## GUIDE TO THE WESTERN DIVISION OF THE SANDY & BEAVER CANAL

By Terry K. Woods.

This guide is is based on three sources of information; 1) the listings of the land auction parcels (hereafter called the Parcels) as the Sandy & Beaver Canal was divided for sale in March of 1854, 2) the guide found in the back of Max Gard and Bill Vodrey's 1952 History of the Sandy & Beaver Canal, 3) my own general field work conducted over a twenty plus year period, and even more intensive field work from November 19, 1992 through November 1, 1995.

I've attempted to confirm every artifact that was mentioned either in the Parcels or in the Gard/Vodrey book. This has not always been possible. Where no field confirmation exists, I'll say so and use the best educated guess to locate a structure. Where there is a difference between the Parcels and Max's interpretation of the type and location of a structure, I will side with the Parcels. Max did a magnificent job with the limited data he had available in developing his 1952 guide. We'll assume, though, that the Parcel's listing is, indeed, an accurate account of the structures on the Sandy & Beaver Canal as actually built.

The intensive field work I conducted during the three-year period listed above (mainly during the fall and spring months when the foliage was down) resulted in my hiking the entire route of the western division at least once, and much of it many times. This may be the last time this section of the Sandy & Beaver is ever hiked again as a unit. So much of it has disappeared during the past twenty years that it is hard to imagine much of it surviving the next twenty. So, use this guide for what it is, a primer for getting into specific areas of the western division. Good luck and good hunting in hiking this western division of the Sandy & Beaver Canal.

The Parcels state that the western division began at the eastern boundary of West Township, Columbiana County. Max has the western division beginning at Kensington, a mile east of the Township line. Max lists two locks before that line is reached, but, in his 1952 book's guide states that both locks were "not now recoverable". Both Max and the Parcels mention the feeder from Mendenhaul's Reservoir entering the canal close to the Township boundary. We choose to believe that all the reservoirs actually fed the summit. On November 1<sup>st</sup> 1995 and September 19, 1997 we examined the earthen embankments of Mendenhaul's Reservoir, four-tenths of a mile north of route 30, to the east of Meyers Road. Topographical maps show a spillway about halfway between Myers Road at the Township Line. We place Lock #1 (which we have been unable to locate) just above the entrance of the feeder to the canal, possibly eighty-yards east and forty-yards south of the present intersection of Myers Road and Route #30.

Max calls for a lock site (he calls it No 3) "on the north/south quarter section line-fence of Section 36, West Township". That line fence no longer exists. But from modern topography maps, it appears that Mendenhalll's Run passes under Route #30 and enters a small stream (West Branch of the Big Sandy) that is here flowing on the line of the Sandy & Beaver Canal, at just

about the point where Max places his lock site. There is some stone rip-rap at this point. We'll place Lock #2 on this division here.

From this point, all the way to Rochester, the canal runs just a few yards south of Route #30. This is a major east-west highway that, here, is a two-lane road. It is interesting walking along toward the west, eyes to your left looking for canal signs, with semi-trucks whizzing along just a few feet to your right. Anyone who wishes to duplicate this hike should be alert.

About a mile west of the site of Lock #2, about mid-way between where a public road goes off to the north from Route #30 and the crossing of Route #30 by the old main road through Lynchburgh, is a private access bridge across the canal/creek to a sand & gravel operation some distance to the south and east. This crossing looks like the modernization of a very old crossing. The bridge abutments are concrete and fairly old. They rest on even older stone. The bridge site doesn't look that convenient to the sand & gravel operation, or anything else in the area. I'm assuming that it would have been easier years ago to build the crossing on a lock site. The banks would have been closer together and work stone would have been readily available. I'm guessing that the site of Lock #3 is here at this crossing. H.B. Barth, in an interview with O. E. Reeder, learned that a lock was destroyed "east of the old Lynchburg school house". We'll say that this is that site. The Parcells call for Lock #3 to lie before (east of) "the bridge across the canal at Lynchburgh".

Max's guide calls for Lock #4 to be "in a field west of lane from U.S. #30 to Lippencott's Dairy". I had looked around this area many years ago without finding confirmation of Lock #4. On November 1, 1995, though, about eighty-yards west of the dairy lane bridge, I found some large pieces of stone on the bank of canal on the side of the channel toward Route #30. I also found some likely looking pieces of stone adjacent to the lane crossing bridge abutment. The crossing bridge abutments, themselves, don't appear to be from the canal as they are made of stone that is heavier and courser-worked. We'll place the site of lock here, about eighty-yards west of the dairy crossing.

Max says that stone from Lock #4 was used "at next two iron bridges". Only one of these bridges still exists, but I could convince myself that there was lock stone in it's abutments.

Lock sites are so nebulous along this section that I now found several candidates. I heard the rushing of water and noticed a number of small stone fragments in the canal bed in a line across the channel; a lock site? A bit further on I noticed that the far bank, which was the towpath, was terraced and came very close to the channel; another lock site? Then I came across something really interesting. Just a bit east and across the highway from a Quonset-hut style meta roofed structure, I saw some good-sized pieces of stone on the far bank of the canal/creek. There are a number of these good-sized pieces of stone strung out along the far bank for 100 feet or more. I can't guess what would string out stonework along the channel for that distance other than a lock. I'm opting for this point as the site of Lock #5.

There are other structure remains in this area which probably post-date the canal. A bit below the lock site there is a concrete slab set into the far channel embankment, It looks very much like the concrete sluices that were used on the Ohio & Erie Canal during the 1905/09 rebuild, complete with center indentation to control the height of the levels. I couldn't get across the channel to see if there was some evidence of a mechanism to control the water outflow, but I could see the culvert opening from where I stood across the channel. Apparently, somebody was worried enough about the water level in this section to erect a sluice. Later, on my way back from the end of my walk, I noticed some smaller stones at the water line. I also noticed a wooden arrangement that must post-date the canal.

The Parcels call for a towpath bridge in that section ending just before East Rochester. According to an 1841 map of Columbiana County, the canal switched from the right to left bank of Sandy Creek just west of the village. There is no mention of a dam in the Parcels so it is assumed that the canal crossed under the creek in a culvert. We'll also assume that the towpath switched canal banks at lock #5.

We now come to the village of East Rochester (Rochester in canal days). Just outside the village, to the west, Max calls for a lock (he calls it No.5). I interviewed the then director of the East Liverpool Ceramics Museum in June of 1971. He stated that he had talked to a gentleman in 1934 who had said that a lock west of East Rochester "at the C & P Pumping Station" had been destroyed some eight years before (1926). Since this point is the only place in the area where the railroad crosses the canal, we can assume that this lock is Max's #5 and the Parcel's #6.

There is a lot of stonework in this general area which has to be attributed to the railroad. Just east and south of Route #30 and the creek are some heavy stone abutments which I believe are abutments to a crossing of the creek by the railroad. Just north of this point, at the western edge of the West Township Community Park, is a long line of stone (double laid side by side) maybe 100 feet long. Some ten-feet north of this line is one stone. All of this is flush with the surface of the earth. It appears that the canal crossed the creek above the park and came down through it. The 1841 map shows the West Branch of Sandy Creek making an abrupt turn to the north just at the point where the North Branch joins. The two branches join at the north-eastern edge of the park. That line of double stones could be in line with the canal and could be the foundation remains of Lock #6. The location agrees with the Parcel's description, though my notes from previous hikes indicate I thought those stones were railroad related.

The canal next ran along the right side of present Route #30, for maybe a mile or so to Bayard. After about three-quarters of a mile, a modern-day entrepreneur has dredged a short section of the canal channel at the front of his Driving Range. There is a sign announcing this establishment is on the historic site of the Sandy Beaver Canal. I wonder if passers by are at all concerned why a canal was named after a dirty rodent.

The canal route leaves the highway here to veer off a bit to the north and crosses the railroad line, now abandoned. On November 4, 1994 there was a cornfield all along here between the railroad and creek. At first the line of canal was barely discernible as a shallow depression within

the rows of corn stocks angling away from the railroad line. A distinct channel appeared for maybe 100 yards, then it widened out for some fifty to sixty yards.

The creek that had been off to the north as much as 100 yards, now came fairly close. On November 4, 1994, the canal channel was shallow and wide here, but no towpath was visible, just the creek bank. There was also a little clearing, the remains of a camp fire and a shooting stand in an old, dead tree. Looking to the west, the creek began moving off to the right (north) around a vegetated clump. As it did, the water in the creek flowed over a small, in-line waterfall, to me the unmistakable sign of this division's Dam #1 which the Parcels call in this section. I moved toward the south, across a little rivulet, around a tree, then found the towpath again. Here, looking back east I saw a line of stone across a dry, old creek bed. These stones were in a direct line with the small waterfall on the other side of the vegetated clump I'd just gone around. This line of stones across the dry creek bed and the little water fall in the wet creek appear to be the trace of Dam #1.

The Parcels make no mention of a guard-lock or towpath bridge in this section. I'm not really sure how the system worked here. Apparently, Dam No 1 was just to pick up water from the creek, though I'm not sure why the engineers didn't use the previous creek crossing to pick up water. I believe this is the point that Max calls Lock #6, though it is typical of the remains of a rock-filled-crib dam.

Continuing west on November 4, 1994, the canal channel was at first weed-choked with a small rivulet running down the center. Then it widened to a normal-looking-canal channel. A short distance west there appears to be what looked like the site of a stone-robbed lock. Even more intriguing was that there appeared to be a by-pass or regulating channel around the non-towpath side. Signs of regulating channels are not common on this division, but they may have just not survived the test of time. There was no ready evidence of stone remains here, but it certainly gives all the signs of being a lock site. We'll say here is the site of Lock #7.

West of this lock site, for the next 200 yards, bits of stone can be seen all along the channel. Then, another lock site appears. This one has a lot of stone in it and is much more discernible as a lock site. I was fortunate in that the first time this area, I came in from the west and hit this better lock site first. I was, thus, much more prepared to recognize the second site. We'll call this western spot the site of Lock #8.

To the west, the channel is quite deep and, now, no stone fragments could be found. The channel grew mucky and forced me up onto the berm bank. The railroad is quite close to, and just a bit higher, than the canal's berm bank here.

Stump Road next crosses the canal channel on a bridge. In November of 1994 there was a bit of water in the channel here. It was even wetter the previous September. The towpath just west of the Stump Road Bridge is quite overgrown and it was necessary to take to the pasture just to the north. The towpath then becomes low and the channel quite shallow. There are a couple of

cuts through the towpath here. At one of them, I noticed a piece of squared timber, but no other evidence of anything.

Max calls for a lock west of the public road (Stump Road). He could find no stone, only a narrow channel and high bank. Max states that the stone from this lock was used in the foundation of the third house west of the brick Grange building.

