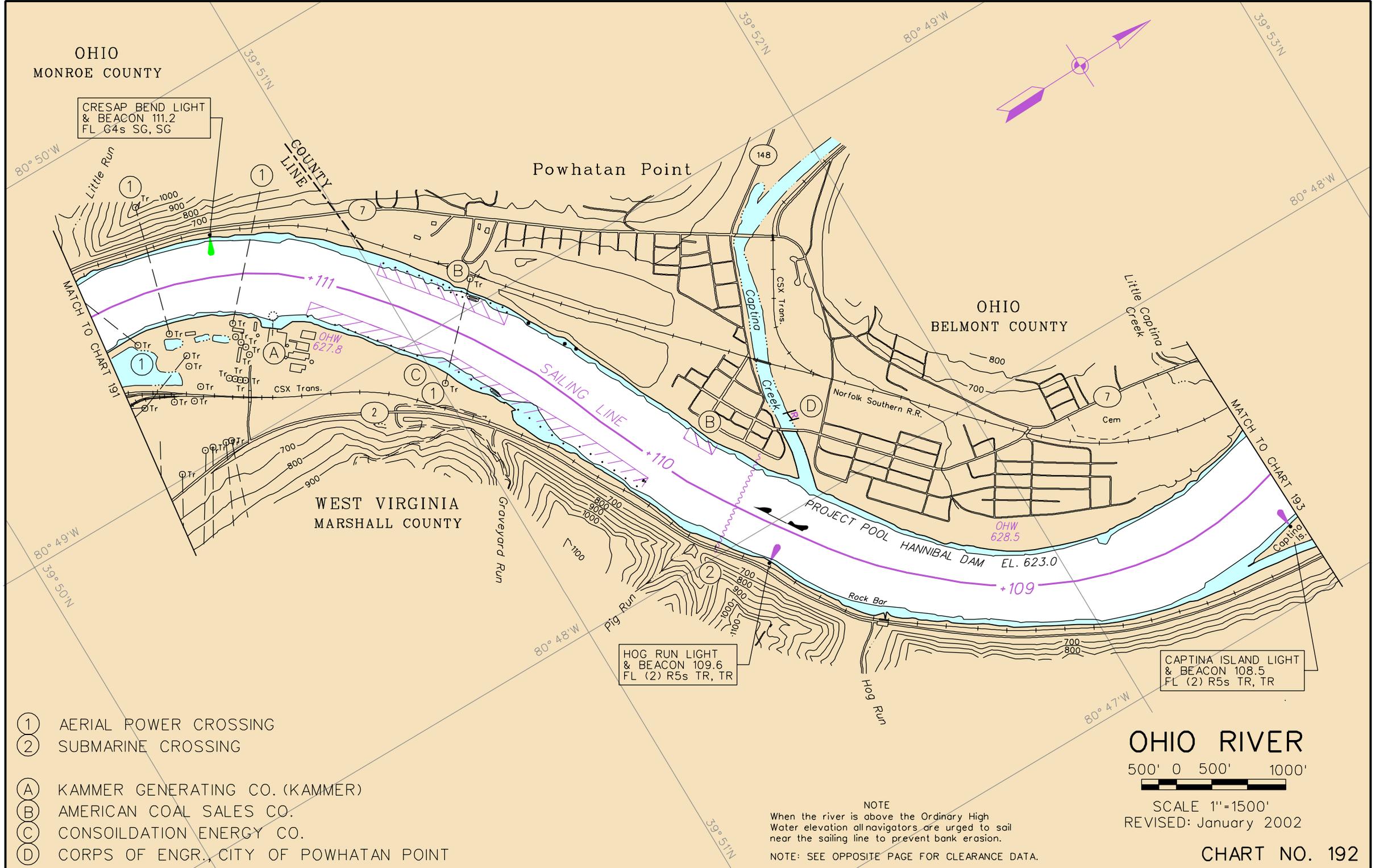
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER

500' 0 500' 1000'

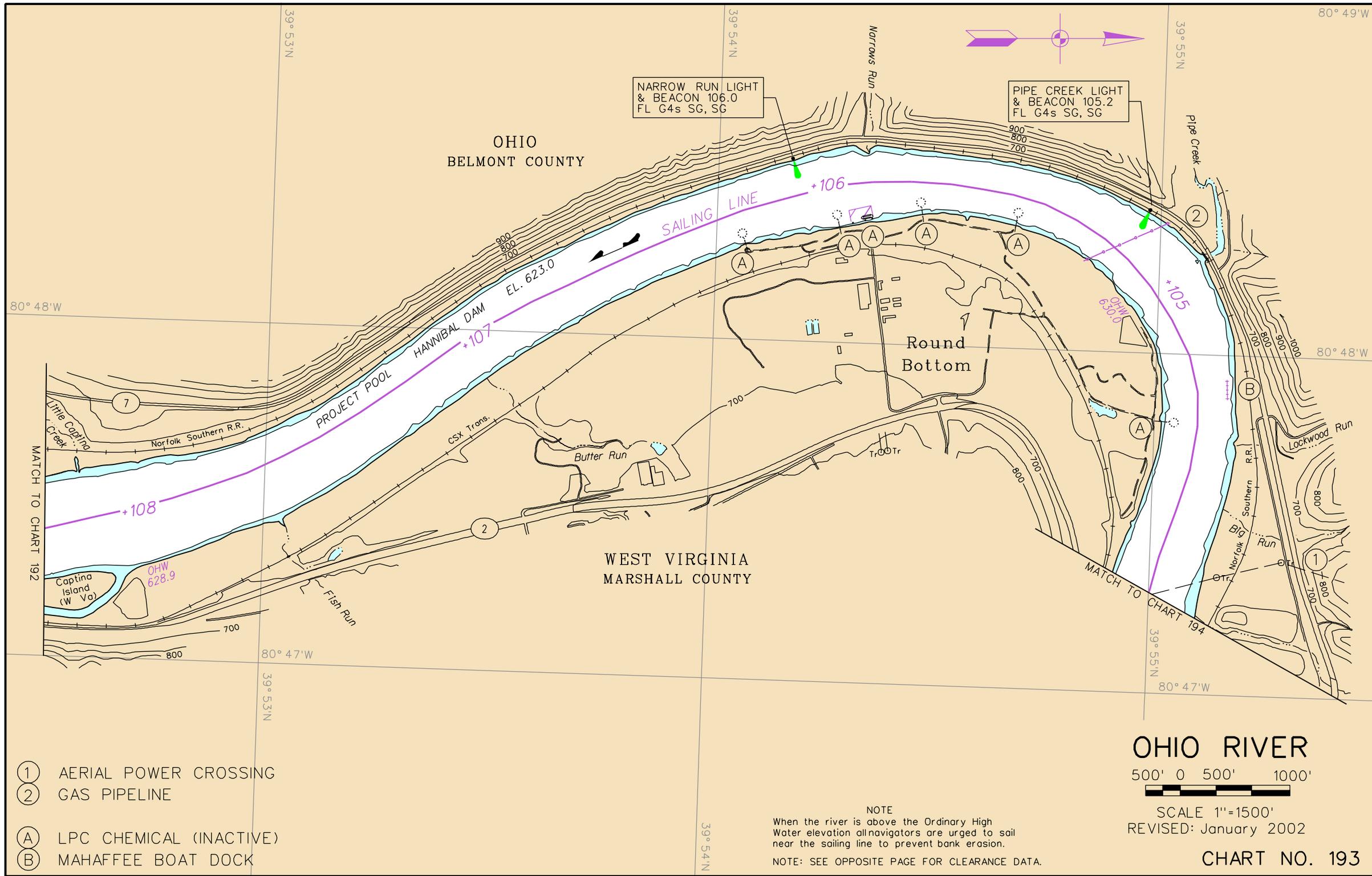
SCALE 1"=1500'
REVISED: January 2002

CHART NO. 192



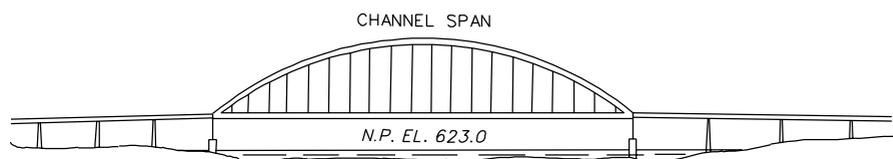
AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	104.15	719.0	96.0'



AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	101.3	722.9	99.9'
1	104.15	719.0	96.0'



3

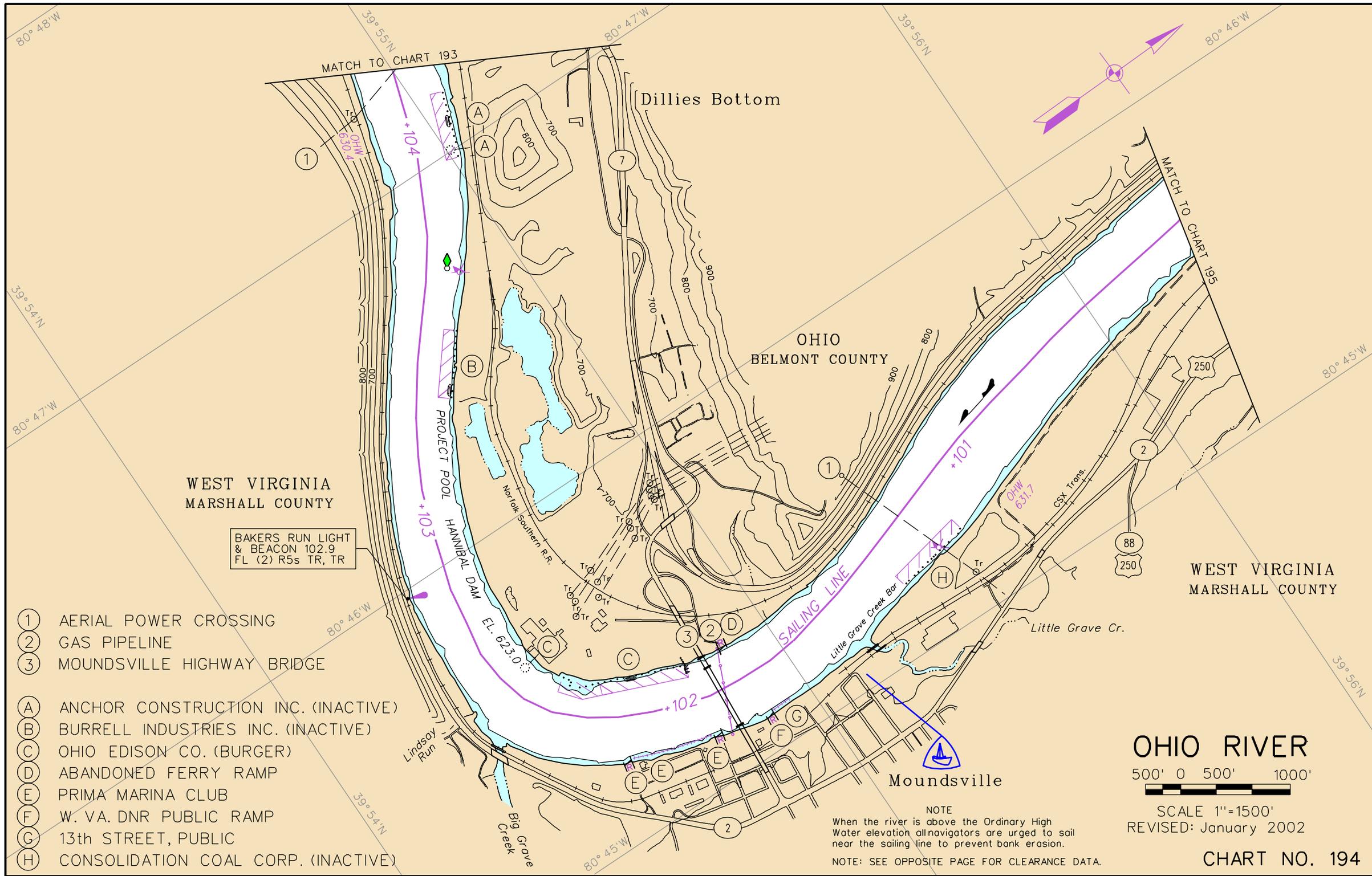
MOUNDSVILLE HIGHWAY BRIDGE
CHANNEL SPAN

MILE 101.9

ELEVATION OF LOW STEEL 692.2
 VERTICAL CLEARANCE AT POOL STAGE 69.0'
 HORIZONTAL CLEARANCE 900.0'



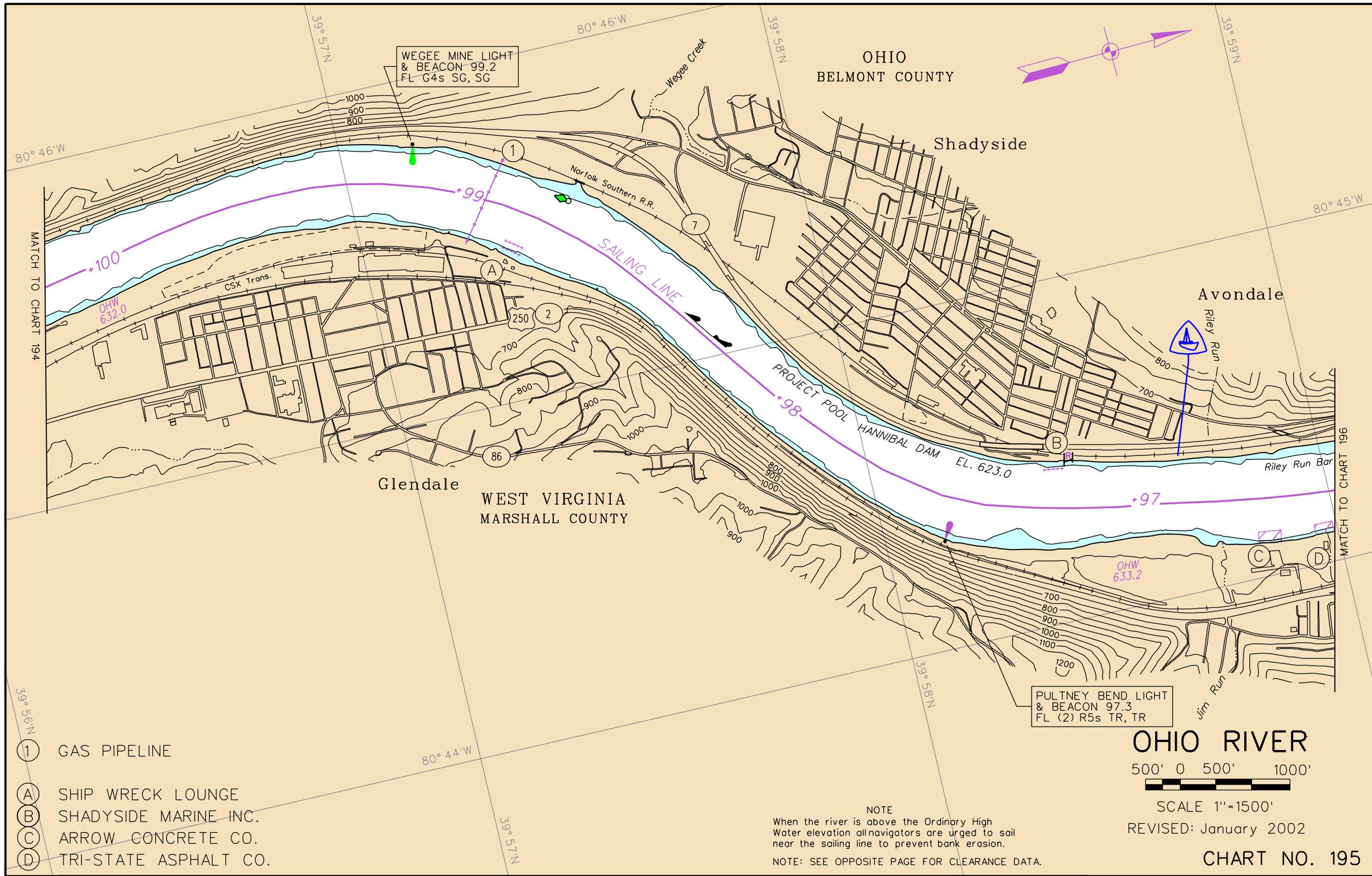
ELEVATIONS LOOKING DOWNSTREAM
 OHIO RIVER CHART 194

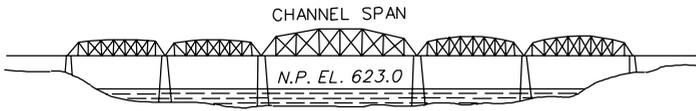


- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ MOUNDSVILLE HIGHWAY BRIDGE
- Ⓐ ANCHOR CONSTRUCTION INC. (INACTIVE)
- Ⓑ BURRELL INDUSTRIES INC. (INACTIVE)
- Ⓒ OHIO EDISON CO. (BURGER)
- Ⓓ ABANDONED FERRY RAMP
- Ⓔ PRIMA MARINA CLUB
- Ⓕ W. VA. DNR PUBLIC RAMP
- Ⓖ 13th STREET, PUBLIC
- Ⓗ CONSOLIDATION COAL CORP. (INACTIVE)

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
 500' 0 500' 1000'
 SCALE 1"=1500'
 REVISED: January 2002



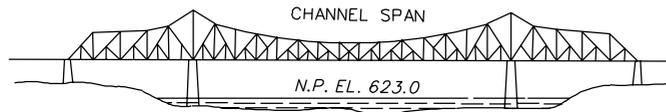


3

CSX TRANS. RAILROAD BRIDGE
CHANNEL SPAN

MILE 94.5

ELEVATION OF LOW STEEL 696.2
VERTICAL CLEARANCE AT POOL STAGE 73.2'
HORIZONTAL CLEARANCE 320.0'

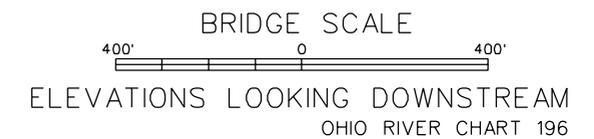


4

BELLAIRE HIGHWAY BRIDGE
CHANNEL SPAN

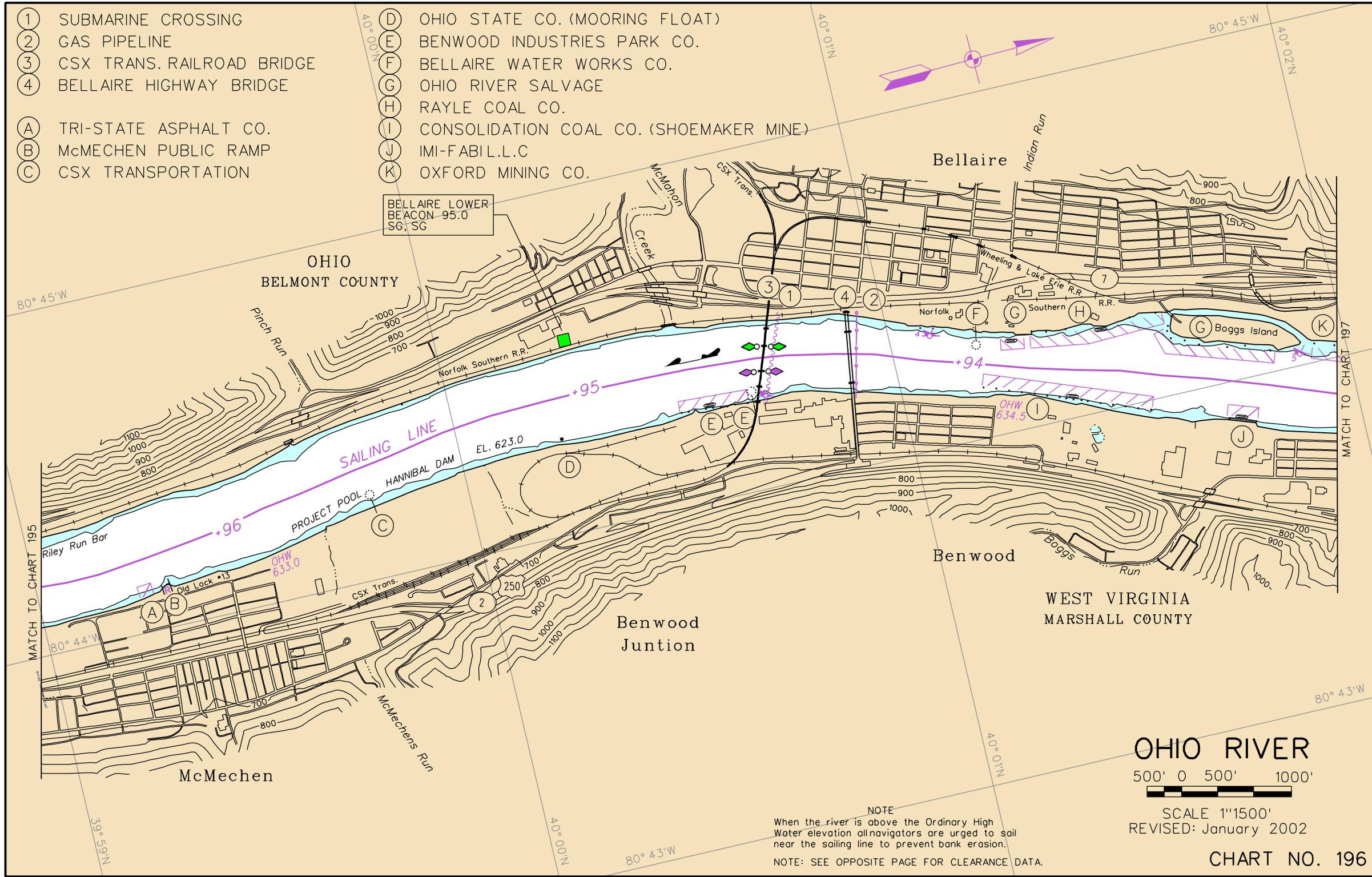
MILE 94.3

ELEVATION OF LOW STEEL 700.0
VERTICAL CLEARANCE AT POOL STAGE 77.0'
HORIZONTAL CLEARANCE 675.0'



- ① SUBMARINE CROSSING
- ② GAS PIPELINE
- ③ CSX TRANS. RAILROAD BRIDGE
- ④ BELLAIRE HIGHWAY BRIDGE
- Ⓐ TRI-STATE ASPHALT CO.
- Ⓑ McMECHEN PUBLIC RAMP
- Ⓒ CSX TRANSPORTATION
- Ⓓ OHIO STATE CO. (MOORING FLOAT)
- Ⓔ BENWOOD INDUSTRIES PARK CO.
- Ⓕ BELLAIRE WATER WORKS CO.
- Ⓖ OHIO RIVER SALVAGE
- Ⓗ RAYLE COAL CO.
- Ⓘ CONSOLIDATION COAL CO. (SHOEMAKER MINE)
- Ⓙ IMI-FABIL.L.C
- Ⓚ OXFORD MINING CO.

BELLAIRE LOWER BEACON -95.0
SG, SG



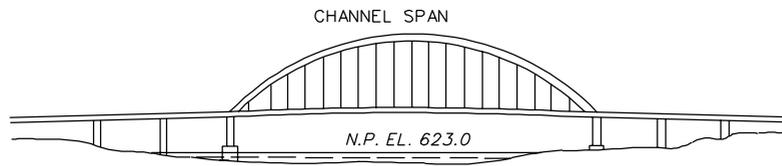
OHIO RIVER

500' 0 500' 1000'

SCALE 1"=1500'
REVISED: January 2002

CHART NO. 196

NOTE
When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.



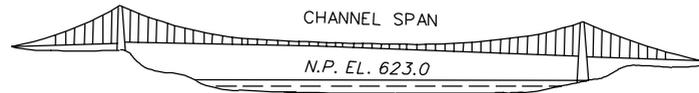
5

INTERSTATE 470 HIGHWAY BRIDGE
CHANNEL SPAN
MILE 91.8

ELEVATION OF LOW STEEL 692.0
VERTICAL CLEARANCE AT POOL STAGE 69.0'
HORIZONTAL CLEARANCE 762.0'

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	90.6	733.0	110.0'
1	92.5	734.2	111.2'
1	92.55	730.0	107.0'
1	92.6	732.0	109.0'

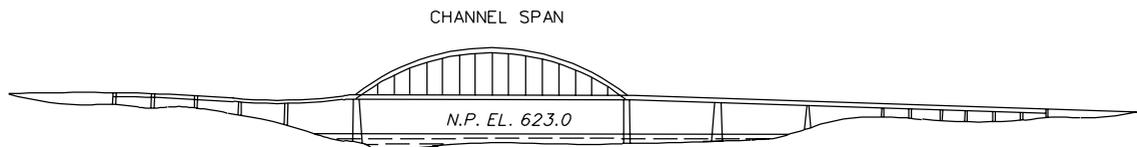


8

10TH STREET WHEELING HIGHWAY BRIDGE
CHANNEL SPAN

MILE 90.4

ELEVATION OF LOW STEEL 679.2*
VERTICAL CLEARANCE AT POOL STAGE 56.2*
HORIZONTAL CLEARANCE 830.0'
* RIGHT EDGE OF 500' DREDGED CHANNEL



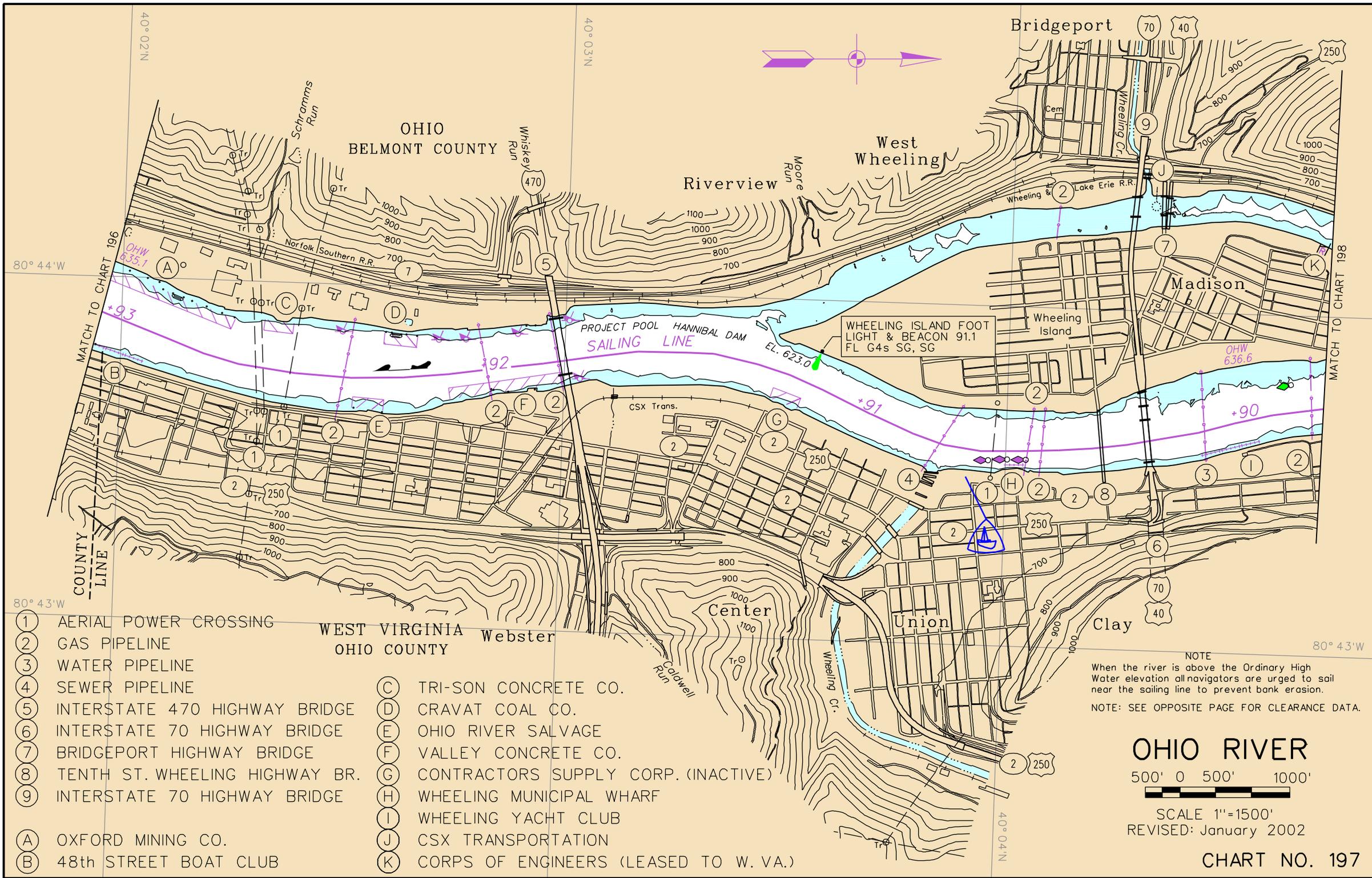
6

INTERSTATE 70 HIGHWAY BRIDGE
CHANNEL SPAN
MILE 90.2

ELEVATION OF LOW STEEL 699.8
VERTICAL CLEARANCE AT POOL STAGE 76.8'
HORIZONTAL CLEARANCE 554.0'



ELEVATIONS LOOKING DOWNSTREAM
OHIO RIVER CHART 197



- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ WATER PIPELINE
- ④ SEWER PIPELINE
- ⑤ INTERSTATE 470 HIGHWAY BRIDGE
- ⑥ INTERSTATE 70 HIGHWAY BRIDGE
- ⑦ BRIDGEPORT HIGHWAY BRIDGE
- ⑧ TENTH ST. WHEELING HIGHWAY BR.
- ⑨ INTERSTATE 70 HIGHWAY BRIDGE
- (A) OXFORD MINING CO.
- (B) 48th STREET BOAT CLUB

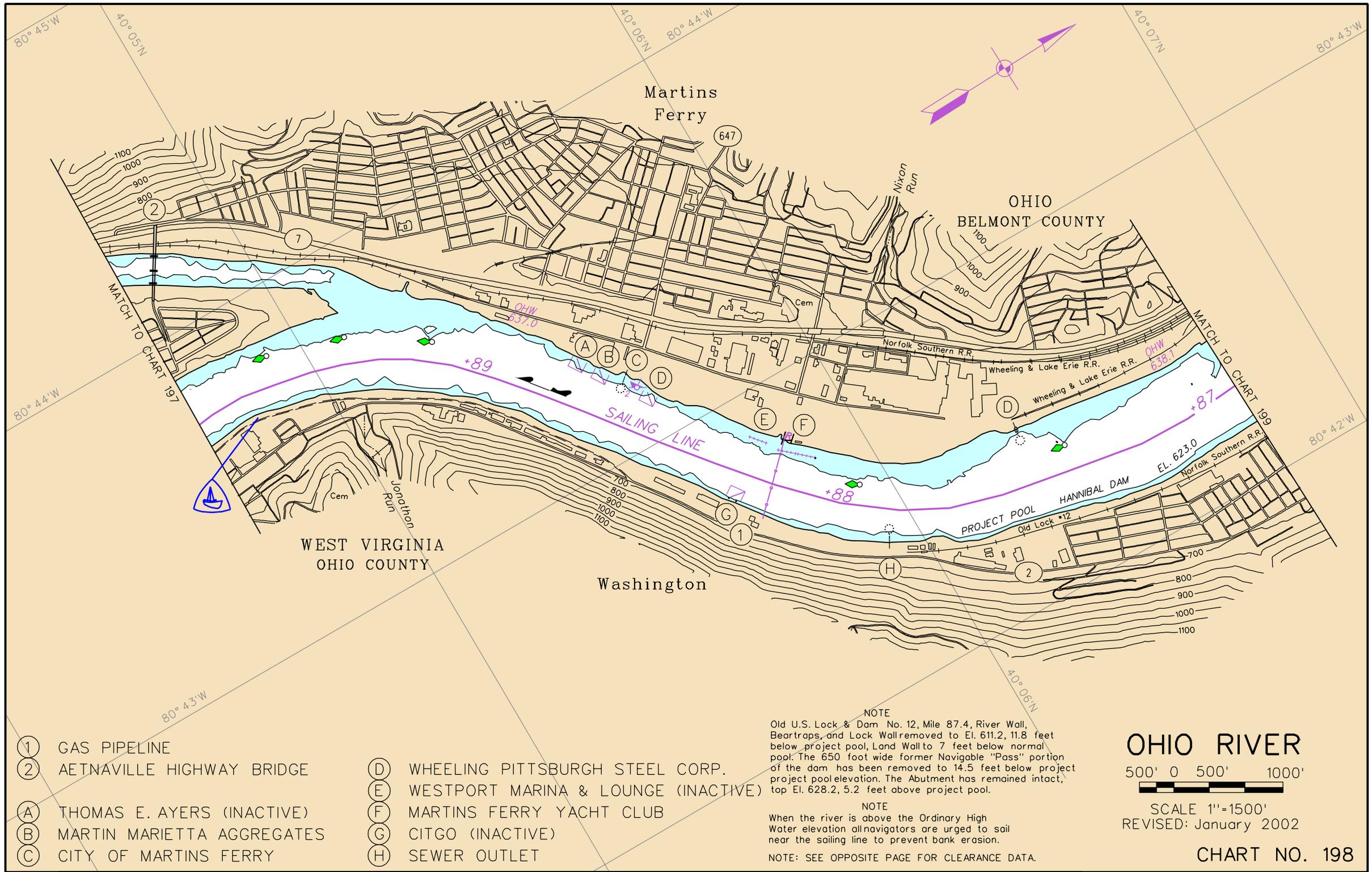
- (C) TRI-SON CONCRETE CO.
- (D) CRAVAT COAL CO.
- (E) OHIO RIVER SALVAGE
- (F) VALLEY CONCRETE CO.
- (G) CONTRACTORS SUPPLY CORP. (INACTIVE)
- (H) WHEELING MUNICIPAL WHARF
- (I) WHEELING YACHT CLUB
- (J) CSX TRANSPORTATION
- (K) CORPS OF ENGINEERS (LEASED TO W. VA.)

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER

500' 0 500' 1000'

SCALE 1"=1500'
 REVISED: January 2002



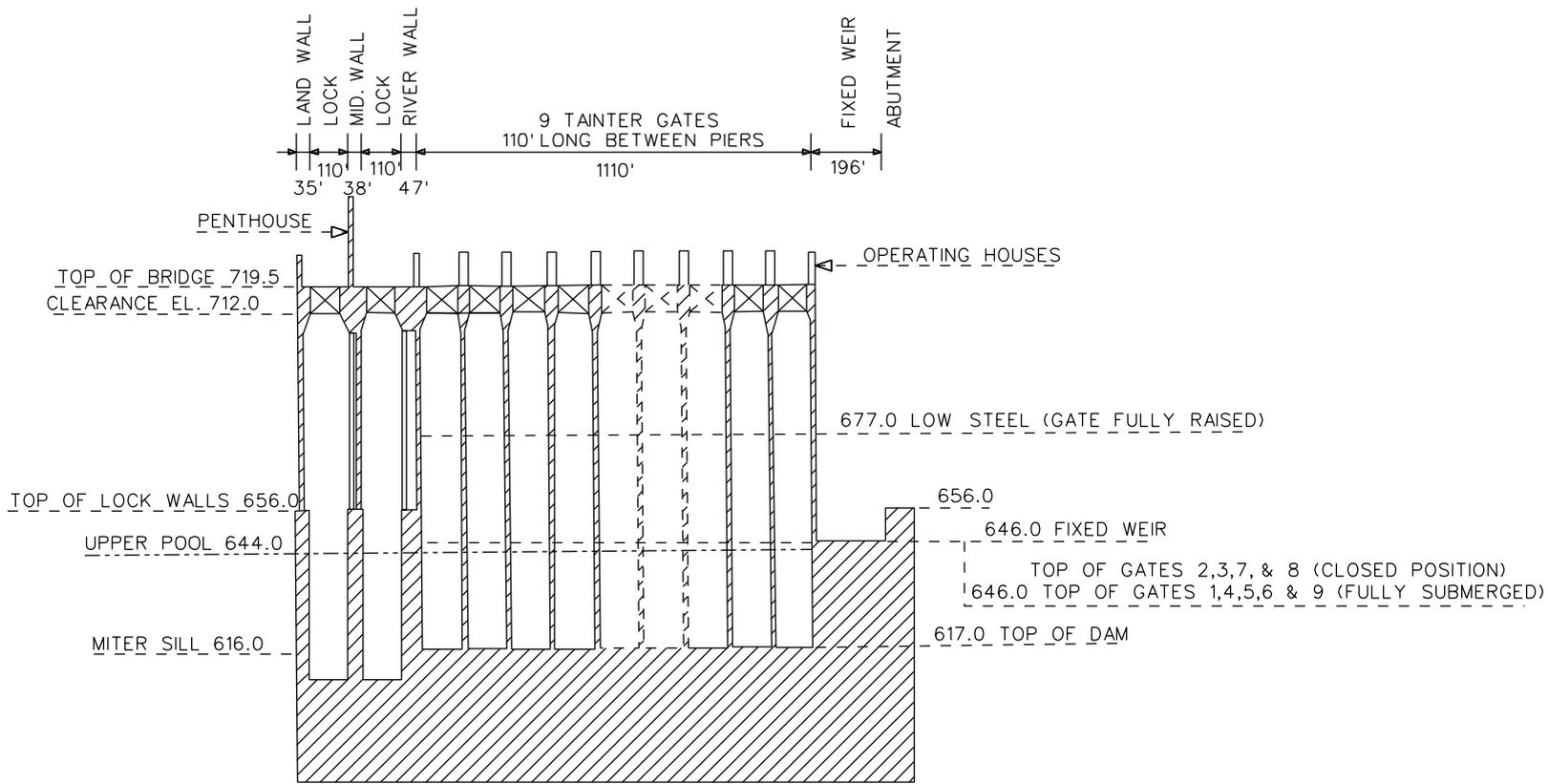
- ① GAS PIPELINE
- ② AETNAVILLE HIGHWAY BRIDGE
- Ⓐ THOMAS E. AYERS (INACTIVE)
- Ⓑ MARTIN MARIETTA AGGREGATES
- Ⓒ CITY OF MARTINS FERRY
- Ⓓ WHEELING PITTSBURGH STEEL CORP.
- Ⓔ WESTPORT MARINA & LOUNGE (INACTIVE)
- Ⓕ MARTINS FERRY YACHT CLUB
- Ⓖ CITGO (INACTIVE)
- Ⓗ SEWER OUTLET

NOTE
 Old U.S. Lock & Dam No. 12, Mile 87.4, River Wall, Beartraps, and Lock Wall removed to El. 611.2, 11.8 feet below project pool, Land Wall to 7 feet below normal pool. The 650 foot wide former Navigable "Pass" portion of the dam has been removed to 14.5 feet below project pool elevation. The Abutment has remained intact, top El. 628.2, 5.2 feet above project pool.

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.

NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
 500' 0 500' 1000'
 SCALE 1"=1500'
 REVISED: January 2002
CHART NO. 198



AERIAL POWER CROSSINGS

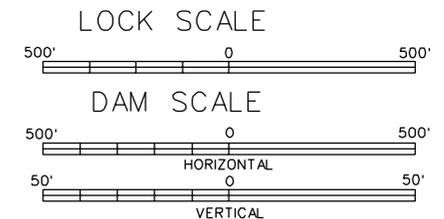
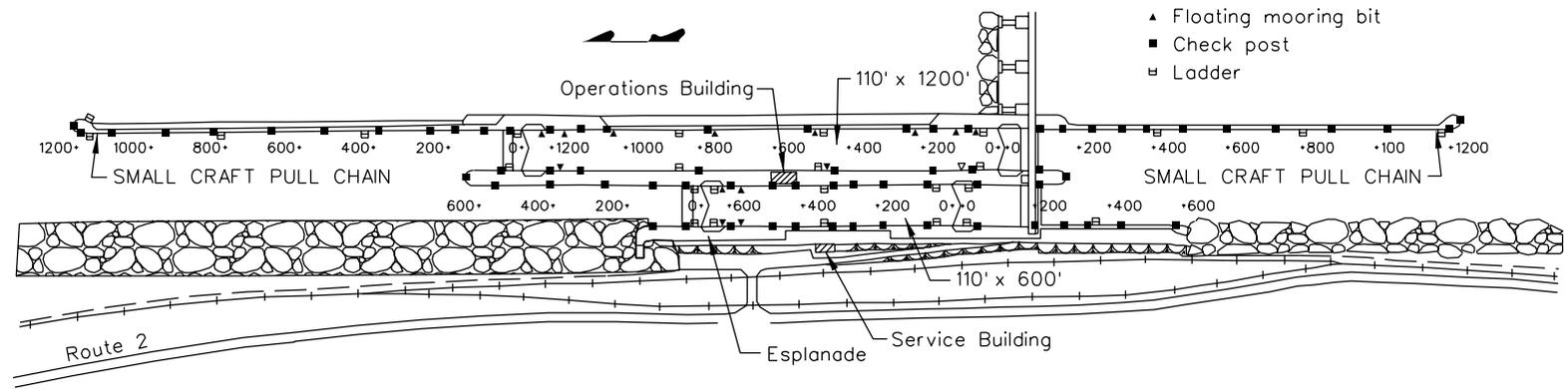
CROSSING	MILE	ELEVATION	CLEARANCE
1	86.7	724.2	101.2'

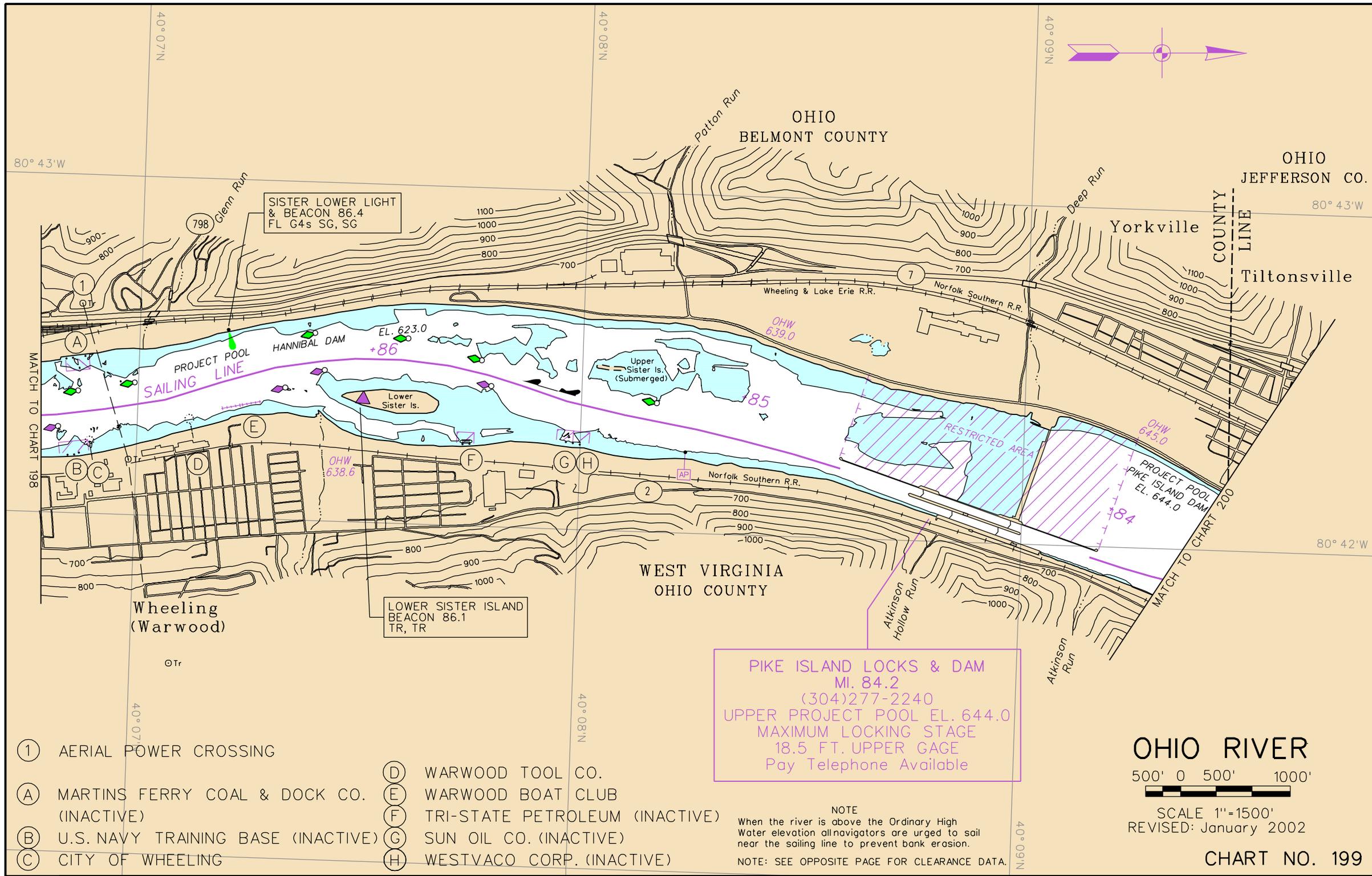
PIKE ISLAND LOCKS & DAM

NAVIGATION SUSPENDED - UPPER GAGE 18.5
TELEPHONE NO. 304-277-2240

PIKE ISLAND LOCKS & DAM
 UPPER POOL EL. 644.0
 LOWER POOL EL. 623.0
 UPPER GAGE
 ZERO EL. 632.0
 N.P. READS 12.0'
 LOWER GAGE
 ZERO EL. 611.0
 N.P. READS 12.0'

- LEGEND**
- ▲ Floating mooring bit
 - Check post
 - ▣ Ladder





80° 43' W

80° 43' W

80° 42' W

40° 07' N

40° 08' N

40° 09' N

Wheeling
(Warwood)

WEST VIRGINIA
OHIO COUNTY

PIKE ISLAND LOCKS & DAM
 MI. 84.2
 (304)277-2240
 UPPER PROJECT POOL EL. 644.0
 MAXIMUM LOCKING STAGE
 18.5 FT. UPPER GAGE
 Pay Telephone Available

OHIO RIVER



SCALE 1"=1500'
 REVISED: January 2002

CHART NO. 199

- ① AERIAL POWER CROSSING
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧
- ⑨
- ⑩
- ⑪
- ⑫
- ⑬
- ⑭
- ⑮
- ⑯
- ⑰
- ⑱
- ⑲
- ⑳
- ㉑
- ㉒
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- Ⓐ MARTINS FERRY COAL & DOCK CO. (INACTIVE)
- Ⓑ U.S. NAVY TRAINING BASE (INACTIVE)
- Ⓒ CITY OF WHEELING
- Ⓓ
- Ⓔ
- Ⓕ
- Ⓖ WARWOOD TOOL CO.
- Ⓗ WARWOOD BOAT CLUB
- Ⓙ TRI-STATE PETROLEUM (INACTIVE)
- Ⓚ SUN OIL CO. (INACTIVE)
- Ⓛ WESTVACO CORP. (INACTIVE)

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

MATCH TO CHART 198

MATCH TO CHART 200

SISTER LOWER LIGHT & BEACON 86.4
 FL G4s SG, SG

LOWER SISTER ISLAND BEACON 86.1
 TR, TR

RESTRICTED AREA

Yorkville

Tiltonsville

OHIO
BELMONT COUNTY

OHIO
JEFFERSON CO.

Patton Run

Deep Run

Glenn Run

Wheeling & Lake Erie R.R.

Norfolk Southern R.R.

Norfolk Southern R.R.

Atkinson Hollow Run

Atkinson Run

EL. 623.0

OHW 639.0

OHW 638.6

OHW 645.0

PROJECT POOL
PIKE ISLAND DAM
EL. 644.0

+86

85

384

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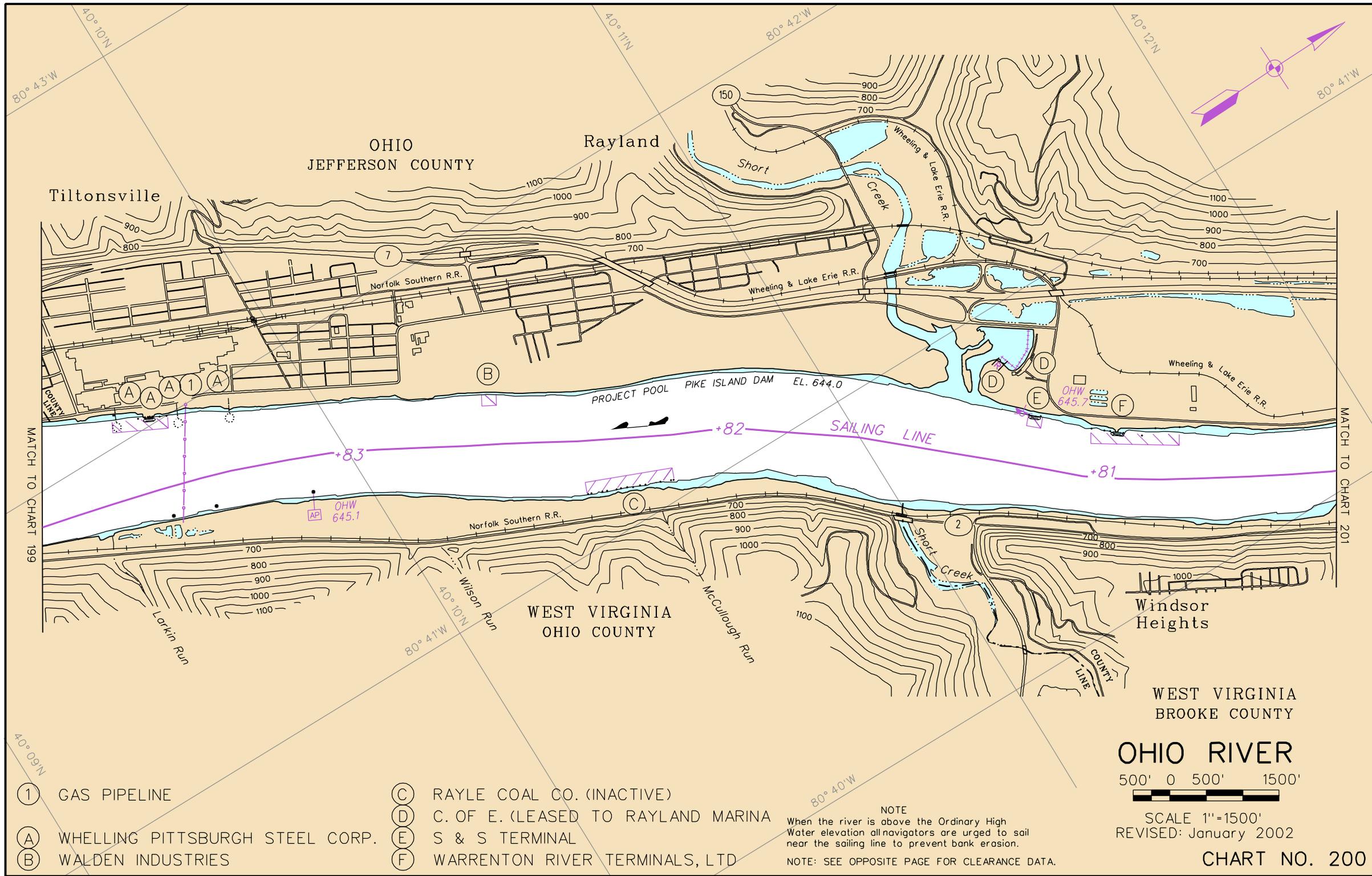
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OHIO
JEFFERSON COUNTY

Rayland

Tiltonsville

WEST VIRGINIA
OHIO COUNTY

WEST VIRGINIA
BROOKE COUNTY

OHIO RIVER



SCALE 1"=1500'
REVISED: January 2002

CHART NO. 200

① GAS PIPELINE

Ⓐ WHELLING PITTSBURGH STEEL CORP.

Ⓑ WALDEN INDUSTRIES

Ⓒ RAYLE COAL CO. (INACTIVE)

Ⓓ C. OF E. (LEASED TO RAYLAND MARINA)

Ⓔ S & S TERMINAL

Ⓕ WARRENTON RIVER TERMINALS, LTD

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.

NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

MATCH TO CHART 199

MATCH TO CHART 201

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	79.7	728.3	84.3'

① AERIAL POWER CROSSING

② GAS PIPELINE

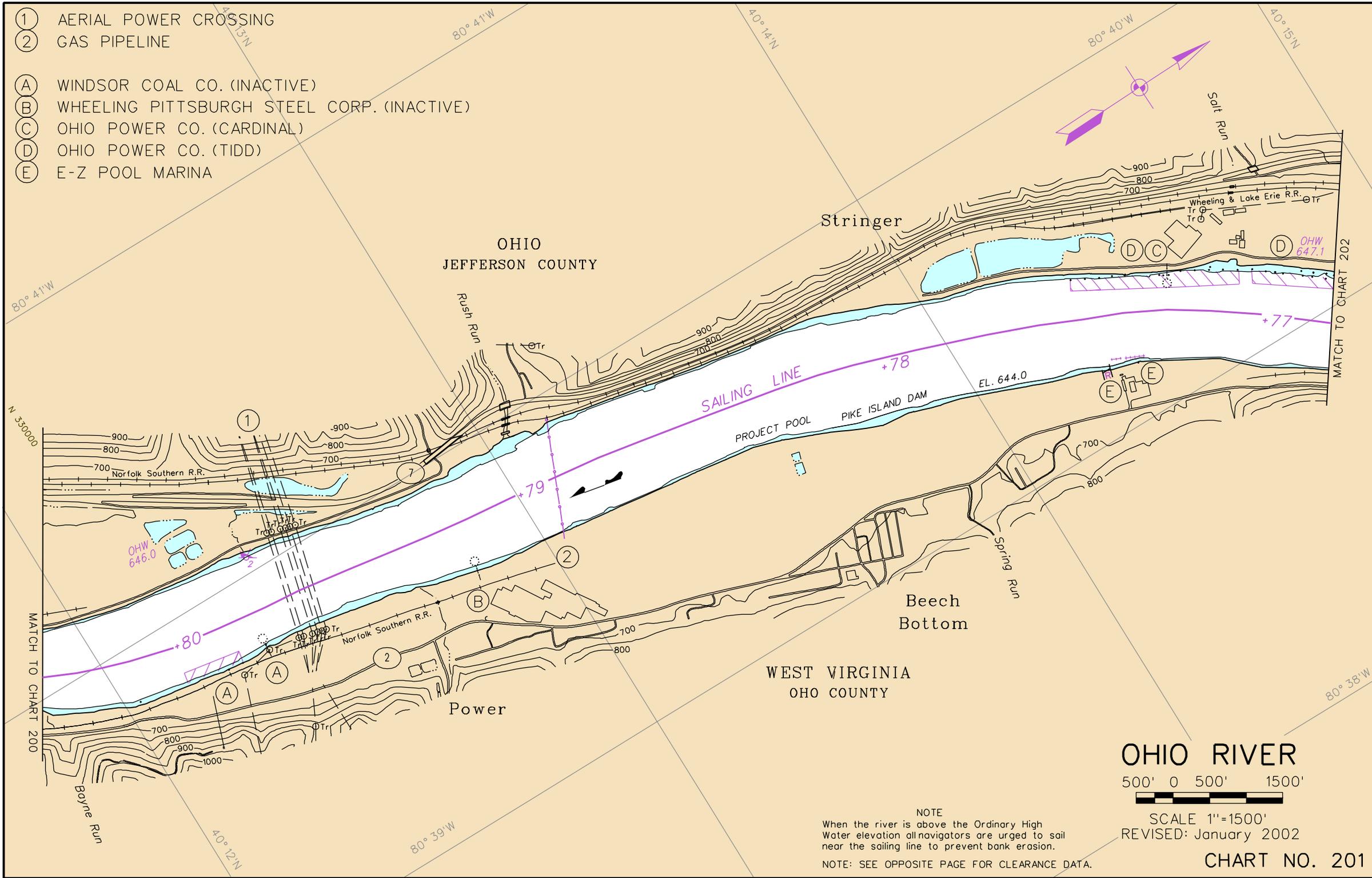
(A) WINDSOR COAL CO. (INACTIVE)

(B) WHEELING PITTSBURGH STEEL CORP. (INACTIVE)

(C) OHIO POWER CO. (CARDINAL)

(D) OHIO POWER CO. (TIDD)

(E) E-Z POOL MARINA



OHIO RIVER

500' 0 500' 1500'

SCALE 1"=1500'

REVISED: January 2002

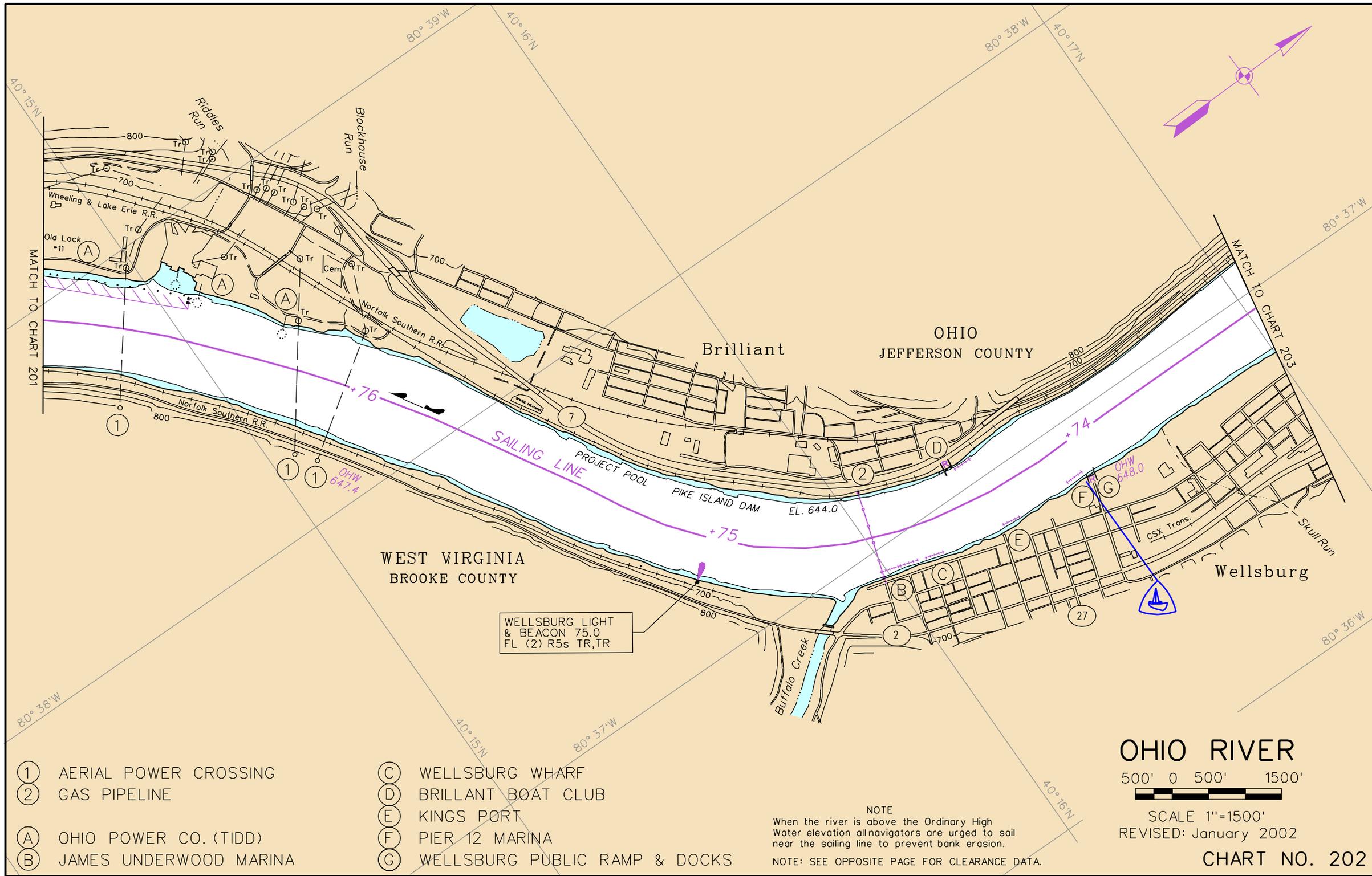
NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.

NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

CHART NO. 201

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	76.1	741.5	97.5'
1	76.15	741.5	97.5'
1	76.7	757.0	113.0'

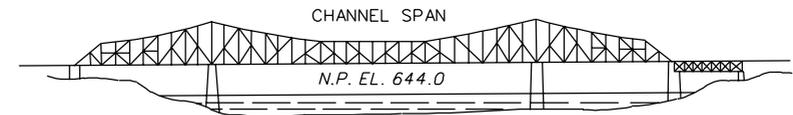


- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- (A) OHIO POWER CO. (TIDD)
- (B) JAMES UNDERWOOD MARINA

- (C) WELLSBURG WHARF
- (D) BRILLANT BOAT CLUB
- (E) KINGS PORT
- (F) PIER 12 MARINA
- (G) WELLSBURG PUBLIC RAMP & DOCKS

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

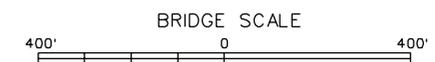
OHIO RIVER
 500' 0 500' 1500'
 SCALE 1"=1500'
 REVISED: January 2002
CHART NO. 202



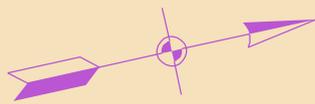
2

NORFOLK SOUTHERN RAILROAD BRIDGE
 CHANNEL SPAN
 MILE 71.4

ELEVATION OF LOW STEEL	712.7
VERTICAL CLEARANCE AT POOL STAGE	68.7'
HORIZONTAL CLEARANCE	675.0'



ELEVATIONS LOOKING DOWNSTREAM
 OHIO RIVER CHART 203



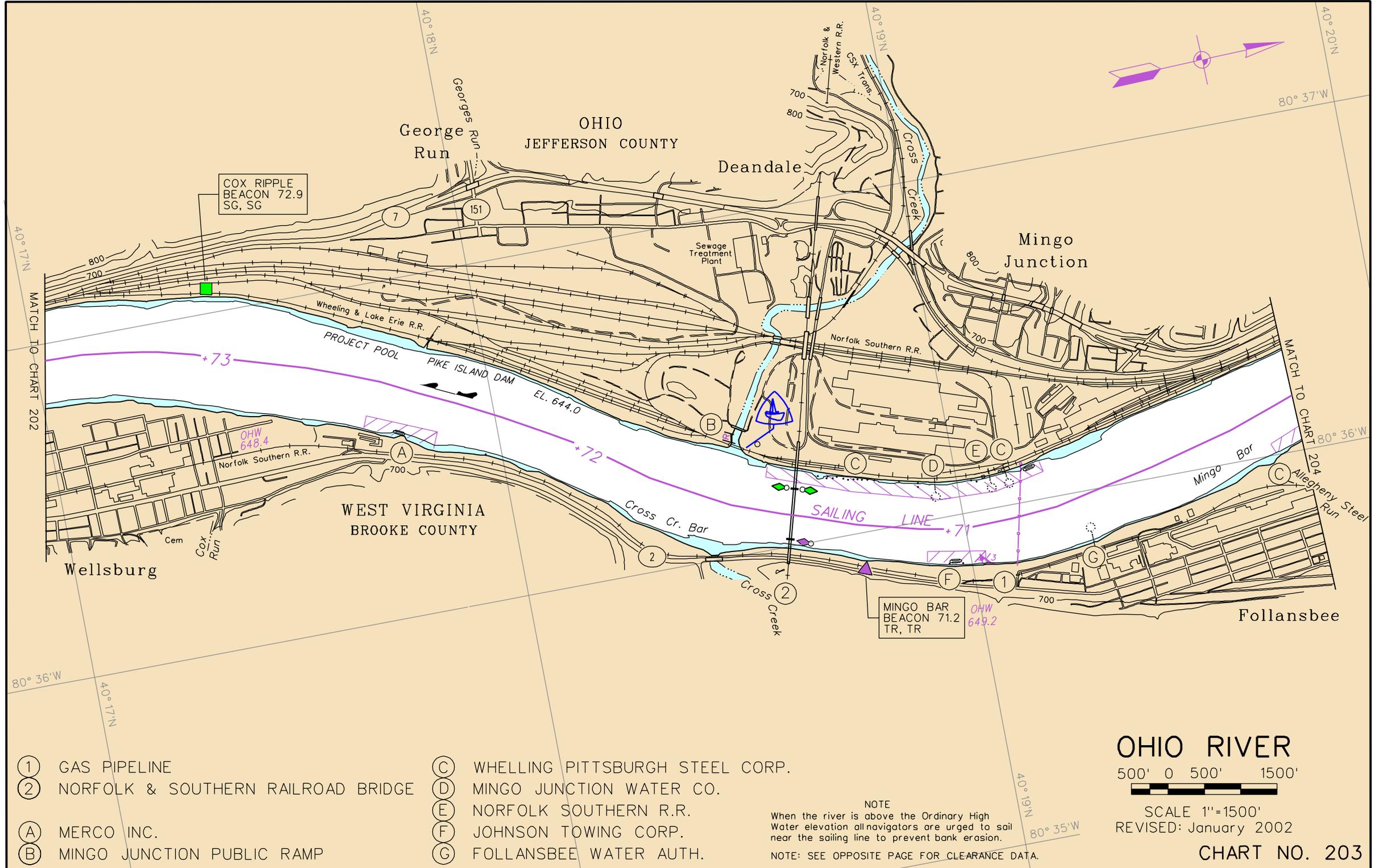
OHIO RIVER

500' 0 500' 1500'



SCALE 1"=1500'
REVISED: January 2002

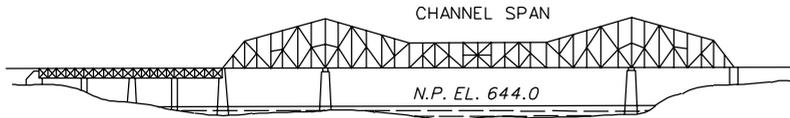
CHART NO. 203



- ① GAS PIPELINE
- ② NORFOLK & SOUTHERN RAILROAD BRIDGE
- Ⓐ MERCO INC.
- Ⓑ MINGO JUNCTION PUBLIC RAMP

- Ⓒ WHELLING PITTSBURGH STEEL CORP.
- Ⓓ MINGO JUNCTION WATER CO.
- Ⓔ NORFOLK SOUTHERN R.R.
- Ⓕ JOHNSON TOWING CORP.
- Ⓖ FOLLANSBEE WATER AUTH.

NOTE
When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.