Some grading was being done the day (November 4, 1994) that I hiked that section. A small bulldozer was parked there, and apparently in the midst of dozing away all evidence of the canal through here. All of the trees that had marked the line of the towpath were down, their roots and great clumps of earth sticking up and visible. I walked along the shallow channel here looking for any evidence of Max's lock (the Parcels indicated there was one more lock prior to the Stark County line). There was one short stretch where a bit of the channel could be discerned, but I could see no real evidence of a lock site. I continued west and noticed, in the roots of a felled tree, two pieces of stone. They had been captured long ago by the roots of this tree and were only exposed when the tree was recently knocked down. I could see no other evidence of a lock site, but I'm saying here was the site of the Parcel's Lock #9 (Max's #7). This site is about 10 yards west of a point directly behind the Bayard Grange building that is on the north side of Route #30. The good news is that I found the stone in the roots of the tree. The bad news is that, shortly after this hike, I doubt if anyone could tell that a canal ever ran through this area. After this lock site the canal channel runs straight for a couple hundred yards, then under a wooden bridge for a private residence off to the north, then disappears into the creek which has come in from the north

The canal then crossed into Paris Township, Stark County on the outskirts of the thriving village of Minerva, at a point directly behind a yellow brick house along the northern edge of Route #30.

The creek again moves off to the north and the canal channel once more appears, now as a shallow depression in the mowed back yards of several houses along the north side of the highway, then begins angling off at a slight west/north-west angle until it is crossed by a north-south public road (route #183). At this point, the creek is some forty-yards north of the canal channel.

On September 23, 1994, I found an older gentleman digging around in the back yard of a home on the north side of First Street, some three or four lots west of Route #183. He confirmed that the shallow depression running through his back-yard was the old Sandy & Beaver Canal channel. He also mentioned that some nineteen years before (around 1975) he had dug up an 1868 dime from the muck of the old canal while he was spading for a garden. I don't know if that means the canal was operational through here as late as 1868 or if somebody just dropped an 1868 dime in the vicinity of the old canal channel at some time in the past.

Max's 1952 Guide states that another lock was "on the west side of field near creek". This large field now contains a large residential development constructed during the mid-to-late

1950s. The very faint depression of the canal's channel can be traced through the back and side yards of a number of homes in this development.

After continuing west for a block or so paralleling First Street, the canal resumes a shallow angle off to the north, passing through the back yards south of Stanford, the between Stanford and Ike, then crossing Shallow Run Drive, just north of that street's intersection with Lucinda. Several newspaper accounts from February, 1970 stated how a sewer excavation just north of this intersection had unearthed large squared timbers and stones from the Sandy & Beaver Canal. This spot, we believe, is the site of Lock #10. Max refers to it as Lock #8. There was very little physical evidence two identify this site during hikes in the fall of 1994.

This lock, a lift lock, was also an outlet lock that allowed canal boats to be lowered from the level of the canal channel to the level of the slack-water pool built up behind a dam across the Big Sandy. The area that once contained the slack-water pool is now covered by the Minerva High School complex, including a class room building, football field, and parking lots. Just to the west and north of the school parking lot is Minerva Park. The remains of a canal dam are in the left bank of the creek next to a large tree opposite the park's tennis courts. Max calls this Dam #1. The Parcels, field work, and additional research indicates that it was Dam #2. This is the one dam on the western division that was constructed prior to the 1837 work curtailment. It's construction was greatly different from the cheaper, rock-filled crib design used during the later 1840's when work was again resumed. Evidence of the several wooden layers that made up the dam is still evident during times of low water, as are some of the wooden-pin fasteners. This dam is rapidly deteriorating, though. Photos taken during the 1970s, and in 1993/94 show just how fast. Interviews with local residents indicate there was enough left of the dam in the 1940s to back up a fair sized swimming pool behind it and to act as a diving platform. Each succeeding flood and year leave less of this great structure to view.

There was guard-lock (Max calls it Lock # 9) in the right abutment to the dam. Max mentions it his guide, but the Minerva Park tennis courts have apparently destroyed or covered all evidence of it. The canal then followed the creek in a bend to the south in a separate channel along its right bank. The canal crossed present Route #30 (Walnut Street in canal days) and Market Street at an angle to the south-west. Just before Market Street was crossed there was a side-cut to the south. This contained a large basin, lined on both sides with wharf walls and small industries. At the head of this side-cut, at the present southeast corner of Route #30 and Market Streets, was the foundry run by Joshua Malin, resident engineer on this division of the canal until he was fired in the spring of 1837. The first advertisements for this foundry appeared in local papers in 1838. Minerva's Industrial Historian told me in 1993 that the property stayed in the Malin family until the 1870s. Malin had a home on Market Street near the foundry. The north-west addition to Minerva is called the Malin addition in the 1875 Stark County Atlas. Further down the cut-off was the Davis Mill, established in 1816. It was torn down in 1974.

Max speculates on the possibility of a lock just below the outlet to the cut-off and basin. It makes sense from an engineering standpoint and the Parcels require another lock before the

Carroll County Line. We'll agree with Max's supposition and place Lock #11 here, though there is no physical evidence or documentation if favor of it. Max calls it Lock No. 12.

The canal channel crossed High and Liberty Streets at their intersection and Line (old South Street) and Penn Streets at their intersection, passing into Carroll County. In the east-side yard of the house on the south-east corner of Line and Penn is a marble slab which proclaims this is the "Center of Sandy & Beaver Canal". This is a little west of the geographical center of the canal. I have always thought it marked the center of the canal's channel at this point.

The line of canal next crossed the intersection of Grant, Plain and Elizabeth Streets, then ran nearly due west through the back yards of houses along the south side of Elizabeth Street. According to the Parcels there are three locks in the section immediately west of the Carroll County Line. With the help of Max's guide we have found two tentative sites further west of here, but we need a third, and, for the want of any more logical location, we place it here, just east of the present intersection of Elizabeth and Grant Streets. According to the Parcels, this was Lock #12.

The canal channel west of this intersection was clear, and deep enough in 1994 to enhance our theory as to the location of Lock #12. In 1998 the channel here was considerably filled in so that it was then only a shallow depression. A three-stone marker has been placed here commemorating the Sandy Beaver Canal. We assume it was meant to commemorate the Sandy & Beaver Canal.

The visible portion of the canal channel then ran for approximately 200 yards behind Elizabeth Street then disappeared under the single track of the New York Central (later Penn Central) railroad. This line lay abandoned during field work conducted on November 24, 1993. Immediately west of this point, the canal line was covered by the shipping and receiving building of the Color Forms and Chemical Company. The line of the canal crossed Bridge Street just west of the factory building, then ran through the present employee's parking lot. The canal channel emerged to the west of the parking lot as a very narrow, water-filled ditch. It next traversed approximately 150 yards of vacant land then ran up against the north side of the Minerva Cut-Off of the Wheeling & Lake Erie Railroad. The canal ditch followed the railroad much of the way to its junction with the main line at Minerva Junction, above Oneida. This railroad line, too, lay abandoned in the fall of 1993. High weeds and deteriorating ties and ballast made it a difficult trail to negotiate. There are two, wooden tie bridges across major tributaries of the Big Sandy in this stretch. Be extremely wary before attempting to cross any of these bridges, as no maintenance is being performed on them. On the other hand, there should be no problem from passing trains. [edit-note that Google Maps in 2020 appear to show that this line is in use.]

The American Roads Machinery Company plant lay to the left (south) of the canal channel (narrow, deep, and dry in 1993) Immediately to the north-west of the canal channel, extensive earth moving was being conducted during the fall of 1993. All indications were that it was being readied for a new plant site. The left of the railroad line was lined with abandoned plant sites and parking lots.

Approximately three-eights of a mile west of Bridge Street, the bank on the right side of the channel lowered in elevation and the terrain gets a distinct wide-water look. Max's guide calls for a lock site (he calls it #11) about "half way between the crossing of the New York Central line and Pekin." There is a small amount of stone on top of the right embankment, and Max's description enhances the find. It is very tenuous evidence for a lock site, but, on this division, tenuous is often as good as you get. According to the Parcels' numbering, this is the tentative site of Lock #13. There was a bit more of the wide-water look immediately west of the lock site. Then, the terrain raised in elevation and there was some evidence of extra cutting (about 3 feet) on the right. The left embankment, towpath of the canal, was occupied by the railroad most of the to the canal's crossing of the creek west of Pekin.

An extensive junk yard appears next on the left. It was apparently established between my field trips in 1971 and 1993. This business extends into Pekin and seems to be that town's most prosperous commercial enterprise. Within the environs of what the proprietor calls an "auto recycling yard", sits a relatively new, and quite nice, white frame ranch-style home. The bedroom windows of this home are scant feet from the railroad line. This would indicate that the railroad was abandoned sometime prior to the house being built. In conjunction with the house, between it and the railroad line, was a vast, roofed. Bird feeding station structure. Hundreds of birds were around this feeder during a field work hike in November of 1993, Their singing and the noise of their wings when they flew away as I approached, was very impressive.

Once the recycling yard is passed, a person can see what is one of the two most impressive companion structures on this division of the Sandy & Beaver Canal. This is a two and a half-story canal-town tavern at the center of Pekin.

The railroad crosses two streets within Pekin. The canal channel disappears shortly after the first of these, then reappears shortly after the second. The railroad line then crosses a small stream some 300 yards past the second street crossing. The wooden-tie bridge across the stream was sound in late November of 1993. Immediately after crossing this stream, the canal channel widens out on the right and into an obvious wide-water. During the fall of 1993, this wide-water was the feeding area for a herd of dairy cattle. Max calls for a lock site about a half-mile west of Pekin just beyond a basin. The terrain here is more suggestive of a lock chamber that at the last lock site and there are some small pieces of stone in the bottom of the chamber. This site was easily recognized as a lock site during field work in November of 1993 and April of 1971. It is Lock #14 according to the Parcels (Max calls it #12).

The canal left the line of the railroad shortly after the lock site and ran straight across a pasture toward a small clump of trees by the creek. It was easy during the 1971 field work to simply climb down from the railroad line and follow the canal channel through the field to the creek. In 1993, a shiny new barbed wire fence discouraged access to the pasture, Fortunately, there was a large, open cattle gate some 60 yards down the railroad line that did give access to the pasture, Bear in mind, though, this entire area is private property, and usually occupied by a dairy herd.

This area in 1993 was, as in 1971, a close-cropped pasture, so it was easy to follow the faint, shallow depression of the canal channel directly to the small grove of trees. The channel is so shallow and faint here, though, that there must have been many years of plowing or flooding of this land.

The creek makes a sharp bend to its left just beyond the grove of trees. The third-most impressive lock remains on the western division is located here, just before the line of canal reaches the creek. The entire lock is no longer here, but there are some well-sized blocks, and enough in place to distinguish the outline of both walls. On this division it is a real find. According to the Parcel's numbering system, it is lock # 15 and is an outlet lock allowing the canal to enter the creek here. Max calls it Lock #13.