5

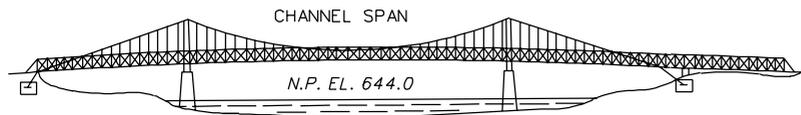
LA BELLE RAILROAD BRIDGE
CHANNEL SPAN

MILE 68.7

ELEVATION OF LOW STEEL 714.5
VERTICAL CLEARANCE AT POOL STAGE 70.5'
HORIZONTAL CLEARANCE 645.0'

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	69.85	754.0	110.0'



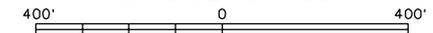
6

STEBENVILLE HIGHWAY BRIDGE
CHANNEL SPAN

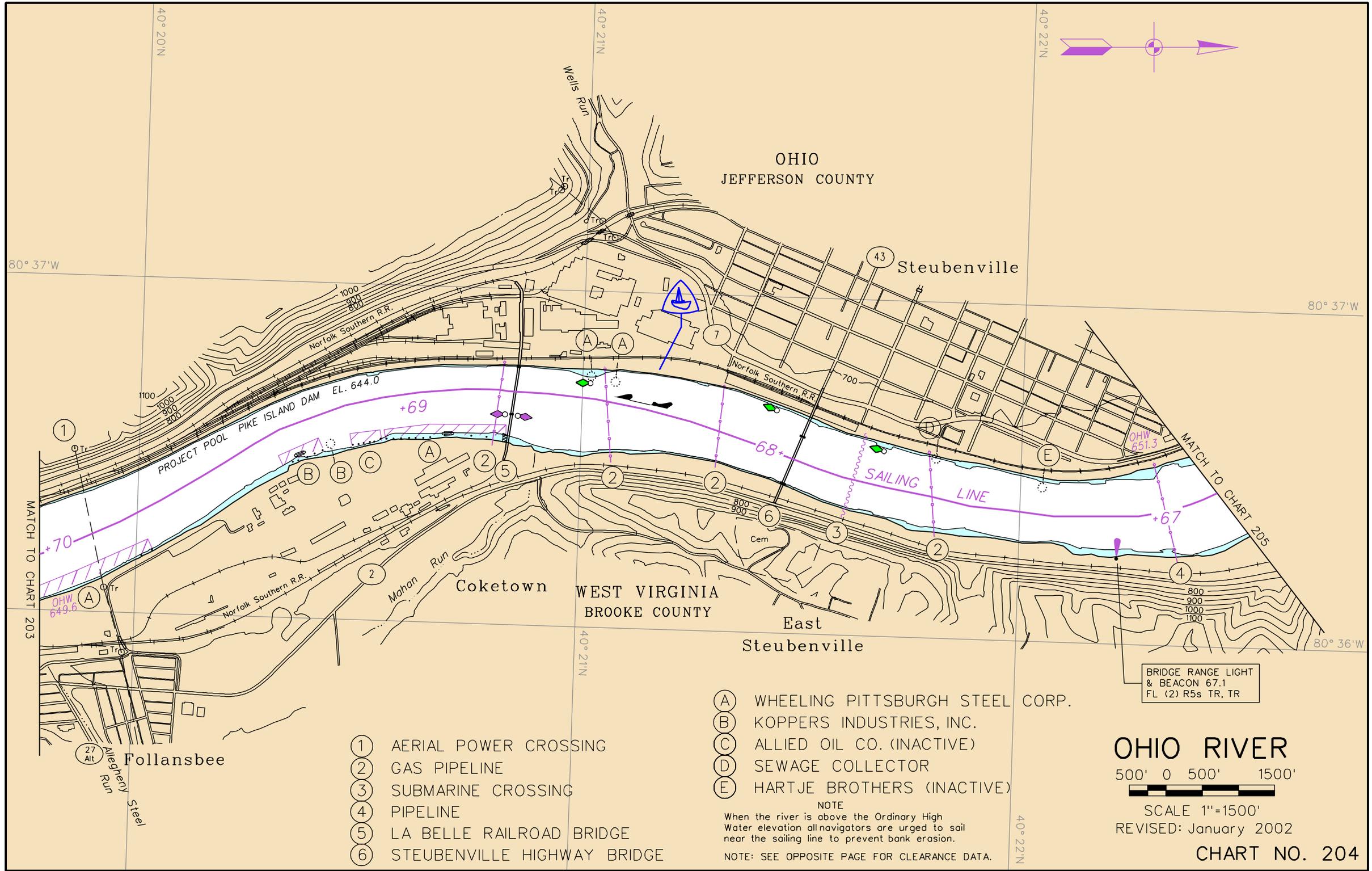
MILE 68.0

ELEVATION OF LOW STEEL 713.9
VERTICAL CLEARANCE AT POOL STAGE 69.9'
HORIZONTAL CLEARANCE 675.0'

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM
OHIO RIVER CHART 204



OHIO
JEFFERSON COUNTY

Steubenville

WEST VIRGINIA
BROOKE COUNTY

East
Steubenville

Follansbee

MATCH TO CHART 203

MATCH TO CHART 205

- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ SUBMARINE CROSSING
- ④ PIPELINE
- ⑤ LA BELLE RAILROAD BRIDGE
- ⑥ STEUBENVILLE HIGHWAY BRIDGE

- (A) WHEELING PITTSBURGH STEEL CORP.
- (B) KOPPERS INDUSTRIES, INC.
- (C) ALLIED OIL CO. (INACTIVE)
- (D) SEWAGE COLLECTOR
- (E) HARTJE BROTHERS (INACTIVE)

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.

NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

BRIDGE RANGE LIGHT
& BEACON 67.1
FL (2) R5s TR, TR

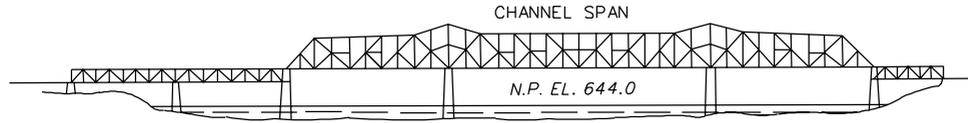
OHIO RIVER

500' 0 500' 1500'



SCALE 1"=1500'
REVISED: January 2002

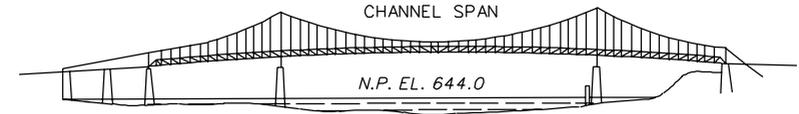
CHART NO. 204



3

CONRAIL RAILROAD BRIDGE
CHANNEL SPAN
MILE 66.7

ELEVATION OF LOW STEEL	715.8
VERTICAL CLEARANCE AT POOL STAGE	71.8'
HORIZONTAL CLEARANCE	546.0'

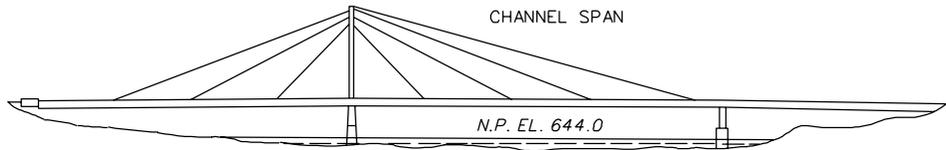


5

STEUBENVILLE-WEIRTON HIGHWAY BRIDGE
CHANNEL SPAN
MILE 66.3

ELEVATION OF LOW STEEL	716.3*
VERTICAL CLEARANCE AT POOL STAGE	72.3*
HORIZONTAL CLEARANCE	663.0'

* FOR CENTER 500 FEET OF CHANNEL SPAN



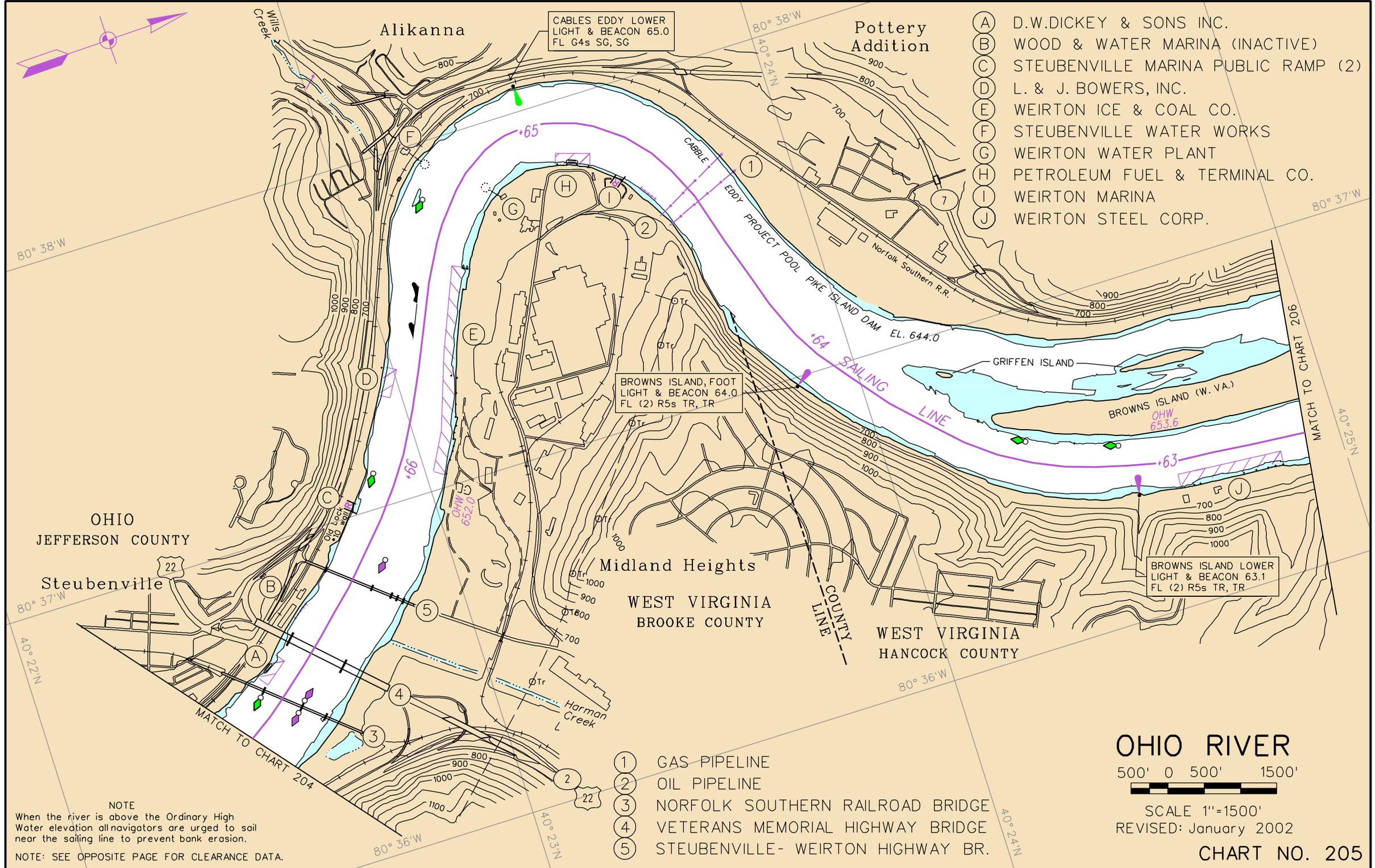
4

VETERANS MEMORIAL BRIDGE
CHANNEL SPAN
MILE 66.5

ELEVATION OF LOW STEEL	713.0
VERTICAL CLEARANCE AT POOL STAGE	69.0'
HORIZONTAL CLEARANCE	800.0'



ELEVATIONS LOOKING DOWNSTREAM
OHIO RIVER CHART 205



- (A) D.W.DICKEY & SONS INC.
- (B) WOOD & WATER MARINA (INACTIVE)
- (C) STEUBENVILLE MARINA PUBLIC RAMP (2)
- (D) L. & J. BOWERS, INC.
- (E) WEIRTON ICE & COAL CO.
- (F) STEUBENVILLE WATER WORKS
- (G) WEIRTON WATER PLANT
- (H) PETROLEUM FUEL & TERMINAL CO.
- (I) WEIRTON MARINA
- (J) WEIRTON STEEL CORP.

CABLES EDDY LOWER LIGHT & BEACON 65.0
FL G4s SG, SG

BROWNS ISLAND, FOOT LIGHT & BEACON 64.0
FL (2) R5s TR, TR

BROWNS ISLAND LOWER LIGHT & BEACON 63.1
FL (2) R5s TR, TR

NOTE
When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

- (1) GAS PIPELINE
- (2) OIL PIPELINE
- (3) NORFOLK SOUTHERN RAILROAD BRIDGE
- (4) VETERANS MEMORIAL HIGHWAY BRIDGE
- (5) STEUBENVILLE- WEIRTON HIGHWAY BR.

OHIO RIVER

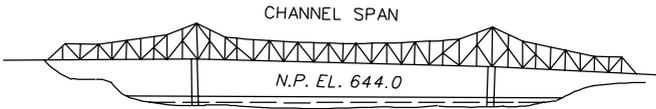
500' 0 500' 1500'



SCALE 1"=1500'
REVISED: January 2002

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	62.3	734.0	90.0'
1	60.3	754.0	110.0'



4

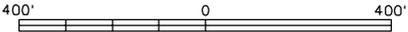
NATIONAL STEEL CORPORATION BRIDGE

CHANNEL SPAN

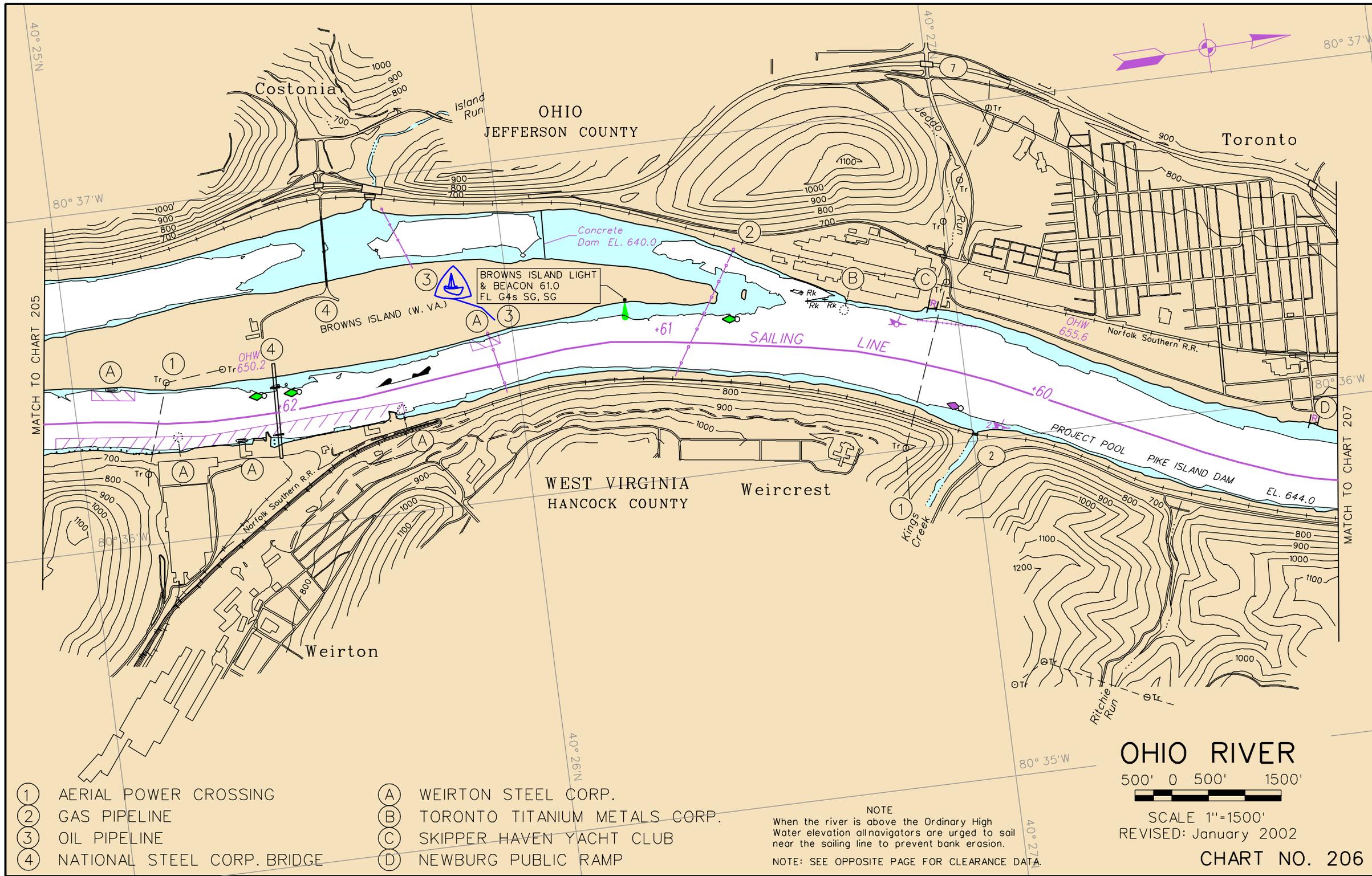
MILE 62.0

ELEVATION OF LOW STEEL	714.0
VERTICAL CLEARANCE AT POOL STAGE	70.0'
HORIZONTAL CLEARANCE	640.0'

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM
OHIO RIVER CHART 206



- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ OIL PIPELINE
- ④ NATIONAL STEEL CORP. BRIDGE

- (A) WEIRTON STEEL CORP.
- (B) TORONTO TITANIUM METALS CORP.
- (C) SKIPPER HAVEN YACHT CLUB
- (D) NEWBURG PUBLIC RAMP

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER

500' 0 500' 1500'

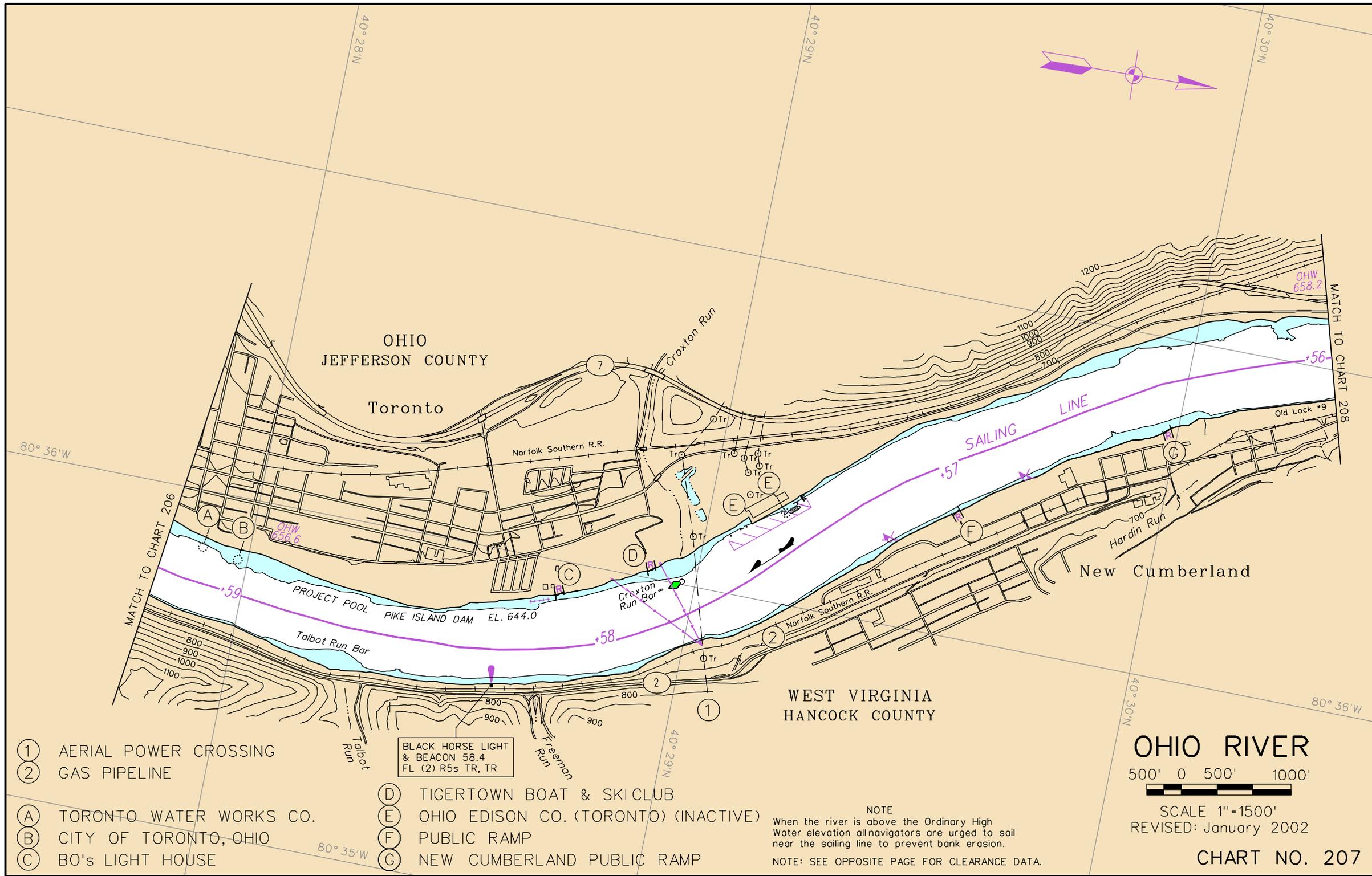


SCALE 1"=1500'
 REVISED: January 2002

CHART NO. 206

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	57.7	796.0	152.0'



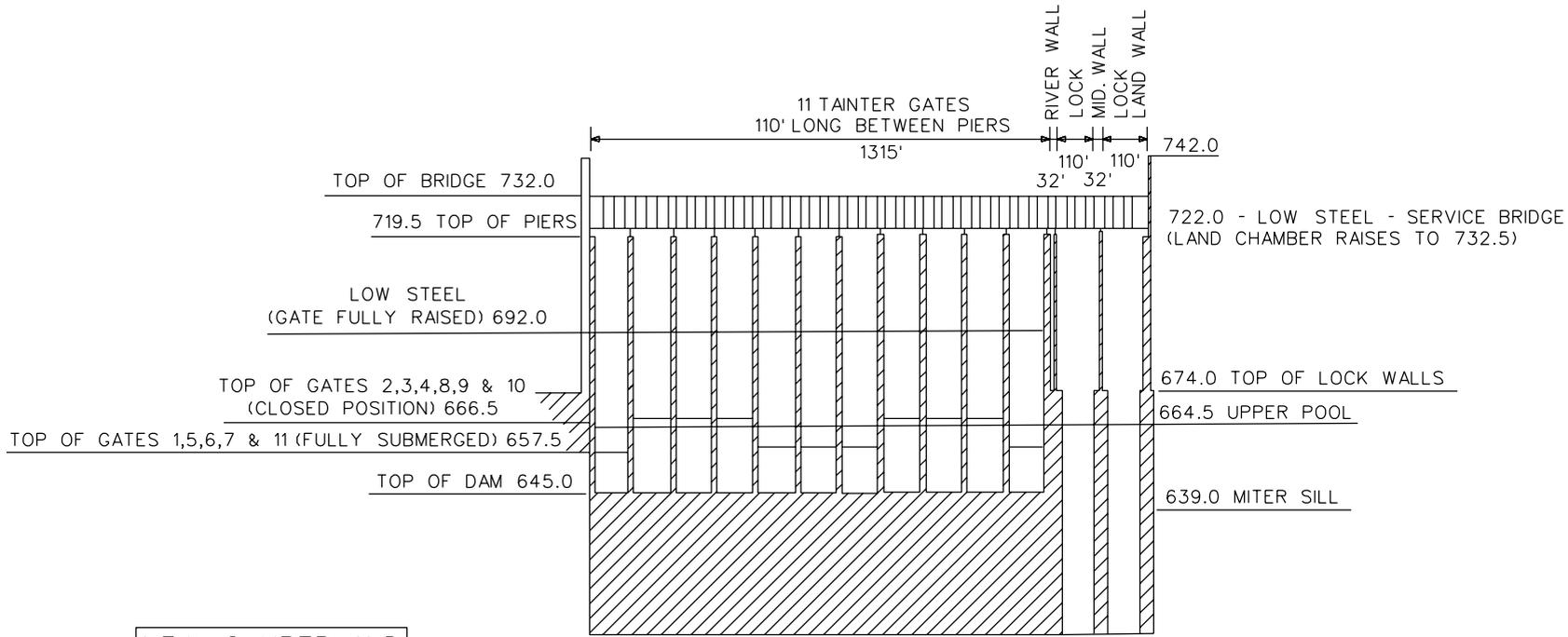
- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- (A) TORONTO WATER WORKS CO.
- (B) CITY OF TORONTO, OHIO
- (C) BO'S LIGHT HOUSE
- (D) TIGERTOWN BOAT & SKI CLUB
- (E) OHIO EDISON CO. (TORONTO) (INACTIVE)
- (F) PUBLIC RAMP
- (G) NEW CUMBERLAND PUBLIC RAMP

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
 500' 0 500' 1000'
 SCALE 1"=1500'
 REVISED: January 2002
CHART NO. 207

AERIAL POWER CROSSINGS

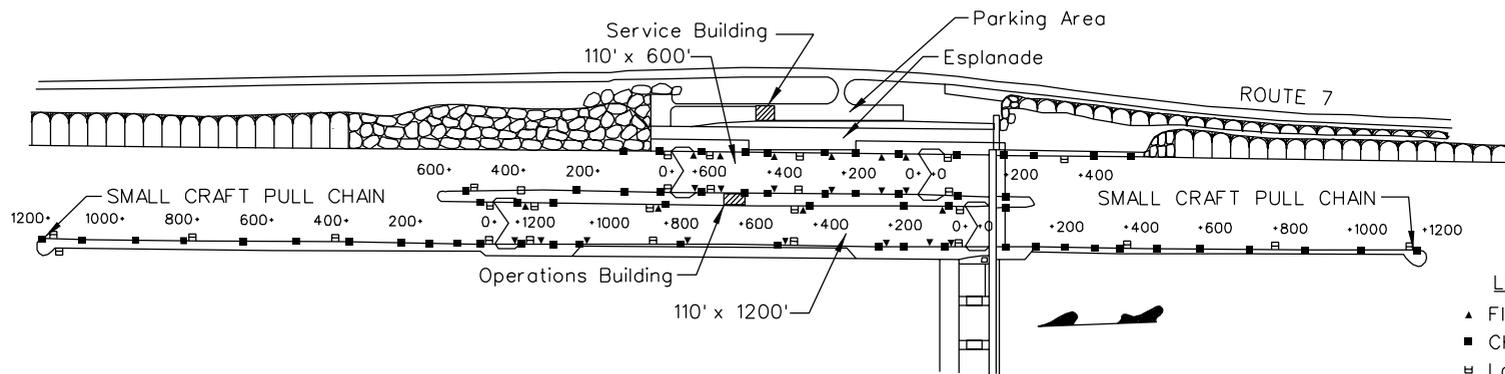
CROSSING	MILE	ELEVATION	CLEARANCE
1	54.05	773.8	109.3'



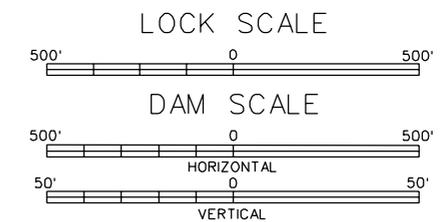
NEW CUMBERLAND LOCKS & DAM

NAVIGATION SUSPENDED - UPPER GAGE 18.0
 TELEPHONE NO. 740-537-2571

NEW CUMBERLAND
 LOCKS & DAM
 UPPER POOL EL. 664.5
 LOWER POOL EL. 644.0
 UPPER GAGE 12.0'
 ZERO EL. 652.6
 N.P. READS 12.0'
 LOWER GAGE
 ZERO EL. 632.1
 N.P. READS 12.0'

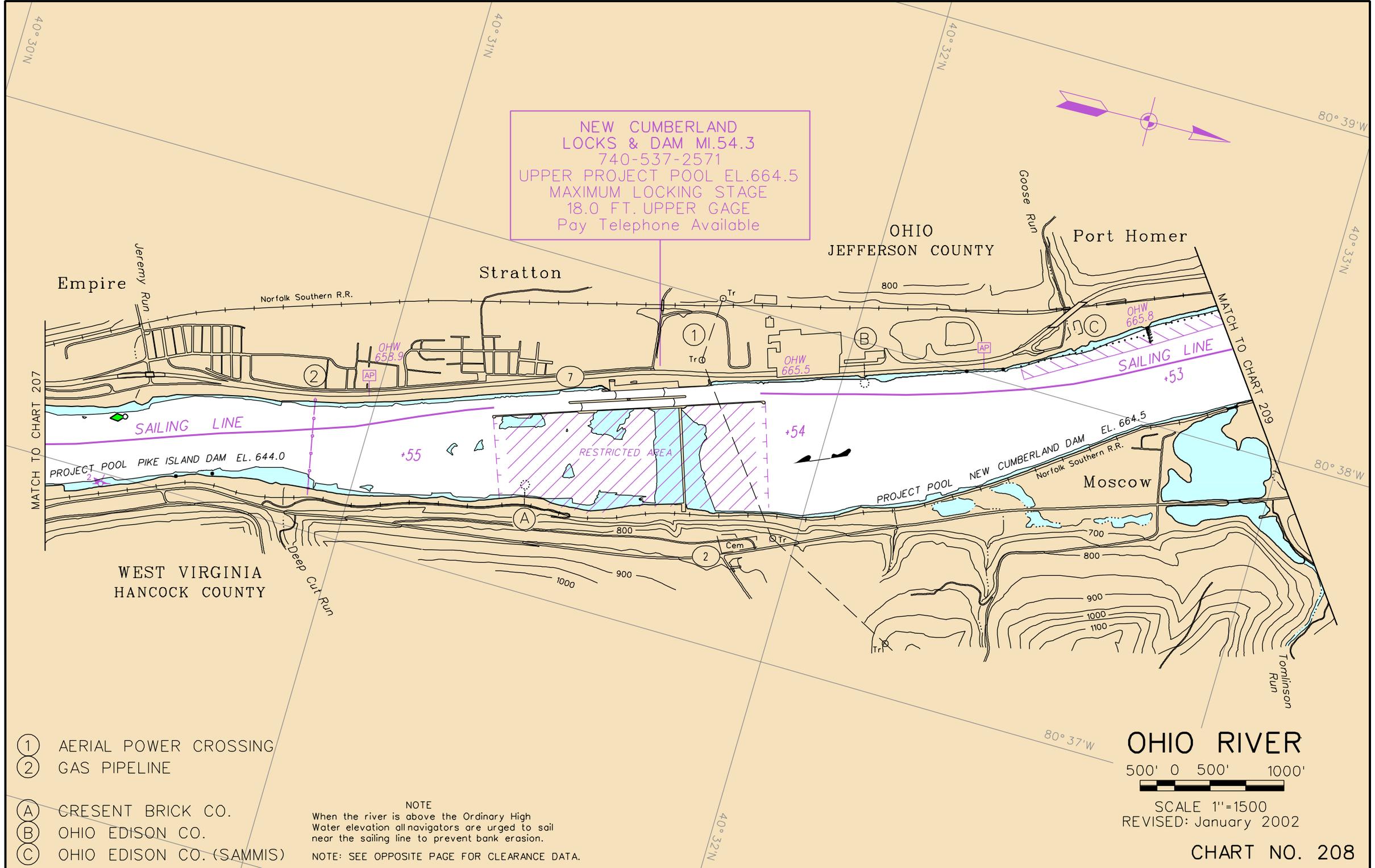


- LEGEND
- ▲ Floating mooring bit
 - Check post
 - ▣ Ladder



ELEVATIONS LOOKING DOWNSTREAM
 OHIO RIVER CHART 208

NEW CUMBERLAND
 LOCKS & DAM MI.54.3
 740-537-2571
 UPPER PROJECT POOL EL.664.5
 MAXIMUM LOCKING STAGE
 18.0 FT. UPPER GAGE
 Pay Telephone Available

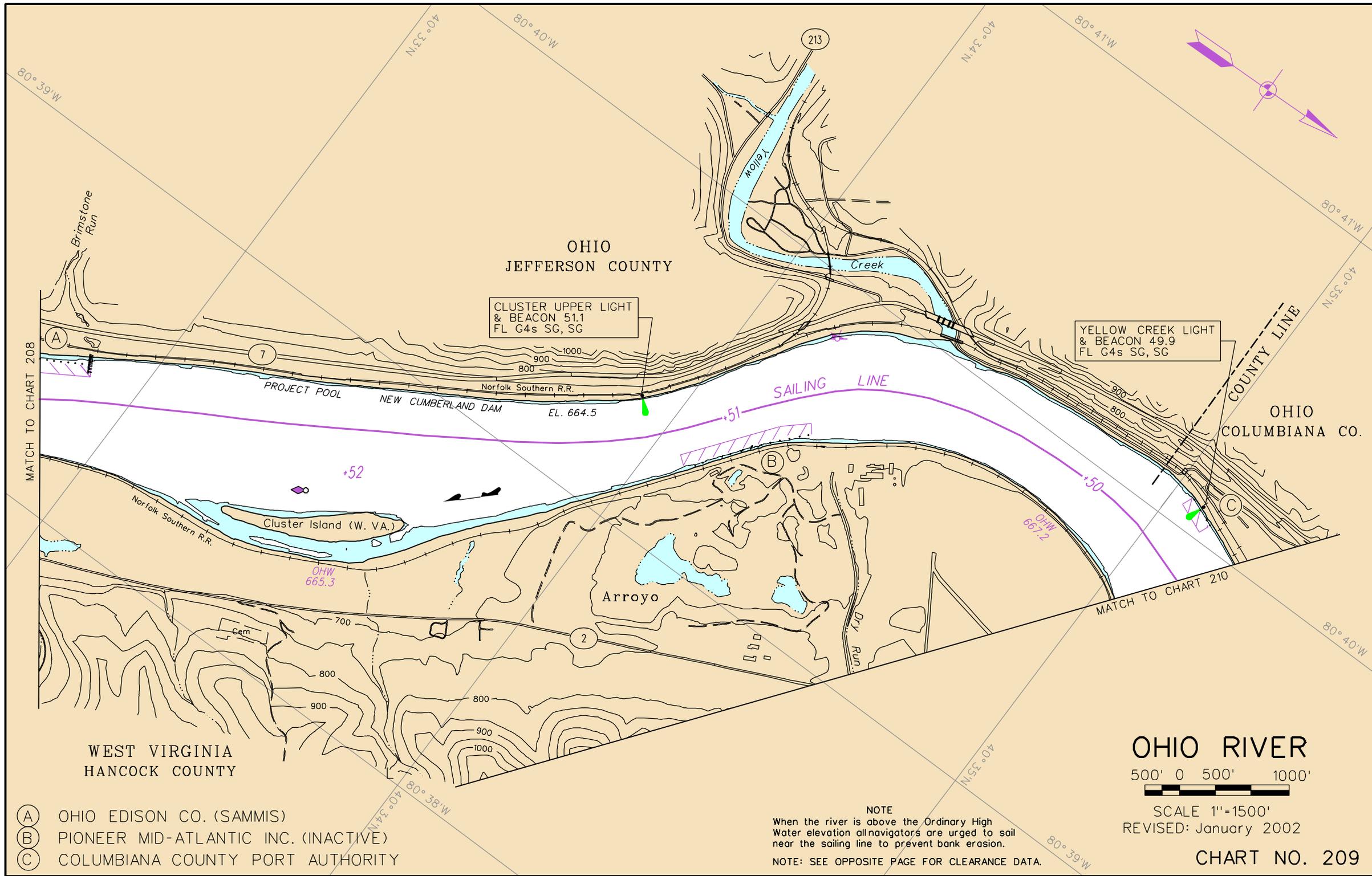


- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- (A) CRESENT BRICK CO.
- (B) OHIO EDISON CO.
- (C) OHIO EDISON CO. (SAMMIS)

NOTE
 When the river is above the Ordinary High
 Water elevation all navigators are urged to sail
 near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
 500' 0 500' 1000'
 SCALE 1"=1500
 REVISED: January 2002

CHART NO. 208



CLUSTER UPPER LIGHT
& BEACON 51.1
FL G4s SG, SG

YELLOW CREEK LIGHT
& BEACON 49.9
FL G4s SG, SG

WEST VIRGINIA
HANCOCK COUNTY

OHIO
JEFFERSON COUNTY

OHIO
COLUMBIANA CO.