The canal's route for the next three-eights of a mile or so is fairly obvious, but the details are strange. It is apparent that the canal ran straight across the creek after exiting lock #15. Max calls for the canal to "enter the creek pool backed up by dam No. 2, the earth wing and stone on right bank, and the earth wing on left bank are still evident. The canal crossed the creek above the dam and went on left bank through the field."

There is evidence that engineer Gill's original plan for this section was to cross the Big Sandy at this point above a dam, stay on the left bank for a little more than two miles through the towns of Wirtemburg and Lodi, then crossing to the right bank below Lodi. During the hiatus of the canal's construction during the late 1830s and early 1840s, however, George and Patrick Hull settled on the opposite side of the Big Sandy from Wirtemburg and hired Henry Bever, a local builder, to erect a fine, three-story grist mill on their property on the right bank. [Edit- note the Patrick Hull House is a local landmark and is quite near the route of the canal on Blade Road] Other small industries and a town the brothers called Oneida, followed. Then, when the canal project was resurrected in 1846, the canal company agreed to run the canal line through, the Hull brother's town for a donation of \$1,500. The canal company raised the height of Bever's original mill dam "to a proper height for canal purposes". Patrick Hall was then obligated to maintain the dam for five years after April, 1847.

The canal was still forced to cross to the left bank of the Big Sandy after Lock #15 to cut off a long bend in the creek to the north and the crossing of Huble Run which enters the Big Sandy from the right bank. But, then it had to cross to the right bank again to power Oneida's Mills. Thus, the canal remained on the left bank here for less than half a mile. From the listing of the structures in the Parcels and extensive field work, it appears that the canal crossed Big Sandy Creek twice above a single dam.<sup>1</sup>

Another oddity is that there appears to be two guard-locks in this short section. The Parcels call for guard-lock(s) in the section before Dam No. 3, though they only call for one towpath bridge. Max calls for a lock site "100 yards east of the (second) crossing of the creek". During field work in 1971, this lock site was clearly visible in a 200 yard section of the canal channel (in a heavy woods) from the edge of a corn field, west to the creek. Field work in 1993 found that the lock site could then be barely located by a small amount of stone lying in the shallow canal

channel as it emerges from the, now expanded, corn field. Since there appears to have only been one dam for two crossings, we feel that this lock site could be a guard-lock, since the two crossings were close to a half mile apart.

The best way to get to this rather isolated section of the canal, is to take Lindon Road south out of Pekin and turn right onto Route #183. Turn right again onto the first black-top road, T-225. This road dead-ends after passing three homes and a farm complex. There is a fairly modern brick ranch on the left, then two, older white frame houses and the farm complex on the right. This is private property, so permission must be obtained to hike this portion of the canal. A faint lane immediately behind the first of the frame homes will take a hiker past the Bever Family Cemetery. This is a small, but beautiful stone-walled family burial plot. In it are monuments dating from Henry Bever's father, John Bever, who died in 1836.

The cemetery lies about mid-way between Township Road #225 and the line of the canal. The faint lane alongside the cemetery ends at the canal line. It then runs along the line of the canal's towpath to the left (west). The channel here in November of 1993 was barely discernible as a shallow depression in last year's corn field.

The canal can be traced back to the right where it had just crossed from the right to left bank of the Big Sandy after passing through Lock #15. The faint trace of the channel can be traced to the west, at first running straight, away from the creek crossing. It then takes a gentle bend to the right (north) and runs straight again, out of the corn field, through the lock site. To the creek for its second crossing.

There is a short L-shaped earthen embankment about 40 yards south of the canal channel. This is the left wing wall of Dam #3. There is a small amount of stone at the creek bank, though there was more here and in the creek in 1971. These traces could no longer be found in 1993. In fact, there appeared to be no traces of the dam at all on the right bank of the creek in 1993 and those few traces on the left bank were rapidly disappearing. Huble Run enters the creek from the right bank about 300 yards above Dam #3. The railroad crosses that stream on a wooden-tie bridge with sandstone abutments. Big Sandy Creek is close to the railroad here. There is a quantity of large stone thrown up on the outside of the railroad embankment above this bridge to protect it from the creek. It is quite possible that all, or most, of this stone came from the right abutment to Dam #3.

The canal's channel is deep and wide on the right bank of the Big Sandy below Dam #3 crossing. It again parallels the Minerva Cut-Off railroad Now, though, the railroad is to the right (north) of the canal channel. That channel here was relatively clear and open in 1971. In the early fall of 1993 it was bramble-choked and impassable. Some 300 yards after the canal crosses the creek, the Minerva Cutoff joins the main line of the Tuscarawas Branch of the Wheeling & Lake Erie Railroad in a wye. This spot was called Minerva Junction. The canal now takes a sharp curve to the left and follows the main line of the railroad to the south-west. Just left (south) of the switch-stand for the railroad wye is a lock site. The Parcels indicate it was a guard-lock for the second crossing of the Big Sandy above Dam #3.

The canal now travels south-west toward the town of Oneida. There is an extensive sand & gravel operation (in 1993) that was creating deep pools in the bed of the Big Sandy Creek. After approximately half-mile, the canal passes several houses on it's right then crosses Blade Street. There was a lock at this road crossing. Blocks of cut stone in the channel near this crossing and in the culvert abutment on the far side likely came from this lock, Both Max and the Parcels label this lock as #16. The race to Hull's mill complex cut off from the main canal just above this lock and ran south powering a grist mill, saw mill, fulling mill, and a planning mill. This was Oneida Mills.

The canal channel and railroad (this portion of the line was still operational in 1993) are next joined, on the railroad's right by a black-top road named "Old Canal Lane". These three methods of transportation march stately through the center of Oneida for perhaps 300 yards. The railroad then crosses the canal channel and creek and heads south. The canal channel to this point from the site of Lock #16 is deep, wide, and mowed. After this point, the channel becomes narrow and weed-choked. Old Canal Lane continues along the berm bank of the canal for another quarter of a mile. The lane continues even further, but then becomes a grass-covered dirt trail.

Some rather nice houses exist along the right side of the lane through Oneida (in 1993). The houses get smaller in size, though, after the point at which the railroad leaves the line of the canal channel. The last structure along this lane is an abandoned mobile home that sits to the right of the dirt trail that "Old Canal Lane" has become. It is at this point that the creek has broken into the canal channel, exposing the remains of a lock site immediately south of the mobile home, four or five feet below the level of the Lane. The creek has uncovered several of the lock's foundation timbers. The creek side lock wall is mostly gone and the berm wall is in a jumble, but there is a large amount of stone at this site. This is Lock #17, according to both Max's numbering and the Parcels.

Beyond this point, moving west, it is difficult to discern any canal channel at all. The dirt lane, at first distinct, also soon becomes vague, and then disappears completely. It is almost as if the canal were now in slack-water in this stretch, but Max calls for another lock before the canal entered the creek and the Parcels seem to agree, so we keep on going, looking for it. Approximately 300 yards below the site of Lock #17 is a high, 12 to 15 foot embankment, ending in a brick pillar, about on a line where the lane would have been. It comes out from the right hillside, carrying what appears to have been a railroad spur. There is a similar brick structure on the opposite creek bank. This appears to have been a line into the Malvern brick yard that now (1993) lies abandoned on the opposite side of the creek along route #183.

A few yards west of this structure, at the right edge of the creek, is a fair amount of smaller stone pieces lying on what looks like a natural stone shelf or base. There are also a few larger pieces of stone, that appeared to have been worked, are embedded in the right creek bank. Max's Guide calls for the remains of Lock #18 to be a "stone base with a wooden mud sill".

This appears to be the stone base to the lock, though I could find no evidence of a wooden mud sill. The Parcels agree with Max that this was the site of Lock #18. The canal was on this side of the creek only because the engineer wanted to route it through Oneida. The hillside to the north here comes down directly to the creek bank, forcing the canal into slack-water. It appears that Lock #18 was an outlet lock.

It is impossible to continue further west by foot beyond Lock #18 without entering the creek. The best way to continue our study of the division is to get back onto route #183 after leaving Oneida and go west, toward Malvern. Just past the Malvern [Bethlehem] cemetery, turn right into the first access point for the Calfor Company [edit- in 2020 it is called Malvern Manufacturing] and go to the parking lot behind the complex. The site of Dam #4 is some 30 yards behind the parking lot into the woods.

The canal had stayed in slack-water for only a short distance of approximately 300 yards. A section of canal channel approximately sixty-yards long leads to the next lock, #19, which according to the Parcels, was also a lift lock. The lock site was located in line with Dam #4, some thirty yards north of the creek. This dam was used to provide water power to the Hardesty Mill in Malvern as late as the early 1940s. During the 1920s, a concrete head gate was constructed across the lock's upper end and it acted as a feeder gate to the mill race.

During field work conducted in 1969, the remains of that lock consisted only of its upper end and perhaps a dozen stones in each wall. The lower end of the lock was gone and the concrete head gate connected the upper portion of the two walls. A date of 1922 had been etched into the concrete (while it was wet). During the summer of 1970, Ralph Albrecht and other members of the Carroll County Historical Society removed two large stones from this lock and erected a marker to the Sandy & Beaver Canal in Malvern Park, some two and a half miles to the west.

Field work conducted in this area in October 1993, revealed that several acres around had recently been logged over and was still going on. A heavy equipment operator, halted for a few minutes while I got out of the way while trying to see what remained of the lock. The logging crews used the lock site as a bridge to run their equipment over the canal channel. The historical society and loggers have left very few fragments of stone in this area to indicate that a lock had ever existed.

March of 1971 was a period of high water in the Big Sandy. During field work then, the dam looked intact, in that it had built up a full head of water across the creek. In October of 1993, the water in the creek was extremely low, revealing that the dam had deteriorated quite badly. For this dam, a low row of vertical planking runs across approximately three-quarters of the creek's width from the left bank. The creek had broken through on the right. There was no evidence of great timber cross-members and layers of pinned timbers as at Minerva. There is a great quantity of small stone in the creek bed here, which indicates that the construction was the row of vertical sheet piling backed up by timber cribs filled with stone. That portion of the sheet piling that is normally covered by water had survived into 1993, but by January of 1998 all the wooden remains seem to be gone, leaving only stone in the creek bed.

The right abutment to the dam was found to be in excellent condition in October of 1993. The left abutment was in good condition during field work conducted in 1971. However by 1993, the left dam abutment was found to be completely gone, except for a few stone fragments.

Back on Route #183 to the west toward Malvern, the road crosses Big Sandy Creek. There is a side road leading to the right, north, at a sharp angle immediately after the crossing. The first driveway to the right on this road led (in 1993) across a long, low area to the three-car garage of a rather sprawling private home. This low area was the Malvern Canal basin. In May of 1969, the private houses were not here and the entire basin was covered with 4" high corn stalks. In 1969, the canal and towpath for the next mile east to the site of Lock #19 was not an easy hike, nor was in in 1993.