OHIO RIVER

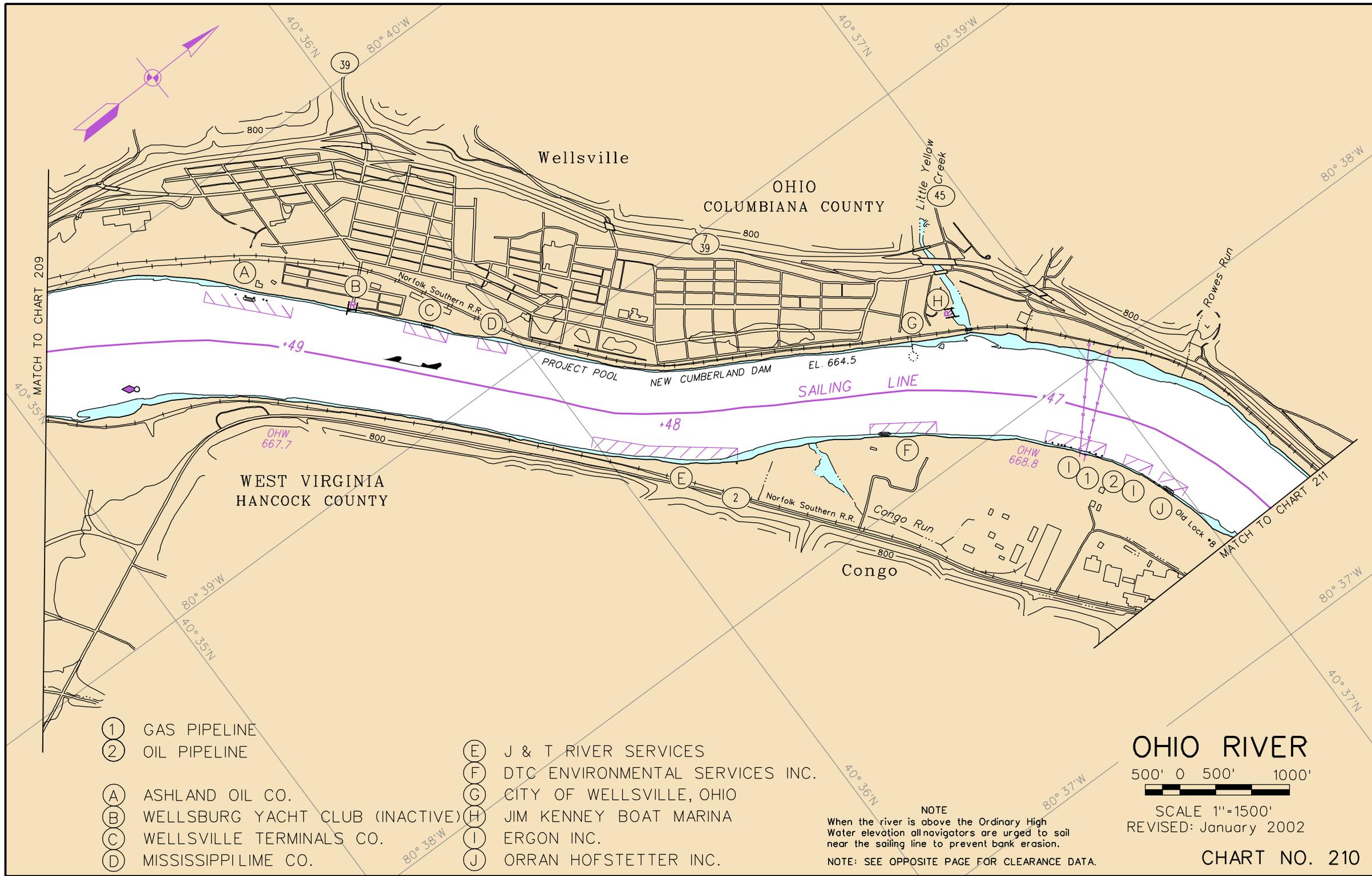
500' 0 500' 1000'

SCALE 1"=1500'
REVISED: January 2002

CHART NO. 209

- (A) OHIO EDISON CO. (SAMMIS)
- (B) PIONEER MID-ATLANTIC INC. (INACTIVE)
- (C) COLUMBIANA COUNTY PORT AUTHORITY

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.



- ① GAS PIPELINE
- ② OIL PIPELINE

- Ⓐ ASHLAND OIL CO.
- Ⓑ WELLSBURG YACHT CLUB (INACTIVE)
- Ⓒ WELLSVILLE TERMINALS CO.
- Ⓓ MISSISSIPPI LIME CO.

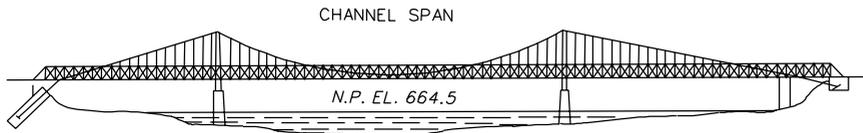
- Ⓔ J & T RIVER SERVICES
- Ⓕ DTC ENVIRONMENTAL SERVICES INC.
- Ⓖ CITY OF WELLSVILLE, OHIO
- Ⓗ JIM KENNEY BOAT MARINA
- Ⓘ ERGON INC.
- ⓵ ORRAN HOFSTETTER INC.

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER



SCALE 1"=1500'
 REVISED: January 2002

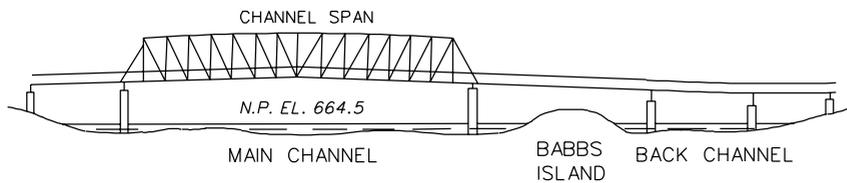


3

NEWELL HIGHWAY BRIDGE
CHANNEL SPAN

MILE 44.4

ELEVATION OF LOW STEEL	737.3
VERTICAL CLEARANCE AT POOL STAGE	72.8'
HORIZONTAL CLEARANCE	725.0'



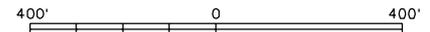
4

JENNINGS RANDOLPH HIGHWAY BRIDGE
CHANNEL SPAN

MILE 42.6

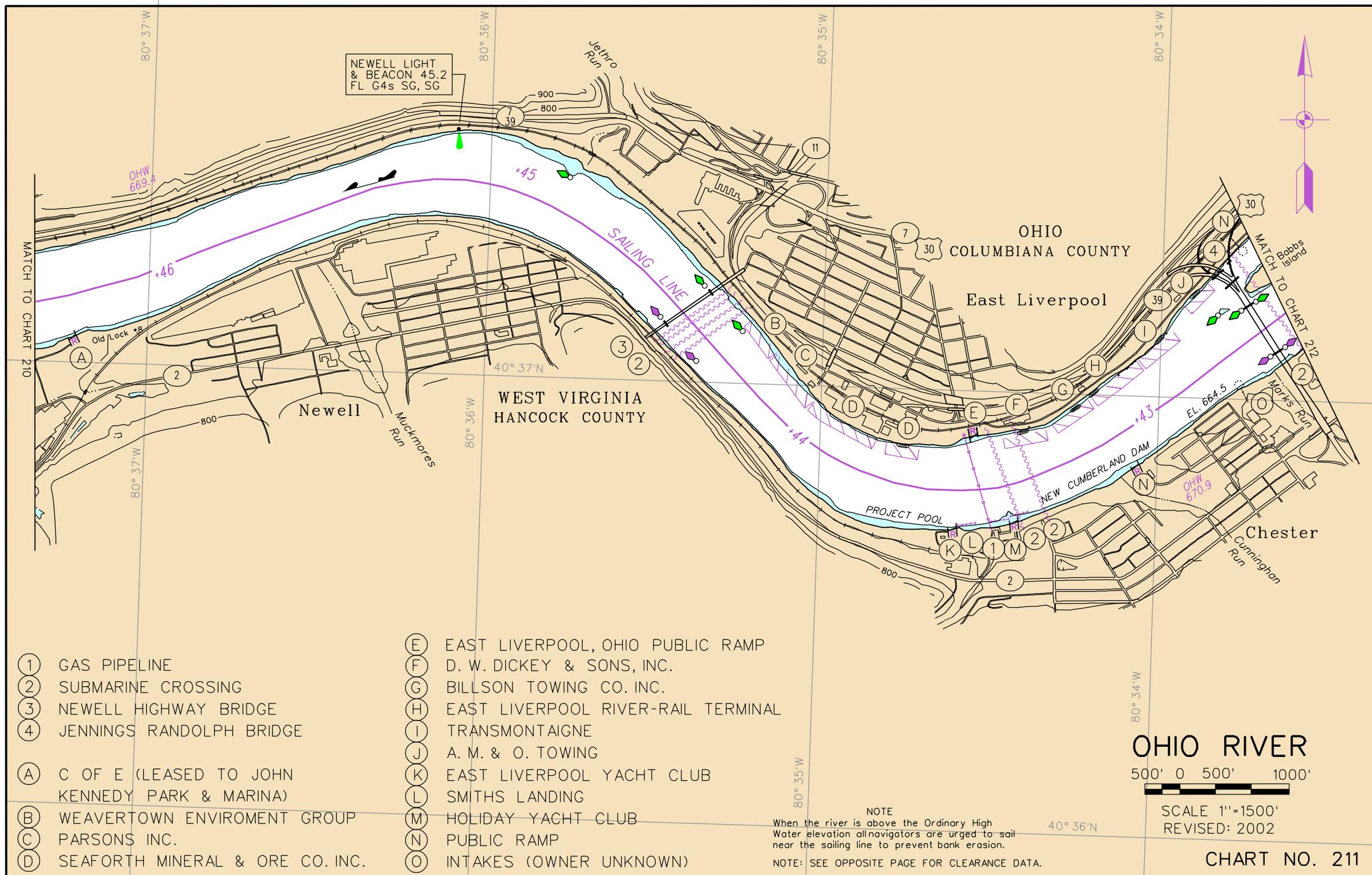
	MAIN CHANNEL	BACK CHANNEL
ELEVATION OF LOW STEEL	740.2	724.8
VERTICAL CLEARANCE AT POOL STAGE	75.7'	60.3'
HORIZONTAL CLEARANCE	722.0'	202.0'

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM

OHIO RIVER CHART 211



NEWELL LIGHT & BEACON 45.2
FL G4s SG, SG

- ① GAS PIPELINE
- ② SUBMARINE CROSSING
- ③ NEWELL HIGHWAY BRIDGE
- ④ JENNINGS RANDOLPH BRIDGE
- Ⓐ C OF E (LEASED TO JOHN KENNEDY PARK & MARINA)
- Ⓑ WEAVERTOWN ENVIROMENT GROUP
- Ⓒ PARSONS INC.
- Ⓓ SEAFORTH MINERAL & ORE CO. INC.

- Ⓔ EAST LIVERPOOL, OHIO PUBLIC RAMP
- Ⓕ D. W. DICKEY & SONS, INC.
- Ⓖ BILLSON TOWING CO. INC.
- Ⓗ EAST LIVERPOOL RIVER-RAIL TERMINAL
- Ⓘ TRANSMONTAIGNE
- Ⓝ A. M. & O. TOWING
- Ⓚ EAST LIVERPOOL YACHT CLUB
- Ⓛ SMITHS LANDING
- Ⓜ HOLIDAY YACHT CLUB
- Ⓝ PUBLIC RAMP
- Ⓞ INTAKES (OWNER UNKNOWN)

NOTE
When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
500' 0 500' 1000'

SCALE 1"=1500'
REVISED: 2002

CHART NO. 211

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	40.3	772.5	108.0'

PENNSYLVANIA
BEAVER COUNTY

OHIO
COLUMBIANA COUNTY

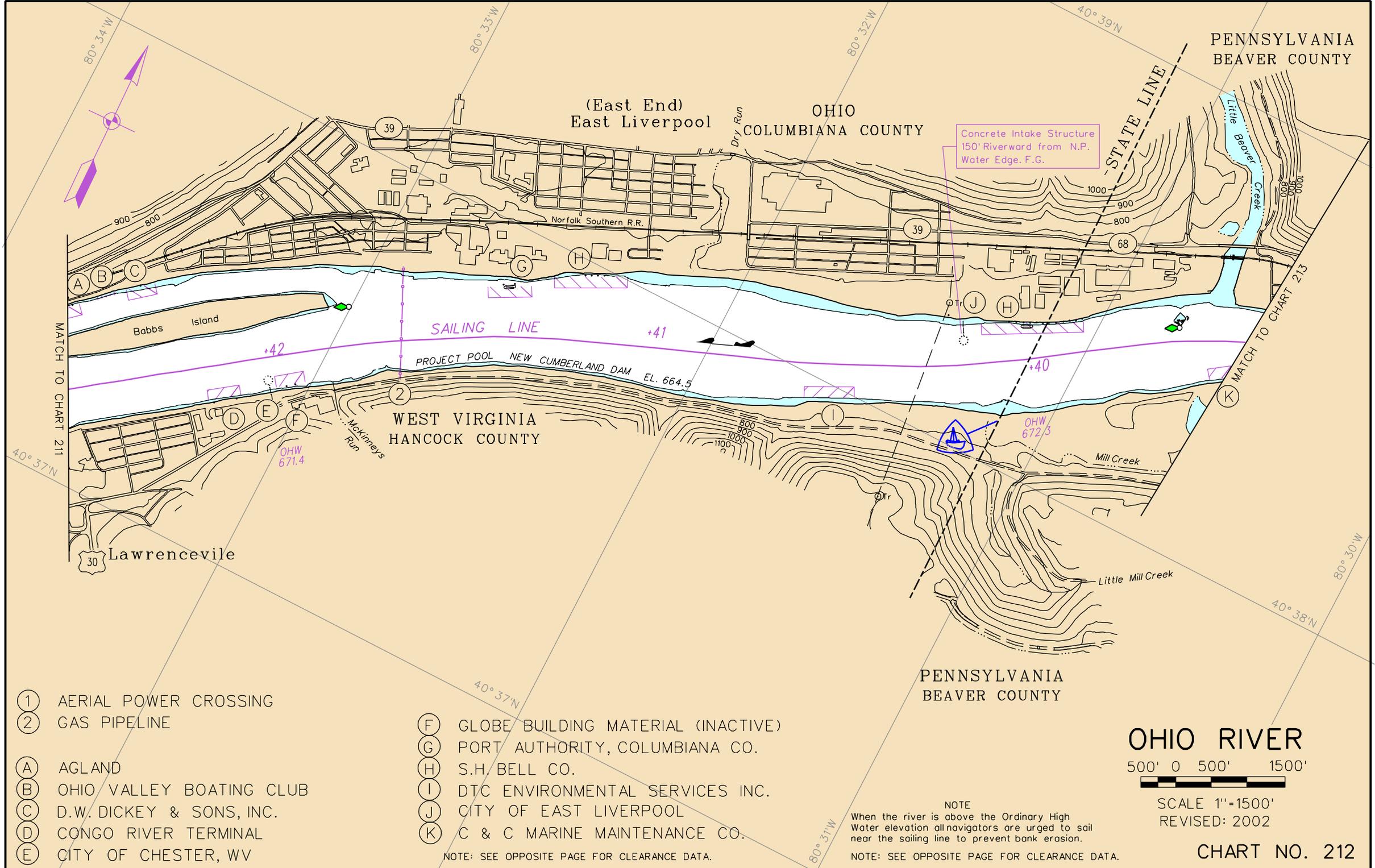
(East End)
East Liverpool

WEST VIRGINIA
HANCOCK COUNTY

PENNSYLVANIA
BEAVER COUNTY

MATCH TO CHART 211

MATCH TO CHART 213



Concrete Intake Structure
150' Riverward from N.P.
Water Edge. F.G.

- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- Ⓐ AGLAND
- Ⓑ OHIO VALLEY BOATING CLUB
- Ⓒ D.W. DICKEY & SONS, INC.
- Ⓓ CONGO RIVER TERMINAL
- Ⓔ CITY OF CHESTER, WV

- Ⓕ GLOBE BUILDING MATERIAL (INACTIVE)
- Ⓖ PORT AUTHORITY, COLUMBIANA CO.
- Ⓗ S.H. BELL CO.
- Ⓘ DTC ENVIRONMENTAL SERVICES INC.
- Ⓙ CITY OF EAST LIVERPOOL
- Ⓚ C & C MARINE MAINTENANCE CO.

NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.

NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER

500' 0 500' 1500'



SCALE 1"=1500'
REVISED: 2002

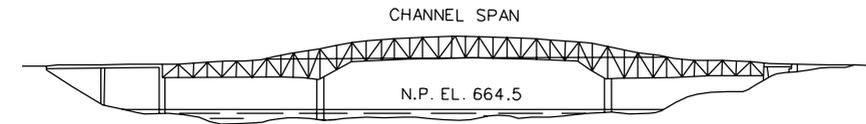
CHART NO. 212

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	38.8	765.7	101.2'
1	36.5	791.3	126.8'

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	33.65	765.0	100.5'
1	33.65	765.0	100.5'
1	34.45	760.3	95.8'
1	34.6	767.0	102.5'
1	35.3	779.9	115.4'
1	35.35	774.9	110.4'



5

MIDLAND-SHIPPIGPORT HIGHWAY BRIDGE

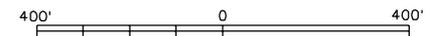
CHANNEL SPAN

MILE 34.7

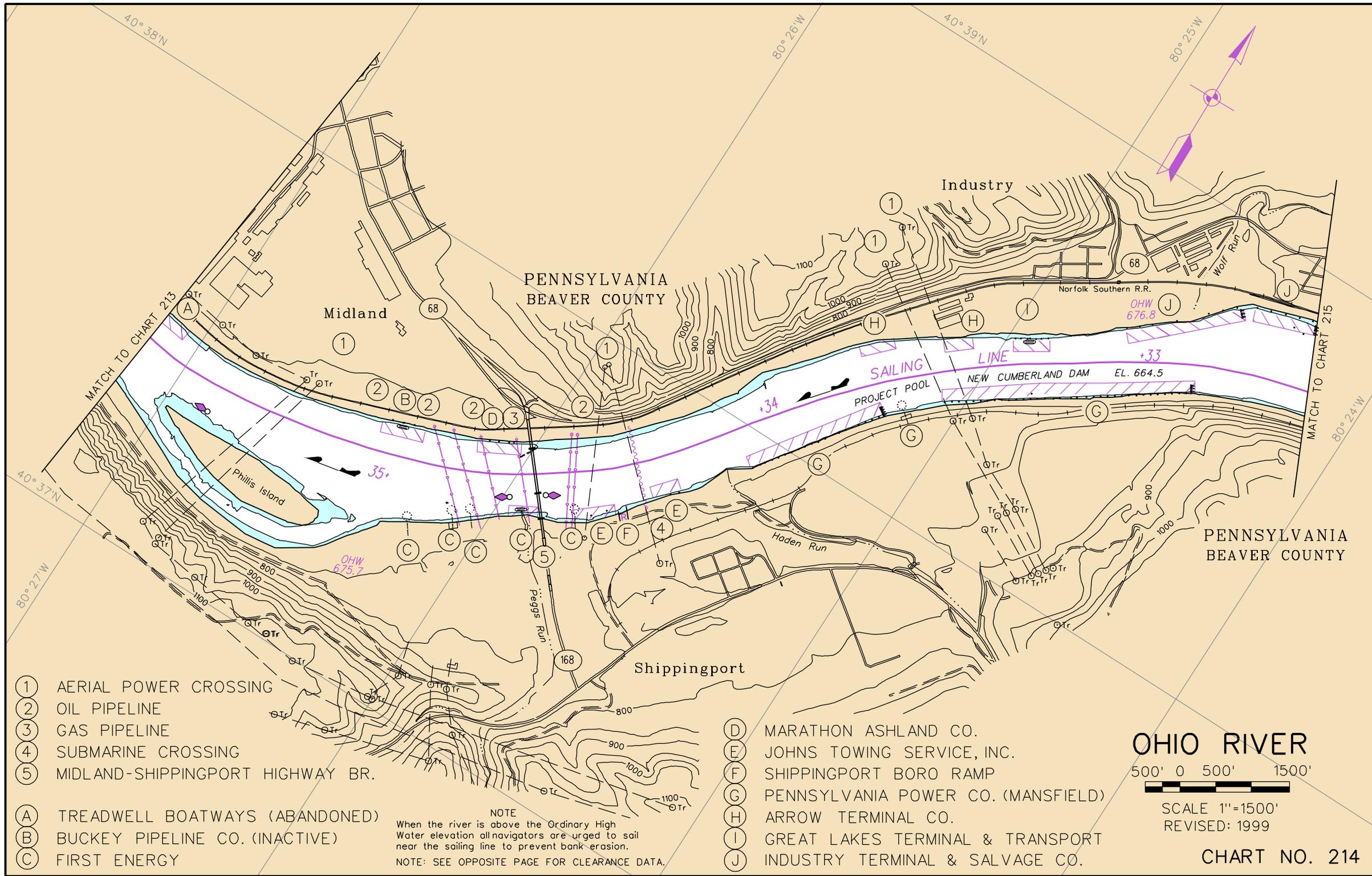
ELEVATION OF LOW STEEL 732.5*
 VERTICAL CLEARANCE AT POOL STAGE 68.0'*
 HORIZONTAL CLEARANCE 606.0'

* FOR 580 FEET OF CHANNEL SPAN

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM
 OHIO RIVER CHART 214

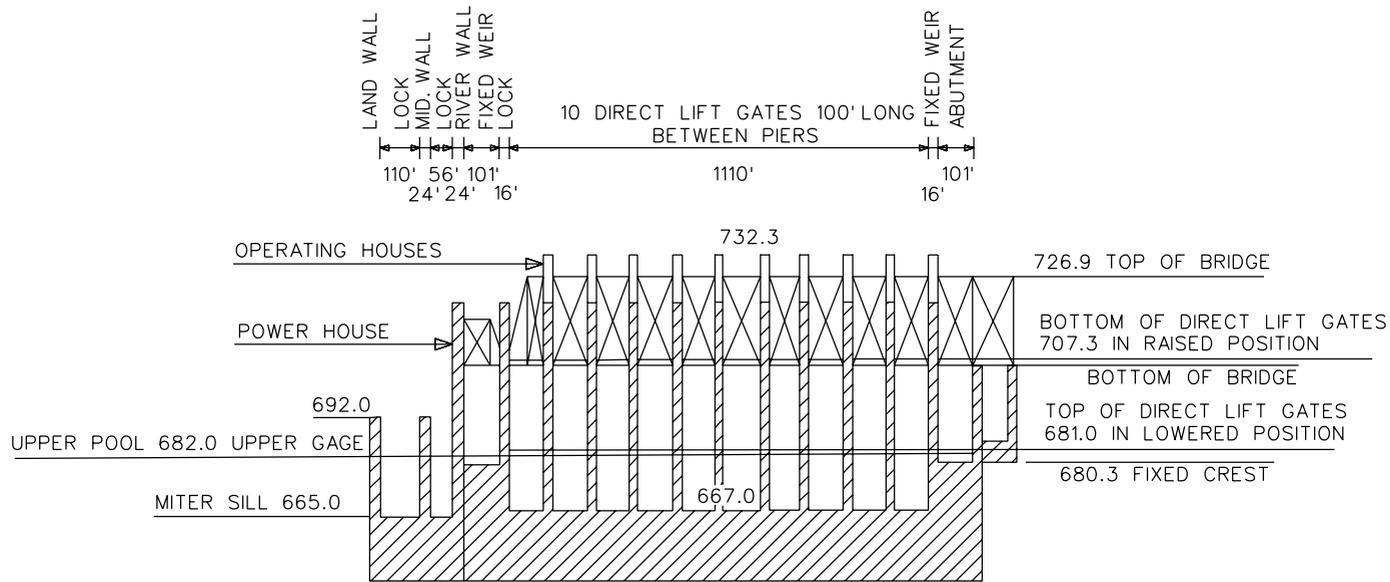


- ① AERIAL POWER CROSSING
- ② OIL PIPELINE
- ③ GAS PIPELINE
- ④ SUBMARINE CROSSING
- ⑤ MIDLAND-SHIPPINGPORT HIGHWAY BR.
- (A) TREADWELL BOATWAYS (ABANDONED)
- (B) BUCKEY PIPELINE CO. (INACTIVE)
- (C) FIRST ENERGY

NOTE
 When the river is above the Ordinary High
 Water elevation all navigators are urged to sail
 near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

- (D) MARATHON ASHLAND CO.
- (E) JOHNS TOWING SERVICE, INC.
- (F) SHIPPINGPORT BORO RAMP
- (G) PENNSYLVANIA POWER CO. (MANSFIELD)
- (H) ARROW TERMINAL CO.
- (I) GREAT LAKES TERMINAL & TRANSPORT
- (J) INDUSTRY TERMINAL & SALVAGE CO.

OHIO RIVER
 500' 0 500' 1500'
 SCALE 1"=1500'
 REVISED: 1999
CHART NO. 214

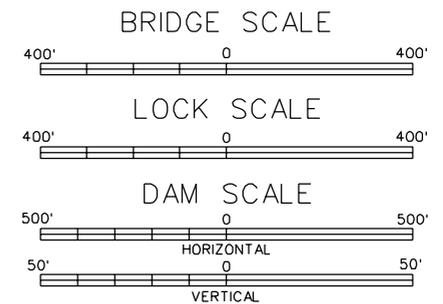
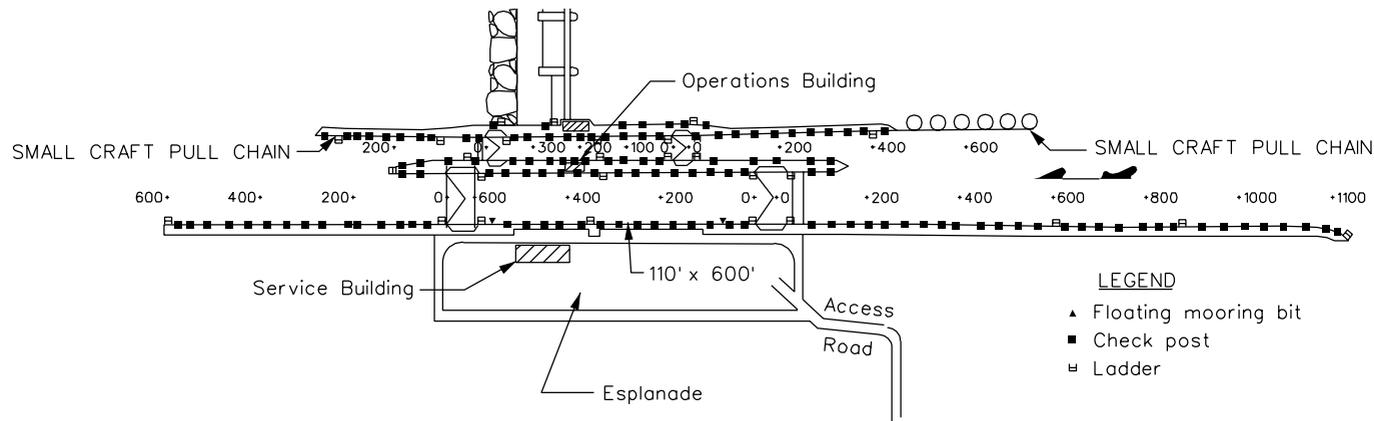


MONTGOMERY LOCKS & DAM

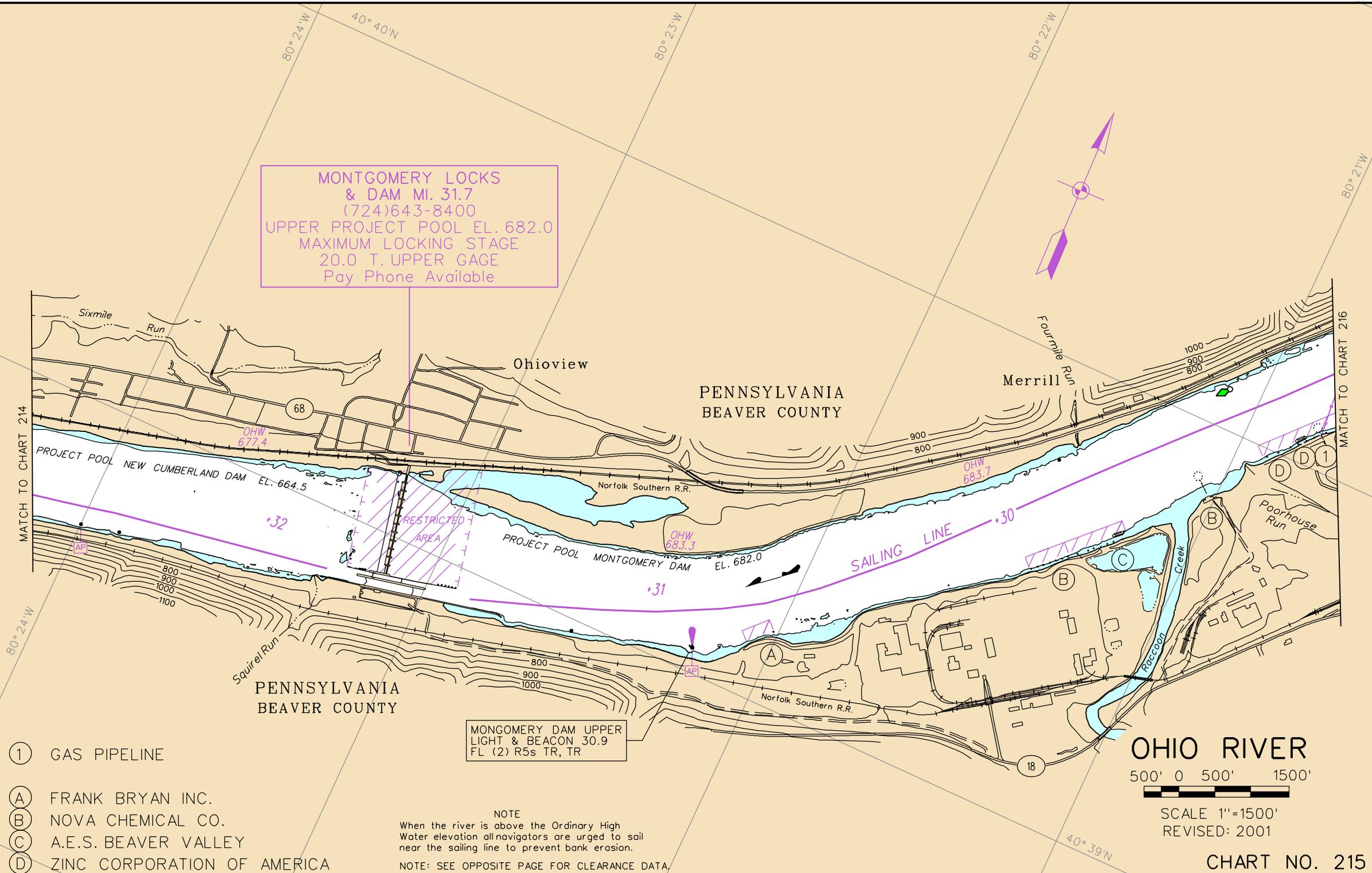
MONTGOMERY LOCKS & DAM	
UPPER POOL EL.	682.0
LOWER POOL EL.	664.5
UPPER GAGE	
ZERO EL.	670.2
N.P. READS	12.0'
LOWER GAGE	
ZERO EL.	652.5
N.P. READS	12.0'

NAVIGATION SUSPENDED - UPPER GAGE 20.0

TELEPHONE NO. 724-643-8400



MONTGOMERY LOCKS
& DAM MI. 31.7
(724)643-8400
UPPER PROJECT POOL EL. 682.0
MAXIMUM LOCKING STAGE
20.0 T. UPPER GAGE
Pay Phone Available



- ① GAS PIPELINE
- Ⓐ FRANK BRYAN INC.
- Ⓑ NOVA CHEMICAL CO.
- Ⓒ A.E.S. BEAVER VALLEY
- Ⓓ ZINC CORPORATION OF AMERICA

MONTGOMERY DAM UPPER
LIGHT & BEACON 30.9
FL (2) R5s TR, TR

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.

NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

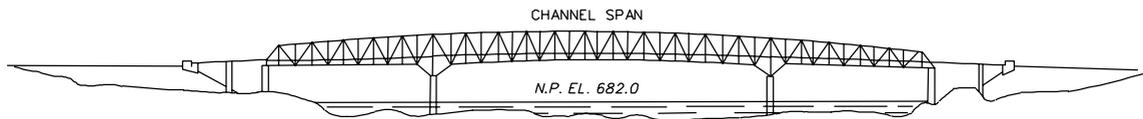
OHIO RIVER
500' 0 500' 1500'

SCALE 1"=1500'
REVISED: 2001

CHART NO. 215

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	28.5	775.3	93.3'
1	28.95	779.6	97.6'
1	29.0	815.4	133.4'

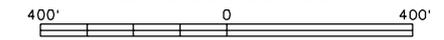


3

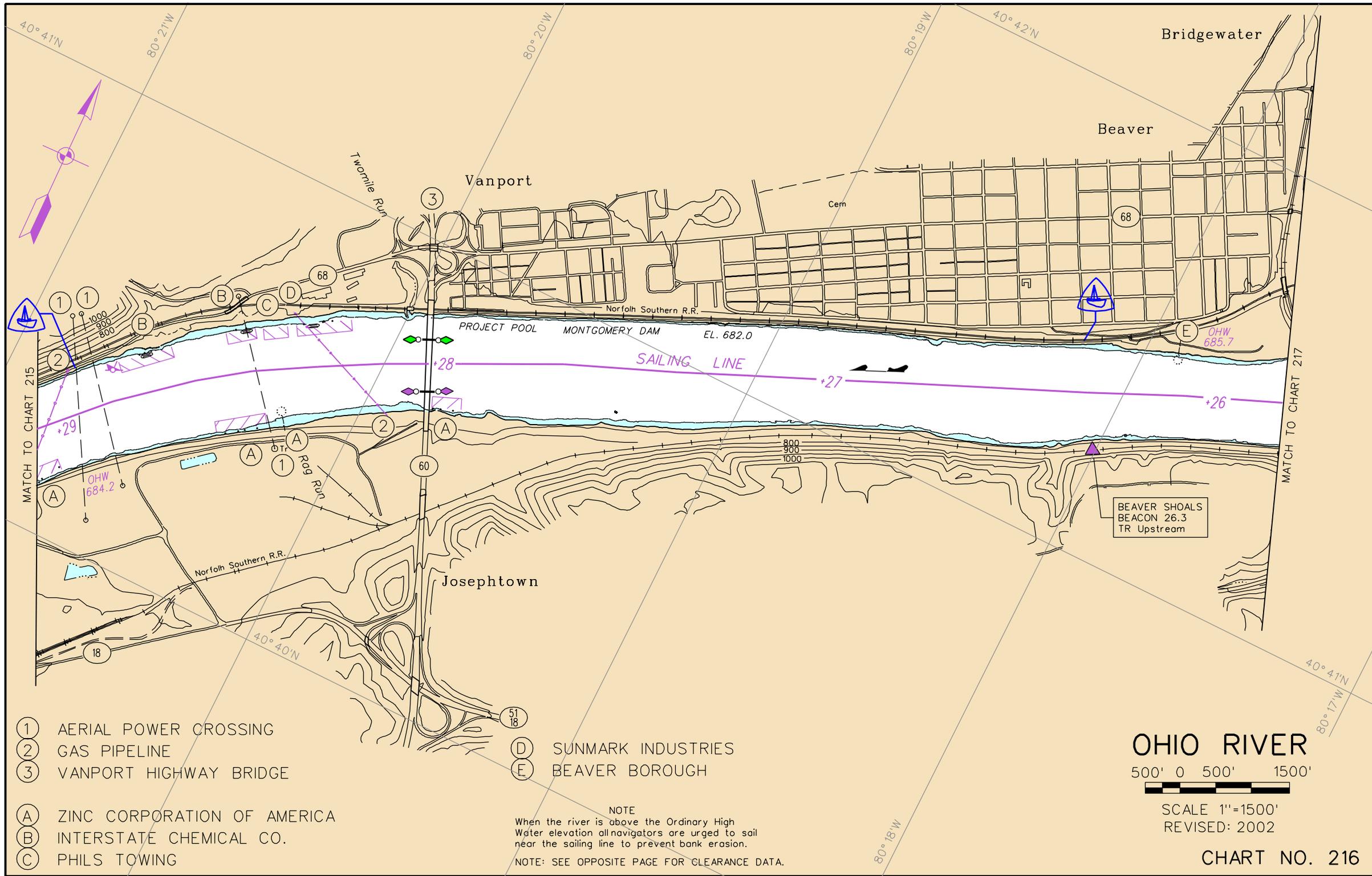
VANPORT HIGHWAY BRIDGE
CHANNEL SPAN
MILE 28.0

ELEVATION OF LOW STEEL 750.0
VERTICAL CLEARANCE AT POOL STAGE 68.0'
HORIZONTAL CLEARANCE 700.0'

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM
OHIO RIVER CHART 216



- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ VANPORT HIGHWAY BRIDGE

- Ⓐ ZINC CORPORATION OF AMERICA
- Ⓑ INTERSTATE CHEMICAL CO.
- Ⓒ PHILS TOWING

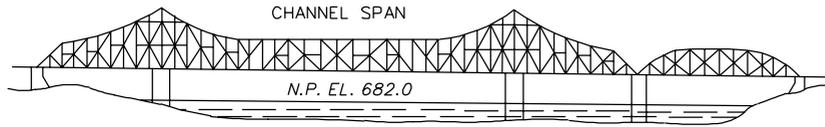
- Ⓓ SUNMARK INDUSTRIES
- Ⓔ BEAVER BOROUGH

NOTE
 When the river is above the Ordinary High
 Water elevation all navigators are urged to sail
 near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
 500' 0 500' 1500'

SCALE 1"=1500'
 REVISED: 2002

CHART NO. 216



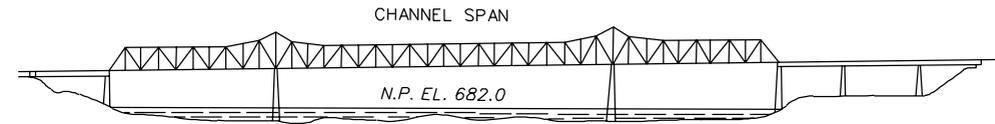
6

P. & L.E. RAILROAD BRIDGE
CHANNEL SPAN
 MILE 25.7

ELEVATION OF LOW STEEL 751.2
 VERTICAL CLEARANCE AT POOL STAGE 69.2'
 HORIZONTAL CLEARANCE 734.0'

AERIAL POWER CROSSINGS

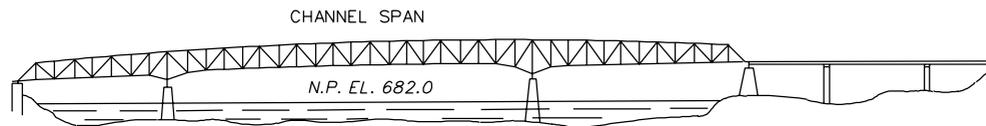
CROSSING	MILE	ELEVATION	CLEARANCE
1	22.5	788.0	106.0'
1	24.4	772.5	90.5'



8

MONACA-EAST ROCHESTER HIGHWAY BRIDGE
CHANNEL SPAN
 MILE 24.3

ELEVATION OF LOW STEEL 750.0
 VERTICAL CLEARANCE AT POOL STAGE 68.0'
 HORIZONTAL CLEARANCE 705.0'

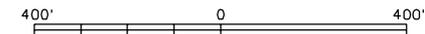


7

ROCHESTER-MONACA HIGHWAY BRIDGE
CHANNEL SPAN
 MILE 25.1

ELEVATION OF LOW STEEL 751.0
 VERTICAL CLEARANCE AT POOL STAGE 69.0'
 HORIZONTAL CLEARANCE 780.0'

BRIDGE SCALE

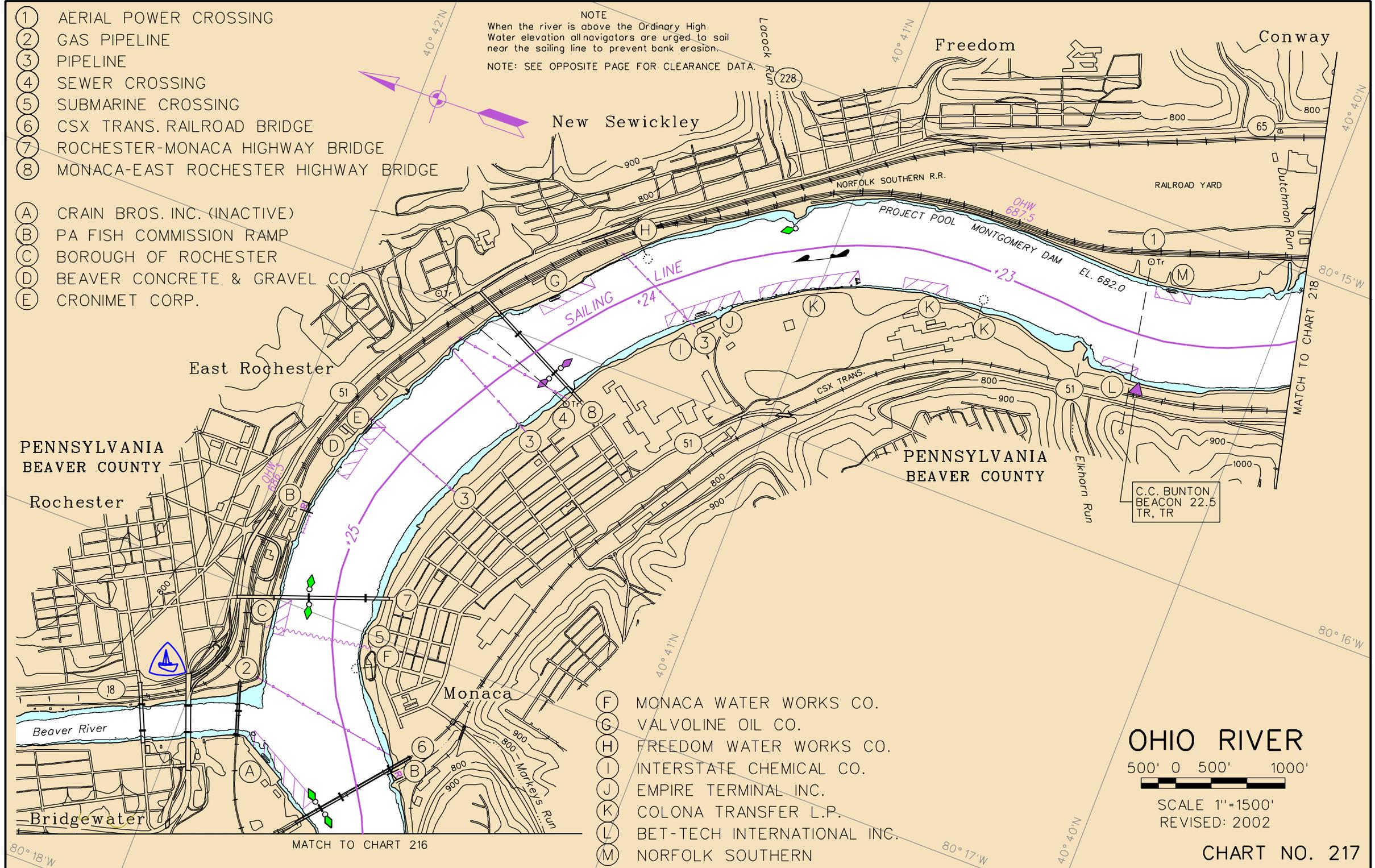


ELEVATIONS LOOKING DOWNSTREAM
 OHIO RIVER CHART 217

- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ PIPELINE
- ④ SEWER CROSSING
- ⑤ SUBMARINE CROSSING
- ⑥ CSX TRANS. RAILROAD BRIDGE
- ⑦ ROCHESTER-MONACA HIGHWAY BRIDGE
- ⑧ MONACA-EAST ROCHESTER HIGHWAY BRIDGE

- (A) CRAIN BROS. INC. (INACTIVE)
- (B) PA FISH COMMISSION RAMP
- (C) BOROUGH OF ROCHESTER
- (D) BEAVER CONCRETE & GRAVEL CO.
- (E) CRONIMET CORP.

NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.



- (F) MONACA WATER WORKS CO.
- (G) VALVOLINE OIL CO.
- (H) FREEDOM WATER WORKS CO.
- (I) INTERSTATE CHEMICAL CO.
- (J) EMPIRE TERMINAL INC.
- (K) COLONA TRANSFER L.P.
- (L) BET-TECH INTERNATIONAL INC.
- (M) NORFOLK SOUTHERN

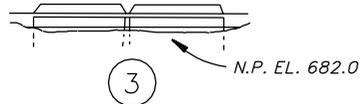
OHIO RIVER

500' 0 500' 1000'



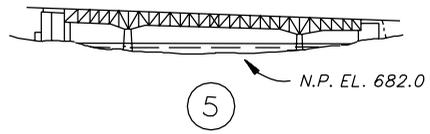
SCALE 1"=1500'
 REVISED: 2002

CHART NO. 217



FALLSTON HIGHWAY BRIDGE
CHANNEL SPAN
MILE 2.52

ELEVATION OF LOW STEEL 703.4
VERTICAL CLEARANCE AT POOL STAGE 21.4'
HORIZONTAL CLEARANCE 198.0'

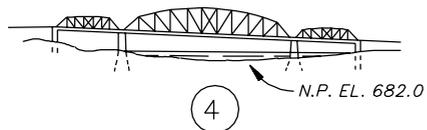


ROCHESTER-BEAVER HIGHWAY BRIDGE
CHANNEL SPAN
MILE 0.3

ELEVATION OF LOW STEEL 714.0
VERTICAL CLEARANCE AT POOL STAGE 32.0'
HORIZONTAL CLEARANCE 352.5'

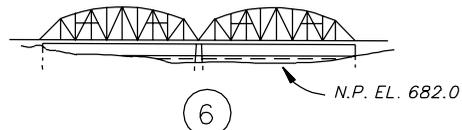
AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	1.5	729.3	47.3'
1	1.55	819.9	137.9'
1	1.6	773.1	91.07'



ROCHESTER-WEST BRIDGEWATER HIGHWAY BRIDGE
CHANNEL SPAN
MILE 0.4

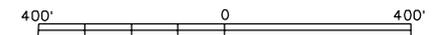
ELEVATION OF LOW STEEL 711.7
VERTICAL CLEARANCE AT POOL STAGE 29.7'
HORIZONTAL CLEARANCE 350.0'



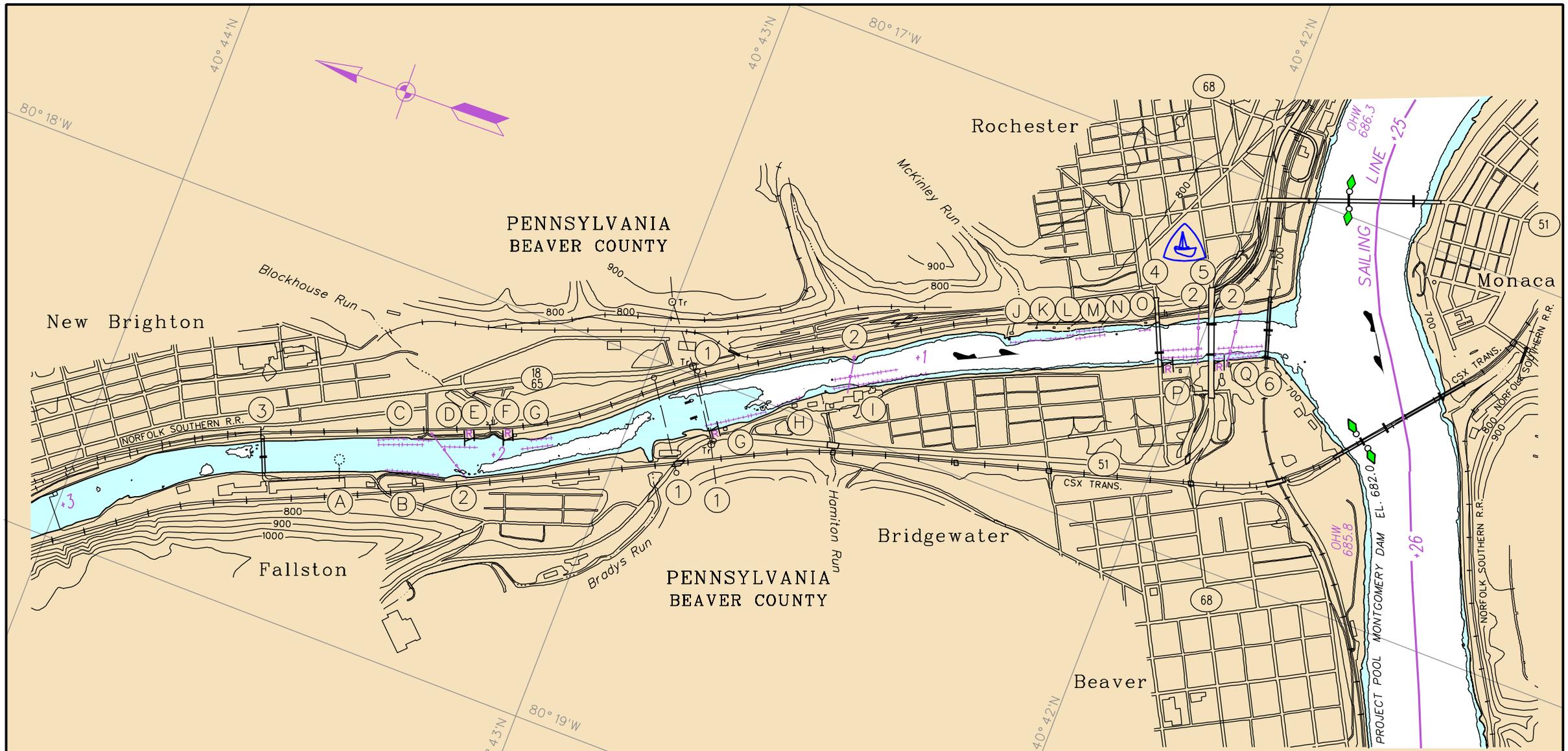
NORFOLK SOUTHERN RAILROAD BRIDGE
CHANNEL SPAN
MILE 0.2

ELEVATION OF LOW STEEL 700.2
VERTICAL CLEARANCE AT POOL STAGE 18.2'
HORIZONTAL CLEARANCE 324.0'

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM
OHIO RIVER CHART 217A



- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ FALLSTON HIGHWAY BRIDGE
- ④ ROCHESTER-WEST BRIDGEWATER HIGHWAY BR.
- ⑤ ROCHESTER-BEAVER HIGHWAY BRIDGE
- ⑥ NORFOLK SOUTHERN RAILROAD BRIDGE

- (A) TOWNSEND COMPANY
- (B) BEAVER VALLEY YACHT CLUB
- (C) RIVER ROSE MARINA
- (D) NEW BRIGHTON MARINA
- (E) PA FISH COMMISSION
- (F) NEW BRIGHTON BOAT CLUB
- (G) RIVER HARBOR MARINA
- (H) SCOBIE'S MARINA
- (I) JEFFRIES MARINA

- (J) FREEDOM SERBS
- (K) KNOTICAL HAVEN
- (L) ROCHESTER BOAT CLUB
- (M) DOCKERS PLEASURE
- (N) ROCKWALL HARBOR
- (O) SKIPPERS LANDING BOAT CLUB
- (P) BRIDGEWATER LANDING
- (Q) CAPTAINS QUARTERS MARINA

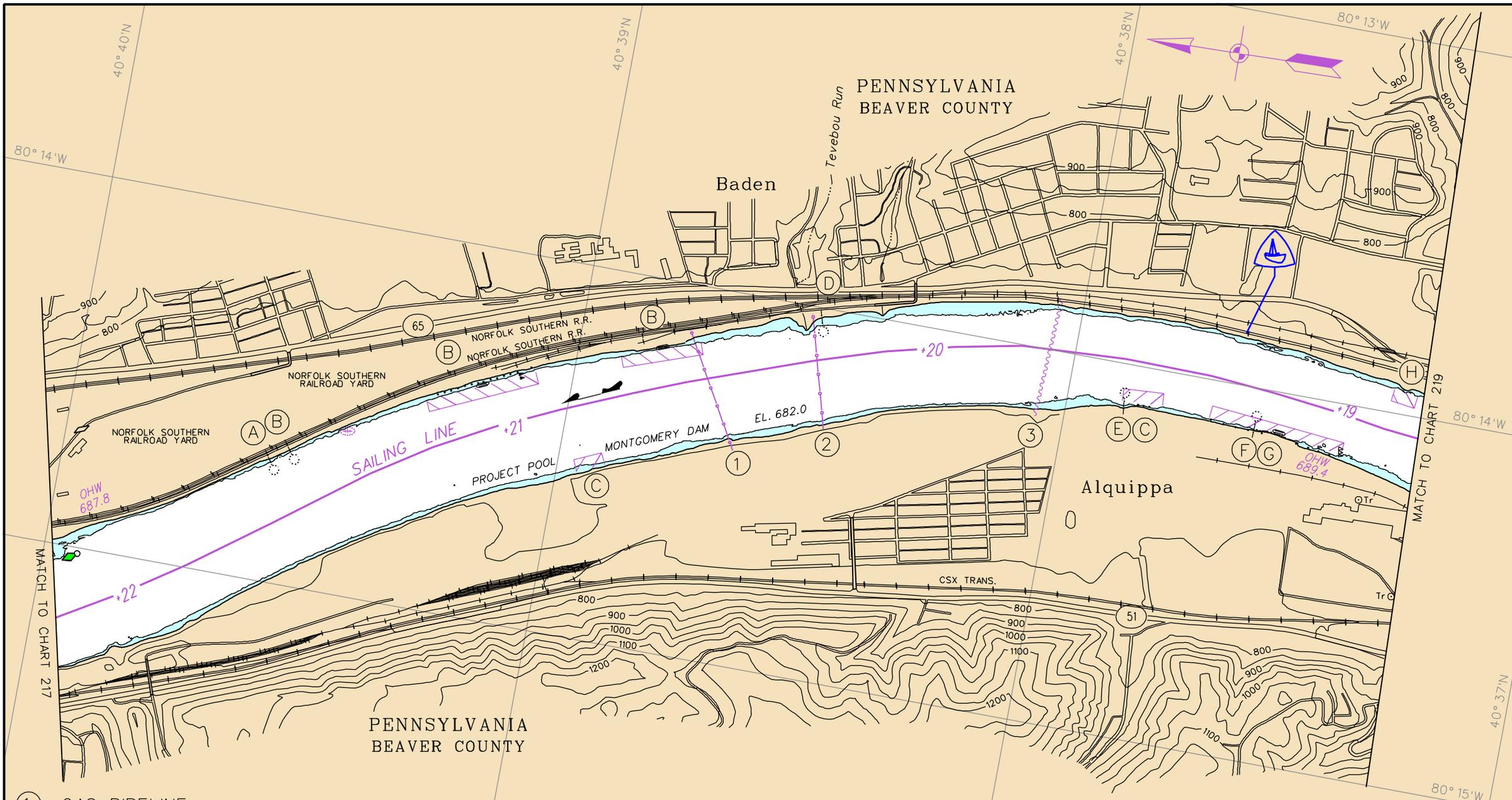
**OHIO RIVER
BEAVER RIVER**

500' 0 500' 1000'



SCALE 1"=1500'
REVISED: 2002

CHART NO. 217A



- ① GAS PIPELINE
- ② WATER PIPELINE
- ③ SUBMARINE CROSSING

- Ⓐ CONWAY BOROUGH (INACTIVE)
- Ⓑ GENERAL MATERIAL TERMINALS CORP.
- Ⓒ BET-TECH INTERNATIONAL INC.

- Ⓓ BADEN BOROUGH (INACTIVE)
- Ⓔ ALIQUIPPA BOROUGH
- Ⓕ BEAVER COUNTY
- Ⓖ U.S.GYPSUM
- Ⓗ RIVER SALVAGE

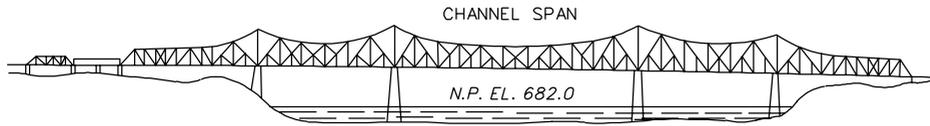
NOTE
 When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
 500' 0 500' 1000'
 SCALE 1"=1500'
 REVISED: 2001

CHART NO. 218

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
1	18.25	801.6	119.6'



4

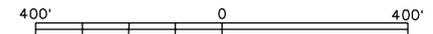
AMBRIDGE HIGHWAY BRIDGE

CHANNEL SPAN

MILE 16.8

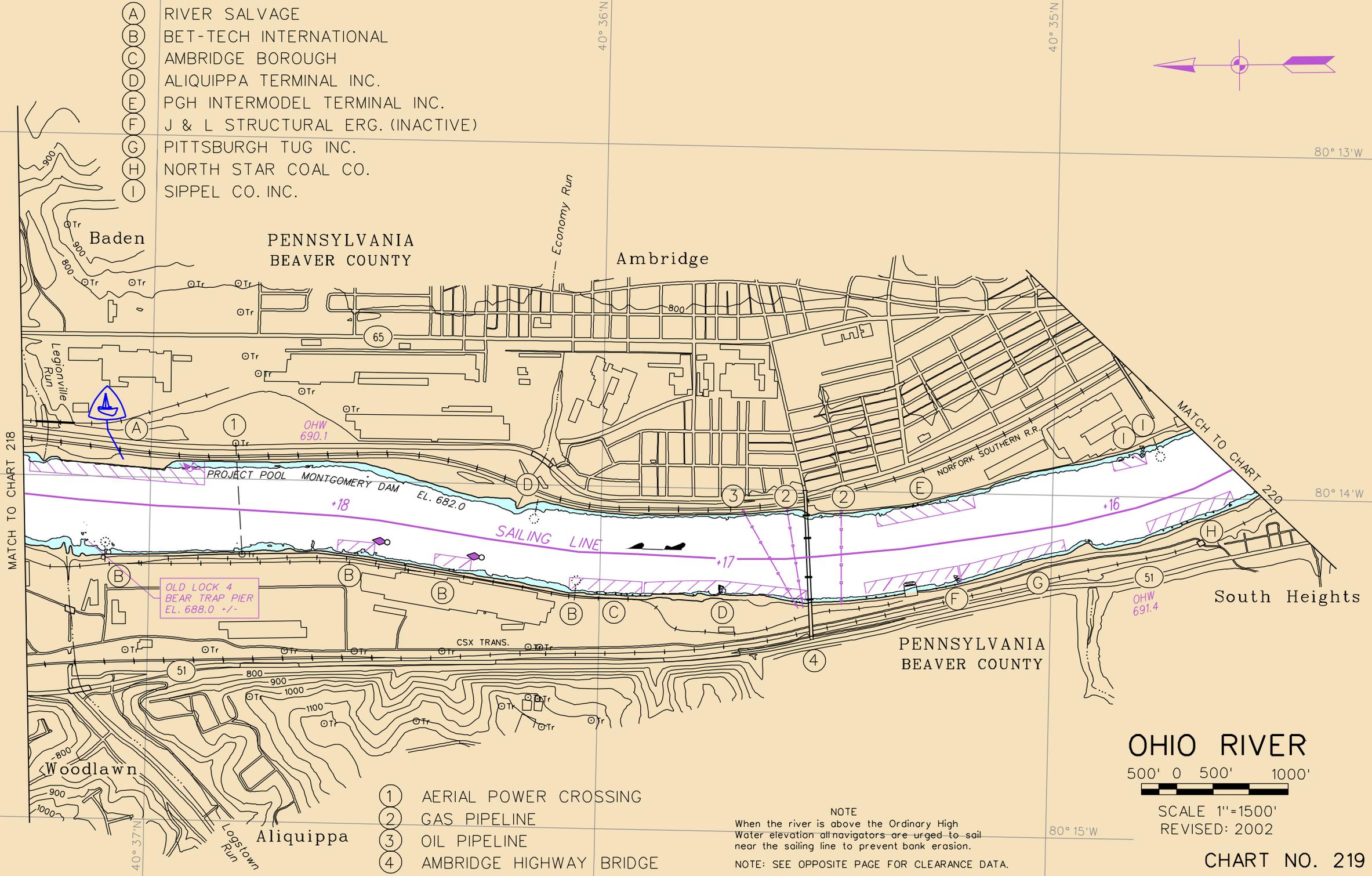
ELEVATION OF LOW STEEL 760.5
 VERTICAL CLEARANCE AT POOL STAGE 78.5'
 HORIZONTAL CLEARANCE 510.0'

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM

- (A) RIVER SALVAGE
- (B) BET-TECH INTERNATIONAL
- (C) AMBRIDGE BOROUGH
- (D) ALIQUIPPA TERMINAL INC.
- (E) PGH INTERMODEL TERMINAL INC.
- (F) J & L STRUCTURAL ERG. (INACTIVE)
- (G) PITTSBURGH TUG INC.
- (H) NORTH STAR COAL CO.
- (I) SIPPEL CO. INC.



- (1) AERIAL POWER CROSSING
- (2) GAS PIPELINE
- (3) OIL PIPELINE
- (4) AMBRIDGE HIGHWAY BRIDGE

NOTE
 When the river is above the Ordinary High
 Water elevation all navigators are urged to sail
 near the sailing line to prevent bank erosion.
 NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER

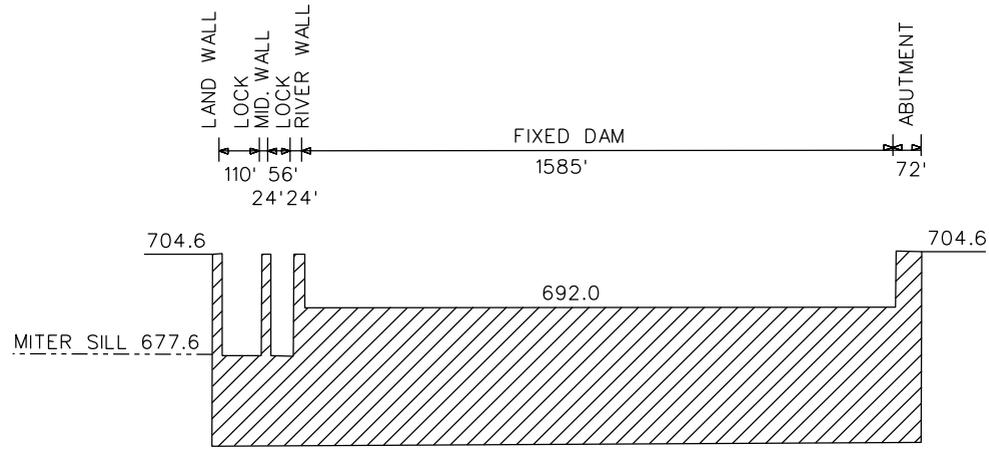
500' 0 500' 1000'

SCALE 1"=1500'
 REVISED: 2002

CHART NO. 219

AERIAL POWER CROSSINGS

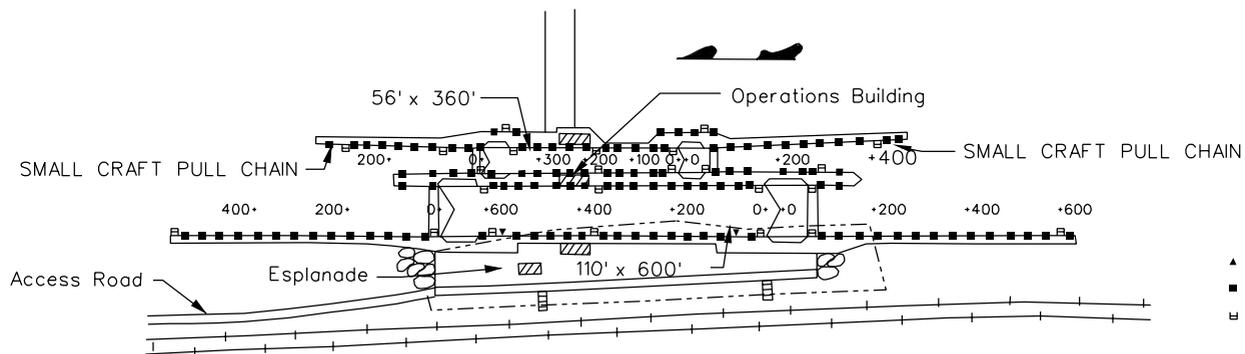
CROSSING	MILE	ELEVATION	CLEARANCE
1	15.02	794.0	112.0'
1	15.45	796.7	114.7'



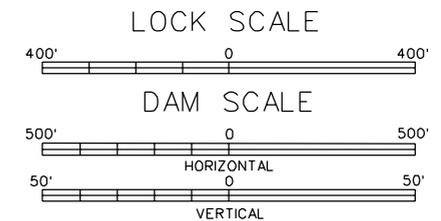
DASHIELD LOCKS & DAM

NAVIGATION SUSPENDED - UPPER GAGE 23.0
 TELEPHONE NO. 724-457-8430

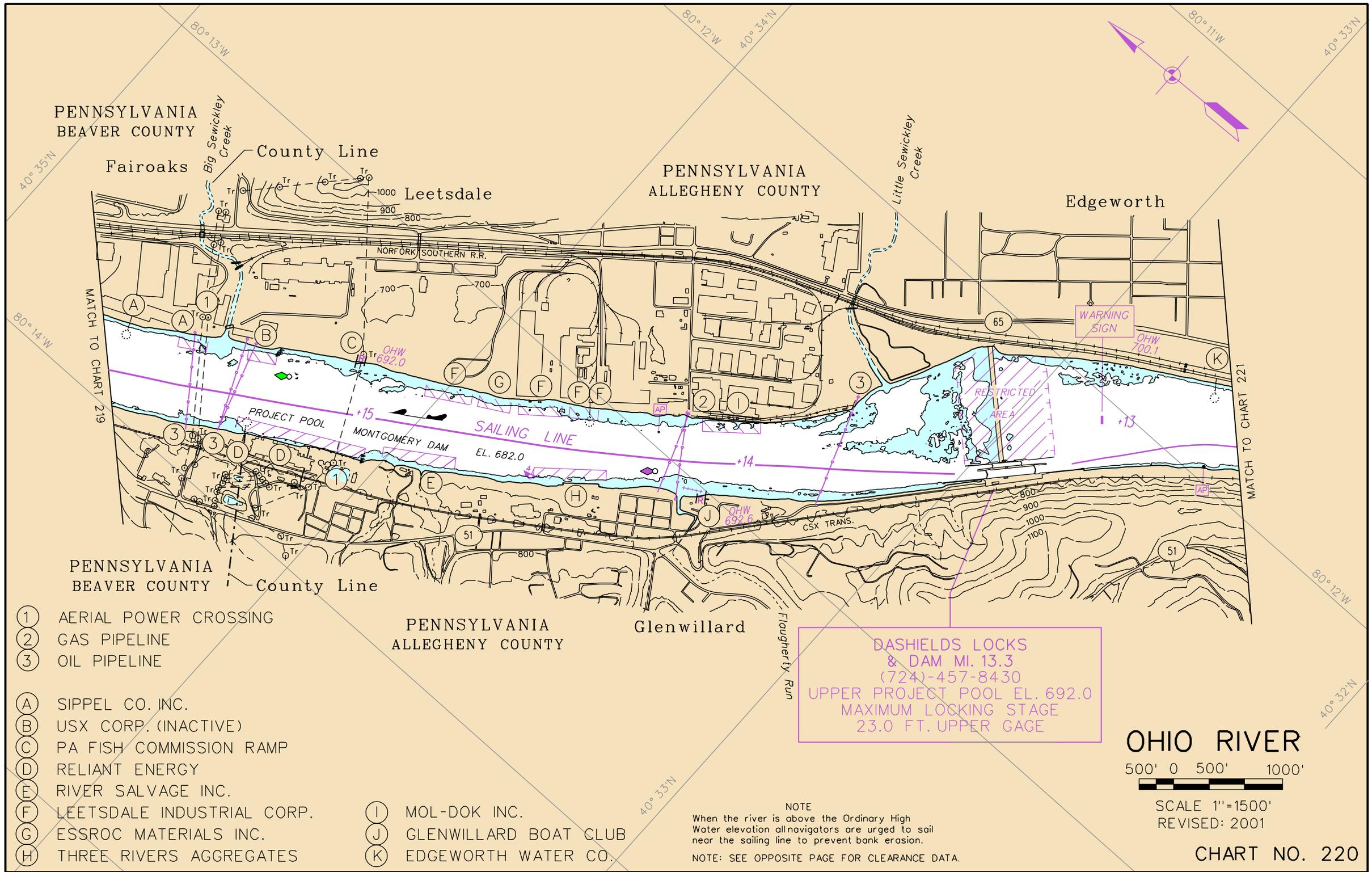
DASHIELDS LOCKS & DAM	
UPPER POOL EL.	692.0
LOWER POOL EL.	682.0
UPPER GAGE ZERO EL.	680.4
N.P. READS	12.0'
LOWER GAGE ZERO EL.	670.4
N.P. READS	12.0'



- LEGEND
- ▲ Floating mooring bit
 - Check post
 - ▣ Ladder



ELEVATIONS LOOKING DOWNSTREAM
 OHIO RIVER CHART 220



PENNSYLVANIA
BEAVER COUNTY

PENNSYLVANIA
ALLEGHENY COUNTY

PENNSYLVANIA
BEAVER COUNTY

PENNSYLVANIA
ALLEGHENY COUNTY

- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ OIL PIPELINE
- (A) SIPPEL CO. INC.
- (B) USX CORP. (INACTIVE)
- (C) PA FISH COMMISSION RAMP
- (D) RELIANT ENERGY
- (E) RIVER SALVAGE INC.
- (F) LEETSDALE INDUSTRIAL CORP.
- (G) ESSROC MATERIALS INC.
- (H) THREE RIVERS AGGREGATES

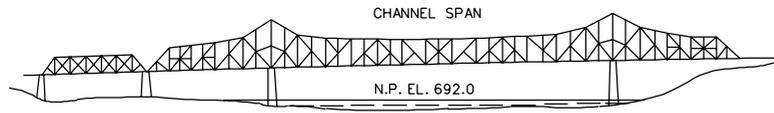
- (I) MOL-DOK INC.
- (J) GLENWILLARD BOAT CLUB
- (K) EDGEWORTH WATER CO.