Max states that this section of the canal was still full of water when he conducted field work fore his 1952 book. During the early 1960s, Route #183 was rerouted and now occupies the line of the canal from the road intersection from the West Side of the Big Sandy bridge to a hundred yards or so east of the traffic light in Malvern.

A lock site was just east of that traffic light intersection. The Hardesty Mill existed adjacent to the lock then it fell victim to the road work. Both Max's guide and the Parcels state that this was Lock No. 20. Max's guide stated that stone from the lock could be seen just south of the mill. A Sohio Service Station was on the south-east corner of that intersection in the 1960s. That station was found abandoned during field work in 1993. No evidence of that lock could be found after Route #183 was relocated.

Some forty-yards west of the traffic light intersection, Malvern Park begins on the left between Routes #183/#43 and the creek. Route #43 intersects Route #183 at the eastern edge of Malvern. A deep, dry channel parallels the road on the left along the northern edge of the park. This is the route of the old canal. The canal channel must have been very wide along here, or there was a long basin below the lock, as some slight remains of the channel and a few retaining walls are evident against a row of old buildings along the right side of the highway.

A marker commemorating the Sandy & Beaver Canal is just east of the eastern entrance into Malvern Park. The large stones that make up this marker were removed from Lock No. 19 and moved to this spot in 1970.

The canal channel continues to run along the left side of the highway for another mile or so after leaving the park behind. Several small, wet-weather streams make crooked trickles within the canal ditch.

The canal begins to move to the left (south) away from the highway, about a mile and a half west of the Malvern traffic light. It then runs through a succession of private back-yards, then through three, separate mobile home parks. The channel can be traced through all this stretch with little difficulty, though, at times it is little more than a faint depression. This trace has been growing fainter and fainter over the past fifteen years. The line of the canal then runs into the east boundary fence of a vast auto recycling complex, approximately seventy-five-yards south of the highway, about two-and-a-half-miles west of the Malvern traffic light.

Max suggests the possibility of a lock site somewhere in this stretch, possibly in section 13 of Brown Township, Carroll County, however Max could find no trace of it. The Parcels do call for one more lock in Carroll County and we belief it is in the adjacent section, Section 14, just inside the Carroll County line. To give Max credit, there is a site in the second mobile home park, just after the canal channel crosses a dedicated road leading into the park, that could be taken for a lock site. Here the towpath bank has been cut down, but the berm bank is high and distinct. The channel deepens and widens and takes on the appearance of a lock site whose stone has been robbed. There are a few pieces of smaller stone at the lower end of this area. I have seen proven lock sites with less evidence than this. However, our interpretation of the Parcels don't call for a lock site here. The site in Section 14 looks better to me. We would be interested in other interpretations and comments.

The line of the canal originally came right up against the southern boundary fence of the auto recycling yard, but over the years, the migration of the creek to the north, has washed away maybe fifty to seventy-five yards of the canal channel. During field work in December 1993, this northern loop had some water in it, but no current. Apparently, after moving this far north and destroying a bit of the canal channel, the creek is again moving to the south, The good news is that the recycling yard has been forced to expand to the west rather than the south, so the canal channel can be seen as it exits the creek some sixty-yards south of the auto yard.

The canal channel is very distinct now for approximately 600 yards. It was one of the few sections in this division that had not seriously deteriorated between field trips in the 1970s and 90s. There is some evidence of deep-cutting along this section. One of the moves the Sandy & Beaver engineers resorted to in the interest of economy along this division was in the use of deep cutting. Apparently, the contractors would excavate a rather shallow, overly-wide cut, then scoop out a narrower canal channel in the center or of one side of this shallow cut, with little regard for back-ditching or other methods of providing water run-off. Here, the canal channel was excavated along the right, north-west, side of the shallower cutting. A high tension line cuts across the channel about half-way along it's journey toward the Big Sandy. The older tree stands have been removed along the route of the power line. The remainder of the trees along this stretch of canal are some of the largest and most magnificent I've seen anywhere along the western division. Still, in spite of the size of the trees, the canal channel banks here are distinct, though somewhat reduced height by time.

Then, another northern loop of the creek cuts into the line of the canal. Just at the point where this creek loop leaves the line of the canal to the south and, thwarted by the embankment of the abandoned Tuscarawas Branch railroad, runs along it toward Waynesburg, on the right bank of the creek, there is a jumble of large cut stone, and seven or eight lengths of large squared timber approximately twenty-five-feet long jutting out into the creek. Correlating Max's map of the canal with current topographical maps of the area, indicates that is the site Max decided were the

"stone abutment on right bank and timber in creek" of Dam No. 5. This site is in Carroll County, however. The Parcels call for Dam No. 5 to be in Stark County. Close examination of this site indicates that it is more likely the foundation timbers and some of the stone work to an outlet lock. This, we believe, is the site of the western-most lock in Carroll County, Lock No. 21.

During field work on January 02, 1998, an elevated earth area with cut stone in it was located some twenty-five yards west and ten yards north of the lock site, Directly across the creek, ninety degrees to the line of the lock site, there is a jumble of cut stone at the base of the railroad embankment. This could be the abutments to Dam No. 5 and/or remains of the guard-lock. This isn't a conclusive find as there is no evidence of the dam in the creek bed and the dam site seems to be too close to the outlet lock No. 21. The stone work and timber on the creek's right bank appears to be the lower end of that lock, but that doesn't explain the stonework on the left bank. This point is very close to the Stark County line, but I believe it is still in Carroll County. The Parcels state that Dam No. 5 and the towpath bridge are in Stark County. The Stark County Atlas Maps of Sandy Township for 1870, 1875 and 1896 indicate an "Old Race" entering the county from Carrol County. For want of a better explanation, we will say Dam No. 5 is a short distance below Lock No. 21, is just inside Carroll County and is not now recoverable.

Both Max and the Parcels indicate that the canal crossed to the left bank of the creek above Dam No. 5. The Stark County Atlas maps show the race curving to the south after entering the County to skirt the base of hills here, then curving back to where it was crossed by the public (Greer) road. We are going to assume that the guard-lock here was in the left abutment of Dam No. 5 and not now recoverable due to railroad construction.

There is a channel of sorts in the brickyard complex that approximates the old race in the Stark County Township maps. It exits the brickyard some twenty-yards south of the abandoned railroad. It now (1998) carries the rub-off from the brickyard. This channel is then crossed by the present Greer Road. Some forty-yards west of the road, the abandoned railroad crossed the canal on a stone culvert that still exists. The culvert is made of very old stone similar in texture and size to the stone back at the outlet lock site. The culvert is small an rectangular and was obviously installed after the canal ceased carrying traffic.

The railroad then ran straight through a hill in a cut into Waynesburgh. The canal curved to the right around the hillside, with the creek on it's right, then entered Waynesburgh to the north of a line of houses now along the north side of Mill (formerly Canal) Street.

The run-off water in the old canal channel is diverted into the creek through a narrow cut in the towpath where the canal and creek are close, just past the culvert. The canal channel becomes indistinct for the next fifty yards or so, then becomes visible and runs for another 300 yards or so until cut by a deep, swiftly moving run. The canal provided water power to the Waynesburgh Mill from Dam No. 5 until the early 1870s, though it was still being shown on the 1896 Atlas maps.

The canal channel has been filled in and is not now visible from this run until some fifty yards after the crossing of the State Road (present Route #43).

Lock No. 22, was located a short distance east of the road crossing in Waynesburgh. The Waynesburg Mill was to the north of the canal between the lock and the road crossing. The creek comes quite close to the line of the canal as it approaches crossing. The only evidence of the lock that Max could find was some "timber in the creek where it comes close". No sign of the lock could be found during field work in December of 1976, or February of 1994.

The line of the canal at the Route #43 road crossing was marked in 1976 by a SOHIO gas station on the east side of the road. In 1994 this station was independent and abandoned. The canal line on the west side of the road was marked in 1976 by a Christmas tree lot (not a permanent marker) and in 1994 by a line of pine trees between a new car lot of the Waynesburgh Carriage Company on the south, and a two-store house on the north.

The canal channel again becomes visible some fifty yards west of the road crossing, then runs fairly straight for approximately 150 yards to the creek. The creek has moved to the south over the years and broken into the line of the canal at a point just east of the present Waynesburgh Park. The parkland is low-lying and was a large basin when the canal was operational.

The creek again moves to the north some twenty-five yards past the park and the canal channel can again be discerned briefly on the creek's left bank. The canal channel then passes through the backyards of a series of permanent homes. Their owners have filled in the canal channel over the years. During a December 1993 interview, the owner of the last permanent home west of the Waynesburgh Park stated that he had filled in the channel in 1968.

The canal next travels through three lots of vacation-type homes. There is a faint trace of the channel in the first one. The channel is filled in through the second, but the third lot shows the channel distinctly and water-filled. A run enters the creek from the south, just past the point. This run powered a fulling mill and planning mill in Waynesburgh years ago, The canal enters the slack-water pool backed up behind Dam No. 6 so thirty yards after crossing this run.

The engineers on this division, in nearly all cases, entered each slack-water pool through an outlet-lock and exited through a guard-lock. So, in keeping with this engineering practice, there should be an outlet-lock somewhere in the vicinity. One piece of stone was found just east of the run during field work in December 1993, but that is by no means conclusive evidence. Field work in early 1998 indicated the line of canal west of this run by twin lines of very large trees. Max doesn't mention artifacts here and field work, to date has failed to come up with any strong evidence for the location of Lock No. 23. However, the terrain away from the creek some thirty yards west of the run is high enough to have accommodated a lock. Just past this point is the north-east corner fence of the Waynesburg sewage disposal plant. This fence comes almost to the edge of the creek's pool. There are some large trees at the edge of the creek pool, so we are stating that the possible site of Lock No. 23 is about ten yards east of this fence corner, in a line with the trees that indicate the line of the canal.

Indian Run enters the Big Sandy from the right bank a short distance below the point where the canal enters the creek's slack-water pool from the left bank. Max confirms this. As sort of an oddity, the Sandy Township maps from the 1870 and 1875 Stark County Atlases show Indian Run entering the creek below the location of the next canal dam. The map from the 1896 atlas and the current topographical map show it entering the creek's slack-water pool where it does now.

The Parcels call for two towing path bridges in the section in Stark County. The first, is apparently to cross the Big Sandy Creek from the right to left bank above Dam No. 5. The location of the second one is not so obvious. Perhaps it was in this section to cross Planing Mill Run. It is a question, though, that I have been unable to answer to my satisfaction.

A built-up earthen towpath runs along the slack-water pool from here to the next stretch of actual canal channel below Dam No. 6. The high, wire-mesh fence of the sewage disposal plant looms up on the left shortly after the canal enters the creek. The towpath is up against the slack-water pool here, so, for the next 100 yards or so, the fence and creek are quite close together and passage along this stretch is difficult. The lands of the sewage disposal plant end finally and so does the fence. Then there is a short distance along the pool where is no trail at all.

Then a low area appears on the left, swampy during most field work trips and completely inundated due to the efforts of beavers during field work early in 1998. The built-up towpath runs between these two bodies of water. A distinct trail comes in from the left and follows the towpath to Dam No. 6. The towpath has become badly weathered over the years and is, at times, choked with undergrowth so it becomes difficult to keep from sliding into the beaver pond to the left or the slack-water pool to the right. A stout walking stick can come in handy.

The roar of water flowing over Dam No. 6 can be heard all along here now. The creek pool has moved away from the towpath a bit, but a walk of a dozen paces to the right at any point along here will provide an excellent view looking downstream upon the dam with guard-lock, the only such complex on the entire western division that is still functioning.

Dam No. 6 (both Max and the Parcels agree to this numbering) is still intact. It was used to occasionally power the Elson Flour Mill located in Magnolia about a mile down the canal. The dam was rebuilt with a concrete cap during the early 1930s. The original stone abutments still exist at either end of the dam. The guard-lock at the south end of the dam is an integral part of the left dam abutment, sharing a double stone wall. It is easily the best preserved lock on the western division. As with most locks on this division, it is a composite lock. Several of the iron hangers for the interior planking are still embedded in the stone joints of the creek-side wall. Except for the end gate support structures, the stone in the bank side was not raised to full height. It was the practice on several canal systems to construct guard-locks with only the stone walls in the gate support areas raised to full height with the center of the structure, earth with stone rip-rap.

The next stretch of canal and towpath into Magnolia is maintained by a local historical group, the Sandy & Beaver Canal Society, with headquarters in Magnolia. Breaks in the towpath in 1969, and again in 1977, that drained this section of the canal were repaired by vast members of local citizens. The second repair effort, championed by Jim Crowe of Magnolia, resulted in the formation of the Historical Society. The group holds an Old Canal Days Festival each August to raise funds for maintain that stretch of canal.

A farm lane across the watered channel is located about three-eights of a mile below the dam. This is known locally as Lutz's Bridge. In former days there was a true bridge here, but is now, 1993 an earthen embankment across the canal incorporating an iron culvert to allow water to pass through.

The channel and towpath are in good condition all the way to Elson Mills in Magnolia. A water-filled basin just east of a road crossing at the outskirts of town has carried pontoon boat rides during the annual Canal Festival. The canal next skirts a hill to its left, ducks under the highway bridge, then burrows through a dike erected in the mid-1930s to protect Magnolia from the high water impounded behind flood control dams on the Big Sandy Creek and Tuscarawas River.

Just inside the dike, water is drawn from the canal to fill the Elson Mill pond. The mill building, itself a large, red frame structure dating from 1834 is the second impressive structure on this division of the canal. The mill pond here is a center of activity during the Old Canal days festivals. The mill is no longer run by water power, but the machinery to do so remains intact.

The site of Lock No. 24 (it is called No. 25 in Max's Guide) lies immediately below the mill pond cut-off. The upper portion of the lock has been converted into a head-gate which regulates the flow of water into the mill pond. The lock's foundation timbers and a bit of rubble stone walls are still evident.

The location of lock No. 25 (Max's No. 26) was approximate forty-five yards below lock No. 24 (just above the mill's tail race entry into the canal channel). Some slight remains of it were visible when I first began hiking this canal in the late 1960s. Even then, though, it was little more than a narrow spot in the channel containing a small amount of rubble stone and a greater amount of scrap tile. During the 1979 clean up of the canal, some over-zealous workers "cleaned up all that junk at the edge of the park" and only the faintest traces of Lock No. 25 remain.

After passing Elson's tail-race, the canal runs south, leaving Stark County and entering Carroll County. The Parcels call for "dams number 7 and 8 with their guard or outlet locks - - and the towbridge", as the canal crossed this corner of Carroll County. Max's Guide states that "Dam #7 was just below Magnolia where the canal crossed the creek from the left to right bank. There is no trace of the dam."

It is obvious the canal crossed the creek from the left to right bank at some point not too far below Magnolia in Carroll County. What isn't clear is the exact point or even the exact method.

It is difficult to even imagine a method of crossing the stream that would include two dams and their accompanying guard or outlet locks. As required by the Parcels.

The Muskingum Conservancy District was formed in the 1930s. A number of flood control dams were built, including the Bolivar Dam on the Big Sandy near it's junction with the Tuscarawas River. At that time a dike was constructed along the creek side of Magnolia to keep out high water. There was a lot of resultant construction on the left bank of the Big Sandy here, and any dam structures on that bank may have been a casualty of that construction. Compounding the problem is the fact that a branch of the B & O railroad was operated along the route of the canal between Sandyville and a point just below Magnolia from 1899 to about 1922. A short spur was also run from the railroad up to the Elson Mill basin.

For three-eights of a mile or so, the exact position of the canal on the right bank of the creek, even its configuration, is impossible to pin down. It isn't that there are no artifacts, there are some. It is just that it is difficult to separate what might be left of the canal and what in this area is solely the railroad. Also, it is difficult to relate the Parcels description with what constructed remains been located on the ground.

Some seventy-five yards below the Magnolia Dike, on the left bank of the creek. Is a quantity of heavy cut stones spread out along that bank of the creek for some thirty to forty feet (on the interior of a bend in the creek). An elevated embankment, the bed of the abandoned railroad from Sandyville, apparently crossed the creek here and is evident at the point where the stone is found, This stone appears more dense, in somewhat larger blocks, and of a slightly darker color than that associated with Dam No. 6 above Magnolia. It is entirely possible that this stone work is the remains of an outlet lock that allowed the canal to enter a slack-water pool behind Dam No. 7, though it is equally possible this stonework is entirely railroad related. There is no accompanying stonework on the opposite bank anywhere near this point up or down the creek, but the railroad embankment can be found again some twenty-yards west of the creek on it's right bank.

This embankment is some four to five feet above the surrounding flood plain, straight, regular, flat-topped and about ten to sixteen feet wide. Some seventy-five-yards west of the point where the embankment can be found again, a side embankment goes off to the north-east at about a fifty degree angle. This second embankment is slightly lower than the initial one and there is a gap of some seven to ten feet between the two. Following this embankment leads to the creek's edge some eighty yards north of the main branch railroad's creek crossing. During extremely low water, the stubs of pilings could be seen crossing the creek here during field work in the late 1970's. This lower embankment is apparently the path the Magnolia Branch of the R. R. entered Magnolia.

Some 100 yards west of where the "Magnolia Branch" left, the main embankment gradually widens out to the left (south) to about three times its normal width. This table is about fifteen to thirty yards long and appears to be slightly sloped, the highest portion being at its south-east point. A narrow channel then appears on the left, It is from nine to ten feet wide and maybe 100 feet long. There is a lot of stone in and around this channel. Most of the pieces are quite are

quite large and there is evidence that many of them have been worked or dressed. A couple of the larger pieces have drilled holes in them that may have been used for hoisting pins. Some of the stones have a large radius (12" to 14" on one end and at least one piece shows some dressing work of an edge as if for a hollow quoin. The quality of the stone is similar to that found in the left bank of the creek.

The creek at this point is some seventy-five yards to the south. It doesn't appear to have any real permanent bed here as the presence of many flood channels in the area indicate that the creek has wandered quite a bit. Some forty yards to the south, and just bit west of the channel and stones, is on of these dry flood channels. At its northern edge, and at an inside curve of the flood channel, are a number of these large stones in the form of a wall.

This could very well be the right bank abutment to Dam No. 8. The stones then could be the guard-lock to this dam, the lock chamber being reduced in width by the building of the railroad. Since the Parcels didn't number the "accompanying guard or outlet locks", we can assume that there was no designed change of elevation here, just a lot of slack-water. The exact sites of Dam Nos. 7 and 8, and why two dams were needed here at all, though, is still a mystery.

Following the embankment to the west, it narrows to a normal width (110' to 15') immediately after the chamber. There is a deep cut across the embankment some fifteen-feet wide after, maybe, fifty yards, then another, perhaps thirty yards apart. The embankment is no longer discernible. For maybe the next 100 yards the flats are unbroken. Then apparently, in line with the embankment we had been following, the canal towpath appears. A distinct channel forms on the right, with the berm bank being the valley wall which has now closed to this point. There is an earthen embankment across the channel, as if to keep flood water from these flats out of the channel.

Broken pottery can be found strewn all along the embankment from the creek's edge below Magnolia to where the railroad line leaves the canal. It is evident between visible traces of the towpath here. During field work in March of 1983, broken pottery fragments could be found in a, more or less, line across the flats between the hills to the north and the creek to the south. It appears that the railroad branch maintenance crews used broken pottery for fill, ballast, or just to get rid of it. From the crossing of the creek below Magnolia to a point where the branch railroad left the line of the canal, the line of canal/ railroad embankment can be followed, or picked up again when lost, by following these scraps of white, broken pottery even when flood waters have washed away all other evidence of the towpath/ railroad embankment.

Once we've gained the towpath/railroad embankment again it becomes a farmer's little-used lane to a field south of the canal. The creek is angling to the south away from the canal which now runs in a straight line – west, south-west. After a short quarter of a mile, the towpath breaks out into the open. And for the next mile and a half or so the towpath becomes an oil-well access road running between two large plowed fields. The right valley wall folds into a gently rolling plain. A built-up berm bank was used here to form the canal channel. The result of years of plowing in the adjacent field, however, has reduced the canal channel to a shallow depression in

the corn field to the north (right) of the towpath. Route #183 is visible about three-eights of a mile to the north as we enter the farmed area. The oil-well access road comes into the towpath from there.

After half a mile or so the oil-well access road turns abruptly to the right. The cornfield on the right runs another quarter of a mile or so and the one on the left a short hundred yards.

The towpath and canal channel now enter a wooded area. The towpath is overgrown, but passable. The channel is quite distinct and deep. After approximately fifty to seventy-five yards, the channel narrows and a small quantity of stone in the channel walls and on the berm embankment mark the site of a lock. There is also a railroad tie containing a broken spike lying on the towpath. The Parcels call this lock No. 26. Max calls it No. 27.

For the next half mile or so, the towpath and canal channel continue on with the valley wall far to the north. All the while the canal was running in the oil-well access road between the two corn fields, the creek was far to the south. It now began a more westward direction and the valley wall begins coming in from the north to finally final become the canal's berm embankment. The creek and valley wall come closer together still. The canal turns to the left, the channel disappears and the towpath hugs the valley wall on its right with the creek immediately to its left. Though Max's guide makes no mention of slack-water here, extensive field work, research with old township maps, and the Parcels themselves, indicates that the canal entered a slack-water pool here behind Dam No. 9 for a little over a mile.

Just before the point where the valley wall comes in from the north to force the canal into slack-water, a short earthen embankment runs to the right from the built-up berm bank to connect with valley wall, forming a basin of sorts.