DASHIELDS LOCKS
& DAM MI. 13.3
(724)-457-8430
UPPER PROJECT POOL EL. 692.0
MAXIMUM LOCKING STAGE
23.0 FT. UPPER GAGE

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
500' 0 500' 1000'
SCALE 1"=1500'
REVISED: 2001

CHART NO. 220



3

SEWICKLEY HIGHWAY BRIDGE

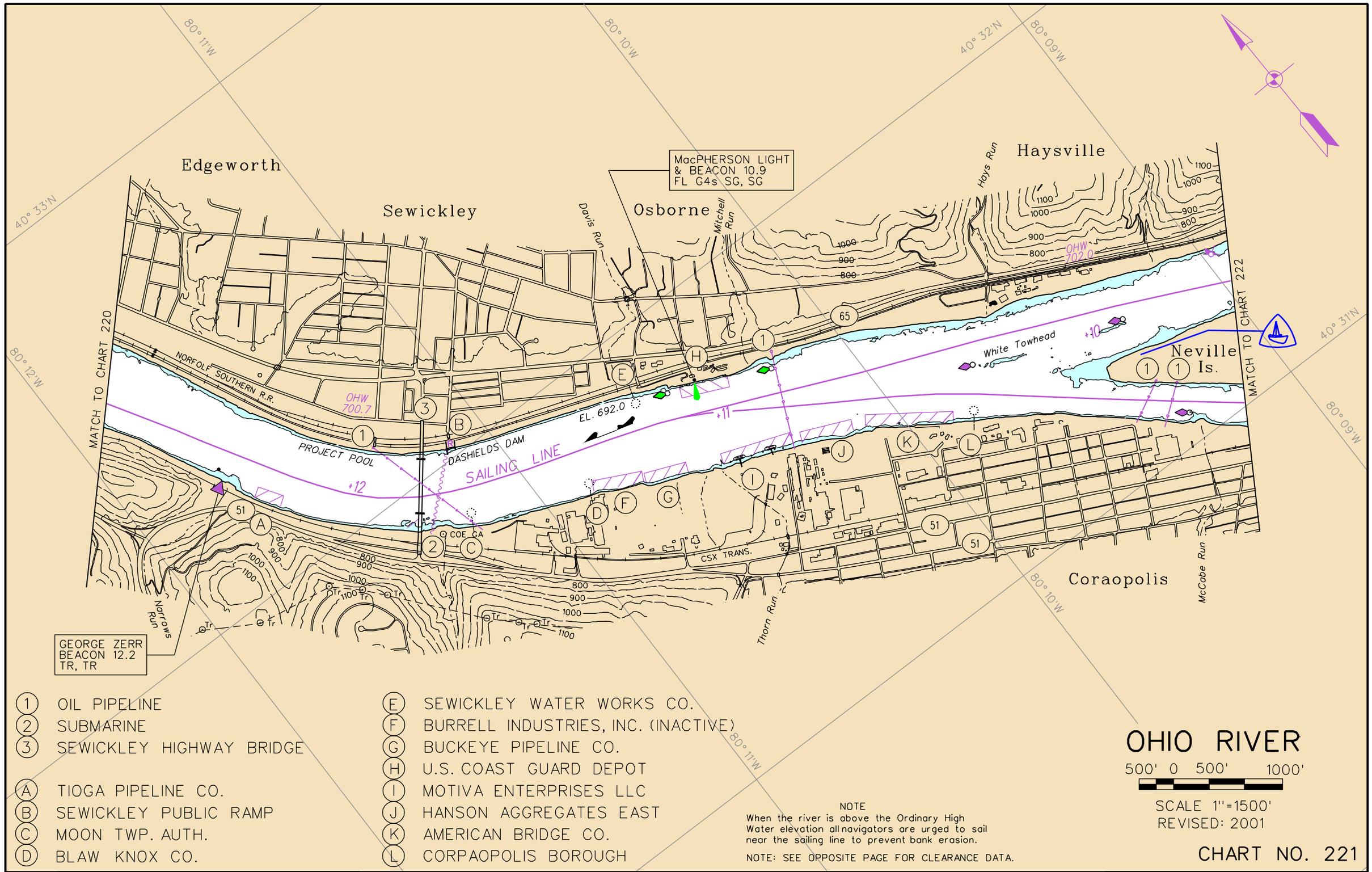
CHANNEL SPAN

MILE 11.8

ELEVATION OF LOW STEEL 765.4*
 VERTICAL CLEARANCE AT POOL STAGE 73.4'*
 HORIZONTAL CLEARANCE 724.0'
 * FOR CENTER 500 FEET OF CHANNEL SPAN



ELEVATIONS LOOKING DOWNSTREAM



GEORGE ZERR
BEACON 12.2
TR, TR

- ① OIL PIPELINE
- ② SUBMARINE
- ③ SEWICKLEY HIGHWAY BRIDGE
- Ⓐ TIOGA PIPELINE CO.
- Ⓑ SEWICKLEY PUBLIC RAMP
- Ⓒ MOON TWP. AUTH.
- Ⓓ BLAW KNOX CO.

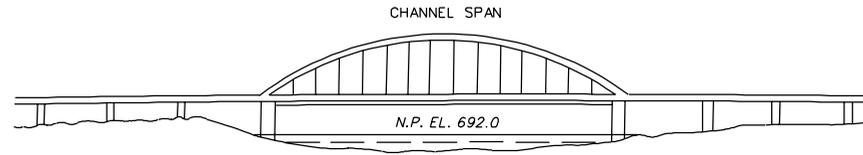
- Ⓔ SEWICKLEY WATER WORKS CO.
- Ⓕ BURRELL INDUSTRIES, INC. (INACTIVE)
- Ⓖ BUCKEYE PIPELINE CO.
- Ⓗ U.S. COAST GUARD DEPOT
- Ⓘ MOTIVA ENTERPRISES LLC
- ⓵ HANSON AGGREGATES EAST
- ⓷ AMERICAN BRIDGE CO.
- ⓸ CORPAOPOLIS BOROUGH

MacPHERSON LIGHT
& BEACON 10.9
FL G4s SG, SG

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
500' 0 500' 1000'
SCALE 1"=1500'
REVISED: 2001

CHART NO. 221



6

INTERSTATE 79 HIGHWAY BRIDGE
MAIN CHANNEL SPAN

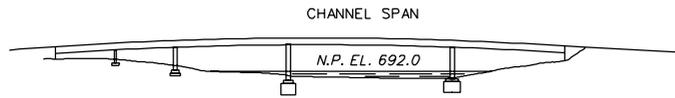
MILE 8.7

ELEVATION OF LOW STEEL 760.0
VERTICAL CLEARANCE AT POOL STAGE 68.0'
HORIZONTAL CLEARANCE 725.0'

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
* 1	8.6	757.6	65.4'

* BACK CHANNEL

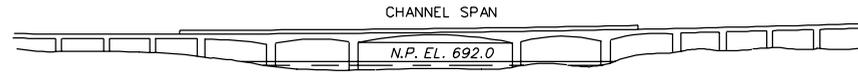


5

CORAPOLIS HIGHWAY BRIDGE
CHANNEL SPAN

MILE 9.6

ELEVATION OF LOW STEEL 743.3*
VERTICAL CLEARANCE AT POOL STAGE 53.3*
HORIZONTAL CLEARANCE 345.0'
* AT CENTER OF SPAN



7

INTERSTATE 79 HIGHWAY BRIDGE
BACK CHANNEL SPAN

MILE 8.64

ELEVATION OF LOW STEEL 737.0
VERTICAL CLEARANCE AT POOL STAGE 45.0'
HORIZONTAL CLEARANCE 301.0'



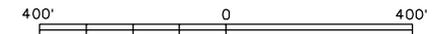
8

INTERSTATE 79 HIGHWAY RAMP
BACK CHANNEL SPAN

MILE 8.51

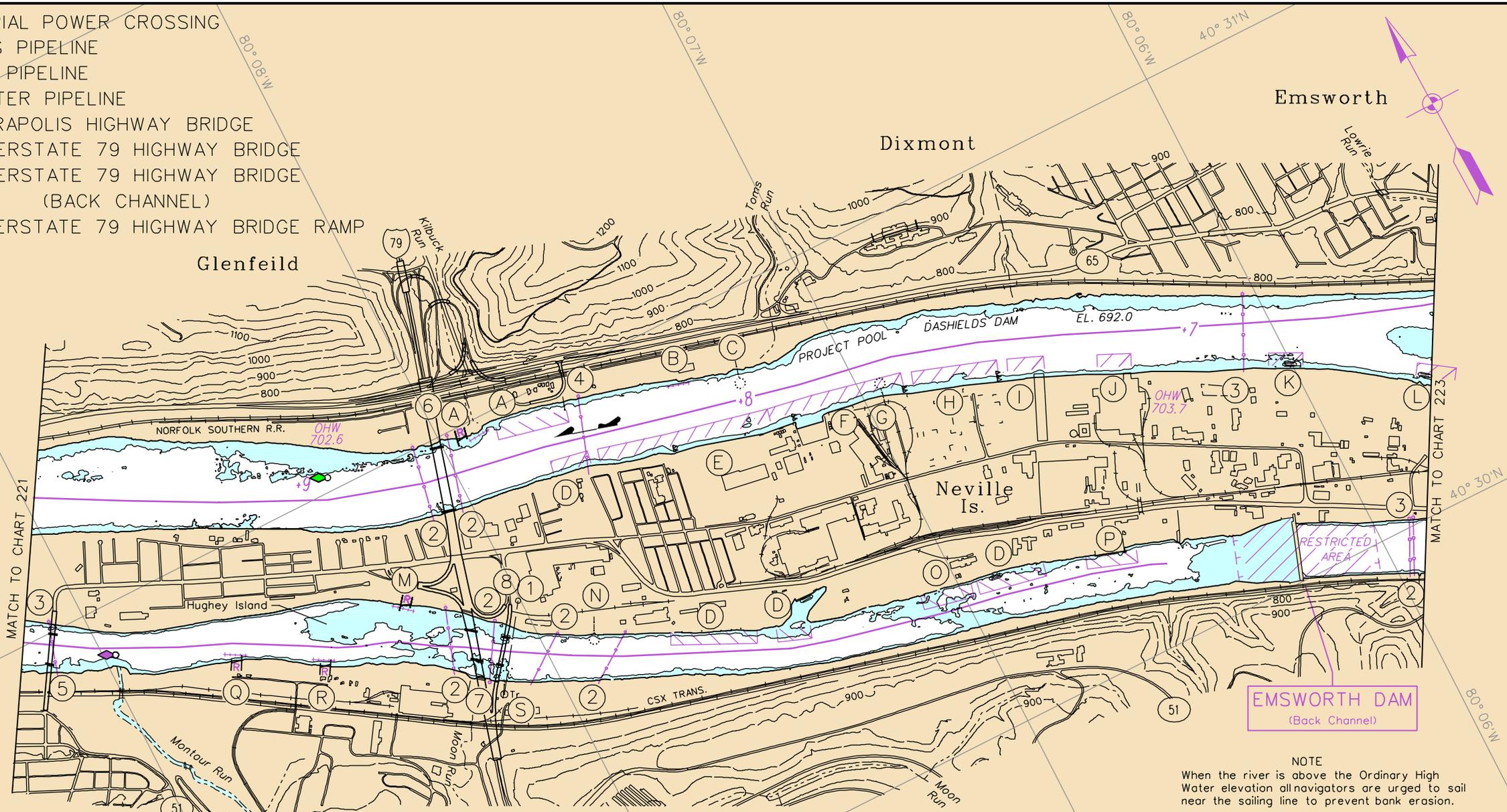
ELEVATION OF LOW STEEL 737.0
VERTICAL CLEARANCE AT POOL STAGE 45.0'
HORIZONTAL CLEARANCE 300.0'

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM

- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ OIL PIPELINE
- ④ WATER PIPELINE
- ⑤ CORAPOLIS HIGHWAY BRIDGE
- ⑥ INTERSTATE 79 HIGHWAY BRIDGE
- ⑦ INTERSTATE 79 HIGHWAY BRIDGE
(BACK CHANNEL)
- ⑧ INTERSTATE 79 HIGHWAY BRIDGE RAMP



- | | | |
|-----------------------------------|--------------------------------|---------------------------|
| (A) ALL STATES MARINE | (I) TRIAD METALS INTERNATIONAL | (P) CHICAGE BRIDGE & IRON |
| (B) GLENFIELD DELRAY MARINA | (J) NEVILLE METALS | (Q) GROVETON BOAT CLUB |
| (C) PA DEPT. OF WELFARE | (K) NEVILLE CHEMICAL CO. | (R) B & L MARINA |
| (D) NEVILLE AGGREGATES CO. INC. | (L) EXXON CO. USA (INACTIVE) | (S) ROBINSON TWP. AUTH. |
| (E) NEVILLE DEVELOPMENT CO. | (M) PITTSBURGH AQUATIC CLUB | |
| (F) PREMIER MARINE SALVAGE INC. | (N) WITHEROW STEEL CO. | |
| (G) AMG RESOURCES CORP. | (O) VALLEY PROTEINS PA INC. | |
| (H) C OF E PGH. DISTRICT (PEWARS) | | |

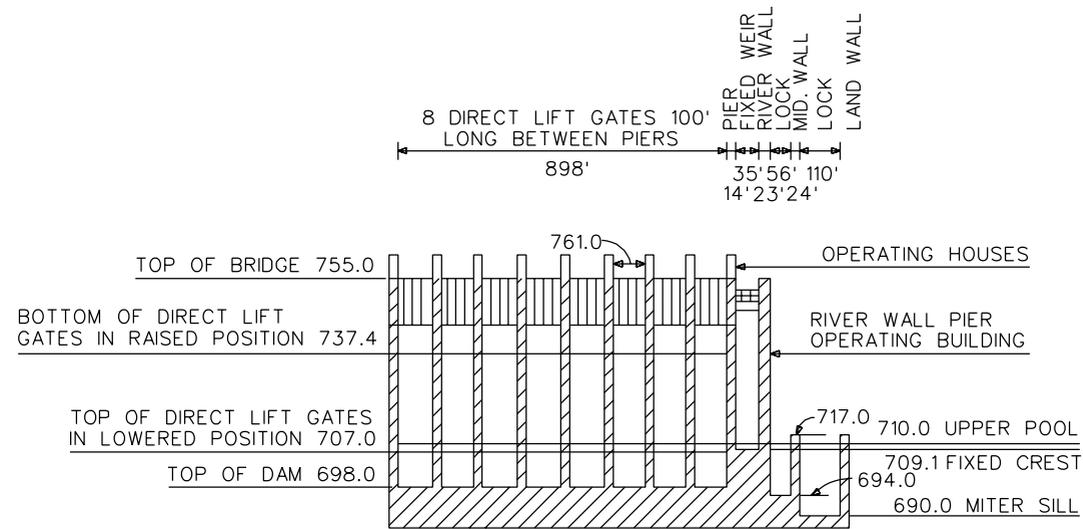
EMSWORTH DAM
(Back Channel)

NOTE
When the river is above the Ordinary High Water elevation all navigators are urged to sail near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER



SCALE 1"=1500'
REVISED: 2001



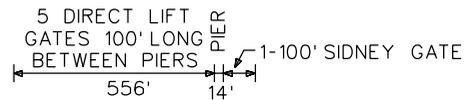
EMSWORTH LOCKS & DAM
Main Channel

NAVIGATION SUSPENDED - UPPER GAGE 22.0
TELEPHONE NO. 412-766-6213

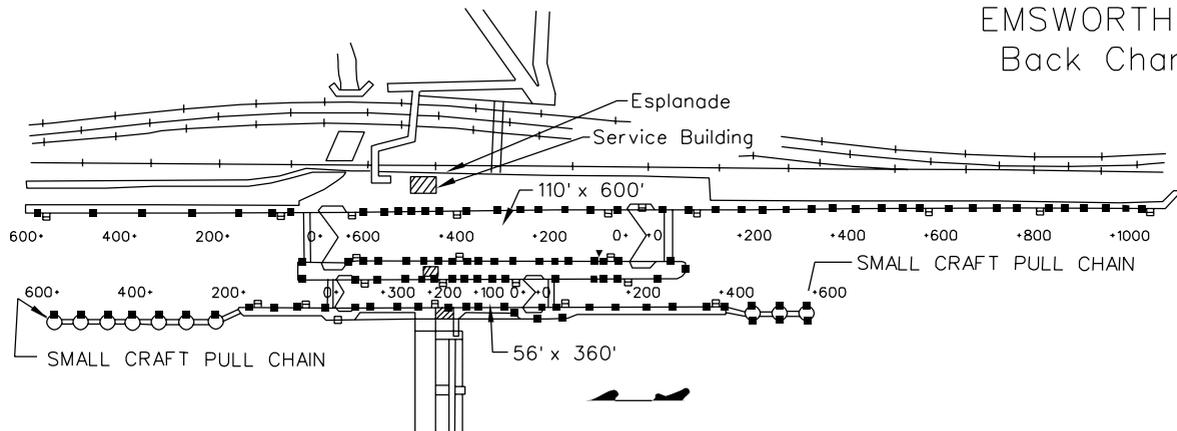
CROSSING	MILE	ELEVATION	CLEARANCE
* 1	4.8	763.0	53.0'
* 1	5.0	757.1	47.1'

* BACK CHANNEL

EMSWORTH
LOCKS & DAM
UPPER POOL EL. 710.0
LOWER POOL EL. 692.0
UPPER GAGE
ZERO EL. 694.0
N.P. READS 16.0'
LOWER GAGE
ZERO EL. 680.0
N.P. READS 12.0'

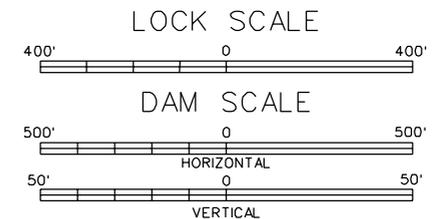


EMSWORTH DAM
Back Channel



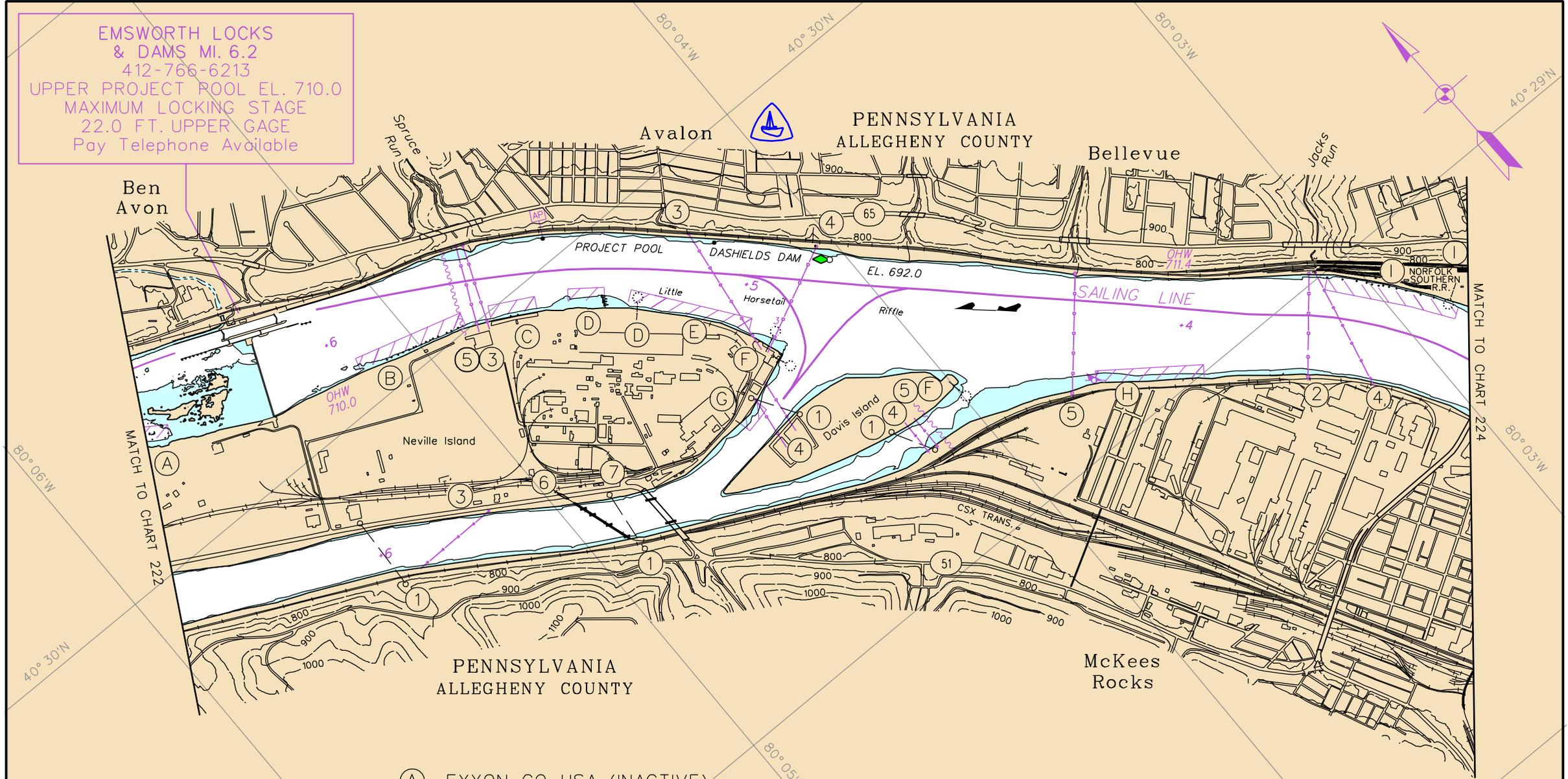
LEGEND

- ▲ Floating mooring bit
- Check post
- ▣ Ladder



ELEVATIONS LOOKING DOWNSTREAM
OHIO RIVER CHART 223

EMSWORTH LOCKS
& DAMS MI. 6.2
412-766-6213
UPPER PROJECT POOL EL. 710.0
MAXIMUM LOCKING STAGE
22.0 FT. UPPER GAGE
Pay Telephone Available

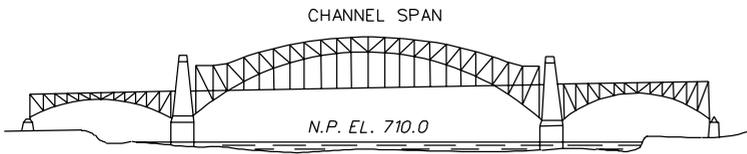


- | | | | |
|-----|----------------------------|-----|-------------------------------------|
| (A) | EXXON CO. USA (INACTIVE) | (C) | SUNOCO CHEMICAL CORP. |
| (B) | GULF OIL CORP. | (D) | SHENANGO INC. |
| (1) | AERIAL POWER CROSSING | (E) | ALLEGHENY ASPHALT |
| (2) | GAS PIPELINE | (F) | WEST VIEW MUNICIPAL AUTH. |
| (3) | OIL PIPELINE | (G) | CEMEX CEMENT CO. |
| (4) | WATER PIPELINE | (H) | McKEES ROCKS IND. ENTERPRISES, INC. |
| (5) | SEWER CROSSING | (I) | ALCOSAN |
| (6) | CSX TRANS. RAILROAD BRIDGE | | |
| (7) | FLEMING PARK BRIDGE | | |

NOTE
When the river is above the Ordinary High
Water elevation all navigators are urged to sail
near the sailing line to prevent bank erosion.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

OHIO RIVER
500' 0 500' 1500'
SCALE 1"=1500'
REVISED: 2001

CHART NO. 223



7

PITTSBURGH-McKEES ROCKS HIGHWAY BRIDGE
CHANNEL SPAN

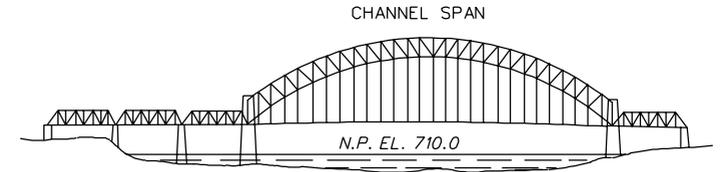
MILE 3.3

ELEVATION OF LOW STEEL 810.6*
 VERTICAL CLEARANCE AT POOL STAGE 100.6'*
 HORIZONTAL CLEARANCE 750.0'
 * ELEVATION AT INTERSECTION OF TRUSS
 AND ARCH NEAR LEFT BANK PIER

AERIAL POWER CROSSINGS

CROSSING	MILE	ELEVATION	CLEARANCE
* 1	2.20	810.8	100.8'
* 1	2.65	814.0	104.4'
* 1	2.70	806.2	96.2'
* 1	2.85	793.6	83.6'
1	2.9	809.6	99.6'

* BACK CHANNEL

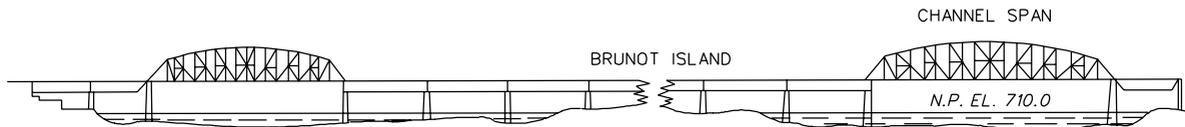


9

WEST END-NORTH SIDE HIGHWAY BRIDGE
CHANNEL SPAN

MILE 0.8

ELEVATION OF LOW STEEL 776.3*
 VERTICAL CLEARANCE AT POOL STAGE 66.3'*
 HORIZONTAL CLEARANCE 755.0'
 * FOR CENTER 244 FEET OF CHANNEL SPAN



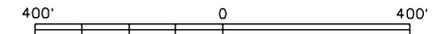
8

OHIO CONNECTING RAILROAD BRIDGE
CHANNEL SPAN

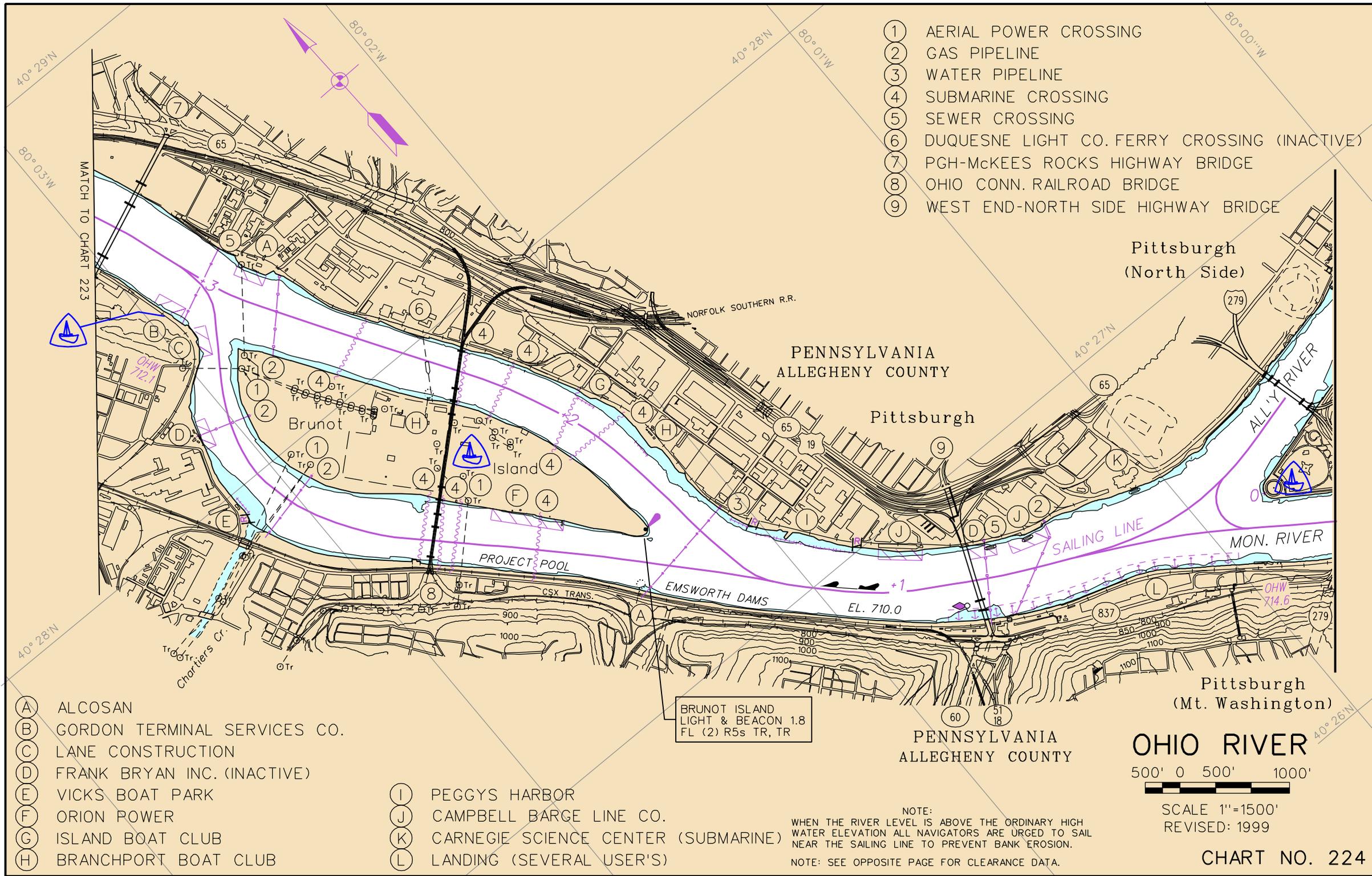
MILE 2.3

ELEVATION OF LOW STEEL 777.9
 VERTICAL CLEARANCE AT POOL STAGE 67.9'
 HORIZONTAL CLEARANCE 508.0'

BRIDGE SCALE



ELEVATIONS LOOKING DOWNSTREAM
OHIO RIVER CHART 224



- ① AERIAL POWER CROSSING
- ② GAS PIPELINE
- ③ WATER PIPELINE
- ④ SUBMARINE CROSSING
- ⑤ SEWER CROSSING
- ⑥ DUQUESNE LIGHT CO. FERRY CROSSING (INACTIVE)
- ⑦ PGH-McKEES ROCKS HIGHWAY BRIDGE
- ⑧ OHIO CONN. RAILROAD BRIDGE
- ⑨ WEST END-NORTH SIDE HIGHWAY BRIDGE

- (A) ALCOSAN
- (B) GORDON TERMINAL SERVICES CO.
- (C) LANE CONSTRUCTION
- (D) FRANK BRYAN INC. (INACTIVE)
- (E) VICKS BOAT PARK
- (F) ORION POWER
- (G) ISLAND BOAT CLUB
- (H) BRANCHPORT BOAT CLUB

- (I) PEGGYS HARBOR
- (J) CAMPBELL BARGE LINE CO.
- (K) CARNEGIE SCIENCE CENTER (SUBMARINE)
- (L) LANDING (SEVERAL USER'S)

BRUNOT ISLAND
LIGHT & BEACON 1.8
FL (2) R5s TR, TR

NOTE:
WHEN THE RIVER LEVEL IS ABOVE THE ORDINARY HIGH
WATER ELEVATION ALL NAVIGATORS ARE URGED TO SAIL
NEAR THE SAILING LINE TO PREVENT BANK EROSION.
NOTE: SEE OPPOSITE PAGE FOR CLEARANCE DATA.

500' 0 500' 1000'

SCALE 1"=1500'
REVISED: 1999

CHART NO. 224

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
0.1L	Pittsburgh, PA	Consolidation Coal Co.	Mooring service	None	None	None	Landing for holding barges, assembling & breaking up tows
0.2L	Pittsburgh, PA	Ingram, Barge Co.	Mooring service	None	None	None	Landing for holding & breaking up tows
0.6R	Pittsburgh, PA	Campbell Barge Line	Miscellaneous	None	None	None	Office & mooring
0.7R	Pittsburgh, PA	Frank Bryan Inc.	Mooring	None	None	CSX Trans. Norfolk Southern R.R.	Avenue, crib steel sheet pile facing 300' long. INACTIVE.
0.9R	Pittsburgh, PA	Campbell Barge Line	None	None	None	None	Beaver Avenue, pile dock 320' long & landing, ice breakers
2.0RBC	Pittsburgh, PA	Orion Power	Oil	None	None	None	Brunots Island Back channel bulkhead 300' long 600' dock with mooring cells & pile clusters. INACTIVE.
2.5L&R	Pittsburgh, PA	Orion Power	Equipment	None	Ferry	None	Main channel
2.9R	Pittsburgh, PA	ALCOSAN	Mooring	None	None	None	Sewage treatment plant
2.9LBC	McKees Rocks, PA	Frank Bryan	Receipt of sand, gravel & grain	None	10-ton electric Whirler crane with 1 1/2-cu. yd. clamshell bucket	None	Back channel main land opposite Brunots Island 100' concrete bulkhead. INACTIVE.
3.0LBC	McKees Rocks, PA	Lane Construction Inc.	Sand & gravel	None	Electric Whirler crane & conveyor	CSX Trans.	115' dock with three mooring cells
3.1L	McKees Rocks, PA	Gordon Terminal Service Co.	Receipt of oil	None	6" pipeline, 2 1/2" steam line, 1 1/2" return line	Pittsburgh & Ohio Central RR	5 steel mooring posts; one 13'-7" dia. cell & 2 walkways.
3.6R	Pittsburgh, PA	ALCOSAN	Coal	None	Electric belt conveyor, truck & dump hopper, barge shifter & chute.	Norfolk Southern RR	Transfer of coal from RR cars to barge. Rate is RR origin to FOB barges. Steel pile cells spaced at intervals for 1300'.
4.0L	McKees Rocks, PA	McKees Rocks Industrial Enterprises	Miscellaneous	Heated & unheated whse. 80-1100' from dock	Caterpillar crane, capacity 80 tons	Pittsburgh & Ohio Central RR	Steel pile dock 56' long in front of existing low wall. Area dredged for 400'.
5.1R	Neville Island, PA	Cemex Cement Co.	Shipment of cement	None	Electric boom conveyor 4" pipeline & pump	None	Back channel right bank concrete bulkhead dock with mooring.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
5.1L	Neville Island, PA	Allegheny Asphalt	Receipt of coal	None	12-ton electric traveling crane; one hopper & belt conveyor.	CSX Trans. connecting with Pittsburgh & Ohio Central RR	100' concrete bulkhead & pile clusters.
5.4L	Neville Island, PA	Shenango Inc.	Shipment of pig iron, receipt of sulphur & fluorspar.	None	10 ton elect stiffleg derrick with 2 cu. yd. clamshell bucket; elect belt conveyor 2-ton capacity magnet	CSX Trans. connecting with Pittsburgh & Ohio Central RR	50' concrete bulkhead mooring pile spaced at intervals for 300'.
5.5L	Neville Island, PA	Sunoco Chemical Corp.	Shipment	None	6" pipe for acid	CSX connecting w/ Pgh & Ohio Cent.. RR	Sheet pile bulkhead
5.8L	Neville Island, PA	Gulf Oil Corp.	Shipment & receipt of gasoline, kerosene fuel oil, & crude oil.	None	1 hand hose derrick; 1 small electric pump. Service pipelines for loading & unloading.	Pittsburgh & Ohio Central RR	50' concrete wall with walkways & steel cell wharf 10.6' long with walkway. 10 mooring cluster spaced at internals for 1300'.
6.5L	Neville Island, PA	Exxon Co. USA	Gasoline & fuel	None	Pipelines	None	Dock 470', 5 cells & steel bridge. INACTIVE.
6.8L	Neville Island, PA	Neville Chemical Co.	Shipment of solvents & tar; receipt of petroleum distillate & fuel oil.	None	Four 8" & one 4" pumping lines & two 3" steam lines.	Pittsburgh & Ohio Central RR	1 steel sheet pile mooring post & 3 steel sheet cells 13'7" dia. with walkway. Dock 290' long.
7.1L	Neville Island, PA	Neville Metals	Scrap Iron & steel	Steel building	Crane	CSX Trans.	Steel pilings.
7.2RBC	Neville Island, PA	Chicago Bridge & Iron Co.	Steel	None	Crane	None	Sheet wall.
7.3L	Neville Island, PA	Triad Metals	Steel	None	2 overhead cranes each 100-ton capacity	Pittsburgh & Ohio Central RR	300' dock, 5 steel sheet pile cells, barge basin.
7.4RBC	Neville Island, PA	Neville Aggregates Co. Inc	Sand & gravel	None	Crane & conveyor	Pgh & Ohio Cent. RR	Mooring cells.
7.5L	Neville Island, PA	U.S. Army Engineer District, Pittsburgh	Pittsburgh Dist. Warehouse & Shops	None	Two 30-ton electric revolving gantry cranes.	None	River frontage, approx. 1600'. Landing for Government floating plant. Ice breakers.
7.5R	Neville Island, PA	Neville Development Co	Dock facility for towboats & barges	None	None	None	1425' dock & 8 cells in back channel.
7.7L	Neville Island, PA	Premier Marine Salvage Inc.	Barge repairs	None	30-ton electric revolving gantry crane; three 15-ton electric Whirler traveling cranes; 15-ton electric Whirler crane; one 1/2-ton electric Whirler traveling crane. Marine railway.	Yard connection to Pittsburgh & Ohio Central RR	River frontage, approx. 1300'. Ice breaker.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
7.6RBC	Neville Island, PA	Valley Proteins PA Inc.	Sand & gravel.	None	15-ton electrical tower crane with 2-cu. yd. clamshell bucket; 10-ton elect. traveling Whirler crane with 2-cu. yd. clamshell bucket.	Pittsburgh & Ohio Central RR	Concrete & stone vertical dock wall. 400' Long batching bins. One cell & four posts.
7.9RBC	Neville Island, PA	Neville Aggregates Co. Inc	Sand & Gravel	None	Conveyor	Pgh & Ohio Cent. RR	Mooring cells & dead man mooring devices.
8.1L	Neville Island, PA	Neville Development Co.	Ship building, boat & barge construction & repairs.	None	Two 30-ton elect. Whirler cranes	Yard connections to Pgh & Ohio Cent. RR	Launching vessels. INACTIVE.
8.1RBC	Neville Island, PA	Neville Aggregates Co. Inc	Sand & Gravel	None	Crane & Conveyor	Pgh & Ohio Cent. RR	5 cells
8.4L	Neville Island, PA	Neville Aggregates Co. Inc	Mooring service	None	None	None	Ice Breakers, Landing only.
8.5R	Glenfield, PA	All States Marine	Sand, gravel, slag & misc. freight.	None	Caterpillar Crane loading ramp; landing barge & pile clusters. River frontage 1200'.	Norfolk Southern RR	Mooring service.
8.8L	Neville Island, PA	Neville Aggregates Co. Inc	Mooring service	None	None	None	Landing for assembling & breaking up tows.
10.5L	Coraopolis, PA	Hanson Aggregates East	Sand & gravel	None	Cranes	None	210' dock.
10.8L	Coraopolis, PA	American Bridge Co.	Bulk steel	None	24 ton crane	None	Sheet pile
10.9L	Coraopolis, PA	Motiva Enterprises LLC	Receipt of gasoline, kerosene & fuel oil.	None	Hose; hand derrick for three 4" & one 5" pipelines. Air Hoist, five 8" pipelines.	CSX Trans.	Pile clusters, mooring posts & walkway; 900' dock. Pile clusters, & walkway; 250' dock.
11.0R	Sewickley, PA	U.S. Coast Guard	River Patrol	None	Caterpillar crane.	None	Maintains buoys & navigation lights.
11.2L	Coraopolis, PA	Buckeye Pipeline Co.	Petroleum products.	None	Pipeline & pump.	None	One cell.
11.9L	Coraopolis, PA	Burrell Industries Inc.	Bulk materials	None	Pipelines	None	700' dock. INACTIVE.
14.0R	Stoops Ferry, PA	Tiogo Pipeline Co.	Receipt of aviation grade fuel	None	8" pipeline	None	3 steel sheet pile cells & walkway. 150' dock.
14.4L	Leetsdale, PA	Mol-Dok	Misc. freight.	None	Three 40-ton electrical traveling gantry crane.	Norfolk Southern RR	Steel sheet pile, 1500' long.
14.4R	Glenwillard, PA	Three Rivers Aggregates	Sand, Coal & gravel	None	Crane & conveyor	None	Bin on concrete slab & truck turnaround
14.4R	Leetsdale, PA	Leetsdale Industrial Corp.	None	None	None	None	INACTIVE.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
14.5R	Leetsdale, PA	Leetsdale Industrial Corp.	Steel	None	60-ton gantry crane	Norfolk Southern RR	600' dock, two 20' dia. steel pile cells, & 4 steel mooring cells.
14.8R	Leetsdale, PA	ESSROC Materials Inc.	Cement	Tower access	10" pipeline	Norfolk Southern RR	4 mooring dolphins, tower access structure & pedestrian walkway.
14.9L	Glenwillard, PA	River Salvage Co.	Boat service & minor boat repairs.	None	Stiffleg derrick	None	Mooring cell & 175' dock.
14.9R	Leetsdale, PA	Leetsdale Industrial	Marine ways	None	Winches	None	INACTIVE
15.2L	Wireton, PA	Reliant Energy	None	None	None	None	INACTIVE.
15.3R	Ambridge, PA	USX Corp.	Steel	None	Crane	Norfolk Southern RR	Loading cells. INACTIVE.
15.8R	Ambridge, PA	Sippel Co. Inc.	Boat & barge construction	None	Two 15-ton gantry port- able wide gage cranes.	Norfolk Southern RR	1100' launch ways, fabricating shop. INACTIVE.
15.9L	South Heights, PA	North Star Coal Co.	Miscellaneous	None	Caterpillar crane & conveyor	None	3 steel sheet pile cells.
15.9R	Ambridge, PA	Sippel Co. Inc.	Boat & barge outfitting	None	Gantry portable crane	None	Ice breakers; steel sheet fender dock 550' long. INACTIVE.
16.5R	Ambridge, PA	Pittsburgh Intermodal Terminal Inc.	Miscellaneous	None	25-ton electrical traveling bridge crane with 1 1/2-cu. yd. clam-shell bucket. 65-ton stream stiffleg derrick.	Norfolk Southern RR	Dock. 440' long
16.5L	Aliquippa, PA	J & L Structural Steel Erg.	Shipment of steel	None	15-ton gantry crane	Aliquippa & Ohio River RR, CSX Trans.	Ice breakers diaphragm & circular cell dock. INACTIVE.
16.8L	Aliquippa, PA	Aliquippa Terminal, Inc.	Lime	None	15-ton electrical traveling crane with 2-cu. yd. clamshell bucket.	CSX Trans.	Steel sheet pile mooring clusters spaced at intervals for 280'.
17.3L	Aliquippa, PA	Bet-Tech International Inc.	None	None	None	None	7 cells.
17.7L	Aliquippa, PA	Bet-Tech International Inc.	None	None	None	None	2 cells.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
18.0L	Aliquippa, PA	Bet-Tech International Inc.	Receipt of coal, acid & fuel oil. Shipment of tar, ammonium sulfates & steel.	None	15-ton crane electrical belt conveyor, 5-ton steam locomotive crane, car shifter, magnets, sling, skips, etc., electrical double chain bucket elevator, track dump hopper & chute, barge shifter, coal & unloading hoist, 1500-tons per hr. cap.	Aliquippa & Ohio River RR	River frontage approx. 3 miles. Natural bank & slag wall. INACTIVE.
18.4R	Baden, PA	River Salvage	None & mooring area	None	None	None	2 cells & sheet wall.
19.1L	Aliquippa, PA	U. S. Gypsum	Synthetic gypsum	None	3900 crane claim shell	CSX Trans.	3 ice breakers and 7 cells.
19.5L	Aliquippa, PA	Bet-Tech International Inc.	None	None	None	None	3 cells.
20.7R	Baden, PA	General Materials Corp.	Receipt & shipment of steel products, sand, gravel, sulphur, fluorapar, etc	None	35-ton steam stiffleg derrick; eleven 1-ton steam Whirler crane; two 2-ton gasoline truck cranes; one small harbor boat; clam-shell bucket, magnets, etc.	Norfolk Southern RR	450' steel bulk dock & pile clusters.
20.8L	Aliquippa, PA	Bet-Tech International Inc.	None	None	None	None	None
21.0R	Conway, PA	Norfolk Southern leased to General Materials Corp.	Coke	None	15-ton electrical straight-line hoist with 4-cu. yd. clamshell bucket, barge & car shifter.	Norfolk Southern RR	2 ice breakers. Steel cells & mooring posts, 100' harbor, ice breakers & walkways.
22.5R	Conway, PA	Norfolk Southern RR	Fuel oil	None	Flexible pipeline	Norfolk Southern RR	Unloading fuel oil from barges to tanks on shore.
22.6L	Monaca, PA	Bet-Tech International Inc.	Slag	None	Mobile crane	None	Sheet wall.
23.2L	Monaca, PA	Colona Transfer L.P.	Salt, coal, pet coke, quart stone & lime stone.	None	Drag line	CSX Trans.	3 ice breakers & 11 cells.
23.6L	Monaca, PA	Colona Transfer L.P.	Coal	None	20-ton electrical straight-line hoist & barge shifter of 1300'.	CSX Trans.	2 ice breakers, 13 steel sheet pile cells spaced over distance.
23.8L	Monaca, PA	Empire Terminal Inc.	Pig Iron, coal, coke, sand, gravel,	None	300 ton an hour escalator.	CSX Trans.	3 cells & Embedded barge
23.8L	Monaca, PA	Interstate Chemical Co.	Caustic soda	None	Pipeline & storage tanks.	None	1 cell.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
23.9L	Monaca, PA	Bet-Tech International Inc	Shipment of steel & miscellaneous commodities	None	15-ton elect. Whirler crane; 1 belt conveyor	CSX Trans.	Steel sheet pile cells over a distance of 600' upstream & 540' downstream.
24.1R	Freedom, PA	Valvoline Oil Co.	Gasoline, fuel & crude oil	None	Gasoline & oil pipelines	Norfolk Southern RR	150' natural banks for mooring purposes.
24.8R	East Rochester, PA	Cronimet Corp.	Miscellaneous	None	15-ton elect. Whirler crane	None	Steel sheet pile cells. Terminal approx. 300' long.
24.9R	East Rochester, PA	Beaver Concrete & Gravel Co.	Sand & gravel	None	15-ton elect. Whirler crane	None	Sand, gravel & coal distribution yard.
25.2R	Rochester, PA	Borough of Rochester	Sand & gravel	None	Crane	None	Dock 150'
25.6R	Bridgewater, PA	Crain Bros. Inc.	Mooring facilities for contractor's equipment.	None	Derrick boat	None	Marine ways. INACTIVE
28.0L	Bellowsville, PA	Zinc Corp. of America	Miscellaneous	None	Whirler crane	None	Coal loading
28.3R	Vanport, PA	Sunmark Industries	Shipment of gasoline	None	6" pipeline Marcus Hook, N.J. delivers to this terminal. Steel pipeline trestle & pile clusters 90' long.	Norfolk Southern RR	6" pipeline
28.5R	Vanport , PA	Phils Towing Co. Inc.	None	None	Tow boats	None	2 embedded barges.
28.7R	Vanport, PA	Interstate Chemical Co.	Receipt of lime	None	Pipeline & storage bins	None	2 steel sheet pile mooring cells. Dock 130' long.
28.5L	Josephtown, PA	Zinc Corp. of American	Shipment of acid	None	Pipeline & boom on trestle	CSX Trans.	INACTIVE.
29.2L	Josephtown, PA	Zinc Corp. Of America	Receipt of coal	None	Electrical steel hoist with clamshell bucket. Capacity 6 tons.	None	9 steel mooring cells.
29.8L	Potter Township	A.E.S. Beaver Valley	Receipt of coal	None	4-ton Whirler electrical crane & link belt conveyor	Norfolk Southern RR CSX Trans.	Concrete hoist pier, 17 wood pile cluster; 2 steel sheet pile cells, 1755' long.
29.9L	Potter Township	NOVA Chemical Co.	Alcohol & styrene	None	6" pipeline & pump boat	Norfolk Southern RR CSX Trans.	Combined terminal for liquids within limits of dock, listed at Mi. 29.8.
30.5L	Potter Township	Frank Bryan Inc.	Sand & Gravel	None	Conveyer belt hopper	None	INACTIVE.
33.2R	Industry, PA	Industry Terminal & Salvage Co.	General	None	Tractor mounted crane on barge.	None	Dock 525'. Embedded barges. 600' dock, 6 steel sheet pile cells.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
33.3R	Industry, PA	Great Lakes Terminal & Transport	Liquid industrial chemical.	Storage tanks, capac. 2,140,000	Five 6"-pipelines; pump barge 14' x 30'	Norfolk Southern RR	5 steel mooring cells. 350' dock.
33.3L	Shippingport, PA	Pennsylvania Power Co.	Coal	None	Conveyor	None	Bruce Mansfield Plant
33.5R	Industry, PA	Arrow terminal Co.	Miscellaneous	None	Crane	Norfolk Southern RR	Several cells & sheet pile wall.
33.6R	Industry, PA	Industry Terminal & Salvage Co.	Tow boats & general repairs	None	Tow boat repairs.	None	3 ice breakers, 7 cells
33.7R	Industry, PA	Arrow terminal Co.	Miscellaneous	None	Crane	Norfolk Southern RR	1 steel mooring cell. Sheet pile wall.
33.7L	Shippingport, PA	Pennsylvania Power Co.	Lime	None	Conveyor	None	Lime unloading dock.
33.9L	Industry, PA	Arrow Terminal Co.	Miscellaneous	None	Grain	None	Embedded barge
34.3L	Shippingport, PA	Johns Towing	None	None	Tow boat	None	Cell.
34.5L	Shippingport, PA	Johns Towing	None	None	Tow boat	None	Cell.
34.6L	Shippingport, PA	First Energy	Coal & lime	None	conveyor	CSX Trans.	Several cells
34.8R	Midland, PA	Marathon Ashland Oil Co.	Oil & gasoline to & from barges	None	Dock & pipelines	Norfolk Southern RR	3 steel pile cells spaced at intervals for 325'. 6" pipeline from Atlantic Coast delivers to this terminal.
35.1R	Midland, PA	Buckey Pipeline Co.	Receipt of gasoline	None	3 pipelines	Norfolk Southern RR	2 steel pile cells, T-head with walkway in 33' length. 6" pipeline from Atlantic Coast delivers to this terminal. INACTIVE.
35.6R	Midland, PA	Treadwell Boatways	None	None	None	None	Abandoned. INACTIVE.
36.2R	Midland, PA	C & C Marine Maintenance Co.	None	None	None	Norfolk Southern RR	400' concrete wall pile clusters spaced at intervals for 1050'. Steel sheet pile cell & walkway. INACTIVE.
36.5L	Georgetown, PA	Pitmarine Corp.	Construction equipment	None	Derrick boat & crane	None	Old L/D 7 Dock 1860'.
37.3L	Georgetown, PA	Phils Towing Co. Inc.	None	None	Crain	None	Barge Dock
38.3L	Georgetown, PA	Georgetown Sand & Gravel	Sand & gravel	None	Conveyor	None	Sand & gravel processing plant. 1332' dock.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
38.6L	Georgetown, PA	C.C. Marine Maintenance Co.	Barges, misc.	None	Tugboat & crane equipment	None	336' dock
39.1L	Georgetown, PA	C.C. Marine Maintenance Co.	Fleeting & repairs	None	None	None	1170' dock
39.4L	Georgetown, PA	C & C Marine Maintenance Co	Sand & gravel	None	Cranes & conveyor	None	600' dock, 6 steel pile cells.
40.0R	East Liverpool, OH	S. H. Bell Co.	Ores-chrome manganese, etc.	None	Cranes	Norfolk Southern RR	1800' dock
40.5L	Chester, WV	DTC Environmental Services Inc.	Fleeting & Mooring	None	None	None	4 embedded barges.
41.2R	East Liverpool, OH	S.H. Bell Co.	Miscellaneous	None	Caterpillar crane	Norfolk Southern RR	4 steel sheet pile cells.
41.4R	East Liverpool, OH	Port Authority, Columbiana Co.	Receipt of asphalt	None	8" pipeline	Norfolk Southern RR	2 steel pile clusters with walkway from downstream cluster to riverbank.
42.0L	Chester, WV	Globe Building Material	None	None	None	None	INACTIVE.
42.1L	Chester, WV	Congo River Terminal.	Bulk Steel	None	Crane	None	Cell.
42.4RBC	Chester, WV	D. W. Dickey & Sons Inc.	Sand & gravel	None	Crane	None	Back channel.
42.5R BC	East Liverpool, OH	Agland Inc.	Grain, Soy & corn	None	Elevator	None	3 sheet pile clusters.
42.6R	East Liverpool, OH	A. M. Towing	Fleeting	None	None	None	Back channel. 3 pipe pile clusters.
42.9R	East Liverpool, OH	Transmontaigne	Receiving petroleum products & liquid fertilizer.	None	Pipeline	None	Mooring
42.95R	East Liverpool, OH	East Liverpool River- Rail Terminal Co.	Molasses, synthetic rubber, & misc. freight.	None	None	None	Mooring posts spaced at intervals for 400'.
43.1R	East Liverpool, OH	Billson Towing	Barge repair	None	Dry dock	None	Fleeting area
43.3R	East Liverpool, OH	D.W. Dickey & Sons Inc.	Fertilizer	None	Hopper bin	None	3 pipe pile clusters
43.7R	East Liverpool, OH	Parsons Inc.	Receipt of coal, sand & gravel.	None	12-ton steam shiffleg derrick with 2 cu. yd. clamshell bucket.	Norfolk Southern RR	Rubble bank slope & broken piling, for length of 300'.
43.9R	East Liverpool, OH	Seaforth Mineral & Ore Co., Inc.	Dry bulk materials	None	None	None	408' sea wall & dock

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
44.2R	East Liverpool, OH	Parsons Inc.	Receipt of coal, sand & gravel.	None	15-ton stiff leg derrick with 2 1/2-cu. yd. clamshell bucket & traveling crane, 15-ton capacity.	None	Concrete foundation for hoist.
44.3R	East Liverpool, OH	Weavertown Environmental Corp.	Barge and Rail Cleaning	None	Hose & Vacuum pump	Norfolk Southern RR	Embedded barge.
46.5L	Congo, WV	Orran Hofstetter, Inc.	Bulk steel	None	Crane	Norfolk Southern RR	600' long dock.
46.8L	Congo, WV	EROGON Co.	Liquid	None	Hose & pump	None	350' dock
47.3L	Congo, WV	DTC Environmental Services Inc.	Barge cleaning	None	Crane	None	175' dock
47.7L	Congo, WV	J & T River Service Inc.	Miscellaneous	None	Crane	None	Loading & unloading.
48.5R	Wellsville, OH	Mississippi Lime Co.	Receipt of lime	None	Belt conveyor & storage bin	Norfolk Southern RR	1 mooring cell.
48.7R	Wellsville, OH	Wellsville Terminal Co.	Syn. rubber, steel & lime	None	Three 40-ton Caterpillar cranes	Norfolk Southern RR	River-rail terminal.
49.1R	Wellsville, OH	Ashland, Oil Co.	Receipt of petroleum products.	None	Gasoline & oil pipelines	None	5 steel mooring cells; 2 elect. pumps, 1 steam pump.
49.7R	Wellsville, OH	Columbian County Port Authority	None	None	None	Norfolk Southern RR	465' dock. 4 mooring cells.
51.0L	Arroya, WV	Pioneer Mid-Atlantic Inc.	Sand & gravel to barges.	None	Conveyor	None	Mooring cells & pile clusters. INACTIVE.
53.1R	Stratton, OH	Ohio Edison Co. (Sammis)	Coal	None	Electrical straight-line hoist with clamshell bucket. Barge unloader.	None	2000' dock. 17 mooring cells. Unloading coal from barges to hopper & conveyor.
57.5R	Toronto, OH	Ohio Edison Co. (Toronto)	None	None	None	None	2 ice breakers and 3 cells. INACTIVE
61.7R	Weirton, WV	Weirton Steel Corp.	Coke	None	Hopper & derrick boat.	None	Temporary facility.
62.2L	Weirton, WV	Weirton Steel Corp.	Coal, steel, fuel oil, acid, & scrap.	None	20-ton elect. hoist with 10 1/2-ton bucket, 20-ton elect. cargo hoist, two 6-ton elect. hoist for scrap, 1 oil boat with 6" streamline, 8" oil line, 3" acid line & 6" benzol line.	Norfolk Southern RR	Terminal has river frontage of approx. 5400'. Approx. 2700' steel cellular & concrete wall. Two sets of ice breakers.
62.5R	Browns Island WV	Weirton Steel Corp.	Slag	None	Conveyor	None	Loading only.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
62.9L	Browns Island WV	Weirton Steel Corp.	None	None	None	None	7 cells. INACTIVE..
64.9L	Weirton, WV	Petroleum Fuel & Terminal Co.	Petroleum products	None	Pipelines	None	400' dock.
65.6R	Steubenville, OH	L & J Bowers	Miscellaneous	None	Crane	None	175' dock
66.0L	Wellsville, OH	Weirton Ice & Coal Co.	Loading coal & sized slag Miscellaneous	None	Adjustable chute on truck- way & loading conveyor.	None	Ice breaker cells & mooring posts. Barge loading conveyor & 2 truck ramps. Harbor 1400' long. Barge mooring
66.8R	Steubenville, OH	D.W. Dickey & Sons Inc.	Receipt of sand & gravel Inactive	None	None	Norfolk Southern RR	Steel sheet pile bulkhead 200' long at foot of stone paved bank slope. INACTIVE.
68.9L	Fallansbee, WV	Wheeling Pittsburgh Steel Corp.	Receipt of coal & acid, shipment of benzol	None	Elect. gantry crane with clamshell bucket; capacity 4 tons. 4" pipeline.	CSX Trans.	Concrete wall at hoist 100' long & structural steel timber water faced end for 120' on upstream & 100' on downstream end. Steel sheet pile mooring cells spaced at intervals for 1207' downstream & 100' upstream from fender. 2 steel pile cells & walkway.
69.1L	Fallansbee, WV	Allied Oil Co.	Receipt of fuel oil	None	8" pipeline & pump boat.	None	With limits of dock listed above.
69.3L	Fallansbee, WV	Koppers Industries Inc.	Receipt of crude tar, shipment of creosote	None	Deck & pipeline	CSX Trans.	Pile & timber dock 252' long. 1-2"; 2-4"; & 2- 6" pipelines on walkway; 1 pile cluster upper & 2 pile clusters lower. 2 steel cells.
70.0L	Fallansbee, WV	Wheeling Pittsburgh Steel Corp.	Coal & Iron Ore	None	Hopper	None	Spar Barges. Temporary Facility.
70.9L	Fallansbee, WV	Johnson Towing Corp.	Coal to barrages	None	Conveyor	None	6 Tri-tie clusters. 1 steel cell.
71.1R	Mingo Junction, OH	Wheeling Pittsburgh Steel Corp.	Coal, coke, pig iron, scrap, casting, flue dust, & steel products.	None	15-ton elect. stiffleg derrick with grab bucket; magnet or hook. Clamshell bucket conveyor belt & barge shifter. Steel sheet pile fender walls. Steel pile cells, mooring cells & pile clusters.	Norfolk Southern RR Wheeling & Lake Erie RR	Terminal has 3000' frontage. Pile & timber fender with concrete hoist. Foundation.
72.6L	Wellsburg, WV	MERCO Inc.	Barge cleaning	None	Mobile crain	Norfolk Southern RR	880' dock consisting of 12 pile clusters.
76.6R	Brilliant, OH	Ohio Power Co. (Tidd)	Coal	None	Barge unloader, bucket elevator, 1800' tons per.	Wheeling & Lake Erie RR	17 steel sheet pile cells 2008' long.
77.3R	Brilliant, OH	Ohio Power Co. (Cardinal)	Coal	None	Conveyor	Norfolk Southern RR	25 cells.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
80.0L	Brilliant, OH	Windsor Coal Inc.	Coal	None	Belt conveyor for loading.	None	Breasting barges. INACTIVE.
80.9R	Warrenton, OH	Windsor Coal Co.	Coal	None	Belt conveyor for loading	None	6 steel pile cells.
81.1R	Warrenton, OH	S & S Terminal	Misc. oils & asphalt tar	None	Pumps	None	2 steel pile cells.
82.2L	Ohio County, WV	Rayle Coal Co.	Coal	None	Conveyor for loading	None	14 steel pile cells. INACTIVE.
82.5R	Tiltonville, OH	Walden Industries	Sand, gravel & concrete block	None	Crane, 8-ton bucket	None	Bulkhead & concrete foundation.
83.4R	Yorkville, OH	Wheeling Pittsburgh Steel Corp.	Receipt of coal; shipment of tin plate.	None	40-ton capacity truck	None	410' dock. 3-40' steel sheet pile cells with 3-54' mooring cells up & downstream from main dock.
85.4L	Near Wheeling, WV	Westvaco	Receipt of gasoline	None	Four 8" pipeline	CSX Trans.	3 steel sheet pile cells, steel A-frame & steel walkway. INACTIVE.
85.5L	Warwood, Wheeling, WV	Sun Oil Co.	Receipt of gasoline	None	One 6" pipeline	CSX Trans.	Pile & timber walkway & pile clusters at river end. Inactive. INACTIVE.
85.8L	Warwood, Wheeling, WV	Tri-State Petroleum Corp.	Fuel oil	None	Two 6" pipeline	CSX Trans.	2 steel sheet pile cells & steel walkway. INACTIVE.
86.8L	Warwood, Wheeling, WV	U.S. Navy Inactive	Reserves Training Base	None	None	None	3 steel sheet pile cells. INACTIVE.
86.9R	Martins Ferry Co.	Martins Ferry Coal & Rock Co.	Coal to barge	None	None	N.Y.C. & St. L. RR	3 steel mooring posts, steel sheet pile bulkhead, 24' steel ice breaker cell. A river-rail terminal. INACTIVE.
88.2L	Warwood, Wheeling, WV	CITGO	Receipt of gasoline	None	Two 6" pipeline	Norfolk Southern RR	2 steel sheet pile cells. INACTIVE.
88.5R	Martins Ferry, OH	Wheeling Pittsburgh Steel Corp.	Receipt of coke & steel products to & from barges	None	25-ton electrical tower crane, magnets, slings, etc.	Norfolk Southern RR CSX Trans. Wheeling & Lake Erie RR	30' crane foundation 9 pile clusters spaced at intervals for 400'.
88.7R	Martins Ferry, OH	Martin Marietta Aggregates	Coal	None	Conveyor	None	Steel pile dock, 220' long.
88.7R	Martins Ferry, OH	Thomas E. Ayers	Coal to barge & misc.	None	None	None	INACTIVE.
91.2L	Wheeling, WV	Contractors Supply Corp.	Receipt of sand & gravel Inactive	None	15-ton elect. stiffleg derrick with 2-cu. yd. clamshell bucket.	CSX Trans.	250' fender piling concrete storage boxes; concrete foundation for derrick mast. INACTIVE.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
91.8L	Wheeling, WV	Valley Concrete Co.	San & gravel	None	Mobile contracted crane	None	300' pile & timber fender; pile clusters; ice breakers.
92.0R	Riverview, WV	Ohio River Salvage	Fleeting	None	None	None	Embedded barges
92.3R	Near West Wheeling WV	Cravat Coal Co.	Coal	None	Tie cells & conveyor	None	450' dock.
92.3L	Webster, WV	Ohio River Salvage	Fleeting repairs	None	Towboats	None	2 cells.
92.6R	Bellaire, OH	Tri-Son Concrete Co.	Sand & gravel	None	Conveyor	None	Portable facility
92.8R	Bellaire, OH	Oxford Mining Co.	Coal	None	Conveyor	None	925' dock; coal loading.
93.2L	Benwood, WV	IMI FABI L.L.C.	Coal	None	Whirler crane	None	Dock
93.4R	Bellaire, OH	Ohio River Salvage	Mooring services	None	None	None	2 steel sheet pile cells.
93.6R	Bellaire, OH	Rayle Coal Co.	Coal	None	Two 7-ton gasoline tractor cranes with 1-cu. yd. clamshell bucket, & 8-ton derrick boat with 1 1/2-cu. yd. clamshell bucket & chute for loading sand & gravel & coal. 1 stiffleg crane.	Norfolk Southern RR	20'x 20' concrete bulkhead, concrete ice breaker & pile clusters spaced over a distance of 1500'.
93.7L	Benwood, WV	Consolidation Energy Co.	Coal to barge	None	None	None	Truck loading dock. 12 mooring cells.
93.9R	Bellaire, OH	Ohio River Salvage	Boat & barge repair	None	Marine Railway	None	Marine ways.
94.7L	Benwood, WV	Benwood Industries Park Co.	Steel	None	250 ton crane	CSX Trans.	2 cells plus sheets.
96.5L	McMechin, WV	Tri-State Asphalt Co.	Sand & gravel	None	Crane	None	Embedded barge
96.7L	McMechin, WV	Arrow Concrete Co.	Sand & Gravel	None	Conveyors	None	Cement slab.
101.3L	Moundsville, WV	Consolidation Energy Co. Alexander	Coal to barges	None	None	None	Steel sheet pile mooring cells & posts spaced over a distance of 940'; 3 steel sheet pile guide piers. INACTIVE.
102.3R	Dille Bottom, OH	Ohio Edison Co. (Burger)	Receipt of coal	None	2 diesel movable cranes; capacity 300 tons per hour.	None	Concrete dock wall 2040' long, two 9' steel sheet pile cells & cluster of three 9' concrete pier ice breakers spaced for a distance of 195' upstream from wall.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
103.5R	Dille Bottom, OH	Burrell Industries Inc.	Sand & gravel.	None	Adjustable conveyor	Norfolk Southern RR	700' dock, 9 pipe pile clusters. INACTIVE.
104.0R	Belmont County, OH	Anchor Construction Inc.	Shipment of coal	None	Tipple & 42' belt conveyor	Norfolk Southern RR	Ice breakers cell, tipple cell, 8 fender & mooring cells; hinge tower cell supporting end of conveyor. INACTIVE.
105.9L	Natrium, WV	LPC Chemicals	Industrial chemicals	None	None	None	One 24' & two 16' dia. steel pipeline. 3 steel sheet pile cells.
110.4L	Cresap, WV	Consolidation Energy Co.	Coal	None	Belt conveyor from mine.	None	9 Tri-tie clusters.
110.6R	Powhatan, Point, OH	American Coal Sales Co.	Coal	None	Belt conveyor from washer house to barge.	Norfolk Southern RR	2 rows of steel sheet pile cells & a steel sheet pile ice breaker.
112.0L	Cresap, WV	Kinder Morgan Inc.	Coal	None	Conveyor	None	Ice piers, series of cells.
112.3L	Cresap, WV	Ohio Power Co. (Mitchell)	Coal	None	Bucket unloader	None	Coal unloading facilities.
114.4L	Graysville Sta. WV	Columbiana Chemical Co.	General	None	One 6" pipeline	None	2 steel sheet pile cells.
115.6R	Clarington, OH	Quarto Coal Co.	Coal	None	Coal tipple & bins conveyor	None	Tie up cells, ice breaker, 1700' dock. INACTIVE.
117.1R	Clarington, OH	Tri Valley Asphalt Co.	Sand & gravel	None	Whirler crane	None	Embedded barge.
119.4L	Natrium, WV	PPG Industries	Coal, chemicals & Benzene	None	Crane for handling coal barge to storage pile.	CSX Trans.	Pipelines from storage tanks to barge for chemicals. 9 steel sheet-mooring cells spaced over a distance of 1600', concrete retaining wall & 2 concrete ice breakers.
120.2R	Clarington, OH	Quarto Mining Co.	Coal	None	6" pipeline	Norfolk Southern RR	Tie up cells, ice breaker, dock. INACTIVE.
121.0L	Near Proctor, WV	Bayer Inc.	Chemicals	None	Enclosed conveyor	CSX Trans.	2 steel sheet pile cells.
121.3L	Proctor, WV	Bayer Inc.	Chemicals	None	6" pipeline	CSX Trans.	Pipelines from tank to barge.
123.1R	Buck Hill Bottom, OH	Ormet Corp.	Miscellaneous	None	Traveling crane for loading & unloading cargo.	None	7 steel sheet pile cells.
123.6R	Buck Hill Bottom, OH	Ormet Corp.	Aluminum	None	4 vacuum unloading	None	Steel sheet pile cells, for a distance of 2325' & 3 steel sheet pile ice breaker cells.
124.2R	Hannibal, OH	Dock Side Inc.	Petroleum & coke	None	Crane	None	Cement slabs.