Following the standard engineering practices used on this division, there should be an outlet lock at this point allowing the canal to enter slack-water. The Sandy & Beaver engineers usually employed outlet locks as lift locks, too. The outlet lock here should be the Parcels No. 27. There is some stone higher in the right valley wall at this point which. This, and the fact that there is the spot where an outlet lock should be leads us to believe this is the site of the Parcel's Lock No. 27. I'll have to note, however, that, to date, there has been no firm evidence found to confirm the exact location of Lock No. 27. Max does not call for a lock here, nor any slack-water.

The towpath/railroad embankment continues from this point as the only man-made artifact between the valley wall and the creek for a good three-eights of a mile. Then the creek moves off to the left (south) some fifty feet or so and a shallow depression is formed just to the left of the towpath. The Sandy Township maps from the1875 and 1908 Carroll County Atlases indicate that the creek in this area, for a distance of perhaps 250 yards, was in a twin channel with a narrow island between. Close examination of the channel sows some indication that this second channel was excavated through this area to provide some added depth to the slack-water pool here, so far from the dam. The ground was cleared of all large tress sometime around 1992 and was being

used as a cattle pasture during field work in November of 1994. A three-wire electric fence strung across the towpath at either end of this pasture make the canal hiker wary.

Just past the point where the old Atlas maps show the creek becoming a single channel, there is some stone rip-rap along the creek-side of the towpath. Max mentions this rip-rap to protect the canal from the creek.

The creek next slides off to the left to make its southern-most loop. According to the township maps, this point is where the creek again went into twin channels. The twin channels here run a shorter distance than the first time, but the island formed was larger.

The towpath, still close to the valley wall, begins a shallower loop. An oil-well access road next comes down from the higher ground to our right and joins the towpath/ railroad embankment. This combined embankment appears to rise in elevation slightly. Just beyond this point, another earthen embankment, with heavy stone rip-rap on the near side and lighter rip-rap on the other, run at about a seventy-degree angle from the towpath, left, to just short of the creek.

The rip-rapped embankment is some 200 yards long and curves slightly to its right. It stops abruptly some ten yards short of the creek. It appears that the second twin creek channel united into one just at about the point where this rip-rapped embankment is located. This embankment is, apparently, part of Dam No. 9. It doesn't seem to have been erected in the most favorable spot for a canal dam though the same thing can be said for Dam No. 10 erected further down the valley.

This is the earth dam extension across the valley. We believe the actual dam was where the creek flows now, though no stone abutments could be found on the left creek bank. There is a public road along that bank now, and though some stone lies along the bank between the creek and the road, there is no confirmation that the stone is related to the canal. We are assuming that the guard-lock to this dam was at the right dam abutment up against the valley wall. Construction of the railroad, oil well and access road have all likely contributed to the disappearance of the lock and right dam abutment.

Past this point, the towpath/railroad, embankment/ oil well access road continue to hug the valley wall to the west until interrupted by a clearing that now contains the capped oil-well and pumper. To the west of this clearing the canal channel now appears between the towpath and valley hillside for the first time since the site of Lock No. 27.

The towpath and channel continue coming out of their loop to the south and quickly returns north. By the time and by the time the canal is a quarter to three-eights of a mile past the oil well clearing, the creek and towpath and again close beside each other.

The creek and towpath continue side by side for a couple hundred yards then the creek moves some twenty yards off to the left. A dozen or so yards past this point, about a half mile from the oil-well clearing, the valley wall moves off to the right and a separate embankment forms a relatively narrow channel to the right of the towpath.

There is a great deal of small stone in the towpath side of this narrow chamber. There is also some stone in the towpath side of the east entrance of this chamber, and a small amount along the right side of the chamber. This new embankment dies away after some eighty to ninety yards.

The narrow canal channel here is about lock size and has more stone in it than any confirmed lock site this side of Magnolia. Much of the stone is in a wall-like configuration along the towpath side, but these pieces of stone are smaller and more rounded than in any lock site I've seen on this division. Neither Max nor the Parcels call for a lock in this area. At the present time I am unable to relate it to the canal. But, I feel it probably has something to do with the railroad.

An earth and stone rip-rap wall runs at right angles to the canal channel making sort of a basin before the narrow chamber is reached. A gas pipeline cuts across the canal just east of this chamber and continues across the creek.

There is another stone rip-wall near this narrowing of the canal channel, parallel to the towpath on it's left side. That wall makes an angle of about 110 degrees and runs parallel to the creek for another fifty yards or so. The stones are large and that portion of the wall along the creek is in two tiers. The lowest tier, only exposed during low water in the creek. Is relatively short, maybe ten yards long. The upper tier wall is about three feet thick and backed by heavy stone rip-rap. This wall effectively keeps the waters of the creek out of the canal and flats here. Field work in the Fall of 2002 indicated that logging work had greatly damaged the "L" portion of this wall and a great portion of the towpath for the next mile or so.

This wall fits max's description of an "L-shaped earthen wall with stone rip-rap at the point where the canal makes its southern-most loop . . . . ' to protect the canal from the creek". We have to assume that this location is the one for Max's "L-shaped wall" and not the southern-most loop of the canal where we place dam No. 9.

West of the L-shaped wall the valley opens up considerably to the left (north). There is no berm bank for approximately 100 yard, then it begins again and there is a distinct channel for a good half mile. The berm bank disappears for another for another half to five-eights of a mile, then reappears and is evident until the line of canal is cut by the Route #800 embankment. For most of this stretch the valley wall lies a good quarter to third mile to the north. The valley closes to within fifty yards of the canal as it gets close to Route #800.

It doesn't seem like that the berm bank would be washed away occasionally from these sections. It is more likely to assume that the railroad engineers used portions of the berm to build up the canal/railroad embankment.

Approximately one and a half mile from the L-shaped wall, a rusty, iron stand pipe about eight inches in diameter and approximately three feet high is embedded in the towpath on the channel

side. The son of the owner of this land, in a November 1994 interview, stated that the pipe is the result of a dry gas well dug here in the 1920's. The pipe is notable only because it acts as a landmark. The site of Lock No. 28 (both Max and the Parcels agree to this numbering) is adjacent to this pipe. This spot was initially noticeable because of the narrowing of the channel. I managed to dig away some of the humus covering a number of years ago and and photographed some obviously man-erected stonework. During the winter of 1992-93, additional stone was observed and photographed.

The thirty foot high embankment for Route #800 cuts the flood plain and line of the canal a scant 200 yards below the site of Lock No. 28. It is possible to walk between the road embankment and the creek underneath the highway bridge (to the left at low water and continue following the canal. Since all of my hikes except one began and ended at this point, I have always left the towpath here. Gone to the valley wall at the right and climbed to higher ground and the highway on an old logging access road. There are usually several runoff streams to cross in here. In years past I have had to leap across them or turn back. Recently, as old age has limited my leaping abilities, I have ignored the possibility of frozen feet and waded across those chilly streams.

The towpath/ railroad embankment and canal channel begin again on the west side of the west side of the #800 embankment. After a short distance, the channel narrows considerably and it is possible to cross from the berm to towpath side. This appears to be the point where the branch railroad entered the canal from the main line.

Some seventy-five yards west of the Route 800 embankment crossing of the canal line is the point where the original main line of the railroad crossed the canal toward the Big Sandy.<sup>2</sup> The railroad embankment here is fifteen to twenty feet high. There are a number of wooden pilings at the creek end of the embankment and two stone piers in the flats. Both canal embankments have been cut here and, during most of the year, are running deep with run-off water. It is, therefore, necessary to go a considerable distance to the north, cross the old main line of the railroad on an oil-well access road, then follow that road back to the south along the west side of the railroad embankment. The oil well access road turns right (west) when it reaches the canal's berm bank. After a distance of, perhaps, 100 yards, a gas pipe-line crosses the canal. It is possible to cross over to the towpath here on the pipe-line embankment and continue on the towpath embankment, west.

The flats in this area change dramatically each time I come in. This point is only a couple of hundred yards from the confluence of the Nimishillen Creek with the Big Sandy and the whole area experiences frequent and serious flooding. The towpath has been washed away for a distance of, perhaps, twenty yards some hundred or so yards west of the pipe-line crossing. The towpath reappears again then both the towpath and berm bank disappear. There are lower spots occasionally where the channel was, and just to the left of where the towpath was. When the area is wet, but not flooded, a line marking the towpath, nearly flush with, but enough above these pools, can be sighted along to mark a canal line through this area.

The towpath again becomes discernible, but soon fades away into the flood plain of the Nimishillen Creek. One stone abutment to the canal dam across Nimishillen Creek lies on the left bank of that creek about forty yards south of the canal line we have been following. Max calls this Dam No. 9. The dam is not mentioned in the Parcels (perhaps because it was not on the Big Sandy Creek?)

A short section of concrete dam runs from this left-bank stone abutment toward the center of the creek. According to a 1975 interview with Harry Welker (who ran the Sandyville Mill with his father until 1935), The concrete dam replaced the old wooden canal dam in the mid-1920s. Max's guide states that the concrete dam capped the old wooden one. The concrete dam was blown open with dynamite by local farmers wishing to regain some land (again according to Henry Welker) a short time after the mill was closed. The jagged edges of the dam show no signs of a wooden one underneath.

Getting to the other side of the creek is a real chore. In the 70's and 80's the East Ohio Gas Company maintained a series of pedestrian suspension bridges over the creeks in this area for their pipe-line walkers and maintenance people to traverse. There was one across the Nimishillen Creek just a short distance north of the canal. I never used it because my natural gait caused the things to swing and sway alarmingly. I always trudged the half mile or so up to the Route 183 bridge crossing and back down again on the other side. By 1992, field work found the twin, red steel towers of the bridge intact, but the suspension cables and planking floor was gone.

The left bank remains of the Nimishillen Dam butt up against the left bank of the creek, while the right stone abutment lies some fifteen to twenty yards west of the left creek bank.

The Nimishillen Creek Dam's guard-lock (Max calls it Lock 29) lies a short distance west of the creek's crossing. This structure acted as the head gates to the Welker Mill from the late 19<sup>th</sup> Century until 1935 when the largest part of the village of Sandyville was moved to higher ground due to flood control projects of the Muskingum Conservancy District. The mill was torn down and a portion was moved to higher ground along the relocated railroad tracks due to flood conservancy projects and functioned as the Welker Feed and Grain store for many years.

A new concrete head gate was constructed across the upper portion of this lock in the mid 1920s. A concrete bridge across the head gate allowed access to the fields between the canal and creek. There is not a great deal left of this lock except for the narrow, earthen channel and a bit of small, scrap stone lying within it. This structure acted as the head gates to the grist mill known as the Welker Mill until the town and the mill were moved.