OHIO RIVER RIVER TERMINALS

MILE	LOCATION	OWNER OR OPERATOR	TYPE OF FREIGHT	SHELTER	MECHANICAL	RAIL CONNECTIONS	REMARKS
125.8L	New Martinsville, WV	Arrow Concrete	Sand & gravel	None	6-ton stiffleg derrick 80' reach; 10-ton stiffleg derrick, 75' reach.	CSX Trans.	Material transferred from barges by derrick.
127.2L	New Martinsville, WV	Martin Marietta Aggregates Inc.	Sand & gravel	None	Two 15-ton fixed stiffleg derrick; 10-ton stiffleg derrick & a conveyor	CSX Trans.	Wood mooring piles & steel sheet pile ice breaker. Material Transferred from barges by derricks.

**OHIO RIVER
SMALL BOAT HARBORS, RAMPS, LANDING, ETC.**

MILE	FACILITY & ADDRESS	PHONE NO.	FUEL	REST.	GROCERIES	O'NIGHT MOORING	LODGING	REMARKS
1.1R	Newport Marina Foot of W. North Ave. Pittsburgh, PA 15233	412-322-9151	No	No	No	No	No	Ramp
1.2R	Point Cove Marina W. North Ave. Pittsburgh, PA 15233	412-231-6280	No	No	No	Yes	No	
1.4R	Peggy's Harbor Liverpool St. Pittsburgh, PA 15233	412-321-2805	Yes	No	No	No	No	Ramp, Ice,
2.0R	Branchport Boat Club Foot of Branchport St. Pittsburgh, PA 15223	412-231-3718	No	No	No	Yes	No	Private Club
2.1R	Island Boat Club Foot of Island Ave. Pittsburgh, PA 15233	412-322-0889	No	No	No	Yes	No	Ramp
8.3R	Glenfield Delray Marina 188 & 190 West Beaver St. Glenfield, PA 15143	412-343-1356	No	No	No	No	No	
8.7R	C & E Marina Dawson Ave. Glenfield, PA 15143	412-741-6810	Yes	No	No	Yes	No	Ramp
8.8RBC	Greater Pittsburgh Aquatic Club P.O. Box 9304, Neville Island Pittsburgh, PA 15225	412-264-9978	No	No	No	Yes	No	Back channel
9.0LBC	B & L Marina Royal Ave. Coraopolis, PA 15108	412-264-9569	No	No	No	Yes	No	
9.1LBC	Groveton Boat Club Box 284 Royal Ave. Coraopolis, PA 15108	412-264-6776	Yes	Yes	No	Yes	No	Ramp
11.8R	Sewickley Public Ramp	None	No	No	No	No	No	Ramp

**OHIO RIVER
SMALL BOAT HARBORS, RAMPS, LANDING, ETC.**

MILE	FACILITY & ADDRESS	PHONE NO.	FUEL	REST.	GROCERIES	O'NIGHT MOORING	LODGING	REMARKS
14.1L	Glenwillard Boat Club P.O. Box 40 Wireton, PA 05092	724-457-8993	No	No	No	No	No	Ramp
15.0R	Pa. Fish Commission Ramp	None	No	No	No	No	No	
25.1R	Rochester Public Ramp	None	No	No	No	No	No	
25.4R	BEAVER RIVER (see sheets 21 & 22)							
34.5L	Shippingport Boro Ramp	None	No	No	No	No	No	
42.3RBC	Ohio Valley Boat Club River Rd. East Liverpool, OH 43920	(330)386-4637	No	No	No	Yes	No	
43.1L	Chester Public Ramp	None	No	No	No	No	No	
43.4L	Holiday Yacht Club Ferry Rd. Chester, WV 26034	(216)385-8823 (216)385-5221	Yes	No	No	No	No	
43.4L	Smith Landing 424 Ferry Rd. Chester, WV 26034	(304)387-2764	No	No	Yes	Yes	Yes	Campground
43.5R	East Liverpool Public Ramp	None	No	No	No	No	No	
43.6L	East Liverpool Yacht Club Ferry Rd. Chester, WV	(304)387-0036	No	No	No	No	No	Picnic area & ramp
46.4L	Kennedy Park Marina, Inc. 1700 Conco Rd. Newell, WV 26050	(304)387-3063	No	No	No	Yes	No	Trailer Space & Ramp.
47.1R	Jim Kenney Boat Marina c/o Jack Cataldo 903 Riverside Rd. Wellsville, OH 43968	(330)532-5515	No	No	No	No	No	Paved ramp at mouth of Little Yellow Cr. Private Club

**OHIO RIVER
SMALL BOAT HARBORS, RAMPS, LANDING, ETC.**

MILE	FACILITY & ADDRESS	PHONE NO.	FUEL	REST.	GROCERIES	O'NIGHT MOORING	LODGING	REMARKS
48.8R	Wellsburg Yacht Club Foot of 18 th St. Wellsville, OH	Not Available	No	No	No	No	No	Ramp. INACTIVE
56.7L	New Cumberland Public Ramp	None	No	No	No	No	No	Ramp
57.0L	Public Ramp	None	No	No	No	No	No	Ramp
57.8R	Tigertown Boat & Ski Club River Rd. Toronto, OH 43964	Not Available	No	No	No	No	No	Ramp. Private Club.
58.1R	Bo's Light House 1200 North River Ave. Toronto, OH 43964	(740)537-1880	Yes	Yes	No	Yes	No	Ramp & Picnic area.
59.2R	Newburg Public Ramp	None	No	No	No	No	No	Ramp
60.2R	Skippers Haven Yacht Club P.O. Box 272 Toronto, OH 43964	(740)537-1654	Yes	Yes	Yes	Yes	No	Ramp, Picnic area, Diesel fuel - 10am to 8pm, & Curtsey Car.
64.8L	Weirton Marina Club Box 222 Cove Station Weirton, WV 26062	(304)748-1692	Yes	No	No	Yes	No	Ramp & picnic area. Private Club
66.1L	Steubenville Public Ramp	Not Available	No	No	No	No	No	Public ramp
66.4R	Woods & Water 1202 La Belle Ave. Stuebenville, OH 43952	None	No	No	No	No	No	Inactive
74.0L	Wellsburg Public Ramp	None	No	No	No	No	No	Ramp. Inactive
74.15L	Pier 12 Marina 30 12 th St. Wellsburg, WV 26070	(304)737-3280	No	Yes	No	Yes	No	
74.1L	Wellsburg Ramp & Dock Foot of 12 th St. Wellsburg, WV	None	No	Yes	No	No	No	Ramp, Picnic Area

**OHIO RIVER
SMALL BOAT HARBORS, RAMPS, LANDING, ETC.**

MILE	FACILITY & ADDRESS	PHONE NO.	FUEL	REST.	GROCERIES	O'NIGHT MOORING	LODGING	REMARKS
74.4L	Kings Port 833 Main St. Wellsburg, WV 26070	(304)737-1373	No	Yes	No	No	No	
74.4R	Brilliant Boat Club 100 Prospect St. Brilliant, OH 43913	Not Available	No	No	No	No	No	Ramp
74.45L	Wellsburg Public Warf	None	No	No	No	No	No	
74.6L	Capt'n Pat's Marina 320 Main St. Wellsburg, WV	None	No	Yes	No	Yes	No	
77.3L	E-Z Pool Marina P.O. Box321 Beach Bottom, WV 26030	(304)394-1105	Yes	Yes	No	Yes	Yes	Restaurant open year around
81.3R	Rayland Marina Box 430 Rayland, OH 43943	(740)859-4100 (740)859-4409	Yes	Yes	No	Yes	No	Ramp
86.4L	Warwood Boat Club Warwood, N. 22nd St. Wheeling, WV 26003	Not Available	No	No	No	No	No	Ramp & Private Club
88.1R	Martins Ferry Yacht Club Center St. P.O. Box 265 Martins Ferry, OH 43935	(704)633-9056	Yes	Yes	No	Yes	No	Ramp, Ice, Rest rooms, Picnic area x
88.2R	Westport Marina & Lounge <hr/> <hr/>	Not Available	No	No	No	No	No	Inactive.
89.8LBC	Public Launching Ramp	None	No	No	No	No	No	Back channel, Ramp
90.0L	Wheeling Yacht Club 2 Fifth St. Wheeling, WV 26003	(740)635-1050	No	No	No	Yes	No	Private Club, Water, Electric, Showers, Laundry, Clubhouse, with galley, Ice, & Picnic Area
91.4L	Wheeling Municipal Wharf	None	No	No	No	No	No	

**OHIO RIVER
SMALL BOAT HARBORS, RAMPS, LANDING, ETC.**

MILE	FACILITY & ADDRESS	PHONE NO.	FUEL	REST.	GROCERIES	O'NIGHT MOORING	LODGING	REMARKS
92.8L	48th Street Boat Club 4512 Eoff St. Wheeling, WV 26003	(304)232-7100	Yes	No	No	Yes	No	
96.1L	McMechen Public Ramp	None	No	No	No	No	No	Ramp
97.1R	Shadyside Marina W.J. Amend Highland Avenue Shadyside, OH 43947	Not Available	No	No	No	Yes	No	Ramp
98.8L	Ship Wreck Lounge 313 Wheeling Ave. Glen Dale, WV 26038	(304)845-0936	No	Yes	No	Yes	No	
101.8L	Moundsville Marina Inc. 100 - 10th St. Moundsville, WV 26041	(304)845-8965	No	No	No	Yes	No	
101.9L	WV DNR Public Ramp	None	No	No	No	No	No	Park, Rest rooms.
102.2L	Prima Marina Club II 1501 Water St. Moundsvills, WV 26041	(304)845-7806	Yes	Yes	No	Yes	No	Ramp
104.7R	Mahaffee Boat & Dock <hr/> <hr/>	Not Available	Yes	Yes	No	Yes	No	
109.8R	Captina Creek Public Ramp	None	No	No	No	No	No	Ramp
BEAVER RIVER								
0.1R	Captains Quarters Marina 101 Wolf Lane West Bridgewater, PA 15009	724-728-3891	No	No	No	Yes	No	Ramp
0.2R	Bridgewater Landing Marina 404 Brkich Way Bridgewater, PA 15009	724-728-2880	No	Yes	No	No	No	Ramp

**OHIO RIVER
SMALL BOAT HARBORS, RAMPS, LANDING, ETC.**

MILE	FACILITY & ADDRESS	PHONE NO.	FUEL	REST.	GROCERIES	O'NIGHT MOORING	LODGING	REMARKS
0.45L	Skippers Landing Boat Club Railroad St. Rochester, PA 15074	Not Available	No	No	No	No	No	
0.54L	Rockwall Harbor Inc. Railroad St. Rochester, PA 15074	Not Available	Yes	No	No	No	No	Ramp
0.65L	Dockers Pleasure Railroad St. Rochester, PA 15074	Not Available	No	No	No	No	No	
0.69L	Rochester Boat Club Railroad St. Rochester, PA 15074	Not Available	No	No	No	No	No	Private Club
0.71L	Knotical Haven Railroad St. Rochester, PA 15074	Not Available	No	No	No	No	No	
0.79L	Freedom Serbs Railroad St. Rochester, PA 15074	Not Available	No	No	No	No	No	
1.2R	Jeffeies Marina 1440 Riverside Dr. W. Bridgewater, Pa 15009	724-728-7878	No	Yes	No	Yes	No	Paved ramp, Picnic area, Boat work
1.35R	Scobie's Marina 1462 River Dr. Bridgewater, PA 15009	724-774-5565	No	No	No	No	No	
1.4R	River Harbor Marina John Miloser Rt. 51 Riverside Dr. New Brighton, PA 15066	724-847-0276	No	No	No	Yes	No	Ramp
1.9L	New Brighton Boat Club Box 204 New Brighton, PA 15066	724-378-1534	No	No	No	Yes	No	Private Club

**OHIO RIVER
SMALL BOAT HARBORS, RAMPS, LANDING, ETC.**

MILE	FACILITY & ADDRESS	PHONE NO.	FUEL	REST.	GROCERIES	O'NIGHT MOORING	LODGING	REMARKS
1.95L	PA Fishing Commission	None	No	No	No	No	No	Public Dock & Ramp
2.0L	New Brighton Boat Marina 21st St. & River Rd. New Brighton, PA 15066	724-843-0527	No	Yes	No	Yes	No	Snack Bar
2.0R	Beaver Valley Yacht Club <hr/> Fallston, PA 15066	724-847-4663	No	No	No	No	No	Private Club
2.2L	River Rose Marina 19th & Second Ave. New Brighton, PA 15066	724-846-8180	No	No	No	Yes	No	

OHIO RIVER MILEAGE CHART

POINT PITTSBURGH	EMSWORTH DAM		DASHIELDS DAM		ALQUIPPA		BEAVER RIVER		MONTGOMERY DAM		EAST LIVERPOOL, OH		NEW CUMBERLAND DAM		STUEBENVILLE, OH		PIKE ISLAND L/D		WHEELING, WV		HANNIBAL L/D		U/S LIMITS HUNTINGTON DISTRICT END PITTSBURGH DISTRICT		WILLOW ISLAND L/D		MARETTA, OH		PARKERSBURG, WV		BELLEVILLE L/D		RACINE L/D		SILVER MEMORIAL BRIDGE		GALLIPOLIS L/D		HUNTINGTON, WV		BIG SANDY RIVER		ASHLAND, KY		GREENUP L/D		PORTMOUTH, OH		SCOTO RIVER		MAYSVILLE, KY		MELDAHL L/D		END HUNTINGTON DISTRICT U/S LIMITS LOUISVILLE DISTRICT		LITTLE MIAMIRIVER		LICKING RIVER CINCINNATI, OH		GREAT MIAMIRIVER		MARKLAND L/D		KENTUCKY RIVER		MADISON, IN		LOUISVILLE, KY		MCALPINE L/D		CANNELTON L/D		OWENSBORO, KY		NEWBURGH, KY		GREEN RIVER		EVANSVILLE, IN		HENDERSON, KY		MT. VERNON, IN		UNIONTOWN, IL		WABOSH RIVER		TRADEWATER RIVER		SMITHLAND DAM		CUMBERLAND RIVER		TENNESSEE RIVER PADUCAH, KY		L/D NOS. 52		L/D NOS. 53		MOUND CITY, IL		CARIO, IL		CONFLUENCE OHIO/MISS. RIVERS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
6.2	13.3	7.1	16.8	10.8	3.5	25.5	19.3	12.2	8.7	31.7	25.5	18.4	14.9	6.2	43.5	37.3	30.2	26.7	18.0	11.8	54.4	48.2	41.1	37.6	28.9	22.7	10.9	68.0	61.8	54.7	51.2	42.5	36.3	24.5	13.6	84.2	78.0	70.9	67.4	58.7	52.5	40.7	29.8	16.2	87.4	81.2	74.1	70.6	61.9	55.7	43.9	33.0	19.4	126.4	120.2	113.1	109.6	100.9	94.7	82.9	72.0	58.4	42.2	39.0	127.2	121.0	113.9	110.4	101.7	95.5	83.7	72.8	59.2	43.0	39.8	161.7	155.5	148.4	144.9	136.2	130.0	118.2	107.3	93.7	77.5	74.3	35.3	34.5	172.2	166.0	158.9	155.4	146.7	140.5	128.7	117.8	104.2	88.0	84.8	45.8	45.0	10.5	184.3	178.1	171.0	167.5	158.8	152.6	140.8	129.9	116.3	100.1	96.9	57.9	57.1	22.6	203.9	197.7	190.6	187.1	178.4	172.2	160.4	149.5	135.9	119.7	116.5	77.5	76.7	42.2	31.7	19.6	237.5	231.3	224.2	220.7	212.0	205.8	194.0	183.1	169.5	153.3	150.1	111.1	110.3	75.8	65.3	53.2	33.6	266.0	259.8	252.7	249.2	240.5	234.3	222.5	211.6	198.0	181.8	178.6	139.6	138.8	104.3	93.8	81.7	62.1	28.5	279.2	273.0	265.9	262.4	253.7	247.5	235.7	224.8	211.2	195.0	191.8	152.8	152.0	117.5	107.0	94.9	75.3	41.7	13.2	308.7	302.5	295.4	291.9	283.2	277.0	265.2	254.3	240.7	224.5	221.3	182.3	181.5	147.0	136.5	124.4	104.8	71.2	42.7	29.5	317.2	311.0	303.9	300.4	291.6	285.5	273.7	262.8	249.2	233.0	229.8	190.8	190.0	155.5	145.0	132.9	113.3	79.7	51.2	38.0	322.8	316.6	309.5	306.0	297.5	291.1	279.3	268.4	254.8	238.6	235.4	196.4	195.6	161.1	150.6	138.5	118.9	85.3	56.8	43.6	14.1	5.6	341.0	334.8	327.7	324.2	315.5	309.3	297.5	286.6	273.0	256.8	253.6	214.6	213.8	179.3	168.8	156.7	137.1	103.5	75.0	61.8	32.3	23.8	18.2	355.6	349.4	342.3	338.8	330.1	323.9	312.1	301.2	287.6	271.4	268.2	229.2	228.4	193.9	183.4	171.3	151.7	118.1	89.6	76.4	46.9	38.4	32.8	14.6	356.6	350.4	343.3	339.8	331.1	324.9	313.1	302.2	288.6	272.4	269.2	230.2	229.4	194.9	184.4	172.3	152.7	119.1	90.6	77.4	47.9	39.4	33.8	15.6	1.0	408.4	402.2	395.1	391.6	382.9	376.7	364.9	354.0	340.4	324.2	321.0	282.0	281.2	246.7	236.2	224.1	204.5	170.9	142.4	129.2	99.7	91.2	85.6	67.4	52.8	436.2	430.0	422.9	419.4	410.7	404.5	392.7	381.8	368.2	352.0	348.8	309.8	309.0	274.5	264.0	251.9	232.3	198.7	170.2	157.0	127.5	119.0	113.4	95.2	80.6	79.6	27.8	438.0	431.8	424.7	421.2	412.5	406.3	394.5	383.6	370.0	353.8	350.6	311.6	310.8	276.3	265.8	253.7	234.1	200.5	172.0	158.8	129.3	97.0	82.4	81.4	29.6	1.8	463.6	457.4	450.3	446.8	438.1	431.9	420.1	409.2	395.6	379.4	376.2	337.2	336.4	301.9	291.4	279.3	259.7	226.1	197.6	184.4	154.9	146.4	140.8	122.6	108.0	107.0	55.2	27.4	25.6	470.2	464.0	456.9	453.4	444.7	438.5	426.7	415.8	402.2	386.0	382.8	343.8	343.0	308.5	298.0	285.9	266.3	232.7	204.2	191.0	161.5	153.0	147.4	129.2	114.6	113.6	61.8	34.0	32.2	490.0	484.7	477.6	474.1	465.4	459.2	447.4	436.5	422.9	406.7	403.5	364.5	363.7	329.2	318.7	306.6	287.0	253.4	224.9	211.7	182.2	173.7	168.1	149.9	135.3	134.3	82.5	54.7	52.9	27.3	20.7	531.5	525.3	518.2	514.7	506.0	499.8	488.0	477.1	463.5	447.3	444.1	405.1	404.3	369.8	359.3	347.2	327.6	294.0	265.5	252.3	222.8	214.3	208.7	190.5	175.9	174.9	123.1	96.3	93.5	67.9	61.3	40.6	545.8	539.6	532.5	529.0	520.3	514.1	502.3	491.4	477.8	461.6	458.4	419.4	418.6	384.1	373.6	361.5	341.9	308.3	279.8	266.6	237.1	228.6	223.0	204.8	190.2	189.2	137.4	109.6	107.8	82.2	75.6	54.9	14.3	558.0	551.8	544.7	541.2	532.5	526.3	514.5	503.6	490.0	473.8	470.6	431.6	430.8	369.3	385.8	373.7	354.1	320.5	292.0	278.8	249.3	240.8	235.2	217.0	202.4	201.4	149.6	121.8	120.0	94.4	87.8	67.1	26.5	12.2	603.7	597.5	590.4	586.9	578.5	572.0	560.3	549.3	535.7	519.5	516.3	477.3	476.5	442.0	431.5	419.4	399.8	366.2	337.7	324.5	295.0	286.5	280.9	262.7	248.1	247.1	195.3	167.5	165.7	140.1	133.5	112.8	72.2	57.9	45.7	606.8	600.6	593.5	590.0	581.3	575.1	563.3	552.4	538.8	522.6	519.4	480.4	479.6	445.1	434.6	422.5	402.9	369.3	340.8	327.6	298.1	289.6	284.0	265.8	251.2	250.2	198.4	170.6	168.8	143.2	136.6	115.9	75.3	61.0	48.8	720.7	714.5	707.4	703.9	695.2	689.0	677.2	666.3	652.7	636.5	633.3	594.3	593.5	559.0	548.5	536.4	516.8	483.2	454.7	441.3	411.8	403.5	397.9	379.7	365.1	364.1	312.3	284.5	282.7	257.1	250.5	229.8	189.2	174.9	162.7	117.0	113.9	756.3	750.1	743.0	739.5	730.8	724.6	712.8	701.9	688.3	672.1	668.9	629.9	629.1	594.6	584.1	572.0	552.4	518.8	490.3	477.1	447.6	439.1	433.5	415.3	400.7	399.7	347.9	320.1	318.3	292.7	286.1	265.4	224.8	210.5	198.3	152.6	149.5	35.6	776.1	769.9	762.8	759.3	750.6	744.4	732.6	721.7	708.1	691.9	688.7	649.7	648.9	614.4	603.9	591.8	572.2	538.6	510.1	496.9	467.4	458.9	453.3	435.1	420.5	419.5	367.7	339.9	338.1	312.5	305.9	285.2	244.6	230.3	218.1	172.4	169.3	55.4	19.8	784.3	778.1	771.0	767.5	758.8	752.6	740.8	729.9	716.3	700.1	696.9	657.9	657.1	622.6	612.6	600.0	580.4	546.8	518.3	505.1	475.6	467.1	461.5	443.3	428.7	427.7	375.9	348.1	346.3	320.7	314.1	293.4	252.8	238.5	226.3	180.6	177.5	63.6	28.0	8.2	792.3	786.1	779.0	775.5	766.8	760.6	748.8	737.9	724.3	708.1	704.9	665.9	665.1	630.6	620.1	608.0	588.4	548.8	526.3	513.1	483.6	475.1	469.5	451.3	436.7	435.7	383.9	356.1	354.3	328.7	322.1	301.4	260.8	246.5	234.3	188.6	185.5	71.6	36.0	16.2	803.6	797.4	790.3	786.8	778.1	771.9	760.1	749.2	735.6	719.4	716.2	677.2	676.4	641.9	631.4	619.3	599.7	566.1	537.6	524.4	494.9	486.4	480.8	462.6	448.0	447.0	395.2	366.4	365.6	340.0	333.4	312.7	272.1	256.8	245.6	199.9	196.8	82.9	47.3	27.5	19.3	11.3	829.2	823.0	815.9	812.4	803.7	797.5	785.7	774.8	761.2	745.0	741.8	702.8	702.0	667.5	657.0	644.9	625.3	591.0	563.2	550.0	520.5	512.0	482.6	420.8	393.0	391.2	365.6	359.0	338.3	297.7	283.4	271.2	225.5	222.4	108.5	72.9	53.1	44.9	36.9	846.0	839.8	832.7	829.2	820.5	814.3	802.5	791.6	778.0	761.8	758.6	719.6	718.8	684.3	673.8	661.7	642.1	608.5	580.0	566.8	537.3	528.8	523.2	505.0	490.4	489.4	437.6	409.8	408.0	382.4	375.8	355.1	314.5	300.2	288.0	242.3	239.2	125.3	89.7	69.9	61.7	53.7	42.4	16.8	848.1	841.9	834.8	831.3	822.6	816.4	804.6	793.7	780.1	763.9	760.7	721.7	720.9	686.4	675.9	663.8	644.2	610.6	582.1	568.9	539.4	530.9	525.3	507.1	492.5	491.5	439.7	411.9	410.1	384.5	377.9	357.2	316.6	302.3	290.1	244.4	241.3	127.4	91.8	72.0	63.8	55.8	44.5	18.9	873.5	867.3	860.2	856.7	848.0	841.8	830.0	819.1	805.5	789.3	786.1	747.1	746.3	711.8	701.3	689.2	669.6	636.0	607.5	594.3	564.8	556.3	550.7	532.5	517.9	516.9	465.1	437.3	435.5	409.9	403.3	382.6	342.0	327.7	315.5	269.8	266.7	152.8	117.2	9

Follow the Trail

The Expedition Begins...

On July 5, 1803 the day after the purchase of the Louisiana Territory was made public in a Washington newspaper, Captain Lewis set out for **Pittsburgh, Pa.** He arrived there on July 15, 1803.

At Pittsburgh, Lewis was delayed because of problems with construction of a 55-foot masted keelboat. Unreliable labor and subsequent delays did not allow Lewis and his crew of 11 to leave Pittsburgh until August 31 after months of careful preparation.



Some of the supplies of arms and military supplies ordered from the arsenals were delivered to Pittsburgh. A variety of other necessary supplies were also acquired in the area. When Lewis left Pittsburgh, he had **Seaman**, a Newfoundland breed of dog, who would accompany him throughout his exploration of the west.

The journey west was a very difficult one because of historically low water conditions on the Ohio River. Grounding on shoals in the river was a constant problem that necessitated hand excavation and towing.



By September 4, Lewis was only 30 miles downstream from Pittsburgh; he had already dismissed one of the crew, and one of the boats had sprung a leak. On September 7 they finally reached the village of Wheeling, Va. (now city of **Wheeling, W.Va.**), where they picked up the shipment of rifles and ammunition that had arrived earlier from Pittsburgh (shipped overland from the arsenals to Pittsburgh and on to this point).

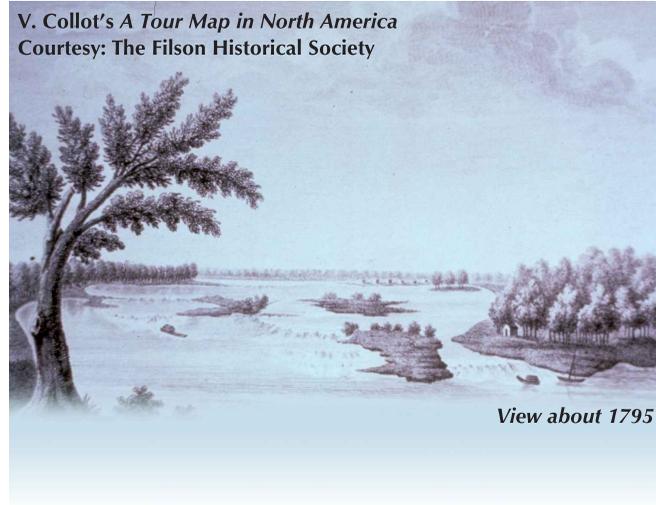


The expedition camped at many locations as they journeyed along the Ohio River. Those sites include in Ohio—**Clarington, GrandView, Marietta, Belpre, Miegs City,** and **Cincinnati**. Campsites in West Virginia include **Belleville**; in Indiana, **Clarksville**; and in Kentucky, **Limestone** (Maysville), **Big Bone Lick**, and **Louisville**. More than a week was spent in the Cincinnati area from September 28 – October 4. Lewis acquired supplies, conducted archaeological investigations at several sites for President Jefferson, rested his crew, and wrote letters to William Clark in Louisville, and to President Jefferson.

Falls of the Ohio

The party continued on down the Ohio River to the Falls of the Ohio and **Louisville, Kentucky**, arriving on October 14, 1803. After passing through the Falls (apparently the next day), the party tied up at Clarksville (Indiana Territory).

V. Collot's A Tour Map in North America
Courtesy: The Filson Historical Society



Clark Joins Lewis

When the two captains met at the Falls (Louisville, Ky.–Clarksville, Ind.), it became the Lewis and Clark expedition. During the next twelve days the two Army officers made preparations and enlisted the nucleus of the Corps (which had been recruited by Clark in the Falls area and by Lewis in Pittsburgh and Maysville). This group of Corps members became known as the “nine young men from Kentucky.” On October 26, 1803, the expedition set out from Clarksville and headed for Ft. Massac and ultimately the Pacific.

“Capt. Clark and Mr. Lewis left this place on Wednesday last, on the expedition westward. We have not been able to ascertain to what lengths this rout will extend...”

October 29 report from Louisville published in the Kentucky Gazette on November 8, 1803

Fort Massac

On November 11, the party arrived at Fort Massac, (later in the state of Illinois). This 10-year old fort was located approximately 35 miles upstream from the confluence of the Ohio and Mississippi Rivers. While at the fort Lewis drew military supplies to outfit his men. Volunteers were also drawn from the troops stationed at the fort.

The interpreter, George Drouillard, was hired at the fort. The expedition left Fort Massac on November 13 and reached the confluence of the two great rivers the next day. The group camped at the site for nearly a week. On November 20 they left the Ohio River area and headed upstream toward St. Louis on the Mississippi River.



Courtesy: James J. Holmberg

Once they reached St. Louis, Missouri, their departure from that point marked a movement into the Louisiana Territory and beyond.



“We proceeded on...”
Meriwether Lewis

Their journey covered about 8,000 miles to the West Coast and back. The men traveled in boats on the rivers, rode horses, and walked across seemingly endless plains and mountains.

The expedition would not return to the Ohio River for three years, not until 1806.

Building the Dream

President Jefferson wanted a navigable water route across the continent to improve and increase commerce. Although Lewis and Clark did not find a Northwest Passage, the U.S. Army Corps of Engineers later built a part of Jefferson’s dream of a navigable water system. Modern locks and dams maintain a navigable pool all year round on the Ohio and other American rivers.