A short stretch (three hundred yards or so) of canal channel now runs west from the guardlock to the high earthen embankment of the Chessy System railroad. The line was relocated here due to flood conservation activities in the mid-1930s. According to Harry Welker, Max Gard and other sources, the junction of the Nimishillen & Sandy and Sandy &Beaver Canals was directly under this newer, railroad embankment. Once past the ailroad embankment, another short bit of canal channel runs west for just over a quarter of a mile. This distinct channel that was the Welker Mill Race stops abruptly at an earthen embankment at the edge of a corn field. A side cut to the left (south) of seventy-five yards or so, fed the mill. It's foundation and pen-stock can still be found in a thicket of brush and trees near the bank of the creek.

The canal next made a gentle curve to the right (north-west) and crossed the center of old Sandyville, just north of the crossroads. The channel is now, (1997) a shallow depression curving through the cornfield. The public road (County Highway ???) runs north and south here. Just to the west of this road are a number of number of old building foundations, This was the previous location of Sandyville. There were two large warehouses in this area. Harry Welker states they had both burned down long before he was born, but that talks with old-timers indicated they were in this area along the canal's berm bank.

The State acquired the section of the Sandy & Beaver Canal from Sandyville to the Ohio Canal at Bolivar late in 1856. The State Engineers ran a survey of the canal then, so we have another guide to follow. The 1856 State report calls for a large (10' lift) composite lock "at Sandyville" that lowered boats into a slack-water pool built up behind a thirteen-foot-high dam nearly three miles down the canal. These features agree with the Parcels which call Lock No. 29 and the dam (No. 10). It also agrees with my field work over the years. Max calls for no lock at Sandyville, but a dam (he calls it No. 9) here, a lock (No. 30) on the left bank below Sandyville and another lock (No. 31) about two miles down the canal. I have never been able to locate any trace of these structures mentioned in Max's guide.

On an April 1989 field trip to this area I was able to convince myself by the shape of the terrain that the site of Lock no. 29 lay along the north valley wall, just below the old Sandyville Cemetery. On subsequent trips I wasn't so easily convinced. Obviously, there isn't much left of the lock. The canal engineers no doubt kept the channel on the right bank as long as possible, crossing to the left bank only when the hillside came down to the creek on the right. The Parcels say there was a towpath bridge in this section.

During the canal days, a road exited old Sandyville to the west, crossing the creek on a bridge. The road is now abandoned and the bridge no longer exists, but the both abutments do. A long quarter mile down the left creek bank from the western abutment is a deep cut through the hillside to the left that, I believe, the canal negotiated in slack-water. In other words, the creek flowed to the north around the hill then back south and the canal cut through the hill and entered the creek again on the other side of the hill. This cut is about a quarter mile in length, and twelve to fifteen feet in depth. There are no signs of gate or lock structures at either end. There is a faint trace of a towpath along the left side of this cutting.

There is now no real evidence of a channel for another two and a half miles. There is a towpath along portions of this stretch, though in some places it cannot be found. I believe, the 1856 State report says, and the Parcels indicate that the canal was in slack-water with a towpath along the left hillside and through the flats this entire distance.

The towpath can be followed for a short distance along the left bank of the creek below the deep cutting, then sort of disappears. A small run comes into the creek from the left and the high hillside on the left disappears. An abandoned county road comes in with the run and parallels the creek on the left for about a half mile. I believe that the canal's towpath is covered here by the road. The hillside again comes in from the left and there is some cutting required to get the road through. I believe that the canal engineers may have constructed some of the original cutting and the highway engineers took advantage of the previous work and enlarged them for the road. This road was moved to higher ground in the late 1930s when the Bolivar Dam was built. Twenty five years ago, this road was relatively easy to negotiate. Recently, a very heavy tree and undergrowth has covered it making it very difficult to follow the creek here.

The old road curves to the south, away from the creek, exposing the towpath some two feet below the road's surface. The towpath can now be followed for most of the mile or less to the next canal dam site. Max states that there was a lock (No. 31) and that the canal entered a slack-water pool at this point. There is no evidence of that lock. Max also mentions the remains of the private Williams Mill dam about 100 yards above the site of Dam No. 190. I have never found any evidence of this private dam.

It is difficult to follow the towpath through these flood plains as often, for some distance at a time no elevated embankment can be seen. There were red blazes on trees of a horseman's club trail through here and that helps, but it is difficult.

The 1856 report calls for a thirteen foot high dam across the valley and a lift/guard-lock at its southern end. The Parcels call for Dam No. 10 and a guard/lift lock (No. 30). Max calls for Dam No. 10 and a lock (No. 32). Approximately 125 yards of earthen dam embankment still exits on the right bank of the creek. A county highway (No. 106) which runs to the right of the dam, has apparently destroyed any stone abutment on that bank, had it ever existed. The only evidence of the left dam abutment and lift lock were a few fragments of cut stone caught in the roots of a tree some twenty-five years ago. There is probably even less now.

Old Township maps from the 1870s indicate the creek ran through this area in a straight line. Apparently the dam was breached at some point to he north, as the creek now makes a sharp curve to the north before returning to a more east-west course. During periods of low water, a line of stones south of the present creek bed, mark the line of the old dam toward the left hillside. Max and older local residents mention the existence of dam timbers in the creek. I have never been able to locate timber remains of the dam. I suspect years of flood and time have removed or buried any such evidence.

The towpath and canal channel appear again (1993) after the site of Lock No. 30 has been passed. The channel is fairly shallow, but somewhat wider than usual. Both the channel and towpath bear to the right (north) The canal makes a mile-long loop to the north into Stark County. Just as the northern-most portion of the of this loop is reached, the canal and creek were crossed by a public road (shown on an 1837 map of Stark County.). This road, later Welton

Road, was abandoned in the late 1970s when the bridge over the creel washed out. The intersection of the canal and road today (1993) is bare discernible as such, being little more than a grassy strip running across a filled-in portion of the canal.

There is a small dumping area on the west side of the road and the towpath is made nearly impassable by a tangle of young trees an undergrowth. After a short seventy-five yards of this, the channel again becomes distinct and the towpath passable.

The hillside along the right edge of the canal channel climbs in height and the towpath is barely discernible a shelf cut in the channel side of the hill. This again shows the economical construction methods of the Sandy & Beaver contractors after the shutdown and rebirth. There is no back-cutting, ditching, or drainage. Erosion over the years has nearly obliterated the towpath in spots. The hillside lowers as the canal returns to Tuscarawas County from its loop to the north. A two-rut access road of some type comes in from the right to run on the towpath for a good quarter of a mile. The canal makes another short bend to the right and the access road cuts across the channel and continues on to the south. The Oster Sand & Gravel Company now has a relatively new operation along the berm side of the canal, on a bluff some twenty-five-feet above the canal. There are older Sand & Gravel operations now along the canal all the way to the Bolivar dam. There is also a lot of backwater filling the lowlands, from here to the dam during the spring and fall. A short half mile from where the access road leaves, there is a large backwater to the left (south) of the canal that includes the channel. The creek flows right alongside the towpath and there is a deep cut through the towpath twenty to twenty-five-feet wide connecting the backwater to the creek. It is impossible to continue walking the towpath in this direction and I was unable to locate a practical way around it. For the remainder of this part of my field work, it was necessary to come in from the Bolivar dam side.

The towpath continues for a scant fifty to seventy-five yards after the cut. Then a high bluff from the left comes quite close. Topographical maps show that there is often backwater here. This area was passable during a November 1992 field trip, though flooding had completely obliterated all evidence of the channel and towpath. The canal and creek were in the southernmost portion of a loop here with the creek quite close to the towpath. Though passable, the whole area is swallowed in a sea of green reeds that were, in most cases, chest high. After nearly 100 yards of this, the channel and towpath again become visible, and a green-blazed trail comes in from higher ground on the left. This trail follows the canal to the Bolivar Dam, though it wanders from towpath to dry channel bed and back with irritating frequency.

Max and the Parcels both call for another lock in this area. Max calls for Lock no. 33 and the Parcels Lock No. 31. Oddly, the 1856 State report makes no mention of one. Within sight of the dam, with the creek quite close, there is a site that could have contained a lock, There is a definite elevation change in the towpath, the channel narrows, and there is some stone in both walls of the channel. I vote for the site of Lock No. 31. This spot is within fifty yards of the dam construction area, however, and could be related to that.

The dam construction activity has erased all sign of the canal for some distance and it is necessary to climb out of the valley via a series of concrete steps to the parking lot area of the Bolivar Dam, at one time the longest (over a mile) earthen dam of its type in the country. Take the dam access road toward Bolivar. As that road lowers in elevation it turns left, to the south, and runs atop a ten-foot-earthen embankment across the flood plane of the Tuscarawas River.

After leaving the site of Lock #31, the canal turned to the right (north), around a hillside, then to the south away from the creek. The creek went west-north-west to flow into the Tuscarawas River. As the canal turned south, it used a high earthen embankment to traverse the flood plain, the same embankment now being used by the dam access road up from the south. This access road jogs around a barn and farm yard. The foundation to the barn is made of finely cut stone. The south-east corner-stone of this barn has a date "1888" cut into it. The nearby aqueduct collapsed during a Spring flood in 1884, rendering this section of the Ohio & Erie Canal "dead" in 1884. Some 200-yards south of the barn, the canal made an abrupt turn to the right (west) and ran in an earthen embankment, now twenty feet above the flood plane, directly to the Tuscarawas River, which it crossed on a wooden aqueduct, to join the Ohio Canal. The Parcels, drawings in the Ohio Historical Society's Archives, and copies of the construction contract for this section (East Liverpool Historical Society June, 1971) call for a guard-lock or guard gate into the Ohio canal.

The actual junction of the two canals is now dry land behind a row of ancient buildings in Bolivar. Construction of I-77 has removed most of the canal's embankment on the west side of the river. I have examined the west river bank during times of low water and seen no evidence of the aqueduct.

This guide is as close as the author can get to matching what he has observed in the field with the various written descriptions and guides that exist. Sometime, though, this guide is putting the most logical spin to an incomplete set of facts. We would greatly appreciate other opinions and the data to support them. In the meantime, have fun with the Sandy & Beaver Canal. <sup>1</sup> Years after I wrote this (October 2018) I ran across two printed pages of the description of this section of the Sandy & Beaver and it stated the canal crossed the creek twice above a single dam. Unfortunately the pages contained no title author or source and it is presently unavailable.

<sup>2</sup> His point is in Tuscarawas County, just south of the intersection of State Route 800 and route #183.

Guard's guide (1952)

## WESTERN DIVISION:

Mile 41: - Total distance from Glasgow to Kensington by canal, 41 miles. Lock No. 1 is at Kensington. Not now recoverable. Indicated by topography. Stone likely used for County bridge north from U.S. 30 over Canal. The Canal follows U.S. 30 to Bayard. East of Kensington is the earth dam of a reservoir across the Davis Branch. Lock No. 2 is west of Kensington. Not now recoverable. Indicated by topography. Stone likely used for bridge on old public road, now abandoned, north of U.S. 30.

Mile 42: - Canal crosses from Hanover to West Township. Mendenhauls Run. About one-half mile north is 20 foot high earth wall of Reservoir with feeder on east side. Lock No. 3 is on the North-south quarter section line fence of Section 36, West Township. On the right is the high bank of the old towpath. Stone at upper end of lock in bed of Canal. West of here in the creek along the railroad is a Beaver Dam.

Mile 43: - Lynchburg. Lock No. 4 is in a field west of Lane from U. S. 30 south to Lippencotts Dairy. Some stone here and more to east at next two iron bridges.

Mile 45: - Lock No. 5 is west of East Rochester. Not now recoverable. Stone likely used for abutments of old public road bridge near where U. S. 30 crosses railroad.

Mile 47: - Bayard. The Canal here leaves U. S. 30 and crossing the New Philadelphia branch of the Pennsylvania Railroad, follows the left bank of Sandy Creek toward Minerva. Lock No 6 is west of the Railroad crossing. High earth wall on right side at corner of left bank of creek. Stone lying in creek and Canal. Creek has broken into the right towpath. The old public road runs north and south and Lock No. 7 is west of this road High earth banks, narrow channel. Stone used for foundation of frame house to southwest, 3<sup>rd</sup>. house west of Grange.

Mile 48: - Line between Columbiana and Stark Counties. Canal enters Paris Township. Yellow brick house on line. Lock No. 8 is on west side of field near creek. Stone shows. Canal enters creek pool. A short distance west is Dam No. 1 and Lock No. 9. Long earth wall of Dam on left bank of creek. Lock on right bank, with earth wall. Creek breaks into Canal. Canal runs from intersection of East Street and Ohio No. 80 through Minerva Park, along east side of East Street.

Mile 49. – Minerva. Canal passed through present site of Minerva Dairy plant, formerly brewery, crosses East Street, and goes to rear of High School. Just east of Market Street (formerly Mill Street) a basin led from the Canal south to Davis' Grist Mill, with a tail race on to the creek. Along the basin in canal days were warehouses.

Lock No. 10. No trace. Perhaps at Market Street, just below entrance to basin and north of Lincoln Way (once Walnut Street). The Canal crossed Lincoln Way and Main Street at their intersection, then West Street. Just beyond here was West Basin. The Canal crossed High sand Liberty Streets at their intersection, and Line (old South)n and Penn Streets at their intersection. Line Street is the County Line between Stark and Carrol. The Canal now enters Brown Township. At the south east corner of Line and Penn Streets is No. 409 Line Street in whose yard east of the house is a marble plate "Center of - Sandy & Beaver Canal." To the west is the old school. Canal crosses intersection of Grant, Plain, and Elizabeth Streets. Then crosses N.Y.C. railroad, and goes to Pekin along the W.&L.E. railroad

Mile 50. – Lock No. 11. About half way to Pekin from the N.Y.C. railroad earth bank on right and some stone. Left bank torn out by Railroad. At Pekin is an interesting old canal days tavern.

Mile 51. – Lock No. 12. One half mile west of Pekin, just south of the Railroad. Stone remains. Basin east of lock. Just west of here, Canal leaves Railroad and crosses field to creek. Lock No. 13 is on right bank of creek. Stone walls, 130 feet long. Canal enters creek pool, backed up by Dam No. 2. The earth wing and stone on right bank, and the earth wing on the left bank are still evident. The Canal crossed the creek above the dam and went on the left bank through the field. Lock no. 14 is 100 yards east of creek. Stone. Hugle Run enters creek from north.

Mile 52. – Dam No. 3. Stone on left bank of creek, earth wall on right bank. Timbers in creek. Canal crossed creek above Dam, to right bank. Lock No. 15 is at Minerva Junction. Stone. Canal goes along east side of W.& L.E. railroad to Oneida. Lock No. 16 is where the public road crosses the Canal. Old mill race to south led to Grist Mill now gone. Lock No. 17 is just below Oneida. Stone ruins. Creek has broken into Canal. Lock No. 18 is near No. 17. Stone base and wooden mud-sill still evident. Canal enters creek Pool.

Mile 53. – Dam No. 4. Lock no. 19. The timber dam with stone abutments is in good Repair. Lock is on right bank and is approached by a short stretch of Canal on right bank. The old Canal from this dam to Malvern was used until a few years ago as the race for the Malvern Grist Mill and is still full of water. Just above Malvern is a large basin on the right side of the Canal.

Mile 54. – Lock No. 20 is at Malvern, formerly Troy. Grist Mill. Stone shows just south of Mill. Eberhart's Atlas of Carroll County, 1874, shows a Woolwn Mill built right over the Canal and a Grist Mill to the south of the race. The old Grist mill is gone and the Woolen Mill became the Flouring Mill. Ohio No. 80 crosses Canal which follows the road about two miles. Armstrong Run enters from the north.

Mile 55. – Canal crosses from Range 6 to Range 7 at ditch draining south from Canal to creek. There is no trace of Lock No. 21. Indicated by topography as being perhaps midway in long course from Malvern to pool above Waynesburg. Likely in section 13, Township 17, Range 7. Canal leaves Ohio No. 80 and turns toward creek which cut away part of Canal./ Canal enters creek pool from right bank.

Mile 57, - Dam No 5, Lock No. 22. Dam has stone abutments on right bank and timber In creek. No trace of lock which was on left bank and likely destroyed in construction of Pennsylvania Railroad. Th Canal was on the left bank and has likewise been destroyed by the railroad and adjoining Whitacre Brick Yard. County line between Carroll and Stark. Canal enters Sandy Township of Stark County. Ohio o. 80 and Pennsylvania Railroad cross Canal.

Mile 58. – Waynesburg. Lock No. 23. Timber. At bend in creek where Canal is close. The old basin was just above the lock. The old grist Mill is gone. Kit was just north of the Canal and east of Ohio No. 43 which crosses the Canal. The Canal enters creek pool from the left bank just above where Indian Run enters from the north.

Mile 59. – Dam No. 6. Lock No. 24. Present dam is concrete which has replaced the wood dam of the Canal. Stone abutments likely old. The stone lock on left bank is in good condition as it is still used as gate for race to Magnilia Mill. This race uses the old Canal which follows the left bank of the creek to Magnolia. This two mile section, still full of water, is the longest part of the old Canal now in use. It is a perfect example of the appearance of the Canal a hundred years ago. Near Magnolia is the usual basin where boats could pass and be stored. A public road crosses the Canal short distance west of the basin.

Mile 61. – Lock No. 25 is at Magnolia. Just south of the modern dike built to protect Magnolia from the Bolivar Reservoir in flood. The lock has stone sides and a timber floor. Lock No. 26 is just above the point where tail race of mill flows into Canal. Timber sides of lock remain in place. Magnolia Flouring Mills, owned by the Elson family since built in 1834, is still running with water power from the old Canal. Of all the business activities which the Canal served, this is the only still operating. The red frame building between the mill and Canal is the abandoned terminal of the B. & O. Railroad branch which once ran from Sanyville Junction to Magnolia. A mile west of here, close to a public road, is the northwest corner of the Seven Ranges, the first rectangular survey of public lands in the world. This point is also the common corner of Carroll, Stark, and Tuscarawas Counties. Between Canal and Carroll Counties and enters Rose Township. Dam No. 7 was just below Magnolia where the Canal crossed the creek from the left to the right bank, There is no trace of the dam.

Mile 62. – The Canal remains on the right bank of the creek from Magnolia to Sandyville. Much of the way its bed was later used by the B. & O. Railroad, Magnolia Branch. Lock No. 27. Stone. This is at the line between Carroll and Tuscarawas Counties Which is also the east boundary of the U. S. Military Land and the west boundary of the Seven Ranges. The Canal enters Sandy Township of Tuiscarawas County, the second township named for our creek.

Mile 63. – At a bend of the creek, there is a stone buttress to protect the Canal from the creek.

Mile 64. – In the big bend of Sandy Creek where it reaches its furthest point south is an "L" shaped earth wall with rip rap, to protect the Canal from the creek. The Canal passes The wall on its right side along the base of a hill.

Mile 65. – Lock No 28. Stone. This is about here the abandoned railroad left the Canal and went north to its junction with the through line.

Mile 66. – Ohio No. 8 crosses the creek by a new concrete bridge. To the west is the old right of way of the B. & O. Railroad with the concrete piers of the former bridge, abandoned as part of the Bolivar Conservancy Dam Protection 1935. Dam No. 8 and Lock No. 29 are located where Nimishillen Creek enters the Canal from the north. The old wood dam is covered by a new concrete dam. The stone lock, lined with plank, is immediately west, beyond a modern concrete bridge for a road no abandoned. At the lower end of the lock are its original gates. The B. & O. Railroad crosses the Canal on a high fill, covering the old junction of the Nimishillen & Sandy Canal which ran north from here to Canton. This is the new location of the railroad occasioned by the Bolivar Dam. The public road from Magnolia to Sandyville crosses the Nimishillen Canal at the base of the hill east of Sandyville.

Mile 67. – Sandyville. The Canal crosses the former center of Sandyville just north fof the crossroads. The town was moved to high ground at the northeast to escape the flood plain of the Bolivar Dam. Dam No. 9 is a short distance below Sandyvielle. At this point the Canal crosses Sandy Creek from the right to left bank. There is no trace of the dam.

Mile 68. – Lock No. 30. Upon reaching the left bank the Canal turns awau from the creek and crosses a field in a big bend of the creek. The lock is where the Canal again approaches the creek. At three-quarters of a mile a public road from the south turns along the left side of the Canal.

Mile 69. – Lock No. 31. Just beyond place where road turns left from the Canal. The Canal now enters the creek pool from the left bank. Dam No. 10 and Lock No. 32 are about three fourths of a mile beyond Lock No. 31. 100 yards up the creek are the timbers and planking of a smaller dam which served Williams Mill. Then come the timber, spikes and stone rip rap of the old canal dam. The lock is on the left bank which the canal follows to Bolivar. The Aurora list of 1845 associates these dam and lock numbers.

Mile 70. – The Canal takes a mile-long curve to the left through Pike Township, Stark County. Toward the north reach of the curve, the Canal is crossed by a Public Road which then crosses the creek by an iron bridge.

Mile 71. – The Canal turns away from the creek, later returning to Tuscarawas County. Lawrence Township. It then nears the creek. Lock no. 33 was perhaps located near "Nigger Basin" at the south end of the last big bend of Sandy Creek. There is no trace of the lock.

Mile 72. – Bolivar Dam. The Canal followed the base of the hill in a long curve to the Left and south of the Gate House of the Spillway. The Canal now goes west to Bolivar, leaving the creek which flows north to its junction with the Tuscarawas River. As the Canal reaches the river, it uses a 20 foot high embankment over the flood plain of the River.

Mile 73. - Bolivar. A wood aqueduct took the Canal over the Tuscarawas River to join

the Ohio Canal in Bolivar. The junction was at the present Tuscarawas County Farm Bureau Co-operative on Water Street Nothing remains of the Aqueduct.